TASK 210:
SURFICIAL SITE INVESTIGATION
Volume 1

Reconstruction of Route 1 (Boston Post Road)
From East of Lambert Road to Dogburn Lane
Orange, Connecticut

ConnDOT Assignment No. 200-3619
ConnDOT Project No. 106-109

Prepared for:

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1.0 INTRODUCTION

On behalf of the Connecticut Department of Transportation (ConnDOT), Maguire Group Inc. has conducted a Task 210 - Surficial Site Investigation in association with the Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane in Orange, Connecticut. The proposed construction project will involve the installation of dual left-turning lanes on U.S. Route 1 in Orange from east of Dogburn Lane to Lambert Road, for a total length of approximately 1,740 meters (5,722 feet). The proposed project will involve the full depth reconstruction of U.S Route 1 (Boston Post Road), the construction of exclusive turning lanes, and traffic control improvements throughout the project length. Based upon a review of the proposed construction plans, it is anticipated that the project will involve rights-of-way taking, cut and fill activities, drainage structure improvements, and utility realignments.

This Task 210 - Surficial Site Investigation was conducted along Route 1 and its associated side-streets, in areas of anticipated construction and/or right-of-way activities, adjacent to properties that were identified as having a moderate or high risk designation in MGI's January, 1999 Task 110 – Corridor Land Use Evaluation report. Figure 1 depicts the project area.

The purpose of the Task 210 - Surficial Site Investigation was to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts to be encountered during construction. It is anticipated that a Task 310 Remedial Management Plan (RMP) will subsequently be prepared to assess construction related activities (i.e. proper storage, classification, transport and disposal of contaminated materials), in relationship to the environmental conditions prevalent within the project limits, as well as to specify remedial work to be included in the Contract Bid Documents.

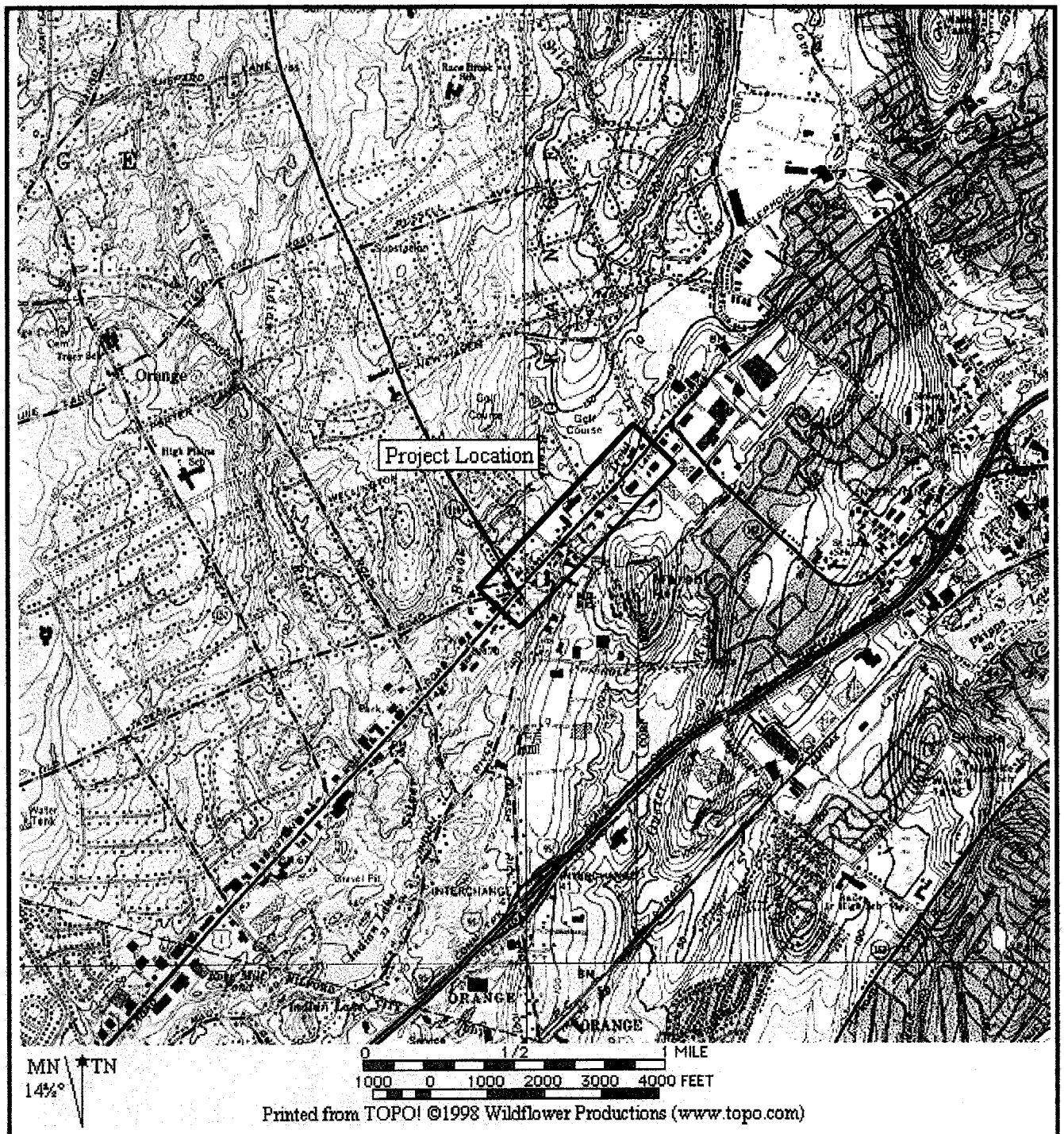

FIGURE 1 – SITE LOCATION PLAN

Reconstruction of Route 1 from East of Lambert Road to Dogburn Lane

Orange, Connecticut

2.0 SITE DESCRIPTION

2.1 Background

The Task 210 - Surficial Site Investigation was conducted within the areas of proposed construction and/or right-of-way activities in the vicinity of thirty-six moderate or high risk designated properties along Route 1. The following summarizes the thirty-six parcels and their locations.

316 Boston Post Road - This parcel was assigned a moderate risk because it has contained the Vadney Fuel Oil business since the early 1950's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

312 Boston Post Road - This parcel was assigned a moderate risk because the property has contained the Fox Steel and Wasau Metals business since the early 1950's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

305 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a machine shop during the 1950's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

302 - 306 Boston Post Road - This parcel was assigned a moderate risk because it contains Taylor Equipment Rental and Ryder Truck Rental. The property also contained a gas station, car wash, and automotive repair shop prior to the 1980's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

301 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained the Colonial Wood Products company prior to the 1970's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

300 Boston Post Road - This parcel was assigned a moderate risk because it contains the Park City Steel and Builders companies. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

292 Boston Post Road - This parcel was assigned a moderate risk because it formerly housed a welding company during the mid-1960's. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

284 - 286 Boston Post Road - This parcel was assigned a moderate risk because it contains the Knight Lawnmower Sales and Service company. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

278 - 282 Boston Post Road - This parcel was assigned a moderate risk because it formerly housed a graphics and printing company during the early 1990's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

263 - 275 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a dry cleaning business from the 1960's to 1980's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

262 - 266 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a spray-painting business prior to the mid-1960's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

248 Boston Post Road - This parcel was assigned a moderate risk because it contains a gasoline service station. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

222 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a newspaper print shop during the late 1970's and a paper company during the early 1970's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

221 - 223 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained an upholstering company during the early 1960's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

213 - 217 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained the Tamaro Oil Company during the mid-1990's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

206 Boston Post Road - This parcel was assigned a moderate rating because it contains a government military facility, which is also listed as a RCRA generator of hazardous waste. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

205 - 207 Boston Post Road - This parcel was assigned a moderate risk because it formerly housed a truck company and truck body manufacturer prior to the mid-1950's. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

199 - 203 Boston Post Road - The Comp-USA parcel was assigned a moderate risk because it formerly contained a lumber yard and trucking company prior to the 1970's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

196 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Fluid Technical Corp., Burt Process Equipment, and Anchor Rubber prior to the early 1990's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

190 - 194 Boston Post Road - This parcel was assigned a moderate risk because it formerly housed a machine shop prior to the 1970's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

181 - 185 Boston Post Road - This parcel was assigned a moderate rating because it formerly housed a dry cleaning business and trucking company prior to the late 1980's. In addition, J. Gerard Cleaners was listed as a RCRA generator of hazardous waste. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

307 Racebrook Road - This parcel was assigned a moderate risk because it formerly contained a fuel oil distributor prior to the late 1950's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

175 Boston Post Road - This parcel was assigned a moderate risk because it may have formerly contained a gasoline service station during the 1950's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

174 - 178 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a trucking company prior to the early 1970's. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

170 - 172 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a trucking company prior to the mid-1980's. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

164 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a welding company prior to the late 1970's. According to the ConnDOT construction plans for the project, cut and fill activities are proposed for this property.

163 Boston Post Road - This parcel was assigned a moderate risk because it contains a printing business. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

156 Boston Post Road - This parcel was assigned a moderate risk because it has contained a construction company since the mid-1980's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

150 - 154 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a lumber company prior to the late-1970's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

140 - 148 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained the Industrial Sheet Metal business prior to the mid-1980's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

145 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a trucking company, an oil company, and a diaper service prior to the mid-1980's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

135 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained an oil company and a welding company prior to the 1980's. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

120 - 130 Boston Post Road - This parcel was assigned a moderate risk because it may have formerly contained a machine products manufacturer. According to the ConnDOT construction plans for the project, a partial strip take and cut activities are proposed for this property.

125 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained Town Fair Tire, Meineke Muffler, an automotive repair shop, and a lumber company prior to the early-1990's. According to the ConnDOT construction plans for the project, a partial strip take and fill activities are proposed for this property.

116 - 118 Boston Post Road - This parcel was assigned a moderate risk because it formerly contained a trucking company prior to the late-1970's. According to the ConnDOT construction plans for the project, cut activities are proposed for this property.

151 Boston Post Road - This parcel was assigned a high risk because of a documented release of gasoline from three on-site USTs at the Thornton Gasoline Station in 1989. According to the ConnDOT construction plans for the project, fill activities are proposed for this property.

The site area is depicted in the attached Figure 2 - Task 210 Project Area & Sampling Locations.

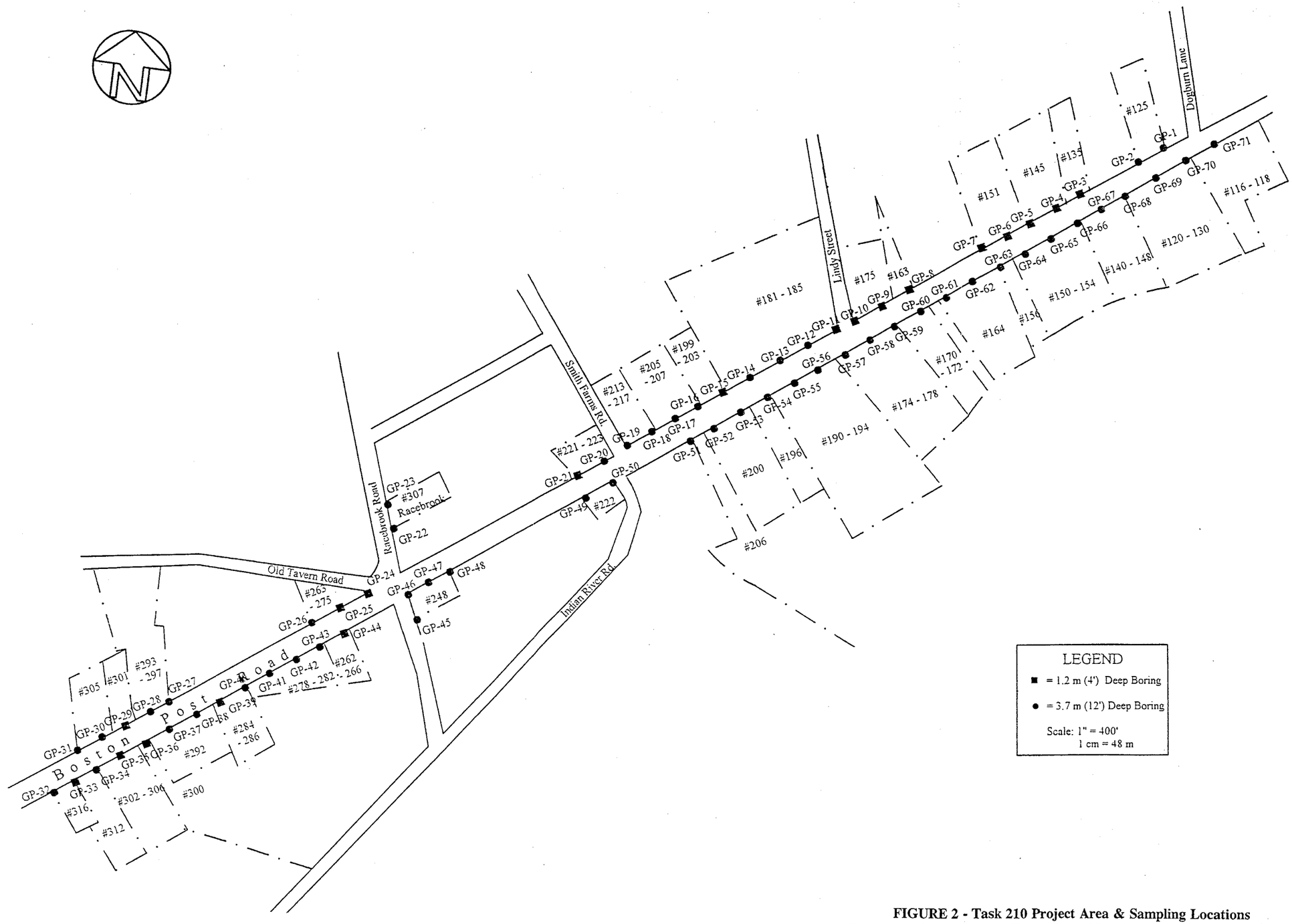

FIGURE 2 - Task 210 Project Area & Sampling Locations
Reconstruction of Route 1 From East of Lambert Road to Dogburn Lane
Orange, Connecticut

3.0 LOCAL ENVIRONMENT & RECEPTORS

3.1 Groundwater

According to the Connecticut Department of Environmental Protection (CTDEP) 1993 Adopted Water Quality Classifications for the South Central Basin, the groundwater classification for the project corridor is "GA". A "GA" groundwater classification indicates that the groundwater in the area may be within the influence of private and potential public water supply sources. The groundwater is considered suitable for direct human consumption without the need for treatment. All of the properties within the project corridor are connected to the public water supply system and municipal sewer system. In addition, there are no public water supply wells located within a 1,609 meter (1 mile) radius of the project area, according to the CTDEP Bulletin 4, "The Atlas of the Public Water Supply Sources and Drainage Basins of Connecticut," June, 1982.

Groundwater was encountered in only two of the Geoprobe® soil borings, at depths of 1.2 and 2.1 meters (4 and 7 feet) below grade.

3.2 Geology

The United States Department of Agriculture Soil Conservation Service's 1992 "Surficial Materials Map of Connecticut" indicates that the soil in the vicinity of the Task 210 project area consists of the Charlton-Hollis formation. This soil unit is described as a brownish, sandy soil with a loamy substratum.

The Bedrock Geological Map of Connecticut, compiled by John Rodgers in 1985, indicates that the bedrock unit underlying the Site area is the Lower Member of the Maltby Lakes Metavolcanics, which is a gray to green, fine-grained schist or phyllite. A bluish-green fine-grained phyllite was encountered in all of the borings located within the project corridor area, at depths ranging from 0.9 to 3.0 meters (3 to 10 feet) below grade.

3.3 Regional Physiography

The general surficial topography is relatively flat, with a very gentle downward slope to the south/southeast. Based upon this, it is estimated that surface water runoff flows to the south/southeast. Silver Brook is located within the project corridor, and it is classified as a Class "A" surface water body, which indicates that the water is known or presumed to meet Water Quality Criteria which support designated uses. The designated uses of Class "A" surface waters include recreational, agricultural and industrial supply, as well as fish and wildlife habitat, and other legitimate uses including navigation.

4.0 SUBSURFACE INVESTIGATION

Based upon the current and past land use of the properties within the project corridor, a comprehensive sampling program was conducted within the proposed construction and right-of-way areas adjacent to the thirty-six moderate or high risk designated properties discussed in Section 2.1. The following subsections detail the proposed investigation.

4.1 Geoprobe® Soil Borings & Soil Sample Analyses

On October 28, October 29, November 14, November 19, November 20, and November 21, 1999, seventy-one (71) Geoprobe® soil borings were advanced within proposed areas of construction and right-of-way activities adjacent to the thirty-six (36) moderate to high risk designated properties. The Geoprobe® borings were advanced by Logical Environmental Solutions, under the direction of Maguire Group Inc. The locations of the Geoprobe® soil borings are depicted on Figure 2 - Task 210 Project Area & Sampling Locations.

The Geoprobe® soil borings were advanced to a depth of 3.7 meters (12 feet) below grade, unless there was refusal on suspected bedrock or a cobble, or 1.2 meters (4 feet) below grade, depending upon the anticipated depth of excavation during construction in each area. The borings were spaced in an approximate 30.5 meter (100 foot) linear grid. Continuous soil samples were collected utilizing a 1.2 meter (4-foot) long, 5 centimeter (2-inch) diameter Macro Core Sampler with dedicated acetate liners. The soil samples were visually inspected in

the field for staining, and described as to physical characteristics and soil type. In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID). Soil boring logs were generated in the field by Maguire field personnel. The boring logs denote the types of soil encountered, the depth to groundwater and/or bedrock, the total depth reached in each boring, and the highest observed PID reading. Copies of the boring logs are included at the end of this report in Appendix A.

Based upon field screening results and visual observations, one soil sample from each boring was placed in glassware supplied by Con-Test Analytical Laboratory, and stored in an ice-filled cooler. The first macro core sample from each boring was segregated and split into a 0 to 0.6 meter (0'-2') sample and a 0.6 to 1.2 meter (2'-4') sample. The shallow soil sample (0 to 0.6 meter/0' to 2' below grade) was selected for laboratory analyses if field screening and visual observation did not indicate the presence of contaminants in the other sample intervals. The analyses for each soil sample included volatile organic compounds (VOCs) utilizing EPA Method 8260, total petroleum hydrocarbons (TPH) utilizing EPA Method 418.1, polynuclear aromatic hydrocarbons (PAHs) utilizing EPA Method 8270, total RCRA 8 metals, and SPLP RCRA 8 metals.

All Geoprobe® soil borings were back-filled and patched upon completion utilizing clean sand and/or hydrated bentonite. All down-hole sampling equipment was decontaminated in accordance with Maguire's August, 1999 Task 210 Surficial Site Investigation Work Plan.

4.2 Groundwater Sample Collection & Groundwater Analyses

Two (2) groundwater grab samples (GP-12 & GP-32) were collected from the only two boring locations in which groundwater was encountered. The groundwater grab samples were collected by placing dedicated PVC screen and riser casing into the borehole. Dedicated polyethylene tubing was inserted into the casing and groundwater was drawn through the tubing using a low-flow peristaltic pump. After approximately three well volumes were

evacuated from the well, the groundwater samples were placed in glassware supplied by Con-Test Laboratory, and stored in an ice-filled cooler. The groundwater samples were analyzed for VOCs utilizing EPA Method 8260, TPH utilizing EPA Method 418.1, PAHs utilizing EPA Method 8270, and total RCRA 8 metals.

4.3 Project Quality Assurance/Quality Control Practices

To assess the collection of samples in the field in terms of the sampling techniques and decontamination procedures followed, quality control and quality assurance samples were collected on each day of sampling activities. Six field blank water samples were collected during the field investigation. The field blank samples were prepared by pouring laboratory supplied de-ionized water through an acetate liner and macro core cutting shoe, and collecting the resulting rinsate in appropriate sample containers. In addition, six trip blanks were prepared by Con-Test Laboratory. The trip blank and field blank samples were stored with the daily samples in the sample cooler until subsequent delivery to the laboratory for analysis. The field blanks were analyzed for the same parameters specified for the daily samples. The trip blanks were analyzed for volatile organic compounds.

All samples collected in the field were stored in a manner that preserved the integrity of the sample chemistry. Samples intended for organic analyses were stored in an ice-filled cooler until delivery to the laboratory. Chain-of-Custody (COC) forms were filled out and accompanied all samples collected as a legal record of possession of the sample. The COC was initiated in the field and accompanied the containers during sample collection, transportation to the lab, analysis, and final disposal of the sample. All sampling equipment was either dedicated to a specific sample or was decontaminated prior to and between each use. Sampling equipment was not placed near solvents, gasoline, or other materials that may have impacted the integrity of the samples.

5.0 DISCUSSION OF SAMPLE RESULTS

5.1 Regulatory Criteria

The CTDEP adopted Remediation Standard Regulations (Regulations of Connecticut State Agencies, Section 22a-133k-1 to 3 and 22a-133q-1) as of January 31, 1996. The Remediation Standard Regulations (RSRs) apply to any site undergoing voluntary remediation under Public Acts 95-183 or 95-190, a transfer of an "establishment" under Public Act 95-183, or any site as ordered by the CTDEP Commissioner. The Regulations also outline the processes for establishing alternative site-specific numerical standards for certain sites, upon approval by the CTDEP.

The RSRs criteria applicable to the soil and groundwater sampled during this investigation are summarized below. The application of these RSRs to the results of the laboratory analyses from this investigation is discussed in subsection 5.2 and 5.3 of this section.

Soils Criteria: The RSRs are organized into two sets of criteria: the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The DEC and PMC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation. Please refer to the RSRs for a complete explanation of the Regulations.

Direct Exposure Criteria

The purpose of the Direct Exposure Criteria (DEC) is to protect human health from risks associated with the direct contact with or ingestion of various common soil contaminants. The DEC are applicable to soil within approximately 4.6 meters (15 feet) of the ground surface. Concentrations of contaminants are evaluated based upon mass-based analyses and different criteria are established for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of a land use restriction on the property. The DEC is not applicable to inaccessible soils, including soil more than 1.2 meters

(4 feet) below the ground surface, 0.6 meters (2 feet) below pavement greater than 7.6 centimeters (3 inches) thick, or below an existing building, provided that an Environmental Land Use Restriction (ELUR) is placed in effect for the property.

Pollutant Mobility Criteria

The purpose of the Pollutant Mobility Criteria (PMC) is to evaluate the potential for contaminants to leach from the soil in concentrations that may degrade groundwater quality. Different numerical criteria are established for GA and GAA groundwater areas, versus GB groundwater areas. Since the site is located in a GA groundwater area, the most stringent criteria are applied for contaminants detected in the soil.

Groundwater Criteria. Contaminants in the groundwater are compared either to background quality or the Groundwater Protection Criteria (GWPC), the Volatilization Criteria, as well as the Surface Water Protection Criteria (SWPC). The GWPC, Volatilization Criteria, and SWPC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation.

Groundwater Protection Criteria

The purpose of the Groundwater Protection Criteria is to protect the groundwater quality in areas that have the potential to use groundwater as a drinking water resource (GA & GAA groundwater classification areas). Since the project area is located within a GA groundwater area and a public water supply source is available, the GWPC apply.

Volatilization Criteria

The purpose of the Volatilization Criteria standard is to ensure that volatile organic compounds (VOCs) in groundwater do not pose an unacceptable risk to human health due to the inhalation of VOCs that may enter into a structure on the property. The Volatilization Criteria only apply when impacted groundwater is located within 4.6 meters (15 feet) of the ground surface or any

structure. Different criteria exist for residential and commercial/industrial properties. The use of the less stringent commercial/industrial standards requires the placement of an ELUR on the property. Since groundwater was located within 4.6 meters (15 feet) of the ground surface, the Volatilization Criteria apply to this Site.

Surface Water Protection Criteria

The purpose of the Surface Water Protection Criteria (SWPC) standards are to ensure that groundwater discharging to a surface water body will not adversely effect surface water quality. Since groundwater within the corridor likely discharges to the Silver Brook, the SWPC apply to contaminants detected in the groundwater.

5.2 Results of Soil Sample Analyses

Soil samples collected during the advancement of the Geoprobe® borings were sent to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts for laboratory analyses. A summary of the laboratory results from the soil samples is presented in Tables 1(a) to 1(r), which are located at the end of this report, and copies of the soil sample analytical results are included in Appendix B. The following summarizes the results of the analyses conducted on the soil samples.

Varying concentrations of petroleum hydrocarbons (TPH) were detected in all of the borings from Below Detectable Limits (BDL) to 647 parts per million (ppm). However, only two soil samples contained concentrations of TPH that exceed the CTDEP Remediation Standard Regulations (RSRs) Pollutant Mobility Criteria (PMC) and Residential Direct Exposure Criteria (RDEC) concentration of 500 ppm. The soil samples from borings GP-40 and GP-71 contained TPH at concentrations of 647 ppm and 520 ppm, respectively.

Only five of the seventy-one soil samples analyzed as part of this investigation contained detectable concentrations of volatile organic compounds (VOCs). The compound sec-butylbenzene was detected in the GP-65 soil sample at a concentration of 14 parts per billion (ppb). However, this concentration does not exceed any applicable CTDEP RSRs. Methylene chloride was detected in the soil samples collected from GP-52 (78 ppb), GP-61 (88 ppb), GP-62 (111 ppb), and GP-63 (85 ppb). The concentration of methylene chloride detected in the sample from GP-62 exceeds the PMC of 100 ppb. However, methylene chloride was also detected in several of the trip and field blank samples collected as part of this investigation. Substances containing methylene chloride are not used in association with the field equipment decontamination procedures, and therefore its presence in the soil and blank samples is likely due to laboratory contamination. Methylene chloride is used in the laboratory as a cleaning solvent, as well as in the extraction processes of certain analyses.

In addition, it should be noted that the soil samples GP-47, and GP-53 to GP-71 were run one to five days past their 14-day holding time due to a malfunction with the laboratory's equipment.

Several polynuclear aromatic hydrocarbon (PAH) compounds were detected throughout the project corridor at varying concentrations. Total PAH concentrations ranged from ND to 73.12 ppm. Seventeen samples contained concentrations of PAH compounds that exceed applicable CTDEP RSRs. The GP-3 soil sample contained the compounds benzo(b)fluoranthene (2.3 ppm) and indeno(1,2,3-cd)pyrene (2.17 ppm) at concentrations that exceed their respective PMC and Residential DEC.

The GP-8 soil sample contained the compounds benzo(a)anthracene (1.48 ppm), benzo(a)pyrene (1.62 ppm), benzo(b)fluoranthene (2.21 ppm), chrysene (1.83 ppm), and indeno(1,2,3-cd)pyrene (1.27 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential

DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-9 soil sample contained the compounds benzo(a)anthracene (1.06 ppm), benzo(a)pyrene (1.16 ppm), benzo(b)fluoranthene (1.51 ppm), and chrysene (1.12 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene, were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-15 soil sample contained the compounds benzo(a)anthracene (2.53 ppm), benzo(a)pyrene (2.87 ppm), benzo(b)fluoranthene (5.27 ppm), benzo(k)fluoranthene (3.47 ppm), chrysene (3.4 ppm), indeno(1,2,3-cd)pyrene (1.47 ppm), and pyrene (6.33 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-20 soil sample contained the compounds benzo(a)anthracene (1.63 ppm), benzo(a)pyrene (2.0 ppm), benzo(b)fluoranthene (2.07 ppm), benzo(k)fluoranthene (1.93 ppm), chrysene (2.47 ppm), and indeno(1,2,3-cd)pyrene (1.67 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-24 soil sample contained the compounds benzo(a)anthracene (1.7 ppm), benzo(a)pyrene (2.03 ppm), benzo(b)fluoranthene (2.07 ppm), benzo(k)fluoranthene (1.83 ppm), chrysene (2.43 ppm), and indeno(1,2,3-cd)pyrene (1.53 ppm) at concentrations that

exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-25 soil sample contained the compounds benzo(a)anthracene (1.47 ppm), benzo(a)pyrene (1.87 ppm), benzo(b)fluoranthene (2.0 ppm), benzo(k)fluoranthene (1.67 ppm), chrysene (2.2 ppm), and indeno(1,2,3-cd)pyrene (1.4 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-26 soil sample contained the compound chrysene (1.03 ppm) at a concentration that exceeds its PMC. The GP-30 soil sample contained chrysene (1.1 ppm) at a concentration that exceeds its PMC. The GP-31 soil sample contained the compounds benzo(a)pyrene (1.13 ppm), benzo(b)fluoranthene (1.07 ppm), benzo(k)fluoranthene (1.17 ppm), and chrysene (1.23 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)pyrene and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-32 soil sample contained the compounds benzo(a)anthracene (1.93 ppm), benzo(a)pyrene (2.3 ppm), benzo(b)fluoranthene (2.43 ppm), benzo(k)fluoranthene (1.83 ppm), chrysene (2.73 ppm), and indeno(1,2,3-cd)pyrene (1.6 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-33 soil sample contained the compounds benzo(a)anthracene (2.7 ppm), benzo(a)pyrene (2.73 ppm), benzo(b)fluoranthene (2.53 ppm), benzo(k)fluoranthene (2.33 ppm), chrysene (3.4 ppm), fluoranthene (7.33 ppm), indeno(1,2,3-cd)pyrene (1.8 ppm), phenanthrene (5.27 ppm), and pyrene (8.8 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-44 soil sample contained the compounds benzo(a)anthracene (1.9 ppm) and benzo(b)fluoranthene (2.2 ppm) at concentrations that exceed their respective PMC and Residential DEC.

The GP-55 soil sample contained the compounds benzo(a)anthracene (1.8 ppm), benzo(a)pyrene (2.11 ppm), benzo(b)fluoranthene (2.77 ppm), benzo(k)fluoranthene (1.63 ppm), chrysene (2.54 ppm), and indeno(1,2,3-cd)pyrene (1.42 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-57 soil sample contained the compounds benzo(a)anthracene (5.77 ppm), benzo(a)pyrene (6.88 ppm), benzo(b)fluoranthene (7.65 ppm), benzo(k)fluoranthene (5.37 ppm), chrysene (7.67 ppm), fluoranthene (12.0 ppm), indeno(1,2,3-cd)pyrene (4.65 ppm), phenanthrene (8.0 ppm), and pyrene (10.5 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-58 soil sample contained the compounds benzo(a)anthracene (1.83 ppm) and benzo(b)fluoranthene (2.75 ppm) at concentrations that exceed their respective PMC and Residential DEC.

The GP-67 soil sample contained the compounds benzo(a)anthracene (1.25 ppm), benzo(a)pyrene (1.66 ppm), benzo(b)fluoranthene (2.12 ppm), benzo(k)fluoranthene (2.19 ppm), and chrysene (1.57 ppm) at concentrations that exceed their respective PMC. In addition, the compounds benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected at concentrations that exceed their respective Residential DEC. The compound benzo(a)pyrene was also detected at a concentration that exceeds its Commercial/Industrial DEC.

The GP-71 soil sample contained the compound benzo(b)fluoranthene (1.19 ppm) at a concentration that exceeds its PMC and Residential DEC.

Total concentrations of the metals arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver were detected in the soil samples throughout the project corridor. Total arsenic was detected at concentrations ranging from Not Detected (ND) to 29.5 ppm. Arsenic was detected at concentrations that exceed its Residential and Commercial/Industrial DEC of 10 ppm in the following soil samples: GP-19 (10.2 ppm), GP-28 (10.4 ppm), GP-34 (10.9 ppm), GP-44 (10.2), GP-46 (13.0 ppm), GP-48 (11.4 ppm), GP-50 (11.4 ppm), GP-52 (10.1 ppm), GP-54 (23.6 ppm), GP-55 (29.5 ppm), GP-59 (16.0 ppm), GP-62 (14.1 ppm), GP-63 (11.3 ppm), GP-64 (11.1 ppm), GP-65 (10.1 ppm), GP-68 (10.7 ppm), and GP-71 (10.4 ppm).

Total lead was detected in the GP-8 sample at a concentration of 2,500 ppm. This concentration exceeds the Residential and Commercial/Industrial DEC of 500 and 1,000 ppm, respectively. No other total metal concentration exceeded any applicable CTDEP RSRs.

Leachable barium, lead and mercury (via SPLP) were detected at varying concentrations throughout the project corridor. Leachable barium was detected at concentrations ranging from 0.07 to 1.16 ppm. Barium was detected at concentrations that exceed the PMC of 1.0 ppm in the following samples: GP-3 (1.04 ppm), GP-29 (1.07 ppm), GP-32 (1.16 ppm), and GP-43 (1.04 ppm).

Leachable lead was detected at concentrations ranging from ND to 0.29 ppm. Lead was detected at concentrations that exceed the PMC of 0.015 ppm in the following seventeen samples: GP-3 (0.02 ppm), GP-8 (0.16 ppm), GP-11 (0.06 ppm), GP-15 (0.08 ppm), GP-24 (0.02 ppm), GP-30 (0.02 ppm), GP-31 (0.04 ppm), GP-32 (0.29 ppm), GP-54 (0.02 ppm), GP-57 (0.12 ppm), GP-58 (0.03 ppm), GP-60 (0.02 ppm), GP-65 (0.02 ppm), GP-67 (0.02 ppm), GP-69 (0.02 ppm), GP-70 (0.02 ppm), and GP-71 (0.02 ppm).

5.3 Results of Groundwater Grab Sample Analyses

Groundwater grab samples collected during the advancement of the Geoprobe® borings were sent to Con-Test Analytical Laboratory of East Longmeadow, Massachusetts for laboratory analyses. A summary of the laboratory results from the groundwater grab samples is presented in Table 2, which is located at the end of this report, and copies of the groundwater grab sample analytical results are included in Appendix C. The following summarizes the results of the analyses conducted on the groundwater grab samples.

The groundwater samples GP-12 and GP-32 did not contain detectable concentrations of petroleum hydrocarbons, VOCs, or PAHs. The GP-12 groundwater sample contained the metals barium (0.065 ppm), cadmium (0.0004 ppm), and chromium (0.016 ppm). In addition, the GP-32 groundwater sample contained the metals barium (0.121 ppm) and chromium (0.011 ppm). The concentrations of these metals do not exceed any applicable CTDEP RSRs.

5.4 Quality Assurance/Quality Control Samples

The six field blank (FB) and trip blank (TB) water samples were collected on each day of sampling activities. The field blank samples were analyzed for VOCs, TPH, PAHs, and total RCRA 8 metals. In addition, six trip blank samples were analyzed for VOCs. The VOC methylene chloride was detected in the samples FB-1 (30.3 ppb), FB-2 (30.9 ppb), FB-4 (10.7 ppb), FB-5 (12.1 ppb), FB-6 (12.1 ppb), TB-1 (15.8 ppb), and TB-2 (13.4 ppb). Methylene chloride was also detected in four of the soil samples analyzed as part of this investigation. Substances containing methylene chloride are not used in association with the field equipment decontamination procedures, and therefore its presence in the soil and blank samples is likely due to laboratory contamination. Methylene chloride is used in the laboratory as a cleaning solvent, as well as in the extraction processes of certain analyses.

In addition, the metal barium was detected at an extremely low concentration of 0.0005 ppm in the FB-4 field blank sample. The presence of the small barium concentration may be due to field contamination or it may have been present in the laboratory-supplied water. No other contaminants were detected above the laboratory detection limits in any of the blank samples.

Copies of the analytical reports associated with the quality assurance/quality control samples are included in Appendix D.

6.0 DISCUSSION OF AFFECTED RESOURCES

6.1 Areas of Environmental Concern

Based upon the results of laboratory analyses performed on soil samples for this Task 210 investigation, twelve areas of environmental concern (AOEC) have been identified. The location of the areas within the project corridor is discussed in the following section.

AOEC #1: Boring GP-3: 125 Boston Post Road

Analytical results from the soil sample collected from boring GP-3 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC and Residential DEC. In addition, leachable barium and lead were also detected at slightly elevated concentrations that exceed the GA PMC.

AOEC #2: Borings GP-8 & GP-9: 163 & 175 Boston Post Road

Analytical results from the soil sample collected from boring GP-8 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. Total lead was detected at an elevated concentration that exceeds that Residential and Commercial/Industrial DEC. In addition, leachable lead was also detected at a slightly elevated concentration that exceeds the GA PMC. Analytical results from the soil sample collected from boring GP-9 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC.

AOEC #3: Borings GP-11 & GP-15: 181 - 185 Boston Post Road

Analytical results from the soil samples collected from borings GP-11 and GP-15 indicate the presence of leachable lead at elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC. In addition, the GP-15 soil sample indicated the presence of semi-volatile organic compound (PAH) contamination in shallow soil ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC.

AOEC #4: Boring GP-19: 213-217 Boston Post Road

Analytical results from the soil sample collected from boring GP-19 indicate the presence of total arsenic at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #5: Boring GP-20: 221-223 Boston Post Road

Analytical results from the soil sample collected from boring GP-20 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC.

AOEC #6: Borings GP-24, GP-25 & GP-26: 262-275 Boston Post Road

Analytical results from the soil samples collected from borings GP-24, GP-25, and GP-26 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 1.2 meters (0 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. In addition, the soil sample from GP-25 also contained leachable lead at a slightly elevated concentration that exceeds the GA PMC.

AOEC #7: Borings GP-28, GP-29, GP-30 & GP-31: 293 to 305 Boston Post Road

Analytical results from the soil sample collected from boring GP-28 indicate the presence of total arsenic contamination at a slightly elevated concentration in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

Analytical results from the soil sample collected from boring GP-29 indicate the presence leachable barium contamination at a slightly elevated concentration in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC.

Analytical results from the soil samples collected from borings GP-30 and GP-31 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. In addition, leachable lead was detected in the GP-30 and GP-31 soil samples at slightly elevated concentrations that exceed the GA PMC.

AOEC #8: Borings GP-32, GP-33, & GP-34: 312 to 316 Boston Post Road

Analytical results from the soil samples collected from borings GP-32 and GP-33 indicate the presence of semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0.6 to 1.2 meter (2 to 4 feet) below grade. The contamination detected exceeds the GA PMC, and Residential and Commercial/Industrial DEC. In addition, leachable lead and barium were detected in the GP-32 soil samples at slightly elevated concentrations that exceed the GA PMC.

The 0.6 to 1.2 meter (2 to 4 feet) sample from boring GP-34 also contained total arsenic contamination at a slightly elevated concentration. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #9: Borings GP-40, GP-43, & GP-44: 262 to 282 Boston Post Road

Analytical results from the soil sample collected from boring GP-40 indicate the presence of petroleum hydrocarbon contamination at an elevated concentration in soil ranging from 1.2 to 2.4 meter (4 to 8 feet) below grade. The 0.6 to 1.2 meter (2 to 4 feet) sample from boring GP-43 also contained leachable barium contamination at a slightly elevated concentration that exceeds the GA PMC. The soil sample from boring GP-44 contained semi-volatile organic compound (PAH) contamination at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the GA PMC, and Residential DEC. In addition, total arsenic was detected in the GP-44 soil sample at a slightly elevated concentration that exceeds the Residential and Commercial/Industrial DEC.

AOEC #10: Borings GP-46 & 48: 248 Boston Post Road

Analytical results from the soil samples collected from borings GP-46 and GP-48 indicate the presence of total arsenic at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #11: Boring GP-50: 222 Boston Post Road

Analytical results from the soil sample collected from boring GP-50 indicate the presence of total arsenic at slightly elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The contamination detected exceeds the Residential and Commercial/Industrial DEC.

AOEC #12: Boring GP-52, GP-54, GP-55, GP-57, GP-58, GP-59, GP-60, GP-62, GP-63, GP-64, GP-65, GP-67, GP-68, GP-69, GP-70 & GP-71: 116 to 200 Boston Post Road

Analytical results from the soil samples collected from borings GP-54, GP-62, GP-64, and GP-71 indicate the presence of total arsenic at elevated concentrations in shallow soils ranging from 0 to 0.6 meter (0 to 2 feet) below grade. The 0.6 to 1.2 meter (2 to 4 feet) samples from borings GP-55, GP-63, GP-65, and GP-68 also contained elevated concentrations of total arsenic. In addition, the GP-52 1.2 to 1.8 meter (4 to 6 feet) and the GP-59 1.2 to 2.1 meter (4 to 7 feet) sample contained elevated concentrations of total arsenic. The total arsenic contamination detected in these ten samples exceeds the Residential and Commercial/Industrial DEC.

Leachable lead was detected at elevated concentrations in the 0 to 0.6 meter (0' to 2 feet) samples from borings GP-54, GP-57, GP-60, GP-69, and GP-71. In addition, leachable lead was detected at elevated concentrations in the 0.6 to 1.2 meter (2 to 4 feet) sample from borings GP-58, GP-65, GP-67, and GP-70. The leachable lead contamination detected in these nine samples exceeds the GA PMC.

Semi-volatile organic compound (PAH) contamination was detected at elevated concentrations in the 0 to 0.6 meter (0 to 2 feet) sample from borings GP-57 and GP-71, as well as the 0.6 to 1.2 meter (2 to 4 feet) sample from borings GP-55 and GP-67. The PAH contamination detected in these four sample exceeds the GA PMC, and the Residential and Commercial/Industrial DEC.

The VOC methylene chloride was detected in the GP-62 0 to 0.6 meter (0 to 2 feet) sample at a concentration that slightly exceeds the GA PMC. The presence of the methylene chloride may be due to laboratory contamination.

In addition, total petroleum hydrocarbons were detected in the GP-71 0 to 0.6 meter (0 to 2 feet) sample at a concentration that exceeds the GA PMC and Residential DEC.

7.0 RECOMMENDATIONS

The results of the Task 210 – Surficial Site Investigation for the Reconstruction of Route 1 from East of Lambert Road to Dogburn Lane in Orange, Connecticut indicate the presence of semi-volatile (PAH), total arsenic and lead, leachable barium and lead, VOC and TPH contamination in soils throughout the project corridor ranging from 0 to 2.4 meters (0 to 8 feet) below grade, at concentrations that slightly to moderately exceed the applicable RSR criteria. Twelve Areas of Environmental Concern (AOEC) have been identified within the project corridor. Special considerations for treatment/disposal and worker health and safety must be given to these areas in order to ensure compliance with all local, State and Federal laws. A Task 310 Remedial Management Plan is therefore recommended for all areas of construction associated with the Reconstruction of Route 1 from East of Lambert Road to Dogburn Lane project.

8.0 LIMITATIONS

All work product and reports provided by Maguire Group Inc. (MGI) in connection with the performance of this Task 210 - Surficial Site Investigation are subject to the following limitations:

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services provided to ConnDOT.

2. In preparing this report, MGI has relied on certain information provided by State and local officials and information and representations made by other parties referenced therein, and on information contained in the files of State and/or local agencies made available to MGI at the time of this investigation. To the extent that such files are missing, incomplete or not provided to MGI, MGI is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, MGI did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this investigation.

3. The conclusions and recommendations contained in this report are based in part upon the data from subsurface explorations. The nature and extent of variations between these explorations may not become evident until further explorations are completed. If variations or other latent conditions become evident, it will be necessary to re-evaluate the conclusions and recommendations of this report.

4. The water level readings made for this investigation were made at the times and conditions stated on the boring logs. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, passage of time and other factors.

Should additional data become available in the future, these data should be reviewed by MGI, and the conclusions and recommendations presented herein modified accordingly.

5. Where quantitative laboratory analyses have been conducted by an outside certified laboratory, MGI has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these tests.

6. If the conclusions and recommendations contained in this report are based, in part, upon various types of chemical data then the conclusions and recommendations are contingent upon the validity of such data. These data have been reviewed and interpretations made in the report. It should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by MGI and the conclusions and recommendations presented herein modified accordingly.

7. Chemical analyses were performed for specific parameters during the course of this investigation, as described in the text. However, it should be noted that testing for all known chemical constituents was not performed. The conclusions and recommendations contained in this report are based only upon the chemical constituents for which testing was accomplished.

The following qualifications apply to the undersigned's opinion:

The activities described and opinions included herein are based on information gathered during this exploratory site investigation which was limited in scope in adherence to the terms of our agreement. The professional opinion provided herein is based on the information described in this report.

The information contained herein was prepared for the use of ConnDOT solely in conjunction with the task descriptions for this assignment. The conclusions and recommendations set forth in this report are based on site conditions at the time of the investigation. Future studies and findings could change the contents of this report. The professional opinions presented in this report have been developed by using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental engineering consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional opinions included in this report.

Prepared by:	Approved by:	Reviewed by:
Cindy Knight Logical Env. Solutions	David R. Stock, P.E. Program Manager	Jane Witherell, P.E., L.E.P. Project Engineer

TABLES

TABLE 1(a) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-1 1.2-1.8m 4'-6'	GP-2 0.6-1.2m 2'-4'	GP-3 0-0.6m 0'-2'	GP-4 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	BDL	296	78.8	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	ND	0.53	BDL	BDL	1 ppm	1/7.8 ppm
Benzo(b)fluoranthene	ND	0.47	***2.33***	BDL	**1 ppm**	1/7.8 ppm
Chrysene	ND	0.7	BDL	BDL	1 ppm	84/780 ppm
Fluoranthene	ND	1.17	2.0	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	0.33	***2.17***	BDL	**1 ppm**	1/7.8 ppm
Phenanthrene	ND	0.73	ND	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	ND	3.93	6.5	ND		
Total RCRA 8 Metals - ppm						
Barium	20.2	35.9	44.5	44.6		4,700/140,000 ppm
Cadmium	0.14	0.36	0.55	0.16		34/1,000 ppm
Chromium	24.2	21.1	20.0	21.6		100/100 ppm
Lead	4.46	14.4	178	28.3		500/1,000 ppm
Mercury	ND	0.021	0.119	0.06		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.11	0.85	***1.04***	0.87	**1 ppm**	
Lead	ND	ND	***0.02***	ND	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(b) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-5 0-0.6m 0'-2'	GP-6 0-0.6m 0'-2'	GP-7 0.6-1.2m 2'-4'	GP-8 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	202	21.1	BDL	51.7	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Anthracene	BDL	ND	ND	0.35	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.63	ND	ND	***1.48***	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	0.79	BDL	ND	***1.62***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.76	ND	ND	***2.21***	**1 ppm**	1/7.8 ppm
Benzo(g,h,i)perylene	BDL	ND	ND	1.2	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	0.77	ND	ND	0.93	1 ppm	8.4/78 ppm
Chrysene	0.85	ND	BDL	***1.83***	**1 ppm**	84/780 ppm
Fluoranthene	1.35	BDL	BDL	2.7	5.6	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.47	ND	ND	***1.27***	**1 ppm**	1/7.8 ppm
Phenanthrene	0.82	ND	ND	1.57	4 ppm	1,000/2,500 ppm
Pyrene	1.21	BDL	BDL	2.67	4 ppm	1,000/2,500 ppm
Total PAHs	7.65	ND	ND	17.83		
Total RCRA 8 Metals - ppm						
Arsenic	ND	ND	ND	8.58		10/10 ppm
Barium	43.1	26.5	28.3	315		4,700/140,000 ppm
Cadmium	0.22	0.16	0.15	7.36		34/1,000 ppm
Chromium	23.5	19.1	22.9	17.7		100/100 ppm
Lead	42.3	22.8	16.0	***2,500***		**500/1,000 ppm**
Mercury	0.046	0.011	0.024	0.817		20/610 ppm
Selenium	BDL	ND	5.72	7.9		340/10,000 ppm
Silver	ND	ND	ND	0.75		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.67	0.81	0.91	0.66	1 ppm	
Lead	ND	ND	ND	***0.16***	**0.015 ppm**	
Mercury	ND	ND	ND	0.00016	0.002 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(c) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-9 0-0.6m 0'-2'	GP-10 0-0.6m 0'-2'	GP-11 0-0.6m 0'-2'	GP-12 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	24.0	BDL	38.3	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	***1.06***	ND	BDL	ND	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	***1.16***	ND	BDL	ND	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	***1.51***	ND	0.92	ND	**1 ppm**	1/7.8 ppm
Benzo(k)fluoranthene	0.79	ND	BDL	ND	1 ppm	8.4/78 ppm
Chrysene	***1.12***	ND	BDL	ND	**1 ppm**	84/780 ppm
Fluoranthene	1.67	ND	1.24	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.53	ND	ND	ND	1 ppm	1/7.8 ppm
Phenanthrene	0.48	ND	BDL	ND	4 ppm	1,000/2,500 ppm
Pyrene	1.82	ND	BDL	ND	4 ppm	1,000/2,500 ppm
Total PAHs	10.14	ND	2.16	ND		
Total RCRA 8 Metals – ppm						
Arsenic	ND	ND	5.58	ND		10/10 ppm
Barium	15.5	44.0	44.5	34.3		4,700/140,000 ppm
Cadmium	ND	ND	0.32	0.2		34/1,000 ppm
Chromium	16.7	18.4	16.8	21.7		100/100 ppm
Lead	4.38	7.92	71.6	8.97		500/1,000 ppm
Mercury	0.01	0.031	0.063	0.04		20/610 ppm
Selenium	ND	6.39	ND	5.7		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.83	0.12	0.31	0.09	1 ppm	
Lead	ND	ND	***0.06***	ND	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(d) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-13 0.6-1.2m 2'-4'	GP-14 1.2-2.4m 4'-8'	GP-15 0-0.6m 0'-2'	GP-16 1.2-2.1m 4'-7'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	21.4	134	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	0.67	ND	8.4 ppm	1,000/2,500 ppm
Benzo(a)anthracene	ND	ND	***2.53***	ND	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	ND	ND	***2.87***	ND	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	ND	ND	***5.27***	ND	**1 ppm**	1/7.8 ppm
Benzo(k)fluoranthene	ND	ND	***3.47***	ND	**1 ppm**	8.4/78 ppm
Chrysene	ND	ND	***3.4***	ND	**1 ppm**	84/780 ppm
Fluoranthene	ND	ND	5.6	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	ND	***1.47***	ND	**1 ppm**	1/7.8 ppm
Phenanthrene	ND	ND	3.07	ND	4 ppm	1,000/2,500 ppm
Pyrene	ND	ND	***6.33***	ND	**4 ppm**	1,000/2,500 ppm
Total PAHs	ND	ND	34.68	ND		
Total RCRA 8 Metals – ppm						
Arsenic	ND	ND	9.07	BDL		10/10 ppm
Barium	43.8	12.2	25.3	4.86		4,700/140,000 ppm
Cadmium	0.2	0.06	0.14	0.04		34/1,000 ppm
Chromium	17.1	21.5	15.7	10.8		100/100 ppm
Lead	8.09	6.18	130	2.96		500/1,000 ppm
Mercury	0.029	ND	0.037	0.025		20/610 ppm
Selenium	10.1	BDL	ND	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.1	0.3	0.49	0.26	1 ppm	
Lead	ND	ND	***0.08***	ND	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(e) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-17 0.6-1.2m 2'-4'	GP-18 1.2-2m 4'-6.5'	GP-19 0.6-1.2m 2'-4'	GP-20 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	BDL	BDL	61.5	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	BDL	ND	ND	***1.63***	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	BDL	ND	ND	***2.0***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	BDL	ND	ND	***2.07***	**1 ppm**	**1**/7.8 ppm
Benzo(k)fluoranthene	BDL	ND	ND	***1.93***	**1 ppm**	8.4/78 ppm
Chrysene	BDL	ND	ND	***2.47***	**1 ppm**	84/780 ppm
Fluoranthene	0.43	ND	ND	3.6	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	ND	ND	***1.67***	**1 ppm**	**1**/7.8 ppm
Phenanthrene	BDL	ND	ND	1.67	4 ppm	1,000/2,500 ppm
Pyrene	BDL	ND	ND	3.47	4 ppm	1,000/2,500 ppm
Total PAHs	0.43	ND	ND	20.51		
Total RCRA 8 Metals - ppm						
Arsenic	6.9	5.56	***10.2***	6.81		**10/10 ppm**
Barium	25.9	28.6	17.2	38.5		4,700/140,000 ppm
Cadmium	0.07	ND	0.08	0.34		34/1,000 ppm
Chromium	17.6	13.1	18.2	18.5		100/100 ppm
Lead	31.5	6.42	7.6	171		500/1,000 ppm
Mercury	0.055	0.013	0.021	0.07		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.63	0.32	0.55	0.35	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(f) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-21 0.6-1.2m 2'-4'	GP-22 0-0.6m 0'-2'	GP-23 1.2-2.4m 4'-8'	GP-24 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	32.5	329	26.0	66.5	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	BDL	ND	ND	0.43	8.4 ppm	1,000/2,500 ppm
Anthracene	0.64	BDL	ND	0.43	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.53	BDL	ND	***1.7***	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	BDL	BDL	ND	***2.03***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.72	BDL	ND	***2.07***	**1 ppm**	**1**/7.8 ppm
Benzo(g,h,i)perylene	BDL	ND	ND	1.43	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	0.73	BDL	ND	***1.83***	**1 ppm**	8.4/78 ppm
Chrysene	0.79	BDL	ND	***2.43***	**1 ppm**	84/780 ppm
Fluoranthene	1.39	1.29	BDL	4.2	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	BDL	ND	ND	***1.53***	**1 ppm**	**1**/7.8 ppm
Phenanthrene	0.75	0.74	ND	1.93	4 ppm	1,000/2,500 ppm
Pyrene	1.32	BDL	BDL	3.37	4 ppm	1,000/2,500 ppm
Total PAHs	6.87	2.03	ND	23.38		
Total RCRA 8 Metals - ppm						
Barium	40.6	26.0	42.5	17.3		4,700/140,000 ppm
Cadmium	0.19	0.14	0.06	0.2		34/1,000 ppm
Chromium	25.2	22.3	20.2	11.0		100/100 ppm
Lead	17.1	13.8	15.4	50.4		500/1,000 ppm
Mercury	0.013	0.017	0.029	ND		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.07	0.09	0.07	0.31	1 ppm	
Lead	ND	ND	ND	***0.02***	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(g) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-25 0-0.6m 0'-2'	GP-26 0.6-1.2m 2'-4'	GP-27 1.2-2.4m 4'-8'	GP-28 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	72.7	25.6	BDL	BDL	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	***1.47***	0.77	ND	ND	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	***1.87***	0.87	ND	BDL	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	***2.0***	0.93	ND	ND	**1 ppm**	**1**/7.8 ppm
Benzo(k)fluoranthene	***1.67***	0.9	ND	BDL	**1 ppm**	8.4/78 ppm
Chrysene	***2.2***	***1.03***	ND	BDL	**1 ppm**	84/780 ppm
Fluoranthene	3.47	1.5	ND	BDL	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	***1.4***	0.63	ND	ND	**1 ppm**	**1**/7.8 ppm
Phenanthrene	1.33	0.37	ND	BDL	4 ppm	1,000/2,500 ppm
Pyrene	3.07	1.27	ND	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	18.48	8.27	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	7.63	7.9	BDL	***10.4***		**10/10 ppm**
Barium	25.6	41.0	31.0	19.6		4,700/140,000 ppm
Cadmium	0.21	0.12	0.17	ND		34/1,000 ppm
Chromium	12.5	16.8	17.4	16.5		100/100 ppm
Lead	54.4	19.1	7.43	10.3		500/1,000 ppm
Mercury	0.021	0.039	0.019	0.033		20/610 ppm
Selenium	ND	BDL	ND	6.34		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.31	0.47	0.56	0.9	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(h) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-29 0-0.6m 0'-2'	GP-30 0.6-1.2m 2'-4'	GP-31 0.6-1.2m 2'-4'	GP-32 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	44.6	53.8	40.5	30.3	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	ND	ND	ND	0.8	8.4 ppm	1,000/2,500 ppm
Anthracene	ND	ND	BDL	0.57	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	0.53	0.7	0.83	***1.93***	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	0.7	0.93	***1.13***	***2.3***	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.87	1.0	***1.07***	***2.43***	**1 ppm**	1/7.8 ppm
Benzo(g,h,i)perylene	BDL	BDL	BDL	1.47	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	0.7	0.87	***1.17***	***1.83***	**1 ppm**	8.4/78 ppm
Chrysene	0.87	***1.1***	***1.23***	***2.73***	**1 ppm**	84/780 ppm
Fluoranthene	1.33	1.83	2.1	4.5	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.5	0.7	0.87	***1.6***	**1 ppm**	1/7.8 ppm
Phenanthrene	0.57	0.73	0.8	2.5	4 ppm	1,000/2,500 ppm
Pyrene	1.37	1.4	1.87	3.97	4 ppm	1,000/2,500 ppm
Total PAHs	7.44	9.26	11.07	26.63		
Total RCRA 8 Metals - ppm						
Arsenic	6.09	6.98	6.6	7.21		10/10 ppm
Barium	40.3	35.7	35.1	32.4		4,700/140,000 ppm
Cadmium	0.54	0.38	0.38	0.1		34/1,000 ppm
Chromium	12.4	13.0	13.8	32.0		100/100 ppm
Lead	54.7	71.6	75.0	21.2		500/1,000 ppm
Mercury	0.036	0.045	0.059	0.136		20/610 ppm
Selenium	ND	ND	5.73	BDL		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	***1.07***	0.81	0.59	***1.16***	**1 ppm**	
Lead	BDL	***0.02***	***0.04***	***0.29***	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(i) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-33 0.6-1.2m 2'-4'	GP-34 0.6-1.2m 2'-4'	GP-35 0-0.6m 0'-2'	GP-36 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	53.2	83.4	25.2	194	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	1.0	ND	ND	ND	8.4 ppm	1,000/2,500 ppm
Anthracene	1.27	ND	ND	ND	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	***2.7***	ND	ND	ND	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	***2.73***	ND	ND	BDL	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	***2.53***	ND	ND	BDL	**1 ppm**	1/7.8 ppm
Benzo(g,h,i)perylene	1.77	ND	ND	ND	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	***2.33***	ND	ND	BDL	**1 ppm**	8.4/78 ppm
Chrysene	***3.4***	ND	ND	BDL	**1 ppm**	84/780 ppm
Fluoranthene	***7.33***	ND	ND	BDL	**5.6 ppm**	1,000/2,500 ppm
Fluorene	0.6	ND	ND	ND	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	***1.8***	ND	ND	ND	**1 ppm**	1/7.8 ppm
Phenanthrene	***5.27***	ND	ND	ND	**4 ppm**	1,000/2,500 ppm
Pyrene	***8.8***	ND	ND	BDL	**4 ppm**	1,000/2,500 ppm
Total PAHs	41.53	ND	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	5.88	***10.9***	BDL	7.75		**10/10 ppm**
Barium	20.6	9.14	12.0	19.3		4,700/140,000 ppm
Cadmium	0.12	ND	ND	0.06		34/1,000 ppm
Chromium	20.4	17.6	8.38	14.8		100/100 ppm
Lead	22.2	7.23	5.12	18.1		500/1,000 ppm
Mercury	ND	ND	ND	0.01		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.55	0.19	0.24	0.36	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(j) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-37 0.6-1.2m 2'-4'	GP-38 0-0.6m 0'-2'	GP-39 0.6-1.2m 2'-4'	GP-40 1.2-2.4m 4'-8'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	29.1	BDL	***647***	**500 ppm**	**500**/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)	ND	ND	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	7.49	9.1	***12.7***	8.8		**10/10 ppm**
Barium	17.1	22.9	31.1	18.4		4,700/140,000 ppm
Cadmium	ND	0.06	ND	0.06		34/1,000 ppm
Chromium	11.7	18.1	14.2	16.3		100/100 ppm
Lead	3.42	29.4	6.68	14.5		500/1,000 ppm
Mercury	ND	0.045	ND	ND		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.2	0.15	0.54	0.13	1 ppm	

TABLE 1(k) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-41 0-0.6m 0'-2'	GP-42 0.6-1.2m 2'-4'	GP-43 0.6-1.2m 2'-4'	GP-44 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	192	BDL	23.6	132	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	ND	ND	ND	***1.9***	**1 ppm**	**1**/7.8 ppm
Benzo(b)fluoranthene	ND	ND	ND	***2.2***	**1 ppm**	**1**/7.8 ppm
Fluoranthene	ND	ND	ND	4.87	5.6 ppm	1,000/2,500 ppm
Phenanthrene	ND	ND	ND	2.87	4 ppm	1,000/2,500 ppm
Total PAHs	ND	ND	ND	11.84		
Total RCRA 8 Metals - ppm						
Arsenic	9.64	7.6	8.68	***10.2***		**10/10 ppm**
Barium	12.0	15.6	26.1	26.9		4,700/140,000 ppm
Cadmium	0.08	0.09	ND	0.04		34/1,000 ppm
Chromium	24.7	13.0	14.5	14.9		100/100 ppm
Lead	7.44	5.73	15.2	28.6		500/1,000 ppm
Mercury	0.011	ND	0.029	0.034		20/610 ppm
Selenium	ND	ND	6.26	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.15	0.26	***1.04***	0.58	**1 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(l) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-45 0.6-1.2m 2'-4'	GP-46 0-0.6m 0'-2'	GP-47 0.6-1.2m 2'-4'	GP-48 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	87.2	185	56.0	63.6	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND	ND	ND*	ND		
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	ND	BDL	BDL	0.36	1 ppm	1/7.8 ppm
Benzo(b)fluoranthene	ND	0.33	0.39	0.48	1 ppm	1/7.8 ppm
Fluoranthene	ND	0.47	0.55	0.7	5.6 ppm	1,000/2,500 ppm
Total PAHs	ND	0.8	0.94	1.54		
Total RCRA 8 Metals - ppm						
Arsenic	7.78	***13.0***	8.26	***11.4***		**10/10 ppm**
Barium	21.5	41.7	24.9	37.3		4,700/140,000 ppm
Cadmium	ND	0.1	0.1	0.16		34/1,000 ppm
Chromium	24.6	15.6	19.9	14.9		100/100 ppm
Lead	10.6	68.0	54.4	57.6		500/1,000 ppm
Mercury	0.015	0.085	0.022	0.054		20/610 ppm
Selenium	ND	5.98	ND	ND		340/10,000 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.24	0.16	0.22	0.62	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(m) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-49 0.6-1.2m 2'-4'	GP-50 0-0.6m 0'-2'	GP-51 0.6-1.2m 2'-4'	GP-52 1.2-1.8m 4'-6'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	145	81.4	25.4	35.3	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	ND	ND	ND	78	100 ppb	82,000/760,000 ppb
PAHs - EPA Method 8270 (ppm)	ND	ND	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	ND	***11.4***	5.99	***10.1***		**10/10 ppm**
Barium	13.6	23.0	10.8	16.4		4,700/140,000 ppm
Cadmium	ND	ND	ND	ND		34/1,000 ppm
Chromium	15.1	8.43	13.7	17.0		100/100 ppm
Lead	4.74	17.4	3.22	6.2		500/1,000 ppm
Mercury	ND	0.012	BDL	0.015		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.16	0.25	0.15	0.09	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1(n) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-53 0-0.6m 0'-2'	GP-54 0-0.6m 0'-2'	GP-55 0.6-1.2m 2'-4'	GP-56 1.2-1.8m 4'-6'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	242	46.2	39.8	36.4	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND*	ND*	ND*	ND*		
PAHs - EPA Method 8270 (ppm)						
Anthracene	ND	0.53	0.34	ND	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	ND	0.67	***1.8***	0.46	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	ND	0.73	***2.11***	BDL	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	BDL	1.0	***2.77***	0.56	**1 ppm**	1/7.8 ppm
Benzo(g,h,i)perylene	ND	BDL	1.31	BDL	4.2 ppm	1,000/2,500 ppm
Benzo(k)fluoranthene	ND	BDL	***1.63***	BDL	**1 ppm**	8.4/78 ppm
Chrysene	ND	0.84	***2.54***	BDL	**1 ppm**	84/780 ppm
Fluoranthene	BDL	1.43	3.73	1.06	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	ND	BDL	***1.42***	0.35	**1 ppm**	1/7.8 ppm
Phenanthrene	ND	0.61	1.87	0.45	4 ppm	1,000/2,500 ppm
Pyrene	BDL	1.33	3.07	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	ND	7.14	22.59	2.88		
Total RCRA 8 Metals - ppm						
Arsenic	9.98	***23.6***	***29.5***	8.26		**10/10 ppm**
Barium	25.5	28.1	28.4	22.0		4,700/140,000 ppm
Cadmium	ND	ND	0.04	0.06		34/1,000 ppm
Chromium	14.8	19.09	17.9	22.1		100/100 ppm
Lead	19.5	78.0	125	16.5		500/1,000 ppm
Mercury	0.027	0.04	0.064	0.01		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.28	0.23	0.42	0.12	1 ppm	
Lead	ND	***0.02***	BDL	ND	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(o) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-57 0-0.6m 0'-2'	GP-58 0.6-1.2m 2'-4'	GP-59 1.2-2.1m 4'-7'	GP-60 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	164	133	BDL	36.0	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND*	ND*	ND*	ND*		
PAHs - EPA Method 8270 (ppm)						
Acenaphthylene	2.95	ND	ND	ND	8.4 ppm	1,000/2,500 ppm
Anthracene	1.68	ND	ND	ND	40 ppm	1,000/2,500 ppm
Benzo(a)anthracene	***5.77***	***1.83***	ND	ND	**1 ppm**	1/7.8 ppm
Benzo(a)pyrene	***6.88***	BDL	ND	BDL	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	***7.65***	***2.75***	ND	BDL	**1 ppm**	1/7.8 ppm
Benzo(k)fluoranthene	***5.37***	BDL	ND	BDL	**1 ppm**	8.4/78 ppm
Chrysene	***7.67***	BDL	ND	NDL	**1 ppm**	84/780 ppm
Fluoranthene	***12.0***	4.05	ND	0.37	**5.6 ppm**	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	***4.65***	***1.7***	ND	BDL	**1 ppm**	1/7.8 ppm
Phenanthrene	***8.0***	2.2	ND	ND	**4 ppm**	1,000/2,500 ppm
Pyrene	***10.5***	BDL	ND	BDL	**4 ppm**	1,000/2,500 ppm
Total PAHs	73.12	12.53	ND	0.37		
Total RCRA 8 Metals - ppm						
Arsenic	BDL	8.88	***16.0***	9.02		**10/10 ppm**
Barium	37.8	37.4	47.8	27.8		4,700/140,000 ppm
Cadmium	0.46	0.74	ND	0.06		34/1,000 ppm
Chromium	15.4	14.7	23.4	17.1		100/100 ppm
Lead	242	158	11.1	37.9		500/1,000 ppm
Mercury	0.061	0.071	0.09	0.02		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.63	0.18	0.26	0.25	1 ppm	
Lead	***0.12***	***0.03***	ND	***0.02***	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(p) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-61 0.6-1.2m 2'-4'	GP-62 0-0.6m 0'-2'	GP-63 0.6-1.2m 2'-4'	GP-64 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	BDL	37.4	BDL	30.7	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
Methylene Chloride	88*	***111****	85*	ND*	**100 ppm**	82,000/760,000 ppm
PAHs - EPA Method 8270 (ppm)	ND	ND	ND	ND		
Total RCRA 8 Metals - ppm						
Arsenic	9.86	***14.1***	***11.3***	***11.1***		**10/10 ppm**
Barium	19.4	24.2	19.1	39.6		4,700/140,000 ppm
Cadmium	ND	0.1	ND	0.08		34/1,000 ppm
Chromium	23.6	13.6	31.5	18.1		100/100 ppm
Lead	8.98	52.9	6.83	25.9		500/1,000 ppm
Mercury	ND	0.022	ND	0.058		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.25	0.48	0.29	0.56	1 ppm	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(q) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-65 0.6-1.2m 2'-4'	GP-66 0-0.6m 0'-2'	GP-67 0.6-1.2m 2'-4'	GP-68 0.6-1.2m 2'-4'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	101	336	55.8	144	500 ppm	500/2,500 ppm
VOCs - EPA Method 8260 (ppb)						
sec-Butylbenzene	14*	ND*	ND*	ND*	1,400 ppb	500,000/1,000,000 ppb
PAHs - EPA Method 8270 (ppm)						
Benzo(a)anthracene	0.44	ND	***1.25***	0.45	**1 ppm**	**1**/7.8 ppm
Benzo(a)pyrene	BDL	ND	***1.66***	BDL	**1 ppm**	**1/1 ppm**
Benzo(b)fluoranthene	0.62	ND	***2.12***	0.8	**1 ppm**	**1**/7.8 ppm
Benzo(k)fluoranthene	BDL	ND	***2.19***	BDL	**1 ppm**	8.4/78 ppm
Chrysene	BDL	ND	***1.57***	BDL	**1 ppm**	84/780 ppm
Fluoranthene	1.24	ND	2.01	0.73	5.6 ppm	1,000/2,500 ppm
Indeno(1,2,3-cd)pyrene	0.33	ND	ND	BDL	1 ppm	1/7.8 ppm
Phenanthrene	1.1	ND	1.14	0.35	4 ppm	1,000/2,500 ppm
Pyrene	1.03	BDL	3.62	BDL	4 ppm	1,000/2,500 ppm
Total PAHs	4.76	ND	15.56	2.33		
Total RCRA 8 Metals - ppm						
Arsenic	***10.1***	7.74	7.26	***10.7***		**10/10 ppm**
Barium	37.4	33.2	20.5	28.4		4,700/140,000 ppm
Cadmium	0.1	0.16	0.21	0.12		34/1,000 ppm
Chromium	20.6	11.1	12.6	10.2		100/100 ppm
Lead	42.3	50.3	82.6	49.9		500/1,000 ppm
Mercury	0.021	0.033	0.031	0.03		20/610 ppm
SPLP RCRA 8 Metals - ppm						
Barium	0.72	0.35	0.78	0.23	1 ppm	
Lead	***0.02***	ND	***0.02***	ND	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 1(r) - Results of Geoprobe Boring Soil Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Boring I.D.: Sample Depth:	GP-69 0-0.6m 0'-2'	GP-70 0.6-1.2m 2'-4'	GP-71 0-0.6m 0'-2'	CTDEP Pollutant Mobility Criteria – GA Groundwater Area	CTDEP Direct Exposure Criteria Residential/ Commercial & Industrial
TPH - EPA Method 418.1 (ppm)	458	109	***520***	**500 ppm**	**500**/2,500 ppm
VOCs - EPA Method 8260 (ppb)	ND*	ND*	ND*		
PAHs - EPA Method 8270 (ppm)					
Benzo(a)anthracene	BDL	0.34	0.57	1 ppm	1/7.8 ppm
Benzo(a)pyrene	BDL	BDL	0.76	1 ppm	1/1 ppm
Benzo(b)fluoranthene	0.91	0.72	***1.19***	**1 ppm**	**1**/7.8 ppm
Benzo(k)fluoranthene	BDL	BDL	0.77	1 ppm	8.4/78 ppm
Fluoranthene	0.73	0.65	0.96	5.6 ppm	1,000/2,500 ppm
Phenanthrene	ND	BDL	0.46	4 ppm	1,000/2,500 ppm
Pyrene	BDL	BDL	1.54	4 ppm	1,000/2,500 ppm
Total PAHs	1.64	1.71	6.25		
Total RCRA 8 Metals - ppm					
Arsenic	6.31	8.06	***10.4***		**10/10 ppm**
Barium	46.5	28.0	30.3		4,700/140,000 ppm
Cadmium	0.26	0.11	0.09		34/1,000 ppm
Chromium	13.0	21.1	12.5		100/100 ppm
Lead	96.6	125	99.0		500/1,000 ppm
Mercury	0.074	0.02	0.018		20/610 ppm
SPLP RCRA 8 Metals - ppm					
Barium	0.26	0.62	0.93	1 ppm	
Lead	***0.02***	***0.02***	***0.02***	**0.015 ppm**	

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

* Due to a malfunction with laboratory equipment, the 14-day holding time for these samples was exceeded.

TABLE 2 - Results of Groundwater Grab Sample Analyses
Reconstruction of Route 1 (Boston Post Road) from East of Lambert Road to Dogburn Lane
Orange, CT

Sample I.D.:	GP-12	GP-32	CTDEP Groundwater Protection Criteria	CTDEP Surface Water Protection Criteria	CTDEP Volatilization Criteria Residential/Commercial & Industrial
TPH – EPA Method 418.1 (ppm)	BDL	BDL	0.5	None Established	Not Applicable
VOCs – EPA Method 8260 (ppb	ND	ND			
PAHs – EPA Method 8270 (ppm)	ND	ND			
Total RCRA 8 Metals - ppm					Not Applicable
Barium	0.065	0.121	1.0	None Established	
Cadmium	0.0004	ND	0.005	0.006 ppm	
Chromium	0.016	0.011	0.05	0.11 ppm	

ND – Not Detected

BDL - Below Detectable Limits (see laboratory reports for compound specific detection limits)

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

APPENDIX A
Boring Logs

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-1
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown SILT, little fine Gravel & Cobble, trace fine Sand & Clay	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
		Brown SILT, little fine Gravel & Cobble, trace fine Sand & Clay	Macro Core Sample 1.2 - 1.8m (4' - 6'):
1.5	5'		PID = 0.3 ppm
1.8	6'		
2.1	7'		
		Refusal at 1.8 m (6') on Bluish-Green Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-2
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
			PID = 0 ppm
0.3	1'	Dark-Gray fine to coarse SAND, little Silt, trace fine to coarse Gravel	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.3 ppm
		Brown SILT, little fine Gravel & Cobble, trace fine Sand & Clay	
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
		Refusal at 1.5 m (5') on Bluish-Green Phyllite	
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-3
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Gray fine to coarse SAND, little Silt, trace fine to coarse Gravel	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'	Red-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-4
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Gray fine to coarse SAND, little Silt, trace fine to coarse Gravel	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'	Red-Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-5
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-6
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 15 cm (6") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brownish Gray SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-7
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 15 cm (6") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'	Brownish Gray SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0.2 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-8
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 10 cm (4")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Dark-Brown fine to medium SAND, trace Silt, Brick, fine to coarse Gravel, & Cobble	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.4 ppm
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-9
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 10 cm (4")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.3 ppm
0.6	2'	Dark-Brown fine to medium SAND, trace Silt, Brick, fine to coarse Gravel, & Cobble	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/28/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-10
Date Finished: 10/28/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/29/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-11
Date Finished: 10/29/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brownish-Gray SILT, trace fine Gravel & Clay	PID = 0 ppm
0.6	2'		
		Orange-Brown SILT, trace fine Gravel	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/29/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-12
Date Finished: 10/29/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
0.6	2'		
		Brown SILT, little fine Gravel & Cobble, trace fine Sand & Clay	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.4 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'):
			PID = 0 ppm
1.8	6'		
2.1	7'	Groundwater at 2.1m (7')	
		Grayish-Brown SILT, little fine Gravel & Cobble, trace fine Sand & Clay	
2.4	8'		Macro Core Sample 2.4 - 2.74m (8' - 9'):
		Brown coarse SAND, trace fine to coarse Gravel	PID = 0 ppm
2.74	9'		
3	10'	Refusal at 2.74 m (9') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/29/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-13
Date Finished: 10/29/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel Brown SILT, little fine Gravel & Cobble, trace fine Sand, Brick & Clay	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'		
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0.4 ppm
1.2	4'		
1.5	5'	Orange-Brown SILT, trace fine Gravel to coarse Gravel & Cobble	Macro Core Sample 1.2 - 2.4m (4' - 8'): PID = 0 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'	Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/29/99	**Logical Environmental Solutions** **Geoprobe Boring Log**	Boring No.: GP-14
Date Finished: 10/29/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel Brown SILT, little fine Gravel & Cobble, trace fine Sand, Brick & Clay	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'		
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4'		
1.5	5'	Orange-Brown SILT, trace fine Gravel to coarse Gravel & Cobble	Macro Core Sample 1.2 - 2.4m (4' - 8'): PID = 0.3 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'	Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-15
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown fine SAND & SILT, trace fine to coarse Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 1.0 ppm
0.6	2'	Dark-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
			PID = 0.2 ppm
1.2	4'	Brownish-Gray SILT, trace fine to coarse Gravel & Clay	
1.5	5'		
		End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-16
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0.2 ppm
0.6	2'	Brown SILT, little fine Gravel & Cobble, trace fine Sand & Clay	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0.8 ppm
1.2	4'		
1.5	5'	Grayish-Brown fine to medium SAND, trace fine Gravel & Silt	Macro Core Sample 1.2 - 2.1m (4' - 7'): PID = 1.1 ppm
1.8	6'	Grayish-Brown SILT, trace fine to coarse Gravel	
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1 m (7') on Bluish-Green Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-17
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth (m)	Depth (ft)	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0.6 ppm
0.6	2'	Brown SILT, little fine Gravel & Cobble, trace fine Sand & Clay	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 1.1 ppm
1.2	4'		
1.5	5'	Grayish-Brown fine to medium SAND, trace fine Gravel & Silt	Macro Core Sample 1.2 - 2.1m (4' - 7'): PID = 0.2 ppm
1.8	6'		
2.1	7'	Grayish-Brown SILT, trace fine to coarse Gravel	
2.4	8'		
2.74	9'		
3	10'	Refusal at 2.1 m (7') on Bluish-Green Phyllite	
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-18
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown fine SAND & SILT, trace fine to coarse Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
0.6	2'	Dark-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
			PID = 0.6 ppm
1.2	4'		
1.5	5'	Brownish-Gray SILT, trace fine to coarse Gravel & Clay	Macro Core Sample 1.2 - 2m (4' - 6.5'):
1.8	6'		PID = 1.1 ppm
2.1	7'		
2.4	8'	Refusal at 2m (6.5') on Greenish-Blue Phyllite	
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-19
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown fine SAND & SILT, trace fine to coarse Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
0.6	2'	Dark-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.7 ppm
1.2	4'		
			Macro Core Sample 1.2 - 2m (4' - 6.5'):
1.5	5'	Gray-Brown fine to medium SAND, trace Silt & fine to coarse Gravel	PID = 0.2 ppm
1.8	6'	Brownish-Gray SILT, trace fine to coarse Gravel & Clay	
2.1	7'		
2.4	8'	Refusal at 2m (6.5') on Greenish-Blue Phyllite	
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-20
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown fine SAND & SILT, trace fine to coarse Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
		Dark-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 1.0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 2m (4' - 6.5'):
1.5	5'	Brownish-Gray SILT, trace fine to coarse Gravel & Clay	PID = 0 ppm
1.8	6'		
2.1	7'		
		Refusal at 2m (6.5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/29/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-21
Date Finished: 10/29/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 10 cm (4") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'	Brownish-Gray SILT, trace fine Gravel & Clay	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0.2 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/29/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-22
Date Finished: 10/29/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 20 cm (8") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0.2 ppm
0.6	2'	Brownish-Gray SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'): PID = 0 ppm
1.8	6'	Orange-Brown SILT, trace fine Gravel & Clay	
2.1	7'		
2.4	8'		Macro Core Sample 2.4 - 3m (8' - 10'): PID = 0 ppm
2.74	9'	Gray-Brown fine to medium Sand, little fine to coarse Gravel & Cobble, trace Silt	
3	10'		
3.4	11'	Refusal at 3 m (10') on Bluish-Green Phyllite	
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 10/29/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-23
Date Finished: 10/29/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 20 cm (8") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brownish-Gray SILT, little fine to coarse Gravel & Cobble, trace fine Sand & Clay	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.8	6'	Orange-Brown SILT, trace fine Gravel & Clay	PID = 0.4 ppm
2.1	7'		
2.4	8'		Macro Core Sample 2.4 - 3m (8' - 10'):
2.74	9'	Gray-Brown fine to medium Sand, little fine to coarse Gravel & Cobble, trace Silt	PID = 0 ppm
3	10'		
3.4	11'		
3.7	12'	Refusal at 3 m (10') on Bluish-Green Phyllite	
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-24
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	PID = 0.2 ppm
0.6	2'	Weathered Bluish PHYLLITE	Macro Core Sample 0.6 - 0.9m (2' - 3'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'	Refusal at 0.9m (3') on Greenish-Blue Phyllite	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-25
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	PID = 0 ppm
0.6	2'	Weathered Bluish PHYLLITE	Macro Core Sample 0.6 - 0.9m (2' - 3'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'	Refusal at 0.9m (3') on Greenish-Blue Phyllite	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-26
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.4 ppm
		Brown SILT, trace fine to coarse Gravel & Clay	
1.2	4'		
			Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.5	5'	Grayish-Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 0.2 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
		Refusal at 2.1 m (7') on Bluish-Green Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-27
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.4 ppm
		Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		
			PID = 0.3 ppm
1.2	4'		
			Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.5	5'		
		Brown SILT, trace fine to coarse Gravel & Clay	PID = 0.6 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
		Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-28
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.2 ppm
		Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		
			PID = 1.3 ppm
1.2	4'		
			Macro Core Sample 1.2 - 2.4m (4' - 8'):
1.5	5'		
		Brown SILT, trace fine to coarse Gravel & Clay	PID = 0 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
		Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-29
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'	Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-30
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 13cm (5")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'		
		Dark-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.4 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-31
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 13cm (5")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'		
		Dark-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.3 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-32
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 13cm (5")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine to medium SAND, little Silt, trace fine to coarse Gravel	PID = 0 ppm
0.6	2'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.3 ppm
1.2	4'	Groundwater at 1.2m (4')	
		Dark-Brown SILT, trace fine to coarse Gravel, fine Sand & Clay	
1.5	5'		Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.8	6'		PID = 0 ppm
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1 m (7') on Bluish-Green Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/14/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-33
Date Finished: 11/14/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Dark-Brown fine SAND, little Silt, trace fine to coarse Gravel	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.2 ppm
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/19/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-34
Date Finished: 11/19/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 15cm (6")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	BRICK - 15cm (6")	PID = 0 ppm
0.6	2'		
		Dark-Brown SILT, trace fine to coarse Gravel	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/19/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-35
Date Finished: 11/19/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 10cm (4")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 1.2 ppm
0.6	2'	Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0 ppm
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/19/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-36
Date Finished: 11/19/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 10cm (4")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 1.5 ppm
0.6	2'	Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 1.2 ppm
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/19/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-37
Date Finished: 11/19/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 1.5 ppm
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 2.4 ppm
1.2	4'	Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/19/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-38
Date Finished: 11/19/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 2.4 ppm
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 1.8 ppm
1.2	4'	Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/19/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-39
Date Finished: 11/19/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 1.2 ppm
0.6	2'	Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0.4 ppm
1.2	4'		
1.5	5'	End of Boring at 1.2 meters	
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/19/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-40
Date Finished: 11/19/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'		
0.9	3'	Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0.2 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 2.4m (4' - 8'): PID = 0.4 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.4 m (8') on Bluish-Green Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/19/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-41
Date Finished: 11/19/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT 13cm (5")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'		
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions** **Geoprobe Boring Log**	Boring No.: GP-42
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT 13cm (5")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'		
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.3 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-43
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT 13cm (5")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'		
		Brown SILT, little fine to coarse Gravel & Cobble	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-44
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'	Brown fine to coarse SAND, little fine to coarse Gravel, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
0.9	3'		
1.2	4'	End of Boring at 1.2 meters	
1.5	5'		
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-45
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT 13cm (5")	Macro Core Sample 0 - 0.6m (0' - 2'):
		Brown SILT, little fine to coarse Gravel	PID = 0 ppm
0.3	1'		
0.6	2'		
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.7 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-46
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel	PID = 0 ppm
0.6	2'		
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-47
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel	PID = 0 ppm
0.6	2'		
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-48
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Brown SILT, little fine to coarse Gravel	PID = 0 ppm
0.6	2'		
		Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-49
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		ASPHALT - 13cm (5")	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.3 ppm
1.5	5'		Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.8	6'		PID = 0 ppm
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-50
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Brown SILT, little fine to coarse Gravel	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-51
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
		Orange-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0 ppm
0.3	1'		
0.6	2'	Brown fine to medium SAND, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
			PID = 0.4 ppm
1.2	4'		
1.5	5'	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 1.2 - 1.8m (4' - 6'):
			PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.8m (6') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-52
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
		Orange-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0 ppm
0.3	1'		
0.6	2'	Brown fine to medium SAND, trace Silt	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'		
1.5	5'	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 1.2 - 1.8m (4' - 6'):
			PID = 0.5 ppm
1.8	6'		
2.1	7'	Refusal at 1.8m (6') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-53
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
		Orange-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0.6 ppm
0.3	1'		
0.6	2'	Brown fine to medium SAND, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
			PID = 0.3 ppm
1.2	4'		
1.5	5'	Brown fine to coarse SAND, little fine to coarse Gravel & Cobble, trace Silt	Macro Core Sample 1.2 - 1.8m (4' - 6'):
			PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.8m (6') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-54
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.3 ppm
		Brown fine to medium SAND, trace Silt & fine to coarse Gravel	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
		Orange-Brown SILT, little fine to coarse Gravel	
1.2	4'		
1.5	5'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	Macro Core Sample 1.2 - 1.8m (4' - 6'):
			PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.8m (6') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions** **Geoprobe Boring Log**	Boring No.: GP-55
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
		Brown fine to medium SAND, trace Silt & fine to coarse Gravel	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.5 ppm
		Orange-Brown SILT, little fine to coarse Gravel	
1.2	4'		
1.5	5'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	Macro Core Sample 1.2 - 1.8m (4' - 6'):
			PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.8m (6') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/20/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-56
Date Finished: 11/20/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
		Brown fine to medium SAND, trace Silt & fine to coarse Gravel	
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
		Orange-Brown SILT, little fine to coarse Gravel	
1.2	4'		
			Macro Core Sample 1.2 - 1.8m (4' - 6'):
1.5	5'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	PID = 0.3 ppm
1.8	6'		
2.1	7'	Refusal at 1.8m (6') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-57
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0.2 ppm
0.6	2'	Dark-Brown fine SAND, little fine to coarse Graevel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4'		
1.5	5'	Dark-Brown SILT, trace Clay & fine to coarse Gravel	Macro Core Sample 1.2 - 2.1m (4' - 7'): PID = 0 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-58
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Dark-Brown fine SAND, little fine to coarse Graevel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.2 ppm
1.5	5'	Dark-Brown SILT, trace Clay & fine to coarse Gravel	Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.8	6'		PID = 0 ppm
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-59
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Dark-Brown fine SAND, little fine to coarse Graevel & Cobble, trace Silt	
0.9	3'		Macro Core Sample 0.6 - 1.2m (2' - 4'):
1.2	4'		PID = 0.1 ppm
1.5	5'	Dark-Brown SILT, trace Clay & fine to coarse Gravel	Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.8	6'		PID = 0.3 ppm
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-60
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-61
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-62
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.3 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.1 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-63
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-64
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-65
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'		
			Macro Core Sample 1.2 - 1.5m (4' - 5'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'	Refusal at 1.5m (5') on Greenish-Blue Phyllite	
2.4	8'		
2.74	9'		
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-66
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 0.2 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'	Orange-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-67
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 0.1 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.3 ppm
1.2	4'	Orange-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-68
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'	Dark-Brown fine to medium SAND, little fine to coarse Gravel & Cobble, trace Silt	PID = 0 ppm
0.6	2'		
			Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.2 ppm
1.2	4'	Orange-Brown SILT, little fine to coarse Gravel & Cobble	
			Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.5	5'		PID = 0 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-69
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.8	6'		PID = 0 ppm
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-70
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
		TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'):
0.3	1'		PID = 0.1 ppm
0.6	2'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	Macro Core Sample 0.6 - 1.2m (2' - 4'):
0.9	3'		PID = 0.3 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 2.1m (4' - 7'):
1.8	6'		PID = 0 ppm
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%

Date Started: 11/21/99	**Logical Environmental Solutions Geoprobe Boring Log**	Boring No.: GP-71
Date Finished: 11/21/99		Client: Maguire Group Inc.
Driller: Wayne Lineberry	Project Location: Task 210 Surficial Site Investigation - Orange, CT Route 1 Improvements	Inspector: Cindy Knight

Depth m	Depth ft	Description	Comments
0.3	1'	TOPSOIL - 18 cm (7") - Dark-Brown SILT, trace fine Sand & fine Gravel	Macro Core Sample 0 - 0.6m (0' - 2'): PID = 0 ppm
0.6	2'		
0.9	3'	Grayish-Brown SILT, little fine to coarse Gravel & Cobble	Macro Core Sample 0.6 - 1.2m (2' - 4'): PID = 0 ppm
1.2	4'		
1.5	5'		Macro Core Sample 1.2 - 2.1m (4' - 7'): PID = 0 ppm
1.8	6'		
2.1	7'		
2.4	8'		
2.74	9'	Refusal at 2.1m (7') on Greenish-Blue Phyllite	
3	10'		
3.4	11'		
3.7	12'		
4	13'		
4.3	14'		
4.6	15'		
4.9	16'		
m	ft		

Soil Description Explanation Trace = 0-10% Little = 10-20% Some = 20-35% And = 35-50%