REPORT

Remedial Action Report

M. Wallace and Son, Inc.
Scrapyard Site
Cobleskill, New York

Niagara Mohawk

A **National Grid** Company

June 2003

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Acronyms and Abbreviations

The list below presents acronyms/abbreviations and the corresponding terms which are used in this *Remedial Action Report* (definitions of each term are provided when first reference within sections of this report).

- AMSL - Above Mean Sea Level
- ASTM - ASTM International (formerly American Society for Testing and Materials)
- BBL - Blasland, Bouck & Lee, Inc.
- BECI - Bureau of Enforcement and Criminal Investigation (NYSDEC)
- CFR - Code of Federal Regulations
- DIP - ductile iron pipe
- DOT - Department of Transportation
- ESD - Explanation of Significant Difference
- FS - Feasibility Study
- FSP - Field Sampling Plan
- FWIA - Fish and Wildlife Impact Analysis
- gpm - gallons per minute
- HASP - Health and Safety Plan
- HDPE - high-density polyethylene
- IRM - Interim Remedial Measure
- JDC - Joanne Darcy Crum, L.S.
- LNAPL - light nonaqueous phase liquid
- Niagara Mohawk - Niagara Mohawk, a National Grid Company
- NYCRR - New York Code of Rules and Regulations
- NYSDEC - New York State Department of Environmental Conservation
- NYSDOH - New York State Department of Health
- NYSDOL - New York State Department of Law
- NYSDOT – New York State Department of Transportation
- OM&M - Operation, Maintenance, and Monitoring
- OSHA - Occupational Safety and Health Administration
- PCB - polychlorinated biphenyl
- PID - photoionization detector
- ppb - parts per billion
- ppm - parts per million
- ppt - parts per trillion
- PRAP - Proposed Remedial Action Plan
- QAPP - Quality Assurance Project Plan
- RA - Remedial Action
- RCRA - Resource Conservation Recovery Act
- RD - Remedial Design
- RI - Remedial Investigation
- ROD - Record of Decision
- SCDH - Schoharie County Department of Health
- SCGs - standards, criteria and guidance
- SVOC - semi-volatile organic compounds
- TOC - total organic carbon
- TOV - total organic vapors
- TSCA - Toxic Substance Control Act
- USEPA - United States Environmental Protection Agency

- USGS - United States Geological Survey
- Village - Village of Cobleskill
- VOC - volatile organic compounds
- Wallace Scrapyard - M. Wallace and Son, Inc.

1. Introduction

1.1 General

This *Remedial Action Report* (RA Report) documents the activities implemented by Niagara Mohawk, a National Grid Company (Niagara Mohawk) to address constituents of interest present in environmental media associated with the M. Wallace and Son, Inc. (Wallace) Scrapyard Site (Site) located in Cobleskill, New York (Figure 1). The New York State Department of Environmental Conservation- (NYSDEC-) selected remedy was presented in the March 1999 Record of Decision (ROD) for the Site, and subsequently amended by an Explanation of Significant Difference (ESD) issued by the NYSDEC in May 2000. The remedial action activities, as detailed herein, generally included extending the Village of Cobleskill (Village) public water supply, excavation and offsite disposal of Site soils, backfilling the Site with clean fill material and associated Site restoration activities, and installing automatic, light nonaqueous phase liquid (LNAPL) recovery systems. Groundwater and biota monitoring activities have also been conducted, as specified in the ROD.

This RA Report has been prepared by Blasland, Bouck & Lee, Inc. (BBL) on behalf of Niagara Mohawk, in accordance with the Consent Decree (Case No. 85-CV-219) entered into by Niagara Mohawk and the State of New York. The Consent Decree was filed by the United States District Court, Northern District of New York, on August 21, 2000. As detailed herein, the remedial design for implementing the NYSDEC-selected remedy was presented in the documents listed below.

- *Public Water Supply Extension Design* (BBL, June 2001), approved by the NYSDEC and the Schoharie County Department of Health (SCDH) in July 2001. The *Contractor Scope of Work* included as an appendix to the *Public Water Supply Extension Design* was stamped and signed by a BBL New York State Licensed Professional Engineer.

- *Draft Remedial Design* (Draft RD) (BBL, June 2000), as amended by Niagara Mohawk's September 26, 2000 letter and approved by the NYSDEC in a November 7, 2000 letter.

- *Remedial Design* (RD) (BBL, September 2001), that included the NYSDEC-approved revisions was stamped and signed by a BBL New York State Licensed Professional Engineer.

The NYSDEC-required remedial action activities commenced during November 2001 and were completed in April 2002, with the exception of establishing a vegetative cover which is now substantially complete. The NYSDEC-required post-remediation biota and groundwater monitoring activities were then conducted by BBL between May 2002 and November 2002. The remedial action activities were observed by BBL, as well a NYSDEC representative. These activities are summarized below and detailed in this RA Report.

- Extension of the Village's public waterline to serve residences/businesses that previously obtained water from water supply wells RW-1 and RW-2 located just west of the Site. Prior to waterline extension, groundwater withdrawn from these residential water supply wells was treated using activated carbon water treatment systems that were installed (in 1997) and maintained by Niagara Mohawk as a precautionary measure. The Wallace Scrapyard facility, which operates out of the concrete and metal building located in the southwestern corner of the Site, was also connected to the public water supply.

- Excavation, transportation, and offsite disposal of surface soils (uppermost 12 inches) that contain PCB concentrations greater than or equal to one part per million (ppm), subsurface soils (below the first 12 inches) that contain PCB concentrations greater than or equal to 10 ppm, and an area of soil previously identified to exhibit the hazardous characteristic of toxicity for lead.

- Backfilling of excavated areas with at least 12 inches of clean backfill material and appropriately restoring the Site.

- Installation and operation of automatic LNAPL recovery systems in the existing onsite coreholes C-3/MW-8 and C-4 for the continued collection of LNAPL observed in these coreholes. Prior to installation of these automated systems, a biweekly LNAPL monitoring and manual recovery program had been conducted by Niagara Mohawk since June 1993 as part of a NYSDEC-approved Interim Remedial Measure (IRM).

- Implementation of a biota sampling and analysis program in the storm water drainage system and Cobleskill Creek.

- Continued implementation of a groundwater monitoring program, which includes: obtaining groundwater elevations, monitoring for the presence/absence of LNAPL in Site monitoring wells, collecting and containerizing LNAPL from Site monitoring wells for subsequent offsite treatment/disposal, and groundwater sampling of offsite bedrock coreholes for analysis of PCBs.

In addition to the aforementioned remedial components, the NYSDEC-selected remedy presented in the ROD also includes the remedial action components identified below.

- Continued operation of the onsite quarry pond water treatment systems [the 100 gallon per minute (gpm) and 300 gpm water treatment systems]. The NYSDEC-approved onsite treatment and subsequent offsite discharge of surface water from the quarry pond has been conducted by Niagara Mohawk since December 1992.

- Excavation of impacted sediment in the outlet channel adjacent to the Site and in the offsite storm water drainage system. These sediment removal activities, as documented in the NYSDEC's March 1999 ROD, were completed by Niagara Mohawk as part of an October 1998 IRM. Water from the onsite quarry pond previously overflowed into the small outlet channel located on the north side of Route 10, and then flowed into the offsite storm water drainage system. Since December 1992, surface water from the quarry pond has been treated by onsite water treatment systems to prevent the discharge of quarry pond surface water containing concentrations of PCBs in excess of 0.065 parts per trillion (ppt) into the outlet channel and storm water drainage system.

- Reevaluation of Site conditions on a periodic basis to confirm the effectiveness of the NYSDEC-selected remedy, and to discuss/identify the appropriate time frame for identifying and evaluating a potential remedial measure(s) to address the quarry pond sediments. As presented in the ROD, the first quarry pond sediment reevaluation will occur, at a minimum, within 3 years after the operation of the automated LNAPL recovery systems.

An additional component of the NYSDEC-selected remedy presented in the ROD is the requirement to treat the water used to backwash the quarry pond water treatment systems prior to discharge. Subsequent to the NYSDEC's issuance of the ROD in March 1999, additional work was completed by Niagara Mohawk to further support Niagara Mohawk's consistently maintained position that direct discharge of the backwash water into the quarry pond remains the most appropriate method to handle this water, as it has been since the NYSDEC approved the design and operation of these systems. In response, the NYSDEC issued the May 2000 ESD which defers the treatment of backwash water until the source of PCBs into the quarry pond is remediated or reduced to the maximum extent practicable at which point the efficacy of treating the backwash water will be reevaluated.

Based on the ROD and the ESD, this RA Report documents the public water supply extension, the soil and LNAPL remedial actions, and post-remediation monitoring activities conducted to date. The remaining components of the selected remedy for the Site have been either already implemented (e.g., excavation of identified sediment from the outlet channel and storm water drainage system), are part of current Site operations (e.g., continued operation of the quarry pond water treatment system), or will be implemented in the future, when and if determined appropriate (e.g., remedial action to address the quarry pond sediment).

One of the components of the Site remedy to be executed in the future is implementing the appropriate institutional controls. These institutional controls will be detailed in a deed restriction which will (at a minimum): 1) restrict access and reuse of the Site in order to maintain the integrity of the soil/gravel cover, quarry pond water treatment systems, and LNAPL recovery systems; 2) prohibit the use of groundwater which has been impacted by the Site; 3) prohibit the withdrawal of groundwater at or in the vicinity of the Site if it will effect groundwater flow patterns associated with the Site and increase the potential for offsite migration of the Site-related impacted groundwater; and 4) prohibit the use of quarry pond surface water.

1.2 Report Organization

This RA Report has been organized into the following sections:

Section	Description
Section 1 - Introduction	Presents background information relevant to implementing the remedial action activities detailed in this RA Report.
Section 2 - Public Water Supply Extension	Describes the extension of the Village water supply conducted by Niagara Mohawk.
Section 3 - Soil Remedial Action Activities	Presents a detailed description of the work tasks associated with implementing the soil remedial action activities.
Section 4 - LNAPL Recovery Systems	Presents a detailed description of the two automated LNAPL recovery systems that were installed at the Site.
Section 5 - Biota Monitoring	Presents a description of the biota sampling activities conducted in October 2002 and provides the associated analytical results.
Section 6 - Offsite Groundwater Monitoring	Presents the validated analytical data from the semi-annual offsite groundwater monitoring conducted in 2002.
Section 7 - Operation, Maintenance, and Monitoring (OM&M) Plan	Presents a brief description of the OM&M Plan for the Site to be provided under separate cover.
Section 8 - Engineer's Certifications	Provides the Consent Decree required certifications for the public water supply extension, and the soil remedial action activities and the LNAPL recovery systems installation.
Section 9 - References	Lists the references used in preparing this RA Report

1.3 Background Information

This subsection presents a brief overview of the Site setting and Site history, followed by a summary of the Site characterization information related to the remedial action activities.

1.3.1 Site Setting

The Site is located at the intersection of New York State Route 10 (Route 10, also known as Elm Street) and Settles Mountain Road (formerly known as West Street) in the Village of Cobleskill, Schoharie County, New York (Figure 1). The portion of the M. Wallace and Son, Inc. property located north of Route 10 is the "Site" and encompasses an area of approximately 6.6 acres. The Site is bordered by Settles Mountain Road to the west; Route 10 to the south; several apartments and residential housing to the east; and a high school athletic field to the north. The locations of relevant Site features are shown on Figure 2.

1.3.2 Site History

The M. Wallace and Son, Inc. Scrapyard (Wallace Scrapyard) is an active salvage business that recovers and resells mechanical parts and materials from various equipment and other items. During the 1950s through the early 1980s, electrical transformers and other electrical scrap were purchased by the Wallace Scrapyard operator and transported to the Site. The electrical scrap was disassembled within the equipment gut area to recover copper components, which were then resold. During these scrapping operations, dielectric fluid, some of which contained PCBs, was released to the ground surface.

In June 1983, personnel from the NYSDEC Bureau of Enforcement and Criminal Investigation (BECI) collected samples of soil in the electrical equipment gut area, sediment and water from the quarry pond, and sediment from the quarry pond outlet channel. The analytical results of the samples collected by BECI indicated that PCBs were present in soil, sediment, and surface water at the Site. In response to the BECI's investigation, the Schoharie County Department of Health (SCDH) sampled eight residential water supply wells near the Site. Results of this groundwater sampling indicated that purgeable aromatics, purgeable hydrocarbons, and PCBs were not detected in the residential water supplies sampled.

Due to the identification of PCBs, the Site was and is currently listed by the NYSDEC as a Class 2 Inactive Hazardous Waste Site (Site No. 4-48-003). In response to a lawsuit filed by the State of New York Attorney General, Niagara Mohawk, and M. Wallace and Son, Inc., entered into an Interim Consent Order (Case No. 85-CV-219) in December 1987 to address the presence of PCBs and other chemical constituents in environmental media at the Site.

In accordance with the Interim Consent Order, an initial Site investigation of soil, sediment, surface water, and groundwater at the Site was performed by O'Brien & Gere between 1987 and 1990. Based on the results of the initial Site investigation, Niagara Mohawk implemented various interim remedial measures (IRMs) between the summer of 1991 and the spring of 1993, which include the following:

- Excavating and disposing offsite approximately 2,900 cy of soil from the electrical equipment gut area;
- Removing and disposing offsite sediment from the quarry pond outlet channel;
- Performing a reconnaissance of the quarry pond sediments and removal of debris from the bottom of the pond;

- Cleaning and disposing or relocating scrap metal and debris from both the ground surface and the quarry pond;

- Installing a perimeter fence to restrict access to the Site and a silt fence to control migration of surface soil; and

- Initiating a biweekly LNAPL monitoring and manual recovery program in June 1993 at monitoring well locations where LNAPL had been observed. This program consists of determining the absence or presence of LNAPL in select onsite monitoring wells, measuring the depth to LNAPL and/or groundwater, determining the LNAPL thickness (where present), and removing with dedicated bailers, to the extent practicable, the LNAPL encountered. Monthly measurements of water surface elevations at all accessible monitoring wells were collected as part of this program. The data collected as part of the LNAPL monitoring and recovery program is provided in Table 1.

A 400 gpm water treatment system was installed in December 1992 to drain the quarry pond to facilitate removal of debris from the bottom of the quarry pond (one of the above-listed IRMs). Subsequently, the NYSDOL and NYSDEC required Niagara Mohawk to continue operation of the quarry pond water treatment system. Because the water treatment system was designed for temporary use, the requirement for continued long-term operation necessitated the design and implementation of a long-term system. A 100 gpm water treatment system was installed in March 1994 and is housed in a dedicated structure located in the southwest corner of the property. A 300 gpm water treatment system was installed in March 1995 for temporary use during periods when the recharge rate into the quarry pond exceeds the 100 gpm treatment capacity of the permanent system. The temporary 300 gpm water treatment system is housed in a sprung structure located in the lower section of the Site.

The permanent 100 gpm and temporary 300 gpm water treatment systems are maintained to prevent discharge of quarry pond water containing PCBs in excess of 65 ppt into the offsite storm water drainage system. During the periods of water treatment system operation, sampling of the process and discharge water for PCB analysis is conducted in accordance with NYSDEC-approved protocols. Those protocols were outlined in an October 19, 1992 letter from the NYSDEC to Niagara Mohawk and a May 5, 1993 letter from Stenger & Finnerty to the NYSDOL, and were amended by a March 28, 2001 letter from Niagara Mohawk to the NYSDEC documenting NYSDEC’s approval of monthly sampling of water from the quarry pond water treatment systems for PCB analysis. Monthly sampling commenced during April 2001 and prior to that time (since 1993), sampling of the quarry pond water treatment systems was conducted on a weekly basis when either of the systems were operating in discharge mode.

Results of the water treatment samples have been reported to the NYSDEC in the monthly progress reports for the Site and in periodic letters which are provided to Mr. Daniel Lightsey, P.E. of the NYSDEC. As documented in the progress reports and letters, since installation of the quarry pond water treatment system more than nine years ago, PCBs have not been detected at a concentration greater than the 65 ppt laboratory detection limit in the effluent samples collected during that time.

Between 1992 and 1995, Niagara Mohawk implemented a Remedial Investigation (RI) and completed a Fish and Wildlife Impact Analysis (FWIA). The RI activities were conducted to determine the concentration of PCBs and other chemical constituents in soil, sediment, surface water, and groundwater at a number of locations at the Site, and at specific locations downstream of the quarry pond outlet channel. A detailed description of these activities and presentation of the results is provided in the NYSDEC-approved RI Report (BBL, July 1995).

Subsequent to completion of the *RI Report*, the NYSDEC approved the implementation of additional groundwater investigation and monitoring activities and an LNAPL Extraction Demonstration. The additional groundwater investigation activities were conducted to determine whether there had been impacts to groundwater quality along the western boundary of the Site. A detailed description of these additional groundwater investigation activities was presented in a June 21, 1996 letter from Mr. James F. Morgan of Niagara Mohawk to Mr. Daniel Lightsey, P.E. of the NYSDEC.

Although PCBs were not detected in any of the residential water supply samples, Niagara Mohawk proposed, and the NYSDEC and NYSDOH approved, the precautionary measure of installing household activated carbon water treatment systems for the two residential water supply wells (RW-1 and RW-2) located across West Street from the active scrapyard area of the Site. These household activated carbon water treatment systems were installed in January 1997 and were maintained and sampled quarterly in accordance with the requirements specified in the NYSDEC-approved December 6, 1996 letter from Mr. James F. Morgan of Niagara Mohawk to Mr. Daniel Lightsey, P.E. of the NYSDEC. The analytical results of the quarterly household water treatment system sampling events were provided to the NYSDEC in monthly progress reports for the Site and in periodic letters which are provided to Mr. Daniel Lightsey, P.E. of the NYSDEC.

An LNAPL Extraction Demonstration was implemented at the Site, in accordance with the NYSDEC-approved *LNAPL Extraction Demonstration Work Plan*, during the period from June 24, 1996 to August 9, 1996. The purpose of this demonstration was to evaluate the feasibility of recovering LNAPL from the subsurface at two or more of the coreholes, or from the quarry pond, where LNAPL had been observed during the RI and IRM activities. A detailed description of these activities and presentation of the results was provided in the NYSDEC-approved *Feasibility Study (FS) Report* (BBL, October 1997).

The FS Report (dated October 1997) was prepared by BBL to evaluate potential remedial alternatives to address soil, sediment, and groundwater at the Site in a manner that is appropriate for Site-specific conditions and protective of human health and environment. The FS Report was subsequently approved by the NYSDEC. Based on the FS Report recommendations, an IRM was implemented in October 1998 to address the portions of the quarry pond outlet channel and storm water drainage system where PCBs were detected in sediment at the highest concentrations. The PCB-impacted sediment was removed from the storm water drainage system and from the quarry pond outlet channel. Confirmatory sampling was conducted to verify that the PCB-contaminated sediments were removed. Additionally, debris was removed from the soil stockpiles located in the upper portion of the Site and drainage improvement activities were conducted in the vicinity of the Site in conjunction with the Village of Cobleskill. The sediment removal activities were conducted in consultation with the NYSDEC and a representative from the NYSDEC was onsite during a portion of the removal activities. A detailed description of the sediment/debris removal and drainage improvement activities was provided in a February 12, 1999 letter from Mr. James F. Morgan of Niagara Mohawk to Mr. Daniel Lightsey, P.E., of the NYSDEC. The NYSDEC acknowledged the completion of the sediment removal activities in the March 1999 ROD for the Site.

The recommended soil remedy presented in the FS Report involved the construction of a low permeability cap over the upper section of the Site, the active scrapyard area, and the area between the active scrapyard area and the quarry pond. After completing the FS Report and pursuant to subsequent discussions between Niagara Mohawk and the NYSDEC, Niagara Mohawk proposed a revised soil remedy to the NYSDEC in a March 26, 1998 letter to Mr. Daniel Lightsey, P.E. The revised soil remedy included the excavation and offsite disposal of impacted soils. As presented in that letter, the revised excavation and offsite disposal soil remedy was proposed by Niagara Mohawk based the following considerations: 1) conversations with the NYSDEC in which the NYSDEC stated their preference for offsite disposal of the impacted soils; 2) the costs for the transportation and disposal of impacted material which at that time, were lower than those used in the FS Report; and 3) upon certification that the soil remedial components were completed in accordance with the NYSDEC-approved RD and/or approved modifications, the Site (as defined in the NYSDEC's registry of Inactive Hazardous Waste Disposal Sites) could be redefined to exclude the upper portion of the Site and the active scrapyard area provided Niagara Mohawk is released from any and all further responsibility associated with these areas.

In December 1998, the NYSDEC issued their Proposed Remedial Action Plan (PRAP) for the Site. The PRAP generally proposed the remedial action components presented in the FS Report with the following significant differences:

- The NYSDEC selected the excavation and offsite disposal soil remedy proposed by Niagara Mohawk in their March 26, 1998 letter to replace the capping soil remedy presented in the FS Report; and

- The NYSDEC required that backwash water generated by the quarry pond water treatment systems meet the discharge requirement of less than 0.065 ppb PCBs.

In response to the PRAP, Niagara Mohawk further addressed the NYSDEC's concerns regarding the discharge of untreated backwash water into the quarry pond in two separate letters dated January 29, 1999. Despite Niagara Mohawk's position, the NYSDEC issued the ROD for the Site in March 1999 which included the requirement of treating the backwash water generated by the quarry pond water treatment system.

At Niagara Mohawk's request, a June 2, 1999 meeting was held between Niagara Mohawk and the NYSDEC to discuss the backwash water treatment issue. Pursuant to a request made by the NYSDEC at this meeting, Niagara Mohawk collected samples from the 100 gpm water treatment system, including samples of the filter media, influent water samples, and samples of backwash water. Niagara Mohawk presented the results of the sampling activities in a June 17, 1999 letter to Mr. Daniel Lightsey, P.E. of the NYSDEC. In that letter, Niagara Mohawk once again supported their position that the direct discharge of backwash water into the quarry pond is the most appropriate method to manage the backwash water for the Site.

A December 13, 1999 meeting was held between Niagara Mohawk, the NYSDEC, and the NYSDOL to discuss the backwash water treatment issue. Based on the outcome of that meeting and numerous subsequent telephone conversations with the NYSDEC, the NYSDEC issued the ESD for the Site in May 2000, to modify the selected alternative presented in the NYSDEC ROD. The ESD defers the treatment of backwash water until the source of PCBs into the quarry pond is remediated or reduced to the maximum extent practicable at which point the efficacy of treating the backwash water would be reevaluated. Therefore, the Site remedy described herein does not include the treatment of backwash waters generated by the quarry pond water treatment systems.

1.3.3 Site Characterization

Detailed information relating to previous investigative and remedial activities conducted at the Site is provided in the following documents:

- The NYSDEC-approved Remedial Investigation (RI) Report, (BBL, July 1996);
- The NYSDEC-approved Feasibility Study (FS) Report (BBL, October 1997);
- The NYSDEC Record of Decision, M. Wallace and Son, Incorporated Site (NYSDEC, March 1999); and
- The NYSDEC Explanation of Significant Difference (NYSDEC, May 2000).

Based on the information presented in those documents, the subsections below present a brief summary of the physical and chemical Site characterization information.

1.3.3.1 Topography and Drainage

The quarry pond and the quarry pond outlet channel are the only surface water features present at the Site (see Figure 2). Flow sources into the pond include direct precipitation, surface water runoff from the upper portion of the Site, and groundwater discharge. A water treatment system to treat surface water discharge from the approximately 1.3 acre quarry pond was constructed as part of an IRM for the Site. The system is comprised of a 100 gpm water treatment system housed in the treatment building, and a 300 gpm temporary water treatment system upgrade housed in a sprung structure.

The quarry pond formerly overflowed into a small outlet channel that flows into a culvert on the north side of Route 10. Since December 1992, surface water from the quarry pond has been treated by the water treatment system to prevent the discharge of quarry pond water containing PCBs in excess of 65 ppt into the offsite storm water drainage system. That drainage system discharges into Cobleskill Creek approximately two-thirds of a mile downstream from the Site.

1.3.3.2 Geology and Hydrogeology

The unconsolidated deposits (overburden) at the Site range in thickness across the Site from not present (i.e., bedrock outcrop) to approximately 20 feet. The thicker overburden is generally located in the lower portion of the Site (east of the quarry pond), and south of Route 10.

Groundwater beneath the Site is present both in the limestone bedrock and the unconsolidated deposits above the bedrock. Within the bedrock, groundwater is present primarily in structural features such as bedding planes, joints, and multiple vertical and horizontal fractures.

The general groundwater flow direction in the overburden immediately south of Route 10 and east of the quarry pond is toward the north-northwest. Groundwater flow paths through the fractured bedrock beneath the Site are almost exclusively determined by the interconnectivity of the fractures. The generalized groundwater flow directions in the bedrock are toward the quarry pond. The operation of the quarry pond water treatment system lowers the quarry pond water surface elevation, thereby inducing flow from the bedrock (as well as the overburden) groundwater flow systems toward the quarry pond.

1.3.3.3 Chemical Characterization

This subsection summarizes the findings of the NYSDEC-approved investigations and monitoring activities associated with the Site that have been conducted to assess the presence, extent, and migration (where applicable) of chemical constituents in Site media. The results of sampling activities conducted as part of the RI are detailed in the RI Report. Data generated from biweekly LNAPL monitoring and monthly groundwater elevation measurements, and post-RI groundwater sampling activities were reported in monthly progress reports and in letters to the NYSDEC and the New York State Department of Health (NYSDOH).

Based upon the investigation and monitoring activities performed and the analytical data collected, a summary of findings for soil, groundwater, LNAPL, and biota pertinent to the remedial action and monitoring activities implemented at the Site and documented in this *RA Report* are provided below.

Surface and Subsurface Soils

- The results of the PCB analyses for surface soil samples ranged from nondetect to 164 parts per million (ppm). PCBs in surface soils at concentrations greater than the NYSDEC cleanup objective of 1 ppm were detected in surface soil samples collected from the upper section of the Site and from the active scrapyard area. Detections of PCBs were below 1 ppm from sampling locations outside the Site fence to the north (in the Cobleskill High School athletic field) and east (within the Site boundary near the apartment building complex). RI soil sampling locations are shown on Figure 3.

- PCBs in subsurface soils were detected at concentrations in excess of the NYSDEC cleanup objective, as presented in the ROD, of 10 ppm in the subsurface soil samples collected from only two locations. These two locations are S-13 and S-19 in the upper section of the Site (Figure 3). PCBs were detected in these samples at concentrations of 15.99 ppm (S-13) and 13 ppm (S-19), and the samples were collected from the 0- to 2-foot and 2- to 4-foot depth intervals, respectively.

- Several semivolatile organic compounds (SVOCs), primarily polycyclic aromatic hydrocarbons (PAHs), were detected in some surface and subsurface soils at levels exceeding NYSDEC cleanup objectives, as presented in the ROD. These SVOC detections generally occurred in the same areas where PCBs were detected, but were less frequently detected at concentrations exceeding the NYSDEC cleanup objectives.

- Inorganic parameters including arsenic, cadmium, copper, lead, and zinc were detected at levels exceeding NYSDEC cleanup objectives, as presented in the ROD, at surface and subsurface soil sampling locations in the upper section of the Site and in the active scrapyard area. The locations where inorganics were detected at concentrations exceeding cleanup objectives were generally the same locations where PCBs were detected.

- Eight surface soil and two subsurface soil RI sampling locations where the total concentrations of the eight EP toxic metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) exceeded 1,000 ppm were sampled for EP Toxicity metals analysis. The extract from surface and subsurface samples collected at sampling location S-28 (Figure 3) contained lead at concentrations of 7.3 ppm and 44 ppm, respectively. These concentrations exceed the 5 ppm regulatory level at which a solid waste is considered a hazardous waste based on the concentration of lead in the EP Toxic extract [as outlined in 6 NYCRR 371.31(e) and 40 CFR Part 261]. There were no other detections in the extracts obtained from the soil samples that exceeded the regulatory levels for the eight EP toxic metals.

Groundwater

- Groundwater samples were collected from monitoring wells during the RI, between June 1993 and April 1995. PCBs were detected at concentrations of 0.72 ppb and 0.10 in the unfiltered RI groundwater samples collected at bedrock coreholes (constructed and developed as monitoring wells) C-9 and C-16, respectively. As presented in the NYSDEC-approved RI Report, the detection of PCBs in C-9 appeared to be related to sediments that were flushed into the corehole from surface water runoff. PCBs were not detected in subsequent samples collected from bedrock coreholes C-9 and C-16 during the RI (i.e., prior to May 1996). PCBs were not detected in any of the other groundwater samples collected during the RI from Site monitoring wells.

- Results of RI groundwater sampling indicated that volatile organic compounds (VOCs) were detected at levels exceeding the NYSDEC Class GA Groundwater Quality Standards only in groundwater samples collected from the bedrock monitoring wells (C-12 and C-18) near the leachfield area located south of the concrete and metal building (shown on Figure 2). As stated in the NYSDEC's ROD, the VOCs detected in the leachfield are not addressed in the ROD because they are unrelated to the scope of the remedy implemented by Niagara Mohawk. NYSDEC's Spill Response Division provides oversight of activities related to the leachfield area.

- Five residential water supply wells adjacent to the Site were sampled during the RI (July/August 1993 and September 1994) to assist in determining whether groundwater quality at these locations has been impacted by Site conditions. These wells are located to the west of the Site, between approximately 150 feet and 600 feet from the Site boundary. The analytical results from the five residential wells sampled indicate that PCBs were not detected in any of these samples.

- In May 1996, groundwater samples were collected for PCB analysis from four bedrock monitoring wells (C-11, C-15, C-16, and C-18) located along the western Site boundary. During this sampling event, LNAPL was observed coating the sampling equipment at C-11 and light sheens were observed on the surface of purge water collected from monitoring wells C-15 and C-16. Based on these observations, and on the detections of PCBs in each of the unfiltered samples collected from these four onsite monitoring wells (concentrations ranging from 0.16 ppb to 52 ppb), a confirmatory round of groundwater sampling at these four monitoring wells was conducted. The results of the confirmatory sampling event indicated similar PCB concentrations in the four onsite monitoring wells. Groundwater samples were also collected from the five residential water supply wells previously sampled during the RI and located west of the Site. PCBs were not detected in samples collected from the five residential water supply wells.

- In response to the May 1996 groundwater sampling events discussed above, offsite bedrock monitoring wells C-20, C-21, and C-22 were installed and developed in July/August 1996 on private property on the west side of West Street (Figure 6). In September 1996, a one-year quarterly PCB sampling program was initiated for these three wells and the four onsite monitoring wells located along the western Site boundary (C-11, C-15, C-16, and C-18).

- In March 1998, Niagara Mohawk proposed and the NYSDEC subsequently approved the semi-annual collection of groundwater samples from offsite monitoring wells C-20, C-21, and C-22 for filtered and unfiltered PCB analysis. This program is ongoing and the preliminary analytical results of the offsite groundwater sampling activities have been presented to the NYSDEC in monthly progress reports and the validated analytical results have been transmitted to the NYSDEC and the NYSDOH in letters when they become available. The results obtained in 2002 (after completion of the soil remedial action activities) are presented in Section 6.

- In December 1999, samples were also collected from two of the five residential water supply wells previously sampled during the RI; results indicating no PCBs were detected in these samples.

<u>LNAPL</u>

- The bedrock at the Site is characterized by multiple horizontal and vertical fractures, joints, and bedding planes with varying degrees of solution enlargement. LNAPL has infiltrated the fractured and jointed bedrock at the Site where it appears to exist in discrete quantities, adhered to rock surfaces by surface tension forces, or sorbed to sediment within the fractures.

- Analytical results of several LNAPL samples collected during the RI indicate that the LNAPL consists of approximately 90% transformer oil with a density of 0.89 grams per cubic centimeter and PCB concentrations ranging from 1,780 to 2,230 ppm.

- LNAPL has been observed in ten monitoring wells/coreholes and one recovery well located onsite and west-northwest of the quarry pond. These locations include: MW-5, C-3/MW-8, C-4, C-6, C-7, C-8, C-10, C-11, C-13, C-14, and Recovery Well No. 2. However, since implementation of the biweekly LNAPL monitoring and removal program (June 1993), the amounts of LNAPL measured and removed has decreased significantly. With the exception of coreholes C-3/MW-8 and C-4 (discussed below), the amount of LNAPL observed in the onsite monitoring wells/coreholes has either decreased to non-measurable amounts (less than 0.01 feet) or has been observed on only one occasion.

- LNAPL has consistently been observed at coreholes C-3/MW-8 and C-4 in measurable thicknesses. Average LNAPL thicknesses measured during the biweekly monitoring events between January 1999 and July 2001 for coreholes C-3/MW-8 and C-4 are approximately 0.23 feet and 0.08 feet, respectively. Since initiation of the LNAPL monitoring and removal program in 1993, the amount of LNAPL observed/removed from monitoring wells/coreholes C-3/MW-8 and C-4 has declined substantially. As presented in Section 4, automated LNAPL recovery systems were installed in the existing monitoring wells/coreholes C-3/MW-8 and C-4 and became operational on July 18, 2002. For example the volume of LNAPL/water recovered from monitoring well/corehole C-3/MW-8 during the 18-month period following the initiation of the LNAPL recovery program in July 1993 (i.e., June 1993 through December 1994) was approximately 90 gallons. The amount of LNAPL/water recovered during the 18-month period from January 1999 through December 2000 was approximately 11 gallons and the amount of LNAPL/water recovered during the 24-month period from January 2001 through December 2002 was less than 2 gallons.

<u>Biota Sampling</u>

During the RI, BBL collected fish from the storm water drainage system and Cobleskill Creek in October 1994. Fish collected from these locations were prepared as either skin on-fillet samples (white suckers and small-mouth bass) or whole body composite samples (common shiners and fathead minnows) for analysis for PCBs and percent lipids. A total of nine fish tissue samples were analyzed. The arithmetic mean PCB concentration for the fillet samples for both the white suckers from the storm water drainage system and the small-mouth bass from Cobleskill Creek was 0.1 ppm. The maximum total PCB concentration for fillet samples was 0.19 ppm, detected in a white sucker fillet sample. The arithmetic mean PCB concentrations for forage species was 0.34 ppm for fathead minnows from Cobleskill Creek (maximum detection of 0.41 ppm) and 1.4 ppm for fathead minnows from the storm water drainage system (maximum detection of 1.7 ppm). The arithmetic mean for percent lipids ranged from 1.37% for small-mouth bass fillet samples to 4.46% for the whole body composite fathead minnow samples.

In addition to the data summarized above regarding the presence and extent of Site-related chemicals of interest and LNAPL, an FWIA was completed during the RI to provide insight into the potential environmental risks associated with the chemical constituents associated with the Site. A detailed description of the FWIA results was presented in Section 4 of the NYSDEC-approved RI Report. The results of the FWIA indicate no obvious impacts to fish and wildlife resources of the storm water drainage system or Cobleskill Creek. The PCB concentrations in all fish samples analyzed as part of the RI were below the NYSDEC/NYSDOH fish tissue PCB criterion for the protection of human health.

1.4 Remedial Action Goals

The remedial action goals selected for the Site, as presented in the NYSDEC ROD, are listed below.

- Eliminate, to the extent practicable, ingestion of groundwater affected by the Site that does not attain NYSDEC Class GA Ambient Water Quality Criteria.

- Eliminate, to the extent practicable, offsite migration of groundwater that does not attain NYSDEC Class GA Ambient Water Quality Criteria.

- Eliminate, to the extent practicable, migration of LNAPL through removal and hydraulic management.

- Eliminate, to the extent practicable, exposures to contaminated soils.

- Eliminate, to the extent practicable, the migration of PCBs into the drainage channel and creek via erosion of PCB-contaminated soils, transport of suspended sediment with surface water, and transport of PCBs contained in groundwater or surface waters.

- Eliminate, to the extent practicable, exceedences of applicable environmental quality standards related to releases of contaminants to waters of the State.

- Eliminate, to the extent practicable, the exposure to fish and wildlife to levels of PCBs above standards/guidance values.

Detailed descriptions of the NYSDEC-selected remedial action components implemented by Niagara Mohawk to achieve the above remedial goals and meet the requirements of the ROD (as amended by the ESD) are presented in the following sections. Descriptions of the NYSDEC-required post-remedial monitoring activities are also provided herein, along with the associated results, documenting that these remedial goals have been/are being met.

2. Public Waterline Extension

2.1 General

As specified in the NYSDEC ROD, the existing Village water supply line was extended and residential water service connections were installed at properties that previously obtained water from residential groundwater supply wells RW-1 and RW-2 located just west of the Site (Figure 3). Groundwater withdrawn from residential water supply wells RW-1 and RW-2 was treated using activated carbon water treatment systems that were installed in 1997 by Niagara Mohawk as a precautionary measure. Pursuant to the NYSDEC's August 22, 2000 letter to Niagara Mohawk and subsequent discussion between Niagara Mohawk, the NYSDEC, and the NYSDOH, the waterline extension also included connecting the Wallace facility to the public water supply extension. Prior to the public waterline extension and service connection to the Wallace facility, the facility was using water treated by the onsite quarry pond water treatment system. Mr. Wallace had been instructed to use this water for non-potable purposes only.

The waterline extension activities were conducted by Niagara Mohawk's contractor, Edward V. Nadeau & Sons, Inc. (Nadeau), in general accordance with the *Public Water Supply Extension Design* (Design) (BBL, June 2001). The draft Design was submitted for review on January 11, 2001 to the NYSDEC, the NYSDOH, the New York State Department of Law (NYSDOL), the Schoharie County Department of Health (SCDH), and the Village of Cobleskill. Comments on the draft Design were provided in the following letters:

- January 23, 2001 letter to BBL from the Village of Cobleskill;
- March 7, 2001 letter to Niagara Mohawk from the NYSDEC; and
- April 24, 2001 letter to Niagara Mohawk from SCDH.

Each of the comments provided in the above-listed letters, which affected the design of the public water supply extension, was addressed and incorporated into the Design. The Design was submitted to NYSDEC, SCDH, and the Village of Cobleskill on June 13, 2001. As presented in Niagara Mohawk's July 24, 2001 to the NYSDEC, the Design was approved by the NYSDEC (July 12, 2001 voice mail to Mr. James Morgan of Niagara Mohawk) and by the SCDH (July 9, 2001 letter). A copy of the July 24, 2001 letter is provided as Attachment 1.

Provided below is a detailed description of the waterline extension activities, followed by a summary of the residential well closure activities conducted after completing the waterline service connections and required testing. To document the Village water supply line extension and the installation of the service connections, a set of Record Drawings was prepared by BBL, a copy of which is provided in Attachment 2. A copy of the Record Drawings was also transmitted to Mr. Jeffery Pangman, Village of Cobleskill Water Superintendent, on April 11, 2002.

2.2 Route and Size of Waterline Extension

The Village public water supply was extended by Niagara Mohawk to serve the Wallace facility, and residences/ businesses that previously obtained water from residential water supply wells RW-1 and RW-2. The new waterline extension consisted of installation of approximately 1,550 linear feet of 8-inch diameter ductile iron pipe (DIP). The route of the public water supply extension is shown on BBL Record Drawings provided as Attachment 2.

As shown on the Record Drawings, the waterline extension was installed along the south side of Route 10 and the west side of Settles Mountain Road (formerly West Street). Specifically, the new waterline extends approximately 1,300 feet east of the intersection of Route 10 and Settles Mountain Road, where it connects to the existing Village water main. From the intersection of Route 10 and Settles Mountain Road, the waterline extends approximately 220 feet north, along the west side of Settles Mountain Road.

2.3 Permits and Approvals

The waterline extension design/installation activities were conducted by Niagara Mohawk in close consultation with the Village. Necessary permits, approvals, and access agreements from the Village, the SCDH, the property owners, and the NYSDOT were obtained by Niagara Mohawk prior to initiation of construction activities. Specifically, the following permits/approvals were obtained:

- Highway Work Permit (NYSDOT);
- License agreement between the Village and Michael and Lisa Gray (property owners);
- License agreement between the Village and Andre and Deborah Nadeau (property owners);
- Access agreements between Niagara Mohawk and the property owners;
- Application for Approval of Backflow Prevention Devices (SCDH); and
- Tapping fees/permits (Village).

2.4 Description of Waterline Extension Work Tasks

This section provides a detailed description of the waterline extension activities. These activities commenced on November 6, 2001 and were completed during December 2001, except for some work associated with the backflow prevention device for the Wallace facility and final restoration. These remaining activities were completed by Nadeau during the spring 2002.

BBL provided oversight and administration of the waterline construction activities including full-time onsite observation, which was conducted by a representative from BBL. A representative from the NYSDEC (Mr. Russell Shaver, NYSDEC Construction Inspector or Mr. Daniel Lightsey, P.E., NYSDEC Project Manager) was also onsite during most of the waterline construction activities. The construction activities were closely coordinated with the Village of Cobleskill, and representatives from the Village (Mr. Jeffery Pangman, Water Superintendent and Mr. Thomas Fissel, Highway Superintendent) were periodically onsite to observe the work. As documented in an April 16, 2002 letter signed by Mr. Pangman, the work met his approval.

The waterline extension activities generally included the work tasks listed below, which are described in detail in the following subsections.

- Mobilization;
- Traffic control;
- Excavation;
- Installation of water main, services, and appurtenances;
- Disconnection of residential water supply wells and closure of wells; and
- Restoration/Demobilization.

2.4.1 Mobilization

Prior to construction activities, mobilization of the required equipment and materials to the Site was conducted. A small vacant lot owned by Nadeau, located on the west side of Settles Mountain Road (approximately 300 feet from the end of the public waterline) was used for the staging and storage of materials and equipment. This area also served as a parking area for personal vehicles of Site personnel.

2.4.2 Traffic Control

Traffic control measures were instituted for work that was conducted within the right-of-way of Route 10 and Settles Mountain Road. A work permit was obtained from the NYSDOT to perform the required work within the right-of-way of Route 10. The requirements of that permit, including the traffic control devices and procedures specified in the Design, were employed during the waterline extension activities. The traffic control devices used (e.g., signs, cones) and procedures implemented, conformed to the requirements specified in the NYSDOT *Manual on Uniform Traffic Control Devices*. Traffic control devices were placed, as required, each day prior to work activities and were removed at the end of the work day.

2.4.3 Excavation

Excavation of soil adjacent to Settles Mountain Road, Route 10, and on properties receiving new service connections was necessary for the installation of the public water supply extension. Excavation activities were conducted using conventional heavy earth moving equipment such as hydraulically operated excavators and rubber-tired backhoes. Excavations were backfilled daily to the point of active construction. Ladders were available in all excavations greater than 4 feet in depth for use by personnel as a means of egress. A representative from Nadeau was designated as the competent person, as that term is defined at 29 CFR 1926.650(b). Nadeau's designated competent person was the excavator operator, who was onsite during all excavation activities, and was available to inspect excavation activities throughout each day.

Excavation of soils for the new waterline was accomplished by the use of a large hydraulic excavator. Soil removed from the excavation was stockpiled for later use as backfill. Stones larger than 12 inches in size encountered during excavation activities were separated from spoil material for disposal offsite. Excavations necessary for the installation of the required service connections were conducted using a compact excavator with a narrow bucket which limited the size of the excavation and minimized the amount of restoration required following the conclusion of intrusive activities.

As specified in the Design, soil excavated for installation of the DIP beneath Route 10 and the service connection at the southwest corner of the Wallace Scrapyard was staged onsite in a constructed, bermed area. Soil stockpiled onsite from waterline extension activities was disposed of offsite in conjunction with subsequent soil remedial action activities at the Site and in accordance with applicable rules and regulations.

During the excavation and installation activities, air monitoring was conducted by BBL for organic compounds and particulates using a MultiRAE 4 gas meter with photo ionization detector (PID) and a MIE Data RAM particulate meter, respectively. Air monitoring results for organic compounds, including those obtained during the service line installation activities conducted on the southwest portion of the Site, were all nondetect. Air monitoring results for particulate obtained during Site activities with the potential for dust generation were all less than the action levels specified in the NYSDEC-approved BBL HASP. The results of air monitoring conducted during Site activities are provided as Attachment 3.

2.4.4 Installation of Water Main, Services, and Appurtenances

The water main, service connections and associated appurtenances were installed as required in the Design, with minor changes necessary due to field conditions. Modifications were discussed with the appropriate individuals and recorded on the Record Drawings (Attachment 2). Cobleskill Water Superintendent, Mr. Jeffery Pangman was present numerous times throughout the installation of the public water supply extension to review and observe the work. Changes to the public water supply extension necessary due to field conditions were reviewed with Mr. Pangman prior to any modifications. Mr. Pangman's approval of the work is documented in an April 16, 2002 letter from BBL that he countersigned.

Following excavation of the trench for the DIP, run-of-crusher stone (designated as Type "F" in the Design) was placed in the trench and compacted using the bucket of the excavator to a minimum thickness of 4 inches, as specified in the Design. The DIP was then placed on the compacted bed in the trench using the excavator. To prevent damage, the DIP was handled using a special pipe clamp attached to the excavator bucket with a chain. Once the pipe sections were connected and the section aligned, two bronze wedges were installed at each joint. To provide thrust restraint at the ends of the waterline extension and at changes in direction of the waterline, thrust blocks were installed at appropriate locations as specified in the Design. Valves, couplings, fittings, hydrants, and other appurtenances were installed as specified in the Design and at the locations indicated on the Record Drawings. At the two points south of Route 10 where the DIP crosses drainage channels, thrust blocks were installed at all changes in direction and the top half of the DIP was encased in 3,000 p.s.i. concrete prior to backfilling the trench with native material.

As discussed previously, soil excavated from the trench (except for the material excavated during the crossing of Route 10 and the installation of the service connection to the Wallace facility) was used as backfill upon completion of water main installation activities located in off-pavement areas. After placement of backfill, all areas disturbed by construction were compacted using a rubber-tired excavator fitted with a vibratory compactor.

The installation of the DIP across Route 10 required the closure of traffic lanes during construction activities. Lanes were closed one at a time and traffic was redirected using traffic control devices and flaggers as required to maintain the safety of Site personnel and vehicular traffic. The pavement across Route 10 was saw-cut as specified in the Design and the pavement was removed using a pneumatically operated jackhammer. Pavement and soil removed for the installation of the DIP across Route 10 was disposed of offsite. Following pavement removal, the area was excavated to the required depth and a suitable run-of-crusher stone sub-base material was installed. The DIP was then installed as specified in the Design and backfilled with a layer of controlled density backfill material (CDF) (i.e., 400 p.s.i. concrete). To allow the CDF the required time to cure prior to the re-installation of the road surface and allow for resumption of the normal traffic pattern, 1-inch steel road plates were placed across the gap left by the construction and secured in place to prevent displacement. After the required curing time had elapsed for the CDF, the road plates were removed and bituminous surfacing material was installed to match the existing thickness of Route 10. Cobleskill Highway Superintendent, Mr. Thomas Fissell, was onsite during installation of the resurfacing materials to observe the work.

Upon completion of water main installation activities, service lines were installed to the three properties (Nadeau, Gray, Wallace facility) to be serviced by the public waterline extension. The new water main was excavated and tapped at the locations shown on the Record Drawings (Attachment 2) and 1-inch copper tubing, along with the necessary fittings and appurtenances, were installed. To avoid excavating across Settles Mountain Road to install the new 1-inch service line to the Wallace facility, a hydraulic boring machine was used by Nadeau. After boring, the machine was used to pull the new 1-inch copper service line through the newly bored hole under the road surface. The existing treated water service pipe from the adjacent treatment building serving the Wallace facility was cut and capped. Water meters purchased by Niagara Mohawk from the Village were installed in each of the three properties and connected to the new 1-inch service lines with the appropriate fittings.

At the Wallace facility, a 1-inch Watts 909 RPZ backflow prevention device was installed after the newly installed water meter. After installation, the backflow prevention device was tested by a certified backflow prevention tester. The completed “Report on Test and Maintenance of Backflow Prevention Device”, certified by a BBL professional engineer licensed in the State of New York, is provided as Attachment 4. BBL transmitted this completed report to the SCDH on August 6, 2002, with copies to the NYSDEC and Village. In accordance with NYSDOH requirements, the backflow prevention device is to be tested annually (at a minimum) by a NYSDOH certified backflow prevention tester, and the results submitted to the Village (i.e., water supplier).

Upon completion of the water supply extension, a pressure test was performed to ensure the new system met performance requirements. The first pressure test identified a leak in the new system just north of the Route 10 crossing. The source of the leak was determined to be an improperly installed mechanical joint. The mechanical joint was removed and reinstalled and the system retested. A second leak was identified at a bell and spigot joint between two sections of DIP. Due to the difficulty associated with the removal and reinstallation of two full sections of DIP, and the potential for disturbing adjacent sections of DIP, a bell clamp was used to repair the leak. The bell clamp was installed and the system was retested. Mr. Pangman approved the use of the bell clamp to repair the leak in the April 16, 2002 letter provided in Attachment 5, and the location of the bell clamp repair is noted on the Record Drawings.

Following the leak repair, the system was re-pressurized to 1.25 times the measured working pressure of the Village’s existing water main. Pressure in the public water supply extension was maintained at 105 p.s.i. for two hours, with no noticeable drop in pressure. Following completion of the successful pressure test the system was disinfected and microbiological testing of the water was performed. The test results documented that the water sample submitted met the specifications of the New York Sanitary Code for Public Drinking Water. A copy of the test results from Merrill’s Lab, Inc. (NYSDOH ELAP #11448) is provided in Attachment 5.

2.5 Disconnection of Residential Water Treatment Systems and Closure of Wells

Until installation of the public waterline extension and residential connections were complete, water obtained from residential water supply wells RW-1 and RW-2 was treated by the household activated carbon water treatment systems. These water treatment systems were installed in January 1997 by Niagara Mohawk as a precautionary measure. Each activated carbon water treatment system consisted of two depth filter units, two activated carbon filter units, an ultraviolet (UV) disinfection unit, and a water softener unit. These activated carbon water treatment systems from Culligan of the Mohawk Valley were capable of removing PCBs from groundwater.

After installation, the residential water treatment systems were maintained and sampled in accordance with the requirements specified in the NYSDEC-approved letter, dated December 6, 1996, from Mr. James F. Morgan of Niagara Mohawk to Mr. Daniel Lightsey, P.E. of the NYSDEC. Quarterly water samples were collected from between the carbon filters of each treatment system and were analyzed for PCBs. The results were transmitted to NYSDEC. The quarterly sampling commenced on January 14, 1997 and the last round was collected on November 27, 2001. The results of these analyses documented that PCBs were not detected above the laboratory quantitation limit of 0.05 ppb (for each Aroclor) in any of the water samples collected from between the carbon filters since installation of the systems.

Once the public waterline extension and service connections were completed and the appropriate testing was conducted to verify that the new line and connections are operating without deficiency, each activated water treatment system was disconnected in early December 2001. The connections between residential water supply wells RW-1 and RW-2 and the water service piping were cut and separated, and the piping leading from each well was capped. Following disconnection of each residential water treatment system, wipe samples were collected from the interior of depth filter canisters and carbon filter canisters in both systems. Eight wipe samples were analyzed for PCBs by Buck Environmental Laboratories, Inc. (Buck) (NYSDOH ELAP #10795). Analytical results from wipe samples indicated that PCBs were not detected in any of these samples above the laboratory quantitation limit (for each Aroclor) of 1.0 microgram per wipe (100 cm^2). The test results are provided as Attachment 6. The UV systems and water softeners were provided to Culligan of the Mohawk Valley on January 22, 2002 and the carbon and depth filter units were disposed offsite in accordance with the applicable rules and regulations.

The residential water supply wells RW-1 and RW-2 were abandoned by Parratt-Wolff, Inc. (a drilling subcontractor) on December 13, 2001, following completion of water service connections. These wells were abandoned in general conformance with ASTM International (formerly American Society for Testing and Materials) (ASTM) Method D5299 and in accordance with the NYSDEC's guidance document entitled *Groundwater Monitoring Well Decommissioning Procedures* (October 1996). Wells were filled with a bentonite slurry to the top of the existing steel casing. Following closure activities (on December 10, 2001), the abandoned wells and the disconnection of the residential water supply wells were observed by Mr. Daniel Lightsey, P.E., NYSDEC Project Manager.

2.5.1 Restoration and Demobilization

Restoration activities included repairing and/or replacing surfaces damaged by the work. Restoration of unpaved and/or non-vegetated surfaces was accomplished by grading and compacting the surfaces to their pre-construction condition. Restoration of disturbed surfaces was completed in general conformance with the requirements of the Design and/or discussion with the individual property owners. Restoration of the paved surface on Route 10 included the installation of comparable surfacing materials as described previously. As noted above, the work met the Village's approval as documented in an April 16, 2002 letter from BBL and signed by Mr. Jeffery Pangman, Water Superintendent.

At the completion of construction activities all equipment, surplus material and trash was removed from the staging area on Settles Mountain Road and disposed of offsite or returned to the Nadeau's permanent storage area. No restoration activities were conducted at the temporary staging area which is owned by Nadeau.

3. Soil Remedial Action Activities

3.1 General

This section describes the soil remedial action activities implemented in accordance with the NYSDEC-approved RD and approved modifications, as detailed herein. These activities commenced during December 2001 and were completed during April 2002, with the exception of establishing a vegetative cover which is now substantially complete. The soil remedial action activities were conducted by Niagara Mohawk's contractor, AAA Environmental, Inc. (AAA). The soil remedial action activities were observed by BBL, and a representative from the NYSDEC (Mr. Russell Shaver, NYSDEC Construction Inspector or Mr. Daniel Lightsey, P.E., NYSDEC Project Manager) was also onsite during most of the Site remedial activities.

Prior to starting the soil remedial action activities, Niagara Mohawk conducted a preconstruction meeting at the Village's office on December 5, 2001. That meeting was attended by representatives from the Village, the NYSDEC, Niagara Mohawk, BBL, and AAA. As requested by the NYSDEC and Village during that meeting, Niagara Mohawk issued a local press release and distributed a fact sheet to inform the public of the schedule for the Site remedial activities. Copies of the fact sheet and press release were transmitted on December 21, 2001 to the NYSDEC, NYSDOH, NYSDOL, and the SCDH. Additionally, approximately 50 copies of the fact sheet were provided to the Village of Cobleskill for distribution.

The soil remedial action activities generally included the work tasks listed below, which are described in detail in the following subsections.

- Mobilization;
- Site preparation;
- Excavation of soil;
- Backfilling/grading;
- Site restoration;
- Equipment decontamination;
- Waste materials management; and
- Demobilization.

3.2 Mobilization

On December 10, 2001, prior to actual construction activities, mobilization of equipment and materials to the Site was conducted. Equipment brought to the Site at the beginning of the project was unloaded on Settles Mountain Road and staged on the existing gravel access road just north of the sprung structure housing the 300 gpm water treatment system. Following clearing, excavation and backfilling activities, the support zone was moved to the northwest corner of the Site and a construction office trailer was mobilized to the Site.

3.3 Site Preparation

Prior to soil excavation/backfilling activities various Site preparation activities were performed. These included the following activities:

- Clearing of above-grade vegetation;

- Topographic survey;
- Implementation of erosion control measures.
- Construction of equipment decontamination areas; and
- Construction of staging areas.

3.3.1 Clearing of Above-Grade Vegetation

Prior to the other Site preparation activities, the Site was cleared of the abovegrade portion of trees and brush. This task was accomplished by the use of a hydraulic excavator equipped with a mowing/mulching attachment. Additionally, and at the request of Mr. Arthur Wallace, the above-grade portion of three large trees located east of the Wallace metal storage building were cut-down using conventional methods (e.g. chainsaw, chipper/shredder). Mulched trees and brush were then loaded out with excavated soils for disposal offsite.

Relocation of scrap material in the southwest corner of the Site was necessary for the excavation of soils in that area. Scrap from this area was relocated across Route 10 using front end loader equipment with material handling forks. To prevent damage to and allow for access of scrap material by the owner, scrap material was placed on a flat bed trailer rented for the purpose. At the conclusion of remedial activities in the southwest corner of the Site, all relocated scrap was moved to its former location and the flatbed trailer was demobilized. All scrap relocation activities were coordinated with Mr. Arthur Wallace.

3.3.2 Topographic Survey

To provide baseline survey data of pre-removal Site conditions, a horizontal and vertical topographic survey of the Site was performed by Joanne Darcy Crum, L.S. (JDC), a licensed New York State surveyor. The pre-removal survey is included as Exhibit A. In addition, JDC also conducted a post-backfill as-built survey included as Exhibit B.

3.3.3 Implementation of Erosion Control Measures

Erosion control measures were implemented to temporarily control or divert surface water flow and to limit the potential for erosion and migration of Site-related constituents and/or materials. Erosion control measures were constructed and maintained in accordance the RD and the most current version of the *New York Guidelines for Urban Erosion and Sediment Control.* Silt fence and/or hay bales were installed and maintained around all major construction efforts for the duration of Site remedial action activities. Silt fence and/or hay bales were also installed along the northern perimeter of the quarry pond and along the east bank of the east drainage ditch on Settles Mountain Road. Erosion control measures remained in-place and were maintained (as necessary) until vegetation was re-established.

3.3.4 Construction of Equipment Decontamination Areas

An equipment decontamination area was constructed for the decontamination of heavy equipment and vehicles that were used onsite. The decontamination area consisted of a bermed area lined with polyethylene sheeting and crushed gravel to contain material removed during decontamination activities. At the conclusion of Site activities, retained materials and materials used to construct the decontamination area were transported and disposed offsite with the excavated soil, in accordance with applicable rules and regulations.

3.3.5 Construction of Staging Areas

Various work, staging, and material stockpile areas were constructed during the course of Site activities.

Orange construction fencing was used to demarcate work areas and to prevent access to work areas by unauthorized personnel. Orange construction fencing was also used to form a boundary between the truck staging area located at the west side of the Site and the adjacent soil staging area/load out area. The truck staging area was constructed of crushed stone and compacted with a vibratory roller to prevent erosion, provide a stable surface and to prevent tracking of material offsite. The truck staging area was re-graded, re-compacted and maintained as necessary (to eliminate ruts, soft spots, depressions).

A soil staging area (stockpile area) was constructed for the storage of excavated soil prior to offsite disposal. Soil awaiting characterization prior to disposal was stored in a soil staging area. The soil staging areas consisted of a bermed area lined with polyethylene sheeting and crushed gravel. Material in the soil staging areas were covered with polyethylene sheeting to prevent wind erosion and water infiltration at times when the soil was not being actively placed or moved. Vehicles transporting material over public roads to offsite disposal facilities were not allowed to enter the contaminated stockpile/load out area. At the conclusion of Site activities, material used to construct the soil staging areas was transported and disposed of offsite with the excavated soil, in accordance with applicable rules and regulations.

3.4 Excavation of Soil

During the Site remedial action activities, soil was excavated to the depths specified in the ROD and the RD (see Contract Drawing 4 of the *RD,* copy of which is provided as Attachment 7). The soil excavation limits are generally described below.

- Excavation of surface soil where PCB concentrations were greater than 1 ppm. Surface soil included the top 12 inches of soil.
- Excavation of surface and subsurface soil to a depth of 2 feet where PCB concentrations exceeded 10 ppm.
- Excavation of surface and subsurface soil around sample location S-19 to a depth of 4 feet where PCB concentrations exceeded 10 ppm.
- Excavation of surface and subsurface soil around sample location S-28 to a depth of 2 feet where previous soil samples exhibited the hazardous characteristic of lead toxicity.
- Excavation of oil-stained soil in the Wallace Scrapyard, adjacent to the southwest corner of the Site. Soil excavated from this area was transferred to the soil staging area for characterization prior to transportation and disposal. Results of the laboratory analysis indicated that this soil did not exhibit any of the hazardous characteristics, and therefore could be disposed of offsite.
- Excavation of additional surface soils in the area formed by the west side of the existing temporary water treatment building and east of the fence line.

Post-excavation verification samples were collected as specified in the *RD* to confirm that NYSDEC-specified cleanup goals for subsurface soils were achieved. Five post-excavation soil verification samples were submitted to Buck for analysis of PCB concentrations using USEPA SW-846 Method 8082. Samples were collected from the following Site locations:

- One sample from the S-4 soil sampling location;
- Two samples from the base of the large (150 feet by 150 feet) 2-foot deep excavation; and
- Two samples (one from the base and one from the side) from the 10 feet by 10 feet excavation centered on S-28.

Laboratory results of the verification samples indicate the cleanup goal of less than 10 ppm for subsurface soils was met following the conclusion of soil excavation activities. Laboratory analytical results of the post-excavation sampling are included as Attachment 8.

Based on a comparison of pre- and post-excavation survey data, approximately 7,600 cubic yards (CY) of in-place soil was excavated, or approximately 11,400 tons, compared to the ROD estimate of 6,900 tons.

Air monitoring was conducted as outlined in the Site-specific HASP during potential dust generating activities (e.g. excavation, backfill/grading) to determine the level of personal protective equipment needed for onsite personnel and evaluate the potential for offsite migration. Air monitoring for particulate (total dust) and total organic vapors (TOV) was conducted using a MIE Data RAM for particulates and a photoionization detector for TOV. Results of Site air monitoring indicated no adverse offsite impacts due to Site operations (Attachment 9).

Personal monitoring for lead was conducted to determine the potential for lead exposure to onsite personnel. Lead samples were collected using personal pumps and the appropriate filter media. Laboratory analysis of the submitted filter media indicated no lead in the air (Attachment 10).

3.5 Backfilling/Grading

Upon completion of the excavation activities and following the receipt of the satisfactory post-excavation verification sample results, a minimum of eight inches of suitable clean backfill material and four inches of topsoil was placed in the excavated areas, except as noted in the paragraph below. The Site was generally graded to pre-excavation conditions, with additional backfill placed in some areas to promote Site drainage. Based on survey data, over 10,000 CY of clean backfill material was placed in the excavated areas. The backfill was obtained from Cobleskill Stone Products.

The 12-inch backfill/topsoil layer specified in the ROD and RD was modified based on Hancock & Estabrook, LLP's (Hancock & Estabrook's) January 17, 2002 letter to the NYSDEC regarding placement of crusher run (gravel) in the western section of the upper portion of the Site. That request was subsequently approved in a letter from the New York State Office of the Attorney General, dated January 30, 2002. These letters have been provided as Attachment 11 and Attachment 12, respectively. In lieu of the nine inches of backfill material and the three inches of topsoil, as presented in the ROD, the western section of the upper portion of the Site was backfilled with twelve inches of crusher run. The limits of the crusher run are shown on the as-built survey provided as Exhibit B.

3.6 Site Restoration

Site restoration involved the restoration of surfaces disturbed or damaged by construction activities. Parking or driveway areas were covered with a minimum of 4 inches of crushed gravel. Chain link fences removed or relocated during construction activities were reinstalled and/or repaired.

A drainage swale was constructed north of the temporary water treatment building to provide a conveyance for surface water runoff. The drainage swale runs west to east and is sloped to empty into the quarry pond. The drainage swale is lined with geotextile fabric and rip-rap to mitigate erosion. The location of the drainage swale is shown on Figure 2 and the as-built survey provided as Exhibit B.

At the conclusion of demobilization activities, minor damage to Settles Mountain Road caused by truck traffic was repaired by AAA using materials and procedures as described by Mr. Thomas Fissell, Cobleskill Highway Superintendent. A confirmation letter, dated September 10, 2002 and signed by Mr. Fissell, verifying satisfactory completion of road repairs is included as Attachment 13.

3.7 Equipment Decontamination

Equipment that came into contact with impacted material was decontaminated and visually inspected by BBL and AAA prior to leaving the Site. In some cases, equipment was re-cleaned and inspected until it was observed to be free of adhered soil and debris.

3.8 Waste Materials Management

Waste materials management activities included the handling, storage, containerization, and transportation of materials to be disposed of offsite.

Contaminated soil was temporarily stored onsite in the soil staging after being excavated. Excavated soil was moved to the soil staging area using a front-end loader. The soil stockpile was kept covered during periods of inactivity to prevent wind erosion and water infiltration.

A 20-yard rolloff container was used for the storage/collection of miscellaneous waste and debris generated by Site operations. Following the conclusion of Site activities, the contents of this rolloff container were disposed of offsite.

Following characterization activities, soil was loaded into trucks for transportation and disposal at Seneca Meadows Landfill. Approximately 350 truckloads of soil and miscellaneous debris, carrying an estimated 30 tons each, went to Seneca Meadows Landfill for disposition. In addition, four truckloads of material, carrying an estimated 30 tons each, went to the Chemical Waste Management facility in Model City, New York for disposition. Material transported to Model City included soil located in the vicinity of sampling location S-28, bedrock rock cores, and miscellaneous debris.

Trucks and/or trailers used for transporting impacted soil were lined with polyethylene sheeting and covered with a tarpaulin prior to leaving the Site. All trucks were placarded in accordance with federal and state Department of Transportation (DOT) requirements and manifests and/or bills of lading accompanied all shipments of waste material. To mitigate offsite migration of soil, trucks transporting waste material were not allowed to enter the staging area. Soil leaving the Site was reasonably moist (no free liquids) and did not require stabilization prior to offsite disposal.

3.9 Demobilization

Demobilization involved the removal of all equipment and unused materials brought to the Site. Following removal of the office trailer, the temporary electrical service was shut-off and disconnected.

4. LNAPL Recovery Systems

4.1 General

This section describes the automated LNAPL recovery systems that were installed by AAA as a part of the NYSDEC-selected remedy. As with the other remedial action activities, BBL observed the work and a NYSDEC representative was also typically onsite.

These automated LNAPL recovery systems were installed in the existing monitoring wells/coreholes C-3/MW-8 and C-4 to collect LNAPL from the fractured bedrock in the vicinity of these monitoring wells/coreholes. Monitoring wells/coreholes C-3/MW-8 and C-4 are the only onsite monitoring wells/coreholes where LNAPL has been consistently observed. The monitoring wells/coreholes C-3/MW-8 and C-4 are located near the northwest corner of the quarry pond (Figure 3) and are approximately 3-inches in diameter and have a total depth of approximately 45 feet.

The equipment enclosure buildings that house each of the LNAPL recovery systems required Niagara Mohawk to obtain a Land Use Zoning Permit through the Village of Cobleskill. On December 6, 2001, Niagara Mohawk attended a Village of Cobleskill Planning Board meeting to answer questions regarding Niagara Mohawk's Land Use Zoning Permit Application. During that meeting, Niagara Mohawk's application to install two equipment enclosure buildings on the Site was approved by the Village of Cobleskill.

4.2 Recovery Wells Installation/Monitoring

The ROD for the Site identifies that the existing monitoring wells/coreholes C-3/MW-8 and C-4 are to be enlarged to allow for the installation of 6-inch diameter recovery wells. Due to concerns about plugging the fractures which allow LNAPL to enter these existing 3-inch diameter coreholes, Niagara Mohawk proposed, in an April 26, 2000 letter to the NYSDEC, that two new 6-inches in diameter recovery wells be installed in the vicinity of the existing monitoring wells/coreholes C-3/MW-8 and C-4, instead. This proposal was approved by the NYSDEC in a June 5, 2000 letter to the Niagara Mohawk Niagara Mohawk and was incorporated into the *RD*.

Two new 6-inch diameter LNAPL recovery wells (Recovery Wells No. 1 and No. 2) were installed in the vicinity of existing monitoring wells/coreholes C-3/MW-8 and C-4 in April 2001 at the location determined by the NYSDEC, Niagara Mohawk and BBL. The recovery wells were installed in accordance with the procedures set forth in the NYSDEC-approved RD. Details regarding the recovery wells installation, development and monitoring of LNAPL are documented in an October 1, 2001 letter to the NYSDEC that is presented as Attachment 14.

The recovery wells were monitored by Niagara Mohawk to determine their potential for LNAPL recovery. Based on the results of the monitoring activities, these wells did not produced sufficient amount of LNAPL to be used for the construction of the automatic LNAPL recovery systems. Therefore, Niagara Mohawk proposed and NYSDEC approved (in an October 23, 2001 letter to Niagara Mohawk) that the existing 3-inch diameter monitoring wells/coreholes C3/MW-8 and C-4 be used by Niagara Mohawk for installation of the LNAPL recovery systems.

4.3 Automatic Recovery Systems

Each of the automatic LNAPL recovery system consist of an in-well belt oil skimmer, an LNAPL collection drum, a secondary spill containment unit, an equipment enclosure building, and associated electrical and control equipment. The locations of the equipment enclosure buildings and electrical conduit are shown on Figure 3. Details and specifications for the system components were presented as Contract Drawing 2 in the *RD* is included in this report as Attachment 15. Attachment 15 shows the recovery systems being installed at Recovery Wells No. 1 and No. 2, however, as previously stated and shown on the as-built provided as Exhibit B, the actual location of the recovery systems were installed at existing monitoring wells/coreholes C-3/MW-8 and C-4. Details regarding the belt skimmers and equipment enclosure buildings are discussed below.

4.3.1 Equipment Enclosure Buildings

A pre-fabricated equipment enclosure building was installed to house each of the recovery systems. The enclosures are Easi-Set precast concrete buildings manufactured by Kistner Concrete Products, Inc. The buildings have a foot print 8 feet wide by 8 feet deep, and are 8 feet in height. Each building includes two 3-foot wide 18 gauge steel security doors with tamper proof hinges and dead bolt locks. Each building is also equipped with a wall-mounted space heater, thermostat, and exhaust fan. The buildings are placed on a 4-inch thick compacted gravel base. The installation of the LNAPL recovery systems involved the construction of an access road and preparation of the sub-base on which the equipment enclosures were placed. Following access road construction and sub-base preparation, the equipment enclosures were delivered to the Site and placed with a truck-mounted crane. A shallow (2 feet in depth) trench was excavated for the installation of the underground conduit necessary to house the electrical wire run from the existing 100 gpm treatment building.

4.3.2 Belt Skimmers

Petrotractor® Model PX-A well oil skimmers manufactured by Abanaki Corporation were installed in monitoring well/corehole C-3/MW-8 and C-4. Each oil skimmer consists of hydrophobic skimmer belt that is 40 feet in length and one inch wide. Each oil skimmer is equipped with a 4-foot mounting stand, tail pulley, tail pulley weight, heated discharge troughs, and an on-off timer. Thirty-gallon drums equipped with a ¾-inch mounting float switch are located adjacent to each well oil skimmer. The LNAPL drum float switch will automatically terminate operation of the oil skimmer when the capacity of the drum has been reached. The on-off timer has been programmed to periodically operate the belt skimmers, as necessary, to remove LNAPL accumulating in the recovery wells and transfer the LNAPL removed from the wells into a 30-gallon drum. The LNAPL collection drums are placed on secondary spill containment units.

4.3.3 LNAPL Recovery Systems Monitoring/Maintenance

Operation of the belt skimmers commenced on July 18, 2002. Maintenance and monitoring activities associated with the LNAPL recovery systems consist of bimonthly monitoring/maintenance of the systems. The frequency of the monitoring/maintenance visits was preliminarily scheduled based on the amount and rate of LNAPL recovered/removed from the monitoring wells/coreholes C-3/MW-8 and C-4 to date, and the declining trend of LNAPL observed in the monitoring wells/coreholes C-3/MW-8 and C-4 (see Table 1). The actual frequency of future monitoring/maintenance Site visits will depend upon conditions encountered, including amounts and rate of LNAPL recovered.

At a minimum, the monitoring and maintenance of the LNAPL recovery systems includes the following activities:

- Monitoring the amount of LNAPL accumulated in the drums. Based on these observations, the on-off timer will be programmed to periodically operate the belt skimmers that remove LNAPL accumulating in the monitoring well/coreholes and transfer the LNAPL removed from each well/coreholes into the adjacent 30-gallon drum. At present, the timers are programmed to operate the recovery systems for two 15 minute intervals per day. Only trace quantities of LNAPL/water have been observed in the collection trough and recovery drums since operation of the recovery systems began on July 18, 2002.

- Cleaning the head pulleys, wipers and manually running each system to verify that each system is operating without deficiencies or malfunctions;

- Estimating and recording the amount of LNAPL that has accumulated in the 30-gallon drums; and

- Replacing the LNAPL drums that are near capacity with empty 30-gallon drums. Drum(s) will be properly labeled and stored onsite in a secure area pending appropriate treatment/disposal in accordance with applicable rules and regulations.

Additionally during each Site visit, maintenance services are conducted, as appropriate. The maintenance of the LNAPL recovery systems include, at a minimum, the following activities:

- Checking and inspecting of miscellaneous parts (e.g., float-switch, head-pulley, troughs, hose, etc.). If necessary, some parts will be cleaned and/or adjust; and

- Maintaining of buildings that house each of the system. These maintenance activities may include checking/repairing heaters, thermostats, exhaust fans, and other general maintenance activities.

Monitoring and maintenance of the LNAPL recovery systems will be addressed in the Operation, Maintenance and Monitoring (OM&M) Plan to be developed for the Site, as discussed in Section 7.

5. Biota Monitoring

5.1 General

This section describes the biota monitoring that was conducted for the stormwater drainage system and Cobleskill Creek, as specified in the RD. Prior to conducting the biota sampling activities, the activities were coordinated with the NYSDEC and the State University of New York (SUNY) Cobleskill.

5.2 Collection Methods and Sample Preparation

Fish sampling activities were conducted in 2002 in association with the program set forth in the ROD and the NYSDEC-approved Remedial Design for the Site. The sampling activities were performed consistent with the procedures described in the *Biota Sampling and Analysis Work Plan* (BBL, 1994). On October 30, 2002, BBL conducted the fish sampling activities using portable electrofishing equipment. The sampling included the same two general sample locations that were sampled in 1994 (i.e., one location in the stormwater drainage system and one location in Cobleskill Creek) (Figure 4).

Three whole-body composite forage fish samples and three individual edible-size fish were collected from each of the two sampling locations. Within Cobleskill Creek, the forage fish samples were two common shiner composite samples and one central stoneroller composite sample. For edible-size fish, one smallmouth bass, one northern hog sucker, and one white sucker were collected at the Cobleskill Creek location. These samples were prepared as skin-on fillets. Within the stormwater drainage system, two fathead minnow whole-body composite samples and one central stoneroller whole-body composite sample were collected. In addition, three white sucker skin-on fillet samples were collected. The fish samples were sent to EnChem Laboratories in Green Bay, WI for analysis of PCB Aroclors and percent lipids.

5.3 Fish Tissue PCB Results

A summary of the fish PCB and lipid results is presented in Table 2. A copy of the validated resident fish analytical results are provided in Exhibit C. PCBs were detected in all but one of the fish samples. However, the detected PCB concentrations were relatively low, and all were less than 1 mg/kg (wet weight). Consistent with the 1994 biota monitoring, the 2002 PCB concentrations were higher for fish samples from the stormwater drainage system than Cobleskill Creek.

For Cobleskill Creek, wet-weight PCB concentrations were highest in common shiners (0.086 and 0.12 mg/kg). Lipid normalized PCBs for the same samples were 4.4 and 5.0 mg/kg-lipid. The PCB concentration for whole-body composite stoneroller sample was 0.075 mg/kg (1.7 mg/kg-lipid). The one smallmouth bass fillet sample collected within Cobleskill Creek in 2002 had a wet-weight PCB concentration of 0.094 mg/kg, and a lipid-normalized PCB concentration of 4.8 mg/kg-lipid. PCBs were non-detect for the white sucker fillet sample, and 0.065 mg/kg for the northern hog sucker fillet sample (5.1 mg/kg-lipid).

For the stormwater drainage system, PCB concentrations were highest in fathead minnows, which ranged from 0.92 to 0.98 mg/kg PCBs (lipid-normalized PCBs ranged from 25 to 31 mg/kg-lipid). The whole-body sample of stonerollers had a PCB concentration of 0.72 mg/kg (21 mg/kg-lipid). PCB concentrations in three white sucker fillet samples collected in 2002 from the stormwater drainage system ranged from 0.12 to 0.18 mg/kg, and lipid-normalized PCBs ranged from 8.1 to 26 mg/kg-lipid.

Overall, PCB concentrations are relatively low (less than 1 mg/kg) for forage fish samples and edible-size fish samples for both locations, and are generally lower than the concentrations reported in 1994 samples (Table 2). For example, the average PCB concentration for common shiners from Cobleskill Creek was 0.34 mg/kg in 1994, compared to 0.10 mg/kg in 2002. Similarly, the average PCB concentration for fathead minnows from the stormwater drainage system was 1.4 mg/kg in 1994, compared to 0.95 mg/kg in 2002.

5.4 Conclusion

The fish residue PCB data resulting from the 2002 biota monitoring confirm the 1994 results presented in the NYSDEC-approved RI Report, indicating no obvious impacts to the fish and wildlife resources of Cobleskill Creek and the stormwater drainage system.

6. Offsite Groundwater Monitoring

6.1 General

Offsite groundwater monitoring has been conducted at offsite bedrock coreholes C-20, C-21, and C-22, located on private property across Settles Mountain Road (formerly West Street) from the Site, since April 1998. Niagara Mohawk's proposal to collect these samples on a semi-annual basis was presented in a March 26, 1998 letter to the NYSDEC. The NYSDEC (Mr. Daniel Lightsey, P.E.) subsequently approved the semi-annual collection/PCB analysis of groundwater samples from the offsite bedrock coreholes.

6.2 2002 Offsite Groundwater Monitoring

This section presents the validated PCB analytical results for offsite groundwater samples collected since substantial completion of the remedial action activities in April 2002, as summarized below.

- Groundwater samples (filtered and unfiltered) collected on May 31, 2002 from offsite bedrock monitoring wells C-20, C-21, and C-22.

- Groundwater samples (filtered and unfiltered) collected on November 21, 2002 from offsite bedrock monitoring wells C-20, C-21, and C-22.

These samples were collected by BBL and analyzed by Buck. The preliminary PCB analytical results were transmitted to NYSDEC in the May 2002 and the November 2002 monthly progress reports.

The validated PCB analytical results for the groundwater samples collected on May 31, 2002 and on November 21, 2002 from the offsite monitoring wells indicate that PCBs were not detected in any of these samples. A copy of the validated PCB groundwater analytical results for May 2002 and November 2002 are provided in Exhibit D and Exhibit E, respectively.

7. Operation, Maintenance, and Monitoring (OM&M) Plan

7.1 General

This section presents a brief description of the continued operation, maintenance and monitoring (OM&M) activities conducted by Niagara Mohawk as part of the ROD. A detailed description and schedule of OM&M activities performed at the Site will be provided in the OM&M Plan under a separate cover. Integral to the OM&M Plan will be implementation of institutional controls for the Site, as identified in Section 1.1. The institutional controls will restrict access and reuse of the site to protect the integrity of the soil/gravel cover, quarry pond water treatment systems, and LNAPL recovery systems; and allow the required maintenance and monitoring activities to be implemented by Niagara Mohawk as necessary.

7.2 Brief Description of OM&M Activities

The operation activities presently conducted at the Site include:

- Operation of the quarry pond water treatment system(s); and
- Operation of the LNAPL recovery systems.

The maintenance activities presently conducted at the Site include:

- Maintenance of the quarry pond water treatment system(s);
- Maintenance of the LNAPL recovery systems;
- Maintenance of the vegetative soil cover and crusher run areas.

The monitoring activities presently conducted at the Site include:

- Monitoring of LNAPL recovery systems (belt skimmers) installed at monitoring wells C-3/MW-8 and C-4;
- Monitoring of groundwater elevations (and observation for the presence of LNAPL or sheens) at coreholes and monitoring wells north and west of the quarry pond (Recovery Wells No. 1 and No. 2, MW-5, MW-12, MW-13, C-6, C-7, C-8, C-10, C-11, C-13, C-14, C-15, C-16, C-18, including offsite coreholes C-20, C-21, and C-22);
- Monitoring of groundwater elevations (and the presence/absence of LNAPL or sheens) at all accessible coreholes (C-5, C-6, C-7, C-8, C-9, C-10, C-11, C-12, C-13, C-14, C-15, C-16, and C-18; in addition, offsite coreholes C-20, C-21, and C-22), monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-10, MW-11, MW-12, and MW-13), and Recovery Wells No. 1 and No. 2;

- Semi-annual groundwater sampling of offsite bedrock coreholes C-20, C-21 and C-22 for filtered and unfiltered PCBs.

- Sampling of the quarry pond water treatment system for PCBs. Sampling activities are conducted on a monthly basis for the 100 gpm system when operating in discharge mode and once per operation event (or weekly) for the 300 gpm system when operating in discharge mode.

The OM&M activities are documented in monthly progress reports to the NYSDEC. Progress reports will continue to be submitted to NYSDEC on a monthly basis in conformance with the Consent Decree. Accordingly, the monthly progress reports include the following information:

- Work activities conducted during the reporting period;

- Analytical results and data generated during the reporting period;

- Reports completed and submitted during the reporting period;

- Planned activities for the next reporting period; and

- Anticipated schedule for upcoming activities.

The OM&M Plan will also include a schedule for the periodic re-evaluation of the Site's conditions to confirm the effectiveness of the NYSDEC-selected remedy, and information regarding the institutional controls to be implemented.

8. Engineer’s Certifications

The following pages in this section are the Consent Decree-required certifications by professional engineers licensed in New York State for the installation of the following NYSDEC-approved remedial designs, as modified by the approved design changes detailed herein.

- *Contractor Scope of Work, Public Water Supply Extension Design, M. Wallace and Son, Inc. Scrapyard Site, Cobleskill, New York, (BBL, June 2001).*

- *Remedial Design, M. Wallace and Son, Inc. Scrapyard Site, Cobleskill, New York, (BBL, September 2001).*

Engineer's Certification

Niagara Mohawk, A National Grid Company
M. Wallace and Son, Inc. Scrapyard Site
Cobleskill, New York
Public Water Supply Extension Design

I, Donald F. Geisser, P.E., as a licensed Professional Engineer in the State of New York, to the best of my knowledge, and based on my inquiry of persons directly involved in implementing this project under my direction, certify that the extension of Village of Cobleskill public water supply system was completed in accordance with the New York State Department of Environmental Conservation-approved *Contractor Scope of Work, Public Water Supply Extension Design, M. Wallace and Son, Inc. Scrapyard Site, Cobleskill, New York* (Blasland, Bouck & Lee, Inc., June 2001) and the approved modifications presented in this Remedial Action Report.

______________________________ ______________________

Donald F. Geisser, P.E Date
New York State P.E. No. 057879

Blasland, Bouck & Lee, Inc.
6723 Towpath Road, Box 66
Syracuse, New York 13214

(315) 446-9120

Engineer's Certification

Niagara Mohawk, A National Grid Company
M. Wallace and Son, Inc. Scrapyard Site
Cobleskill, New York
Remedial Design

I, James M. Nuss, P.E., as a licensed Professional Engineer in the State of New York, to the best of my knowledge, and based on my inquiry of persons directly involved in implementing this project under my direction, certify that the remedial action activities were completed in accordance with the New York State Department of Environmental Conservation-approved *Remedial Design, M. Wallace and Son, Inc. Scrapyard Site, Cobleskill, New York* (Blasland, Bouck & Lee, Inc., September 2001) and the approved modifications presented in this Remedial Action Report.

____________________________________ ________________________

James M. Nuss, P.E — Date

New York State P.E. No. 067963

Blasland, Bouck & Lee, Inc.
6723 Towpath Road, Box 66
Syracuse, New York 13214

(315) 446-9120

9. References

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Tables

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Table 1

Summary of LNAPL Measurements and Estimated Volumes of Bailed Product

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Table 1

Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
6/28/93	0.015	2	NM	NM	NM	NM	1.00	2.00	0.00	0.00	0.00	0.00
6/29/93	0.01	0.46	NM	NM	NM	NM	0.53	1.00	0.00	0.00	0.00	0.00
6/30/93	<0.01	NM	NM	NM	NM	NM	0.26	0.00	0.00	0.00	0.00	0.00
7/1/93	<0.01	NM	NM	NM	NM	NM	0.26	0.00	0.00	0.00	0.00	0.00
7/16/93	0.01	0.01	NM	NM	NM	NM	2.00	1.00	0.00	0.00	0.00	0.00
8/6/93	0.03	0.03	NM	1.1	NM	NM	2.50	2.00	0.00	1.00	0.00	0.00
8/20/93	0.02	<0.01	NM	0.66	<0.01	1.5	0.42	0.42	0.00	2.00	0.42	4.00
8/27/93	0.04	<0.01	NM	0.15	<0.01	0.15	0.49	0.01	0.00	2.00	0.01	4.00
9/3/93	0.01	0.6	NM	0.1	NM	0.06	1.00	2.32	0.00	2.00	0.00	1.50
9/8/93	0.01	0.3	NM	0.08	NM	0.1	0.50	5.02	0.00	1.48	0.00	1.48
9/17/93	0.07	0.49	NM	0.11	0.17	0.58	2.00	3.90	0.00	2.00	2.00	1.90
9/24/93	0.06	0.08	NM	0.03	0.14	0.08	0.13	0.50	0.00	0.35	0.35	0.13
9/30/93	0.04	0.04	NM	NM	0.10	0.04	0.13	0.13	0.00	0.00	0.50	0.25
10/7/93	0.03	0.05	NM	NM	0.06	0.25	0.50	0.13	0.00	0.00	0.13	1.25
10/15/93	0.05	0.03	NM	NM	0.02	0.13	0.13	0.00	0.00	0.00	0.04	0.50
10/22/93	0.02	<0.01	NM	NM	0.06	0.15	0.13	0.00	0.00	0.00	1.00	1.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
10/29/93	0.04	0.01	NM	NM	0.03	0.04	0.25	0.00	0.00	0.00	0.25	0.25
11/12/93	0.4	0.02	NM	0.01	0.03	NM	2.00	0.00	0.00	0.00	0.00	0.00
12/1/93	10.01	0.01	NM	NM	0.03	NM	10.00	0.00	0.00	0.00	0.00	0.00
12/8/93	9.02	NM	NM	NM	0.02	NM	10.00	0.00	0.00	0.00	0.00	0.00
12/28/93	0.41	NM	NM	NM	NA	NM	1.50	0.00	0.00	0.00	0.00	0.00
1/5/94	NA	NM	NM	NM	NA	NM	0.00	0.00	0.00	0.00	0.00	0.00
1/24/94	0.48	NM	NM	NM	NA	NM	0.60	0.00	0.00	0.00	0.00	0.00
1/31/94	5.52	NM	NM	NM	NA	NM	4.50	0.00	0.00	0.00	0.00	0.00
2/18/94	0.67	NM	NM	NM	NA	NM	2.00	0.00	0.00	0.00	0.00	0.00
3/7/94	4.18	NM	NM	NM	NA	NM	7.00	0.00	0.00	0.00	0.00	0.00
3/21/94	2.9	NM	NM	NM	NA	NM	5.00	0.00	0.00	0.00	0.00	0.00
4/4/94	0.6	NM	0.30	NM	0.30	NM	1.50	0.00	0.50	0.00	0.50	0.00
4/19/94	0.3	NM	NM	NM	NM	NM	0.50	0.00	0.00	0.00	0.00	0.00
5/3/94	0.33	0.01	NM	NM	NM	NM	1.00	0.00	0.00	0.00	0.00	0.00
5/17/94	0.13	NM	NM	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
5/31/94	2.49	NM	NM	NM	NM	NM	5.00	0.00	0.00	0.00	0.00	0.00
6/15/94	2.55	NM	0.22	NM	0.23	NM	5.00	0.00	0.00	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
6/29/94	1.5	NM	0.2	NM	0.25	NM	2.00	0.00	0.00	0.00	0.00	0.00
7/14/94	1.25	NM	0.22	NM	0.23	NM	2.50	0.00	0.00	0.00	0.00	0.00
7/29/94	2.03	NM	0.24	NM	0.23	0.05	2.50	0.00	0.00	0.00	0.00	0.00
8/10/94	2.14	NM	0.23	NM	0.23	0.03	3.00	0.00	0.00	0.00	0.00	0.00
8/23/94	0.88	NM	0.24	NM	0.23	NM	1.00	0.00	0.00	0.00	0.00	0.00
9/12/94	1.75	NM	0.20	NM	0.25	NM	2.00	0.00	0.00	0.00	0.00	0.00
9/20/94	0.30	NM	0.20	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
10/5/94	0.25	NM	0.20	NM	0.20	0.25	0.00	0.00	0.00	0.00	0.00	0.00
10/31/94	0.45	NM	0.20	NM	0.20	0.20	0.50	0.00	0.00	0.00	0.00	0.00
11/18/94	1.59	NM	0.24	NM	0.30	0.26	1.50	0.00	0.00	0.00	0.00	0.00
12/8/94	2.08	NM	0.21	NM	0.36	NM	3.00	0.00	0.00	0.00	0.00	0.00
12/19/94	1.49	NM	0.23	NM	0.39	0.01	3.00	0.00	0.00	0.00	0.50	0.00
1/5/95	0.63	NM	0.22	NM	0.25	NM	1.00	0.00	0.00	0.00	0.00	0.00
1/17/95	0.34	NM	0.20	NM	0.29	NM	0.50	0.00	0.00	0.00	0.00	0.00
1/31/95	0.28	NM	0.29	NM	0.25	0.04	0.00	0.00	0.00	0.00	0.00	0.00
2/16/95	0.45	NM	0.22	NM	0.26	NM	1.00	0.00	0.00	0.00	0.00	0.00
3/1/95	1.04	NM	0.25	NM	0.22	NM	1.00	0.00	0.00	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
3/14/95	0.37	NM	0.30	NM	0.15	NM	0.50	0.00	0.00	0.00	0.00	0.00
3/29/95	0.15	NM	0.26	NM	0.26	NM	0.00	0.00	0.00	0.00	0.00	0.00
4/18/95	0.31	NM	0.21	NM	0.15	NM	0.00	0.00	0.00	0.00	0.00	0.00
5/9/95	0.84	NM	0.12	NM	0.15	NM	1.00	0.00	0.00	0.00	0.00	0.00
5/25/95	0.41	NM	0.14	NM	0.16	NM	0.50	0.00	0.00	0.00	0.00	0.00
6/4/95	0.21	NM	0.11	NM	0.11	NM	0.00	0.00	0.00	0.00	0.00	0.00
6/22/95	0.27	NM	0.14	NM	0.15	NM	0.00	0.00	0.00	0.00	0.00	0.00
7/6/95	0.28	NM	0.14	NM	0.18	NM	0.00	0.00	0.00	0.00	0.00	0.00
7/20/95	1.08	NM	0.12	NM	0.15	NM	1.50	0.00	0.00	0.00	0.00	0.00
8/1/95	0.23	NM	0.13	NM	0.21	NM	0.50	0.00	0.00	0.00	0.00	0.00
8/15/95	0.17	NM	0.07	NM	0.18	NM	0.00	0.00	0.00	0.00	0.00	0.00
8/31/95	0.28	NM	0.10	NM	0.19	NM	0.00	0.00	0.00	0.00	0.00	0.00
9/13/95	0.31	NM	0.11	NM	0.18	NM	1.00	0.00	0.00	0.00	0.00	0.00
9/27/95	0.29	0.21	0.12	NM	0.19	NM	0.50	0.00	0.00	0.00	0.00	0.00
10/11/95	0.69	0.37	0.11	NM	0.23	0.06	1.00	1.00	0.00	0.00	0.00	0.00
10/25/95	1.12	0.22	0.13	NM	0.21	NM	1.50	0.00	0.00	0.00	0.00	0.00
11/08/95	0.38	0.19	0.16	NM	0.24	NM	1.00	0.00	0.00	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
11/21/95	0.36	0.21	0.21	NM	0.09	NM	1.00	0.00	0.00	0.00	0.00	0.00
12/06/95	0.17	0.21	0.17	NM	0.20	NM	0.00	0.00	0.00	0.00	0.00	0.00
12/20/95	0.17	0.18	0.20	NM	0.21	NM	0.00	0.00	0.00	0.00	0.00	0.00
01/05/96	0.15	0.20	0.18	NM	0.19	NM	0.00	0.00	0.00	0.00	0.00	0.00
01/18/96	0.16	0.21	0.18	NM	0.11	NM	0.25	0.25	0.25	0.00	0.25	0.00
01/29/96	0.35	0.14	0.27	NM	0.13	NM	0.50	0.50	0.50	0.00	0.50	0.00
02/12/96	1.09	0.06	0.13	NM	0.09	NM	0.75	0.25	0.25	0.00	0.25	0.00
02/22/96	0.58	0.07	0.15	0.02	0.02	NM	0.50	0.25	0.25	0.00	0.00	0.00
03/06/96	0.48	0.02	0.05	NM	0.09	NM	0.75	0.00	0.00	0.00	0.25	0.00
03/20/96	0.93	0.03	0.10	NM	0.08	NM	1.50	0.00	0.50	0.00	0.00	0.00
04/04/96	0.21	0.04	0.12	NM	0.04	NM	0.25	0.00	0.25	0.00	0.00	0.00
04/15/96	0.16	0.04	0.08	NM	0.01	NM	0.50	0.00	0.00	0.00	0.00	0.00
05/17/96	0.03	NM	0.12	NM	0.01	NM	0.00	0.00	0.00	0.00	0.00	0.00
05/29/96	0.06	0.02	0.10	NM	0.03	NM	0.00	0.00	0.25	0.00	0.00	0.00
06/12/96	0.95	0.01	0.13	NM	0.01	NM	1.00	0.00	0.00	0.00	0.00	0.00
06/27/96	0.11*	0.03	0.12	NM	NM^{+}	NM	0.00	0.00	0.00	0.00	0.00	0.00
07/12/96	NM*	NM	0.20	NM	NM^{+}	NM	0.00	0.00	0.50	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
08/16/96	0.03	0.01	0.05	NM	0.01	NM	0.00	0.00	0.00	0.00	0.00	0.00
08/29/96	0.01	NM	0.01	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
09/10/96	0.06	NM	0.01	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
09/25/96	0.08	NM	0.04	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
10/16/96	0.50	NM	0.02	NM	NM	NM	0.25	0.00	0.00	0.00	0.00	0.00
10/30/96	0.17	NM	0.01	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
11/14/96	0.43	NM	0.14	NM	NM	NM	0.25	0.00	0.00	0.00	0.00	0.00
11/30/96	0.30	NM	0.24	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
12/11/96	0.05	0.03	0.20	0.02	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00
12/31/96	0.01	NM	0.11	NM	0.01	NM	0.00	0.00	0.00	0.00	0.00	0.00
01/14/97	0.19	0.01	0.30	NM	0.01	NM	0.00	0.00	0.25	0.00	0.00	0.00
01/29/97	1.71	0.01	0.06	NM	0.02	NM	2.50	0.00	0.00	0.00	0.00	0.00
02/18/97	0.41	0.01	0.23	NM	NA	NM	0.25	0.00	0.25	0.00	0.00	0.00
3/6/97	0.27	NM	0.26	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
3/20/97	0.41	NM	0.31	NM	0.01	NM	0.25	0.00	0.25	0.00	0.00	0.00
4/2/97	0.07	NM	0.17	NM	NM	NM	0.00	0.00	0.25	0.00	0.00	0.00
4/16/97	0.15	NM	0.16	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
5/8/97	0.38	NM	0.20	NM	NM	NM	0.75	0.00	0.25	0.00	0.00	0.00
5/20/97	1.02	NM	0.23	NM	NM	NM	0.50	0.00	0.25	0.00	0.00	0.00
6/11/97	0.85	NM	0.27	NM	NM	NM	0.75	0.00	0.25	0.00	0.00	0.00
6/24/97	0.82	NM	0.29	NM	NM	NM	0.75	0.00	0.25	0.00	0.00	0.00
7/10/97	0.76	NM	0.18	NM	NM	NM	0.50	0.00	0.25	0.00	0.00	0.00
7/22/97	0.13	NM	0.16	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
8/5/97	0.17	NM	0.17	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
8/21/97	0.21	NM	0.19	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
9/3/97	0.28	NM	0.19	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
9/19/97	0.28	NM	0.15	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
9/30/97	0.19	NM	0.21	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
10/17/97	0.19	NM	0.21	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
10/28/97	0.23	NM	0.20	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
11/18/97	0.33	NM	0.22	NM	NM	NM	0.50	0.00	0.25	0.00	0.00	0.00
12/2/97	1.49	NM	0.21	NM	NM	NM	0.75	0.00	0.25	0.00	0.00	0.00
12/18/97	0.81	NM	0.23	NM	NM	NM	1.30	0.00	0.25	0.00	0.00	0.00
1/6/98	1.32	NM	0.35	NM	NM	NM	1.00	0.00	0.50	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
1/28/98	0.50	NM	0.22	NM	NM	NM	0.50	0.00	0.25	0.00	0.00	0.00
2/9/98	0.67	NM	0.26	NM	NM	NM	0.50	0.00	0.00	0.00	0.00	0.00
2/25/98	1.77	NM	0.26	NM	NM	NM	1.00	0.00	0.00	0.00	0.00	0.00
3/11/98	0.21	NM	0.32	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
3/25/98	0.18	NM	0.16	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
4/9/98	0.22	NM	0.19	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
4/21/98	0.24	NM	0.22	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
5/7/98	0.59	NM	0.17	NM	NM	NM	0.25	0.00	0.10	0.00	0.00	0.00
5/14/98	0.57	NM	0.20	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
6/4/98	0.13	NM	0.23	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
6/16/98	0.57	NM	0.19	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
7/9/98	0.15	NM	0.21	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
7/31/98	0.48	NM	0.25	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
8/14/98	0.20	NM	0.21	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
8/28/98	0.23	NM	0.23	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
9/10/98	0.19	NM	0.22	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
9/22/98	0.09	NM	0.21	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00

Table 1
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Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
10/6/98	0.17	NM	0.21	NM	NM	NM	0.25	0.00	0.25	0.00	0.00	0.00
10/26/98	0.17	NM	0.02	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
11/10/98	0.02	NM	0.03	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
11/30/98	0.02	NM	0.02	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
12/18/98	0.05	NM	0.01	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
12/29/98	0.07	NM	0.03	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
1/12/99	0.16	NM	0.01	NM	NM	NM	0.25	0.00	0.10	0.00	0.00	0.00
1/28/99	0.32	NM	0.08	NM	NM	NM	0.25	0.00	0.10	0.00	0.00	0.00
2/10/99	0.29	NM	0.12	NM	NM	NM	0.25	0.00	0.10	0.00	0.00	0.00
2/22/99	0.48	NM	0.03	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
3/10/99	0.50	NM	0.04	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
3/24/99	0.37	NM	0.07	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
4/8/99	0.04	NM	0.09	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
4/23/99	2.29	NM	0.04	NM	NM	NM	1.00	0.00	0.10	0.00	0.00	0.00
5/7/99	0.50	NM	0.02	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
5/20/99	0.06	NM	0.04	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
6/10/99	0.02	NM	0.03	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
6/22/99	0.12	NM	0.04	NM	NM	NM	0.25	0.00	0.10	0.00	0.00	0.00
7/9/99	0.01	NM	0.02	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
7/30/99	0.16	NM	0.04	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
8/11/99	0.14	NM	0.04	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
8/26/99	0.01	NM	0.02	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
9/9/99	0.02	NM	0.02	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
9/22/99	0.58	NM	0.10	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00
10/7/99	0.46	NM	0.09	NM	NM	NM	0.25	0.00	0.10	0.00	0.00	0.00
10/27/99	0.90	NM	0.04	NM	NM	NM	1.00	0.00	0.10	0.00	0.00	0.00
11/11/99	0.01	NM	0.11	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
11/29/99	0.04	NM	0.09	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
12/15/99	0.42	NM	0.10	NM	NM	NM	0.25	0.00	0.10	0.00	0.00	0.00
12/29/99	0.30	NM	0.05	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
1/12/00	0.77	NM	0.11	NM	NM	NM	1.00	0.00	0.20	0.00	0.00	0.00
1/31/00	0.05	NM	0.02	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
2/10/00	1.30	NM	0.02	NM	NM	NM	1.00	0.00	0.10	0.00	0.00	0.00
2/25/00	0.65	NM	0.04	NM	NM	NM	0.50	0.00	0.10	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
3/10/00	0.09	NM	0.06	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
3/24/00	0.05	NM	0.09	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
4/6/00	0.05	NM	0.09	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
4/27/00	0.02	NM	0.07	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
5/4/00	NM**	NM	NM**	NM	NM	NM	0.0**	0.00	0.0**	0.00	0.00	0.00
5/16/00	NM***	NM	NM***	NM	NM	NM	0.10***	0.00	0.00***	0.00	0.00	0.00
6/15/00	0.04	NM	0.18	NM	NM	NM	0.10	0.00	0.25	0.00	0.00	0.00
6/28/00	0.01	NM	0.10	NM	NM	NM	0.10	0.00	0.25	0.00	0.00	0.00
7/12/00	0.01	NM	0.01	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
7/18/00	0.01	NM	0.01	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
8/2/00	0.01	NM	0.01	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
8/23/00	0.01	NM	0.10	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
9/7/00	0.01	NM	0.06	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
9/20/00	0.02	NM	0.09	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
10/5/00	0.02	NM	0.12	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
10/19/00	0.03	NM	0.12	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
11/12/00	0.02	NM	0.12	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
11/21/00	0.10	NM	0.09	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
12/5/00	0.08	NM	0.11	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
12/20/00	0.19	NM	0.18	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
1/4/01	0.20	NM	0.19	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
1/16/01	0.12	NM	0.15	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
2/7/01	0.02	NM	0.03	NM	NM	NM	0.10	0.00	0.01	0.00	0.00	0.00
2/21/01	0.01	NM	0.05	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
3/12/01	0.03	NM	0.05	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
3/28/01	0.19	NM	0.05	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
4/18/01	0.23	NM	0.14	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
4/26/01	NM	NM	0.10	NM	NM	NM	0.00	0.00	0.10	0.00	0.00	0.00
5/25/01	0.50	NM	0.13	NM	NM	NM	0.25	0.00	0.10	0.00	0.00	0.00
6/5/01	0.20	NM	0.13	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
6/21/01	0.22	NM	0.16	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
7/12/01	0.23	NM	0.16	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
7/26/01	0.23	NM	0.16	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
8/9/01	0.11	NM	0.07	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
8/21/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
9/10/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
9/24/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
10/10/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
10/23/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
11/8/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
11/20/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
12/5/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
12/17/01	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
1/7/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
1/22/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
2/6/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
3/12/02	0.01	NM	0.03	NM	NM	NM	0.10	0.00	0.10	0.00	0.00	0.00
3/25/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
4/10/02	TR	NM	0.06	NM	NM	NM	0.00	0.00	0.10	0.00	0.00	0.00
4/24/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
5/8/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
5/21/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
6/14/02	TR	NM	0.08	NM	NM	NM	0.00	0.00	0.10	0.00	0.00	0.00
6/28/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
7/1/02	TR	NM	TR	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
7/18/02	TR[9]	NM	TR[9]	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
8/2/02	NM	NM	NM	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
8/22/02	NM	NM	NM	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
9/5/02	NM	NM	NM	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
9/19/02	NM	NM	NM	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
10/3/02	NM	NM	NM	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
10/18/02	NM	NM	NM	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
11/1/02	TR[10]	NM	TR[10]	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
11/25/02	TR[10]	NM	TR[10]	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
12/19/02	TR[10]	NM	TR[10]	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
1/14/03	TR[10]	NM	TR[10]	NM	NM	NM	0.00	0.00	0.00	0.00	0.00	0.00
1/29/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	0.00	0.00	0.00	0.00
2/21/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	0.00	0.00	0.00	0.00

Table 1
(Cont'd)
Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Date	LNAPL Thickness (feet)						Approx. Volume of Water and LNAPL Removed (gallons)					
	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14	C-3/ MW-8	MW-5	C-4	C-10	C-13	C-14
2/27/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	0.00	0.00	0.00	0.00
3/13/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	Note 11	0.00	0.00	0.00
3/26/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	Note 11	0.00	0.00	0.00
4/15/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	Note 11	0.00	0.00	0.00
4/29/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	Note 11	0.00	0.00	0.00
5/15/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	Note 11	0.00	0.00	0.00
5/30/03	TR[10]	NM	TR[10]	NM	NM	NM	Note 11	0.00	Note 11	0.00	0.00	0.00
Total LNAPL/Water Removed from 6/93 through 12/94 (gallons)							88.83	18.43	0.50	10.83	5.70	16.26
Total LNAPL/Water Removed from 1/95 through 12/96							20.25	2.25	3.00	0.00	1.25	0.00
Total LNAPL/Water Removed from 1/97 through 12/98							18.50	0.00	8.70	0.00	0.00	0.00
Total LNAPL/Water Removed from 1/99 through 12/00							11.60	0.00	5.00	0.00	0.00	0.00
Total LNAPL/Water Removed from 1/01 through 12/02							1.55	0.00	1.61	0.00	0.00	0.00
Total LNAPL/Water Removed from 1/03 through 5/03							Note 11	0.00	Note 11	0.00	0.00	0.00
Total LNAPL/Water Removed							151.73	20.68	29.81	10.83	6.95	16.26
Total Product Bailed as of 5/31/2003											**236.268**	

Summary of LNAPL Thickness Measurements and Estimated Volumes of Bailed Product

Notes:

1. LNAPL = Light Non-Aqueous Phase Liquid.
2. Measurements to oil and water surfaces were made with a Teflon bailer from June 28, 1993 to September 8, 1993. After September 8, 1993, measurements were made with a Keck oil/water interface probe.
3. NM = LNAPL on water surface was not measurable.
4. NA = monitoring well/corehole was not accessible.
5. On January 18, 1996 the field protocol for bailing LNAPL from monitoring was altered so that any measurable thickness of LNAPL which could practically be removed was bailed. Before January 18, 1996 field personnel was instructed to bail LNAPL where the thickness was greater than 0.3 feet.
6. * = Measurement was collected during LNAPL Extraction Demonstration skimming of LNAPL at this location.
7. ** = Due to malfunction of the oil/water interface probe used at the site, monitoring of LNAPL was not performed.
8. *** = Due to malfunction of the oil/water interface probe used at the site, monitoring of LNAPL was performed using dedicated bailers. The monitoring consisted of determining whether LNAPL was present in the monitoring well and removing LNAPL encountered with the bailer.
9. Operation of the belt skimmers at C-3/MW-8 and C-4 started on July 18, 2002.
10. Trace of LNAPL/water observed in the collection trough of belt skimmer.
11. Product observed in the collection drum associated with belt skimmers in a trace (immeasurable) quantity.
12. Product observed in Recovery Well No. 2 on 12/5/01, 12/17/01, 1/7/02, 1/22/02, 2/6/02, 2/22/02, 3/25/02, and 4/10/02 in trace quantities.
13. Product observed in C-6 on 3/12/02 and 3/25/02 in trace quantities.
14. Product observed in C-7 on 3/13/03 in trace quantities.
15. Product observed in C-8 on 9/19/02, 10/3/02, and 10/18/02 in trace quantities.

Table 2

Resident Fish Data Summary

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Table 2

Niagara Mohawk, a National Grid Company
M. Wallace and Son, Inc. Scrapyard
Cobleskill, New York

Remedial Action Report

Resident Fish Data Summary

Sample ID	Date Collected	Species	Number of Individuals	Sample Type	Length[1] (cm)	Weight (grams)	Lipids (%)	Total PCBs (mg/kg)	Lipid-Normalized PCBs (mg/kg-lipid)
2002 Fish Tissue Data									
Cobleskill Creek									
CC-CS-04	10/30/2002	Common shiner	6	wbc	8.5	33.1	1.96	0.086	4.4
CC-CS-05	10/30/2002	Common shiner	9	wbc	5.7	14.0	2.39	0.12	5.0
CC-SR-01	10/30/2002	Stoneroller	16	wbc	7.1	58.5	4.42	0.075	1.7
CC-SB-04	10/30/2002	Smallmouth bass	1	sf	29.8	380	1.96	0.094	4.8
CC-WS-01	10/30/2002	White sucker	1	sf	30.9	307	0.91	ND (0.050)	2.7
CC-HS-01	10/30/2002	Northern hog sucker	1	sf	36.8	624	1.27	0.065	5.1
Stormwater Drainage System (Unnamed Tributary)									
UT-FM-04	10/30/2002	Fathead minnow	16	wbc	6.1	39.0	3.67	0.92	25
UT-FM-05	10/30/2002	Fathead minnow	16	wbc	5.8	33.0	3.17	0.98	31
UT-SR-01	10/30/2002	Stoneroller	5	wbc	8.8	35.8	3.48	0.72	21
UT-WS-04	10/30/2002	White sucker	1	sf	24.6	144	1.27	0.18	14
UT-WS-05	10/30/2002	White sucker	1	sf	21.7	109	1.49	0.12	8.1
UT-WS-06	10/30/2002	White sucker	1	sf	20.1	80.0	0.69	0.18	26
1994 Fish Tissue Data									
Cobleskill Creek									
CC-CS-01	10/11/1994	Common shiner	3	wbc	NA	33.5	3.65	0.41	11
CC-CS-02	10/11/1994	Common shiner	3	wbc	NA	37.5	1.80	0.32	18
CC-CS-03	10/11/1994	Common shiner	3	wbc	NA	29.4	4.01	0.29	7.2
CC-SB-01	10/11/1994	Smallmouth bass	1	sf	19.5	115	1.52	0.15	9.9
CC-SB-02	10/11/1994	Smallmouth bass	1	sf	24.5	230	1.75	0.08	4.6
CC-SB-03	10/11/1994	Smallmouth bass	1	sf	20.5	95	1.37	0.06	4.4
Stormwater Drainage System (Unnamed Tributary)									
UT-FM-01	10/11/1994	Fathead minnow	4	wbc	NA	11.5	4.08	1.7	42
UT-FM-02	10/11/1994	Fathead minnow	6	wbc	NA	11.7	5.18	1.5	29
UT-FM-03	10/11/1994	Fathead minnow	14	wbc	NA	18.6	4.12	1.1	27
UT-WS-01	10/11/1994	White sucker	1	sf	21.5	115	1.97	0.19	9.6
UT-WS-02	10/11/1994	White sucker	1	sf	23	140	1.90	0.09	4.7
UT-WS-03	10/11/1994	White sucker	1	sf	23	140	1.24	ND (0.050)	2.0

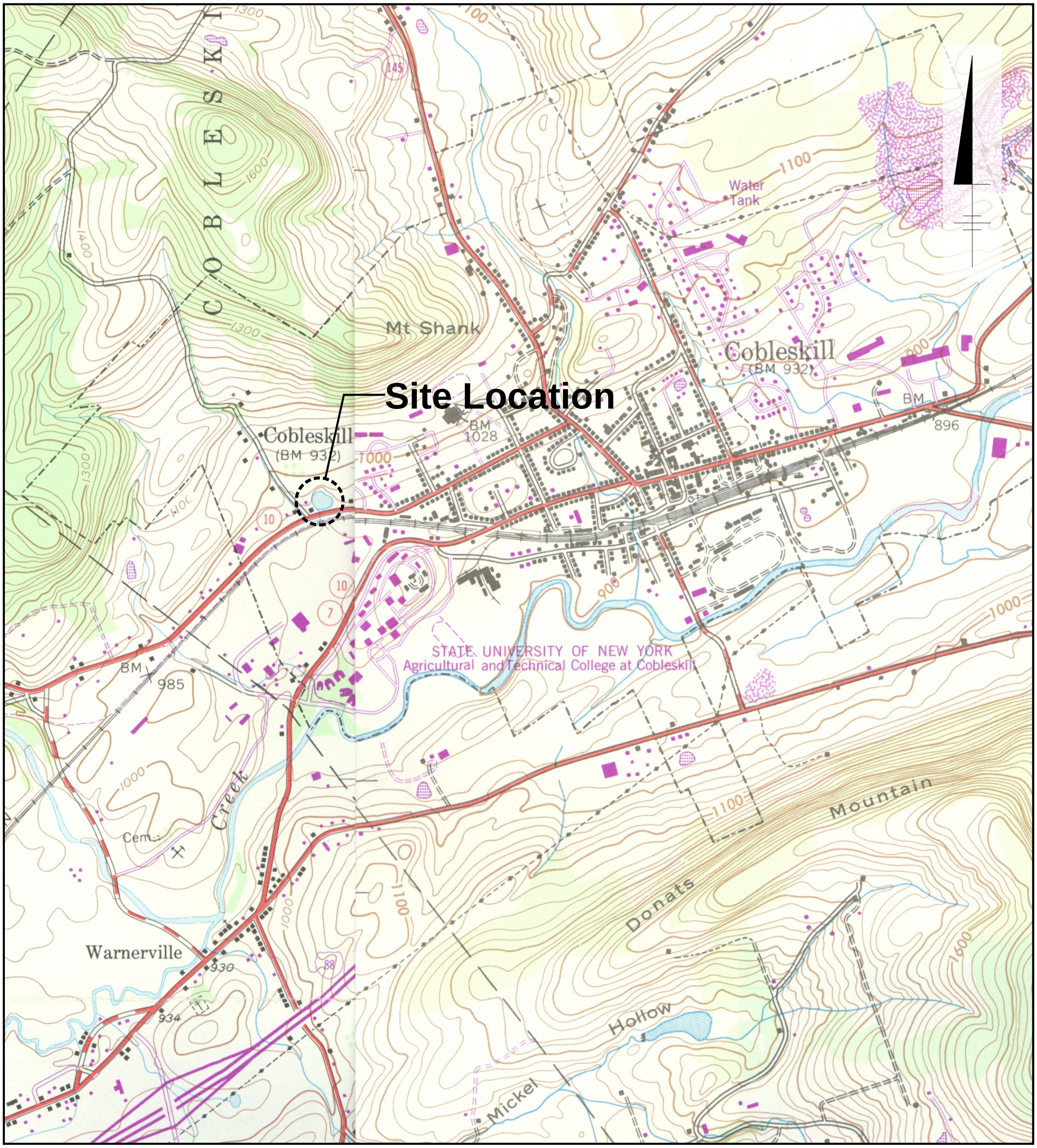
Notes:

1. Whole-body fish composite sample lengths are represented by the average of individuals.
2. Non-detected (ND) total PCBs values are shown with the sample detection limit within brackets.

sf = skin-on fillet sample.
wbc = whole-body composite sample.
NA = not available.

Figures

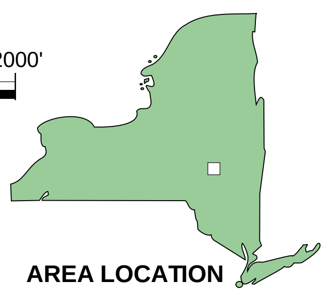
BLASLAND, BOUCK & LEE, INC.
engineers & scientists



REFERENCE: Base Map Source USGS 7.5 Minute Quads. Series Cobleskill, New York, 1943, Photorevised 1980, and Richmondville, New York, 1944, Photorevised 1982.

2000' 0 2000'

Approximate Scale: 1" = 2000'



AREA LOCATION

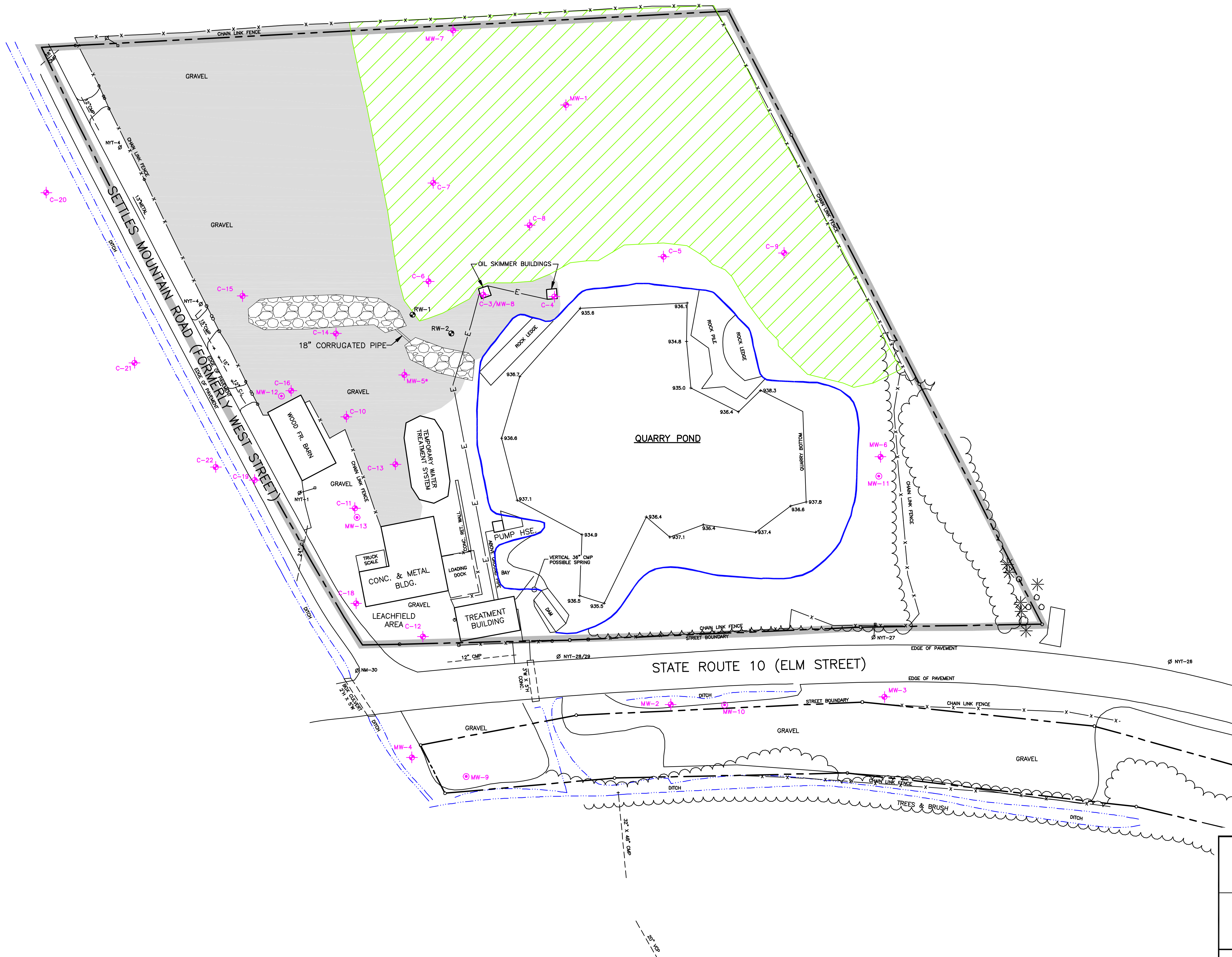
NIAGARA MOHAWK, A NATIONAL GRID COMPANY
M. WALLACE AND SON, INC. SCRAPYARD SITE
COBLESKILL, NEW YORK

SITE LOCATION MAP

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
1

06/27/03 SYR-D85-LBR
36417360/36417n01.cdr



LEGEND:

	GUY ANCHOR
	UTILITY POLE
	OVERBURDEN MONITORING WELL LOCATION
	BEDROCK COREHOLE MONITORING WELL LOCATION
	RECOVERY WELL LOCATION
	PROPERTY LINE
	APPROXIMATE LIMIT OF QUARRY
	DITCH
	SITE BOUNDARY
——E——	BURIED ELECTRICAL LINE
	SOIL COVER
	GRAVEL
	RIP-RAP

GENERAL NOTES:

1. LOCATION OF UNDERGROUND UTILITIES AND OTHER UNDERGROUND STRUCTURES LOCATED BY FIELD MEASUREMENTS WHERE POSSIBLE, OTHERWISE OBTAINED FROM OTHER SOURCES AND MAY BE APPROXIMATE. OTHER UNDERGROUND UTILITIES AND STRUCTURES MAY EXIST, THE LOCATIONS OF WHICH ARE PRESENTLY UNKNOWN.

2. PROPERTY BOUNDARY, LIMITS OF GRAVEL, RIP-RAP, AND SOIL COVER LOCATED IN THE FIELD BY JOANNE DARCY CRUM, L.S., COBLESKILL, N.Y. DURING SURVEY ACTIVITIES CONDUCTED ON 6/7/02.

3. SITE SURVEY CONDUCTED BY BLASLAND & BOUCK ENGINEERS, P.C., OCTOBER 1992.

0 40' 80'
GRAPHIC SCALE

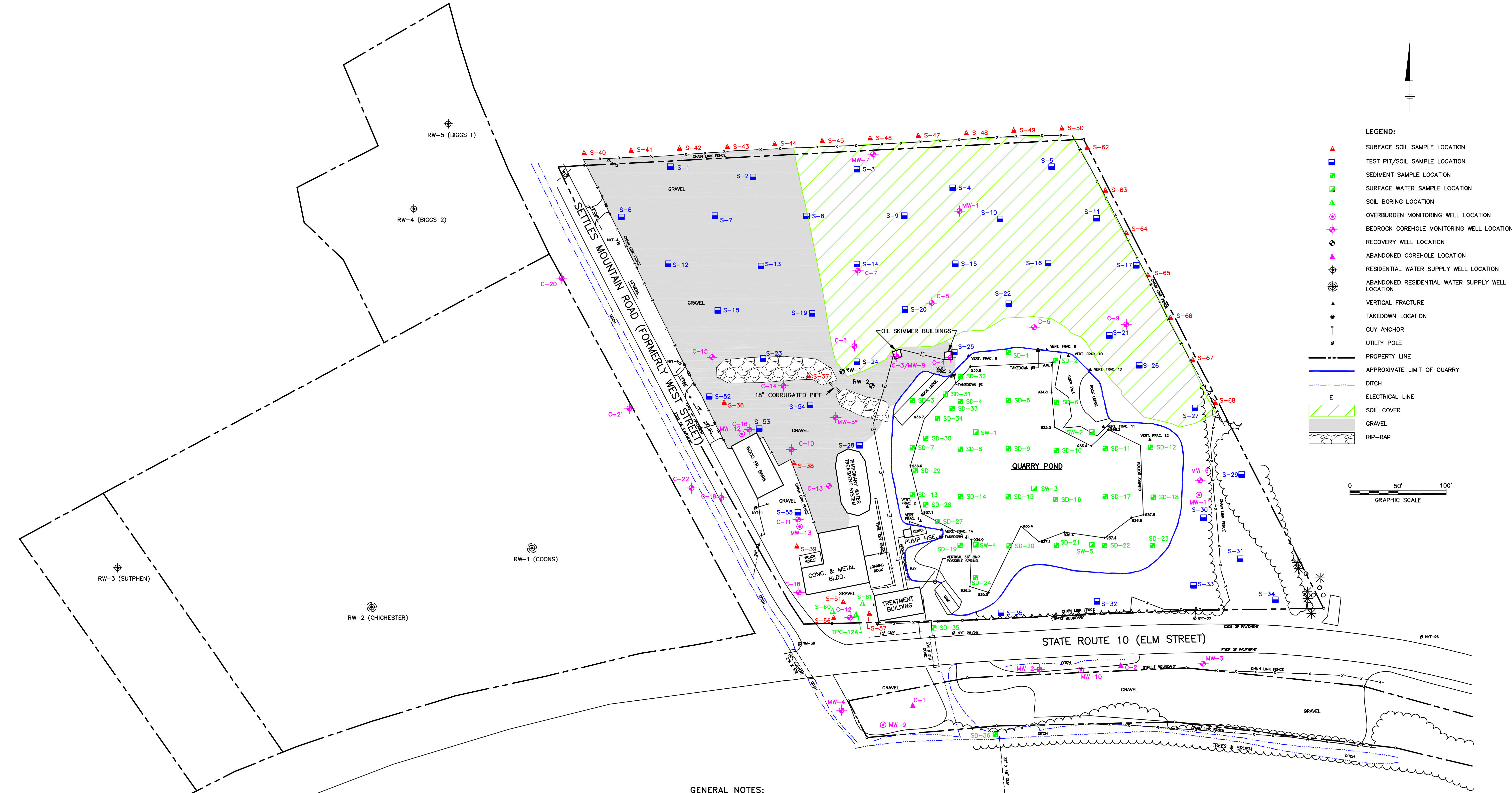
NIAGARA MOHAWK, A NATIONAL GRID COMPANY
M. WALLACE & SON, INC. SCRAPYARD
COBLESKILL, NEW YORK
REMEDIAL ACTION REPORT

SITE PLAN

BBL® BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 2

L: ON=*, OFF=REF*
P: PAGESET: DL
6/27/03 SYR-85-RCA RCB DJP
36417360/36417B01.DWG



GENERAL NOTES:

1. LOCATION OF UNDERGROUND UTILTIES AND OTHER UNDERGROUND STRUCTURES LOCATED BY FIELD MEASUREMENTS WHERE POSSIBLE, OTHERWISE OBTAINED FROM OTHER SOURCES AND MAY BE APPROXIMATE. OTHER UNDERGROUND UTILITIES AND STRUCTURES MAY EXIST, THE LOCATIONS OF WHICH ARE PRESENTLY UNKNOWN.

2. PROPERTY BOUNDARY, LIMITS OF GRAVEL, RIP-RAP, AND SOIL COVER LOCATED IN THE FIELD BY JOANNE DARCY CRUM, L.S., COBLESKILL, N.Y. DURING SURVEY ACTIVITIES CONDUCTED ON 6/7/02.

3. SITE SURVEY CONDUCTED BY BLASLAND, BOUCK & LEE, INC., OCTOBER 1992.

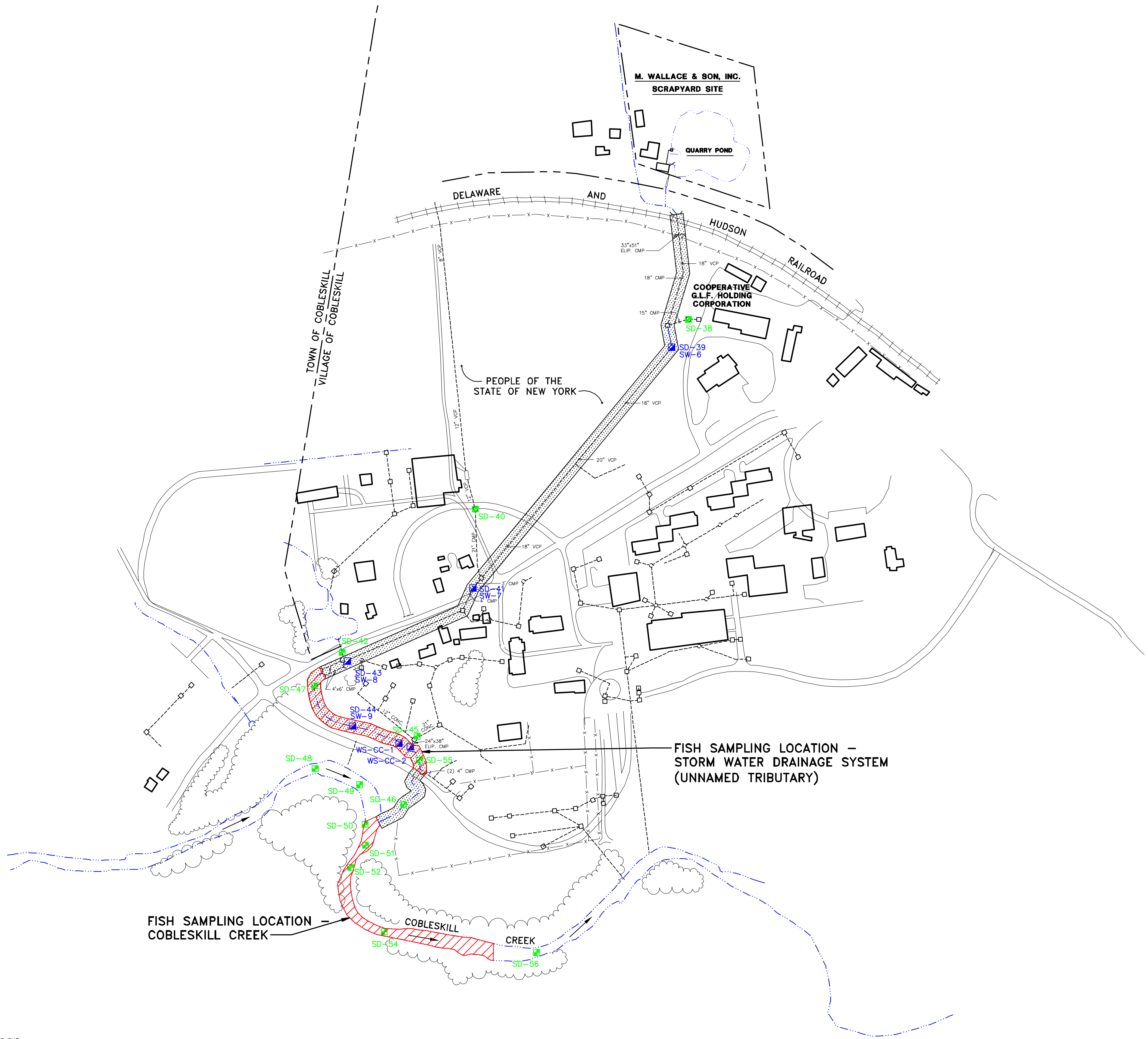
4. RESIDENTIAL WATER SUPPLY WELLS RW-1 AND RW-2 WERE ABANDONED IN GENERAL CONFORMANCE WITH ASTM METHOD D5299 AND IN ACCORDANCE WITH GROUNDWATER MONITORING WELL DECOMMISSIONING PROCEDURES (NYSDEC, OCTOBER 1996).

NIAGARA MOHAWK, A NATIONAL GRID COMANY
M. WALLACE & SON, INC. SCRAPYARD
COBLESKILL, NEW YORK
REMEDIAL ACTION REPORT

REMEDIAL INVESTIGATION SAMPLING LOCATIONS

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
3



LEGEND:

- HISTORIC SEDIMENT SAMPLE LOCATION
- HISTORIC SEDIMENT AND SURFACE WATER SAMPLING LOCATION
- STORM WATER DRAINAGE SYSTEM
- FISH SAMPLING LOCATIONS
- PROPERTY LINE
- STORM SEWER PIPE ROUTE
- DRAINAGE DITCH
- SURFACE WATER FEATURE
- FENCE
- MH STORM SEWER MANHOLE
- CB STORM SEWER CATCH BASIN
- BUILDINGS
- DIRECTION OF SURFACE WATER FLOW

0 200' 400'
GRAPHIC SCALE

GENERAL NOTES:

1. THIS SHEET WAS DEVELOPED FROM THE VILLAGE OF COBLESKILL, NEW YORK, STORM SEWER SYSTEM MAP. THIS SHEET HAS BEEN UPDATED UNDER HC 7525 DATED FEBRUARY 1965.

L: ON=*, OFF=REF
P: PAGESET/PLT-DL
6/9/03 SYR-54-DMW GMS DJP
36417360/36417G01.DWG

NIAGARA MOHAWK, A NATIONAL GRID COMPANY
M. WALLACE & SON, INC. SCRAPYARD
COBLESKILL, NEW YORK
REMEDIAL ACTION REPORT

STORM WATER DRAINAGE SYSTEM AND COBLESKILL CREEK SAMPLING LOCATIONS

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engineers & scientists

FIGURE
4

Attachments

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engineers & scientists

Attachment 1

July 24, 2001 Letter to NYSDEC

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Transmitted Via Facsimile/U.S. Mail

July 24, 2001

Mr. Daniel Lightsey, P.E.
New York State Department of Environmental Conservation
Office of Environmental Quality, Region 4
1150 North Westcott Road
Schenectady, New York 12306-2014

Re: Niagara Mohawk Power Corporation
M. Wallace and Son, Inc. Scrapyard Site
Cobleskill, New York
Site No. 448003

Dear Mr. Lightsey:

Based on your July 12, 2001 voice mail message to me, Niagara Mohawk Power Corporation (NMPC) understands that the New York State Department of Environmental Conservation (NYSDEC) has approved the *Public Water Supply Extension Design (Design)* (Blasland, Bouck & Lee, Inc. [BBL], June 2001) for the above-referenced site. A summary of the review status by others is provided below.

- ***The Schoharie County Department of Health (SCDH)*** – The SCDH approved the *Design* on July 9, 2001. A copy of the SCDH's approval letter is provided as Attachment 1. One of the conditions of the SCDH's approval is that plans/specifications for the reduced pressure zone (RPZ) backflow prevention device identified in the *Design* be submitted to the SCDH separately. As identified in the *Design*, that device is to be installed on the new water supply line for the M. Wallace and Son, Inc. facility. The SCDH's requirements for the backflow prevention device plans/specifications were identified in a June 19, 2001 letter to NMPC, a copy of which is provided as Attachment 2.

  NMPC is working with Mr. Art Wallace and the Village of Cobleskill (Village) to obtain/develop the information requested by the SCDH, including completion of the SCDH's *Application for Approval of Backflow Prevention Devices (Application)*. NMPC anticipates submitting the plans/specifications and a completed *Application* to the Village for review in early August 2001. Pending the Village's approval, the required plans/specifications and completed *Application* (signed by the Village) are expected to be submitted to the SCDH by mid-August 2001.

- ***The Village*** - Based on a July 18, 2001 telephone conversation between BBL and the Village Water Superintendent, the Village is currently reviewing the *Design* and anticipates providing any comments they may have this week. BBL understands that the Village will be initiating the process for obtaining the necessary property easements required for the waterline extension. As discussed above, the Village will also be reviewing/approving the SCDH-required submittals for the backflow prevention device.

- ***The New York State Department of Transportation (NYSDOT)*** - BBL provided the *Contractor Scope of Work* (appendix to the *Design*) to the NYSDOT for review on June 13, 2001. Based on a July 24, 2001 conversation between BBL and the NYSDOT, the NYSDOT is currently reviewing the *Contractor Scope of Work* and will be conducting a site visit today to review the drawings in the field. The NYSDOT anticipates providing any comments they may have by July 27, 2001.

Pending receipt of the required approvals identified above, NMPC anticipates conducting the waterline extension activities in early fall 2001. We will continue to keep the NYSDEC informed of the project status/schedule. If you have any questions, please contact me at (315) 428-3101 or M. Cathy Geraci of BBL at (315) 446-2570 (extension 290).

Sincerely,

James F. Morgan

James F. Morgan
Environmental Analyst

JFM/cmd
Attachments

cc: Mr. Richard Fedigan, New York State Department of Health
Mr. Michael Montysko, New York State Department of Health (w/o enclosure)
Mr. Alan Belensz, New York State Department of Law
David Munro, Esq., New York State Department of Law
Ms. Deb Mason, New York State Department of Transportation
Mr. Carl Stefanik, P.E., Schoharie County Department of Health
Mr. William D. Gilmore, Jr., Mayor, Village of Cobleskill
Mr. Jeff Pangman, Village of Cobleskill Water Department
John T. Parkinson, Esq., Niagara Mohawk Power Corporation
Mr. David J. Ulm, Blasland, Bouck & Lee, Inc.
Donald F. Geisser, P.E., Blasland, Bouck & Lee, Inc.
Ms. M. Cathy Geraci, Blasland, Bouck & Lee, Inc.

Attachment 1
July 9, 2001 Letter from Shoharie County Department of Health

SCHOHARIE
COUNTY
Department of Health

CARL J. STEFANIK, P.E.
ADMINISTRATOR

P.O. BOX 667, MAIN STREET SCHOHARIE, N.Y. 12157 TEL: (518) 295-8365 FAX: (518) 295-8786

William Gilmore
Mayor, Village of Cobleskill
PO Box 169
Cobleskill, NY 12043

July 9, 2001

RE: Approval of Plans
Water Main Extension
NYS Rte 10 : West St.
Village of Cobleskill

On July 5, 2001 this department approved the plans dated June 2001 for the water main extension on NYS Rte 10, from the existing main to West St., Village of Cobleskill.

The extension is part of the Wallace & Son Scrapyard Site project. Plans were prepared by Blasland, Bouck & Lee, Inc., Engineers and Scientists on behalf of the Niagara Mohawk Power Corporation. Our approval does not include the reduced pressure zone backflow device for the Wallace and Sons building, which is being submitted separately.

Attached is our Approval of Plans for Public Water Supply Improvement. Please note the conditions of the approval.

We are returning one copy of the approved plans to Niagara Mohawk Power Corp. and one copy to Jeff Pangman, Water Superintendent. If there are any questions, feel free to contact this office.

Very truly yours,

Carl J. Stefanik, PE
Public Health Director

CJS/ss

cc: Blasland, Bouck & Lee, Inc.
Niagara Mohawk Power Corp.
Jeff Pangman, Water Supt.

NEW YORK STATE DEPARTMENT OF HEALTH

APPROVAL OF PLANS

FOR PUBLIC WATER SUPPLY IMPROVEMENT

This approval is issued under the provisions of 10 NYCRR, Part 5:

1. Applicant:	2. Location of Works (C, V, T):	3. County:	4. Water District (Specific Area Served)
Village of Cobleskill (Niagara Mohawk Power)	Cobleskill	Schoharie	NYS Rte 10 to West St.

5. Type of Project:

- ☐ 1 Source
- ☐ 2 Transmission
- ☐ 3 Pumping Units
- ☐ 4 Chlorination
- ☐ 5 Fluoridation
- ☐ 6 Other Treatment
- XX 7 Distribution
- ☐ 8 Storage
- ☐ 9 Other

REMARKS:

Approximately 1300' of 8" diameter DIP water main on NYS Rte 10 and approximately 220' of 8" diameter DIP water main on West Street plus appurtenances.

By initiating improvement of the approved supply, the applicant accepts and agrees to abide by and conform with the following:

a. THAT the proposed works be constructed in complete conformity with the plans and specifications approved this day or approved amendments thereto.

b. THAT the proposed works not be placed into operation until such time as a Completed Works Approval is issued in accordance with Part 5 of the New York State Sanitary Code.

c. THAT the proposed works be under the supervision of a licensed professional engineer, who must certify in writing to the Schoharie County Department of Health that the system was installed in conformance with the approved plans.

d. THAT plans for the reduced pressure backflow device be submitted separately.

ISSUED FOR THE STATE COMMISSIONER OF HEALTH

July 5, 2001
Date

_______________, P.E.
Designated Representative

cc: Blasland, Bouck & Lee, Inc.
Niagara Mohawk Power Corp.
Jeff Pangman, Water Supt.

Carl J. Stefanik, Public Health Director
Name and Title (print)

Distribution: White — Applicant; Pink — Central Office (BPWS); Yellow — File (LHO or DHO); Blue — Other

GEN 207
(Rev. 3/78) (8B1-20)

GENERAL

6. Type of Ownership:

- [x] Municipal
- [ ] Industrial
- [ ] Commercial
- [ ] 9 Water Works Corp.
- [ ] 68 Private - Other
- [ ] Private - Institutional
- [ ] 26 Board of Education
- [ ] 1 Authority
- [ ] 19 Federal
- [ ] 20 State
- [ ] 30 Interstate
- [ ] 40 International
- [ ] 18 Indian Reservation

Estimated Total Cost	8. Population Served	9. Drainage Basin
$350000	10±	Lower Mohawk River

10. Federal Aid Involved?		11. WSA Project?	
	☐ 1 Yes ☒ 2 No		☐ 1 Yes ☒ 2 No

SOURCE NA

12.
- [ ] Surface Name ____________ Class ______
- [ ] Ground Name ____________ Class ______

13. Est. Source Development Cost

14. Safe yield:	15. Description:
GPD	

TREATMENT NA

16. Type of Treatment

- [ ] 1 Aeration
- [ ] 2 Microstrainers
- [ ] 3 Mixing
- [ ] 4 Sedimentation
- [ ] 5 Clarifiers
- [ ] 6 Filtration
- [ ] 7 Iron Removal
- [ ] 8 Chlorination
- [ ] 9 Fluoridation
- [ ] 10 Softening
- [ ] 11 Corrosion Control
- [ ] 12 Other

17. Name of Treatment Works	18. Max. Treatment Capacity	19. Grade of Plant Operator Req.	20. Est. Cost
	GPD		

Description:

DISTRIBUTION

22. Type of Project

- [ ] 1 Cross Connection
- [x] 3 Transmission
- [ ] 2 Interconnection
- [ ] 4 Fire Pump Cl_2

23. Type of Storage

Elevated ____________ Gals.

Underground ____________ Gals.

24. Est. Distribution Cost

$350000

25. Anticipated Distribution System Demand: Avg. ____________ GPD Max. ____________ GPD

26. Designed for fire flow?

- [x] 1 Yes
- [ ] 2 No

Description:

Approximately 1300' of 8" diameter DIP water main on NYS Rte 10 and approximately 220' of 8" diameter DIP water main on West Street plus appurtenances.

Attachment 2
June 19, 2001 Letter from Shoharie County Department of Health

SCHOHARIE COUNTY
Department of Health

CARL J. STEFANIK, P.E.
ADMINISTRATOR

P.O. BOX 667, MAIN STREET SCHOHARIE, N.Y. 12157 TEL: (518) 295-8365 FAX: (518) 295-8786

June 19, 2001

James F. Morgan
Environmental Analyst
Niagara Mohawk
300 Erie Boulevard West
Syracuse, NY 13202-4250

RE: Backflow Prevention Device
Cobleskill (V) Public Water Supply
Wallace & Sons, Inc. Scrapyard Site
Village of Cobleskill

Dear Mr. Morgan:

We have received your submission for the water main extension for the above named project. Mention is made of the proposed Watts 909 reduced pressure zone (RPZ) backflow prevention device and some specifications appear in MP Section 02661. However, more detail on the RPZ is required. For your information we are enclosing a packet of materials outlining what is needed for submission of a backflow prevention device to this office. Item 14 of the application (form DOH-347) is to be signed by the Mayor or the Water Superintendent.

If you have any questions feel free to contact this office.

Sincerely,

Carl J. Stefanik, P.E.
Public Health Director

CJS:sl

cc: Mayor Gilmore
Water Superintendent Pangman
Blasland, Bouck & Lee, Inc.

SCHOHARIE COUNTY
Department of Health

CARL J. STEFANIK, P.E.
ADMINISTRATOR

P.O. BOX 667, MAIN STREET SCHOHARIE, N.Y. 12157 TEL: (518) 295-8365

Engineers & Architects

Re: Submission of Plans
Backflow Prevention Devices
Schoharie County

If you are engaged to prepare and submit plans and specifications for backflow prevention devices, the enclosed information may be useful to you:

(a) Section 5-1.31 of the New York State Sanitary code entitled "Cross Connection Control"

(b) Guidelines for Designing Backflow Prevention Assembly Installations - Supplement to the 1981 Cross Connection Control Manual, dated January 1992

(c) Form DOH-347 "Application for Approval of Backflow Prevention Devices"

(d) Plan Review "Check Sheet"

The guidelines (b) must be followed. We use the plan review check sheet (d) during the review process. If you do not have a copy of the New York State Health Department's Cross Connection Control Manual you should contact the Bureau of Public Water Supply Protection at 518-~~458-6756~~ 402-7714 for a copy.

Before you specify a particular type of backflow prevention device you should contact this office to discuss the facility and type of hazard involved. We can also advise you if a certain type of backflow prevention device is acceptable or not.

The New York State Health Department periodically updates its list of certified testers and we can make that available to you. Although there are no testers currently certified in Schoharie County, we have a listing from adjacent counties.

Carl J Stefanik

Better Health TOMORROW
by Better Health Practices TODAY

4/95

5-1.31 Cross-connection control. (a) The supplier of water shall protect the public water system, in accordance with procedures acceptable to the commissioner, by containing potential contamination within the premises of the user in the following manner:

(1) by requiring an acceptable air gap, reduced pressure zone device, double check valve assembly or equivalent protective device acceptable to the commissioner consistent with the degree of hazard posed by any service connection;

(2) by requiring the users of such connections to submit plans for the installation of protective devices to the supplier of water and the State for approval; and

(3) by assuring that all protective devices be tested at least annually. Records of such tests shall be made available to and maintained by the supplier of water. Such tests shall be conducted by certified backflow prevention device testers pursuant to the following requirements:

(i) A "general tester" certification will be issued when the applicant presents proof of satisfactory completion of a training course for testers of backflow prevention devices which has been approved by the department.

(ii) A "limited tester" certification will be issued when the applicant presents proof of employment by a manufacturer as its agent for the servicing, maintaining and testing of backflow prevention devices.

(iii) The department has the authority to require any person applying for certification or renewal of certification as a certified tester of backflow prevention devices to take a written, oral or practical examination, if it deems such examinations to be reasonably necessary in determining the applicant's qualifications. The results of such examinations may be the sole basis for approval or disapproval of an application for certification or renewal of certification.

(iv) At least three months prior to the expiration date of a current certificate, both a general tester and a limited tester must submit proof that they are still engaged in the activity represented by their current certification.

(v) A certification will be suspended or revoked, upon due notice and an opportunity for a hearing thereon, for any of the following reasons: submission of false test reports for backflow prevention devices; proof that the person is no longer engaged in servicing, maintaining and testing backflow prevention devices; or failure to make application for recertification.

(b) The supplier of water should not allow a user to establish a separate source of water. However, if the user justifies the need for a separate source of water, the supplier of water shall protect the public water system from a user who has a separate source of water and does not pose a hazard as detailed in subdivision (a) of this section in the following manner:

(1) by requiring the user to regularly examine the separate water source as to its quality;

(2) by approving the use of only those separate water sources which are properly developed, constructed, protected and found to meet the requirements of sections 5-1.50 and 5-1.51 of this Subpart; and

(3) by filing such approvals with the State annually.

(c) All users of a public water system shall prevent cross-connections between the potable water piping system and any other piping system within the premises.

Historical Note

Sec. filed Aug. 3, 1972; repealed, new filed April 4, 1977; amds. filed: June 21, 1981; April 6, 1987 eff. April 6, 1987.

NEW YORK STATE DEPARTMENT OF HEALTH
BUREAU OF PUBLIC WATER SUPPLY PROTECTION
GUIDELINES FOR DESIGNING
BACKFLOW PREVENTION ASSEMBLY INSTALLATIONS
SUPPLEMENT TO THE 1981 CROSS CONNECTION CONTROL MANUAL
JANUARY 1992

Purpose

The purpose of these guidelines is to augment and/or clarify those guidelines outlined in the January 1981 Cross Connection Control manual. These guidelines reflect accepted design considerations based on experience in implementing cross connection control programs and policies set forth by the American Water Works Association, Environmental Protection Agency, USC Foundation for Cross Connection Control and Hydraulic Research and state and local health departments. Pending revisions to the manual, these guidelines should clearly outline what an acceptable design and installation constitutes. They are to be reasonably interpreted and will be updated as new design solutions and technologies are offered.

General Installation Details

I. Clearances

All double check valve (DCV) and reduced pressure zone (RPZ) backflow prevention assemblies are designed for in-line service and must be installed to prevent freezing, flooding and mechanical damage with adequate space to facilitate maintenance and testing. Ideally, the installation should not require platforms, ladders or lifts for access. Adequate clearances from floors, ceilings and walls must be provided to access the test cocks and to allow the repair and/or removal of the relief valve and check valves; as follows:

- All assemblies shall be installed with a centerline height from 30 inches to 60 inches above the floor. Any installation at a greater height shall be provided with a fixed platform, a portable scaffold or a lift meeting OSHA standards.
- All RPZ devices must have an 18 inch minimum clearance between the bottom of the relief valve and the floor to prevent submersion and provide access for servicing the relief valve.
- A minimum of 12 inches of clear space shall be maintained above the assembly to allow for servicing check valves and for operation of shut-off valves.
- A minimum of 30 inches of clear space shall be maintained between the front side of the device and the nearest wall or obstruction.
- At least 8 inches clearance should be maintained from the back side of the device to the nearest wall or obstruction. This clearance may need to be increased for models that have side mounted test cocks or relief valves that would be facing the back wall.

II. Miscellaneous Considerations

- All assemblies shall be adequately supported and/or restrained to prevent lateral movement. Pipe hangers, braces, saddles, stanchions, piers, etc., should be used to support the device and should be placed in a manner that will not obstruct the function of or access to the relief valve.

- Strainers are recommended prior to each backflow prevention assembly on non-fire fighting water lines. No strainer is to be used in a fire line without the approval of the Insurance Underwriters or the authority having jurisdiction.

- The assembly should be sized hydraulically, taking into account both the volume requirements of the service and the head loss of the assembly. The head loss of the assembly is not necessarily directly proportional to flow. (Refer to the manufacturers head loss curves).

- Before selection and installation, refer to manufacturers literature for temperature ranges. All assemblies must be protected from freezing temperatures and if installed where temperatures will reach 110 degrees F or above, a hot water type assembly must be used. Consult manufacturers specifications for recommendations.

- Thermal water expansion and/or water hammer downstream of the assembly can cause excessive pressure. To avoid possible damage to the system and assembly, use water hammer arresters, surge protectors or expansion tanks as appropriate.

- All assemblies should be specified and installed with the manufacturer supplied resilient seated shut-off valves integral to the assembly.

- Water lines should be thoroughly flushed before installing the assembly. Most test failures on new installations are the result of debris fouling one of the check valves or the relief valve.

- All assemblies must be installed horizontally unless they are specifically approved for vertical installation. (Ref. Technical Reference PWS-14).

- Parallel installations should be considered at those facilities where water service cannot be interrupted. Manifold installations may also be used on any water line larger than 10 inches.

- Assemblies shall not be installed in areas containing corrosive, toxic or poisonous fumes or gases which could render the assembly inoperable or pose a safety hazard to personnel.

- Because of the inherent design of a reduced pressure backflow assembly, fluctuating supply pressure on an extremely low flow or static flow condition may cause nuisance dripping and potential fouling of the assembly. While not effective in all cases, the installation of a soft seated check valve immediately ahead of the RPZ will often hold the pressure constant to the assembly in times of fluctuating supply pressure.

- Where the distance between the water meter and the device is greater than 10 feet, all exposed piping should be stencilled "Feed Line to Backflow Preventer - DO NOT TAP" at 5 foot intervals.

III. Drainage

Drainage for backflow prevention assemblies shall be provided for all installations of DCV or RPZ to accommodate discharge during testing or draining of the unit and for RPZ relief valve discharges, as follows:

- For RPZ devices, drainage capacity shall be sized to accommodate both intermittent discharges and a catastrophic failure of the relief valve. Refer to manufacturers flow curves to determine maximum discharge rate based on supply pressure or on-site pressure; whichever is greater.

- Discharge from relief valves must be readily detectable to maintenance personnel either visually or by means of water level alarms, flow indicator lights, etc.

- All drainage from RPZ's must be by gravity drains. Sump pumps are not allowed unless they are sized to accommodate the maximum discharge rate and connected to emergency power supplies.

- An air gap must be maintained between the RPZ relief valve opening and any discharge piping. The air gap must be at least twice the dimension of the effective opening of the relief valve; but in no case less than 1 inch.

- Manufacturer's air gap fittings may be utilized provided that they maintain a proper air gap and do not enclose or cover the relief valve. These fittings are only sized to handle intermittent and low flow discharges. Additional drainage capacity may be required to accommodate a catastrophic relief valve failure.

- Discharge piping from relief valves shall be terminated a minimum of one inch above any floor drain or other receiving receptacle.

- Discharge piping connected to a storm sewer shall be equipped with backwater check valve.

- Discharge piping connected to a sanitary sewer shall be trapped and equipped with a backwater check valve.

- Discharge piping from pits or other structures must be terminated above grade in an area not subject to flooding (generally one foot above the 100 year flood elevation). The terminal end of the discharge piping must have a rodent screen and may need to be supported by a headwall. Flap valves should also be considered to prevent entry of cold air.

- All exterior drains shall be kept free of snow during winter.

IV. Pit Installations

Primarily due to considerations for access, safety and gravity drainage, it is preferred that backflow prevention devices not be installed in pits. Where pit installations are proposed, however, they shall be designed:

- To be watertight with watertight manholes or access doors extending a minimum of 6 inches above grade and located to allow natural light into the pit during testing/maintenance.

- With stairways, ladders or step irons.

- For crane access for installing and removing large assemblies.

- With adequate horizontal and vertical clearances to allow access to the device.

- With a full flow screened gravity drain terminating above grade for all RPZ installations as detailed in the drainage requirements.

- With sump pumps or gravity daylight drains for all DCVA installations.

- With floors pitched to the drain.

- With adequate ground cover to prevent freezing.

- With surface grading to divert runoff away from the entrance way.

- Semi-buried pits or berm installations may be necessary to satisfy gravity drainage requirements.

V. <u>Above Grade Installations - Protective Enclosures</u>

An above grade installation is generally necessary to provide gravity drainage from RPZ devices. The additional benefits of improved access and enhanced safety are also realized with an above grade installation. Two companies, "Hot Box" and "Hydrocowl", have designed prefabricated insulated enclosures that provide heat, gravity drainage and removable access panels for servicing and testing. As an alternate, wood frame, fiberglass, steel, masonry or precast concrete structures may be utilized. All enclosures shall be designed:

- With a floor elevation that is at least 6 inches above finished grade.
- To provide adequate clearances around the device to access the test cocks, shutoff valves, check valves and relief valve.
- With electric heaters or heat trace wire for any water service used year round.
- With provisions for natural or artificial light.
- With full flow gravity drains according to the drainage requirements.
- With security measures such as locking doors and panels, flow alarms or flow indicator lights, power indicator lights, etc.

VI. <u>Installation Within a Building</u>

Where containment at the property line cannot be achieved or is waived based on extenuating circumstances, installation within a building is often desirable as the unit can be installed in a mechanical room or other area that has heat and light. Access and drainage considerations must also be satisfied and the devices should be located to avoid electrical panels, areas of excessive heat, etc.

1. Above grade installations shall be provided with adequate clearances and discharge can be directed to floor drains or through a sidewall above grade via screened louvers, scuppers, pipe sleeves with flap valves, etc., in accordance with the drainage requirements.
2. Below grade or basement installations are acceptable for DCVA's. RPZ's are only allowed below grade where one or more of the following conditions can be met:
   - Where an adequate gravity drainage system is provided to accommodate a relief valve failure.
   - Where water level alarms are installed to detect flow from the device and alert maintenance or security personnel.
   - Where sump pumps are sized to accommodate a relief valve failure and are connected to emergency power.
   - Where the floor area and volume below the device could accommodate discharge from a relief valve failure. For 2 inch and smaller units, 2,000 cubic feet is generally acceptable. For larger units, the time to submerge the device based on the maximum discharge rate and floor area/volume should be no less than 8 hours.

In any of the above cases, the property owner must be made aware of the potential for water damage in the event of a discharge.

VII. Submission and Approval of Plans

In accordance with Section 10 of the Cross Connection Control manual, the submission of plans and specifications for the installation of backflow prevention assemblies must include the following:

1. A site plan (to scale or with dimensions) of the facility containing a general location map, name and address of facility, property lines, buildings, the size and location of public water main(s) and all fire and domestic water services, meter pits, yard piping and hydrants, pumper connection(s), interconnections, and the location of the proposed backflow preventer(s).

2. A plumbing floor plan (plan view) or partial floor plan indicating water services, name and address of facility, water meter layout, proposed backflow preventer(s), booster pump system, floor drain(s) and all nearby objects (examples: electrical panels, boilers, chillers, storage tanks, fire pumps, fire sprinkler risers, etc.). The plan must be drawn to scale or with dimensions indicated from walls and all nearby objects.

3. A vertical cross section(s) of the proposed installation with elevations from floor, ceiling, outside grade and all nearby objects.

4. All drawings must include the name and address of the facility, be stamped and signed by the designer and have a clear space for approval stamps.

VIII. Engineer's Report

An engineering report must be included with the plan submittal. The report must describe the project in detail. Items that should be included or described in the report include:

1. General use of water within the facility;

2. Size and description of all fire and domestic water services;

3. Number of floors within the facility;

4. Actual or estimated maximum flow demand;

5. Pressures - existing and after the installation of the backflow preventer;

6. Description of the fire fighting system - indicate the A.W.W.A. Manual M-14 class of sprinkler service;

7. Description of the proposed installation of the backflow preventer - indicate the location of backflow preventer, drainage, lighting, heating, access to unit, square footage of the floor level where the backflow preventer is to be located;

8. Description of the existing or proposed booster pump system, answering the following questions:

   A. After the installation of the proposed backflow preventer(s), will the Net Positive Suction Head (NPSH) required for the proper operation of the booster pump system be adequate?

   B. After the installation of the backflow preventer(s) in the suction line to the booster pump system, will the booster pump system operate properly at peak demand to deliver adequate pressure to the highest elevation and/or most remote fixture unit or any other operation requiring a certain pressure? Note: The New York State Uniform Fire Prevention and Building Code Part

902.4c requires the minimum pressure at water outlets at all times to be as follows:

Fixture - non flush valve - 8 psi
Fixture - flush valve - 15 psi

C. Does the booster pump system have a pressure cutoff switch in the suction line? What is the pressure setting of the switch? An existing or proposed cutoff switch must be set at the following setting:

For a cutoff switch where the backflow preventer is located upstream of the booster pump(s) - set at 10 psi.

For a cutoff switch where the backflow preventer is located downstream of the booster pump(s) - set at 20 psi.

9. The need for dual backflow preventers. Does the facility need a continuous water supply?

10. The elevation and location of the 100 year flood plain in relation to the facility. A reduced pressure zone (RPZ) backflow preventer must generally be installed 1 foot above the 100 year flood plain elevation.

11. An inventory of any existing containment devices to include the make, model, size and serial number of the device. Current annual test reports must also be submitted. The degree of hazard for these services must be determined to insure that the device provides the correct protection.

IX. Certified Testing and Completed Works Approval

After an approval of plans has been issued and the assembly has been installed, it must be tested by a certified tester. The designer (or water supplier) is then responsible to certify that the installation was done in accordance with approved plans; or describe any changes or submit "As Built" plans as appropriate.

The initial test results and certification are then submitted to the water supplier and approving agent for issuance of a Completed Works Approval. DOH - Form 1013 has been designed for both the certified test results and the designer's certification of the installation.

After issuance of the Completed Works Approval, the assembly must be tested at least annually by a certified tester with the results reported to the water supplier.

'W YORK STATE DEPARTMENT OF HEALTH
:eau of Public Water Supply Protection

Application For Approval of Backflow Prevention Devices

'INT OR TYPE ALL ENTRIES EXCEPT SIGNATURES
:se complete items 1 through 12a + Block and Lot Numbers

Block # | Lot #

FOR DEPARTMENT USE ONLY
Log No.

of Facility | 2. City, Village, Town | 3. County

_ocation of Facility street | city | state | zip

Phone Numbers | Contact Person

Approx. Location of Device(s) | 6. Mfg. Model # | Size of Device(s)

c:f Fire Services | # of Domestic Services | # of Combined Services | Total # of Services | Total # of Buildings

.Name of Owner | Title | Phone Number

:l Mailing street
cdress
city | state | zip

wner's Signature | Date m / d / y

8. Nature of works
- ☐ Initial Device Installation
- ☐ Replace Existing Device

8a. ☐ New Service ☐ Existing Service

8b. ☐ New Building ☐ Existing Building ☐ Major Renovation

:Name of Design Engineer or Architect

Address street
city
state | zip

signature

'riginal ink signature and seal required on all copies.

10. NYS License #

☐ PE ☐ RA ☐ Other

10a. Telephone Number(s)

Date ___/___/___ m d y

-1. Water System Pressure (psi) at Point of Connection
Max ________ Avg ________ Min ________

12. Estimate Installation Cost

12a. Estimate Design Cost

3. Degree of
Hazard
☐ Hazardous
☐ Aesthetically Objectionable

List of processes or reasons that lead to degree of hazard checked:

:-4. Public water supply name

Name of supplier's designated representative

Mailing address
street
city | state | zip

phone No. ( )

Title

Signature* ________ m / d / y Date

* *Your signature endorses proposal*

:Note: All applications must be accompanied by plans, specifications and an engineer's report describing the project in detail. The project must first be submitted to the water supplier, who will forward it to the local public health engineer. This form must be prepared in quadruplicate with four copies of all plans, specifications and descriptive literature.

DOH-347 (5.91)

PLAN REVIEW FOR PROTECTIVE DEVICE(S) ON PUBLIC WATER SUPPLY DISTRIBUTION SYSTEMS

Check Sheet

Name of Project: ____________ Supplier of Water: ____________

Location (St, Rd): ____________ (C,T,V): ____________

Received from: ____________ Date: __/__/__

Process Description: ____________

Degree of Hazard: ( ) Hazardous
( ) Aesthetically Objectionable
( ) No Hazard

Device Type: ( ) DCV
( ) RPZ

Name and Model of Device(s): ____________

Number of Devices: ____________ Size of Devices: ____________

NYSDOH Approved Device? (Y) (N)

ITEM	CHECK	COMMENTS
GEN 236 Submitted (4 copies)		
Name, title, signature of owner.		
Approved & signed by water supplier.		
Plans Submitted (4 copies)		
Plans prepared by NYS licensed Professional Engineer or Registered Architect (seal and signature on report and all plans).		
Site Plan (location map, property lines, public water main location(s), fire service(s), domestic service(s), meter pits, hydrants, pumper connections, Inter-connections, and location of device).		
Plumbing Floor Plan (plan view) or Partial Floor Plan (indicating water services, meter layout, booster pump system, floor drains, and all nearby objects). Drawn to scale or with dimensions.		

ITEM	CHECK	COMMENTS
Vertical Cross Section(s) with elevations from floor, ceiling, outside grade and all nearby objects.		
Engineer's Report Submitted (4 copies)		
Description of facility water use.		
Size and description of fire and domestic water services.		
Number of floors in facility.		
Maximum flow demand.		
Pressures (existing and after installation).		
Description of fire fighting system.		
Description of proposed installation.		
Description of proposed or existing booster pump system.		
a) After installation, will NPSH be adequate for proper operation of booster pump system.		
b) Will downstream pressures be adequate during peak demand.		
c) Is booster pump provided with auto. pressure cut-off switch.		
Does facility need continuous water supply (dual devices).		
Elevation and location of 100 year flood plain.		
Pressure at highest or most remote location adequate.		
Minimum pressure at water outlets: Non-flush valve fixtures: 8 psi Flush valve fixtures: 15 psi		
CLEARANCES		
Centerline height 30-60 inches above floor (If > 60 inches, provided with platform). 18 inches between bottom of relief valve and floor (RPZ's).		
Minimum of 12 inches of clear space above assembly.		
Minimum of 30 inches of clear space between front and nearest obstruction.		
Minimum of 8 inches of clear space between back and nearest object.		
DRAINAGE		
Maximum discharge indicated.		
Capacity sized to accomodate maximum discharge.		
Discharge readily detectable (visual, alarm, indicator lights).		
Drainage from RPZ by gravity.		

ITEM	CHECK	COMMENTS
Air gap between RPZ relief valve and discharge piping (twice dimension of opening, no less than 1 inch).		
Discharge piping from relief valve terminated minimum of 1 inch above floor drain.		
Discharge piping connected to storm sewer equipped with backwater check valve.		
FIRE FIGHTING SYSTEM		
AWWA Manual M-14 Fire Fighting System Class ____		
Class 1 & 2: Sprinkler drains discharge to atmosphere, dry well or other safe outlet.		
Class 3: Minimum protection (DCV) to prevent stagnant water backflow.		
Class 4: Backflow protection at service connection.		
Protection consistent with quality of auxiliary supply.		
Class 5: Maximum protection provided to protect public water supply.		
Class 6: Is backflow protection required.		
BELOW GRADE INSTALLATION (RPZ's)		
Adequate drainage if relief valve fails.		
Water level alarms to detect flow.		
Sump pumps to accomodate failure.		
Sump pumps connected to emergency power.		
Floor area and volume below device can accomodate relief valve failure (units < 2 inches: 2000 cu. ft.; larger units: submerge time not < 8 hours).		
PIT INSTALLATIONS		
Water tight with manholes or access doors extending 6 inches above grade.		
Natural light available for testing and maintenance.		
Stairways, ladders or step irons provided.		
Crane access for large assemblies.		
Adequate horizontal and vertical clearance for access.		
Full flow gravity screen terminating above grade for all RPZ's.		
Sump pump or gravity daylight drains for DCV.		

ITEM	CHECK	COMMENTS
Floors pitched to drain.		
Adequate ground cover to prevent freezing.		
Surface graded to divert runoff away from entrance.		
End of discharge piping provided with rodent screen.		
PROTECTIVE ENCLOSURES (above grade)		
Floor elevations at least 6 inches above finished grade.		
Adequate clearance to access test cocks, shut-off valves, check valves & relief valves.		
Electric heater or heat trace wire if used year-round.		
Provisions for natural or artificial light.		
Full flow gravity drains according to drainage requirements.		
Security provided (locking doors, flow alarms, indicator lights, etc.).		
MISCELLANEOUS		
All assemblies adequately supported and restrained.		
Strainers on non-fire fighting water lines.		
Temperature range consistent with manufacturer specifications.		
Use of water hammer arrestor, surge protector, or expansion tanks where necessary.		
Device installed with manufacturer supplied resilient seated shut-off valves.		
Water lines to be flushed before installation.		
All assemblies to be installed horizontally unless otherwise approved and designed.		
Device(s) not located near corrosive, toxic, or poisonous gases.		
Where distance between water meter and device is > 10 feet, piping stencilled "Feed line to Back Flow Preventer - DO NOT TAP" at 5 foot intervals.		
Have all connections to public distribution been similarly protected.		
Is proposed device located at property line, upstream of all taps and private hydrants.		

REVIEWED BY: ____________________ **DATE:** _/_/_

COMMENTS GIVEN TO: ____________________ **DATE:** _/_/_

RESUBMISSION: _/_/_

ITEM	CHECK	COMMENTS
Air gap between RPZ relief valve and discharge piping (twice dimension of opening, no less than 1 inch).		
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Adequate clearance to access test cocks, shut-off valves, check valves & relief valves.		
Electric heater or heat trace wire if used year-round.		
Provisions for natural or artificial light.		
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Security provided (locking doors, flow alarms, indicator lights, etc.).		
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Have all connections to public distribution been similarly protected.		
Is proposed device located at property line, upstream of all taps and private hydrants.		

REVIEWED BY: ____________________ DATE: _/_/_

COMMENTS GIVEN TO: ____________________ DATE: _/_/_

RESUBMISSION: _/_/_

NEW YORK STATE DEPARTMENT OF HEALTH
Bureau of Public Water Supply Protection

Application For Approval of Backflow Prevention Devices

PRINT OR TYPE ALL ENTRIES EXCEPT SIGNATURES
P'ease complete items 1 through 12a + Block and Lot Numbers

Block #	Lot #	FOR DEPARTMENT USE ONLY Log No.

1. Name of Facility	2. City, Village, Town	3. County

4. Location of Facility street	city	state	zip

4a. Phone Numbers	Contact Person

5. Approx. Location of Device(s)	6. Mfg. Model #	Size of Device(s)

# of Fire Services	# of Domestic Services	# of Combined Services	Total # of Services	Total # of Buildings

7. Name of Owner	Title	Phone Number

Full Mailing Address street

city | state | zip

Owner's Signature   Date m ___/d ___/y ___

8. Nature of works
- ☐ Initial Device Installation
- ☐ Replace Existing Device

8a.
- ☐ New Service
- ☐ Existing Service

8b.
- ☐ New Building
- ☐ Existing Building
- ☐ Major Renovation

9. Name of Design Engineer or Architect

Address street

city

state | zip

signature

Original ink signature and seal required on all copies.

10. NYS License #

☐ PE ☐ RA ☐ Other

10a. Telephone Number(s)

Date ___/___/___ m d y

11. Water System Pressure (psi) at Point of Connection Max ________ Avg ________ Min ________	12. Estimate Installation Cost	12a. Estimate Design Cost

13. Degree of Hazard
- ☐ Hazardous
- ☐ Aesthetically Objectionable

List of processes or reasons that lead to degree of hazard checked:

14. Public water supply name

Name of supplier's designated representative

Mailing address
street

city | state | zip

Title

Telephone No. (   )

Signature* ______________________ m ___/d ___/y ___ Date

** Your signature endorses proposal*

Note: All applications must be accompanied by plans, specifications and an engineer's report describing the project in detail. The project must first be submitted to the water supplier, who will forward it to the local public health engineer. This form must be prepared in quadruplicate with four copies of all plans, specifications and descriptive literature.

DOH-347 (5/91)

Attachment 2

Public Waterline Extension Record Drawings

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Attachment 3

Public Waterline Extension Air Monitoring Logs

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY

Date:11/7/01 | Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS

Air Monitor: Dave Groff | COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust

PPE Level:D | Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust mg/M3	
10:51	Work area outside of trench	0.00	0.00	0.00	0.00	20.1	0.023	very windy
10:52	Trench	0.00	0.00	0.00	0.00	20.1	0.032	very windy
10:53	South side of Rt 10	0.00	0.00	0.00	0.00	20.1	0.033	downwind of work area
10:54	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.1	0.040	very windy
10:58	Spoil pile	0.00	0.00	0.00	0.00	20.1	0.038	very windy
1:05	Work area outside of trench	0.00	0.00	0.00	0.00	20.2	0.044	very windy
1:07	Spoil pile	0.00	0.00	0.00	0.00	20.2	0.055	very windy
1:08	South side of Rt 10	0.00	0.00	0.00	0.00	20.1	0.086	downwind of work area
1:09	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.2	0.030	very windy
1:10	Trench	0.00	0.00	0.00	0.00	20.3	0.027	very windy
3:02	Trench	0.00	0.00	0.00	0.00	20.3	0.033	very windy
3:03	South side of Rt 10	0.00	0.00	0.00	0.00	20.3	0.037	downwind of work area
3:04	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.3	0.030	very windy
3:05	Work area outside of trench	0.00	0.00	0.00	0.00	20.2	0.025	very windy
3:06	Spoil pile	0.00	0.00	0.00	0.00	20.2	0.074	very windy

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:11/08/01
Air Monitor: Dave Groff
PPE Level:D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust mg/M3	
9:05	Rt 10 crossing (pavement breaking)	0.00	0.00	0.00	0.00	20.3	0.188	no wind
9:06	South side of Rt 10	0.00	0.00	0.00	0.00	20.3	0.070	no wind
9:07	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.3	0.017	no wind
10:15	Rt 10 crossing (digging trench)	0.00	0.00	0.00	0.00	20.2	0.038	no wind
10:16	South side of Rt 10	0.00	0.00	0.00	0.00	20.2	0.018	no wind
10:17	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.2	0.019	no wind
1:40	Work area	0.00	0.00	0.00	0.00	20.3	0.034	light breeze
1:41	Spoil pile	0.00	0.00	0.00	0.00	20.3	0.046	light breeze
1:42	At active excavtion of trench	0.00	0.00	0.00	0.00	20.3	0.162	light breeze
1:44	South side of Rt 10	0.00	0.00	0.00	0.00	20.3	0.034	light breeze
1:45	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.3	0.031	light breeze
3:15	Work area	0.00	0.00	0.00	0.00	20.3	0.113	light breeze
3:16	Trench	0.00	0.00	0.00	0.00	20.3	0.063	light breeze
3:17	Spoil pile	0.00	0.00	0.00	0.00	20.3	0.058	light breeze
3:22	South side of Rt 10	0.00	0.00	0.00	0.00	20.2	0.113	light breeze
3:24	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.2	0.068	light breeze

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:11/09/01
Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
Air Monitor: Dave Groff
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
PPE Level:D
Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
9:01	Work area	0.00	0.00	0.00	0.00	20.2	0.000	no dust monitoring due to
9:02	Excavation for hydrant	0.00	0.00	0.00	0.00	20.3	0.000	snow and wet soil
9:05	South side of Rt 10	0.00	0.00	0.00	0.00	20.3	0.000	conditions
9:06	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.2	0.000	
11:32	Work area	0.00	0.00	0.00	0.00	20.3	0.000	
11:33	Trench	0.00	0.00	0.00	0.00	20.3	0.000	
11:34	South side of Rt 10	0.00	0.00	0.00	0.00	20.3	0.000	
11:35	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.2	0.000	
2:05	Trench	0.00	0.00	0.00	0.00	20.3	0.000	
2:06	Work area	0.00	0.00	0.00	0.00	20.3	0.000	
2:07	South side of Rt 10	0.00	0.00	0.00	0.00	20.3	0.000	
2:08	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.2	0.000	

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:11/12/01 Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
Air Monitor: Dave Groff COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
PPE Level:D Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
8:02	Work area	0.00	0.00	0.00	0.00	20.1	0.000	no dust monitoring due to
8:04	Excavation across Rt 10	0.00	0.00	0.00	0.00	20.1	0.000	snow and wet soil
8:06	South of Rt 10 work area	0.00	0.00	0.00	0.00	20.2	0.000	conditions
8:08	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.1	0.000	
10:45	Excavation across Rt 10	0.00	0.00	0.00	0.00	20.2	0.000	no dust monitoring due to
10:46	Trench	0.00	0.00	0.00	0.00	20.2	0.000	snow and wet soil
10:48	South of Rt 10 work area	0.00	0.00	0.00	0.00	20.2	0.000	conditions
10:50	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.1	0.000	
12:55	Work area	0.00	0.00	0.00	0.00	20.3	0.003	
12:56	Trench	0.00	0.00	0.00	0.00	20.2	0.014	
12:58	South of Rt 10 work area	0.00	0.00	0.00	0.00	20.2	0.043	
12:59	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.3	0.017	
3:32	Trench	0.00	0.00	0.00	0.00	20.3	0.015	
3:33	Work area	0.00	0.00	0.00	0.00	20.2	0.010	
3:34	South of Rt 10 work area	0.00	0.00	0.00	0.00	20.3	0.035	
3:36	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.3	0.028	

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY

Date:11/13/01 | Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS

Air Monitor: Dave Groff | COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust

PPE Level:D | Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	Comments
9:17	Work area	0.00	0.00	0.00	0.00	20.3	0.014	
9:18	Work area	0.00	0.00	0.00	0.00	20.3	0.025	
9:19	South of Rt 10 work area	0.00	0.00	0.00	0.00	20.3	0.035	
9:20	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.3	0.005	
10:45	Auto Works parking lot	0.00	0.00	0.00	0.00	20.2	0.022	
10:46	Work area	0.00	0.00	0.00	0.00	20.3	0.024	
10:47	Trench	0.00	0.00	0.00	0.00	20.3	0.094	
10:49	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.3	0.034	
1:10	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.2	0.001	
1:12	Work area	0.00	0.00	0.00	0.00	20.3	0.053	
1:13	Trench	0.00	0.00	0.00	0.00	20.3	0.042	
1:15	Auto Works parking lot	0.00	0.00	0.00	0.00	20.4	0.016	
2:45	Work area	0.00	0.00	0.00	0.00	21.0	0.018	
2:46	Spoil pile	0.00	0.00	0.00	0.00	21.0	0.014	
2:48	Trench	0.00	0.00	0.00	0.00	21.0	0.012	
2:50	Auto Works parking lot	0.00	0.00	0.00	0.00	20.9	0.002	

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY

Date:11/14/01

Air Monitor: Dave Groff

PPE Level:D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS

COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust

Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
8:02	Auto Works parking lot	0.00	0.00	0.00	0.00	20.8	0.017	
8:03	Work area	0.00	0.00	0.00	0.00	20.8	0.028	
8:04	Work area	0.00	0.00	0.00	0.00	20.8	0.015	
8:05	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.9	0.008	
10:05	Auto Works parking lot	0.00	0.00	0.00	0.00	20.8	0.000	Rain - no visible dust, no
10:06	Work area	0.00	0.00	0.00	0.00	20.8	0.000	dust monitoring
10:07	Trench	0.00	0.00	0.00	0.00	20.8	0.000	
10:08	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.8	0.000	
1:04	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.8	0.000	Rain - no visible dust, no
1:05	Work area	0.00	0.00	0.00	0.00	20.9	0.000	dust monitoring
1:06	Trench	0.00	0.00	0.00	0.00	20.8	0.000	
1:08	Auto Works parking lot	0.00	0.00	0.00	0.00	20.8	0.000	
3:06	Auto Works parking lot	0.00	0.00	0.00	0.00	20.8	0.000	Wet soil - no visible dust,
3:07	Work area	0.00	0.00	0.00	0.00	20.9	0.000	no dust monitoring
3:09	Trench	0.00	0.00	0.00	0.00	20.9	0.000	
3:10	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.8	0.000	

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:11/15/01
Air Monitor: Dave Groff
PPE Level:D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
8:04	Auto Works parking lot	0.00	0.00	0.00	0.00	20.9	0.042	
8:06	Work area	0.00	0.00	0.00	0.00	21.0	0.032	
8:08	Work area	0.00	0.00	0.00	0.00	20.9	0.038	
8:09	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.9	0.019	
10:47	Work area	0.00	0.00	0.00	0.00	20.8	0.045	
10:48	Trench	0.00	0.00	0.00	0.00	20.8	0.038	
10:49	Work area	0.00	0.00	0.00	0.00	20.9	0.029	
10:51	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.9	0.043	
1:32	ES5+00	0.00	0.00	0.00	0.00	20.9	0.043	Downwind of work area
1:34	Palmatier Residence driveway	0.00	0.00	0.00	0.00	20.9	0.048	Downwind of work area
1:36	Work area	0.00	0.00	0.00	0.00	20.9	0.056	
1:37	Trench	0.00	0.00	0.00	0.00	20.8	0.041	
1:40	Parking area Wallace Scrap Yard	0.00	0.00	0.00	0.00	20.9	0.037	
1:42	Auto Works parking lot	0.00	0.00	0.00	0.00	20.9	0.085	Upwind of work area
1:44	Upwind of Auto Works	0.00	0.00	0.00	0.00	20.8	0.058	
3:15	Work area	0.00	0.00	0.00	0.00	20.9	0.049	
3:16	Trench	0.00	0.00	0.00	0.00	20.9	0.058	
3:18	ES5+00	0.00	0.00	0.00	0.00	20.9	0.060	Downwind of work area
3:20	Palmatier Residence driveway	0.00	0.00	0.00	0.00	20.9	0.038	Downwind of work area

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:11/19/01
Air Monitor: Dave Groff
PPE Level:D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
9:49	Work area	0.00	0.00	0.00	0.00	20.8	0.048	
9:50	Trench	0.00	0.00	0.00	0.00	20.8	0.052	
9:52	Palmatier Residence driveway	0.00	0.00	0.00	0.00	20.9	0.034	
9:55	ES7+00 (downwind of work area)	0.00	0.00	0.00	0.00	20.8	0.043	
11:32	Work area	0.00	0.00	0.00	0.00	20.8	0.058	
11:33	Trench	0.00	0.00	0.00	0.00	20.8	0.049	
11:34	Palmatier Residence driveway	0.00	0.00	0.00	0.00	20.8	0.027	
11:36	ES6+00 (downwind of work area)	0.00	0.00	0.00	0.00	20.8	0.023	
1:35	Trench	0.00	0.00	0.00	0.00	20.8	0.047	
1:37	Work area	0.00	0.00	0.00	0.00	20.9	0.061	
1:40	ES6+00 (downwind of work area)	0.00	0.00	0.00	0.00	20.8	0.041	
1:42	Palmatier Residence driveway	0.00	0.00	0.00	0.00	20.9	0.028	
3:30	Work area	0.00	0.00	0.00	0.00	20.8	0.053	
3:31	Trench	0.00	0.00	0.00	0.00	20.9	0.033	
3:32	Palmatier Residence driveway	0.00	0.00	0.00	0.00	20.9	0.025	
3:35	ES6+00 (downwind of work area)	0.00	0.00	0.00	0.00	20.8	0.063	

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:11/20/01
Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
Air Monitor: Dave Groff
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
PPE Level:D
Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
8:01	Work area	0.00	0.00	0.00	0.00	20.9	0.000	Snow - no visible dust, no
8:03	Work area	0.00	0.00	0.00	0.00	20.9	0.000	dust monitoring
8:04	Trench	0.00	0.00	0.00	0.00	20.8	0.000	
8:06	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.000	
10:35	Work area	0.00	0.00	0.00	0.00	20.8	0.000	Snow - no visible dust, no
10:36	Work area	0.00	0.00	0.00	0.00	20.9	0.000	dust monitoring
10:37	Spoil pile	0.00	0.00	0.00	0.00	20.8	0.000	
10:38	Trench	0.00	0.00	0.00	0.00	20.8	0.000	
1:35	Work area	0.00	0.00	0.00	0.00	20.9	0.038	
1:36	Trench	0.00	0.00	0.00	0.00	20.9	0.042	
1:38	ES2+00 (downwind of work area)	0.00	0.00	0.00	0.00	20.9	0.023	
1:40	Zeh residence driveway	0.00	0.00	0.00	0.00	20.9	0.033	
3:31	Work area	0.00	0.00	0.00	0.00	20.9	0.056	
3:32	Trench	0.00	0.00	0.00	0.00	20.8	0.047	
3:35	ES1+00 (downwind of work area)	0.00	0.00	0.00	0.00	20.9	0.018	
3:38	Zeh residence driveway	0.00	0.00	0.00	0.00	20.9	0.021	

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:11/21/01
Air Monitor: Dave Groff
PPE Level:D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H_2S, CO, VOC's, O_2, LEL, total dust
Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
8:32	Work area	0.00	0.00	0.00	0.00	20.9	0.000	No visible dust due to wet
8:33	Work area	0.00	0.00	0.00	0.00	20.8	0.000	soil conditions, no dust
8:35	Trench	0.00	0.00	0.00	0.00	20.9	0.000	monitoring
8:36	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.000	
10:05	Work area	0.00	0.00	0.00	0.00	20.9	0.020	
10:06	Work area	0.00	0.00	0.00	0.00	20.9	0.035	
10:07	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.031	
10:10	Trench	0.00	0.00	0.00	0.00	20.9	0.018	
11:35	Work area	0.00	0.00	0.00	0.00	20.8	0.038	
11:36	Work area	0.00	0.00	0.00	0.00	20.9	0.045	
11:38	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.018	
11:39	Trench	0.00	0.00	0.00	0.00	20.9	0.019	
3:32	Work area	0.00	0.00	0.00	0.00	20.8	0.042	
3:33	Work area	0.00	0.00	0.00	0.00	20.9	0.044	
3:35	Trench	0.00	0.00	0.00	0.00	20.9	0.027	
3:37	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.022	

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:11/26/01
Air Monitor: Dave Groff
PPE Level:D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
9:33	Work area	0.00	0.00	0.00	0.00	20.8	0.013	Service line installation
9:34	Work area	0.00	0.00	0.00	0.00	20.8	0.014	Nadeau property
9:35	Trench	0.00	0.00	0.00	0.00	20.9	0.010	
9:36	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.013	
1:03	Work area	0.00	0.00	0.00	0.00	20.9	0.015	Service line installation
1:04	Work area	0.00	0.00	0.00	0.00	20.9	0.016	Nadeau property
1:05	Spoil pile	0.00	0.00	0.00	0.00	20.8	0.013	
1:06	Trench	0.00	0.00	0.00	0.00	20.9	0.010	

Project: Public Water Supply Extension M. Wallace and Son Scrapyard Site - Cobleskill, NY

Date:11/27/01 — Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS

Air Monitor: Dave Groff — COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust

PPE Level:D — Activity: Excavation and Pipe Laying

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
9:37	Work area	0.00	0.00	0.00	0.00	20.9	0.018	Service line installation
9:38	Work area	0.00	0.00	0.00	0.00	20.9	0.023	Wallace property
9:39	Trench	0.00	0.00	0.00	0.00	20.9	0.024	
9:41	Spoil pile	0.00	0.00	0.00	0.00	20.8	0.011	
11:31	Work area	0.00	0.00	0.00	0.00	20.8	0.023	Service line installation
11:32	Work area	0.00	0.00	0.00	0.00	20.9	0.033	Wallace property
11:35	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.015	
11:36	Trench	0.00	0.00	0.00	0.00	20.9	0.017	
1:05	Work area	0.00	0.00	0.00	0.00	20.8	0.023	Service line installation
1:06	Work area	0.00	0.00	0.00	0.00	20.9	0.025	Wallace property
1:08	Trench	0.00	0.00	0.00	0.00	20.9	0.020	
1:09	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.025	
3:32	Trench	0.00	0.00	0.00	0.00	20.8	0.030	Service line installation
3:33	Work area	0.00	0.00	0.00	0.00	20.9	0.032	Wallace property
3:34	Work area	0.00	0.00	0.00	0.00	20.9	0.019	
3:35	Spoil pile	0.00	0.00	0.00	0.00	20.9	0.023	

Attachment 4

Backflow Prevention Device Test Results

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Attachment 5

April 16, 2002 Letter to the Village of Cobleskill and Water Test Results

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Transmitted Via Federal Express

April 16, 2002

Mr. Jeffery Pangman, Water Superintendent
Village of Cobleskill
P.O. Box 169
Cobleskill, New York 12043

Re: Public Water Supply Extension
Cobleskill, New York
BBL Project #: 0364.36417 #2

Dear Mr. Pangman:

Blasland, Bouck & Lee, Inc. (BBL) is in the process of preparing a Final Completion Report for the public water line extension completed by Niagara Mohawk, a National Grid Company (Niagara Mohawk). This letter serves as confirmation of our telephone conversation on March 20, 2002 regarding the water line extension fieldwork. During that conversation, we specifically discussed the use of a bell clamp to repair a section of the 8-inch ductile iron pipe, the elevation of two of the fire hydrants, and the additional service line installed on the Grey property. You stated that the work met with your approval and that there were no outstanding items related to the work that needed to be addressed by Niagara Mohawk's contractor, Edward V. Nadeau & Sons, Inc. (Nadeau).

As we discussed, BBL had not included the additional service line on the Grey property in the original design of the water supply extension that was approved by the Village and the State. You stated that you and Mr. Andre Nadeau, of Nadeau, had discussed the installation of the additional service line and that you approved the installation. Based on the enclosed letter from Mr. Nadeau regarding his conversations with you and Mr. Grey, all parties understand that the installation of the additional service line was outside the scope of work to be completed by Niagara Mohawk and it is the responsibility of Mr. Grey to purchase the needed tapping permit and meter from the village if the line is to be used.

BBL would like to include a copy of this letter in the Final Completion Report. A copy of that report will be provided to the Village for review. If you agree with the above, please sign below in the space provided and return one signed copy to BBL and keep the other for your file. For your convenience and use, an addressed and stamped envelope has been enclosed. If you have any questions, please advise.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

David F. Groff /mcg

David F. Groff
Project Engineer

DFG/cmd
Enclosure

6723 Towpath Road • P.O. Box 66 • Syracuse, NY 13214-0066
Tel (315) 446-9120 • Fax (315) 449-0017 • www.bbl-inc.com • offices nationwide

37421750.doc

cc: James F. Morgan, Niagara Mohawk, a National Grid Company
Andre E. Nadeau, E.V. Nadeau & Sons, Inc.
M. Cathy Geraci, Blasland, Bouck & Lee, Inc.

Jeffery Pangman
Water Superintendent

4/17/02
Date

"Copy made 7/18/02"

MERRILL'S LAB

MERRILL'S LAB, INC.

Office: 31 Elm St., Cobleskill, NY 12043 • 518-234-3803
Lab: 3 France St., Cobleskill, NY 12043

New York State Department of Health E.L.A.P. # 11448

Call & send
EV Nadeau
103 W Main St
Cobleskill NY
2343124

LAB. NO. 5440 DATE COLL. 11/27/01 RECEIVED 11/27/02 EXAM'D 11/27/01 PWS#4700094

TIME 9 AM TIME 915 AM

SAMPLES FROM City Village Town ______ COUNTY ______

NAME OF OWNER Village of Cobleskill ADDRESS Main St Cobleskill, NY

COLLECTED BY: (Signature) Everett Merrill

SAMPLING POINT New Main - North hydrant on West St

SOURCE OF SAMPLE: DUG WELL ______ DRIVEN WELL ______ SPRING ______ SURFACE ______ PUBLIC SUPPLY ✓ DRILLED WELL ______

ADDITIONAL DESCRIPTION OF SOURCE ______

DISTANCE FROM ALL POSSIBLE SOURCES OF POLLUTION ______

Test	Result
Total Coliform (Colilert)	Negative

SUPPLY CHLORINATED WHEN SAMPLED: YES ☐ NO ☐ RES. C. ______ mg/l

DATE OF LAST SAMPLE ______

CURRENT OR RECENT ILLNESS: YES ☐ NO ☐ TYPE OF ILLNESS ______

☑ Based on Bacteriological Test, water sample submitted meets specifications of the New York Sanitary Code for Public Drinking Water.

☐ Based on Bacteriological Test, water sample submitted ***does not meet*** specifications of the New York Sanitary Code for Public Drinking Water.

Remarks about analysis: ______

Statement of Fee 30.00

Everett Merrill 11/28/01
LAB TECHNICIAN (Signature) Date

Lab Director: Everett Merrill
Ph.D. Food Science
and Bacteriology

Attachment 6

Residential Water Treatment System Components Wipe Test Results

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *17-Dec-01*
Lab Log No: 0112131

CLIENT:	BLASLAND, BOUCK & LEE 6723 TOWPATH ROAD, BOX 66 SYRACUSE, NY 13214-0066	**Client Sample ID:**	RW1-1
		Sampled By:	DAVID GROFF
		Collection Date:	12/12/01
Project:	WALLACE SCRAPYARD	**Received at Lab:**	12/13/01
Lab ID:	0112131-01A	**Matrix:**	WIPE

Analyses	CAS	DF	PQL	Result	Units	Qual
PCB WIPES BY EPA 8082		Analyst: **BW**	Analysis Date: **12/14/01**			
Aroclor 1016	12674-11-2	1	1.0	ND	ug/wipe	
Aroclor 1221	11104-28-2	1	1.0	ND	ug/wipe	
Aroclor 1232		1	1.0	ND	ug/wipe	
Aroclor 1242	53469-21-9	1	1.0	ND	ug/wipe	
Aroclor 1248	12672-29-6	1	1.0	ND	ug/wipe	
Aroclor 1254	11097-69-1	1	1.0	ND	ug/wipe	
Aroclor 1260	11096-82-5	1	1.0	ND	ug/wipe	
Surr: Decachlorobiphenyl	2051-24-3	1	50-150	84.8	%REC	
Surr: Tetrachloro-m-xylene	877-09-8	1	50-150	76.2	%REC	

NYSDOH ELAP #10795

John H. Buck, P.E.
Laboratory Director

Abbreviations:
ND - Not Detected at the Reporting Limit
D - Surrogate diluted out
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Est., Value exceeds quantitation range
H - Est., Holding time exceedance

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *17-Dec-01*
Lab Log No: 0112131

CLIENT:	BLASLAND, BOUCK & LEE 6723 TOWPATH ROAD, BOX 66 SYRACUSE, NY 13214-0066	**Client Sample ID:**	RW1-2
		Sampled By:	DAVID GROFF
		Collection Date:	12/12/01
Project:	WALLACE SCRAPYARD	**Received at Lab:**	12/13/01
Lab ID:	0112131-02A	**Matrix:**	WIPE

Analyses	CAS	DF	PQL	Result	Units	Qual
PCB WIPES BY EPA 8082		Analyst: **BW**	Analysis Date: **12/14/01**			
Aroclor 1016	12674-11-2	1	1.0	ND	ug/wipe	
Aroclor 1221	11104-28-2	1	1.0	ND	ug/wipe	
Aroclor 1232		1	1.0	ND	ug/wipe	
Aroclor 1242	53469-21-9	1	1.0	ND	ug/wipe	
Aroclor 1248	12672-29-6	1	1.0	ND	ug/wipe	
Aroclor 1254	11097-69-1	1	1.0	ND	ug/wipe	
Aroclor 1260	11096-82-5	1	1.0	ND	ug/wipe	
Surr: Decachlorobiphenyl	2051-24-3	1	50-150	87.6	%REC	
Surr: Tetrachloro-m-xylene	877-09-8	1	50-150	77.8	%REC	

NYSDOH ELAP #10795

John H. Buck, P.E.
Laboratory Director

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BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *17-Dec-01*
Lab Log No: 0112131

CLIENT:	BLASLAND, BOUCK & LEE 6723 TOWPATH ROAD, BOX 66 SYRACUSE, NY 13214-0066	**Client Sample ID:**	RW1-3
		Sampled By:	DAVID GROFF
		Collection Date:	12/12/01
Project:	WALLACE SCRAPYARD	**Received at Lab:**	12/13/01
Lab ID:	0112131-03A	**Matrix:**	WIPE

Analyses	CAS	DF	PQL	Result	Units	Qual
PCB WIPES BY EPA 8082		Analyst: **BW**	Analysis Date: **12/14/01**			
Aroclor 1016	12674-11-2	1	1.0	ND	ug/wipe	
Aroclor 1221	11104-28-2	1	1.0	ND	ug/wipe	
Aroclor 1232		1	1.0	ND	ug/wipe	
Aroclor 1242	53469-21-9	1	1.0	ND	ug/wipe	
Aroclor 1248	12672-29-6	1	1.0	ND	ug/wipe	
Aroclor 1254	11097-69-1	1	1.0	ND	ug/wipe	
Aroclor 1260	11096-82-5	1	1.0	ND	ug/wipe	
Surr: Decachlorobiphenyl	2051-24-3	1	50-150	83.4	%REC	
Surr: Tetrachloro-m-xylene	877-09-8	1	50-150	76.6	%REC	

This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the New York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations or warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequences of any action taken in connection with this report.

NYSDOH ELAP #10795

John H. Buck, P.E.
Laboratory Director

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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Est., Value exceeds quantitation range
H - Est., Holding time exceedance

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *17-Dec-01*
Lab Log No: 0112131

CLIENT:	BLASLAND, BOUCK & LEE 6723 TOWPATH ROAD, BOX 66 SYRACUSE, NY 13214-0066	**Client Sample ID:**	RW1-4
		Sampled By:	DAVID GROFF
		Collection Date:	12/12/01
Project:	WALLACE SCRAPYARD	**Received at Lab:**	12/13/01
Lab ID:	0112131-04A	**Matrix:**	WIPE

Analyses	CAS	DF	PQL	Result	Units	Qual
PCB WIPES BY EPA 8082		Analyst: **BW**	Analysis Date: **12/14/01**			
Aroclor 1016	12674-11-2	1	1.0	ND	ug/wipe	
Aroclor 1221	11104-28-2	1	1.0	ND	ug/wipe	
Aroclor 1232		1	1.0	ND	ug/wipe	
Aroclor 1242	53469-21-9	1	1.0	ND	ug/wipe	
Aroclor 1248	12672-29-6	1	1.0	ND	ug/wipe	
Aroclor 1254	11097-69-1	1	1.0	ND	ug/wipe	
Aroclor 1260	11096-82-5	1	1.0	ND	ug/wipe	
Surr: Decachlorobiphenyl	2051-24-3	1	50-150	84.6	%REC	
Surr: Tetrachloro-m-xylene	877-09-8	1	50-150	80.2	%REC	

NYSDOH ELAP #10795

John H. Buck, P.E.
Laboratory Director

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R - RPD outside accepted recovery limits
E - Est., Value exceeds quantitation range
H - Est., Holding time exceedance

3821 Buck Drive, Cortland, NY 13045-5150
Tel 607.753.3403 Fax 607.753.3415

BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *17-Dec-01*
Lab Log No: 0112131

CLIENT:	BLASLAND, BOUCK & LEE 6723 TOWPATH ROAD, BOX 66 SYRACUSE, NY 13214-0066	**Client Sample ID:**	RW2-1
		Sampled By:	DAVID GROFF
		Collection Date:	12/12/01
Project:	WALLACE SCRAPYARD	**Received at Lab:**	12/13/01
Lab ID:	0112131-05A	**Matrix:**	WIPE

Analyses	CAS	DF	PQL	Result	Units	Qual
PCB WIPES BY EPA 8082		Analyst: **BW**	Analysis Date: **12/14/01**			
Aroclor 1016	12674-11-2	1	1.0	ND	ug/wipe	
Aroclor 1221	11104-28-2	1	1.0	ND	ug/wipe	
Aroclor 1232		1	1.0	ND	ug/wipe	
Aroclor 1242	53469-21-9	1	1.0	ND	ug/wipe	
Aroclor 1248	12672-29-6	1	1.0	ND	ug/wipe	
Aroclor 1254	11097-69-1	1	1.0	ND	ug/wipe	
Aroclor 1260	11096-82-5	1	1.0	ND	ug/wipe	
Surr: Decachlorobiphenyl	2051-24-3	1	50-150	78.2	%REC	
Surr: Tetrachloro-m-xylene	877-09-8	1	50-150	73.2	%REC	

NYSDOH ELAP #10795

John H. Buck, P.E.
Laboratory Director

Abbreviations:
- ND - Not Detected at the Reporting Limit
- D - Surrogate diluted out
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Est., Value exceeds quantitation range
- H - Est., Holding time exceedance

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BUCK
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *17-Dec-01*
Lab Log No: 0112131

CLIENT:	BLASLAND, BOUCK & LEE 6723 TOWPATH ROAD, BOX 66 SYRACUSE, NY 13214-0066	**Client Sample ID:**	RW2-2
		Sampled By:	DAVID GROFF
		Collection Date:	12/12/01
Project:	WALLACE SCRAPYARD	**Received at Lab:**	12/13/01
Lab ID:	0112131-06A	**Matrix:**	WIPE

Analyses	CAS	DF	PQL	Result	Units	Qual
PCB WIPES BY EPA 8082		Analyst: **BW**	Analysis Date: **12/14/01**			
Aroclor 1016	12674-11-2	1	1.0	ND	ug/wipe	
Aroclor 1221	11104-28-2	1	1.0	ND	ug/wipe	
Aroclor 1232		1	1.0	ND	ug/wipe	
Aroclor 1242	53469-21-9	1	1.0	ND	ug/wipe	
Aroclor 1248	12672-29-6	1	1.0	ND	ug/wipe	
Aroclor 1254	11097-69-1	1	1.0	ND	ug/wipe	
Aroclor 1260	11096-82-5	1	1.0	ND	ug/wipe	
Surr: Decachlorobiphenyl	2051-24-3	1	50-150	87.6	%REC	
Surr: Tetrachloro-m-xylene	877-09-8	1	50-150	78.2	%REC	

NYSDOH ELAP #10795

John H. Buck, P.E.
Laboratory Director

Abbreviations:
- ND - Not Detected at the Reporting Limit
- D - Surrogate diluted out
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Est., Value exceeds quantitation range
- H - Est., Holding time exceedance

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Tel 607.753.3403 Fax 607.753.3415

B U C K
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *17-Dec-01*
Lab Log No: 0112131

CLIENT: BLASLAND, BOUCK & LEE
6723 TOWPATH ROAD, BOX 66
SYRACUSE, NY 13214-0066
Project: WALLACE SCRAPYARD
Lab ID: 0112131-07A

Client Sample ID: RW2-3
Sampled By: DAVID GROFF
Collection Date: 12/12/01
Received at Lab: 12/13/01
Matrix: WIPE

Analyses	CAS	DF	PQL	Result	Units	Qual
PCB WIPES BY EPA 8082		Analyst: **BW**	Analysis Date: **12/14/01**			
Aroclor 1016	12674-11-2	1	1.0	ND	ug/wipe	
Aroclor 1221	11104-28-2	1	1.0	ND	ug/wipe	
Aroclor 1232		1	1.0	ND	ug/wipe	
Aroclor 1242	53469-21-9	1	1.0	ND	ug/wipe	
Aroclor 1248	12672-29-6	1	1.0	ND	ug/wipe	
Aroclor 1254	11097-69-1	1	1.0	ND	ug/wipe	
Aroclor 1260	11096-82-5	1	1.0	ND	ug/wipe	
Surr: Decachlorobiphenyl	2051-24-3	1	50-150	94.2	%REC	
Surr: Tetrachloro-m-xylene	877-09-8	1	50-150	89.6	%REC	

NYSDOH ELAP #10795

John H. Buck, P.E.
Laboratory Director

Abbreviations:
ND - Not Detected at the Reporting Limit
D - Surrogate diluted out
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Est., Value exceeds quantitation range
H - Est., Holding time exceedance

B U C K
ENVIRONMENTAL LABORATORIES, INC.
accredited environmental analysis

Report Date: *17-Dec-01*
Lab Log No: 0112131

CLIENT:	BLASLAND, BOUCK & LEE 6723 TOWPATH ROAD, BOX 66 SYRACUSE, NY 13214-0066	**Client Sample ID:**	RW2-4
		Sampled By:	DAVID GROFF
		Collection Date:	12/12/01
Project:	WALLACE SCRAPYARD	**Received at Lab:**	12/13/01
Lab ID:	0112131-08A	**Matrix:**	WIPE

Analyses	CAS	DF	PQL	Result	Units	Qual
PCB WIPES BY EPA 8082		Analyst: **BW**	Analysis Date: **12/14/01**			
Aroclor 1016	12674-11-2	1	1.0	ND	ug/wipe	
Aroclor 1221	11104-28-2	1	1.0	ND	ug/wipe	
Aroclor 1232		1	1.0	ND	ug/wipe	
Aroclor 1242	53469-21-9	1	1.0	ND	ug/wipe	
Aroclor 1248	12672-29-6	1	1.0	ND	ug/wipe	
Aroclor 1254	11097-69-1	1	1.0	ND	ug/wipe	
Aroclor 1260	11096-82-5	1	1.0	ND	ug/wipe	
Surr: Decachlorobiphenyl	2051-24-3	1	50-150	84.0	%REC	
Surr: Tetrachloro-m-xylene	877-09-8	1	50-150	79.2	%REC	

NYSDOH ELAP #10795

John H. Buck, P.E.
Laboratory Director

Abbreviations:
ND - Not Detected at the Reporting Limit
D - Surrogate diluted out
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Est., Value exceeds quantitation range
H - Est., Holding time exceedance

3821 Buck Drive, Cortland, NY 13045-5150
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Attachment 7

Estimated Limits of Soil Excavation Drawing

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Attachment 8

Post-Excavation Verification Sampling Analytical Reports

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DATA REVIEW FOR

M. WALLACE & SON, INC.

SDG# BEL0205

PCB ANALYSES

Analyses performed by:

Buck Environmental Laboratories, Inc.
Cortland, New York

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG # BEL0205 for sampling at the M. Wallace & Son, Inc. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis Method			
				VOC	SVOC	PCB	MET
150X150 #1	0202155-01A	soil	2/18/02			x	
150X150 #2	0202155-02A	soil	2/18/02			x	
150X150 #2 DUP[1]	0202155-03A	soil	2/18/02			x	
S4	0201147-01A	soil	1/17/02			x	
S28 BASE	0201226-02A	soil	1/28/02			x	
S28 SIDEWALL	0201226-01A	soil	1/28/02			x	

1 MS/MSD analyses performed on sample

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission. During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding times for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for soils are 14 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed with the specified holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method or instrument blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. Alternatively, calibration curves may be contructed.

Multi-point calibration was performed fo Aroclors 1016 and 1260 only. Single-point calibrations were performed for the remaining Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. All continuing calibration standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

Recovery for one surrogate was above control limits in sample S28 SIDEWALL DL. Since recoveries for the remaining surrogate were within control limits, no data have been qualified based on the deviation. All other surrogate recoveries were within control limits.

Surrogate retention times were listed as outside the established retention time windows. An evaluation of the retention times found all surrogates to be within the appropriate windows.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

Identification was confirmed using two dissimilar columns and the agreement between the results was evaluated. The percent difference calculated for the positive sample results between both columns was outside acceptable limits for Aroclor 1248 in sample S4-DL. Data for Aroclor 1248 has been qualified as estimated in sample S4 DL with a potential high bias based on the difference.

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate data are used to assess the precision and accuracy of the analytical method independent of matrix interferences.

All matrix spike and matrix spike duplicate recoveries were within control limits.

8. Matrix Spike Blank

All matrix spike blank recoveries were within control limits.

9. Field Duplicate

Results for duplicate samples are summarized below:

Sample ID / Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
150X150 #2 / 150X150X #2 DUP	Aroclor 1248	38	76	66.6%
	Aroclor 1260	120	120	0.0%

ND Not detected.
NA Analyte not detected in sample and/or duplicate. RPD not applicable.

The duplicate results are acceptable.

10. General Comments

Data was reported for both columns individually. As per EPA SW-846 conventions, only the higher of the two column results are reported.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

PCB Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?	X		
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are the surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Were recoveries of any surrogate outside control limits for any sample or blank?	X		
If yes, were the samples reanalyzed?		X	
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits? 0 out of 4			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits? 1 out of 2			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been estracted for each set of samples or for each 20 samples, whichever is more frequent?	X		
Do any method//instrument blanks have positive results?		X	
Are field/rinse blanks associated with every sample?		X	
Do any field/rinse blanks have positive results?			X
Calibration and GC Performance			
Are the following chromatograms and integration reports present?			

PCB Data Validation Checklist - Page 2

	YES	NO	NA
peak resolution check		X	
Aroclor 1016/1260	X		
Aroclors 1221, 1232, 1242, 1248, and 1254	X		
Is a calibration summary form present and complete for each analytical sequence?	X		
Are there any transcription/calculation errors between the raw data and the forms?		X	
Are the %RSD or r2 for the initial calibration within acceptable limits for all analytes?	X		
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?			X
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	X		
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	X		
Are there any transcription/calculation errors between the raw data and the form?		X	
Are all the percent difference (%D) for all continuing calibration standards within acceptable limits?	X		
Analytical Sequence			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	X		
Was the proper analytical sequence followed?	X		
Cleanup Efficiency Verification			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	X		
PCB Identification			
Are RT of sample compounds within the established RT windows?		X	
Were all positively identified compounds confirmed on a second column?	X		
Was GC/MS confirmation provided when required?	X		
Were there any false negatives?		X	
Compound Quantitation and Reported Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for waters, sample moisture?	X		

Data Validation Checklist

PCB Data Validation Checklist - Page 3

	YES	NO	NA
Chromatogram Quality			
Were the baselines stable?	X		
Were any electronegative displacement (negative peaks) or unusual peaks detected?		X	
Field Duplicates			
Were field duplicates submitted with the samples?	X		

PCB Qualifier Summary
Holding Time and Surrogates

Sample ID	Holding Time*	Surrogates*			
		TCX	TCX 2	DCB	DCB 2
150X150 #1					
150X150 #2					
150X150 #2 DUP					
150X150#2 DUP MS					
150X150X #2 DUP MSD					
S4					
S4 DL					
S28 BASE					
S28 SIDEWALL					
S28 SIDEWALL DL				↑	↑

Surrogates:
TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:
D Surrogate diluted out
↑ Recovery high
↓ Recovery low

* Unless otherwise noted, all parameters are within specified limits.

vmc2916

PCB Calibration Summary

Instrument: GC02
Column: RTX-5

Date:	1/14/02	1/21/02	1/21/02	1/22/02				
Time:		1608	2309	1034				
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok							
Aroclor 1221	–*	ok						
Aroclor 1232	–*		ok					
Aroclor 1242	–*			ok				
Aroclor 1248	–*							
Aroclor 1254	–*							
Aroclor 1260	ok							
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

*Single-point calibration

vmc2916

PCB Calibration Summary - Page 2

Instrument: GC02
Column: RTX-35

Date:	1/14/02	1/21/02	1/21/02	1/22/02				
Time:		1608	2309	1034				
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok							
Aroclor 1221	–*	ok						
Aroclor 1232	–*		ok					
Aroclor 1242	–*			ok				
Aroclor 1248	–*							
Aroclor 1254	–*							
Aroclor 1260	ok							
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

*Single-point calibration

vmc2916

PCB Calibration Summary - Page 3

Instrument: GC02
Column: RTX-5

Date:	1/30/02	1/30/02	1/31/02	2/01/02	2/01/02			
Time:		2005	0855	1110	1441			
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok	ok	ok					
Aroclor 1221	–*			ok				
Aroclor 1232	–*				ok			
Aroclor 1242	–*							
Aroclor 1248	–*							
Aroclor 1254	–*							
Aroclor 1260	ok	ok	ok					
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

*Single-point calibration

vmc2916

PCB Calibration Summary - Page 4

Instrument: 2620-2
Column: RTX-35

Date:	1/30/02	1/30/02	1/31/02	2/01/02	2/01/02			
Time:		2005	0855	1110	1441			
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok	ok	ok					
Aroclor 1221	–*			ok				
Aroclor 1232	–*				ok			
Aroclor 1242	–*							
Aroclor 1248	–*							
Aroclor 1254	–*							
Aroclor 1260	ok	ok	ok					
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

*Single point calibration

PCB Calibration Summary - Page 5

Instrument: GC02
Column: RTX-5

Date:	2/22/02	2/22/02	2/23/02					
Time:		2118	0343					
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok	ok	ok					
Aroclor 1221	–*							
Aroclor 1232	–*							
Aroclor 1242	–*							
Aroclor 1248	–*							
Aroclor 1254	–*							
Aroclor 1260	ok	ok	ok					
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

*Single-point calibration

vmc2916

PCB Calibration Summary - Page 6

Instrument: GC02
Column: RTX-35

Date:	2/22/02	2/22/02	2/23/02					
Time:		2118	0343					
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok	ok	ok					
Aroclor 1221	–*							
Aroclor 1232	–*							
Aroclor 1242	–*							
Aroclor 1248	–*							
Aroclor 1254	–*							
Aroclor 1260	ok	ok	ok					
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

*Single-point calibration

Corrected Sample Analysis Data Sheets

Form 1

CLIENT SAMPLE NO.

150 X 150 #1

Lab Name: Buck Environmental Labs, Inc. Contract:

Lab Code: 10795 Case No.: BLASLAND SAS No.: SDG No.: BEL0205

Matrix: (soil/water) Solid Lab Sample ID: 0202155-01A

Sample wt/vol: 30 (g/mL) G Lab File ID: 1401014.D

Level: (low/med) LOW Date Received: 2/19/02

% Moisture: not dec. Date Analyzed: 2/23/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) µg/Kg

CAS NO.	COMPOUND	µg/Kg	Q
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	66	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	86	
11097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	52	

Form 1

CLIENT SAMPLE NO.

150 X 150 #2

Lab Name: Buck Environmental Labs, Inc. Contract:

Lab Code: 10795 Case No.: BLASLAND SAS No.: SDG No.: BEL0205

Matrix: (soil/water) Solid Lab Sample ID: 0202155-02A

Sample wt/vol: 30 (g/mL) G Lab File ID: 1501015.D

Level: (low/med) LOW Date Received: 2/19/02

% Moisture: not dec. Date Analyzed: 2/23/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) µg/Kg

CAS NO.	COMPOUND	µg/Kg	Q
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	66	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	38	
11097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	120 ~~99~~	

Form 1

CLIENT SAMPLE NO.

150 X 150 #2 DUP

Lab Name: Buck Environmental Labs, Inc. Contract: ______

Lab Code: 10795 Case No.: BLASLAND SAS No.: ______ SDG No.: BEL0205

Matrix: (soil/water) Solid Lab Sample ID: 0202155-03A

Sample wt/vol: 30 (g/mL) G Lab File ID: 1601016.D

Level: (low/med) LOW Date Received: 2/19/02

% Moisture: not dec. Date Analyzed: 2/23/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) µg/Kg	Q
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	66	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	76	
11097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	120 ~~110~~	

Form 1

CLIENT SAMPLE NO.

S4

Lab Name: Buck Environmental Labs, Inc. Contract: ______

Lab Code: 10795 Case No.: BLASLAND SAS No.: ______ SDG No.: BEL0205

Matrix: (soil/water) Solid Lab Sample ID: 0201147-01A

Sample wt/vol: 30 (g/mL) G Lab File ID: 0401004.d

Level: (low/med) LOW Date Received: 1/18/02

% Moisture: not dec. Date Analyzed: 1/21/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NO.	COMPOUND	ug/Kg	Q
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	66	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	~~400~~ 500	E D J
11097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	~~390~~ ~~420~~ 480	~~E~~ D

FORM I VOA SW8082

Form 1

CLIENT SAMPLE NO.

S4DL

ab Name: Buck Environmental Labs, Inc. Contract: ______

Lab Code: 10795 Case No.: BLASLAND SAS No.: ______ SDG No.: BEL0205

Matrix: (soil/water) Solid Lab Sample ID: 0201147-01A

Sample wt/vol: 30 (g/mL) G Lab File ID: 1401014.d

Level: (low/med) LOW Date Received: 1/18/02

% Moisture: not dec. Date Analyzed: 1/22/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 5.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS:
(ug/L or ug/Kg) µg/Kg

CAS NO.	COMPOUND	µg/Kg	Q
12674-11-2	Aroclor 1016	160	U
11104-28-2	Aroclor 1221	330	U
11141-16-5	Aroclor 1232	160	U
53469-21-9	Aroclor 1242	160	U
12672-29-6	Aroclor 1248	500	
11097-69-1	Aroclor 1254	160	U
11096-82-5	Aroclor 1260	480 ~~420~~	

Form 1

CLIENT SAMPLE NO.

S28 SIDEWALL

Lab Name: Buck Environmental Labs, Inc. Contract:

Lab Code: 10795 Case No.: BLASLAND SAS No.: SDG No.: BEL0205

Matrix: (soil/water) Solid Lab Sample ID: 0201226-01A

Sample wt/vol: 30 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received: 1/29/02

% Moisture: not dec. Date Analyzed: 1/31/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) µg/Kg

CAS NO.	COMPOUND	µg/Kg	Q
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	66	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	~~890~~ 766	~~E~~ D
11097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	~~230~~ ~~360~~ 370	E D

Form 1

CLIENT SAMPLE NO.

S28 SIDEWALLDL

Lab Name: Buck Environmental Labs, Inc. Contract:

Lab Code: 10795 Case No.: BLASLAND SAS No.: SDG No.: BEL0205

Matrix: (soil/water) Solid Lab Sample ID: 0201226-01A

Sample wt/vol: 30 (g/mL) G Lab File ID: 0501005.d

Level: (low/med) LOW Date Received: 1/29/02

% Moisture: not dec. Date Analyzed: 2/1/02

GC Column: RTX5, 1.0 um ID: .53 (mm) Dilution Factor: 10.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) µg/Kg	Q
12674-11-2	Aroclor 1016	330	U
11104-28-2	Aroclor 1221	660	U
11141-16-5	Aroclor 1232	330	U
53469-21-9	Aroclor 1242	330	U
12672-29-6	Aroclor 1248	1600	
11097-69-1	Aroclor 1254	330	U
11096-82-5	Aroclor 1260	370 ~~360~~	

Laboratory Narrative

Form 1

CLIENT SAMPLE NO.

S28 BASE

Lab Name: Buck Environmental Labs, Inc. Contract:

Lab Code: 10795 Case No.: BLASLAND SAS No.: SDG No.: BEL0205

Matrix: (soil/water) Solid Lab Sample ID: 0201226-02A

Sample wt/vol: 30 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received: 1/29/02

% Moisture: not dec. Date Analyzed: 1/31/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) µg/Kg

CAS NO.	COMPOUND	µg/Kg	Q
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	66	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	33	U
11097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	53	

SDG NARRATIVE

April 18, 2002

This laboratory narrative applies to samples submitted by Blasland, Bouck & Lee, Inc. The project site was identified as M. Wallace & Son Scrapyard. The samples were taken by D. Groff and submitted to Buck Environmental Laboratories, Inc (BEL). The samples were received by BEL on three separate days. This data package reports the analytical work performed on the samples received. The samples received carried sample identifications as listed in the tables below. The BEL laboratory assigned identification number is also shown.

The samples listed below were taken 1/17/02 (VTSR 1/18/02), 1/28/02 (VTSR 1/29/02), and 2/18/02 (VTSR 2/19/02), assigned the sample delivery group number **BEL0205** and were analyzed as follows:

SAMPLE ID	BEL SAMPLE ID	PCB EPA 8082
150 X 150 #1	0202155-01	X
150 X 150 #2	0202155-02	X
150 X 150 #2 DUP	0202155-03	X
150 X 150 #2 DUP MS	0202155-04	X
150 X 150 #2 DUP MSD	0202155-05	X
S-4	0201147-01	X
S-28 BASE	0201226-02	X
S-28 SIDEWALL	0201226-01	X

The sample that arrived 1/18/02 via UPS was a single sample in a cooler with bagged ice. The sample temperature was recorded at 2.6°C. The sample consisted of two soil jars. The analysis requested was PCB.

The five samples that arrived 1/29/02 via UPS were in a cooler with bagged ice. The cooler temperature was recorded at 2.3°C. Two soil sample jars were received broken. The analyses requested were PCB and TCLP lead.

Samples arrived 2/19/02, packed in ice with the temperature at 7.3°C. No custody seals were on the cooler. Three soil jars were provided for each sample. The jars for sample 150 X 150 #2 DUP were subsequently separated and designated as sample jar 1-150 X 150 #2 DUP, sample jar 2 became an MS and sample jar 3 became an MSD.

It was not until 2/19/02 that the sample from 1/8/02 and two of the five samples from 1/29/02 were identified as CLP samples. The two samples from 1/29/02 had CLP requested only for the PCB analysis. BEL decided to put all the samples together in one sample delivery group since no project specific QC had been submitted and analyzed with the earlier arriving samples.

Samples that arrived on 1/18/02 and 1/29/02 were not marked CLP and were not treated as such. When the samples were identified as CLP and package generation was considered, several anomalies arose. The laboratory does not complete internal tracking chains of custody for non-CLP work and so there are no internal chains of custody in the package. Form 8D does not have all the surrogate retention times since no surrogates are run with continuing calibrations against Aroclor 1221. Reported values are compared to zero and flagged as outside of retention time windows on Form 8D.

Comments on analytical quality control review of SDG BEL0205 follow.

SDG BEL0205

GC/MS Semi-Volatiles ***PCB by EPA 8082***

Holding Time:	Met holding time criteria.
Calibration:	Initial calibration and continuing calibrations met acceptance criteria.
Method Blanks:	All method blanks and instrument blanks met acceptance criteria.
Spikes/Duplicates:	Met acceptance criteria.
Dilutions:	A 1:5 dilution was run on sample S4 and a 1:10 dilution was run on sample S-28 Sidewall due to results in exceedance of the calibration range on the initial analyses. Both straight and diluted analyses are included in this report.
Blank Spike:	Met acceptance criteria.
Surrogate Recovery:	Both surrogates for sample S-28 Sidewall were just above the QC limits on column RTX5, while both surrogates for the instrument blank were just above the QC limit on column RTX35.

Please call Barbara Houskamp, QA Manager, at BEL if you have any questions or need any further information regarding this submittal.

I certify that to the best of my knowledge and belief, this data package is in compliance with the terms and conditions of the Analytical Services Protocol, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

John Buck — 4-21-02

John H. Buck
Laboratory Director

Date

NYSDEC Sample Preparation and Analysis Summary Sheets

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY
Contract Lab Sample Information Sheet (CLSIS)

		Analytical Requirements					
Customer Sample Code	Laboratory Sample Code	VOA GC/MS Method	BNA GC/MS Method	VOA GC Method	Pesticide PCB's Method	Metals	Other
150 X 150 #1	0202155-01	N/A	N/A	N/A	EPA 8082	N/A	N/A
150 X 150 #2	0202155-02	N/A	N/A	N/A	EPA 8082	N/A	N/A
150 X 150 #2 DUP	0202155-03	N/A	N/A	N/A	EPA 8082	N/A	N/A
150 X 150 #2 DUP MS	0202155-04	N/A	N/A	N/A	EPA 8082	N/A	N/A
150 X 150 #2 DUP MSD	0202155-05	N/A	N/A	N/A	EPA 8082	N/A	N/A
S-4	0201147-01	N/A	N/A	N/A	EPA 8082	N/A	N/A
S-28 BASE	0201226-02	N/A	N/A	N/A	EPA 8082	N/A	N/A
S-28 SIDEWALL	0201226-01	N/A	N/A	N/A	EPA 8082	N/A	N/A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
GC/MS SEMIVOLATILE (EPA 8082) ANALYSIS
Contract Lab Sample Information Sheet (CLSIS)

Laboratory Sample Code	Matrix	Date Collected	Date Received at Lab	Date Extracted	Date Analyzed
0201147-01	SOIL	01/17/02	01/18/02	01/21/01	01/22/02
0201226-01	SOIL	01/28/02	01/29/02	01/29/01	02/01/02
0201226-02	SOIL	01/28/02	01/29/02	01/29/01	01/31/02
0202155-01	SOIL	02/18/02	02/19/02	02/21/02	02/23/02
0202155-02	SOIL	02/18/02	02/19/02	02/21/02	02/23/02
0202155-03	SOIL	02/18/02	02/19/02	02/21/02	02/23/02
0202155-04	SOIL	02/18/02	02/19/02	02/21/02	02/23/02
0202155-05	SOIL	02/18/02	02/19/02	02/21/02	02/23/02

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Complinacy[1]				Noncompliance
					VOC	SVOC	PCB	MET	
BEL0205	2/18/02	2000	150X150 #1	soil	--	--	yes	--	
BEL0205	2/18/02	2000	150X150 #2	soil	--	--	yes	--	
BEL0205	2/18/02	2000	150X150 #2 DUP	soil	--	--	yes	--	
BEL0205	1/17/02	2000	S4	soil	--	--	yes	--	
BEL0205	1/28/02	2000	S28 BASE	soil	--	--	yes	--	
BEL0205	1/28/02	2000	S28 SIDEWALL	soil	--	--	yes	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

vmc2916

Attachment 9

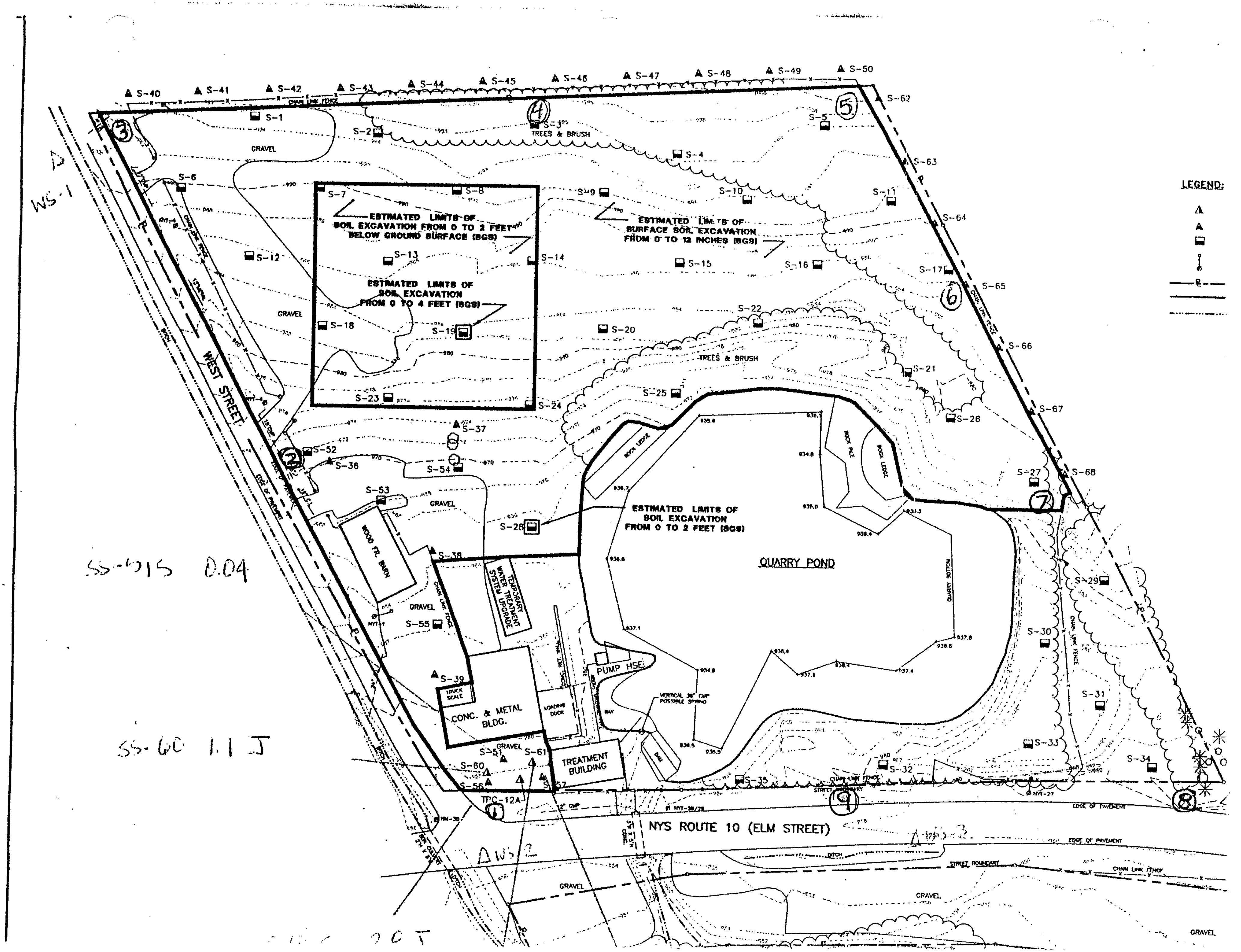
Soil Remedial Action
Air Monitoring Logs

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:12/20/01
Air Monitor: Dave Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
9:01	1	0.00	0.00	0.00	0.00	20.9		snow and wet soil
8:06	2	0.00	0.00	0.00	0.00	20.9		conditions - no visible
8:07	3	0.00	0.00	0.00	0.00	20.9		dust emissions
8:08	4	0.00	0.00	0.00	0.00	20.9		
10:01	5	0.00	0.00	0.00	0.00	20.9		
10:03	6	0.00	0.00	0.00	0.00	20.8		
10:04	7	0.00	0.00	0.00	0.00	20.9		
10:05	8	0.00	0.00	0.00	0.00	20.9		
2:03	9	0.00	0.00	0.00	0.00	20.9		
1:30	1	0.00	0.00	0.00	0.00	20.9		snow and wet soil
1:32	2	0.00	0.00	0.00	0.00	20.9		conditions - no visible
1:35	3	0.00	0.00	0.00	0.00	20.8		dust emissions
1:37	4	0.00	0.00	0.00	0.00	20.9		
1:38	5	0.00	0.00	0.00	0.00	20.9		
1:40	6	0.00	0.00	0.00	0.00	20.9		
1:41	7	0.00	0.00	0.00	0.00	20.9		
1:47	8	0.00	0.00	0.00	0.00	20.9		
1:48	9	0.00	0.00	0.00	0.00	20.9		
3:07	1	0.00	0.00	0.00	0.00	20.9		snow and wet soil
3:09	2	0.00	0.00	0.00	0.00	20.9		conditions - no visible
3:11	Work Area	0.00	0.00	0.00	0.00	20.9		dust emissions
3:13	3	0.00	0.00	0.00	0.00	20.9		
3:15	Soil Stockpile	0.00	0.00	0.00	0.00	20.9		
3:16	4	0.00	0.00	0.00	0.00	20.8		
3:17	5	0.00	0.00	0.00	0.00	20.9		
3:19	6	0.00	0.00	0.00	0.00	20.9		
3:21	7	0.00	0.00	0.00	0.00	20.9		
3:04	8	0.00	0.00	0.00	0.00	20.9		
3:06	9	0.00	0.00	0.00	0.00	20.9		



LEGEND:
QUARRY POND
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
WEST STREET
NYS ROUTE 10 (ELM STREET)
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
CONC. & METAL BLDG.
TREATMENT BUILDING
WOOD FR. BARN
PUMP HSE.
TRUCK SCALE
LOADING DOCK
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
TREES & BRUSH
GRAVEL
CHAIN LINK FENCE
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
VERTICAL 36" CMP POSSIBLE SPRING
DAM
TPC-12A
S-1
S-2
S-3
S-4
S-5
S-6
S-7
S-8
S-9
S-10
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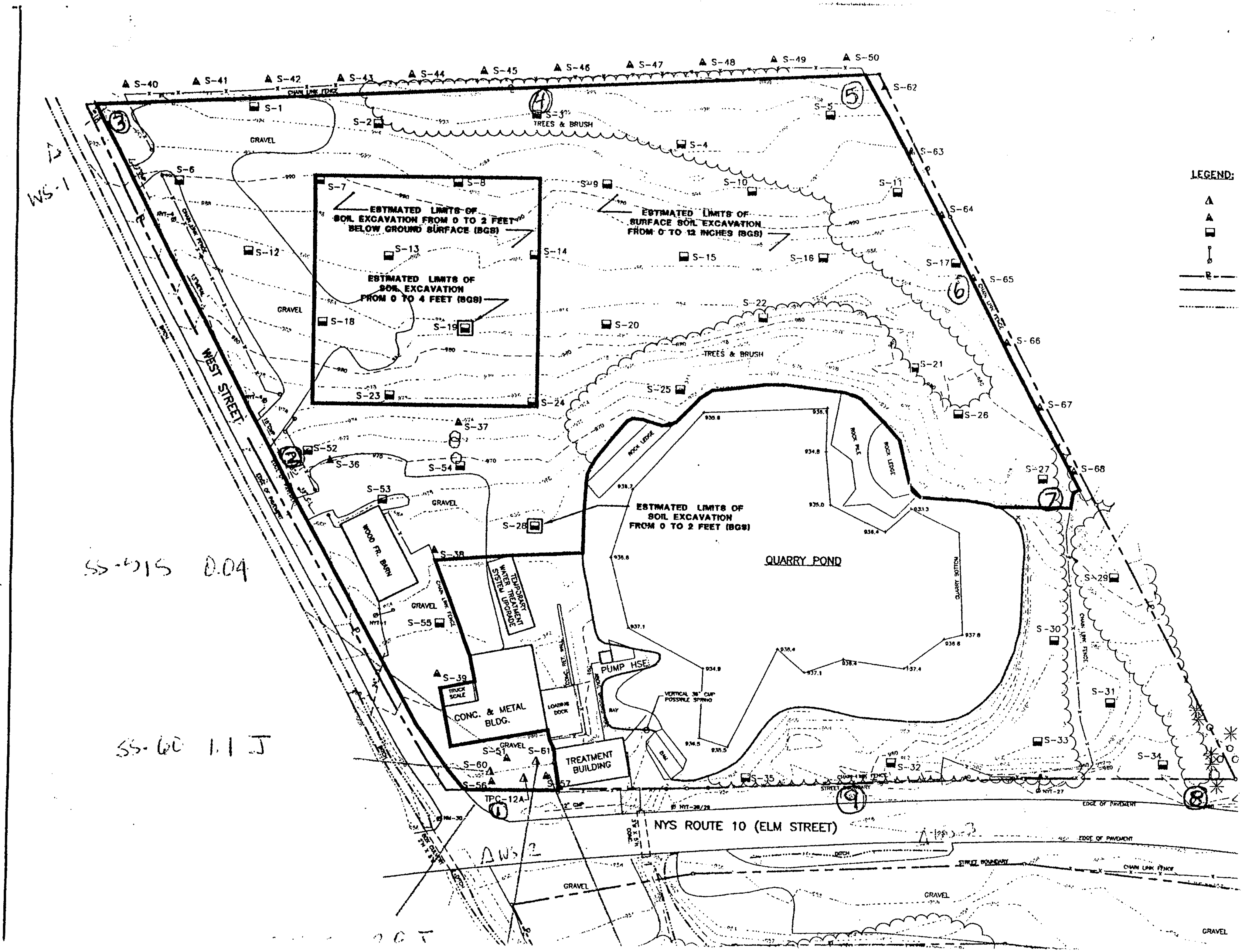
S-60
S-61
S-62
S-63
S-64
S-65
S-66
S-67
S-68
WS-1
SS-915 0.04
SS-60 1.1 J

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:12/20/01
Air Monitor: Dave Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

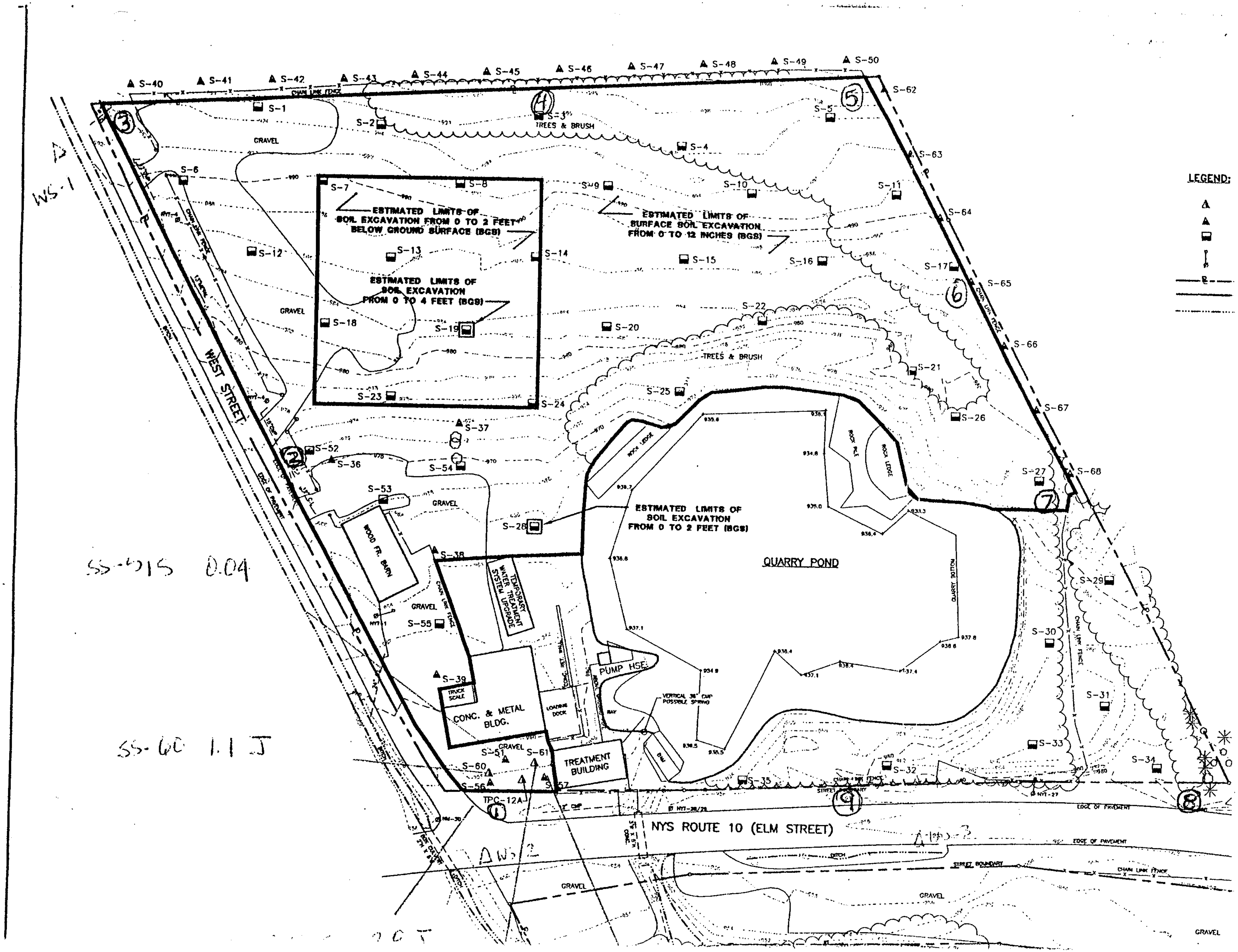
Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
9:01	1	0.00	0.00	0.00	0.00	20.9	0.000	snow and wet soil
9:03	2	0.00	0.00	0.00	0.00	20.9	0.000	conditions - no visible
9:05	3	0.00	0.00	0.00	0.00	20.9	0.001	dust emissions
9:08	4	0.00	0.00	0.00	0.00	20.9	0.001	
9:09	5	0.00	0.00	0.00	0.00	20.9	0.000	
9:12	6	0.00	0.00	0.00	0.00	20.8	0.000	
9:14	7	0.00	0.00	0.00	0.00	20.9	0.000	
9:18	8	0.00	0.00	0.00	0.00	20.9	0.002	
9:19	9	0.00	0.00	0.00	0.00	20.9	0.002	
1:30	1	0.00	0.00	0.00	0.00	20.9	0.000	snow and wet soil
1:32	2	0.00	0.00	0.00	0.00	20.9	0.001	conditions - no visible
1:35	3	0.00	0.00	0.00	0.00	20.8	0.001	dust emissions
1:37	4	0.00	0.00	0.00	0.00	20.9	0.002	
1:38	5	0.00	0.00	0.00	0.00	20.9	0.000	
1:40	6	0.00	0.00	0.00	0.00	20.9	0.000	
1:41	7	0.00	0.00	0.00	0.00	20.9	0.001	
1:47	8	0.00	0.00	0.00	0.00	20.9	0.004	
1:48	9	0.00	0.00	0.00	0.00	20.9	0.003	
3:07	1	0.00	0.00	0.00	0.00	20.9	0.001	snow and wet soil
3:09	2	0.00	0.00	0.00	0.00	20.9	0.009	conditions - no visible
3:11	Work Area	0.00	0.00	0.00	0.00	20.9	0.005	dust emissions
3:13	3	0.00	0.00	0.00	0.00	20.9	0.002	
3:15	Soil Stockpile	0.00	0.00	0.00	0.00	20.9	0.002	
3:16	4	0.00	0.00	0.00	0.00	20.8	0.001	
3:17	5	0.00	0.00	0.00	0.00	20.9	0.001	
3:19	6	0.00	0.00	0.00	0.00	20.9	0.000	
3:21	7	0.00	0.00	0.00	0.00	20.9	0.003	
3:04	8	0.00	0.00	0.00	0.00	20.9	0.003	
3:06	9	0.00	0.00	0.00	0.00	20.9	0.001	


LEGEND:
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
QUARRY POND
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
TREES & BRUSH
GRAVEL
CHAIN LINK FENCE
WEST STREET
NYS ROUTE 10 (ELM STREET)
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
WOOD FR. BARN
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
PUMP HSE.
CONC. & METAL BLDG.
TRUCK SCALE
LOADING DOCK
TREATMENT BUILDING
VERTICAL 36" CMP POSSIBLE SPRING
TPC-12A
WS-1
SS-215 0.04
SS-60 1.1 J
AWS-2

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:12/21/01
Air Monitor: Dave Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	Comments
8:37	1	0.00	0.00	0.00	0.00	20.9	0.000	snow and wet soil
8:38	Work Area	0.00	0.00	0.00	0.00	20.9	0.000	conditions - no visible
8:40	2	0.00	0.00	0.00	0.00	20.9	0.000	dust emissions
8:42	3	0.00	0.00	0.00	0.00	20.9	0.000	
8:44	Soil Stockpile	0.00	0.00	0.00	0.00	20.9	0.000	
8:45	4	0.00	0.00	0.00	0.00	20.9	0.000	
8:47	5	0.00	0.00	0.00	0.00	20.9	0.000	
8:50	6	0.00	0.00	0.00	0.00	20.9	0.000	
8:51	7	0.00	0.00	0.00	0.00	20.9	0.000	
8:54	8	0.00	0.00	0.00	0.00	20.9	0.002	
8:57	9	0.00	0.00	0.00	0.00	20.9	0.001	

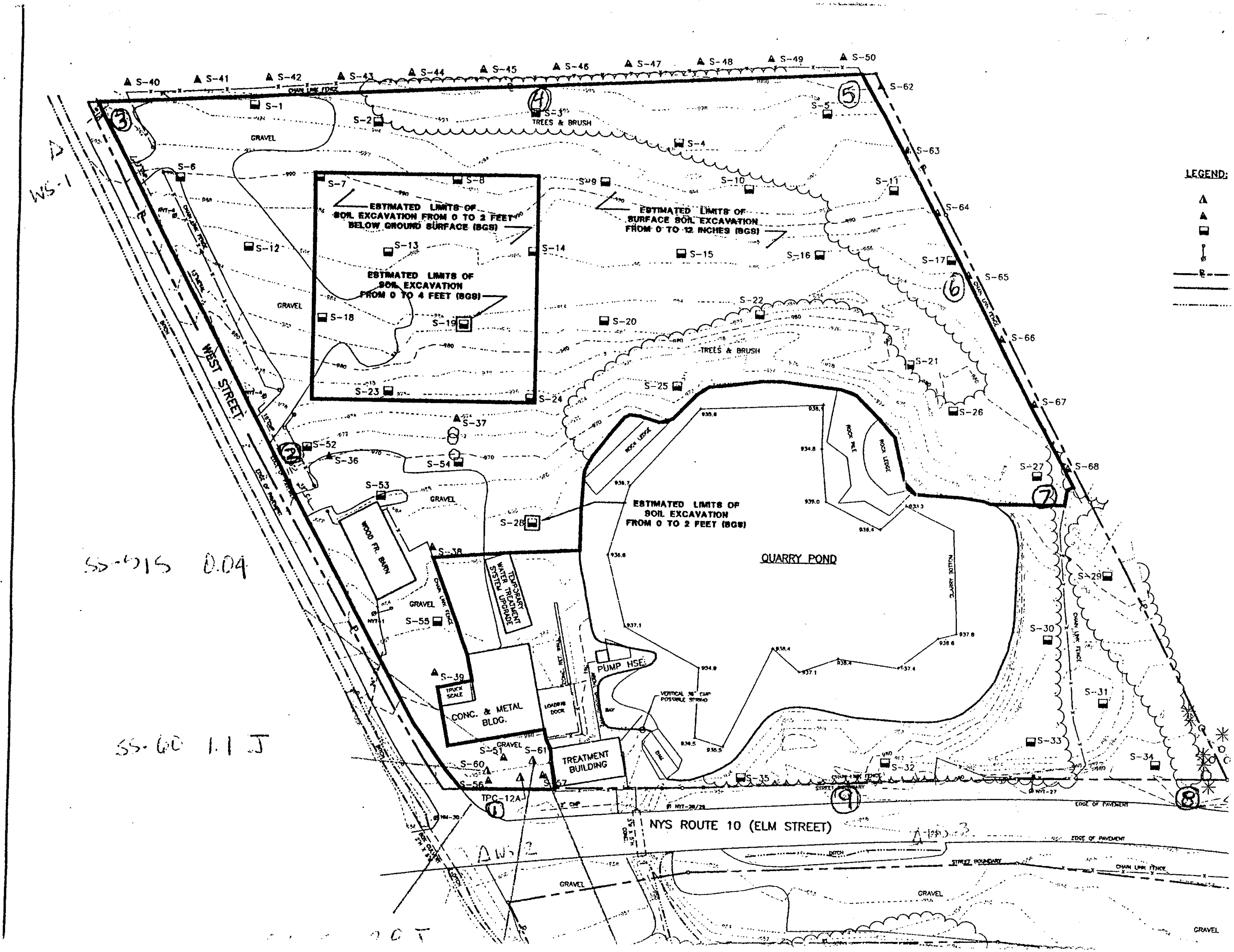


LEGEND:
QUARRY POND
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
WEST STREET
NYS ROUTE 10 (ELM STREET)
TREES & BRUSH
GRAVEL
CHAIN LINK FENCE
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
PUMP HSE.
VERTICAL 36" CMP POSSIBLE SPRING
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
CONC. & METAL BLDG.
TRUCK SCALE
LOADING DOCK
TREATMENT BUILDING
WOOD FR. BARN
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
TPC-12A
SS-515 0.04
SS-60 1.1 J
WS-1

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:12/26/01
Air Monitor: Gunther Schnorr
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
10:50	C8	0.00	0.00	0.00	0.00	0.0	0.000	snow and wet soil
10:55	C7	0.00	0.00	0.00	0.00	0.0	0.000	conditions - no visible
11:00	2	0.00	0.00	0.00	0.00	0.0	0.000	dust emissions
11:10	3	0.00	0.00	0.00	0.00	0.0	0.000	
11:15	4	0.00	0.00	0.00	0.00	0.0	0.000	
11:20	5	0.00	0.00	0.00	0.00	0.0	0.000	
11:25	6	0.00	0.00	0.00	0.00	0.0	0.000	
11:30	7	0.00	0.00	0.00	0.00	0.0	0.000	
2:10	C8	0.00	0.00	0.00	0.00	0.0	0.000	
2:20	C7	0.00	0.00	0.00	0.00	0.0	0.000	
2:25	2	0.00	0.00	0.00	0.00	0.0	0.000	
2:30	3	0.00	0.00	0.00	0.00	0.0	0.000	
2:35	4	0.00	0.00	0.00	0.00	0.0	0.000	
2:40	5	0.00	0.00	0.00	0.00	0.0	0.000	
2:45	6	0.00	0.00	0.00	0.00	0.0	0.000	
2:50	7	0.00	0.00	0.00	0.00	0.0	0.000	

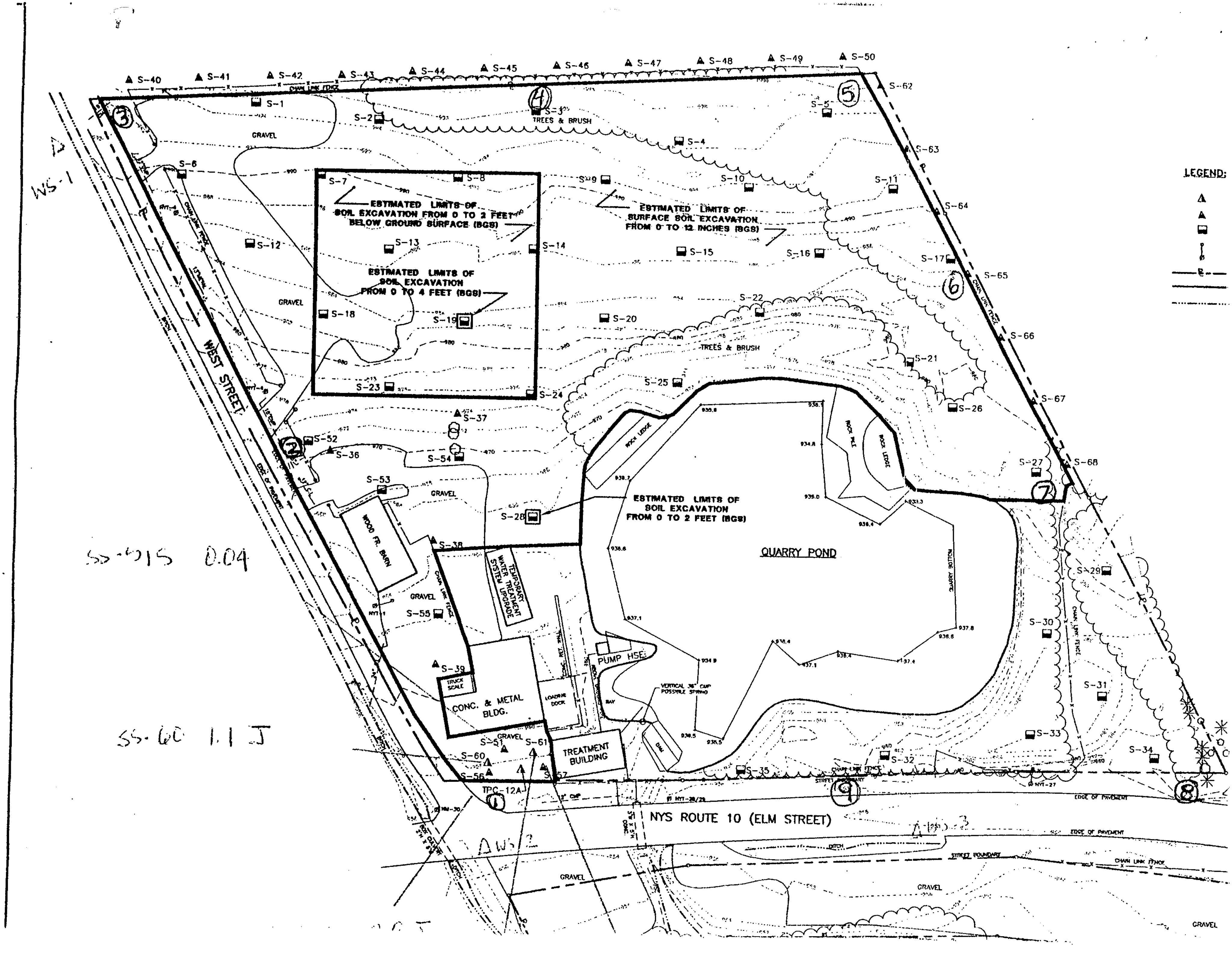

LEGEND:
QUARRY POND
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
WEST STREET
NYS ROUTE 10 (ELM STREET)
TREES & BRUSH
GRAVEL
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
PUMP HSE.
TREATMENT BUILDING
CONC. & METAL BLDG.
LOADING DOCK
TRUCK SCALE
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
WOOD FR. BARN
CHAIN LINK FENCE
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
TPC-12A
SS-015 0.04
SS-60 1.1 J
WS-1
AWS-2

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:12/27/01
Air Monitor: Gunther Schnorr
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	Comments
10:15	NE corner of work area	1.00	0.00	0.00	0.00	20.1	0.000	snow and wet soil
10:30	NE corner of work area	2.00	0.00	0.00	0.00	19.8	0.000	conditions - no visible
10:45	NE corner of work area	1.00	0.00	0.00	0.00	19.9	0.000	dust emissions*
11:00	East side of work area	3.00	0.00	0.00	0.00	19.8	0.000	
11:15	East side of work area	3.00	0.00	0.00	0.00	20.1	0.000	
11:30	East side of work area	2.00	0.00	0.00	0.00	20.1	0.000	
11:45	East side of work area	1.00	0.00	0.00	0.00	20.1	0.000	
1:45	SE corner of work area	0.00	0.00	0.00	0.00	20.1	0.000	
2:00	SE corner of work area	1.00	0.00	0.00	0.00	20.1	0.000	
2:15	Surrounding MW	0.00	1.10	0.00	0.00	19.9	0.000	VOC 5.1 ppm 1" from soil
2:20	2'-10' N of MW	0.00	1.30	0.00	0.00	20.1	0.000	VOC 4.8 ppm 1" from soil
2:30	1'-3' W of MW	0.00	1.20	0.00	0.00	20.1	0.000	VOC 8.8 ppm 1" from soil
2:50	2-8" NW of MW	0.00	1.00	0.00	0.00	19.8	0.000	VOC 4.3 ppm 1" from soil
3:20	8'-15' W of MW	0.00	0.80	0.00	0.00	20.1	0.000	VOC 1.3 ppm 1" from soil
3:50	3-15' NW of MW	1.00	0.00	0.00	0.00	20.1	0.000	VOC 0.8 ppm 1" from soil
4:20	3'-10' SW of MW	0.00	0.00	0.00	0.00	20.1	0.000	
4:45	15'-20' W of MW	0.00	0.00	0.00	0.00	20.1	0.000	

*Shoulders of roads adjacent to the site have sand/stone/cinders on them and large quantities of dust is generated from public traffic.

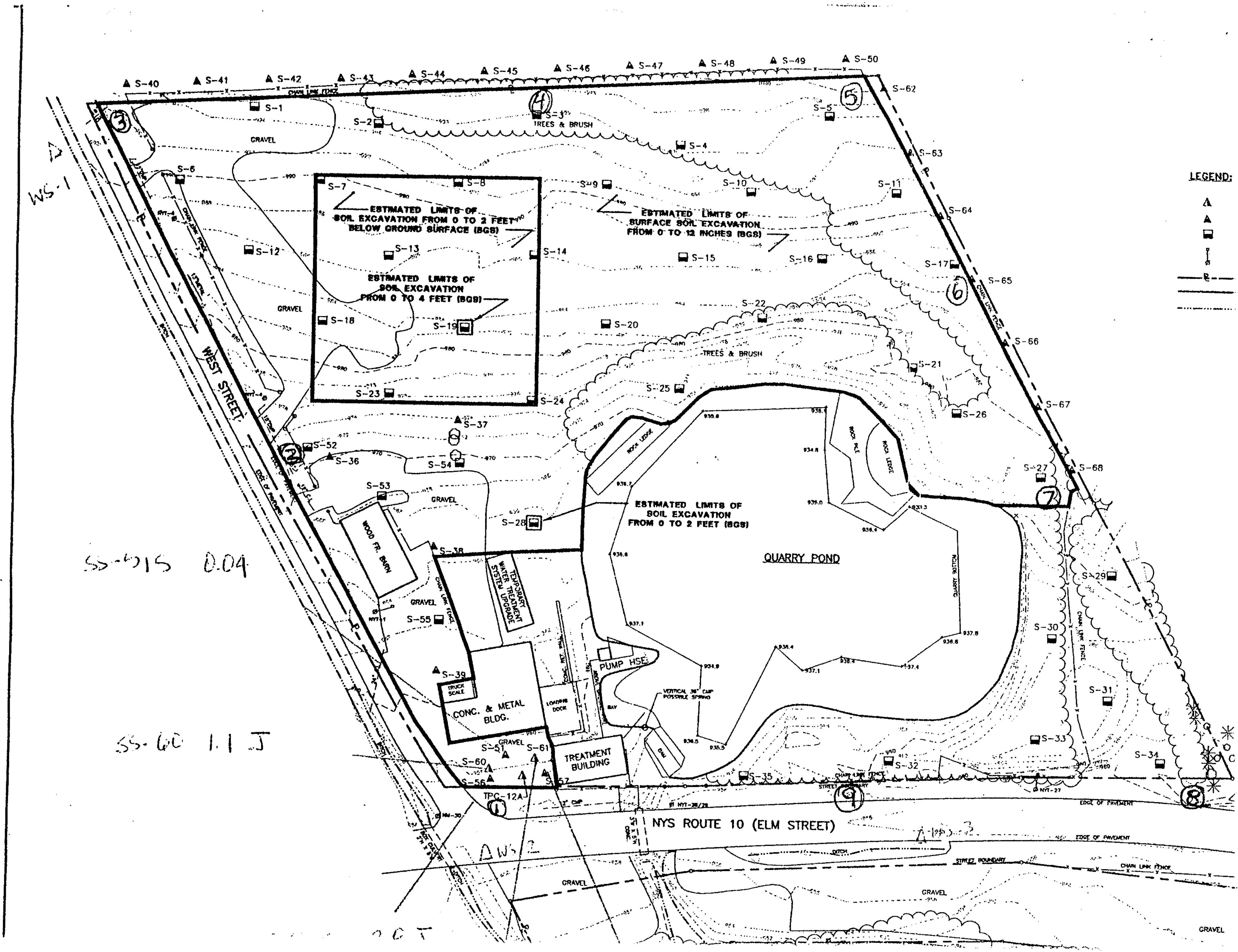


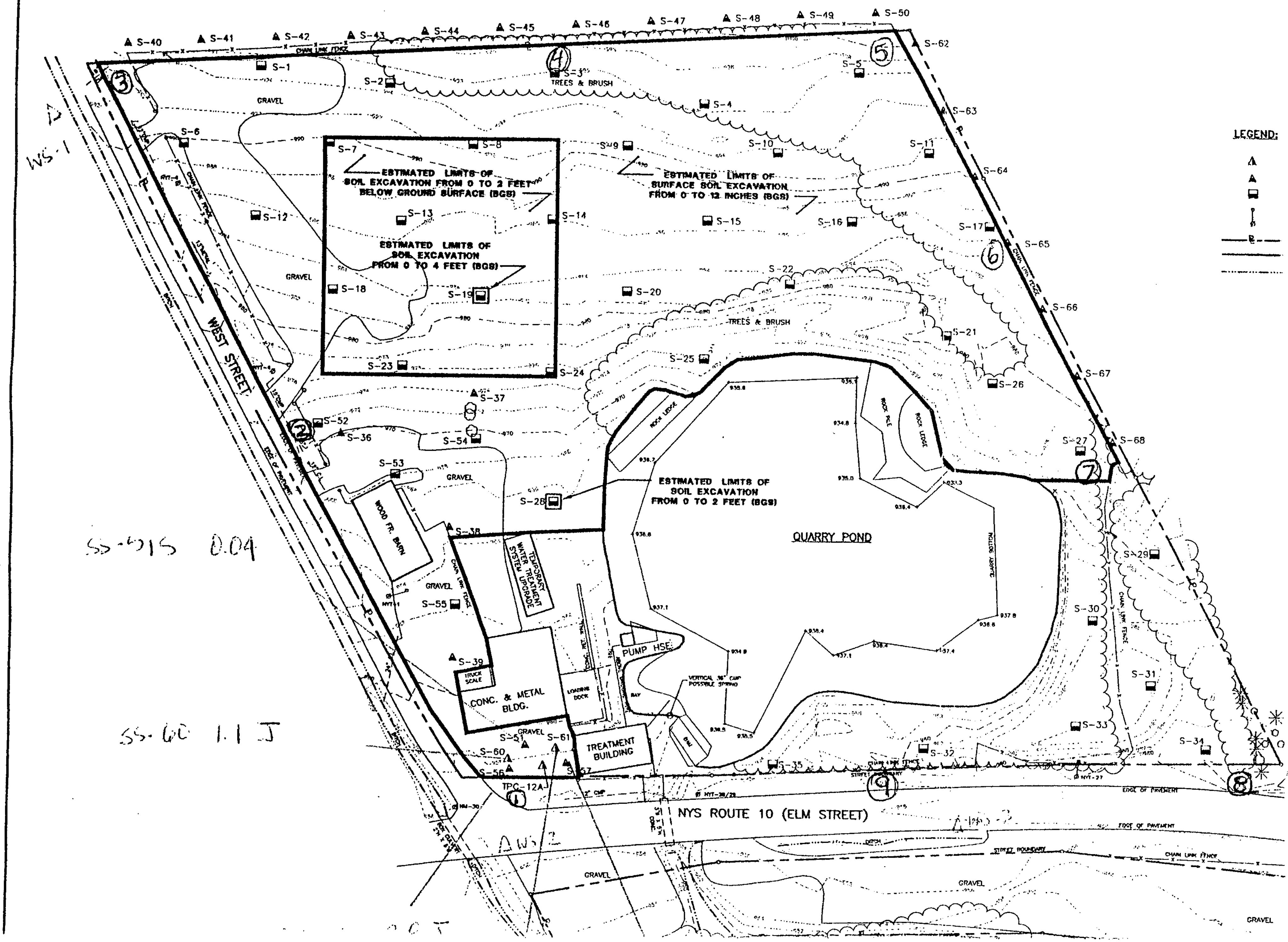
LEGEND:
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
QUARRY POND
QUARRY BOTTOM
ROCK LEDGE
ROCK PILE
VERTICAL 36" CMP POSSIBLE SPRING
DAM
PUMP HSE.
TREATMENT BUILDING
LOADING DOCK
CONC. & METAL BLDG.
TRUCK SCALE
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
WOOD FR. BARN
TREES & BRUSH
GRAVEL
CHAIN LINK FENCE
WEST STREET
NYS ROUTE 10 (ELM STREET)
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
TPC-12A
SS-515 0.04
SS-60 1.1 J
WS-1

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:12/28/01
Air Monitor: Gunther Schnorr
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
8:15	SW corner of building	0.00	0.00	0.00	0.00	20.1	0.000	
8:30	SW corner of building	0.00	0.00	0.00	0.00	20.4	0.000	
8:40	SW corner of building	0.00	0.00	0.00	0.00	20.1	0.000	
8:50	West side of excavation	0.00	0.00	0.00	0.00	20.1	0.027	
9:40	West side of excavation	0.00	0.00	0.00	0.00	20.1	0.000	
10:00	Septic tank	2.00	0.00	2.00	0.00	19.7	0.000	
10:30	Southwest corner	2.00	0.00	0.00	0.00	19.8	0.000	


LEGEND:
QUARRY POND
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
NYS ROUTE 10 (ELM STREET)
WEST STREET
TREES & BRUSH
GRAVEL
ROCK LEDGE
ROCK PILE
WOOD FR. BARN
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
CONC. & METAL BLDG.
TRUCK SCALE
LOADING DOCK
TREATMENT BUILDING
PUMP HSE.
VERTICAL 36" CMP POSSIBLE SPRING
CHAIN LINK FENCE
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
TPC-12A
SS-515 0.04
SS-60 1.1 J
WS-1
WS-2


LEGEND:
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
QUARRY POND
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
TREES & BRUSH
GRAVEL
WOOD FR. BARN
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
PUMP HSE.
LOADING DOCK
CONC. & METAL BLDG.
TRUCK SCALE
TREATMENT BUILDING
TPC-12A
CHAIN LINK FENCE
WEST STREET
NYS ROUTE 10 (ELM STREET)
EDGE OF PAVEMENT
STREET BOUNDARY
VERTICAL 36" CMP POSSIBLE SPRING
SS-515 0.04
SS-60 1.1 J
WS-1

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:01/02/02
Air Monitor: David Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

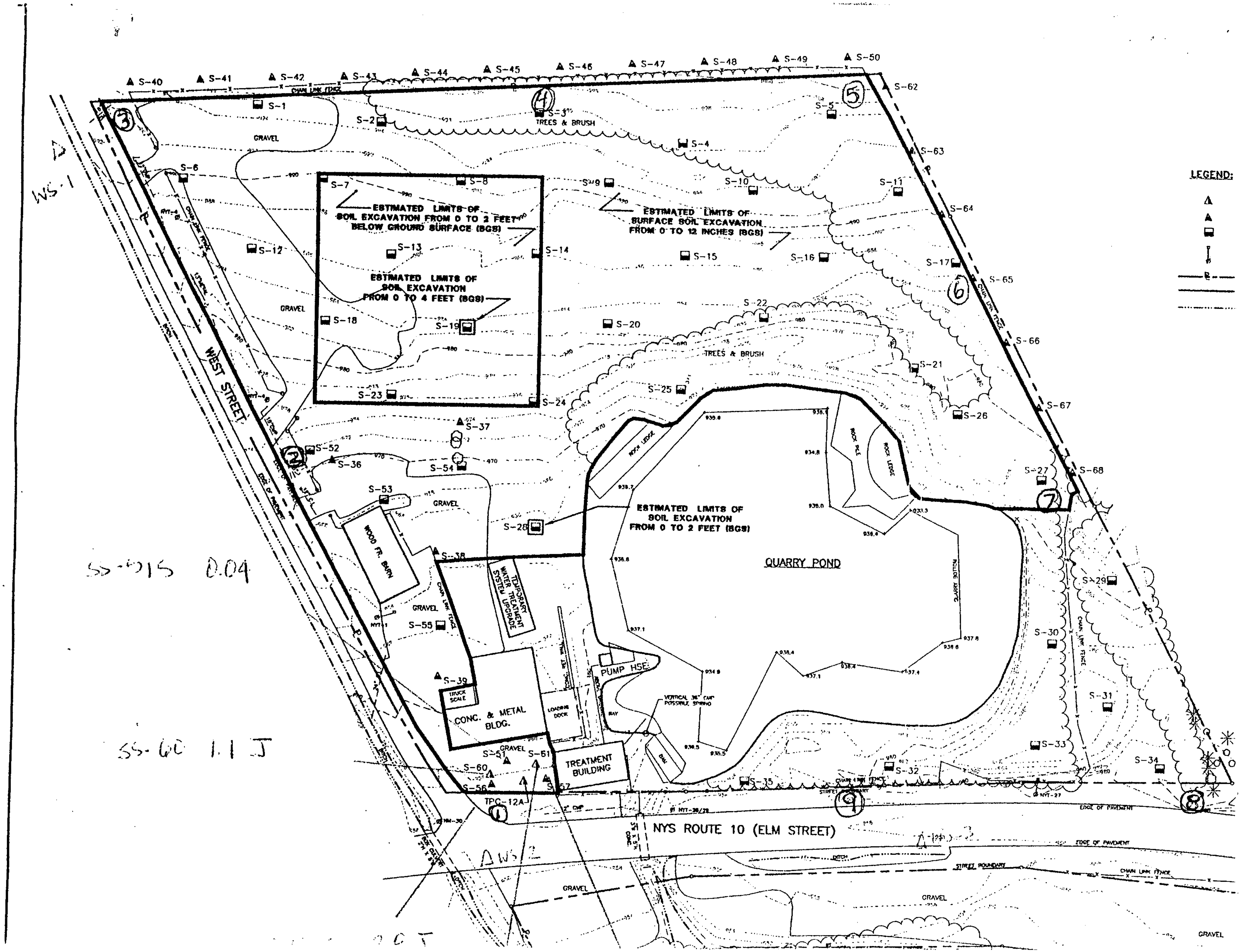
Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
11:35	Corner of Rt 10 and West St						0.010	
11:37	Nadeau property driveway						0.008	downwind
11:39	Work area outside office door						0.004	
11:41	Work area outside garage door						0.000	
11:44	Wallace parking area						0.000	
1:39	Corner of Rt 10 and West St						0.000	
1:40	Wallace parking area						0.000	
1:42	Work area						0.000	
1:43	Work area outside garage door						0.034	
1:45	Nadeau property driveway						0.003	downwind
2:48	Corner of Rt 10 and West St						0.000	
2:43	Wallace parking area						0.000	
2:45	Work area						0.021	
2:47	Nadeau property driveway						0.001	downwind

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:01/03/02
Air Monitor: David Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
8:20	Work area						0.011	
8:22	Work area						0.009	
8:24	Nadeau property driveway						0.000	
8:30	Corner of Rt 10 and West St						0.000	
10:32	Downwind of work area						0.050	
10:34	Work area						0.000	
10:38	Nadeau property driveway						0.000	
10:40	Wallace parking area						0.016	
1:20	2						0.000	
1:22	3						0.000	
1:25	4						0.000	
1:27	5						0.004	
1:29	6						0.000	
1:32	7						0.000	
1:37	1						0.004	
1:38	9						0.000	
1:41	8						0.000	
1:44	Work area - Wallace						0.006	

*Shoulders of roads adjacent to the site have sand/stone/cinders on them and large quantities of dust is generated from public traffic.



LEGEND:
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
QUARRY POND
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
TREES & BRUSH
GRAVEL
WOOD FR. BARN
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
CONC. & METAL BLDG.
TRUCK SCALE
LOADING DOCK
PUMP HSE.
TREATMENT BUILDING
CHAIN LINK FENCE
WEST STREET
NYS ROUTE 10 (ELM STREET)
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
TPC-12A
SS-015 0.04
SS-60 1.1 J

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:01/04/02
Air Monitor: David Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

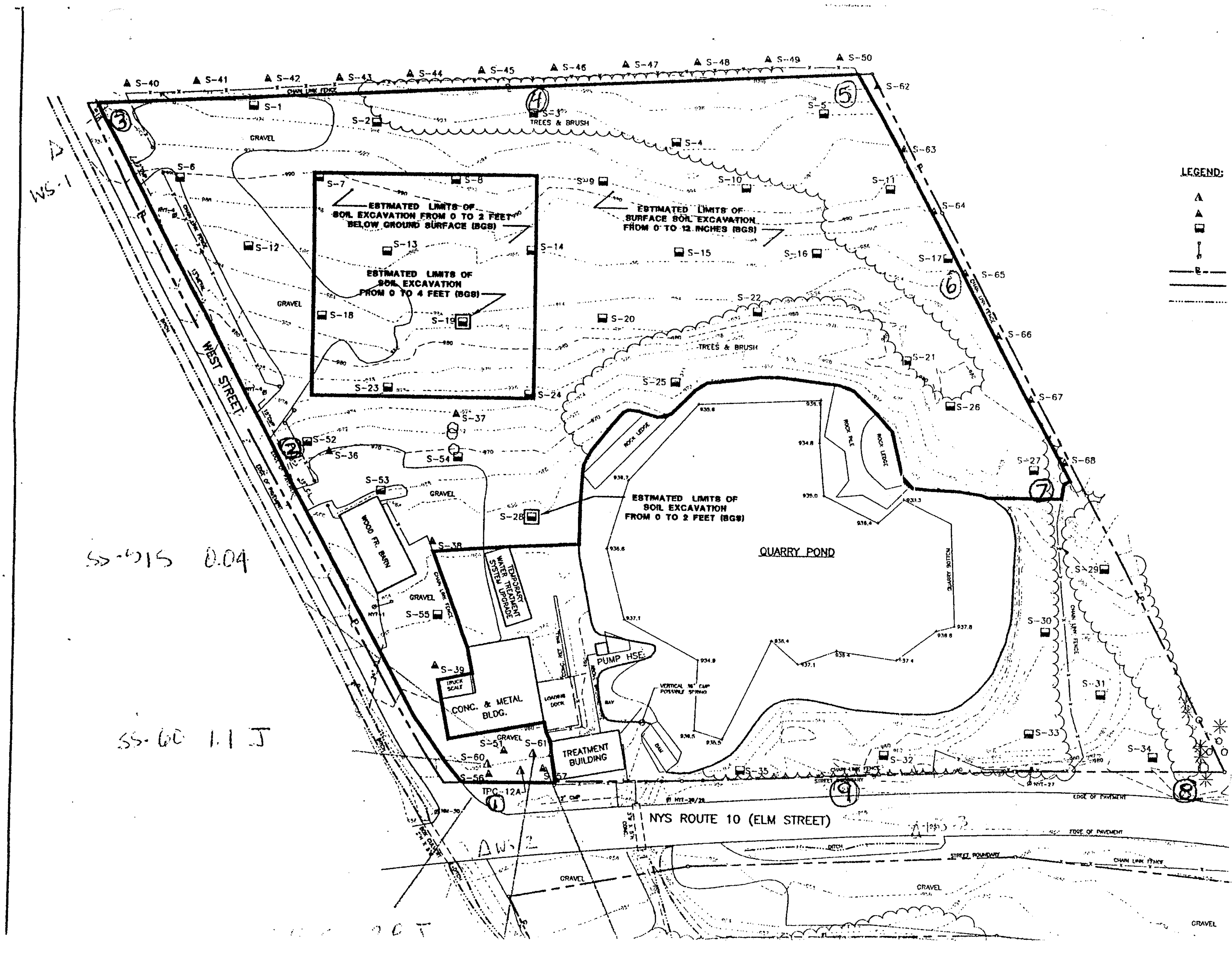
Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
8:45	Corner of Rt 10 and West St						0.006	No wind
8:47	Work area						0.000	No wind
8:49	Work area						0.000	No wind
8:53	Nadeau property driveway						0.000	No wind
1:45	Work area						0.007	Backfilling Wallace
1:48	Work area						0.009	Backfilling Wallace
1:51	Nadeau property driveway						0.010	Backfilling Wallace
1:56	Wallace parking area						0.004	Backfilling Wallace
2:10	5						0.001	Backfilling Wallace
2:12	6						0.001	Backfilling Wallace
2:15	7						0.003	Backfilling Wallace

*Shoulders of roads adjacent to the site have sand/stone/cinders on them and large quantities of dust is generated from public traffic.

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:01/23/02
Air Monitor: David Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM and RAE Systems MultiRAE PLUS
COC's Monitored: H2S, CO, VOC's, O2, LEL, total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
10:30	8						0.000	easterly wind
10:32	9						0.003	easterly wind
10:35	1						0.078	upwind of work area*
10:40	2						0.012	easterly wind
10:42	3						0.000	easterly wind
10:44	4						0.000	easterly wind
10:46	5						0.000	downwind of work area
10:49	6						0.001	downwind of work area
10:51	7						0.000	downwind of work area
10:54	Work area						0.000	Active excavation
*Shoulders of roads adjacent to the site have sand/stone/cinders on them and large quantities of dust is generated from public traffic.								


LEGEND:
QUARRY POND
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
WEST STREET
NYS ROUTE 10 (ELM STREET)
TREES & BRUSH
GRAVEL
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
WOOD FR. BARN
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
PUMP HSE.
CONC. & METAL BLDG.
TRUCK SCALE
LOADING DOCK
TREATMENT BUILDING
CHAIN LINK FENCE
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
TPC-12A
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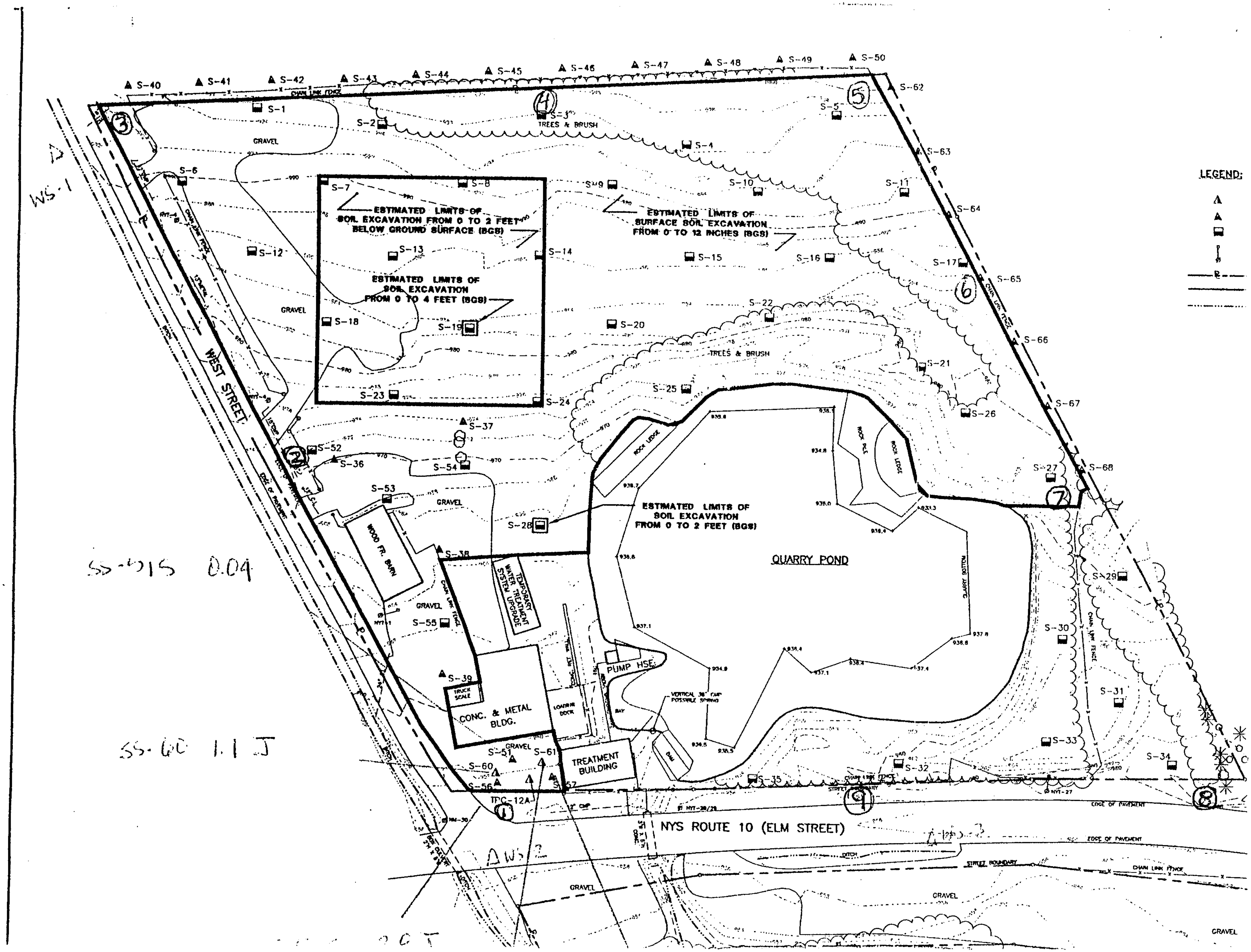
WS-1
AWS-2
SS-015 0.04
SS-60 1.1 J

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:01/28/02
Air Monitor: David Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM
COC's Monitored: total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
11:15	1						0.028	easterly wind
11:13	2						0.000	easterly wind
11:00	3						0.000	easterly wind
11:02	4						0.000	easterly wind
11:04	5						0.000	downwind of work area
11:06	6						0.000	downwind of work area
11:08	7						0.000	downwind of work area
11:17	8						0.013	easterly wind
11:19	9						0.034	easterly wind
11:22	Shoulder of Rt.10 across road from						0.114	*
11:23	location 8						0.366	*

*Shoulders of roads adjacent to the site have sand/stone/cinders on them and large quantities of dust is generated from public traffic.

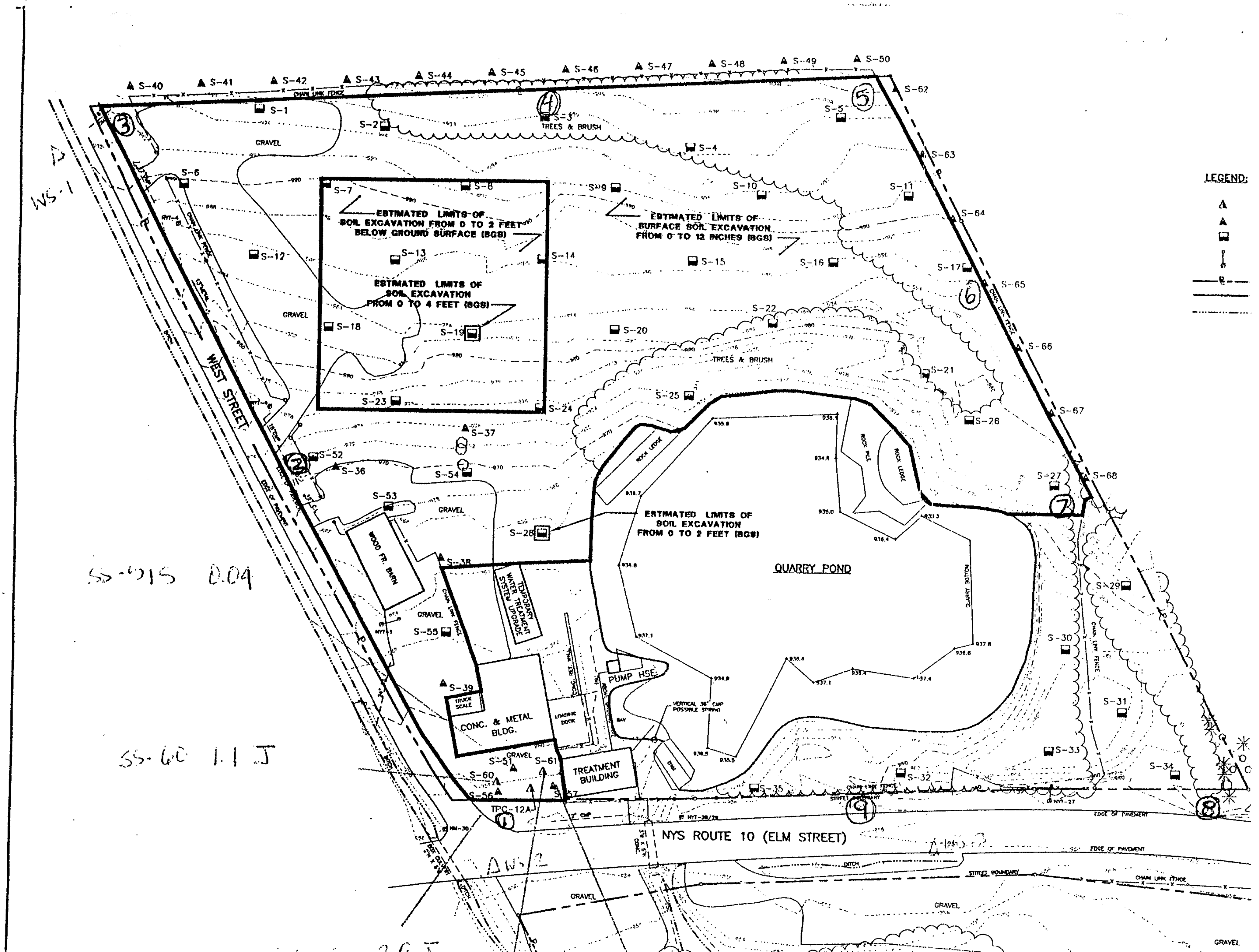


LEGEND:
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
QUARRY POND
QUARRY BOTTOM
ROCK LEDGE
ROCK PILE
TREES & BRUSH
GRAVEL
CHAIN LINK FENCE
WEST STREET
NYS ROUTE 10 (ELM STREET)
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
WOOD FR. BARN
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
PUMP HSE.
TRUCK SCALE
CONC. & METAL BLDG.
LOADING DOCK
TREATMENT BUILDING
VERTICAL 36" CMP POSSIBLE SPRING
TPC-12A
SS-015 0.04
SS-60 1.1 J
WS-1

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:01/29/02
Air Monitor: David Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM
COC's Monitored: total dust
Activity: Excavation and Soil Removal

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
11:34	1						0.002	No breeze/rain overnight
11:15	2						0.000	No breeze/rain overnight
11:17	3						0.000	No breeze/rain overnight
11:19	4						0.000	No breeze/rain overnight
11:21	5						0.000	No breeze/rain overnight
11:22	6						0.000	No breeze/rain overnight
11:24	7						0.000	No breeze/rain overnight
11:32	8						0.000	No breeze/rain overnight
11:30	9						0.000	No breeze/rain overnight


LEGEND:
QUARRY POND
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
WEST STREET
NYS ROUTE 10 (ELM STREET)
WOOD FR. BARN
CONC. & METAL BLDG.
TREATMENT BUILDING
PUMP HSE.
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
TRUCK SCALE
LOADING DOCK
ROCK LEDGE
ROCK PILE
TREES & BRUSH
GRAVEL
CHAIN LINK FENCE
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
VERTICAL 36" CMP POSSIBLE SPRING
QUARRY BOTTOM
TPC-12A
S-1
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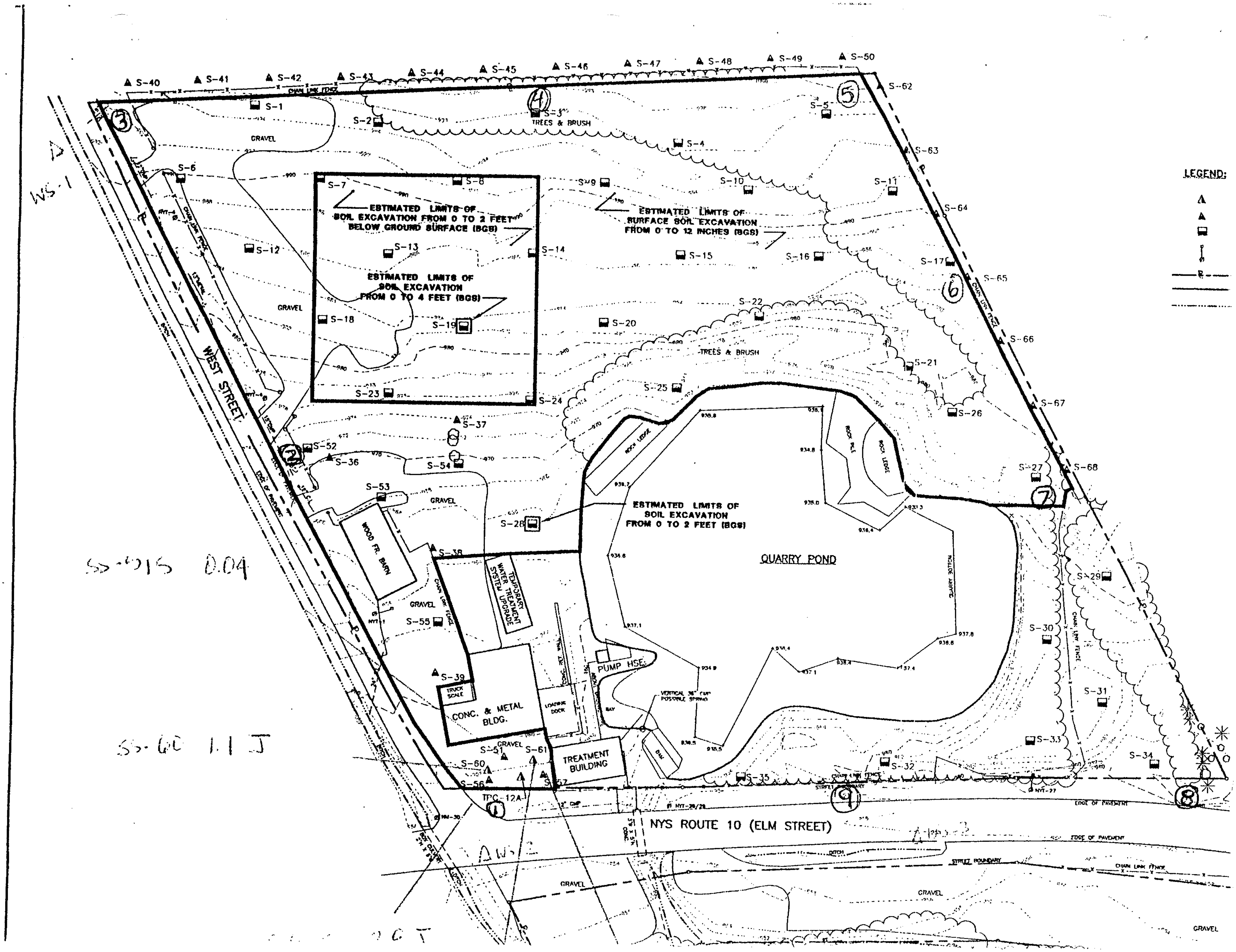
S-63
S-64
S-65
S-66
S-67
S-68
SS-915 0.04
SS-60 1.1 J
WS-1
AWS 2

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:02/08/02
Air Monitor: David Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM
COC's Monitored: total dust
Activity: Excavation, Soil Removal, Backfill

Time	Location	Instrument Reading CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	Comments
1:17	1						0.038	SE wind
1:15	2						0.000	SE wind
12:59	3						0.000	SE wind
1:01	4						0.000	SE wind
1:03	5						0.000	SE wind
1:06	6						0.000	SE wind
1:08	7						0.000	SE wind
1:23	8						0.000	SE wind
1:20	9						0.000	SE wind



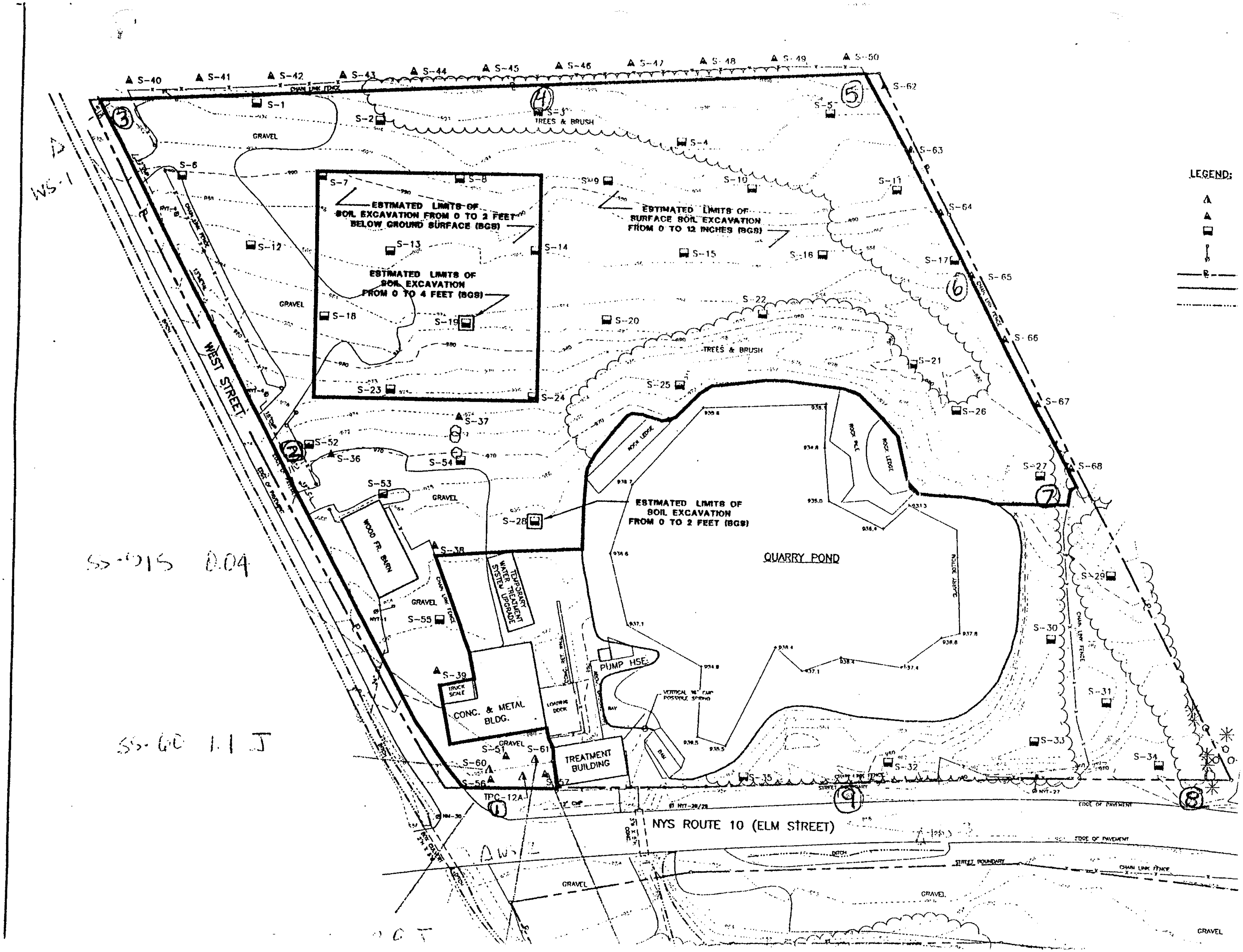
LEGEND:
QUARRY POND
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
WEST STREET
NYS ROUTE 10 (ELM STREET)
TREES & BRUSH
GRAVEL
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
PUMP HSE.
TREATMENT BUILDING
CONC. & METAL BLDG.
TRUCK SCALE
LOADING DOCK
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
WOOD FR. BARN
CHAIN LINK FENCE
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
VERTICAL 36" CMP POSSIBLE SPRING
S-1 S-2 S-3 S-4 S-5 S-6 S-7 S-8 S-9 S-10 S-11 S-12 S-13 S-14 S-15 S-16 S-17 S-18 S-19 S-20 S-21 S-22 S-23 S-24 S-25 S-26 S-27 S-28 S-29 S-30 S-31 S-32 S-33 S-34 S-35 S-36 S-37 S-38 S-39 S-40 S-41 S-42 S-43 S-44 S-45 S-46 S-47 S-48 S-49 S-50 S-51 S-52 S-53 S-54 S-55 S-56 S-57 S-60 S-61 S-62 S-63 S-64 S-65 S-66 S-67 S-68
TPC-12A
1 2 3 4 5 6 7 8 9
WS-1
SS-015 0.04
SS-60 1.1 J

Project: M. Wallace and Son Scrapyard Site - Cobleskill, NY
Date:02/26/02
Air Monitor: David Groff
PPE Level:D/Modified Level D

Instrument: MIE personal DataRAM
COC's Monitored: total dust
Activity: Excavation, Soil Removal, Backfill

Time	Location	Instrument Reading						Comments
		CO (ppm)	VOC (ppm)	H2S (ppm)	LEL (%)	O2 (%)	dust (mg/M3)	
11:03	1						0.008	West wind
11:05	2						0.000	West wind
10:34	3						0.000	West wind
10:38	4						0.000	West wind
10:40	5						0.000	West wind
10:43	6						0.019	West wind
10:47	7						0.019	West wind
10:56	8						0.021	West wind
10:59	9						0.024	West wind
	downwind of swale work area						0.002	
	downwind of fill work area						0.000	
	Rt 10 shoulder @ Location 8*						0.346	
	Rt 10 shoulder @ Location 8*						0.855	

* large quantities of sand/cinders on road sides, readings taken after vehicles pass location


LEGEND:
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET BELOW GROUND SURFACE (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 4 FEET (BGS)
ESTIMATED LIMITS OF SURFACE SOIL EXCAVATION FROM 0 TO 12 INCHES (BGS)
ESTIMATED LIMITS OF SOIL EXCAVATION FROM 0 TO 2 FEET (BGS)
QUARRY POND
ROCK LEDGE
ROCK PILE
QUARRY BOTTOM
TREES & BRUSH
GRAVEL
CHAIN LINK FENCE
WEST STREET
NYS ROUTE 10 (ELM STREET)
EDGE OF PAVEMENT
STREET BOUNDARY
DITCH
WOOD FR. BARN
TEMPORARY WATER TREATMENT SYSTEM UPGRADE
PUMP HSE.
LOADING DOCK
TRUCK SCALE
CONC. & METAL BLDG.
TREATMENT BUILDING
VERTICAL 16" CMP POSSIBLE SPRING
DAM
TPC-12A
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S-2
S-3
S-4
S-5
S-6
S-7
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S-68
SS-915 0.04
SS-60 1.1 J
WS-1

Attachment 10

Lead Air Sampling Analytical Reports

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Galson Laboratories

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
E. Syracuse NY 13057-0369
Phone: (315) 432-5227
Fax: (315) 437-0571
www.galsonlabs.com

Client : Blasland, Bouck & Lee
Site : Wallace
Project No. : 364.17

Date Sampled : 20-DEC-01 - 21-DEC-01 Account No.: 10624
Date Received : 21-DEC-01 Login No. : L77634
Date Analyzed : 21-DEC-01

Inorganic Lead

Sample ID	Lab ID	Air Vol m3	Total ug	Conc ug/m3
L1	L77634-1	0.920	<0.38	<0.4
L2	L77634-2	0.960	<0.38	<0.4
BLANK	L77634-3	NA	<0.38	NA

Level of quantitation: 0.38 ug
Analytical Method : modified NIOSH 7300; ICP
OSHA PEL (TWA) : 50 ug/m3
Collection Media : Filter

Submitted by: SR
Approved by : AMW
Date : 26-DEC-01
QC by: [illegible]
NYS DOH # : 11626

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
-- -Not Applicable	ND -Not Detected	ppm -Parts per Million	

Field Pump Data Sheet

Facility: WALLACE Employee: R. LADD Job Title: OPERATOR

Address: WEST ST. COATESVILLE ID Number: AAA Date of Sampling: 12/20/01

Sampled By: D. GRAFF

Field Sampling Data **Contaminant(s)**

Sample ID	Sample Media	Pump Number	Flow Rate (lpm)*	Time on	Time off	Duration (mins)	Volume (liters)	Rotameter Number
L1	738MCE/2942	P273	2	800	330	460	920	R025

*Flow Rate as Indicated on Rotameter

Field Pump Data Sheet

Facility: WALLACE

Employee: R. LADD

Job Title: OPERATOR

ID Number: AAA

Date of Sampling: 12/21/01

Address: WEST ST
COBLESKILL

Sampled By: D. GROFF

Field Sampling Data **Contaminant(s)**

Sample ID	Sample Media	Pump Number	Flow Rate (lpm)*	Time on	Time off	Duration (mins)	Volume (liters)	Rotameter Number
L2	73BMCE/ 2942		2	7^{00}	3^{00}	480	960	R025

*Flow Rate as Indicated on Rotameter

Laboratories
6601 Kirkville Road
P.O. Box 369
E. Syracuse, NY 13057
Tel: (315) 437-7252 888-577-Labs (5227)
Fax: (315) 437-0571

Request For Industrial Hygiene Analysis

Company Name: BLASLAND, BOUCK & LEE, INC.
Site Name: WALLACE
Sampled By: D. GROFF
Project #: 364.17

Send Report to: BLASLAND, BOUCK & LEE INC.
ATTN: M. CATHY GERACI
PO BOX 66
SYRACUSE, NY 13214-0066

Invoice to: SAME

☐ Purchase order number 364.17
(or)
☐ Credit Card (type) ______ Card # ______ Exp Date ______
☐ Verbal Authorization ______

☐ Standard Turn-Around Time OR ☒ Rush: Date and Time Requested: 12/26/01 8:00 am pm

☒ Phone Results to: GUNTHER SCHNORR Phone # (315) - 449 - 3809 ext.
☒ Fax Results to: M. CATHY GERACI Fax # (315) - 449 - 4111
☐ Email Results to: ______

non OK
[illegible]
12/

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Requested	Method Reference
L1	12/20/01	738MCE/2942	920	LEAD	NIOSH 7300
L2	12/21/01	738MCE/2942	960	LEAD	NIOSH 7300
BLANK					

*For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area): ______

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	DAVID GROFF	[signature]	12/21/01 5:07
Received by LAB.	Jerry Mario		12/21/01 / 17:07

Samples received after 3pm will be considered as next day's business.

Galson Laboratories

6601 Kirkville Road
E. Syracuse, NY 13057-0369
Phone: (315) 432-5227
Fax. (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : Blasland, Bouck & Lee
Site : Wallace Scrapyard
Project No. : 364.17

Date Sampled : 26-DEC-01
Date Received : 28-DEC-01
Date Analyzed : 05-JAN-02

Account No.: 10624
Login No. : L77730

Inorganic Lead

Sample ID	Lab ID	Air Vol m3	Total ug	Conc ug/m3
L3	L77730-1	0.930	<0.38	<0.4
LAB BLANK	L77730-2	NA	<0.38	NA

Level of quantitation: 0.38 ug
Analytical Method : modified NIOSH 7300; ICP
OSHA PEL (TWA) : 50 ug/m3
Collection Media : Filter

Submitted by: KB
Approved by : AMW
Date : 07-JAN-02
QC by:
NYS DOH # : 11626

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
-Not Applicable	ND -Not Detected	ppm -Parts per Million	

Field Pump Data Sheet

Facility: Wallace

Employee: Richard Ladd — Trackhoe/Shovel operator

Job Title: Operator

Address: West. Street, Cobleskill, NY

ID Number: AAA

Date of Sampling: 12/26/01

Sampled By: Gunther J. Schmoll

Field Sampling Data — **Contaminant(s)**

Sample ID	Sample Media	Pump Number	Flow Rate (lpm)*	Time on	Time off	Duration (mins)	Volume (liters)	Rotameter Number
L3	738MCE/2942	P273	2/2	9:30	17:15	465	930	R025

*Flow Rate as Indicated on Rotameter

Galson Laboratories
6601 Kirkville Road
P.O. Box 369
E. Syracuse, NY 13057
Tel: (315) 437-7252 888-577-Labs (5227)
Fax: (315) 437-0571

Request For Industrial Hygiene Analysis

Company Name: Blasland, Bouck & Lee, Inc.

Site Name: Wallace Scrapyard

Sampled By: Gunther J. Schnott   Project #: 364.17

Send Report to: Blasland, Bouck + Lee, Inc.
Attn: Cathy Geraci
PO Box 66
Syracuse, NY 13214-0066

Invoice to: Same as Report

☒ Purchase order number 364.17
(or)
☐ Credit Card (type) ____ Card # ____ Exp Date ____
☐ Verbal Authorization ____

☒ Standard Turn-Around Time OR ☐ Rush: Date and Time Requested: / / am pm

☐ Phone Results to: ____ Phone # ( ) - - ext.

☒ Fax Results to: Cathy Geraci   Fax # (315) -449 -4111

☐ Email Results to: ____

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Requested	Method Reference
L3	12/26/01	UW 3pc 738 WCE/2942	930	Lead	NIOSH 7300
Blank not submitted					

Added Lab blank CM 12/31

*For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area): ____

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	Gunther J. Schnott	Gunther J. Schnott	8:10pm/12/28/01
Received by LAB.	Sharon Stuber	Sharon Stuber	8:10am/12/28/01

Galson Laboratories

6601 Kirkville Road
E. Syracuse, NY 13057-0369
Phone: (315) 432-5227
Fax: (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : Blasland, Bouck & Lee
Site : Wallace Scrapyard
Project No. : 364.17

Date Sampled : 03-JAN-02 - 04-JAN-02 Account No.: 10624
Date Received : 09-JAN-02 Login No. : L77882
Date Analyzed : 09-JAN-02

Inorganic Lead

Sample ID	Lab ID	Air Vol m3	Total ug	Conc ug/m3
L4	L77882-1	0.812	<0.38	<0.5
L5	L77882-2	0.904	<0.38	<0.4
LAB BLANK	L77882-3	NA	<0.38	NA

Level of quantitation: 0.38 ug
Analytical Method : modified NIOSH 7300; ICP
OSHA PEL (TWA) : 50 ug/m3
Collection Media : Filter

Submitted by: KB
Approved by : AMW
Date : 10-JAN-02
QC by:
NYS DOH # : 11626

< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified
-Not Applicable	ND -Not Detected	ppm -Parts per Million	

Field Pump Data Sheet

Facility: Wallace Site   Employee: R. Ladd   Job Title: [illegible]

Address: Cobleskill, NY   ID Number: AAA   Date of Sampling: 1/5/02

Sampled By: D. Groff

Field Sampling Data   **Contaminant(s)**

Sample ID	Sample Media	Pump Number	Flow Rate (lpm)*	Time on	Time off	Duration (mins)	Volume (liters)	Rotameter Number
L4	738 MCE #2942	P273	2	812		406	812	R025

*Flow Rate as Indicated on Rotameter

Field Pump Data Sheet

Facility: WALLACE SITE Employee: R. LADD Job Title: OPERATOR

Address: COBLESKILL NY ID Number: AAA Date of Sampling: 1/4/02

Sampled By: D. GROFF

Field Sampling Data **Contaminant(s)**

Sample ID	Sample Media	Pump Number	Flow Rate (lpm)*	Time on	Time off	Duration (mins)	Volume (liters)	Rotameter Number
L5	738 MCE #2942	P273	2	7:08		452	904	R025

*Flow Rate as Indicated on Rotameter

Galson
Laboratories
6601 Kirkville Road
P.O. Box 369
E. Syracuse, NY 13057
Tel: (315) 437-7252 888-577-Labs (5227)
Fax: (315) 437-0571

Request For Industrial Hygiene Analysis

Company Name: BLASLAND BOUCK & LEE INC.
Site Name: WALLACE SCRAPYARD
Sampled By: D. GROFF
Project #: 36.4.17

nd Report to: BLASLAND BOUCK & LEE INC
ATTN CATHY GERACI
PO BOX 66
SYRACUSE NY 13221

Invoice to: SAME

☒ Purchase order number 366.17
(or)
☐ Credit Card (type) Card # Exp Date
☐ Verbal Authorization

☒ Standard Turn-Around Time OR ☐ Rush: Date and Time Requested: / / am pm
☐ Phone Results to: Phone # ( ) - - ext.
☒ Fax Results to: CATHY GERACI Fax # (315 - 449 - 4111
☐ Email Results to:

Sample Identification	Date Sampled	Sample Medium Catalog # / Lot #	Air Sample Volume (liters)*	Analysis Requested	Method Reference
L4	1/3/02	738 MCE / 2942	812	LEAD	NIOSH 7300
L5	1/4/02	738 MCE / 2942	904	LEAD	NIOSH 7300

*For passive monitors please list time exposed in minutes.

Comments (Please list any known interferences present in sampling area): Blank not submitted/BB

Chain of Custody	Print Name	Signature	Date/Time
Relinquished by:	DAVID GROFF	David Groff (FEDEX)	1/8/02 1255
Received by LAB.	Bruce Baxter	Bruce Baxter	1/9 @ 12:35p

Samples received after 3pm will be considered as next day's business.

Field Pump Data Sheet

Facility: WALLACE

Address: COEUR D'ALENE

Employee: CAT 320

ID Number: AAA

Sampled By: D. GROFF

Job Title: EXCAVATION OF S4, S13, S23

Date of Sampling: 1/17/02

Field Sampling Data **Contaminant(s)**

Sample ID	Sample Media	Pump Number	Flow Rate (lpm)*	Time on	Time off	Duration (mins)	Volume (liters)	Rotameter Number
L6	738mce/ 2942	P275	2	800	330	450	900	R025

*Flow Rate as Indicated on Rotameter

Attachment 11

January 17, 2002 Letter to NYSDEC

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Counselors At Law

HANCOCK & Estabrook, LLP

January 17, 2002

Daniel R. Lightsey, P.E.
NYSDEC - Region IV
1150 Westcott Road
Schenectady, New York 12306

Re: M. Wallace & Son, Inc. Site, Cobleskill, New York

Dear Dan:

Consistent with our discussion with Eric Hamilton of your office and David A. Munro, Esq. of the New York State Department of Law on January 8, the following sets forth M. Wallace & Son, Inc.'s (hereinafter "Wallace") request concerning the use of gravel instead of soil for backfill at and return to use of a portion of the area to be remediated at the above referenced Site.

Attached herewith as Exhibit "A" please find a copy of a map showing the area Wallace desires to use subsequent to the completion of the remedial activities and acceptance of the remediation report by NYSDEC. As you can see, Wallace's reasonable request pertains only to a portion of the Site.

The only activity Wallace intends to undertake at the area of the Site identified on Exhibit "A" is the storage of inert materials. In all likelihood, some materials would be post-consumer and some would be pre-consumer materials. Wallace does not intend to utilize that portion of the Site for the storage of any liquids or hazardous materials. Wallace would assume responsibility for maintenance of any areas it uses, including snow removal. Wallace would further be willing to periodically monitor the referenced area to ensure that a minimum thickness of gravel is maintained between the surface and remaining subsurface soils. Wallace would be responsible for repairing any temporary damage which may occur as a result of its use but would not be responsible for repairing damage, including erosion, caused by improper design, compaction, grading, etc.

It is further our understanding that Niagara Mohawk Power Corporation does not object to the use of graven instead of topsoil inasmuch as the gravel can be acquired in

H0073163.1

1500 MONY TOWER I, P.O. BOX 4976, SYRACUSE, NEW YORK 13221-4976
PHONE (315) 471-3151 • FAX (315) 471-3167
www.hancocklaw.com

RECEIVED
JAN 18 [illegible]
[illegible]

Schoharie County at a lower cost than soil and only minimal drainage issues are raised thereby.

We trust this adequately sets forth Wallace's intended future use of its real property. Should you have any questions or concerns, please do not hesitate to contact the undersigned. Otherwise, we look forward to NYSDEC's determination regarding Wallace's reasonable request to utilize gravel instead of soil for backfill at certain remediated portions of the Site. Thank you for your courtesy and consideration.

Very truly yours,

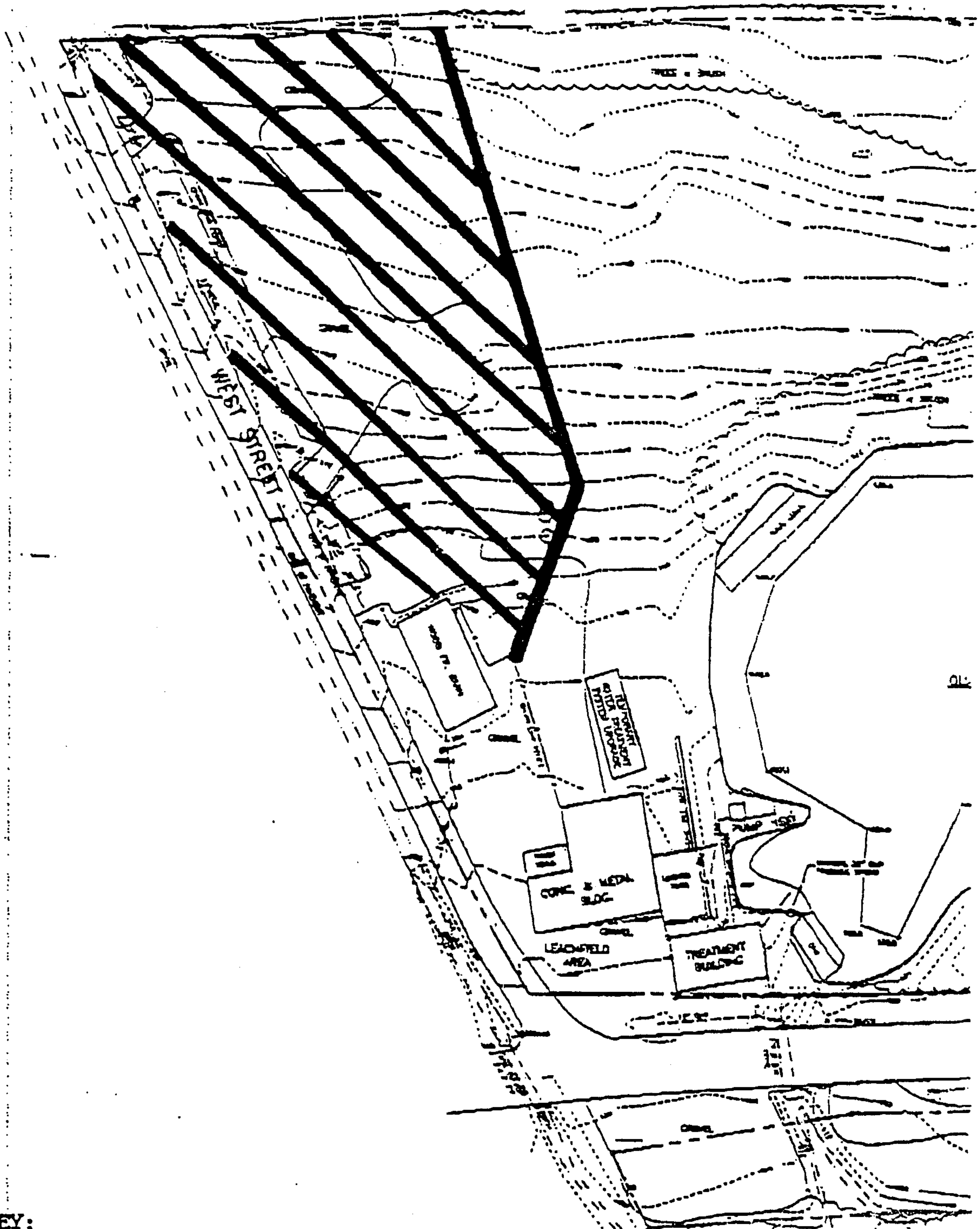
HANCOCK & ESTABROOK, LLP

Douglas H. Zamelis
dzamelis@hancocklaw.com

DHZ/hgb

cc: M. Wallace & Son, Inc.
Attn: Mr. Arthur M. Wallace, President
David A. Munro, Esq.
Richard R. Capozza, Esq.
John T. Parkinson, Esq.
Doreen A. Simmons, Esq.

Exhibit A



KEY:

- PROPOSED GRAVEL AREA

Attachment 12

January 30, 2002 Letter to Hancock & Estabrook

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

ELIOT SPITZER
Attorney General

DIVISION OF PUBLIC ADVOCACY
ENVIRONMENTAL PROTECTION BUREAU

January 30, 2002

Douglas H. Zamelis, Esq.
Hancock Estabrook LLP
1500 MONY Tower
PO Box 4976
Syracuse, New York 13221

David M. Hehr, Esq.
Hiscock & Barclay, LLP
Suite 301
Key Bank Towers at Key Center
50 Fountain Plaza
Buffalo NY 14202-2291

Re: State of New York v. Niagara Mohawk, et al. (Wallace Site)

Dear Counselors,

This letter responds to Doug's 1/17/02 letter to DEC on behalf of M. Wallace & Son, Inc. ("Wallace"), requesting that gravel be substituted for soil as backfill material at the Site. We understand that Niagara Mohawk does not oppose Wallace's request. Please be advised that the State approves such substitution, with the express understanding that, as committed to in the 1/17/02 letter, Wallace: (1) does not intend to utilize that portion of the Site for the storage of any liquids or hazardous materials; (2) periodically monitors the graveled area to ensure that a minimum thickness of gravel is maintained between the surface and remaining subsurface soils; and (3) is responsible for repairing any damage which occurs solely as a result of its use.

Finally, please be advised that Wallace must immediately move any scrap materials that may obstruct implementation of the remedy.

Sincerely,

David A. Munro

DAVID A. MUNRO
Assistant Attorney General
(518) 474-8481
E-mail: cpadam@oag.state.ny.us

cc: John T. Parkinson, Esq.- Niagara Mohawk
Elise Hiller, Esq.- Village of Cobleskill

wallace\le102counsel

Attachment 13

September 10, 2002 Letter to Cobleskill Highway Superintendent

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Transmitted Via U.S. Mail

September 10, 2002

Mr. Thomas Fissell, Highway Superintendent
Village of Cobleskill
P.O. Box 169
Cobleskill, New York 12043

Re: M. Wallace and Son, Inc. - Cobleskill, New York
BBL Project #: 0364.36417 #2

Dear Mr. Fissell:

Blasland, Bouck & Lee, Inc. (BBL) is in the process of preparing a Final Completion Report for the M. Wallace and Son, Inc. Scrapyard Site (the Site) remediation recently completed by Niagara Mohawk, a National Grid Company (Niagara Mohawk). Minor damage to Settles Mountain Road (formerly West Street) occurred as a result of the remedial activities completed by AAA Environmental Inc. (AAA), on behalf of Niagara Mohawk. As marked out by your department, and reviewed by Mr. Peter Porter of AAA and myself during a site visit on August 29, 2002, the minor cracks in the asphalt on the shoulder of the road near the entrances to the Site and the intersection with NYS Route 10 were repaired on September 6, 2002, by AAA's subcontractor, Cobleskill Stone Products. Repairs were made per the village's requirements as discussed during an on-site meeting with you, Mr. Edward Horning of AAA, and myself on May 10, 2002.

This letter serves as confirmation of our telephone conversation on September 10, 2002 and our discussion of repairs to Settles Mountain Road. During that conversation, you stated that you were very pleased with the repairs, that the work met with your approval and that there were no outstanding items related to the work that needed to be addressed by Niagara Mohawk and/or its contractor.

BBL would like to include a copy of this letter in the Final Completion Report. A copy of that report will be provided to the Village for review. If you agree with the above, please sign below in the space provided and return one signed copy to BBL and keep the other for your file. A stamped self-addressed envelope has been provided for your convenience. If you have any questions, please advise. Thank you for your attention to this matter.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

David F. Groff
Project Engineer

Thomas Fissell 9/16/02
Thomas Fissell
Highway Superintendent

DFG/cmb
Enclosure

cc: James F. Morgan, Niagara Mohawk, a National Grid Company
Peter Porter, AAA Environmental Inc.
M. Cathy Geraci, Blasland, Bouck & Lee, Inc.

Attachment 14

October 1, 2001 Letter to NYSDEC

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Niagara Mohawk

Transmitted Via U.S. Mail

October 1, 2001

Mr. Daniel Lightsey, P.E.
New York State Department of Environmental Conservation
1150 North Westcott Road
Schenectady, New York 12306-2014

Re: Niagara Mohawk Power Corporation
M. Wallace and Son, Inc. Scrapyard Site
Cobleskill, New York

Dear Mr. Lightsey:

As discussed during your recent telephone conversation with Ms. Cathy Geraci of Blasland, Bouck & Lee, Inc. (BBL), this letter documents the light non-aqueous phase liquid (LNAPL) recovery well installation and development activities conducted in connection with the New York State Department of Environmental Conservation (NYSDEC)-selected remedial action at the above-referenced site. As part of these activities, two LNAPL recovery wells were installed at the site on April 2 and 3, 2001 to facilitate construction of an enhanced automatic LNAPL recovery system. These wells were installed in accordance with the NYSDEC-approved *Draft Remedial Design* (BBL, June 2000), as amended by Niagara Mohawk Power Corporation's (Niagara Mohawk's) September 26, 2000 letter (hereinafter collectively referred to as the *Remedial Design*). The NYSDEC-approved the *Remedial Design* in a November 7, 2000 letter to Niagara Mohawk.

Due to the poor recovery observed in these wells, as well as other site-specific information identified herein, Niagara Mohawk proposes to use existing coreholes C-3/MW-8 and C-4 for enhanced automatic LNAPL recovery. Presented below are details regarding the installation, development, and monitoring of the LNAPL recovery wells, followed by Niagara Mohawk's proposal to use existing coreholes C-3/MW-8 and C-4 for the enhanced automatic LNAPL recovery system.

Recovery Well Installation

The *Record of Decision (ROD)* (NYSDEC, March 1999) for the site identifies that existing coreholes C-3/ MW-8 and C-4 will be enlarged to allow for the installation of 6-inch diameter LNAPL recovery wells. Because these existing coreholes are the only coreholes on site where LNAPL has been consistently observed since October 1996 and the possibility exists that enlarging these existing coreholes could plug the fractures which allow LNAPL to enter these coreholes, the *Remedial Design* recommended installing two 6-inch diameter recovery wells in the vicinity of existing coreholes C-3/MW-8 and C-4. The NYSDEC agreed and required that the locations for the recovery wells be reviewed and approved by the NYSDEC prior to installation. Accordingly, the approximate locations of LNAPL Recovery Wells No. 1 and No. 2 (shown on Figure 1 from the *Remedial Design*) were determined by the NYSDEC, Niagara Mohawk, and BBL during a March 27, 2001 site visit.

Parratt-Wolff, Inc. (Parratt-Wolff) installed Recovery Wells No. 1 and No. 2 on April 2 and April 3, 2001, in accordance with the procedures set forth in the NYSDEC-approved *Remedial Design*. A BBL geologist was on site to observe and document the well installation activities.

Well construction logs for Recovery Wells No. 1 and No. 2 are provided as Attachment 1. The recovery wells were installed with an Ingersoll-Rand A-300 drilling rig to approximately 50 feet below ground surface (bgs) using air rotary drilling techniques. Bedrock was encountered at depths of 5.5 feet and 4.5 feet bgs during installation of Recovery Wells No. 1 and No. 2, respectively. A low air flow rate was used during drilling operations to minimize disturbance of corehole walls and potential clogging of fractures in the bedrock, to the extent practicable.

An 8-inch outside diameter (OD) rotary air hammer bit was used to drill a borehole from the ground surface to approximately 8.5 feet bgs. A 6 5/8-inch OD black iron casing (approximately 10.5 feet in length) was then set on the bottom of the borehole, leaving approximately 2 feet of the casing above the ground surface. The annular space between the casing and borehole was then filled with bentonite and cement/bentonite grout to the ground surface. A 5 7/8-inch OD rotary air hammer bit was used to drill a nominal 6-inch bedrock corehole inside the iron casing to approximately 50 feet bgs. A circular concrete pad (1.5 feet in diameter and 0.5 feet in depth) was then installed at the surface of each well. Each well was fitted with a locking steel cap.

Observations made during drilling suggested that the yield of the recovery wells would be poor. Evidence of free water (based on drilling cuttings) was limited to two narrow intervals, one in each well. At Recovery Well No. 1, a small amount of water was present in the cuttings at a depth of 40.5 feet below grade. Within a few feet, however, the cuttings became dry again. Similarly, at Recovery Well No. 2, there was a slight indication of water at a depth of 36 feet below grade before the cuttings became dry again a few feet deeper.

Groundwater levels in surrounding coreholes/monitoring wells (C-14, C-3/MW-8, MW-5, and C-4) were measured and the appearance of the quarry pond was observed before and during installation of the recovery wells. No obvious groundwater level changes were noted in any of these surrounding coreholes/monitoring wells, and no air bubbles or LNAPL sheens were observed on the surface of the quarry pond. In addition, no LNAPL seeps were observed on the adjacent (northwest) wall of the quarry pond.

<u>Recovery Well Development and Monitoring</u>

Immediately following completion of the well installations on April 3, 2001, water levels were measured in each of the newly installed recovery wells to determine the depth to groundwater and assess if the wells could be developed. Water level measurements indicated each well contained less than one foot of water. Due to insufficient water volumes, it was determined that the wells would be developed at a later time once groundwater levels have recovered in these wells.

As discussed with the NYSDEC and documented in the appropriate monthly progress reports, Recovery Wells No. 1 and No. 2 were subsequently developed on three separate occasions, as described below.

- **May 17, 2001 Development by BBL** - Prior to development, groundwater levels were obtained and indicated approximately 25 feet of water was available in each well for development. Each well was surged for approximately one hour using a four-inch diameter dedicated polyethylene bailer, then purged by pumping water from each well. Each well went dry after removing approximately one well volume of water. Groundwater levels obtained prior to leaving the site indicated very low recharge in both wells.

- **June 14, 2001 Development by BBL** - Using the same methods as those described above for the May 17, 2001 development activities, BBL attempted to further develop Recovery Wells No. 1 and No. 2. Prior to development, groundwater levels were obtained and indicated approximately 24 feet of water present in each well for development. Similar to the May 17, 2001 development, each well went dry after removing approximately one well volume, and very low recovery was observed in each well following the purging activities.

- **August 31, 2001 Development by Parratt-Wolff** - Each well was developed using a mechanical surging method with a tight-fitting surge block and wire brushes. A representative from BBL was on-site to observe the development activities. Mr. Daniel Lightsey, P.E. of the NYSDEC was also on site. Prior to development, groundwater levels were obtained and indicated approximately 22 feet and 24 feet of water in Recovery Wells No. 1 and No. 2, respectively. Development involved adding between 40 to 50 gallons of potable water (obtained from an off-site source) to each well. Water was added manually by pouring water into each well to fill the water column. A drill rig-mounted surge block equipped with wire brushes was inserted into each well. Each well was surged/brushed for approximately one hour, and then pumped dry. Groundwater measurements obtained from each well approximately one hour following surging/brushing indicated approximately only 3 to 6 inches of water recovered in each well.

The results of the above-summarized development activities, as well as observations made while installing the LNAPL recovery wells, have consistently demonstrated the poor recovery of both water and LNAPL in Recovery Wells No. 1 and No. 2. Monitoring data obtained since installation further documents the poor recovery.

Since installation of Recovery Wells No. 1 and No. 2 on April 2 and 3, 2001, these wells have been included in the LNAPL monitoring program conducted by BBL at the site. As part of this program, groundwater levels have been obtained from each well on a biweekly basis. In addition, these wells have been monitored during the biweekly events for the presence/absence of LNAPL using an oil/water interface probe. Monitoring results for Recovery Wells No. 1 and No. 2 to date have been reported in the monthly progress reports for the site and are summarized in Table 1.

As noted above, prior to each development effort and approximately four to six weeks after purging, the water column depths in the two recovery wells ranged from 22 feet to 25 feet. This range is generally consistent with that measured in nearby coreholes C-3/MW-8 and C-4, thereby indicating that although the recovery wells eventually do recover, the recovery process is quite slow. For example, only 3.5 feet (approximately) of water was measured in Recovery Well No. 1 ten days after the development activities conducted on August 31, 2001, whereas approximately 20 feet of water was measured in nearby coreholes C-3/MW-8 and C-4.

Data generated during the LNAPL Extraction Demonstration performed by BBL in 1996 [presented in the *Feasibility Study Report* (BBL, 1997)] can also be used to demonstrate the poor recovery observed in Recovery Wells No. 1 and No. 2. As part of the LNAPL Extraction Demonstration, groundwater was continuously pumped from nearby corehole C-3/MW-8 at an average pumping rate of 6.5 gallons per minute (gpm) for a period of 24 hours (a total of more than 9,000 gallons). In comparison, Recovery Wells No. 1 and No. 2 have been pumped dry during development after removing approximately one well volume (approximately 35 gallons) with minimal recharge observed in these wells thereafter.

In addition to the low recharge of groundwater observed in Recovery Wells No. 1 and No. 2, these wells have also demonstrated poor LNAPL recovery. As summarized in Table 1, monitoring results have indicated that LNAPL has not been observed in Recovery Wells No. 1 and No. 2 in measurable amounts (i.e., greater than 0.01 feet in thickness). Trace LNAPL was observed on the oil/water interface probe during the monitoring of Recovery Well No. 2 between April 18, 2001 and June 21, 2001. However, LNAPL (even at trace amounts) has not been observed in this well since June 21, 2001. Trace LNAPL was observed on the oil/water interface probe during the monitoring of Recovery Well No. 1 during only one biweekly monitoring event (June 21, 2001).

As discussed above, three development attempts have failed to improve the productivity of Recovery Wells No. 1 and No. 2. Based on the observations/monitoring results discussed herein, Niagara Mohawk believes that the reason for the low well yield is that the well bore did not intercept significant water-bearing openings. Accordingly, further development of these wells would also provide to be ineffective, as it would not improve the yield of these recovery wells. Furthermore, Niagara Mohawk does not believe that installing new additional recovery wells is appropriate. As previously presented in Niagara Mohawk's June 14, 2000 letter to the NYSDEC and verbally acknowledged by the NYSDEC during the March 27, 2001 site visit to locate the LNAPL recovery wells, there are no guarantees regarding LNAPL recovery at any location because of the complex nature of the fractured bedrock beneath the site. Additionally, the locations for LNAPL Recovery Wells No. 1 and No. 2 were sited in the field with the NYSDEC as representing the most potentially productive locations for LNAPL recovery.

Use of Existing Coreholes C-3/MW-8 and C-4 for Enhanced LNAPL Recovery

Niagara Mohawk proposes to utilize existing coreholes C-3/MW-8 and C-4 for the installation of the enhanced automatic LNAPL recovery system presented in the *Remedial Design* (see Figure 1). These existing coreholes are the only coreholes on-site where LNAPL has been observed consistently since October 1996, and the three-inch diameter of existing coreholes C-3/MW-8 and C-4 is sufficient to allow the installation of the one-inch belt skimmer specified in the *Remedial Design.*

The use of these existing coreholes will involve the installation of equipment enclosure buildings and the installation of all associated equipment at these existing corehole locations. The electrical conduit would be installed appropriately to provide electrical service from the water treatment building to each of the equipment enclosure buildings. With the exception of the relocation of the access road, equipment enclosure buildings/associated equipment, and the electrical conduit, all other features of the enhanced automatic LNAPL recovery system will remain as specified in the *Remedial Design.*

Niagara Mohawk will continue to include Recovery Wells No. 1 and No. 2 in the ongoing biweekly LNAPL monitoring and removal program. Additionally, Niagara Mohawk is in the process of securing contractor bids for the remedial activities and anticipates having the pre-bid meeting on October 4, 2001. Once a contractor has been selected, a detailed remedial action schedule will be developed and provided to the NYSDEC.

We will follow up with you this week regarding any comments you may have on the proposal presented herein. In the interim, please feel free to contact me at (315) 428-3101 or M. Cathy Geraci of BBL at (315) 446-2570 (ext. 290) if you have any questions.

Sincerely,

James F. Morgan

James F. Morgan
Environmental Analyst

JFM/jmh
Attachment

cc: Ms. Christina Dowd, New York State Department of Environmental Conservation
Mr. William Ports, New York State Department of Environmental Conservation
Mr. Kernan Davis, New York State Department of Environmental Conservation
Mr. Richard Fedigan, New York State Department of Health
Alan Belensz, New York State Department of Law
David Munro, Esq., New York State Department of Law
John T. Parkinson, Esq., Niagara Mohawk Power Corporation
Mr. David J. Ulm, Blasland, Bouck & Lee, Inc.
Ms. M. Cathy Geraci, Blasland, Bouck & Lee, Inc.

Attachment 1

Well Construction Logs

Table 1

Niagara Mohawk Power Corporation
M. Wallace and Son, Inc. Scrapyard Site
Cobleskill, New York

LNAPL Recovery Wells – Biweekly Monitoring Results

Recovery Well #	Depth to Water (feet below measuring point)	LNAPL Observed*
April 18, 2001		
No. 1	31.69	None
No. 2	18.53	Trace
April 26, 2001		
No. 1	28.72	None
No. 2	22.25	Trace
May 25, 2001		
No. 1	39.93	None
No. 2	42.64	Trace
June 5, 2001		
No. 1	29.35	None
No. 2	33.16	Trace
June 21, 2001		
No. 1	41.92	Trace
No. 2	39.78	Trace
July 12, 2001		
No. 1	28.26	None
No. 2	27.50	None
July 26, 2001		
No. 1	27.98	None
No. 2	27.08	None
August 9, 2001		
No. 1	27.96	None
No. 2	26.64	None
August 21, 2001		
No. 1	28.71	None
No. 2	27.69	None
September 10, 2001		
No. 1	48.03	None
No. 2	29.08	None

Notes:

1. * = LNAPL monitoring performed with oil/water interface probe capable of detecting measurable amounts of LNAPL (LNAPL in thicknesses greater than 0.01 feet). "Trace" indicates measurable amounts of LNAPL were not detected, only trace LNAPL was observed on probe.
2. Total depth of each recovery well is 50 feet below ground surface.
3. Measuring point used is top of well casing, which is approximately 2.0 feet above ground surface.

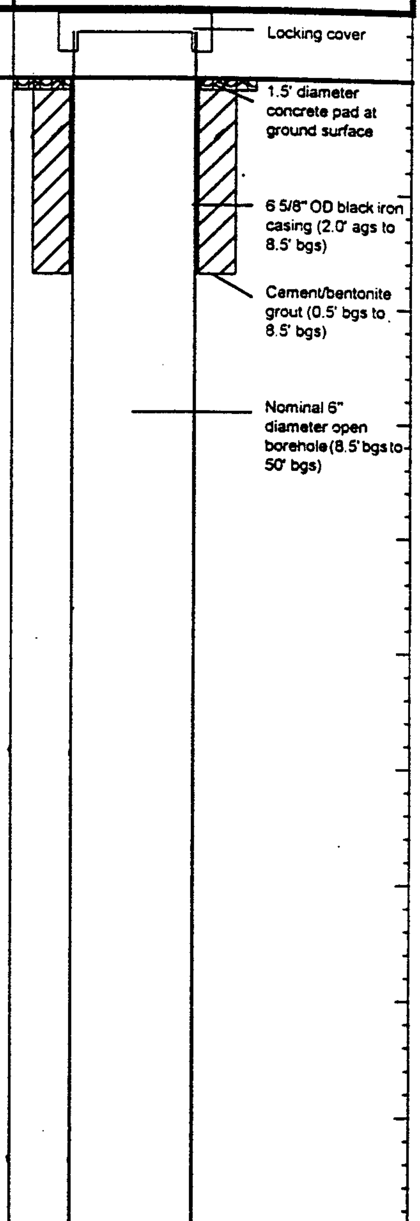
Attachment 1

Well Construction Logs

Date Start/Finish: 4/02 to 4/03/2001 **Drilling Company:** Parratt-Wolff **Driller's Name:** M. Ellingworth and R. Bush **Drilling Method:** Air Rotary **Bit Size:** 8" OD for first 8.5': 5 7/8" OD to 50' bgs **Auger Size:** NA **Rig Type:** Ingersoll-Rand A-300 **Sampling Method:** NA	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 50' bgs **Surface Elevation:** NA **Geologist:** Jerry Shi	**Well/Boring ID:** Recovery Well No. 1 **Client:** Niagara Mohawk Power Corporation **Location:** M. Wallace and Son, Inc. Cobleskill, New York

DEPTH	ELEVATION	Sample Run Number	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description	Hydrostratigraphy
0		NA	NA	NA	NA	NA		NA		(0' bgs to 2' bgs) Brown fine to medium SAND, little Silt, based on return soil cuttings.	
		NA	NA	NA	NA	NA		NA		(2' bgs to 5.5' bgs) Same as above. Borehole was continuously advanced to approximately 8.5' bgs using 8" OD diameter air hammer.	
5		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA		(5.5' bgs to 10' bgs) Gray limestone, based on return rock cuttings.	
10		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA		(10' bgs to 50' bgs) Same as above. Borehole was continuously advanced to approximately 50' bgs using 5 7/8" OD diameter air hammer with a drilling rate of approximately 1 to 1.5 feet/minute and produced a nominal 6" diameter borehole.	
		NA	NA	NA	NA	NA		NA			
15		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
20		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
25		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
30		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
35		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
40		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
45		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			
		NA	NA	NA	NA	NA		NA			

Well/Boring Construction



BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks: Water encountered at 40.5' bgs, dry below that depth.
ags = above ground surface; bgs = below ground surface.
ID = inside diameter; OD = outside diameter.

Date Start/Finish: 4/02 to 4/03/2001
Drilling Company: Parratt-Wolff
Driller's Name: M. Ellingworth and R. Bush
Drilling Method: Air Rotary
Bit Size: 8" OD for first 8.5': 5 7/8" OD to 50' bgs
Auger Size: NA
Rig Type: Ingersoll-Rand A-300
Sampling Method: NA

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 50' bgs
Surface Elevation: NA

Geologist: Jerry Shi

W[illegible]/Boring ID: Recovery Well No. 2

Client: Niagara Mohawk Power Corporation

Location: M. Wallace and Son, Inc.
Cobleskill, New York

DEPTH	ELEVATION	Sample Run Number	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
		NA	NA	NA	NA	NA		NA		(0' bgs to 2' bgs) Brown fine to medium SAND, little Silt, based on return soil cuttings.
		NA	NA	NA	NA	NA		NA		(2' bgs to 4.5' bgs) Same as above. Borehole was continuously advanced to approximately 8.5' bgs using 8" OD diameter air hammer.
5		NA	NA	NA	NA	NA		NA		(4.5' bgs to 10' bgs) Gray limestone, based on return rock cuttings.
		NA	NA	NA	NA	NA		NA		
10		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		(10' bgs to 50' bgs) Same as above. Borehole was continuously advanced to approximately 50' bgs using 5 7/8" OD diameter air hammer with a drilling rate of 1 to 1.5 feet/minute and produced a nominal 6" diameter borehole.
		NA	NA	NA	NA	NA		NA		
15		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		
20		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		
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		NA	NA	NA	NA	NA		NA		
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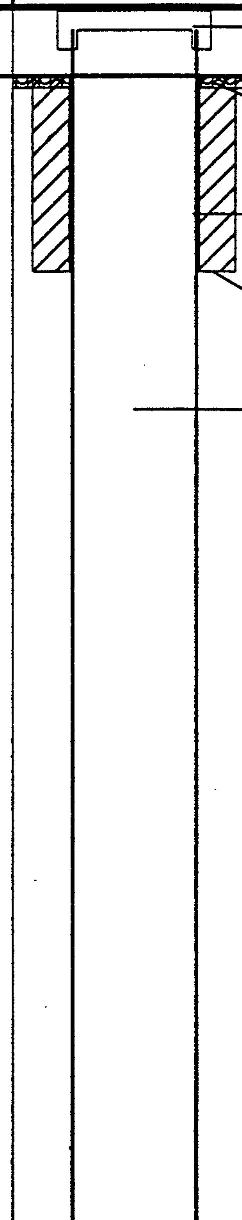
35		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		
40		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		
45		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		
		NA	NA	NA	NA	NA		NA		

Hydrostratigraphy

Well/Boring Construction



BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Remarks: Water encountered at 36' bgs, dry below that depth.
ags = above ground surface; bgs = below ground surface.
ID = inside diameter; OD = outside diameter.

Attachment 15

Recovery Well Plans, Elevation, and Detail

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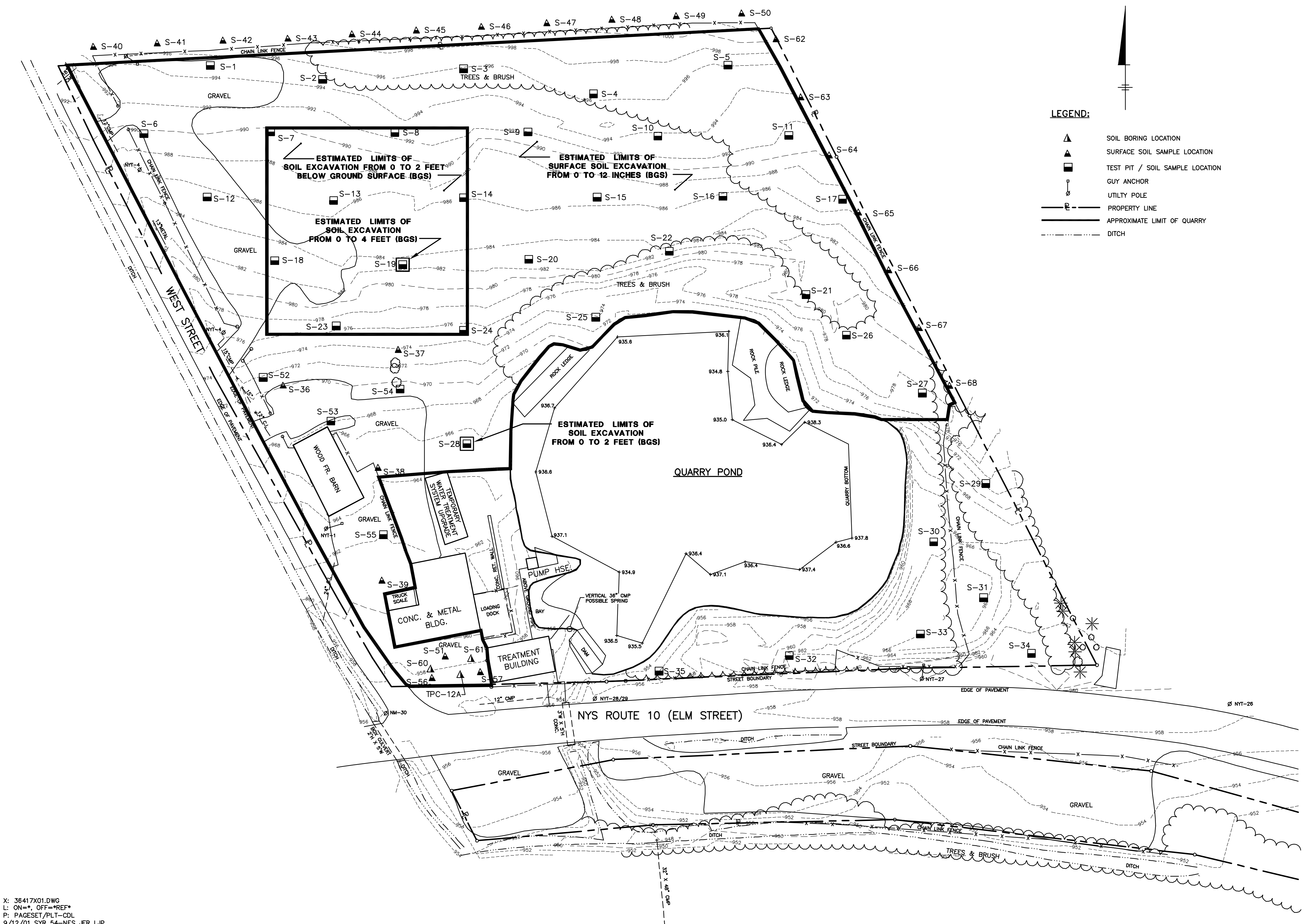


LEGEND:

- SOIL BORING LOCATION
- SURFACE SOIL SAMPLE LOCATION
- TEST PIT / SOIL SAMPLE LOCATION
- GUY ANCHOR
- UTILTY POLE
- PROPERTY LINE
- APPROXIMATE LIMIT OF QUARRY
- DITCH

NOTES:

1. LOCATION OF UNDERGROUND UTILITIES AND OTHER UNDERGROUND STRUCTURES LOCATED BY FIELD MEASUREMENTS WHERE POSSIBLE. OTHERWISE OBTAINED FROM OTHER SOURCES AND MAY BE APPROXIMATE. OTHER UNDERGROUND UTILITIES AND STRUCTURES MAY EXIST, THE LOCATION OF WHICH ARE PRESENTLY UNKNOWN. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UNDERGROUND STRUCTURES AND UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES AND THE PROPERTY OWNER.
2. BASE MAP FROM SITE SURVEY CONDUCTED BY BLASLAND, BOUCK & LEE, INC. OCTOBER 1992. PROPERTY BOUNDARY LOCATED IN THE FIELD BY JOANNE DARCY CRUM, L.S., COBLESKILL, NY. ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.
3. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH NIAGARA MOHAWK POWER CORPORATION (NMPC), OR NMPC'S REPRESENTATIVE PRIOR TO COMMENCING ON-SITE ACTIVITIES. NMPC OR NMPC'S REPRESENTATIVE WILL COORDINATE WITH THE PROPERTY OWNER REGARDING WORK SCHEDULE AND RELOCATION OF SCRAP MATERIALS NECESSARY TO COMPLETE THE EXCAVATION ACTIVITIES.
4. THE CONTRACTOR SHALL HAVE A TOPOGRAPHIC SURVEY OF THE SITE CONDUCTED IN ACCORDANCE WITH THE REMEDIAL DESIGN (RD). THE SURVEY SHALL LOCATE/VERIFY THE LOCATIONS OF ALL UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES, AS WELL AS SAMPLING LOCATIONS (SHOWN ON THIS DRAWING) USED TO DEFINE CERTAIN EXCAVATION LIMITS. FINAL EXCAVATION LIMITS WILL BE DETERMINED BASED ON POST-EXCAVATION SURVEY DATA OBTAINED BY THE CONTRACTOR AND THE RESULTS OF POST-EXCAVATION VERIFICATION SAMPLES TO BE COLLECTED BY NMPC'S REPRESENTATIVE.
5. THE CONTRACTOR SHALL VERIFY DIMENSIONS IN THE FIELD (AS NECESSARY).
6. THE CONTRACTOR SHALL RESTORE ALL SURFACES/ STRUCTURES DAMAGED OR DESTROYED AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT TO THEIR PRE-CONSTRUCTION CONDITION IN A TIMELY MANNER IN ACCORDANCE WITH MATERIALS AND PERFORMANCE (M&P) SPECIFICATION SECTION 02207.
7. THE CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENT CONTROLS IN ACCORDANCE WITH APPLICABLE REGULATIONS AND THE RD, INCLUDING M&P SPECIFICATION SECTION 02260.
8. THE CONTRACTOR SHALL MAINTAIN A SET OF DRAWINGS WITH CURRENT FIELD CHANGES MARKED THEREON AND SHALL DELIVER THESE DRAWINGS TO NMPC'S REPRESENTATIVE UPON COMPLETION OF CONSTRUCTION.
9. THE CONTRACTOR SHALL NOTIFY NMPC OR NMPC'S REPRESENTATIVE IMMEDIATELY WHEN CONFLICTS BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
10. CONTRACTOR SHALL FOLLOW ALL APPLICABLE CODES AND SAFETY STANDARDS DURING CONSTRUCTION INCLUDING THOSE SPECIFIED IN OSHA'S SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (29 CFR 1900), AND THE CONTRACTOR'S SITE-SPECIFIC HEALTH AND SAFETY PLAN.
11. CONTRACTOR SHALL LOCATE ALL MATERIALS/EQUIPMENT STORAGE AND STAGING AREAS AND SUPPORT FACILITIES (E.G., TRAILERS, DECONTAMINATION AREA, ETC.) WITHIN THE FENCED PORTION OF THE SITE.
12. ALL REMEDIAL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE RD (AND/OR CHANGES APPROVED BY NMPC'S REPRESENTATIVE AND/OR NMPC) AND APPLICABLE RULES, REGULATIONS, AND STANDARDS.
13. THE PORTION OF THE M. WALLACE AND SON, INC. PROPERTY LOCATED NORTH OF NYS ROUTE 10 IS DEFINED AS THE SITE.

X: 36417X01.DWG
L: ON=*, OFF=*REF*
P: PAGESET/PLT-CDL
9/12/01 SYR 54-NES JER LJP
36417033/CONTRACT/36417B01.DWG

Graphic Scale
40' 0 40' 80'
APPROXIMATE GRAPHIC SCALE

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

No.	Date	Revisions	Init

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

Project Mgr. MCG
Designed by MAM/MCG
Drawn by NES
Checked by DWH/MCG
Prof. Eng. DAVID W. HALE
PE License N.Y. 065423

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

NIAGARA MOHAWK POWER CORPORATION • M. WALLACE & SON INC. SCRAPYARD • COBLESKILL, NEW YORK
REMEDIAL DESIGN

ESTIMATED LIMITS OF SOIL EXCAVATION

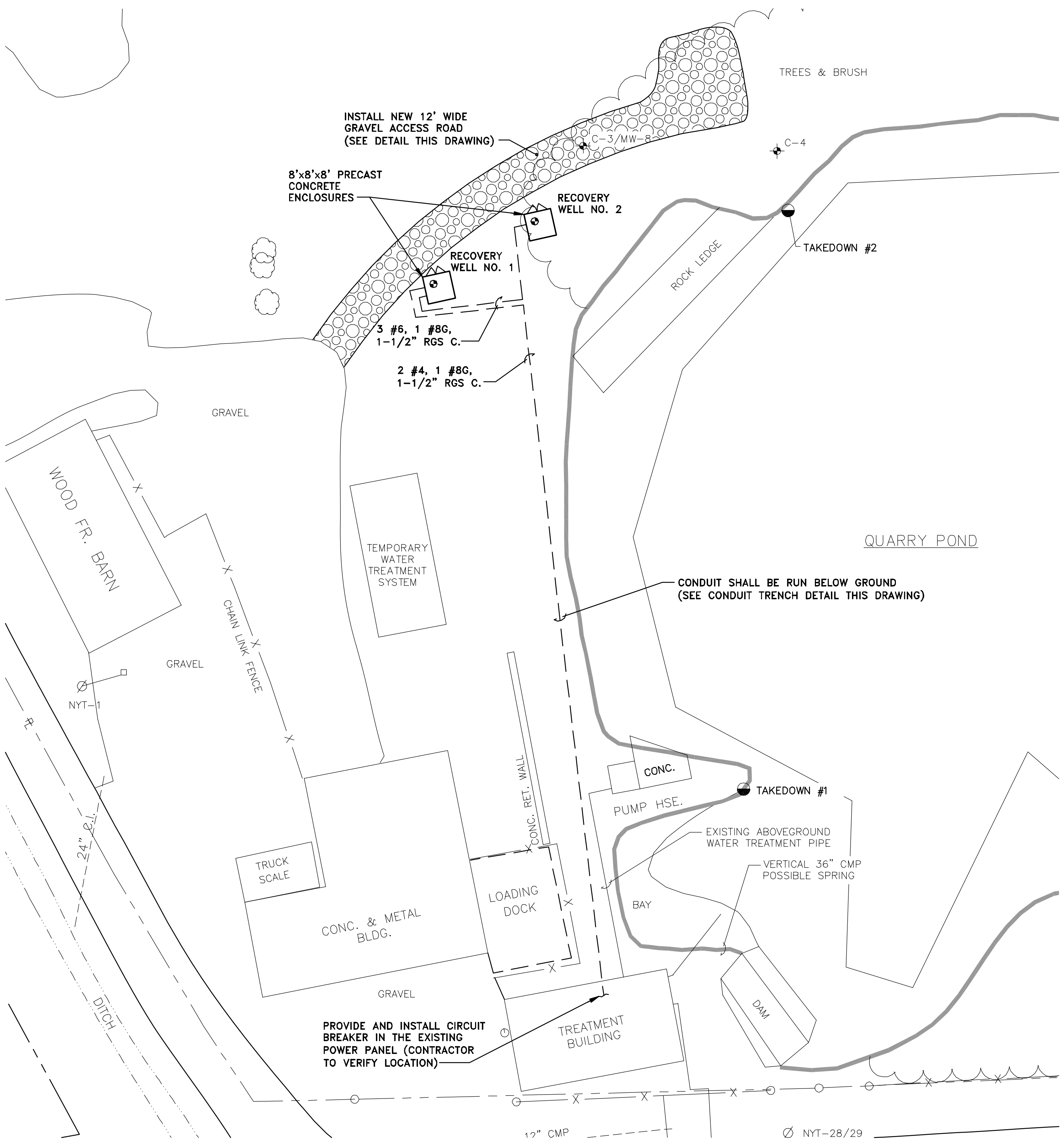
GENERAL

File Number
364.17.04F

Date
SEPTEMBER 2001

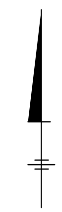
Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315-446-9120

4



SITE PLAN

SCALE: 1"=20'-0"



LEGEND:

- GUY ANCHOR
- UTILITY POLE
- PROPERTY LINE
- APPROXIMATE LIMIT OF QUARRY
- DITCH
- TAKEDOWN LOCATION
- EXISTING BEDROCK COREHOLE MONITORING WELL LOCATION
- PROPOSED LNAPL RECOVERY WELL (BY OTHERS)
- ELECTRICAL CONDUIT

GENERAL NOTES:

1. LOCATION OF UNDERGROUND UTILITIES AND OTHER UNDERGROUND STRUCTURES LOCATED BY FIELD MEASUREMENTS WHERE POSSIBLE, OTHERWISE OBTAINED FROM OTHER SOURCES AND MAY BE APPROXIMATE. OTHER UNDERGROUND UTILITIES AND STRUCTURES MAY EXIST, THE LOCATIONS OF WHICH ARE PRESENTLY UNKNOWN. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL UNDERGROUND STRUCTURES AND UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES AND THE PROPERTY OWNER.
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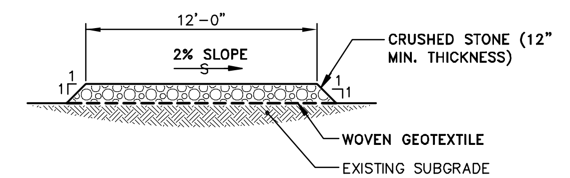
4. THE CONTRACTOR SHALL VERIFY DIMENSIONS IN THE FIELD (AS NECESSARY).
5. THE CONTRACTOR SHALL INSTALL COMPONENTS IN A NEAT AND WORKMANLIKE MANNER THAT ARE EASILY ACCESSIBLE FOR INSPECTION AND REPAIR; AND ALIGN, LEVEL AND ADJUST FOR SATISFACTORY OPERATION AND MAINTENANCE. DEVIATIONS FROM INDICATED ARRANGEMENTS ARE SUBJECT TO REVIEW AND APPROVAL BY NMPC, OR NMPC'S REPRESENTATIVE PRIOR TO INSTALLATION AND/OR OPERATION.
6. THE CONTRACTOR SHALL RESTORE ALL SURFACES DAMAGED OR DESTROYED AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT TO THEIR PRE-CONSTRUCTION CONDITION IN A TIMELY MANNER, IN ACCORDANCE WITH MATERIALS AND PERFORMANCE (M&P) SPECIFICATION SECTION 02207.
7. THE CONTRACTOR SHALL FURNISH AND PLACE PROPER GUARDS FOR PREVENTION OF ACCIDENTS, PROVIDE ALL SCAFFOLDING, SHIELDING, DUST/FUME PROTECTION, MECHANICAL/ELECTRICAL PROTECTION, SPECIAL GROUNDING, SAFETY RAILINGS, BARRIERS, OR OTHER SAFETY FEATURES, AS REQUIRED, AND DETAILED IN THE M&P SPECIFICATIONS.
8. THE CONTRACTOR SHALL MAINTAIN A SET OF DRAWINGS WITH CURRENT FIELD CHANGES MARKED THERE-ON AND SHALL DELIVER THESE DRAWINGS TO NMPC'S REPRESENTATIVE UPON COMPLETION OF CONSTRUCTION.
9. THE CONTRACTOR SHALL NOTIFY NMPC OR NMPC'S REPRESENTATIVE IMMEDIATELY WHEN CONFLICTS BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
10. CONTRACTOR SHALL OBTAIN ALL LOCAL (NON-ENVIRONMENTAL) PERMITS AND MAKE ARRANGEMENTS FOR LOCAL INSPECTIONS (AS NECESSARY).
11. CONTRACTOR SHALL FOLLOW ALL APPLICABLE CODES AND SAFETY STANDARDS DURING CONSTRUCTION INCLUDING THOSE SPECIFIED IN OSHA'S SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (29 CFR 1900), AND THE CONTRACTOR'S HEALTH AND SAFETY PLAN.
12. RECOVERY WELL LOCATIONS ARE APPROXIMATE. RECOVERY WELLS NO. 1 AND NO. 2 WERE INSTALLED IN APRIL 2001 BY NMPC. THESE WELLS ARE CURRENTLY BEING MONITORED TO DETERMINE THEIR POTENTIAL FOR ENHANCED LNAPL RECOVERY. BASED UPON THE RESULTS OF THE MONITORING ACTIVITIES, THESE WELLS MAY BE USED FOR THE CONSTRUCTION OF THE ENHANCED AUTOMATIC LNAPL RECOVERY SYSTEMS, OR ALTERNATIVE NEW/EXISTING WELLS IN THE VICINITY OF EXISTING COREHOLES C-3/MW-8 AND C-4 MAY BE INSTALLED/MODIFIED BY NMPC.



GEOTEXTILE SPECIFICATIONS:

AMOCO 2006 OR AN APPROVED EQUIVALENT.

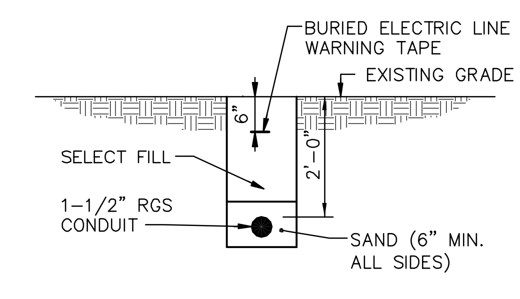
GRAVEL SPECIFICATIONS:

RUN-OF-CRUSHER HARD DURABLE LIMESTONE OR EQUAL HAVING THE FOLLOWING GRADATION BY WEIGHT:

% PASSING	SQUARE OPENING (INCHES)
100	1-1/2
90-100	1
65-80	1/2
40-60	1/4
0-10	#200 SIEVE

GRAVEL ACCESS ROAD DETAIL

NOT TO SCALE



NOTE:

SAND TO HAVE THE FOLLOWING GRADATION BY WEIGHT:

PERCENT PASSING	SIEVE
100	3/8 "
95-100	NO. 4
80-100	NO. 8
50-85	NO. 16
25-60	NO. 30
10-30	NO. 50
2-10	NO. 100

CONDUIT TRENCH DETAIL

NOT TO SCALE

L: ON=*, OFF=REF
P: PAGESET/CDL
9/11/01 SYR-54-DCC GMS JER
36417033/CONTRACT/36417G01.DWG

Graphic Scale
20' 0 20' 40'
1"=20'

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

No.	Date	Revisions	Init

Project Mgr. MCG
Designed by DRG
Drawn by DCC
Checked by DWH/DRG
Prof. Eng. DAVID W. HALE
PE License N.Y. 065423

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

NIAGARA MOHAWK POWER CORPORATION, M. WALLACE & SON, INC. SCRAPYARD • COBLESKILL, NEW YORK
REMEDIAL DESIGN

LNAPL RECOVERY SYSTEMS SITE PLAN AND DETAILS

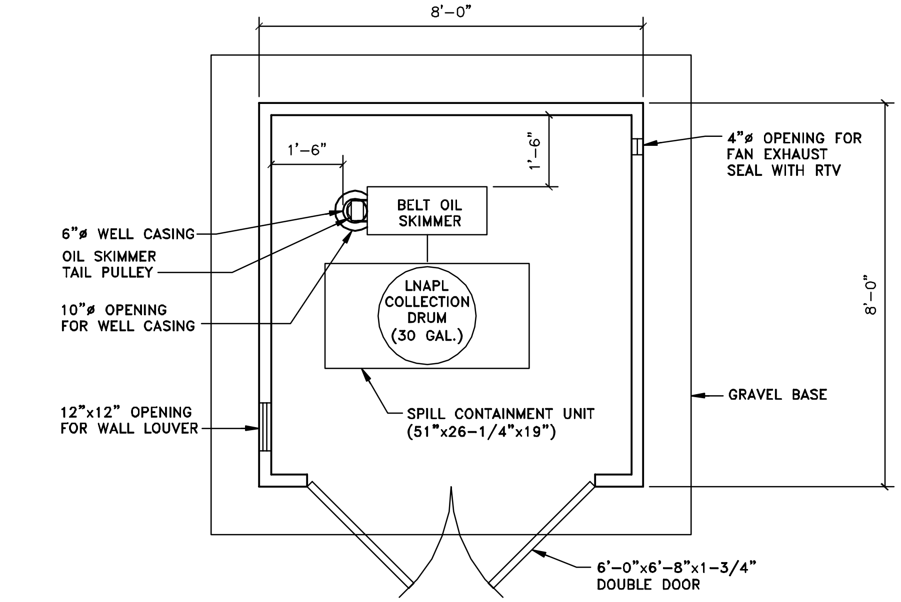
GENERAL

File Number
364.17.01F

Date
SEPTEMBER 2001

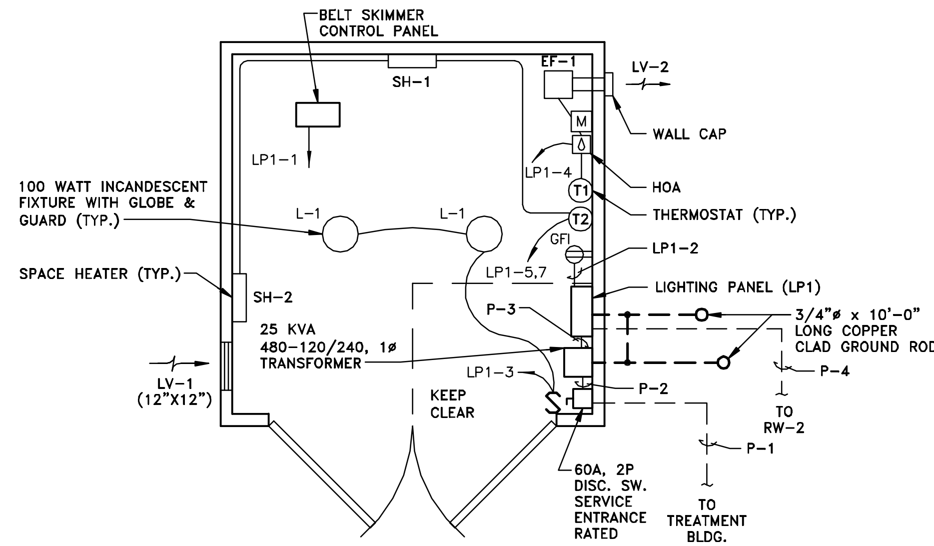
Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315-446-9120

1



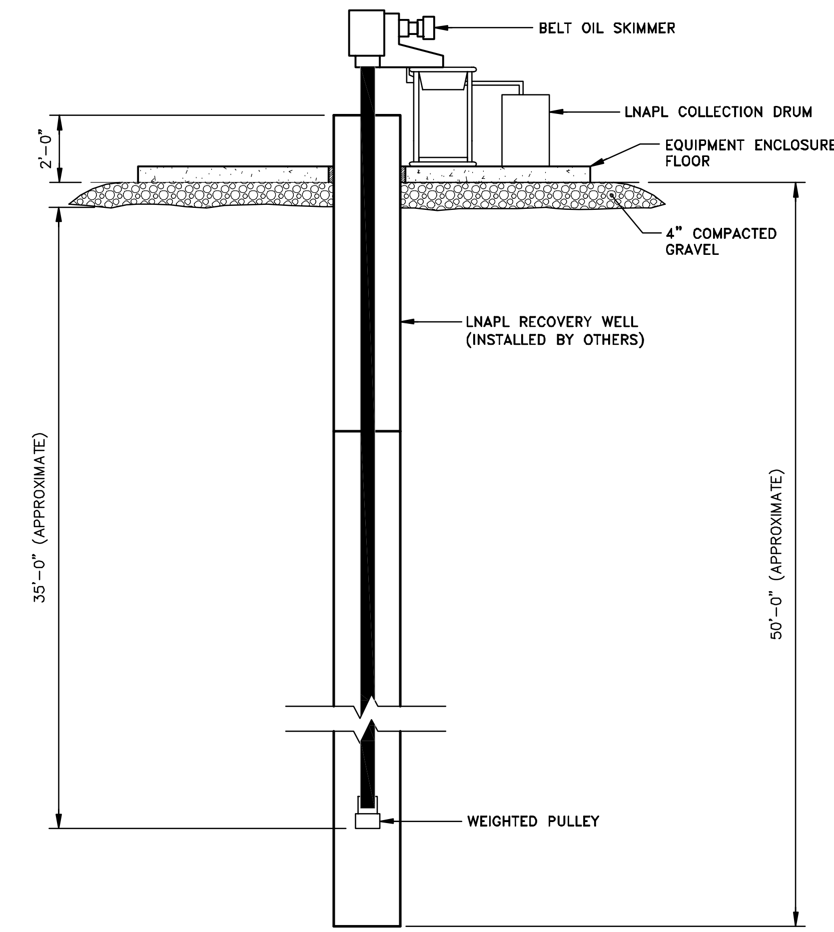
RECOVERY WELL NO. 1 & 2
EQUIPMENT ENCLOSURE FLOOR PLAN

SCALE: 1/2"=1'-0"



RECOVERY WELL NO. 1
ELECTRICAL PLAN

SCALE: 1/2"=1'-0"

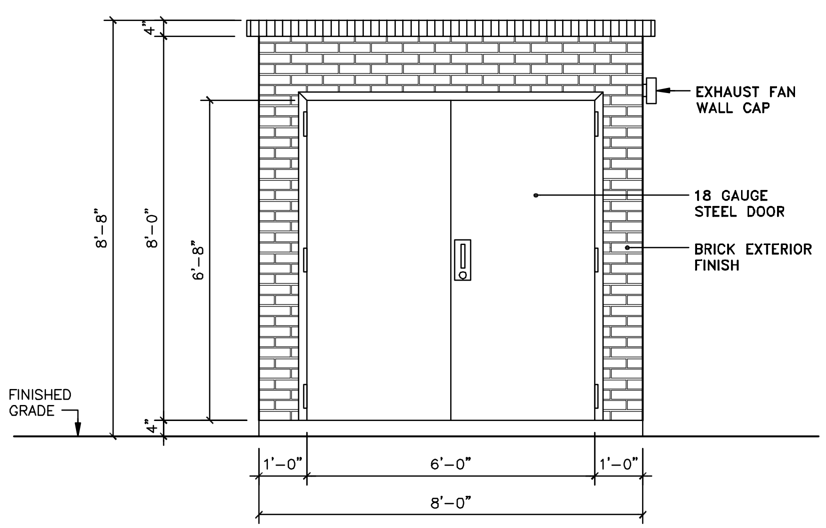


NOTES:

1. RECOVERY WELLS TO BE INSTALLED BY OTHERS PRIOR TO CONSTRUCTION OF THE LNAPL RECOVERY SYSTEMS.

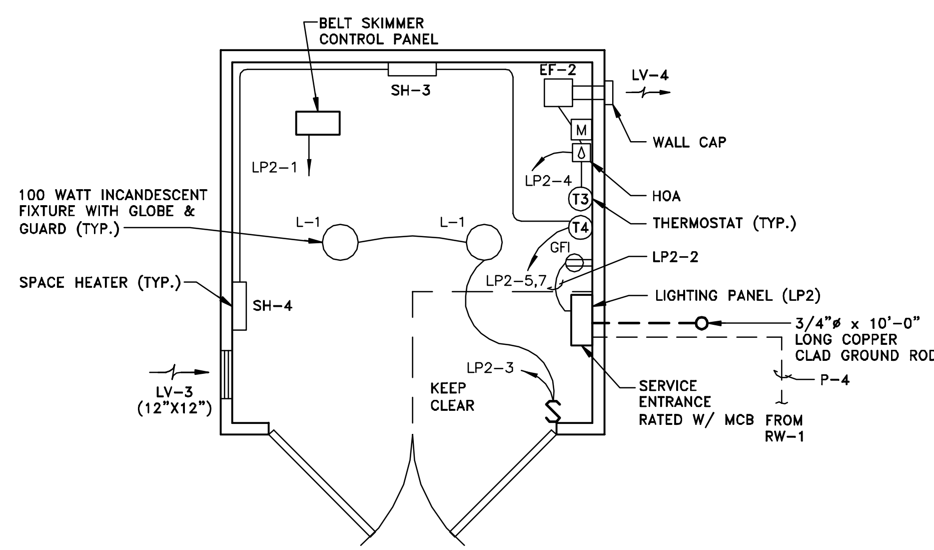
RECOVERY WELL DETAIL

NOT TO SCALE



RECOVERY WELL NO. 1 & 2
EQUIPMENT ENCLOSURE ELEVATION

SCALE: 1/2"=1'-0"



RECOVERY WELL NO. 2
ELECTRICAL PLAN

SCALE: 1/2"=1'-0"

GENERAL NOTES:

1. SEE DRAWING 3 FOR SPECIFICATIONS.
2. MOUNT ALL SPACE HEATERS 6" A.F.F.
3. MOUNT ALL T-STATS 5'-0" A.F.F.
4. MOUNT ALL SWITCHES AND RECEPTACLES MIN. 3'-0" A.F.F.
5. SEE SHEET 1 FOR ELECTRICAL SITE PLAN.

ELECTRICAL & HVAC LEGEND:

	NORMALLY OPEN CONTACT (N.O.)	L-1	100W INCANDESCENT LIGHT FIXTURE
	CIRCUIT BREAKER (C.B.)	S	SINGLE POLE LIGHT SWITCH
	GROUND	T	THERMOSTAT
	TRANSFORMER		HOMERUN
	MOTOR OVERLOAD HEATER	HOA	HAND-OFF-AUTOMATIC
M	MANUAL MOTOR STARTER		
GFI	GROUND FAULT INTERUPTER RECEPTACLE		

L: ON=*, OFF=REF
P: PAGESET/CDL
9/11/01 SYR-54-DCC GMS JER
36417033/CONTRACT/36417G02.DWG

Graphic Scale 1/2"=1'-0" 2' 0 2' 4'

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

No.	Date	Revisions	Init

Project Mgr. MCG
Designed by DRG/ME
Drawn by DCC
Checked by DWH/DRG
Prof. Eng. DAVID W. HALE
PE License N.Y. 065423

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

NIAGARA MOHAWK POWER CORPORATION, M. WALLACE & SON, INC. SCRAPYARD • COBLESKILL, NEW YORK
REMEDIAL DESIGN

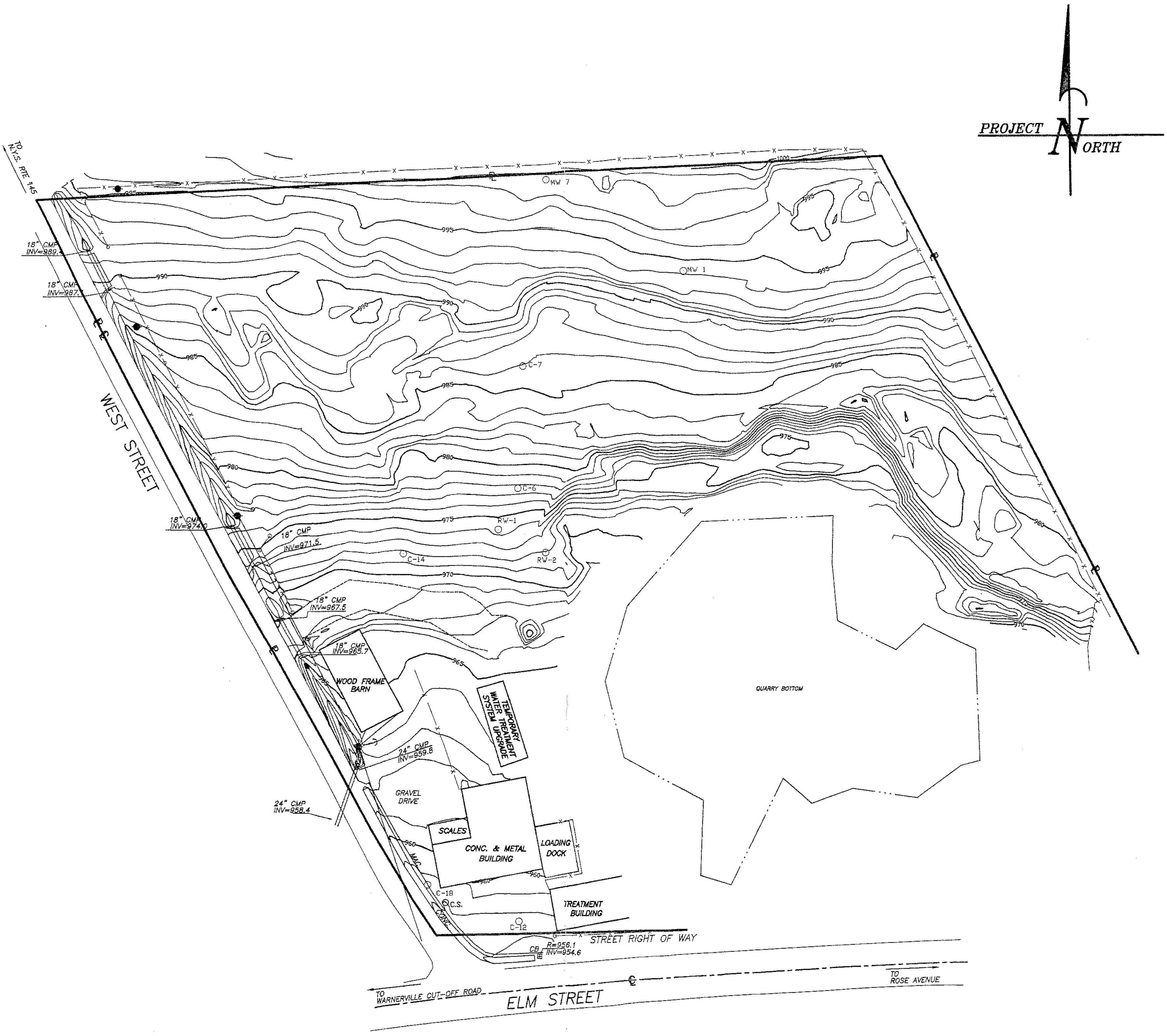
RECOVERY WELL PLANS, ELEVATION, AND DETAIL

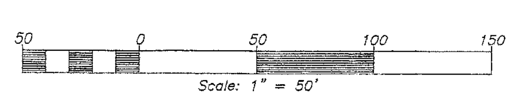
GENERAL

File Number 364.17.02F
Date SEPTEMBER 2001

Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315-446-9120

2





LEGEND

℄	Centerline	ℙ	Property Line
	Utility Pole & Lines	—x—	Chain Link Fence
	Contour Line	—960—	Index Contour Line
○ C.S.	Curb Stop	⊞ CB	Storm Catch Basin
○ C-1/MW1	Monitoring Well		

UNAUTHORIZED ALTERATION OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.
JOANNE DARCY CRUM, L.S.

NOTES

1. ELEVATIONS SHOWN ARE OF EXISTING GRADE AFTER BRUSH HOGGING & NO SNOW COVER.
2. ELEVATIONS SHOWN ARE BASED ON NGVD 1929, EXISTING BENCH MARKS ESTABLISHED BY BLASLAND, BOUCK & LEE WERE USED.
3. PROPERTY LINES ARE BASED ON MAP & SURVEY FOR SIDNEY WALLACE BY J.D. CRUM, L.S. BEARING DATE OF 2/16/88.

EXISTING GRADE
TOPOGRAPHIC SURVEY FOR

AAA ENVIRONMENTAL, INC.
"WALLACE SITE"

VILLAGE & TOWN OF COBLESKILL
COUNTY OF SCHOHARIE — STATE OF NEW YORK

SCALE 1" = 50.00' — 19 DECEMBER 2001

JOANNE DARCY CRUM, L.S. 49673
COBLESKILL, NEW YORK 12043

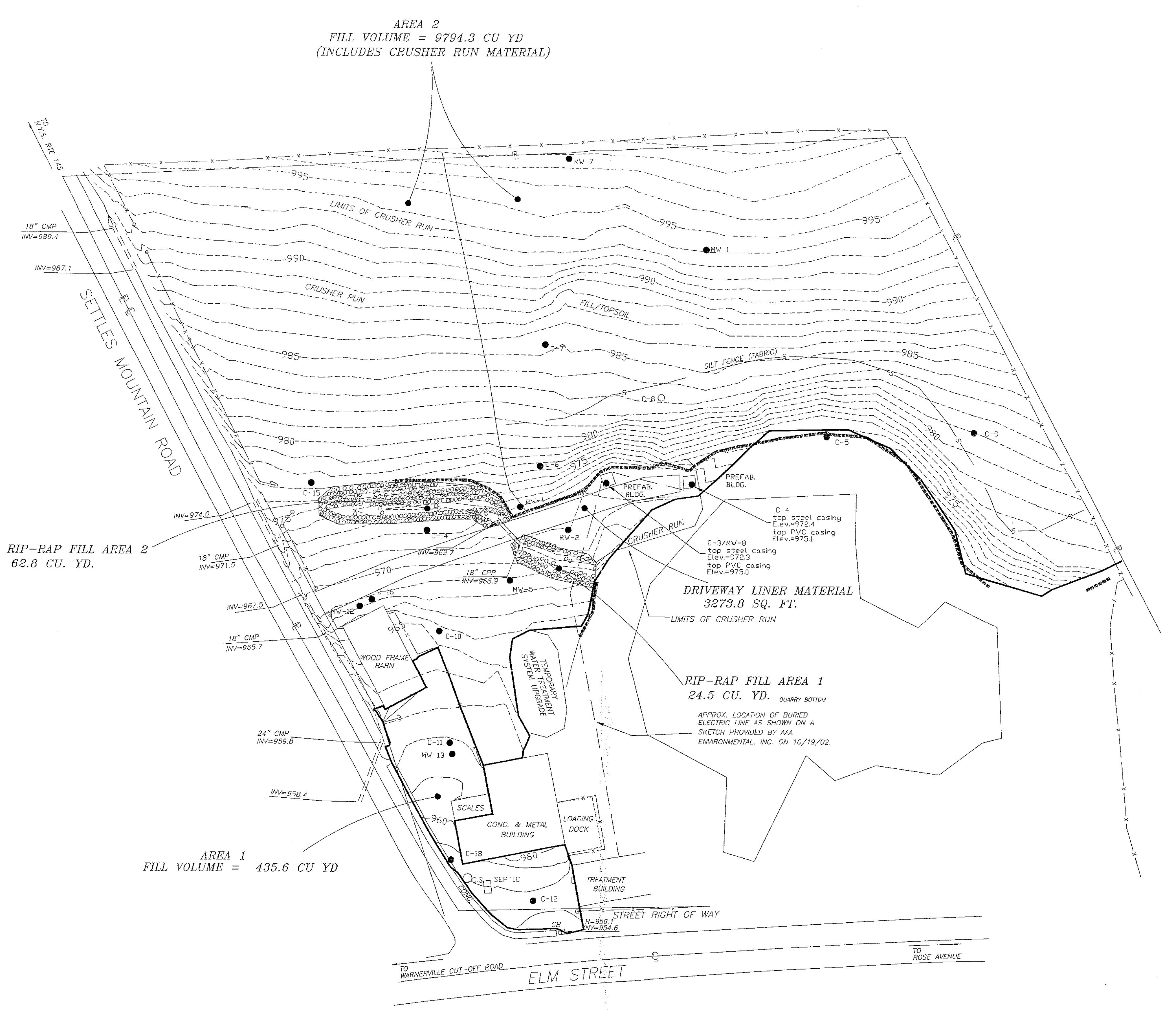
MAP A/46/01 — By Jon L. Thompson, L.S.

VOLUME REPORT FILL	
AREA #	CU. YDS.
1	435.6
2	9794.3

MEMBRANE REPORT
DRIVEWAY LINER MATERIAL 3273.8 SQ. FT.

RIP-RAP REPORT	
AREA #	CU. YDS.
1	24.5
2	62.8

PROJECT NORTH



REVISIONS

LEGEND

℄	Centerline	ℙ	Property Line
	Utility Pole & Lines	—x—	Chain Link Fence
○ C.S.	Curb Stop	— 960 —	Contour Line
● C-1/MW1	Monitoring Well	⊞CB	Storm Catch Basin
	Rip-Rap		Hay Silt Fence

50 0 50 100 150
Scale: 1" = 50'

NOTES

1. ELEVATIONS SHOWN ARE OF GRADE AFTER FILL AS OF 6/07/02
2. ELEVATIONS SHOWN ARE BASED ON NGVD 1929. EXISTING BENCH MARKS ESTABLISHED BY BLASLAND, BOUCK & LEE, INC. WERE USED.
3. PROPERTY LINES ARE BASED ON MAP & SURVEY FOR SIDNEY WALLACE BY J.D. CRUM, L.S. BEARING DATE OF 2/16/88.

AS-BUILT SURVEY FOR
BLASLAND, BOUCK & LEE, INC.
"WALLACE SITE"
VILLAGE & TOWN OF COBLESKILL
COUNTY OF SCHOHARIE STATE OF NEW YORK
SCALE 1" = 50.00' 07 JUNE 2002
JOANNE DARCY CRUM, L.S. 49673
COBLESKILL, NEW YORK 12043
MAP A/46D/01 By Jon L. Thompson, L.S.

Exhibits

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Exhibit A

Pre-Removal Survey

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Exhibit B

As-Built Survey

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Exhibit C

Residential Fish Analytical Data

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DATA REVIEW FOR

NMPC
M. WALLACE & SON, INC.

RESIDENT FISH

SDG# 827957

PCB ANALYSES

Analyses performed by:

EnChem, Inc.
Green Bay, Wisconsin

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# 827957 for biota monitoring at the NMPC - M. Wallace & Son site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOC	SVOC	PCB	TAL	%lipid
UT-FM-04	827957-001	biota	10/27/02			x		x
UT-FM-05	827957-002	biota	10/27/02			x		x
UT-SR-01	827957-003	biota	10/27/02			x		x
UT-WS-04	827957-004	biota	10/27/02			x		x
UT-WS-05	827957-005	biota	10/27/02			x		x
UT-WS-06	827957-006	biota	10/27/02			x		x
CC-CS-04	827957-007	biota	10/27/02			x		x
CC-CS-05	827957-008	biota	10/27/02			x		x
CC-SR-01	827957-009	biota	10/27/02			x		x
CC-SB-04	827957-010	biota	10/27/02			x		x
CC-WS-01	827957-011	biota	10/27/02			x		x
CC-HS-01[1]	827957-012	biota	10/27/02			x		x

1 MS/MSD analysis performed on sample.

vmc3054

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

<u>Data Assessment</u>

1. Holding Time

No collection to extraction holding time is specified for biota analysis. The holding time from extraction to analysis is 40 days.

All samples were analyzed within the specified holding time.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method blank. No rinse blanks were submitted with the samples.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed.

All continuing calibration verification standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

All surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

All samples have been correctly identified and all quantitated peaks fell within the appropriate retention time windows.

Aroclor 1260 was present below the reporting limit, but above the detection limit in sample CC-WS-01 with an estimated concentration of 34 ug/kg.

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike blank data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

All matrix spike and matrix spike duplicate recoveries and relative percent difference between recoveries were within control limits.

8. Matrix Spike Blank

The matrix spike blank recovery was within control limits.

9. Field Duplicates

Biota are not amenable to duplicate collection.

10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

vmc3054

PCB Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are the surrogate recovery forms present?	X		
Are all samples listed on the appropriate surrogate recovery form?	X		
Were recoveries of any surrogate outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits? 0 out of 2			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits? 0 out of 1			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been analyzed for each set of samples or for each 20 samples, whichever is more frequent?	X		
Do any method/instrument blanks have positive results?		X	
Are field/equipment blanks associated with every sample?		X	
Do any field/equipment blanks have positive results?			X

PCB Data Validation Checklist - Page 2

	YES	NO	NA
Calibration and GC Performance			
Are the following chromatograms and integration reports present?			
Aroclor 1016/1260	X		
Aroclors 1221, 1232, 1242, 1248, and 1254	X		
Is a calibration summary form present and complete for each analytical sequence?	X		
Are there any transcription/calculation errors between the raw data and the forms?		X	
Are the %RSD for the initial calibration within specified limits for all analytes?	X		
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	X		
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	X		
Are there any transcription/calculation errors between the raw data and the form?		X	
Are all the percent difference (%D) values for all continuing calibration standards within specified limits?	X		
Analytical Sequence			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	X		
Was the proper analytical sequence followed?	X		
Cleanup Efficiency Verification			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	X		
PCB Identification			
Are RT of sample compounds within the established RT windows?	X		
Were all positively identified compounds confirmed on a second column?	X		
Was GC/MS confirmation provided when required?			X
Were there any false negatives?		X	
Compound Quantitation and Reported Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	X		

PCB Data Validation Checklist - Page 3

	YES	NO	NA
Chromatogram Quality			
Were the baselines stable?	X		
Were any electronegative displacement (negative peaks) or unusual peaks detected?		X	
Field Duplicates			
Were field duplicates submitted with the samples?			X

PCB Qualifier Summary
Holding Time and Surrogates

.Sample ID	Holding Time*	Surrogates*	
		TCX	DCB
UT-FM-04			
UT-FM-05			
UT-SR-01			
UT-WS-04			
UT-WS-05			
UT-WS-06			
CC-CS-04			
CC-CS-05			
CC-SR-01			
CC-SB-04			
CC-WS-01			
CC-HS-01			
CC-HS-01 MS			
CC-HS-01 MSD			

Surrogates:
TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:
D Surrogate diluted out
↑ Recovery high
↓ Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC09
Column: DB-5

Date:	12/24/02	12/24/02	12/25/02	12/25/02	12/26/02	12/26/02		
Time:		1854	0059	0607	1037	1229		
	Initial Cal.	Cont. Cal.	Cont Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok	ok	ok	ok	ok	ok		
Aroclor 1221	--*							
Aroclor 1232	--*							
Aroclor 1242	--*							
Aroclor 1248	--*							
Aroclor 1254	--*							
Aroclor 1260	ok	ok	ok	ok	ok	ok		
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

vmc3054

PCB Calibration Summary - Page 2

Instrument: GC09
Column: DB-1701

Date:	12/24/02	12/24/02	12/25/02	12/25/02	12/26/02	12/26/02		
Time:		1854	0059	0607	1037	1229		
	Initial Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.	Cont. Cal.	Cont Cal.	Cont. Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok	ok	ok	ok	ok	ok		
Aroclor 1221	--*							
Aroclor 1232	--*							
Aroclor 1242	--*							
Aroclor 1248	--*							
Aroclor 1254	--*							
Aroclor 1260	ok	ok	ok	ok	ok	ok		
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standard analyzed

Corrected Sample Analysis Data Sheets

- Analytical Report -

Project Name :	WALLACE FISH MONITORING	**Submitter :**	BLASLAND BOUCK & LEE
Project Number :	364.17	**Report Date :**	12/30/02
Sample ID :	UT-FM-04	**Collection Date :**	10/27/02
Lab Sample Number :	827957-001	**Matrix :**	BIOTA
Lab Project Number :	827957	**WI DNR LAB ID :**	113172950

Semivolatile Organic Results

PCB LIST **Prep Method:** SW846 3540C **Prep Date:** 12/16/02

Analyte		Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1221	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1232	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1242	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1248	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1254	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1260		920	150	ug/kg		12/26/02	SW846 8082
Total PCBs		920	150	ug/kg		12/26/02	SW846 8082

PERCENT LIPID **Prep Method:** EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	3.67	---	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name : WALLACE FISH MONITORING
Project Number : 364.17
Sample ID : UT-FM-05
Lab Sample Number : 827957-002
Lab Project Number : 827957

Submitter : BLASLAND BOUCK & LEE
Report Date : 12/30/02
Collection Date : 10/27/02
Matrix : BIOTA
WI DNR LAB ID : 113172950

Semivolatile Organic Results

PCB LIST

Prep Method: SW846 3540C **Prep Date:** 12/16/02

Analyte		Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1221	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1232	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1242	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1248	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1254	<	150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1260		980	150	ug/kg		12/26/02	SW846 8082
Total PCBs		980	150	ug/kg		12/26/02	SW846 8082

PERCENT LIPID

Prep Method: EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	3.17	---	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name :	WALLACE FISH MONITORING	**Submitter :**	BLASLAND BOUCK & LEE
Project Number :	364.17	**Report Date :**	12/30/02
Sample ID :	UT-SR-01	**Collection Date :**	10/27/02
Lab Sample Number :	827957-003	**Matrix :**	BIOTA
Lab Project Number :	827957	**WI DNR LAB ID :**	113172950

Semivolatile Organic Results

PCB LIST **Prep Method:** SW846 3540C **Prep Date:** 12/16/02

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	< 150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1221	< 150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1232	< 150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1242	< 150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1248	< 150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1254	< 150	150	ug/kg		12/26/02	SW846 8082
Aroclor 1260	720	150	ug/kg		12/26/02	SW846 8082
Total PCBs	720	150	ug/kg		12/26/02	SW846 8082

PERCENT LIPID **Prep Method:** EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	3.48	---	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name : WALLACE FISH MONITORING
Project Number : 364.17
Sample ID : UT-WS-04
Lab Sample Number : 827957-004
Lab Project Number : 827957

Submitter : BLASLAND BOUCK & LEE
Report Date : 12/30/02
Collection Date : 10/27/02
Matrix : BIOTA
WI DNR LAB ID : 113172950

Semivolatile Organic Results

PCB LIST **Prep Method:** SW846 3540C **Prep Date:** 12/16/02

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	< 50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1221	< 50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1232	< 50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1242	< 50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1248	< 50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1254	< 50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1260	180	50	ug/kg		12/24/02	SW846 8082
Total PCBs	180	50	ug/kg		12/24/02	SW846 8082

PERCENT LIPID **Prep Method:** EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	1.27	—	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name :	WALLACE FISH MONITORING	Submitter :	BLASLAND BOUCK & LEE
Project Number :	364.17	Report Date :	12/30/02
Sample ID :	UT-WS-05	Collection Date :	10/27/02
Lab Sample Number :	827957-005	Matrix :	BIOTA
Lab Project Number :	827957	WI DNR LAB ID :	113172950

Semivolatile Organic Results

PCB LIST **Prep Method:** SW846 3540C **Prep Date:** 12/16/02

Analyte		Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1221	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1232	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1242	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1248	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1254	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1260		120	50	ug/kg		12/24/02	SW846 8082
Total PCBs		120	50	ug/kg		12/24/02	SW846 8082

PERCENT LIPID **Prep Method:** EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	1.49	—	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name :	WALLACE FISH MONITORING	**Submitter :**	BLASLAND BOUCK & LEE
Project Number :	364.17	**Report Date :**	12/30/02
Sample ID :	**UT-WS-06**	**Collection Date :**	10/27/02
Lab Sample Number :	827957-006	**Matrix :**	BIOTA
Lab Project Number :	827957	**WI DNR LAB ID :**	113172950

Semivolatile Organic Results

PCB LIST **Prep Method:** SW846 3540C **Prep Date:** 12/16/02

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	< 100	100	ug/kg		12/24/02	SW846 8082
Aroclor 1221	< 100	100	ug/kg		12/24/02	SW846 8082
Aroclor 1232	< 100	100	ug/kg		12/24/02	SW846 8082
Aroclor 1242	< 100	100	ug/kg		12/24/02	SW846 8082
Aroclor 1248	< 100	100	ug/kg		12/24/02	SW846 8082
Aroclor 1254	< 100	100	ug/kg		12/24/02	SW846 8082
Aroclor 1260	180	100	ug/kg		12/24/02	SW846 8082
Total PCBs	180	100	ug/kg		12/24/02	SW846 8082

PERCENT LIPID **Prep Method:** EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	0.69	---	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name : WALLACE FISH MONITORING
Project Number : 364.17
Sample ID : CC-CS-04
Lab Sample Number : 827957-007
Lab Project Number : 827957

Submitter : BLASLAND BOUCK & LEE
Report Date : 12/30/02
Collection Date : 10/27/02
Matrix : BIOTA
WI DNR LAB ID : 113172950

Semivolatile Organic Results

PCB LIST

Prep Method: SW846 3540C **Prep Date:** 12/16/02

Analyte		Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1221	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1232	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1242	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1248	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1254	<	50	50	ug/kg		12/24/02	SW846 8082
Aroclor 1260		86	50	ug/kg		12/24/02	SW846 8082
Total PCBs		86	50	ug/kg		12/24/02	SW846 8082

PERCENT LIPID

Prep Method: EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	1.96	---	%		12/20/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name :	WALLACE FISH MONITORING	Submitter :	BLASLAND BOUCK & LEE
Project Number :	364.17	Report Date :	12/30/02
Sample ID :	CC-CS-05	Collection Date :	10/27/02
Lab Sample Number :	827957-008	Matrix :	BIOTA
Lab Project Number :	827957	WI DNR LAB ID :	113172950

Semivolatile Organic Results

PCB LIST Prep Method: SW846 3540C Prep Date: 12/16/02

Analyte		Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	<	79	79	ug/kg		12/24/02	SW846 8082
Aroclor 1221	<	79	79	ug/kg		12/24/02	SW846 8082
Aroclor 1232	<	79	79	ug/kg		12/24/02	SW846 8082
Aroclor 1242	<	79	79	ug/kg		12/24/02	SW846 8082
Aroclor 1248	<	79	79	ug/kg		12/24/02	SW846 8082
Aroclor 1254	<	79	79	ug/kg		12/24/02	SW846 8082
Aroclor 1260		120	79	ug/kg		12/24/02	SW846 8082
Total PCBs		120	79	ug/kg		12/24/02	SW846 8082

PERCENT LIPID Prep Method: EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	2.39	---	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house controi limits unless otherwise noted.

- Analytical Report -

Project Name : WALLACE FISH MONITORING
Project Number : 364.17
Sample ID : CC-SR-01
Lab Sample Number : 827957-009
Lab Project Number : 827957

Submitter : BLASLAND BOUCK & LEE
Report Date : 12/30/02
Collection Date : 10/27/02
Matrix : BIOTA
WI DNR LAB ID : 113172950

Semivolatile Organic Results

PCB LIST — Prep Method: SW846 3540C — Prep Date: 12/16/02

Analyte		Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	<	50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1221	<	50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1232	<	50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1242	<	50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1248	<	50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1254	<	50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1260		75	50	ug/kg		12/25/02	SW846 8082
Total PCBs		75	50	ug/kg		12/25/02	SW846 8082

PERCENT LIPID — Prep Method: EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	4.42	---	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name :	WALLACE FISH MONITORING	**Submitter :**	BLASLAND BOUCK & LEE
Project Number :	364.17	**Report Date :**	1/2/03
Sample ID :	CC-SB-04	**Collection Date :**	10/27/02
Lab Sample Number :	827957-010	**Matrix :**	BIOTA
Lab Project Number :	827957	**WI DNR LAB ID :**	113172950

Semivolatile Organic Results

PCB LIST **Prep Method:** SW846 3540C **Prep Date:** 12/16/02

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1221	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1232	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1242	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1248	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1254	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1260	94	50	ug/kg		12/25/02	SW846 8082
Total PCBs	94	50	ug/kg		12/25/02	SW846 8082

PERCENT LIPID **Prep Method:** EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	1.96	—	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name :	WALLACE FISH MONITORING	Submitter :	BLASLAND BOUCK & LEE
Project Number :	364.17	Report Date :	12/30/02
Sample ID :	CC-WS-01	Collection Date :	10/27/02
Lab Sample Number :	827957-011	Matrix :	BIOTA
Lab Project Number :	827957	WI DNR LAB ID :	113172950

Semivolatile Organic Results

PCB LIST **Prep Method:** SW846 3540C **Prep Date:** 12/16/02

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1221	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1232	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1242	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1248	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1254	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1260	< 50	50	ug/kg		12/25/02	SW846 8082
Total PCBs	< 50	50	ug/kg		12/25/02	SW846 8082

PERCENT LIPID **Prep Method:** EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	0.91	---	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

- Analytical Report -

Project Name : WALLACE FISH MONITORING
Project Number : 364.17
Sample ID : CC-HS-01
Lab Sample Number : 827957-012
Lab Project Number : 827957

Submitter : BLASLAND BOUCK & LEE
Report Date : 12/30/02
Collection Date : 10/27/02
Matrix : BIOTA
WI DNR LAB ID : 113172950

Semivolatile Organic Results

PCB LIST

Prep Method: SW846 3540C **Prep Date:** 12/16/02

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Aroclor 1016	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1221	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1232	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1242	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1248	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1254	< 50	50	ug/kg		12/25/02	SW846 8082
Aroclor 1260	65	50	ug/kg		12/25/02	SW846 8082
Total PCBs	65	50	ug/kg		12/25/02	SW846 8082

PERCENT LIPID

Prep Method: EnChem Lipid

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Lipid	1.27	—	%		12/18/02	EnChem Lipid

Units of %Recov(ery) denote spike recovery. All recoveries pass in-house control limits unless otherwise noted.

Laboratory Narrative

SDG Narrative

Name BLASLAND BOUCK & LEE
Client Project Name WALLACE FISH MONITORING
Client Project# 364.17
Project Coordinator Tod Noltemeyer
SDG 827957
LabSection ~~PEST~~/PCB-K

Lab Number	EPA Lab No.	SampleID	Collect Date	Received	Matrix
827957-001	795701	UT-FM-04	10/27/2002	11/01/2002	BIOTA
827957-002	795702	UT-FM-05	10/27/2002	11/01/2002	BIOTA
827957-003	795703	UT-SR-01	10/27/2002	11/01/2002	BIOTA
827957-004	795704	UT-WS-04	10/27/2002	11/01/2002	BIOTA
827957-005	795705	UT-WS-05	10/27/2002	11/01/2002	BIOTA
827957-006	795706	UT-WS-06	10/27/2002	11/01/2002	BIOTA
827957-007	795707	CC-CS-04	10/27/2002	11/01/2002	BIOTA
827957-008	795708	CC-CS-05	10/27/2002	11/01/2002	BIOTA
827957-009	795709	CC-SR-01	10/27/2002	11/01/2002	BIOTA
27957-010	795710	CC-SB-04	10/27/2002	11/01/2002	BIOTA
827957-011	795711	CC-WS-01	10/27/2002	11/01/2002	BIOTA
827957-012	795712	CC-HS-01	10/27/2002	11/01/2002	BIOTA
827957-013	795713	CC-HS-01 MS	10/27/2002	11/01/2002	BIOTA
827957-014	795714	CC-HS-01 MSD	10/27/2002	11/01/2002	BIOTA
827957-015	795715	METHOD BLANK			BIOTA
827957-016	795716	LCS			BIOTA

EN CHEM, INC
CASE NARRATIVE - PCB ANALYSIS

Lab Report Number (SDG): 827957
Client: BLASLAND BOUCK & LEE
Project Name: Wallace Fish Monitoring
Project Number: 364.17

1. RECEIPT

Samples were received on ice.

2. HOLDING TIMES

- A. **Sample Preparation:** All method holding times were met.
- B. **Sample Analysis:** All method holding times were met.

3. METHOD

Preparation: SW-846 3540C
Analysis: SW-846 8082

4. PREPARATION

Sample preparation proceeded normally.

5. ANALYSIS

- A. **Calibration:**
  1. **Initial verification:** All method acceptance criteria were met.
  2. **Continuing verification:** All method acceptance criteria were met. In the case where a particular peak was not within the 15%D criteria, corrective action was not taken because the average of all peaks was less than 15%.
- B. **Blanks:**
  1. **Method:** All in-house acceptance criteria were met.
- C. **Surrogates:** All in-house acceptance criteria were met.
- D. **Spikes:**
  1. **Lab Control Spike (LCS):** All in-house accuracy and precision criteria were met.
  2. **Matrix Spike / Matrix Spike Duplicate (MS/MSD):** Sample CC-HS-01 was designated the MS/MSD for this SDG. All in-house accuracy and precision criteria were met.
- E. **Samples:** Sample analyses proceeded normally.
- F. **Dilutions:**

Sample ID	Reason for dilution
UT-FM-04	To bring compounds within linear range
UT-FM-05	To bring compounds within linear range
UT-SR-01	To bring compounds within linear range
CC-HS-01 MS	To bring compounds within linear range
CC-HS-01 MSD	To bring compounds within linear range

- G. **Reanalysis:** None.
- H. **Comments:** None.

I certify that this data package is in compliance with the terms and conditions agreed to by **En Chem, Inc.** and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette:

Signed: Shelley M. Bresina   Date: 1/2/03

Name: Shelley M. Bresina   Position: Data Validator

NYSDEC Sample Preparation and Analysis Summary Sheets

No NYSDEC Sample Preparation and
Analysis Summary Sheets provided

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]				Noncompliance
					VOA	BNA	PCB	TOC	
827957	10/27/02	2000	UT-FM-04	biota	--	--	yes	--	
827957	10/27/02	2000	UT-FM-05	biota	--	--	yes	--	
827957	10/27/02	2000	UT-SR-01	biota	--	--	yes	--	
827957	10/27/02	2000	UT-WS-04	biota	--	--	yes	--	
827957	10/27/02	2000	UT-WS-05	biota	--	--	yes	--	
827957	10/27/02	2000	UT-WS-06	biota	--	--	yes	--	
827957	10/27/02	2000	CC-CS-04	biota	--	--	yes	--	
827957	10/27/02	2000	CC-CS-05	biota	--	--	yes	--	
827957	10/27/02	2000	CC-SR-01	biota	--	--	yes	--	
827957	10/27/02	2000	CC-SB-04	biota	--	--	yes	--	
827957	10/27/02	2000	CC-WS-01	biota	--	--	yes	--	
827957	10/27/02	2000	CC-HS-01	biota	--	--	yes	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

Exhibit D

Offsite Groundwater Analytical Data (May 31, 2002)

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DATA REVIEW FOR

NMPC
M. WALLACE & SON, INC.

SDG# 0206009

PCB ANALYSES

Analyses performed by:

Buck Environmental Laboratories, Inc.
Cortland, New York

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# 0206009 for sampling at the NMPC- M. Wallace & Son. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOA	BNA	PCB	TAL	TDS
C-20	0206009-04	water	5/31/02			x		
C-21	0206009-03	water	5/31/02			x		
C-22[1]	0206009-01	water	5/31/02			x		
C-22 Filtered	0206009-05	water	5/31/02			x		
DUP-1	0206009-02	water	5/31/02			x		

1 MS/MSD analysis performed on sample

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding time for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for waters are 7 days from sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method, field or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method blanks. No rinse blanks were submitted with the samples.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed. Continuing calibration standards were outside controllimits for Aroclors 1248 and 1260 on one column. Since neither of these Aroclors were detected in the samples and since the %D were within control limits on the second column, no data have been qualified based on the deviations.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

All sample surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

No Aroclors were detected in the samples.

7. Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate data are used to assess the precision and accuracy of the analytical method.

All unfiltered matrix spike and matrix spike duplicate recoveries and relative percent differences between reocveries were within control limits. The filtered matrix spike recoveries were, however, below control limits.

8. Matrix Spike Blank

Matrix spike blank data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

The matrix spike blank recovery was slightly below control limits.

9. Field Duplicates

Results for duplicate samples are summarized below:

Sample ID/ Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
C-22 / DUP-1	ND	--	--	NA

ND Not detected.
NA Analyte not detected in sample and/or duplicate. RPD not applicable.

The duplicate results are acceptable.

10. General Comments

The filtered matrix spike and matrix spike duplicate recoveries were below control limits, as was the laboratory control sample recovery. Since the unfiltered matrix spike and matrix spike duplicate recoveries were within control limits and since an inspection of the sample chromatograms shows no inidcation of Aroclor presence, no data have been qualified based on the deviations.

11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

PCB Data Validation Checklist

	YES	NO	NA
Data Completeness and Deliverables			
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	
Holding Times			
Have any holding times been exceeded?		X	
Surrogate Recovery			
Are the surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Were surrogate recoveries outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	
Matrix Spikes			
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		
How many spike recoveries were outside of QC limits? 2 out of 4			
How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits? 1 out of 2			
Blanks			
Is a method blank summary form present?	X		
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	X		
Do any method/instrument blanks have positive results?		X	
Are field/rinse blanks associated with every sample?		X	
Do any field/rinse blanks have positive results?			X

PCB Data Validation Checklist - Page 2

	YES	NO	NA
Calibration and GC Performance			
Are the following chromatograms and integration reports present?			
peak resolution check		X	
Aroclor 1016/1260	X		
Aroclors 1221, 1232, 1242, 1248, and 1254	X		
Is a calibration summary form present and complete for each analytical sequence?	X		
Are there any transcription/calculation errors between the raw data and the forms?		X	
Are the %RSD for the initial calibration within specified limits for all analytes?	X		
Is the resolution between any two adjacent peaks in the resolution check mixture > 60%?			X
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	X		
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	X		
Are there any transcription/calculation errors between the raw data and the form?		X	
Are all the percent difference (%D) values for all continuing calibration standards within specified limits?		X	
Analytical Sequence			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	X		
Was the proper analytical sequence followed?	X		
Cleanup Efficiency Verification			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?		X	
PCB Identification			
Are RT of sample compounds within the established RT windows?			X
Were all positively identified compounds confirmed on a second column?			X
Was GC/MS confirmation provided when required?			X
Were there any false negatives?		X	

PCB Data Validation Checklist - Page 3

	YES	NO	NA
Compound Quantitation and Reported Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for waters, sample moisture?			X
Chromatogram Quality			
Were the baselines stable?	X		
Were any electronegative displacement (negative peaks) or unusual peaks detected?		X	
Field Duplicates			
Were field duplicates submitted with the samples?	X		

PCB Qualifier Summary
Holding Time and Surrogates

Sample ID	Holding Time*	Surrogates*	
		TCX	DCB
C-20			
C-21			
C-22			
C-22 MS			
C-22 MSD			
C-22 FILTERED			
C-22 FILTERED MS			
C-22 FILTERED MSD			
DUP-1			

Surrogates:
TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:
D Surrogate diluted out
↑ Recovery high
↓ Recovery low

* Unless otherwise noted, all parameters are within specified limits.

PCB Calibration Summary

Instrument: GC-02
Column: RTX-5

Date:	5/31/02	6/6/02	6/6/02					
Time:		1023	1853					
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok							
Aroclor 1221	ok							
Aroclor 1232	ok							
Aroclor 1242	ok							
Aroclor 1248	ok	-17.0						
Aroclor 1254	ok							
Aroclor 1260	ok		19.2					
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:		all	all					

vmc2914

PCB Calibration Summary - Page 2

Instrument: GC-02
Column: RTX-35

Date:	5/31/02	6/6/02	6/6/02					
Time:		1023	1853					
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok							
Aroclor 1221	ok							
Aroclor 1232	ok							
Aroclor 1242	ok							
Aroclor 1248	ok	ok						
Aroclor 1254	ok							
Aroclor 1260	ok		ok					
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

vmc2914

Corrected Sample Analysis Data Sheets

Form 1

CLIENT SAMPLE NO.

C-20

Lab Name: Buck Environmental Labs, Inc. Contract: ____

Lab Code: 10795 Case No.: BLASLAND SAS No.: ____ SDG No.: 0206009

Matrix: (soil/water) Aqueous Lab Sample ID: 0206009-04A

Sample wt/vol: 935 (g/mL) ML Lab File ID: 0901009.D

Level: (low/med) LOW Date Received: 6/4/02

% Moisture: not dec. Date Analyzed: 6/6/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) µg/L

CAS NO.	COMPOUND	µg/L	Q
12674-11-2	Aroclor 1016	1	U
11104-28-2	Aroclor 1221	2 1	U
11141-16-5	Aroclor 1232	1	U
53469-21-9	Aroclor 1242	1	U
12672-29-6	Aroclor 1248	1	U
11097-69-1	Aroclor 1254	1	U
11096-82-5	Aroclor 1260	1	U

Form 1

CLIENT SAMPLE NO.

C-21

Lab Name: Buck Environmental Labs, Inc. Contract:

Lab Code: 10795 Case No.: BLASLAND SAS No.: SDG No.: 0206009

Matrix: (soil/water) Aqueous Lab Sample ID: 0206009-03A

Sample wt/vol: 970 (g/mL) ML Lab File ID: 0801008.D

Level: (low/med) LOW Date Received: 6/4/02

% Moisture: not dec. Date Analyzed: 6/6/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS:
(ug/L or ug/Kg) µg/L

CAS NO.	COMPOUND	µg/L	Q
12674-11-2	Aroclor 1016	1	U
11104-28-2	Aroclor 1221	~~2~~ 1	U
11141-16-5	Aroclor 1232	1	U
53469-21-9	Aroclor 1242	1	U
12672-29-6	Aroclor 1248	1	U
11097-69-1	Aroclor 1254	1	U
11096-82-5	Aroclor 1260	1	U

Form 1

CLIENT SAMPLE NO.

C-22

Lab Name: Buck Environmental Labs, Inc. Contract:

Lab Code: 10795 Case No.: BLASLAND SAS No.: SDG No.: 0206009

Matrix: (soil/water) Aqueous Lab Sample ID: 0206009-01A

Sample wt/vol: 970 (g/mL) ML Lab File ID: 0601006

Level: (low/med) LOW Date Received: 6/4/02

% Moisture: not dec. Date Analyzed: 6/6/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) µg/L

CAS NO.	COMPOUND	µg/L	Q
12674-11-2	Aroclor 1016	1	U
11104-28-2	Aroclor 1221	~~2~~ 1	U
11141-16-5	Aroclor 1232	1	U
53469-21-9	Aroclor 1242	1	U
12672-29-6	Aroclor 1248	1	U
11097-69-1	Aroclor 1254	1	U
11096-82-5	Aroclor 1260	1	U

Form 1

CLIENT SAMPLE NO.

C-22 FILTERED

Lab Name: Buck Environmental Labs, Inc. Contract: ________

Lab Code: 10795 Case No.: BLASLAND SAS No.: ________ SDG No.: 0206009

Matrix: (soil/water) Aqueous Lab Sample ID: 0206009-05A

Sample wt/vol: 940 (g/mL) ML Lab File ID: 1001010.D

Level: (low/med) LOW Date Received: 6/4/02

% Moisture: not dec. Date Analyzed: 6/6/02

GC Column: RTX5, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) µg/L

CAS NO.	COMPOUND	µg/L	Q
12674-11-2	Aroclor 1016	1	U
11104-28-2	Aroclor 1221	~~2~~ 1	U
11141-16-5	Aroclor 1232	1	U
53469-21-9	Aroclor 1242	1	U
12672-29-6	Aroclor 1248	1	U
11097-69-1	Aroclor 1254	1	U
11096-82-5	Aroclor 1260	1	U

Form 1

CLIENT SAMPLE NO.

DUP-1

Lab Name: Buck Environmental Labs, Inc. Contract: ________

Lab Code: 10795 Case No.: BLASLAND SAS No.: ________ SDG No.: 0206009

Matrix: (soil/water) Aqueous Lab Sample ID: 0206009-02A

Sample wt/vol: 935 (g/mL) ML Lab File ID: 0701007.D

Level: (low/med) LOW Date Received: 6/4/02

% Moisture: not dec. Date Analyzed: 6/6/02

GC Column: RTX35, 1.0 um ID: .53 (mm) Dilution Factor: 1.00

Extract Volume: 1000 (µl)

CONCENTRATION UNITS: (ug/L or ug/Kg) µg/L

CAS NO.	COMPOUND	µg/L	Q
12674-11-2	Aroclor 1016	1	U
11104-28-2	Aroclor 1221	2	U
11141-16-5	Aroclor 1232	1	U
53469-21-9	Aroclor 1242	1	U
12672-29-6	Aroclor 1248	1	U
11097-69-1	Aroclor 1254	1	U
11096-82-5	Aroclor 1260	1	U

Laboratory Narrative

NARRATIVE

July 8, 2002

This laboratory narrative applies to samples submitted by Blasland, Bouck & Lee, Inc. The project site was identified as NMPC Wallace Site, Cobleskill, NY. The samples were taken by Jon Saroney and submitted to Buck Environmental Laboratories, Inc (BEL). The samples were received by BEL June 3, 2002. This data package reports the analytical work performed on the samples received. The samples received carried sample identifications as listed in the tables below. The BEL laboratory assigned identification number is also shown.

The samples listed below were taken 5/31/02 (VTSR 6/3/02) and were submitted as shown on the following table.

SAMPLE ID	BEL SAMPLE ID	PCB by EPA 8082	PCB by EPA 8082 Filtered, On Hold
C-22	0206009-01	X	-
C-22 (MS)	0206009-01	X	-
C-22 (MSD)	0206009-01	X	-
C-22 Filtered	0206009-05	X	
C-22 Filtered (MS)	0206009-05	X	-
C-22 Filtered (MSD)	0206009-05	X	-
DUP-1	0206009-02	X	X
C-21	0206009-03	X	X
C-20	0206009-04	X	X

Samples arrived 6/3/02 via FedEx, with the temperature at 6.7°C. No custody seals were on the cooler. The sample "C-22 (MSD) total" arrived broken. Per client direction, "C-22 (MS) total" was to be split and serve as both MS and MSD. The samples were not marked CLP and no data package was requested at the time of sample submission. A data package was requested after the initial reports were generated. The laboratory does not complete internal tracking chains of custody for non-CLP work and so there are no internal chains of custody in the data package.

Comments on analytical quality control review of Lab Log #0206009 follow.

Lab Log #0206009

GC/MS Semi-Volatiles ***PCB by EPA 8082***

Holding Time:	Met holding time criteria.
Calibration:	Initial calibration and continuing calibrations met acceptance criteria.
Method Blanks:	All method blanks and instrument blanks met acceptance criteria.
Blank Spike:	The LCS recovery was below the QC limit ~~on column RTX-35, but 82% on column RTX-5.~~
Spike/Spike Duplicate:	MS/MSD C-22 filtered had 2 of 2 recoveries below the QC limit, but the %RPD was 0%. Sample C-22 had acceptable recoveries and %RPD.
Surrogate Recovery:	The DCB surrogate for the MB and Instrument Blank were below the QC limit on column RTX-35 and below on both columns for the LCS.

Analytical Note: Project requirements included reporting results at greater than the laboratory Method Detection Limit (MDL), approximately 0.05 ug/l. A 0.1 ppb Laboratory Control Sample was analyzed to reflect the lower reporting limits of the project.

Please call Barbara Houskamp, QA Manager, at BEL if you have any questions or need any further information regarding this submittal.

I certify that to the best of my knowledge and belief, this data package is in compliance with the terms and conditions of the Analytical Services Protocol, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

John H. Buck
Laboratory Director

7-9-02
Date

NYSDEC Sample Preparation and Analysis Summary Sheets

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY
Contract Lab Sample Information Sheet (CLSIS)

		Analytical Requirements					
Customer Sample Code	Laboratory Sample Code	VOA GC/MS Method	BNA GC/MS Method	VOA GC Method	Pesticide PCB's Method	Metals	Other
C-20	0206009-04	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-21	0206009-03	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22	0206009-01	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22 MS	0206009-01	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22 MSD	0206009-01	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22 FILTERED	0206009-05	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22 FILTERED MS	0206009-05	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22 FILTERED MSD	0206009-05	N/A	N/A	N/A	EPA 8082	N/A	N/A
DUP-1	0206009-02	N/A	N/A	N/A	EPA 8082	N/A	N/A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
GC/MS SEMIVOLATILE (EPA 8082) ANALYSIS
Contract Lab Sample Information Sheet (CLSIS)

Laboratory Sample Code	Matrix	Date Collected	Date Received at Lab	Date Extracted	Date Analyzed
0206009-01	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02
0206009-01 MS	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02
0206009-01 MSD	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02
0206009-02	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02
0206009-03	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02
0206009-04	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02
0206009-05	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02
0206009-05 MS	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02
0206009-05 MSD	GROUNDWATER	05/31/02	06/04/02	06/04/02	06/06/02

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]				Noncompliance
					VOA	BNA	PCB	TAL	
0206009	5/31/02	2000	C-20	water	--	--	no	--	PCB - cal[2]
0206009	5/31/02	2000	C-21	water	--	--	no	--	PCB - cal[2]
0206009	5/31/02	2000	C-22	water	--	--	no	--	PCB - cal[2]
0206009	5/31/02	2000	C-22 FILTERED	water	--	--	no	--	PCB - cal[2]
0206009	5/31/02	2000	DUP-1	water	--	--	no	--	PCB - cal[2]

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

2 The deviation resulted in no qualification of data.

vmc2914

Exhibit E

Offsite Groundwater Analytical Data (November 21, 2002)

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

DATA REVIEW FOR

NMPC
M. WALLACE & SON, INC.

SDG# 0211242

PCB ANALYSES

Analyses performed by:

Buck Environmental Laboratories, Inc.
Cortland, New York

Review performed by:

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

Blasland, Bouck & Lee, Inc.
Syracuse, New York

Summary

The following is an assessment of the data package for SDG# 0211242 for sampling at the NMPC - M. Wallace & Son site. Included with this assessment are the data review check sheets used in the review of the package and corrected sample results. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Date	Analysis				
				VOC	BNA	PCB	TAL	TDS
C-20	0211242-04	water	11/21/02			x		
C-21	0211242-05	water	11/21/02			x		
C-22[1]	0211242-02	water	11/21/02			x		
DUP-1	0211242-06	water	11/21/02			x		

1 MS/MSD analysis performed on sample.

vmc3096

PCB ANALYSES

Introduction

Analyses were performed according to USEPA SW-846 Method. 8082 as referenced in NYSDEC-ASP.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with National Functional Guidelines:

- U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
- J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
- B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
- JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
- E The compound was quantitated above the calibration range.
- D Concentration is based on a diluted sample analysis.
- C Identification confirmed by GC/MS.
- UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant QC problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Data Assessment

1. Holding Time

The specified holding time for PCB analyses under NYSASP are 5 days from sample receipt to extraction and 40 days to analysis. The technical holding times for waters are 7 days form sample collection to extraction and 40 days to analysis.

All samples were extracted and analyzed within the specified holding times.

2. Blank Contamination

Quality assurance blanks (i.e., method, field, or rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure contamination of samples during field operations.

No Aroclors were detected in the method or instrument blanks.

3. System Performance

System performance and column resolution were acceptable.

4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

4.1 Initial Calibration

A maximum RSD of 20% is allowed. The initial calibration was within the specified limit for all Aroclors.

4.2 Continuing Calibration

A maximum %D of 15 is allowed.

All continuing calibration verification standards were within the specified limit.

5. Surrogates / System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique.

All surrogate recoveries were within control limits.

6. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns.

No Aroclors were detected in the samples.

7. Matrix Spike/Matrix Spike Duplicate/Matrix Spike Blank

Matrix spike and matrix spike duplicate data are used to assess the matrix-specific precision and accuracy of the analytical method. Matrix spike blank data is used to assess the precision and accuracy of the analytical method independent of matrix interferences.

All matrix spike and matrix spike duplicate recoveries and relative percent difference between recoveries were within control limits. The matrix spike blank recovery was also within control limits.

8. Field Duplicates

Results for the field duplicate are summarized as follows:

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
C-22 / DUP-1	ND	--	--	NA

ND - Not detected.
NA - Analyte not detected in sample and or duplicate. RPD not applicable.

The field duplicate results are acceptable.

9. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines listed in the analytical method.

Data Validation Checklist

vmc3096

PCB Data Validation Checklist

Data Completeness and Deliverables

	YES	NO	NA
Have any missing deliverables been received and added to the data package?		X	
Is there a narrative or cover letter present?	X		
Are the sample numbers included in the narrative?	X		
Are the sample chain-of-custodies present?	X		
Do the chain-of-custodies indicate any problems with sample receipt or sample condition?		X	

Holding Times

	YES	NO	NA
Have any holding times been exceeded?		X	

Surrogate Recovery

	YES	NO	NA
Are the surrogate recovery forms present?	X		
Are all samples listed on the surrogate recovery form?	X		
Were recoveries of any surrogate outside control limits for any sample or blank?		X	
If yes, were the samples reanalyzed?			X
Are there any transcription/calculation errors between the raw data and the summary form?		X	

Matrix Spikes

	YES	NO	NA
Is there a matrix spike recovery form present?	X		
Were matrix spikes analyzed at the required frequency?	X		

How many spike recoveries were outside of QC limits?

0 out of 2

How many RPDs for matrix spike and matrix spike duplicate were outside of QC limits?

0 out of 1

Blanks

	YES	NO	NA
Is a method blank summary form present?	X		
Has a method blank been extracted for each set of samples or for each 20 samples, whichever is more frequent?	X		
Do any method/instrument blanks have positive results?		X	
Are field/equipment blanks associated with every sample?		X	
Do any field/equipment blanks have positive results?			X

PCB Data Validation Checklist - Page 2

	YES	NO	NA
Calibration and GC Performance			
Are the following chromatograms and integration reports present?			
Peak resolution check			X
Aroclor 1016/1260	X		
Aroclors 1221, 1232, 1242, 1248, and 1254	X		
Is a calibration summary form present and complete for each analytical sequence?	X		
Are there any transcription/calculation errors between the raw data and the forms?		X	
Are the %RSD for the initial calibration within specified limits for all analytes?	X		
Is the resolution between any two adjacent peaks in the resolution check mixture >60%?			X
Have all samples been injected within a 12 hour period beginning with the injection of a calibration standard?	X		
Is a continuing calibration summary form present and complete for each continuing standard analyzed?	X		
Are there any transcription/calculation errors between the raw data and the form?	X		
Are all the percent difference (%D) values for all continuing calibration standards within specified limits?	X		
Analytical Sequence			
Is an analytical sequence summary form present and complete for each column and each period of analyses?	X		
Was the proper analytical sequence followed?	X		
Cleanup Efficiency Verification			
Are percent recoveries of the compounds used to check the efficiency of the cleanup procedure within QC limits?	X		
PCB Identification			
Are RT of sample compounds within the established RT windows?			X
Were all positively identified compounds confirmed on a second column?			X
Was GC/MS confirmation provided when required?			X
Were there any false negatives?		X	

PCB Data Validation Checklist - Page 3

	YES	NO	NA
Compound Quantitation and Reported Detection Limits			
Are there any transcription/calculation errors in the Form 1 results?		X	
Are the reporting limits adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
Chromatogram Quality			
Were the baselines stable?	X		
Were any electronegative displacement (negative peaks) or unusual peaks detected?		X	
Field Duplicates			
Were field duplicates submitted with the samples?	X		

PCB Qualifier Summary
Holding Time and Surrogates

Sample ID	Holding Time*	Surrogates*			
		TCX 1	TCX 2	DCB 1	DCB 2
C-20					
C-21					
C-22					
C-22 MS					
C-22 MSD					

Surrogates:
TCX Tetrachloro-m-xylene
DCB Decachlorobiphenyl
na Not applicable

Qualifiers:
D Surrogate diluted out
↑ Recovery high
↓ Recovery low

* Unless otherwise noted, all parameters are within specified limits.

vmc3096

PCB Calibration Summary

Instrument: GC-02
Column: RTX-35

Date:	11/04/02	11/27/02	11/27/02	12/02/02	12/02/02			
Time:		0825	1441	1315	1747			
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok							
Aroclor 1221	--*							
Aroclor 1232	--*							
Aroclor 1242	--*	ok		ok				
Aroclor 1248	--*		ok		ok			
Aroclor 1254	--*							
Aroclor 1260	ok							
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* Single-point standards analyzed

PCB Calibration Summary - Page 2

Instrument: GC-02
Column: RTX-5

Date:	11/04/02	11/27/02	11/27/02	12/02/02	12/02/02			
Time:		0825	1441	1315	1747			
	Initial Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.	Cont Cal.
	%RSD	%D	%D	%D	%D	%D	%D	%D
Aroclor 1016	ok							
Aroclor 1221	--*							
Aroclor 1232	--*							
Aroclor 1242	--*	ok		ok				
Aroclor 1248	--*		ok		ok			
Aroclor 1254	--*							
Aroclor 1260	ok							
Tetrachloro-m-xylene	ok							
Decachlorobiphenyl	ok							
Affected Samples:								

* single-point standards analyzed

Corrected Sample Analysis Data Sheets

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-20

Lab Name: Buck Environmental Labs, Inc. Contract: ______

Lab Code: 10795 Case No.: C SAS No.: ______ SDG No.: 0211242

Matrix: (soil/water WATER Lab Sample ID: 0211242-04A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: C601006.

% Moisture: Decanted: (Y/N) N Date Received: 11/26/02

Extraction: (Type) SEPF Date Extracted: 11/26/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/27/02

Injection Volume: 0.5 (uL) Dilution Factor 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	~~2.0~~ 1.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-21

Lab Name: Buck Environmental Labs, Inc. Contract: ________

Lab Code: 10795 Case No.: C SAS No.: ________ SDG No.: 0211242

Matrix: (soil/water WATER Lab Sample ID: 0211242-05A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0701007.

% Moisture: Decanted: (Y/N) N Date Received: 11/26/02

Extraction: (Type) SEPF Date Extracted: 11/26/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/27/02

Injection Volume: 0.5 (uL) Dilution Factor 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/K UG/L	Q
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	~~2.0~~ 1.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

C-22

Lab Name: Buck Environmental Labs, Inc. Contract: ______

Lab Code: 10795 Case No.: C SAS No.: ______ SDG No.: 0211242

Matrix: (soil/water WATER Lab Sample ID: C211242-01A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0301003.

% Moisture: Decanted: (Y/N) N Date Received: 11/26/02

Extraction: (Type) SEPF Date Extracted: 11/26/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/27/02

Injection Volume: 0.5 (uL) Dilution Factor 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/K UG/L	Q
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	~~2.0~~ 1.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-1

Lab Name: Buck Environmental Labs, Inc. Contract: ________

Lab Code: 10795 Case No.: C SAS No.: ________ SDG No.: 0211242

Matrix: (soil/water WATER Lab Sample ID: 0211242-06A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 0801008.

% Moisture: Decanted: (Y/N) N Date Received: 11/26/02

Extraction: (Type) SEPF Date Extracted: 11/26/02

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/27/02

Injection Volume: 0.5 (uL) Dilution Factor 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/K UG/L	Q
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	~~2.0~~ 1.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

Laboratory Narrative

NARRATIVE February 24, 2003

This laboratory narrative applies to samples submitted by Blasland, Bouck & Lee, Inc. The project site was identified as NMPC Wallace Site, Cobleskill, NY. The samples were taken by Jon Saroney and submitted to Buck Environmental Laboratories, Inc (BEL). The samples were received by BEL November 26, 2002. This data package reports the analytical work performed on the samples received. The samples received carried sample identifications as listed in the tables below. The BEL laboratory assigned identification number is also shown.

The samples listed below were taken 11/21/02 (VTSR 11/26/02) and were submitted as shown on the following table.

SAMPLE ID	BEL SAMPLE ID	PCB by EPA 8082	PCB by EPA 8082 Filtered, On Hold
C-20	0211242-04	X	X
C-21	0211242-05	X	X
C-22	0211242-01	X	X
C-22 (MS)	0211242-02	X	X
C-22 (MSD)	0211242-03	X	X
DUP-1	0211242-06	X	X

Samples arrived 11/26/02 via FedEx at 10:15AM. No custody seals were on the cooler. The samples were not marked CLP and no data package was requested at the time of sample submission. A data package was requested after the initial reports were generated. The laboratory does not complete internal tracking chains of custody for non-CLP work and so there are no internal chains of custody in the data package.

Comments on analytical quality control review of Lab Log #0211242 follow.

Lab Log #0211242

GC/MS Semi-Volatiles ***PCB by EPA 8082***

Holding Time:	Met holding time criteria.
Calibration:	Initial calibration and continuing calibrations met acceptance criteria.
Method Blank:	Met acceptance criteria.
Blank Spike:	Met acceptance criteria.
Spike/Spike Duplicate:	Met acceptance criteria.
Surrogate Recovery:	Met acceptance criteria.

Analytical Note: Project requirements included reporting results at greater than the laboratory Method Detection Limit (MDL), approximately 0.05 ug/l. A 0.1 ppb reference standard was analyzed to reflect the lower reporting limits of the project.

Please call Barbara Houskamp, QA Manager, at BEL if you have any questions or need any further information regarding this submittal.

I certify that to the best of my knowledge and belief, this data package is in compliance with the terms and conditions of the Analytical Services Protocol, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

John H. Buck
Laboratory Director

2-26-03
Date

NYSDEC Sample Preparation and Analysis Summary Sheets

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY
Contract Lab Sample Information Sheet (CLSIS)

		Analytical Requirements					
Customer Sample Code	Laboratory Sample Code	VOA GC/MS Method	BNA GC/MS Method	VOA GC Method	Pesticide PCB's Method	Metals	Other
C-20	0211242-04	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-21	0211242-05	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22	0211242-01	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22 MS	0211242-02	N/A	N/A	N/A	EPA 8082	N/A	N/A
C-22 MSD	0211242-03	N/A	N/A	N/A	EPA 8082	N/A	N/A
DUP-1	0211242-06	N/A	N/A	N/A	EPA 8082	N/A	N/A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS SUMMARY
GC/MS SEMIVOLATILE (EPA 8082) ANALYSIS
Contract Lab Sample Information Sheet (CLSIS)

Laboratory Sample Code	Matrix	Date Collected	Date Received at Lab	Date Extracted	Date Analyzed
0211242-01	WATER	11/21/02	11/26/02	11/26/02	11/27/02
0211242-02	WATER	11/21/02	11/26/02	11/26/02	12/02/02
0211242-03	WATER	11/21/02	11/26/02	11/26/02	12/02/02
0211242-04	WATER	11/21/02	11/26/02	11/26/02	11/27/02
0211242-05	WATER	11/21/02	11/26/02	11/26/02	11/27/02
0211242-06	WATER	11/21/02	11/26/02	11/26/02	11/27/02

Sample Compliance Report

SAMPLE COMPLIANCE REPORT

Sample Delivery Group	Sampling Date	ASP Protocol	Sample ID	Matrix	Compliancy[1]				Noncompliance
					VOA	BNA	PCB	TOC	
0211242	11/21/02	2000	C-20	water	--	--	yes	--	
0211242	11/21/02	2000	C-21	water	--	--	yes	--	
0211242	11/21/02	2000	C-22	water	--	--	yes	--	
0211242	11/21/02	2000	DUP-1	water	--	--	yes	--	

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

2 The deviation resulted in no qualification of data.

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