

FIRING LANE SITE CHARACTERIZATION INVESTIGATION REPORT

FORESTBURGH POND RESIDENTIAL SUBDIVISION PROJECT ROUTE 42 AND 48 TOWN OF FORESTBURGH COUNTY OF SULLIVAN STATE OF NEW YORK

PREPARED FOR AND CERTIFIED USE:

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I. Introduction

The property consists of 570.57-acres of primarily forested land located in the Town of Forestburgh, Sullivan County, New York (hereinafter referred to as the “Property”). The Property has been utilized as a hunting club since the 1930’s and currently remains in use by the Forestburgh Whitetail Hunting Club. The Property is improved with a single clubhouse structure located off Stag Forest Road near the intersection of Routes 42 and 48. Keystone Associates Architects, Engineers and Surveyors, LLC (Keystone) has performed this Site Characterization Investigation Environmental Site Assessment at the Property’s outdoor shooting lane where the concentrated shooting of lead bullets by the hunting club(s) has been identified as a potential environmental concern. The shooting lane consists of a single firing lane located within densely wooded lands on-site. The firing lane currently remains in active use by members of the Forestburgh Whitetail Hunting Club and accompanied guests. The range is exclusive to the hunting club and has never been available to the public. This investigation has specifically been performed with the intent to either confirm the presence, or lack thereof of elevated lead concentrations identified during our previous Firing Lane Investigation Report performed at the Property and dated June 23, 2020 (Previous ESA), as upon further review of that report, Keystone suspected that the presence of high bedrock limited the ability to collect adequate soil volumes using stainless steel hand trowel equipment and may have resulted in the direct collection of fragmented lead ammunition from the ground surface adjacent to exposed bedrock surfaces, therefore resulting in arbitrarily high lead concentrations which may not be representative of actual site conditions. Re-sampling efforts instead used hydraulically powered Geoprobe macrocore sampling equipment as further discussed below in Section 4.3. Refer to **Figure 1** – Location Map, **Figure 2** – USGS Map, and **Figure 3** – Aerial Photo.

2. Prior Environmental Reporting Summary

As indicated above, a Previous ESA dated June 23, 2020 was performed on-site by Keystone for New York Land and Lakes as part of their due diligence prior to purchase and proposed subdivision of the Property into 21 residential lots. The Previous ESA report including associated appendices minus raw lab data to save bulk (available upon request) is provided as **Appendix A – Prior Environmental Report Documentation** of this report. The purpose of that investigation was to evaluate whether the historic use of the shooting lane had caused elevated lead concentrations above the State’s applicable soil cleanup objectives at the Property.

The previous investigation was physically performed on June 5, 2020 and included the collection and laboratory analysis of six composite soil samples. These composite samples were each composed of four separate grab locations collected from the ground surface surrounding the vicinity of the shooting bench, the central 25 yard target distance, the central 50 yard target distance, and left, center and right side of the 100 yard target distance. These samples were identified as Composite-1 (Bench), Composite-2 (25), Composite-3 (50), Composite-4 (100) [left/west], Composite-5 (100) [center] and Composite-6 (100) [right/east], respectively. All six soil samples were analyzed for Total Lead and Toxicity Characteristic Leaching Procedure (TCLP) Lead.

In summary, the Total Lead and TCLP Lead analytical results were compared to applicable New York State Soil Cleanup Objectives (SCOs) and United States Environmental Protection Agency’s Max Concentrations for Toxicity Characteristic value, respectively. The analytical results identified exceedances of the State’s Unrestricted Use SCOs within samples Composite-2, 3, 4, 5 and 6 with exceedances of the State’s applicable Restricted Use Residential SCO in samples Composite-3 and 5. Results of samples Composite-3 and 5 also exceeded the USEPA’s Max Toxicity Characteristic value. Specific results are shown on Table I of the Previous ESA provided in **Appendix A** of this report and are identified as follows:

- In samples Composite-2, 4 and 6 Total Lead was detected at 113 mg/kg, 346 mg/kg and 278 mg/kg, respectively which exceeds the Unrestricted Use SCO of 63 mg/kg but remained below the applicable Restricted Use Residential SCO of 400 mg/kg.
- In samples Composite-3 and 5 Total Lead was detected at 870 mg/kg and 15,200 mg/kg respectively which exceeds the Unrestricted Use SCO of 63 mg/kg and the applicable Restricted Use Residential SCO of 400 mg/kg.
- In samples Composite-3 and 5 TCLP Lead was detected at 28.9 mg/kg and 218 mg/kg, respectively which exceeds the USEPA Max Concentration for Toxicity Characteristic value of 5 mg/kg.

The report conclusions were developed based solely on the observations made during the limited soil investigation and results of the confirmatory sampling. Based upon the information obtained, Keystone concluded that “additional testing would be required to verify the horizontal and vertical extent of contamination as well as whether impact to groundwater has occurred.” Regarding exceedances of TCLP Lead, it was stated that the soils “may test below hazardous criteria if re-sampling were to occur at greater depths or if source removal were to occur, where samples would be collected from an increased volume of soil (e.g. soil stockpiles).” Additionally and most importantly, although not specifically defined in the Previous ESA report conclusions, it is Keystone’s opinion that the presence of high bedrock limited the ability to collect adequate soil volumes using stainless steel hand trowel equipment and may have resulted in the direct collection of fragmented lead ammunition from the ground surface adjacent to exposed bedrock surfaces, therefore resulting in arbitrarily high lead concentrations which may not be representative of actual site conditions. As such, the below described re-sampling activities were instead performed using hydraulically powered Geoprobe macrocore sampling equipment from defined locations and depths in order to verify actual conditions on-site and associated results should supersede any above noted conclusions defined in the Previous ESA report. Refer to Sections 4.5 and 5.0 for revised conclusions and recommendations.

3. Physical Setting

It appears that the majority of non-hunting related shots have strategically been concentrated within a single firing lane, which provides a direct line of sight to a distance of approximately 100 yards. The firing lane is noted via signage along an existing trail and is improved with a stationary shooting bench. Targets are generally positioned at 25, 50, 75 and maximum range of 100 yards. The firing lane consists of natural soil and bedrock contours providing backstop without evidence of surficial watercourse(s) in the immediate vicinity of the firing lane.

The shooting lane ranges between 1,390-feet above mean sea level nearest the 100 yard target to 1,370-feet above mean sea level nearest the shooting bench. Based on local topography, the Property drains at a moderate slope through forested lands in a southeast direction towards an 18 inch steel culvert pipe beneath Route 48 (Hartwood Road) and continues to flow south through undeveloped forested lands across Route 48.

According to the USDA Natural Resource Conservation Service – Web Soil Survey, overburden in the vicinity of the firing lane is primarily composed of the Arnot-Lordstown complex (AIE). The Arnot series consists of shallow, somewhat excessively drained to moderately well drained soils that formed in glacial till derived from sandstone, siltstone, or shale. Bedrock is at a depth of 10 to 20 inches. Arnot soils are on the sides and tops of glaciated hills on a bedrock-controlled landscape. Slopes range from zero to 70 percent. Drainage flows in a southeasterly direction towards large areas of Swartswood gravelly loams (SeB). The Swartswood series consists of very deep, well drained soils that formed in glacial till derived mainly from sandstone and conglomerate and, in some areas, partly from lesser amounts of shale. These soils are on the tops and sides of hills and glaciated uplands. Slopes range from three to 50 percent. Other properties of these soils are

described in detail in **Appendix B – Soils Information**. Refer to Section 4.1 for site specific details observed during the Site Characterization Investigation.

4. Site Characterization Soils Investigation

As previously stated in Section 1, this investigation has specifically been performed with the intent to either confirm the presence, or lack thereof of elevated lead concentrations identified during our previous Firing Lane Investigation Report performed at the Property and dated June 23, 2020 (Previous ESA), as upon further review of that report, Keystone suspected that the presence of high bedrock limited the ability to collect adequate soil volumes using stainless steel hand trowel equipment and may have resulted in the direct collection of fragmented lead ammunition from the ground surface adjacent to exposed bedrock surfaces, therefore resulting in arbitrarily high lead concentrations which may not be representative of actual site conditions. Our preliminary work plan was discussed with Mr. Mike Kilmer, Environmental Engineer with the NYSDEC's Division of Environmental Remediation in New Paltz on August 4, 2020 following his review of the Prior ESA report provided to him by the Town Planning Board for review. Mr. Kilmer welcomed additional sampling and agreed that collecting multiple samples from the 0-2 inch and 12-16 inch intervals would be appropriate for site characterization purposes. Based on the elevated lead concentrations identified in the Previous ESA, he also suggested that a groundwater monitoring well be installed nearest the source area which was defined at the 100 yard target at that time. He suggested collection of a filtered and non-filtered groundwater sample. Following this conversation, Keystone modified our proposal to the Client and conducted the site characterization field work on September 9, 2020. Below sections provide a description of the areas of concern, a discussion of the target compounds for the investigation, sampling protocols, field observations and conclusions.

4.1 Target Compounds and Description of AOCs

The sections below details each Area of Concern (AOC), the target compounds selected and the sampling that was performed.

AOC-I: Lead Contamination at Shooting Ranges: Recently, there has been a growing public concern about the potential negative environmental and health effects of shooting range operations. In particular, the public is concerned about potential risks associated with the historical and continued use of lead shot and bullets at outdoor shooting ranges. As part of the proposed development, the Town Planning Board recommended that an evaluation be performed to determine if such concerns are present at the Property's firing lane which has historically been used for recreation by hunting club members. As a conservative measure, both Total Lead and TCLP Lead were analyzed as the target compounds.

4.2 Applicable Cleanup Criteria

In addition to the Town Planning Board's request for evaluation, the Client (New York Land and Lakes) requests to know the extent of potential environmental hazards and liabilities associated with the Property prior to purchasing. Therefore, for the purposes of this environmental site assessment, the applicable soil cleanup criteria are the NYSDEC Part 375-6.8 Soil Cleanup Objective (SCO) Tables issued December 14, 2006.

4.3 Soil Sampling Procedures

Keystone directed a New York licensed driller, North Star Drilling, Inc. of Homer, New York to advance 12 borings as directed by a Keystone Senior Environmental Scientist. As required by law, the driller performed a utility mark-out request through the Dig Safely NY system for clearance and mark-out of below ground utilities that may be present in or near the work area.

In order to specifically characterize the potential for lead contamination on-site, Keystone defined a specific sampling pattern at the firing range as shown on **Figure 4 – Approximate Boring Location Map**. Borings were advanced at the center of the firing lane at the 25, 50, 75 and 100 yard targets. These were identified as borings 25C (Center), 50C, 75C and 100C. At each distance, additional samples were collected from ten foot offsets to the left and right of center. These were identified as borings 25L & 25R, 50L & 50R, 75L & 75R and 100L & 100R. Therefore, a total of three borings were advanced at each distance and soils were collected from the 0-2 inch and 12-16 inch intervals at each of the 12 borings providing for a total of 24 soil samples. To obtain specific locations at accurate depths, Keystone utilized hydraulically powered Geoprobe macrocore sampling equipment to collect grab samples at each boring location. Macrocore sampling equipment was used to collect nearly continuous soil cores from the 0-4 foot interval or to practical refusal at each boring location. Decontamination procedures used were those defined in the ASTM Standard Practice for Decontamination of Field Equipment Method D-5088-10. A solvent rinse was not used. Photograph Documentation is provided as **Appendix C**.

Select samples were placed into laboratory-supplied bottleware, sealed immediately, and placed on ice in a hard plastic cooler. Samples collected on-site were transported to Keystone's sample refrigerator prior to pick-up by Alpha Analytical Laboratories of Westborough, Massachusetts. Alpha Analytical Laboratories is a New York State Environmental Laboratory Accreditation Program (ELAP) certified laboratory. As stated above in Section 4.1, each sample was analyzed for Total Lead and TCLP Lead. Chain of Custody documentation accompanied the samples throughout the investigation and delivery to the laboratory.

Regarding installation of the requested monitoring well as discussed above in Section 4, it was Keystone's intention to install the well during field activities proposed on September 10 and 11 following collection of the soil samples, however due to equipment failure within the driller's air rotary system, the monitoring well could not be installed as part of this investigation. Instead, Keystone decided to postpone installation of the monitoring well pending review of the soil results described below, as it was believed that favorable results may negate the need for well installation.

4.4 Field Observations and Soil Analytical Results

Borings were advanced to a target depth of 4.0 feet, where possible. Soil lithology generally consisted of reddish brown, fine silty sand and gravel to depth, or where practical refusal was encountered. Practical refusal was encountered in the 25 yard borings between 3.1 and 3.7 feet below ground surface (bgs) due to the presence of weather rock and/or bedrock. Practical refusal was encountered in the 50 yard borings between 3.5 feet bgs and not encountered. Practical refusal was encountered in the 75 yard borings between 1.7 and 3.0 feet bgs. Practical refusal was encountered in the 100 yard borings between 2.7 feet bgs and not encountered. Soil boring logs are provided in **Appendix D**. Note that photograph documentation of select macrocore sleeves and associated soil cores is provided in **Appendix C**.

The observations and summary of analytical results are discussed below. A Soil Investigation and Field Observation Summary is provided as **Table I**. Soil Analytical Results are summarized in **Tables 2A-2D**. Laboratory analytical results are provided in **Appendix E**.

It should be known that evidence of lead contamination cannot be readily observed using standard practices such as olfactory senses or use of Photoionization Detector (PID) equipment. However, the presence of lead fragments was not observed in any of the samples collected during the investigation.

As stated above, a total of 12 borings were advanced to provide consistent spatial coverage throughout the firing lane. Separate samples were collected from each boring at the 0-2 inch and 12-16 inch intervals, totaling 24 samples collected for analysis. These samples were each analyzed for Total Lead and TCLP Lead. A review of the soil analytical results did not identify the presence of TCLP Lead above its applicable USEPA Maximum Concentration for Toxicity Characteristic limit of 5 mg/kg in any of the samples. Although, the NYSDEC's Total Lead Unrestricted Use Soil Cleanup Objective (SCO) value of 63 mg/kg was exceeded from the 0-2 inch intervals in samples 25C at 314 mg/kg, 25R at 169 mg/kg, 50L at 141 mg/kg, 75R at 91.7 mg/kg and 100L at 93.3 mg/kg, such exceedances were not detected in the 12-16 inch intervals in any of these samples and all concentrations remained well below the applicable Restricted Use Residential SCO of 400 mg/kg in each of the samples.

4.5 Soil Investigation Conclusions

Based on the results of the soils investigation presented above, the following conclusions are presented:

As stated above in Section 4.4, a review of the soil analytical results did not identify the presence of TCLP Lead above its applicable USEPA Maximum Concentration for Toxicity Characteristic limit of 5 mg/kg in any of the samples. Although, the NYSDEC's Total Lead Unrestricted Use Soil Cleanup Objective (SCO) value of 63 mg/kg was exceeded from the 0-2 inch intervals in samples 25C at 314 mg/kg, 25R at 169 mg/kg, 50L at 141 mg/kg, 75R at 91.7 mg/kg and 100L at 93.3 mg/kg, such exceedances were not detected in the 12-16 inch intervals in any of these samples and all concentrations remained well below the applicable Restricted Use Residential SCO of 400 mg/kg in each of the samples.

Such concentrations are drastically improved from the preliminary screening (Previous ESA dated June 23, 2020) where site constraints were suspected of causing arbitrarily high Total Lead and TCLP lead concentrations due to likely collection of lead ammunition fragments at the base of exposed bedrock surfaces using hand trowel equipment. As such, it is Keystone's opinion that use of hydraulically powered Geoprobe macrocore equipment during re-sampling has provided more complete and accurate information which indicate a lack of any lead contamination above the applicable NYSDEC Restricted Use SCOs. Based on this information, the business environmental risk associated with the Property's historic use as a firing range is considered only limited and may not warrant further action (including remediation or installation of the previously proposed monitoring well) depending on the Client's level of risk tolerance and confirmation from the NYSDEC as the regulatory agency. These conclusions should supersede any conclusions defined in the Previous ESA report.

5 Recommendations

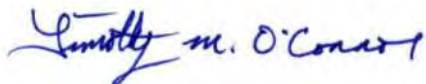
As identified above in Section 4.5, the business environmental risk associated with the Property's historic use as a firing range is considered only limited and may not warrant further action depending on the Client's level of risk tolerance. This includes remediation, monitoring or installation of the previously proposed monitoring well, since Total Lead was not detected above the most conservative Unrestricted SCO in any of the 12-16 inch samples. However, Keystone does recommend that the residential supply wells proposed nearest to the firing lane be sampled for Total Lead prior to any human consumption. If lead is detected above associated quality standards, then the NYSDEC should be notified as the regulatory agency and at a minimum, a lead filtration system should be installed and a monitoring program be instituted in order to protect human health, as applicable. To ensure such actions occur, a note should be added to the project plans requiring such actions, as applicable.

Also, Keystone recommends that this report be provided to Mr. Michael Kilmer of the NYSDEC's Region 3 Department of Remediation Office at 21 South Putt Corners Road, New Paltz, NY 12561 for review and comment, as a representative of the regulatory agency. Mr. Kilmer can also be reached via phone at (845) 633-5463 and email at michael.kilmer@dec.ny.gov.

6 Certification

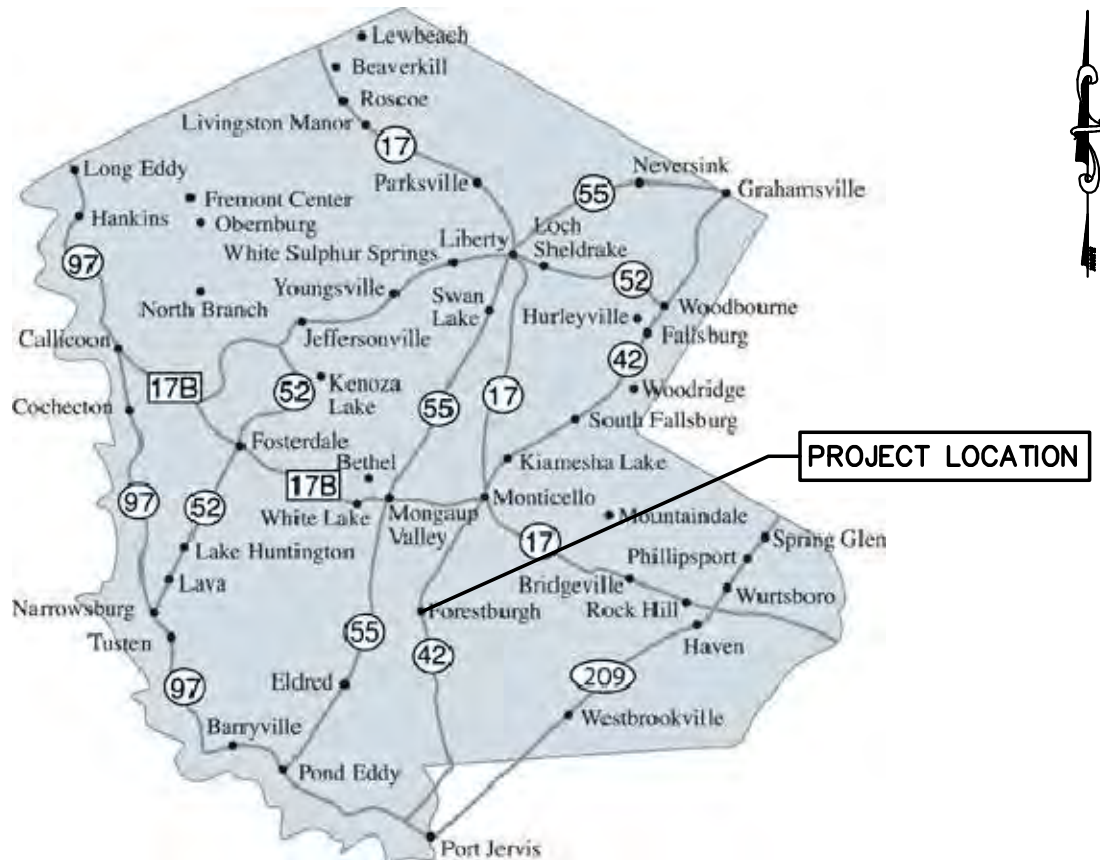
The reported analyses, opinions and conclusions are personal, unbiased, professional and limited only by the assumptions and qualifications stated herein. Compensation is not contingent upon an action or an event resulting from the analyses, opinions or conclusions in, or the use of this report.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a Site of the nature, history, and setting of the Property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

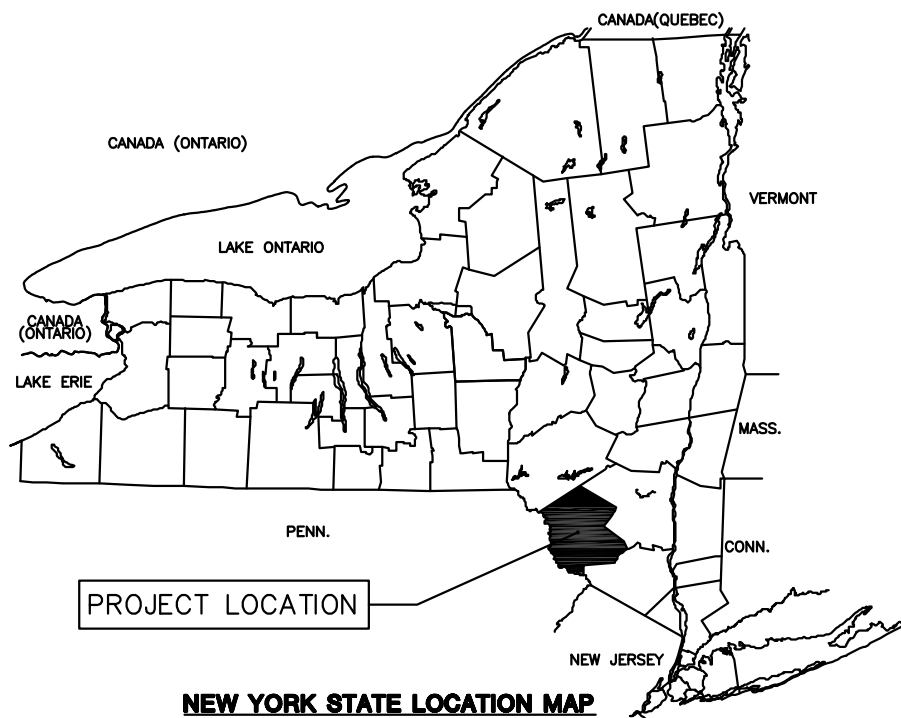


Timothy M. O'Connor, C.E.P.
Senior Environmental Scientist

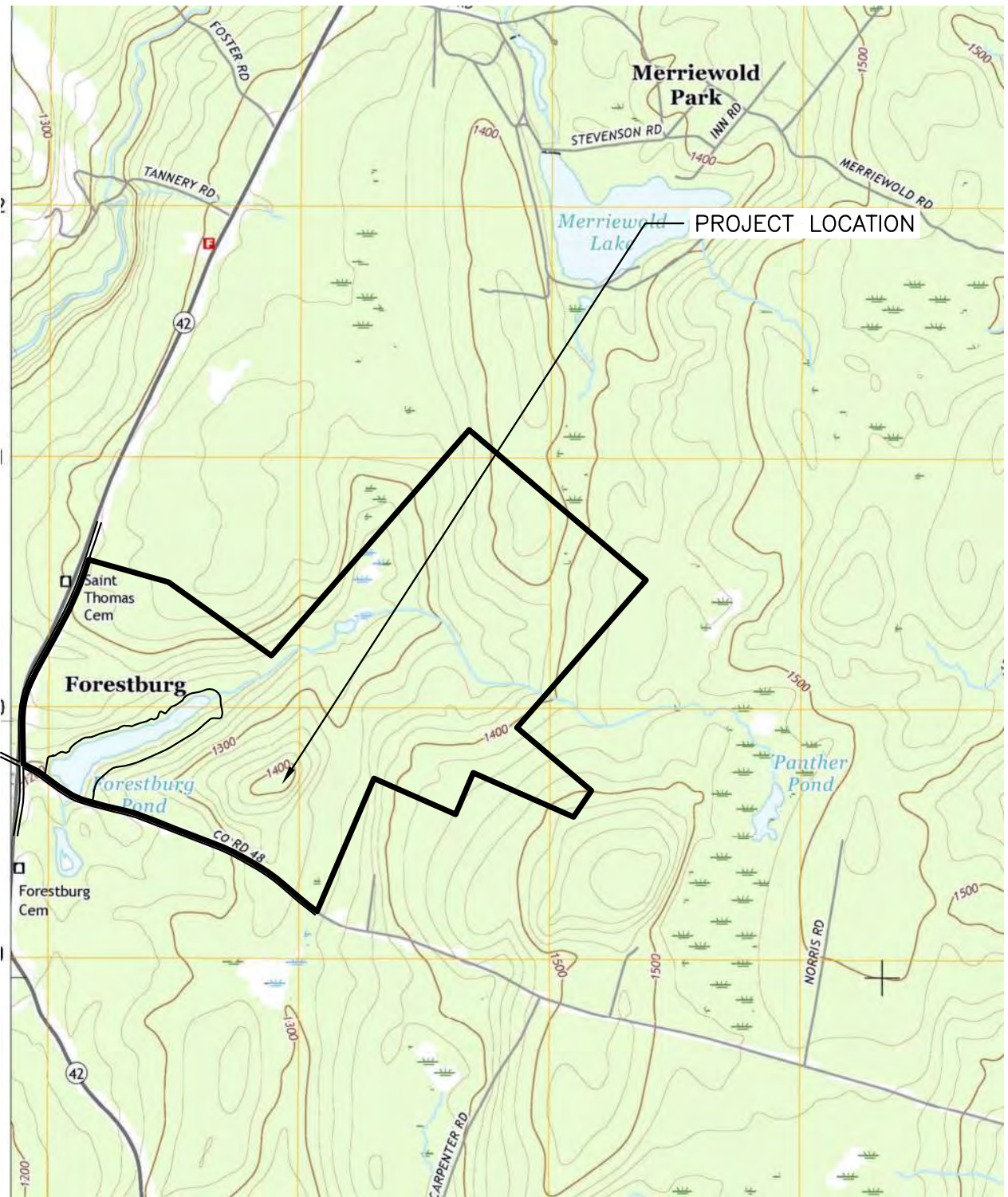
FIGURES AND TABLES



SULLIVAN COUNTY LOCATION MAP
NOT TO SCALE



NEW YORK STATE LOCATION MAP
NOT TO SCALE



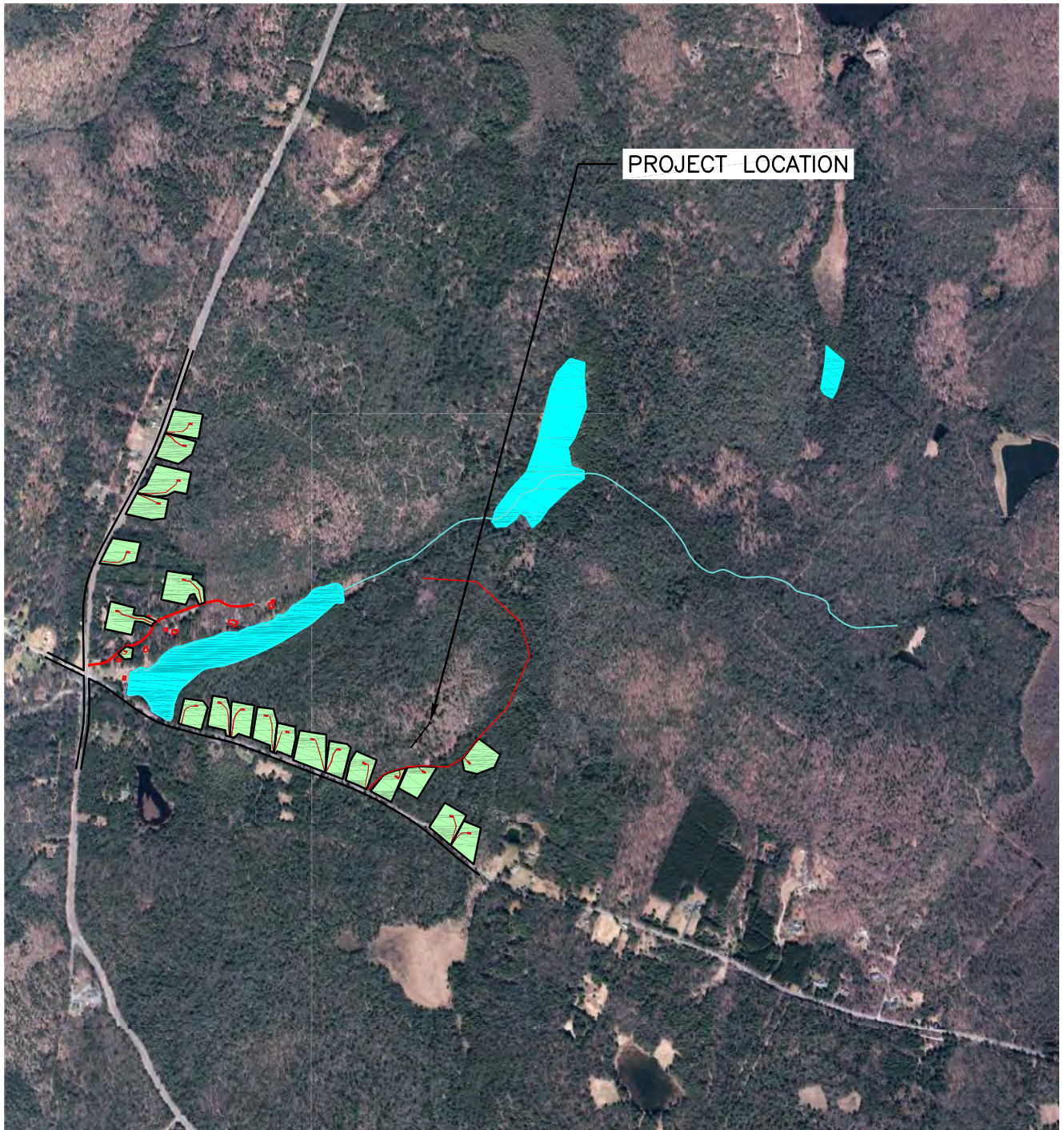
SCALE: 1" = 2,000'

**QUAD NAME:
HARTWOOD, NY
2016**



FORESTBURGH POND
FIRING LANE INVESTIGATION
NYS ROUTE 42
TOWN OF FORESTBURGH
SULLIVAN COUNTY NEW YORK STATE
KEYSTONE PROJECT #0392.12119

FIGURE NO. 2
USGS VICINITY MAP

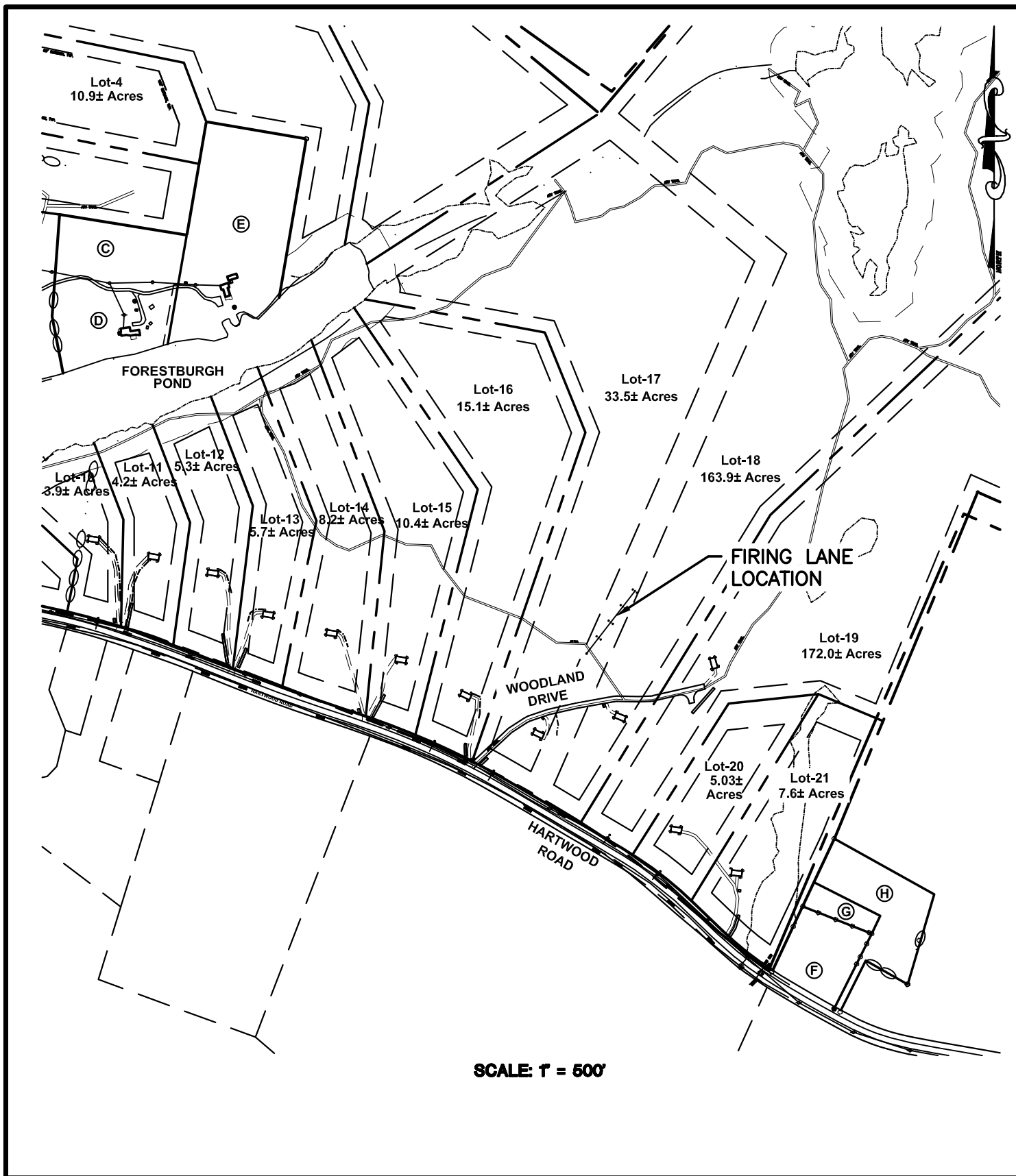


SCALE: 1" = 1500'



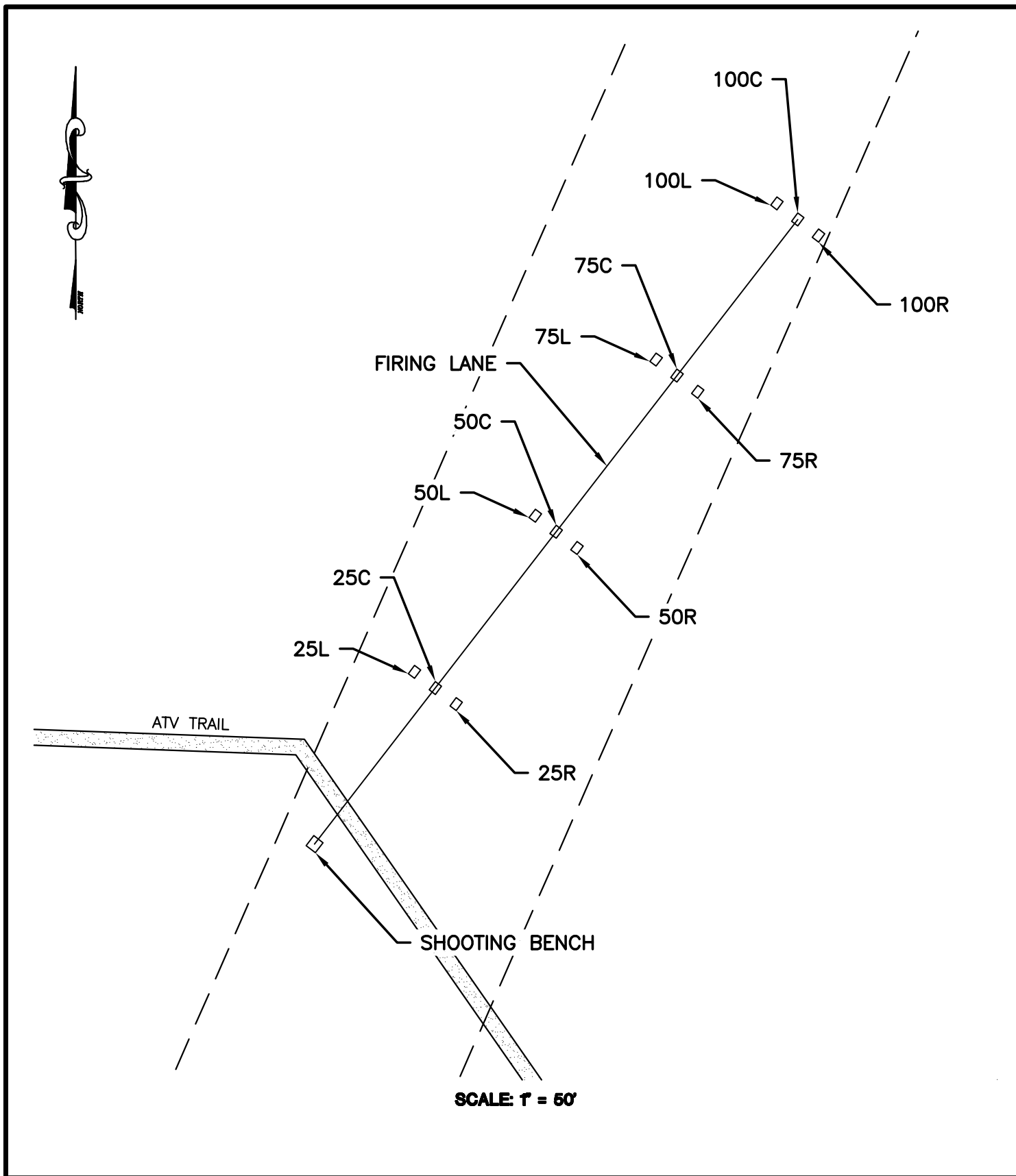
FORESTBURGH POND
FIRING LANE INVESTIGATION
NYS ROUTE 42
TOWN OF FORESTBURGH
SULLIVAN COUNTY NEW YORK STATE
KEYSTONE PROJECT #0392.12119

FIGURE NO. 3
AERIAL PHOTO



FORESTBURGH POND
 FIRING LANE INVESTIGATION
 NYS ROUTE 42
 TOWN OF FORESTBURGH
 SULLIVAN COUNTY NEW YORK STATE
 KEYSTONE PROJECT #0392.12119

FIGURE NO. 4
 OVERALL LOCATION
 MAP



FORESTBURGH POND
FIRING LANE INVESTIGATION
NYS ROUTE 42
TOWN OF FORESTBURGH
SULLIVAN COUNTY NEW YORK STATE
KEYSTONE PROJECT #0392.12119

FIGURE NO. 5
APPROXIMATE
BORING LOCATION
MAP

TABLE 1**FIRING LANE SITE CHARACTERIZATION INVESTIGATION AND FIELD OBSERVATION SUMMARY****SEPTEMBER 9, 2020****ROUTE 42 AND 48, TOWN OF FORESTBURGH, NEW YORK****KA Project No. 0392.12119.2.1**

| Boring ID | Boring Location | Boring Depth (ft. below ground surface) | Sampled Interval (ft. below ground surface) | Probing/Sampling Method | Target Compounds |
|-----------------|---|--|---|---|---|
| 25L/C/R | Boring 25C was advanced in center of firing lane at a distance of 25 yards from the shooting bench station. Borings 25L and 25R were offset 10 feet to the left (west) and right (east), respectively. | Practical refusal at 3.1', 3.3' and 3.7 feet in borings 25L/C/R, respectively. | 25L, 25C and 25R at (0-2") and (12-16") depths | Hydraulically powered direct push macrocore sampler | Total Lead and Toxicity Characteristic Leaching Procedure (TCLP) Lead |
| 50L/C/R | Boring 50C was advanced in center of firing lane at a distance of 25 yards from the shooting bench station. Borings 50L and 50R were offset 10 feet to the left (west) and right (east), respectively. | Practical refusal at 3.5' in boring 50C. End boring at 4.0' in borings 50L and 50R. | 50L, 50C and 50R at (0-2") and (12-16") depths | Hydraulically powered direct push macrocore sampler | Total Lead and Toxicity Characteristic Leaching Procedure (TCLP) Lead |
| 75L/C/R | Boring 75C was advanced in center of firing lane at a distance of 25 yards from the shooting bench station. Borings 75L and 75R were offset 10 feet to the left (west) and right (east), respectively. | Practical refusal at 2.3', 1.7' and 3.0 feet in borings 75L/C/R, respectively. | 75L, 75C and 75R at (0-2") and (12-16") depths | Hydraulically powered direct push macrocore sampler | Total Lead and Toxicity Characteristic Leaching Procedure (TCLP) Lead |
| 100L/C/R | Boring 100C was advanced in center of firing lane at a distance of 25 yards from the shooting bench station. Borings 100L and 100R were offset 10 feet to the left (west) and right (east), respectively. | Practical refusal at 2.7' in borings 100L and 100C. End boring at 4.0' in borings 100R. | 100L, 100C and 100R at (0-2") and (12-16") depths | Hydraulically powered direct push macrocore sampler | Total Lead and Toxicity Characteristic Leaching Procedure (TCLP) Lead |

Note:**See Figure 4 – Boring Location Map.**

Table 2A
Soil Analytical Results - September 9, 2020
Forestburgh Pond Firing Lane
Town of Forestburgh, Sullivan County, New York
Keystone Project No. 0392.12119.2.1

| Boring Identification | 25L@(0-2") | 25L@(12-16") | 25C@(0-2") | 25C@(12-16") | 25R@(0-2") | 25R@(12-16") | USEPA Max Concentration for Toxicity Characteristic | NYSDEC Unrestricted Use SCOs | NYSDEC Restricted Use SCOs (Residential) | NYSDEC Restricted Use SCOs (Restricted Residential) | NYSDEC Restricted Use SCOs (Commercial) | NYSDEC Restricted Use SCOs (Industrial) | NYSDEC Protection of Ecological Resources | NYSDEC Protection of Groundwater |
|--|------------|--------------|------------|--------------|------------|--------------|---|------------------------------|--|---|---|---|---|----------------------------------|
| Sample Depth | (0-2") | (12-16") | (0-2") | (12-16") | (0-2") | (12-16") | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Total Lead by Method EPA 3050B (mg/kg = ppm) | | | | | | | | | | | | | | |
| Total Lead | 51.7 | 6.41 | 314 | 10.0 | 169 | 7.83 | NA | 63 ^C | 400 | 400 | 1,000 | 3,900 | 63 ^F | 450 |
| TCLP Metals by Method EPA 1311 (mg/l = ppm) | | | | | | | | | | | | | | |
| TCLP Lead | 0.944 | 0.109 | 1.39 | 0.027 | 0.769 | ND<0.5 | 5.00 | NA | NA | NA | NA | NA | NA | NA |

Notes
Total Lead regulations based on NYSDEC Part 375-6.8 Soil Cleanup Objectives (SCOs) issued December 14, 2006.
Toxicity Characteristics Leaching Procedure (TCLP) regulations based on USEPA Table 1 - Maximum Concentration of Contaminants for Toxicity Characteristic
All results and standards in milligram per kilogram (mg/kg) or mg/l which equals parts per million (ppm).
Sample depth in inches below ground surface
NA = Not applicable
ND = Not detected above the laboratory reporting limit
C = SCOs for industrial use and protection of groundwater are capped at a maximum of 1,000 ppm. See TSD Section 9.3.
F = The Department of Health rural soil survey background concentration should be used as the Track 2 SCO value for this use of the Site.
Lightly shaded data exceeds the NYSDEC Unrestricted Use SCOs
Moderately shaded data exceeds the NYSDEC Restricted Use Residential SCOs
Gold shaded data exceeds the USEPA Max Concentration for Toxicity Characteristic

Table 2B
Soil Analytical Results - September 9, 2020
Forestburgh Pond Firing Lane
Town of Forestburgh, Sullivan County, New York
Keystone Project No. 0392.12119.2.1

| Boring Identification | 50L@(0-2") | 50L@(12-16") | 50C@(0-2") | 50C@(12-16") | 50R@(0-2") | 50R@(12-16") | USEPA Max Concentration for Toxicity Characteristic | NYSDEC Unrestricted Use SCOs | NYSDEC Restricted Use SCOs (Residential) | NYSDEC Restricted Use SCOs (Restricted Residential) | NYSDEC Restricted Use SCOs (Commercial) | NYSDEC Restricted Use SCOs (Industrial) | NYSDEC Protection of Ecological Resources | NYSDEC Protection of Groundwater |
|--|------------|--------------|------------|--------------|------------|--------------|---|------------------------------|--|---|---|---|---|----------------------------------|
| Sample Depth | (0-2") | (12-16") | (0-2") | (12-16") | (0-2") | (12-16") | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Total Lead by Method EPA 3050B (mg/kg = ppm) | | | | | | | | | | | | | | |
| Total Lead | 141 | 7.03 | 45.2 | 8.05 | 7.17 | 7.07 | NA | 63 ^C | 400 | 400 | 1,000 | 3,900 | 63 ^F | 450 |
| TCLP Metals by Method EPA 1311 (mg/l = ppm) | | | | | | | | | | | | | | |
| TCLP Lead | 0.434 | ND<0.5 | 0.140 | ND<0.5 | 0.755 | 0.035 | 5.00 | NA | NA | NA | NA | NA | NA | NA |

Notes
Total Lead regulations based on NYSDEC Part 375-6.8 Soil Cleanup Objectives (SCOs) issued December 14, 2006.
Toxicity Characteristics Leaching Procedure (TCLP) regulations based on USEPA Table 1 - Maximum Concentration of Contaminants for Toxicity Characteristic
All results and standards in milligram per kilogram (mg/kg) or mg/l which equals parts per million (ppm).
Sample depth in inches below ground surface
NA = Not applicable
ND = Not detected above the laboratory reporting limit
C = SCOs for industrial use and protection of groundwater are capped at a maximum of 1,000 ppm. See TSD Section 9.3.
F = The Department of Health rural soil survey background concentration should be used as the Track 2 SCO value for this use of the Site.
Lightly shaded data exceeds the NYSDEC Unrestricted Use SCOs
Moderately shaded data exceeds the NYSDEC Restricted Use Residential SCOs
Gold shaded data exceeds the USEPA Max Concentration for Toxicity Characteristic

Table 2C
Soil Analytical Results - September 9, 2020
Forestburgh Pond Firing Lane
Town of Forestburgh, Sullivan County, New York
Keystone Project No. 0392.12119.2.1

| Boring Identification | 75L@(0-2") | 75L@(12-16") | 75C@(0-2") | 75C@(12-16") | 75R@(0-2") | 75R@(12-16") | USEPA Max Concentration for Toxicity Characteristic | NYSDEC Unrestricted Use SCOs | NYSDEC Restricted Use SCOs (Residential) | NYSDEC Restricted Use SCOs (Restricted Residential) | NYSDEC Restricted Use SCOs (Commercial) | NYSDEC Restricted Use SCOs (Industrial) | NYSDEC Protection of Ecological Resources | NYSDEC Protection of Groundwater |
|--|------------|--------------|------------|--------------|------------|--------------|---|------------------------------|--|---|---|---|---|----------------------------------|
| Sample Depth | (0-2") | (12-16") | (0-2") | (12-16") | (0-2") | (12-16") | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Total Lead by Method EPA 3050B (mg/kg = ppm) | | | | | | | | | | | | | | |
| Total Lead | 32.2 | 8.41 | 58.3 | 7.20 | 91.7 | 9.42 | NA | 63 ^C | 400 | 400 | 1,000 | 3,900 | 63 ^F | 450 |
| TCLP Metals by Method EPA 1311 (mg/l = ppm) | | | | | | | | | | | | | | |
| TCLP Lead | 0.031 | ND<0.5 | 0.590 | ND<0.5 | 2.26 | 0.029 | 5.00 | NA | NA | NA | NA | NA | NA | NA |

Notes
Total Lead regulations based on NYSDEC Part 375-6.8 Soil Cleanup Objectives (SCOs) issued December 14, 2006.
Toxicity Characteristics Leaching Procedure (TCLP) regulations based on USEPA Table 1 - Maximum Concentration of Contaminants for Toxicity Characteristic
All results and standards in milligram per kilogram (mg/kg) or mg/l which equals parts per million (ppm).
Sample depth in inches below ground surface
NA = Not applicable
ND = Not detected above the laboratory reporting limit
C = SCOs for industrial use and protection of groundwater are capped at a maximum of 1,000 ppm. See TSD Section 9.3.
F = The Department of Health rural soil survey background concentration should be used as the Track 2 SCO value for this use of the Site.
Lightly shaded data exceeds the NYSDEC Unrestricted Use SCOs
Moderately shaded data exceeds the NYSDEC Restricted Use Residential SCOs
Gold shaded data exceeds the USEPA Max Concentration for Toxicity Characteristic

Table 2D
Soil Analytical Results - September 9, 2020
Forestburgh Pond Firing Lane
Town of Forestburgh, Sullivan County, New York
Keystone Project No. 0392.12119.2.1

| Boring Identification | 100L@(0-2") | 100L@(12-16") | 100C@(0-2") | 100C@(12-16") | 100R@(0-2") | 100R@(12-16") | USEPA Max Concentration for Toxicity Characteristic | NYSDEC Unrestricted Use SCOs | NYSDEC Restricted Use SCOs (Residential) | NYSDEC Restricted Use SCOs (Restricted Residential) | NYSDEC Restricted Use SCOs (Commercial) | NYSDEC Restricted Use SCOs (Industrial) | NYSDEC Protection of Ecological Resources | NYSDEC Protection of Groundwater |
|--|-------------|---------------|-------------|---------------|-------------|---------------|---|------------------------------|--|---|---|---|---|----------------------------------|
| Sample Depth | (0-2") | (12-16") | (0-2") | (12-16") | (0-2") | (12-16") | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Total Lead by Method EPA 3050B (mg/kg = ppm) | | | | | | | | | | | | | | |
| Total Lead | 93.3 | 6.05 | 57.6 | 9.11 | 39.5 | 8.99 | NA | 63 ^C | 400 | 400 | 1,000 | 3,900 | 63 ^F | 450 |
| TCLP Metals by Method EPA 1311 (mg/l = ppm) | | | | | | | | | | | | | | |
| TCLP Lead | 0.073 | 0.028 | 0.113 | ND<0.5 | 2.75 | ND<0.5 | 5.00 | NA | NA | NA | NA | NA | NA | NA |

Notes
Total Lead regulations based on NYSDEC Part 375-6.8 Soil Cleanup Objectives (SCOs) issued December 14, 2006.
Toxicity Characteristics Leaching Procedure (TCLP) regulations based on USEPA Table 1 - Maximum Concentration of Contaminants for Toxicity Characteristic
All results and standards in milligram per kilogram (mg/kg) or mg/l which equals parts per million (ppm).
Sample depth in inches below ground surface
NA = Not applicable
ND = Not detected above the laboratory reporting limit
C = SCOs for industrial use and protection of groundwater are capped at a maximum of 1,000 ppm. See TSD Section 9.3.
F = The Department of Health rural soil survey background concentration should be used as the Track 2 SCO value for this use of the Site.
Lightly shaded data exceeds the NYSDEC Unrestricted Use SCOs
Moderately shaded data exceeds the NYSDEC Restricted Use Residential SCOs
Gold shaded data exceeds the USEPA Max Concentration for Toxicity Characteristic

APPENDIX A
PRIOR ENVIRONMENTAL REPORT DOCUMENTATION

FIRING LANE INVESTIGATION REPORT

FORESTBURGH POND RESIDENTIAL SUBDIVISION PROJECT ROUTE 42 AND 48 TOWN OF FORESTBURGH COUNTY OF SULLIVAN STATE OF NEW YORK

PREPARED FOR:

Mr. Alan Lord
New York Land and Lakes
155 Main Street
Oneonta, New York 13820



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FIGURE NO. 3 Aerial Photo
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APPENDICES

Appendix A Photograph Documentation
Appendix B Laboratory Analytical Reports

I. Introduction

Keystone Associates Architects, Engineers and Surveyors, LLC has prepared this summary report to document the findings of a limited soils investigation conducted at the property's Whitetail Hunting Club firing range where the concentrated shooting of lead bullets at an outdoor shooting lane was identified as a potential environmental concern to the Property. The Site is located at the intersection of Route 42 and 48 in the Town of Forestburgh, Sullivan County, New York. The club's firing range consists of a single shooting lane positioned within wooded areas near the easternmost boundary of the property. The property is under potential development as the Forestburgh Pond Residential Subdivision. The firing lane straddles proposed Lots 17 and 18. Refer to **Figure 1: Location Map**, **Figure 2: USGS Vicinity Map** and **Figure 3: Aerial Photo** and **Figure 4: Overall Location Map**.

The limited soils investigation was conducted on June 5, 2020. The general scope of work included the advancement of 24 surficial soil borings to a depth of up to six (6) inches, where a total of six (6) composite soil samples [four (4) grab locations per composite sample] were collected and analyzed for Total Lead and Toxicity Characteristics Leachability Procedure (TCLP) Lead. Such was performed to investigate the extent of potential lead contamination associated with historic firing lane operations. This scope of work was authorized by NY Land and Lakes' email correspondence dated June 1, 2020.

The following sections detail our observations and summarize the associated analytical results.

2. Investigation

The property has historically operated as the Whitetail Hunting Club dating back to the 1930's. It appears that the majority of non-hunting related shots have strategically been concentrated within a single firing lane, which provides a direct line of sight to a distance of approximately 100 yards. The firing lane is noted via signage along an existing trail and is improved with a single shooting bench. Stationary targets are positioned at approximately 25, 50, 75 and maximum range of 100 yards. The firing lane consists of natural soil and bedrock contours providing backstop without evidence of surficial watercourse(s) in the immediate vicinity of the firing lane. Refer to **Appendix A: Photograph Documentation**.

Keystone provided a Senior Environmental Scientist to coordinate investigation efforts including determination of boring locations, sample quantities and sampling depths required to provide a limited site characterization for lead concentrations. The selected method included collecting six (6) composite soil samples at various distances across the firing lane using decontaminated stainless steel hand trowel equipment. Note that each composite sample consisted of a mix of four (4) grab samples collected from a similar vicinity and distance. Use of composite samples was selected in order to provide a larger analyzed surface area while minimizing analytical costs. It should be known that during the investigation, sample depths were limited to less than six (6) inches due to the presence of surficial bedrock across the area. Although considered a limitation, such shallow depths were deemed appropriate as they correlate with the greatest potential for lead accumulation near the ground surface.

In order to provide spacial coverage of the entire firing lane, samples were collected from various distances. Sample "Composite-1" was collected from four (4) locations immediately surrounding the shooting bench where multiple spent casings were observed. Sample "Composite-2" was collected from four (4) locations in the vicinity of the 25 yard target setups. Sample "Composite-3" was collected from four (4) locations in the vicinity of the 50 yard target setups. Sample "Composite-4" was collected from four (4) locations in the vicinity of the 100 yard target setups, at the left (west) side of the lane. Sample "Composite-5" was collected from four (4) locations in the vicinity of the 100 yard target setups, at the center (north) portion of the lane. Sample "Composite-6" was collected from four (4) locations in the vicinity of the 100 yard target setups, at the right (east) side of the lane. Refer to Figure 5 – Soil Sample Location Map. The predominant lithology consisted of dry topsoil atop fine, brown sandy soils.

The soil samples were submitted to Alpha Analytical of Westborough, Massachusetts with chain of custody documentation and analyzed for Total Lead and TCLP Lead as summarized in Table I. Sample chain of custody and laboratory analytical reports are provided as **Appendix B**.

The Total Lead and TCLP Lead analytical results were compared to applicable New York State Soil Cleanup Objectives (SCOs) and United States Environmental Protection Agency's Max Concentrations for Toxicity Characteristic value, respectively. In summary, the analytical results identified exceedances of the State's Unrestricted Use SCOs within samples Composite-2, 3, 4, 5 and 6 with exceedances of the State's applicable Restricted Use Residential SCO in samples Composite-3 and 5. Results of samples Composite-3 and 5 also exceeded the USEPA's Max Toxicity Characteristic value. Specific values were identified as follows:

- In samples Composite-2, 4 and 6 Total Lead was detected at 113 mg/kg, 346 mg/kg and 278 mg/kg, respectively which exceeds the Unrestricted Use SCO of 63 mg/kg but remained below the applicable Restricted Use Residential SCO of 400 mg/kg.
- In samples Composite-3 and 5 Total Lead was detected at 870 mg/kg and 15,200 mg/kg respectively which exceeds the Unrestricted Use SCO of 63 mg/kg and the applicable Restricted Use Residential SCO of 400 mg/kg.
- In samples Composite-3 and 5 TCLP Lead was detected at 28.9 mg/kg and 218 mg/kg, respectively which exceeds the USEPA Max Concentration for Toxicity Characteristic value of 5 mg/kg.

3. Conclusions

The following conclusions were developed based on the observations during the soil investigation and results of the confirmatory sampling.

On June 5, 2020, a limited soils investigation was conducted to determine the extent of lead contamination in the vicinity of the outdoor firing lane. The general scope of work included the advancement of 24 surficial soil borings to a depth of up to six (6) inches, where a total of six (6) composite soil samples [four (4) grab locations per composite sample] were collected and analyzed for Total Lead and TCLP Lead. Such was performed to investigate the extent of potential lead contamination associated with historic firing lane operations and determine whether additional investigation is warranted.

As stated above in Section 2.0, the analytical results were then compared to applicable New York State Soil Cleanup Objectives (SCOs) as well as the United States Environmental Protection Agency's Max Concentrations for Toxicity Characteristic value. In summary, the analytical results identify exceedances of the State's Unrestricted Use SCOs occurred within samples Composite-2, 3, 4, 5 and 6 with exceedances of the State's applicable Restricted Use Residential SCO in samples Composite-3 and 5.

As samples Composite-4 and 6 were collected from the left and right sides of the firing range at a distance of 100 yards and remained below the applicable Restricted Use SCO and sample Composite-5 showed significant exceedances collected from the center of the firing lane at the same 100 yard distance, it appears the contamination may be concentrated within the center of the firing lane. However, additional testing would be required to verify the horizontal and vertical extent of contamination as well as whether impact to groundwater has occurred.

Additionally, results of samples Composite-3 and 5 exceeded the USEPA's Max Toxicity Characteristic value. Such exceedances identifies that soil as "hazardous" material in regard to disposal which may not be accepted at certain landfills. Typically such materials have increased tipping fees and specific transportation/labeling requirements. However, it should be known that these samples were collected directly from the greatest source of lead accumulation at the ground surface in the center of the firing lane and may test below hazardous criteria if re-sampling were to occur at greater depths or if source removal were to occur, where samples would be collected from an increased volume of soil (e.g. soil stockpiles).

4. Certification

The reported analyses, opinions and conclusions are personal, unbiased, professional and limited only by the assumptions and qualifications stated herein. Compensation is not contingent upon an action or an event resulting from the analyses, opinions or conclusions in, or the use of this report.

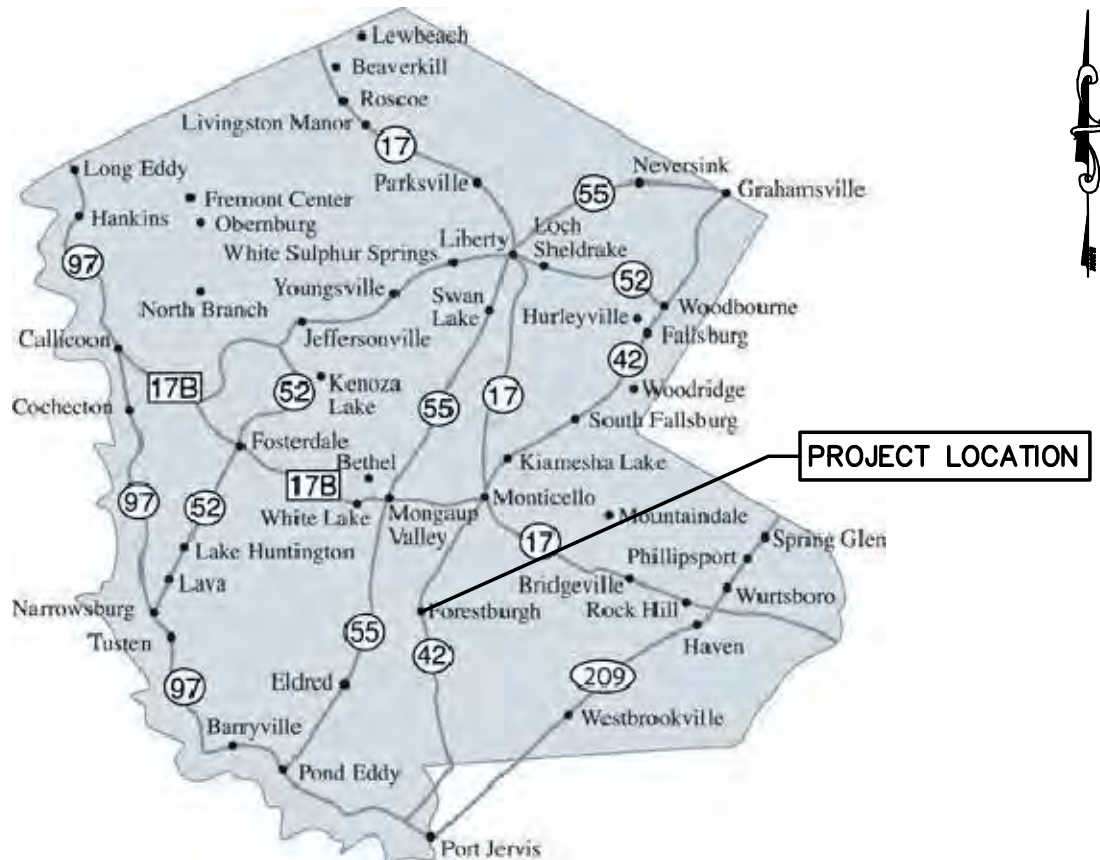
I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a Site of the nature, history, and setting of the Property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



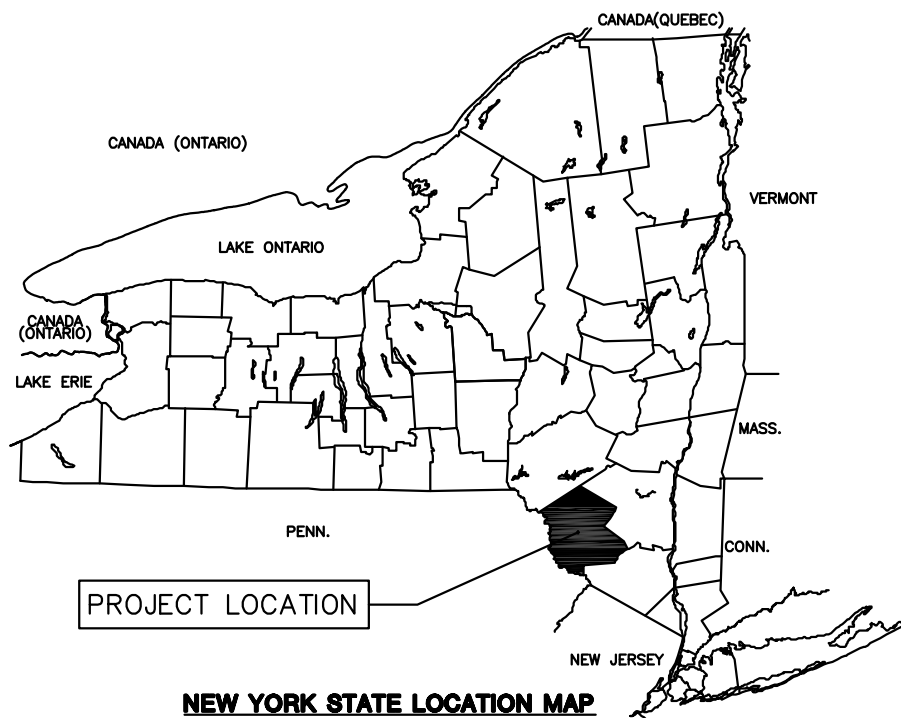
Timothy M. O'Connor, C.E.P.
Senior Environmental Scientist

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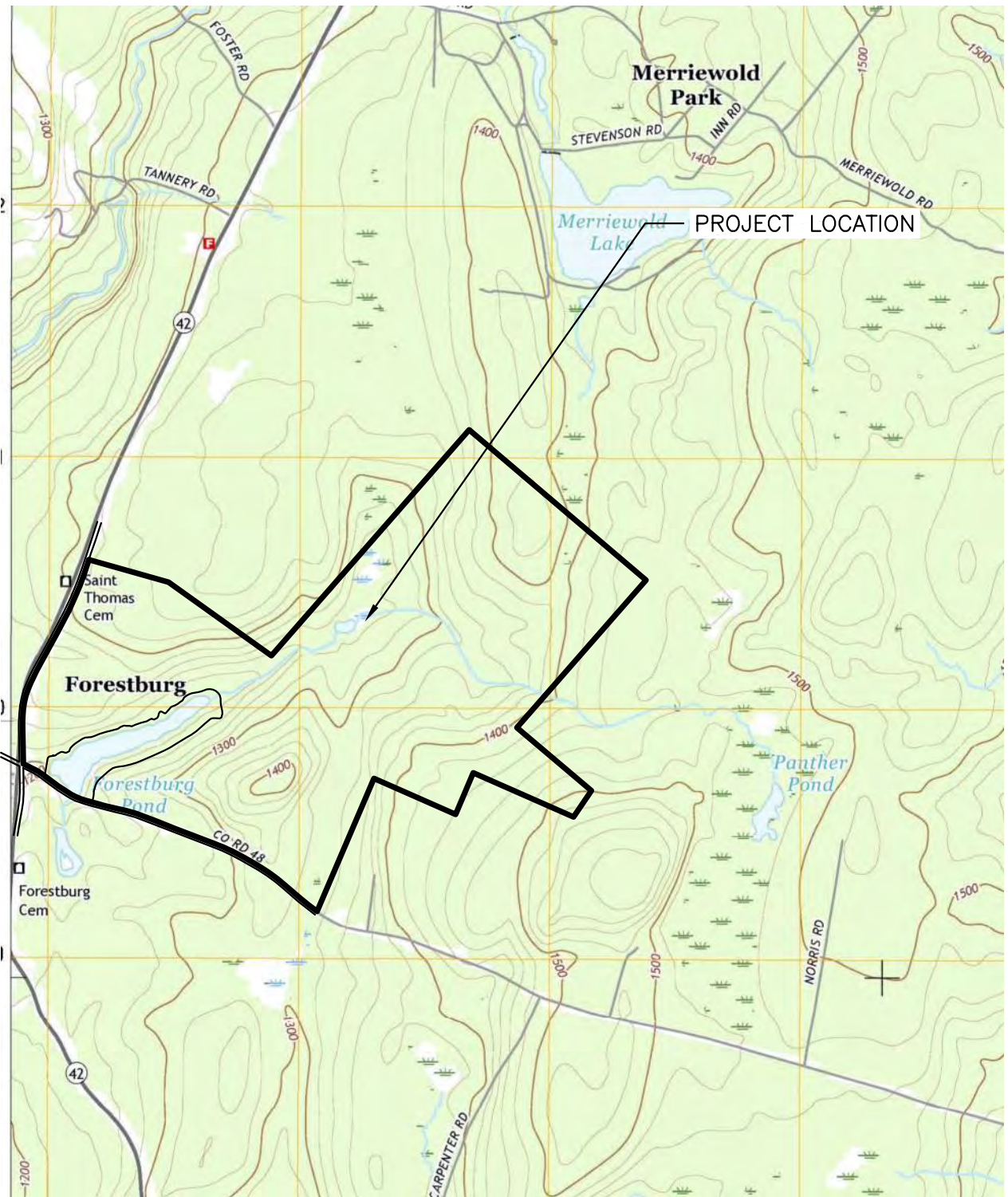
FIGURES AND TABLES



SULLIVAN COUNTY LOCATION MAP
NOT TO SCALE



NEW YORK STATE LOCATION MAP
NOT TO SCALE



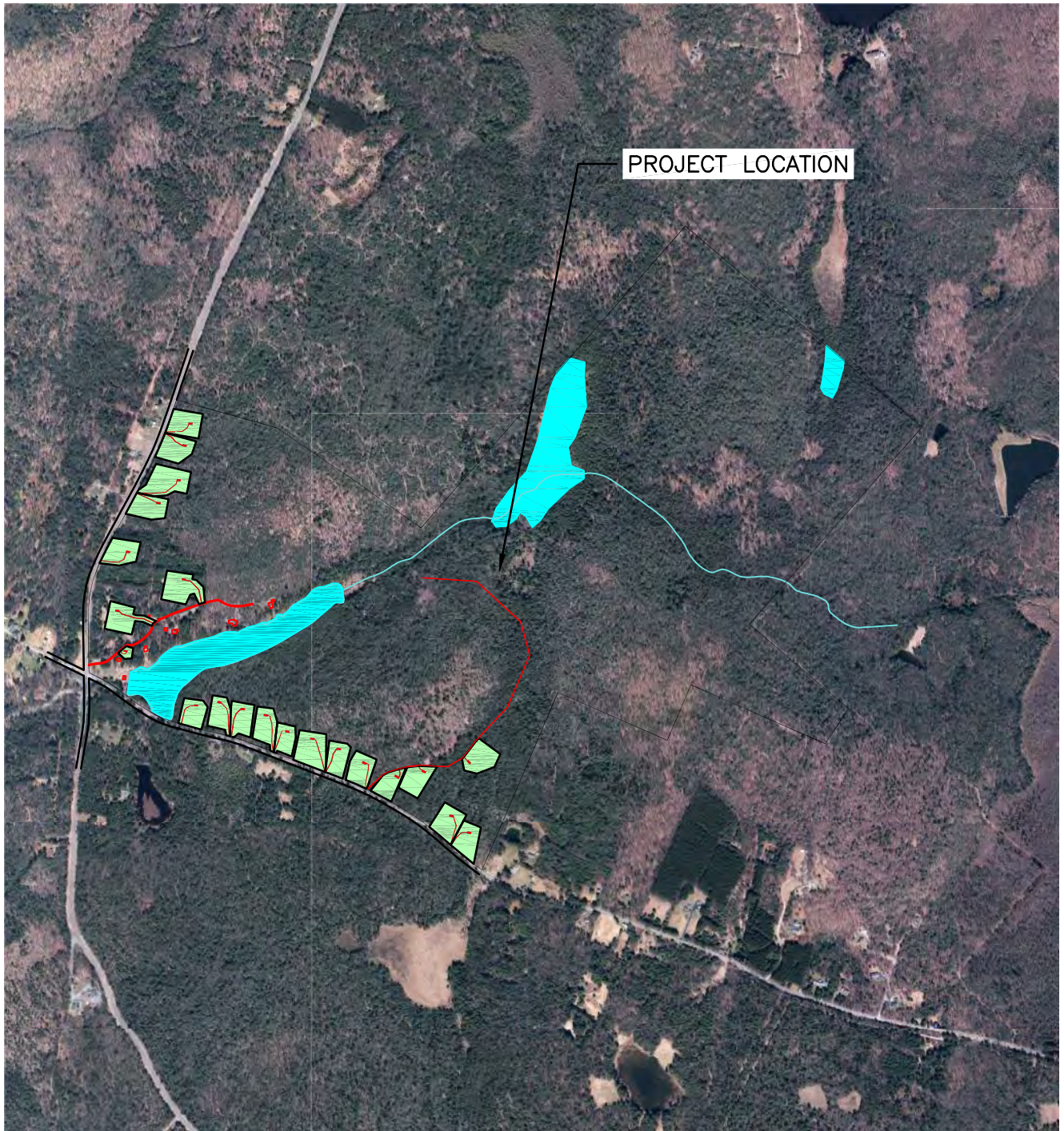
SCALE: 1" = 2,000'

**QUAD NAME:
HARTWOOD, NY
2016**



FORESTBURGH POND
FIRING LANE INVESTIGATION
NYS ROUTE 42
TOWN OF FORESTBURGH
SULLIVAN COUNTY NEW YORK STATE
KEYSTONE PROJECT #0392.12119

FIGURE NO. 2
USGS VICINITY MAP

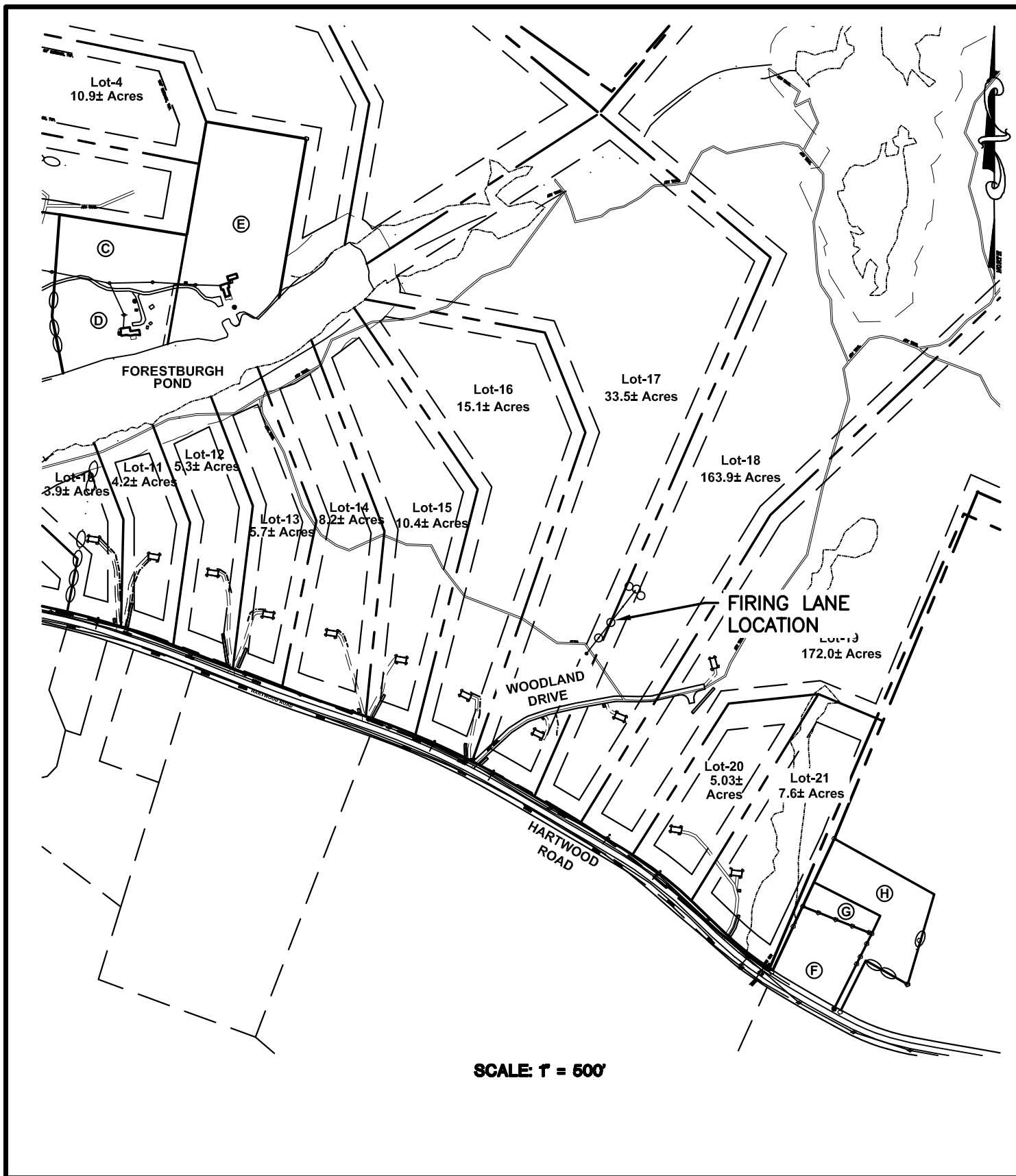


SCALE: 1" = 1500'



FORESTBURGH POND
FIRING LANE INVESTIGATION
NYS ROUTE 42
TOWN OF FORESTBURGH
SULLIVAN COUNTY NEW YORK STATE
KEYSTONE PROJECT #0392.12119

FIGURE NO. 3
AERIAL PHOTO

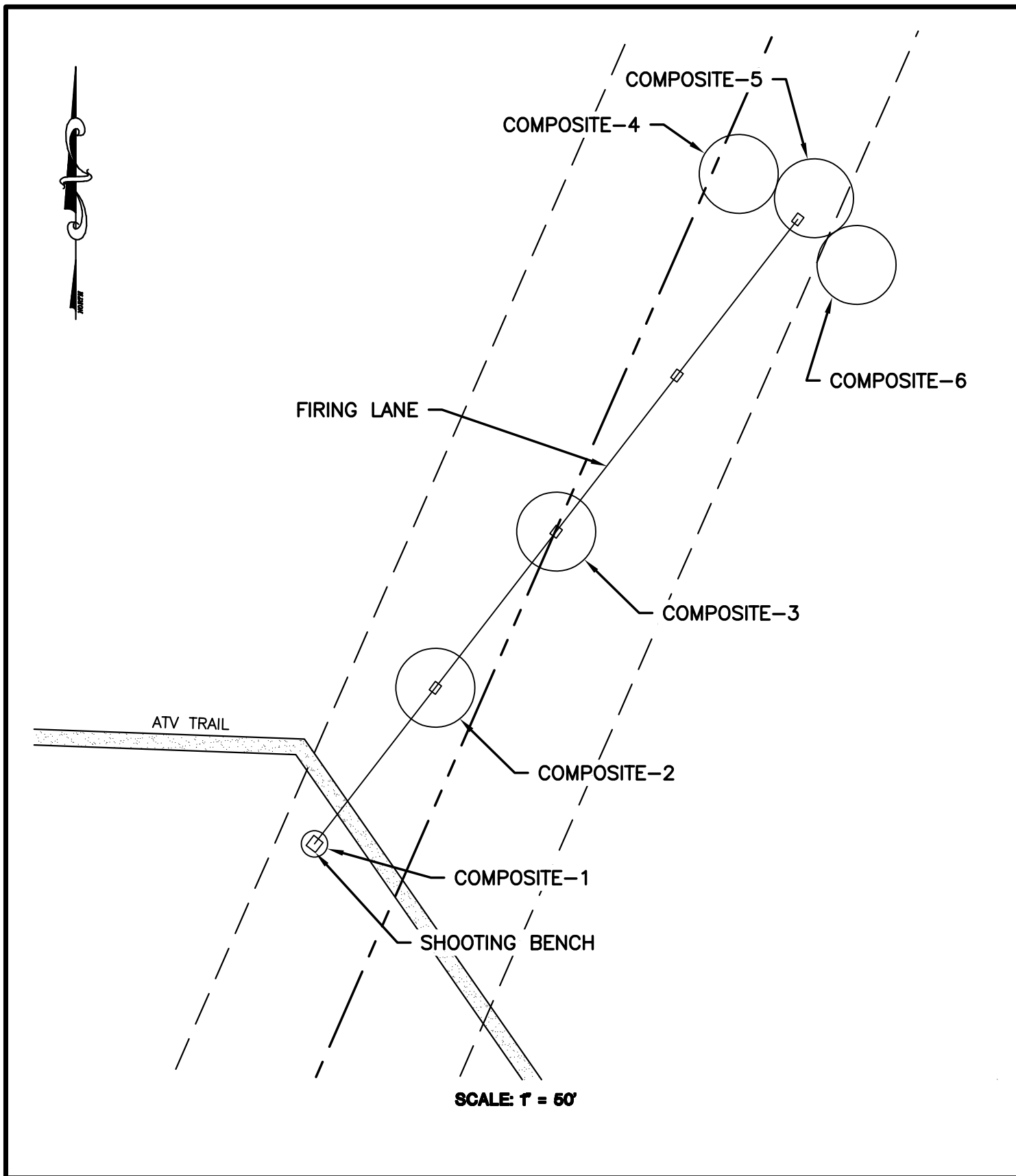


SCALE: 1" = 500'



FORESTBURGH POND
FIRING LANE INVESTIGATION
NYS ROUTE 42
TOWN OF FORESTBURGH
SULLIVAN COUNTY NEW YORK STATE
KEYSTONE PROJECT #0392.12119

FIGURE NO. 4
OVERALL LOCATION
MAP



FORESTBURGH POND
FIRING LANE INVESTIGATION
NYS ROUTE 42
TOWN OF FORESTBURGH
SULLIVAN COUNTY NEW YORK STATE
KEYSTONE PROJECT #0392.12119

FIGURE NO. 5
APPROXIMATE
BORING LOCATION
MAP

Table 1
Soil Analytical Results - June 5, 2020
Forestburgh Pond Firing Lane
Town of Forestburgh, Sullivan County, New York
Keystone Project No. 0392.12119

| Boring Identification | Composite-1 (Bench) | Composite-2 (25) | Composite-3 (50) | Composite-4 (100) | Composite-5 (100) | Composite-6 (100) | USEPA Max Concentration for Toxicity Characteristic | NYSDEC Unrestricted Use SCOs | NYSDEC Restricted Use SCOs (Residential) | NYSDEC Restricted Use SCOs (Restricted Residential) | NYSDEC Restricted Use SCOs (Commercial) | NYSDEC Restricted Use SCOs (Industrial) | NYSDEC Protection of Ecological Resources | NYSDEC Protection of Groundwater |
|--|---------------------|------------------|------------------|-------------------|-------------------|-------------------|---|------------------------------|--|---|---|---|---|----------------------------------|
| Sample Depth | (0-6") | (0-6") | (0-6") | (0-6") | (0-6") | (0-6") | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Total Lead by Method EPA 3050B (mg/kg = ppm) | | | | | | | | | | | | | | |
| Total Lead | 33.6 | 113 | 870 | 346 | 15,200 | 278 | NA | 63 ^C | 400 | 400 | 1,000 | 3,900 | 63 ^F | 450 |
| TCLP Metals by Method EPA 1311 (mg/l = ppm) | | | | | | | | | | | | | | |
| TCLP Lead | ND<0.5 | 0.124 | 28.9 | 1.10 | 218 | 0.168 | 5.00 | NA | NA | NA | NA | NA | NA | NA |

Notes

Total Lead regulations based on NYSDEC Part 375-6.8 Soil Cleanup Objectives (SCOs) issued December 14, 2006.

Toxicity Characteristics Leaching Procedure (TCLP) regulations based on USEPA Table 1 - Maximum Concentration of Contaminants for Toxicity Characteristic

All results and standards in milligram per kilogram (mg/kg) or mg/l which equals parts per million (ppm).

Sample depth in inches below ground surface

NA = Not applicable

ND = Not detected above the laboratory reporting limit

C = SCOs for industrial use and protection of groundwater are capped at a maximum of 1,000 ppm. See TSD Section 9.3.

F = The Department of Health rural soil survey background concentration should be used as the Track 2 SCO value for this use of the Site.

Lightly shaded data exceeds the NYSDEC Unrestricted Use SCOs

Moderately shaded data exceeds the NYSDEC Restricted Use Residential SCOs

Gold shaded data exceeds the USEPA Max Concentration for Toxicity Characteristic

PRIOR ENVIRONMENTAL REPORT - FLY SHEET

APPENDIX A: PHOTOGRAPH DOCUMENTATION



Photo No. 1

Date 6/5/20

Location:
Firing lane entranceway off trail system.

Subject:
View of signage leading off existing trail to the firing lane at east end of property.



Photo No. 2

Date 6/5/20

Location:
Firing lane bench.

Subject:
View of the firing lane bench area.



Photo No. 3

Date 6/5/20

Location:
Firing lane bench.

Subject:
View from the firing lane
bench facing down the single
shooting lane towards the
natural bedrock backstop at
100 yards.



Photo No. 4

Date 6/5/20

Location:
Firing lane.

Subject:
View from in front of the
shooting bench facing down
the firing lane.



Photo No. 5

Date 6/5/20

Location:
Target location.

Subject:
View of example target setup positioned at specific intervals across the firing lane.



Photo No. 6

Date 6/5/20

Location:
Target location.

Subject:
View of target setup at 75 yard location with view of 100 yard targets in the background.



Photo No. 7

Date 6/5/20

Location:
Target location.

Subject:
View of the target setup at the 100 yard max distance of the firing lane. Sample Composite-4 was collected to the left, Composite-5 was collected to the rear of the target, and Composite-6 was collected on the right hand side of the firing lane.



Photo No. 8

Date 6/5/20

Location:
Target location.

Subject:
View of from the 100 yard backstop facing back towards the shooting bench.

PRIOR ENVIRONMENTAL REPORT - FLY SHEET

APPENDIX B: LABORATORY ANALYTICAL REPORTS

APPENDIX B

SOILS INFORMATION



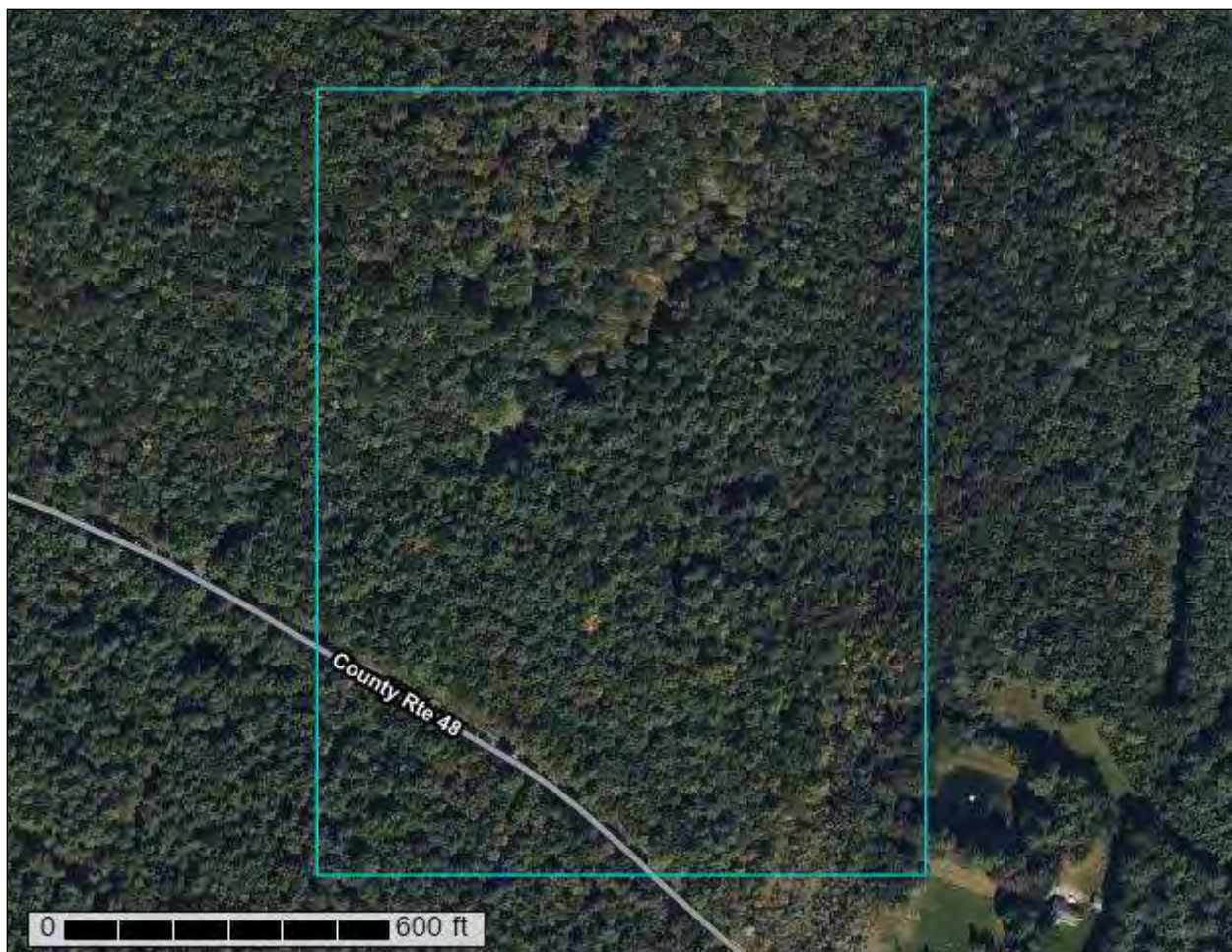
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Sullivan County, New York**



September 22, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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| Soil Map..... | 9 |
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| AIC—Arnot-Lordstown complex, 0 to 15 percent slopes, very rocky..... | 13 |
| AIE—Arnot-Lordstown complex, 15 to 35 percent slopes, very rocky..... | 15 |
| Ne—Neversink loam..... | 17 |
| SeB—Scriba and Morris loams, gently sloping, rubbly..... | 18 |
| SrB—Swartswood gravelly loam, 3 to 8 percent slopes, stony..... | 21 |
| SrC—Swartswood gravelly loam, 8 to 15 percent slopes, stony..... | 22 |
| WIC—Wellsboro and Wurtsboro soils, strongly sloping, extremely stony... | 24 |
| WuB—Wurtsboro loam, 3 to 8 percent slopes, stony..... | 26 |
| References | 28 |

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




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MAP LEGEND




















Area of Interest (AOI)







Area of Interest (AOI)

Soils


-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sullivan County, New York
Survey Area Data: Version 19, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|------------------------------------|--|--------------|----------------|
| AIC | Arnot-Lordstown complex, 0 to 15 percent slopes, very rocky | 0.8 | 2.2% |
| AIE | Arnot-Lordstown complex, 15 to 35 percent slopes, very rocky | 10.9 | 29.2% |
| Ne | Neversink loam | 3.2 | 8.5% |
| SeB | Scriba and Morris loams, gently sloping, rubbly | 1.8 | 4.9% |
| SrB | Swartswood gravelly loam, 3 to 8 percent slopes, stony | 16.0 | 42.9% |
| SrC | Swartswood gravelly loam, 8 to 15 percent slopes, stony | 4.1 | 11.0% |
| WIC | Wellsboro and Wurtsboro soils, strongly sloping, extremely stony | 0.4 | 1.1% |
| WuB | Wurtsboro loam, 3 to 8 percent slopes, stony | 0.1 | 0.2% |
| Totals for Area of Interest | | 37.3 | 100.0% |

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas

are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Sullivan County, New York

AIC—Arnot-Lordstown complex, 0 to 15 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 9x0k
Elevation: 750 to 1,800 feet
Mean annual precipitation: 41 to 51 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 115 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Arnot and similar soils: 41 percent
Lordstown and similar soils: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arnot

Setting

Landform: Hills, ridges, benches
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till derived mainly from acid sandstone, siltstone, and shale

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
H1 - 1 to 3 inches: channery loam
H2 - 3 to 17 inches: very channery loam
H3 - 17 to 21 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: F140XY023NY - Shallow Till Uplands
Hydric soil rating: No

Description of Lordstown

Setting

Landform: Hills, ridges, benches

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived from sandstone and siltstone

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material

H1 - 3 to 6 inches: silt loam

H2 - 6 to 20 inches: channery loam

H3 - 20 to 28 inches: channery loam

H4 - 28 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 0 to 15 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 5 percent

Hydric soil rating: Unranked

Swartswood

Percent of map unit: 4 percent

Hydric soil rating: No

Tuller

Percent of map unit: 4 percent

Hydric soil rating: No

Wurtsboro

Percent of map unit: 4 percent

Hydric soil rating: No

Valois

Percent of map unit: 3 percent

Hydric soil rating: No

AIE—Arnot-Lordstown complex, 15 to 35 percent slopes, very rocky

Map Unit Setting

National map unit symbol: 9x0l
Elevation: 750 to 1,800 feet
Mean annual precipitation: 41 to 51 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 115 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Arnot and similar soils: 41 percent
Lordstown and similar soils: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Arnot

Setting

Landform: Hills, ridges, benches
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till derived mainly from acid sandstone, siltstone, and shale

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material
H1 - 1 to 3 inches: channery loam
H2 - 3 to 17 inches: very channery loam
H3 - 17 to 21 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 35 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F140XY023NY - Shallow Till Uplands

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Hydric soil rating: No

Description of Lordstown

Setting

Landform: Hills, ridges, benches

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived from sandstone and siltstone

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material

H1 - 3 to 6 inches: silt loam

H2 - 6 to 20 inches: channery loam

H3 - 20 to 28 inches: channery loam

H4 - 28 to 32 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 5 percent

Hydric soil rating: Unranked

Swartswood

Percent of map unit: 4 percent

Hydric soil rating: No

Wurtsboro

Percent of map unit: 4 percent

Hydric soil rating: No

Unnamed soils

Percent of map unit: 4 percent

Hydric soil rating: No

Valois

Percent of map unit: 3 percent

Hydric soil rating: No

Ne—Neversink loam

Map Unit Setting

National map unit symbol: 9x26

Elevation: 330 to 2,460 feet

Mean annual precipitation: 41 to 51 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 115 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Neversink and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Neversink

Setting

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Acid loamy till derived from sandstone, siltstone, and shale

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material

H1 - 2 to 7 inches: loam

H2 - 7 to 23 inches: gravelly loam

H3 - 23 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 0 to 6 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: C/D

Ecological site: F140XY016NY - Mineral Wetlands

Hydric soil rating: Yes

Minor Components

Alden

Percent of map unit: 5 percent
Landform: Depressions
Hydric soil rating: Yes

Scriba

Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Wallington

Percent of map unit: 3 percent
Hydric soil rating: No

Wellsboro

Percent of map unit: 1 percent
Hydric soil rating: No

Morris

Percent of map unit: 1 percent
Hydric soil rating: No

Wurtsboro

Percent of map unit: 1 percent
Hydric soil rating: No

SeB—Scriba and Morris loams, gently sloping, rubbly

Map Unit Setting

National map unit symbol: 2vxd
Elevation: 330 to 2,460 feet
Mean annual precipitation: 31 to 70 inches
Mean annual air temperature: 39 to 52 degrees F
Frost-free period: 105 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Scriba, rubbly, and similar soils: 41 percent
Morris, rubbly, and similar soils: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Scriba, Rubbly

Setting

Landform: Drumlins, till plains

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Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Loamy till dominated by sandstone, with lesser amounts of limestone and shale

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material

H1 - 2 to 8 inches: loam

H2 - 8 to 20 inches: channery loam

H3 - 20 to 60 inches: channery loam

Properties and qualities

Slope: 2 to 8 percent

Surface area covered with cobbles, stones or boulders: 20.0 percent

Depth to restrictive feature: 12 to 20 inches to fragipan

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water capacity: Very low (about 1.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: F140XY024NY - Moist Dense Till

Hydric soil rating: No

Description of Morris, Rubbly

Setting

Landform: Hills, mountains

Landform position (two-dimensional): Summit, footslope

Landform position (three-dimensional): Interfluve, base slope

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Loamy till from reddish sandstone, siltstone, and shale

Typical profile

Oe - 0 to 1 inches: moderately decomposed plant material

A - 1 to 5 inches: loam

Bw - 5 to 12 inches: gravelly loam

Eg - 12 to 16 inches: gravelly loam

Bx - 16 to 60 inches: gravelly loam

C - 60 to 72 inches: gravelly loam

Properties and qualities

Slope: 2 to 8 percent

Surface area covered with cobbles, stones or boulders: 20.0 percent

Depth to restrictive feature: 10 to 22 inches to fragipan

Drainage class: Somewhat poorly drained

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: F140XY024NY - Moist Dense Till

Hydric soil rating: No

Minor Components

Wurtsboro, extremely stony

Percent of map unit: 5 percent

Landform: Hills, till plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest

Down-slope shape: Concave

Across-slope shape: Convex

Hydric soil rating: No

Wellsboro, rubbly

Percent of map unit: 5 percent

Landform: Hills, mountains

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Interfluve, side slope, head slope

Down-slope shape: Linear, concave

Across-slope shape: Linear

Hydric soil rating: No

Neversink, very stony

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

Alden, very stony

Percent of map unit: 5 percent

Landform: Depressions

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave

Across-slope shape: Concave

Hydric soil rating: Yes

SrB—Swartswood gravelly loam, 3 to 8 percent slopes, stony

Map Unit Setting

National map unit symbol: 9x39

Elevation: 1,000 to 1,800 feet

Mean annual precipitation: 41 to 51 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 115 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Swartswood and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swartswood

Setting

Landform: Hills, till plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mainly from quartzite, conglomerate, and sandstone

Typical profile

H1 - 0 to 1 inches: gravelly loam

H2 - 1 to 26 inches: gravelly loam

H3 - 26 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 22 to 30 inches to fragipan

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)

Depth to water table: About 18 to 26 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C/D

Ecological site: F140XY030NY - Well Drained Dense Till

Hydric soil rating: No

Minor Components

Wurtsboro

Percent of map unit: 5 percent
Hydric soil rating: No

Cheshire

Percent of map unit: 5 percent
Hydric soil rating: No

Scriba

Percent of map unit: 2 percent
Hydric soil rating: No

Valois

Percent of map unit: 1 percent
Hydric soil rating: No

Lackawanna

Percent of map unit: 1 percent
Hydric soil rating: No

Wellsboro

Percent of map unit: 1 percent
Hydric soil rating: No

SrC—Swartswood gravelly loam, 8 to 15 percent slopes, stony

Map Unit Setting

National map unit symbol: 9x3b
Elevation: 1,000 to 1,800 feet
Mean annual precipitation: 41 to 51 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 115 to 160 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Swartswood and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Swartswood

Setting

Landform: Till plains, hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till derived mainly from quartzite, conglomerate, and sandstone

Typical profile

H1 - 0 to 1 inches: gravelly loam

H2 - 1 to 26 inches: gravelly loam

H3 - 26 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 22 to 30 inches to fragipan

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)

Depth to water table: About 18 to 26 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very low (about 2.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C/D

Ecological site: F140XY030NY - Well Drained Dense Till

Hydric soil rating: No

Minor Components

Wurtsboro

Percent of map unit: 5 percent

Hydric soil rating: No

Cheshire

Percent of map unit: 5 percent

Hydric soil rating: No

Scriba

Percent of map unit: 2 percent

Hydric soil rating: No

Valois

Percent of map unit: 1 percent

Hydric soil rating: No

Lackawanna

Percent of map unit: 1 percent

Hydric soil rating: No

Wellsboro

Percent of map unit: 1 percent

Hydric soil rating: No

WIC—Wellsboro and Wurtsboro soils, strongly sloping, extremely stony

Map Unit Setting

National map unit symbol: 9x46
Elevation: 330 to 2,460 feet
Mean annual precipitation: 41 to 51 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 115 to 160 days
Farmland classification: Not prime farmland

Map Unit Composition

Wellsboro, extremely stony, and similar soils: 41 percent
Wurtsboro, extremely stony, and similar soils: 39 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wellsboro, Extremely Stony

Setting

Landform: Drumlinoid ridges, hills, till plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Loamy till derived mainly from reddish sandstone, siltstone, and shale

Typical profile

H1 - 0 to 7 inches: gravelly loam
H2 - 7 to 23 inches: gravelly loam
H3 - 23 to 60 inches: gravelly loam

Properties and qualities

Slope: 0 to 15 percent
Surface area covered with cobbles, stones or boulders: 9.0 percent
Depth to restrictive feature: 12 to 30 inches to fragipan
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 10 to 28 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Wurtsboro, Extremely Stony

Setting

Landform: Hills, till plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Loamy till derived mainly from acid quartzite, conglomerate, and sandstone

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material

H1 - 2 to 4 inches: loam

H2 - 4 to 28 inches: loam

H3 - 28 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 0 to 15 percent

Surface area covered with cobbles, stones or boulders: 9.0 percent

Depth to restrictive feature: 20 to 28 inches to fragipan

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 22 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: C/D

Hydric soil rating: No

Minor Components

Swartswood

Percent of map unit: 5 percent

Hydric soil rating: No

Scriba

Percent of map unit: 5 percent

Hydric soil rating: No

Lackawanna

Percent of map unit: 3 percent

Hydric soil rating: No

Morris

Percent of map unit: 3 percent

Hydric soil rating: No

Oquaga

Percent of map unit: 2 percent

Hydric soil rating: No

Lordstown

Percent of map unit: 2 percent

Hydric soil rating: No

WuB—Wurtsboro loam, 3 to 8 percent slopes, stony

Map Unit Setting

National map unit symbol: 9x4d

Elevation: 1,000 to 1,800 feet

Mean annual precipitation: 41 to 51 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 115 to 160 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Wurtsboro, stony, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wurtsboro, Stony

Setting

Landform: Hills, till plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest

Down-slope shape: Concave

Across-slope shape: Convex

Parent material: Loamy till derived mainly from acid quartzite, conglomerate, and sandstone

Typical profile

Oe - 0 to 2 inches: moderately decomposed plant material

H1 - 2 to 4 inches: loam

H2 - 4 to 28 inches: loam

H3 - 28 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent

Surface area covered with cobbles, stones or boulders: 0.1 percent

Depth to restrictive feature: 20 to 28 inches to fragipan

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 12 to 22 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.8 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C/D

Hydric soil rating: No

Minor Components

Scriba

Percent of map unit: 5 percent

Hydric soil rating: No

Swartswood

Percent of map unit: 5 percent

Hydric soil rating: No

Lackawanna

Percent of map unit: 2 percent

Hydric soil rating: No

Valois

Percent of map unit: 1 percent

Hydric soil rating: No

Unnamed soils

Percent of map unit: 1 percent

Hydric soil rating: No

Morris

Percent of map unit: 1 percent

Hydric soil rating: No

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APPENDIX C
PHOTOGRAPH DOCUMENTATION

PHOTOGRAPH LOG
Forestburgh Pond Subdivision Property – Firing Lane
Site Characterization Investigation



Photo No. 1

Date 6/5/20

Location:
Firing lane entranceway off trail system.

Subject:
View of signage leading off existing trail to the firing lane at east end of property.



Photo No. 2

Date 6/5/20

Location:
Stationary shooting bench.

Subject:
Stationary shooting bench at bottom of firing lane.

PHOTOGRAPH LOG

Forestburgh Pond Subdivision Property – Firing Lane Site Characterization Investigation



Photo No. 3

Date 6/5/20

Location:
Shooting bench.

Subject:
View from behind the firing
lane's stationary shooting
bench facing up the single
firing lane.



Photo No. 4


Date 6/5/20

Location:
Firing Lane.

Subject:
View from in front of the
shooting bench facing down
the firing lane.

PHOTOGRAPH LOG

Forestburgh Pond Subdivision Property – Firing Lane Site Characterization Investigation

| | |
|--|--|
|  | Photo No. 5 |
| | Date 6/5/20 |
| | Location: 50 yard target. |
| | Subject: View of target setup positioned at specific 25 yard intervals across the firing range. |
|  | Photo No. 6 |
| | Date 6/5/20 |
| | Location: 75 yard target location. |
| | Subject: View of target setup at 75 yard location with view of the 100 yard target and earthen/rock backstop in the background. |

PHOTOGRAPH LOG
Forestburgh Pond Subdivision Property – Firing Lane
Site Characterization Investigation



Photo No. 7

Date 6/5/20

Location:
100 yard target location.

Subject:
View of the target setup at
the 100 yard max distance of
the firing lane.



Photo No. 8

Date 6/5/20

Location:
75 yard target location.

Subject:
View from the top of the
firing lane facing back
towards the stationary
shooting bench.

PHOTOGRAPH LOG

Forestburgh Pond Subdivision Property – Firing Lane Site Characterization Investigation



Photo No. 9

Date 9/9/20

Location:
25 yard distance.

Subject:
View of boring 25L located
10 feet left of boring 25C
which was positioned in the
center of the firing lane.



Photo No. 10

Date 9/9/20

Location:
25 yard distance.

Subject:
View of boring 25R located
10 feet right of boring 25C
which was positioned in the
center of the firing lane.

PHOTOGRAPH LOG

Forestburgh Pond Subdivision Property – Firing Lane Site Characterization Investigation



Photo No. 11

Date 9/9/20

Location:
25 yard distance.

Subject:
View of boring 25L showing
areas of sample collection
from the 0-2 inch interval
and the 12-16 inch interval.



Photo No. 12

Date 9/9/20

Location:
25 yard distance.

Subject:
View of boring 25R showing
areas of sample collection
from the 0-2 inch interval
and the 12-16 inch interval.

PHOTOGRAPH LOG

Forestburgh Pond Subdivision Property – Firing Lane Site Characterization Investigation



Photo No. 13

Date 9/9/20

Location:
50 yard location.

Subject:
View of boring 50L located
10 feet left of boring 50C
which was positioned in the
center of the firing lane.



Photo No. 14

Date 9/9/20

Location:
50 yard location.

Subject:
View of boring 50L showing
areas of sample collection
from the 0-2 inch interval
and the 12-16 inch interval.

PHOTOGRAPH LOG

Forestburgh Pond Subdivision Property – Firing Lane Site Characterization Investigation



Photo No. 15

Date 9/9/20

Location:
50 yard distance.

Subject:
View of soil sampling performed at boring 50L from 0-2 inch interval. Note that two borings were done immediately adjacent to each other in order to get enough sample volume from the macrocore at each desired depth.



Photo No. 16

Date 9/9/20

Location:
75 yard distance.

Subject:
View of boring 75C which was positioned in the center of the firing lane.

PHOTOGRAPH LOG

Forestburgh Pond Subdivision Property – Firing Lane Site Characterization Investigation



Photo No. 17

Date 9/9/20

Location:
75 yard location.

Subject:
View of boring 75C showing
areas of sample collection
from the 0-2 inch interval
and the 12-16 inch interval.



Photo No. 18

Date 9/9/20

Location:
100 yard distance.

Subject:
View of boring 100L located
10 feet left of boring 100C
which was positioned in the
center of the firing lane.

PHOTOGRAPH LOG

Forestburgh Pond Subdivision Property – Firing Lane Site Characterization Investigation



Photo No. 19

Date 9/9/20

Location:
100 yard distance.

Subject:
View of boring 100R
showing areas of sample
collection from the 0-2 inch
interval and the 12-16 inch
interval.



Photo No. 20


Date 9/9/20

Location:
100 yard distance.

Subject:
View of soil sampling
performed at boring 100R
from 0-2 inch interval. Note
that two borings were done
immediately adjacent to each
other in order to get enough
sample volume from the
macrocore at each desired
depth.

APPENDIX D

BORING LOGS

| | | | | | | | |
|--|--------------|------------|-----------|--|--|---|--|
|  <div>KEYSTONE ASSOCIATES ARCHITECTS ENGINEERS SURVEYORS</div> | | | | <div>SUBSURFACE LOG</div> | | <div>Boring No.: 25L</div> <div>Project No.: 0392.12119.2.1</div> <div>Date Started: September 9, 2020</div> <div>Date Completed: September 9, 2020</div> <div>Sheet 1 of 1</div> | |
| Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation | | | | | | Surface Elevation: NA | |
| Location: 25 yard distance from stationary shooting bench and 10 feet left of center range | | | | | | Depth to Water (bgs): NA | |
| Depth | Sample # | % Recovery | PID (ppm) | MATERIAL DESCRIPTION | | REMARKS | |
| 0 | 25L@(0-2") | 80 | NA | 0"-1": Topsoil. | | Soil sample was collected at 25L@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. | |
| | 25L@(12-16") | | | 1"-3.1': Topsoil transition to reddish brown fine silty sand and gravel. | | | |
| | | | | | | | |
| | | | | Practical refusal at weathered rock or bedrock at 3.1'. | | | |
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| 32 | | | | | | | |
| Sampling Method: 2" Macrocore Sampler | | | | | | Visually Classified by: Senior Environmental Scientist | |
| Notes: Direct Push Drilling with 66DT Geoprobe Machine | | | | | | | |



SUBSURFACE LOG


Boring No.: 25C
Project No.: 0392.12119.2.1
Date Started: September 9, 2020
Date Completed: September 9, 2020
Sheet 1 of 1

Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation
Location: 25 yard distance from stationary shooting bench at center range

Surface Elevation: NA
Depth to Water (bgs): NA

| D e p t h | S a m p l e # | % R e c o v e r y | P I D (p p m) | MATERIAL DESCRIPTION | REMARKS |
|-----------------------|-------------------------------------|---|--|--|---|
| 0 | 25C@(0-2") | 80 | NA | 0"-1": Topsoil. | Soil sample was collected at 25C@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. |
| | 25C@(12-16") | | | 1"-3.3': Topsoil transition to reddish brown fine silty sand and gravel. | |
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| | | | | Practical refusal at weathered rock or bedrock at 3.3'. | |
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Sampling Method: 2" Macrocore Sampler Visually Classified by: Senior Environmental Scientist
Notes: Direct Push Drilling with 66DT Geoprobe Machine

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|--|-------------------------------------|---|--|--|--|--|--|
|  | | | | SUBSURFACE LOG | | Boring No.: 25R Project No.: 0392.12119.2.1 Date Started: September 9, 2020 Date Completed: September 9, 2020 Sheet 1 of 1 | |
| Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation Location: 25 yard distance from stationary shooting bench and 10 feet right of center range | | | | | | Surface Elevation: NA Depth to Water (bgs): NA | |
| D e p t h | S a m p l e # | % R e c o v e r y | P I D (p p m) | MATERIAL DESCRIPTION | | REMARKS | |
| 0 | 25R@(0-2") | 60 | NA | 0"-2": Topsoil. | | Soil sample was collected at 25R@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. | |
| | 25R@(12-16") | | | 2"-3.7': Topsoil transition to reddish brown fine silty sand and gravel. | | | |
| | | | | Practical refusal at weathered rock or bedrock at 3.7'. | | | |
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| Sampling Method: 2" Macrocore Sampler Notes: Direct Push Drilling with 66DT Geoprobe Machine | | | | | | Visually Classified by: Senior Environmental Scientist | |



SUBSURFACE LOG


Boring No.: 50L
Project No.: 0392.12119.2.1
Date Started: September 9, 2020
Date Completed: September 9, 2020
Sheet 1 of 1

Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation
Location: 50 yard distance from stationary shooting bench and 10 feet left of center range

Surface Elevation: NA
Depth to Water (bgs): NA

| D e p t h | S a m p l e # | % R e c o v e r y | P I D (p p m) | MATERIAL DESCRIPTION | REMARKS |
|-----------------------|-------------------------------------|---|--|--|---|
| 0 | 50L@(0-2") | 70 | NA | 0"-1.5": Topsoil. | Soil sample was collected at 50L@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. |
| | 50L@(12-16") | | | 1.5"-4': Topsoil transition to reddish brown fine silty sand and gravel. | |
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| | | | | Practical refusal not encountered priot to end boring depth at 4'. | |
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Sampling Method: 2" Macrocore Sampler Visually Classified by: Senior Environmental Scientist
Notes: Direct Push Drilling with 66DT Geoprobe Machine

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|--|-------------------------------------|---|--|--|--|--|--|
|  | | | | SUBSURFACE LOG | | Boring No.: 50C Project No.: 0392.12119.2.1 Date Started: September 9, 2020 Date Completed: September 9, 2020 Sheet 1 of 1 | |
| Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation Location: 50 yard distance from stationary shooting bench at center range | | | | | | Surface Elevation: NA Depth to Water (bgs): NA | |
| D e p t h | S a m p l e # | % R e c o v e r y | P I D (p p m) | MATERIAL DESCRIPTION | | REMARKS | |
| 0 | 50C@(0-2") | 80 | NA | 0"-1": Topsoil. | | Soil sample was collected at 50C@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. | |
| | 50C@(12-16") | | | 1"-3.5': Topsoil transition to reddish brown fine silty sand and gravel. | | | |
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| | | | | Practical refusal at weathered rock or bedrock at 3.5'. | | | |
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| 32 | | | | | | | |
| Sampling Method: 2" Macrocore Sampler Visually Classified by: Senior Environmental Scientist Notes: Direct Push Drilling with 66DT Geoprobe Machine | | | | | | | |



SUBSURFACE LOG


Boring No.: 50R
Project No.: 0392.12119.2.1
Date Started: September 9, 2020
Date Completed: September 9, 2020
Sheet 1 of 1


Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation
Location: 50 yard distance from stationary shooting bench and 10 feet right of center range


Surface Elevation: NA
Depth to Water (bgs): NA

| D e p t h | S a m p l e # | % R e c o v e r y | P I D (p p m) | MATERIAL DESCRIPTION | REMARKS |
|-----------------------|-------------------------------------|---|--|--|---|
| 0 | 50R@(0-2") | 70 | NA | 0"-1": Topsoil. | Soil sample was collected at 50R@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. |
| | 50R@(12-16") | | | 1"-4': Topsoil transition to reddish brown fine silty sand and gravel. | |
| | | | | Practical refusal was not encountered priot to end of boring at 4'. | |
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Sampling Method: 2" Macrocore Sampler Visually Classified by: Senior Environmental Scientist
Notes: Direct Push Drilling with 66DT Geoprobe Machine

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|--|--------------|------------|-----------|--|--|---|--|
|  <div>KEYSTONE ASSOCIATES ARCHITECTS ENGINEERS SURVEYORS</div> | | | | <div>SUBSURFACE LOG</div> | | <div>Boring No.: 75L</div> <div>Project No.: 0392.12119.2.1</div> <div>Date Started: September 9, 2020</div> <div>Date Completed: September 9, 2020</div> <div>Sheet 1 of 1</div> | |
| Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation | | | | | | Surface Elevation: NA | |
| Location: 75 yard distance from stationary shooting bench and 10 feet left of center range | | | | | | Depth to Water (bgs): NA | |
| Depth | Sample # | % Recovery | PID (ppm) | MATERIAL DESCRIPTION | | REMARKS | |
| 0 | 75L@(0-2") | 40 | NA | 0"-1": Topsoil. | | Soil sample was collected at 75L@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. | |
| | 75L@(12-16") | | | 1"-2.3': Topsoil transition to reddish brown fine silty sand and gravel. | | | |
| | | | | | | | |
| | | | | Practical refusal at weathered rock or bedrock at 2.3'. | | | |
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| 32 | | | | | | | |
| Sampling Method: 2" Macrocore Sampler | | | | | | Visually Classified by: Senior Environmental Scientist | |
| Notes: Direct Push Drilling with 66DT Geoprobe Machine | | | | | | | |

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|--|--------------|------------|-----------|--|--|---|--|
|  <div>KEYSTONE ASSOCIATES ARCHITECTS ENGINEERS SURVEYORS</div> | | | | <div>SUBSURFACE LOG</div> | | <div>Boring No.: 75C</div> <div>Project No.: 0392.12119.2.1</div> <div>Date Started: September 9, 2020</div> <div>Date Completed: September 9, 2020</div> <div>Sheet 1 of 1</div> | |
| Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation | | | | | | Surface Elevation: NA | |
| Location: 75 yard distance from stationary shooting bench at center range | | | | | | Depth to Water (bgs): NA | |
| Depth | Sample # | % Recovery | PID (ppm) | MATERIAL DESCRIPTION | | REMARKS | |
| 0 | 75C@(0-2") | 50 | NA | 0"-1": Topsoil. | | Soil sample was collected at 75C@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. | |
| | 75C@(12-16") | | | 1"-1.7': Topsoil transition to reddish brown fine silty sand and gravel. | | | |
| | | | | | | | |
| | | | | Practical refusal at weathered rock or bedrock at 1.7'. | | | |
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| 30 | | | | | | | |
| 32 | | | | | | | |
| Sampling Method: 2" Macrocore Sampler | | | | | | Visually Classified by: Senior Environmental Scientist | |
| Notes: Direct Push Drilling with 66DT Geoprobe Machine | | | | | | | |

| | | | | | | | |
|--|-------------------------------------|---|--|--|--|--|--|
|  | | | | SUBSURFACE LOG | | Boring No.: 75R Project No.: 0392.12119.2.1 Date Started: September 9, 2020 Date Completed: September 9, 2020 Sheet 1 of 1 | |
| Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation Location: 75 yard distance from stationary shooting bench and 10 feet right of center range | | | | | | Surface Elevation: NA Depth to Water (bgs): NA | |
| D e p t h | S a m p l e # | % R e c o v e r y | P I D (p p m) | MATERIAL DESCRIPTION | | REMARKS | |
| 0 | 75R@(0-2") | 40 | NA | 0"-1": Topsoil. | | Soil sample was collected at 75R@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. | |
| | 75R@(12-16") | | | 1"-3': Topsoil transition to reddish brown fine silty sand and gravel. | | | |
| | | | | | | | |
| | | | | Practical refusal at weathered rock or bedrock at 3.0'. | | | |
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| 30 | | | | | | | |
| 32 | | | | | | | |
| Sampling Method: 2" Macrocore Sampler Notes: Direct Push Drilling with 66DT Geoprobe Machine | | | | | | Visually Classified by: Senior Environmental Scientist | |



SUBSURFACE LOG


Boring No.: 100L
Project No.: 0392.12119.2.1
Date Started: September 9, 2020
Date Completed: September 9, 2020
Sheet 1 of 1

Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation
Location: 100 yard distance from stationary shooting bench and 10 feet left of center range

Surface Elevation: NA
Depth to Water (bgs): NA

| D e p t h | S a m p l e # | % R e c o v e r y | P I D (p p m) | MATERIAL DESCRIPTION | REMARKS |
|-----------------------|-------------------------------------|---|--|--|--|
| 0 | 100L@(0-2") | 60 | NA | 0"-1": Topsoil. | Soil sample was collected at 100L@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. |
| | 100L@(12-16") | | | 1"-2.7': Topsoil transition to reddish brown fine silty sand and gravel. | |
| | | | | | |
| | | | | Practical refusal at weathered rock or bedrock at 2.7'. | |
| 4 | | | | | |
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Sampling Method: 2" Macrocore Sampler Visually Classified by: Senior Environmental Scientist
Notes: Direct Push Drilling with 66DT Geoprobe Machine

| | | | | | | | |
|--|---------------|------------|-----------|--|--|--|--|
|  <div>KEYSTONE ASSOCIATES ARCHITECTS ENGINEERS SURVEYORS</div> | | | | <div>SUBSURFACE LOG</div> | | <div>Boring No.: 100C</div> <div>Project No.: 0392.12119.2.1</div> <div>Date Started: September 9, 2020</div> <div>Date Completed: September 9, 2020</div> <div>Sheet 1 of 1</div> | |
| Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation | | | | | | Surface Elevation: NA | |
| Location: 100 yard distance from stationary shooting bench at center range | | | | | | Depth to Water (bgs): NA | |
| Depth | Sample # | % Recovery | PID (ppm) | MATERIAL DESCRIPTION | | REMARKS | |
| 0 | 100C@(0-2") | 40 | NA | 0"-1": Topsoil. | | Soil sample was collected at 100C@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. | |
| | 100C@(12-16") | | | 1"-2.7': Topsoil transition to reddish brown fine silty sand and gravel. | | | |
| | | | | | | | |
| | | | | Practical refusal at weathered rock or bedrock at 2.7'. | | | |
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| 28 | | | | | | | |
| 30 | | | | | | | |
| 32 | | | | | | | |
| Sampling Method: 2" Macrocore Sampler | | | | | | Visually Classified by: Senior Environmental Scientist | |
| Notes: Direct Push Drilling with 66DT Geoprobe Machine | | | | | | | |



SUBSURFACE LOG

Boring No.: 100R
Project No.: 0392.12119.2.1
Date Started: September 9, 2020
Date Completed: September 9, 2020
Sheet 1 of 1

Project: Forestburgh Pond Residential Subdivision Project Firing Lane Site Characterization Investigation
Location: 100 yard distance from stationary shooting bench and 10 feet right of center range

Surface Elevation: NA
Depth to Water (bgs): NA

| D e p t h | S a m p l e # | % R e c o v e r y | P I D (p p m) | MATERIAL DESCRIPTION | REMARKS |
|-----------------------|-------------------------------------|---|--|--|--|
| 0 | 100R@(0-2") | 50 | NA | 0"-2": Topsoil. | Soil sample was collected at 100R@(0-2") and (12-16") and analyzed for Total Lead and TCLP Lead. |
| | 100R@(12-16") | | | 2"-4': Topsoil transition to reddish brown fine silty sand and gravel. | |
| | | | | Practical refusal was encountered to end of boring depth of 4'. | |
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| 32 | | | | | |

Sampling Method: 2" Macrocore Sampler Visually Classified by: Senior Environmental Scientist
Notes: Direct Push Drilling with 66DT Geoprobe Machine

APPENDIX E
SOIL ANALYTICAL RESULTS



ANALYTICAL REPORT

| | |
|-----------------|---|
| Lab Number: | L2037780 |
| Client: | Keystone Associates 58 Exchange Street Binghamton, NY 13901 |
| ATTN: | Tim O'Connor |
| Phone: | (607) 722-1100 |
| Project Name: | FORESTBURGH FIRING LANE |
| Project Number: | 0392.12119.2 |
| Report Date: | 09/18/20 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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



Project Name: FORESTBURGH FIRING LANE

Project Number: 0392.12119.2

Lab Number: L2037780

Report Date: 09/18/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|--------------------|---------------|--------|--------------------|-------------------------|--------------|
| L2037780-01 | 25L@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 13:00 | 09/11/20 |
| L2037780-02 | 25L@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 13:05 | 09/11/20 |
| L2037780-03 | 25C@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 13:20 | 09/11/20 |
| L2037780-04 | 25C@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 13:25 | 09/11/20 |
| L2037780-05 | 25R@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 13:40 | 09/11/20 |
| L2037780-06 | 25R@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 13:45 | 09/11/20 |
| L2037780-07 | 50L@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 14:00 | 09/11/20 |
| L2037780-08 | 50L@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 14:05 | 09/11/20 |
| L2037780-09 | 50C@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 14:20 | 09/11/20 |
| L2037780-10 | 50C@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 14:25 | 09/11/20 |
| L2037780-11 | 50R@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 14:40 | 09/11/20 |
| L2037780-12 | 50R@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 14:45 | 09/11/20 |
| L2037780-13 | 75L@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 15:00 | 09/11/20 |
| L2037780-14 | 75L@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 15:05 | 09/11/20 |
| L2037780-15 | 75C@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 15:20 | 09/11/20 |
| L2037780-16 | 75C@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 15:25 | 09/11/20 |
| L2037780-17 | 75R@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 15:40 | 09/11/20 |
| L2037780-18 | 75R@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 15:45 | 09/11/20 |
| L2037780-19 | 100L@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 16:00 | 09/11/20 |
| L2037780-20 | 100L@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 16:05 | 09/11/20 |
| L2037780-21 | 100C@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 16:20 | 09/11/20 |
| L2037780-22 | 100C@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 16:25 | 09/11/20 |
| L2037780-23 | 100R@(0-2") | SOIL | FORESTBURGH, NY | 09/09/20 16:40 | 09/11/20 |
| L2037780-24 | 100R@(12-16") | SOIL | FORESTBURGH, NY | 09/09/20 16:45 | 09/11/20 |

Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20


Case Narrative (continued)

Report Submission

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

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 09/18/20

METALS

Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-01

Date Collected: 09/09/20 13:00

Client ID: 25L@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 79%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.944 | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 20:00 | EPA 3015 | 1,6010D | BV |
|------------|-------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-01

Date Collected: 09/09/20 13:00

Client ID: 25L@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 79%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 51.7 | | mg/kg | 2.46 | 0.132 | 1 | 09/17/20 07:40 | 09/17/20 21:30 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-02

Date Collected: 09/09/20 13:05

Client ID: 25L@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.109 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 20:18 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-02

Date Collected: 09/09/20 13:05

Client ID: 25L@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 6.41 | | mg/kg | 2.18 | 0.117 | 1 | 09/17/20 07:40 | 09/17/20 20:57 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-03

Date Collected: 09/09/20 13:20

Client ID: 25C@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 79%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 1.39 | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 20:22 | EPA 3015 | 1,6010D | BV |
|------------|------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-03

Date Collected: 09/09/20 13:20

Client ID: 25C@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 79%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 314 | | mg/kg | 2.44 | 0.131 | 1 | 09/17/20 07:40 | 09/17/20 21:02 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-04

Date Collected: 09/09/20 13:25

Client ID: 25C@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.027 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 20:27 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-04

Date Collected: 09/09/20 13:25

Client ID: 25C@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 10.0 | | mg/kg | 2.20 | 0.118 | 1 | 09/17/20 07:40 | 09/17/20 21:07 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-05

Date Collected: 09/09/20 13:40

Client ID: 25R@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 78%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.769 | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 20:44 | EPA 3015 | 1,6010D | BV |
|------------|-------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-05

Date Collected: 09/09/20 13:40

Client ID: 25R@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 78%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 169 | | mg/kg | 2.51 | 0.134 | 1 | 09/17/20 07:40 | 09/17/20 21:48 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-06

Date Collected: 09/09/20 13:45

Client ID: 25R@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 20:49 | EPA 3015 | 1,6010D | BV |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-06

Date Collected: 09/09/20 13:45

Client ID: 25R@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 7.83 | | mg/kg | 2.28 | 0.122 | 1 | 09/17/20 07:40 | 09/17/20 21:52 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-07

Date Collected: 09/09/20 14:00

Client ID: 50L@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.434 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 20:53 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-07

Date Collected: 09/09/20 14:00

Client ID: 50L@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 141 | | mg/kg | 2.27 | 0.122 | 1 | 09/17/20 07:40 | 09/17/20 21:57 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-08

Date Collected: 09/09/20 14:05

Client ID: 50L@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 20:58 | EPA 3015 | 1,6010D | BV |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-08

Date Collected: 09/09/20 14:05

Client ID: 50L@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 7.03 | | mg/kg | 2.17 | 0.116 | 1 | 09/17/20 07:40 | 09/17/20 22:15 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-09

Date Collected: 09/09/20 14:20

Client ID: 50C@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 81%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.140 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:02 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-09

Date Collected: 09/09/20 14:20

Client ID: 50C@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 45.2 | | mg/kg | 2.32 | 0.124 | 1 | 09/17/20 07:40 | 09/17/20 22:20 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-10

Date Collected: 09/09/20 14:25

Client ID: 50C@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:06 | EPA 3015 | 1,6010D | BV |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-10

Date Collected: 09/09/20 14:25

Client ID: 50C@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 8.05 | | mg/kg | 2.16 | 0.116 | 1 | 09/17/20 07:40 | 09/17/20 22:24 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-11

Date Collected: 09/09/20 14:40

Client ID: 50R@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.755 | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:11 | EPA 3015 | 1,6010D | BV |
|------------|-------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-11

Date Collected: 09/09/20 14:40

Client ID: 50R@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 7.17 | | mg/kg | 2.23 | 0.120 | 1 | 09/17/20 07:40 | 09/17/20 22:29 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-12

Date Collected: 09/09/20 14:45

Client ID: 50R@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.035 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:15 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-12

Date Collected: 09/09/20 14:45

Client ID: 50R@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 7.07 | | mg/kg | 2.27 | 0.122 | 1 | 09/17/20 07:40 | 09/17/20 22:33 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-13

Date Collected: 09/09/20 15:00

Client ID: 75L@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.031 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:20 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-13

Date Collected: 09/09/20 15:00

Client ID: 75L@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 32.2 | | mg/kg | 2.24 | 0.120 | 1 | 09/17/20 07:40 | 09/17/20 22:38 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-14

Date Collected: 09/09/20 15:05

Client ID: 75L@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:24 | EPA 3015 | 1,6010D | BV |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-14

Date Collected: 09/09/20 15:05

Client ID: 75L@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

Total Metals - Mansfield Lab

| | | | | | | | | | | | |
|-------------|------|--|-------|------|-------|---|----------------|----------------|-----------|---------|----|
| Lead, Total | 8.41 | | mg/kg | 2.10 | 0.112 | 1 | 09/17/20 07:40 | 09/17/20 22:43 | EPA 3050B | 1,6010D | BV |
|-------------|------|--|-------|------|-------|---|----------------|----------------|-----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-15

Date Collected: 09/09/20 15:20

Client ID: 75C@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.590 | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:37 | EPA 3015 | 1,6010D | BV |
|------------|-------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-15

Date Collected: 09/09/20 15:20

Client ID: 75C@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 58.3 | | mg/kg | 2.30 | 0.124 | 1 | 09/17/20 07:40 | 09/17/20 22:47 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-16

Date Collected: 09/09/20 15:25

Client ID: 75C@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:42 | EPA 3015 | 1,6010D | BV |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-16

Date Collected: 09/09/20 15:25

Client ID: 75C@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 7.20 | | mg/kg | 2.07 | 0.111 | 1 | 09/17/20 07:40 | 09/17/20 22:52 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-17

Date Collected: 09/09/20 15:40

Client ID: 75R@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 2.26 | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:46 | EPA 3015 | 1,6010D | BV |
|------------|------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-17

Date Collected: 09/09/20 15:40

Client ID: 75R@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 91.7 | | mg/kg | 2.31 | 0.124 | 1 | 09/17/20 07:40 | 09/17/20 22:56 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-18

Date Collected: 09/09/20 15:45

Client ID: 75R@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.029 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:51 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-18

Date Collected: 09/09/20 15:45

Client ID: 75R@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 9.42 | | mg/kg | 2.11 | 0.113 | 1 | 09/17/20 07:40 | 09/17/20 23:10 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-19

Date Collected: 09/09/20 16:00

Client ID: 100L@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 81%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.073 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:55 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-19

Date Collected: 09/09/20 16:00

Client ID: 100L@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 93.3 | | mg/kg | 2.36 | 0.127 | 1 | 09/17/20 07:40 | 09/17/20 23:15 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-20

Date Collected: 09/09/20 16:05

Client ID: 100L@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.028 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 12:42 | 09/17/20 21:59 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-20

Date Collected: 09/09/20 16:05

Client ID: 100L@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 6.05 | | mg/kg | 2.20 | 0.118 | 1 | 09/17/20 07:40 | 09/17/20 23:19 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-21

Date Collected: 09/09/20 16:20

Client ID: 100C@ (0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 81%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 0.113 | J | mg/l | 0.500 | 0.027 | 1 | 09/17/20 14:22 | 09/17/20 21:53 | EPA 3015 | 1,6010D | BV |
|------------|-------|---|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-21

Date Collected: 09/09/20 16:20

Client ID: 100C@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 57.6 | | mg/kg | 2.36 | 0.126 | 1 | 09/17/20 07:08 | 09/17/20 16:22 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-22

Date Collected: 09/09/20 16:25

Client ID: 100C@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 14:22 | 09/17/20 22:44 | EPA 3015 | 1,6010D | BV |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-22

Date Collected: 09/09/20 16:25

Client ID: 100C@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 9.11 | | mg/kg | 2.34 | 0.126 | 1 | 09/17/20 07:08 | 09/17/20 16:26 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-23

Date Collected: 09/09/20 16:40

Client ID: 100R@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 82%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | 2.75 | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 14:22 | 09/17/20 23:31 | EPA 3015 | 1,6010D | BV |
|------------|------|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-23

Date Collected: 09/09/20 16:40

Client ID: 100R@(0-2")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 39.5 | | mg/kg | 2.42 | 0.130 | 1 | 09/17/20 07:08 | 09/17/20 16:31 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-24

Date Collected: 09/09/20 16:45

Client ID: 100R@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/15/20 05:54

Matrix: Soil

Percent Solids: 67%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|
|-----------|--------|-----------|-------|----|-----|--------------------|------------------|------------------|----------------|----------------------|---------|

TCLP Metals by EPA 1311 - Mansfield Lab

| | | | | | | | | | | | |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 14:22 | 09/17/20 23:36 | EPA 3015 | 1,6010D | BV |
|------------|----|--|------|-------|-------|---|----------------|----------------|----------|---------|----|



Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**SAMPLE RESULTS**

Lab ID: L2037780-24

Date Collected: 09/09/20 16:45

Client ID: 100R@(12-16")

Date Received: 09/11/20

Sample Location: FORESTBURGH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 67%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 8.99 | | mg/kg | 2.97 | 0.159 | 1 | 09/17/20 07:08 | 09/17/20 16:36 | EPA 3050B | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE

Lab Number: L2037780

Project Number: 0392.12119.2

Report Date: 09/18/20

Method Blank Analysis Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-20 Batch: WG1410148-1 | | | | | | | | | | |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 09/17/20 07:40 | 09/17/20 21:20 | 1,6010D | BV |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 21-24 Batch: WG1410151-1 | | | | | | | | | | |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 09/17/20 07:08 | 09/17/20 12:15 | 1,6010D | LC |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-20 Batch: WG1410782-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 11:36 | 09/17/20 19:52 | 1,6010D | BV |

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/13/20 15:53

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|-------|--------------------|------------------|------------------|----------------------|---------|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 21-24 Batch: WG1410786-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/17/20 14:22 | 09/17/20 21:43 | 1,6010D | BV |



Project Name: FORESTBURGH FIRING LANE

Lab Number: L2037780

Project Number: 0392.12119.2

Report Date: 09/18/20

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/13/20 15:53

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-20 Batch: WG1410148-2 SRM Lot Number: D109-540 | | | | | | | | |
| Lead, Total | 82 | | - | | 72-128 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 21-24 Batch: WG1410151-2 SRM Lot Number: D109-540 | | | | | | | | |
| Lead, Total | 92 | | - | | 72-128 | - | | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-20 Batch: WG1410782-2 | | | | | | | | |
| Lead, TCLP | 94 | | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 21-24 Batch: WG1410786-2 | | | | | | | | |
| Lead, TCLP | 100 | | - | | 75-125 | - | | 20 |

Matrix Spike Analysis **Batch Quality Control**

Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|--|---------------|----------|----------|--------------|------|-----------|---------------|------|-----------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1410148-3 QC Sample: L2037780-01 Client ID: 25L@(0-2") | | | | | | | | | | | | |
| Lead, Total | 51.7 | 50.4 | 93.0 | 82 | | - | - | | 75-125 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 21-24 QC Batch ID: WG1410151-3 QC Sample: L2037822-01 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, Total | 9.35 | 42.1 | 52.3 | 102 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1410782-3 QC Sample: L2037780-01 Client ID: 25L@(0-2") | | | | | | | | | | | | |
| Lead, TCLP | 0.944 | 5.1 | 6.06 | 100 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 21-24 QC Batch ID: WG1410786-3 QC Sample: L2037780-21 Client ID: 100C@(0-2") | | | | | | | | | | | | |
| Lead, TCLP | 0.113J | 5.1 | 5.07 | 99 | | - | - | | 75-125 | - | | 20 |

Lab Duplicate Analysis *Batch Quality Control*

Project Name: FORESTBURGH FIRING LANE

Project Number: 0392.12119.2

Lab Number: L2037780

Report Date: 09/18/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1410148-4 QC Sample: L2037780-01 Client ID: 25L@(0-2") | | | | | | |
| Lead, Total | 51.7 | 50.2 | mg/kg | 3 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 21-24 QC Batch ID: WG1410151-4 QC Sample: L2037822-01 Client ID: DUP Sample | | | | | | |
| Lead, Total | 9.35 | 8.41 | mg/kg | 11 | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-20 QC Batch ID: WG1410782-4 QC Sample: L2037780-01 Client ID: 25L@(0-2") | | | | | | |
| Lead, TCLP | 0.944 | 0.927 | mg/l | 2 | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 21-24 QC Batch ID: WG1410786-4 QC Sample: L2037780-21 Client ID: 100C@(0-2") | | | | | | |
| Lead, TCLP | 0.113J | 0.108J | mg/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-01**Client ID:** 25L@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 13:00**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 79.0 | | % | 0.100 | NA | 1 | - | 09/15/20 12:13 | 121,2540G | PR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-02**Client ID:** 25L@(12-16")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 13:05**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 90.5 | | % | 0.100 | NA | 1 | - | 09/15/20 12:13 | 121,2540G | PR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-03**Client ID:** 25C@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 13:20**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 79.0 | | % | 0.100 | NA | 1 | - | 09/15/20 12:13 | 121,2540G | PR |



Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

SAMPLE RESULTS

Lab ID: L2037780-04
Client ID: 25C@(12-16")
Sample Location: FORESTBURGH, NY

Date Collected: 09/09/20 13:25
Date Received: 09/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 88.6 | | % | 0.100 | NA | 1 | - | 09/15/20 12:13 | 121,2540G | PR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-05**Client ID:** 25R@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 13:40**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 78.2 | | % | 0.100 | NA | 1 | - | 09/15/20 12:13 | 121,2540G | PR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-06**Client ID:** 25R@(12-16")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 13:45**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 85.4 | | % | 0.100 | NA | 1 | - | 09/15/20 12:13 | 121,2540G | PR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-07**Client ID:** 50L@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 14:00**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 84.9 | | % | 0.100 | NA | 1 | - | 09/15/20 12:13 | 121,2540G | PR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-08**Client ID:** 50L@(12-16")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 14:05**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 88.1 | | % | 0.100 | NA | 1 | - | 09/15/20 12:13 | 121,2540G | PR |



Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

SAMPLE RESULTS

Lab ID: L2037780-09
Client ID: 50C@(0-2")
Sample Location: FORESTBURGH, NY

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

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 81.4 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-10**Client ID:** 50C@(12-16")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 14:25**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 89.6 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-11**Client ID:** 50R@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 14:40**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 84.6 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-12**Client ID:** 50R@(12-16")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 14:45**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 84.6 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-13**Client ID:** 75L@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 15:00**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 86.9 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-14**Client ID:** 75L@(12-16")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 15:05**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 90.2 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-15**Client ID:** 75C@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 15:20**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 84.6 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-16**Client ID:** 75C@(12-16")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 15:25**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 91.2 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-17**Client ID:** 75R@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 15:40**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 84.4 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

SAMPLE RESULTS

Lab ID: L2037780-18
Client ID: 75R@(12-16")
Sample Location: FORESTBURGH, NY

Date Collected: 09/09/20 15:45
Date Received: 09/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 89.9 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-19**Client ID:** 100L@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 16:00**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 80.7 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-20**Client ID:** 100L@(12-16")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 16:05**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 88.4 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-21**Client ID:** 100C@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 16:20**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 81.0 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

SAMPLE RESULTS

Lab ID: L2037780-22
Client ID: 100C@(12-16")
Sample Location: FORESTBURGH, NY

Date Collected: 09/09/20 16:25
Date Received: 09/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 84.7 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Project Name: FORESTBURGH FIRING LANE**Project Number:** 0392.12119.2**Lab Number:** L2037780**Report Date:** 09/18/20**SAMPLE RESULTS****Lab ID:** L2037780-23**Client ID:** 100R@(0-2")**Sample Location:** FORESTBURGH, NY**Date Collected:** 09/09/20 16:40**Date Received:** 09/11/20**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 81.5 | | % | 0.100 | NA | 1 | - | 09/17/20 08:33 | 121,2540G | RI |



Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

SAMPLE RESULTS

Lab ID: L2037780-24
Client ID: 100R@(12-16")
Sample Location: FORESTBURGH, NY

Date Collected: 09/09/20 16:45
Date Received: 09/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|-----|--------------------|------------------|------------------|----------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 67.1 | | % | 0.100 | NA | 1 | - | 09/15/20 21:48 | 121,2540G | TR |



Lab Duplicate Analysis *Batch Quality Control*

Project Name: FORESTBURGH FIRING LANE

Project Number: 0392.12119.2

Lab Number: L2037780

Report Date: 09/18/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1410036-1 QC Sample: L2037753-29 Client ID: DUP Sample | | | | | | |
| Solids, Total | 93.5 | 92.1 | % | 2 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 09-22,24 QC Batch ID: WG1410262-1 QC Sample: L2037780-09 Client ID: 50C@(0-2") | | | | | | |
| Solids, Total | 81.4 | 81.8 | % | 0 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 23 QC Batch ID: WG1410991-1 QC Sample: L2038701-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 91.7 | 91.3 | % | 0 | | 20 |

Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

| Cooler | Custody Seal |
|--------|--------------|
| A | Absent |
| B | Absent |

Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------|--|--------|------------|----------|------------|------|--------|------------------|-------------|
| L2037780-01A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-01B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-01X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-01X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-02A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-02B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-02X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-02X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-03A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-03B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-03X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-03X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-04A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-04B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-04X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-04X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-05A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-05B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-05X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-05X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-06A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-06B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |

Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2037780-06X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-06X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-07A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-07B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-07X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-07X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-08A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-08B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-08X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-08X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-09A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-09B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-09X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-09X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-10A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-10B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-10X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-10X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-11A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-11B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-11X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-11X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-12A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.6 | Y | Absent | | PB-TI(180) |
| L2037780-12B | Glass 250ml/8oz unpreserved | A | NA | | 3.6 | Y | Absent | | TS(7) |
| L2037780-12X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.6 | Y | Absent | | PB-CI(180) |
| L2037780-12X9 | Tumble Vessel | A | NA | | 3.6 | Y | Absent | | - |
| L2037780-13A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-13B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |

Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2037780-13X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-13X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-14A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-14B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-14X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-14X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-15A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-15B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-15X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-15X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-16A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-16B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-16X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-16X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-17A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-17B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-17X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-17X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-18A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-18B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-18X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-18X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-19A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-19B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-19X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-19X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-20A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-20B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |

Project Name: FORESTBURGH FIRING LANE**Lab Number:** L2037780**Project Number:** 0392.12119.2**Report Date:** 09/18/20**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2037780-20X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-20X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-21A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-21B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-21X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-21X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-22A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-22B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-22X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-22X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-23A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-23B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-23X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-23X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |
| L2037780-24A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 2.3 | Y | Absent | | PB-TI(180) |
| L2037780-24B | Glass 250ml/8oz unpreserved | B | NA | | 2.3 | Y | Absent | | TS(7) |
| L2037780-24X | Plastic 120ml HNO3 preserved Extracts | B | NA | | 2.3 | Y | Absent | | PB-CI(180) |
| L2037780-24X9 | Tumble Vessel | B | NA | | 2.3 | Y | Absent | | - |

Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

GLOSSARY

Acronyms

| | |
|----------|--|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: FORESTBURGH FIRING LANE
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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: DU Report with 'J' Qualifiers



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Report Date: 09/18/20

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: FORESTBURGH FIRING LANE
Project Number: 0392.12119.2

Lab Number: L2037780
Report Date: 09/18/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 17

Published Date: 4/28/2020 9:42:21 AM

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,


3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.


EPA TO-12 Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B


The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

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|---|--|---|--|---|--|---|--|---|--|--|--|--------------------------|--|
|  NEW YORK CHAIN OF CUSTODY Westborough, MA 01561 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288 | | Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105 | | Page 1 of 4 | | Date Rec'd in Lab 9/12/20 | | ALPHA Job # U2037780 | | | | | |
| | | Project Information Project Name: <u>Forestburgh Firing Lane</u> Project Location: <u>Forestburgh, NY</u> Project # <u>0392-12119-2</u> (Use Project name as Project #) <input type="checkbox"/> | | Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other | | Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # <u>0392-12119-2</u> | | | | | | | |
| Client Information Client: <u>Keystone Associates</u> Address: <u>58 Exchange Street</u> <u>Birmingham, NY 13501</u> Phone: <u>607-722-1100</u> Fax: _____ Email: <u>TOCONNOR@Keystone.com</u> | | Project Manager: <u>Tim O'Connor</u> ALPHAQuote #: _____ Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: _____ Rush (only if pre approved) <input type="checkbox"/> # of Days: _____ | | Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge | | Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: | | | | | | | |
| These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <u>Need results ASAP without surcharge please.</u> Please specify Metals or TAL. | | | | | | ANALYSIS | | Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below) | | | | | |
| ALPHA Lab ID (Lab Use Only) | | Sample ID | | Collection Date Time | | Sample Matrix | | Sampler's Initials | | Total Lead TCLP Lead | | Sample Specific Comments | |
| 37780-01 | | 25L0(0-2") | | 9/9/20 13:00 | | Soil | | TMO | | X X | | L = Left | |
| -02 | | 25L0(12-16") | | 9/9/20 13:05 | | Soil | | TMO | | X X | | C = Center | |
| -03 | | 25C0(0-2") | | 9/9/20 13:20 | | Soil | | TMO | | X X | | R = Right | |
| -0409 | | 25C0(12-16") | | 9/9/20 13:25 | | Soil | | TMO | | X X | | | |
| -05014 | | 25R0(0-2") | | 9/9/20 13:40 | | Soil | | TMO | | X X | | | |
| -06 | | 25R0(12-16") | | 9/9/20 13:45 | | Soil | | TMO | | X X | | | |
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| Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other | | Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle | | Westboro: Certification No: MA935 Mansfield: Certification No: MA015 | | Container Type Preservative | | 1 Glass 1 Glass | | Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.) | | | |
| Relinquished By: <u>Timothy M. O'Connor</u> <u>Mphie Rodriguez</u> | | Date/Time <u>9/11/20 12:00</u> <u>9/11/20 12:00</u> | | AAL Received By: <u>M. Radziewski</u> <u>[Signature]</u> | | Date/Time <u>9/11/20 12:00</u> <u>9/12/20 01:05</u> | | | | | | | |

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|--|--|---|--|---|--|--|--|--|--|--|--|
|  NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288 | | Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105 | | Page <div style="font-size: 2em; font-weight: bold;">3 of 4</div> | | Date Rec'd in Lab <div style="font-size: 1.5em;">9/12/20</div> | | ALPHA Job # <div style="font-size: 1.5em;">L2037780</div> | | | |
| | | Project Information Project Name: <u>Forestburgh Firing Lane</u> Project Location: <u>Forestburgh, NY</u> Project # <u>0392.12119.2</u> (Use Project name as Project #) <input type="checkbox"/> | | Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other | | Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # <u>0392.12119.2</u> | | | | | |
| Client Information Client: <u>Keystone Associates</u> Address: <u>58 Exchange Street</u> <u>Binghamton, NY 13901</u> Phone: <u>(607)-722-1100</u> Fax: _____ Email: <u>TOC@keystone.com</u> | | Project Manager: <u>Tim O'Connor</u> ALPHAQuote #: _____ Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: _____ Rush (only if pre approved) <input type="checkbox"/> # of Days: _____ | | Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge | | Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: _____ <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: _____ | | | | | |
| These samples have been previously analyzed by Alpha <input type="checkbox"/> | | | | | | ANALYSIS <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Lead</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Lead</div> </div> | | Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below) | | | |
| Other project specific requirements/comments: <div style="font-size: 1.5em; margin-top: 10px;">need results ASAP without surcharge please</div> | | | | | | | | Sample Specific Comments | | | |
| Please specify Metals or TAL. | | | | | | | | | | | |
| ALPHA Lab ID (Lab Use Only) | | Sample ID | | Collection Date Time | | Sample Matrix | | Sampler's Initials | | | |
| 37780-13 | | 75 L O (0-2") | | 9/9/20 15:00 | | Soil | | TMO | | X X | |
| -14 | | 75 L O (12-16") | | 9/9/20 15:05 | | Soil | | TMO | | X X | |
| -15 | | 75 C O (0-2") | | 9/9/20 15:20 | | Soil | | TMO | | X X | |
| -16 | | 75 C O (12-16") | | 9/9/20 15:25 | | Soil | | TMO | | X X | |
| -17 | | 75 R O (0-2") | | 9/9/20 15:40 | | Soil | | TMO | | X X | |
| -18 | | 75 R O (12-16") | | 9/9/20 15:45 | | Soil | | TMO | | X X | |
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| Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other | | Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle | | Westboro: Certification No: MA935 Mansfield: Certification No: MA015 | | Container Type <div style="font-size: 1.5em;">Glass 64oz</div> | | Preservative <div style="font-size: 1.5em;">---</div> | | Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.) | |
| Relinquished By: <u>Timothy M. O'Connor</u> Date/Time: <u>9/11/2020 12:00</u> <u>Mike Radziewski</u> Date/Time: <u>9/11/2020 12:00</u> | | Received By: <u>Mike Radziewski</u> Date/Time: <u>9/11/2020 12:00</u> <u>Mike Radziewski</u> Date/Time: <u>9/11/2020 01:05</u> | | | | | | | | | |

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|  NEW YORK CHAIN OF CUSTODY | | Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105 | | Page 4 of 4 | | Date Rec'd in Lab 9/12/20 | | ALPHA Job # 12037780 | |
| Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 | | Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288 | | Project Information Project Name: Forestburgh Filling Lane Project Location: Forestburgh, NY Project # 0392, 1219, 2 (Use Project name as Project #) <input type="checkbox"/> | | Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other | | Billing Information <input checked="" type="checkbox"/> Same as Client Info PO # 0392, 1219, 2 | |
| Client Information Client: Keystone Associates Address: 58 Exchange Street Bronx, NY 10461 Phone: 607-722-1100 Fax: 607-722-1100 Email: Tocomm@keysamp.com | | Project Manager: Tim O'Connor ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: # of Days: | | Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge | | Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: | | | |
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| Other project specific requirements/comments: Need results ASAP without surcharge please | | | | Please specify Metals or TAL. | | | | Sample Specific Comments | |
| ALPHA Lab ID (Lab Use Only) | | Sample ID | | Collection Date Time | | Sample Matrix | | Sampler's Initials | |
| 37780-19 | | 100 L^o (0-2") | | 9/9/20 16:00 | | Soil | | TMO | |
| -20 | | 100 L^o (12-16") | | 9/9/20 16:05 | | Soil | | TMO | |
| -21 | | 100 C^o (0-2") | | 9/9/20 16:20 | | Soil | | TMO | |
| -22 | | 100 C^o (12-16") | | 9/9/20 16:25 | | Soil | | TMO | |
| -23 | | 100 R^o (0-2") | | 9/9/20 16:40 | | Soil | | TMO | |
| -24 | | 100 R^o (12-16") | | 9/9/20 16:45 | | Soil | | TMO | |
| Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other | | Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle | | Westboro: Certification No: MA935 Mansfield: Certification No: MA015 | | Container Type Glass Glass | | Preservative - - | |
| Relinquished By: Tim O'Connor | | Date/Time: 9/11/20 12:00 | | Received By: M. Radziewski | | Date/Time: 9/11/20 12:00 | | Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.) | |