



To: PV-20 Project File

Date: October 1, 2015

Memorandum

Project #: 57660.00

From: Patti Kallfelz-Werts,  
Environmental Scientist and  
Lydia Lee, PG

Re: PV-20 Alternative Analysis

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## Introduction

On behalf of Vermont Transco, LLC ("VELCO") and the New York Power Authority ("NYPA") ("Co-Applicants"), CHA and VHB have prepared this alternatives analysis pursuant to 33 C.F.R. §325.1, in support of the planned PV-20 Cable Replacement Project ("Project"), described below. This alternatives analysis will also support the planned application for a Department of the Army Individual Permit under Section 404 of the Clean Water Act ("CWA") and Section 10 of the Rivers and Harbors Act ("RHA") for the Project. Included with this analysis are an overview of the proposed Project, the Project Purpose and Need, and the various alternatives that were considered during the Project development process. The selection of the preferred Project Design is discussed, including how it satisfies the requirements of Section 404 (b)(1) of the CWA as the least environmentally damaging practicable alternative.

## Project Overview

The proposed PV-20 Project will replace a segment of the existing 115 kV K20 circuit that extends west-to-east between NYPA Cumberland Head terminal station in Plattsburgh, New York and VELCO's Grand Isle terminal station in Grand Isle, Vermont. This segment of the existing circuit consists of seven oil-filled cables that are buried along the land portions and within the shallows of Lake Champlain (the "Lake") and directly laid along the bottom in the deeper portions of the Lake. These cables were installed in two phases; the first phase of installation occurred in 1958 followed by a second phase of installation that occurred in 1970.

The existing cables are at the end of their expected useful service life. Given the vital interconnection that the PV-20 line provides between the Vermont and New York transmission grids, several factors have contributed to the proposal by VELCO and NYPA to replace the existing cables, which include: the extended lead time that would be needed to manufacture replacement parts and equipment if there was a failure of the existing cables, the extended lead time that would be needed to retain a qualified firm to repair the failure, and the potential for a release of oil to the land or Lake in the event of a cable failure. VELCO and NYPA propose to replace the existing seven cables with four new extruded dielectric (oil-free) submarine electric transmission line cables, and replace the existing terminal stations on either side of the lake with new terminal stations. Three cables will be operational to support the three phase circuit with the fourth cable being installed as a spare to be utilized in the event of a cable failure. Cable installation methods include open trenching from the terminal stations to manholes located over 200 feet from the mean water level of the Lake, horizontal directional drilling ("HDD") from the manhole to a water depth of approximately 30 feet in the Lake, Jet Sledding from the approximate 30-foot to 100-foot water depths, and direct lay between the approximate 100-foot water depths of the Vermont and New York sides of the Lake.

Upon commissioning of the replacement cables and new terminal stations, the existing cables and terminal stations will be decommissioned and removed. Prior to removal, the free-phase oil will be drained and/or purged with water or another innocuous material to remove oil from within the cables. Purging activities will be conducted within a



containment structure on land to protect immediately adjacent areas from any incidental releases. The land portions of the cables will be removed via open trench methods. The existing cables were placed under a layer of rip-rap within the shallow portions of the Lake (less than 20-foot water depth), therefore mechanical methods may be required for the displacement of the rip-rap material to facilitate cable removal. In the event that mechanical methods are required to remove the rip-rap, such material will be side-cast adjacent to the trench within these shallow areas or placed on a barge deck and replaced within the trench once the cables are removed. Within deeper portions of the Lake, the cables will be removed utilizing a barge and hoisting system that will lift the cable off the Lake bottom onto the barge deck for recycling and/or disposal. The existing station areas will be regraded and restored to grassed open space, similar to its current surroundings.

### **Project Purpose**

A recent assessment conducted by NYPA determined that the existing cables are approaching the end of their design life and are regarded as being at risk for long term continued service. Based on this, the importance of this transmission interconnection, the long lead times for custom fabrication and repair of the existing cables, and the potential for a significant release of oil to the land or Lake in the event of a cable failure, NYPA and VELCO are proposing to replace the existing cables, prior to any failures associated with these cables.

### **Project Need**

The PV-20 line is a vital interconnection between the Vermont and New York electrical grids; this line is one of the five transmission lines that support the greatest electrical energy demand center of Vermont. Failure of one of the existing operating cables would likely result in a lengthy line outage, which would hinder the electrical reliability serving the Chittenden County area. Such a failure would result in higher wholesale electricity prices, generation limits, difficulty in performing transmission system maintenance, and potentially exposing the system to voltage collapse problems. Loss of this interconnection would have a significant impact upon the overall reliability of the VT electrical transmission grid.

An outage caused by a cable failure could reduce the Vermont Grid's ability to deal with contingencies, likely increasing the costs for the electric distribution utilities within Vermont. This condition would also expose the system to voltage collapse problems for several contemporaneous contingencies, which could not be remedied with area generation. Electric energy remains a cornerstone of local and state economies, quality of life, and communities, and is depended upon by private, commercial, and public customers for communication, lighting, heating, ventilation, and the operation of appliances and equipment. The Project provides an overall benefit to the state and its residents by reducing the risk of these losses of necessary services, as well as creating economic and safety benefits to the citizens of Vermont by replacing aged and damaged infrastructure.

### **Project Alternatives Considered**

Prior to developing the detailed design of the Project, the Applicants considered a number of potential alternatives to the current Project in order to determine if one alternative would accomplish the Project purpose, meet the practicability standard, and result in less impacts to sensitive resources (e.g., aquatic and other natural resources,



cultural resources, aesthetics). Below are brief descriptions of alternatives to the currently proposed Project, which were ultimately not pursued due to the likelihood of increased natural resource impacts, higher costs, or other factors which make these alternatives less desirable and/or practicable.

1. **No Action** – Not replacing the existing oil-filled cables would result in no new construction impacts to the land and Lake bottom due to the installation of the replacement cables. However, continued operation of the existing oil-filled cables is not feasible considering that the existing cables are at the end of their expected service life and the risk of cable failure is high. As described above (Project Need), risk of a future failure of one or more of the existing cables represents an unacceptable risk of loss of service to the Vermont customers in the region. Furthermore, the continued existence of oil-filled cables within the Lake poses the risk of an oil release to the Lake, which makes this no-action alternative a potential greater risk to the environment than the installation of the replacement cables. Therefore, the Applicants determined that this alternative is not practicable.
2. **Overhead Lines** – The Applicants considered the use of overhead electric lines supported by structures on land and within the Lake itself to replace the existing in-Lake cables. This alternative is not feasible due to the significant distance to cross the Lake. The Lake's depth and substrate types in this area of the Lake severely limits the use of support structures within the water. Without considering depth as a limiting factor, use of support structures would result in major impacts to Lake due to the likely significant size and necessary frequency of foundations that would be required to support the necessary structures within the Lake. Additionally, overhead lines would not conform to the aesthetics of the natural surroundings. Finally, the support structures would limit the use of the Lake in the area, and would result in limitations to navigation. Therefore, this alternative is not practicable.
3. **Replace Cables in Current Location** - The Applicants considered replacing the cables in their current location to maintain the existing footprint of the corridor. This would require decommissioning and removing the existing cables before the installation and commissioning of the replacement cables, resulting in an outage and disruption to this vital interconnection on the order of six (6) months or more. An extended duration loss of power supplied by this transmission line would be an unacceptable option since this interconnection is needed to ensure uninterrupted service to portions of Vermont. In addition, the existing cables are located adjacent to a historic resource (shipwreck) in the New York side of Lake Champlain. The archaeological consultants for the Co-Applicants have determined that this shipwreck is eligible for listing in the National Register of Historic Places, and archaeological consultants for the Applicants recommend a 100-foot buffer on the shipwreck in order to ensure preservation of the wreck. Relocating the cables to the north, as the Project proposes to do, provides a necessary buffer to avoid potential impacts to this resource. Therefore, given the loss of service through this line for an unacceptable length of time, and the presence of a shipwreck eligible for listing on the Historic Register in close proximity to the existing cables, replacing the cables in the current location is not a practicable Project alternative.
4. **Alternative Lake Crossing Locations** – Utilizing the Applicants' existing Lake route points of interconnection and land routes adjacent to the Lake allows for the continued use of existing structures, utilities, and other associated infrastructure. Construction of comparable terminal stations at locations separate from the existing stations would necessitate the acquisition of a significant amount of additional lands, and/ or rights-of-way ("ROW") easements on both sides of the Lake in order to re-establish the interconnection to the existing overhead transmission lines. These potential acquisitions would significantly increase the cost of the overall Project. In addition, crossing the Lake at an alternate location would likely mean a longer Lake crossing. A longer Lake crossing would result in similar types of



impacts to the Lake (i.e., additional trenching and placement of concrete mattresses), however, due to a longer crossing, impacts would likely increase over what is proposed for the Selected Project Design. Additionally, constructing new terminal stations and sections of overhead transmission lines to re-establish the interconnection would likely result in additional impacts to natural resources, potential additional impacts to cultural resources, and change the aesthetic qualities along a new section of the Lake. An Alternative Lake crossing which would necessitate new terminal station locations that significantly alter the current land route along the Lake and the interconnection via the Lake is not a reasonable alternative. Due to the significant costs associated with acquiring new easements, permitting, and constructing in new locations, as well as the likely increase in impacts to the Lake and to other natural and/or cultural resources, this alternative is not practicable.

5. **Terrestrial Route** – Direct impacts to the Lake due to the installation of the replacement cables in a new location could potentially be avoided by constructing the PV-20 interconnection between NY and VT via a land transmission line. However, a land only route would result in many miles of land disturbance on both sides of the Lake, with impacts to terrestrial and aquatic natural resources, and cultural resources. A terrestrial route would require the Applicants to secure new ROWs easements, and access agreements, which would significantly increase the cost and duration of the Project. A terrestrial route would require the lines to cross the Lake via a bridge, due to the long distance necessary to interconnect a solely overland route, due to the size of the Lake and location of the electrical infrastructure supporting the existing interconnection. For example, re-establishing the interconnection by crossing the Lake at Rouses Point would require establishing approximately 50 miles of new ROW. Supporting the lines on existing transportation crossing infrastructure would reduce the required length of the land transmission line, however, it is unknown if the infrastructure can support the transmission line without modifications. Based on the potential for significant impacts to natural and cultural resources related to converting to a terrestrial route to replace the existing PV-20 interconnection, and the significant increase in costs which would result from acquiring new easements, permitting, and constructing a new section of overhead transmission line this alternative is not practicable.

### **Selected Project Design**

After preliminary assessment determined the impracticability of the alternatives described above, the Applicants focused on developing more detailed plans to replace the existing cables proximal to the existing corridor locations. This alternative will maintain connections to the existing overhead lines, but is also offset enough from the existing cables to allow installation of the proposed cable without extended, outage durations. As compared to the alternatives described above, the proposed Project represents the alternative which requires minimal acquisitions of additional lands, will result in minimal environmental impacts, which will minimize Project costs, and will limit the amount of outage duration during construction.

**Alternative Installation Techniques** – In addition to the alternative Project locations, the Applicants considered alternative installation techniques for the construction of the replacement cable to determine the preferred methods to result in the least impacts to the environment.

- a. **Trench Installation:** The bedrock substrate at the shore does not facilitate open trenching near shore without ripping or blasting. In addition, the use of HDD installation beneath the shore results in less impact to the Land and Lake than trenching. Trenching at depths greater than 100 feet using a jet sled would result in greater risks



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and increased construction costs. These increased risks and costs are associated with greater stresses on the installation equipment resulting in potential equipment failure and the potential need for specialty divers and equipment to work at depths in excess of 100 feet. Trenching at depths greater than 100 feet will also result in more disturbance of the Lake bottom. Based on greater impacts associated with trenching on the shore and in waters deeper than 100 feet, trenching the cable to a depth of approximately four (4) feet below the lakebed sediments using a jet sled is planned between water depths of 30 feet and 100 feet for protection of the cables.

- i. Trenching Techniques: Lake bottom trenching techniques include traditional mechanical trenching or dredging, shear plowing, or jet sledding. Jet sledding and shear plowing installation methodology result in less disturbance to the Lake bottom compared to the traditional installation methods, and can be completed more efficiently at depths proposed for this Project. The shear plow technique does not involve the use of high pressured water jetting, resulting in less lakebed sediment suspension compared to jet sledding. According to contractors with extensive experience and knowledge of submarine cable installations and the results of geotechnical studies conducted for the Project, shear plowing is not feasible in this portion of the Lake due to the presence of dense, compacted sediments in deeper water portions of the Lake. The conditions would not allow the plow to penetrate to the required depth for cable installation, and the significant resistance on the installation equipment could exceed operating parameters. Therefore, jet sledding is considered the most feasible alternative.
- b. Trenchless Installation for the Entire Length (NY shore to VT shore): Using trenchless techniques, potentially horizontal direction drilling (HDD), to install the replacement cables over a distance of 8,500 feet (1.6 miles) from New York to Vermont, would avoid the preferred Project design's direct impacts to the Lake. However, this method presents several potentially insurmountable challenges due to the length and geologic conditions. The HDD installation would represent the longest and deepest bore at the cutting edge of the current state of practice with very high risks associated with breakage of the cable and releases of drill fluids. Additionally, the geology would require boring through several bedrock and soil interfaces, and would require the use of a high-pressure fluid-filled ("HPFF") pipe-type cable due to the tensions applied to the cable. Due to the very high risks, this alternative is not feasible.
- c. Direct Lay Entire Length: The cable could be directly laid on the Lake bottom the entire length without the need for jet sledding to a depth of 100 feet of water. However, the cable needs to be protected from potential damage from Lake use in waters less than 100 feet deep. Protection methods could be used, such as concrete mattresses, to protect the cable from damage, however, these protection methods would result in the placement of more permanent fill within the Lake compared to the selected installation methods.

### Summary

VELCO and NYPA are proposing to replace a segment of the existing 115 kV K20 circuit between the NYPA Cumberland Head terminal station and VELCO's Grand Isle terminal station, referred to as the PV-20 cable. The segment of the transmission line which will be replaced as part of the Project consists of seven oil-filled cables that are buried along the land portions and within the shallows of the Lake, and directly laid along the bottom in the deeper portions of the Lake. These cables were installed in two phases, in 1958 and 1970, and recent inspections have indicated that all seven cables are nearing the end of their services lives. As described above, this interconnection is

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critical to maintain consistent electrical transmission service to Vermont. During the Project development phase, the Co-Applicants reviewed a number of alternatives to the proposed Project, which included alternative locations or methods to cross the Lake, or entirely land-based interconnections, among others. The preferred alternative, which is the proposed PV-20 Project, was found to be the most practicable option, which meets the Project purpose, while resulting in the least amount of impacts to regulated resources. The alternatives which were considered, but ultimately rejected, were found deficient for a number of reasons including failing to meet the Project purpose, an increase in impacts to regulated resources, not meeting practicability standards such as requiring the acquisition of additional rights-of-way easements, and the substantial increase in costs associated with construction of additional overhead line segments. It is for these reasons the Co-Applicants believe the PV-20 Project, as proposed satisfies the requirements of Section 404 (b)(1) of the CWA as the least environmentally damaging practicable alternative.



To: VT Transco

Date: July 13, 2015

Memorandum

Project #: 57660.00

From: Lydia Lee, PG

Re: VELCO PV-20 Lake Champlain Crossing  
Water Quality Assessment

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The New York Power Authority ("NYPA") and VT Transco ("VELCO") plan to replace the submarine portion of the existing 115 kV alternating current ("AC") electric transmission line circuit that runs between the existing NYPA Plattsburgh terminal station in Beekmantown, New York to the existing VELCO Sandbar terminal station in Milton, Vermont ("K-20 circuit"). The submarine portion of the K-20 circuit that crosses Lake Champlain ("Lake") is known as the PV-20 line. The PV-20 line extends between NYPA's Cumberland Head Substation in the Town of Plattsburgh, New York across the Lake to VELCO's Grand Isle terminal station in Grand Isle, Vermont (the "PV-20 Project"). This line is a vital electrical transmission interconnection for the New York and Vermont electrical transmission grids. The existing seven oil-filled submarine cables were installed in 1958 and 1970, and are buried from the terminal structures into the shallows of the Lake on both sides, and then laid underwater on the Lake bottom across the remainder of the Lake. The existing cables are nearing the end of their expected useful service life. Given the vital interconnection of this line to transmission grids, the extended lead times that would be needed to repair a failure of these cables, the inability to obtain repair or replacement parts for these cables, and the potential for a release of oil to the land or Lake in the event of a cable failure, NYPA and VELCO are proposing to replace the existing cables with four new electric transmission line cables and construct new transition stations on the New York and Vermont sides of the Lake. The Project location is depicted on the PV-20 Cable Replacement Project Plan set, provided under separate cover.

The PV-20 Project Permitting Team, consisting of VELCO, CHA, and VHB ("Permitting Team"), has completed ecological, cultural, geotechnical, geophysical, and environmental resource assessments in support of permit applications for the Vermont Agency of Natural Resources ("ANR") and US Army Corps of Engineers ("USACE"), and for a Certificate of Public Good ("CPG") from the Vermont Public Service Board ("PSB"). As a component of the environmental resource assessments, the Permitting Team has reviewed existing assessments and prepared Project-specific assessments that address potential impacts on water quality, Lake temperature, and magnetic fields during new cable installation and operation, and removal of the existing cables. This memorandum incorporates available Lake water quality data, Project-specific data, and the review of water quality modeling efforts recently completed for a comparable electric transmission line project to demonstrate that the installation of the proposed PV-20 Project will not result in adverse impacts to water quality of the Lake. The results of Project-specific thermal and magnetic studies related to the operation of the cables are also presented herein.

### **PV-20 Project Description and Lake Installation Methods**

The seven existing PV-20 transmission line cables extend between the existing stations on either side of the Lake and along the Lake bottom for approximately 1.6 miles. The existing cables consists of four 2.9 inch diameter cables<sup>1</sup>

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<sup>1</sup> 500-thousands of circular mil ("kcmil")



(including one back-up cable) installed in 1958, and three additional 3.4 inch diameter cables<sup>2</sup> installed in 1970. One of the 2.9 inch diameter cables failed in late 1969 and was not replaced. The cables are an oil-filled design with gravity-fed oil reservoirs at each terminal station. Table 1 summarizes the existing cable lengths in more detail.

<b>Table 1: Summary of Existing PV-20 Cable Length</b> (lengths represent per cable)		
<b>Segment</b>	<b>New York</b>	<b>Vermont</b>
Land	540 feet (0.10 miles)	240 feet (0.04 miles)
Lake	4,845 feet (0.92 miles)	2,945 feet (0.56 miles)
<b>Subtotal</b>	<b>5,385 feet (1.0 miles)</b>	<b>3,185 feet (0.60 miles)</b>
<b>Total</b>	<b>8,570 feet (1.6 miles)</b>	

The proposed PV-20 replacement project involves the installation of four new, extruded dielectric (oil-free) submarine cables within an approximate 500-foot-wide corridor located approximately 30 feet north of the northernmost existing cable (refer to attached Plans). Three cables will be operational, with the fourth being installed as a spare cable. Cable installation methods from west (New York) to east (Vermont) will involve open trenching from NYPA’s substation to a manhole located on land approximately 150 feet from the mean water level. From the manhole to a water depth of approximately 30 feet, the cables will be installed between 10 and 30 feet beneath the Lake bed using Horizontal Directional Drilling (“HDD”). From water depths of approximately 30 feet to 100 feet, cables will be installed via Jet Sled techniques<sup>3</sup>, where the cables will be submerged beneath the Lake bed to a depth of approximately four feet. At water depths greater than 100 feet, cables will be laid directly on the Lake bed. Moving in an easterly direction and as water depths decrease, installation methodologies will transition back to Jet Sledding from the 100 foot to 30 foot water depths. HDD will be used from the 30 foot water depth to an on land manhole located approximately 270 feet from the mean water level. The cable will be installed via open trenching from the manhole to VELCO’s terminal station. The total cable lengths between the two stations is 1.7 miles and the lengths of each installation method is summarized in Table 2.

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<sup>2</sup> 1000 kcmil

<sup>3</sup> Jet Sledding, also referred to as “Jet Plowing”, involves a skid-mounted Jet Plow (“Jet Sled”) which is towed by a barge. The Jet Plow uses pressurized water to fluidize the sediments to create a temporary trench, which allows the cables to settle to a specific desired depth then the sediments fall out of suspension back to the approximate original contours.





<b>Table 2: Summary of Proposed PV-20 Cable Length Installation</b> (lengths represent per cable)		
<b>Installation Method</b>	<b>New York</b>	<b>Vermont</b>
Open Trench	650 feet (0.12 miles)	110 feet (0.02 miles)
HDD	760 feet (0.14 miles)	620 feet (0.12 miles)
Jet Sled	1,230 feet (0.23 miles)	610 feet (0.11 miles)
Direct Lay	3,100 feet (0.59 miles)	1,890 feet (0.36 miles)
<b>Subtotal</b>	<b>5,740 feet (1.4 miles)</b>	<b>-18 feet (0.61 miles)</b>
<b>Total</b>	<b>8,972 feet (1.7 miles)</b>	

As described above, at Lake water depths between 30 feet to 100 feet, cables will be installed using Jet Sled techniques to perform a simultaneous lay and burial of the new cables. It is anticipated the target cable burial depth will be four feet beneath the Lake bottom, and the jet-sled will create a temporary trench for each cable that is approximately 18 inches wide. Table 2 above presents a summary of the proposed cable lengths to be installed using each installation methodology.

Once the new cables are installed, tested and commissioned into service, the seven existing oil-filled cables are planned to be completely removed. Prior to removal, the free-phase oil will be drained or purged with water, or another innocuous material, to remove oil from within the cables. Purging activities will be conducted within a containment pad on land to protect immediately adjacent areas from any incidental releases. The land portions of the cables will be removed via open trench methods. Within shallow portions of the Lake (less than 20 feet water depth) the existing cables were placed under a layer of rip-rap that will likely require mechanical removal methods. The rip rap will be side-cast or placed on a barge deck and replaced once the cables are removed. Within deeper portions of the Lake, the cables will be removed utilizing a barge and hoisting system which will lift the cable off the Lake bottom onto the barge deck for disposal and/or recycling.

**Background**

In January 2015, the Permitting Team met with ANR staff to discuss environmental permits required for the PV-20 Project and to identify supporting materials and studies to be utilized in conducting an analysis of potential impacts to water quality resulting from cable installation and removal. To conduct this analysis, the PV-20 Project Team used data from sediment cores that were collected for the PV-20 Project, as well as reviewed findings from previous Lake studies. For the PV-20 Project, sediment cores were collected and analyzed for volatile organic compounds ("VOCs"), semi-VOCs ("SVOCs"), polychlorinated biphenyls ("PCBs"), and priority pollutant metals, including mercury, in addition to geophysical parameters such as particle size.



To supplement project-specific data, the Project Team relied on studies completed for a comparable proposed project referred to as the New England Clean Power Link Project ("NECPL Project"). The PV-20 Permitting Team understands that ANR has been reviewing materials prepared by the applicants (TDI New England ("TDI-NE")) on this proposed NECPL Project, which involves installation of an underground and underwater high voltage direct current electric transmission line primarily located within the State of Vermont and specifically including a 98-mile section located within Lake Champlain. It is also VHB's understanding that ANR has been reviewing plans for the development and execution of Lake-related environmental studies that TDI-NE has submitted in support of their Petition for a CPG from the PSB, and will submit in support of other required permits administered by ANR. In particular, TDI-NE completed the following study, with guidance from ANR, to address potential impacts to water quality during cable installation: Lake Champlain Water Quality Modeling Report, New England Clean Power Link. HDR, Inc. ("HDR") December 2014 ("NECPL WQ Report").

The NECPL WQ Report models potential impacts to water quality from the resuspension of sediment during the cable installation using Direct Lay, Jet Sled/Plow, or Shear Plow burial techniques, with respect to regulatory criteria of the Vermont Water Quality Standards (2014, "VWQS"). The PV-20 Permitting Team reviewed and analyzed this study to determine if the assumptions, methodology, results, and conclusions are applicable to the PV-20 Project, and to determine whether the PV-20 Project could rely on the NECPL WQ Report or if Project-specific modeling would need to be completed.

TDI-NE also completed studies related to thermal and magnetic impacts from the operation of the NECPL transmission line. The PV-20 Permitting Team reviewed these studies for reference but determined that, due to the differences between the cable specifications and operational design, Project-specific studies would be needed, and therefore have been conducted independently.

A summary of VHB's review, conclusions, and recommendations follow.

### **PV-20 and NECPL Project Comparison**

As detailed above, the in-lake portions of the PV-20 cables will be installed using a combination of HDD, Jet Sled, and direct laying (or "Direct Lay") methods. Similarly, the NECPL Project proposes to use a combination of HDD, Diver Lay<sup>4</sup>, Jet Sledding/Plowing, Direct Lay, and Shear Plowing<sup>5</sup>. Table 3 below presents a side-by-side comparison of the two Projects to demonstrate relevant similarities towards applicability of the NECPL Study results to the PV-20 Project.

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<sup>4</sup>Diver Lay, or hand trenching, involves a diver-operated hand jet. The jet consists of a hose with a nozzle where pressurized fluid is used to work the sediment under the cable to create a trench for the cable to settle into.

<sup>5</sup> Shear Plowing involves a plow tethered to a surface support vessel, which tows the plow along the Lake bed. This method requires certain sediment and water level conditions to be present.



**Table 3: PV-20 and NECPL Project Installation Method Comparison Table**

Project Detail		VELCO/ PV-20	TDI-NE/NECPL
<b>Components</b>		(4) 5 to 6 inch diameter AC cables (2,400 to 4,000 kcmil ) placed in separate trenches/on-bottom	(2) 5 inch diameter DC Cables (5,000 kcmil) placed in one approximately 18 inch wide trench
<b>Location</b>		Plattsburgh, NY to Grand Isle, VT	Alburgh, VT to Benson VT
<b>Total In-Lake Length (in Vermont)</b>		3,120 feet (0.60 miles)/cable	517,440 feet (98 miles)
<b>Installation Methods**</b>			
<i>HDD</i>	<i>Length:</i> <i>Depth:</i> <i>Location:</i>	620 feet (0.12 miles)/cable 30 feet to water depth of 30 feet	10,032 feet (1.9 miles) 20 feet Shore to MP 2; and MP 97.6 to MP 97.8
<i>Diver Lay</i>	<i>Length:</i> <i>Depth:</i> <i>Location:</i>	None	5,280 feet (1.0 miles) 3 to 4 feet where water is too shallow for Jet sled
<i>Jet Sled/ Plow:</i>	<i>Length:</i> <i>Depth:</i> <i>Location:</i>	610 feet (0.11 miles)/cable 4 feet to water depth from 30 feet to 100 feet	42,420 feet (8.0 miles) 3-4 feet water depths less than 150 feet
<i>Direct Lay:</i>	<i>Length:</i> <i>Depth:</i> <i>Location:</i>	1,890 feet (0.36 miles)/cable at Lake bottom water depth greater than 100 feet to NY border	232,320 feet (44 miles) at Lake bottom water depth greater than 150 feet
<i>Shear Plow:</i>	<i>Length:</i> <i>Depth:</i> <i>Location:</i>	NA	126,720 feet (24 miles) 3-4 feet water depths less than 150 feet
kcmil = thousands of circular mils    AC = Alternating Current    DC = Direct Current *Length = in plan view, along proposed installation route. Only the VT lengths are provided for the PV-20 Project. **Depths = below sediment surface			

**NECPL WQ Model Inputs and Applicability to PV-20 Project**

This section of the memorandum provides a review of the inputs and assumptions used in the NECPL WQ model, and their applicability to the PV-20 Project. The NECPL WQ Report modeled how resuspended sediment would affect the water quality in Lake Champlain as a function of the installation method, sediment physical characteristics and chemistry, time, and background water quality. The model focused on Total Suspended Solids (“TSS”), eight select metals, and phosphorus. The NECPL WQ modeling followed a work plan developed with input from ANR and the final set of sediment characteristics used for model inputs were reviewed by ANR. As indicated in the NECPL WQ Report, where site-specific sediment values were not available, conservative values based on the best available information were used in the model.



TDI-NE modeled five locations along the lake bed within the 98-mile Lake route (Figure 4 of NECPL WQ Report is attached for reference), and the following four locations represent a similar location, physical and chemical characteristics, and/or installation methodology that would also be applicable to the PV-20 Project:

- Mile Post ("MP")-6<sup>6</sup>: Isle LaMotte Lake segment, representative of jet-plow installation in water depths (approximately 20 feet deep) that are slightly shallower than at the PV-20 Project (30 to 100 feet deep)
- MP-20: Main Lake segment, representative of PV-20 crossing location and of jet-plow installation in water depths (approximately 115 feet deep) similar to those of the comparable portions of the PV-20 Project (30 to 100 feet deep)
- MP-50: Main Lake segment, representative of cable laying on bottom in deep water (approximately 300 feet deep) similar to those for the comparable portions of the PV-20 Project (100 to 200 feet deep, in Vermont)
- MP-68: Main Lake segment, representative of jet-plow installation at water depths (approximately 87 feet deep) similar to those of the comparable portions of the PV-20 Project (30 to 100 feet deep).

The fifth location, MP-83, is located in the south end of the Lake and is not considered to be representative of conditions at the PV-20 Project location due to distance from the PV-20 Project location and physical differences of this section of the Lake. Model inputs and assumptions used in the NECPL WQ Report for the four representative locations are summarized in Table 4.

<b>Table 4: Summary of Inputs and Assumptions used in NECPL WQ Report for MP6, MP-20, MP-50, and MP-68</b>				
<b>Model Inputs</b>	<b>Variable</b>	<b>Description</b>	<b>Model Value</b>	<b>Assumptions**</b>
Total Suspended Solids "TSS" = $(1-\varphi) \times \rho_s \times 1000$	$\varphi$	porosity	89.5%	From samples and previous studies
	$\rho_s$	Density of solids (kg/m <sup>3</sup> ), or 1000 x specific gravity	2,626-2,745	From samples and previous studies, MP-20 = 2,626
Settling Velocity* - Median particle diameter data, sediment specific gravity, Stokes Law	D <sub>50</sub>	Median particle diameter	1.3-12 um	From previous studies (MP-6 = 11.8 um, MP-68 = 1.3 um)
	SG	Sediment Specific Gravity	2.626-2.745	From samples and previous studies (MP-20 = 2.626)
Resuspension Calculation $Q = A_T \times U_P$	Q	flow rate associated with installation (m <sup>3</sup> /s)	0.03 m <sup>3</sup> /s	Jet Plow

<sup>6</sup> MP = NECPL Mile Post, with the northern starting point at MP 0, and the PV-20 line would cross the NECPL Project between MP 24.0 and 24.2 at water depths of approximately 200 feet



<b>Table 4: Summary of Inputs and Assumptions used in NECPL WQ Report for MP6, MP-20, MP-50, and MP-68</b>				
<b>Model Inputs</b>	<b>Variable</b>	<b>Description</b>	<b>Model Value</b>	<b>Assumptions**</b>
$W_R = Q \times C \times R$	$A_T$	cross-sectional area of trench (m <sup>2</sup> )	1.2 m <sup>2</sup>	Jet Plow, burial depth and cons. width
	$U_P$	Plow speed (m/s)	1.4 mi/d or 0.026 m/s	Jet Plow and Shear Plow
	$W_R$	Resuspension source (kg/s)	--	Calculated
	$C$	Sediment concentration (kg/m <sup>3</sup> )	Variable	Used sediment concentrations from 2010 cable study, and other previous studies
	$R$	Release fraction	30%	For Jet Plow, based on literature review
Dissolved Metals/TP concentrations $K_D = C_S/C_D$	$K_D$	Log partition coefficient (L/kg)	various	From EPA (2005) study
	$C_S$	Sorbed concentration (mg/kg)	various	From sediment analysis and other publications
	$C_D$	Dissolved concentration (mg/L)	various	Calculated
<p>*Minimum of 0.1 mm/s (8.6 m/d) used to account for flocculation of the cohesive fine grained silts and clays based on median particle diameter.</p> <p>** The TDI-NE model assumed a simulation period of July and August for the Jet Plow installation area north of Crown Point, but indicated that model results would not be significantly different for cable installation model results at other times of the year.</p>				

*Sediment Physical Parameters*

Sediment physical parameters, such as porosity, density, and median particle size, used in the NECPL WQ Report modeling were obtained from analysis of sediment cores collected along a corridor located on the New York side of Lake Champlain for the Champlain Hudson Power Express, Inc. Project ("CHPE Project", July 2010). When the NECPL route was proposed to be located within the Vermont side of Lake Champlain, TDI-NE retained Marine Research Corp. to complete an acoustic study (Marine Research Corp, 2014), which demonstrated that the depositional environments in the New York corridor were similar to those in the Vermont corridor. Based on that study and other sediment studies in Lake Champlain, it was concluded that the physical properties of the New York sediments were similar to those on the Vermont side, and that representative values from the CHPE study could be used for the NECPL water quality monitoring.

The narrow range of values for sediment physical parameters of porosity (89.5 percent), density of solids (2,626 to 2,745 kg/m<sup>3</sup>), and specific gravity (2.626 to 2.745) indicate fairly homogenous conditions for the four modeled locations (Table 4). The median particle diameter shows a relatively broad range of values, with larger median particle diameters encountered in the northernmost locations (MP-6 and MP-20). Since the settling velocity is directly proportional to



particle diameter and sediment specific gravity, a faster settling rate was also calculated for sediments in the northern portion of the Lake.

The NECPL route is proposed in deep waters roughly in the middle of the Lake, where relatively small sediment particle sizes are expected, compared to nearshore waters. The NECPL WQ Report used a mean particle diameter of 3.9  $\mu\text{m}$  in approximately 115 feet of water for location MP-20, and this value is expected to be representative of conditions at greater depths along the PV-20 corridor. The initial geotechnical study for the PV-20 Project found that the median particle diameter in 40 feet of water depth within the Project corridor was 88  $\mu\text{m}$ . The median particle diameters along the portion of the PV-20 corridor where the cables would be installed via Jet Sled (approximately 30-foot to 100-foot water depth), therefore would be expected to range between 3.9  $\mu\text{m}$  and 88  $\mu\text{m}$ . Accordingly, similar to or faster settling rates than those used in TDI-NE's modeling would be expected for Lake bed sediments along the PV-20 Project corridor.

#### *Resuspension Calculations and Sediment Chemistry Values*

The resuspension calculations incorporate the physical characteristics of the sediments described above, as well as, expected values for installation parameters, such as the flow rate used by the Jet Plow, cross-sectional area of the trench, and plow speed. According to the PV-20 Project Engineers, these installation parameters (Jet Sled/Plow flow rate, trench area, and plow) utilized for the NECPL WQ modeling values are expected to be very similar to that of the PV-20 Project.

TDI-NE used sediment-sorbed metals concentrations from representative CHPE Project core samples in the WQ model. The NECPL WQ Report cites the Lake Champlain Technical Report #34B: *Benthic Phosphorus Cycling in Lake Champlain* (1999), completed by the University of Maryland Center for Environmental Services ("technical report"), as a source for sediment phosphorus concentrations, however the NECPL WQ Report also notes that sediment concentrations and physical parameters were adjusted based on ANR input. The technical report provides sediment phosphorus data for samples collected at the various Lake Champlain long term monitoring stations ("LTMSs"). Based on available information, phosphorus values used for NECPL modeling completed at MP 20 are representative of sediment phosphorus values within the PV-20 corridor.

PCBs were not detected in sediments within the CHPE corridor, nor in the samples the Permitting Team obtained for the PV-20 Project. The site specific PV-20 samples also did not contain detectable amounts of VOCs or SVOCs, so it is assumed that the temporary resuspension of the sediments does not pose any potential water quality impacts, associated with these contaminants.

#### *Dissolved Metals/TP Concentration Calculations*

To evaluate the water quality impacts of sediment resuspension, dissolved metals concentrations (mg/L) were calculated from the sediment-sorbed metals concentrations (mg/kg) using EPA-developed log partition coefficients. As indicated in the NECPL WQ Report and based on standard practice, if the dissolved metals concentrations are calculated to be less than the VWQS, then the temporary resuspension of sediment is determined to comply with the VWQS for metals concentrations. As previously stated, the Permitting Team collected and analyzed sediment within the Project corridor, and therefore, the same approach was used to calculate the dissolved metals concentrations using PV-20 Project-specific data. Geotechnical samples collected for the PV-20 Project were evaluated for: Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Zinc, Silver, and Mercury. The results are presented below.



**PV-20 Project-Specific Sediment Metals Data and Results**

The Project team completed sediment sampling along the PV-20 route and analyzed the samples for the total metals indicated in Table 5 below. Using the same log partition coefficient equation and assumptions outlined in the NECPL WQ report, and the total sediment metal concentration reported for a sediment sample collected from a representative location and depth along the PV-20 route, VHB calculated the estimated dissolved metals concentrations in the sediment. The total metals concentration includes the sorbed metals concentration, and therefore using the total concentration in this calculation provides a conservative overestimate of the resulting dissolved concentration. The calculated dissolved metals concentrations are all less than the respective chronic and acute VWQS, and therefore, resuspension of sediment could not result in a violation of the respective VWQS.

<b>Table 5: Dissolved Constituent Concentrations in Sediment (PV-20 VT Crossing)</b>					
	VT Water Quality Standard (ug/L)		Sediment Concentration [1] (C <sub>s</sub> ; ug/kg)	Log Partition Coefficient (K <sub>d</sub> ; L/kg) [2]	Dissolved Concentration (C <sub>D</sub> ; ug/L) [3]
	Chronic Standard	Acute Standard			
Arsenic	150	340	1.9	2.5	6.0
Cadmium	0.18	1.34	0.22**	3.6	0.06
Chromium*	11	16	6.4	4.5	0.20
Copper	6.28	9.09	3.3	4.2	0.21
Lead	1.6	41	1.7	5.1	0.014
Nickel	37	329	4.7	4	0.47
Zinc	82	82	11	3.7	2.2
Silver	NA	1.57	ND	3.6	ND
Mercury	0.12	1.4	ND	4.9	ND

[1] Sediment Sample Analytical Results from SI-4, 2-3 feet depth. CHA, November 2013.

[2] EPA EPA, 2005. Partition Coefficients for Metals in Surface Water, Soil and Waste. EPA/600/R-05/074. July 2005.

[3]  $C_D = C_s / (10^{K_d}) * 1000$

\*Chromium (VI) Standard)

\*\*Total value was estimated below the laboratory detection limit

ND = Not Detected above laboratory standard' NA = Not available



## **NECPL WQ Model Results and the Vermont Water Quality Standards**

This section presents a summary of the NECPL WQ model results in context of the VWQS. Applicability of these results to the PV-20 Project is presented in the next section.

### TSS

The NECPL WQ Report presented the following model results for TSS for all locations:

- at a lateral distance of 50-100 feet from the installation point, the maximum resuspended TSS concentration increases are less than 100 mg/L above background Lake TSS levels
- at a lateral distance of 200 feet, increases are less than 3 mg/L above background Lake TSS levels
- in a vertical direction, TSS concentration increases are limited to the bottom 2-3 meters of the water column at MPs 6, 20, 50, and 68. Above these depths, the model-calculated TSS concentration increases are less than 3 mg/l above background levels
- TSS concentration increases of 100 mg/L only persist for less than the first hour, while increases of less than 3 mg/L above background TSS levels are achieved in the first one to four hours, depending on the representative location

The VWQS do not provide a numerical threshold for TSS values but stipulate that there shall be “none in such concentrations or combinations that would prevent the full support of uses” of the Lake. Designated uses include aquatic biota, wildlife, and aquatic habitat; aesthetics; swimming and other primary contact recreation; and boating, fishing and other recreational uses. TDI-NE reviewed available data and reported that the average Lake TSS is 2.6 mg/L, but ranges from 0.1 to 177 mg/L due to the natural variability in the Lake based on location and physical drivers such as weather and current. The NECPL WQ Report concluded that the installation of the NECPL transmission line would result in short term TSS increases, but the degree and extent of these increases is not expected to prevent the full support of uses within the Lake, and therefore, would not violate the VWQS for TSS.

### Phosphorus

To calculate the increase of total phosphorus (“TP”) to the water column at MP 20, TDI-NE used sediment values of 2.19 mg/L for dissolved phosphorus (“DP”) and 1.82 mg/g for particulate phosphorus (“PP”). The NECPL WQ Report presented the following model results for TP:

- temporary TP concentration increases due to the cable installation are less than 0.01 mg/L above background Lake TP levels at 200 feet from the point of installation and within 3 to 10 feet of the Lake bottom at all five of the representative locations
- temporary peak TP concentration increases ranged from about 2.3 to 4.1 mg/L, and then rapidly decreased to less than 0.01 mg/L above background levels in about one to four hours, at distances of approximately 6.6 to 9.9 feet from the cable installation.
- temporary peak DP concentration increases (which are a more available form of phosphorus for algal growth) ranged from 0.001-0.022 mg/L, but these fell to less than 0.01 mg/L above background levels within one to three hours.





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- TP at MP-20, which is closest to, and most appropriate for TP comparison to the PV-20 Project, would increase to a peak of approximately 3.2 mg/L above background, before decreasing to less than 0.01 mg/L above background levels within one hour, at distances of approximately 6.6 to 9.9 feet from the cable installation.

Phosphorus standards in the Lake vary by Lake segment and “shall be achieved as the annual mean TP concentration in the photosynthetic depth (euphotic) zone in central, open water areas of each Lake segment” (VWQS, 2014). The PV-20 Project is located near the boundary between the Isle La Motte and the Main Lake segments of the Lake. The annual mean TP VWQS is 0.014 mg/L for the Isle La Motte segment and 0.010 mg/L for the Main Lake segment.

The NECPL WQ Report concludes that “TP concentration increases reach a temporary peak concentration at the point of installation and then decrease rapidly. The time to reach 0.01 mg/L above background TP and DP concentrations is on the order of one to four hours. The model results indicate limited temporary increases in TP and DP over a relatively small spatial area in both the horizontal and vertical directions. TP increases were greater than DP due to the addition of the PP component, but due to the settling rate of PP, represented only a short term increase (i.e., within one to four hours).” The NECPL WQ Report also notes that the cable installation does not represent a new phosphorus source to the Lake but rather involves the re-suspension of existing sediment sources into the water column on a short term basis.

### Metals

As previously discussed, the VWQS establish specific chronic and acute metals concentrations in water and based on standard practice, if the dissolved metals concentrations are calculated to be less than the VWQS, then the resuspension of sediment is determined to comply with the VWQS for metals concentrations. Similar to the PV-20 specific calculations, the NECPL WQ Report concluded that the dissolved metals concentrations were all less than the respective VWQS, and therefore water quality impacts associated with metals from sediment resuspension during NECPL cable installation will remain in compliance with the applicable criteria of the VWQS.

### **Applicability of NECPL WQ Modeling Conclusions to PV-20 Project**

Given the comparable installation approaches for the PV-20 Project and NECPL Project, and based on VHB’s review of TDI-NE’s water quality modeling efforts and conclusions, we have determined that the expected water quality impacts would be comparable between the two Projects, resulting in similar conclusions. In summary:

- Specific locations modeled in the NECPL WQ Report are representative of the PV-20 Project’s physical location within the Lake (MP-20) and installation methods used at similar water depths (MP-6, MP-20, MP-50, and MP-68).
  - Based on these comparable Project sites, model parameters related to installation methodology, (such as Jet Plow flow rate, trench area, and plow), as well as physical Lake parameters (such as currents, temperature, flows, etc.) used for the NECPL modeling, would be the same or very similar at the PV-20 Project site.
- NECPL WQ modeling used best available and representative data, such as phosphorus concentrations, where site-specific data did not exist, and in general, incorporated conservative values. ANR provided input on and reviewed the modeling plan as well as the values used in the modeling.



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- Based on available data and ANR's approval of sediment values used for the NECPL modeling, similar phosphorus conditions are expected at the PV-20 site.
- Five representative locations were used to model the impacts from the 98-mile in-lake portion of the NECPL Project route, which was an approved approach by ANR. The in-lake portion of the PV-20 Project is 1.7 miles in length (per cable), and is represented by the NECPL modeling locations due to comparable location and installation techniques. Therefore, it is expected that a similar PV-20 Project specific modeling effort would yield very similar results, however potential impacts would be proportionate to the size difference of the two Projects.
  - TSS: The concentrations, dispersal distances, and durations of suspended sediment at the PV-20 Project are expected to be substantially similar to the results of modeling from the NECPL Project. The majority of resuspended sediment would settle within four hours of cable installation, and would not prevent the full support of uses of the Lake, described above, during cable installation. Therefore, based on these modeling results, the PV-20 Project construction will comply with the VWQS for TSS.
  - Phosphorus: Similarly to the NECPL project, the PV-20 Project is expected to result in only short term localized TP concentration increases in the Lake. Immediate and peak TP concentration increases would likely range between 2.3 mg/L and 4.1 mg/L as predicted by the NECPL water quality model, but would decrease to less than 0.01 mg/L within one to four hours of installation. Maximum temporary DP increases would be less than 0.022 mg/L at the four representative locations modeled by TDI-NE. The temporary elevated TP concentrations are expected to be localized within a zone 200 feet horizontally and 10 feet vertically around the cable installation. The short duration and limited extent of P increases are not expected to affect the annual mean TP concentration in the photosynthetic depth (euphotic) zone in central, open water areas of the Lake, and therefore, the PV-20 construction will comply with the VWQS for TP.

### **Existing Cable Removal**

As described above, VELCO intends to remove the seven existing cables after the four new cables are installed and operational. The existing cables were laid on the surface of the Lake, but previous diver inspections indicate that 50 percent of the full lengths (Vermont and New York sections) of the existing cables are covered with a thin layer of sediment. Therefore, it is anticipated that removal of these cables will result in minor resuspension of sediment, but to a lesser extent compared to installation due to the limited amount of sediment cover that overtops the existing cables. Therefore, water quality impacts associated with resuspended sediment during removal are assumed to be less than those associated with installation, which is also relatively minimal as described above, and would not result in long-term impacts to water quality. Removing the existing cables would provide additional benefits to water quality by removing the potential risk associated with the presence of oil filled operational equipment from the Lake and adjacent lands.

### **Temperature Modeling**

The Permitting Team evaluated the effects of water temperature surrounding the existing and new proposed cables based on the cable's effective heat load at the current and planned load conditions. The estimated water temperature change around the cables was modeled using convection heat transfer and fluid dynamic calculations with project



specific coefficients and conditions to simulate the current and proposed cable configuration and operations. The evaluation was based on placement of the cables directly on the lake bottom and the water current parallel and perpendicular to the cable. Following is a summary of the modeled highest potential water temperature increases near the cables due to operation of the existing and new cables.

<b>Table 6: Summary of Modeled Water Temperature Based on the Effective Heat Load for Current and Planned Loads at 115kV</b>			
<b>Cable</b>	<b>Loading (amps)</b>	<b>Water Temp (degrees F) Change at Model Boundary Layer</b>	<b>Distance that Cable has No Influence on Lake Temp (Zero Temp Change)</b>
Existing 3.4 inch diameter (1,000 kcmil)	780	1.87 at 0.34 inches	0.43 inches
Existing 2.9 inch diameter (500 kcmil)	367	1.19 at 0.31 inches	0.34 inches
New 4.9 inch diameter (3,000 kcmil)	1,147	0.76 at 0.4 inches	0.42 inches

The greatest water temperature increase around the portion of the existing 3.4 inch diameter cables is 1.87 degrees F approximately 0.34 inches (at model boundary layer) from the cable. In comparison to the existing 3.4 inch diameter cable, the new cables will result in a near 60 percent decrease in the water temperature increase at a distance of just under one half inch from the cable. Additionally, there is no change in the Lake water temperature within one half inch of the cable, and the PV-20 Project proposes only three operational cables<sup>7</sup> compared to six cables currently in operation. Therefore, the new cables will result in a considerably less thermal impact to the Lake water adjacent to the cables compared to the existing cables.

According to the VWQS, Lake Champlain is designated as a cold water fish habitat in water depths greater than 25 feet at Low Lake Level (93 feet NGVD) and as a warm water fish habitat in depths less than 25 feet at Low Lake Level. VWQS Section 3-01(B)(1)(b) establishes a one degree temperature change above ambient temperature in cold water fish habitat. Table 1 of the VWQS specifies a range of allowable temperature increases from one to three degrees F above ambient temperature, dependent upon the ambient temperature. Section 2-04(A) allows for the establishment of a mixing zone of up to 200 feet to achieve compliance with the standard. As demonstrated by the Project specific modeling, temperature increases will not exceed the one degree threshold at a distance of 0.4 inches from the cable.

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<sup>7</sup> Four cables will be installed, but only three will be consistently operational. The fourth is being installed as a spare.



## Magnetic Modeling

The Permitting team modeled the magnetic field associated with the existing and replacement cables. Table 7 summarizes the highest magnetic field determined for each cable at the current load condition for the existing cables and planned load condition for the new replacement cables. Note that the calculated magnetic field is based on a distance of one meter above the lake bottom surface. The configuration evaluated was for the placement of the cables directly on the lake bottom with no burial, which represents the highest magnetic field at one meter above the lake bottom.

<b>Cable</b>	<b>Loading (amps)</b>	<b>Maximum Magnetic Field (mG)</b>
Existing 3.4 inch diameter	780	100
Existing 2.9 inch diameter	367	302
New 4.9 inch diameter	1,147	75

The new cables and placement configuration will result in a decrease in the maximum magnetic field from 302 mG to 75 mG, a reduction of about 75 percent, compared to the existing 500kcmil cables. Based on the International Commission on Non-ionizing Radiation Protection (ICNIRP) guidelines for limiting exposure for time-varying electric and magnetic fields (1 Hz to 100 kHz), the new cables are less than four percent of the general exposure limit for 60 Hz AC magnetic fields (2,000 mG).

## Conclusions

Given the comparable installation approaches for the PV-20 Project (as indicated by the PV-20 engineer) and NECPL Project, and based on our review of TDI-NE's water quality modeling efforts and conclusions, we have determined that the expected water quality impacts would be comparable between the two Projects, resulting in similar conclusions. In summary:

- Limited temporary and localized TSS and TP concentration increases in the overlying water column are expected, but concentrations would decline rapidly after installation.
  - The VWQS for TSS is based on an assessment of impacts to existing uses. The limited extent (up to 200 feet horizontally and 10 feet vertically) and the temporary duration (no more than four hours) of the TSS impact associated with the installation would not prevent the full support of the Lake's uses.
  - The VWQS for TP is based on an annual average concentration of open Lake waters in the euphotic zone. The very short duration of the TP increase (no more than four hours) will not have any measurable effect on the annual average concentration.
  - The modeled rapid decline to background levels of TSS and TP following installation indicates that the Project would not result in adverse effects to water quality with respect to TSS and TP
- Sediment samples from the PV-20 Project corridor did not contain detectable levels of PCBs, VOCs, or SVOCs, and therefore, resuspension of sediment is not expected to release these contaminants to the water column.



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- Because the concentrations of metals in the sediments within the PV-20 corridor are below the respective VWQS, it is not physically possible to exceed the VWQS.

In summary, the Permitting team concludes that the proposed construction of the NECPL and PV-20 Projects are sufficiently similar in Project design and environmental setting that applicable components of the WQ Modeling completed by TDI-NE are representative of the potential TSS and TP water quality impacts associated with the PV-20 Project. Project-specific calculations indicate that sediment resuspension during PV-20 construction will not result in the exceedance of the respective metals VWQS. Thermal modeling of PV-20 operations indicates that the new cables will have significantly less water temperature impact than the existing cables to be removed. Temperature increases will be below one degree F at less than one-half inch from the cable. The new cables and placement configuration will result in a decrease in the maximum magnetic field compared to the existing cables, and the new cables would result in less than four percent of the ICNIRP general exposure limit. After a comprehensive review of relevant available datasets and model outcomes, in addition to Project specific studies, the Project team concludes that the PV-20 Project would not result in adverse effects to water quality and would maintain compliance with all applicable VWQS criteria.

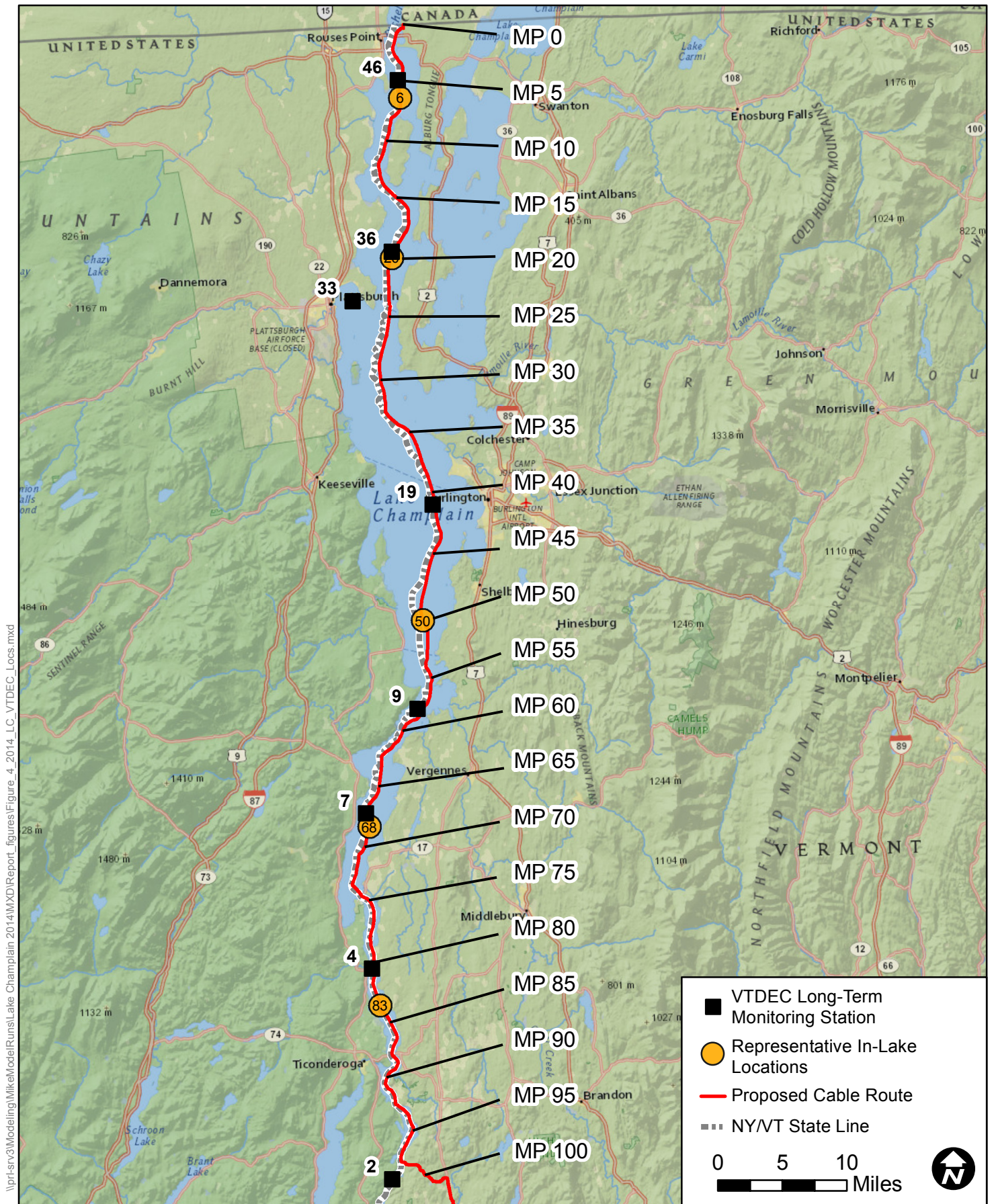
### Attachments:

NECPL Lake Champlain Study Area and Proposed Cable Route, Figure 4 of the WQ Report, HDR, December 1, 2014

### References:

Bailey, W. H. NECPL Pre-filed Testimony and Exhibits filed with the VT PSB, December 8, 2014  
Murphy, S. NECPL Pre-filed Testimony and Exhibits, filed with the VT PSB, December 8, 2014

# **ATTACHMENT**



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### New England Clean Power Link VTDEC Long-Term Monitoring Station Locations

Figure 4

December 01, 2014



CHA  
Memorandum

**To:** Tim Follensbee, VELCO  
**From:** Jason Gorman  
**Date:** January 20, 2014, revised December 14, 2015  
**Re:** PV-20 Submarine Cable Replacement  
Sediment Sample Laboratory Testing - Discussion of Analytical Laboratory  
Results CHA Project No. 27406.3300

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At the request of the Vermont Agency of Natural Resources (“VT ANR”), this memorandum serves to present the methods and results of the sampling activities that were incorporated into the “VELCO PV-20 Lake Champlain Crossing Water Quality Assessment” memorandum prepared by VHB, dated July 13, 2015.

In fall 2013, CHA employed a geotechnical company to collect sediment samples from the proposed new PV-20 corridor. The purpose of the sediment sampling was threefold:

- to obtain geotechnical information for the cable route and design (relevant information discussed herein, refer to CHA’s Preliminary Geotechnical Data Report, dated October 2014 (“Geotechnical Report”), for more detailed information).
- to evaluate the potential to encounter contaminated sediments during the cable replacement with focus on polychlorinated biphenyls (“PCBs”), volatile organic compounds (“VOCs”) and semi-VOCs (“SVOCs”), and
- to evaluate the potential effects of sediment resuspension to water quality, with focus on target metals.

### **Field Activities**

On November 7-9, 2013, 29 lake-bottom sediment samples were collected from 15 sediment cores using an Alpine model 270 Pneumatic Vibracore operated from a barge. Ten cores were sampled from the New York side of the project corridor and five cores were sampled from the Vermont side of the project corridor<sup>1</sup>. The samples were collected by a geotechnical engineer (Alpine Ocean Seismic Survey, Inc.) employed by CHA using established sediment sampling procedures appropriate for the target analytes, as prescribed in CHA’s Standard Operating Procedure (SOP 607) for field handling, packaging and shipping of samples (attached). The target core depths were approximately 10 feet below the lake bottom.

Sample locations and identifications are summarized below and shown on the attached Sediment Sample Location Plan sheets (Figures 1 – 6).

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<sup>1</sup> Five of eight cores attempted in the Vermont side and 10 of 12 cores from the New York resulted in recovery of material for sampling due to the nature of the sediment.



**Table 1  
Summary of Sample Locations and  
Identifications**

<b>New York Core Location</b>	<b>Vermont Core Location</b>
SL-9-CH	SL-1-CH (no recovery)
SL-10-CH	SL-2-CH (no recovery)
SL-11-CH	SL-3-CH (no recovery)
SL-12-CH	SL-4-CH
SL-13-CH	SL-5-CH
SL-14-CH	SL-6-CH
SL-15-CH	SL-7-CH-PH
SL-16-CH	SL-8-CH
SL-17-CH	
SL-18-CH	
SL-19-CH (no recovery)	
SL-20-CH (no recovery)	

Two samples, at varying depths, were collected from each of the cores with the exception of SL-10-CH from which only one sample was collected for a total of 29 samples. As indicated in Table 1, there was no recovery due to the sediment characteristics from Vibracore locations SL-1-CH, SL-2-CH, SL-3-CH, SL-19-CH, and SL-20-CH. The depth from which each sample was collected and collection date are provided in the attached tables (Table 2 and Table 3). Each sample was screened in the field for visual, olfactory, and photoionic (PID) evidence of contamination. None of the 29 samples collected exhibited PID readings above 0.0 parts per million (ppm) or visual and olfactory indications of contamination.

The sediment samples were submitted under proper chain of custody to Alpha Analytical, Inc. for analyses. Alpha Analytical is fully accredited to perform the required analyses through the National Environmental Laboratory Approval program (NELAP). Each of the sediment samples was analyzed for the following parameters via the referenced analytical methods:

- Volatile organic compounds (VOCs) using EPA Method 8260C,
- Semi-volatile organic compounds (SVOCs) using EPA Method 8270D,
- Polychlorinated biphenyls (PCBs) using EPA Method 8082A,
- Priority pollutant metals including mercury using EPA Methods 6010C and 7471, respectively.

Nine samples were submitted to GeoTesting Express (“GTX”) for laboratory geotechnical analysis of water content, classification, particle size analysis, and liquid limit, plastic limit, and plasticity index of soils.

## **Results and Discussion**

### **Geotechnical Data**

Of the samples submitted for physical analysis, sample ID BS-04, obtained from boring SL 04-PH at a depth of 2.7 to 3.7 feet below the lake bed is the most representative of sediment

located within the project corridor where jet sledding will occur. The geotechnical analysis indicates a mean particle diameter (D50) of 0.0889 millimeters (89 micrometers) for this sample. The laboratory sheet for this sample is attached (Particle Size Analysis, Sample SL-04-PH, depth 2.7-3.7 ft.) (entire laboratory report is provided in the Geotechnical Report).

### **Sediment Chemistry - Laboratory Results**

Laboratory results for New York and Vermont are tabulated on Tables 2 and 3, respectively, (attached), and the detailed analytical report is also attached. The VT ANR Investigation and Remediation of Contaminated Properties Procedure (“IROCPP”) presents Recommended Sediment Quality Guidelines for the Protection of Aquatic Biota in Freshwater Ecosystems in terms of Threshold Effect Concentrations (TEC) and Probable Effects Concentrations (PEC). Although these concentrations are guidelines to be used in assessing remediation options on a site by site basis, and therefore are not applicable to the goals of this assessment, the results of this study are compared to the recommended TECs and PECs for context.

- PCBs: Aroclor 1248 was detected in SL-7, G-1 at 0.5 to 1 feet below the sediment surface at a concentration of approximately 44.4 parts per billion (“ppb”), which was below the laboratory reporting limit and thus provided as an estimated value. This concentration does not exceed the TECs or PECs. Further, this sample is located outside of the proposed jet sledding zone, at a water depth of approximately 200 feet.
- VOCs: Acetone and 2-butanone (“butanone”) were detected in most sediment samples. Carbon disulfide was detected in three samples from the New York side. Acetone, butanone, and carbon disulfide may be associated with natural biological processes in the sediments<sup>2</sup>, although acetone is also a common laboratory contaminant. The IROCPP does not have established TEC and PECs for these compounds.
- SVOCs: No SVOCs were detected in any of the samples.
- Metals: No metals were detected at concentrations above the PECs. Of the Vermont cores, nickel was detected in concentrations slightly above the TEC in cores SL-6 through SL-10. Copper, lead, and mercury levels were also above the TECs in SL-7. These cores are all located in water depths greater than 170 feet, and therefore are not representative of sediment that would be encountered or disturbed during jet sledding.

Based on the sediment data relative to the PECs and TECs, CHA does not expect to encounter contaminated sediment that would pose a risk to the Project.

Of all the samples locations, SL-4 is located within the area that jet sledding will occur. Since jet sledding will install the cable to a depth of approximately four feet, the sample collected from the depth of 2 to 3 feet below the sediment best represents the sediment that will be disturbed via jet sledding. Therefore, CHA recommended that VHB use the results

---

<sup>2</sup> Abstract: Vogl, R.A. and Henry, R.N. Characteristics and contaminants of the Salton Sea sediments. *Hydrobiologia*. April 2002. Volume 473, Issue 1, pp 47-54.

from this sample for their assessment of water quality impacts from sediment resuspension.

### **Conclusions**

The following conclusions are presented relative to the reported laboratory results.

- None of the reported levels were significantly above the lower of the applicable regulatory guidance values and as a result are not considered to be sources of potential adverse impact to human health or the environment.
- CHA recommended that VHB use the results from the SL-4 (2-3') sample for their assessment of potential water quality impacts associated sediment resuspension during jet sled installation of the cable.
- Representative geotechnical analysis indicates a mean particle diameter ( $D_{50}$ ) of 0.0889 millimeters (89 micrometers) for the sediment within the proposed PV-20 Project corridor.

Attachments:

- 1) SOP 607,
- 2) Sediment Sample Location Plan sheets (Figures 1 – 6),
- 3) Table 2 Sediment Sample Analytical Results, New York Samples,
- 4) Table 3 Sediment Sample Analytical Results, Vermont Samples,
- 5) Particle Size Analysis Laboratory Sheet, Sample SL-04-PH, and
- 6) Analytical Report.



## FIELD HANDLING, PACKAGING, AND SHIPPING

### A. PURPOSE/SCOPE:

This procedure describes proper methods for the handling, packaging, and shipping of samples from the field to the laboratory. When preparing samples for transportation to the laboratory it is important to maintain the integrity of the samples in order to obtain the most accurate results possible and to prevent possible contamination of other samples or the package itself. These procedures generally apply to samples collected in the field, any state or federal regulations or guidelines applying to the shipment of hazardous samples must be followed. In addition any guidelines provided by the laboratory should be consulted.

These procedures refer to the shipment of soil, sediment or water samples. For the shipment of air canisters refer to section J: Special Conditions.

### B. EQUIPMENT/MATERIALS:

The following materials are required to adequately package samples

- Appropriately sized coolers that can accommodate samples and ice
- Plastic bags (i.e. garbage bags) large enough to contain all samples and ice
- Zip lock bags
- Ice sufficient to keep samples cool. DO NOT USE DRY ICE
- Bubble wrap or similar padding material
- Bubble bags or a similar padding material for any glassware
- Packing tape. Do not use duct tape inside coolers as it can contain volatile chemicals which could contaminate samples
- Custody seals and/or tamper-evident tape
- Appropriate labels (including 'UP' Arrows, Ice labels, Regulatory Compliance Labels (49 CFR 173.4), Shipping bills/labels).

### C. PROCEDURE:

Once the samples have been collected, properly labeled and documented (See SOP's #103 and #105) the following steps should be followed to pack and ship the samples.

For aqueous, sediment, soil or other solid samples:

1. Prepare the cooler for shipment
  - Seal and/or plug the cooler drain if present.
  - Place a layer of bubble wrap or other cushioning material on the bottom of the cooler.
  - Use a large plastic bag (liner) to line the cooler. It should fill the cooler with little void space between bag and cooler walls, if not use a smaller cooler or additional cushioning material. Double bag the cooler if using thin plastic bags. Place a thin layer of ice in the bottom of the liner.
2. Prepare the sample containers
  - Ensure all caps and lids are securely attached.
  - Check that all labels have been properly filled out and attached
  - Check that the samples are properly noted on the Chain-of-Custody (COC) and on any applicable field sheets.
  - Place sample containers into zip lock bags if they are being used.



### **FIELD HANDLING, PACKAGING, AND SHIPPING**

3. If the sample is in a glass container place that container in a bubble bag or other cushioning material (bubble wrap roll, foam block, etc.) and secure it with tape. Try to avoid having glass in direct contact with ice as this can lead to the glass breaking (because the ice does melt).
4. Place samples in the cooler inside the liner.
  - All containers should be upright in cooler inside the bag liners.
  - Try to place glass containers towards the middle of the cooler.
  - Do not overfill the cooler. Try to keep weight below 60 lbs. to allow for easier maneuvering of the cooler.
  - Add a Trip Blank and a Temperature Blank if required. Include the Trip Blank on the COC. Place the Temperature Blank in the center of the cooler.
5. Add more ice, making sure that all containers are covered. The samples should arrive at the laboratory at 4° Celsius (+/- 2° C).
6. When all samples are in the cooler, or the cooler is full, gather the bags and tie or twist the loose ends to contain the ice and samples. Use packing tape, and a Custody seal if desired, to seal the bag liner.
7. Place another layer of bubble wrap or cushioning material on top of the bag for further protection and insulation of the samples. Make sure any void space in the cooler is filled to prevent the samples from shifting during transportation.
8. Put the COC along with any other required documentation inside a sealed zip lock bag and place it in the cooler.
9. Seal the cooler.
  - Place a signed and dated Custody seal on the cooler (if being used). The seal should extend from the top of the cooler, across the seam between the lid and the front, and down the front of the cooler. Tape over the custody seal using a length of tape continuously around the cooler. The seal should be placed such that it will be broken if the cooler is opened.
  - Using packing tape, tape around the cooler from front to back crossing both the top and the bottom of the cooler, use a continuous length of tape to help maintain integrity. Tape the cooler in at least two locations (i.e. left and right sides to create two bands of tape encircling the cooler.)
10. Place all required labels on the cooler. These can include 'UP' directional arrows, Wet Ice labels and regulatory labels (49 CFR 173.4). Tape them down as needed.
11. Fill out and affix the necessary shipping labels to the lid of the cooler.
12. All samples should be shipped overnight to the laboratory.
13. Alert the laboratory that the samples are en route. This is especially important for samples being delivered on a Saturday or around a holiday as the laboratory may be closed or have different hours. It is good practice to coordinate with the lab ahead of sampling to determine when the lab will receive samples.



## FIELD HANDLING, PACKAGING, AND SHIPPING

For air samples:

1. Remove any regulators or valves from the canister.
2. Replace the canister and associated equipment in the container they were received in.
3. Place the COC in a zip lock bag with any required documentation and seal the bag. Put the COC into the container.
4. Add any necessary padding materials to fill void space and ensure the canister is protected and cannot shift during transport.
5. Seal the cooler with Custody Seals and packing tape.
6. Affix the necessary labels and shipping bills to the container.
7. Alert the laboratory that the samples are en route.

### D. QA/QC REQUIREMENTS:

If aqueous samples for Volatile Organic Compound (VOC) analysis are being shipped use a Trip Blank (See SOP#605).

Some laboratories require Temperature Blanks (See SOP# 605) in each cooler of samples.

### E. SPECIAL CONDITIONS:

These procedures apply to environmental samples only. An environmental sample usually consists of possibly contaminated water, soil, or sediment or air to be analyzed. In order to comply with regulations (ex. 49 CFR 173), no more the 30 mL of a product may be shipped in any one container inside the cooler (For example you can ship 3 containers with 20 mL of an oil to be tested, but not 2 containers with 40 mL of oil in them). Consult state and federal regulatory agencies and the laboratory receiving the samples if you are unsure of the regulations on the samples being taken.

### F. REFERENCES:

United States Environmental Protection Agency (June 2010), *Sample Collection Information Document*, Section 5, retrieved August 31, 2012 from [http://www.epa.gov/sam/sample\\_collection\\_information\\_document\\_SAM\\_companion.pdf](http://www.epa.gov/sam/sample_collection_information_document_SAM_companion.pdf)

United States Environmental Protection Agency (July 2007), *Samplers Guide, Contract Laboratory Program Guidance for Field Samplers*, Section 3.4, retrieved April 6, 2009 from [http://www.epa.gov/superfund/programs/clp/download/sampler/clp\\_sampler\\_guidance.pdf](http://www.epa.gov/superfund/programs/clp/download/sampler/clp_sampler_guidance.pdf)

Tennessee Valley Authority, *Standard Operating Procedure For: Sample Labeling, Packing, and Shipping* (July 2010), retrieved August 31, 2012 from <http://www.tva.gov/kingston/sap/>

### G. APPENDICIES/FORMS:

Not Applicable

**END OF SOP**

Final Check by C. Burns 10/27/15

File: V:\PROJECTS\ANY\K3\27406\CADD\FIGURES\27406\_SAMPLE\_LOCATION\_PLAN.DWG Saved: 2/27/2014 11:52:03 AM Plotted: 12/15/2015 9:02:14 AM User: McEnaney III, James LastSavedBy: 3511



MATCH LINE TO FIG. 2

LEGEND

- SL-XX-CH CHEMICAL ANALYSIS CORE & ID
- SL-XX-CH\_PH PHYSICAL & CHEMICAL ANALYSIS CORE & ID

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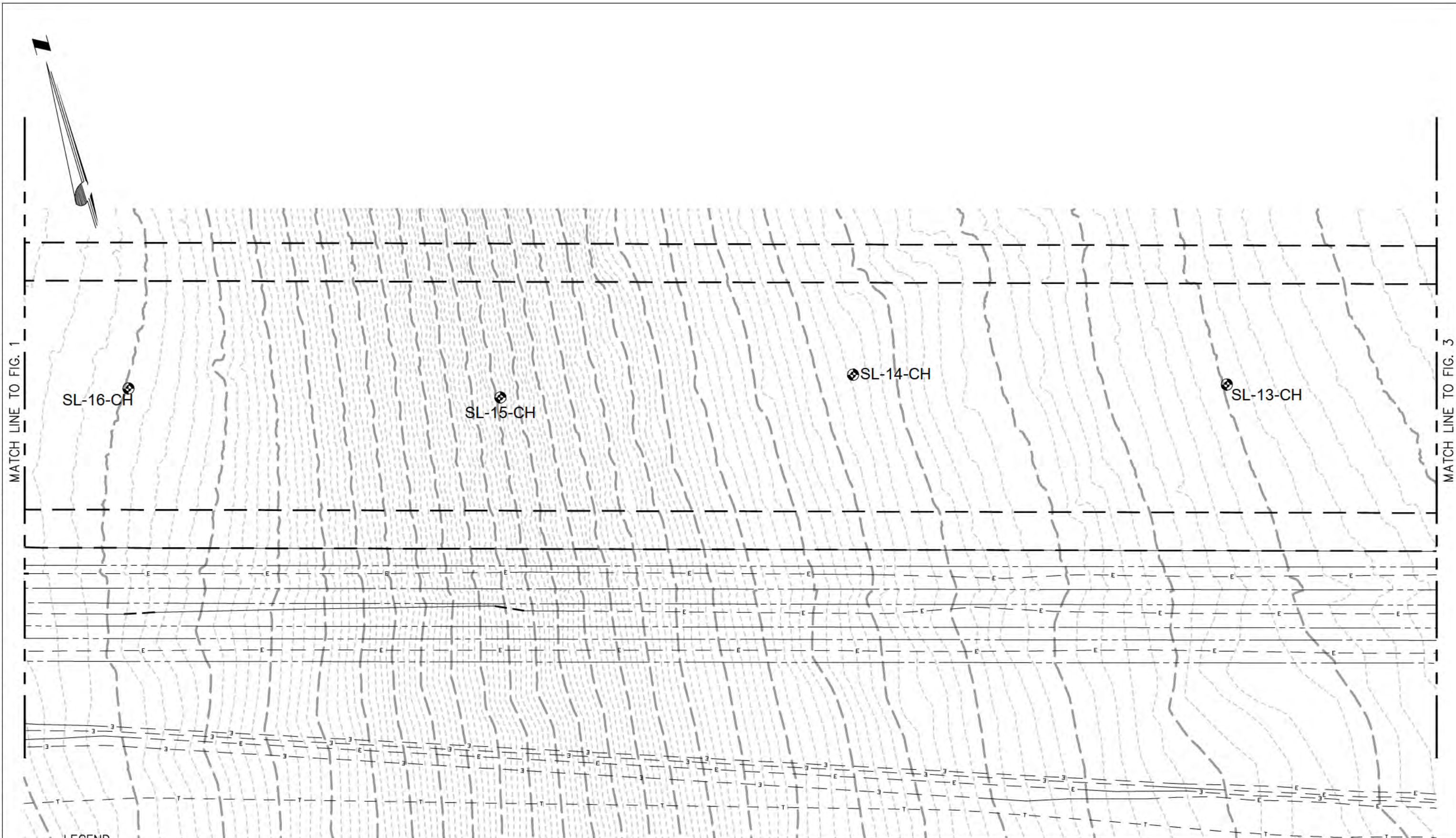
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 PV-20 SUBMARINE CABLE  
 REPLACEMENT PROJECT  
 NEW YORK POWER AUTHORITY/  
 VT TRANSCO

PROJECT NO.  
27406



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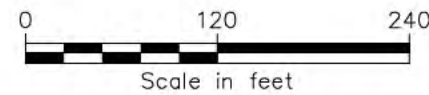
FIGURE 1

8604Pet-0011



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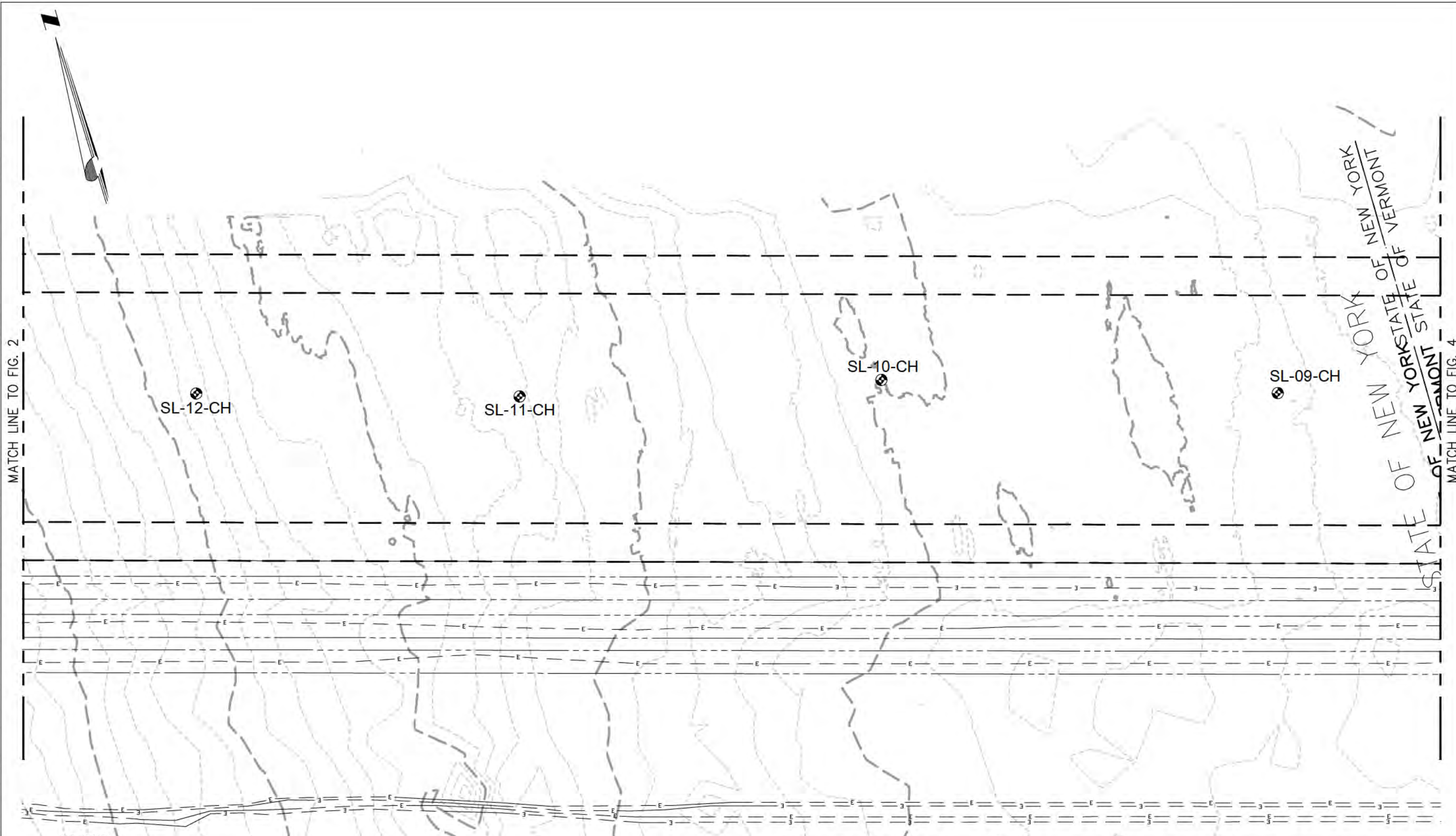
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FIGURE 2

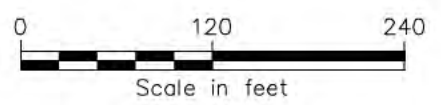




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 SL-XX-CH\_PH PHYSICAL & CHEMICAL ANALYSIS CORE & ID



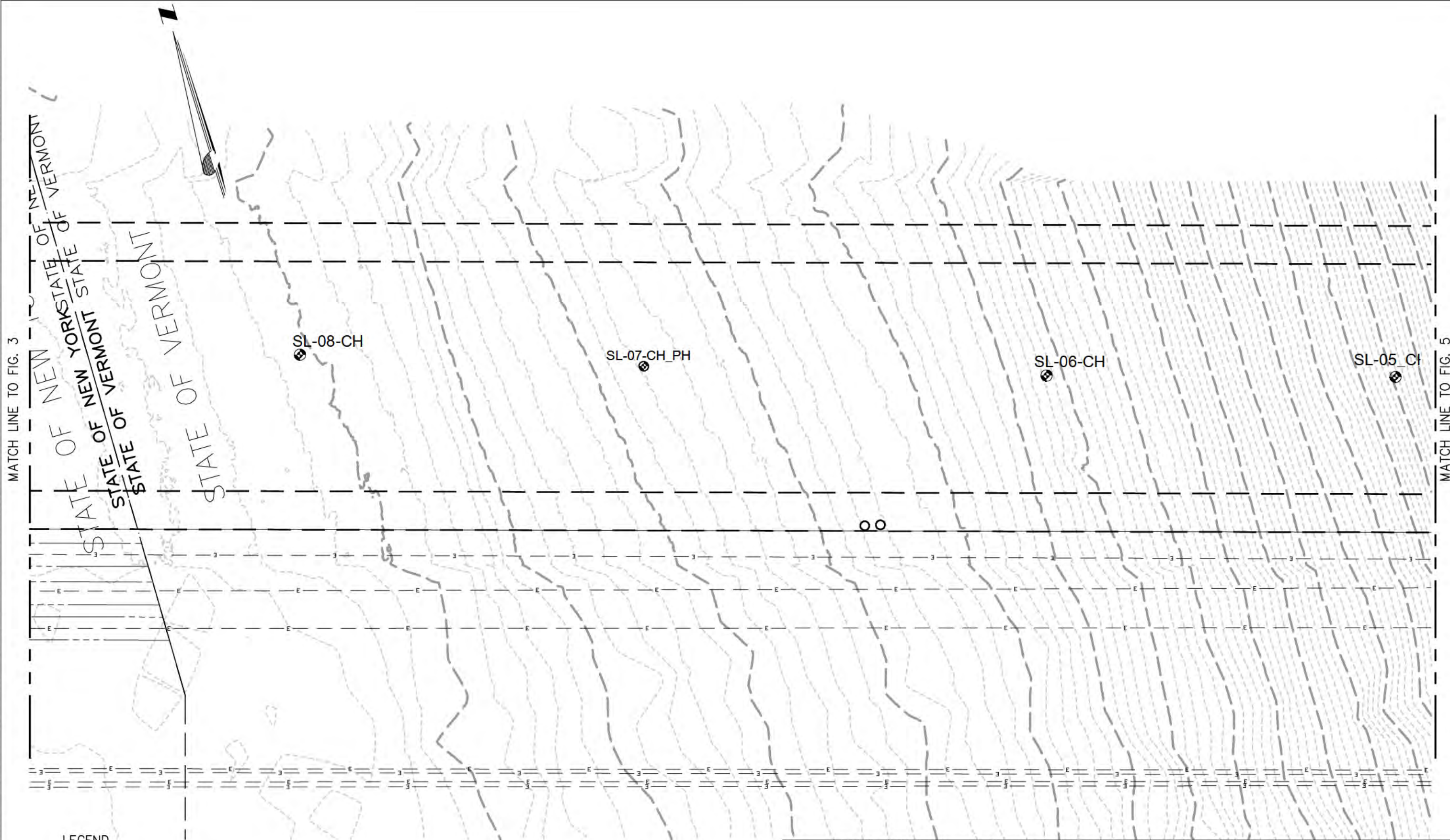
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
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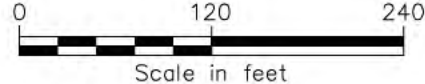
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FIGURE 3



**LEGEND**

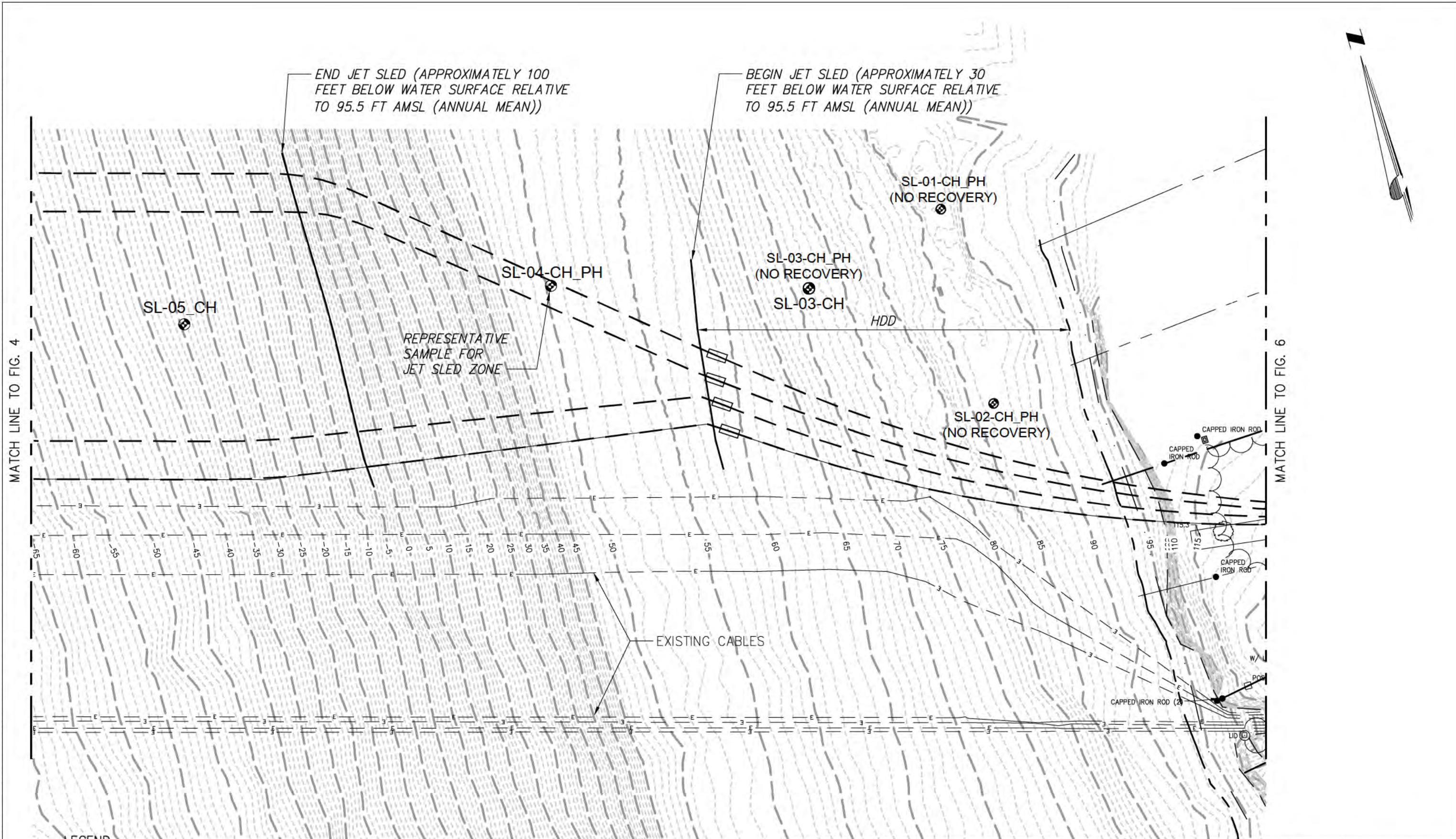
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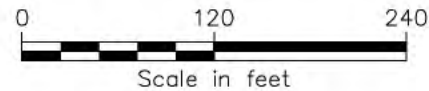
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FIGURE 4



LEGEND

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- SL-XX-CH\_PH PHYSICAL & CHEMICAL ANALYSIS CORE & ID



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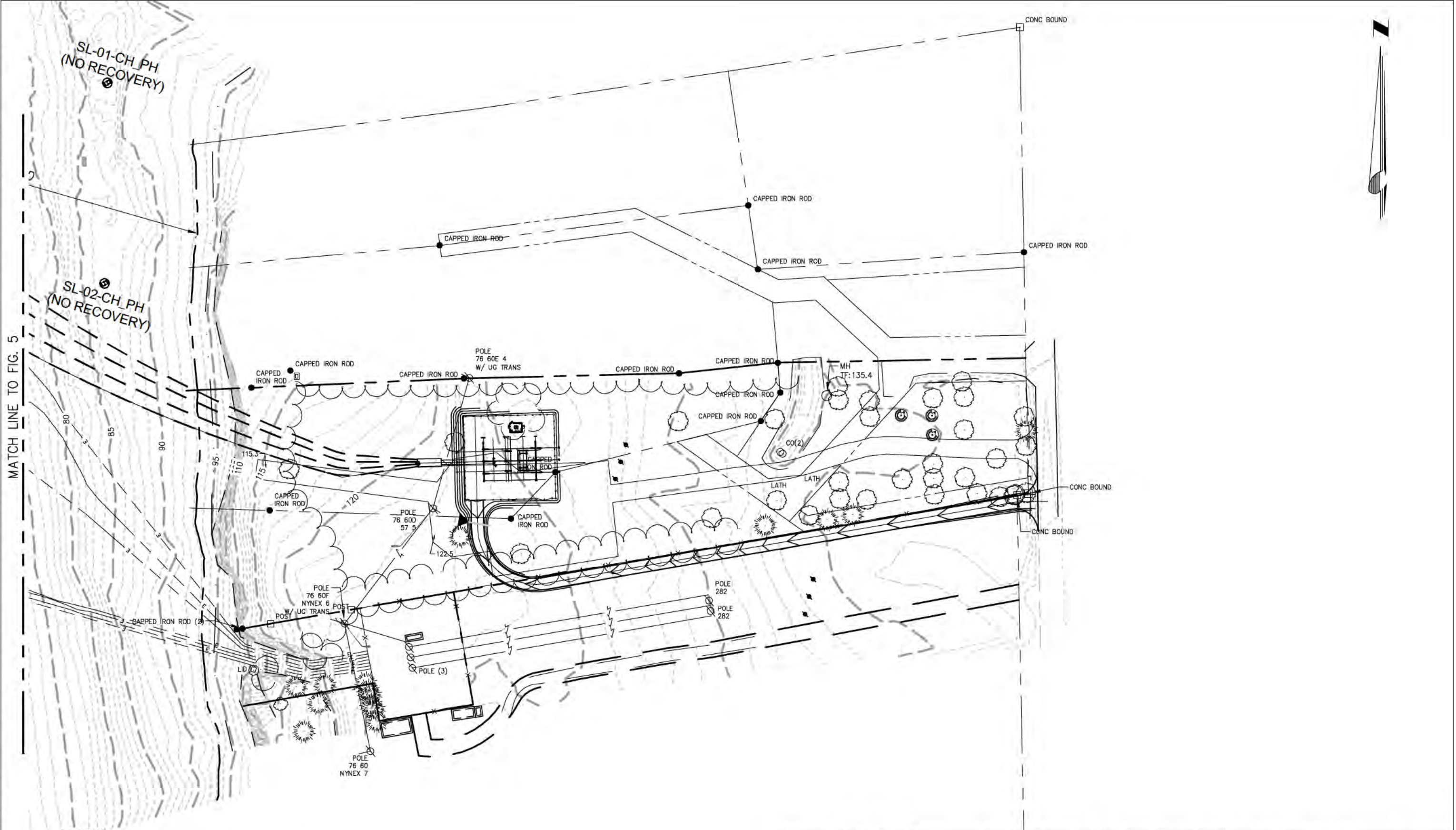
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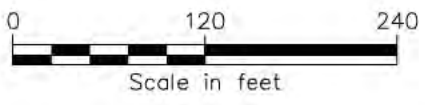
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FIGURE 5



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PROJECT NO. 27406
DATE: 12/22/2015
FIGURE 6

Table 2  
 NYPA/VELCO PV-20 Cable Replacement Project  
 Sediment Sample Analytical Results  
 New York Samples

Sample ID			SL-9, G-1(1'-2')	SL-9, G-2(4'-5')	SL-10, G-1(2'-3')	SL-11, G-1(2'-3')	SL-11, G-2(7'-8')	SL-12, G-1(2'-3')	SL-12, G-2(7'-8')	SL-13, G-1(2'-3')	SL-13, G-2(7'-8')	SL-14, G-1(2'-3')	SL-14, G-2(7'-8')	SL-15, G-1(2'-3')	SL-15, G-2(6'-7')	SL-16, G-1(2'-3')	SL-16, G-2(7'-8')	SL-17, G-1(2'-3')	SL-17, G-2(7'-8')	SL-18, G-1(2'-3')	SL-18, G-2(8'-9')
Sample Depth			1-2'	4-5'	2-3'	2-3'	7-8'	2-3'	7-8'	2-3'	7-8'	2-3'	7-8'	2-3'	6-7'	2-3'	7-8'	2-3'	7-8'	2-3'	8-9'
Sample Date			11/9/2013	11/9/2013	11/9/2013	11/9/2013	11/9/2013	11/9/2013	11/9/2013	11/9/2013	11/9/2013	11/9/2013	11/9/2013	11/7/2013	11/7/2013	11/7/2013	11/7/2013	11/7/2013	11/7/2013	11/7/2013	11/7/2013
PID Reading (ppm)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Visual or olfactory evidence of contamination	Sediment Quality Threshold Values Class A [1]	Sediment Quality Threshold Values Class B [2]	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
Test Parameter																					
VOCs (ppb)																					
2-Butanone	NTV	NTV	10 J	ND	ND	8.1 J	6.0 J	4.0 J	MD	ND	ND	ND	ND	49	25 J	33	40	ND	ND	ND	ND
Acetone	NTV	NTV	64	27	ND	55	46	29	20	26	6.7 J	6.9 J	5.4 J	260	130	170	190	21	18	5.4 J	6.0 J
Carbon Disulfide	NTV	NTV	ND	ND	ND	ND	3.9 J	4.8 J	5.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SVOCs (ppb)	Total PAHs <4000	Total PAHs 4000 - 35,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCBs (ppb)	Total <100	Total 100 - 1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals (ppm)																					
Arsenic	<14	14-53	2.6	2.1	2.5	5.4	3.4	5.2	3.8	5.6	2.6	1.8	2.8	4.9	5.7	3.2	4.6	0.98	1.7	1.1	1.6
Beryllium	NTV	NTV	0.24 J	0.43	0.43	0.42	0.48	0.45	0.49	0.48	0.49	0.34	0.14 J	0.49 J	0.51	0.46 J	0.48	0.06 J	0.14 J	0.16 J	0.19 J
Cadmium	<1.2	1.2-9.5	0.45 J	0.67	0.64	0.71 J	0.66	0.66 J	0.74	0.72 J	0.74	0.55	0.44 J	0.84 J	0.83 J	0.63 J	0.74 J	0.11 J	0.34 J	0.32 J	0.40 J
Chromium	NTV	NTV	15	37	38	35	32	36	37	36	38	28	16	26	26	24	25	3.8	12	12	14
Copper	<33	33-207	11	28	27	28	28	27	31	30	35	22	16	20	23	19	22	2.9	10	12	16
Lead	<33	33-166	4.6	7.2	7	8.6	8.3	8.4	8.5	8.9	10	5.7	4.8	8.8	9.4	8.0	8.6	1.3 J	3.6	3.7	4.5
Mercury	<0.17	0.17-1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	NTV	NTV	16	30	30	30	28	31	30	31	34	24	14	28	31	25	27	3.8	10	11	13
Zinc	NTV	NTV	34	61	60	64	67	65	72	70	68	51	31	63	64	56	58	8.2	24	29	37

**Notes:**  
 J = estimated value below the method detection limit  
 ND = none detected  
 NTV = no threshold value  
 [1] New York State Department of Environmental Conservation, Division of Water, Technical & Operational Guidance Series 5.1.9, In-Water and Riparian Management of Sediment and Dredged Material, Class A - no appreciable contamination (no toxicity to aquatic life)  
 [2] New York State Department of Environmental Conservation, Division of Water, Technical & Operational Guidance Series 5.1.9, In-Water and Riparian Management of Sediment and Dredged Material, Class B - Moderate contamination (chronic toxicity to aquatic life)  
 Shaded values represent concentrations exceeding the Class A threshold level

Table 3  
 NYPA/VELCO PV-20 Cable Replacement Project  
 Sediment Sample Analytical Results  
 Vermont Samples

Sample ID			SL-4, G-1(2'-3')	SL-4, G-2(7'-8')	SL-5, G-1(2'-3')	SL-5, G-2(7'-7.8')	SL-6, G-1(2'-3')	SL-6, G-2(8'-9')	SL-7, G-1(0.5'-1')	SL-7, G-2(6'-6.8')	SL-8, G-1(2'-3')	SL-8, G-2(7'-8')
Sample Depth			2-3'	7-8'	2-3'	7-7.8'	2-3'	8-9'	0.5-1'	6-6.8'	2-3'	7-8'
Sample Date			11/8/2013	11/8/2013	11/8/2013	11/8/2013	11/8/2013	11/8/2013	11/9/2013	11/9/2013	11/8/2013	11/8/2013
PID Readings (ppm)			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Visual or olfactory evidence of contamination	Recommended Sediment Quality Guidelines - TEC [1]	Recommended Sediment Quality Guidelines - PEC [2]	None	None	None	None	None	None	None	None	None	None
Test Parameter												
<b>VOCs (ppb)</b>												
2-Butanone	NRSQ	NRSQ	ND	ND	5.2 J	14 J	12 J	20	34	41	30	22
Acetone	NRSQ	NRSQ	23	17	31	92	62	120	160	230	160	140
<b>SVOCs (ppb)</b>	Total PAHs 1,610	Total PAHs 22,800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>PCBs (ppb)</b>												
Aroclor 1248	Total PCBs 59.8	Total PCBs 676	ND	ND	ND	ND	ND	ND	44.4 J	ND	ND	ND
<b>Metals (ppm)</b>												
Arsenic	9.79	33	1.9	1.7	2.8	1.2	3.6	6.5	9.5	6.2	4.3	5.1
Beryllium	NRSQ	NRSQ	0.06 J	0.12 J	0.20 J	0.25 J	0.28 J	0.45	0.39 J	0.47	0.26 J	0.53
Cadmium	0.99	4.98	0.22 J	0.30 J	0.48 J	0.44 J	0.56 J	0.70	1.1	0.73	0.56 J	0.78
Chromium	43.4	111	6.4	10	17	16	19	28	34	27	18	34
Copper	31.6	149	3.3	8.8	14	12	15	24	35	24	13	27
Lead	35.8	128	1.7	3.3	5.5	4.7	6.0	9.1	46	8.8	5.3	11
Nickel	22.7	48.6	4.7	9.2	20	15	22	32	32	32	21	37
Zinc	121	459	11	21	46	33	52	61	120	59	47	72
Mercury	0.18	1.06	ND	ND	ND	ND	ND	ND	0.26	ND	ND	ND
Silver	NRSQ	NRSQ	ND	ND	ND	ND	ND	ND	0.41 J	ND	ND	ND

**Notes:**

NRSQ = No Recommended Sediment Quality Guideline

ND = none detected

J = estimated value below the method detection limit

Recommended Sediment Quality Guidelines = Vermont Agency of Natural Resources, Investigation and Remediation of Contaminated Properties Procedure, Recommended Sediment Quality Guidelines for the Protection of Aquatic Biota in Fresh

[1] TEC values = Threshold Effect Concentration - concentration below which adverse effects are unlikely to occur

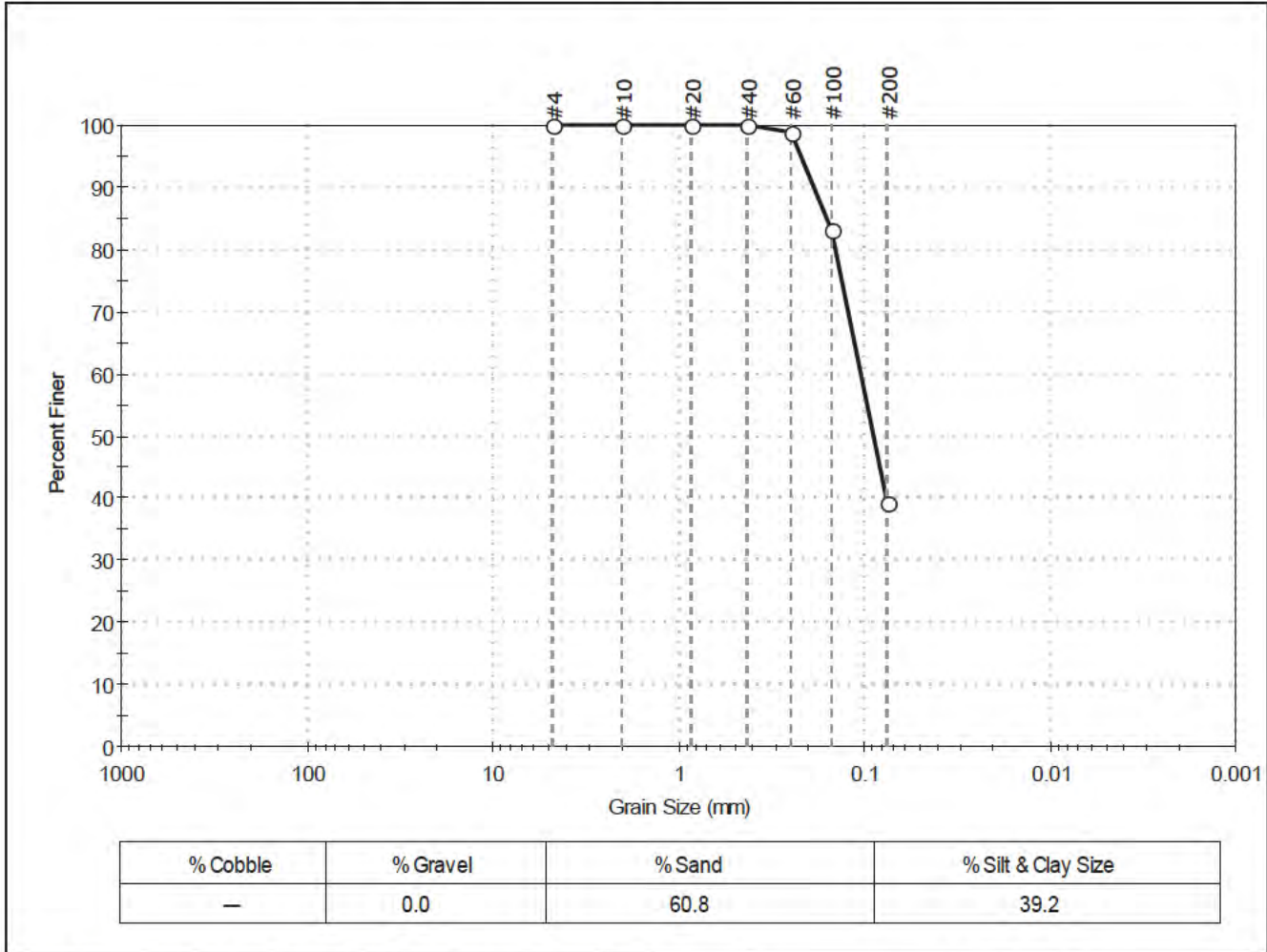
[2] PEC values = Probable Effects Concentration - a concentration above which adverse effects are likely to be observed

Shaded values represent concentrations exceeding TEC values



Client:	CHA		
Project:	PV-20 Submarine Cable Replacement Project		
Location:	Cumberland Head to Grand Isle, NY	Project No:	GTX-301298
Boring ID:	SL-04-PH	Sample Type:	bag
Sample ID:	BS_04	Test Date:	12/30/13
Depth:	2.7-3.7 ft.	Test Id:	285894
Test Comment:	---		
Sample Description:	Moist, very dark grayish brown silty sand		
Sample Comment:	---		

## Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	83		
#200	0.075	39		

<u>Coefficients</u>	
D <sub>85</sub> = 0.1590 mm	D <sub>30</sub> = N/A
D <sub>60</sub> = 0.1041 mm	D <sub>15</sub> = N/A
D <sub>50</sub> = 0.0889 mm	D <sub>10</sub> = N/A
C <sub>u</sub> = N/A	C <sub>c</sub> = N/A

<u>Classification</u>	
<u>ASTM</u>	Silty sand (SM)
<u>AASHTO</u>	Silty Soils (A-4 (0))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	---
Sand/Gravel Hardness :	---



## ANALYTICAL REPORT

Lab Number:	L1322910
Client:	CHA Companies 3 Winners Circle Albany, NY 12205
ATTN:	Rogina Camilli
Phone:	(518) 453-4569
Project Name:	NYPA PV-20 CABLE
Project Number:	27406
Report Date:	11/18/13

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)





**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1322910-01	SL-15, G-2(6'-7')	LAKE CHAMPLAIN	11/07/13 14:05
L1322910-02	SL-18, G-1(2'-3')	LAKE CHAMPLAIN	11/07/13 12:30
L1322910-03	SL-15, G-1(2'-3')	LAKE CHAMPLAIN	11/07/13 14:05
L1322910-04	SL-17, G-1(2'-3')	LAKE CHAMPLAIN	11/07/13 12:50
L1322910-05	SL-16, G-2(7'-8')	LAKE CHAMPLAIN	11/07/13 14:30
L1322910-06	SL-18, G-2(8'-9')	LAKE CHAMPLAIN	11/07/13 12:30
L1322910-07	SL-16, G-1(2'-3')	LAKE CHAMPLAIN	11/07/13 14:30
L1322910-08	SL-17, G-2(7'-8')	LAKE CHAMPLAIN	11/07/13 12:30
L1322910-09	SL-4, G-2(7'-7.7')	LAKE CHAMPLAIN	11/08/13 09:45
L1322910-10	SL-4, G-1(2'-3')	LAKE CHAMPLAIN	11/08/13 09:45
L1322910-11	SL-6, G-1(2'-3')	LAKE CHAMPLAIN	11/08/13 11:45
L1322910-12	SL-6, G-2(8'-9')	LAKE CHAMPLAIN	11/08/13 11:45
L1322910-13	SL-5, G-2(7'-7.8')	LAKE CHAMPLAIN	11/08/13 10:15
L1322910-14	SL-5, G-1(2'-3')	LAKE CHAMPLAIN	11/08/13 10:15
L1322910-15	SL-8, G-2(7'-8')	LAKE CHAMPLAIN	11/08/13 13:00
L1322910-16	SL-8, G-1(2'-3')	LAKE CHAMPLAIN	11/08/13 13:00
L1322910-17	SL-7, G-1(0.5'-1.0')	LAKE CHAMPLAIN	11/09/13 16:45
L1322910-18	SL-9, G-1(1'-2')	LAKE CHAMPLAIN	11/09/13 15:50
L1322910-19	SL-9, G-2(4'-5')	LAKE CHAMPLAIN	11/09/13 15:50
L1322910-20	SL-7, G-2(6'-6.8')	LAKE CHAMPLAIN	11/09/13 16:45
L1322910-21	SL-11, G-1(2'-3')	LAKE CHAMPLAIN	11/09/13 14:20
L1322910-22	SL-11, G-2(7'-8')	LAKE CHAMPLAIN	11/09/13 14:20
L1322910-23	SL-13, G-1(2'-3')	LAKE CHAMPLAIN	11/09/13 13:20
L1322910-24	SL-13, G-2(7'-8')	LAKE CHAMPLAIN	11/09/13 13:20
L1322910-25	SL-14, G-1(2'-3')	LAKE CHAMPLAIN	11/09/13 12:00
L1322910-26	SL-14, G-2(7'-8')	LAKE CHAMPLAIN	11/09/13 12:00
L1322910-27	SL-12, G-1(2'-3')	LAKE CHAMPLAIN	11/09/13 10:30
L1322910-28	SL-12, G-2(7'-8')	LAKE CHAMPLAIN	11/09/13 10:30
L1322910-29	SL-10, G-1(2'-3')	LAKE CHAMPLAIN	11/09/13 09:45

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

### Case Narrative (continued)

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

#### Semivolatile Organics

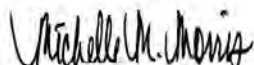
The WG651850-2/-3 LCS/LCSD recoveries, associated with L1322910-23, are below the acceptance criteria for benzoic Acid (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated sample are reported.

#### Metals

The WG651391-4 MS recoveries, performed on L1322910-01, are outside the acceptance criteria for antimony (72%), arsenic (66%), beryllium (72%), chromium (64%), copper (74%), lead (74%), nickel (68%), thallium (73%) and zinc (58%). A post digestion spike was performed with unacceptable recoveries for antimony (76%), arsenic (71%), beryllium (72%), chromium (72%), copper (77%), lead (73%), nickel (68%), thallium (70%) and zinc (65%). This has been attributed to sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 11/18/13

# ORGANICS

# VOLATILES

**Project Name:** NYPV PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-01  
 Client ID: SL-15, G-2(6'-7')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 11/16/13 13:13  
 Analyst: PP  
 Percent Solids: 39%

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	26	5.2	1
1,1-Dichloroethane	ND		ug/kg	3.9	0.46	1
Chloroform	ND		ug/kg	3.9	0.96	1
Carbon tetrachloride	ND		ug/kg	2.6	0.54	1
1,2-Dichloropropane	ND		ug/kg	9.0	0.59	1
Dibromochloromethane	ND		ug/kg	2.6	0.80	1
1,1,2-Trichloroethane	ND		ug/kg	3.9	0.79	1
Tetrachloroethene	ND		ug/kg	2.6	0.36	1
Chlorobenzene	ND		ug/kg	2.6	0.90	1
Trichlorofluoromethane	ND		ug/kg	13	0.31	1
1,2-Dichloroethane	ND		ug/kg	2.6	0.38	1
1,1,1-Trichloroethane	ND		ug/kg	2.6	0.29	1
Bromodichloromethane	ND		ug/kg	2.6	0.59	1
trans-1,3-Dichloropropene	ND		ug/kg	2.6	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	2.6	0.33	1
1,1-Dichloropropene	ND		ug/kg	13	1.2	1
Bromoform	ND		ug/kg	10	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.6	0.44	1
Benzene	ND		ug/kg	2.6	0.30	1
Toluene	ND		ug/kg	3.9	0.29	1
Ethylbenzene	ND		ug/kg	2.6	0.38	1
Chloromethane	ND		ug/kg	13	2.0	1
Bromomethane	ND		ug/kg	5.2	0.87	1
Vinyl chloride	ND		ug/kg	5.2	0.36	1
Chloroethane	ND		ug/kg	5.2	0.82	1
1,1-Dichloroethene	ND		ug/kg	2.6	0.53	1
trans-1,2-Dichloroethene	ND		ug/kg	3.9	0.55	1
Trichloroethene	ND		ug/kg	2.6	0.39	1
1,2-Dichlorobenzene	ND		ug/kg	13	0.47	1
1,3-Dichlorobenzene	ND		ug/kg	13	0.47	1
1,4-Dichlorobenzene	ND		ug/kg	13	0.62	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-01  
 Client ID: SL-15, G-2(6'-7')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	5.2	0.27	1
p/m-Xylene	ND		ug/kg	5.2	0.83	1
o-Xylene	ND		ug/kg	5.2	0.70	1
cis-1,2-Dichloroethene	ND		ug/kg	2.6	0.39	1
Dibromomethane	ND		ug/kg	26	0.42	1
Styrene	ND		ug/kg	5.2	0.80	1
Dichlorodifluoromethane	ND		ug/kg	26	0.56	1
Acetone	130		ug/kg	26	8.0	1
Carbon disulfide	ND		ug/kg	26	5.2	1
2-Butanone	25	J	ug/kg	26	0.92	1
Vinyl acetate	ND		ug/kg	26	1.2	1
4-Methyl-2-pentanone	ND		ug/kg	26	0.63	1
1,2,3-Trichloropropane	ND		ug/kg	26	0.58	1
2-Hexanone	ND		ug/kg	26	0.49	1
Bromochloromethane	ND		ug/kg	13	0.51	1
2,2-Dichloropropane	ND		ug/kg	13	0.58	1
1,2-Dibromoethane	ND		ug/kg	10	0.46	1
1,3-Dichloropropane	ND		ug/kg	13	0.45	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.6	0.82	1
Bromobenzene	ND		ug/kg	13	0.54	1
n-Butylbenzene	ND		ug/kg	2.6	0.51	1
sec-Butylbenzene	ND		ug/kg	2.6	0.53	1
tert-Butylbenzene	ND		ug/kg	13	1.4	1
o-Chlorotoluene	ND		ug/kg	13	0.41	1
p-Chlorotoluene	ND		ug/kg	13	0.40	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	13	2.0	1
Hexachlorobutadiene	ND		ug/kg	13	1.1	1
Isopropylbenzene	ND		ug/kg	2.6	0.43	1
p-Isopropyltoluene	ND		ug/kg	2.6	0.49	1
Naphthalene	ND		ug/kg	13	2.0	1
Acrylonitrile	ND		ug/kg	26	0.61	1
n-Propylbenzene	ND		ug/kg	2.6	0.32	1
1,2,3-Trichlorobenzene	ND		ug/kg	13	0.43	1
1,2,4-Trichlorobenzene	ND		ug/kg	13	2.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	13	0.37	1
1,2,4-Trimethylbenzene	ND		ug/kg	13	1.5	1
1,4-Dioxane	ND		ug/kg	260	45.	1
1,4-Diethylbenzene	ND		ug/kg	10	0.41	1
4-Ethyltoluene	ND		ug/kg	10	0.30	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-01  
 Client ID: SL-15, G-2(6'-7')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	10	0.34	1
Ethyl ether	ND		ug/kg	13	0.69	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	13	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	102		70-130



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-02  
**Client ID:** SL-18, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 13:41  
**Analyst:** PP  
**Percent Solids:** 79%

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	12	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.9	0.22	1
Chloroform	ND		ug/kg	1.9	0.47	1
Carbon tetrachloride	ND		ug/kg	1.2	0.26	1
1,2-Dichloropropane	ND		ug/kg	4.4	0.29	1
Dibromochloromethane	ND		ug/kg	1.2	0.39	1
1,1,2-Trichloroethane	ND		ug/kg	1.9	0.38	1
Tetrachloroethene	ND		ug/kg	1.2	0.18	1
Chlorobenzene	ND		ug/kg	1.2	0.44	1
Trichlorofluoromethane	ND		ug/kg	6.3	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.14	1
Bromodichloromethane	ND		ug/kg	1.2	0.29	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.16	1
1,1-Dichloropropene	ND		ug/kg	6.3	0.57	1
Bromoform	ND		ug/kg	5.0	0.52	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.21	1
Benzene	ND		ug/kg	1.2	0.15	1
Toluene	ND		ug/kg	1.9	0.14	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	6.3	0.99	1
Bromomethane	ND		ug/kg	2.5	0.42	1
Vinyl chloride	ND		ug/kg	2.5	0.18	1
Chloroethane	ND		ug/kg	2.5	0.40	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.27	1
Trichloroethene	ND		ug/kg	1.2	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	6.3	0.23	1
1,3-Dichlorobenzene	ND		ug/kg	6.3	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	6.3	0.30	1

Project Name: NYP A PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-02  
 Client ID: SL-18, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.5	0.13	1
p/m-Xylene	ND		ug/kg	2.5	0.41	1
o-Xylene	ND		ug/kg	2.5	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.19	1
Dibromomethane	ND		ug/kg	12	0.21	1
Styrene	ND		ug/kg	2.5	0.39	1
Dichlorodifluoromethane	ND		ug/kg	12	0.27	1
Acetone	5.4	J	ug/kg	12	3.9	1
Carbon disulfide	ND		ug/kg	12	2.5	1
2-Butanone	ND		ug/kg	12	0.45	1
Vinyl acetate	ND		ug/kg	12	0.60	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.31	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.24	1
Bromochloromethane	ND		ug/kg	6.3	0.25	1
2,2-Dichloropropane	ND		ug/kg	6.3	0.28	1
1,2-Dibromoethane	ND		ug/kg	5.0	0.22	1
1,3-Dichloropropane	ND		ug/kg	6.3	0.22	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.40	1
Bromobenzene	ND		ug/kg	6.3	0.26	1
n-Butylbenzene	ND		ug/kg	1.2	0.25	1
sec-Butylbenzene	ND		ug/kg	1.2	0.26	1
tert-Butylbenzene	ND		ug/kg	6.3	0.71	1
o-Chlorotoluene	ND		ug/kg	6.3	0.20	1
p-Chlorotoluene	ND		ug/kg	6.3	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.3	0.99	1
Hexachlorobutadiene	ND		ug/kg	6.3	0.53	1
Isopropylbenzene	ND		ug/kg	1.2	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.24	1
Naphthalene	ND		ug/kg	6.3	0.97	1
Acrylonitrile	ND		ug/kg	12	0.30	1
n-Propylbenzene	ND		ug/kg	1.2	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.3	0.21	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.3	0.99	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.3	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.3	0.72	1
1,4-Dioxane	ND		ug/kg	120	22.	1
1,4-Diethylbenzene	ND		ug/kg	5.0	0.20	1
4-Ethyltoluene	ND		ug/kg	5.0	0.15	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-02  
 Client ID: SL-18, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.0	0.16	1
Ethyl ether	ND		ug/kg	6.3	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.3	0.56	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-03  
**Client ID:** SL-15, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 14:09  
**Analyst:** PP  
**Percent Solids:** 33%

**Date Collected:** 11/07/13 14:05  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	30	6.0	1
1,1-Dichloroethane	ND		ug/kg	4.5	0.54	1
Chloroform	ND		ug/kg	4.5	1.1	1
Carbon tetrachloride	ND		ug/kg	3.0	0.64	1
1,2-Dichloropropane	ND		ug/kg	10	0.69	1
Dibromochloromethane	ND		ug/kg	3.0	0.93	1
1,1,2-Trichloroethane	ND		ug/kg	4.5	0.92	1
Tetrachloroethene	ND		ug/kg	3.0	0.42	1
Chlorobenzene	ND		ug/kg	3.0	1.0	1
Trichlorofluoromethane	ND		ug/kg	15	0.37	1
1,2-Dichloroethane	ND		ug/kg	3.0	0.44	1
1,1,1-Trichloroethane	ND		ug/kg	3.0	0.33	1
Bromodichloromethane	ND		ug/kg	3.0	0.69	1
trans-1,3-Dichloropropene	ND		ug/kg	3.0	0.36	1
cis-1,3-Dichloropropene	ND		ug/kg	3.0	0.38	1
1,1-Dichloropropene	ND		ug/kg	15	1.4	1
Bromoform	ND		ug/kg	12	1.2	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	3.0	0.52	1
Benzene	ND		ug/kg	3.0	0.36	1
Toluene	ND		ug/kg	4.5	0.34	1
Ethylbenzene	ND		ug/kg	3.0	0.44	1
Chloromethane	ND		ug/kg	15	2.4	1
Bromomethane	ND		ug/kg	6.0	1.0	1
Vinyl chloride	ND		ug/kg	6.0	0.43	1
Chloroethane	ND		ug/kg	6.0	0.95	1
1,1-Dichloroethene	ND		ug/kg	3.0	0.62	1
trans-1,2-Dichloroethene	ND		ug/kg	4.5	0.64	1
Trichloroethene	ND		ug/kg	3.0	0.46	1
1,2-Dichlorobenzene	ND		ug/kg	15	0.55	1
1,3-Dichlorobenzene	ND		ug/kg	15	0.55	1
1,4-Dichlorobenzene	ND		ug/kg	15	0.73	1

Project Name: NYPV PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-03  
 Client ID: SL-15, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	6.0	0.31	1
p/m-Xylene	ND		ug/kg	6.0	0.97	1
o-Xylene	ND		ug/kg	6.0	0.82	1
cis-1,2-Dichloroethene	ND		ug/kg	3.0	0.45	1
Dibromomethane	ND		ug/kg	30	0.49	1
Styrene	ND		ug/kg	6.0	0.93	1
Dichlorodifluoromethane	ND		ug/kg	30	0.66	1
Acetone	260		ug/kg	30	9.4	1
Carbon disulfide	ND		ug/kg	30	6.0	1
2-Butanone	49		ug/kg	30	1.1	1
Vinyl acetate	ND		ug/kg	30	1.4	1
4-Methyl-2-pentanone	ND		ug/kg	30	0.74	1
1,2,3-Trichloropropane	ND		ug/kg	30	0.68	1
2-Hexanone	ND		ug/kg	30	0.57	1
Bromochloromethane	ND		ug/kg	15	0.60	1
2,2-Dichloropropane	ND		ug/kg	15	0.68	1
1,2-Dibromoethane	ND		ug/kg	12	0.54	1
1,3-Dichloropropane	ND		ug/kg	15	0.52	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	3.0	0.96	1
Bromobenzene	ND		ug/kg	15	0.63	1
n-Butylbenzene	ND		ug/kg	3.0	0.60	1
sec-Butylbenzene	ND		ug/kg	3.0	0.62	1
tert-Butylbenzene	ND		ug/kg	15	1.7	1
o-Chlorotoluene	ND		ug/kg	15	0.48	1
p-Chlorotoluene	ND		ug/kg	15	0.46	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	15	2.4	1
Hexachlorobutadiene	ND		ug/kg	15	1.3	1
Isopropylbenzene	ND		ug/kg	3.0	0.51	1
p-Isopropyltoluene	ND		ug/kg	3.0	0.58	1
Naphthalene	ND		ug/kg	15	2.3	1
Acrylonitrile	ND		ug/kg	30	0.72	1
n-Propylbenzene	ND		ug/kg	3.0	0.38	1
1,2,3-Trichlorobenzene	ND		ug/kg	15	0.51	1
1,2,4-Trichlorobenzene	ND		ug/kg	15	2.4	1
1,3,5-Trimethylbenzene	ND		ug/kg	15	0.43	1
1,2,4-Trimethylbenzene	ND		ug/kg	15	1.7	1
1,4-Dioxane	ND		ug/kg	300	53.	1
1,4-Diethylbenzene	ND		ug/kg	12	0.48	1
4-Ethyltoluene	ND		ug/kg	12	0.35	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-03  
 Client ID: SL-15, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	12	0.39	1
Ethyl ether	ND		ug/kg	15	0.80	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	15	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	105		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-04  
**Client ID:** SL-17, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 14:38  
**Analyst:** PP  
**Percent Solids:** 83%

**Date Collected:** 11/07/13 12:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	12	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.22	1
Chloroform	ND		ug/kg	1.8	0.45	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.2	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.37	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.37	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.42	1
Trichlorofluoromethane	ND		ug/kg	6.1	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.28	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
1,1-Dichloropropene	ND		ug/kg	6.1	0.55	1
Bromoform	ND		ug/kg	4.8	0.50	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.21	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.14	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	6.1	0.95	1
Bromomethane	ND		ug/kg	2.4	0.41	1
Vinyl chloride	ND		ug/kg	2.4	0.17	1
Chloroethane	ND		ug/kg	2.4	0.38	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.26	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	6.1	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	6.1	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	6.1	0.29	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-04  
 Client ID: SL-17, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.4	0.13	1
p/m-Xylene	ND		ug/kg	2.4	0.39	1
o-Xylene	ND		ug/kg	2.4	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.4	0.38	1
Dichlorodifluoromethane	ND		ug/kg	12	0.26	1
Acetone	21		ug/kg	12	3.8	1
Carbon disulfide	ND		ug/kg	12	2.4	1
2-Butanone	ND		ug/kg	12	0.43	1
Vinyl acetate	ND		ug/kg	12	0.58	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.30	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.27	1
2-Hexanone	ND		ug/kg	12	0.23	1
Bromochloromethane	ND		ug/kg	6.1	0.24	1
2,2-Dichloropropane	ND		ug/kg	6.1	0.27	1
1,2-Dibromoethane	ND		ug/kg	4.8	0.22	1
1,3-Dichloropropane	ND		ug/kg	6.1	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	6.1	0.25	1
n-Butylbenzene	ND		ug/kg	1.2	0.24	1
sec-Butylbenzene	ND		ug/kg	1.2	0.25	1
tert-Butylbenzene	ND		ug/kg	6.1	0.68	1
o-Chlorotoluene	ND		ug/kg	6.1	0.19	1
p-Chlorotoluene	ND		ug/kg	6.1	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.1	0.96	1
Hexachlorobutadiene	ND		ug/kg	6.1	0.51	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.23	1
Naphthalene	ND		ug/kg	6.1	0.93	1
Acrylonitrile	ND		ug/kg	12	0.29	1
n-Propylbenzene	ND		ug/kg	1.2	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.1	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.1	0.96	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.1	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.1	0.69	1
1,4-Dioxane	ND		ug/kg	120	21.	1
1,4-Diethylbenzene	ND		ug/kg	4.8	0.19	1
4-Ethyltoluene	ND		ug/kg	4.8	0.14	1



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-04  
 Client ID: SL-17, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.8	0.16	1
Ethyl ether	ND		ug/kg	6.1	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.1	0.54	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	102		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-05  
 Client ID: SL-16, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 11/16/13 15:06  
 Analyst: PP  
 Percent Solids: 41%

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	24	4.9	1
1,1-Dichloroethane	ND		ug/kg	3.7	0.44	1
Chloroform	ND		ug/kg	3.7	0.91	1
Carbon tetrachloride	ND		ug/kg	2.4	0.52	1
1,2-Dichloropropane	ND		ug/kg	8.6	0.56	1
Dibromochloromethane	ND		ug/kg	2.4	0.75	1
1,1,2-Trichloroethane	ND		ug/kg	3.7	0.74	1
Tetrachloroethene	ND		ug/kg	2.4	0.34	1
Chlorobenzene	ND		ug/kg	2.4	0.85	1
Trichlorofluoromethane	ND		ug/kg	12	0.30	1
1,2-Dichloroethane	ND		ug/kg	2.4	0.36	1
1,1,1-Trichloroethane	ND		ug/kg	2.4	0.27	1
Bromodichloromethane	ND		ug/kg	2.4	0.56	1
trans-1,3-Dichloropropene	ND		ug/kg	2.4	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	2.4	0.31	1
1,1-Dichloropropene	ND		ug/kg	12	1.1	1
Bromoform	ND		ug/kg	9.8	1.0	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.4	0.42	1
Benzene	ND		ug/kg	2.4	0.29	1
Toluene	ND		ug/kg	3.7	0.27	1
Ethylbenzene	ND		ug/kg	2.4	0.36	1
Chloromethane	ND		ug/kg	12	1.9	1
Bromomethane	ND		ug/kg	4.9	0.83	1
Vinyl chloride	ND		ug/kg	4.9	0.35	1
Chloroethane	ND		ug/kg	4.9	0.77	1
1,1-Dichloroethene	ND		ug/kg	2.4	0.50	1
trans-1,2-Dichloroethene	ND		ug/kg	3.7	0.52	1
Trichloroethene	ND		ug/kg	2.4	0.37	1
1,2-Dichlorobenzene	ND		ug/kg	12	0.45	1
1,3-Dichlorobenzene	ND		ug/kg	12	0.45	1
1,4-Dichlorobenzene	ND		ug/kg	12	0.59	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-05  
 Client ID: SL-16, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/kg	4.9	0.26	1
p/m-Xylene	ND		ug/kg	4.9	0.79	1
o-Xylene	ND		ug/kg	4.9	0.66	1
cis-1,2-Dichloroethene	ND		ug/kg	2.4	0.37	1
Dibromomethane	ND		ug/kg	24	0.40	1
Styrene	ND		ug/kg	4.9	0.76	1
Dichlorodifluoromethane	ND		ug/kg	24	0.53	1
Acetone	190		ug/kg	24	7.6	1
Carbon disulfide	ND		ug/kg	24	4.9	1
2-Butanone	40		ug/kg	24	0.87	1
Vinyl acetate	ND		ug/kg	24	1.2	1
4-Methyl-2-pentanone	ND		ug/kg	24	0.60	1
1,2,3-Trichloropropane	ND		ug/kg	24	0.55	1
2-Hexanone	ND		ug/kg	24	0.46	1
Bromochloromethane	ND		ug/kg	12	0.48	1
2,2-Dichloropropane	ND		ug/kg	12	0.55	1
1,2-Dibromoethane	ND		ug/kg	9.8	0.44	1
1,3-Dichloropropane	ND		ug/kg	12	0.42	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.4	0.78	1
Bromobenzene	ND		ug/kg	12	0.51	1
n-Butylbenzene	ND		ug/kg	2.4	0.48	1
sec-Butylbenzene	ND		ug/kg	2.4	0.50	1
tert-Butylbenzene	ND		ug/kg	12	1.4	1
o-Chlorotoluene	ND		ug/kg	12	0.39	1
p-Chlorotoluene	ND		ug/kg	12	0.38	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	12	1.9	1
Hexachlorobutadiene	ND		ug/kg	12	1.0	1
Isopropylbenzene	ND		ug/kg	2.4	0.41	1
p-Isopropyltoluene	ND		ug/kg	2.4	0.47	1
Naphthalene	ND		ug/kg	12	1.9	1
Acrylonitrile	ND		ug/kg	24	0.58	1
n-Propylbenzene	ND		ug/kg	2.4	0.31	1
1,2,3-Trichlorobenzene	ND		ug/kg	12	0.41	1
1,2,4-Trichlorobenzene	ND		ug/kg	12	1.9	1
1,3,5-Trimethylbenzene	ND		ug/kg	12	0.35	1
1,2,4-Trimethylbenzene	ND		ug/kg	12	1.4	1
1,4-Dioxane	ND		ug/kg	240	43.	1
1,4-Diethylbenzene	ND		ug/kg	9.8	0.39	1
4-Ethyltoluene	ND		ug/kg	9.8	0.29	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-05  
 Client ID: SL-16, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	9.8	0.32	1
Ethyl ether	ND		ug/kg	12	0.65	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	12	1.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	105		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-06  
**Client ID:** SL-18, G-2(8'-9')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 15:35  
**Analyst:** PP  
**Percent Solids:** 72%

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	14	2.8	1
1,1-Dichloroethane	ND		ug/kg	2.1	0.24	1
Chloroform	ND		ug/kg	2.1	0.51	1
Carbon tetrachloride	ND		ug/kg	1.4	0.29	1
1,2-Dichloropropane	ND		ug/kg	4.8	0.32	1
Dibromochloromethane	ND		ug/kg	1.4	0.42	1
1,1,2-Trichloroethane	ND		ug/kg	2.1	0.42	1
Tetrachloroethene	ND		ug/kg	1.4	0.19	1
Chlorobenzene	ND		ug/kg	1.4	0.48	1
Trichlorofluoromethane	ND		ug/kg	6.9	0.17	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.20	1
1,1,1-Trichloroethane	ND		ug/kg	1.4	0.15	1
Bromodichloromethane	ND		ug/kg	1.4	0.32	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.17	1
cis-1,3-Dichloropropene	ND		ug/kg	1.4	0.18	1
1,1-Dichloropropene	ND		ug/kg	6.9	0.63	1
Bromoform	ND		ug/kg	5.5	0.57	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.4	0.24	1
Benzene	ND		ug/kg	1.4	0.16	1
Toluene	ND		ug/kg	2.1	0.15	1
Ethylbenzene	ND		ug/kg	1.4	0.20	1
Chloromethane	ND		ug/kg	6.9	1.1	1
Bromomethane	ND		ug/kg	2.8	0.47	1
Vinyl chloride	ND		ug/kg	2.8	0.20	1
Chloroethane	ND		ug/kg	2.8	0.44	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.29	1
Trichloroethene	ND		ug/kg	1.4	0.21	1
1,2-Dichlorobenzene	ND		ug/kg	6.9	0.25	1
1,3-Dichlorobenzene	ND		ug/kg	6.9	0.25	1
1,4-Dichlorobenzene	ND		ug/kg	6.9	0.33	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-06  
 Client ID: SL-18, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.8	0.14	1
p/m-Xylene	ND		ug/kg	2.8	0.44	1
o-Xylene	ND		ug/kg	2.8	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.21	1
Dibromomethane	ND		ug/kg	14	0.22	1
Styrene	ND		ug/kg	2.8	0.43	1
Dichlorodifluoromethane	ND		ug/kg	14	0.30	1
Acetone	6.0	J	ug/kg	14	4.3	1
Carbon disulfide	ND		ug/kg	14	2.8	1
2-Butanone	ND		ug/kg	14	0.49	1
Vinyl acetate	ND		ug/kg	14	0.66	1
4-Methyl-2-pentanone	ND		ug/kg	14	0.34	1
1,2,3-Trichloropropane	ND		ug/kg	14	0.31	1
2-Hexanone	ND		ug/kg	14	0.26	1
Bromochloromethane	ND		ug/kg	6.9	0.27	1
2,2-Dichloropropane	ND		ug/kg	6.9	0.31	1
1,2-Dibromoethane	ND		ug/kg	5.5	0.24	1
1,3-Dichloropropane	ND		ug/kg	6.9	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.4	0.44	1
Bromobenzene	ND		ug/kg	6.9	0.29	1
n-Butylbenzene	ND		ug/kg	1.4	0.27	1
sec-Butylbenzene	ND		ug/kg	1.4	0.28	1
tert-Butylbenzene	ND		ug/kg	6.9	0.77	1
o-Chlorotoluene	ND		ug/kg	6.9	0.22	1
p-Chlorotoluene	ND		ug/kg	6.9	0.21	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.9	1.1	1
Hexachlorobutadiene	ND		ug/kg	6.9	0.58	1
Isopropylbenzene	ND		ug/kg	1.4	0.23	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.26	1
Naphthalene	ND		ug/kg	6.9	1.1	1
Acrylonitrile	ND		ug/kg	14	0.33	1
n-Propylbenzene	ND		ug/kg	1.4	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.9	0.23	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.9	1.1	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.9	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.9	0.79	1
1,4-Dioxane	ND		ug/kg	140	24.	1
1,4-Diethylbenzene	ND		ug/kg	5.5	0.22	1
4-Ethyltoluene	ND		ug/kg	5.5	0.16	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-06  
 Client ID: SL-18, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.5	0.18	1
Ethyl ether	ND		ug/kg	6.9	0.37	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.9	0.62	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	105		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-07  
**Client ID:** SL-16, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 16:03  
**Analyst:** PP  
**Percent Solids:** 39%

**Date Collected:** 11/07/13 14:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	26	5.1	1
1,1-Dichloroethane	ND		ug/kg	3.8	0.46	1
Chloroform	ND		ug/kg	3.8	0.95	1
Carbon tetrachloride	ND		ug/kg	2.6	0.54	1
1,2-Dichloropropane	ND		ug/kg	9.0	0.59	1
Dibromochloromethane	ND		ug/kg	2.6	0.79	1
1,1,2-Trichloroethane	ND		ug/kg	3.8	0.78	1
Tetrachloroethene	ND		ug/kg	2.6	0.36	1
Chlorobenzene	ND		ug/kg	2.6	0.89	1
Trichlorofluoromethane	ND		ug/kg	13	0.31	1
1,2-Dichloroethane	ND		ug/kg	2.6	0.38	1
1,1,1-Trichloroethane	ND		ug/kg	2.6	0.28	1
Bromodichloromethane	ND		ug/kg	2.6	0.59	1
trans-1,3-Dichloropropene	ND		ug/kg	2.6	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	2.6	0.33	1
1,1-Dichloropropene	ND		ug/kg	13	1.2	1
Bromoform	ND		ug/kg	10	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.6	0.44	1
Benzene	ND		ug/kg	2.6	0.30	1
Toluene	ND		ug/kg	3.8	0.29	1
Ethylbenzene	ND		ug/kg	2.6	0.38	1
Chloromethane	ND		ug/kg	13	2.0	1
Bromomethane	ND		ug/kg	5.1	0.87	1
Vinyl chloride	ND		ug/kg	5.1	0.36	1
Chloroethane	ND		ug/kg	5.1	0.81	1
1,1-Dichloroethene	ND		ug/kg	2.6	0.53	1
trans-1,2-Dichloroethene	ND		ug/kg	3.8	0.54	1
Trichloroethene	ND		ug/kg	2.6	0.39	1
1,2-Dichlorobenzene	ND		ug/kg	13	0.47	1
1,3-Dichlorobenzene	ND		ug/kg	13	0.47	1
1,4-Dichlorobenzene	ND		ug/kg	13	0.62	1



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-07  
 Client ID: SL-16, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	5.1	0.27	1
p/m-Xylene	ND		ug/kg	5.1	0.83	1
o-Xylene	ND		ug/kg	5.1	0.70	1
cis-1,2-Dichloroethene	ND		ug/kg	2.6	0.38	1
Dibromomethane	ND		ug/kg	26	0.42	1
Styrene	ND		ug/kg	5.1	0.80	1
Dichlorodifluoromethane	ND		ug/kg	26	0.56	1
Acetone	170		ug/kg	26	8.0	1
Carbon disulfide	ND		ug/kg	26	5.1	1
2-Butanone	33		ug/kg	26	0.91	1
Vinyl acetate	ND		ug/kg	26	1.2	1
4-Methyl-2-pentanone	ND		ug/kg	26	0.63	1
1,2,3-Trichloropropane	ND		ug/kg	26	0.58	1
2-Hexanone	ND		ug/kg	26	0.48	1
Bromochloromethane	ND		ug/kg	13	0.51	1
2,2-Dichloropropane	ND		ug/kg	13	0.58	1
1,2-Dibromoethane	ND		ug/kg	10	0.46	1
1,3-Dichloropropane	ND		ug/kg	13	0.44	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.6	0.82	1
Bromobenzene	ND		ug/kg	13	0.54	1
n-Butylbenzene	ND		ug/kg	2.6	0.51	1
sec-Butylbenzene	ND		ug/kg	2.6	0.53	1
tert-Butylbenzene	ND		ug/kg	13	1.4	1
o-Chlorotoluene	ND		ug/kg	13	0.41	1
p-Chlorotoluene	ND		ug/kg	13	0.40	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	13	2.0	1
Hexachlorobutadiene	ND		ug/kg	13	1.1	1
Isopropylbenzene	ND		ug/kg	2.6	0.43	1
p-Isopropyltoluene	ND		ug/kg	2.6	0.49	1
Naphthalene	ND		ug/kg	13	2.0	1
Acrylonitrile	ND		ug/kg	26	0.61	1
n-Propylbenzene	ND		ug/kg	2.6	0.32	1
1,2,3-Trichlorobenzene	ND		ug/kg	13	0.43	1
1,2,4-Trichlorobenzene	ND		ug/kg	13	2.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	13	0.37	1
1,2,4-Trimethylbenzene	ND		ug/kg	13	1.5	1
1,4-Dioxane	ND		ug/kg	260	45.	1
1,4-Diethylbenzene	ND		ug/kg	10	0.41	1
4-Ethyltoluene	ND		ug/kg	10	0.30	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-07  
 Client ID: SL-16, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	10	0.33	1
Ethyl ether	ND		ug/kg	13	0.68	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	13	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	104		70-130

**Project Name:** NYPV PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-08  
**Client ID:** SL-17, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 16:31  
**Analyst:** PP  
**Percent Solids:** 76%

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	13	2.6	1
1,1-Dichloroethane	ND		ug/kg	2.0	0.23	1
Chloroform	ND		ug/kg	2.0	0.49	1
Carbon tetrachloride	ND		ug/kg	1.3	0.28	1
1,2-Dichloropropane	ND		ug/kg	4.6	0.30	1
Dibromochloromethane	ND		ug/kg	1.3	0.40	1
1,1,2-Trichloroethane	ND		ug/kg	2.0	0.40	1
Tetrachloroethene	ND		ug/kg	1.3	0.18	1
Chlorobenzene	ND		ug/kg	1.3	0.46	1
Trichlorofluoromethane	ND		ug/kg	6.6	0.16	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.19	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	0.14	1
Bromodichloromethane	ND		ug/kg	1.3	0.30	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.16	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	0.17	1
1,1-Dichloropropene	ND		ug/kg	6.6	0.60	1
Bromoform	ND		ug/kg	5.2	0.54	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	0.22	1
Benzene	ND		ug/kg	1.3	0.16	1
Toluene	ND		ug/kg	2.0	0.15	1
Ethylbenzene	ND		ug/kg	1.3	0.19	1
Chloromethane	ND		ug/kg	6.6	1.0	1
Bromomethane	ND		ug/kg	2.6	0.44	1
Vinyl chloride	ND		ug/kg	2.6	0.18	1
Chloroethane	ND		ug/kg	2.6	0.42	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.28	1
Trichloroethene	ND		ug/kg	1.3	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	6.6	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	6.6	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	6.6	0.32	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-08  
 Client ID: SL-17, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.6	0.14	1
p/m-Xylene	ND		ug/kg	2.6	0.42	1
o-Xylene	ND		ug/kg	2.6	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.20	1
Dibromomethane	ND		ug/kg	13	0.21	1
Styrene	ND		ug/kg	2.6	0.41	1
Dichlorodifluoromethane	ND		ug/kg	13	0.29	1
Acetone	18		ug/kg	13	4.1	1
Carbon disulfide	ND		ug/kg	13	2.6	1
2-Butanone	ND		ug/kg	13	0.47	1
Vinyl acetate	ND		ug/kg	13	0.63	1
4-Methyl-2-pentanone	ND		ug/kg	13	0.32	1
1,2,3-Trichloropropane	ND		ug/kg	13	0.30	1
2-Hexanone	ND		ug/kg	13	0.25	1
Bromochloromethane	ND		ug/kg	6.6	0.26	1
2,2-Dichloropropane	ND		ug/kg	6.6	0.30	1
1,2-Dibromoethane	ND		ug/kg	5.2	0.23	1
1,3-Dichloropropane	ND		ug/kg	6.6	0.23	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	0.42	1
Bromobenzene	ND		ug/kg	6.6	0.27	1
n-Butylbenzene	ND		ug/kg	1.3	0.26	1
sec-Butylbenzene	ND		ug/kg	1.3	0.27	1
tert-Butylbenzene	ND		ug/kg	6.6	0.74	1
o-Chlorotoluene	ND		ug/kg	6.6	0.21	1
p-Chlorotoluene	ND		ug/kg	6.6	0.20	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.6	1.0	1
Hexachlorobutadiene	ND		ug/kg	6.6	0.56	1
Isopropylbenzene	ND		ug/kg	1.3	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.25	1
Naphthalene	ND		ug/kg	6.6	1.0	1
Acrylonitrile	ND		ug/kg	13	0.31	1
n-Propylbenzene	ND		ug/kg	1.3	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.6	0.22	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.6	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.6	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.6	0.75	1
1,4-Dioxane	ND		ug/kg	130	23.	1
1,4-Diethylbenzene	ND		ug/kg	5.2	0.21	1
4-Ethyltoluene	ND		ug/kg	5.2	0.15	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-08  
 Client ID: SL-17, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.2	0.17	1
Ethyl ether	ND		ug/kg	6.6	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.6	0.59	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	109		70-130

**Project Name:** NYPV PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-09  
 Client ID: SL-4, G-2(7'-7.7')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 11/16/13 17:00  
 Analyst: PP  
 Percent Solids: 77%

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	13	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.9	0.23	1
Chloroform	ND		ug/kg	1.9	0.48	1
Carbon tetrachloride	ND		ug/kg	1.3	0.27	1
1,2-Dichloropropane	ND		ug/kg	4.5	0.30	1
Dibromochloromethane	ND		ug/kg	1.3	0.40	1
1,1,2-Trichloroethane	ND		ug/kg	1.9	0.39	1
Tetrachloroethene	ND		ug/kg	1.3	0.18	1
Chlorobenzene	ND		ug/kg	1.3	0.45	1
Trichlorofluoromethane	ND		ug/kg	6.5	0.16	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.19	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	0.14	1
Bromodichloromethane	ND		ug/kg	1.3	0.30	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.16	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	0.16	1
1,1-Dichloropropene	ND		ug/kg	6.5	0.59	1
Bromoform	ND		ug/kg	5.2	0.54	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	0.22	1
Benzene	ND		ug/kg	1.3	0.15	1
Toluene	ND		ug/kg	1.9	0.14	1
Ethylbenzene	ND		ug/kg	1.3	0.19	1
Chloromethane	ND		ug/kg	6.5	1.0	1
Bromomethane	ND		ug/kg	2.6	0.44	1
Vinyl chloride	ND		ug/kg	2.6	0.18	1
Chloroethane	ND		ug/kg	2.6	0.41	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.27	1
Trichloroethene	ND		ug/kg	1.3	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	6.5	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	6.5	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	6.5	0.31	1

Project Name: NYP A PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-09  
 Client ID: SL-4, G-2(7'-7.7')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.6	0.13	1
p/m-Xylene	ND		ug/kg	2.6	0.42	1
o-Xylene	ND		ug/kg	2.6	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.19	1
Dibromomethane	ND		ug/kg	13	0.21	1
Styrene	ND		ug/kg	2.6	0.40	1
Dichlorodifluoromethane	ND		ug/kg	13	0.28	1
Acetone	17		ug/kg	13	4.0	1
Carbon disulfide	ND		ug/kg	13	2.6	1
2-Butanone	ND		ug/kg	13	0.46	1
Vinyl acetate	ND		ug/kg	13	0.62	1
4-Methyl-2-pentanone	ND		ug/kg	13	0.32	1
1,2,3-Trichloropropane	ND		ug/kg	13	0.29	1
2-Hexanone	ND		ug/kg	13	0.24	1
Bromochloromethane	ND		ug/kg	6.5	0.26	1
2,2-Dichloropropane	ND		ug/kg	6.5	0.29	1
1,2-Dibromoethane	ND		ug/kg	5.2	0.23	1
1,3-Dichloropropane	ND		ug/kg	6.5	0.22	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	0.41	1
Bromobenzene	ND		ug/kg	6.5	0.27	1
n-Butylbenzene	ND		ug/kg	1.3	0.26	1
sec-Butylbenzene	ND		ug/kg	1.3	0.27	1
tert-Butylbenzene	ND		ug/kg	6.5	0.73	1
o-Chlorotoluene	ND		ug/kg	6.5	0.21	1
p-Chlorotoluene	ND		ug/kg	6.5	0.20	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.5	1.0	1
Hexachlorobutadiene	ND		ug/kg	6.5	0.55	1
Isopropylbenzene	ND		ug/kg	1.3	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.25	1
Naphthalene	ND		ug/kg	6.5	1.0	1
Acrylonitrile	ND		ug/kg	13	0.31	1
n-Propylbenzene	ND		ug/kg	1.3	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.5	0.22	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.5	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.5	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.5	0.74	1
1,4-Dioxane	ND		ug/kg	130	22.	1
1,4-Diethylbenzene	ND		ug/kg	5.2	0.21	1
4-Ethyltoluene	ND		ug/kg	5.2	0.15	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-09  
 Client ID: SL-4, G-2(7'-7.7')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.2	0.17	1
Ethyl ether	ND		ug/kg	6.5	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.5	0.58	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	106		70-130



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-10  
 Client ID: SL-4, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 11/16/13 17:28  
 Analyst: PP  
 Percent Solids: 75%

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	13	2.7	1
1,1-Dichloroethane	ND		ug/kg	2.0	0.24	1
Chloroform	ND		ug/kg	2.0	0.49	1
Carbon tetrachloride	ND		ug/kg	1.3	0.28	1
1,2-Dichloropropane	ND		ug/kg	4.7	0.30	1
Dibromochloromethane	ND		ug/kg	1.3	0.41	1
1,1,2-Trichloroethane	ND		ug/kg	2.0	0.41	1
Tetrachloroethene	ND		ug/kg	1.3	0.19	1
Chlorobenzene	ND		ug/kg	1.3	0.46	1
Trichlorofluoromethane	ND		ug/kg	6.7	0.16	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.20	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	0.15	1
Bromodichloromethane	ND		ug/kg	1.3	0.31	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.16	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	0.17	1
1,1-Dichloropropene	ND		ug/kg	6.7	0.61	1
Bromoform	ND		ug/kg	5.3	0.55	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	0.23	1
Benzene	ND		ug/kg	1.3	0.16	1
Toluene	ND		ug/kg	2.0	0.15	1
Ethylbenzene	ND		ug/kg	1.3	0.20	1
Chloromethane	ND		ug/kg	6.7	1.0	1
Bromomethane	ND		ug/kg	2.7	0.45	1
Vinyl chloride	ND		ug/kg	2.7	0.19	1
Chloroethane	ND		ug/kg	2.7	0.42	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.28	1
Trichloroethene	ND		ug/kg	1.3	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	6.7	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	6.7	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	6.7	0.32	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-10  
 Client ID: SL-4, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.7	0.14	1
p/m-Xylene	ND		ug/kg	2.7	0.43	1
o-Xylene	ND		ug/kg	2.7	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.20	1
Dibromomethane	ND		ug/kg	13	0.22	1
Styrene	ND		ug/kg	2.7	0.41	1
Dichlorodifluoromethane	ND		ug/kg	13	0.29	1
Acetone	23		ug/kg	13	4.1	1
Carbon disulfide	ND		ug/kg	13	2.7	1
2-Butanone	ND		ug/kg	13	0.47	1
Vinyl acetate	ND		ug/kg	13	0.64	1
4-Methyl-2-pentanone	ND		ug/kg	13	0.33	1
1,2,3-Trichloropropane	ND		ug/kg	13	0.30	1
2-Hexanone	ND		ug/kg	13	0.25	1
Bromochloromethane	ND		ug/kg	6.7	0.26	1
2,2-Dichloropropane	ND		ug/kg	6.7	0.30	1
1,2-Dibromoethane	ND		ug/kg	5.3	0.24	1
1,3-Dichloropropane	ND		ug/kg	6.7	0.23	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	0.42	1
Bromobenzene	ND		ug/kg	6.7	0.28	1
n-Butylbenzene	ND		ug/kg	1.3	0.26	1
sec-Butylbenzene	ND		ug/kg	1.3	0.28	1
tert-Butylbenzene	ND		ug/kg	6.7	0.75	1
o-Chlorotoluene	ND		ug/kg	6.7	0.21	1
p-Chlorotoluene	ND		ug/kg	6.7	0.20	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.7	1.0	1
Hexachlorobutadiene	ND		ug/kg	6.7	0.56	1
Isopropylbenzene	ND		ug/kg	1.3	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.26	1
Naphthalene	ND		ug/kg	6.7	1.0	1
Acrylonitrile	ND		ug/kg	13	0.32	1
n-Propylbenzene	ND		ug/kg	1.3	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.7	0.22	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.7	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.7	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.7	0.77	1
1,4-Dioxane	ND		ug/kg	130	23.	1
1,4-Diethylbenzene	ND		ug/kg	5.3	0.21	1
4-Ethyltoluene	ND		ug/kg	5.3	0.16	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-10  
 Client ID: SL-4, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.3	0.17	1
Ethyl ether	ND		ug/kg	6.7	0.36	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.7	0.60	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	107		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-11  
**Client ID:** SL-6, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 17:56  
**Analyst:** PP  
**Percent Solids:** 52%

**Date Collected:** 11/08/13 11:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	19	3.8	1
1,1-Dichloroethane	ND		ug/kg	2.9	0.34	1
Chloroform	ND		ug/kg	2.9	0.71	1
Carbon tetrachloride	ND		ug/kg	1.9	0.40	1
1,2-Dichloropropane	ND		ug/kg	6.7	0.44	1
Dibromochloromethane	ND		ug/kg	1.9	0.59	1
1,1,2-Trichloroethane	ND		ug/kg	2.9	0.58	1
Tetrachloroethene	ND		ug/kg	1.9	0.27	1
Chlorobenzene	ND		ug/kg	1.9	0.66	1
Trichlorofluoromethane	ND		ug/kg	9.5	0.23	1
1,2-Dichloroethane	ND		ug/kg	1.9	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	1.9	0.21	1
Bromodichloromethane	ND		ug/kg	1.9	0.44	1
trans-1,3-Dichloropropene	ND		ug/kg	1.9	0.23	1
cis-1,3-Dichloropropene	ND		ug/kg	1.9	0.24	1
1,1-Dichloropropene	ND		ug/kg	9.5	0.87	1
Bromoform	ND		ug/kg	7.6	0.79	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	0.32	1
Benzene	ND		ug/kg	1.9	0.22	1
Toluene	ND		ug/kg	2.9	0.21	1
Ethylbenzene	ND		ug/kg	1.9	0.28	1
Chloromethane	ND		ug/kg	9.5	1.5	1
Bromomethane	ND		ug/kg	3.8	0.64	1
Vinyl chloride	ND		ug/kg	3.8	0.27	1
Chloroethane	ND		ug/kg	3.8	0.60	1
1,1-Dichloroethene	ND		ug/kg	1.9	0.39	1
trans-1,2-Dichloroethene	ND		ug/kg	2.9	0.40	1
Trichloroethene	ND		ug/kg	1.9	0.29	1
1,2-Dichlorobenzene	ND		ug/kg	9.5	0.35	1
1,3-Dichlorobenzene	ND		ug/kg	9.5	0.35	1
1,4-Dichlorobenzene	ND		ug/kg	9.5	0.46	1

Project Name: NYP A PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-11  
 Client ID: SL-6, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.8	0.20	1
p/m-Xylene	ND		ug/kg	3.8	0.62	1
o-Xylene	ND		ug/kg	3.8	0.52	1
cis-1,2-Dichloroethene	ND		ug/kg	1.9	0.28	1
Dibromomethane	ND		ug/kg	19	0.31	1
Styrene	ND		ug/kg	3.8	0.59	1
Dichlorodifluoromethane	ND		ug/kg	19	0.42	1
Acetone	62		ug/kg	19	5.9	1
Carbon disulfide	ND		ug/kg	19	3.8	1
2-Butanone	12	J	ug/kg	19	0.68	1
Vinyl acetate	ND		ug/kg	19	0.92	1
4-Methyl-2-pentanone	ND		ug/kg	19	0.47	1
1,2,3-Trichloropropane	ND		ug/kg	19	0.43	1
2-Hexanone	ND		ug/kg	19	0.36	1
Bromochloromethane	ND		ug/kg	9.5	0.38	1
2,2-Dichloropropane	ND		ug/kg	9.5	0.43	1
1,2-Dibromoethane	ND		ug/kg	7.6	0.34	1
1,3-Dichloropropane	ND		ug/kg	9.5	0.33	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.9	0.61	1
Bromobenzene	ND		ug/kg	9.5	0.40	1
n-Butylbenzene	ND		ug/kg	1.9	0.38	1
sec-Butylbenzene	ND		ug/kg	1.9	0.39	1
tert-Butylbenzene	ND		ug/kg	9.5	1.1	1
o-Chlorotoluene	ND		ug/kg	9.5	0.30	1
p-Chlorotoluene	ND		ug/kg	9.5	0.29	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	9.5	1.5	1
Hexachlorobutadiene	ND		ug/kg	9.5	0.81	1
Isopropylbenzene	ND		ug/kg	1.9	0.32	1
p-Isopropyltoluene	ND		ug/kg	1.9	0.36	1
Naphthalene	ND		ug/kg	9.5	1.5	1
Acrylonitrile	ND		ug/kg	19	0.45	1
n-Propylbenzene	ND		ug/kg	1.9	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	9.5	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	9.5	1.5	1
1,3,5-Trimethylbenzene	ND		ug/kg	9.5	0.27	1
1,2,4-Trimethylbenzene	ND		ug/kg	9.5	1.1	1
1,4-Dioxane	ND		ug/kg	190	33.	1
1,4-Diethylbenzene	ND		ug/kg	7.6	0.30	1
4-Ethyltoluene	ND		ug/kg	7.6	0.22	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-11  
 Client ID: SL-6, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	7.6	0.25	1
Ethyl ether	ND		ug/kg	9.5	0.51	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	9.5	0.85	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	108		70-130

**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-12  
 Client ID: SL-6, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 11/16/13 18:25  
 Analyst: PP  
 Percent Solids: 55%

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	18	3.6	1
1,1-Dichloroethane	ND		ug/kg	2.7	0.32	1
Chloroform	ND		ug/kg	2.7	0.67	1
Carbon tetrachloride	ND		ug/kg	1.8	0.38	1
1,2-Dichloropropane	ND		ug/kg	6.4	0.42	1
Dibromochloromethane	ND		ug/kg	1.8	0.56	1
1,1,2-Trichloroethane	ND		ug/kg	2.7	0.55	1
Tetrachloroethene	ND		ug/kg	1.8	0.25	1
Chlorobenzene	ND		ug/kg	1.8	0.63	1
Trichlorofluoromethane	ND		ug/kg	9.1	0.22	1
1,2-Dichloroethane	ND		ug/kg	1.8	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	1.8	0.20	1
Bromodichloromethane	ND		ug/kg	1.8	0.42	1
trans-1,3-Dichloropropene	ND		ug/kg	1.8	0.22	1
cis-1,3-Dichloropropene	ND		ug/kg	1.8	0.23	1
1,1-Dichloropropene	ND		ug/kg	9.1	0.83	1
Bromoform	ND		ug/kg	7.3	0.75	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.8	0.31	1
Benzene	ND		ug/kg	1.8	0.21	1
Toluene	ND		ug/kg	2.7	0.20	1
Ethylbenzene	ND		ug/kg	1.8	0.27	1
Chloromethane	ND		ug/kg	9.1	1.4	1
Bromomethane	ND		ug/kg	3.6	0.61	1
Vinyl chloride	ND		ug/kg	3.6	0.26	1
Chloroethane	ND		ug/kg	3.6	0.57	1
1,1-Dichloroethene	ND		ug/kg	1.8	0.37	1
trans-1,2-Dichloroethene	ND		ug/kg	2.7	0.38	1
Trichloroethene	ND		ug/kg	1.8	0.28	1
1,2-Dichlorobenzene	ND		ug/kg	9.1	0.33	1
1,3-Dichlorobenzene	ND		ug/kg	9.1	0.33	1
1,4-Dichlorobenzene	ND		ug/kg	9.1	0.44	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-12  
 Client ID: SL-6, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.6	0.19	1
p/m-Xylene	ND		ug/kg	3.6	0.59	1
o-Xylene	ND		ug/kg	3.6	0.49	1
cis-1,2-Dichloroethene	ND		ug/kg	1.8	0.27	1
Dibromomethane	ND		ug/kg	18	0.30	1
Styrene	ND		ug/kg	3.6	0.56	1
Dichlorodifluoromethane	ND		ug/kg	18	0.40	1
Acetone	120		ug/kg	18	5.6	1
Carbon disulfide	ND		ug/kg	18	3.6	1
2-Butanone	20		ug/kg	18	0.64	1
Vinyl acetate	ND		ug/kg	18	0.87	1
4-Methyl-2-pentanone	ND		ug/kg	18	0.44	1
1,2,3-Trichloropropane	ND		ug/kg	18	0.41	1
2-Hexanone	ND		ug/kg	18	0.34	1
Bromochloromethane	ND		ug/kg	9.1	0.36	1
2,2-Dichloropropane	ND		ug/kg	9.1	0.41	1
1,2-Dibromoethane	ND		ug/kg	7.3	0.32	1
1,3-Dichloropropane	ND		ug/kg	9.1	0.31	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.8	0.58	1
Bromobenzene	ND		ug/kg	9.1	0.38	1
n-Butylbenzene	ND		ug/kg	1.8	0.36	1
sec-Butylbenzene	ND		ug/kg	1.8	0.37	1
tert-Butylbenzene	ND		ug/kg	9.1	1.0	1
o-Chlorotoluene	ND		ug/kg	9.1	0.29	1
p-Chlorotoluene	ND		ug/kg	9.1	0.28	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	9.1	1.4	1
Hexachlorobutadiene	ND		ug/kg	9.1	0.77	1
Isopropylbenzene	ND		ug/kg	1.8	0.30	1
p-Isopropyltoluene	ND		ug/kg	1.8	0.35	1
Naphthalene	ND		ug/kg	9.1	1.4	1
Acrylonitrile	ND		ug/kg	18	0.43	1
n-Propylbenzene	ND		ug/kg	1.8	0.23	1
1,2,3-Trichlorobenzene	ND		ug/kg	9.1	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	9.1	1.4	1
1,3,5-Trimethylbenzene	ND		ug/kg	9.1	0.26	1
1,2,4-Trimethylbenzene	ND		ug/kg	9.1	1.0	1
1,4-Dioxane	ND		ug/kg	180	32.	1
1,4-Diethylbenzene	ND		ug/kg	7.3	0.29	1
4-Ethyltoluene	ND		ug/kg	7.3	0.21	1



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-12  
 Client ID: SL-6, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	7.3	0.24	1
Ethyl ether	ND		ug/kg	9.1	0.48	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	9.1	0.81	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	110		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-13  
**Client ID:** SL-5, G-2(7'-7.8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/18/13 13:50  
**Analyst:** PP  
**Percent Solids:** 66%

**Date Collected:** 11/08/13 10:15  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	15	3.0	1
1,1-Dichloroethane	ND		ug/kg	2.3	0.27	1
Chloroform	ND		ug/kg	2.3	0.56	1
Carbon tetrachloride	ND		ug/kg	1.5	0.32	1
1,2-Dichloropropane	ND		ug/kg	5.3	0.34	1
Dibromochloromethane	ND		ug/kg	1.5	0.46	1
1,1,2-Trichloroethane	ND		ug/kg	2.3	0.46	1
Tetrachloroethene	ND		ug/kg	1.5	0.21	1
Chlorobenzene	ND		ug/kg	1.5	0.52	1
Trichlorofluoromethane	ND		ug/kg	7.6	0.18	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	1.5	0.17	1
Bromodichloromethane	ND		ug/kg	1.5	0.34	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.18	1
cis-1,3-Dichloropropene	ND		ug/kg	1.5	0.19	1
1,1-Dichloropropene	ND		ug/kg	7.6	0.69	1
Bromoform	ND		ug/kg	6.0	0.63	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.5	0.26	1
Benzene	ND		ug/kg	1.5	0.18	1
Toluene	ND		ug/kg	2.3	0.17	1
Ethylbenzene	ND		ug/kg	1.5	0.22	1
Chloromethane	ND		ug/kg	7.6	1.2	1
Bromomethane	ND		ug/kg	3.0	0.51	1
Vinyl chloride	ND		ug/kg	3.0	0.21	1
Chloroethane	ND		ug/kg	3.0	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.31	1
trans-1,2-Dichloroethene	ND		ug/kg	2.3	0.32	1
Trichloroethene	ND		ug/kg	1.5	0.23	1
1,2-Dichlorobenzene	ND		ug/kg	7.6	0.28	1
1,3-Dichlorobenzene	ND		ug/kg	7.6	0.28	1
1,4-Dichlorobenzene	ND		ug/kg	7.6	0.36	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-13  
 Client ID: SL-5, G-2(7'-7.8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.0	0.16	1
p/m-Xylene	ND		ug/kg	3.0	0.49	1
o-Xylene	ND		ug/kg	3.0	0.41	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.22	1
Dibromomethane	ND		ug/kg	15	0.25	1
Styrene	ND		ug/kg	3.0	0.47	1
Dichlorodifluoromethane	ND		ug/kg	15	0.33	1
Acetone	92		ug/kg	15	4.7	1
Carbon disulfide	ND		ug/kg	15	3.0	1
2-Butanone	14	J	ug/kg	15	0.54	1
Vinyl acetate	ND		ug/kg	15	0.72	1
4-Methyl-2-pentanone	ND		ug/kg	15	0.37	1
1,2,3-Trichloropropane	ND		ug/kg	15	0.34	1
2-Hexanone	ND		ug/kg	15	0.28	1
Bromochloromethane	ND		ug/kg	7.6	0.30	1
2,2-Dichloropropane	ND		ug/kg	7.6	0.34	1
1,2-Dibromoethane	ND		ug/kg	6.0	0.27	1
1,3-Dichloropropane	ND		ug/kg	7.6	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.5	0.48	1
Bromobenzene	ND		ug/kg	7.6	0.31	1
n-Butylbenzene	ND		ug/kg	1.5	0.30	1
sec-Butylbenzene	ND		ug/kg	1.5	0.31	1
tert-Butylbenzene	ND		ug/kg	7.6	0.85	1
o-Chlorotoluene	ND		ug/kg	7.6	0.24	1
p-Chlorotoluene	ND		ug/kg	7.6	0.23	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	7.6	0.64	1
Isopropylbenzene	ND		ug/kg	1.5	0.25	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.29	1
Naphthalene	ND		ug/kg	7.6	1.2	1
Acrylonitrile	ND		ug/kg	15	0.36	1
n-Propylbenzene	ND		ug/kg	1.5	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.6	0.25	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.6	1.2	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.6	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.6	0.86	1
1,4-Dioxane	ND		ug/kg	150	26.	1
1,4-Diethylbenzene	ND		ug/kg	6.0	0.24	1
4-Ethyltoluene	ND		ug/kg	6.0	0.18	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-13  
 Client ID: SL-5, G-2(7'-7.8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	6.0	0.20	1
Ethyl ether	ND		ug/kg	7.6	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.6	0.68	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	107		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-14  
**Client ID:** SL-5, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 19:21  
**Analyst:** PP  
**Percent Solids:** 59%

**Date Collected:** 11/08/13 10:15  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	17	3.4	1
1,1-Dichloroethane	ND		ug/kg	2.5	0.30	1
Chloroform	ND		ug/kg	2.5	0.62	1
Carbon tetrachloride	ND		ug/kg	1.7	0.36	1
1,2-Dichloropropane	ND		ug/kg	5.9	0.38	1
Dibromochloromethane	ND		ug/kg	1.7	0.52	1
1,1,2-Trichloroethane	ND		ug/kg	2.5	0.51	1
Tetrachloroethene	ND		ug/kg	1.7	0.24	1
Chlorobenzene	ND		ug/kg	1.7	0.59	1
Trichlorofluoromethane	ND		ug/kg	8.4	0.20	1
1,2-Dichloroethane	ND		ug/kg	1.7	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	1.7	0.19	1
Bromodichloromethane	ND		ug/kg	1.7	0.39	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	0.20	1
cis-1,3-Dichloropropene	ND		ug/kg	1.7	0.21	1
1,1-Dichloropropene	ND		ug/kg	8.4	0.77	1
Bromoform	ND		ug/kg	6.8	0.70	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.7	0.29	1
Benzene	ND		ug/kg	1.7	0.20	1
Toluene	ND		ug/kg	2.5	0.19	1
Ethylbenzene	ND		ug/kg	1.7	0.25	1
Chloromethane	ND		ug/kg	8.4	1.3	1
Bromomethane	ND		ug/kg	3.4	0.57	1
Vinyl chloride	ND		ug/kg	3.4	0.24	1
Chloroethane	ND		ug/kg	3.4	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.7	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	0.36	1
Trichloroethene	ND		ug/kg	1.7	0.26	1
1,2-Dichlorobenzene	ND		ug/kg	8.4	0.31	1
1,3-Dichlorobenzene	ND		ug/kg	8.4	0.31	1
1,4-Dichlorobenzene	ND		ug/kg	8.4	0.41	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-14  
 Client ID: SL-5, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.4	0.18	1
p/m-Xylene	ND		ug/kg	3.4	0.54	1
o-Xylene	ND		ug/kg	3.4	0.46	1
cis-1,2-Dichloroethene	ND		ug/kg	1.7	0.25	1
Dibromomethane	ND		ug/kg	17	0.28	1
Styrene	ND		ug/kg	3.4	0.52	1
Dichlorodifluoromethane	ND		ug/kg	17	0.37	1
Acetone	31		ug/kg	17	5.2	1
Carbon disulfide	ND		ug/kg	17	3.4	1
2-Butanone	5.2	J	ug/kg	17	0.60	1
Vinyl acetate	ND		ug/kg	17	0.81	1
4-Methyl-2-pentanone	ND		ug/kg	17	0.41	1
1,2,3-Trichloropropane	ND		ug/kg	17	0.38	1
2-Hexanone	ND		ug/kg	17	0.32	1
Bromochloromethane	ND		ug/kg	8.4	0.33	1
2,2-Dichloropropane	ND		ug/kg	8.4	0.38	1
1,2-Dibromoethane	ND		ug/kg	6.8	0.30	1
1,3-Dichloropropane	ND		ug/kg	8.4	0.29	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.7	0.54	1
Bromobenzene	ND		ug/kg	8.4	0.35	1
n-Butylbenzene	ND		ug/kg	1.7	0.33	1
sec-Butylbenzene	ND		ug/kg	1.7	0.35	1
tert-Butylbenzene	ND		ug/kg	8.4	0.95	1
o-Chlorotoluene	ND		ug/kg	8.4	0.27	1
p-Chlorotoluene	ND		ug/kg	8.4	0.26	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.4	1.3	1
Hexachlorobutadiene	ND		ug/kg	8.4	0.71	1
Isopropylbenzene	ND		ug/kg	1.7	0.28	1
p-Isopropyltoluene	ND		ug/kg	1.7	0.32	1
Naphthalene	ND		ug/kg	8.4	1.3	1
Acrylonitrile	ND		ug/kg	17	0.40	1
n-Propylbenzene	ND		ug/kg	1.7	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.4	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.4	1.3	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.4	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.4	0.97	1
1,4-Dioxane	ND		ug/kg	170	29.	1
1,4-Diethylbenzene	ND		ug/kg	6.8	0.27	1
4-Ethyltoluene	ND		ug/kg	6.8	0.20	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-14  
 Client ID: SL-5, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	6.8	0.22	1
Ethyl ether	ND		ug/kg	8.4	0.45	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.4	0.76	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	107		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-15  
**Client ID:** SL-8, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 19:50  
**Analyst:** PP  
**Percent Solids:** 50%

**Date Collected:** 11/08/13 13:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	20	4.0	1
1,1-Dichloroethane	ND		ug/kg	3.0	0.36	1
Chloroform	ND		ug/kg	3.0	0.74	1
Carbon tetrachloride	ND		ug/kg	2.0	0.42	1
1,2-Dichloropropane	ND		ug/kg	7.0	0.46	1
Dibromochloromethane	ND		ug/kg	2.0	0.62	1
1,1,2-Trichloroethane	ND		ug/kg	3.0	0.61	1
Tetrachloroethene	ND		ug/kg	2.0	0.28	1
Chlorobenzene	ND		ug/kg	2.0	0.70	1
Trichlorofluoromethane	ND		ug/kg	10	0.24	1
1,2-Dichloroethane	ND		ug/kg	2.0	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	2.0	0.22	1
Bromodichloromethane	ND		ug/kg	2.0	0.46	1
trans-1,3-Dichloropropene	ND		ug/kg	2.0	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	2.0	0.25	1
1,1-Dichloropropene	ND		ug/kg	10	0.91	1
Bromoform	ND		ug/kg	8.0	0.83	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.0	0.34	1
Benzene	ND		ug/kg	2.0	0.24	1
Toluene	ND		ug/kg	3.0	0.22	1
Ethylbenzene	ND		ug/kg	2.0	0.30	1
Chloromethane	ND		ug/kg	10	1.6	1
Bromomethane	ND		ug/kg	4.0	0.68	1
Vinyl chloride	ND		ug/kg	4.0	0.28	1
Chloroethane	ND		ug/kg	4.0	0.63	1
1,1-Dichloroethene	ND		ug/kg	2.0	0.41	1
trans-1,2-Dichloroethene	ND		ug/kg	3.0	0.42	1
Trichloroethene	ND		ug/kg	2.0	0.30	1
1,2-Dichlorobenzene	ND		ug/kg	10	0.37	1
1,3-Dichlorobenzene	ND		ug/kg	10	0.37	1
1,4-Dichlorobenzene	ND		ug/kg	10	0.48	1



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-15  
 Client ID: SL-8, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	4.0	0.21	1
p/m-Xylene	ND		ug/kg	4.0	0.65	1
o-Xylene	ND		ug/kg	4.0	0.54	1
cis-1,2-Dichloroethene	ND		ug/kg	2.0	0.30	1
Dibromomethane	ND		ug/kg	20	0.33	1
Styrene	ND		ug/kg	4.0	0.62	1
Dichlorodifluoromethane	ND		ug/kg	20	0.44	1
Acetone	140		ug/kg	20	6.2	1
Carbon disulfide	ND		ug/kg	20	4.0	1
2-Butanone	22		ug/kg	20	0.71	1
Vinyl acetate	ND		ug/kg	20	0.96	1
4-Methyl-2-pentanone	ND		ug/kg	20	0.49	1
1,2,3-Trichloropropane	ND		ug/kg	20	0.45	1
2-Hexanone	ND		ug/kg	20	0.38	1
Bromochloromethane	ND		ug/kg	10	0.39	1
2,2-Dichloropropane	ND		ug/kg	10	0.45	1
1,2-Dibromoethane	ND		ug/kg	8.0	0.36	1
1,3-Dichloropropane	ND		ug/kg	10	0.35	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.0	0.64	1
Bromobenzene	ND		ug/kg	10	0.42	1
n-Butylbenzene	ND		ug/kg	2.0	0.40	1
sec-Butylbenzene	ND		ug/kg	2.0	0.41	1
tert-Butylbenzene	ND		ug/kg	10	1.1	1
o-Chlorotoluene	ND		ug/kg	10	0.32	1
p-Chlorotoluene	ND		ug/kg	10	0.31	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	10	1.6	1
Hexachlorobutadiene	ND		ug/kg	10	0.85	1
Isopropylbenzene	ND		ug/kg	2.0	0.34	1
p-Isopropyltoluene	ND		ug/kg	2.0	0.38	1
Naphthalene	ND		ug/kg	10	1.5	1
Acrylonitrile	ND		ug/kg	20	0.48	1
n-Propylbenzene	ND		ug/kg	2.0	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	10	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	10	1.6	1
1,3,5-Trimethylbenzene	ND		ug/kg	10	0.29	1
1,2,4-Trimethylbenzene	ND		ug/kg	10	1.1	1
1,4-Dioxane	ND		ug/kg	200	35.	1
1,4-Diethylbenzene	ND		ug/kg	8.0	0.32	1
4-Ethyltoluene	ND		ug/kg	8.0	0.23	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-15  
 Client ID: SL-8, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	8.0	0.26	1
Ethyl ether	ND		ug/kg	10	0.53	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	10	0.90	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	109		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-16  
**Client ID:** SL-8, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 20:18  
**Analyst:** PP  
**Percent Solids:** 57%

**Date Collected:** 11/08/13 13:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	17	3.5	1
1,1-Dichloroethane	ND		ug/kg	2.6	0.31	1
Chloroform	ND		ug/kg	2.6	0.64	1
Carbon tetrachloride	ND		ug/kg	1.7	0.37	1
1,2-Dichloropropane	ND		ug/kg	6.1	0.40	1
Dibromochloromethane	ND		ug/kg	1.7	0.54	1
1,1,2-Trichloroethane	ND		ug/kg	2.6	0.53	1
Tetrachloroethene	ND		ug/kg	1.7	0.24	1
Chlorobenzene	ND		ug/kg	1.7	0.60	1
Trichlorofluoromethane	ND		ug/kg	8.7	0.21	1
1,2-Dichloroethane	ND		ug/kg	1.7	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	1.7	0.19	1
Bromodichloromethane	ND		ug/kg	1.7	0.40	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	0.21	1
cis-1,3-Dichloropropene	ND		ug/kg	1.7	0.22	1
1,1-Dichloropropene	ND		ug/kg	8.7	0.79	1
Bromoform	ND		ug/kg	7.0	0.72	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.7	0.30	1
Benzene	ND		ug/kg	1.7	0.20	1
Toluene	ND		ug/kg	2.6	0.20	1
Ethylbenzene	ND		ug/kg	1.7	0.26	1
Chloromethane	ND		ug/kg	8.7	1.4	1
Bromomethane	ND		ug/kg	3.5	0.59	1
Vinyl chloride	ND		ug/kg	3.5	0.24	1
Chloroethane	ND		ug/kg	3.5	0.55	1
1,1-Dichloroethene	ND		ug/kg	1.7	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	2.6	0.37	1
Trichloroethene	ND		ug/kg	1.7	0.26	1
1,2-Dichlorobenzene	ND		ug/kg	8.7	0.32	1
1,3-Dichlorobenzene	ND		ug/kg	8.7	0.32	1
1,4-Dichlorobenzene	ND		ug/kg	8.7	0.42	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-16  
 Client ID: SL-8, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.5	0.18	1
p/m-Xylene	ND		ug/kg	3.5	0.56	1
o-Xylene	ND		ug/kg	3.5	0.47	1
cis-1,2-Dichloroethene	ND		ug/kg	1.7	0.26	1
Dibromomethane	ND		ug/kg	17	0.28	1
Styrene	ND		ug/kg	3.5	0.54	1
Dichlorodifluoromethane	ND		ug/kg	17	0.38	1
Acetone	160		ug/kg	17	5.4	1
Carbon disulfide	ND		ug/kg	17	3.5	1
2-Butanone	30		ug/kg	17	0.62	1
Vinyl acetate	ND		ug/kg	17	0.84	1
4-Methyl-2-pentanone	ND		ug/kg	17	0.42	1
1,2,3-Trichloropropane	ND		ug/kg	17	0.39	1
2-Hexanone	ND		ug/kg	17	0.33	1
Bromochloromethane	ND		ug/kg	8.7	0.34	1
2,2-Dichloropropane	ND		ug/kg	8.7	0.39	1
1,2-Dibromoethane	ND		ug/kg	7.0	0.31	1
1,3-Dichloropropane	ND		ug/kg	8.7	0.30	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.7	0.55	1
Bromobenzene	ND		ug/kg	8.7	0.36	1
n-Butylbenzene	ND		ug/kg	1.7	0.34	1
sec-Butylbenzene	ND		ug/kg	1.7	0.36	1
tert-Butylbenzene	ND		ug/kg	8.7	0.98	1
o-Chlorotoluene	ND		ug/kg	8.7	0.28	1
p-Chlorotoluene	ND		ug/kg	8.7	0.27	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.7	1.4	1
Hexachlorobutadiene	ND		ug/kg	8.7	0.74	1
Isopropylbenzene	ND		ug/kg	1.7	0.29	1
p-Isopropyltoluene	ND		ug/kg	1.7	0.33	1
Naphthalene	ND		ug/kg	8.7	1.3	1
Acrylonitrile	ND		ug/kg	17	0.41	1
n-Propylbenzene	ND		ug/kg	1.7	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.7	0.29	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.7	1.4	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.7	0.25	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.7	1.0	1
1,4-Dioxane	ND		ug/kg	170	30.	1
1,4-Diethylbenzene	ND		ug/kg	7.0	0.28	1
4-Ethyltoluene	ND		ug/kg	7.0	0.20	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-16  
 Client ID: SL-8, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	7.0	0.23	1
Ethyl ether	ND		ug/kg	8.7	0.46	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.7	0.78	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	108		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-17  
**Client ID:** SL-7, G-1(0.5'-1.0')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 20:46  
**Analyst:** PP  
**Percent Solids:** 37%

**Date Collected:** 11/09/13 16:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	27	5.5	1
1,1-Dichloroethane	ND		ug/kg	4.1	0.49	1
Chloroform	ND		ug/kg	4.1	1.0	1
Carbon tetrachloride	ND		ug/kg	2.7	0.58	1
1,2-Dichloropropane	ND		ug/kg	9.6	0.62	1
Dibromochloromethane	ND		ug/kg	2.7	0.84	1
1,1,2-Trichloroethane	ND		ug/kg	4.1	0.83	1
Tetrachloroethene	ND		ug/kg	2.7	0.38	1
Chlorobenzene	ND		ug/kg	2.7	0.95	1
Trichlorofluoromethane	ND		ug/kg	14	0.33	1
1,2-Dichloroethane	ND		ug/kg	2.7	0.40	1
1,1,1-Trichloroethane	ND		ug/kg	2.7	0.30	1
Bromodichloromethane	ND		ug/kg	2.7	0.63	1
trans-1,3-Dichloropropene	ND		ug/kg	2.7	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	2.7	0.35	1
1,1-Dichloropropene	ND		ug/kg	14	1.2	1
Bromoform	ND		ug/kg	11	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.7	0.47	1
Benzene	ND		ug/kg	2.7	0.32	1
Toluene	ND		ug/kg	4.1	0.31	1
Ethylbenzene	ND		ug/kg	2.7	0.40	1
Chloromethane	ND		ug/kg	14	2.1	1
Bromomethane	ND		ug/kg	5.5	0.93	1
Vinyl chloride	ND		ug/kg	5.5	0.39	1
Chloroethane	ND		ug/kg	5.5	0.86	1
1,1-Dichloroethene	ND		ug/kg	2.7	0.56	1
trans-1,2-Dichloroethene	ND		ug/kg	4.1	0.58	1
Trichloroethene	ND		ug/kg	2.7	0.42	1
1,2-Dichlorobenzene	ND		ug/kg	14	0.50	1
1,3-Dichlorobenzene	ND		ug/kg	14	0.50	1
1,4-Dichlorobenzene	ND		ug/kg	14	0.66	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-17  
 Client ID: SL-7, G-1(0.5'-1.0')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/kg	5.5	0.28	1
p/m-Xylene	ND		ug/kg	5.5	0.88	1
o-Xylene	ND		ug/kg	5.5	0.74	1
cis-1,2-Dichloroethene	ND		ug/kg	2.7	0.41	1
Dibromomethane	ND		ug/kg	27	0.45	1
Styrene	ND		ug/kg	5.5	0.85	1
Dichlorodifluoromethane	ND		ug/kg	27	0.60	1
Acetone	160		ug/kg	27	8.5	1
Carbon disulfide	ND		ug/kg	27	5.5	1
2-Butanone	34		ug/kg	27	0.97	1
Vinyl acetate	ND		ug/kg	27	1.3	1
4-Methyl-2-pentanone	ND		ug/kg	27	0.67	1
1,2,3-Trichloropropane	ND		ug/kg	27	0.62	1
2-Hexanone	ND		ug/kg	27	0.52	1
Bromochloromethane	ND		ug/kg	14	0.54	1
2,2-Dichloropropane	ND		ug/kg	14	0.62	1
1,2-Dibromoethane	ND		ug/kg	11	0.49	1
1,3-Dichloropropane	ND		ug/kg	14	0.47	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.7	0.87	1
Bromobenzene	ND		ug/kg	14	0.57	1
n-Butylbenzene	ND		ug/kg	2.7	0.54	1
sec-Butylbenzene	ND		ug/kg	2.7	0.56	1
tert-Butylbenzene	ND		ug/kg	14	1.5	1
o-Chlorotoluene	ND		ug/kg	14	0.44	1
p-Chlorotoluene	ND		ug/kg	14	0.42	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	14	2.2	1
Hexachlorobutadiene	ND		ug/kg	14	1.2	1
Isopropylbenzene	ND		ug/kg	2.7	0.46	1
p-Isopropyltoluene	ND		ug/kg	2.7	0.52	1
Naphthalene	ND		ug/kg	14	2.1	1
Acrylonitrile	ND		ug/kg	27	0.65	1
n-Propylbenzene	ND		ug/kg	2.7	0.34	1
1,2,3-Trichlorobenzene	ND		ug/kg	14	0.46	1
1,2,4-Trichlorobenzene	ND		ug/kg	14	2.2	1
1,3,5-Trimethylbenzene	ND		ug/kg	14	0.39	1
1,2,4-Trimethylbenzene	ND		ug/kg	14	1.6	1
1,4-Dioxane	ND		ug/kg	270	48.	1
1,4-Diethylbenzene	ND		ug/kg	11	0.44	1
4-Ethyltoluene	ND		ug/kg	11	0.32	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-17  
 Client ID: SL-7, G-1(0.5'-1.0')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	11	0.36	1
Ethyl ether	ND		ug/kg	14	0.73	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	14	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	109		70-130



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-18  
**Client ID:** SL-9, G-1(1'-2')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 21:15  
**Analyst:** PP  
**Percent Solids:** 60%

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	17	3.4	1
1,1-Dichloroethane	ND		ug/kg	2.5	0.30	1
Chloroform	ND		ug/kg	2.5	0.62	1
Carbon tetrachloride	ND		ug/kg	1.7	0.35	1
1,2-Dichloropropane	ND		ug/kg	5.9	0.38	1
Dibromochloromethane	ND		ug/kg	1.7	0.52	1
1,1,2-Trichloroethane	ND		ug/kg	2.5	0.51	1
Tetrachloroethene	ND		ug/kg	1.7	0.23	1
Chlorobenzene	ND		ug/kg	1.7	0.58	1
Trichlorofluoromethane	ND		ug/kg	8.4	0.20	1
1,2-Dichloroethane	ND		ug/kg	1.7	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	1.7	0.18	1
Bromodichloromethane	ND		ug/kg	1.7	0.38	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	0.20	1
cis-1,3-Dichloropropene	ND		ug/kg	1.7	0.21	1
1,1-Dichloropropene	ND		ug/kg	8.4	0.76	1
Bromoform	ND		ug/kg	6.7	0.69	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.7	0.28	1
Benzene	ND		ug/kg	1.7	0.20	1
Toluene	ND		ug/kg	2.5	0.19	1
Ethylbenzene	ND		ug/kg	1.7	0.25	1
Chloromethane	ND		ug/kg	8.4	1.3	1
Bromomethane	ND		ug/kg	3.4	0.57	1
Vinyl chloride	ND		ug/kg	3.4	0.24	1
Chloroethane	ND		ug/kg	3.4	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.7	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	0.35	1
Trichloroethene	ND		ug/kg	1.7	0.25	1
1,2-Dichlorobenzene	ND		ug/kg	8.4	0.31	1
1,3-Dichlorobenzene	ND		ug/kg	8.4	0.31	1
1,4-Dichlorobenzene	ND		ug/kg	8.4	0.40	1

Project Name: NYP A PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-18  
 Client ID: SL-9, G-1(1'-2')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.4	0.17	1
p/m-Xylene	ND		ug/kg	3.4	0.54	1
o-Xylene	ND		ug/kg	3.4	0.45	1
cis-1,2-Dichloroethene	ND		ug/kg	1.7	0.25	1
Dibromomethane	ND		ug/kg	17	0.27	1
Styrene	ND		ug/kg	3.4	0.52	1
Dichlorodifluoromethane	ND		ug/kg	17	0.36	1
Acetone	64		ug/kg	17	5.2	1
Carbon disulfide	ND		ug/kg	17	3.4	1
2-Butanone	10	J	ug/kg	17	0.59	1
Vinyl acetate	ND		ug/kg	17	0.80	1
4-Methyl-2-pentanone	ND		ug/kg	17	0.41	1
1,2,3-Trichloropropane	ND		ug/kg	17	0.38	1
2-Hexanone	ND		ug/kg	17	0.32	1
Bromochloromethane	ND		ug/kg	8.4	0.33	1
2,2-Dichloropropane	ND		ug/kg	8.4	0.38	1
1,2-Dibromoethane	ND		ug/kg	6.7	0.30	1
1,3-Dichloropropane	ND		ug/kg	8.4	0.29	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.7	0.53	1
Bromobenzene	ND		ug/kg	8.4	0.35	1
n-Butylbenzene	ND		ug/kg	1.7	0.33	1
sec-Butylbenzene	ND		ug/kg	1.7	0.34	1
tert-Butylbenzene	ND		ug/kg	8.4	0.94	1
o-Chlorotoluene	ND		ug/kg	8.4	0.27	1
p-Chlorotoluene	ND		ug/kg	8.4	0.26	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.4	1.3	1
Hexachlorobutadiene	ND		ug/kg	8.4	0.71	1
Isopropylbenzene	ND		ug/kg	1.7	0.28	1
p-Isopropyltoluene	ND		ug/kg	1.7	0.32	1
Naphthalene	ND		ug/kg	8.4	1.3	1
Acrylonitrile	ND		ug/kg	17	0.40	1
n-Propylbenzene	ND		ug/kg	1.7	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.4	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.4	1.3	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.4	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.4	0.96	1
1,4-Dioxane	ND		ug/kg	170	29.	1
1,4-Diethylbenzene	ND		ug/kg	6.7	0.27	1
4-Ethyltoluene	ND		ug/kg	6.7	0.20	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-18  
 Client ID: SL-9, G-1(1'-2')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	6.7	0.22	1
Ethyl ether	ND		ug/kg	8.4	0.44	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.4	0.75	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	113		70-130

**Project Name:** NYPV PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-19  
**Client ID:** SL-9, G-2(4'-5')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/18/13 17:13  
**Analyst:** PP  
**Percent Solids:** 71%

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	14	2.8	1
1,1-Dichloroethane	ND		ug/kg	2.1	0.25	1
Chloroform	ND		ug/kg	2.1	0.52	1
Carbon tetrachloride	ND		ug/kg	1.4	0.30	1
1,2-Dichloropropane	ND		ug/kg	4.9	0.32	1
Dibromochloromethane	ND		ug/kg	1.4	0.43	1
1,1,2-Trichloroethane	ND		ug/kg	2.1	0.43	1
Tetrachloroethene	ND		ug/kg	1.4	0.20	1
Chlorobenzene	ND		ug/kg	1.4	0.49	1
Trichlorofluoromethane	ND		ug/kg	7.0	0.17	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.20	1
1,1,1-Trichloroethane	ND		ug/kg	1.4	0.16	1
Bromodichloromethane	ND		ug/kg	1.4	0.32	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.17	1
cis-1,3-Dichloropropene	ND		ug/kg	1.4	0.18	1
1,1-Dichloropropene	ND		ug/kg	7.0	0.64	1
Bromoform	ND		ug/kg	5.6	0.58	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.4	0.24	1
Benzene	ND		ug/kg	1.4	0.17	1
Toluene	ND		ug/kg	2.1	0.16	1
Ethylbenzene	ND		ug/kg	1.4	0.21	1
Chloromethane	ND		ug/kg	7.0	1.1	1
Bromomethane	ND		ug/kg	2.8	0.48	1
Vinyl chloride	ND		ug/kg	2.8	0.20	1
Chloroethane	ND		ug/kg	2.8	0.44	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.30	1
Trichloroethene	ND		ug/kg	1.4	0.21	1
1,2-Dichlorobenzene	ND		ug/kg	7.0	0.26	1
1,3-Dichlorobenzene	ND		ug/kg	7.0	0.26	1
1,4-Dichlorobenzene	ND		ug/kg	7.0	0.34	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-19  
 Client ID: SL-9, G-2(4'-5')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.8	0.15	1
p/m-Xylene	ND		ug/kg	2.8	0.45	1
o-Xylene	ND		ug/kg	2.8	0.38	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.21	1
Dibromomethane	ND		ug/kg	14	0.23	1
Styrene	ND		ug/kg	2.8	0.44	1
Dichlorodifluoromethane	ND		ug/kg	14	0.31	1
Acetone	27		ug/kg	14	4.4	1
Carbon disulfide	ND		ug/kg	14	2.8	1
2-Butanone	ND		ug/kg	14	0.50	1
Vinyl acetate	ND		ug/kg	14	0.68	1
4-Methyl-2-pentanone	ND		ug/kg	14	0.34	1
1,2,3-Trichloropropane	ND		ug/kg	14	0.32	1
2-Hexanone	ND		ug/kg	14	0.26	1
Bromochloromethane	ND		ug/kg	7.0	0.28	1
2,2-Dichloropropane	ND		ug/kg	7.0	0.32	1
1,2-Dibromoethane	ND		ug/kg	5.6	0.25	1
1,3-Dichloropropane	ND		ug/kg	7.0	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.4	0.45	1
Bromobenzene	ND		ug/kg	7.0	0.29	1
n-Butylbenzene	ND		ug/kg	1.4	0.28	1
sec-Butylbenzene	ND		ug/kg	1.4	0.29	1
tert-Butylbenzene	ND		ug/kg	7.0	0.79	1
o-Chlorotoluene	ND		ug/kg	7.0	0.22	1
p-Chlorotoluene	ND		ug/kg	7.0	0.22	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.0	1.1	1
Hexachlorobutadiene	ND		ug/kg	7.0	0.59	1
Isopropylbenzene	ND		ug/kg	1.4	0.24	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.27	1
Naphthalene	ND		ug/kg	7.0	1.1	1
Acrylonitrile	ND		ug/kg	14	0.33	1
n-Propylbenzene	ND		ug/kg	1.4	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.0	0.24	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.0	1.1	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.0	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.0	0.81	1
1,4-Dioxane	ND		ug/kg	140	24.	1
1,4-Diethylbenzene	ND		ug/kg	5.6	0.22	1
4-Ethyltoluene	ND		ug/kg	5.6	0.16	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-19  
 Client ID: SL-9, G-2(4'-5')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.6	0.18	1
Ethyl ether	ND		ug/kg	7.0	0.37	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.0	0.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	109		70-130

**Project Name:** NYPV PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-20  
**Client ID:** SL-7, G-2(6'-6.8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 22:11  
**Analyst:** PP  
**Percent Solids:** 53%

**Date Collected:** 11/09/13 16:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	19	3.8	1
1,1-Dichloroethane	ND		ug/kg	2.8	0.34	1
Chloroform	ND		ug/kg	2.8	0.70	1
Carbon tetrachloride	ND		ug/kg	1.9	0.40	1
1,2-Dichloropropane	ND		ug/kg	6.6	0.43	1
Dibromochloromethane	ND		ug/kg	1.9	0.58	1
1,1,2-Trichloroethane	ND		ug/kg	2.8	0.57	1
Tetrachloroethene	ND		ug/kg	1.9	0.26	1
Chlorobenzene	ND		ug/kg	1.9	0.66	1
Trichlorofluoromethane	ND		ug/kg	9.4	0.23	1
1,2-Dichloroethane	ND		ug/kg	1.9	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	1.9	0.21	1
Bromodichloromethane	ND		ug/kg	1.9	0.43	1
trans-1,3-Dichloropropene	ND		ug/kg	1.9	0.23	1
cis-1,3-Dichloropropene	ND		ug/kg	1.9	0.24	1
1,1-Dichloropropene	ND		ug/kg	9.4	0.86	1
Bromoform	ND		ug/kg	7.5	0.78	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	0.32	1
Benzene	ND		ug/kg	1.9	0.22	1
Toluene	ND		ug/kg	2.8	0.21	1
Ethylbenzene	ND		ug/kg	1.9	0.28	1
Chloromethane	ND		ug/kg	9.4	1.5	1
Bromomethane	ND		ug/kg	3.8	0.64	1
Vinyl chloride	ND		ug/kg	3.8	0.27	1
Chloroethane	ND		ug/kg	3.8	0.60	1
1,1-Dichloroethene	ND		ug/kg	1.9	0.39	1
trans-1,2-Dichloroethene	ND		ug/kg	2.8	0.40	1
Trichloroethene	ND		ug/kg	1.9	0.29	1
1,2-Dichlorobenzene	ND		ug/kg	9.4	0.34	1
1,3-Dichlorobenzene	ND		ug/kg	9.4	0.34	1
1,4-Dichlorobenzene	ND		ug/kg	9.4	0.46	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-20  
 Client ID: SL-7, G-2(6'-6.8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/kg	3.8	0.20	1
p/m-Xylene	ND		ug/kg	3.8	0.61	1
o-Xylene	ND		ug/kg	3.8	0.51	1
cis-1,2-Dichloroethene	ND		ug/kg	1.9	0.28	1
Dibromomethane	ND		ug/kg	19	0.31	1
Styrene	ND		ug/kg	3.8	0.58	1
Dichlorodifluoromethane	ND		ug/kg	19	0.41	1
Acetone	230		ug/kg	19	5.8	1
Carbon disulfide	ND		ug/kg	19	3.8	1
2-Butanone	41		ug/kg	19	0.67	1
Vinyl acetate	ND		ug/kg	19	0.90	1
4-Methyl-2-pentanone	ND		ug/kg	19	0.46	1
1,2,3-Trichloropropane	ND		ug/kg	19	0.42	1
2-Hexanone	ND		ug/kg	19	0.36	1
Bromochloromethane	ND		ug/kg	9.4	0.37	1
2,2-Dichloropropane	ND		ug/kg	9.4	0.42	1
1,2-Dibromoethane	ND		ug/kg	7.5	0.34	1
1,3-Dichloropropane	ND		ug/kg	9.4	0.33	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.9	0.60	1
Bromobenzene	ND		ug/kg	9.4	0.39	1
n-Butylbenzene	ND		ug/kg	1.9	0.37	1
sec-Butylbenzene	ND		ug/kg	1.9	0.39	1
tert-Butylbenzene	ND		ug/kg	9.4	1.0	1
o-Chlorotoluene	ND		ug/kg	9.4	0.30	1
p-Chlorotoluene	ND		ug/kg	9.4	0.29	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	9.4	1.5	1
Hexachlorobutadiene	ND		ug/kg	9.4	0.80	1
Isopropylbenzene	ND		ug/kg	1.9	0.32	1
p-Isopropyltoluene	ND		ug/kg	1.9	0.36	1
Naphthalene	ND		ug/kg	9.4	1.4	1
Acrylonitrile	ND		ug/kg	19	0.45	1
n-Propylbenzene	ND		ug/kg	1.9	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	9.4	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	9.4	1.5	1
1,3,5-Trimethylbenzene	ND		ug/kg	9.4	0.27	1
1,2,4-Trimethylbenzene	ND		ug/kg	9.4	1.1	1
1,4-Dioxane	ND		ug/kg	190	33.	1
1,4-Diethylbenzene	ND		ug/kg	7.5	0.30	1
4-Ethyltoluene	ND		ug/kg	7.5	0.22	1



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-20  
 Client ID: SL-7, G-2(6'-6.8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	7.5	0.24	1
Ethyl ether	ND		ug/kg	9.4	0.50	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	9.4	0.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	110		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-21  
**Client ID:** SL-11, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 13:21  
**Analyst:** PP  
**Percent Solids:** 48%

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	21	4.2	1
1,1-Dichloroethane	ND		ug/kg	3.1	0.37	1
Chloroform	ND		ug/kg	3.1	0.78	1
Carbon tetrachloride	ND		ug/kg	2.1	0.44	1
1,2-Dichloropropane	ND		ug/kg	7.3	0.48	1
Dibromochloromethane	ND		ug/kg	2.1	0.64	1
1,1,2-Trichloroethane	ND		ug/kg	3.1	0.64	1
Tetrachloroethene	ND		ug/kg	2.1	0.29	1
Chlorobenzene	ND		ug/kg	2.1	0.73	1
Trichlorofluoromethane	ND		ug/kg	10	0.25	1
1,2-Dichloroethane	ND		ug/kg	2.1	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	2.1	0.23	1
Bromodichloromethane	ND		ug/kg	2.1	0.48	1
trans-1,3-Dichloropropene	ND		ug/kg	2.1	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	2.1	0.27	1
1,1-Dichloropropene	ND		ug/kg	10	0.96	1
Bromoform	ND		ug/kg	8.4	0.87	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.1	0.36	1
Benzene	ND		ug/kg	2.1	0.25	1
Toluene	ND		ug/kg	3.1	0.23	1
Ethylbenzene	ND		ug/kg	2.1	0.31	1
Chloromethane	ND		ug/kg	10	1.6	1
Bromomethane	ND		ug/kg	4.2	0.71	1
Vinyl chloride	ND		ug/kg	4.2	0.30	1
Chloroethane	ND		ug/kg	4.2	0.66	1
1,1-Dichloroethene	ND		ug/kg	2.1	0.43	1
trans-1,2-Dichloroethene	ND		ug/kg	3.1	0.44	1
Trichloroethene	ND		ug/kg	2.1	0.32	1
1,2-Dichlorobenzene	ND		ug/kg	10	0.38	1
1,3-Dichlorobenzene	ND		ug/kg	10	0.38	1
1,4-Dichlorobenzene	ND		ug/kg	10	0.51	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-21  
 Client ID: SL-11, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/kg	4.2	0.22	1
p/m-Xylene	ND		ug/kg	4.2	0.68	1
o-Xylene	ND		ug/kg	4.2	0.57	1
cis-1,2-Dichloroethene	ND		ug/kg	2.1	0.31	1
Dibromomethane	ND		ug/kg	21	0.34	1
Styrene	ND		ug/kg	4.2	0.65	1
Dichlorodifluoromethane	ND		ug/kg	21	0.46	1
Acetone	55		ug/kg	21	6.5	1
Carbon disulfide	ND		ug/kg	21	4.2	1
2-Butanone	8.1	J	ug/kg	21	0.74	1
Vinyl acetate	ND		ug/kg	21	1.0	1
4-Methyl-2-pentanone	ND		ug/kg	21	0.51	1
1,2,3-Trichloropropane	ND		ug/kg	21	0.47	1
2-Hexanone	ND		ug/kg	21	0.39	1
Bromochloromethane	ND		ug/kg	10	0.41	1
2,2-Dichloropropane	ND		ug/kg	10	0.47	1
1,2-Dibromoethane	ND		ug/kg	8.4	0.37	1
1,3-Dichloropropane	ND		ug/kg	10	0.36	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.1	0.67	1
Bromobenzene	ND		ug/kg	10	0.44	1
n-Butylbenzene	ND		ug/kg	2.1	0.41	1
sec-Butylbenzene	ND		ug/kg	2.1	0.43	1
tert-Butylbenzene	ND		ug/kg	10	1.2	1
o-Chlorotoluene	ND		ug/kg	10	0.34	1
p-Chlorotoluene	ND		ug/kg	10	0.32	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	10	1.6	1
Hexachlorobutadiene	ND		ug/kg	10	0.88	1
Isopropylbenzene	ND		ug/kg	2.1	0.35	1
p-Isopropyltoluene	ND		ug/kg	2.1	0.40	1
Naphthalene	ND		ug/kg	10	1.6	1
Acrylonitrile	ND		ug/kg	21	0.50	1
n-Propylbenzene	ND		ug/kg	2.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	10	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	10	1.6	1
1,3,5-Trimethylbenzene	ND		ug/kg	10	0.30	1
1,2,4-Trimethylbenzene	ND		ug/kg	10	1.2	1
1,4-Dioxane	ND		ug/kg	210	36.	1
1,4-Diethylbenzene	ND		ug/kg	8.4	0.34	1
4-Ethyltoluene	ND		ug/kg	8.4	0.24	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-21  
 Client ID: SL-11, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	8.4	0.27	1
Ethyl ether	ND		ug/kg	10	0.56	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	10	0.94	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	103		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-22  
**Client ID:** SL-11, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 13:49  
**Analyst:** PP  
**Percent Solids:** 59%

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	17	3.4	1
1,1-Dichloroethane	ND		ug/kg	2.5	0.30	1
Chloroform	ND		ug/kg	2.5	0.63	1
Carbon tetrachloride	ND		ug/kg	1.7	0.36	1
1,2-Dichloropropane	ND		ug/kg	5.9	0.39	1
Dibromochloromethane	ND		ug/kg	1.7	0.52	1
1,1,2-Trichloroethane	ND		ug/kg	2.5	0.51	1
Tetrachloroethene	ND		ug/kg	1.7	0.24	1
Chlorobenzene	ND		ug/kg	1.7	0.59	1
Trichlorofluoromethane	ND		ug/kg	8.5	0.20	1
1,2-Dichloroethane	ND		ug/kg	1.7	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	1.7	0.19	1
Bromodichloromethane	ND		ug/kg	1.7	0.39	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	0.20	1
cis-1,3-Dichloropropene	ND		ug/kg	1.7	0.22	1
1,1-Dichloropropene	ND		ug/kg	8.5	0.77	1
Bromoform	ND		ug/kg	6.8	0.70	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.7	0.29	1
Benzene	ND		ug/kg	1.7	0.20	1
Toluene	ND		ug/kg	2.5	0.19	1
Ethylbenzene	ND		ug/kg	1.7	0.25	1
Chloromethane	ND		ug/kg	8.5	1.3	1
Bromomethane	ND		ug/kg	3.4	0.57	1
Vinyl chloride	ND		ug/kg	3.4	0.24	1
Chloroethane	ND		ug/kg	3.4	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.7	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	0.36	1
Trichloroethene	ND		ug/kg	1.7	0.26	1
1,2-Dichlorobenzene	ND		ug/kg	8.5	0.31	1
1,3-Dichlorobenzene	ND		ug/kg	8.5	0.31	1
1,4-Dichlorobenzene	ND		ug/kg	8.5	0.41	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-22  
 Client ID: SL-11, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/kg	3.4	0.18	1
p/m-Xylene	ND		ug/kg	3.4	0.54	1
o-Xylene	ND		ug/kg	3.4	0.46	1
cis-1,2-Dichloroethene	ND		ug/kg	1.7	0.25	1
Dibromomethane	ND		ug/kg	17	0.28	1
Styrene	ND		ug/kg	3.4	0.52	1
Dichlorodifluoromethane	ND		ug/kg	17	0.37	1
Acetone	46		ug/kg	17	5.2	1
Carbon disulfide	3.9	J	ug/kg	17	3.4	1
2-Butanone	6.0	J	ug/kg	17	0.60	1
Vinyl acetate	ND		ug/kg	17	0.81	1
4-Methyl-2-pentanone	ND		ug/kg	17	0.41	1
1,2,3-Trichloropropane	ND		ug/kg	17	0.38	1
2-Hexanone	ND		ug/kg	17	0.32	1
Bromochloromethane	ND		ug/kg	8.5	0.33	1
2,2-Dichloropropane	ND		ug/kg	8.5	0.38	1
1,2-Dibromoethane	ND		ug/kg	6.8	0.30	1
1,3-Dichloropropane	ND		ug/kg	8.5	0.29	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.7	0.54	1
Bromobenzene	ND		ug/kg	8.5	0.35	1
n-Butylbenzene	ND		ug/kg	1.7	0.33	1
sec-Butylbenzene	ND		ug/kg	1.7	0.35	1
tert-Butylbenzene	ND		ug/kg	8.5	0.95	1
o-Chlorotoluene	ND		ug/kg	8.5	0.27	1
p-Chlorotoluene	ND		ug/kg	8.5	0.26	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.5	1.3	1
Hexachlorobutadiene	ND		ug/kg	8.5	0.71	1
Isopropylbenzene	ND		ug/kg	1.7	0.28	1
p-Isopropyltoluene	ND		ug/kg	1.7	0.32	1
Naphthalene	ND		ug/kg	8.5	1.3	1
Acrylonitrile	ND		ug/kg	17	0.40	1
n-Propylbenzene	ND		ug/kg	1.7	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.5	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.5	1.3	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.5	0.97	1
1,4-Dioxane	ND		ug/kg	170	29.	1
1,4-Diethylbenzene	ND		ug/kg	6.8	0.27	1
4-Ethyltoluene	ND		ug/kg	6.8	0.20	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-22  
 Client ID: SL-11, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	6.8	0.22	1
Ethyl ether	ND		ug/kg	8.5	0.45	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.5	0.76	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-23  
**Client ID:** SL-13, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 14:17  
**Analyst:** PP  
**Percent Solids:** 47%

**Date Collected:** 11/09/13 13:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	21	4.2	1
1,1-Dichloroethane	ND		ug/kg	3.2	0.37	1
Chloroform	ND		ug/kg	3.2	0.78	1
Carbon tetrachloride	ND		ug/kg	2.1	0.44	1
1,2-Dichloropropane	ND		ug/kg	7.4	0.48	1
Dibromochloromethane	ND		ug/kg	2.1	0.65	1
1,1,2-Trichloroethane	ND		ug/kg	3.2	0.64	1
Tetrachloroethene	ND		ug/kg	2.1	0.30	1
Chlorobenzene	ND		ug/kg	2.1	0.73	1
Trichlorofluoromethane	ND		ug/kg	10	0.26	1
1,2-Dichloroethane	ND		ug/kg	2.1	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	2.1	0.23	1
Bromodichloromethane	ND		ug/kg	2.1	0.48	1
trans-1,3-Dichloropropene	ND		ug/kg	2.1	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	2.1	0.27	1
1,1-Dichloropropene	ND		ug/kg	10	0.96	1
Bromoform	ND		ug/kg	8.4	0.88	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.1	0.36	1
Benzene	ND		ug/kg	2.1	0.25	1
Toluene	ND		ug/kg	3.2	0.24	1
Ethylbenzene	ND		ug/kg	2.1	0.31	1
Chloromethane	ND		ug/kg	10	1.6	1
Bromomethane	ND		ug/kg	4.2	0.71	1
Vinyl chloride	ND		ug/kg	4.2	0.30	1
Chloroethane	ND		ug/kg	4.2	0.67	1
1,1-Dichloroethene	ND		ug/kg	2.1	0.43	1
trans-1,2-Dichloroethene	ND		ug/kg	3.2	0.45	1
Trichloroethene	ND		ug/kg	2.1	0.32	1
1,2-Dichlorobenzene	ND		ug/kg	10	0.39	1
1,3-Dichlorobenzene	ND		ug/kg	10	0.39	1
1,4-Dichlorobenzene	ND		ug/kg	10	0.51	1



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-23  
 Client ID: SL-13, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	4.2	0.22	1
p/m-Xylene	ND		ug/kg	4.2	0.68	1
o-Xylene	ND		ug/kg	4.2	0.57	1
cis-1,2-Dichloroethene	ND		ug/kg	2.1	0.32	1
Dibromomethane	ND		ug/kg	21	0.34	1
Styrene	ND		ug/kg	4.2	0.65	1
Dichlorodifluoromethane	ND		ug/kg	21	0.46	1
Acetone	26		ug/kg	21	6.5	1
Carbon disulfide	ND		ug/kg	21	4.2	1
2-Butanone	ND		ug/kg	21	0.75	1
Vinyl acetate	ND		ug/kg	21	1.0	1
4-Methyl-2-pentanone	ND		ug/kg	21	0.52	1
1,2,3-Trichloropropane	ND		ug/kg	21	0.47	1
2-Hexanone	ND		ug/kg	21	0.40	1
Bromochloromethane	ND		ug/kg	10	0.42	1
2,2-Dichloropropane	ND		ug/kg	10	0.48	1
1,2-Dibromoethane	ND		ug/kg	8.4	0.38	1
1,3-Dichloropropane	ND		ug/kg	10	0.36	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.1	0.67	1
Bromobenzene	ND		ug/kg	10	0.44	1
n-Butylbenzene	ND		ug/kg	2.1	0.42	1
sec-Butylbenzene	ND		ug/kg	2.1	0.43	1
tert-Butylbenzene	ND		ug/kg	10	1.2	1
o-Chlorotoluene	ND		ug/kg	10	0.34	1
p-Chlorotoluene	ND		ug/kg	10	0.32	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	10	1.7	1
Hexachlorobutadiene	ND		ug/kg	10	0.89	1
Isopropylbenzene	ND		ug/kg	2.1	0.35	1
p-Isopropyltoluene	ND		ug/kg	2.1	0.40	1
Naphthalene	ND		ug/kg	10	1.6	1
Acrylonitrile	ND		ug/kg	21	0.50	1
n-Propylbenzene	ND		ug/kg	2.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	10	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	10	1.7	1
1,3,5-Trimethylbenzene	ND		ug/kg	10	0.30	1
1,2,4-Trimethylbenzene	ND		ug/kg	10	1.2	1
1,4-Dioxane	ND		ug/kg	210	37.	1
1,4-Diethylbenzene	ND		ug/kg	8.4	0.34	1
4-Ethyltoluene	ND		ug/kg	8.4	0.25	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-23  
 Client ID: SL-13, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	8.4	0.27	1
Ethyl ether	ND		ug/kg	10	0.56	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	10	0.94	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	105		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-24  
**Client ID:** SL-13, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 14:45  
**Analyst:** PP  
**Percent Solids:** 60%

**Date Collected:** 11/09/13 13:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	16	3.3	1
1,1-Dichloroethane	ND		ug/kg	2.5	0.29	1
Chloroform	ND		ug/kg	2.5	0.61	1
Carbon tetrachloride	ND		ug/kg	1.6	0.35	1
1,2-Dichloropropane	ND		ug/kg	5.8	0.38	1
Dibromochloromethane	ND		ug/kg	1.6	0.51	1
1,1,2-Trichloroethane	ND		ug/kg	2.5	0.50	1
Tetrachloroethene	ND		ug/kg	1.6	0.23	1
Chlorobenzene	ND		ug/kg	1.6	0.58	1
Trichlorofluoromethane	ND		ug/kg	8.3	0.20	1
1,2-Dichloroethane	ND		ug/kg	1.6	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	1.6	0.18	1
Bromodichloromethane	ND		ug/kg	1.6	0.38	1
trans-1,3-Dichloropropene	ND		ug/kg	1.6	0.20	1
cis-1,3-Dichloropropene	ND		ug/kg	1.6	0.21	1
1,1-Dichloropropene	ND		ug/kg	8.3	0.76	1
Bromoform	ND		ug/kg	6.6	0.69	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.6	0.28	1
Benzene	ND		ug/kg	1.6	0.20	1
Toluene	ND		ug/kg	2.5	0.18	1
Ethylbenzene	ND		ug/kg	1.6	0.24	1
Chloromethane	ND		ug/kg	8.3	1.3	1
Bromomethane	ND		ug/kg	3.3	0.56	1
Vinyl chloride	ND		ug/kg	3.3	0.23	1
Chloroethane	ND		ug/kg	3.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.6	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	0.35	1
Trichloroethene	ND		ug/kg	1.6	0.25	1
1,2-Dichlorobenzene	ND		ug/kg	8.3	0.30	1
1,3-Dichlorobenzene	ND		ug/kg	8.3	0.30	1
1,4-Dichlorobenzene	ND		ug/kg	8.3	0.40	1

Project Name: NYP A PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-24  
 Client ID: SL-13, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.3	0.17	1
p/m-Xylene	ND		ug/kg	3.3	0.53	1
o-Xylene	ND		ug/kg	3.3	0.45	1
cis-1,2-Dichloroethene	ND		ug/kg	1.6	0.25	1
Dibromomethane	ND		ug/kg	16	0.27	1
Styrene	ND		ug/kg	3.3	0.51	1
Dichlorodifluoromethane	ND		ug/kg	16	0.36	1
Acetone	6.7	J	ug/kg	16	5.1	1
Carbon disulfide	ND		ug/kg	16	3.3	1
2-Butanone	ND		ug/kg	16	0.59	1
Vinyl acetate	ND		ug/kg	16	0.80	1
4-Methyl-2-pentanone	ND		ug/kg	16	0.40	1
1,2,3-Trichloropropane	ND		ug/kg	16	0.37	1
2-Hexanone	ND		ug/kg	16	0.31	1
Bromochloromethane	ND		ug/kg	8.3	0.33	1
2,2-Dichloropropane	ND		ug/kg	8.3	0.37	1
1,2-Dibromoethane	ND		ug/kg	6.6	0.29	1
1,3-Dichloropropane	ND		ug/kg	8.3	0.29	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.6	0.53	1
Bromobenzene	ND		ug/kg	8.3	0.34	1
n-Butylbenzene	ND		ug/kg	1.6	0.33	1
sec-Butylbenzene	ND		ug/kg	1.6	0.34	1
tert-Butylbenzene	ND		ug/kg	8.3	0.93	1
o-Chlorotoluene	ND		ug/kg	8.3	0.26	1
p-Chlorotoluene	ND		ug/kg	8.3	0.26	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	8.3	1.3	1
Hexachlorobutadiene	ND		ug/kg	8.3	0.70	1
Isopropylbenzene	ND		ug/kg	1.6	0.28	1
p-Isopropyltoluene	ND		ug/kg	1.6	0.32	1
Naphthalene	ND		ug/kg	8.3	1.3	1
Acrylonitrile	ND		ug/kg	16	0.39	1
n-Propylbenzene	ND		ug/kg	1.6	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	8.3	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	8.3	1.3	1
1,3,5-Trimethylbenzene	ND		ug/kg	8.3	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.3	0.95	1
1,4-Dioxane	ND		ug/kg	160	29.	1
1,4-Diethylbenzene	ND		ug/kg	6.6	0.26	1
4-Ethyltoluene	ND		ug/kg	6.6	0.19	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-24  
 Client ID: SL-13, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	6.6	0.22	1
Ethyl ether	ND		ug/kg	8.3	0.44	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.3	0.74	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

**Project Name:** NYPV PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-25  
**Client ID:** SL-14, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 15:12  
**Analyst:** PP  
**Percent Solids:** 76%

**Date Collected:** 11/09/13 12:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	13	2.6	1
1,1-Dichloroethane	ND		ug/kg	2.0	0.23	1
Chloroform	ND		ug/kg	2.0	0.49	1
Carbon tetrachloride	ND		ug/kg	1.3	0.28	1
1,2-Dichloropropane	ND		ug/kg	4.6	0.30	1
Dibromochloromethane	ND		ug/kg	1.3	0.40	1
1,1,2-Trichloroethane	ND		ug/kg	2.0	0.40	1
Tetrachloroethene	ND		ug/kg	1.3	0.18	1
Chlorobenzene	ND		ug/kg	1.3	0.46	1
Trichlorofluoromethane	ND		ug/kg	6.6	0.16	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.19	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	0.14	1
Bromodichloromethane	ND		ug/kg	1.3	0.30	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.16	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	0.17	1
1,1-Dichloropropene	ND		ug/kg	6.6	0.60	1
Bromoform	ND		ug/kg	5.2	0.54	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	0.22	1
Benzene	ND		ug/kg	1.3	0.16	1
Toluene	ND		ug/kg	2.0	0.15	1
Ethylbenzene	ND		ug/kg	1.3	0.19	1
Chloromethane	ND		ug/kg	6.6	1.0	1
Bromomethane	ND		ug/kg	2.6	0.44	1
Vinyl chloride	ND		ug/kg	2.6	0.18	1
Chloroethane	ND		ug/kg	2.6	0.42	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.28	1
Trichloroethene	ND		ug/kg	1.3	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	6.6	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	6.6	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	6.6	0.32	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-25  
 Client ID: SL-14, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.6	0.14	1
p/m-Xylene	ND		ug/kg	2.6	0.42	1
o-Xylene	ND		ug/kg	2.6	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.20	1
Dibromomethane	ND		ug/kg	13	0.21	1
Styrene	ND		ug/kg	2.6	0.41	1
Dichlorodifluoromethane	ND		ug/kg	13	0.29	1
Acetone	6.9	J	ug/kg	13	4.1	1
Carbon disulfide	ND		ug/kg	13	2.6	1
2-Butanone	ND		ug/kg	13	0.47	1
Vinyl acetate	ND		ug/kg	13	0.63	1
4-Methyl-2-pentanone	ND		ug/kg	13	0.32	1
1,2,3-Trichloropropane	ND		ug/kg	13	0.30	1
2-Hexanone	ND		ug/kg	13	0.25	1
Bromochloromethane	ND		ug/kg	6.6	0.26	1
2,2-Dichloropropane	ND		ug/kg	6.6	0.30	1
1,2-Dibromoethane	ND		ug/kg	5.2	0.23	1
1,3-Dichloropropane	ND		ug/kg	6.6	0.23	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	0.42	1
Bromobenzene	ND		ug/kg	6.6	0.27	1
n-Butylbenzene	ND		ug/kg	1.3	0.26	1
sec-Butylbenzene	ND		ug/kg	1.3	0.27	1
tert-Butylbenzene	ND		ug/kg	6.6	0.74	1
o-Chlorotoluene	ND		ug/kg	6.6	0.21	1
p-Chlorotoluene	ND		ug/kg	6.6	0.20	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.6	1.0	1
Hexachlorobutadiene	ND		ug/kg	6.6	0.56	1
Isopropylbenzene	ND		ug/kg	1.3	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.25	1
Naphthalene	ND		ug/kg	6.6	1.0	1
Acrylonitrile	ND		ug/kg	13	0.31	1
n-Propylbenzene	ND		ug/kg	1.3	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.6	0.22	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.6	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.6	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.6	0.75	1
1,4-Dioxane	ND		ug/kg	130	23.	1
1,4-Diethylbenzene	ND		ug/kg	5.2	0.21	1
4-Ethyltoluene	ND		ug/kg	5.2	0.15	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-25  
 Client ID: SL-14, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.2	0.17	1
Ethyl ether	ND		ug/kg	6.6	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.6	0.59	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130



**Project Name:** NYPV PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-26  
 Client ID: SL-14, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 11/16/13 15:40  
 Analyst: PP  
 Percent Solids: 79%

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	13	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.9	0.22	1
Chloroform	ND		ug/kg	1.9	0.47	1
Carbon tetrachloride	ND		ug/kg	1.3	0.27	1
1,2-Dichloropropane	ND		ug/kg	4.4	0.29	1
Dibromochloromethane	ND		ug/kg	1.3	0.39	1
1,1,2-Trichloroethane	ND		ug/kg	1.9	0.39	1
Tetrachloroethene	ND		ug/kg	1.3	0.18	1
Chlorobenzene	ND		ug/kg	1.3	0.44	1
Trichlorofluoromethane	ND		ug/kg	6.4	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	0.14	1
Bromodichloromethane	ND		ug/kg	1.3	0.29	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	0.16	1
1,1-Dichloropropene	ND		ug/kg	6.4	0.58	1
Bromoform	ND		ug/kg	5.1	0.53	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	0.22	1
Benzene	ND		ug/kg	1.3	0.15	1
Toluene	ND		ug/kg	1.9	0.14	1
Ethylbenzene	ND		ug/kg	1.3	0.19	1
Chloromethane	ND		ug/kg	6.4	1.0	1
Bromomethane	ND		ug/kg	2.5	0.43	1
Vinyl chloride	ND		ug/kg	2.5	0.18	1
Chloroethane	ND		ug/kg	2.5	0.40	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.27	1
Trichloroethene	ND		ug/kg	1.3	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	6.4	0.23	1
1,3-Dichlorobenzene	ND		ug/kg	6.4	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	6.4	0.31	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-26  
 Client ID: SL-14, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.5	0.13	1
p/m-Xylene	ND		ug/kg	2.5	0.41	1
o-Xylene	ND		ug/kg	2.5	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.19	1
Dibromomethane	ND		ug/kg	13	0.21	1
Styrene	ND		ug/kg	2.5	0.39	1
Dichlorodifluoromethane	ND		ug/kg	13	0.28	1
Acetone	5.4	J	ug/kg	13	3.9	1
Carbon disulfide	ND		ug/kg	13	2.5	1
2-Butanone	ND		ug/kg	13	0.45	1
Vinyl acetate	ND		ug/kg	13	0.61	1
4-Methyl-2-pentanone	ND		ug/kg	13	0.31	1
1,2,3-Trichloropropane	ND		ug/kg	13	0.28	1
2-Hexanone	ND		ug/kg	13	0.24	1
Bromochloromethane	ND		ug/kg	6.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	6.4	0.29	1
1,2-Dibromoethane	ND		ug/kg	5.1	0.22	1
1,3-Dichloropropane	ND		ug/kg	6.4	0.22	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	0.40	1
Bromobenzene	ND		ug/kg	6.4	0.26	1
n-Butylbenzene	ND		ug/kg	1.3	0.25	1
sec-Butylbenzene	ND		ug/kg	1.3	0.26	1
tert-Butylbenzene	ND		ug/kg	6.4	0.71	1
o-Chlorotoluene	ND		ug/kg	6.4	0.20	1
p-Chlorotoluene	ND		ug/kg	6.4	0.20	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.4	1.0	1
Hexachlorobutadiene	ND		ug/kg	6.4	0.54	1
Isopropylbenzene	ND		ug/kg	1.3	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.24	1
Naphthalene	ND		ug/kg	6.4	0.98	1
Acrylonitrile	ND		ug/kg	13	0.30	1
n-Propylbenzene	ND		ug/kg	1.3	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.4	0.21	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.4	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.4	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.4	0.73	1
1,4-Dioxane	ND		ug/kg	130	22.	1
1,4-Diethylbenzene	ND		ug/kg	5.1	0.20	1
4-Ethyltoluene	ND		ug/kg	5.1	0.15	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-26  
 Client ID: SL-14, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.1	0.16	1
Ethyl ether	ND		ug/kg	6.4	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.4	0.57	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	107		70-130

**Project Name:** NYPV PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-27  
**Client ID:** SL-12, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 16:08  
**Analyst:** PP  
**Percent Solids:** 50%

**Date Collected:** 11/09/13 10:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	20	4.0	1
1,1-Dichloroethane	ND		ug/kg	3.0	0.36	1
Chloroform	ND		ug/kg	3.0	0.74	1
Carbon tetrachloride	ND		ug/kg	2.0	0.42	1
1,2-Dichloropropane	ND		ug/kg	7.0	0.46	1
Dibromochloromethane	ND		ug/kg	2.0	0.62	1
1,1,2-Trichloroethane	ND		ug/kg	3.0	0.61	1
Tetrachloroethene	ND		ug/kg	2.0	0.28	1
Chlorobenzene	ND		ug/kg	2.0	0.70	1
Trichlorofluoromethane	ND		ug/kg	10	0.24	1
1,2-Dichloroethane	ND		ug/kg	2.0	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	2.0	0.22	1
Bromodichloromethane	ND		ug/kg	2.0	0.46	1
trans-1,3-Dichloropropene	ND		ug/kg	2.0	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	2.0	0.25	1
1,1-Dichloropropene	ND		ug/kg	10	0.91	1
Bromoform	ND		ug/kg	8.0	0.83	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	2.0	0.34	1
Benzene	ND		ug/kg	2.0	0.24	1
Toluene	ND		ug/kg	3.0	0.22	1
Ethylbenzene	ND		ug/kg	2.0	0.29	1
Chloromethane	ND		ug/kg	10	1.6	1
Bromomethane	ND		ug/kg	4.0	0.68	1
Vinyl chloride	ND		ug/kg	4.0	0.28	1
Chloroethane	ND		ug/kg	4.0	0.63	1
1,1-Dichloroethene	ND		ug/kg	2.0	0.41	1
trans-1,2-Dichloroethene	ND		ug/kg	3.0	0.42	1
Trichloroethene	ND		ug/kg	2.0	0.30	1
1,2-Dichlorobenzene	ND		ug/kg	10	0.37	1
1,3-Dichlorobenzene	ND		ug/kg	10	0.37	1
1,4-Dichlorobenzene	ND		ug/kg	10	0.48	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-27  
 Client ID: SL-12, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methyl tert butyl ether	ND		ug/kg	4.0	0.21	1
p/m-Xylene	ND		ug/kg	4.0	0.64	1
o-Xylene	ND		ug/kg	4.0	0.54	1
cis-1,2-Dichloroethene	ND		ug/kg	2.0	0.30	1
Dibromomethane	ND		ug/kg	20	0.33	1
Styrene	ND		ug/kg	4.0	0.62	1
Dichlorodifluoromethane	ND		ug/kg	20	0.44	1
Acetone	29		ug/kg	20	6.2	1
Carbon disulfide	4.8	J	ug/kg	20	4.0	1
2-Butanone	4.0	J	ug/kg	20	0.71	1
Vinyl acetate	ND		ug/kg	20	0.96	1
4-Methyl-2-pentanone	ND		ug/kg	20	0.49	1
1,2,3-Trichloropropane	ND		ug/kg	20	0.45	1
2-Hexanone	ND		ug/kg	20	0.38	1
Bromochloromethane	ND		ug/kg	10	0.39	1
2,2-Dichloropropane	ND		ug/kg	10	0.45	1
1,2-Dibromoethane	ND		ug/kg	8.0	0.36	1
1,3-Dichloropropane	ND		ug/kg	10	0.35	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	2.0	0.64	1
Bromobenzene	ND		ug/kg	10	0.42	1
n-Butylbenzene	ND		ug/kg	2.0	0.40	1
sec-Butylbenzene	ND		ug/kg	2.0	0.41	1
tert-Butylbenzene	ND		ug/kg	10	1.1	1
o-Chlorotoluene	ND		ug/kg	10	0.32	1
p-Chlorotoluene	ND		ug/kg	10	0.31	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	10	1.6	1
Hexachlorobutadiene	ND		ug/kg	10	0.84	1
Isopropylbenzene	ND		ug/kg	2.0	0.34	1
p-Isopropyltoluene	ND		ug/kg	2.0	0.38	1
Naphthalene	ND		ug/kg	10	1.5	1
Acrylonitrile	ND		ug/kg	20	0.48	1
n-Propylbenzene	ND		ug/kg	2.0	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	10	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	10	1.6	1
1,3,5-Trimethylbenzene	ND		ug/kg	10	0.29	1
1,2,4-Trimethylbenzene	ND		ug/kg	10	1.1	1
1,4-Dioxane	ND		ug/kg	200	35.	1
1,4-Diethylbenzene	ND		ug/kg	8.0	0.32	1
4-Ethyltoluene	ND		ug/kg	8.0	0.23	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-27  
 Client ID: SL-12, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	8.0	0.26	1
Ethyl ether	ND		ug/kg	10	0.53	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	10	0.90	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	106		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-28  
**Client ID:** SL-12, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 16:36  
**Analyst:** PP  
**Percent Solids:** 52%

**Date Collected:** 11/09/13 10:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	19	3.9	1
1,1-Dichloroethane	ND		ug/kg	2.9	0.34	1
Chloroform	ND		ug/kg	2.9	0.72	1
Carbon tetrachloride	ND		ug/kg	1.9	0.41	1
1,2-Dichloropropane	ND		ug/kg	6.8	0.44	1
Dibromochloromethane	ND		ug/kg	1.9	0.60	1
1,1,2-Trichloroethane	ND		ug/kg	2.9	0.59	1
Tetrachloroethene	ND		ug/kg	1.9	0.27	1
Chlorobenzene	ND		ug/kg	1.9	0.67	1
Trichlorofluoromethane	ND		ug/kg	9.7	0.24	1
1,2-Dichloroethane	ND		ug/kg	1.9	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	1.9	0.21	1
Bromodichloromethane	ND		ug/kg	1.9	0.44	1
trans-1,3-Dichloropropene	ND		ug/kg	1.9	0.23	1
cis-1,3-Dichloropropene	ND		ug/kg	1.9	0.25	1
1,1-Dichloropropene	ND		ug/kg	9.7	0.88	1
Bromoform	ND		ug/kg	7.8	0.80	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.9	0.33	1
Benzene	ND		ug/kg	1.9	0.23	1
Toluene	ND		ug/kg	2.9	0.22	1
Ethylbenzene	ND		ug/kg	1.9	0.28	1
Chloromethane	ND		ug/kg	9.7	1.5	1
Bromomethane	ND		ug/kg	3.9	0.66	1
Vinyl chloride	ND		ug/kg	3.9	0.27	1
Chloroethane	ND		ug/kg	3.9	0.61	1
1,1-Dichloroethene	ND		ug/kg	1.9	0.40	1
trans-1,2-Dichloroethene	ND		ug/kg	2.9	0.41	1
Trichloroethene	ND		ug/kg	1.9	0.29	1
1,2-Dichlorobenzene	ND		ug/kg	9.7	0.36	1
1,3-Dichlorobenzene	ND		ug/kg	9.7	0.36	1
1,4-Dichlorobenzene	ND		ug/kg	9.7	0.47	1

Project Name: NYPV PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-28  
 Client ID: SL-12, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.9	0.20	1
p/m-Xylene	ND		ug/kg	3.9	0.62	1
o-Xylene	ND		ug/kg	3.9	0.52	1
cis-1,2-Dichloroethene	ND		ug/kg	1.9	0.29	1
Dibromomethane	ND		ug/kg	19	0.32	1
Styrene	ND		ug/kg	3.9	0.60	1
Dichlorodifluoromethane	ND		ug/kg	19	0.42	1
Acetone	20		ug/kg	19	6.0	1
Carbon disulfide	5.5	J	ug/kg	19	3.9	1
2-Butanone	ND		ug/kg	19	0.69	1
Vinyl acetate	ND		ug/kg	19	0.93	1
4-Methyl-2-pentanone	ND		ug/kg	19	0.47	1
1,2,3-Trichloropropane	ND		ug/kg	19	0.44	1
2-Hexanone	ND		ug/kg	19	0.36	1
Bromochloromethane	ND		ug/kg	9.7	0.38	1
2,2-Dichloropropane	ND		ug/kg	9.7	0.44	1
1,2-Dibromoethane	ND		ug/kg	7.8	0.34	1
1,3-Dichloropropane	ND		ug/kg	9.7	0.34	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.9	0.62	1
Bromobenzene	ND		ug/kg	9.7	0.40	1
n-Butylbenzene	ND		ug/kg	1.9	0.38	1
sec-Butylbenzene	ND		ug/kg	1.9	0.40	1
tert-Butylbenzene	ND		ug/kg	9.7	1.1	1
o-Chlorotoluene	ND		ug/kg	9.7	0.31	1
p-Chlorotoluene	ND		ug/kg	9.7	0.30	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	9.7	1.5	1
Hexachlorobutadiene	ND		ug/kg	9.7	0.82	1
Isopropylbenzene	ND		ug/kg	1.9	0.32	1
p-Isopropyltoluene	ND		ug/kg	1.9	0.37	1
Naphthalene	ND		ug/kg	9.7	1.5	1
Acrylonitrile	ND		ug/kg	19	0.46	1
n-Propylbenzene	ND		ug/kg	1.9	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	9.7	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	9.7	1.5	1
1,3,5-Trimethylbenzene	ND		ug/kg	9.7	0.28	1
1,2,4-Trimethylbenzene	ND		ug/kg	9.7	1.1	1
1,4-Dioxane	ND		ug/kg	190	34.	1
1,4-Diethylbenzene	ND		ug/kg	7.8	0.31	1
4-Ethyltoluene	ND		ug/kg	7.8	0.23	1



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-28  
 Client ID: SL-12, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	7.8	0.25	1
Ethyl ether	ND		ug/kg	9.7	0.51	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	9.7	0.87	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	108		70-130

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-29  
**Client ID:** SL-10, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8260C  
**Analytical Date:** 11/16/13 17:04  
**Analyst:** PP  
**Percent Solids:** 65%

**Date Collected:** 11/09/13 09:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	15	3.1	1
1,1-Dichloroethane	ND		ug/kg	2.3	0.27	1
Chloroform	ND		ug/kg	2.3	0.57	1
Carbon tetrachloride	ND		ug/kg	1.5	0.32	1
1,2-Dichloropropane	ND		ug/kg	5.4	0.35	1
Dibromochloromethane	ND		ug/kg	1.5	0.47	1
1,1,2-Trichloroethane	ND		ug/kg	2.3	0.46	1
Tetrachloroethene	ND		ug/kg	1.5	0.21	1
Chlorobenzene	ND		ug/kg	1.5	0.53	1
Trichlorofluoromethane	ND		ug/kg	7.6	0.18	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	1.5	0.17	1
Bromodichloromethane	ND		ug/kg	1.5	0.35	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.18	1
cis-1,3-Dichloropropene	ND		ug/kg	1.5	0.19	1
1,1-Dichloropropene	ND		ug/kg	7.6	0.70	1
Bromoform	ND		ug/kg	6.1	0.64	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.5	0.26	1
Benzene	ND		ug/kg	1.5	0.18	1
Toluene	ND		ug/kg	2.3	0.17	1
Ethylbenzene	ND		ug/kg	1.5	0.22	1
Chloromethane	ND		ug/kg	7.6	1.2	1
Bromomethane	ND		ug/kg	3.1	0.52	1
Vinyl chloride	ND		ug/kg	3.1	0.22	1
Chloroethane	ND		ug/kg	3.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	2.3	0.32	1
Trichloroethene	ND		ug/kg	1.5	0.23	1
1,2-Dichlorobenzene	ND		ug/kg	7.6	0.28	1
1,3-Dichlorobenzene	ND		ug/kg	7.6	0.28	1
1,4-Dichlorobenzene	ND		ug/kg	7.6	0.37	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-29  
 Client ID: SL-10, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	3.1	0.16	1
p/m-Xylene	ND		ug/kg	3.1	0.49	1
o-Xylene	ND		ug/kg	3.1	0.41	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.23	1
Dibromomethane	ND		ug/kg	15	0.25	1
Styrene	ND		ug/kg	3.1	0.47	1
Dichlorodifluoromethane	ND		ug/kg	15	0.33	1
Acetone	ND		ug/kg	15	4.8	1
Carbon disulfide	ND		ug/kg	15	3.1	1
2-Butanone	ND		ug/kg	15	0.54	1
Vinyl acetate	ND		ug/kg	15	0.73	1
4-Methyl-2-pentanone	ND		ug/kg	15	0.37	1
1,2,3-Trichloropropane	ND		ug/kg	15	0.34	1
2-Hexanone	ND		ug/kg	15	0.29	1
Bromochloromethane	ND		ug/kg	7.6	0.30	1
2,2-Dichloropropane	ND		ug/kg	7.6	0.34	1
1,2-Dibromoethane	ND		ug/kg	6.1	0.27	1
1,3-Dichloropropane	ND		ug/kg	7.6	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.5	0.49	1
Bromobenzene	ND		ug/kg	7.6	0.32	1
n-Butylbenzene	ND		ug/kg	1.5	0.30	1
sec-Butylbenzene	ND		ug/kg	1.5	0.32	1
tert-Butylbenzene	ND		ug/kg	7.6	0.86	1
o-Chlorotoluene	ND		ug/kg	7.6	0.24	1
p-Chlorotoluene	ND		ug/kg	7.6	0.24	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	7.6	0.65	1
Isopropylbenzene	ND		ug/kg	1.5	0.26	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.29	1
Naphthalene	ND		ug/kg	7.6	1.2	1
Acrylonitrile	ND		ug/kg	15	0.36	1
n-Propylbenzene	ND		ug/kg	1.5	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	7.6	0.26	1
1,2,4-Trichlorobenzene	ND		ug/kg	7.6	1.2	1
1,3,5-Trimethylbenzene	ND		ug/kg	7.6	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	7.6	0.88	1
1,4-Dioxane	ND		ug/kg	150	27.	1
1,4-Diethylbenzene	ND		ug/kg	6.1	0.24	1
4-Ethyltoluene	ND		ug/kg	6.1	0.18	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-29  
 Client ID: SL-10, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	6.1	0.20	1
Ethyl ether	ND		ug/kg	7.6	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.6	0.68	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	107		70-130

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/16/13 12:53  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 21-29 Batch: WG652480-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.18
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.31
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.12
1,2-Dichloroethane	ND		ug/kg	1.0	0.15
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.23
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13
1,1-Dichloropropene	ND		ug/kg	5.0	0.46
Bromoform	ND		ug/kg	4.0	0.41
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.17
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.11
Ethylbenzene	ND		ug/kg	1.0	0.15
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.14
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.20
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.15
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.24

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/16/13 12:53  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 21-29 Batch: WG652480-3					
Methyl tert butyl ether	ND		ug/kg	2.0	0.10
p/m-Xylene	ND		ug/kg	2.0	0.32
o-Xylene	ND		ug/kg	2.0	0.27
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.31
Dichlorodifluoromethane	ND		ug/kg	10	0.22
Acetone	ND		ug/kg	10	3.1
Carbon disulfide	ND		ug/kg	10	2.0
2-Butanone	ND		ug/kg	10	0.36
Vinyl acetate	ND		ug/kg	10	0.48
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.22
2-Hexanone	ND		ug/kg	10	0.19
Bromochloromethane	ND		ug/kg	5.0	0.20
2,2-Dichloropropane	ND		ug/kg	5.0	0.22
1,2-Dibromoethane	ND		ug/kg	4.0	0.18
1,3-Dichloropropane	ND		ug/kg	5.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.20
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.16
p-Chlorotoluene	ND		ug/kg	5.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.79
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.17
p-Isopropyltoluene	ND		ug/kg	1.0	0.19
Naphthalene	ND		ug/kg	5.0	0.77
Acrylonitrile	ND		ug/kg	10	0.24

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/16/13 12:53  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 21-29 Batch: WG652480-3					
Isopropyl Ether	ND		ug/kg	4.0	0.14
tert-Butyl Alcohol	ND		ug/kg	60	0.91
n-Propylbenzene	ND		ug/kg	1.0	0.12
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.79
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.57
Methyl Acetate	ND		ug/kg	20	0.76
Ethyl Acetate	ND		ug/kg	20	0.82
Acrolein	ND		ug/kg	25	9.2
Cyclohexane	ND		ug/kg	20	1.1
1,4-Dioxane	ND		ug/kg	100	17.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	20	0.27
1,4-Diethylbenzene	ND		ug/kg	4.0	0.16
4-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Tetrahydrofuran	ND		ug/kg	20	0.38
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.45
Methyl cyclohexane	ND		ug/kg	4.0	1.3
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.42
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	0.58

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	103		70-130

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/16/13 12:44  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12,14-18,20 Batch: WG652511-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.18
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.31
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.12
1,2-Dichloroethane	ND		ug/kg	1.0	0.15
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.23
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13
1,1-Dichloropropene	ND		ug/kg	5.0	0.46
Bromoform	ND		ug/kg	4.0	0.41
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.17
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.11
Ethylbenzene	ND		ug/kg	1.0	0.15
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.14
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.20
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.15
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.18



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/16/13 12:44  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12,14-18,20 Batch: WG652511-3					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.24
Methyl tert butyl ether	ND		ug/kg	2.0	0.10
p/m-Xylene	ND		ug/kg	2.0	0.32
o-Xylene	ND		ug/kg	2.0	0.27
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.31
Dichlorodifluoromethane	ND		ug/kg	10	0.22
Acetone	ND		ug/kg	10	3.1
Carbon disulfide	ND		ug/kg	10	2.0
2-Butanone	ND		ug/kg	10	0.36
Vinyl acetate	ND		ug/kg	10	0.48
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.22
2-Hexanone	ND		ug/kg	10	0.19
Bromochloromethane	ND		ug/kg	5.0	0.20
2,2-Dichloropropane	ND		ug/kg	5.0	0.22
1,2-Dibromoethane	ND		ug/kg	4.0	0.18
1,3-Dichloropropane	ND		ug/kg	5.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.20
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.16
p-Chlorotoluene	ND		ug/kg	5.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.79
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.17
p-Isopropyltoluene	ND		ug/kg	1.0	0.19

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/16/13 12:44  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12,14-18,20 Batch: WG652511-3					
Naphthalene	ND		ug/kg	5.0	0.77
Acrylonitrile	ND		ug/kg	10	0.24
Isopropyl Ether	ND		ug/kg	4.0	0.14
tert-Butyl Alcohol	ND		ug/kg	60	0.91
n-Propylbenzene	ND		ug/kg	1.0	0.12
1,2,3-Trichlorobenzene	0.39	J	ug/kg	5.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.79
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.57
Methyl Acetate	ND		ug/kg	20	0.76
Ethyl Acetate	ND		ug/kg	20	0.82
Acrolein	ND		ug/kg	25	9.2
Cyclohexane	ND		ug/kg	20	1.1
1,4-Dioxane	ND		ug/kg	100	17.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	20	0.27
1,4-Diethylbenzene	ND		ug/kg	4.0	0.16
4-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Tetrahydrofuran	ND		ug/kg	20	0.38
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.45
Methyl cyclohexane	ND		ug/kg	4.0	1.3
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.42
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	0.58

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 11/16/13 12:44  
 Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-12,14-18,20 Batch: WG652511-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/18/13 12:24  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13,19 Batch: WG652586-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.18
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.31
2-Chloroethylvinyl ether	ND		ug/kg	20	0.62
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.12
1,2-Dichloroethane	ND		ug/kg	1.0	0.15
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.23
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13
1,1-Dichloropropene	ND		ug/kg	5.0	0.46
Bromoform	ND		ug/kg	4.0	0.41
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.17
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.11
Ethylbenzene	ND		ug/kg	1.0	0.15
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.14
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.20
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.15
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.18

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/18/13 12:24  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13,19 Batch: WG652586-3					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.24
Methyl tert butyl ether	ND		ug/kg	2.0	0.10
p/m-Xylene	ND		ug/kg	2.0	0.32
o-Xylene	ND		ug/kg	2.0	0.27
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.31
Dichlorodifluoromethane	ND		ug/kg	10	0.22
Acetone	ND		ug/kg	10	3.1
Carbon disulfide	ND		ug/kg	10	2.0
2-Butanone	ND		ug/kg	10	0.36
Vinyl acetate	ND		ug/kg	10	0.48
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.22
2-Hexanone	ND		ug/kg	10	0.19
Bromochloromethane	ND		ug/kg	5.0	0.20
2,2-Dichloropropane	ND		ug/kg	5.0	0.22
1,2-Dibromoethane	ND		ug/kg	4.0	0.18
1,3-Dichloropropane	ND		ug/kg	5.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.20
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.16
p-Chlorotoluene	ND		ug/kg	5.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.79
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.17
p-Isopropyltoluene	ND		ug/kg	1.0	0.19
Naphthalene	ND		ug/kg	5.0	0.77

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 11/18/13 12:24  
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13,19 Batch: WG652586-3					
Acrylonitrile	ND		ug/kg	10	0.24
Isopropyl Ether	ND		ug/kg	4.0	0.14
tert-Butyl Alcohol	ND		ug/kg	60	0.91
n-Propylbenzene	ND		ug/kg	1.0	0.12
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.79
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.57
Methyl Acetate	ND		ug/kg	20	0.76
Ethyl Acetate	ND		ug/kg	20	0.82
Acrolein	ND		ug/kg	25	9.2
Cyclohexane	ND		ug/kg	20	1.1
1,4-Dioxane	ND		ug/kg	100	17.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	20	0.27
1,4-Diethylbenzene	ND		ug/kg	4.0	0.16
4-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Tetrahydrofuran	ND		ug/kg	20	0.38
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.45
Methyl cyclohexane	ND		ug/kg	4.0	1.3
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.42
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	0.58

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 11/18/13 12:24  
 Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13,19 Batch: WG652586-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPV PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-29 Batch: WG652480-1 WG652480-2								
Methylene chloride	113		115		70-130	2		30
1,1-Dichloroethane	118		119		70-130	1		30
Chloroform	119		123		70-130	3		30
Carbon tetrachloride	123		126		70-130	2		30
1,2-Dichloropropane	119		123		70-130	3		30
Dibromochloromethane	108		111		70-130	3		30
1,1,2-Trichloroethane	111		112		70-130	1		30
Tetrachloroethene	117		116		70-130	1		30
Chlorobenzene	113		112		70-130	1		30
Trichlorofluoromethane	112		114		70-139	2		30
1,2-Dichloroethane	110		116		70-130	5		30
1,1,1-Trichloroethane	120		124		70-130	3		30
Bromodichloromethane	116		122		70-130	5		30
trans-1,3-Dichloropropene	108		111		70-130	3		30
cis-1,3-Dichloropropene	120		124		70-130	3		30
1,1-Dichloropropene	123		127		70-130	3		30
Bromoform	100		102		70-130	2		30
1,1,2,2-Tetrachloroethane	94		97		70-130	3		30
Benzene	118		122		70-130	3		30
Toluene	111		112		70-130	1		30
Ethylbenzene	113		114		70-130	1		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYP A PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-29 Batch: WG652480-1 WG652480-2								
Chloromethane	96		96		52-130	0		30
Bromomethane	116		112		57-147	4		30
Vinyl chloride	110		107		67-130	3		30
Chloroethane	114		117		50-151	3		30
1,1-Dichloroethene	119		120		65-135	1		30
trans-1,2-Dichloroethene	121		124		70-130	2		30
Trichloroethene	120		126		70-130	5		30
1,2-Dichlorobenzene	104		105		70-130	1		30
1,3-Dichlorobenzene	107		107		70-130	0		30
1,4-Dichlorobenzene	106		107		70-130	1		30
Methyl tert butyl ether	112		116		66-130	4		30
p/m-Xylene	116		116		70-130	0		30
o-Xylene	114		116		70-130	2		30
cis-1,2-Dichloroethene	122		126		70-130	3		30
Dibromomethane	115		118		70-130	3		30
Styrene	116		116		70-130	0		30
Dichlorodifluoromethane	99		98		30-146	1		30
Acetone	147	Q	165	Q	54-140	12		30
Carbon disulfide	113		115		59-130	2		30
2-Butanone	122		135	Q	70-130	10		30
Vinyl acetate	106		110		70-130	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-29 Batch: WG652480-1 WG652480-2								
4-Methyl-2-pentanone	110		113		70-130	3		30
1,2,3-Trichloropropane	96		97		68-130	1		30
2-Hexanone	102		109		70-130	7		30
Bromochloromethane	121		124		70-130	2		30
2,2-Dichloropropane	121		127		70-130	5		30
1,2-Dibromoethane	104		109		70-130	5		30
1,3-Dichloropropane	104		108		69-130	4		30
1,1,1,2-Tetrachloroethane	108		110		70-130	2		30
Bromobenzene	104		104		70-130	0		30
n-Butylbenzene	111		113		70-130	2		30
sec-Butylbenzene	109		109		70-130	0		30
tert-Butylbenzene	107		109		70-130	2		30
o-Chlorotoluene	107		108		70-130	1		30
p-Chlorotoluene	107		107		70-130	0		30
1,2-Dibromo-3-chloropropane	92		94		68-130	2		30
Hexachlorobutadiene	113		111		67-130	2		30
Isopropylbenzene	110		110		70-130	0		30
p-Isopropyltoluene	110		111		70-130	1		30
Naphthalene	98		100		70-130	2		30
Acrylonitrile	103		105		70-130	2		30
Isopropyl Ether	113		116		66-130	3		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-29 Batch: WG652480-1 WG652480-2								
tert-Butyl Alcohol	103		107		70-130	4		30
n-Propylbenzene	110		110		70-130	0		30
1,2,3-Trichlorobenzene	105		108		70-130	3		30
1,2,4-Trichlorobenzene	109		108		70-130	1		30
1,3,5-Trimethylbenzene	108		108		70-130	0		30
1,2,4-Trimethylbenzene	107		109		70-130	2		30
Methyl Acetate	101		105		51-146	4		30
Ethyl Acetate	105		108		70-130	3		30
Acrolein	97		102		70-130	5		30
Cyclohexane	118		120		59-142	2		30
1,4-Dioxane	96		106		65-136	10		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	114		118		50-139	3		30
1,4-Diethylbenzene	114		115		70-130	1		30
4-Ethyltoluene	110		111		70-130	1		30
1,2,4,5-Tetramethylbenzene	111		112		70-130	1		30
Tetrahydrofuran	100		116		66-130	15		30
Ethyl ether	113		116		67-130	3		30
trans-1,4-Dichloro-2-butene	89		89		70-130	0		30
Methyl cyclohexane	120		123		70-130	2		30
Ethyl-Tert-Butyl-Ether	114		119		70-130	4		30
Tertiary-Amyl Methyl Ether	117		121		70-130	3		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-29 Batch: WG652480-1 WG652480-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		97		70-130
Toluene-d8	96		97		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	101		105		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPV PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-18,20 Batch: WG652511-1 WG652511-2								
Methylene chloride	105		108		70-130	3		30
1,1-Dichloroethane	99		102		70-130	3		30
Chloroform	99		103		70-130	4		30
Carbon tetrachloride	100		102		70-130	2		30
1,2-Dichloropropane	98		101		70-130	3		30
Dibromochloromethane	98		102		70-130	4		30
1,1,2-Trichloroethane	100		103		70-130	3		30
Tetrachloroethene	104		107		70-130	3		30
Chlorobenzene	100		103		70-130	3		30
Trichlorofluoromethane	92		95		70-139	3		30
1,2-Dichloroethane	97		100		70-130	3		30
1,1,1-Trichloroethane	100		102		70-130	2		30
Bromodichloromethane	98		101		70-130	3		30
trans-1,3-Dichloropropene	100		103		70-130	3		30
cis-1,3-Dichloropropene	99		102		70-130	3		30
1,1-Dichloropropene	102		105		70-130	3		30
Bromoform	98		101		70-130	3		30
1,1,2,2-Tetrachloroethane	98		100		70-130	2		30
Benzene	98		102		70-130	4		30
Toluene	100		102		70-130	2		30
Ethylbenzene	101		104		70-130	3		30

8604Pet-0129

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPV PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-18,20 Batch: WG652511-1 WG652511-2								
Chloromethane	86		88		52-130	2		30
Bromomethane	102		97		57-147	5		30
Vinyl chloride	91		94		67-130	3		30
Chloroethane	107		110		50-151	3		30
1,1-Dichloroethene	101		103		65-135	2		30
trans-1,2-Dichloroethene	99		103		70-130	4		30
Trichloroethene	103		105		70-130	2		30
1,2-Dichlorobenzene	102		104		70-130	2		30
1,3-Dichlorobenzene	104		106		70-130	2		30
1,4-Dichlorobenzene	104		105		70-130	1		30
Methyl tert butyl ether	99		102		66-130	3		30
p/m-Xylene	104		107		70-130	3		30
o-Xylene	103		106		70-130	3		30
cis-1,2-Dichloroethene	100		104		70-130	4		30
Dibromomethane	100		103		70-130	3		30
Styrene	102		106		70-130	4		30
Dichlorodifluoromethane	89		92		30-146	3		30
Acetone	128		125		54-140	2		30
Carbon disulfide	92		95		59-130	3		30
2-Butanone	112		110		70-130	2		30
Vinyl acetate	98		100		70-130	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPV PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-18,20 Batch: WG652511-1 WG652511-2								
4-Methyl-2-pentanone	87		90		70-130	3		30
1,2,3-Trichloropropane	96		97		68-130	1		30
2-Hexanone	98		100		70-130	2		30
Bromochloromethane	101		104		70-130	3		30
2,2-Dichloropropane	103		105		70-130	2		30
1,2-Dibromoethane	99		102		70-130	3		30
1,3-Dichloropropane	99		101		69-130	2		30
1,1,1,2-Tetrachloroethane	99		101		70-130	2		30
Bromobenzene	100		103		70-130	3		30
n-Butylbenzene	111		112		70-130	1		30
sec-Butylbenzene	105		108		70-130	3		30
tert-Butylbenzene	104		107		70-130	3		30
o-Chlorotoluene	104		106		70-130	2		30
p-Chlorotoluene	104		106		70-130	2		30
1,2-Dibromo-3-chloropropane	98		100		68-130	2		30
Hexachlorobutadiene	107		108		67-130	1		30
Isopropylbenzene	104		106		70-130	2		30
p-Isopropyltoluene	108		110		70-130	2		30
Naphthalene	99		102		70-130	3		30
Acrylonitrile	98		102		70-130	4		30
Isopropyl Ether	96		100		66-130	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPV PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-18,20 Batch: WG652511-1 WG652511-2								
tert-Butyl Alcohol	97		102		70-130	5		30
n-Propylbenzene	104		107		70-130	3		30
1,2,3-Trichlorobenzene	102		103		70-130	1		30
1,2,4-Trichlorobenzene	107		110		70-130	3		30
1,3,5-Trimethylbenzene	105		107		70-130	2		30
1,2,4-Trimethylbenzene	106		108		70-130	2		30
Methyl Acetate	94		98		51-146	4		30
Ethyl Acetate	97		100		70-130	3		30
Acrolein	96		101		70-130	5		30
Cyclohexane	90		93		59-142	3		30
1,4-Dioxane	87		91		65-136	4		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	92		94		50-139	2		30
1,4-Diethylbenzene	111		113		70-130	2		30
4-Ethyltoluene	108		110		70-130	2		30
1,2,4,5-Tetramethylbenzene	109		110		70-130	1		30
Tetrahydrofuran	96		99		66-130	3		30
Ethyl ether	100		101		67-130	1		30
trans-1,4-Dichloro-2-butene	104		107		70-130	3		30
Methyl cyclohexane	92		93		70-130	1		30
Ethyl-Tert-Butyl-Ether	98		100		70-130	2		30
Tertiary-Amyl Methyl Ether	99		102		70-130	3		30

8604Pet-0132



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-12,14-18,20 Batch: WG652511-1 WG652511-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		97		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	100		100		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13,19 Batch: WG652586-1 WG652586-2								
Methylene chloride	101		100		70-130	1		30
1,1-Dichloroethane	94		94		70-130	0		30
Chloroform	94		94		70-130	0		30
Carbon tetrachloride	96		96		70-130	0		30
1,2-Dichloropropane	93		95		70-130	2		30
Dibromochloromethane	95		95		70-130	0		30
2-Chloroethylvinyl ether	93		95		70-130	2		30
1,1,2-Trichloroethane	94		94		70-130	0		30
Tetrachloroethene	98		98		70-130	0		30
Chlorobenzene	95		95		70-130	0		30
Trichlorofluoromethane	86		87		70-139	1		30
1,2-Dichloroethane	95		95		70-130	0		30
1,1,1-Trichloroethane	95		94		70-130	1		30
Bromodichloromethane	95		94		70-130	1		30
trans-1,3-Dichloropropene	93		93		70-130	0		30
cis-1,3-Dichloropropene	93		94		70-130	1		30
1,1-Dichloropropene	93		93		70-130	0		30
Bromoform	93		93		70-130	0		30
1,1,2,2-Tetrachloroethane	90		90		70-130	0		30
Benzene	92		92		70-130	0		30
Toluene	93		92		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYP A PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13,19 Batch: WG652586-1 WG652586-2								
Ethylbenzene	95		94		70-130	1		30
Chloromethane	82		83		52-130	1		30
Bromomethane	87		87		57-147	0		30
Vinyl chloride	80		81		67-130	1		30
Chloroethane	88		89		50-151	1		30
1,1-Dichloroethene	92		91		65-135	1		30
trans-1,2-Dichloroethene	93		94		70-130	1		30
Trichloroethene	97		96		70-130	1		30
1,2-Dichlorobenzene	96		93		70-130	3		30
1,3-Dichlorobenzene	97		95		70-130	2		30
1,4-Dichlorobenzene	96		95		70-130	1		30
Methyl tert butyl ether	92		94		66-130	2		30
p/m-Xylene	97		97		70-130	0		30
o-Xylene	96		96		70-130	0		30
cis-1,2-Dichloroethene	93		95		70-130	2		30
Dibromomethane	97		97		70-130	0		30
Styrene	97		96		70-130	1		30
Dichlorodifluoromethane	90		89		30-146	1		30
Acetone	146	Q	130		54-140	12		30
Carbon disulfide	84		84		59-130	0		30
2-Butanone	116		111		70-130	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13,19 Batch: WG652586-1 WG652586-2								
Vinyl acetate	97		97		70-130	0		30
4-Methyl-2-pentanone	86		86		70-130	0		30
1,2,3-Trichloropropane	93		87		68-130	7		30
2-Hexanone	99		97		70-130	2		30
Bromochloromethane	98		97		70-130	1		30
2,2-Dichloropropane	97		97		70-130	0		30
1,2-Dibromoethane	95		95		70-130	0		30
1,3-Dichloropropane	92		92		69-130	0		30
1,1,1,2-Tetrachloroethane	95		95		70-130	0		30
Bromobenzene	93		92		70-130	1		30
n-Butylbenzene	100		98		70-130	2		30
sec-Butylbenzene	95		94		70-130	1		30
tert-Butylbenzene	96		94		70-130	2		30
o-Chlorotoluene	95		93		70-130	2		30
p-Chlorotoluene	94		94		70-130	0		30
1,2-Dibromo-3-chloropropane	92		92		68-130	0		30
Hexachlorobutadiene	100		97		67-130	3		30
Isopropylbenzene	94		93		70-130	1		30
p-Isopropyltoluene	99		97		70-130	2		30
Naphthalene	92		92		70-130	0		30
Acrylonitrile	98		99		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13,19 Batch: WG652586-1 WG652586-2								
Isopropyl Ether	94		95		66-130	1		30
tert-Butyl Alcohol	97		98		70-130	1		30
n-Propylbenzene	94		93		70-130	1		30
1,2,3-Trichlorobenzene	96		95		70-130	1		30
1,2,4-Trichlorobenzene	100		96		70-130	4		30
1,3,5-Trimethylbenzene	96		95		70-130	1		30
1,2,4-Trimethylbenzene	97		96		70-130	1		30
Methyl Acetate	96		95		51-146	1		30
Ethyl Acetate	96		97		70-130	1		30
Acrolein	97		96		70-130	1		30
Cyclohexane	92		93		59-142	1		30
1,4-Dioxane	93		96		65-136	3		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	92		92		50-139	0		30
1,4-Diethylbenzene	102		100		70-130	2		30
4-Ethyltoluene	98		97		70-130	1		30
1,2,4,5-Tetramethylbenzene	100		98		70-130	2		30
Tetrahydrofuran	94		94		66-130	0		30
Ethyl ether	83		86		67-130	4		30
trans-1,4-Dichloro-2-butene	100		100		70-130	0		30
Methyl cyclohexane	91		91		70-130	0		30
Ethyl-Tert-Butyl-Ether	94		96		70-130	2		30

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13,19 Batch: WG652586-1 WG652586-2								
Tertiary-Amyl Methyl Ether	93		93		70-130	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	99		99		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	96		97		70-130
Dibromofluoromethane	102		101		70-130



# SEMIVOLATILES

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-01  
**Client ID:** SL-15, G-2(6'-7')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 11:20  
**Analyst:** RC  
**Percent Solids:** 39%

**Date Collected:** 11/07/13 14:05  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	340	87.	1
1,2,4-Trichlorobenzene	ND		ug/kg	420	140	1
Hexachlorobenzene	ND		ug/kg	250	78.	1
Bis(2-chloroethyl)ether	ND		ug/kg	380	120	1
2-Chloronaphthalene	ND		ug/kg	420	140	1
1,2-Dichlorobenzene	ND		ug/kg	420	140	1
1,3-Dichlorobenzene	ND		ug/kg	420	130	1
1,4-Dichlorobenzene	ND		ug/kg	420	130	1
3,3'-Dichlorobenzidine	ND		ug/kg	420	110	1
2,4-Dinitrotoluene	ND		ug/kg	420	91.	1
2,6-Dinitrotoluene	ND		ug/kg	420	110	1
Fluoranthene	ND		ug/kg	250	77.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	420	130	1
4-Bromophenyl phenyl ether	ND		ug/kg	420	97.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	500	150	1
Bis(2-chloroethoxy)methane	ND		ug/kg	460	130	1
Hexachlorobutadiene	ND		ug/kg	420	120	1
Hexachlorocyclopentadiene	ND		ug/kg	1200	270	1
Hexachloroethane	ND		ug/kg	340	77.	1
Isophorone	ND		ug/kg	380	110	1
Naphthalene	ND		ug/kg	420	140	1
Nitrobenzene	ND		ug/kg	380	100	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	340	88.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	420	120	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	420	110	1
Butyl benzyl phthalate	ND		ug/kg	420	82.	1
Di-n-butylphthalate	ND		ug/kg	420	81.	1
Di-n-octylphthalate	ND		ug/kg	420	100	1
Diethyl phthalate	ND		ug/kg	420	89.	1
Dimethyl phthalate	ND		ug/kg	420	110	1
Benzo(a)anthracene	ND		ug/kg	250	82.	1



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-01  
 Client ID: SL-15, G-2(6'-7')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	340	100	1
Benzo(b)fluoranthene	ND		ug/kg	250	85.	1
Benzo(k)fluoranthene	ND		ug/kg	250	80.	1
Chrysene	ND		ug/kg	250	83.	1
Acenaphthylene	ND		ug/kg	340	79.	1
Anthracene	ND		ug/kg	250	70.	1
Benzo(ghi)perylene	ND		ug/kg	340	88.	1
Fluorene	ND		ug/kg	420	120	1
Phenanthrene	ND		ug/kg	250	82.	1
Dibenzo(a,h)anthracene	ND		ug/kg	250	82.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	340	94.	1
Pyrene	ND		ug/kg	250	82.	1
Biphenyl	ND		ug/kg	960	140	1
4-Chloroaniline	ND		ug/kg	420	110	1
2-Nitroaniline	ND		ug/kg	420	120	1
3-Nitroaniline	ND		ug/kg	420	120	1
4-Nitroaniline	ND		ug/kg	420	110	1
Dibenzofuran	ND		ug/kg	420	140	1
2-Methylnaphthalene	ND		ug/kg	500	130	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	420	130	1
Acetophenone	ND		ug/kg	420	130	1
2,4,6-Trichlorophenol	ND		ug/kg	250	79.	1
P-Chloro-M-Cresol	ND		ug/kg	420	120	1
2-Chlorophenol	ND		ug/kg	420	130	1
2,4-Dichlorophenol	ND		ug/kg	380	140	1
2,4-Dimethylphenol	ND		ug/kg	420	120	1
2-Nitrophenol	ND		ug/kg	910	130	1
4-Nitrophenol	ND		ug/kg	590	140	1
2,4-Dinitrophenol	ND		ug/kg	2000	580	1
4,6-Dinitro-o-cresol	ND		ug/kg	1100	150	1
Pentachlorophenol	ND		ug/kg	340	90.	1
Phenol	ND		ug/kg	420	120	1
2-Methylphenol	ND		ug/kg	420	140	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	610	140	1
2,4,5-Trichlorophenol	ND		ug/kg	420	140	1
Benzoic Acid	ND		ug/kg	1400	430	1
Benzyl Alcohol	ND		ug/kg	420	130	1
Carbazole	ND		ug/kg	420	90.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-01  
 Client ID: SL-15, G-2(6'-7')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	55		30-120
2,4,6-Tribromophenol	67		0-136
4-Terphenyl-d14	63		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-02  
**Client ID:** SL-18, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 11:46  
**Analyst:** RC  
**Percent Solids:** 79%

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	42.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	67.	1
Hexachlorobenzene	ND		ug/kg	120	38.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	57.	1
2-Chloronaphthalene	ND		ug/kg	200	66.	1
1,2-Dichlorobenzene	ND		ug/kg	200	67.	1
1,3-Dichlorobenzene	ND		ug/kg	200	64.	1
1,4-Dichlorobenzene	ND		ug/kg	200	62.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	44.	1
2,6-Dinitrotoluene	ND		ug/kg	200	52.	1
Fluoranthene	ND		ug/kg	120	37.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	62.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	47.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	72.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	62.	1
Hexachlorobutadiene	ND		ug/kg	200	58.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	130	1
Hexachloroethane	ND		ug/kg	160	37.	1
Isophorone	ND		ug/kg	180	54.	1
Naphthalene	ND		ug/kg	200	68.	1
Nitrobenzene	ND		ug/kg	180	48.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	43.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	61.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	53.	1
Butyl benzyl phthalate	ND		ug/kg	200	40.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	50.	1
Diethyl phthalate	ND		ug/kg	200	43.	1
Dimethyl phthalate	ND		ug/kg	200	52.	1
Benzo(a)anthracene	ND		ug/kg	120	40.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-02  
 Client ID: SL-18, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	41.	1
Benzo(k)fluoranthene	ND		ug/kg	120	39.	1
Chrysene	ND		ug/kg	120	40.	1
Acenaphthylene	ND		ug/kg	160	38.	1
Anthracene	ND		ug/kg	120	34.	1
Benzo(ghi)perylene	ND		ug/kg	160	42.	1
Fluorene	ND		ug/kg	200	58.	1
Phenanthrene	ND		ug/kg	120	40.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	40.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	45.	1
Pyrene	ND		ug/kg	120	40.	1
Biphenyl	ND		ug/kg	460	67.	1
4-Chloroaniline	ND		ug/kg	200	54.	1
2-Nitroaniline	ND		ug/kg	200	58.	1
3-Nitroaniline	ND		ug/kg	200	56.	1
4-Nitroaniline	ND		ug/kg	200	55.	1
Dibenzofuran	ND		ug/kg	200	68.	1
2-Methylnaphthalene	ND		ug/kg	240	65.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	63.	1
Acetophenone	ND		ug/kg	200	63.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	59.	1
2-Chlorophenol	ND		ug/kg	200	62.	1
2,4-Dichlorophenol	ND		ug/kg	180	66.	1
2,4-Dimethylphenol	ND		ug/kg	200	61.	1
2-Nitrophenol	ND		ug/kg	440	64.	1
4-Nitrophenol	ND		ug/kg	280	66.	1
2,4-Dinitrophenol	ND		ug/kg	980	280	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	75.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	60.	1
2-Methylphenol	ND		ug/kg	200	66.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	67.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	66.	1
Benzoic Acid	ND		ug/kg	660	210	1
Benzyl Alcohol	ND		ug/kg	200	63.	1
Carbazole	ND		ug/kg	200	44.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-02  
 Client ID: SL-18, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	62		30-120
2,4,6-Tribromophenol	66		0-136
4-Terphenyl-d14	65		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-03  
**Client ID:** SL-15, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 12:11  
**Analyst:** RC  
**Percent Solids:** 33%

**Date Collected:** 11/07/13 14:05  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	390	100	1
1,2,4-Trichlorobenzene	ND		ug/kg	490	160	1
Hexachlorobenzene	ND		ug/kg	290	91.	1
Bis(2-chloroethyl)ether	ND		ug/kg	440	140	1
2-Chloronaphthalene	ND		ug/kg	490	160	1
1,2-Dichlorobenzene	ND		ug/kg	490	160	1
1,3-Dichlorobenzene	ND		ug/kg	490	150	1
1,4-Dichlorobenzene	ND		ug/kg	490	150	1
3,3'-Dichlorobenzidine	ND		ug/kg	490	130	1
2,4-Dinitrotoluene	ND		ug/kg	490	100	1
2,6-Dinitrotoluene	ND		ug/kg	490	120	1
Fluoranthene	ND		ug/kg	290	90.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	490	150	1
4-Bromophenyl phenyl ether	ND		ug/kg	490	110	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	580	170	1
Bis(2-chloroethoxy)methane	ND		ug/kg	530	150	1
Hexachlorobutadiene	ND		ug/kg	490	140	1
Hexachlorocyclopentadiene	ND		ug/kg	1400	310	1
Hexachloroethane	ND		ug/kg	390	89.	1
Isophorone	ND		ug/kg	440	130	1
Naphthalene	ND		ug/kg	490	160	1
Nitrobenzene	ND		ug/kg	440	120	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	390	100	1
n-Nitrosodi-n-propylamine	ND		ug/kg	490	140	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	490	130	1
Butyl benzyl phthalate	ND		ug/kg	490	95.	1
Di-n-butylphthalate	ND		ug/kg	490	94.	1
Di-n-octylphthalate	ND		ug/kg	490	120	1
Diethyl phthalate	ND		ug/kg	490	100	1
Dimethyl phthalate	ND		ug/kg	490	120	1
Benzo(a)anthracene	ND		ug/kg	290	96.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-03  
 Client ID: SL-15, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	390	120	1
Benzo(b)fluoranthene	ND		ug/kg	290	98.	1
Benzo(k)fluoranthene	ND		ug/kg	290	93.	1
Chrysene	ND		ug/kg	290	96.	1
Acenaphthylene	ND		ug/kg	390	91.	1
Anthracene	ND		ug/kg	290	81.	1
Benzo(ghi)perylene	ND		ug/kg	390	100	1
Fluorene	ND		ug/kg	490	140	1
Phenanthrene	ND		ug/kg	290	95.	1
Dibenzo(a,h)anthracene	ND		ug/kg	290	94.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	390	110	1
Pyrene	ND		ug/kg	290	95.	1
Biphenyl	ND		ug/kg	1100	160	1
4-Chloroaniline	ND		ug/kg	490	130	1
2-Nitroaniline	ND		ug/kg	490	140	1
3-Nitroaniline	ND		ug/kg	490	130	1
4-Nitroaniline	ND		ug/kg	490	130	1
Dibenzofuran	ND		ug/kg	490	160	1
2-Methylnaphthalene	ND		ug/kg	580	160	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	490	150	1
Acetophenone	ND		ug/kg	490	150	1
2,4,6-Trichlorophenol	ND		ug/kg	290	92.	1
P-Chloro-M-Cresol	ND		ug/kg	490	140	1
2-Chlorophenol	ND		ug/kg	490	150	1
2,4-Dichlorophenol	ND		ug/kg	440	160	1
2,4-Dimethylphenol	ND		ug/kg	490	140	1
2-Nitrophenol	ND		ug/kg	1000	150	1
4-Nitrophenol	ND		ug/kg	680	160	1
2,4-Dinitrophenol	ND		ug/kg	2300	670	1
4,6-Dinitro-o-cresol	ND		ug/kg	1300	180	1
Pentachlorophenol	ND		ug/kg	390	100	1
Phenol	ND		ug/kg	490	140	1
2-Methylphenol	ND		ug/kg	490	160	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	700	160	1
2,4,5-Trichlorophenol	ND		ug/kg	490	160	1
Benzoic Acid	ND		ug/kg	1600	490	1
Benzyl Alcohol	ND		ug/kg	490	150	1
Carbazole	ND		ug/kg	490	100	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-03  
 Client ID: SL-15, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	60		30-120
2,4,6-Tribromophenol	72		0-136
4-Terphenyl-d14	57		18-120



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-04  
**Client ID:** SL-17, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 12:37  
**Analyst:** RC  
**Percent Solids:** 83%

**Date Collected:** 11/07/13 12:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	41.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	66.	1
Hexachlorobenzene	ND		ug/kg	120	37.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	56.	1
2-Chloronaphthalene	ND		ug/kg	200	65.	1
1,2-Dichlorobenzene	ND		ug/kg	200	66.	1
1,3-Dichlorobenzene	ND		ug/kg	200	63.	1
1,4-Dichlorobenzene	ND		ug/kg	200	61.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	43.	1
2,6-Dinitrotoluene	ND		ug/kg	200	51.	1
Fluoranthene	ND		ug/kg	120	37.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	61.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	46.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	70.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	61.	1
Hexachlorobutadiene	ND		ug/kg	200	56.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	130	1
Hexachloroethane	ND		ug/kg	160	36.	1
Isophorone	ND		ug/kg	180	53.	1
Naphthalene	ND		ug/kg	200	66.	1
Nitrobenzene	ND		ug/kg	180	48.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	42.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	60.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	52.	1
Butyl benzyl phthalate	ND		ug/kg	200	39.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	49.	1
Diethyl phthalate	ND		ug/kg	200	42.	1
Dimethyl phthalate	ND		ug/kg	200	51.	1
Benzo(a)anthracene	ND		ug/kg	120	39.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-04  
 Client ID: SL-17, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	40.	1
Benzo(k)fluoranthene	ND		ug/kg	120	38.	1
Chrysene	ND		ug/kg	120	39.	1
Acenaphthylene	ND		ug/kg	160	37.	1
Anthracene	ND		ug/kg	120	33.	1
Benzo(ghi)perylene	ND		ug/kg	160	42.	1
Fluorene	ND		ug/kg	200	57.	1
Phenanthrene	ND		ug/kg	120	39.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	39.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	44.	1
Pyrene	ND		ug/kg	120	39.	1
Biphenyl	ND		ug/kg	460	66.	1
4-Chloroaniline	ND		ug/kg	200	53.	1
2-Nitroaniline	ND		ug/kg	200	56.	1
3-Nitroaniline	ND		ug/kg	200	55.	1
4-Nitroaniline	ND		ug/kg	200	54.	1
Dibenzofuran	ND		ug/kg	200	67.	1
2-Methylnaphthalene	ND		ug/kg	240	64.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	62.	1
Acetophenone	ND		ug/kg	200	62.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	58.	1
2-Chlorophenol	ND		ug/kg	200	60.	1
2,4-Dichlorophenol	ND		ug/kg	180	65.	1
2,4-Dimethylphenol	ND		ug/kg	200	60.	1
2-Nitrophenol	ND		ug/kg	430	62.	1
4-Nitrophenol	ND		ug/kg	280	65.	1
2,4-Dinitrophenol	ND		ug/kg	960	270	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	73.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	59.	1
2-Methylphenol	ND		ug/kg	200	64.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	66.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	65.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	43.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-04  
 Client ID: SL-17, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	56		30-120
2,4,6-Tribromophenol	72		0-136
4-Terphenyl-d14	53		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-05  
**Client ID:** SL-16, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 13:03  
**Analyst:** RC  
**Percent Solids:** 41%

**Date Collected:** 11/07/13 14:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	320	82.	1
1,2,4-Trichlorobenzene	ND		ug/kg	400	130	1
Hexachlorobenzene	ND		ug/kg	240	74.	1
Bis(2-chloroethyl)ether	ND		ug/kg	360	110	1
2-Chloronaphthalene	ND		ug/kg	400	130	1
1,2-Dichlorobenzene	ND		ug/kg	400	130	1
1,3-Dichlorobenzene	ND		ug/kg	400	120	1
1,4-Dichlorobenzene	ND		ug/kg	400	120	1
3,3'-Dichlorobenzidine	ND		ug/kg	400	110	1
2,4-Dinitrotoluene	ND		ug/kg	400	86.	1
2,6-Dinitrotoluene	ND		ug/kg	400	100	1
Fluoranthene	ND		ug/kg	240	73.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	400	120	1
4-Bromophenyl phenyl ether	ND		ug/kg	400	92.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	480	140	1
Bis(2-chloroethoxy)methane	ND		ug/kg	430	120	1
Hexachlorobutadiene	ND		ug/kg	400	110	1
Hexachlorocyclopentadiene	ND		ug/kg	1100	260	1
Hexachloroethane	ND		ug/kg	320	72.	1
Isophorone	ND		ug/kg	360	110	1
Naphthalene	ND		ug/kg	400	130	1
Nitrobenzene	ND		ug/kg	360	95.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	320	84.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	400	120	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	400	100	1
Butyl benzyl phthalate	ND		ug/kg	400	78.	1
Di-n-butylphthalate	ND		ug/kg	400	77.	1
Di-n-octylphthalate	ND		ug/kg	400	98.	1
Diethyl phthalate	ND		ug/kg	400	84.	1
Dimethyl phthalate	ND		ug/kg	400	100	1
Benzo(a)anthracene	ND		ug/kg	240	78.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-05  
 Client ID: SL-16, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	320	98.	1
Benzo(b)fluoranthene	ND		ug/kg	240	80.	1
Benzo(k)fluoranthene	ND		ug/kg	240	76.	1
Chrysene	ND		ug/kg	240	78.	1
Acenaphthylene	ND		ug/kg	320	74.	1
Anthracene	ND		ug/kg	240	66.	1
Benzo(ghi)perylene	ND		ug/kg	320	83.	1
Fluorene	ND		ug/kg	400	110	1
Phenanthrene	ND		ug/kg	240	78.	1
Dibenzo(a,h)anthracene	ND		ug/kg	240	77.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	320	88.	1
Pyrene	ND		ug/kg	240	78.	1
Biphenyl	ND		ug/kg	910	130	1
4-Chloroaniline	ND		ug/kg	400	100	1
2-Nitroaniline	ND		ug/kg	400	110	1
3-Nitroaniline	ND		ug/kg	400	110	1
4-Nitroaniline	ND		ug/kg	400	110	1
Dibenzofuran	ND		ug/kg	400	130	1
2-Methylnaphthalene	ND		ug/kg	480	130	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	400	120	1
Acetophenone	ND		ug/kg	400	120	1
2,4,6-Trichlorophenol	ND		ug/kg	240	75.	1
P-Chloro-M-Cresol	ND		ug/kg	400	120	1
2-Chlorophenol	ND		ug/kg	400	120	1
2,4-Dichlorophenol	ND		ug/kg	360	130	1
2,4-Dimethylphenol	ND		ug/kg	400	120	1
2-Nitrophenol	ND		ug/kg	860	120	1
4-Nitrophenol	ND		ug/kg	560	130	1
2,4-Dinitrophenol	ND		ug/kg	1900	540	1
4,6-Dinitro-o-cresol	ND		ug/kg	1000	140	1
Pentachlorophenol	ND		ug/kg	320	85.	1
Phenol	ND		ug/kg	400	120	1
2-Methylphenol	ND		ug/kg	400	130	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	570	130	1
2,4,5-Trichlorophenol	ND		ug/kg	400	130	1
Benzoic Acid	ND		ug/kg	1300	400	1
Benzyl Alcohol	ND		ug/kg	400	120	1
Carbazole	ND		ug/kg	400	86.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-05  
 Client ID: SL-16, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	58		30-120
2,4,6-Tribromophenol	72		0-136
4-Terphenyl-d14	57		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-06  
**Client ID:** SL-18, G-2(8'-9')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 13:28  
**Analyst:** RC  
**Percent Solids:** 72%

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	180	47.	1
1,2,4-Trichlorobenzene	ND		ug/kg	230	75.	1
Hexachlorobenzene	ND		ug/kg	140	42.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	64.	1
2-Chloronaphthalene	ND		ug/kg	230	74.	1
1,2-Dichlorobenzene	ND		ug/kg	230	75.	1
1,3-Dichlorobenzene	ND		ug/kg	230	72.	1
1,4-Dichlorobenzene	ND		ug/kg	230	69.	1
3,3'-Dichlorobenzidine	ND		ug/kg	230	60.	1
2,4-Dinitrotoluene	ND		ug/kg	230	49.	1
2,6-Dinitrotoluene	ND		ug/kg	230	58.	1
Fluoranthene	ND		ug/kg	140	42.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	230	69.	1
4-Bromophenyl phenyl ether	ND		ug/kg	230	52.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	270	80.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	69.	1
Hexachlorobutadiene	ND		ug/kg	230	64.	1
Hexachlorocyclopentadiene	ND		ug/kg	650	150	1
Hexachloroethane	ND		ug/kg	180	41.	1
Isophorone	ND		ug/kg	200	60.	1
Naphthalene	ND		ug/kg	230	76.	1
Nitrobenzene	ND		ug/kg	200	54.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	180	48.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	230	68.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	230	60.	1
Butyl benzyl phthalate	ND		ug/kg	230	44.	1
Di-n-butylphthalate	ND		ug/kg	230	44.	1
Di-n-octylphthalate	ND		ug/kg	230	56.	1
Diethyl phthalate	ND		ug/kg	230	48.	1
Dimethyl phthalate	ND		ug/kg	230	58.	1
Benzo(a)anthracene	ND		ug/kg	140	44.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-06  
 Client ID: SL-18, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Benzo(a)pyrene	ND		ug/kg	180	56.	1
Benzo(b)fluoranthene	ND		ug/kg	140	46.	1
Benzo(k)fluoranthene	ND		ug/kg	140	43.	1
Chrysene	ND		ug/kg	140	45.	1
Acenaphthylene	ND		ug/kg	180	42.	1
Anthracene	ND		ug/kg	140	38.	1
Benzo(ghi)perylene	ND		ug/kg	180	47.	1
Fluorene	ND		ug/kg	230	65.	1
Phenanthrene	ND		ug/kg	140	44.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	44.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	180	50.	1
Pyrene	ND		ug/kg	140	44.	1
Biphenyl	ND		ug/kg	520	75.	1
4-Chloroaniline	ND		ug/kg	230	60.	1
2-Nitroaniline	ND		ug/kg	230	64.	1
3-Nitroaniline	ND		ug/kg	230	63.	1
4-Nitroaniline	ND		ug/kg	230	61.	1
Dibenzofuran	ND		ug/kg	230	76.	1
2-Methylnaphthalene	ND		ug/kg	270	73.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	230	70.	1
Acetophenone	ND		ug/kg	230	70.	1
2,4,6-Trichlorophenol	ND		ug/kg	140	43.	1
P-Chloro-M-Cresol	ND		ug/kg	230	66.	1
2-Chlorophenol	ND		ug/kg	230	69.	1
2,4-Dichlorophenol	ND		ug/kg	200	74.	1
2,4-Dimethylphenol	ND		ug/kg	230	68.	1
2-Nitrophenol	ND		ug/kg	490	71.	1
4-Nitrophenol	ND		ug/kg	320	74.	1
2,4-Dinitrophenol	ND		ug/kg	1100	310	1
4,6-Dinitro-o-cresol	ND		ug/kg	590	83.	1
Pentachlorophenol	ND		ug/kg	180	49.	1
Phenol	ND		ug/kg	230	67.	1
2-Methylphenol	ND		ug/kg	230	73.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	330	75.	1
2,4,5-Trichlorophenol	ND		ug/kg	230	74.	1
Benzoic Acid	ND		ug/kg	740	230	1
Benzyl Alcohol	ND		ug/kg	230	70.	1
Carbazole	ND		ug/kg	230	49.	1



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-06  
 Client ID: SL-18, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	68		30-120
2,4,6-Tribromophenol	70		0-136
4-Terphenyl-d14	66		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-07  
**Client ID:** SL-16, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 13:54  
**Analyst:** RC  
**Percent Solids:** 39%

**Date Collected:** 11/07/13 14:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	340	87.	1
1,2,4-Trichlorobenzene	ND		ug/kg	420	140	1
Hexachlorobenzene	ND		ug/kg	250	79.	1
Bis(2-chloroethyl)ether	ND		ug/kg	380	120	1
2-Chloronaphthalene	ND		ug/kg	420	140	1
1,2-Dichlorobenzene	ND		ug/kg	420	140	1
1,3-Dichlorobenzene	ND		ug/kg	420	130	1
1,4-Dichlorobenzene	ND		ug/kg	420	130	1
3,3'-Dichlorobenzidine	ND		ug/kg	420	110	1
2,4-Dinitrotoluene	ND		ug/kg	420	92.	1
2,6-Dinitrotoluene	ND		ug/kg	420	110	1
Fluoranthene	ND		ug/kg	250	78.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	420	130	1
4-Bromophenyl phenyl ether	ND		ug/kg	420	98.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	510	150	1
Bis(2-chloroethoxy)methane	ND		ug/kg	460	130	1
Hexachlorobutadiene	ND		ug/kg	420	120	1
Hexachlorocyclopentadiene	ND		ug/kg	1200	270	1
Hexachloroethane	ND		ug/kg	340	77.	1
Isophorone	ND		ug/kg	380	110	1
Naphthalene	ND		ug/kg	420	140	1
Nitrobenzene	ND		ug/kg	380	100	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	340	89.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	420	130	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	420	110	1
Butyl benzyl phthalate	ND		ug/kg	420	83.	1
Di-n-butylphthalate	ND		ug/kg	420	82.	1
Di-n-octylphthalate	ND		ug/kg	420	100	1
Diethyl phthalate	ND		ug/kg	420	90.	1
Dimethyl phthalate	ND		ug/kg	420	110	1
Benzo(a)anthracene	ND		ug/kg	250	83.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-07  
 Client ID: SL-16, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	340	100	1
Benzo(b)fluoranthene	ND		ug/kg	250	86.	1
Benzo(k)fluoranthene	ND		ug/kg	250	81.	1
Chrysene	ND		ug/kg	250	83.	1
Acenaphthylene	ND		ug/kg	340	79.	1
Anthracene	ND		ug/kg	250	71.	1
Benzo(ghi)perylene	ND		ug/kg	340	88.	1
Fluorene	ND		ug/kg	420	120	1
Phenanthrene	ND		ug/kg	250	83.	1
Dibenzo(a,h)anthracene	ND		ug/kg	250	82.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	340	94.	1
Pyrene	ND		ug/kg	250	82.	1
Biphenyl	ND		ug/kg	970	140	1
4-Chloroaniline	ND		ug/kg	420	110	1
2-Nitroaniline	ND		ug/kg	420	120	1
3-Nitroaniline	ND		ug/kg	420	120	1
4-Nitroaniline	ND		ug/kg	420	110	1
Dibenzofuran	ND		ug/kg	420	140	1
2-Methylnaphthalene	ND		ug/kg	510	140	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	420	130	1
Acetophenone	ND		ug/kg	420	130	1
2,4,6-Trichlorophenol	ND		ug/kg	250	80.	1
P-Chloro-M-Cresol	ND		ug/kg	420	120	1
2-Chlorophenol	ND		ug/kg	420	130	1
2,4-Dichlorophenol	ND		ug/kg	380	140	1
2,4-Dimethylphenol	ND		ug/kg	420	130	1
2-Nitrophenol	ND		ug/kg	920	130	1
4-Nitrophenol	ND		ug/kg	590	140	1
2,4-Dinitrophenol	ND		ug/kg	2000	580	1
4,6-Dinitro-o-cresol	ND		ug/kg	1100	160	1
Pentachlorophenol	ND		ug/kg	340	91.	1
Phenol	ND		ug/kg	420	120	1
2-Methylphenol	ND		ug/kg	420	140	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	610	140	1
2,4,5-Trichlorophenol	ND		ug/kg	420	140	1
Benzoic Acid	ND		ug/kg	1400	430	1
Benzyl Alcohol	ND		ug/kg	420	130	1
Carbazole	ND		ug/kg	420	91.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-07  
 Client ID: SL-16, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		25-120
Phenol-d6	49		10-120
Nitrobenzene-d5	47		23-120
2-Fluorobiphenyl	43		30-120
2,4,6-Tribromophenol	53		0-136
4-Terphenyl-d14	43		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-08  
**Client ID:** SL-17, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 14:20  
**Analyst:** RC  
**Percent Solids:** 76%

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	170	44.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	71.	1
Hexachlorobenzene	ND		ug/kg	130	40.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	60.	1
2-Chloronaphthalene	ND		ug/kg	220	70.	1
1,2-Dichlorobenzene	ND		ug/kg	220	71.	1
1,3-Dichlorobenzene	ND		ug/kg	220	68.	1
1,4-Dichlorobenzene	ND		ug/kg	220	66.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	57.	1
2,4-Dinitrotoluene	ND		ug/kg	220	46.	1
2,6-Dinitrotoluene	ND		ug/kg	220	55.	1
Fluoranthene	ND		ug/kg	130	40.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	66.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	50.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	76.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	65.	1
Hexachlorobutadiene	ND		ug/kg	220	61.	1
Hexachlorocyclopentadiene	ND		ug/kg	620	140	1
Hexachloroethane	ND		ug/kg	170	39.	1
Isophorone	ND		ug/kg	190	57.	1
Naphthalene	ND		ug/kg	220	72.	1
Nitrobenzene	ND		ug/kg	190	51.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	45.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	64.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	220	56.	1
Butyl benzyl phthalate	ND		ug/kg	220	42.	1
Di-n-butylphthalate	ND		ug/kg	220	42.	1
Di-n-octylphthalate	ND		ug/kg	220	53.	1
Diethyl phthalate	ND		ug/kg	220	46.	1
Dimethyl phthalate	ND		ug/kg	220	55.	1
Benzo(a)anthracene	ND		ug/kg	130	42.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-08  
 Client ID: SL-17, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	170	53.	1
Benzo(b)fluoranthene	ND		ug/kg	130	44.	1
Benzo(k)fluoranthene	ND		ug/kg	130	41.	1
Chrysene	ND		ug/kg	130	42.	1
Acenaphthylene	ND		ug/kg	170	40.	1
Anthracene	ND		ug/kg	130	36.	1
Benzo(ghi)perylene	ND		ug/kg	170	45.	1
Fluorene	ND		ug/kg	220	62.	1
Phenanthrene	ND		ug/kg	130	42.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	42.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	170	48.	1
Pyrene	ND		ug/kg	130	42.	1
Biphenyl	ND		ug/kg	490	71.	1
4-Chloroaniline	ND		ug/kg	220	57.	1
2-Nitroaniline	ND		ug/kg	220	61.	1
3-Nitroaniline	ND		ug/kg	220	60.	1
4-Nitroaniline	ND		ug/kg	220	58.	1
Dibenzofuran	ND		ug/kg	220	72.	1
2-Methylnaphthalene	ND		ug/kg	260	69.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	67.	1
Acetophenone	ND		ug/kg	220	67.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	41.	1
P-Chloro-M-Cresol	ND		ug/kg	220	62.	1
2-Chlorophenol	ND		ug/kg	220	65.	1
2,4-Dichlorophenol	ND		ug/kg	190	70.	1
2,4-Dimethylphenol	ND		ug/kg	220	64.	1
2-Nitrophenol	ND		ug/kg	470	67.	1
4-Nitrophenol	ND		ug/kg	300	70.	1
2,4-Dinitrophenol	ND		ug/kg	1000	300	1
4,6-Dinitro-o-cresol	ND		ug/kg	560	79.	1
Pentachlorophenol	ND		ug/kg	170	46.	1
Phenol	ND		ug/kg	220	64.	1
2-Methylphenol	ND		ug/kg	220	69.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	310	71.	1
2,4,5-Trichlorophenol	ND		ug/kg	220	70.	1
Benzoic Acid	ND		ug/kg	700	220	1
Benzyl Alcohol	ND		ug/kg	220	66.	1
Carbazole	ND		ug/kg	220	46.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-08  
 Client ID: SL-17, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		25-120
Phenol-d6	57		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	58		30-120
2,4,6-Tribromophenol	63		0-136
4-Terphenyl-d14	67		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-09  
**Client ID:** SL-4, G-2(7'-7.7')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 18:45  
**Analyst:** RC  
**Percent Solids:** 77%

**Date Collected:** 11/08/13 09:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	170	43.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	69.	1
Hexachlorobenzene	ND		ug/kg	130	39.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	59.	1
2-Chloronaphthalene	ND		ug/kg	210	69.	1
1,2-Dichlorobenzene	ND		ug/kg	210	69.	1
1,3-Dichlorobenzene	ND		ug/kg	210	66.	1
1,4-Dichlorobenzene	ND		ug/kg	210	64.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	46.	1
2,6-Dinitrotoluene	ND		ug/kg	210	54.	1
Fluoranthene	ND		ug/kg	130	39.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	64.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	48.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	74.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	64.	1
Hexachlorobutadiene	ND		ug/kg	210	59.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	140	1
Hexachloroethane	ND		ug/kg	170	38.	1
Isophorone	ND		ug/kg	190	56.	1
Naphthalene	ND		ug/kg	210	70.	1
Nitrobenzene	ND		ug/kg	190	50.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	44.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	63.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	210	55.	1
Butyl benzyl phthalate	ND		ug/kg	210	41.	1
Di-n-butylphthalate	ND		ug/kg	210	41.	1
Di-n-octylphthalate	ND		ug/kg	210	52.	1
Diethyl phthalate	ND		ug/kg	210	44.	1
Dimethyl phthalate	ND		ug/kg	210	54.	1
Benzo(a)anthracene	ND		ug/kg	130	41.	1



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-09  
 Client ID: SL-4, G-2(7'-7.7')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	170	52.	1
Benzo(b)fluoranthene	ND		ug/kg	130	43.	1
Benzo(k)fluoranthene	ND		ug/kg	130	40.	1
Chrysene	ND		ug/kg	130	41.	1
Acenaphthylene	ND		ug/kg	170	39.	1
Anthracene	ND		ug/kg	130	35.	1
Benzo(ghi)perylene	ND		ug/kg	170	44.	1
Fluorene	ND		ug/kg	210	60.	1
Phenanthrene	ND		ug/kg	130	41.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	41.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	170	47.	1
Pyrene	ND		ug/kg	130	41.	1
Biphenyl	ND		ug/kg	480	70.	1
4-Chloroaniline	ND		ug/kg	210	56.	1
2-Nitroaniline	ND		ug/kg	210	59.	1
3-Nitroaniline	ND		ug/kg	210	58.	1
4-Nitroaniline	ND		ug/kg	210	57.	1
Dibenzofuran	ND		ug/kg	210	70.	1
2-Methylnaphthalene	ND		ug/kg	250	67.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	65.	1
Acetophenone	ND		ug/kg	210	65.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
P-Chloro-M-Cresol	ND		ug/kg	210	61.	1
2-Chlorophenol	ND		ug/kg	210	64.	1
2,4-Dichlorophenol	ND		ug/kg	190	68.	1
2,4-Dimethylphenol	ND		ug/kg	210	63.	1
2-Nitrophenol	ND		ug/kg	460	66.	1
4-Nitrophenol	ND		ug/kg	300	68.	1
2,4-Dinitrophenol	ND		ug/kg	1000	290	1
4,6-Dinitro-o-cresol	ND		ug/kg	550	77.	1
Pentachlorophenol	ND		ug/kg	170	45.	1
Phenol	ND		ug/kg	210	62.	1
2-Methylphenol	ND		ug/kg	210	68.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	69.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	68.	1
Benzoic Acid	ND		ug/kg	680	210	1
Benzyl Alcohol	ND		ug/kg	210	65.	1
Carbazole	ND		ug/kg	210	45.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-09  
 Client ID: SL-4, G-2(7'-7.7')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	53		30-120
2,4,6-Tribromophenol	59		0-136
4-Terphenyl-d14	52		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-10  
**Client ID:** SL-4, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 19:11  
**Analyst:** RC  
**Percent Solids:** 75%

**Date Collected:** 11/08/13 09:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	180	45.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	72.	1
Hexachlorobenzene	ND		ug/kg	130	41.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	62.	1
2-Chloronaphthalene	ND		ug/kg	220	72.	1
1,2-Dichlorobenzene	ND		ug/kg	220	72.	1
1,3-Dichlorobenzene	ND		ug/kg	220	69.	1
1,4-Dichlorobenzene	ND		ug/kg	220	67.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	58.	1
2,4-Dinitrotoluene	ND		ug/kg	220	47.	1
2,6-Dinitrotoluene	ND		ug/kg	220	56.	1
Fluoranthene	ND		ug/kg	130	40.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	67.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	50.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	77.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	66.	1
Hexachlorobutadiene	ND		ug/kg	220	62.	1
Hexachlorocyclopentadiene	ND		ug/kg	630	140	1
Hexachloroethane	ND		ug/kg	180	40.	1
Isophorone	ND		ug/kg	200	58.	1
Naphthalene	ND		ug/kg	220	73.	1
Nitrobenzene	ND		ug/kg	200	52.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	180	46.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	65.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	220	58.	1
Butyl benzyl phthalate	ND		ug/kg	220	43.	1
Di-n-butylphthalate	ND		ug/kg	220	42.	1
Di-n-octylphthalate	ND		ug/kg	220	54.	1
Diethyl phthalate	ND		ug/kg	220	46.	1
Dimethyl phthalate	ND		ug/kg	220	56.	1
Benzo(a)anthracene	ND		ug/kg	130	43.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-10  
 Client ID: SL-4, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	180	54.	1
Benzo(b)fluoranthene	ND		ug/kg	130	44.	1
Benzo(k)fluoranthene	ND		ug/kg	130	42.	1
Chrysene	ND		ug/kg	130	43.	1
Acenaphthylene	ND		ug/kg	180	41.	1
Anthracene	ND		ug/kg	130	36.	1
Benzo(ghi)perylene	ND		ug/kg	180	46.	1
Fluorene	ND		ug/kg	220	63.	1
Phenanthrene	ND		ug/kg	130	43.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	42.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	180	49.	1
Pyrene	ND		ug/kg	130	43.	1
Biphenyl	ND		ug/kg	500	72.	1
4-Chloroaniline	ND		ug/kg	220	58.	1
2-Nitroaniline	ND		ug/kg	220	62.	1
3-Nitroaniline	ND		ug/kg	220	61.	1
4-Nitroaniline	ND		ug/kg	220	59.	1
Dibenzofuran	ND		ug/kg	220	73.	1
2-Methylnaphthalene	ND		ug/kg	260	70.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	68.	1
Acetophenone	ND		ug/kg	220	68.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	41.	1
P-Chloro-M-Cresol	ND		ug/kg	220	64.	1
2-Chlorophenol	ND		ug/kg	220	66.	1
2,4-Dichlorophenol	ND		ug/kg	200	71.	1
2,4-Dimethylphenol	ND		ug/kg	220	65.	1
2-Nitrophenol	ND		ug/kg	470	68.	1
4-Nitrophenol	ND		ug/kg	310	71.	1
2,4-Dinitrophenol	ND		ug/kg	1000	300	1
4,6-Dinitro-o-cresol	ND		ug/kg	570	80.	1
Pentachlorophenol	ND		ug/kg	180	47.	1
Phenol	ND		ug/kg	220	65.	1
2-Methylphenol	ND		ug/kg	220	71.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	320	72.	1
2,4,5-Trichlorophenol	ND		ug/kg	220	71.	1
Benzoic Acid	ND		ug/kg	710	220	1
Benzyl Alcohol	ND		ug/kg	220	68.	1
Carbazole	ND		ug/kg	220	47.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-10  
 Client ID: SL-4, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	52		23-120
2-Fluorobiphenyl	51		30-120
2,4,6-Tribromophenol	64		0-136
4-Terphenyl-d14	46		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-11  
**Client ID:** SL-6, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 19:37  
**Analyst:** RC  
**Percent Solids:** 52%

**Date Collected:** 11/08/13 11:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	250	65.	1
1,2,4-Trichlorobenzene	ND		ug/kg	310	100	1
Hexachlorobenzene	ND		ug/kg	190	59.	1
Bis(2-chloroethyl)ether	ND		ug/kg	280	88.	1
2-Chloronaphthalene	ND		ug/kg	310	100	1
1,2-Dichlorobenzene	ND		ug/kg	310	100	1
1,3-Dichlorobenzene	ND		ug/kg	310	99.	1
1,4-Dichlorobenzene	ND		ug/kg	310	96.	1
3,3'-Dichlorobenzidine	ND		ug/kg	310	84.	1
2,4-Dinitrotoluene	ND		ug/kg	310	68.	1
2,6-Dinitrotoluene	ND		ug/kg	310	80.	1
Fluoranthene	ND		ug/kg	190	58.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	310	96.	1
4-Bromophenyl phenyl ether	ND		ug/kg	310	72.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	380	110	1
Bis(2-chloroethoxy)methane	ND		ug/kg	340	95.	1
Hexachlorobutadiene	ND		ug/kg	310	89.	1
Hexachlorocyclopentadiene	ND		ug/kg	900	200	1
Hexachloroethane	ND		ug/kg	250	57.	1
Isophorone	ND		ug/kg	280	84.	1
Naphthalene	ND		ug/kg	310	100	1
Nitrobenzene	ND		ug/kg	280	75.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	250	66.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	310	94.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	310	82.	1
Butyl benzyl phthalate	ND		ug/kg	310	62.	1
Di-n-butylphthalate	ND		ug/kg	310	61.	1
Di-n-octylphthalate	ND		ug/kg	310	77.	1
Diethyl phthalate	ND		ug/kg	310	66.	1
Dimethyl phthalate	ND		ug/kg	310	80.	1
Benzo(a)anthracene	ND		ug/kg	190	62.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-11  
 Client ID: SL-6, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	250	77.	1
Benzo(b)fluoranthene	ND		ug/kg	190	64.	1
Benzo(k)fluoranthene	ND		ug/kg	190	60.	1
Chrysene	ND		ug/kg	190	62.	1
Acenaphthylene	ND		ug/kg	250	59.	1
Anthracene	ND		ug/kg	190	52.	1
Benzo(ghi)perylene	ND		ug/kg	250	65.	1
Fluorene	ND		ug/kg	310	90.	1
Phenanthrene	ND		ug/kg	190	62.	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	61.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	250	70.	1
Pyrene	ND		ug/kg	190	61.	1
Biphenyl	ND		ug/kg	720	100	1
4-Chloroaniline	ND		ug/kg	310	83.	1
2-Nitroaniline	ND		ug/kg	310	89.	1
3-Nitroaniline	ND		ug/kg	310	87.	1
4-Nitroaniline	ND		ug/kg	310	85.	1
Dibenzofuran	ND		ug/kg	310	100	1
2-Methylnaphthalene	ND		ug/kg	380	100	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	310	98.	1
Acetophenone	ND		ug/kg	310	98.	1
2,4,6-Trichlorophenol	ND		ug/kg	190	59.	1
P-Chloro-M-Cresol	ND		ug/kg	310	91.	1
2-Chlorophenol	ND		ug/kg	310	95.	1
2,4-Dichlorophenol	ND		ug/kg	280	100	1
2,4-Dimethylphenol	ND		ug/kg	310	94.	1
2-Nitrophenol	ND		ug/kg	680	98.	1
4-Nitrophenol	ND		ug/kg	440	100	1
2,4-Dinitrophenol	ND		ug/kg	1500	430	1
4,6-Dinitro-o-cresol	ND		ug/kg	820	120	1
Pentachlorophenol	ND		ug/kg	250	67.	1
Phenol	ND		ug/kg	310	93.	1
2-Methylphenol	ND		ug/kg	310	100	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	450	100	1
2,4,5-Trichlorophenol	ND		ug/kg	310	100	1
Benzoic Acid	ND		ug/kg	1000	320	1
Benzyl Alcohol	ND		ug/kg	310	97.	1
Carbazole	ND		ug/kg	310	68.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-11  
 Client ID: SL-6, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	58		30-120
2,4,6-Tribromophenol	65		0-136
4-Terphenyl-d14	67		18-120



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-12  
**Client ID:** SL-6, G-2(8'-9')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 20:02  
**Analyst:** RC  
**Percent Solids:** 55%

**Date Collected:** 11/08/13 11:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	240	62.	1
1,2,4-Trichlorobenzene	ND		ug/kg	300	98.	1
Hexachlorobenzene	ND		ug/kg	180	56.	1
Bis(2-chloroethyl)ether	ND		ug/kg	270	84.	1
2-Chloronaphthalene	ND		ug/kg	300	98.	1
1,2-Dichlorobenzene	ND		ug/kg	300	98.	1
1,3-Dichlorobenzene	ND		ug/kg	300	94.	1
1,4-Dichlorobenzene	ND		ug/kg	300	91.	1
3,3'-Dichlorobenzidine	ND		ug/kg	300	80.	1
2,4-Dinitrotoluene	ND		ug/kg	300	64.	1
2,6-Dinitrotoluene	ND		ug/kg	300	77.	1
Fluoranthene	ND		ug/kg	180	55.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	300	91.	1
4-Bromophenyl phenyl ether	ND		ug/kg	300	69.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	360	100	1
Bis(2-chloroethoxy)methane	ND		ug/kg	320	91.	1
Hexachlorobutadiene	ND		ug/kg	300	84.	1
Hexachlorocyclopentadiene	ND		ug/kg	860	190	1
Hexachloroethane	ND		ug/kg	240	54.	1
Isophorone	ND		ug/kg	270	80.	1
Naphthalene	ND		ug/kg	300	99.	1
Nitrobenzene	ND		ug/kg	270	71.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	240	63.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	300	89.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	300	78.	1
Butyl benzyl phthalate	ND		ug/kg	300	58.	1
Di-n-butylphthalate	ND		ug/kg	300	58.	1
Di-n-octylphthalate	ND		ug/kg	300	74.	1
Diethyl phthalate	ND		ug/kg	300	63.	1
Dimethyl phthalate	ND		ug/kg	300	76.	1
Benzo(a)anthracene	ND		ug/kg	180	59.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-12  
 Client ID: SL-6, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	240	73.	1
Benzo(b)fluoranthene	ND		ug/kg	180	60.	1
Benzo(k)fluoranthene	ND		ug/kg	180	57.	1
Chrysene	ND		ug/kg	180	59.	1
Acenaphthylene	ND		ug/kg	240	56.	1
Anthracene	ND		ug/kg	180	50.	1
Benzo(ghi)perylene	ND		ug/kg	240	62.	1
Fluorene	ND		ug/kg	300	86.	1
Phenanthrene	ND		ug/kg	180	58.	1
Dibenzo(a,h)anthracene	ND		ug/kg	180	58.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	240	66.	1
Pyrene	ND		ug/kg	180	58.	1
Biphenyl	ND		ug/kg	680	99.	1
4-Chloroaniline	ND		ug/kg	300	79.	1
2-Nitroaniline	ND		ug/kg	300	84.	1
3-Nitroaniline	ND		ug/kg	300	83.	1
4-Nitroaniline	ND		ug/kg	300	81.	1
Dibenzofuran	ND		ug/kg	300	100	1
2-Methylnaphthalene	ND		ug/kg	360	96.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	300	93.	1
Acetophenone	ND		ug/kg	300	93.	1
2,4,6-Trichlorophenol	ND		ug/kg	180	56.	1
P-Chloro-M-Cresol	ND		ug/kg	300	87.	1
2-Chlorophenol	ND		ug/kg	300	90.	1
2,4-Dichlorophenol	ND		ug/kg	270	97.	1
2,4-Dimethylphenol	ND		ug/kg	300	89.	1
2-Nitrophenol	ND		ug/kg	650	93.	1
4-Nitrophenol	ND		ug/kg	420	97.	1
2,4-Dinitrophenol	ND		ug/kg	1400	410	1
4,6-Dinitro-o-cresol	ND		ug/kg	780	110	1
Pentachlorophenol	ND		ug/kg	240	64.	1
Phenol	ND		ug/kg	300	89.	1
2-Methylphenol	ND		ug/kg	300	96.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	430	98.	1
2,4,5-Trichlorophenol	ND		ug/kg	300	97.	1
Benzoic Acid	ND		ug/kg	970	300	1
Benzyl Alcohol	ND		ug/kg	300	92.	1
Carbazole	ND		ug/kg	300	64.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-12  
 Client ID: SL-6, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	72		0-136
4-Terphenyl-d14	66		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-13  
**Client ID:** SL-5, G-2(7'-7.8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 20:28  
**Analyst:** RC  
**Percent Solids:** 66%

**Date Collected:** 11/08/13 10:15  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	200	52.	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	82.	1
Hexachlorobenzene	ND		ug/kg	150	47.	1
Bis(2-chloroethyl)ether	ND		ug/kg	230	70.	1
2-Chloronaphthalene	ND		ug/kg	250	82.	1
1,2-Dichlorobenzene	ND		ug/kg	250	82.	1
1,3-Dichlorobenzene	ND		ug/kg	250	79.	1
1,4-Dichlorobenzene	ND		ug/kg	250	76.	1
3,3'-Dichlorobenzidine	ND		ug/kg	250	67.	1
2,4-Dinitrotoluene	ND		ug/kg	250	54.	1
2,6-Dinitrotoluene	ND		ug/kg	250	64.	1
Fluoranthene	ND		ug/kg	150	46.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	250	76.	1
4-Bromophenyl phenyl ether	ND		ug/kg	250	58.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	300	88.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	270	76.	1
Hexachlorobutadiene	ND		ug/kg	250	71.	1
Hexachlorocyclopentadiene	ND		ug/kg	720	160	1
Hexachloroethane	ND		ug/kg	200	46.	1
Isophorone	ND		ug/kg	230	67.	1
Naphthalene	ND		ug/kg	250	83.	1
Nitrobenzene	ND		ug/kg	230	60.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	200	53.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	250	75.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	250	66.	1
Butyl benzyl phthalate	ND		ug/kg	250	49.	1
Di-n-butylphthalate	ND		ug/kg	250	48.	1
Di-n-octylphthalate	ND		ug/kg	250	62.	1
Diethyl phthalate	ND		ug/kg	250	53.	1
Dimethyl phthalate	ND		ug/kg	250	64.	1
Benzo(a)anthracene	ND		ug/kg	150	49.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-13  
 Client ID: SL-5, G-2(7'-7.8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	200	61.	1
Benzo(b)fluoranthene	ND		ug/kg	150	51.	1
Benzo(k)fluoranthene	ND		ug/kg	150	48.	1
Chrysene	ND		ug/kg	150	49.	1
Acenaphthylene	ND		ug/kg	200	47.	1
Anthracene	ND		ug/kg	150	42.	1
Benzo(ghi)perylene	ND		ug/kg	200	52.	1
Fluorene	ND		ug/kg	250	72.	1
Phenanthrene	ND		ug/kg	150	49.	1
Dibenzo(a,h)anthracene	ND		ug/kg	150	49.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	200	56.	1
Pyrene	ND		ug/kg	150	49.	1
Biphenyl	ND		ug/kg	570	83.	1
4-Chloroaniline	ND		ug/kg	250	66.	1
2-Nitroaniline	ND		ug/kg	250	71.	1
3-Nitroaniline	ND		ug/kg	250	69.	1
4-Nitroaniline	ND		ug/kg	250	68.	1
Dibenzofuran	ND		ug/kg	250	84.	1
2-Methylnaphthalene	ND		ug/kg	300	80.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	250	78.	1
Acetophenone	ND		ug/kg	250	78.	1
2,4,6-Trichlorophenol	ND		ug/kg	150	47.	1
P-Chloro-M-Cresol	ND		ug/kg	250	73.	1
2-Chlorophenol	ND		ug/kg	250	76.	1
2,4-Dichlorophenol	ND		ug/kg	230	81.	1
2,4-Dimethylphenol	ND		ug/kg	250	75.	1
2-Nitrophenol	ND		ug/kg	540	78.	1
4-Nitrophenol	ND		ug/kg	350	81.	1
2,4-Dinitrophenol	ND		ug/kg	1200	340	1
4,6-Dinitro-o-cresol	ND		ug/kg	650	92.	1
Pentachlorophenol	ND		ug/kg	200	54.	1
Phenol	ND		ug/kg	250	74.	1
2-Methylphenol	ND		ug/kg	250	81.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	360	82.	1
2,4,5-Trichlorophenol	ND		ug/kg	250	81.	1
Benzoic Acid	ND		ug/kg	810	250	1
Benzyl Alcohol	ND		ug/kg	250	77.	1
Carbazole	ND		ug/kg	250	54.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-13  
 Client ID: SL-5, G-2(7'-7.8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	68		0-136
4-Terphenyl-d14	69		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-14  
**Client ID:** SL-5, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 20:53  
**Analyst:** RC  
**Percent Solids:** 59%

**Date Collected:** 11/08/13 10:15  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	220	57.	1
1,2,4-Trichlorobenzene	ND		ug/kg	280	91.	1
Hexachlorobenzene	ND		ug/kg	170	52.	1
Bis(2-chloroethyl)ether	ND		ug/kg	250	78.	1
2-Chloronaphthalene	ND		ug/kg	280	90.	1
1,2-Dichlorobenzene	ND		ug/kg	280	91.	1
1,3-Dichlorobenzene	ND		ug/kg	280	87.	1
1,4-Dichlorobenzene	ND		ug/kg	280	84.	1
3,3'-Dichlorobenzidine	ND		ug/kg	280	74.	1
2,4-Dinitrotoluene	ND		ug/kg	280	60.	1
2,6-Dinitrotoluene	ND		ug/kg	280	71.	1
Fluoranthene	ND		ug/kg	170	51.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	280	84.	1
4-Bromophenyl phenyl ether	ND		ug/kg	280	64.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	330	97.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	300	84.	1
Hexachlorobutadiene	ND		ug/kg	280	78.	1
Hexachlorocyclopentadiene	ND		ug/kg	790	180	1
Hexachloroethane	ND		ug/kg	220	50.	1
Isophorone	ND		ug/kg	250	74.	1
Naphthalene	ND		ug/kg	280	92.	1
Nitrobenzene	ND		ug/kg	250	66.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	220	58.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	280	82.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	280	72.	1
Butyl benzyl phthalate	ND		ug/kg	280	54.	1
Di-n-butylphthalate	ND		ug/kg	280	53.	1
Di-n-octylphthalate	ND		ug/kg	280	68.	1
Diethyl phthalate	ND		ug/kg	280	58.	1
Dimethyl phthalate	ND		ug/kg	280	70.	1
Benzo(a)anthracene	ND		ug/kg	170	54.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-14  
 Client ID: SL-5, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	220	68.	1
Benzo(b)fluoranthene	ND		ug/kg	170	56.	1
Benzo(k)fluoranthene	ND		ug/kg	170	53.	1
Chrysene	ND		ug/kg	170	54.	1
Acenaphthylene	ND		ug/kg	220	52.	1
Anthracene	ND		ug/kg	170	46.	1
Benzo(ghi)perylene	ND		ug/kg	220	58.	1
Fluorene	ND		ug/kg	280	79.	1
Phenanthrene	ND		ug/kg	170	54.	1
Dibenzo(a,h)anthracene	ND		ug/kg	170	54.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	220	61.	1
Pyrene	ND		ug/kg	170	54.	1
Biphenyl	ND		ug/kg	630	91.	1
4-Chloroaniline	ND		ug/kg	280	73.	1
2-Nitroaniline	ND		ug/kg	280	78.	1
3-Nitroaniline	ND		ug/kg	280	76.	1
4-Nitroaniline	ND		ug/kg	280	75.	1
Dibenzofuran	ND		ug/kg	280	92.	1
2-Methylnaphthalene	ND		ug/kg	330	88.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	280	86.	1
Acetophenone	ND		ug/kg	280	86.	1
2,4,6-Trichlorophenol	ND		ug/kg	170	52.	1
P-Chloro-M-Cresol	ND		ug/kg	280	80.	1
2-Chlorophenol	ND		ug/kg	280	84.	1
2,4-Dichlorophenol	ND		ug/kg	250	90.	1
2,4-Dimethylphenol	ND		ug/kg	280	82.	1
2-Nitrophenol	ND		ug/kg	600	86.	1
4-Nitrophenol	ND		ug/kg	390	90.	1
2,4-Dinitrophenol	ND		ug/kg	1300	380	1
4,6-Dinitro-o-cresol	ND		ug/kg	720	100	1
Pentachlorophenol	ND		ug/kg	220	59.	1
Phenol	ND		ug/kg	280	82.	1
2-Methylphenol	ND		ug/kg	280	89.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	400	91.	1
2,4,5-Trichlorophenol	ND		ug/kg	280	90.	1
Benzoic Acid	ND		ug/kg	900	280	1
Benzyl Alcohol	ND		ug/kg	280	85.	1
Carbazole	ND		ug/kg	280	59.	1



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-14  
 Client ID: SL-5, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	59		30-120
2,4,6-Tribromophenol	62		0-136
4-Terphenyl-d14	54		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-15  
 Client ID: SL-8, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 11/14/13 21:19  
 Analyst: RC  
 Percent Solids: 50%

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	260	67.	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	110	1
Hexachlorobenzene	ND		ug/kg	190	60.	1
Bis(2-chloroethyl)ether	ND		ug/kg	290	91.	1
2-Chloronaphthalene	ND		ug/kg	320	100	1
1,2-Dichlorobenzene	ND		ug/kg	320	110	1
1,3-Dichlorobenzene	ND		ug/kg	320	100	1
1,4-Dichlorobenzene	ND		ug/kg	320	98.	1
3,3'-Dichlorobenzidine	ND		ug/kg	320	86.	1
2,4-Dinitrotoluene	ND		ug/kg	320	70.	1
2,6-Dinitrotoluene	ND		ug/kg	320	83.	1
Fluoranthene	ND		ug/kg	190	59.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	320	98.	1
4-Bromophenyl phenyl ether	ND		ug/kg	320	74.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	390	110	1
Bis(2-chloroethoxy)methane	ND		ug/kg	350	98.	1
Hexachlorobutadiene	ND		ug/kg	320	91.	1
Hexachlorocyclopentadiene	ND		ug/kg	930	210	1
Hexachloroethane	ND		ug/kg	260	59.	1
Isophorone	ND		ug/kg	290	86.	1
Naphthalene	ND		ug/kg	320	110	1
Nitrobenzene	ND		ug/kg	290	77.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	260	68.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	320	96.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	320	85.	1
Butyl benzyl phthalate	ND		ug/kg	320	63.	1
Di-n-butylphthalate	ND		ug/kg	320	62.	1
Di-n-octylphthalate	ND		ug/kg	320	80.	1
Diethyl phthalate	ND		ug/kg	320	68.	1
Dimethyl phthalate	ND		ug/kg	320	82.	1
Benzo(a)anthracene	ND		ug/kg	190	63.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-15  
 Client ID: SL-8, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	260	79.	1
Benzo(b)fluoranthene	ND		ug/kg	190	65.	1
Benzo(k)fluoranthene	ND		ug/kg	190	62.	1
Chrysene	ND		ug/kg	190	64.	1
Acenaphthylene	ND		ug/kg	260	60.	1
Anthracene	ND		ug/kg	190	54.	1
Benzo(ghi)perylene	ND		ug/kg	260	67.	1
Fluorene	ND		ug/kg	320	93.	1
Phenanthrene	ND		ug/kg	190	63.	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	63.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	260	72.	1
Pyrene	ND		ug/kg	190	63.	1
Biphenyl	ND		ug/kg	740	110	1
4-Chloroaniline	ND		ug/kg	320	85.	1
2-Nitroaniline	ND		ug/kg	320	91.	1
3-Nitroaniline	ND		ug/kg	320	89.	1
4-Nitroaniline	ND		ug/kg	320	87.	1
Dibenzofuran	ND		ug/kg	320	110	1
2-Methylnaphthalene	ND		ug/kg	390	100	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	320	100	1
Acetophenone	ND		ug/kg	320	100	1
2,4,6-Trichlorophenol	ND		ug/kg	190	61.	1
P-Chloro-M-Cresol	ND		ug/kg	320	94.	1
2-Chlorophenol	ND		ug/kg	320	98.	1
2,4-Dichlorophenol	ND		ug/kg	290	100	1
2,4-Dimethylphenol	ND		ug/kg	320	96.	1
2-Nitrophenol	ND		ug/kg	700	100	1
4-Nitrophenol	ND		ug/kg	450	100	1
2,4-Dinitrophenol	ND		ug/kg	1600	440	1
4,6-Dinitro-o-cresol	ND		ug/kg	840	120	1
Pentachlorophenol	ND		ug/kg	260	69.	1
Phenol	ND		ug/kg	320	96.	1
2-Methylphenol	ND		ug/kg	320	100	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	470	110	1
2,4,5-Trichlorophenol	ND		ug/kg	320	100	1
Benzoic Acid	ND		ug/kg	1000	330	1
Benzyl Alcohol	ND		ug/kg	320	100	1
Carbazole	ND		ug/kg	320	70.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-15  
 Client ID: SL-8, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	60		30-120
2,4,6-Tribromophenol	69		0-136
4-Terphenyl-d14	67		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-16  
**Client ID:** SL-8, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 21:44  
**Analyst:** RC  
**Percent Solids:** 57%

**Date Collected:** 11/08/13 13:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	230	59.	1
1,2,4-Trichlorobenzene	ND		ug/kg	280	94.	1
Hexachlorobenzene	ND		ug/kg	170	53.	1
Bis(2-chloroethyl)ether	ND		ug/kg	260	80.	1
2-Chloronaphthalene	ND		ug/kg	280	93.	1
1,2-Dichlorobenzene	ND		ug/kg	280	94.	1
1,3-Dichlorobenzene	ND		ug/kg	280	90.	1
1,4-Dichlorobenzene	ND		ug/kg	280	87.	1
3,3'-Dichlorobenzidine	ND		ug/kg	280	76.	1
2,4-Dinitrotoluene	ND		ug/kg	280	62.	1
2,6-Dinitrotoluene	ND		ug/kg	280	73.	1
Fluoranthene	ND		ug/kg	170	52.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	280	87.	1
4-Bromophenyl phenyl ether	ND		ug/kg	280	66.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	340	100	1
Bis(2-chloroethoxy)methane	ND		ug/kg	310	86.	1
Hexachlorobutadiene	ND		ug/kg	280	81.	1
Hexachlorocyclopentadiene	ND		ug/kg	820	180	1
Hexachloroethane	ND		ug/kg	230	52.	1
Isophorone	ND		ug/kg	260	76.	1
Naphthalene	ND		ug/kg	280	95.	1
Nitrobenzene	ND		ug/kg	260	68.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	230	60.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	280	85.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	280	75.	1
Butyl benzyl phthalate	ND		ug/kg	280	56.	1
Di-n-butylphthalate	ND		ug/kg	280	55.	1
Di-n-octylphthalate	ND		ug/kg	280	70.	1
Diethyl phthalate	ND		ug/kg	280	60.	1
Dimethyl phthalate	ND		ug/kg	280	73.	1
Benzo(a)anthracene	ND		ug/kg	170	56.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-16  
 Client ID: SL-8, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	230	70.	1
Benzo(b)fluoranthene	ND		ug/kg	170	58.	1
Benzo(k)fluoranthene	ND		ug/kg	170	54.	1
Chrysene	ND		ug/kg	170	56.	1
Acenaphthylene	ND		ug/kg	230	53.	1
Anthracene	ND		ug/kg	170	48.	1
Benzo(ghi)perylene	ND		ug/kg	230	59.	1
Fluorene	ND		ug/kg	280	82.	1
Phenanthrene	ND		ug/kg	170	56.	1
Dibenzo(a,h)anthracene	ND		ug/kg	170	55.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	230	63.	1
Pyrene	ND		ug/kg	170	56.	1
Biphenyl	ND		ug/kg	650	94.	1
4-Chloroaniline	ND		ug/kg	280	75.	1
2-Nitroaniline	ND		ug/kg	280	81.	1
3-Nitroaniline	ND		ug/kg	280	79.	1
4-Nitroaniline	ND		ug/kg	280	77.	1
Dibenzofuran	ND		ug/kg	280	95.	1
2-Methylnaphthalene	ND		ug/kg	340	91.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	280	88.	1
Acetophenone	ND		ug/kg	280	89.	1
2,4,6-Trichlorophenol	ND		ug/kg	170	54.	1
P-Chloro-M-Cresol	ND		ug/kg	280	83.	1
2-Chlorophenol	ND		ug/kg	280	86.	1
2,4-Dichlorophenol	ND		ug/kg	260	93.	1
2,4-Dimethylphenol	ND		ug/kg	280	85.	1
2-Nitrophenol	ND		ug/kg	620	89.	1
4-Nitrophenol	ND		ug/kg	400	93.	1
2,4-Dinitrophenol	ND		ug/kg	1400	390	1
4,6-Dinitro-o-cresol	ND		ug/kg	740	100	1
Pentachlorophenol	ND		ug/kg	230	61.	1
Phenol	ND		ug/kg	280	85.	1
2-Methylphenol	ND		ug/kg	280	92.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	410	94.	1
2,4,5-Trichlorophenol	ND		ug/kg	280	93.	1
Benzoic Acid	ND		ug/kg	930	290	1
Benzyl Alcohol	ND		ug/kg	280	88.	1
Carbazole	ND		ug/kg	280	61.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-16  
 Client ID: SL-8, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	75		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	67		30-120
2,4,6-Tribromophenol	72		0-136
4-Terphenyl-d14	71		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-17  
**Client ID:** SL-7, G-1(0.5'-1.0')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 22:10  
**Analyst:** RC  
**Percent Solids:** 37%

**Date Collected:** 11/09/13 16:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	360	92.	1
1,2,4-Trichlorobenzene	ND		ug/kg	450	150	1
Hexachlorobenzene	ND		ug/kg	270	83.	1
Bis(2-chloroethyl)ether	ND		ug/kg	400	120	1
2-Chloronaphthalene	ND		ug/kg	450	140	1
1,2-Dichlorobenzene	ND		ug/kg	450	150	1
1,3-Dichlorobenzene	ND		ug/kg	450	140	1
1,4-Dichlorobenzene	ND		ug/kg	450	140	1
3,3'-Dichlorobenzidine	ND		ug/kg	450	120	1
2,4-Dinitrotoluene	ND		ug/kg	450	96.	1
2,6-Dinitrotoluene	ND		ug/kg	450	110	1
Fluoranthene	ND		ug/kg	270	82.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	450	140	1
4-Bromophenyl phenyl ether	ND		ug/kg	450	100	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	540	160	1
Bis(2-chloroethoxy)methane	ND		ug/kg	480	140	1
Hexachlorobutadiene	ND		ug/kg	450	130	1
Hexachlorocyclopentadiene	ND		ug/kg	1300	290	1
Hexachloroethane	ND		ug/kg	360	81.	1
Isophorone	ND		ug/kg	400	120	1
Naphthalene	ND		ug/kg	450	150	1
Nitrobenzene	ND		ug/kg	400	110	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	360	94.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	450	130	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	450	120	1
Butyl benzyl phthalate	ND		ug/kg	450	87.	1
Di-n-butylphthalate	ND		ug/kg	450	86.	1
Di-n-octylphthalate	ND		ug/kg	450	110	1
Diethyl phthalate	ND		ug/kg	450	95.	1
Dimethyl phthalate	ND		ug/kg	450	110	1
Benzo(a)anthracene	ND		ug/kg	270	88.	1



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-17  
 Client ID: SL-7, G-1(0.5'-1.0')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	360	110	1
Benzo(b)fluoranthene	ND		ug/kg	270	90.	1
Benzo(k)fluoranthene	ND		ug/kg	270	85.	1
Chrysene	ND		ug/kg	270	88.	1
Acenaphthylene	ND		ug/kg	360	84.	1
Anthracene	ND		ug/kg	270	74.	1
Benzo(ghi)perylene	ND		ug/kg	360	93.	1
Fluorene	ND		ug/kg	450	130	1
Phenanthrene	ND		ug/kg	270	88.	1
Dibenzo(a,h)anthracene	ND		ug/kg	270	87.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	360	99.	1
Pyrene	ND		ug/kg	270	87.	1
Biphenyl	ND		ug/kg	1000	150	1
4-Chloroaniline	ND		ug/kg	450	120	1
2-Nitroaniline	ND		ug/kg	450	130	1
3-Nitroaniline	ND		ug/kg	450	120	1
4-Nitroaniline	ND		ug/kg	450	120	1
Dibenzofuran	ND		ug/kg	450	150	1
2-Methylnaphthalene	ND		ug/kg	540	140	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	450	140	1
Acetophenone	ND		ug/kg	450	140	1
2,4,6-Trichlorophenol	ND		ug/kg	270	84.	1
P-Chloro-M-Cresol	ND		ug/kg	450	130	1
2-Chlorophenol	ND		ug/kg	450	140	1
2,4-Dichlorophenol	ND		ug/kg	400	140	1
2,4-Dimethylphenol	ND		ug/kg	450	130	1
2-Nitrophenol	ND		ug/kg	970	140	1
4-Nitrophenol	ND		ug/kg	630	140	1
2,4-Dinitrophenol	ND		ug/kg	2100	610	1
4,6-Dinitro-o-cresol	ND		ug/kg	1200	160	1
Pentachlorophenol	ND		ug/kg	360	96.	1
Phenol	ND		ug/kg	450	130	1
2-Methylphenol	ND		ug/kg	450	140	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	640	150	1
2,4,5-Trichlorophenol	ND		ug/kg	450	140	1
Benzoic Acid	ND		ug/kg	1400	450	1
Benzyl Alcohol	ND		ug/kg	450	140	1
Carbazole	ND		ug/kg	450	96.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-17  
 Client ID: SL-7, G-1(0.5'-1.0')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	45		23-120
2-Fluorobiphenyl	39		30-120
2,4,6-Tribromophenol	56		0-136
4-Terphenyl-d14	30		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-18  
**Client ID:** SL-9, G-1(1'-2')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 22:35  
**Analyst:** RC  
**Percent Solids:** 60%

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	220	56.	1
1,2,4-Trichlorobenzene	ND		ug/kg	270	89.	1
Hexachlorobenzene	ND		ug/kg	160	51.	1
Bis(2-chloroethyl)ether	ND		ug/kg	240	76.	1
2-Chloronaphthalene	ND		ug/kg	270	89.	1
1,2-Dichlorobenzene	ND		ug/kg	270	89.	1
1,3-Dichlorobenzene	ND		ug/kg	270	86.	1
1,4-Dichlorobenzene	ND		ug/kg	270	83.	1
3,3'-Dichlorobenzidine	ND		ug/kg	270	72.	1
2,4-Dinitrotoluene	ND		ug/kg	270	59.	1
2,6-Dinitrotoluene	ND		ug/kg	270	70.	1
Fluoranthene	ND		ug/kg	160	50.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	270	83.	1
4-Bromophenyl phenyl ether	ND		ug/kg	270	62.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	330	96.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	290	82.	1
Hexachlorobutadiene	ND		ug/kg	270	77.	1
Hexachlorocyclopentadiene	ND		ug/kg	780	170	1
Hexachloroethane	ND		ug/kg	220	49.	1
Isophorone	ND		ug/kg	240	72.	1
Naphthalene	ND		ug/kg	270	90.	1
Nitrobenzene	ND		ug/kg	240	65.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	220	57.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	270	81.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	270	71.	1
Butyl benzyl phthalate	ND		ug/kg	270	53.	1
Di-n-butylphthalate	ND		ug/kg	270	52.	1
Di-n-octylphthalate	ND		ug/kg	270	67.	1
Diethyl phthalate	ND		ug/kg	270	57.	1
Dimethyl phthalate	ND		ug/kg	270	69.	1
Benzo(a)anthracene	ND		ug/kg	160	53.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-18  
 Client ID: SL-9, G-1(1'-2')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	220	66.	1
Benzo(b)fluoranthene	ND		ug/kg	160	55.	1
Benzo(k)fluoranthene	ND		ug/kg	160	52.	1
Chrysene	ND		ug/kg	160	53.	1
Acenaphthylene	ND		ug/kg	220	51.	1
Anthracene	ND		ug/kg	160	45.	1
Benzo(ghi)perylene	ND		ug/kg	220	56.	1
Fluorene	ND		ug/kg	270	78.	1
Phenanthrene	ND		ug/kg	160	53.	1
Dibenzo(a,h)anthracene	ND		ug/kg	160	53.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	220	60.	1
Pyrene	ND		ug/kg	160	53.	1
Biphenyl	ND		ug/kg	620	90.	1
4-Chloroaniline	ND		ug/kg	270	72.	1
2-Nitroaniline	ND		ug/kg	270	77.	1
3-Nitroaniline	ND		ug/kg	270	75.	1
4-Nitroaniline	ND		ug/kg	270	73.	1
Dibenzofuran	ND		ug/kg	270	91.	1
2-Methylnaphthalene	ND		ug/kg	330	87.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	270	84.	1
Acetophenone	ND		ug/kg	270	84.	1
2,4,6-Trichlorophenol	ND		ug/kg	160	51.	1
P-Chloro-M-Cresol	ND		ug/kg	270	79.	1
2-Chlorophenol	ND		ug/kg	270	82.	1
2,4-Dichlorophenol	ND		ug/kg	240	88.	1
2,4-Dimethylphenol	ND		ug/kg	270	81.	1
2-Nitrophenol	ND		ug/kg	590	85.	1
4-Nitrophenol	ND		ug/kg	380	88.	1
2,4-Dinitrophenol	ND		ug/kg	1300	370	1
4,6-Dinitro-o-cresol	ND		ug/kg	710	100	1
Pentachlorophenol	ND		ug/kg	220	58.	1
Phenol	ND		ug/kg	270	80.	1
2-Methylphenol	ND		ug/kg	270	88.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	390	89.	1
2,4,5-Trichlorophenol	ND		ug/kg	270	88.	1
Benzoic Acid	ND		ug/kg	880	280	1
Benzyl Alcohol	ND		ug/kg	270	84.	1
Carbazole	ND		ug/kg	270	58.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-18  
 Client ID: SL-9, G-1(1'-2')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	60		30-120
2,4,6-Tribromophenol	65		0-136
4-Terphenyl-d14	65		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-19  
**Client ID:** SL-9, G-2(4'-5')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 23:01  
**Analyst:** RC  
**Percent Solids:** 71%

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	190	48.	1
1,2,4-Trichlorobenzene	ND		ug/kg	230	77.	1
Hexachlorobenzene	ND		ug/kg	140	44.	1
Bis(2-chloroethyl)ether	ND		ug/kg	210	66.	1
2-Chloronaphthalene	ND		ug/kg	230	76.	1
1,2-Dichlorobenzene	ND		ug/kg	230	77.	1
1,3-Dichlorobenzene	ND		ug/kg	230	74.	1
1,4-Dichlorobenzene	ND		ug/kg	230	71.	1
3,3'-Dichlorobenzidine	ND		ug/kg	230	62.	1
2,4-Dinitrotoluene	ND		ug/kg	230	50.	1
2,6-Dinitrotoluene	ND		ug/kg	230	60.	1
Fluoranthene	ND		ug/kg	140	43.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	230	71.	1
4-Bromophenyl phenyl ether	ND		ug/kg	230	54.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	280	82.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	250	71.	1
Hexachlorobutadiene	ND		ug/kg	230	66.	1
Hexachlorocyclopentadiene	ND		ug/kg	670	150	1
Hexachloroethane	ND		ug/kg	190	43.	1
Isophorone	ND		ug/kg	210	62.	1
Naphthalene	ND		ug/kg	230	78.	1
Nitrobenzene	ND		ug/kg	210	56.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	190	49.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	230	70.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	230	61.	1
Butyl benzyl phthalate	ND		ug/kg	230	46.	1
Di-n-butylphthalate	ND		ug/kg	230	45.	1
Di-n-octylphthalate	ND		ug/kg	230	58.	1
Diethyl phthalate	ND		ug/kg	230	50.	1
Dimethyl phthalate	ND		ug/kg	230	60.	1
Benzo(a)anthracene	ND		ug/kg	140	46.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-19  
 Client ID: SL-9, G-2(4'-5')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	190	57.	1
Benzo(b)fluoranthene	ND		ug/kg	140	47.	1
Benzo(k)fluoranthene	ND		ug/kg	140	45.	1
Chrysene	ND		ug/kg	140	46.	1
Acenaphthylene	ND		ug/kg	190	44.	1
Anthracene	ND		ug/kg	140	39.	1
Benzo(ghi)perylene	ND		ug/kg	190	49.	1
Fluorene	ND		ug/kg	230	67.	1
Phenanthrene	ND		ug/kg	140	46.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	45.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	190	52.	1
Pyrene	ND		ug/kg	140	46.	1
Biphenyl	ND		ug/kg	530	77.	1
4-Chloroaniline	ND		ug/kg	230	62.	1
2-Nitroaniline	ND		ug/kg	230	66.	1
3-Nitroaniline	ND		ug/kg	230	65.	1
4-Nitroaniline	ND		ug/kg	230	63.	1
Dibenzofuran	ND		ug/kg	230	78.	1
2-Methylnaphthalene	ND		ug/kg	280	75.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	230	73.	1
Acetophenone	ND		ug/kg	230	73.	1
2,4,6-Trichlorophenol	ND		ug/kg	140	44.	1
P-Chloro-M-Cresol	ND		ug/kg	230	68.	1
2-Chlorophenol	ND		ug/kg	230	71.	1
2,4-Dichlorophenol	ND		ug/kg	210	76.	1
2,4-Dimethylphenol	ND		ug/kg	230	70.	1
2-Nitrophenol	ND		ug/kg	510	73.	1
4-Nitrophenol	ND		ug/kg	330	76.	1
2,4-Dinitrophenol	ND		ug/kg	1100	320	1
4,6-Dinitro-o-cresol	ND		ug/kg	610	86.	1
Pentachlorophenol	ND		ug/kg	190	50.	1
Phenol	ND		ug/kg	230	69.	1
2-Methylphenol	ND		ug/kg	230	75.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	340	77.	1
2,4,5-Trichlorophenol	ND		ug/kg	230	76.	1
Benzoic Acid	ND		ug/kg	760	240	1
Benzyl Alcohol	ND		ug/kg	230	72.	1
Carbazole	ND		ug/kg	230	50.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-19  
 Client ID: SL-9, G-2(4'-5')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	65		0-136
4-Terphenyl-d14	69		18-120



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-20  
 Client ID: SL-7, G-2(6'-6.8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 11/14/13 23:27  
 Analyst: RC  
 Percent Solids: 53%

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	250	64.	1
1,2,4-Trichlorobenzene	ND		ug/kg	310	100	1
Hexachlorobenzene	ND		ug/kg	190	58.	1
Bis(2-chloroethyl)ether	ND		ug/kg	280	88.	1
2-Chloronaphthalene	ND		ug/kg	310	100	1
1,2-Dichlorobenzene	ND		ug/kg	310	100	1
1,3-Dichlorobenzene	ND		ug/kg	310	98.	1
1,4-Dichlorobenzene	ND		ug/kg	310	95.	1
3,3'-Dichlorobenzidine	ND		ug/kg	310	83.	1
2,4-Dinitrotoluene	ND		ug/kg	310	67.	1
2,6-Dinitrotoluene	ND		ug/kg	310	80.	1
Fluoranthene	ND		ug/kg	190	57.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	310	95.	1
4-Bromophenyl phenyl ether	ND		ug/kg	310	72.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	370	110	1
Bis(2-chloroethoxy)methane	ND		ug/kg	340	94.	1
Hexachlorobutadiene	ND		ug/kg	310	88.	1
Hexachlorocyclopentadiene	ND		ug/kg	900	200	1
Hexachloroethane	ND		ug/kg	250	57.	1
Isophorone	ND		ug/kg	280	83.	1
Naphthalene	ND		ug/kg	310	100	1
Nitrobenzene	ND		ug/kg	280	74.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	250	66.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	310	93.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	310	82.	1
Butyl benzyl phthalate	ND		ug/kg	310	61.	1
Di-n-butylphthalate	ND		ug/kg	310	60.	1
Di-n-octylphthalate	ND		ug/kg	310	77.	1
Diethyl phthalate	ND		ug/kg	310	66.	1
Dimethyl phthalate	ND		ug/kg	310	79.	1
Benzo(a)anthracene	ND		ug/kg	190	61.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-20  
 Client ID: SL-7, G-2(6'-6.8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	250	76.	1
Benzo(b)fluoranthene	ND		ug/kg	190	63.	1
Benzo(k)fluoranthene	ND		ug/kg	190	60.	1
Chrysene	ND		ug/kg	190	61.	1
Acenaphthylene	ND		ug/kg	250	58.	1
Anthracene	ND		ug/kg	190	52.	1
Benzo(ghi)perylene	ND		ug/kg	250	65.	1
Fluorene	ND		ug/kg	310	89.	1
Phenanthrene	ND		ug/kg	190	61.	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	60.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	250	69.	1
Pyrene	ND		ug/kg	190	61.	1
Biphenyl	ND		ug/kg	710	100	1
4-Chloroaniline	ND		ug/kg	310	82.	1
2-Nitroaniline	ND		ug/kg	310	88.	1
3-Nitroaniline	ND		ug/kg	310	86.	1
4-Nitroaniline	ND		ug/kg	310	84.	1
Dibenzofuran	ND		ug/kg	310	100	1
2-Methylnaphthalene	ND		ug/kg	370	100	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	310	97.	1
Acetophenone	ND		ug/kg	310	97.	1
2,4,6-Trichlorophenol	ND		ug/kg	190	59.	1
P-Chloro-M-Cresol	ND		ug/kg	310	90.	1
2-Chlorophenol	ND		ug/kg	310	94.	1
2,4-Dichlorophenol	ND		ug/kg	280	100	1
2,4-Dimethylphenol	ND		ug/kg	310	93.	1
2-Nitrophenol	ND		ug/kg	670	97.	1
4-Nitrophenol	ND		ug/kg	440	100	1
2,4-Dinitrophenol	ND		ug/kg	1500	430	1
4,6-Dinitro-o-cresol	ND		ug/kg	810	110	1
Pentachlorophenol	ND		ug/kg	250	67.	1
Phenol	ND		ug/kg	310	92.	1
2-Methylphenol	ND		ug/kg	310	100	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	450	100	1
2,4,5-Trichlorophenol	ND		ug/kg	310	100	1
Benzoic Acid	ND		ug/kg	1000	320	1
Benzyl Alcohol	ND		ug/kg	310	96.	1
Carbazole	ND		ug/kg	310	67.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-20  
 Client ID: SL-7, G-2(6'-6.8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	62		30-120
2,4,6-Tribromophenol	64		0-136
4-Terphenyl-d14	72		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-21  
**Client ID:** SL-11, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 12:14  
**Analyst:** RC  
**Percent Solids:** 48%

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 21:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	270	70.	1
1,2,4-Trichlorobenzene	ND		ug/kg	340	110	1
Hexachlorobenzene	ND		ug/kg	200	64.	1
Bis(2-chloroethyl)ether	ND		ug/kg	310	96.	1
2-Chloronaphthalene	ND		ug/kg	340	110	1
1,2-Dichlorobenzene	ND		ug/kg	340	110	1
1,3-Dichlorobenzene	ND		ug/kg	340	110	1
1,4-Dichlorobenzene	ND		ug/kg	340	100	1
3,3'-Dichlorobenzidine	ND		ug/kg	340	91.	1
2,4-Dinitrotoluene	ND		ug/kg	340	74.	1
2,6-Dinitrotoluene	ND		ug/kg	340	87.	1
Fluoranthene	ND		ug/kg	200	63.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	340	100	1
4-Bromophenyl phenyl ether	ND		ug/kg	340	78.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	410	120	1
Bis(2-chloroethoxy)methane	ND		ug/kg	370	100	1
Hexachlorobutadiene	ND		ug/kg	340	96.	1
Hexachlorocyclopentadiene	ND		ug/kg	980	220	1
Hexachloroethane	ND		ug/kg	270	62.	1
Isophorone	ND		ug/kg	310	91.	1
Naphthalene	ND		ug/kg	340	110	1
Nitrobenzene	ND		ug/kg	310	81.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	270	72.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	340	100	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	340	89.	1
Butyl benzyl phthalate	ND		ug/kg	340	67.	1
Di-n-butylphthalate	ND		ug/kg	340	66.	1
Di-n-octylphthalate	ND		ug/kg	340	84.	1
Diethyl phthalate	ND		ug/kg	340	72.	1
Dimethyl phthalate	ND		ug/kg	340	87.	1
Benzo(a)anthracene	ND		ug/kg	200	67.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-21  
 Client ID: SL-11, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	270	83.	1
Benzo(b)fluoranthene	ND		ug/kg	200	69.	1
Benzo(k)fluoranthene	ND		ug/kg	200	65.	1
Chrysene	ND		ug/kg	200	67.	1
Acenaphthylene	ND		ug/kg	270	64.	1
Anthracene	ND		ug/kg	200	57.	1
Benzo(ghi)perylene	ND		ug/kg	270	71.	1
Fluorene	ND		ug/kg	340	98.	1
Phenanthrene	ND		ug/kg	200	67.	1
Dibenzo(a,h)anthracene	ND		ug/kg	200	66.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	270	76.	1
Pyrene	ND		ug/kg	200	66.	1
Biphenyl	ND		ug/kg	780	110	1
4-Chloroaniline	ND		ug/kg	340	90.	1
2-Nitroaniline	ND		ug/kg	340	96.	1
3-Nitroaniline	ND		ug/kg	340	94.	1
4-Nitroaniline	ND		ug/kg	340	92.	1
Dibenzofuran	ND		ug/kg	340	110	1
2-Methylnaphthalene	ND		ug/kg	410	110	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	340	100	1
Acetophenone	ND		ug/kg	340	100	1
2,4,6-Trichlorophenol	ND		ug/kg	200	64.	1
P-Chloro-M-Cresol	ND		ug/kg	340	99.	1
2-Chlorophenol	ND		ug/kg	340	100	1
2,4-Dichlorophenol	ND		ug/kg	310	110	1
2,4-Dimethylphenol	ND		ug/kg	340	100	1
2-Nitrophenol	ND		ug/kg	740	110	1
4-Nitrophenol	ND		ug/kg	480	110	1
2,4-Dinitrophenol	ND		ug/kg	1600	470	1
4,6-Dinitro-o-cresol	ND		ug/kg	890	120	1
Pentachlorophenol	ND		ug/kg	270	73.	1
Phenol	ND		ug/kg	340	100	1
2-Methylphenol	ND		ug/kg	340	110	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	490	110	1
2,4,5-Trichlorophenol	ND		ug/kg	340	110	1
Benzoic Acid	ND		ug/kg	1100	340	1
Benzyl Alcohol	ND		ug/kg	340	100	1
Carbazole	ND		ug/kg	340	73.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-21  
 Client ID: SL-11, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	72		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	78		0-136
4-Terphenyl-d14	54		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-22  
**Client ID:** SL-11, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 12:38  
**Analyst:** RC  
**Percent Solids:** 59%

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 21:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	220	57.	1
1,2,4-Trichlorobenzene	ND		ug/kg	280	91.	1
Hexachlorobenzene	ND		ug/kg	170	52.	1
Bis(2-chloroethyl)ether	ND		ug/kg	250	78.	1
2-Chloronaphthalene	ND		ug/kg	280	90.	1
1,2-Dichlorobenzene	ND		ug/kg	280	91.	1
1,3-Dichlorobenzene	ND		ug/kg	280	87.	1
1,4-Dichlorobenzene	ND		ug/kg	280	84.	1
3,3'-Dichlorobenzidine	ND		ug/kg	280	74.	1
2,4-Dinitrotoluene	ND		ug/kg	280	60.	1
2,6-Dinitrotoluene	ND		ug/kg	280	71.	1
Fluoranthene	ND		ug/kg	170	51.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	280	84.	1
4-Bromophenyl phenyl ether	ND		ug/kg	280	64.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	330	98.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	300	84.	1
Hexachlorobutadiene	ND		ug/kg	280	78.	1
Hexachlorocyclopentadiene	ND		ug/kg	800	180	1
Hexachloroethane	ND		ug/kg	220	50.	1
Isophorone	ND		ug/kg	250	74.	1
Naphthalene	ND		ug/kg	280	92.	1
Nitrobenzene	ND		ug/kg	250	66.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	220	58.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	280	83.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	280	73.	1
Butyl benzyl phthalate	ND		ug/kg	280	54.	1
Di-n-butylphthalate	ND		ug/kg	280	54.	1
Di-n-octylphthalate	ND		ug/kg	280	68.	1
Diethyl phthalate	ND		ug/kg	280	59.	1
Dimethyl phthalate	ND		ug/kg	280	70.	1
Benzo(a)anthracene	ND		ug/kg	170	54.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-22  
 Client ID: SL-11, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	220	68.	1
Benzo(b)fluoranthene	ND		ug/kg	170	56.	1
Benzo(k)fluoranthene	ND		ug/kg	170	53.	1
Chrysene	ND		ug/kg	170	54.	1
Acenaphthylene	ND		ug/kg	220	52.	1
Anthracene	ND		ug/kg	170	46.	1
Benzo(ghi)perylene	ND		ug/kg	220	58.	1
Fluorene	ND		ug/kg	280	80.	1
Phenanthrene	ND		ug/kg	170	54.	1
Dibenzo(a,h)anthracene	ND		ug/kg	170	54.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	220	62.	1
Pyrene	ND		ug/kg	170	54.	1
Biphenyl	ND		ug/kg	630	92.	1
4-Chloroaniline	ND		ug/kg	280	73.	1
2-Nitroaniline	ND		ug/kg	280	78.	1
3-Nitroaniline	ND		ug/kg	280	77.	1
4-Nitroaniline	ND		ug/kg	280	75.	1
Dibenzofuran	ND		ug/kg	280	93.	1
2-Methylnaphthalene	ND		ug/kg	330	89.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	280	86.	1
Acetophenone	ND		ug/kg	280	86.	1
2,4,6-Trichlorophenol	ND		ug/kg	170	52.	1
P-Chloro-M-Cresol	ND		ug/kg	280	80.	1
2-Chlorophenol	ND		ug/kg	280	84.	1
2,4-Dichlorophenol	ND		ug/kg	250	90.	1
2,4-Dimethylphenol	ND		ug/kg	280	83.	1
2-Nitrophenol	ND		ug/kg	600	87.	1
4-Nitrophenol	ND		ug/kg	390	90.	1
2,4-Dinitrophenol	ND		ug/kg	1300	380	1
4,6-Dinitro-o-cresol	ND		ug/kg	720	100	1
Pentachlorophenol	ND		ug/kg	220	59.	1
Phenol	ND		ug/kg	280	82.	1
2-Methylphenol	ND		ug/kg	280	89.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	400	91.	1
2,4,5-Trichlorophenol	ND		ug/kg	280	90.	1
Benzoic Acid	ND		ug/kg	900	280	1
Benzyl Alcohol	ND		ug/kg	280	85.	1
Carbazole	ND		ug/kg	280	60.	1



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-22  
 Client ID: SL-11, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	67		0-136
4-Terphenyl-d14	63		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-23  
 Client ID: SL-13, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 11/16/13 00:40  
 Analyst: PS  
 Percent Solids: 47%

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/14/13 17:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	280	71.	1
1,2,4-Trichlorobenzene	ND		ug/kg	350	110	1
Hexachlorobenzene	ND		ug/kg	210	64.	1
Bis(2-chloroethyl)ether	ND		ug/kg	310	97.	1
2-Chloronaphthalene	ND		ug/kg	350	110	1
1,2-Dichlorobenzene	ND		ug/kg	350	110	1
1,3-Dichlorobenzene	ND		ug/kg	350	110	1
1,4-Dichlorobenzene	ND		ug/kg	350	100	1
3,3'-Dichlorobenzidine	ND		ug/kg	350	92.	1
2,4-Dinitrotoluene	ND		ug/kg	350	75.	1
2,6-Dinitrotoluene	ND		ug/kg	350	89.	1
Fluoranthene	ND		ug/kg	210	64.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	350	100	1
4-Bromophenyl phenyl ether	ND		ug/kg	350	80.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	420	120	1
Bis(2-chloroethoxy)methane	ND		ug/kg	370	100	1
Hexachlorobutadiene	ND		ug/kg	350	98.	1
Hexachlorocyclopentadiene	ND		ug/kg	990	220	1
Hexachloroethane	ND		ug/kg	280	63.	1
Isophorone	ND		ug/kg	310	92.	1
Naphthalene	ND		ug/kg	350	120	1
Nitrobenzene	ND		ug/kg	310	82.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	280	73.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	350	100	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	350	91.	1
Butyl benzyl phthalate	ND		ug/kg	350	68.	1
Di-n-butylphthalate	ND		ug/kg	350	67.	1
Di-n-octylphthalate	ND		ug/kg	350	85.	1
Diethyl phthalate	ND		ug/kg	350	73.	1
Dimethyl phthalate	ND		ug/kg	350	88.	1
Benzo(a)anthracene	ND		ug/kg	210	68.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-23  
 Client ID: SL-13, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	280	85.	1
Benzo(b)fluoranthene	ND		ug/kg	210	70.	1
Benzo(k)fluoranthene	ND		ug/kg	210	66.	1
Chrysene	ND		ug/kg	210	68.	1
Acenaphthylene	ND		ug/kg	280	65.	1
Anthracene	ND		ug/kg	210	58.	1
Benzo(ghi)perylene	ND		ug/kg	280	72.	1
Fluorene	ND		ug/kg	350	99.	1
Phenanthrene	ND		ug/kg	210	68.	1
Dibenzo(a,h)anthracene	ND		ug/kg	210	67.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	280	77.	1
Pyrene	ND		ug/kg	210	67.	1
Biphenyl	ND		ug/kg	790	110	1
4-Chloroaniline	ND		ug/kg	350	91.	1
2-Nitroaniline	ND		ug/kg	350	98.	1
3-Nitroaniline	ND		ug/kg	350	96.	1
4-Nitroaniline	ND		ug/kg	350	94.	1
Dibenzofuran	ND		ug/kg	350	120	1
2-Methylnaphthalene	ND		ug/kg	420	110	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	350	110	1
Acetophenone	ND		ug/kg	350	110	1
2,4,6-Trichlorophenol	ND		ug/kg	210	65.	1
P-Chloro-M-Cresol	ND		ug/kg	350	100	1
2-Chlorophenol	ND		ug/kg	350	100	1
2,4-Dichlorophenol	ND		ug/kg	310	110	1
2,4-Dimethylphenol	ND		ug/kg	350	100	1
2-Nitrophenol	ND		ug/kg	750	110	1
4-Nitrophenol	ND		ug/kg	480	110	1
2,4-Dinitrophenol	ND		ug/kg	1700	470	1
4,6-Dinitro-o-cresol	ND		ug/kg	900	130	1
Pentachlorophenol	ND		ug/kg	280	74.	1
Phenol	ND		ug/kg	350	100	1
2-Methylphenol	ND		ug/kg	350	110	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	500	110	1
2,4,5-Trichlorophenol	ND		ug/kg	350	110	1
Benzoic Acid	ND		ug/kg	1100	350	1
Benzyl Alcohol	ND		ug/kg	350	110	1
Carbazole	ND		ug/kg	350	74.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-23  
 Client ID: SL-13, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	81		0-136
4-Terphenyl-d14	81		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-24  
**Client ID:** SL-13, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 13:27  
**Analyst:** RC  
**Percent Solids:** 60%

**Date Collected:** 11/09/13 13:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 21:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	220	56.	1
1,2,4-Trichlorobenzene	ND		ug/kg	270	90.	1
Hexachlorobenzene	ND		ug/kg	160	51.	1
Bis(2-chloroethyl)ether	ND		ug/kg	250	77.	1
2-Chloronaphthalene	ND		ug/kg	270	89.	1
1,2-Dichlorobenzene	ND		ug/kg	270	90.	1
1,3-Dichlorobenzene	ND		ug/kg	270	86.	1
1,4-Dichlorobenzene	ND		ug/kg	270	83.	1
3,3'-Dichlorobenzidine	ND		ug/kg	270	73.	1
2,4-Dinitrotoluene	ND		ug/kg	270	59.	1
2,6-Dinitrotoluene	ND		ug/kg	270	70.	1
Fluoranthene	ND		ug/kg	160	50.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	270	83.	1
4-Bromophenyl phenyl ether	ND		ug/kg	270	63.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	330	96.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	300	83.	1
Hexachlorobutadiene	ND		ug/kg	270	77.	1
Hexachlorocyclopentadiene	ND		ug/kg	780	180	1
Hexachloroethane	ND		ug/kg	220	50.	1
Isophorone	ND		ug/kg	250	73.	1
Naphthalene	ND		ug/kg	270	91.	1
Nitrobenzene	ND		ug/kg	250	65.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	220	58.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	270	82.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	270	72.	1
Butyl benzyl phthalate	ND		ug/kg	270	54.	1
Di-n-butylphthalate	ND		ug/kg	270	53.	1
Di-n-octylphthalate	ND		ug/kg	270	67.	1
Diethyl phthalate	ND		ug/kg	270	58.	1
Dimethyl phthalate	ND		ug/kg	270	70.	1
Benzo(a)anthracene	ND		ug/kg	160	54.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-24  
 Client ID: SL-13, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	220	67.	1
Benzo(b)fluoranthene	ND		ug/kg	160	55.	1
Benzo(k)fluoranthene	ND		ug/kg	160	52.	1
Chrysene	ND		ug/kg	160	54.	1
Acenaphthylene	ND		ug/kg	220	51.	1
Anthracene	ND		ug/kg	160	46.	1
Benzo(ghi)perylene	ND		ug/kg	220	57.	1
Fluorene	ND		ug/kg	270	78.	1
Phenanthrene	ND		ug/kg	160	54.	1
Dibenzo(a,h)anthracene	ND		ug/kg	160	53.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	220	61.	1
Pyrene	ND		ug/kg	160	53.	1
Biphenyl	ND		ug/kg	620	90.	1
4-Chloroaniline	ND		ug/kg	270	72.	1
2-Nitroaniline	ND		ug/kg	270	77.	1
3-Nitroaniline	ND		ug/kg	270	76.	1
4-Nitroaniline	ND		ug/kg	270	74.	1
Dibenzofuran	ND		ug/kg	270	91.	1
2-Methylnaphthalene	ND		ug/kg	330	88.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	270	85.	1
Acetophenone	ND		ug/kg	270	85.	1
2,4,6-Trichlorophenol	ND		ug/kg	160	52.	1
P-Chloro-M-Cresol	ND		ug/kg	270	79.	1
2-Chlorophenol	ND		ug/kg	270	83.	1
2,4-Dichlorophenol	ND		ug/kg	250	89.	1
2,4-Dimethylphenol	ND		ug/kg	270	82.	1
2-Nitrophenol	ND		ug/kg	590	85.	1
4-Nitrophenol	ND		ug/kg	380	89.	1
2,4-Dinitrophenol	ND		ug/kg	1300	370	1
4,6-Dinitro-o-cresol	ND		ug/kg	710	100	1
Pentachlorophenol	ND		ug/kg	220	59.	1
Phenol	ND		ug/kg	270	81.	1
2-Methylphenol	ND		ug/kg	270	88.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	390	90.	1
2,4,5-Trichlorophenol	ND		ug/kg	270	89.	1
Benzoic Acid	ND		ug/kg	890	280	1
Benzyl Alcohol	ND		ug/kg	270	84.	1
Carbazole	ND		ug/kg	270	59.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-24  
 Client ID: SL-13, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	70		0-136
4-Terphenyl-d14	81		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-25  
**Client ID:** SL-14, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 13:51  
**Analyst:** RC  
**Percent Solids:** 76%

**Date Collected:** 11/09/13 12:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 21:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	170	44.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	70.	1
Hexachlorobenzene	ND		ug/kg	130	40.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	60.	1
2-Chloronaphthalene	ND		ug/kg	210	69.	1
1,2-Dichlorobenzene	ND		ug/kg	210	70.	1
1,3-Dichlorobenzene	ND		ug/kg	210	67.	1
1,4-Dichlorobenzene	ND		ug/kg	210	65.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	57.	1
2,4-Dinitrotoluene	ND		ug/kg	210	46.	1
2,6-Dinitrotoluene	ND		ug/kg	210	54.	1
Fluoranthene	ND		ug/kg	130	39.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	65.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	49.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	75.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	64.	1
Hexachlorobutadiene	ND		ug/kg	210	60.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	140	1
Hexachloroethane	ND		ug/kg	170	39.	1
Isophorone	ND		ug/kg	190	57.	1
Naphthalene	ND		ug/kg	210	71.	1
Nitrobenzene	ND		ug/kg	190	51.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	45.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	63.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	210	56.	1
Butyl benzyl phthalate	ND		ug/kg	210	42.	1
Di-n-butylphthalate	ND		ug/kg	210	41.	1
Di-n-octylphthalate	ND		ug/kg	210	52.	1
Diethyl phthalate	ND		ug/kg	210	45.	1
Dimethyl phthalate	ND		ug/kg	210	54.	1
Benzo(a)anthracene	ND		ug/kg	130	42.	1



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-25  
 Client ID: SL-14, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	170	52.	1
Benzo(b)fluoranthene	ND		ug/kg	130	43.	1
Benzo(k)fluoranthene	ND		ug/kg	130	41.	1
Chrysene	ND		ug/kg	130	42.	1
Acenaphthylene	ND		ug/kg	170	40.	1
Anthracene	ND		ug/kg	130	35.	1
Benzo(ghi)perylene	ND		ug/kg	170	44.	1
Fluorene	ND		ug/kg	210	61.	1
Phenanthrene	ND		ug/kg	130	42.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	41.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	170	47.	1
Pyrene	ND		ug/kg	130	41.	1
Biphenyl	ND		ug/kg	480	70.	1
4-Chloroaniline	ND		ug/kg	210	56.	1
2-Nitroaniline	ND		ug/kg	210	60.	1
3-Nitroaniline	ND		ug/kg	210	59.	1
4-Nitroaniline	ND		ug/kg	210	58.	1
Dibenzofuran	ND		ug/kg	210	71.	1
2-Methylnaphthalene	ND		ug/kg	260	68.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	66.	1
Acetophenone	ND		ug/kg	210	66.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
P-Chloro-M-Cresol	ND		ug/kg	210	62.	1
2-Chlorophenol	ND		ug/kg	210	64.	1
2,4-Dichlorophenol	ND		ug/kg	190	69.	1
2,4-Dimethylphenol	ND		ug/kg	210	63.	1
2-Nitrophenol	ND		ug/kg	460	66.	1
4-Nitrophenol	ND		ug/kg	300	69.	1
2,4-Dinitrophenol	ND		ug/kg	1000	290	1
4,6-Dinitro-o-cresol	ND		ug/kg	550	78.	1
Pentachlorophenol	ND		ug/kg	170	46.	1
Phenol	ND		ug/kg	210	63.	1
2-Methylphenol	ND		ug/kg	210	69.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	310	70.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	69.	1
Benzoic Acid	ND		ug/kg	690	220	1
Benzyl Alcohol	ND		ug/kg	210	66.	1
Carbazole	ND		ug/kg	210	46.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-25  
 Client ID: SL-14, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	64		0-136
4-Terphenyl-d14	65		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-26  
**Client ID:** SL-14, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 23:52  
**Analyst:** RC  
**Percent Solids:** 79%

**Date Collected:** 11/09/13 12:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	170	43.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	68.	1
Hexachlorobenzene	ND		ug/kg	120	39.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	58.	1
2-Chloronaphthalene	ND		ug/kg	210	68.	1
1,2-Dichlorobenzene	ND		ug/kg	210	68.	1
1,3-Dichlorobenzene	ND		ug/kg	210	66.	1
1,4-Dichlorobenzene	ND		ug/kg	210	63.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	55.	1
2,4-Dinitrotoluene	ND		ug/kg	210	45.	1
2,6-Dinitrotoluene	ND		ug/kg	210	53.	1
Fluoranthene	ND		ug/kg	120	38.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	63.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	48.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	73.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	63.	1
Hexachlorobutadiene	ND		ug/kg	210	59.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	130	1
Hexachloroethane	ND		ug/kg	170	38.	1
Isophorone	ND		ug/kg	190	55.	1
Naphthalene	ND		ug/kg	210	69.	1
Nitrobenzene	ND		ug/kg	190	49.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	44.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	62.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	210	54.	1
Butyl benzyl phthalate	ND		ug/kg	210	41.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	51.	1
Diethyl phthalate	ND		ug/kg	210	44.	1
Dimethyl phthalate	ND		ug/kg	210	53.	1
Benzo(a)anthracene	ND		ug/kg	120	41.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-26  
 Client ID: SL-14, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	170	51.	1
Benzo(b)fluoranthene	ND		ug/kg	120	42.	1
Benzo(k)fluoranthene	ND		ug/kg	120	40.	1
Chrysene	ND		ug/kg	120	41.	1
Acenaphthylene	ND		ug/kg	170	39.	1
Anthracene	ND		ug/kg	120	34.	1
Benzo(ghi)perylene	ND		ug/kg	170	43.	1
Fluorene	ND		ug/kg	210	60.	1
Phenanthrene	ND		ug/kg	120	41.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	40.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	170	46.	1
Pyrene	ND		ug/kg	120	40.	1
Biphenyl	ND		ug/kg	470	68.	1
4-Chloroaniline	ND		ug/kg	210	55.	1
2-Nitroaniline	ND		ug/kg	210	59.	1
3-Nitroaniline	ND		ug/kg	210	57.	1
4-Nitroaniline	ND		ug/kg	210	56.	1
Dibenzofuran	ND		ug/kg	210	69.	1
2-Methylnaphthalene	ND		ug/kg	250	66.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	64.	1
Acetophenone	ND		ug/kg	210	64.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	39.	1
P-Chloro-M-Cresol	ND		ug/kg	210	60.	1
2-Chlorophenol	ND		ug/kg	210	63.	1
2,4-Dichlorophenol	ND		ug/kg	190	67.	1
2,4-Dimethylphenol	ND		ug/kg	210	62.	1
2-Nitrophenol	ND		ug/kg	450	65.	1
4-Nitrophenol	ND		ug/kg	290	67.	1
2,4-Dinitrophenol	ND		ug/kg	1000	280	1
4,6-Dinitro-o-cresol	ND		ug/kg	540	76.	1
Pentachlorophenol	ND		ug/kg	170	44.	1
Phenol	ND		ug/kg	210	62.	1
2-Methylphenol	ND		ug/kg	210	67.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	68.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	67.	1
Benzoic Acid	ND		ug/kg	670	210	1
Benzyl Alcohol	ND		ug/kg	210	64.	1
Carbazole	ND		ug/kg	210	45.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-26  
 Client ID: SL-14, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	56		30-120
2,4,6-Tribromophenol	61		0-136
4-Terphenyl-d14	52		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-27  
**Client ID:** SL-12, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/15/13 00:17  
**Analyst:** RC  
**Percent Solids:** 50%

**Date Collected:** 11/09/13 10:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	260	68.	1
1,2,4-Trichlorobenzene	ND		ug/kg	330	110	1
Hexachlorobenzene	ND		ug/kg	200	61.	1
Bis(2-chloroethyl)ether	ND		ug/kg	300	92.	1
2-Chloronaphthalene	ND		ug/kg	330	110	1
1,2-Dichlorobenzene	ND		ug/kg	330	110	1
1,3-Dichlorobenzene	ND		ug/kg	330	100	1
1,4-Dichlorobenzene	ND		ug/kg	330	100	1
3,3'-Dichlorobenzidine	ND		ug/kg	330	87.	1
2,4-Dinitrotoluene	ND		ug/kg	330	71.	1
2,6-Dinitrotoluene	ND		ug/kg	330	84.	1
Fluoranthene	ND		ug/kg	200	60.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	330	100	1
4-Bromophenyl phenyl ether	ND		ug/kg	330	75.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	390	120	1
Bis(2-chloroethoxy)methane	ND		ug/kg	350	99.	1
Hexachlorobutadiene	ND		ug/kg	330	92.	1
Hexachlorocyclopentadiene	ND		ug/kg	940	210	1
Hexachloroethane	ND		ug/kg	260	60.	1
Isophorone	ND		ug/kg	300	87.	1
Naphthalene	ND		ug/kg	330	110	1
Nitrobenzene	ND		ug/kg	300	78.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	260	69.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	330	98.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	330	86.	1
Butyl benzyl phthalate	ND		ug/kg	330	64.	1
Di-n-butylphthalate	ND		ug/kg	330	63.	1
Di-n-octylphthalate	ND		ug/kg	330	81.	1
Diethyl phthalate	ND		ug/kg	330	69.	1
Dimethyl phthalate	ND		ug/kg	330	83.	1
Benzo(a)anthracene	ND		ug/kg	200	64.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-27  
 Client ID: SL-12, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	260	80.	1
Benzo(b)fluoranthene	ND		ug/kg	200	66.	1
Benzo(k)fluoranthene	ND		ug/kg	200	62.	1
Chrysene	ND		ug/kg	200	64.	1
Acenaphthylene	ND		ug/kg	260	61.	1
Anthracene	ND		ug/kg	200	54.	1
Benzo(ghi)perylene	ND		ug/kg	260	68.	1
Fluorene	ND		ug/kg	330	94.	1
Phenanthrene	ND		ug/kg	200	64.	1
Dibenzo(a,h)anthracene	ND		ug/kg	200	63.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	260	73.	1
Pyrene	ND		ug/kg	200	64.	1
Biphenyl	ND		ug/kg	750	110	1
4-Chloroaniline	ND		ug/kg	330	86.	1
2-Nitroaniline	ND		ug/kg	330	92.	1
3-Nitroaniline	ND		ug/kg	330	90.	1
4-Nitroaniline	ND		ug/kg	330	88.	1
Dibenzofuran	ND		ug/kg	330	110	1
2-Methylnaphthalene	ND		ug/kg	390	100	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	330	100	1
Acetophenone	ND		ug/kg	330	100	1
2,4,6-Trichlorophenol	ND		ug/kg	200	62.	1
P-Chloro-M-Cresol	ND		ug/kg	330	95.	1
2-Chlorophenol	ND		ug/kg	330	99.	1
2,4-Dichlorophenol	ND		ug/kg	300	110	1
2,4-Dimethylphenol	ND		ug/kg	330	98.	1
2-Nitrophenol	ND		ug/kg	710	100	1
4-Nitrophenol	ND		ug/kg	460	110	1
2,4-Dinitrophenol	ND		ug/kg	1600	450	1
4,6-Dinitro-o-cresol	ND		ug/kg	850	120	1
Pentachlorophenol	ND		ug/kg	260	70.	1
Phenol	ND		ug/kg	330	97.	1
2-Methylphenol	ND		ug/kg	330	100	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	470	110	1
2,4,5-Trichlorophenol	ND		ug/kg	330	110	1
Benzoic Acid	ND		ug/kg	1100	330	1
Benzyl Alcohol	ND		ug/kg	330	100	1
Carbazole	ND		ug/kg	330	70.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-27  
 Client ID: SL-12, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	61		23-120
2-Fluorobiphenyl	62		30-120
2,4,6-Tribromophenol	66		0-136
4-Terphenyl-d14	61		18-120



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-28  
 Client ID: SL-12, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 11/15/13 00:43  
 Analyst: RC  
 Percent Solids: 52%

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	260	66.	1
1,2,4-Trichlorobenzene	ND		ug/kg	320	100	1
Hexachlorobenzene	ND		ug/kg	190	60.	1
Bis(2-chloroethyl)ether	ND		ug/kg	290	90.	1
2-Chloronaphthalene	ND		ug/kg	320	100	1
1,2-Dichlorobenzene	ND		ug/kg	320	100	1
1,3-Dichlorobenzene	ND		ug/kg	320	100	1
1,4-Dichlorobenzene	ND		ug/kg	320	98.	1
3,3'-Dichlorobenzidine	ND		ug/kg	320	86.	1
2,4-Dinitrotoluene	ND		ug/kg	320	69.	1
2,6-Dinitrotoluene	ND		ug/kg	320	82.	1
Fluoranthene	ND		ug/kg	190	59.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	320	98.	1
4-Bromophenyl phenyl ether	ND		ug/kg	320	74.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	390	110	1
Bis(2-chloroethoxy)methane	ND		ug/kg	350	98.	1
Hexachlorobutadiene	ND		ug/kg	320	91.	1
Hexachlorocyclopentadiene	ND		ug/kg	920	210	1
Hexachloroethane	ND		ug/kg	260	58.	1
Isophorone	ND		ug/kg	290	86.	1
Naphthalene	ND		ug/kg	320	110	1
Nitrobenzene	ND		ug/kg	290	77.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	260	68.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	320	96.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	320	84.	1
Butyl benzyl phthalate	ND		ug/kg	320	63.	1
Di-n-butylphthalate	ND		ug/kg	320	62.	1
Di-n-octylphthalate	ND		ug/kg	320	79.	1
Diethyl phthalate	ND		ug/kg	320	68.	1
Dimethyl phthalate	ND		ug/kg	320	82.	1
Benzo(a)anthracene	ND		ug/kg	190	63.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-28  
 Client ID: SL-12, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	260	79.	1
Benzo(b)fluoranthene	ND		ug/kg	190	65.	1
Benzo(k)fluoranthene	ND		ug/kg	190	61.	1
Chrysene	ND		ug/kg	190	63.	1
Acenaphthylene	ND		ug/kg	260	60.	1
Anthracene	ND		ug/kg	190	54.	1
Benzo(ghi)perylene	ND		ug/kg	260	67.	1
Fluorene	ND		ug/kg	320	92.	1
Phenanthrene	ND		ug/kg	190	63.	1
Dibenzo(a,h)anthracene	ND		ug/kg	190	62.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	260	71.	1
Pyrene	ND		ug/kg	190	63.	1
Biphenyl	ND		ug/kg	730	110	1
4-Chloroaniline	ND		ug/kg	320	85.	1
2-Nitroaniline	ND		ug/kg	320	91.	1
3-Nitroaniline	ND		ug/kg	320	89.	1
4-Nitroaniline	ND		ug/kg	320	87.	1
Dibenzofuran	ND		ug/kg	320	110	1
2-Methylnaphthalene	ND		ug/kg	390	100	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	320	100	1
Acetophenone	ND		ug/kg	320	100	1
2,4,6-Trichlorophenol	ND		ug/kg	190	61.	1
P-Chloro-M-Cresol	ND		ug/kg	320	93.	1
2-Chlorophenol	ND		ug/kg	320	97.	1
2,4-Dichlorophenol	ND		ug/kg	290	100	1
2,4-Dimethylphenol	ND		ug/kg	320	96.	1
2-Nitrophenol	ND		ug/kg	700	100	1
4-Nitrophenol	ND		ug/kg	450	100	1
2,4-Dinitrophenol	ND		ug/kg	1500	440	1
4,6-Dinitro-o-cresol	ND		ug/kg	840	120	1
Pentachlorophenol	ND		ug/kg	260	69.	1
Phenol	ND		ug/kg	320	95.	1
2-Methylphenol	ND		ug/kg	320	100	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	460	100	1
2,4,5-Trichlorophenol	ND		ug/kg	320	100	1
Benzoic Acid	ND		ug/kg	1000	320	1
Benzyl Alcohol	ND		ug/kg	320	99.	1
Carbazole	ND		ug/kg	320	69.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-28  
 Client ID: SL-12, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab						
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	60		30-120
2,4,6-Tribromophenol	66		0-136
4-Terphenyl-d14	65		18-120

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-29  
**Client ID:** SL-10, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8270D  
**Analytical Date:** 11/15/13 01:08  
**Analyst:** RC  
**Percent Solids:** 65%

**Date Collected:** 11/09/13 09:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	200	52.	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	83.	1
Hexachlorobenzene	ND		ug/kg	150	47.	1
Bis(2-chloroethyl)ether	ND		ug/kg	230	71.	1
2-Chloronaphthalene	ND		ug/kg	250	82.	1
1,2-Dichlorobenzene	ND		ug/kg	250	83.	1
1,3-Dichlorobenzene	ND		ug/kg	250	80.	1
1,4-Dichlorobenzene	ND		ug/kg	250	77.	1
3,3'-Dichlorobenzidine	ND		ug/kg	250	67.	1
2,4-Dinitrotoluene	ND		ug/kg	250	55.	1
2,6-Dinitrotoluene	ND		ug/kg	250	65.	1
Fluoranthene	ND		ug/kg	150	46.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	250	77.	1
4-Bromophenyl phenyl ether	ND		ug/kg	250	58.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	300	89.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	270	77.	1
Hexachlorobutadiene	ND		ug/kg	250	71.	1
Hexachlorocyclopentadiene	ND		ug/kg	730	160	1
Hexachloroethane	ND		ug/kg	200	46.	1
Isophorone	ND		ug/kg	230	67.	1
Naphthalene	ND		ug/kg	250	84.	1
Nitrobenzene	ND		ug/kg	230	60.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	200	53.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	250	75.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	250	66.	1
Butyl benzyl phthalate	ND		ug/kg	250	49.	1
Di-n-butylphthalate	ND		ug/kg	250	49.	1
Di-n-octylphthalate	ND		ug/kg	250	62.	1
Diethyl phthalate	ND		ug/kg	250	54.	1
Dimethyl phthalate	ND		ug/kg	250	64.	1
Benzo(a)anthracene	ND		ug/kg	150	50.	1

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-29  
 Client ID: SL-10, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	200	62.	1
Benzo(b)fluoranthene	ND		ug/kg	150	51.	1
Benzo(k)fluoranthene	ND		ug/kg	150	48.	1
Chrysene	ND		ug/kg	150	50.	1
Acenaphthylene	ND		ug/kg	200	47.	1
Anthracene	ND		ug/kg	150	42.	1
Benzo(ghi)perylene	ND		ug/kg	200	53.	1
Fluorene	ND		ug/kg	250	72.	1
Phenanthrene	ND		ug/kg	150	50.	1
Dibenzo(a,h)anthracene	ND		ug/kg	150	49.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	200	56.	1
Pyrene	ND		ug/kg	150	49.	1
Biphenyl	ND		ug/kg	580	84.	1
4-Chloroaniline	ND		ug/kg	250	67.	1
2-Nitroaniline	ND		ug/kg	250	71.	1
3-Nitroaniline	ND		ug/kg	250	70.	1
4-Nitroaniline	ND		ug/kg	250	68.	1
Dibenzofuran	ND		ug/kg	250	84.	1
2-Methylnaphthalene	ND		ug/kg	300	81.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	250	78.	1
Acetophenone	ND		ug/kg	250	78.	1
2,4,6-Trichlorophenol	ND		ug/kg	150	48.	1
P-Chloro-M-Cresol	ND		ug/kg	250	73.	1
2-Chlorophenol	ND		ug/kg	250	76.	1
2,4-Dichlorophenol	ND		ug/kg	230	82.	1
2,4-Dimethylphenol	ND		ug/kg	250	75.	1
2-Nitrophenol	ND		ug/kg	550	79.	1
4-Nitrophenol	ND		ug/kg	350	82.	1
2,4-Dinitrophenol	ND		ug/kg	1200	350	1
4,6-Dinitro-o-cresol	ND		ug/kg	660	93.	1
Pentachlorophenol	ND		ug/kg	200	54.	1
Phenol	ND		ug/kg	250	75.	1
2-Methylphenol	ND		ug/kg	250	82.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	360	83.	1
2,4,5-Trichlorophenol	ND		ug/kg	250	82.	1
Benzoic Acid	ND		ug/kg	820	260	1
Benzyl Alcohol	ND		ug/kg	250	78.	1
Carbazole	ND		ug/kg	250	54.	1

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-29  
 Client ID: SL-10, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN

Date Collected: 11/09/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	60		30-120
2,4,6-Tribromophenol	66		0-136
4-Terphenyl-d14	65		18-120

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 10:24  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651234-1					
Acenaphthene	ND		ug/kg	130	34.
1,2,4-Trichlorobenzene	ND		ug/kg	160	54.
Hexachlorobenzene	ND		ug/kg	99	31.
Bis(2-chloroethyl)ether	ND		ug/kg	150	46.
2-Chloronaphthalene	ND		ug/kg	160	54.
1,2-Dichlorobenzene	ND		ug/kg	160	54.
1,3-Dichlorobenzene	ND		ug/kg	160	52.
1,4-Dichlorobenzene	ND		ug/kg	160	50.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	36.
2,6-Dinitrotoluene	ND		ug/kg	160	42.
Fluoranthene	ND		ug/kg	99	30.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	50.
4-Bromophenyl phenyl ether	ND		ug/kg	160	38.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	58.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	50.
Hexachlorobutadiene	ND		ug/kg	160	46.
Hexachlorocyclopentadiene	ND		ug/kg	470	110
Hexachloroethane	ND		ug/kg	130	30.
Isophorone	ND		ug/kg	150	44.
Naphthalene	ND		ug/kg	160	55.
Nitrobenzene	ND		ug/kg	150	39.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	35.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	49.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	43.
Butyl benzyl phthalate	ND		ug/kg	160	32.
Di-n-butylphthalate	ND		ug/kg	160	32.
Di-n-octylphthalate	ND		ug/kg	160	41.
Diethyl phthalate	ND		ug/kg	160	35.
Dimethyl phthalate	ND		ug/kg	160	42.
Benzo(a)anthracene	ND		ug/kg	99	32.

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 10:24  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651234-1					
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	33.
Benzo(k)fluoranthene	ND		ug/kg	99	32.
Chrysene	ND		ug/kg	99	32.
Acenaphthylene	ND		ug/kg	130	31.
Anthracene	ND		ug/kg	99	27.
Benzo(ghi)perylene	ND		ug/kg	130	34.
Fluorene	ND		ug/kg	160	47.
Phenanthrene	ND		ug/kg	99	32.
Dibenzo(a,h)anthracene	ND		ug/kg	99	32.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	37.
Pyrene	ND		ug/kg	99	32.
Biphenyl	ND		ug/kg	380	54.
4-Chloroaniline	ND		ug/kg	160	44.
2-Nitroaniline	ND		ug/kg	160	46.
3-Nitroaniline	ND		ug/kg	160	46.
4-Nitroaniline	ND		ug/kg	160	45.
Dibenzofuran	ND		ug/kg	160	55.
2-Methylnaphthalene	ND		ug/kg	200	53.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	51.
Acetophenone	ND		ug/kg	160	51.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
P-Chloro-M-Cresol	ND		ug/kg	160	48.
2-Chlorophenol	ND		ug/kg	160	50.
2,4-Dichlorophenol	ND		ug/kg	150	54.
2,4-Dimethylphenol	ND		ug/kg	160	49.
2-Nitrophenol	ND		ug/kg	360	52.
4-Nitrophenol	ND		ug/kg	230	54.
2,4-Dinitrophenol	ND		ug/kg	790	230
4,6-Dinitro-o-cresol	ND		ug/kg	430	60.
Pentachlorophenol	ND		ug/kg	130	35.



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 10:24  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 18:44

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG651234-1					
Phenol	ND		ug/kg	160	49.
2-Methylphenol	ND		ug/kg	160	53.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	54.
2,4,5-Trichlorophenol	ND		ug/kg	160	54.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	160	51.
Carbazole	ND		ug/kg	160	36.

Tentatively Identified Compounds

Unknown 290 J ug/kg

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	87		0-136
4-Terphenyl-d14	89		18-120

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 09:48  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 21:27

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 21-22,24-25 Batch: WG651267-1					
Acenaphthene	ND		ug/kg	130	34.
1,2,4-Trichlorobenzene	ND		ug/kg	160	54.
Hexachlorobenzene	ND		ug/kg	99	31.
Bis(2-chloroethyl)ether	ND		ug/kg	150	46.
2-Chloronaphthalene	ND		ug/kg	160	54.
1,2-Dichlorobenzene	ND		ug/kg	160	54.
1,3-Dichlorobenzene	ND		ug/kg	160	52.
1,4-Dichlorobenzene	ND		ug/kg	160	50.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	36.
2,6-Dinitrotoluene	ND		ug/kg	160	42.
Fluoranthene	ND		ug/kg	99	30.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	50.
4-Bromophenyl phenyl ether	ND		ug/kg	160	38.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	58.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	50.
Hexachlorobutadiene	ND		ug/kg	160	46.
Hexachlorocyclopentadiene	ND		ug/kg	470	100
Hexachloroethane	ND		ug/kg	130	30.
Isophorone	ND		ug/kg	150	44.
Naphthalene	ND		ug/kg	160	55.
Nitrobenzene	ND		ug/kg	150	39.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	34.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	49.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	43.
Butyl benzyl phthalate	ND		ug/kg	160	32.
Di-n-butylphthalate	ND		ug/kg	160	32.
Di-n-octylphthalate	ND		ug/kg	160	40.
Diethyl phthalate	ND		ug/kg	160	35.
Dimethyl phthalate	ND		ug/kg	160	42.

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 09:48  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 21:27

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 21-22,24-25 Batch: WG651267-1					
Benzo(a)anthracene	ND		ug/kg	99	32.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	33.
Benzo(k)fluoranthene	ND		ug/kg	99	31.
Chrysene	ND		ug/kg	99	32.
Acenaphthylene	ND		ug/kg	130	31.
Anthracene	ND		ug/kg	99	27.
Benzo(ghi)perylene	ND		ug/kg	130	34.
Fluorene	ND		ug/kg	160	47.
Phenanthrene	ND		ug/kg	99	32.
Dibenzo(a,h)anthracene	ND		ug/kg	99	32.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	36.
Pyrene	ND		ug/kg	99	32.
Biphenyl	ND		ug/kg	380	54.
4-Chloroaniline	ND		ug/kg	160	43.
2-Nitroaniline	ND		ug/kg	160	46.
3-Nitroaniline	ND		ug/kg	160	45.
4-Nitroaniline	ND		ug/kg	160	44.
Dibenzofuran	ND		ug/kg	160	55.
2-Methylnaphthalene	ND		ug/kg	200	53.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	51.
Acetophenone	ND		ug/kg	160	51.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
P-Chloro-M-Cresol	ND		ug/kg	160	48.
2-Chlorophenol	ND		ug/kg	160	50.
2,4-Dichlorophenol	ND		ug/kg	150	53.
2,4-Dimethylphenol	ND		ug/kg	160	49.
2-Nitrophenol	ND		ug/kg	360	51.
4-Nitrophenol	ND		ug/kg	230	53.
2,4-Dinitrophenol	ND		ug/kg	790	220

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis  
Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 09:48  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 21:27

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 21-22,24-25 Batch: WG651267-1					
4,6-Dinitro-o-cresol	ND		ug/kg	430	60.
Pentachlorophenol	ND		ug/kg	130	35.
Phenol	ND		ug/kg	160	49.
2-Methylphenol	ND		ug/kg	160	53.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	54.
2,4,5-Trichlorophenol	ND		ug/kg	160	53.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	51.
Carbazole	ND		ug/kg	160	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	71		0-136
4-Terphenyl-d14	92		18-120

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 17:29  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 09-20,26-29 Batch: WG651290-1					
Acenaphthene	ND		ug/kg	130	34.
1,2,4-Trichlorobenzene	ND		ug/kg	170	54.
Hexachlorobenzene	ND		ug/kg	100	31.
Bis(2-chloroethyl)ether	ND		ug/kg	150	46.
2-Chloronaphthalene	ND		ug/kg	170	54.
1,2-Dichlorobenzene	ND		ug/kg	170	54.
1,3-Dichlorobenzene	ND		ug/kg	170	52.
1,4-Dichlorobenzene	ND		ug/kg	170	50.
3,3'-Dichlorobenzidine	ND		ug/kg	170	44.
2,4-Dinitrotoluene	ND		ug/kg	170	36.
2,6-Dinitrotoluene	ND		ug/kg	170	42.
Fluoranthene	ND		ug/kg	100	30.
4-Chlorophenyl phenyl ether	ND		ug/kg	170	50.
4-Bromophenyl phenyl ether	ND		ug/kg	170	38.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	58.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	50.
Hexachlorobutadiene	ND		ug/kg	170	47.
Hexachlorocyclopentadiene	ND		ug/kg	480	110
Hexachloroethane	ND		ug/kg	130	30.
Isophorone	ND		ug/kg	150	44.
Naphthalene	ND		ug/kg	170	55.
Nitrobenzene	ND		ug/kg	150	40.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	35.
n-Nitrosodi-n-propylamine	ND		ug/kg	170	50.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	170	44.
Butyl benzyl phthalate	ND		ug/kg	170	32.
Di-n-butylphthalate	ND		ug/kg	170	32.
Di-n-octylphthalate	ND		ug/kg	170	41.
Diethyl phthalate	ND		ug/kg	170	35.
Dimethyl phthalate	ND		ug/kg	170	42.

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 17:29  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 09-20,26-29 Batch: WG651290-1					
Benzo(a)anthracene	ND		ug/kg	100	32.
Benzo(a)pyrene	ND		ug/kg	130	41.
Benzo(b)fluoranthene	ND		ug/kg	100	34.
Benzo(k)fluoranthene	ND		ug/kg	100	32.
Chrysene	ND		ug/kg	100	33.
Acenaphthylene	ND		ug/kg	130	31.
Anthracene	ND		ug/kg	100	28.
Benzo(ghi)perylene	ND		ug/kg	130	34.
Fluorene	ND		ug/kg	170	48.
Phenanthrene	ND		ug/kg	100	32.
Dibenzo(a,h)anthracene	ND		ug/kg	100	32.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	37.
Pyrene	ND		ug/kg	100	32.
Biphenyl	ND		ug/kg	380	55.
4-Chloroaniline	ND		ug/kg	170	44.
2-Nitroaniline	ND		ug/kg	170	47.
3-Nitroaniline	ND		ug/kg	170	46.
4-Nitroaniline	ND		ug/kg	170	45.
Dibenzofuran	ND		ug/kg	170	55.
2-Methylnaphthalene	ND		ug/kg	200	53.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	51.
Acetophenone	ND		ug/kg	170	51.
2,4,6-Trichlorophenol	ND		ug/kg	100	31.
P-Chloro-M-Cresol	ND		ug/kg	170	48.
2-Chlorophenol	ND		ug/kg	170	50.
2,4-Dichlorophenol	ND		ug/kg	150	54.
2,4-Dimethylphenol	ND		ug/kg	170	50.
2-Nitrophenol	ND		ug/kg	360	52.
4-Nitrophenol	ND		ug/kg	230	54.
2,4-Dinitrophenol	ND		ug/kg	800	230

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/14/13 17:29  
**Analyst:** RC

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/13/13 01:22

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 09-20,26-29 Batch: WG651290-1					
4,6-Dinitro-o-cresol	ND		ug/kg	430	61.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	170	49.
2-Methylphenol	ND		ug/kg	170	53.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	54.
2,4,5-Trichlorophenol	ND		ug/kg	170	54.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	170	51.
Carbazole	ND		ug/kg	170	36.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	64		0-136
4-Terphenyl-d14	73		18-120

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/15/13 19:34  
**Analyst:** PS

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/14/13 17:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 23 Batch: WG651850-1					
Acenaphthene	ND		ug/kg	130	34.
1,2,4-Trichlorobenzene	ND		ug/kg	160	53.
Hexachlorobenzene	ND		ug/kg	98	30.
Bis(2-chloroethyl)ether	ND		ug/kg	150	46.
2-Chloronaphthalene	ND		ug/kg	160	53.
1,2-Dichlorobenzene	ND		ug/kg	160	53.
1,3-Dichlorobenzene	ND		ug/kg	160	51.
1,4-Dichlorobenzene	ND		ug/kg	160	50.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	35.
2,6-Dinitrotoluene	ND		ug/kg	160	42.
Fluoranthene	ND		ug/kg	98	30.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	50.
4-Bromophenyl phenyl ether	ND		ug/kg	160	37.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	57.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	49.
Hexachlorobutadiene	ND		ug/kg	160	46.
Hexachlorocyclopentadiene	ND		ug/kg	470	100
Hexachloroethane	ND		ug/kg	130	30.
Isophorone	ND		ug/kg	150	43.
Naphthalene	ND		ug/kg	160	54.
Nitrobenzene	ND		ug/kg	150	39.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	34.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	48.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	43.
Butyl benzyl phthalate	ND		ug/kg	160	32.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	40.
Diethyl phthalate	ND		ug/kg	160	34.
Dimethyl phthalate	ND		ug/kg	160	41.
Benzo(a)anthracene	ND		ug/kg	98	32.



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/15/13 19:34  
**Analyst:** PS

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/14/13 17:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 23 Batch: WG651850-1					
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	33.
Benzo(k)fluoranthene	ND		ug/kg	98	31.
Chrysene	ND		ug/kg	98	32.
Acenaphthylene	ND		ug/kg	130	30.
Anthracene	ND		ug/kg	98	27.
Benzo(ghi)perylene	ND		ug/kg	130	34.
Fluorene	ND		ug/kg	160	47.
Phenanthrene	ND		ug/kg	98	32.
Dibenzo(a,h)anthracene	ND		ug/kg	98	32.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	36.
Pyrene	ND		ug/kg	98	32.
Biphenyl	ND		ug/kg	370	54.
4-Chloroaniline	ND		ug/kg	160	43.
2-Nitroaniline	ND		ug/kg	160	46.
3-Nitroaniline	ND		ug/kg	160	45.
4-Nitroaniline	ND		ug/kg	160	44.
Dibenzofuran	ND		ug/kg	160	54.
2-Methylnaphthalene	ND		ug/kg	200	52.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	50.
Acetophenone	ND		ug/kg	160	50.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
P-Chloro-M-Cresol	ND		ug/kg	160	47.
2-Chlorophenol	ND		ug/kg	160	49.
2,4-Dichlorophenol	ND		ug/kg	150	53.
2,4-Dimethylphenol	ND		ug/kg	160	48.
2-Nitrophenol	ND		ug/kg	350	51.
4-Nitrophenol	ND		ug/kg	230	53.
2,4-Dinitrophenol	ND		ug/kg	780	220
4,6-Dinitro-o-cresol	ND		ug/kg	420	60.
Pentachlorophenol	ND		ug/kg	130	35.

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 1,8270D  
**Analytical Date:** 11/15/13 19:34  
**Analyst:** PS

**Extraction Method:** EPA 3546  
**Extraction Date:** 11/14/13 17:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 23 Batch: WG651850-1					
Phenol	ND		ug/kg	160	48.
2-Methylphenol	ND		ug/kg	160	52.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	53.
2,4,5-Trichlorophenol	ND		ug/kg	160	53.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	35.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	71		0-136
4-Terphenyl-d14	82		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651234-2 WG651234-3								
Acenaphthene	78		76		31-137	3		50
1,2,4-Trichlorobenzene	68		66		38-107	3		50
Hexachlorobenzene	101		102		40-140	1		50
Bis(2-chloroethyl)ether	64		61		40-140	5		50
2-Chloronaphthalene	82		80		40-140	2		50
1,2-Dichlorobenzene	70		65		40-140	7		50
1,3-Dichlorobenzene	66		63		40-140	5		50
1,4-Dichlorobenzene	66		64		28-104	3		50
3,3'-Dichlorobenzidine	43		49		40-140	13		50
2,4-Dinitrotoluene	113	Q	111	Q	28-89	2		50
2,6-Dinitrotoluene	118		116		40-140	2		50
Fluoranthene	91		93		40-140	2		50
4-Chlorophenyl phenyl ether	89		88		40-140	1		50
4-Bromophenyl phenyl ether	100		98		40-140	2		50
Bis(2-chloroisopropyl)ether	56		55		40-140	2		50
Bis(2-chloroethoxy)methane	69		68		40-117	1		50
Hexachlorobutadiene	74		68		40-140	8		50
Hexachlorocyclopentadiene	93		89		40-140	4		50
Hexachloroethane	64		60		40-140	6		50
Isophorone	73		68		40-140	7		50
Naphthalene	68		65		40-140	5		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651234-2 WG651234-3								
Nitrobenzene	70		66		40-140	6		50
NitrosoDiPhenylAmine(NDPA)/DPA	97		94			3		50
n-Nitrosodi-n-propylamine	69		66		32-121	4		50
Bis(2-Ethylhexyl)phthalate	92		92		40-140	0		50
Butyl benzyl phthalate	96		98		40-140	2		50
Di-n-butylphthalate	89		92		40-140	3		50
Di-n-octylphthalate	96		97		40-140	1		50
Diethyl phthalate	97		95		40-140	2		50
Dimethyl phthalate	93		91		40-140	2		50
Benzo(a)anthracene	84		86		40-140	2		50
Benzo(a)pyrene	77		84		40-140	9		50
Benzo(b)fluoranthene	79		84		40-140	6		50
Benzo(k)fluoranthene	78		84		40-140	7		50
Chrysene	84		86		40-140	2		50
Acenaphthylene	91		88		40-140	3		50
Anthracene	88		90		40-140	2		50
Benzo(ghi)perylene	65		83		40-140	24		50
Fluorene	86		85		40-140	1		50
Phenanthrene	83		84		40-140	1		50
Dibenzo(a,h)anthracene	72		87		40-140	19		50
Indeno(1,2,3-cd)Pyrene	69		85		40-140	21		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651234-2 WG651234-3								
Pyrene	91		92		35-142	1		50
Biphenyl	70		69			1		50
4-Chloroaniline	31	Q	30	Q	40-140	3		50
2-Nitroaniline	118		115		47-134	3		50
3-Nitroaniline	50		55		26-129	10		50
4-Nitroaniline	110		105		41-125	5		50
Dibenzofuran	84		83		40-140	1		50
2-Methylnaphthalene	74		71		40-140	4		50
1,2,4,5-Tetrachlorobenzene	68		65		40-117	5		50
Acetophenone	70		66		14-144	6		50
2,4,6-Trichlorophenol	102		102		30-130	0		50
P-Chloro-M-Cresol	94		94		26-103	0		50
2-Chlorophenol	74		69		25-102	7		50
2,4-Dichlorophenol	86		84		30-130	2		50
2,4-Dimethylphenol	92		88		30-130	4		50
2-Nitrophenol	91		88		30-130	3		50
4-Nitrophenol	109		105		11-114	4		50
2,4-Dinitrophenol	82		94		4-130	14		50
4,6-Dinitro-o-cresol	113		123		10-130	8		50
Pentachlorophenol	97		100		17-109	3		50
Phenol	70		67		26-90	4		50

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## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG651234-2 WG651234-3								
2-Methylphenol	78		75		30-130.	4		50
3-Methylphenol/4-Methylphenol	81		78		30-130	4		50
2,4,5-Trichlorophenol	101		103		30-130	2		50
Benzoic Acid	42		45			7		50
Benzyl Alcohol	74		68		40-140	8		50
Carbazole	88		89		54-128	1		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	74		70		25-120
Phenol-d6	74		72		10-120
Nitrobenzene-d5	73		73		23-120
2-Fluorobiphenyl	83		82		30-120
2,4,6-Tribromophenol	102		106		0-136
4-Terphenyl-d14	92		97		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-22,24-25 Batch: WG651267-2 WG651267-3								
Acenaphthene	85		80		31-137	6		50
1,2,4-Trichlorobenzene	77		74		38-107	4		50
Hexachlorobenzene	94		87		40-140	8		50
Bis(2-chloroethyl)ether	70		67		40-140	4		50
2-Chloronaphthalene	84		84		40-140	0		50
1,2-Dichlorobenzene	74		70		40-140	6		50
1,3-Dichlorobenzene	73		69		40-140	6		50
1,4-Dichlorobenzene	72		69		28-104	4		50
3,3'-Dichlorobenzidine	46		42		40-140	9		50
2,4-Dinitrotoluene	98	Q	96	Q	28-89	2		50
2,6-Dinitrotoluene	101		101		40-140	0		50
Fluoranthene	94		91		40-140	3		50
4-Chlorophenyl phenyl ether	91		87		40-140	4		50
4-Bromophenyl phenyl ether	94		89		40-140	5		50
Bis(2-chloroisopropyl)ether	65		63		40-140	3		50
Bis(2-chloroethoxy)methane	75		74		40-117	1		50
Hexachlorobutadiene	79		76		40-140	4		50
Hexachlorocyclopentadiene	86		83		40-140	4		50
Hexachloroethane	68		64		40-140	6		50
Isophorone	78		77		40-140	1		50
Naphthalene	77		75		40-140	3		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-22,24-25 Batch: WG651267-2 WG651267-3								
Nitrobenzene	78		75		40-140	4		50
NitrosoDiPhenylAmine(NDPA)/DPA	96		91			5		50
n-Nitrosodi-n-propylamine	76		74		32-121	3		50
Bis(2-Ethylhexyl)phthalate	99		90		40-140	10		50
Butyl benzyl phthalate	95		94		40-140	1		50
Di-n-butylphthalate	94		89		40-140	5		50
Di-n-octylphthalate	103		95		40-140	8		50
Diethyl phthalate	96		90		40-140	6		50
Dimethyl phthalate	94		89		40-140	5		50
Benzo(a)anthracene	92		85		40-140	8		50
Benzo(a)pyrene	91		85		40-140	7		50
Benzo(b)fluoranthene	94		88		40-140	7		50
Benzo(k)fluoranthene	89		82		40-140	8		50
Chrysene	92		86		40-140	7		50
Acenaphthylene	91		89		40-140	2		50
Anthracene	92		86		40-140	7		50
Benzo(ghi)perylene	75		72		40-140	4		50
Fluorene	90		84		40-140	7		50
Phenanthrene	88		82		40-140	7		50
Dibenzo(a,h)anthracene	84		80		40-140	5		50
Indeno(1,2,3-cd)Pyrene	82		79		40-140	4		50



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-22,24-25 Batch: WG651267-2 WG651267-3								
Pyrene	93		90		35-142	3		50
Biphenyl	78		74			5		50
4-Chloroaniline	29	Q	27	Q	40-140	7		50
2-Nitroaniline	100		98		47-134	2		50
3-Nitroaniline	38		41		26-129	8		50
4-Nitroaniline	86		84		41-125	2		50
Dibenzofuran	86		82		40-140	5		50
2-Methylnaphthalene	81		78		40-140	4		50
1,2,4,5-Tetrachlorobenzene	76		71		40-117	7		50
Acetophenone	73		72		14-144	1		50
2,4,6-Trichlorophenol	98		96		30-130	2		50
P-Chloro-M-Cresol	100		98		26-103	2		50
2-Chlorophenol	80		78		25-102	3		50
2,4-Dichlorophenol	91		88		30-130	3		50
2,4-Dimethylphenol	96		96		30-130	0		50
2-Nitrophenol	80		79		30-130	1		50
4-Nitrophenol	123	Q	119	Q	11-114	3		50
2,4-Dinitrophenol	50		58		4-130	15		50
4,6-Dinitro-o-cresol	96		97		10-130	1		50
Pentachlorophenol	81		78		17-109	4		50
Phenol	74		74		26-90	0		50

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## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 21-22,24-25 Batch: WG651267-2 WG651267-3								
2-Methylphenol	84		82		30-130.	2		50
3-Methylphenol/4-Methylphenol	86		86		30-130	0		50
2,4,5-Trichlorophenol	101		99		30-130	2		50
Benzoic Acid	28		32			13		50
Benzyl Alcohol	77		75		40-140	3		50
Carbazole	90		87		54-128	3		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	80		75		25-120
Phenol-d6	81		78		10-120
Nitrobenzene-d5	75		72		23-120
2-Fluorobiphenyl	89		85		30-120
2,4,6-Tribromophenol	94		84		0-136
4-Terphenyl-d14	97		91		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPV PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-20,26-29 Batch: WG651290-2 WG651290-3								
Acenaphthene	80		74		31-137	8		50
1,2,4-Trichlorobenzene	72		70		38-107	3		50
Hexachlorobenzene	87		75		40-140	15		50
Bis(2-chloroethyl)ether	73		68		40-140	7		50
2-Chloronaphthalene	79		71		40-140	11		50
1,2-Dichlorobenzene	70		66		40-140	6		50
1,3-Dichlorobenzene	68		65		40-140	5		50
1,4-Dichlorobenzene	69		66		28-104	4		50
3,3'-Dichlorobenzidine	45		33	Q	40-140	31		50
2,4-Dinitrotoluene	96	Q	81		28-89	17		50
2,6-Dinitrotoluene	92		75		40-140	20		50
Fluoranthene	89		79		40-140	12		50
4-Chlorophenyl phenyl ether	86		76		40-140	12		50
4-Bromophenyl phenyl ether	88		77		40-140	13		50
Bis(2-chloroisopropyl)ether	74		68		40-140	8		50
Bis(2-chloroethoxy)methane	76		67		40-117	13		50
Hexachlorobutadiene	70		68		40-140	3		50
Hexachlorocyclopentadiene	60		58		40-140	3		50
Hexachloroethane	66		63		40-140	5		50
Isophorone	76		66		40-140	14		50
Naphthalene	73		70		40-140	4		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-20,26-29 Batch: WG651290-2 WG651290-3								
Nitrobenzene	77		73		40-140	5		50
NitrosoDiPhenylAmine(NDPA)/DPA	90		78			14		50
n-Nitrosodi-n-propylamine	75		67		32-121	11		50
Bis(2-Ethylhexyl)phthalate	90		80		40-140	12		50
Butyl benzyl phthalate	91		78		40-140	15		50
Di-n-butylphthalate	90		79		40-140	13		50
Di-n-octylphthalate	91		79		40-140	14		50
Diethyl phthalate	90		78		40-140	14		50
Dimethyl phthalate	87		76		40-140	13		50
Benzo(a)anthracene	90		81		40-140	11		50
Benzo(a)pyrene	90		81		40-140	11		50
Benzo(b)fluoranthene	89		81		40-140	9		50
Benzo(k)fluoranthene	90		80		40-140	12		50
Chrysene	88		79		40-140	11		50
Acenaphthylene	83		72		40-140	14		50
Anthracene	88		79		40-140	11		50
Benzo(ghi)perylene	87		78		40-140	11		50
Fluorene	85		76		40-140	11		50
Phenanthrene	88		79		40-140	11		50
Dibenzo(a,h)anthracene	89		80		40-140	11		50
Indeno(1,2,3-cd)Pyrene	89		79		40-140	12		50

8604Pet-0248

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-20,26-29 Batch: WG651290-2 WG651290-3								
Pyrene	89		77		35-142	14		50
Biphenyl	81		76			6		50
4-Chloroaniline	28	Q	21	Q	40-140	29		50
2-Nitroaniline	94		77		47-134	20		50
3-Nitroaniline	41		30		26-129	31		50
4-Nitroaniline	100		82		41-125	20		50
Dibenzofuran	84		76		40-140	10		50
2-Methylnaphthalene	75		70		40-140	7		50
1,2,4,5-Tetrachlorobenzene	78		76		40-117	3		50
Acetophenone	80		73		14-144	9		50
2,4,6-Trichlorophenol	88		75		30-130	16		50
P-Chloro-M-Cresol	94		77		26-103	20		50
2-Chlorophenol	80		73		25-102	9		50
2,4-Dichlorophenol	85		76		30-130	11		50
2,4-Dimethylphenol	82		70		30-130	16		50
2-Nitrophenol	77		69		30-130	11		50
4-Nitrophenol	123	Q	105		11-114	16		50
2,4-Dinitrophenol	78		63		4-130	21		50
4,6-Dinitro-o-cresol	95		78		10-130	20		50
Pentachlorophenol	87		77		17-109	12		50
Phenol	80		71		26-90	12		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYP A PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-20,26-29 Batch: WG651290-2 WG651290-3								
2-Methylphenol	82		74		30-130.	10		50
3-Methylphenol/4-Methylphenol	85		73		30-130	15		50
2,4,5-Trichlorophenol	92		77		30-130	18		50
Benzoic Acid	36		24			40		50
Benzyl Alcohol	84		75		40-140	11		50
Carbazole	90		80		54-128	12		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	80		74		25-120
Phenol-d6	83		74		10-120
Nitrobenzene-d5	75		68		23-120
2-Fluorobiphenyl	77		69		30-120
2,4,6-Tribromophenol	89		79		0-136
4-Terphenyl-d14	86		75		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 23 Batch: WG651850-2 WG651850-3								
Acenaphthene	70		77		31-137	10		50
1,2,4-Trichlorobenzene	61		70		38-107	14		50
Hexachlorobenzene	80		85		40-140	6		50
Bis(2-chloroethyl)ether	54		60		40-140	11		50
2-Chloronaphthalene	68		75		40-140	10		50
1,2-Dichlorobenzene	57		62		40-140	8		50
1,3-Dichlorobenzene	58		63		40-140	8		50
1,4-Dichlorobenzene	57		62		28-104	8		50
3,3'-Dichlorobenzidine	58		62		40-140	7		50
2,4-Dinitrotoluene	81		87		28-89	7		50
2,6-Dinitrotoluene	78		83		40-140	6		50
Fluoranthene	79		82		40-140	4		50
4-Chlorophenyl phenyl ether	77		82		40-140	6		50
4-Bromophenyl phenyl ether	80		84		40-140	5		50
Bis(2-chloroisopropyl)ether	45		51		40-140	13		50
Bis(2-chloroethoxy)methane	61		68		40-117	11		50
Hexachlorobutadiene	61		70		40-140	14		50
Hexachlorocyclopentadiene	52		63		40-140	19		50
Hexachloroethane	53		58		40-140	9		50
Isophorone	59		66		40-140	11		50
Naphthalene	60		68		40-140	13		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 23 Batch: WG651850-2 WG651850-3								
Nitrobenzene	58		66		40-140	13		50
NitrosoDiPhenylAmine(NDPA)/DPA	78		83			6		50
n-Nitrosodi-n-propylamine	55		63		32-121	14		50
Bis(2-Ethylhexyl)phthalate	84		90		40-140	7		50
Butyl benzyl phthalate	74		78		40-140	5		50
Di-n-butylphthalate	82		86		40-140	5		50
Di-n-octylphthalate	79		85		40-140	7		50
Diethyl phthalate	80		84		40-140	5		50
Dimethyl phthalate	80		85		40-140	6		50
Benzo(a)anthracene	83		87		40-140	5		50
Benzo(a)pyrene	81		85		40-140	5		50
Benzo(b)fluoranthene	78		81		40-140	4		50
Benzo(k)fluoranthene	80		84		40-140	5		50
Chrysene	80		86		40-140	7		50
Acenaphthylene	70		76		40-140	8		50
Anthracene	81		83		40-140	2		50
Benzo(ghi)perylene	81		86		40-140	6		50
Fluorene	75		80		40-140	6		50
Phenanthrene	78		81		40-140	4		50
Dibenzo(a,h)anthracene	82		88		40-140	7		50
Indeno(1,2,3-cd)Pyrene	79		84		40-140	6		50

8604Pet-0252



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 23 Batch: WG651850-2 WG651850-3								
Pyrene	77		81		35-142	5		50
Biphenyl	70		80			13		50
4-Chloroaniline	54		60		40-140	11		50
2-Nitroaniline	78		84		47-134	7		50
3-Nitroaniline	47		46		26-129	2		50
4-Nitroaniline	76		78		41-125	3		50
Dibenzofuran	75		80		40-140	6		50
2-Methylnaphthalene	64		74		40-140	14		50
1,2,4,5-Tetrachlorobenzene	69		80		40-117	15		50
Acetophenone	66		72		14-144	9		50
2,4,6-Trichlorophenol	78		83		30-130	6		50
P-Chloro-M-Cresol	72		78		26-103	8		50
2-Chlorophenol	61		69		25-102	12		50
2,4-Dichlorophenol	68		79		30-130	15		50
2,4-Dimethylphenol	62		71		30-130	14		50
2-Nitrophenol	64		72		30-130	12		50
4-Nitrophenol	55		62		11-114	12		50
2,4-Dinitrophenol	36		55		4-130	42		50
4,6-Dinitro-o-cresol	73		84		10-130	14		50
Pentachlorophenol	80		82		17-109	2		50
Phenol	60		69		26-90	14		50

8604Pet-0253

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 23 Batch: WG651850-2 WG651850-3								
2-Methylphenol	61		68		30-130.	11		50
3-Methylphenol/4-Methylphenol	68		77		30-130	12		50
2,4,5-Trichlorophenol	83		88		30-130	6		50
Benzoic Acid	0		0			NC		50
Benzyl Alcohol	59		64		40-140	8		50
Carbazole	80		84		54-128	5		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	65		70		25-120
Phenol-d6	62		69		10-120
Nitrobenzene-d5	60		65		23-120
2-Fluorobiphenyl	70		75		30-120
2,4,6-Tribromophenol	90		92		0-136
4-Terphenyl-d14	80		82		18-120

# PCBS

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-01  
 Client ID: SL-15, G-2(6'-7')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 18:13  
 Analyst: KB  
 Percent Solids: 39%

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:41  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	84.9	6.71	1	A
Aroclor 1221	ND		ug/kg	84.9	7.83	1	A
Aroclor 1232	ND		ug/kg	84.9	9.96	1	A
Aroclor 1242	ND		ug/kg	84.9	10.4	1	A
Aroclor 1248	ND		ug/kg	84.9	7.17	1	A
Aroclor 1254	ND		ug/kg	84.9	6.98	1	A
Aroclor 1260	ND		ug/kg	84.9	6.47	1	A
Aroclor 1262	ND		ug/kg	84.9	4.21	1	A
Aroclor 1268	ND		ug/kg	84.9	12.3	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	46		30-150	A
Decachlorobiphenyl	38		30-150	A
2,4,5,6-Tetrachloro-m-xylene	45		30-150	B
Decachlorobiphenyl	41		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-02  
 Client ID: SL-18, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 18:28  
 Analyst: KB  
 Percent Solids: 79%

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:41  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	39.6	3.13	1	A
Aroclor 1221	ND		ug/kg	39.6	3.65	1	A
Aroclor 1232	ND		ug/kg	39.6	4.64	1	A
Aroclor 1242	ND		ug/kg	39.6	4.85	1	A
Aroclor 1248	ND		ug/kg	39.6	3.34	1	A
Aroclor 1254	ND		ug/kg	39.6	3.26	1	A
Aroclor 1260	ND		ug/kg	39.6	3.02	1	A
Aroclor 1262	ND		ug/kg	39.6	1.96	1	A
Aroclor 1268	ND		ug/kg	39.6	5.74	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	41		30-150	A
Decachlorobiphenyl	31		30-150	A
2,4,5,6-Tetrachloro-m-xylene	42		30-150	B
Decachlorobiphenyl	33		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-03  
 Client ID: SL-15, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 18:56  
 Analyst: KB  
 Percent Solids: 33%

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:41  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	98.2	7.75	1	A
Aroclor 1221	ND		ug/kg	98.2	9.05	1	A
Aroclor 1232	ND		ug/kg	98.2	11.5	1	A
Aroclor 1242	ND		ug/kg	98.2	12.0	1	A
Aroclor 1248	ND		ug/kg	98.2	8.28	1	A
Aroclor 1254	ND		ug/kg	98.2	8.07	1	A
Aroclor 1260	ND		ug/kg	98.2	7.48	1	A
Aroclor 1262	ND		ug/kg	98.2	4.87	1	A
Aroclor 1268	ND		ug/kg	98.2	14.2	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	56		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-04  
 Client ID: SL-17, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 19:10  
 Analyst: KB  
 Percent Solids: 83%

Date Collected: 11/07/13 12:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:41  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	39.2	3.10	1	A
Aroclor 1221	ND		ug/kg	39.2	3.61	1	A
Aroclor 1232	ND		ug/kg	39.2	4.59	1	A
Aroclor 1242	ND		ug/kg	39.2	4.80	1	A
Aroclor 1248	ND		ug/kg	39.2	3.31	1	A
Aroclor 1254	ND		ug/kg	39.2	3.22	1	A
Aroclor 1260	ND		ug/kg	39.2	2.99	1	A
Aroclor 1262	ND		ug/kg	39.2	1.94	1	A
Aroclor 1268	ND		ug/kg	39.2	5.68	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	40		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	41		30-150	B
Decachlorobiphenyl	57		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-05  
 Client ID: SL-16, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 19:24  
 Analyst: KB  
 Percent Solids: 41%

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:41  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	80.4	6.35	1	A
Aroclor 1221	ND		ug/kg	80.4	7.41	1	A
Aroclor 1232	ND		ug/kg	80.4	9.42	1	A
Aroclor 1242	ND		ug/kg	80.4	9.84	1	A
Aroclor 1248	ND		ug/kg	80.4	6.79	1	A
Aroclor 1254	ND		ug/kg	80.4	6.61	1	A
Aroclor 1260	ND		ug/kg	80.4	6.13	1	A
Aroclor 1262	ND		ug/kg	80.4	3.99	1	A
Aroclor 1268	ND		ug/kg	80.4	11.6	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	57		30-150	B
Decachlorobiphenyl	53		30-150	B



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-06  
 Client ID: SL-18, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 19:37  
 Analyst: KB  
 Percent Solids: 72%

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:41  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	44.1	3.48	1	A
Aroclor 1221	ND		ug/kg	44.1	4.06	1	A
Aroclor 1232	ND		ug/kg	44.1	5.16	1	A
Aroclor 1242	ND		ug/kg	44.1	5.39	1	A
Aroclor 1248	ND		ug/kg	44.1	3.72	1	A
Aroclor 1254	ND		ug/kg	44.1	3.62	1	A
Aroclor 1260	ND		ug/kg	44.1	3.36	1	A
Aroclor 1262	ND		ug/kg	44.1	2.18	1	A
Aroclor 1268	ND		ug/kg	44.1	6.39	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	50		30-150	A
Decachlorobiphenyl	44		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	48		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-07  
 Client ID: SL-16, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 19:51  
 Analyst: KB  
 Percent Solids: 39%

Date Collected: 11/07/13 14:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:41  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	83.6	6.60	1	A
Aroclor 1221	ND		ug/kg	83.6	7.70	1	A
Aroclor 1232	ND		ug/kg	83.6	9.79	1	A
Aroclor 1242	ND		ug/kg	83.6	10.2	1	A
Aroclor 1248	ND		ug/kg	83.6	7.05	1	A
Aroclor 1254	ND		ug/kg	83.6	6.87	1	A
Aroclor 1260	ND		ug/kg	83.6	6.37	1	A
Aroclor 1262	ND		ug/kg	83.6	4.14	1	A
Aroclor 1268	ND		ug/kg	83.6	12.1	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		30-150	A
Decachlorobiphenyl	36		30-150	A
2,4,5,6-Tetrachloro-m-xylene	45		30-150	B
Decachlorobiphenyl	36		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-08  
**Client ID:** SL-17, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 11/13/13 20:04  
**Analyst:** KB  
**Percent Solids:** 76%

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 09:41  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 11/12/13  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	41.9	3.31	1	A
Aroclor 1221	ND		ug/kg	41.9	3.86	1	A
Aroclor 1232	ND		ug/kg	41.9	4.91	1	A
Aroclor 1242	ND		ug/kg	41.9	5.13	1	A
Aroclor 1248	ND		ug/kg	41.9	3.54	1	A
Aroclor 1254	ND		ug/kg	41.9	3.44	1	A
Aroclor 1260	ND		ug/kg	41.9	3.19	1	A
Aroclor 1262	ND		ug/kg	41.9	2.08	1	A
Aroclor 1268	ND		ug/kg	41.9	6.08	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	62		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-09  
 Client ID: SL-4, G-2(7'-7.7')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 20:18  
 Analyst: KB  
 Percent Solids: 77%

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:41  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	43.0	3.40	1	A
Aroclor 1221	ND		ug/kg	43.0	3.96	1	A
Aroclor 1232	ND		ug/kg	43.0	5.04	1	A
Aroclor 1242	ND		ug/kg	43.0	5.26	1	A
Aroclor 1248	ND		ug/kg	43.0	3.63	1	A
Aroclor 1254	ND		ug/kg	43.0	3.53	1	A
Aroclor 1260	ND		ug/kg	43.0	3.27	1	A
Aroclor 1262	ND		ug/kg	43.0	2.13	1	A
Aroclor 1268	ND		ug/kg	43.0	6.23	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	59		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-10  
 Client ID: SL-4, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 20:32  
 Analyst: KB  
 Percent Solids: 75%

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:46  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	42.5	3.36	1	A
Aroclor 1221	ND		ug/kg	42.5	3.92	1	A
Aroclor 1232	ND		ug/kg	42.5	4.99	1	A
Aroclor 1242	ND		ug/kg	42.5	5.21	1	A
Aroclor 1248	ND		ug/kg	42.5	3.59	1	A
Aroclor 1254	ND		ug/kg	42.5	3.50	1	A
Aroclor 1260	ND		ug/kg	42.5	3.24	1	A
Aroclor 1262	ND		ug/kg	42.5	2.11	1	A
Aroclor 1268	ND		ug/kg	42.5	6.17	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	67		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-11  
 Client ID: SL-6, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/15/13 12:11  
 Analyst: JW  
 Percent Solids: 52%

Date Collected: 11/08/13 11:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/14/13 16:43  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/15/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/15/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	61.9	4.89	1	A
Aroclor 1221	ND		ug/kg	61.9	5.70	1	A
Aroclor 1232	ND		ug/kg	61.9	7.25	1	A
Aroclor 1242	ND		ug/kg	61.9	7.57	1	A
Aroclor 1248	ND		ug/kg	61.9	5.22	1	A
Aroclor 1254	ND		ug/kg	61.9	5.09	1	A
Aroclor 1260	ND		ug/kg	61.9	4.72	1	A
Aroclor 1262	ND		ug/kg	61.9	3.07	1	A
Aroclor 1268	ND		ug/kg	61.9	8.97	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	86		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-12  
**Client ID:** SL-6, G-2(8'-9')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 11/13/13 20:59  
**Analyst:** KB  
**Percent Solids:** 55%

**Date Collected:** 11/08/13 11:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 10:46  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 11/12/13  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	57.2	4.52	1	A
Aroclor 1221	ND		ug/kg	57.2	5.28	1	A
Aroclor 1232	ND		ug/kg	57.2	6.71	1	A
Aroclor 1242	ND		ug/kg	57.2	7.01	1	A
Aroclor 1248	ND		ug/kg	57.2	4.83	1	A
Aroclor 1254	ND		ug/kg	57.2	4.70	1	A
Aroclor 1260	ND		ug/kg	57.2	4.36	1	A
Aroclor 1262	ND		ug/kg	57.2	2.84	1	A
Aroclor 1268	ND		ug/kg	57.2	8.30	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	47		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-13  
 Client ID: SL-5, G-2(7'-7.8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 21:12  
 Analyst: KB  
 Percent Solids: 66%

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:46  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	49.5	3.91	1	A
Aroclor 1221	ND		ug/kg	49.5	4.56	1	A
Aroclor 1232	ND		ug/kg	49.5	5.80	1	A
Aroclor 1242	ND		ug/kg	49.5	6.05	1	A
Aroclor 1248	ND		ug/kg	49.5	4.17	1	A
Aroclor 1254	ND		ug/kg	49.5	4.06	1	A
Aroclor 1260	ND		ug/kg	49.5	3.77	1	A
Aroclor 1262	ND		ug/kg	49.5	2.45	1	A
Aroclor 1268	ND		ug/kg	49.5	7.17	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	44		30-150	A
Decachlorobiphenyl	44		30-150	A
2,4,5,6-Tetrachloro-m-xylene	45		30-150	B
Decachlorobiphenyl	42		30-150	B



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-14  
 Client ID: SL-5, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 21:26  
 Analyst: KB  
 Percent Solids: 59%

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:46  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	54.2	4.28	1	A
Aroclor 1221	ND		ug/kg	54.2	5.00	1	A
Aroclor 1232	ND		ug/kg	54.2	6.35	1	A
Aroclor 1242	ND		ug/kg	54.2	6.64	1	A
Aroclor 1248	ND		ug/kg	54.2	4.58	1	A
Aroclor 1254	ND		ug/kg	54.2	4.46	1	A
Aroclor 1260	ND		ug/kg	54.2	4.13	1	A
Aroclor 1262	ND		ug/kg	54.2	2.69	1	A
Aroclor 1268	ND		ug/kg	54.2	7.86	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	49		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-15  
 Client ID: SL-8, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 21:39  
 Analyst: KB  
 Percent Solids: 50%

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:46  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	63.1	4.99	1	A
Aroclor 1221	ND		ug/kg	63.1	5.82	1	A
Aroclor 1232	ND		ug/kg	63.1	7.40	1	A
Aroclor 1242	ND		ug/kg	63.1	7.73	1	A
Aroclor 1248	ND		ug/kg	63.1	5.33	1	A
Aroclor 1254	ND		ug/kg	63.1	5.19	1	A
Aroclor 1260	ND		ug/kg	63.1	4.81	1	A
Aroclor 1262	ND		ug/kg	63.1	3.13	1	A
Aroclor 1268	ND		ug/kg	63.1	9.16	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	41		30-150	A
Decachlorobiphenyl	38		30-150	A
2,4,5,6-Tetrachloro-m-xylene	41		30-150	B
Decachlorobiphenyl	35		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-16  
 Client ID: SL-8, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 21:53  
 Analyst: KB  
 Percent Solids: 57%

Date Collected: 11/08/13 13:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:46  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	56.3	4.45	1	A
Aroclor 1221	ND		ug/kg	56.3	5.19	1	A
Aroclor 1232	ND		ug/kg	56.3	6.60	1	A
Aroclor 1242	ND		ug/kg	56.3	6.90	1	A
Aroclor 1248	ND		ug/kg	56.3	4.76	1	A
Aroclor 1254	ND		ug/kg	56.3	4.63	1	A
Aroclor 1260	ND		ug/kg	56.3	4.29	1	A
Aroclor 1262	ND		ug/kg	56.3	2.79	1	A
Aroclor 1268	ND		ug/kg	56.3	8.17	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	48		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	49		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-17  
 Client ID: SL-7, G-1(0.5'-1.0')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/14/13 17:44  
 Analyst: JW  
 Percent Solids: 37%

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/14/13 01:30  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/14/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/14/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	87.6	6.92	1	A
Aroclor 1221	ND		ug/kg	87.6	8.08	1	A
Aroclor 1232	ND		ug/kg	87.6	10.3	1	A
Aroclor 1242	ND		ug/kg	87.6	10.7	1	A
Aroclor 1248	44.4	J	ug/kg	87.6	7.39	1	B
Aroclor 1254	ND		ug/kg	87.6	7.20	1	A
Aroclor 1260	ND		ug/kg	87.6	6.67	1	A
Aroclor 1262	ND		ug/kg	87.6	4.34	1	A
Aroclor 1268	ND		ug/kg	87.6	12.7	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	60		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-18  
 Client ID: SL-9, G-1(1'-2')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 23:01  
 Analyst: KB  
 Percent Solids: 60%

Date Collected: 11/09/13 15:50  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:46  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	53.5	4.22	1	A
Aroclor 1221	ND		ug/kg	53.5	4.93	1	A
Aroclor 1232	ND		ug/kg	53.5	6.27	1	A
Aroclor 1242	ND		ug/kg	53.5	6.55	1	A
Aroclor 1248	ND		ug/kg	53.5	4.51	1	A
Aroclor 1254	ND		ug/kg	53.5	4.40	1	A
Aroclor 1260	ND		ug/kg	53.5	4.08	1	A
Aroclor 1262	ND		ug/kg	53.5	2.65	1	A
Aroclor 1268	ND		ug/kg	53.5	7.75	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	48		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	50		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-19  
**Client ID:** SL-9, G-2(4'-5')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 11/13/13 23:14  
**Analyst:** KB  
**Percent Solids:** 71%

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 10:46  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 11/12/13  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	45.2	3.57	1	A
Aroclor 1221	ND		ug/kg	45.2	4.16	1	A
Aroclor 1232	ND		ug/kg	45.2	5.29	1	A
Aroclor 1242	ND		ug/kg	45.2	5.53	1	A
Aroclor 1248	ND		ug/kg	45.2	3.81	1	A
Aroclor 1254	ND		ug/kg	45.2	3.71	1	A
Aroclor 1260	ND		ug/kg	45.2	3.44	1	A
Aroclor 1262	ND		ug/kg	45.2	2.24	1	A
Aroclor 1268	ND		ug/kg	45.2	6.55	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	35		30-150	A
Decachlorobiphenyl	35		30-150	A
2,4,5,6-Tetrachloro-m-xylene	36		30-150	B
Decachlorobiphenyl	33		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-20  
 Client ID: SL-7, G-2(6'-6.8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 23:28  
 Analyst: KB  
 Percent Solids: 53%

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:46  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	61.4	4.86	1	A
Aroclor 1221	ND		ug/kg	61.4	5.67	1	A
Aroclor 1232	ND		ug/kg	61.4	7.20	1	A
Aroclor 1242	ND		ug/kg	61.4	7.52	1	A
Aroclor 1248	ND		ug/kg	61.4	5.19	1	A
Aroclor 1254	ND		ug/kg	61.4	5.05	1	A
Aroclor 1260	ND		ug/kg	61.4	4.68	1	A
Aroclor 1262	ND		ug/kg	61.4	3.05	1	A
Aroclor 1268	ND		ug/kg	61.4	8.91	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	47		30-150	A
Decachlorobiphenyl	48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	49		30-150	B
Decachlorobiphenyl	48		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-21  
**Client ID:** SL-11, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 11/13/13 23:41  
**Analyst:** KB  
**Percent Solids:** 48%

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 10:46  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 11/12/13  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	66.8	5.28	1	A
Aroclor 1221	ND		ug/kg	66.8	6.16	1	A
Aroclor 1232	ND		ug/kg	66.8	7.83	1	A
Aroclor 1242	ND		ug/kg	66.8	8.18	1	A
Aroclor 1248	ND		ug/kg	66.8	5.64	1	A
Aroclor 1254	ND		ug/kg	66.8	5.49	1	A
Aroclor 1260	ND		ug/kg	66.8	5.09	1	A
Aroclor 1262	ND		ug/kg	66.8	3.31	1	A
Aroclor 1268	ND		ug/kg	66.8	9.69	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	49		30-150	B



**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-22  
 Client ID: SL-11, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 23:55  
 Analyst: KB  
 Percent Solids: 59%

Date Collected: 11/09/13 14:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:47  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	53.5	4.22	1	A
Aroclor 1221	ND		ug/kg	53.5	4.93	1	A
Aroclor 1232	ND		ug/kg	53.5	6.27	1	A
Aroclor 1242	ND		ug/kg	53.5	6.54	1	A
Aroclor 1248	ND		ug/kg	53.5	4.51	1	A
Aroclor 1254	ND		ug/kg	53.5	4.40	1	A
Aroclor 1260	ND		ug/kg	53.5	4.08	1	A
Aroclor 1262	ND		ug/kg	53.5	2.65	1	A
Aroclor 1268	ND		ug/kg	53.5	7.75	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	46		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	49		30-150	B
Decachlorobiphenyl	51		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-23  
**Client ID:** SL-13, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 11/14/13 00:09  
**Analyst:** KB  
**Percent Solids:** 47%

**Date Collected:** 11/09/13 13:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 10:47  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 11/12/13  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	68.0	5.38	1	A
Aroclor 1221	ND		ug/kg	68.0	6.27	1	A
Aroclor 1232	ND		ug/kg	68.0	7.98	1	A
Aroclor 1242	ND		ug/kg	68.0	8.33	1	A
Aroclor 1248	ND		ug/kg	68.0	5.74	1	A
Aroclor 1254	ND		ug/kg	68.0	5.59	1	A
Aroclor 1260	ND		ug/kg	68.0	5.18	1	A
Aroclor 1262	ND		ug/kg	68.0	3.38	1	A
Aroclor 1268	ND		ug/kg	68.0	9.87	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	57		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-24  
 Client ID: SL-13, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/14/13 00:22  
 Analyst: KB  
 Percent Solids: 60%

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:47  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	54.8	4.33	1	A
Aroclor 1221	ND		ug/kg	54.8	5.05	1	A
Aroclor 1232	ND		ug/kg	54.8	6.42	1	A
Aroclor 1242	ND		ug/kg	54.8	6.70	1	A
Aroclor 1248	ND		ug/kg	54.8	4.62	1	A
Aroclor 1254	ND		ug/kg	54.8	4.50	1	A
Aroclor 1260	ND		ug/kg	54.8	4.17	1	A
Aroclor 1262	ND		ug/kg	54.8	2.72	1	A
Aroclor 1268	ND		ug/kg	54.8	7.94	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	63		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-25  
 Client ID: SL-14, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/14/13 00:36  
 Analyst: KB  
 Percent Solids: 76%

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:47  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	43.6	3.45	1	A
Aroclor 1221	ND		ug/kg	43.6	4.02	1	A
Aroclor 1232	ND		ug/kg	43.6	5.12	1	A
Aroclor 1242	ND		ug/kg	43.6	5.34	1	A
Aroclor 1248	ND		ug/kg	43.6	3.68	1	A
Aroclor 1254	ND		ug/kg	43.6	3.59	1	A
Aroclor 1260	ND		ug/kg	43.6	3.33	1	A
Aroclor 1262	ND		ug/kg	43.6	2.16	1	A
Aroclor 1268	ND		ug/kg	43.6	6.33	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	42		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	46		30-150	B
Decachlorobiphenyl	44		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

Lab ID: L1322910-26  
 Client ID: SL-14, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/14/13 00:49  
 Analyst: KB  
 Percent Solids: 79%

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:47  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	42.0	3.32	1	A
Aroclor 1221	ND		ug/kg	42.0	3.87	1	A
Aroclor 1232	ND		ug/kg	42.0	4.92	1	A
Aroclor 1242	ND		ug/kg	42.0	5.14	1	A
Aroclor 1248	ND		ug/kg	42.0	3.55	1	A
Aroclor 1254	ND		ug/kg	42.0	3.45	1	A
Aroclor 1260	ND		ug/kg	42.0	3.20	1	A
Aroclor 1262	ND		ug/kg	42.0	2.08	1	A
Aroclor 1268	ND		ug/kg	42.0	6.09	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	46		30-150	A
Decachlorobiphenyl	45		30-150	A
2,4,5,6-Tetrachloro-m-xylene	48		30-150	B
Decachlorobiphenyl	42		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-27  
 Client ID: SL-12, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/14/13 01:03  
 Analyst: KB  
 Percent Solids: 50%

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:47  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	62.8	4.96	1	A
Aroclor 1221	ND		ug/kg	62.8	5.79	1	A
Aroclor 1232	ND		ug/kg	62.8	7.36	1	A
Aroclor 1242	ND		ug/kg	62.8	7.69	1	A
Aroclor 1248	ND		ug/kg	62.8	5.30	1	A
Aroclor 1254	ND		ug/kg	62.8	5.16	1	A
Aroclor 1260	ND		ug/kg	62.8	4.79	1	A
Aroclor 1262	ND		ug/kg	62.8	3.12	1	A
Aroclor 1268	ND		ug/kg	62.8	9.11	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	46		30-150	B

**Project Name:** NYPA PV-20 CABLE**Lab Number:** L1322910**Project Number:** 27406**Report Date:** 11/18/13**SAMPLE RESULTS**

**Lab ID:** L1322910-28  
**Client ID:** SL-12, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 11/14/13 01:16  
**Analyst:** KB  
**Percent Solids:** 52%

**Date Collected:** 11/09/13 10:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3546  
**Extraction Date:** 11/12/13 10:47  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 11/12/13  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	62.7	4.95	1	A
Aroclor 1221	ND		ug/kg	62.7	5.78	1	A
Aroclor 1232	ND		ug/kg	62.7	7.34	1	A
Aroclor 1242	ND		ug/kg	62.7	7.67	1	A
Aroclor 1248	ND		ug/kg	62.7	5.29	1	A
Aroclor 1254	ND		ug/kg	62.7	5.15	1	A
Aroclor 1260	ND		ug/kg	62.7	4.78	1	A
Aroclor 1262	ND		ug/kg	62.7	3.11	1	A
Aroclor 1268	ND		ug/kg	62.7	9.09	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	68		30-150	B

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-29  
 Client ID: SL-10, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 11/14/13 01:30  
 Analyst: KB  
 Percent Solids: 65%

Date Collected: 11/09/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified  
 Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:47  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	49.6	3.92	1	A
Aroclor 1221	ND		ug/kg	49.6	4.57	1	A
Aroclor 1232	ND		ug/kg	49.6	5.81	1	A
Aroclor 1242	ND		ug/kg	49.6	6.07	1	A
Aroclor 1248	ND		ug/kg	49.6	4.18	1	A
Aroclor 1254	ND		ug/kg	49.6	4.07	1	A
Aroclor 1260	ND		ug/kg	49.6	3.78	1	A
Aroclor 1262	ND		ug/kg	49.6	2.46	1	A
Aroclor 1268	ND		ug/kg	49.6	7.19	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	49		30-150	B



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 16:01  
 Analyst: KB

Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 09:40  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-09 Batch: WG651079-1						
Aroclor 1016	ND		ug/kg	32.7	2.58	A
Aroclor 1221	ND		ug/kg	32.7	3.01	A
Aroclor 1232	ND		ug/kg	32.7	3.83	A
Aroclor 1242	ND		ug/kg	32.7	4.00	A
Aroclor 1248	ND		ug/kg	32.7	2.76	A
Aroclor 1254	ND		ug/kg	32.7	2.69	A
Aroclor 1260	ND		ug/kg	32.7	2.49	A
Aroclor 1262	ND		ug/kg	32.7	1.62	A
Aroclor 1268	ND		ug/kg	32.7	4.74	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		30-150	A
Decachlorobiphenyl	42		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	56		30-150	B



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 1,8082A  
 Analytical Date: 11/13/13 22:07  
 Analyst: KB

Extraction Method: EPA 3546  
 Extraction Date: 11/12/13 10:46  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/12/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/12/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 10,12-16,18-29 Batch: WG651103-1						
Aroclor 1016	ND		ug/kg	32.0	2.53	A
Aroclor 1221	ND		ug/kg	32.0	2.95	A
Aroclor 1232	ND		ug/kg	32.0	3.75	A
Aroclor 1242	ND		ug/kg	32.0	3.92	A
Aroclor 1248	ND		ug/kg	32.0	2.70	A
Aroclor 1254	ND		ug/kg	32.0	2.63	A
Aroclor 1260	ND		ug/kg	32.0	2.44	A
Aroclor 1262	ND		ug/kg	32.0	1.59	A
Aroclor 1268	ND		ug/kg	32.0	4.64	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	74		30-150	B



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8082A  
 Analytical Date: 11/14/13 17:57  
 Analyst: JW

Extraction Method: EPA 3546  
 Extraction Date: 11/14/13 01:30  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/14/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/14/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 17 Batch: WG651590-1						
Aroclor 1016	ND		ug/kg	33.0	2.61	A
Aroclor 1221	ND		ug/kg	33.0	3.04	A
Aroclor 1232	ND		ug/kg	33.0	3.87	A
Aroclor 1242	ND		ug/kg	33.0	4.04	A
Aroclor 1248	ND		ug/kg	33.0	2.78	A
Aroclor 1254	ND		ug/kg	33.0	2.71	A
Aroclor 1260	ND		ug/kg	33.0	2.51	A
Aroclor 1262	ND		ug/kg	33.0	1.64	A
Aroclor 1268	ND		ug/kg	33.0	4.78	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	93		30-150	B



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Method Blank Analysis  
 Batch Quality Control**

Analytical Method: 1,8082A  
 Analytical Date: 11/15/13 12:23  
 Analyst: JW

Extraction Method: EPA 3546  
 Extraction Date: 11/14/13 16:43  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 11/15/13  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 11/15/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 11 Batch: WG651844-1						
Aroclor 1016	ND		ug/kg	32.8	2.59	A
Aroclor 1221	ND		ug/kg	32.8	3.02	A
Aroclor 1232	ND		ug/kg	32.8	3.84	A
Aroclor 1242	ND		ug/kg	32.8	4.02	A
Aroclor 1248	ND		ug/kg	32.8	2.77	A
Aroclor 1254	ND		ug/kg	32.8	2.70	A
Aroclor 1260	ND		ug/kg	32.8	2.50	A
Aroclor 1262	ND		ug/kg	32.8	1.63	A
Aroclor 1268	ND		ug/kg	32.8	4.76	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	84		30-150	B



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG651079-2 WG651079-3									
Aroclor 1016	59		71		40-140	18		50	A
Aroclor 1260	54		65		40-140	18		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		71		30-150	A
Decachlorobiphenyl	45		52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		73		30-150	B
Decachlorobiphenyl	54		65		30-150	B



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 10,12-16,18-29 Batch: WG651103-2 WG651103-3									
Aroclor 1016	57		54		40-140	5		50	A
Aroclor 1260	57		54		40-140	5		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		58		30-150	A
Decachlorobiphenyl	62		58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		59		30-150	B
Decachlorobiphenyl	58		56		30-150	B

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 17 Batch: WG651590-2 WG651590-3									
Aroclor 1016	89		77		40-140	14		50	A
Aroclor 1260	88		87		40-140	1		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		74		30-150	A
Decachlorobiphenyl	79		79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		70		30-150	B
Decachlorobiphenyl	86		83		30-150	B



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 11 Batch: WG651844-2 WG651844-3									
Aroclor 1016	74		77		40-140	4		50	A
Aroclor 1260	73		74		40-140	1		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		73		30-150	A
Decachlorobiphenyl	84		83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		79		30-150	B
Decachlorobiphenyl	85		90		30-150	B



## METALS

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-01  
**Client ID:** SL-15, G-2(6'-7')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 39%

**Date Collected:** 11/07/13 14:05  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	5.0	0.81	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Arsenic, Total	5.7		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Beryllium, Total	0.51		mg/kg	0.50	0.10	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Cadmium, Total	0.83	J	mg/kg	1.0	0.07	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Chromium, Total	26		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Copper, Total	23		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Lead, Total	9.4		mg/kg	5.0	0.20	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.21	0.04	1	11/18/13 09:38	11/18/13 12:23	EPA 7471B	1,7471B	MC
Nickel, Total	31		mg/kg	2.5	0.40	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	2.0	0.30	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	2.0	0.40	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT
Zinc, Total	64		mg/kg	5.0	0.71	1	11/13/13 09:57	11/15/13 00:22	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-02  
 Client ID: SL-18, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Percent Solids: 79%

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.4	0.38	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Arsenic, Total	1.1		mg/kg	0.47	0.10	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Beryllium, Total	0.16	J	mg/kg	0.24	0.05	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Cadmium, Total	0.32	J	mg/kg	0.47	0.03	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Chromium, Total	12		mg/kg	0.47	0.10	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Copper, Total	12		mg/kg	0.47	0.10	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Lead, Total	3.7		mg/kg	2.4	0.10	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.10	0.02	1	11/18/13 09:38	11/18/13 12:24	EPA 7471B	1,7471B	MC
Nickel, Total	11		mg/kg	1.2	0.19	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	0.95	0.14	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.47	0.10	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	0.95	0.19	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT
Zinc, Total	29		mg/kg	2.4	0.33	1	11/13/13 09:57	11/15/13 00:36	EPA 3050B	1,6010C	TT



**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-03  
 Client ID: SL-15, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Percent Solids: 33%

Date Collected: 11/07/13 14:05  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	5.8	0.93	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Arsenic, Total	4.9		mg/kg	1.2	0.23	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Beryllium, Total	0.49	J	mg/kg	0.58	0.12	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Cadmium, Total	0.84	J	mg/kg	1.2	0.08	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Chromium, Total	26		mg/kg	1.2	0.23	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Copper, Total	20		mg/kg	1.2	0.23	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Lead, Total	8.8		mg/kg	5.8	0.23	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.22	0.05	1	11/18/13 09:38	11/18/13 12:26	EPA 7471B	1,7471B	MC
Nickel, Total	28		mg/kg	2.9	0.46	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	2.3	0.35	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	1.2	0.23	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	2.3	0.46	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT
Zinc, Total	63		mg/kg	5.8	0.81	1	11/13/13 09:57	11/15/13 00:40	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-04  
**Client ID:** SL-17, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 83%

**Date Collected:** 11/07/13 12:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.3	0.36	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Arsenic, Total	0.98		mg/kg	0.45	0.09	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Beryllium, Total	0.06	J	mg/kg	0.23	0.05	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Cadmium, Total	0.11	J	mg/kg	0.45	0.03	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Chromium, Total	3.8		mg/kg	0.45	0.09	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Copper, Total	2.9		mg/kg	0.45	0.09	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Lead, Total	1.3	J	mg/kg	2.3	0.09	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.10	0.02	1	11/18/13 09:38	11/18/13 12:32	EPA 7471B	1,7471B	MC
Nickel, Total	3.8		mg/kg	1.1	0.18	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	0.91	0.14	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.45	0.09	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	0.91	0.18	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT
Zinc, Total	8.2		mg/kg	2.3	0.32	1	11/13/13 09:57	11/15/13 00:54	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-05  
**Client ID:** SL-16, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 41%

**Date Collected:** 11/07/13 14:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	4.8	0.76	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Arsenic, Total	4.6		mg/kg	0.95	0.19	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Beryllium, Total	0.48		mg/kg	0.48	0.10	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Cadmium, Total	0.74	J	mg/kg	0.95	0.07	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Chromium, Total	25		mg/kg	0.95	0.19	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Copper, Total	22		mg/kg	0.95	0.19	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Lead, Total	8.6		mg/kg	4.8	0.19	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.18	0.04	1	11/18/13 09:38	11/18/13 12:34	EPA 7471B	1,7471B	MC
Nickel, Total	27		mg/kg	2.4	0.38	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.9	0.28	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.95	0.19	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.9	0.38	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT
Zinc, Total	58		mg/kg	4.8	0.67	1	11/13/13 09:57	11/15/13 00:58	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-06  
 Client ID: SL-18, G-2(8'-9')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Percent Solids: 72%

Date Collected: 11/07/13 12:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.7	0.43	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Arsenic, Total	1.6		mg/kg	0.54	0.11	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Beryllium, Total	0.19	J	mg/kg	0.27	0.05	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Cadmium, Total	0.40	J	mg/kg	0.54	0.04	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Chromium, Total	14		mg/kg	0.54	0.11	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Copper, Total	16		mg/kg	0.54	0.11	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Lead, Total	4.5		mg/kg	2.7	0.11	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.10	0.02	1	11/18/13 09:38	11/18/13 12:36	EPA 7471B	1,7471B	MC
Nickel, Total	13		mg/kg	1.3	0.21	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.1	0.16	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.54	0.11	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.1	0.21	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT
Zinc, Total	37		mg/kg	2.7	0.38	1	11/13/13 09:57	11/15/13 01:01	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-07  
**Client ID:** SL-16, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 39%

**Date Collected:** 11/07/13 14:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	5.0	0.80	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Arsenic, Total	3.2		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Beryllium, Total	0.46	J	mg/kg	0.50	0.10	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Cadmium, Total	0.63	J	mg/kg	1.0	0.07	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Chromium, Total	24		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Copper, Total	19		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Lead, Total	8.0		mg/kg	5.0	0.20	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.17	0.04	1	11/18/13 09:38	11/18/13 12:38	EPA 7471B	1,7471B	MC
Nickel, Total	25		mg/kg	2.5	0.40	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	2.0	0.30	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	2.0	0.40	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT
Zinc, Total	56		mg/kg	5.0	0.70	1	11/13/13 09:57	11/15/13 01:05	EPA 3050B	1,6010C	TT





**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-08  
**Client ID:** SL-17, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 76%

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.6	0.42	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Arsenic, Total	1.7		mg/kg	0.52	0.10	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Beryllium, Total	0.14	J	mg/kg	0.26	0.05	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Cadmium, Total	0.34	J	mg/kg	0.52	0.04	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Chromium, Total	12		mg/kg	0.52	0.10	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Copper, Total	10		mg/kg	0.52	0.10	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Lead, Total	3.6		mg/kg	2.6	0.10	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.09	0.02	1	11/18/13 09:38	11/18/13 12:40	EPA 7471B	1,7471B	MC
Nickel, Total	10		mg/kg	1.3	0.21	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.0	0.16	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.52	0.10	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.0	0.21	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT
Zinc, Total	24		mg/kg	2.6	0.36	1	11/13/13 09:57	11/15/13 01:08	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-09  
 Client ID: SL-4, G-2(7'-7.7')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Percent Solids: 77%

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.4	0.39	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Arsenic, Total	1.7		mg/kg	0.49	0.10	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Beryllium, Total	0.12	J	mg/kg	0.24	0.05	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Cadmium, Total	0.30	J	mg/kg	0.49	0.03	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Chromium, Total	10		mg/kg	0.49	0.10	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Copper, Total	8.8		mg/kg	0.49	0.10	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Lead, Total	3.3		mg/kg	2.4	0.10	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.09	0.02	1	11/18/13 09:38	11/18/13 12:46	EPA 7471B	1,7471B	MC
Nickel, Total	9.2		mg/kg	1.2	0.20	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	0.98	0.15	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.49	0.10	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	0.98	0.20	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT
Zinc, Total	21		mg/kg	2.4	0.34	1	11/13/13 09:57	11/15/13 01:12	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-10  
 Client ID: SL-4, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Percent Solids: 75%

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.5	0.40	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Arsenic, Total	1.9		mg/kg	0.51	0.10	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Beryllium, Total	0.06	J	mg/kg	0.25	0.05	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Cadmium, Total	0.22	J	mg/kg	0.51	0.04	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Chromium, Total	6.4		mg/kg	0.51	0.10	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Copper, Total	3.3		mg/kg	0.51	0.10	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Lead, Total	1.7	J	mg/kg	2.5	0.10	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.10	0.02	1	11/18/13 09:38	11/18/13 12:58	EPA 7471B	1,7471B	MC
Nickel, Total	4.7		mg/kg	1.3	0.20	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.0	0.15	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.51	0.10	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.0	0.20	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT
Zinc, Total	11		mg/kg	2.5	0.35	1	11/13/13 09:57	11/15/13 01:16	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-11  
**Client ID:** SL-6, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 52%

**Date Collected:** 11/08/13 11:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.7	0.60	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Arsenic, Total	3.6		mg/kg	0.74	0.15	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Beryllium, Total	0.28	J	mg/kg	0.37	0.07	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Cadmium, Total	0.56	J	mg/kg	0.74	0.05	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Chromium, Total	19		mg/kg	0.74	0.15	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Copper, Total	15		mg/kg	0.74	0.15	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Lead, Total	6.0		mg/kg	3.7	0.15	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.13	0.03	1	11/18/13 09:38	11/18/13 12:59	EPA 7471B	1,7471B	MC
Nickel, Total	22		mg/kg	1.9	0.30	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.5	0.22	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.74	0.15	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.5	0.30	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT
Zinc, Total	52		mg/kg	3.7	0.52	1	11/13/13 09:57	11/15/13 01:19	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-12  
**Client ID:** SL-6, G-2(8'-9')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 55%

**Date Collected:** 11/08/13 11:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.5	0.56	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Arsenic, Total	6.5		mg/kg	0.70	0.14	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Beryllium, Total	0.45		mg/kg	0.35	0.07	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Cadmium, Total	0.70		mg/kg	0.70	0.05	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Chromium, Total	28		mg/kg	0.70	0.14	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Copper, Total	24		mg/kg	0.70	0.14	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Lead, Total	9.1		mg/kg	3.5	0.14	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.14	0.03	1	11/18/13 09:38	11/18/13 13:01	EPA 7471B	1,7471B	MC
Nickel, Total	32		mg/kg	1.7	0.28	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.4	0.21	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.70	0.14	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.4	0.28	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT
Zinc, Total	61		mg/kg	3.5	0.49	1	11/13/13 09:57	11/15/13 01:23	EPA 3050B	1,6010C	TT



**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-13  
**Client ID:** SL-5, G-2(7'-7.8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 66%

**Date Collected:** 11/08/13 10:15  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.8	0.46	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Arsenic, Total	1.2		mg/kg	0.57	0.11	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Beryllium, Total	0.25	J	mg/kg	0.28	0.06	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Cadmium, Total	0.44	J	mg/kg	0.57	0.04	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Chromium, Total	16		mg/kg	0.57	0.11	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Copper, Total	12		mg/kg	0.57	0.11	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Lead, Total	4.7		mg/kg	2.8	0.11	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.11	0.02	1	11/18/13 09:38	11/18/13 13:03	EPA 7471B	1,7471B	MC
Nickel, Total	15		mg/kg	1.4	0.23	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.1	0.17	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.57	0.11	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.1	0.23	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT
Zinc, Total	33		mg/kg	2.8	0.40	1	11/13/13 09:57	11/15/13 01:37	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-14  
 Client ID: SL-5, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Percent Solids: 59%

Date Collected: 11/08/13 10:15  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.3	0.53	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Arsenic, Total	2.8		mg/kg	0.66	0.13	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Beryllium, Total	0.20	J	mg/kg	0.33	0.07	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Cadmium, Total	0.48	J	mg/kg	0.66	0.05	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Chromium, Total	17		mg/kg	0.66	0.13	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Copper, Total	14		mg/kg	0.66	0.13	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Lead, Total	5.5		mg/kg	3.3	0.13	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.12	0.03	1	11/18/13 09:38	11/18/13 13:05	EPA 7471B	1,7471B	MC
Nickel, Total	20		mg/kg	1.6	0.26	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.3	0.20	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.66	0.13	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.3	0.26	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT
Zinc, Total	46		mg/kg	3.3	0.46	1	11/13/13 09:57	11/15/13 01:41	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-15  
**Client ID:** SL-8, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 50%

**Date Collected:** 11/08/13 13:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.8	0.61	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Arsenic, Total	5.1		mg/kg	0.76	0.15	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Beryllium, Total	0.53		mg/kg	0.38	0.08	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Cadmium, Total	0.78		mg/kg	0.76	0.05	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Chromium, Total	34		mg/kg	0.76	0.15	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Copper, Total	27		mg/kg	0.76	0.15	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Lead, Total	11		mg/kg	3.8	0.15	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.13	0.03	1	11/18/13 09:38	11/18/13 13:07	EPA 7471B	1,7471B	MC
Nickel, Total	37		mg/kg	1.9	0.30	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.5	0.23	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.76	0.15	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.5	0.30	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT
Zinc, Total	72		mg/kg	3.8	0.53	1	11/13/13 09:57	11/15/13 01:44	EPA 3050B	1,6010C	TT





**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-16  
**Client ID:** SL-8, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 57%

**Date Collected:** 11/08/13 13:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.4	0.55	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Arsenic, Total	4.3		mg/kg	0.68	0.14	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Beryllium, Total	0.26	J	mg/kg	0.34	0.07	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Cadmium, Total	0.56	J	mg/kg	0.68	0.05	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Chromium, Total	18		mg/kg	0.68	0.14	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Copper, Total	13		mg/kg	0.68	0.14	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Lead, Total	5.3		mg/kg	3.4	0.14	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.13	0.03	1	11/18/13 09:38	11/18/13 13:09	EPA 7471B	1,7471B	MC
Nickel, Total	21		mg/kg	1.7	0.27	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.4	0.20	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.68	0.14	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.4	0.27	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT
Zinc, Total	47		mg/kg	3.4	0.48	1	11/13/13 09:57	11/15/13 01:48	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-17  
**Client ID:** SL-7, G-1(0.5'-1.0')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 37%

**Date Collected:** 11/09/13 16:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	5.4	0.86	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Arsenic, Total	9.5		mg/kg	1.1	0.22	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Beryllium, Total	0.39	J	mg/kg	0.54	0.11	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Cadmium, Total	1.1		mg/kg	1.1	0.08	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Chromium, Total	34		mg/kg	1.1	0.22	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Copper, Total	35		mg/kg	1.1	0.22	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Lead, Total	46		mg/kg	5.4	0.22	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Mercury, Total	0.26		mg/kg	0.18	0.04	1	11/18/13 09:38	11/18/13 13:11	EPA 7471B	1,7471B	MC
Nickel, Total	32		mg/kg	2.7	0.43	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	2.2	0.32	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Silver, Total	0.41	J	mg/kg	1.1	0.22	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	2.2	0.43	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT
Zinc, Total	120		mg/kg	5.4	0.76	1	11/13/13 09:57	11/15/13 01:51	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-18  
**Client ID:** SL-9, G-1(1'-2')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 60%

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.2	0.52	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Arsenic, Total	2.6		mg/kg	0.64	0.13	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Beryllium, Total	0.24	J	mg/kg	0.32	0.06	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Cadmium, Total	0.45	J	mg/kg	0.64	0.05	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Chromium, Total	15		mg/kg	0.64	0.13	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Copper, Total	11		mg/kg	0.64	0.13	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Lead, Total	4.6		mg/kg	3.2	0.13	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.11	0.02	1	11/18/13 09:38	11/18/13 13:13	EPA 7471B	1,7471B	MC
Nickel, Total	16		mg/kg	1.6	0.26	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.3	0.19	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.64	0.13	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.3	0.26	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT
Zinc, Total	34		mg/kg	3.2	0.45	1	11/13/13 09:57	11/15/13 01:55	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-19  
**Client ID:** SL-9, G-2(4'-5')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 71%

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.7	0.44	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Arsenic, Total	2.1		mg/kg	0.55	0.11	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Beryllium, Total	0.43		mg/kg	0.27	0.06	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Cadmium, Total	0.67		mg/kg	0.55	0.04	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Chromium, Total	37		mg/kg	0.55	0.11	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Copper, Total	28		mg/kg	0.55	0.11	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Lead, Total	7.2		mg/kg	2.7	0.11	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.10	0.02	1	11/18/13 09:38	11/18/13 13:19	EPA 7471B	1,7471B	MC
Nickel, Total	30		mg/kg	1.4	0.22	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.1	0.16	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.55	0.11	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.1	0.22	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT
Zinc, Total	61		mg/kg	2.7	0.38	1	11/13/13 09:57	11/15/13 01:58	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-20  
**Client ID:** SL-7, G-2(6'-6.8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 53%

**Date Collected:** 11/09/13 16:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.6	0.58	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Arsenic, Total	6.2		mg/kg	0.73	0.14	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Beryllium, Total	0.47		mg/kg	0.36	0.07	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Cadmium, Total	0.73		mg/kg	0.73	0.05	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Chromium, Total	27		mg/kg	0.73	0.14	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Copper, Total	24		mg/kg	0.73	0.14	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Lead, Total	8.8		mg/kg	3.6	0.14	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.15	0.03	1	11/18/13 09:38	11/18/13 13:20	EPA 7471B	1,7471B	MC
Nickel, Total	32		mg/kg	1.8	0.29	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.4	0.22	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.73	0.14	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.4	0.29	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT
Zinc, Total	59		mg/kg	3.6	0.51	1	11/13/13 09:57	11/15/13 02:02	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-21  
**Client ID:** SL-11, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 48%

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	4.1	0.65	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Arsenic, Total	5.4		mg/kg	0.82	0.16	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Beryllium, Total	0.42		mg/kg	0.41	0.08	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Cadmium, Total	0.71	J	mg/kg	0.82	0.06	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Chromium, Total	35		mg/kg	0.82	0.16	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Copper, Total	28		mg/kg	0.82	0.16	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Lead, Total	8.6		mg/kg	4.1	0.16	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.16	0.03	1	11/18/13 09:38	11/18/13 13:22	EPA 7471B	1,7471B	MC
Nickel, Total	30		mg/kg	2.0	0.33	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.6	0.24	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.82	0.16	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.6	0.33	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT
Zinc, Total	64		mg/kg	4.1	0.57	1	11/13/13 11:15	11/14/13 23:30	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-22  
**Client ID:** SL-11, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 59%

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.2	0.51	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Arsenic, Total	3.4		mg/kg	0.64	0.13	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Beryllium, Total	0.48		mg/kg	0.32	0.06	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Cadmium, Total	0.66		mg/kg	0.64	0.05	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Chromium, Total	32		mg/kg	0.64	0.13	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Copper, Total	28		mg/kg	0.64	0.13	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Lead, Total	8.3		mg/kg	3.2	0.13	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.14	0.03	1	11/18/13 09:38	11/18/13 13:24	EPA 7471B	1,7471B	MC
Nickel, Total	28		mg/kg	1.6	0.26	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.3	0.19	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.64	0.13	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.3	0.26	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT
Zinc, Total	67		mg/kg	3.2	0.45	1	11/13/13 11:15	11/14/13 23:34	EPA 3050B	1,6010C	TT



**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-23  
**Client ID:** SL-13, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 47%

**Date Collected:** 11/09/13 13:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	4.2	0.67	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Arsenic, Total	5.6		mg/kg	0.84	0.17	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Beryllium, Total	0.48		mg/kg	0.42	0.08	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Cadmium, Total	0.72	J	mg/kg	0.84	0.06	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Chromium, Total	36		mg/kg	0.84	0.17	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Copper, Total	30		mg/kg	0.84	0.17	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Lead, Total	8.9		mg/kg	4.2	0.17	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.14	0.03	1	11/18/13 09:38	11/18/13 13:26	EPA 7471B	1,7471B	MC
Nickel, Total	31		mg/kg	2.1	0.33	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.7	0.25	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.84	0.17	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.7	0.33	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT
Zinc, Total	70		mg/kg	4.2	0.59	1	11/13/13 11:15	11/14/13 23:38	EPA 3050B	1,6010C	TT





**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-24  
**Client ID:** SL-13, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 60%

**Date Collected:** 11/09/13 13:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.2	0.52	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Arsenic, Total	2.6		mg/kg	0.65	0.13	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Beryllium, Total	0.49		mg/kg	0.32	0.07	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Cadmium, Total	0.74		mg/kg	0.65	0.05	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Chromium, Total	38		mg/kg	0.65	0.13	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Copper, Total	35		mg/kg	0.65	0.13	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Lead, Total	10		mg/kg	3.2	0.13	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.12	0.02	1	11/18/13 09:38	11/18/13 13:28	EPA 7471B	1,7471B	MC
Nickel, Total	34		mg/kg	1.6	0.26	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.3	0.20	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.65	0.13	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.3	0.26	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT
Zinc, Total	68		mg/kg	3.2	0.46	1	11/13/13 11:15	11/14/13 23:42	EPA 3050B	1,6010C	TT



**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-25  
**Client ID:** SL-14, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 76%

**Date Collected:** 11/09/13 12:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.5	0.40	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Arsenic, Total	1.8		mg/kg	0.50	0.10	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Beryllium, Total	0.34		mg/kg	0.25	0.05	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Cadmium, Total	0.55		mg/kg	0.50	0.04	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Chromium, Total	28		mg/kg	0.50	0.10	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Copper, Total	22		mg/kg	0.50	0.10	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Lead, Total	5.7		mg/kg	2.5	0.10	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.09	0.02	1	11/18/13 09:38	11/18/13 13:30	EPA 7471B	1,7471B	MC
Nickel, Total	24		mg/kg	1.2	0.20	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	0.99	0.15	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.50	0.10	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	0.99	0.20	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT
Zinc, Total	51		mg/kg	2.5	0.35	1	11/13/13 11:15	11/14/13 23:45	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-26  
 Client ID: SL-14, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Percent Solids: 79%

Date Collected: 11/09/13 12:00  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	2.5	0.39	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Arsenic, Total	2.8		mg/kg	0.49	0.10	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Beryllium, Total	0.14	J	mg/kg	0.25	0.05	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Cadmium, Total	0.44	J	mg/kg	0.49	0.03	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Chromium, Total	16		mg/kg	0.49	0.10	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Copper, Total	16		mg/kg	0.49	0.10	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Lead, Total	4.8		mg/kg	2.5	0.10	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.08	0.02	1	11/18/13 09:38	11/18/13 13:32	EPA 7471B	1,7471B	MC
Nickel, Total	14		mg/kg	1.2	0.20	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	0.98	0.15	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.49	0.10	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	0.98	0.20	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT
Zinc, Total	31		mg/kg	2.5	0.34	1	11/13/13 11:15	11/14/13 23:49	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

Lab ID: L1322910-27  
 Client ID: SL-12, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil  
 Percent Solids: 50%

Date Collected: 11/09/13 10:30  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	4.0	0.63	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Arsenic, Total	5.2		mg/kg	0.79	0.16	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Beryllium, Total	0.45		mg/kg	0.40	0.08	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Cadmium, Total	0.66	J	mg/kg	0.79	0.06	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Chromium, Total	36		mg/kg	0.79	0.16	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Copper, Total	27		mg/kg	0.79	0.16	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Lead, Total	8.4		mg/kg	4.0	0.16	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.15	0.03	1	11/18/13 09:38	11/18/13 13:33	EPA 7471B	1,7471B	MC
Nickel, Total	31		mg/kg	2.0	0.32	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.6	0.24	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.79	0.16	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.6	0.32	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT
Zinc, Total	65		mg/kg	4.0	0.55	1	11/13/13 11:15	11/14/13 23:53	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-28  
**Client ID:** SL-12, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 52%

**Date Collected:** 11/09/13 10:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.7	0.60	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Arsenic, Total	3.8		mg/kg	0.74	0.15	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Beryllium, Total	0.49		mg/kg	0.37	0.07	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Cadmium, Total	0.74		mg/kg	0.74	0.05	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Chromium, Total	37		mg/kg	0.74	0.15	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Copper, Total	31		mg/kg	0.74	0.15	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Lead, Total	8.5		mg/kg	3.7	0.15	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.13	0.03	1	11/18/13 09:38	11/18/13 13:35	EPA 7471B	1,7471B	MC
Nickel, Total	30		mg/kg	1.9	0.30	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.5	0.22	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.74	0.15	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.5	0.30	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT
Zinc, Total	72		mg/kg	3.7	0.52	1	11/13/13 11:15	11/15/13 00:11	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-29  
**Client ID:** SL-10, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil  
**Percent Solids:** 65%

**Date Collected:** 11/09/13 09:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Westborough Lab</b>											
Antimony, Total	ND		mg/kg	3.0	0.48	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Arsenic, Total	2.5		mg/kg	0.60	0.12	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Beryllium, Total	0.43		mg/kg	0.30	0.06	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Cadmium, Total	0.64		mg/kg	0.60	0.04	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Chromium, Total	38		mg/kg	0.60	0.12	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Copper, Total	27		mg/kg	0.60	0.12	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Lead, Total	7.0		mg/kg	3.0	0.12	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Mercury, Total	ND		mg/kg	0.12	0.03	1	11/18/13 09:38	11/18/13 12:09	EPA 7471B	1,7471B	MC
Nickel, Total	30		mg/kg	1.5	0.24	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Selenium, Total	ND		mg/kg	1.2	0.18	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Silver, Total	ND		mg/kg	0.60	0.12	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Thallium, Total	ND		mg/kg	1.2	0.24	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT
Zinc, Total	60		mg/kg	3.0	0.42	1	11/13/13 11:15	11/15/13 00:15	EPA 3050B	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Metals - Westborough Lab for sample(s): 01-20 Batch: WG651391-1</b>									
Antimony, Total	ND	mg/kg	2.0	0.32	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Arsenic, Total	ND	mg/kg	0.40	0.08	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Beryllium, Total	ND	mg/kg	0.20	0.04	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Cadmium, Total	ND	mg/kg	0.40	0.03	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Chromium, Total	ND	mg/kg	0.40	0.08	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Copper, Total	ND	mg/kg	0.40	0.08	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Lead, Total	ND	mg/kg	2.0	0.08	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Nickel, Total	ND	mg/kg	1.0	0.16	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Selenium, Total	ND	mg/kg	0.80	0.12	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Silver, Total	ND	mg/kg	0.40	0.08	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Thallium, Total	ND	mg/kg	0.80	0.16	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT
Zinc, Total	ND	mg/kg	2.0	0.28	1	11/13/13 09:57	11/15/13 00:00	1,6010C	TT

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Metals - Westborough Lab for sample(s): 21-29 Batch: WG651432-1</b>									
Antimony, Total	ND	mg/kg	2.0	0.32	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Arsenic, Total	ND	mg/kg	0.40	0.08	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Beryllium, Total	ND	mg/kg	0.20	0.04	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Cadmium, Total	ND	mg/kg	0.40	0.03	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Chromium, Total	ND	mg/kg	0.40	0.08	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Copper, Total	ND	mg/kg	0.40	0.08	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Lead, Total	ND	mg/kg	2.0	0.08	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Nickel, Total	ND	mg/kg	1.0	0.16	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Selenium, Total	ND	mg/kg	0.80	0.12	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Silver, Total	ND	mg/kg	0.40	0.08	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Thallium, Total	ND	mg/kg	0.80	0.16	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT
Zinc, Total	ND	mg/kg	2.0	0.28	1	11/13/13 11:15	11/14/13 22:12	1,6010C	TT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-08 Batch: WG652080-1									
Mercury, Total	ND	mg/kg	0.08	0.02	1	11/18/13 09:38	11/18/13 11:46	1,7471B	MC

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 09-28 Batch: WG652082-1									
Mercury, Total	ND	mg/kg	0.08	0.02	1	11/18/13 09:38	11/18/13 12:42	1,7471B	MC

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 29 Batch: WG652395-1									
Mercury, Total	ND	mg/kg	0.08	0.02	1	11/18/13 09:38	11/18/13 12:05	1,7471B	MC

### Prep Information

Digestion Method: EPA 7471B





## Lab Control Sample Analysis Batch Quality Control

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Westborough Lab Associated sample(s): 01-20 Batch: WG651391-2 SRM Lot Number: 0518-10-02								
Antimony, Total	106		-		4-196	-		
Arsenic, Total	90		-		81-119	-		
Beryllium, Total	92		-		83-117	-		
Cadmium, Total	85		-		82-117	-		
Chromium, Total	92		-		80-119	-		
Copper, Total	101		-		83-117	-		
Lead, Total	90		-		80-120	-		
Nickel, Total	94		-		82-117	-		
Selenium, Total	95		-		80-120	-		
Silver, Total	96		-		66-134	-		
Thallium, Total	96		-		79-120	-		
Zinc, Total	88		-		82-119	-		



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
<b>Total Metals - Westborough Lab</b> Associated sample(s): 21-29 Batch: WG651432-2 SRM Lot Number: 0518-10-02					
Antimony, Total	112	-	4-196	-	
Arsenic, Total	94	-	81-119	-	
Beryllium, Total	92	-	83-117	-	
Cadmium, Total	89	-	82-117	-	
Chromium, Total	97	-	80-119	-	
Copper, Total	101	-	83-117	-	
Lead, Total	93	-	80-120	-	
Nickel, Total	94	-	82-117	-	
Selenium, Total	95	-	80-120	-	
Silver, Total	98	-	66-134	-	
Thallium, Total	96	-	79-120	-	
Zinc, Total	91	-	82-119	-	
<b>Total Metals - Westborough Lab</b> Associated sample(s): 01-08 Batch: WG652080-2 SRM Lot Number: 0518-10-02					
Mercury, Total	133	-	67-133	-	
<b>Total Metals - Westborough Lab</b> Associated sample(s): 09-28 Batch: WG652082-2 SRM Lot Number: 0518-10-02					
Mercury, Total	111	-	67-133	-	
<b>Total Metals - Westborough Lab</b> Associated sample(s): 29 Batch: WG652395-2 SRM Lot Number: 0518-10-02					
Mercury, Total	111	-	67-133	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-20    QC Batch ID: WG651391-4    QC Sample: L1322910-01    Client ID: SL-15, G-2(6'-7')												
Antimony, Total	ND	96.8	70	72	Q	-	-		75-125	-		35
Arsenic, Total	5.7	23.2	21	66	Q	-	-		75-125	-		35
Beryllium, Total	0.51	9.68	7.5	72	Q	-	-		75-125	-		35
Cadmium, Total	0.83J	9.87	8.0	81		-	-		75-125	-		35
Chromium, Total	26.	38.7	51	64	Q	-	-		75-125	-		35
Copper, Total	23.	48.4	59	74	Q	-	-		75-125	-		35
Lead, Total	9.4	98.7	82	74	Q	-	-		75-125	-		35
Nickel, Total	31.	96.8	97	68	Q	-	-		75-125	-		35
Selenium, Total	ND	23.2	18	77		-	-		75-125	-		35
Silver, Total	ND	58.1	46	79		-	-		75-125	-		35
Thallium, Total	ND	23.2	17	73	Q	-	-		75-125	-		35
Zinc, Total	64.	96.8	120	58	Q	-	-		75-125	-		35



### Matrix Spike Analysis Batch Quality Control

Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 21-29 QC Batch ID: WG651432-4 QC Sample: L1322902-01 Client ID: MS Sample									
Antimony, Total	ND	42.3	33	78	-	-	75-125	-	35
Arsenic, Total	0.66J	10.2	9.2	90	-	-	75-125	-	35
Beryllium, Total	0.31J	4.23	3.9	92	-	-	75-125	-	35
Cadmium, Total	0.38J	4.32	4.1	95	-	-	75-125	-	35
Chromium, Total	20.	16.9	35	89	-	-	75-125	-	35
Copper, Total	22.	21.2	42	94	-	-	75-125	-	35
Lead, Total	4.4	43.2	42	87	-	-	75-125	-	35
Nickel, Total	19.	42.3	55	85	-	-	75-125	-	35
Selenium, Total	ND	10.2	8.5	84	-	-	75-125	-	35
Silver, Total	ND	25.4	23	90	-	-	75-125	-	35
Thallium, Total	ND	10.2	7.9	78	-	-	75-125	-	35
Zinc, Total	37.	42.3	72	83	-	-	75-125	-	35
Total Metals - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG652080-4 QC Sample: L1322808-04 Client ID: MS Sample									
Mercury, Total	ND	0.165	0.21	127	Q	-	80-120	-	35
Total Metals - Westborough Lab Associated sample(s): 09-28 QC Batch ID: WG652082-4 QC Sample: L1322910-09 Client ID: SL-4, G-2(7'-7.7')									
Mercury, Total	ND	0.177	0.20	113	-	-	80-120	-	35
Total Metals - Westborough Lab Associated sample(s): 29 QC Batch ID: WG652395-4 QC Sample: L1322910-29 Client ID: SL-10, G-1(2'-3')									
Mercury, Total	ND	0.237	0.28	118	-	-	80-120	-	35

## Lab Duplicate Analysis

Batch Quality Control

Project Name: NYPA PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-20 QC Batch ID: WG651391-3 QC Sample: L1322910-01 Client ID: SL-15, G-2(6'-7')						
Antimony, Total	ND	ND	mg/kg	NC		35
Arsenic, Total	5.7	5.1	mg/kg	11		35
Beryllium, Total	0.51	0.50J	mg/kg	NC		35
Cadmium, Total	0.83J	0.83J	mg/kg	NC		35
Chromium, Total	26.	26	mg/kg	0		35
Copper, Total	23.	23	mg/kg	0		35
Lead, Total	9.4	9.3	mg/kg	1		35
Nickel, Total	31.	30	mg/kg	3		35
Selenium, Total	ND	ND	mg/kg	NC		35
Silver, Total	ND	ND	mg/kg	NC		35
Thallium, Total	ND	ND	mg/kg	NC		35
Zinc, Total	64.	64	mg/kg	0		35

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: NYPA PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
<b>Total Metals - Westborough Lab Associated sample(s): 21-29 QC Batch ID: WG651432-3 QC Sample: L1322902-01 Client ID: DUP Sample</b>					
Antimony, Total	ND	ND	mg/kg	NC	35
Arsenic, Total	0.66J	0.65J	mg/kg	NC	35
Beryllium, Total	0.31J	0.30J	mg/kg	NC	35
Cadmium, Total	0.38J	0.35J	mg/kg	NC	35
Chromium, Total	20.	18	mg/kg	11	35
Copper, Total	22.	20	mg/kg	10	35
Lead, Total	4.4	4.8	mg/kg	9	35
Nickel, Total	19.	17	mg/kg	11	35
Selenium, Total	ND	ND	mg/kg	NC	35
Silver, Total	ND	ND	mg/kg	NC	35
Thallium, Total	ND	ND	mg/kg	NC	35
Zinc, Total	37.	33	mg/kg	11	35
<b>Total Metals - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG652080-3 QC Sample: L1322808-04 Client ID: DUP Sample</b>					
Mercury, Total	ND	ND	mg/kg	NC	35
<b>Total Metals - Westborough Lab Associated sample(s): 09-28 QC Batch ID: WG652082-3 QC Sample: L1322910-09 Client ID: SL-4, G-2(7'-7.7')</b>					
Mercury, Total	ND	ND	mg/kg	NC	35
<b>Total Metals - Westborough Lab Associated sample(s): 29 QC Batch ID: WG652395-3 QC Sample: L1322910-29 Client ID: SL-10, G-1(2'-3')</b>					
Mercury, Total	ND	ND	mg/kg	NC	35

# **INORGANICS & MISCELLANEOUS**

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-01  
**Client ID:** SL-15, G-2(6'-7')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/07/13 14:05  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	38.7		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT





**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-02  
**Client ID:** SL-18, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.4		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-03  
**Client ID:** SL-15, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/07/13 14:05  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	33.1		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-04  
**Client ID:** SL-17, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/07/13 12:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.5		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-05  
**Client ID:** SL-16, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/07/13 14:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	40.8		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-06  
**Client ID:** SL-18, G-2(8'-9')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	72.4		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-07  
**Client ID:** SL-16, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/07/13 14:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	38.9		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-08  
**Client ID:** SL-17, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/07/13 12:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	76.1		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-09  
**Client ID:** SL-4, G-2(7'-7.7')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/08/13 09:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.2		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT





Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-10  
 Client ID: SL-4, G-1(2'-3')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil

Date Collected: 11/08/13 09:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.8		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-11  
**Client ID:** SL-6, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/08/13 11:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	52.4		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-12  
**Client ID:** SL-6, G-2(8'-9')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/08/13 11:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	55.0		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-13  
**Client ID:** SL-5, G-2(7'-7.8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/08/13 10:15  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	66.2		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-14  
**Client ID:** SL-5, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/08/13 10:15  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	59.2		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-15  
**Client ID:** SL-8, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/08/13 13:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	49.9		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-16  
**Client ID:** SL-8, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/08/13 13:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	57.4		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-17  
 Client ID: SL-7, G-1(0.5'-1.0')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil

Date Collected: 11/09/13 16:45  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	36.5		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT





**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-18  
**Client ID:** SL-9, G-1(1'-2')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	59.7		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-19  
**Client ID:** SL-9, G-2(4'-5')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 15:50  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	71.0		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-20  
**Client ID:** SL-7, G-2(6'-6.8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 16:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	53.0		%	0.100	NA	1	-	11/12/13 21:05	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-21  
**Client ID:** SL-11, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	47.7		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-22  
**Client ID:** SL-11, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 14:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	59.1		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-23  
**Client ID:** SL-13, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 13:20  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	47.4		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT



Project Name: NYPA PV-20 CABLE

Lab Number: L1322910

Project Number: 27406

Report Date: 11/18/13

## SAMPLE RESULTS

Lab ID: L1322910-24  
 Client ID: SL-13, G-2(7'-8')  
 Sample Location: LAKE CHAMPLAIN  
 Matrix: Soil

Date Collected: 11/09/13 13:20  
 Date Received: 11/11/13  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	60.3		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-25  
**Client ID:** SL-14, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 12:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	76.1		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT





**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-26  
**Client ID:** SL-14, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 12:00  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78.7		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-27  
**Client ID:** SL-12, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 10:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	50.0		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-28  
**Client ID:** SL-12, G-2(7'-8')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 10:30  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	51.6		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**SAMPLE RESULTS**

**Lab ID:** L1322910-29  
**Client ID:** SL-10, G-1(2'-3')  
**Sample Location:** LAKE CHAMPLAIN  
**Matrix:** Soil

**Date Collected:** 11/09/13 09:45  
**Date Received:** 11/11/13  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	65.3		%	0.100	NA	1	-	11/12/13 20:11	30,2540G	RT



### Lab Duplicate Analysis Batch Quality Control

**Project Name:** NYPA PV-20 CABLE

**Project Number:** 27406

**Lab Number:** L1322910

**Report Date:** 11/18/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 21-29 QC Batch ID: WG651249-1 QC Sample: L1322902-01 Client ID: DUP Sample						
Solids, Total	91.6	91.9	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-20 QC Batch ID: WG651262-1 QC Sample: L1322910-01 Client ID: SL-15, G-2(6'-7')						
Solids, Total	38.7	39.7	%	3		20



Project Name: NYPV PV-20 CABLE

Project Number: 27406

Lab Number: L1322910

Report Date: 11/18/13

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

## Cooler Information Custody Seal

## Cooler

B Present/Intact  
 C Present/Intact  
 A Present/Intact

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1322910-01A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-01B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-02A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1322910-02B	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-03A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-03B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-04A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-04B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-05A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** NYP A PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1322910-05B	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-06A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-06B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-07A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-07B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-08A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1322910-08B	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-09A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1322910-09B	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-10A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-10B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-11A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1322910-11B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-12A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-12B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-13A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-13B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-14A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1322910-14B	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-15A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-15B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-16A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-16B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-17A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days



**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1322910-17B	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-18A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-18B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-19A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-19B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-20A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1322910-20B	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-21A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-21B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-22A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-22B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-23A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

8604 Pet-0365

**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1322910-23B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-24A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-24B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-25A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-25B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-26A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)
L1322910-26B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-27A	Amber 120ml unpreserved	B	N/A	3.7	Y	Absent	NYTCL-8260(14)
L1322910-27B	Amber 250ml unpreserved	B	N/A	3.7	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-28A	Amber 120ml unpreserved	A	N/A	3.3	Y	Absent	NYTCL-8260(14)
L1322910-28B	Amber 250ml unpreserved	A	N/A	3.3	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1322910-29A	Amber 120ml unpreserved	C	N/A	2.4	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days

Project Name: NYPA PV-20 CABLE

Project Number: 27406

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**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1322910-29B	Amber 250ml unpreserved	C	N/A	2.4	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)

\*Values in parentheses indicate holding time in days

8604Pet-0367



**Project Name:** NYPV PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with "J" Qualifiers



**Project Name:** NYPV-20 CABLE  
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**Lab Number:** L1322910  
**Report Date:** 11/18/13

**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers



**Project Name:** NYPA PV-20 CABLE  
**Project Number:** 27406

**Lab Number:** L1322910  
**Report Date:** 11/18/13

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certificate/Approval Program Summary

Last revised November 12, 2013 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.  
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### Connecticut Department of Public Health Certificate/Lab ID: PH-0574. NELAP Accredited Solid Waste/Soil.

*Drinking Water* (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

*Wastewater/Non-Potable Water* (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270). )

### State of Illinois Certificate/Lab ID: 003155. NELAP Accredited.

*Drinking Water* (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

*Hazardous and Solid Waste* (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

### Maine Department of Human Services Certificate/Lab ID: 2009024.

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

**Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.**

*Drinking Water* (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 2064. NELAP Accredited.**

*Drinking Water* (Organic Parameters: **EPA 524.2**: Di-isopropyl ether (DIPE), Ethyl-t-butyl ether (ETBE), Tert-amyl methyl ether (TAME)).

*Non-Potable Water* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene. **EPA 8015C(M)**: TPH.)

*Solid & Chemical Materials* (Organic Parameters: **EPA 8260C**: 1,3,5-Trichlorobenzene.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. NELAP Accredited.**

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310C, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, 4500SO4-E, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 5030C, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)



9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5030C, 5035L, 5035H, NJ EPH.)

**New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO<sub>3</sub>-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH<sub>3</sub>-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO<sub>3</sub>-F, 4500-NO<sub>2</sub>-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330A, 8082A, EPA 3510C, 5030B, 5030C, 8015C, 8011.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330A, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

**North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters**: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO<sub>3</sub>-F, 353.2, 4500P-E, 4500SO<sub>4</sub>-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

*Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters*: Chloride EPA 300.0. Organic Parameters: 524.2)

**Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO<sub>3</sub>-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>-B, 4500NO<sub>3</sub>-F, 4500S-D, 4500SO<sub>3</sub>-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH<sub>3</sub>-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

**Rhode Island Department of Health Certificate/Lab ID: LAO00065. *NELAP Accredited via NJ-DEP.***

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commisison on Environmental Quality Certificate/Lab ID: T104704476. *NELAP Accredited.***

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH<sub>3</sub>-H, 4500NO<sub>2</sub>B, 4500P-E, 4500 S<sup>2-</sup> D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

**Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO<sub>3</sub>-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C,

4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330, )

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

**Department of Defense, L-A-B Certificate/Lab ID:** L2217.

*Drinking Water* (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: EPA 200.7, 200.8, 6010C, 6020A, 245.1, 7470A, 9040B, 9010B, 180.1, 300.0, 332.0, 6860, 351.1, 353.2, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500Norg-C, 4500NO3-F, 5310C, 2130B, 2320B, 2340B, 2540C, 5540C, 3005A, 3015, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A, 8082A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010C, 6020A, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9040B, 9045C, 9010C, 9012B, 9251, SM3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8015C, 8151A, 8260C, 8270D, 8270D-SIM, 8330A/B-prep, 8082A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

**The following analytes are not included in our current NELAP/TNI Scope of Accreditation:**

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether. **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease. **EPA 9060** in a soil matrix.



# CHAIN OF CUSTODY

PAGE \_\_\_\_\_ OF \_\_\_\_\_

MANSFIELD, MA  
TEL: 508-822-9300  
FAX: 508-822-3288

## Project Information

Project Name: **NYPA PV-20 Cable**  
Project Location: **Lake Champlain**  
Project #: **27406**  
Project Manager: **Rogina Camilli**  
ALPHA Quote #: **2013937**

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
Date Due: **11/18/13** Time:

Date Rec'd in Lab: **11/11/13**

## Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

ALPHA Job #: **L1322910**

## Billing Information

Same as Client info PO #:

## Client Information

Client: **CNA Companies**  
Address: **3 Winners Circle  
Albany, NY 12205**  
Phone: **518-453-4569**  
Fax:

Email: **rcamilli@chacompanies.com**  
 These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

## Regulatory Requirements/Report Limits

State/Fed Program Criteria

ANALYSIS  
TCL VOCs  
TCL SVOCs  
TCL PCBs  
PP Metals

## SAMPLE HANDLING

Filtration \_\_\_\_\_  
 Done  
 Not needed  
 Lab to do  
Preservation  
 Lab to do  
(Please specify below)

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS	SAMPLE HANDLING	Sample Specific Comments	TOTAL # BOTTLES
		Date	Time						
22910-01	SL-15, G-2 (6'-7')	11/7	14:05	Sediment	DJS	TCL VOCs TCL SVOCs TCL PCBs PP Metals	Filtration _____ <input type="checkbox"/> Done <input checked="" type="checkbox"/> Not needed <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please specify below)		2
02	SL-18, G-1 (2'-3')	11/7	12:30						
03	SL-15, G-1 (2'-3')	11/7	14:05						
04	SL-17, G-1 (2'-3')	11/7	12:50						
05	SL-16, G-2 (7'-8')	11/7	14:30						
06	SL-18, G-2 (8'-9')	11/7	12:30						
07	SL-16, G-1 (2'-3')	11/7	14:30						
08	SL-17, G-2 (7'-8')	11/7	12:30						
09	SL-4, G-2 (7'-7.7')	11/8	9:45						
10	SL-4, G-1 (2'-3')	11/8	9:45						

Container Type **1/2 502 502 502**  
Preservative **none none none**

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Relinquished By:	Date/Time	Received By:	Date/Time
<i>[Signature]</i>	11/11 9:45	<i>[Signature]</i>	9:45 11/11/13
<i>[Signature]</i>	11/11/13 1145	<i>[Signature]</i>	11/11/13 1145
<i>[Signature]</i>	11/11/13 2037	<i>[Signature]</i>	11/11/13 2030
<i>[Signature]</i>	11-11-13 2301	<i>[Signature]</i>	11/11/13 2301



# CHAIN OF CUSTODY

PAGE \_\_\_\_\_ OF \_\_\_\_\_

Date Rec'd in Lab: 11/11/13

ALPHA Job #: 21322910

## Project Information

Project Name: *NYPA W-20 Cable*  
Project Location: *Leke Champlain*  
Project #: *27406*  
Project Manager: *Rogina Camilli*  
ALPHA Quote #: *2013937*

## Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

## Billing Information

Same as Client info PO #:

## Client Information

Client: *CHA Companies*  
Address: *3 Winners Circle  
Albany, NY 12205*  
Phone: *518-453-4569*  
Fax:  
Email: *rcamilli@chacompanies.com*  
 These samples have been previously analyzed by Alpha

## Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)  
Date Due: *11/18/13* Time:

## Regulatory Requirements/Report Limits

(State)/Fed Program Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS TCL VOCs TCL SVOCs TCL PCBs PP Metals	SAMPLE HANDLING	TOTAL # BOTTLES 2
	Filtration _____ <input type="checkbox"/> Done <input checked="" type="checkbox"/> Not needed <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please specify below)	
Sample Specific Comments		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS	SAMPLE HANDLING	TOTAL # BOTTLES
		Date	Time					
22910-11	SL-6, G-1 (2'-3')	11/8	11:45	Sediment DJS				2
12	SL-6, G-2 (8'-9')	11/8	11:45					
13	SL-5, G-2 (7'-7.8')	11/8	10:15					
14	SL-5, G-1 (2'-3')	11/8	10:15					
15	SL-8, G-2 (7'-8')	11/8	13:00					
16	SL-8, G-1 (2'-3')	11/8	13:00					
17	SL-7, G-1 (0.5'-1.0')	11/9	16:45					
18	SL-9, G-1 (1'-2')	11/9	15:50					
19	SL-9, G-2 (4'-5')	11/9	15:50					
20	SL-7, G-2 (6'-6.8')	11/9	16:45					

Container Type *4oz none 8oz 8oz 8oz*  
Preservative *none none none none*

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Relinquished By:	Date/Time	Received By:	Date/Time
<i>De Sp...</i>	11/11, 9:45	<i>Rogina Camilli</i>	11/11/13 9:45
<i>Rogina Camilli</i>	11/11/13 11:45	<i>Robert...</i>	11/11/13 11:45
<i>Robert...</i>	11/14 8:30	<i>...</i>	11/11-13 2030
<i>Jim...</i>	11-11-13 230	<i>Willie McCl...</i>	11/11/13 230



# CHAIN OF CUSTODY

PAGE \_\_\_\_\_ OF \_\_\_\_\_

WESTBORO, MA  
 TEL: 508-898-9220  
 FAX: 508-898-9193

MANSFIELD, MA  
 TEL: 508-822-9300  
 FAX: 508-822-3288

Date Rec'd in Lab: 11/11/13

ALPHA Job #: L1322910

### Project Information

Project Name: *WYPA PV-20 Cable*

Project Location: *Lake Champlain*

Project #: *27406*

Project Manager: *Rogina Camilli*

ALPHA Quote #: *2013937*

### Report Information - Data Deliverables

FAX  EMAIL  
 ADEX  Add'l Deliverables

### Billing Information

Same as Client info PO #:

### Client Information

Client: *CHA Companies*  
 Address: *3 Winnes Circle*  
*Albany, NY 12205*  
 Phone: *518-453-4569*  
 Fax:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved!)

Date Due: *11/18/13* Time:

Email: *rcamilli@chacompanies.com*

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

### Regulatory Requirements/Report Limits

State  Fed Program Criteria

ANALYSIS	TCL VOCs	TOTAL # BOTTLES
	TCL SVOCs	
	TCL PCBs	
	PP Metals	
SAMPLE HANDLING Filtration _____ <input type="checkbox"/> Done <input checked="" type="checkbox"/> Not needed <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please specify below)		
Sample Specific Comments		

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ANALYSIS	TOTAL # BOTTLES
		Date	Time				
27910-21	SL-11, G-1 (2'-3')	1/19	14:20	Sediment Diss			2
22	SL-11, G-2 (7'-8')	1/19	14:20				
23	SL-13, G-1 (2'-3')		13:20				
24	SL-13, G-2 (7'-8')		13:20				
25	SL-14, G-1 (2'-3')		12:00				
26	SL-14, G-2 (7'-8')		12:00				
27	SL-12, G-1 (2'-3')		10:30				
28	SL-12, G-2 (7'-8')		10:30				
29	SL-10, G-1 (2'-3')		9:45				

Container Type *4oz 8oz 8oz 8oz*  
 Preservative *None None None None*

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Relinquished By:	Date/Time	Received By:	Date/Time
<i>Rogina Camilli</i>	<i>11/11/13 9:45</i>	<i>Rogina Camilli</i>	<i>11/11/13 9:45</i>
<i>John Curless</i>	<i>11-11-13 2301</i>	<i>Willie McClure</i>	<i>11/11/13 234</i>



## Technical Memorandum

**To:** Tim Follensbee, VELCO  
**From:** Jason I. Gorman  
**Date:** December 14, 2015  
**Re:** PV-20 Submarine Cable Replacement  
Estimated Thermal Discharge for Existing and Proposed Cables  
CHA Project No. 27406

---

CHA modeled the estimated water temperature near the existing and proposed cables for the PV-20 cable replacement project. Following is a summary of the methodology, calculations and results.

### Methodology

Heat transfer calculations were used to determine the potential increase in temperatures in the water near the cables. Heat transfer is the transfer of energy occurring as a result of a driving force which we call temperature difference. There are three mechanisms by which heat transfer can occur:

- 1) Conduction
- 2) Convection
- 3) Radiation

For the PV-20 project, heat energy being given off by submerged electrical cables to lake water, convection is the mechanism through which the vast majority of heat energy is transferred. Conduction and radiation are minor and therefore not considered in this case.

Convection is the transfer of heat due to the bulk transport and mixing of macroscopic elements of liquids or gas. Because motion of the fluid is involved, heat transfer by convection is partially governed by the laws of fluid mechanics.

- 1) Convection induced by the density differences resulting from temperature differences within the fluid is called natural convection.
- 2) Fluid motion from an outside force is called forced convection (the lake current is forced convection).

The heat leaving the electrical cables is first transported from the cable surface by natural convection where equations for the convection normal to a horizontal cylinder are used. These equations are made up of the following dimensionless factors:

- 1) Nusselt number ( $Nu$ ) =  $(hcD/k)$ 
  - a.  $h$  = heat transfer coefficient
  - b.  $D$  = diameter
  - c.  $k$  = thermal conductivity
- 2) Prandtl number ( $Pr$ ) =  $(c_p\mu/k)$ 
  - a.  $c_p$  = specific heat
  - b.  $\mu$  = viscosity
  - c.  $k$  = thermal conductivity
- 3) Grashof number ( $Gr$ ) =  $(D^3\rho^2g\beta\Delta T/\mu^2)$ 
  - a.  $D$  = diameter
  - b.  $\mu$  = viscosity
  - c.  $\Delta T$  = temperature difference
  - d.  $\rho$  = density
  - e.  $\beta$  = coefficient of thermal expansion
  - f.  $g$  = gravitational acceleration
- 4) Rayleigh number ( $Ra$ ) =  $(Gr)(Pr) = \{(\rho^2 g\beta\Delta TD^3)/\mu^2\} \{(c_p\mu)/k\}$ 
  - a.  $D$  = diameter
  - b.  $\mu$  = viscosity
  - c.  $\Delta T$  = temperature difference
  - d.  $\rho$  = density
  - e.  $\beta$  = coefficient of thermal expansion
  - f.  $g$  = gravitational acceleration
  - g.  $c_p$  = specific heat
- 5) Reynolds Number ( $Re$ ) =  $D\rho u_0/\mu$ 
  - a.  $\rho$  = density
  - b.  $u_0$  = velocity outside the boundary layer
  - c.  $\mu$  = viscosity
  - d.  $D$  = diameter

The heat rising around the cable is sheared off by the forced convection (the lake current). There are two segments to determining the effect of the current over the cables.

- 1) The thickness of the stagnant boundary layer above the cable ( $\delta$ ):  $\delta = 5.0\sqrt{(vx/u_0)}$ 
  - a.  $\nu$  = kinematic viscosity
  - b.  $x$  = distance to leading edge
  - c.  $u_0$  = velocity outside boundary layer
- 2) The convection over the cables: Nusselt ( $Nu$ ) = Reynolds ( $Re$ ) x Prandtl ( $Pr$ )

Finally the heat dissipation into the water flow over the cables:

- 1)  $q = hA(T_s - T_{bulk})$ 
  - a.  $q$  = heat transfer rate per unit
  - b.  $h$  = heat transfer coefficient
  - c.  $T_s$  = temperature of the cable surface
  - d.  $T_{bulk}$  = temperature of the bulk fluid
  - e.  $A$  = outside area of cable

### Summary of Calculations and Results

Following is a summary of the existing and proposed cables design parameters used for estimating the heat transfer.

**Table 1**  
**Existing and Proposed Cables Design Parameters**

Cable	Diameter (inches)	Conductor (kcmil)	Power Transfer @ 115kV (amps)	Effective Heat Load (watts/foot/cable)
Existing	3.4	1,000	780	16
Existing	2.9	500	367	8
Proposed	4.9	3,000	1,147	8.9

Following is a summary of the lake parameters used for estimating the heat transfer.

**Table 2**  
**Lake Design Parameters**

Parameter	Value	Comment
Lake Current (flow) <sup>(1)</sup>	1.0 cm/sec	Perpendicular to cable
Flow Direction <sup>(1)</sup>	7 <sup>o</sup>	Off perpendicular to cable
Lake Water Temperature <sup>(1)</sup>	46 <sup>o</sup> F	
Density of Lake Water	62.4 lb/ft <sup>3</sup>	
Heat Capacity of Lake Water	1 Btu/(lb. <sup>o</sup> F)	

<sup>(1)</sup>Lake current, flow direction and water temperature were derived from the Temperature Gradients in the Vicinity of NECPL Cables and Potential Effects on Water Quality, Bioavailability of Mercury, and Macroinvertebrates, prepared Exponent, Inc. and dated December 1, 2014 for the New England Clean Power Link project.

Based on the above outlined methodology and design parameters (Table 1 and Table 2) following is a summary of the calculation results for modeling the estimated heat transfer of the operating cables to the surrounding lake water.

**Table 3**  
**Summary of Results**

Cable	Conductor (kcmil)	Heat Dissipation (Btu/hr./ft)	Water Temp Change at Boundary Layer ( <sup>o</sup> F)	Boundary Layer (in)	No Change of Water Temperature (in)
Existing	1,000	54.6	1.87	0.34	0.43
Existing	500	27.3	1.19	0.31	0.34
Proposed	3,000	30.4	0.76	0.40	0.42





## CALCULATED MAGNETIC FIELD LEVELS FOR THE PV-20 SUBMARINE CABLE REPLACEMENT PROJECT

### Introduction

CHA asked Electrical Consulting Engineers, P.C. (ECE) to determine the magnetic field<sup>1</sup> values that will be produced by the proposed new AC transmission submarine cables in Lake Champlain and the magnetic field levels associated with the existing submarine cables. The magnetic field values are estimates based on the preliminary cable design.

### Methodology

The calculations were performed using Electrical Consulting Engineers' proprietary two-dimensional magnetic field calculation program to model the magnetic field produced by the underground AC transmission cables. The soils and water surrounding the cables have little or no effect on the magnetic field levels above the cables. This program is based on the Biot-Savart law of fundamental magnetic field theory and superposition of the magnetic fields generated by each current-carrying conductor. A two-dimensional magnetic field calculation method can be used to calculate the magnetic field where each conductor is assumed to be straight and very long compared to the distance from the cables where the magnetic field is to be calculated.

The field estimates are computed for a height of 1 meter (3.28 feet) above the lake bottom as a function of distance from the centerline of the AC circuit centerline. The actual magnetic field fluctuates hourly and daily as the amount of current flow varies with the changing electrical load being supplied by the line.

### System and Line Loading Parameters

The system and line loading parameters used in the calculations are summarized in Table 1 and Table 2.

---

<sup>1</sup> The term EMF, which stands for electric and magnetic fields, is often used by the general public to refer to magnetic fields.



**Table 1: System and Line Loading Parameters For Existing Cables**

<b>Description</b>	<b>Existing 1000kcmil Cables</b>	<b>Existing 500kcmil Cables</b>	<b>Comment</b>
Nominal voltage	115kV	115kV	
Load Level (existing circuit rating)	780 amperes	367 amperes	(68% on 1000kcmil, 32% on 500kcmil) <sup>2</sup>

**Table 2: System and Line Loading Parameters For New Cables**

<b>Description</b>	<b>Existing Rating</b>	<b>New 3000kcmil Cables</b>	
		<b>300MVA at 115kV</b>	<b>300MVA at 230kV</b>
Nominal voltage	115kV	115kV	230kV
Load Level	1147 amperes	1506 amperes	753 amperes

### **Cable System Description**

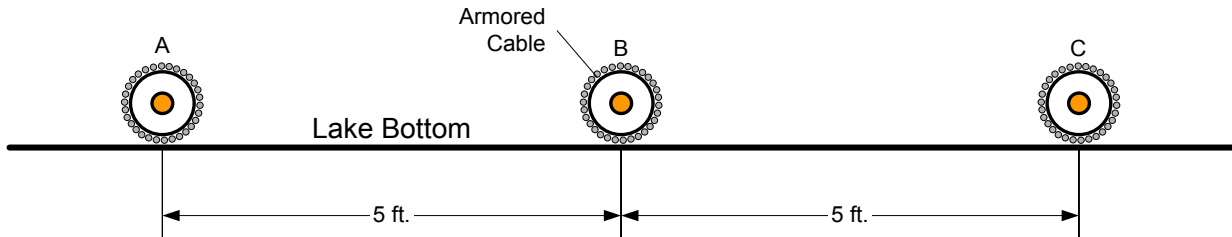
The existing circuit consists of three 115kV 500kcmil copper conductor paper insulated low-pressure fluid-filled submarine cables in electrical parallel with three 115kV 1000kcmil copper conductor paper insulated low-pressure fluid-filled submarine cables. The proposed new submarine cable will consist of four 230kV 3000kcmil copper conductor cross-linked polyethylene (XLPE) insulated submarine cables (one cable per phase plus one spare cable). Figure 1 and Figure 2 show a cross section of the existing 500kcmil cables and 1000kcmil cables circuit configurations used to model the magnetic field calculations respectively. For a majority of the submarine route the centerline of the 500kcmil cable configuration is over 200 feet from the centerline of the 1000kcmil cable configuration. Figure 3 is the new 3000kcmil cable circuit configuration used to model the magnetic field calculations.

The circuit configuration where the cables are laying directly on the lake bottom will produce the highest magnetic field levels at one meter above the lake bottom compared to when the cables

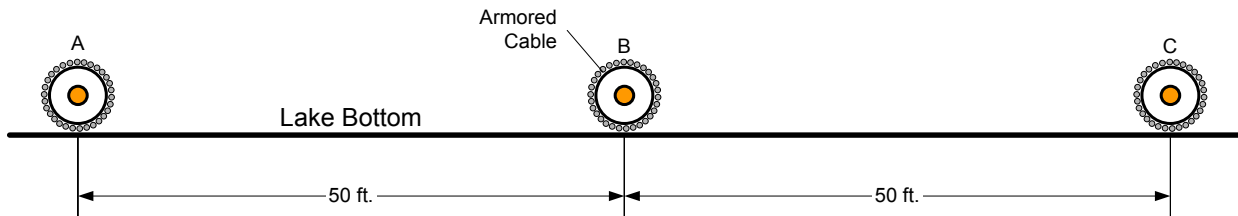
<sup>2</sup> Existing circuit rating of 1147 amperes and the load split were taken from New York Power Authority's PV-20 equipment rating sheet.



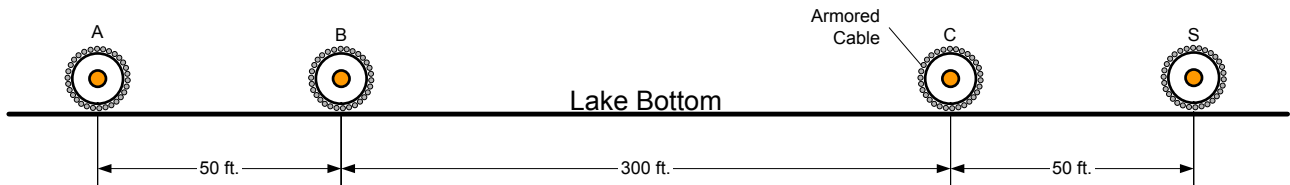
are buried in the lake bottom since the distance to the cables is less when the cables are laying on the lake bottom than buried in the bottom.



**Figure 1. Existing 500kcmil Cable Configuration  
(N.T.S.)**



**Figure 2. Existing 1000kcmil Cable Configuration  
(N.T.S.)**



**Figure 3. New 3000kcmil Cable Configuration  
(N.T.S.)**

The following assumptions were made concerning the installation and operating conditions for the submarine transmission cables.



1. The relative phase placements of the cables are as shown in Figures 1, 2 and 3.
2. The phase currents flowing in the circuit will be balanced 60 Hertz three-phase currents.
3. The cable metallic shield and armoring is multi-point grounded. Induced current in the shield/armor conductor is a function of the combined effects of the relative positions and inductive coupling of the three power cables.
4. The load split between the existing cables is 68% on the 1000kcmil cables and 32% on the 500kcmil cables.
5. There is zero load on the spare (S) 3000kcmil cable.

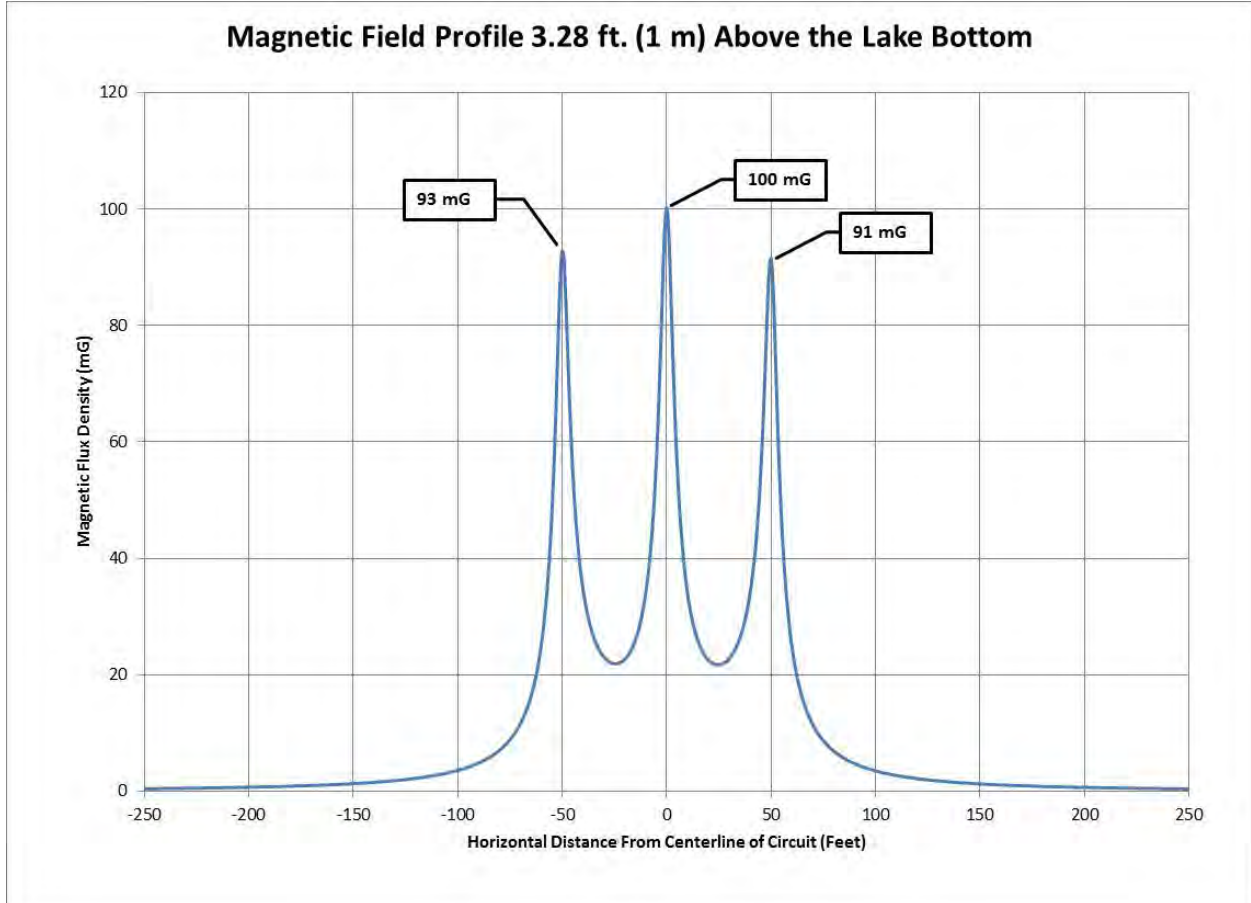
### **Magnetic Field Calculations**

Because of the significant distance between the centerline of existing 500kcmil cable group and 1000kcmil cable group the magnetic field calculations for each group of cables were performed separately.

The calculated magnetic field at one meter above the bottom of the lake, as a function of distance from the centerline of the cable configuration, for the various cables and load cases are shown in Figures 4 - 8. Table 3 contains a summary of the highest magnetic field value for each of the cable configurations modeled.

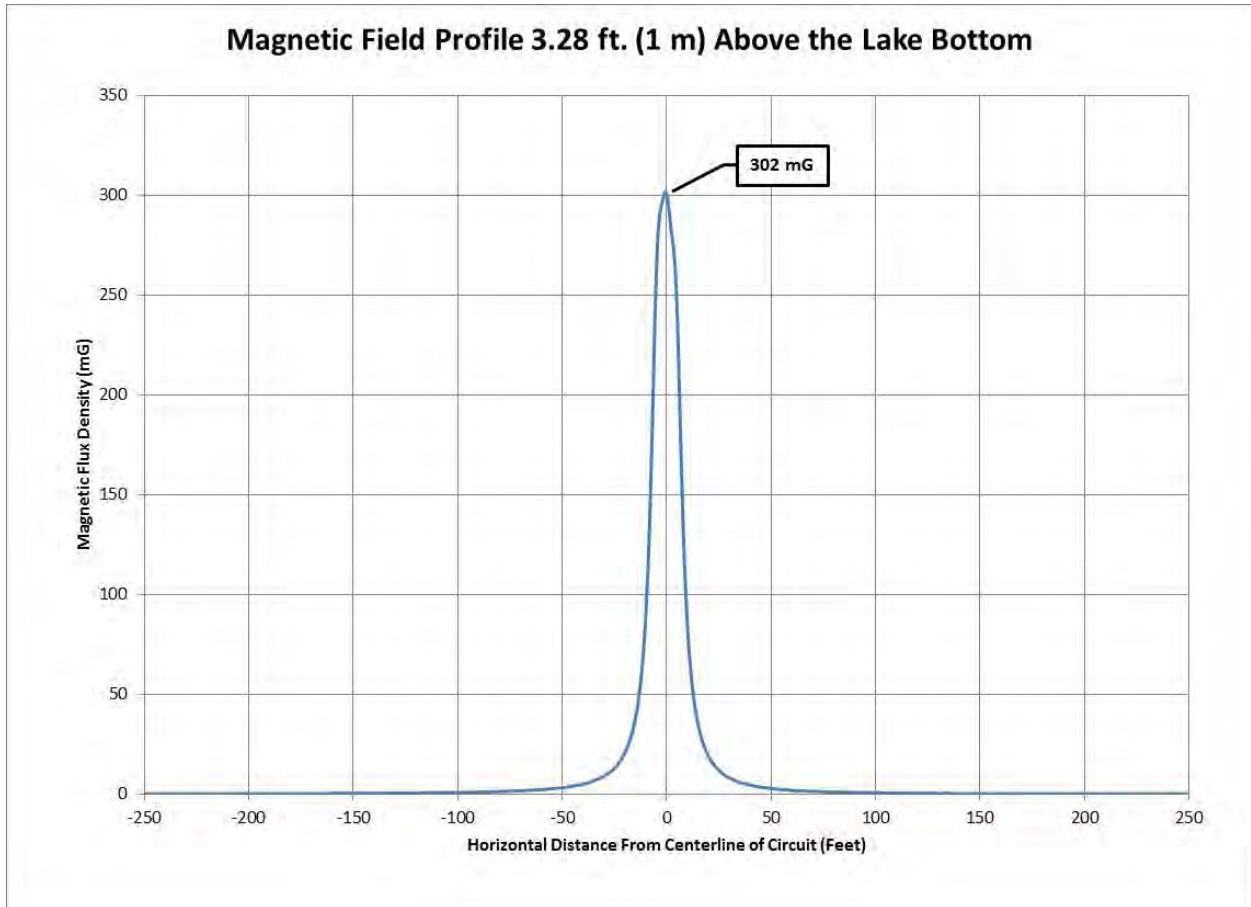
The magnetic field values calculated are the resultant magnetic field that would be measured with a conventional three-axis gauss meter.

The calculated magnetic fields have a frequency of 60 Hertz and change direction and intensity 60 times per second.



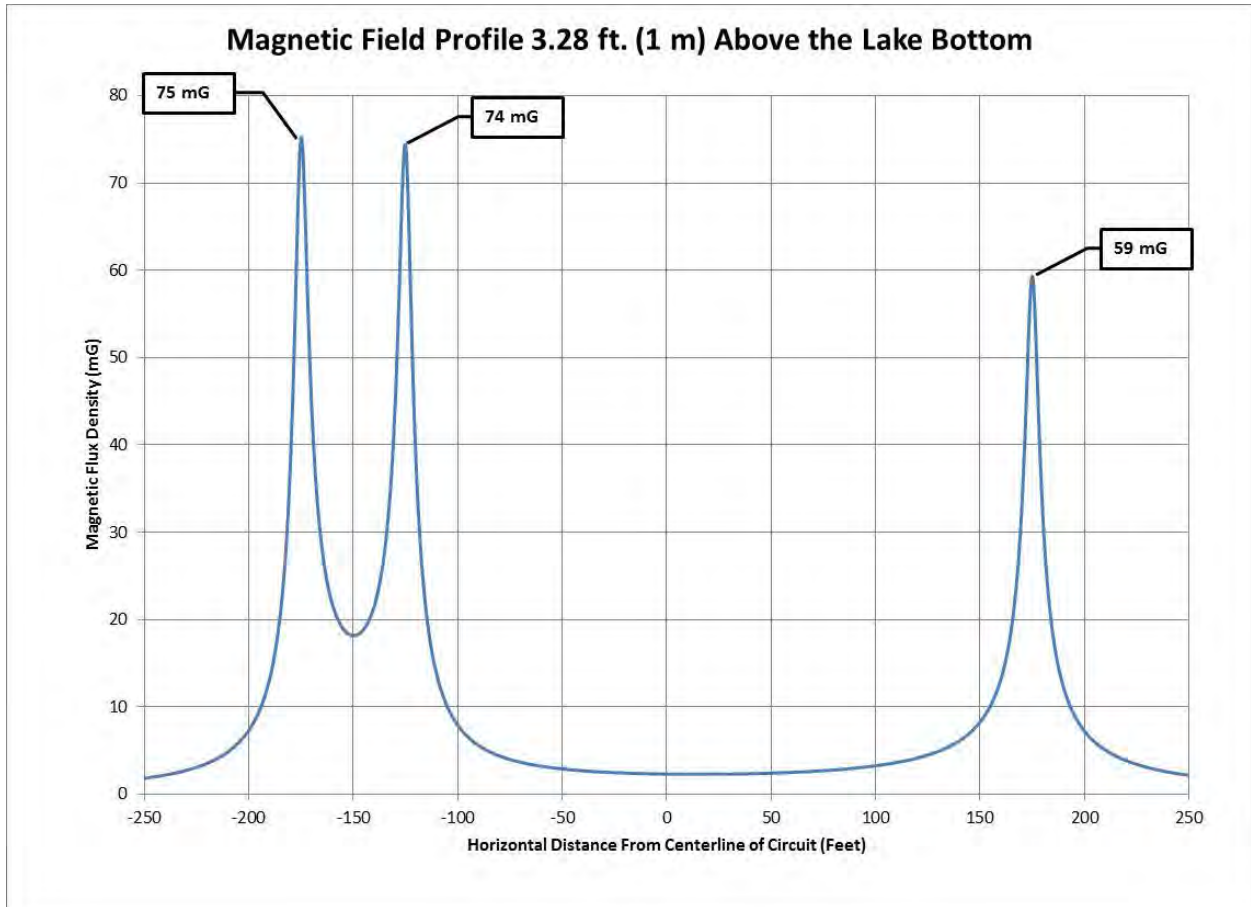
**Figure 4. 1000kcmil Cables (780 amperes load, 115kV)  
Magnetic Field Profile 1 Meter (3.28 ft.) Above Lake Bottom**

The magnetic field has three peaks with the highest value of 100 mG occurring at the centerline of the center cable. The magnetic field rapidly decreases with distance from each of the three widely spaced cables.



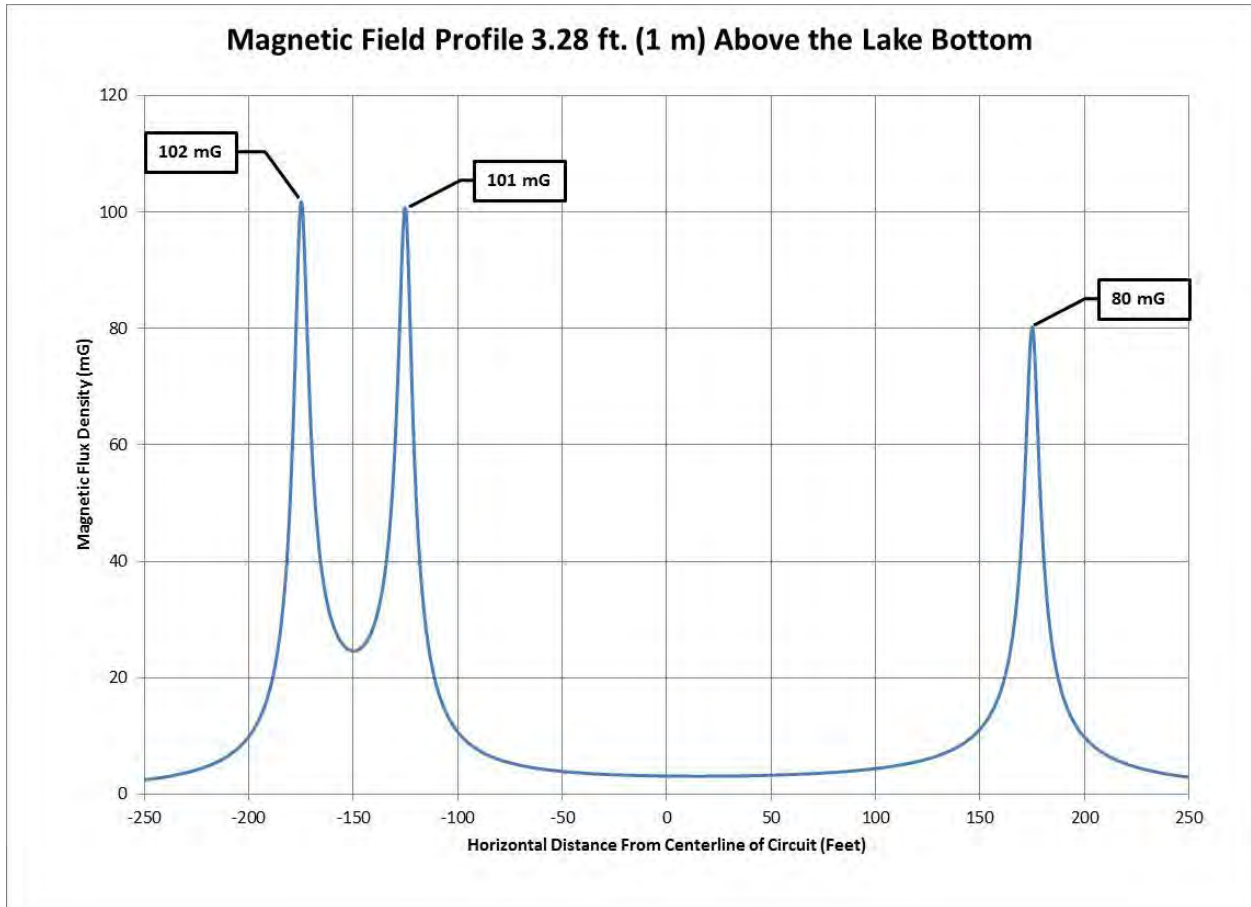
**Figure 5. 500kcmil Cables (367 amperes load, 115kV)  
Magnetic Field Profile 1 Meter (3.28 ft.) Above Lake Bottom**

The maximum magnetic field value is 302 mG and occurs at approximately the centerline of the circuit. The magnetic field rapidly decreases with distance from the centerline of the circuit.



**Figure 6. 3000kcmil Cables (1147 amperes load, 115kV)  
Magnetic Field Profile 1 Meter (3.28 ft.) Above Lake Bottom**

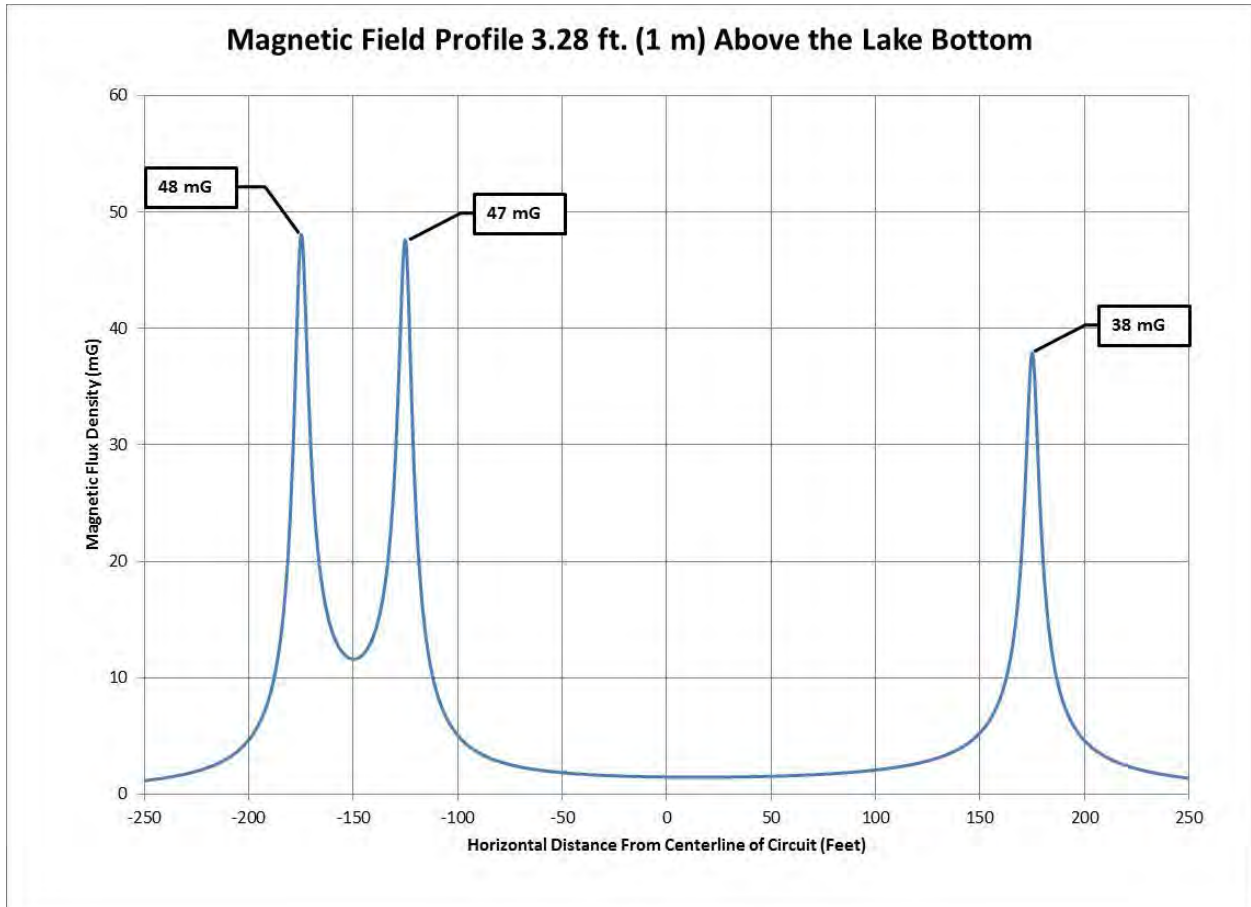
The magnetic field has three peaks with the highest value of 75 mG occurring at the centerline of the left most cable. The magnetic field rapidly decreases with distance from each of the three widely spaced cables.



**Figure 7. 3000kcmil Cables (1506 amperes load, 115kV)  
Magnetic Field Profile 1 Meter (3.28 ft.) Above Lake Bottom**

The magnetic field has three peaks with the highest value of 102 mG occurring at the centerline of the left most cable. The magnetic field rapidly decreases with distance from each of the three widely spaced cables.





**Figure 8. 3000kcmil Cables (753 amperes load, 230kV)  
Magnetic Field Profile 1 Meter (3.28 ft.) Above Lake Bottom**

The magnetic field has three peaks with the highest value of 48 mG occurring at the centerline of the left most cable. The magnetic field rapidly decreases with distance from each of the three widely spaced cables.



**Table 3: Summary of Maximum Magnetic Field Values**

<b>Cable</b>	<b>Voltage</b>	<b>Loading</b>	<b>Maximum Magnetic Field</b>
Existing 1000kcmil Cables	115kV	780 amperes	100 mG
Existing 500kcmil Cables	115kV	367 amperes	302 mG
New 3000kcmil Cables	115kV	1147 amperes	75 mG
New 3000kcmil Cables	115kV	1506 amperes	102 mG
New 3000kcmil Cables	230kV	753 amperes	48 mG

### **Conclusions**

The magnetic field values associated with the submarine cables are highest directly over the cables and decrease rapidly with distance from the cables.

The highest magnetic field values are for the existing 500kcmil cables where the cables are relatively close together. The maximum magnetic field value for the 500kcmil cables is 302 mG. The magnetic field for the new 3000kcmil cables when operated at the existing load of 1147 amperes is 75 mG. The highest magnetic field value for the new 3000kcmil cables is 102 mG and occurs for a load level of 1506 amperes (300MVA at 115kV).

Regarding electric fields, high-voltage power cables do not permit an external electric field due to the presence of the grounded concentric metallic shield/sheath surrounding the cable.

V.D. Antonello  
December 14, 2015

**CHARACTERIZATION OF THE LITTORAL ZONE  
AND SEDIMENT-DEPTH DISTRIBUTION OF AQUATIC MACROINVERTEBRATES  
IN THE VICINITY OF THE PV-20 SUBMARINE TRANSMISSION LINE,  
LAKE CHAMPLAIN, CUMBERLAND HEAD, NY AND GRAND ISLE, VT**

Prepared for

**CHA Consulting, Inc.**  
III Winners Circle  
P.O. Box 5269  
Albany, NY 12205-0269

Prepared by

**EcoLogic, LLC**  
5 Ledyard Avenue, Suite 200  
Cazenovia, NY 13035  
(315) 655-8305

January 25, 2015

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## **I. INTRODUCTION**

PV-20 is a single circuit 115kV transmission line jointly owned by the New York Power Authority (NYPA) and VT Transco. A portion of PV-20 runs underground and underneath Lake Champlain for approximately 1.7 miles between Cumberland Head, NY and Grand Isle, VT. The NYPA owns the portion of the transmission line in NY, and ownership transfers to VT Transco at the NY/VT state line within the lake. A recent assessment of the condition of the submarine cable portion of the PV-20 circuit was conducted and it has been determined that the existing 115 KV submarine cables in Lake Champlain are at or near the end of their expected useful service life.

EcoLogic, LLC was contracted through CHA Consulting, Inc. to conduct a characterization of the littoral zone of Lake Champlain and determine the sediment-depth distribution of aquatic macroinvertebrates in the littoral and profundal zones of Lake Champlain in the vicinity of the PV-20 transmission line corridor. This report presents the findings of this investigation.

## **II. METHODS**

### **A. Aquatic Habitat Characterization**

The aquatic habitat within the littoral zone of Lake Champlain (in both New York and Vermont) along the existing and proposed transmission line corridors was characterized by a two-person crew working primarily from a canoe. The area investigated spanned approximately 240 m along the length of the shoreline and from shore out to the extent of vegetative growth at both the NY and VT ends of the corridor. This area encompassed the existing transmission lines, the proposed location of the new transmission lines, and an approximately 50-m buffer to the north and south of these features. The characteristics of the habitat with respect to substrate type, the presence and type of aquatic macrophytes, other types of cover, and bottom slope were documented via field notes and photographs.

The type, general abundance, and aerial extent of macrophytes were documented visually and through the use of rake tosses at various depths and distances from shore to sample submergent

vegetation. A portable depth finder was used to document bottom coverage of macrophytes and gather information on water depth and bottom slope. Substrate composition was determined by direct observation to depths of approximately 3 m and by feel while retrieving rake tosses and lowering and raising an anchor. Observations of fish and wildlife use of the littoral zone and adjacent areas also were recorded. In addition to the field assessment, staff of regional state and federal natural resource agencies with knowledge of the aquatic resources of the project area were contacted to compile information on fish and wildlife, including rare, threatened, or endangered species known to occur or potentially occurring in the vicinity of the project.

## **B. Depth of Sediment Occupied by Macroinvertebrates**

The depth in the bottom sediments to which aquatic macroinvertebrates occur in at three locations each in the littoral zone and the profundal zone of Lake Champlain at both the New York and Vermont ends of the transmission line corridor was determined (Figure 1). This was accomplished by analyzing samples of sediment from strata within the sediment ranging from the sediment surface down to 1.0 m below the surface. The aquatic macroinvertebrate community at the sediment surface was sampled using a Day sampler deployed from a barge with a hydraulic crane. The Day sampler was lowered to the sediment surface and a grab sample was removed, brought on board, and emptied into a bin capable of holding the entire volume of the sampler. If less than approximately 5 liters were collected in a sample, the entire sample was rinsed in a 1.0-mm sieve bucket, and all retained material and macroinvertebrates were preserved with 95% ethanol in a 1-L bottle. Samples for which substantially more than 5 L of material were obtained were stirred with a trowel and subsampled by removing approximately 5 L of material, rinsing it in a 1.0-mm sieve bucket, and preserving all retained material and macroinvertebrates with 95% ethanol in a 1-L bottle.

The aquatic macroinvertebrate community at 0.5 m and 1.0 m below the sediment surface at each sampling station was sampled by obtaining approximately 1 L of sediment from the 0.5-m and 1.0-m strata of a vibrocore sample collected from the barge for chemical analyses. The material from each sample was rinsed in a 1.0-mm sieve bucket, and all retained material and macroinvertebrates were preserved with 95% ethanol in a 1-L bottle.

In the laboratory, the preservative was removed from each sample, and the sample was rinsed in a 0.5-mm sieve, spread across a white plastic sorting tray with a grid on the bottom, and viewed under a magnifying lamp. Randomly selected grids were searched for aquatic macroinvertebrates, and encountered organisms were removed until 50 organisms were obtained or until all organisms were removed from samples containing fewer than 50 organisms. Each organism was classified by taxonomic family (or lowest taxonomic level possible with a dissecting microscope). The unsorted remainder of each sample was scanned to identify any additional taxa that were not included in the 50-organism subsample. Only organisms that appeared to be living at the time of collection were recorded as being present. Organisms represented only by empty shells or exuviae (shed skins) were not recorded as present since they may have originated from a location other than the sampling station or the depth of collection.

### **III. RESULTS**

#### **A. Aquatic Habitat Characterization**

The aquatic habitat assessment of the littoral zone in the vicinity of the PV-20 transmission line corridor was conducted on July 2, 2014. Conditions for observing aquatic habitat were good, with a light southeast wind and high water clarity (Secchi depth = 5.9-6.0 m). Lake Champlain water surface elevation was 29.6 m msl at the U. S. Geological Survey gage 04295000 at Rouses Point, NY during the investigation. The Vermont side of the littoral zone was visited during the morning, and the New York side of the littoral zone was visited in the afternoon.

##### **1. Vermont Littoral Zone**

The littoral zone at the Vermont end of the transmission line corridor varied in width from approximately 60 m at the south end to 95 m at the north end at a water surface elevation of 29.6 m (Figures 2-4). The shoreline in the vicinity of the transmission line corridor consisted of a combination of bedrock bluff and boulder/cobble substrate with a narrow band of mixed conifers, hardwoods, and shrubs between the rock shoreline and residential properties (Photos

1-3). The lake bottom in this area had a relatively gentle slope out to the 2-m depth and then sloped more steeply out to the 6-m depth at a water surface elevation of 29.6 m (Figures 2-4). This increase in slope off shore was more pronounced at the south end than at the north end of the site.

The near-shore limit of submergent aquatic vegetation (SAV) was approximately 16 m off shore at the south end and mid-section of the site and 27 m at the north end at a water surface elevation of 29.6 m (Figures 2-4). The off-shore limit of SAV was approximately 61 m from shore at the south end of the site, 76 m from shore at the mid-section, and 92 m at the north end at a water surface elevation of 29.6 m. The maximum depth at which SAV was found was 6.1 m at a water surface elevation of 29.6 m. SAV growth was widespread but sparse and scattered (Photos 4 and 5). Species encountered included small pondweed (*Potamogeton pusillus*), waterweed (*Elodea* sp.), Eurasian watermilfoil (*Myriophyllum spicatum*), and Robbins pondweed (*Potamogeton robbinsii*). SAV growth became less dense with increasing depth outside of the 4.5-m contour at a water surface elevation of 29.6 m. Small pondweed was the most widespread and abundant macrophyte, but no dense beds of SAV were observed. SAV occurred in small, sparse patches or as individual plants. Most of the Eurasian watermilfoil was collected as dead stems (Photo 6), possibly from the previous year's growth, and was collected toward the off-shore end of the littoral zone where silt was the primary substrate.

From shore out to approximately the 1.0-m depth contour at a water surface elevation of 29.6 m, the substrate was primarily a cobble/boulder/coarse gravel mix with little or no interstitial fines (Photo 7). The substrate in this near-shore band appeared to be well sorted by wave and ice action, resulting in a lack of fine substrate in which SAV could grow and a lack of dreissenid mussels as well. Bottom substrate composition was consistently a mix of cobble, bedrock, boulder, and gravel with minor amounts of interstitial fines from approximately the 1-m depth contour out to approximately the 4.5-m depth at a water surface elevation of 29.6 m (Photos 8 and 9). The proportion of each of these substrate types varied with location, but there were no large expanses of bottom dominated by a single substrate type between the 1.0-m and 4.5-m depth contours at a water surface elevation of 29.6 m. Dreissenid mussels occurred in low to moderate density on the rock substrate throughout this zone (Photos 10 and 11). Bottom



substrate transitioned from rock to silt outside of the 4.5-m contour at a water surface elevation of 29.6 m.

Observations of fish and wildlife were scant during the field effort. Wildlife observed at the site was limited to double-crested cormorants (*Phalacrocorax auritus*), mallards (*Anas platyrhynchos*), and ring-billed gulls (*Larus delawarensis*). No fish species were observed during the field effort. As noted previously, dreissenid mussels were observed attached to rock substrate throughout the site and were collected occasionally in rake toss samples for SAV.

## **2. New York Littoral Zone**

The littoral zone at the New York end of the transmission line corridor varied in width from approximately 145 m at its mid-section to 190 m at the north end at a water surface elevation of 29.6 m (Figures 5-7). The shoreline in the vicinity of the transmission line corridor consisted of a combination of cobble/boulder/coarse gravel substrate flanked by concrete retaining walls at the north and south end (Photos 12-14). Residential properties extended up slope from the shoreline. The lake bottom in the northern portion of the littoral zone had a consistent, gentle slope out to the 7-m depth at a water surface elevation of 29.6 m (Figure 5). The bottom in the mid-section of the site sloped gently out to approximately the 3-m depth and then sloped more steeply out to the 6.4-m depth at the outer limit of the littoral zone at a water surface elevation of 29.6 m (Figure 6). Bottom slope in the southern portion of the littoral zone was consistent and gentle out to the 5-m depth and then increased out to the 6.7-m depth at the outer limit of the littoral zone at a water surface elevation of 29.6 m.

The near-shore limit of SAV increased from north (approximately 25 m off shore) to south (approximately 50 m off shore) at a water surface elevation of 29.6 m (Figures 5-7). The off-shore limit of SAV was approximately 190 m from shore at the north end of the site, 145 m from shore at the mid-section, and 155 m at the south end at a water surface elevation of 29.6 m. Species encountered included small pondweed, waterweed, Eurasian watermilfoil, stonewort (*Nitella* sp.), curly-leaved pondweed (*Potamogeton crispus*), and clasping leaf pondweed (*Potamogeton perfoliatus*). No large, dense beds of SAV were observed, though waterweed and

Eurasian watermilfoil did occur in moderate density in the northern portion of the littoral zone in approximately 3-6 m of water at a water surface elevation of 29.6 m (Photo 15). SAV generally occurred in small, sparse patches or as individual plants. Small pondweed was the most widespread macrophyte species but generally occurred as scattered plants or in diffuse beds. SAV abundance generally declined from north to south, with the width of the vegetated zone also narrowing from north to south.

Bottom substrate composition varied considerably from north to south and with distance from shore (Figures 5-7). In the northern and mid-sections of the site, substrate was primarily a mix of cobble, boulder, coarse gravel, and patches of bedrock from shore to approximately the 1-m depth contour at a water surface elevation of 29.6 m (Photos 16 and 17). Interstitial spaces in the rock substrate were filled with sand and fine gravel between approximately the 1-m and 3-m contours at a water surface elevation of 29.6 m (Photo 18). Beyond this depth, substrate consisted of a mix of silt and rock in the northern and mid-sections of the site.

In the southern portion of the site, substrate was predominantly bedrock from shore out to the 2-m depth contour at a water surface elevation of 29.6 m (Photo 19). Cobble, boulder, gravel and interstitial fines became more prominent and bedrock less prominent at depths of 2-4 m. The substrate was a silt/rock mix at depths of 4-6 m and primarily silt from the 6-m depth to the off-shore limit of the littoral zone at a water surface elevation of 29.6 m.

Observations of fish and wildlife were scant during the field effort. Wildlife observed at the site was limited to a double-crested cormorant, mallards, and ring-billed gulls. Anglers were observed catching smallmouth bass (*Micropterus dolomieu*) and yellow perch (*Perca flavescens*). Dreissenid mussels were observed attached in low densities to rock substrate throughout the site and were collected occasionally in rake toss samples taken to collect SAV. Broken, weathered shells of three eastern lampmussels (*Lampsilis radiata*) were found along the shoreline.

### 3. Potential Use of Littoral Habitat by Fish and Wildlife

The littoral zone at both ends of the PV-20 transmission line corridor was typical of the littoral habitat found throughout much of the surrounding near-shore area of Lake Champlain. The habitat was relatively similar on both ends of the corridor, though there was more aquatic plant growth on the NY side. In general, the substrate consisted of a mix of cobble, boulder, bedrock, and gravel from shore out to about the 4-m depth contour, where the substrate changed to more silt and less rock, and became entirely silt by the 6-m depth at a water surface elevation of 29.6 m. Aquatic plant growth (consisting primarily of small pondweed, Eurasian water milfoil, and waterweed) was sparse on the Vermont side, consisting of scattered stems growing in crevices among the rocks in water less than 3 m deep at a water surface elevation of 29.6 m and became slightly more abundant farther off shore where silt was the primary substrate. Aquatic plant growth on the NY side was somewhat more abundant but not dense.

The littoral zone in the transmission line corridor appeared to be similar to the littoral zone in this general region of the lake (i.e., there was an abundance of similar habitat nearby). No habitats were noted that would provide exceptional value as fish spawning or nursery areas or be considered unique in supporting fish and wildlife resources, including threatened or endangered species. Sportfish species that could be expected to use the available habitat in the littoral zone at either end of the transmission line corridor include smallmouth bass, yellow perch, walleye (*Sander vitreus*), rock bass (*Ambloplites rupestris*), pumpkinseed (*Lepomis gibbosus*), chain pickerel (*Esox niger*), and northern pike (*Esox lucius*), all of which are common and wide-spread in the littoral zone of Lake Champlain (Fisheries Technical Committee 2009). Emerald shiner (*Notropis atherinoides*), an open-water forage species, and the invasive white perch (*Morone americana*) and alewife (*Alosa pseudoharengus*) could also be expected to use this habitat type.

Wildlife observed using the littoral zone during this investigation was limited to ducks, cormorants, and gulls. These birds likely forage throughout large areas of the surrounding littoral zone and occasionally use the area in the immediate proximity of the transmission corridor.

The U.S. Fish and Wildlife Service, Vermont Natural Heritage Inventory, and New York Natural Heritage Program were queried for records of rare, threatened, or endangered species that are known to occur or may occur at or in the vicinity of the project site. Seven animal species and one plant species were identified by these sources as potentially occurring in the vicinity of the project (Table 1). Northern harrier, listed as a threatened species in New York State, is a hawk typically associated with marshes, sloughs, and wet meadows (Terres 1980). No such habitats exist along the immediate shoreline or in the littoral zone of Lake Champlain at either end of the transmission line corridor, so this species is presumed absent from this part of the project area.

Common loon, listed as a species of special concern in NY, uses open-water and littoral lake habitat for foraging and typically nests on small islands, sheltered coves, promontories, or headlands in areas undisturbed by human activity (Terres 1980). Though not observed, common loons may occasionally forage or rest in the littoral zone in the vicinity of the transmission line corridor, but large expanses of similar habitat occur throughout this portion of the lake. No suitable nesting habitat occurs at either end of the corridor for this species.

American eel, listed as a species of concern in VT, in lake habitats typically occupy burrows in bottom mud or gravel or seek cover under objects, or in SAV beds (Scott and Crossman 1973; Fahay 1978). LaBar and Facey (1983) collected American eels from the littoral zone of Lake Champlain on the east side of Grand Isle, VT from habitats up to 2 m deep with substrate varying from mud with dense vegetation to bare rock. Mark-recapture studies conducted by these authors indicated that American eels inhabiting shallow-water areas of Lake Champlain are relatively mobile and occupied areas minimally ranging in size from 2.4-65.4 hectares. The broad array of habitat used by American eel in Lake Champlain suggests that this species may occur, at least intermittently, in the littoral zone of the lake in the vicinity of the transmission line corridor. However, given the mobility of individuals of this species and the abundance of similar littoral habitat adjacent to the transmission corridor, the habitat within the transmission line corridor does not represent a critical resource for American eel.

The black meadowhawk (VT state rank of S1S2) and lyre-tipped spreadwing (VT state rank of S3S4) are dragonfly and damselfly species, respectively. These species have an aquatic juvenile

life stage and a terrestrial adult life stage. Both life stages are associated with shallow lake margin, marsh, pond, or bog habitats containing abundant emergent vegetation (Paulson 2011). There are no such habitats along the immediate shoreline or into the littoral zone of Lake Champlain at either end of the transmission line corridor, so these species are presumed absent from this portion of the project area.

Indiana bat (federally listed as endangered) and northern long-eared bat (proposed for federal listing as endangered) are terrestrial species typically not associated with aquatic habitats (USFWS 2014a, 2014b). Both species hibernate during winter in caves or, occasionally, in abandoned mines. When not hibernating, these bats are found in wooded areas where they usually roost under loose tree bark on dead or dying trees. Indiana bats typically forage in closed to semi-open forested habitats and forest edges. Northern long-eared bats forage in the understory of forested hillsides and ridges. Typical habitat of these two species is absent along the immediate shoreline and the littoral zone of Lake Champlain at either end of the transmission line corridor, so these species are presumed absent from this portion of the project area.

Handsome sedge is a NY state-listed threatened plant species that occurs in forests, forest edges, roadsides, or less frequently in open meadows (NYNHP 2013). It occurs in areas with calcareous soils, including dry deciduous forests and ravines, moist meadows, woods, and thickets. These habitats are absent along the immediate shoreline and in the littoral zone of Lake Champlain at either end of the transmission line corridor, so this species is presumed absent from this portion of the project area.

## **B. Depth of Sediment Occupied by Macroinvertebrates**

Sediment samples for analysis of aquatic macroinvertebrate depth distribution were successfully collected from all 12 sampling locations at the sediment surface and seven of the 12 sampling locations at sediment depths of 0.5-m and 1.0-m (Table 2). Samples from sediment depths of 0.5-m and 1.0-m could not be collected at five of the six littoral zone sampling locations due to refusal of the vibracore sampler on probable bedrock at these locations. At least one aquatic macroinvertebrate was found in the surface sediment samples of all 12 sampling locations. At

least one aquatic macroinvertebrate was found in only two of the seven samples from a sediment depth of 0.5-m, and no organisms were found in any of the seven samples from a sediment depth of 1.0-m.

Fifty or more organisms were found only in the six surface sediment samples from the littoral zone. No more than 25 and typically less than 10 organisms were found in surface sediment samples from the profundal zone. The two samples containing macroinvertebrates from a sediment depth of 0.5-m contained only one and three organisms, respectively. Total number of taxa at a station ranged from zero to 16. Littoral zone taxa richness ranged from nine to 16, with taxa richness being slightly higher (12-16 taxa) at the NY end of the transmission line corridor than from the VT end (9-11 taxa). Taxa richness in the surface sediments of the profundal zone ranged from one to five in both the NY and VT portions of the profundal zone.

Dreissenid mussels were the dominant taxon in the surface sediments of the VT littoral zone, representing 44-60% of the macroinvertebrate community. Tubificid worms or chironomid (midge) larvae were second in abundance in the surface sediments of the VT littoral zone, representing 14-38% of the community. All other taxa comprised less than 10% of the macroinvertebrate community in the surface sediments of the VT littoral zone. Insects other than midge larvae were relatively scarce in the surface substrate of the littoral zone. No samples could be taken in the VT littoral zone at depths of 0.5 m and 1.0 m below the sediment surface due to refusal of the core sampler by rock substrate.

Tubificid worms were the dominant taxon in the surface sediments of the VT profundal zone, representing 62-100% of the community. Only two taxa were found in samples taken in the VT profundal zone at depths of 0.5 m and 1.0 m below the sediment surface. One of these, dreissenid mussels, was represented by three individuals from a depth of 0.5 m below the sediment at station SL-04, and the other, a lumbriculid worm, was represented by a single individual from a depth of 0.5 m below the sediment at station SL-06. No organisms were found in samples taken in the VT profundal zone from 1.0 m below the sediment surface.

The dominant taxon in the surface sediments of the NY littoral zone differed among the three stations, with dreissenid mussels dominant (38% of community) at station SL-18, bithyniid snails dominant (24%) at station SL-19, and hydrobiid snails dominant (42%) at station SL-20. Other taxa representing 10% or more of the community in the surface sediments of these stations were tubificid worms, nauid worms, lymnaeid and planorbid snails, and chironomid larvae. Insects other than midge larvae were relatively scarce in the surface substrate of the littoral zone. No organisms were found at depths of 0.5 m and 1.0 m below the sediment surface in samples taken in the NY littoral zone.

The dominant taxon in the surface sediments of the NY profundal zone also differed among the three stations, with tubificid worms and sphaeriid clams dominant (but with only one individual each) at station SL-15, limnesid water mites dominant (but with only one individual) at station SL-16, and dreissenid mussels dominant (64%) at station SL-17. No organisms were found in samples taken in the NY profundal zone at depths of 0.5 m and 1.0 m below the sediment surface.

#### **IV. CONCLUSIONS**

1. The littoral zone at both ends of the PV-20 transmission line corridor was typical of the littoral habitat found throughout much of the surrounding near-shore area of Lake Champlain. The habitat was relatively similar on both ends of the corridor, though there was more aquatic plant growth on the NY side.
2. In general, the littoral zone habitat was characterized by a mix of cobble, boulder, bedrock, and gravel substrate from shore out to about the 4-m depth contour at a water surface elevation of 29.6 m, beyond which silt became an increasingly larger component of the substrate out to the off-shore edge of the littoral zone. Aquatic plant growth was sparse on the Vermont side, consisting of scattered stems growing in crevices among the rocks in water less than 3 m deep at a water surface elevation of 29.6 m and becoming slightly more abundant farther off shore where silt was the primary substrate. Aquatic plant growth on the NY side was somewhat more abundant but not dense.

3. There were no habitat features that set the littoral zone within the PV-20 transmission line corridor apart from the littoral zone in this general region of the lake. No habitats were noted that would provide exceptional value as fish spawning or nursery areas or be considered unique in supporting fish and wildlife resources, including threatened or endangered species.
4. No evidence of use of the shoreline or littoral zone within the PV-20 transmission line corridor by federally- or state-listed threatened or endangered species was found. Common loon and American eel, listed as a species of concern in NY and VT, respectively, may occasionally use the littoral zone of the transmission line corridor, but the habitat within the transmission line corridor does not represent a critical resource for either of these species.
5. The benthic macroinvertebrate community within the surface substrate of the littoral zone of the PV-20 transmission line corridor was dominated by mollusks, with dreissenid mussels being dominant at all three VT locations and dreissenid mussels, bithyniid snails, and hydrobiid snails dominant at the three NY locations. Insects other than midge larvae were relatively scarce in the surface substrate of the littoral zone.
6. The benthic macroinvertebrate community within the surface substrate of the profundal zone of the PV-20 transmission line corridor contained few taxa and low abundance of organisms. Tubificid worms were dominant (but not abundant) in the surface substrate of the profundal zone community at all three VT stations, and tubificid worms and sphaeriid clams, limnesid water mites, and dreissenid mussels were dominant (but not abundant) at the three NY locations. Only two insects representing two taxa were collected in the six surface substrate samples from the profundal zone.
7. Aquatic macroinvertebrates were nearly absent from sediment 0.5 m below the substrate surface, with only four organisms representing two taxa collected in 14 samples from 0.5 m or greater below the substrate surface. No organisms were collected from 1.0 m below the substrate surface.



8. Based on this investigation's characterization of the aquatic habitat and aquatic biota occurring in the PV-20 transmission line corridor, no significant short-term or permanent negative impacts to aquatic habitat or aquatic biota are anticipated from the proposed installation of four new transmission cables to the immediate north of the seven existing transmission cables. Trenchless installation will be used to position the new transmission cables three or more meters below the lake bottom to a point at least 30 m beyond (off-shore) the littoral zone at the NY end and at least 60 m beyond the littoral zone at the VT end. This trenchless installation will avoid any physical disturbance to the littoral zone at either end of the transmission corridor. The temporary disturbance of profundal zone bottom sediments by construction of a temporary cofferdam and jet-sled installation of buried cables farther offshore is not anticipated to have any significant negative impact on aquatic habitat or biota given the general lack of aquatic invertebrates occupying the dense silt substrate in this region. The laying of the new cables on the lake bottom surface beyond the 30-m depth contour (at mean low water elevation of 28.4 m) will have no significant negative impact for the same reason.
  
9. Removal of the existing seven transmission cables following installation of the four new transmission cables will necessarily result in disturbance of the lake bottom within the littoral zone, but this disturbance will be temporary and localized and is not anticipated to have any negative impacts to aquatic habitat or aquatic biota identified in this investigation. The rock rip rap covering the existing cables from shore to a distance of approximately 75 m off shore will be dredged/excavated and placed on the lake bottom next to the cables. Once the cables are removed, the rock will be laid back in place so as not to change the existing contours. Farther offshore in the profundal zone, the silt sediment will be temporarily disturbed when the sediment-covered portions of the cables and existing grounding grids, grounding grid lines, concrete anchors, fenders, and grout bags are removed. This process will result in temporary shifting of substrate and possible suspension of sediment when surface substrates are initially disturbed. However, the disturbance will be localized, short-term, and without any negative impact to the aquatic habitat and aquatic biota of the lake as long as best management practices are used to minimize the area of disturbed sediment and limit dispersion of suspended sediment. Upon completion of removal of the existing cables and

appurtenant structures, the composition and contour of the lake bottom will be essentially unchanged from the existing condition.

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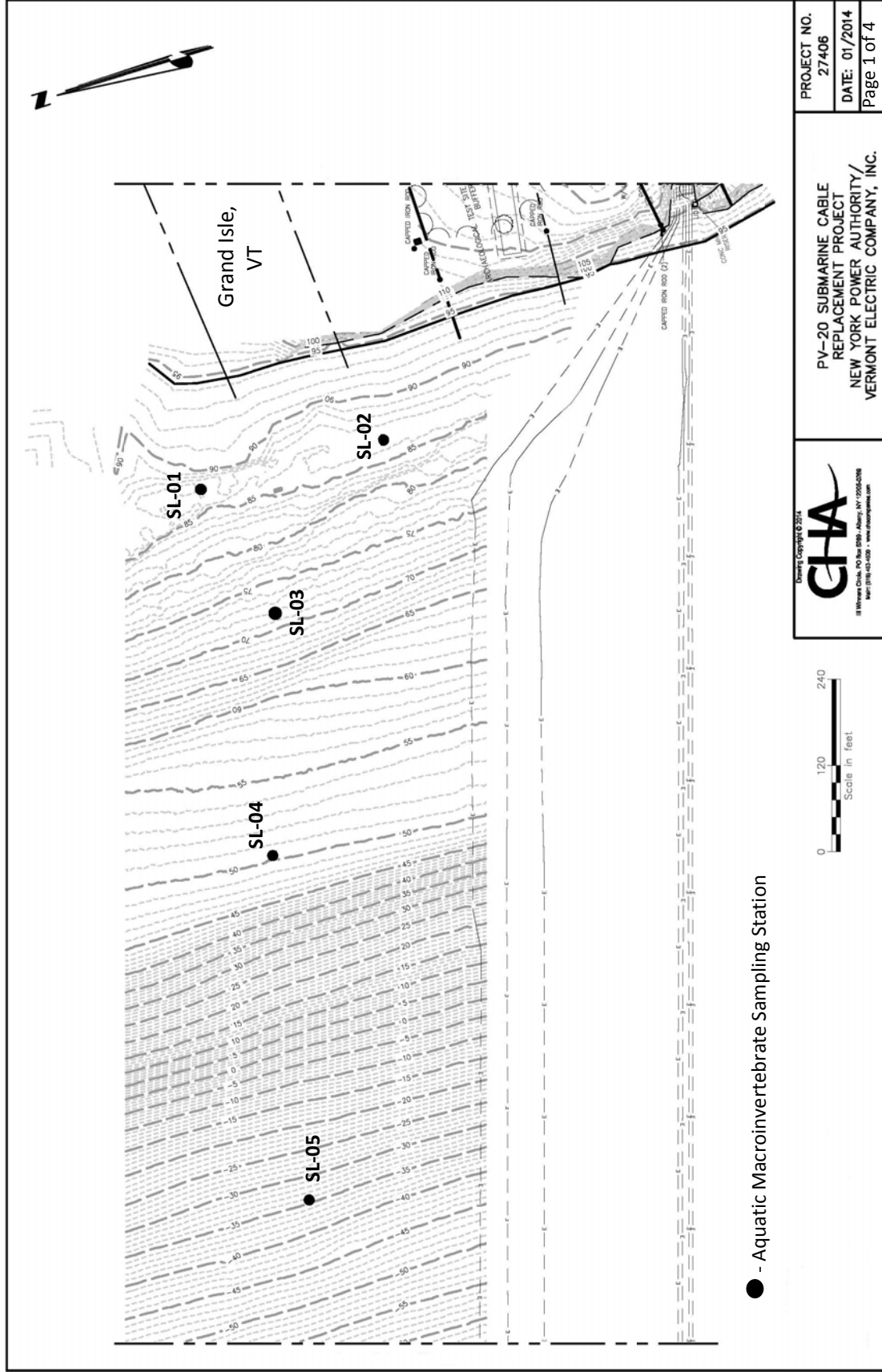


Figure 1. Location of stations at which samples were collected to assess the sediment depth distribution of aquatic macroinvertebrates along the PV-20 submarine transmission line corridor running from Cumberland Head, NY to Grand Isle, VT.

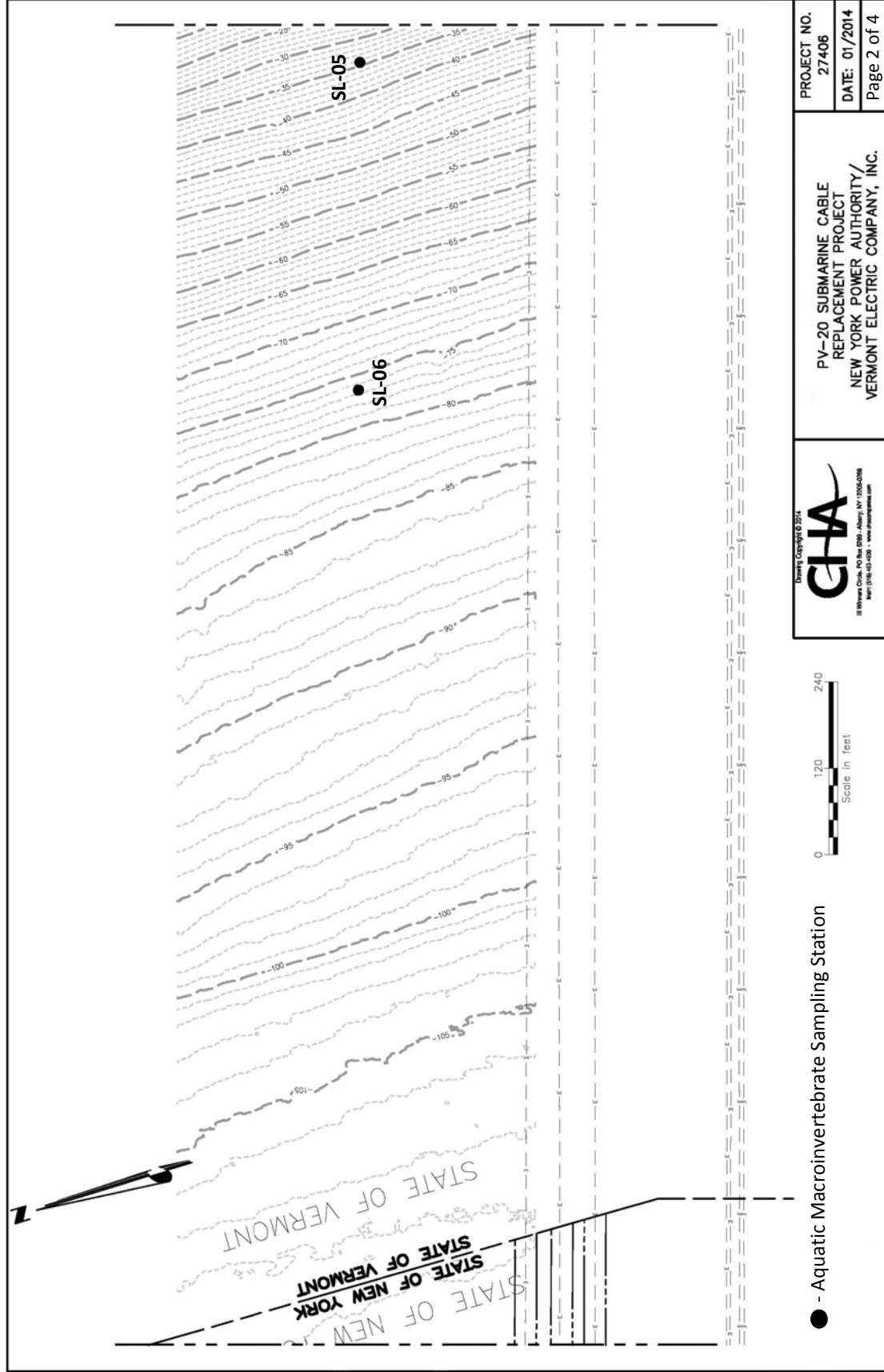


Figure 1. Continued.

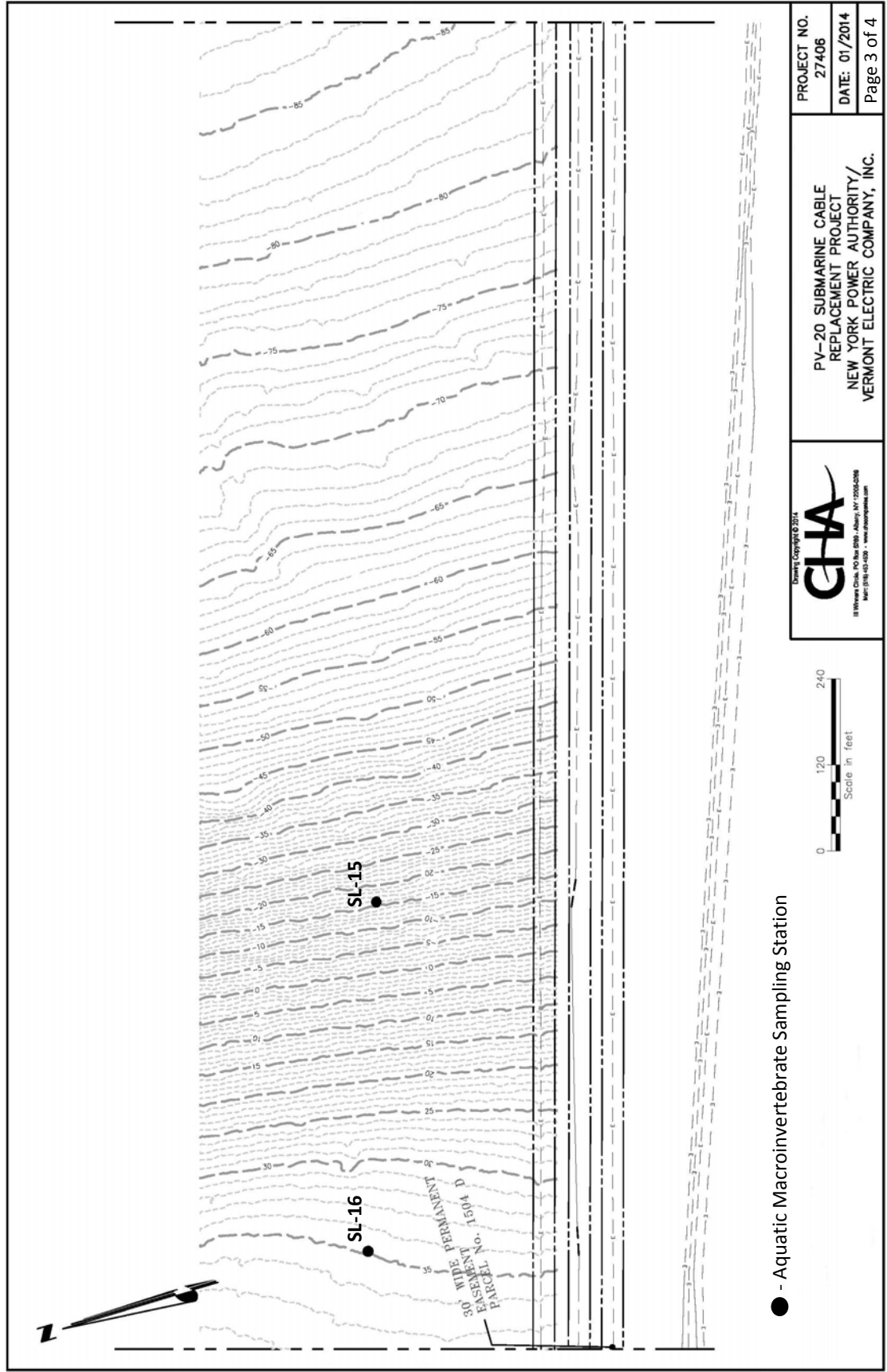


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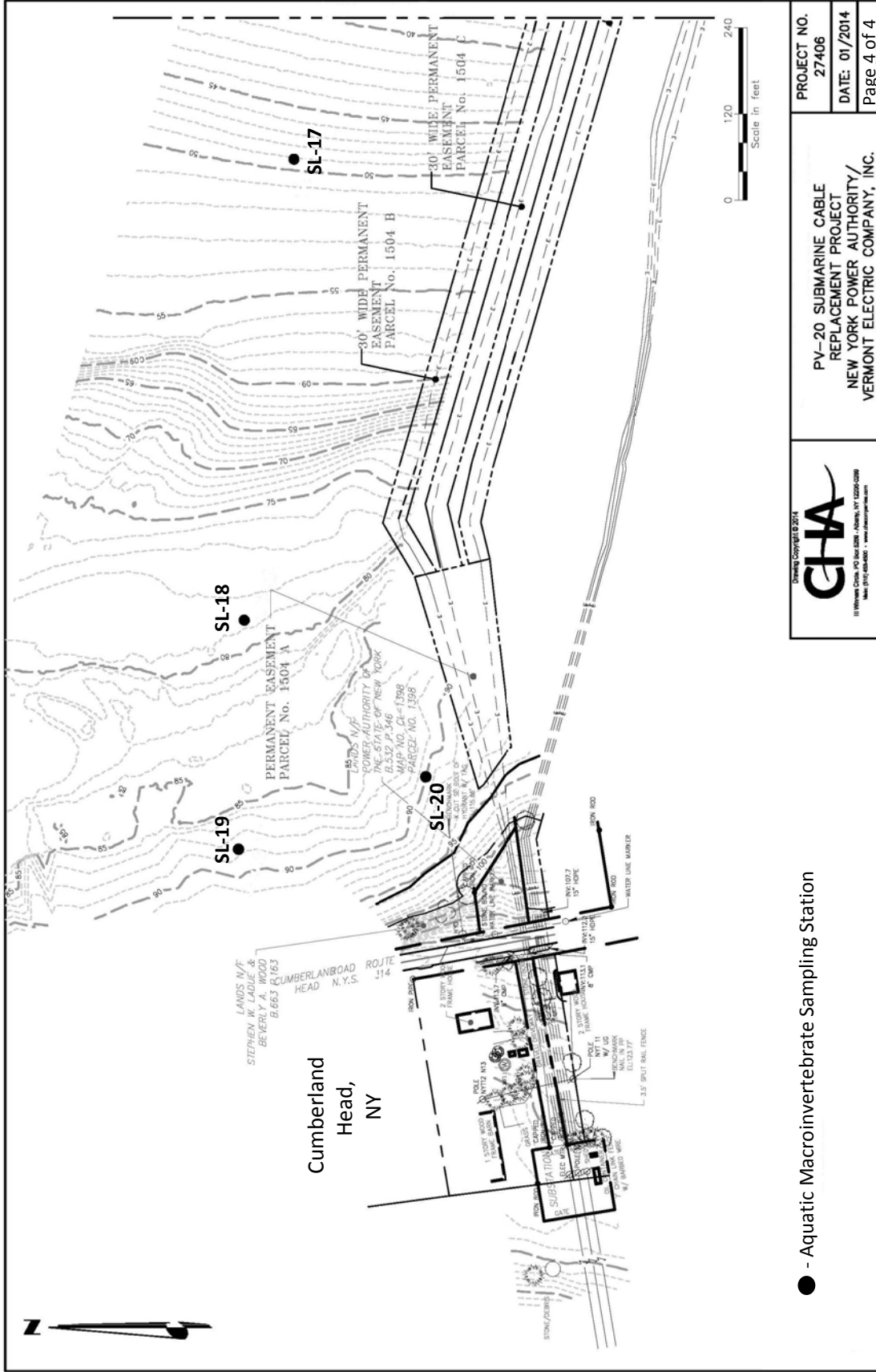


Figure 1. Continued.

**VT Littoral Zone - North End**

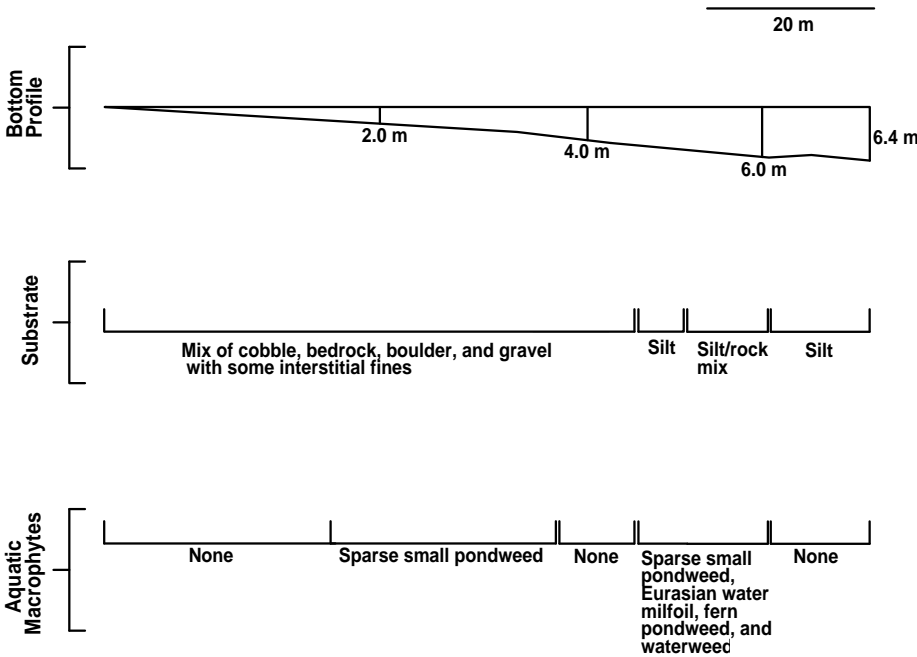


Figure 2. Schematic of the bottom profile, substrate, and aquatic macrophyte depth distribution on the north side of the Vermont end of the PV-20 submarine transmission line corridor running from Cumberland Head, NY to Grand Isle, VT (as determined at a water surface elevation of 29.6 m msl).

### VT Littoral Zone - Mid-point

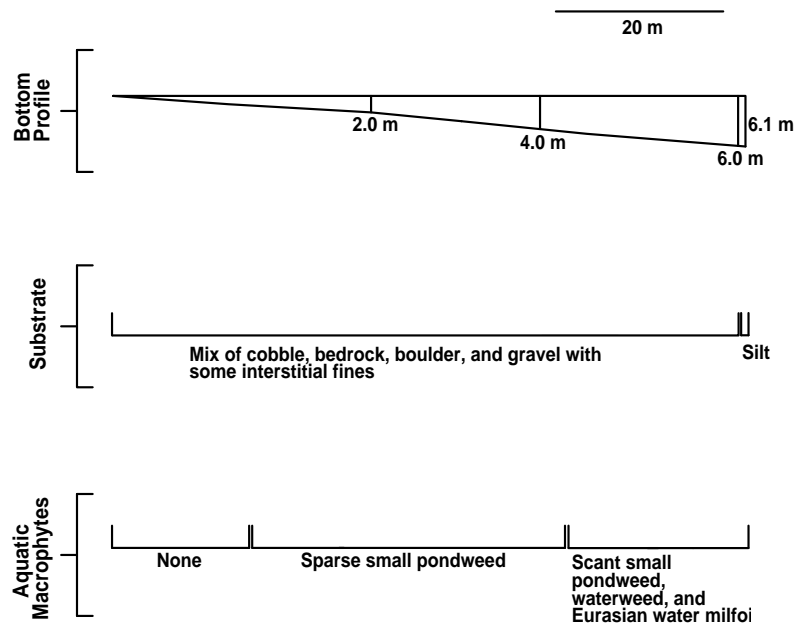


Figure 3. Schematic of the bottom profile, substrate, and aquatic macrophyte depth distribution near the mid-point of the Vermont end of the PV-20 submarine transmission line corridor running from Cumberland Head, NY to Grand Isle, VT (as determined at a water surface elevation of 29.6 m msl).



**VT Littoral Zone - South End**

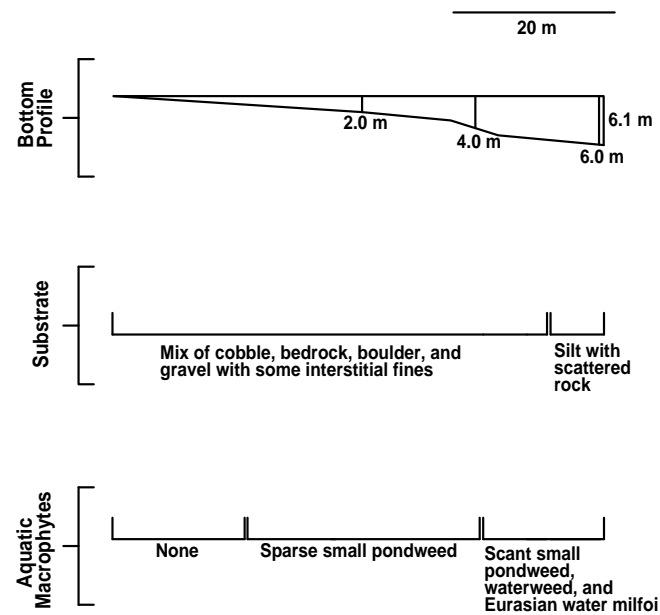


Figure 4. Schematic of the bottom profile, substrate, and aquatic macrophyte depth distribution on the south side of the Vermont end of the PV-20 submarine transmission line corridor running from Cumberland Head, NY to Grand Isle, VT (as determined at a water surface elevation of 29.6 m msl).

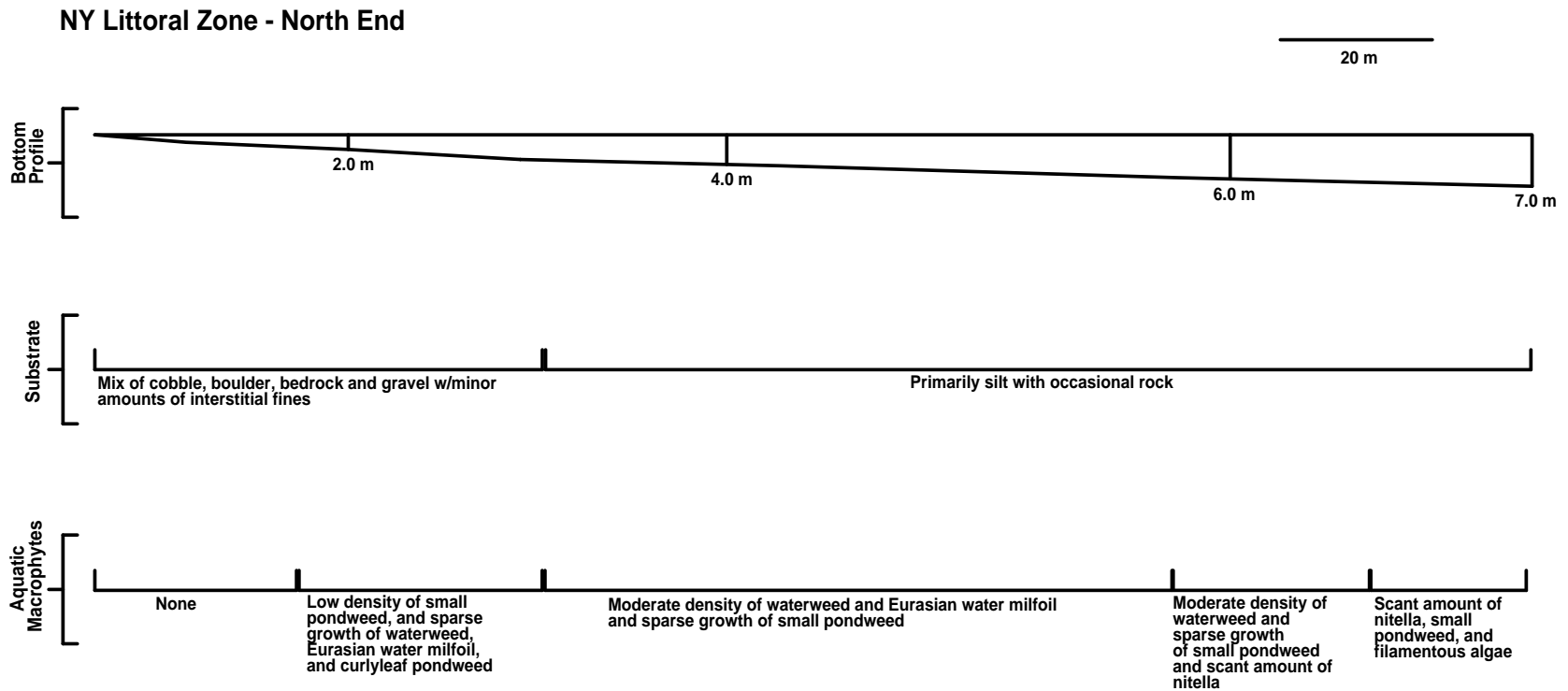


Figure 5. Schematic of the bottom profile, substrate, and aquatic macrophyte depth distribution on the north side of the New York end of the PV-20 submarine transmission line corridor running from Cumberland Head, NY to Grand Isle, VT (as determined at a water surface elevation of 29.6 m msl).

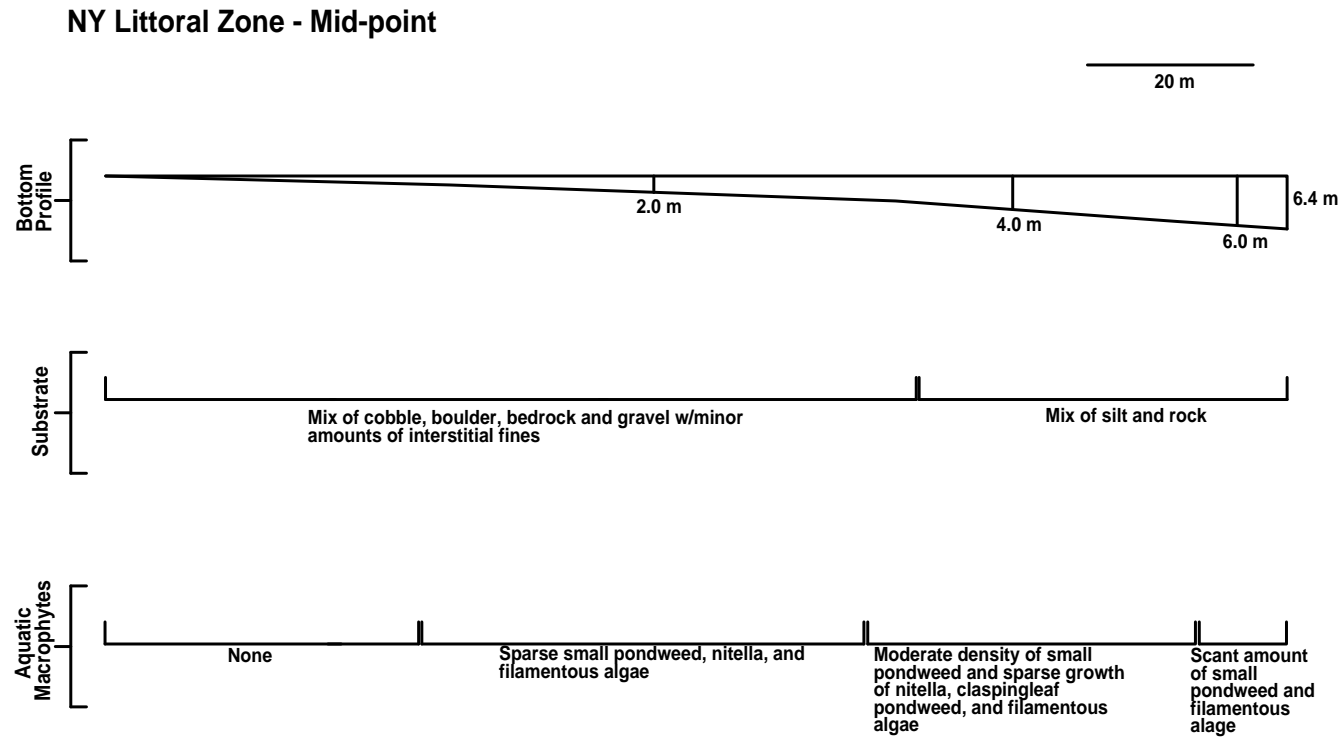


Figure 6. Schematic of the bottom profile, substrate, and aquatic macrophyte depth distribution near the mid-point of the New York end of the PV-20 submarine transmission line corridor running from Cumberland Head, NY to Grand Isle, VT (as determined at a water surface elevation of 29.6 m msl).

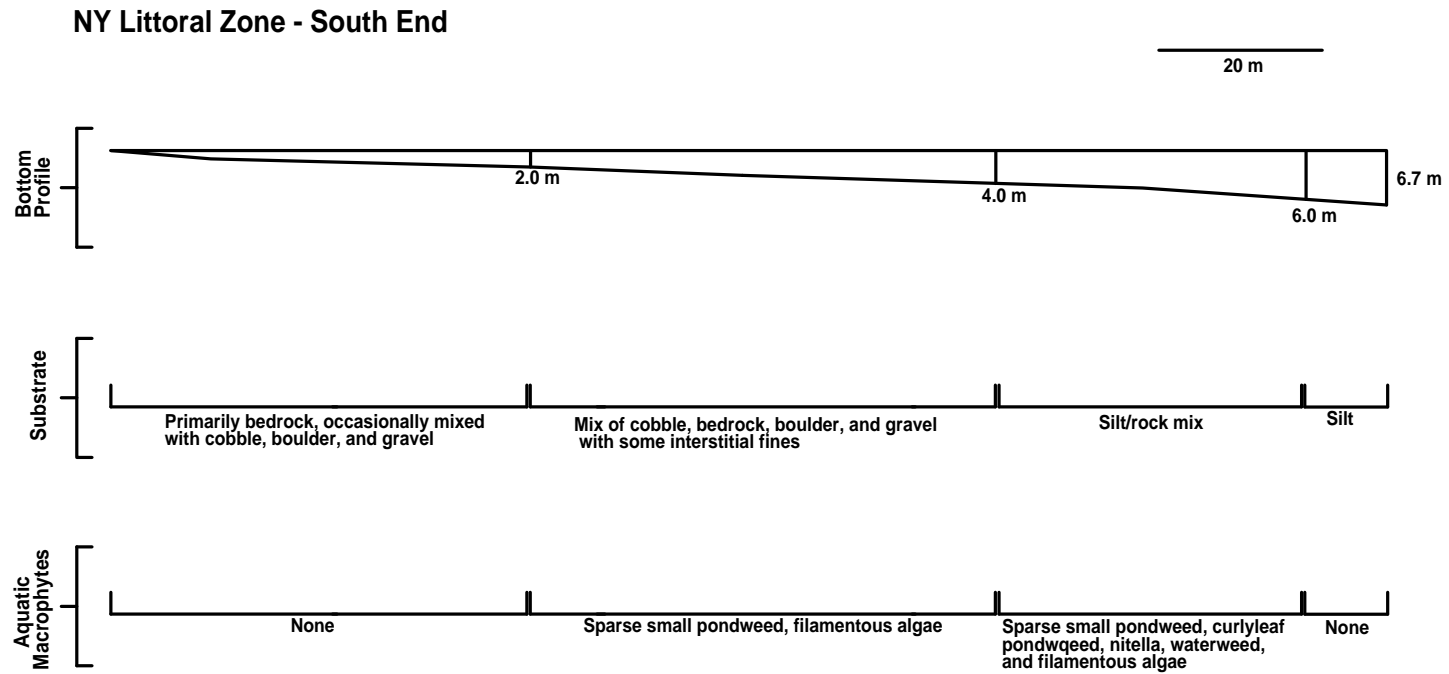


Figure 7. Schematic of the bottom profile, substrate, and aquatic macrophyte depth distribution on the south side of the New York end of the PV-20 submarine transmission line corridor running from Cumberland Head, NY to Grand Isle, VT (as determined at a water surface elevation of 29.6 m msl).

Table 1. Rare, threatened, or endangered animal and plant species known to occur or may occur at or in the vicinity of the PV-20 submarine transmission line corridor running from Cumberland Head, NY to Grand Isle, VT.

<b>Common Name</b>	<b>Scientific Name</b>	<b>Source*</b>	<b>Status or Rank</b>
Northern harrier	<i>Circus cyaneus</i>	NYNHP	NY state threatened
Common loon	<i>Gavia immer</i>	NYNHP	NY species of concern
Handsome sedge	<i>Carex formosa</i>	NYNHP	NY state threatened
American eel	<i>Anguilla rostrata</i>	VTNHI	VT species of concern
Black meadowhawk	<i>Sympetrum danae</i>	VTNHI	VT S1S2 rank
Lyre-tipped spreadwing	<i>Lestes unguiculatus</i>	VTNHI	VT S3S4 rank
Indiana bat	<i>Myotis sodalis</i>	USFWS NY	Endangered
Northern long-eared bat	<i>Myotis septentrionalis</i>	USFWS NY	Proposed endangered

\* - NYNHP = New York Natural Heritage Program; VTNHI = Vermont Natural Heritage Inventory; USFWS NY = U. S. Fish & Wildlife Service New York Field Office

Table 2. Identification and number of aquatic macroinvertebrates found in samples taken at the sediment surface, 0.5 m below the sediment surface, and 1.0 m below the sediment surface along the corridor of the PV-20 submarine cable in Lake Champlain, NY and VT, November 2013, based on identification of a 50-organism subsample; X – present in sample but not in subsample.

Taxon	Station Stratum	SL-01			SL-02			SL-03		
		0.0	0.5	1.0	0.0	0.5	1.0	0.0	0.5	1.0
OLIGOCHAETA										
Lumbricidae										
Lumbriculidae										
Naididae										
Tubificidae		5			3			19		
NEMATODA										
HIRUDINEA										
Erpobdellidae					1			4		
GASTROPODA										
Bithyniidae								X		
Hydrobiidae		1			2			1		
Lymnaeidae										
Planorbidae		2			X			1		
Physidae		1								
Undetermined Gastropoda										
BIVALVIA										
Dreissenidae		29			30			22		
Sphaeriidae					X					
OSTRACODA		4						1		
MALACOSTRACA										
Crangonyctidae										
Gammaridae		1						1		
ACARIFORMES										
Limnesiidae										
INSECTA										
EHPHEMEROPTERA										
Caenidae										
Ephemerellidae		X								
ODONATA										
Coenagrionidae								1		
COLEOPTERA										
Dytiscidae										
Elmidae		X			1			X		
Noteridae										
LEPIDOPTERA										
Pyralidae										
TRICHOPTERA										
Apataniidae		X								
Leptoceridae					X					
DIPTERA										
Chironomidae		7			13			X		
<b>TOTAL NO.</b>		<b>50</b>			<b>50</b>			<b>50</b>		
<b>TOTAL TAXA</b>		<b>11</b>			<b>9</b>			<b>11</b>		

Rock substrate precluded collection of vibracore sample at this depth

Rock substrate precluded collection of vibracore sample at this depth

Rock substrate precluded collection of vibracore sample at this depth

Rock substrate precluded collection of vibracore sample at this depth

Rock substrate precluded collection of vibracore sample at this depth

Rock substrate precluded collection of vibracore sample at this depth

Table 2. Continued.

Taxon	Station Stratum	SL-04			SL-05			SL-06		
		0.0	0.5	1.0	0.0	0.5	1.0	0.0	0.5	1.0
OLIGOCHAETA										
Lumbricidae										
Lumbriculidae									1	
Naididae										
Tubificidae		4			8			5		
NEMATODA										
HIRUDINEA										
Erpobdellidae										
GASTROPODA										
Bithyniidae										
Hydrobiidae					1			1		
Lymnaeidae										
Planorbidae										
Physidae										
Undetermined Gastropoda										
BIVALVIA										
Dreissenidae			3							
Sphaeriidae					2			1		
OSTRACODA										
MALACOSTRACA										
Crangonyctidae										
Gammaridae					1					
ACARIFORMES										
Limnesiidae										
INSECTA										
EHPMEMEROPTERA										
Caenidae										
Ephemerellidae										
ODONATA										
Coenagrionidae										
COLEOPTERA										
Dytiscidae										
Elmidae					1					
Noteridae										
LEPIDOPTERA										
Pyrilidae										
TRICHOPTERA										
Apataniidae										
Leptoceridae										
DIPTERA										
Chironomidae										
<b>TOTAL NO.</b>		<b>4</b>	<b>3</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>0</b>
<b>TOTAL TAXA</b>		<b>1</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>0</b>

Table 2. Continued.

Taxon	Station Stratum	SL-15			SL-16			SL-17		
		0.0	0.5	1.0	0.0	0.5	1.0	0.0	0.5	1.0
OLIGOCHAETA										
Lumbricidae								1		
Lumbriculidae										
Naididae										
Tubificidae		1								
NEMATODA								6		
HIRUDINEA										
Erpobdellidae										
GASTROPODA										
Bithyniidae										
Hydrobiidae								1		
Lymnaeidae										
Planorbidae										
Physidae										
Undetermined Gastropoda										
BIVALVIA										
Dreissenidae								16		
Sphaeriidae		1								
OSTRACODA										
MALACOSTRACA										
Crangonyctidae										
Gammaridae										
ACARIFORMES										
Limnesiidae					1					
INSECTA										
EHPMEMEROPTERA										
Caenidae										
Ephemerellidae										
ODONATA										
Coenagrionidae										
COLEOPTERA										
Dytiscidae										
Elmidae										
Noteridae										
LEPIDOPTERA										
Pyralidae										
TRICHOPTERA										
Apataniidae										
Leptoceridae										
DIPTERA										
Chironomidae								1		
<b>TOTAL NO.</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>0</b>
<b>TOTAL TAXA</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>



Table 2. Continued.

Taxon	Station Stratum	SL-18			SL-19			SL-20		
		0.0	0.5	1.0	0.0	0.5	1.0	0.0	0.5	1.0
OLIGOCHAETA										
Lumbricidae								4		
Lumbriculidae										
Naididae					6					
Tubificidae		7			1			5		
NEMATODA										
HIRUDINEA										
Erpobdellidae		1						X		
GASTROPODA										
Bithyniidae		3			12			4		
Hydrobiidae		3			X			21		
Lymnaeidae					7			1		
Planorbidae		5						3		
Physidae		1			X			2		
Undetermined Gastropoda					X					
BIVALVIA										
Dreissenidae		19			9			1		
Sphaeriidae		2			2			4		
OSTRACODA		1						1		
MALACOSTRACA										
Crangonyctidae					4					
Gammaridae		1						X		
ACARIFORMES					3					
Limnesiidae								X		
INSECTA										
EHPEMEROPTERA										
Caenidae					4					
EphemereIIDae										
ODONATA										
Coenagrionidae										
COLEOPTERA										
Dytiscidae					2					
Elmidae		2						3		
Noteridae					X					
LEPIDOPTERA										
Pyralidae								X		
TRICHOPTERA										
Apataniidae										
Leptoceridae										
DIPTERA										
Chironomidae		5						1		
<b>TOTAL NO.</b>		<b>50</b>	<b>0</b>	<b>0</b>	<b>50</b>			<b>50</b>		
<b>TOTAL TAXA</b>		<b>12</b>	<b>0</b>	<b>0</b>	<b>14</b>			<b>16</b>		

Rock substrate precluded collection of vibracore sample at this depth

Rock substrate precluded collection of vibracore sample at this depth

Rock substrate precluded collection of vibracore sample at this depth

Rock substrate precluded collection of vibracore sample at this depth



Photo 1. Lake Champlain shoreline and littoral zone at the Grand Isle, VT end of the PV-20 submarine transmission line corridor, July 2, 2014.



Photo 2. Lake Champlain shoreline and littoral zone at the Grand Isle, VT end of the PV-20 submarine transmission line corridor, July 2, 2014.



Photo 3. Lake Champlain shoreline and littoral zone at the Grand Isle, VT end of the PV-20 submarine transmission line corridor, July 2, 2014.



Photo 4. Sparse growth of small pondweed in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, VT, July 2, 2014.

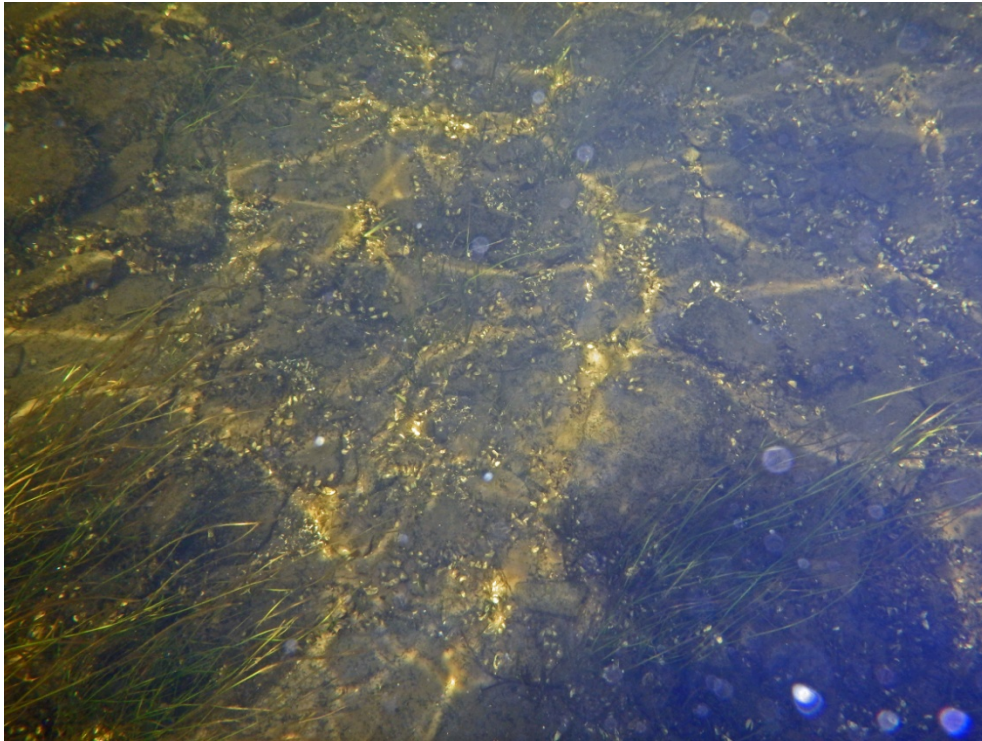


Photo 5. Scattered patches of small pondweed in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, VT, July 2, 2014.



Photo 6. Dead stems of Eurasian watermilfoil collected in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, VT, July 2, 2014.



Photo 7. Clean cobble/boulder/coarse gravel in the near-shore zone of the PV-20 submarine transmission line corridor, Lake Champlain, VT, July 2, 2014.



Photo 8. Cobble/bedrock/boulder/gravel substrate in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, VT, July 2, 2014.



Photo 9. Cobble/bedrock/boulder/gravel substrate in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, VT, July 2, 2014.



Photo 10. Low density of dreissenid mussels on substrate in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, VT, July 2, 2014.

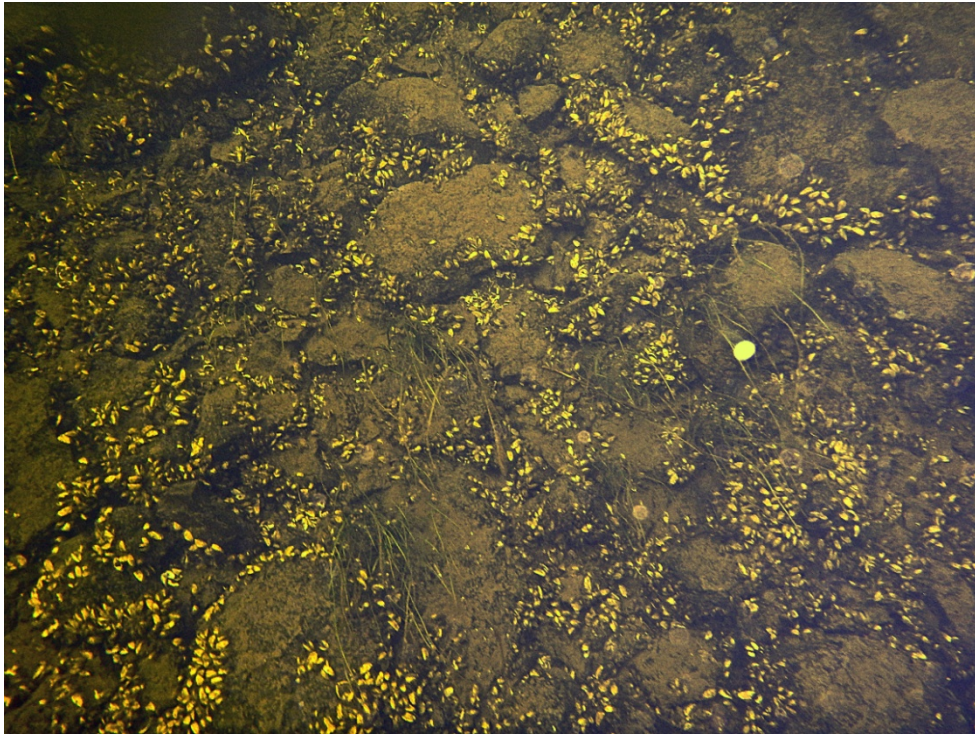


Photo 11. Moderate density of dreissenid mussels in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, VT, July 2, 2014.



Photo 12. Lake Champlain shoreline and littoral zone looking north from the NY end of the PV-20 submarine transmission line corridor, July 2, 2014.



Photo 13. Lake Champlain shoreline and littoral zone looking south from the NY end of the PV-20 submarine transmission line corridor, July 2, 2014.



Photo 14. Lake Champlain shoreline and littoral zone viewed from off shore at the NY end of the PV-20 submarine transmission line corridor, July 2, 2014.





Photo 15. Moderate density of macrophytes found in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, NY, July 2, 2014.



Photo 16. Cobble/boulder/bedrock/gravel substrate in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, NY, July 2, 2014.



Photo 17. Cobble/boulder/bedrock/gravel substrate in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, NY, July 2, 2014.

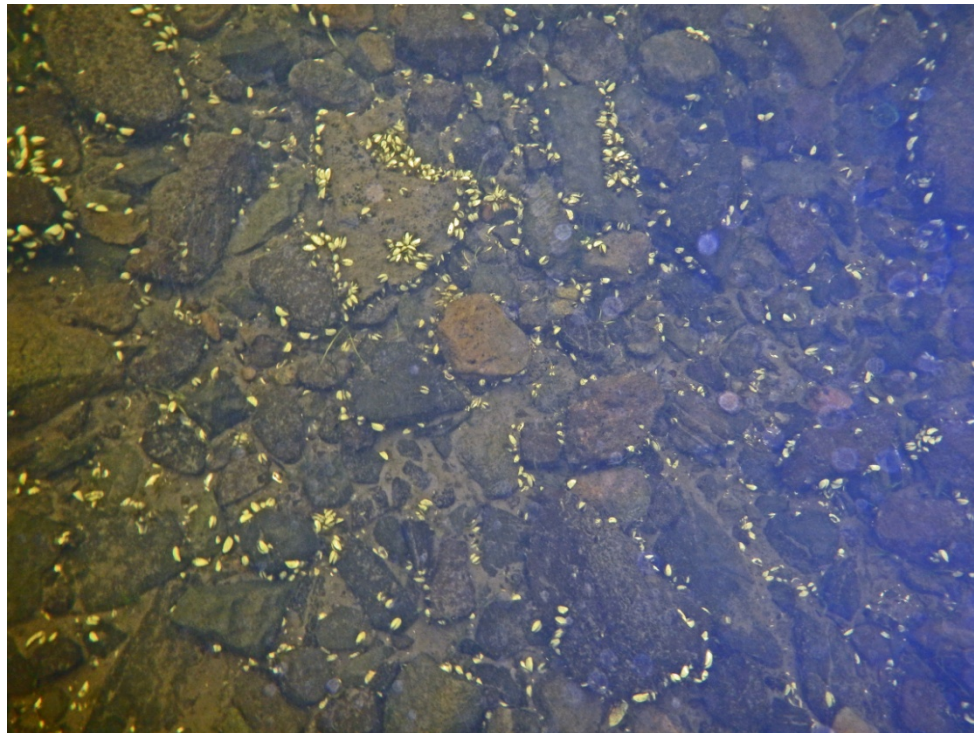


Photo 18. Rock substrate with interstitial fines in the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, NY, July 2, 2014.

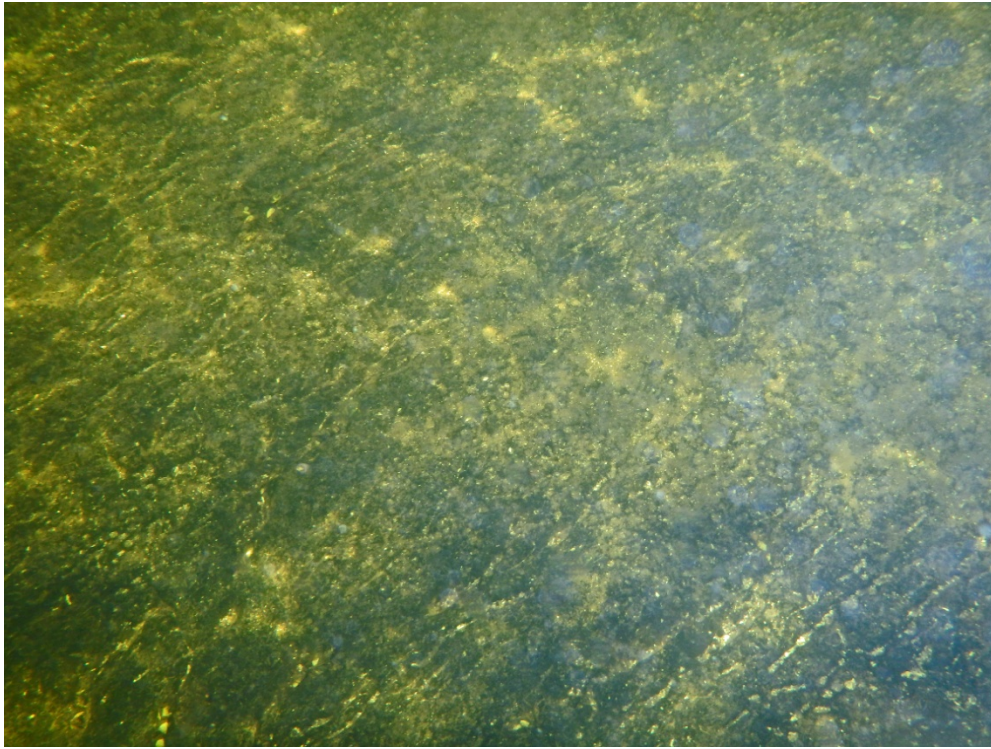


Photo 19. Bedrock substrate in the southern portion of the littoral zone of the PV-20 submarine transmission line corridor, Lake Champlain, NY, July 2, 2014.

**Lee, Lydia**

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**From:** Tim Follensbee <tfollensbee@velco.com>  
**Sent:** Tuesday, June 23, 2015 3:45 PM  
**To:** Lee, Lydia; Reinhart, Krista  
**Cc:** Gorman, Jason  
**Subject:** FW: NYPA PV-20 Submarine Cable Replacement - RTE mussel survey [Filed 23 Jun 2015 15:46]

Lydia,

Here is the email from Billy regarding mussels. Ecologic also performed a survey and did not identify anything significant.

Please let me know if you need anything further.

**Tim Follensbee II**  
**Environmental Manager**  
802.770.6423 office | 802.342.6267 cell  
vermont electric power company  
  
366 pinnacle ridge road, rutland, vt 05701

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**From:** Coster, Billy [mailto:Billy.Coster@state.vt.us]  
**Sent:** Monday, August 18, 2014 2:59 PM  
**To:** Tim Follensbee  
**Subject:** NYPA PV-20 Submarine Cable Replacement - RTE mussel survey

Tim,

I just wanted to let you know that I checked with our RTE mussel expert and he confirmed that he would likely not require a mussel survey or mitigation for project impacts in depths 30' or greater, which is the maximum depth he would request survey work in this part of the lake. Since the project looks to use HDD to enter that lake at depths at least 30', impacts o mussels will likely be avoided.

Please let me know if you have any question.

Thanks,  
Billy

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Billy Coster  
Senior Planner and Policy Analyst  
Vermont Agency of Natural Resources  
(802) 595-0900

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