Exhibit I
Geotechnical Engineering Report

GEOTECHNICAL ENGINEERING REPORT

FOX SQUIRREL SOLAR PROJECT

MADISON COUNTY, OHIO

Prepared For:

EDF Renewables
San Diego, CA

October 4, 2021
Olsson Project No. 020-32750

olsson®

October 4, 2021

EDF Renewables
Attn: Mr. Gene Bryant
15445 Innovation Dr.
San Diego, CA 92128

Re: Geotechnical Engineering Report
Fox Squirrel Solar Project
Madison County, Ohio
Olsson Project No. 020-32750

Dear Mr. Bryant,

Olsson has completed the geotechnical engineering report for the above referenced project. The enclosed report summarizes our understanding of the project, presents the findings of the borings and laboratory tests, discusses the observed subsurface conditions, and based on those conditions, provides geotechnical engineering recommendations for this project.

We appreciate the opportunity to provide our geotechnical engineering services for this project. If you have any questions or need further assistance, please contact us at your convenience.

Respectfully submitted,
Olsson, Inc.

Robb J. Roy
Senior Engineer

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EXECUTIVE SUMMARY

Olsson, Inc. (Olsson), under authorization and contract with EDF Renewables (EDF), completed a design phase geotechnical exploration for the Fox Squirrel Solar Project in Madison County, Ohio. This report is intended to be used for foundation design purposes for the explored locations of the project site. For the purposes of this report, the project site includes the initial project area and the boundary change area.

The geotechnical explorations consisted of Cone Penetration Testing (CPT), geotechnical borings, general soil laboratory testing, electrical resistivity testing, thermal resistivity testing, and axial tensile, axial compression, and lateral pile load testing. This program of geotechnical exploration was selected to accurately and efficiently evaluate the strength, compressibility, stiffness, and density characteristics of the soil at the project site, as well as to evaluate the general suitability of the solar array systems proposed.

In general, the field explorations encountered primarily low to moderate plasticity clay soil with occasional sandy layers. The materials encountered at the project site are anticipated to be glacial deposits. The findings for the boundary change area were similar to those as found in the initial project area.

The primary findings of the design phase geotechnical explorations and analyses indicate the following:

- In general, the results indicate the soil at the site is suitable for support of a shallow driven pile solar array foundation system. Results of the testing indicate that the axial tensile resistance is anticipated to govern the foundation design both in pile size and embedment depth.
- The completed soil borings and CPT testing indicated that 3 typical subgrade profiles comprise the majority of the project site: Strata 1 includes primarily stiff clay soils typical across the project site, Strata 2 includes moderately stiff clayey soil, and Strata 3 includes softer clay soil. Results of the exploration indicated that thinner sand zones are anticipated to be present in all three strata, but typically did not have a significant impact on pile load test results.
- Based on the results of the exploration, the following pile embedment depths are recommended for the subsurface strata:
    - Strata 1 – 6.5 feet
    - Strata 2 – 7.5 feet

  - Strata 3 – 8.75 feet

- W 6x9 piles installed to the recommended depths are expected to meet a minimum factor of safety of 1.2 with respect for uplift due to frost and a factor of safety greater than 1.5 due to the transient loading (including wind) based on our understanding of the structural loading, and are anticipated to exhibit tolerable lateral deflection (less than 1-inch at ground surface and 3 inches at pile head based on conversations with EDF) or excessive settlement based on typical loading conditions. Final factors of safety should be determined by the foundation designer in conjunction with the owner.
- Results of the testing indicated that the private access roads and substation structures can be designed using typical best practices. Recommendations for design of private access roads and substation structures are provided in this report.

A. INTRODUCTION

The Fox Squirrel Solar Project is a proposed commercial scale renewable energy projects consisting of a series of solar photovoltaic (PV) modules spread across approximately 3,766 acres for the initial project area and 1,151 acres for the boundary change area for a combined size of approximately 4,917 acres. For the purposes of this report, the overall project site, boundary, or area refers to both the initial project area and the boundary change area. This report describes the geotechnical exploration and testing performed, presents the results of this work, and provides geotechnical analyses and recommendations for foundation design of structures, as well as general construction considerations. This report addresses and identifies geologic and geotechnical risks and summarizes the geotechnical exploration completed at selected locations spread throughout the proposed development.

A.1. PROJECT BACKGROUND

EDF is developing the Fox Squirrel Solar Project in Madison County, Ohio, south the town of London and southwest of the greater Columbus metropolitan area.

We understand the proposed project consists of constructing solar panel arrays and associated electrical infrastructure. The solar panel arrays are planned to be located both in the initial project areas and the boundary change area. The project substation and Point of Interconnect (POI) is located in the initial project area. Specific solar array locations have not been provided, but the explorations were performed based on the areas targeted by EDF for development. The available foundation loading was provided to Olsson by EDF for analysis. Olsson provided the analysis herein based on the available foundation design values and experience with similar solar developments.

We understand that a preliminary geotechnical engineering report was submitted by Terracon dated March 31, 2021. Results from the preliminary report were reviewed by Olsson but were not relied upon unless explicitly stated herein. In addition, Olsson has performed several geotechnical explorations in central Ohio and specifically within Madison County. This final study was performed by Olsson for both the initial project area and the boundary change area.

The geotechnical recommendations presented herein are based on the available project information, proposed project location, and the subsurface conditions described in this report. If the loads or any of the noted information is incorrect, please inform Olsson so that we may amend the recommendations presented in this report if appropriate.

A.2. Site Location and Topography

The proposed Fox Squirrel Solar Project is located in Madison County, Ohio, approximately 20 miles southwest of Columbus and 8.5 miles southeast of London (Figure 1). Figure 2 shows the general project parcels as indicated by EDF's project layout at the time of the geotechnical exploration. Figure 2 also indicates the initial project area and the boundary change area.

The project area consists of agricultural land used for planting and harvesting crops, which were primarily harvested at the time of the site exploration. The project site generally decreases gently in elevation to the east, but elevations range from approximately 940 to 1,010 feet within the project boundary. A few prominent field drainages were observed in areas of the project and it is understood that the fields are extensively drain-tiled based on conversations with local landowners. Topography at the project site is shown in Figure 3.

A.3. Site Geology

The following sections discuss the anticipated geology at the project site based on available mapped data.

A.3.1. Regional Physiography

The project site is located in the Darby Plain Province of Ohio. The Darby Plain Province has moderately low relief and consists of broadly hummocky ground moraines with several broad, indistinct recessional moraines. The Darby Plain is bordered by the Reesville and Cable Moraines to the south and west, the Powell Moraine to the north, and slopes increasingly eastward toward the lower elevation Columbus Lowland to the east.

The surficial geology consists of Wisconsinan-aged glacial till with a large outwash deposit in the center of the region. Thicknesses of the glacial till are mapped as at least 20 to 80 feet deep, with some deposits on the order of over 250 feet thick where incised bedrock valleys are present (ODNR shaded drift thickness map, Figure 4). The surficial glacial deposits overlie deep Devonian and Silurian-aged sedimentary bedrock.

A.3.2. Geologic History

The project site is located within a geomorphic region known as the Ohio Till Plain. The region experienced several episodes of glaciation, the most recent about 10,000 to 15,000 years ago. Surficial geology deposits originated from glacial lake sediments, ground and end moraine sediments, and glacial outwash. Moraine features have also been identified surrounding the general project area. Glacial till and moraine sediments are composed mostly of clayey soil with isolated interlayered areas of silt, sand, gravel, and potentially cobble and boulder sized erratics.

End moraine deposits form hummocky ridges surrounding flat areas of ground moraine and glacial lake deposits. The outwash deposits contain sand and gravel, representing areas of fast-moving water on the edges of glaciers (Pavey, 1999).

Prior to the glacial advances, bedrock likely was fairly shallow, and some incised valleys into the bedrock are present. Bedrock units at the site consist of:

- Tymochtee and Greenfield Dolomites, Undivided: Silurian aged, olive gray to yellowish brown, thin to massive-bedded dolomite and shale (not mapped within the site boundary)
- Lockport Dolomite: Silurian aged, white to gray, finely to coarsely crystalline, medium to massive beds, vuggy and locally cherty
- Salina Group: Silurian aged, gray to yellow gray to olive gray, laminated to thinly bedded dolomite with gray shale, anhydrite, and gypsum laminations

These formations were generally not encountered within the explored depths ranging from 20 to 35 feet, are anticipated to be deeper than the proposed pile installation/foundation depths, and are not anticipated to be encountered during construction of solar pile foundations based on the available data. Bedrock units are indicated on Figure 7.

A.3.3 Local Geology and Soils

Surficial geology at the site consists primarily of Quaternary surficial deposits consisting of ground moraine deposits comprised primarily of a clay matrix with interlayered sand, silt, and some gravel (Pavey, 1999). The soils are mapped primarily as loess, glacial till, glaciofluvial deposits, or glacial outwash, described as predominantly Wisconsinan till (Figures 4 and 5). The USDA surficial soil mapping (Figure 6) indicates that most of the soils are lean clay (CL) and elastic silt (MH). Based on experience and actual soil conditions encountered, the site is primarily covered with lean clay (CL) type materials. It is anticipated that occasional cobbles and boulders may also be encountered within the glacial soil types.

A.4. Geologic and Geotechnical Hazards

Olsson has reviewed the project area, geologic conditions, and published information with regard to site conditions and potential geologic and geotechnical hazards. The following sections discuss commonly considered hazards and the anticipated potential for these to affect development of the project. Table 1 provides a summary of geologic and geotechnical hazards for the site. Design considerations for potential higher risk items are provided in Section E.

A.4.1. SEISMICITY AND FAULTING

The site is located in a relatively inactive seismic area and therefore the design seismicity is low. Seismicity for project design is further discussed in Section E.5.

There are no active folds or faulting in the vicinity of the project area (USGS Quaternary Fault Database, 2021).

Overall, the seismicity and faulting risks in the vicinity of the site appear low.

A.4.2. LIQUEFACTION

Liquefaction is the phenomena of a sudden drop in soil shear strength under undrained conditions from the typical yield strength to the substantially lower liquefied strength. This occurs from a rapid build-up of excess pore pressures during a seismic disturbance or other strong vibrations. There are five main items required for liquefaction to occur:

- Type of soil – Typically fine to medium grained sand and silt soils are susceptible to liquefaction.
- Soil gradation – Typically well graded materials are less susceptible to liquefaction than poorly graded materials.
- Moisture content or saturation – Very high natural moisture content at or near saturation is required for liquefaction to occur.
- Soil density – Soils are considered to be either dilative or contractive depending on their density. Soils with a higher density are less susceptible to liquefaction.
- Energy Driving Liquefaction – Some form of energy is required to trigger liquefaction. Liquefaction can be triggered by the dynamic application of a single large increment of shear stress or by repeated application of smaller shear stress increments. Typical sources of liquefaction are earthquakes and blasting, and less commonly pile driving.

The seismicity at the site is relatively low, and much of the site was found to be underlain by clay soils which have higher resistance to liquefaction. Based on the information reviewed, the risk of liquefaction for the project area appears low.

A.4.3. COLLAPSE AND SWELL POTENTIAL

Loess or eolian soils are typically collapsible. These soil types are mapped in the region but do not appear to be mapped within the footprint of the project. Further, the presence of the loess

soils was not detected in the soil borings. Therefore, either the loess is absent or very thin across the surface of the site and soil collapse is not anticipated to be a significant concern for the project.

Soils with moderate to high plasticity are considered to have shrink/swell potential. In general, soils with liquid limit values less than 50 and a plasticity index less than 25 are considered to have low shrink-swell potential. Soils with liquid limit values of 50 to 60 and a plasticity index of 25 to 35 are considered to have moderate shrink-swell potential. Soils with liquid limit values greater than 60 and a plasticity index value greater than 35 are considered to have high shrink-swell potential (Das, 2000).

Sand and silt soils generally have low plasticity and are not considered susceptible to significant swell potential. Lean clay soils (low to moderate plasticity) are anticipated to have a liquid limit value less than 50 and a plasticity index value less than 25 and exhibit low to moderate swell potential. Fat clay soils (moderate to high plasticity) have a liquid limit value greater than 50 and a plasticity index value greater than 25 and exhibit high swell potential. The majority of the material at the site is mapped as CL and MH, but based on our experience in central Ohio and the results of laboratory testing provided later in this report, the glacial till deposits were classified as CL (lean clay) and exhibit low swell potential.

A.4.4. KARST POTENTIAL

Karst is “a terrain, generally underlain by limestone, dolomite, or evaporite bedrock in which the topography is chiefly formed by the dissolving of rock, and which may be characterized by sinkholes, sinking streams, closed depressions, subterranean drainage, and caves” (Gustavson et al., 1980). Caves and related solution features pose a risk to overlying structures.

Review of potential karst features in the USGS publication “Karst in the United States: A Digital Map Compilation and Database” (Weary and Doctor, 2014) indicates that the project is mapped within an area noted to have karst features underlying more than 50 feet of glacial deposits. Specifically, the site is underlain by the Salina bedrock formation, which has known karst features and includes limestone and dolomite bedrock. The project area was reviewed for identified karst features through the Ohio DNR website interactive karst mapping tool (2021). Karst features were not indicated within the project area or immediate surroundings from this source.

Overall, the site appears to be within a mapped karst zone noted as karstic features at depths greater than 50 feet. Specific karst features were not mapped in the vicinity of the site based on the Ohio DNR interactive mapping tool. Therefore, the risk of karst features or formation impacting the development appears relatively low.

A.4.5. Subsidence from Mining and Oil and Gas Production

Most of the mineral extraction in Ohio occurs in the eastern half of the state where the glacial soils are absent and thicker coal seams are present in younger bedrock. Due to the relatively thick glacial deposits and lack of significant coal reserves or other mined resources mapped within the project area, risk of subsidence due to mining appears to be low. Some sand and gravel deposits likely are mined for construction materials, but these are typically surface mines which do not cause subsidence from collapsing of underground works.

Oil and gas production is prevalent in Ohio, but found almost entirely in the eastern half of the state. The Ohio DNR map indicates no oil and gas fields or wells are present in Madison County. Subsidence risk due to oil and gas development is considered low.

A.4.6. Slope Stability

The elevation across the site decreases to the east gradually. Large scale slope instability issues are not anticipated for the majority of the site. Locally steeper relief along more pronounced streams or other drainageways may have moderate potential for slope instability and some offset of development features from these drainageways may be warranted.

A.4.7. Flooding

A review of mapped flooding potential from the FEMA flood mapping website indicated the flowing creeks through the central and southern portion of the site are considered to be within a Zone A floodplain, and are subject to inundation by the 1-percent annual chance flood event. Based on our understanding of the project, areas mapped as Zone A are not planned to be developed. The majority of the site is mapped as Zone X. Figure 8 indicates the areas mapped as Zone A floodplain.

B. EXPLORATORY AND TEST PROCEDURES

The following sections describe the field and laboratory testing performed to evaluate the project site. The final geotechnical site exploration was performed in October through December of 2020. A summary of the exploration and test locations report is provided in Appendix A.

The final geotechnical explorations for the Fox Squirrel Solar Project consisted of CPT soundings, geotechnical borings, test pit excavations, bulk soil sampling, general laboratory testing, and axial, compression, and lateral pile load testing. This geotechnical exploration program was selected to develop design parameters of the soils at the project site, and to provide a general discussion of construction considerations.

Prior to the start of field work, coordinates of the geotechnical exploration locations were provided by EDF. The test locations were staked in the field by Olsson prior to beginning the site exploration.

B.1. CPT SOUNDINGS

A total of 185 locations were tested with CPT soundings within the project boundaries, including 176 within the proposed solar array areas and 9 within the proposed substation and Point of Interconnect (POI) facility footprint (Figure 9). CPT testing within the solar array areas were completed to a target depth 20 feet, and CPT soundings at the proposed substation location were extended to a target depth of 40 feet). CPT refusal was encountered above a depth of 10 feet at 8 tested locations. One additional sounding was attempted each of those locations offset slightly from the original hole, and each was extended to depths exceeding 16 feet, with the majority of the repushes terminating at 20 feet. Based on a comparison to the boring logs, the material which caused refusal of the CPT varied from sandy or gravelly layers to layers of harder clay till. CPT testing was performed in general accordance with ASTM D5778, “Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils”. Logs of CPT soundings from the exploration are provided in Appendix B.

Table 2 provides a summary of the CPT depth at each test location.

The CPT soundings were conducted by ConeTec, Inc., (ConeTec) of Chicago, Illinois. The CPT testing was performed with a 20-ton track mounted rig with an enclosed workspace. For the CPT test, a cylindrical cone is pushed vertically into the ground at a constant rate of penetration of 20 mm/sec. During penetration, measurements are made of the cone tip resistance (q_c), the side friction on the cylindrical shaft (f_s) just above the tip, and dynamic pore water pressure generated by cone penetration (u_2).

The cones used in the exploration had a 15 cm^2 base area and a 60-degree apex angle. The sleeve area of the cone was 225 cm^2. The fluid used for saturation of the filter was silicone. ConeTec provided Olsson with complete records of tip resistance, sleeve friction, pore pressure, and friction ratio of all CPT soundings. These records were analyzed by Olsson using the CPeT-IT software by Geologismiki and graphical variations of all readings with depth, including an interpreted soil classification were developed. CPT data interpretations are provided in Appendix C.

B.2. Pore Pressure Dissipation Testing

Pore pressure dissipation (PPD) testing was performed by Olsson at five locations coincident with select CPT locations within the project boundaries (Figure 10). Pore pressure dissipation testing was performed during a pause in CPT advancement, where excess pore water pressure is generated, and the time it takes for the pore pressure to stabilize is measured. PPD testing can also be used to evaluate hydrogeologic features, such as the phreatic surface and permeability of the soil. Results of the PPD testing are provided in Appendix D. For this project, the primary focus was evaluating static water levels for consideration in design.

B.3. Geotechnical Borings

A total of 40 borings were performed for the project (Figure 11), including 37 within the proposed solar panel array areas to a depth of 20 feet and three within the currently proposed substation and POI footprint to a depth of 35 feet (SUB-01, SUB-05, and SUB-06). The borings were drilled with a track-mounted drill rig due to the soft to wet ground conditions during field work. The boring locations were located in the field by Olsson personnel using a hand-held GPS device based on information provided by the client. The boring logs from the exploration are provided in Appendix E.

Soil samples were obtained at selected intervals in the borings using a standard split-spoon sampler during the Standard Penetration Tests (SPT; “SS” on the boring logs). The standard split-spoon sampler was driven in three 6-inch intervals into the substrata with blows from a 140-pound automatic hammer free-falling 30 inches. Penetration resistance (blow counts) were recorded for each 6-inch drive. Penetration resistance of the final 12 inches is considered SPT “N” values for the SS sampler. The blow counts and SPT “N” values are shown on the boring logs at the respective depths the samples were taken. SPT testing was performed in general accordance with ASTM D1586.

At select locations and depths, undisturbed samples were obtained using a hydraulically pushed, thin-walled tube (denoted “U” on the boring log). Thin-walled tube samples were collected in general accordance with ASTM D1587. This sampling method includes using a thin-walled, steel tube sampler with a diameter of 3-inches connected to a sampling head that is attached to the drill rods. The tube sampler is then pushed by the hydraulic rams of the drill rig into the soil below the bottom of the drill hole and then retracted to obtain a sample.

Bulk samples were collected from auger cuttings for laboratory thermal resistivity testing and California Bearing Ratio testing. Bulk samples for testing were obtained to a depth of

approximately 5 feet below the surface, excluding the organic surficial soil, and were placed in a sealed 5-gallon bucket to prevent loss of moisture content.

An Olsson technician observed the drilling and sampling, and prepared field logs of the material encountered in each boring during the drilling operation. The field logs included the technician's and driller's interpretation of the conditions between samples and approximate elevations of each stratum change. The boring logs presented in Appendix E represent the project engineer's interpretation of the field logs based on visual classification and laboratory test results of the samples.

B.4. LABORATORY TESTING

The following laboratory tests were performed or coordinated by Olsson to characterize the soil encountered at the site:

- Moisture content tests in accordance with ASTM D2216, "Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass"
- Dry unit weight tests in accordance with ASTM D7263, "Standard Test Methods for Laboratory Determination of Density (Unit Weight) of Soil Specimens"
- Atterberg Limit determinations in accordance with ASTM D4318, "Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils"
- Sieve and hydrometer analysis in accordance with ASTM D422, "Standard Test Method for Particle-Size Analysis of Soils"
- Unconfined compressive strength of soil tests in accordance with ASTM D2166, "Standard Test Method for Unconfined Compressive Strength of Cohesive Soil"
- Unconsolidated-undrained triaxial compressive strength tests in accordance with ASTM D2850, "Standard Test Method for Unconsolidated-Undrained Triaxial Compression Test on Cohesive Soils"
- Swell potential testing in accordance with ASTM D4546, "Standard Test Methods for One-Dimensional Swell or Settlement Potential of Cohesive Soils"

- Direct shear testing in accordance with ASTM D3080, “Standard Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions”

- California Bearing Ratio tests in accordance with ASTM D1883, “Standard Test Method for CBR (California Bearing Ratio) of Laboratory-Compacted Soils”

- Standard Proctor Density determinations in accordance with ASTM D698, “Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3))”

- Soil pH tests in accordance with EPA 9045D

- Soluble chloride and soluble sulfate of soils in accordance with EPA Method 300.0

The laboratory test results are presented on the boring logs in Appendix E, and are included in Appendix F.

B.5. ELECTRICAL RESISTIVITY TESTING

Field electrical resistivity testing was completed at a total of 39 locations (Figure 12). Soil resistivity testing was completed by Olsson personnel in accordance with ASTM method G57 “Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method” (equivalent to IEEE Std. 81). Electrode “a”-spacings of 2, 5, 10, 20, 50, 100, and 200 feet were used at the test locations. At each of the locations, measurements were taken to determine average soil resistivity in two approximately perpendicular arrays.

The equipment used to collect the data consisted of a resistivity meter, four metal electrodes and connecting wire. Co-linear arrays of four electrodes were placed in the ground for each measurement. Electrical current was input to the ground through the two outer electrodes of the array. The voltage drop produced by the resulting electrical field was measured across the two inner electrodes. The “a”-spacing was increased with each measurement, expanding the array about a common center. Increasing the electrode separation increases the depth of investigation and indicates vertical variation in resistivity. The resistivity meter read in apparent resistivity (*Ω-ft*) directly and did not require the conversion of electrical potential and inductance or resistance to provide the apparent resistivity.

The soil electrical resistivity results are included as Appendix G.

B.6. THERMAL RESISTIVITY TESTING

Soil samples for thermal resistivity testing were collected by Olsson personnel at a total of 39 locations (Figure 13). Bulk samples were recompacted to 85 percent of the soil's maximum dry density for the testing. Two additional thermal resistivity tests were performed on samples from the substation (SUB-05 and SUB-06) which were compacted to 95 percent of soil's maximum dry density. The samples were transported to Soil Engineering Testing, Inc., (SET) in Bloomington, Minnesota, for laboratory testing in accordance with ASTM D5334, "Standard Test Method for Determination of Thermal Conductivity of Soil and Soft Rock by Thermal Needle Probe Procedure". Laboratory tests included measurement of the soil's moisture content, maximum dry density, and thermal dry-out characteristics, which is a function of moisture content. The thermal resistivity test report is presented in Appendix H.

B.7. PILE LOAD TESTING

Pile load testing was performed to determine lateral, uplift, and compressive resistance following the completion of the traditional geotechnical exploration work. Discussion of the pile testing methods and results is provided in the following sections.

B.7.1. PILE INSTALLATION

A total of 73 locations were selected for testing within the project boundary (Figure 14). At each of the locations, 2 or 3 steel piles with a length of 12 feet were installed to a nominal depth of 8 feet below the existing grade (with 4 feet of stick up). The professional pile installer used a Vermeer PD 10 hydraulic vibratory pile driver to complete the installation, which is commonly used in driving piles for solar foundations. Piles were installed vertical and plumb.

The tested piles were W 6x9 shapes and were comprised of steel with a minimum yield stress of 50 kips per square inch (ksi). Table B.7.1-2 indicates the dimensions and installation data for the W 6x9 piles used for the project. Olsson oversaw the pile installation.

Table B.7.1-2: Pile Dimensions Used for Pile Installation

Pile Size	W 6x9
Steel Grade	50 ksi
Embedment Depth	8 feet
Section Depth	5.90 inches
Flange Width	3.94 inches
Web Thickness	0.170 inches
Flange Thickness	0.215 inches

B.7.2. PILE LOAD TESTING

The piles were allowed to remain installed for about one week before field testing. A Link-Belt 300x4 track-mounted excavator was mobilized to the project site to assist with load testing of the piles. Olsson staff performed the pile load testing.

Further details of the pile load testing are discussed below. Results of the individual field pile load testing results are provided in Appendix I.

B.7.2.1. AXIAL UPLIFT TEST (TENSION)

Olsson performed the axial tension testing in general accordance with ASTM D3689, “Standard Test Methods for Deep Foundations Under Static Axial Tensile Load”. The testing equipment was positioned directly above the central axis of the pile to minimize eccentric loading and avoid applying moment or lateral load as the force was being applied in the vertical direction. A distance of at least five times the maximum diameter (or section depth) of the pile was provided between the test pile and the reaction points. The materials used for the axial tensile testing were selected to be of sufficient strength and stiffness to allow for deflection of the pile without elastic shortening of the testing apparatus.

The materials used for the axial uplift tensile test consisted of:

- Reaction frame provided by the track-mounted excavator
- Calibrated hydraulic hand pump
- Calibrated digital load cell
- Hardware, chains, and shackles to connect the pump and load cell to the reaction frame
- Calibrated displacement sensors capable of 4-inches of travel and a precision of 0.001 inches
- Surveyor’s tripod used for displacement measurements detached from pile system

At each test location, the excavator was grounded such that compression of the soil was negligible, which served as the lower reaction point. The top of the pile was clamped to the load cell and hydraulic actuator, which were connected to the excavator centered above the pile with a chain and shackles, which served as the upper reaction point. Olsson manually used the hydraulic actuator pump to pull the pile vertically to specific loads, which were determined by reading the load cell. Table B.7.2.1-1 indicates the loading increments used for the axial uplift testing.

Table B.7.2.1-1: Axial Uplift Load Sequence

Axial Load (lbs)	Deflection Recording Time (seconds)
1,000	0, 60
2,000	0, 60
3,000	0, 60
4,000	0, 60
5,000	0, 60
6,000	0, 60
7,000	0, 60
8,000	0, 60
9,000	0, 60
10,000	0, 60
11,000	0, 60
12,000	0, 60
13,000	0, 60
14,000	0, 60
15,000	0, 60
16,000	0, 60
17,000	0, 60
18,000	0, 60

To measure displacement, two calibrated displacement sensors were magnetically attached to the pile. The sensors were placed on different sides of the pile. One of the sensors was placed at a height of approximately 4 feet measuring relative to the surveyors tripod, which was not attached, and therefore not moving due to the axial uplift force on the pile. The second sensor measured displacement relative to the ground surface. Redundant measurements at varying heights allows for verification that the testing process is performed properly (no tilting or horizontal movement) and provides a failsafe in case a sensor fails. Once the desired load was reached, readings were collected immediately and at a period of 1-minute after being exposed to the load.

The load testing apparatus is shown in Figure B.7.2.1-1 below.

Figure B.7.2.1-1: Pile Uplift Load Testing Apparatus (typical setup – not site specific photograph)



In isolated cases, once the pile began to pull out of the ground and exhibit significant movement, the loading could not be advanced to the next desired load. Where this happened, the testing was terminated, and the maximum observed load was recorded. Upon completion of the testing, the piles were removed from the ground and transported off site.

Results of the axial uplift testing are provided and discussed in Section E.1.2.

B.7.2.2. LATERAL TEST

Olsson performed lateral pile load testing in general accordance with ASTM D3966, “Standard Test Methods for Deep Foundations Under Lateral Load”. The testing equipment was placed such that the load was horizontal from the reaction point on the pile, which was at a height of 4 feet above the existing grade. This procedure minimized applying a moment or rotation to the top of the pile. A distance of at least five times the maximum diameter (or section depth) of the pile was

provided between the test pile and the reaction points. The materials used for the lateral testing were selected to be of sufficient strength and stiffness to allow for deflection of the pile without elastic shortening of the testing apparatus.

The materials used for the lateral load test consisted of:

- Reaction frame provided by the track-mounted excavator
- Calibrated hydraulic hand pump
- Calibrated digital load cell
- Hardware, chains, and shackles to connect the pump and load cell to the reaction frame
- Calibrated displacement sensors capable of 4-inches of travel and a precision of 0.001 inches
- Surveyor's tripod used for displacement measurements detached from pile system

At each pile testing location, the excavator was grounded by advancing the bucket into the ground such that compression of the soil was negligible. The pile was clamped to the load cell and hand pump at a height of 4-feet above the existing grade, which were connected to the excavator horizontally offset from the pile with a chain and shackles. Olsson manually used the hydraulic actuator pump to pull the pile laterally to specific loads, which were determined by reading the load cell. Table B.7.2.2-1 indicates the load sequence used for the lateral tests.

Table B.7.2.2-1: Lateral Load Sequence

Lateral Load (lbs)	Deflection Recording Time (seconds)
0	--
500	0, 60
1,000	0, 60
1,500	0, 60
0	0, 60
1,500	0, 60
2,000	0, 60
2,500	0, 60
0	0, 60
2,500	0, 60
3,000	0, 60
3,500	0, 60
0	0, 60
3,500	0, 60
4,000	0, 60
4,500	0, 60
0	0, 60
4,500	0, 60
5,000	0, 60
5,500	0, 60
0	0, 60

The load testing apparatus is shown in Figure B.7.2.2-1 below.

Figure B.7.2.2-1: Pile Lateral Load Testing Apparatus (typical setup – not site specific photograph)



To measure displacement, two calibrated displacement sensors were used which measured the deflection of the pile away from stationary points. One of the sensors was placed at a height of approximately 4 feet on the surveyors tripod, which was not attached, and therefore not moving due to the lateral force on the pile. The second sensor measured lateral displacement relative at the ground surface. Once the desired load was reached, readings were collected immediately and at a period of 1-minute after being exposed to the load.

Upon completion of the testing, the piles were removed from the ground and transported off site.

Results of the lateral testing are provided and discussed in Section E.1.3.

B.7.2.3. Axial Compression Test

Olsson performed the axial compression testing in general accordance with ASTM D1143, “Standard Test Methods for Deep Foundation Elements Under Static Axial Compressive Load”. A total of 30 axial compression tests were performed for the project. The testing equipment was positioned directly above the central axis of the pile to minimize eccentric loading and avoid

applying moment or lateral load as the force was being applied in the vertical direction. A distance of at least five times the maximum diameter (or section depth) of the pile was provided between the test pile and the reaction points. The materials used for the axial tensile testing were selected to be of sufficient strength and stiffness to allow for deflection of the pile without elastic shortening of the testing apparatus.

The materials used for the lateral load test consisted of:

- Reaction frame provided by the track-mounted excavator
- Calibrated hydraulic hand pump
- Calibrated digital load cell
- Hardware, chains, and shackles to connect the pump and load cell to the reaction frame
- Calibrated displacement sensors capable of 4-inches of travel and a precision of 0.001 inches
- Surveyor's tripod used for displacement measurements detached from pile system

At each pile testing installation location, the excavator bucket was used to provide the reaction force. The hydraulic lines were shut and locked to prevent creep of the equipment. The load cell was placed directly between the bucket and the pile. Olsson manually used the hydraulic actuator pump to push the pile vertically into the ground at specific loads, which were determined by reading the load cell. Table B.7.2.3-1 indicates the load sequence used for the lateral tests.

Table B.7.2.3-1: Axial Compression Load Sequence

Axial Compressive Load (lbs)	Deflection Recording Time (seconds)
0	--
1,000	0, 60
2,000	0, 60
3,000	0, 60
4,000	0, 60
5,000	0, 60
6,000	0, 60
7,000	0, 60
8,000	0, 60
9,000	0, 60
10,000	0, 60
11,000	0, 60
12,000	0, 60
13,000	0, 60
14,000	0, 60

Two calibrated displacement sensors were used which measured the deflection of the pile away from stationary points. One of the sensors was placed at a height of approximately 4 feet on the surveyor's tripod, which was not attached, and therefore not moving due to the vertical force on the pile. The second sensor measured axial displacement relative to the ground surface. Once the desired load was reached, readings were collected immediately and at a period of 1-minute after being exposed to the load.

Upon completion of the testing, the piles were removed from the ground and transported off site.

Results of the axial compression testing are provided and discussed in Section E.1.4.

C. SUBSURFACE CONDITIONS

The following sections discuss the results of the field and laboratory testing performed for the project.

C.1. CONE PENETRATION TEST DATA INTERPRETATION

The CPT data interpretation was performed using the CPeT-IT software by Geologismiki. The program uses the soil behavior type classification system from CPT data proposed by

Robertson et al. (2009). The classification system is based on the corrected tip resistance, q_t, friction ratio, R_f; and pore-water pressure parameters, B_q; the classification includes a total of 9 soil behavior types. These cone parameters are defined as follows:

$$q_t = q_c + (1 - a)u_2 \quad \text{(Robertson, 2009)}$$

$$R_f = \left(\frac{f_s}{q_t}\right) 100 \quad \text{(Robertson, 2009)}$$

$$B_q = \frac{u_2 - u_0}{q_t - \sigma_{vo}} \quad \text{(Robertson, 2009)}$$

Where:

q_c = tip resistance measured by the cone, load per area

a = the area ratio of the cone

u_2 = measured pore-water pressure during cone penetration, load per area

f_s = unit sleeve friction resistance, load per area

σ_{vo} = total overburden stress, load per area

u_o = in-situ pore water pressure, load per area

C.2. SUBSURFACE STRATIGRAPHY

Specific conditions at each boring location are shown on the boring logs in Appendix D and from the CPT sounding logs and interpretations in Appendix B and C. The logs represent subsurface conditions at each specific boring location. Stratification boundaries shown on the boring logs represent the approximate depth of changes in soil types. The changes are likely more gradual in-situ. The boring logs do not reflect variations that may occur between borings or across the project site. The nature and extent of such variations may not become evident until construction.

The typical stratigraphy, as determined from field data, consists primarily of low plasticity clay with occasional thinner layers of sand typically at greater depths. Results of the exploration indicated that generally similar conditions were encountered in both the initial project area and the boundary

change area. A detailed review of the soil layers encountered at the project site is included in the following sections.

A detailed review of the soil layers encountered at the project site is included in the following sections.

C.2.1. Topsoil and Subsoil

The project site is mainly used for agricultural farming. The geotechnical explorations determined the surficial material was tilled and some mixture of former topsoil and subsoil is anticipated, and a clearly defined “topsoil” layers was not identified at the tested locations. Localized zones of thicker or thinner surficial soil with variable organic content should be expected across the site, depending on the agricultural use and topography. The surficial deposits were generally observed to consist of brown to dark brown lean clay with lesser amounts of roots and organics.

C.2.2. Clay

The majority of the subsurface materials at the site tended to consist of clayey soil which can be classified as CL (lean clay) with lesser portions of CL-ML (silty lean clay). The clay was typically brown to gray in color and contained lesser amounts of sand and gravel. Based on visual observations and the mapped geology, it is anticipated that the clayey material is glacial till.

Moisture content testing indicated that the moisture content ranged from 7.8 to 28.7 percent, with an average of about 14 percent.

Laboratory testing indicated that the dry unit weight ranged from 90.1 to 132.9 pounds per cubic foot (pcf). The in-situ density was calculated using the measured moisture content of the samples, and ranged from 114.3 to 147.4 pcf, with an average of about 137 pcf.

The clay exhibited liquid limit values ranging from 18 to 48 percent, plastic limit values ranging from 12 to 20 percent, and plasticity index values ranging from 5 to 29 percent. These soils plot primarily as CL (lean clay) and a few plot as CL-ML (silty lean clay).

Mechanical grain size testing indicated that the gravel content ranged from 0.5 to 15.7 percent, the sand content ranged from 18.4 to 36.3 percent, and the fines content (silt and clay) ranged from 52.4 to 78.7 percent. Hydrometer analyses indicated that the silt content ranged from 40.5 to 52 percent and the clay content ranged from 14.7 to 22 percent.

Standard Penetration Tests (SPT) conducted in the lean clay ranged from 3 to greater than 50 blows per foot, with a typical range of 8 to 15 blows per foot in the upper 10 feet. Laboratory

testing indicated that the unconfined compressive strengths ranged from 0.9 to 3.1 tons per square foot (tsf). Laboratory unconsolidated undrained triaxial compressive strength testing indicated that the maximum deviator stress ranged from 1 to 4.7 tsf. Hand penetrometer readings indicated that the unconfined compressive strength ranged from 1 to 4.5 tsf, with most results ranging from 2 to 4 tsf. Strength testing results indicate that clayey soils are generally medium stiff to stiff with an overall typical undrained shear strength range of 1 to 4 tsf.

C.2.3. Sand and Gravel

Coarser materials consisting of sand and gravel were encountered interbedded within the primarily cohesive materials at nine borings (at depths below 12 feet) and several CPT soundings. The sand and gravel layers exhibited variable fines content and can be characterized as ranging from SC (clayey sand), SP-SC (poorly graded sand with clay), GP-GC (poorly graded gravel with clay) and GP (poorly graded gravel). The sand ranged in color but was brown and gray, and is anticipated to be glacial outwash seams within the glacial till.

Moisture content testing indicated that the moisture content ranged from 9.2 to 13.6 percent, with an average of about 11 percent.

Mechanical grain size testing indicated the gravel content ranged from none to 74.3 percent, the sand content ranged from 17.9 to 77.4 percent, and the fines content (silt and clay) ranged from 6.8 to 49.1 percent.

Standard Penetration Tests (SPT) conducted fully in the sand layers ranged from 14 to greater than 50 blows per foot, with most measurements exceeding 20 blows per foot. These results indicate that the sands typically had a medium dense to dense consistency.

C.3. Groundwater Observation

Shallow groundwater was evaluated using PPD testing during CPT soundings, soil borings, test pit excavations, and from observations of groundwater from pile removal.

Results of the borings indicated that groundwater was encountered at depths ranging from 9 to 20 feet below the existing grade where observed, but was not encountered at 25 completed boring locations. Table 3 indicates the observed groundwater depth at the explored boring locations.

Results of pore pressure dissipation testing performed by Olsson during CPT testing were also reviewed. Results of the PPD testing indicated that the groundwater was observed at depths ranging from 7.1 to 11.4 feet below the existing grade. Table 4 provides a summary of the completed PPD testing.

Due to the dominant clay materials at the site, the soils will likely have a low permeability which may cause slower seepage where more permeable sand seams are not present. Where sand seams are present, seepage will likely occur rapidly and for variable durations depending on the recharge area of the seams. Given the glacial terrain, discussions with landowners, and Olsson's experience in the area, groundwater is anticipated to be within 5 to 10 feet of the ground surface.

Variations and uncertainties exist with relatively short-term water level observations that were recorded during this exploration. Water levels can and should be anticipated to vary between boring locations, as well as with time within a specific boring. Groundwater levels may be expected to fluctuate with precipitation, site grading, drainage and adjacent land use.

C.4. Soil Chemical Testing

Chemical tests, consisting of soil pH, soluble chlorides, and soluble sulfates were performed on 38 samples collected at the project site. The results of the chemical testing indicate that the soils have a pH ranging from 7.2 to 7.5, the soluble chloride concentration was less than the detection limit of 20 mg/kg, the soluble sulfate concentration ranged from less than the detection limit of 50 to 181 mg/kg. The chemical test results are summarized in Table 5.

C.5. General Laboratory Testing

Laboratory testing results are discussed below and are summarized in Table 6 and provided in Appendix F.

C.5.1. Moisture Content

A total of 141 moisture content tests were conducted on samples ranging from sands to clays collected during the geotechnical explorations. Moisture contents ranged from 7.8 to 28.7 percent, with an average of about 14 percent.

C.5.2. Grain Size Analyses

Grain size analyses were performed on 62 samples collected from the geotechnical borings. The percent fines (percent by weight passing the number 200 sieve) ranged from 6.8 to 81.5 percent.

C.5.3. Unit Weight

A total of 21 dry unit weight tests were performed on intact samples collected from the geotechnical borings. The dry unit weight ranged from approximately 106.1 to 131.8 pcf. The in-situ unit weight was calculated from the measured moisture content and corresponding dry unit

weight of the samples. The resulting moist unit weights ranged from 127 to 147.4 pcf, with an average of about 138 pcf. The average value was used for consistency in this report.

C.5.4. Atterberg Limits

Atterberg limits testing was performed on select soil samples and was used to classify the material encountered in the borings in accordance with the USCS. A total of 77 Atterberg limits tests were conducted on selected samples.

Results of the Atterberg limits tests indicate the soils have liquid limits ranging from 18 to 48 percent, plastic limit values ranging from 12 to 20 percent, and plasticity index values ranging from 5 to 29 percent, classifying the soil generally as CL (lean clay) and CL-ML (silty lean clay) in accordance with the Unified Soil Classification System (USCS).

C.5.5. Standard Proctor and California Bearing Ratio Testing

A total of 39 laboratory compaction tests were conducted on bulk soil samples collected from the near surface soils across at the project. Standard Proctor testing indicated the maximum dry density ranged from 101.4 to 123 pcf with a corresponding optimum moisture content ranging from 12.2 to 22.5 percent. The results of the standard Proctor compaction tests are provided in Table 7. Those results are provided in Appendix F.

Design for roads and general working areas is based in part on the strength of the subgrade that can be reasonably achieved. A total of six samples of the shallow subgrade soils were collected immediately below the existing topsoil, extending to a depth of approximately 4 feet below the surface (minus the highly organic topsoil layer). The samples tested consisted of clay soil. The soils appeared to be fairly consistent to this depth. The soil samples were prepared to approximately 95 percent of the maximum standard Proctor density at the optimum moisture content. The specimens were soaked for a period of 72 hours before CBR tests were performed. Laboraotry CBR testing indicated that the CBR value ranged from 2.3 to 5.9 percent, with an average of 3.9 percent (Table 7).

For a CBR value, assuming compaction to 95 percent of the Standard Proctor as recommended herein, we recommend a design CBR value of 3.5 percent for design of the access roads in all weather conditions.

C.5.6. Swell Potential

A total of three laboratory swell tests were performed on intact clay samples as part of the final exploration across. The specimen were inundated with distilled water in order to determine the free swell potential (swell percentage). The specimens were then incrementally loaded until the

initial specimen height was achieved (swell was eliminated by loading). The results indicate that the maximum free swell ranged from 0.7 to 3.7 percent. The associated swell pressure (amount of pressure required to negate the swell) ranged from 0.1 to 0.9 tsf. Based on the existing overburden pressure, the in-situ swell potential ranged from none to 1.7 percent with a potential swell pressure ranging from essentially 0 to 0.6 tsf.

The severity of swell is function of the level of swell potential measured in the laboratory. A potential swell of less than 1.5 percent classifies a soil as low swell potential, a swell potential between 1.5 and 5 percent is considered medium, and a potential swell of greater than 5 percent is classified as high swell potential (Peck, Hanson, Thornburn 1974).

Based on the completed laboratory swell and index test results, the samples tested primarily exhibited low swell potential, with one near the border of low to moderate swell potential.

C.6. SHEAR STRENGTH

As noted in Section C.1, the project site typically consists of clay soil with interbedded thinner sand layers. The following sections discuss, in detail, the shear strength parameters of the soils to be used in foundation design.

C.6.1. UNDRAINED SHEAR STRENGTH

The undrained shear strength of the cohesive soil (clay) layers at various depths was calculated based on CPT data using the following equation:

$$s_u = \frac{q_t - \sigma_{vo}}{N_{kt}}$$ (Lunne et al., 1997)

Where:

s_u = undrained shear strength

N_{kt} = empirical cone factor

σ_{vo} = total in-situ vertical stress (from CPT data)

q_t = corrected cone tip resistance (from CPT data)

It is critical to develop an accurate estimate of the empirical cone factor, N_{kt}. The empirical cone factor is used to estimate in-situ soil shear strength from CPT data, which can be correlated based on a comparison to laboratory strength tests on undisturbed samples.

Hand penetrometer measurements indicated that the unconfined compressive strength ranged from 1 to 4.5 tsf, with an overall typical range of 2 to 4 tsf. Laboratory unconsolidated undrained triaxial compressive strength testing indicated that the maximum deviator stress ranged from 1 to 4.7 tsf. Laboratory unconfined compressive strength tests indicated that the unconfined compressive strength ranged from 0.9 to 3.1 tsf.

The undrained shear strengths can be approximated as half of the unconfined compressive strength test results or maximum deviator stress, indicating a range of undrained shear strengths determined through laboratory testing from 900 to 4,700 pounds per square foot (psf), with the majority of the measurements exceeding 2,000 psf. The laboratory testing results indicate generally similar values between CPT testing and hand penetrometer measurements.

A comparison of the CPT and laboratory test data indicated that a design N_{kt} value of 16 reasonably estimates the soil undrained shear strength. This value has also been used at several projects in central Ohio.

Results of the measured average undrained shear strength is provided in Table 8 for each individual CPT sounding using a cone factor of 16. The average undrained shear strength for the entire CPT sounding ranged from 835 to greater than 6,000 psf. Occasional lower strength data points were observed, but these were typically limited in thickness, and the majority of the measured undrained shear strength values from CPT exceeded 2,000 psf.

Appendix J provides plots of the undrained soil shear strength versus depth as correlated from CPT data. These plots show the variation in undrained shear strength with depth at each individual test location and the sand/clay layering at the explored locations.

For the substation and POI location, based on a review of the completed CPT soundings and soil borings, a design undrained shear strength of 1,250 psf was used for analysis of shallow foundations, where required.

C.6.2. DRAINED SHEAR STRENGTH

The shear strength of granular (cohesionless) soil at various depths was calculated based on CPT data using the following equation:

$$\phi' = \phi'_{cv} + 15.94 \log\left(Q_{tn,cs}\right) - 26.88 \qquad \text{(Robertson, 2009)}$$

Where:

φ' = drained friction angle

$Q_{ts,cs}$ = equivalent normalized cone resistance = varies (from CPT data)

Φ'_{cv} = constant volume friction angle depending on mineralogy = 32 degrees

CPT soundings indicated granular layers at varying depths and thicknesses (based on Olsson's interpretation of CPT soil behavior type). Results of the measured average friction angle is provided in Table 8 for each individual CPT sounding. The average drained shear strength ranged from 38 to 46 degrees, with an average of about 42 degrees. In general, the majority of the friction angle data points calculated from the CPT data and shown in Appendix J are greater than 40 degrees.

Appendix J provides plots of the friction angle versus depth as correlated from CPT data. These plots show the variation in friction angle with depth at each individual test location and the sand/clay layering at the explored locations.

Laboratory direct shear testing indicated that the peak friction angle ranged from 36 to 37.2 degrees, with minimal cohesion.

For the substation location, based on a review of the completed CPT soundings and soil borings, a design friction angle of 35 degrees was used for analysis of shallow foundations, where required.

The drained shear strength of the clay present across the project site was not directly measured. However, it is estimated to be 31 degrees based on correlations to the plasticity index (average value of 13 percent from completed laboratory test results) from Terzaghi et al (1996) for the clayey soils which comprise the majority of the soil profile.

D. SITE PREPARATION

The following sections provide general recommendations for site preparation.

D.1. GENERAL SITE AND SUBGRADE PREPARATION

All topsoil, vegetation, major root systems, organic soils, and any loose, soft or otherwise unsuitable or deleterious material should be stripped and removed from the areas where spread foundations, roadways, and other ancillary structures will be built. Topsoil appears to be limited in quantity at the site, as the surficial materials appear to be a mixture of topsoil and subsoil tilled for agricultural purposes, with a typical thickness ranging from 12 to 24 inches, but exact

determination of the transition between the surficial layers and underlying mineral soils was difficult based on visual observation. Full removal of the surficial materials may not be required if the subgrade appears is deemed suitable. Materials with higher organic content should be carefully separated to avoid incorporation into structural fill.

Site clearing, grubbing, and stripping should be completed during periods of dry weather. Operating heavy equipment on the site during periods of wet weather could result in excessive pumping and rutting of the subgrade soils.

Foundations for the solar array are typically pile-type structures installed from existing ground surface, and foundations for the substation are typically shallow foundations or slabs for lighter structures and deep foundations consisting of drilled shafts for taller, heavier structures. Overall, the use of compacted structural fill is not widely anticipated, except where excavation of unsuitable material below the foundation embedment depth or where mass grading may be needed to raise site grades is performed. The results of the geotechnical exploration indicate soil consisting primarily of low plasticity clay with occasional sandy layers at most of the test locations. Shallow refusal was encountered at a few CPT test locations on anticipated boulders or gravel (i.e. glacial erratics), but generally was not observed during soil borings or test pile installations. Therefore, conventional excavation machines are anticipated to be suitable for excavation of the foundations.

D.1.1. Shallow Excavations and Backfill

Upon excavation to the proposed shallow foundation bearing surface, the excavation base should be observed by the geotechnical engineer of record or authorized representative.

If, in the course of excavating for shallow foundation, utility, or roadway construction, the base of the excavation becomes rutted, damaged, or is otherwise determined to be of inadequate character or unsuitable for construction in the opinion of the construction inspector or authorized representative, the conditions shall be noted and discussed with the geotechnical engineer of record to determine appropriate corrective measures.

We recommend an Olsson geotechnical engineer, or their authorized representative, review the base of new construction excavations prior to the placement of any new fill materials or any foundations to evaluate for the intent of the recommendations in this report and minimize the potential of unnecessary soil corrections being performed. Disturbance, desiccation, or wetting of the subgrade soils between grading and placement of foundations can result in deterioration of the previously completed subgrade. If conditions change after a subgrade has been inspected,

we recommend re-evaluation of the subgrade to verify the condition of the soil prior to construction of the foundations.

For foundations where overexcavations are required based on the presence of unstable soil, the excavations and subsequent placement of engineered fill should be oversized by 1 foot on all sides for each foot of excavation below the foundation embedment depth. For example, a 1-foot excavation below the foundation depth will require a bottom of foundation width (and length) 2 feet wider than a standard foundation width (1-foot on each side of the footing).

At locations where the subgrade soils are observed to be unstable, are observed to exhibit shear strengths less than the design soil strengths, or become rutted or disturbed during construction, options for subgrade improvement may consist of:

- Reworking and recompacting the native materials to achieve both a minimum of 95 percent of the material's maximum dry density as determined by a laboratory Standard Proctor method of test and the design undrained shear strength or friction angle of the soil.
- Removal of the unsuitable materials (such as organics) and replacement with engineered fill as discussed in Section D.2.

Lower strengths and potential soil improvement options should be discussed with Olsson as the geotechnical engineer of record for the project. Confirmation of the selected improvement method also should be reviewed by the foundation engineer for compliance with the support assumptions used in the foundation design.

D.2. FILL

Any structural fill placed below shallow spread foundations should consist of approved engineered fill. Fill should be free of organic matter or debris and rocks greater than 3 inches in diameter. Structural fill materials should consist of well graded granular material or cohesive, low plasticity, non-expansive soil and have a liquid limit and plasticity index less than 45 and 20 percent, respectively. Alternative structural fill materials may be used depending on availability and approval by the foundation engineer. Samples of imported structural fill materials should be submitted to Olsson for review prior to use on site.

On-site soils that comply with the recommendations in this section may be used for structural fill. In general, the on-site soils consisting of material classified as CL, SM, SC, SP-SM, or coarser (i.e. gravelly soil) in accordance with the USCS can be considered for use as general fill. High

plasticity silt or clay (MH, CH) soils are not recommended to be used as fill within 4 feet of footings or within 2 feet of foundation subgrades.

Fills placed in excess of 10 feet will require further evaluation. Thick fill placement (in excess of a few feet) may also require additional settlement evaluation.

New fill placed for ancillary structures should be placed in maximum loose lift thicknesses of 8 inches and compacted as recommended in Table D.2-1. The lift thicknesses should be limited to 4 inches when compacting in small areas requiring hand-operated equipment such as vibrating plate compactors, walk behind trench rollers, or jumping jacks.

An Olsson representative should regularly observe and monitor the excavation and grading operations and perform field density tests to document that moisture and compaction requirements are being achieved.

Table D.2-1 Recommended Fill Placement Guidelines

Areas of Fill Placement	Material Type	Minimum Compaction Recommendation	Moisture Content (% of Optimum)
Structural Fill (below structures)	ODOT Item 703.17 Aggregate Base	95% Standard Proctor (ASTM D 698)	-3 to +3 percent
	Imported low plasticity, non-expansive cohesive soil	95% Standard Proctor (ASTM D 698)	-2 to +3 percent
	Approved excavated native materials (SP, SC, SM, and CL materials)	95% Standard Proctor (ASTM D 698)	-2 to +3 percent
General fill (below roadways)	Approved excavated native materials (SP, SC, SM, and select CL materials)	95% Standard Proctor (ASTM D 698)	-2 to +3 percent
	Imported non-expansive, low plasticity cohesive materials	95% Standard Proctor (ASTM D 698)	-2 to +3 percent
General fill in solar array areas	Approved excavated native materials (SP, SC, SM, and CL materials)	95% Standard Proctor	-2 to +3 percent
General fill in non-structural areas (fills less than 4 feet in thickness)	Approved excavated native materials (SP, SC, SM, CL, CH materials)	85% Standard Proctor	-2 to +3 percent

The moisture content for the structural fill at the time of compaction should generally be maintained between the ranges specified in Table D.2-1. More stringent moisture limits may be necessary with certain soils and some adjustments to moisture contents may be necessary to achieve compaction in accordance with project specifications. It should be noted that clayey materials will be more difficult to compact in the presence of excess moisture content, whereas granular materials tend to be less sensitive to moisture content during compaction.

D.3. Drainage Considerations and Dewatering

Water should not be allowed to collect at the ground surfaces near foundations either during or after construction as this may lead to softening of the subgrade. Provisions should be made to quickly remove accumulating seepage water or storm water runoff from excavations and roadway subgrades. Subgrades should be allowed to dry before continuing with construction. Undercut or excavated areas should be sloped toward one corner to allow rainwater or surface runoff to be

quickly collected and gravity drained or pumped from construction areas. Subgrade soils that are exposed to precipitation or runoff should be evaluated by Olsson prior to the placement of new fill, reinforcing steel, or concrete, to determine if corrective action is required.

To minimize concerns related to improper or inadequate drainage away from foundation bearing subgrades or from cohesive backfill materials used in utility trenches or roadways, we recommend that site grading should provide for efficient drainage of rainfall or surface runoff away from new structures and roads.

We anticipate that a system of sloped excavations with sumps and small pumps should be sufficient to dewater excavations in most cases. If excavations are planned to extend significantly below the groundwater level or into areas where thicker sand seams are noted, more comprehensive dewatering techniques may be required. The potential for requiring dewatering points or wells would increase as excavations extend to greater depths in the ground or as they get in close proximity to saturated granular soil layers. However, the pile foundations for the solar arrays are typically driven from grade without an excavation and dewatering for construction of these foundation elements is generally not anticipated.

D.4. SLOPES AND EXCAVATIONS

Construction site safety is the responsibility of the general contractor. The contractor shall also be solely responsible for the means, methods, techniques, sequencing, and operations during construction. Olsson is providing the following information solely as a service to our client. Under no circumstances should Olsson's provision of the following information be construed to mean that we are assuming responsibility for construction site safety or the contractor's activities. Such responsibility is not implied and should not be inferred.

The contractor should be aware that slope height, slope inclination, and excavation depths (including utility trench excavations) should in no case exceed those specified in local, state, or federal safety regulation; e.g., *OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926,* or successor regulations. Such regulations are strictly enforced, and if not followed, the owner, the contractor, or earthwork or utility subcontractors could be liable for substantial penalties.

The soil in the upper 10 feet at the project site were typically observed to be Type B (stiff clay soils requiring 1H:1V slopes) with lesser areas of Type C (granular soils requiring 1.5H:1V slope) from OSHA soil classifications. This should be verified during construction by the OSHA-defined competent individual to ensure that the benching or slopes are adequate. Soils, particularly sands,

in the presence of groundwater/seepage likely will require additional means of slope protection such as additional sloping, benching, or shoring.

Temporary slopes exceeding 5H:1V should be properly benched prior to placement of new fill. As an alternative to flatter and benched temporary slopes, vertical excavations can be temporarily shored. The contractor should be responsible for the design of temporary shoring in accordance with applicable regulatory requirements. Permanent fill and cut slopes at the site should not exceed 3H:1V. Where steeper slopes are planned, additional analysis should be performed once grading plans have been developed.

If excavations, including utility trenches, are extended to depths of more than 20 feet, OSHA requires that the side slopes of such excavations be designed by a professional engineer registered in the state where construction is occurring.

D.5. Construction Equipment Mobility

The on-site soils may be susceptible to degradation and softening under construction equipment traffic, especially when exposed to high moisture levels. Excessive pumping and rutting may occur during construction operations, especially under repeated traffic loads or during periods of wet weather. Depending on weather events and the severity of the degradation, temporary stabilization techniques may be required.

Some general guidelines for reducing equipment mobility problems and addressing potential soft and wet surface soils are as follows:

- Optimize surface water drainage at the site during construction.
- Whenever possible, wait for dry weather conditions to prevail, and do not operate construction equipment on the site during wet conditions. Ruts caused by construction vehicle traffic will accelerate subgrade disturbance.
- Disc or scarify wet surface soils during periods of favorable weather to accelerate drying.
- Temporarily recompact loose subgrade soils if rain is forecast to promote site drainage and reduce moisture infiltration.
- Use construction equipment that is well suited for the intended job under the existing site conditions. Heavy rubber-tired equipment typically requires better site conditions than lightly loaded track-mounted equipment.

- Equipment should be driven in designated drive paths. Additional maintenance may be necessary if vehicles veer from designated drive paths.

It may be necessary to take steps to aggressively improve equipment mobility if construction must proceed during unfavorable conditions.

D.6. Underground Utility Trenches

Results of the geotechnical exploration indicate that cut of subsoil in the area can be achieved with conventional trenching machinery. In most cases, shallow utility trenches is anticipated to consist of lean clay with isolated sandy zones. The presence of shallow groundwater within cable trenches should be anticipated, but may be limited due to the presence of primarily cohesive soil with low permeability. In general, significant gravel, cobble, and boulder content was observed only through CPT refusal at very isolated locations (and not at secondary CPT soundings offset from these locations) but are expected to be present in limited quantities based on site geology. These may be present in areas between the explored locations.

D.6.1. Underground Utility Trenches Outside of Road Crossings

Underground utility trench backfill should consist of native material compacted to meet or exceed 85 percent of the material's standard Proctor maximum dry density. Loose lifts should not exceed 12 inches.

D.6.2. Underground Utility Trenches Within Road Crossings

Underground utility trenches at roadway crossings will require additional compaction effort. For cable trenches below road surfaces, all lifts, including the initial cable bedding lift, should be compacted to a minimum of 95 percent of the material's standard Proctor maximum dry density to minimize settlement along roadways.

E. STRUCTURES

Solar panel arrays are typically supported on some form of a deep foundation system. Typical deep foundation systems include driven and vibrated steel piles, helical piers (ground screws), screw piles, and drilled piers. In some cases, the solar trackers have also been supported by a shallow spread footing (ballasted) foundation system that can be cast-in-place or precast.

Based on the results of the geotechnical exploration and with consideration of the previously completed site explorations, all of the above foundation systems appear to be feasible for the project site. However, Olsson understands that a driven steel pile foundation system is commonly the most economical and, thus, the most desirable foundation system to support the solar

trackers. Therefore, this report provides recommendations for a driven piling. Additional recommendations for alternative foundation types can be provided along request.

E.1. Conventional Pile Foundation Design for Solar Panel Array Foundations

Based on discussions with EDF, a driven pile foundation system is currently planned for use.

Of primary concern for the pile option (beyond defining the design parameters for use in foundation design) is the presence of driving obstructions such as cobbles, boulders, dense or cemented sands, or shallow bedrock at the project site. The results of the CPT soundings encountered shallow refusal at a few locations but the repushes at a slight offset extended deeper than the original sounding, indicating that the obstruction was limited in size. In general, soil borings and pile installation performed during our exploration did not frequently encounter large obstructions such as cobbles or boulders shallower than 8 feet, but based on our experience it is likely that glacial erratics are present in limited quantities at the site. Sands were encountered at several locations; however, the sands did not appear significantly dense or cemented within the upper 12 feet. During installation of the field piles for the pile load testing phase, full penetration to the target depth of 8 feet was achieved for the piles with an average time of less than 100 seconds (Table 9). Isolated locations required a slightly larger time to install due to stiffer subsurface material. Overall, the risk for pile driving obstructions, while cannot be totally disregarded due to the vast area of the proposed development, the limited number of explorations, and the potential for varying subsurface conditions and shallow refusal, appears relatively low/isolated.

This geotechnical exploration was performed at selected locations spread across the project site as provided by EDF. The results of load testing on piles should serve to develop appropriate pile driving criteria to be used during construction of the project. Should undesirable soil conditions be encountered during pile installation (such as the presence of loose/soft soils), the piles could be extended deeper into the ground. Piles in undesirable soil conditions could also be predrilled and grouted in place for additional capacity; however, feasibility of this method could be limited due to the need for casing to potentially maintain borehole stability in saturated sand soils (although shallow sandy soils within the anticipated pile embedment depths was limited based on the explorations performed).

Foundation excavations and pile driving activities should be observed by Olsson to confirm conditions are consistent with this geotechnical report.

E.1.1. SUBSURFACE PROFILE EVALUATION

The following sections discuss the results of the field testing performed for the project. Based on the results of CPT soundings, pile load testing, and borings performed by Olsson, three distinct typical soil profiles were selected for the project site as provided below. Based on the results of the testing, the presence of thinner sand zones were observed, but generally did not influence the behavior of the pile load testing. In general, the locations with lower axial tensile resistances were confined to the eastern portion of the site, but a distinct reasoning on the location of these zones was not specifically identified. However, given the size of the site, delineation of specific areas of the site for subsurface conditions has limitations. Figure 15 indicates the spatial distribution of observed strata type for the tested locations.

- Strata 1 – Sites with predominantly clay soils for the entire explored profile that exhibit relatively higher strength typical for the majority of the site: Majority of the tested locations with exceptions as noted below
- Strata 2 – Sites with predominantly clay soils for the entire profile that exhibit moderate strength: GEO-039, GEO-050, GEO-069, GEO-072, GEO-086, and GEO-233
- Strata 3 - Sites with predominantly clay soils for the entire profile that exhibit lower strength: GEO-046

Individual axial uplift, axial compression, and lateral test results for the tested locations are provided in Appendix I.

E.1.2. AXIAL TENSILE TESTING RESULTS

Appendix K provides the vertical displacement versus vertical load plots for each of the axial tensile load tests performed. The separate subsurface stratas as indicated in Section E.1.1 were used to group the test results. The maximum observed vertical loading corresponding to a vertical displacement of 0.25-inches, 0.75-inches, and the ultimate load (at excessive movement) is summarized in Table 10.

Results of the testing generally indicated that the pile exhibited significant movement prior to reaching the practical limit of the testing apparatus for Strata 2 and 3, indicating that the soil was yielding. However, for the Strata 1 locations, the testing apparatus typically reached its maximum allowable loading, and tests could not be extended beyond about 18,000 lbs. Appendix K provides a summary of the axial tensile loading versus vertical displacement.

The axial tensile testing performed by Olsson indicated that the ultimate capacity observed in the field ranged from approximately 5,500 to greater 18,000 lbs, with all but a single test (GEO-046) exceeding 8,000 lbs of resistance. Ultimate axial tensile resistances in Strata 1 ranged from

10,000 to greater than 18,000 lbs. In Strata 2 subsurface conditions, they ranged from an ultimate axial tensile resistance ranging from 8,000 to 9,800 lbs, and the single outlier exhibiting a much lower axial tensile resistance (GEO-046) exhibited an axial tensile resistance of 5,500 lbs.

Based on the results of CPT soundings, soil borings, and laboratory testing, for W 6x9 piles installed to a depth of 8 feet in soft to stiff clay profiles, the theoretical ultimate uplift capacity was estimated to range from about 4,000 to 12,000 lbs. Comparison to the field testing indicated that theoretical methods typically underestimated the ultimate axial tensile resistance.

Ultimately, the foundation designer should determine an appropriate allowable uplift load to limit axial movement. Based on information provided to Olsson, the anticipated uplift loading is likely to be on the order of 4,000 lbs for exterior columns and 3,000 lbs for interior columns for tracker piles with stick up heights of 4 feet above the ground surface, coupled with a maximum allowable deflection of 1 inch at the ground surface. The dead loads were assumed to be 500 lbs for interior and exterior columns.

Based on the results of the field testing, the clay soils comprising Strata 1 can be considered to have an ultimate skin friction of 1,045 psf, the clay soils Strata 2 can be considered to have an ultimate skin friction of 695 psf, and the clay soils of Strata 3 can be considered to have an ultimate skin friction of 475 psf. Olsson reviewed the results of CPT testing and available boring logs, and determined that for the few locations identified as Strata 2 and 3, a higher skin friction value is recommended below a depth of 8 feet based on higher apparent strengths below this depth.

Table E.1.2-1 provides the recommended skin friction for the associated depth interval extending to a depth of 15 feet. If pile lengths extend beyond 15 feet, Olsson should be contacted to re-assess if adjustments need to be made.

Table E.1.2-1 Summary of Recommended Skin Friction for Axial Tensile Evaluation

Soil Strata	Soil Conditions	Depth Below Grade (feet)	Soil Type	Ultimate Uplift Skin Friction (psf)
1	All Clay - Stiff	0-2.7	Frost/Surficial Soil	Neglect
		2.7-15	Stiff Clay	1,045
2	All Clay - Moderate	0-2.7	Frost/Surficial Soil	Neglect
		2.7-8	Moderate Clay	695
		8-15	Stiff Clay	1,045
3	All Clay - Soft	0-2.7	Frost/Surficial Soil	Neglect
		2.7-8	Soft Clay	480
		8-15	Stiff Clay	1,045

E.1.3. LATERAL LOAD TESTING RESULTS

Appendix L provides the lateral deflection versus the lateral displacement for the subsurface soil profiles considered for the project. Table 11 summarizes the displacement at the pile head and at ground surface for the maximum achieved loading.

Based on information provided to Olsson, the maximum lateral loading is anticipated to be on the order of 3,500 lbs for interior columns and 4,000 lbs for exterior columns applied at the column heights of 4 feet, coupled with a maximum allowable deflection of approximately 3 inches (in the strong pile direction) at the pile head and approximately 1 inch at ground surface. Based on the results of the field testing, the estimated deflection under the typical maximum loads are anticipated to be less than the maximum allowable deflection based on the field testing for the W 6x9 piles specifically with isolated exceptions corresponding to the Strata 2 and 3 locations. Therefore, a larger pile size may be required for Strata 2 and 3 locations to limit deflection.

Results of the lateral testing indicated that the lateral deflection for Strata 2 and Strata 3 conditions were generally similar and either exhibited higher deflection or were on the higher side of greater deflection than Strata 1. Olsson recommends one model be used for Strata 1 conditions, and one model be used for Strata 2 and 3 as noted below.

Olsson used the software LPile by Ensoft, Inc., to use numerical modeling to evaluate piles as were installed at the project site. The deflections estimated through the computer modeling were compared to the lateral deflections observed at the project site. This is a more refined method of evaluating lateral soil behavior than using prescribed values recommended by the software developer. A calibration of the in-situ lateral deflections versus the theoretical deflections estimated by LPile are provided in Appendix L for W 6x9 piles. Using this information, if the foundation designer decides to adjust the pile size, the soil parameters should stay the same and are anticipated to represent the actual in-situ conditions.

Table E.1.3-1: Recommended Lateral Pile Parameters for Pile Foundation Design

Soil Strata	Soil Conditions	Depth Below Grade (feet)	LPIle Soil Type	Effective Unit Weight (pcf)	Clay Undrained Shear Strength (psf)	Sand Friction Angle (degrees)	Static Lateral Modulus of Subgrade Reaction (pci)	Strain Factor, E_{50}
1	All Clay	0-2.7	Soft Clay (Matlock)	138	250	--	--	0.02
		2.7-4	Mod. Stiff Clay Without Free Water	138	2,500	--	750	0.005
		4-8	Mod. Stiff Clay Without Free Water	76	2,500	--	750	0.005
		8-15	Mod. Stiff Clay Without Free Water	76	2,500	--	750	0.005
2, 3	Soft to Moderate All Clay	0-2.7	Soft Clay (Matlock)	138	250	--	--	0.02
		2.7-4	Mod. Stiff Clay Without Free Water	138	2,000	--	750	0.005
		4-8	Mod. Stiff Clay Without Free Water	76	2,000	--	750	0.005
		8-15	Mod. Stiff Clay Without Free Water	76	2,500	--	750	0.005

In order to calibrate the models, varying shear strength parameters were used to more closely model the observed deflection during the pile load testing with the LPile software. The parameters indicated in Table E.1.3-1 are recommended for lateral analysis, which include a weaker zone at the surface to account for loss of strength during freeze/thaw or moisture change conditions.

Preliminary analyses for lateral loading design are presented for assumed interior and exterior columns installed to a depth ranging from 6.5 to 8.75 feet below the existing grade for W 6x9 piles (depending on the subsurface conditions) in Appendix M. Loads were modeled at the pile head for both interior and exterior columns as indicated by the information provided by EDF. The following loads were used for this analysis, but the analysis should be evaluated based on final loads anticipated for the project.

- External Pile: Lateral Load 1,600 lbs, Axial tensile load 1,840 lbs, Moment of 19,000 in-lbs (identified as Load Case 1 in Appendix M)
- Internal Pile: Lateral Load 1,400 lbs, Axial tensile load 1,640 lbs, Moment of 18,500 in-ilbs (identified as Load Case 2 in Appendix M)

A maximum allowable pile head deflection of 3 inches was assumed for loading in the strong-axis direction). Results of the analysis indicate that the lateral deflection is not anticipated to exceed 3 inches at the pile and or 1 inch at the ground surface for W 6x9 piles if installed to the

recommended depths. If the piles are extended deeper, the pile head deflection should decrease, but this should be verified using the final loading on the piles.

E.1.4. Axial Compression Testing Results

Appendix N provides the vertical displacement versus vertical load plots for each of the three soil profiles indicated in Section E.1.1. The maximum observed vertical loading vertical displacement is summarized in Table 12.

Results of the testing indicated that the maximum achieved load ranged from 6,000 to 14,000 lbs. The corresponding pile displacement at maximum loading ranged from less than 0.1 to 1.1 inches, with the majority of the pile tests exhibiting less than ½-inch of displacement. The net vertical loading on shallow pile foundations is anticipated to be low. Based on the results of the axial tensile testing, the ultimate compression resistance is anticipated to be at least as great as the uplift resistance, which was a minimum value of 5,500 lbs under the worst case observed conditions, and exceeded 8,000 lbs in the majority of the tests. For normal operation conditions with loads on the order of 3,000 to 4,000 lbs, significant pile movement or bearing capacity failures are not expected based on the field testing.

E.1.5. Pile Heave Due to Frost

Based on local codes, frost depth for the area is considered to be approximately 32 inches per the Ohio Building Code (Section 4125.03). The extreme frost penetration for the project based on national publications is 36 inches (NAVFAC, 1986), but extreme frost penetration is rarely what local building codes require for frost protection. The piles and foundations on the site should be designed to the minimum required frost depth per the local building code which is anticipated to be at least 32 inches below the lowest adjacent finished grade to provide frost protection.

Pile foundation design will need to consider frost heave for pile movement. The initial freezing of the soil to the pile (ultimate adfreeze bond) occurs when the frost initial progresses into the ground and around the embedded pile. This adfreeze force on the pile results in little actual displacement of the piles (heave) and is not the primary force that needs to be designed for when considering frost heave of the piles. After the initial frost front penetrates the ground surface, capillary effects (also referred to as ice lensing) draw water to the freezing front from below. This capillary action is dependent upon several factors including but not limited to material type, particle size distribution (or void size), and groundwater level (Rajaei, 2015).

As the capillary effects feed the freezing zone, the initial adfreeze bond breaks and what is commonly referred to as tangential frost heave strength starts to develop. This is the force that actually causes frost heave movement and can be up to 10 times less than the initial adfreeze forces. Based on the soil's average liquidity index of less than 0.25 and an active frost layer depth

of about 3 feet below grade, the recommended tangential heave force is 1,672 psf for concrete piles (Nidowicz, 1998). A reduction factor of 0.7 is recommended for steel piles (Kim, 2015 and Nidowicz, 1998), reducing the design tangential heave force to 1,170 psf. This value should be multiplied by the contact surface area of the pile (using the perimeter box projection of the pile shape, not the flange and web surfaces) and then subtract the dead load of the pile and solar panel array to calculate the theoretical tangential heave force for design considerations. For a W 6x9 pile installed at the project site, this calculates to be an uplift loading of approximately 5,185 lbs.

It is recommended that this force be considered a separate load case from wind uplift load, as the piles will be frozen in the ground during winter which will increase the axial tensile resistance during the winter months. The pile should be embedded to a depth where skin friction below the frost zone provides adequate axial tensile resistance due to frost heave.

It should be noted that frost heave has been demonstrated to be closer to the full initial adfreeze value if porous, non-frost-susceptible gravel or coarse sand materials are present above underlying silt or clay soils. If this is the design case based on grading and fill placement, consideration should be given to using the full adfreeze value of 2,090 psf for steel piles (Canadian Foundation Engineering Manual).

E.1.6. Summary of Recommendations for Shallow Pile Foundation Design

Results of the field testing and subsequent analysis indicate that the upward axial tensile resistance and lateral resistance are anticipated to be the limiting case for the project, including both the initial project area and the boundary change area (depending on the subsurface conditions) and is anticipated govern the design both in embedment depth (Strata 1) and section size (Strata 2). This may require piles be increased in size or installed slightly deeper to reach a suitable factor of safety or to optimize the foundation design. Various pile sizes could also be considered to resist the axial tensile loading.

The recommended pile embedment for the various subsurface conditions and W 6x9 piles is summarized in Table E.1.6-1 below with the factors of safety indicated, and includes a vertical load of 500 lbs for the structure weight and dead load for an external pile. If a different pile size than a W 6x9 pile is considered, it is recommended that the foundation designer use the recommended skin friction and lateral resistance values provided in this report to evaluate the revised capacity. As indicated previously, it is recommended that axial tensile and compression capacity calculations neglect the frost zone of 2.7 feet. The full subsurface profile provided in Section E.1.3 along the full length of the pile may be used for evaluation of lateral resistance.

A factor of safety on the order of 1.2 is considered appropriate for frost heave for this project, which is less consistent than typical transient loading such as wind. The foundation designer should select the final factor of safety depending on the risk tolerance for the project.

Table E.1.1.5-1 Summary of Recommended Pile Embedment Depths and Factor of Safety

Pile Type	Subsurface Strata	Recommended Pile Installation Depth (feet)	Ultimate Uplift Resistance (lbs)	Ultimate Uplift Force From Wind, external pile (lbs)	FOS (Wind)
W 6x9	1	6.5	7,000	4,000	1.8
	2	7.5	5,970	4,000	1.5
	3	8.75	6,500	4,000	1.6

Pile Type	Subsurface Strata	Recommended Pile Installation Depth (feet)	Ultimate Uplift Force From Frost (lbs)	FOS (Frost)	Allowable Compression Resistance (lbs)	Maximum Lateral Deflection at Pile Head Under Typical Loading (inches)
W 6x9	1	6.5	5,185	1.4	6,000	<3
	2	7.5	5,185	1.2	6,000	<3
	3	8.75	5,185	1.3	6,000	<3

The lateral pile testing indicated that most steel W-sections larger than W 6x9 piles could be considered for Strata 2 and 3, which are recommended to extend deeper to resist axial tensile forces. However, for Strata 1, the results of the analysis indicate that the recommended embedment depth was limited by the lateral deflection. Our analysis indicated that an embedment depth noted in Table E.1.1.5-1 is anticipated to limit pile head deflection to within tolerable limits based on the anticipated lateral loading. If lateral piles are determined to need to be extended beyond the anticipated embedment depth indicated, the lateral deflection at the pile head and ground surface should decrease accordingly, and the axial resistance should increase accordingly, but this should be confirmed by the foundation designer based on the final loading and pile configuration using the lateral resistance parameters recommended herein. The foundation designer should also determine the required factor of safety for the foundation structures.

E.2. Recommendations For Foundations At Substation / POI Facility

Based on the results of the geotechnical explorations and laboratory testing, shallow foundations may be considered for the lighter equipment at the substation and POI facility location, located in the initial project area. For heavier structures or taller structures subjected to higher overturning loads, it is anticipated that drilled shaft foundations will be used. The foundation types and designs have not been provided to Olsson at the time of this report.

E.2.1. SHALLOW FOUNDATIONS

Based on the results of the geotechnical explorations and laboratory testing, shallow foundations supported by native clay or sand soil or compacted engineered fill may be considered for lighter equipment at the substation and POI facility location.

E.2.1.1. ALLOWABLE BEARING CAPACITY FOR SPREAD FOOTING FOUNDATIONS

The following sections discuss, in detail, the determination of the allowable bearing capacity for the spread footing foundations at the substation and POI facility.

Allowable soil bearing pressure for a spread footing is based on the shear strength obtained from testing and exploration. A discussion of the soil shear strength was provided in Section C.6. The following is a more detailed description of the procedure used to determine the allowable bearing capacity.

The ultimate bearing capacity of the soil supporting a spread footing can be determined using the Terzaghi-Meyerhoff equation as follows:

$$q_{ult} = {}^{1}/_{2}\,\gamma' B N_{\gamma} F_{\gamma s} F_{\gamma d} F_{\gamma i} + q N_q F_{qs} F_{qd} F_{qi} + s_u N_c F_{cs} F_{cd} F_{ci} \qquad \text{(Das, 2010)}$$

Where:

q_{ult} = ultimate bearing pressure

γ' = effective unit weight of the soil

B = average footing width over the length in bearing

N_{γ}, N_q, N_q = bearing capacity factors

q = surcharge at foundation level

s_u = design undrained shear strength of the soil

F = shape (subscript “s”) depth (subscript “d”) and inclination (subscript i) factors

The first and second terms of the above equation are associated with granular soils which typically exhibit drained modes of failure (except under earthquake loading). These terms represent the ultimate drained bearing capacity.

The third term of the equation is associated with fine-grained/clayey soils which typically exhibit an undrained mode of failure and where excess pore pressures can build up in the soil when sheared. This term represents the ultimate undrained bearing capacity.

Since the soils encountered at the project site have layers of both granular and cohesive materials the critical mode of failure may be associated with either drained or undrained conditions and the ultimate bearing capacity was calculated for each.

E.2.1.1.1. BEARING CAPACITY – UNDRAINED ANALYSIS

During undrained loading conditions where excess pore pressures can build up in the soil when sheared, the first and second terms are dropped from the Terzaghi equation, and the third term represents the net ultimate undrained bearing capacity shown as follows:

$$q_{ult} = s_u N_c \qquad \text{(Das, 2010)}$$

Final foundation loads and dimensions for the proposed substation and POI facility have not been provided at the date of this report. Therefore, to calculate the ultimate bearing capacity, the shape, depth, and inclination subscripts have been assumed to be 1. The allowable soil bearing pressure is then obtained by dividing the ultimate bearing capacity by a factor of safety. A factor of safety of 3 is usually used for foundations under normal load cases and is recommended for this project. Based on the CPT testing, laboratory testing, and hand penetrometer measurements, an undrained shear strength of 1,250 psf is recommended for shallow foundation design at the substation and POI facility.

Using the recommended design undrained shear strength and a factor of safety of 3, the estimated net allowable undrained bearing capacity is estimated to be approximately 2,500 psf.

E.2.1.1.2. BEARING CAPACITY – DRAINED ANALYSIS

During drained loading conditions soils where excess pore pressures are allowed to dissipate when sheared, the third term is dropped from the Terzaghi equation and the net ultimate drained bearing capacity is estimated as follows:

$$q_{ult} = {}^{1}/_{2}\,\gamma' B N_\gamma + q N_q - q \qquad \text{(Das, 2010)}$$

Using a limiting friction angle of 35 degrees, an embedment depth of 2.7 feet for frost and stability, a foundation width of 2 feet, assuming a groundwater depth of 5 feet below the final grade, and a factor of safety of 3, the estimated net allowable drained bearing capacity is estimated to be approximately 4,000 psf.

E.2.1.1.3. BEARING CAPACITY DETERMINATION

Based on the design undrained shear strength of 1,250 psf and a design friction angle of 35 degrees, the undrained condition governs, and a net allowable bearing capacity of 2,500 psf is recommended for shallow foundation design. A one-third reduction in the factor of safety can be used for cases with transient loading, such as wind.

The net allowable soil bearing pressure should be confirmed once the final foundation design is available.

E.2.1.2. SETTLEMENT

The following sections discuss the settlement evaluation performed for shallow foundations at the substation and POI facility location. Based on the results of the soil types and groundwater conditions encountered, settlement of shallow foundations at the substation will likely consist of both immediate, elastic settlement and long-term consolidation settlement of the clay soils.

E.2.1.2.1. SOIL COMPRESSIBILITY PARAMETERS

The small strain Young's modulus is computed from:

$$E_o = 2G_o(1 + \nu)$$

Based on an assumed Poisson's ratio of 0.45 and a shear wave velocity of 600 ft/s from Olsson's experience in the area, the resulting estimated small strain Young's modulus, E_o, is 4,400 ksf. If vibratory loading is anticipated, the foundation designer should reduce the small strain Young's modulus to estimate the soil behavior at strain levels similar to those anticipated for operating loads.

E.2.1.2.2. ELASTIC SETTLEMENT

The immediate or elastic settlement of a soil can be computed based on the application of the extreme load case, using the following equation based on elastic theory:

$$S = \frac{Bq_o}{Es}(1 - \nu^2)\, I \qquad \text{(Das, 2007)}$$

Where:

S = elastic settlement

q_o = contact pressure

B = foundation width

E_s = elastic soil modulus

ν = Poisson's Ratio (assumed to be 0.40)

I = shape factor = 1.12 (Day, 2006)

Using this formula, the foundation design engineer can compute the immediate settlements induced by the footing under the allowable load. Based on an applied bearing pressure increase of 2,500 psf and an effective foundation width of 15 feet for the assumed foundation design, the maximum total immediate settlement is estimated to be less than ½-inch.

E.2.1.2.3. LONG-TERM SETTLEMENT

Long-term settlement was evaluated using correlations to the one-dimensional constrained modulus correlated from CPT testing at the substation and POI facility and from laboratory consolidation test results. Based on the results of the testing, shallow foundations with a maximum bearing pressure of 2,500 psf and up to 15 feet in width are anticipated to exhibit long-term total settlement less than of 1-inch.

E.2.2. DRILLED SHAFT FOUNDATIONS

For critical structures at the substation and POI facility location, drilled shafts may be considered for support of the structures. In the absence of specific foundation design information, recommendations for axial bearing capacity and lateral load capacity cannot be explicitly calculated at this time. It is recommended that the foundation designer calculate the design axial and lateral capacity once final design information is available.

E.2.2.1. AXIAL CAPACITY

The ultimate axial bearing capacity of the soil supporting a drilled shaft can be determined for end bearing of the pile (first term of the equation) and the sum of the downward skin friction resistance along the individual soil layers into which the pile is embedded (second term of the equation).

$$Q_{all} = q_{p(all)}A_b + \sum q_{s(all)}A_s$$

Where:

Q_{all} = allowable bearing pressure (kips)

$q_{p\,(all)}$ = allowable end bearing capacity of the pile (ksf)

$q_{s\,(all)}$ = allowable skin friction capacity of the pile per soil layer (ksf)

A_b = base area of the pile (ft^2)

A_s = pile shaft area along soil embedment layer (ft^2)

Calculation of the allowable end bearing pressure in cohesive soils (clays) may be performed through the use of the following equation:

$$q_{p(all)} = \frac{s_u N_c^*}{FS}$$ (Das, 2007)

Where:

s_u = undrained shear strength

N_c^* = bearing capacity factor = 9 (assumes pile length is three times as great as the shaft diameter, Das, 2007)

FS = factor of safety

Calculation of the skin friction in cohesive soils (clays) may be performed through the use of the following equation.

$$q_{s(all)} = \frac{\pi d(\alpha s_u)}{FS}$$ (Das, 2007)

Where:

d = pile diameter

α = factor correlating soil cohesion to adhesion for drilled shafts = 0.4 (Das, 2007)

s_u = undrained shear strength

FS = factor of safety

Calculation of the allowable end bearing pressure in granular soils (sands) may be performed through the use of the following equation.

$$q_{p(all)} = \frac{q'(N_q\text{-}1)}{FS} < \frac{0.5 p_a N_q^* \tan\phi}{FS}$$ (Das, 2007)

Where:

q' = vertical effective stress at drilled shaft bearing elevation

N_q = bearing capacity factor = $\tan^2\left(45 + \phi'/2\right)e^{\pi \tan\phi'}$

φ' = soil friction angle

p_a = atmospheric pressure = 2,000 psf

N_q^* = bearing capacity factor = varies (Das, 2007)

FS = factor of safety

Calculation of the skin friction in granular soils (sands) may be performed through the use of the following equation.

$$q_{s(all)} = \frac{\pi d(1-\sin\phi')\int_0^{L_i} \sigma'_o \tan\delta' dz}{FS} \qquad \text{(Das, 2007)}$$

Where:

d = pile diameter

σ_o' = vertical effective stress at mid-point of soil layer

φ' = soil friction angle

δ'= soil-drilled shaft friction angle = ¾φ' (NAVFAC, 1986)

L_i = soil layer thickness

FS = factor of safety

For the skin friction calculation of granular soils, it should be noted that the value of vertical effective stress will increase to a depth equivalent to 20*d* (where *d* is the shaft diameter), and should be taken as constant thereafter (Das, 2007). Since the shaft diameter is unknown at this time, this threshold cannot be explicitly calculated, but this method should be utilized during the drilled shaft foundation design.

A summary of the recommended skin friction and end bearing values for drilled shaft and direct embedment foundation design is provided in Table 13. Please note that these values are presented as the ultimate skin friction and ultimate end bearing values. Olsson recommends a factor of safety of 2.5 for skin friction and a factor of safety of 2.5 for end bearing for drilled shaft foundation design.

E.2.2.2. UPLIFT RESISTANCE

Design of drilled shafts for uplift should be based on a combination of the skin friction and the weight of the pile. As is standard, skin friction should not be assumed to contribute to uplift resistance throughout the frost zone and the weight of the pile should be taken as the buoyant weight at depths below the water table. Skin friction contributing to uplift resistance in cohesive and cohesionless soils should be taken as the skin friction used in compression less a 10 percent reduction (FHWA, 2010) applied to account for the potential loss of lateral earth pressure in uplift.

E.2.2.2.1. UPLIFT DUE TO FROST

It is recommended that the foundation designer use an ultimate uplift skin friction of 1,670 psf for the frost zone of 2.7 feet (Nidowicz, 1998), assuming concrete drilled shafts will be used for the substation and POI structure foundations. It is recommended that this force be considered a separate load case from wind uplift load, as the piles will be frozen in the ground during winter which will increase the pullout resistance during the winter months. Drilled shafts should be embedded to a depth where skin friction below the frost zone provides adequate pullout resistance due to frost heave.

E.2.2.3. LATERAL RESISTANCE

It is assumed that the computer program LPile or MFAD will be used for the design of drilled shaft foundations to evaluate the lateral capacity of the soil system supporting the foundations. A summary of the recommended values for lateral resistance related to foundation design, including soil density, soil shear strength, and LPile/MFAD design parameters is provided in Table 13.

E.2.2.4. SETTLEMENT

Individual shafts designed per the parameters provided in Table 13 are anticipated to experience settlements less than 1 inch, but this should be verified by the foundation designer. This assumes that proper drainage is provided around the foundations to avoid moisture changes in the subgrade soils.

E.2.2.5. PILE GROUP EFFECTS

For individual foundations, the effects of closely spaced piles are not anticipated to be an issue; however, the current foundation plan for the substation has not been provided to Olsson at the time of this report. For consideration of pile group effects, the following items should be confirmed during the foundation design.

Spacings between the shafts should be maintained at least 3 times the diameter of the shaft for the axial capacity provided in Table 13 to be valid. If the spacings between the shafts are less than indicated above, the axial capacity of the individual shaft should be reduced using group

efficiency factors to account for the group action. The group efficiency factor depends on the shaft spacing, shaft diameter, and geometry of the group (number of rows and columns). Similarly, if the shaft spacings are less than 6 times the diameter of the drilled shaft then the lateral capacity of the individual shaft should be reduced using P-multiplier for group action. The P-multiplier factor depends on the shaft spacing, shaft diameter, and its position (row and column) with respect to the group. Furthermore, the estimated settlement indicated above is for individual shafts supporting the load; however, if the spacing is less than 6 times the diameter of the shaft, the settlement may increase due to group effects. Group efficiency, P-multiplier factors, and group settlement can be provided upon request.

E.2.2.6. Additional Design and Construction Recommendations

Construction specifications for the drilled shafts should include a concrete mix designed to limit bleeding of installed shafts. It is the contractor's responsibility to increase individual or group shaft lengths and/or increase the number of shafts to compensate for any soil disturbance created by the contractor's means and methods during construction. Conventional drilling methods are anticipated to be suitable to reach the foundation embedment depths, although slightly harder drilling conditions may be present where more cemented soils, higher gravel content, or cobbles and boulders were observed.

As discussed previously, to minimize the disturbance of the bearing soils supporting the existing foundations, the contractor should drill with temporary casing if groundwater is present. While removing the casing, the casing should be extracted at a slow, uniform rate, with the pull in line with the center of the shaft. We recommend the installation contractor review this report, the soils and conditions encountered, and adjust the means and methods for the drilled shaft installation accordingly.

An Olsson field technician should be on-site to observe the shaft as it is drilled and also during concrete and reinforcing steel placement. The base of the drilled shafts should be clean and free of debris or loose soil prior to placing concrete or reinforcing steel. Concrete for the drilled shaft foundation should be placed promptly after drilling operation to reduce exposing the subsoil to rain, surface runoff, or drying conditions. If foundation bearing soils are subjected to such conditions, the soils should be reevaluated by an Olsson representative prior to reinforcing steel or concrete placement.

Free-fall concrete placement is not recommended unless approved by the structural engineer. The use of a bottom dump hopper or tremie pipe could be considered to prevent potential aggregate segregation or sidewall disturbance.

E.3. Frost Depth and Design Considerations

The recommended penetration for the project based on national publications is 32 inches based on the Ohio Building Code. For shallow foundations, an embedment depth of 2.7 feet below the finished grade is recommended.

E.4. Seismic Classification

For this project site, we recommend using a Site Class "D" (stiff soil profile) as per the 2015 International Building Code (IBC) for structures at the site. The recommended site coefficients and spectral acceleration parameters for structural design are provided in Table E.4-1 below for Site Class B and should be converted to Site Class "D" by the foundation designer accordingly.

Table E.4-1 Recommended Seismic Design Parameters

Site	Latitude	Longitude	Parameters for Site Class B		Recommended Site Class
			S_S	S_1	
GEO-097	39.77910	-83.33131	0.127	0.065	D

Notes: S_s = 0.2 sec (short-period) Mapped Spectral Acceleration (for site class B)
S_1 = 1.0 sec Mapped Spectral Acceleration (for site class B)

E.5. Soil Corrosivity and Reactivity

Results of the chemical testing indicated that a sulfate exposure class of S0 is appropriate for the project site. Therefore, Type I cement may be considered for use. The foundation designer of record has the final responsibility for selection of an appropriate concrete mix.

The field electrical resistivity test results indicate that the clayey soil may be moderately to slightly corrosive for metal foundations. The foundation designer should select appropriate protection for the foundations.

Appendix O provides a corrosion report for the project site performed by JDH Corrosion, based on the results of the field and laboratory testing.

F. PRIVATE ACCESS ROAD DESIGN

The following sections include recommendations for design and construction of private access roadways at the project site.

F.1. SUBGRADE PREPARATION

After stripping and grubbing, the road subgrade should be compacted with a minimum of one pass of a compactor. Unless otherwise directed by the geotechnical engineer, the final prepared subgrade should be proof rolled with a loaded dump truck or similar rubber-tired equipment with a total weight of at least 20 tons, immediately prior to placement of new roadways. Proof rolling operations should be observed by a representative of Olsson. Unstable or unsuitable soils revealed by proof rolling should be reworked to provide a stable subgrade or removed and replaced with structural fill under the direction of the geotechnical engineer of record. Alternative methods of subgrade stabilization may include use of crushed stone, scarification and recompaction, and chemical stabilization.

It is recommended that the subgrade soil be prepared to a minimum of 95 percent of the materials maximum Standard Proctor (ASTM D698) dry density. The subgrade moisture content at the time of compaction should be maintained within the ranges specified in Section D.2. for the applicable materials. It is important that the roadway subgrade support be relatively uniform, with no abrupt changes in the degree of support. Non-uniform support can occur at the transition from cut to fill areas, in areas of varying soil moisture or soil types, or where improperly placed utility backfill has been placed across or through areas to be paved. Improper subgrade preparation such as inadequate vegetation or demolition debris removal, failure to identify soft or unstable areas by proof rolling, and inadequate or improper compaction can also produce non-uniform subgrade support.

Based on the results of laboratory CBR testing, a recommended CBR of 3.5 percent can be used for private access road design with properly prepared and compacted subgrades as noted above, if designing for all-weather conditions.

A representative of Olsson should be present during subgrade preparation to observe, document, and test compaction of the materials at the time of placement. As recommended for all prepared soil subgrades, we recommend that heavy, repetitive construction traffic be controlled, especially during periods of wet weather, to minimize disturbance.

F.2. PRIVATE ACCESS ROAD SECTION DESIGN

Traffic loading parameters were not provided to Olsson for the private access road section design, but is it assumed that most of the traffic loading will be flat-bed trucks and pickup traffic for construction of the proposed solar farm. Using assumed values for gravel, concrete, dust control, and solar components, the estimated traffic loading was 2,000 ESAL's. This may not be the loading for all roads at the site and should be evaluated by the Civil Designer to ensure it is

accurate. If the loading estimated in this report is incorrect, Olsson should be contacted to re-evaluate the aggregate thickness.

Private access roads for solar projects are typically designed with aggregate base. In some cases, geogrid or geotextile reinforcement is used to provide a thinner aggregate section. Using the Giroud-Han iterative equation, and assuming a construction traffic loading of 2,000 passes, tire pressure of 100 pounds per square inch (psi), and an axle load of 18 kips, the recommended aggregate thickness for a 3-inch rut depth is provided in Table F.2-1. Likewise, the recommended aggregate thickness for the maintenance condition was calculated based on a traffic loading of 10,000 passes, a tire pressure of 65 psi, an axle load of 5 kips and a 1.5-inch rut depth.

Table F.2-1 Summary of Recommended Aggregate Thickness for Private Access Road Design

Traffic Condition	Maximum Allowable Rut Depth [in]	Percent Compaction [%]	Recommended Aggregate Thickness (inches)		
			Unreinforced	Geotextile (Mirafi RS280)	Geogrid (Tensar TX7)
Construction	3	95	12	6	6
Maintenance	1.5	95	11	6	6

Based on Olsson's experience, large construction traffic can withstand a rut depth of 3-inches. However, long-term maintenance traffic typically includes smaller vehicles, and a rut depth of 1.5-inches is often used. Analysis for these rut depths is provided herein. If evaluation for various rut depths is desired by the Owner, Olsson can provide the corresponding aggregate thickness.

The road section design should promote positive drainage away from the road. Any traffic loading in excess of the assumed values or may result in excessive rutting or surface deterioration, which may reduce the overall life of the road.

The Civil Designer of record has the final responsibility to determine the most economical combination of aggregate and reinforcement, and to evaluate what the final loading conditions for the roadway will be. As a result, the parameters in this section may need to be revised depending on the final loading.

Use of chemical stabilization could also be considered to create a working surface and improve the bearing characteristics of the subgrade. It is recommended to perform bench scale testing in to determine the appropriate dosage. Based on the results of soil classification testing, additives to be considered could consist of lime, cement, or flyash. If chemical stabilization is considered, a minimum aggregate thickness of 4-inches may be considered.

If geosynthetic materials are used, inspections should be performed during construction to evaluate the materials are placed and anchored properly to develop the required strain in the geotextile materials. If materials are not placed properly and strain is not developed, the reinforcing benefit of the geosynthetics may not be fully realized.

F.3. AGGREGATE RECOMMENDATION

We recommend the private access roadways be constructed of aggregate base material, combined with reinforcement (optional). The granular roadway surface should consist of crushed rock material complying with the requirements of the Ohio Department of Transportation Item 703.17 aggregate base material. Samples of the proposed aggregate materials for the roadways should be submitted to a laboratory to confirm the materials meet the recommended material. We recommend a smooth drum vibratory compactor should be used to compact the gravel roadway.

If geogrid reinforcement is used, modifications to the gradation requirements may be necessary in order to comply with the manufacturer's recommendations. Alternative road surface materials may be used depending upon availability and approval.

G. LIMITATIONS

The conclusions and recommendations presented in this report are based on the information available regarding the proposed construction, the results obtained from our field explorations and sampling procedures, the results of the testing program, and our experience with similar projects. The test locations represent a very small statistical sampling of subsurface soils and it is possible that conditions may be encountered during construction that are substantially different from those indicated by the soil test borings. In these instances, adjustments to design and construction may be necessary. This geotechnical report is based on the site plan and information provided to Olsson and our understanding of the project as noted in this report. Changes in the location or design of new structures could significantly affect the conclusions and recommendations presented in this geotechnical report. Olsson should be contacted in the event of such changes to determine if the recommendations of this report remain appropriate for the revised site design.

This report was prepared under the direction and supervision of a Professional Engineer registered in the State of Ohio with the firm of Olsson. The conclusions and recommendations contained herein are based on generally accepted professional geotechnical engineering practices at the time of this report within this geographic area. No other warranty is expressed, intended or made. This report has been prepared for the exclusive use of EDF Renewables and their authorized representatives for specific application to the proposed project.

H. REFERENCES

American Concrete Institute (ACI) Standard 318-14, 2014. Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute.

Das, B. M., 2000. Fundamentals of Geotechnical Engineering, Brooks/Cole.

Das, B. M., 2007. Principles of Foundation Engineering, 6th Edition, Cengage Learning.

Das, B. M., 2010. Principles of Geotechnical Engineering, 7th Edition, Cengage Learning.

Day, Robert W., Foundation Engineering Handbook, The McGraw-Hill Companies, Inc., 2006.

Holtz, Robert D., William D. Kovacs, and Thomas C. Sheahan, 2011. An Introduction to Geotechnical Engineering, 2nd Edition, Pearson Education, Inc.

Kim, Mintae, Et al, Tangential Heave Stress for the Design of Deep Foundations, Cold Regions Engineering Conference, 2015.

Naval Facilities Engineering Command (NAVFAC), 1986. Soil Mechanics, Design Manual 7.01.

Naval Facilities Engineering Command (NAVFAC), 1986. Foundations and Earth Structures, Design Manual 7.02.

Nidowicz, Bernard and Yuri L. Shur, Russian and North American Approaches to Pile Design in Relation to Frost Action, Permafrost – 7th International Conference Proceedings, 1998

NRCS Soil Survey website http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

Ohio Department of Natural Resources (ODNR), Karst Interactive Map website, https://gis.ohiodnr.gov/website/dgs/karst_interactivemap/

Ohio Department of Natural Resources (ODNR), Shaded Drift Thickness Map, 2017

Ohio Department of Natural Resources (ODNR), Oil and Gas Fields Map of Ohio, 2014

Ohio Department of Natural Resources (ODNR), Physiographic Regions of Ohio, 1998

Ohio Karst Interactive Map, ODNR Division of Geological Survey. Accessed January 18, 2021. https://gis.ohiodnr.gov/website/dgs/karst_interactivemap/

Pavey, R. R., Goldthwait, R. P., Brockman, C. S., Hull, D. N., Swinford, E. M., and Van Horn, R. G., 1999, Quaternary geology of Ohio: Ohio Division of Geological Survey Map M-2, 1:500,000-scale map and 1:250,000-scale GIS files

Potyondy, J., 1961. "Skin Friction Between Various Soils and Construction Materials", Geotechnique, Volume XI, Number 4.

Rajaei, Pegah and Gilbert Baladi, Frost Heave: A Semi-Empirical Model Based on Field Data, Cold Regions Engineering Conference, 2015.

Terzaghi, Karl; Ralph B. Peck; and Gholamreza Mesri, Soil Mechanics in Engineering Practice, 3rd Ed., 1996.

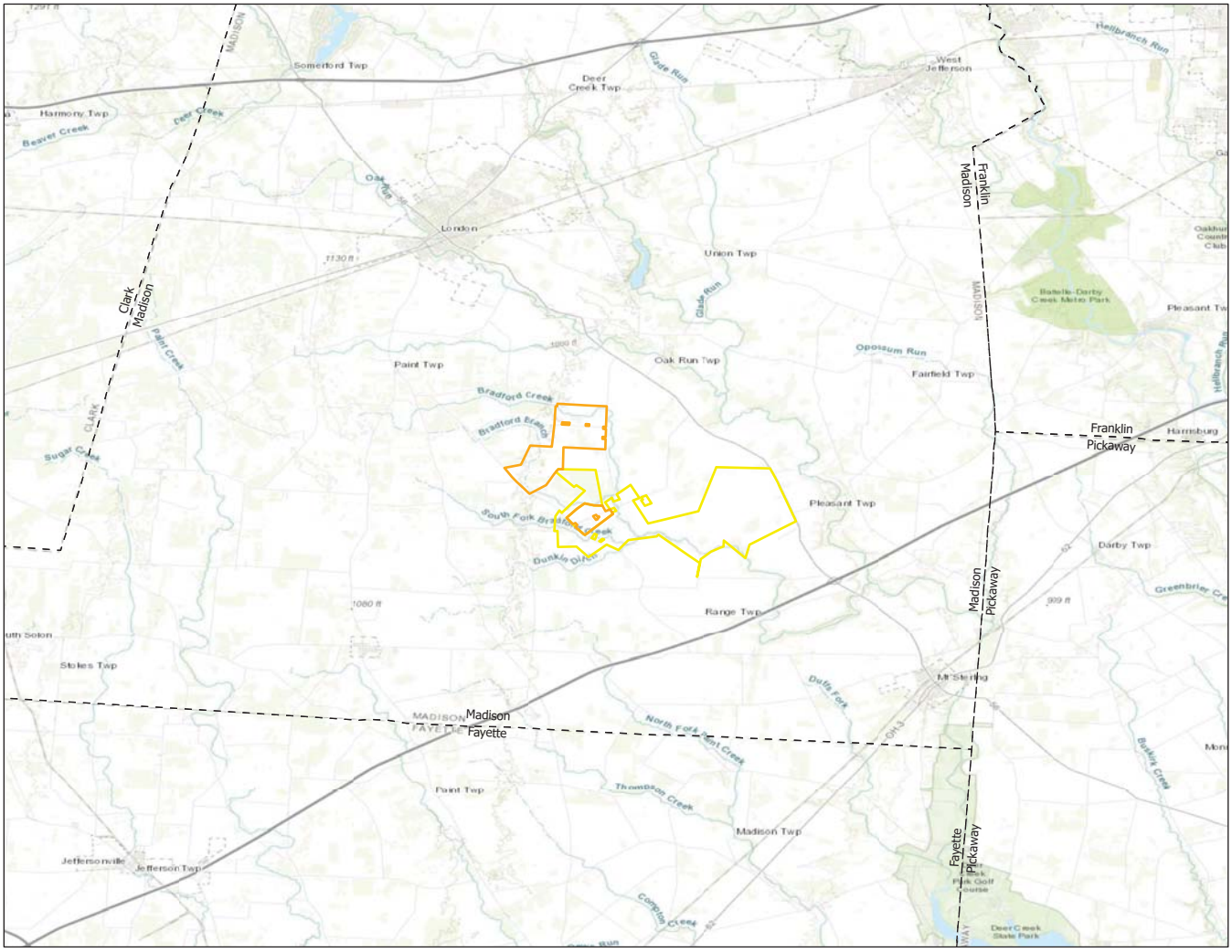
USGS Mineral Resource Online Spatial Database, https://mrdata.usgs.gov/geology/state/fips-unit.php?code=f48333

USGS Earthquake Hazard Program Website, Accessed 2021. http://earthquake.usgs.gov/research/hazmaps/products_data/2008/maps/.

USGS Earthquake Hazard Program Website, "Quaternary Fault and Fold Database of the United States", Accessed 2020. https://earthquake.usgs.gov/hazards/qfaults/

Weary, D.J., and D.H. Doctor, 2014. "Karst in the United States: A digital map compilation and database", United States Geological Survey Open-File Report 2014–1156.

FIGURES



Legend

- Initial Project Area
- Boundary Change Area
- County Boundary

N

0 0.75 1.5 3 Miles

0 1.18 2.35 4.7 Kilometers

Figure 1

Site Location

Fox Squirrel Solar
Madison County, Ohio USA

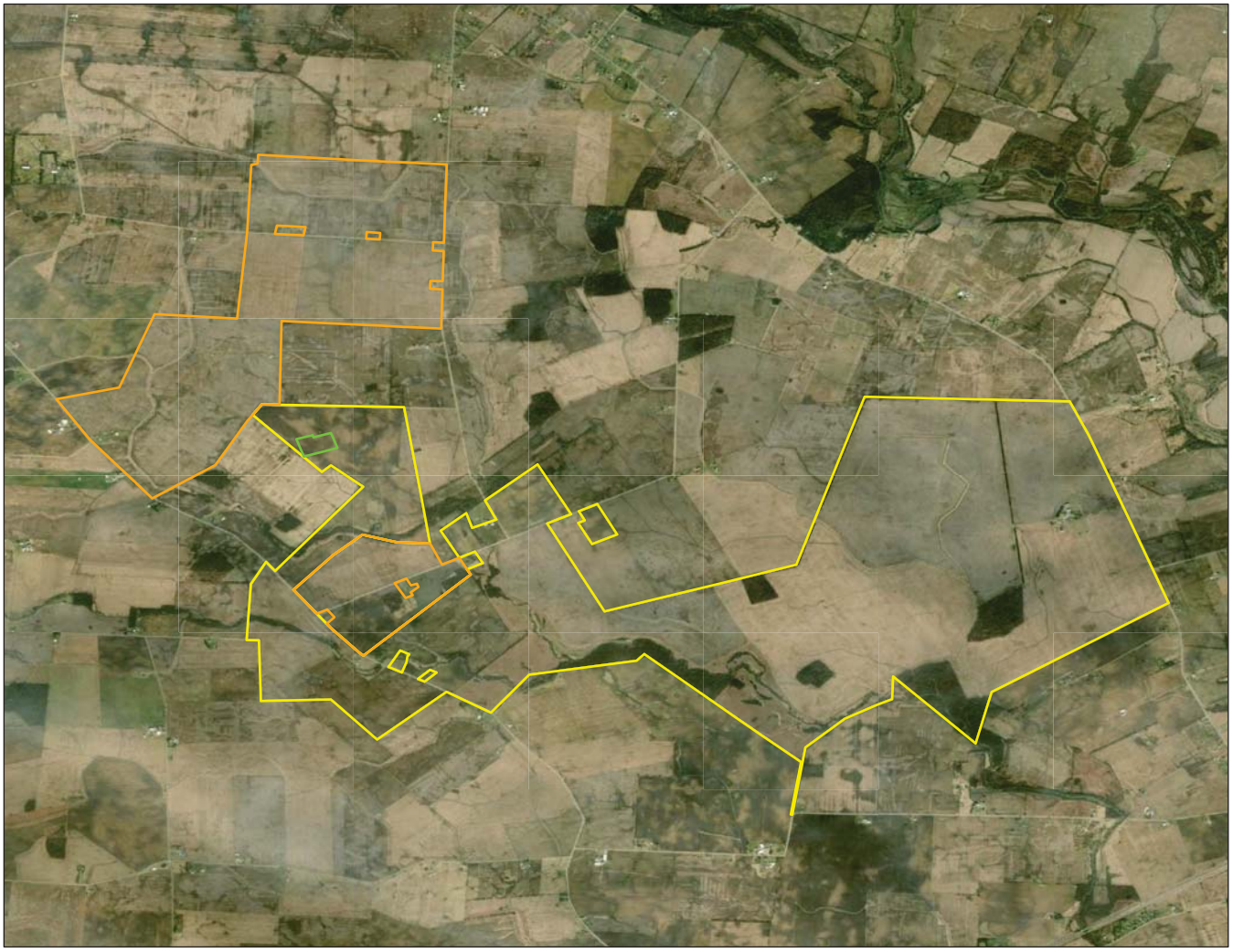
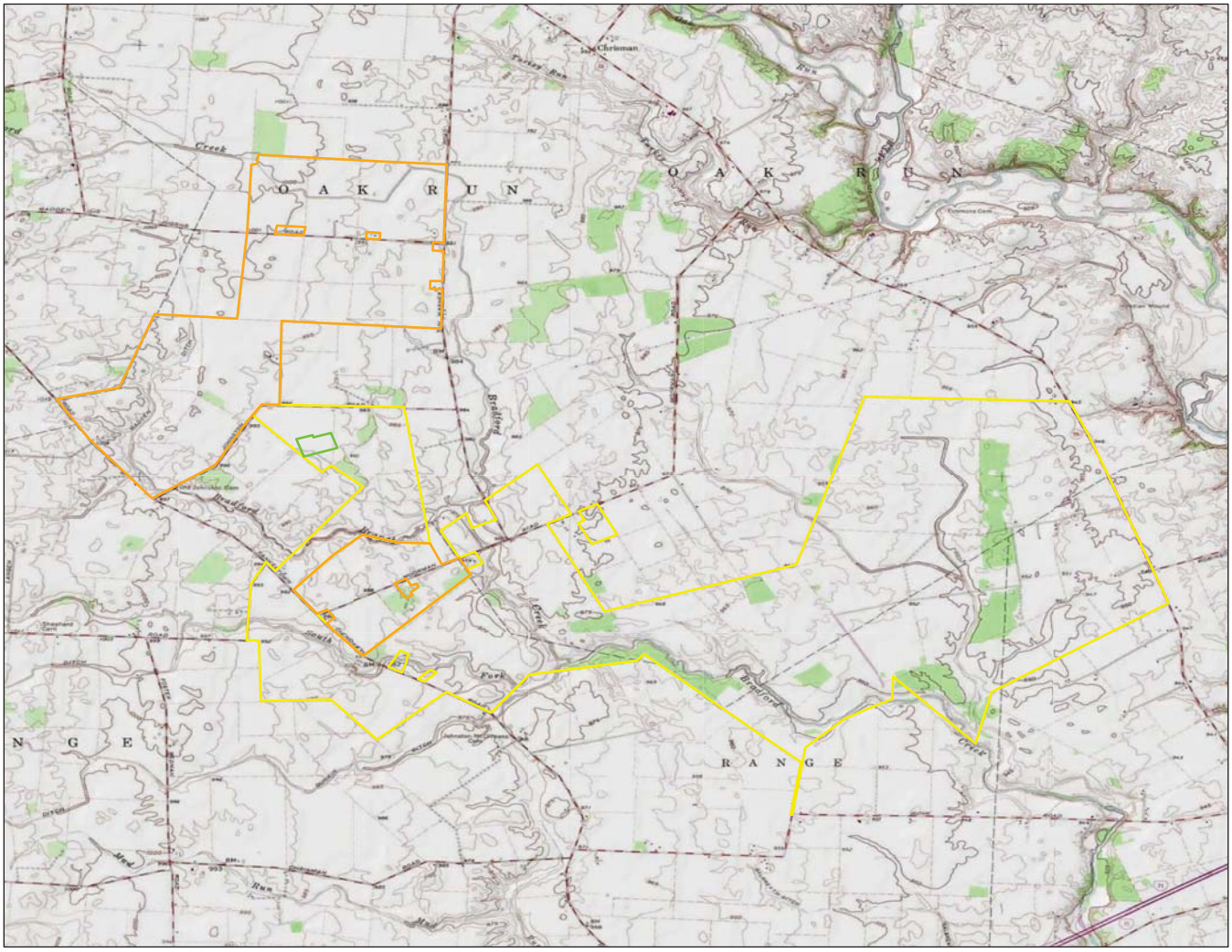


Figure 2

Site Layout

Fox Squirrel Solar
Madison County, Ohio USA



Legend

- Initial Project Area
- Boundary Change Area
- Substation and POI Boundary

N

0 0.19 0.38 0.75 Miles

0 0.3 0.6 1.21 Kilometers

Figure 3

Site Topography

Fox Squirrel Solar
Madison County, Ohio USA

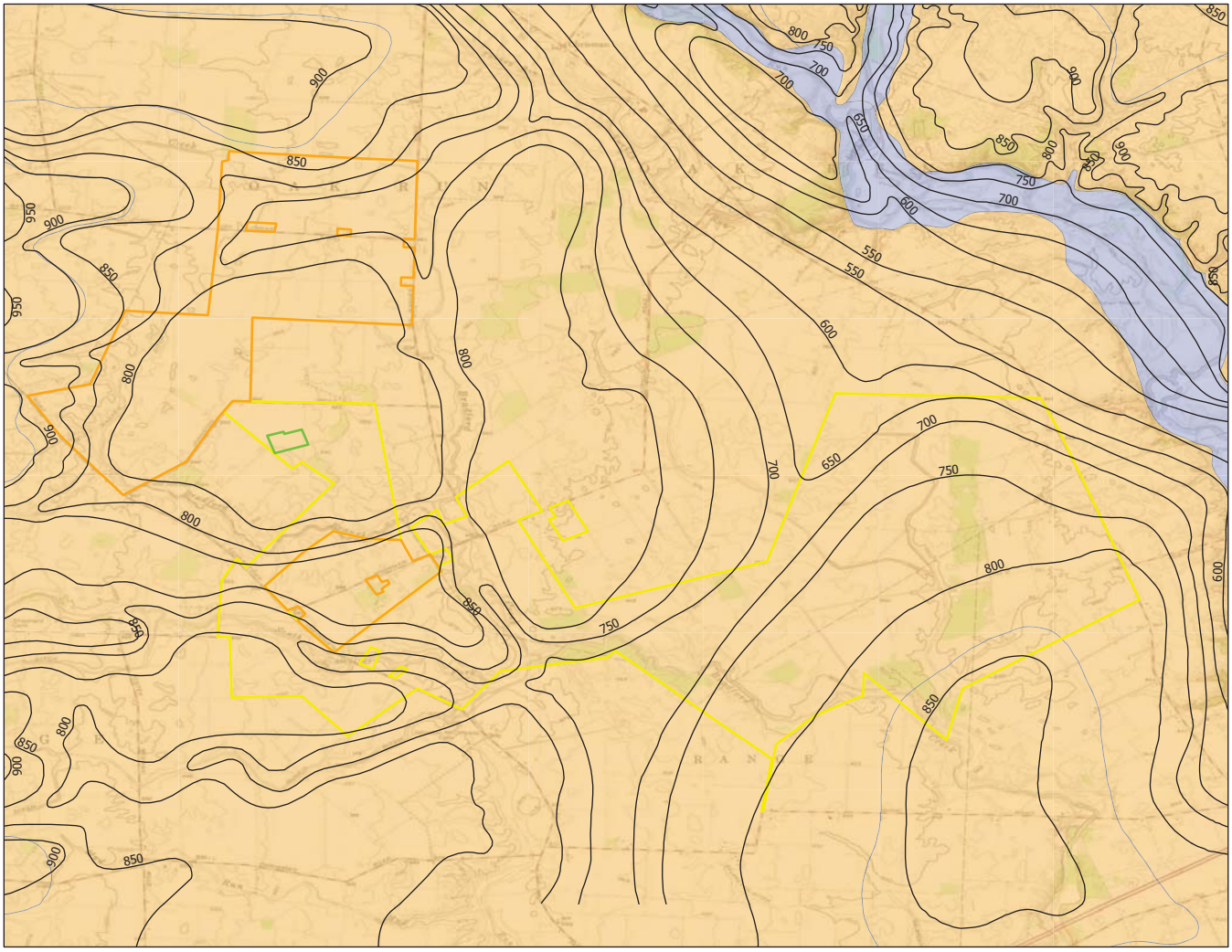


Figure 4

Surficial Geology

Fox Squirrel Solar
Madison County, Ohio USA

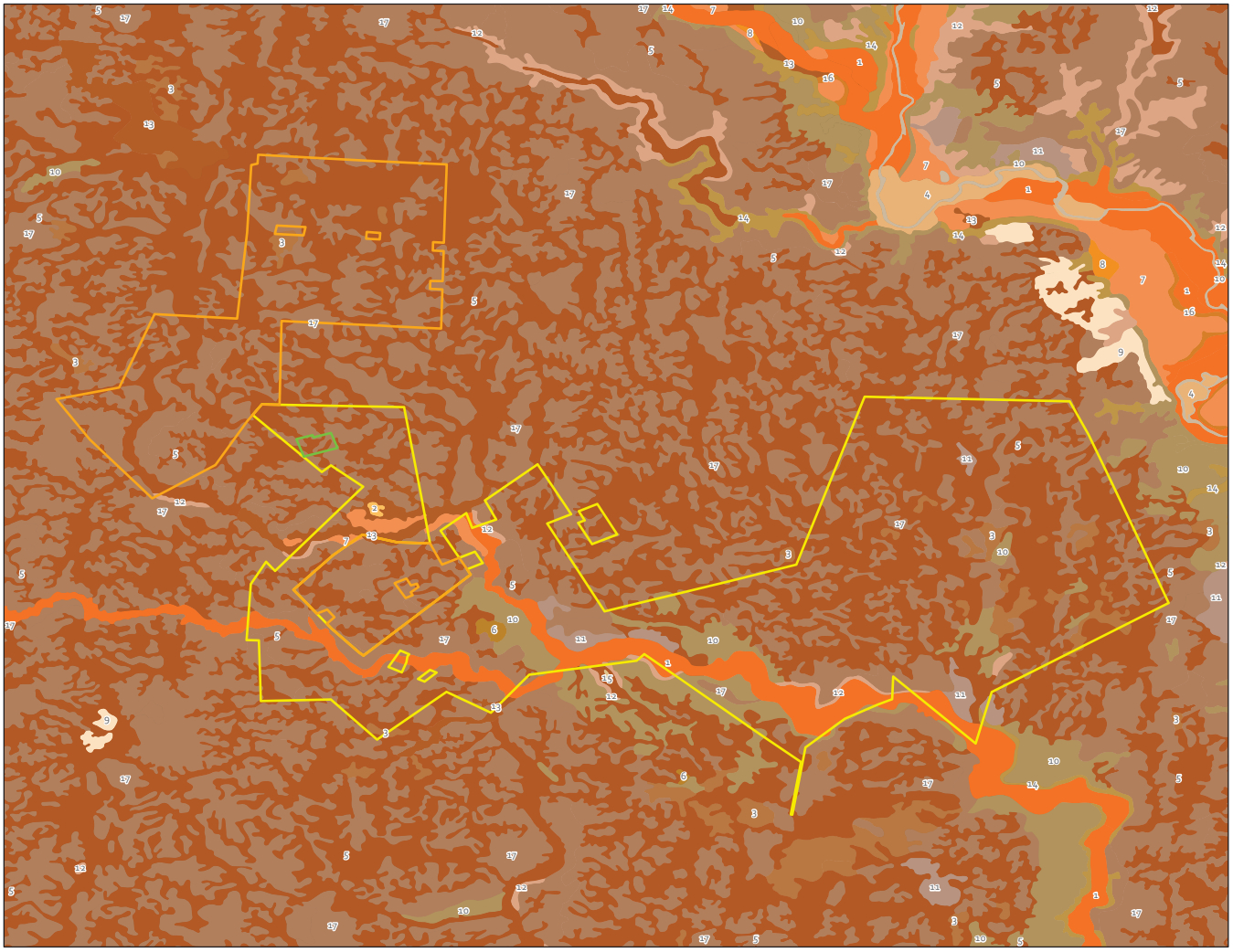


Figure 5

Soil Parent Material

Fox Squirrel Solar
Madison County, Ohio USA

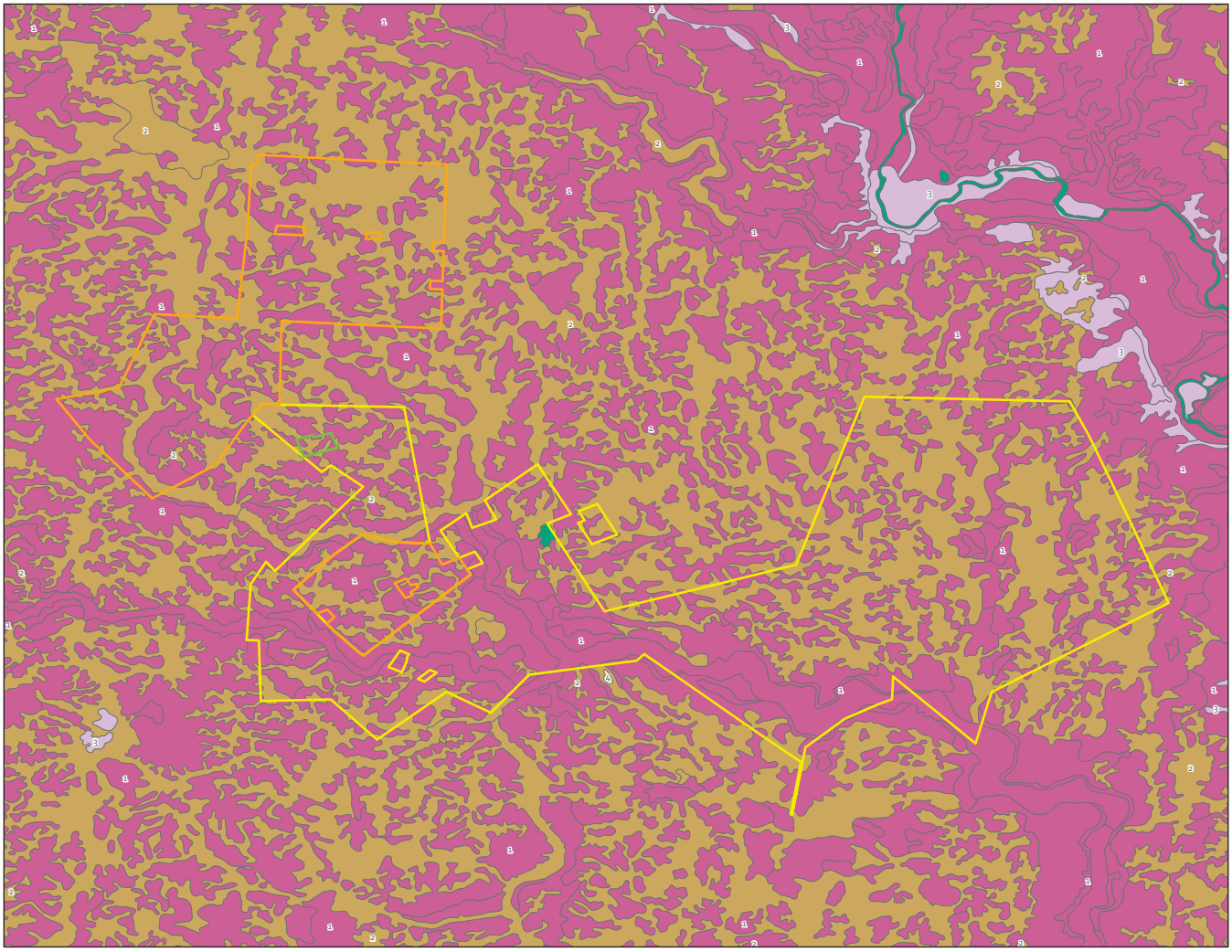


Figure 6

USCS Soil Classification

Fox Squirrel Solar
Madison County, Ohio USA

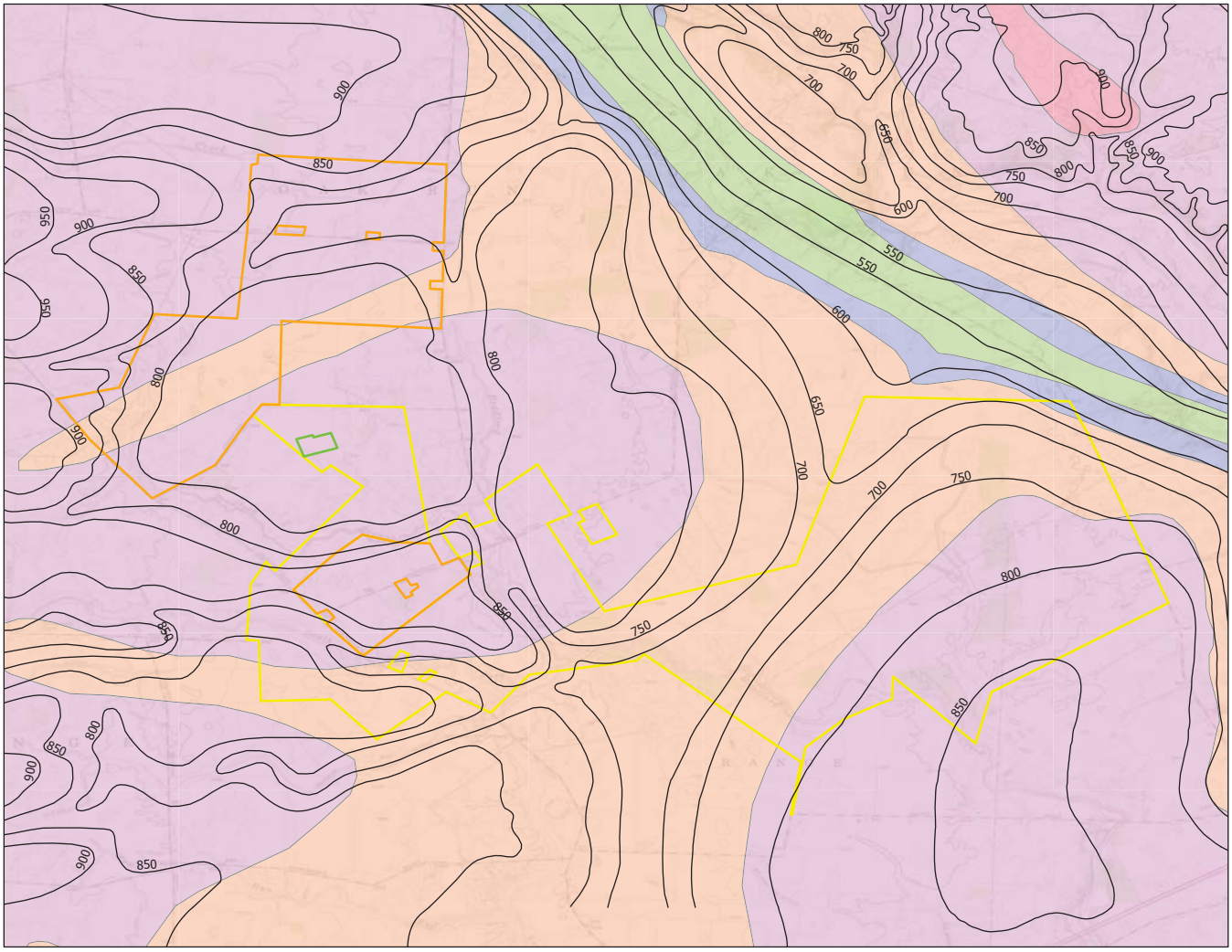


Figure 7

Bedrock Geology

Fox Squirrel Solar
Madison County, Ohio USA

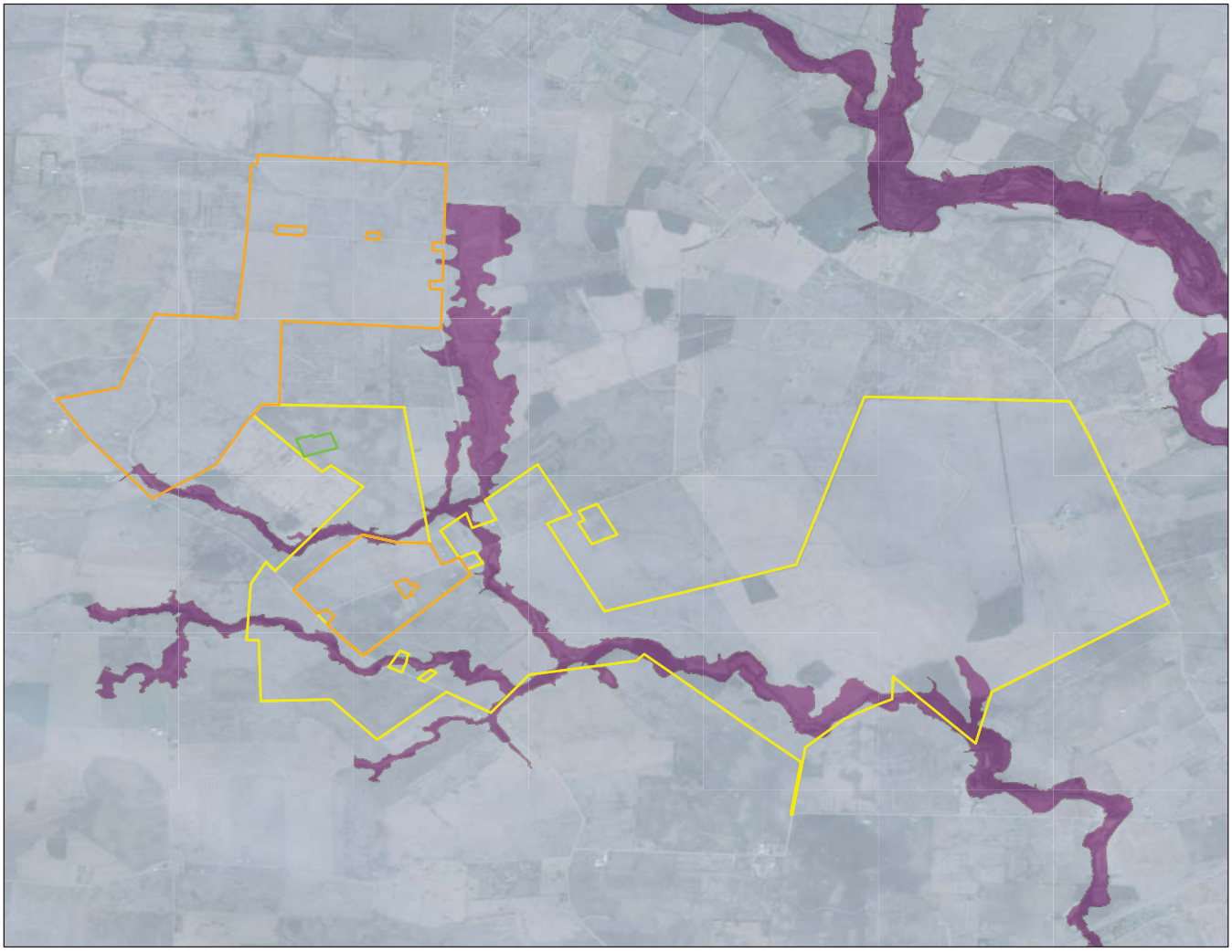


Figure 8

Flooding Risk Map

Fox Squirrel Solar
Madison County, Ohio USA

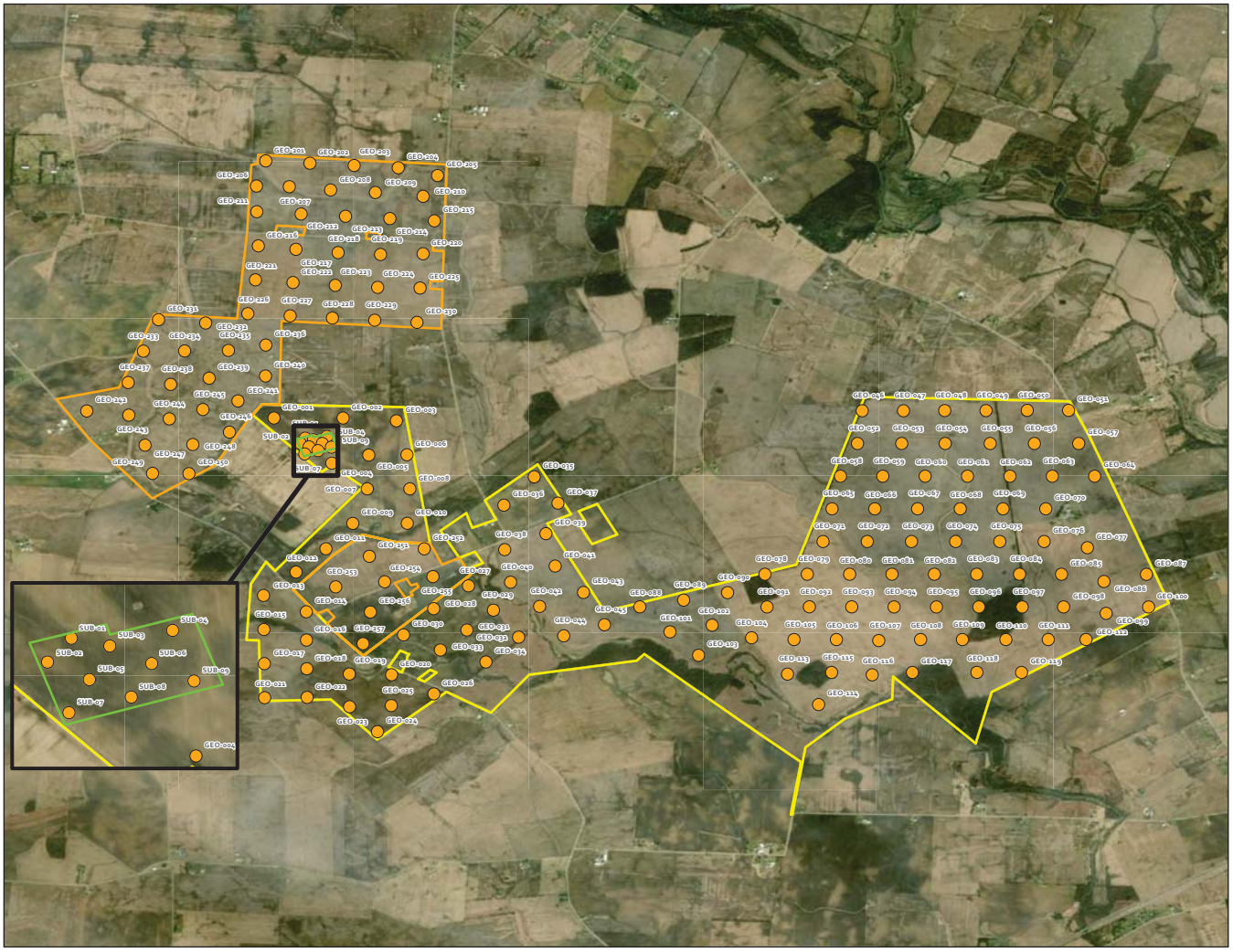
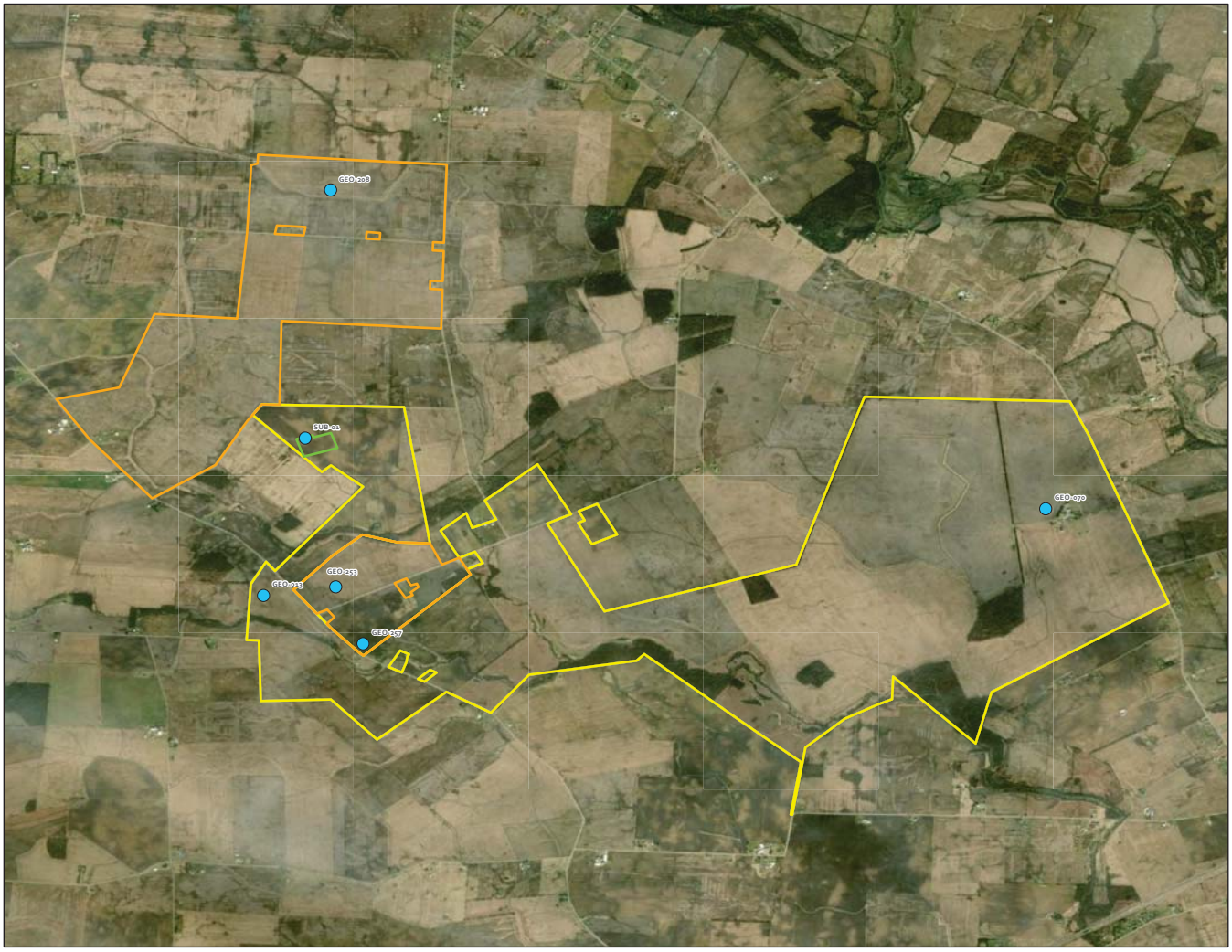


Figure 9

CPT Testing Locations

Fox Squirrel Solar
Madison County, Ohio USA



Legend

- Initial Project Area
- Boundary Change Area
- Substation and POI Boundary
- County Boundary
- PPD Testing Location

N

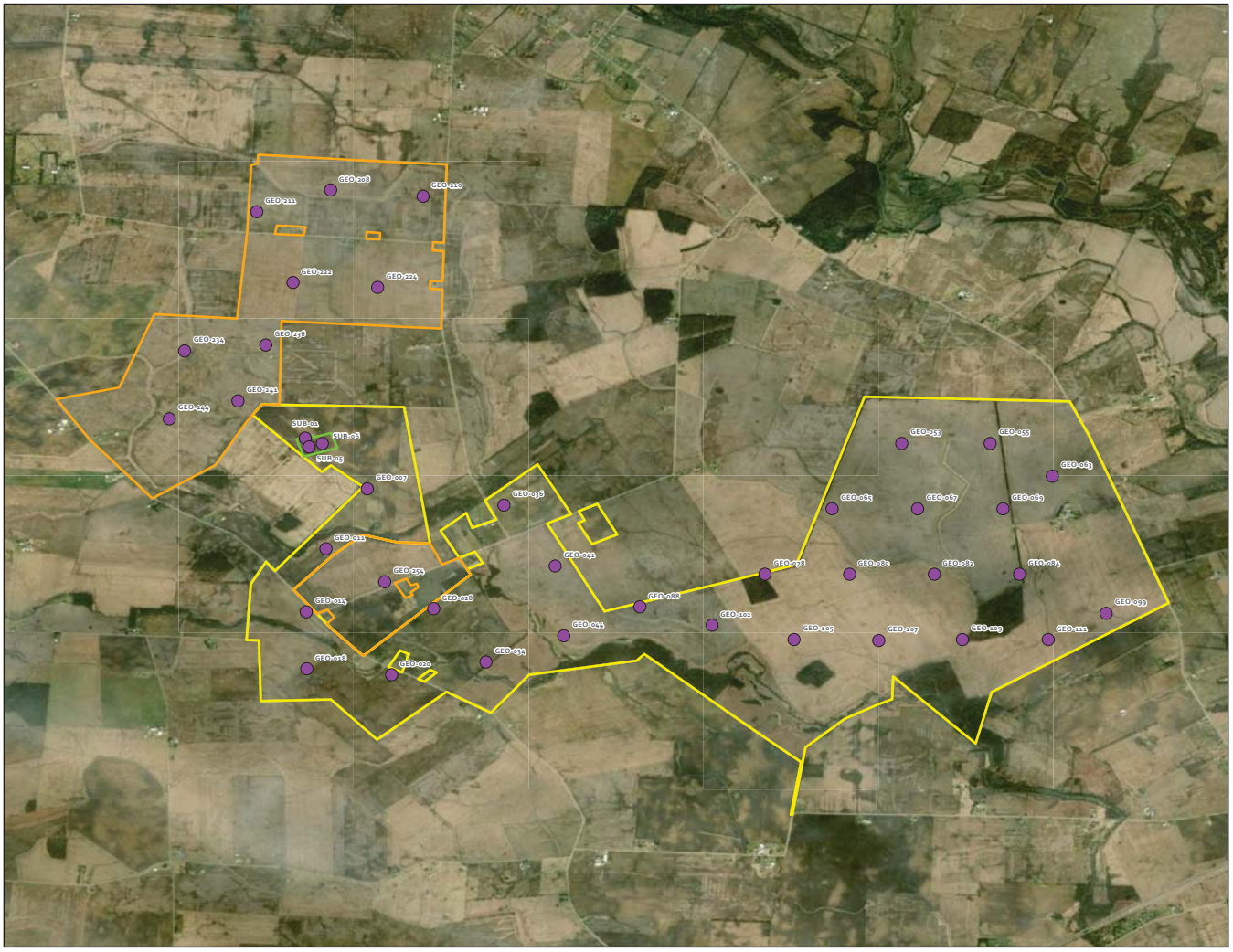
0 0.19 0.38 0.75 Miles

0 0.3 0.6 1.21 Kilometers

Figure 10

PPD Testing Locations

Fox Squirrel Solar
Madison County, Ohio USA



Legend

- Initial Project Area
- Boundary Change Area
- Substation and POI Boundary
- County Boundary
- Soil boring Location

N

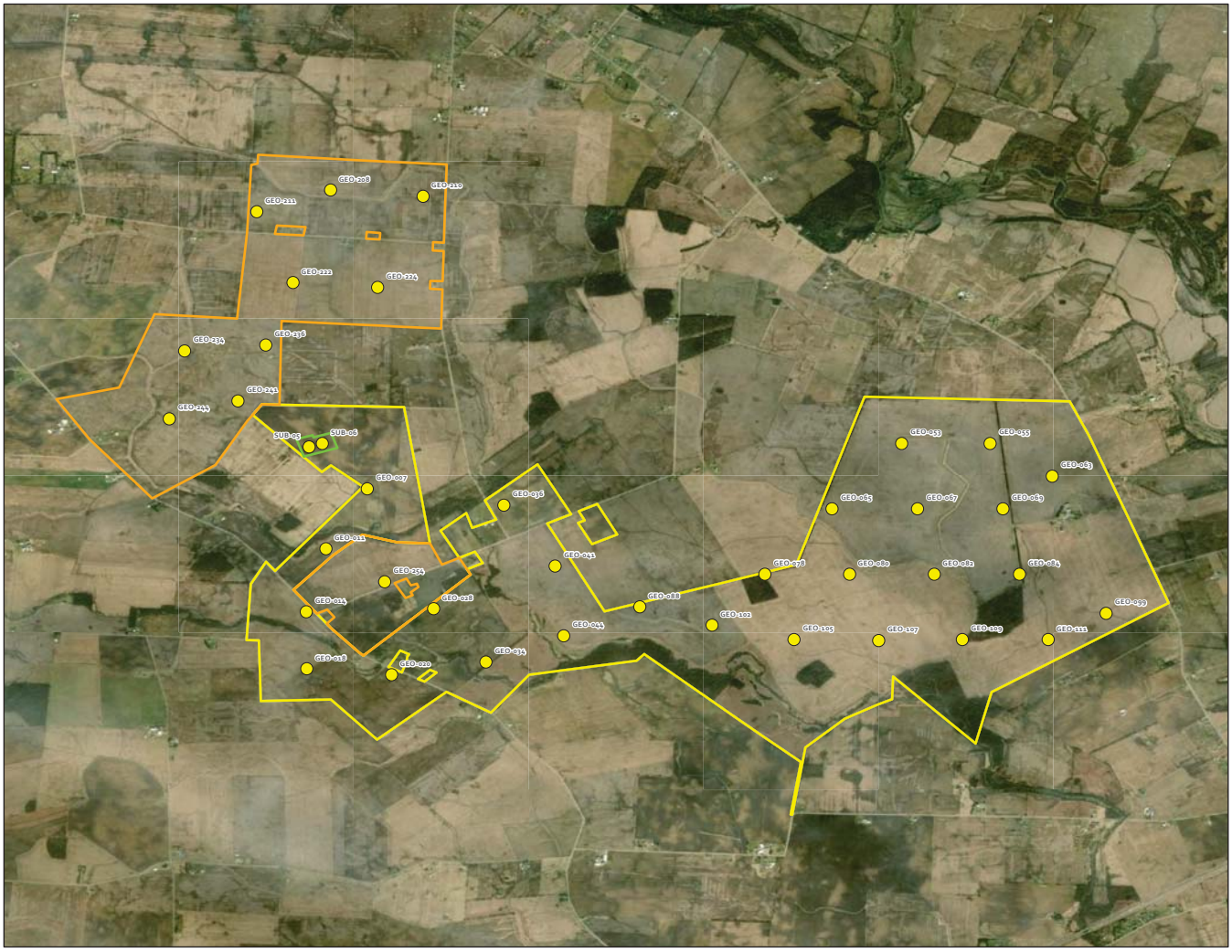
0 0.19 0.38 0.75 Miles

0 0.3 0.6 1.21 Kilometers

Figure 11

Soil Boring Locations

Fox Squirrel Solar
Madison County, Ohio USA



Legend

- Initial Project Area
- Boundary Change Area
- Substation and POI Boundary
- County Boundary
- Electrical Resistivity Test Location

N

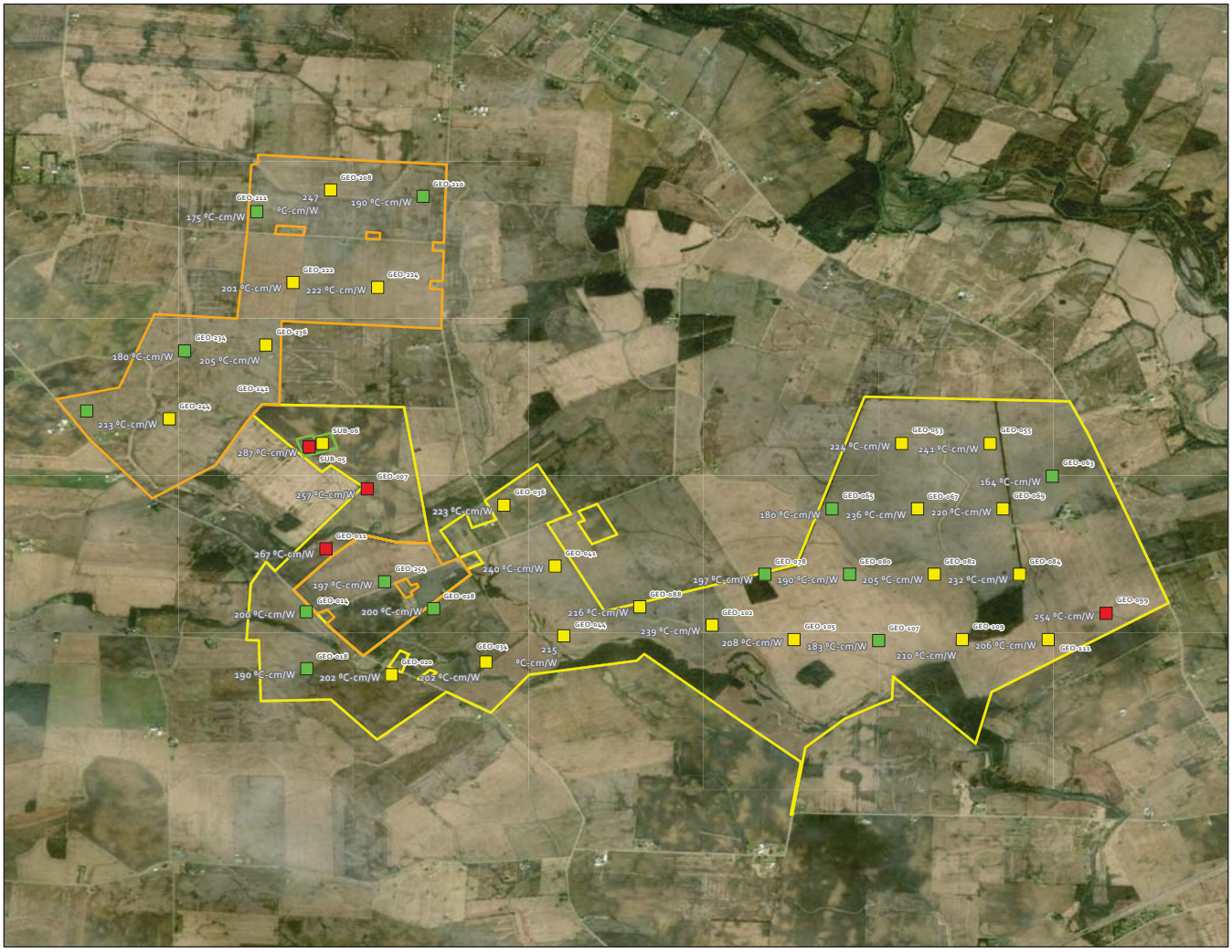
0 0.19 0.38 0.75 Miles

0 0.3 0.6 1.21 Kilometers

Figure 12

Electrical Resistivity Testing Locations

Fox Squirrel Solar
Madison County, Ohio USA



Legend

- Initial Project Area
- Boundary Change Area
- Substation and POI Boundary
- County Boundary

Dry Thermal Resistivity

- 15-200 °C-cm/W
- 200-250 °C-cm/W
- 250-300 °C-cm/W

N

0 0.19 0.38 0.75 Miles

0 0.3 0.6 1.21 Kilometers

Figure 13

Thermal Resistivity Testing Locations

Fox Squirrel Solar
Madison County, Ohio USA

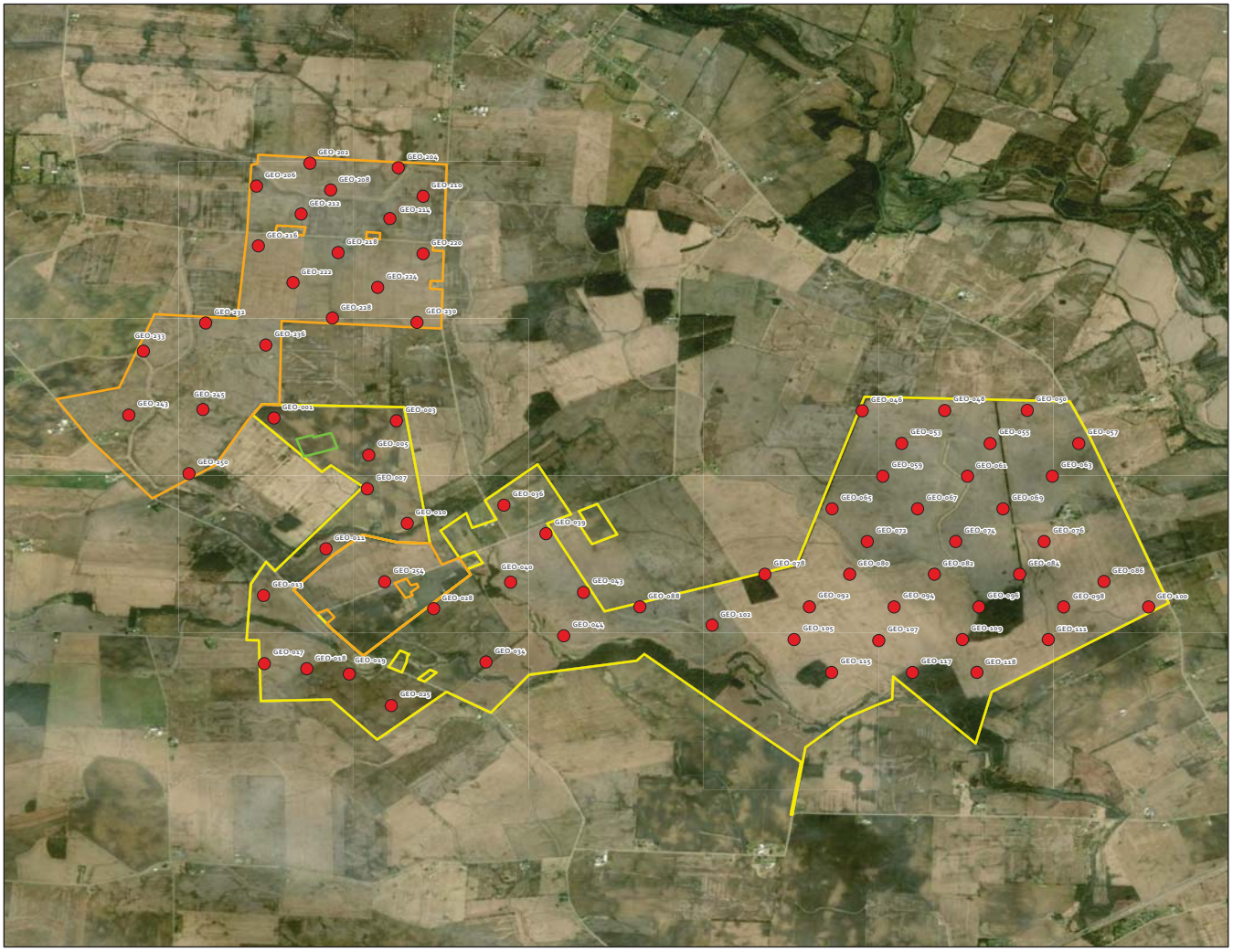


Figure 14

Pile Testing Locations

Fox Squirrel Solar
Madison County, Ohio USA

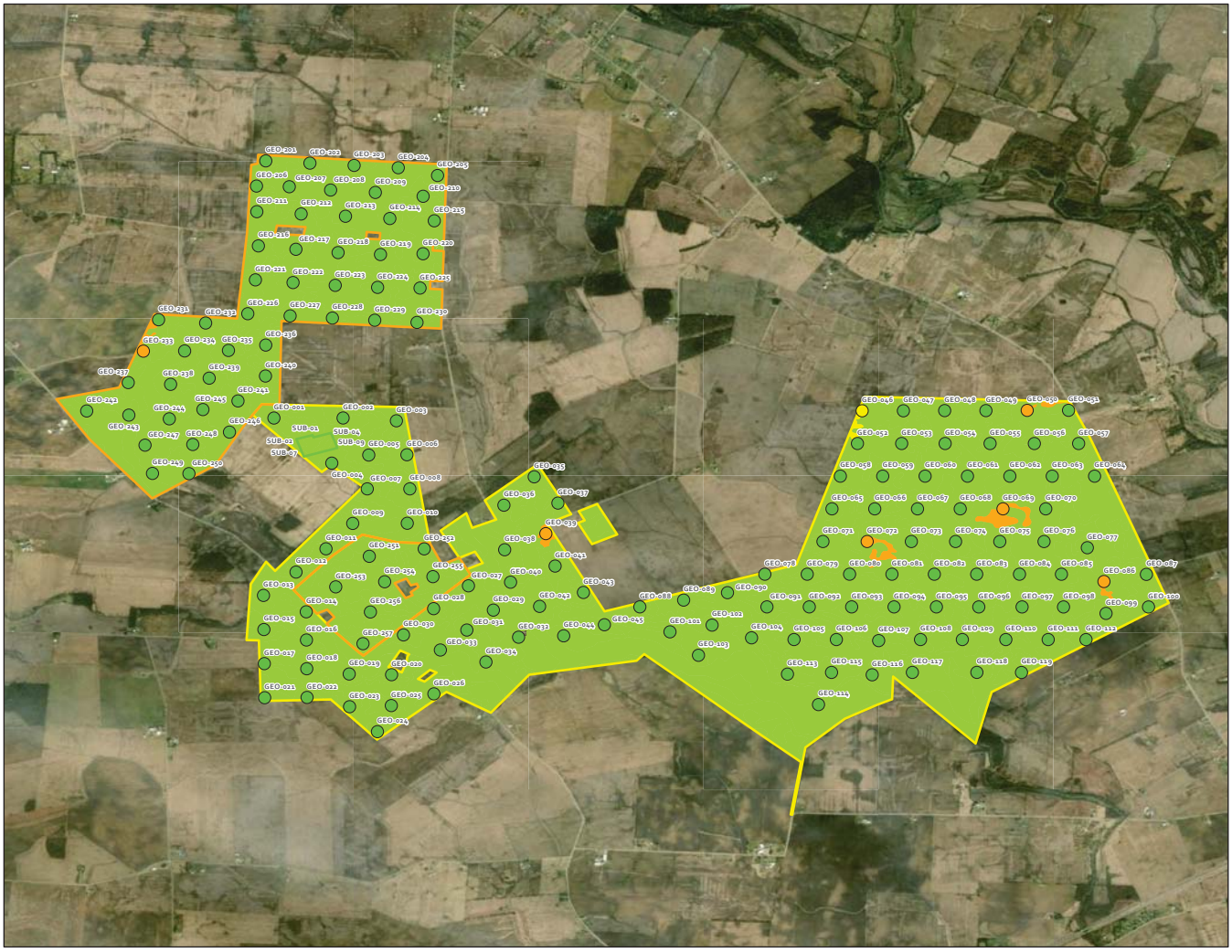


Figure 15

Spatial Distribution of Subsurface Strata

Fox Squirrel Solar
Madison County, Ohio USA

TABLES

Table 1
Summary of Geologic and Geotechnical Site Hazards

Hazard	Present at Site?	Comment
Shallow Groundwater	Likely	Field observations and experience in the area indicate that the groundwater level is anticipated to be within 5 to 10 feet of the ground surface.
Flooding	Low	FEMA flood zone mapping indicates the project site is not mapped as having significant flooding potential. Localized zones mapped as Zone A are present to the northwest and south of the project site nearer to well established drainages and rivers.
Slope failure	Unlikely away from drainages	The project site has low-relief topography away from the drainage features. There is some very localized potential for slope issues along the edges of the creeks and field drainageways, particularly following flooding events.
Scour	Unlikely	The site soils are primarily clayey with brush, crops, and grassy soil cover that should prevent soil scour for the majority of the site. Areas mapped within the Zone A boundaries may need to consider scour potential depending on flow velocities.
Subsidence – Oil/Gas Extraction	Unlikely	The project site is not within an area of significant oil and gas extraction, therefore, subsidence is not anticipated to be a high risk to development of the project.
Subsidence – Mining	No	Isolated sand and gravel pits are anticipated in the region given the glacial terrain, but larger mining operations are not typically located in the vicinity of the project site.
Subsidence – Caves/Karst	Unlikely	Potentially karstic terrain is not mapped at shallow depths within the project area. Bedrock is deep, the glacial drift materials are anticipated to be thick, and groundwater is shallow which reduces karst potential.
Earthquake – Seismicity	Low	Based on mapped spectral response acceleration parameters, there is a relatively low probability of experiencing high magnitude earthquake effects.
Earthquake – Ground Rupture	No	There are no mapped active Quaternary faults or folding mapped near the site. Seismic activity is mapped as relatively low limiting potential for ground rupture or other fault offsets developing.
Earthquake – Liquefaction	Unlikely	Most of the soils are clays and seismicity of the area is relatively low. All of these factors indicate a low risk for liquefaction.
Swelling/shrinking soil	Unlikely	Based on laboratory testing the soils are considered to have relatively low shrink-swell potential. The presence of anticipated shallow groundwater and high initial moisture contents within the clay are not anticipated to result in significant swell pressures.
Corrosive/Reactive soil	Possibly	Clayey soils with moderate to high moisture contents are present at the site with moderate electrical resistivity. Results indicate moderate to high corrosivity for steel in direct contact with the clayey soils. Sulfate contents are considered “negligible” for concrete mix design.
Made ground	Unlikely	The site is rural in nature with little or no known development and has low probability of any made ground.
Collapsible soil	No	Collapsible soils are generally associated with eolian (loess) deposits. Eolian soils were not encountered and are not mapped within the project boundaries.

Table 2
Comparison of Depth of CPT Sounding Refusal versus Soil Boring Depth

Geotech ID	CPT Sounding	Maximum Depth of CPT [ft]	Soil Boring	Total Depth [ft]	Strata
GEO-001	X	14.8			1
GEO-002	X	19.2			1
GEO-003	X	13.1			1
GEO-004	X	12.2			1
GEO-005	X	11.4			1
GEO-006	X	10.8	hardpan		1
GEO-007	X	16.8	X	20.0	1
GEO-008	X	14.8			1
GEO-009	X	17.2			1
GEO-010	X	11.2	sand		1
GEO-011	X	12.7	X	20.0	1
GEO-012	X	18.6			1
GEO-013	X	20.0			1
GEO-014	X	20.1	X	20.0	1
GEO-015	X	18.2			1
GEO-016	X	13.7			1
GEO-017	X	20.0			1
GEO-018	X	20.0	X	20.0	1
GEO-019	X	20.0			1
GEO-020	X	20.0	X	20.0	1
GEO-021	X	20.0			1
GEO-022	X	20.0			1
GEO-023	X	20.0			1
GEO-024	X	20.0			1
GEO-025	X	20.0			1
GEO-026	X	13.5			1
GEO-027	X	20.0			1
GEO-028	X	20.0	X	20.0	1
GEO-029	X	20.0			1
GEO-030	X	20.0			1
GEO-031	X	10.1			1
GEO-032	X	20.0			1
GEO-033	X	20.0			1
GEO-034	X	14.9	X	20.0	1
GEO-035	X	11.1			1
GEO-036	X	20.0	X	20.0	1
GEO-037	X	20.0			1
GEO-038	X	18.0			1
GEO-039	X	12.8			2
GEO-040	X	20.0			1
GEO-041	X	14.1	X	20.0	1
GEO-042	X	20.0			1
GEO-043	X	20.0			1
GEO-044	X	20.0	X	20.0	1
GEO-045	X	19.4			1
GEO-046	X	20.0			3
GEO-047	X	20.0			1
GEO-048	X	14.7			1
GEO-049	X	20.0			1
GEO-050	X	20.0			2
GEO-051	X	11.3			1
GEO-052	X	9.2			1
GEO-052A	X	20.0			1
GEO-053	X	20.0	X	20.0	1
GEO-054	X	20.0			1
GEO-055	X	20.0	X	20.0	1
GEO-056	X	20.0			1
GEO-057	X	18.0			1
GEO-058	X	20.0			1
GEO-059	X	17.1			1
GEO-060	X	20.0			1
GEO-061	X	11.2			1
GEO-062	X	15.2			1
GEO-063	X	18.5	X	20.0	1
GEO-064	X	16.2			1
GEO-065	X	3.8	X	20.0	1
GEO-065A	X	20.0			
GEO-066	X	20.0			1
GEO-067	X	20.0	X	20.0	1
GEO-068	X	20.0			1
GEO-069	X	20.0	X	20.0	2
GEO-070	X	20.0			1
GEO-071	X	16.7			1
GEO-072	X	20.0			2
GEO-073	X	20.0			1
GEO-074	X	14.8			1
GEO-075	X	14.1			1
GEO-076	X	20.0			1
GEO-077	X	19.3			1

Geotech ID	CPT Sounding	Maximum Depth of CPT [ft]	Soil Boring	Total Depth [ft]	Strata
GEO-096	X	20.0			1
GEO-097	X	14.2			1
GEO-098	X	20.0			1
GEO-099	X	9.4	X	20.0	1
GEO-099A	X	20.0			
GEO-100	X	20.0			1
GEO-101	X	13.9			1
GEO-102	X	20.0	X	20.0	1
GEO-103	X	10.1			1
GEO-104	X	16.5			1
GEO-105	X	20.0	X	20.0	1
GEO-106	X	20.0			1
GEO-107	X	11.9	X	20.0	1
GEO-108	X	9.5			1
GEO-108A	X	16.3			1
GEO-109	X	20.0	X	20.0	1
GEO-110	X	20.0			1
GEO-111	X	20.0	X	20.0	1
GEO-112	X	20.0			1
GEO-113	X	20.0			1
GEO-114	X	20.0			1
GEO-115	X	13.5			1
GEO-116	X	12.4			1
GEO-117	X	19.3			1
GEO-118	X	20.0			1
GEO-119	X	20.0			1
GEO-201	X	15.1			1
GEO-202	X	14.6			1
GEO-203	X	13.4			1
GEO-204	X	20.0			1
GEO-205	X	20.0			1
GEO-206	X	20.0			1
GEO-207	X	10.7			1
GEO-208	X	16.4	X	20.0	1
GEO-209	X	12.5			1
GEO-210	X	14.8	X	20.0	1
GEO-211	X	20.0	X	20.0	1
GEO-212	X	20.0			1
GEO-213	X	20.0			1
GEO-214	X	20.0			1
GEO-215	X	20.0			1
GEO-216	X	20.0			1
GEO-217	X	18.9			1
GEO-218	X	20.0			1
GEO-219	X	20.0			1
GEO-220	X	20.0			1
GEO-221	X	15.1			1
GEO-222	X	13.4	X	20.0	1
GEO-223	X	14.6			1
GEO-224	X	13.4	X	20.0	1
GEO-225	X	20.0			1
GEO-226	X	16.7			1
GEO-227	X	5.1			1
GEO-227A	X	20.0			1
GEO-228	X	11.5			1
GEO-229	X	20.0			1
GEO-230	X	14.6			1
GEO-231	X	20.0			1
GEO-232	X	20.0			1
GEO-233	X	13.9			2
GEO-234	X	20.0	X	20.0	1
GEO-235	X	20.0			1
GEO-236	X	20.0	X	20.0	1
GEO-237	X	20.0			1
GEO-238	X	10.1			1
GEO-239	X	9.7			1
GEO-239A	X	20.0			1
GEO-240	X	20.0			1
GEO-241	X	20.0	X	20.0	1
GEO-242	X	20.0			1
GEO-243	X	12.9			1
GEO-244	X	12.4	X	20.0	1
GEO-245	X	20.0			1
GEO-246	X	20.0			1
GEO-247	X	12.6			1
GEO-248	X	20.0			1
GEO-249	X	12.5			1
GEO-250	X	20.0			1
GEO-251	X	19.8			1

Geotech ID	CPT Sounding	Maximum Depth of CPT [ft]	Soil Boring	Total Depth [ft]	Strata
GEO-078	X	20.0	X	20.0	1
GEO-079	X	20.0			1
GEO-080	X	12.3	X	20.0	1
GEO-081	X	20.0			1
GEO-082	X	17.7	X	20.0	1
GEO-083	X	10.0			1
GEO-084	X	20.0	X	20.0	1
GEO-085	X	20.0			1
GEO-086	X	10.6			2
GEO-087	X	20.0			1
GEO-088	X	14.4	X	20.0	1
GEO-089	X	20.0			1
GEO-090	X	20.0			1
GEO-091	X	19.4			1
GEO-092	X	10.3			1
GEO-093	X	13.0			1
GEO-094	X	14.2			1
GEO-095	X	20.0			1

Geotech ID	CPT Sounding	Maximum Depth of CPT [ft]	Soil Boring	Total Depth [ft]	Strata
GEO-252	X	14.5			1
GEO-253	X	18.2			1
GEO-254	X	20.0	X	20.0	1
GEO-255	X	18.2			1
GEO-256	X	20.0			1
GEO-257	X	17.8			1
SUB-01	X	40.0	X	35.0	--
SUB-02	X	40.0			--
SUB-03	X	39.8			--
SUB-04	X	40.0			--
SUB-05	X	40.0	X	35.0	--
SUB-06	X	40.2	X	35.0	--
SUB-07	X	17.1			--
SUB-07A	X	40.0			--
SUB-08	X	9.2			--
SUB-08A	X	24.2			--
SUB-09	X	21.4			--

Table 3

Summary of Groundwater Levels from Soil Borings

Geotech ID	Groundwater Depth [feet]	
	While Drilling	Upon Completion
GEO-007	18.0	18.0
GEO-011	18.0	17.0
GEO-014	N/E	N/E
GEO-018	N/E	N/E
GEO-020	N/E	N/E
GEO-028	19.0	19.0
GEO-034	N/E	N/E
GEO-036	N/E	N/E
GEO-041	N/E	N/E
GEO-044	N/E	N/E
GEO-053	14.0	13.0
GEO-055	14.0	15.0
GEO-063	N/E	N/E
GEO-065	19.5	19.0
GEO-067	18.0	18.5
GEO-069	20.0	19.5
GEO-078	N/E	N/E
GEO-080	N/E	N/E
GEO-082	18.0	18.0
GEO-084	N/E	N/E
GEO-088	N/E	N/E
GEO-099	N/E	N/E
GEO-102	N/E	N/E
GEO-105	N/E	N/E
GEO-107	N/E	N/E
GEO-109	N/E	N/E
GEO-111	N/E	N/E
GEO-208	N/E	N/E
GEO-210	N/E	N/E
GEO-211	N/E	N/E
GEO-222	N/E	N/E
GEO-224	14.0	13.0
GEO-234	9.0	9.0
GEO-236	18.0	18.0
GEO-241	N/E	N/E
GEO-244	17.0	18.0
GEO-254	N/E	N/E
SUB-01	9.0	9.0
SUB-05	13.0	13.0
SUB-06	N/E	N/E

N/E = Not encountered.

Table 4

Summary of Groundwater Levels from Pore Pressure Dissipation Test Results

Geotechnical ID	Depth Below Existing Grade (feet)		
	Depth of Test	Equilibrium Pore Pressure, u_{eq}	Groundwater Depth
GEO-013	20.0	11.2	8.8
GEO-070	7.5	0.4	7.1
GEO-208	16.4	7.3	9.1
GEO-253	18.2	6.9	11.4
SUB-01	40.0	29.9	10.1

Table 5
Chemical Test Results on Soil Samples

Geotech ID	Depth (ft)	Soil Type	pH	Chloride (mg/kg dry)	Sulfate (mg/kg dry)
GEO-007	1-5	CL	7.3	<20	<50
GEO-011	1-5	CL	7.2	<20	<50
GEO-014	1-5	CL	7.5	<20	<50
GEO-018	1-5	CL	7.4	<20	<50
GEO-020	1-5	CL	7.5	<20	<50
GEO-028	1-5	CL	7.5	<20	<50
GEO-034	1-5	CL	7.5	<20	<50
GEO-036	1-5	CL	7.3	<20	<50
GEO-041	1-5	CL	7.4	<20	<50
GEO-044	1-5	CL	7.3	<20	<50
GEO-053	1-5	CL	7.4	<20	<50
GEO-055	1-5	CL	7.3	<20	<50
GEO-063	1-5	CL	7.4	<20	<50
GEO-065	1-5	CL	7.4	<20	<50
GEO-067	1-5	CL	7.2	<20	144
GEO-069	1-5	CL	7.3	<20	<50
GEO-078	1-5	CL	7.4	<20	<50
GEO-080	1-5	CL	7.4	<20	<50
GEO-082	1-5	CL	7.4	<20	<50
GEO-084	1-5	CL	7.3	<20	<50
GEO-088	1-5	CL	7.3	<20	<50
GEO-099	1-5	CL	7.4	<20	<50
GEO-102	1-5	CL	7.4	<20	<50
GEO-105	1-5	CL	7.4	<20	<50
GEO-107	1-5	CL	7.4	<20	<50
GEO-109	1-5	CL	7.4	<20	<50
GEO-111	1-5	CL	7.5	<20	<50
GEO-208	1-5	CL	7.2	<20	<50
GEO-210	1-5	CL	7.3	<20	<50
GEO-211	1-5	CL	7.4	<20	<50
GEO-222	1-5	CL	7.3	<20	<50
GEO-224	1-5	CL	7.4	<20	<50
GEO-234	1-5	CL	7.3	<20	181
GEO-236	1-5	CL	7.4	<20	<50
GEO-242	1-5	CL	7.3	<20	<50
GEO-244	1-5	CL	7.2	<20	<50
GEO-254	1-5	CL	7.3	<20	<50
SUB-05	1-5	CL	7.3	<20	53

Table 6
Summary of General Laboratory Test Results

Sample Location						Atterberg Limits												
		Approx				Liq. Limit	Plast. Limit	Plast. Index	Percent	Percent	Percent	Percent	Percent	Peak	Free	Maximum	Unconfined	U-U Triaxial
Geotech ID	Depth [ft]	Soil Type (1)	Moisture Content [%]	Dry Unit Weight [pcf]	In Situ Unit Weight [pcf]	[% moisture content]			Gravel [%]	Sand [%]	Silt [%]	Clay [%]	Fines [%]	Friction Angle [degrees]	Swell [%]	Swell Pressure [tsf]	Compressive Strength [tsf]	Compressive Strength [tsf]
GEO-007	8.5	CL				21	13	8										
	18.5	CL	10.4															
GEO-011	3.5	CL	20.8			41	19	22	2.9	18.4			78.7					
	13.5	CL	14.4															
GEO-014	6	CL				23	14	9										
	13.5	CL	11.5															
GEO-018	6	CL	11.1	126.3	140.3	25	13	12	4.5	34.5	46.3	14.7	61.0		0.7	0.38	2.4	
	13.5	CL	10.2															
GEO-020	3.5	CL	12.2	127.6	143.2													
	8.5	CL	11.3															
	13.5	CL-ML				18	13	5										
	18.5	CL	12.4															
GEO-028	1	CL	12.3			35	17	18										
	6	CL	13.5	125.9	142.9													1.6
	18.5	SM	13.6						0.0	77.4			22.6					
GEO-034	1	CL	11.0						13.3	31.2			55.5					
	3.5	CL	12.0	128.6	144.0													3.6
	13.5	CL-ML	14.2			21	14	7										
GEO-036	3.5	CL	11.7															
	6	CL				24	14	10										
	18.5	CL	10.6															
GEO-041	1	CL	16.6	110.2	128.5													2.3
	6	CL	23.9															
	13.5	CL	9.1			26	15	11										
GEO-044	3.5	CL	10.9	127	140.8													2.9
	13.5	CL	11.1															
GEO-053	1	CL	17.5						15.7	20.3			64.0					
	3.5	CL				28	17	11										
	8.5	CL	10.1											36.0				
	13.5	SM	15.0															
GEO-055	8.5	CL	14.3			26	16	10										
	13.5	SM	12.8						11.7	42.3			46.0					
GEO-063	1	CL	27.7															
	13.5	CL	8.7			22	13	9	14.0	31.3			54.7					
GEO-065	3.5	CL	11.7			23	15	8	13.8	32.2			54.0					
	8.5	CL	20.5															
GEO-067	1	CL	27.9															
	3.5	CL-ML				21	14	7										
	6	CL	12.1	131.5	147.4													2.9
	18.5	SP	9.2											37.2				
GEO-069	3.5	CL	9.7	127.1	139.4	38	16	22	7.0	31.0	46.0	16.0	62.0		3.7	0.9		
	8.5	CL	9.8															
GEO-078	1	CL	18.7			37	19	18	5.8	29.2			65.0					
	3.5	CL	11.6	118.1	131.8													1.0
	13.5	CL	12.3															
GEO-080	3.5	CL	11.7	126.7	141.5													
	13.5	GC	13.1						39.6	18.2			42.2					
GEO-082	1	CL-ML	15.4			20	14	6										
	18.5	GC	10.5						74.3	17.9			7.8					
GEO-084	3.5	CL	22.3															1.8
	8.5	CL	11.6			29	15	14										
	18.5	CL	9.5															
GEO-088	3.5	CL	11.0			34	17	17										
	13.5	SC	10.3						15.5	35.4			49.1					
GEO-099	1	CL	26.1															
	8.5	CL-ML				21	14	7										
	18.5	CL	8.9															
GEO-102	3.5	CL	16.7			28	15	13										
	13.5	CL	11.5															
GEO-105	3.5	CL	11.1	129.8	144.2													1.7
	8.5	CL	11.5						7.0	34.0	43.0	16.0	59.0					
	18.5	CL	10.7															
GEO-107	3.5	CL	12.0	120.7	135.2	42	20	22										1.0
	8.5	CL	11.4															
	18.5	CL	12.7															
GEO-109	1	CL	22.5			48	19	29										
	13.5	CL	8.0						9.2	36.3			54.4					
GEO-111	1	CL	20.3															
	3.5	CL-ML				21	14	7										
	8.5	CL	12.6															
	18.5	CL	8.7															
GEO-208	1	CL	26.4															
	3.5	CL				34	17	17										
	6	CL	13.2															2.6
	13.5	CL	10.1															
GEO-210	1	CL	10.4															
	8.5	CL	9.2			23	14	9	3.7	33.4			62.9					
GEO-211	3.5	CL	10.3	130.0	143.4													1.7
	6	CL-ML				21	14	7										
	13.5	CL	10.0															
GEO-222	1	CL	16.9															
	6	CL-ML				21	14	7										
	8	CL	11.9															
	18.5	CL	11.2															
GEO-224	1	CL	23.8															
	3.5	CL				39	18	21										
	6	CL	11.0															
	13.5	GC	9.6						48.8	35.3			6.8					
GEO-234	1	CL	24.0						5.1	32.4	40.5	22.0	62.5					
	3.5	CL	19.9	109.2	130.9												0.9	
	8.5	CL				36	17	19										
	13.5	CL	10.6															
GEO-236	1	CL	19.6	106.2	127.0													2.9
	6	CL	10.8			27	15	12										
	18.5	CL	12.2															
GEO-241	3.5	CL	19.7	108.7	130.1													2.7
	6	CL				34	16	18										
	8.5	CL	19.4															
GEO-244	3.5	CL	28.7			47	20	27										
	6	CL	9.6	131.8	144.5													3.1
	13.5	CL	11.9															
GEO-254	3.5	CL	13.0	122.7	138.7												3.1	
	8.5	CL-ML	10.8			22	15	7	14.8	31.8			53.4					
SUB-01	3.5	CL	11.7	123.2	137.6	29	15	14							1.8	0.09		3.1
	8.5	CL	22.2															
	18.5	CL	9.6															
	33.5	CL	10.3															
SUB-05	3.5	CL	11.6	128.3	143.2				0.5	25.5	52.0	22.0	74.0					4.7
	13.5	CL	10.4						11.6	36.0			52.4					
	23.5	CL	9.7															
	28.5	CL-ML				20	13	7										
	33.5	CL	9.9															
SUB-06	1	CL	23.8	106.1	131.4													2.6
	6	CL	11.9															
	13.5	CL	15.5															
	23.5	CL	7.8			20	12	8										
	33.5	SM	11.2						13.7	70.3			15.9					
Number of Tests			102	21	21	38	38	38	23	23	5	5	23	2	3	3	3	17
Minimum Values			7.8	106.1	127.0	18.0	12.0	5.0	0.0	17.9	40.5	14.7	6.8	36.0	0.7	0.1	0.9	1.0
Maximum Values			28.7	131.8	147.4	48.0	20.0	29.0	74.3	77.4	52.0	22.0	78.7	37.2	3.7	0.9	3.1	4.7
Average Values			13.8	122.2	138.4	28.0	15.4	12.7	14.8	34.1	45.6	18.1	50.7	36.6	2.1	0.5	2.1	2.5
Standard Deviations			5.1	8.8	6.1	8.3	2.1	6.4	17.2	14.1	4.3	3.6	19.5	0.8	1.5	0.4	1.1	0.9

Notes
(1) Approximate Soil Types - see boring logs for full description

Table 7
Summary of Standard Proctor and CBR Test Results

Geotechnical ID	Depth [ft]	Soil Type	Standard Proctor Data		CBR Value (corrected at 0.1 inch penetration)
			Maximum Dry Density [pcf]	Optimum Moisture [%]	[pcf]
GEO-007	1-5	CL	114.6	14.8	4.2
GEO-011	1-5	CL	109.8	17.1	
GEO-014	1-5	CL	118.1	14.6	
GEO-018	1-5	CL	116.6	14.5	
GEO-020	1-5	CL	121.6	12.9	3.6
GEO-028	1-5	CL	118.8	14.0	
GEO-034	1-5	CL	118.1	13.8	
GEO-036	1-5	CL	119.0	12.8	
GEO-041	1-5	CL	116..5	15.0	
GEO-044	1-5	CL	117.5	14.5	3.1
GEO-053	1-5	CL	116.6	14.6	5.9
GEO-055	1-5	CL	111.9	17.2	
GEO-063	1-5	CL	116.6.	14.6	
GEO-065	1-5	CL	117.3	14.0	
GEO-067	1-5	CL	109.1	18.5	
GEO-069	1-5	CL	101.4	22.5	
GEO-078	1-5	CL	119.6	13.2	
GEO-080	1-5	CL	114.9	15.8	
GEO-082	1-5	CL	116.6.	14.8	
GEO-084	1-5	CL	112.4	16.5	
GEO-088	1-5	CL	117.6	14.1	
GEO-099	1-5	CL	105.4	19.1	2.3
GEO-102	1-5	CL	116.4	14.8	
GEO-105	1-5	CL	117.1	14.6	
GEO-107	1-5	CL	119.4	12.7	
GEO-109	1-5	CL	114.1	15..6	
GEO-111	1-5	CL	118.2	13.9	
GEO-208	1-5	CL	108.5	18.0	
GEO-210	1-5	CL	118.5	13.0	
GEO-211	1-5	CL	123.0	12.2	
GEO-222	1-5	CL	118.7	14.3	4.4
GEO-224	1-5	CL	108.7	18.2	
GEO-234	1-5	CL	119.1	13.9	
GEO-236	1-5	CL	114.5	15.8	
GEO-242	1-5	CL	111.8	17.5	
GEO-244	1-5	CL	105.2	20.2	
GEO-254	1-5	CL	120.4	14.1	
SUB-05	1-5	CL	108.7	18.8	
SUB-06	1-5	CL	121.1	13.0	
Mean			115.1	15.4	3.9
Standard Deviation			5.2	2.3	1.2
Minimum			101.4	12.2	2.3
Maximum			123.0	22.5	5.9

Table 8
Summary of Average Undrained Shear Strength and Friction Angle from CPT

Geotechnical ID	Average Friction Angle, φ (degrees)	Granular Percentage of Profile	Average Undrained Shear Strength, s_u [psf]	Cohesive Percentage of Profile
GEO-001	41	41.2	3948	58.8
GEO-002	43	45.9	6025	54.1
GEO-003	40	28.0	3342	72.0
GEO-004	42	41.1	8638	58.9
GEO-005	41	19.1	3596	80.9
GEO-006	43	65.9	2542	34.1
GEO-007	42	48.5	5683	51.5
GEO-008	40	23.7	1966	76.3
GEO-009	40	53.6	6753	46.4
GEO-010	43	67.2	5323	32.8
GEO-011	42	58.6	4234	41.4
GEO-012	44	52.7	12806	47.3
GEO-013	41	28.2	3062	71.8
GEO-014	41	44.2	2612	55.8
GEO-015	43	38.8	4737	61.2
GEO-016	45	63.4	6181	36.6
GEO-017	43	71.4	5013	28.6
GEO-018	40	11.2	3104	88.8
GEO-019	42	36.1	4945	63.9
GEO-020	41	39.0	5048	61.0
GEO-021	40	25.3	4420	74.7
GEO-022	40	62.5	2864	37.5
GEO-023	42	40.2	3497	59.8
GEO-024	44	80.9	1428	19.1
GEO-025	42	50.2	4107	49.8
GEO-026	42	42.6	2176	57.4
GEO-027	43	90.5	3896	9.5
GEO-028	43	42.3	5557	57.7
GEO-029	43	28.2	6929	71.8
GEO-030	41	20.7	6297	79.3
GEO-031	40	44.5	2339	55.5
GEO-032	43	47.5	5286	52.5
GEO-033	43	84.2	9689	15.8
GEO-034	42	34.6	3372	65.4
GEO-035	40	9.8	2811	90.2
GEO-036	42	47.3	4409	52.7
GEO-037	41	19.9	4185	80.1
GEO-038	42	39.4	5285	60.6
GEO-039	40	41.8	2641	58.2
GEO-040	41	32.4	3724	67.6
GEO-041	42	59.8	3052	40.2
GEO-042	43	29.5	4869	70.5
GEO-043	40	59.3	7114	40.7
GEO-044	43	42.3	5209	57.7
GEO-045	42	41.2	7802	58.8
GEO-046	42	43.6	3340	56.4
GEO-047	43	68.9	9114	31.1
GEO-048	42	30.7	4588	69.3
GEO-049	44	54.4	5946	45.6
GEO-050	43	42.3	5610	47.7
GEO-051	43	57.8	6624	42.2
GEO-052	44	40.7	7862	59.3
GEO-053	42	37.3	4747	62.7
GEO-054	44	51.0	6651	49.0
GEO-055	43	56.8	4473	43.2
GEO-056	43	48.5	5787	51.5
GEO-057	43	60.8	7278	39.2
GEO-058	40	56.4	3773	43.6
GEO-059	41	34.6	4929	65.4
GEO-060	43	55.2	8392	44.8
GEO-061	41	39.8	4332	60.2
GEO-062	44	49.2	6252	50.8
GEO-063	44	43.9	14769	56.1
GEO-064	43	28.4	8930	71.6
GEO-065	41	39.4	6187	60.6
GEO-066	43	38.2	7057	61.8
GEO-067	42	57.7	3387	42.3
GEO-068	44	51.9	10234	48.1
GEO-069	42	27.0	4862	73.0
GEO-070	46	60.6	13590	39.4
GEO-071	41	22.5	3552	77.5
GEO-072	41	11.6	4006	88.4
GEO-073	43	66.8	6191	33.2
GEO-074	44	60.5	11034	39.5
GEO-075	43	49.1	4188	50.9
GEO-076	41	28.6	6267	71.4
GEO-077	41	55.6	5790	44.4
GEO-078	43	24.1	7920	75.9
GEO-079	42	22.0	5305	78.0
GEO-080	42	33.3	2934	66.7
GEO-081	39	38.6	3860	61.4
GEO-082	43	39.9	5980	60.1
GEO-083	45	60.5	13158	39.5
GEO-084	40	12.4	5525	87.6
GEO-085	42	35.7	5621	64.3
GEO-086	39	43.7	2867	56.3
GEO-087	43	22.0	6032	78.0
GEO-088	43	68.6	2267	31.4
GEO-089	43	22.4	4621	77.6
GEO-090	42	34.0	9648	66.0
GEO-091	43	52.4	7973	47.6
GEO-092	41	11.4	2330	88.6
GEO-093	40	33.3	3360	66.7
GEO-094	43	63.5	6459	36.5
GEO-095	40	13.7	6282	86.3
GEO-096	43	39	6516	61.0
GEO-097	41	67.1	4642	32.9
GEO-098	43	40.7	9172	59.3
GEO-099	45	31.7	10010	68.3
GEO-100	43	22.4	4456	77.6
GEO-101	39	22.2	2624	77.8
GEO-102	42	32.8	6432	67.2
GEO-103	41	59.2	835	40.8
GEO-104	43	24.7	5567	75.3
GEO-105	43	22.4	6399	77.6
GEO-106	43	63.5	13407	36.5
GEO-107	43	35.2	4141	64.8
GEO-108	45	57.1	5974	42.9
GEO-109	44	56.8	14052	43.2
GEO-110	42	34.4	6011	65.6
GEO-111	43	29	8077	71.0
GEO-112	40	14.5	5898	85.5
GEO-113	41	17.8	4994	82.2
GEO-114	44	26.6	5823	73.4
GEO-115	41	29.8	2915	70.2
GEO-116	43	52.7	5167	47.3
GEO-117	42	34.1	4517	65.9
GEO-118	42	36.1	4577	63.9
GEO-119	42	37.3	5750	62.7
GEO-201	43	32.6	4631	67.4
GEO-202	42	32	5337	68.0
GEO-203	41	36.9	6077	63.1
GEO-204	41	34.9	5488	65.1
GEO-205	44	41.1	8271	58.9
GEO-206	42	36.5	7084	63.5
GEO-207	41	27.3	2940	72.7
GEO-208	40	23.9	3368	76.1
GEO-209	43	31.5	9306	68.5
GEO-210	46	61.8	12329	38.2
GEO-211	41	34.9	4757	65.1
GEO-212	43	29.9	4375	70.1
GEO-213	41	27.4	2370	72.6
GEO-214	42	43.2	7448	56.8
GEO-215	43	32.4	8453	67.6
GEO-216	41	33.6	3414	66.4
GEO-217	43	42.5	5034	57.5
GEO-218	43	25.3	5018	74.7
GEO-219	41	32	4235	68.0
GEO-220	42	34.4	6005	65.6
GEO-221	42	33.7	2737	66.3
GEO-222	42	43.1	3195	56.9
GEO-223	44	48.6	6283	41.4
GEO-224	40	39.4	4598	60.6
GEO-225	43	33.6	8889	66.4
GEO-226	42	47.5	4623	52.5
GEO-227	44	30.3	7769	69.7
GEO-228	41	39.4	3162	60.6
GEO-229	42	33.2	3403	66.8
GEO-230	42	38.3	4388	61.7
GEO-231	42	70.3	2831	29.7
GEO-232	42	53.1	6412	46.9
GEO-233	41	28.9	2440	71.1
GEO-234	43	46.7	3098	53.3
GEO-235	43	50.2	6438	49.8
GEO-236	41	19.5	3642	80.5
GEO-237	39	27.4	3268	72.6
GEO-238	42	42.5	3722	57.5
GEO-239	41	34	4767	66.0
GEO-240	43	46.5	4084	53.5
GEO-241	43	54.4	3492	45.6
GEO-242	40	12.9	4070	87.1
GEO-243	43	74.7	7777	25.3
GEO-244	41	18.9	2258	81.1
GEO-245	42	53.5	3100	46.5
GEO-246	39	28.2	4891	71.8
GEO-247	38	54.3	3505	45.7
GEO-248	44	61.4	5359	38.6
GEO-249	44	84.6	4050	15.4
GEO-250	42	51	3986	49.0
GEO-251	43	41.4	7303	58.6
GEO-252	41	70.1	2825	29.9
GEO-253	41	42.5	3985	57.5
GEO-254	43	56	10413	44.0
GEO-255	40	42	3916	58.0
GEO-256	41	40.2	1506	59.8
GEO-257	42	29.4	4527	70.6
SUB-01	42	39.8	7463	60.2
SUB-02	43	41.2	8094	58.8
SUB-03	43	41.7	6682	58.3
SUB-04	43	42.7	12611	57.3
SUB-05	40	18.8	6699	81.2
SUB-06	44	73.7	13156	26.3
SUB-07	44	31.8	10284	68.2
SUB-08	45	49.3	8859	50.7
SUB-09	43	41.5	4511	58.5

Table 9
Summary of Driven Pile Installation Times

Geotech ID	Pile Installation Times (seconds)		
	Pile 1	Pile 2	Pile 3
GEO-001	91	94	
GEO-003	70	74	
GEO-005	78	88	
GEO-007	87	81	
GEO-010	124	109	
GEO-011	75	80	78
GEO-013	108	120	
GEO-017	138	100	
GEO-018	59	75	88
GEO-019	75	79	
GEO-025	121	114	95
GEO-028	168	160	152
GEO-034	114	157	
GEO-036	106	100	130
GEO-039	74	72	
GEO-040	77	108	
GEO-043	95	87	
GEO-044	114	130	122
GEO-046	68	60	54
GEO-048	90	81	
GEO-050	70	67	66
GEO-053	62	62	
GEO-055	98	144	
GEO-057	50	65	82
GEO-059	79	77	
GEO-061	93	97	108
GEO-063	79	75	81
GEO-065	120	130	123
GEO-067	95	79	
GEO-069	75	75	77
GEO-072	70	68	75
GEO-074	130	90	
GEO-076	99	100	85
GEO-078	107	106	
GEO-080	75	86	
GEO-082	83	86	
GEO-084	86	78	

Geotech ID	Pile Installation Times (seconds)		
	Pile 1	Pile 2	Pile 3
GEO-086	69	75	
GEO-088	81	92	100
GEO-092	81	96	
GEO-094	96	102	101
GEO-096	100	102	
GEO-098	98	96	
GEO-100	79	77	71
GEO-102	84	113	92
GEO-105	70	88	
GEO-107	89	84	
GEO-109	107	117	
GEO-111	68	74	79
GEO-115	85	77	
GEO-117	87	106	
GEO-118	90	101	
GEO-202	110	100	140
GEO-204	94	82	
GEO-206	95	95	90
GEO-208	90	78	
GEO-210	118	113	108
GEO-212	68	73	
GEO-214	51	54	
GEO-216	79	82	74
GEO-218	68	83	78
GEO-220	95	82	87
GEO-222	107	115	
GEO-224	80	86	
GEO-228	92	94	81
GEO-230	88	98	
GEO-232	96	107	
GEO-233	58	85	77
GEO-236	91	82	
GEO-243	100	90	
GEO-245	81	70	73
GEO-250	75	88	95
GEO-254	75	75	

*Piles installed to nominal depths of 8 feet below existing ground surface

Table 10
Summary of Axial Tensile Load Testing Results

Geotech ID	Pile Type	Pile Embedment Depth (feet)	Strata	Approximate Load Corresponding to 0.25-Inch Axial Displacement (lbs)	Approximate Load Corresponding to 0.75-Inch Axial Displacement (lbs)	Approximate Ultimate Load (lbs)
GEO-001	W 6x9	8	1	13,000	14,200	14,740
GEO-003	W 6x9	8	1	11,000	13,100	14,000
GEO-005	W 6x9	8	1	10,000	13,200	16,000
GEO-007	W 6x9	8	1	14,500	>18,000	>18,000
GEO-010	W 6x9	8	1	12,300	16,000	18,000
GEO-011	W 6x9	8	1	8,000	10,100	11,720
GEO-013	W 6x9	8	1	12,000	14,000	15,740
GEO-017	W 6x9	8	1	12,000	16,000	>18,000
GEO-018	W 6x9	8	1	8,700	10,500	11,480
GEO-019	W 6x9	8	1	8,900	11,500	12,760
GEO-025	W 6x9	8	1	7,000	9,900	11,700
GEO-028	W 6x9	8	1	>18,000	>18,000	>18,000
GEO-034	W 6x9	8	1	16,000	>18,000	>18,000
GEO-036	W 6x9	8	1	10,000	13,500	15,460
GEO-040	W 6x9	8	1	11,500	14,500	16,700
GEO-043	W 6x9	8	1	9,900	13,500	16,000
GEO-044	W 6x9	8	1	17,000	>18,000	>18,000
GEO-048	W 6x9	8	1	9,000	12,000	13,380
GEO-053	W 6x9	8	1	8,200	10,300	11,700
GEO-055	W 6x9	8	1	15,000	>17,400	>17,400
GEO-057	W 6x9	8	1	9,800	13,000	14,000
GEO-059	W 6x9	8	1	13,000	17,100	>18,000
GEO-061	W 6x9	8	1	11,200	15,100	16,280
GEO-063	W 6x9	8	1	6,900	10,000	12,680
GEO-065	W 6x9	8	1	14,200	>18,000	>18,000
GEO-067	W 6x9	8	1	8,200	11,600	12,840
GEO-074	W 6x9	8	1	16,500	>18,000	>18,000
GEO-076	W 6x9	8	1	10,500	13,100	14,800
GEO-078	W 6x9	8	1	9,600	12,000	12,820
GEO-080	W 6x9	8	1	10,000	12,700	13,700
GEO-082	W 6x9	8	1	13,000	16,200	17,000
GEO-084	W 6x9	8	1	8,000	10,000	11,000
GEO-088	W 6x9	8	1	9,200	12,100	13,120
GEO-092	W 6x9	8	1	9,900	12,500	14,460
GEO-094	W 6x9	8	1	10,200	14,100	17,000
GEO-096	W 6x9	8	1	11,000	14,500	15,800
GEO-098	W 6x9	8	1	7,100	9,700	11,000
GEO-100	W 6x9	8	1	7,900	9,500	10,000
GEO-102	W 6x9	8	1	12,000	16,600	17,540
GEO-105	W 6x9	8	1	11,800	13,300	13,500
GEO-107	W 6x9	8	1	10,300	13,200	14,780
GEO-109	W 6x9	8	1	>18,000	>18,000	>18,000
GEO-111	W 6x9	8	1	8,500	10,700	11,700
GEO-115	W 6x9	8	1	12,000	14,300	15,700
GEO-117	W 6x9	8	1	11,100	13,700	14,280
GEO-118	W 6x9	8	1	11,000	15,400	16,800
GEO-202	W 6x9	8	1	10,000	15,800	18,000
GEO-204	W 6x9	8	1	12,500	17,200	>18,000
GEO-206	W 6x9	8	1	11,900	15,200	16,400
GEO-208	W 6x9	8	1	8,500	10,200	12,000
GEO-210	W 6x9	8	1	18,000	>18,000	>18,000
GEO-212	W 6x9	8	1	11,500	14,400	16,000
GEO-214	W 6x9	8	1	8,000	10,400	12,580
GEO-216	W 6x9	8	1	9,300	12,800	14,480
GEO-218	W 6x9	8	1	9,200	11,600	12,720
GEO-220	W 6x9	8	1	13,000	18,000	>18,000
GEO-222	W 6x9	8	1	11,500	14,600	15,580
GEO-224	W 6x9	8	1	9,600	12,700	14,800
GEO-228	W 6x9	8	1	15,500	>17,000	>17,000
GEO-230	W 6x9	8	1	12,800	16,200	>17,000
GEO-232	W 6x9	8	1	14,500	>18,000	>18,000
GEO-236	W 6x9	8	1	12,800	17,600	>18,000
GEO-243	W 6x9	8	1	14,200	>16,000	>16,000
GEO-245	W 6x9	8	1	8,900	11,000	12,400
GEO-250	W 6x9	8	1	10,500	14,800	18,000
GEO-254	W 6x9	8	1	13,000	>18,000	>18,000
GEO-039	W 6x9	8	2	6,600	7,600	8,320
GEO-046	W 6x9	8	3	4,300	5,200	5,500
GEO-050	W 6x9	8	2	5,200	7,100	8,000
GEO-069	W 6x9	8	2	7,000	8,300	9,800
GEO-072	W 6x9	8	2	7,000	8,500	9,520
GEO-086	W 6x9	8	2	5,500	7,500	9,000
GEO-233	W 6x9	8	2	6,000	7,200	9,000

Table 11
Summary of Lateral Pile Load Testing Results

Geotech ID	Pile Type	Pile Embedment Depth (feet)	Strata	Maximum Test Load (lbs)	Displacement at Maximum Test Load (Inches)	
					Top of Pile (4 feet)	Grade (0 feet)
GEO-001	W 6x9	8	1	5,380	4.00	2.02
GEO-003	W 6x9	8	1	5,280	4.00	2.25
GEO-005	W 6x9	8	1	5,500	4.00	2.02
GEO-007	W 6x9	8	1	5,500	3.11	1.52
GEO-010	W 6x9	8	1	5,500	3.15	1.40
GEO-011	W 6x9	8	1	5,120	4.00	2.08
GEO-013	W 6x9	8	1	5,500	2.97	1.27
GEO-017	W 6x9	8	1	5,500	2.55	1.13
GEO-018	W 6x9	8	1	5,040	4.00	2.07
GEO-019	W 6x9	8	1	5,500	2.79	1.22
GEO-025	W 6x9	8	1	5,500	2.75	1.09
GEO-028	W 6x9	8	1	5,500	2.71	1.33
GEO-034	W 6x9	8	1	5,500	2.81	1.15
GEO-036	W 6x9	8	1	5,500	2.94	1.30
GEO-040	W 6x9	8	1	5,500	3.20	1.31
GEO-043	W 6x9	8	1	5,500	4.75	2.46
GEO-044	W 6x9	8	1	5,300	4.00	1.86
GEO-048	W 6x9	8	1	5,500	3.39	1.40
GEO-053	W 6x9	8	1	5,500	3.91	1.94
GEO-055	W 6x9	8	1	5,500	4.25	1.42
GEO-057	W 6x9	8	1	5,000	4.38	2.18
GEO-059	W 6x9	8	1	5,500	5.00	2.42
GEO-061	W 6x9	8	1	5,500	4.27	2.00
GEO-063	W 6x9	8	1	5,500	3.68	2.01
GEO-065	W 6x9	8	1	5,500	2.96	1.23
GEO-067	W 6x9	8	1	5,500	3.43	1.44
GEO-074	W 6x9	8	1	5,500	3.16	1.32
GEO-076	W 6x9	8	1	5,500	3.48	1.55
GEO-078	W 6x9	8	1	5,500	2.67	1.20
GEO-080	W 6x9	8	1	5,420	4.00	1.93
GEO-082	W 6x9	8	1	5,500	4.81	2.21
GEO-084	W 6x9	8	1	5,500	4.31	2.34
GEO-088	W 6x9	8	1	5,280	4.00	1.86
GEO-092	W 6x9	8	1	5,500	3.67	1.86
GEO-094	W 6x9	8	1	5,500	3.27	1.35
GEO-096	W 6x9	8	1	5,000	3.23	1.39
GEO-098	W 6x9	8	1	5,500	3.79	1.61
GEO-100	W 6x9	8	1	5,500	3.86	1.74
GEO-102	W 6x9	8	1	5,500	3.22	1.57
GEO-105	W 6x9	8	1	5,500	3.41	1.64
GEO-107	W 6x9	8	1	5,500	3.56	1.70
GEO-109	W 6x9	8	1	5,500	3.19	1.48
GEO-111	W 6x9	8	1	5,500	3.20	1.42
GEO-115	W 6x9	8	1	5,500	2.85	1.27
GEO-117	W 6x9	8	1	5,500	3.43	1.58
GEO-118	W 6x9	8	1	5,500	4.09	1.88
GEO-202	W 6x9	8	1	5,500	2.99	1.34
GEO-204	W 6x9	8	1	5,500	3.75	1.93
GEO-206	W 6x9	8	1	5,040	4.00	1.76
GEO-208	W 6x9	8	1	5,500	3.89	1.92
GEO-210	W 6x9	8	1	5,500	2.86	1.11
GEO-212	W 6x9	8	1	5,500	3.86	1.87
GEO-214	W 6x9	8	1	5,500	3.84	1.75
GEO-216	W 6x9	8	1	5,500	3.58	1.65
GEO-218	W 6x9	8	1	5,500	3.67	1.73
GEO-220	W 6x9	8	1	5,280	4.00	1.87
GEO-222	W 6x9	8	1	5,500	3.96	1.77
GEO-224	W 6x9	8	1	5,500	3.91	1.74
GEO-228	W 6x9	8	1	5,500	3.66	1.66
GEO-230	W 6x9	8	1	5,500	2.97	1.33
GEO-232	W 6x9	8	1	5,500	3.02	1.46
GEO-236	W 6x9	8	1	5,500	3.89	1.75
GEO-243	W 6x9	8	1	5,500	4.00	1.68
GEO-245	W 6x9	8	1	5,320	4.00	1.86
GEO-250	W 6x9	8	1	5,500	3.02	1.31
GEO-254	W 6x9	8	1	5,500	2.67	1.30
GEO-039	W 6x9	8	2	5,040	4.00	2.10
GEO-046	W 6x9	8	3	5,500	3.58	1.73
GEO-050	W 6x9	8	2	5,500	4.19	2.40
GEO-069	W 6x9	8	2	4,500	3.90	1.94
GEO-072	W 6x9	8	2	4,500	3.64	1.70
GEO-086	W 6x9	8	2	5,500	4.19	2.65
GEO-233	W 6x9	8	2	5,500	3.85	1.80

Table 12
Summary of Axial Compression Pile Load Testing Results

Geotech ID	Pile Type	Pile Embedment Depth (feet)	Strata	Maximum Achieved Load (lbs)	Maximum Observed Displacement (inches)
GEO-011	W 6x9	8	1	9,440	1.085
GEO-018	W 6x9	8	1	8,000	0.812
GEO-025	W 6x9	8	1	9,000	0.040
GEO-028	W 6x9	8	1	9,000	0.043
GEO-036	W 6x9	8	1	10,000	0.152
GEO-044	W 6x9	8	1	10,500	0.032
GEO-057	W 6x9	8	1	10,000	0.096
GEO-061	W 6x9	8	1	12,000	0.170
GEO-063	W 6x9	8	1	6,000	0.068
GEO-065	W 6x9	8	1	11,000	0.055
GEO-072	W 6x9	8	1	9,000	0.063
GEO-076	W 6x9	8	1	13,000	1.017
GEO-088	W 6x9	8	1	6,700	0.084
GEO-094	W 6x9	8	1	11,000	0.047
GEO-100	W 6x9	8	1	14,000	0.699
GEO-102	W 6x9	8	1	9,700	0.052
GEO-111	W 6x9	8	1	10,000	0.940
GEO-202	W 6x9	8	1	9,000	0.029
GEO-206	W 6x9	8	1	8,000	0.080
GEO-210	W 6x9	8	1	10,000	0.047
GEO-216	W 6x9	8	1	10,000	0.140
GEO-218	W 6x9	8	1	9,540	0.194
GEO-220	W 6x9	8	1	10,000	0.066
GEO-228	W 6x9	8	1	12,000	0.472
GEO-245	W 6x9	8	1	10,000	0.049
GEO-250	W 6x9	8	1	7,000	0.104
GEO-046	W 6x9	8	3	12,000	0.454
GEO-050	W 6x9	8	2	12,000	0.972
GEO-069	W 6x9	8	2	7,000	0.051
GEO-233	W 6x9	8	2	8,600	0.431

Table 13
Summary of Recommended Geotechnical Parameters for Substation Foundation Design

Geotechnical ID	Depth to Top of Layer [ft]	Depth to Bottom of Layer [ft]	Material Type	Moist Unit Weight [pcf]	Effective Unit Weight [pcf]	Approx. Depth to Ground-water [ft]	Friction Angle [°]	Undrained Shear Strength [psf]	Horizontal Design Parameters				[Drained] Active Earth Pressure Coefficient, K_a	[Drained] Passive Earth Pressure Coefficient, K_p	N_q (sand) OR N_c (clay)*	Axial Design Parameters (Drilled Shafts)		Spread Footing Net Allowable Bearing Capacity [psf]
									p-y Modulus, k (Static Loading) [lb/in^3]	p-y Modulus, k (Cyclic Loading) [lb/in^3]	50% Soil Strain	Pressure-meter Modulus [ksi]				Ultimate Skin Friction [kips/ft^2]	Ultimate End Bearing [kips/ft^2]	
SUB-01	0	2.7	Frost (CL)	138	138	5	0	300	30	--	0.02	--	--	--	--	--	--	N/A
	2.7	5	CL	138	138	5	0	1250	500	200	0.007	1.05	0.32	3.12	9.00	0.50	11.3	2500
	5	8.5	CL	138	75.6	5	0	1250	500	200	0.007	1.05	0.32	3.12	9.00	0.50	11.3	N/A
	8.5	14.5	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.24	31.3	N/A
	14.5	33	CL	138	75.6	5	0	4000	1500	600	0.005	2.42	0.32	3.12	9.00	1.60	36.0	N/A
	33	36	CL	138	75.6	5	0	3000	1000	400	0.005	1.56	0.32	3.12	9.00	1.20	27.0	N/A
	36	40	SM	130	67.6	5	36	0	125	125	--	0.96	0.26	3.85	37.75	0.66	29.1	N/A
SUB-02	0	2.7	Frost (Sand)	130	130	5	27	0	20	20	--	--	--	--	--	--	--	N/A
	2.7	4.5	SM	130	130	5	38	0	125	125	--	0.61	0.24	4.20	48.93	0.10	28.0	2500
	4.5	5	CL	138	138	5	38	0	125	125	--	0.61	0.24	4.20	48.93	0.13	31.3	N/A
	5	14	CL	138	75.6	5	0	2500	875	300	0.006	1.36	0.32	3.12	9.00	1.00	22.5	N/A
	14	20.5	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.32	31.3	N/A
	20.5	31	CL	138	75.6	5	0	4000	1500	600	0.005	2.42	0.32	3.12	9.00	1.60	36.0	N/A
	31	36.5	CL	138	75.6	5	0	2500	875	300	0.006	1.36	0.32	3.12	9.00	1.00	22.5	N/A
	36.5	40	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.65	31.3	N/A
SUB-03	0	2	Frost (CL)	138	138	5	0	300	30	--	0.02	--	--	--	--	--	--	N/A
	2	2.7	Frost (Sand)	130	130	5	27	0	20	20	--	--	--	--	--	--	--	N/A
	2.7	5	SM	130	130	5	38	0	125	125	--	0.61	0.24	4.20	48.93	0.11	31.3	2500
	5	8	CL	138	75.6	5	0	2500	875	300	0.006	1.36	0.32	3.12	9.00	1.00	22.5	N/A
	8	13.5	SM	130	67.6	5	38	0	125	125	--	0.61	0.24	4.20	48.93	0.23	60.6	N/A
	13.5	24	CL	138	75.6	5	0	3000	1000	400	0.005	1.75	0.32	3.12	9.00	1.20	27.0	N/A
	24	25	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.44	78.1	N/A
	25	36	CL	138	75.6	5	0	4000	1500	600	0.005	2.42	0.32	3.12	9.00	1.60	36.0	N/A
	25	30	SM	130	67.6	5	37	0	125	125	--	1.03	0.25	4.02	42.92	0.66	75.4	N/A
SUB-04	0	2.7	Frost (CL)	138	138	5	0	300	30	--	0.02	--	--	--	--	--	--	N/A
	2.7	3.5	SM	130	130	5	27	0	20	20	--	0.44	0.38	2.66	13.20	0.09	5.8	2500
	3.5	5	SM	130	130	5	38	0	125	125	--	0.61	0.24	4.20	48.93	0.12	31.3	N/A
	5	5.5	SM	130	67.6	5	38	0	125	125	--	0.80	0.24	4.20	48.93	0.14	31.3	N/A
	5.5	11	CL	138	75.6	5	0	3000	1000	400	0.005	1.75	0.32	3.12	9.00	1.20	27.0	N/A
	11	40	CL	138	75.6	5	0	4000	1500	600	0.005	2.42	0.32	3.12	9.00	1.60	36.0	N/A
SUB-05	0	2.7	Frost (CL)	138	138	5	0	300	30	--	0.02	--	--	--	--	--	--	N/A
	2.7	5	CL	138	138	5	0	1000	300	100	0.009	0.68	0.32	3.12	9.00	0.40	9.0	2500
	5	5.5	CL	138	75.6	5	0	1000	300	100	0.009	0.97	0.32	3.12	9.00	0.40	9.0	N/A
	5.5	9	CL	138	75.6	5	0	1500	500	200	0.007	1.13	0.32	3.12	9.00	0.60	13.5	N/A
	9	12.5	CL	138	75.6	5	0	3000	1000	400	0.005	1.75	0.32	3.12	9.00	1.20	27.0	N/A
	12.5	15	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.28	31.3	N/A
	15	25	CL	138	75.6	5	0	4000	1500	600	0.005	2.42	0.32	3.12	9.00	1.60	36.0	N/A
	25	38	CL	138	75.6	5	0	3000	1000	400	0.005	1.75	0.32	3.12	9.00	1.20	27.0	N/A
	38	40	SM	130	67.6	5	35	0	125	125	--	1.12	0.27	3.69	33.30	0.68	28.0	N/A

SUB-06	0	2	Frost (CL)	138	138	5	0	300	30	--	0.02	--	--	--	--	--	--	N/A
	2	2.7	Frost (Sand)	130	130	5	27	0	20	20	--	--	--	--	--	--	--	N/A
	2.7	5	SM	130	130	5	38	0	125	125	--	0.61	0.24	4.20	48.93	0.11	31.3	2500
	5	5.5	SM	130	67.6	5	38	0	125	125	--	0.80	0.24	4.20	48.93	0.14	33.5	N/A
	5.5	10	CL	138	75.6	5	0	3500	1000	400	0.005	1.99	0.32	3.12	9.00	1.40	31.5	N/A
	10	32	CL	138	75.6	5	0	4000	1500	600	0.005	2.42	0.32	3.12	9.00	1.60	36.0	N/A
	32	40	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.62	78.1	N/A
SUB-07	0	2.7	Frost (CL)	138	138	5	0	300	30	--	0.02	--	--	--	--	--	--	N/A
	2.7	3.5	SM	130	130	5	30	0	20	20	--	0.61	0.33	3.00	18.40	0.09	8.3	2500
	3.5	5	SM	130	130	5	38	0	125	125	--	0.61	0.24	4.20	48.93	0.12	31.3	N/A
	5	7	SM	130	67.6	5	38	0	125	125	--	0.80	0.24	4.20	48.93	0.15	31.3	N/A
	7	9	CL	138	75.6	5	0	3000	1000	400	0.005	1.75	0.32	3.12	9.00	1.20	27.0	N/A
	9	12	SM	130	67.6	5	38	0	125	125	--	0.96	0.24	4.20	48.93	0.22	31.3	N/A
	12	28	CL	138	75.6	5	0	4000	1500	600	0.005	2.42	0.32	3.12	9.00	1.60	36.0	N/A
	28	38	CL	138	75.6	5	0	3500	1000	400	0.005	2.31	0.32	3.12	9.00	1.40	31.5	N/A
	38	40	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.67	31.3	N/A
SUB-08	0	2.7	Frost (CL)	138	138	5	0	300	30	--	0.02	--	--	--	--	--	--	N/A
	2.7	5	SM	130	130	5	38	0	125	125	--	0.61	0.24	4.20	48.93	0.11	31.3	2500
	5	6	SM	130	67.6	5	38	0	125	125	--	0.80	0.24	4.20	48.93	0.15	31.3	N/A
	6	15	SM	130	67.6	5	38	0	125	125	--	0.96	0.24	4.20	48.93	0.22	31.3	N/A
	15	23	CL	138	75.6	5	0	4000	1500	600	0.005	2.42	0.32	3.12	9.00	1.60	36.0	N/A
	23	24.5	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.42	31.3	N/A
SUB-09	0	2.7	Frost (CL)	138	138	5	0	300	30	--	0.02	--	--	--	--	--	--	N/A
	2.7	4.5	CL	138	138	5	0	1500	500	200	0.007	1.21	0.32	3.12	9.00	0.60	13.5	2500
	4.5	5	SM	130	130	5	38	0	125	125	--	0.80	0.24	4.20	48.93	0.14	31.3	N/A
	5	10	CL	138	75.6	5	0	3000	1000	400	0.005	1.75	0.32	3.12	9.00	1.20	27.0	N/A
	10	12	CL	138	75.6	5	0	1300	500	200	0.007	0.78	0.32	3.12	9.00	0.52	11.7	N/A
	12	21.5	SM	130	67.6	5	38	0	125	125	--	1.12	0.24	4.20	48.93	0.32	78.1	N/A

*Assumes depth/diameter ratio > 3
It is recommended to neglect axial resistance from frost zone (upper 32 inches).

APPENDICES

APPENDIX A

Site Coordinates and Exploration Summary

Appendix A
Site Coordinates and Exploration Summary

Geotech ID	Project Phase	Type	Geographic Coordinates, NAD83 (degrees)		CPT	Soil Boring	PPD	Pile Testing		Electrical Resistivity	Thermal Resistivity	CBR	Strata
			Latitude	Longitude				Uplift and Lateral	Compression				
GEO-001	Initial Project Area	Solar Array	39.79735	-83.40356	X			X					1
GEO-002	Initial Project Area	Solar Array	39.79735	-83.39689	X								1
GEO-003	Initial Project Area	Solar Array	39.79708	-83.39174	X			X					1
GEO-004	Initial Project Area	Solar Array	39.79299	-83.39798	X								1
GEO-005	Initial Project Area	Solar Array	39.79377	-83.39441	X			X					1
GEO-006	Initial Project Area	Solar Array	39.79380	-83.39072	X								1
GEO-007	Initial Project Area	Solar Array	39.79051	-83.39455	X	X		X		X	X	X	1
GEO-008	Initial Project Area	Solar Array	39.79051	-83.39044	X								1
GEO-009	Initial Project Area	Solar Array	39.78717	-83.39595	X								1
GEO-010	Initial Project Area	Solar Array	39.78718	-83.39069	X			X					1
GEO-011	Initial Project Area	Solar Array	39.78472	-83.39854	X	X		X	X	X	X		1
GEO-012	Initial Project Area	Solar Array	39.78247	-83.40143	X								1
GEO-013	Initial Project Area	Solar Array	39.78021	-83.40457	X		X	X					1
GEO-014	Initial Project Area	Solar Array	39.77863	-83.40044	X	X				X	X		1
GEO-015	Initial Project Area	Solar Array	39.77692	-83.40453	X								1
GEO-016	Initial Project Area	Solar Array	39.77590	-83.40042	X								1
GEO-017	Initial Project Area	Solar Array	39.77362	-83.40449	X			X					1
GEO-018	Initial Project Area	Solar Array	39.77313	-83.40039	X	X		X	X	X	X		1
GEO-019	Initial Project Area	Solar Array	39.77262	-83.39629	X			X					1
GEO-020	Initial Project Area	Solar Array	39.77255	-83.39220	X	X				X	X	X	1
GEO-021	Initial Project Area	Solar Array	39.77033	-83.40446	X								1
GEO-022	Initial Project Area	Solar Array	39.77036	-83.40036	X								1
GEO-023	Initial Project Area	Solar Array	39.76946	-83.39626	X								1
GEO-024	Initial Project Area	Solar Array	39.76705	-83.39357	X								1
GEO-025	Initial Project Area	Solar Array	39.76957	-83.39223	X			X	X				1
GEO-026	Initial Project Area	Solar Array	39.77070	-83.38812	X								1
GEO-027	Initial Project Area	Solar Array	39.78114	-83.38478	X								1
GEO-028	Initial Project Area	Solar Array	39.77893	-83.38814	X	X		X	X		X		1
GEO-029	Initial Project Area	Solar Array	39.77879	-83.38237	X								1
GEO-030	Initial Project Area	Solar Array	39.77640	-83.39105	X					X			1
GEO-031	Initial Project Area	Solar Array	39.77687	-83.38493	X								1
GEO-032	Initial Project Area	Solar Array	39.77618	-83.37994	X								1
GEO-033	Initial Project Area	Solar Array	39.77494	-83.38749	X								1
GEO-034	Initial Project Area	Solar Array	39.77378	-83.38309	X	X		X		X	X		1
GEO-035	Initial Project Area	Solar Array	39.79167	-83.37843	X								1
GEO-036	Initial Project Area	Solar Array	39.78893	-83.38136	X	X		X	X	X	X		1
GEO-037	Initial Project Area	Solar Array	39.78913	-83.37614	X								1
GEO-038	Initial Project Area	Solar Array	39.78463	-83.38128	X								1
GEO-039	Initial Project Area	Solar Array	39.78618	-83.37730	X			X					2
GEO-040	Initial Project Area	Solar Array	39.78149	-83.38071	X			X					1
GEO-041	Initial Project Area	Solar Array	39.78305	-83.37641	X	X				X	X		1
GEO-042	Initial Project Area	Solar Array	39.77915	-83.37791	X								1
GEO-043	Initial Project Area	Solar Array	39.78050	-83.37367	X			X					1
GEO-044	Initial Project Area	Solar Array	39.77631	-83.37558	X	X		X	X	X	X	X	1
GEO-045	Initial Project Area	Solar Array	39.77738	-83.37165	X								1
GEO-046	Initial Project Area	Solar Array	39.79805	-83.34676	X			X	X				3
GEO-047	Initial Project Area	Solar Array	39.79805	-83.34277	X								1
GEO-048	Initial Project Area	Solar Array	39.79807	-83.33879	X			X					1
GEO-049	Initial Project Area	Solar Array	39.79807	-83.33480	X								1
GEO-050	Initial Project Area	Solar Array	39.79809	-83.33082	X			X	X				2
GEO-051	Initial Project Area	Solar Array	39.79809	-83.32683	X								1
GEO-052	Initial Project Area	Solar Array	39.79489	-83.34721	X								1
GEO-053	Initial Project Area	Solar Array	39.79489	-83.34294	X	X		X		X	X	X	1
GEO-054	Initial Project Area	Solar Array	39.79489	-83.33874	X								1
GEO-055	Initial Project Area	Solar Array	39.79489	-83.33440	X	X		X		X	X		1
GEO-056	Initial Project Area	Solar Array	39.79489	-83.33013	X								1
GEO-057	Initial Project Area	Solar Array	39.79489	-83.32585	X			X	X				1
GEO-058	Initial Project Area	Solar Array	39.79173	-83.34886	X								1
GEO-059	Initial Project Area	Solar Array	39.79173	-83.34477	X			X					1
GEO-060	Initial Project Area	Solar Array	39.79173	-83.34068	X								1
GEO-061	Initial Project Area	Solar Array	39.79173	-83.33659	X			X	X				1
GEO-062	Initial Project Area	Solar Array	39.79173	-83.33249	X								1
GEO-063	Initial Project Area	Solar Array	39.79173	-83.32840	X	X		X	X	X	X		1
GEO-064	Initial Project Area	Solar Array	39.79173	-83.32431	X								1
GEO-065	Initial Project Area	Solar Array	39.78858	-83.34967	X	X		X	X	X	X		1
GEO-066	Initial Project Area	Solar Array	39.78858	-83.34554	X								1
GEO-067	Initial Project Area	Solar Array	39.78858	-83.34141	X	X		X		X	X		1
GEO-068	Initial Project Area	Solar Array	39.78858	-83.33729	X								1
GEO-069	Initial Project Area	Solar Array	39.78858	-83.33316	X	X		X	X	X	X		2
GEO-070	Initial Project Area	Solar Array	39.78858	-83.32903	X		X						1
GEO-071	Initial Project Area	Solar Array	39.78542	-83.35054	X								1
GEO-072	Initial Project Area	Solar Array	39.78542	-83.34627	X			X	X				2
GEO-073	Initial Project Area	Solar Array	39.78542	-83.34200	X								1
GEO-074	Initial Project Area	Solar Array	39.78542	-83.33773	X			X					1
GEO-075	Initial Project Area	Solar Array	39.78542	-83.33347	X								1
GEO-076	Initial Project Area	Solar Array	39.78542	-83.32919	X			X	X				1
GEO-077	Initial Project Area	Solar Array	39.78482	-83.32501	X								1
GEO-078	Initial Project Area	Solar Array	39.78226	-83.35615	X	X		X		X	X		1
GEO-079	Initial Project Area	Solar Array	39.78226	-83.35206	X								1
GEO-080	Initial Project Area	Solar Array	39.78226	-83.34797	X	X		X		X	X		1
GEO-081	Initial Project Area	Solar Array	39.78226	-83.34388	X								1
GEO-082	Initial Project Area	Solar Array	39.78226	-83.33979	X	X		X		X	X		1
GEO-083	Initial Project Area	Solar Array	39.78226	-83.33570	X								1
GEO-084	Initial Project Area	Solar Array	39.78226	-83.33156	X	X		X		X	X		1
GEO-085	Initial Project Area	Solar Array	39.78226	-83.32751	X								1
GEO-086	Initial Project Area	Solar Array	39.78156	-83.32341	X			X					2
GEO-087	Initial Project Area	Solar Array	39.78225	-83.31931	X								1
GEO-088	Initial Project Area	Solar Array	39.77911	-83.36823	X	X		X	X	X	X		1
GEO-089	Initial Project Area	Solar Array	39.77976	-83.36400	X								1
GEO-090	Initial Project Area	Solar Array	39.78048	-83.35976	X								1
GEO-091	Initial Project Area	Solar Array	39.77910	-83.35595	X								1
GEO-092	Initial Project Area	Solar Array	39.77911	-83.35186	X			X					1
GEO-093	Initial Project Area	Solar Array	39.77911	-83.34777	X								1
GEO-094	Initial Project Area	Solar Array	39.77910	-83.34368	X			X	X				1
GEO-095	Initial Project Area	Solar Array	39.77910	-83.33959	X								1
GEO-096	Initial Project Area	Solar Array	39.77910	-83.33549	X			X					1
GEO-097	Initial Project Area	Solar Array	39.77910	-83.33131	X								1
GEO-098	Initial Project Area	Solar Array	39.77910	-83.32731	X			X					1
GEO-099	Initial Project Area	Solar Array	39.77848	-83.32320	X	X				X	X	X	1
GEO-100	Initial Project Area	Solar Array	39.77910	-83.31910	X			X	X				1
GEO-101	Initial Project Area	Solar Array	39.77669	-83.36532	X								1
GEO-102	Initial Project Area	Solar Array	39.77734	-83.36125	X	X		X	X	X	X		1
GEO-103	Initial Project Area	Solar Array	39.77443	-83.36256	X								1
GEO-104	Initial Project Area	Solar Array	39.77612	-83.35744	X								1
GEO-105	Initial Project Area	Solar Array	39.77595	-83.35334	X	X		X		X	X		1
GEO-106	Initial Project Area	Solar Array	39.77595	-83.34925	X								1
GEO-107	Initial Project Area	Solar Array	39.77585	-83.34516	X	X		X		X	X		1
GEO-108	Initial Project Area	Solar Array	39.77595	-83.34112	X								1
GEO-109	Initial Project Area	Solar Array	39.77595	-83.33708	X	X		X		X	X		1
GEO-110	Initial Project Area	Solar Array	39.77595	-83.33288	X								1
GEO-111	Initial Project Area	Solar Array	39.77595	-83.32879	X	X		X	X	X	X		1
GEO-112	Initial Project Area	Solar Array	39.77595	-83.32514	X								1
GEO-113	Initial Project Area	Solar Array	39.77261	-83.35397	X								1
GEO-114	Initial Project Area	Solar Array	39.76967	-83.35097	X								1
GEO-115	Initial Project Area	Solar Array	39.77277	-83.34971	X			X					1

Geotech ID	Project Phase	Type	Geographic Coordinates, NAD83 (degrees)		CPT	Soil Boring	PPD	Pile Testing		Electrical Resistivity	Thermal Resistivity	CBR	Strata
			Latitude	Longitude				Uplift and Lateral	Compression				
GEO-116	Initial Project Area	Solar Array	39.77254	-83.34579	X								1
GEO-117	Initial Project Area	Solar Array	39.77277	-83.34191	X			X					1
GEO-118	Initial Project Area	Solar Array	39.77278	-83.33568	X			X					1
GEO-119	Initial Project Area	Solar Array	39.77277	-83.33137	X								1
GEO-201	Boundary Change Area	Solar Array	39.82219	-83.40435	X								1
GEO-202	Boundary Change Area	Solar Array	39.82197	-83.40009	X			X	X				1
GEO-203	Boundary Change Area	Solar Array	39.82175	-83.39582	X								1
GEO-204	Boundary Change Area	Solar Array	39.82153	-83.39156	X			X					1
GEO-205	Boundary Change Area	Solar Array	39.82078	-83.38776	X								1
GEO-206	Boundary Change Area	Solar Array	39.81976	-83.40525	X			X	X				1
GEO-207	Boundary Change Area	Solar Array	39.81970	-83.40208	X								1
GEO-208	Boundary Change Area	Solar Array	39.81938	-83.39809	X	X	X	X		X	X		1
GEO-209	Boundary Change Area	Solar Array	39.81914	-83.39377	X								1
GEO-210	Boundary Change Area	Solar Array	39.81877	-83.38916	X	X		X	X	X	X		1
GEO-211	Boundary Change Area	Solar Array	39.81728	-83.40522	X	X				X	X		1
GEO-212	Boundary Change Area	Solar Array	39.81706	-83.40094	X			X					1
GEO-213	Boundary Change Area	Solar Array	39.81684	-83.39665	X								1
GEO-214	Boundary Change Area	Solar Array	39.81662	-83.39237	X			X					1
GEO-215	Boundary Change Area	Solar Array	39.81640	-83.38808	X								1
GEO-216	Boundary Change Area	Solar Array	39.81398	-83.40507	X			X	X				1
GEO-217	Boundary Change Area	Solar Array	39.81365	-83.40144	X								1
GEO-218	Boundary Change Area	Solar Array	39.81333	-83.39737	X			X	X				1
GEO-219	Boundary Change Area	Solar Array	39.81315	-83.39327	X								1
GEO-220	Boundary Change Area	Solar Array	39.81322	-83.38916	X			X	X				1
GEO-221	Boundary Change Area	Solar Array	39.81070	-83.40535	X								1
GEO-222	Boundary Change Area	Solar Array	39.81044	-83.40172	X	X		X			X	X	1
GEO-223	Boundary Change Area	Solar Array	39.81017	-83.39764	X					X			1
GEO-224	Boundary Change Area	Solar Array	39.80997	-83.39355	X	X		X		X	X		1
GEO-225	Boundary Change Area	Solar Array	39.80991	-83.38945	X								1
GEO-226	Boundary Change Area	Solar Array	39.80743	-83.40609	X								1
GEO-227	Boundary Change Area	Solar Array	39.80722	-83.40200	X								1
GEO-228	Boundary Change Area	Solar Array	39.80701	-83.39792	X			X	X				1
GEO-229	Boundary Change Area	Solar Array	39.80680	-83.39383	X								1
GEO-230	Boundary Change Area	Solar Array	39.80659	-83.38975	X			X					1
GEO-231	Boundary Change Area	Solar Array	39.80685	-83.41471	X								1
GEO-232	Boundary Change Area	Solar Array	39.80653	-83.41016	X			X					1
GEO-233	Boundary Change Area	Solar Array	39.80381	-83.41617	X			X	X				2
GEO-234	Boundary Change Area	Solar Array	39.80383	-83.41219	X	X				X	X		1
GEO-235	Boundary Change Area	Solar Array	39.80388	-83.40796	X								1
GEO-236	Boundary Change Area	Solar Array	39.80440	-83.40435	X	X		X		X	X		1
GEO-237	Boundary Change Area	Solar Array	39.80078	-83.41764	X								1
GEO-238	Boundary Change Area	Solar Array	39.80060	-83.41354	X								1
GEO-239	Boundary Change Area	Solar Array	39.80120	-83.40982	X								1
GEO-240	Boundary Change Area	Solar Array	39.80141	-83.40438	X								1
GEO-241	Boundary Change Area	Solar Array	39.79900	-83.40704	X	X				X	X		1
GEO-242	Boundary Change Area	Solar Array	39.79803	-83.42164	X								1
GEO-243	Boundary Change Area	Solar Array	39.79763	-83.41758	X			X					1
GEO-244	Boundary Change Area	Solar Array	39.79727	-83.41367	X	X				X	X		1
GEO-245	Boundary Change Area	Solar Array	39.79817	-83.41042	X			X	X				1
GEO-246	Boundary Change Area	Solar Array	39.79599	-83.40786	X								1
GEO-247	Boundary Change Area	Solar Array	39.79473	-83.41601	X								1
GEO-248	Boundary Change Area	Solar Array	39.79479	-83.41140	X								1
GEO-249	Boundary Change Area	Solar Array	39.79200	-83.41529	X								1
GEO-250	Boundary Change Area	Solar Array	39.79198	-83.41177	X			X	X				1
GEO-251	Boundary Change Area	Solar Array	39.78399	-83.39435	X								1
GEO-252	Boundary Change Area	Solar Array	39.78471	-83.38905	X								1
GEO-253	Boundary Change Area	Solar Array	39.78104	-83.39760	X		X						1
GEO-254	Boundary Change Area	Solar Array	39.78153	-83.39287	X	X		X		X	X		1
GEO-255	Boundary Change Area	Solar Array	39.78203	-83.38821	X								1
GEO-256	Boundary Change Area	Solar Array	39.77861	-83.39425	X								1
GEO-257	Boundary Change Area	Solar Array	39.77555	-83.39496	X								1
SUB-01	Initial Project Area	Substation	39.79541	-83.40054	X	X	X						1
SUB-02	Initial Project Area	Substation	39.79492	-83.40103	X								--
SUB-03	Initial Project Area	Substation	39.79525	-83.39975	X								--
SUB-04	Initial Project Area	Substation	39.79557	-83.39846	X								--
SUB-05	Initial Project Area	Substation	39.79456	-83.40017	X	X				X	X		--
SUB-06	Initial Project Area	Substation	39.79489	-83.39889	X	X				X	X		--
SUB-07	Initial Project Area	Substation	39.79388	-83.40059	X								--
SUB-08	Initial Project Area	Substation	39.79420	-83.39931	X								--
SUB-09	Initial Project Area	Substation	39.79453	-83.39802	X								--

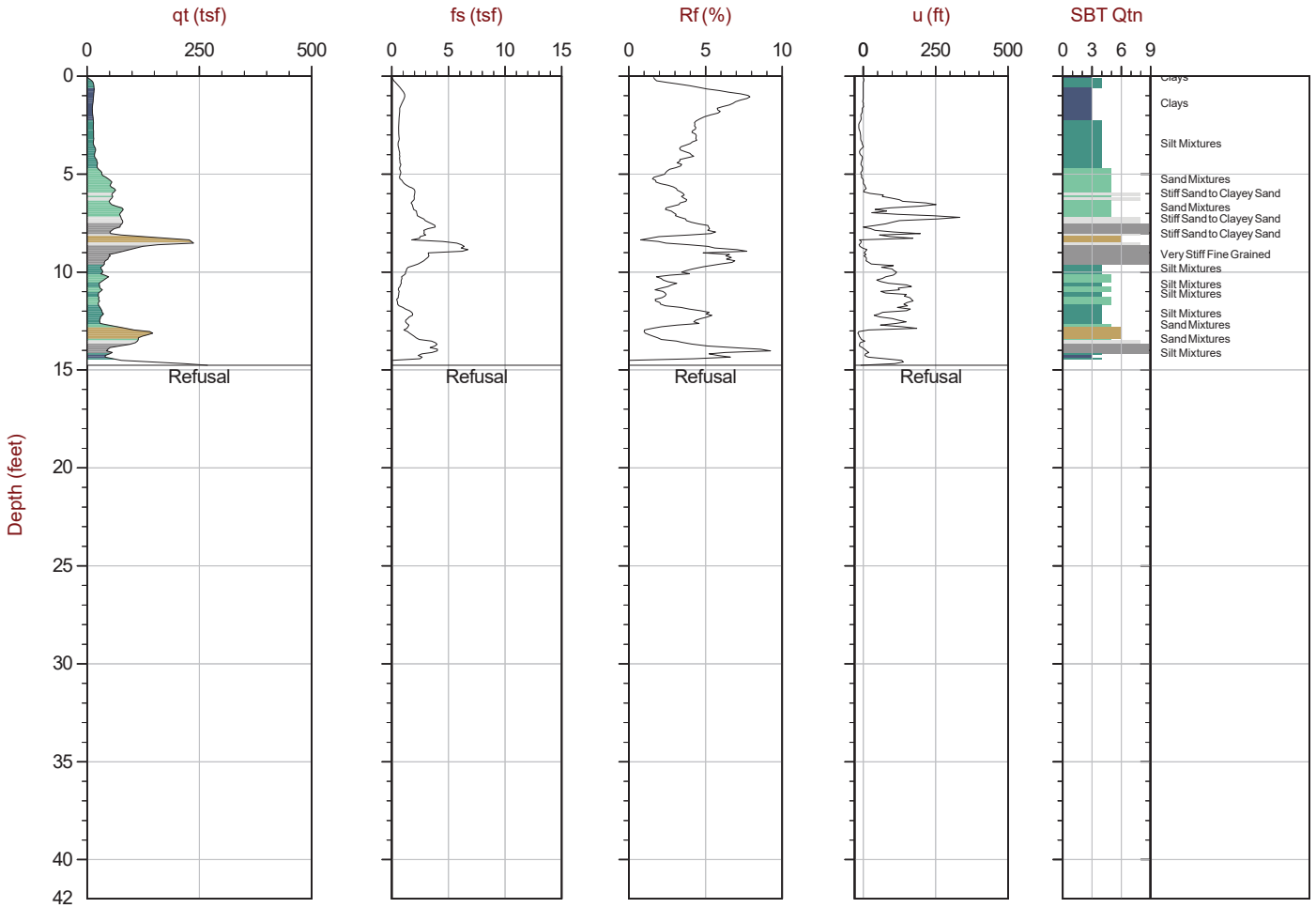
APPENDIX B
CPT Sounding Logs

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 08:47
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-001
Cone: EC600



Max Depth: 4.500 m / 14.76 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP001.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408025m E: 294217m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

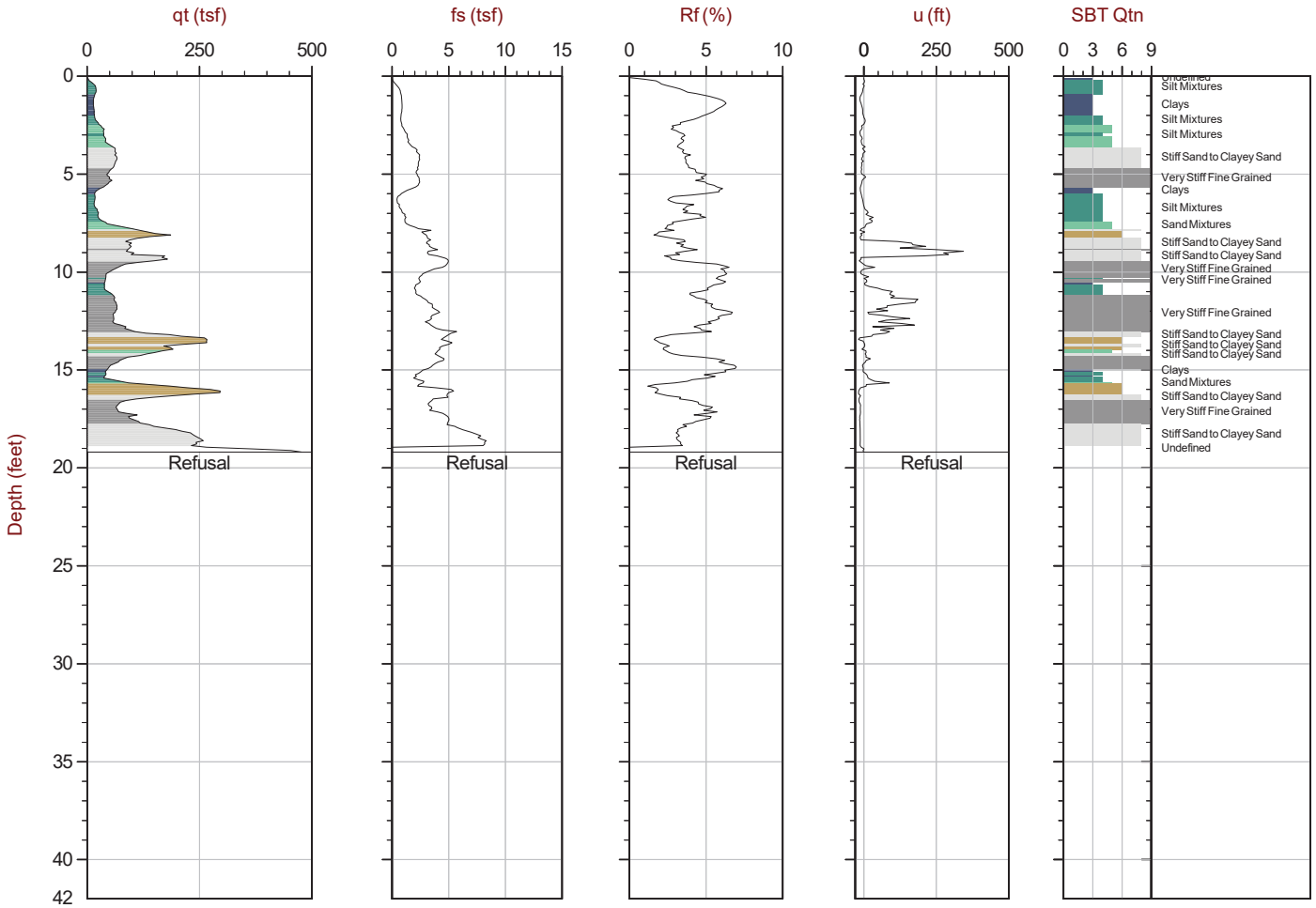
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 09:19
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-002
Cone: EC600



Max Depth: 5.850 m / 19.19 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP002.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408012m E: 294785m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

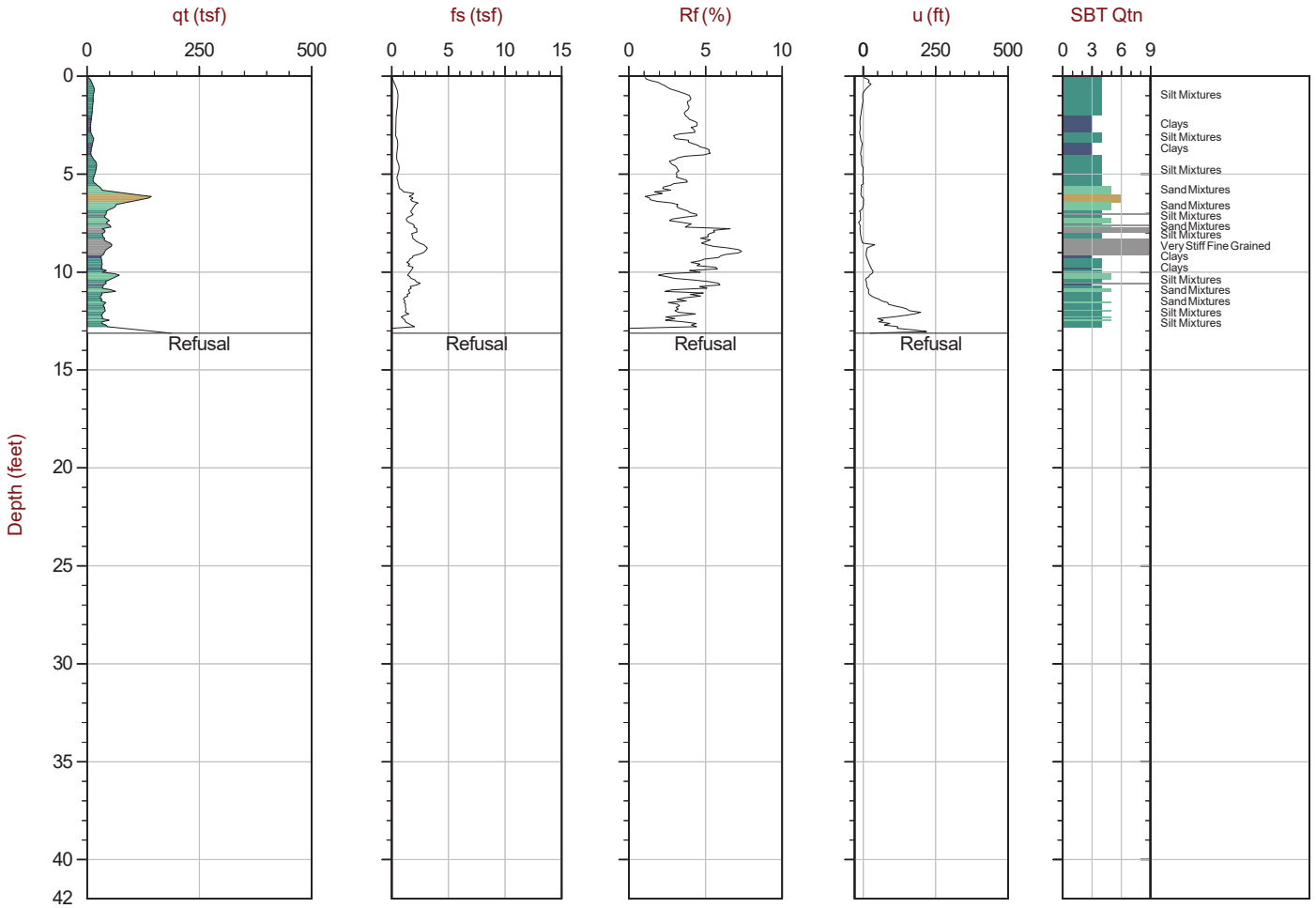
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 09:42
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-003
Cone: EC600



Max Depth: 4.000 m / 13.12 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP003.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407967m E: 295231m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

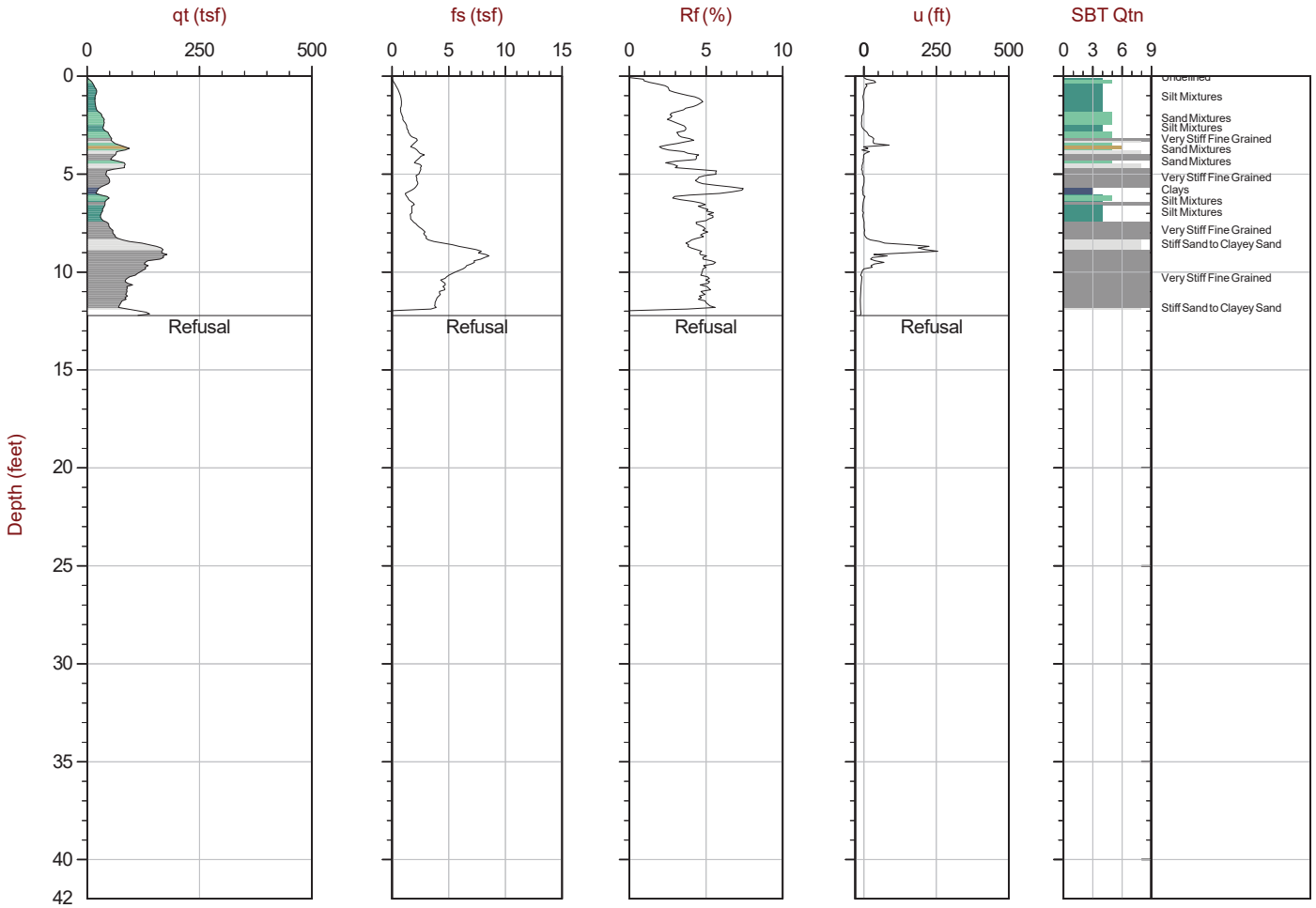
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 11:28
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-004
Cone: EC600



Max Depth: 3.725 m / 12.22 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP004.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407530m E: 294681m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

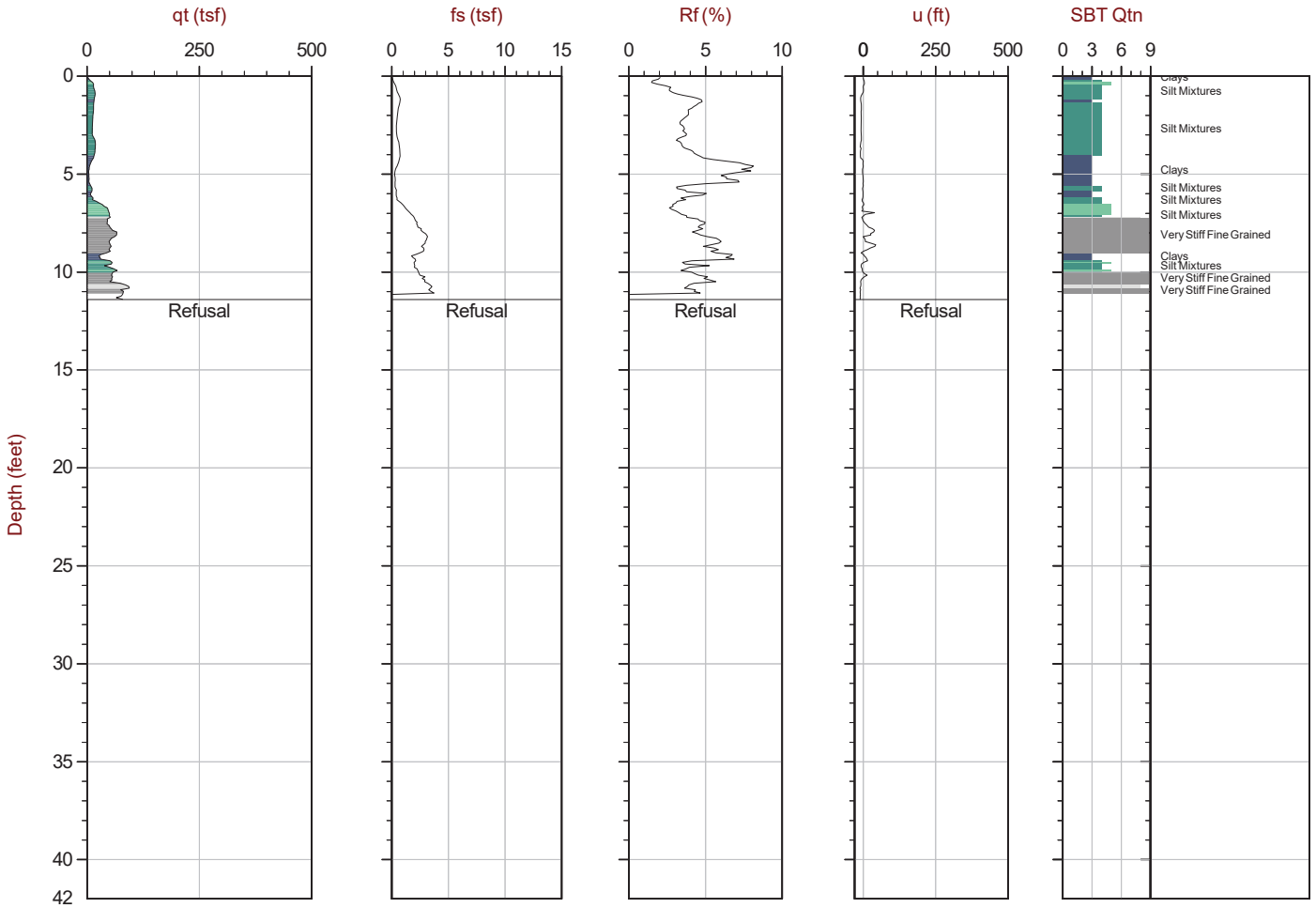
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 11:15
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-005
Cone: EC600



Max Depth: 3.475 m / 11.40 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP005.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407607m E: 294988m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

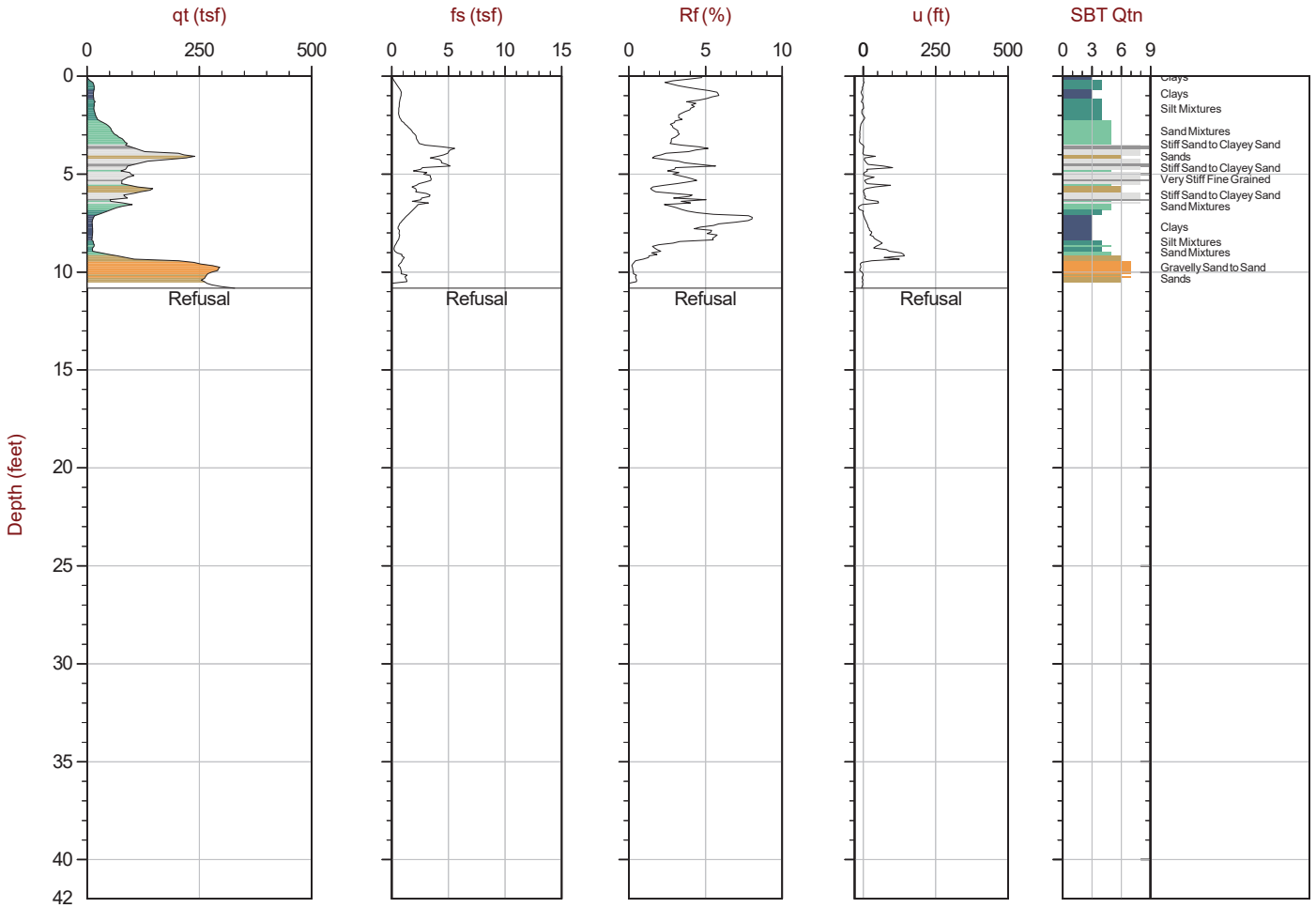
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 10:00
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-006
Cone: EC600



Max Depth: 3.300 m / 10.83 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP006.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407606m E: 295308m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

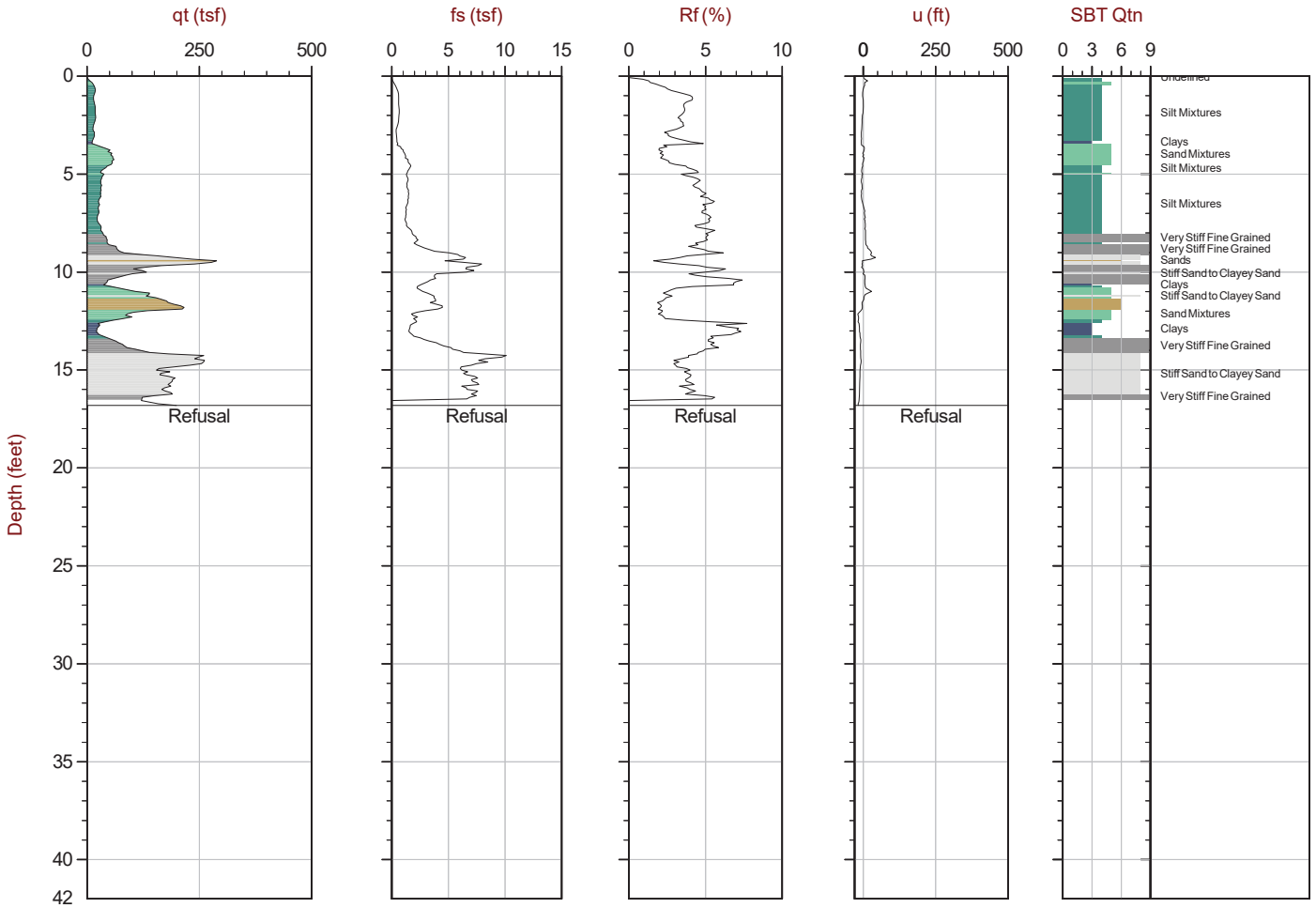
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 10:58
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-007
Cone: EC600



Max Depth: 5.125 m / 16.81 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP007.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407250m E: 294936m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

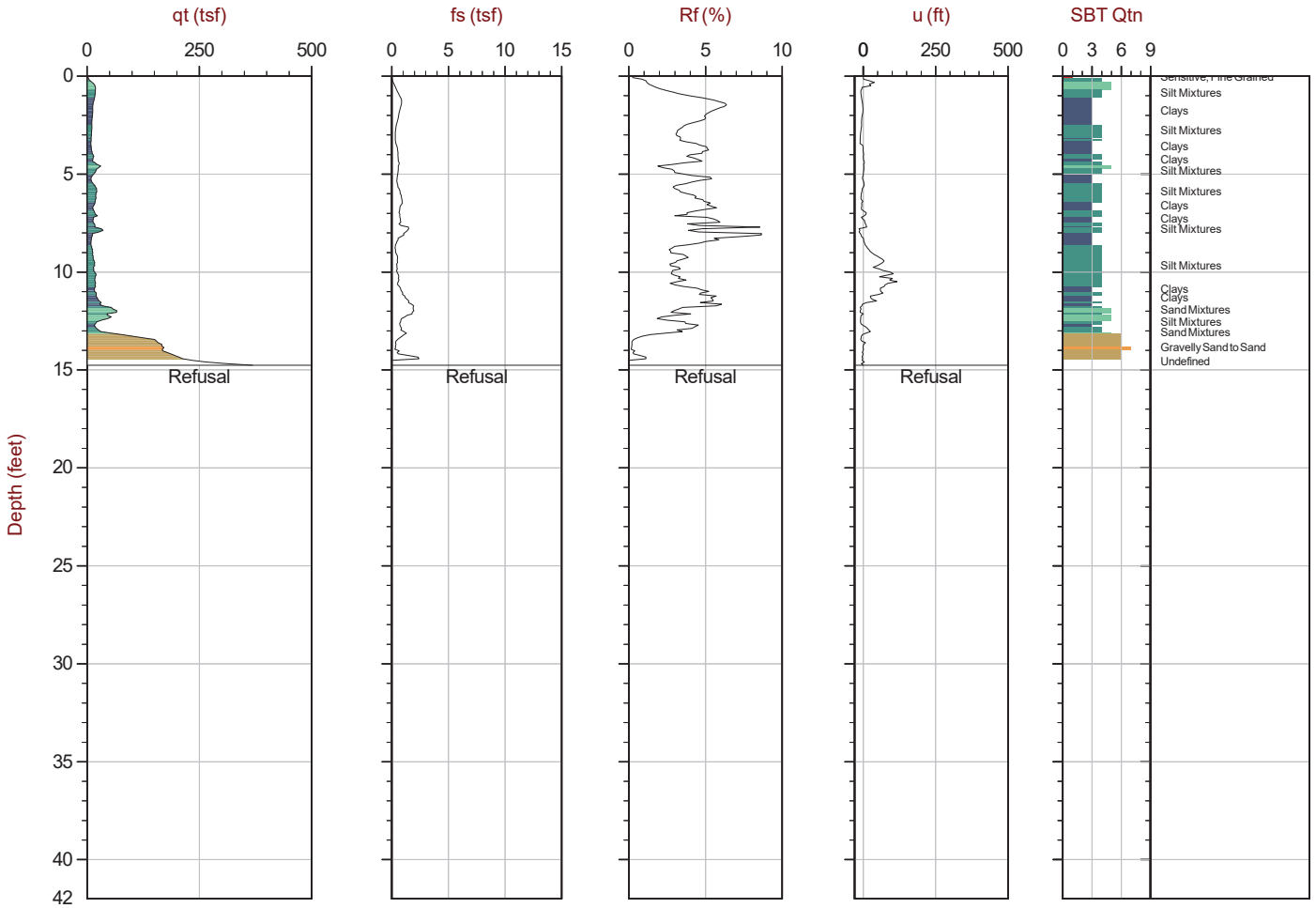
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 10:14
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-008
Cone: EC600



Max Depth: 4.500 m / 14.76 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP008.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407239m E: 295324m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

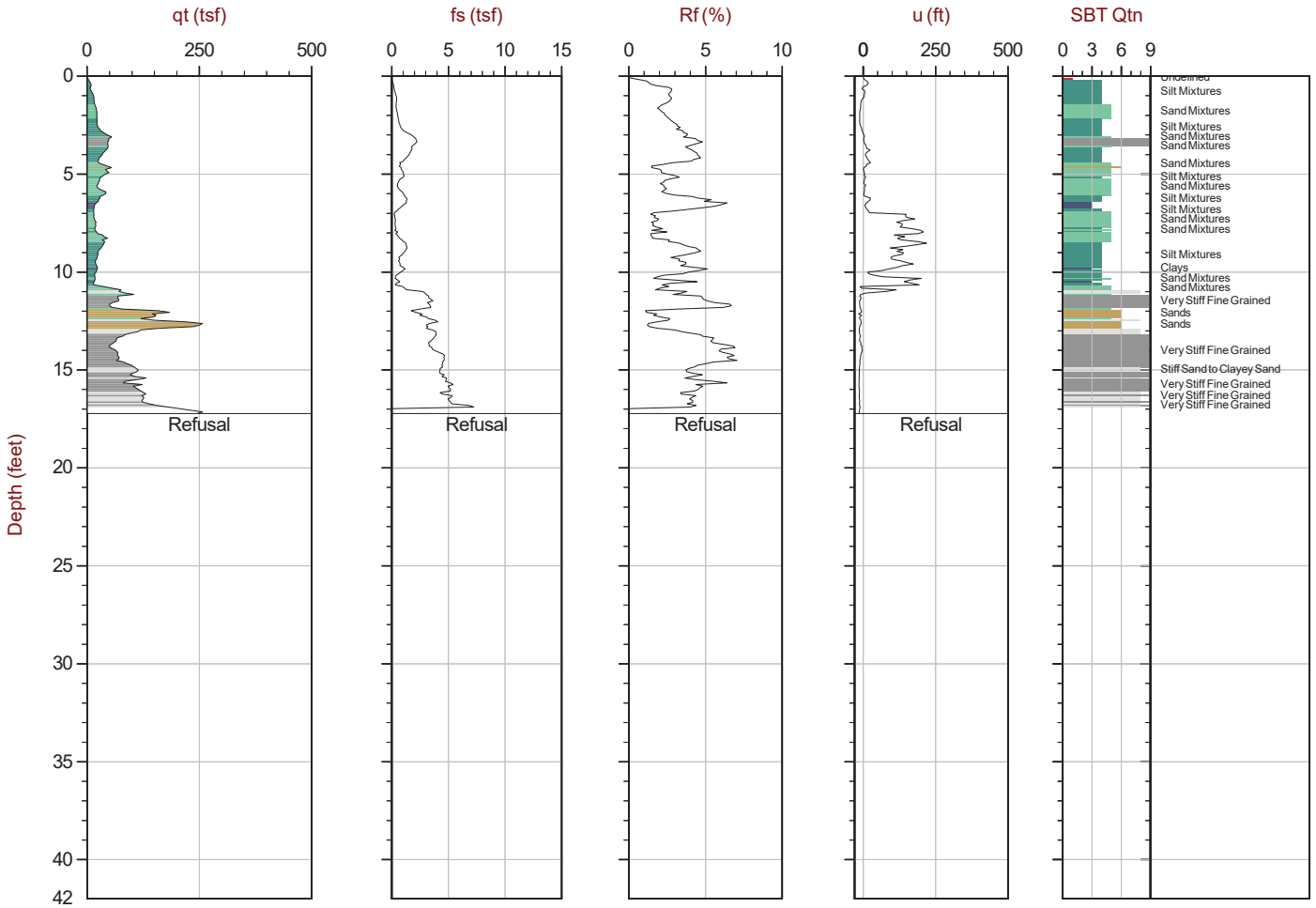
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 10:42
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-009
Cone: EC600



Max Depth: 5.250 m / 17.22 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP009.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406874m E: 294836m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

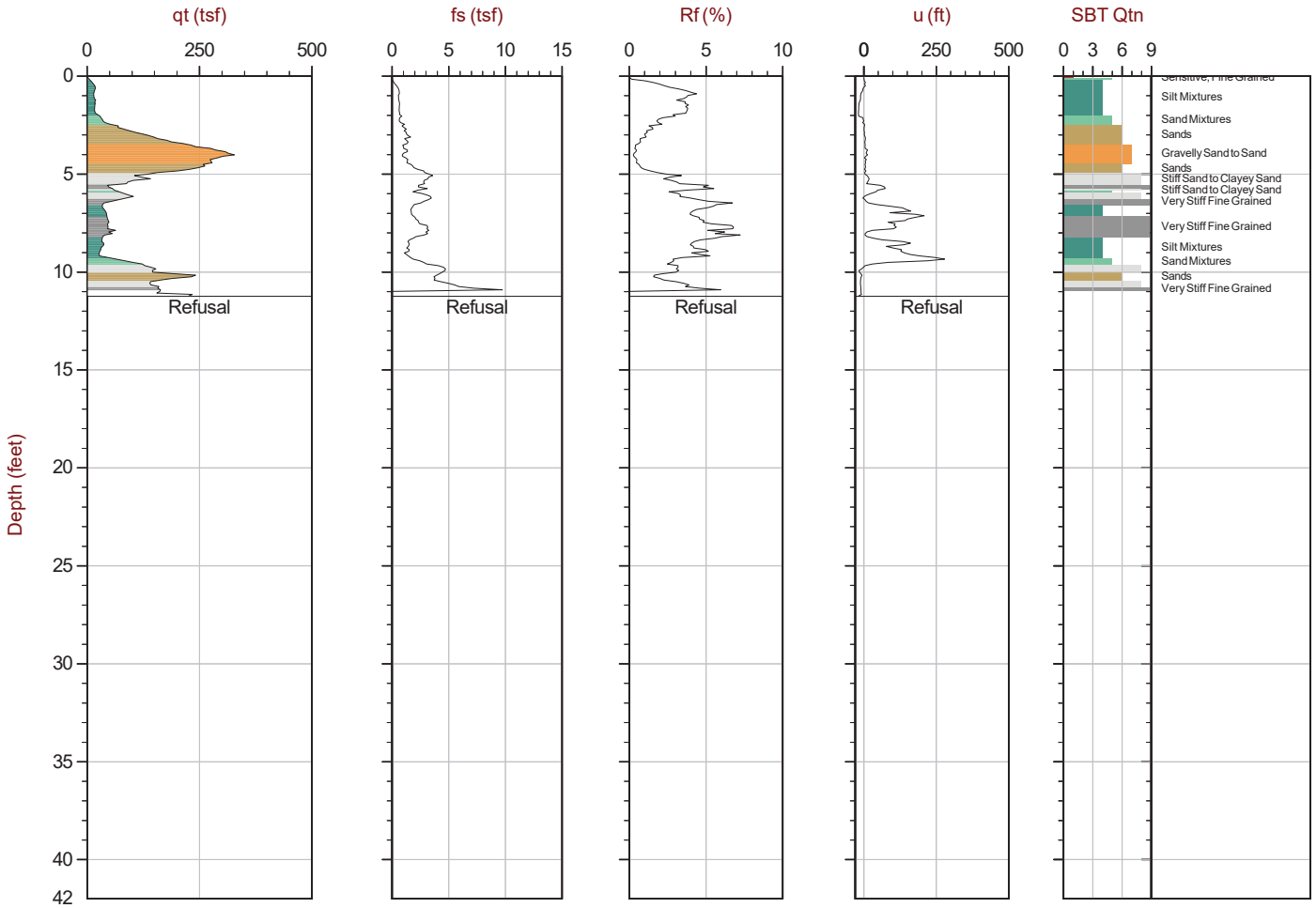
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 10:29
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-010
Cone: EC600



Max Depth: 3.425 m / 11.24 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP010.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406861m E: 295278m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

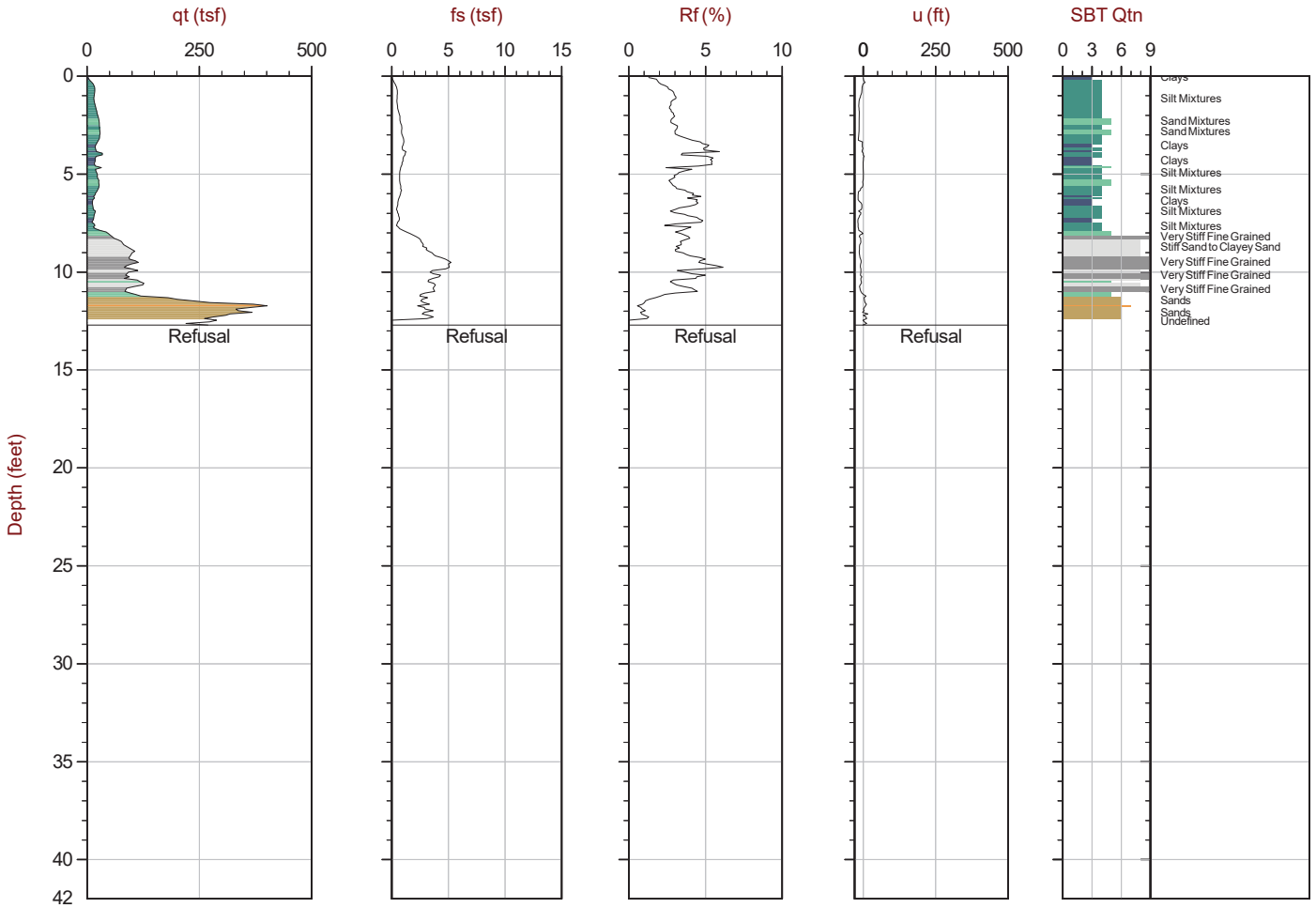
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 04:33
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-011
Cone: EC600



Max Depth: 3.875 m / 12.71 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP011.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406616m E: 294614m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

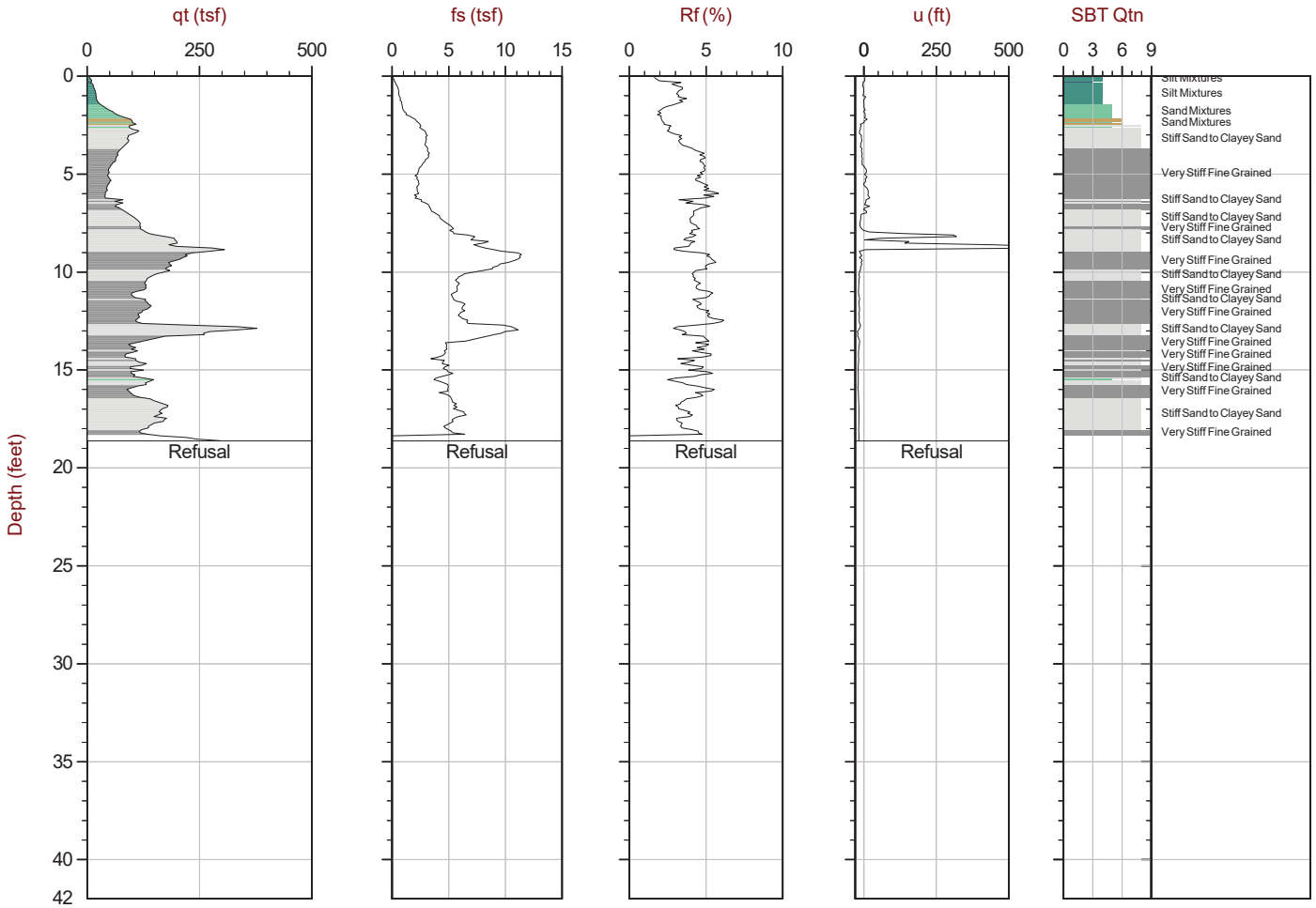
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 05:12
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-012
Cone: EC600



Max Depth: 5.675 m / 18.62 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP012.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406373m E: 294354m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

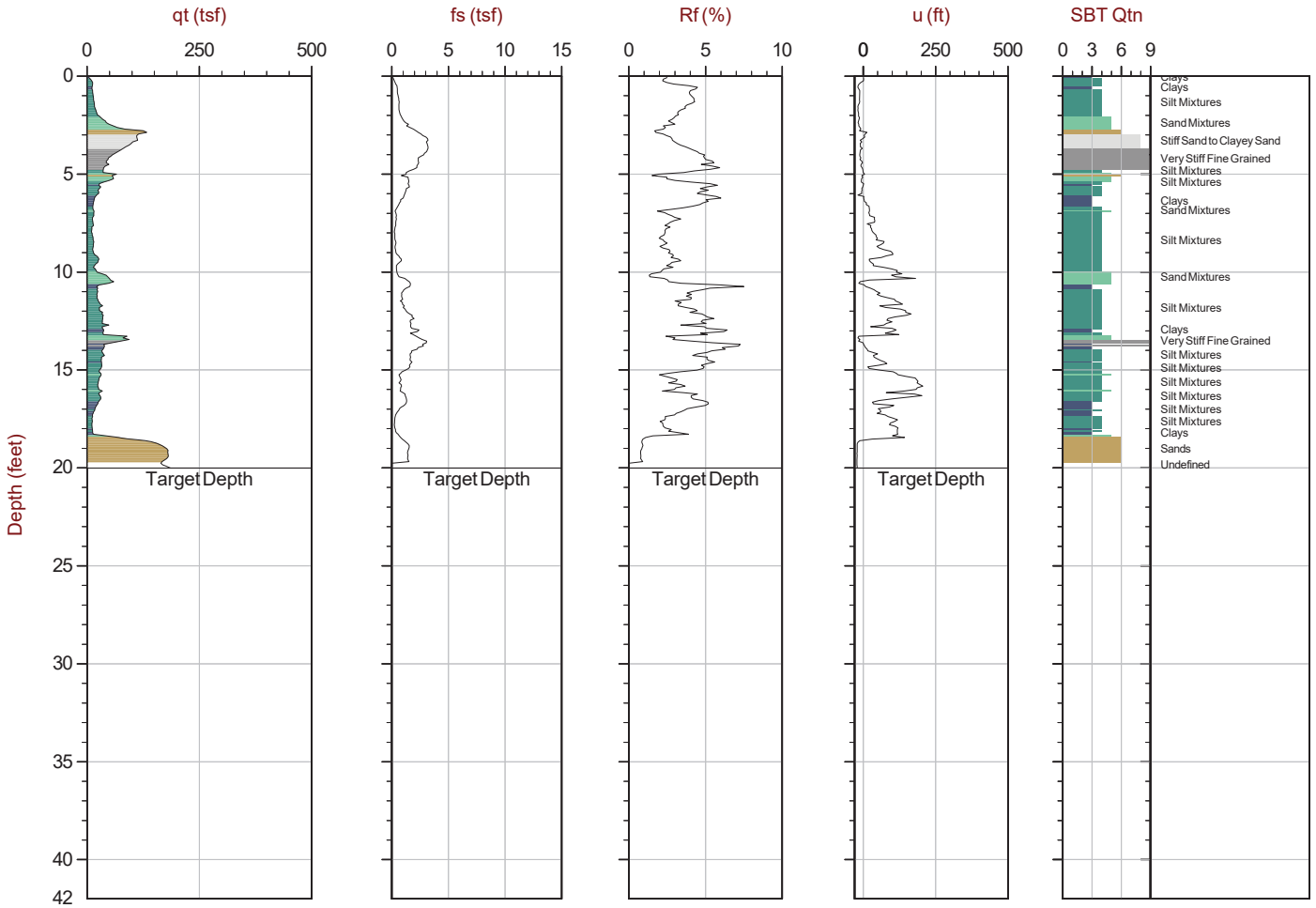
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 10:00
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-013
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP013.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406126m E: 294082m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

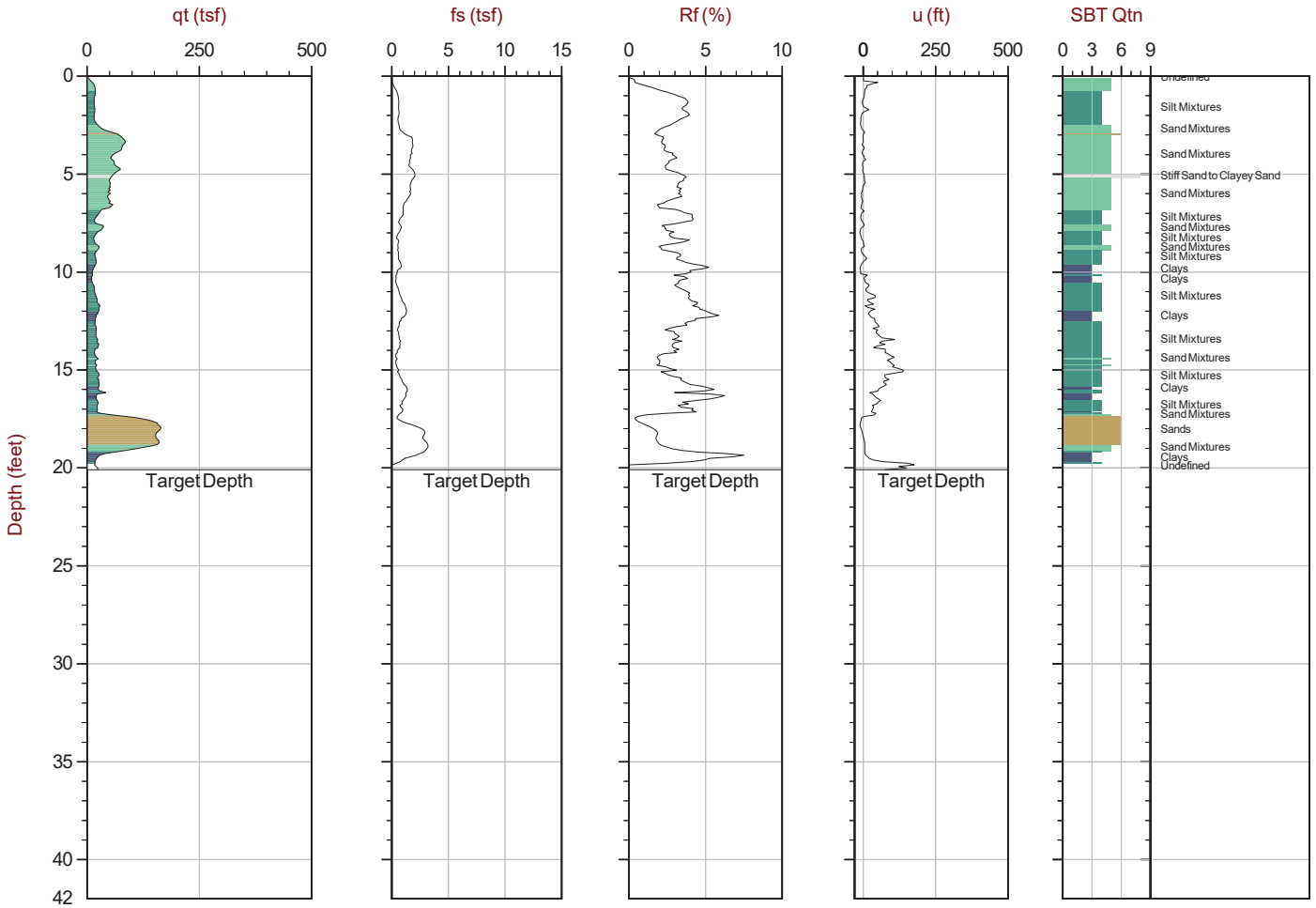
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 09:47
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-014
Cone: EC600



Max Depth: 6.125 m / 20.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP014.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405941m E: 294430m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

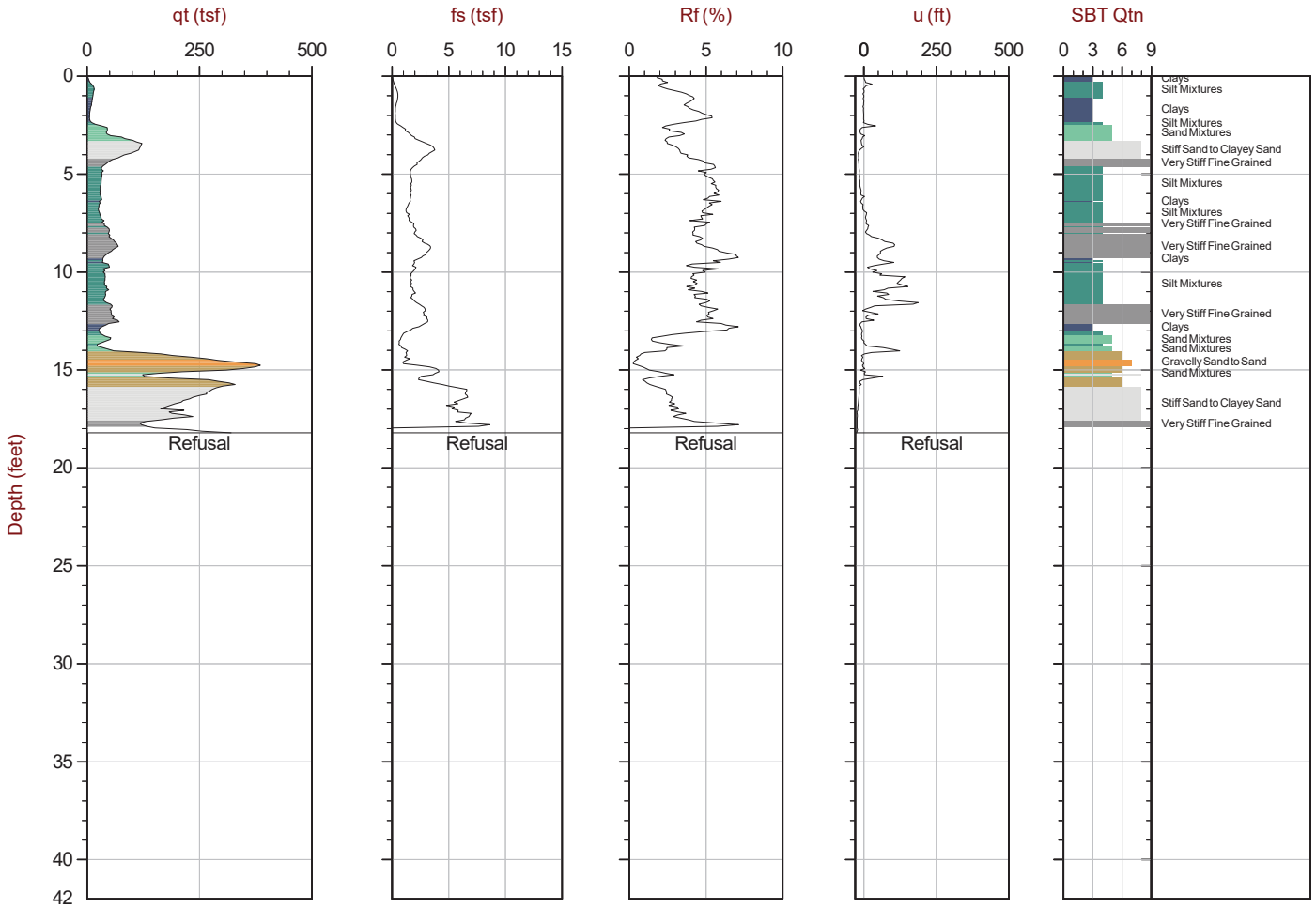
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 10:28
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-015
Cone: EC600



Max Depth: 5.550 m / 18.21 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP015.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405762m E: 294072m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

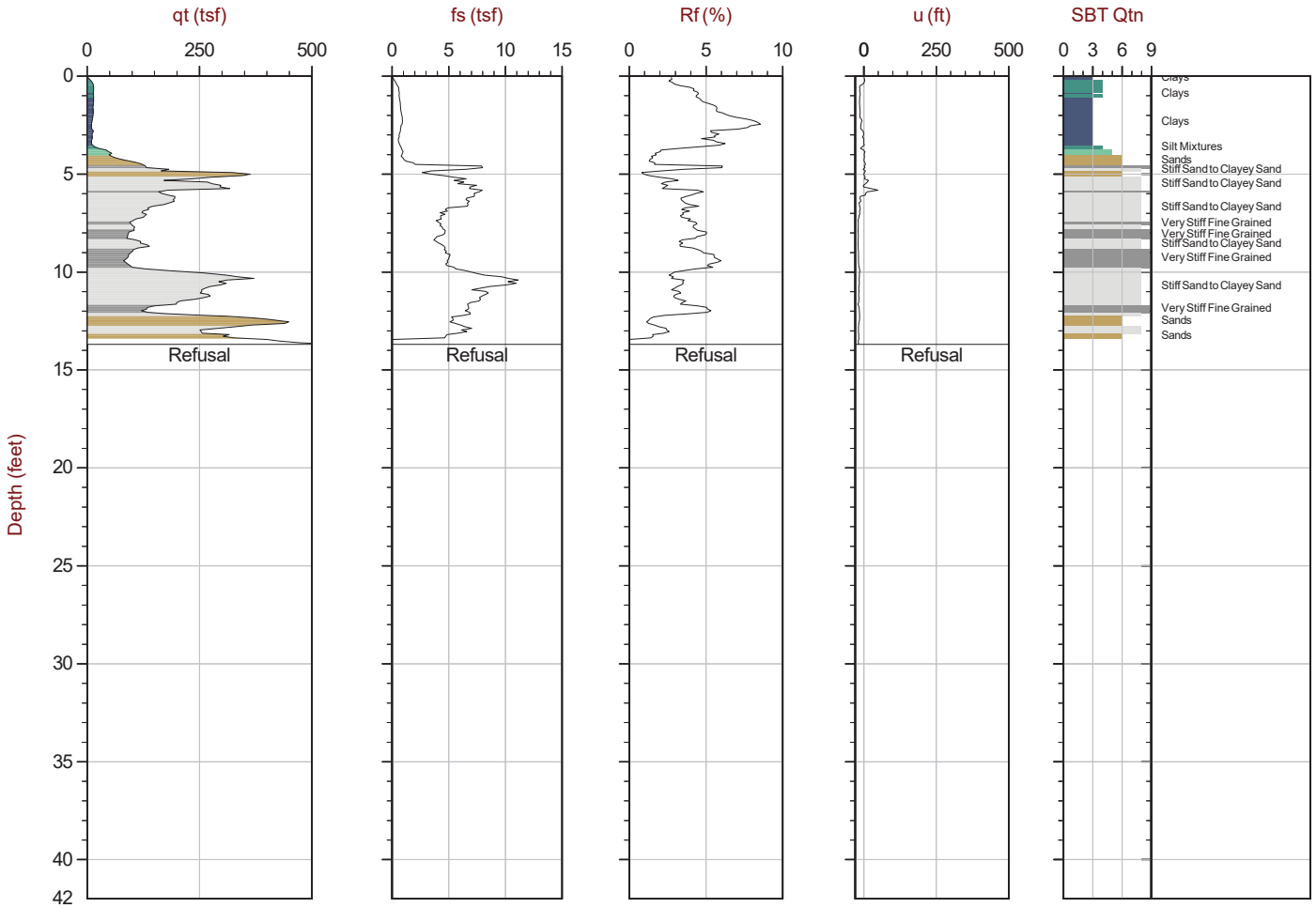
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 12:03
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-016
Cone: EC600



Max Depth: 4.175 m / 13.70 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP016.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405644m E: 294424m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

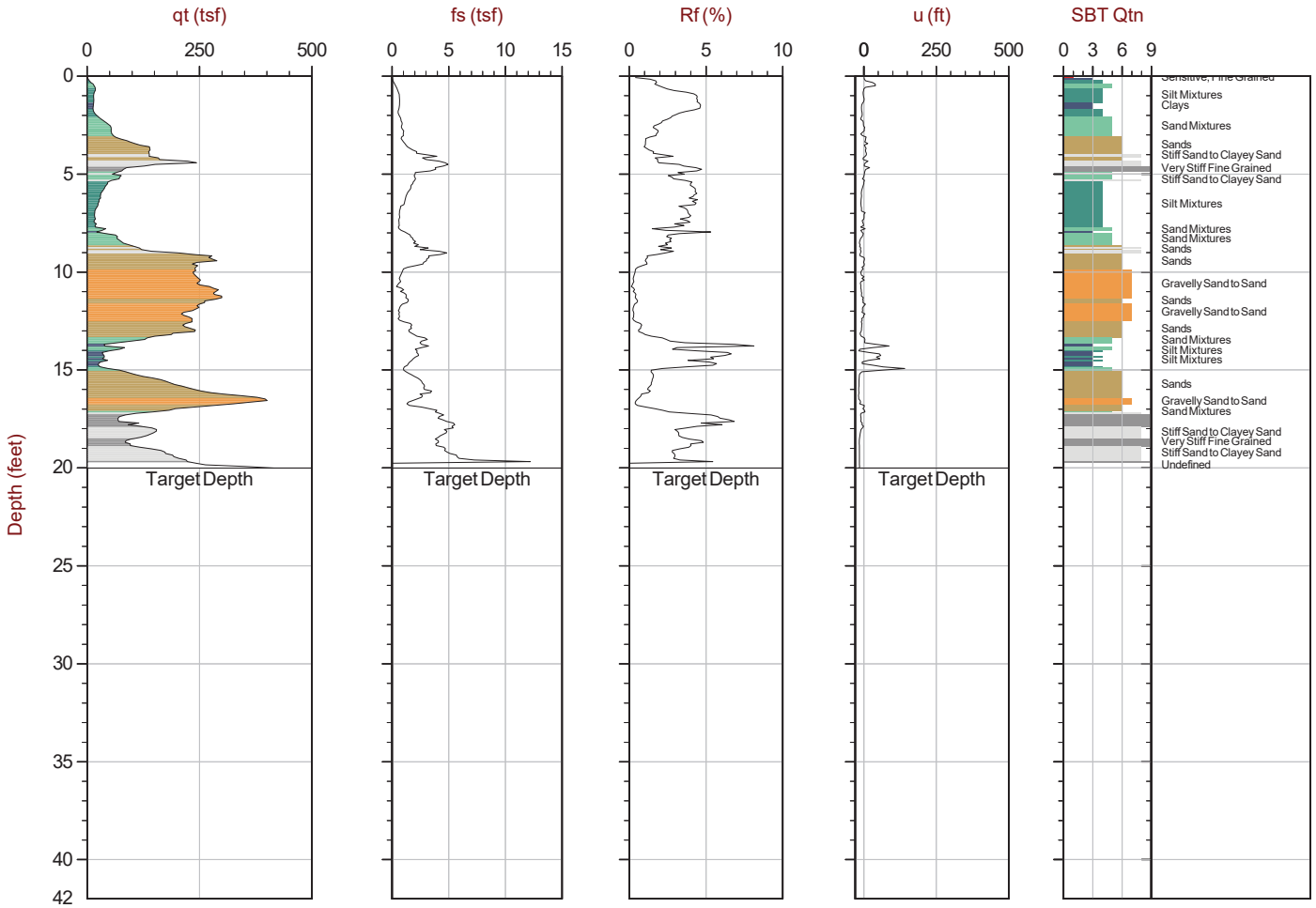
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 10:51
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-017
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP017.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405401m E: 294070m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

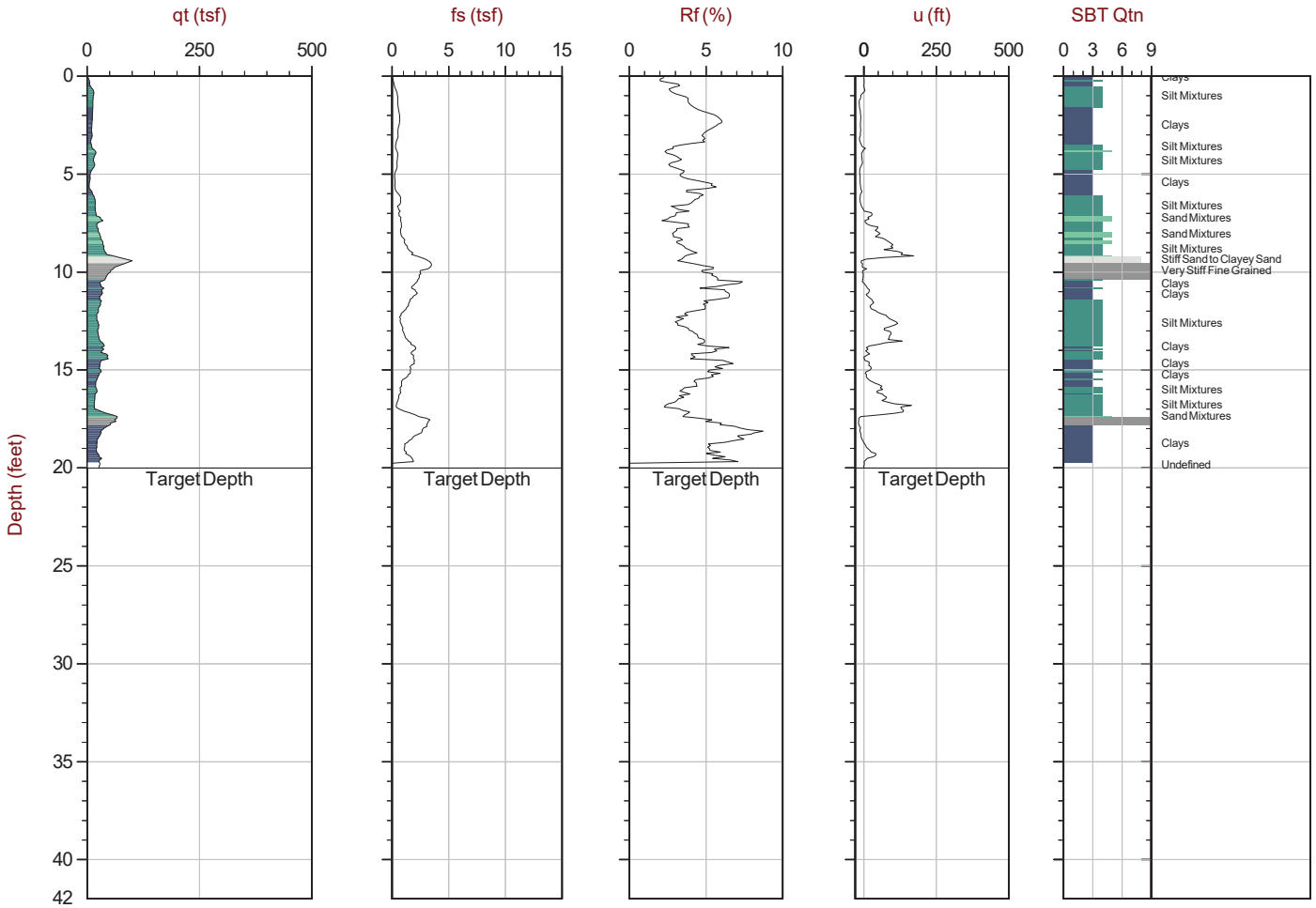
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 11:47
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-018
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP018.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405327m E: 294406m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

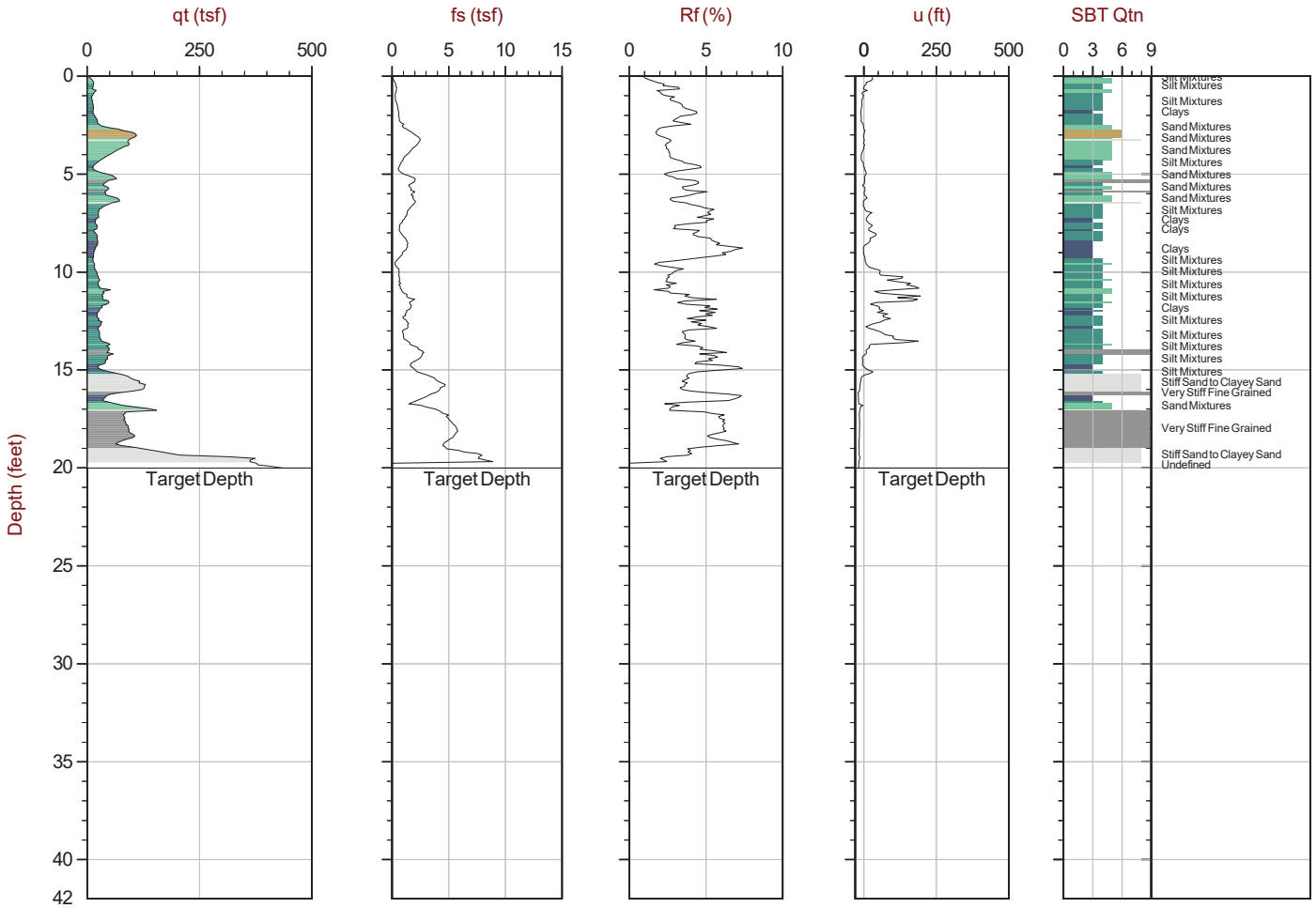
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 12:19
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-019
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP019.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405264m E: 294768m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

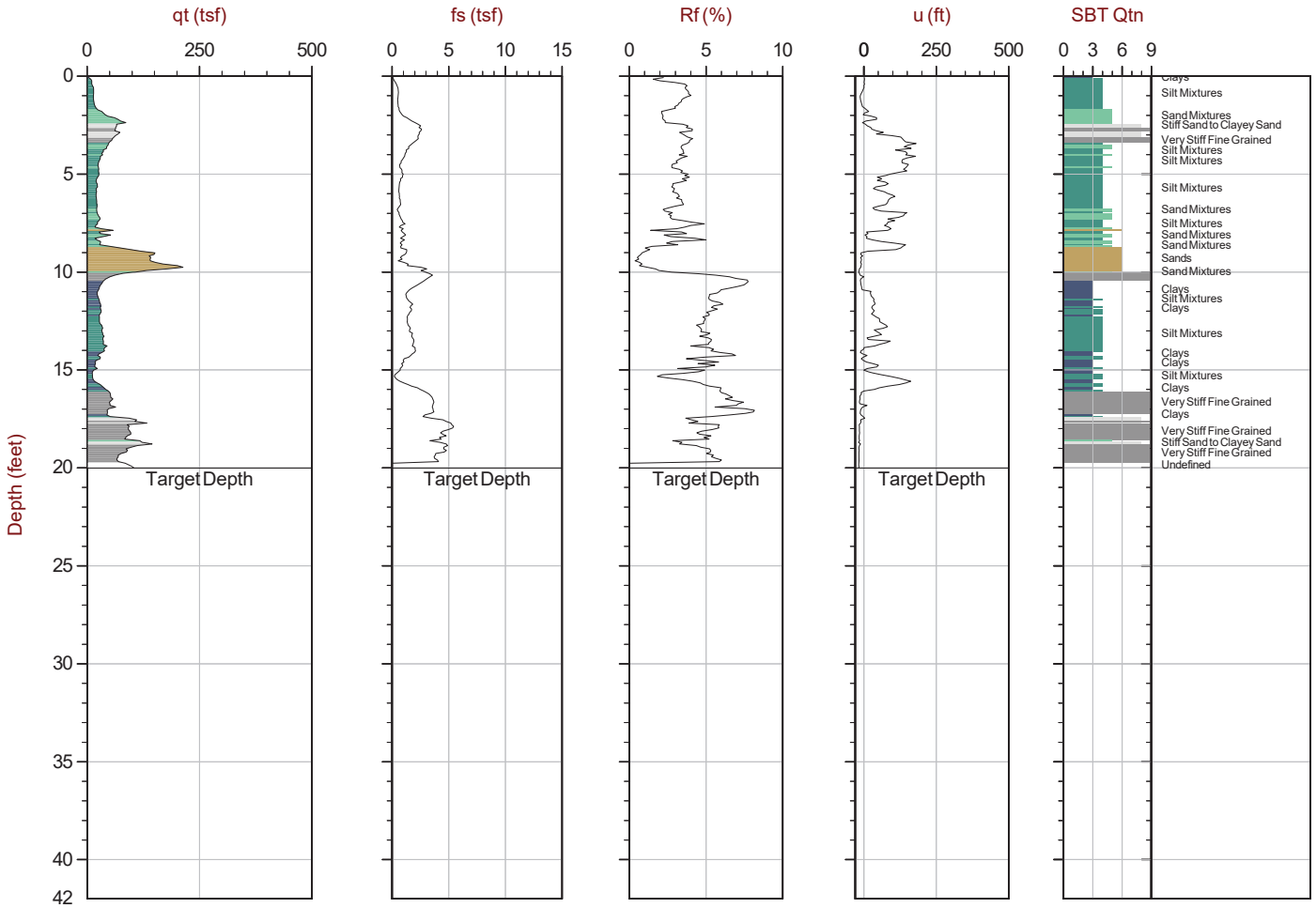
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 02:02
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-020
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP020.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405247m E: 295115m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

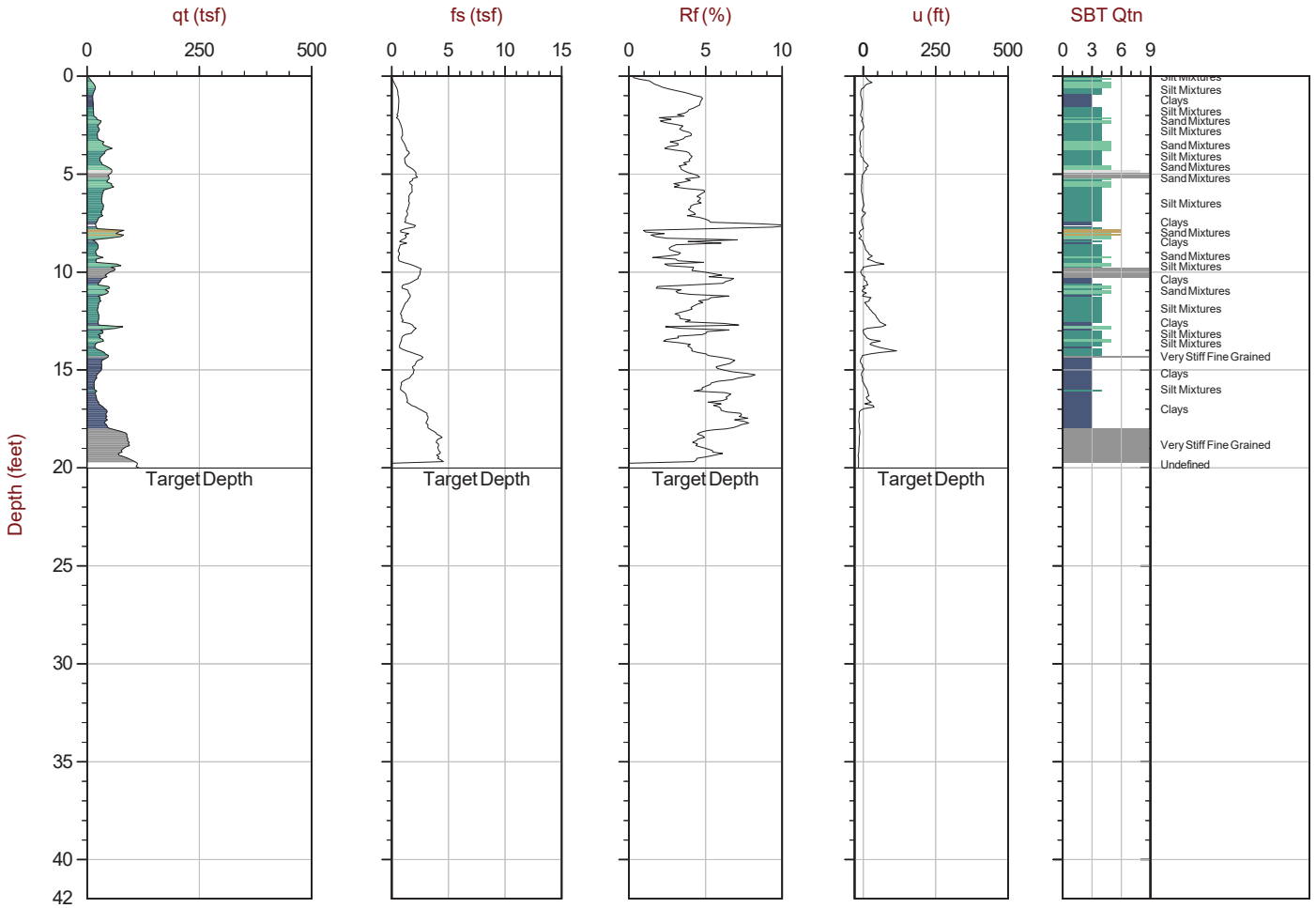
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 11:13
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-021
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP021.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405028m E: 294060m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

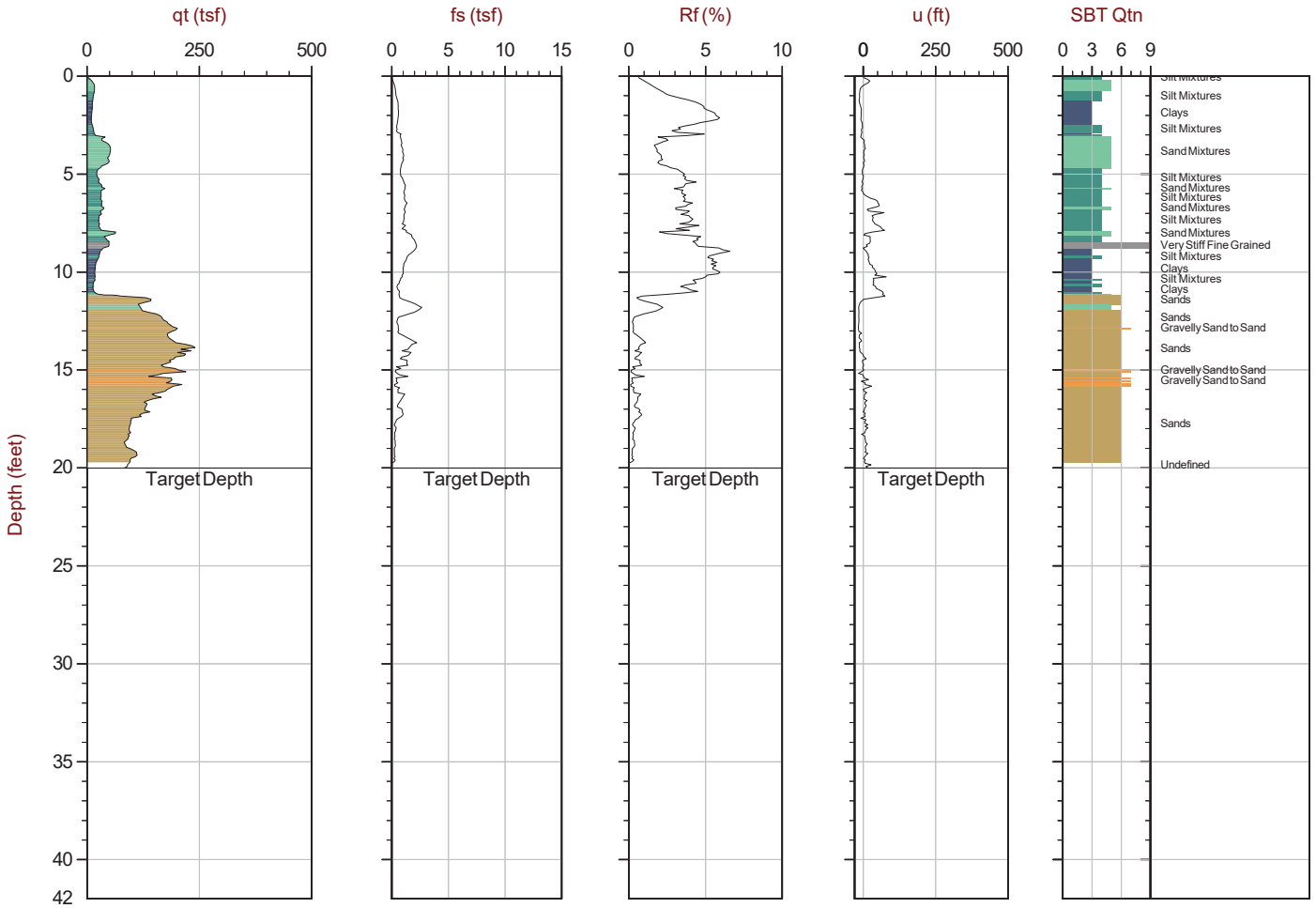
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 11:30
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-022
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP022.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405018m E: 294414m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

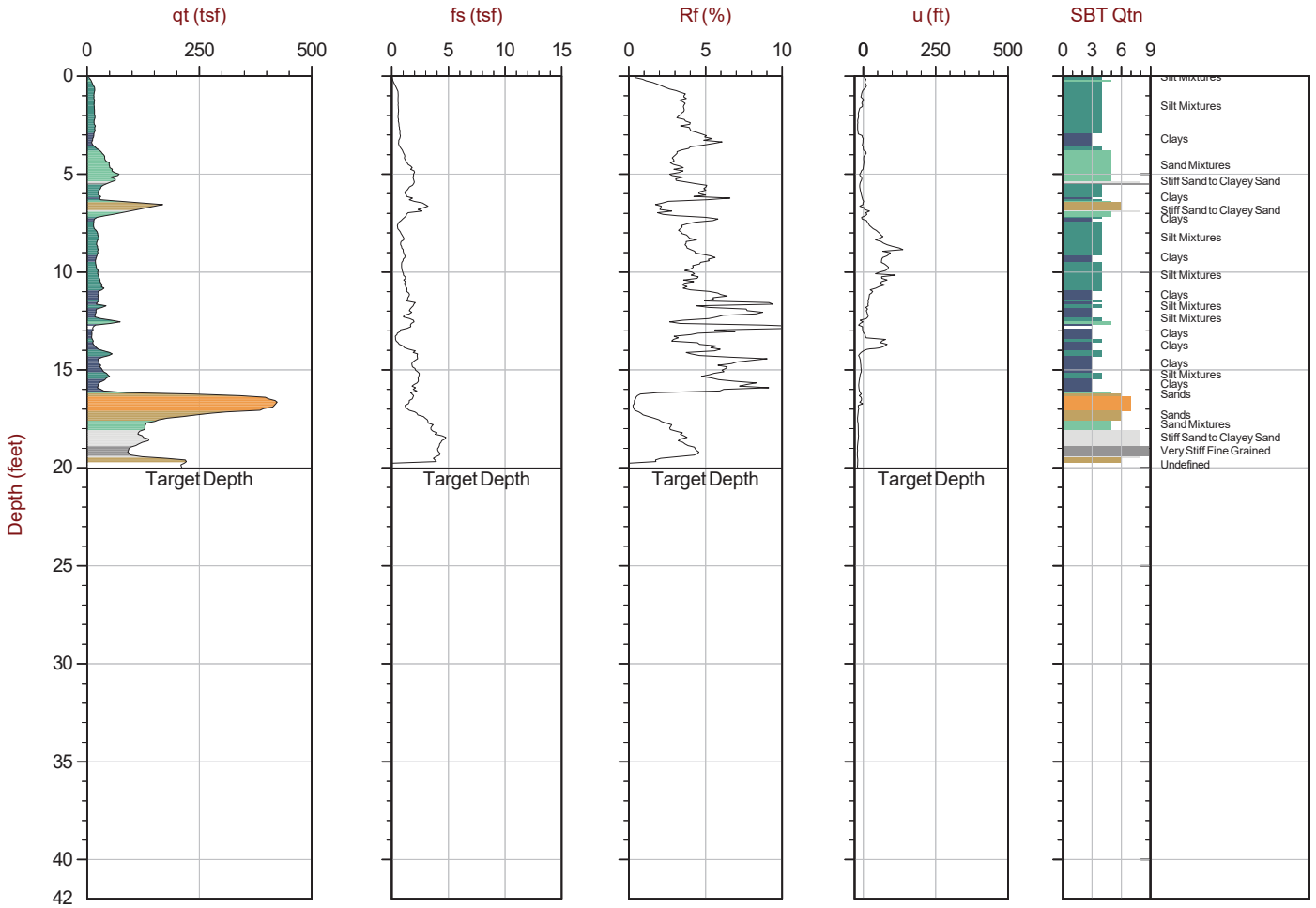
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 12:39
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-023
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP023.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4404917m E: 294758m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

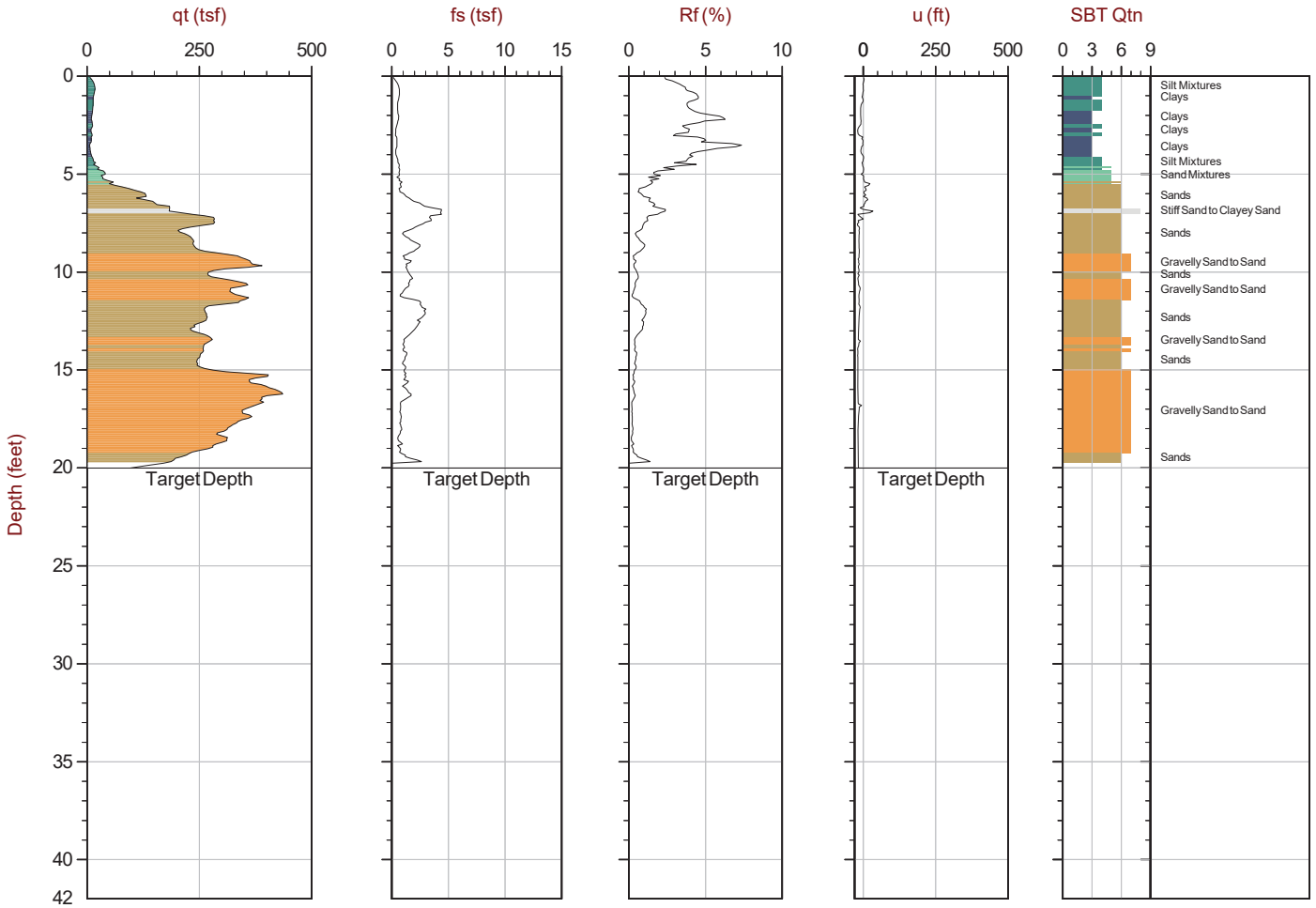
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 12:58
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-024
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP024.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4404684m E: 294984m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

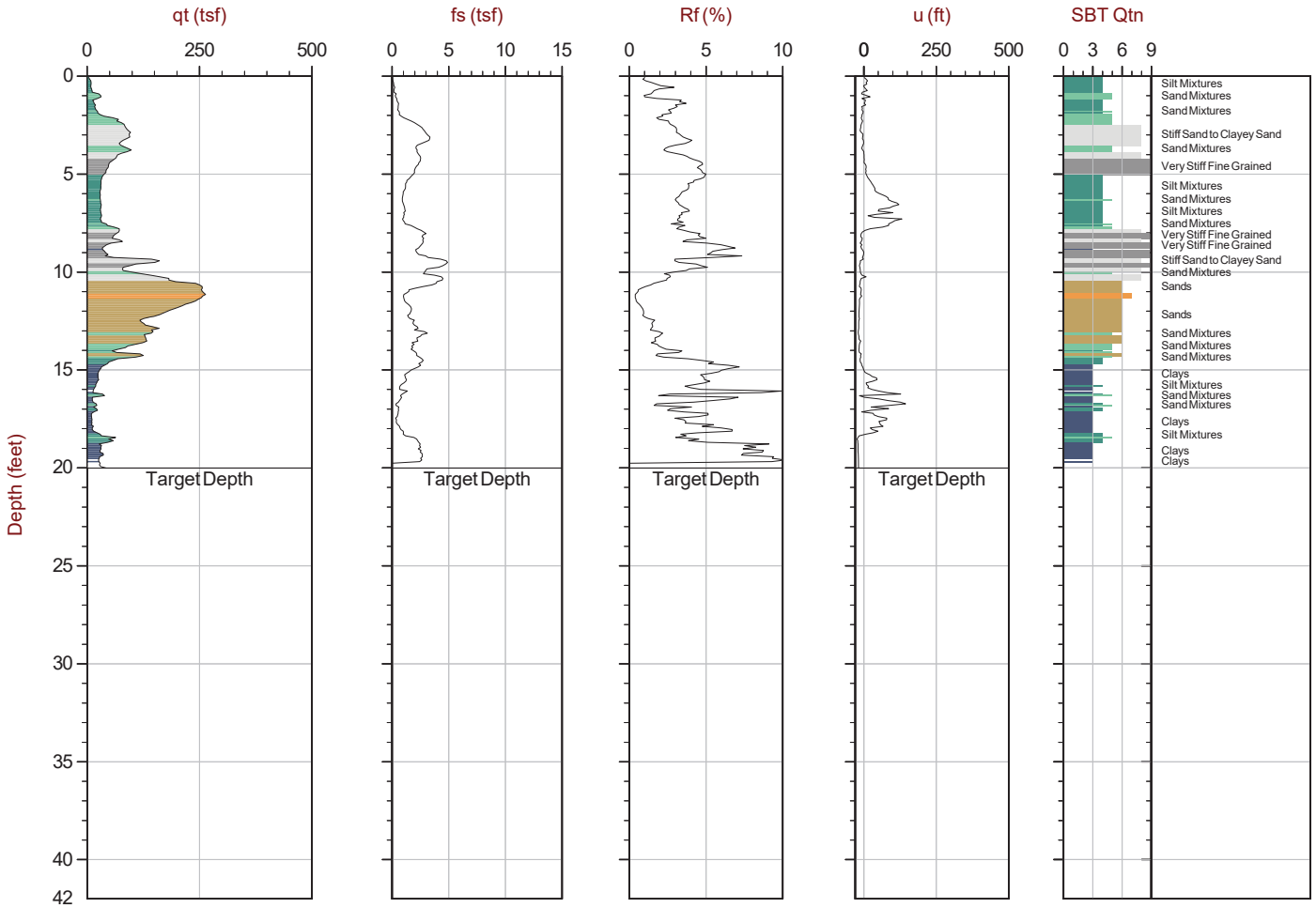
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 01:20
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-025
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP025.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4404921m E: 295102m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

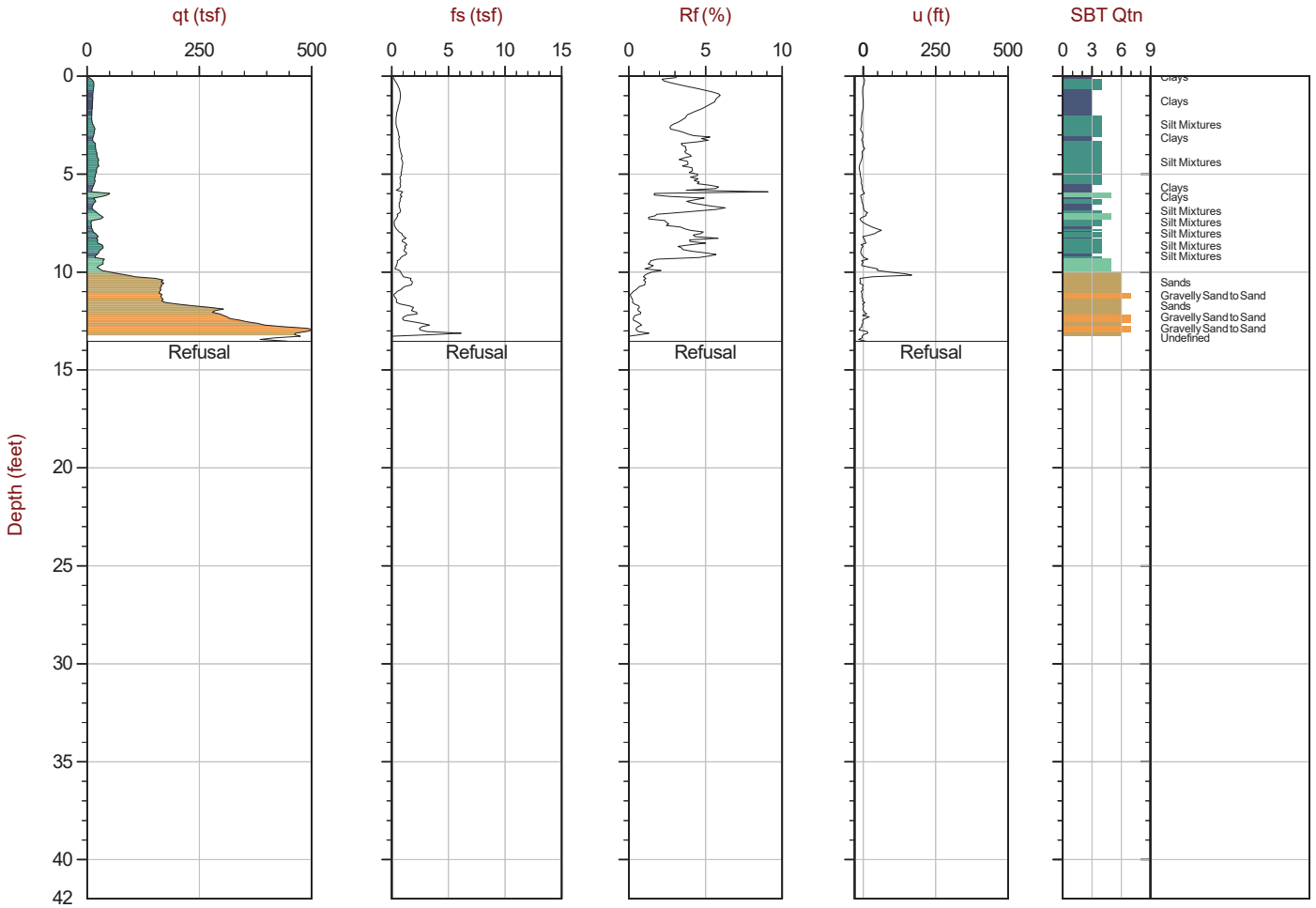
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 01:44
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-026
Cone: EC600



Max Depth: 4.125 m / 13.53 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP026.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405029m E: 295461m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

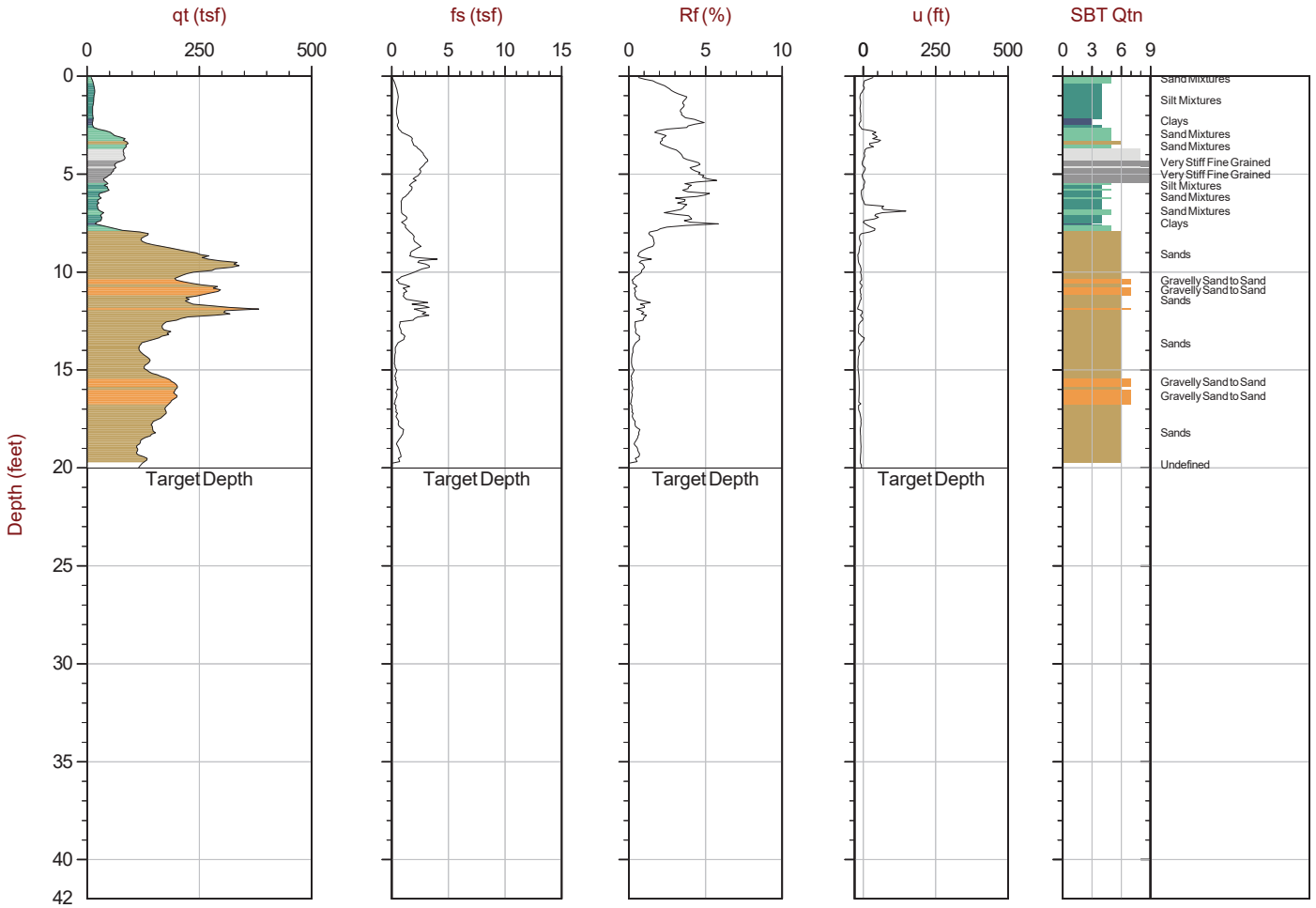
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 03:18
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-027
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP027.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406188m E: 295770m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

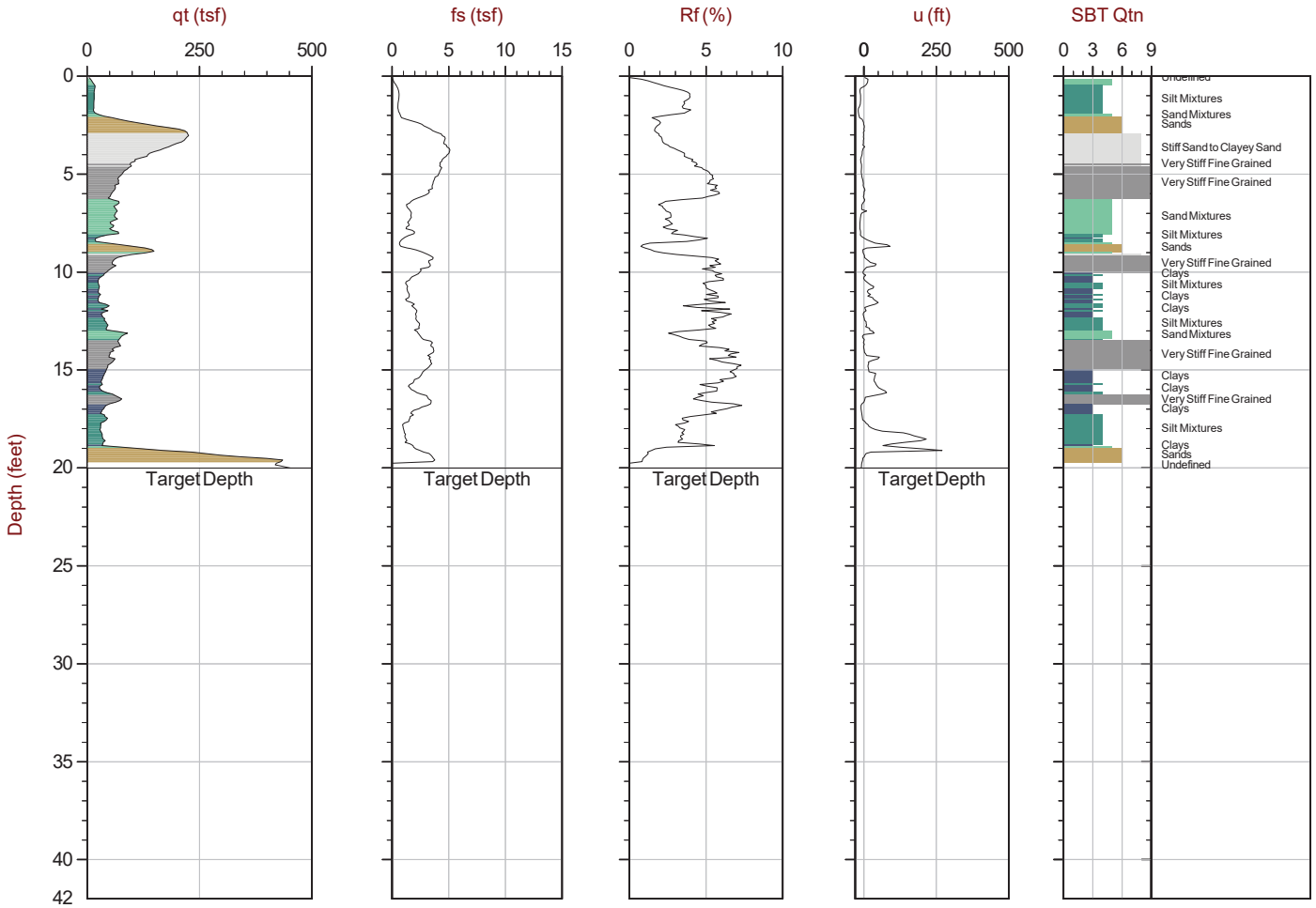
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 03:01
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-028
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP028.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405949m E: 295476m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

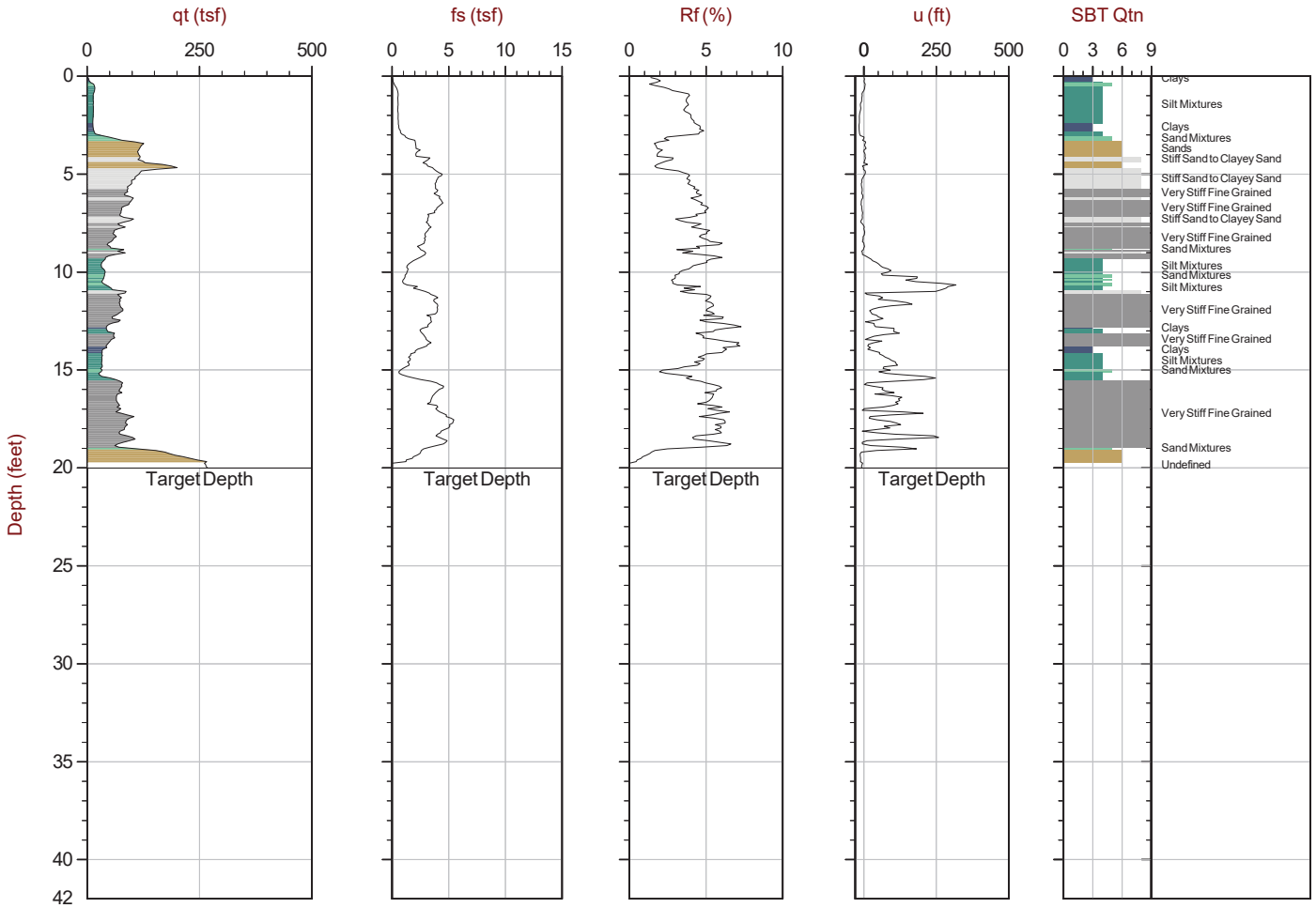
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 03:36
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-029
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP029.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405923m E: 295977m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

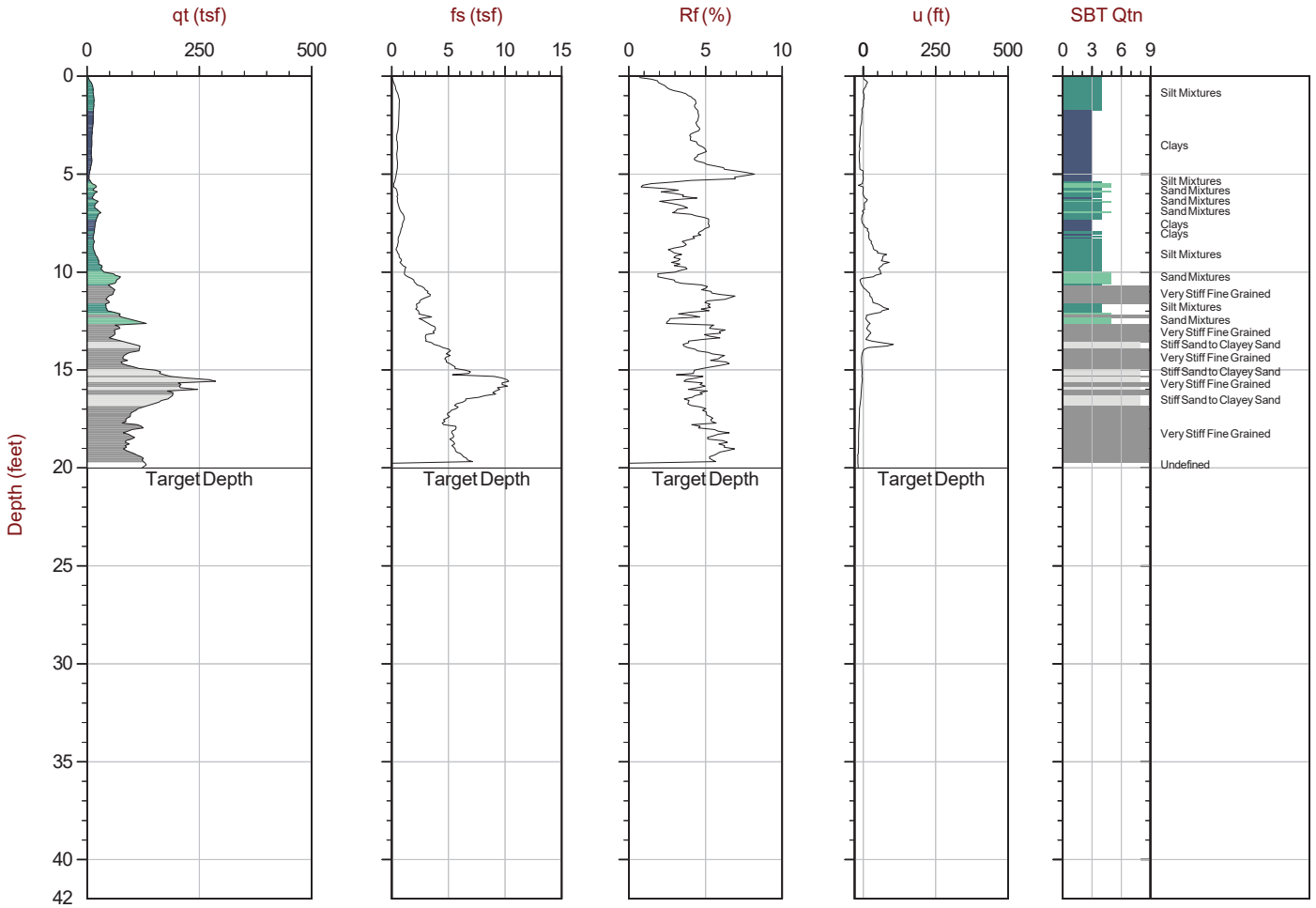
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 02:39
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-030
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP030.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405670m E: 295223m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

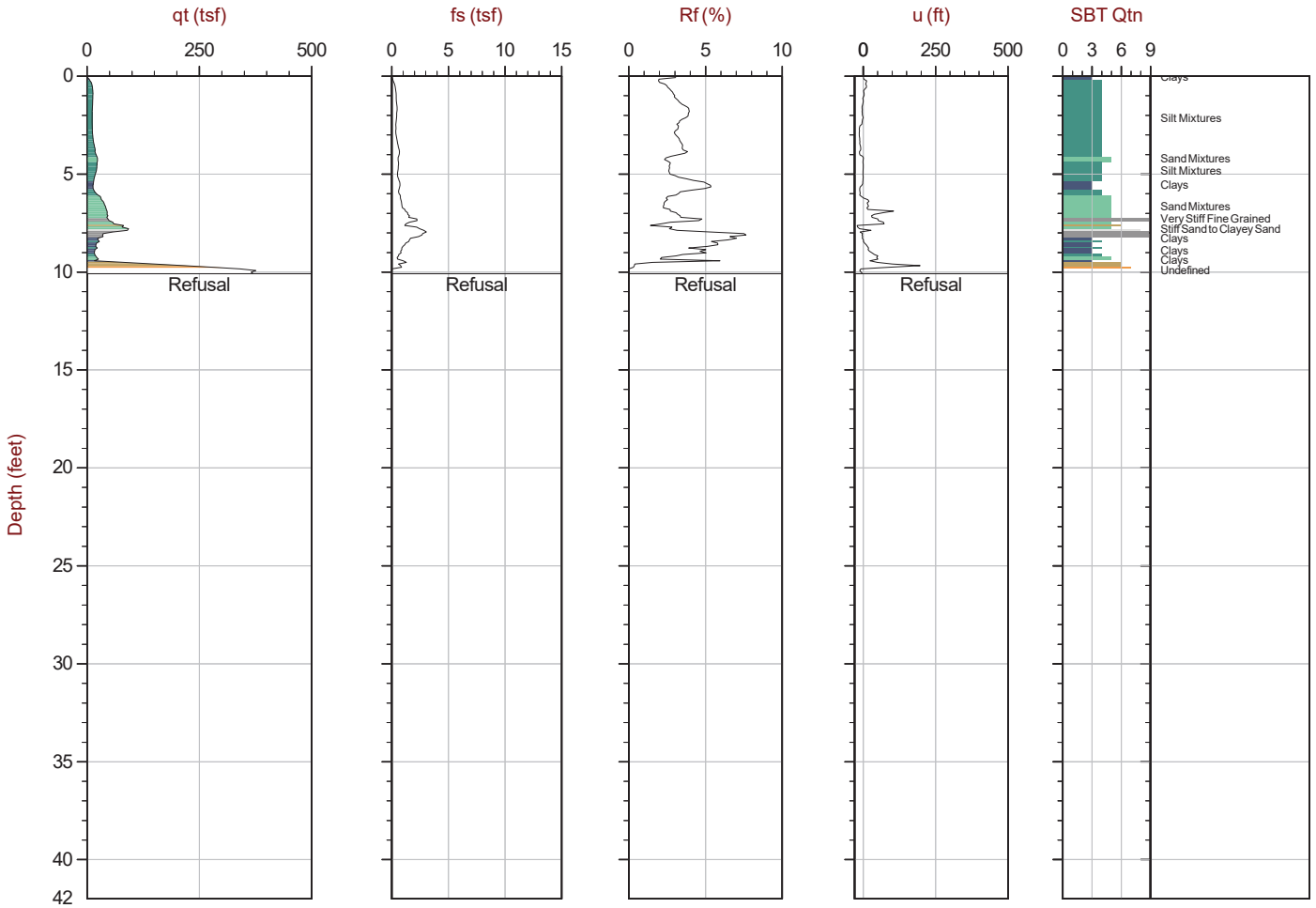
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 04:21
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-031
Cone: EC600



Max Depth: 3.075 m / 10.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP031.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405754m E: 295752m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

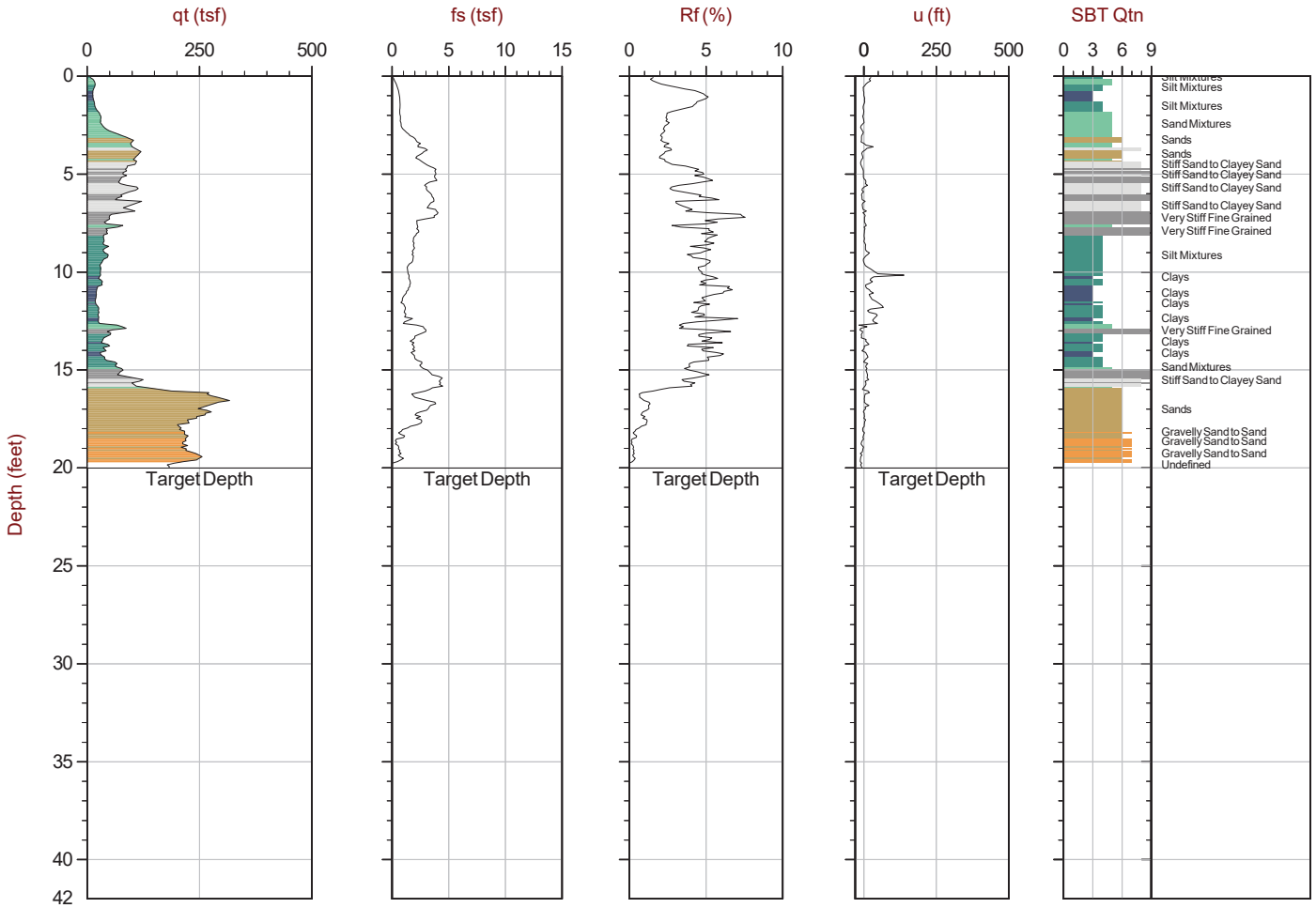
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 03:51
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-032
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP032.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405624m E: 296174m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

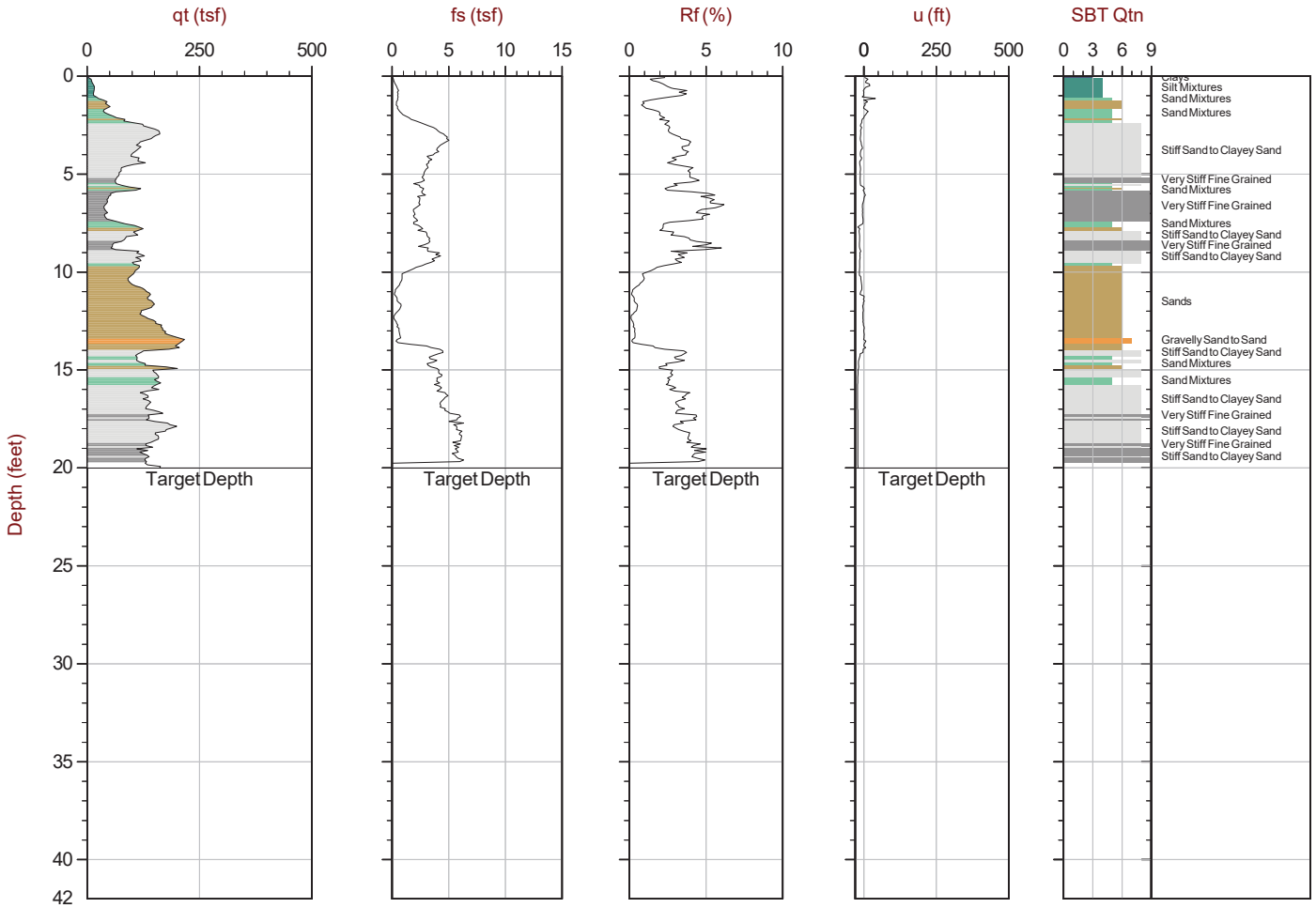
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 02:17
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-033
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP033.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405503m E: 295523m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

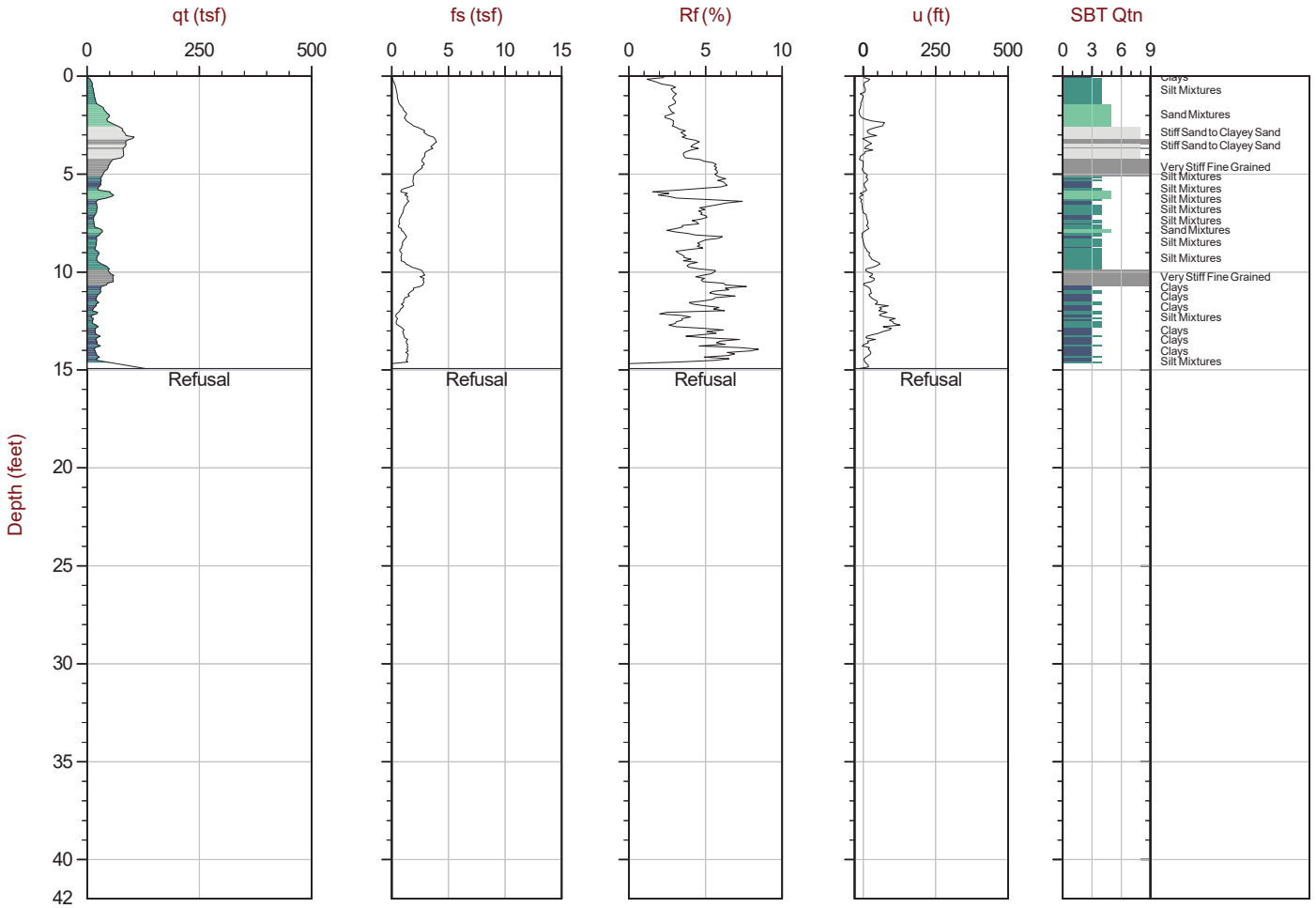
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 04:07
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-034
Cone: EC600



Max Depth: 4.550 m / 14.93 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP034.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405365m E: 295903m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

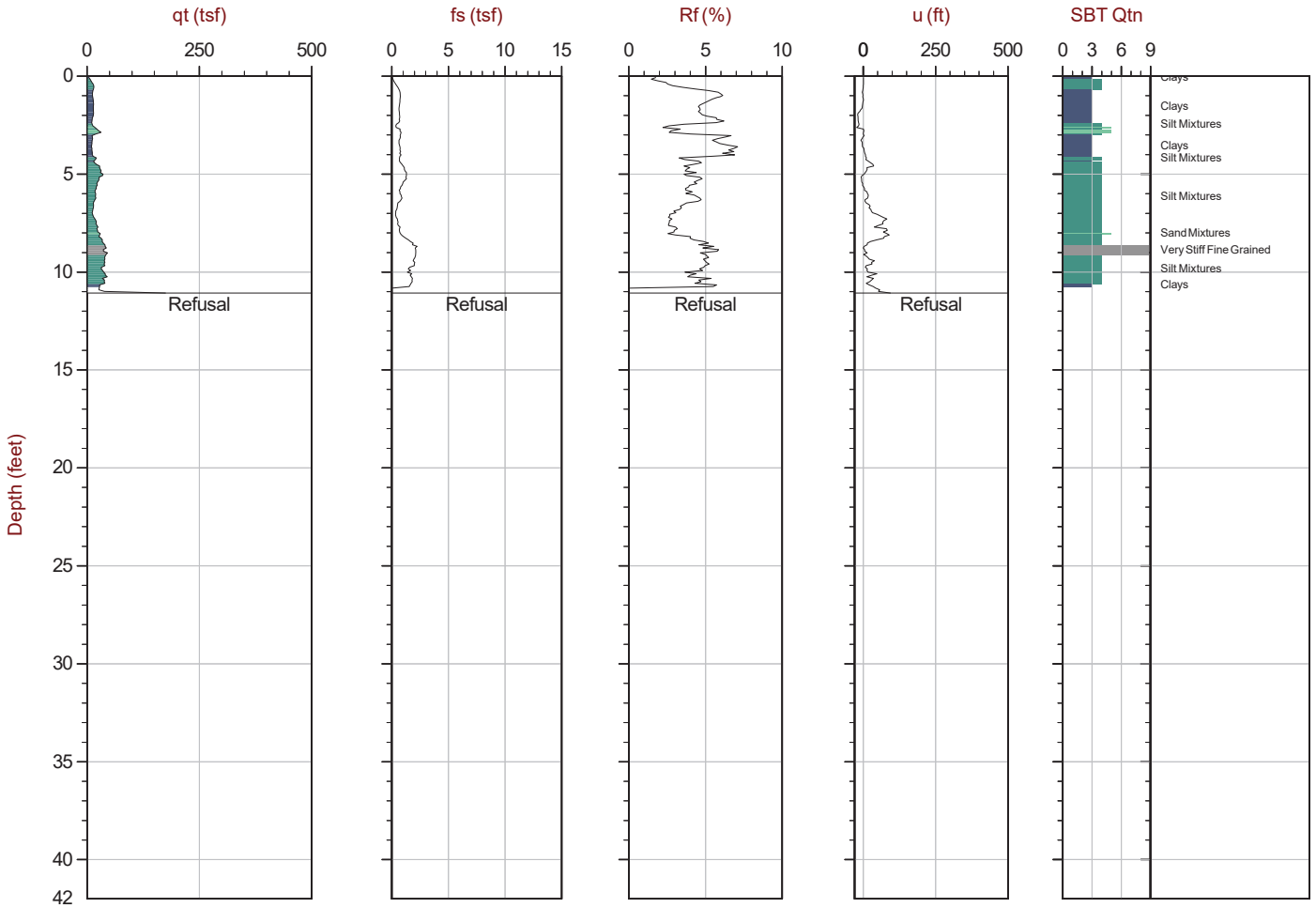
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 10:51
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-035
Cone: EC600



Max Depth: 3.375 m / 11.07 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP035.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407335m E: 296355m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

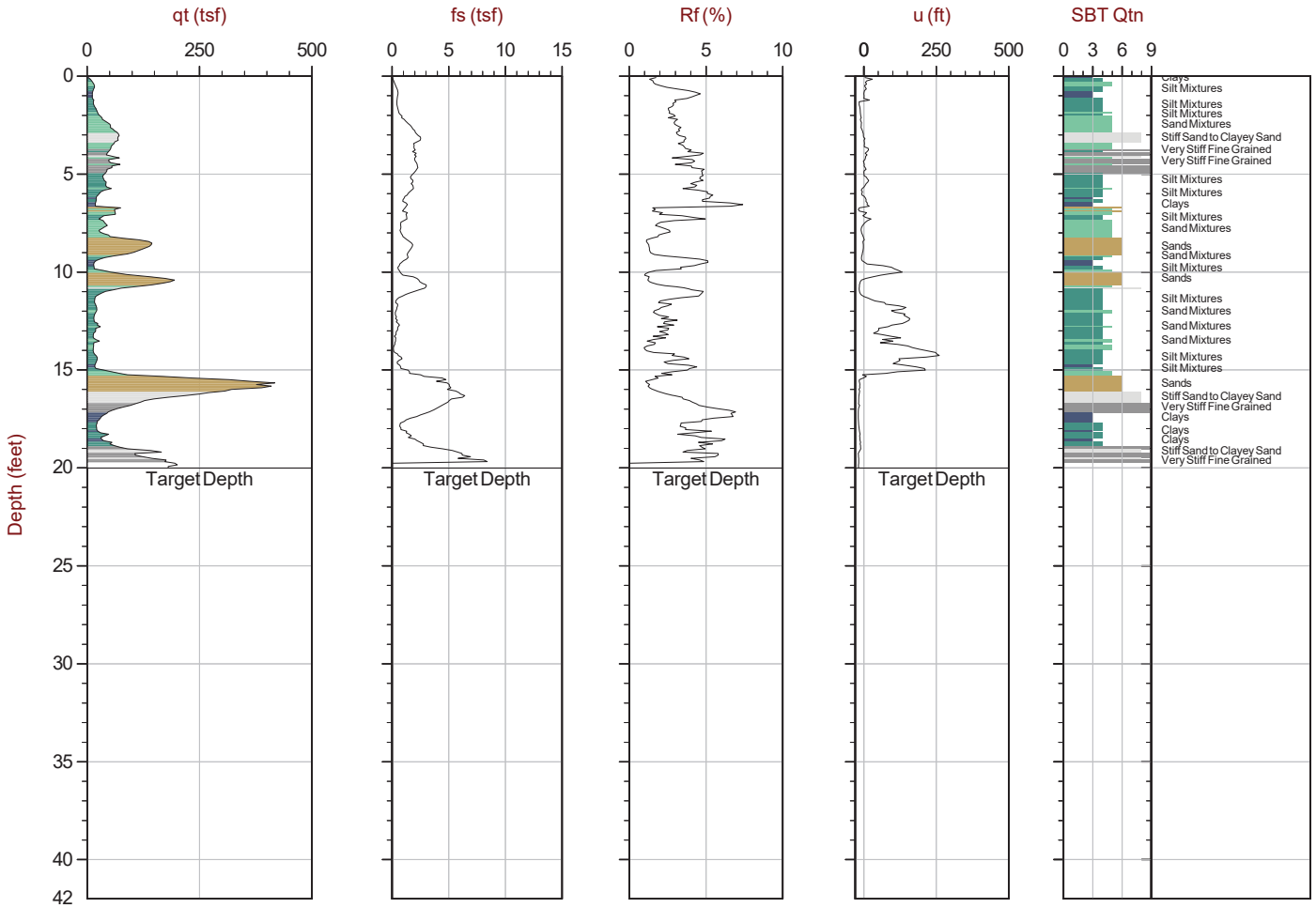
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 10:26
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-036
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP036.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407048m E: 296089m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

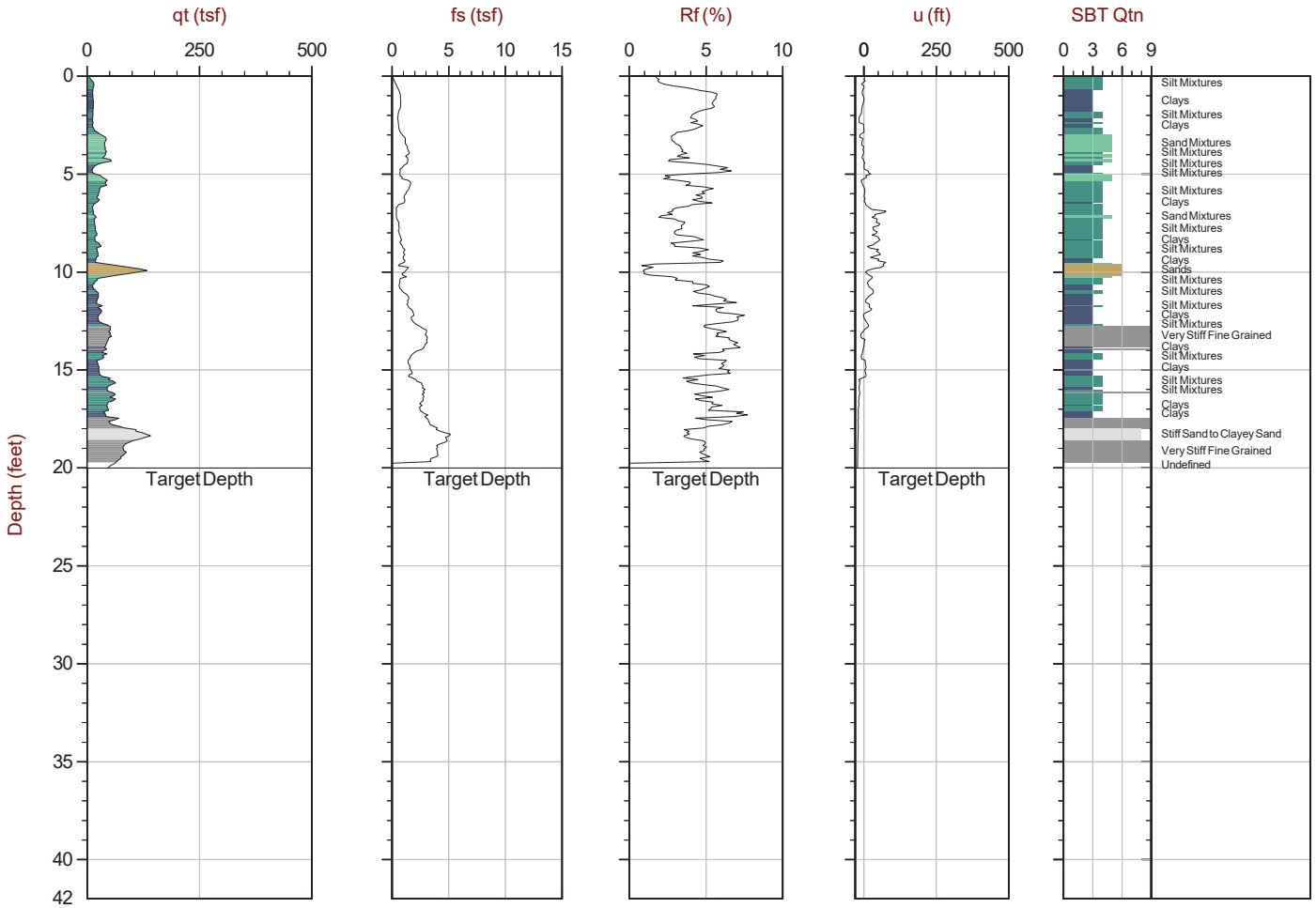
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 11:34
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-037
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP037.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407054m E: 296541m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

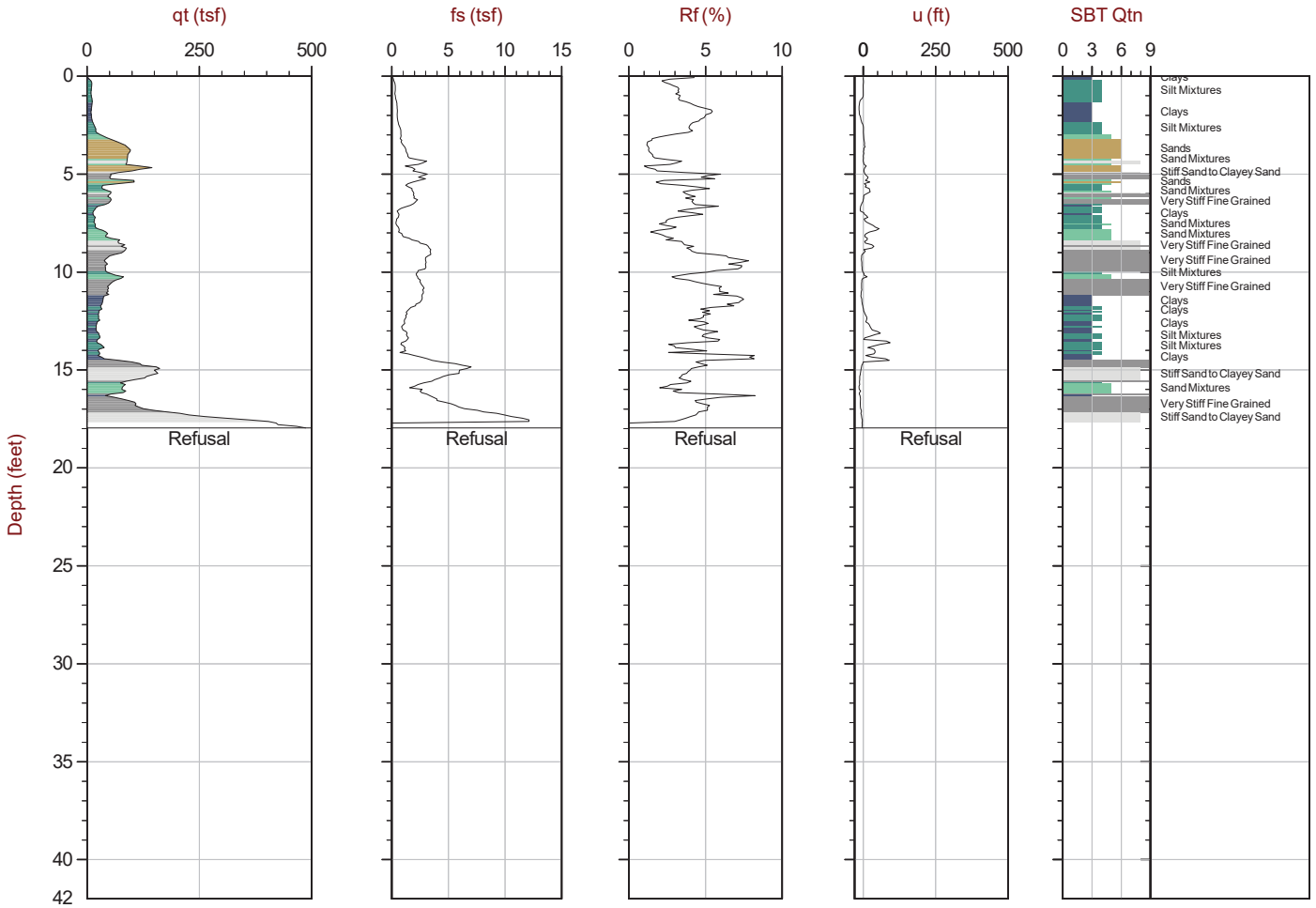
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 01:17
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-038
Cone: EC600



Max Depth: 5.475 m / 17.96 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP038.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406567m E: 296086m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

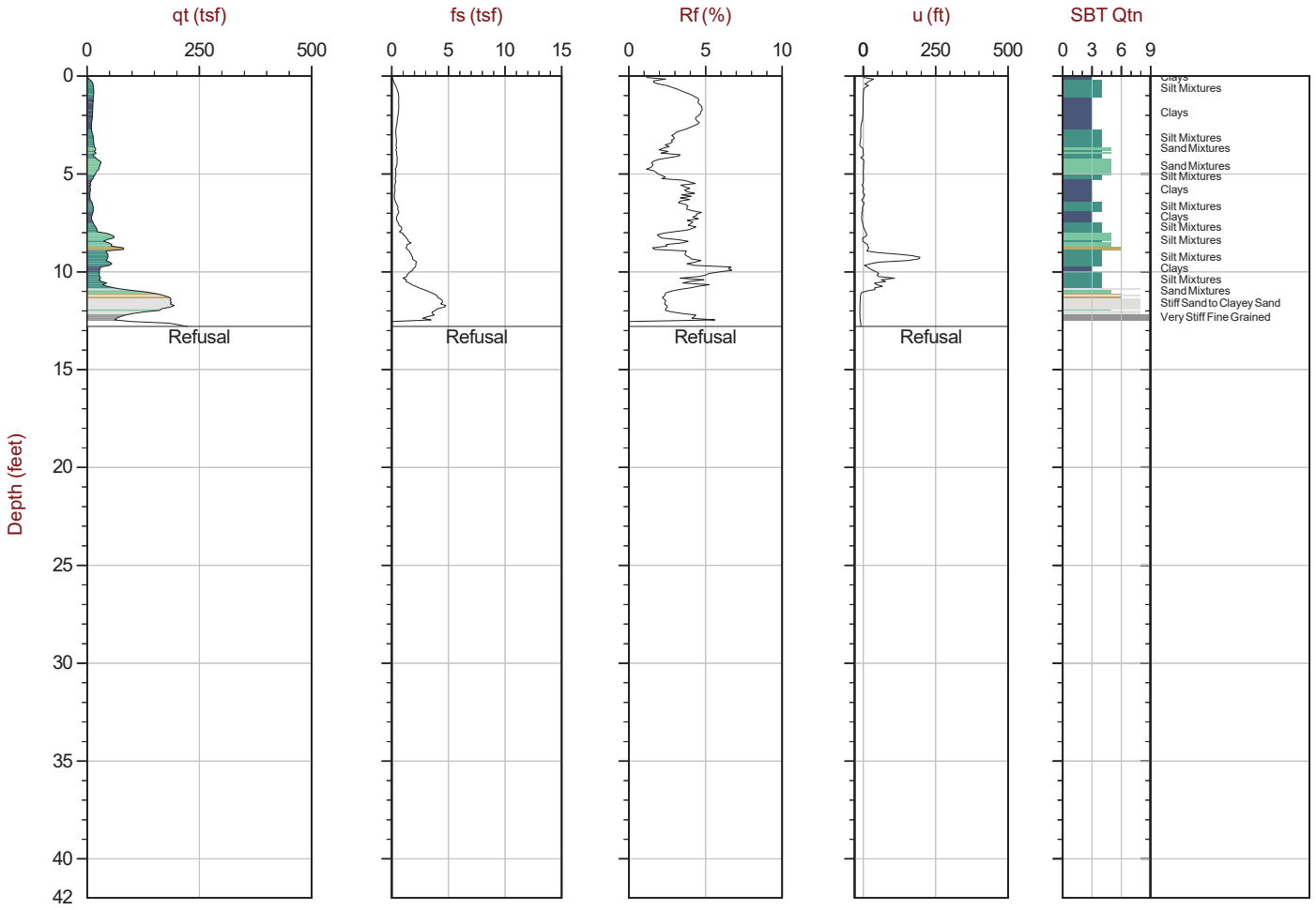
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 01:33
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-039
Cone: EC600



Max Depth: 3.900 m / 12.80 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP039.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406721m E: 296432m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

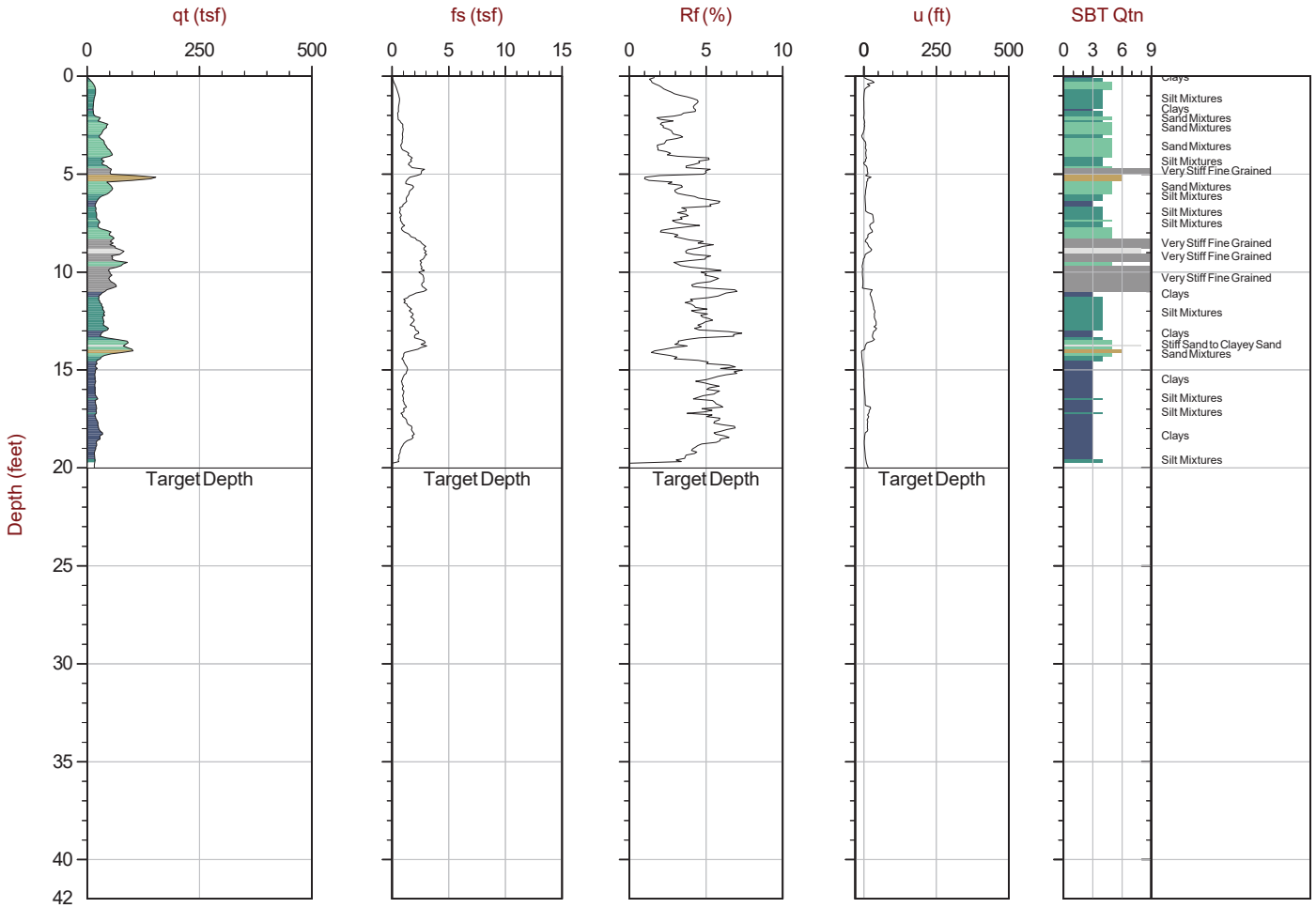
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 02:07
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-040
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP040.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406204m E: 296124m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

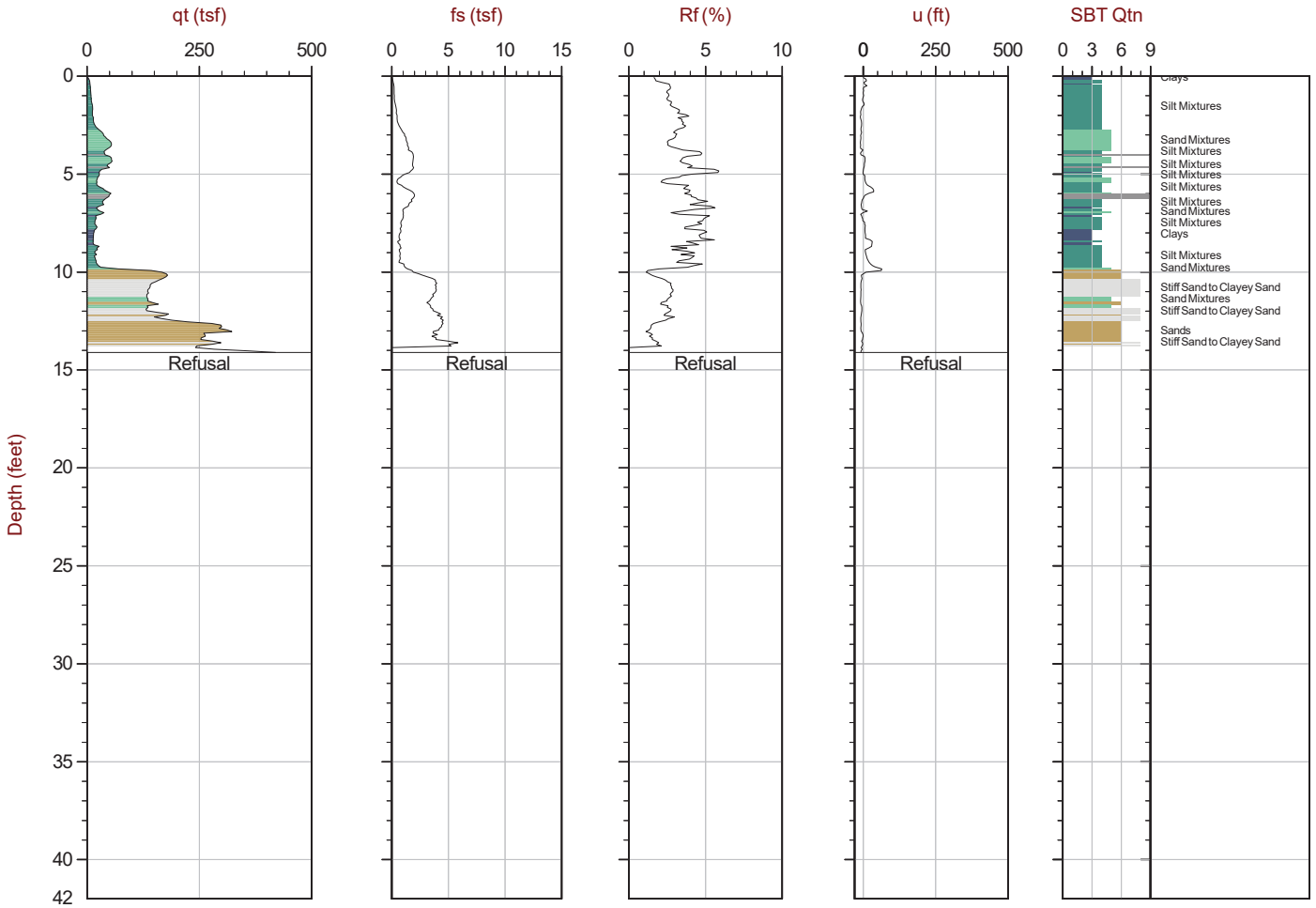
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 01:49
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-041
Cone: EC600



Max Depth: 4.300 m / 14.11 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP041.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406376m E: 296504m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

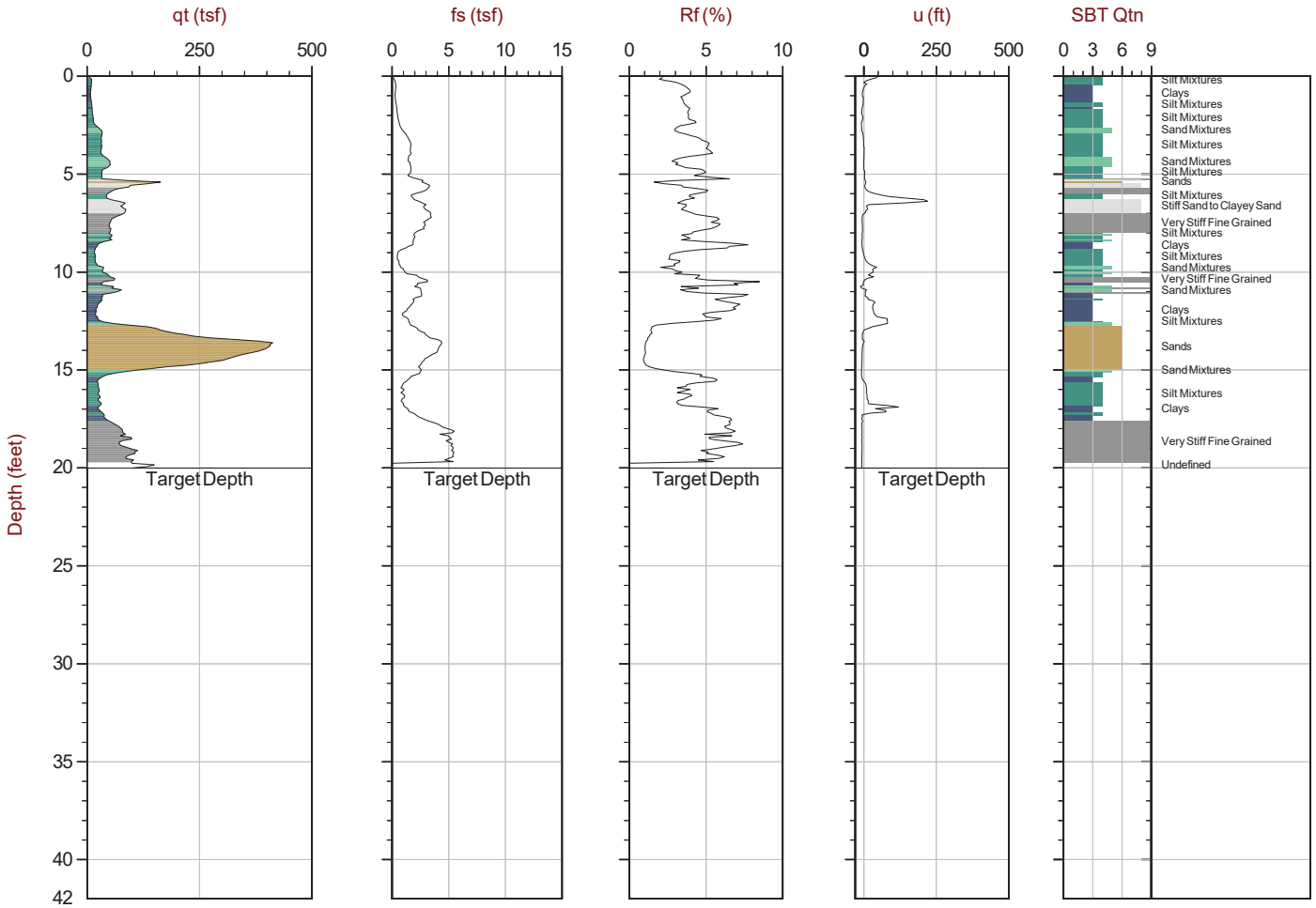
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 02:24
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-042
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP042.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405950m E: 296360m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

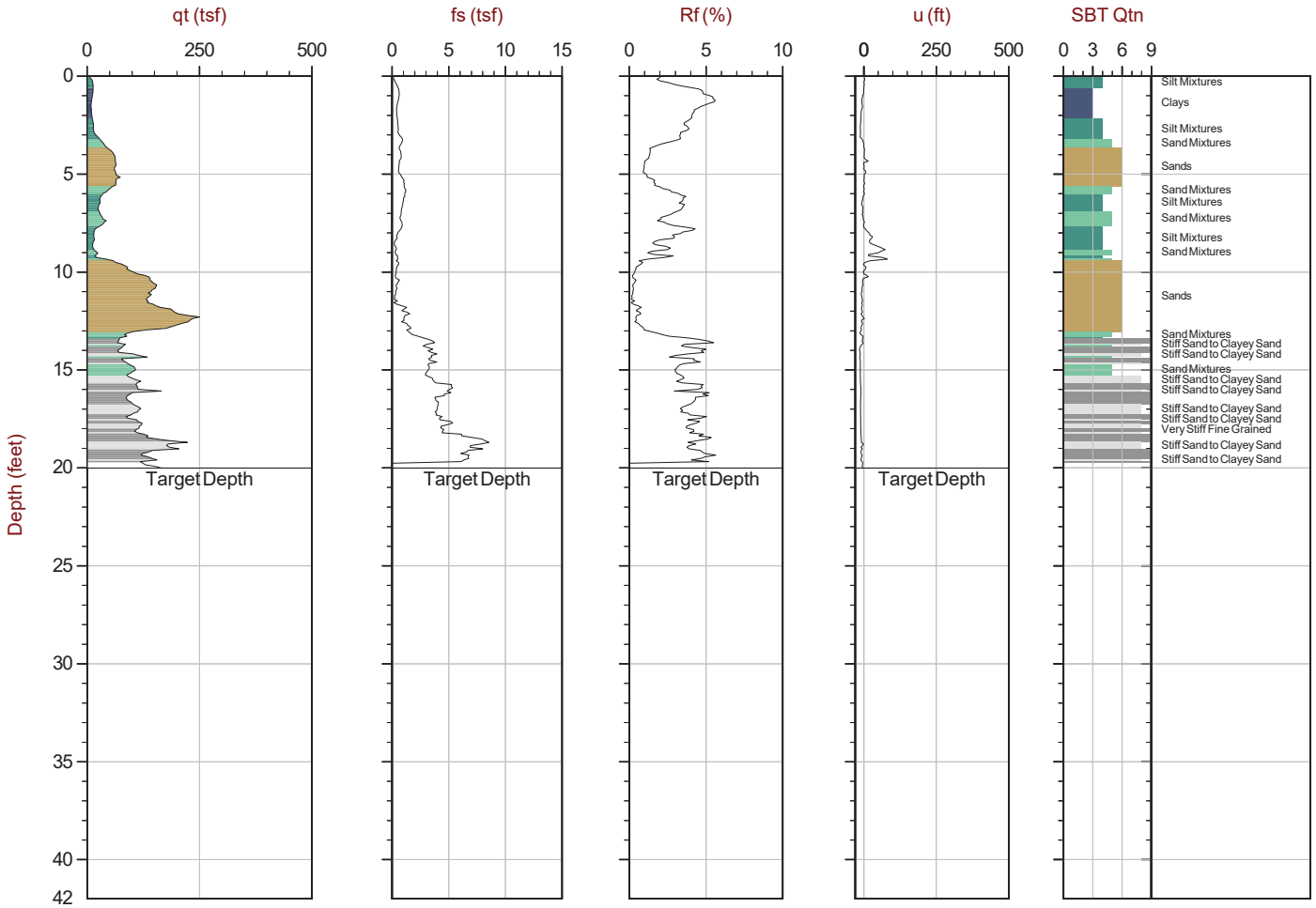
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 08:45
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-043
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP043.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406084m E: 296732m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

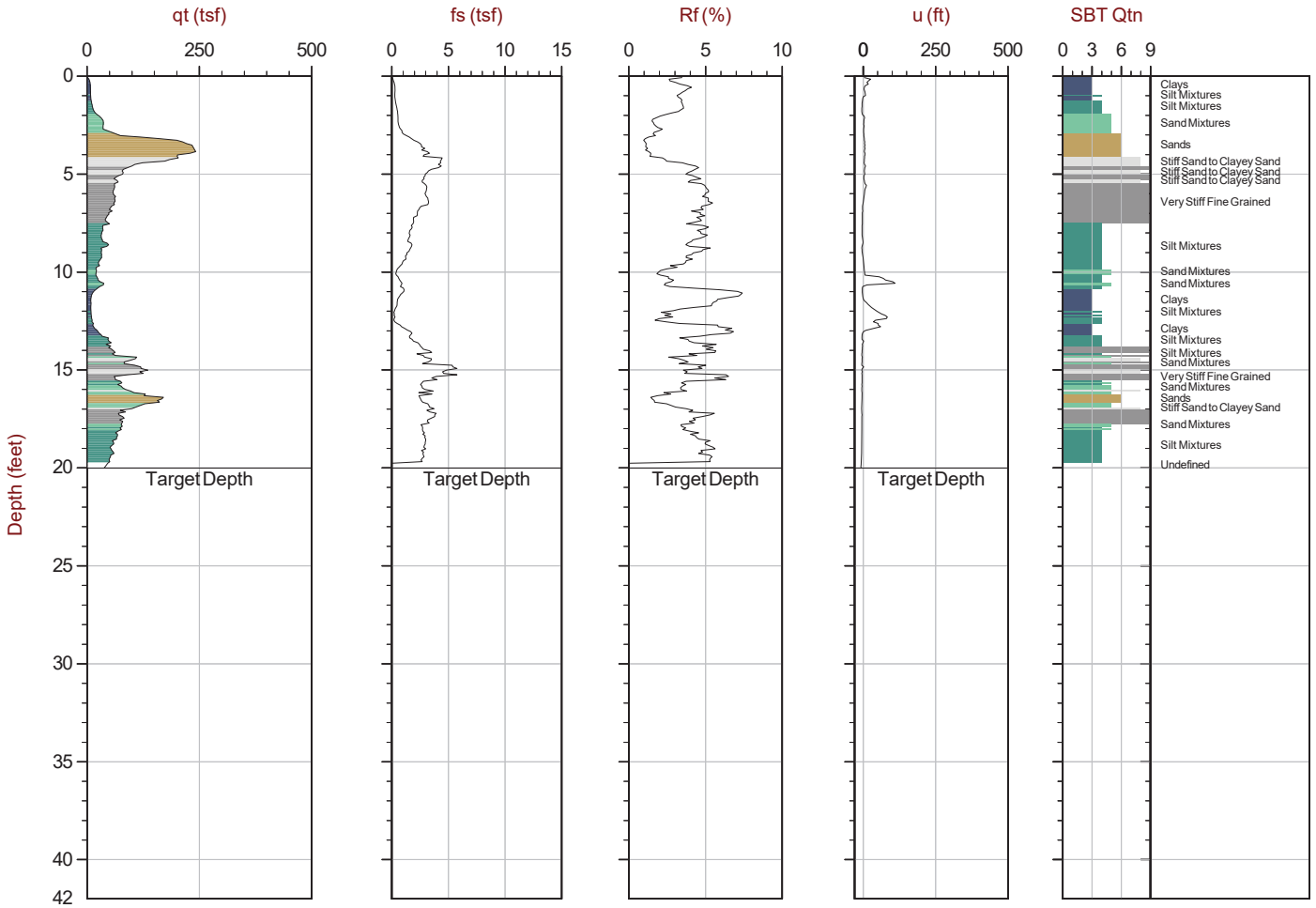
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 09:11
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-044
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP044.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405633m E: 296550m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

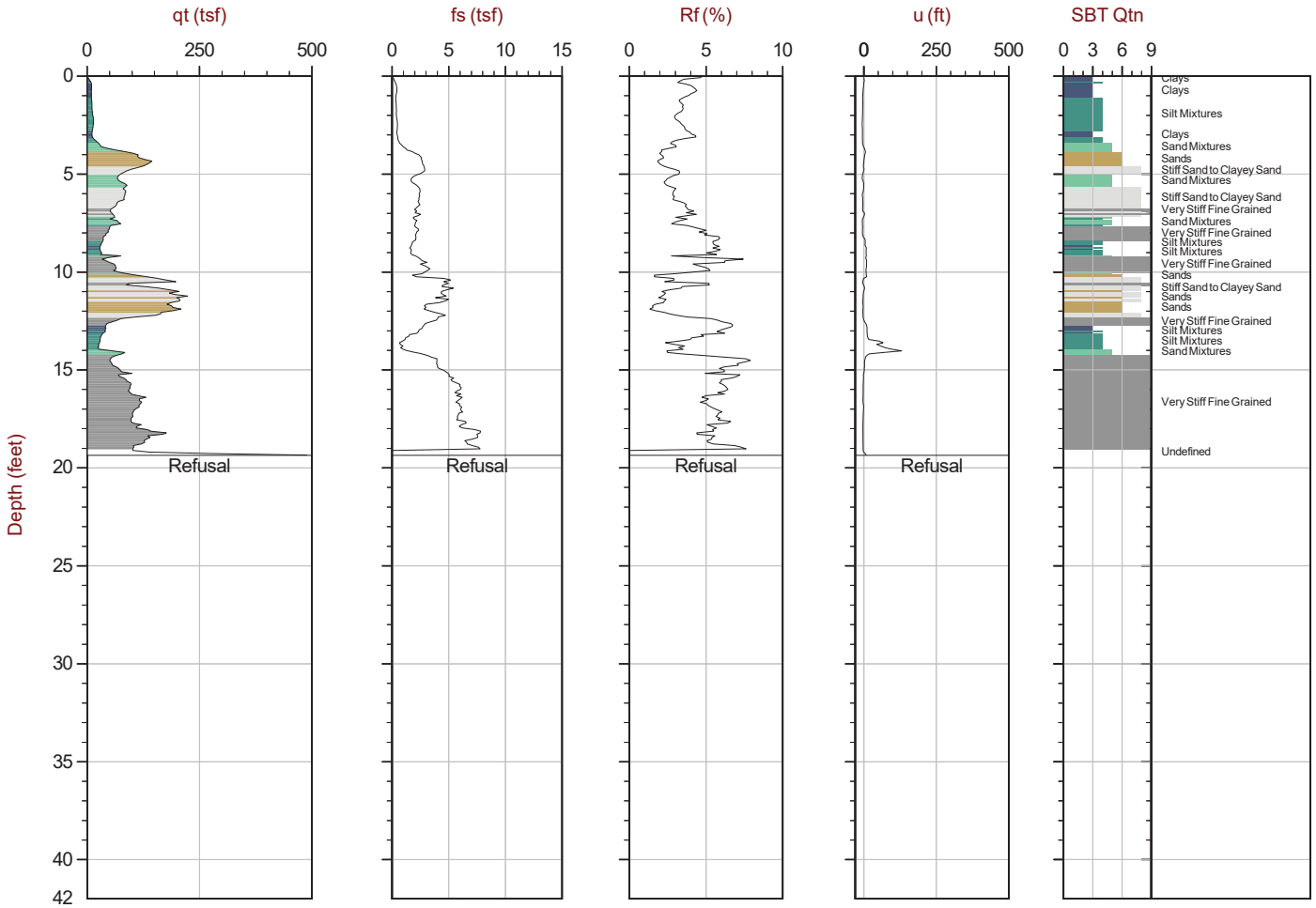
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 09:36
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-045
Cone: EC600



Max Depth: 5.900 m / 19.36 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP045.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405737m E: 296891m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

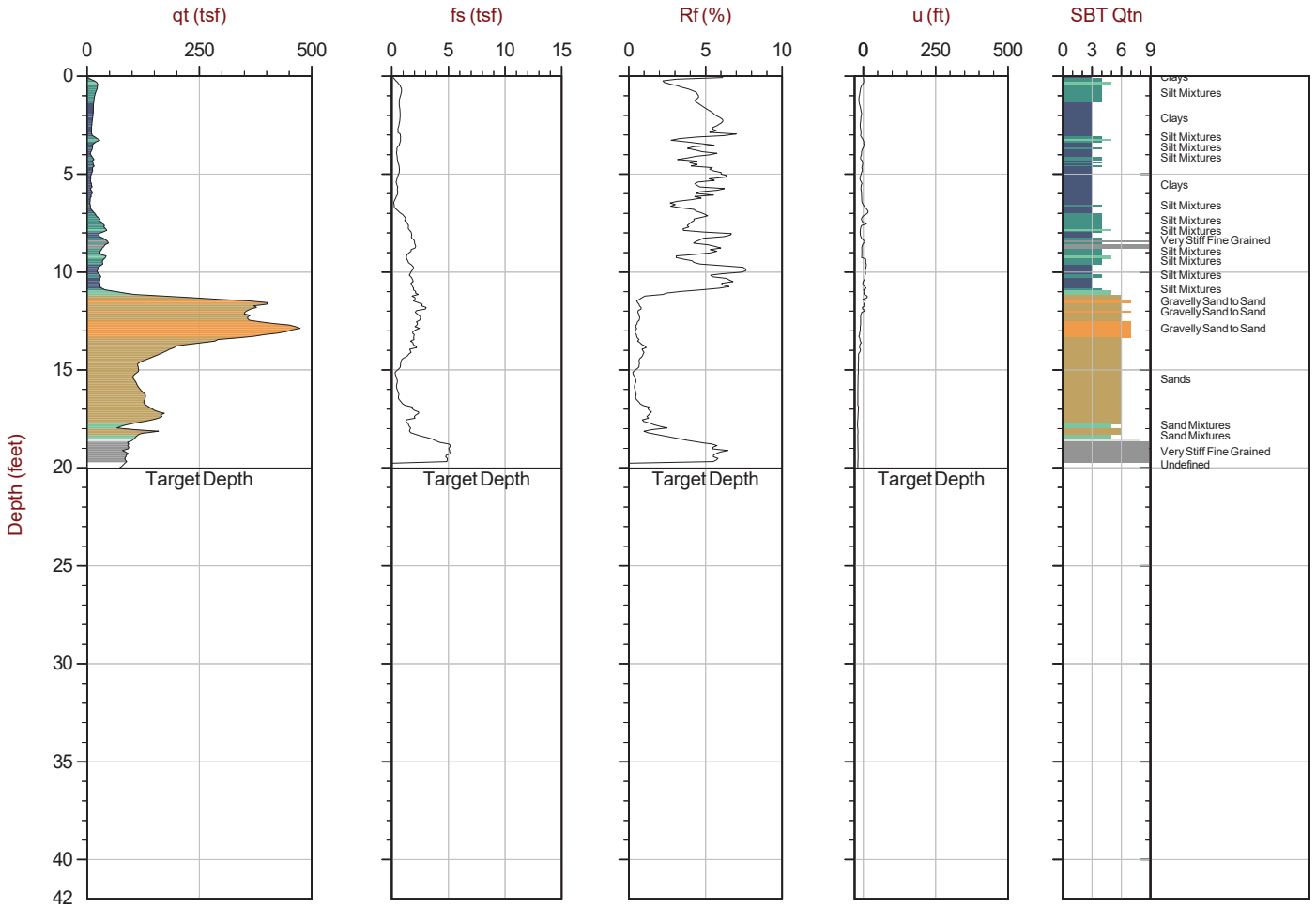
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 11:29
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-046
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP046.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407977m E: 299082m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

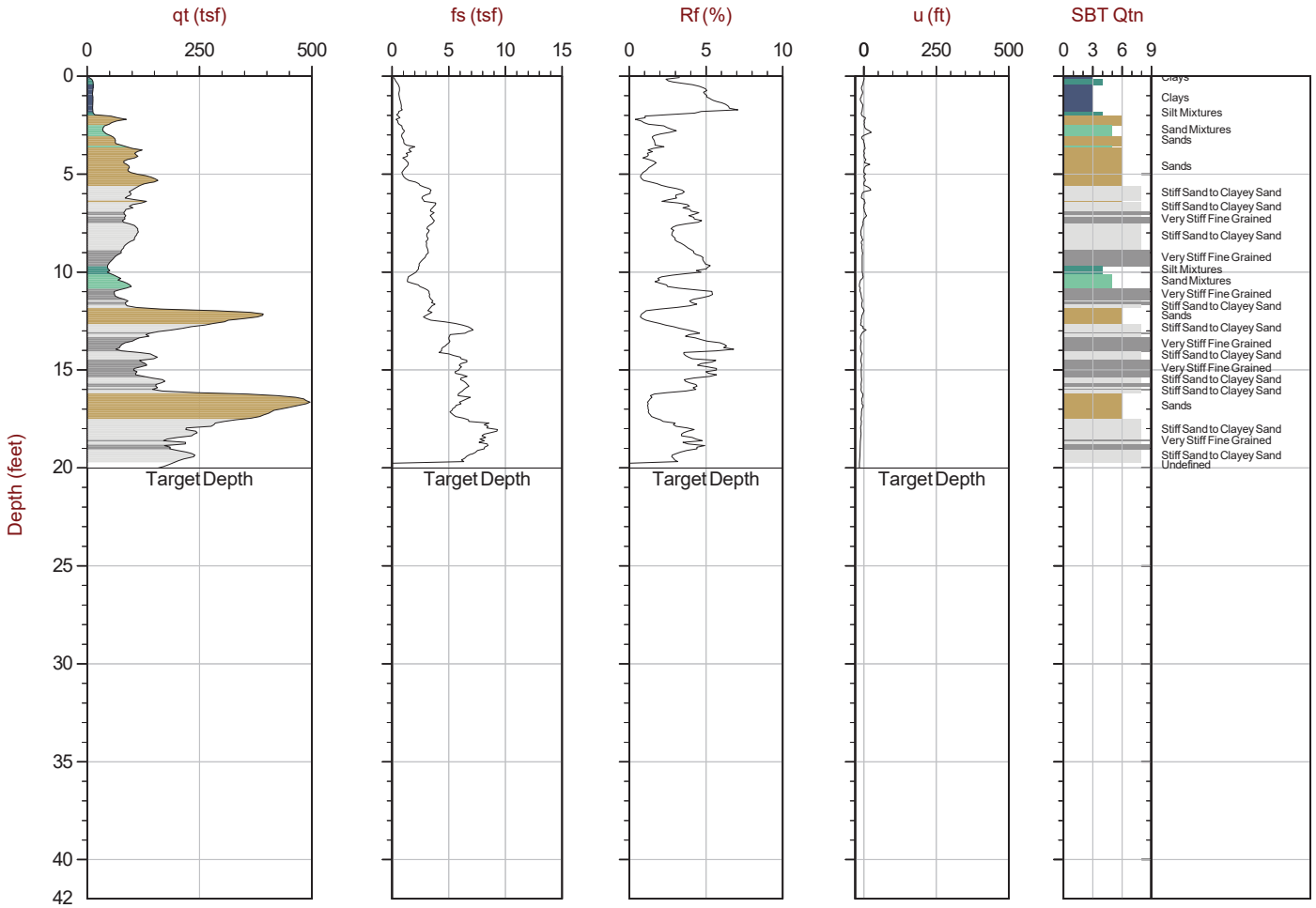
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 11:12
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-047
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP047.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407966m E: 299420m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

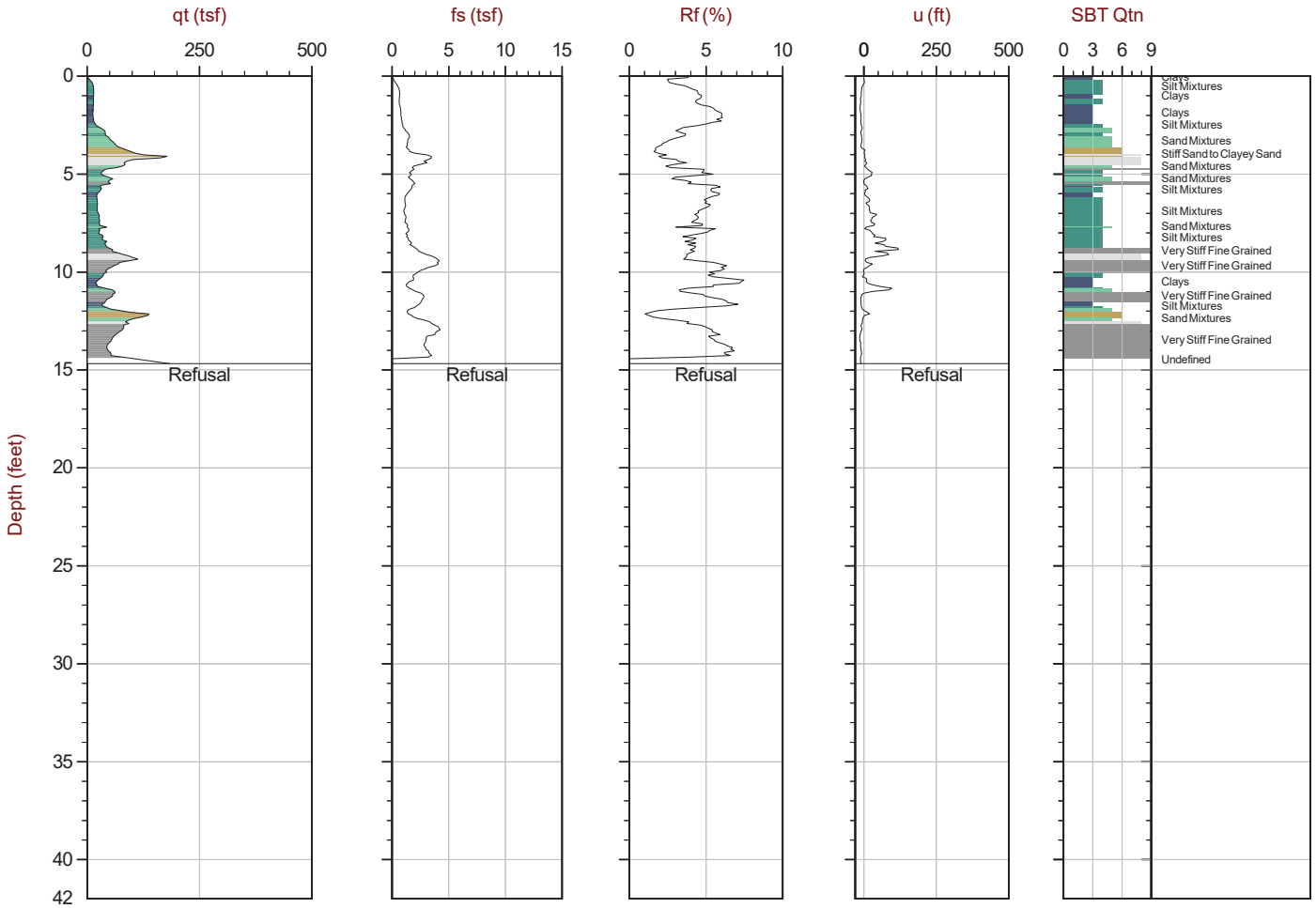
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 10:55
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-048
Cone: EC600



Max Depth: 4.475 m / 14.68 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP048.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407958m E: 299758m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

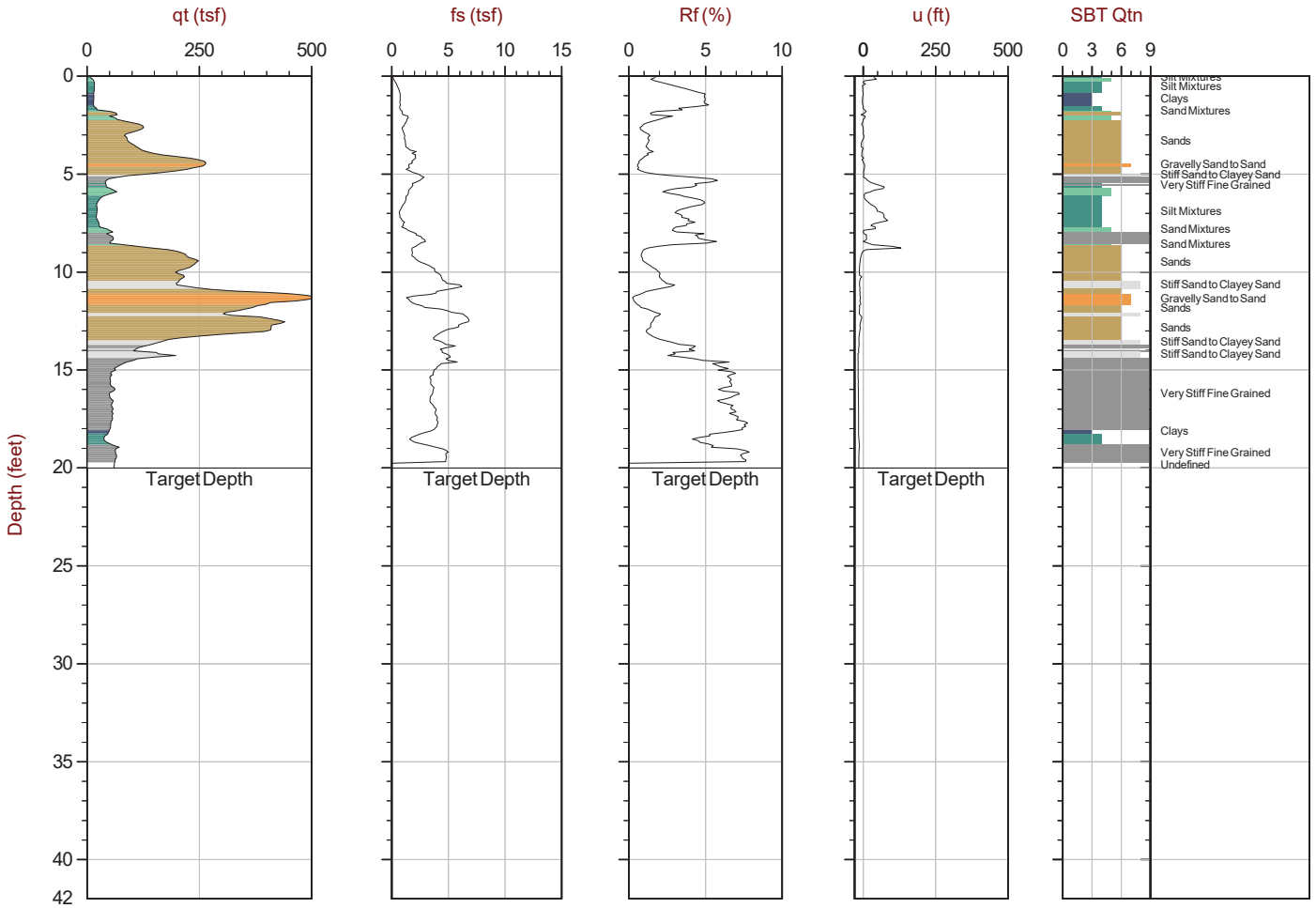
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 10:33
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-049
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP049.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407960m E: 300112m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

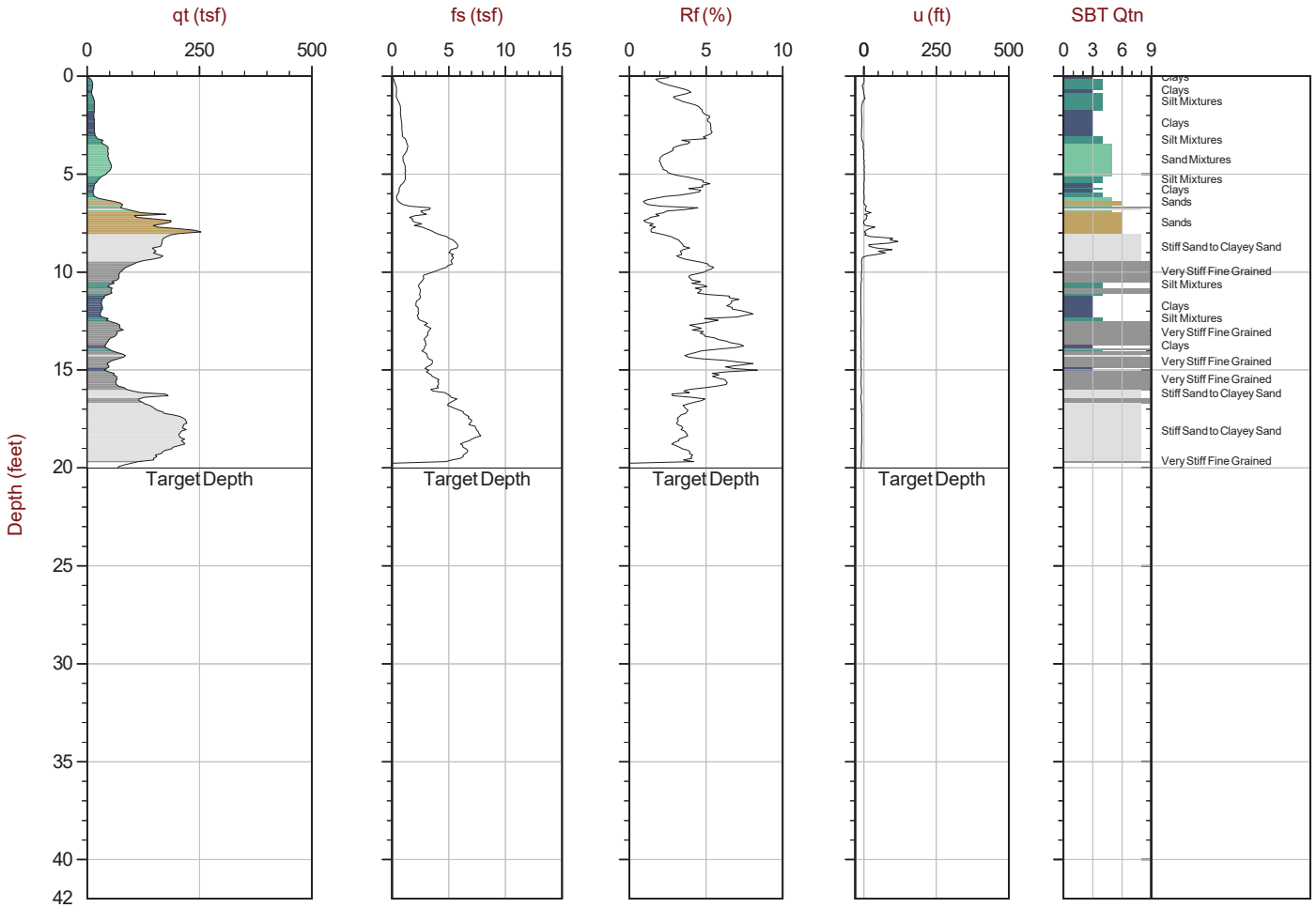
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 05:34
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-050
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP050.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407951m E: 300448m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

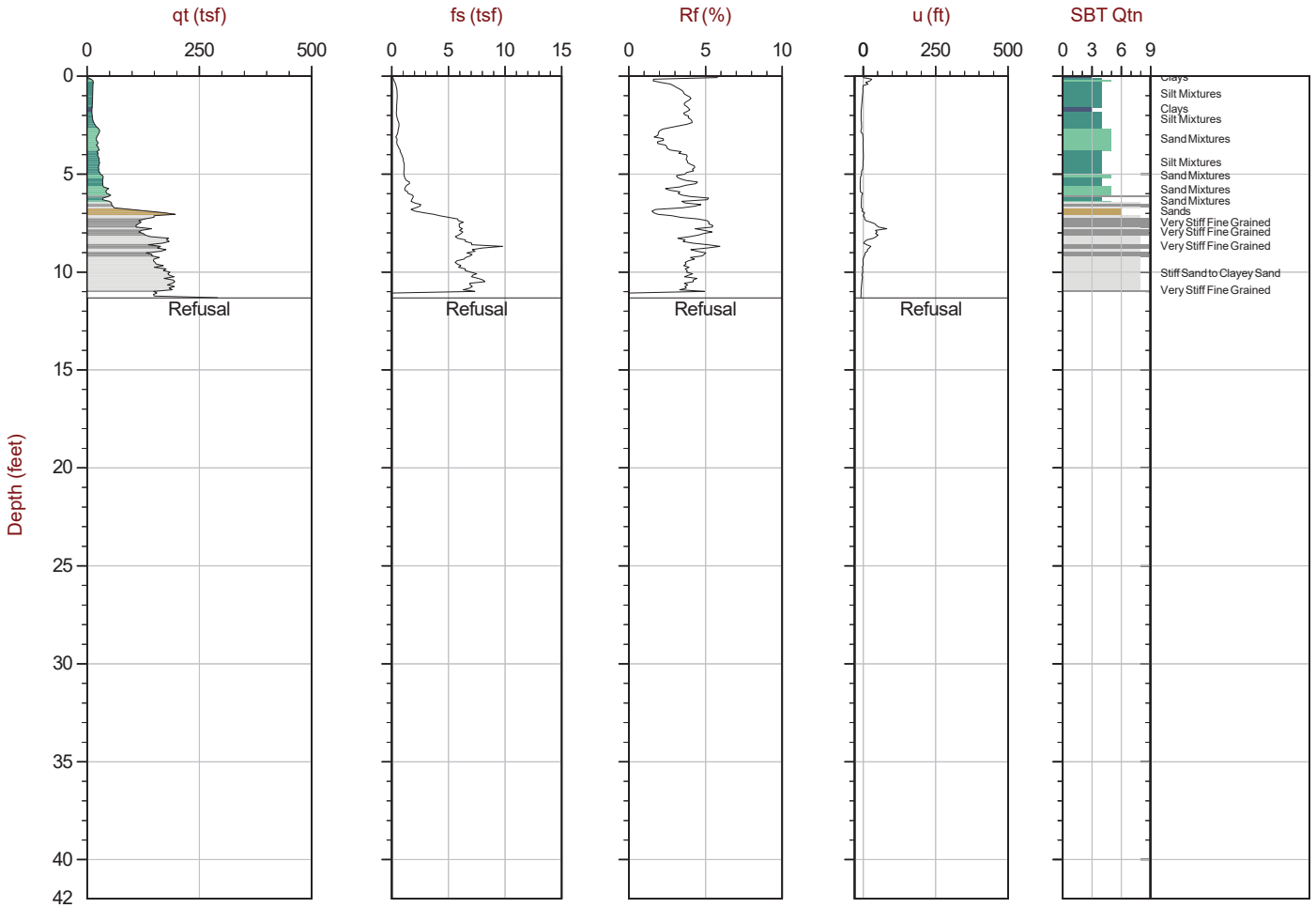
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 05:21
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-051
Cone: EC600



Max Depth: 3.450 m / 11.32 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP051.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407940m E: 300786m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

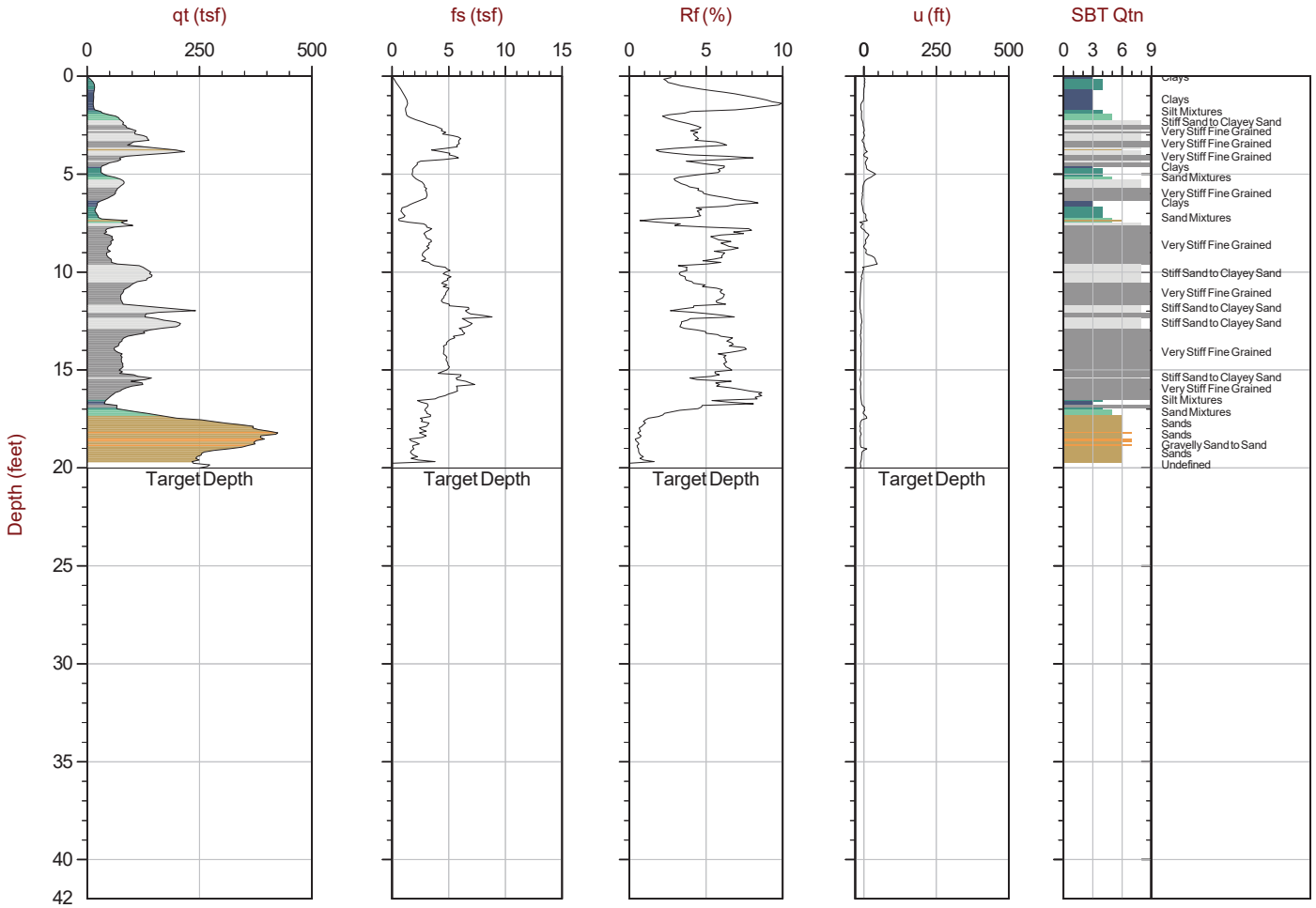
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 05:43
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-052A
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP052A.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407633m E: 299032m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

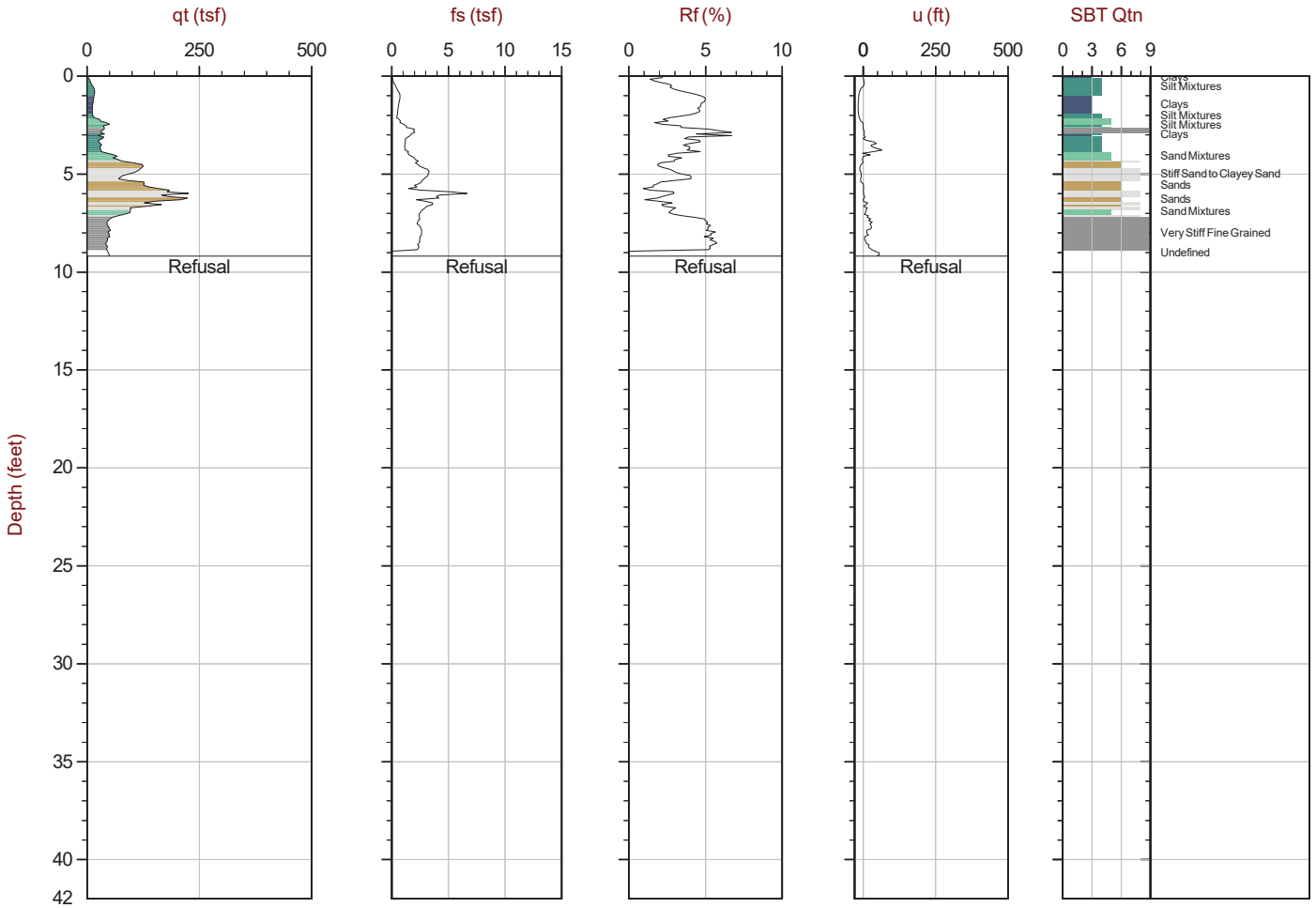
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 05:28
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-052
Cone: EC600



Max Depth: 2.800 m / 9.19 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP052.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407632m E: 299034m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

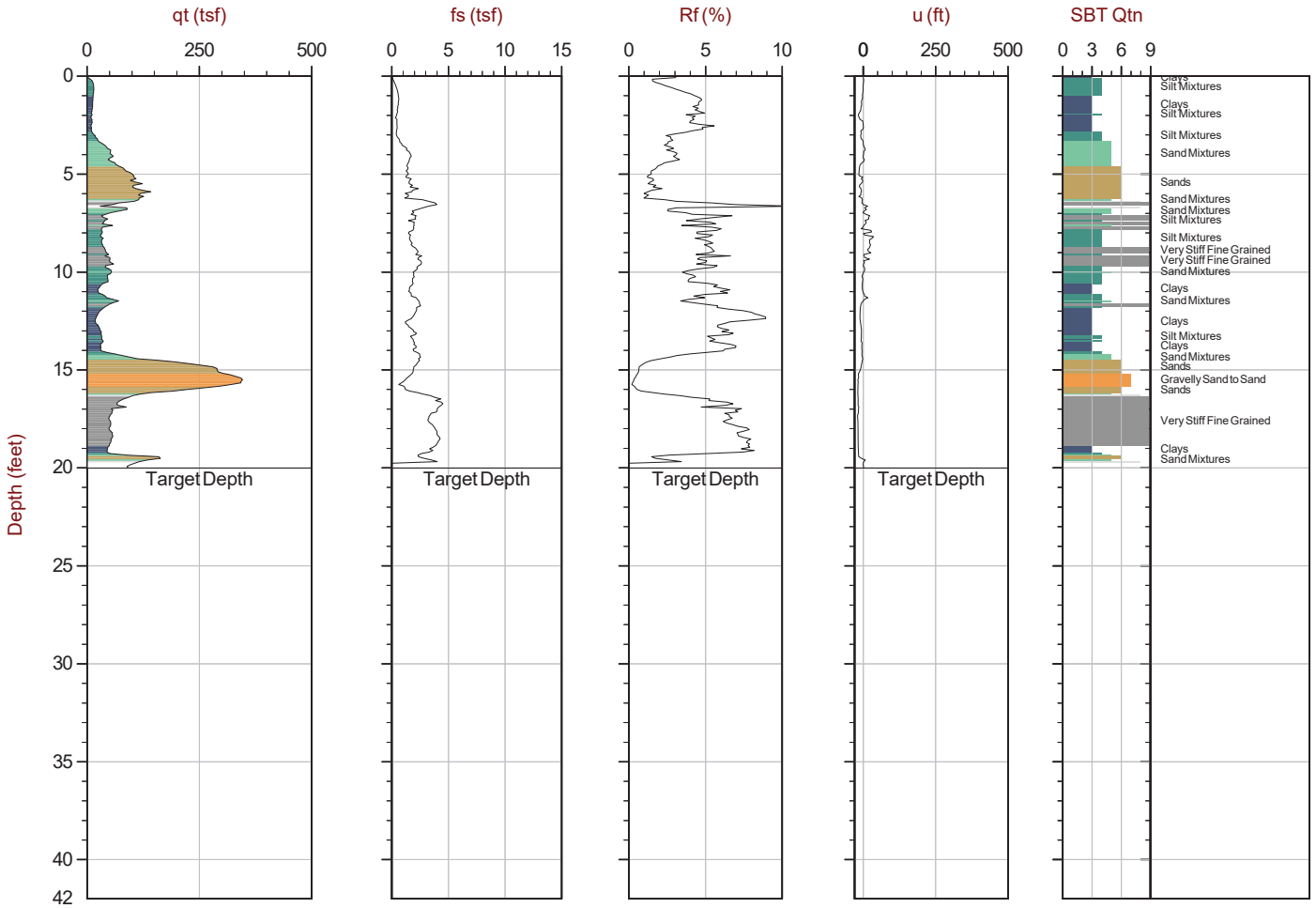
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 05:10
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-053
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP053.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407615m E: 299392m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

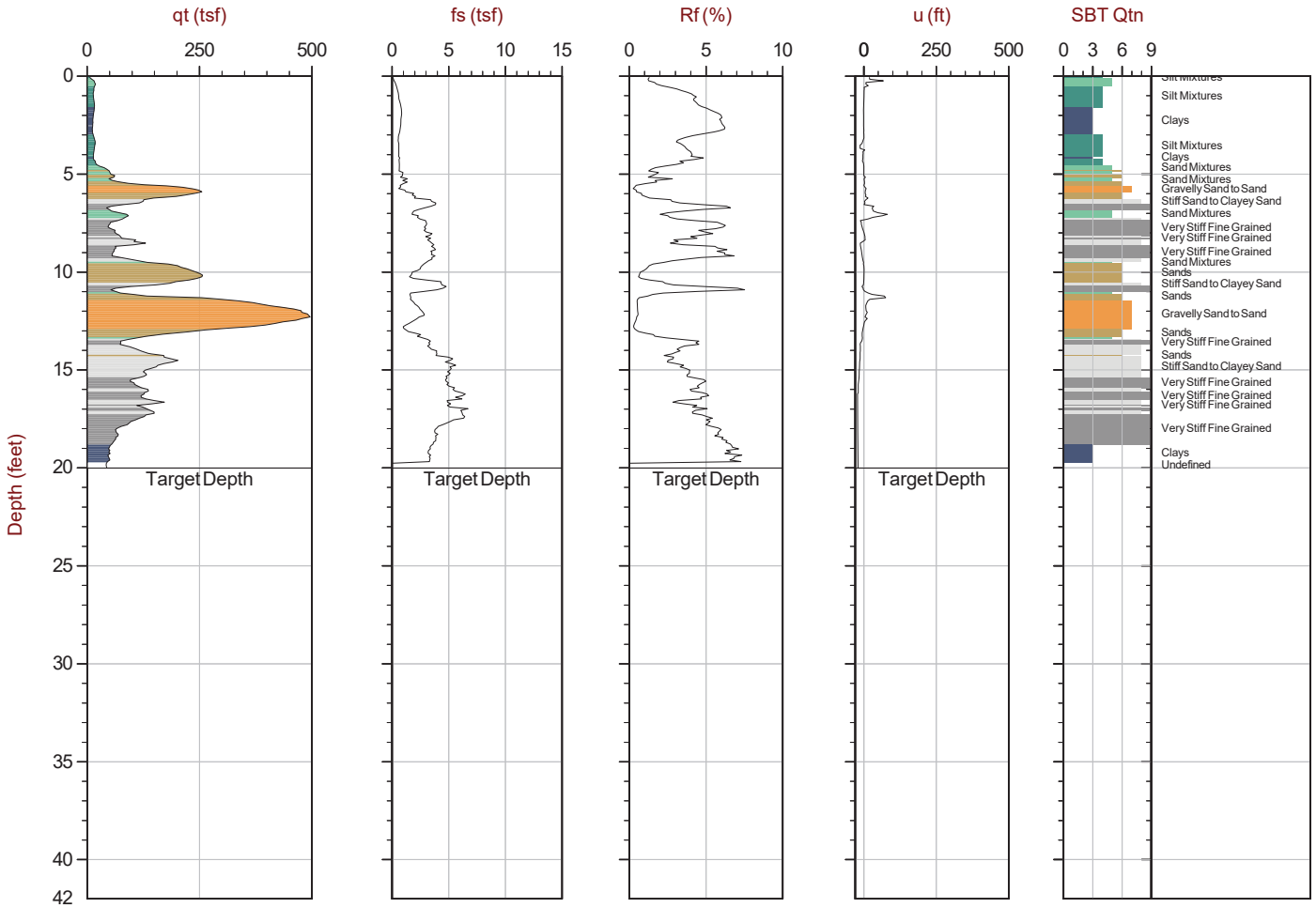
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 04:52
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-054
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP054.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407615m E: 299749m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

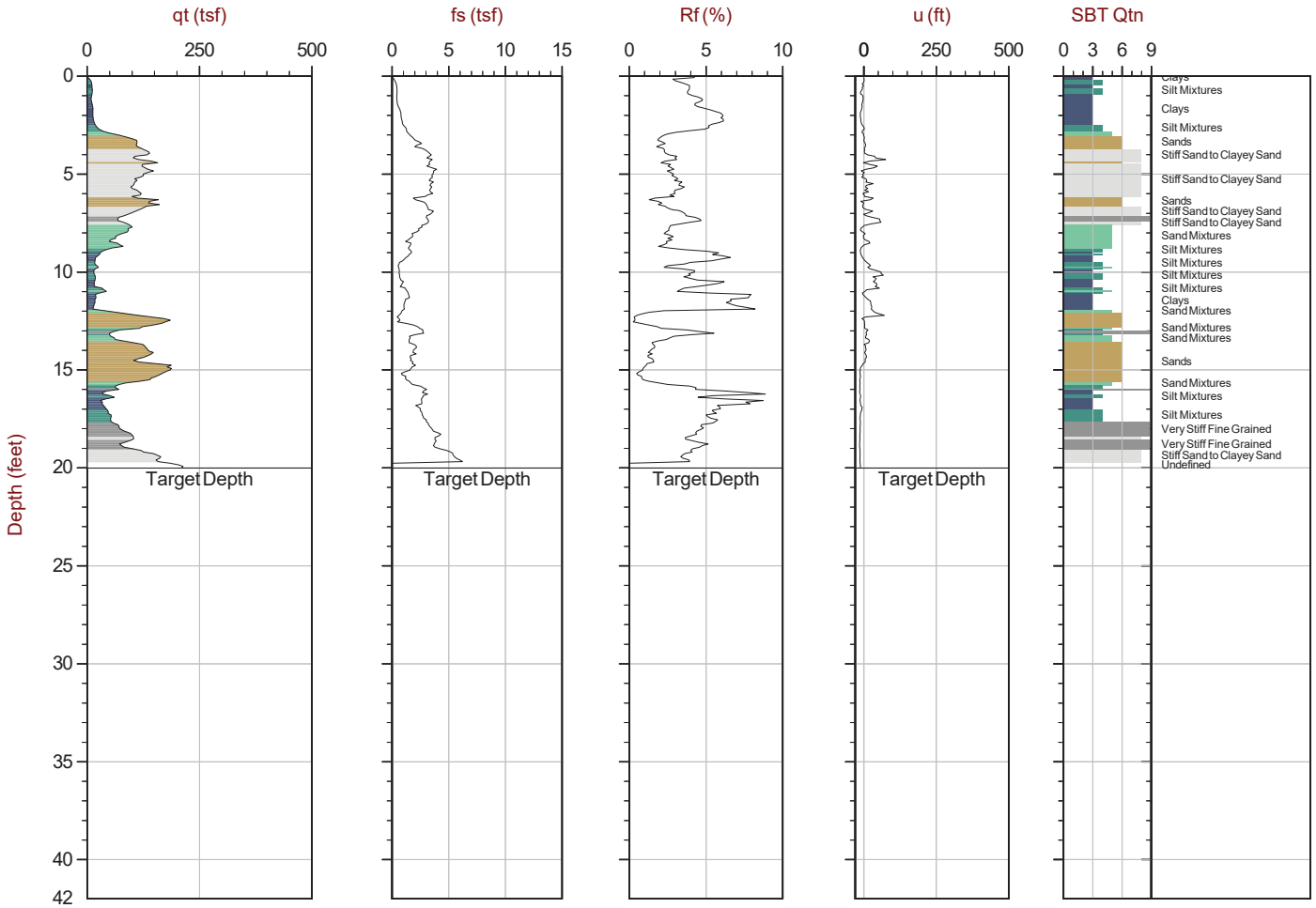
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 10:14
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-055
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP055.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407603m E: 300133m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

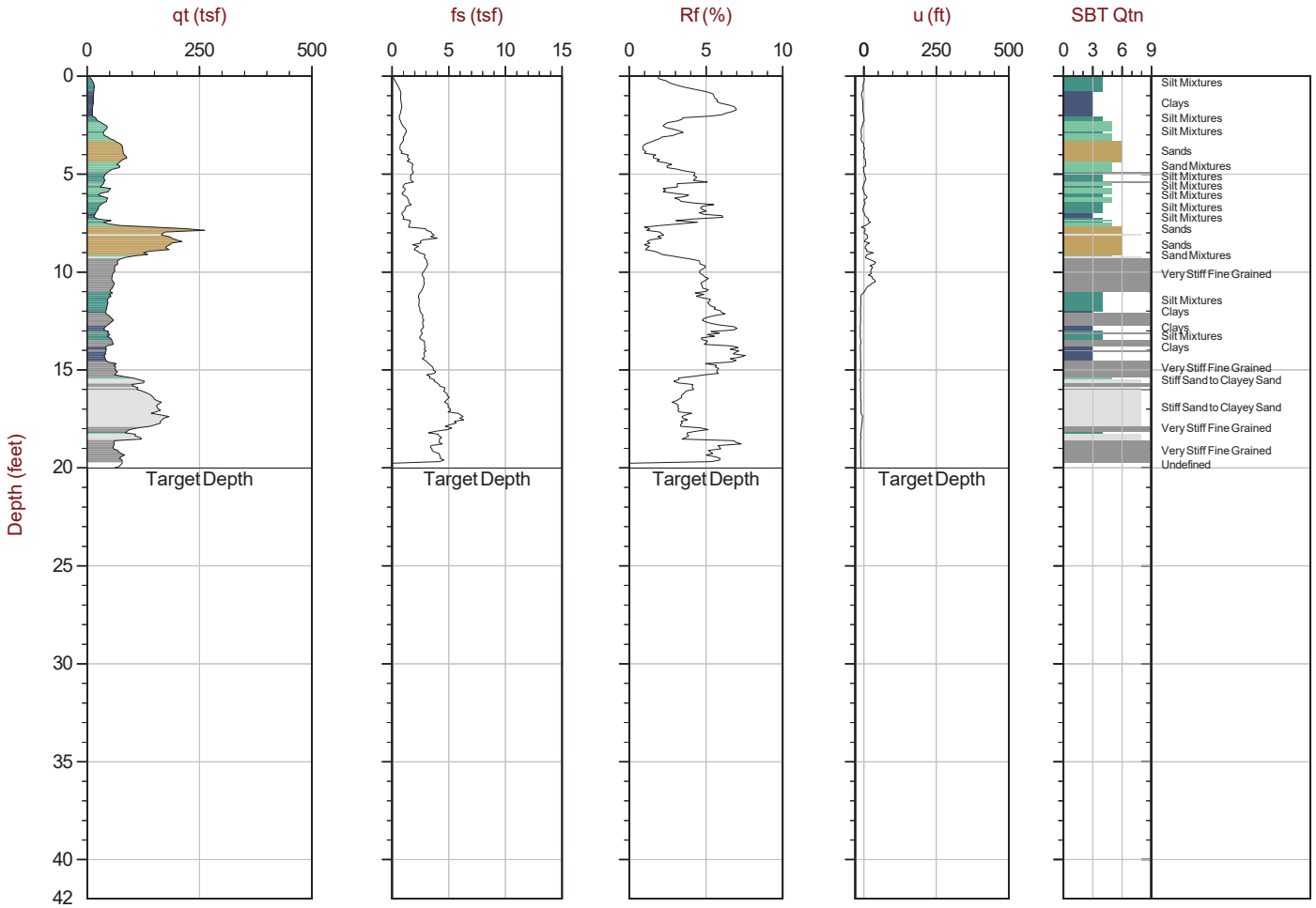
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 04:44
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-056
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP056.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407585m E: 300488m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

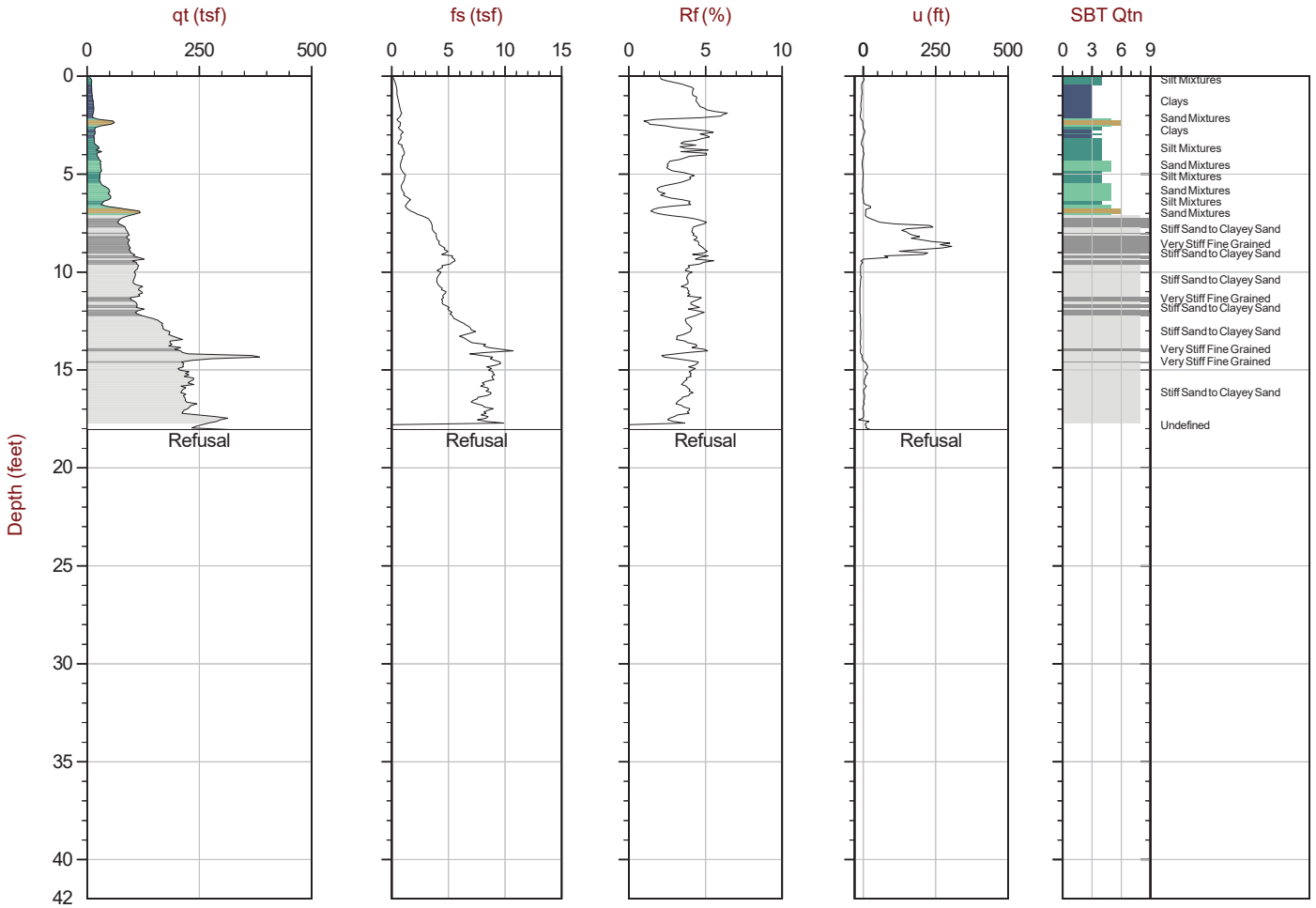
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 05:02
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-057
Cone: EC600



Max Depth: 5.500 m / 18.04 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP057.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407578m E: 300851m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

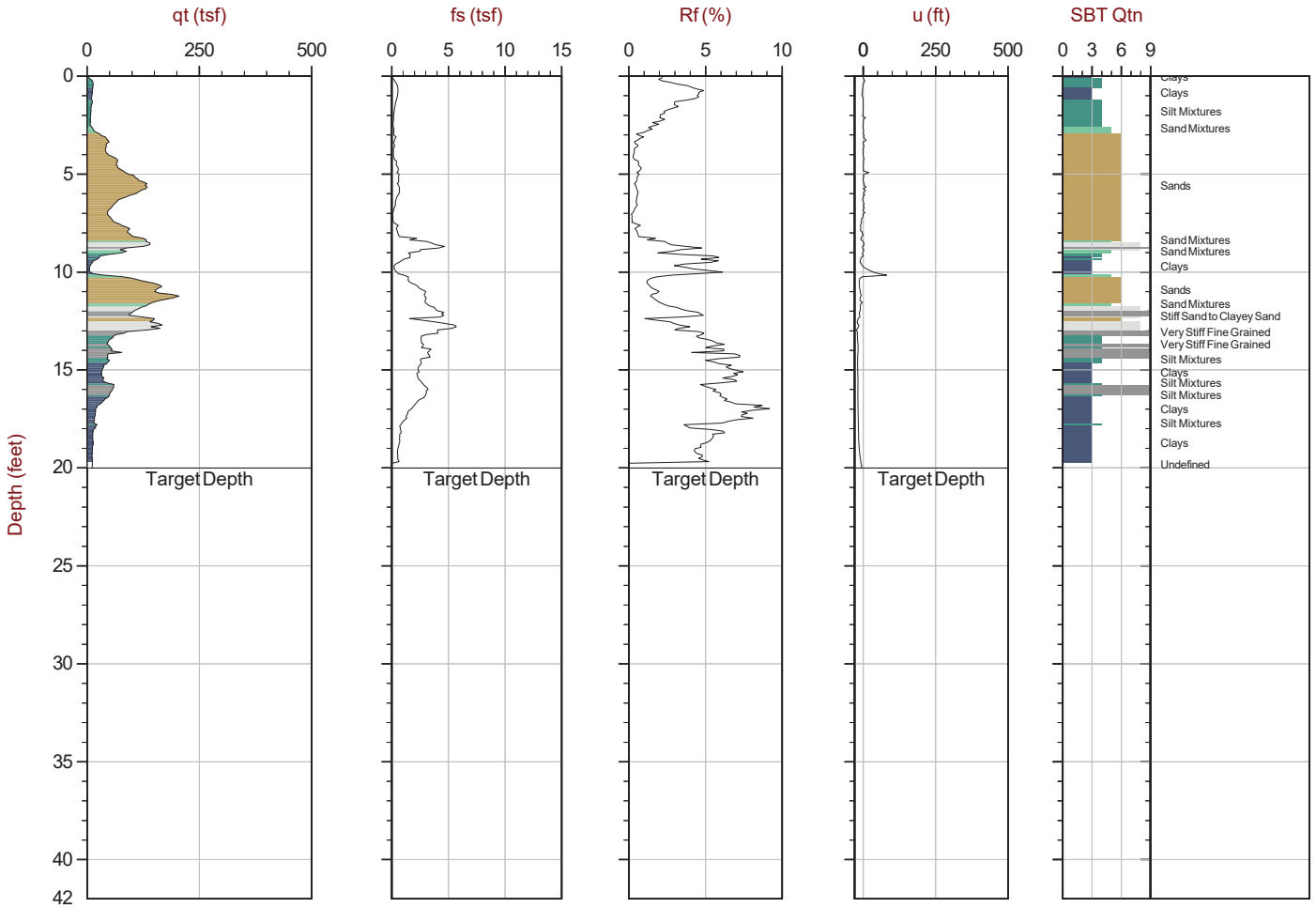
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 03:55
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-058
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP058.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407286m E: 298883m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

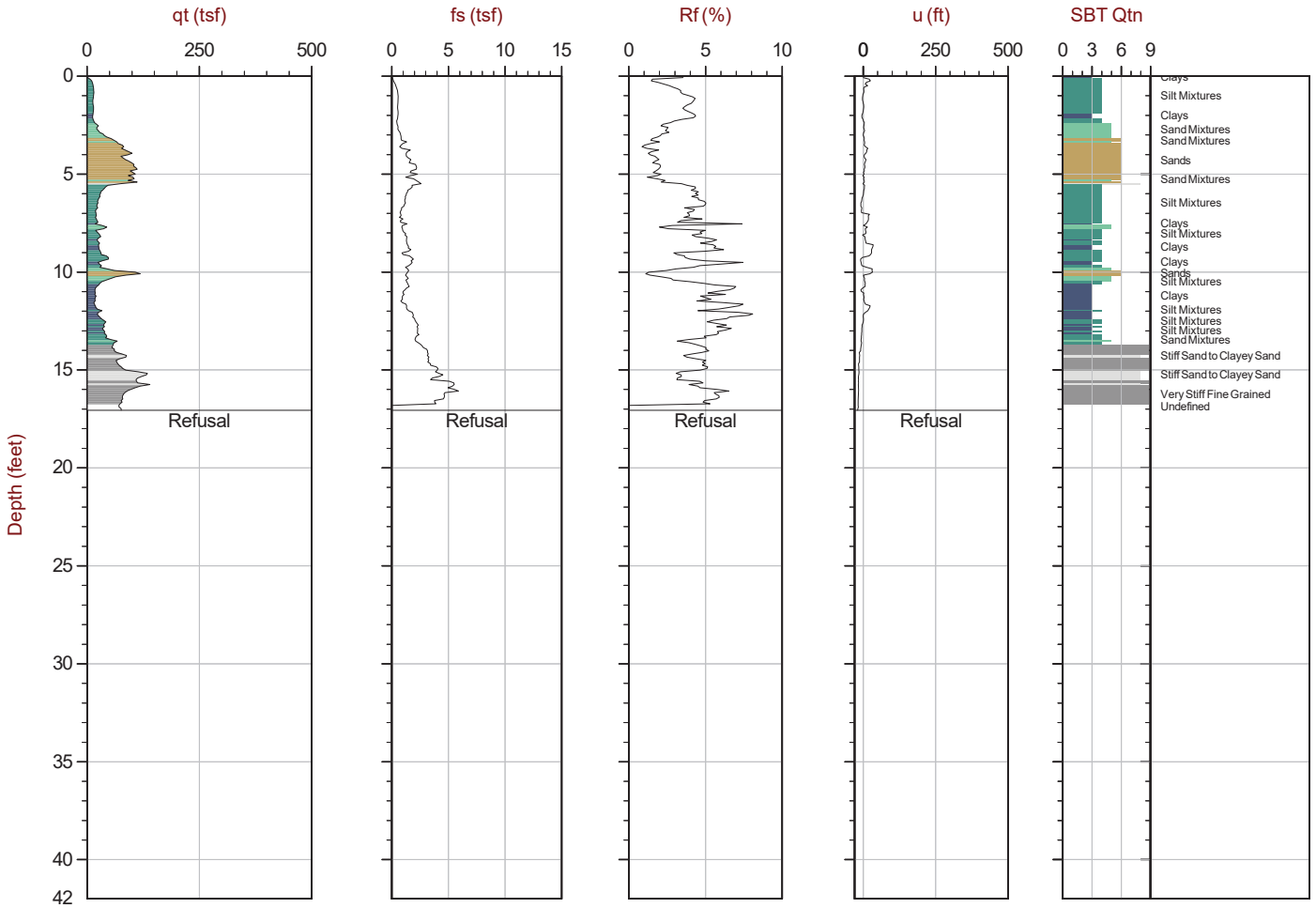
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 04:12
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-059
Cone: EC600



Max Depth: 5.200 m / 17.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP059.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407281m E: 299233m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

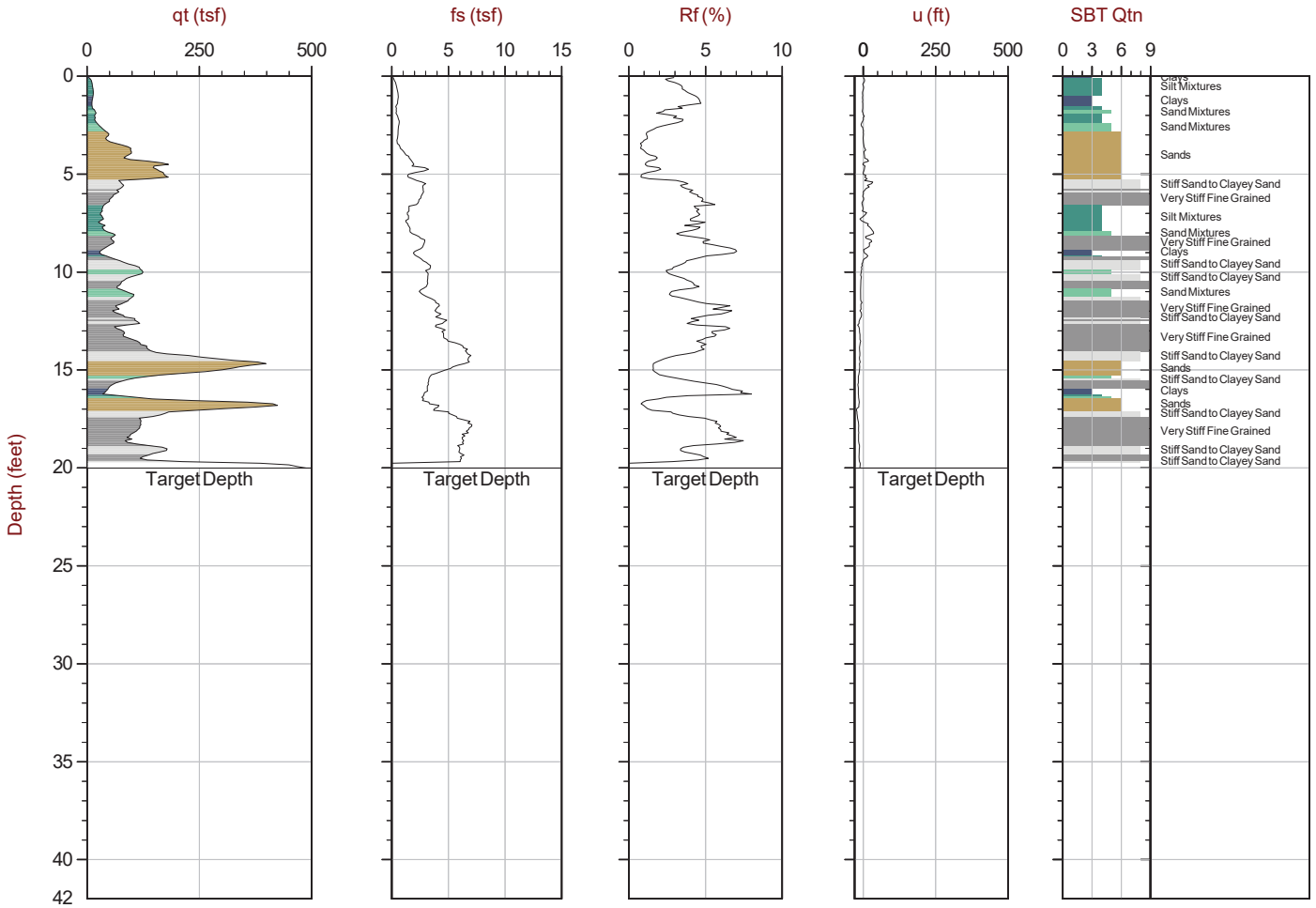
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 04:35
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-060
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP060.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407254m E: 299586m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

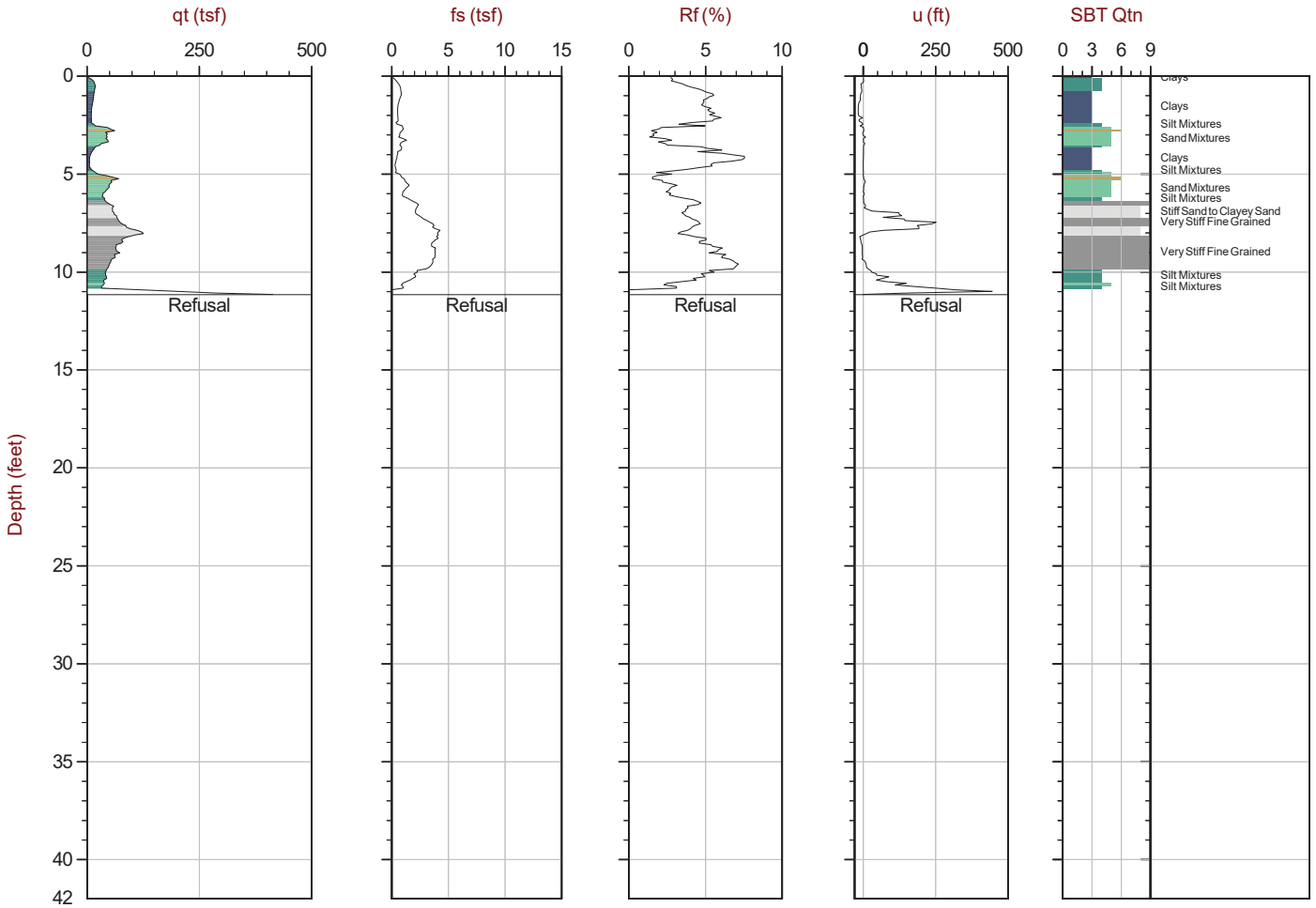
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 09:59
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-061
Cone: EC600



Max Depth: 3.400 m / 11.15 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP061.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407250m E: 299925m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

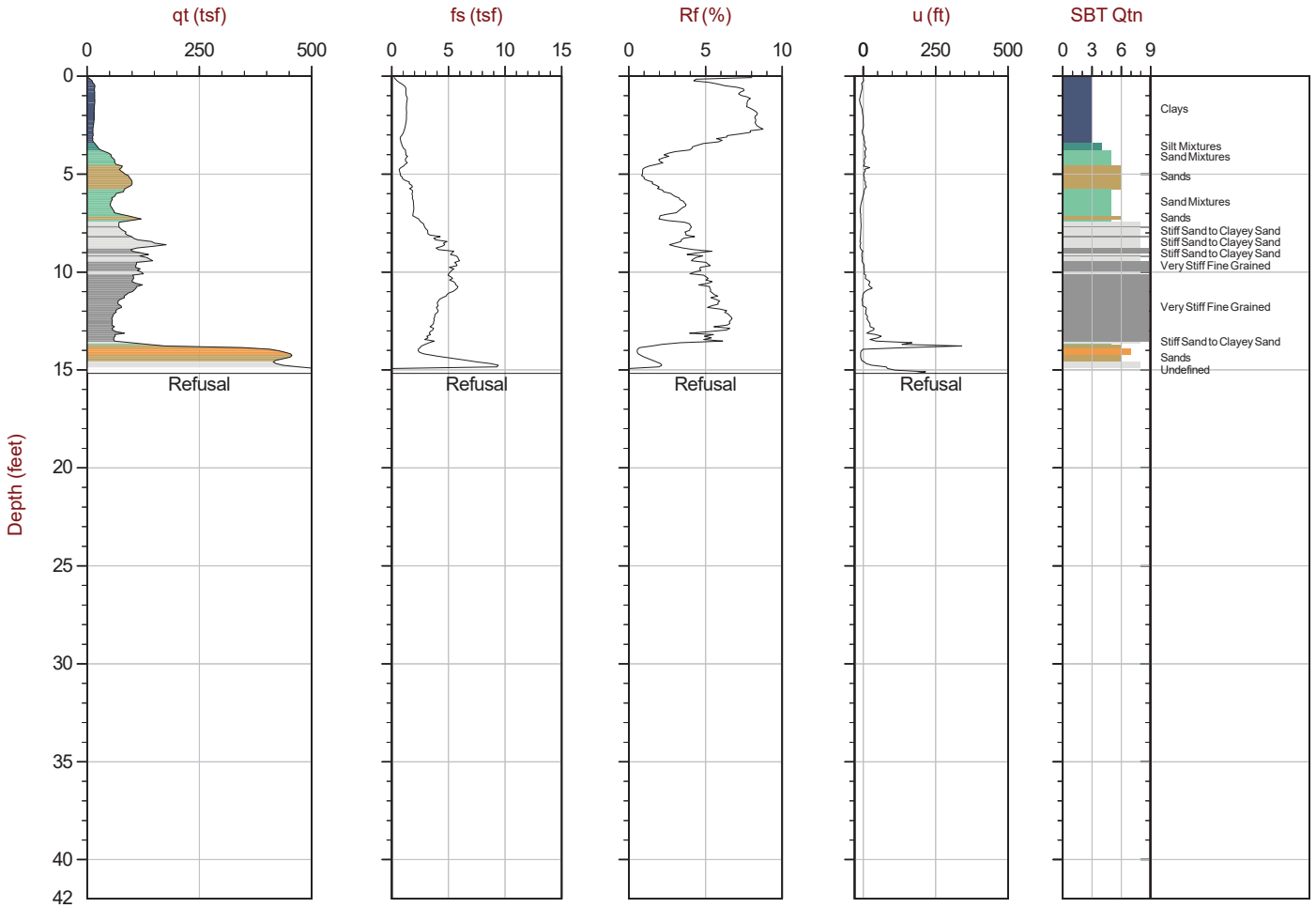
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 04:18
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-062
Cone: EC600



Max Depth: 4.625 m / 15.17 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP062.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407261m E: 300281m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

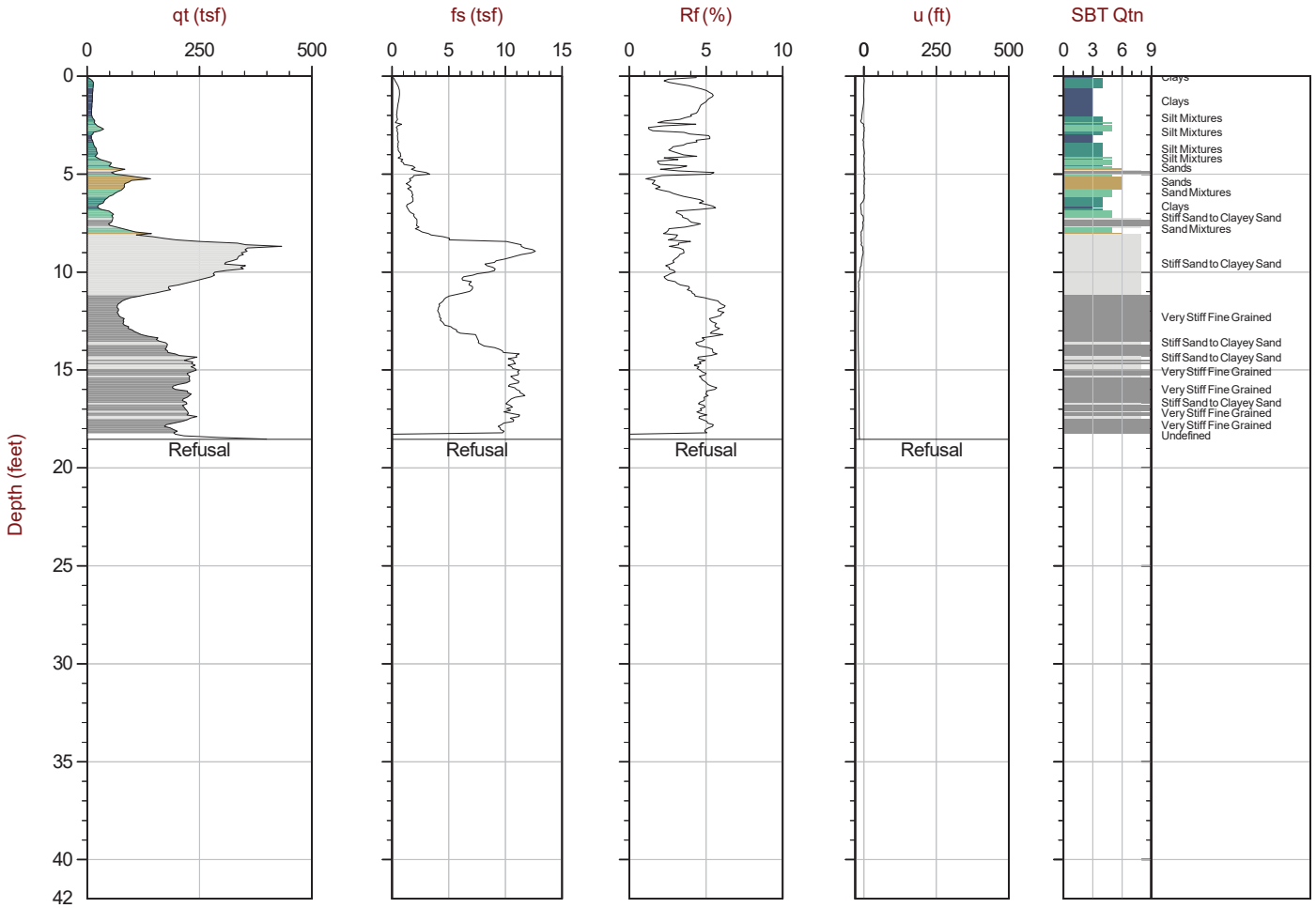
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 03:57
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-063
Cone: EC600



Max Depth: 5.650 m / 18.54 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP063.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407240m E: 300637m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

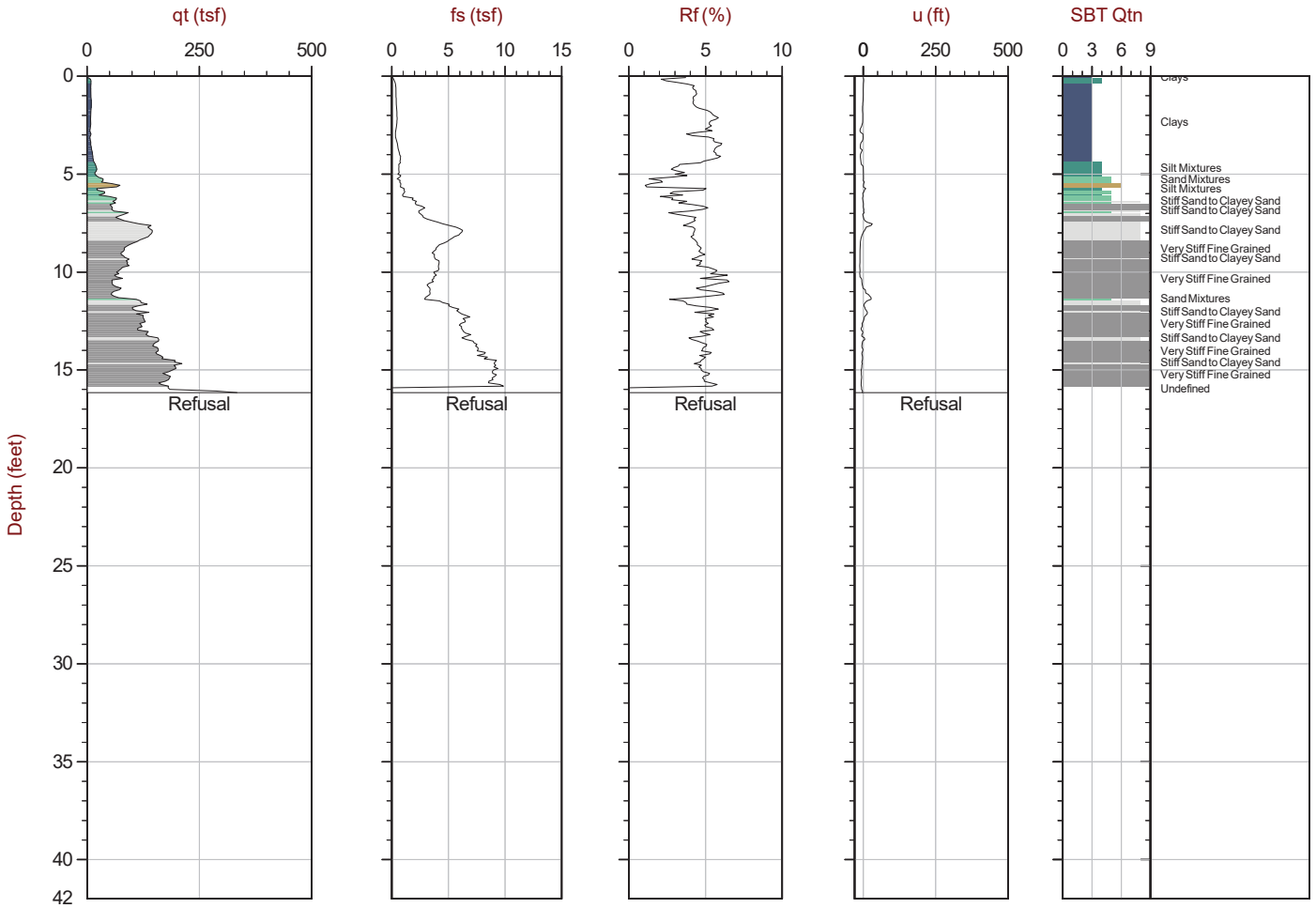
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 03:39
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-064
Cone: EC600



Max Depth: 4.925 m / 16.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP064.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407227m E: 300977m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

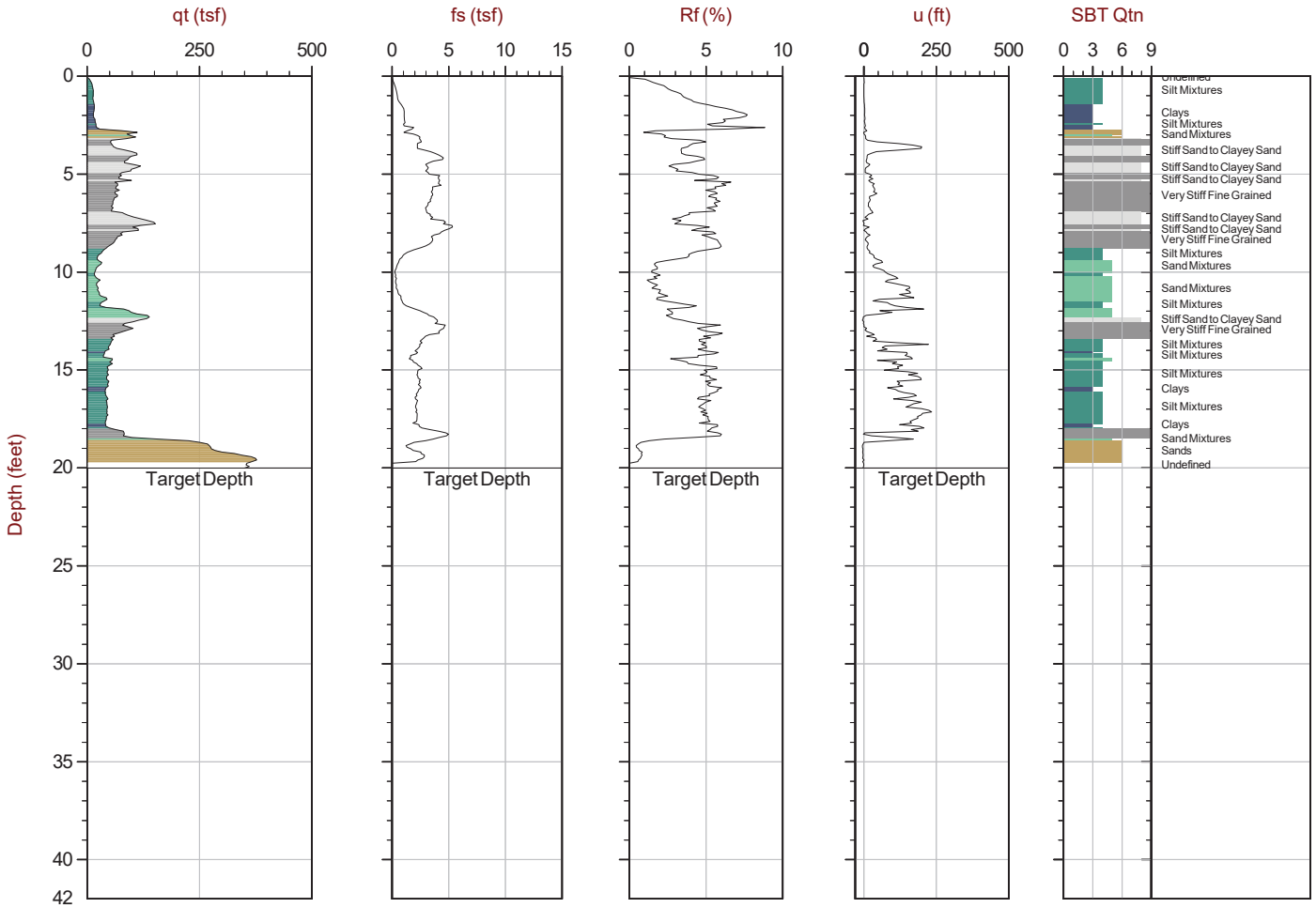
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 03:43
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-065A
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP065A.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406936m E: 298801m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

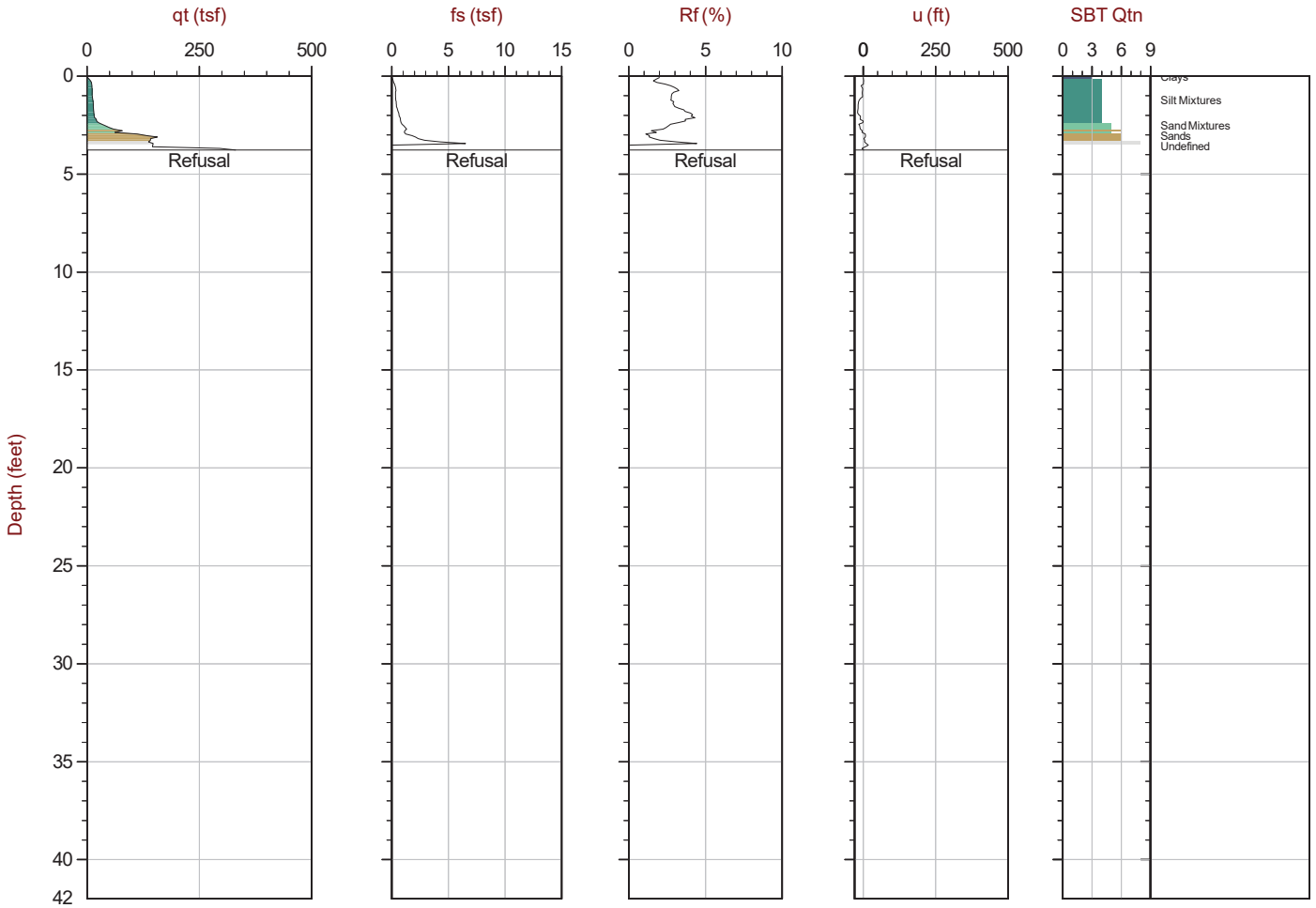
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 03:27
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-065
Cone: EC600



Max Depth: 1.150 m / 3.77 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP065.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406927m E: 298803m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

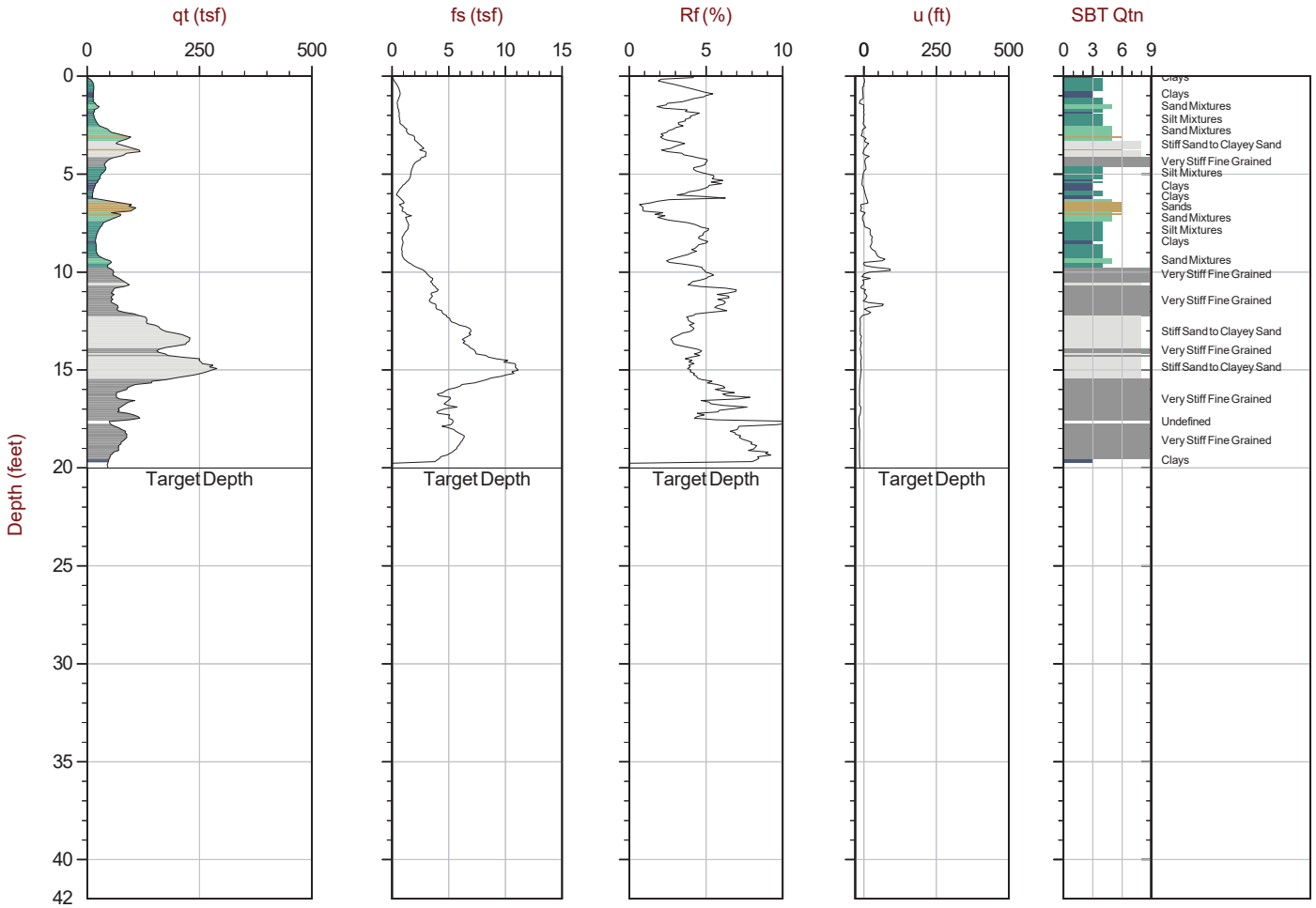
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 03:08
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-066
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP066.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406916m E: 299154m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

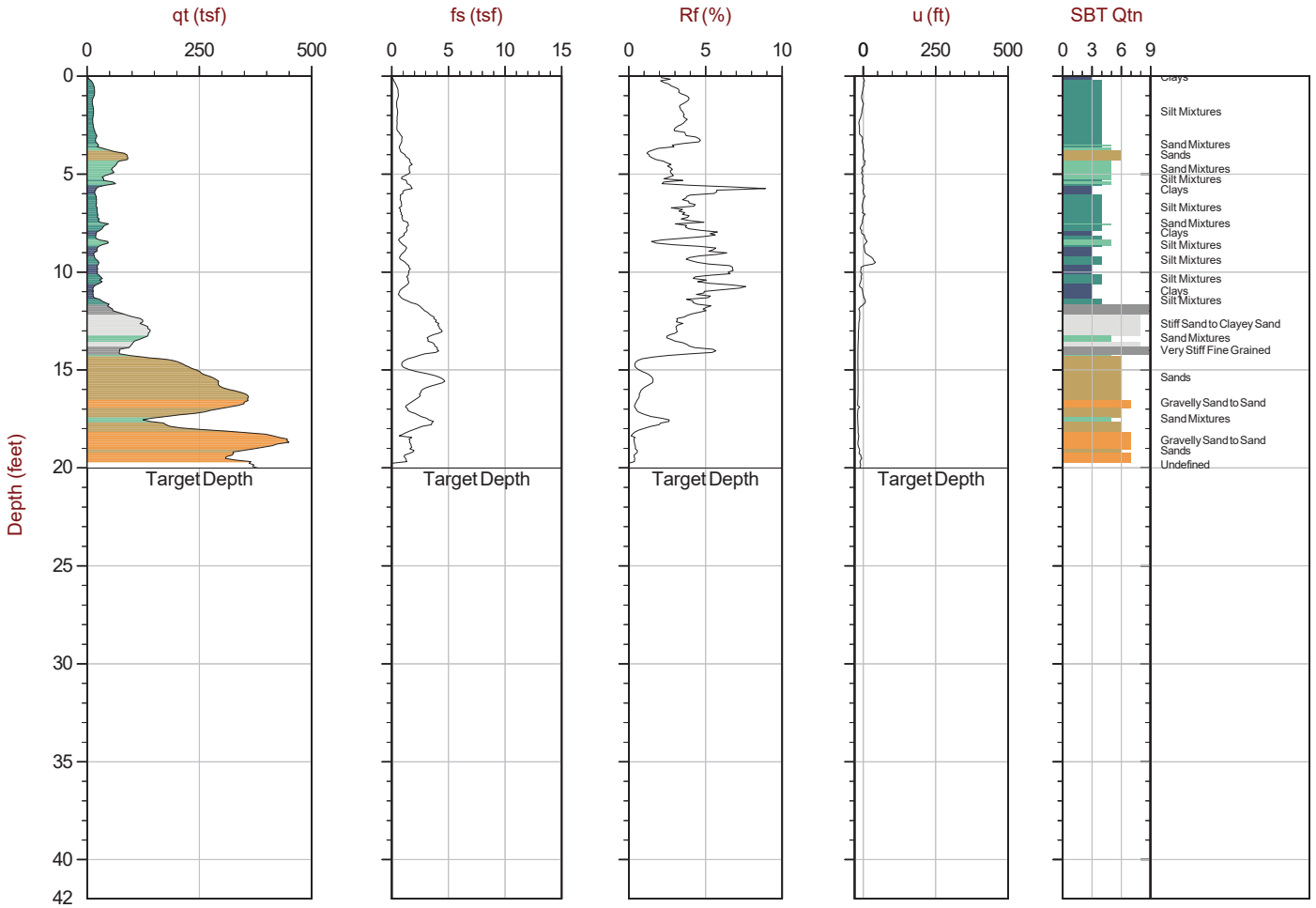
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 02:48
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-067
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP067.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406911m E: 299511m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

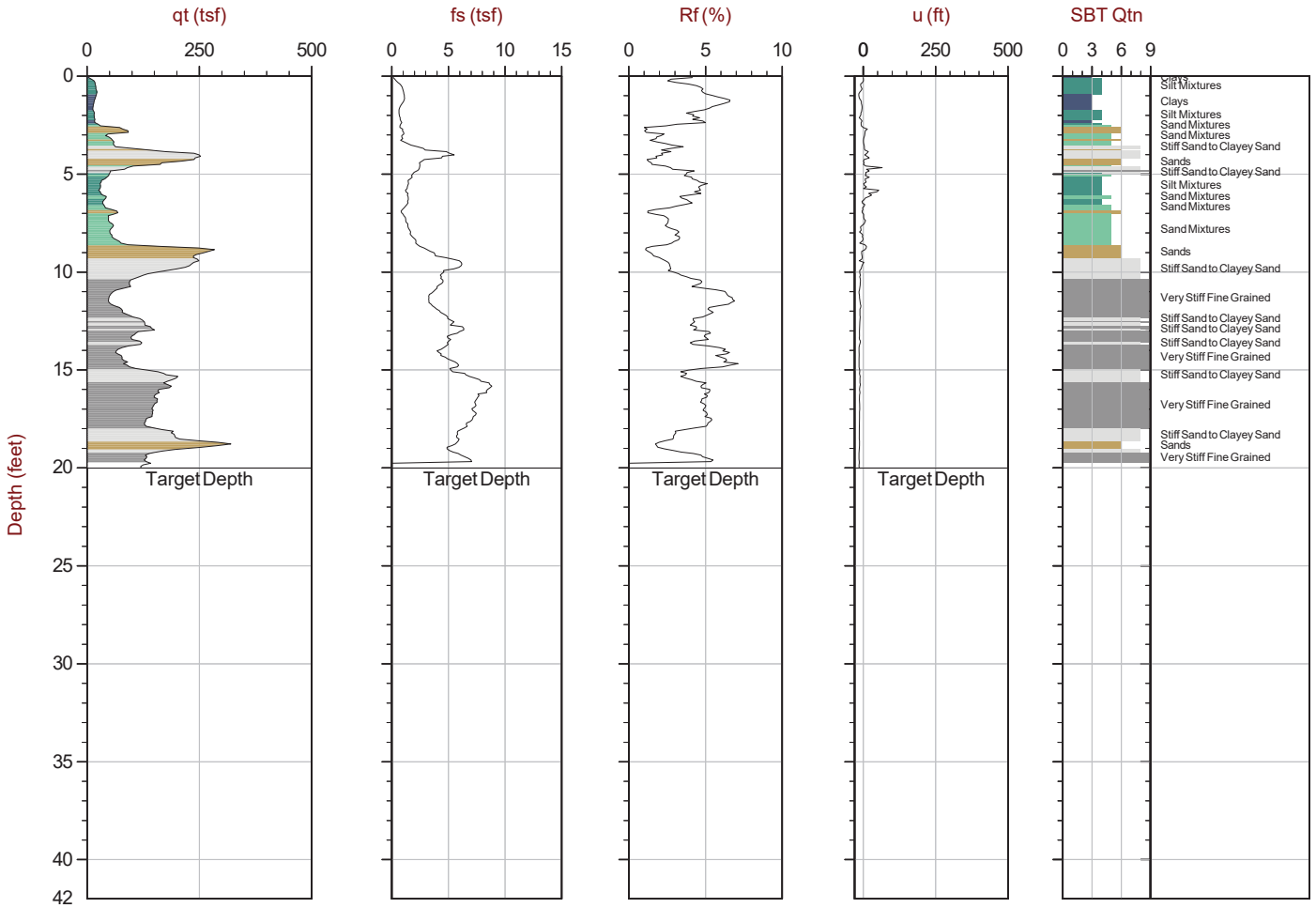
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 09:40
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-068
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP068.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406900m E: 299868m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

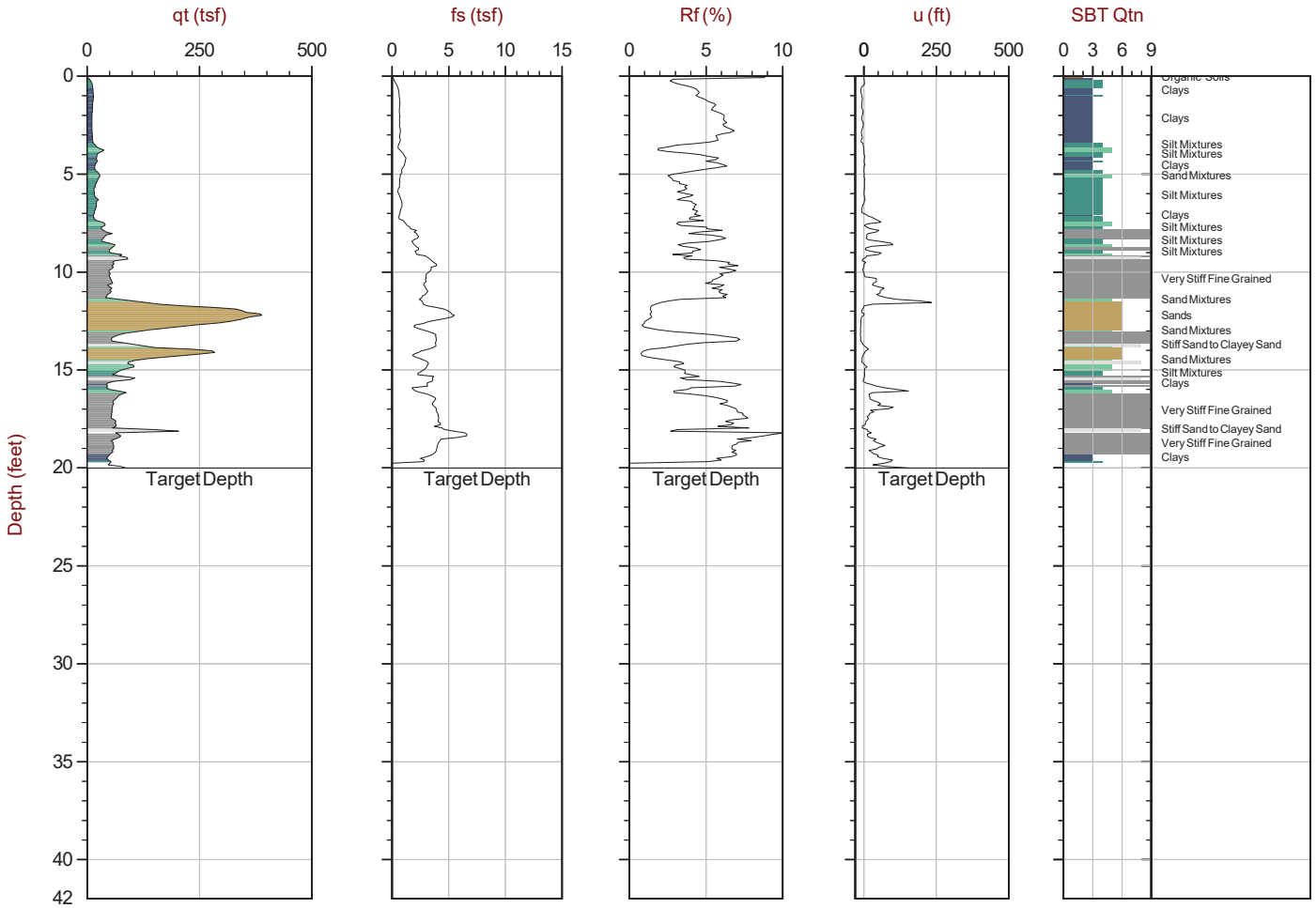
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 09:19
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-069
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP069.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406894m E: 300215m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

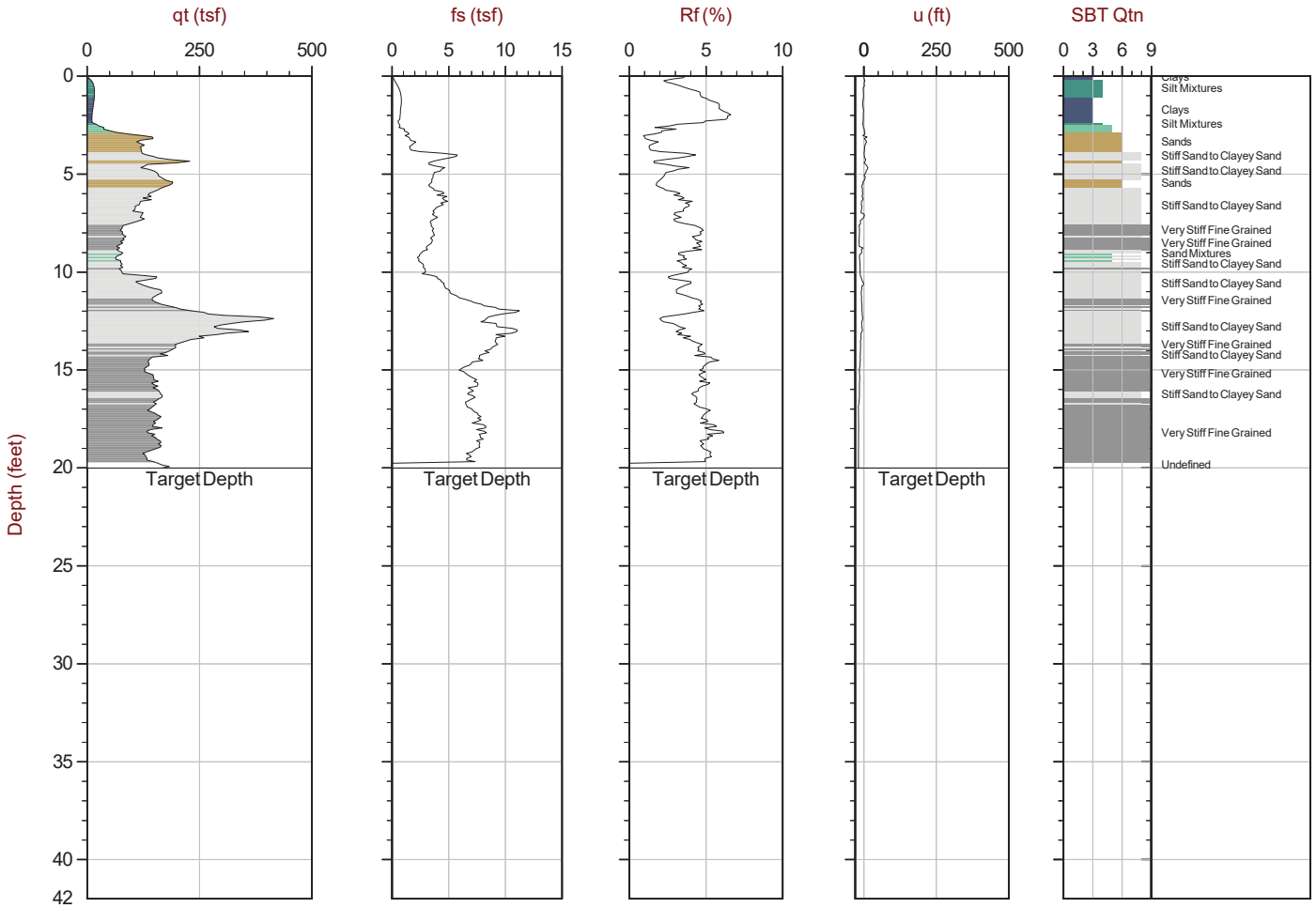
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 03:13
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-070
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP070.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406886m E: 300574m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

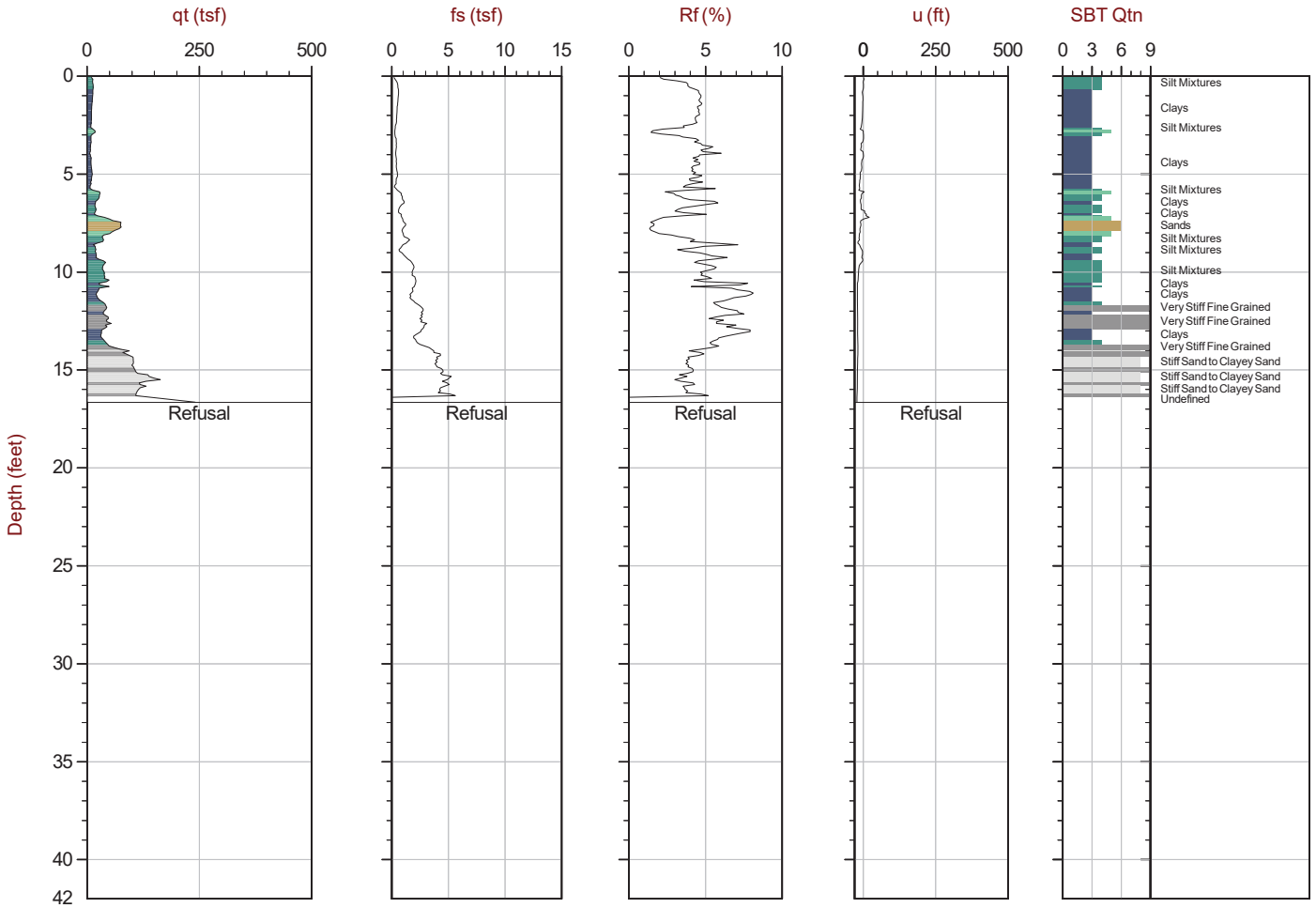
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 04:28
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-071
Cone: EC600



Max Depth: 5.075 m / 16.65 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP071.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406581m E: 298716m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

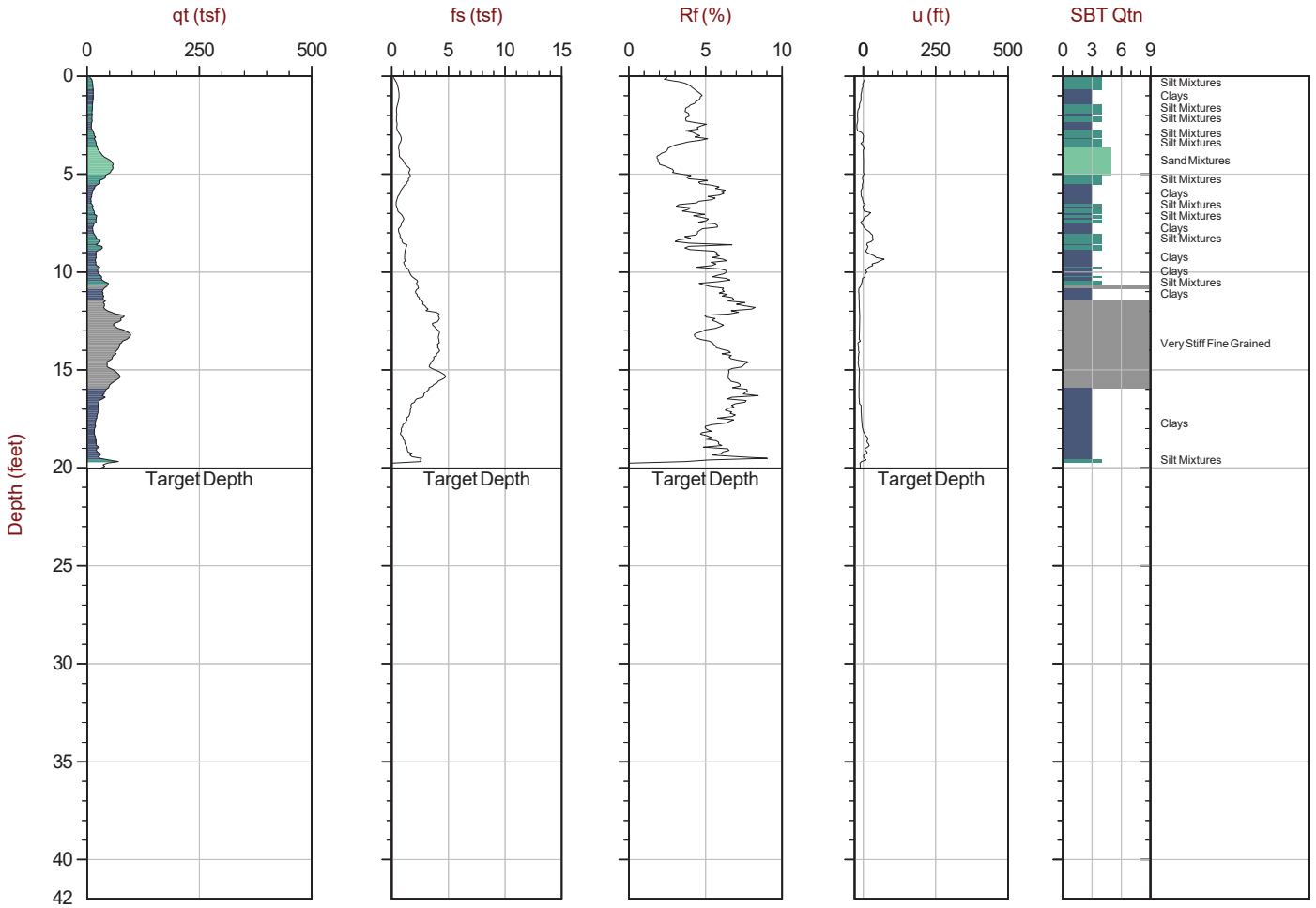
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 02:01
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-072
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP072.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406575m E: 299084m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

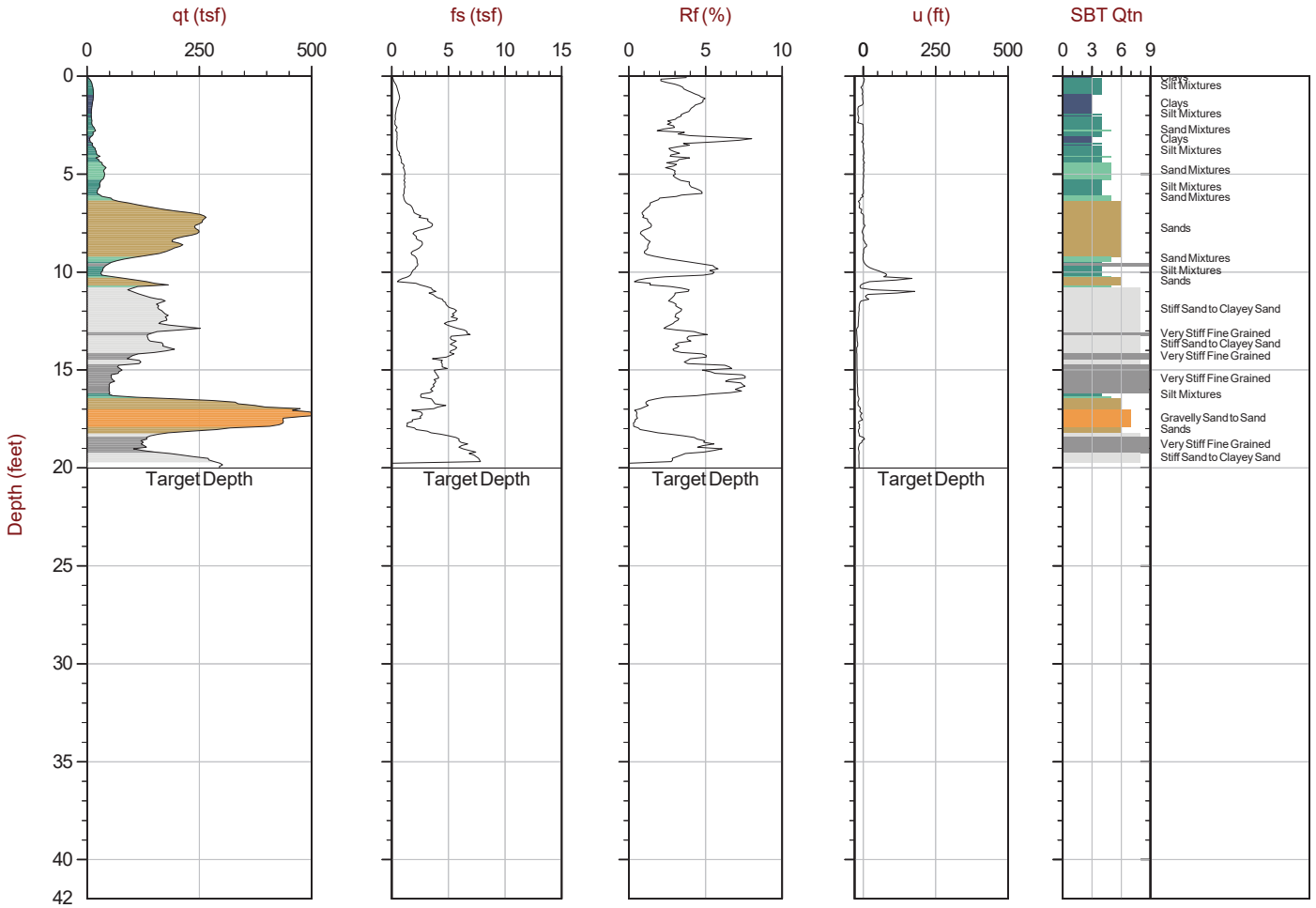
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 02:28
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-073
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP073.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406558m E: 299450m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

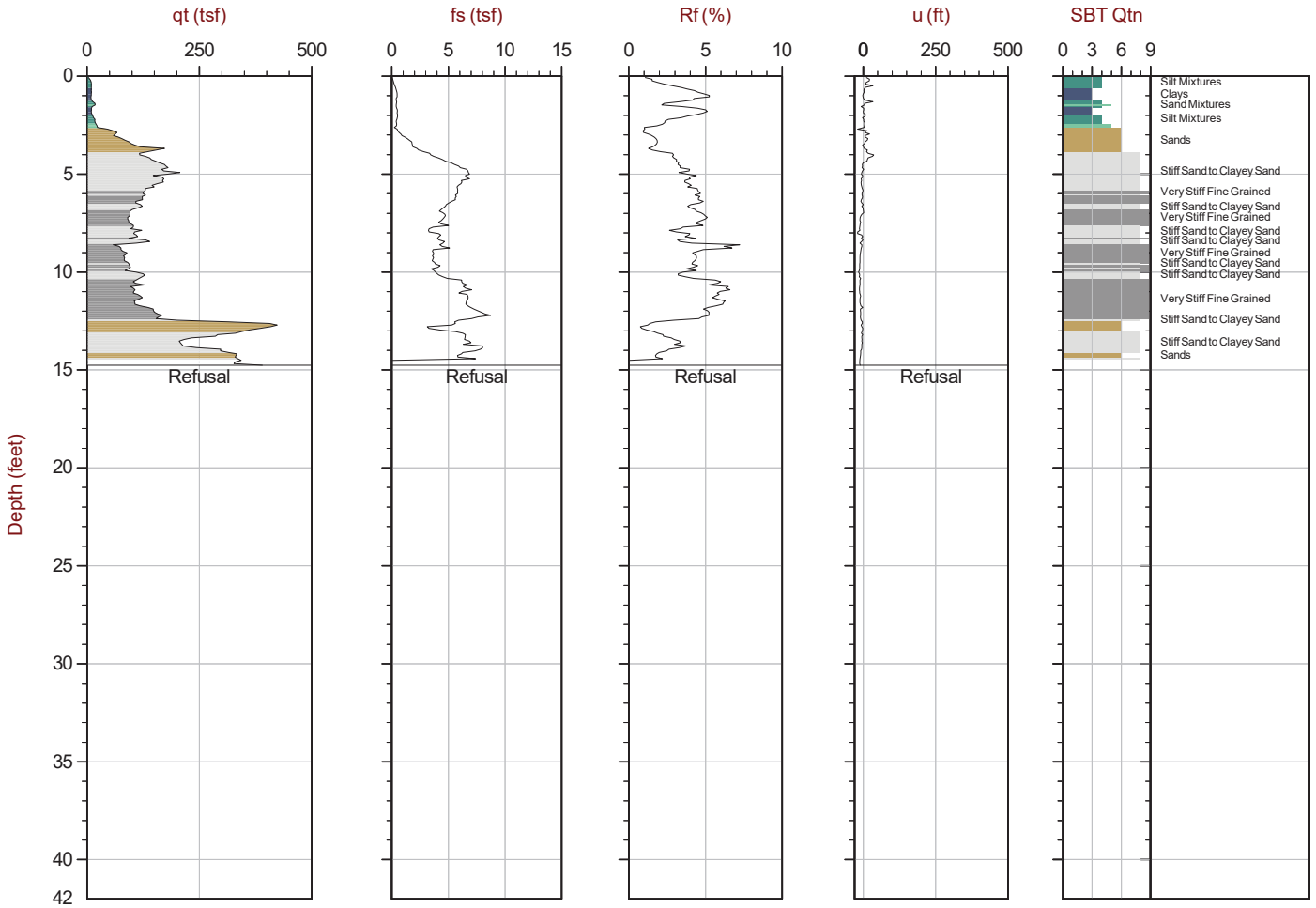
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 08:47
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-074
Cone: EC600



Max Depth: 4.500 m / 14.76 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP074.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406549m E: 299821m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

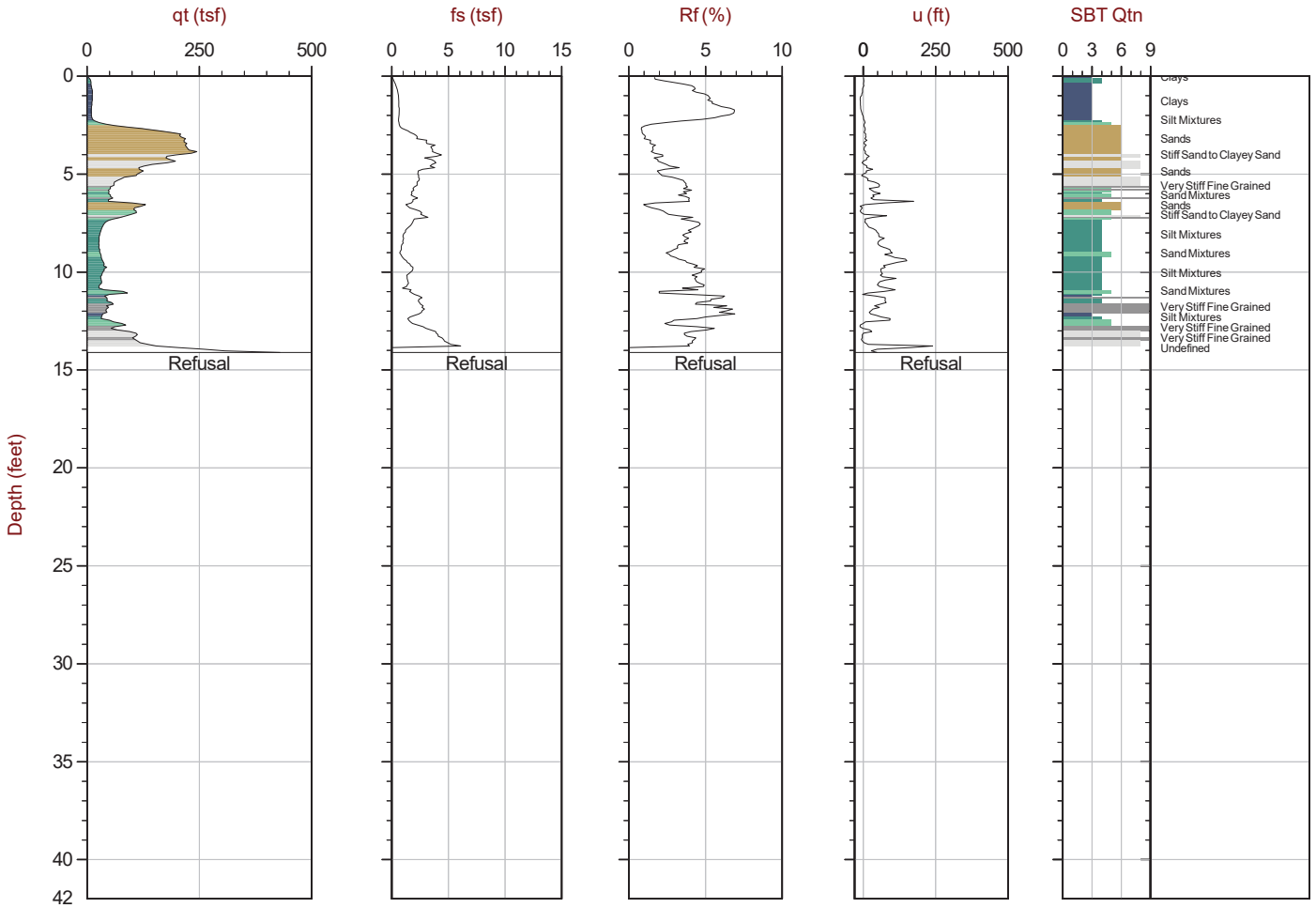
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 09:00
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-075
Cone: EC600



Max Depth: 4.300 m / 14.11 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP075.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406546m E: 300177m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

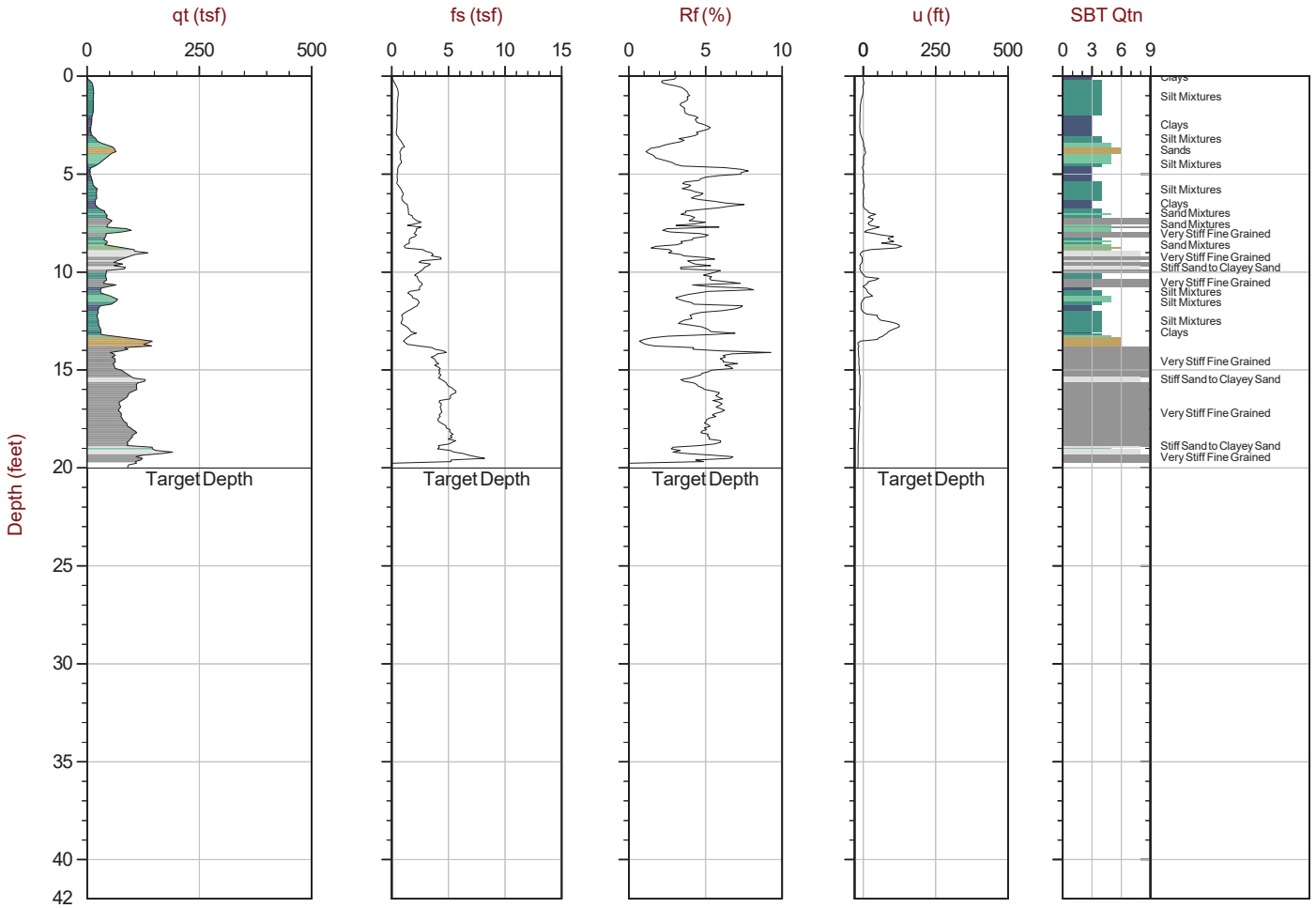
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 02:57
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-076
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP076.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406531m E: 300540m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

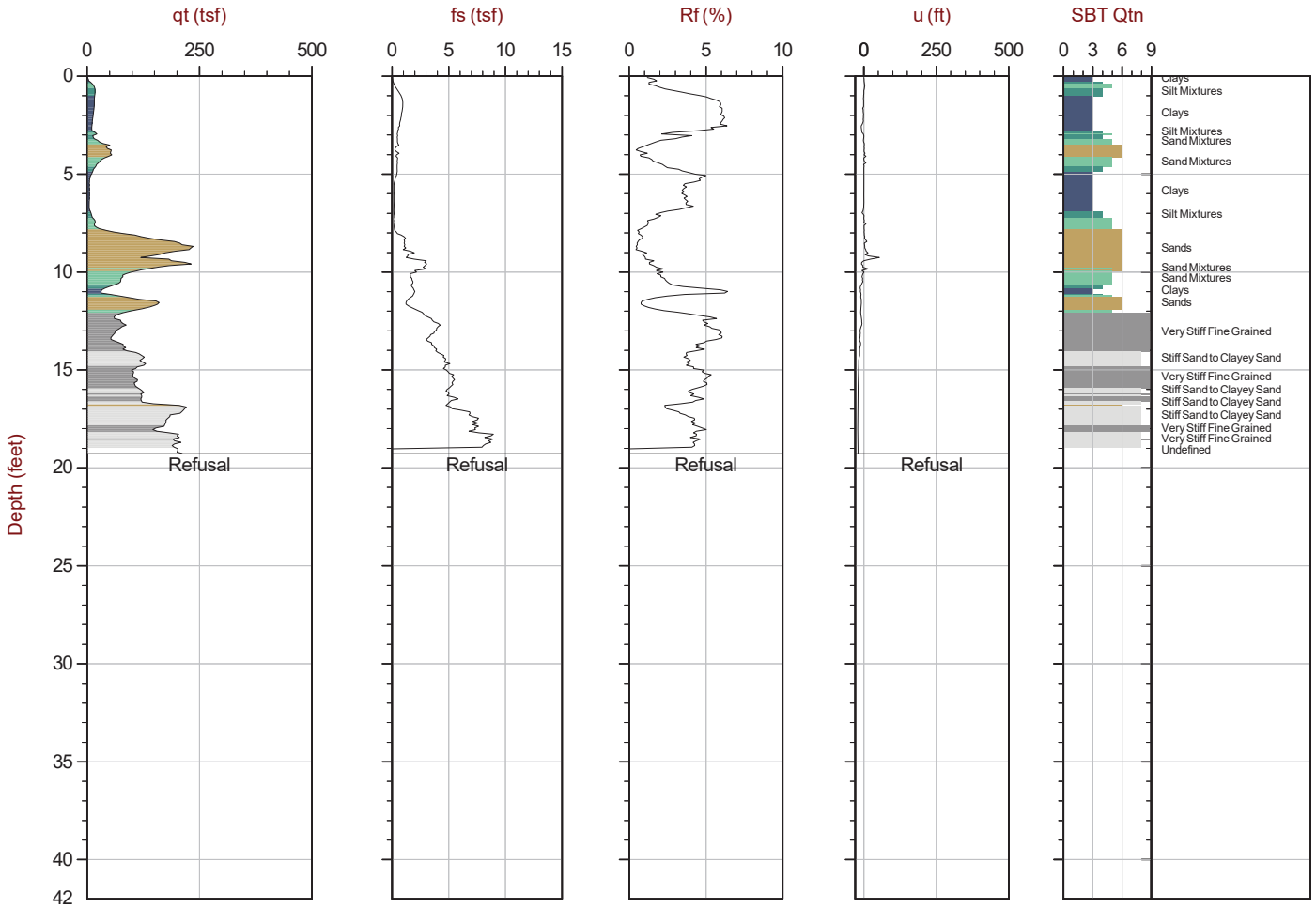
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 02:33
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-077
Cone: EC600



Max Depth: 5.875 m / 19.27 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP077.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406460m E: 300904m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

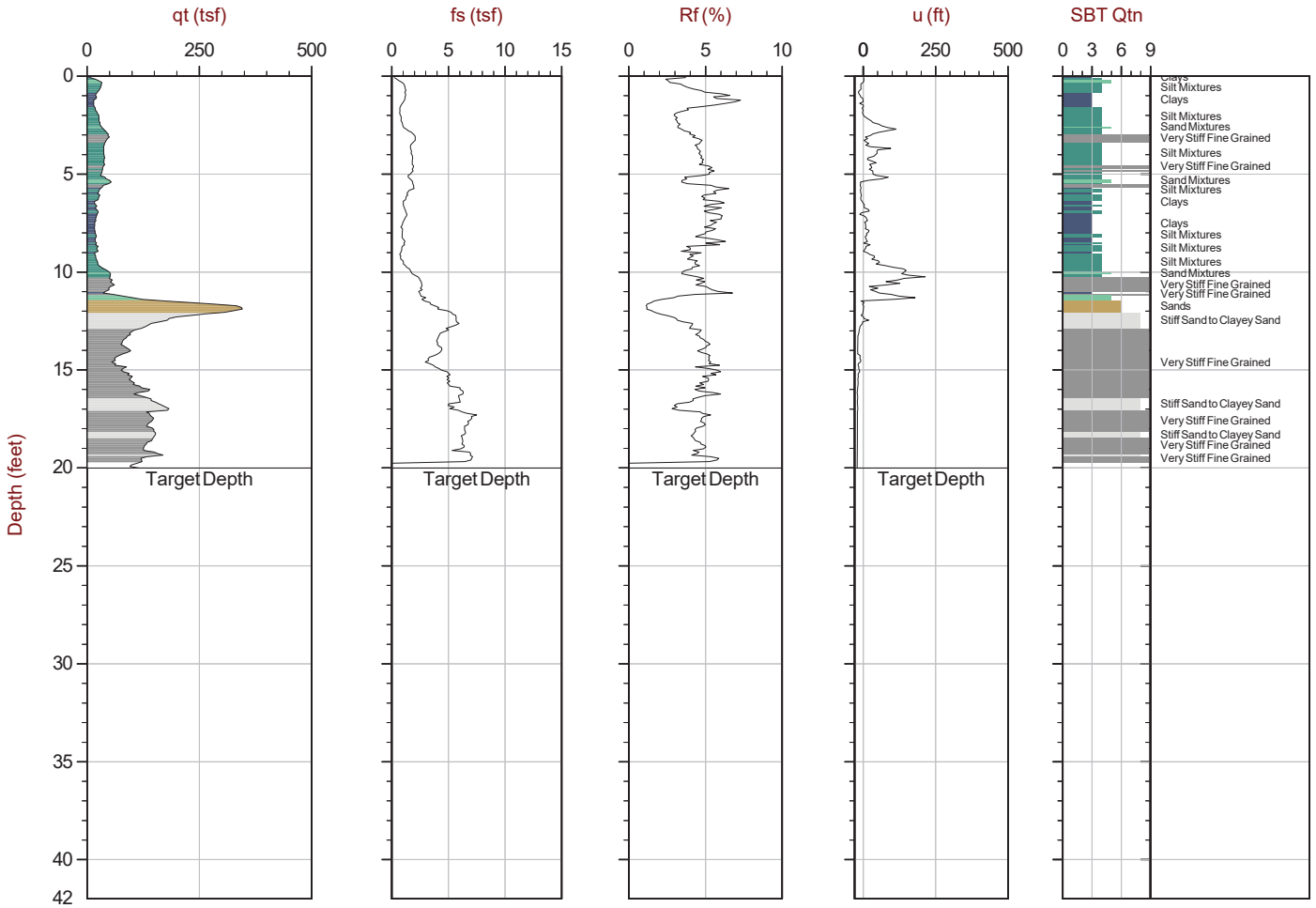
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 03:32
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-078
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP078.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406246m E: 298231m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

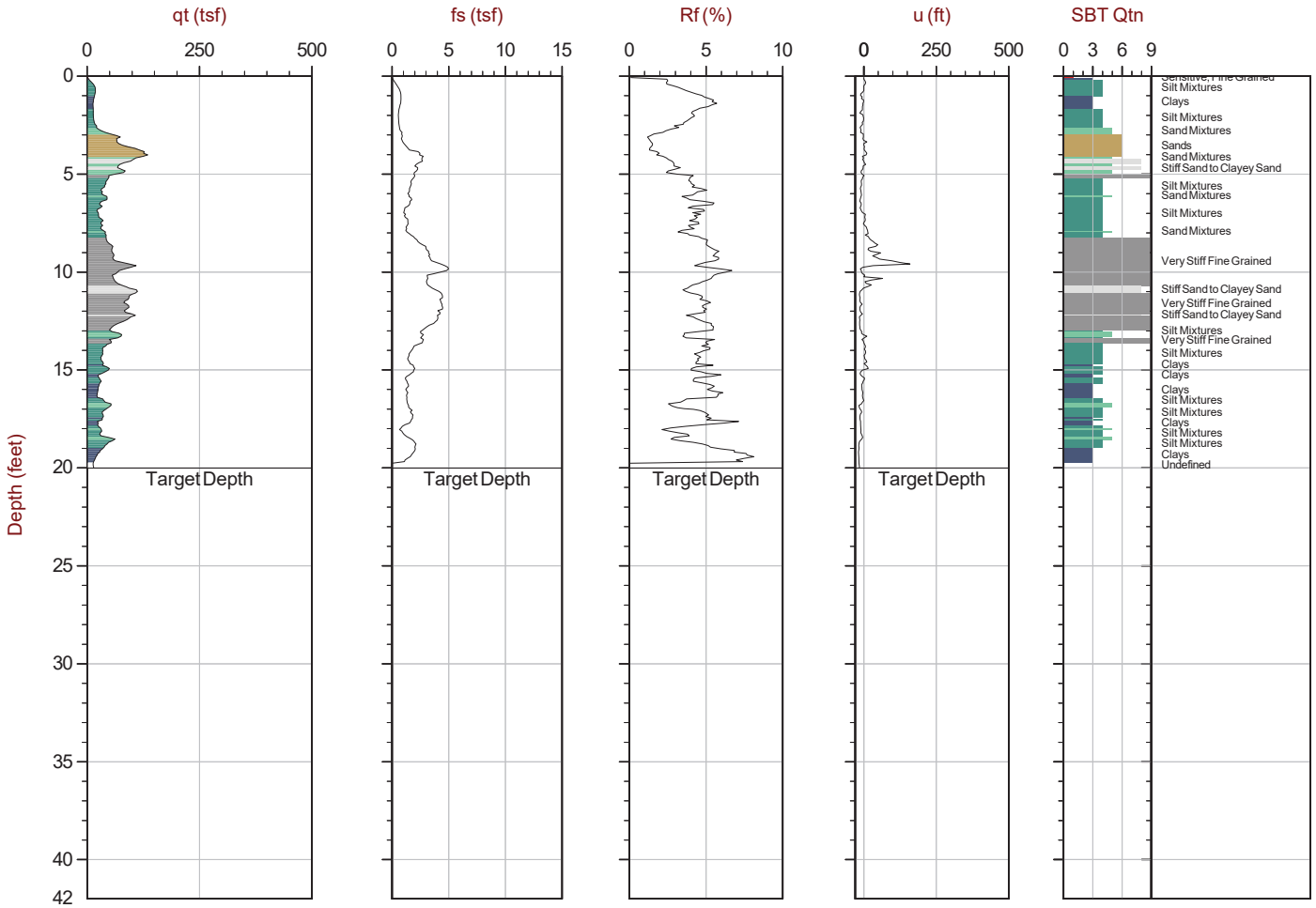
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 04:13
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-079
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP079.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406234m E: 298581m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

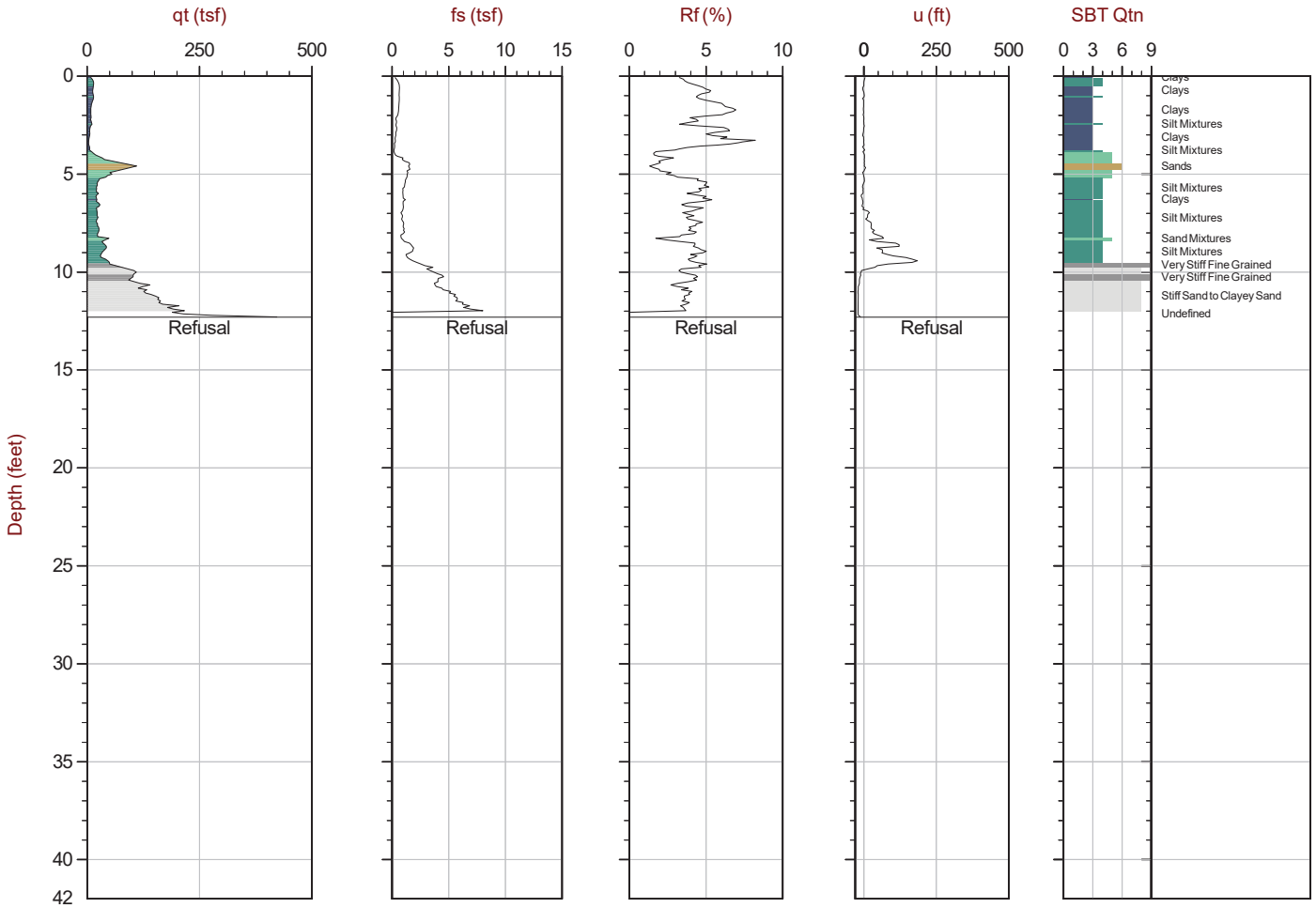
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 04:47
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-080
Cone: EC600



Max Depth: 3.750 m / 12.30 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP080.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406236m E: 298919m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

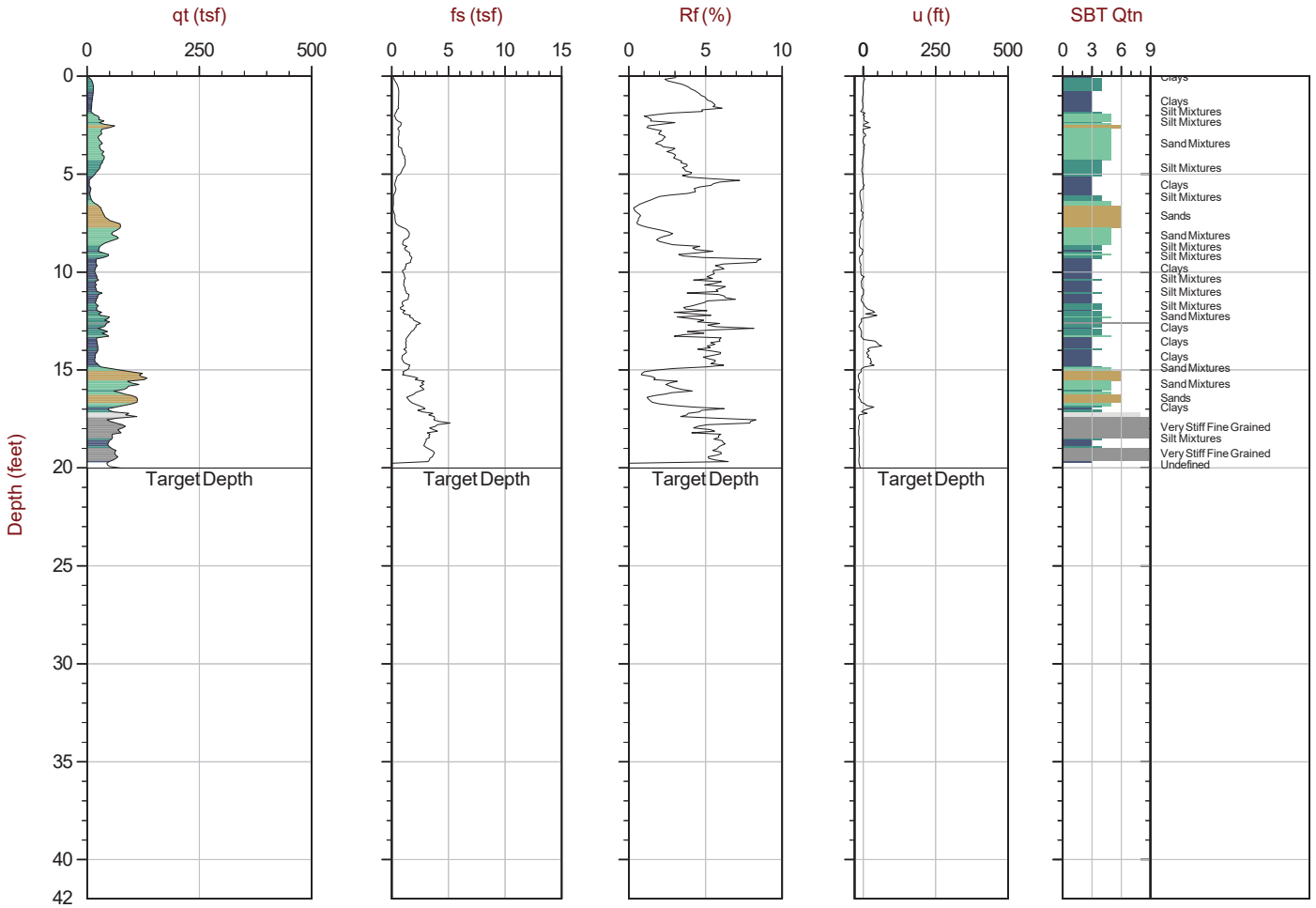
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 01:42
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-081
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP081.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406211m E: 299275m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

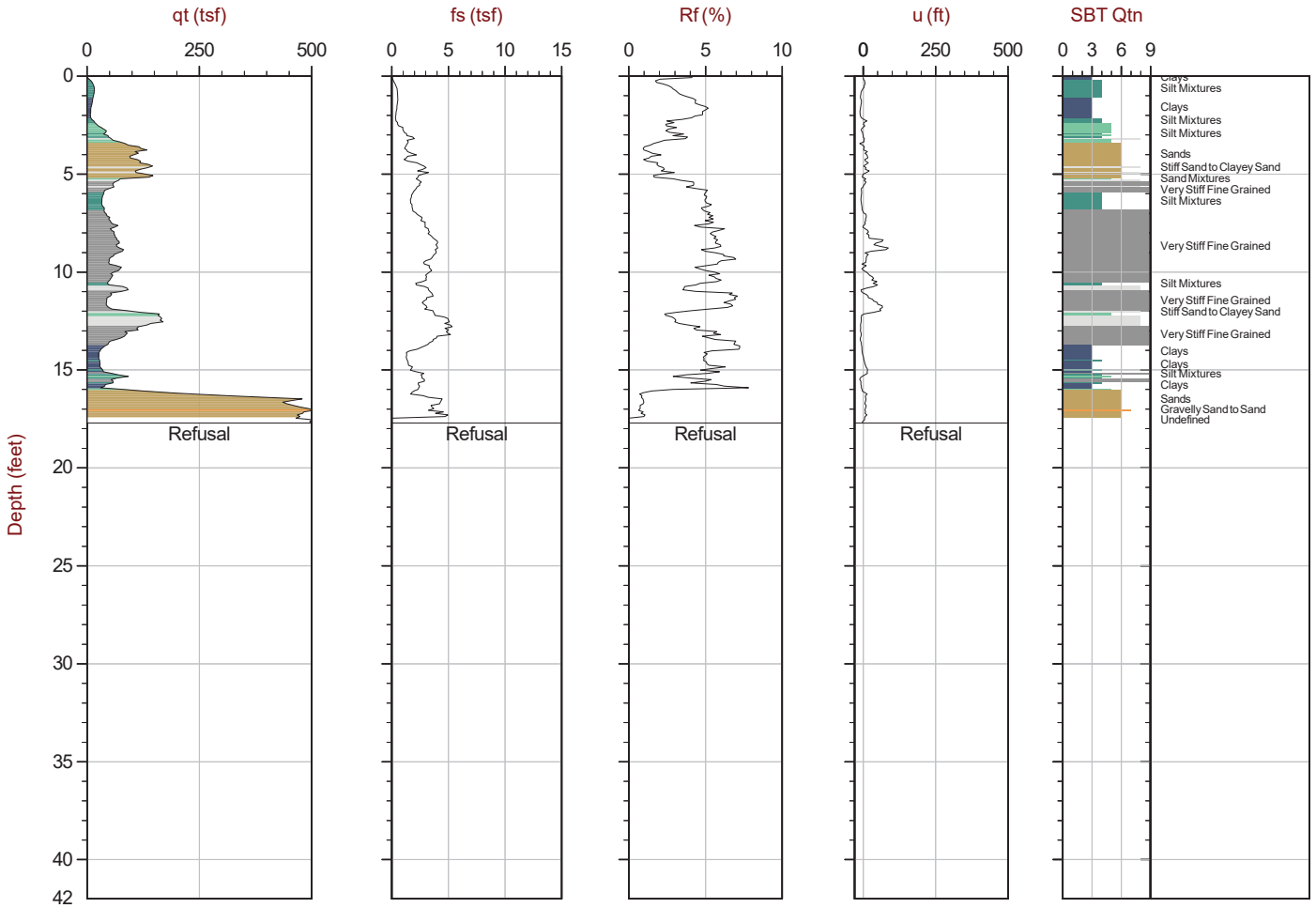
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 01:18
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-082
Cone: EC600



Max Depth: 5.400 m / 17.72 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP082.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406205m E: 299629m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

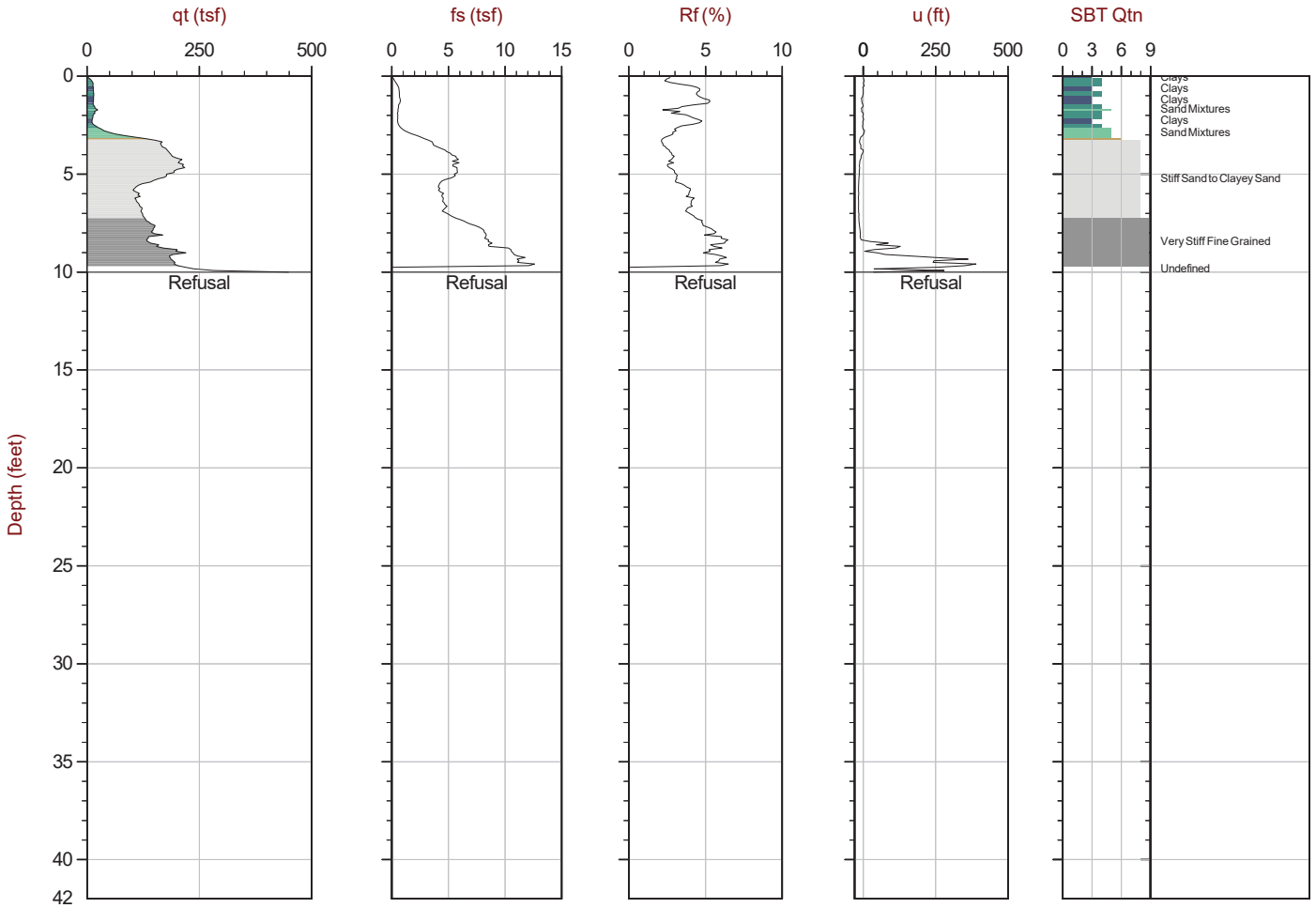
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 09:40
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-083
Cone: EC600



Max Depth: 3.050 m / 10.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP083.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406191m E: 299982m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

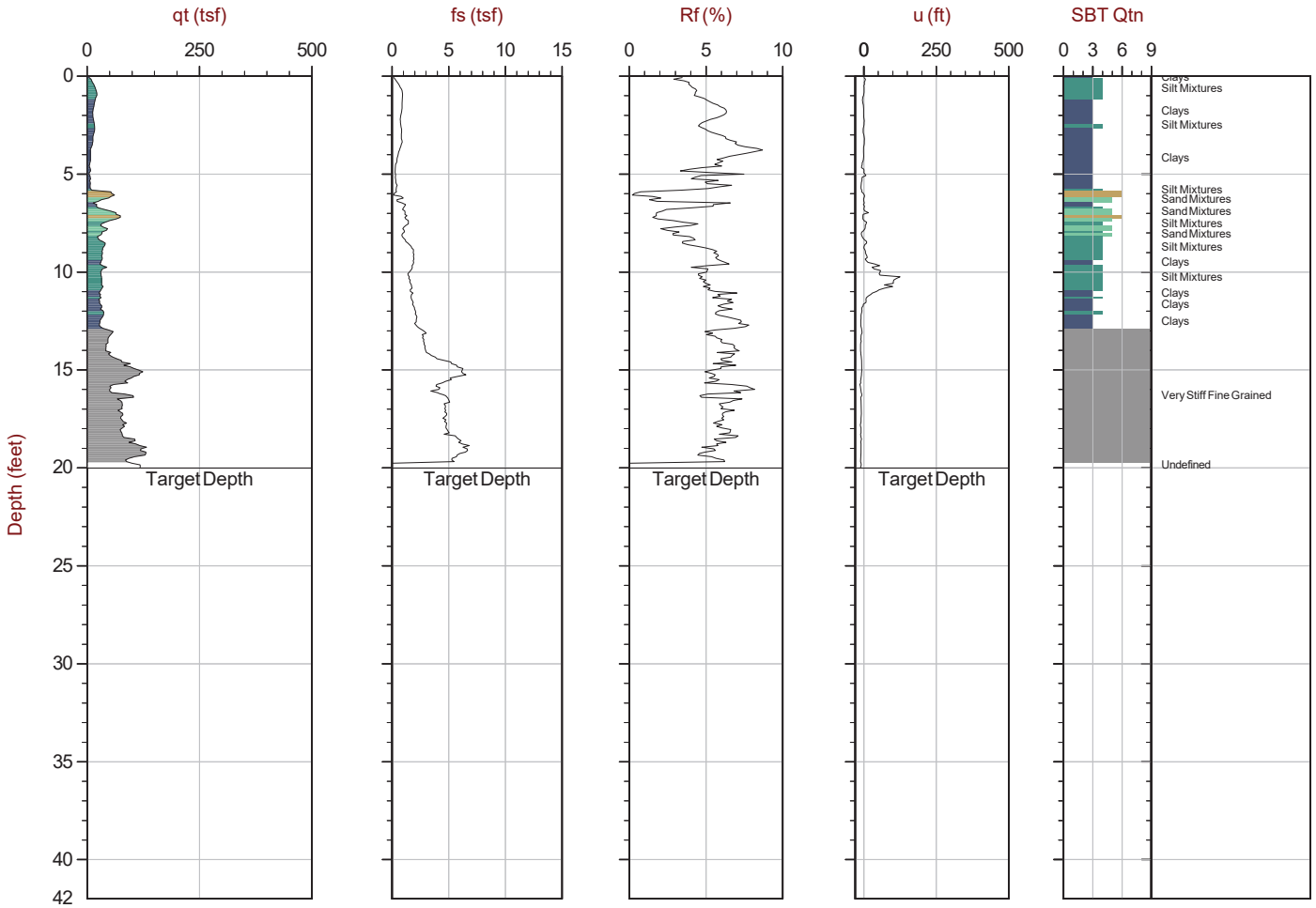
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 10:25
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-084
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP084.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406192m E: 300344m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

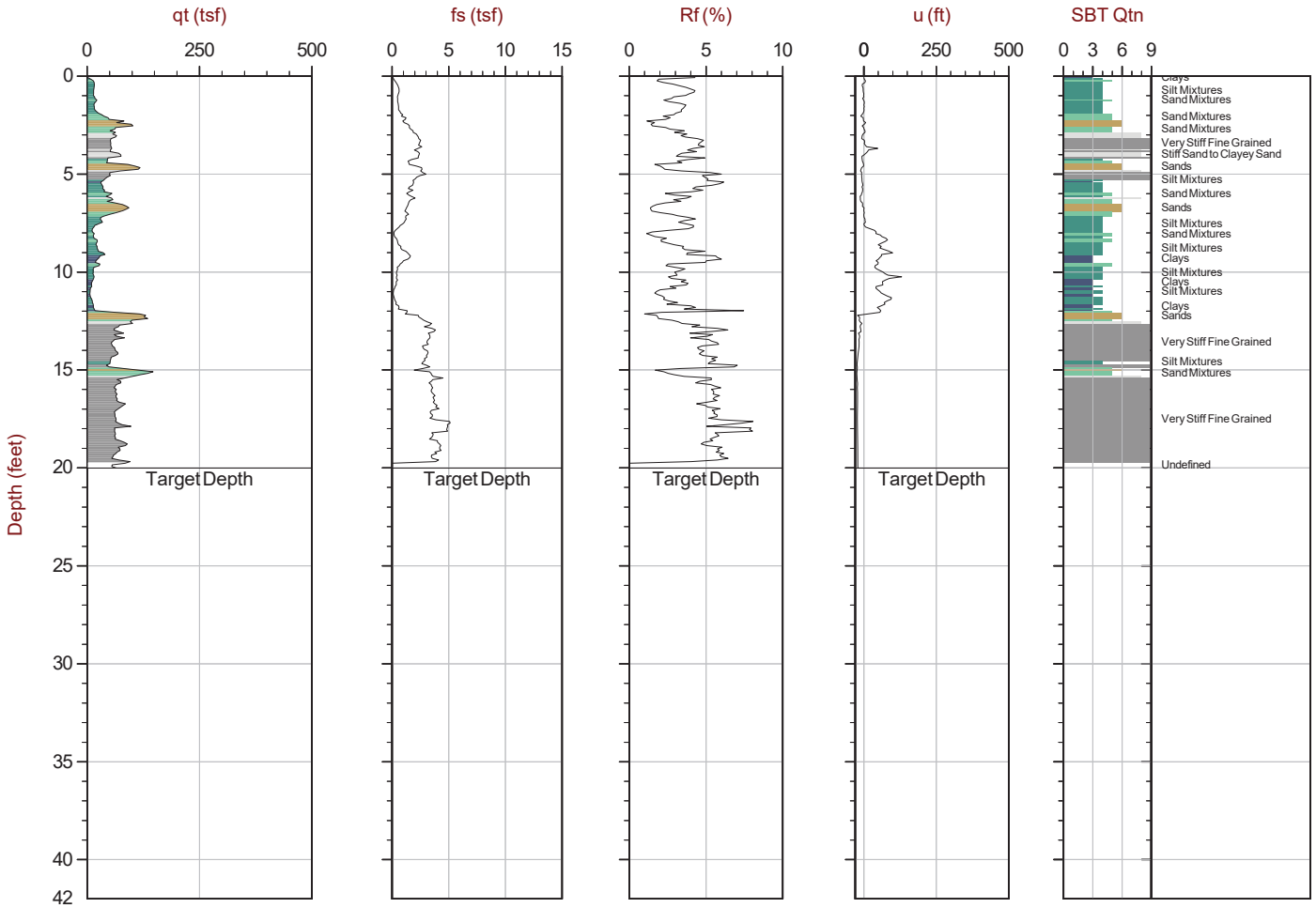
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 02:14
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-085
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP085.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406178m E: 300681m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

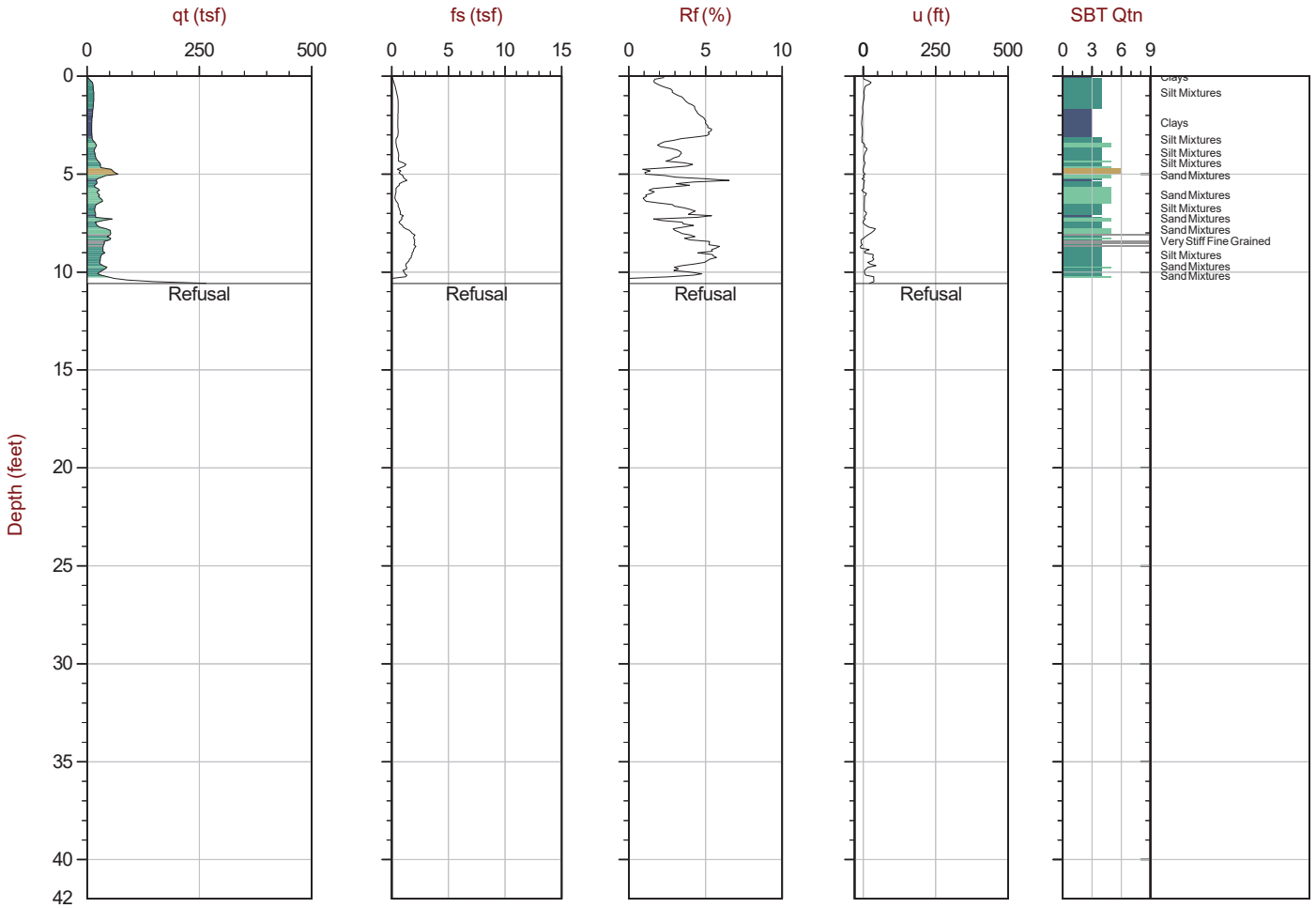
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 02:00
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-086
Cone: EC600



Max Depth: 3.225 m / 10.58 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP086.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406079m E: 301025m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

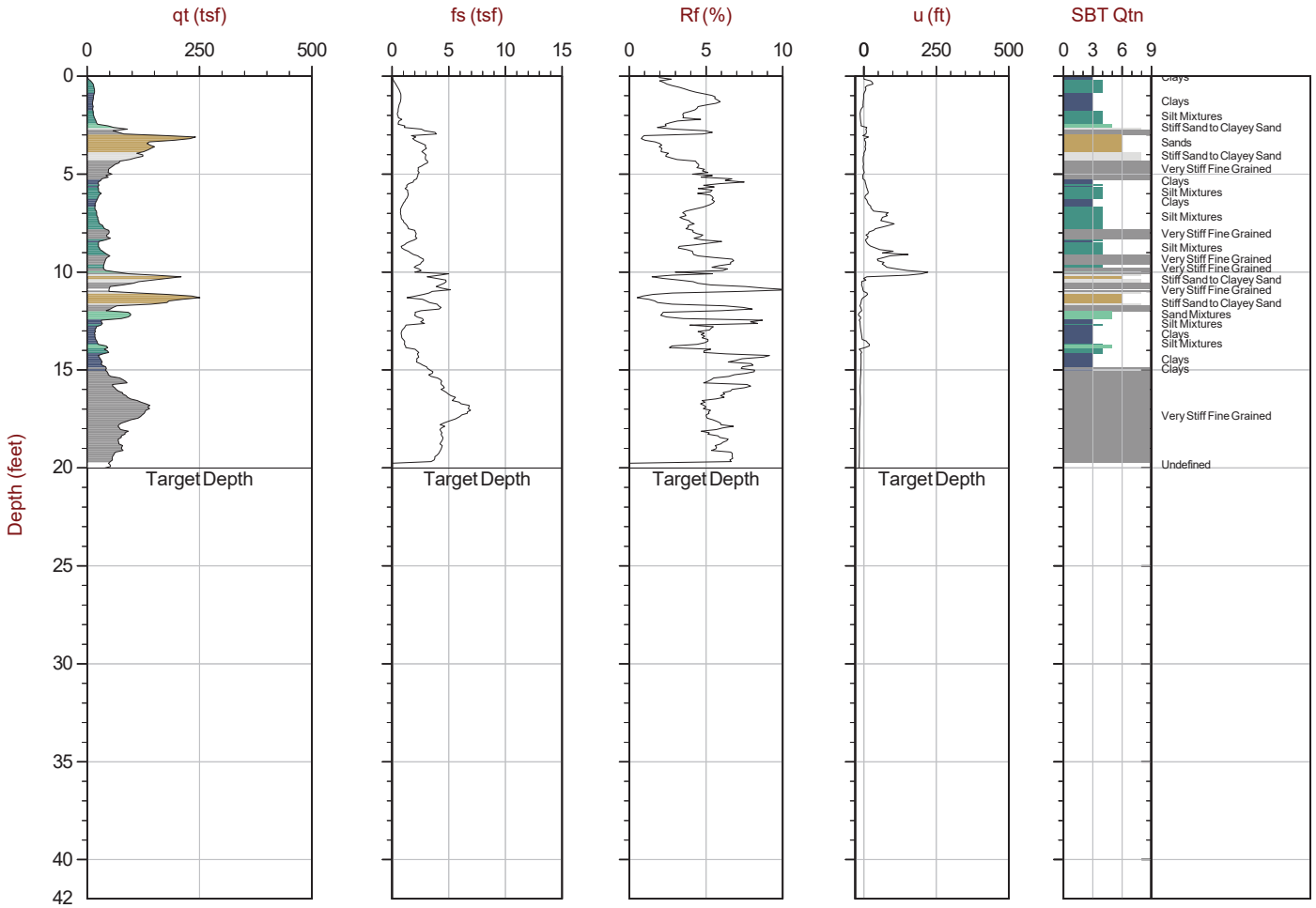
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 01:43
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-087
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP087.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406163m E: 301385m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

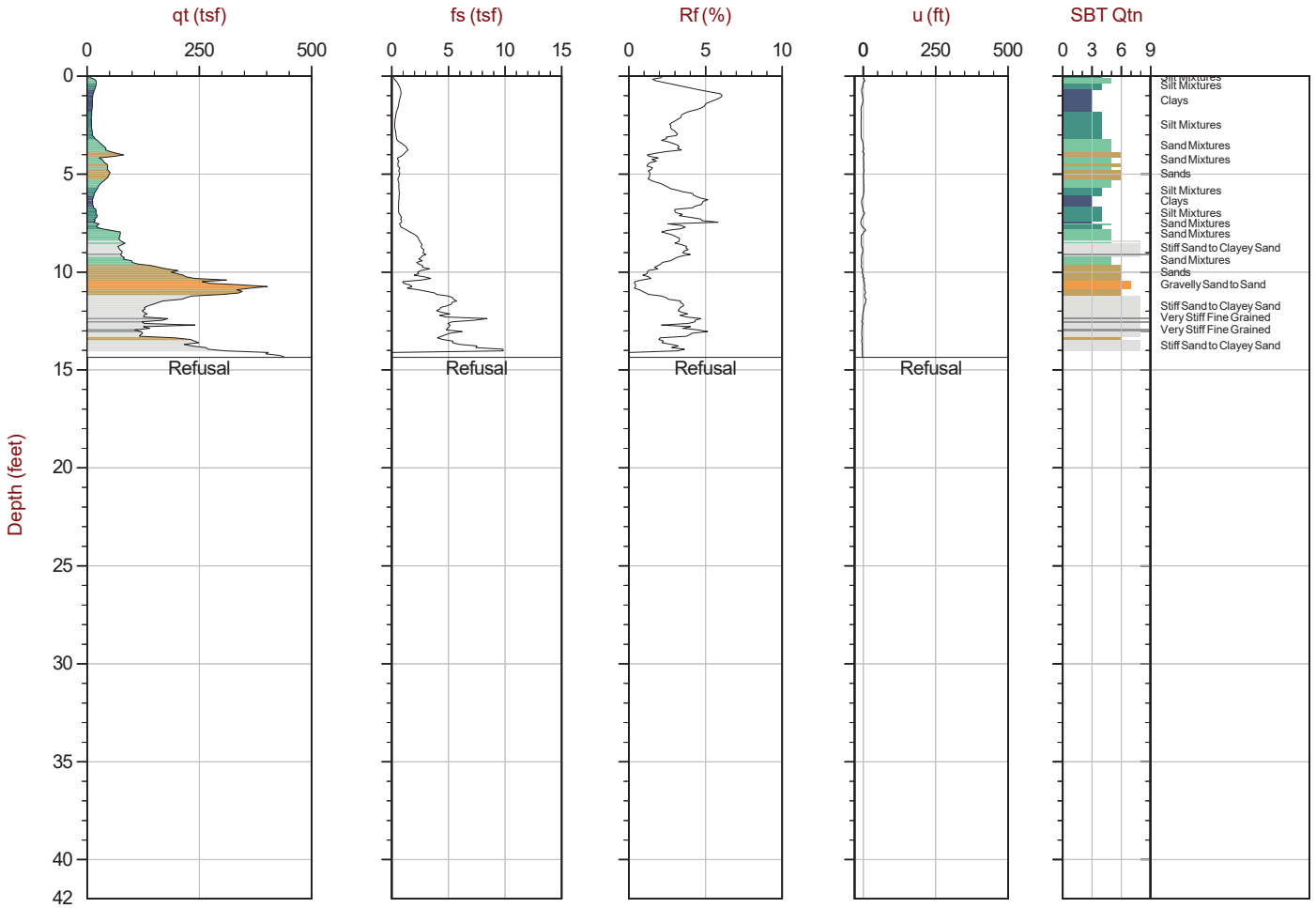
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 09:56
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-088
Cone: EC600



Max Depth: 4.375 m / 14.35 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP088.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405920m E: 297191m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

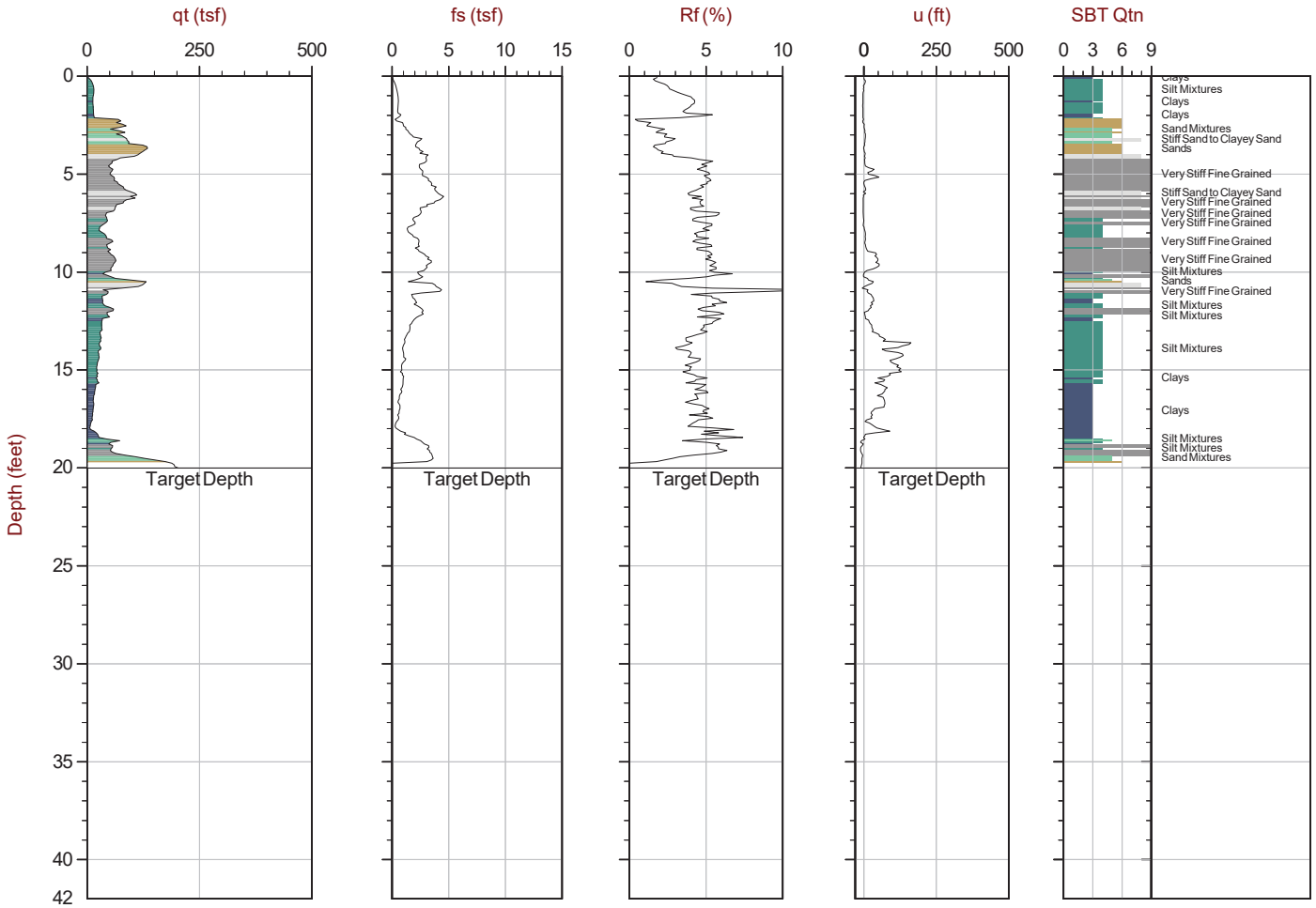
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 10:15
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-089
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP089.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405986m E: 297554m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◀ PPD, Ueq not achieved

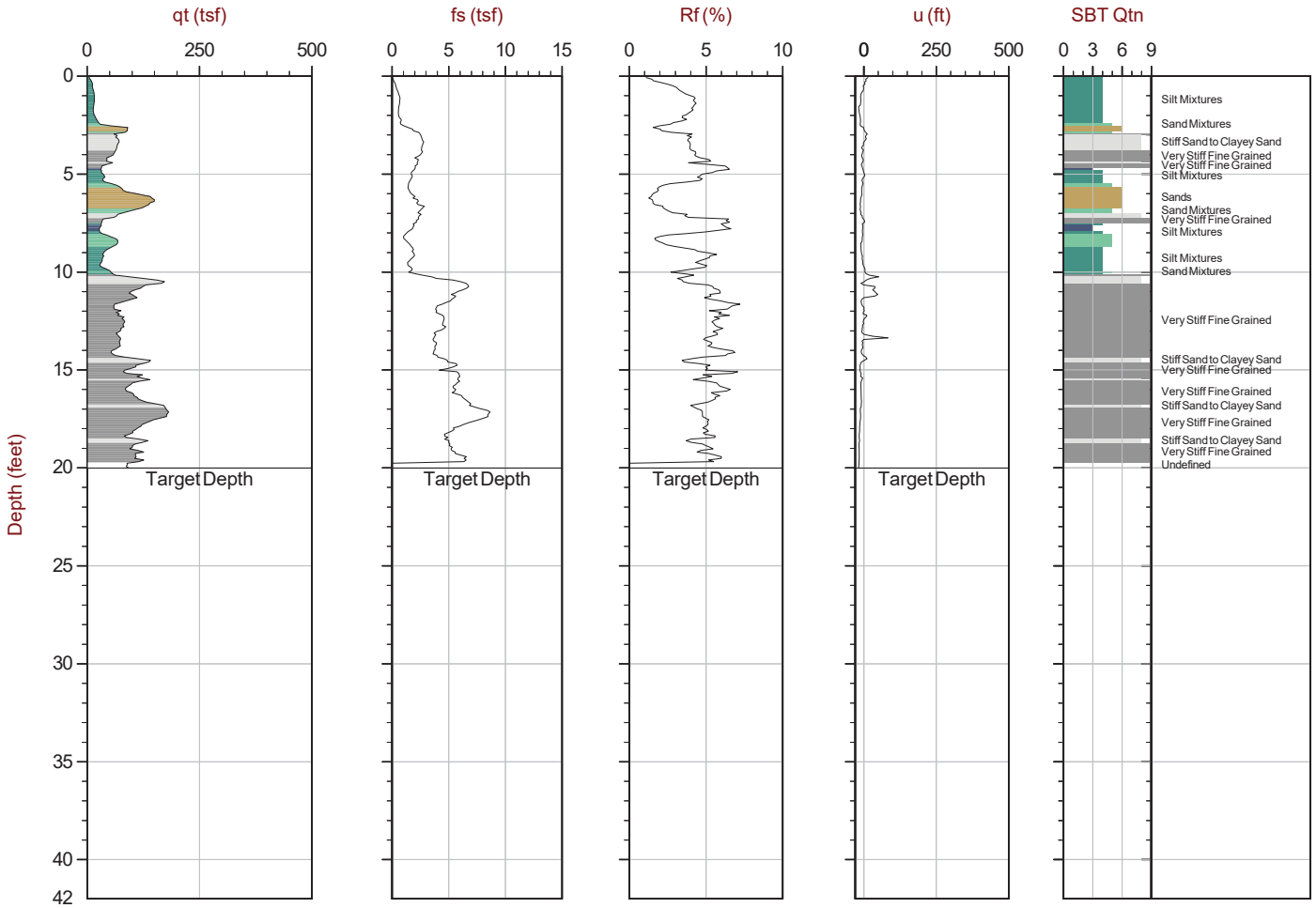
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 02:56
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-090
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP090.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406058m E: 297918m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

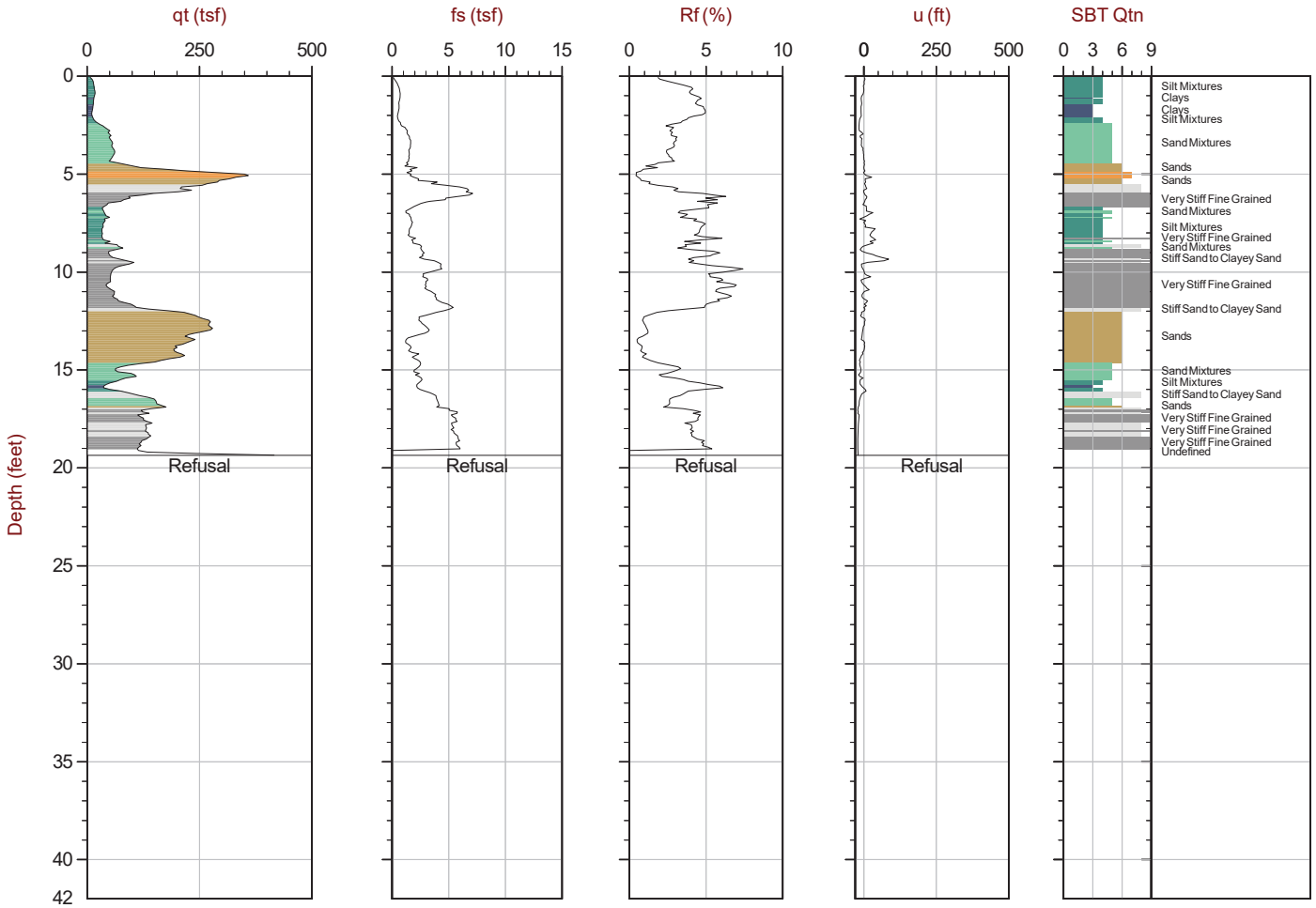
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 03:16
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-091
Cone: EC600



Max Depth: 5.900 m / 19.36 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP091.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405897m E: 298238m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

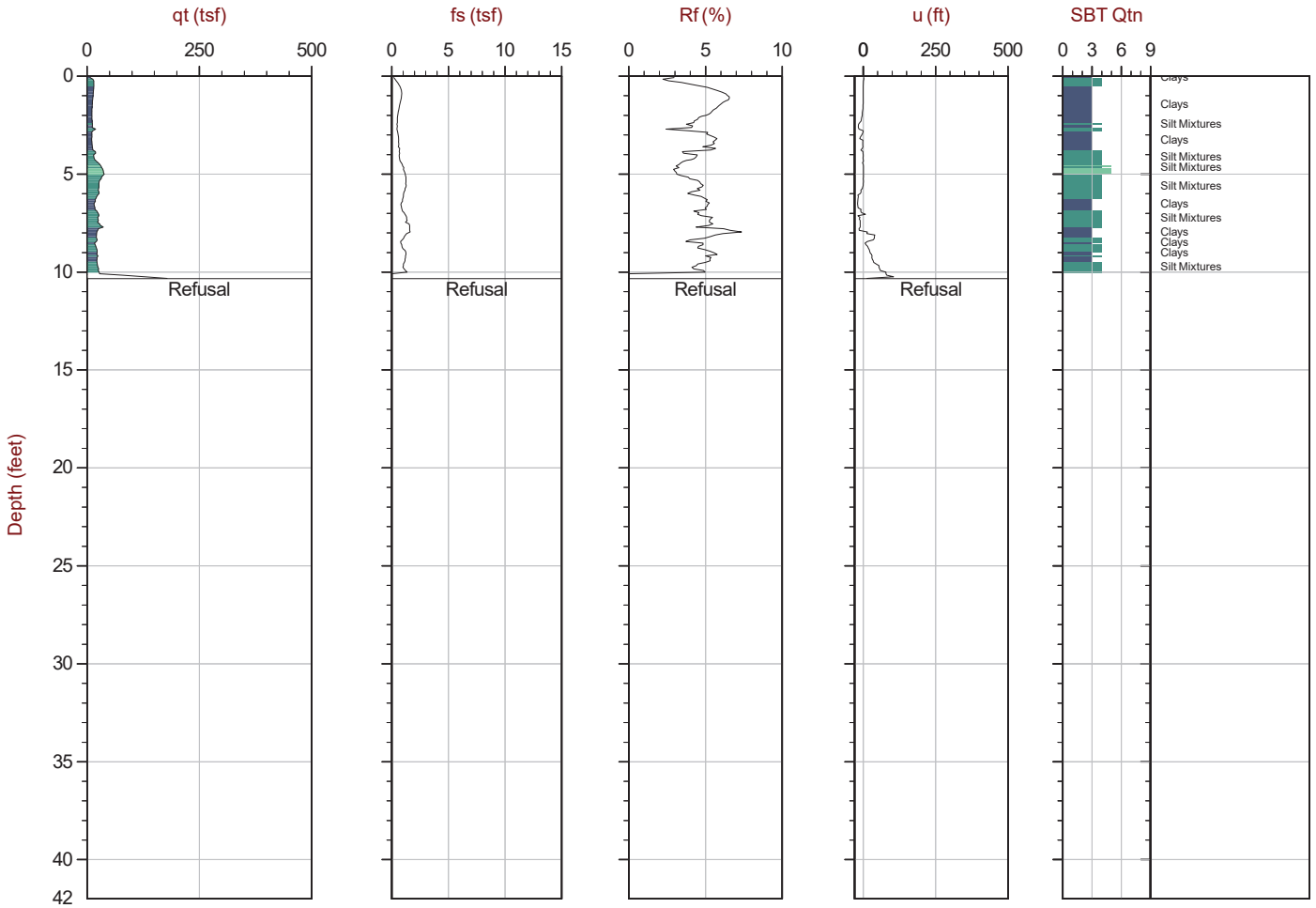
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 03:54
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-092
Cone: EC600



Max Depth: 3.150 m / 10.33 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP092.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405883m E: 298588m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

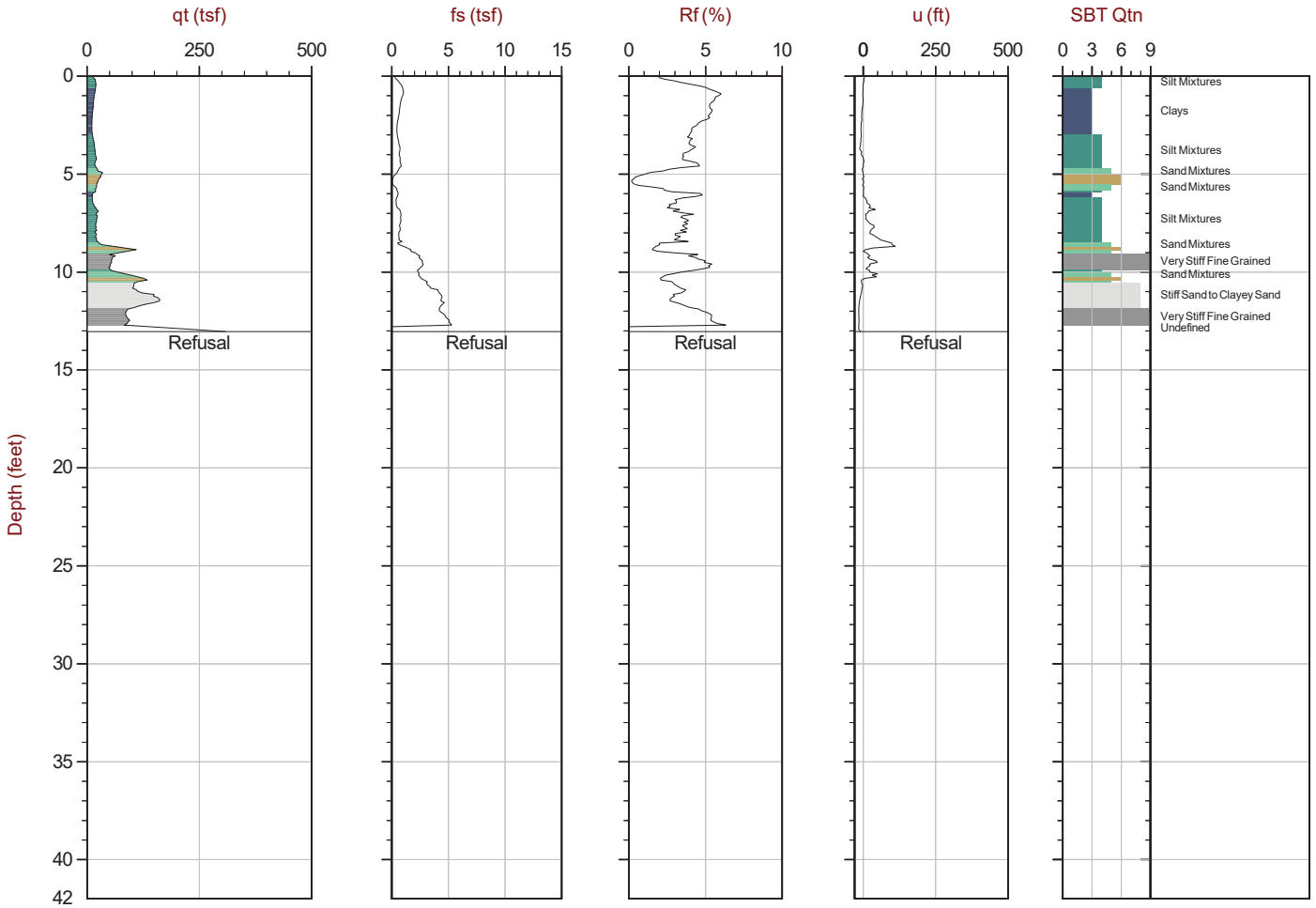
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 05:04
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-093
Cone: EC600



Max Depth: 3.975 m / 13.04 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP093.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405876m E: 298937m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

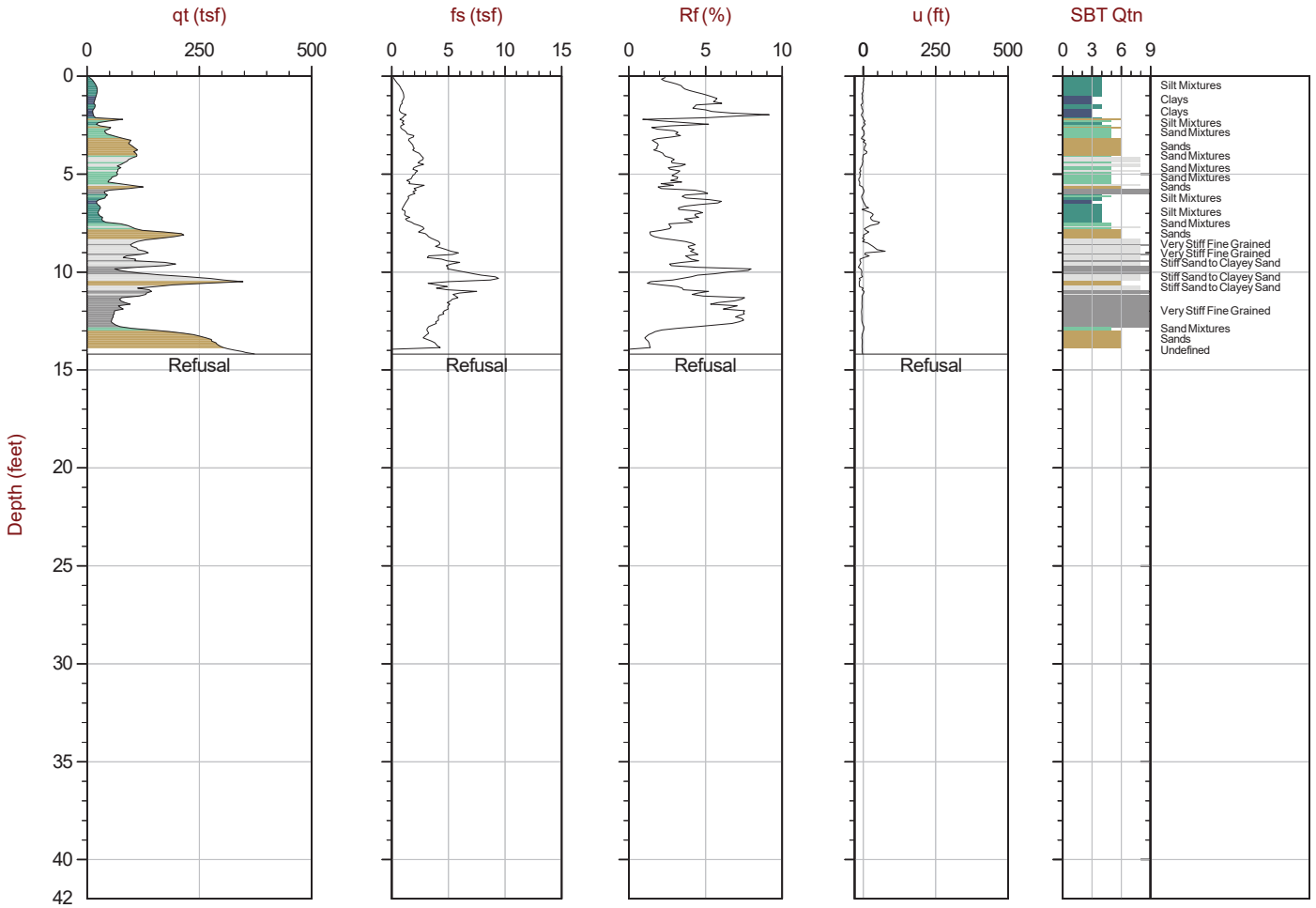
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 11:25
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-094
Cone: EC600



Max Depth: 4.325 m / 14.19 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP094.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405871m E: 299276m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

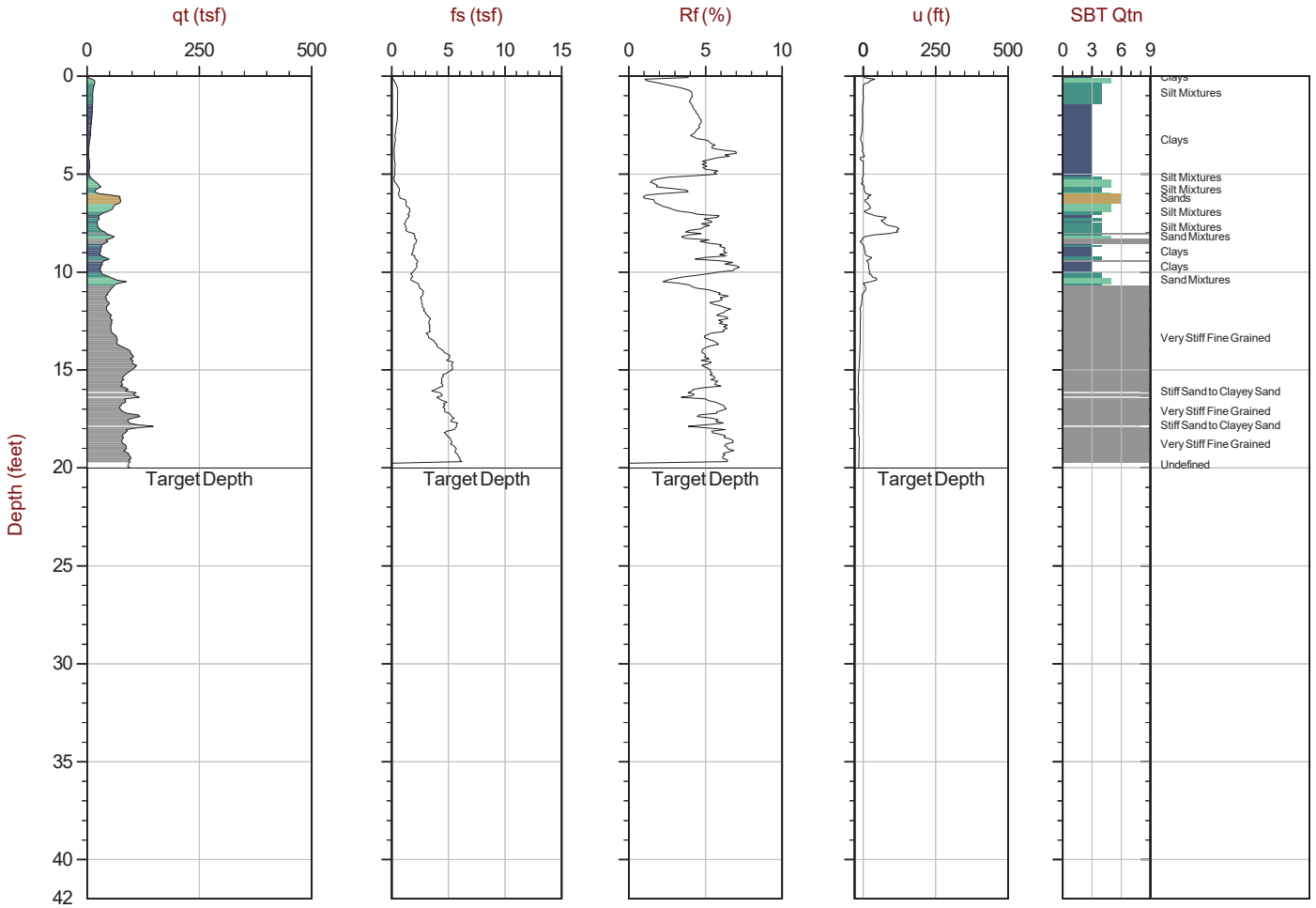
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 01:00
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-095
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP095.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405857m E: 299643m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

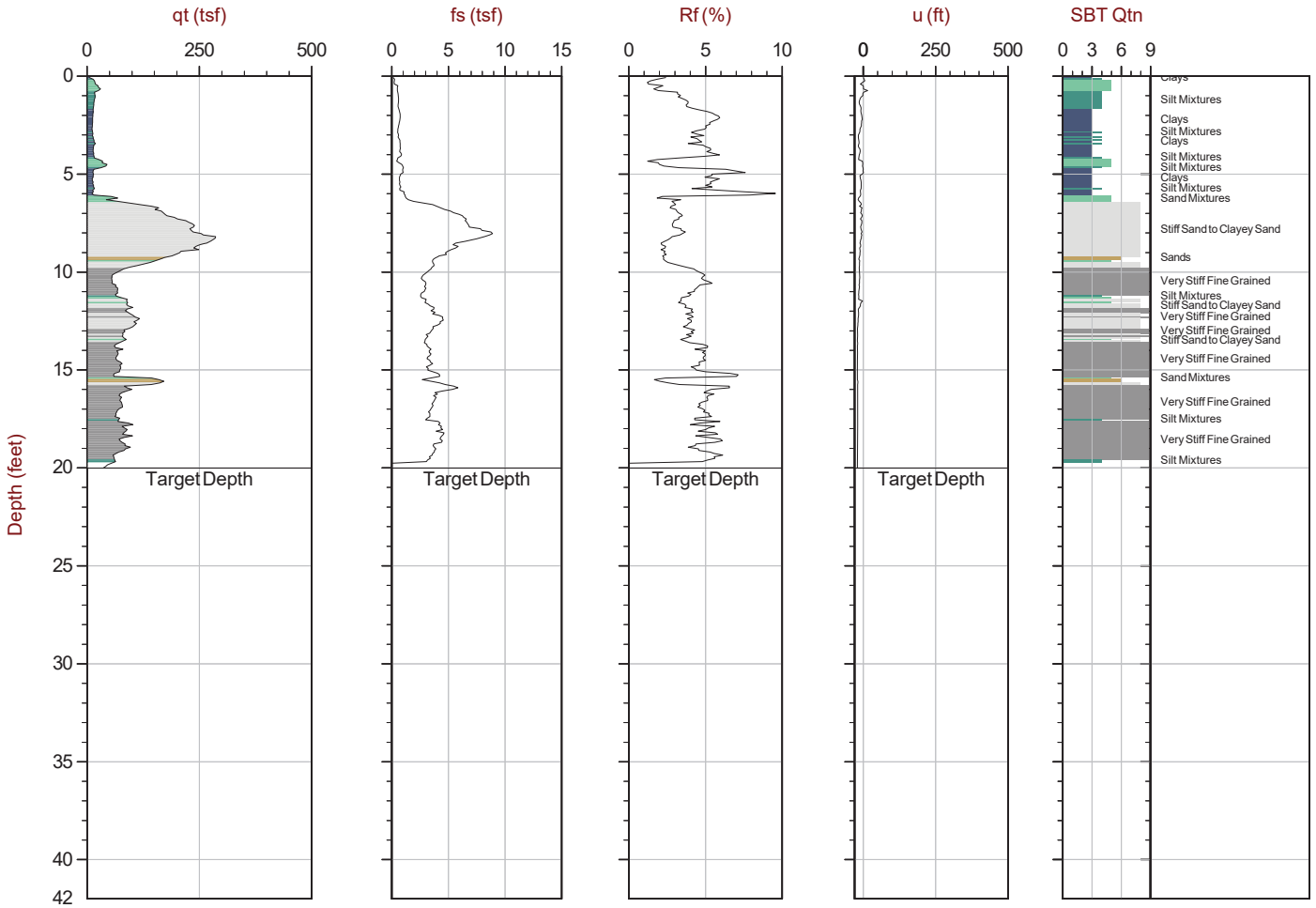
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 10:07
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-096
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP096.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405865m E: 299996m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

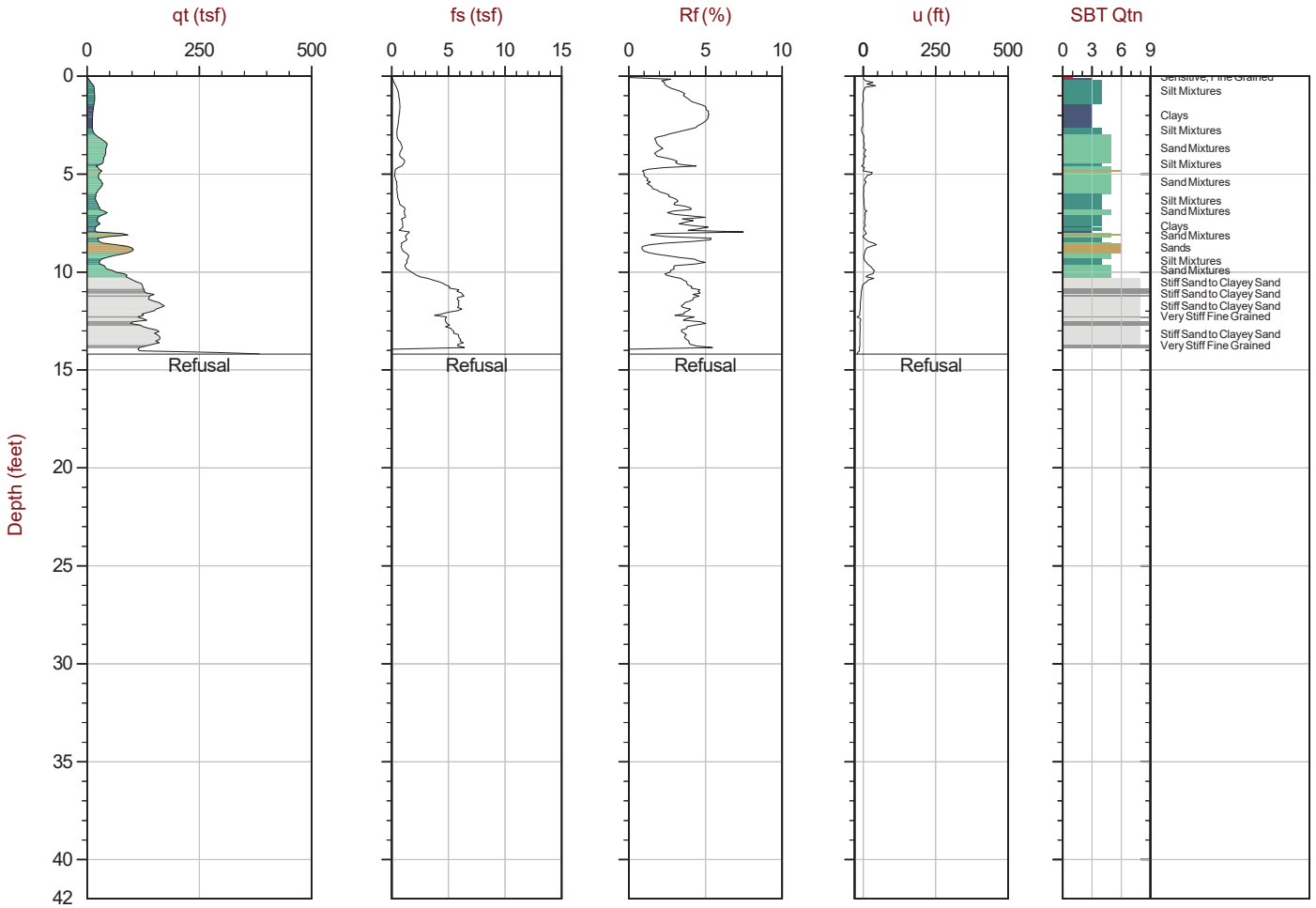
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 10:43
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-097
Cone: EC600



Max Depth: 4.325 m / 14.19 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP097.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405851m E: 300356m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

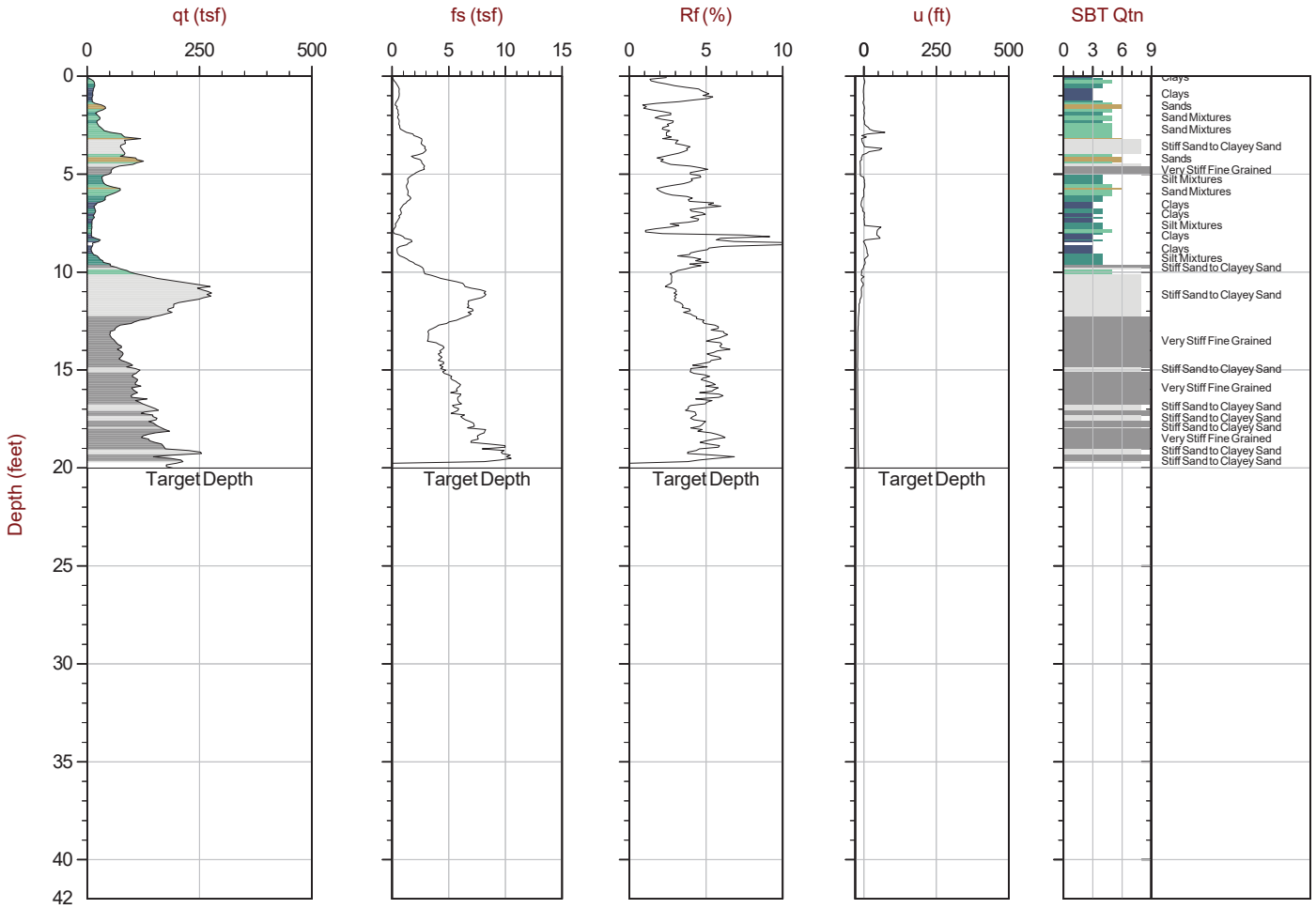
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 12:36
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-098
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP098.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405825m E: 300689m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

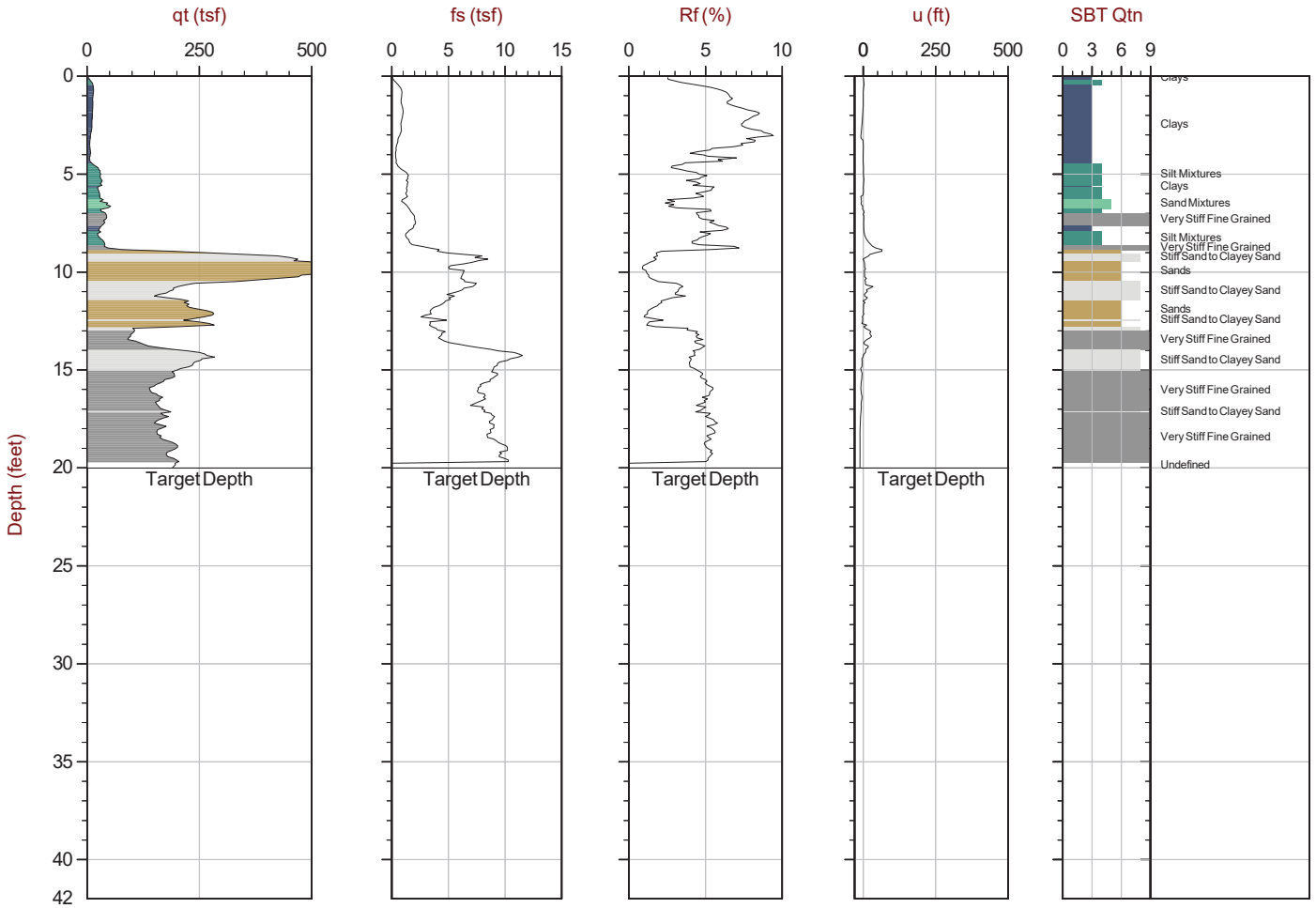
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 01:07
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-099A
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP099A.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405742m E: 301045m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

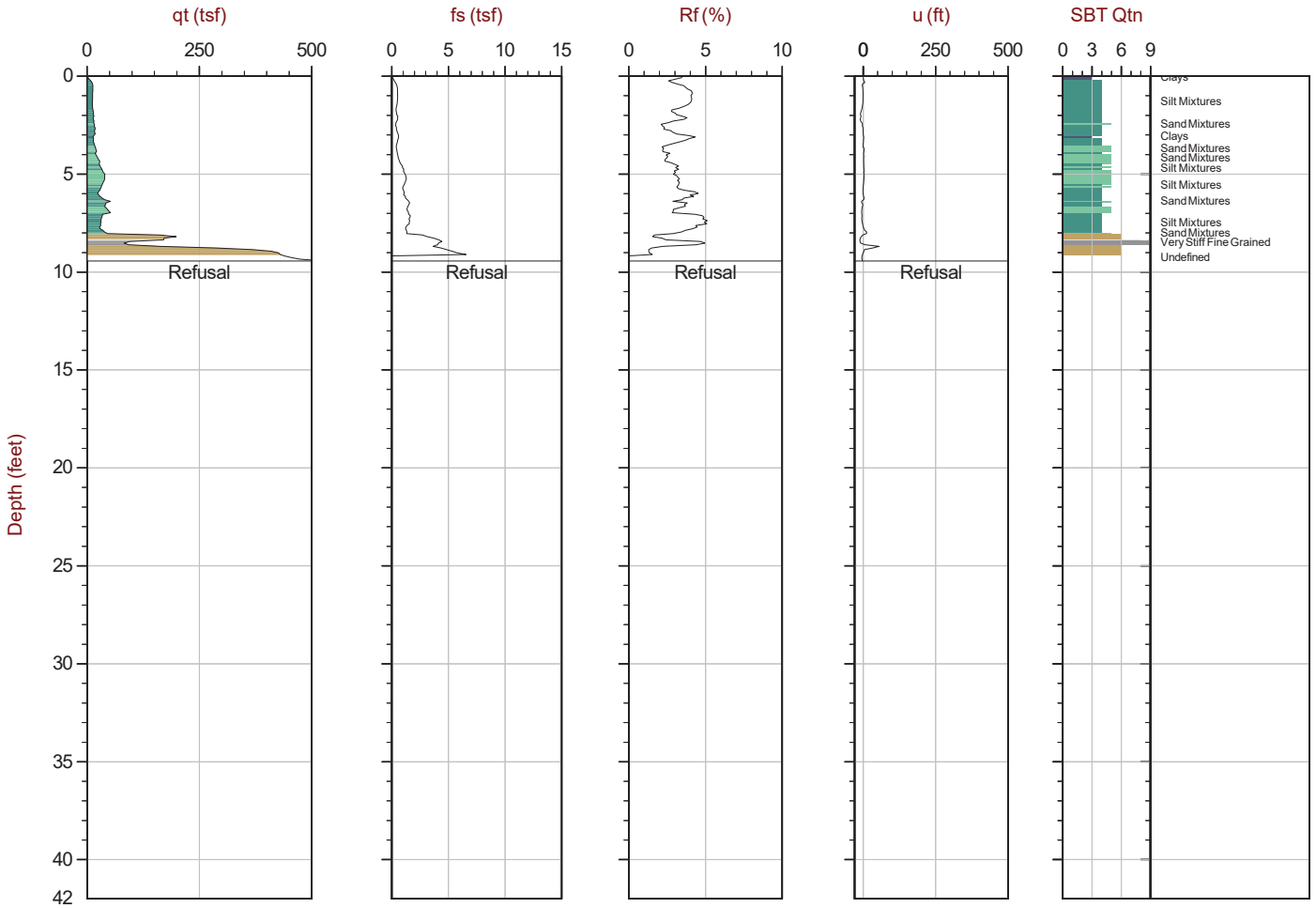
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 12:53
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-099
Cone: EC600



Max Depth: 2.875 m / 9.43 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP099.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405744m E: 301045m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

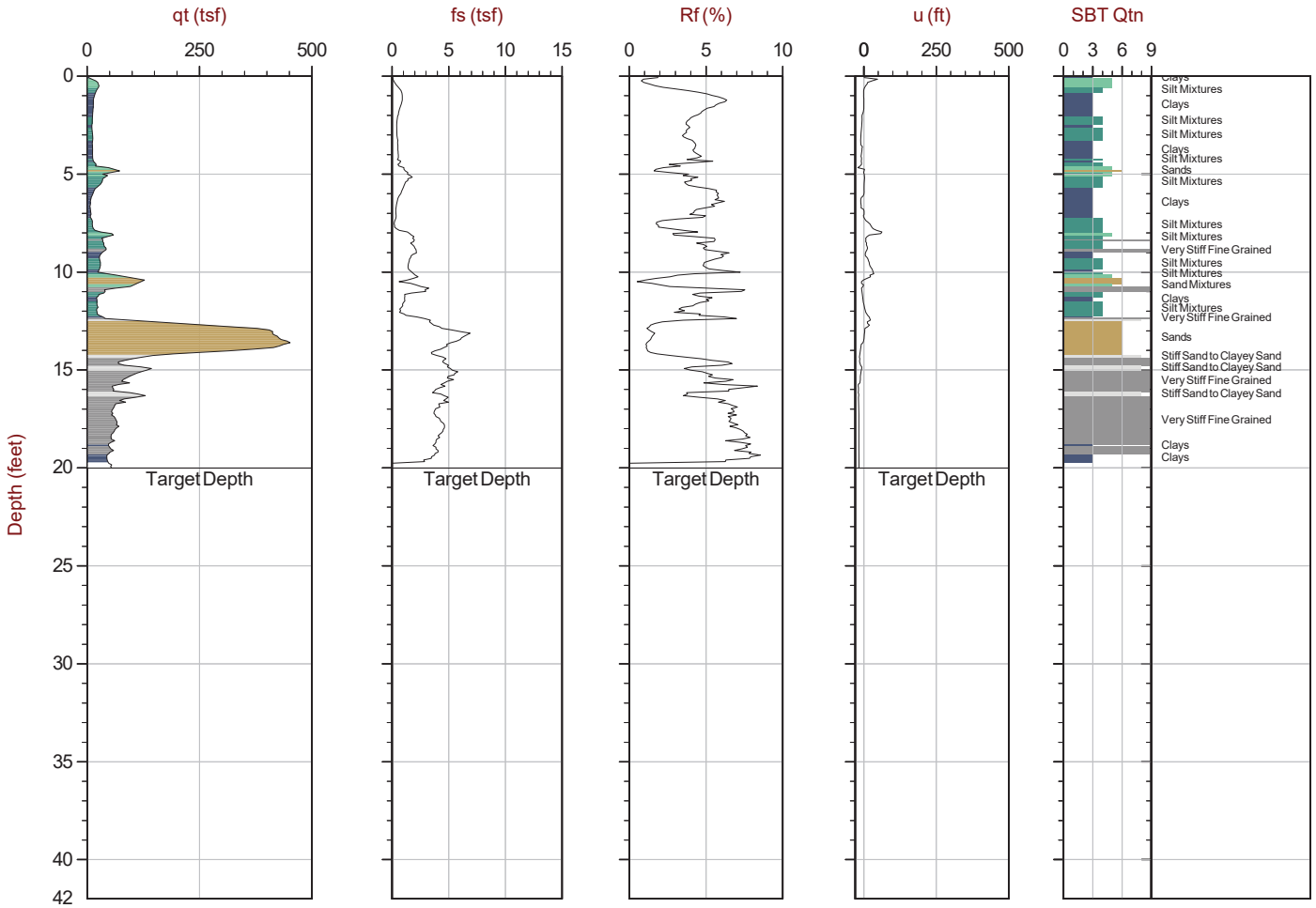
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 01:20
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-100
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP100.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405810m E: 301392m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

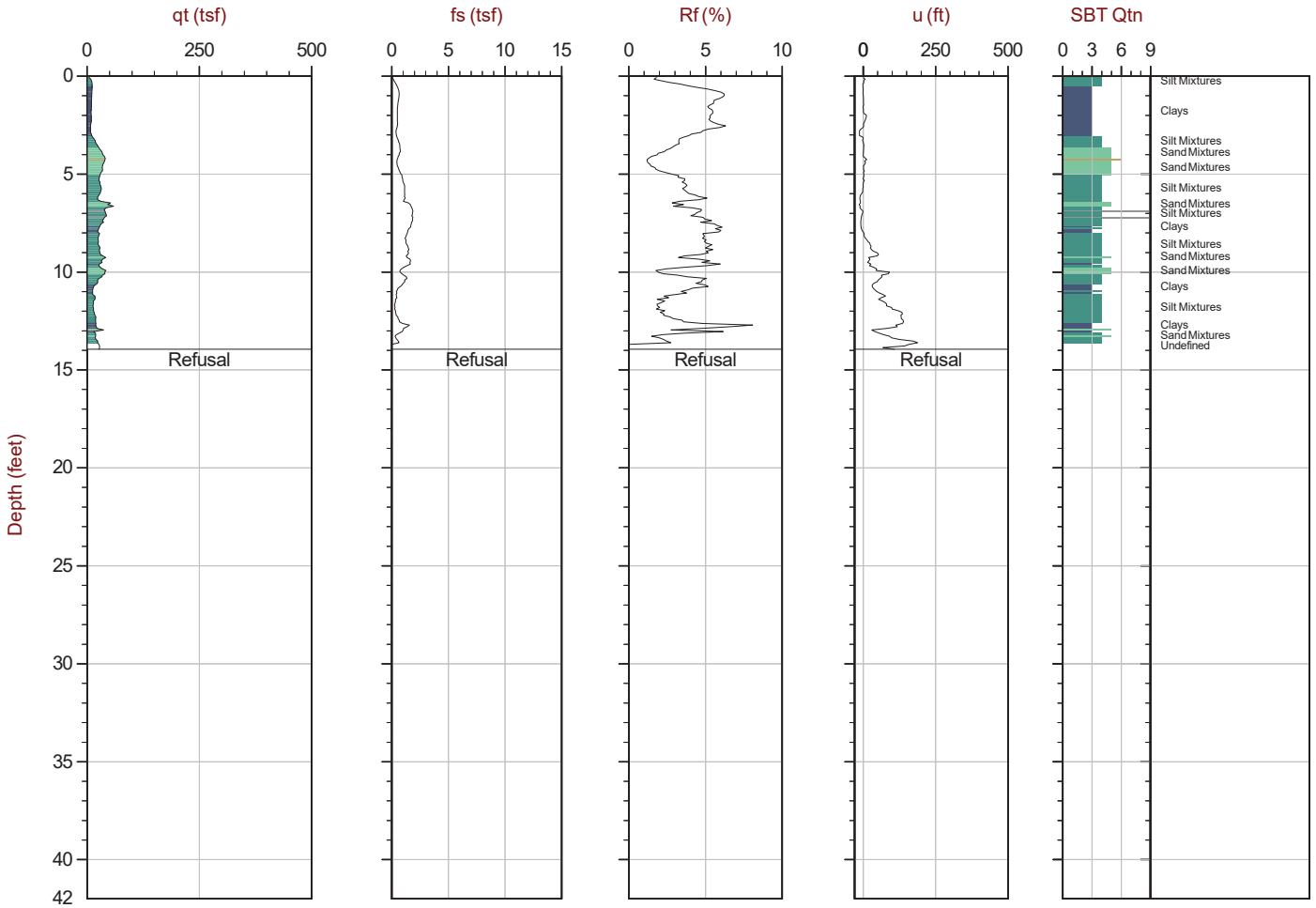
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 10:33
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-101
Cone: EC600



Max Depth: 4.250 m / 13.94 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP101.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405652m E: 297430m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

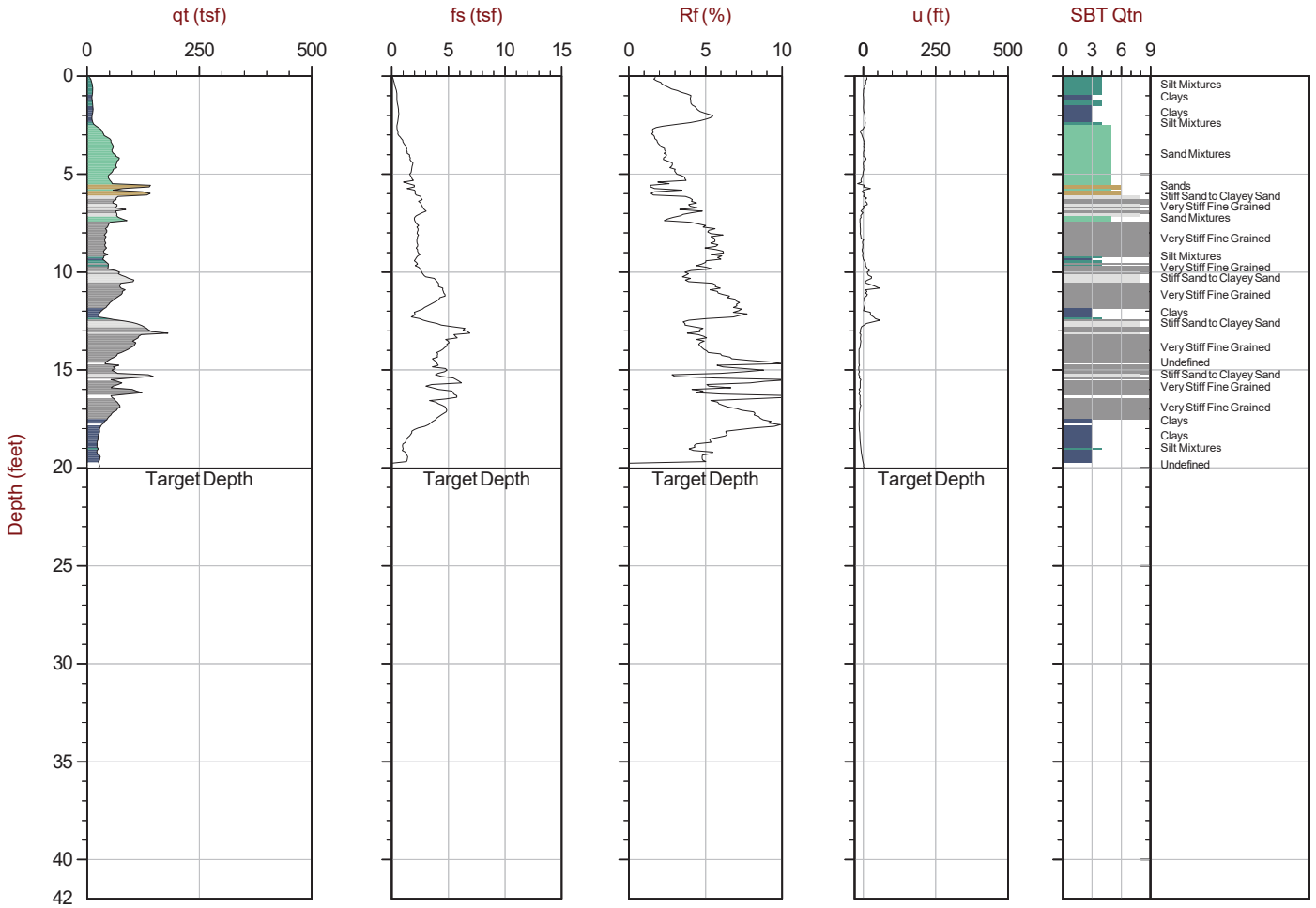
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 11:04
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-102
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP102.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405712m E: 297784m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

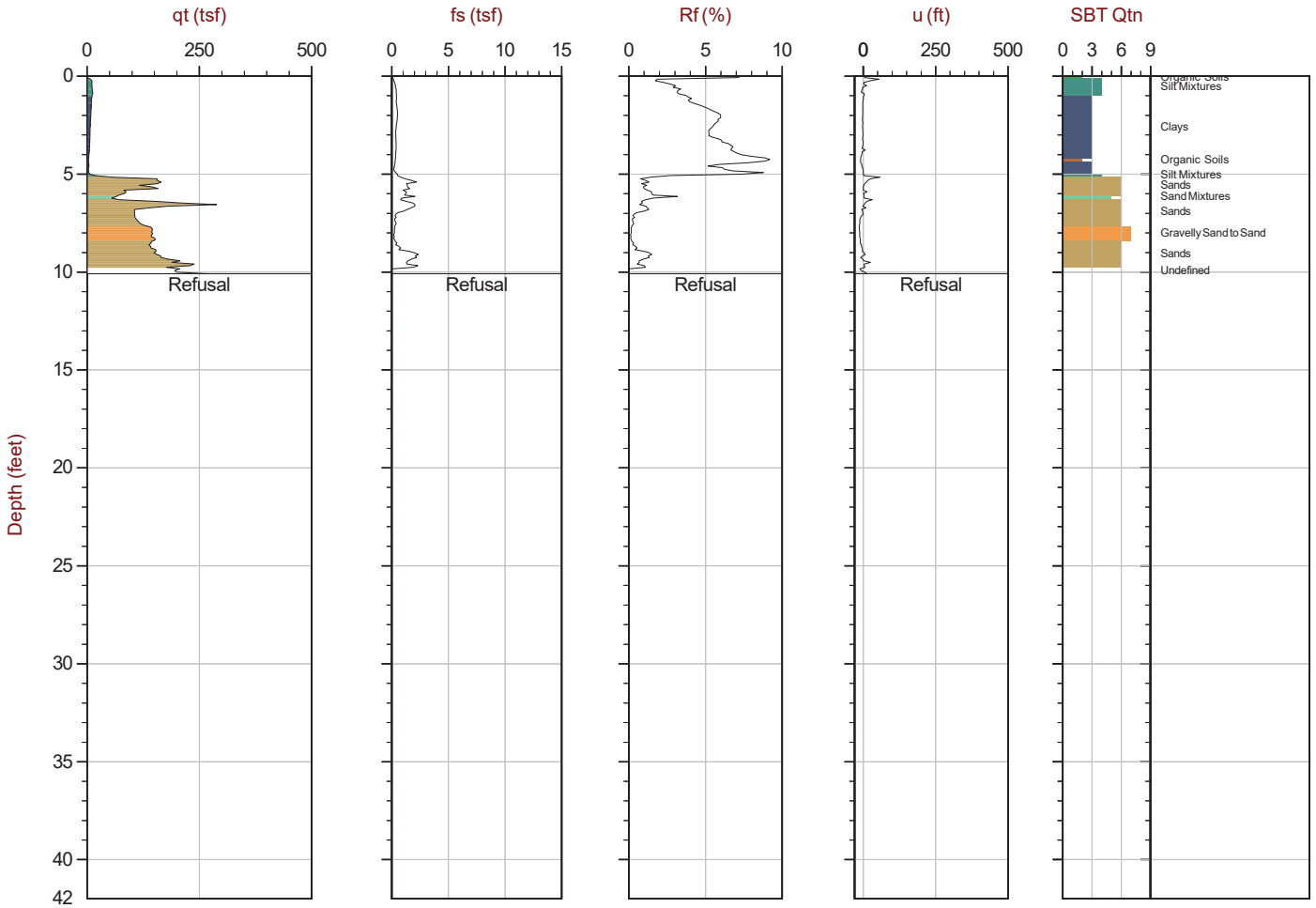
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 10:50
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-103
Cone: EC600



Max Depth: 3.075 m / 10.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP103.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405389m E: 297659m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

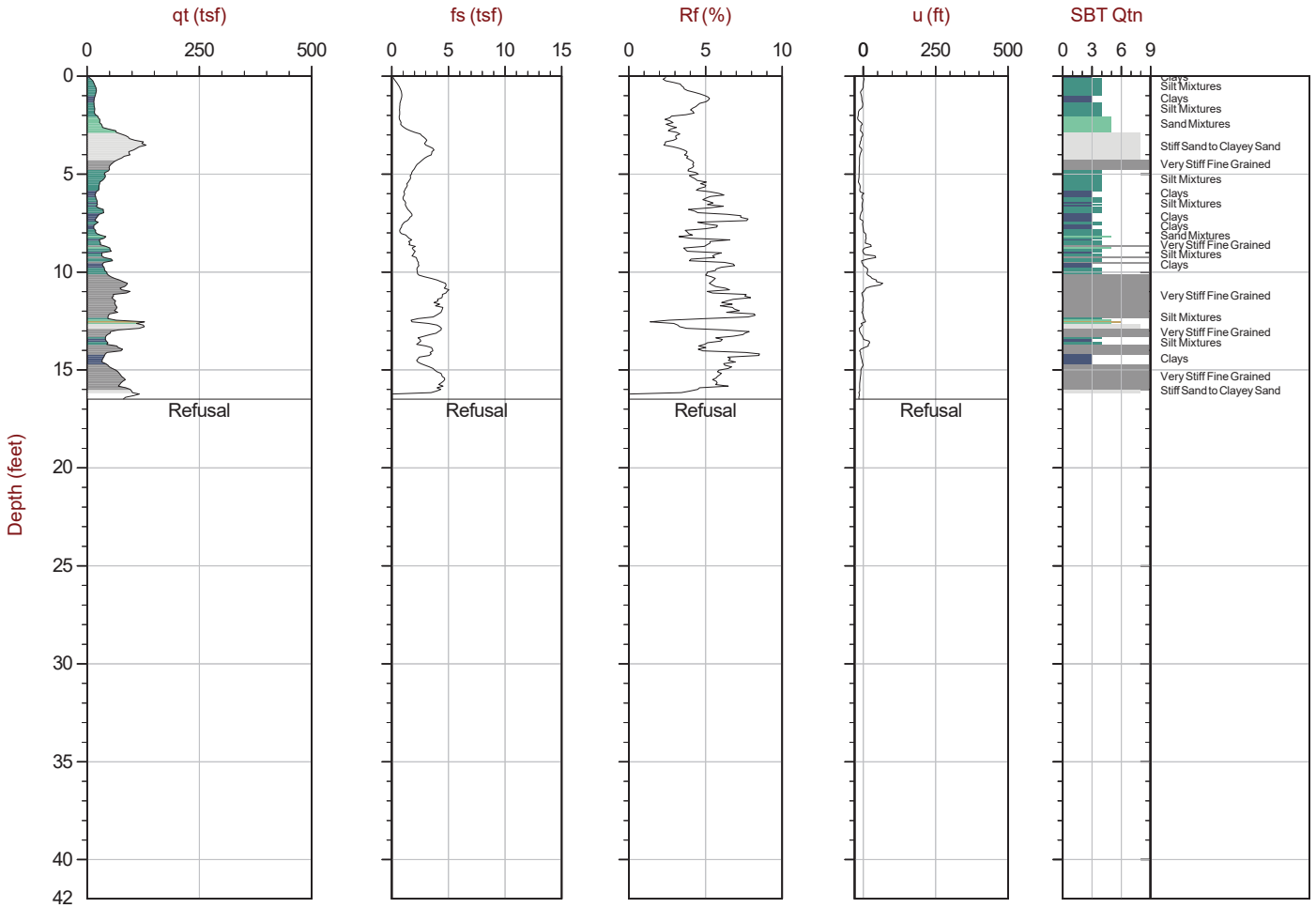
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 02:41
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-104
Cone: EC600



Max Depth: 5.025 m / 16.49 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP104.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405561m E: 298106m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

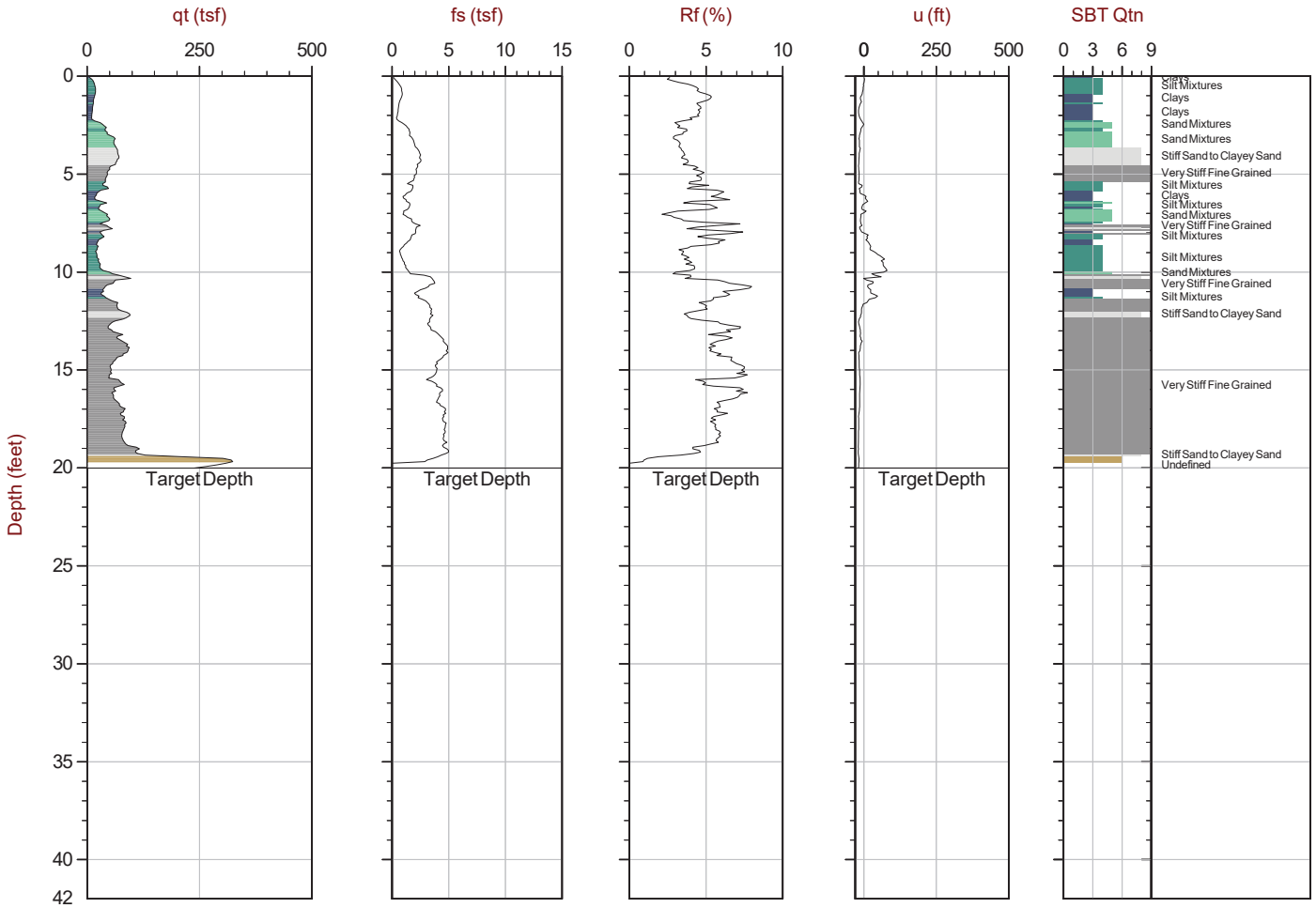
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 02:18
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-105
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP105.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405530m E: 298450m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

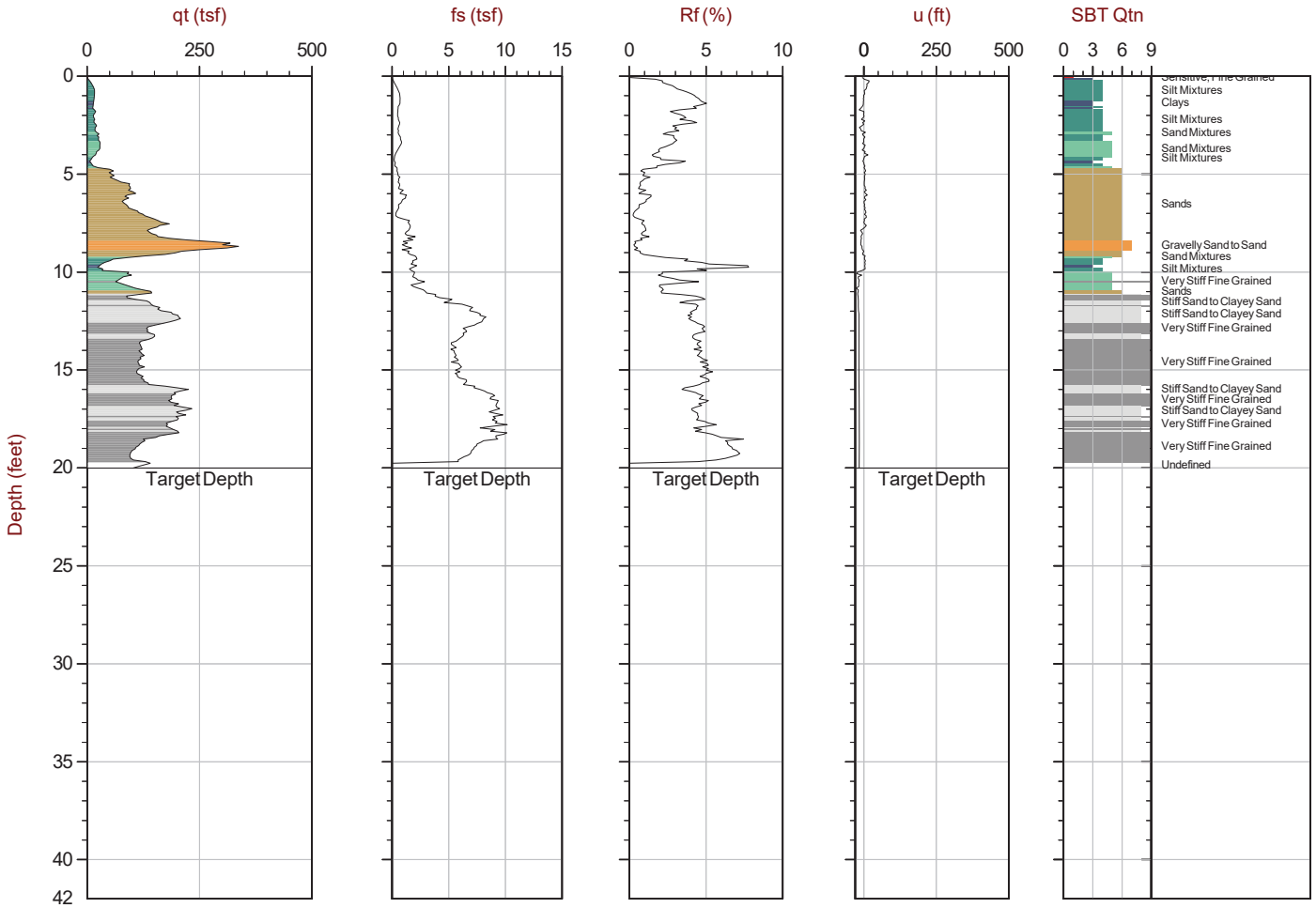
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 02:00
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-106
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP106.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405527m E: 298806m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

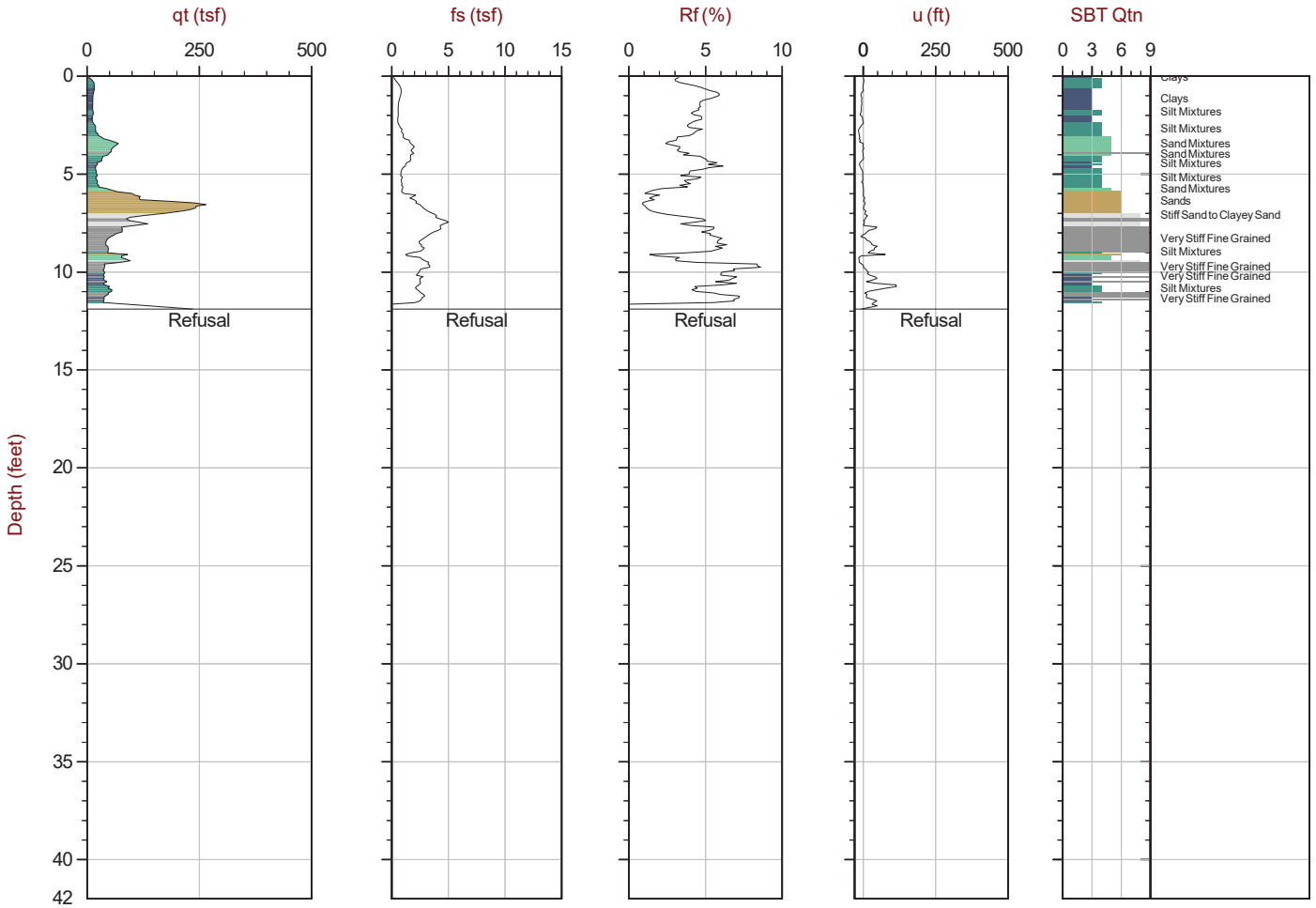
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 01:48
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-107
Cone: EC600



Max Depth: 3.625 m / 11.89 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP107.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405508m E: 299154m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

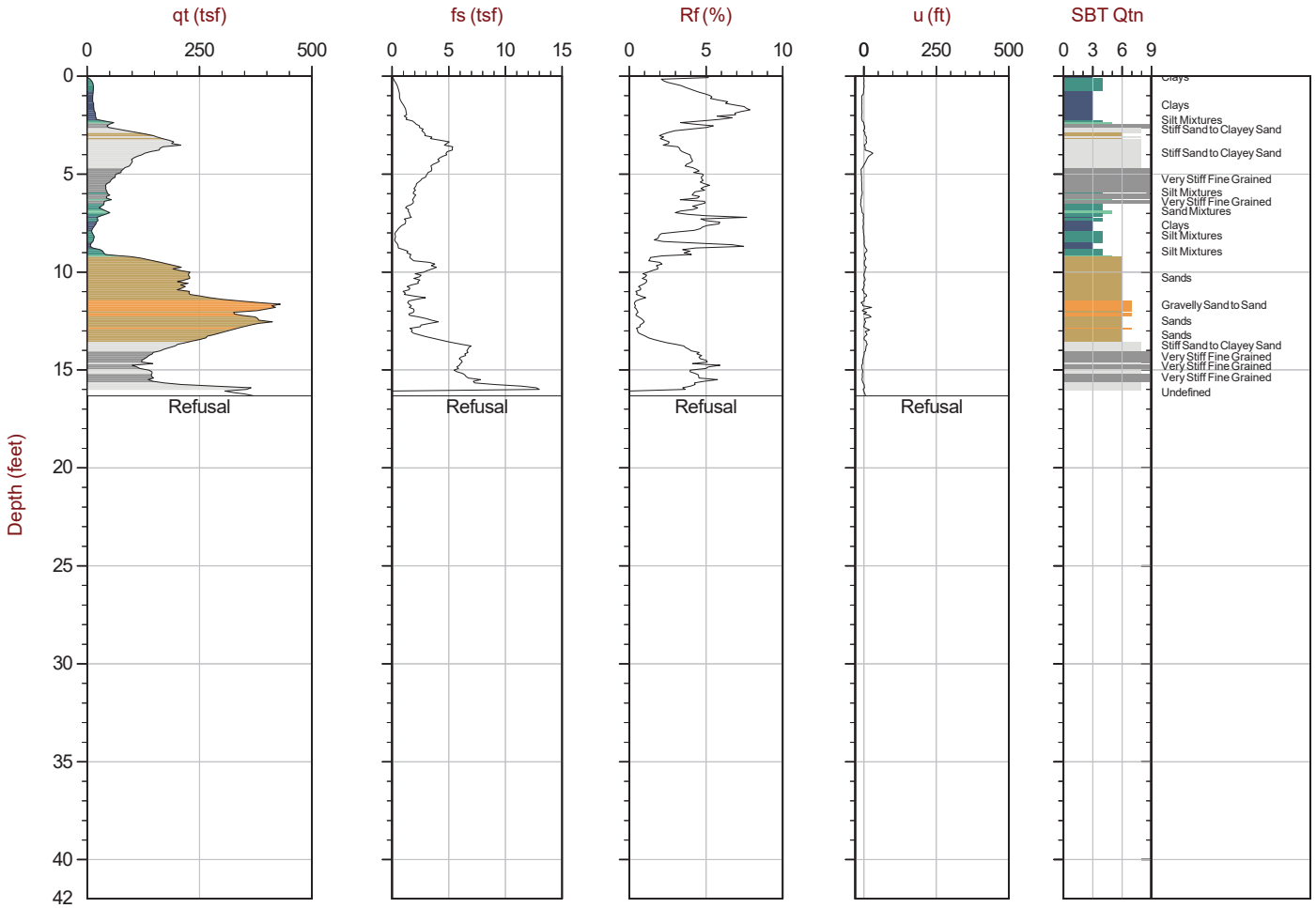
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 12:09
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-108A
Cone: EC600



Max Depth: 4.975 m / 16.32 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP108A.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405510m E: 299499m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

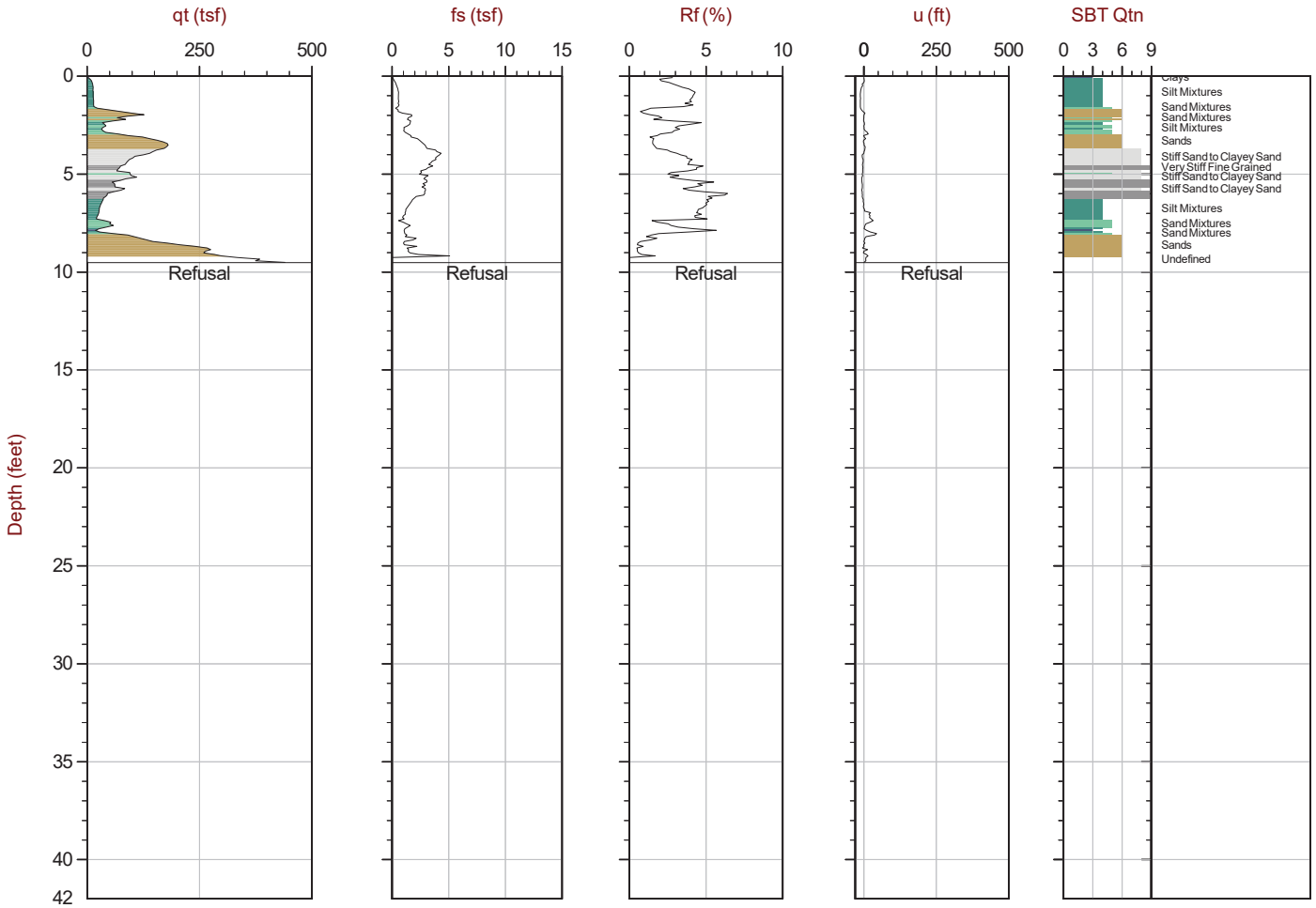
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 11:54
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-108
Cone: EC600



Max Depth: 2.900 m / 9.51 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP108.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405516m E: 299495m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

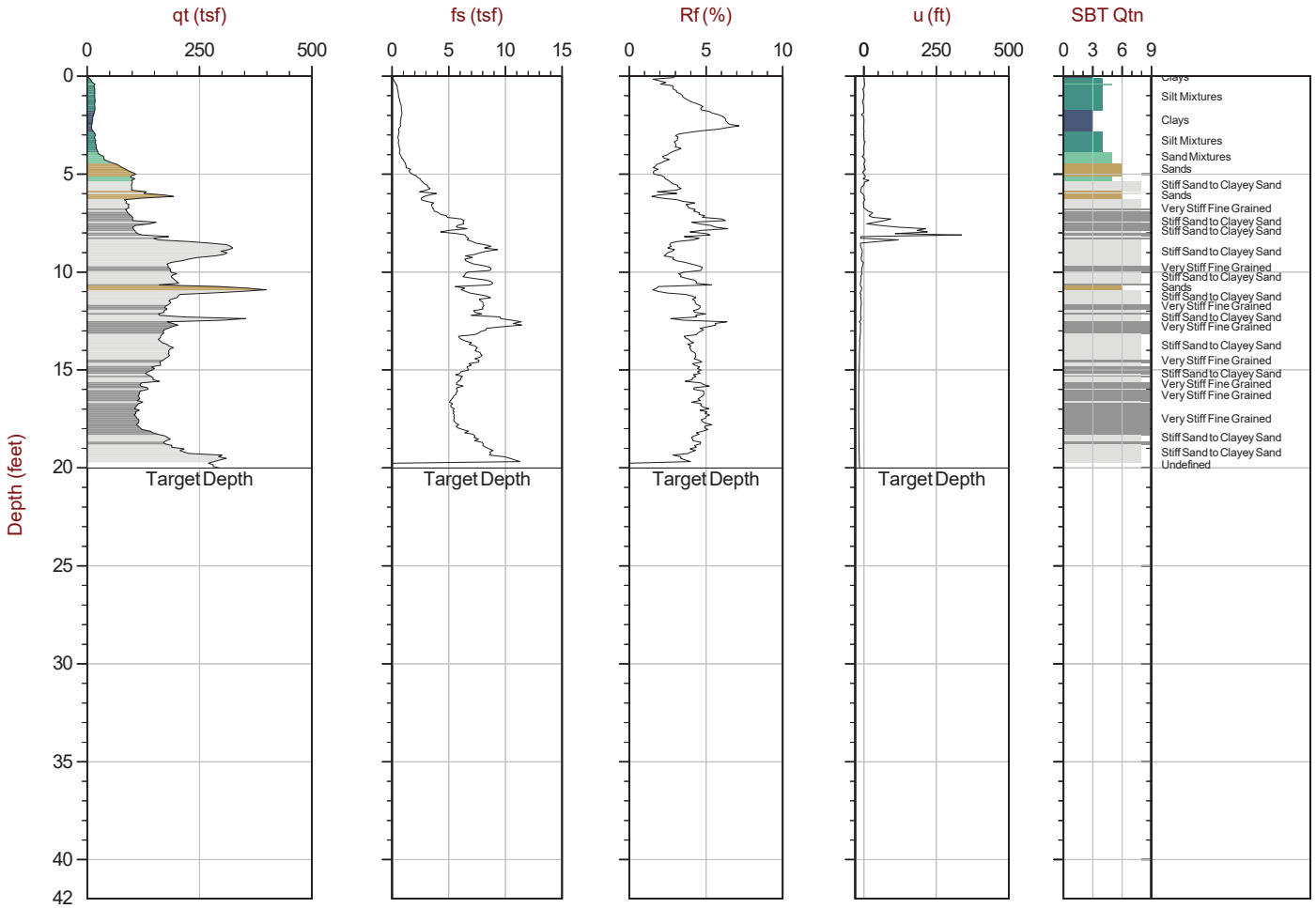
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 12:39
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-109
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP109.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405497m E: 299843m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

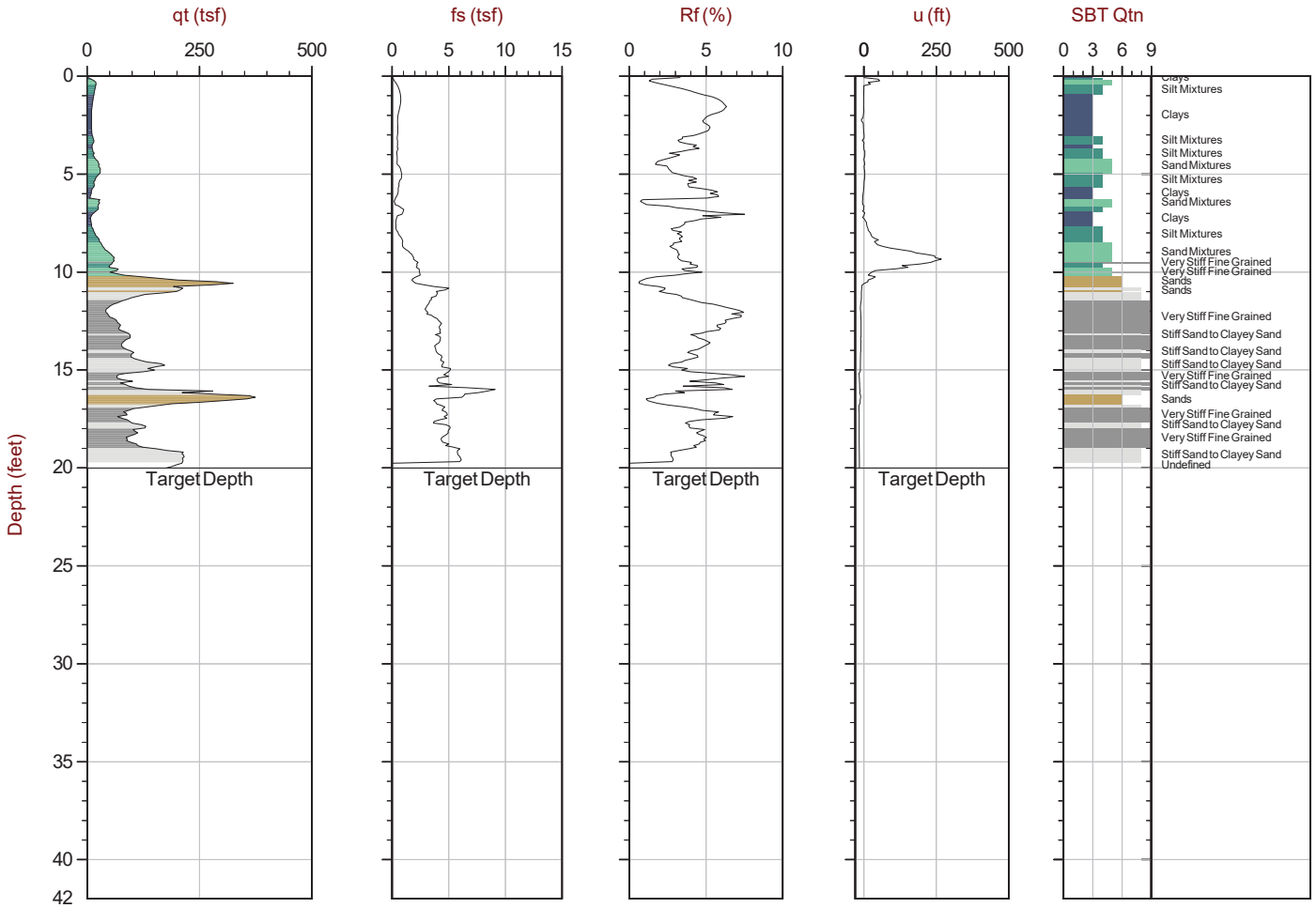
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 11:01
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-110
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP110.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405497m E: 300198m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

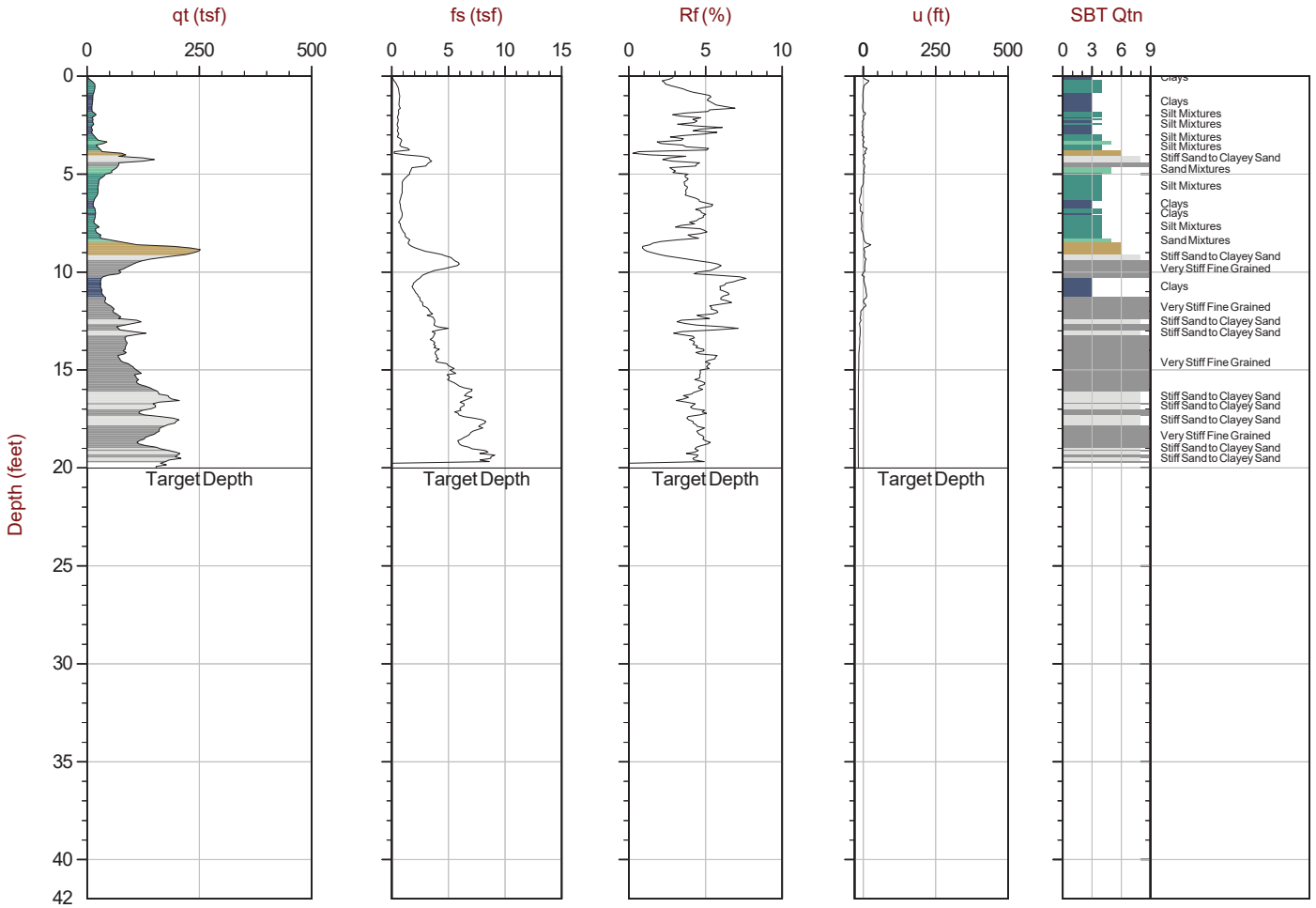
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 11:56
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-111
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP111.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405481m E: 300557m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

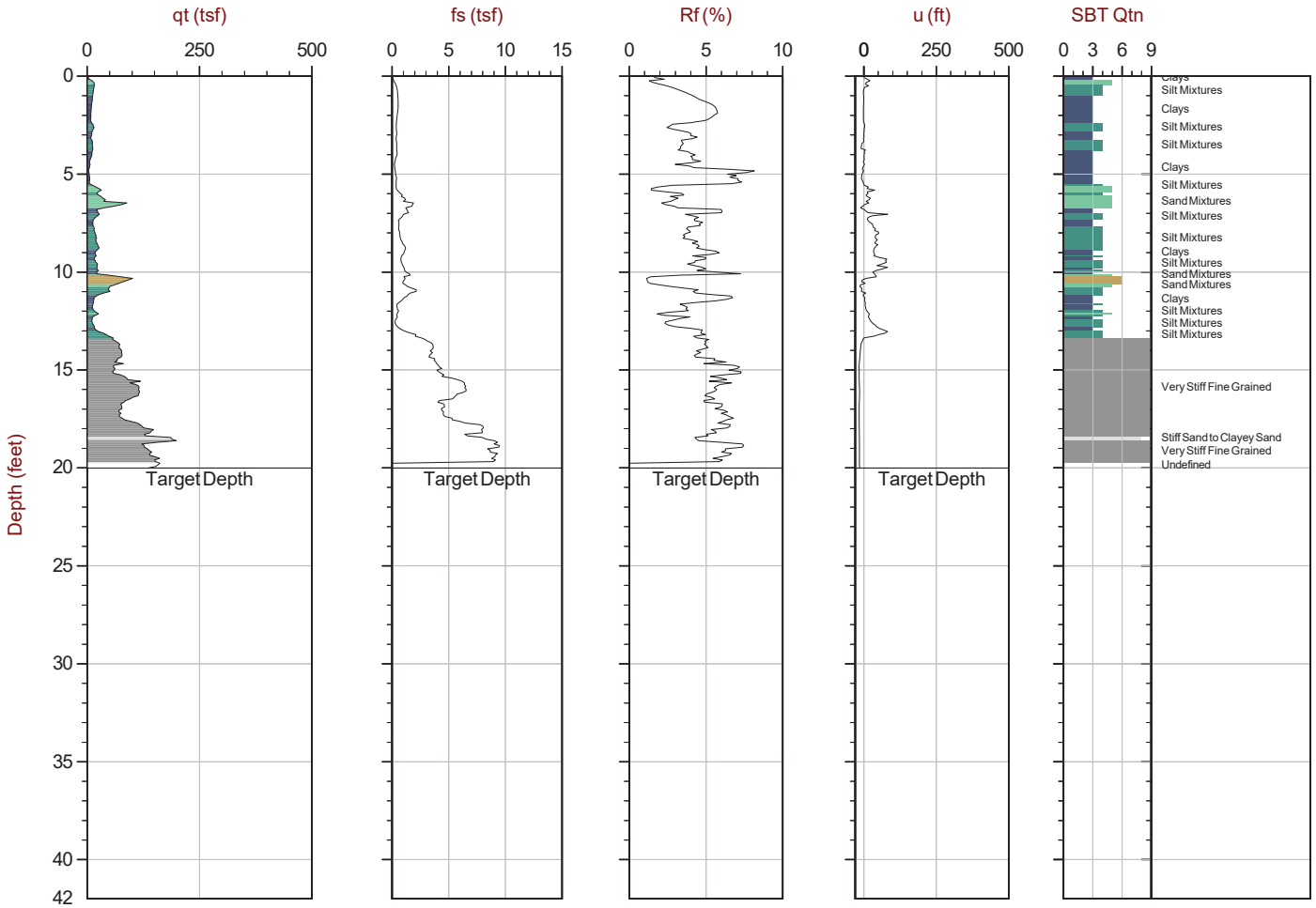
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 12:13
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-112
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP112.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405475m E: 300877m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

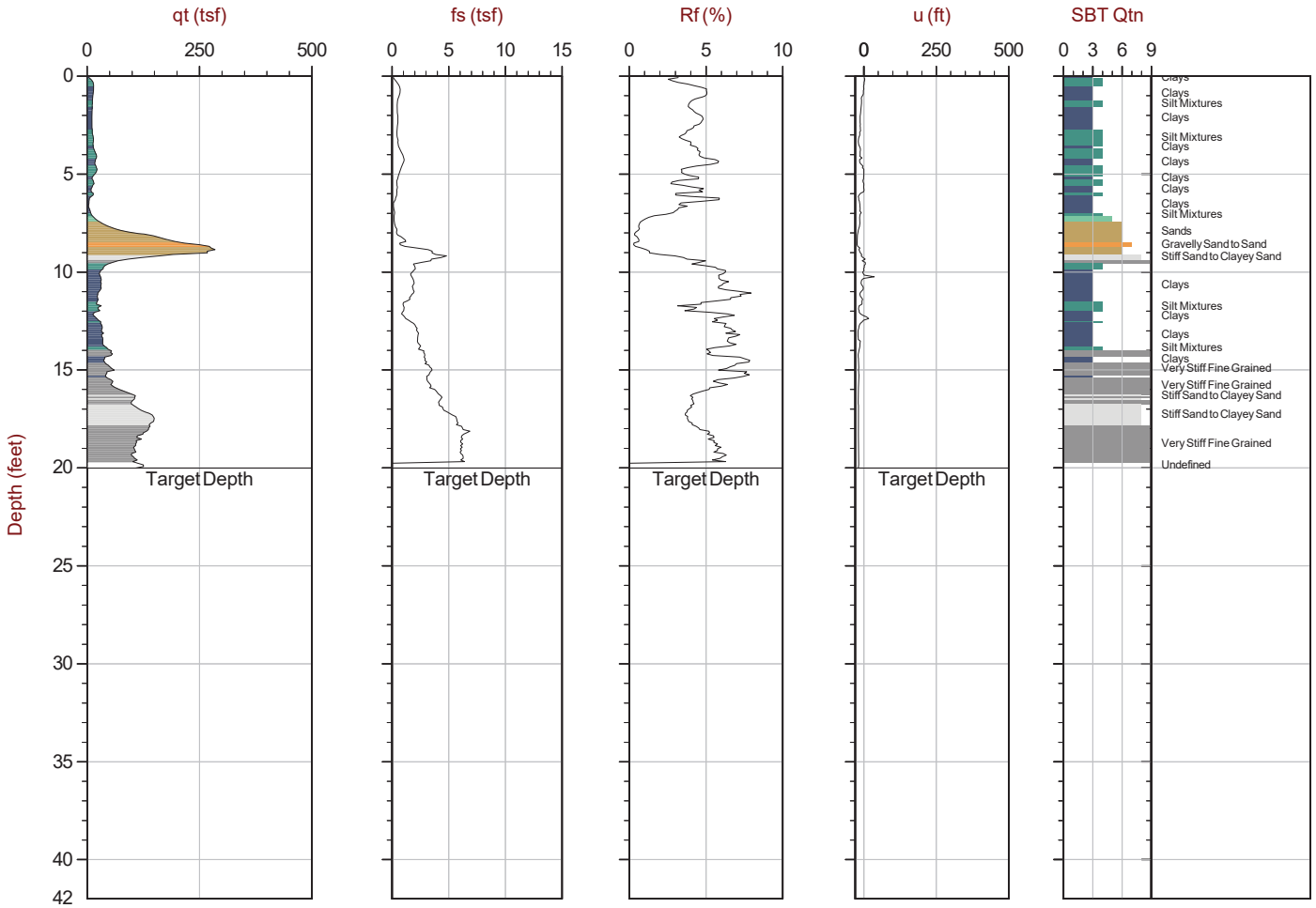
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 12:49
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-113
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP113.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405161m E: 298396m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

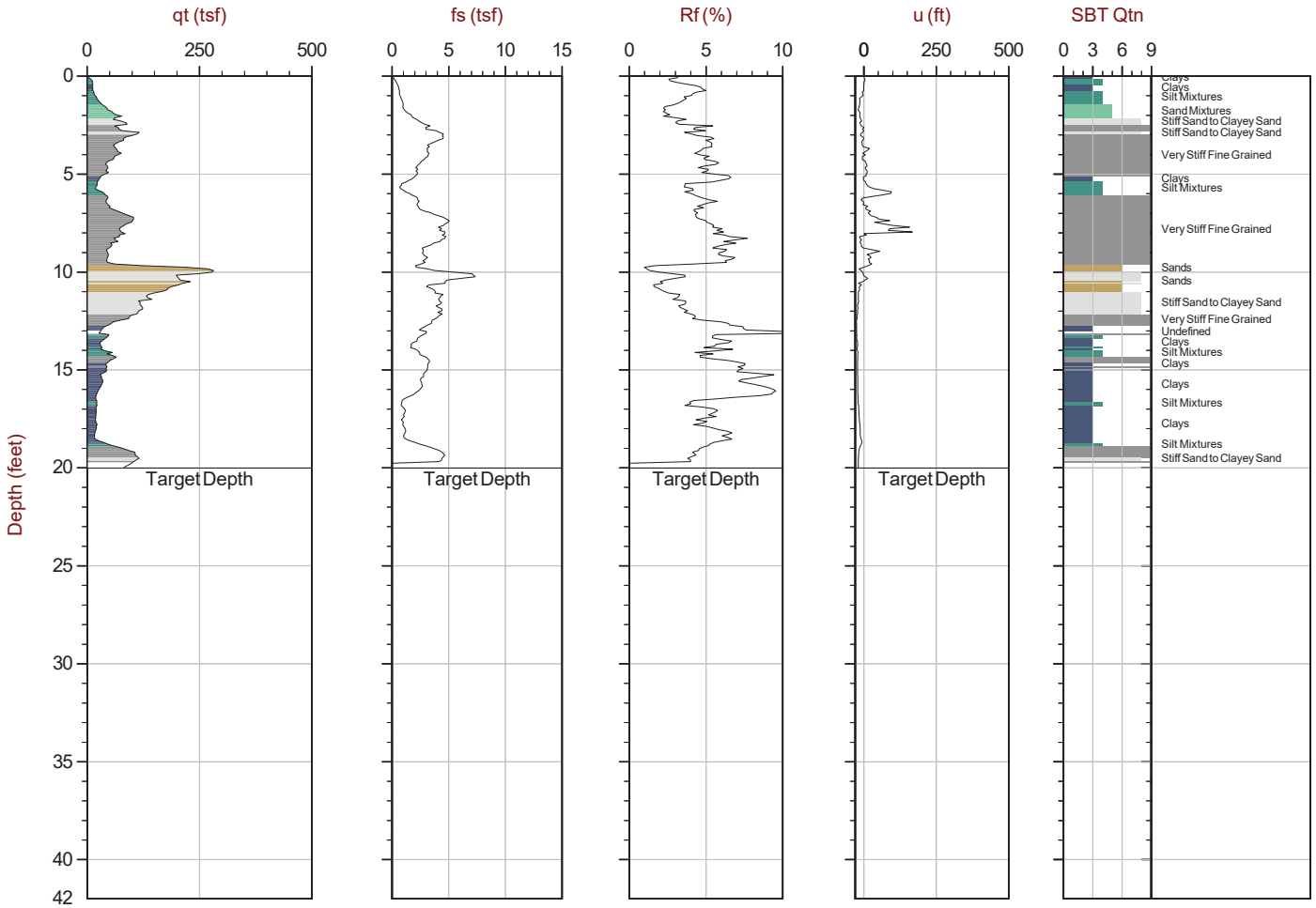
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 11:56
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-114
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP114.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4404834m E: 298643m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

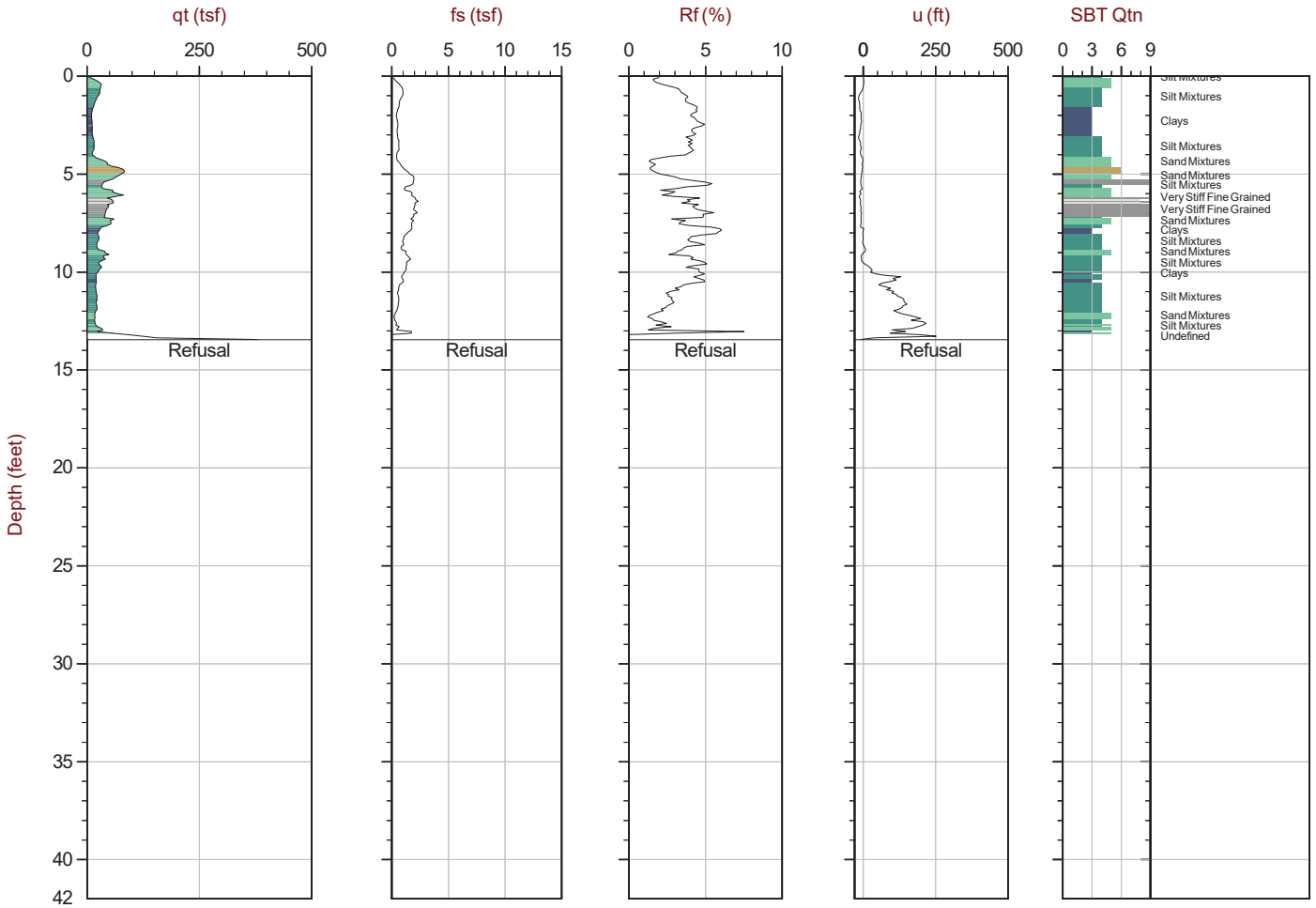
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 01:15
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-115
Cone: EC600



Max Depth: 4.100 m / 13.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP115.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405181m E: 298763m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

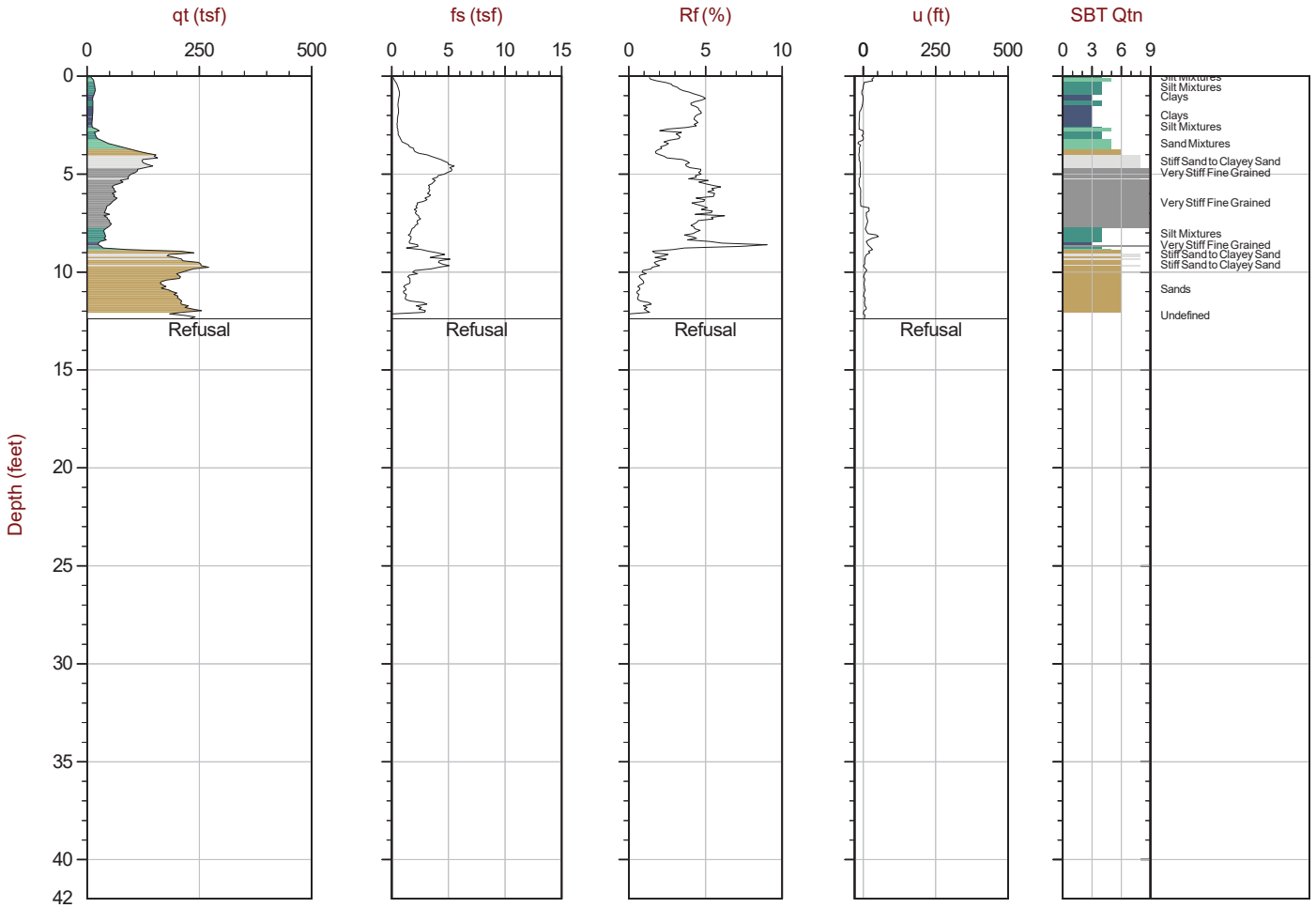
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 01:30
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-116
Cone: EC600



Max Depth: 3.775 m / 12.39 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP116.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405143m E: 299090m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

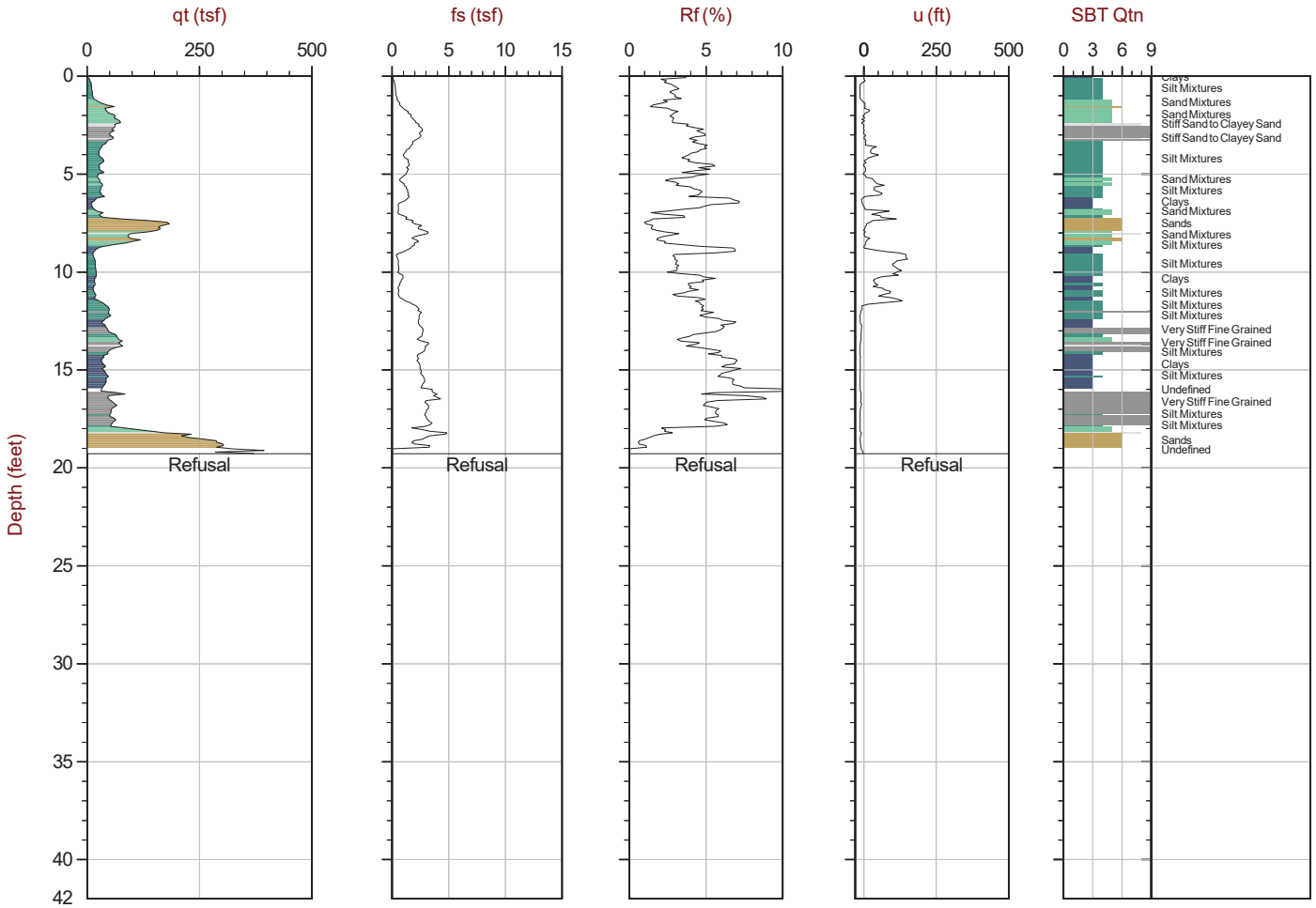
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-12 12:20
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-117
Cone: EC600



Max Depth: 5.875 m / 19.27 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP117.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405166m E: 299426m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

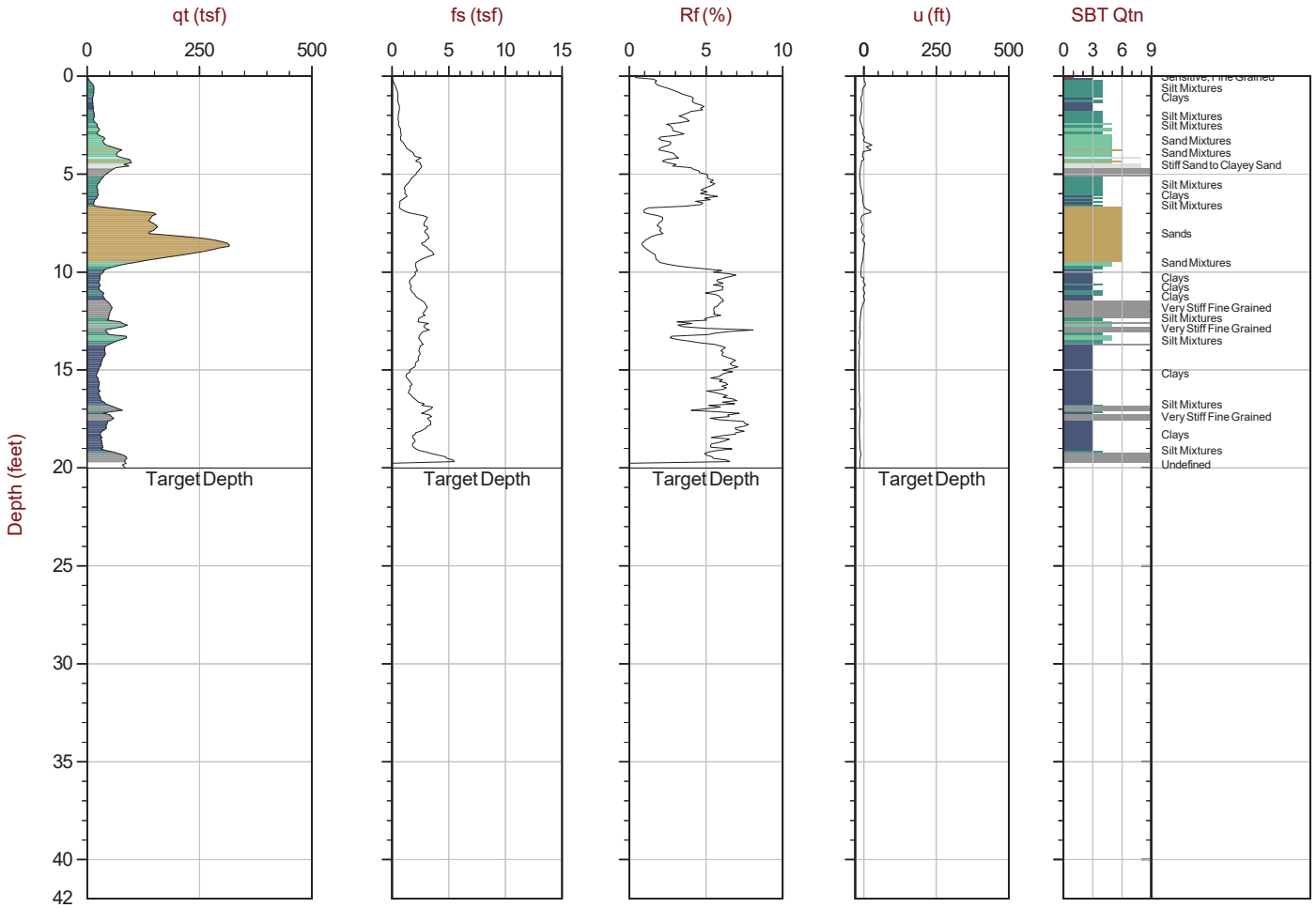
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 11:18
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-118
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP118.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405150m E: 299967m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

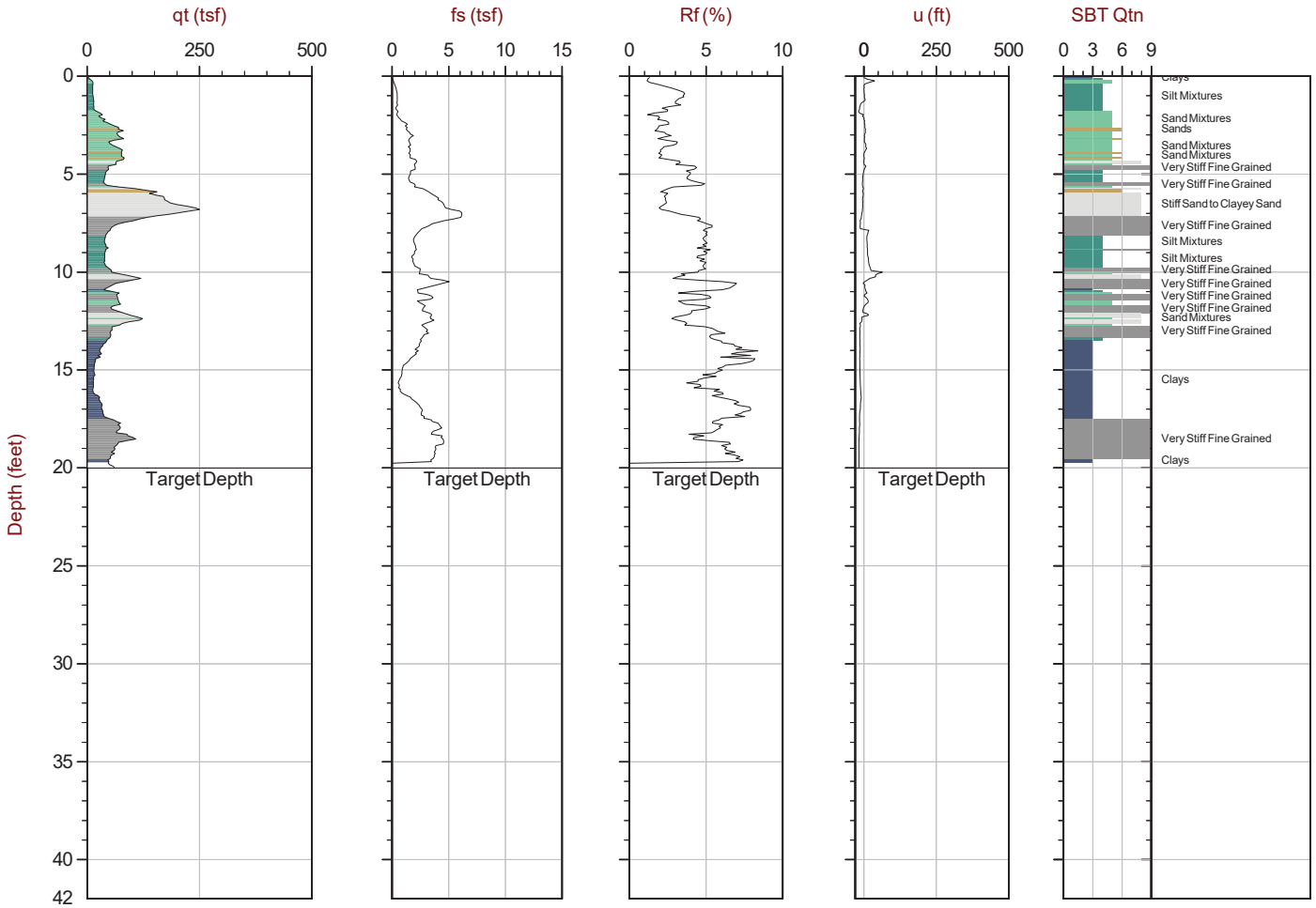
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-13 11:38
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-119
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP119.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405133m E: 300329m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

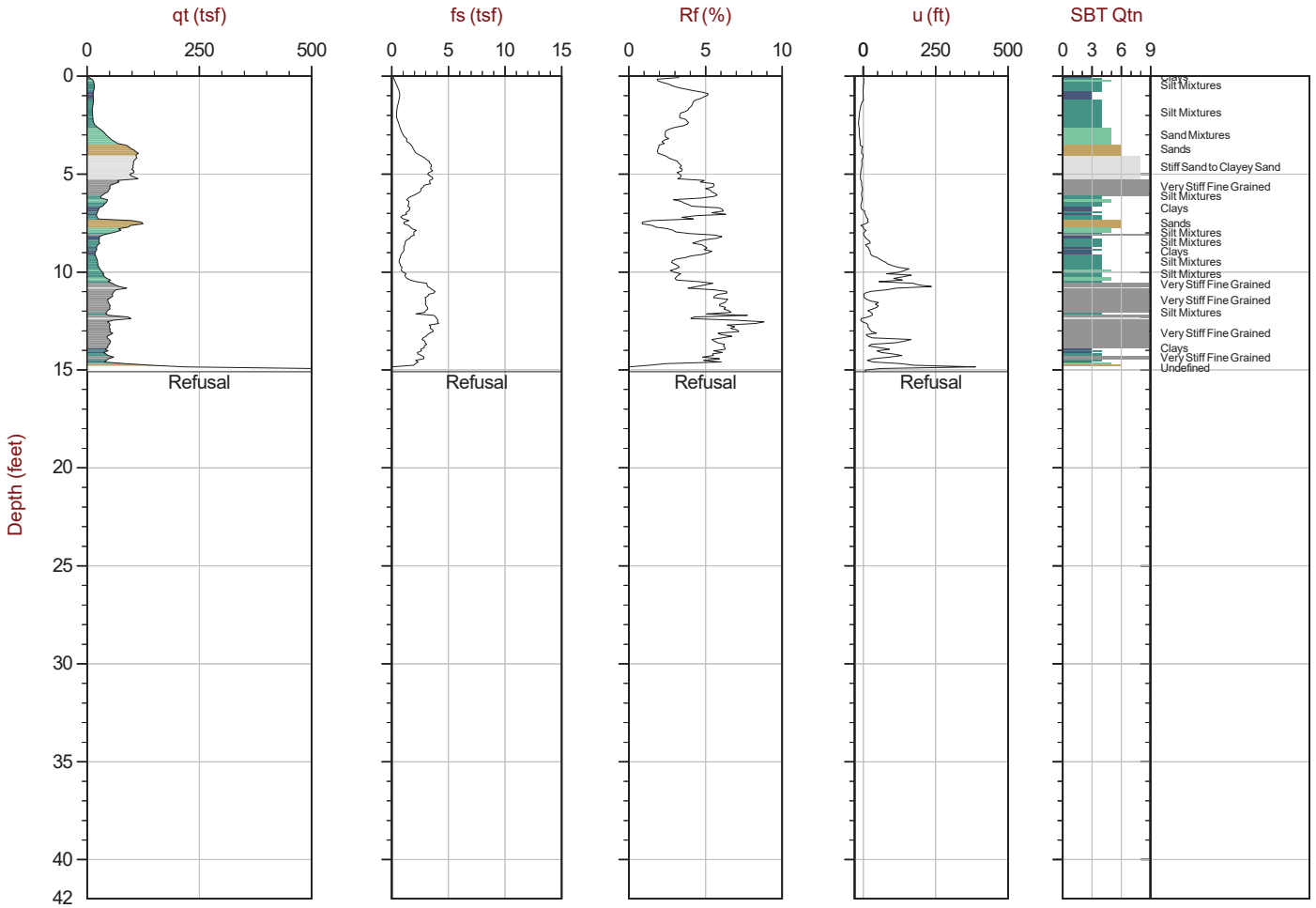
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 01:40
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-201
Cone: EC600



Max Depth: 4.600 m / 15.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP201.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410786m E: 294224m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

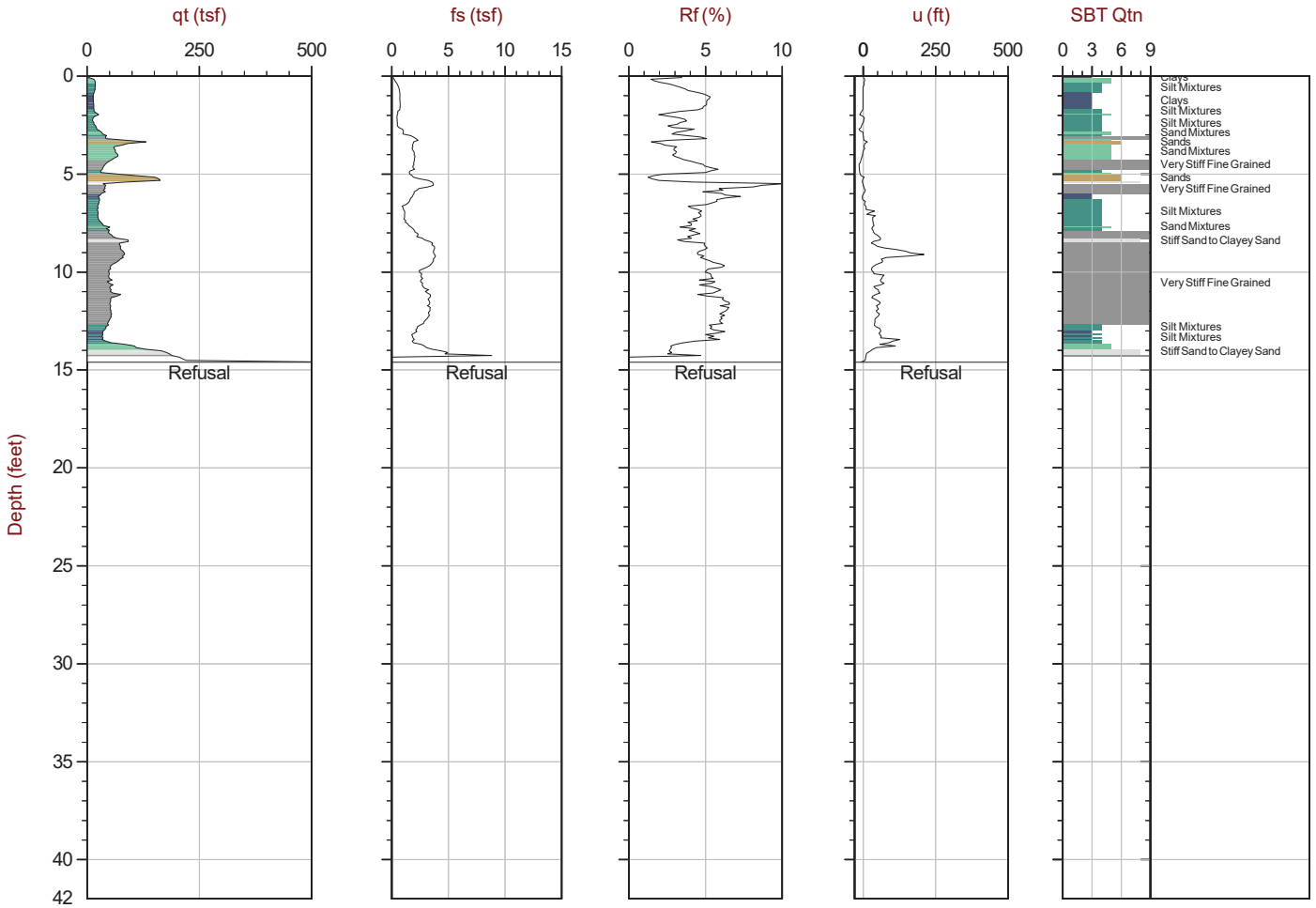
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 01:03
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-202
Cone: EC600



Max Depth: 4.450 m / 14.60 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP202.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410755m E: 294591m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

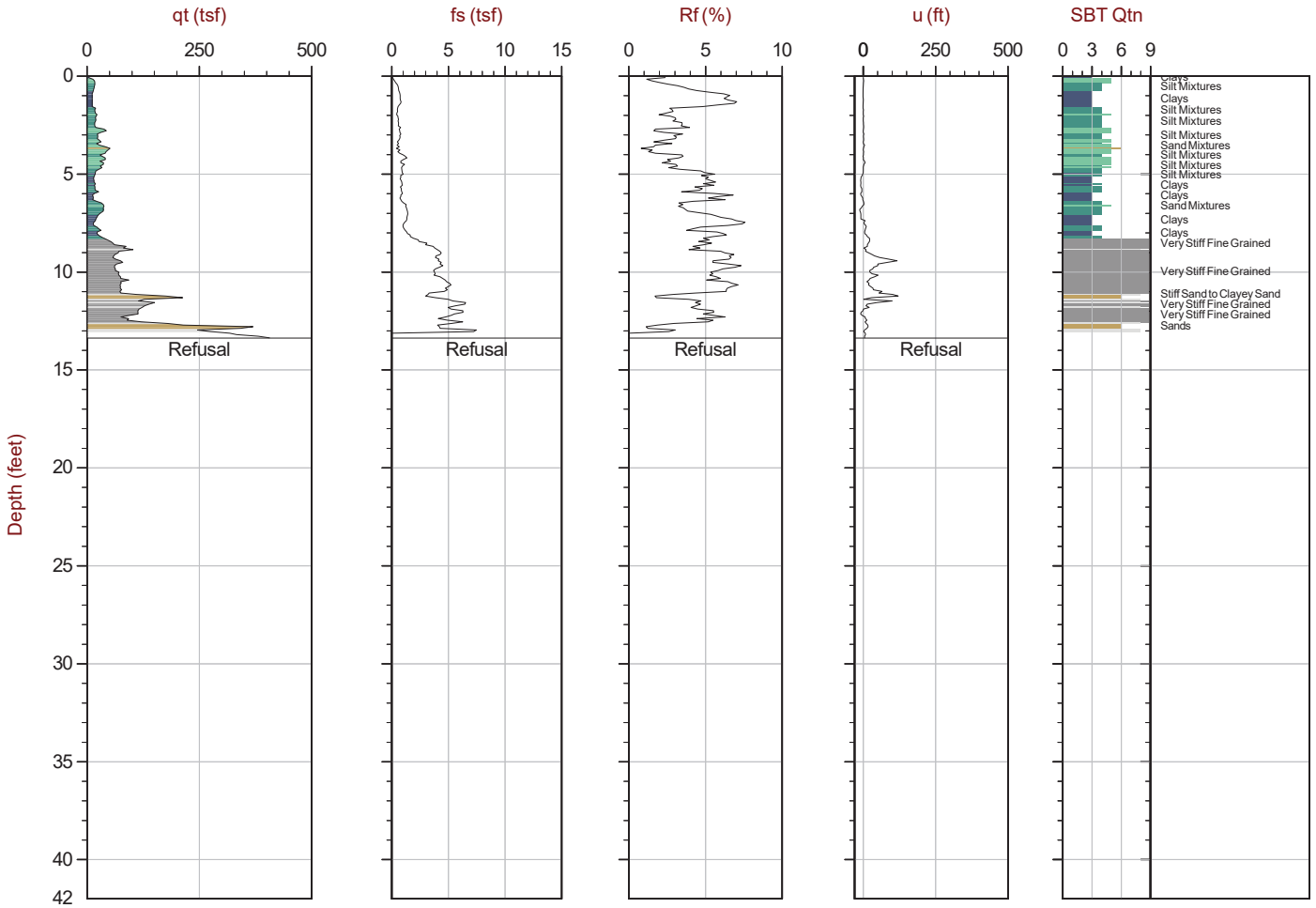
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 12:10
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-203
Cone: EC600



Max Depth: 4.075 m / 13.37 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP203.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410721m E: 294956m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

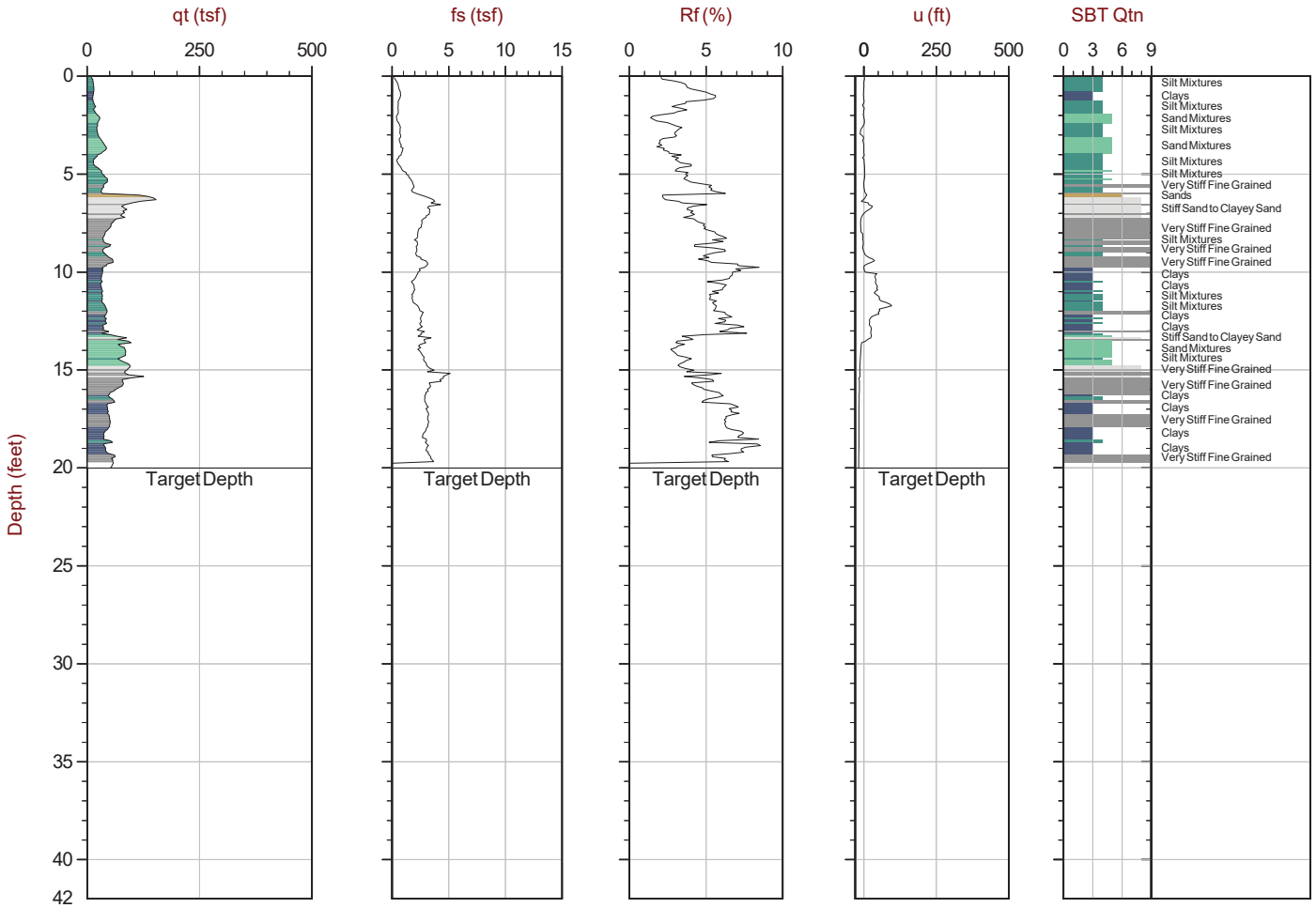
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 11:20
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-204
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP204.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410686m E: 295312m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

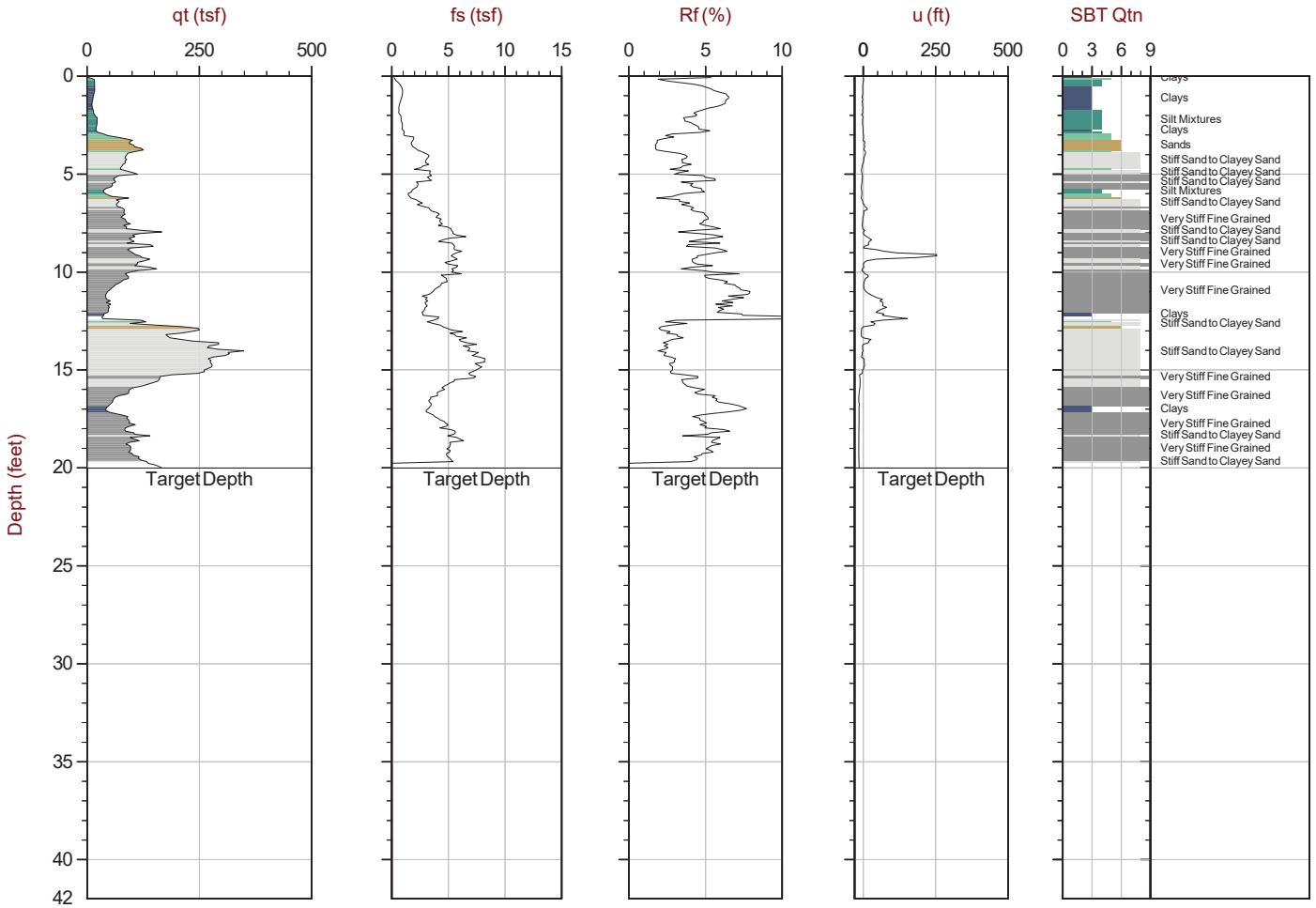
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 11:01
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-205
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP205.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410594m E: 295637m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

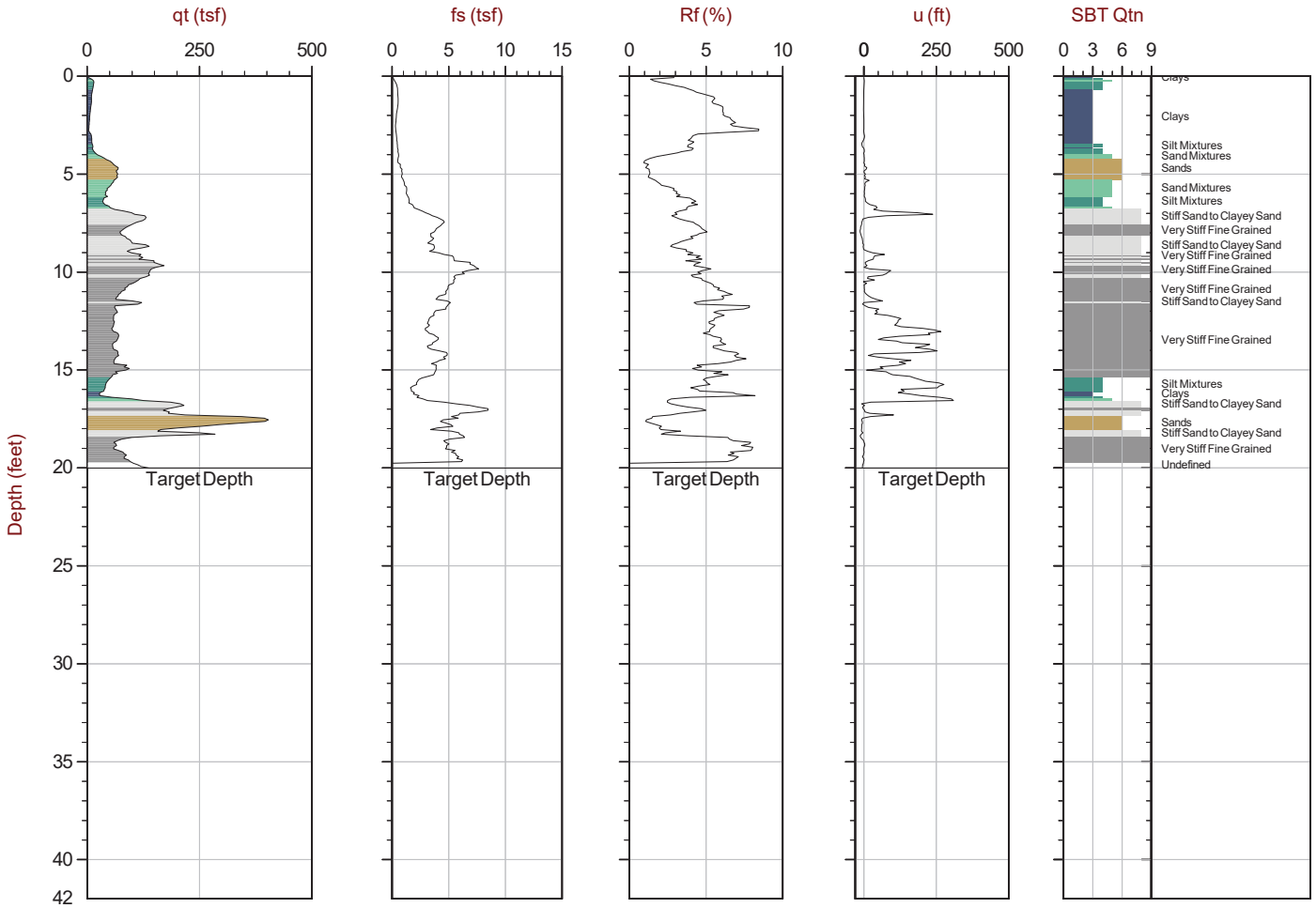
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 01:55
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-206
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP206.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410518m E: 294142m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

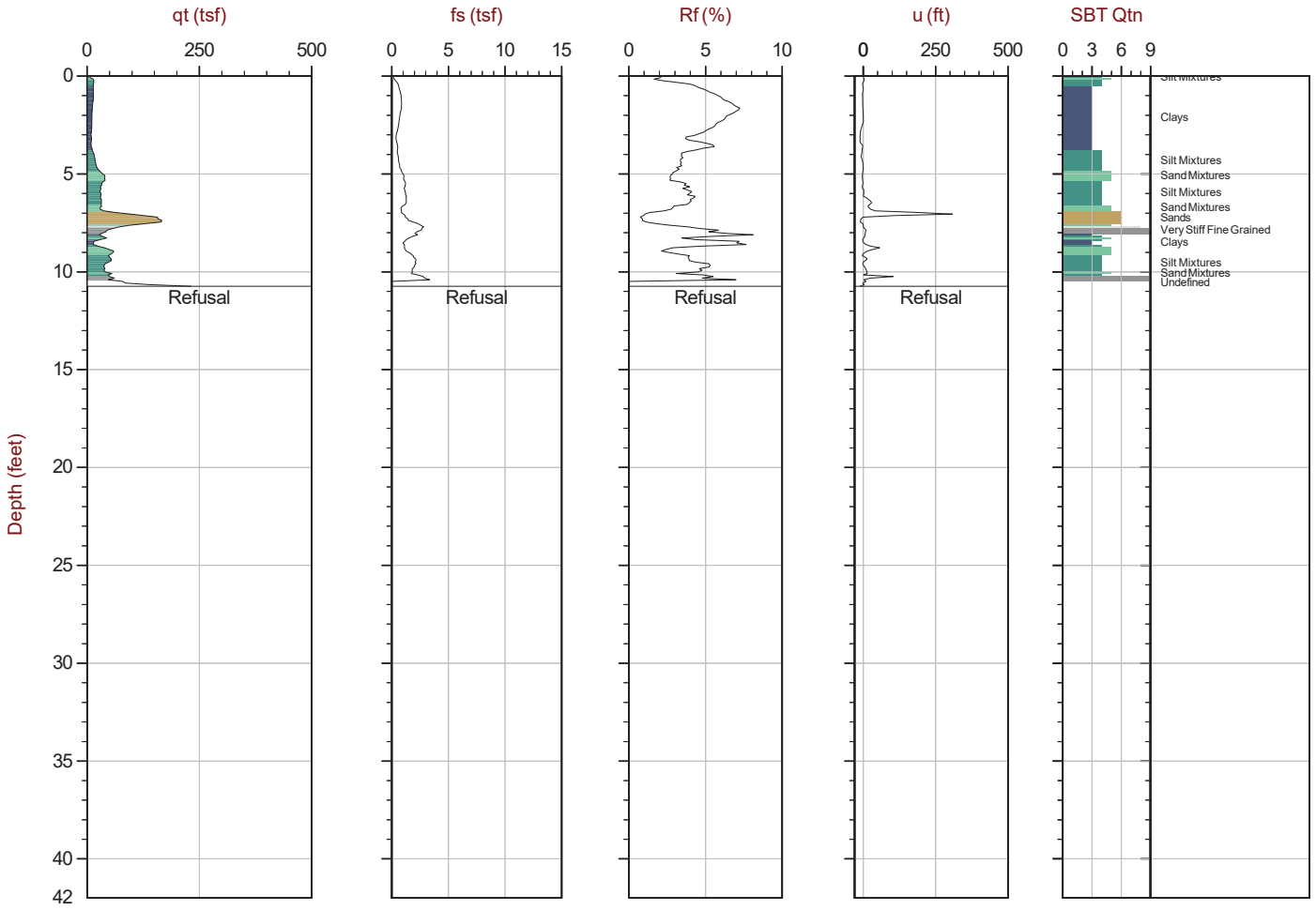
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 01:21
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-207
Cone: EC600



Max Depth: 3.275 m / 10.74 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP207.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410504m E: 294424m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

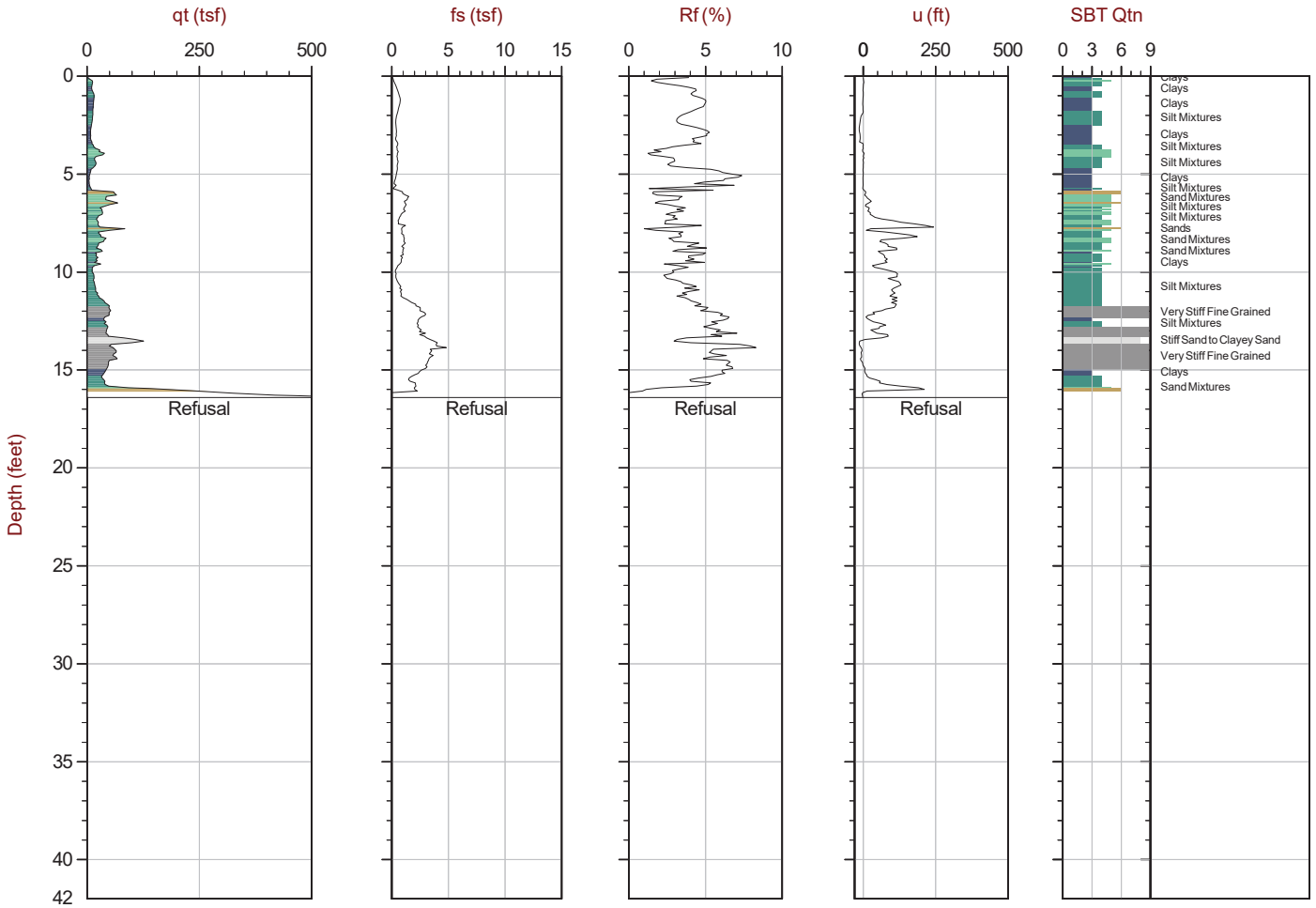
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 12:31
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-208
Cone: EC600



Max Depth: 5.000 m / 16.40 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP208.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410463m E: 294752m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

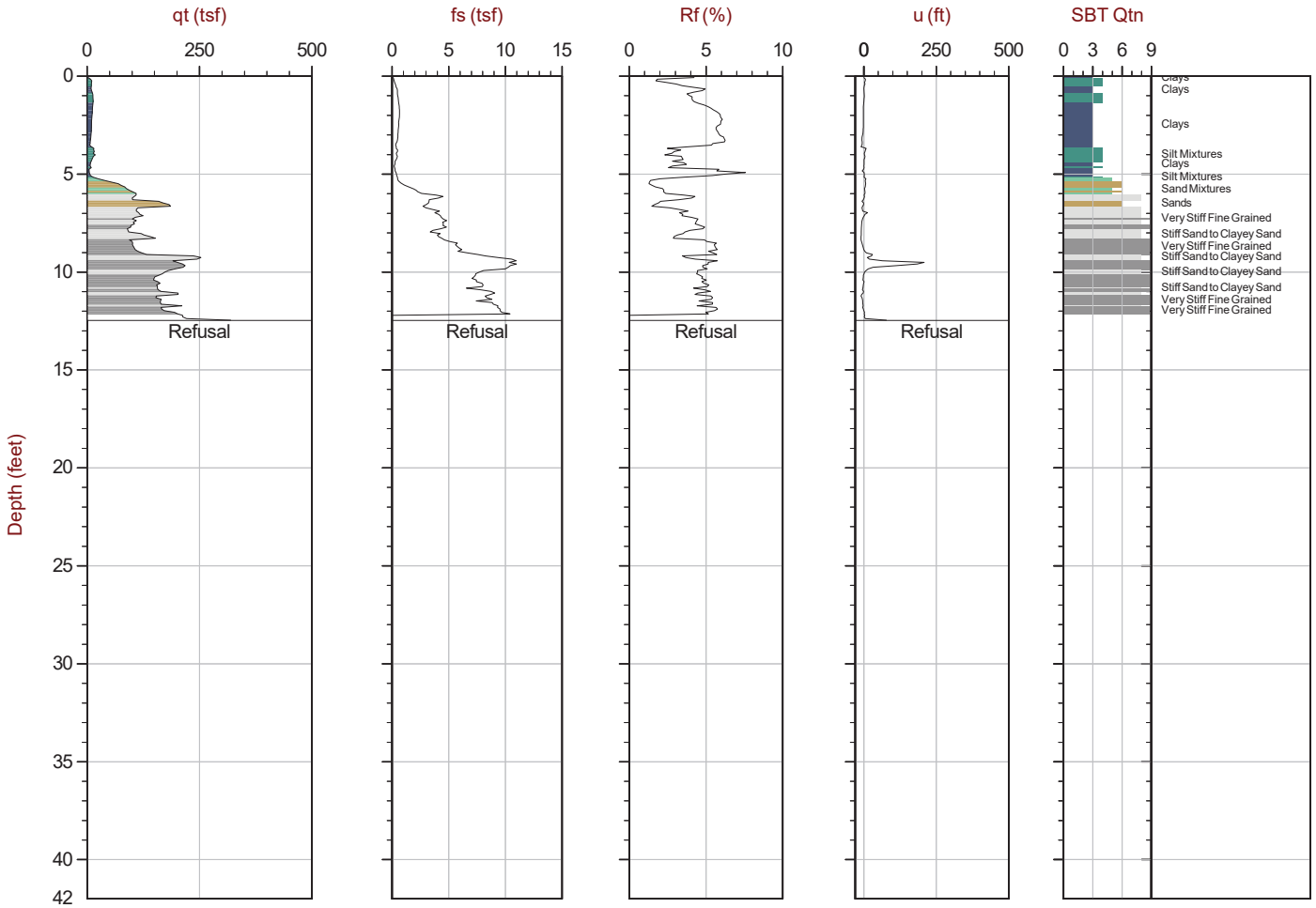
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 11:46
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-209
Cone: EC600



Max Depth: 3.800 m / 12.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP209.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410423m E: 295118m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

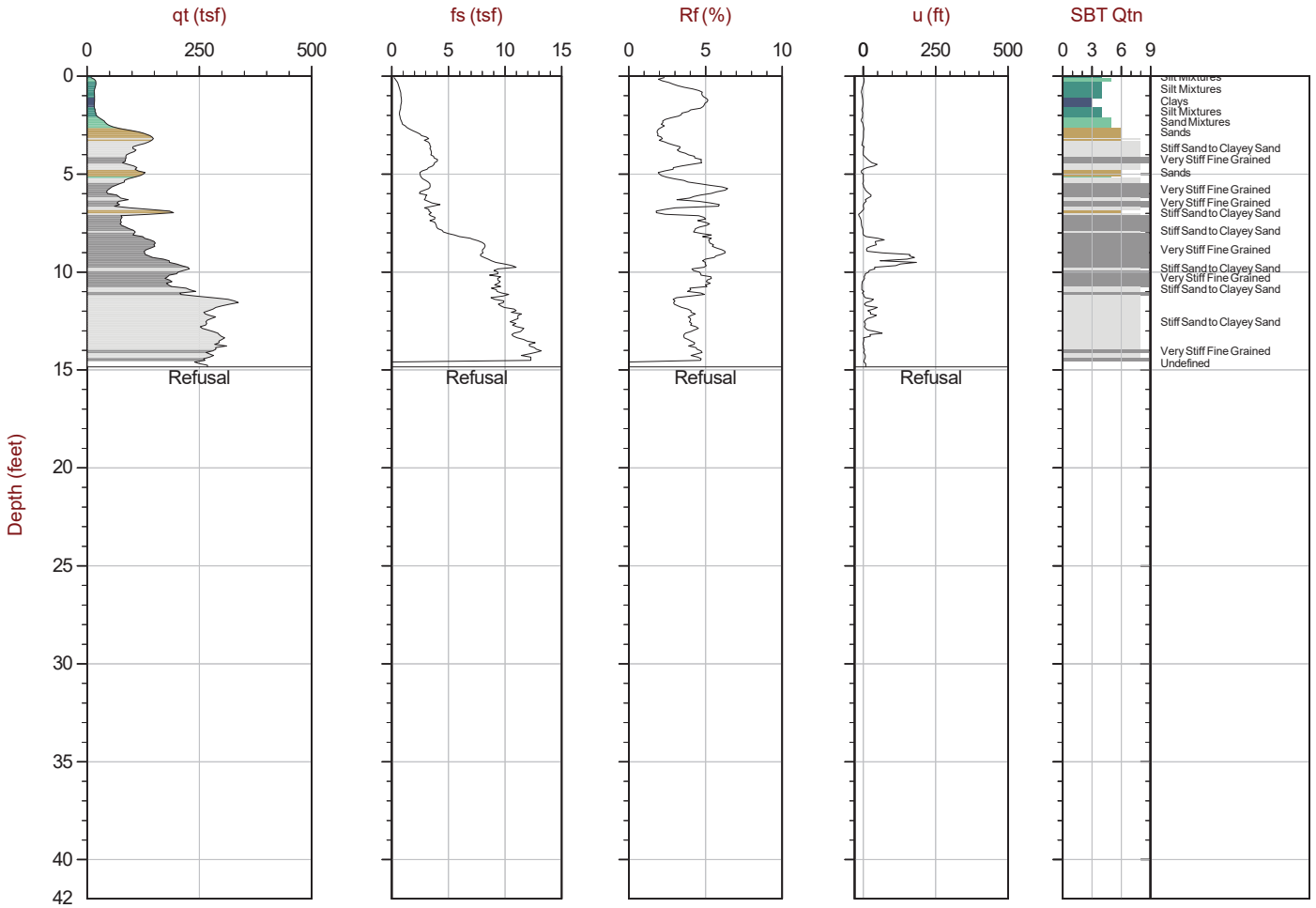
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 10:41
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-210
Cone: EC600



Max Depth: 4.525 m / 14.85 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP210.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410371m E: 295510m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

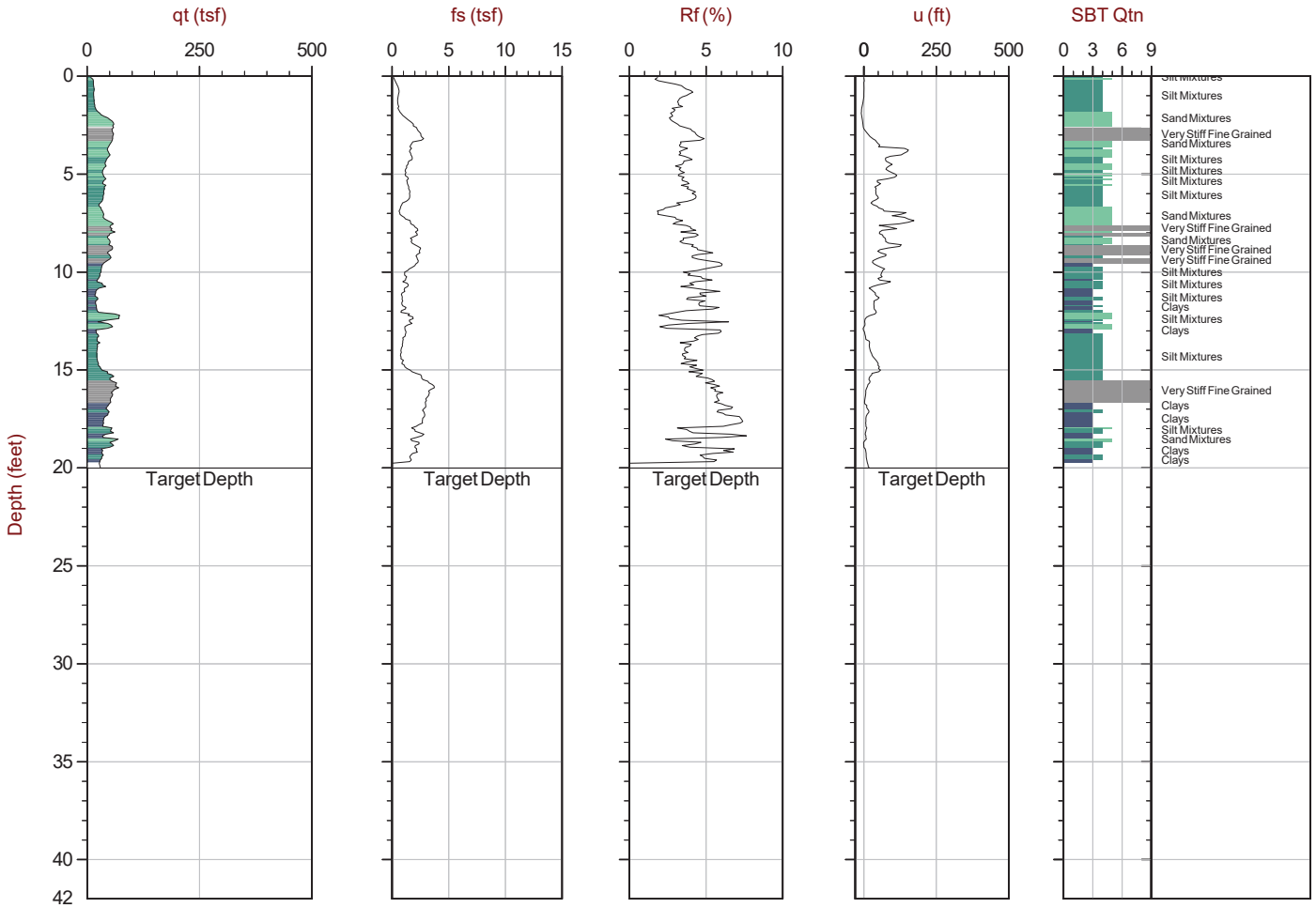
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 07:04
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-211
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP211.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410243m E: 294134m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

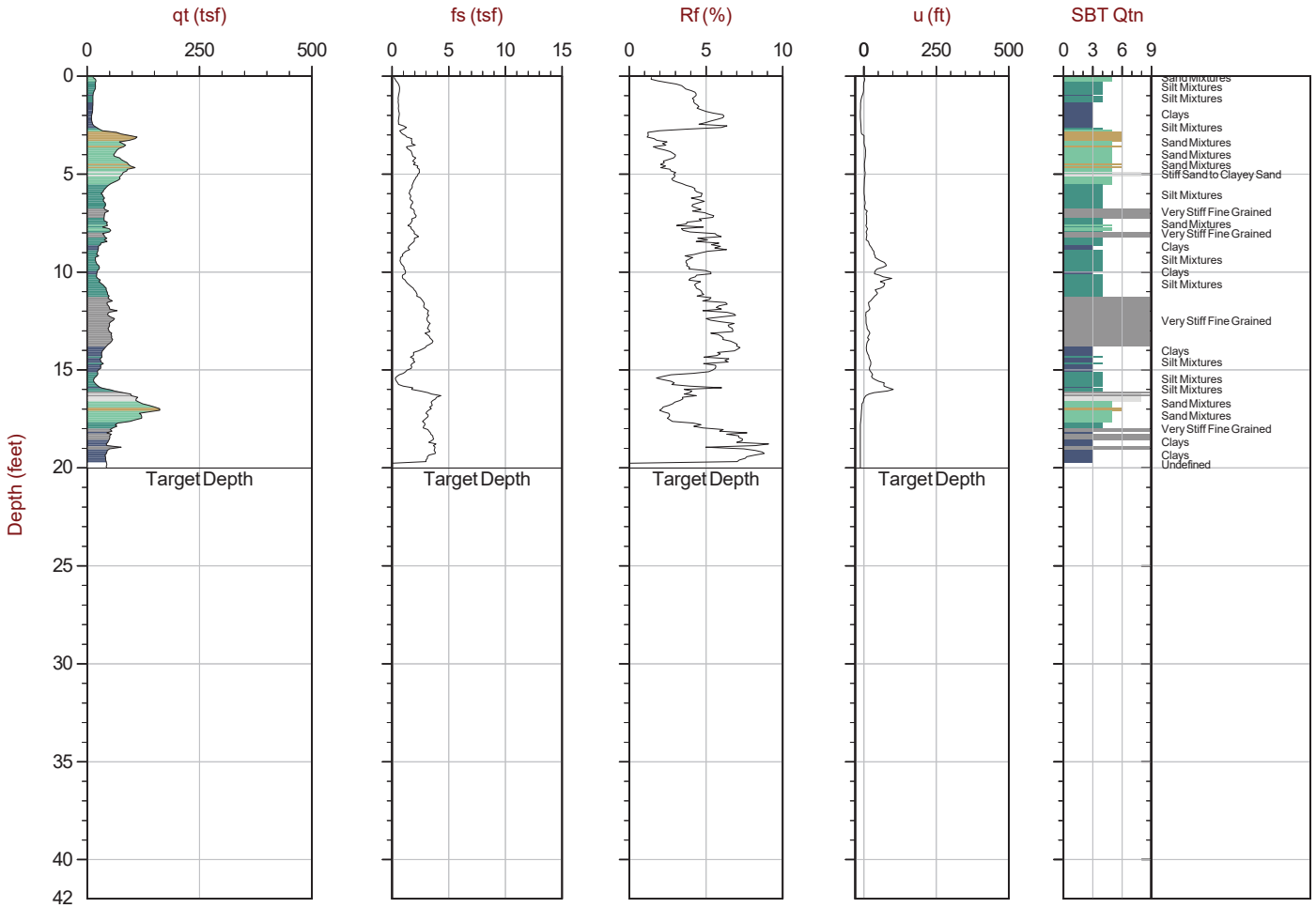
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 09:16
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-212
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP212.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410208m E: 294497m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

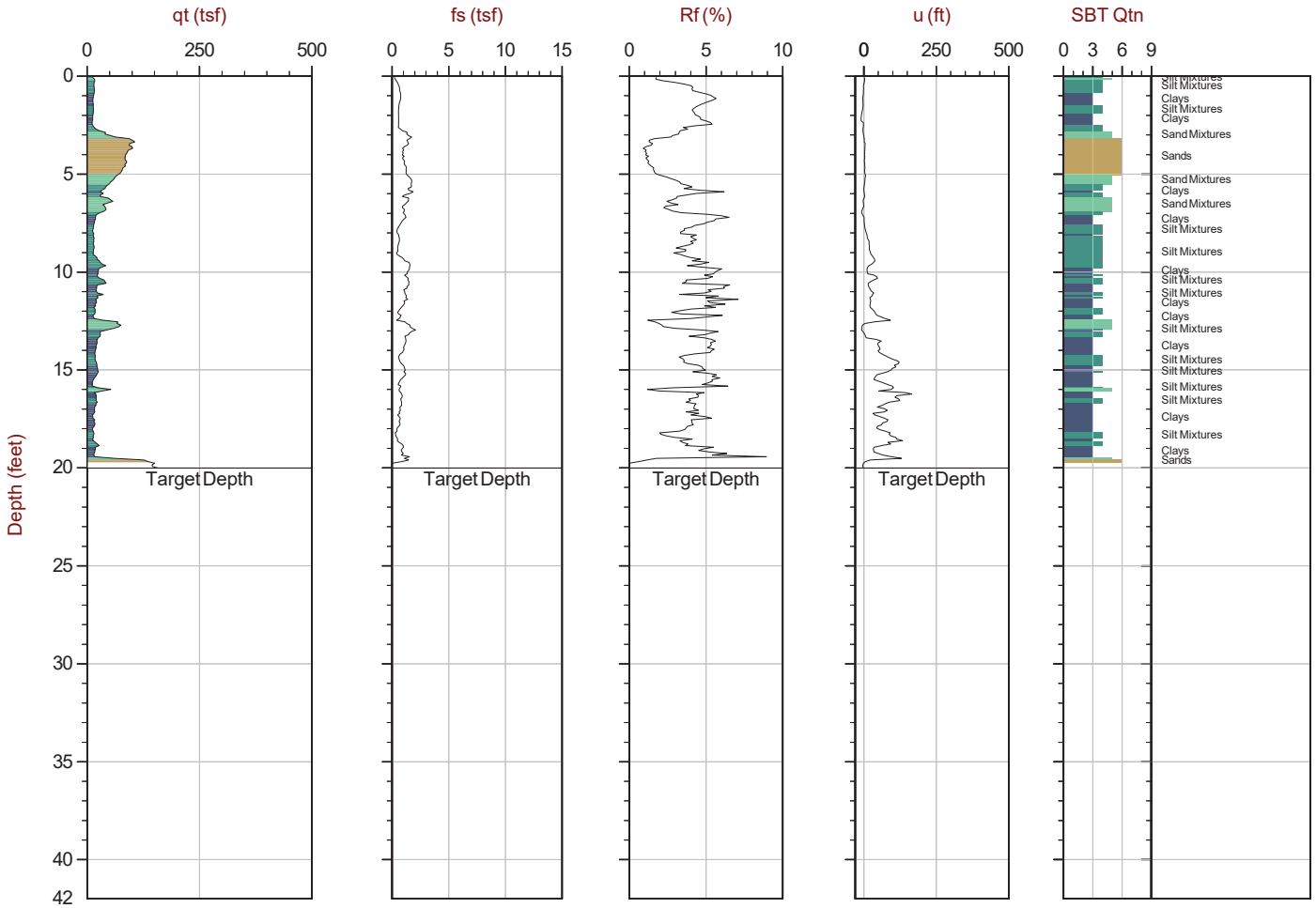
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 09:38
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-213
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP213.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410178m E: 294864m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

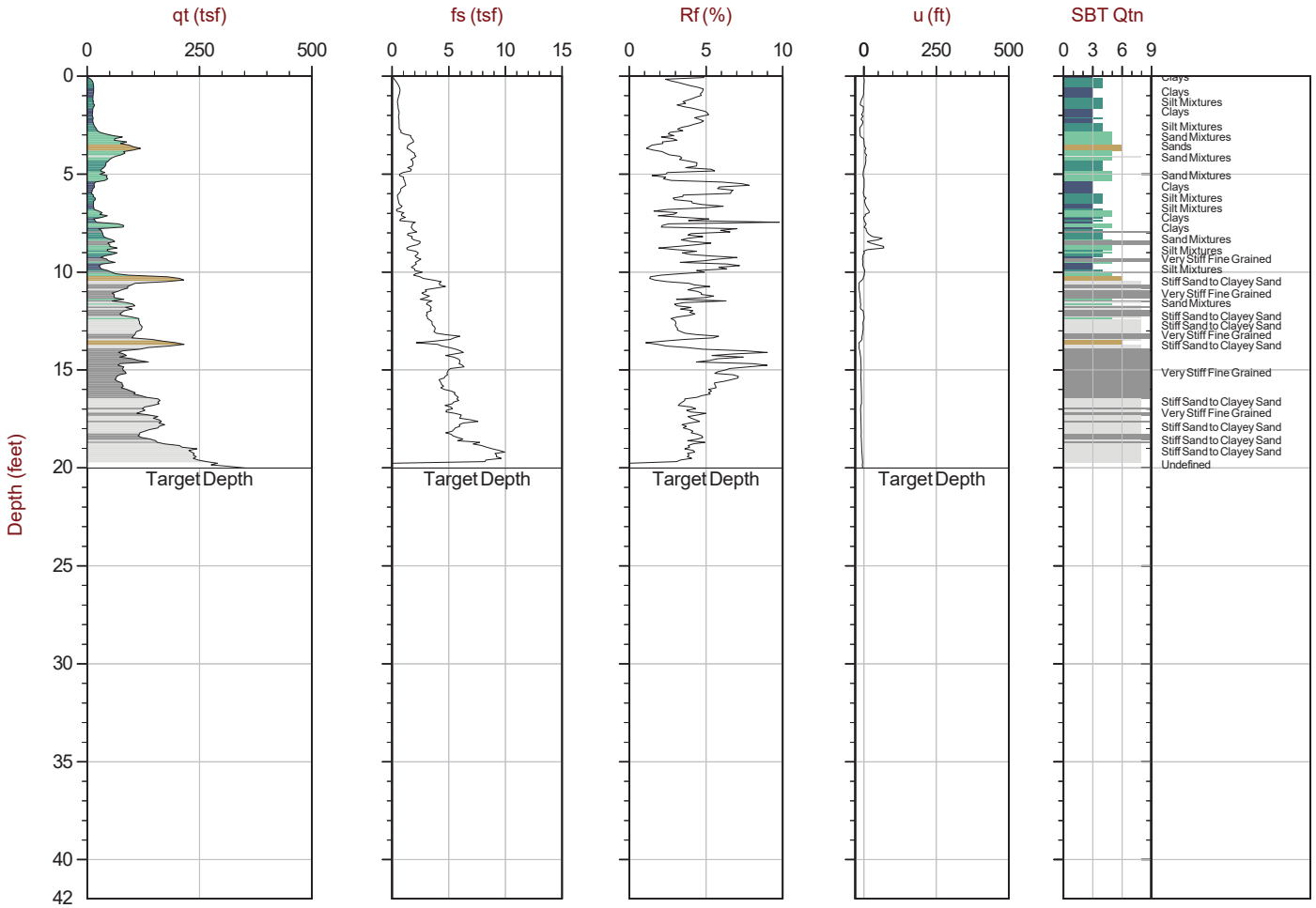
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 10:02
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-214
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP214.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410140m E: 295229m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

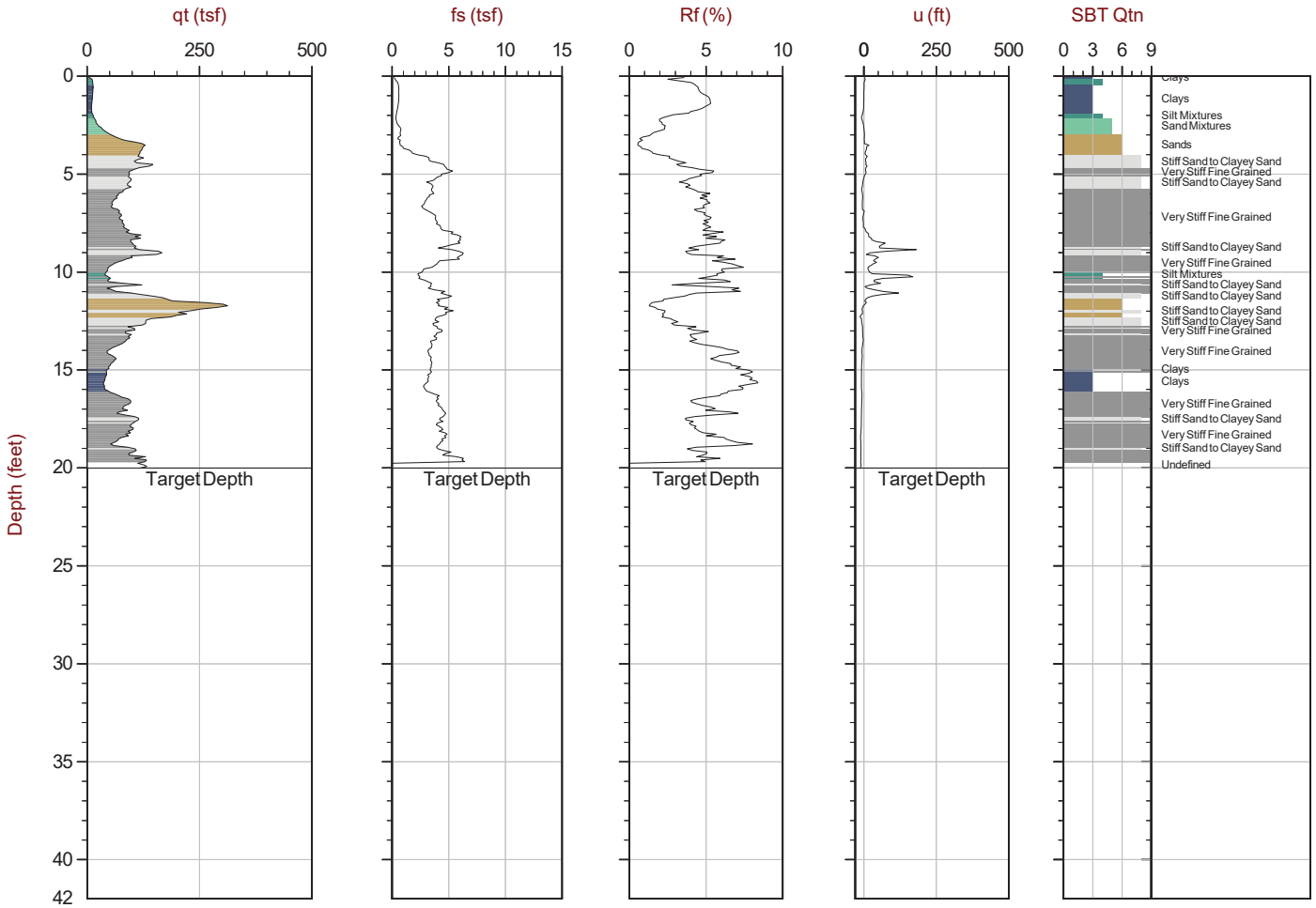
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 10:21
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-215
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP215.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4410105m E: 295299m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

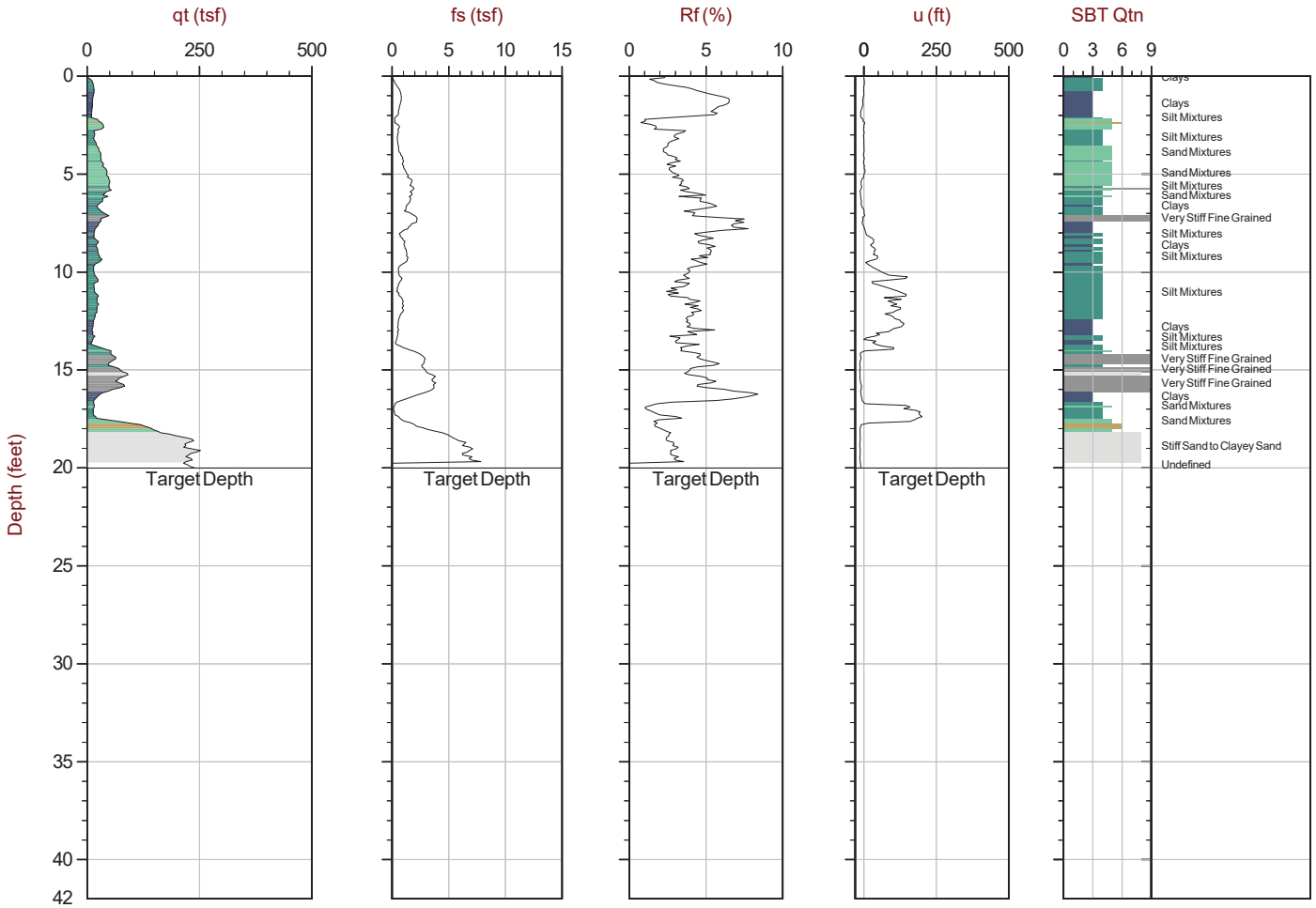
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 02:44
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-216
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP216.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409877m E: 294136m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

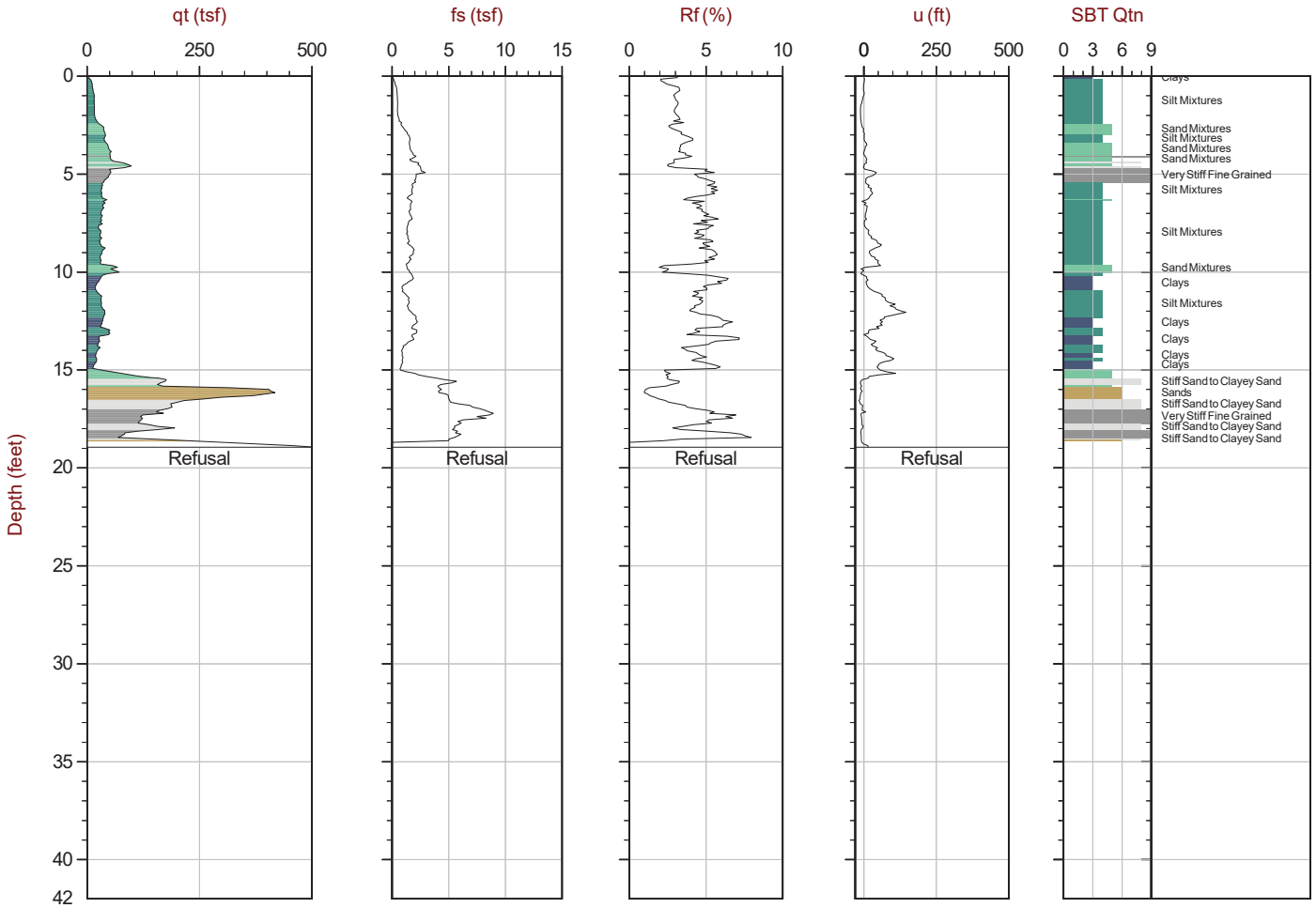
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 02:17
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-217
Cone: EC600



Max Depth: 5.775 m / 18.95 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP217.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409834m E: 294450m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

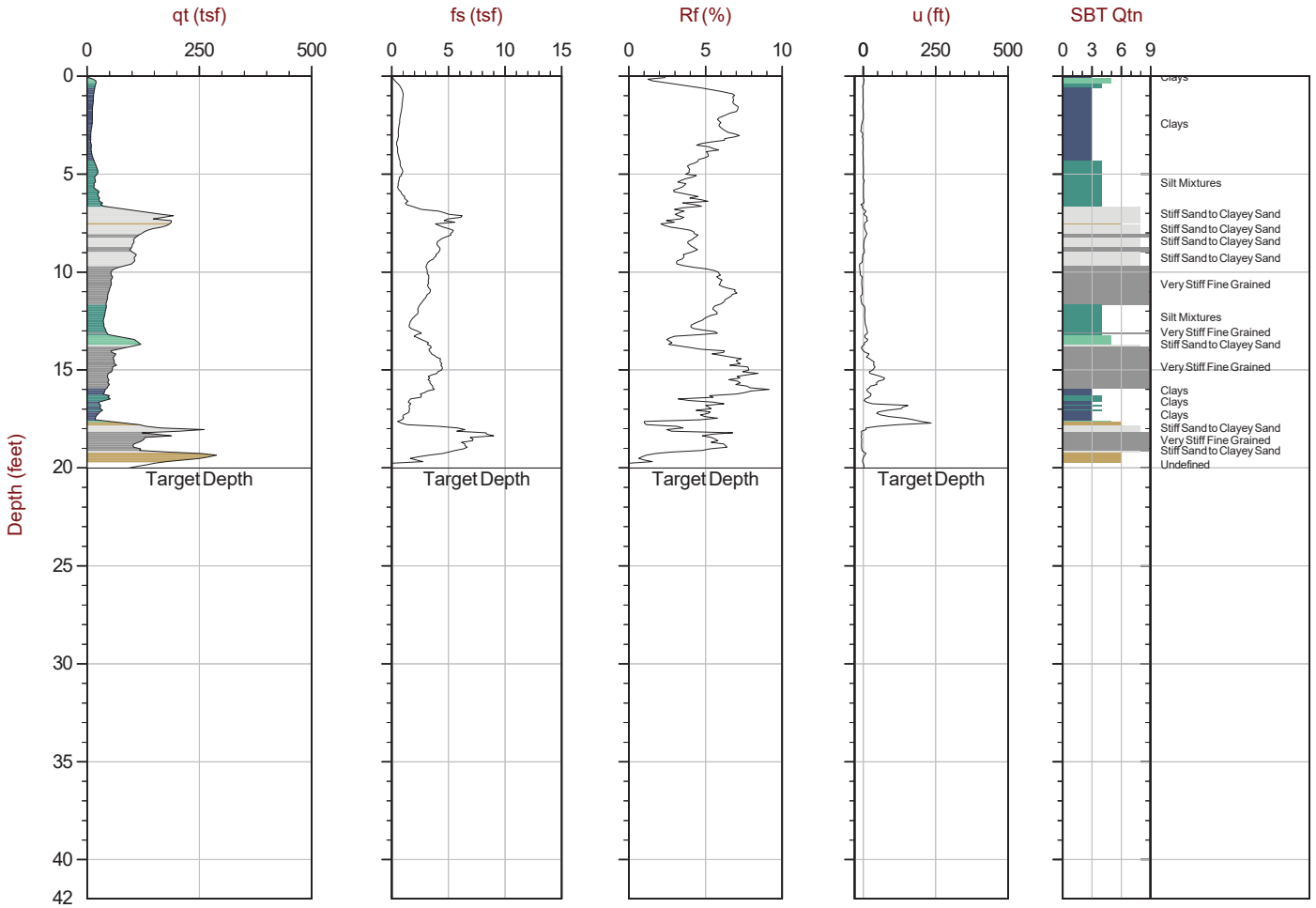
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 06:22
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-218
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP218.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409780m E: 294788m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

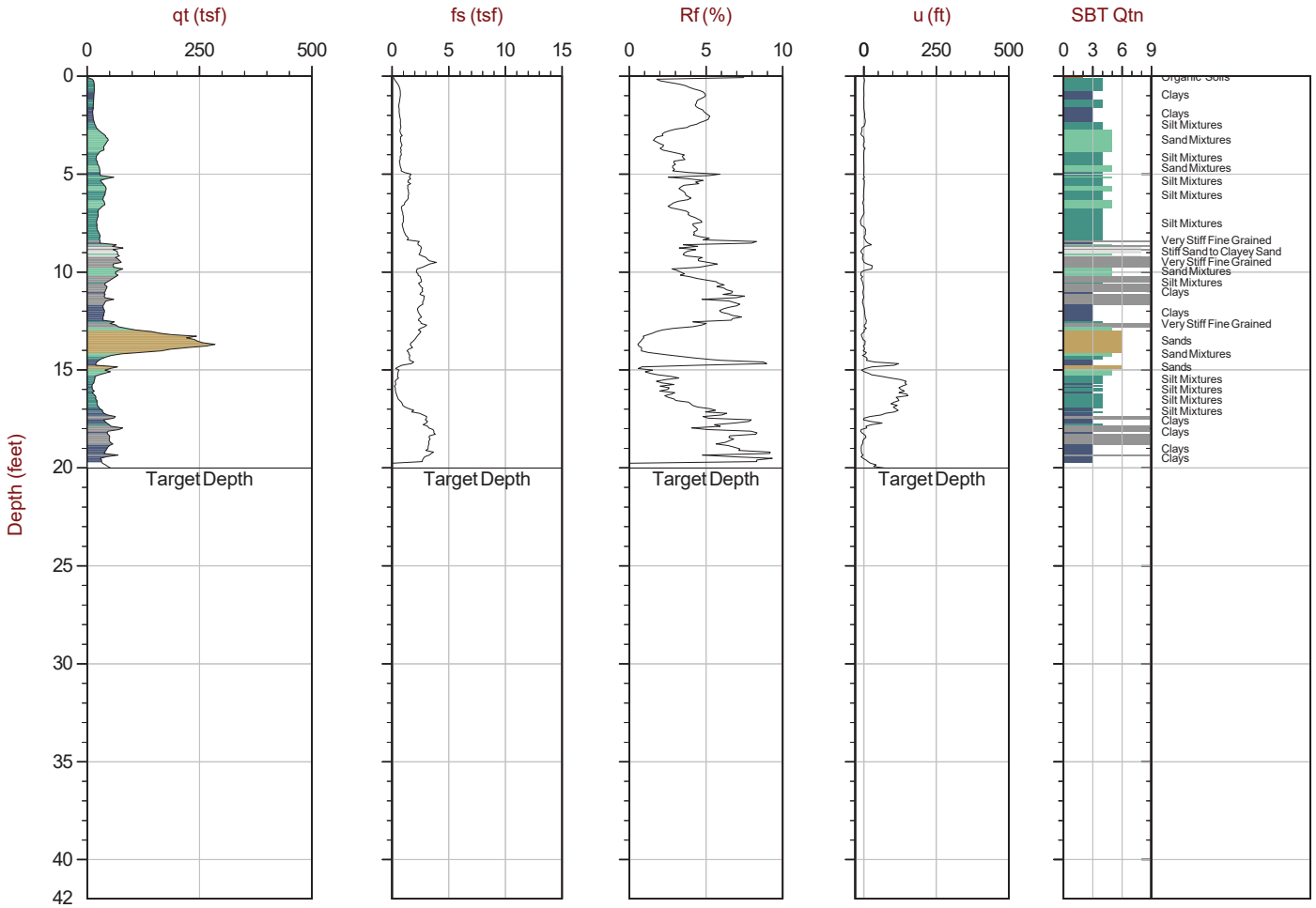
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 05:35
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-219
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP219.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409761m E: 295139m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

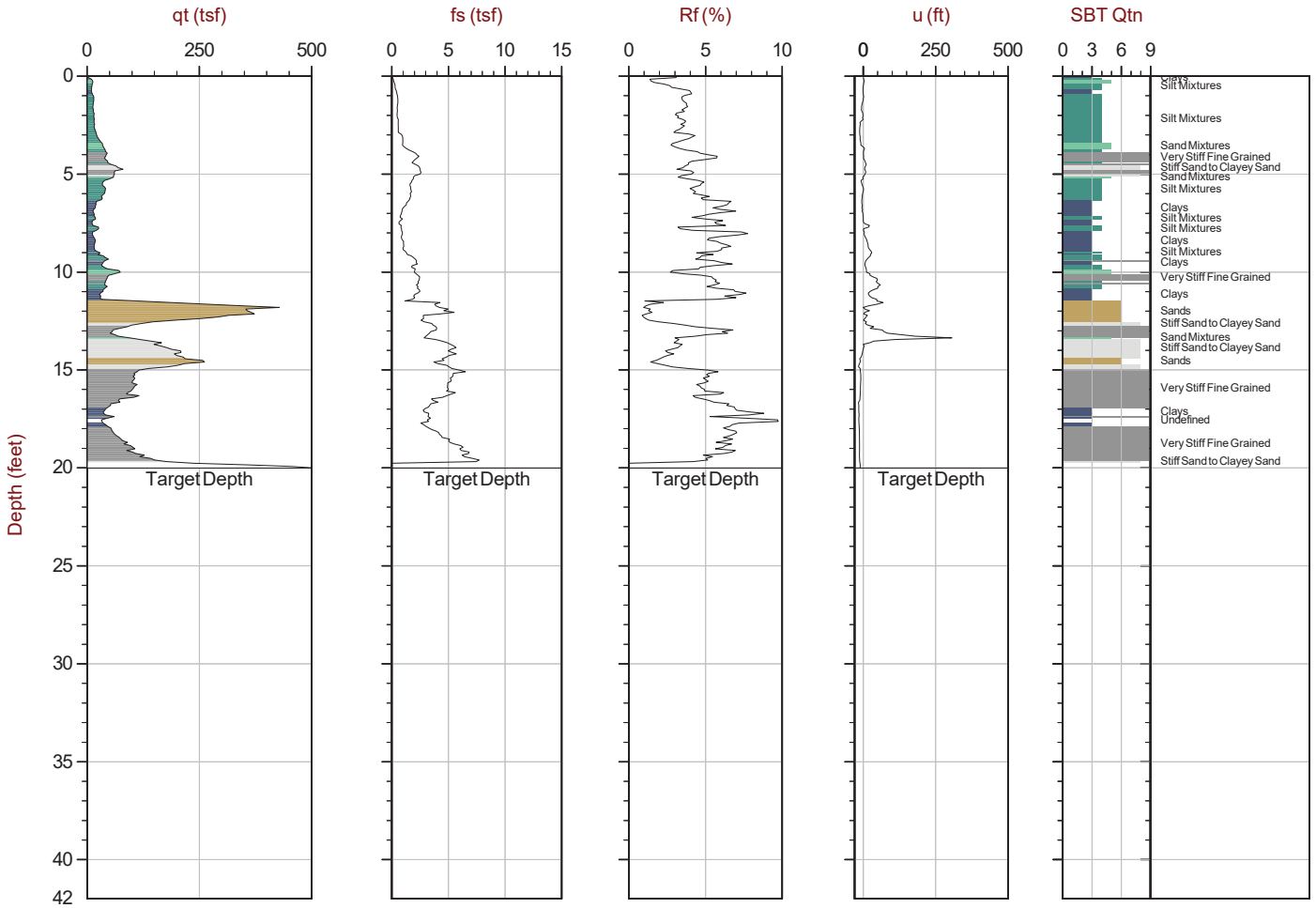
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 05:18
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-220
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP220.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409757m E: 295496m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

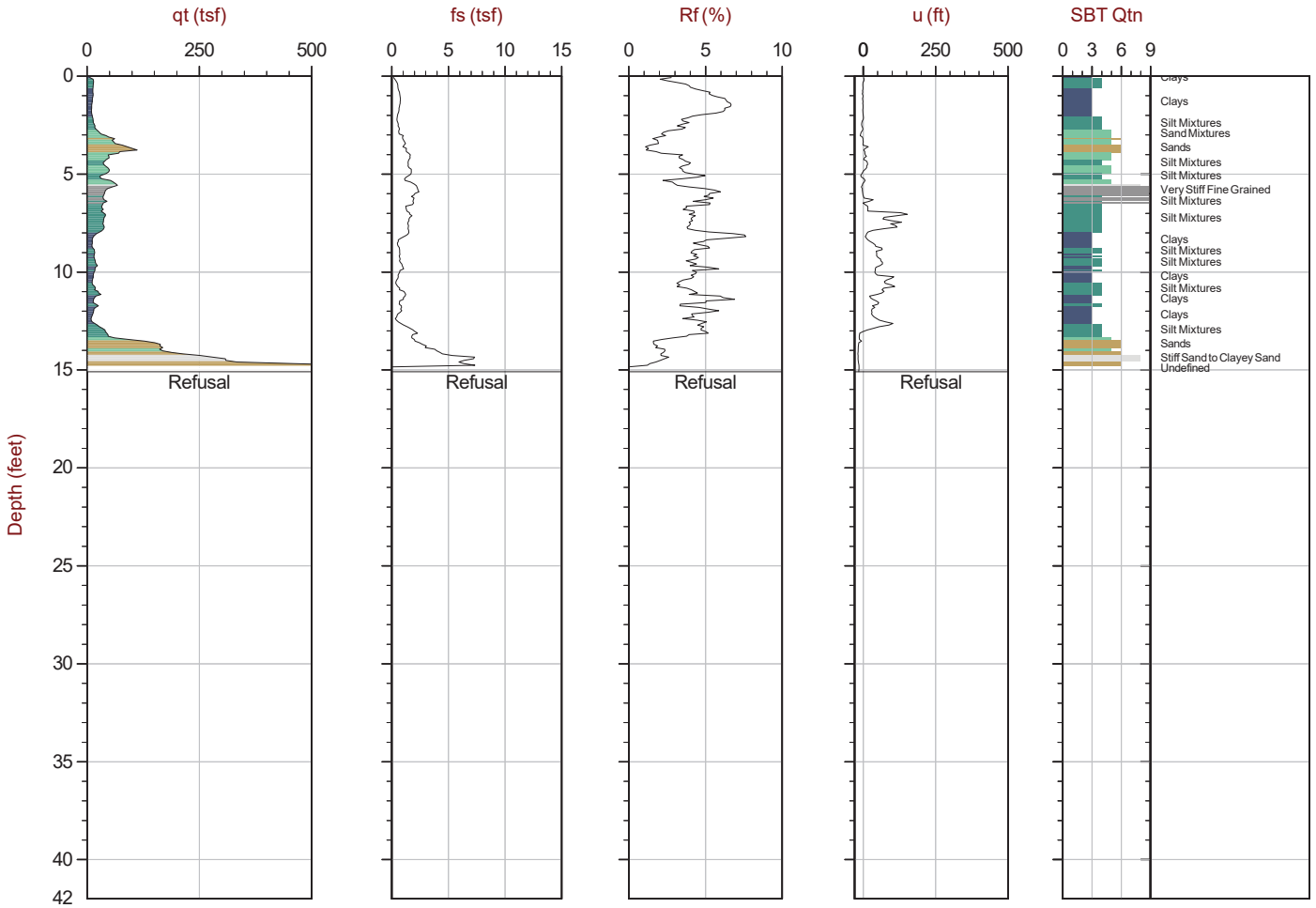
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 03:01
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-221
Cone: EC600



Max Depth: 4.600 m / 15.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP221.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409513m E: 294102m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

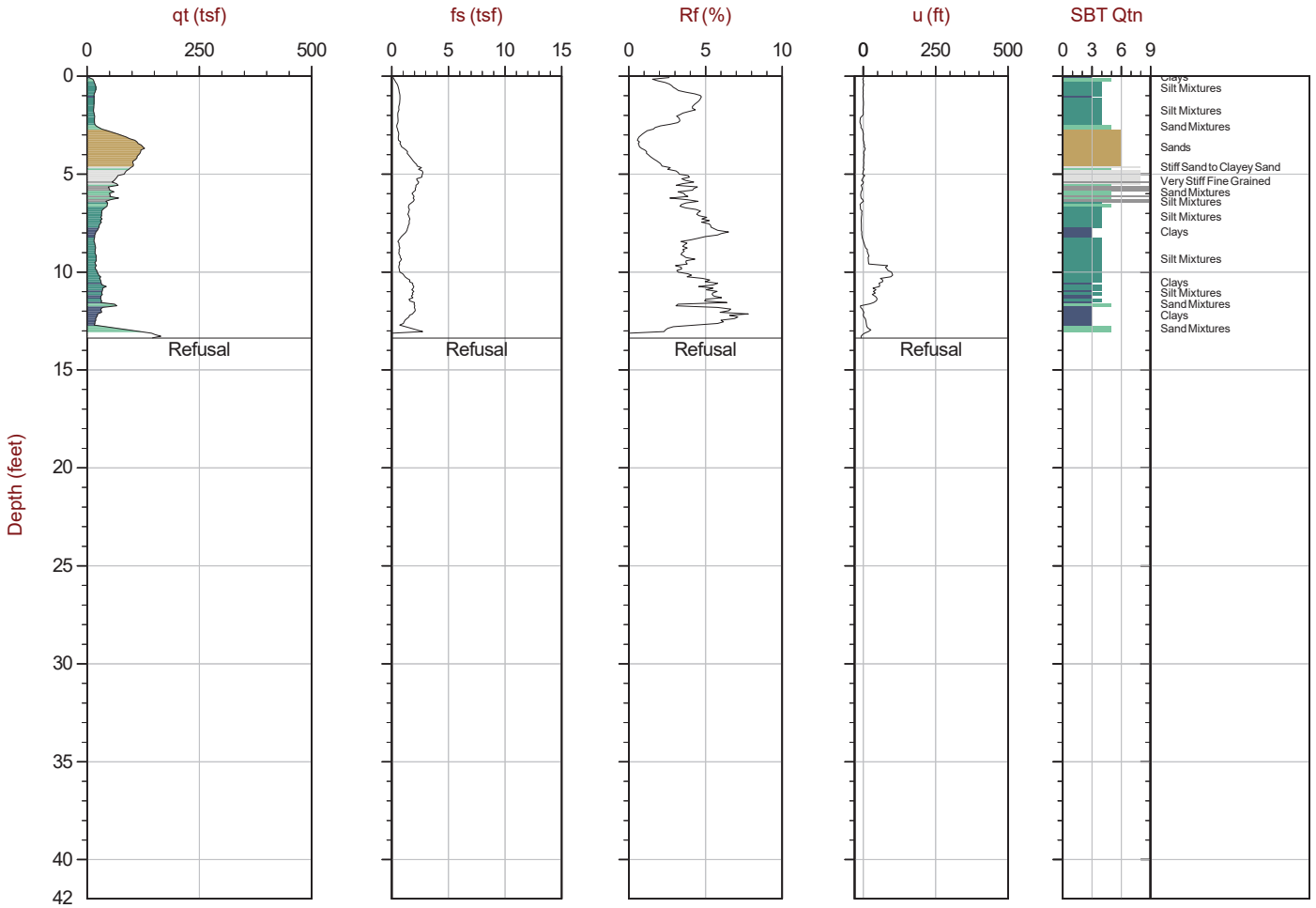
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 03:15
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-222
Cone: EC600



Max Depth: 4.075 m / 13.37 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP222.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409477m E: 294407m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

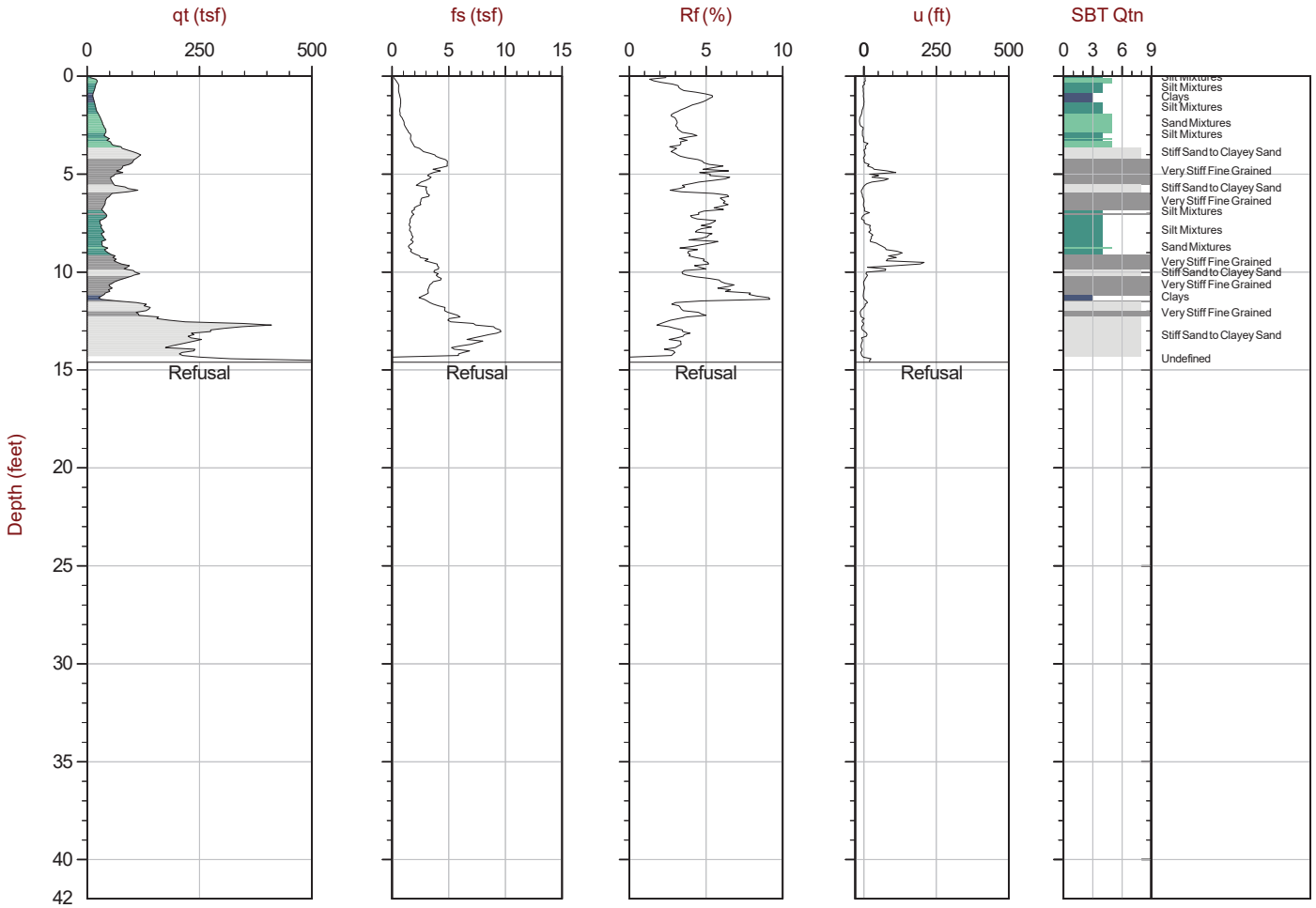
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 06:06
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-223
Cone: EC600



Max Depth: 4.450 m / 14.60 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP223.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409433m E: 294754m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

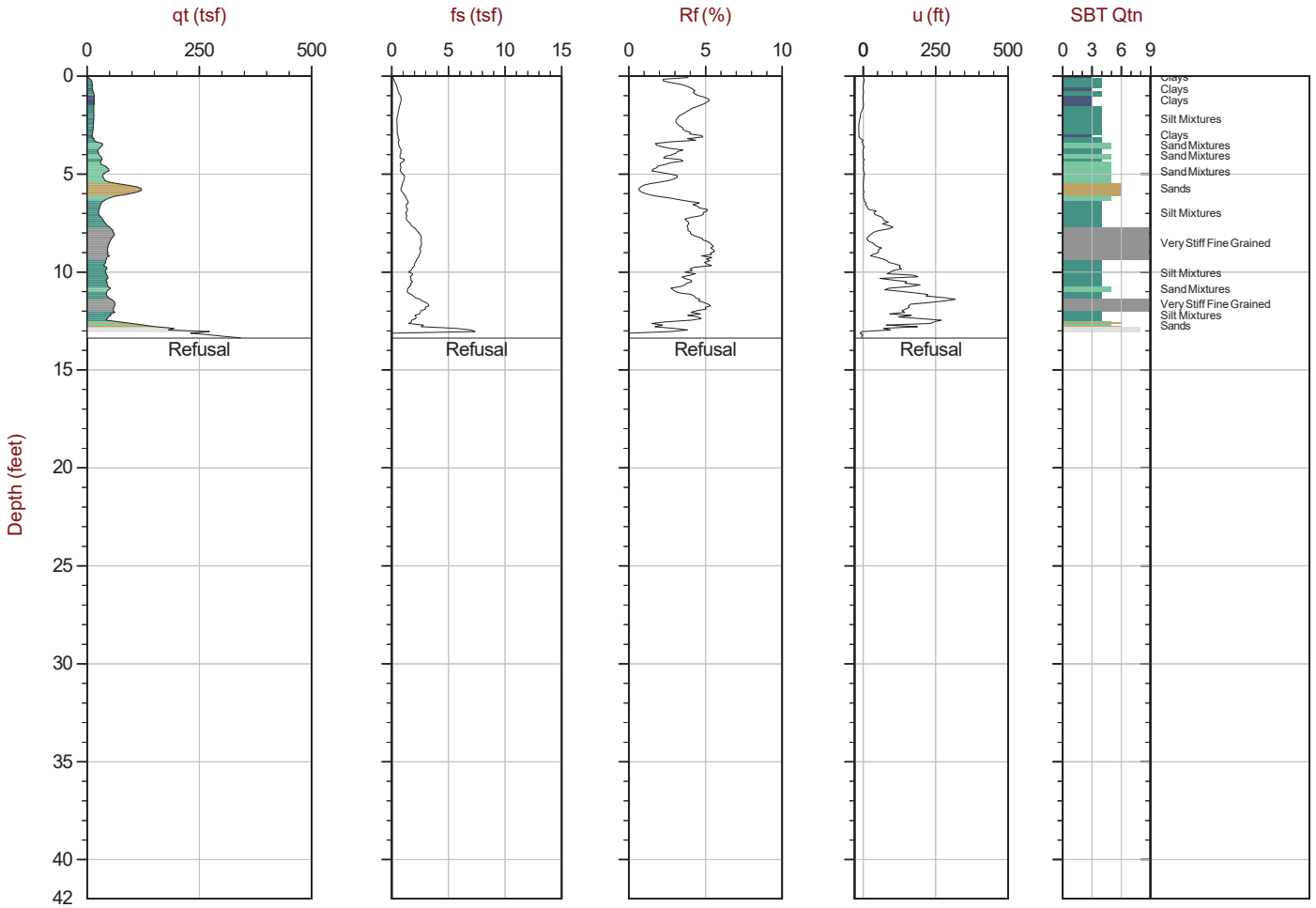
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 05:52
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-224
Cone: EC600



Max Depth: 4.075 m / 13.37 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP224.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409408m E: 295109m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

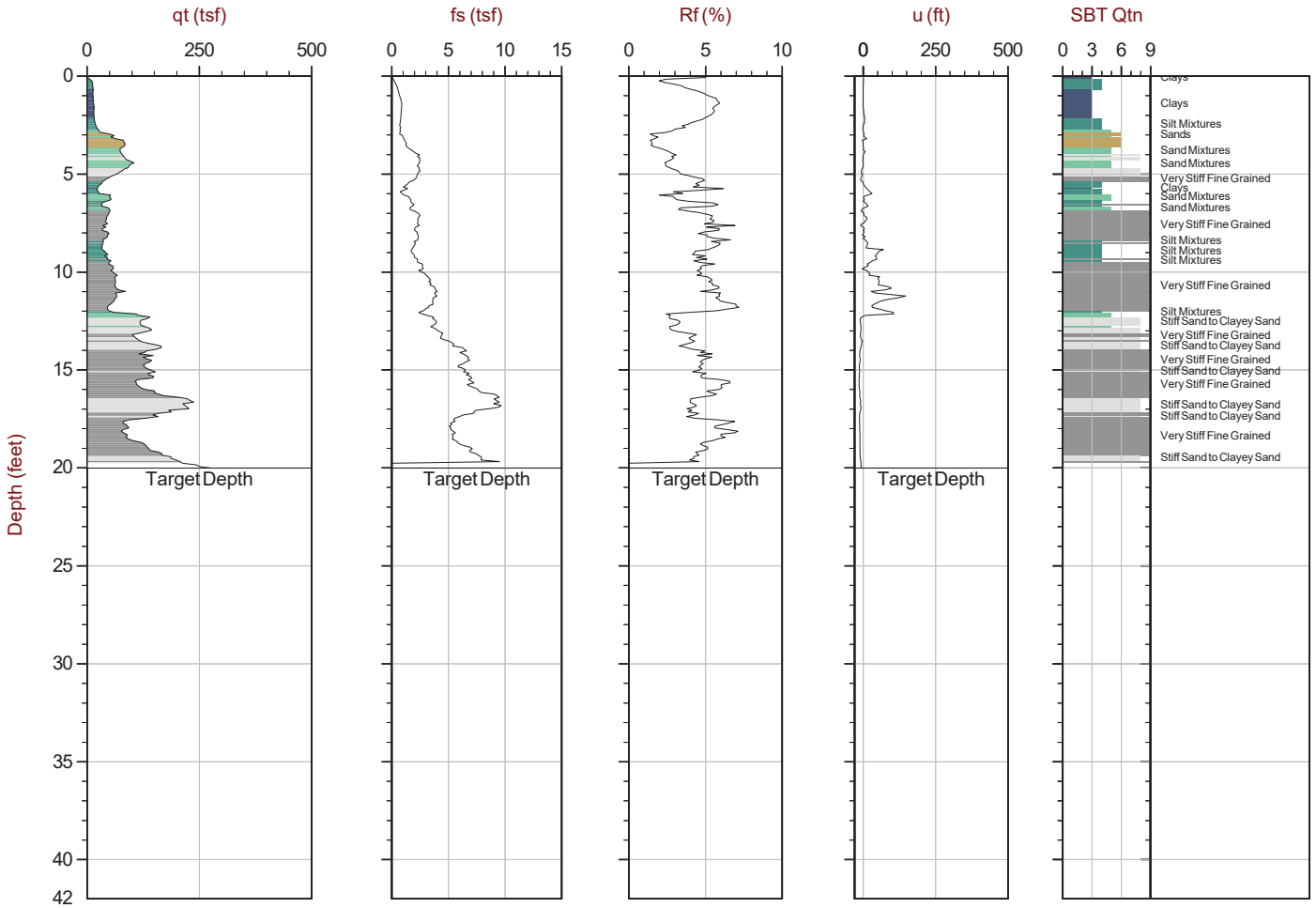
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 05:01
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-225
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP225.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409382m E: 295454m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

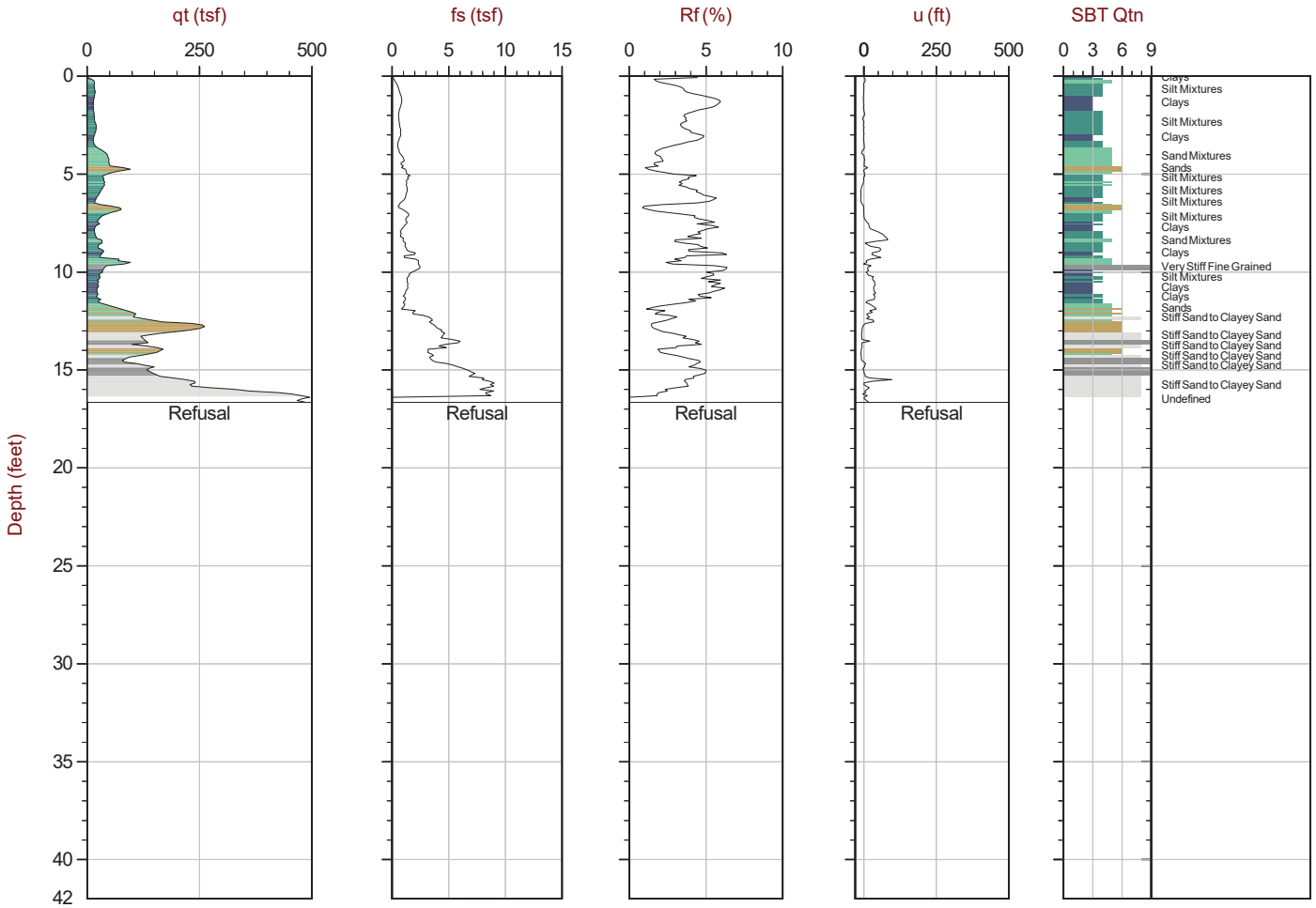
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 03:29
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-226
Cone: EC600



Max Depth: 5.075 m / 16.65 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP226.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409149m E: 294028m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

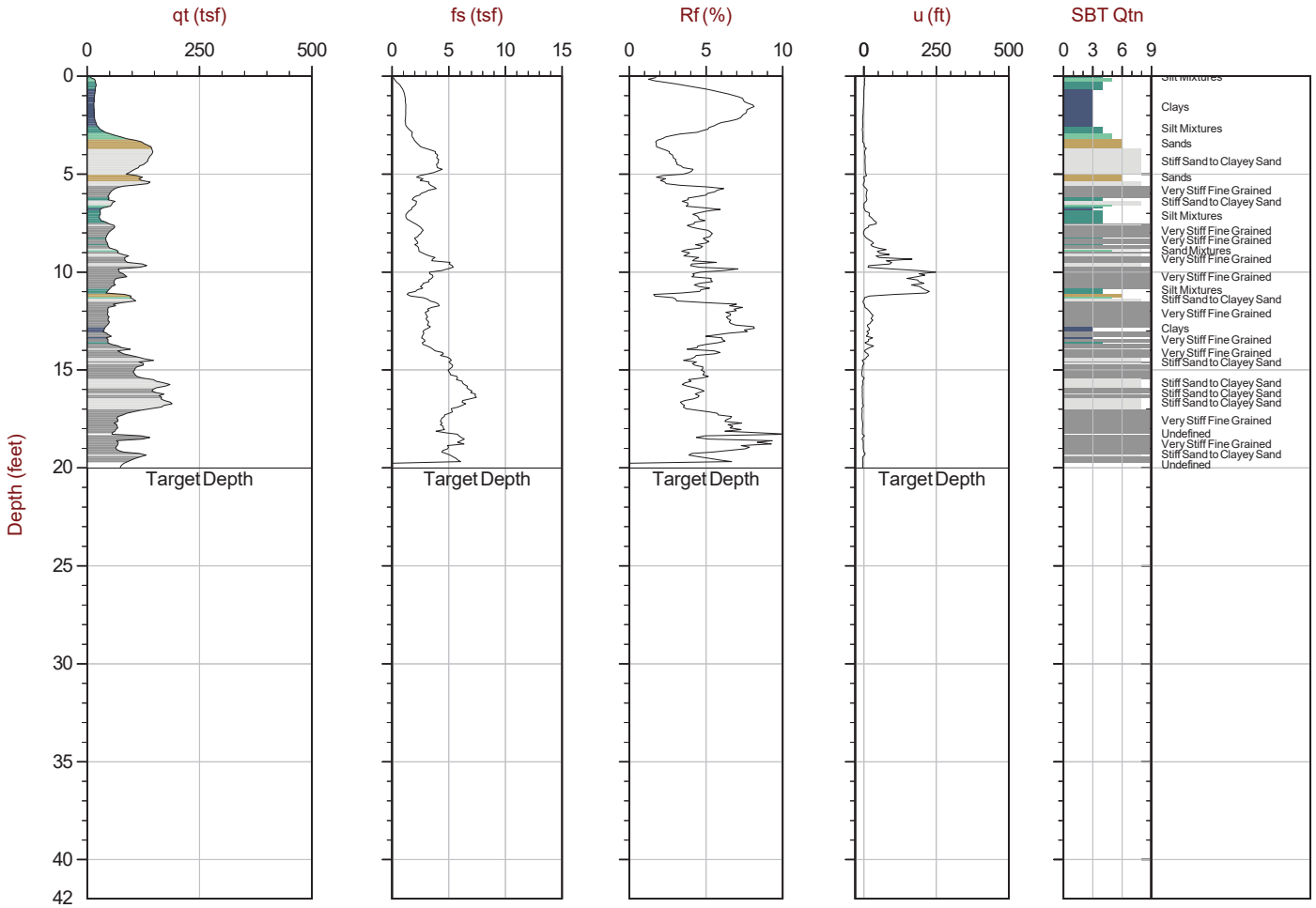
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 03:58
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-227A
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP227A.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409121m E: 294383m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

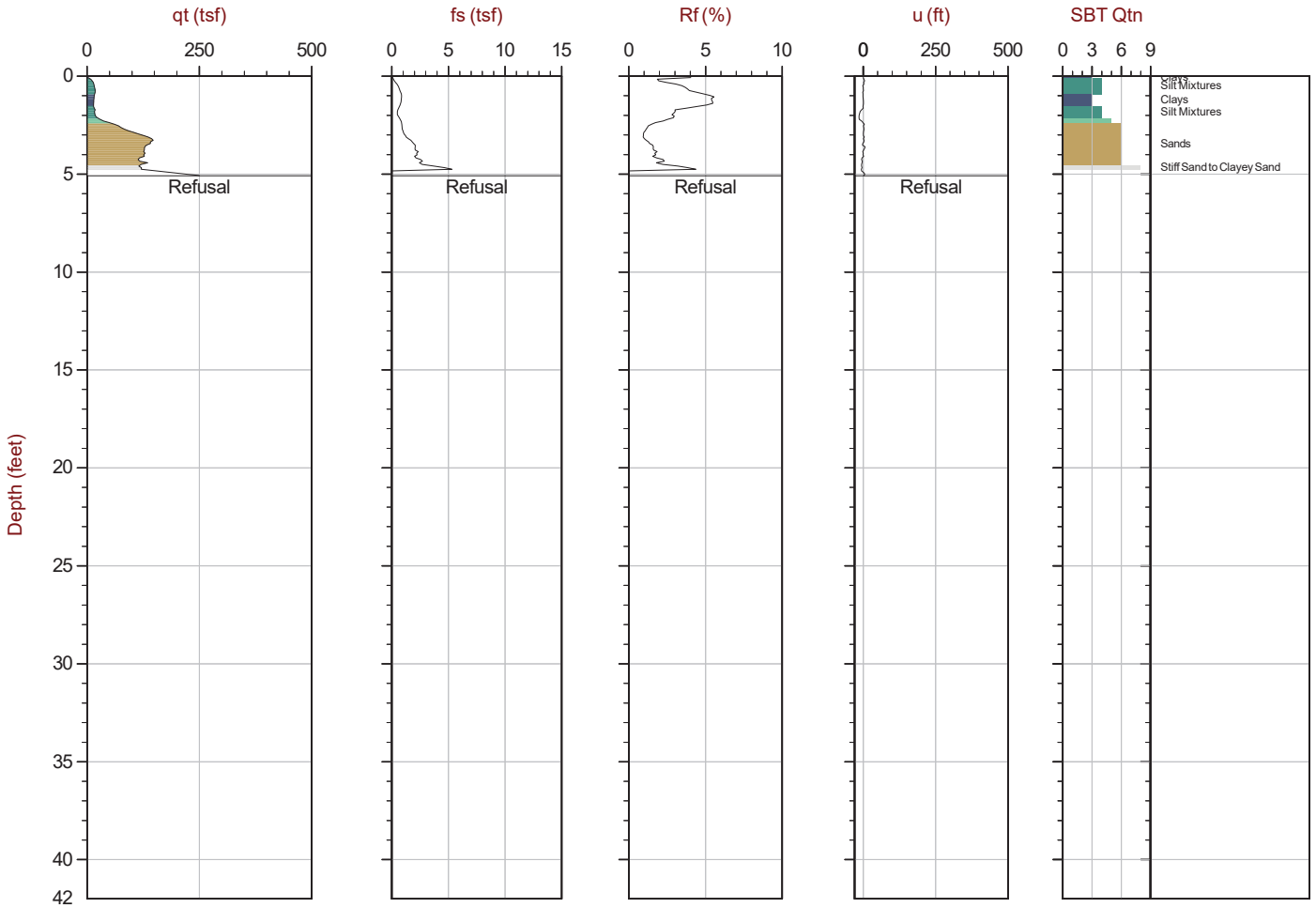
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 03:47
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-227
Cone: EC600



Max Depth: 1.550 m / 5.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP227.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409118m E: 294380m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

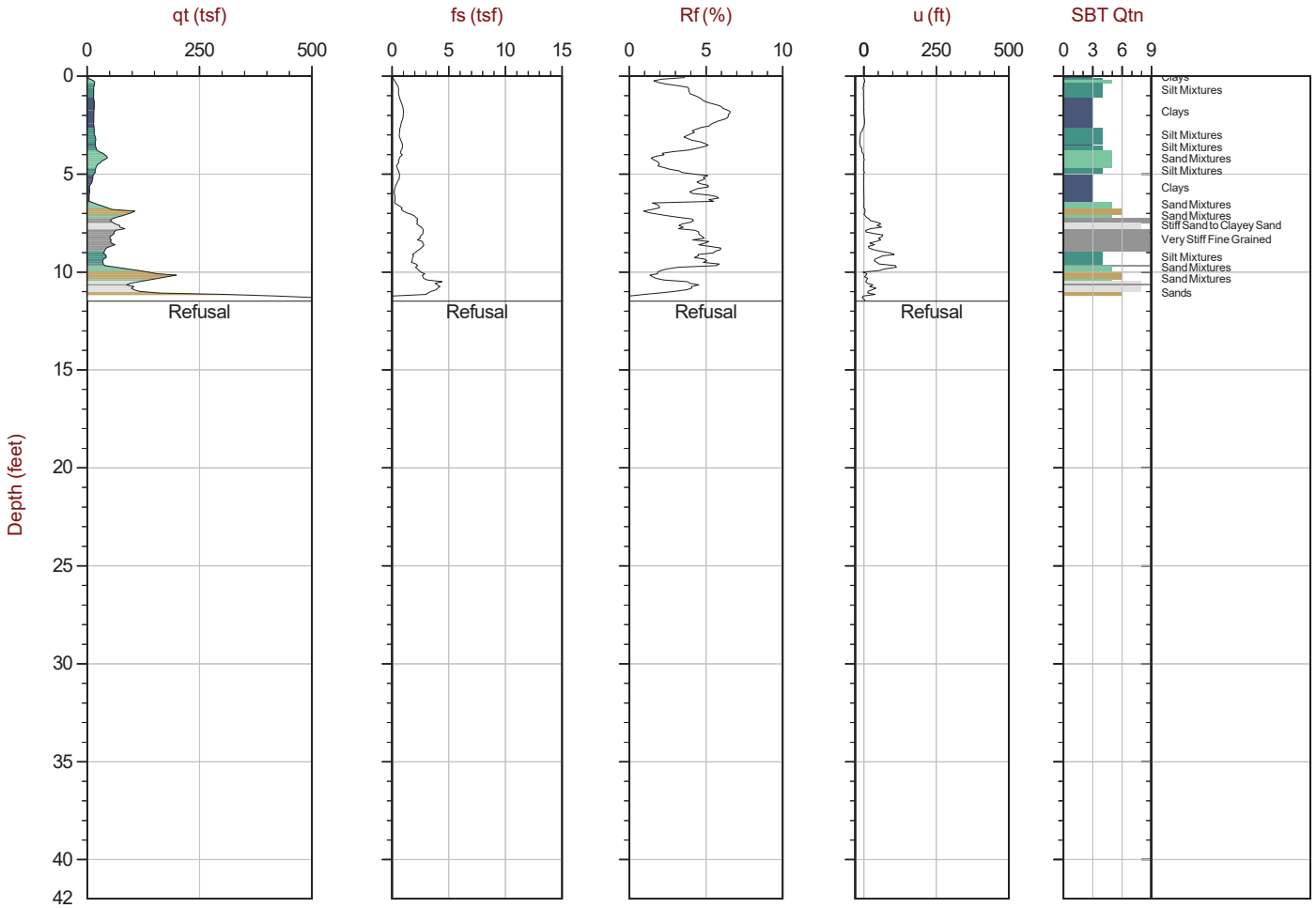
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 04:11
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-228
Cone: EC600



Max Depth: 3.500 m / 11.48 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP228.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409089m E: 294733m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

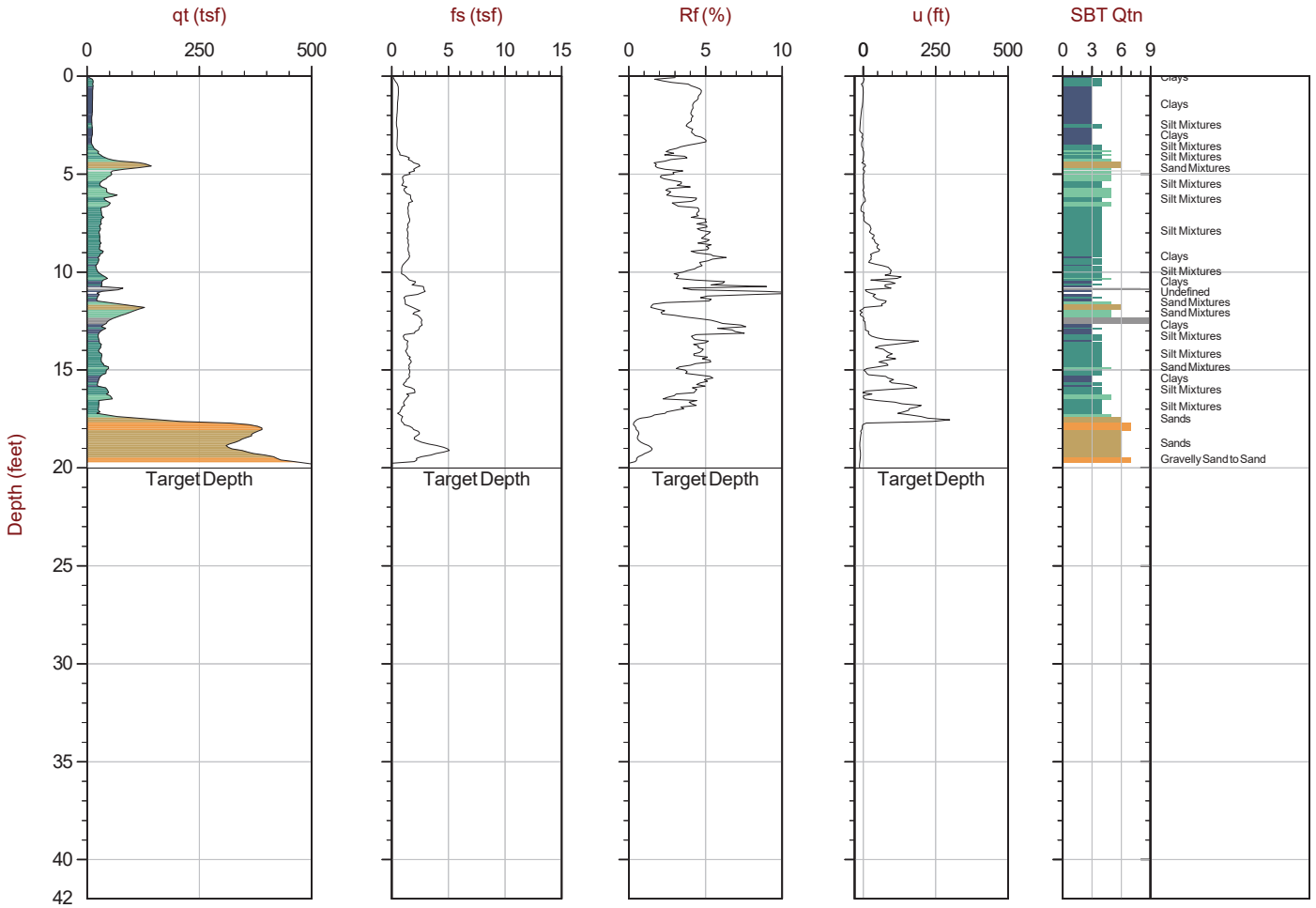
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 04:26
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-229
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP229.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409056m E: 295076m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

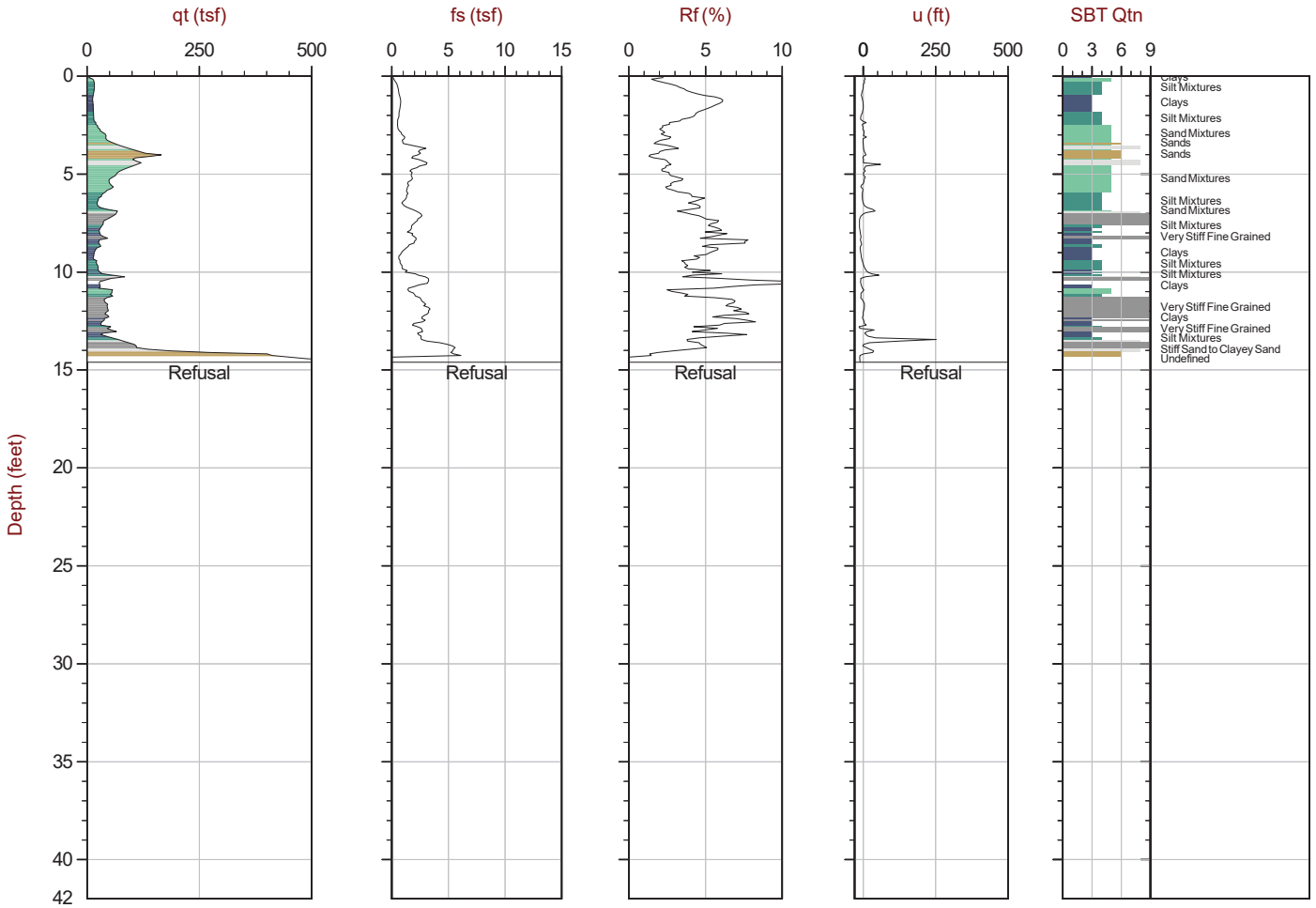
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-10 04:44
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-230
Cone: EC600



Max Depth: 4.450 m / 14.60 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP230.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409015m E: 295426m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

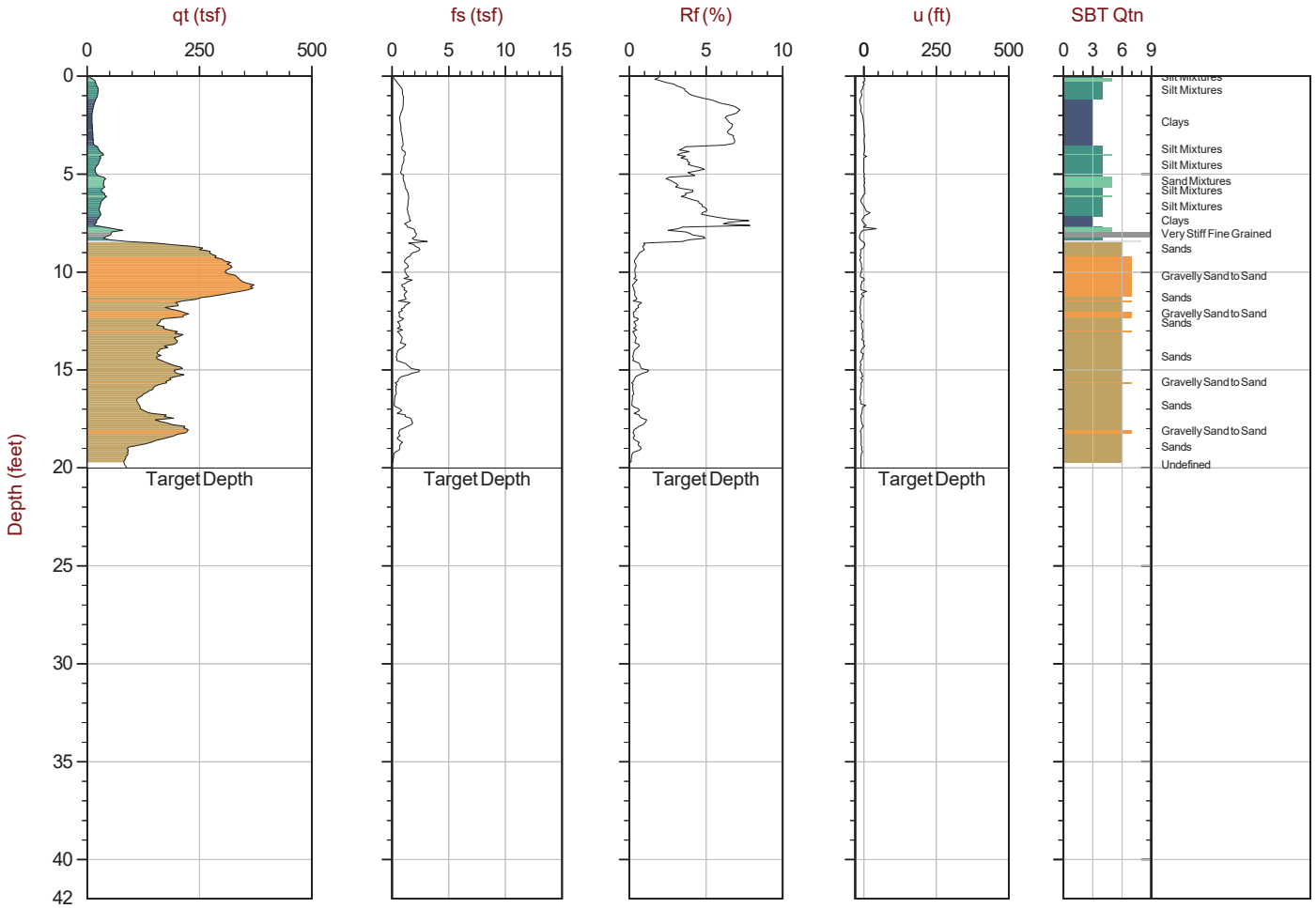
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 04:46
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-231
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP231.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409113m E: 293289m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

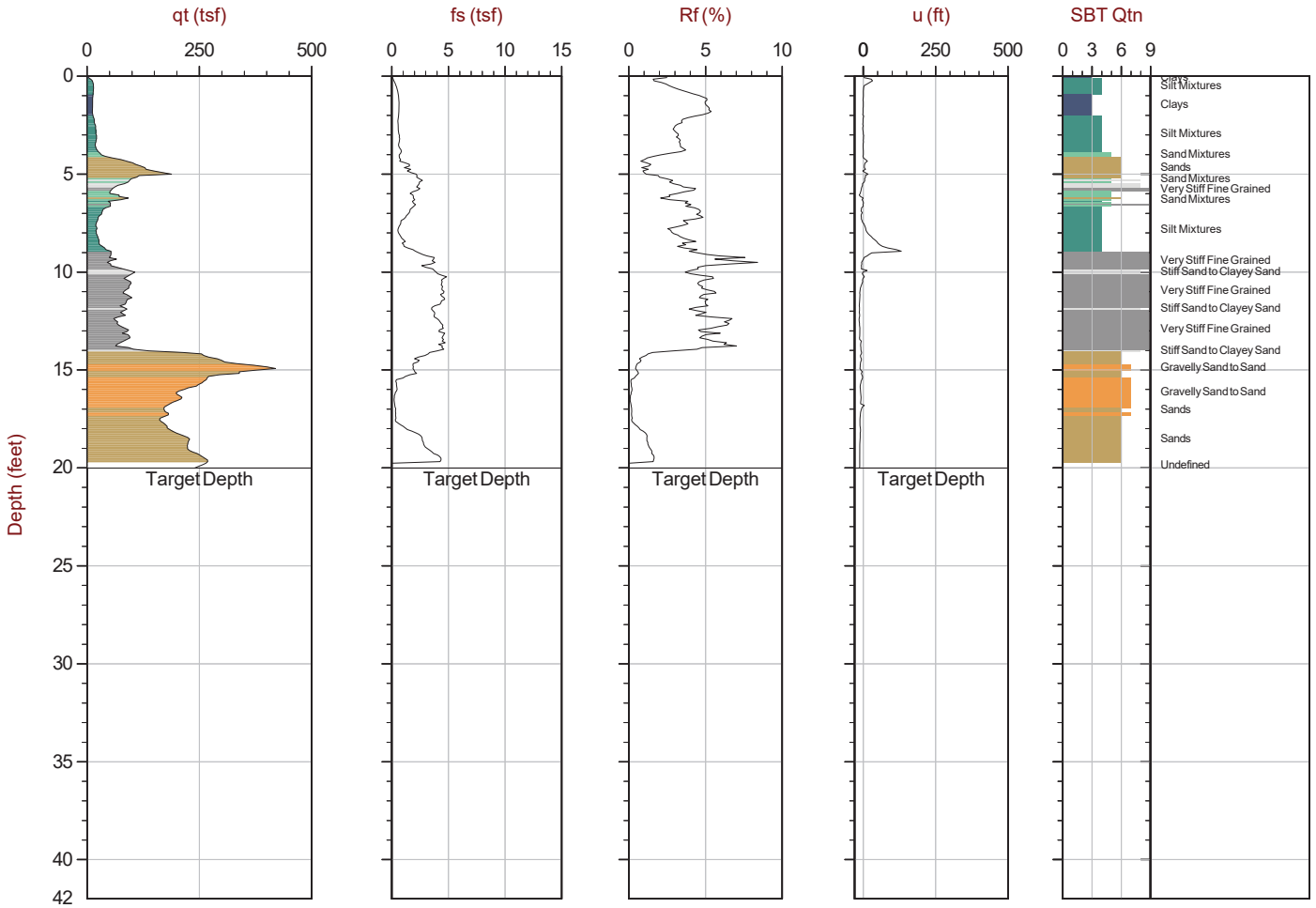
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 05:07
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-232
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP232.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4409072m E: 293675m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

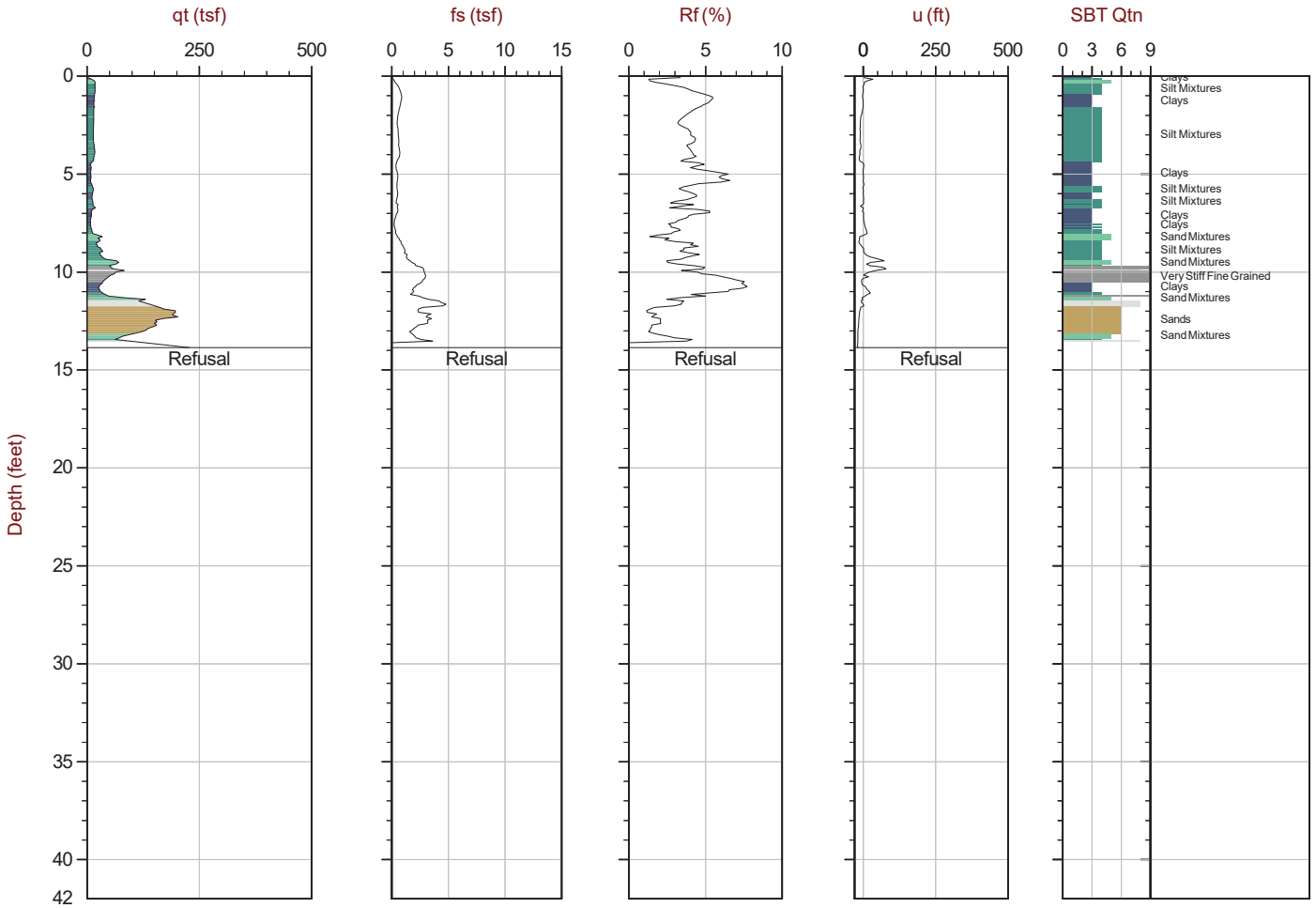
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 04:32
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-233
Cone: EC600



Max Depth: 4.225 m / 13.86 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP233.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408771m E: 293144m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

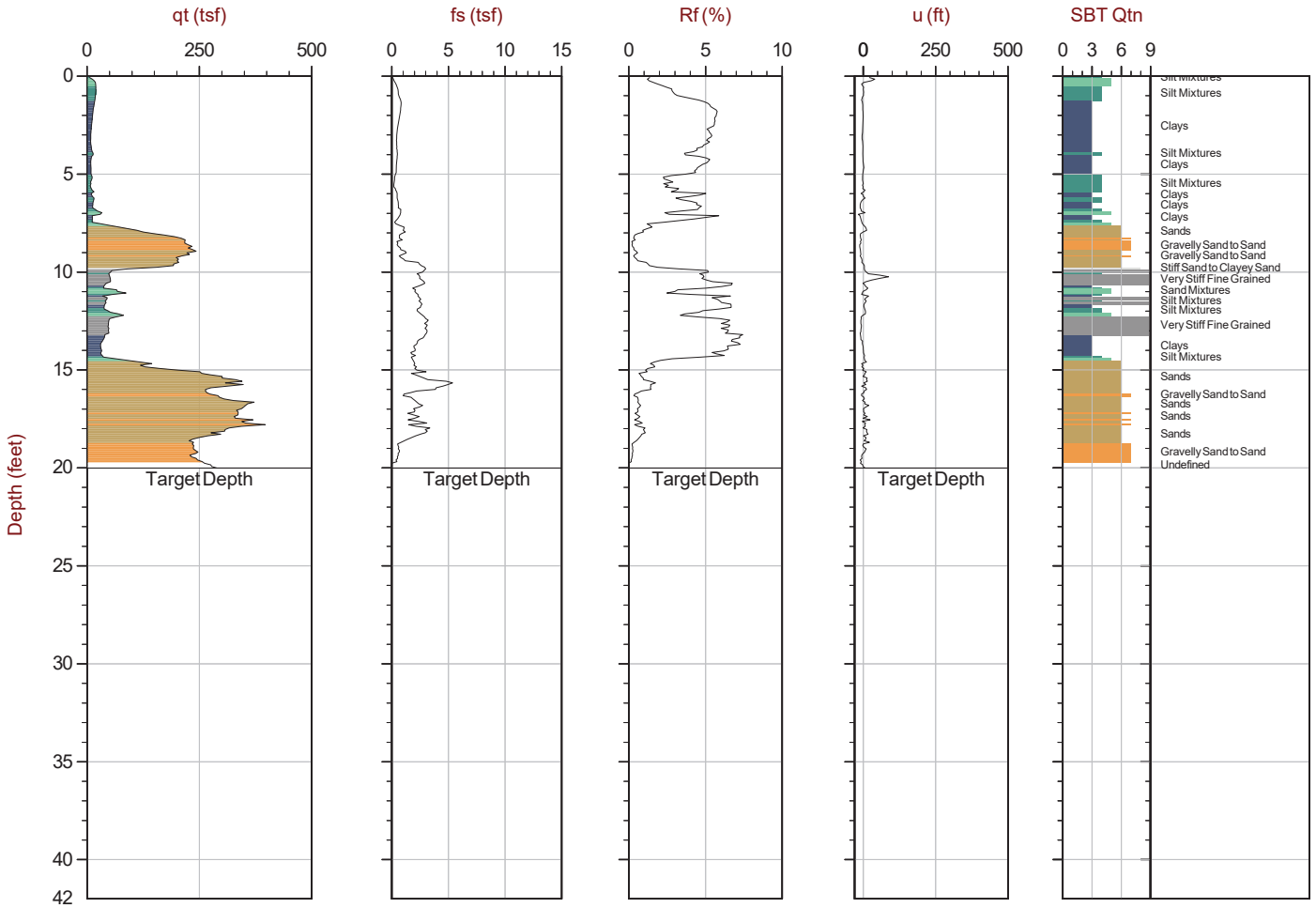
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 04:14
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-234
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP234.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408767m E: 293494m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

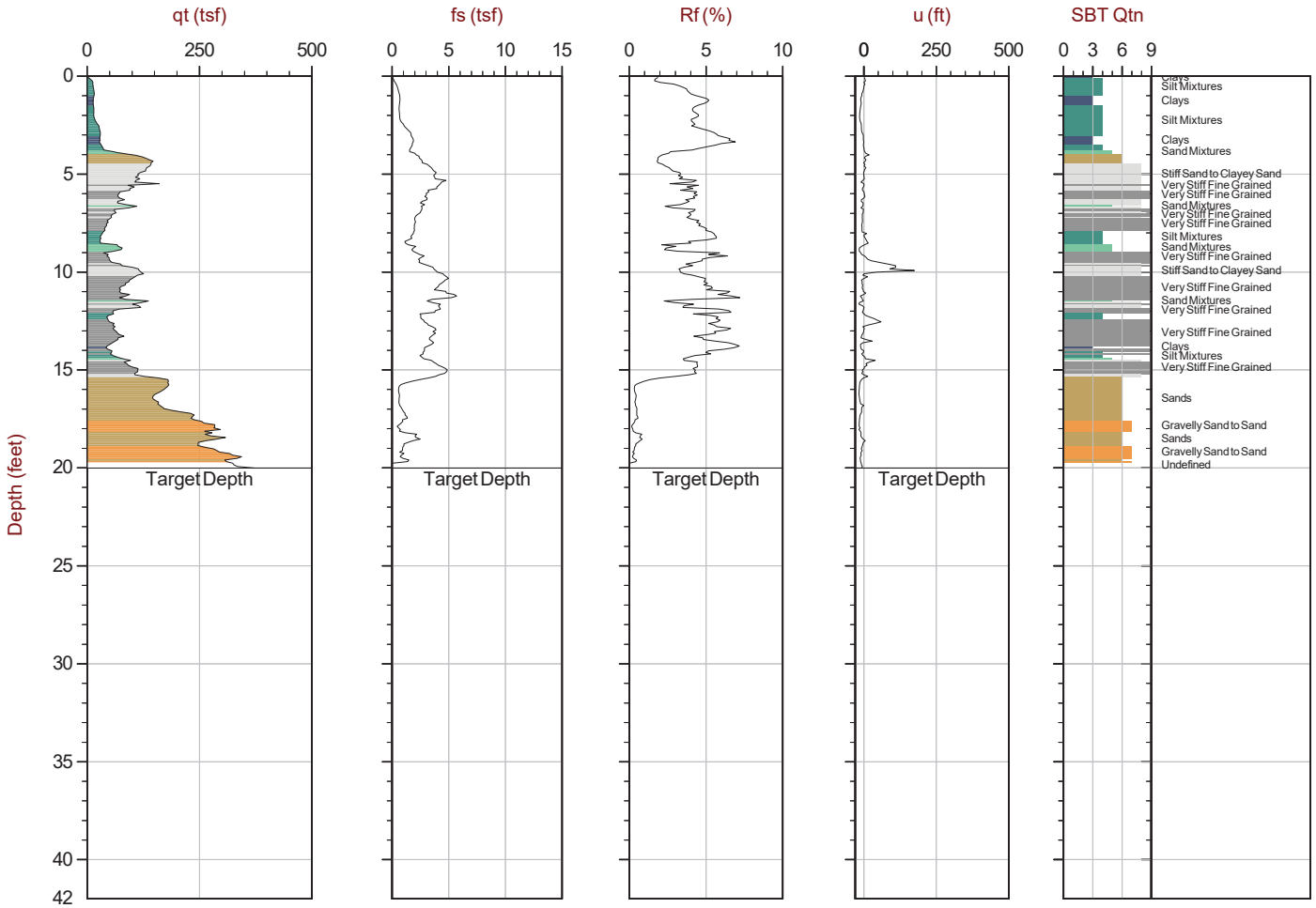
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 05:23
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-235
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP235.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408762m E: 293863m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

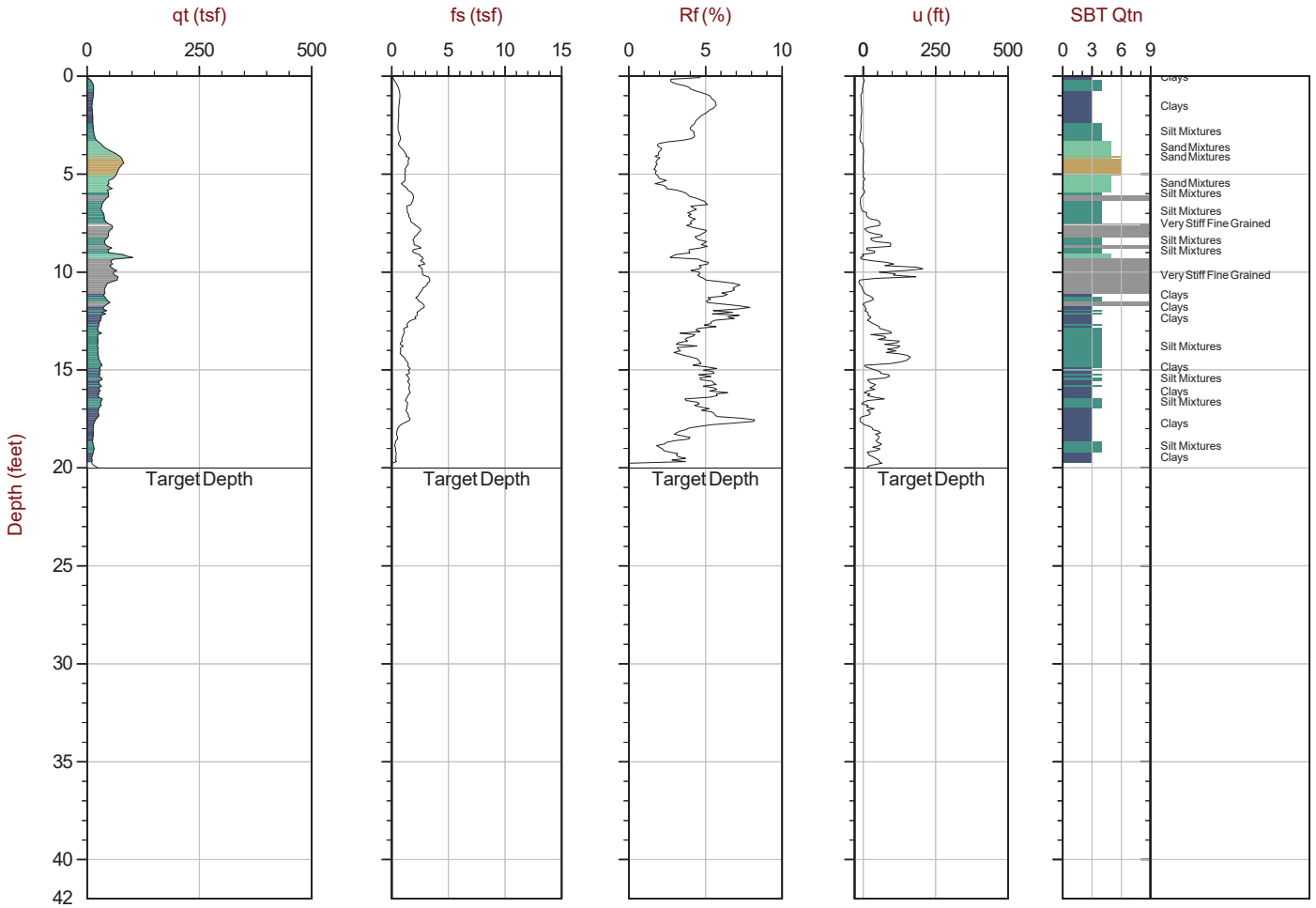
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 05:40
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-236
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP236.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408814m E: 294170m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

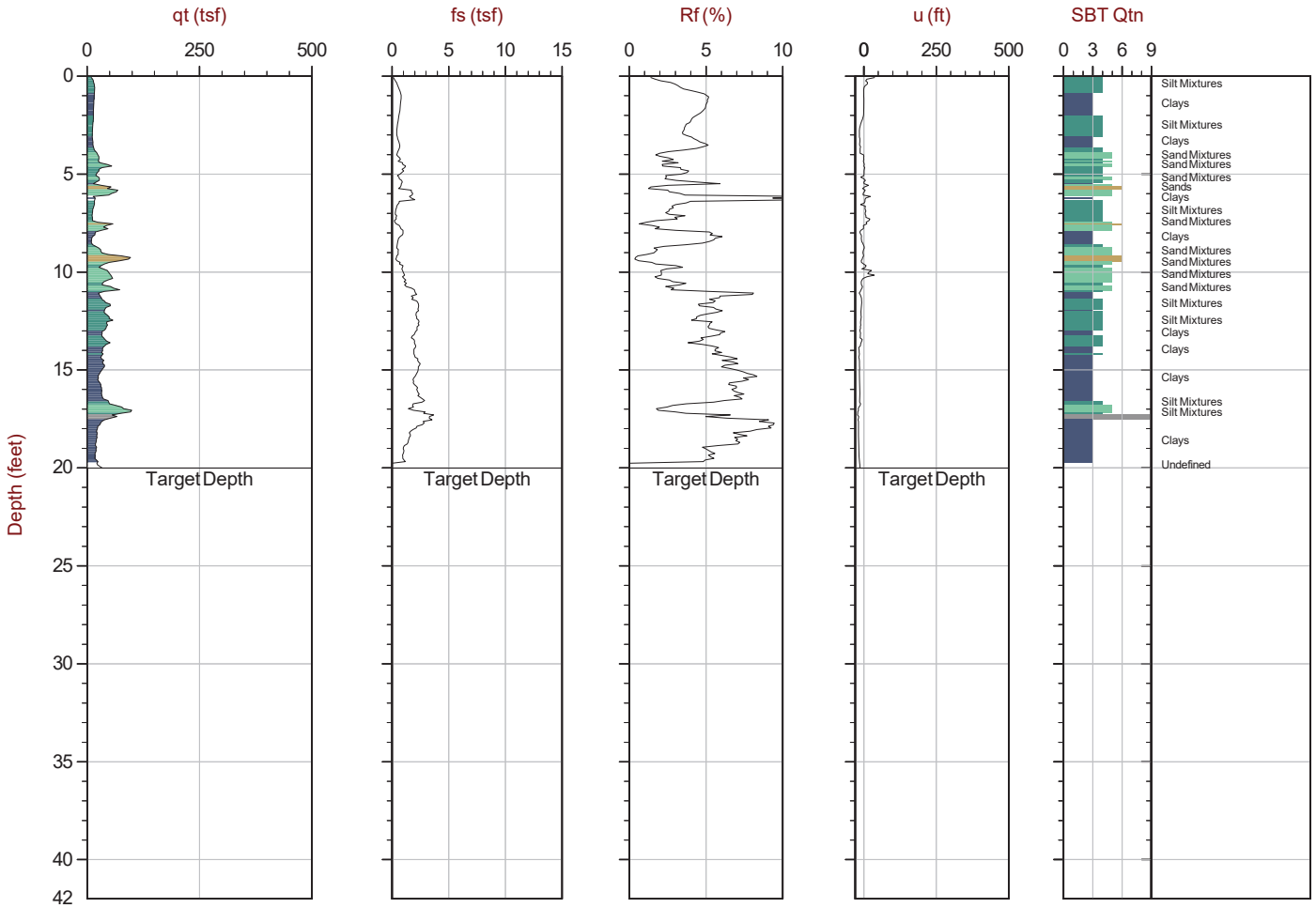
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 03:05
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-237
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP237.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408433m E: 293017m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

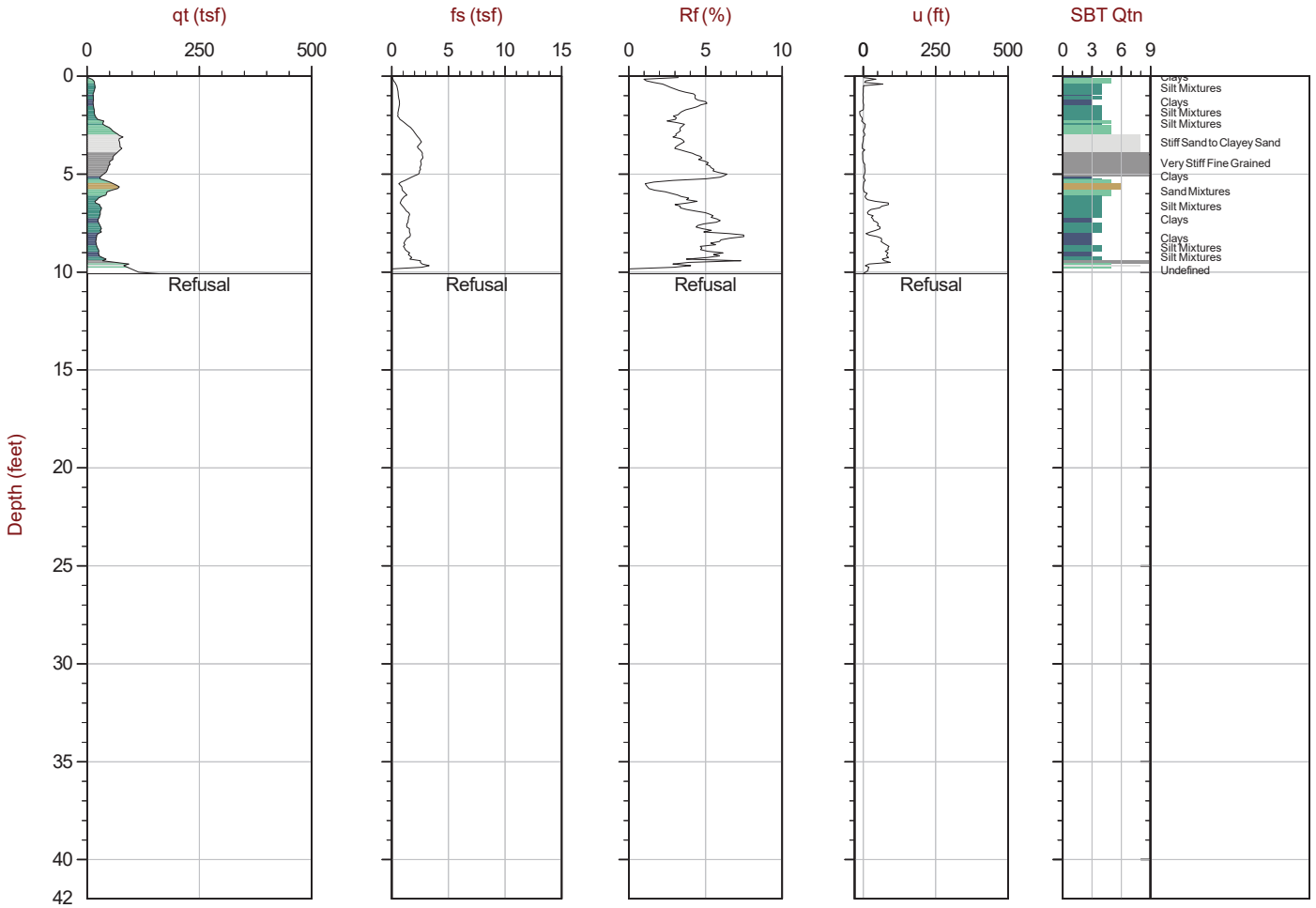
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 03:57
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-238
Cone: EC600



Max Depth: 3.075 m / 10.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP238.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408413m E: 293369m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

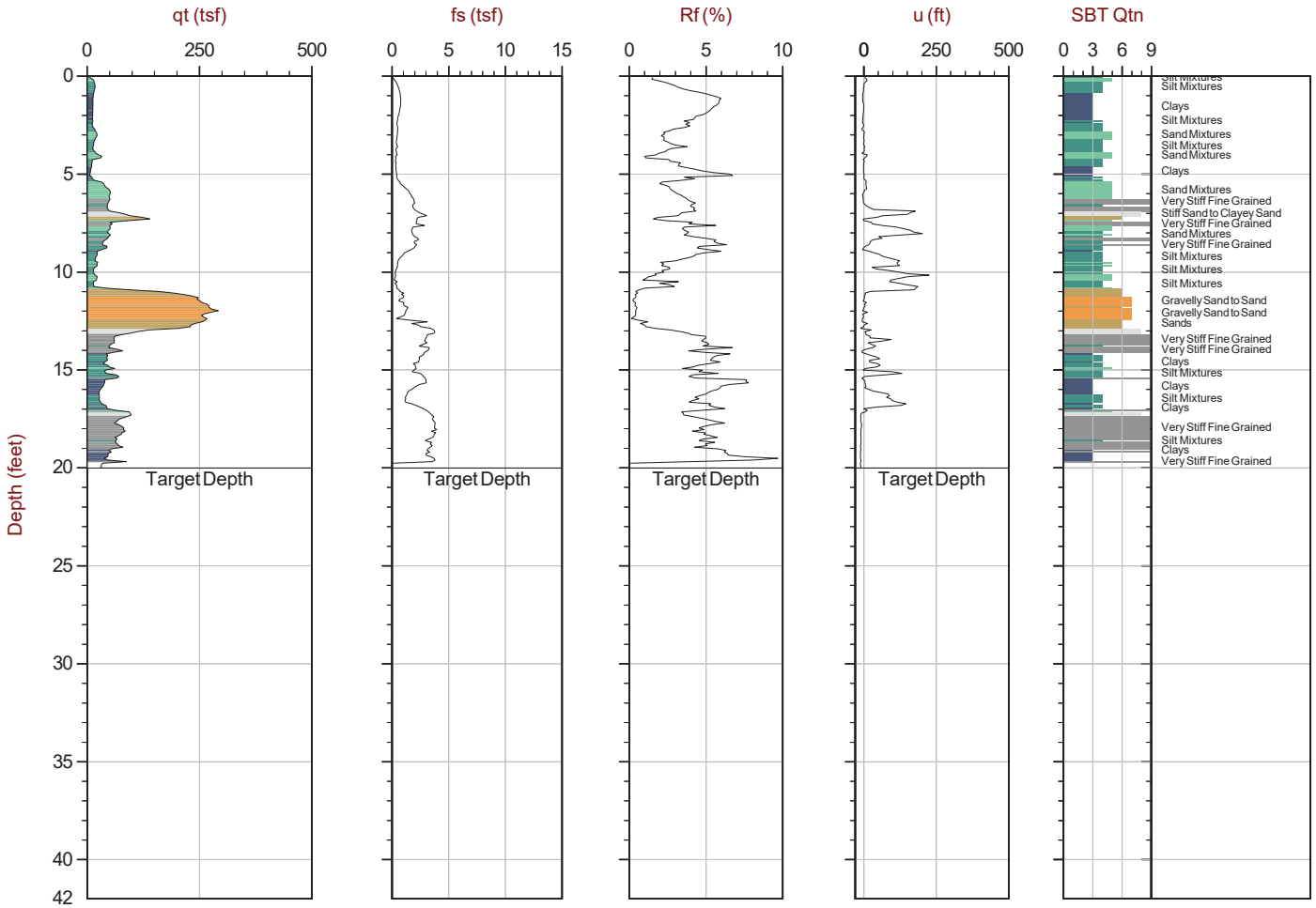
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 10:25
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-239A
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP239A.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408476m E: 293691m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

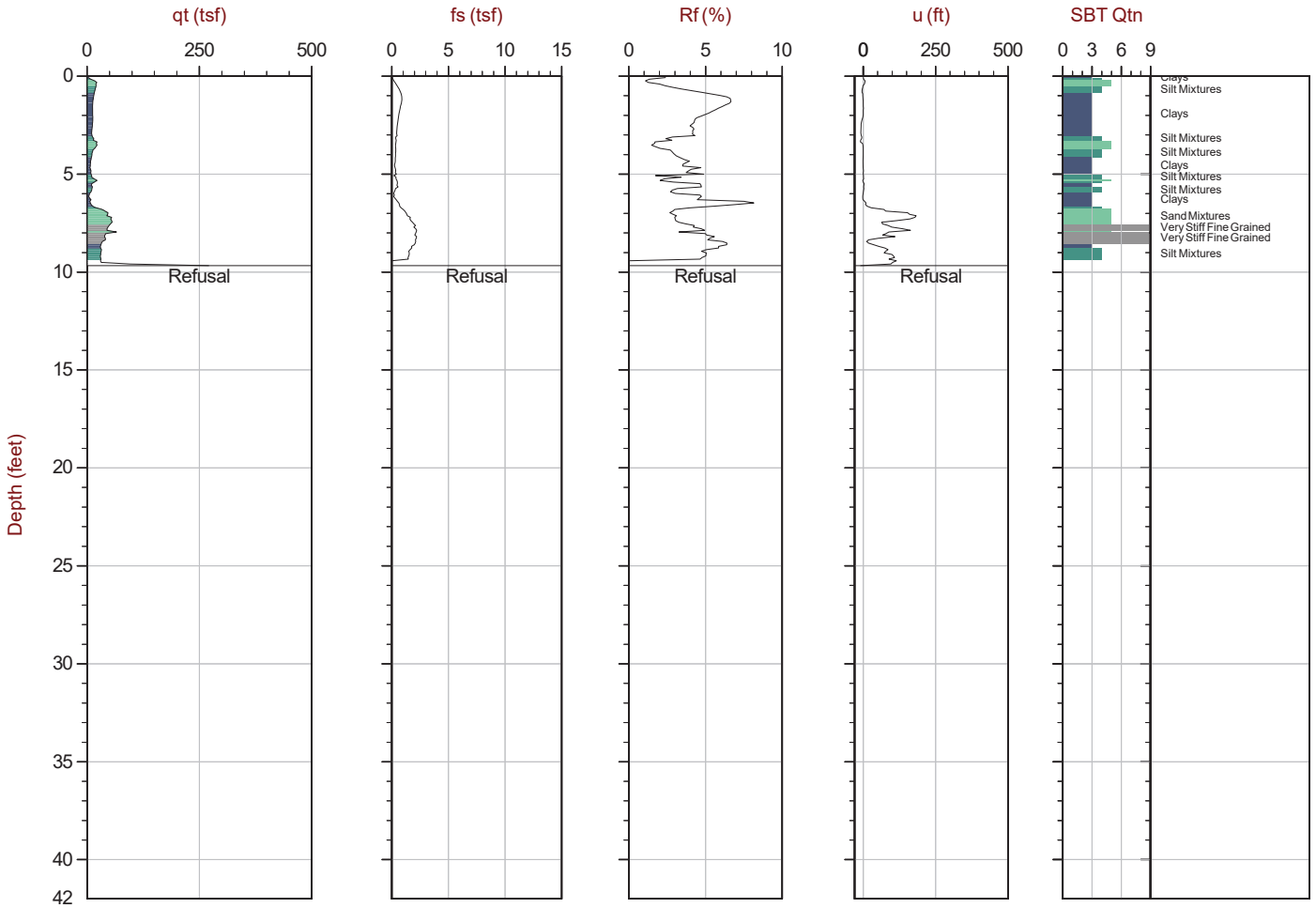
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 09:57
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-239
Cone: EC600



Max Depth: 2.950 m / 9.68 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP239.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408472m E: 293691m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

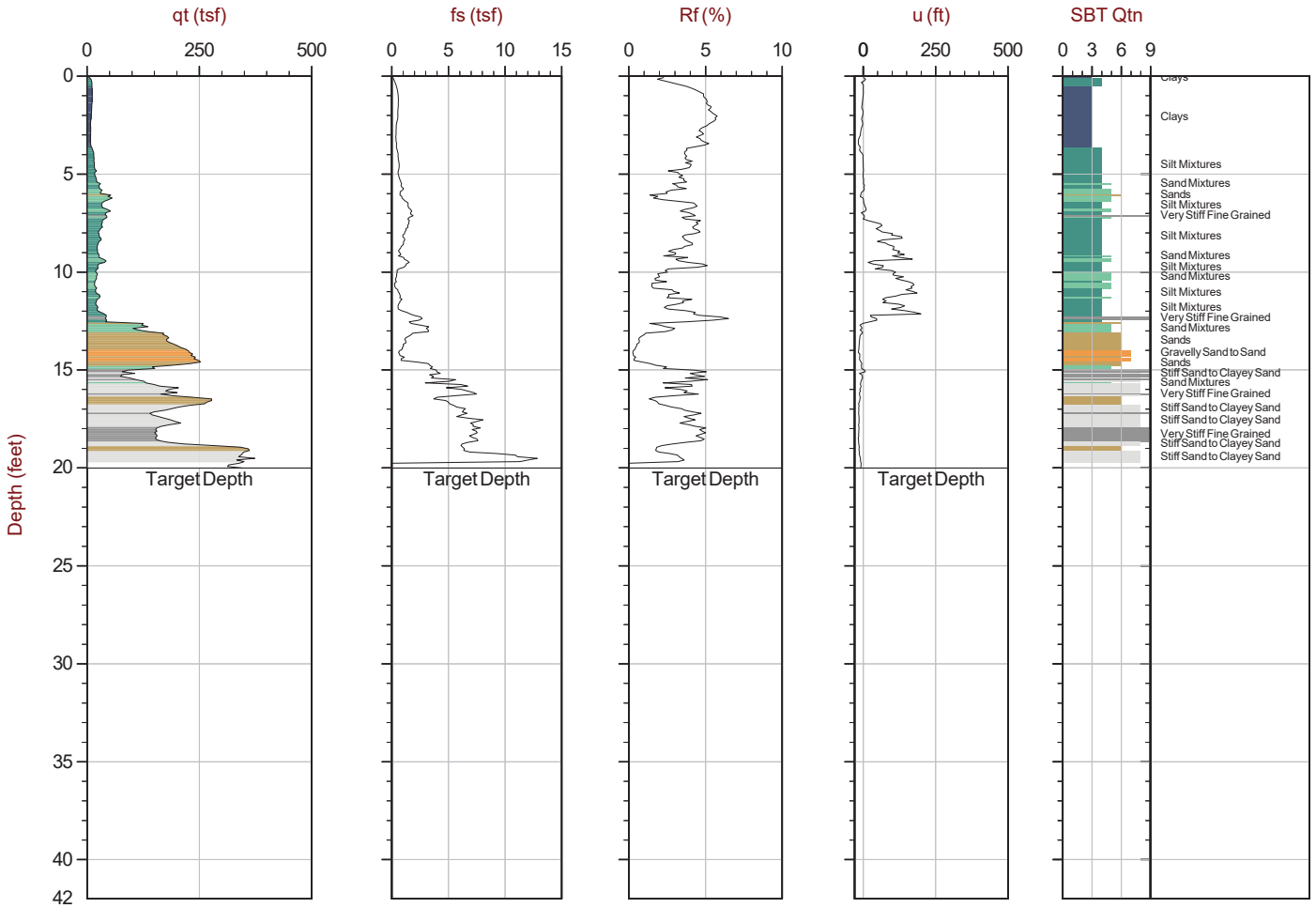
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 08:58
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-240
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP240.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408484m E: 294159m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

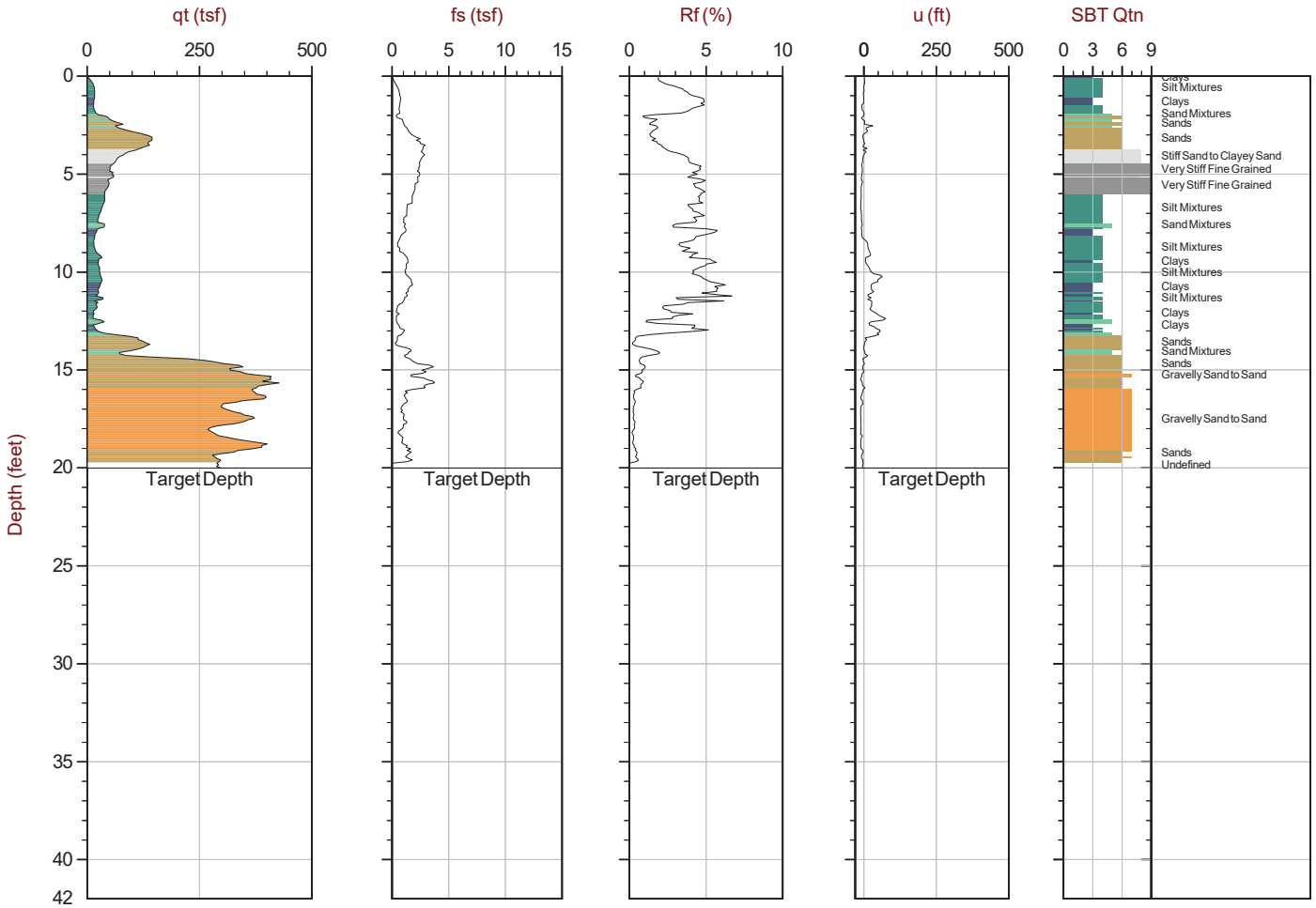
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-11 09:40
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-241
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP241.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408220m E: 293920m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

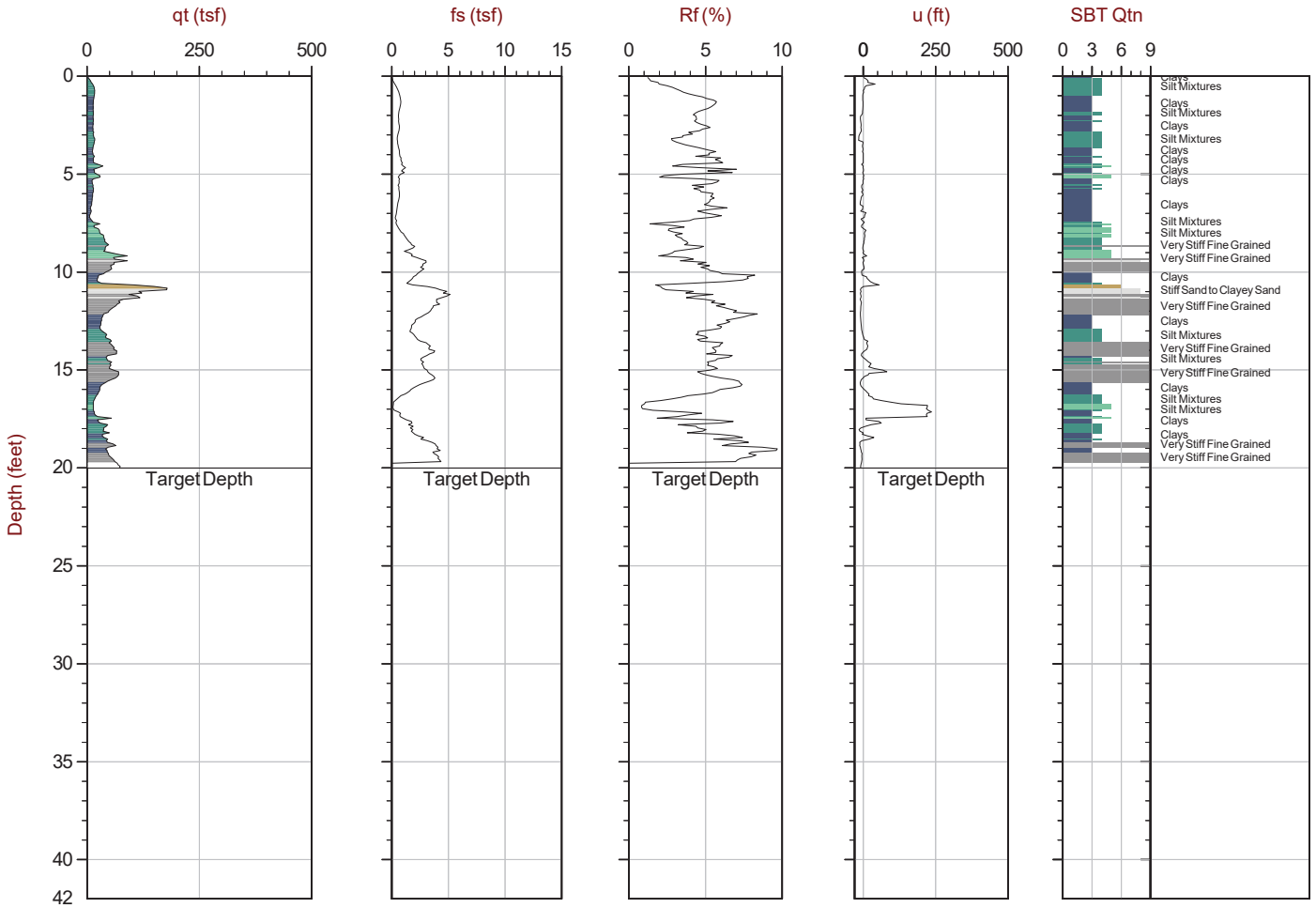
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 03:40
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-242
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP242.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408147m E: 292663m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

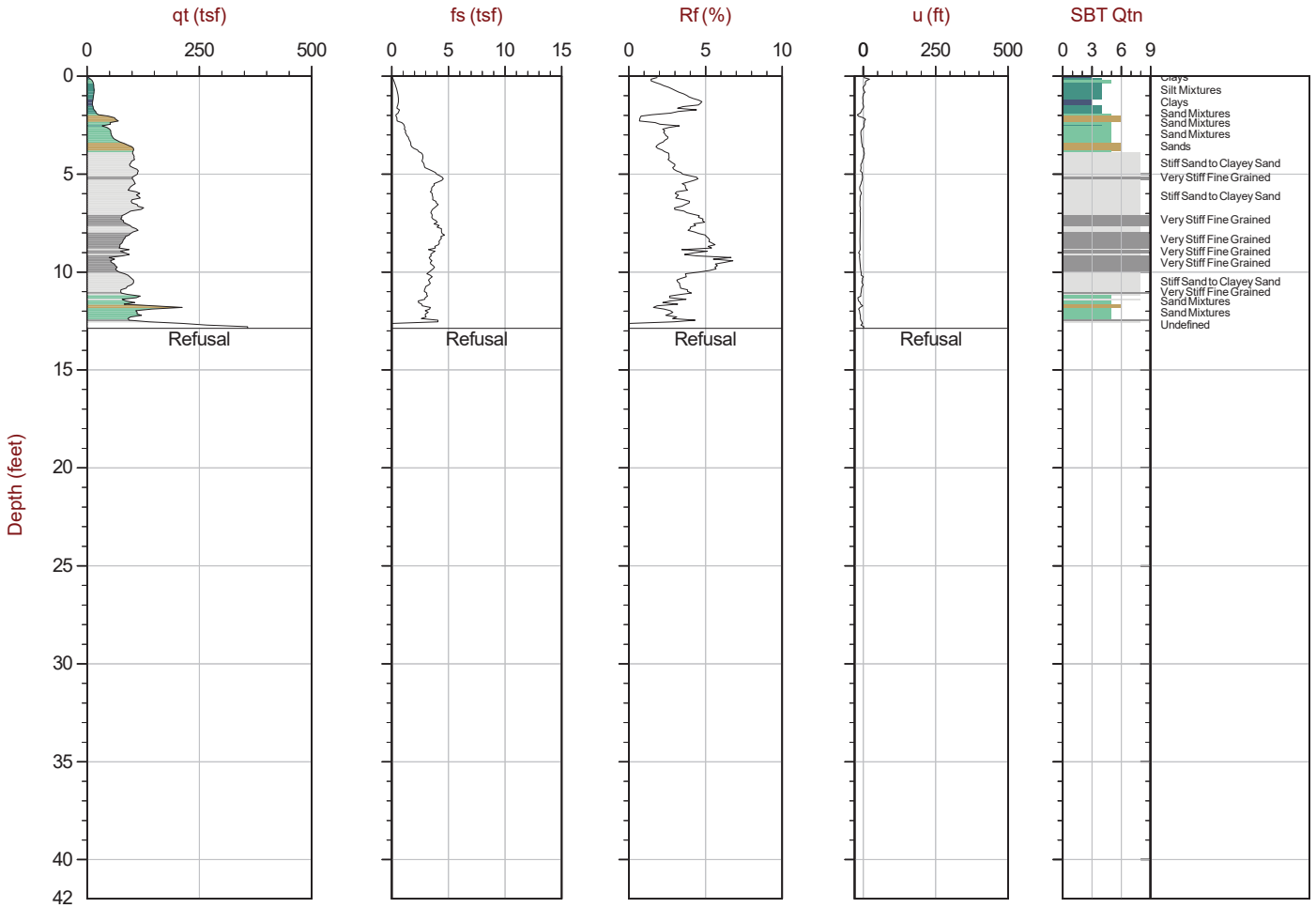
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 03:25
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-243
Cone: EC600



Max Depth: 3.925 m / 12.88 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP243.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408091m E: 293016m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

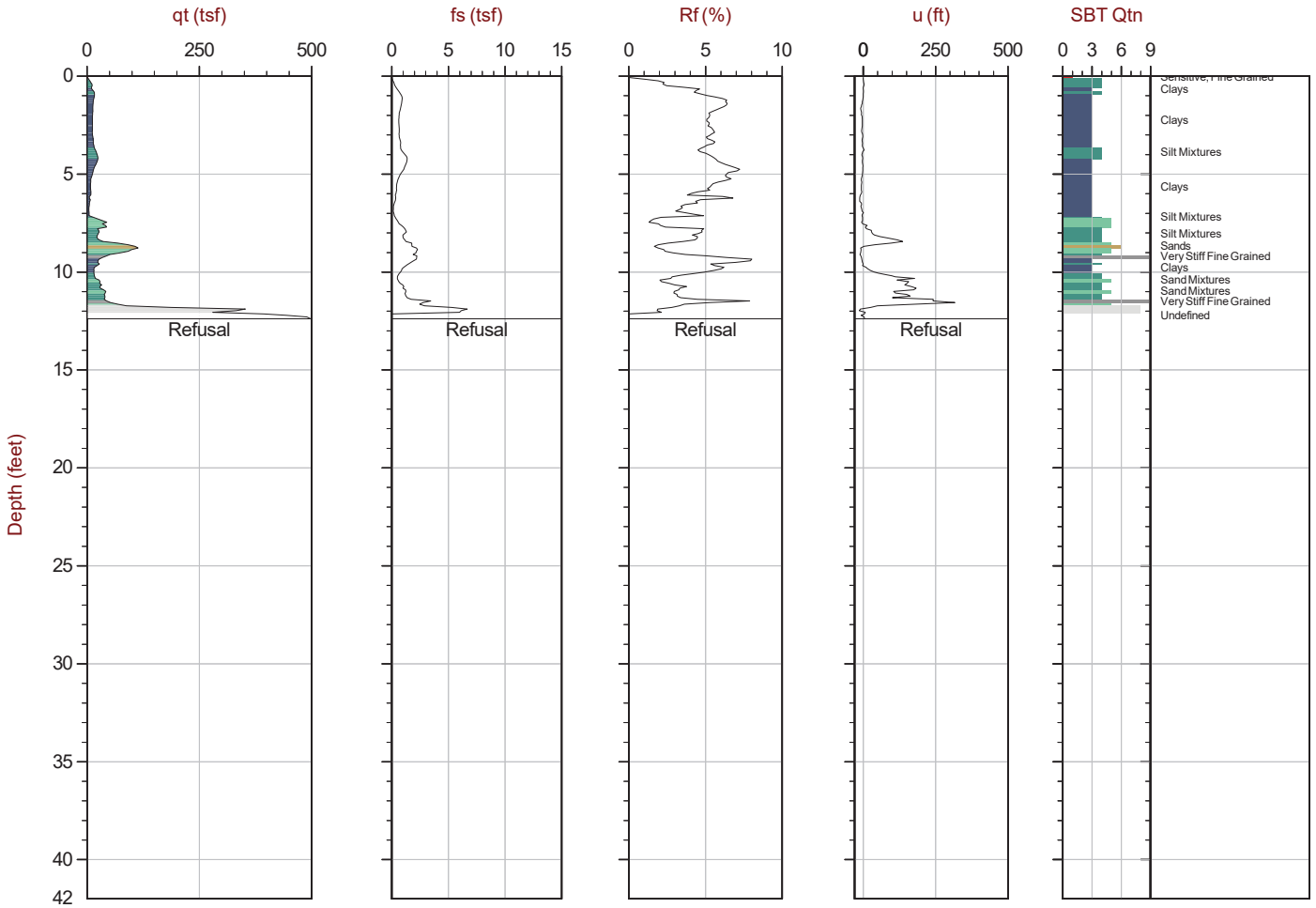
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 02:53
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-244
Cone: EC600



Max Depth: 3.775 m / 12.39 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP244.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408042m E: 293349m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

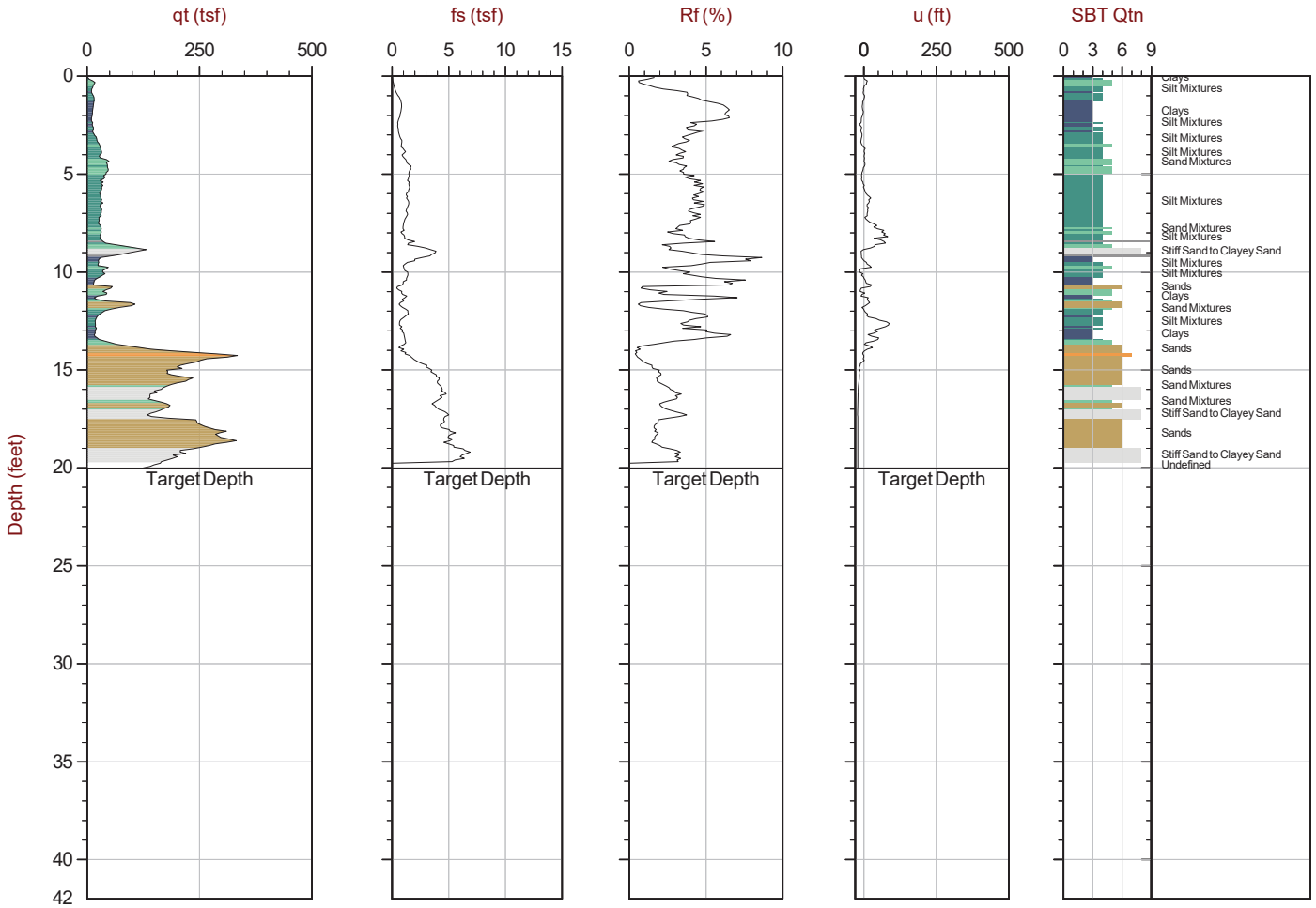
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 01:22
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-245
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP245.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4408134m E: 293636m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

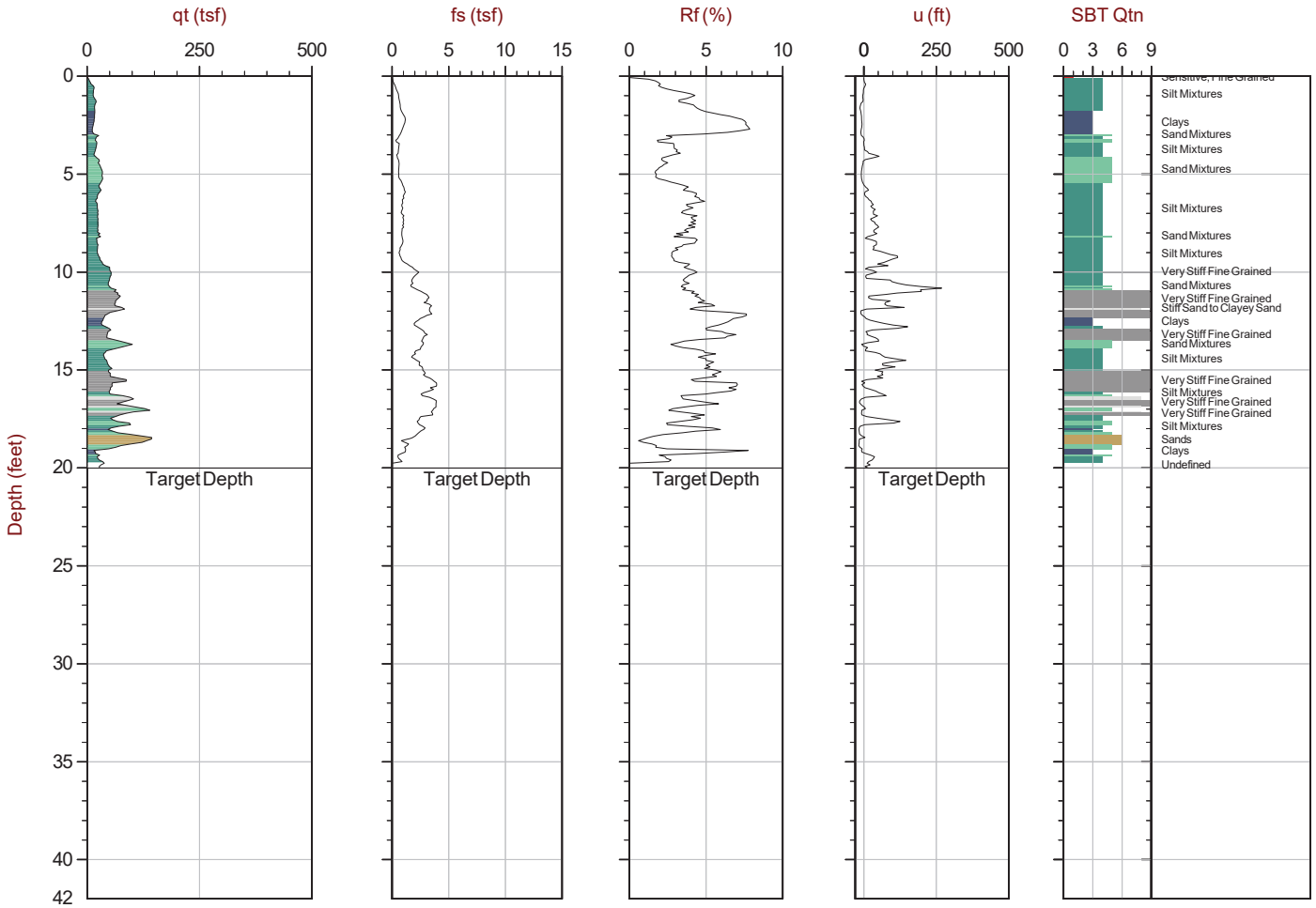
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 11:45
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-246
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP246.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407886m E: 293846m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

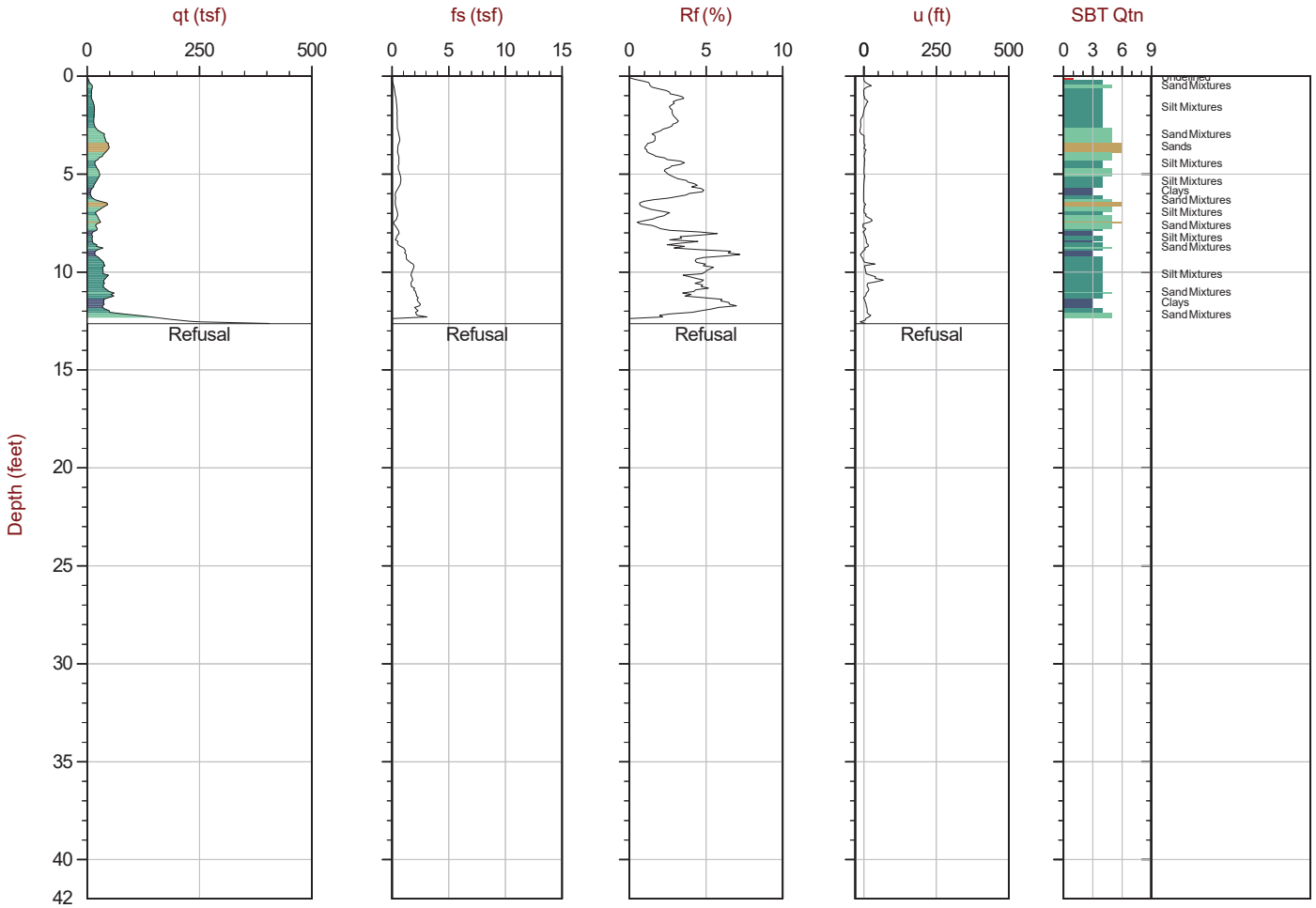
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 02:40
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-247
Cone: EC600



Max Depth: 3.850 m / 12.63 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP247.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407761m E: 293142m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

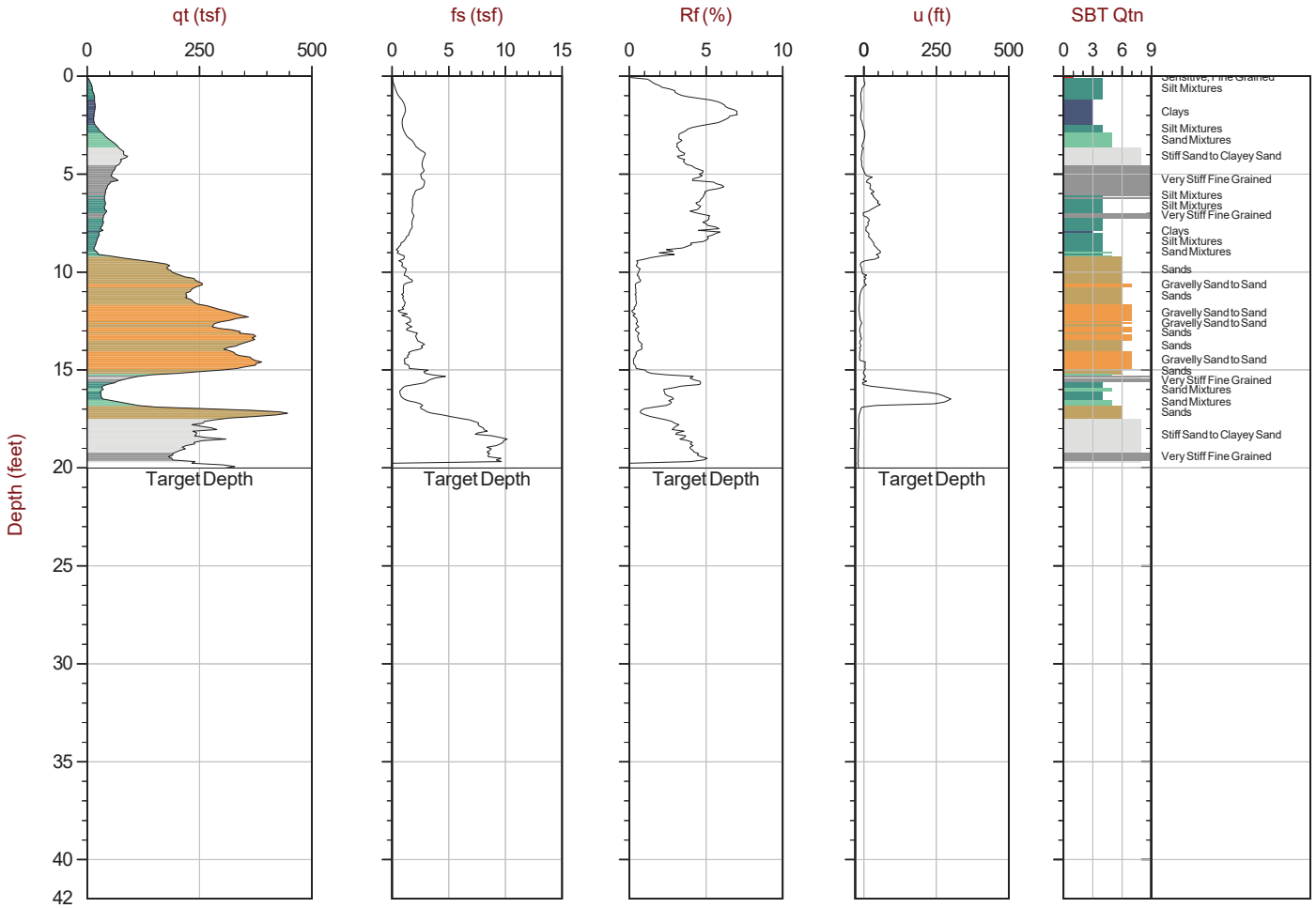
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 01:39
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-248
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP248.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407760m E: 293544m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

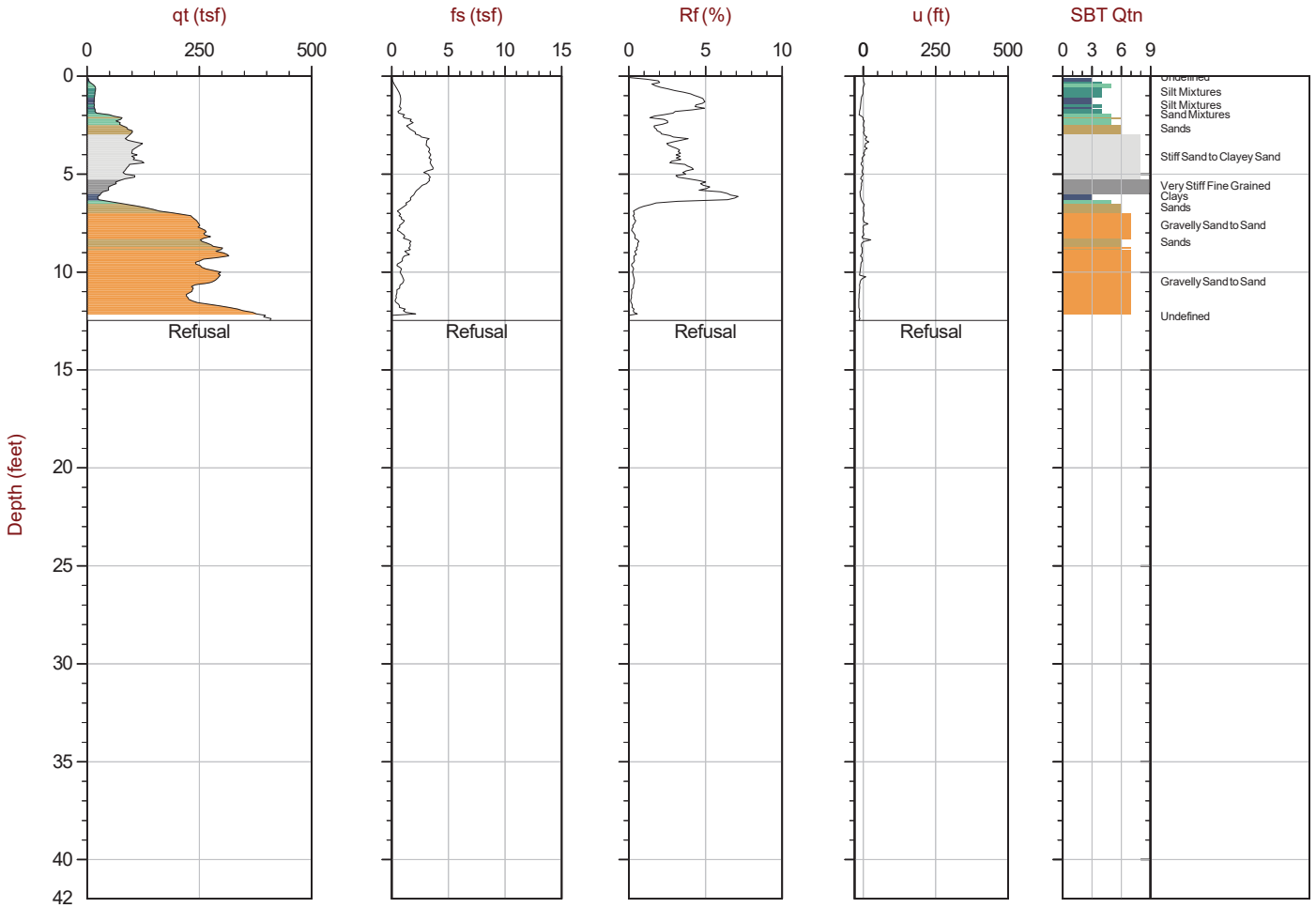
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 02:22
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-249
Cone: EC600



Max Depth: 3.800 m / 12.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP249.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407461m E: 293193m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

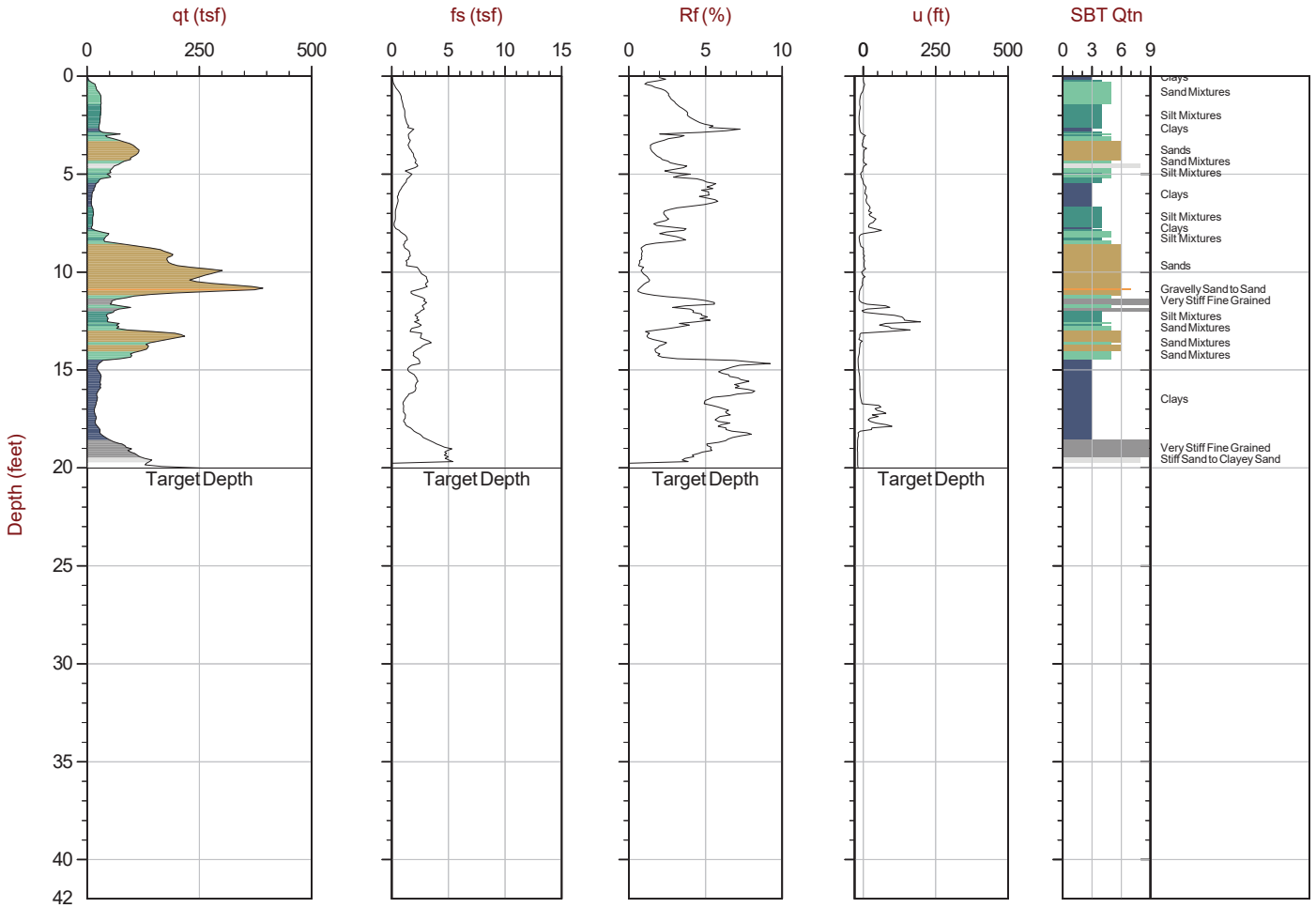
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-14 01:59
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-250
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP250.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407453m E: 293505m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

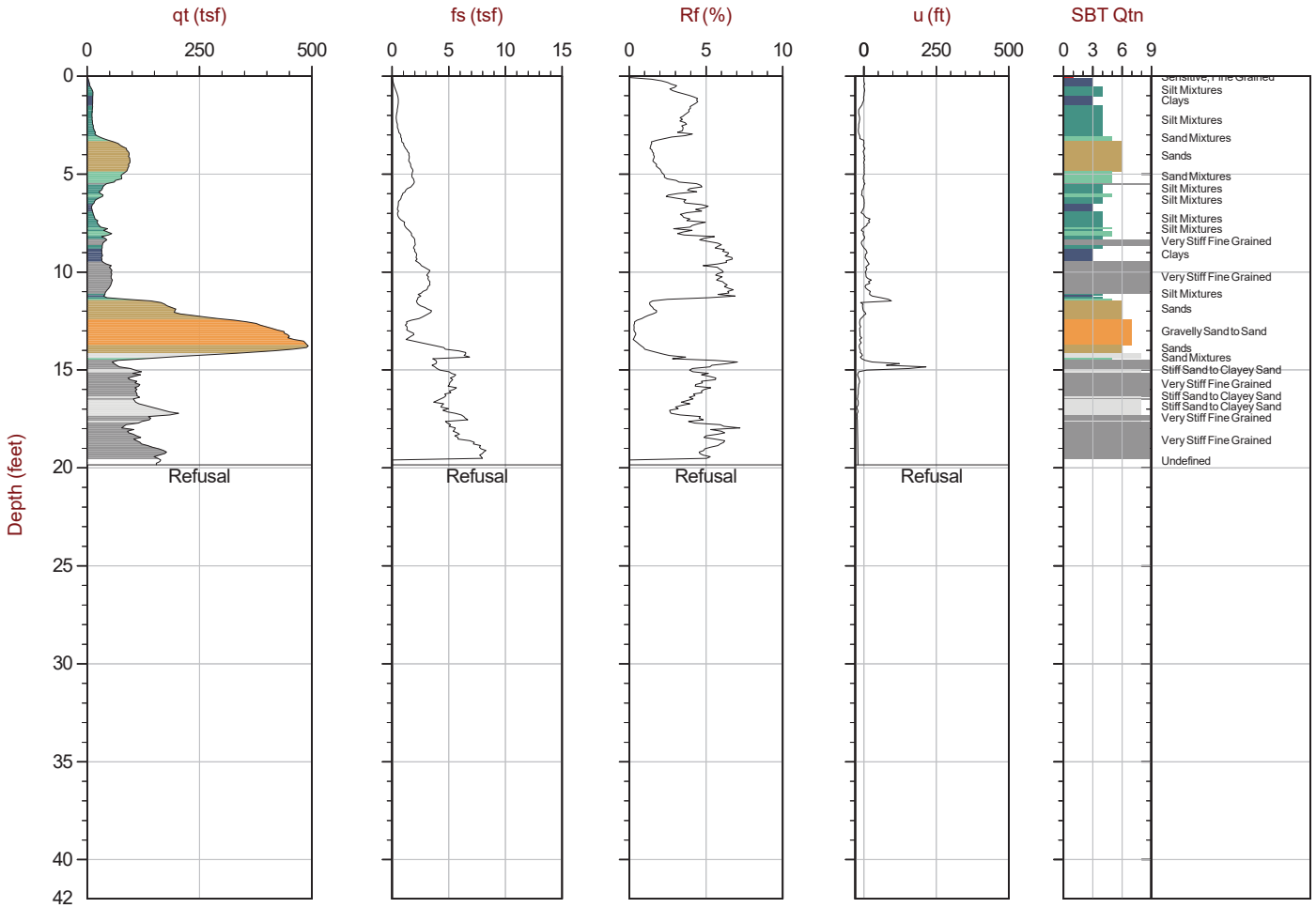
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 08:54
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-251
Cone: EC600



Max Depth: 6.050 m / 19.85 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP251.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406522m E: 294964m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

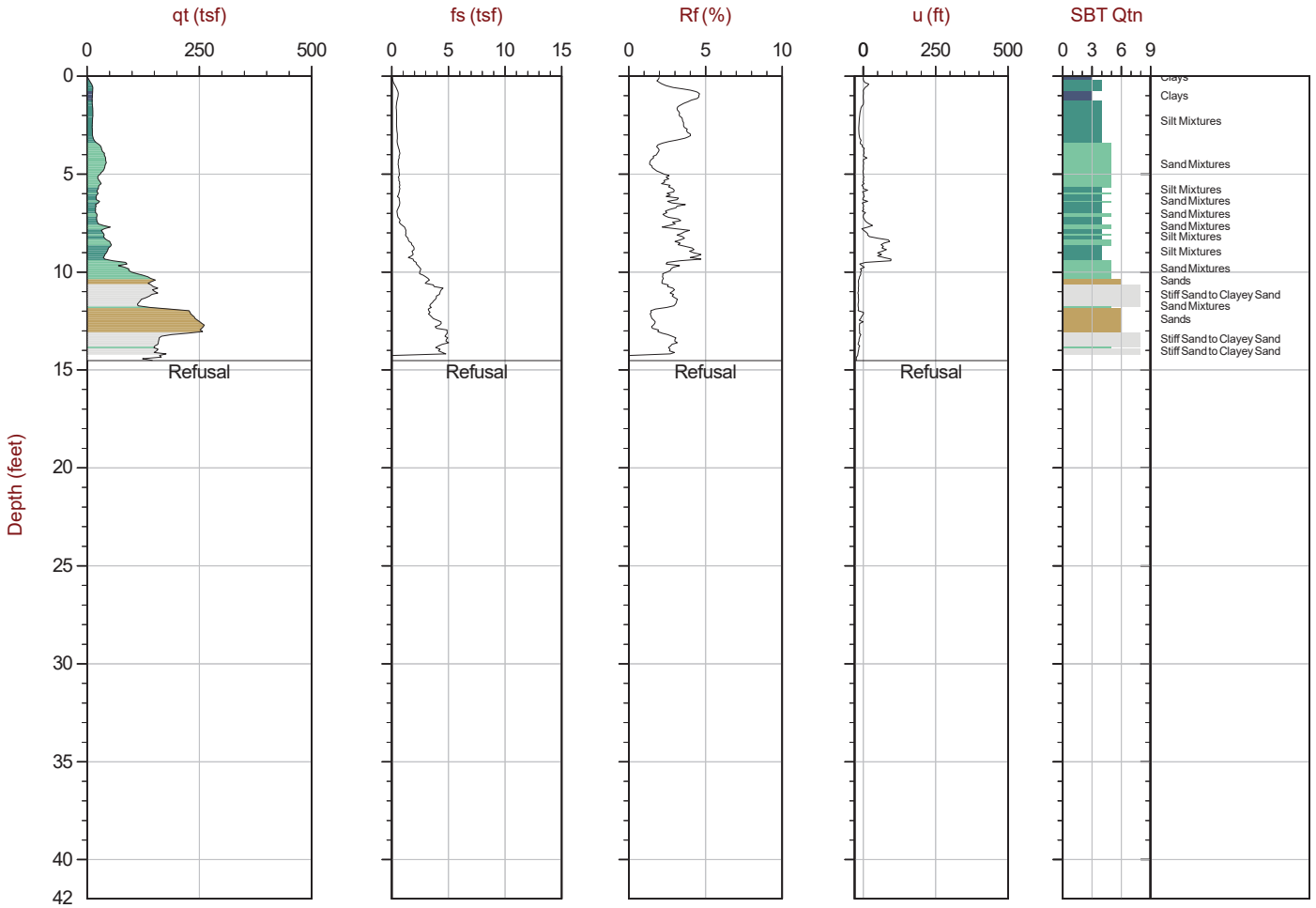
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 08:35
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-252
Cone: EC600



Max Depth: 4.425 m / 14.52 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP252.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406588m E: 295426m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

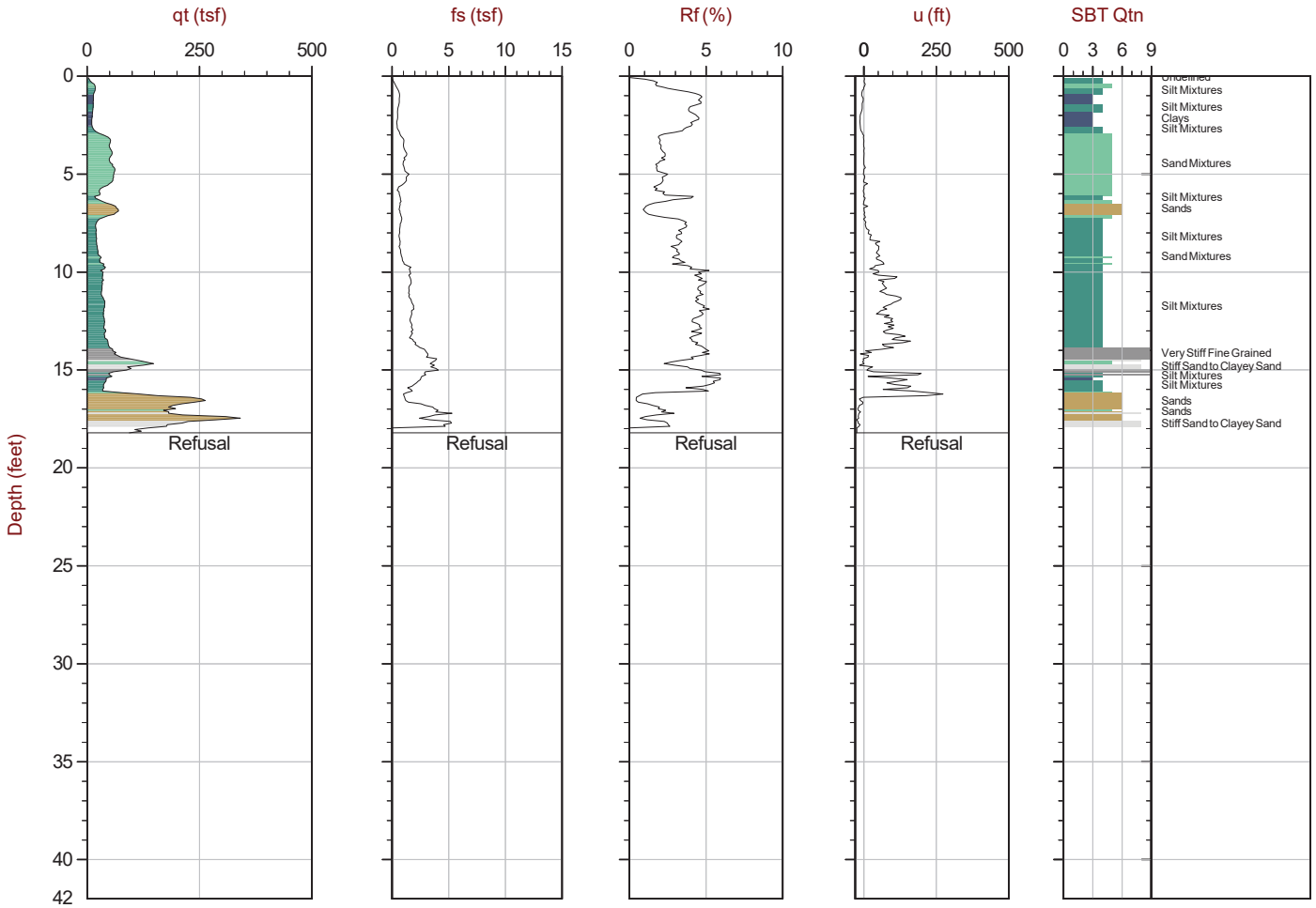
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 09:26
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-253
Cone: EC600



Max Depth: 5.550 m / 18.21 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP253.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406201m E: 294681m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

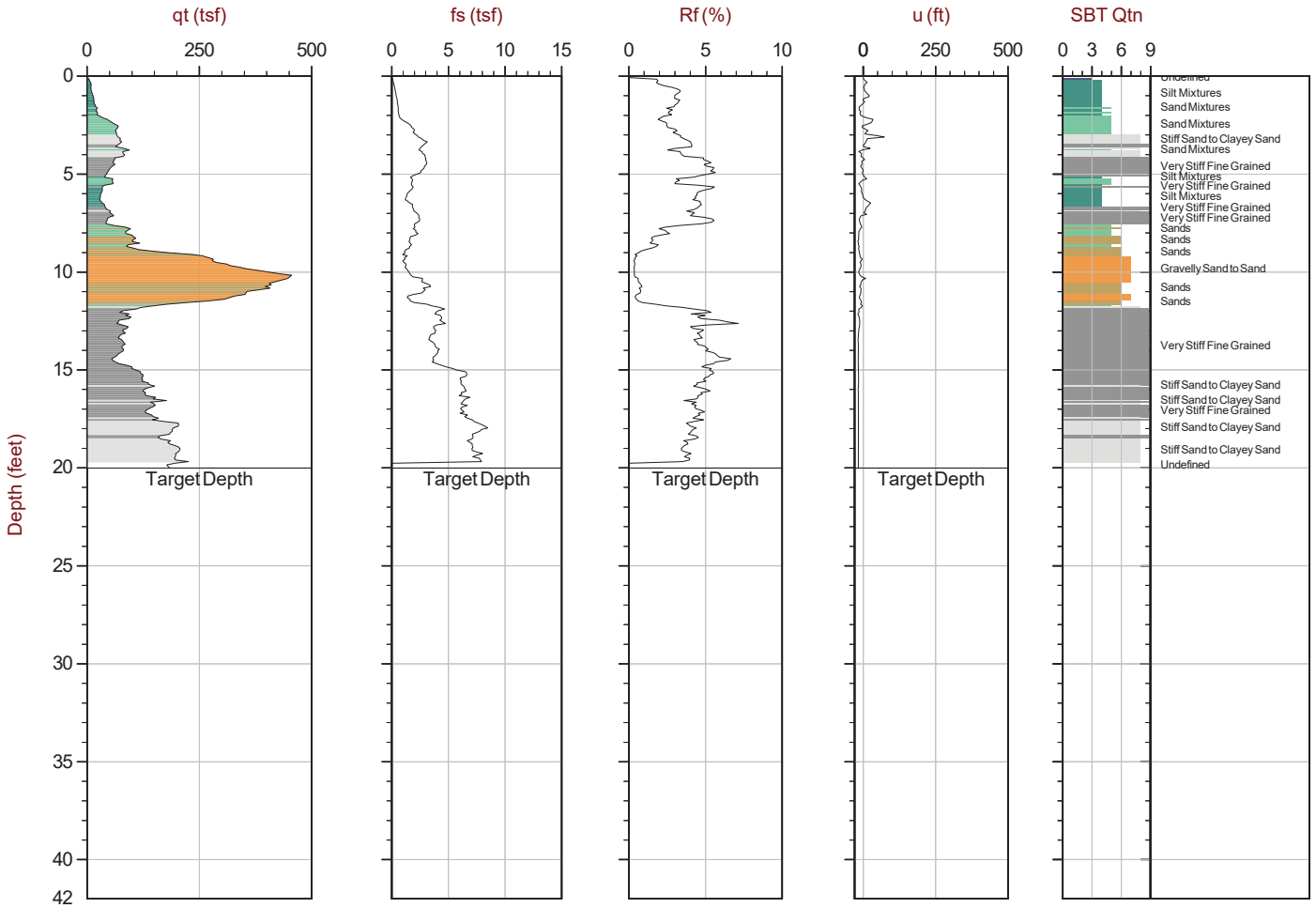
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-17 10:08
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-254
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP254.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406251m E: 295084m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

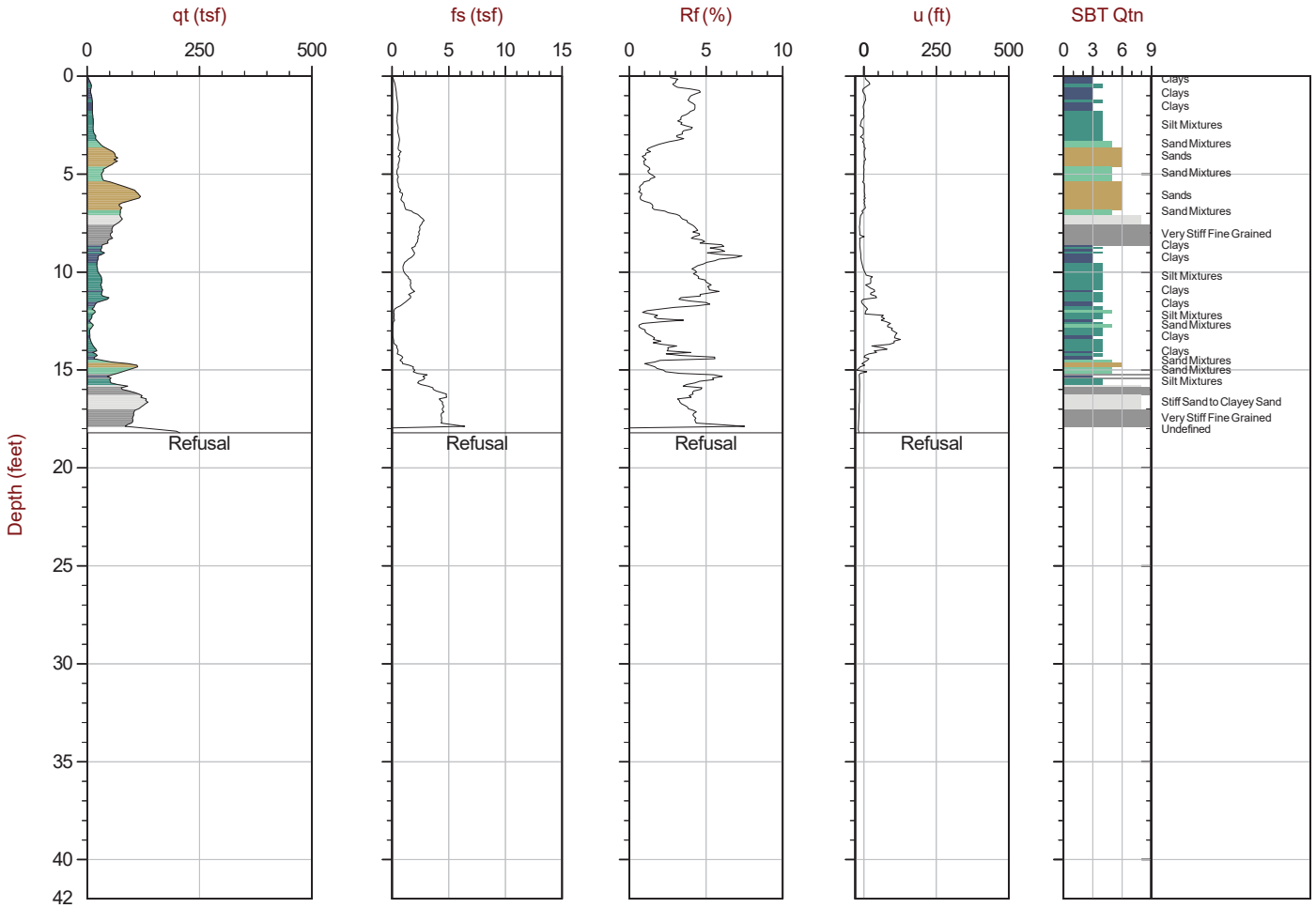
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 05:26
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-255
Cone: EC600



Max Depth: 5.550 m / 18.21 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP255.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4406285m E: 295483m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

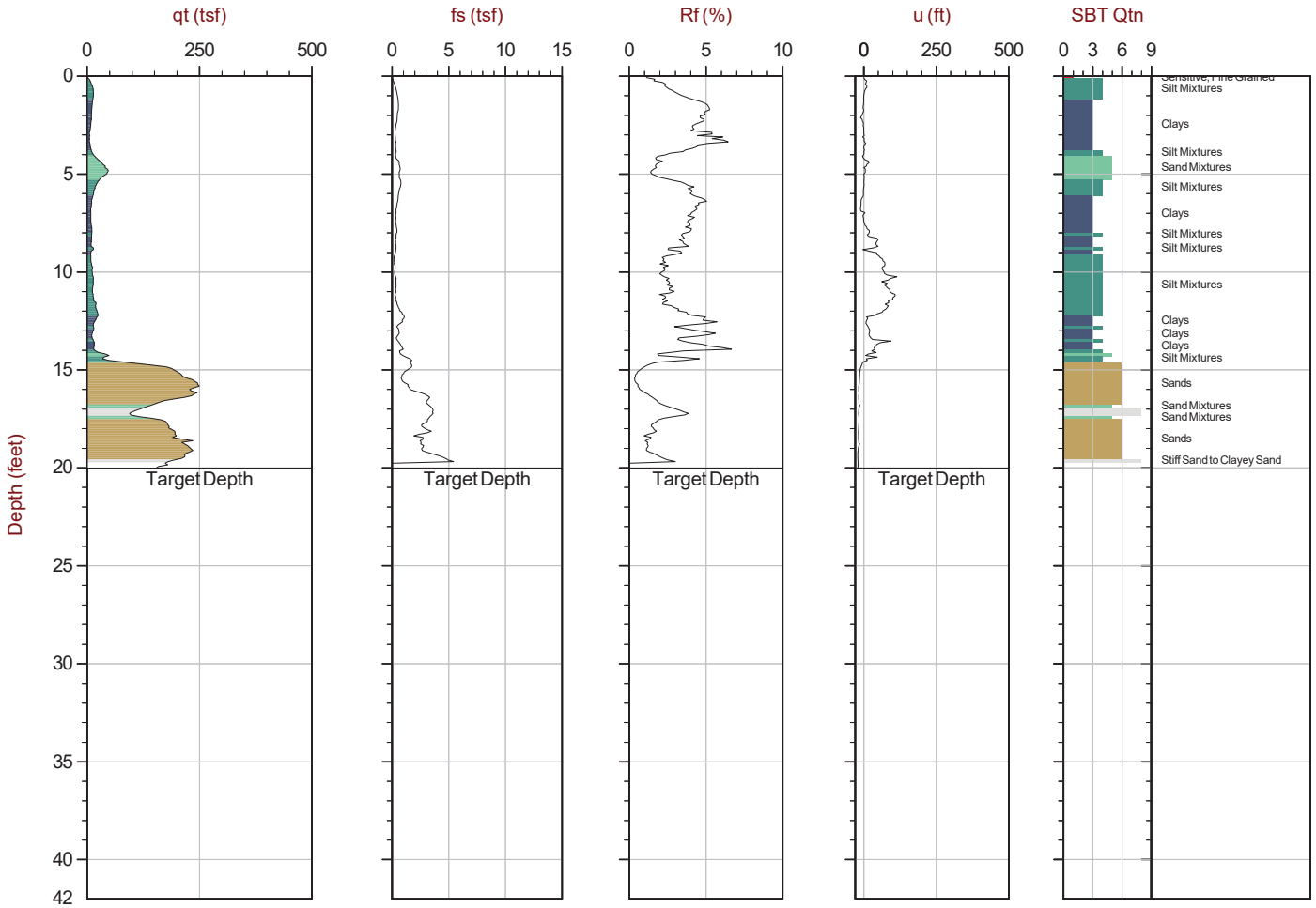
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 04:32
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-256
Cone: EC600



Max Depth: 6.100 m / 20.01 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP256.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405928m E: 294958m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

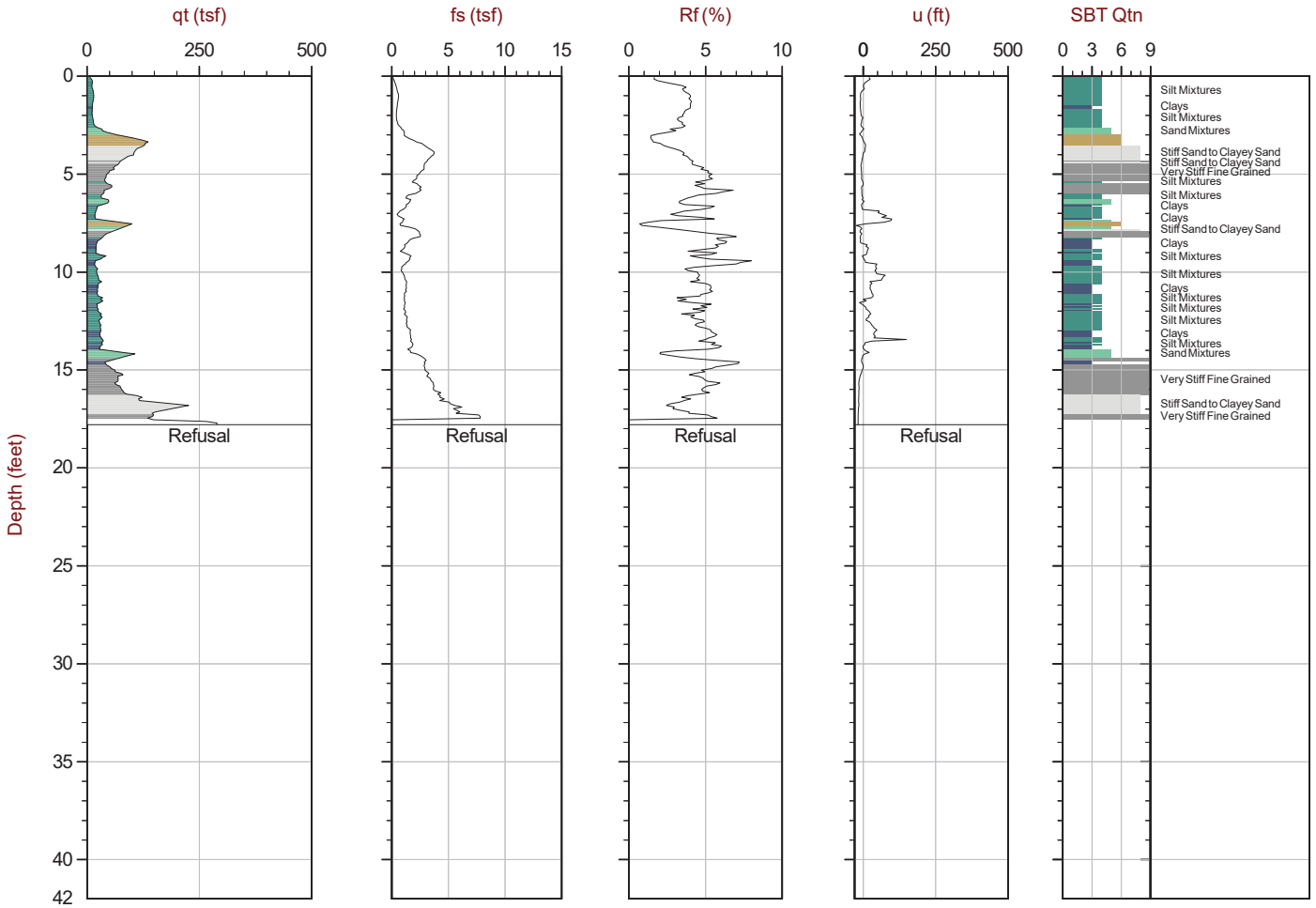
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-16 05:10
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-257
Cone: EC600



Max Depth: 5.425 m / 17.80 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP257.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4405586m E: 294888m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

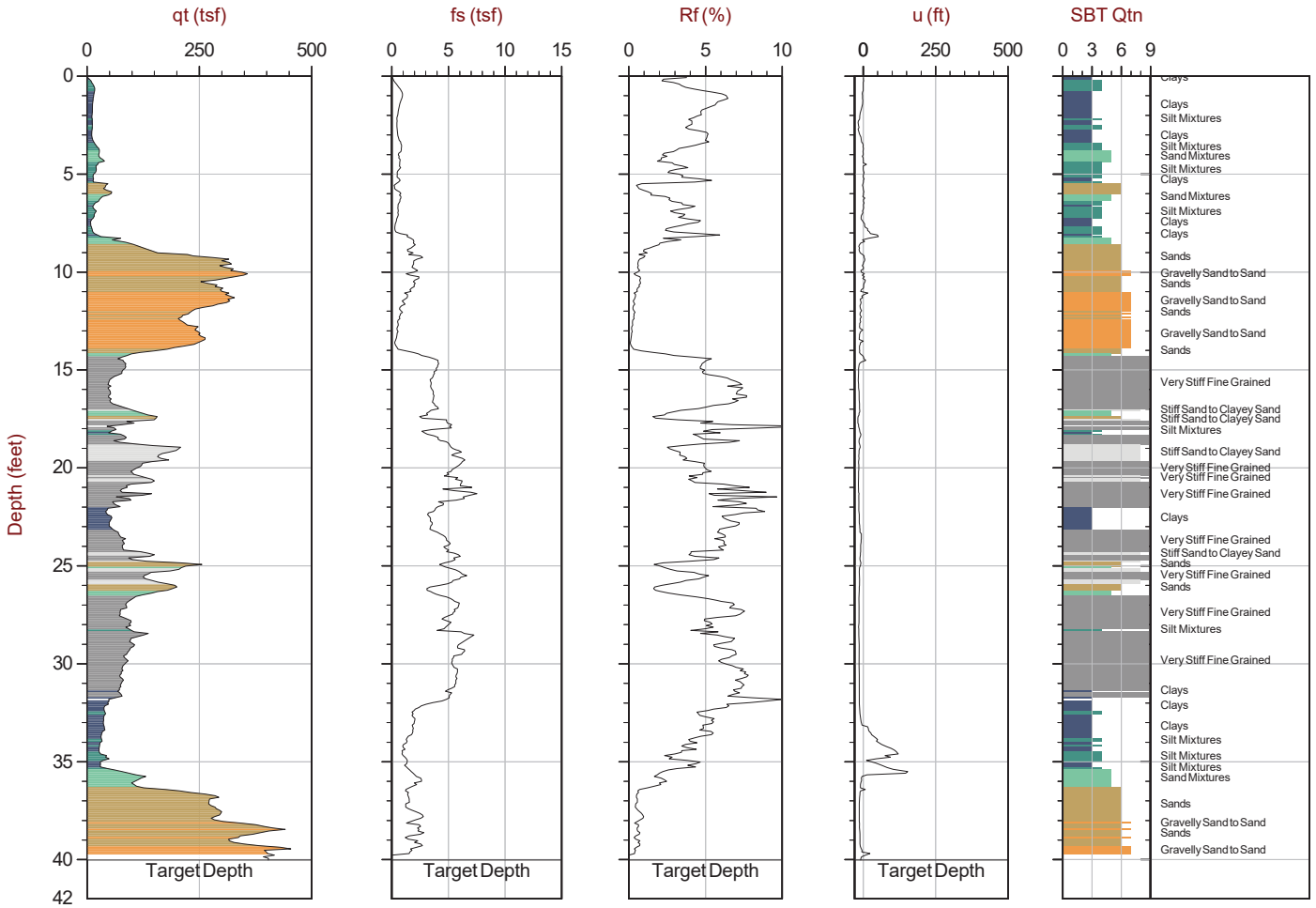
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 03:20
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-01
Cone: EC600



Max Depth: 12.200 m / 40.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP01.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407803m E: 294468m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

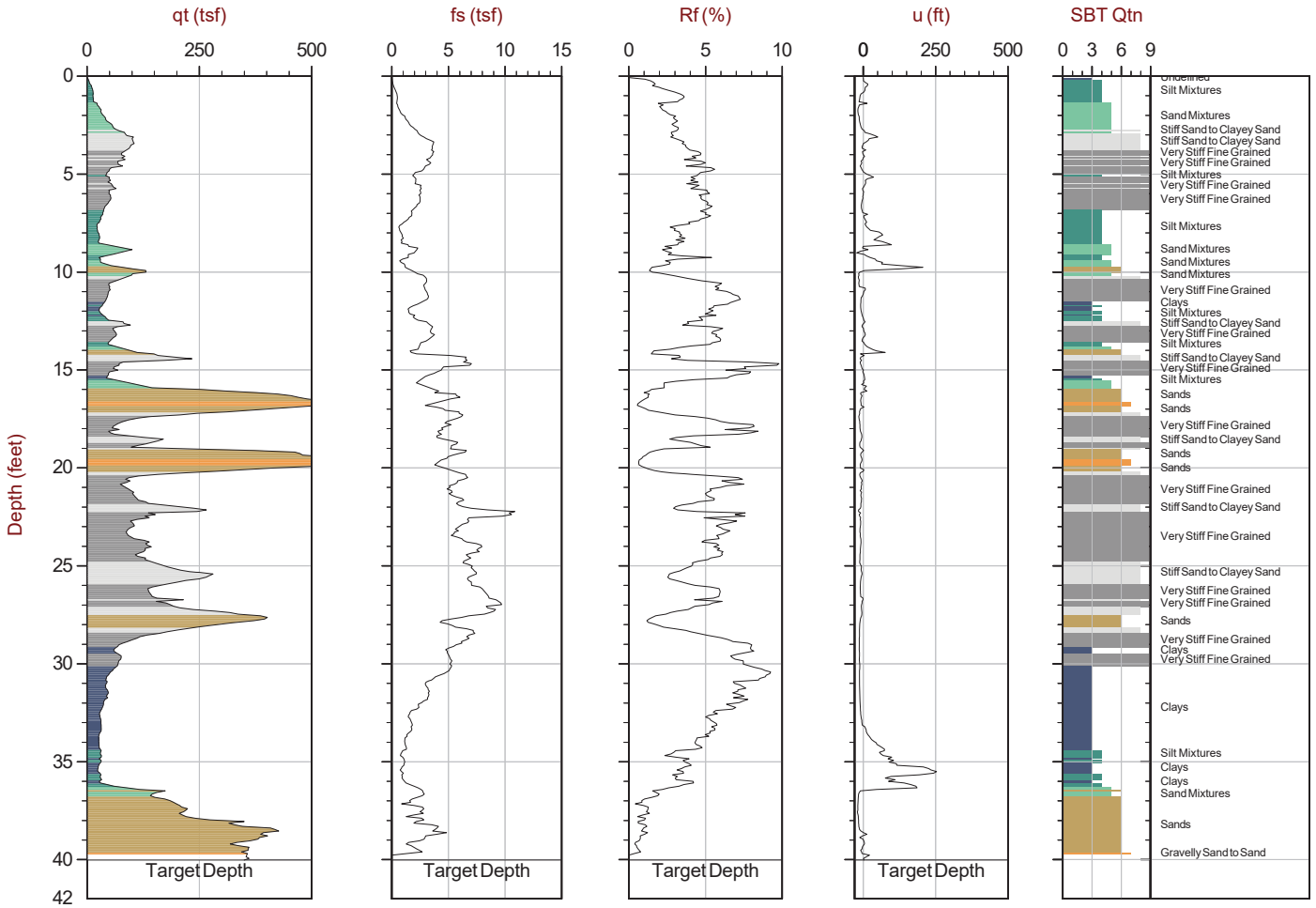
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 04:04
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-02
Cone: EC600



Max Depth: 12.200 m / 40.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP02.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407753m E: 294426m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◀ PPD, Ueq not achieved

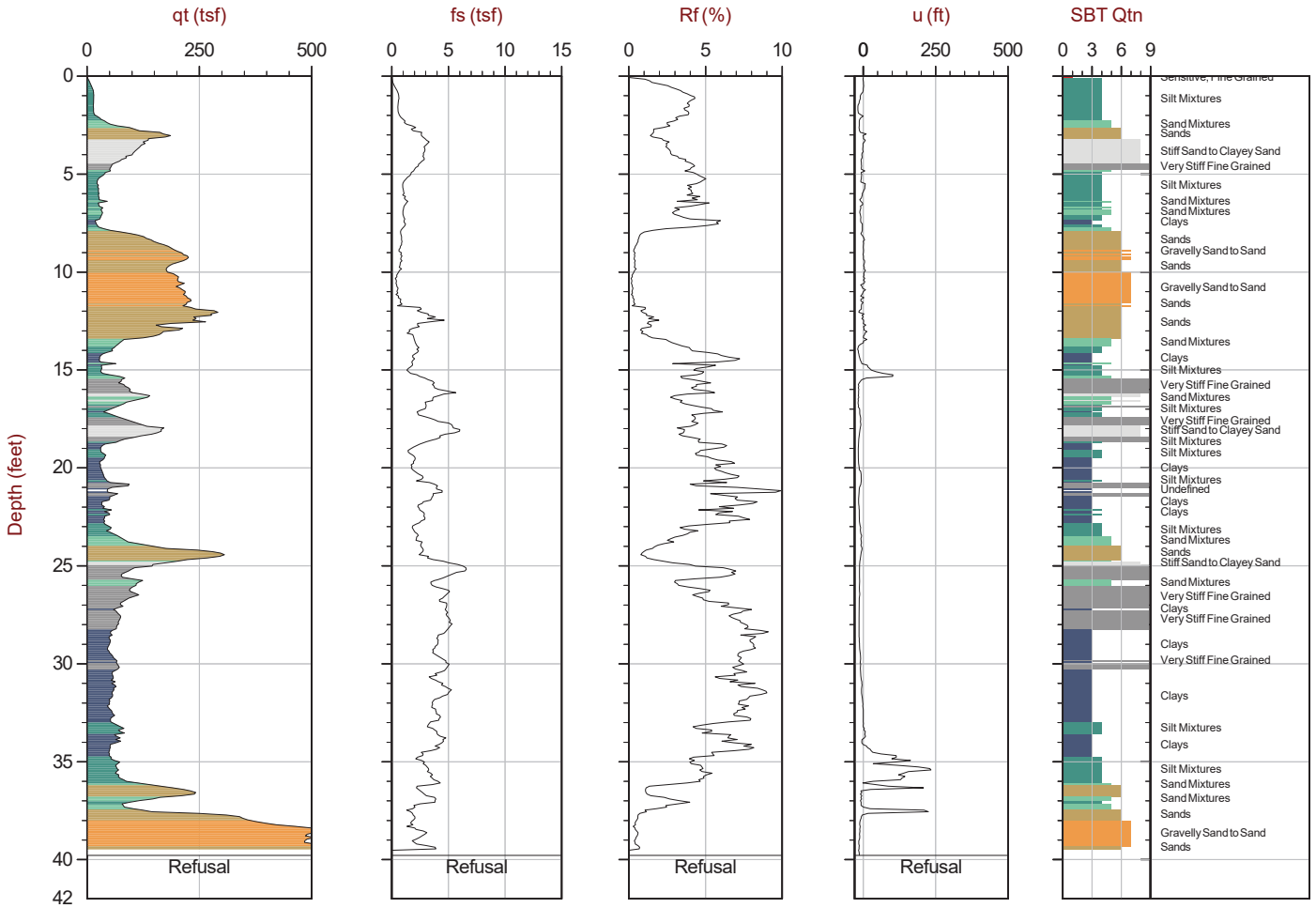
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 02:53
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-03
Cone: EC600



Max Depth: 12.125 m / 39.78 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP03.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407785m E: 294536m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

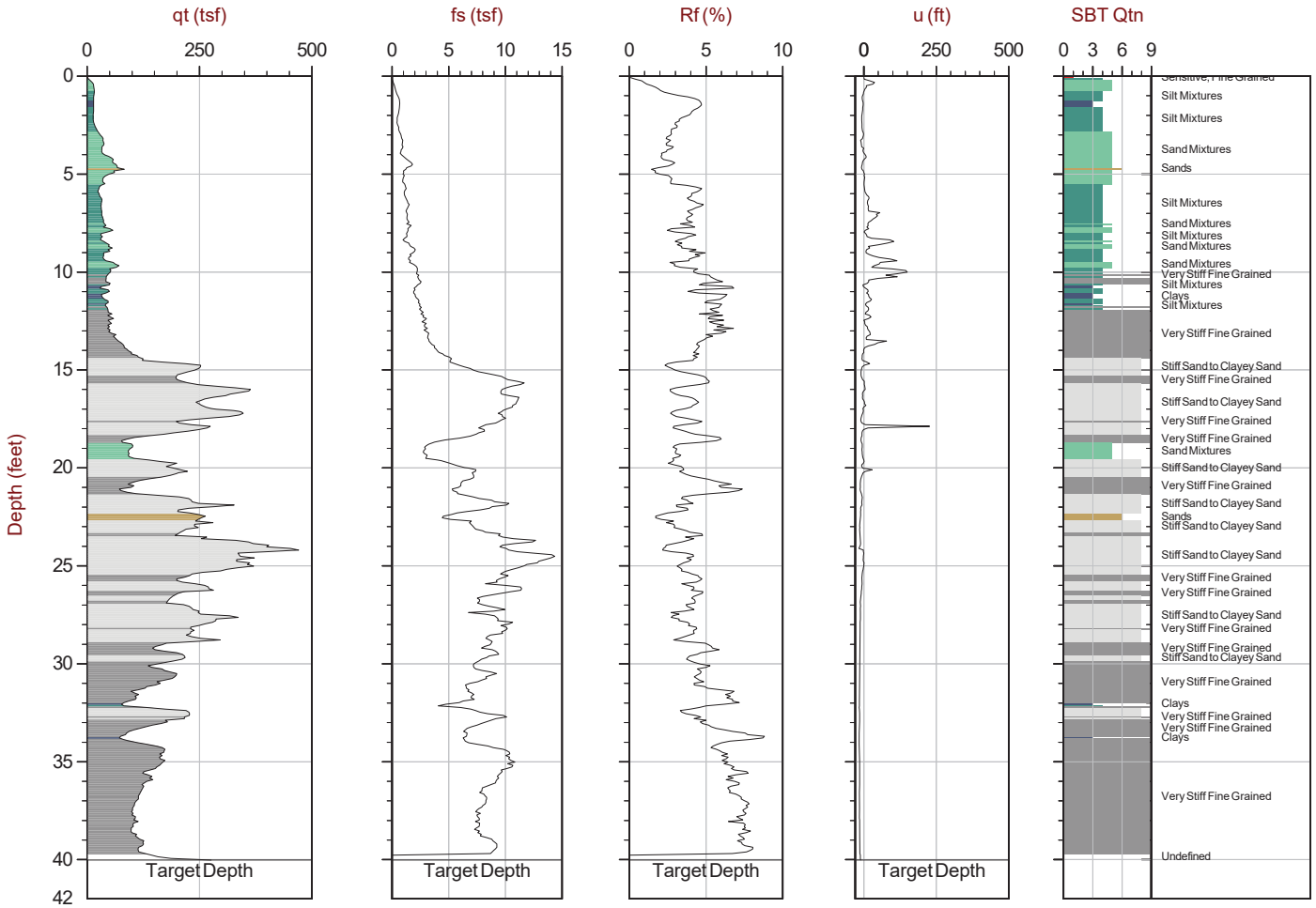
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 12:01
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-04
Cone: EC600



Max Depth: 12.200 m / 40.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP04.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407821m E: 294650m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

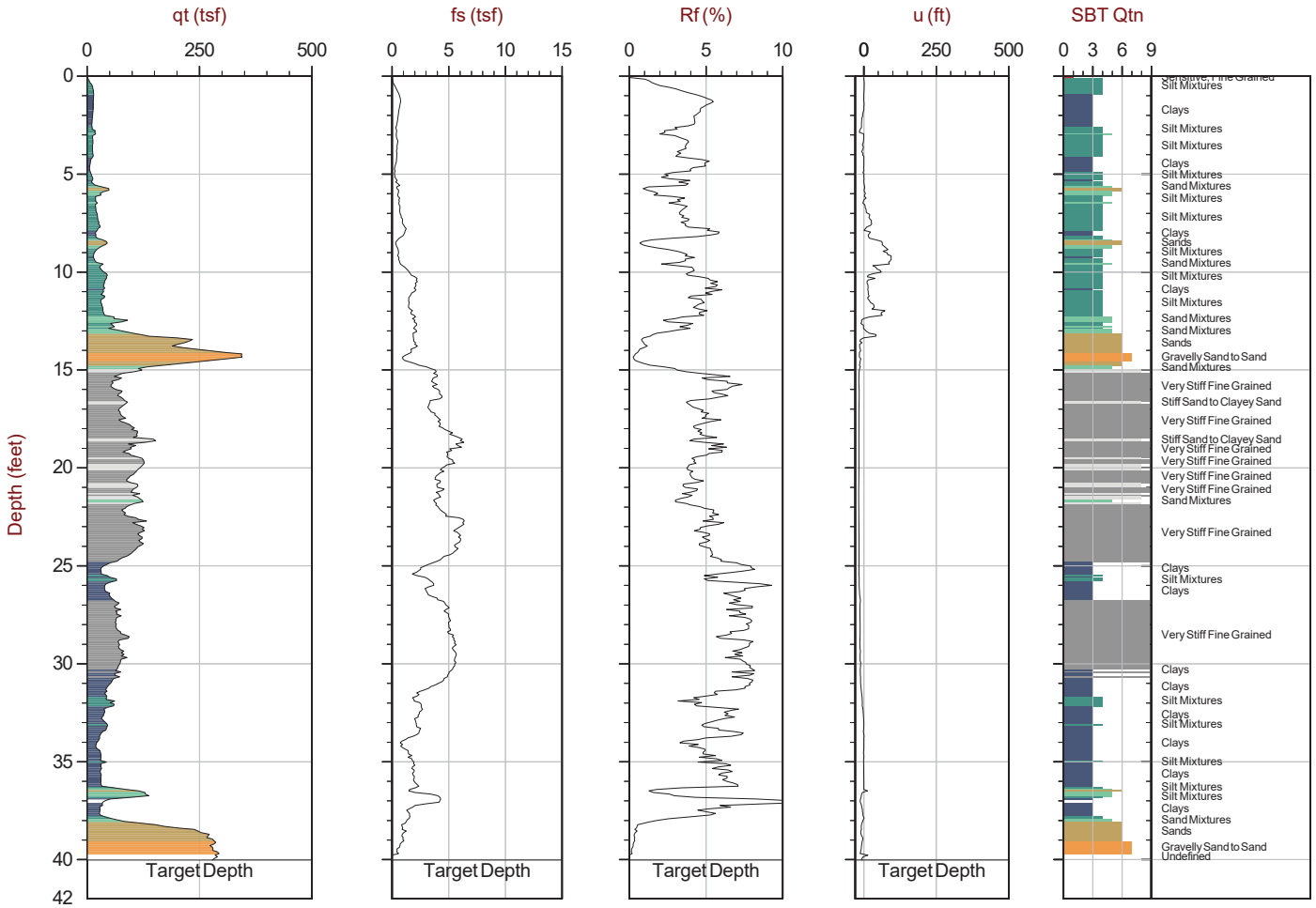
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 02:22
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-05
Cone: EC600



Max Depth: 12.200 m / 40.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP05.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407708m E: 294502m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

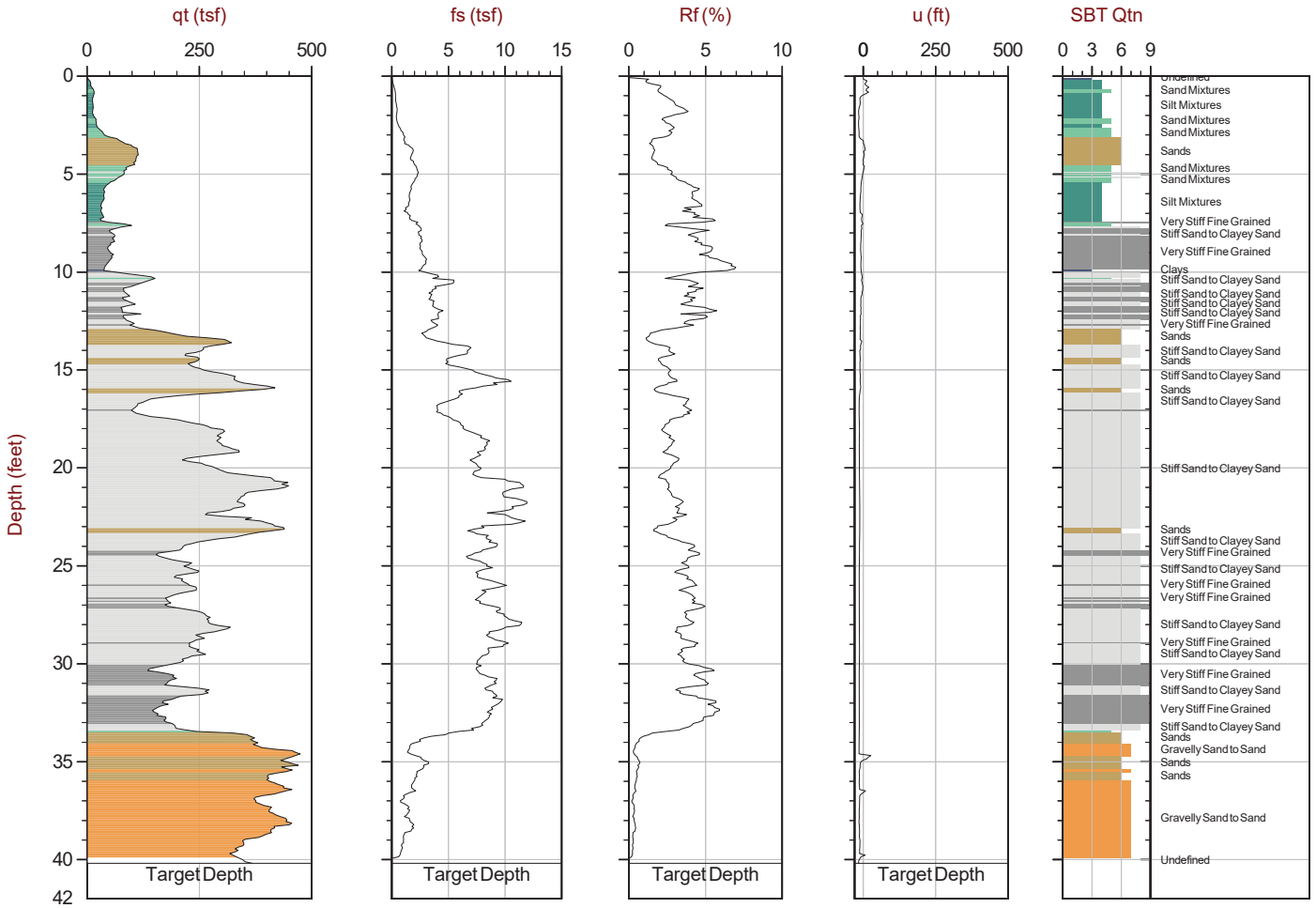
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 12:27
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-06
Cone: EC600



Max Depth: 12.250 m / 40.19 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP06.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407744m E: 294607m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

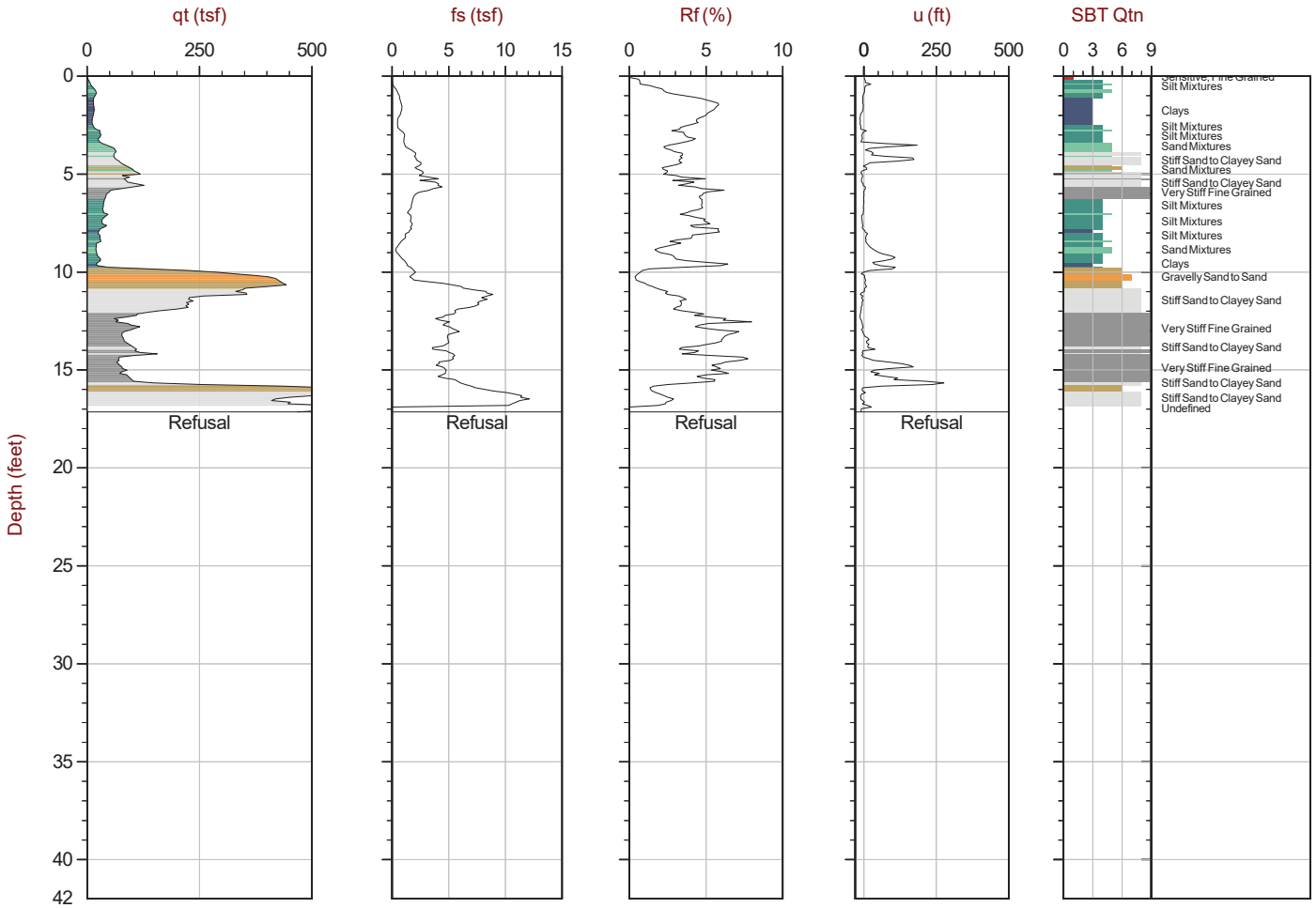
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 01:29
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-07
Cone: EC600



Max Depth: 5.225 m / 17.14 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP07.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407635m E: 294462m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

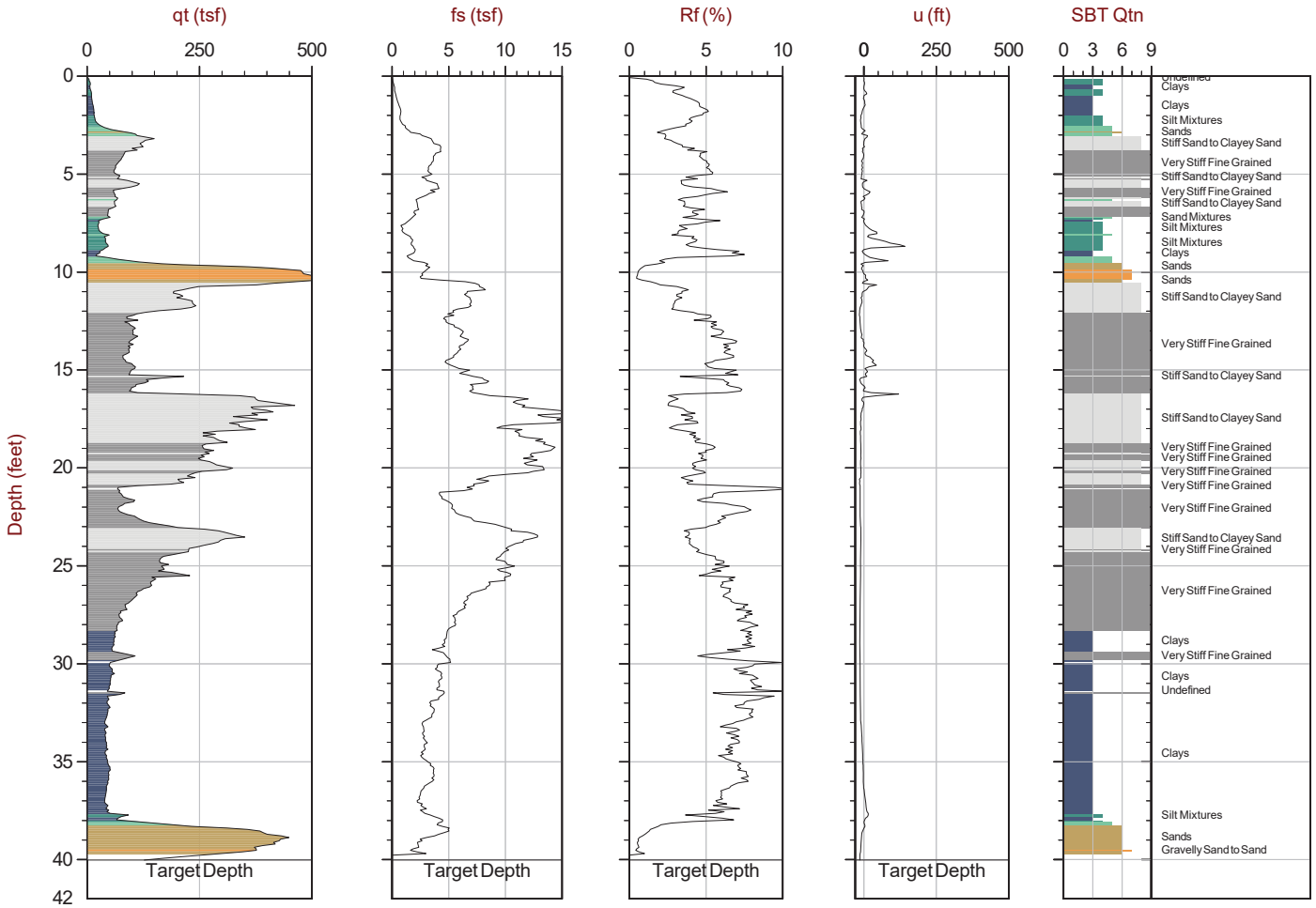
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 01:50
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-07A
Cone: EC600



Max Depth: 12.200 m / 40.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP07A.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407629m E: 294464m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

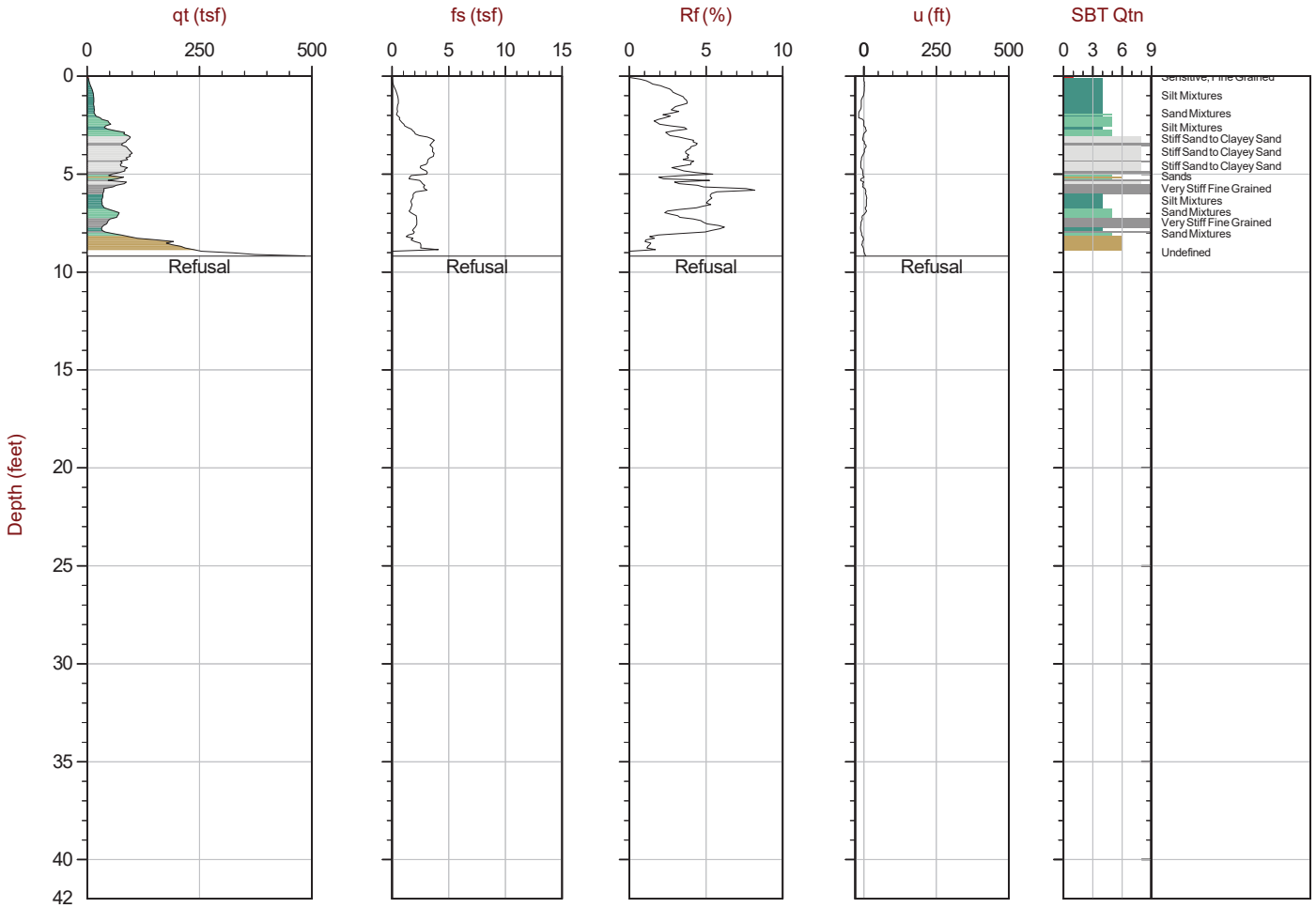
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 01:01
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-08
Cone: EC600



Max Depth: 2.800 m / 9.19 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP08.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407669m E: 294573m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

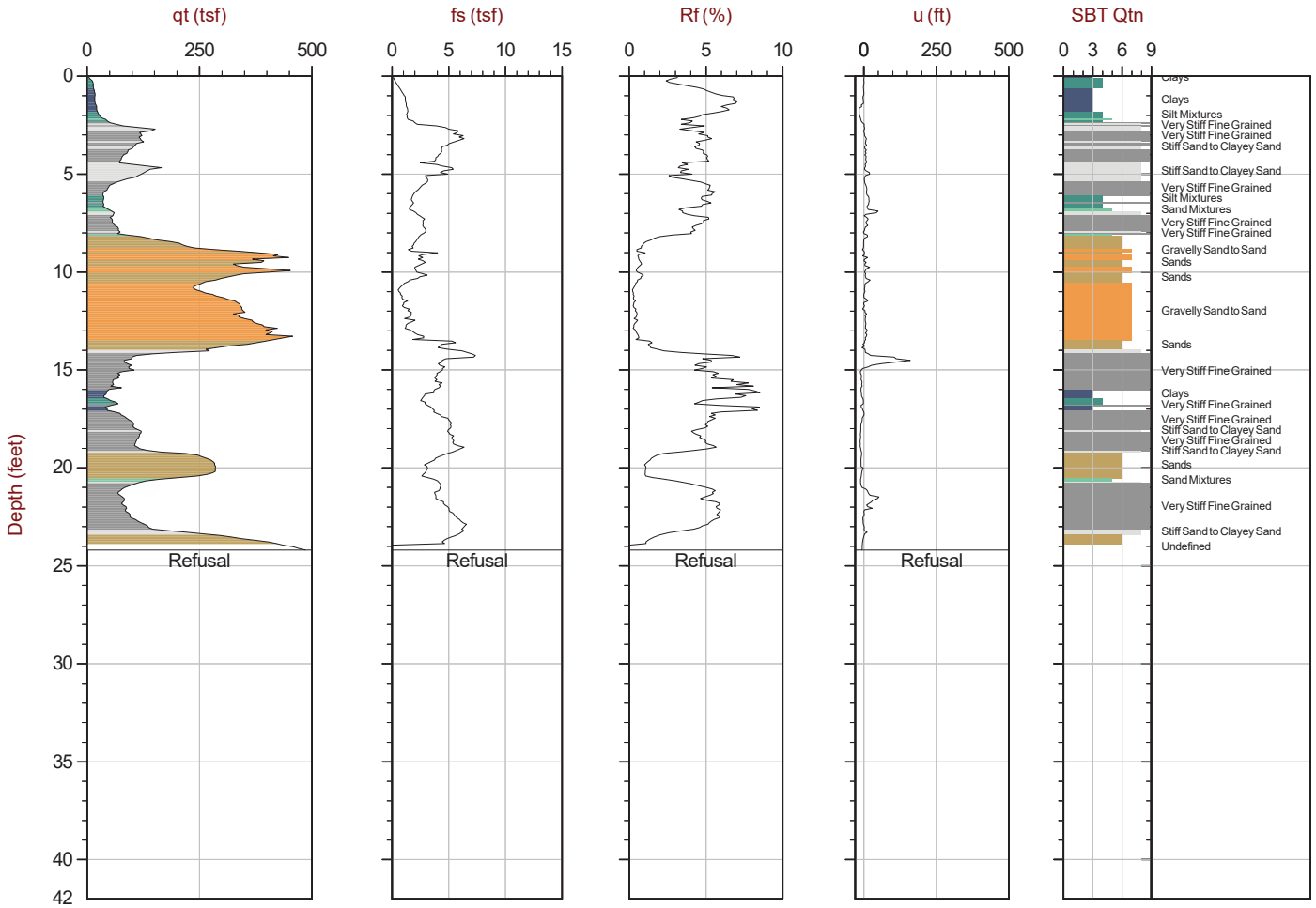
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 01:13
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-08A
Cone: EC600



Max Depth: 7.375 m / 24.20 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP08A.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407660m E: 294572m

Hydrostatic Line Ueq Assumed Ueq PPD, Ueq achieved PPD, Ueq not achieved

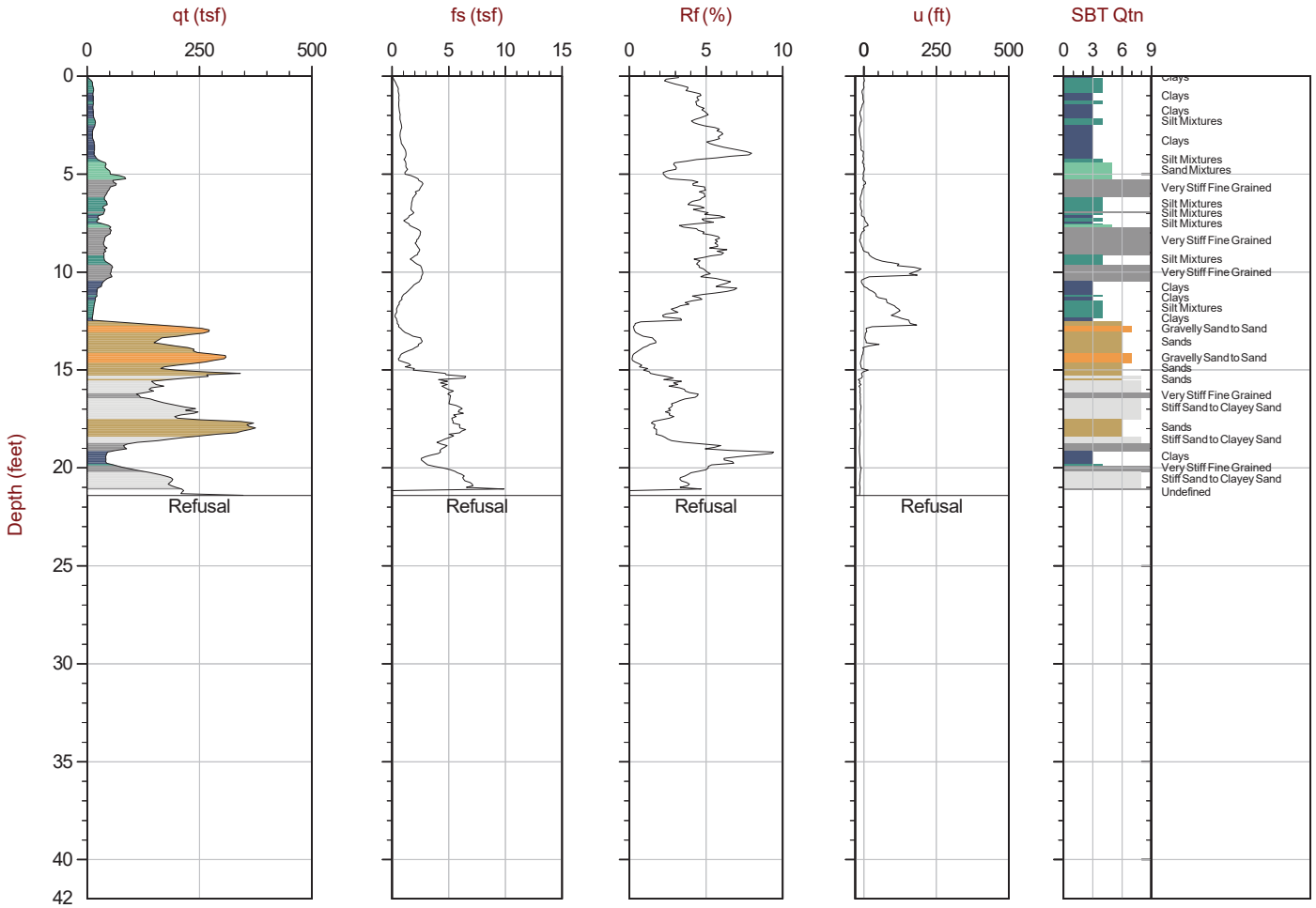
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 2020-11-15 11:41
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-09
Cone: EC600



Max Depth: 6.525 m / 21.41 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 20-61-21576_CP09.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: UTM Zone 17 N: 4407703m E: 294682m

Hydrostatic Line ○ Ueq ● Assumed Ueq ◁ PPD, Ueq achieved ◁ PPD, Ueq not achieved

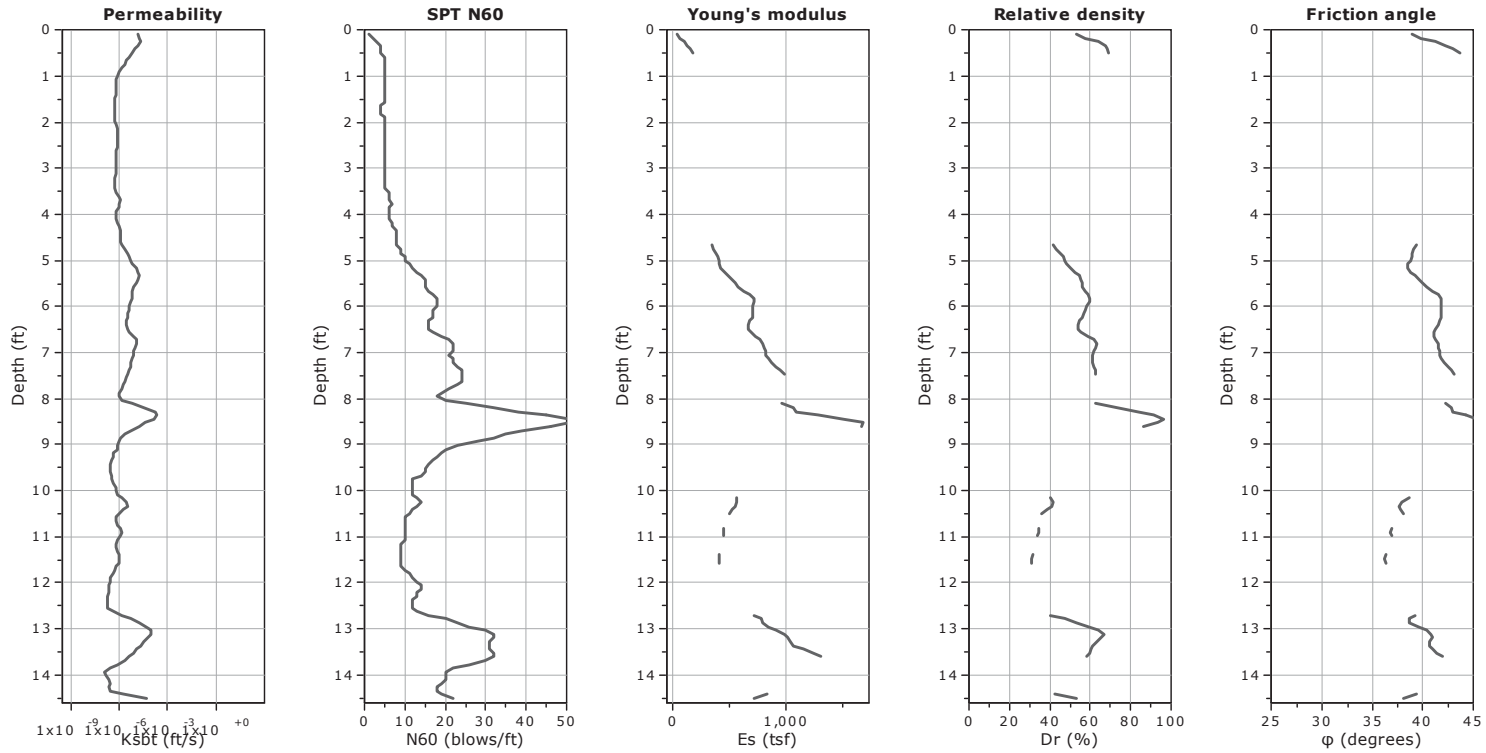
The reported coordinates were acquired from consumer-grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

APPENDIX C
CPT Data Interpretation

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-001
Total depth: 14.76 ft



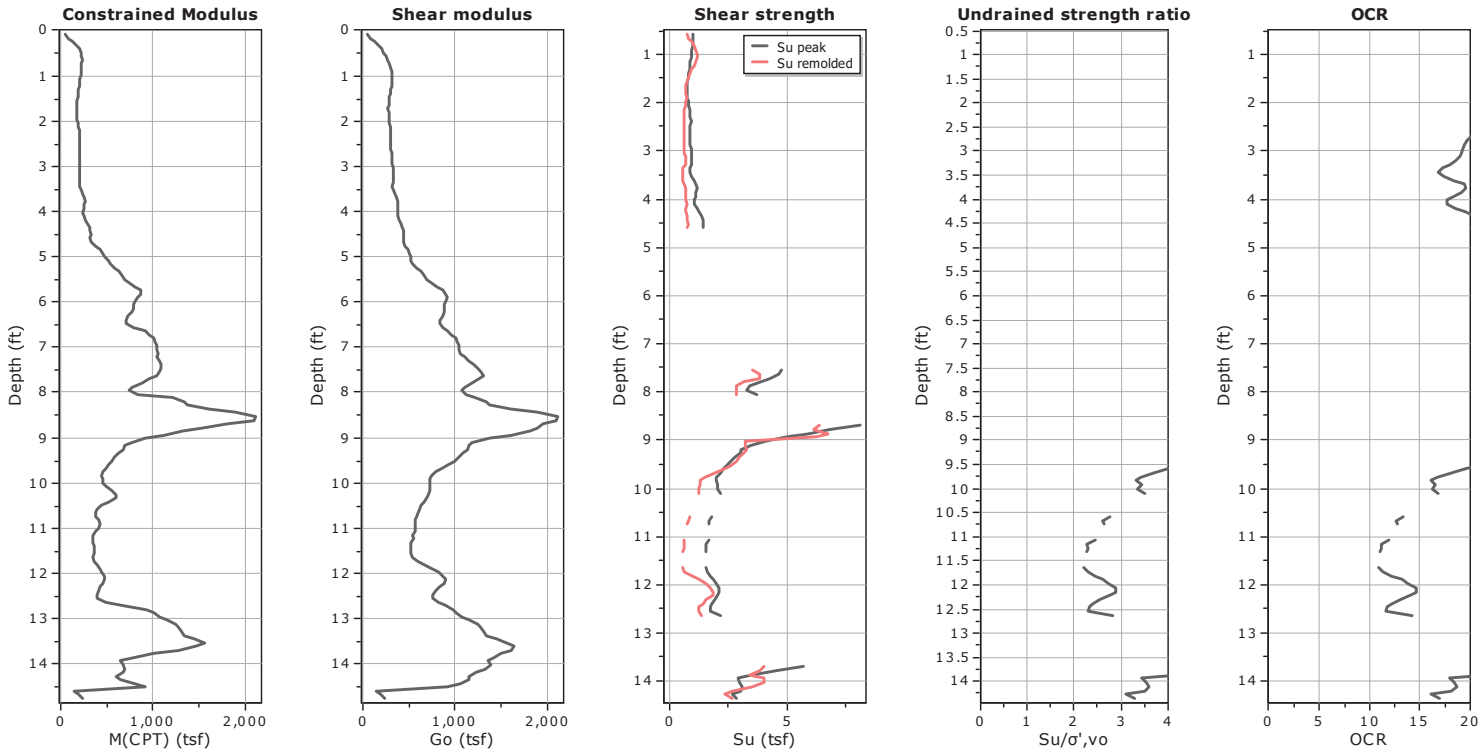
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-001
Total depth: 14.76 ft



Calculation parameters

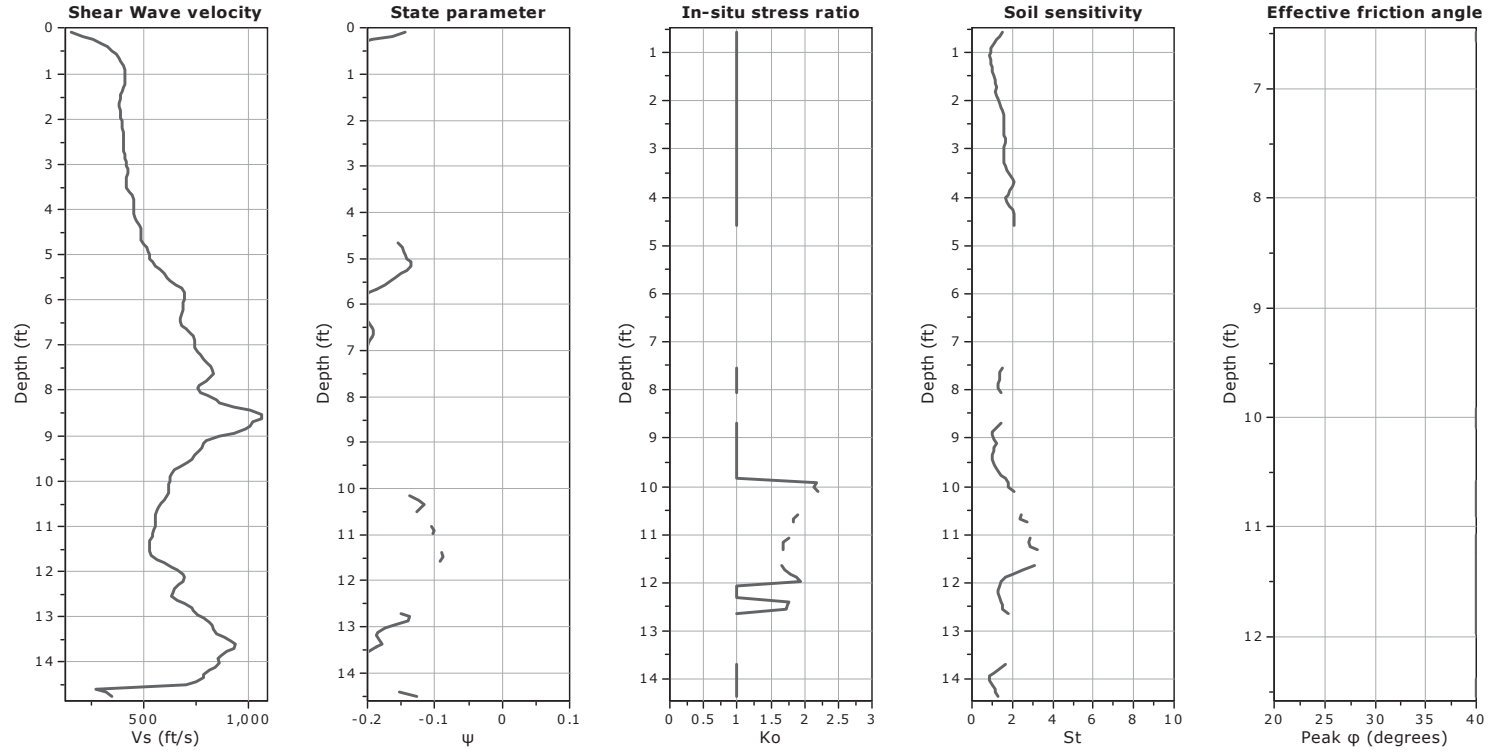
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-001
Total depth: 14.76 ft



Calculation parameters

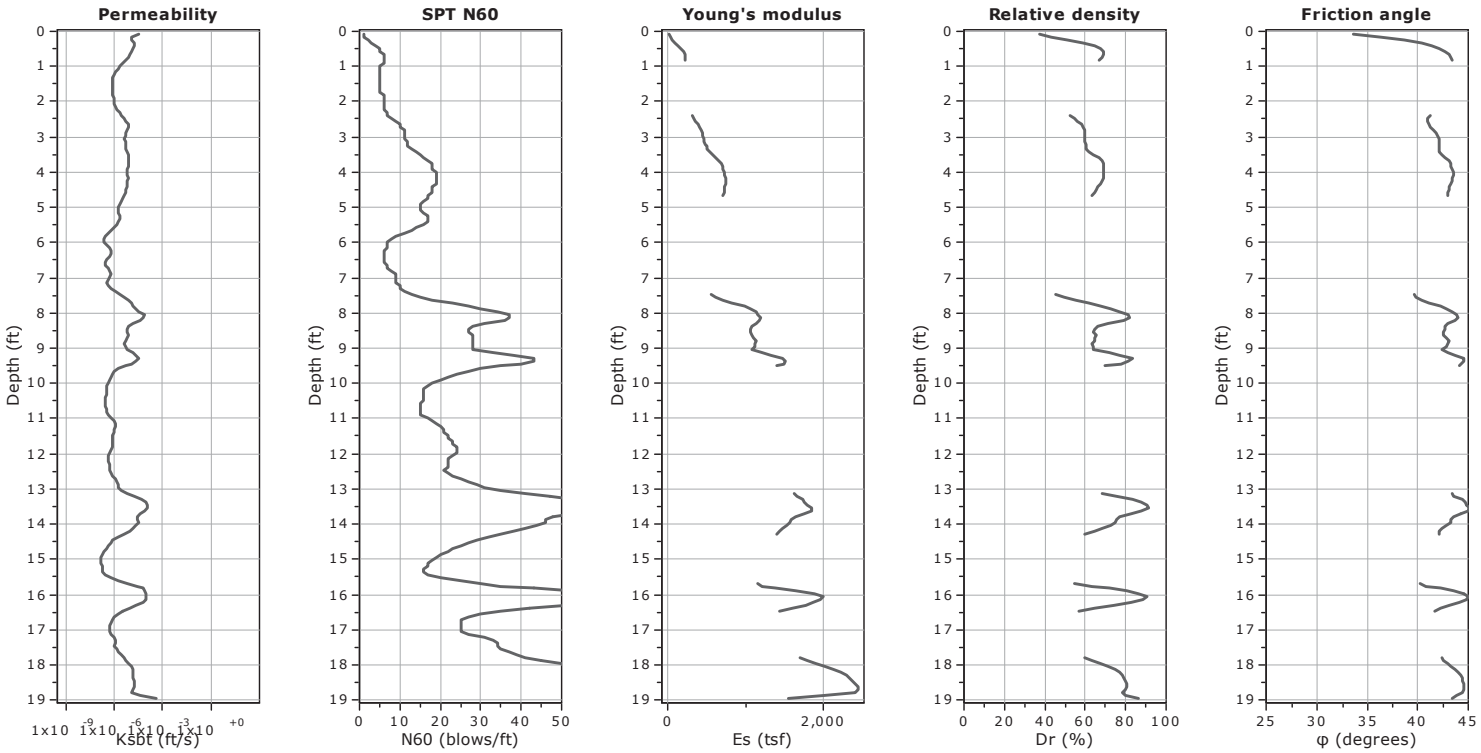
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-002
Total depth: 19.19 ft



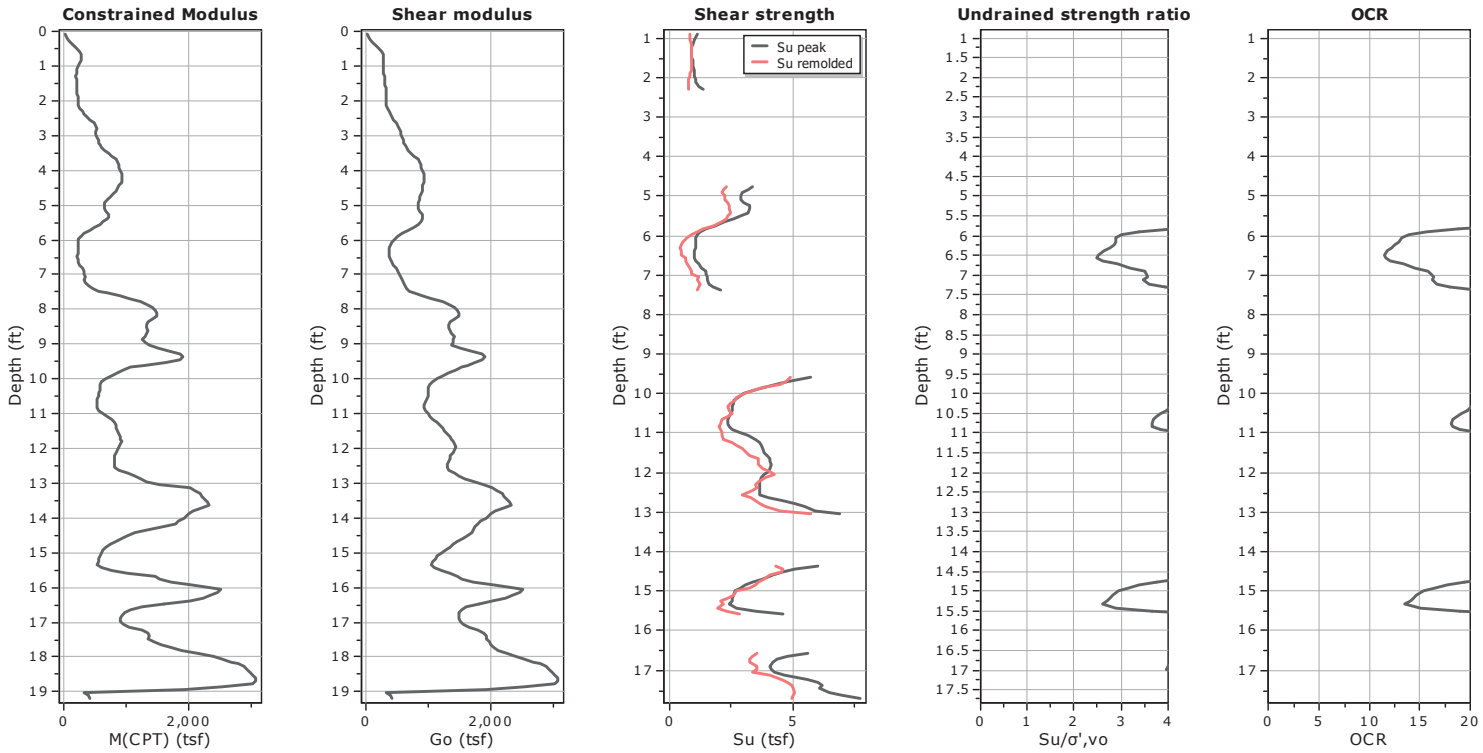
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-002
Total depth: 19.19 ft



Calculation parameters

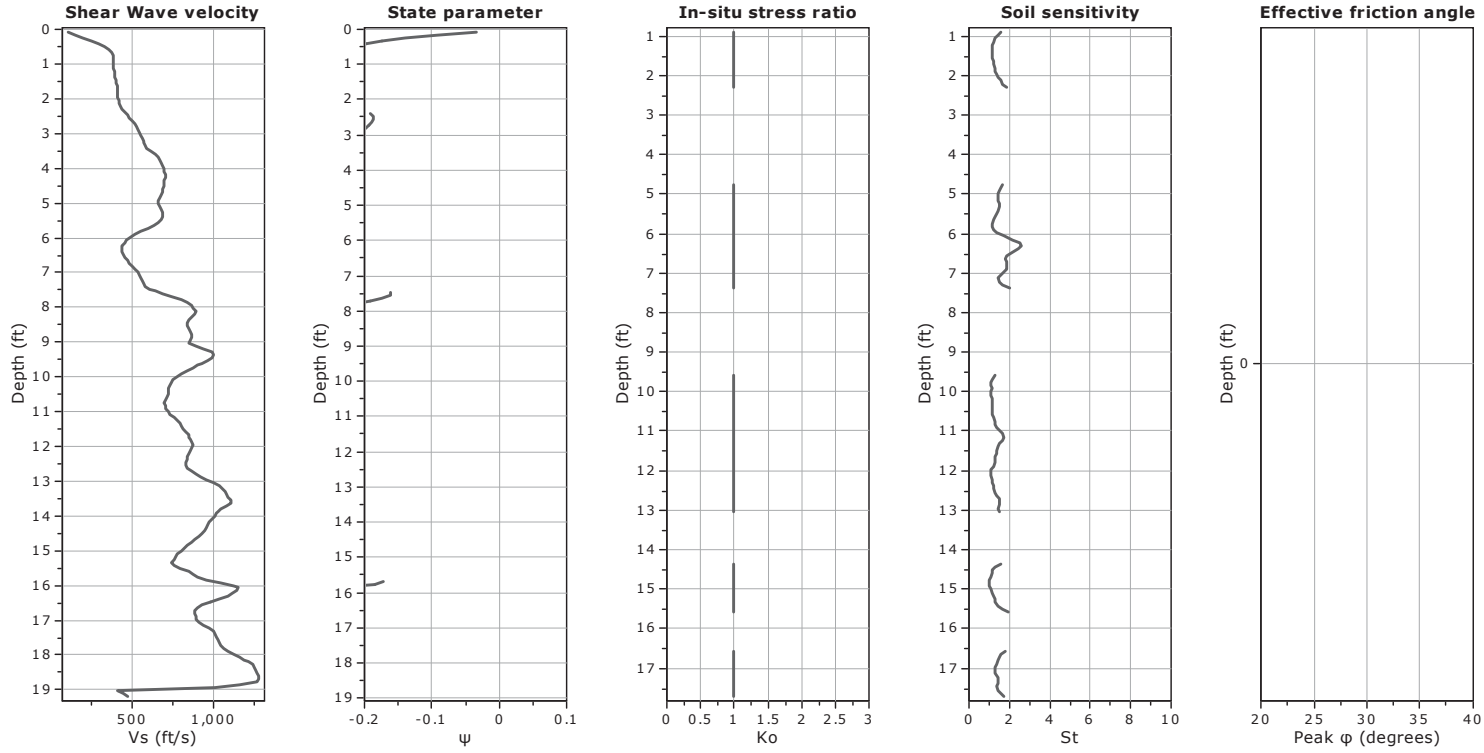
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-002
Total depth: 19.19 ft



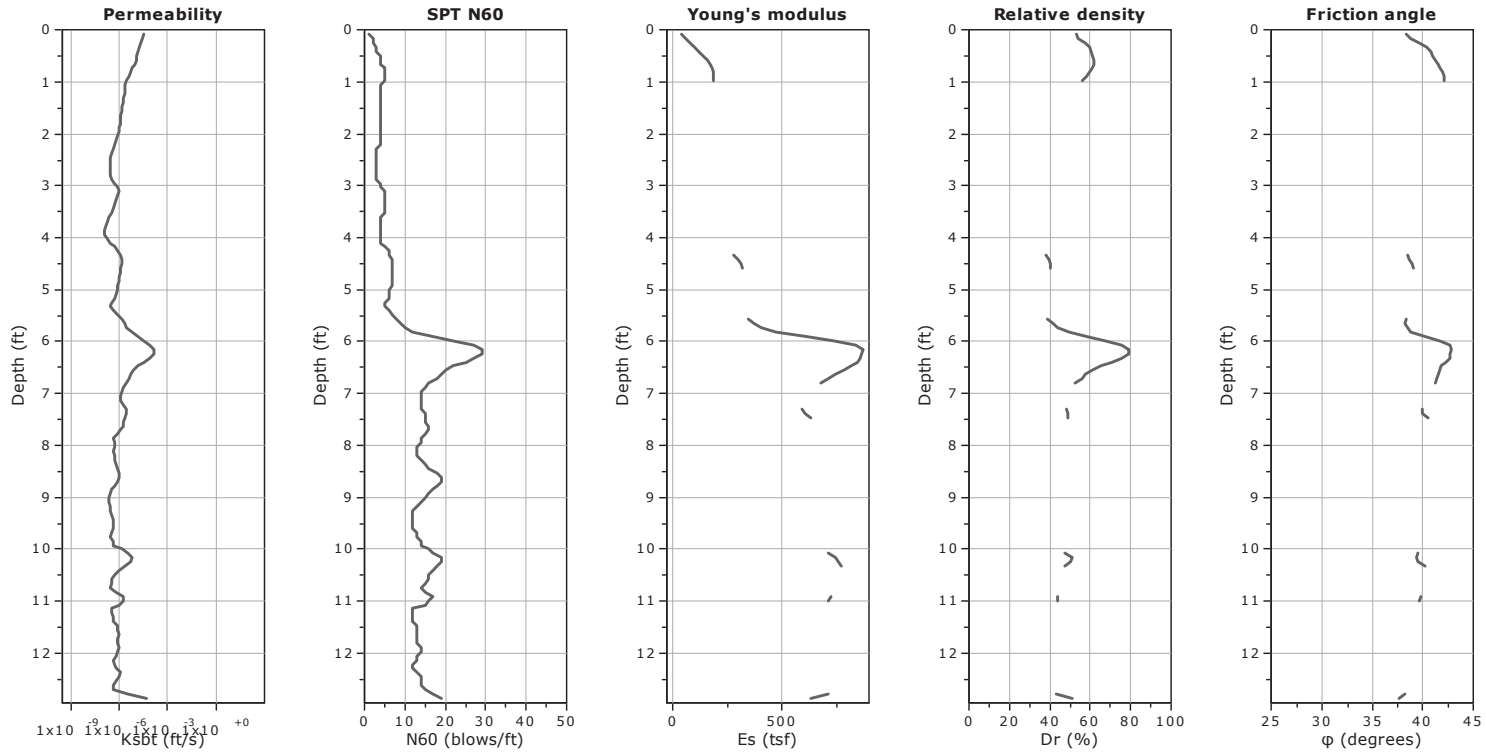
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-003
Total depth: 13.12 ft



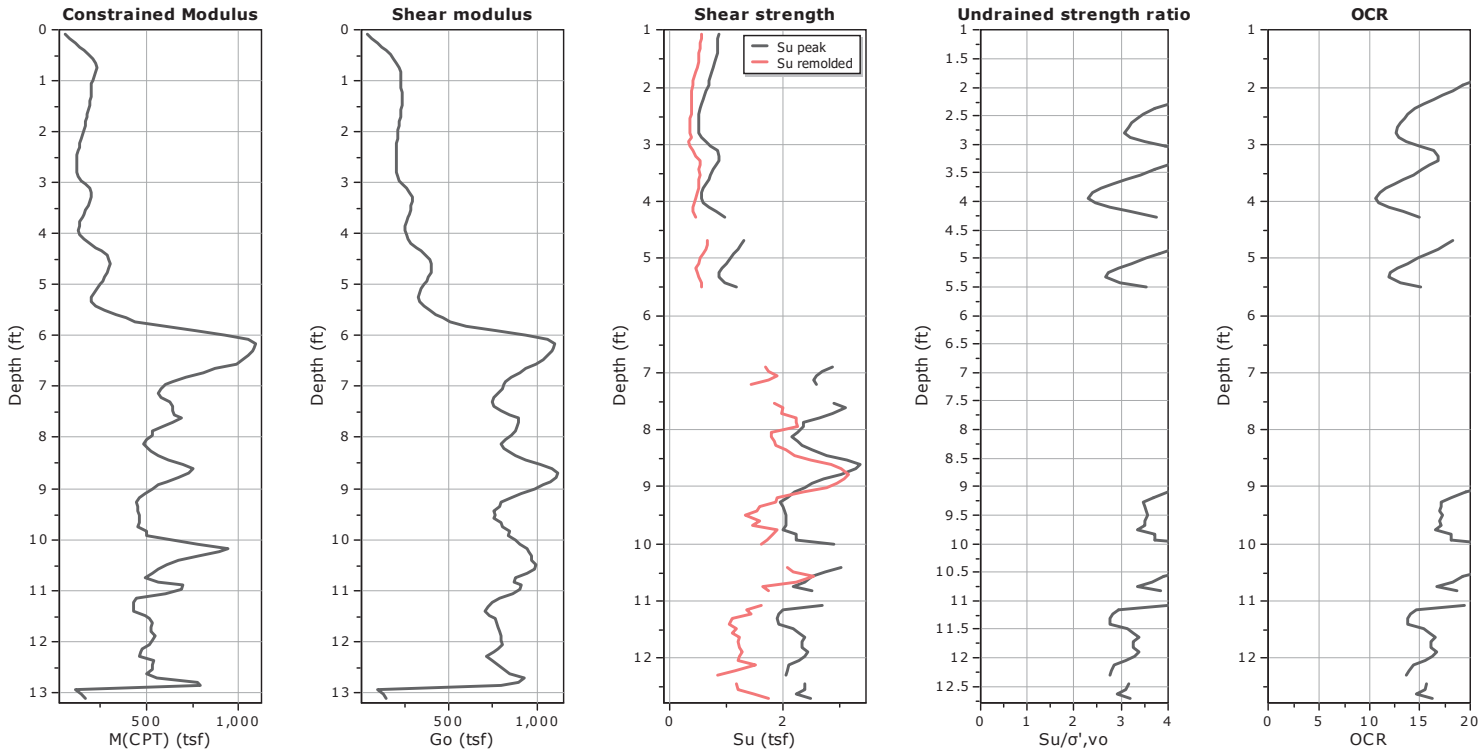
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-003
Total depth: 13.12 ft



Calculation parameters

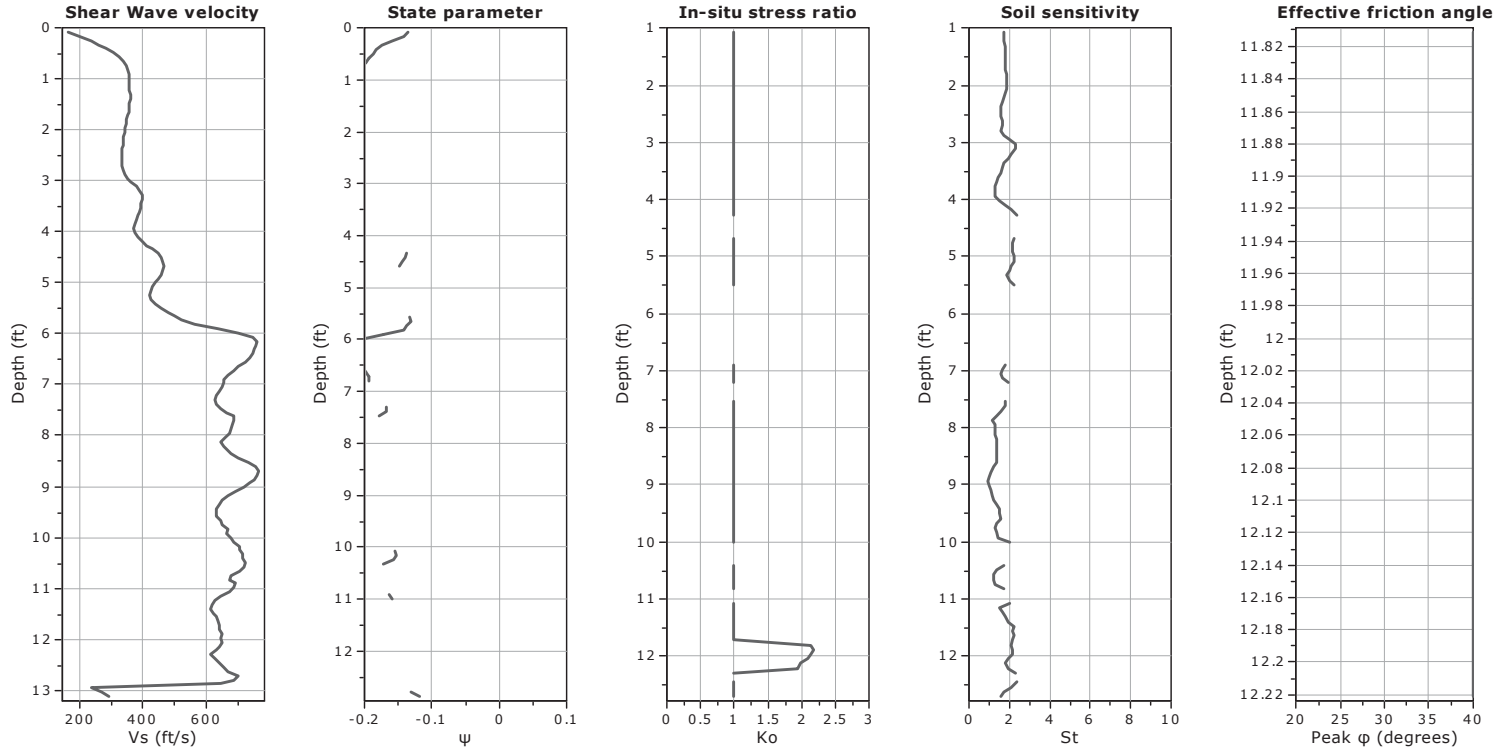
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-003
Total depth: 13.12 ft



Calculation parameters

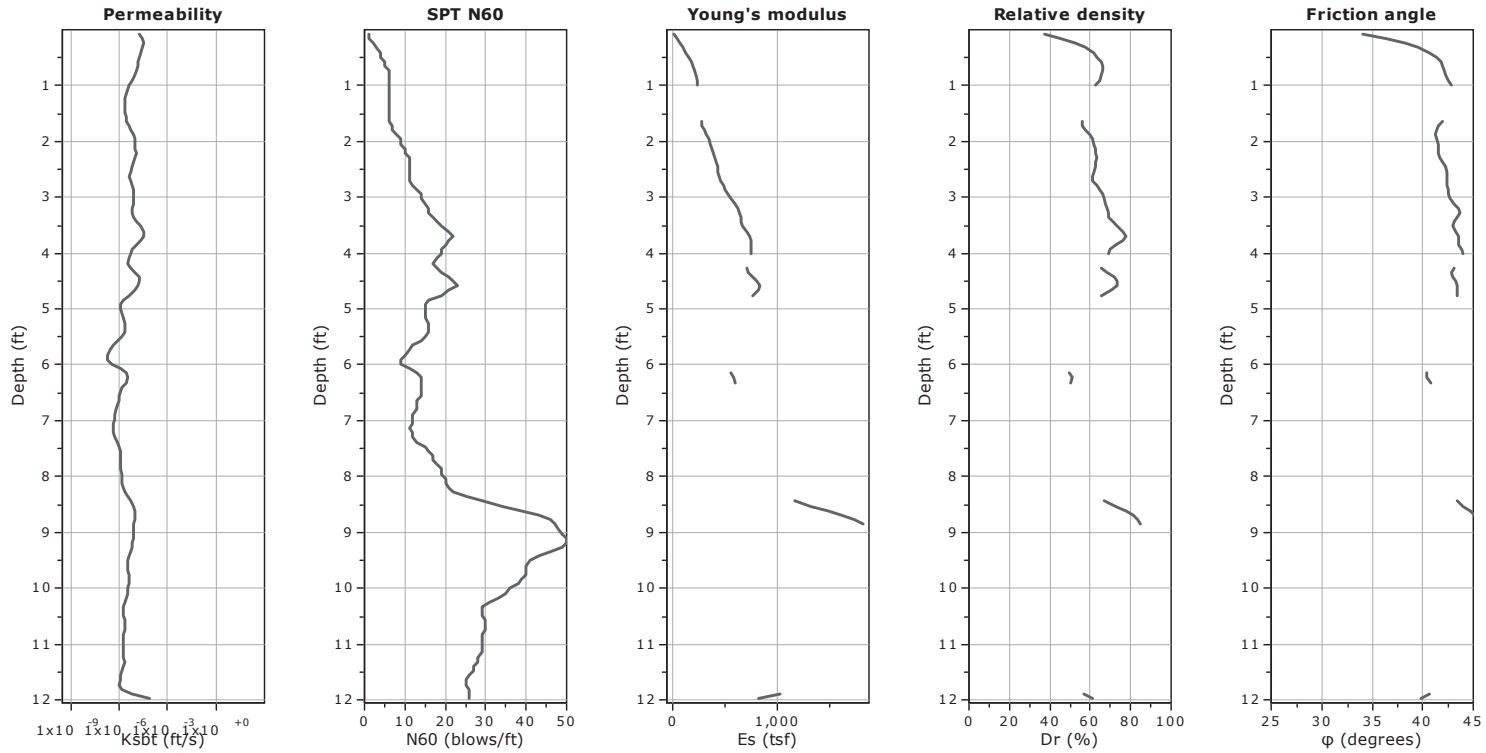
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-004
Total depth: 12.22 ft



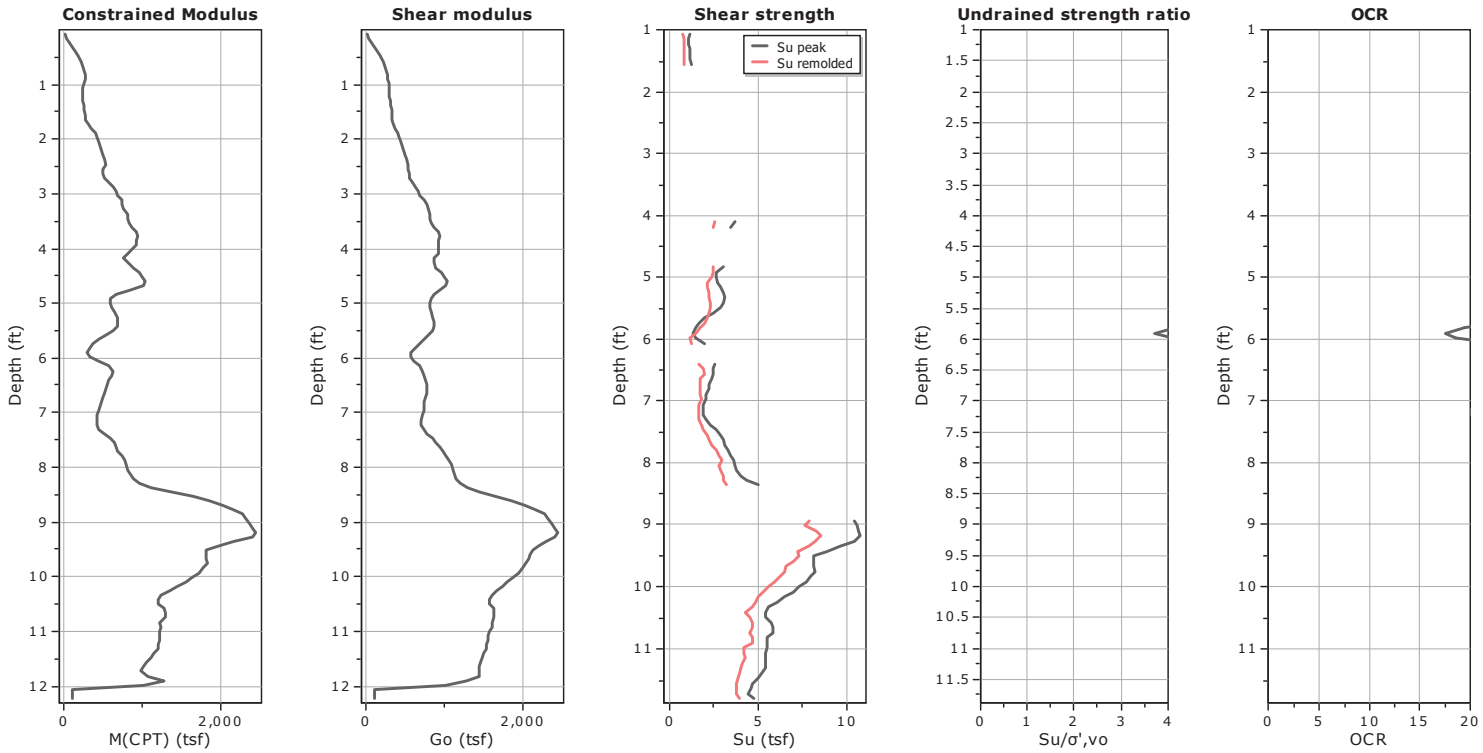
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-004
Total depth: 12.22 ft



Calculation parameters

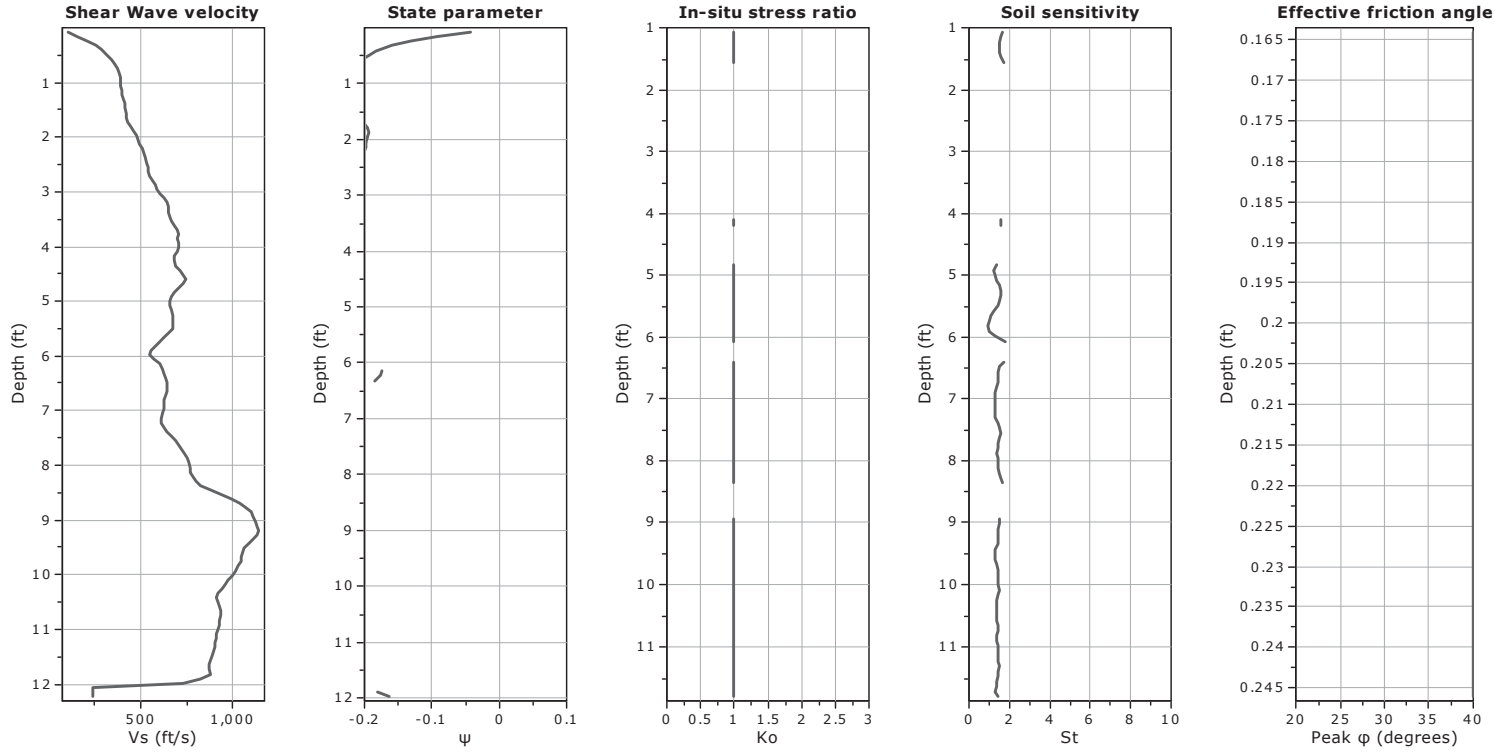
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-004
Total depth: 12.22 ft



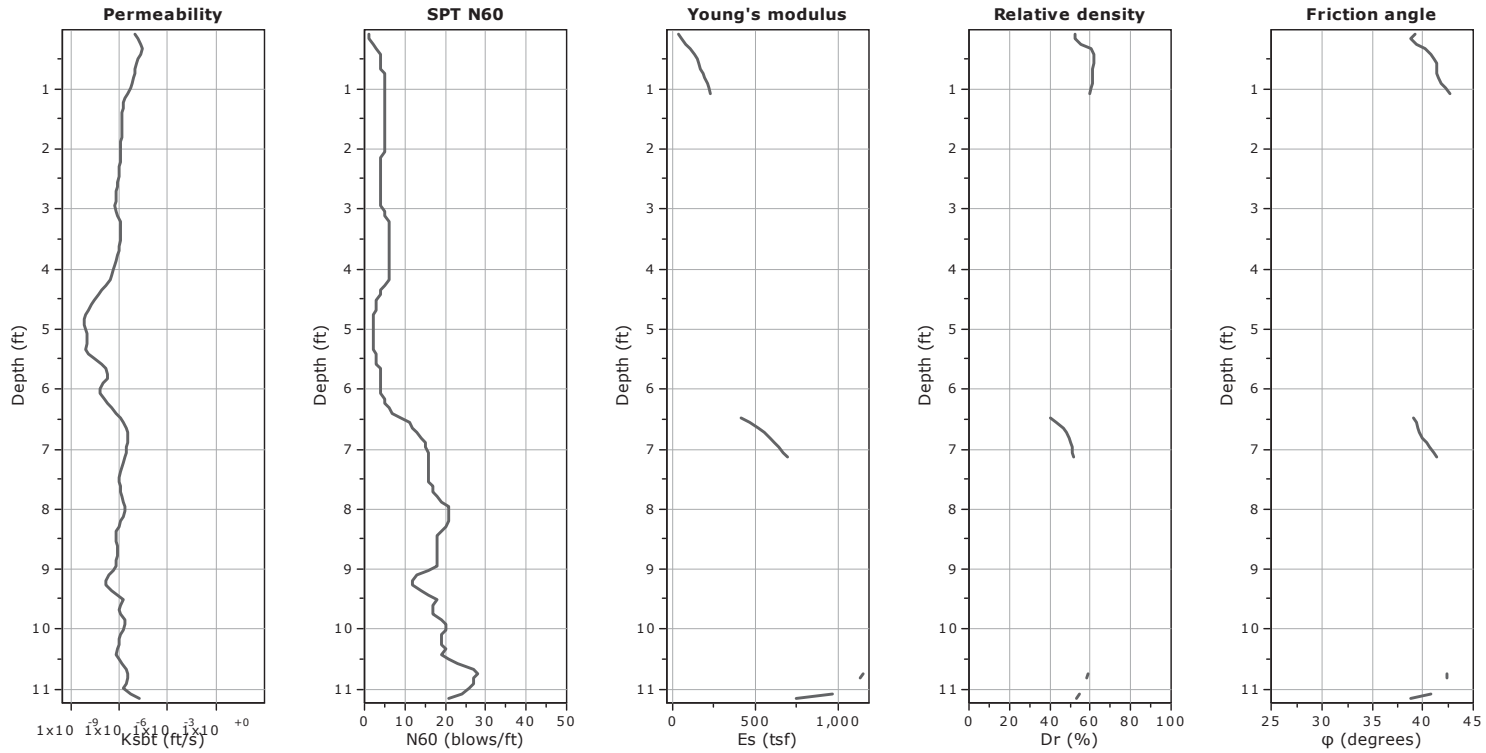
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-005
Total depth: 11.40 ft



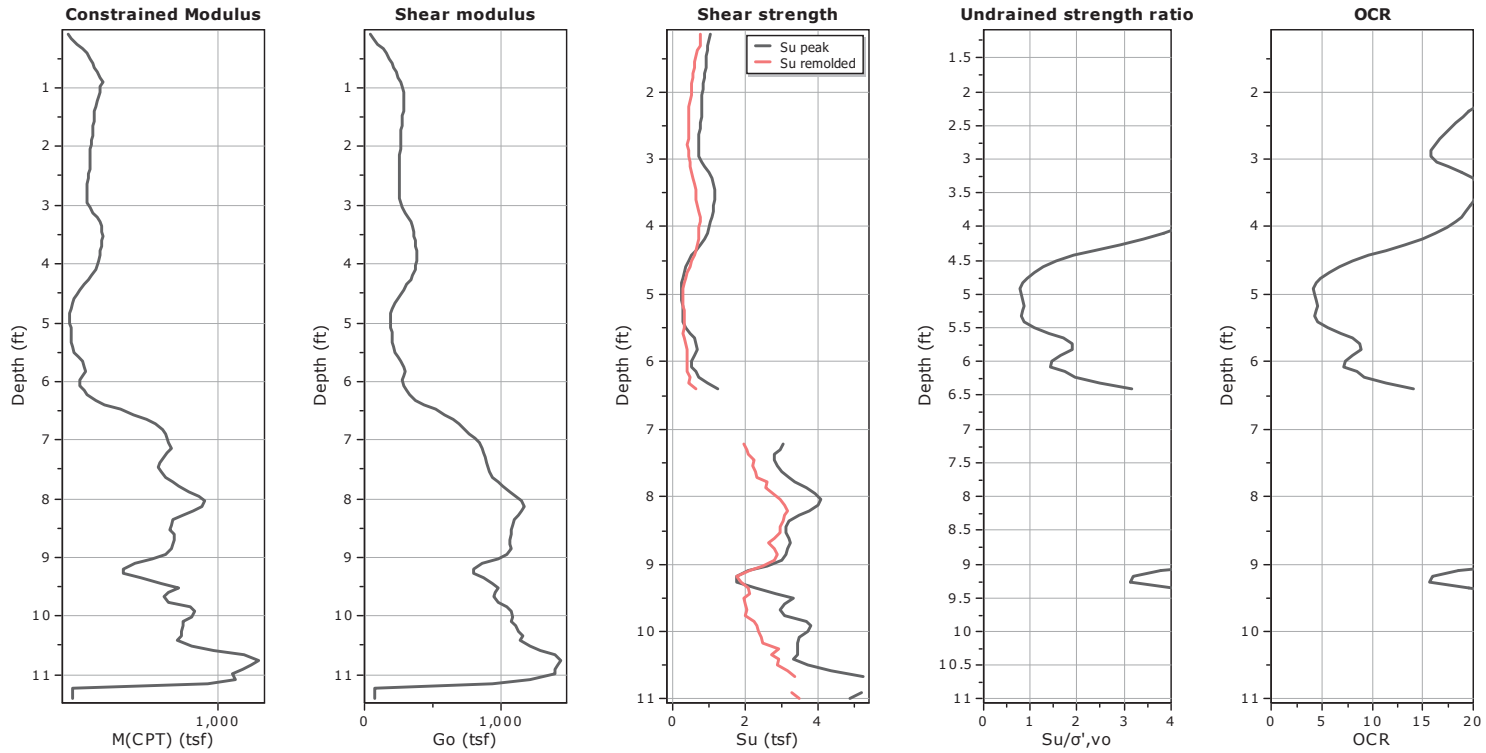
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-005
Total depth: 11.40 ft



Calculation parameters

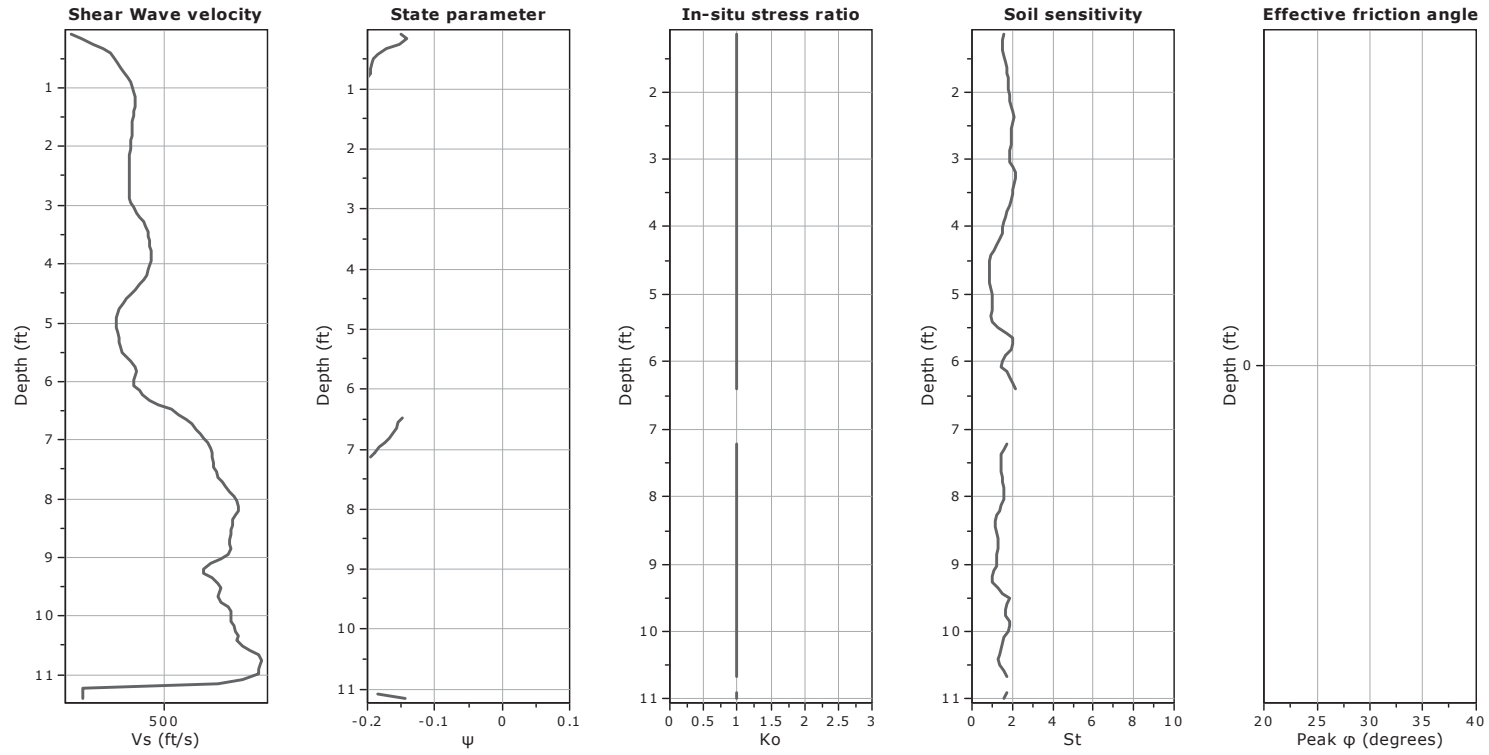
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-005
Total depth: 11.40 ft



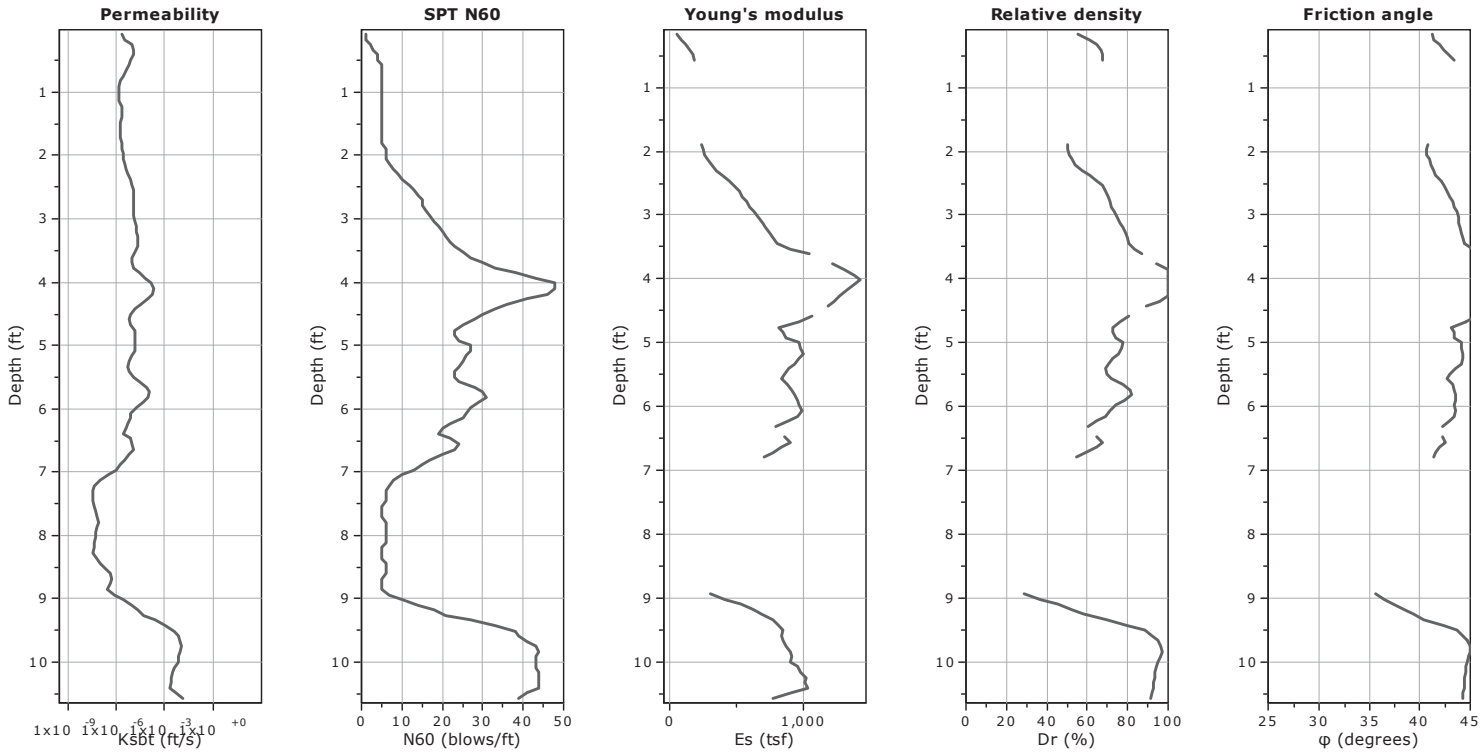
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-006
Total depth: 10.83 ft



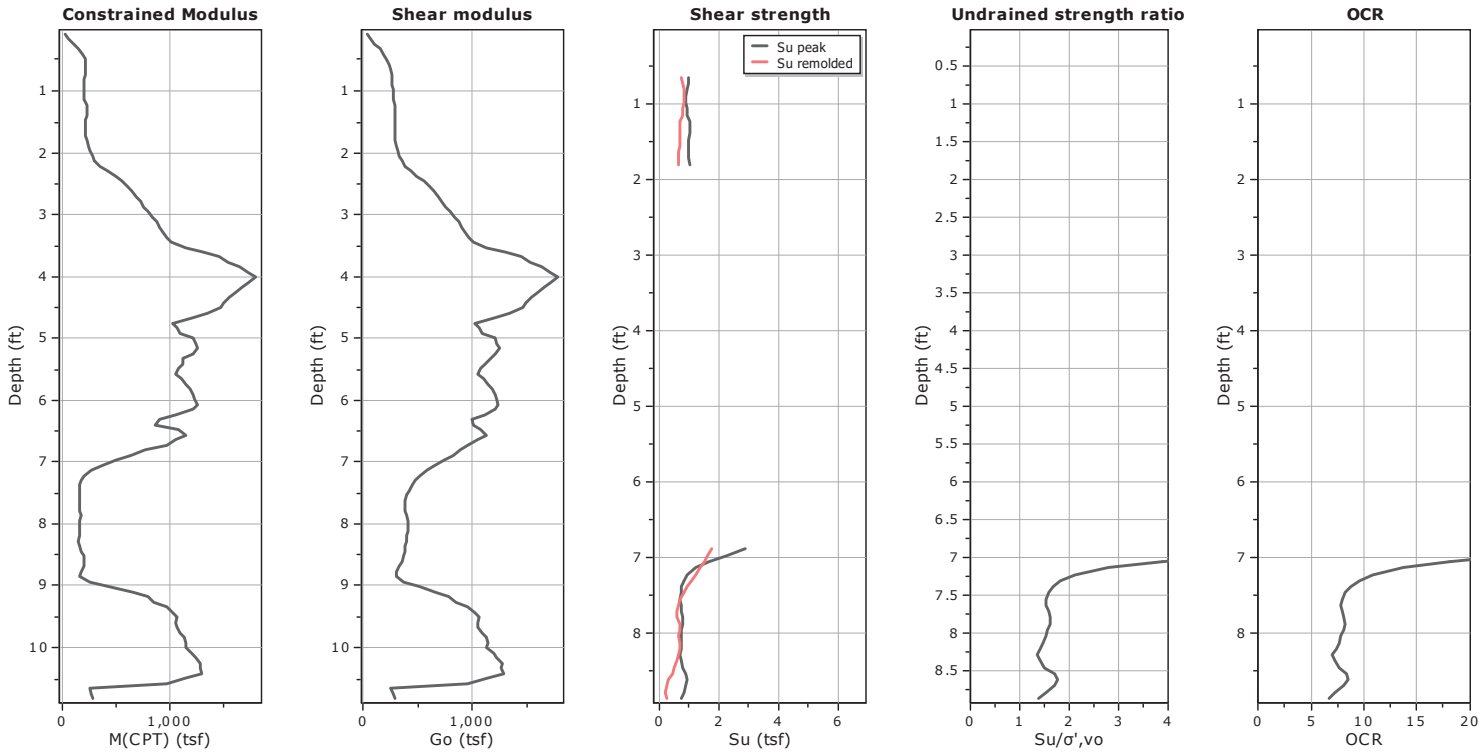
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-006
Total depth: 10.83 ft



Calculation parameters

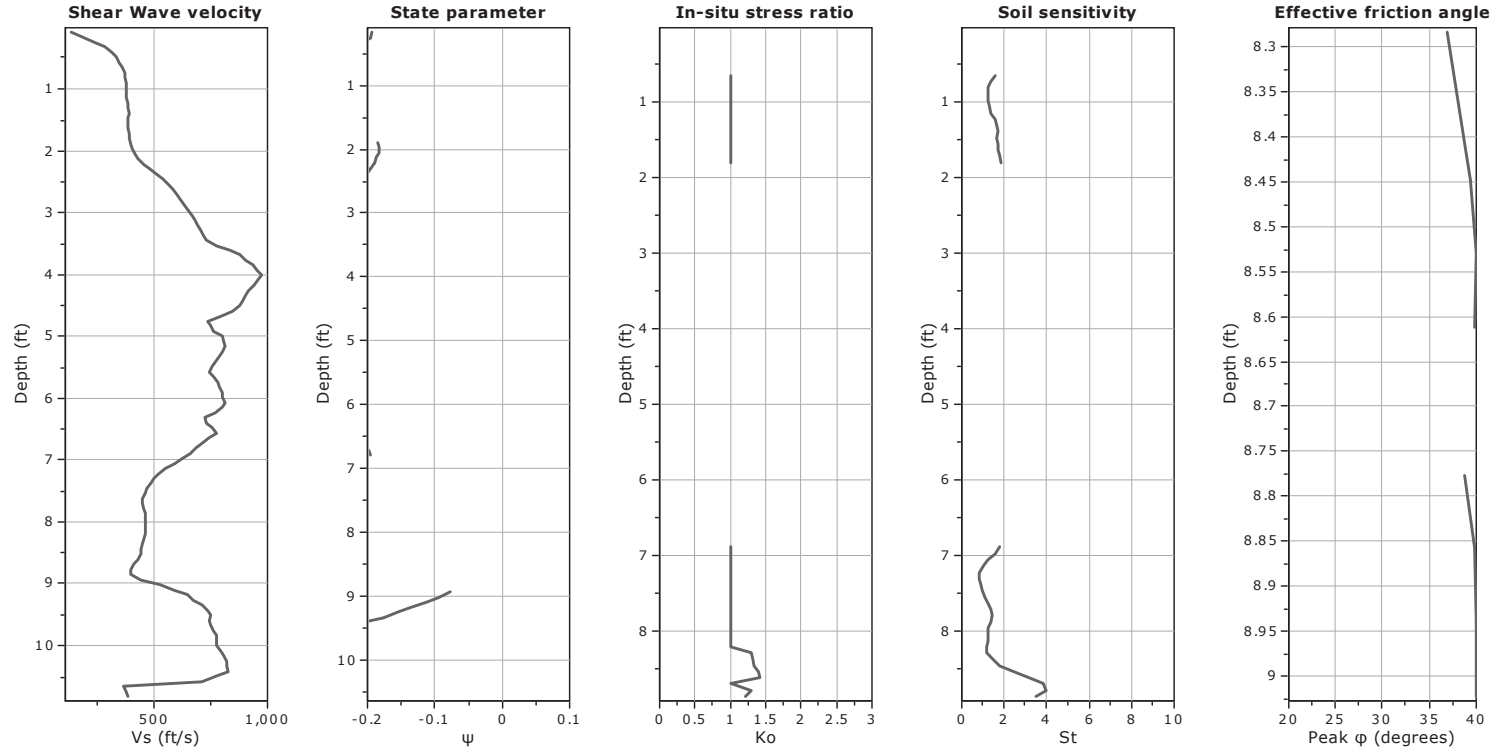
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-006
Total depth: 10.83 ft



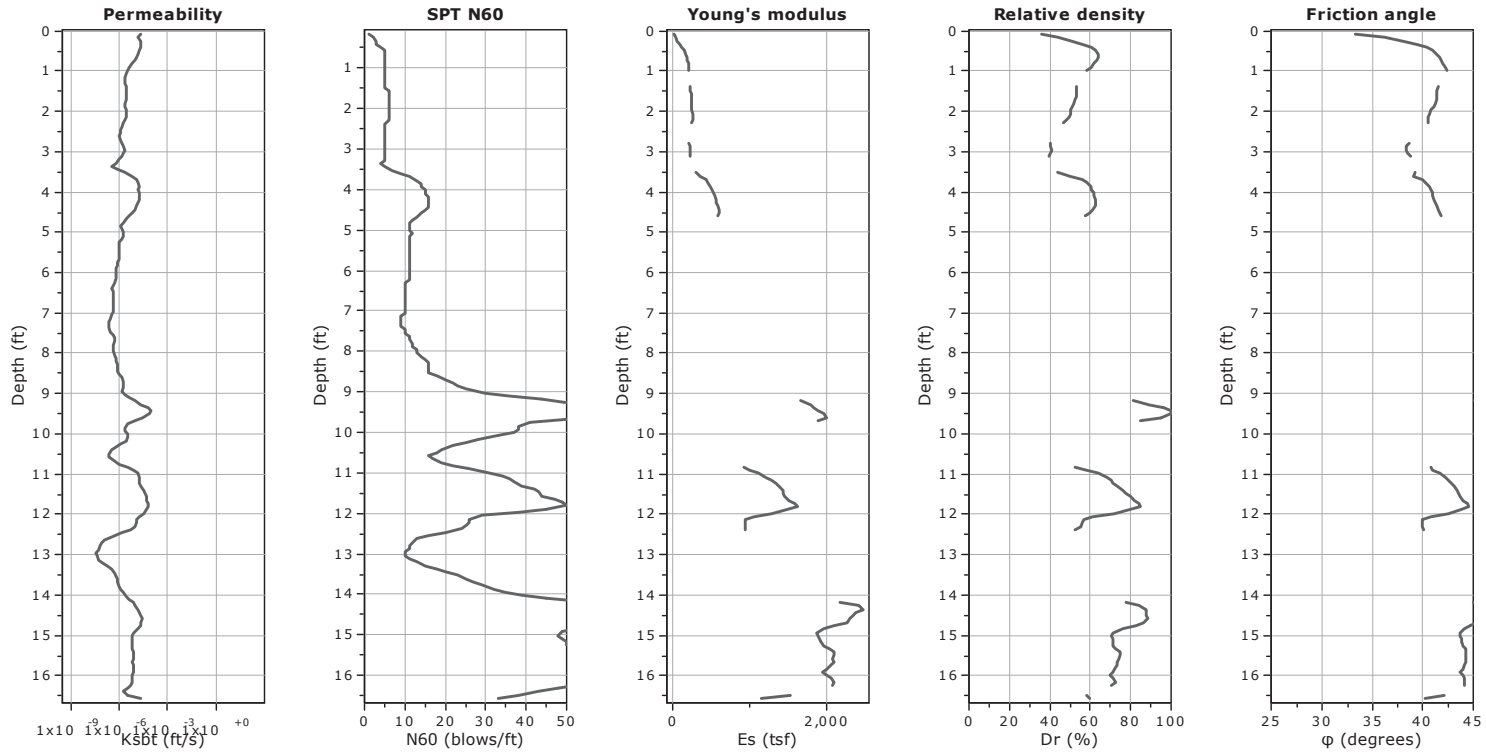
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-007
Total depth: 16.81 ft



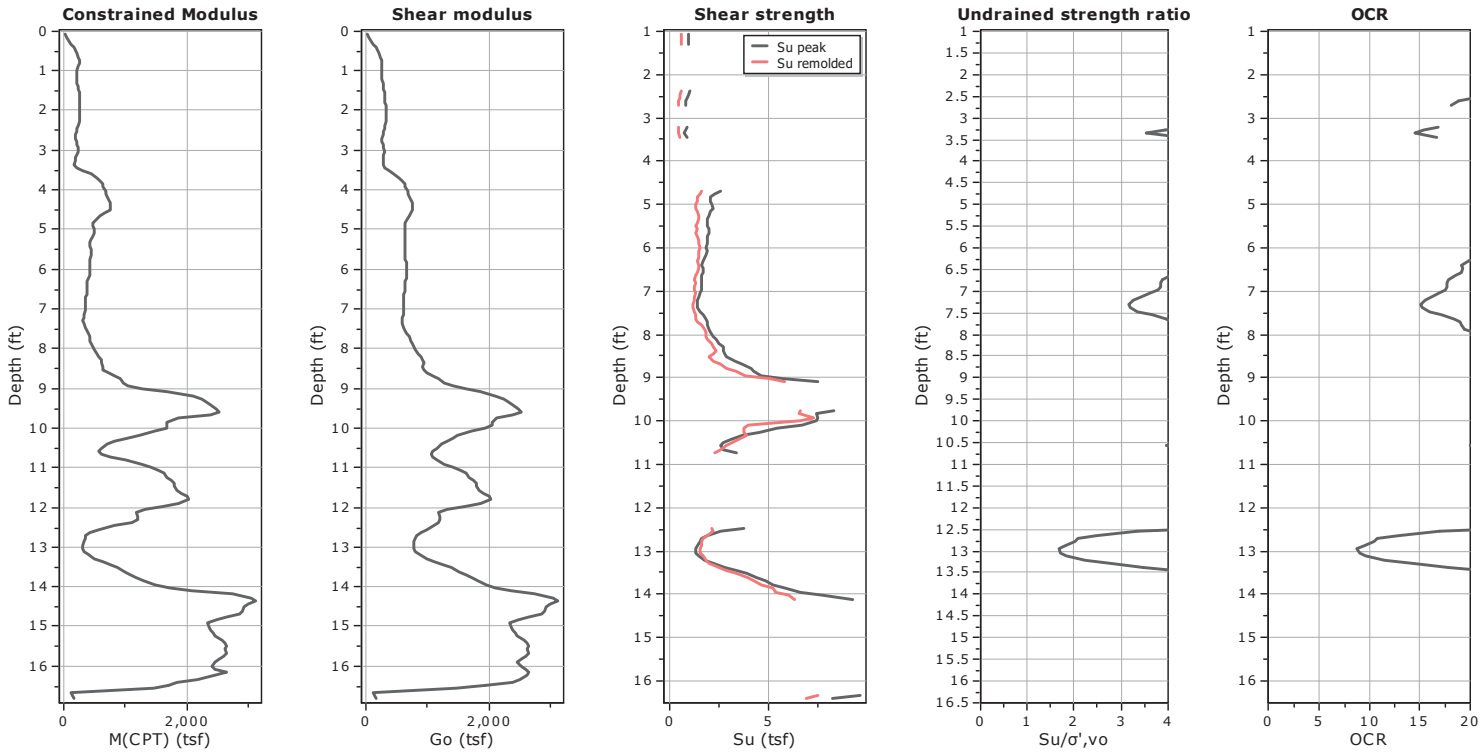
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-007
Total depth: 16.81 ft



Calculation parameters

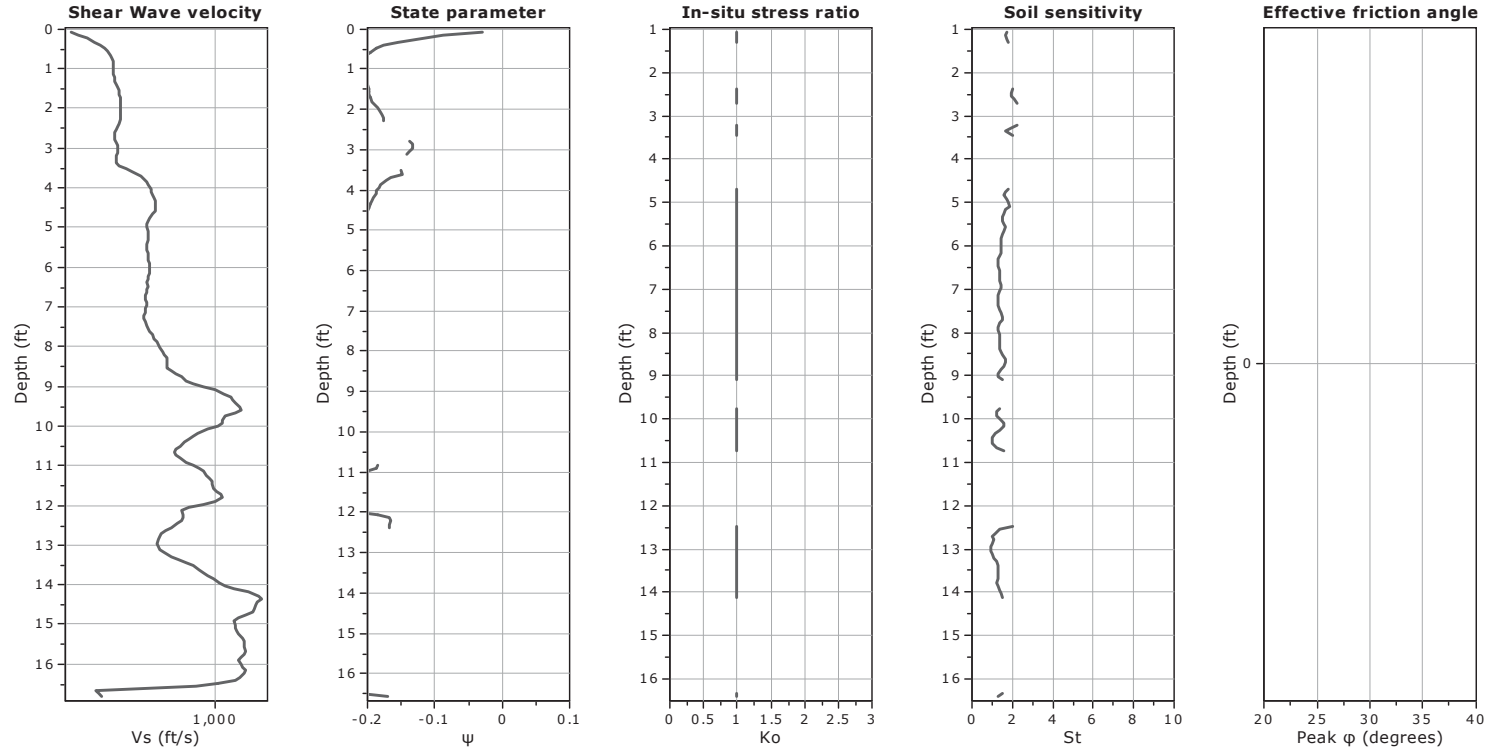
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-007
Total depth: 16.81 ft



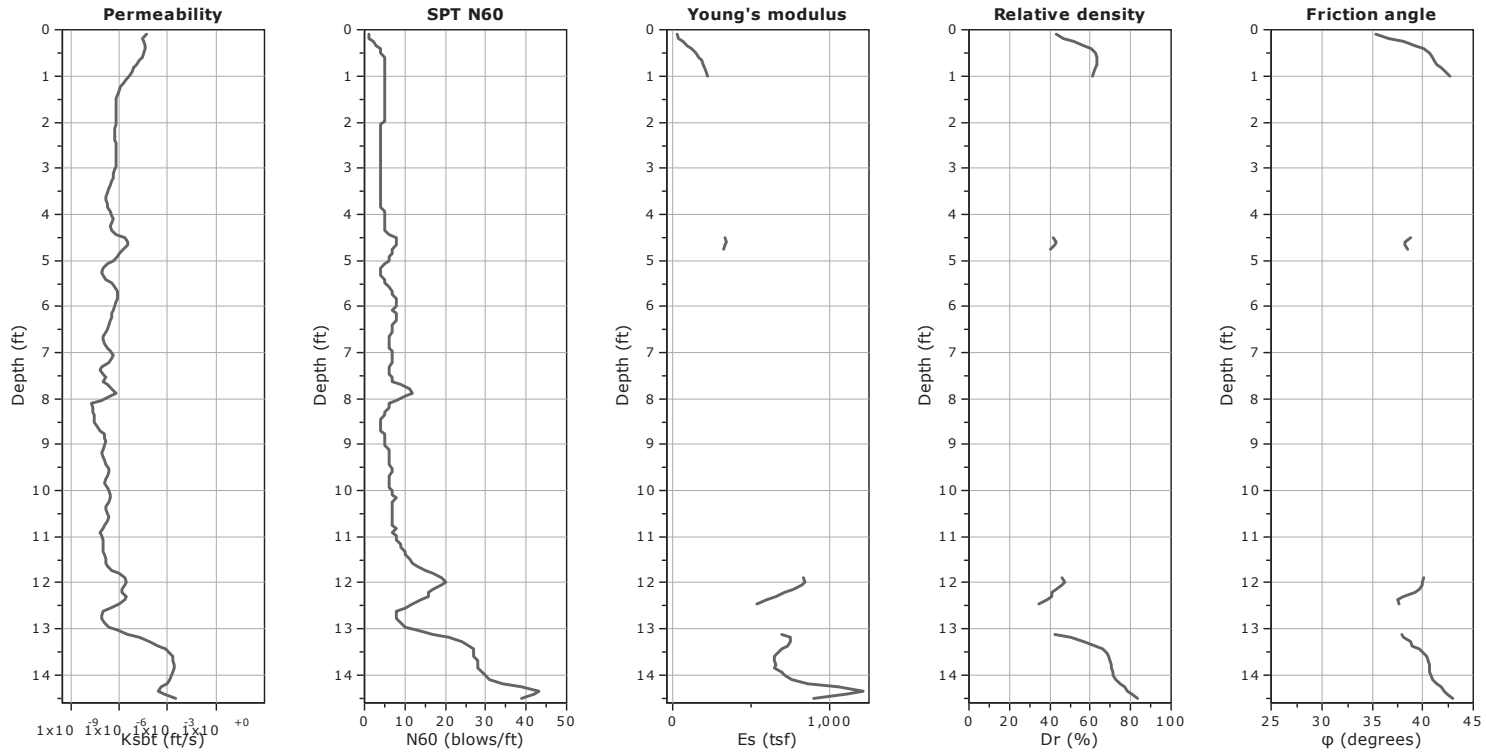
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-008
Total depth: 14.76 ft



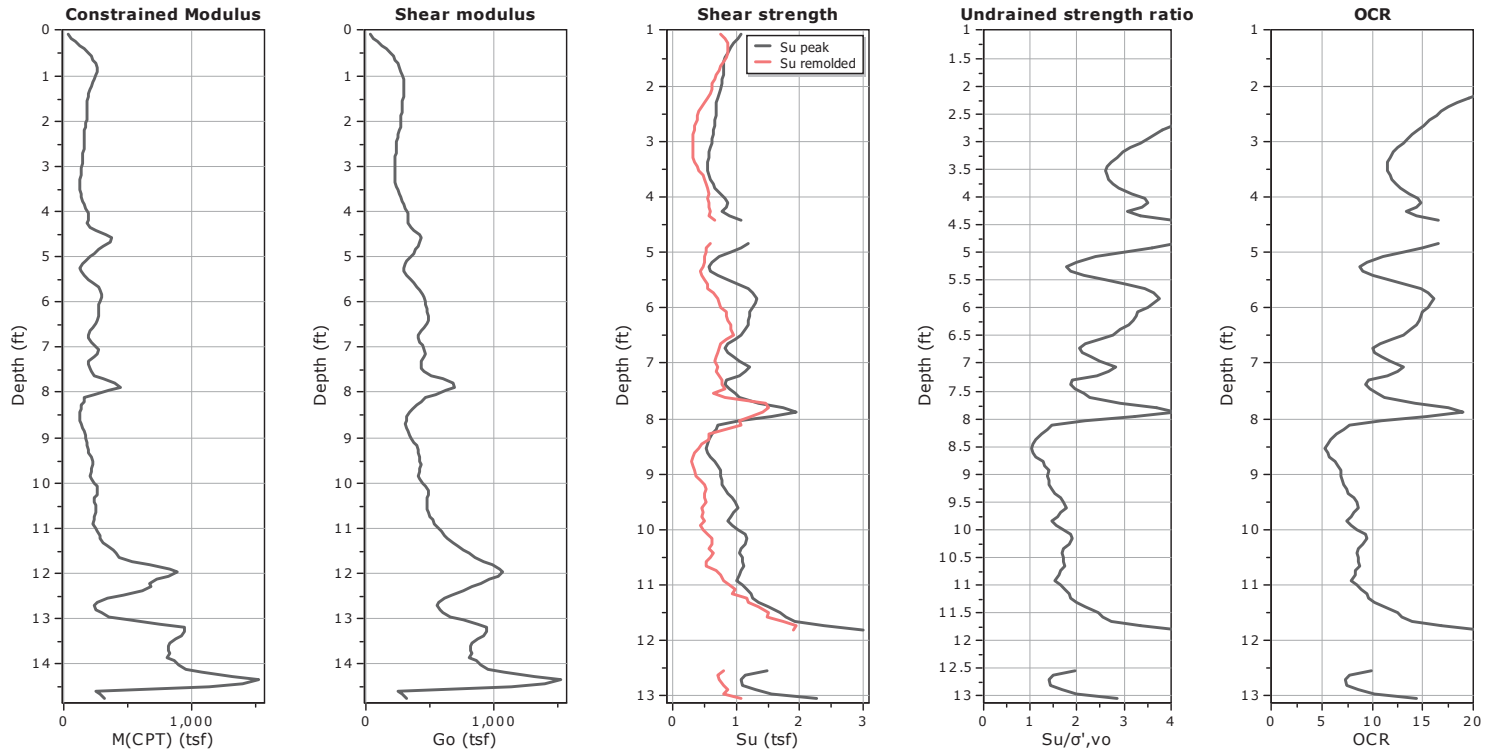
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-008
Total depth: 14.76 ft



Calculation parameters

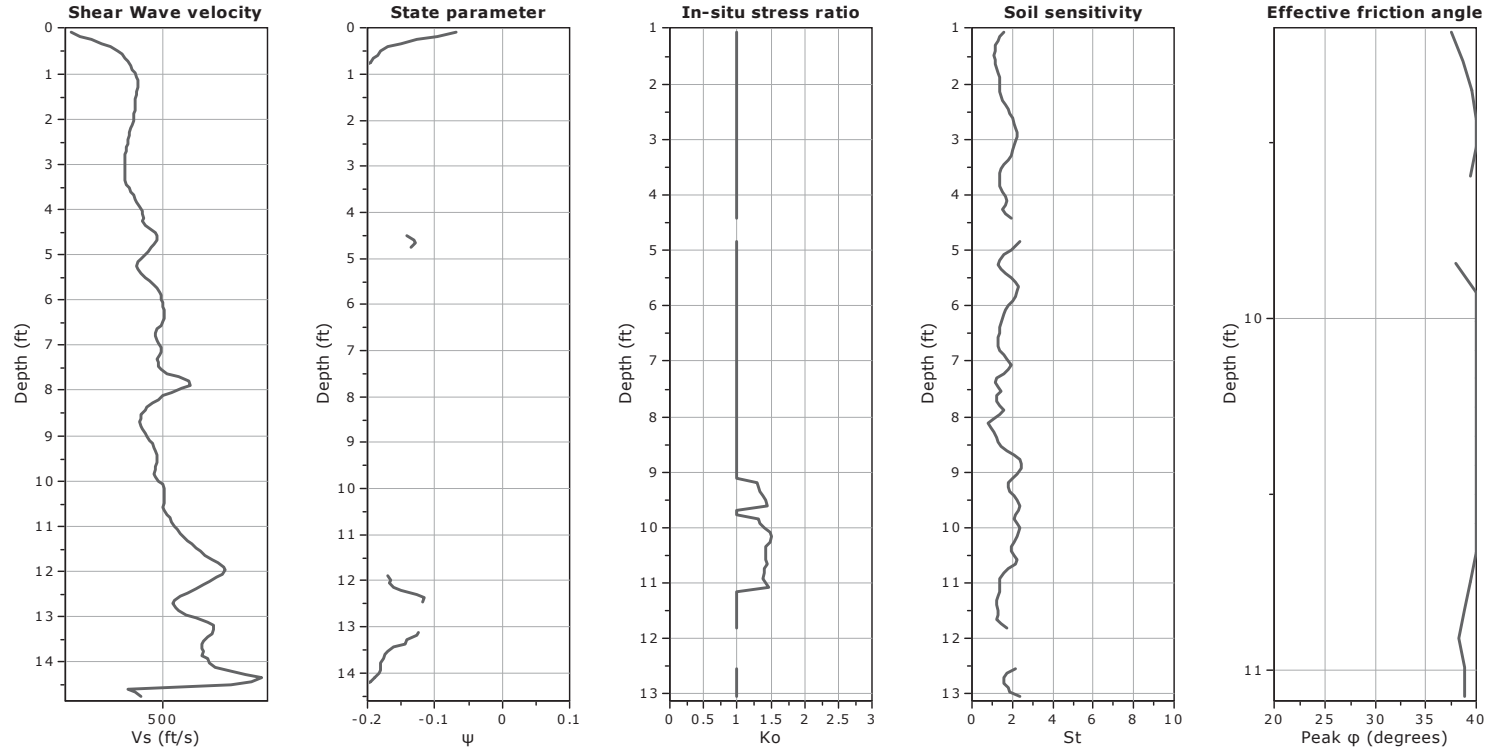
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-008
Total depth: 14.76 ft



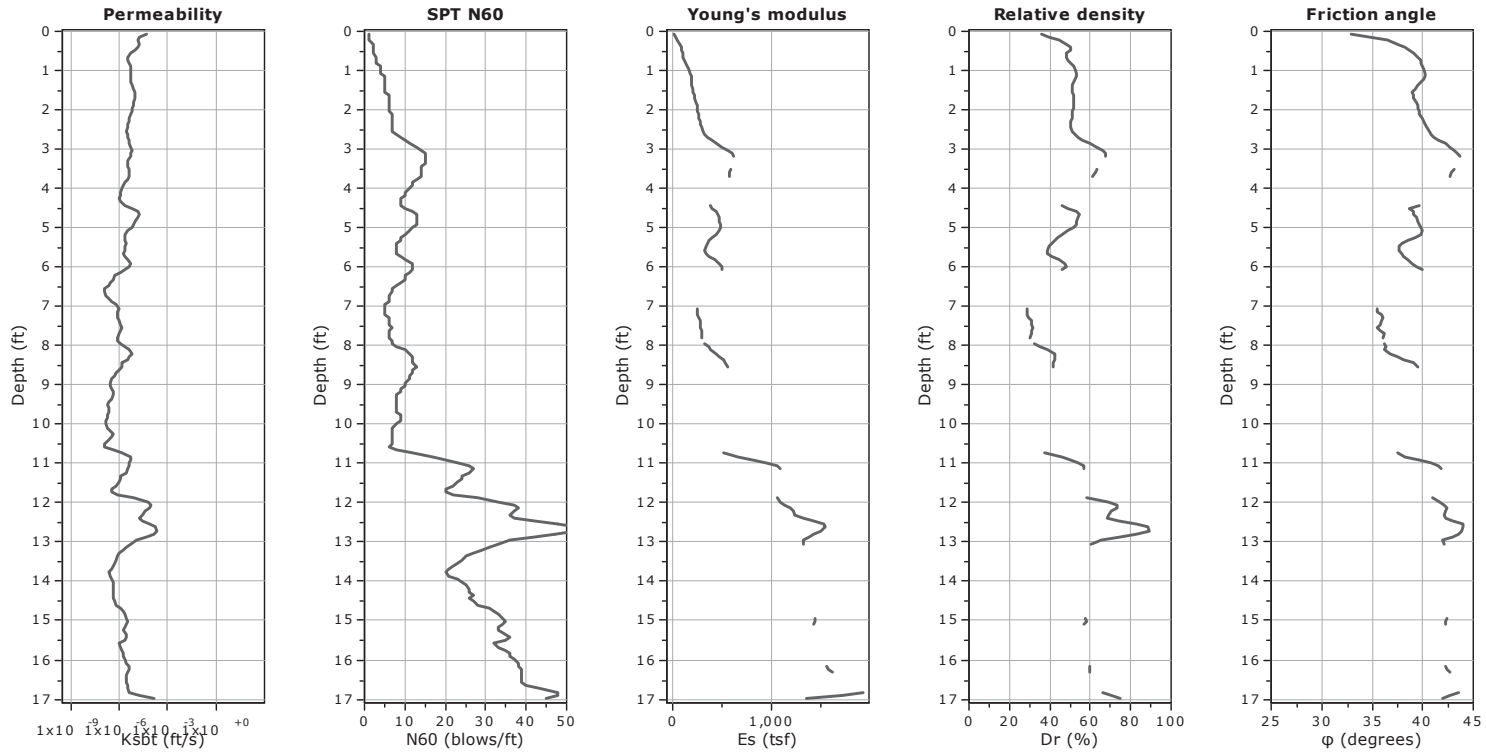
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-009
Total depth: 17.22 ft



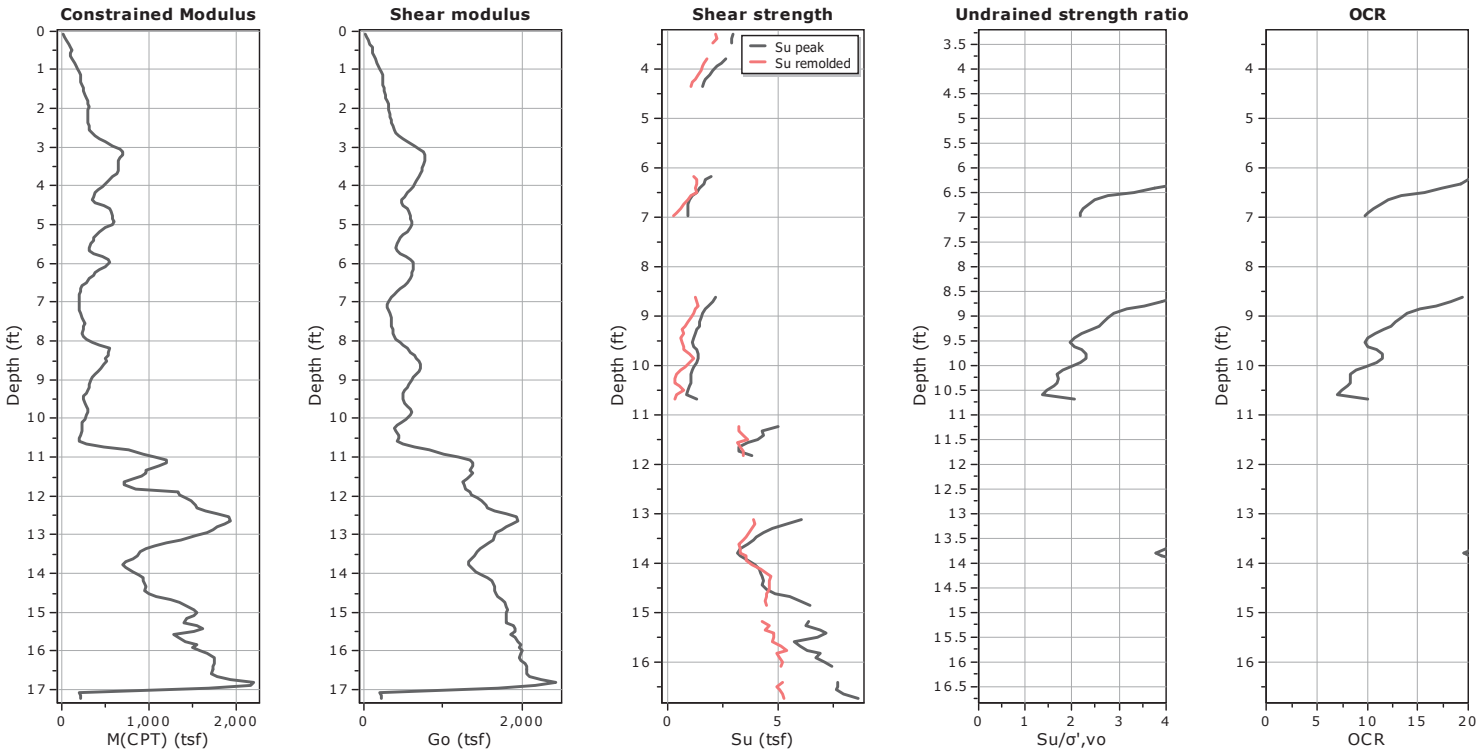
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-009
Total depth: 17.22 ft



Calculation parameters

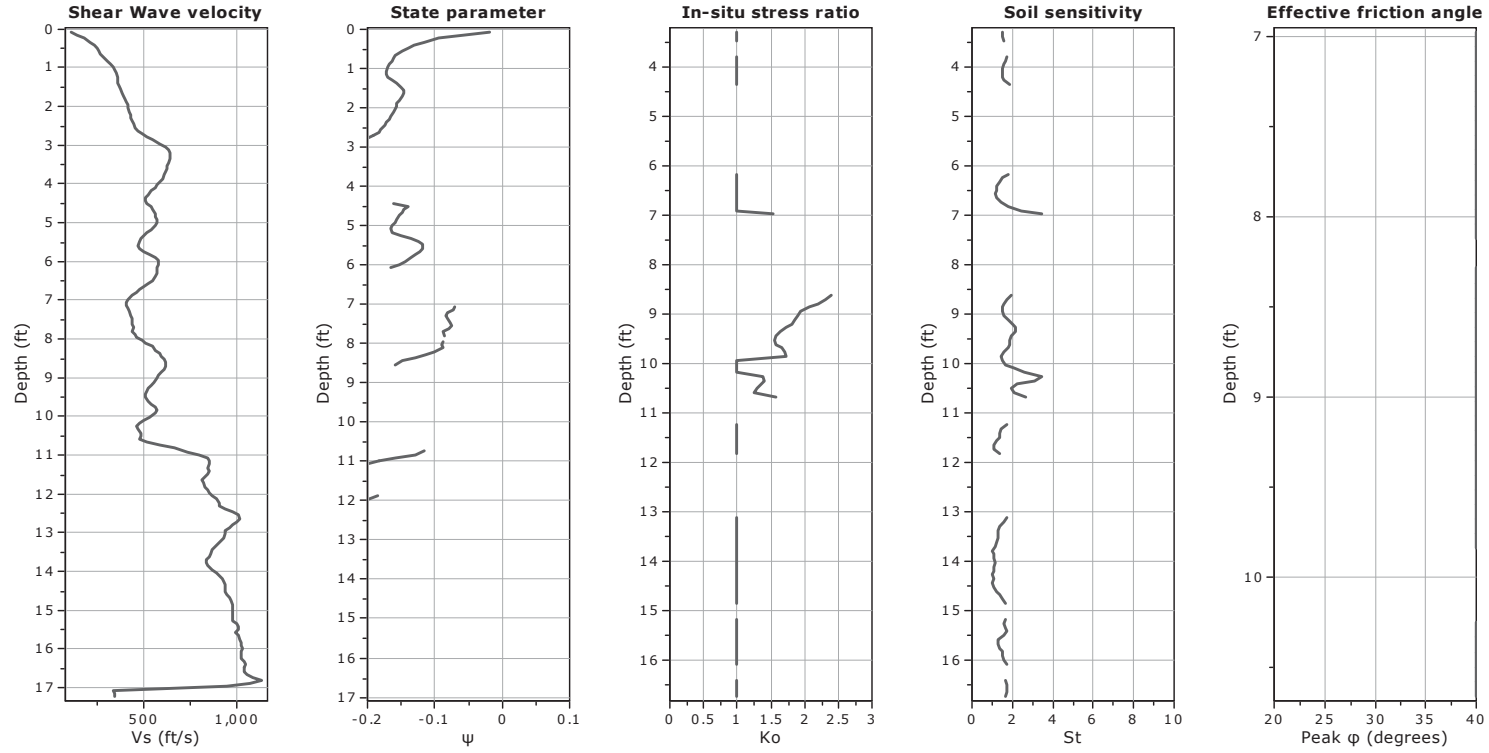
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-009
Total depth: 17.22 ft



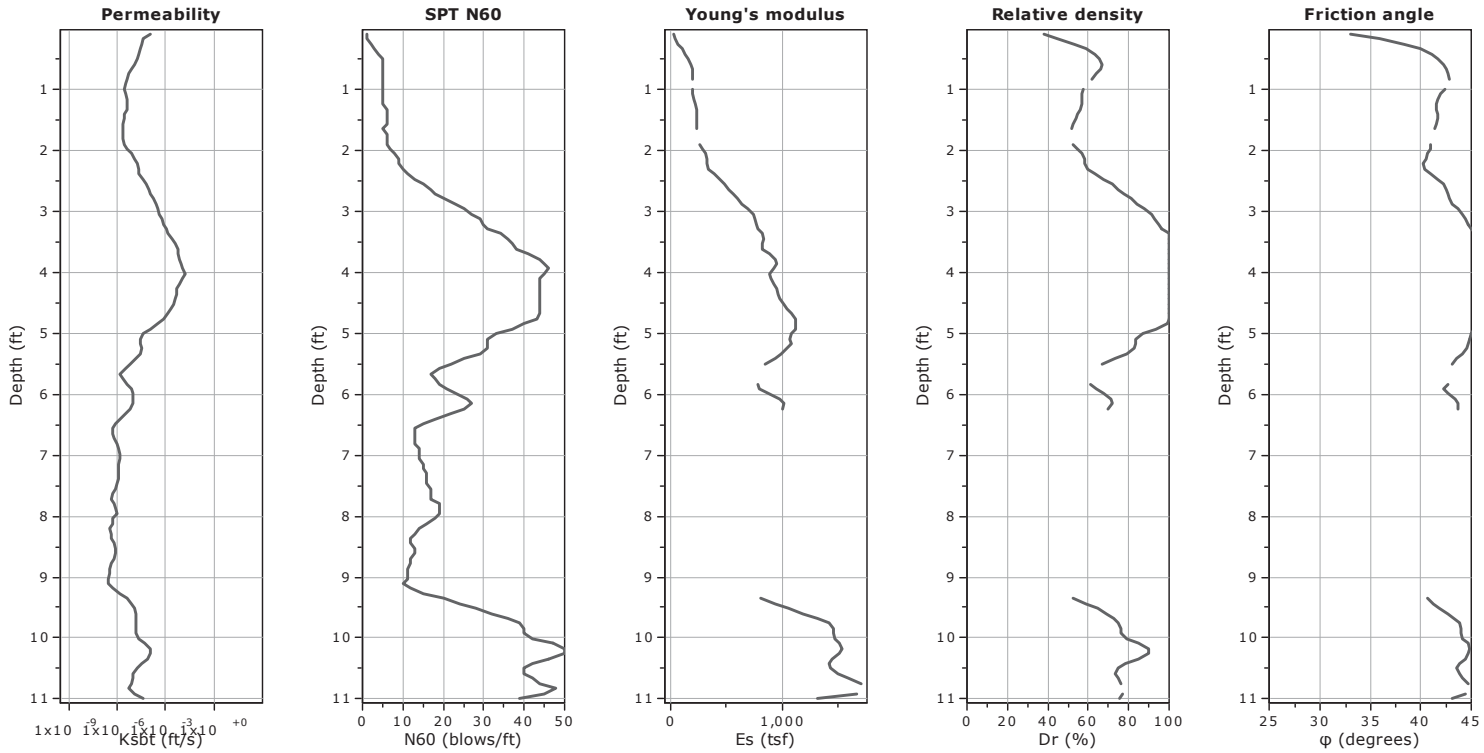
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-010
Total depth: 11.24 ft



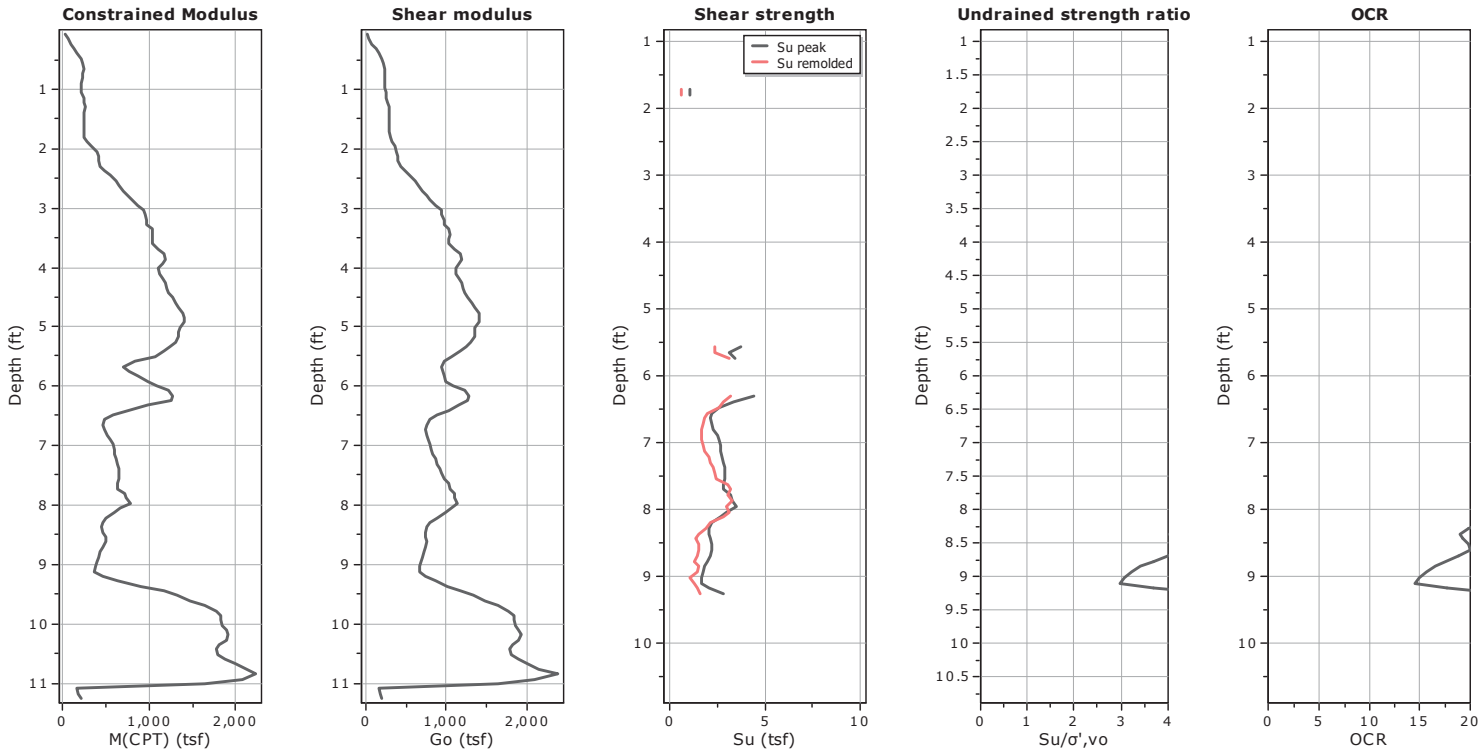
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-010
Total depth: 11.24 ft



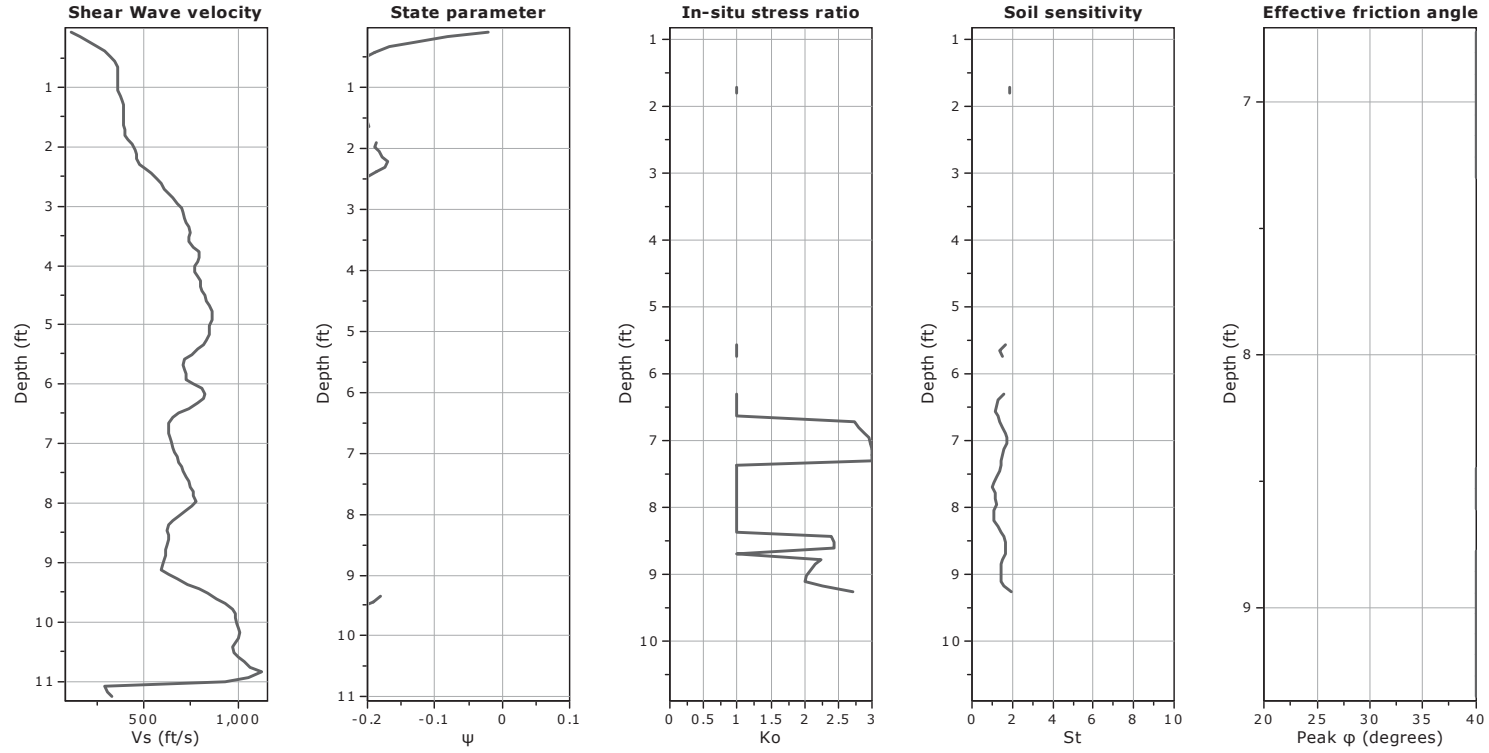
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-010
Total depth: 11.24 ft



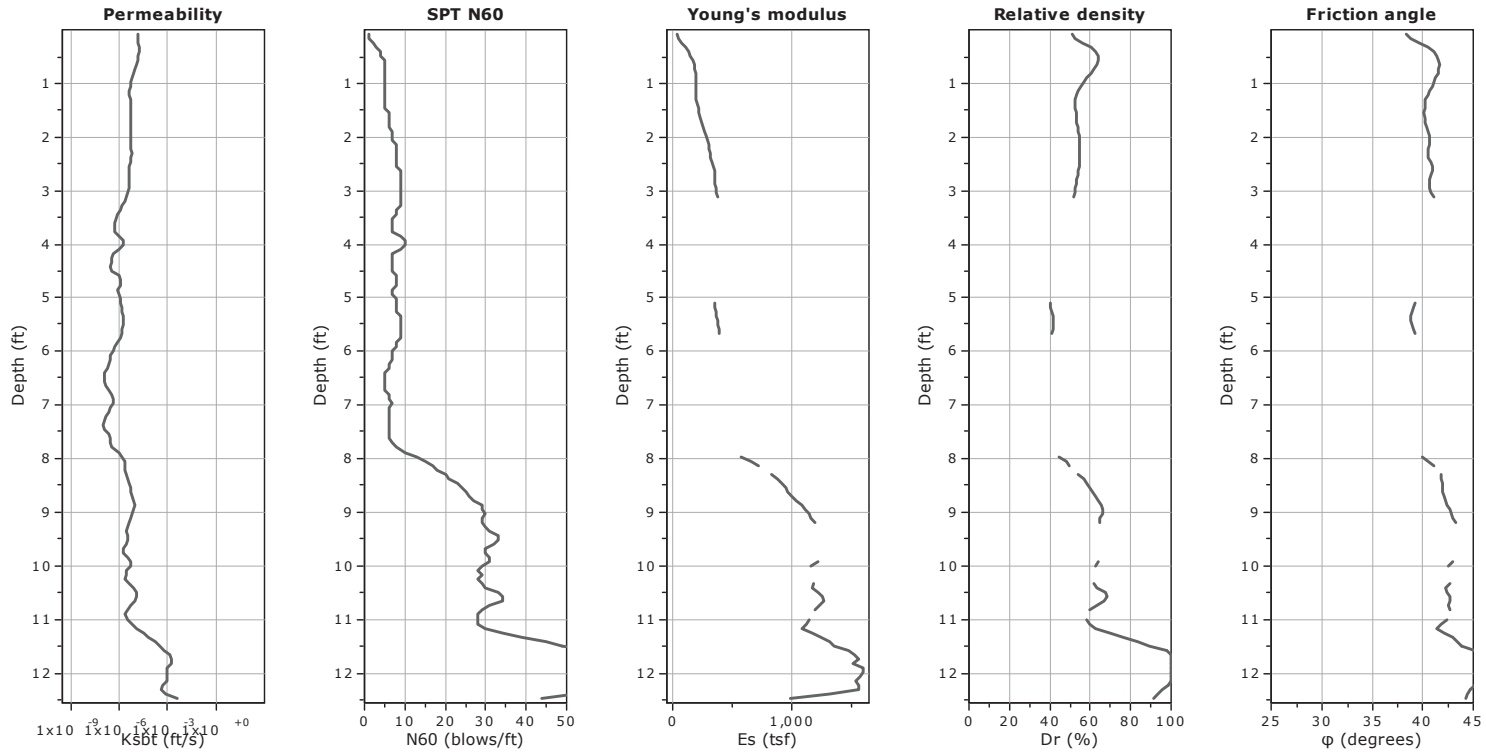
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-011
Total depth: 12.71 ft



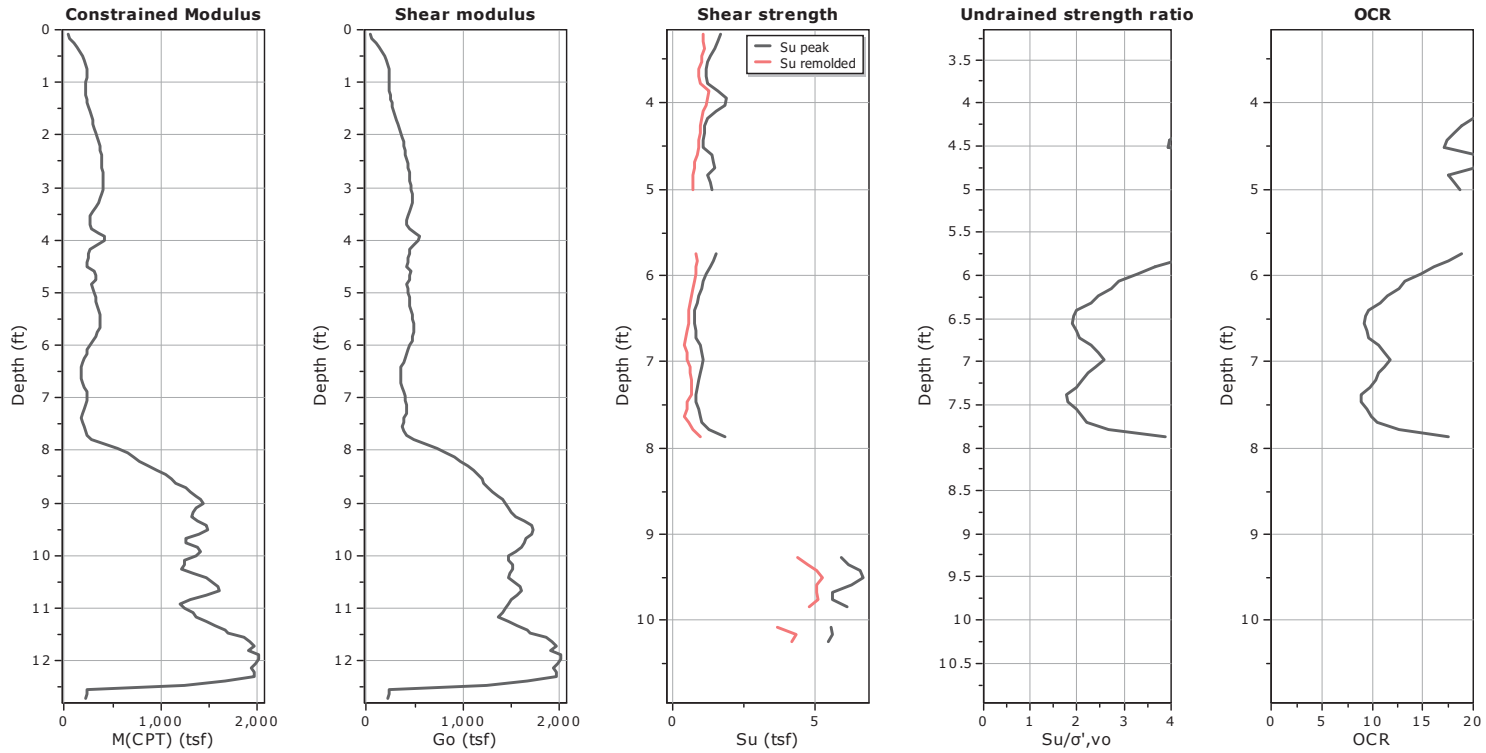
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-011
Total depth: 12.71 ft



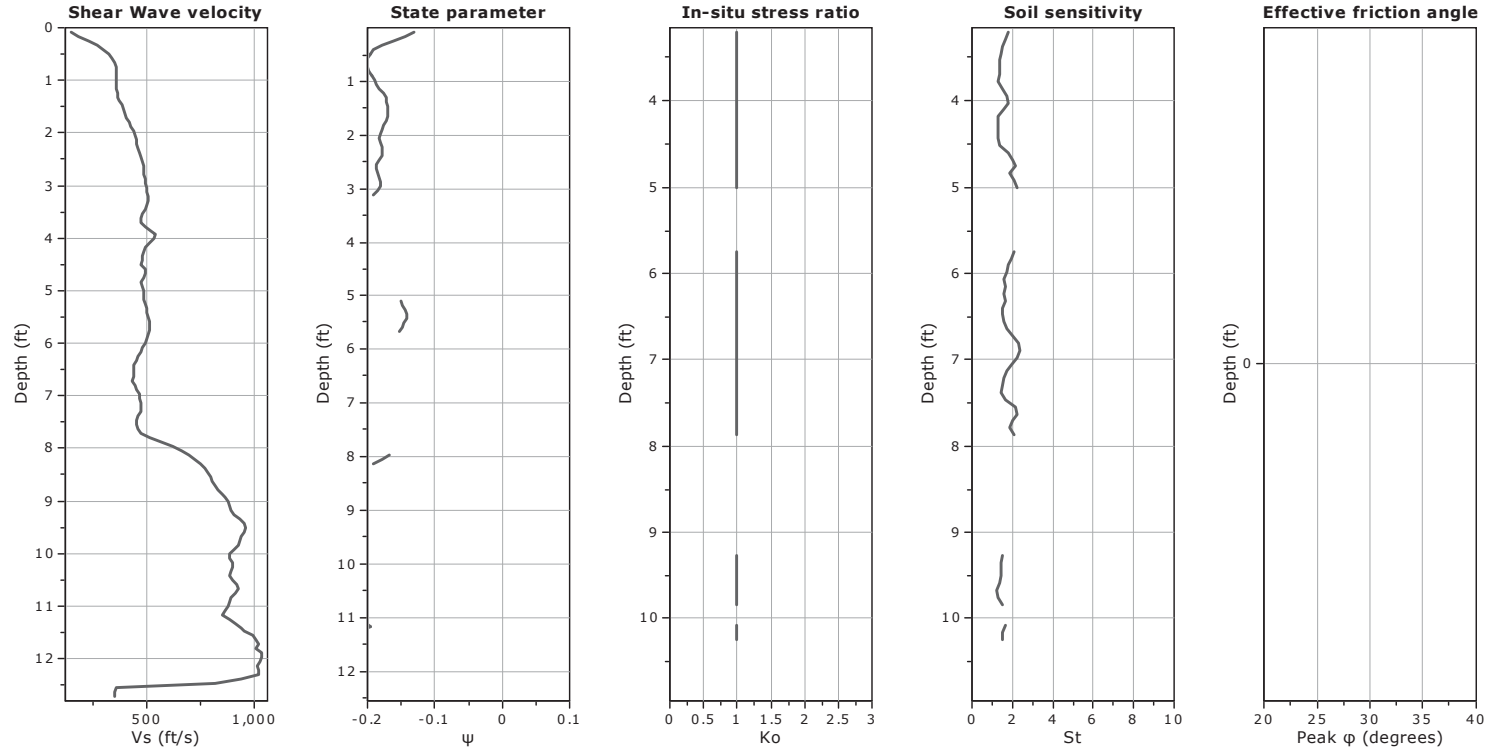
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-011
Total depth: 12.71 ft



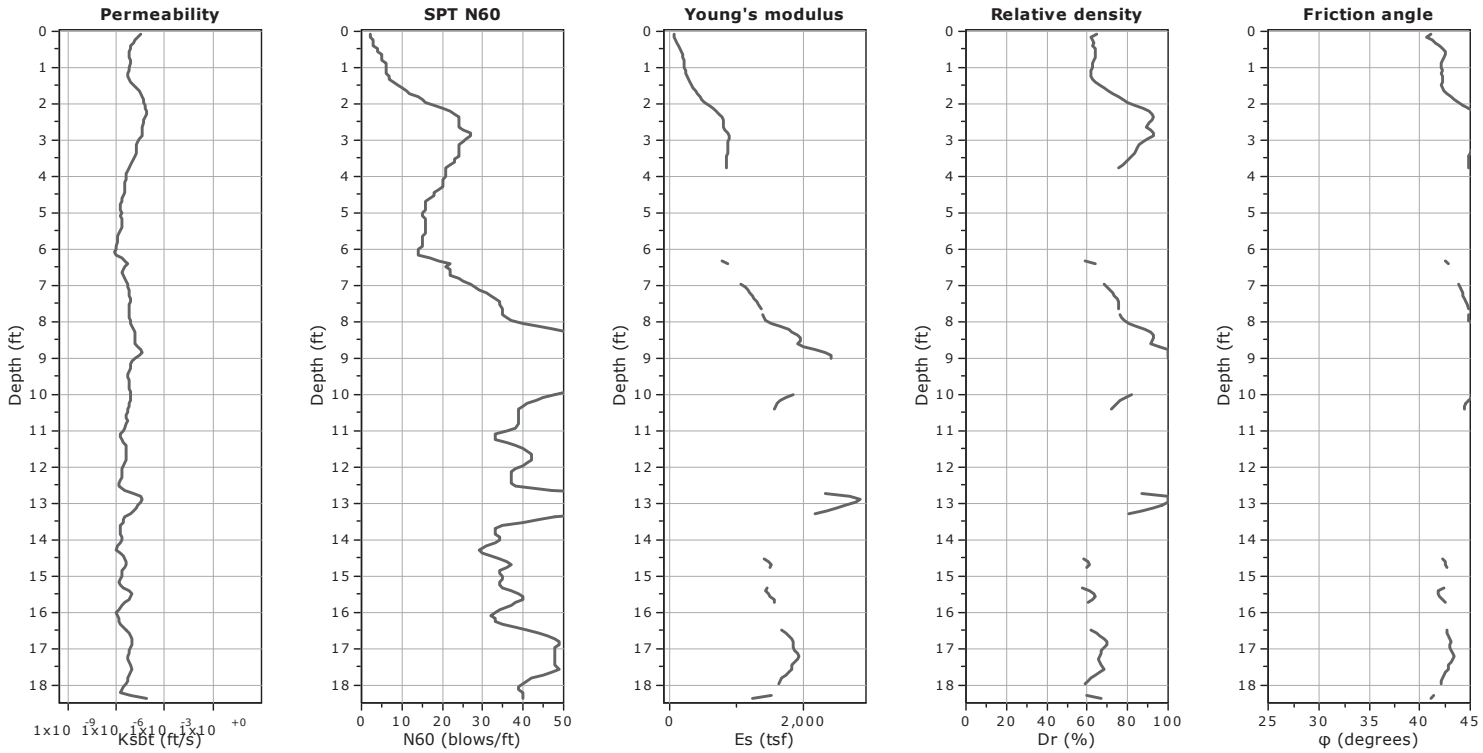
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-012
Total depth: 18.62 ft



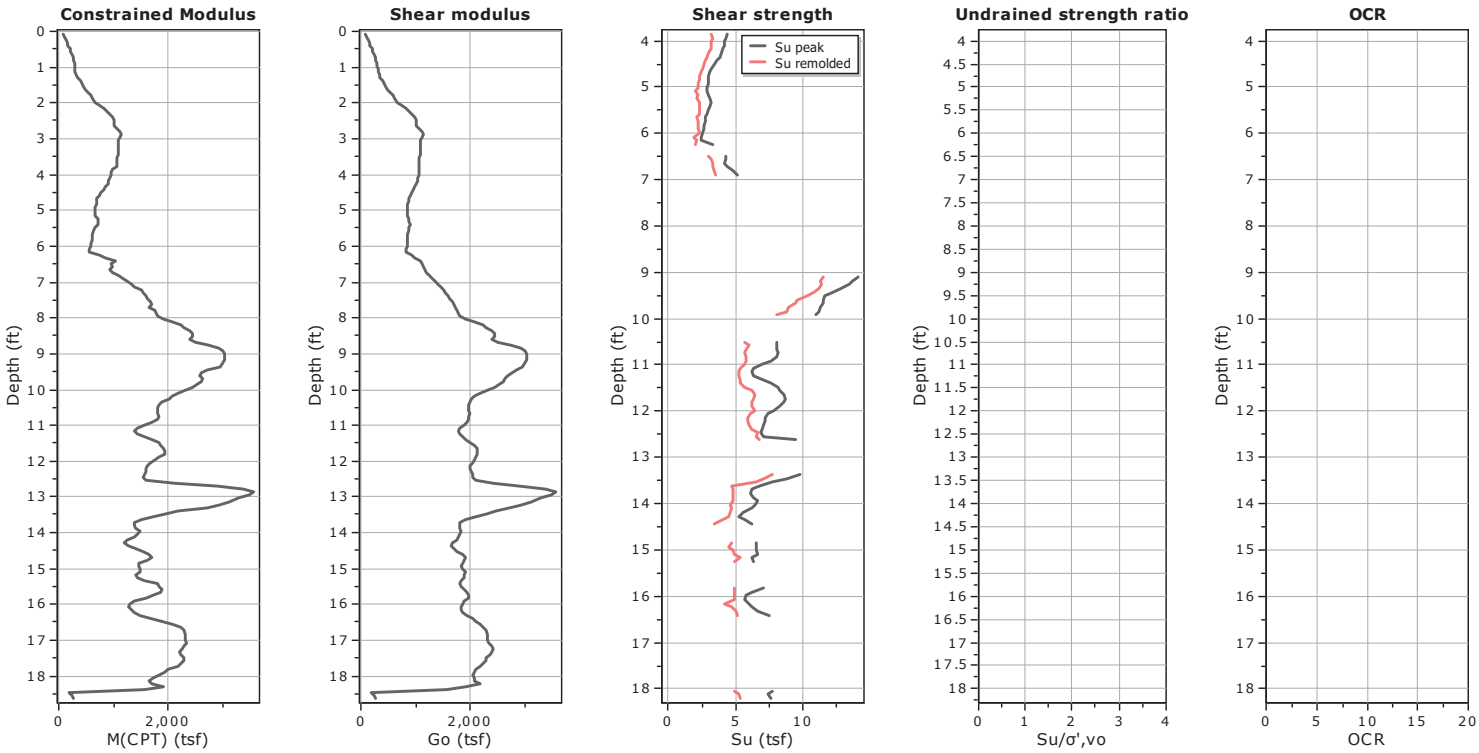
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-012
Total depth: 18.62 ft



Calculation parameters

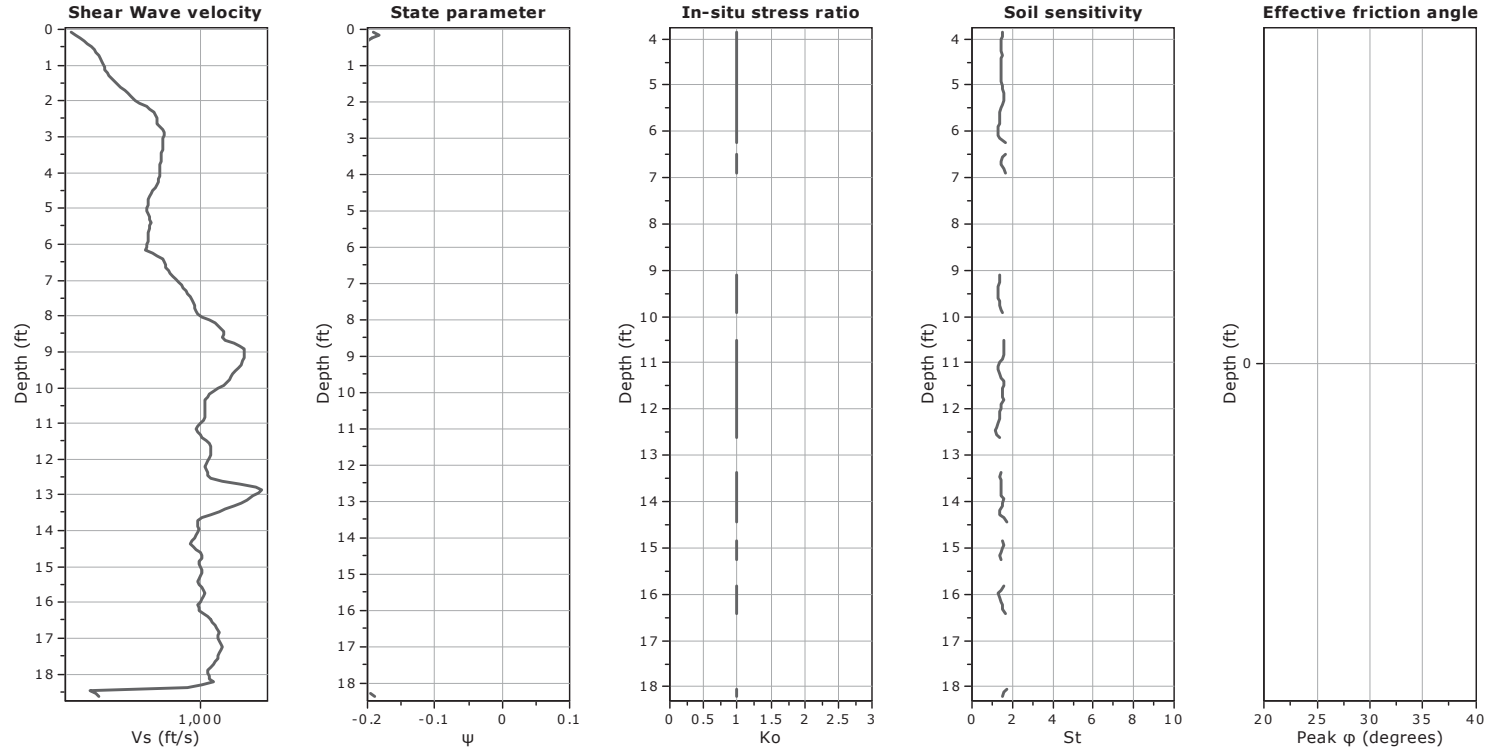
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-012
Total depth: 18.62 ft



Calculation parameters

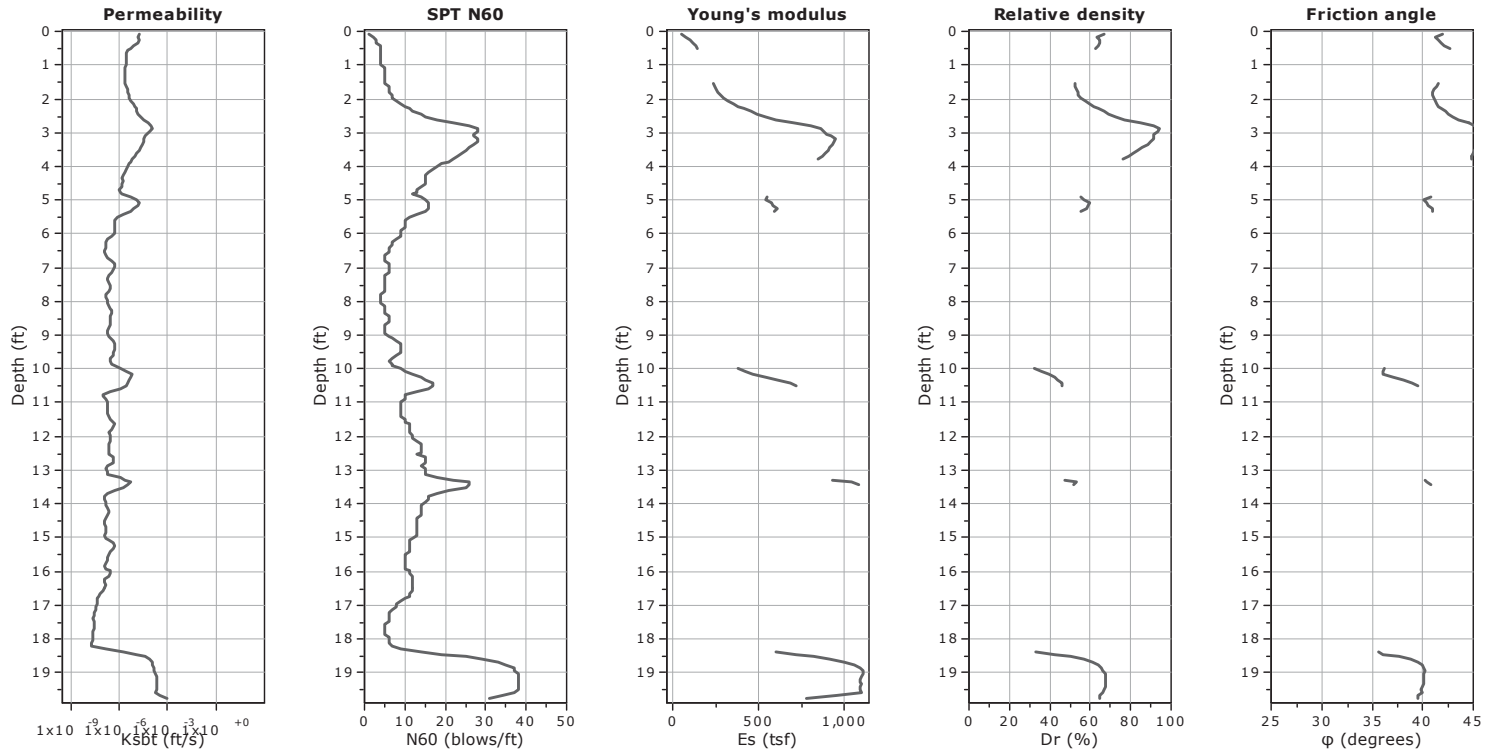
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-013
Total depth: 20.01 ft



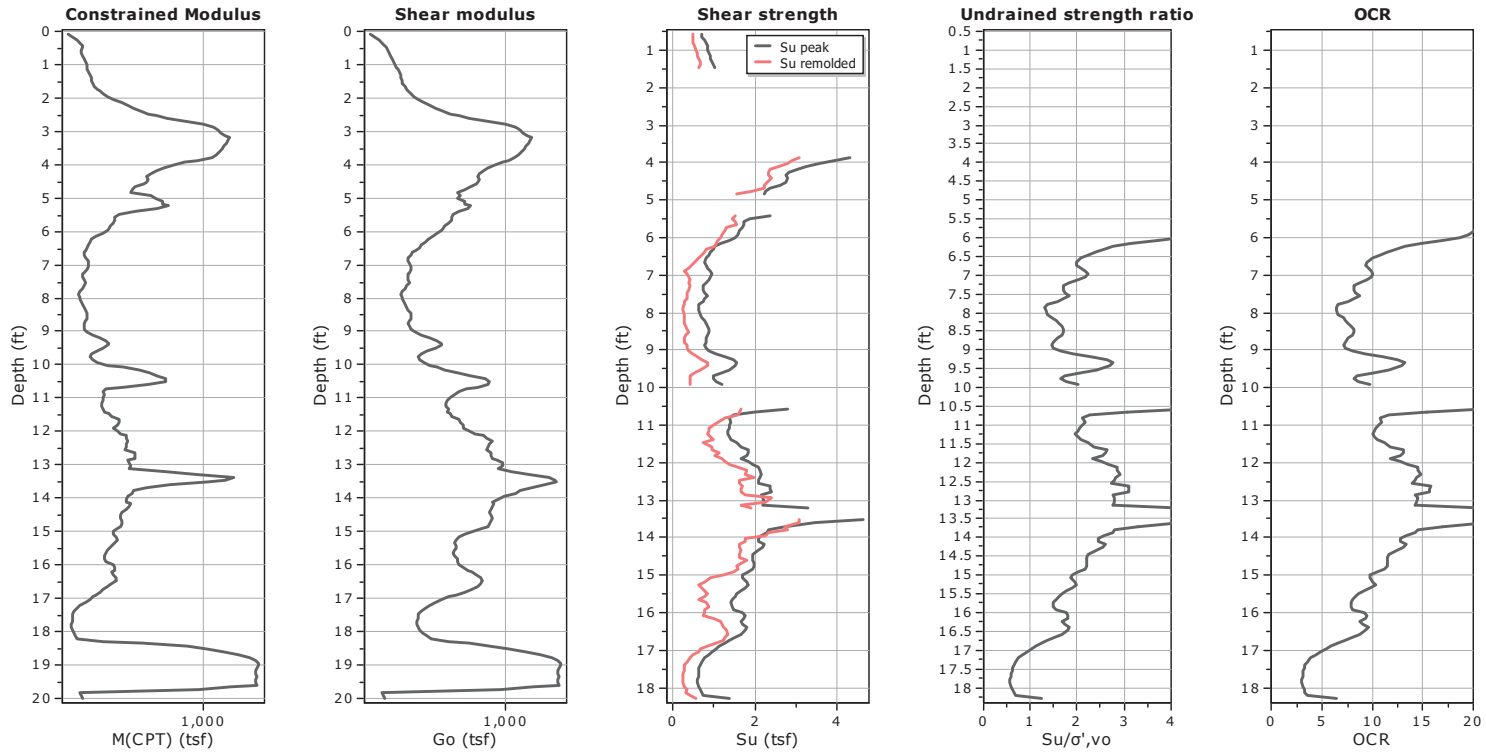
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-013
Total depth: 20.01 ft



Calculation parameters

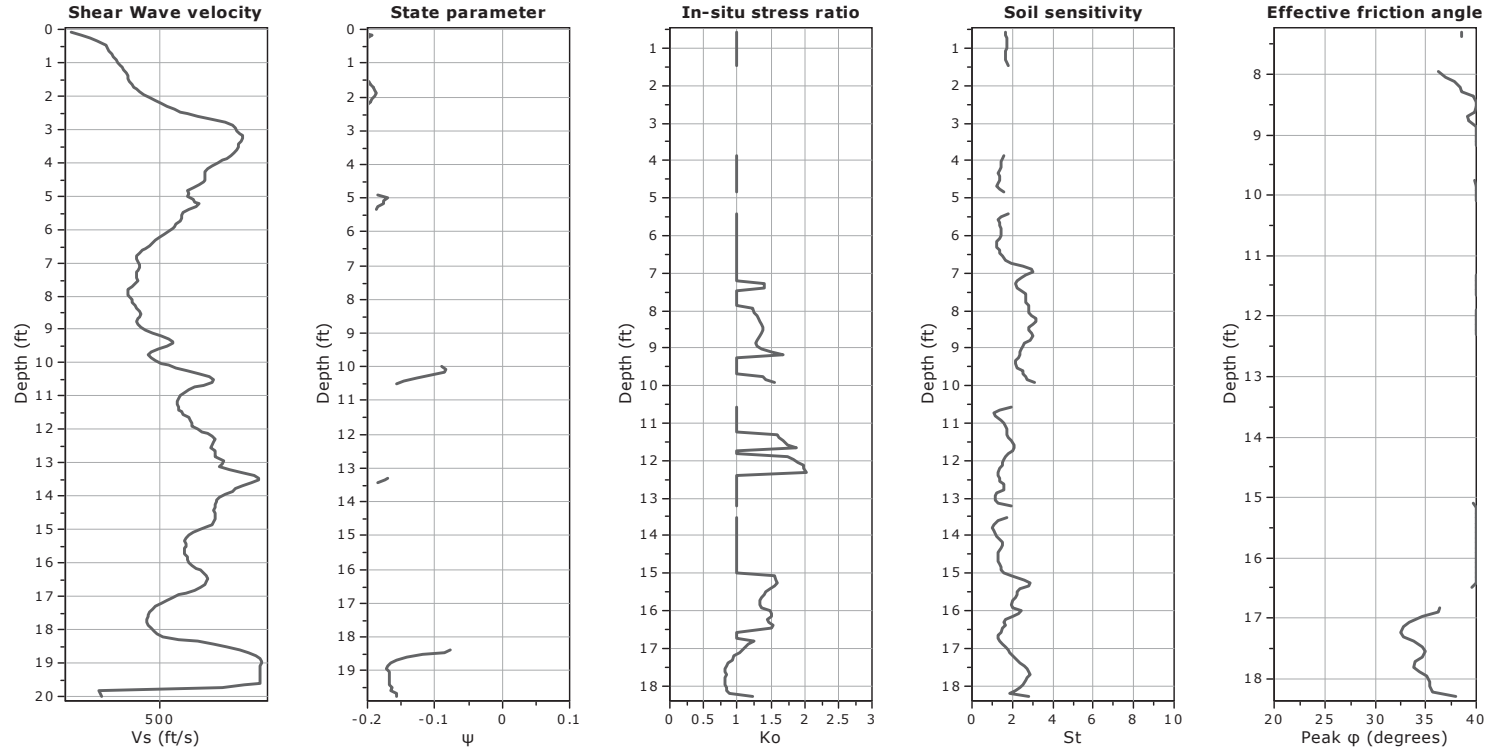
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-013
Total depth: 20.01 ft



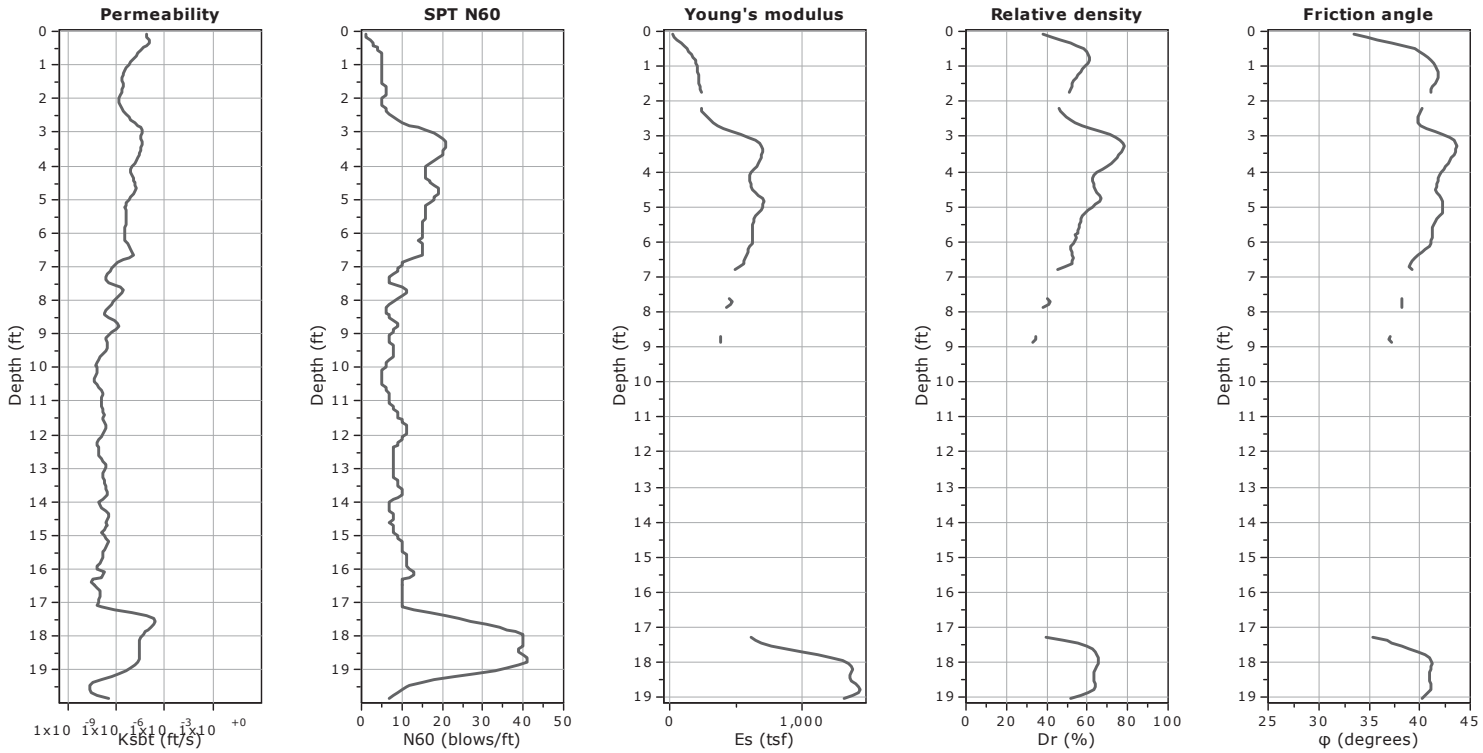
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-014
Total depth: 20.10 ft



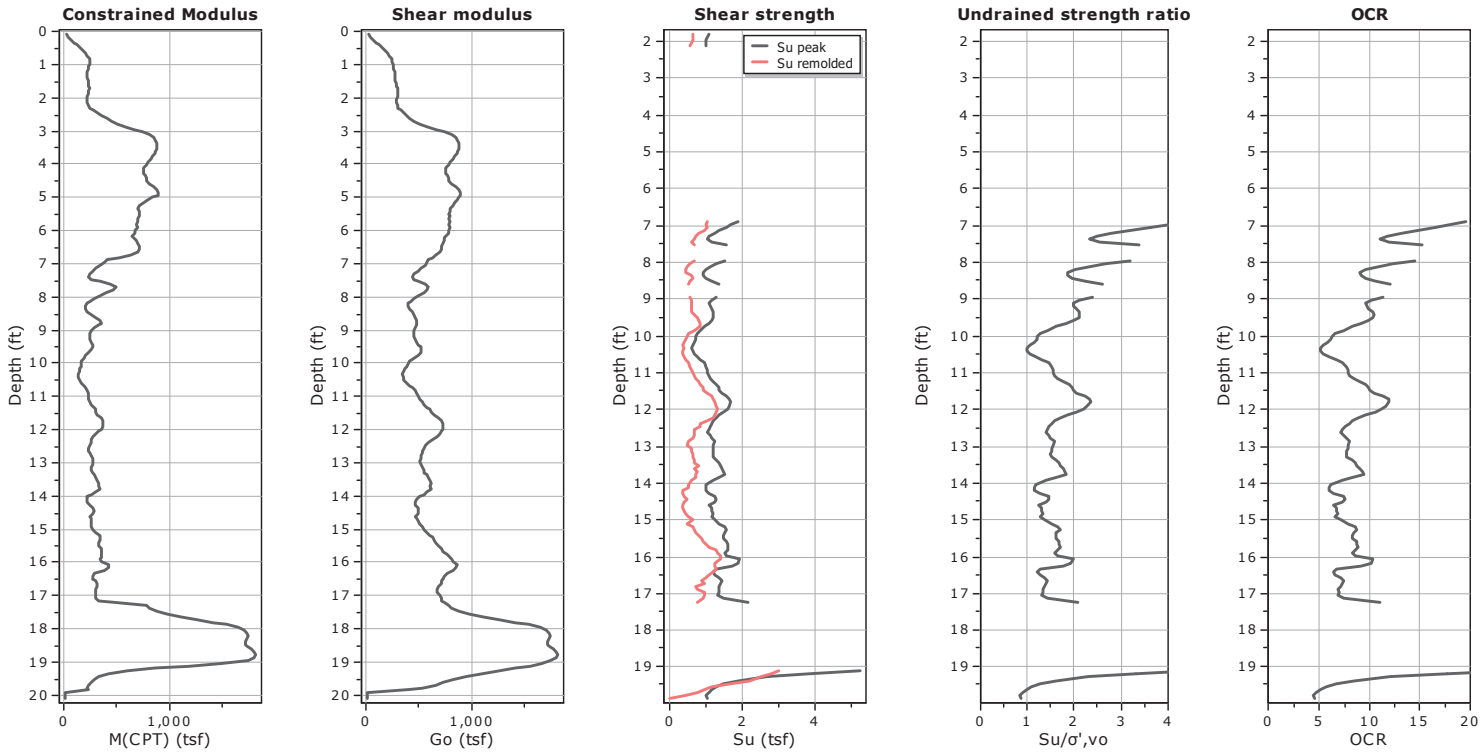
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-014
Total depth: 20.10 ft



Calculation parameters

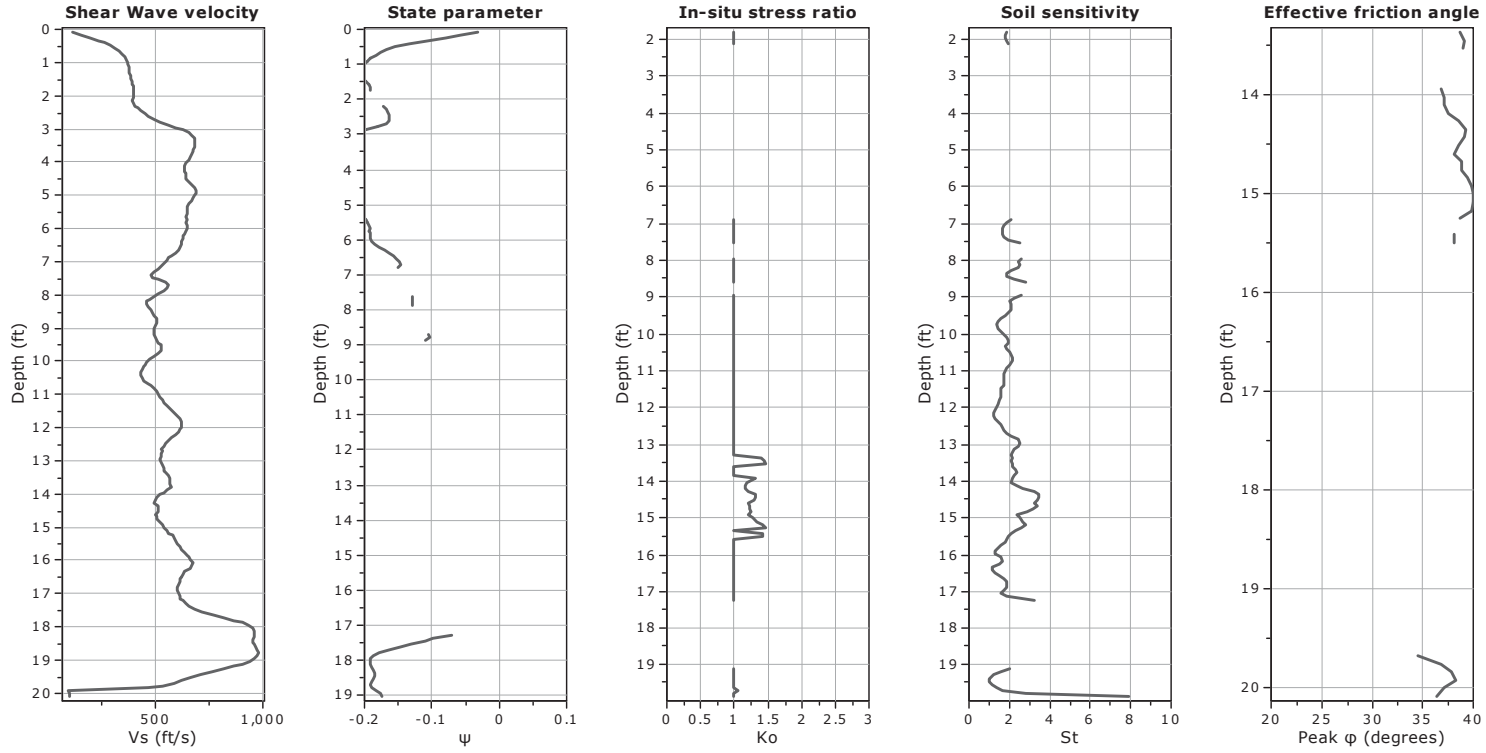
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-014
Total depth: 20.10 ft



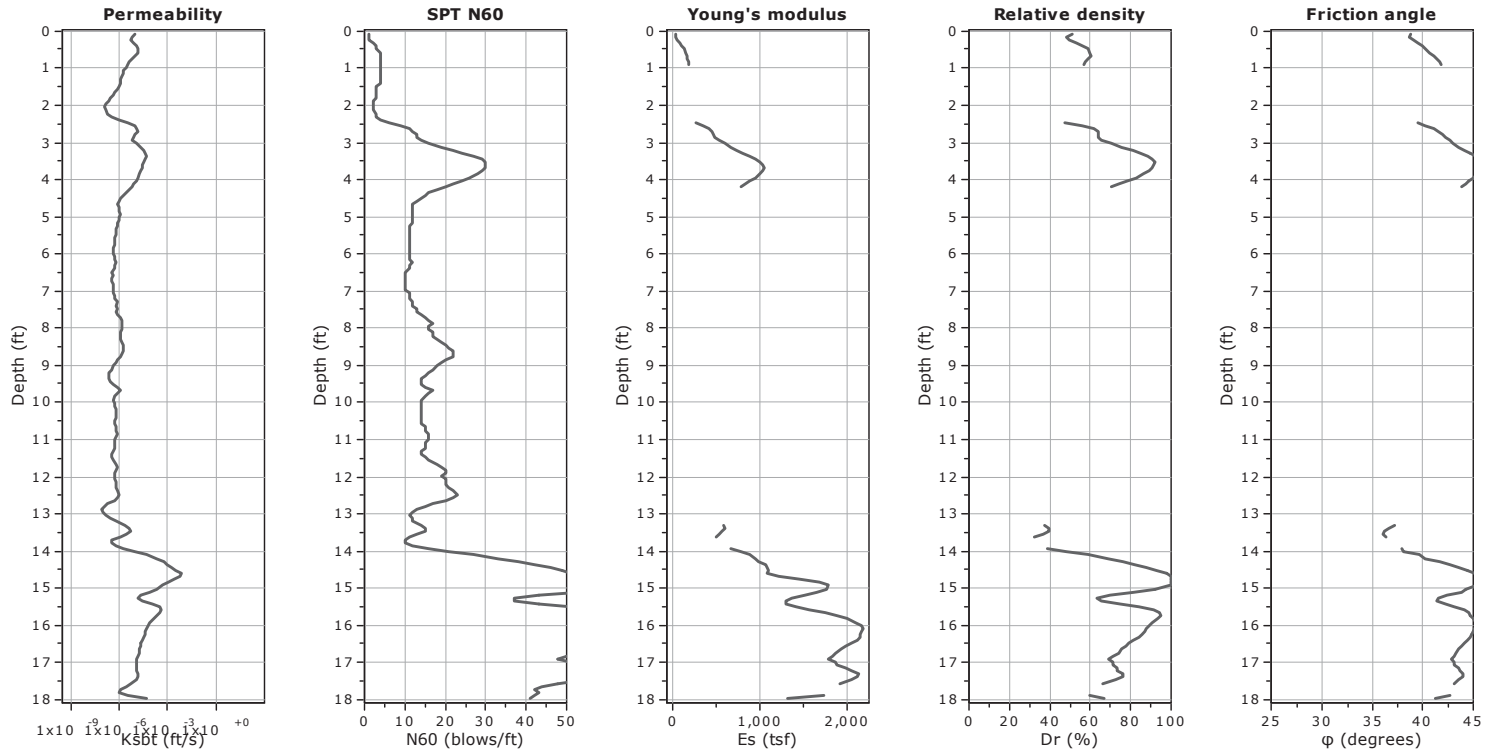
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-015
Total depth: 18.21 ft



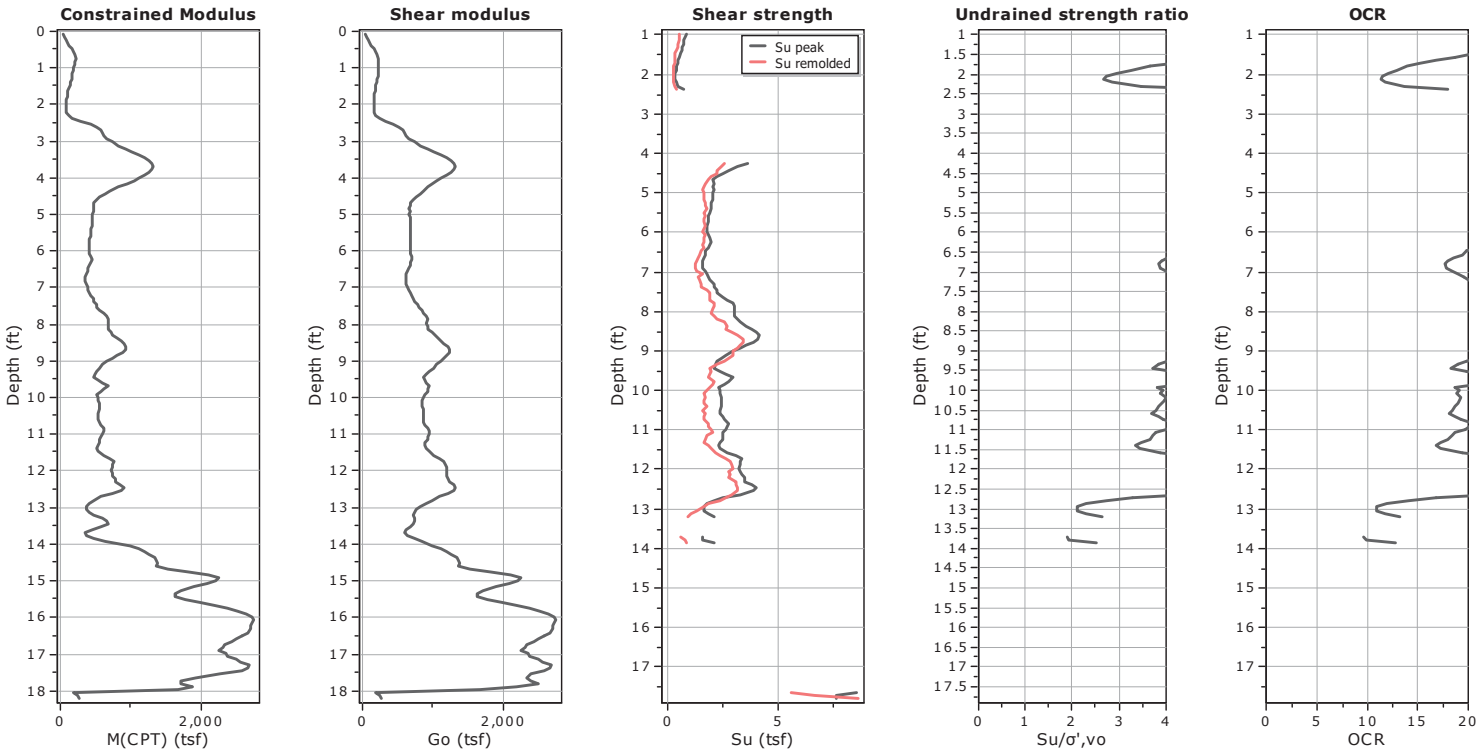
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-015
Total depth: 18.21 ft



Calculation parameters

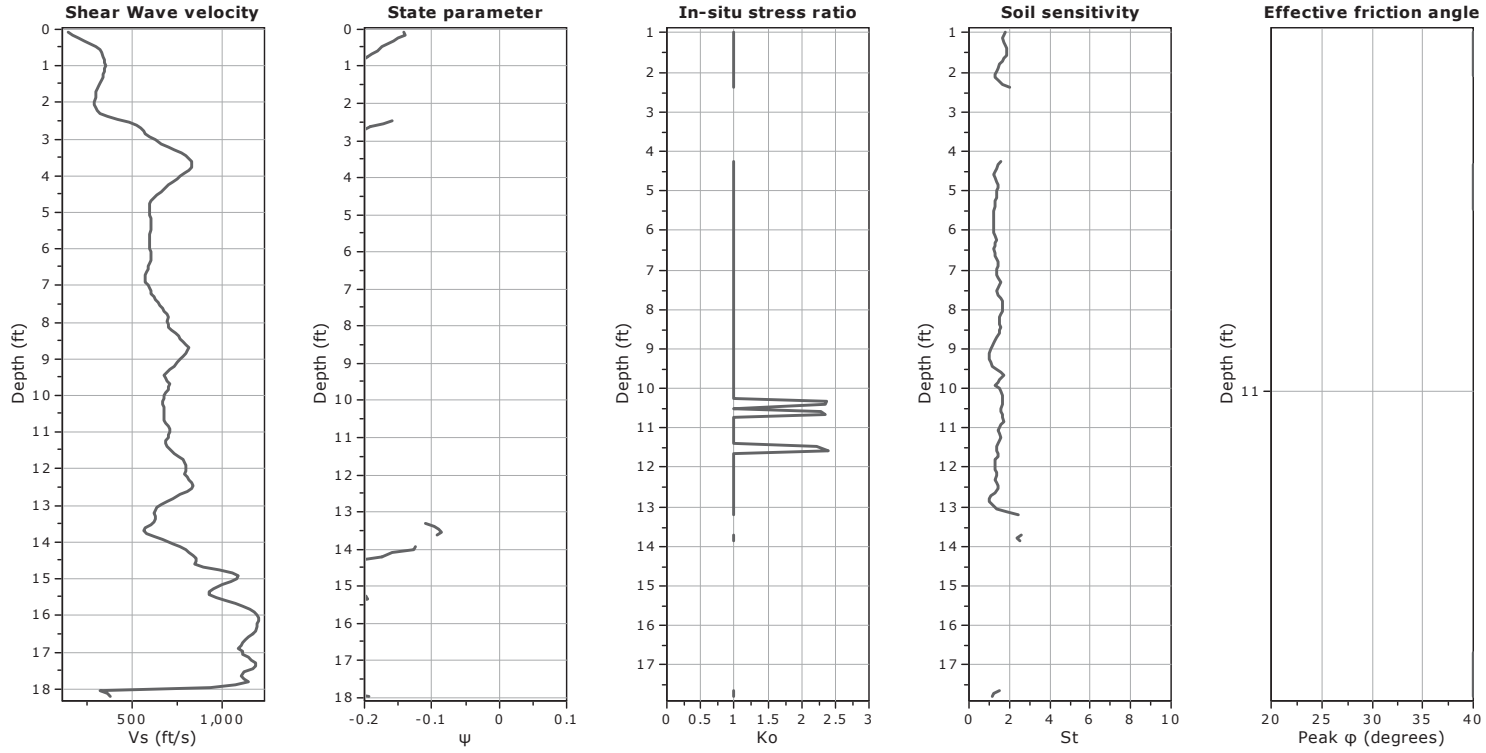
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-015
Total depth: 18.21 ft



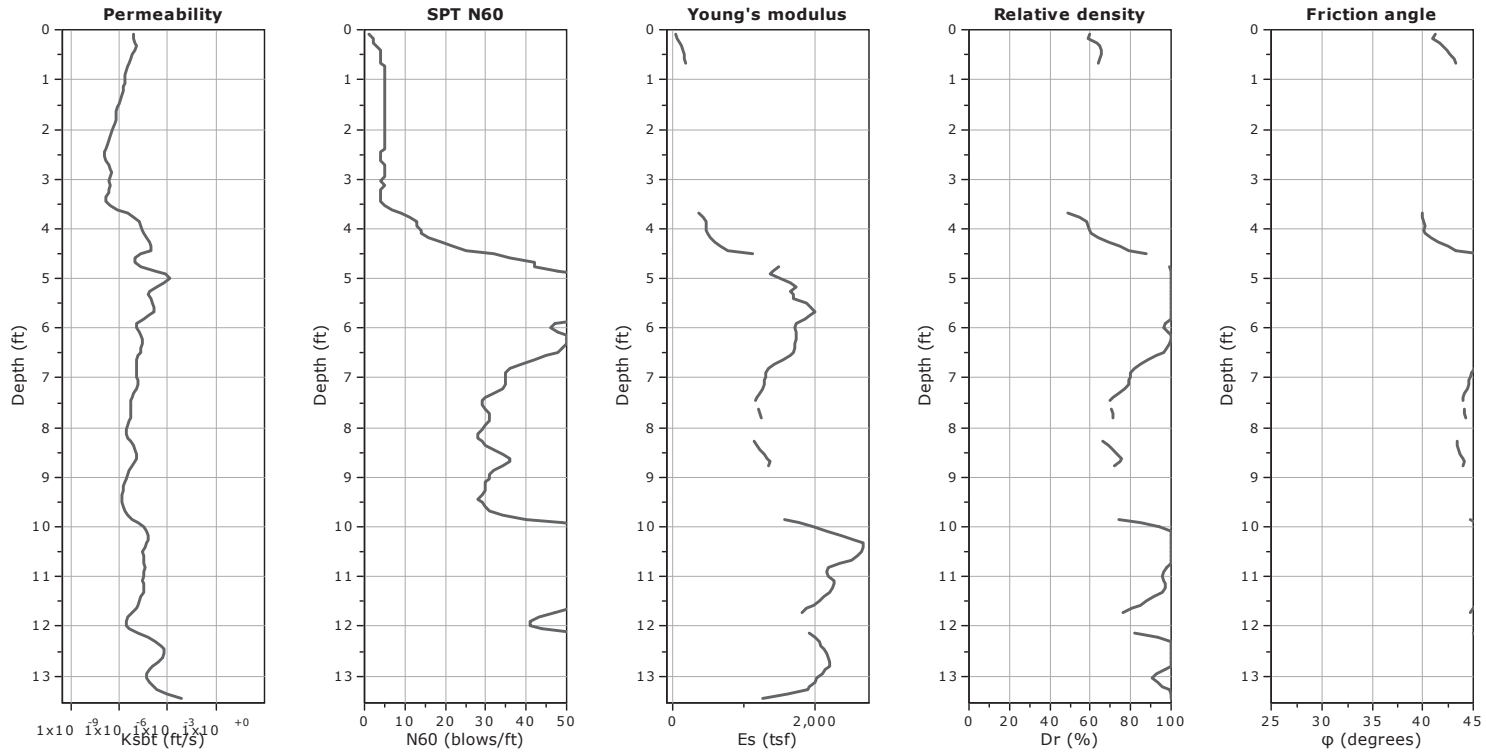
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-016
Total depth: 13.70 ft



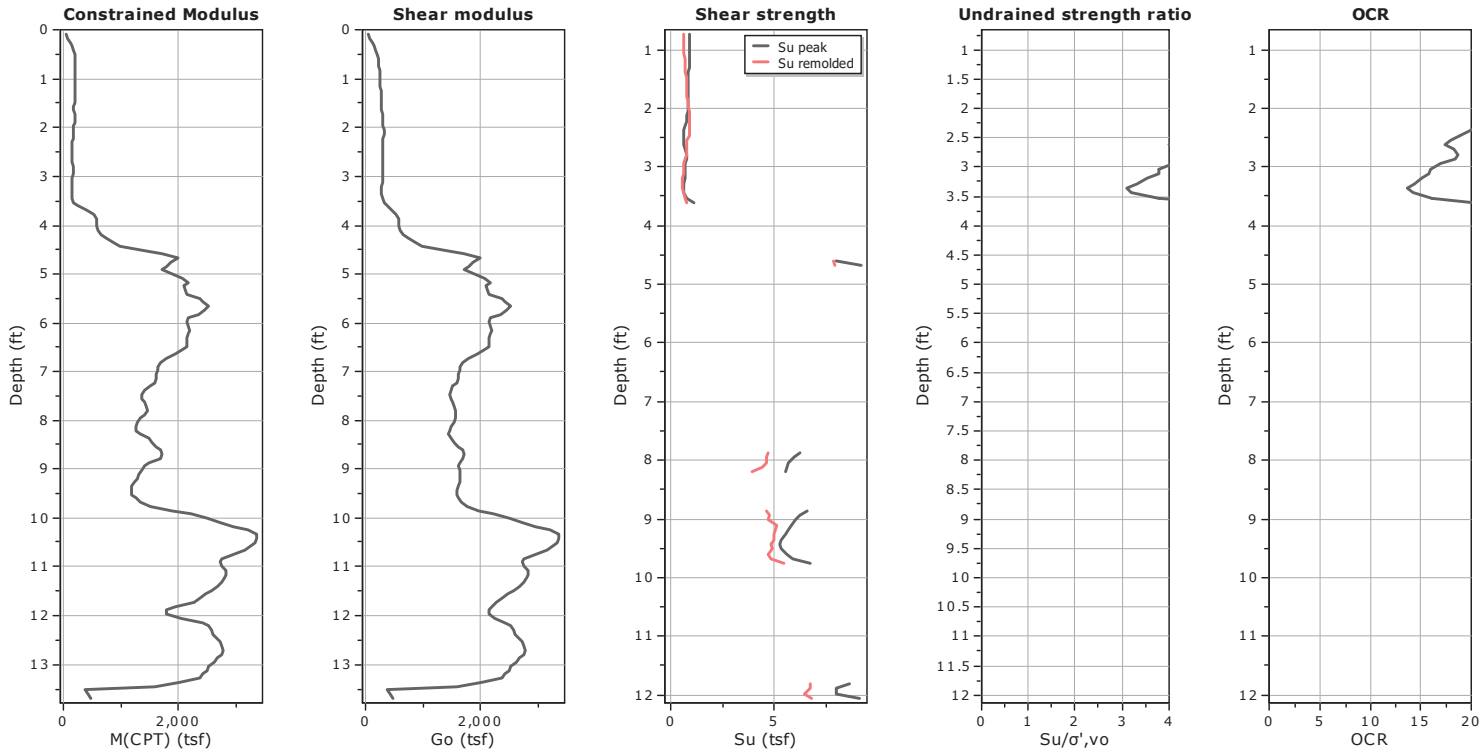
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-016
Total depth: 13.70 ft



Calculation parameters

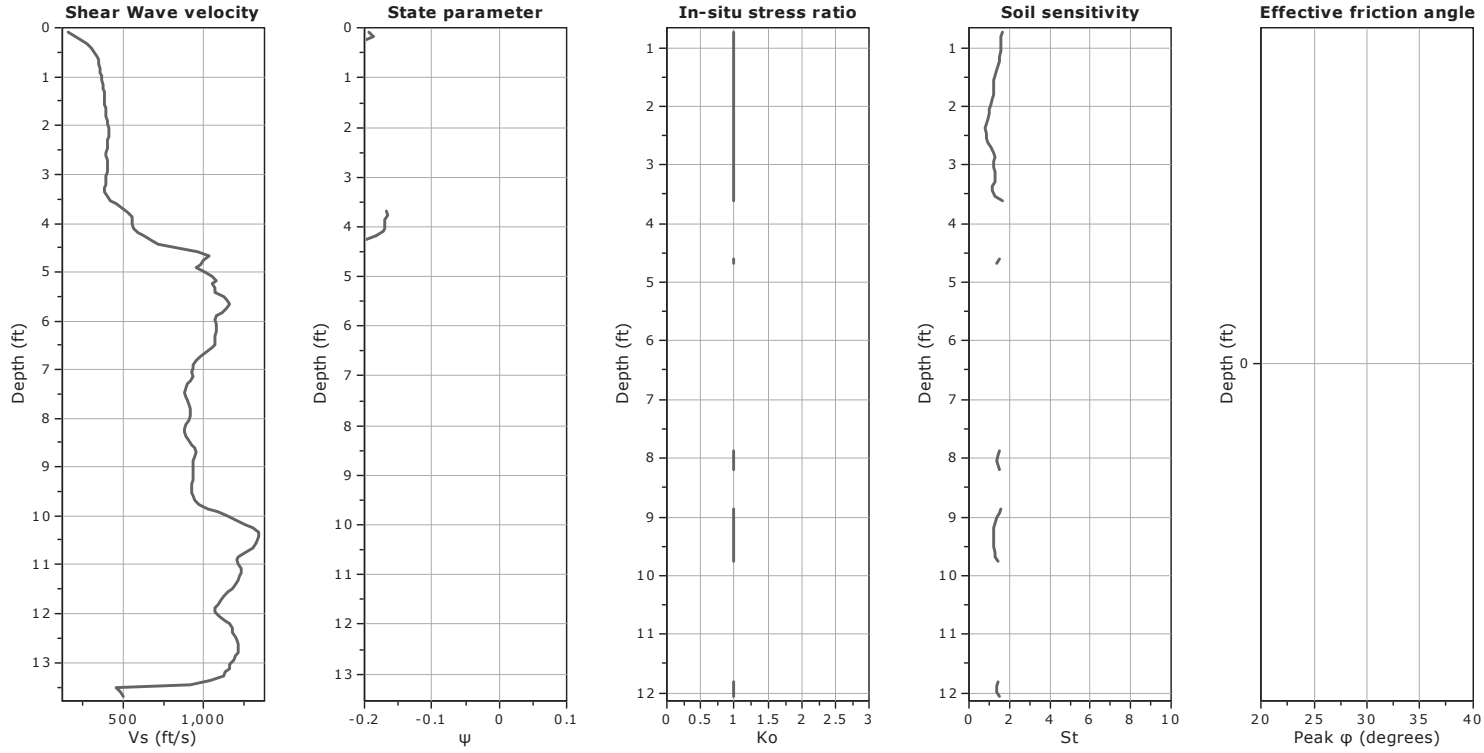
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-016
Total depth: 13.70 ft



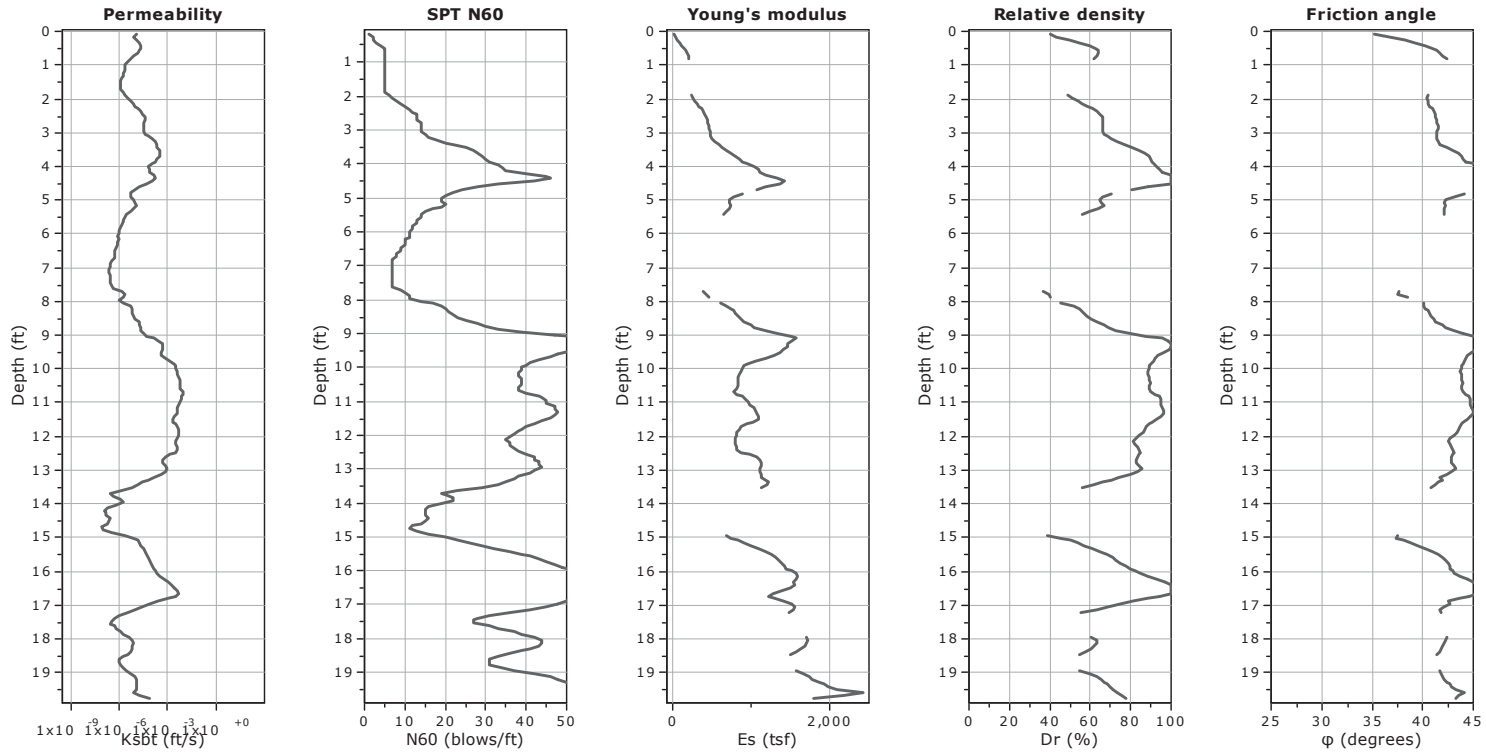
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-017
Total depth: 20.01 ft



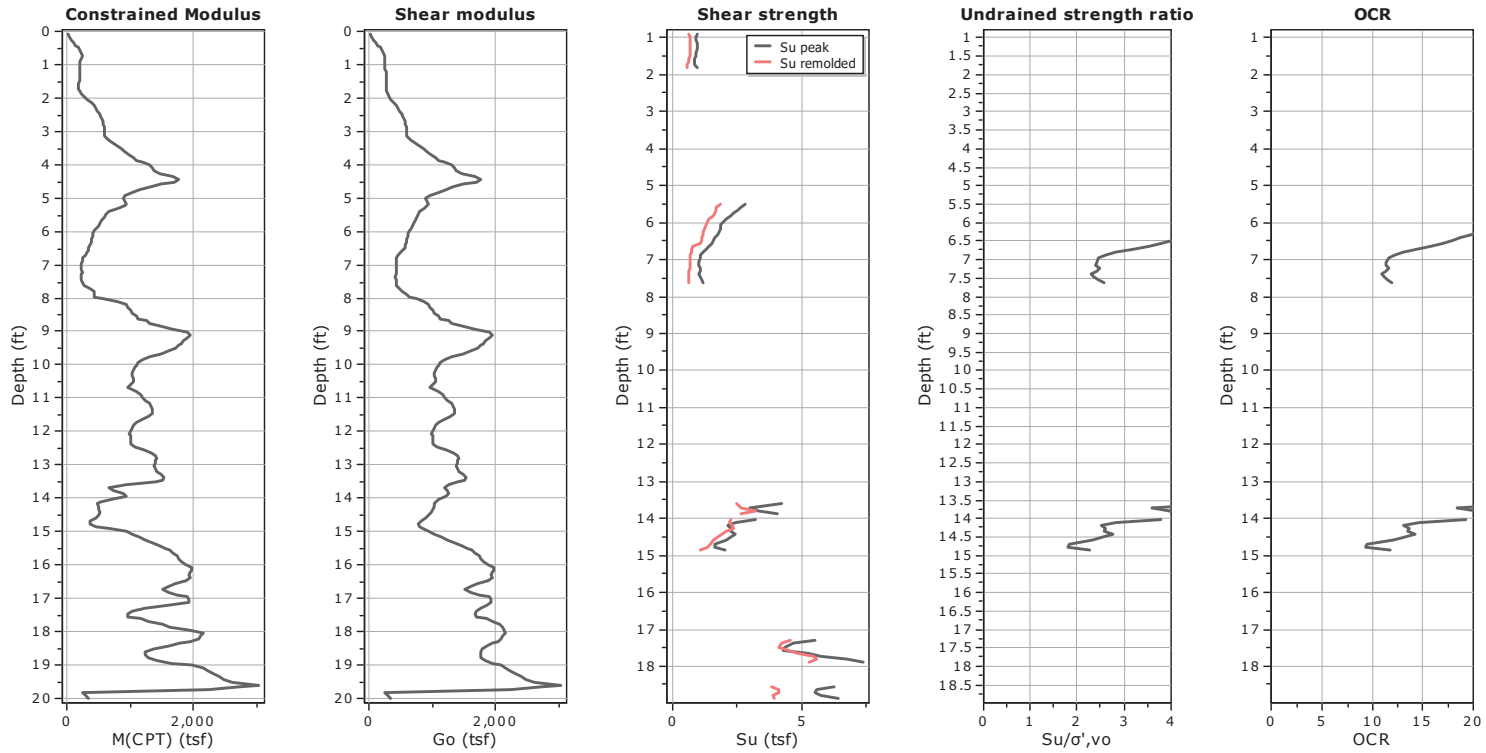
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-017
Total depth: 20.01 ft



Calculation parameters

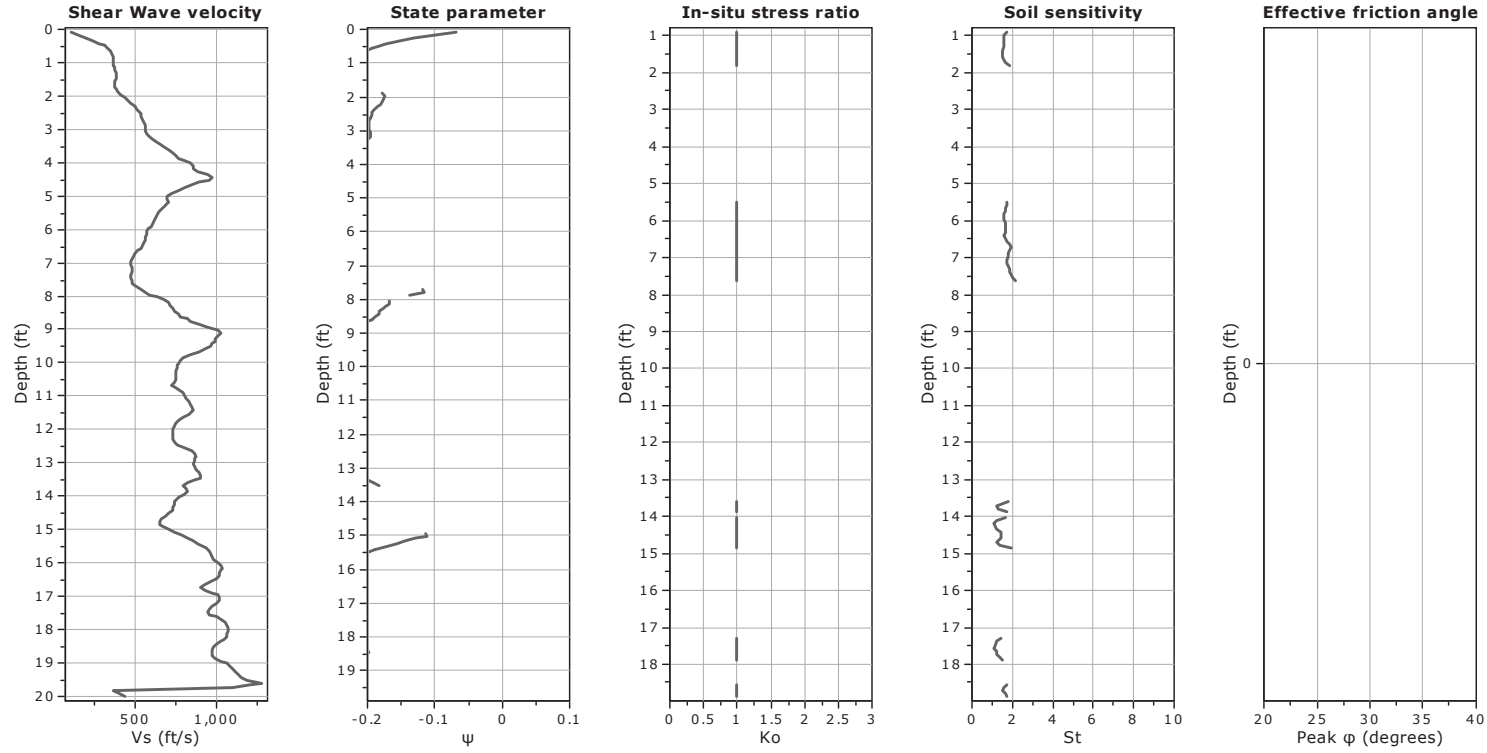
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-017
Total depth: 20.01 ft



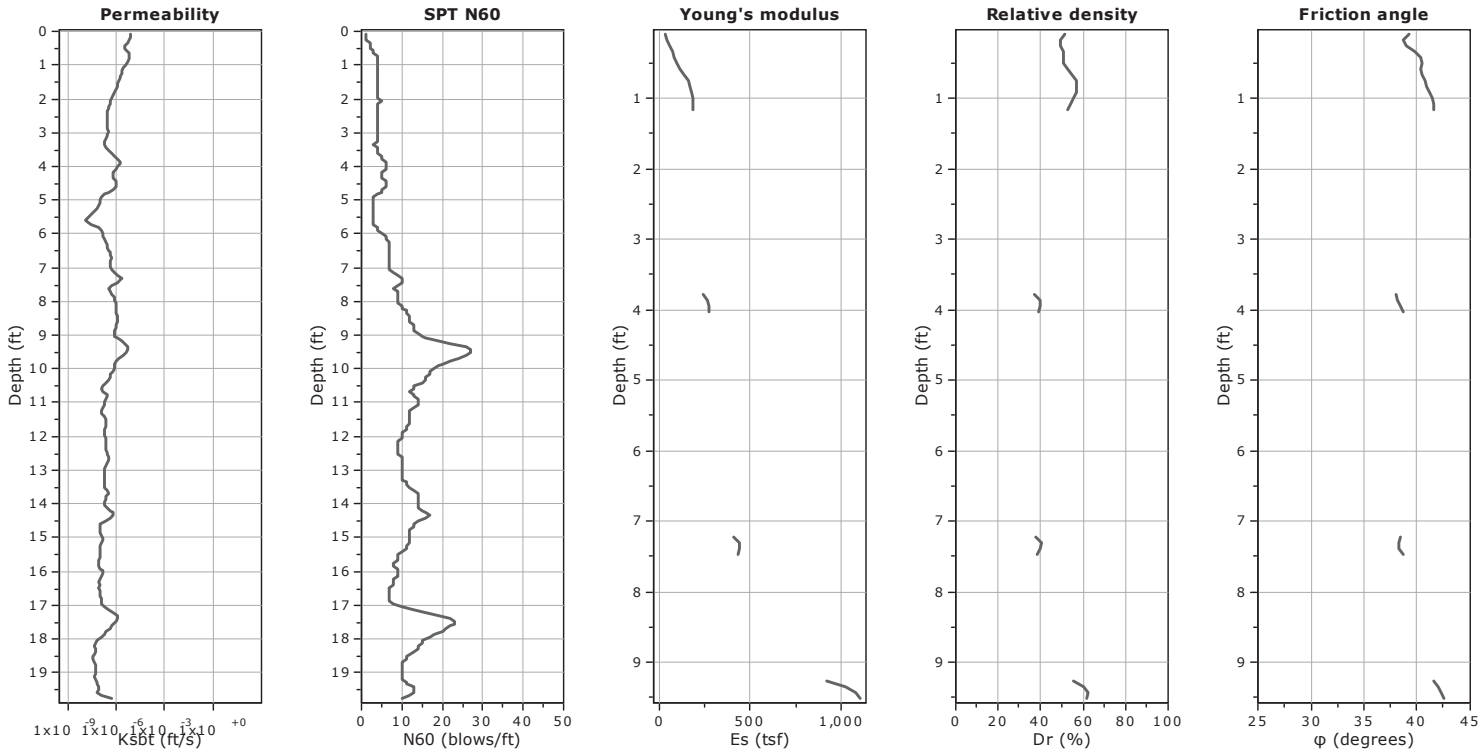
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-018
Total depth: 20.01 ft



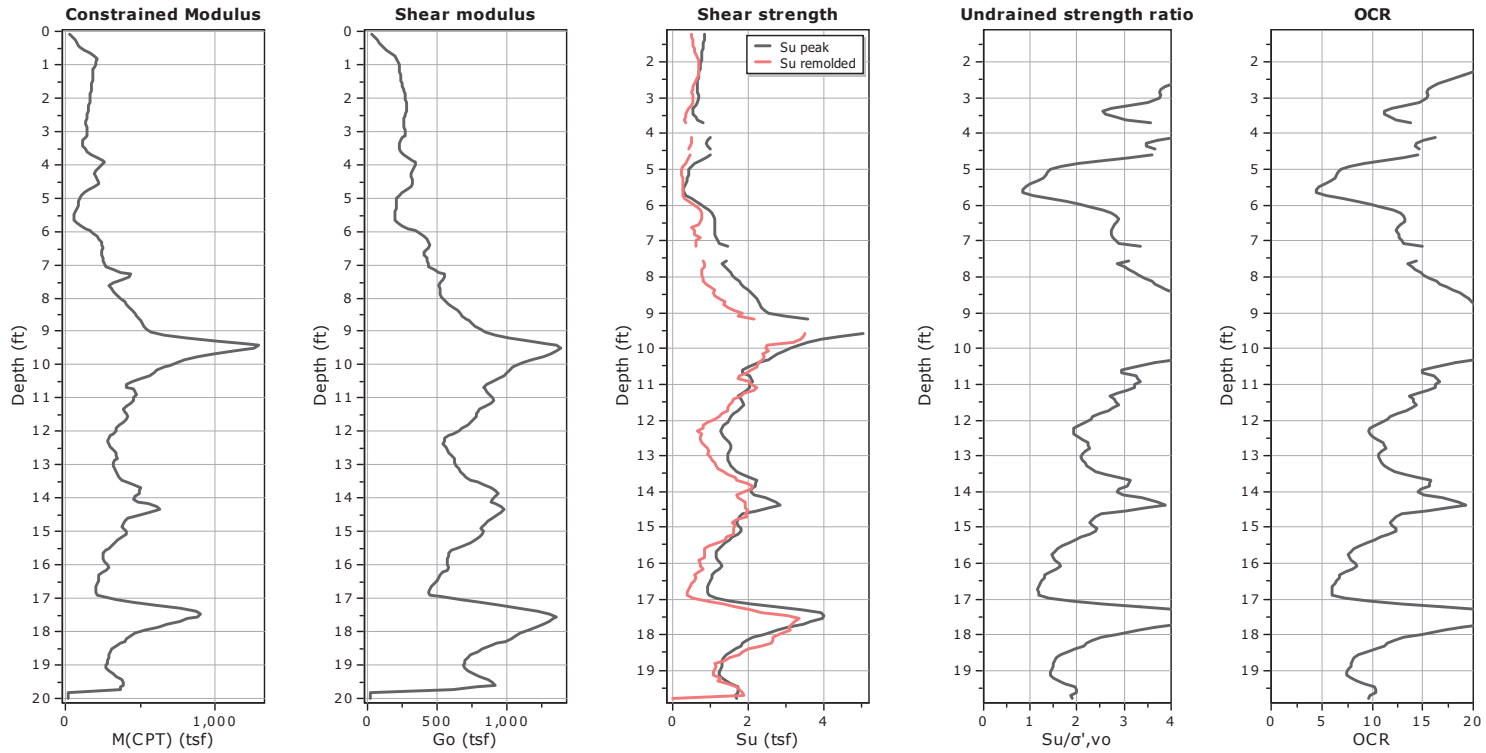
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-018
Total depth: 20.01 ft



Calculation parameters

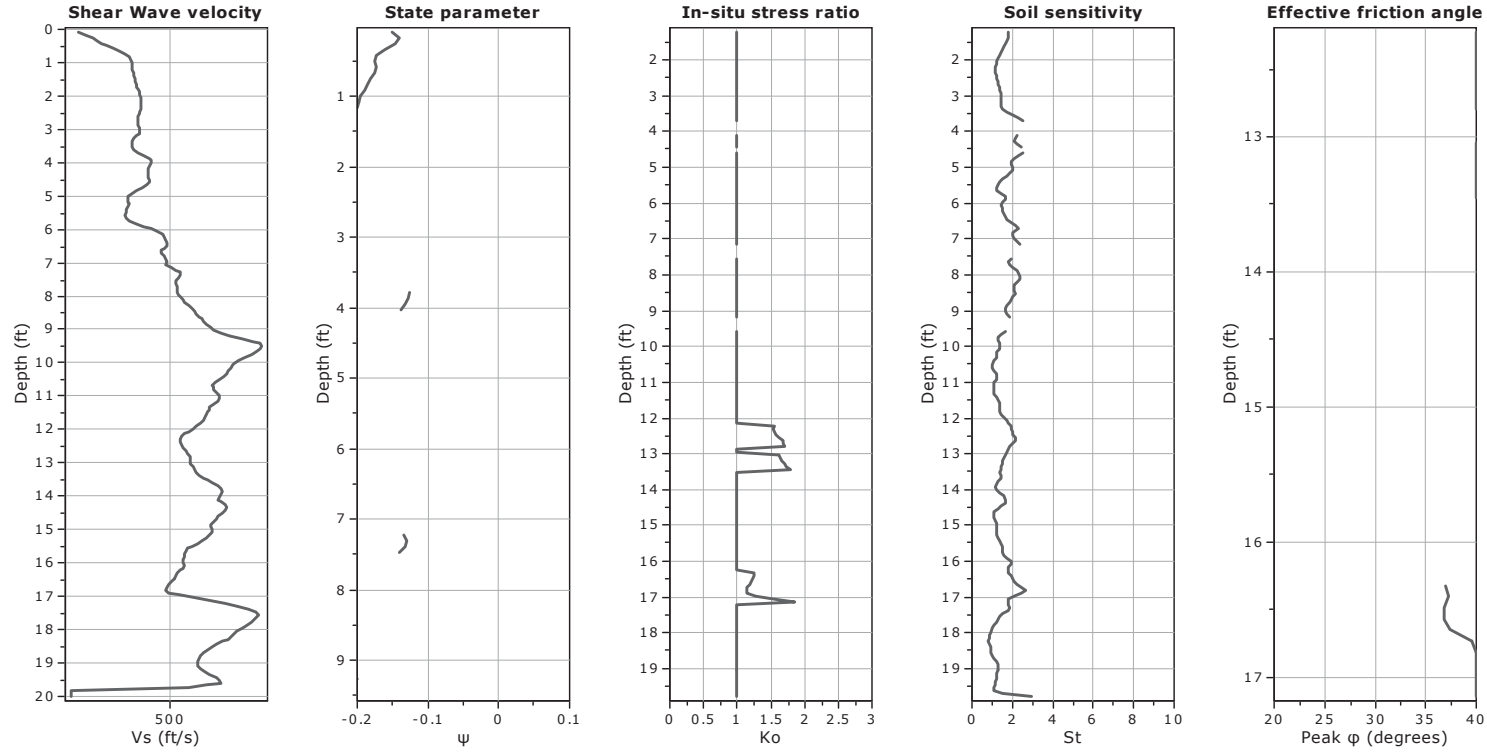
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-018
Total depth: 20.01 ft



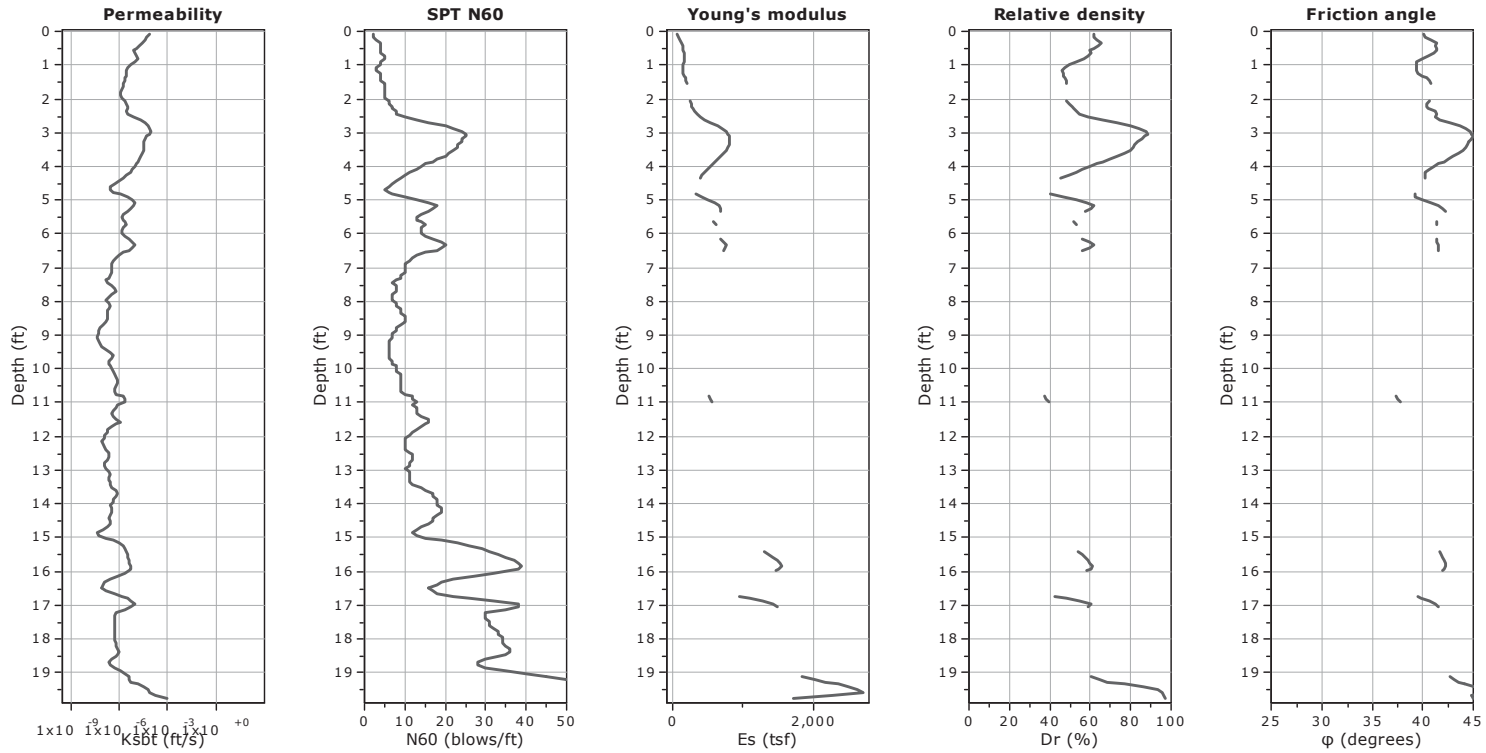
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-019
Total depth: 20.01 ft



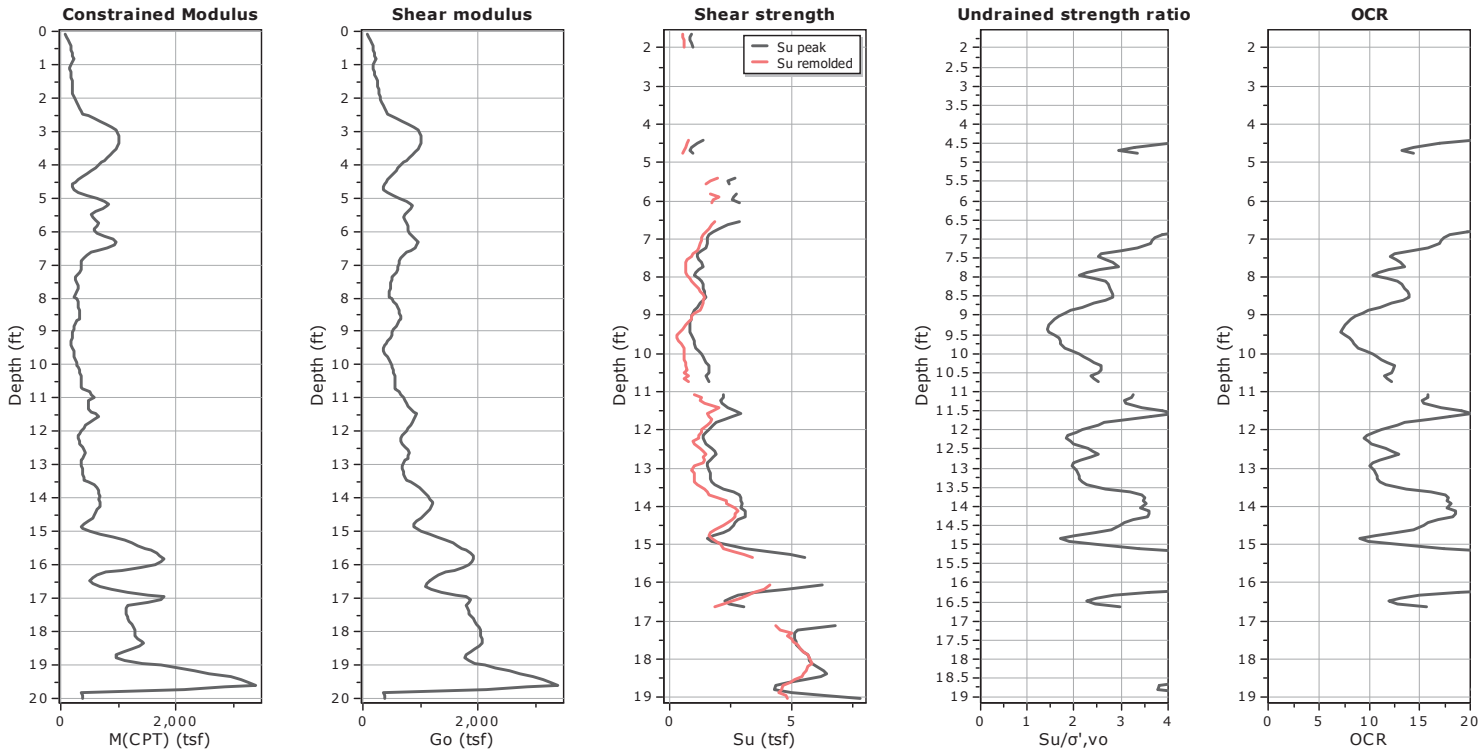
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-019
Total depth: 20.01 ft



Calculation parameters

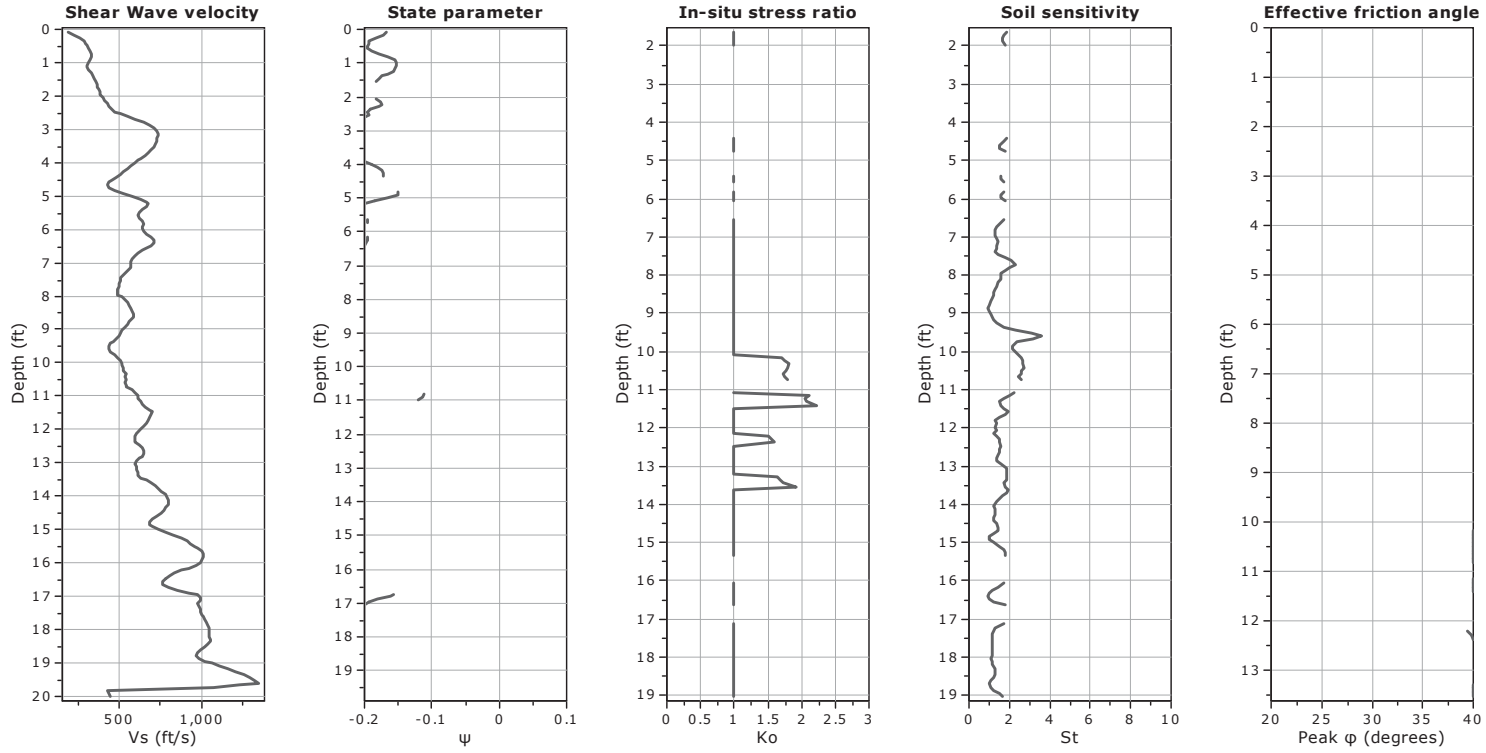
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-019
Total depth: 20.01 ft



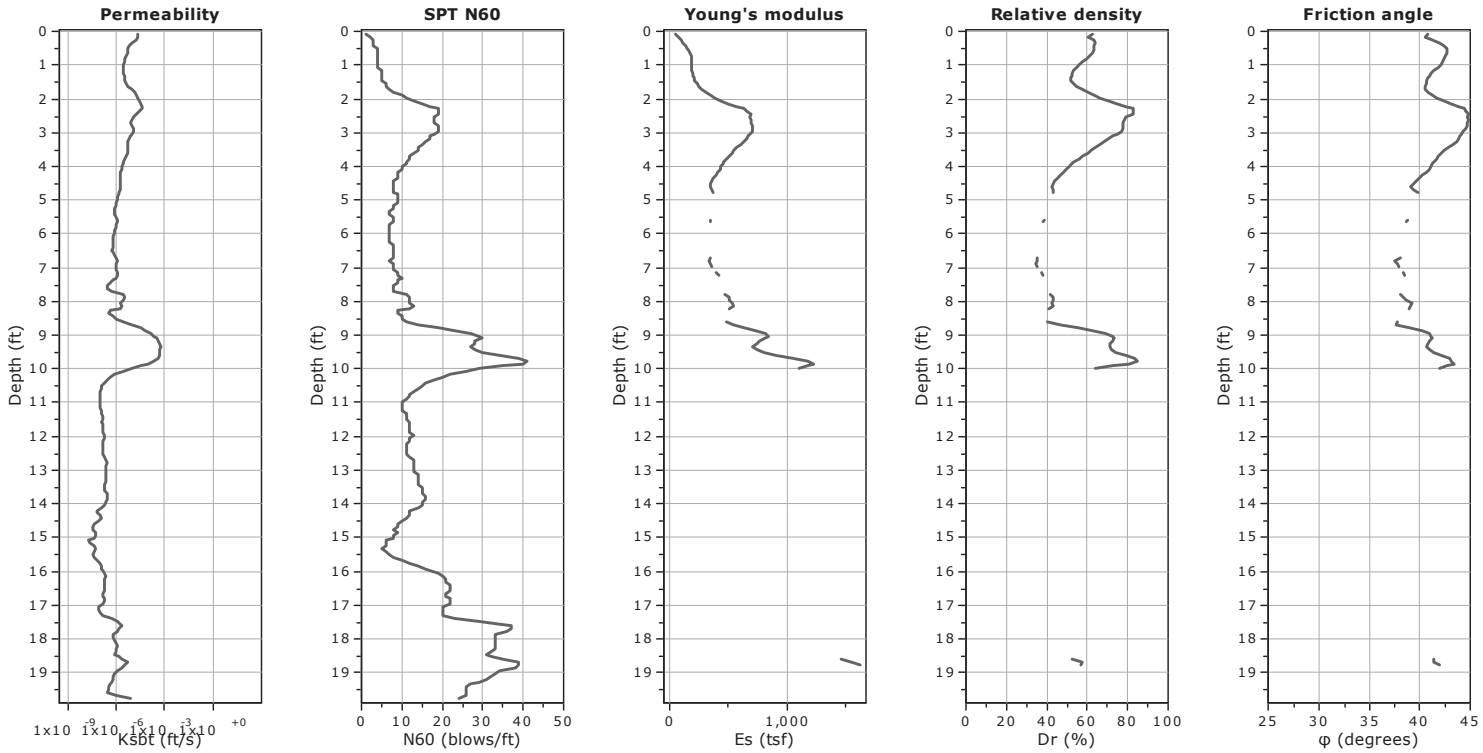
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-020
Total depth: 20.01 ft



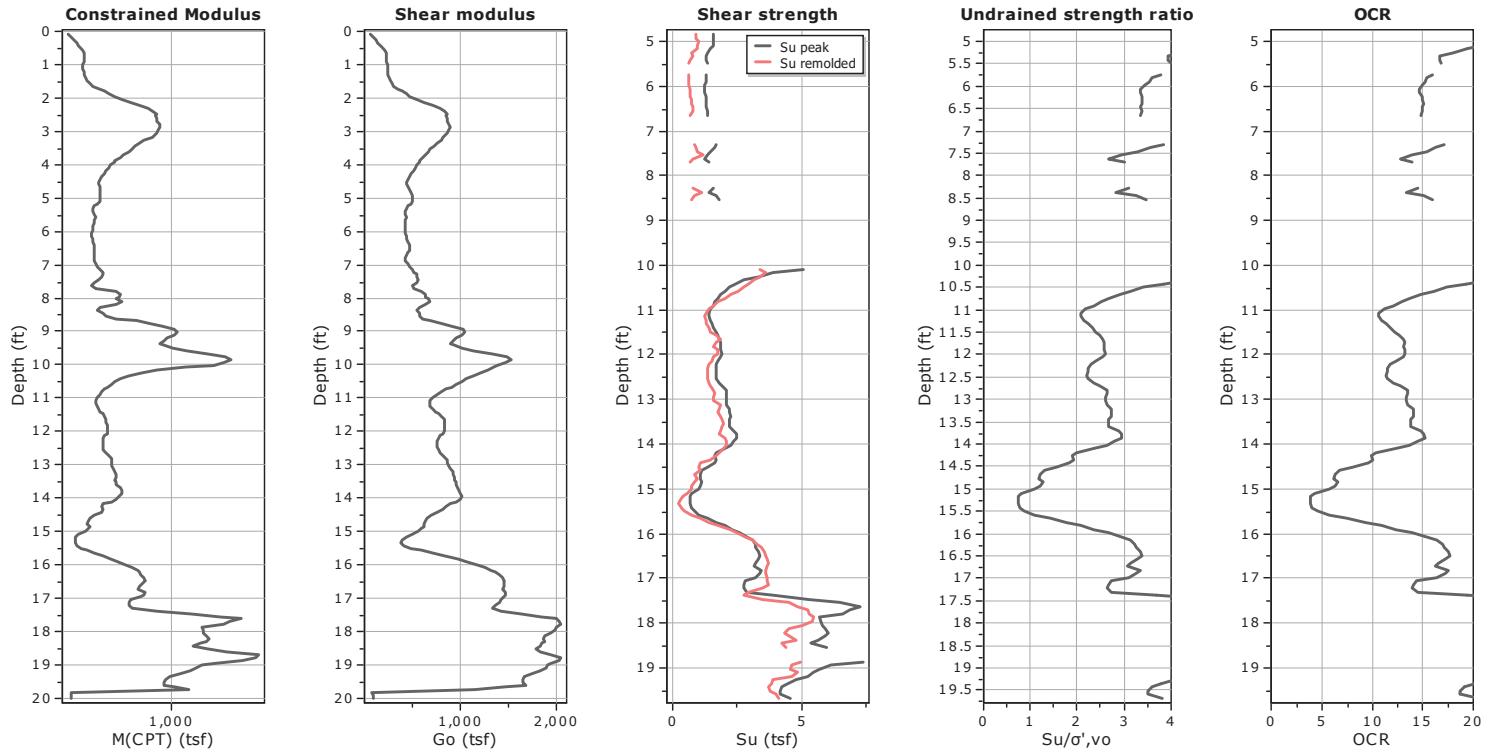
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-020
Total depth: 20.01 ft



Calculation parameters

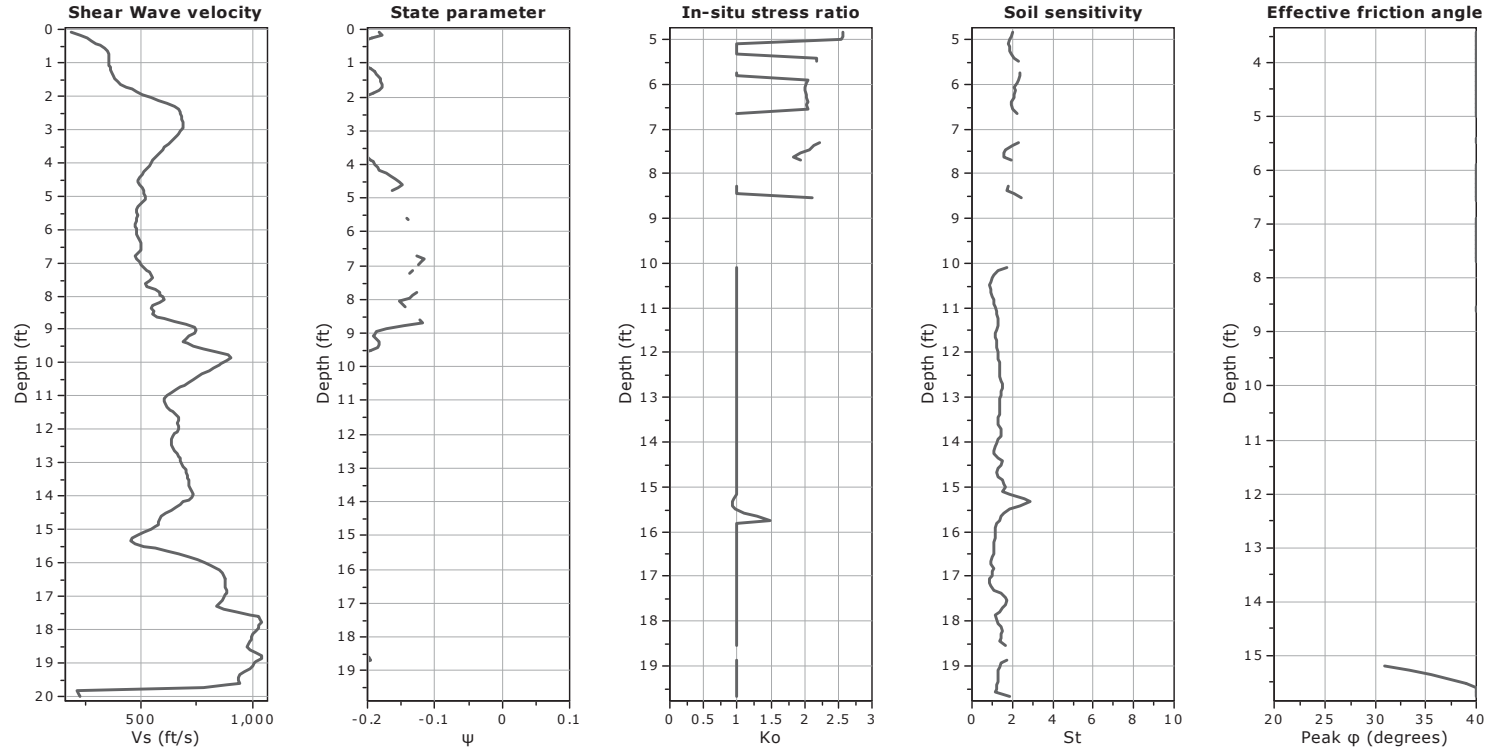
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-020
Total depth: 20.01 ft



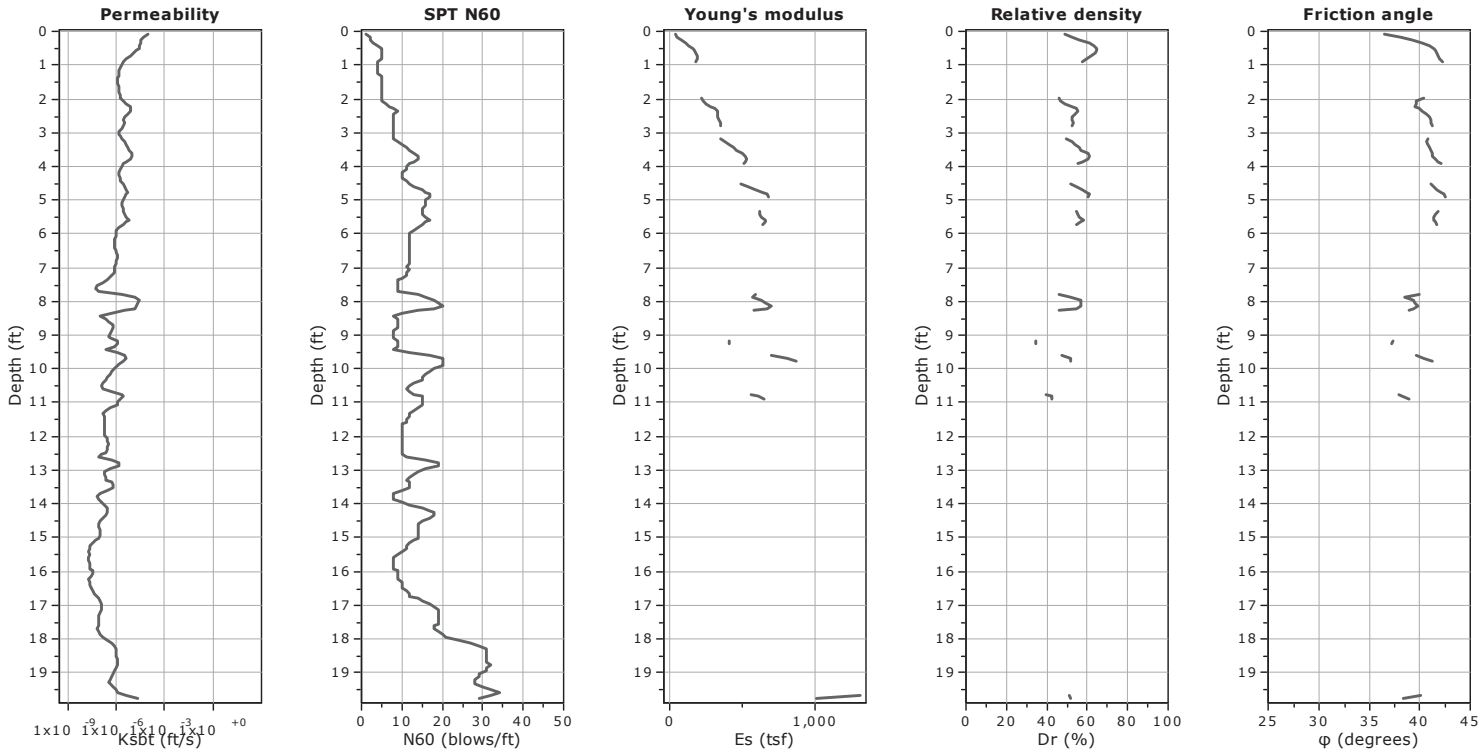
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-021
Total depth: 20.01 ft



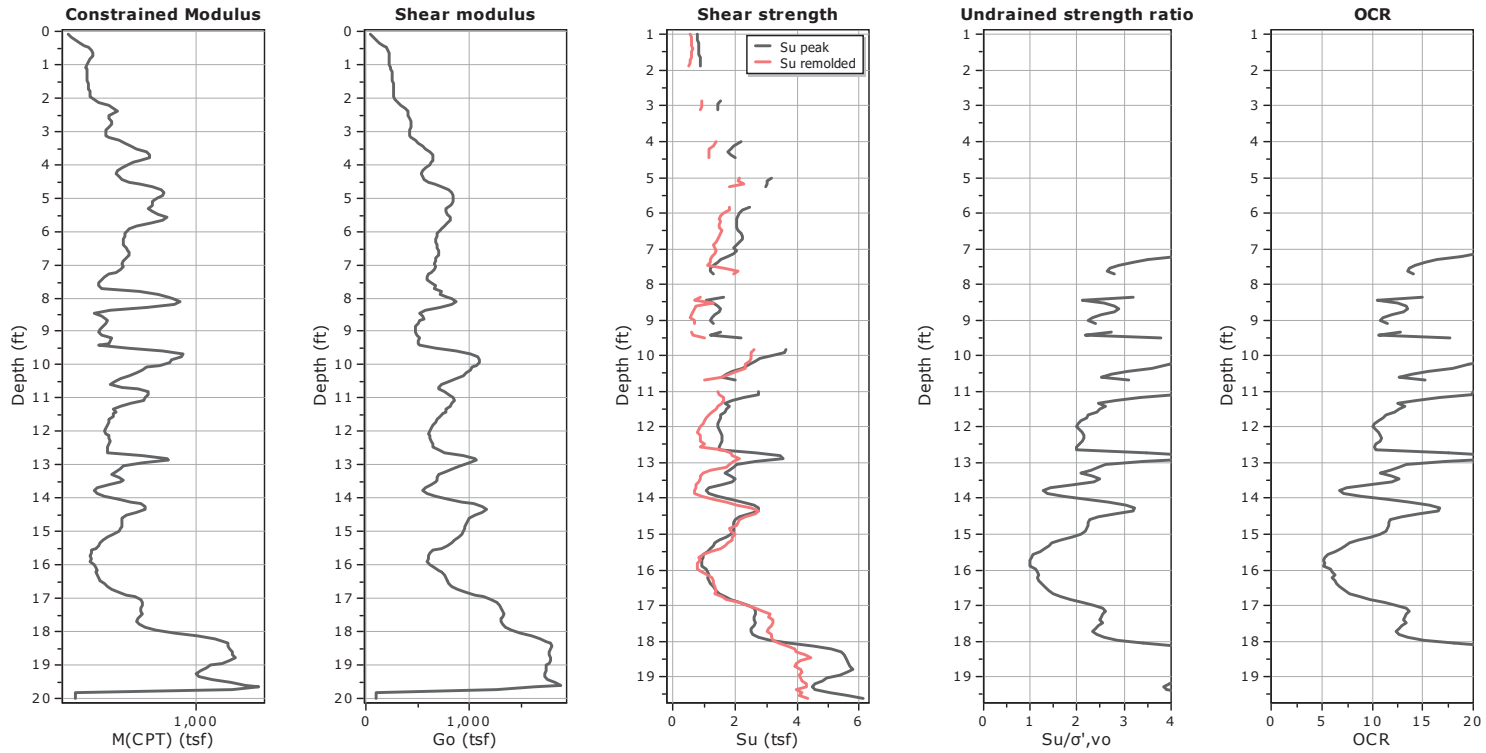
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-021
Total depth: 20.01 ft



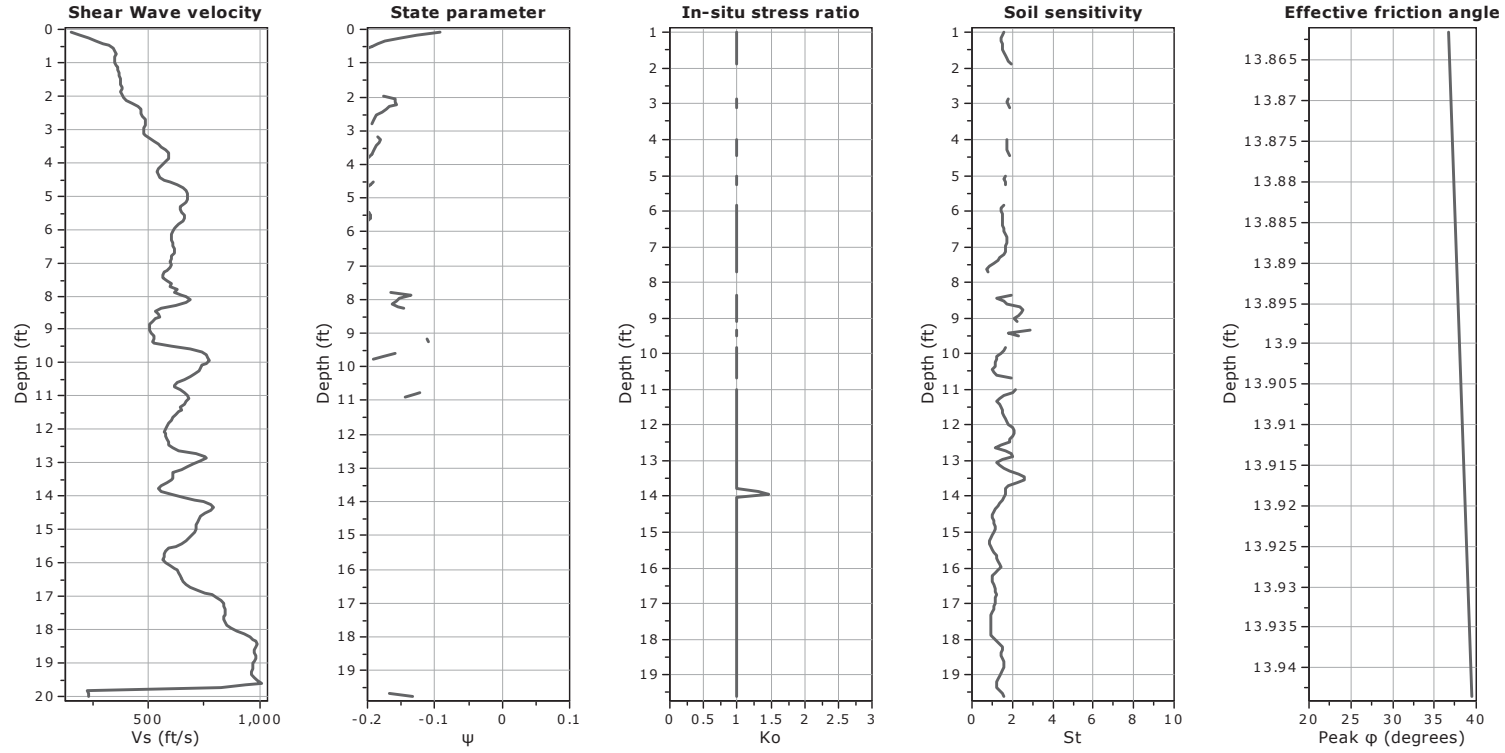
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-021
Total depth: 20.01 ft



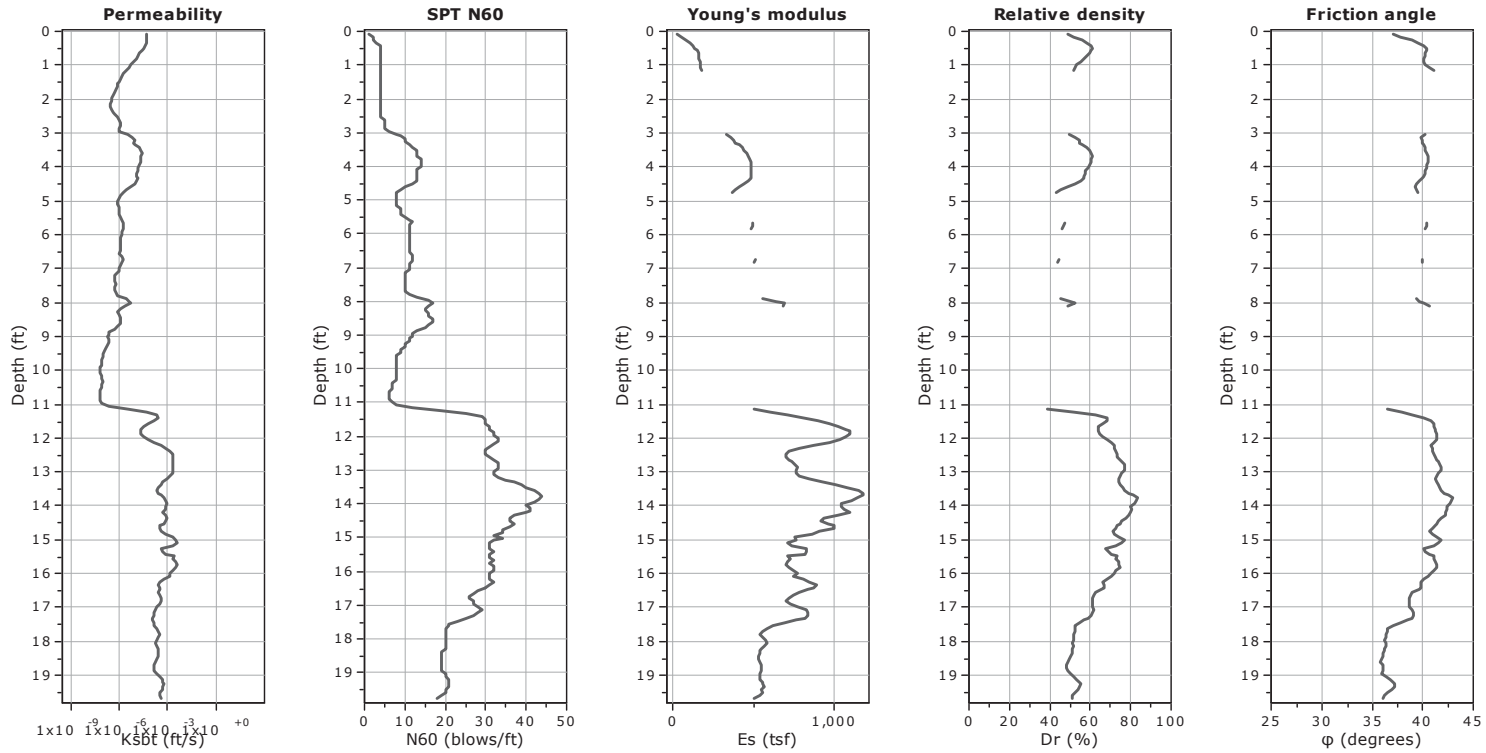
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-022
Total depth: 20.01 ft



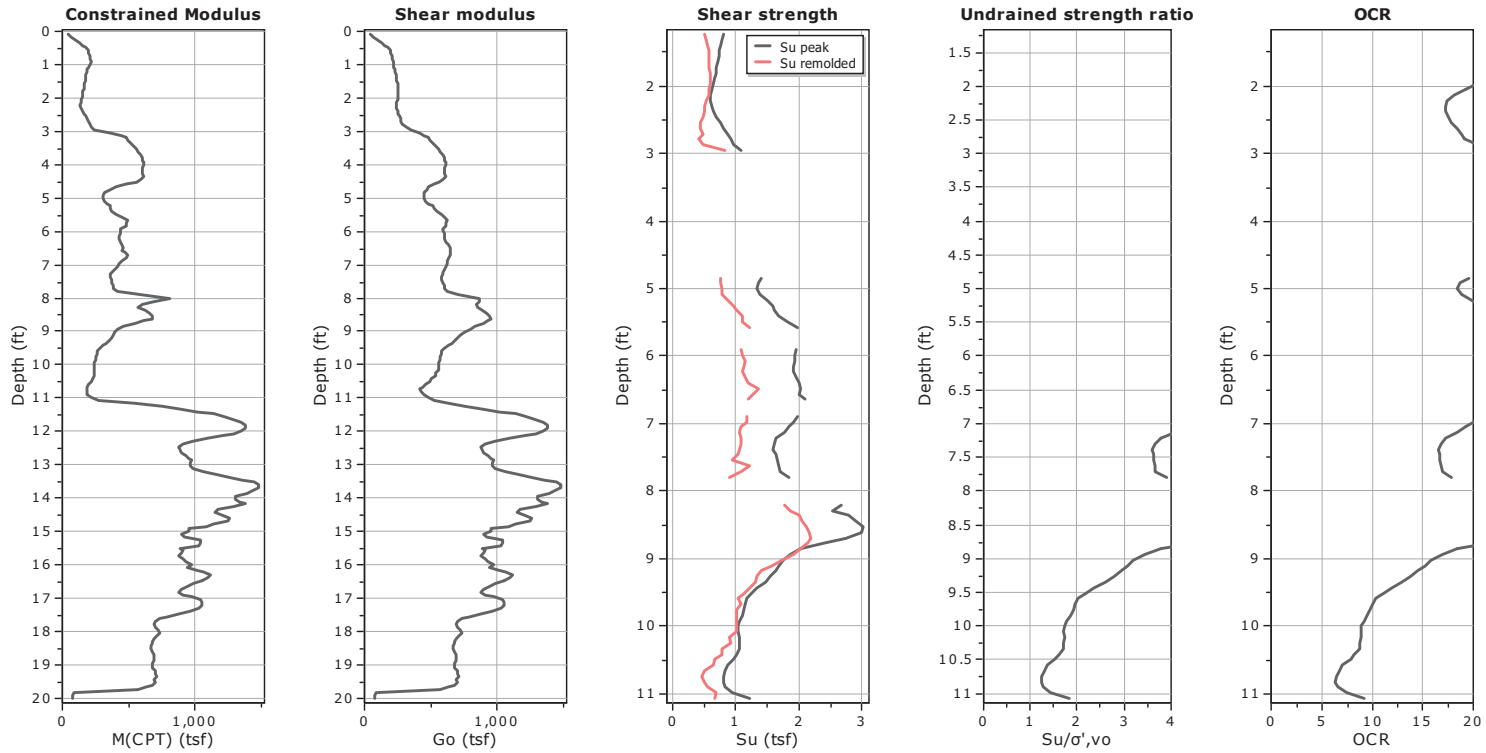
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-022
Total depth: 20.01 ft



Calculation parameters

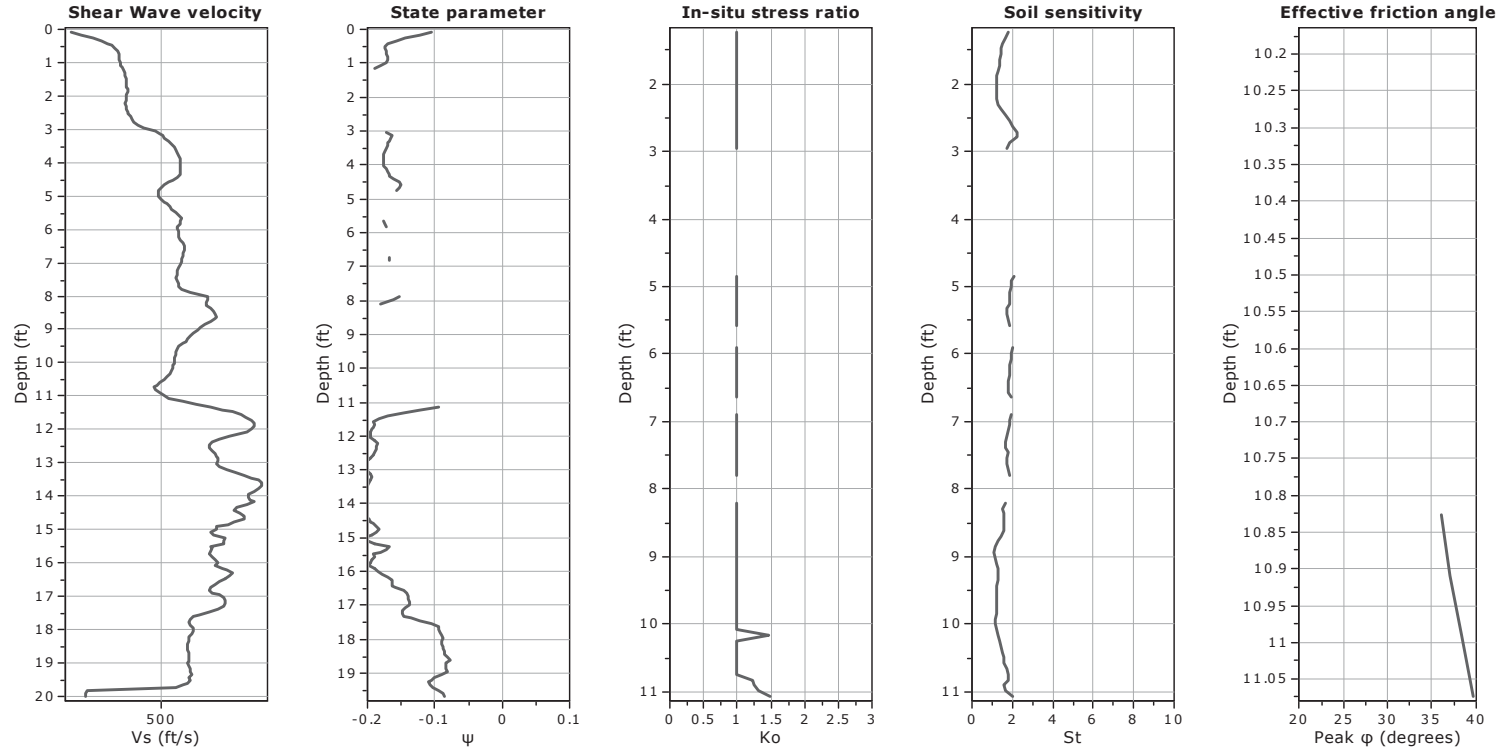
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-022
Total depth: 20.01 ft



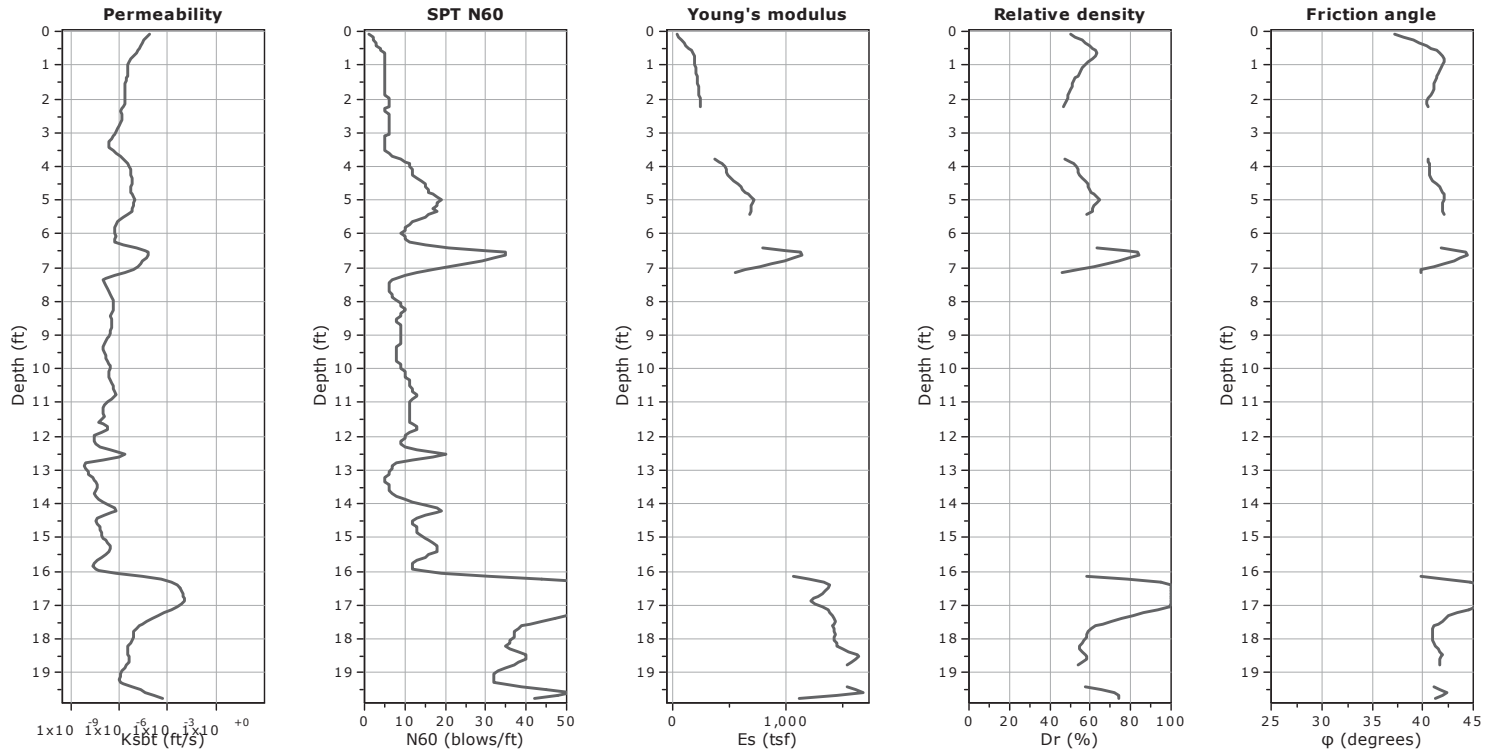
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-023
Total depth: 20.01 ft



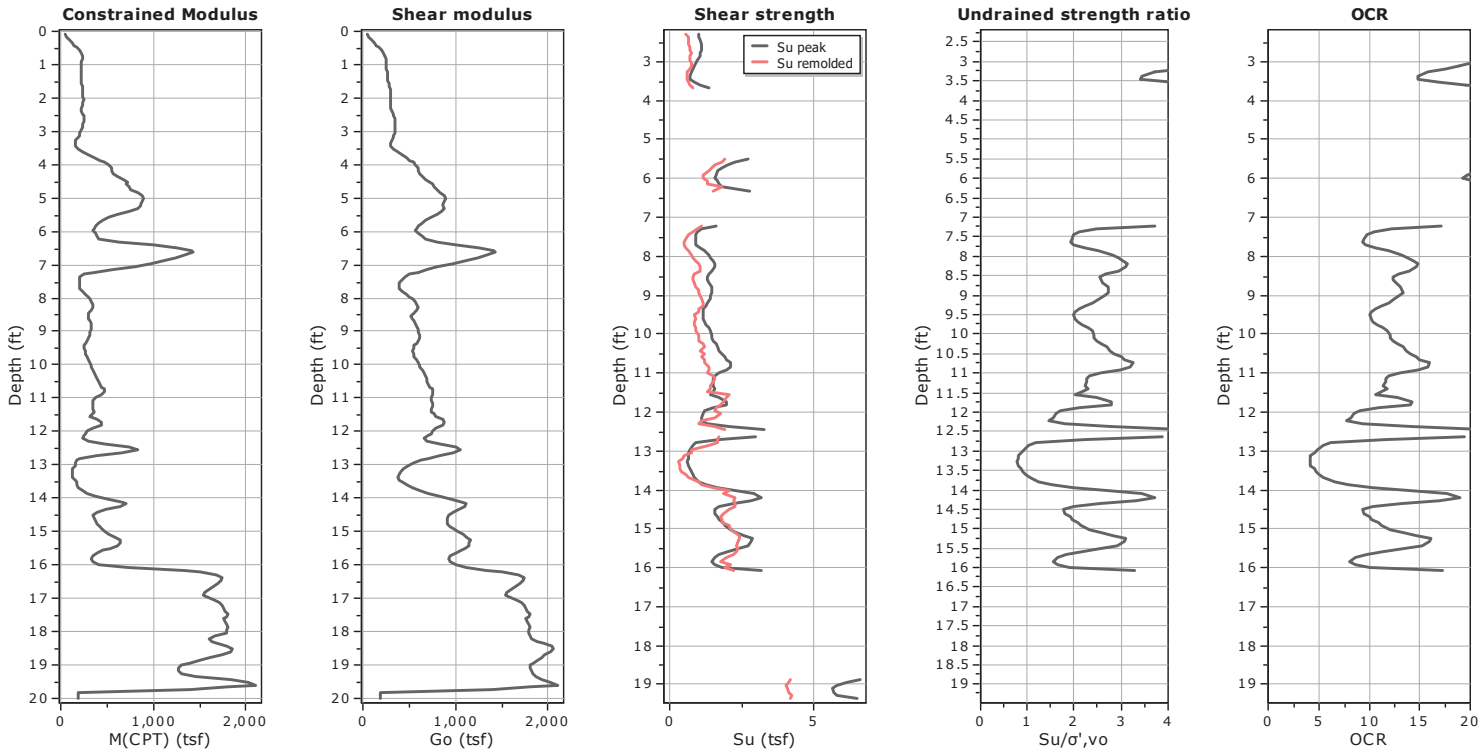
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-023
Total depth: 20.01 ft



Calculation parameters

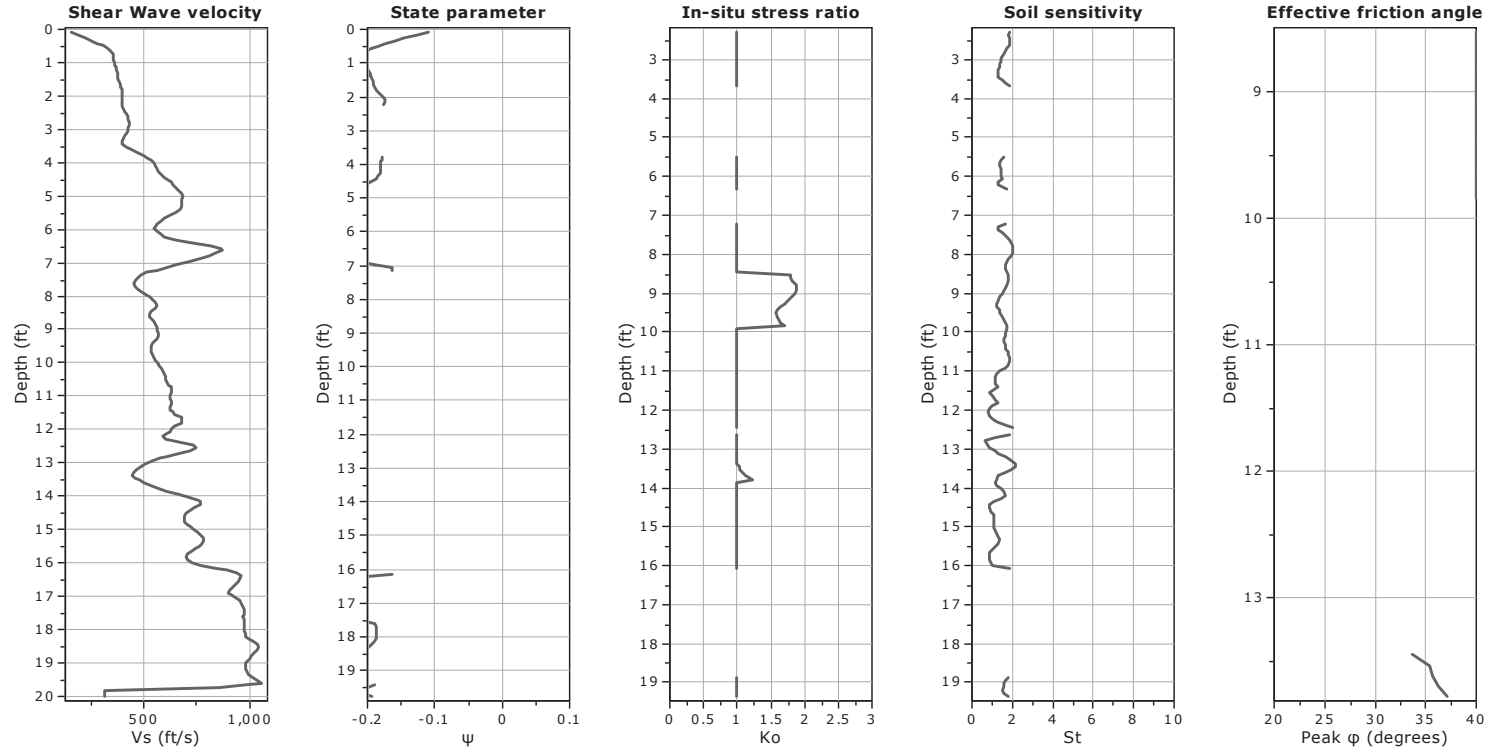
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-023
Total depth: 20.01 ft



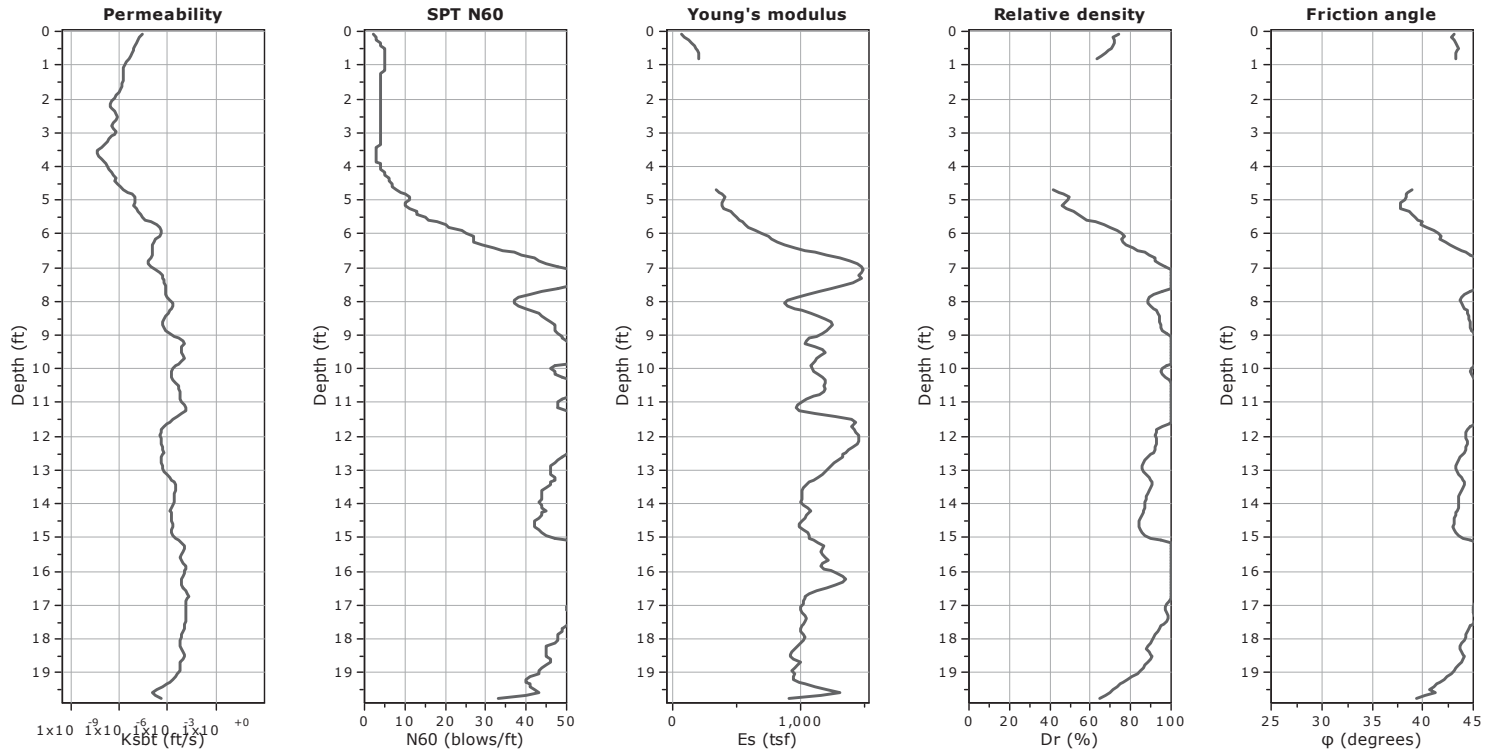
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-024
Total depth: 20.01 ft



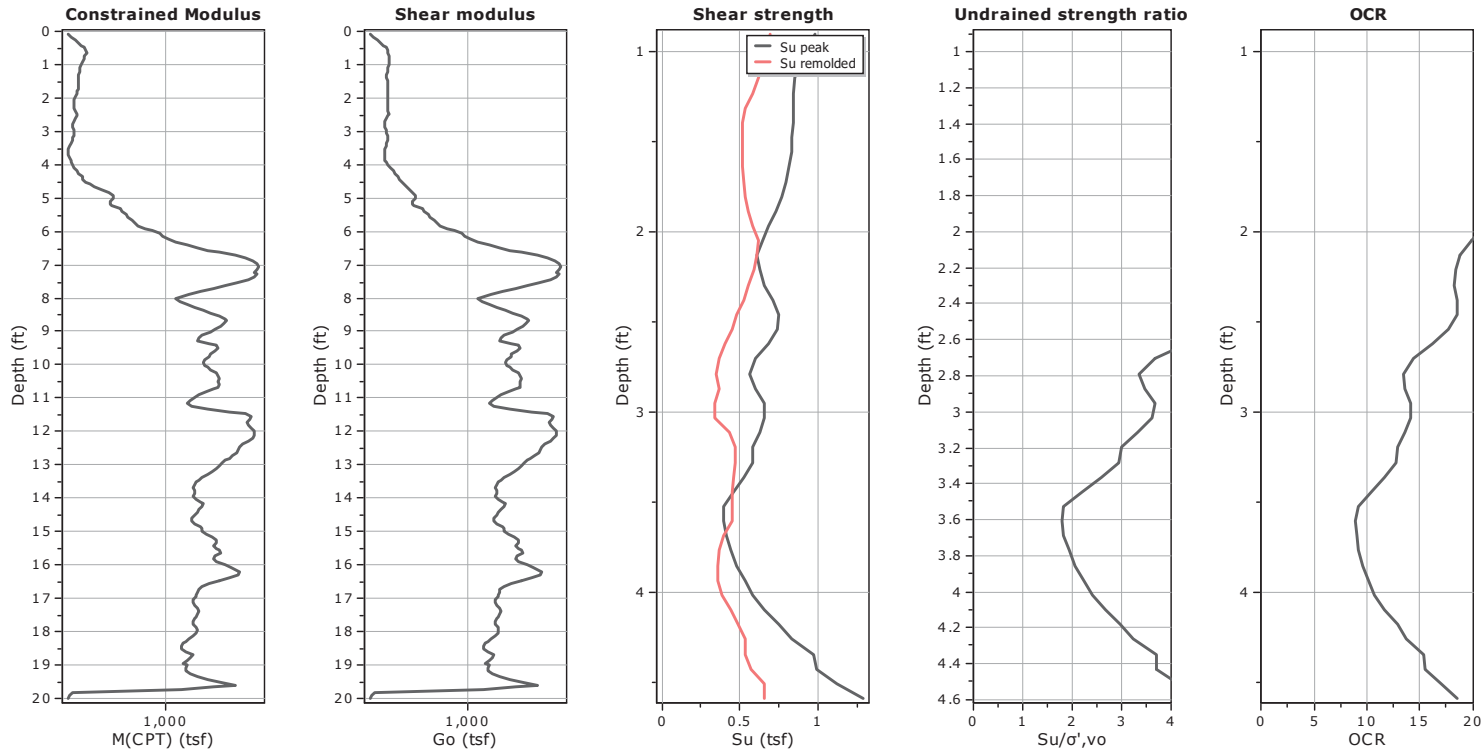
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-024
Total depth: 20.01 ft



Calculation parameters

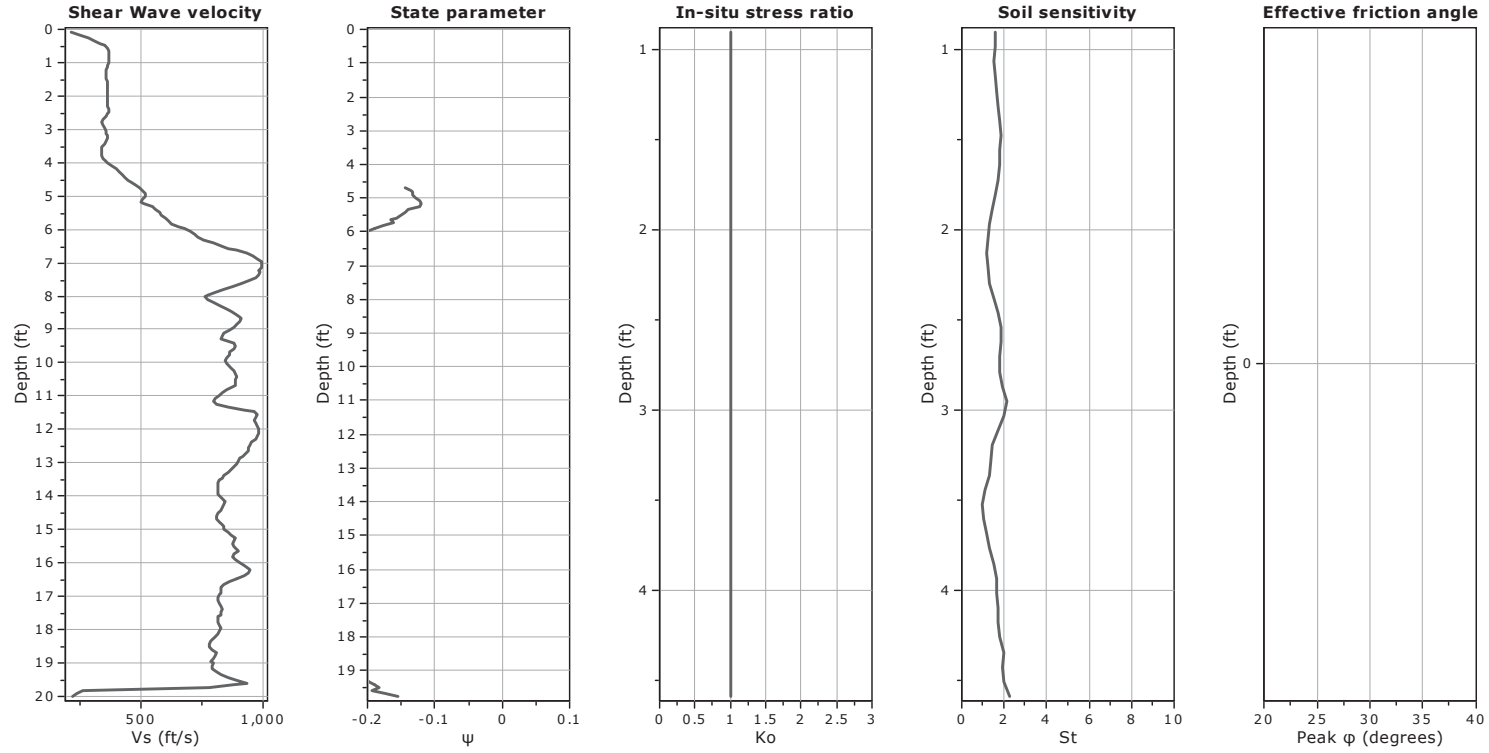
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-024
Total depth: 20.01 ft



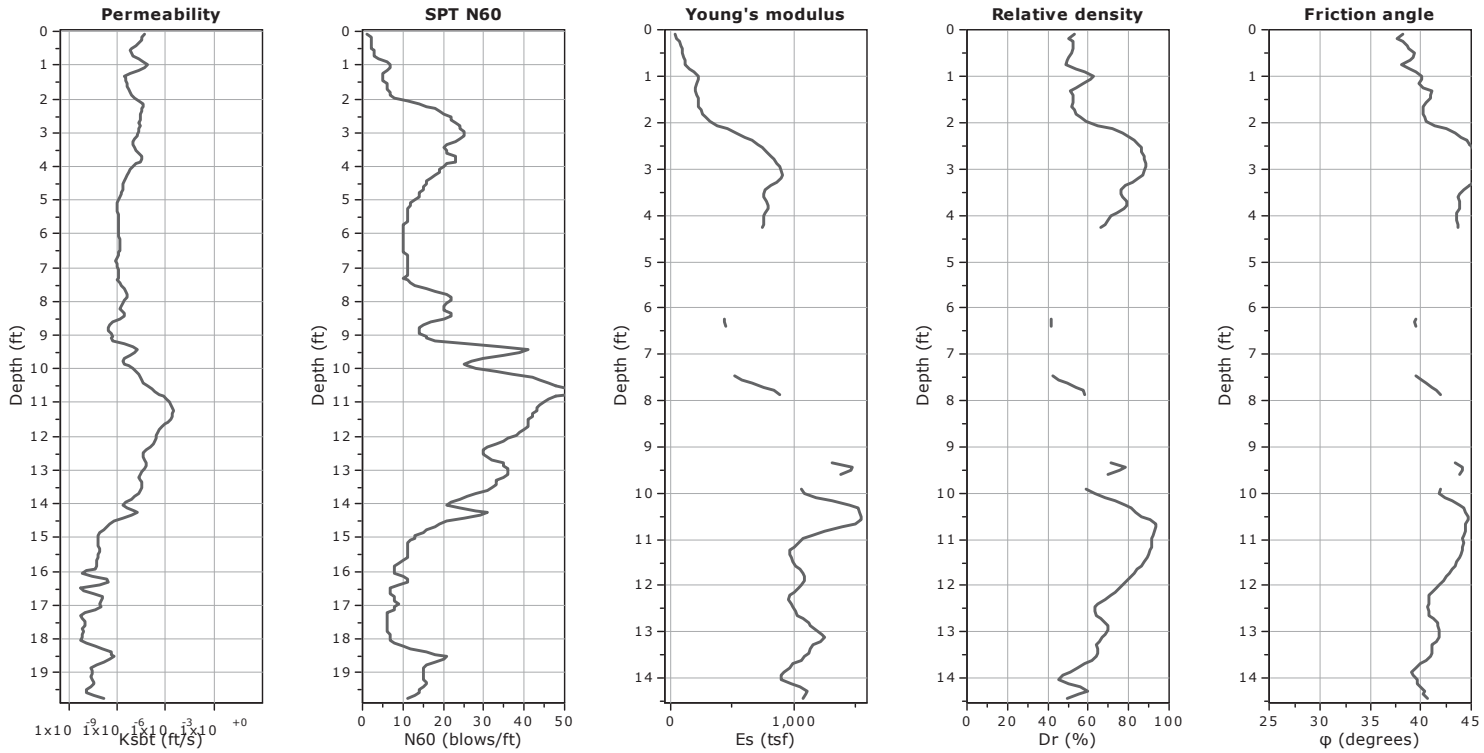
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-025
Total depth: 20.01 ft



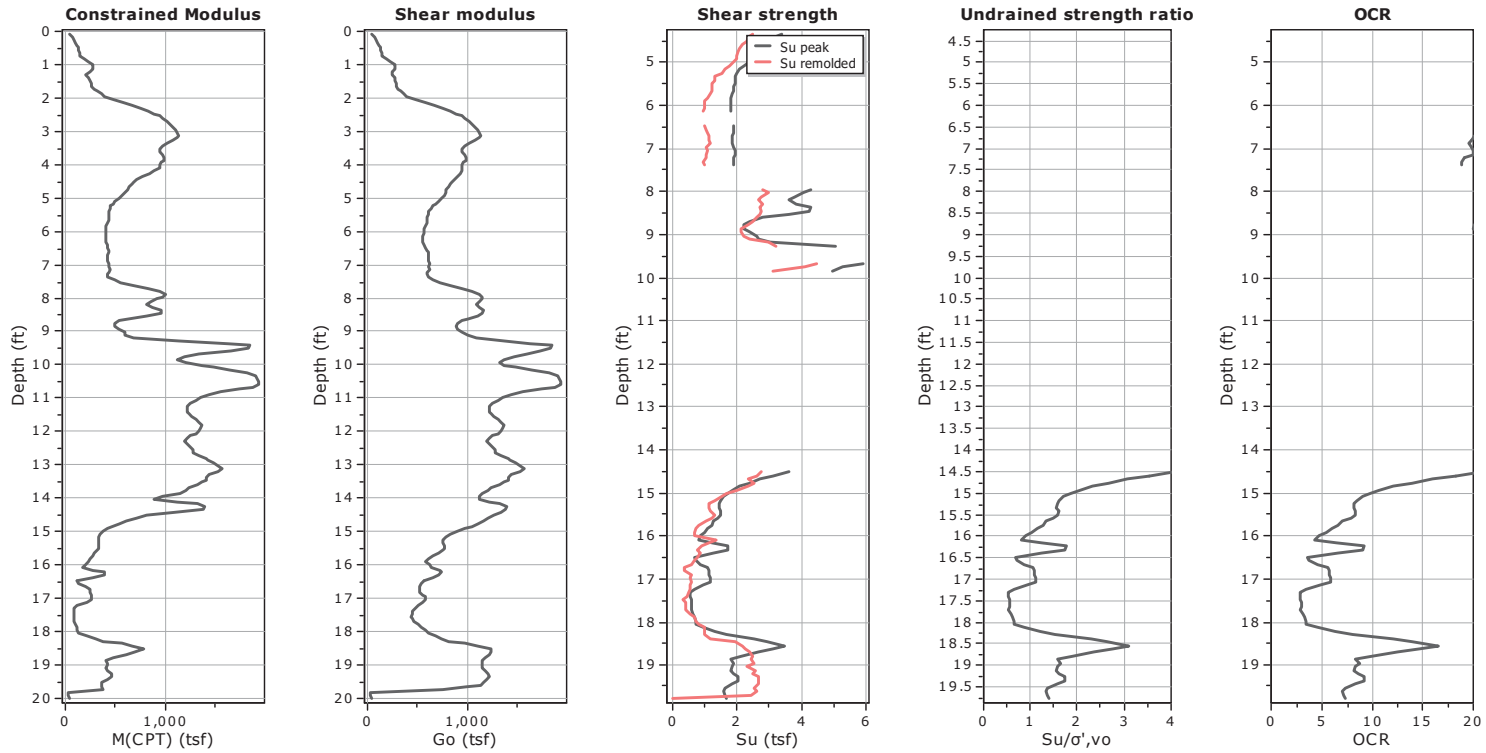
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-025
Total depth: 20.01 ft



Calculation parameters

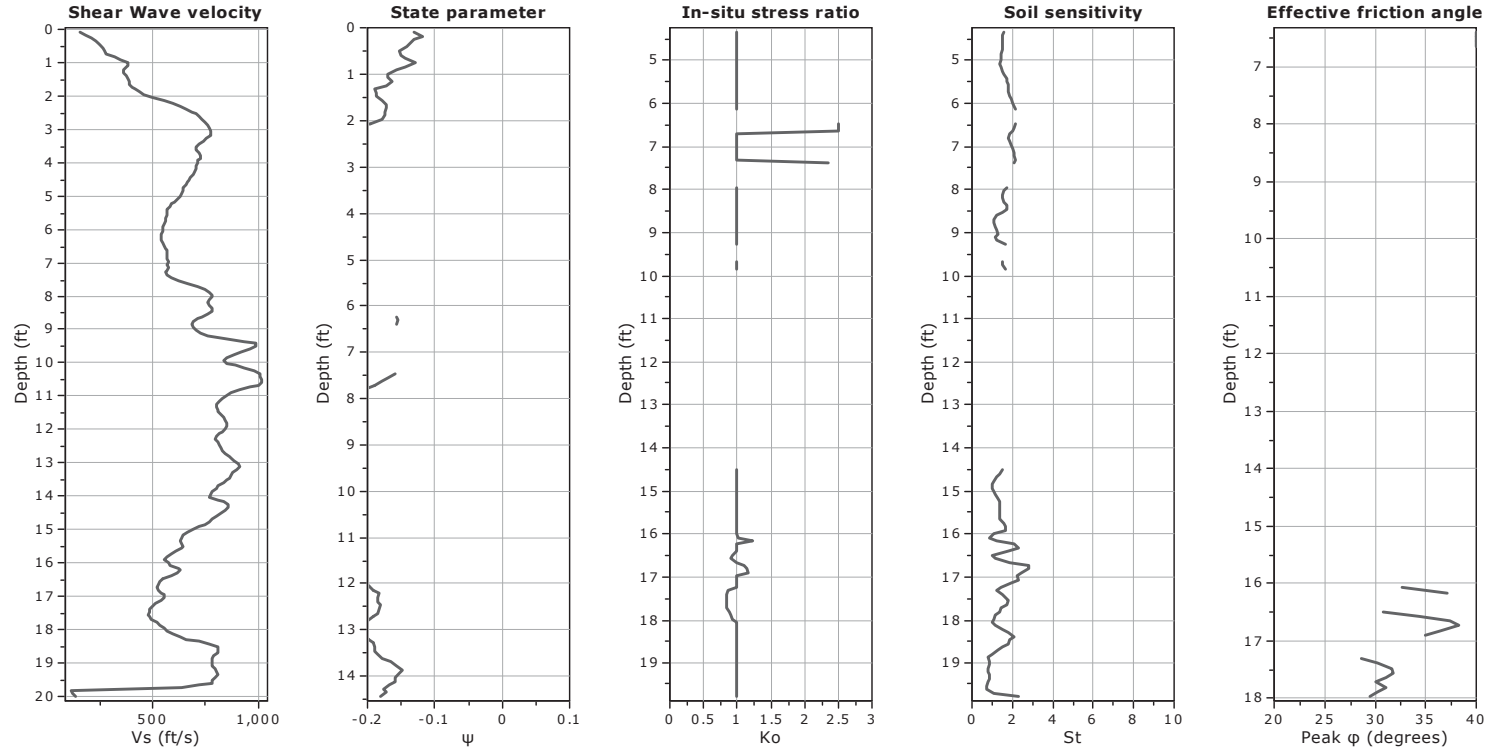
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-025
Total depth: 20.01 ft



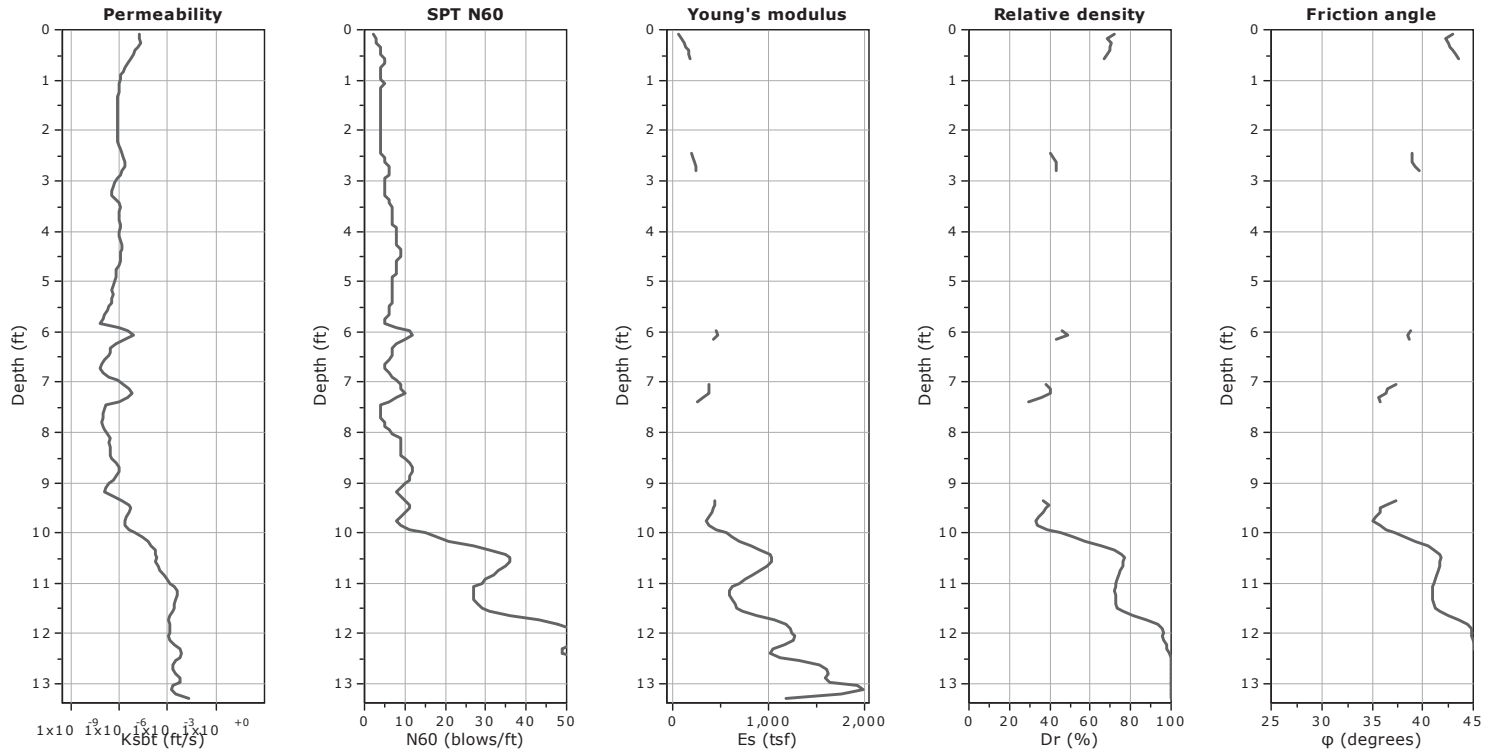
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-026
Total depth: 13.53 ft



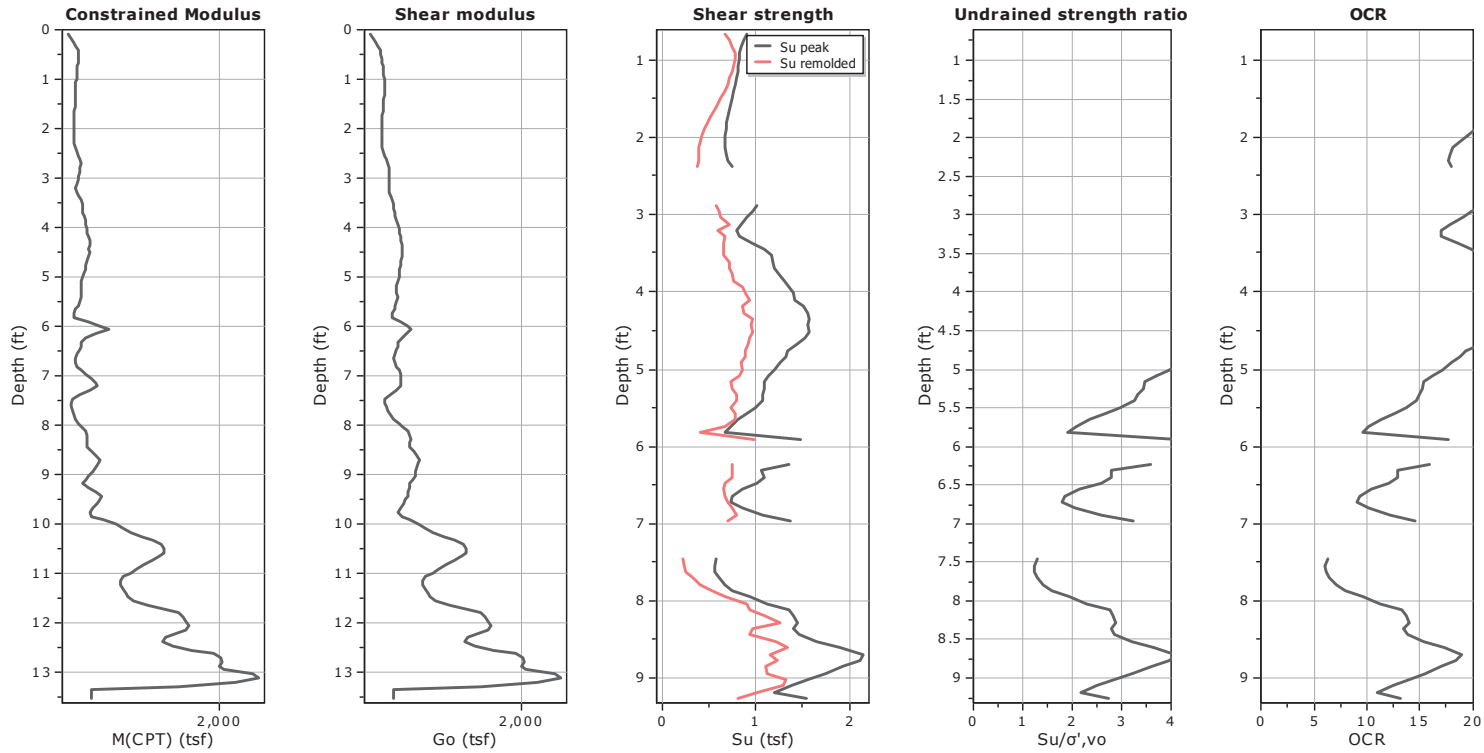
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-026
Total depth: 13.53 ft



Calculation parameters

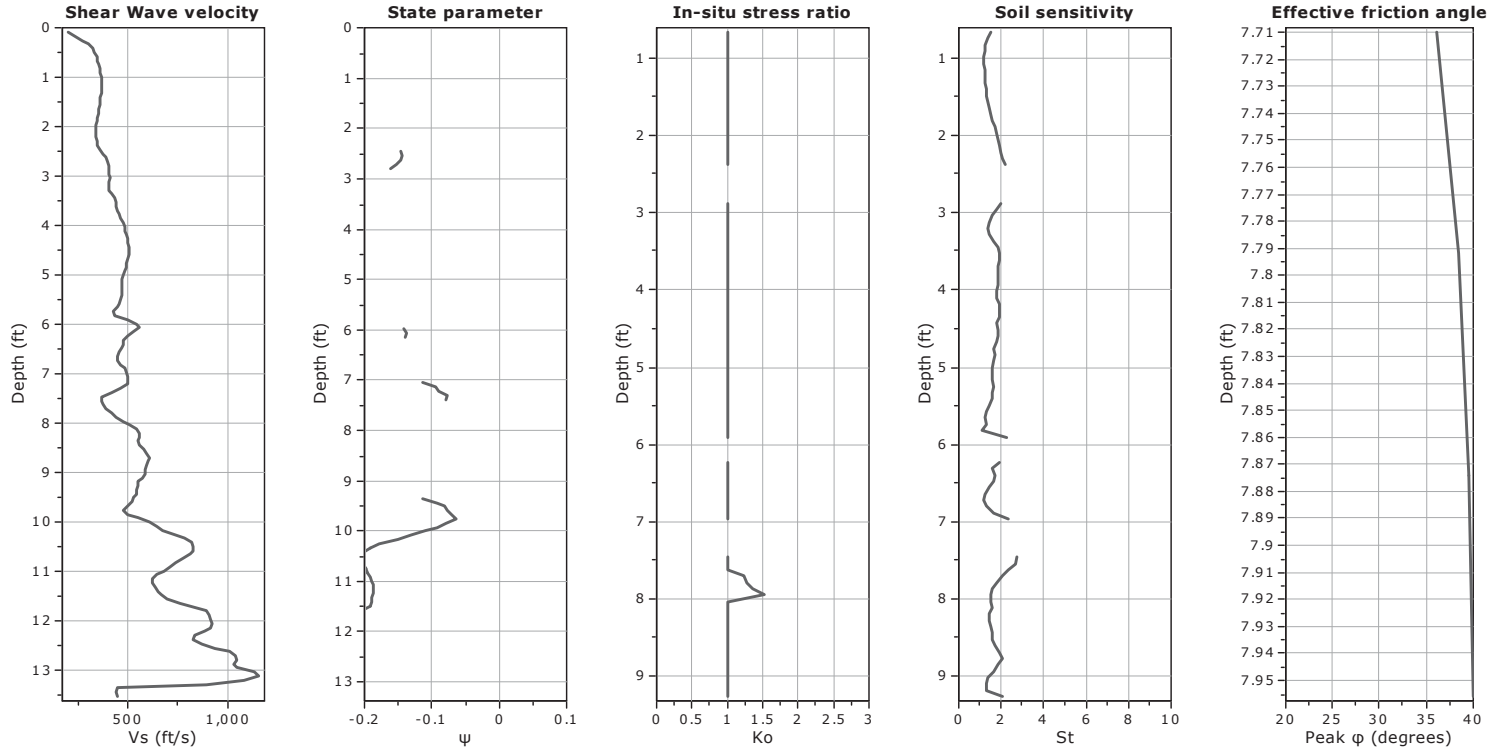
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-026
Total depth: 13.53 ft



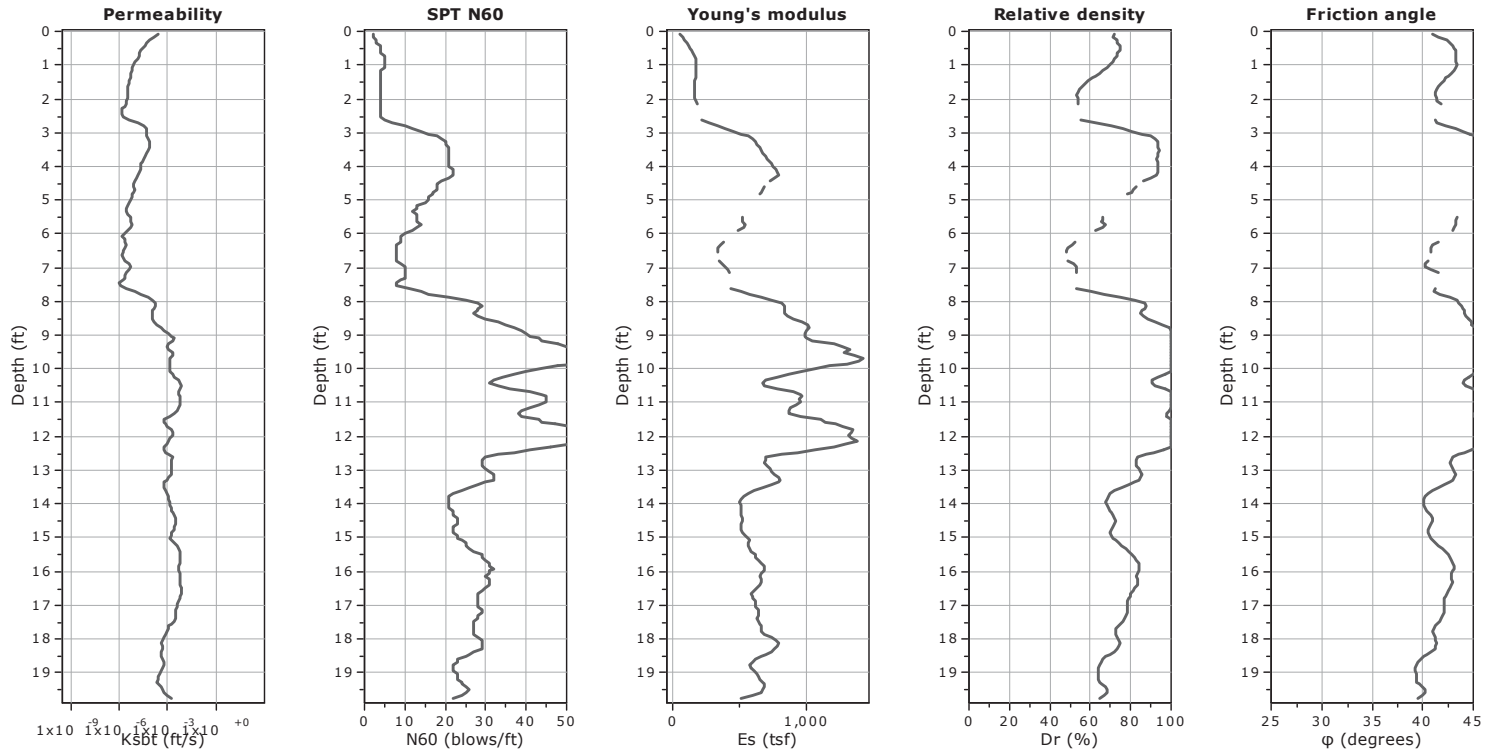
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-027
Total depth: 20.01 ft



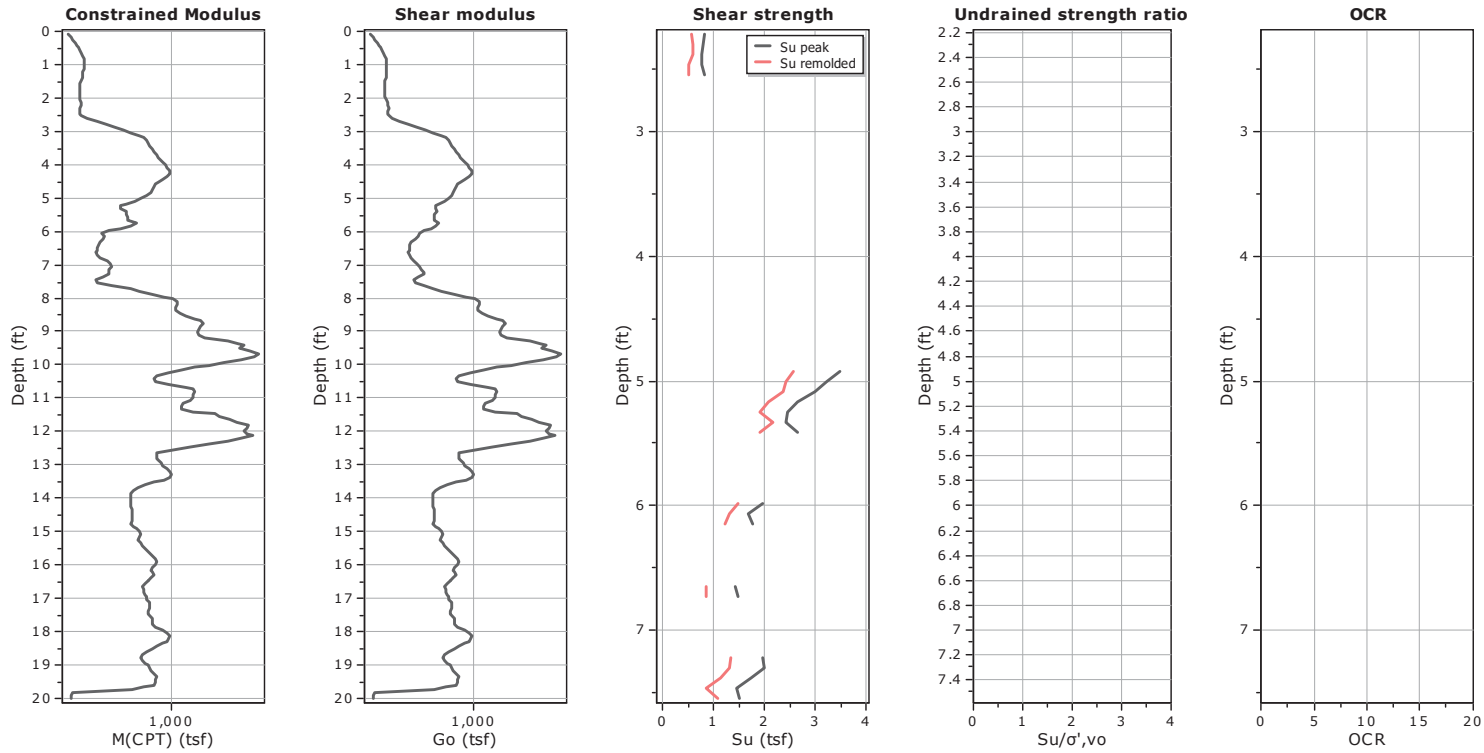
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-027
Total depth: 20.01 ft



Calculation parameters

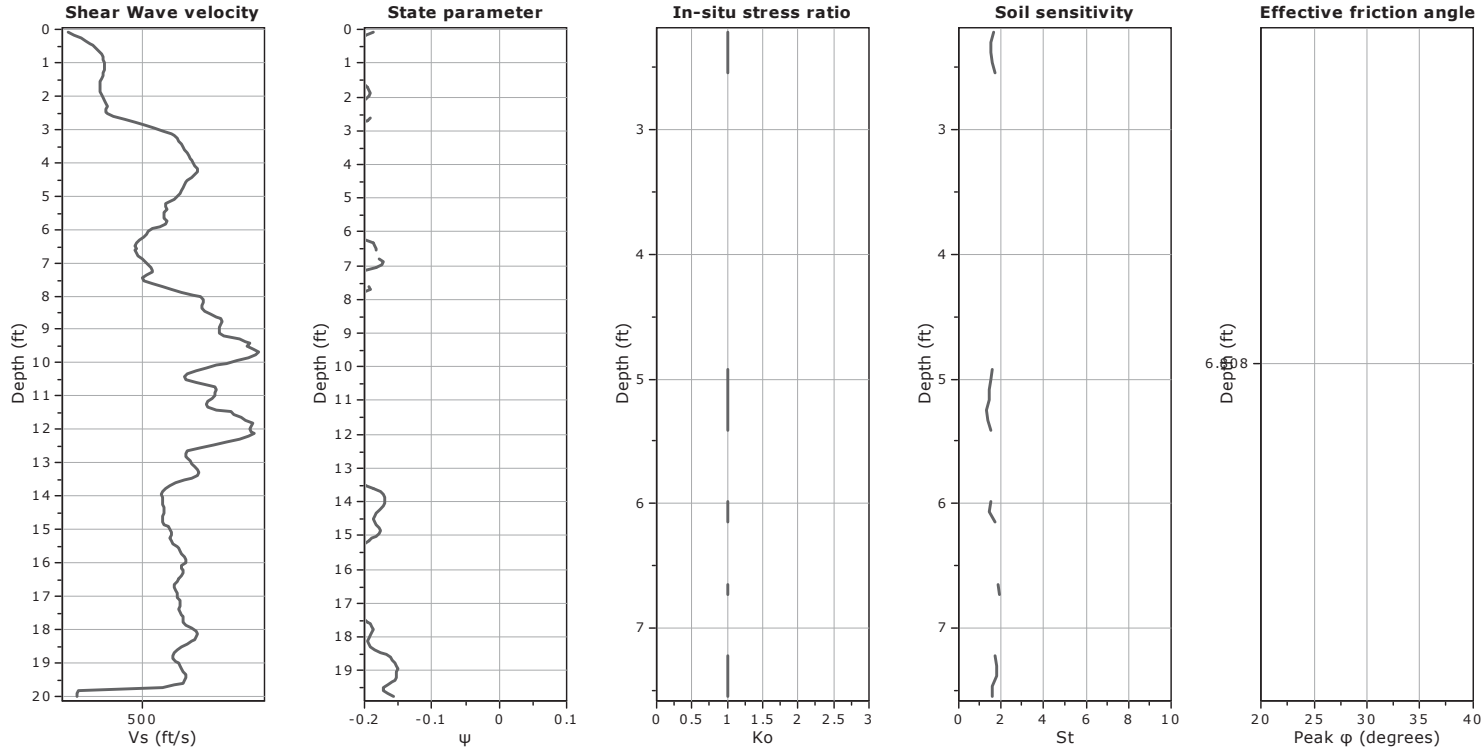
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-027
Total depth: 20.01 ft



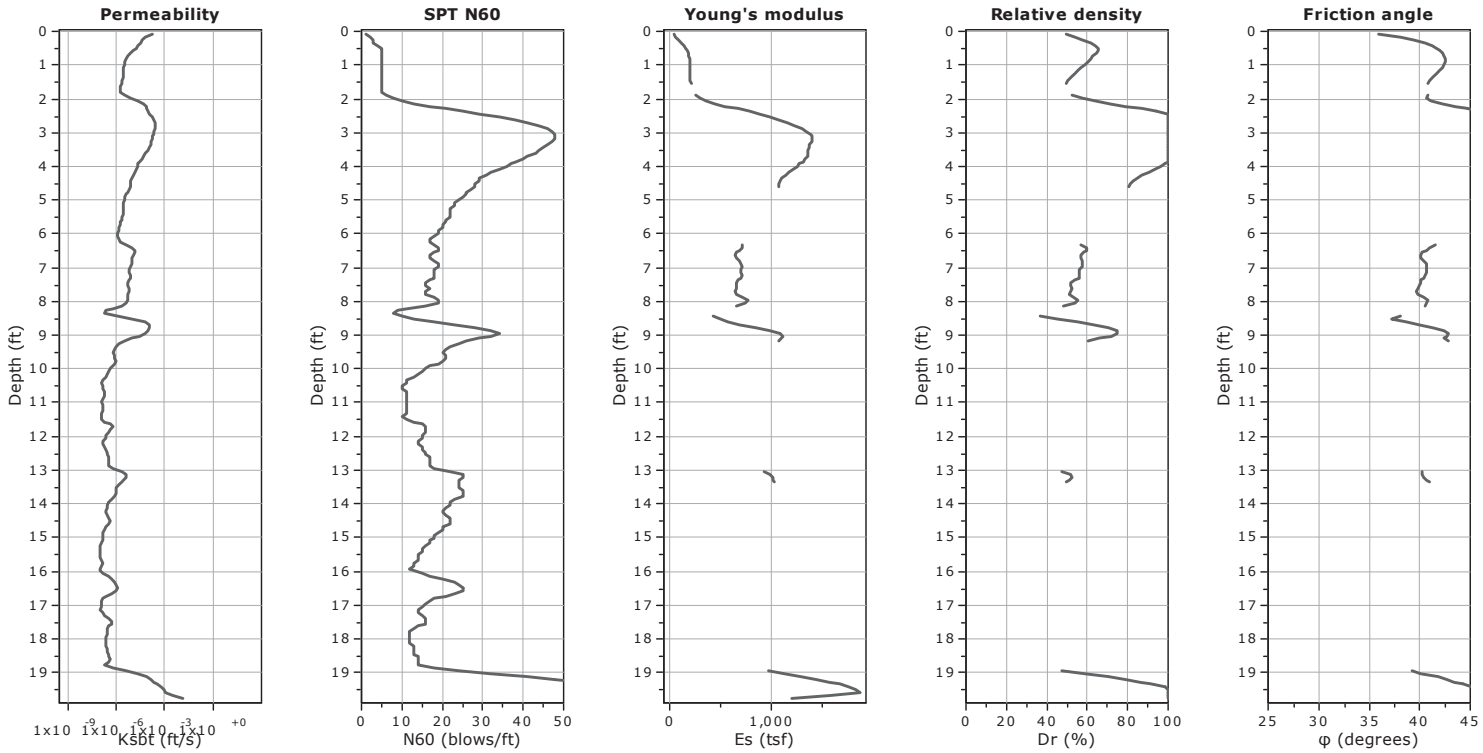
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-028
Total depth: 20.01 ft



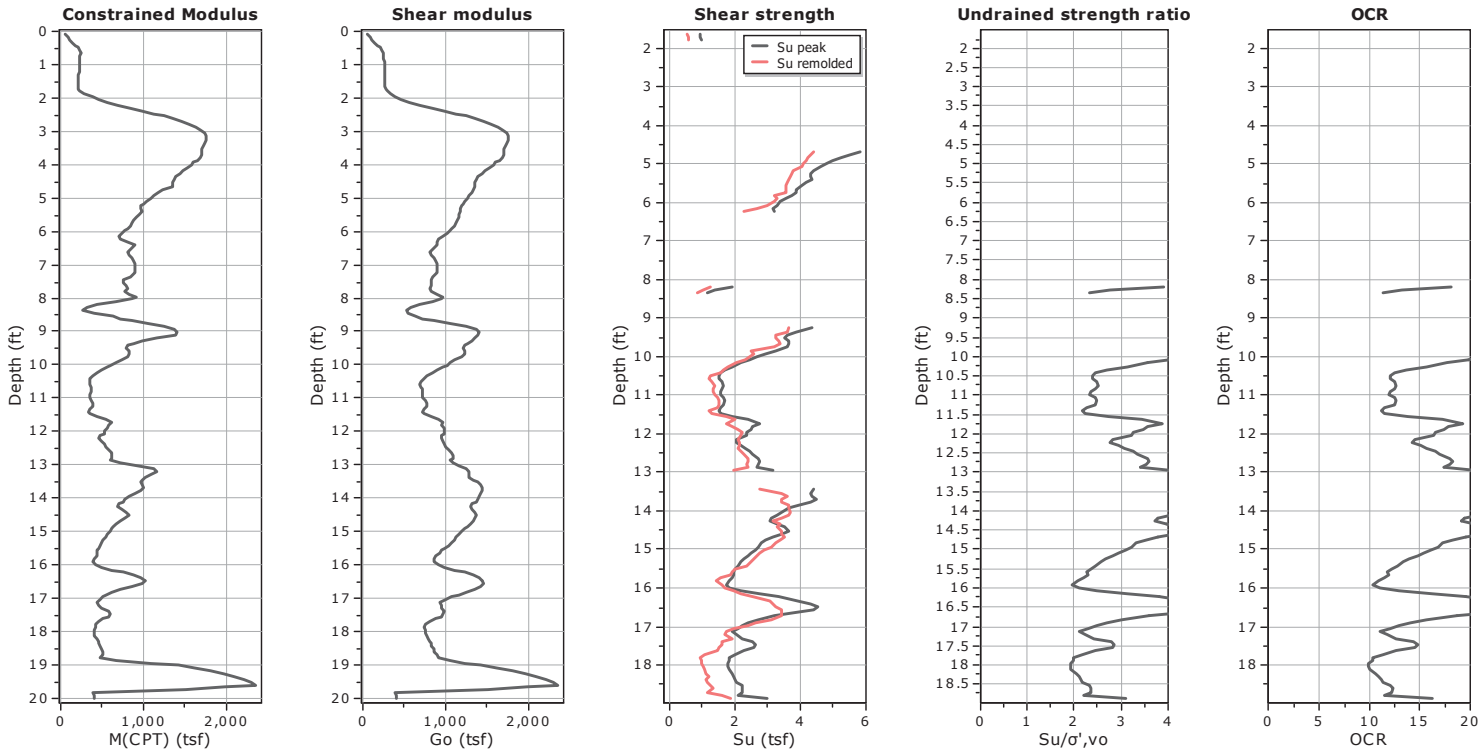
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-028
Total depth: 20.01 ft



Calculation parameters

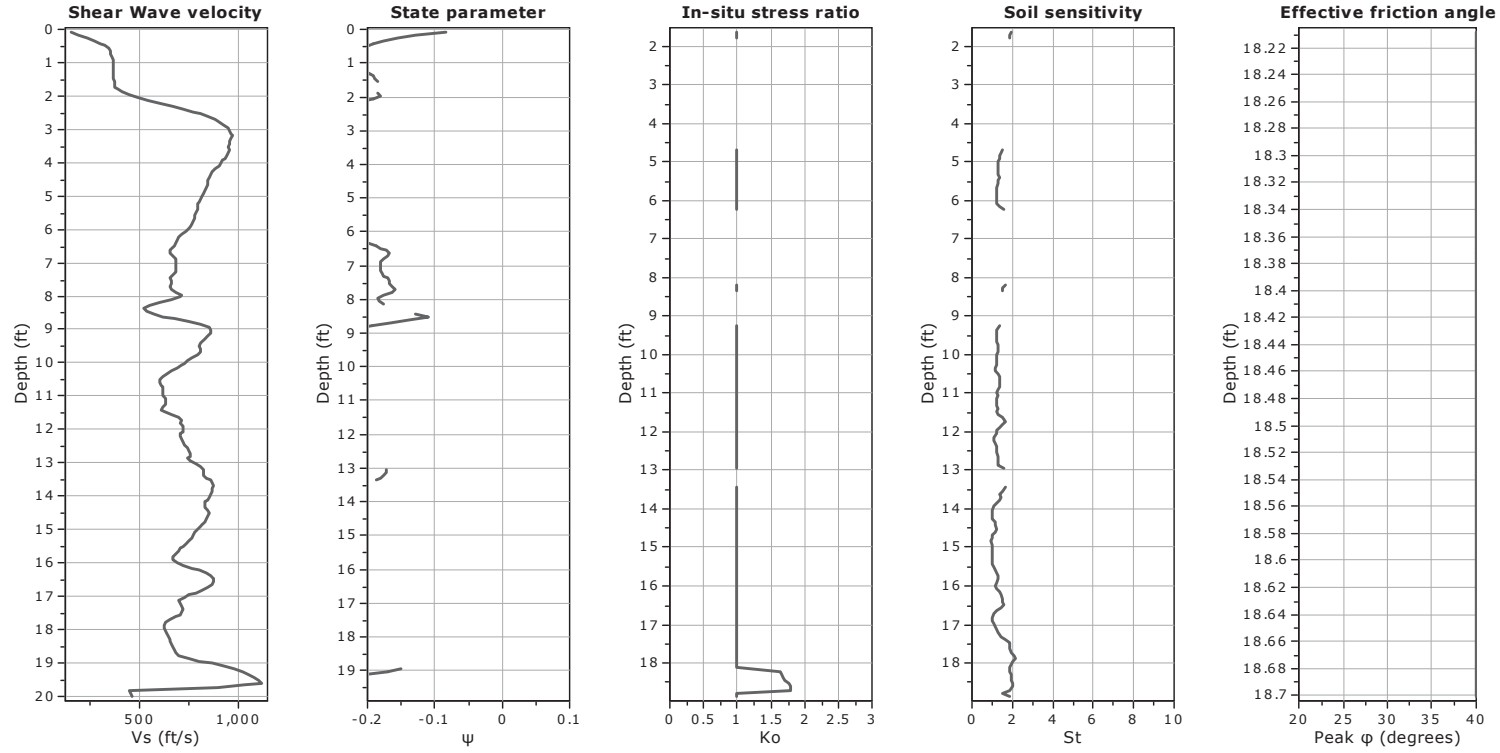
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-028
Total depth: 20.01 ft



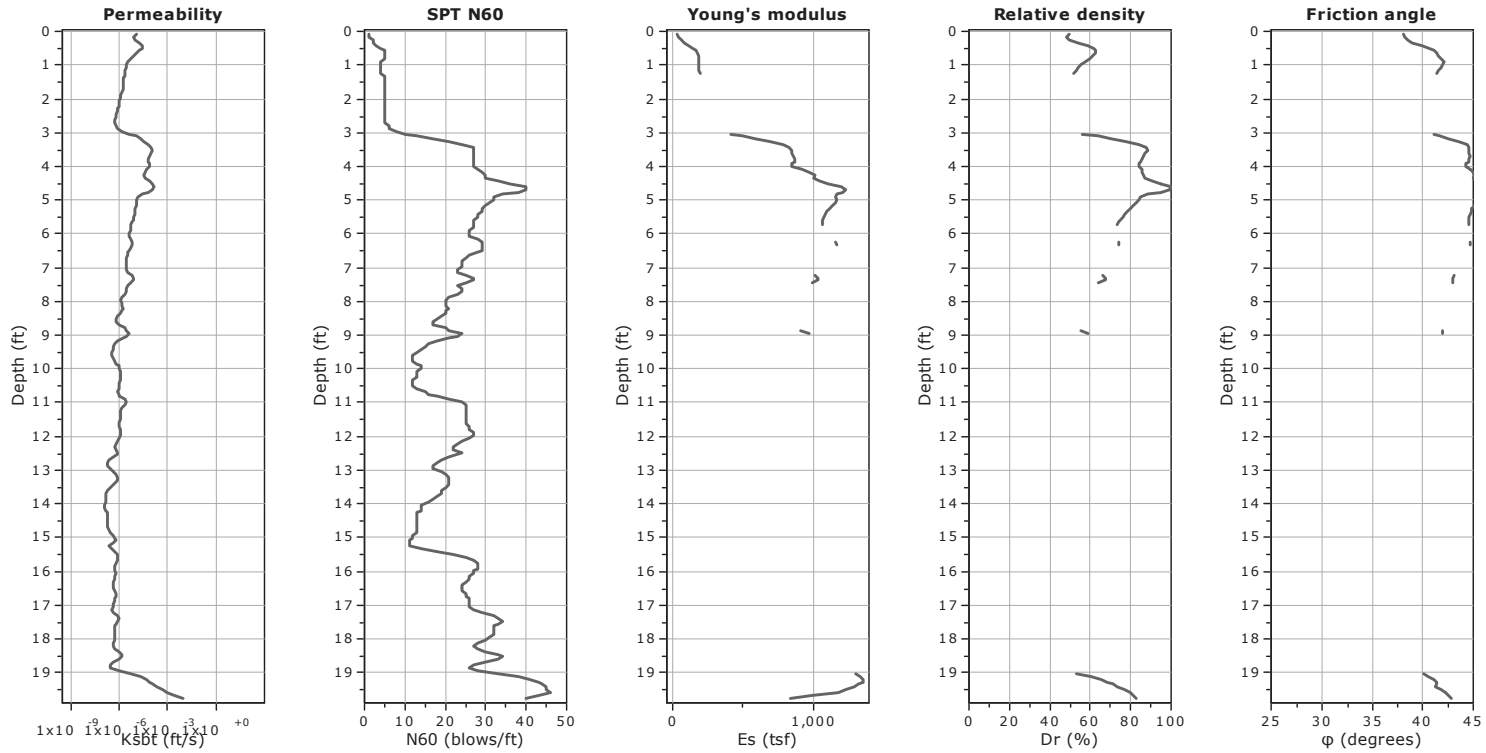
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-029
Total depth: 20.01 ft



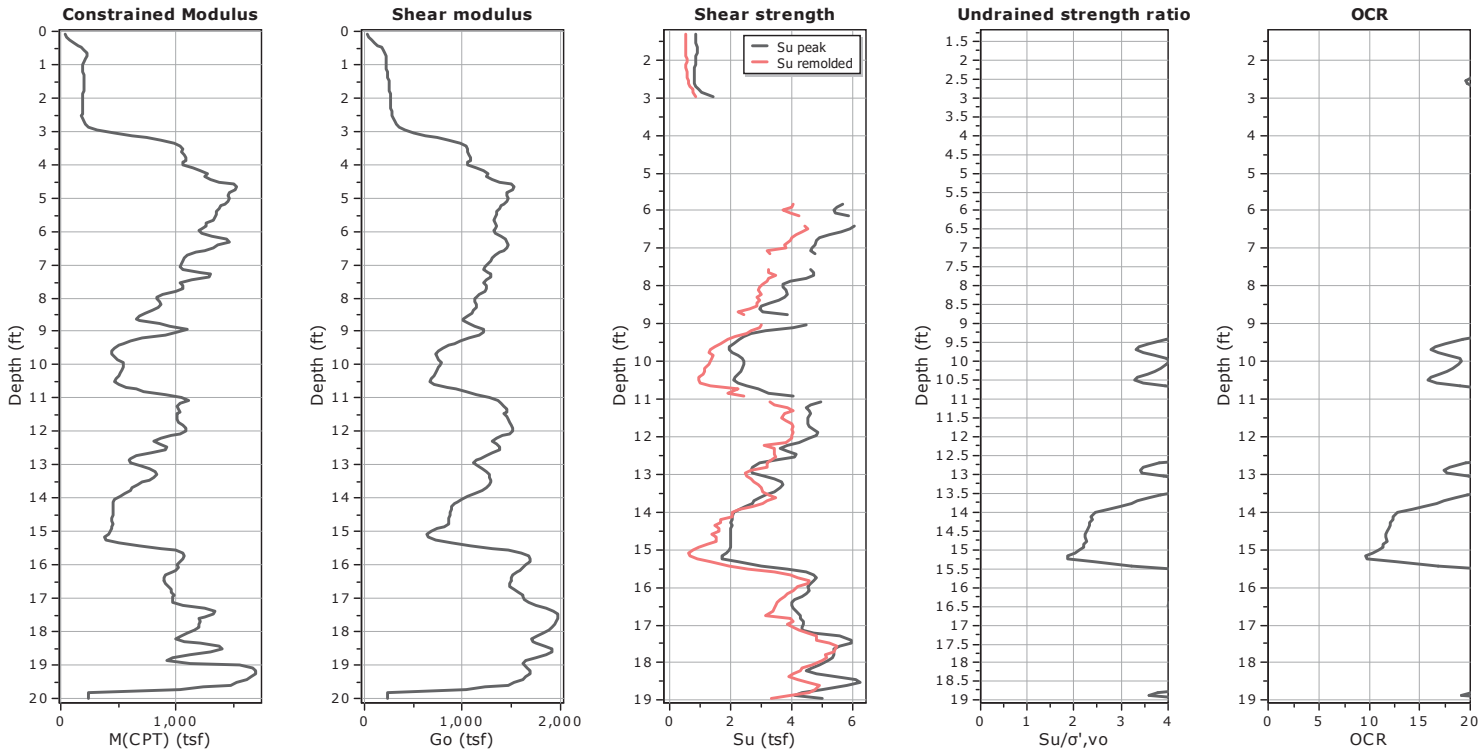
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-029
Total depth: 20.01 ft



Calculation parameters

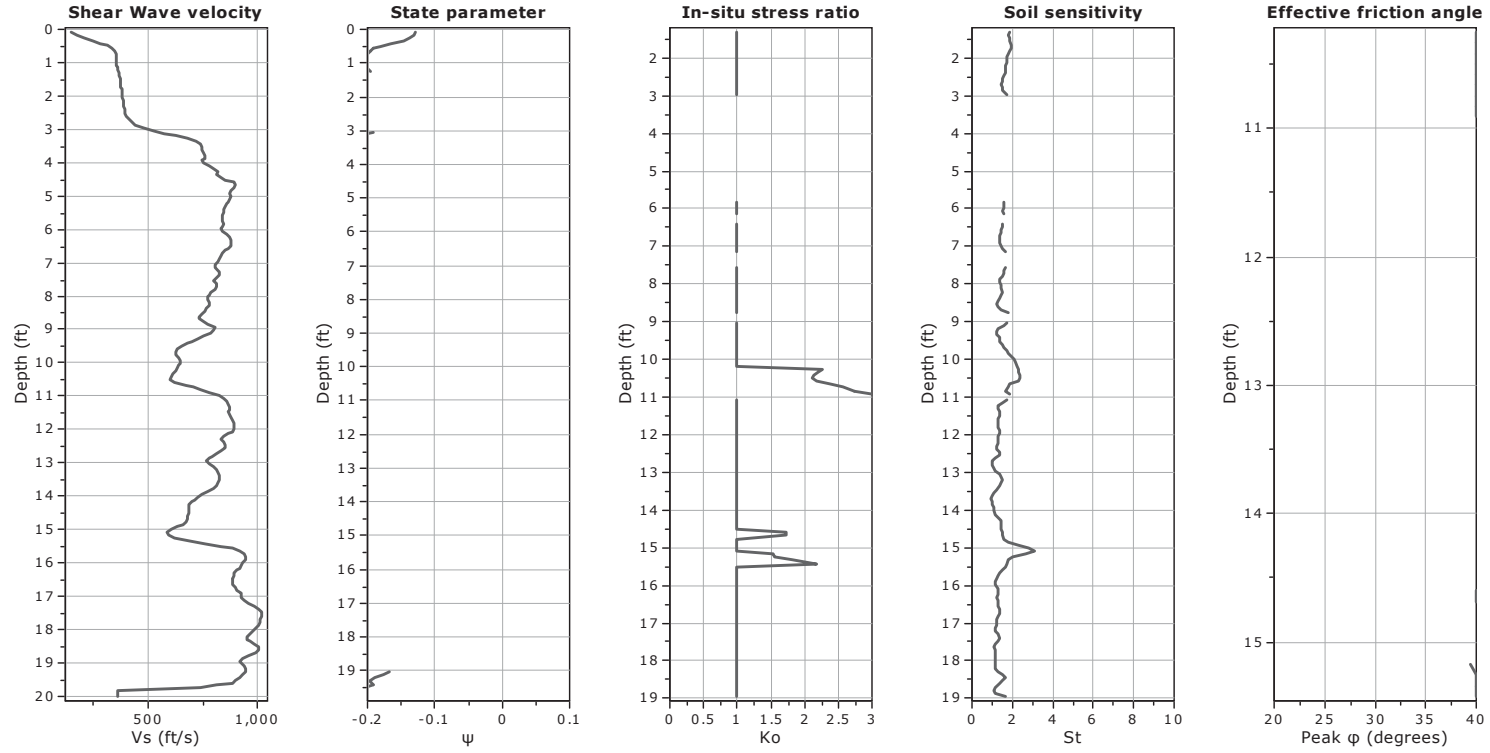
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-029
Total depth: 20.01 ft



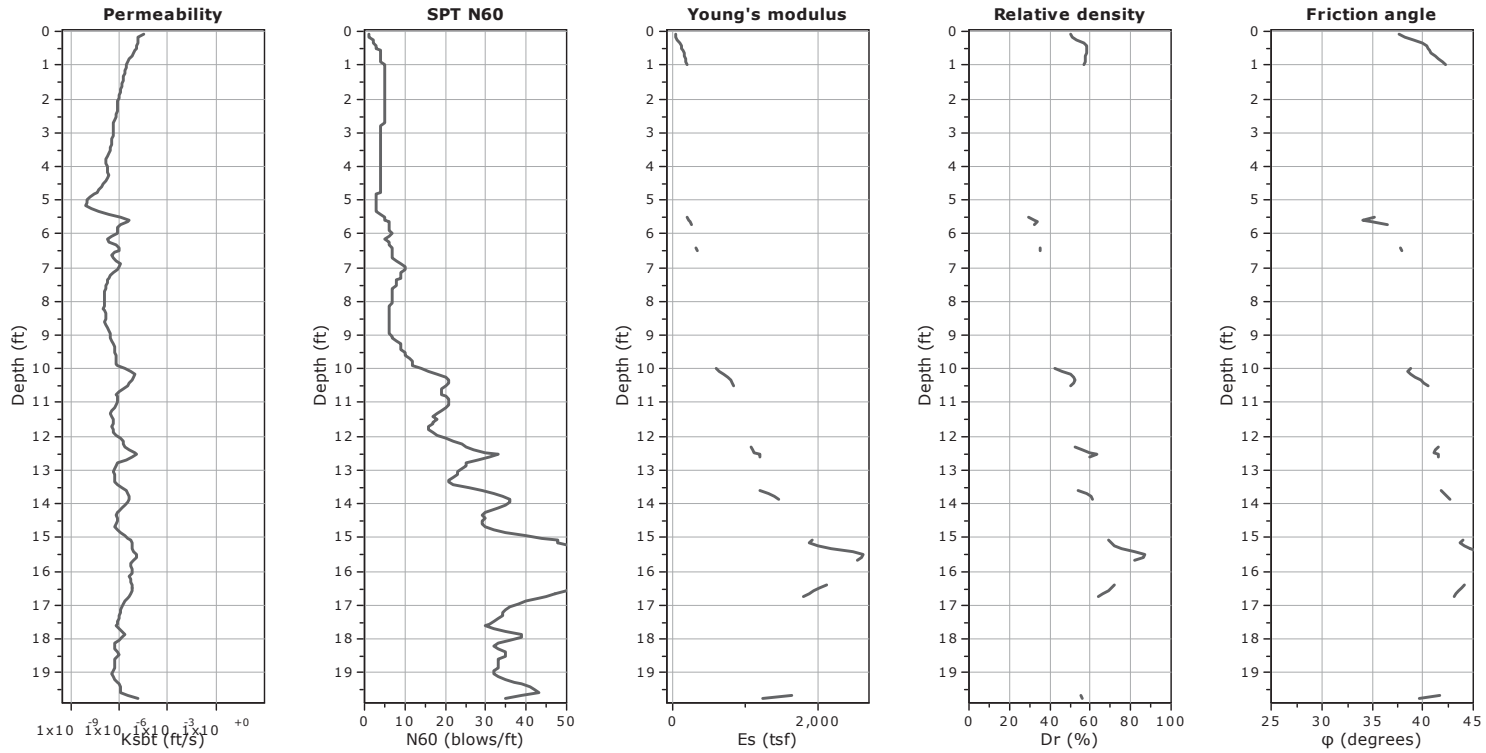
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-030
Total depth: 20.01 ft



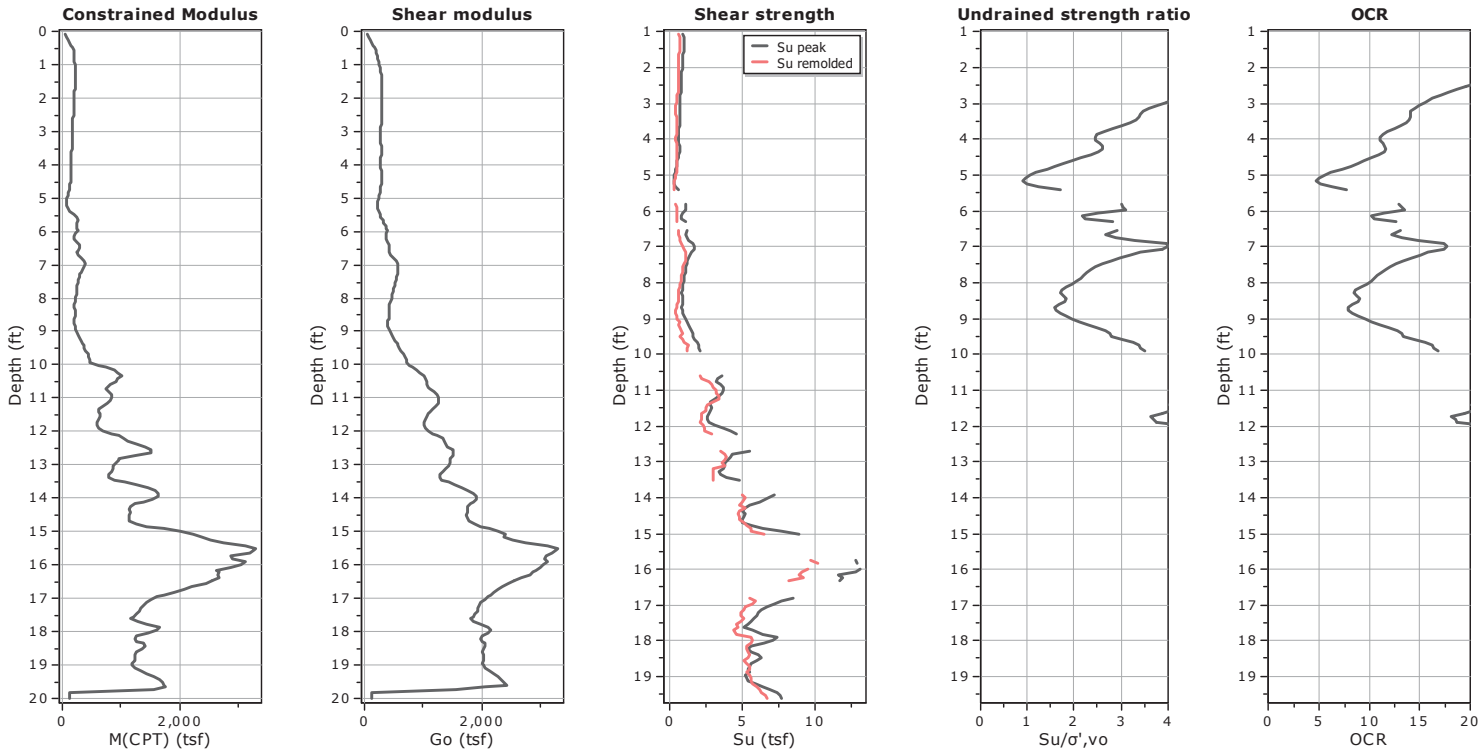
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-030
Total depth: 20.01 ft



Calculation parameters

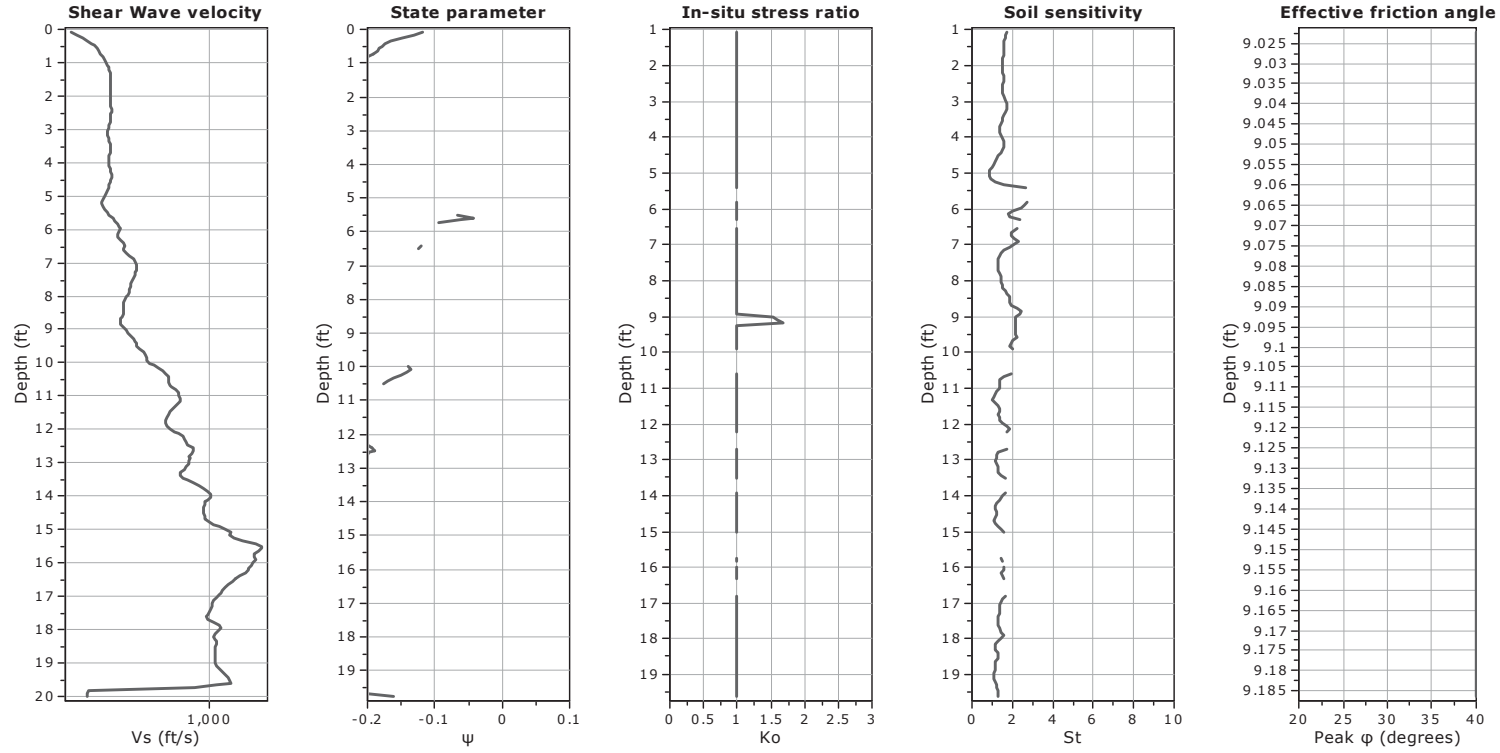
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-030
Total depth: 20.01 ft



Calculation parameters

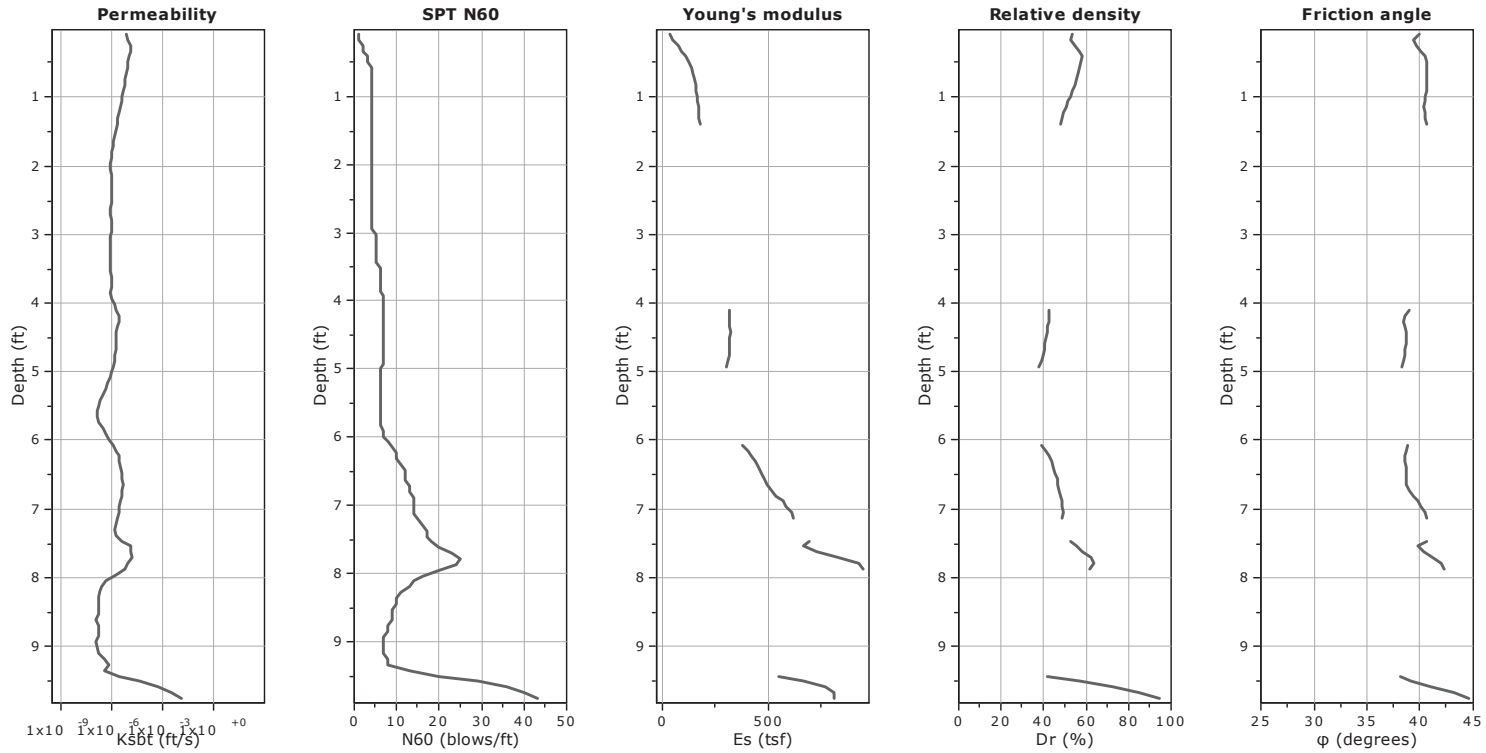
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-031
Total depth: 10.09 ft



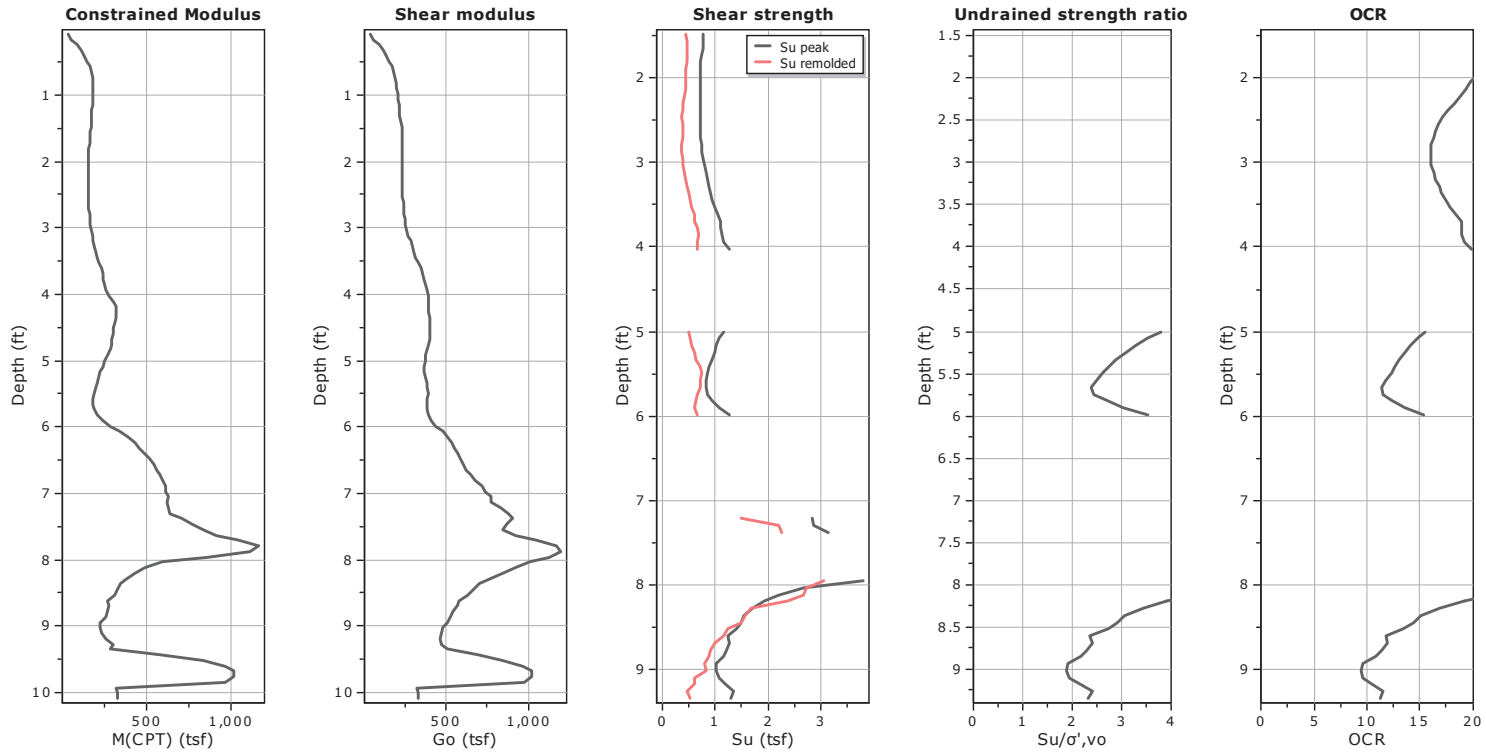
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-031
Total depth: 10.09 ft



Calculation parameters

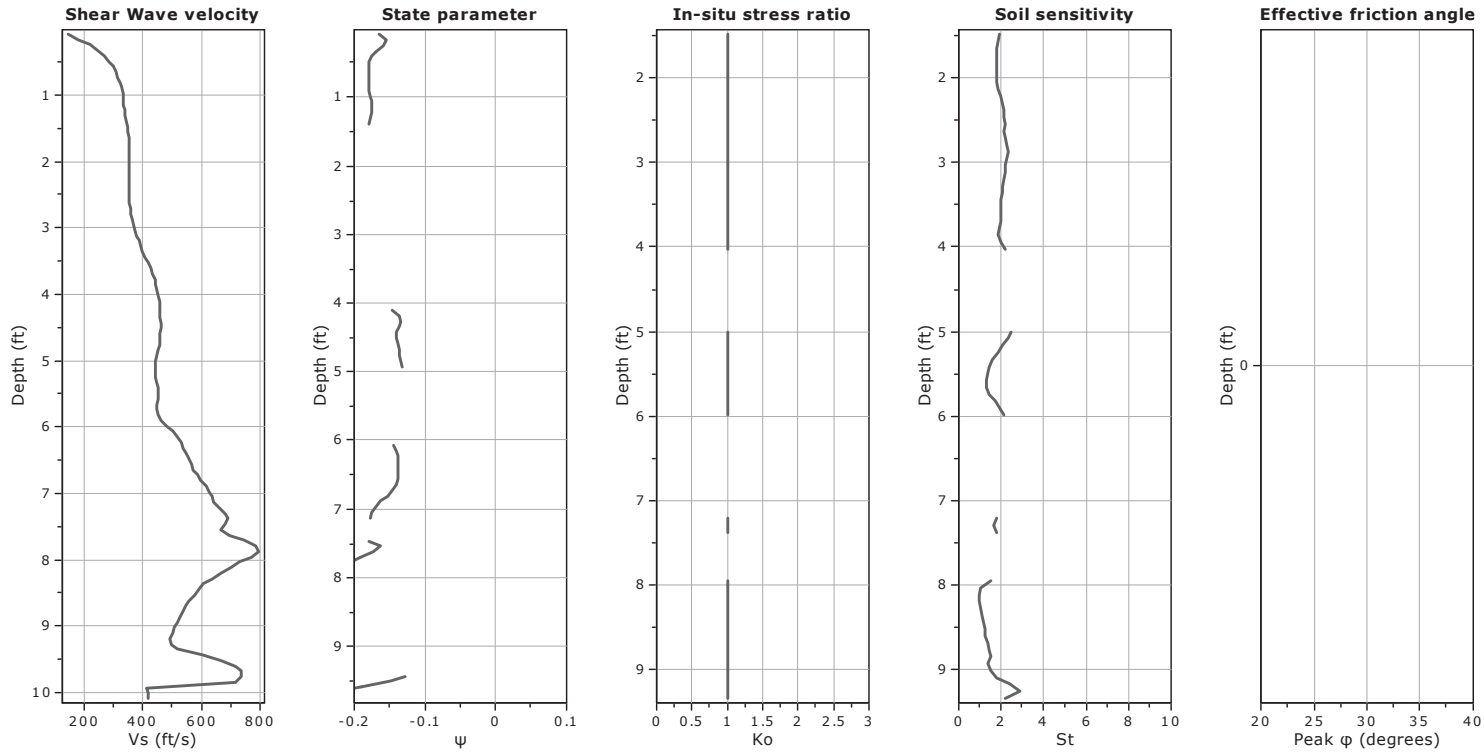
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-031
Total depth: 10.09 ft



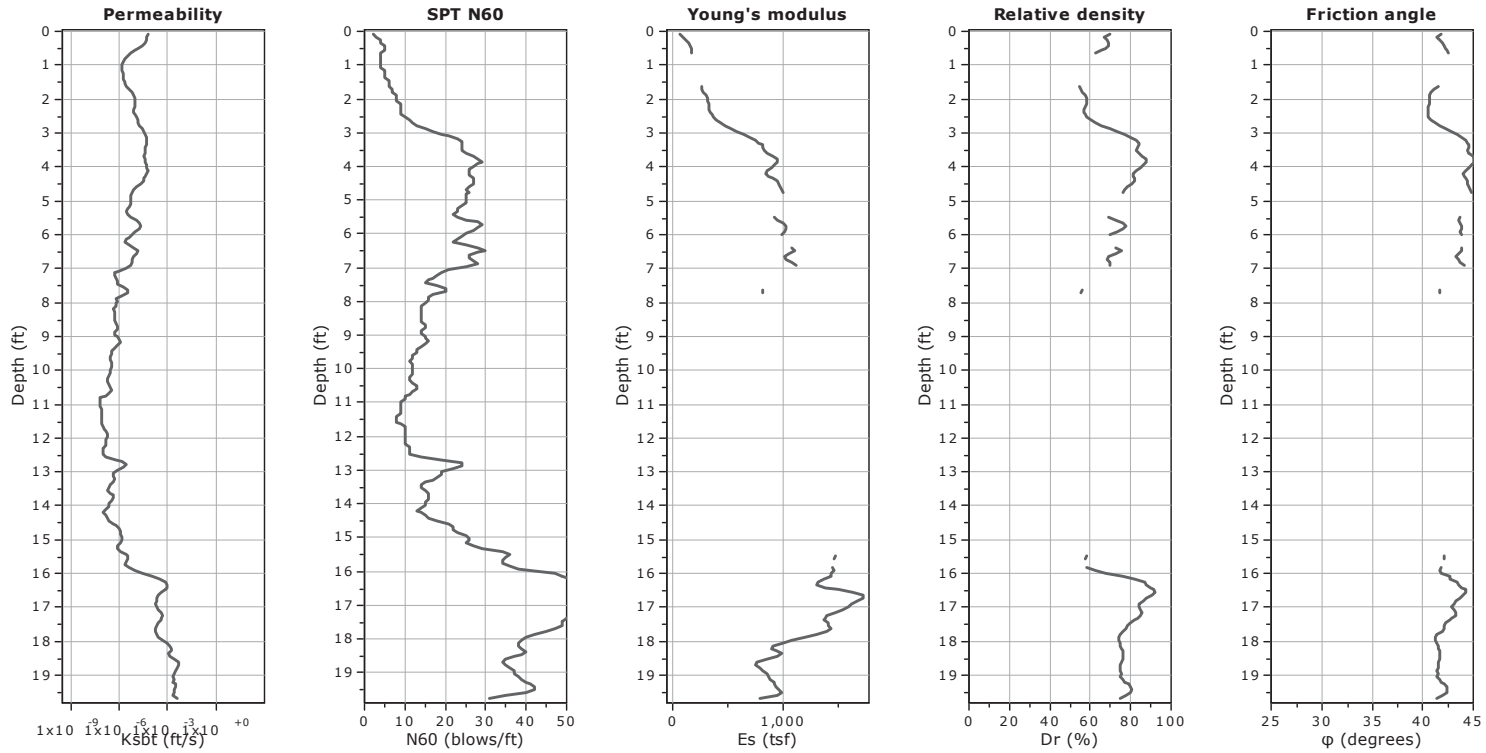
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-032
Total depth: 20.01 ft



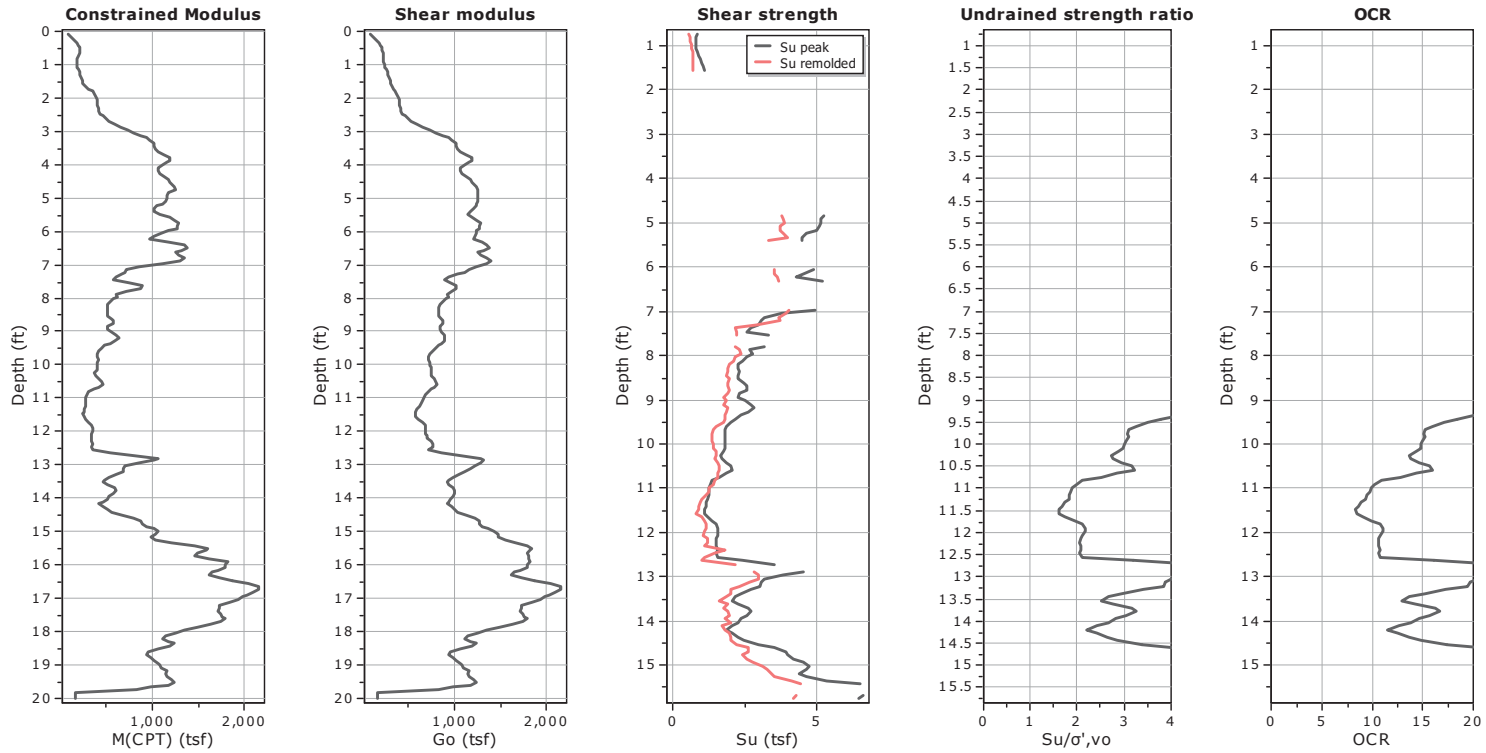
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-032
Total depth: 20.01 ft



Calculation parameters

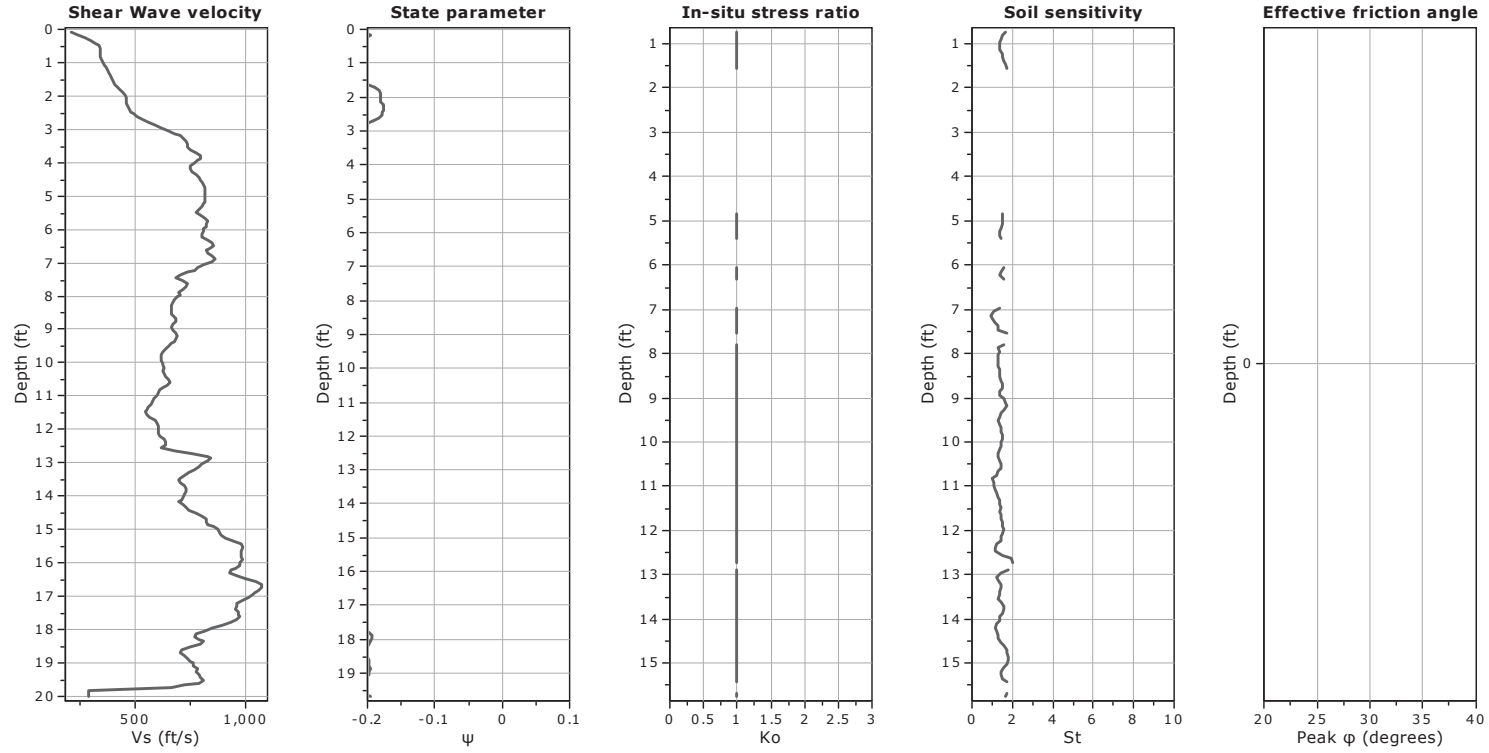
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-032
Total depth: 20.01 ft



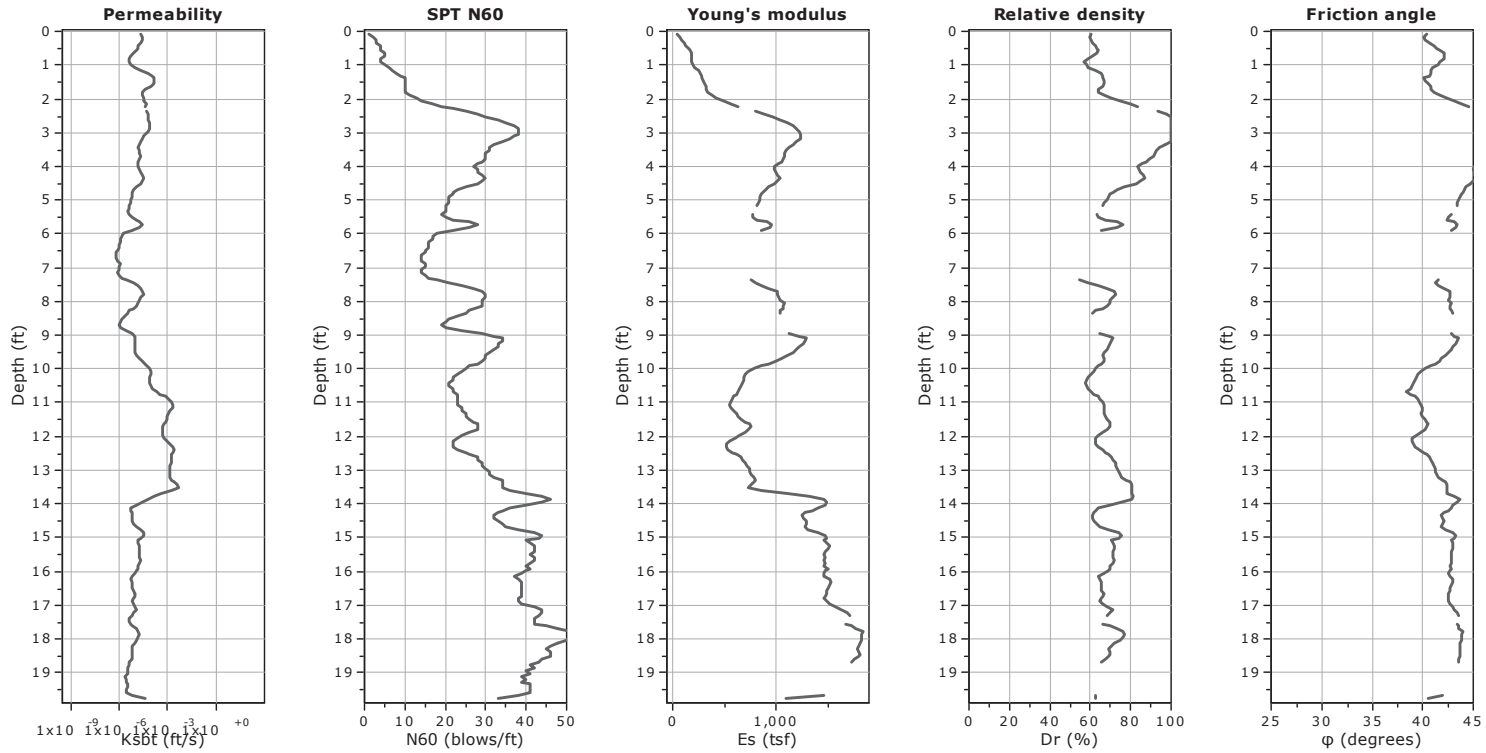
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-033
Total depth: 20.01 ft



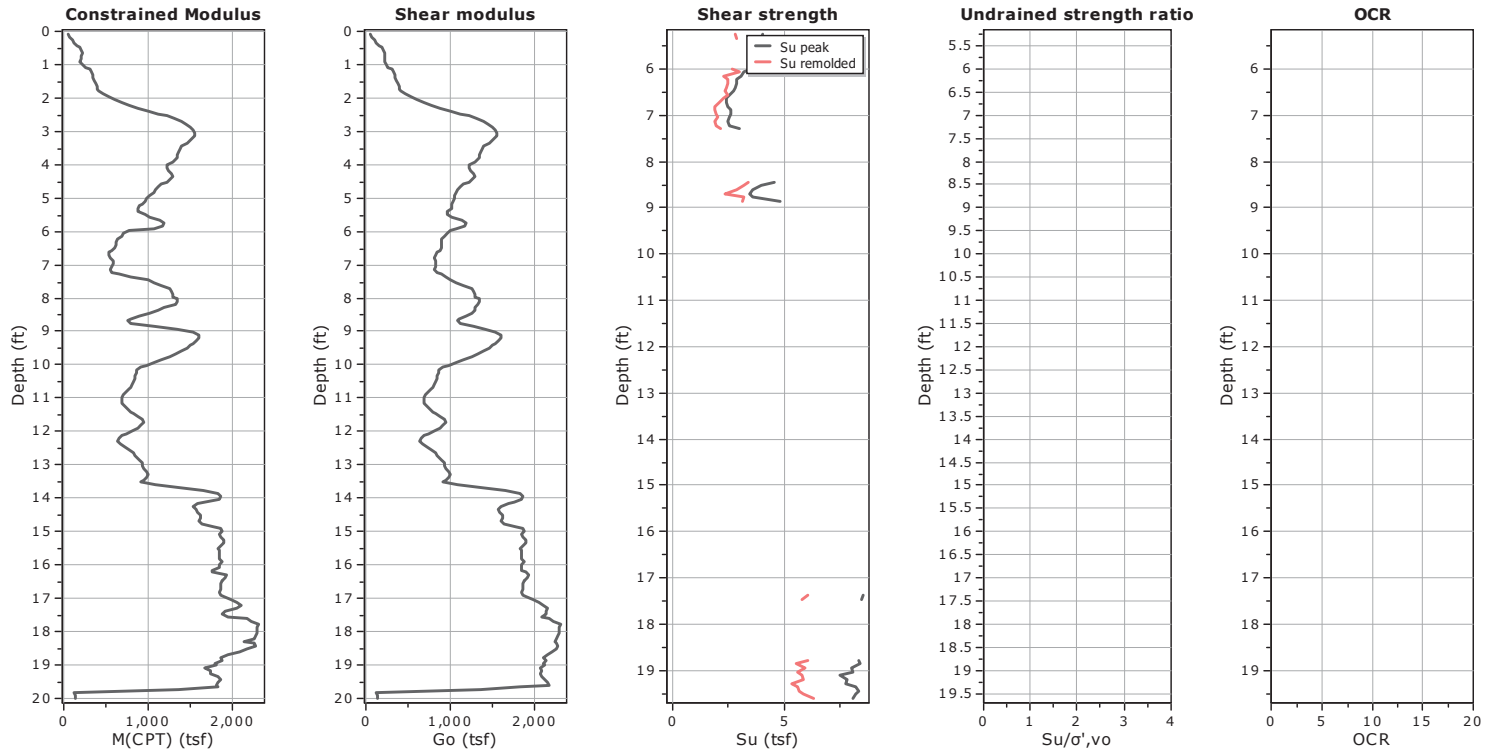
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-033
Total depth: 20.01 ft



Calculation parameters

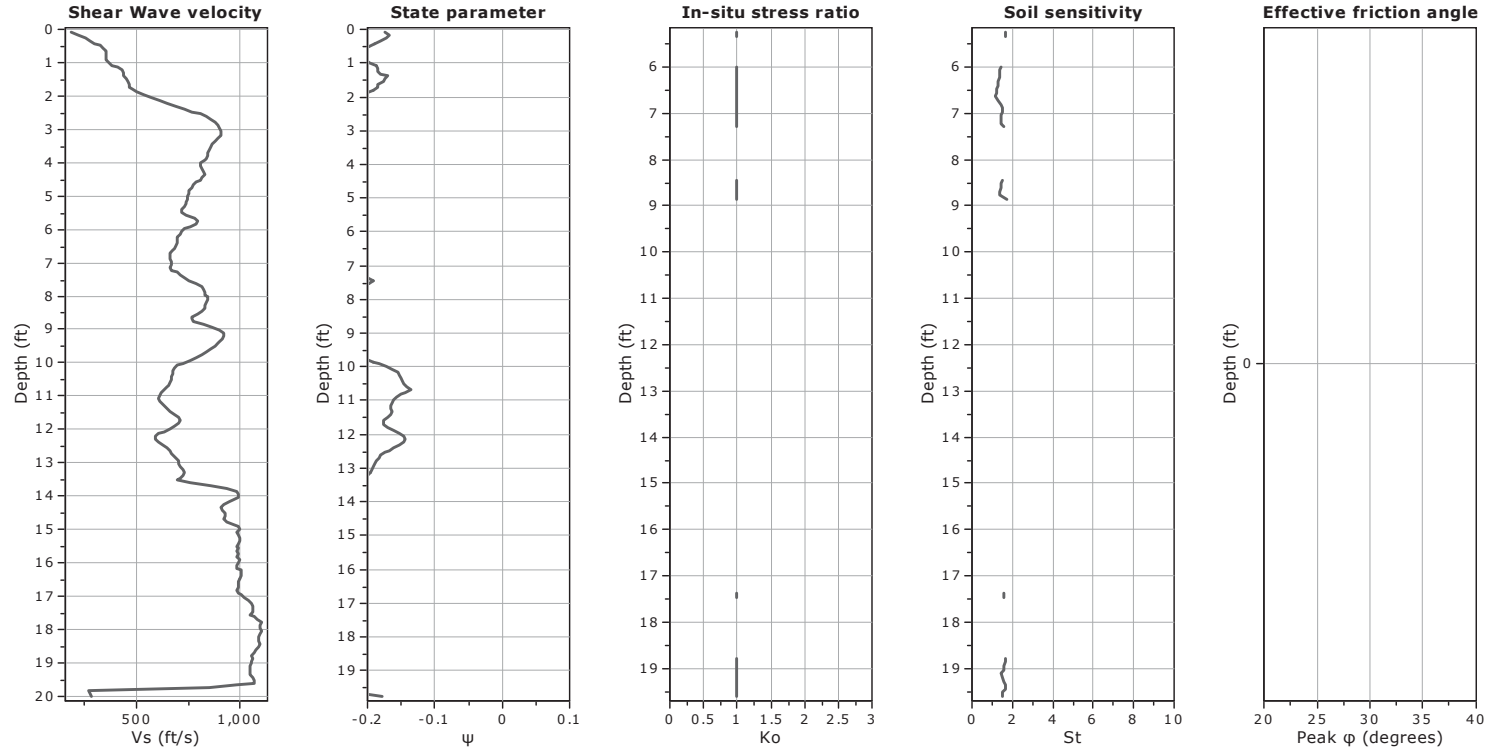
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-033
Total depth: 20.01 ft



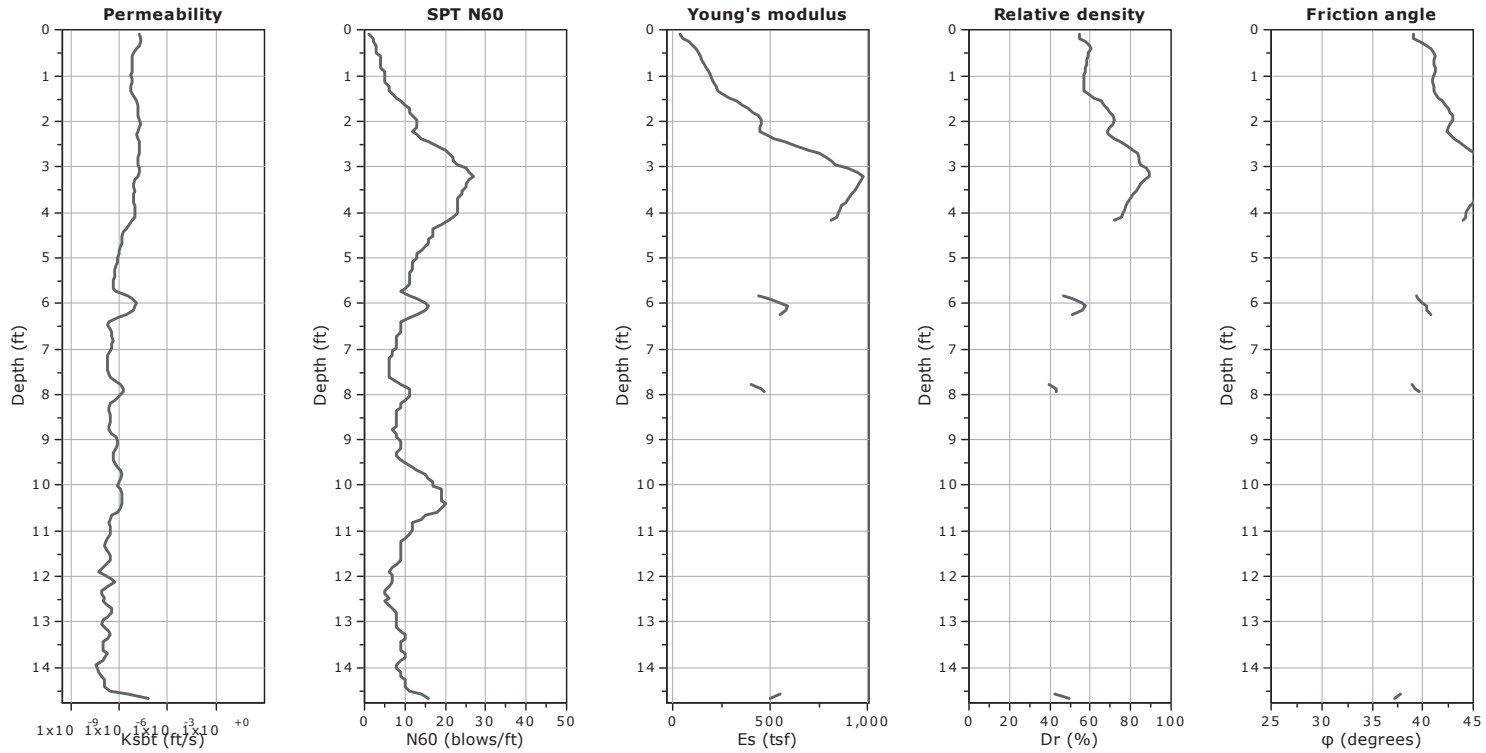
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-034
Total depth: 14.93 ft



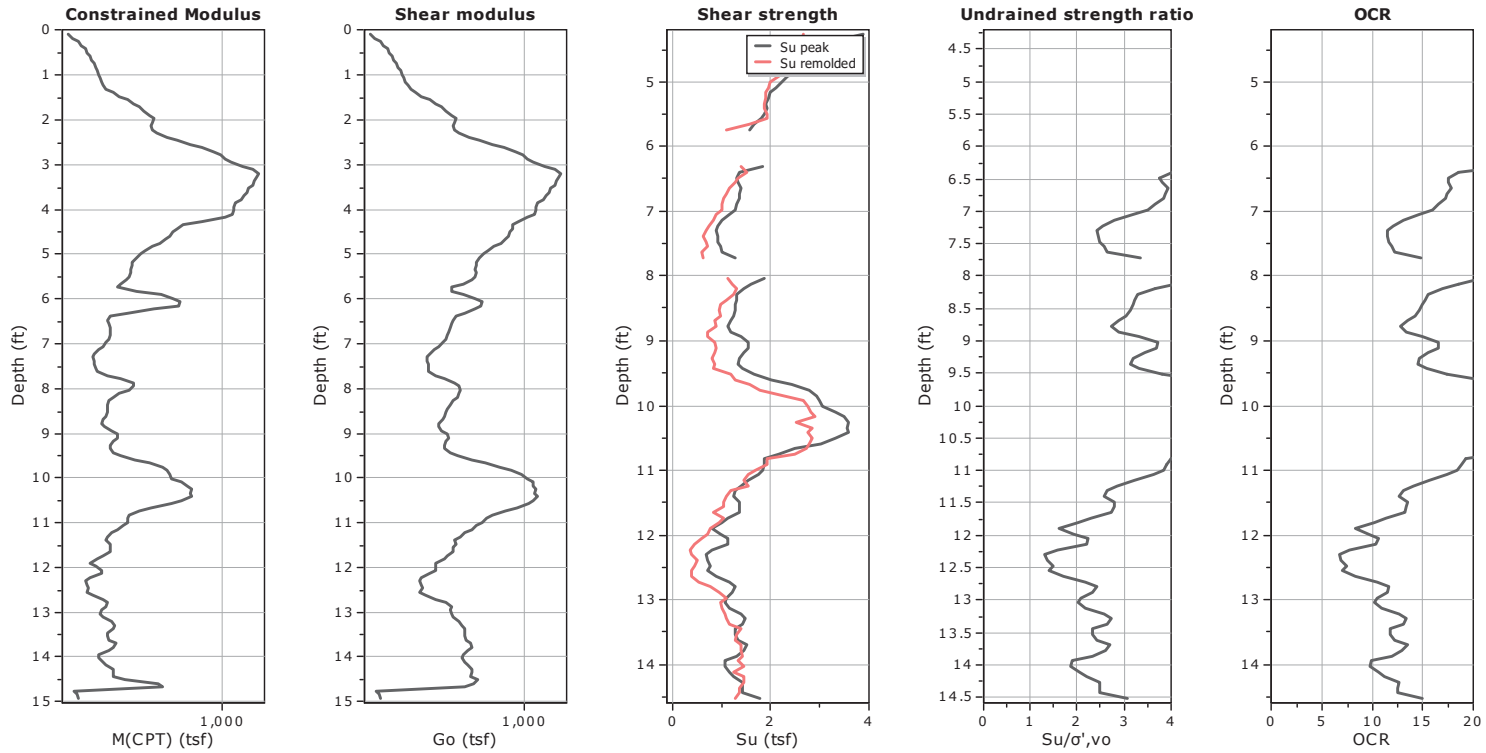
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-034
Total depth: 14.93 ft



Calculation parameters

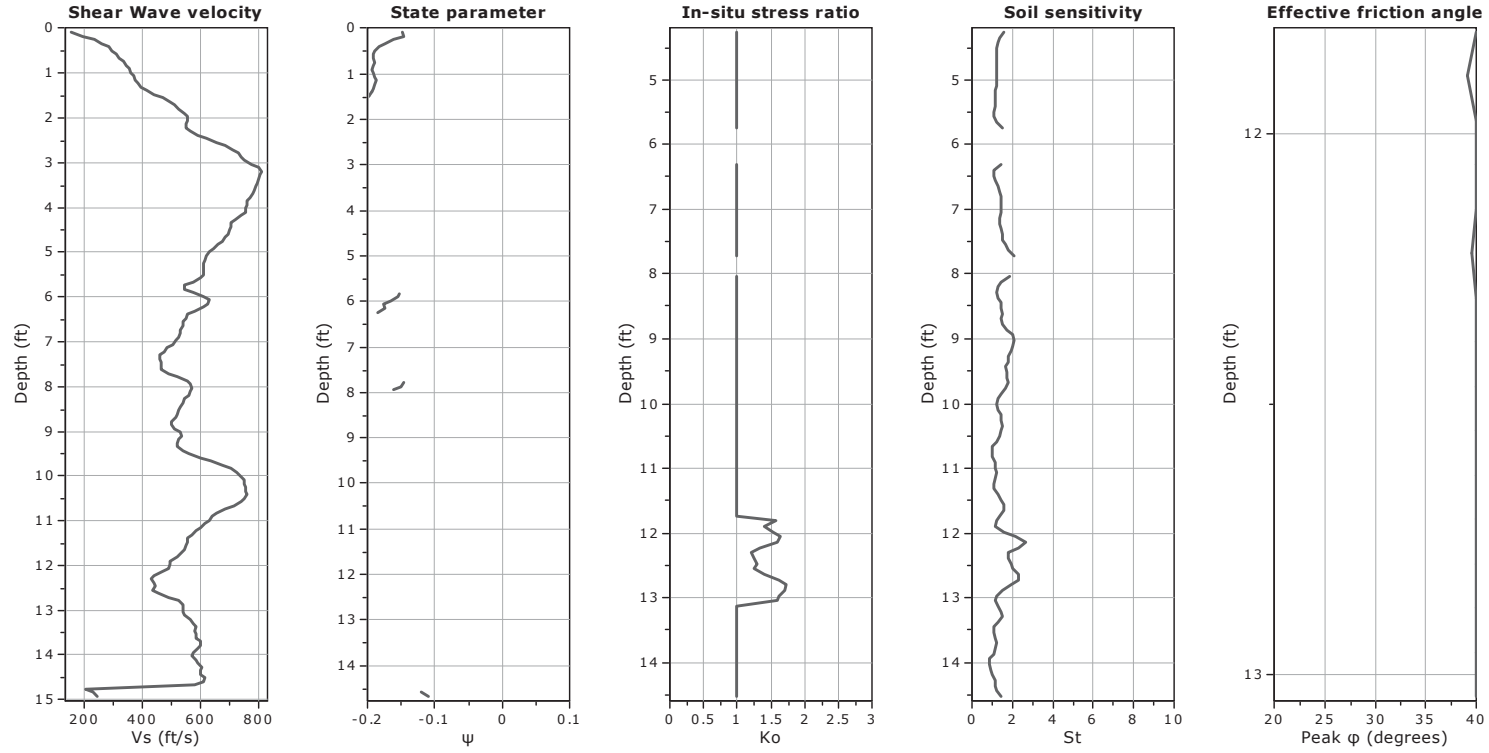
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-034
Total depth: 14.93 ft



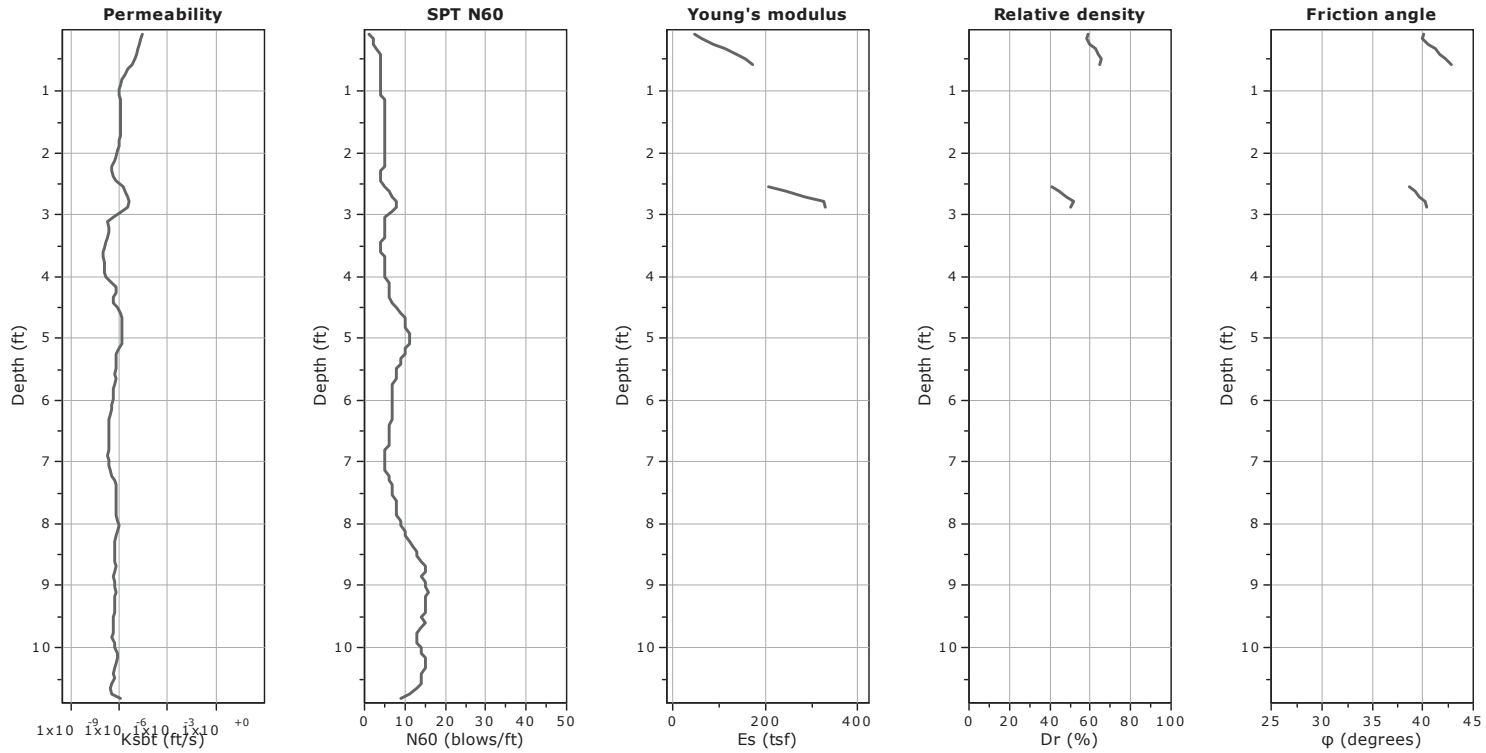
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-035
Total depth: 11.07 ft



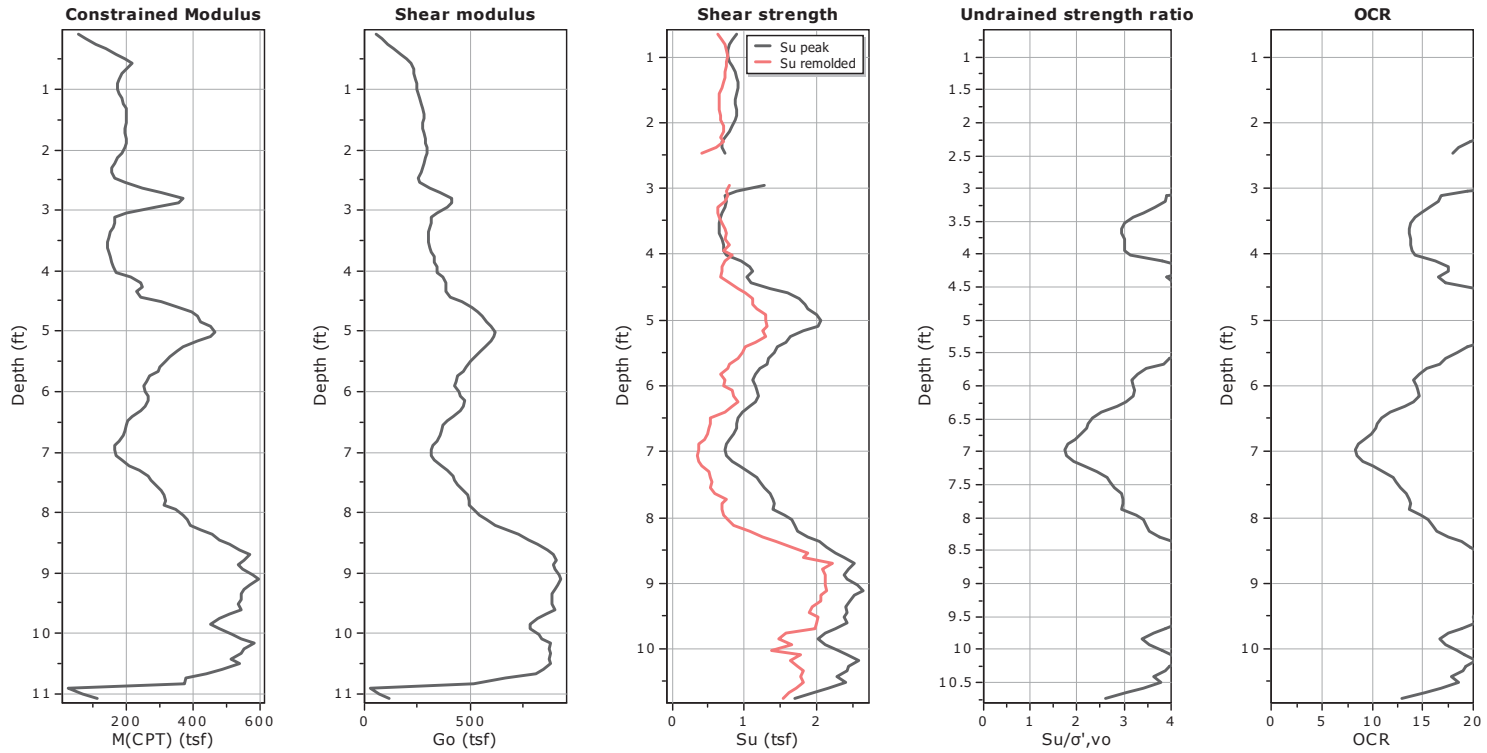
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-035
Total depth: 11.07 ft



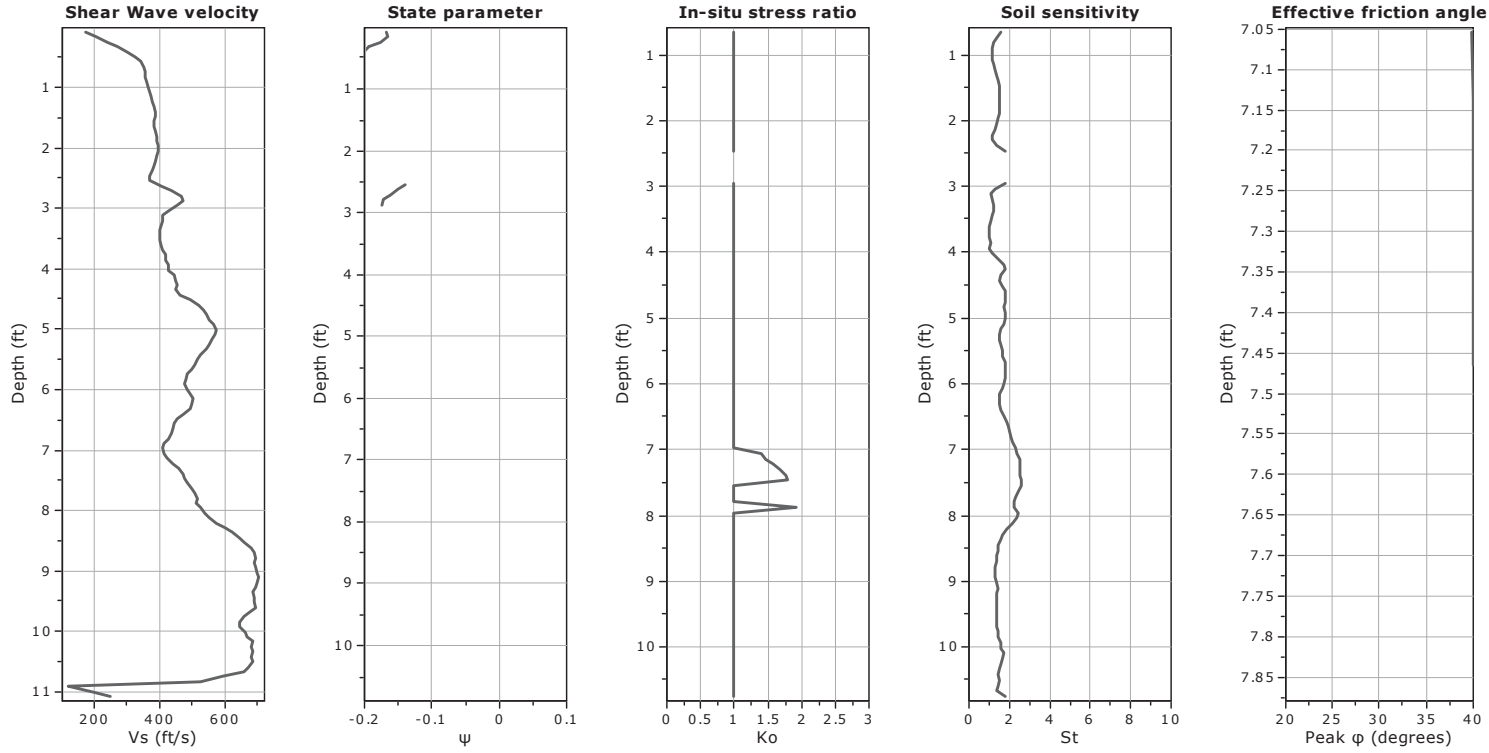
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-035
Total depth: 11.07 ft



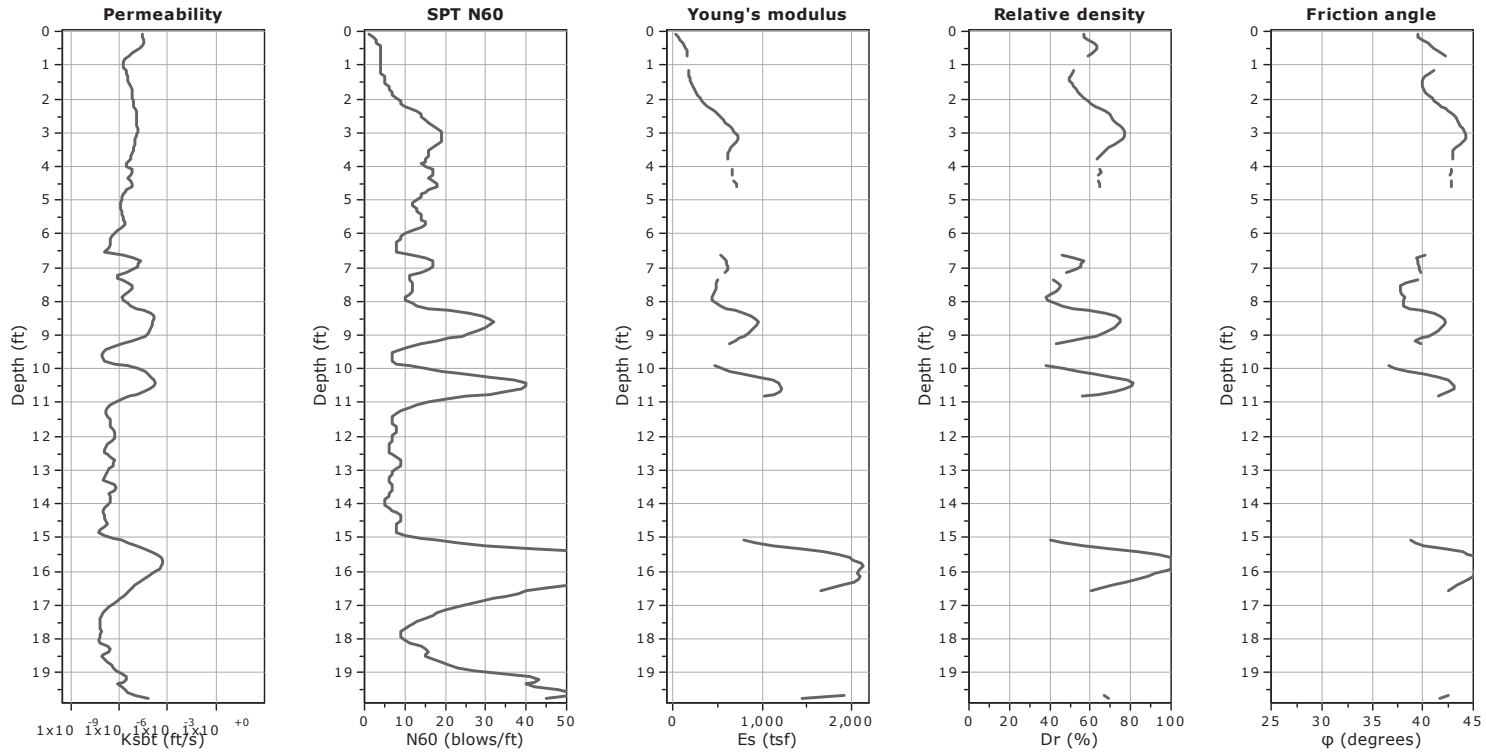
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-036
Total depth: 20.01 ft



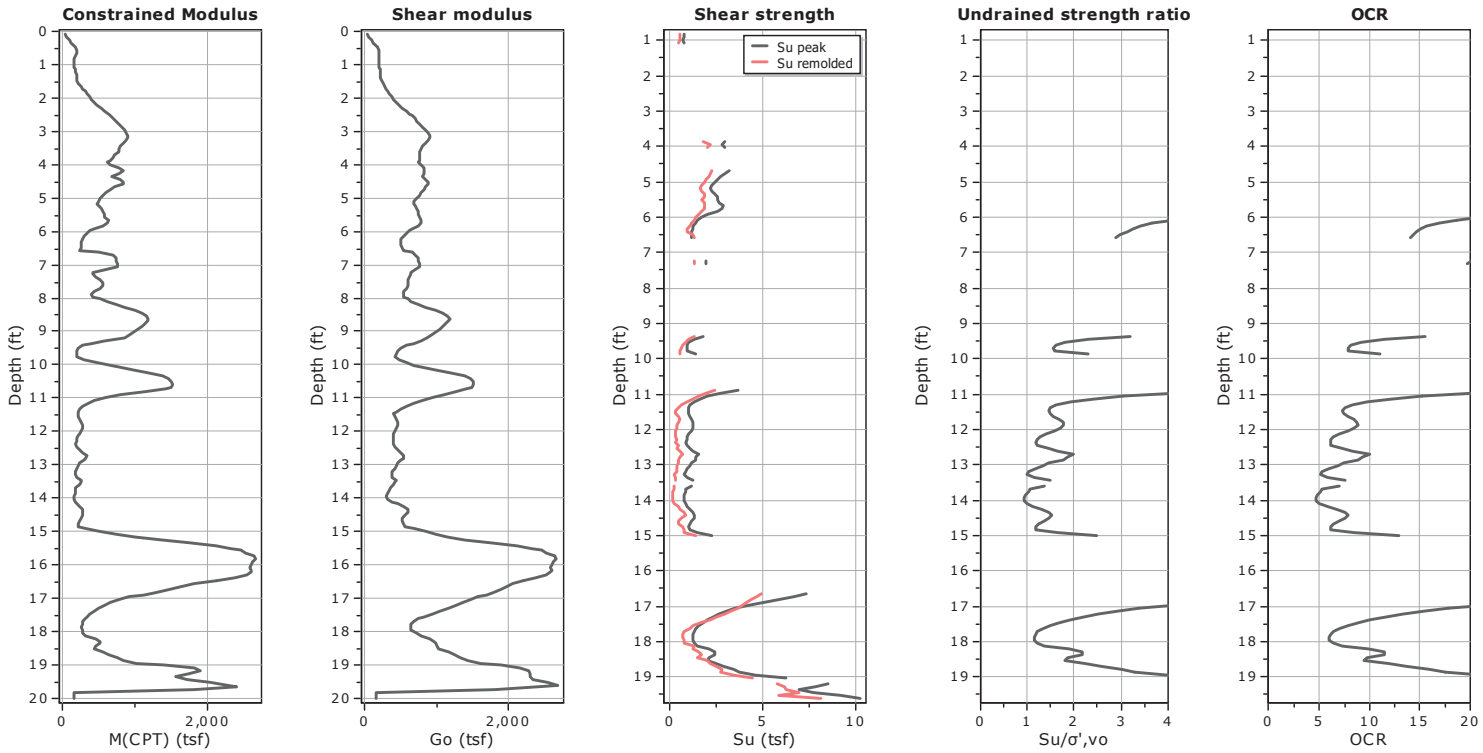
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-036
Total depth: 20.01 ft



Calculation parameters

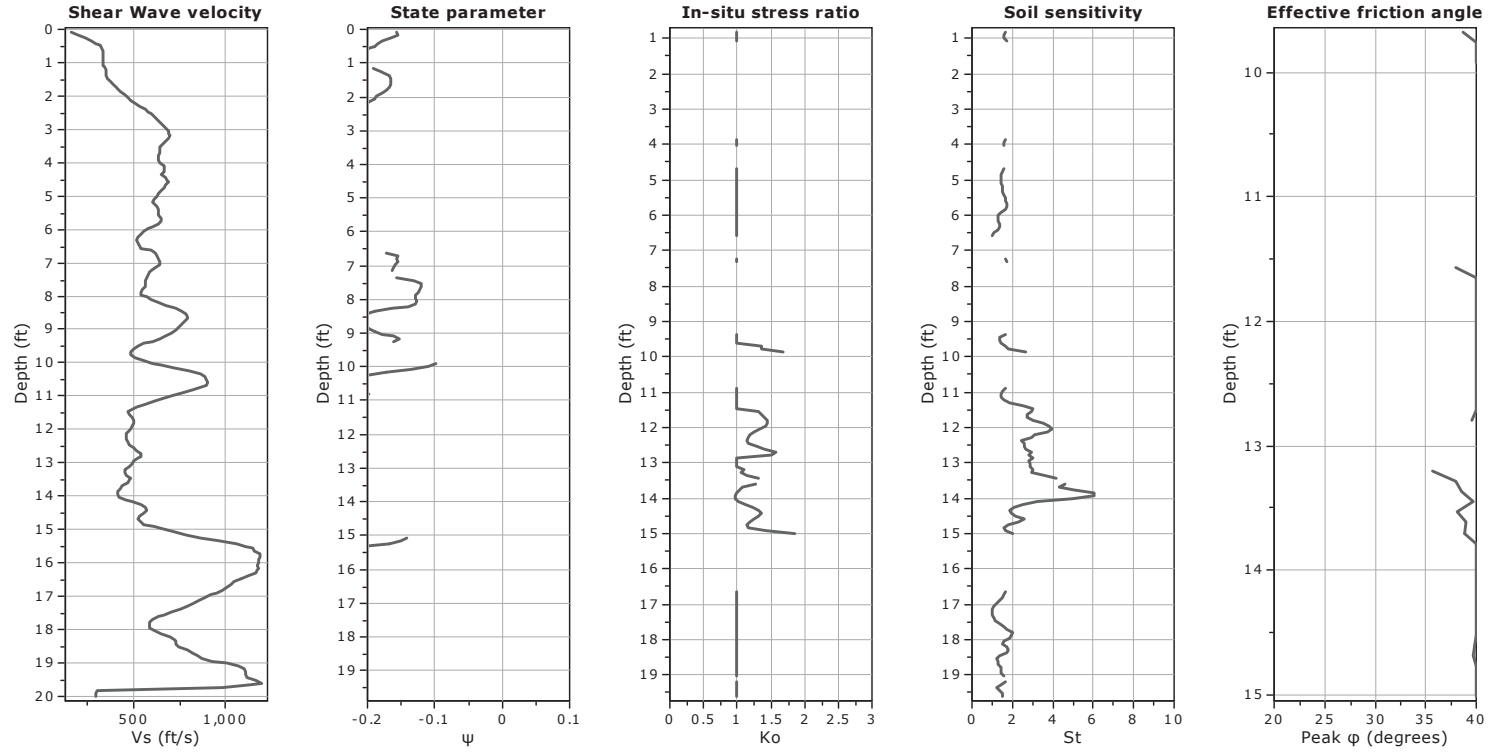
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-036
Total depth: 20.01 ft



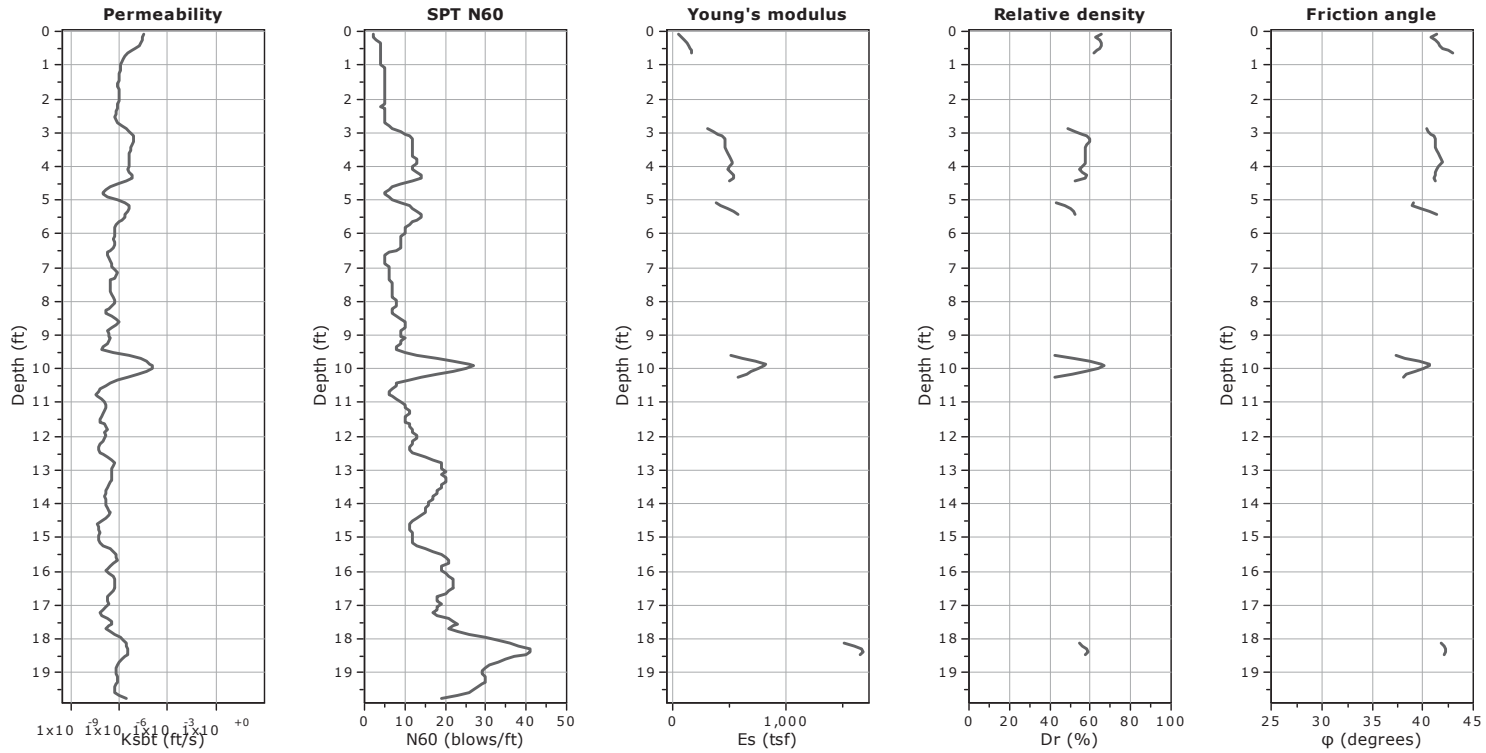
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-037
Total depth: 20.01 ft



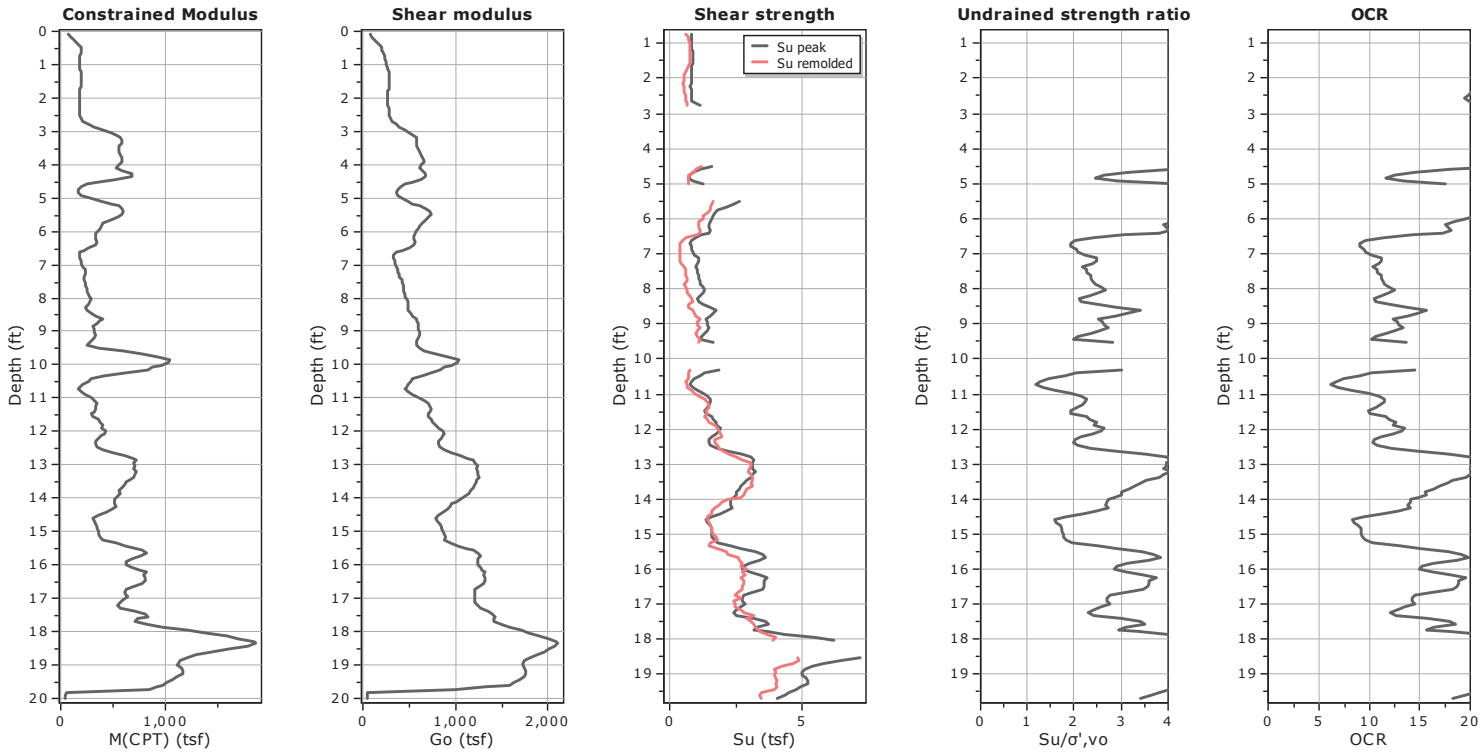
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-037
Total depth: 20.01 ft



Calculation parameters

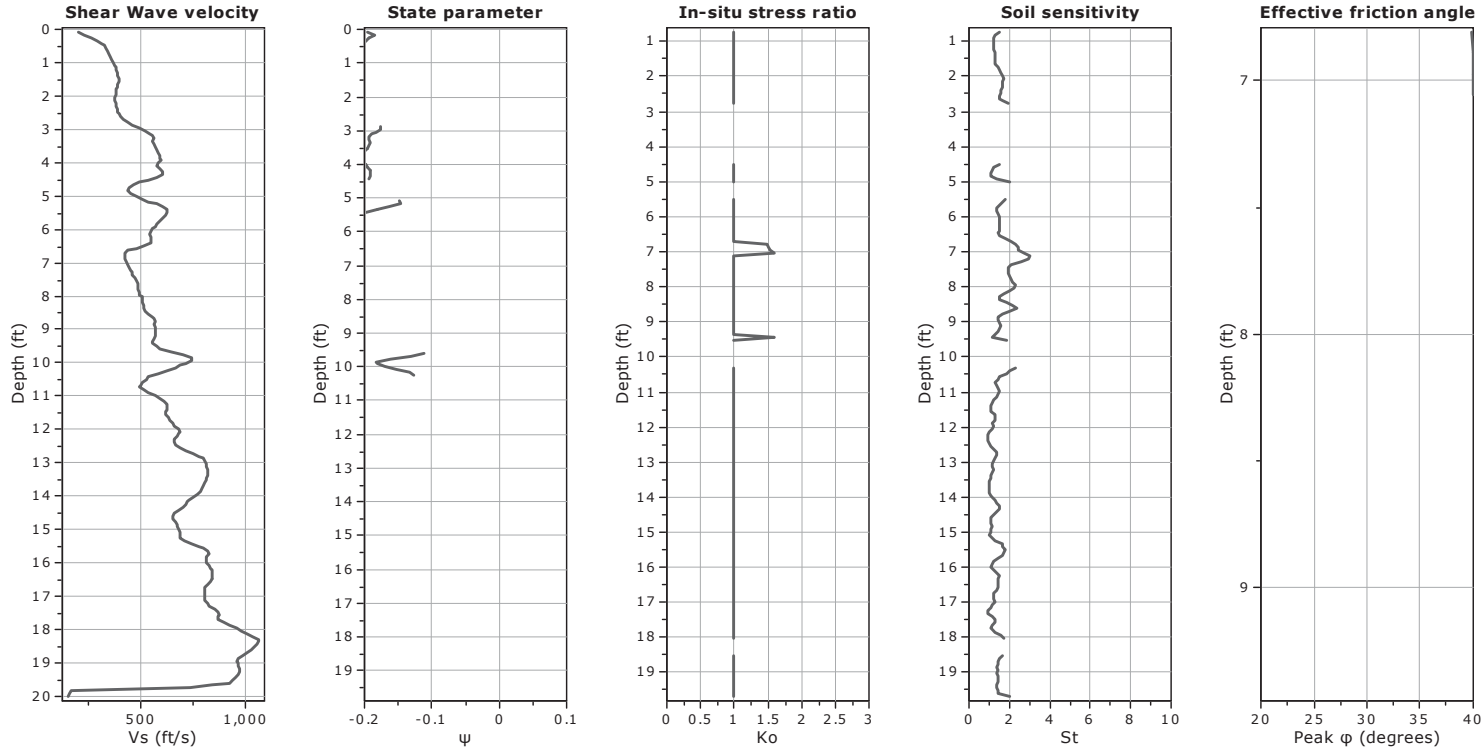
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-037
Total depth: 20.01 ft



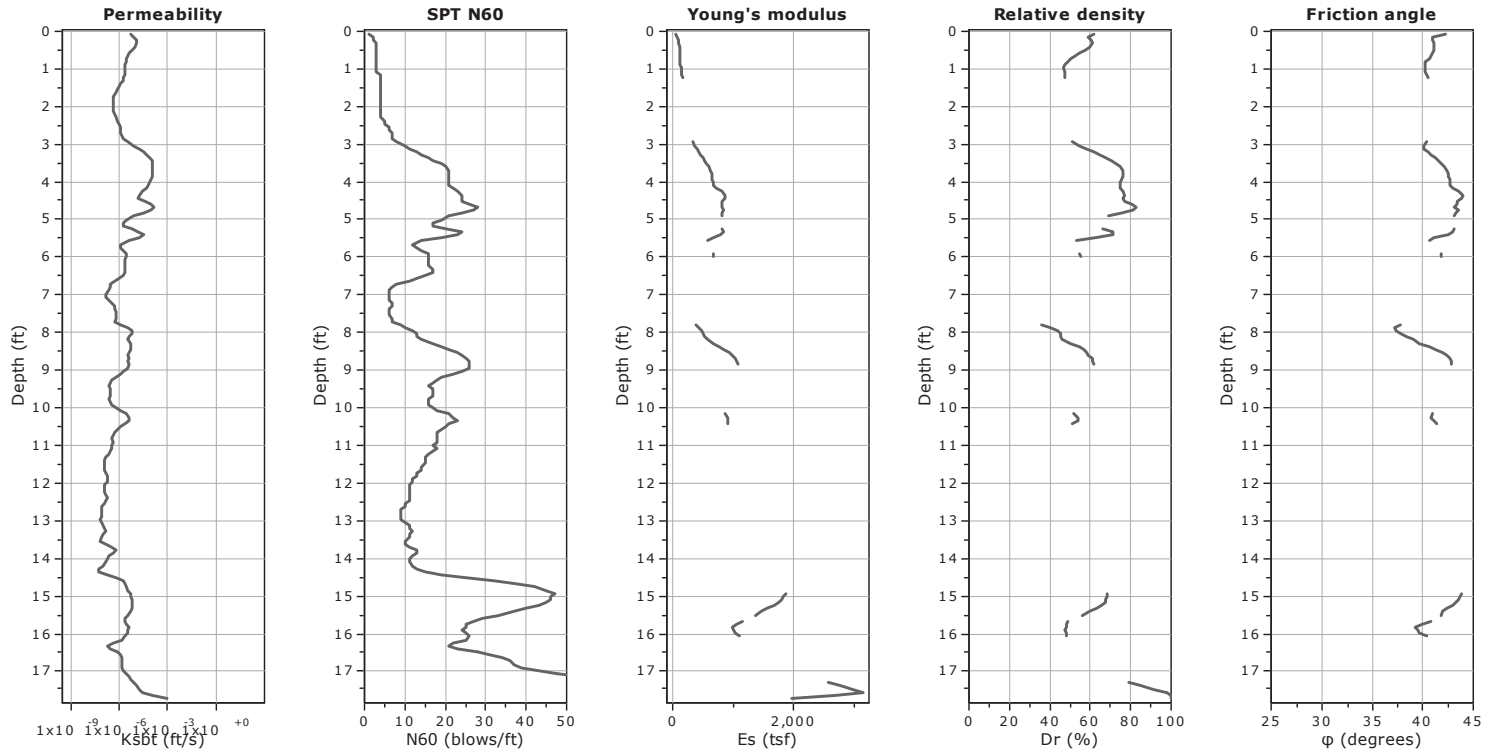
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-038
Total depth: 17.96 ft



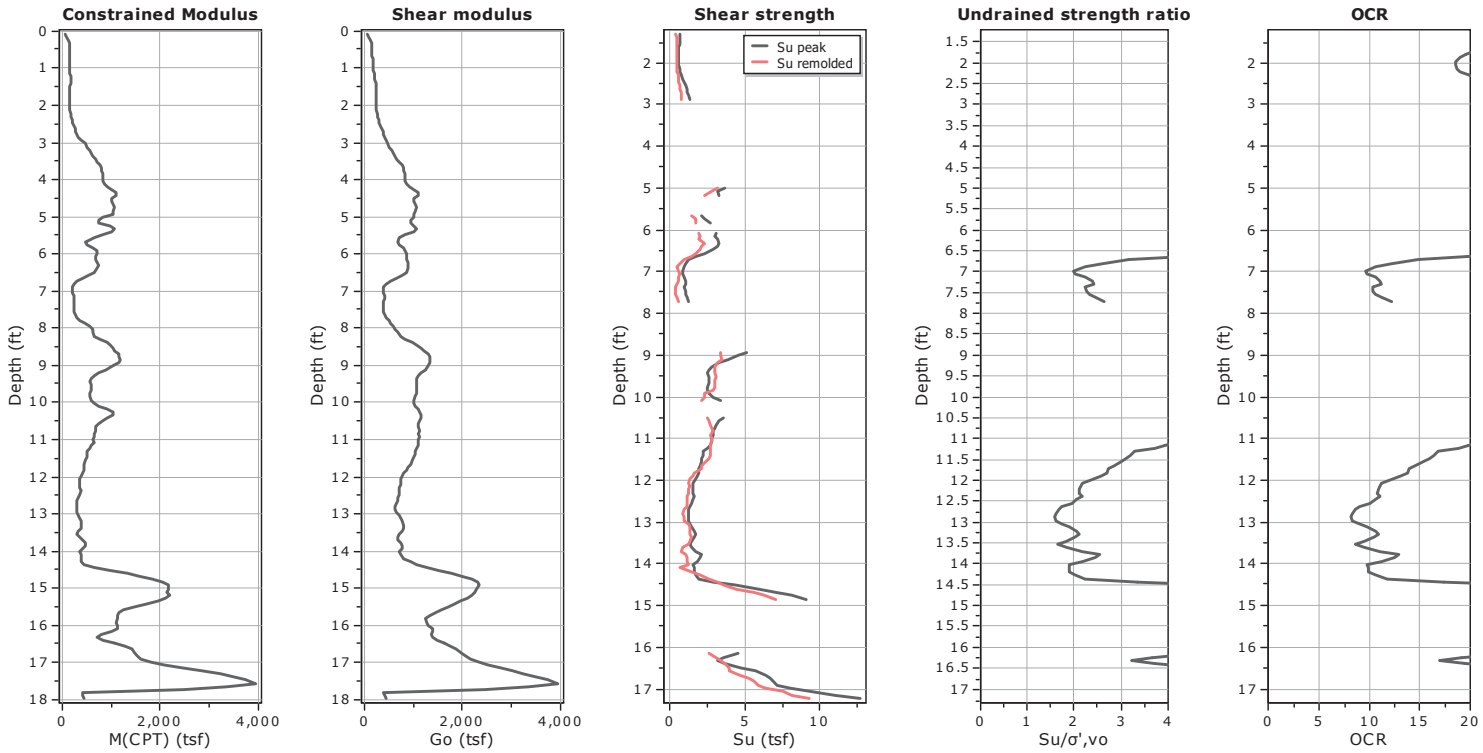
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-038
Total depth: 17.96 ft



Calculation parameters

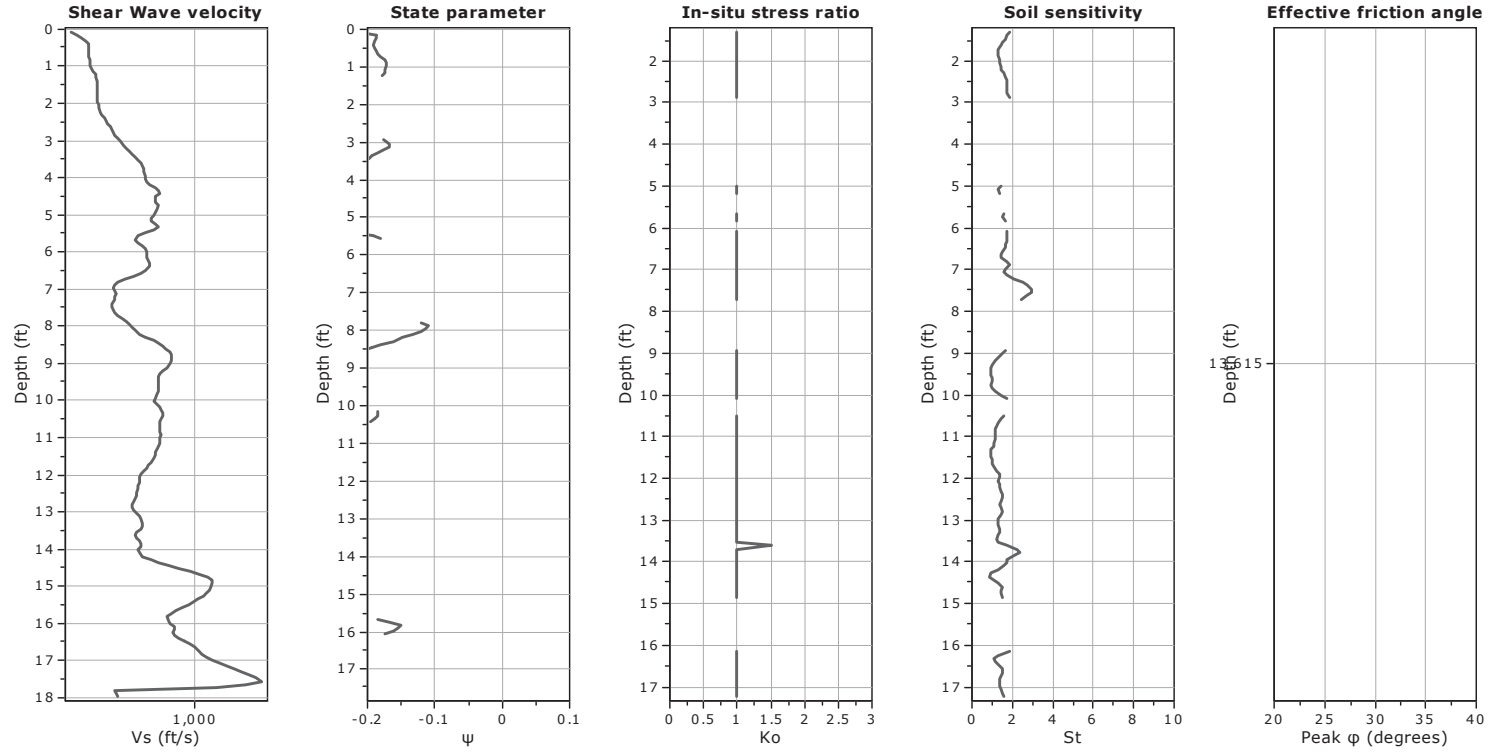
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-038
Total depth: 17.96 ft



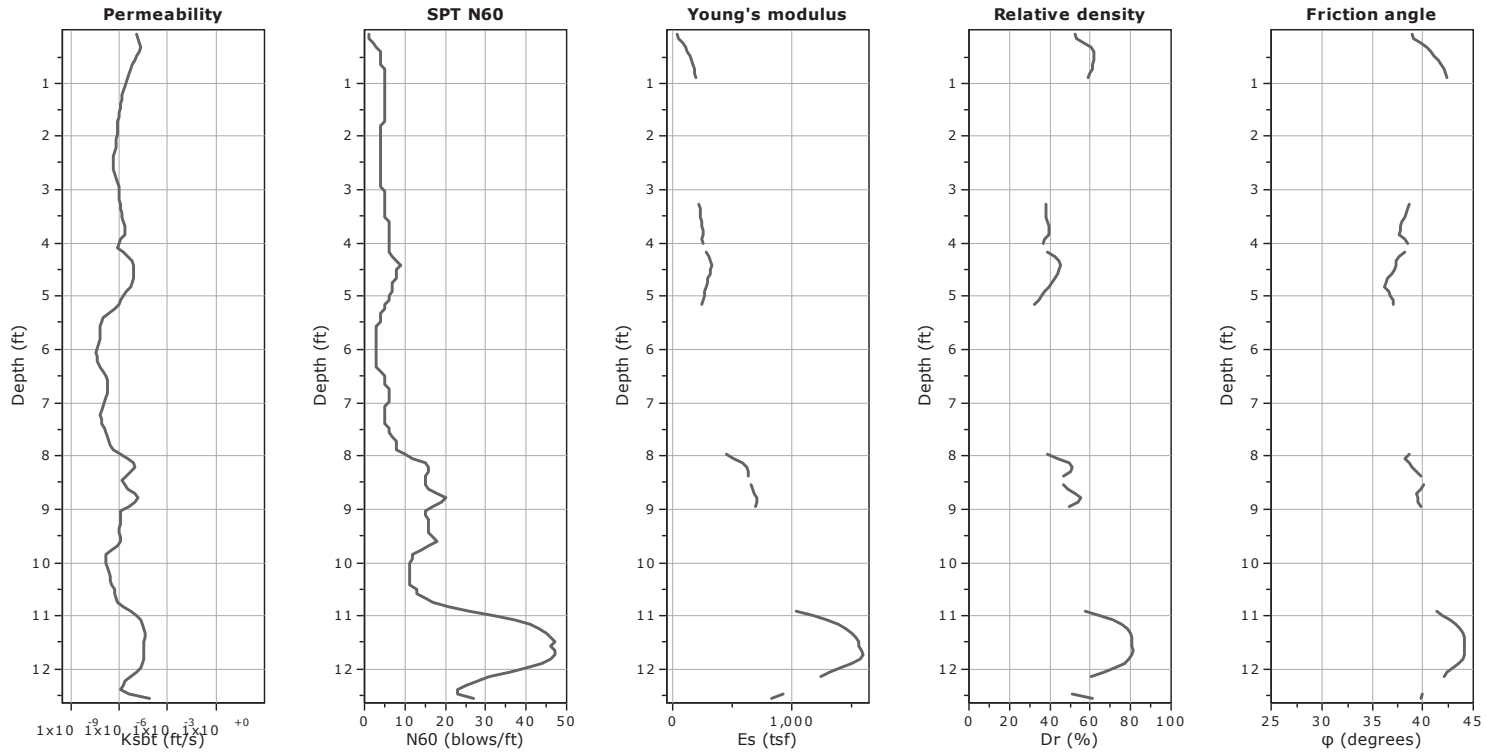
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-039
Total depth: 12.80 ft



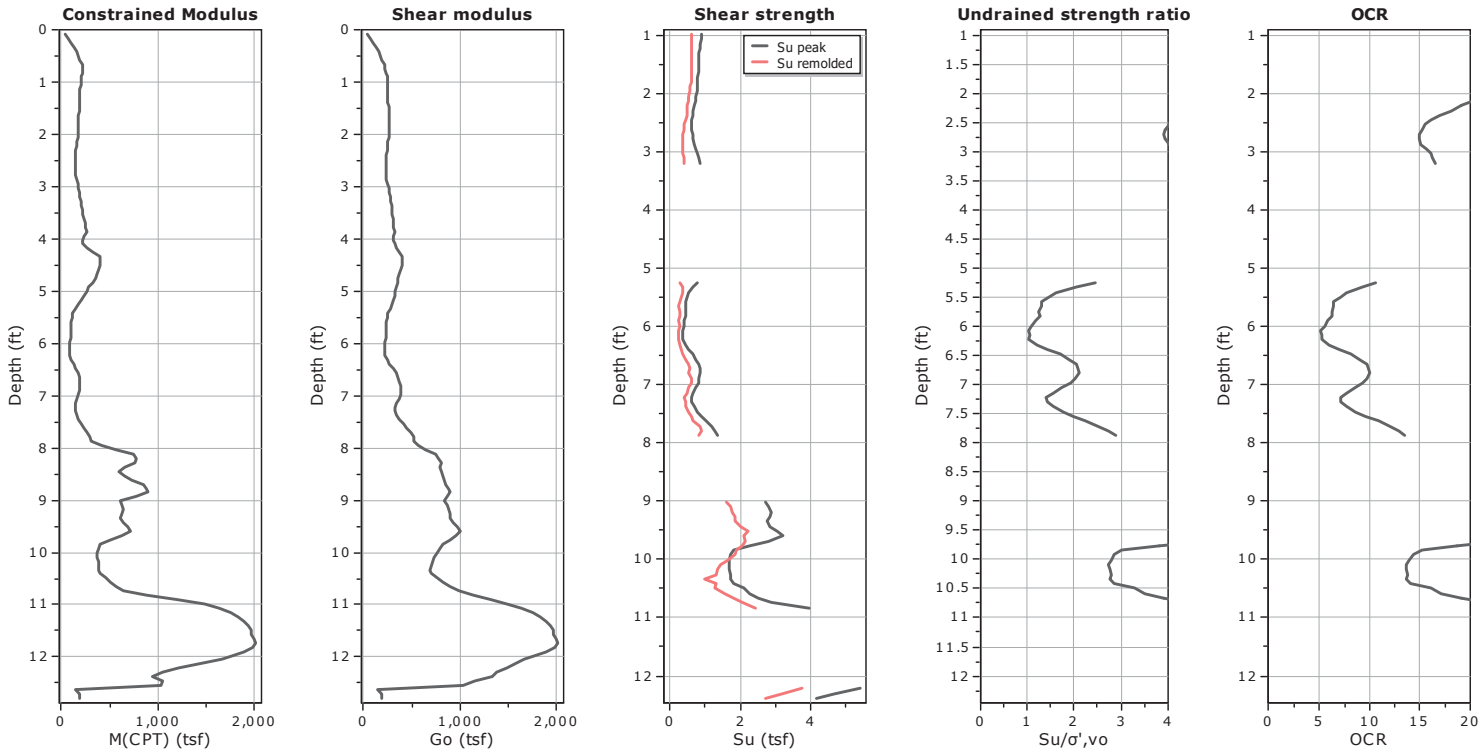
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-039
Total depth: 12.80 ft



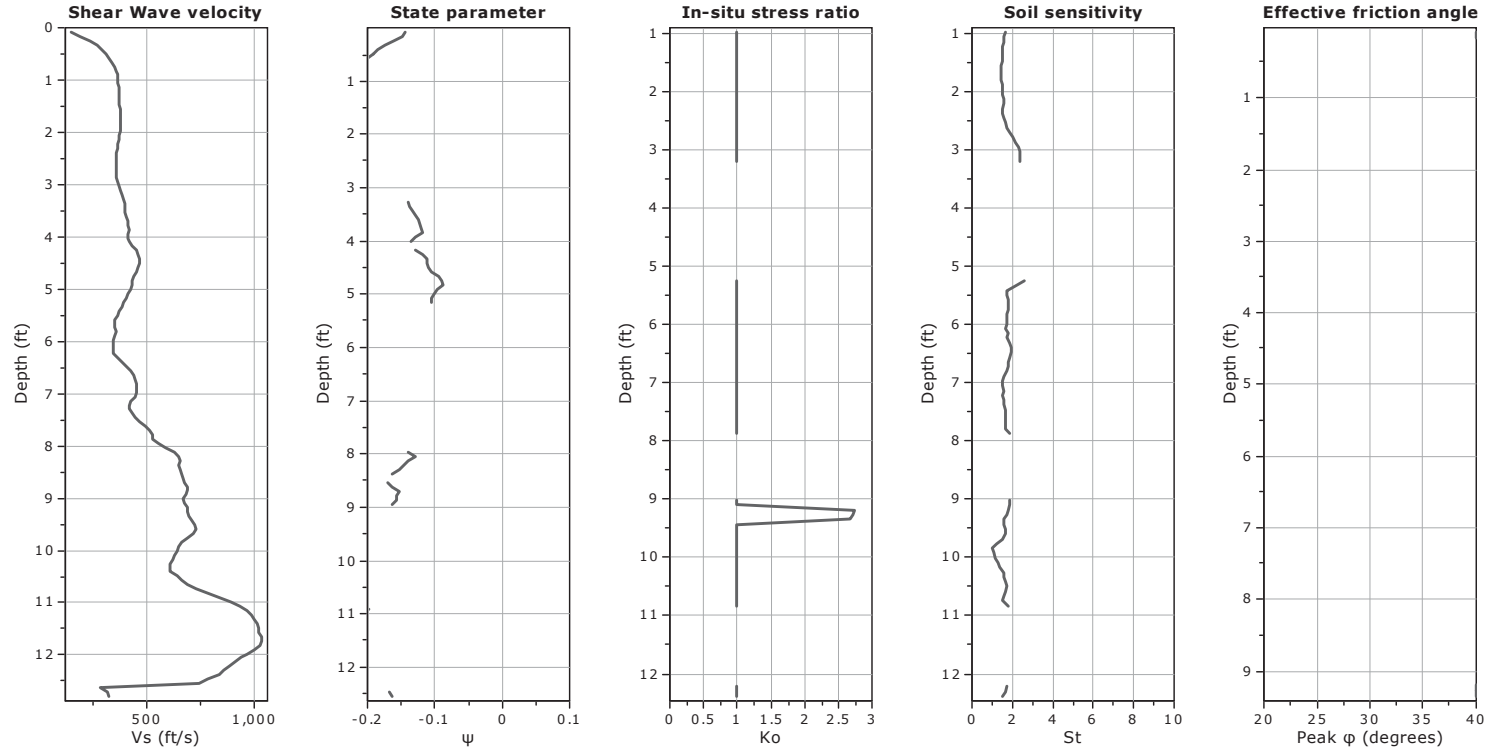
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-039
Total depth: 12.80 ft



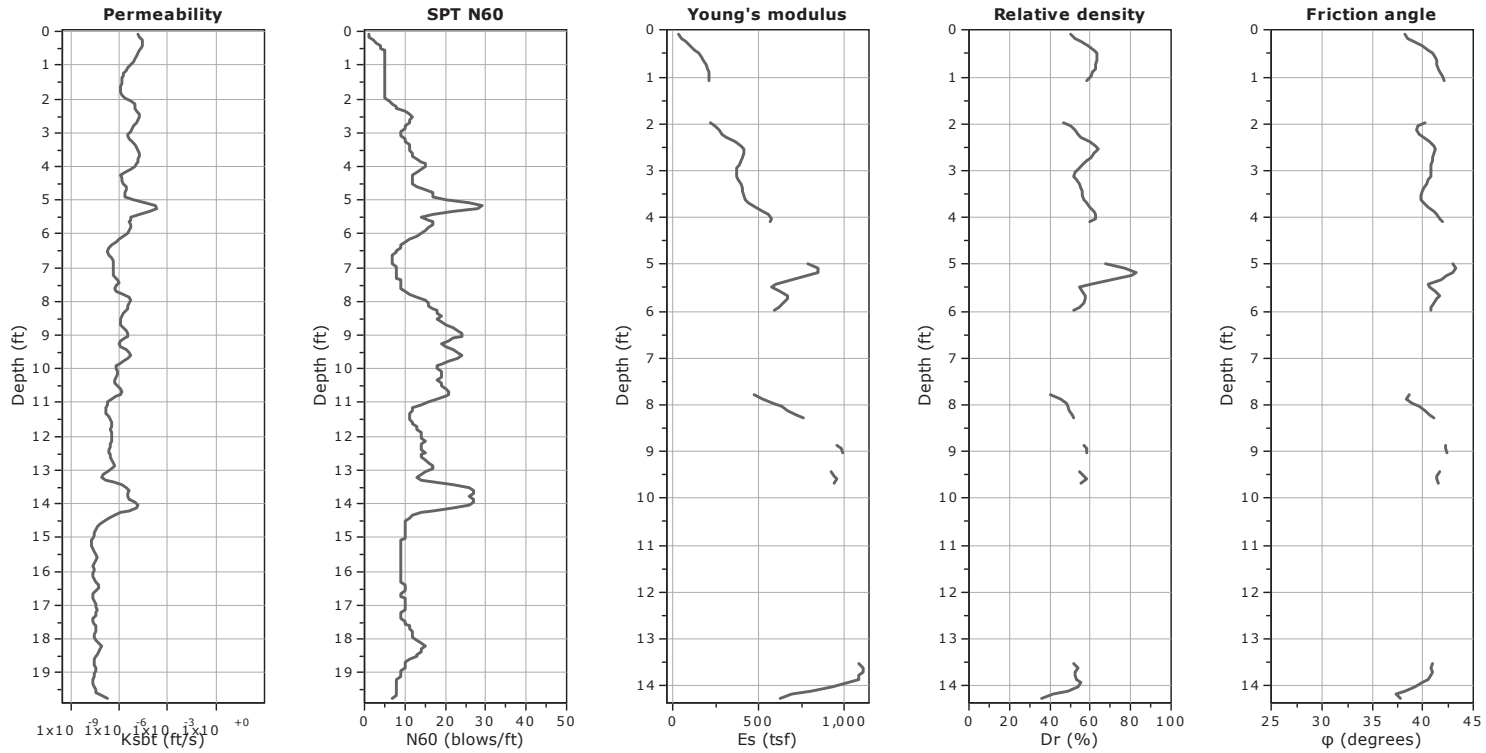
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-040
Total depth: 20.01 ft



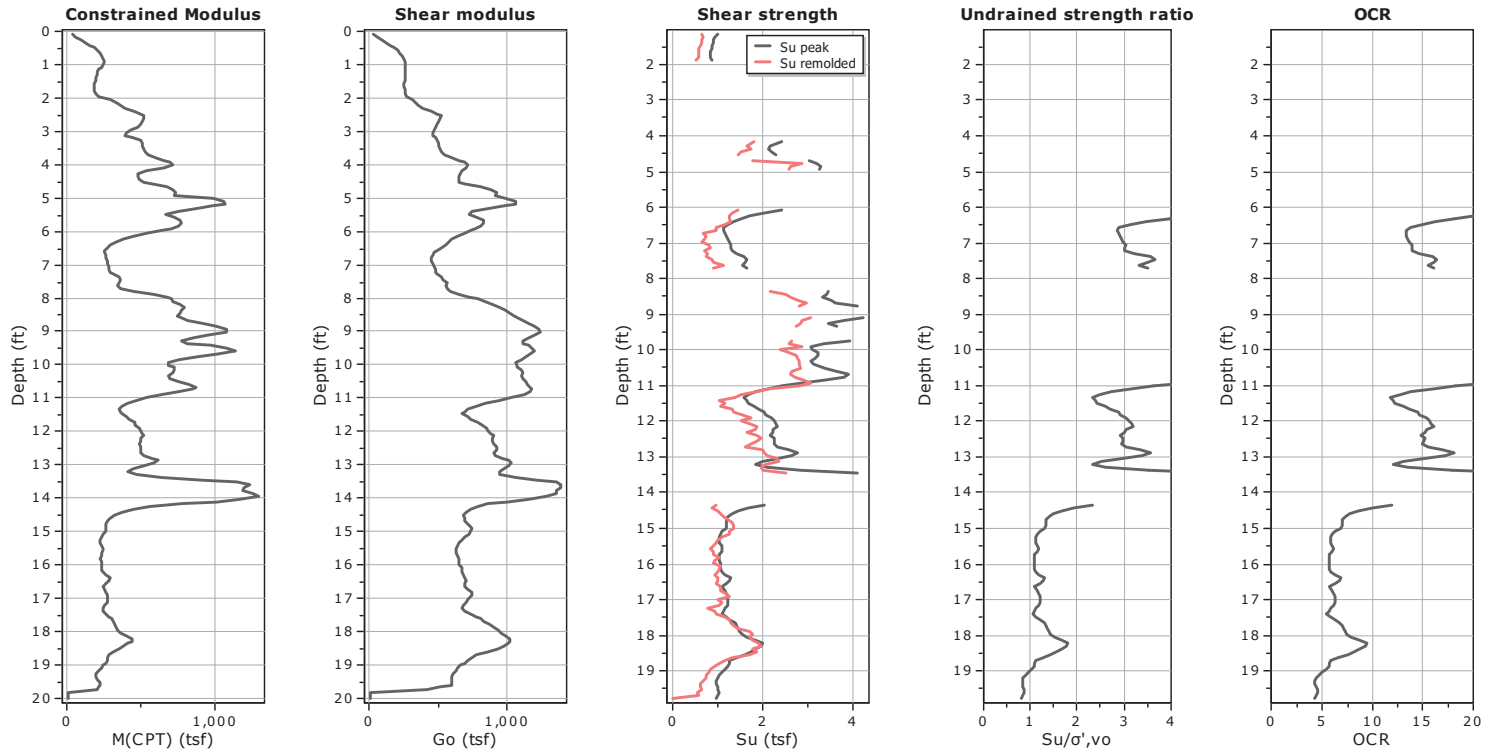
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-040
Total depth: 20.01 ft



Calculation parameters

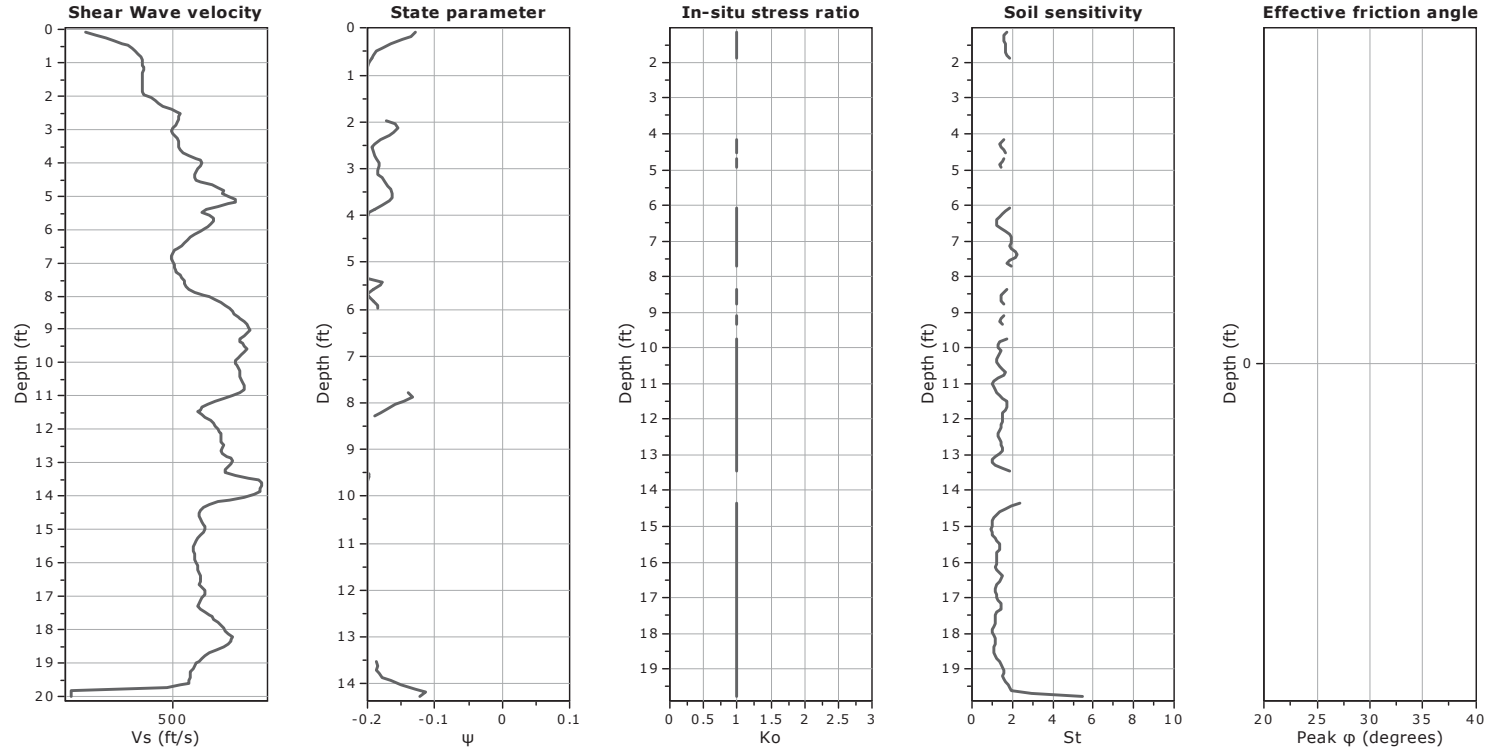
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-040
Total depth: 20.01 ft



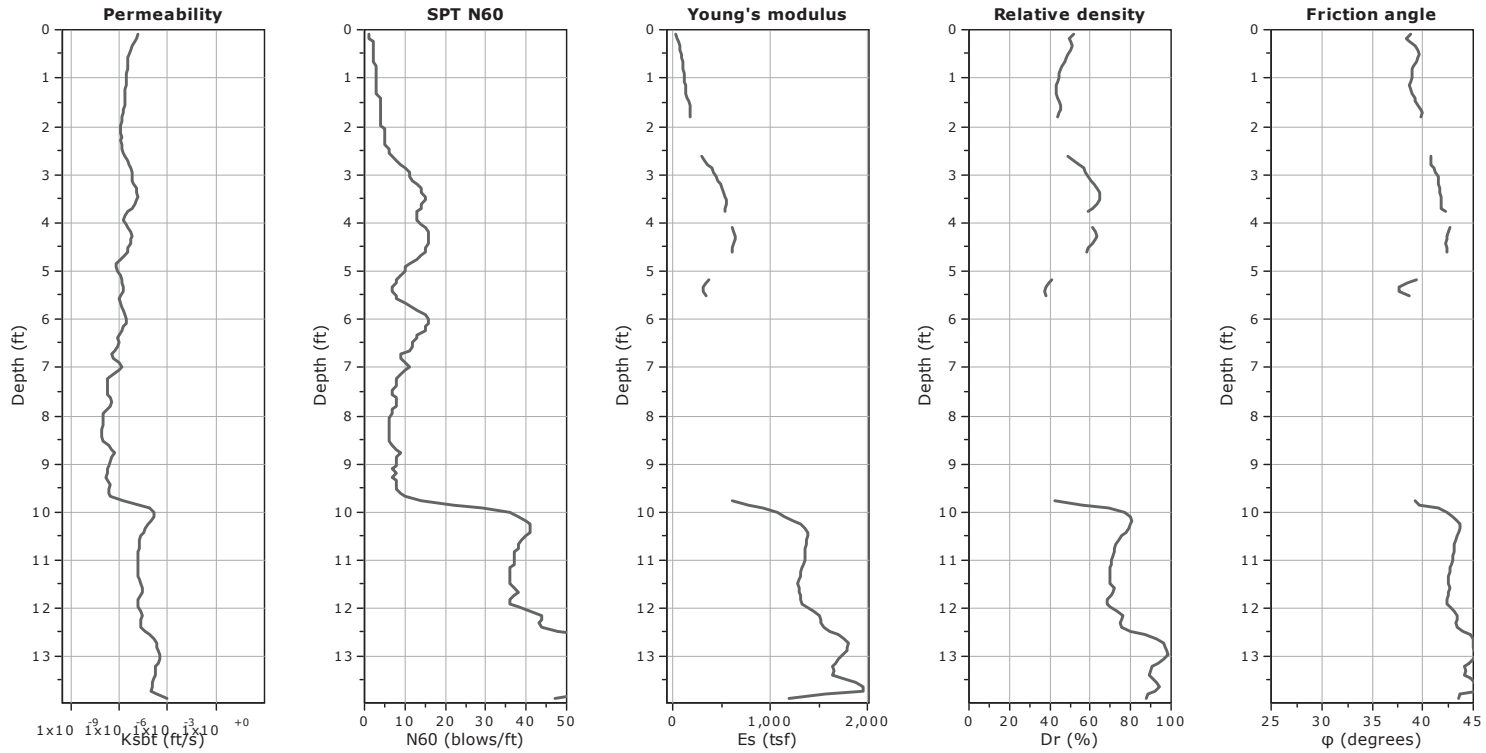
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-041
Total depth: 14.11 ft



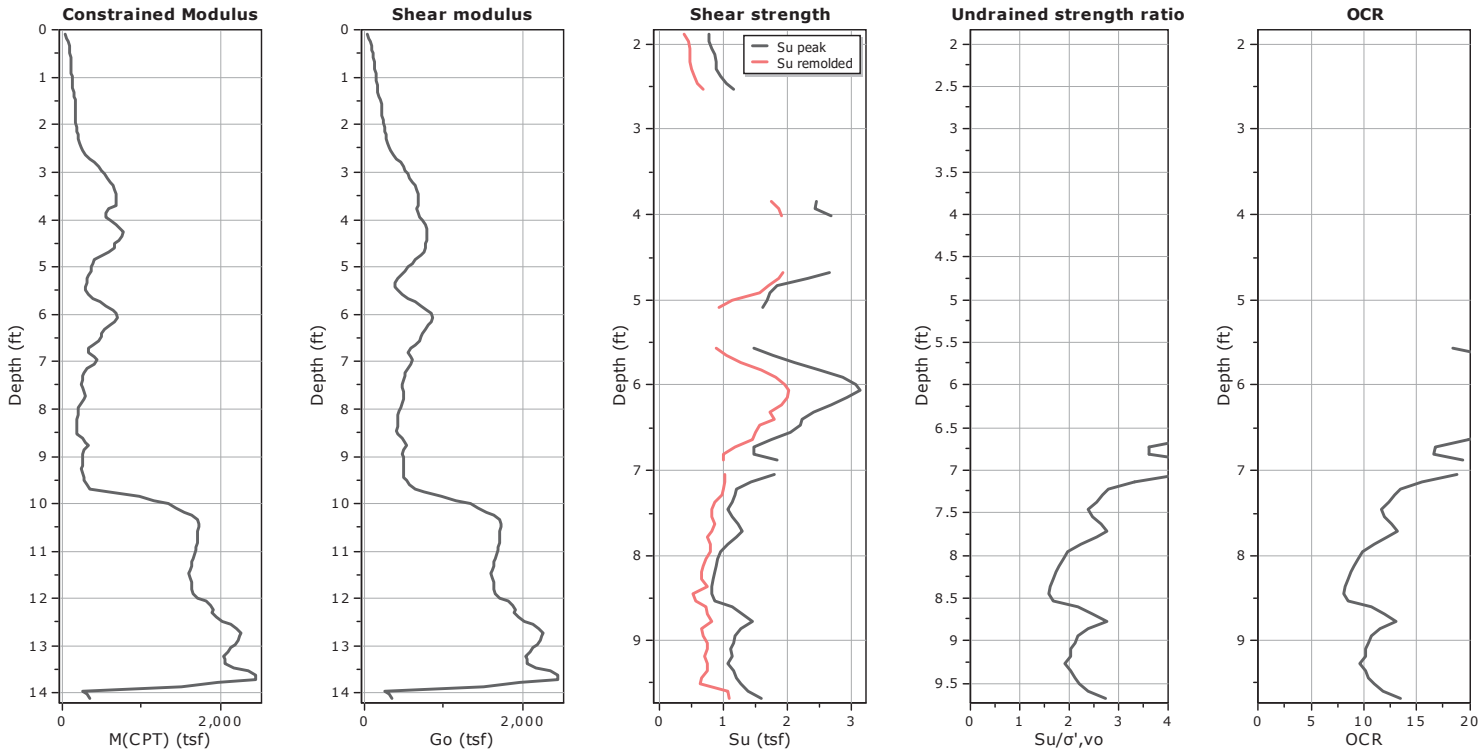
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-041
Total depth: 14.11 ft



Calculation parameters

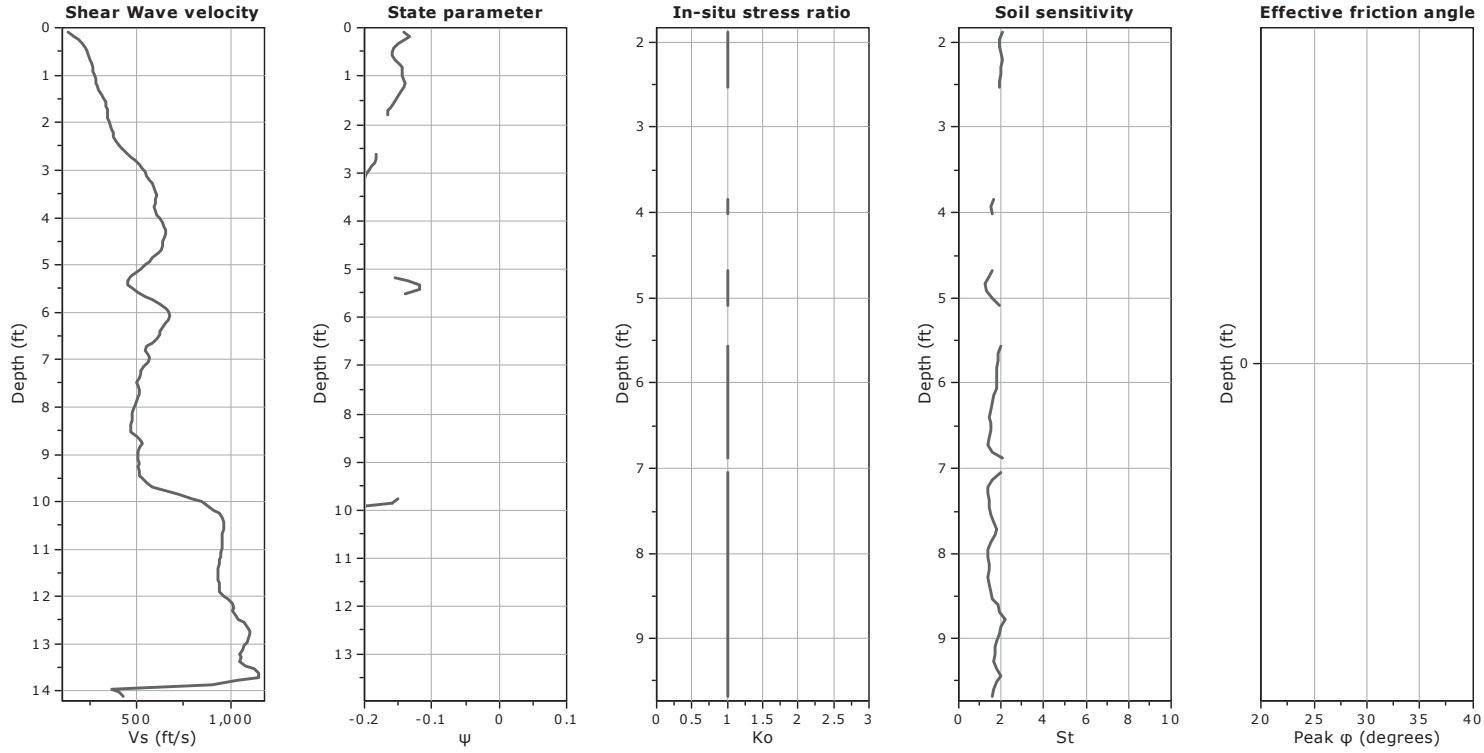
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-041
Total depth: 14.11 ft



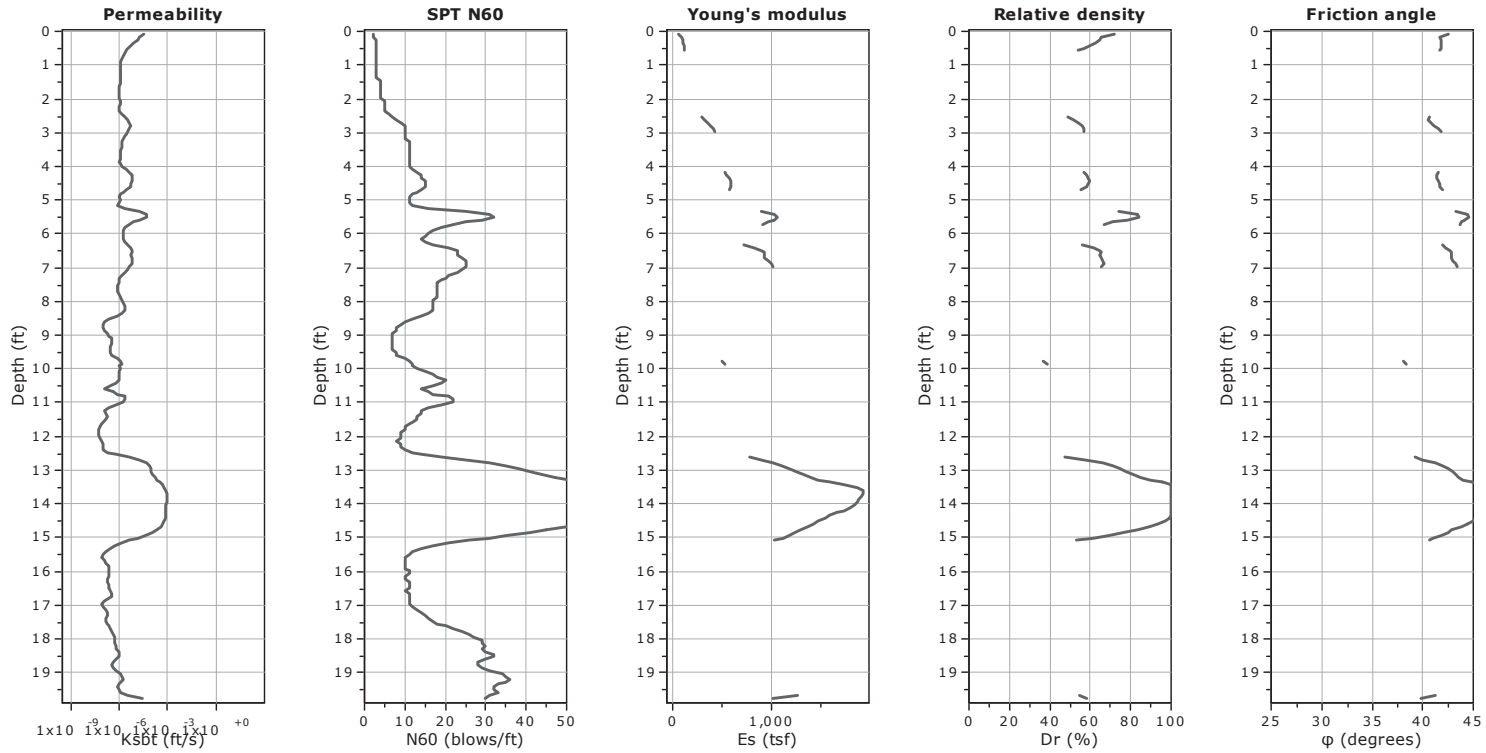
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-042
Total depth: 20.01 ft



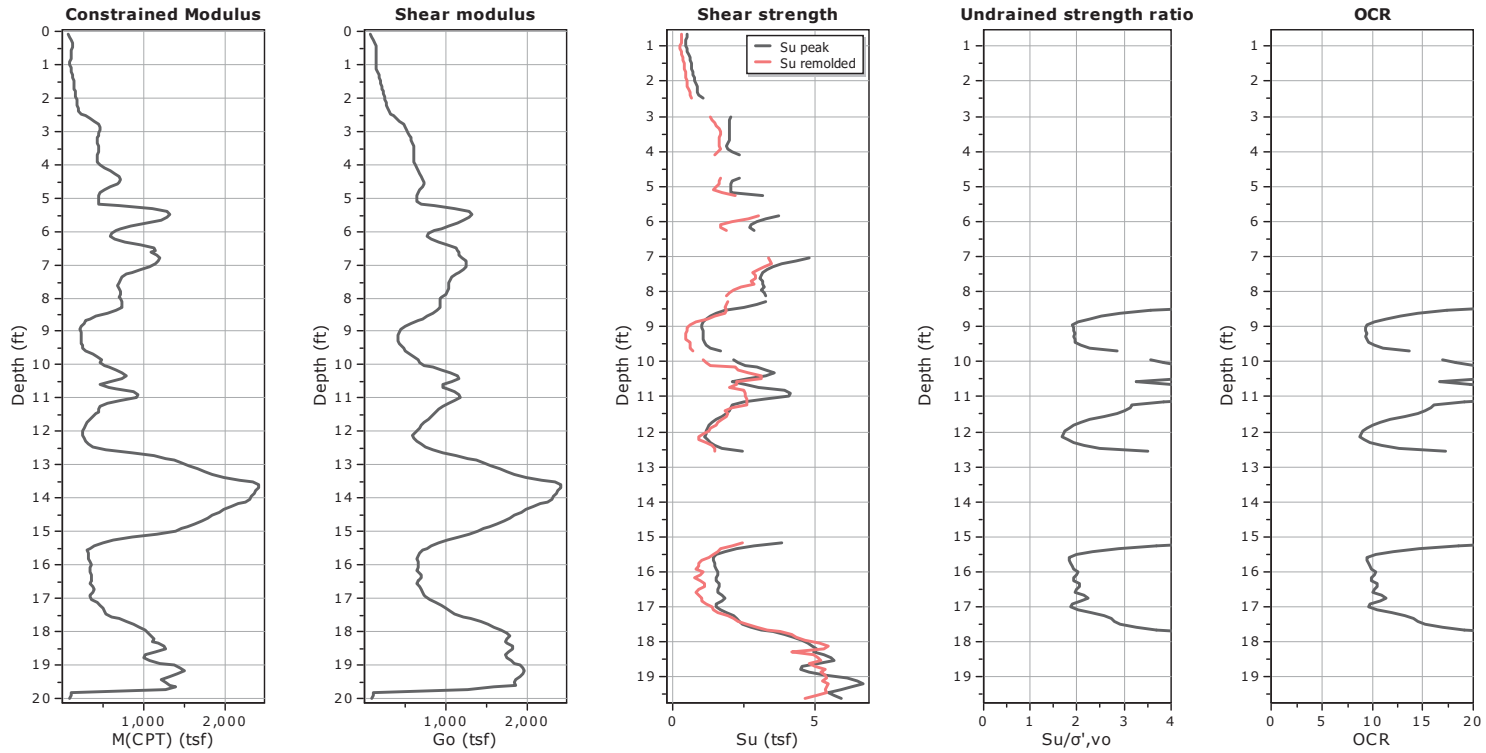
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-042
Total depth: 20.01 ft



Calculation parameters

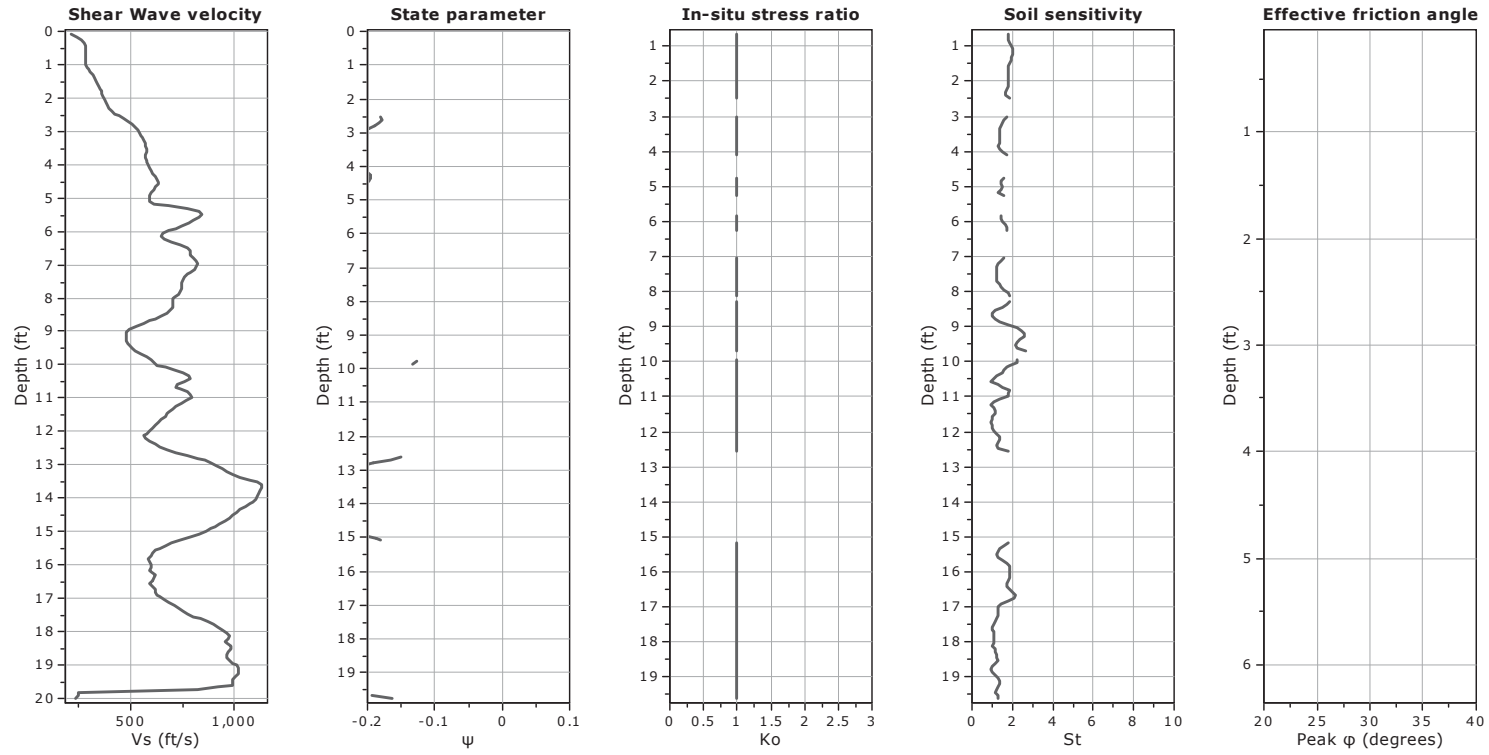
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-042
Total depth: 20.01 ft



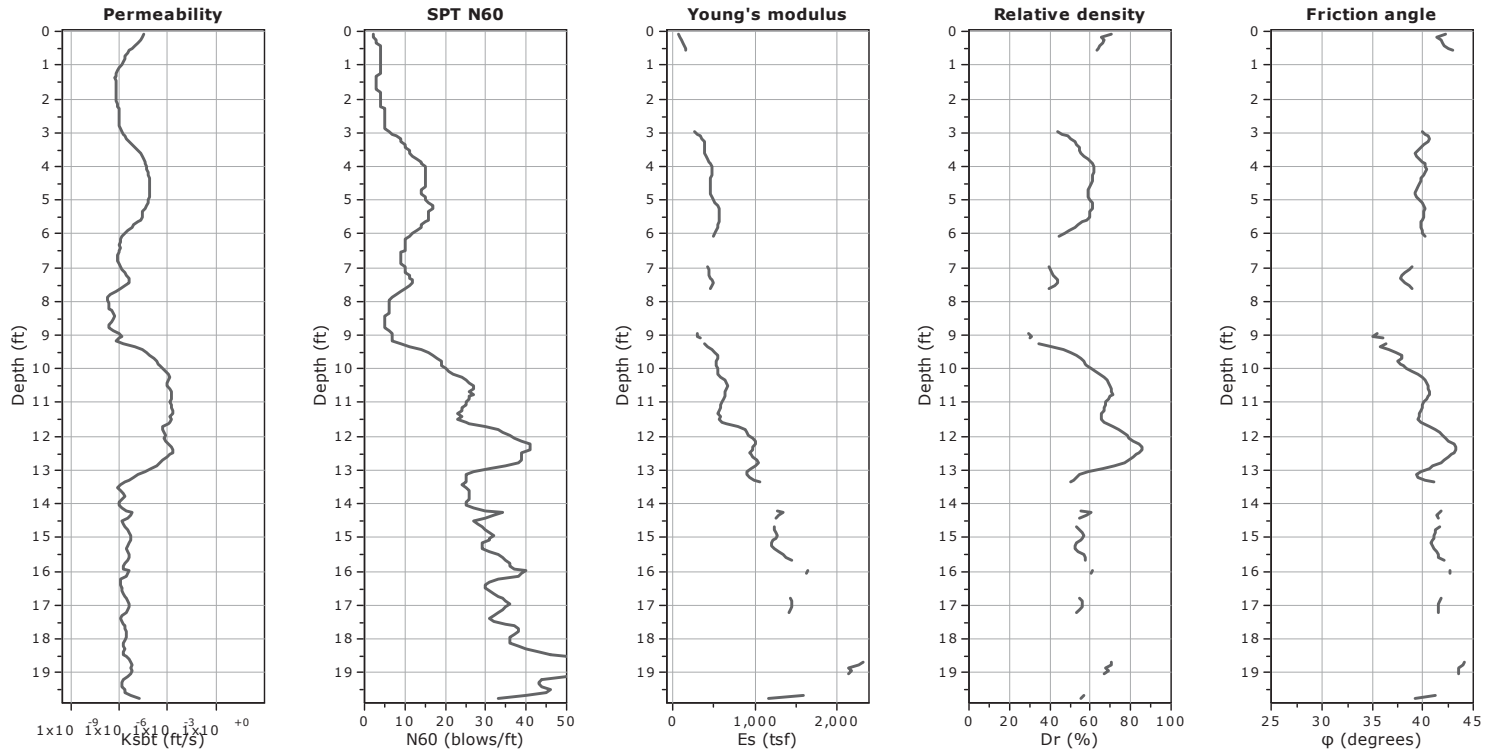
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-043
Total depth: 20.01 ft



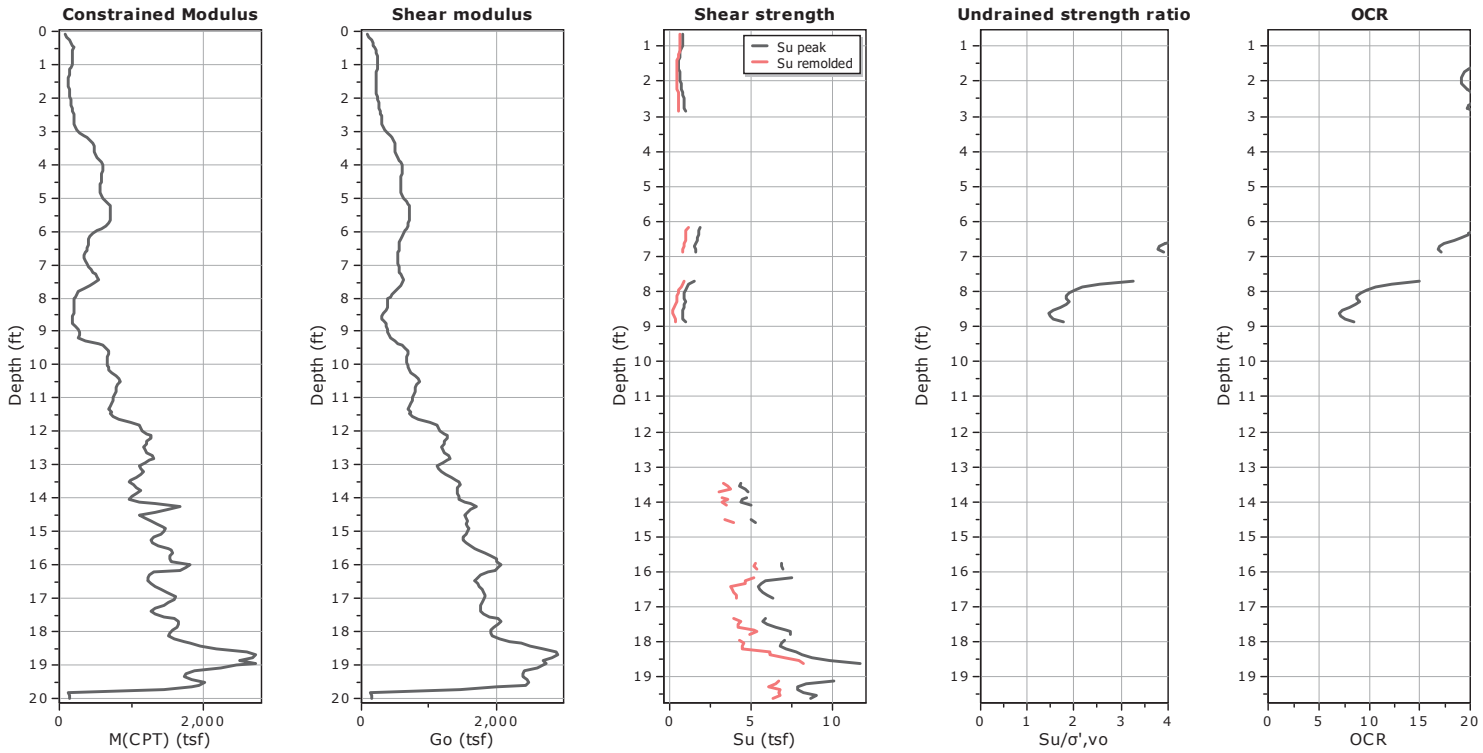
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-043
Total depth: 20.01 ft



Calculation parameters

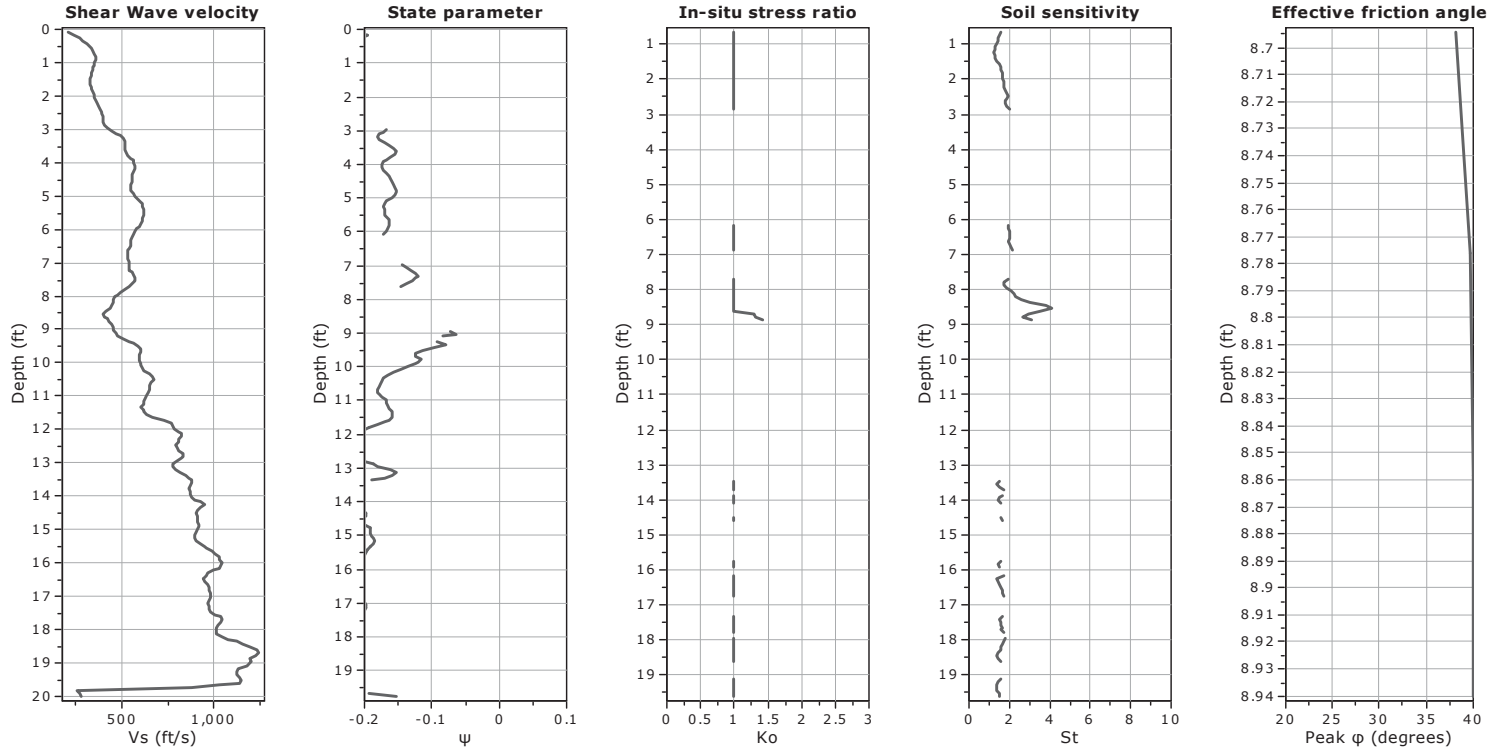
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-043
Total depth: 20.01 ft



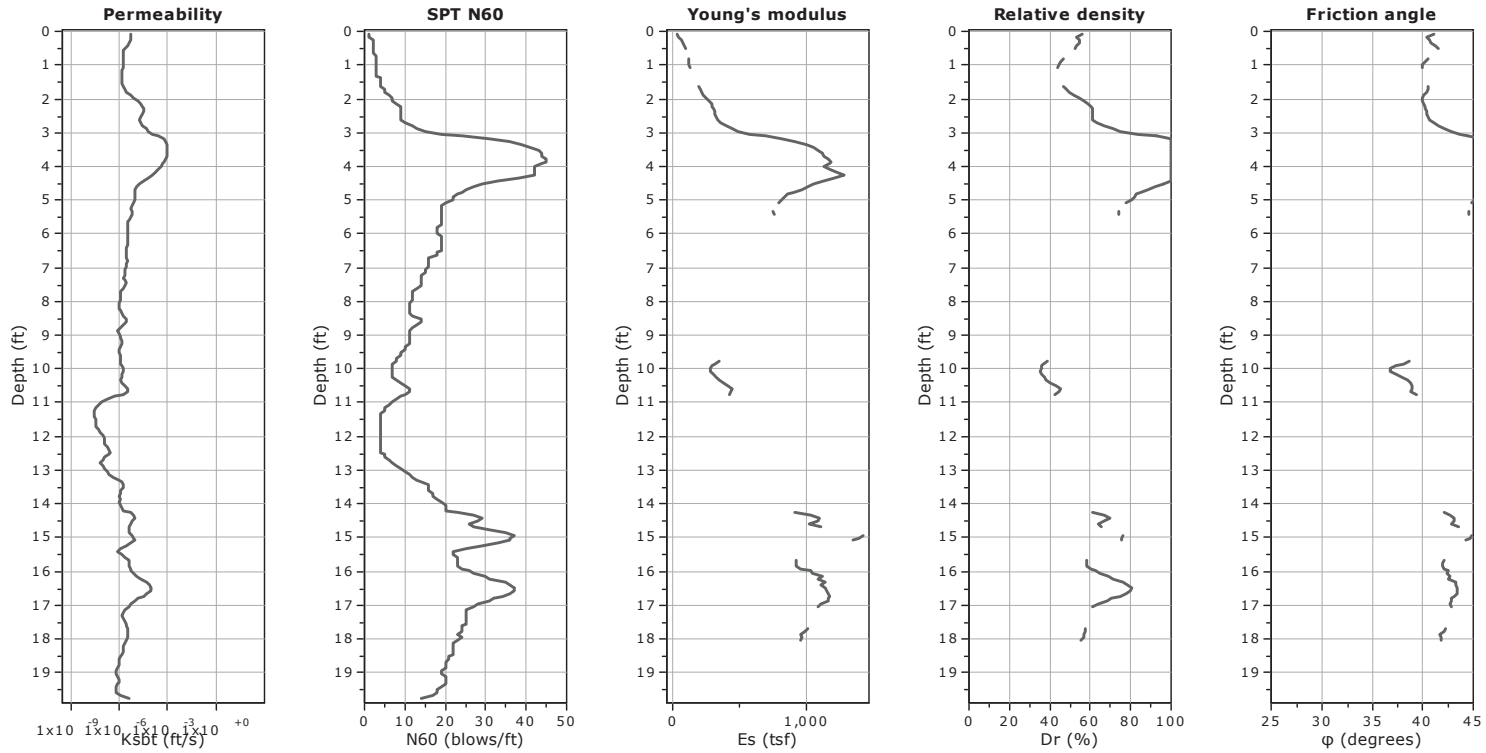
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-044
Total depth: 20.01 ft



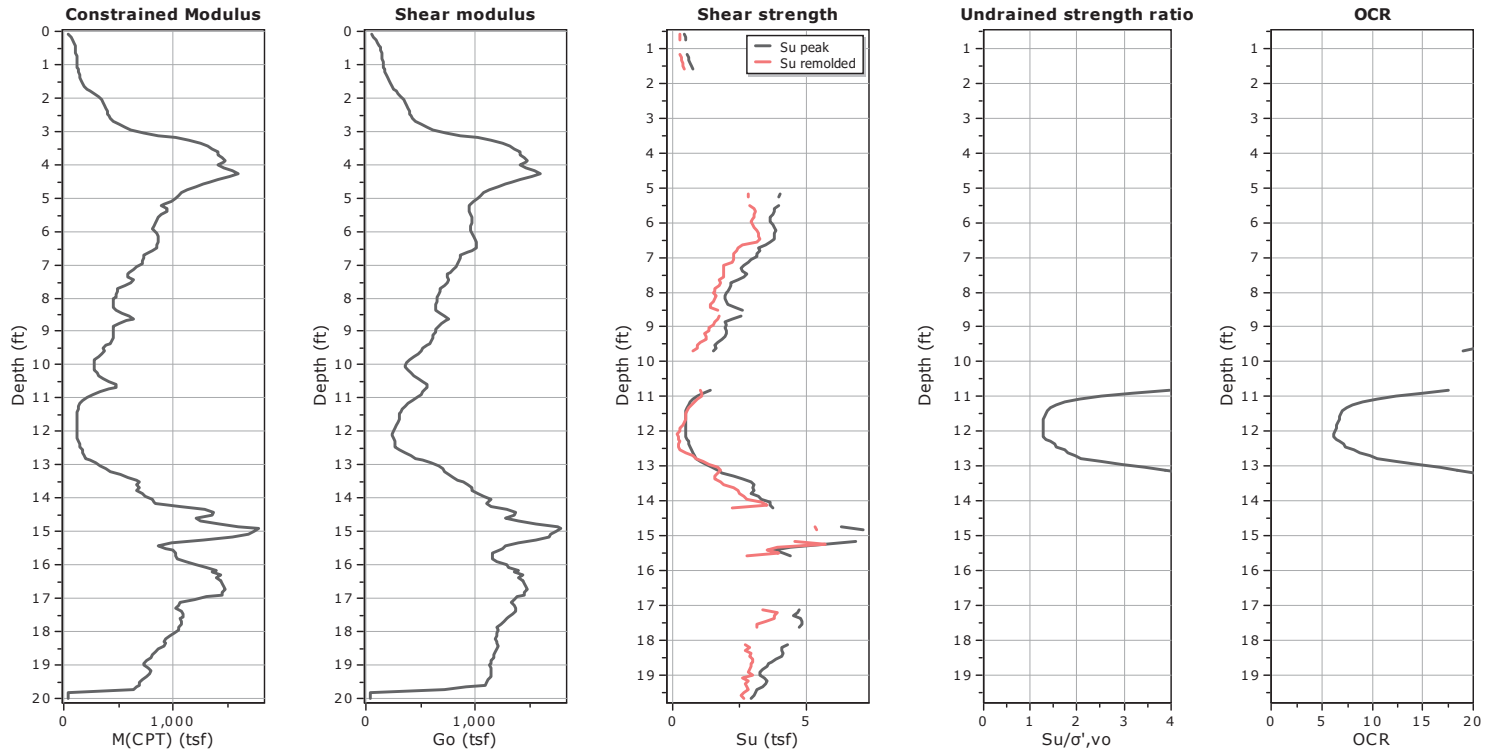
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-044
Total depth: 20.01 ft



Calculation parameters

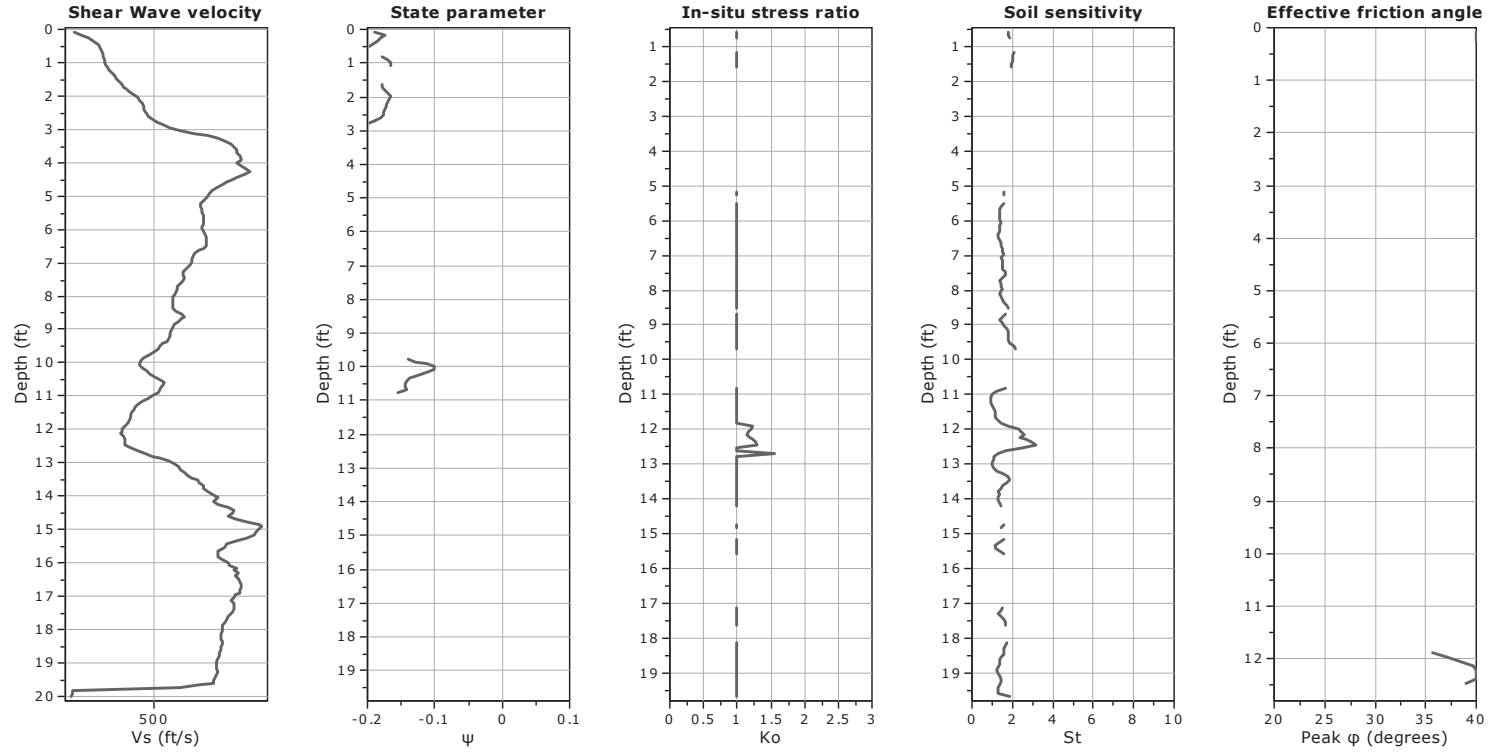
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-044
Total depth: 20.01 ft



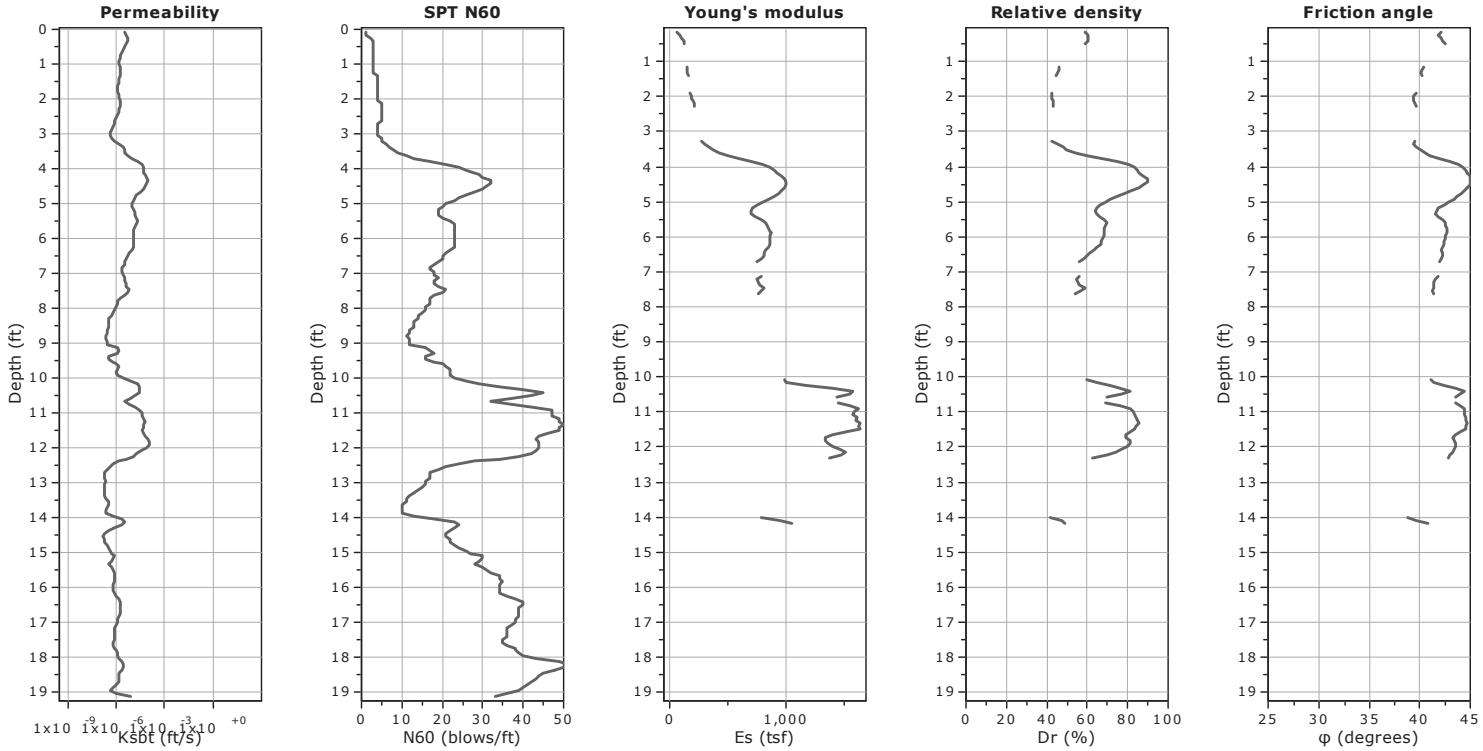
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-045
Total depth: 19.36 ft



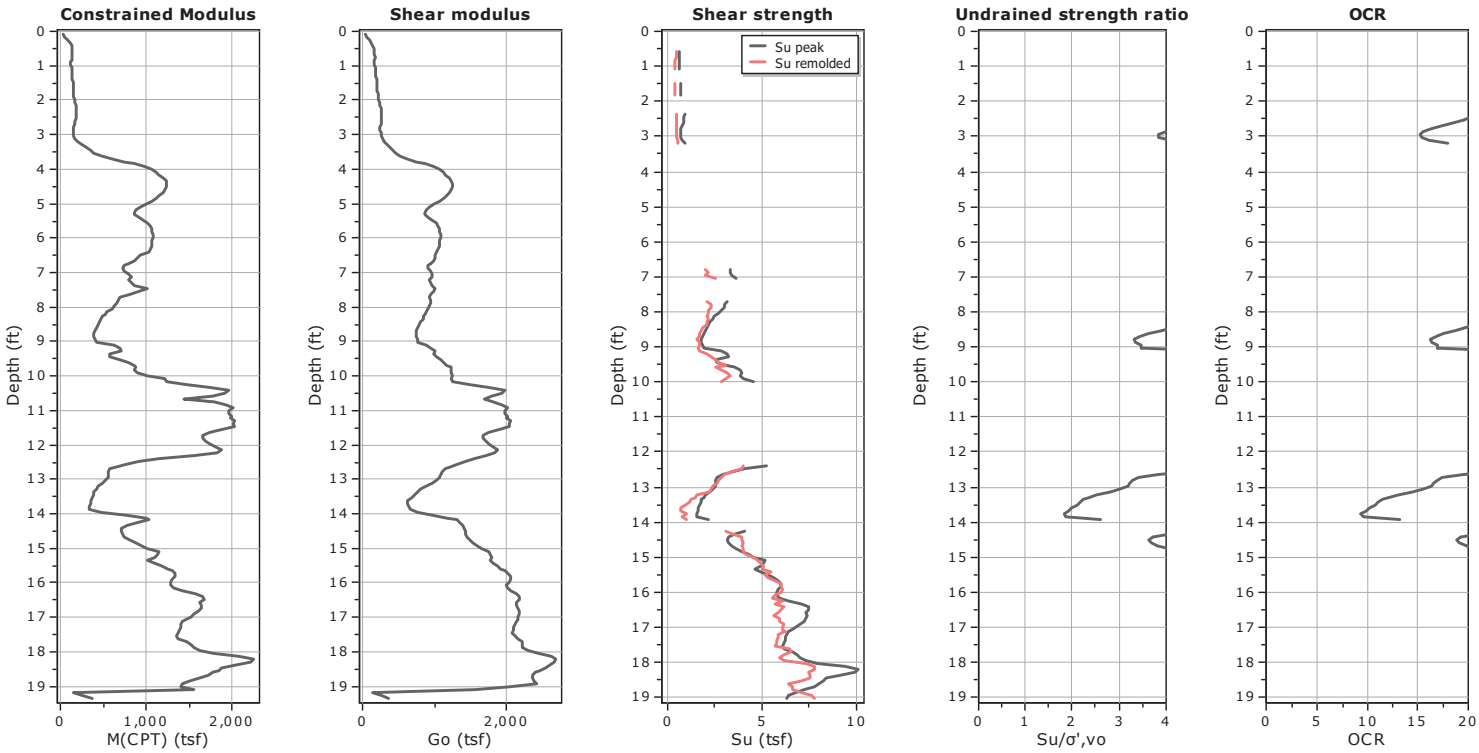
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-045
Total depth: 19.36 ft



Calculation parameters

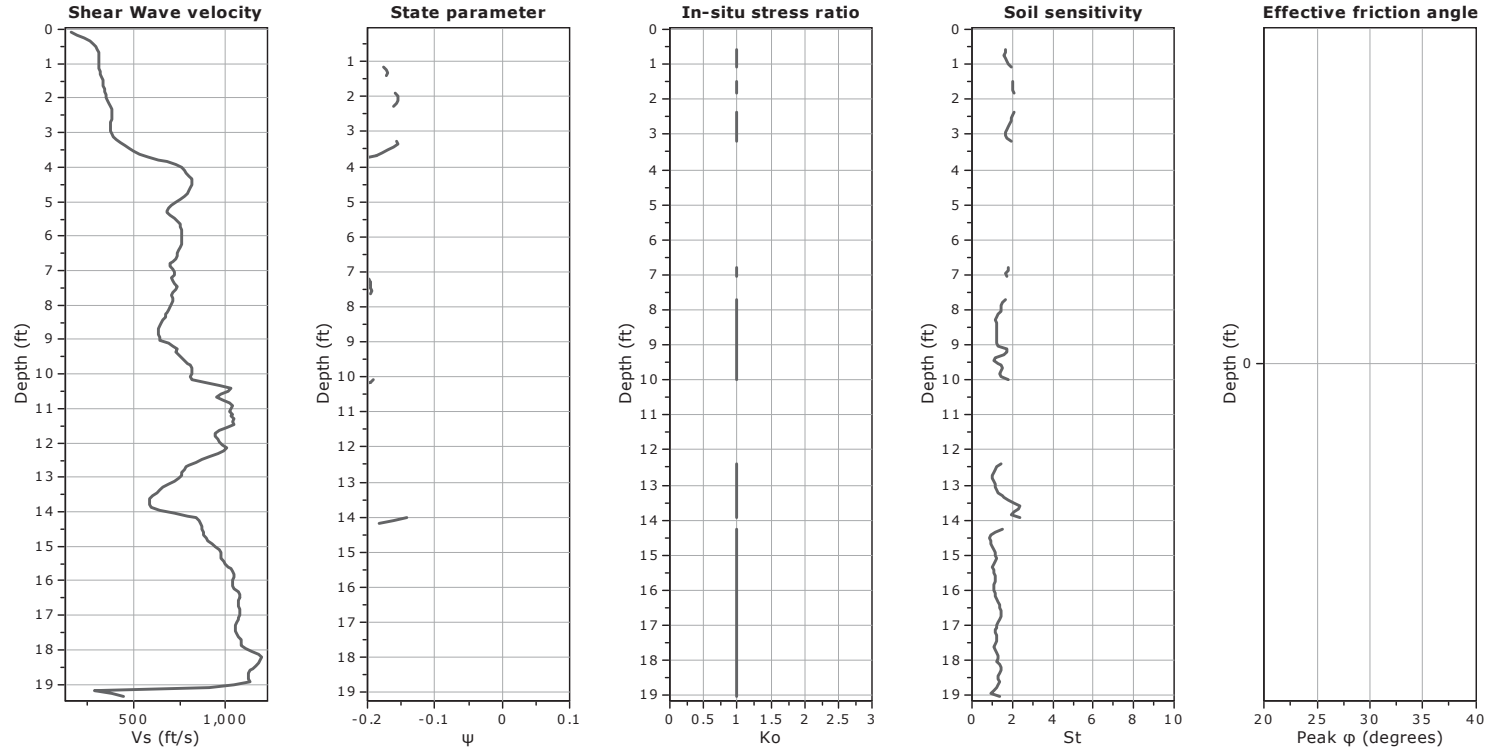
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-045
Total depth: 19.36 ft



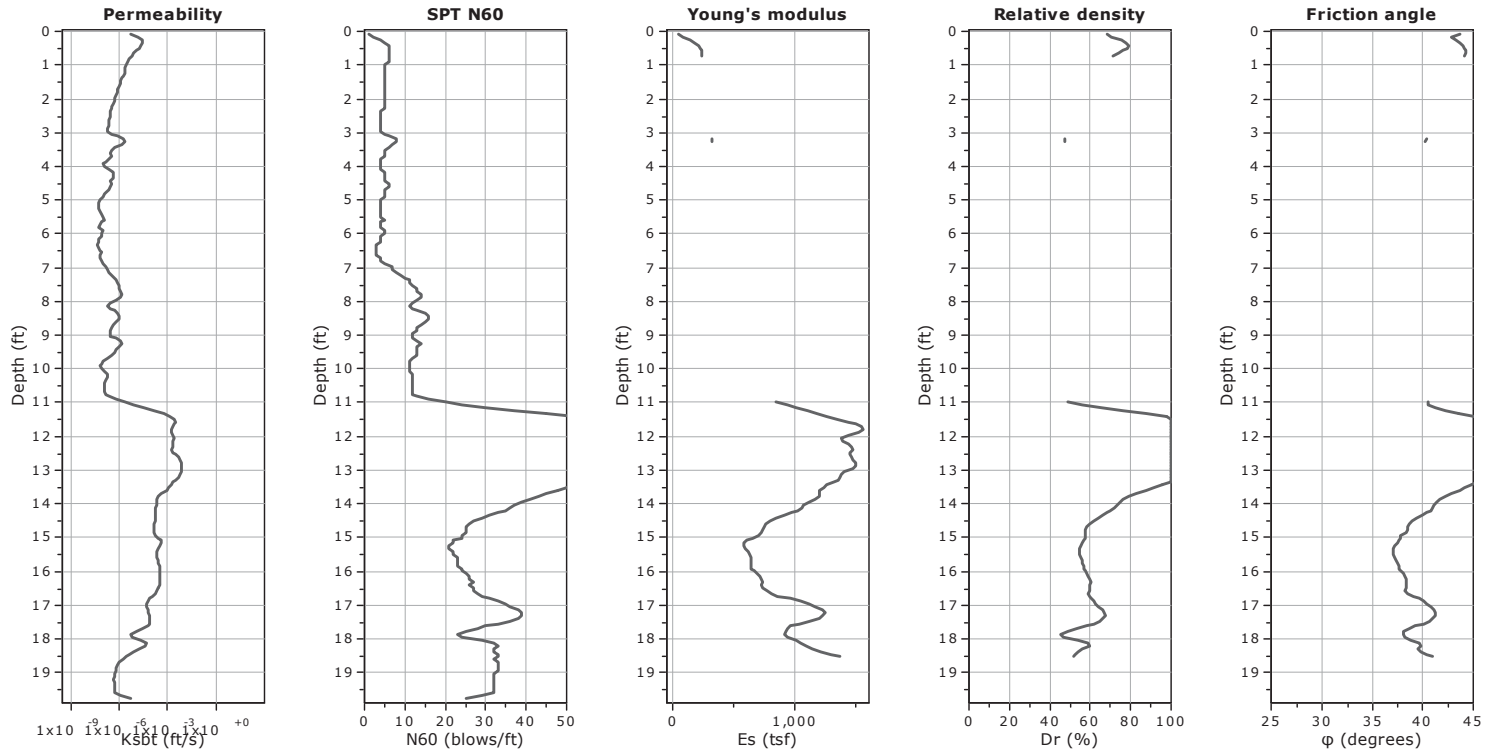
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-046
Total depth: 20.01 ft



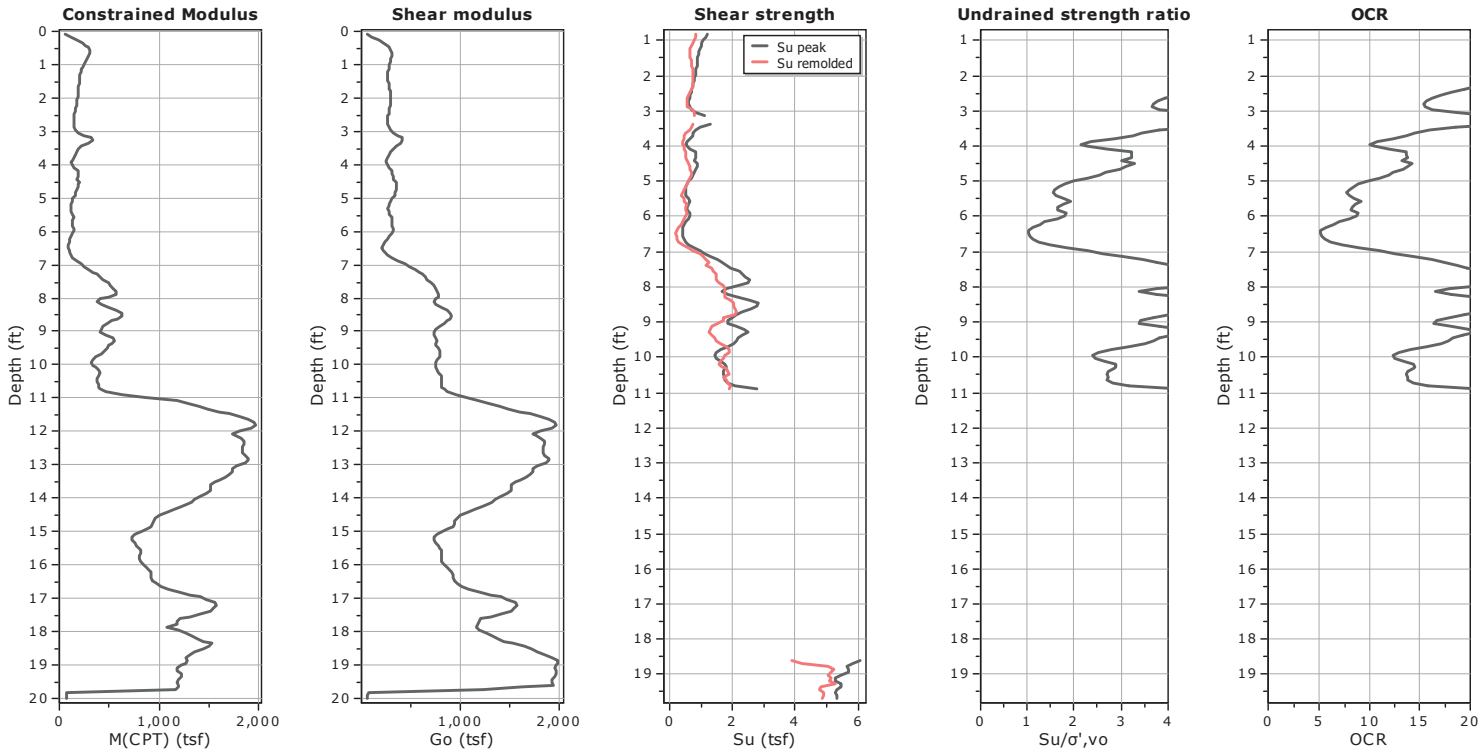
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-046
Total depth: 20.01 ft



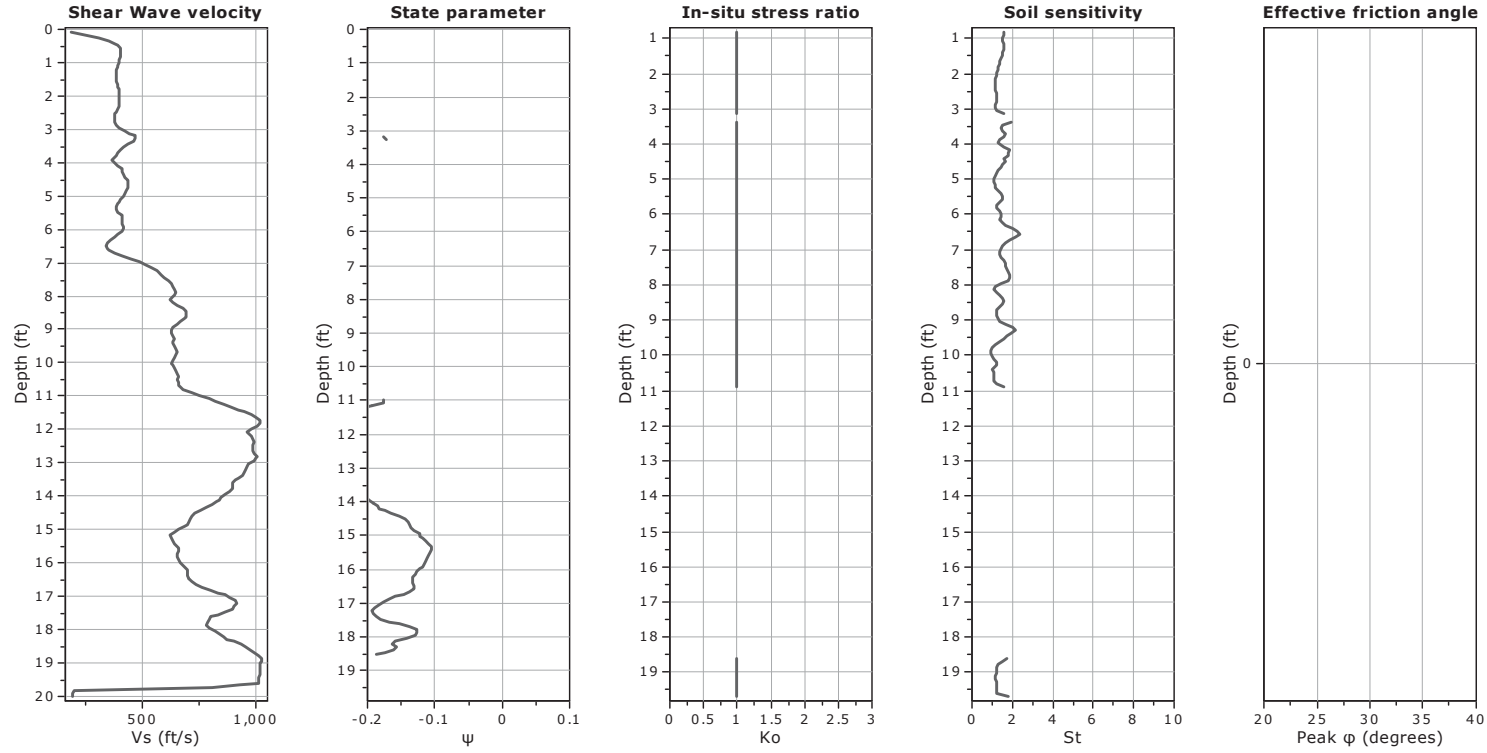
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-046
Total depth: 20.01 ft



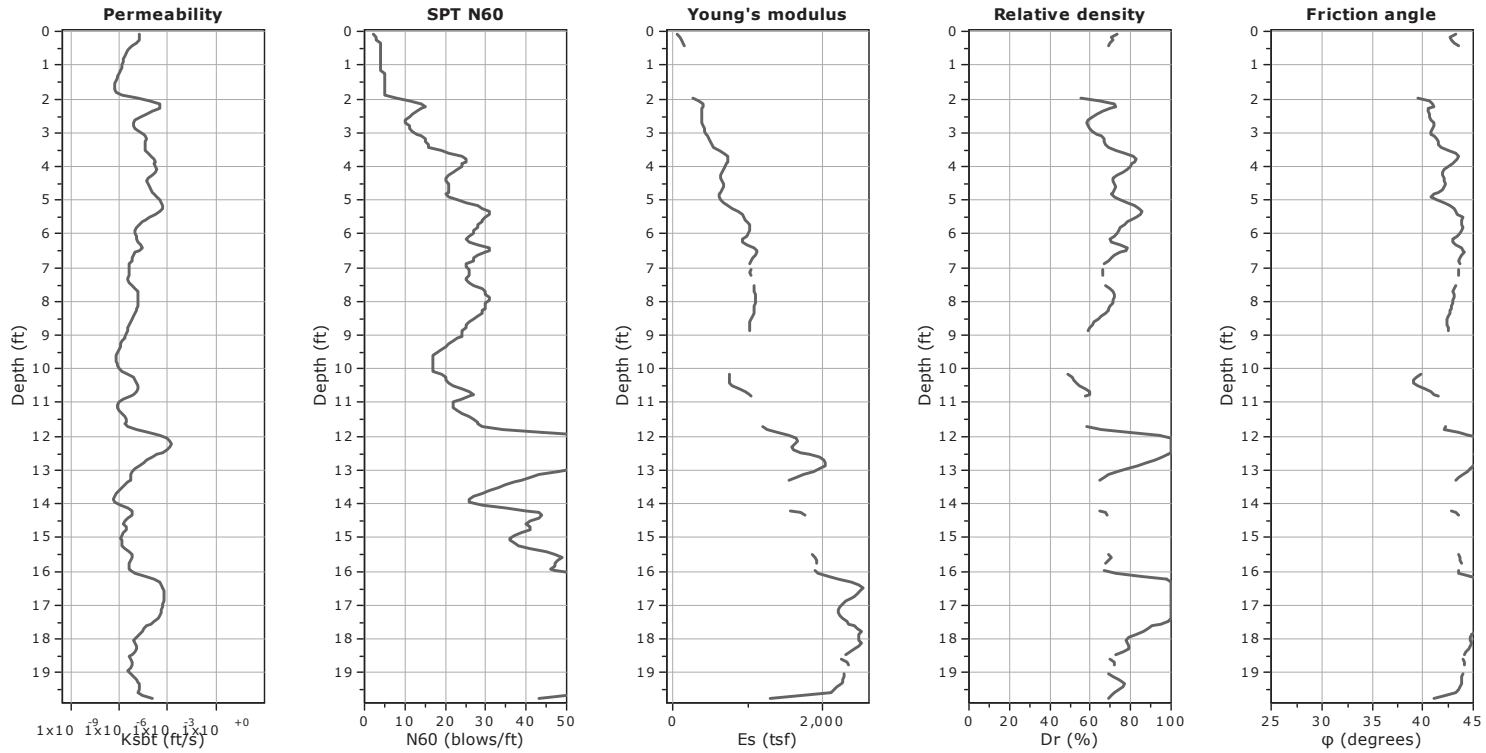
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-047
Total depth: 20.01 ft



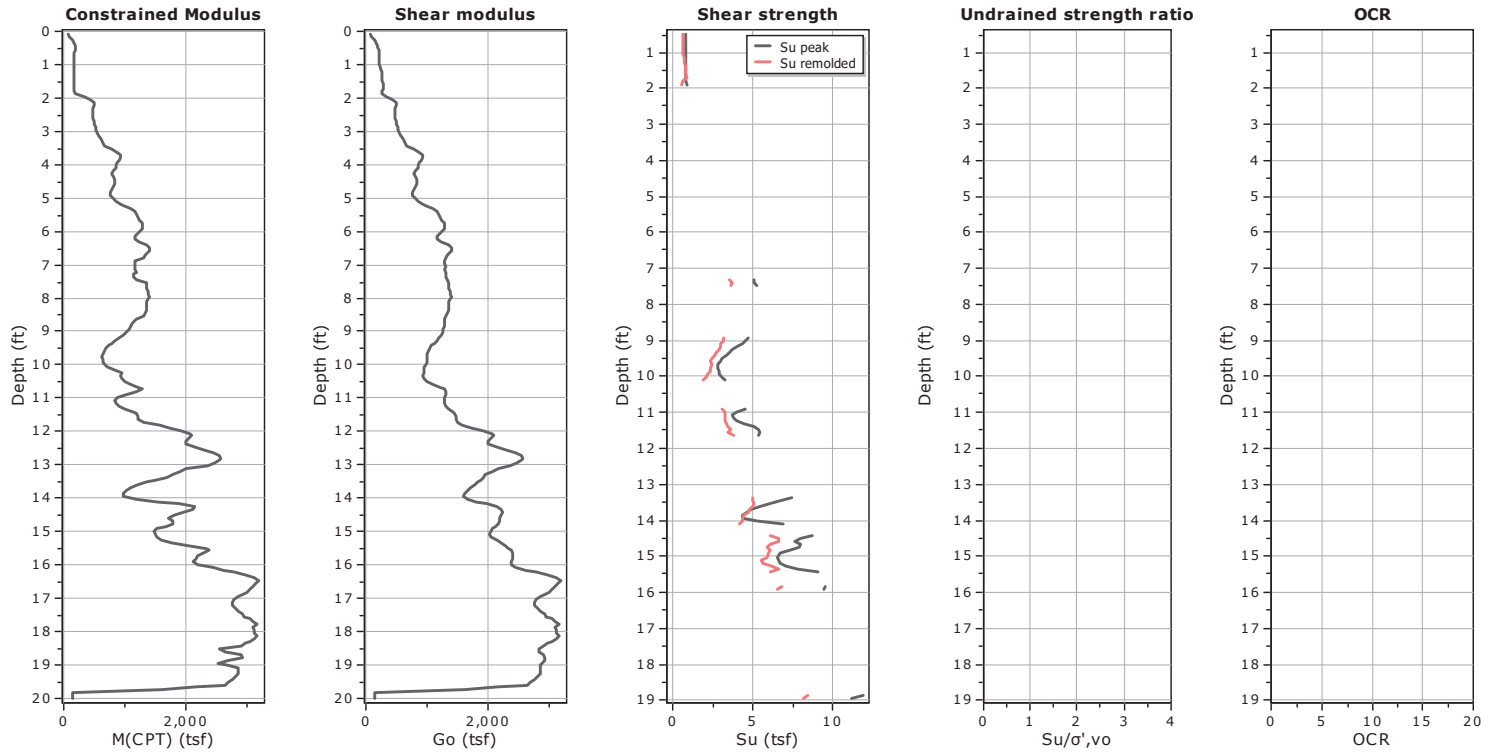
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-047
Total depth: 20.01 ft



Calculation parameters

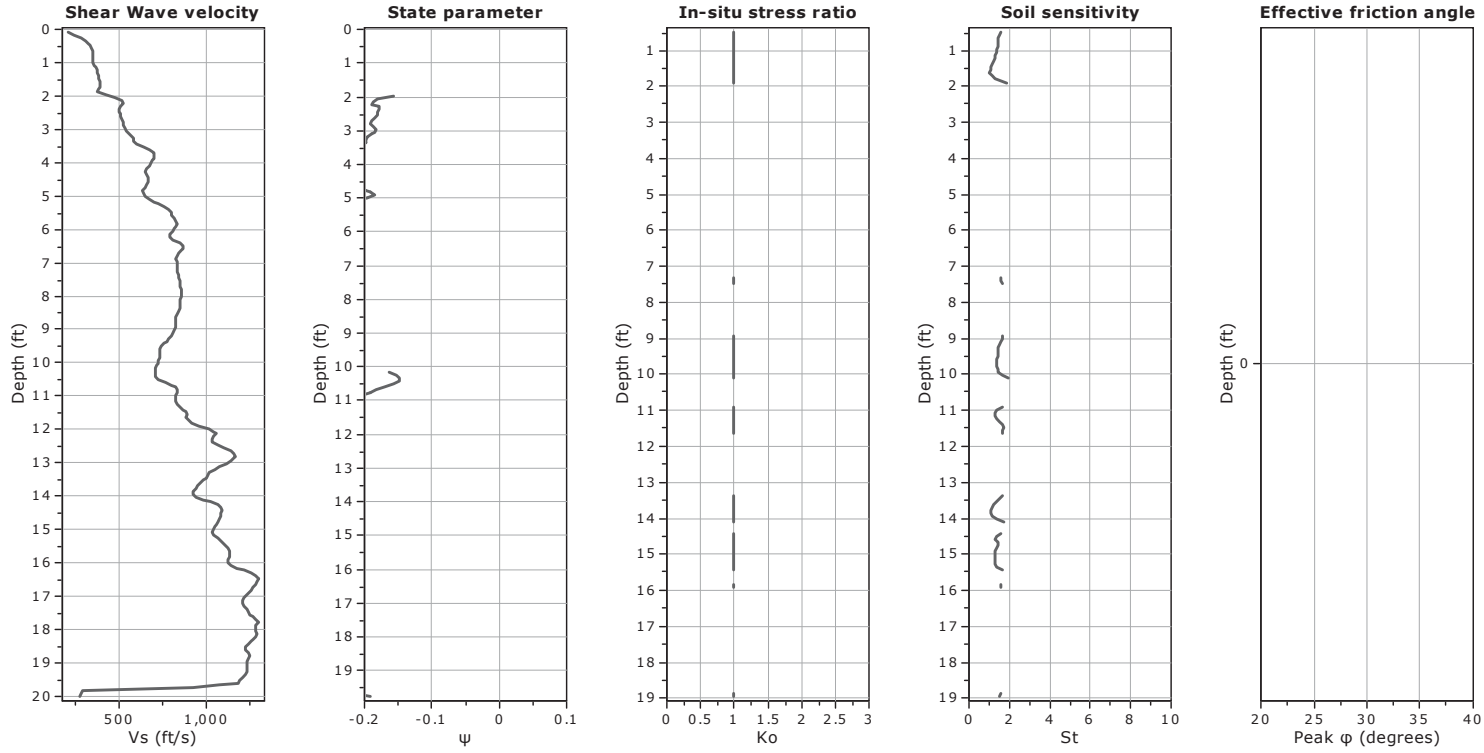
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-047
Total depth: 20.01 ft



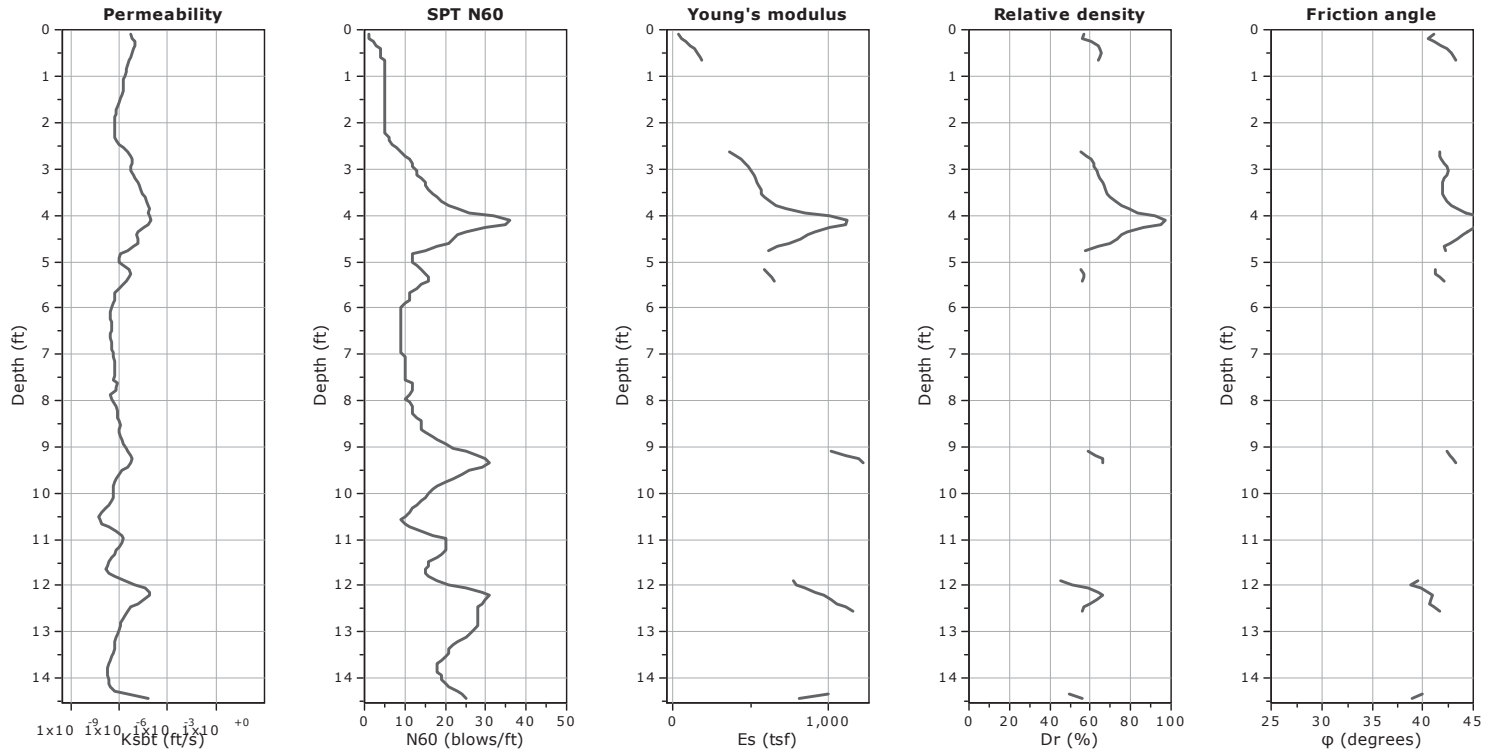
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-048
Total depth: 14.68 ft



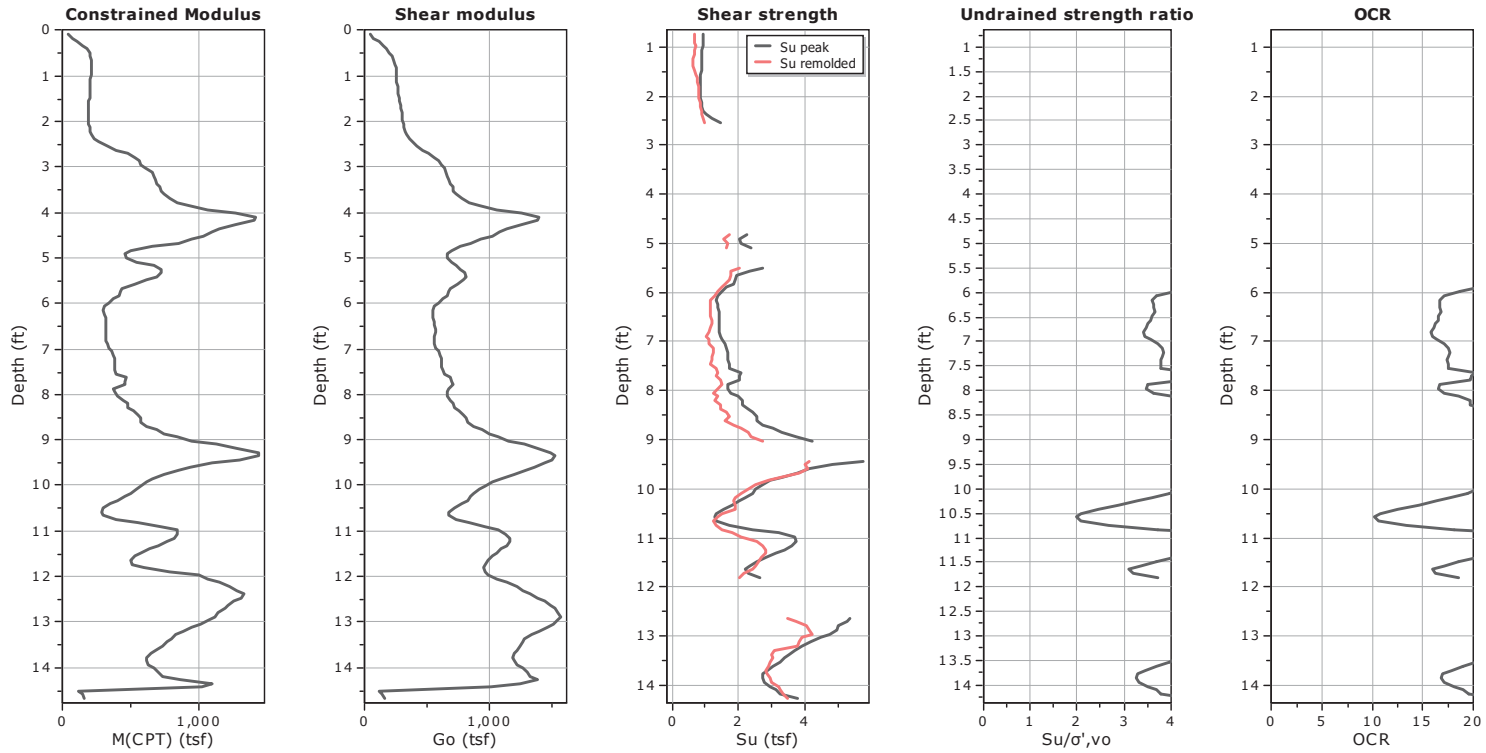
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-048
Total depth: 14.68 ft



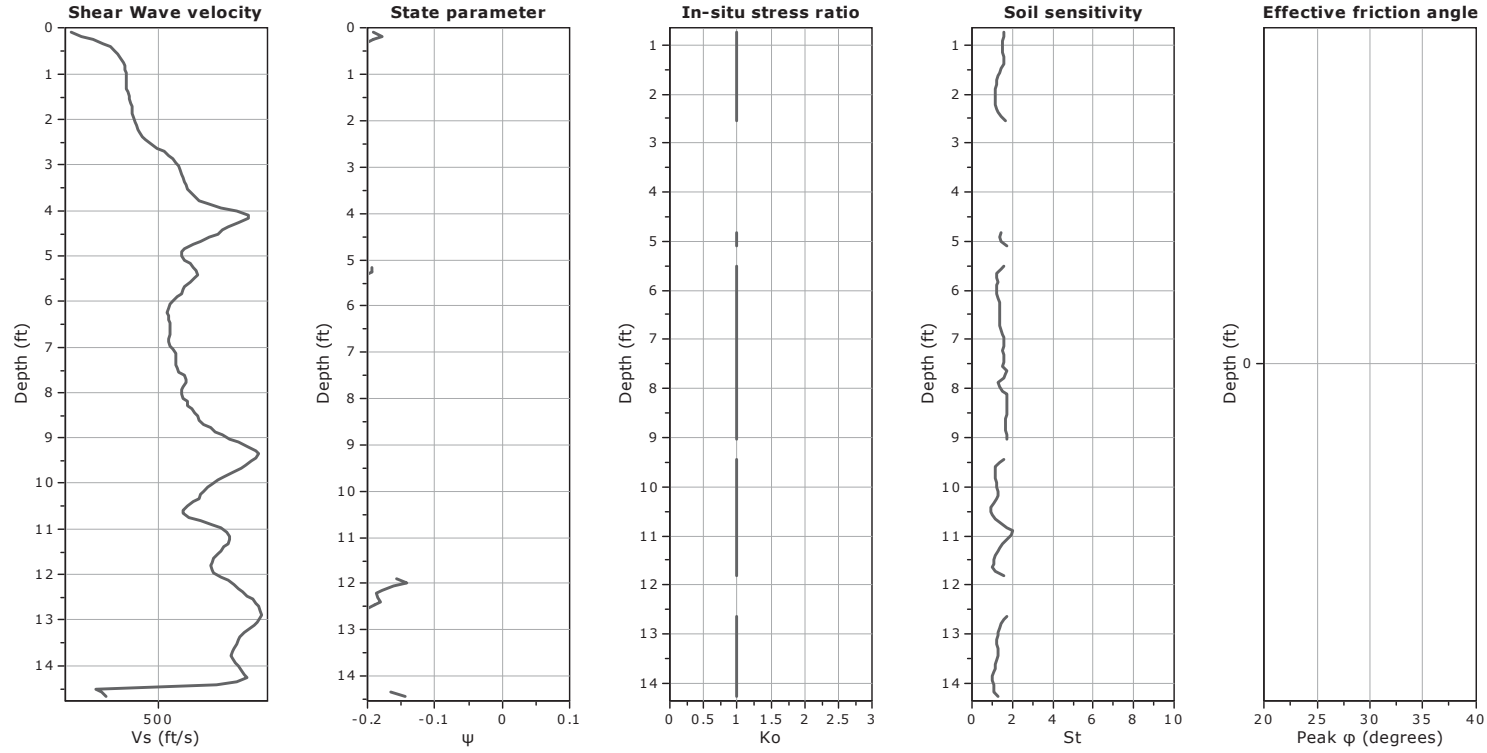
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-048
Total depth: 14.68 ft



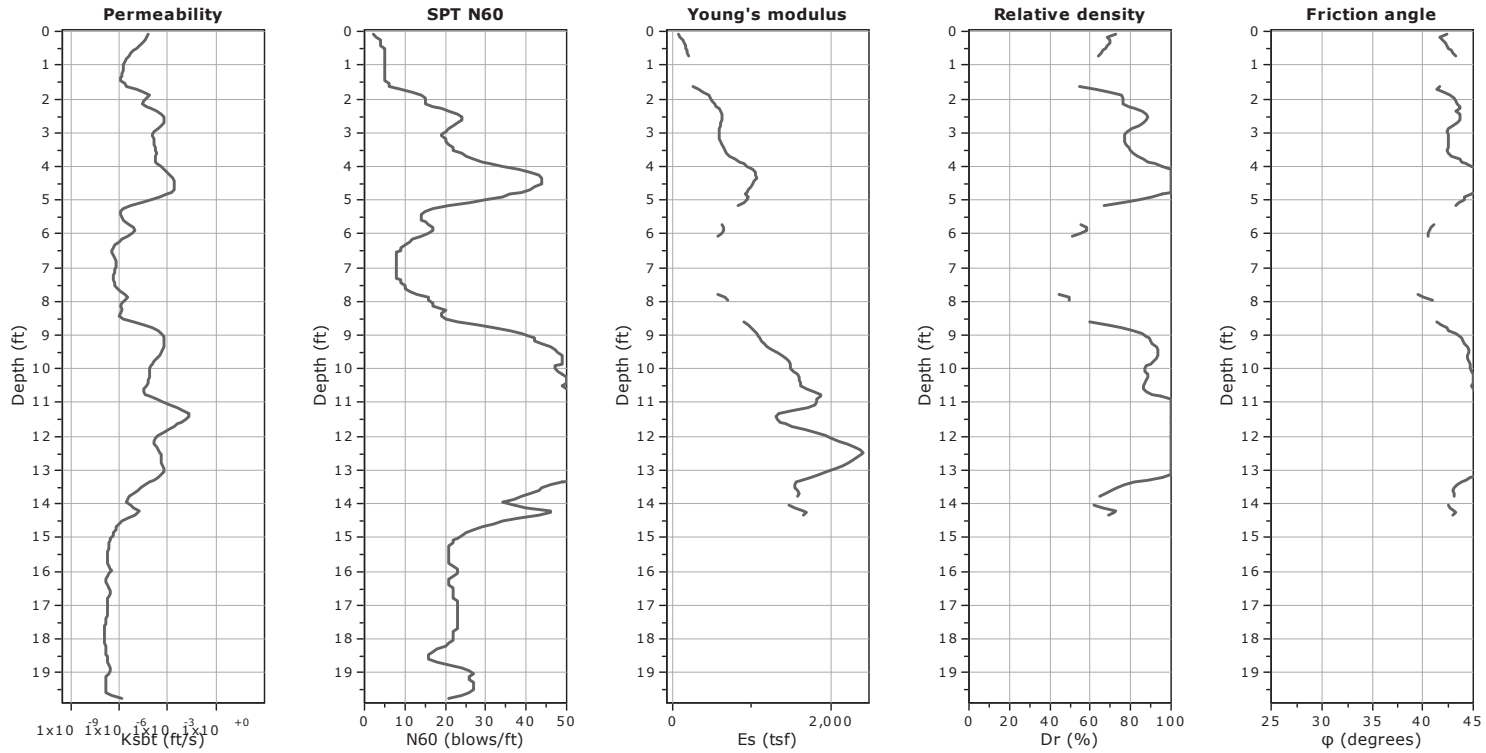
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-049
Total depth: 20.01 ft



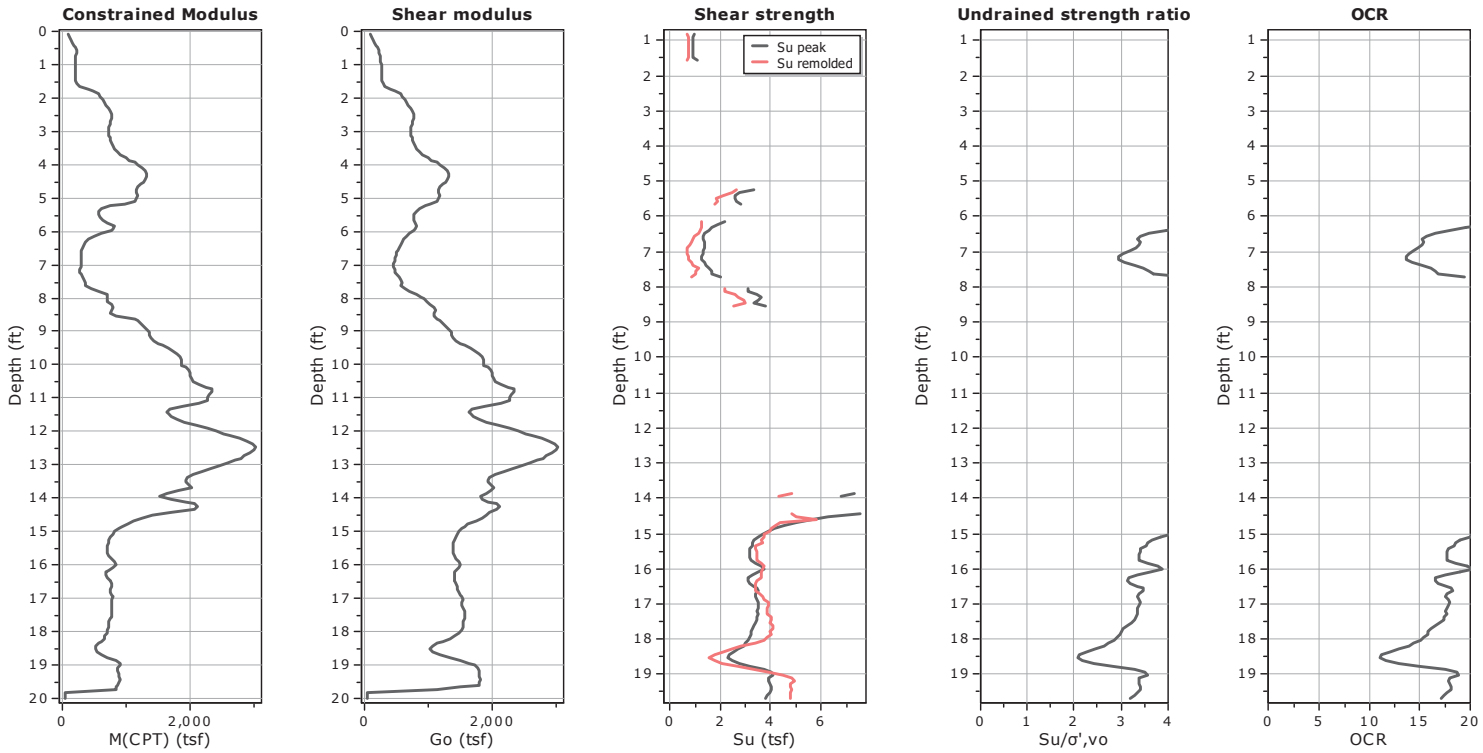
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-049
Total depth: 20.01 ft



Calculation parameters

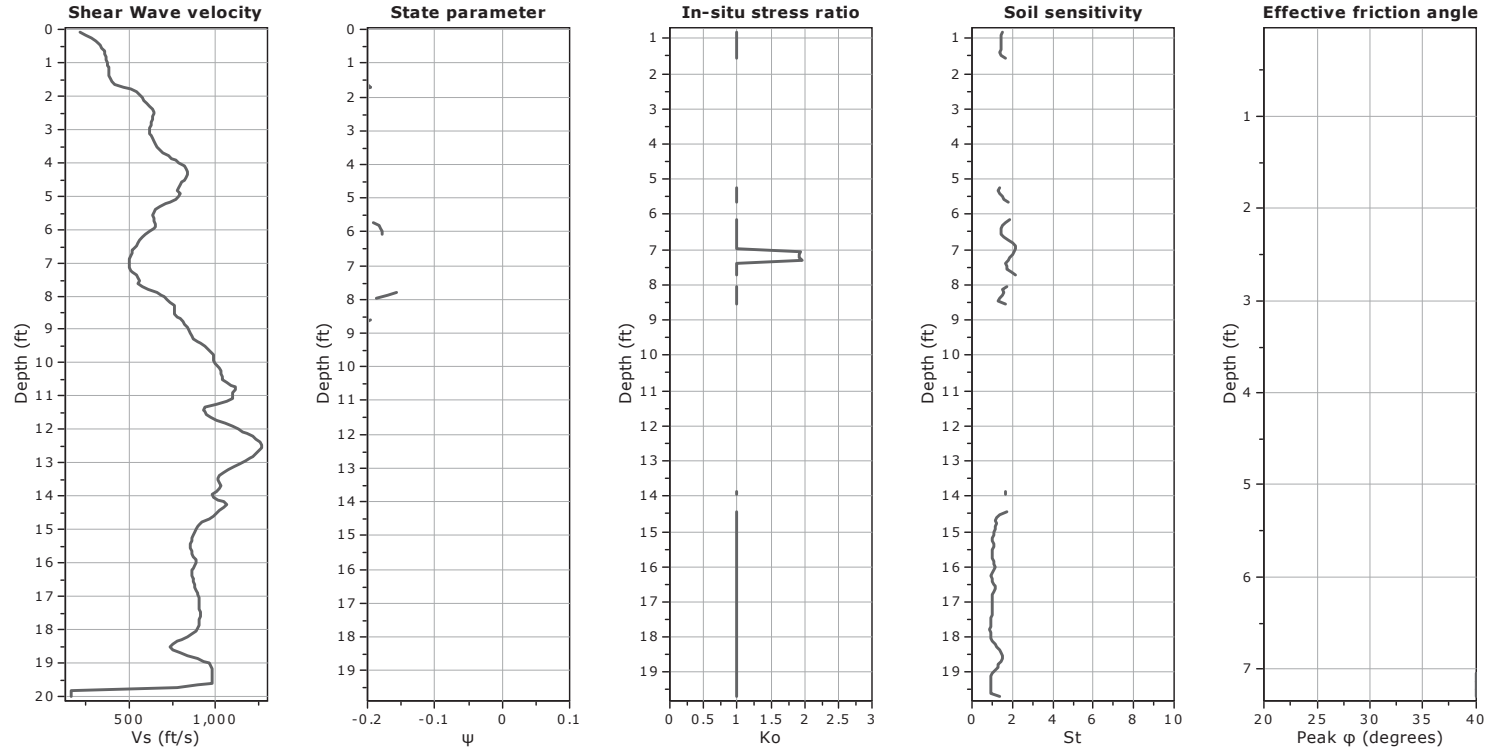
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-049
Total depth: 20.01 ft



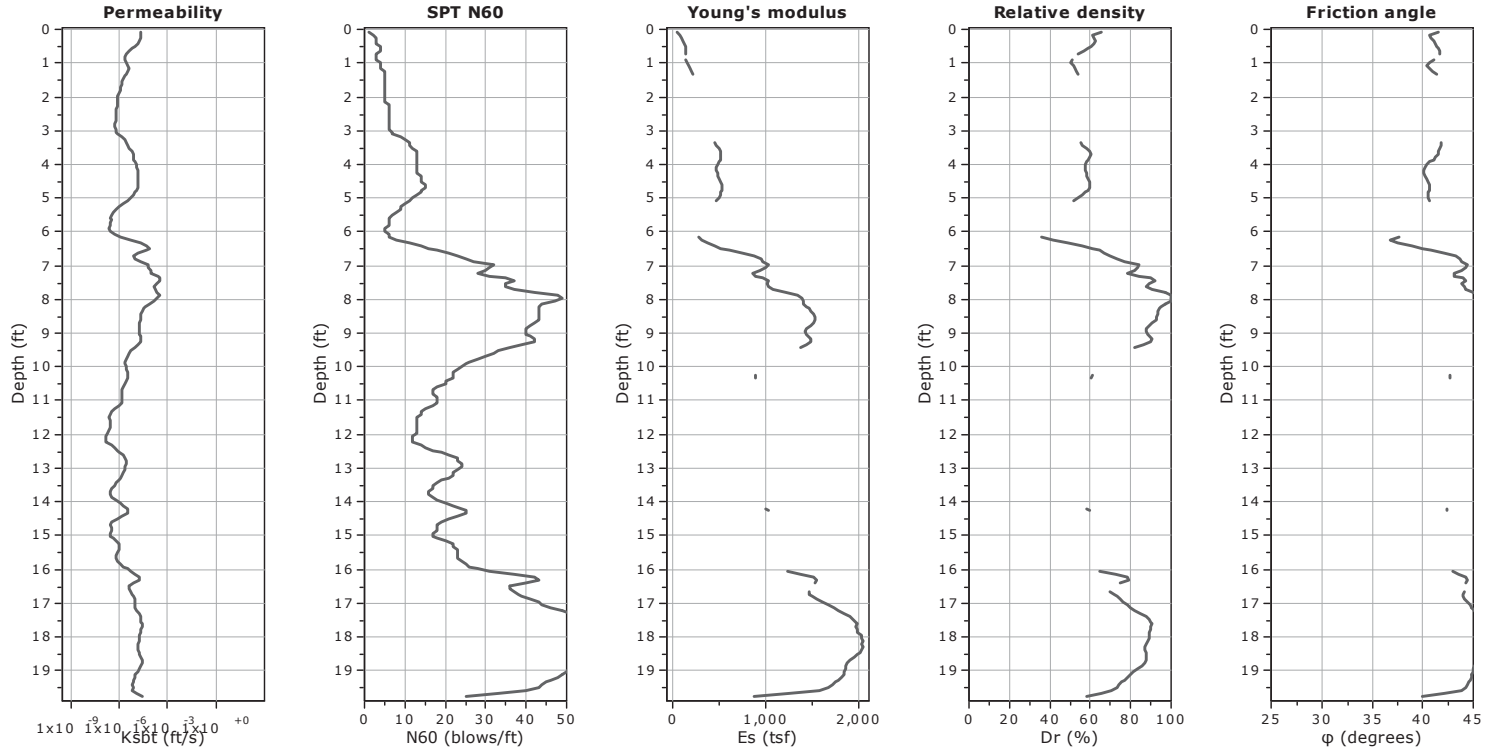
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-050
Total depth: 20.01 ft



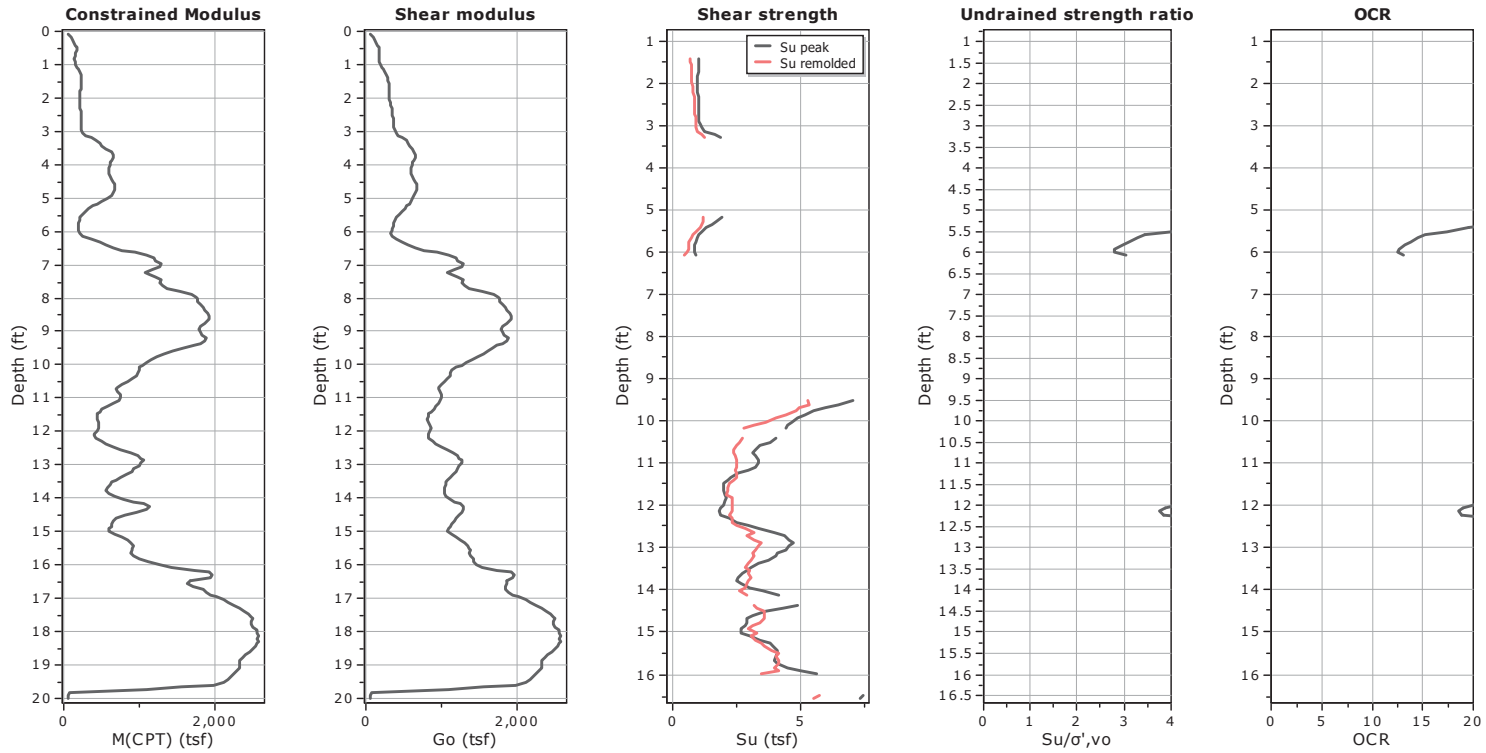
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-050
Total depth: 20.01 ft



Calculation parameters

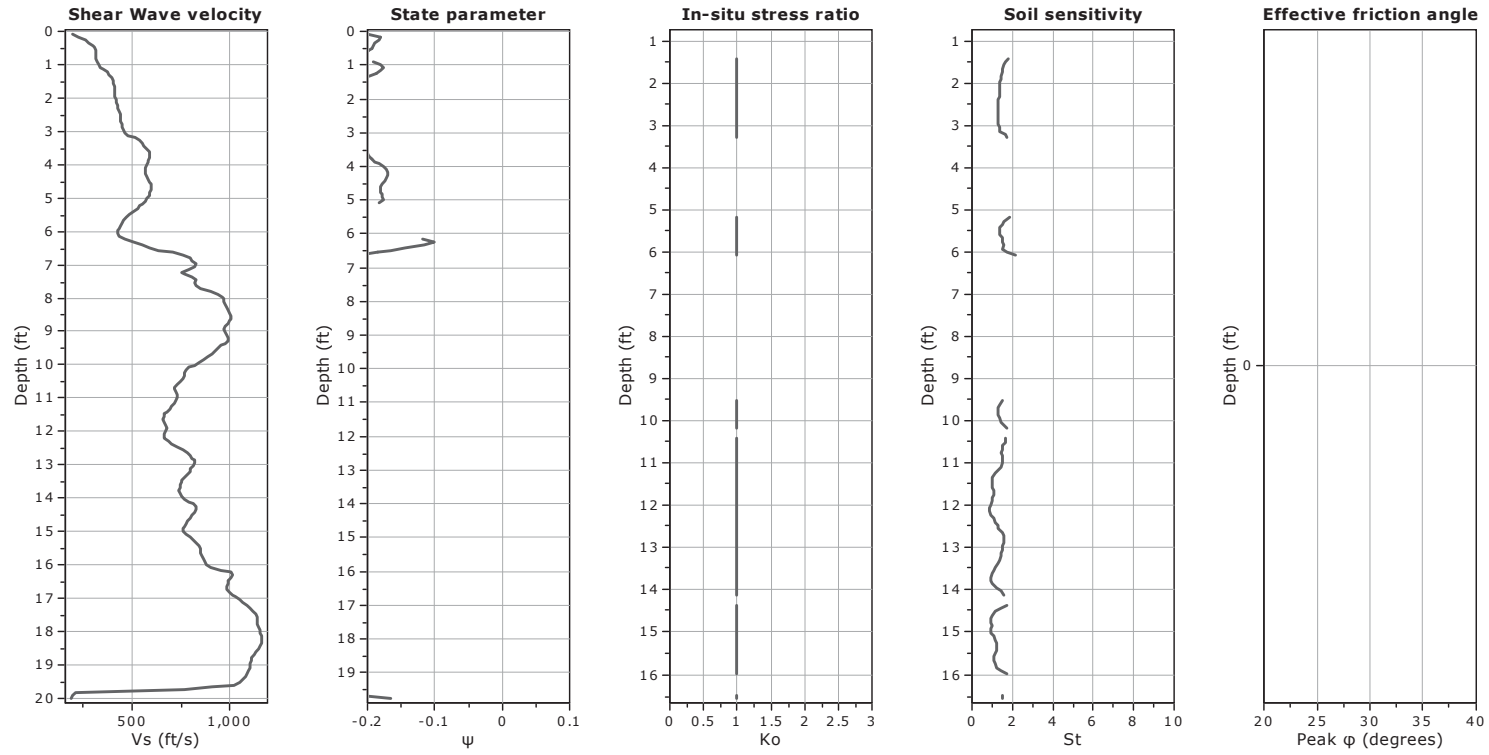
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-050
Total depth: 20.01 ft



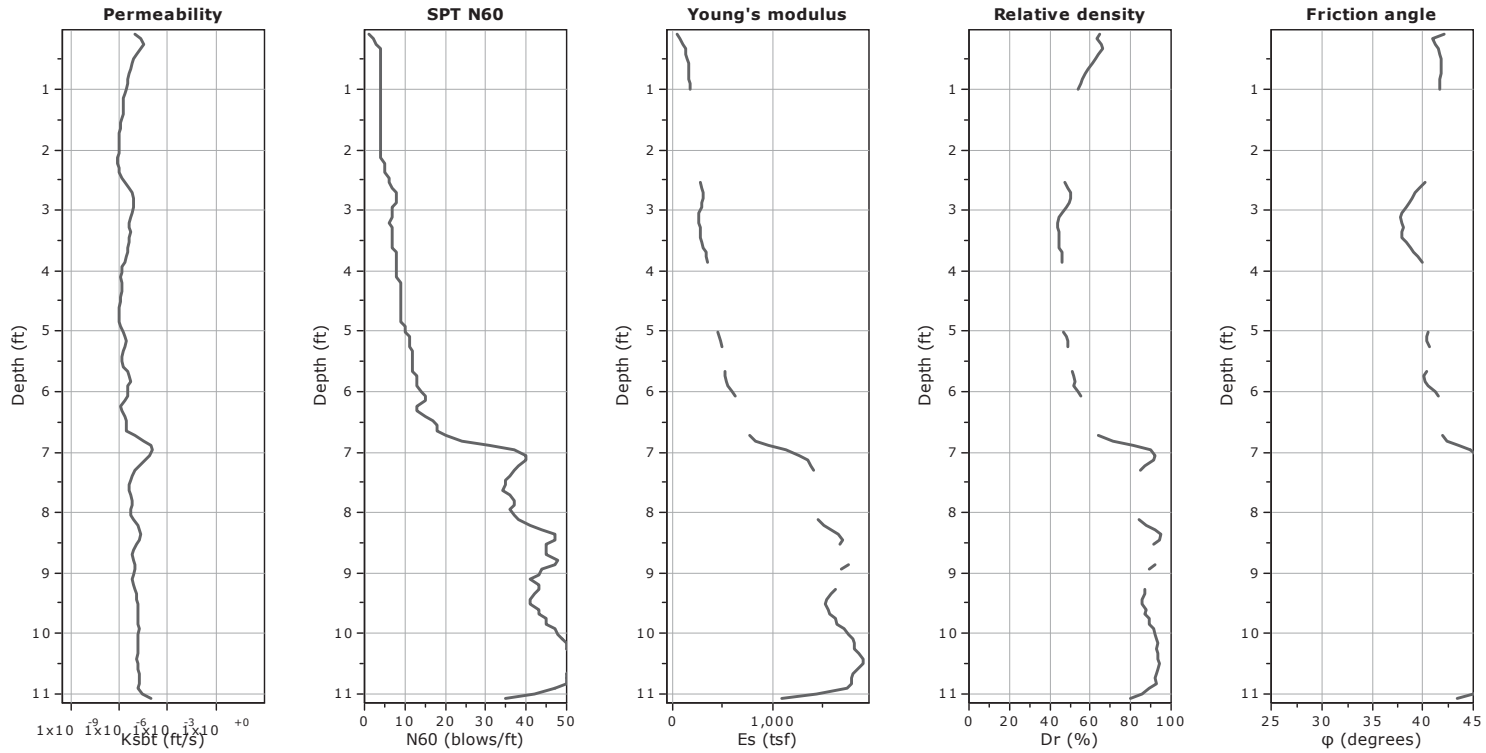
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-051
Total depth: 11.32 ft



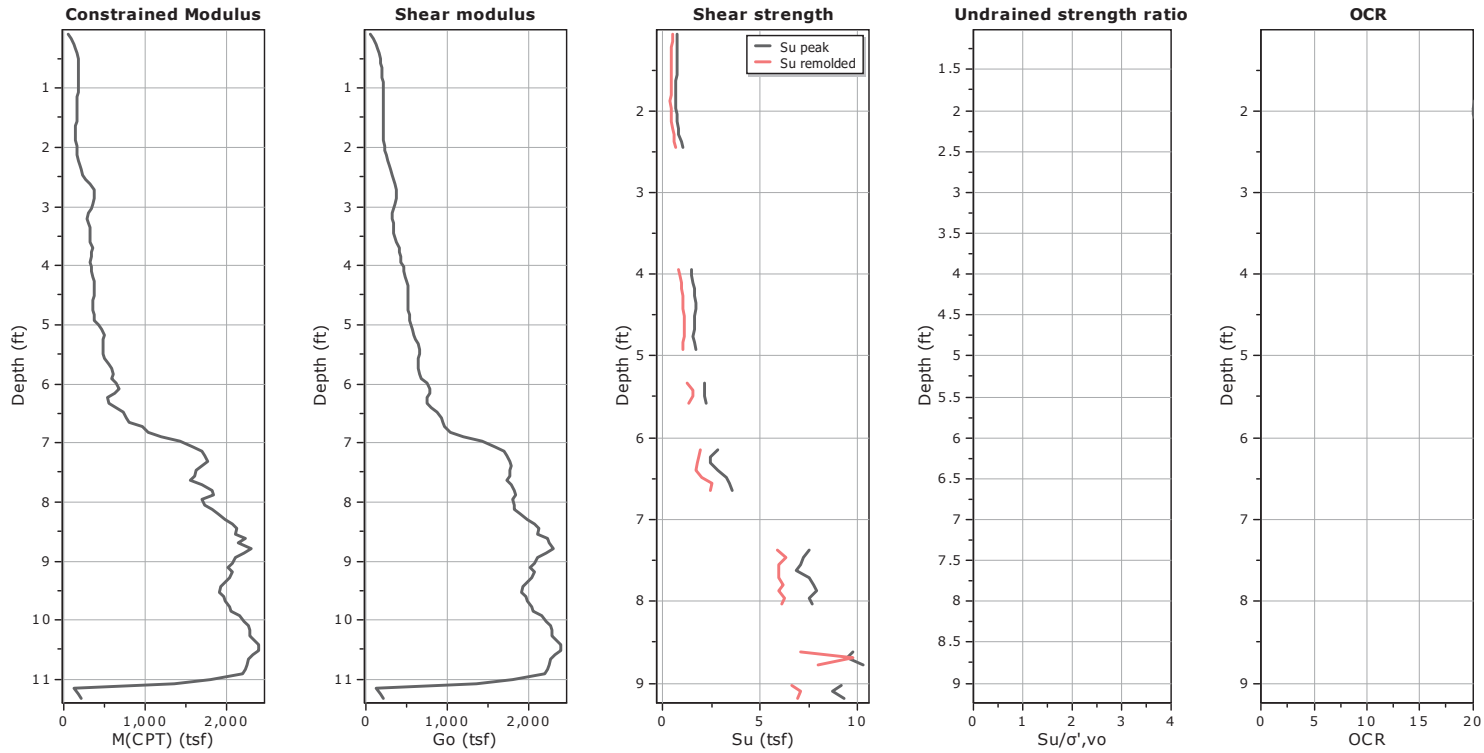
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-051
Total depth: 11.32 ft



Calculation parameters

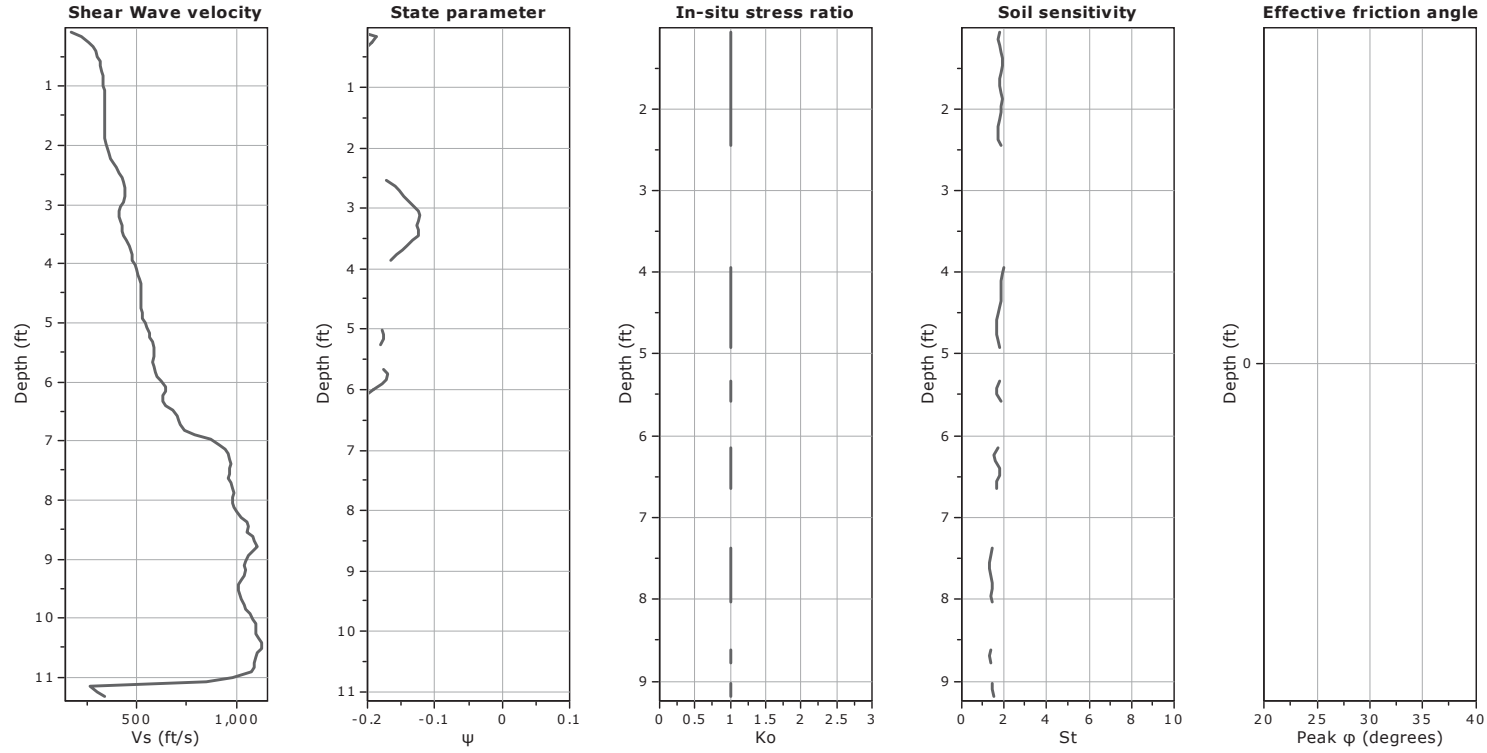
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-051
Total depth: 11.32 ft



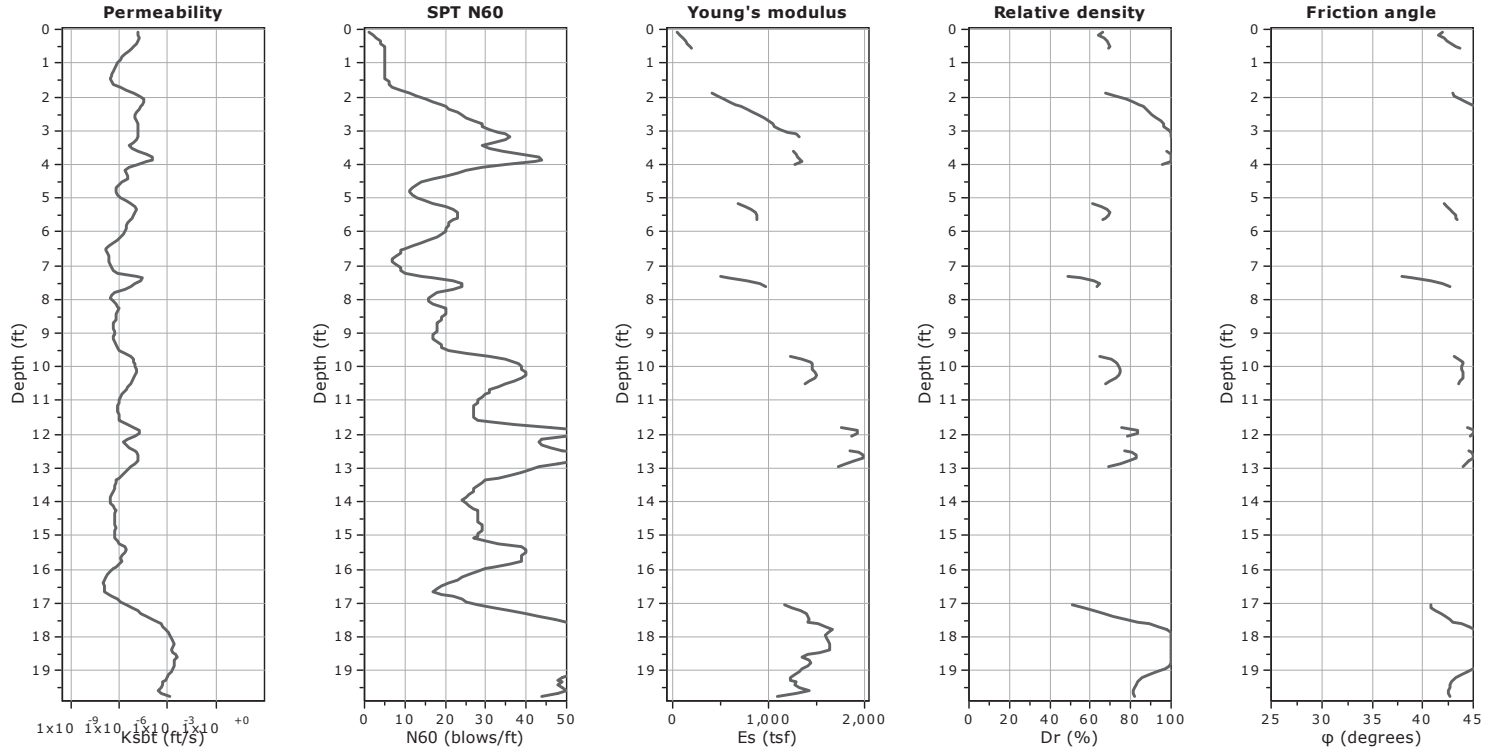
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-052A
Total depth: 20.01 ft



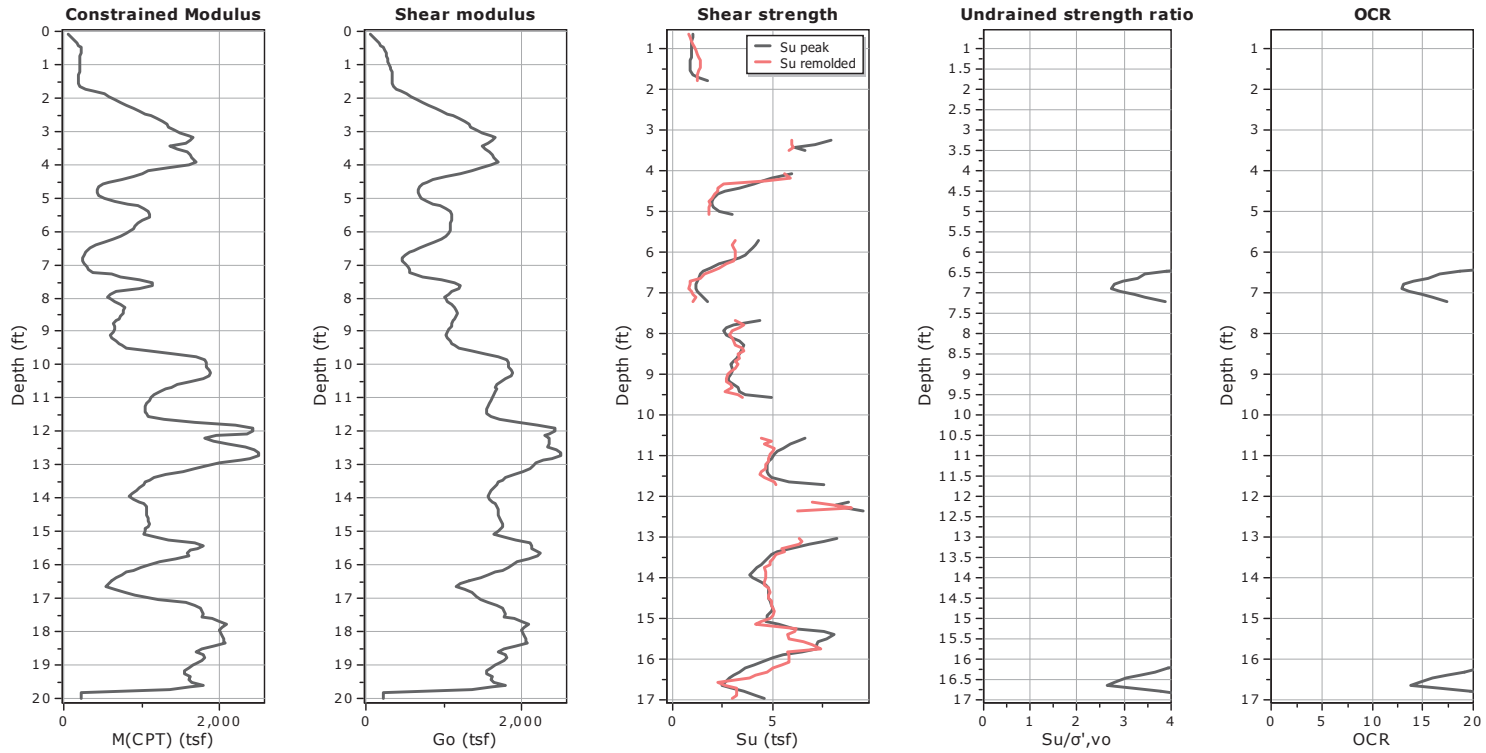
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-052A
Total depth: 20.01 ft



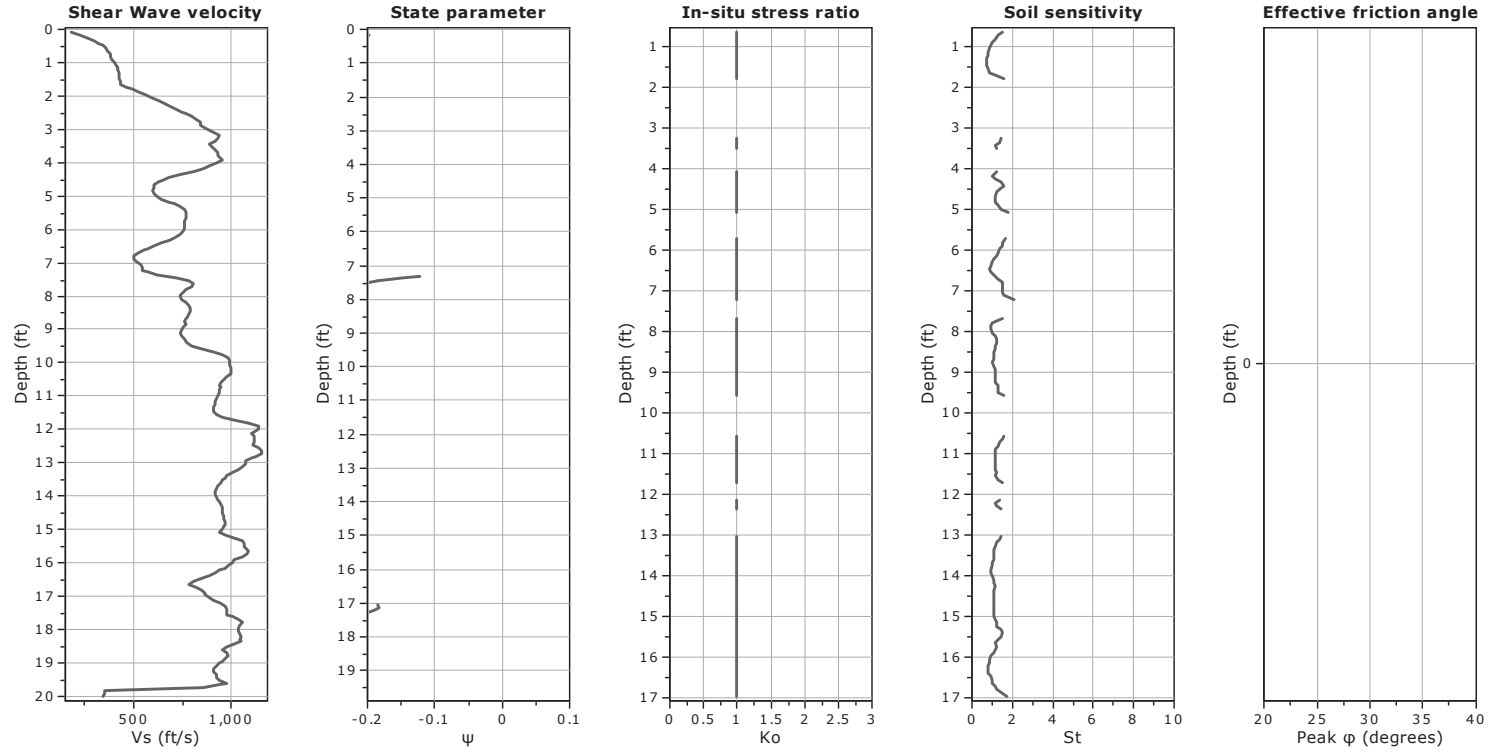
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-052A
Total depth: 20.01 ft



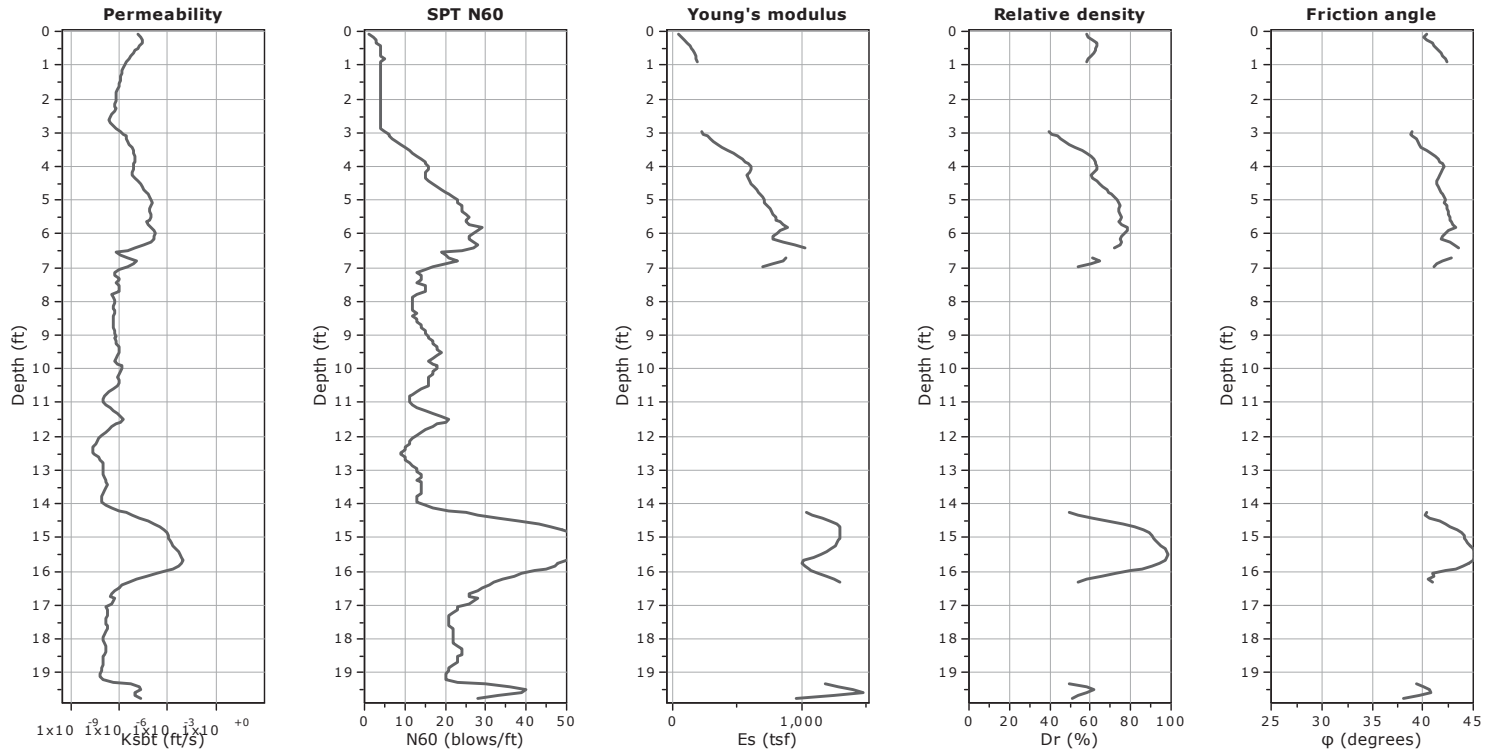
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-053
Total depth: 20.01 ft



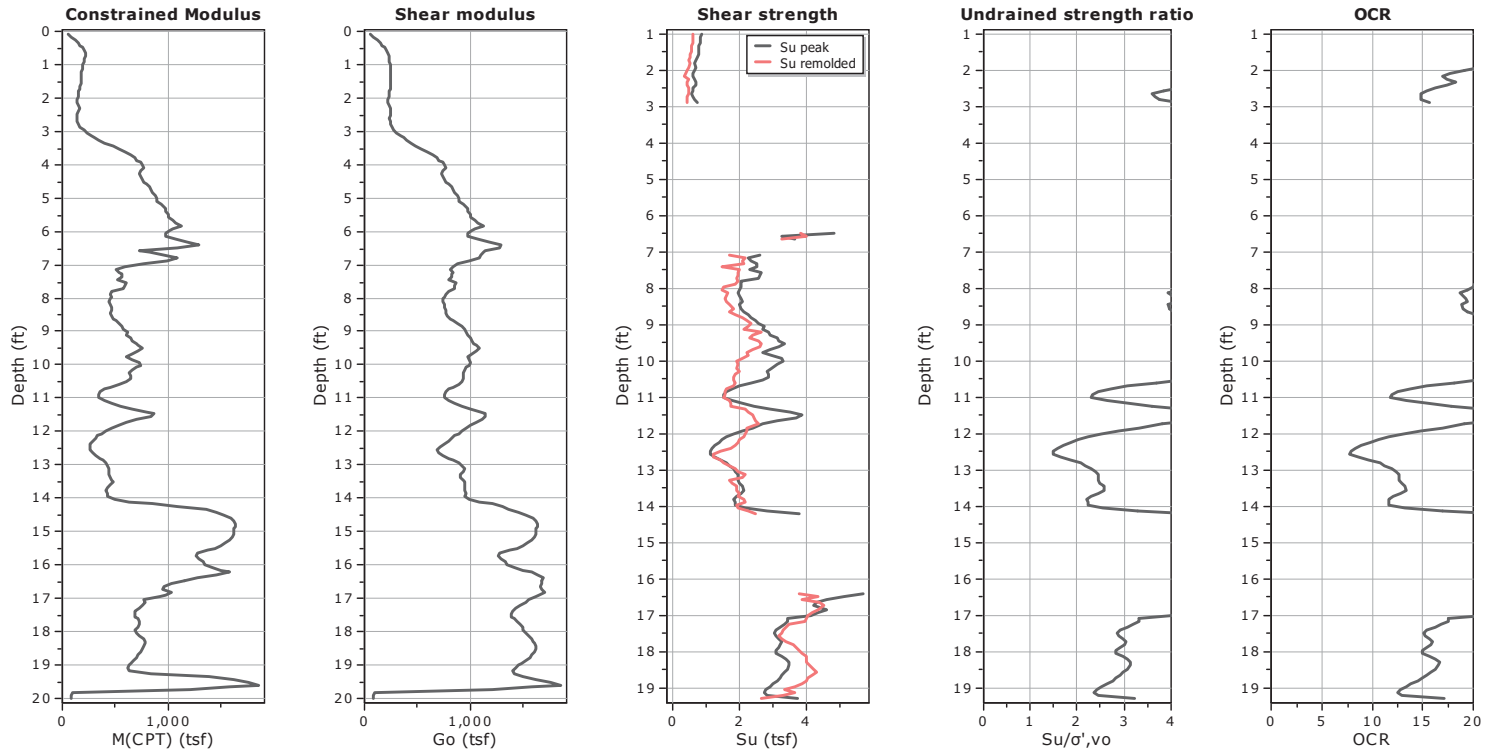
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-053
Total depth: 20.01 ft



Calculation parameters

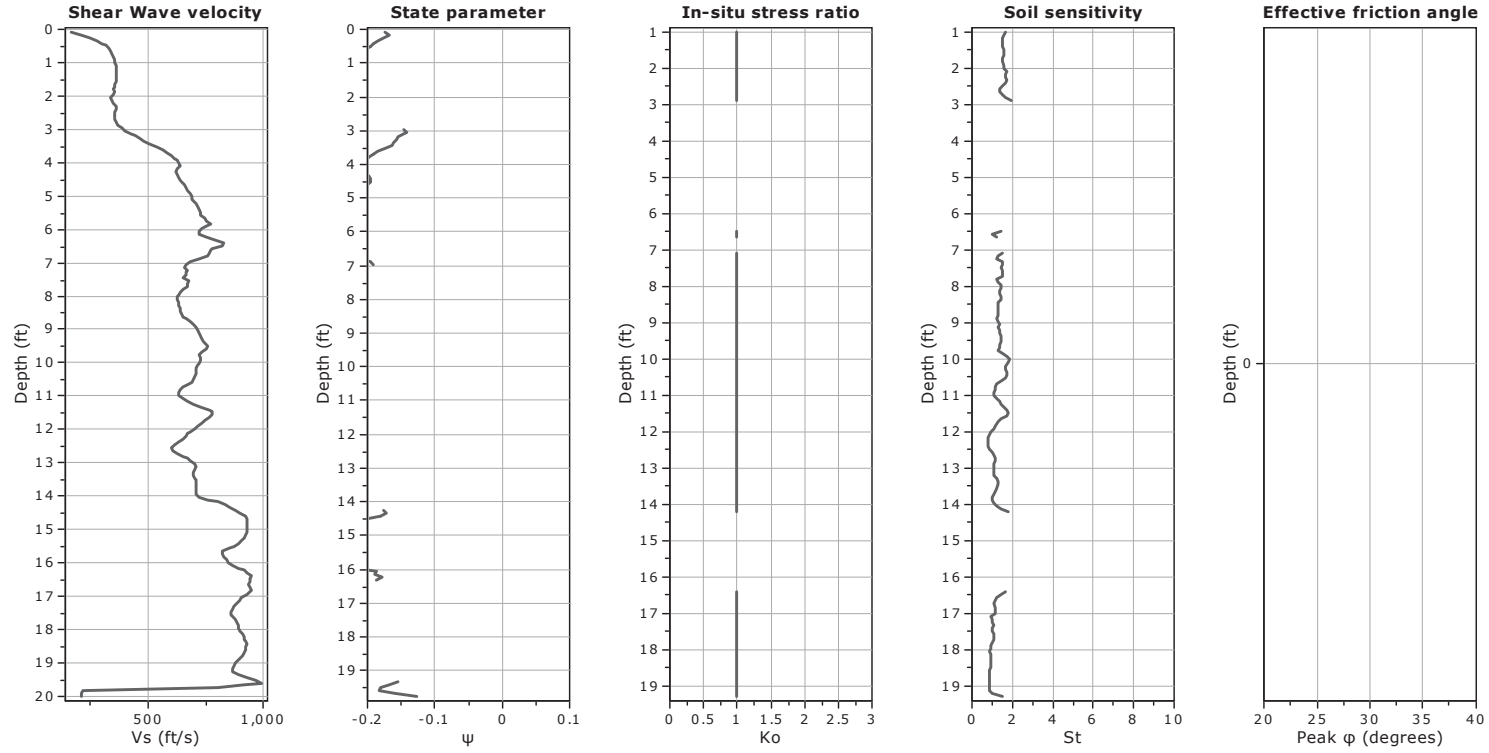
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-053
Total depth: 20.01 ft



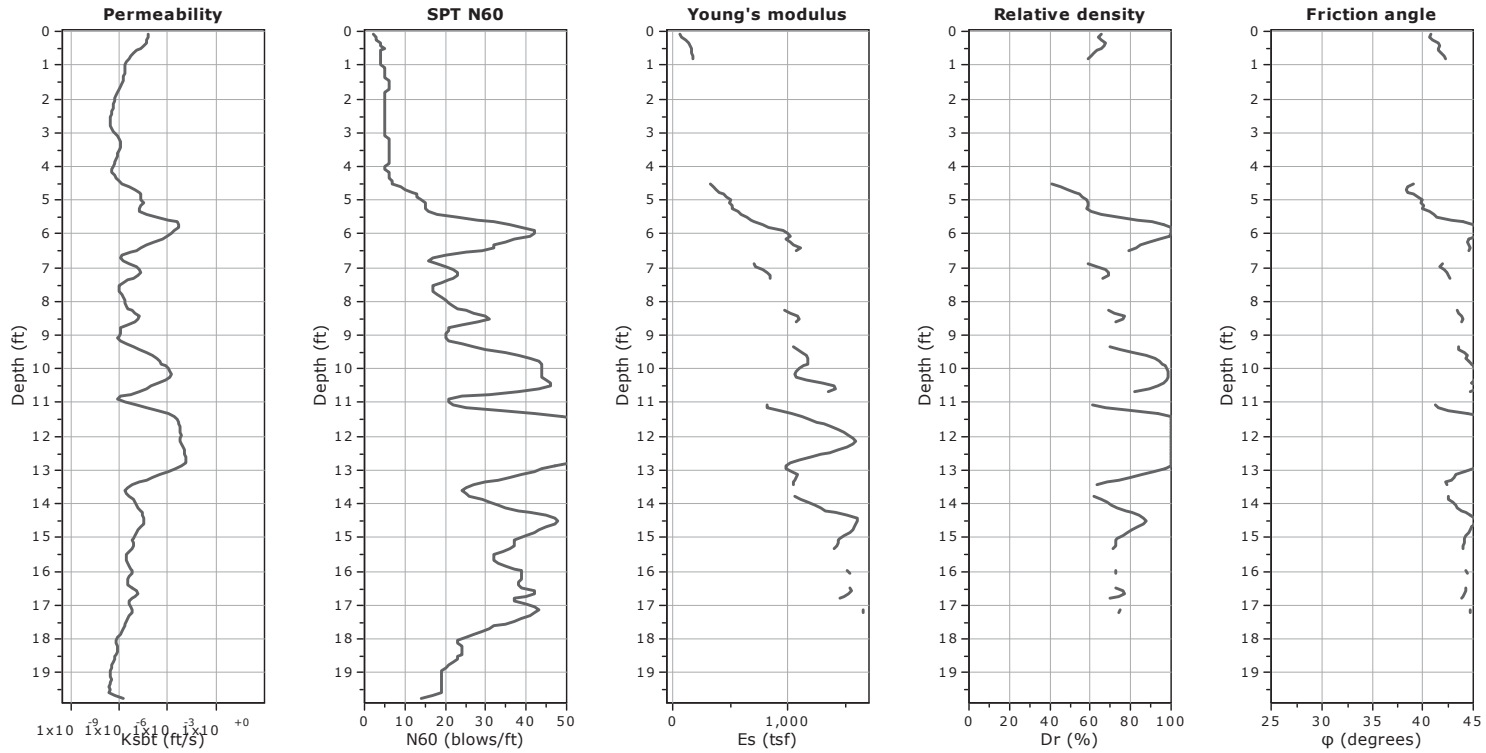
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-054
Total depth: 20.01 ft



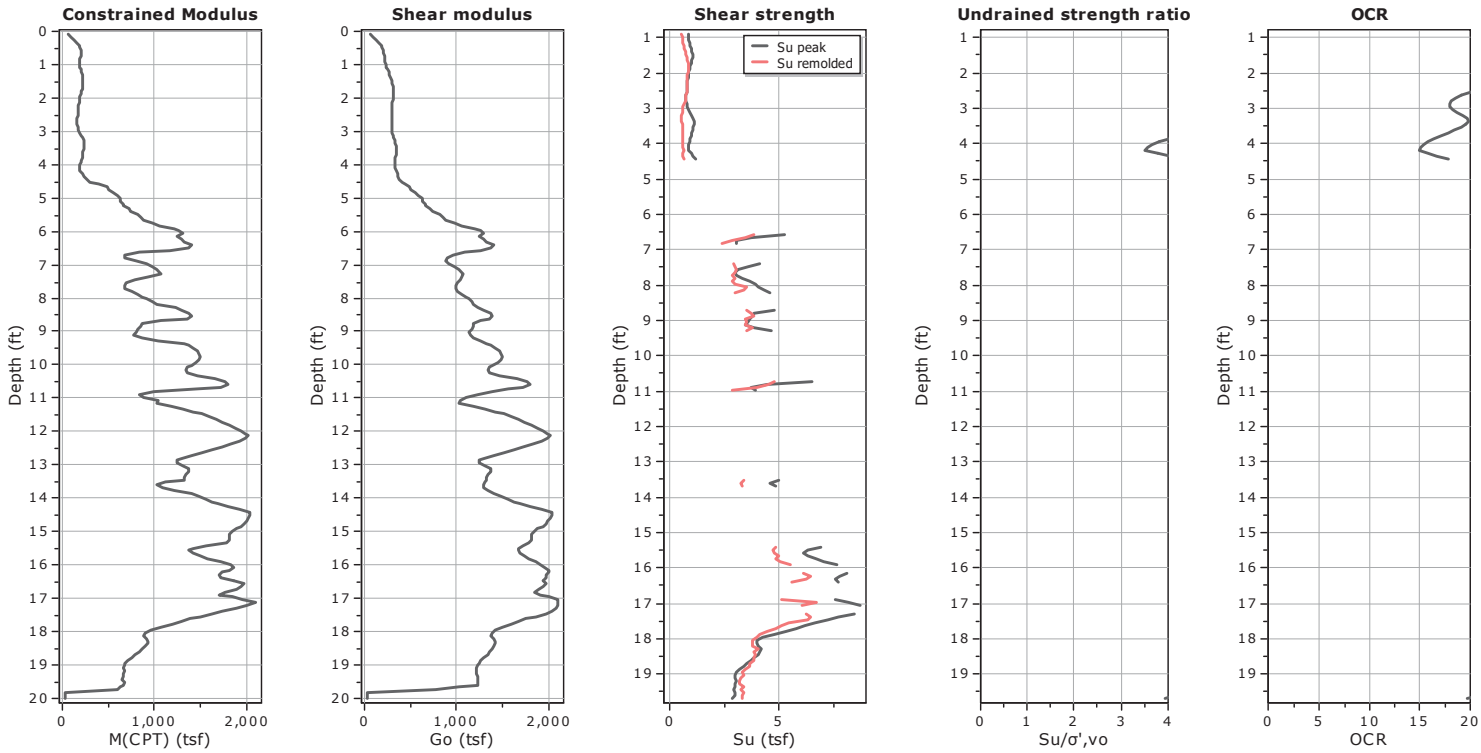
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-054
Total depth: 20.01 ft



Calculation parameters

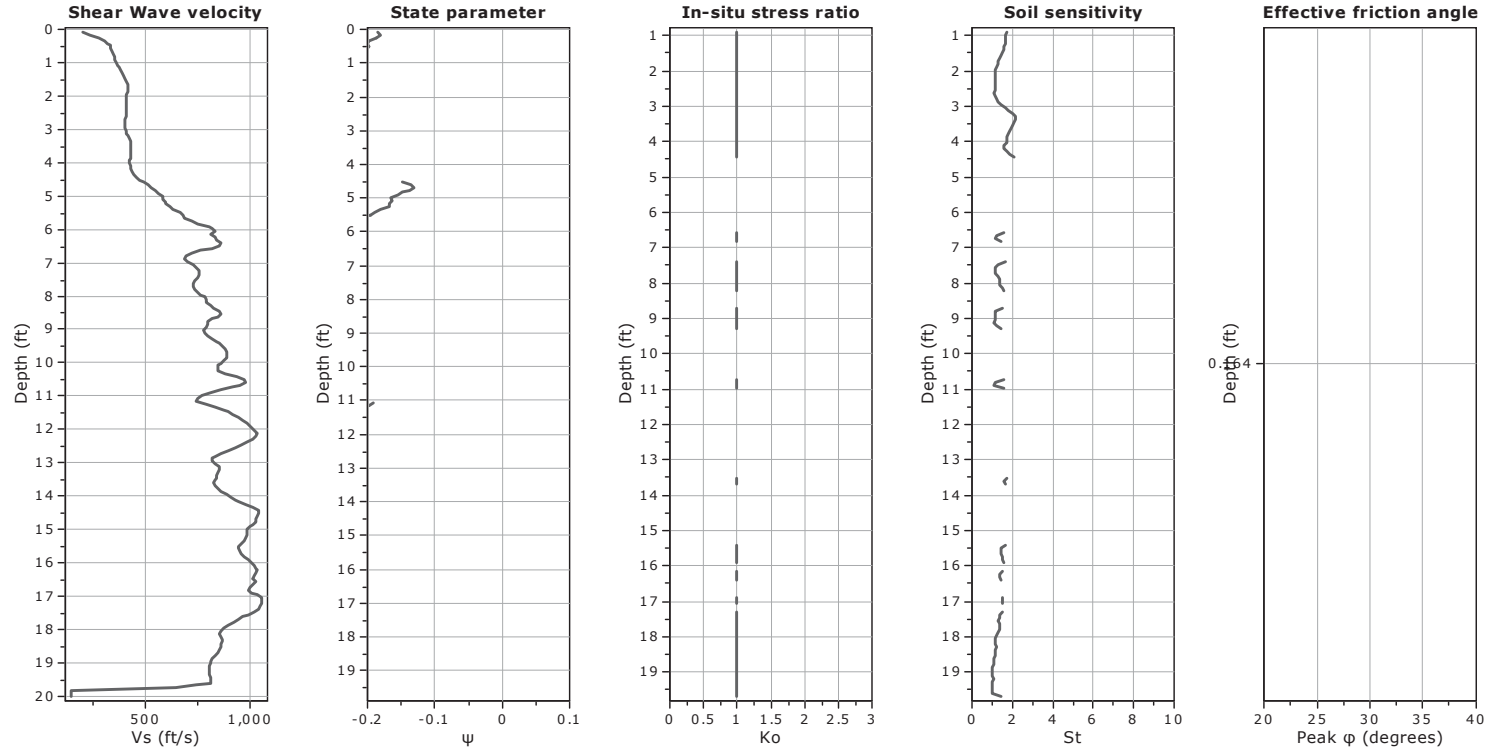
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-054
Total depth: 20.01 ft



Calculation parameters

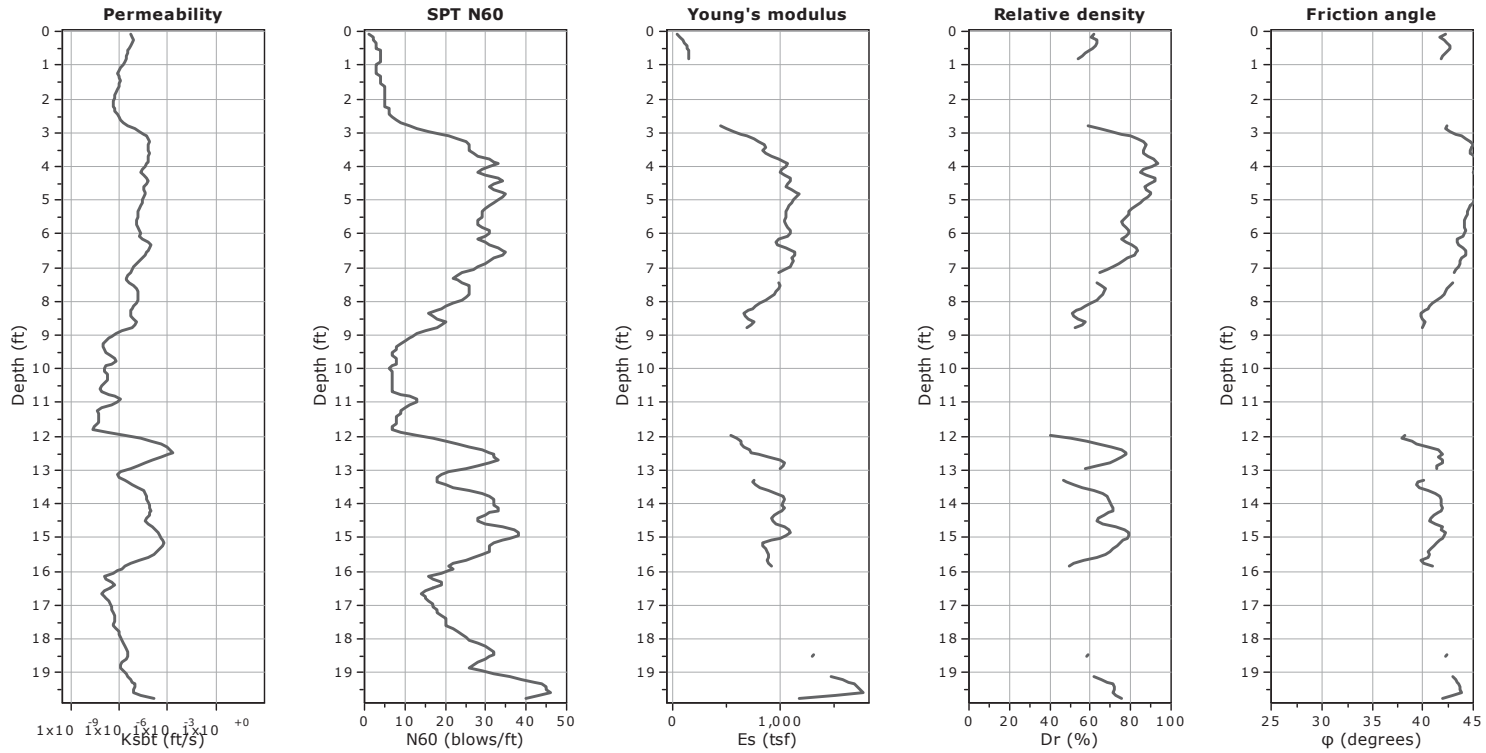
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-055
Total depth: 20.01 ft



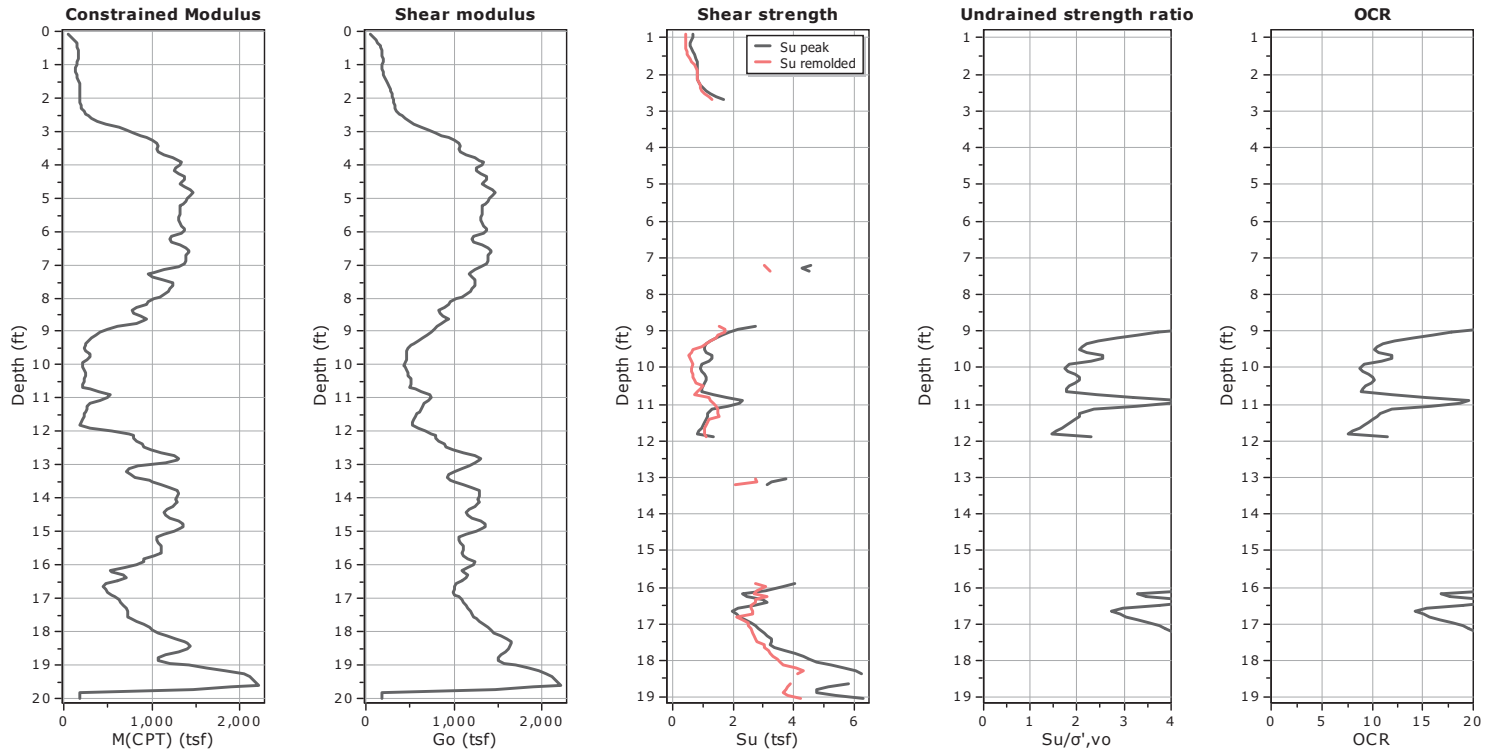
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-055
Total depth: 20.01 ft



Calculation parameters

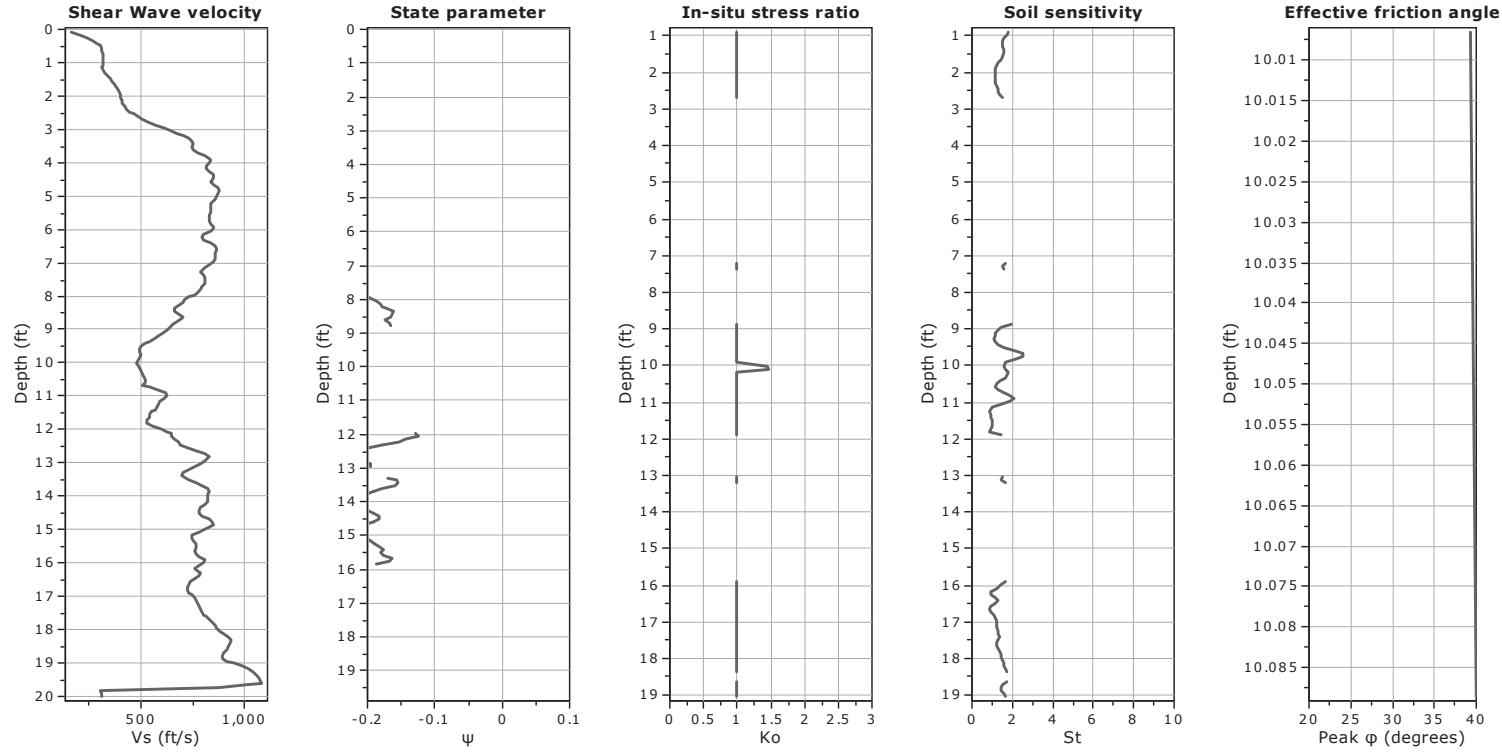
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-055
Total depth: 20.01 ft



Calculation parameters

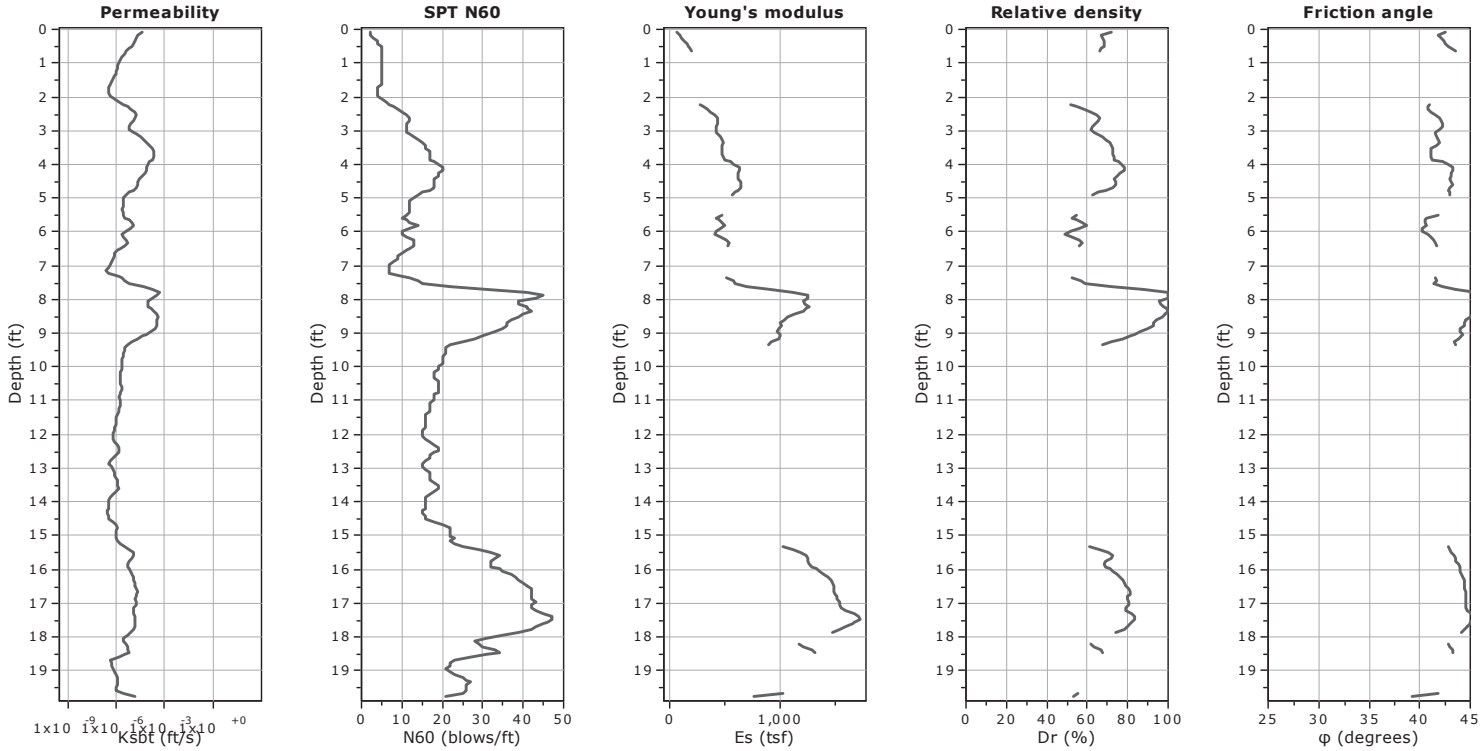
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-056
Total depth: 20.01 ft



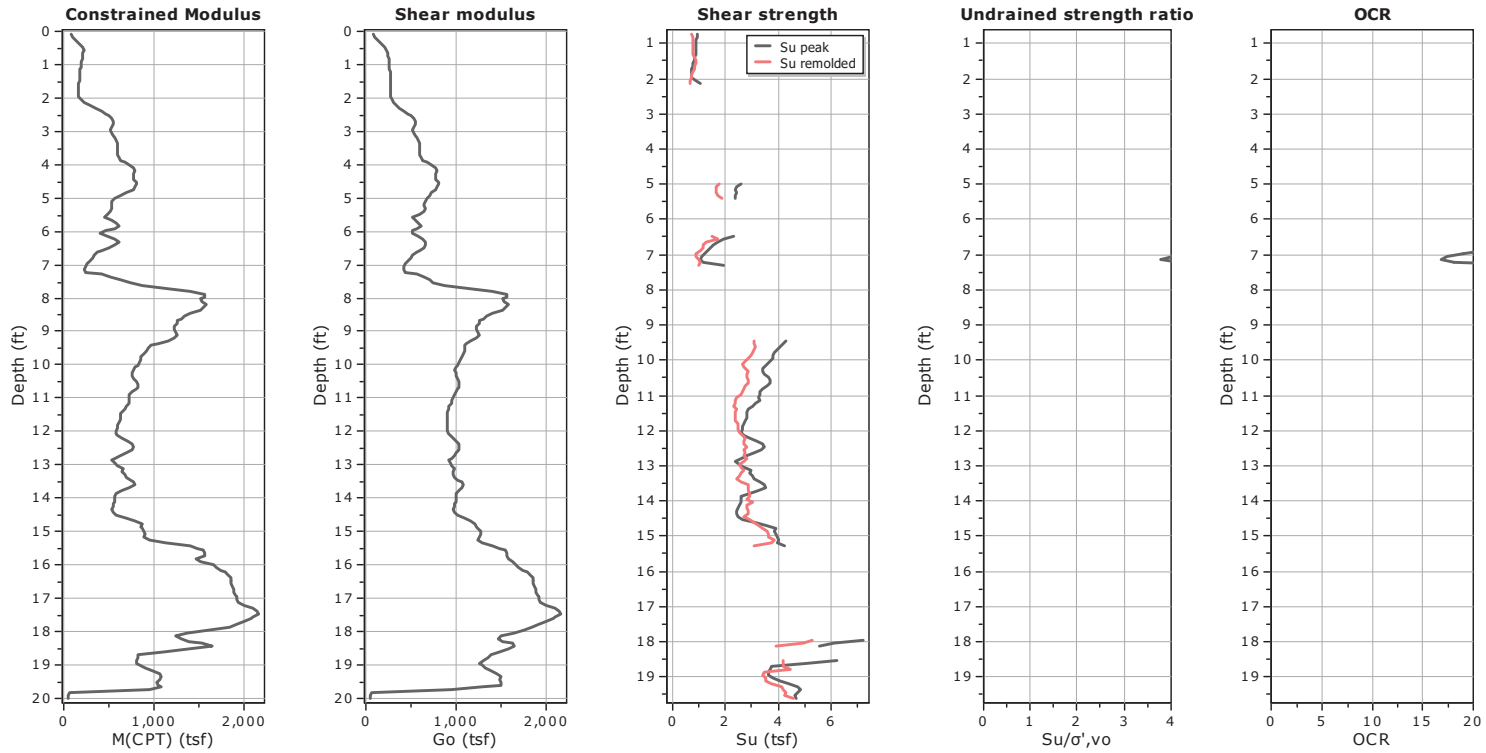
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-056
Total depth: 20.01 ft



Calculation parameters

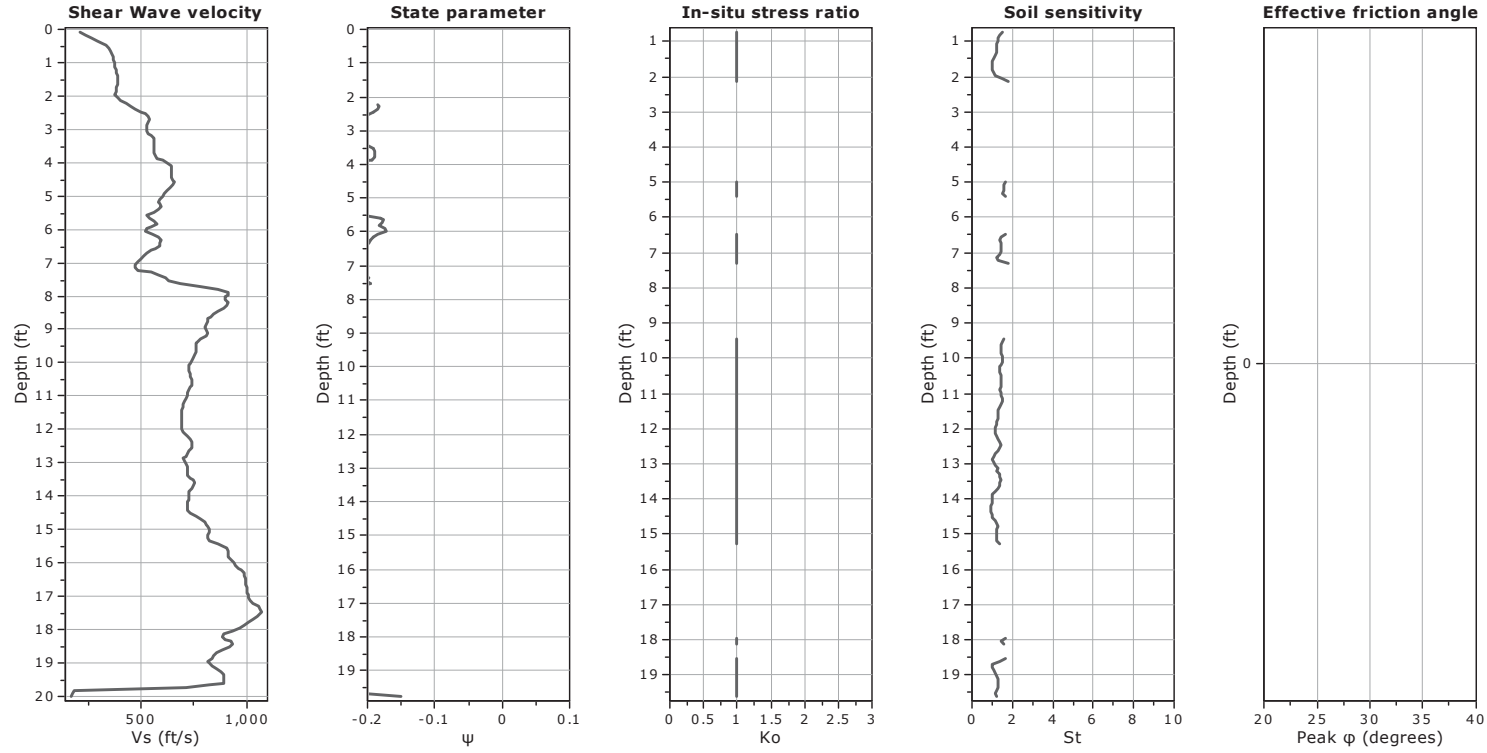
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-056
Total depth: 20.01 ft



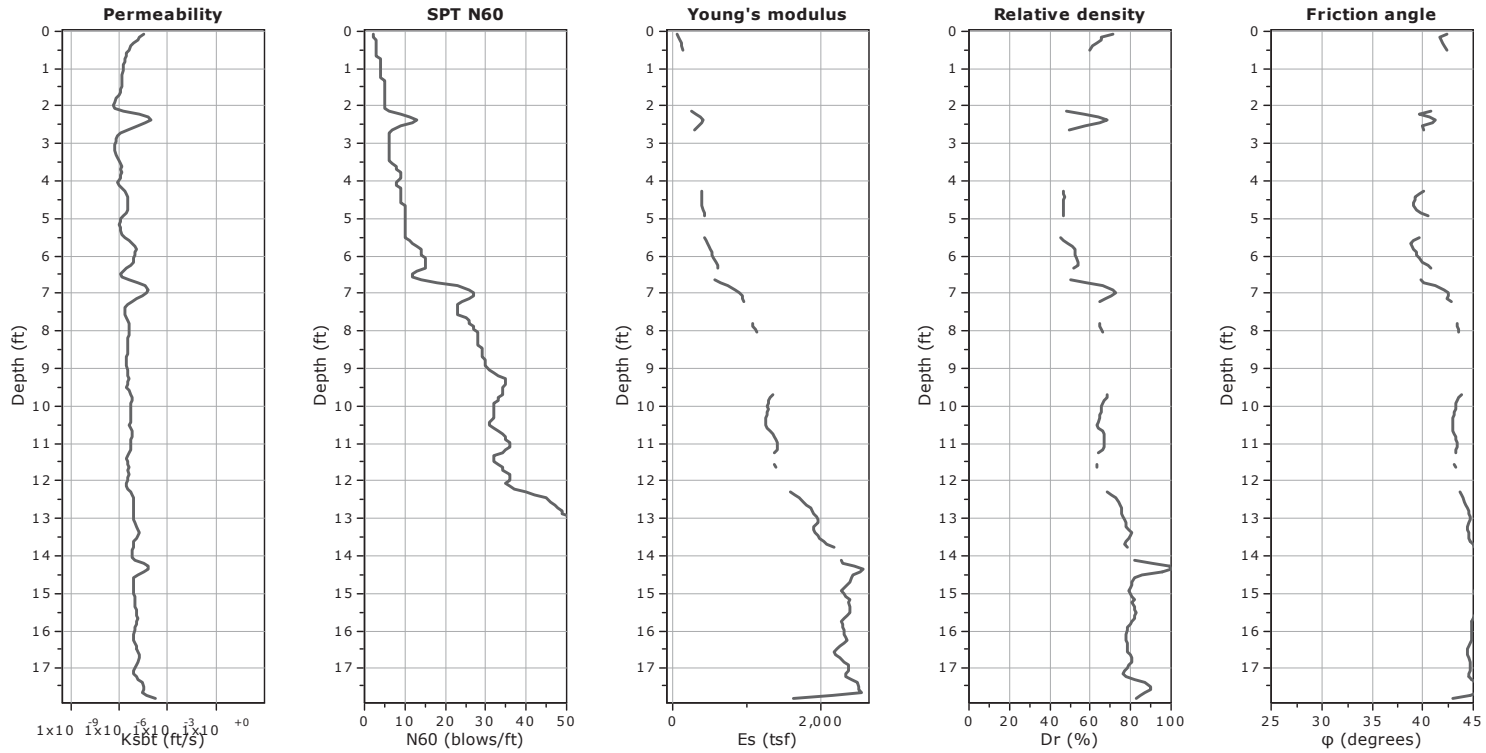
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-057
Total depth: 18.04 ft



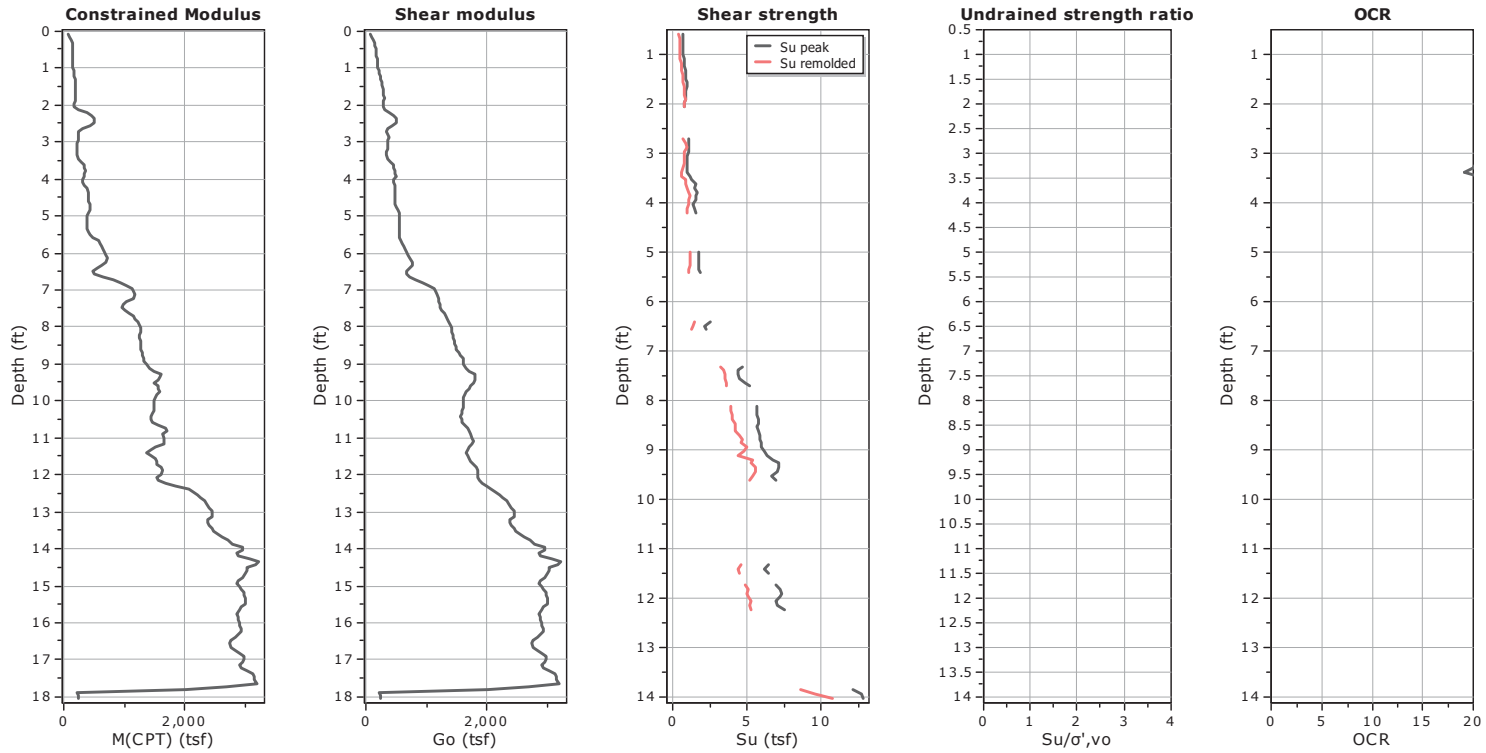
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-057
Total depth: 18.04 ft



Calculation parameters

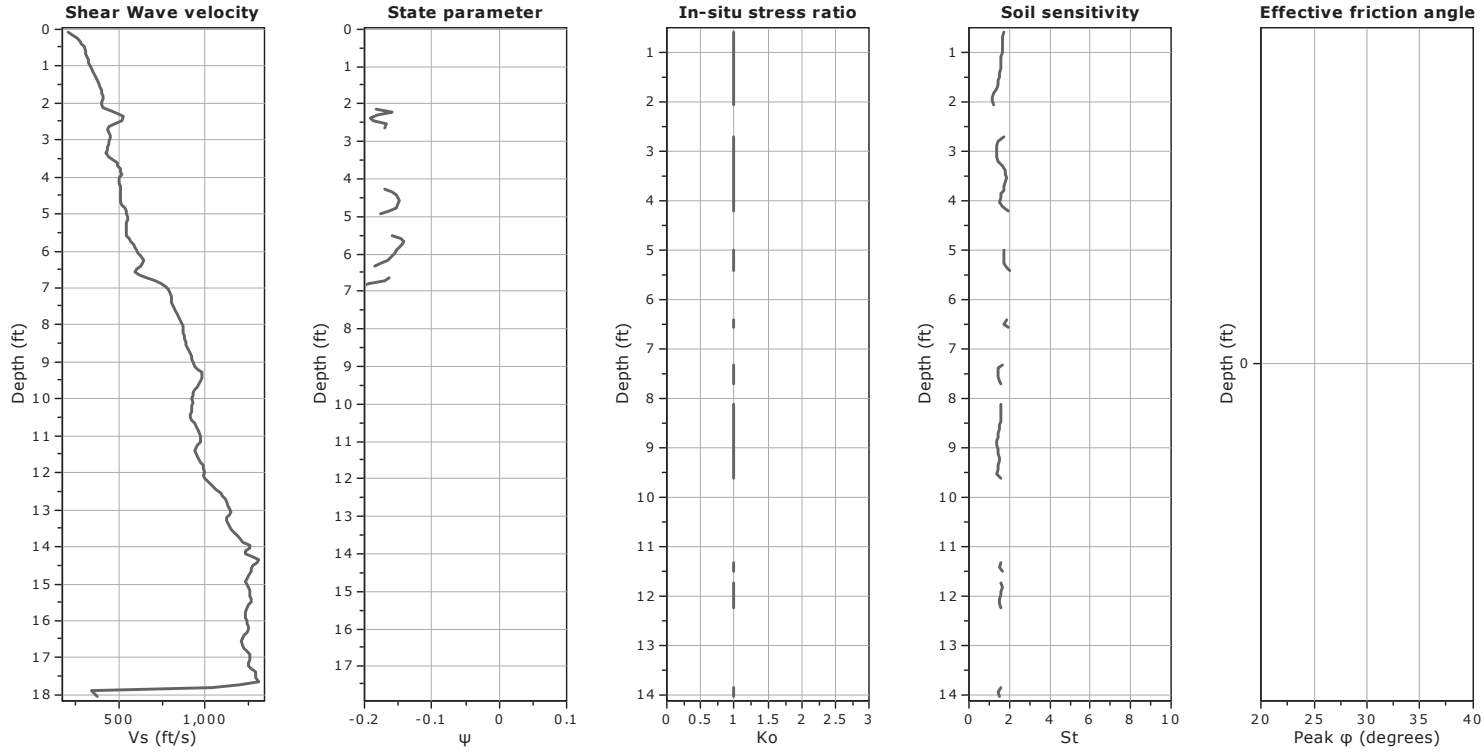
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-057
Total depth: 18.04 ft



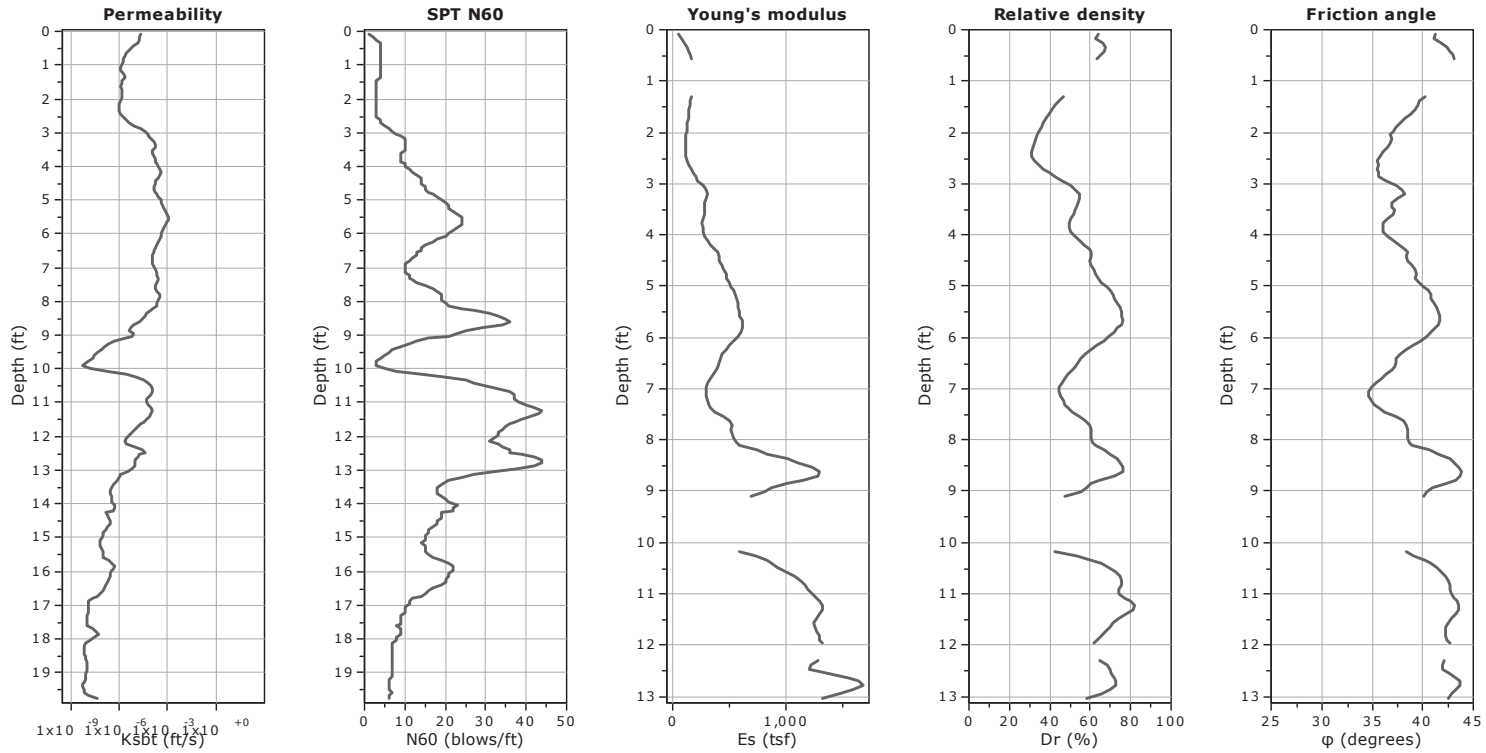
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-058
Total depth: 20.01 ft



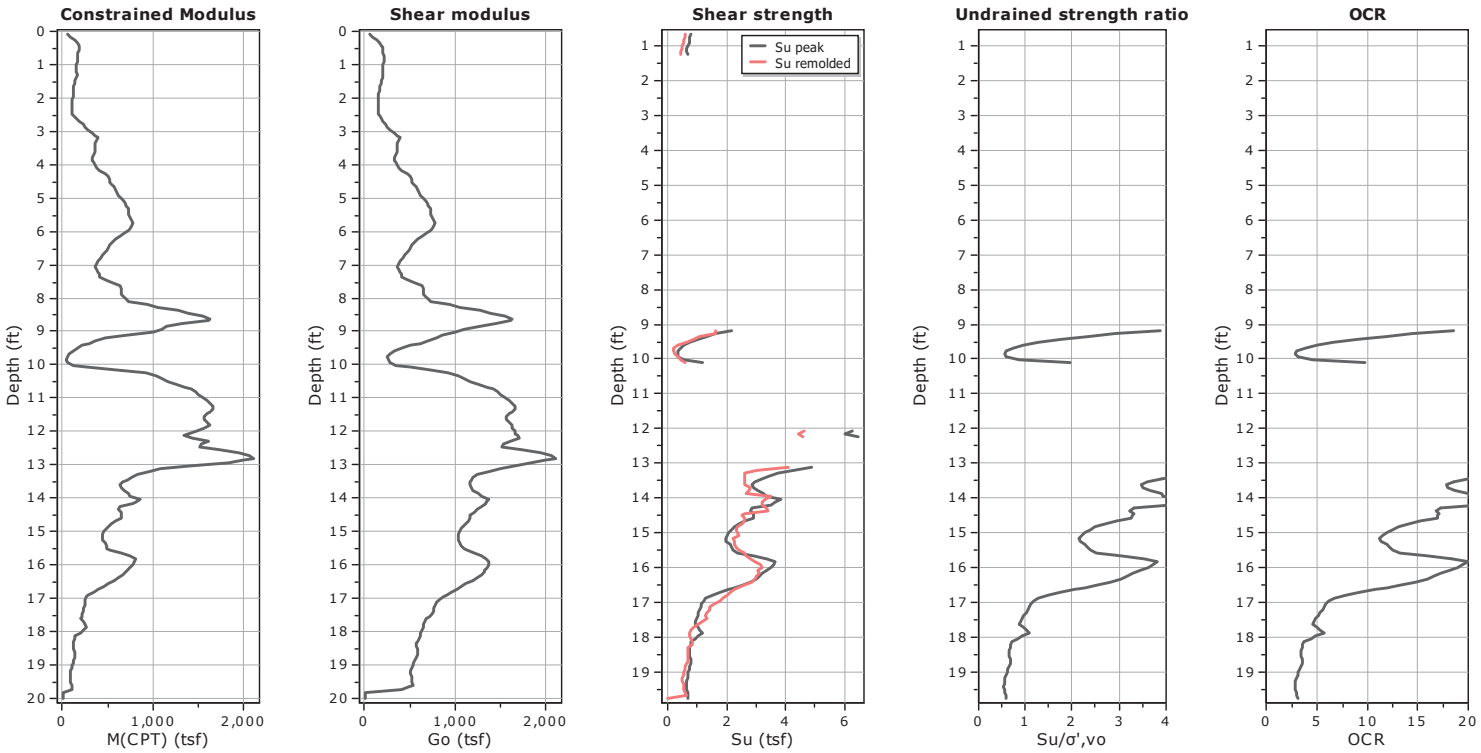
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-058
Total depth: 20.01 ft



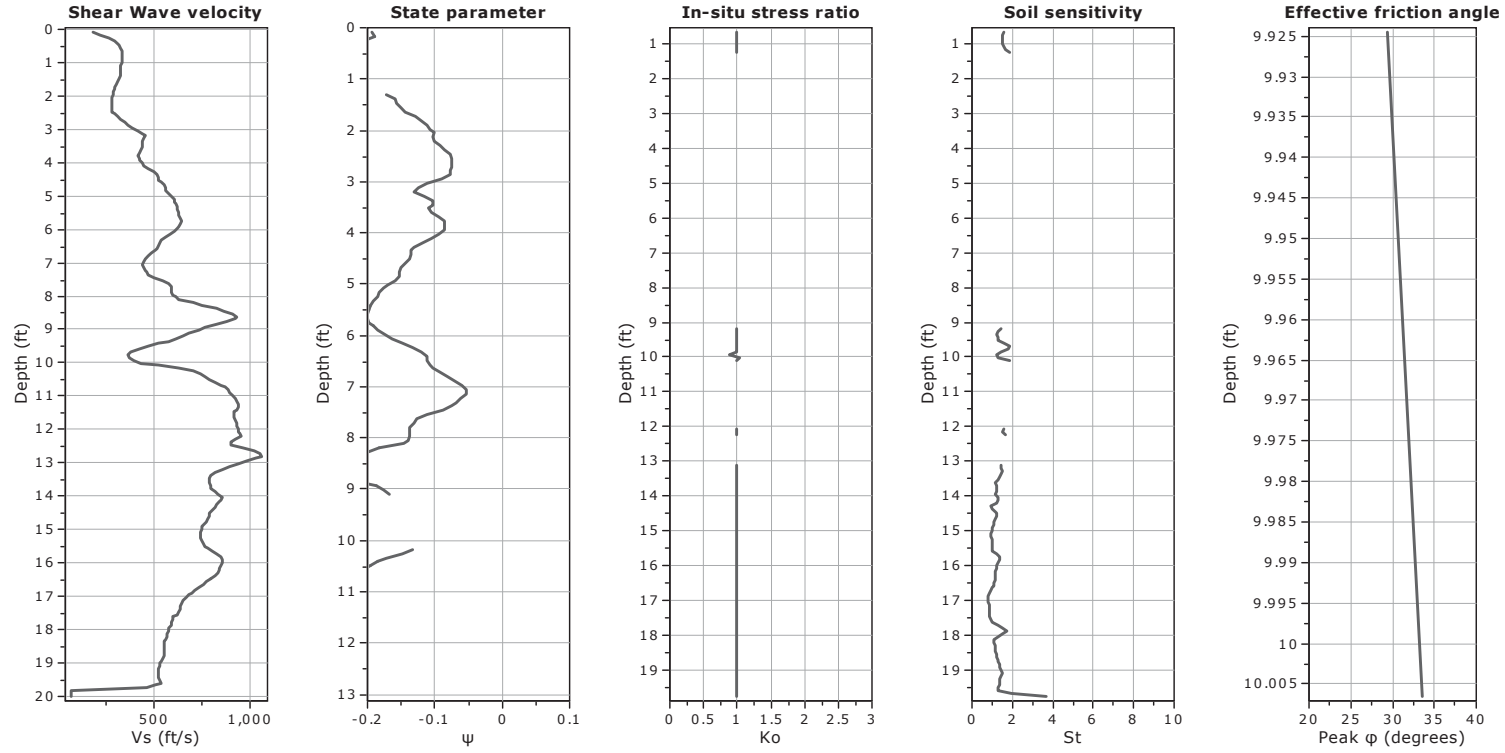
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-058
Total depth: 20.01 ft



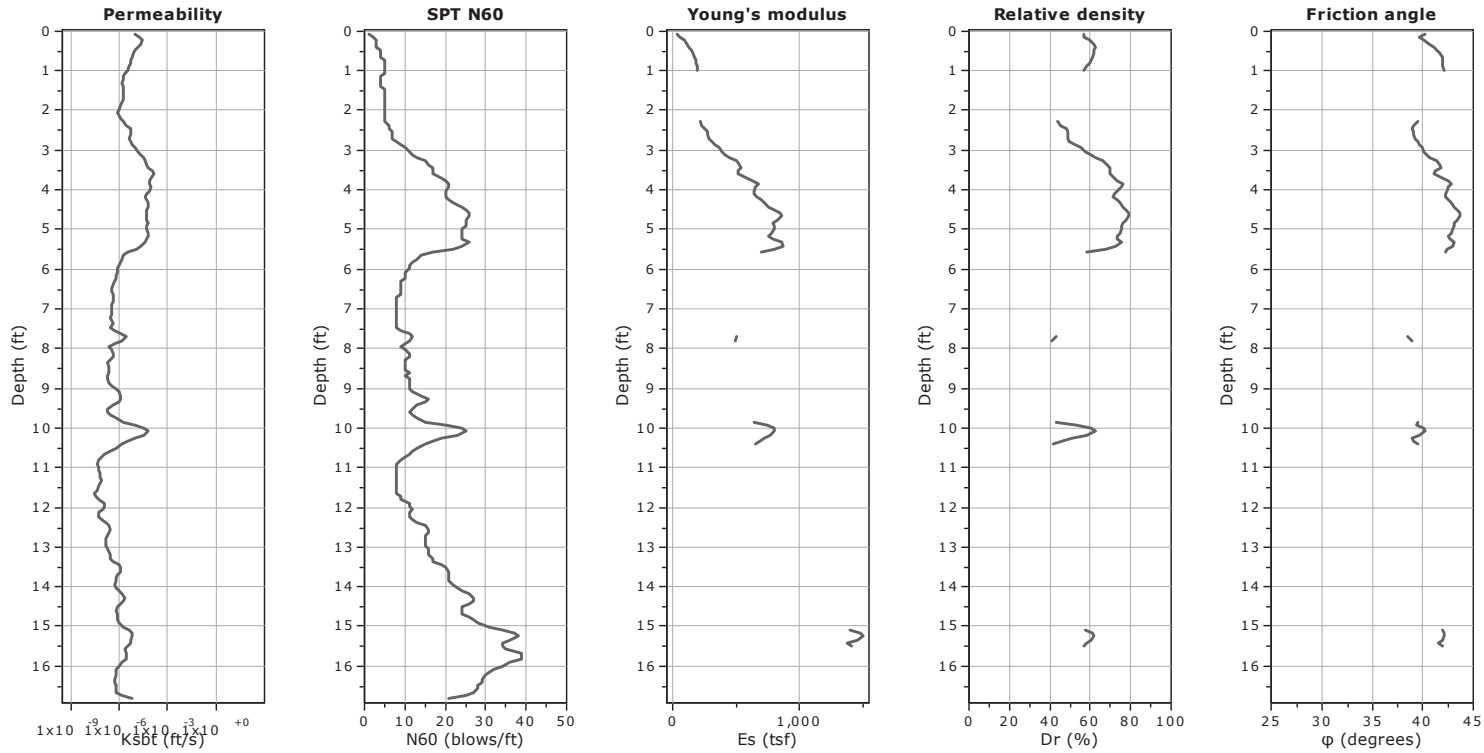
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-059
Total depth: 17.06 ft



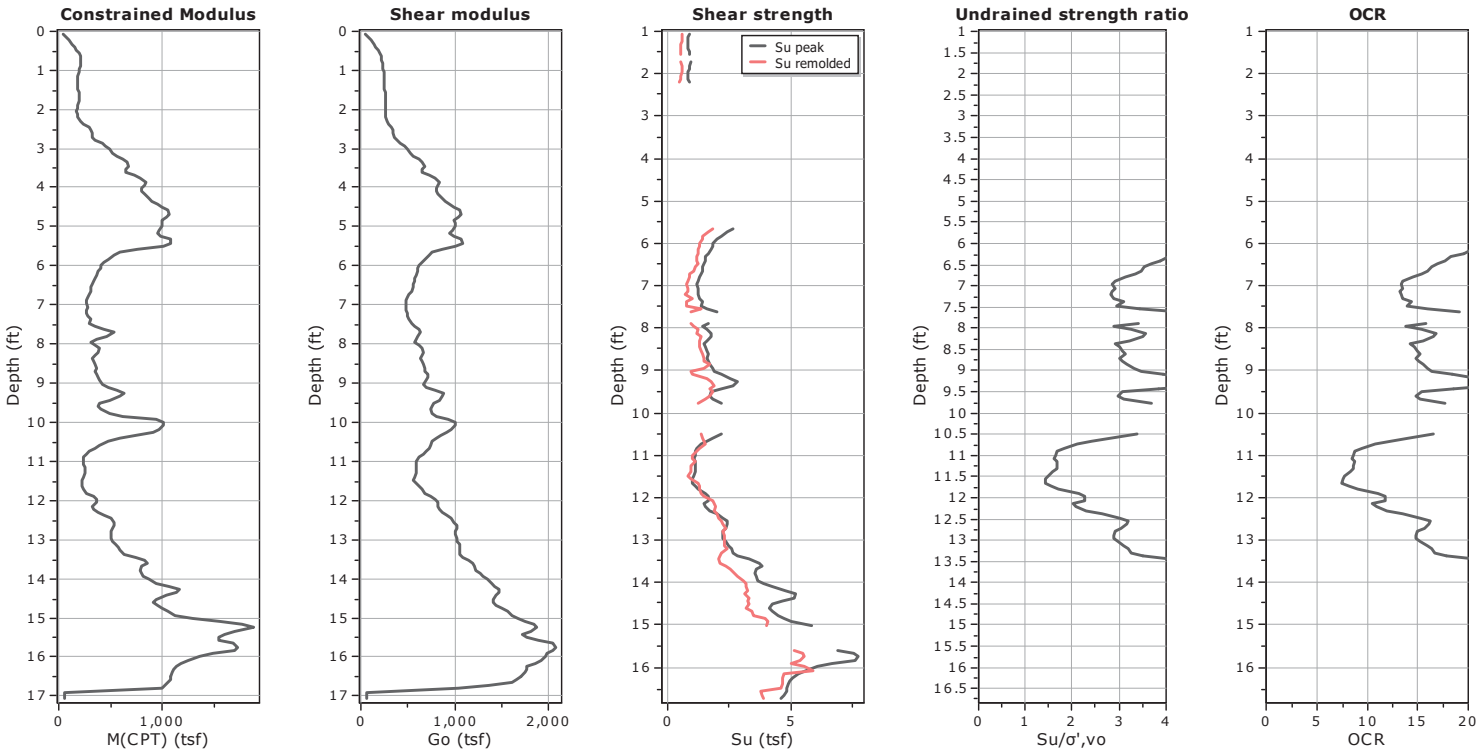
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-059
Total depth: 17.06 ft



Calculation parameters

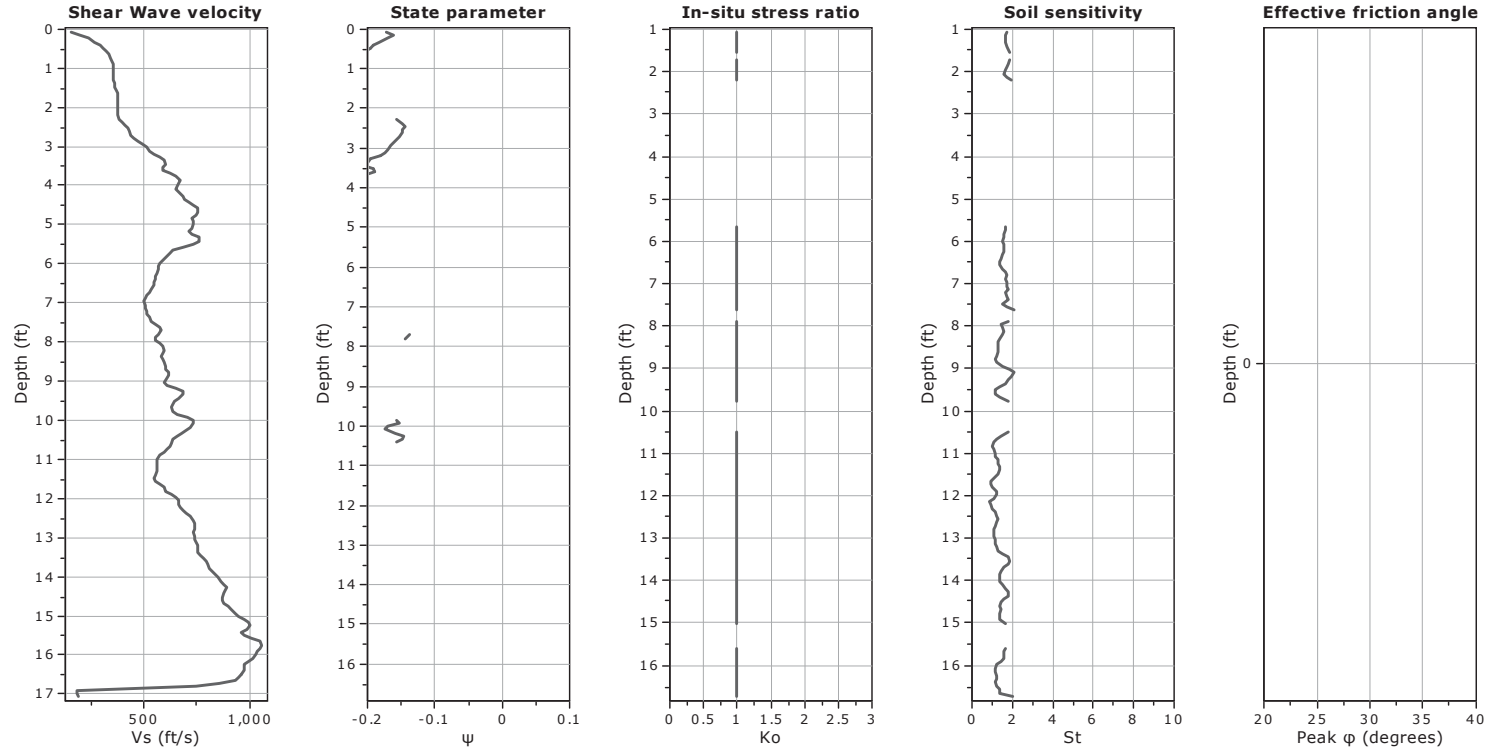
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-059
Total depth: 17.06 ft



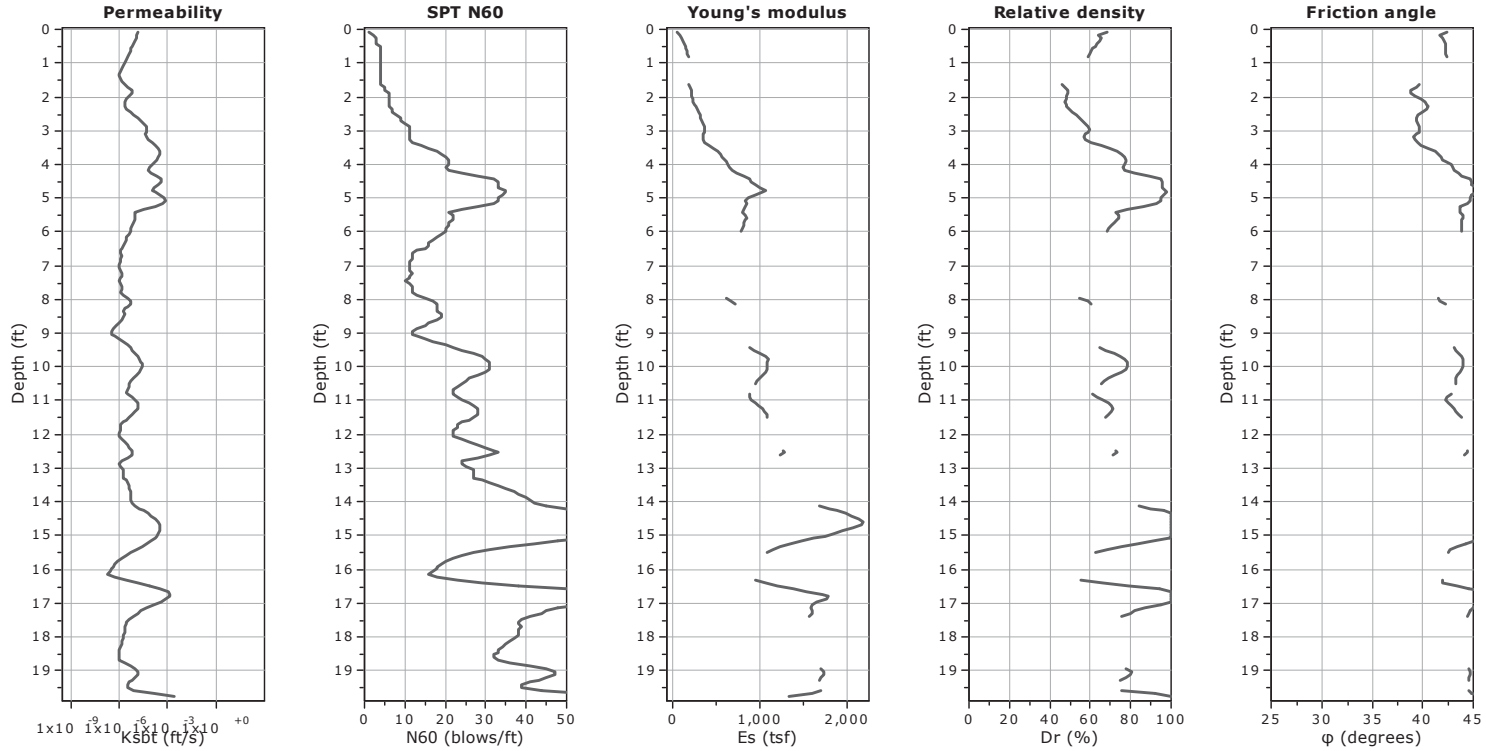
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-060
Total depth: 20.01 ft



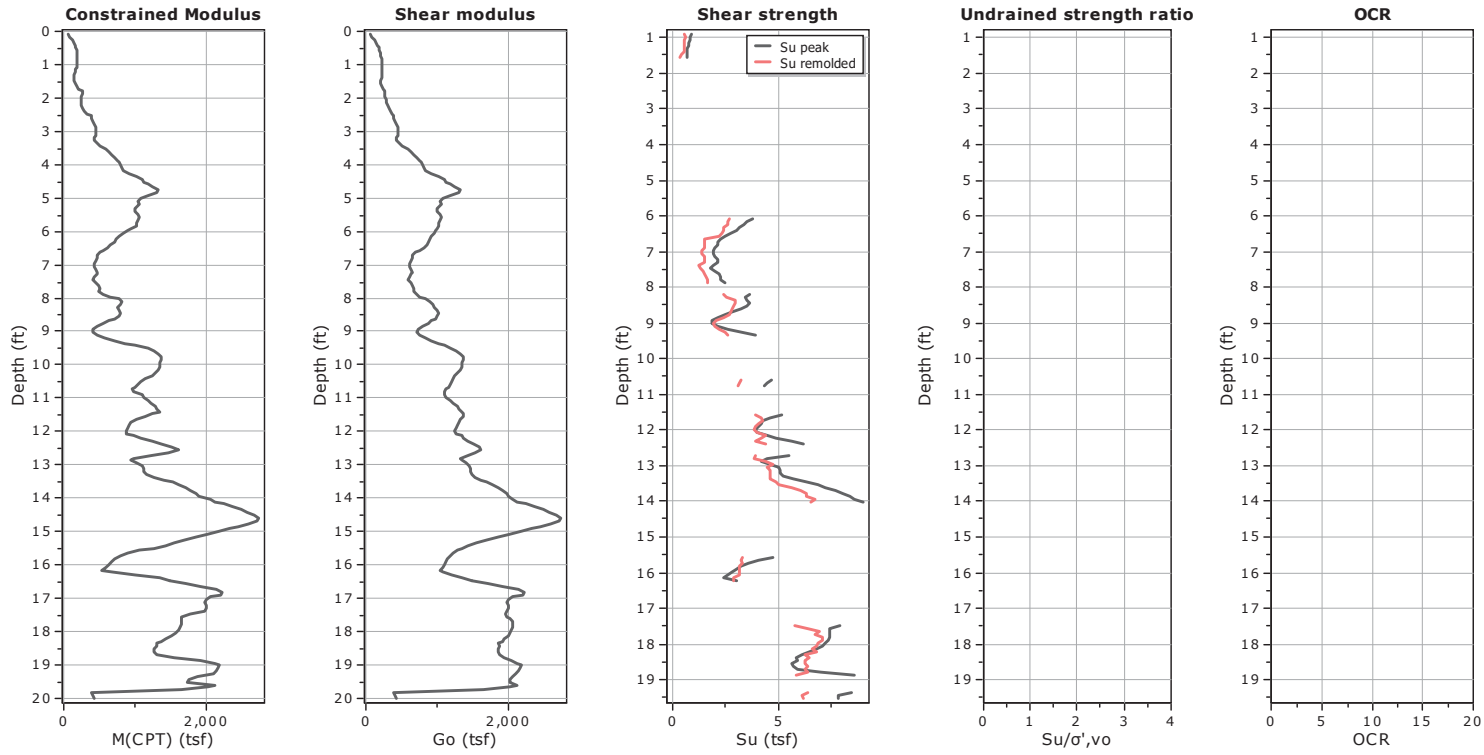
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-060
Total depth: 20.01 ft



Calculation parameters

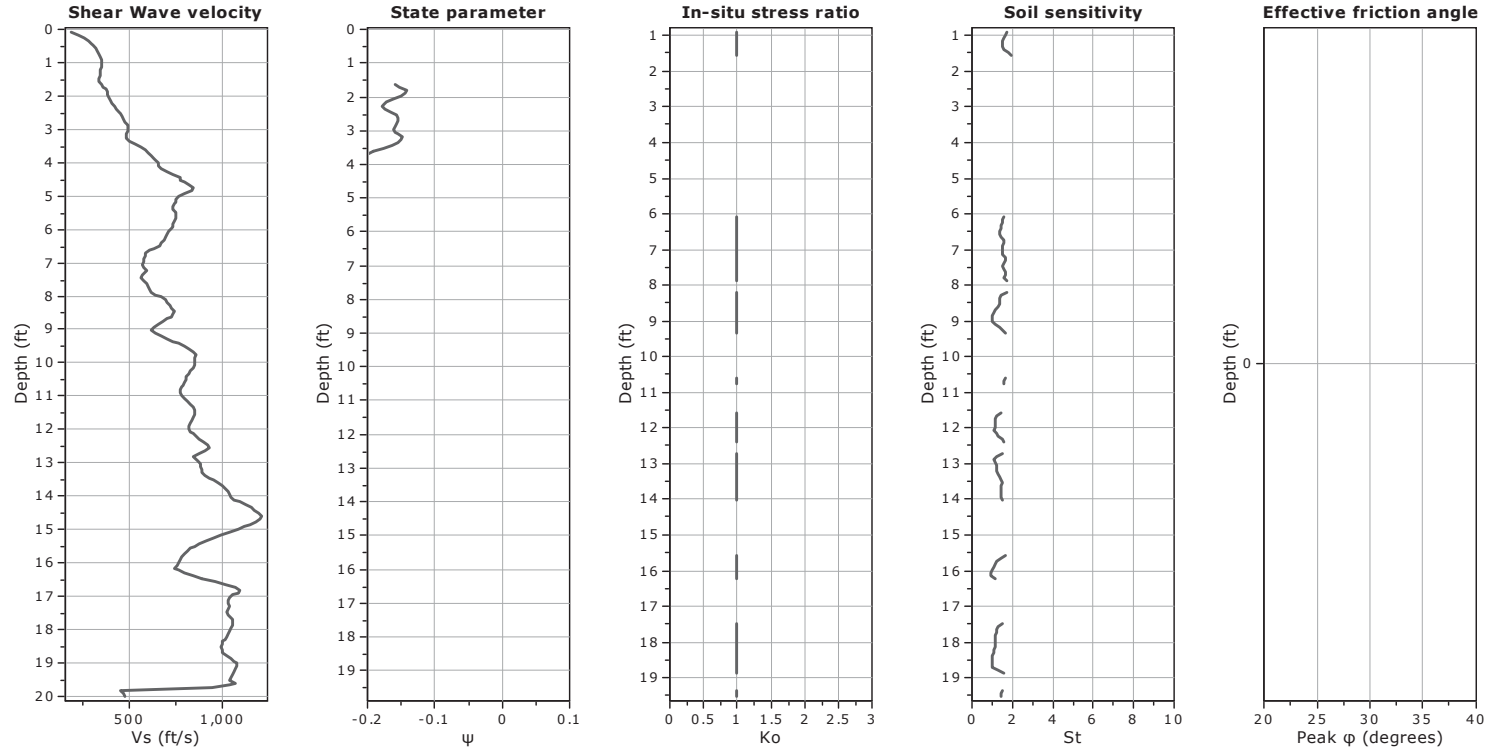
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-060
Total depth: 20.01 ft



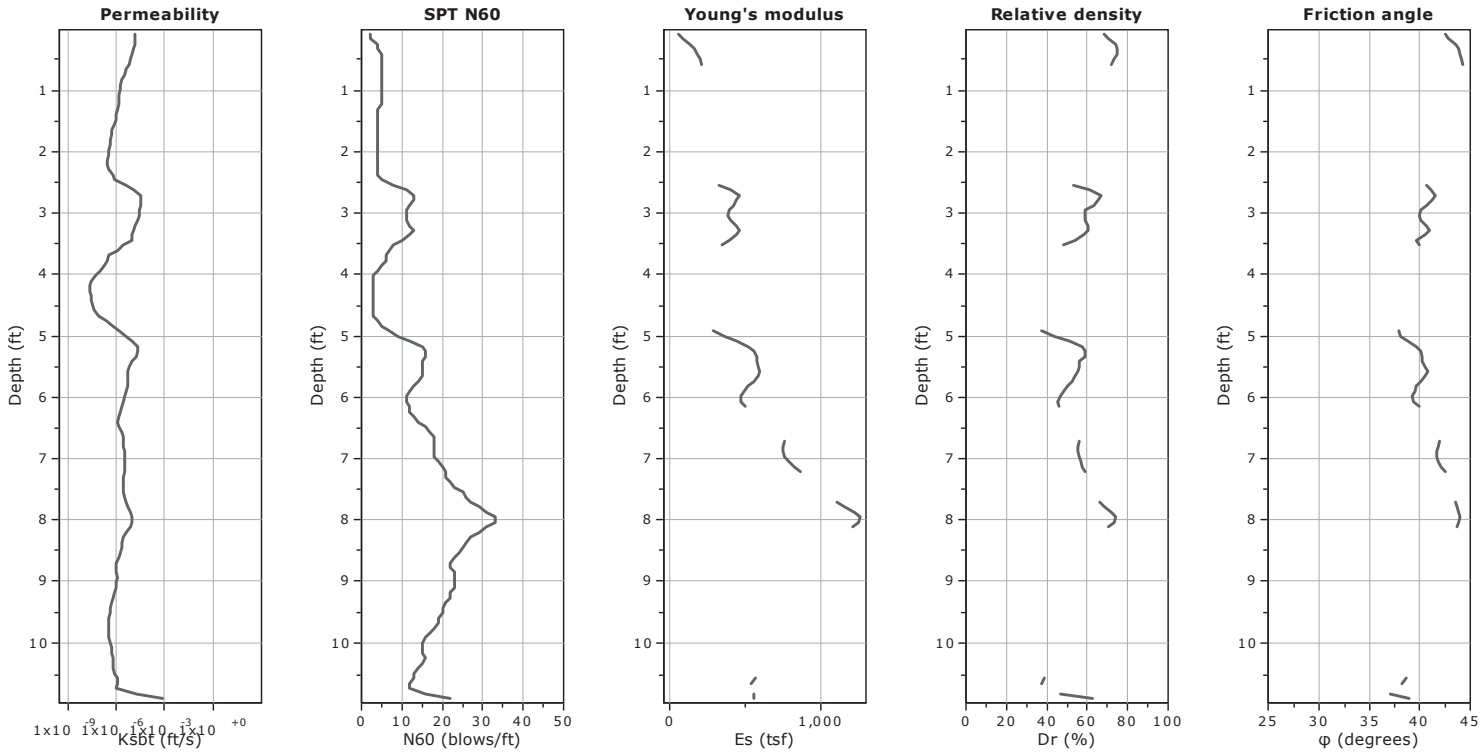
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-061
Total depth: 11.15 ft



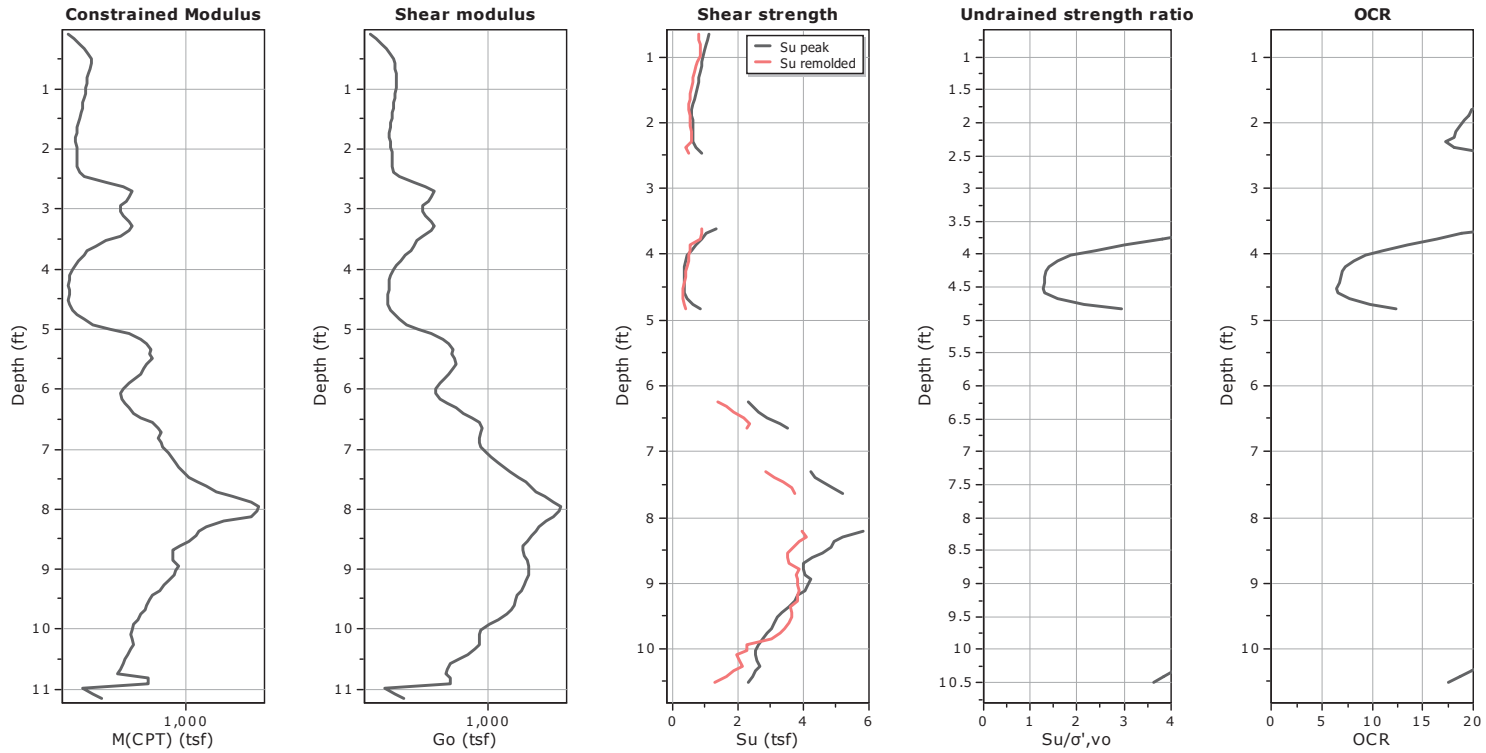
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-061
Total depth: 11.15 ft



Calculation parameters

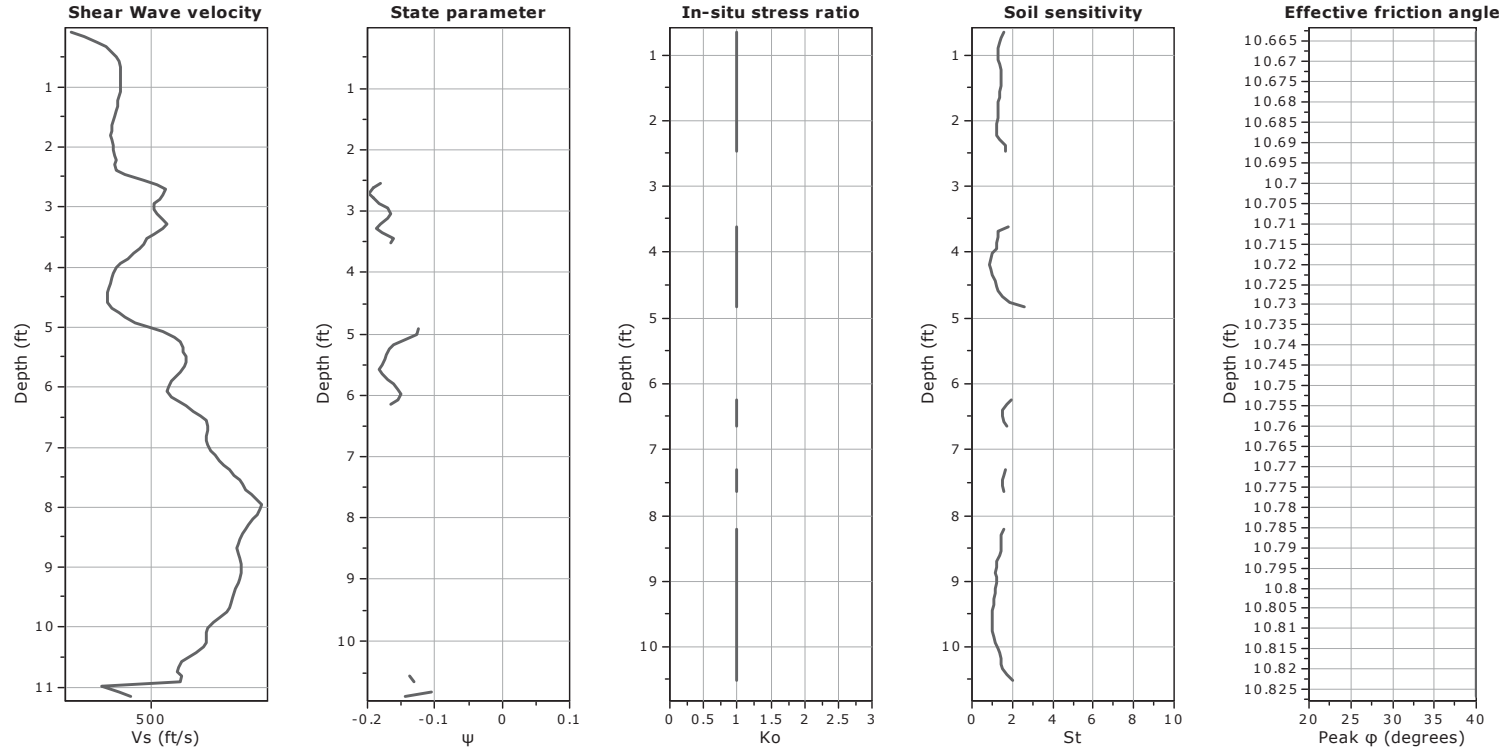
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-061
Total depth: 11.15 ft



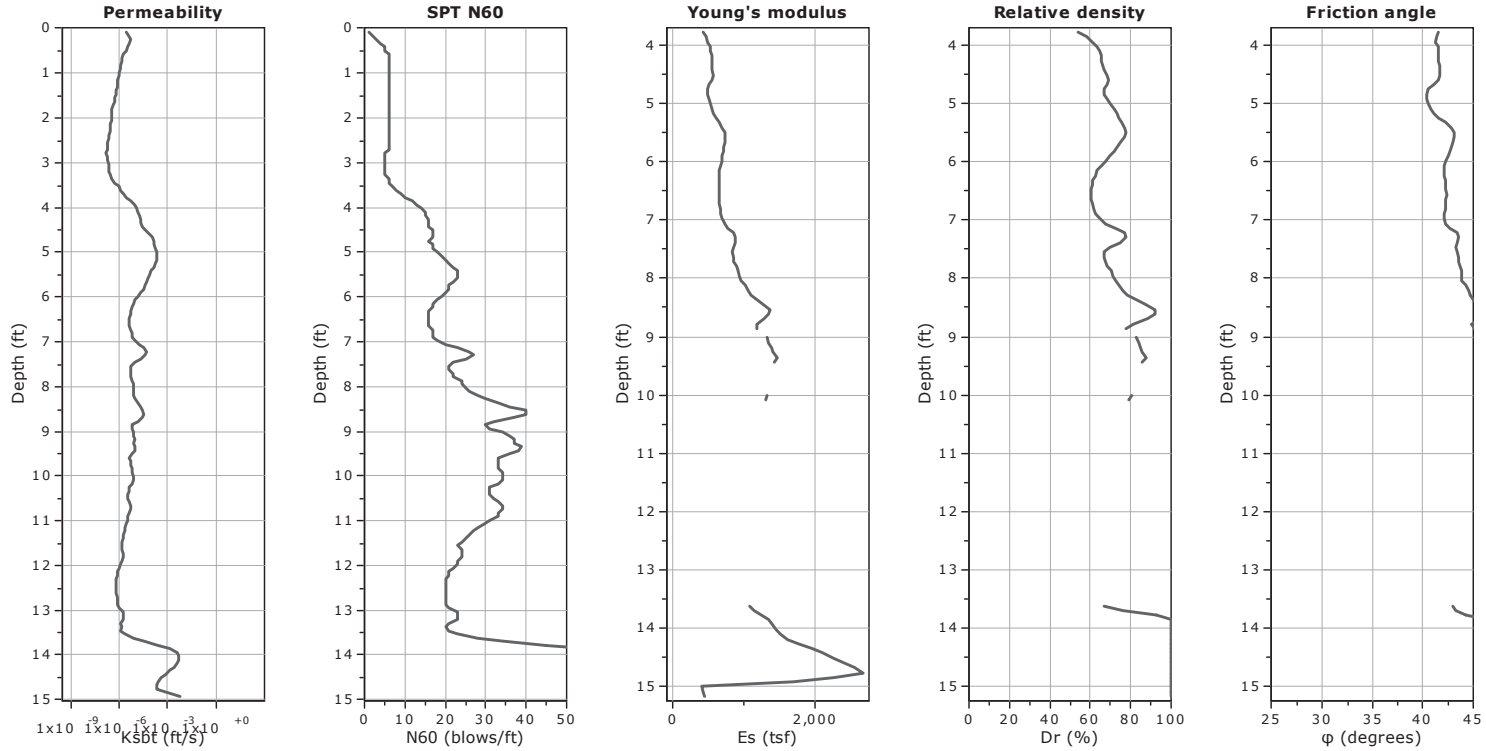
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-062
Total depth: 15.17 ft



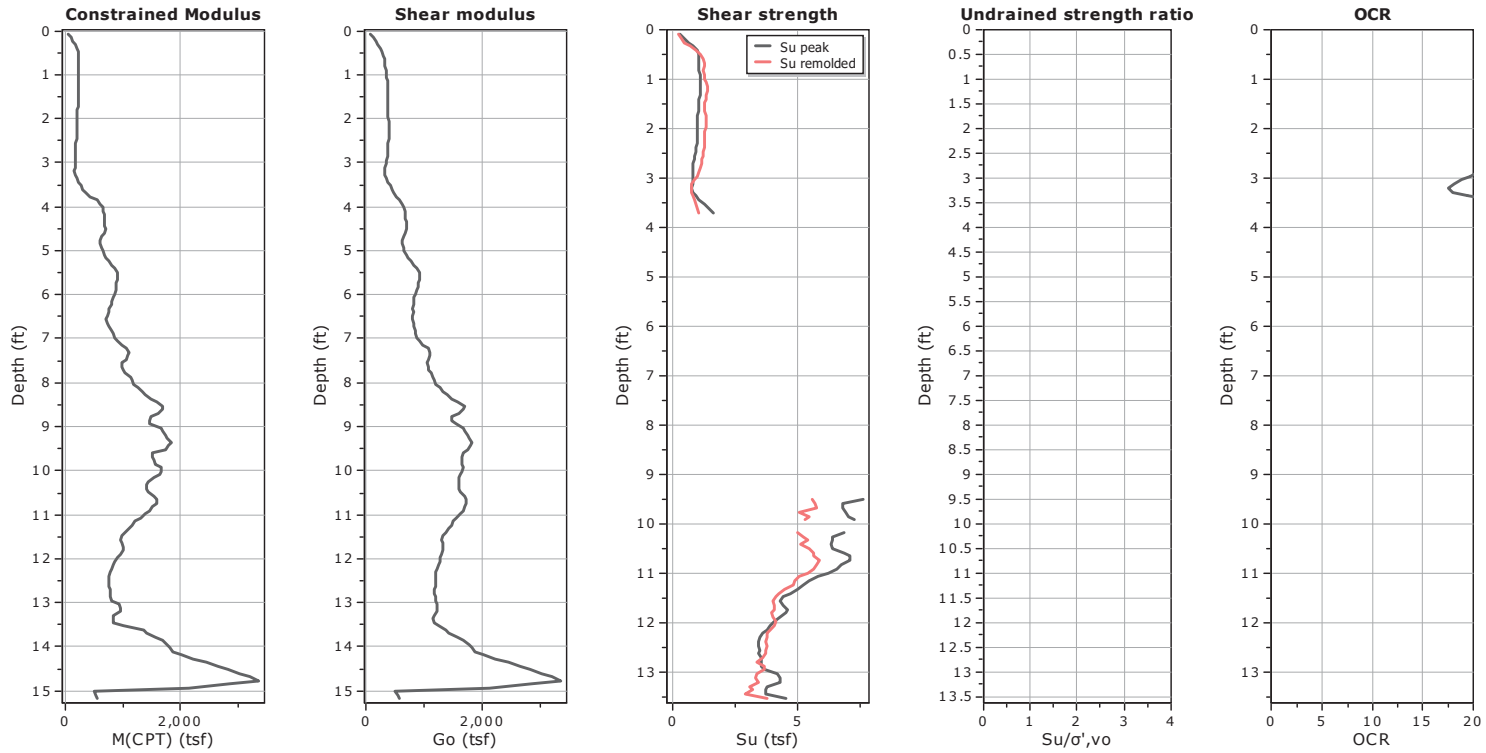
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-062
Total depth: 15.17 ft



Calculation parameters

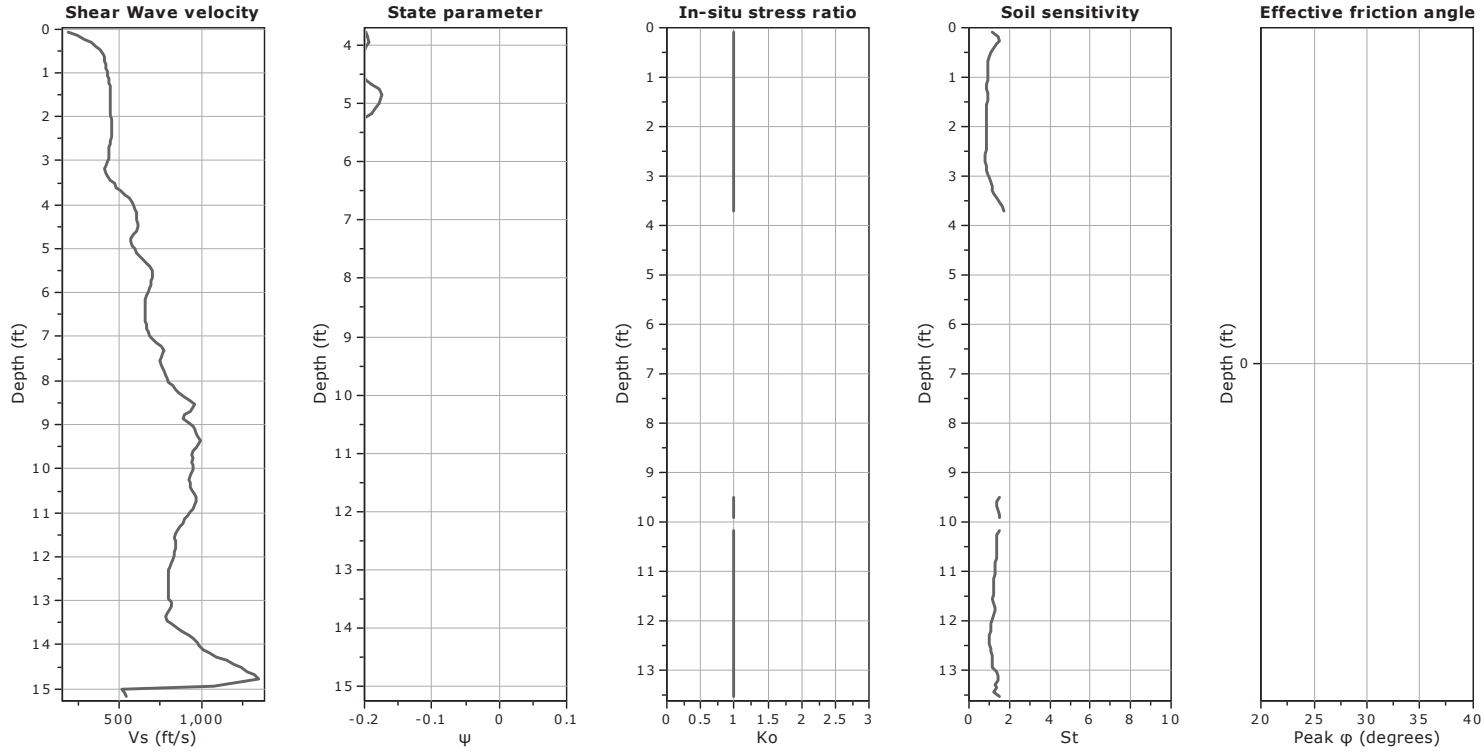
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-062
Total depth: 15.17 ft



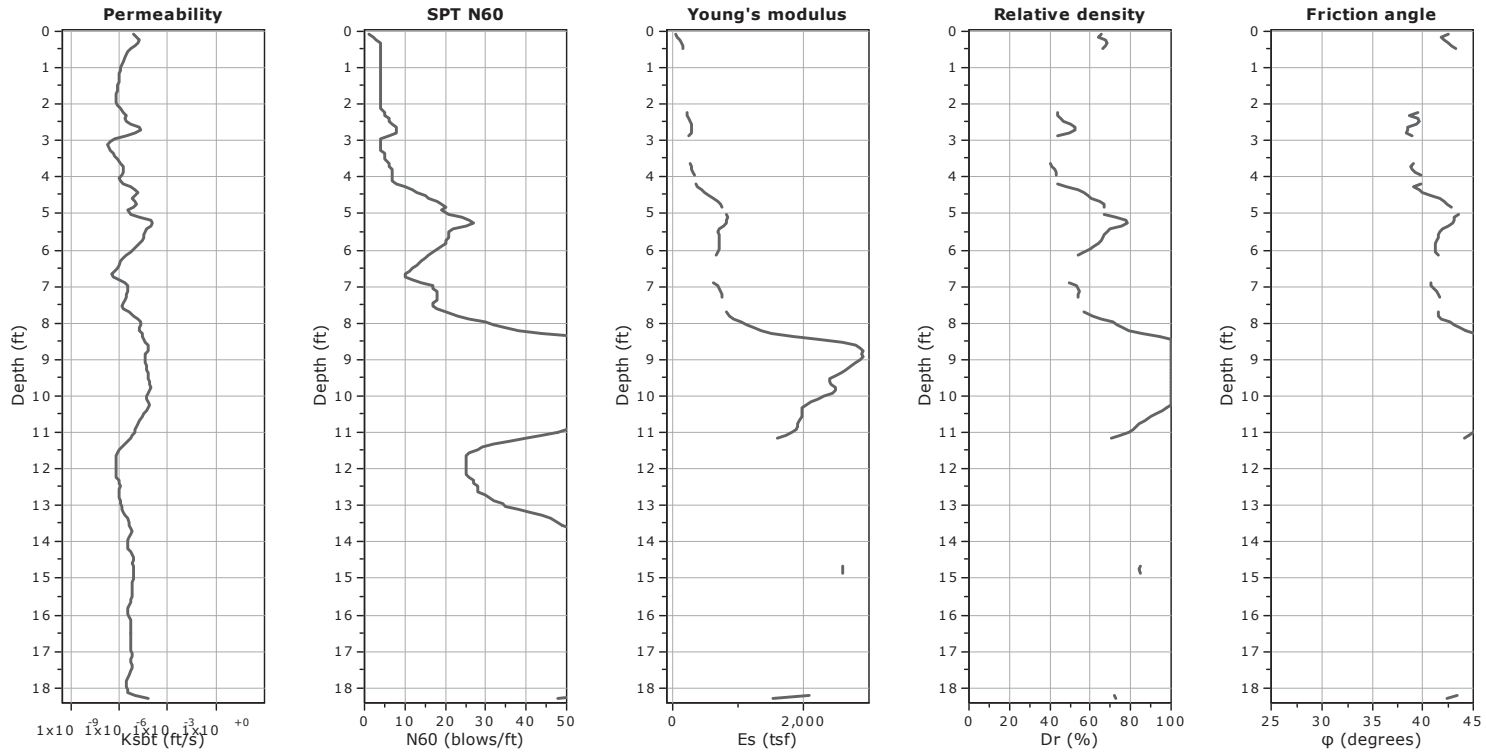
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-063
Total depth: 18.54 ft



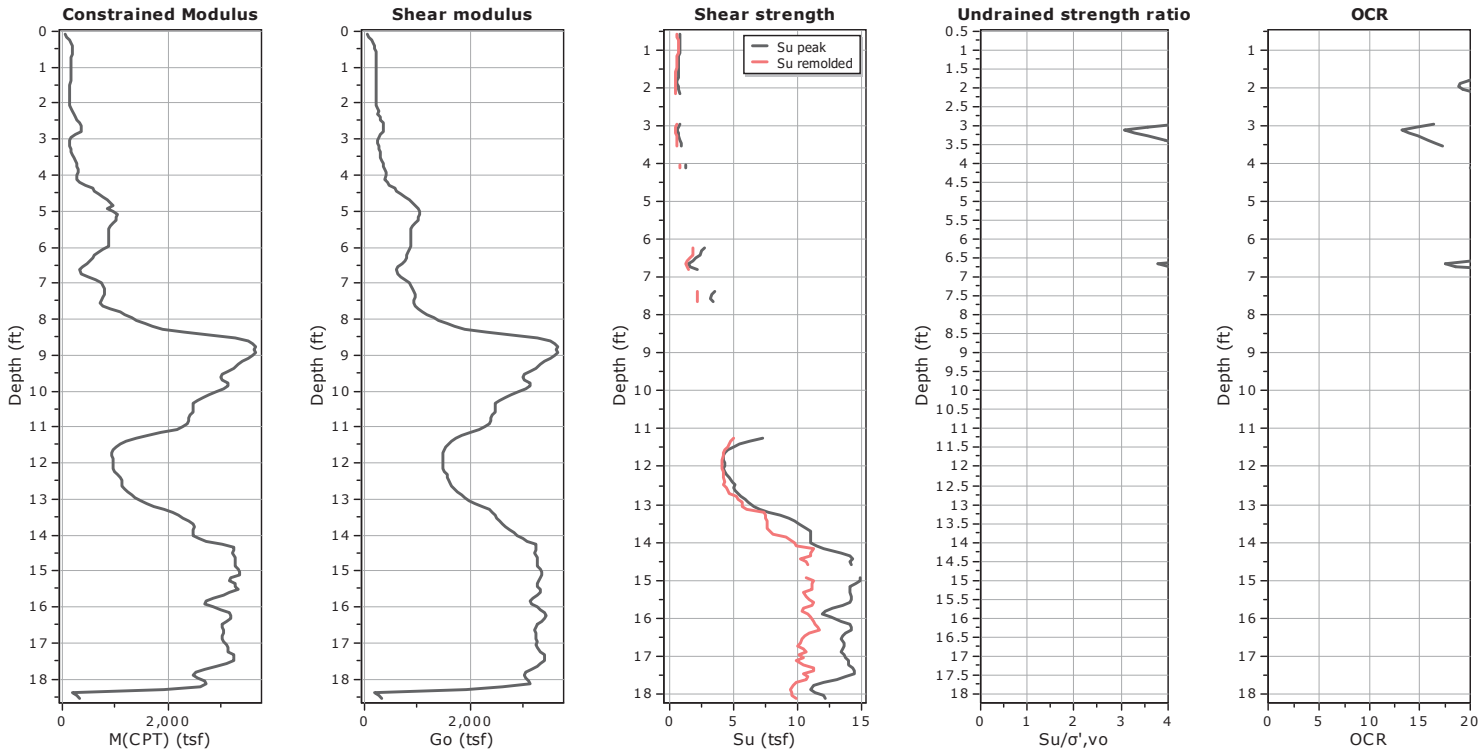
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-063
Total depth: 18.54 ft



Calculation parameters

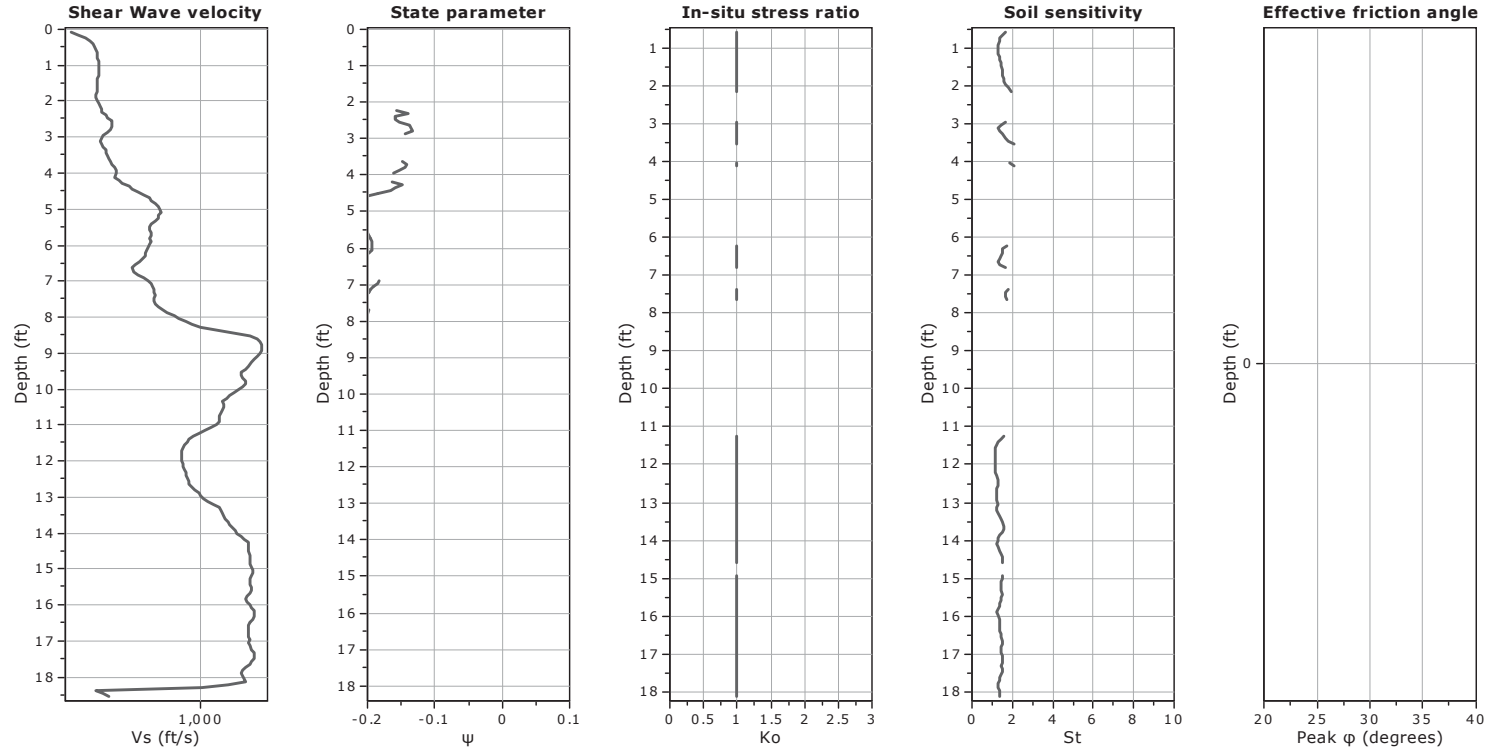
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-063
Total depth: 18.54 ft



Calculation parameters

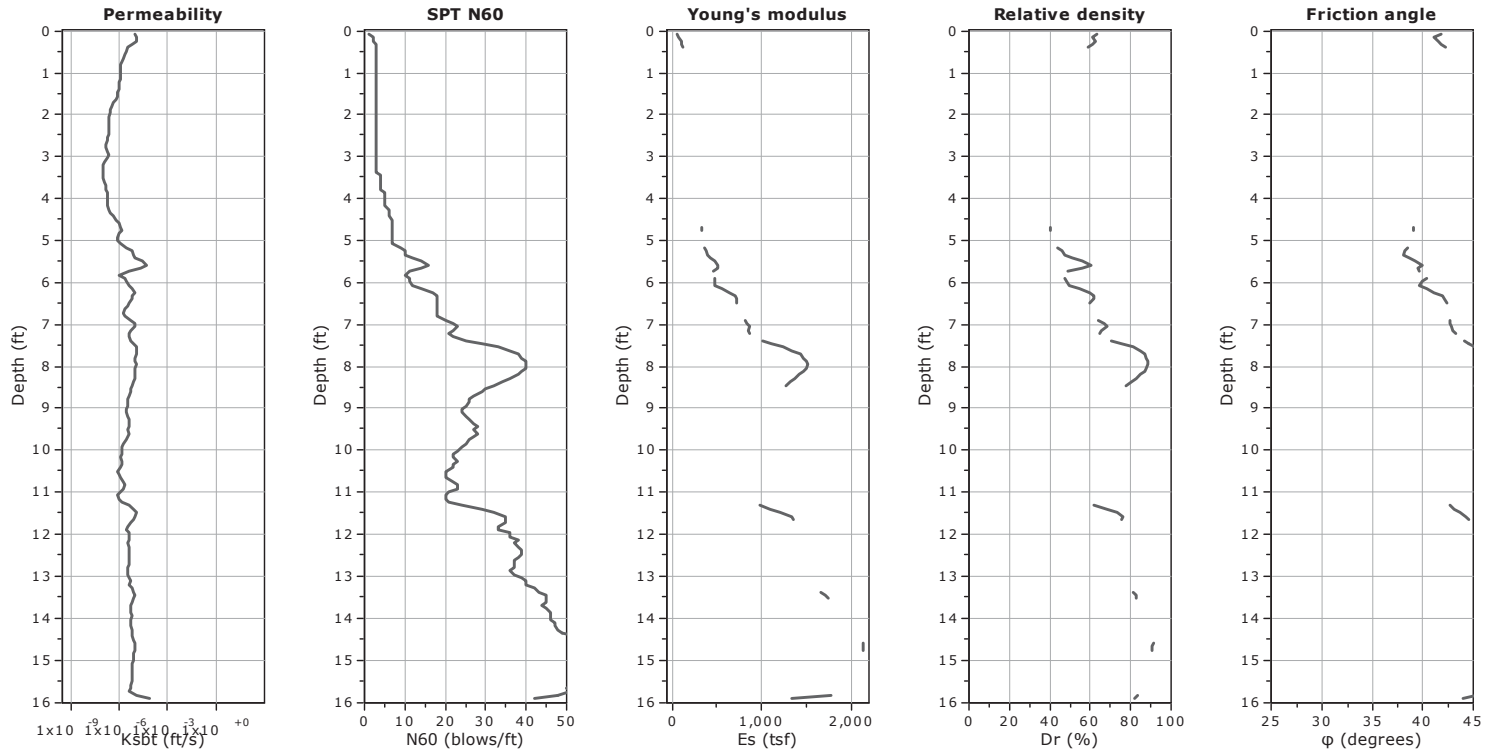
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-064
Total depth: 16.16 ft



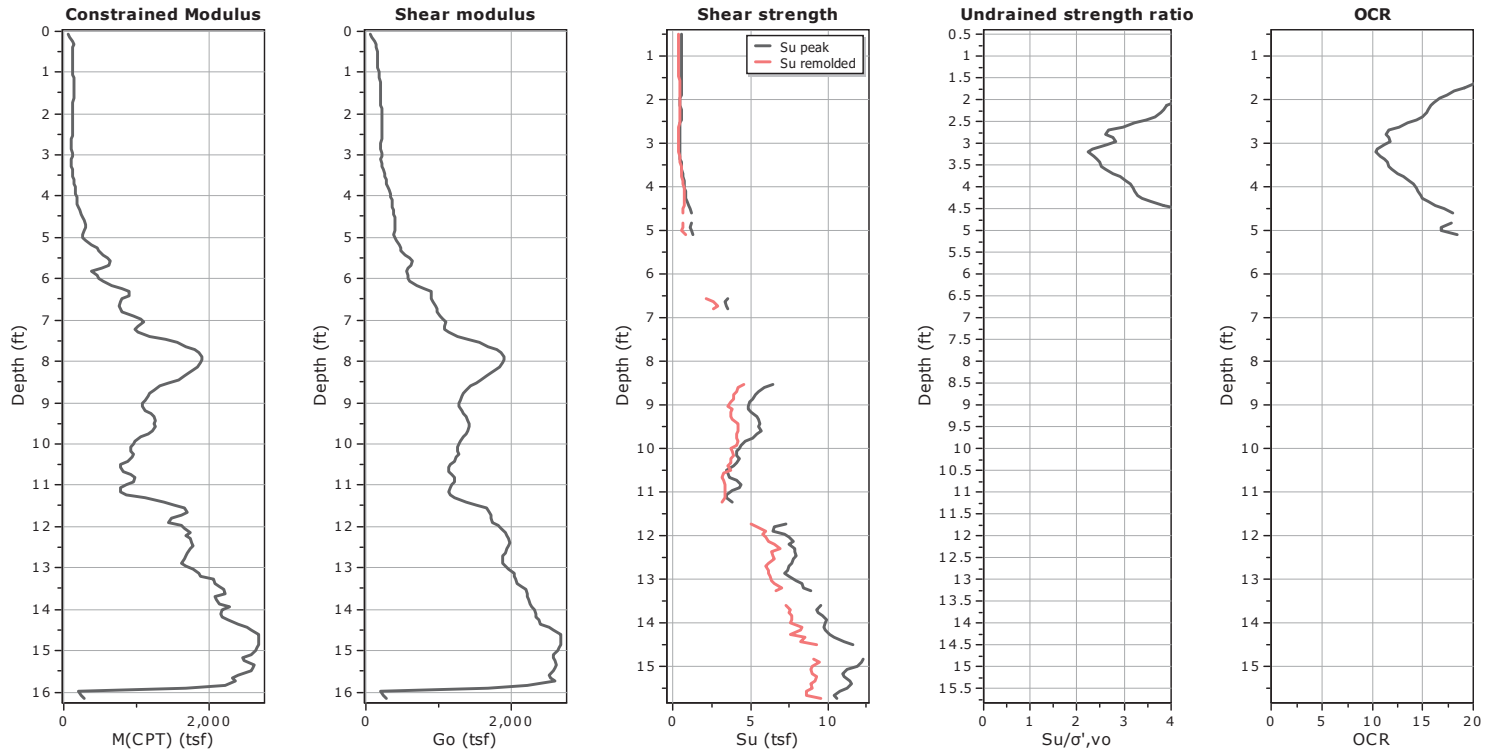
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-064
Total depth: 16.16 ft



Calculation parameters

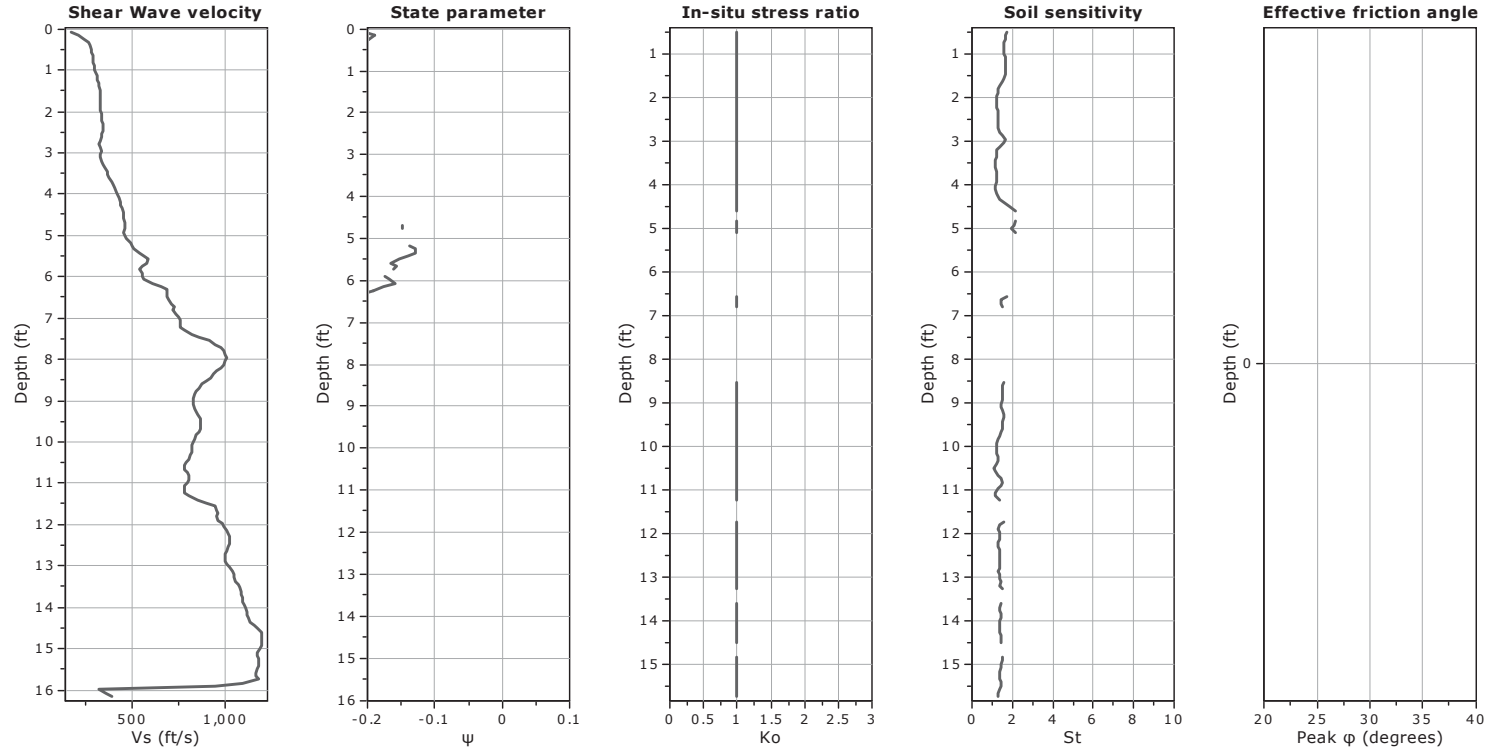
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-064
Total depth: 16.16 ft



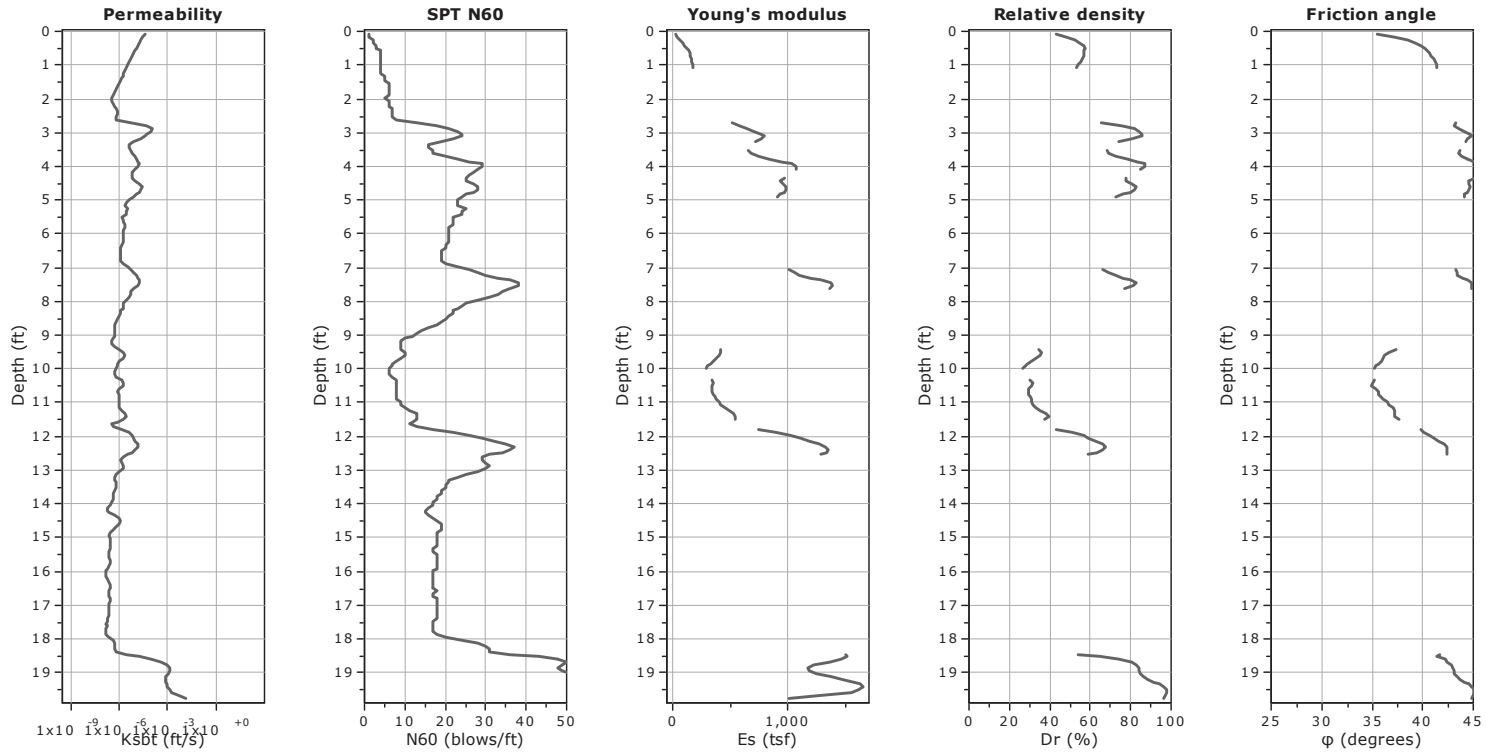
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-065A
Total depth: 20.01 ft



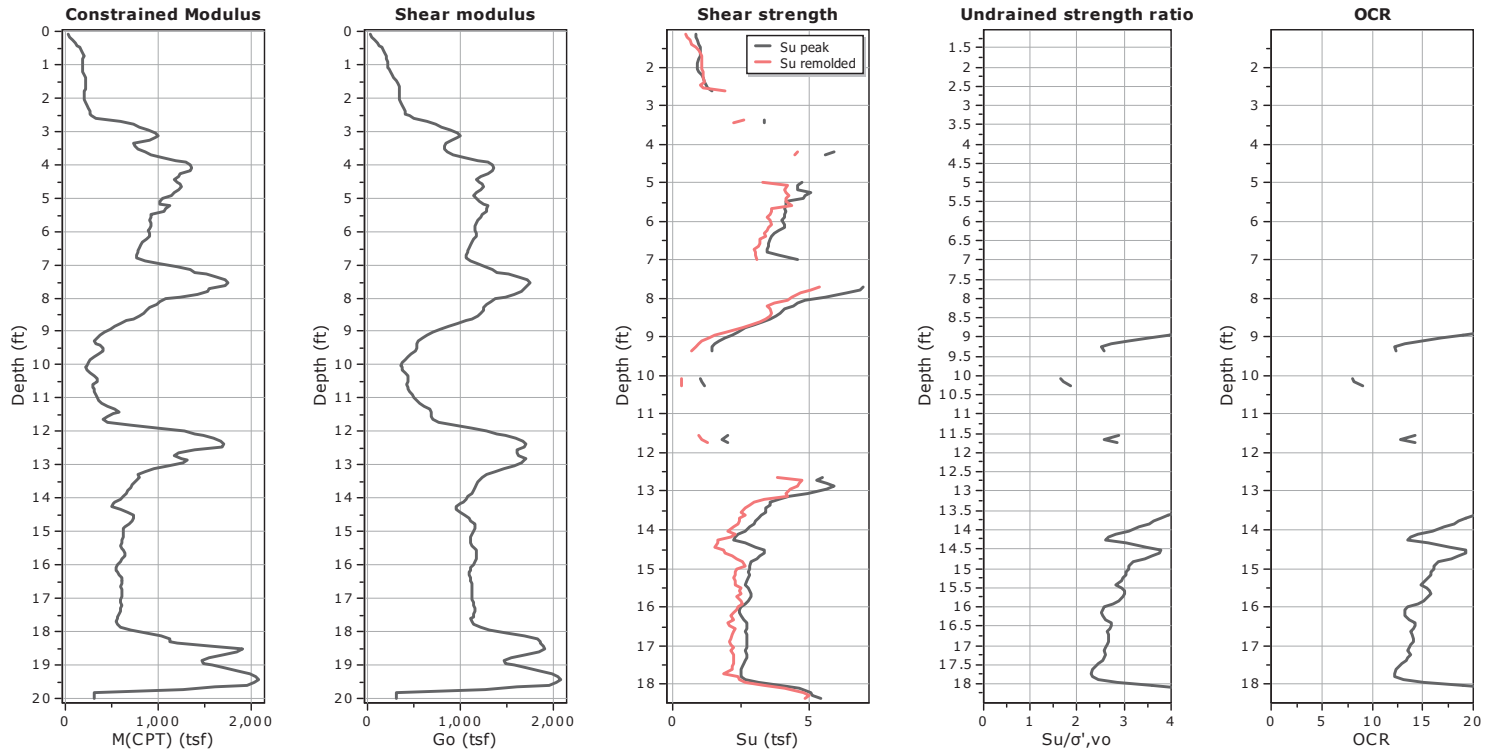
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-065A
Total depth: 20.01 ft



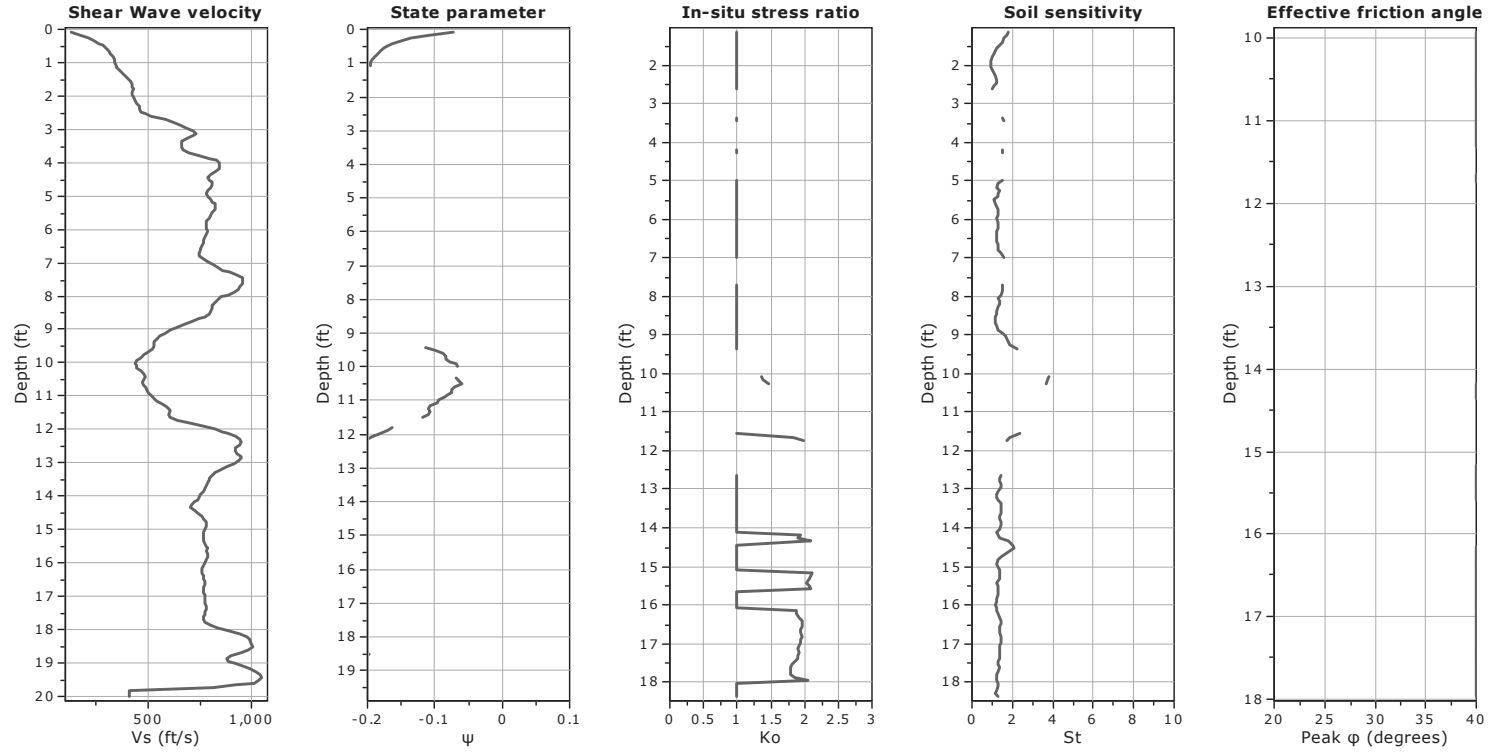
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-065A
Total depth: 20.01 ft



Calculation parameters

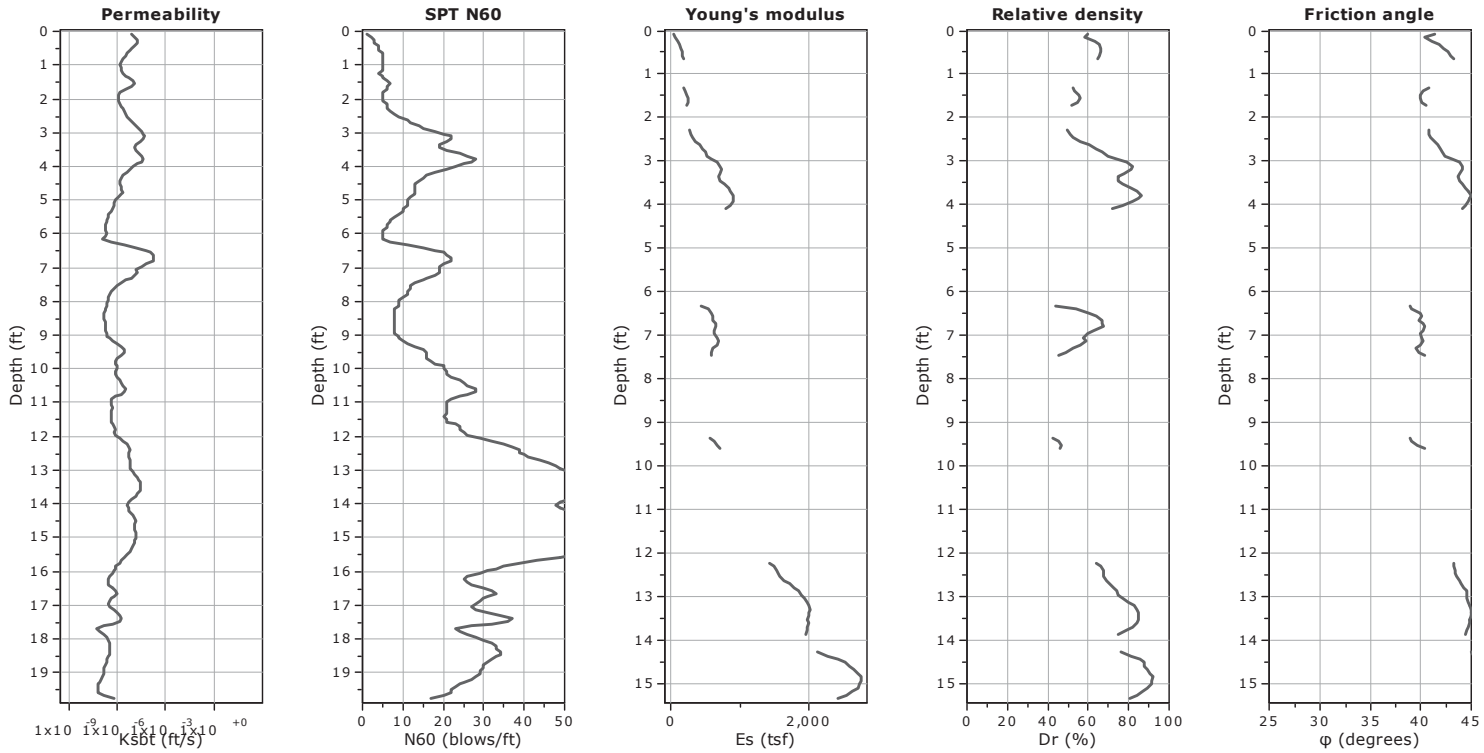
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-066
Total depth: 20.01 ft



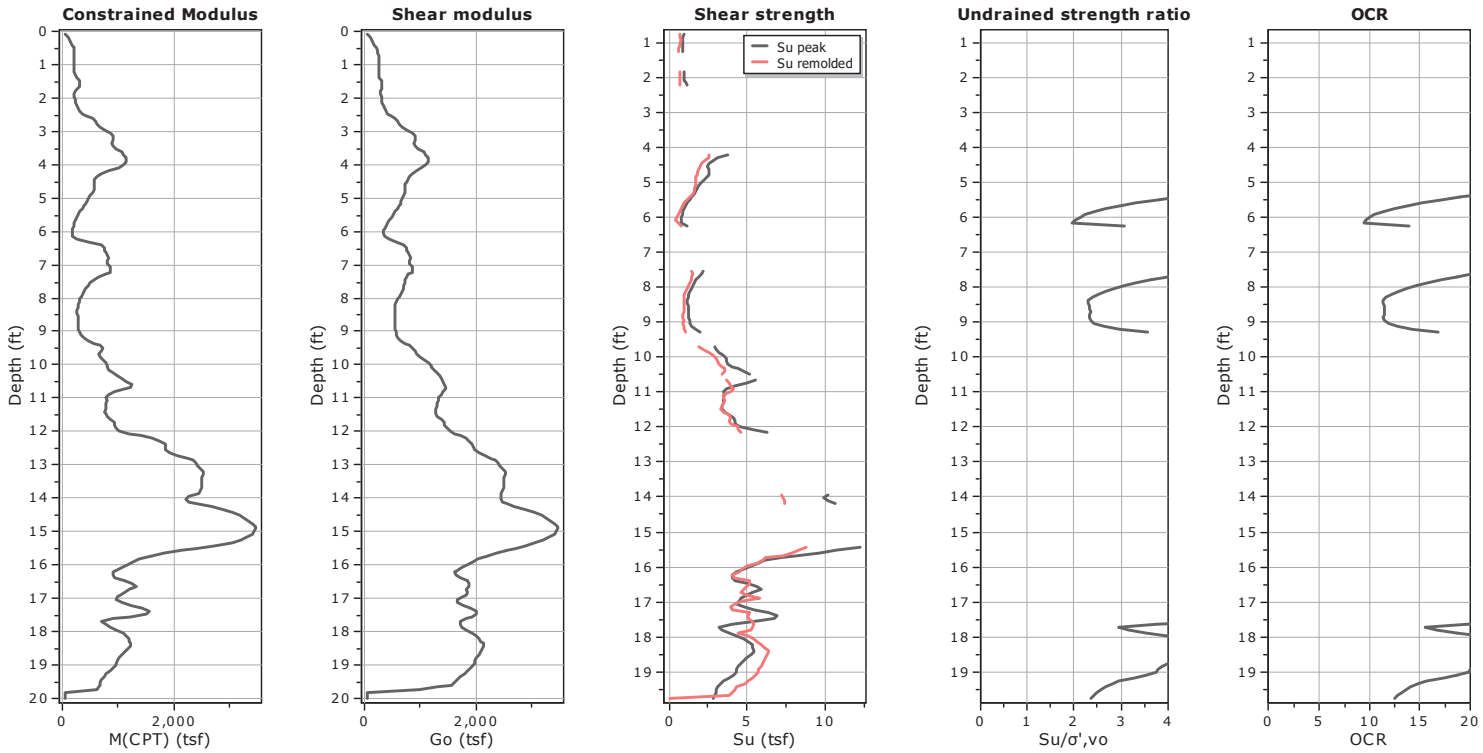
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-066
Total depth: 20.01 ft



Calculation parameters

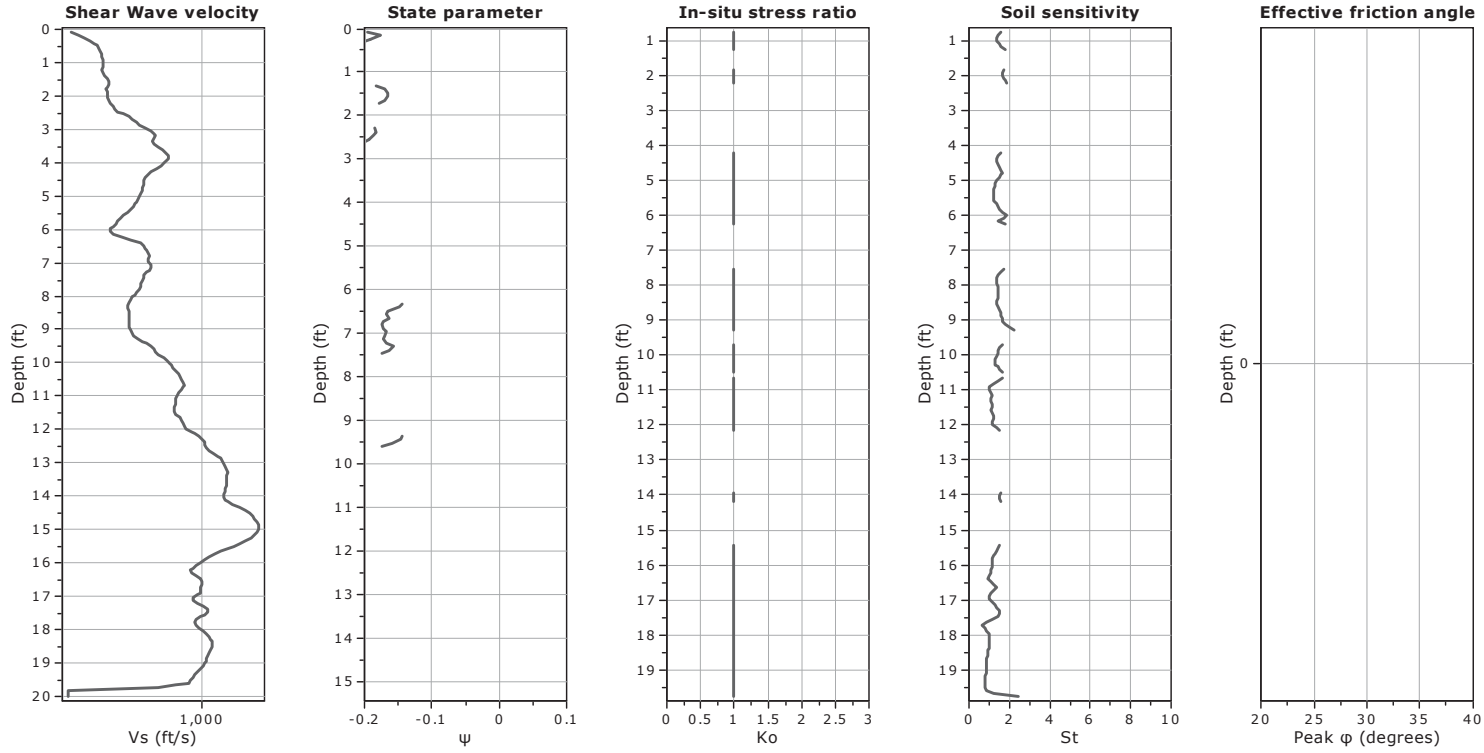
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-066
Total depth: 20.01 ft



Calculation parameters

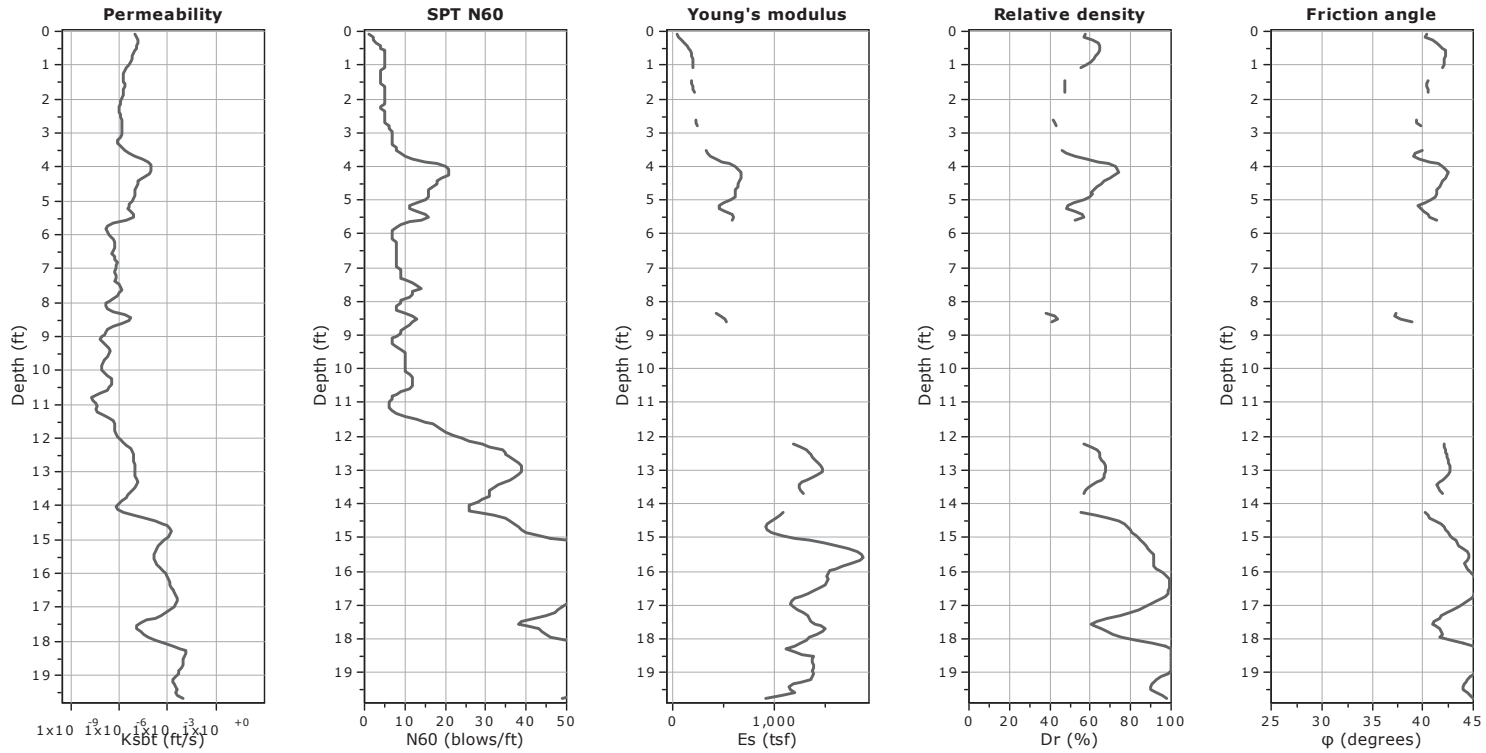
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-067
Total depth: 20.01 ft



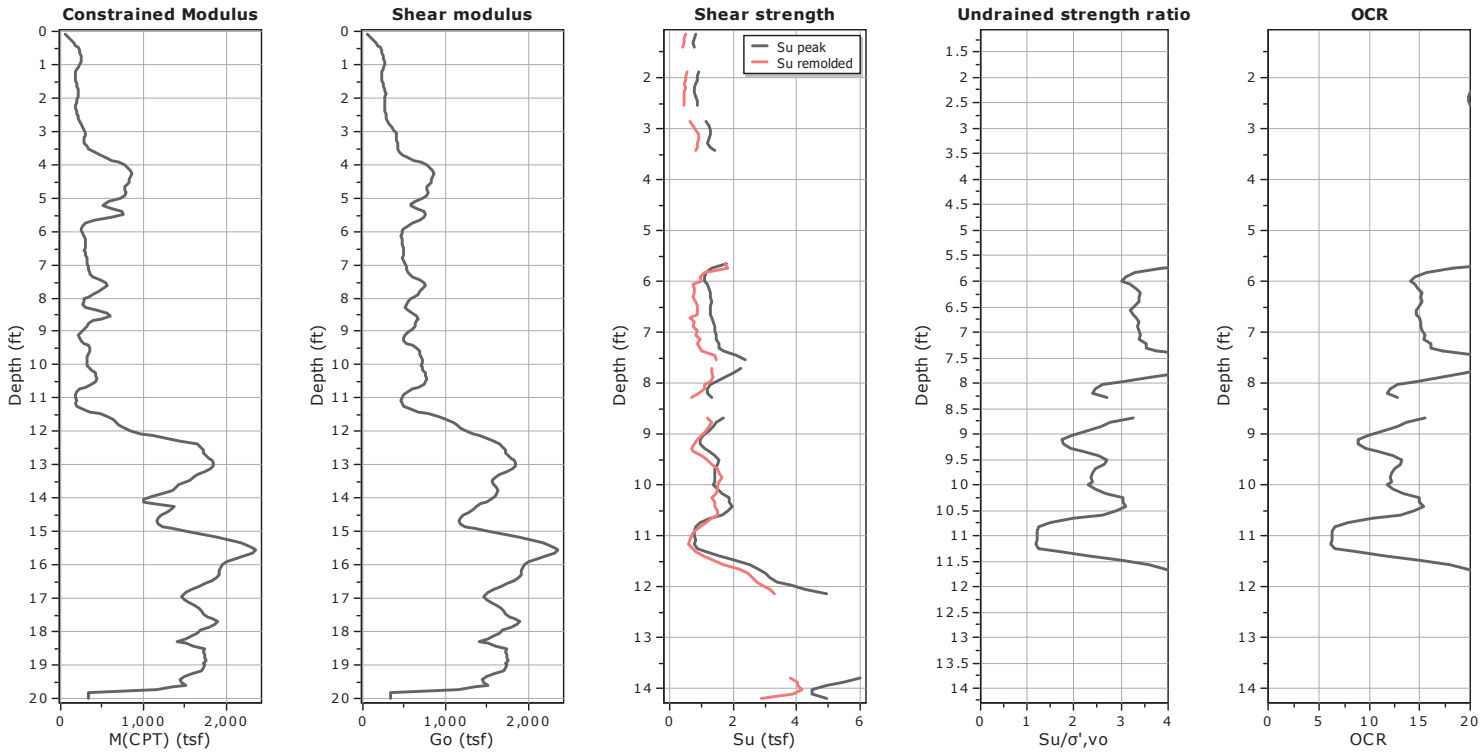
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-067
Total depth: 20.01 ft



Calculation parameters

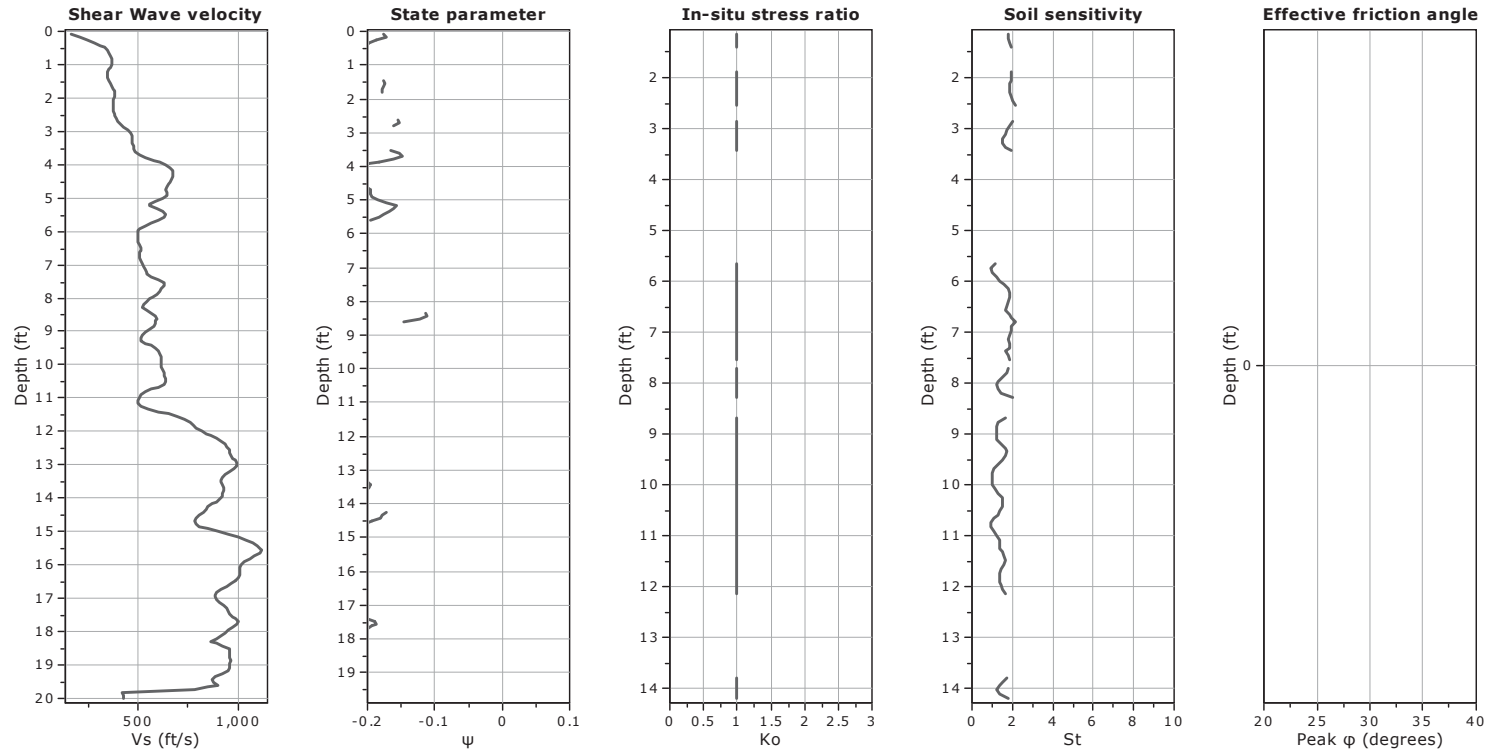
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-067
Total depth: 20.01 ft



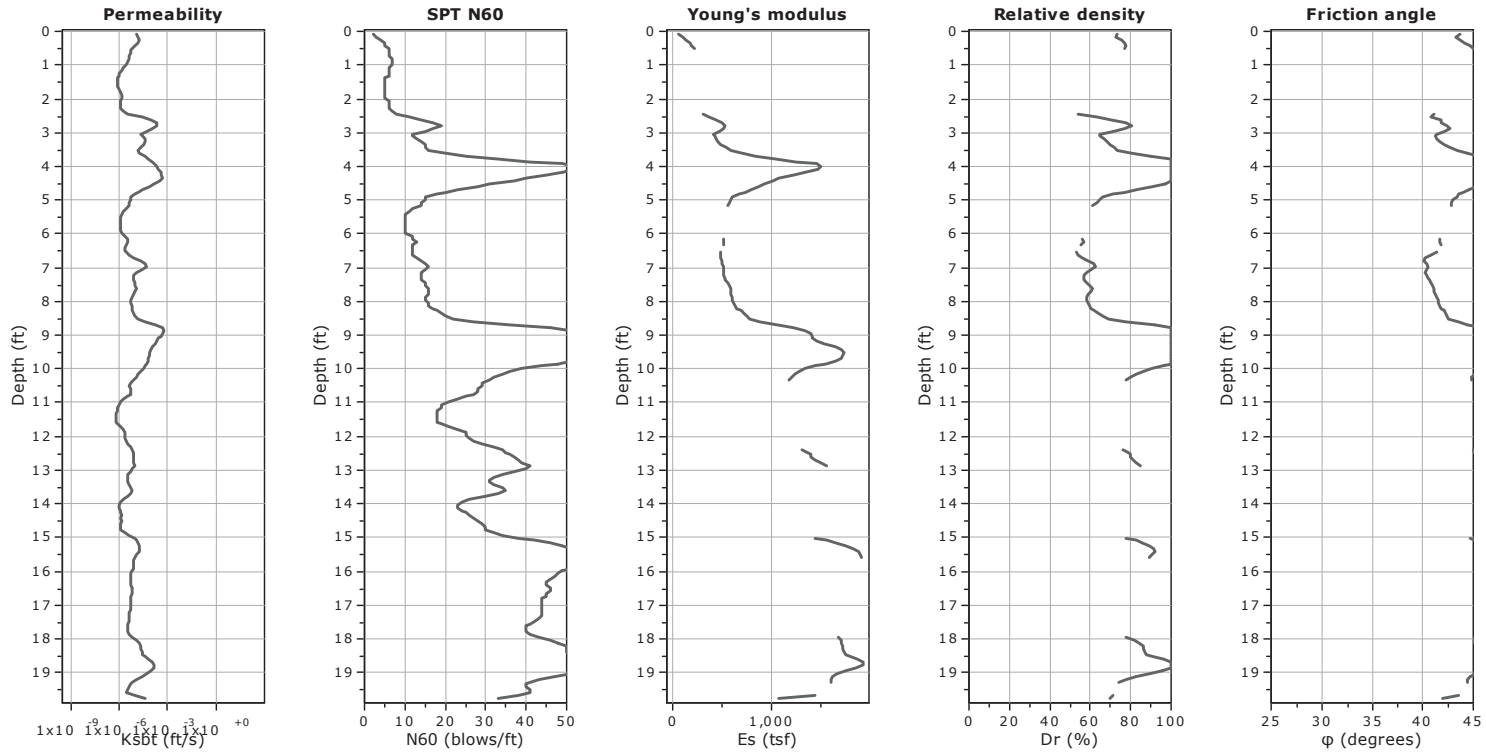
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-068
Total depth: 20.01 ft



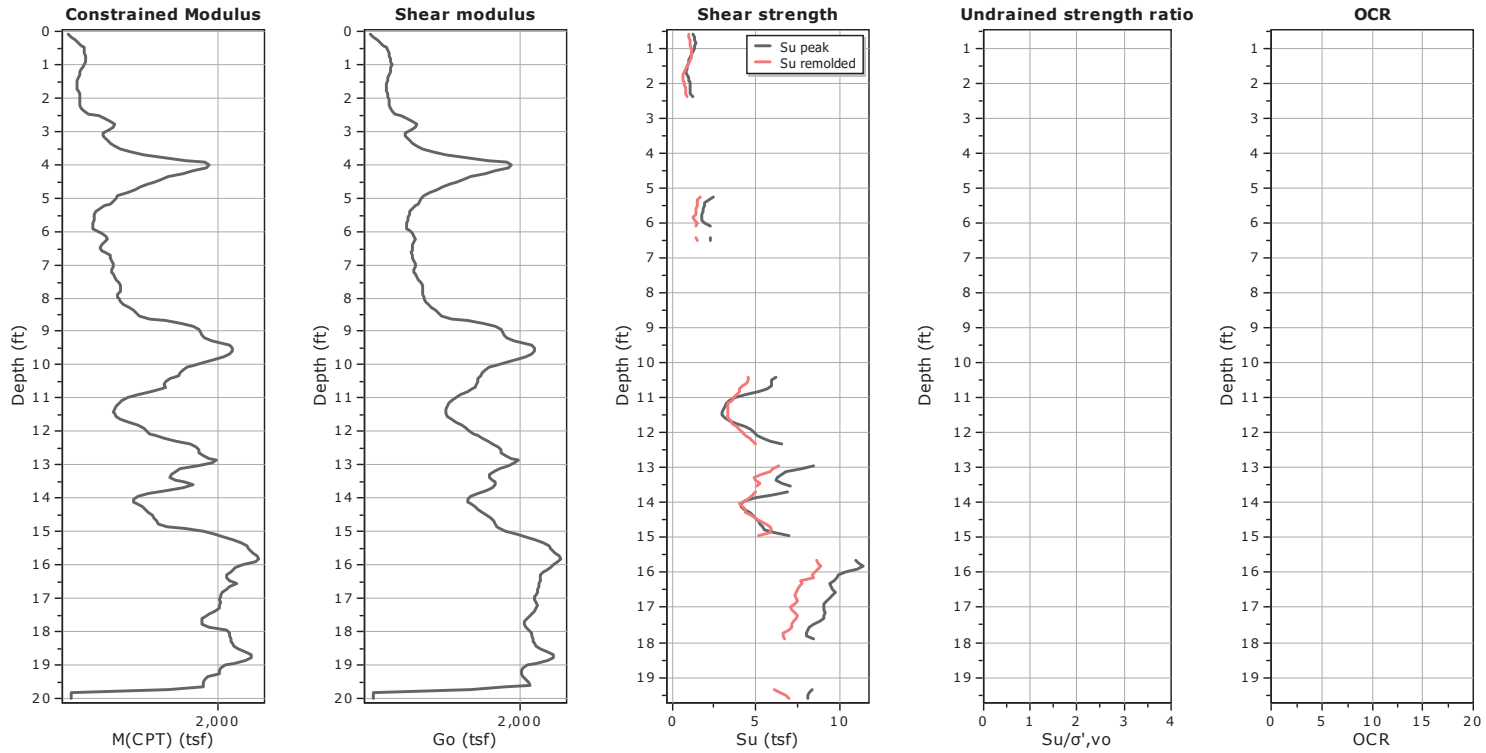
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-068
Total depth: 20.01 ft



Calculation parameters

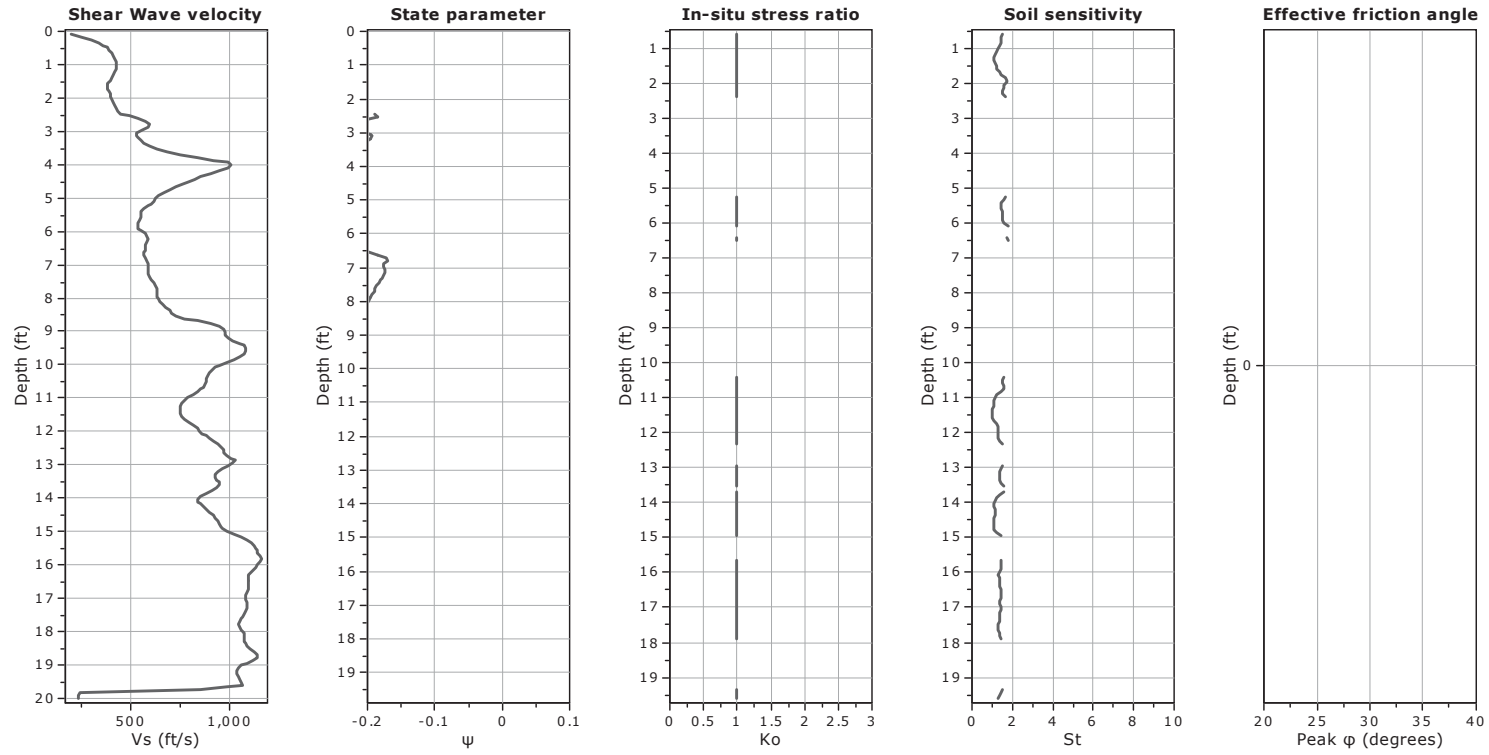
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-068
Total depth: 20.01 ft



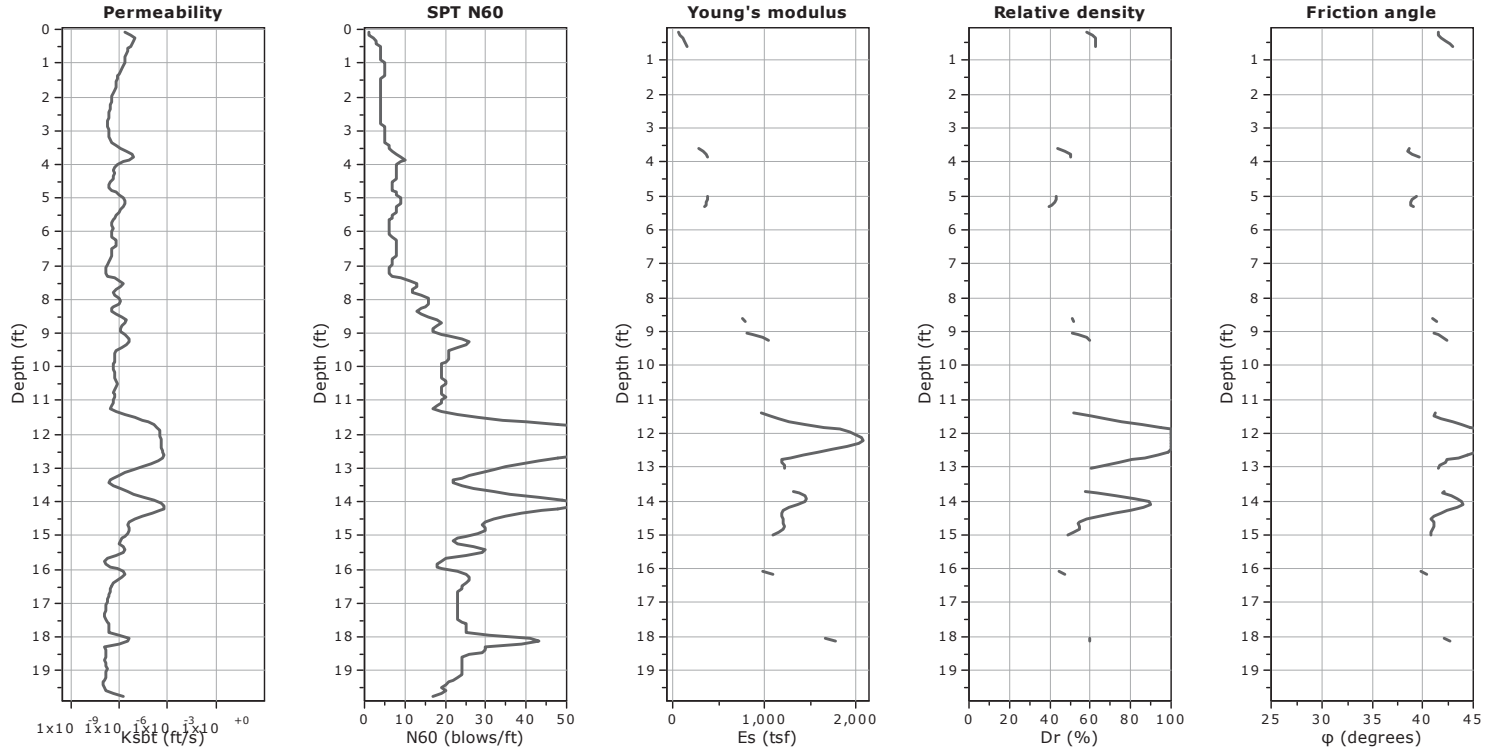
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-069
Total depth: 20.01 ft



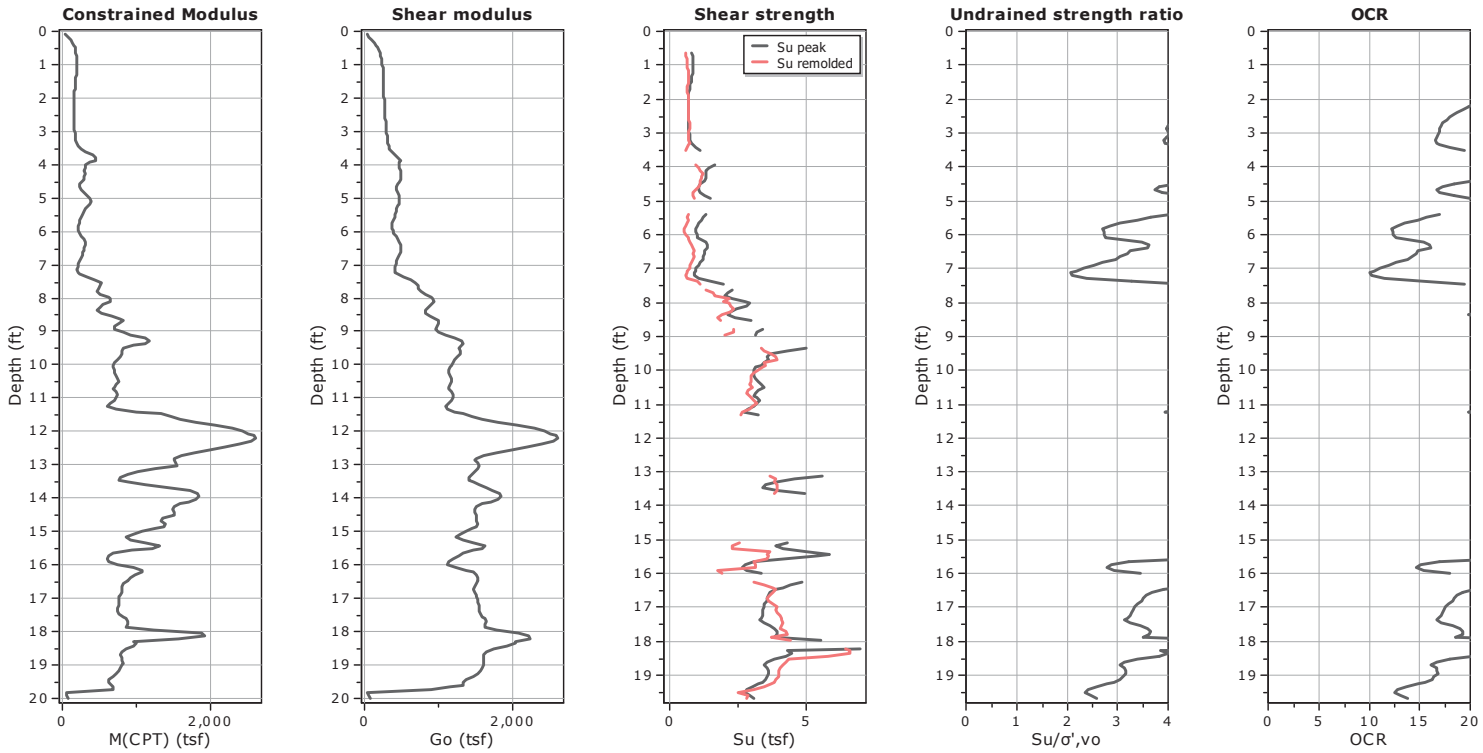
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-069
Total depth: 20.01 ft



Calculation parameters

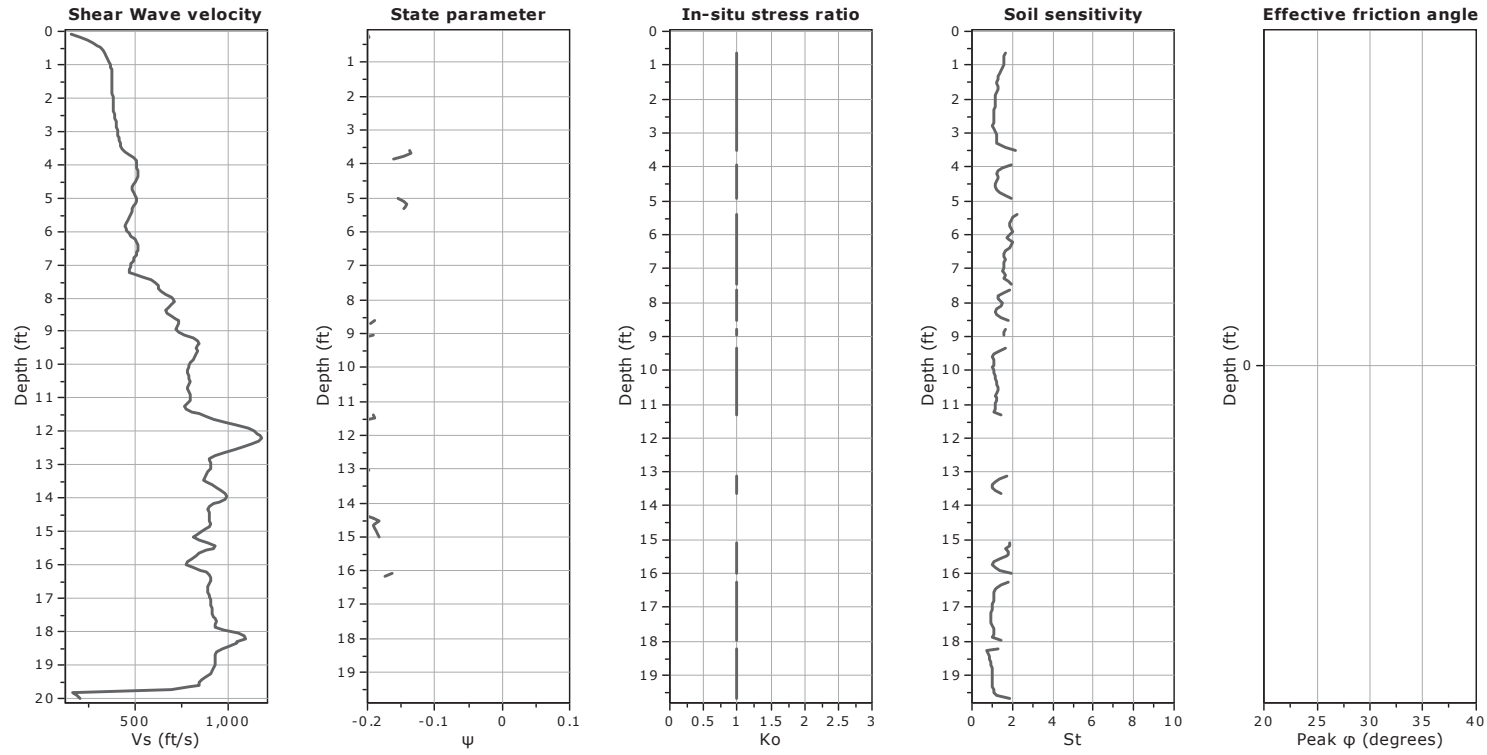
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-069
Total depth: 20.01 ft



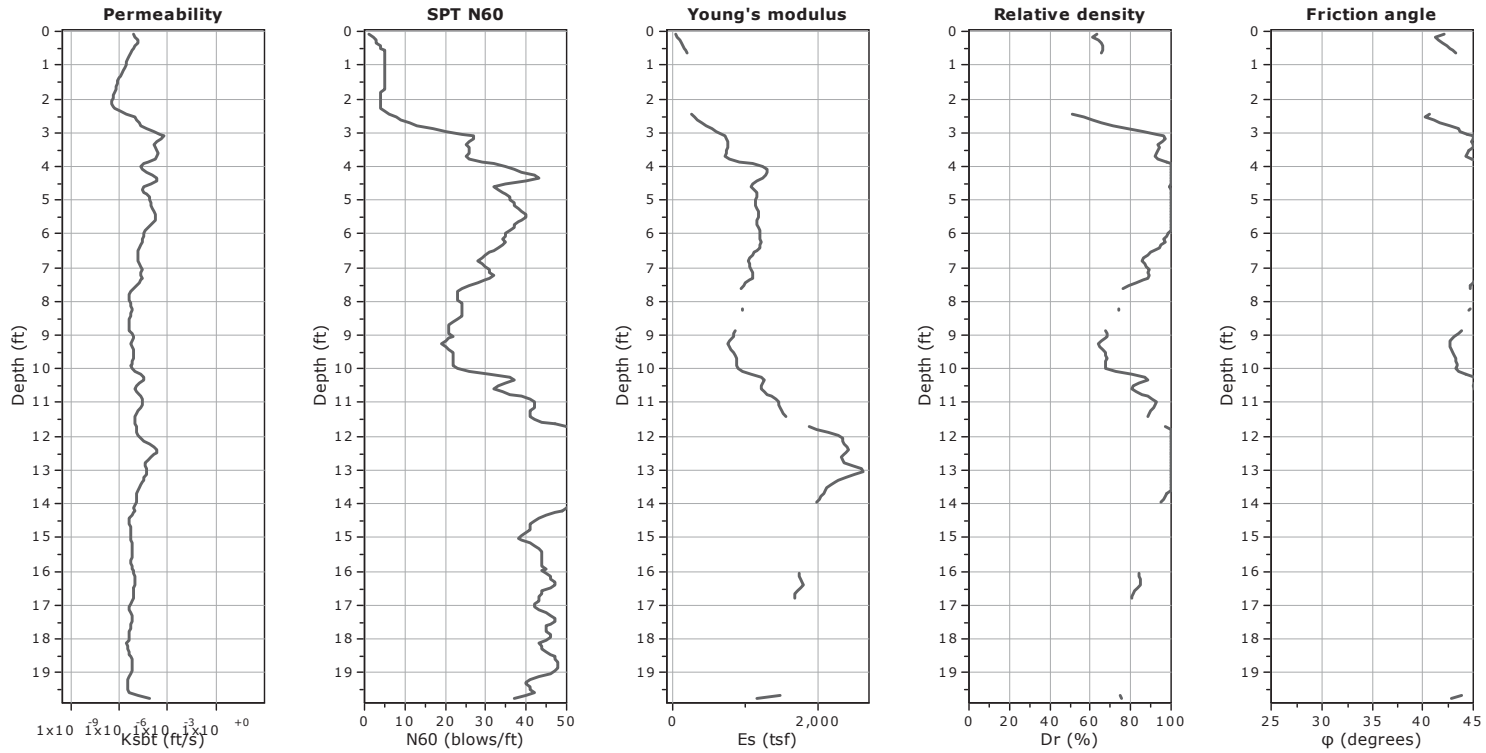
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-070
Total depth: 20.01 ft



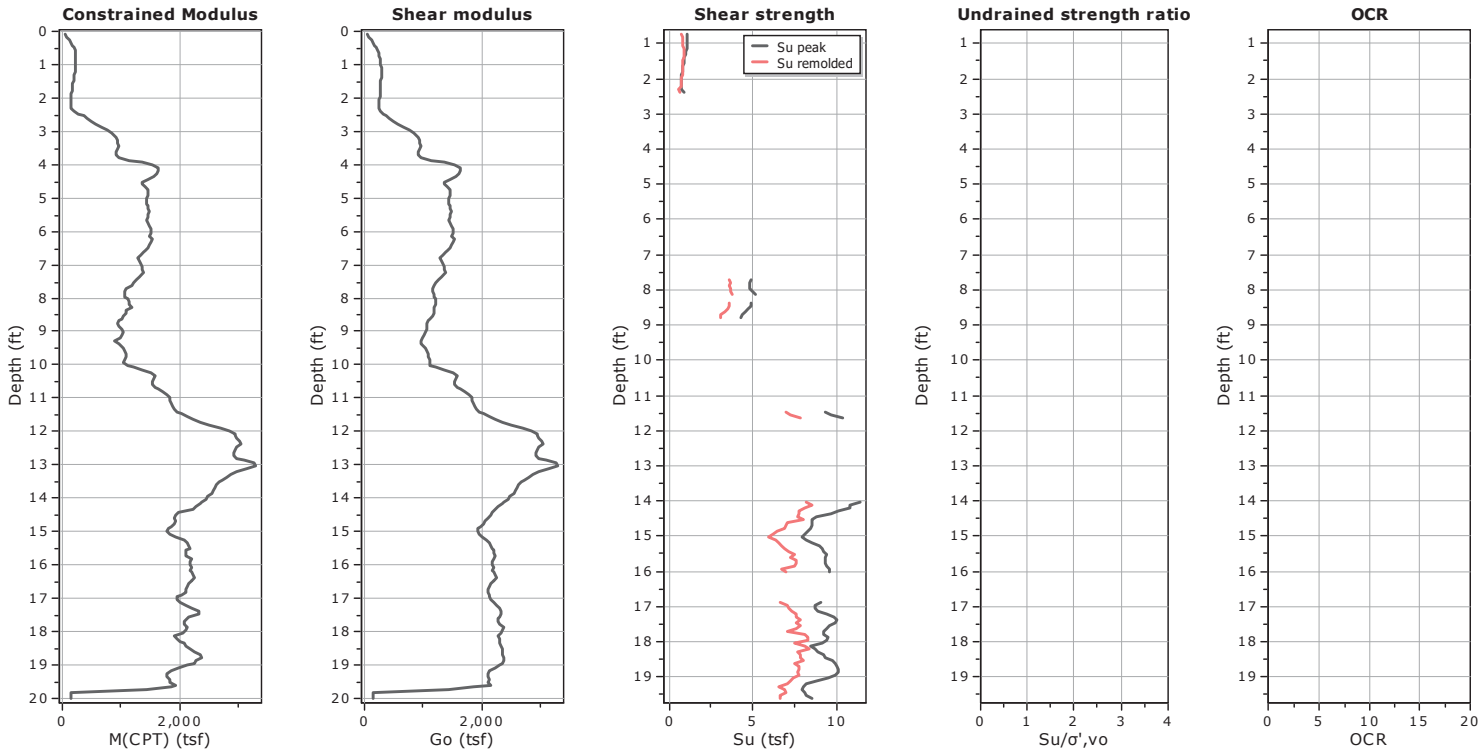
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-070
Total depth: 20.01 ft



Calculation parameters

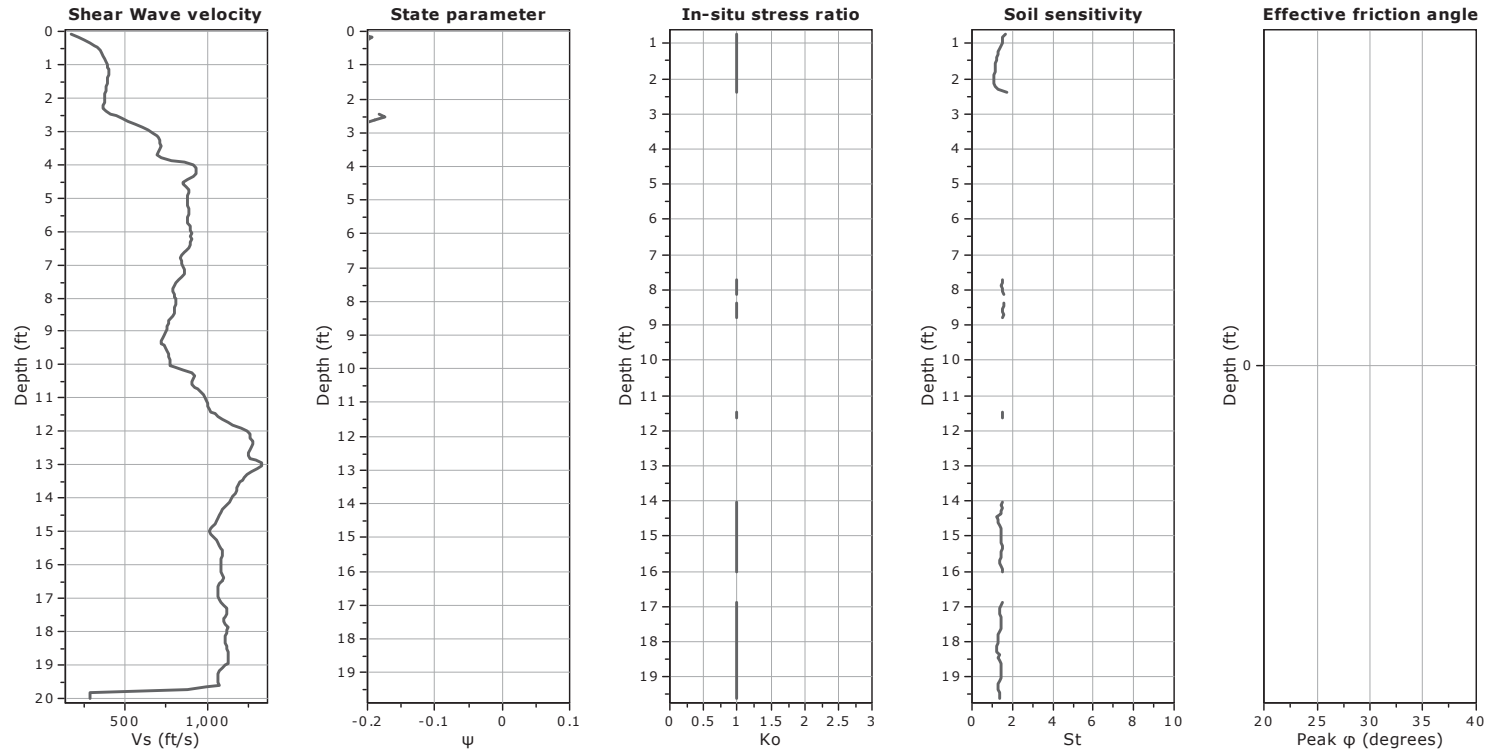
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-070
Total depth: 20.01 ft



Calculation parameters

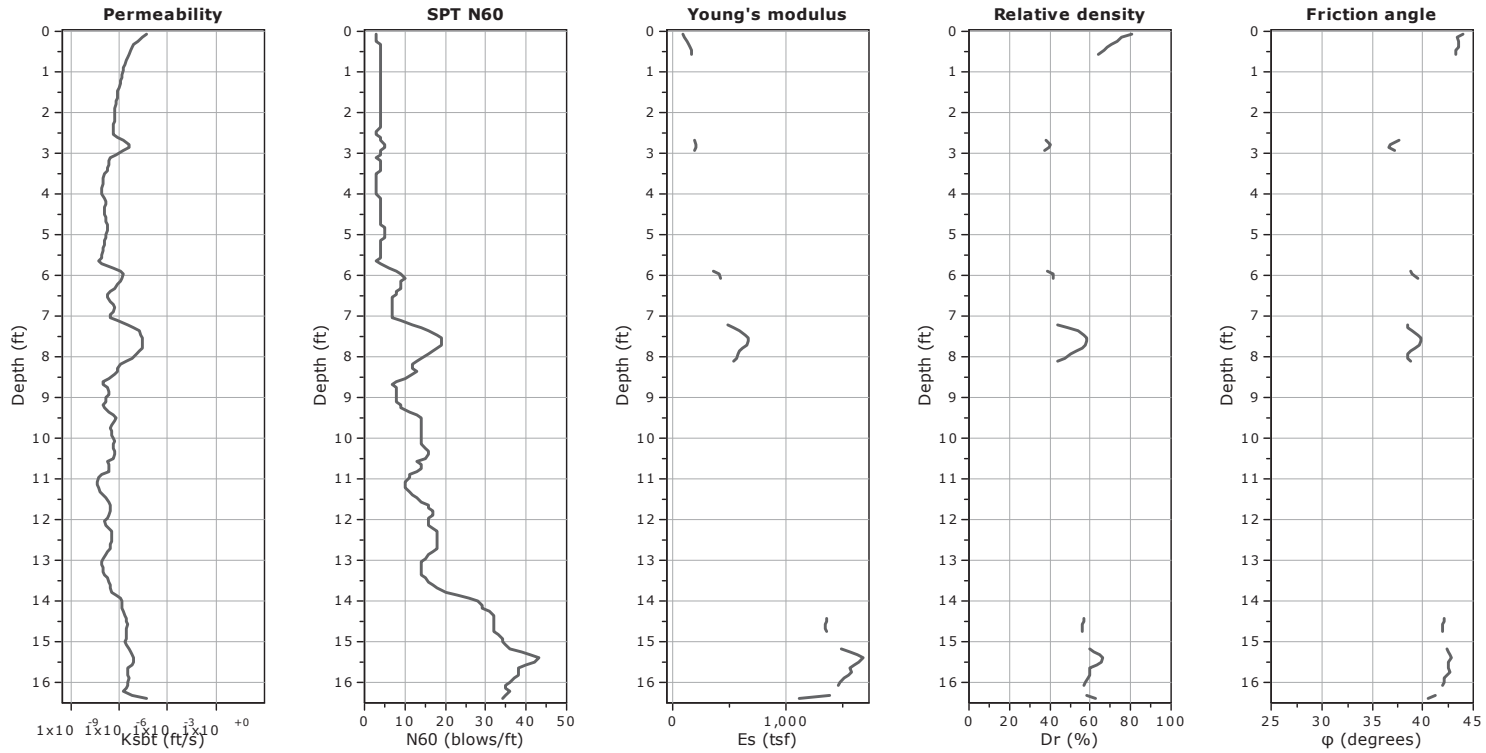
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-071
Total depth: 16.65 ft



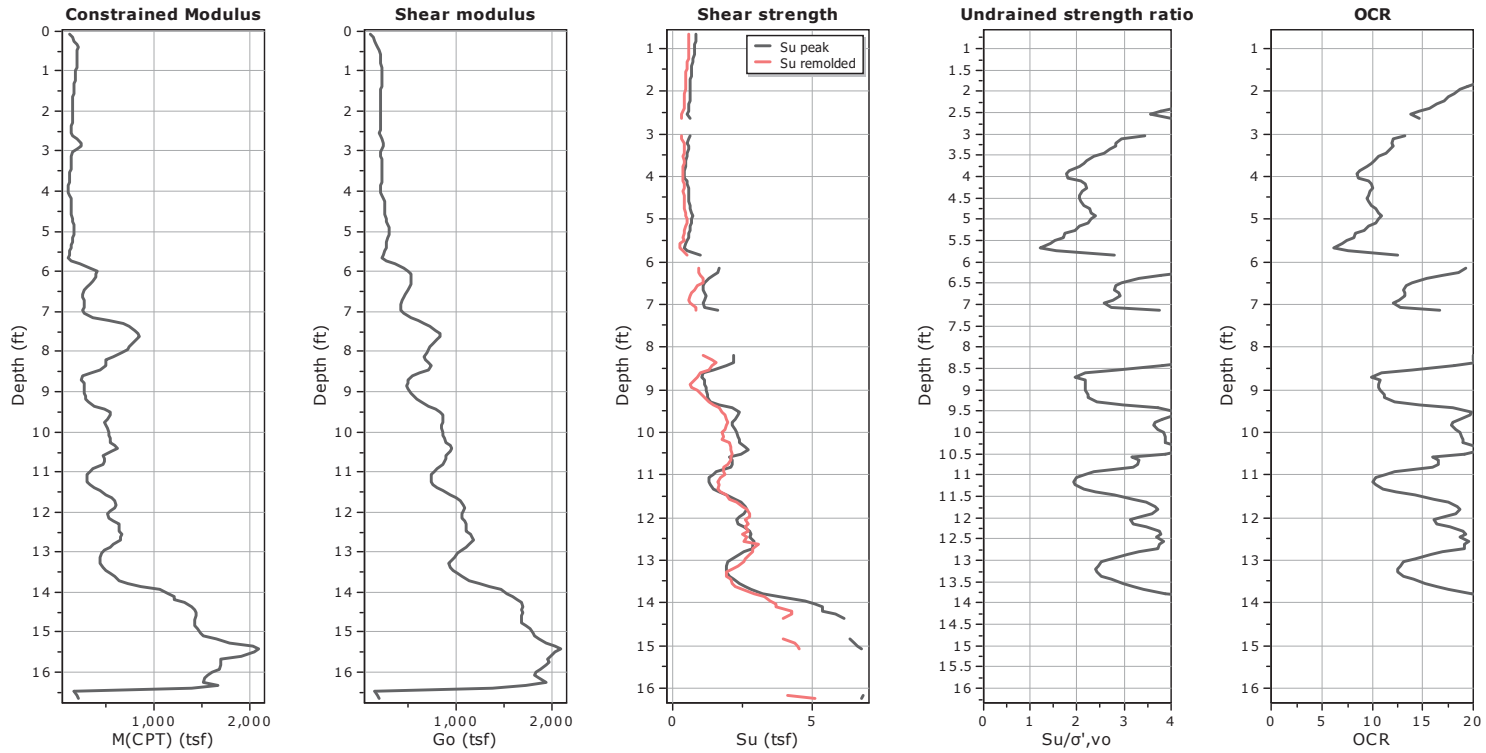
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-071
Total depth: 16.65 ft



Calculation parameters

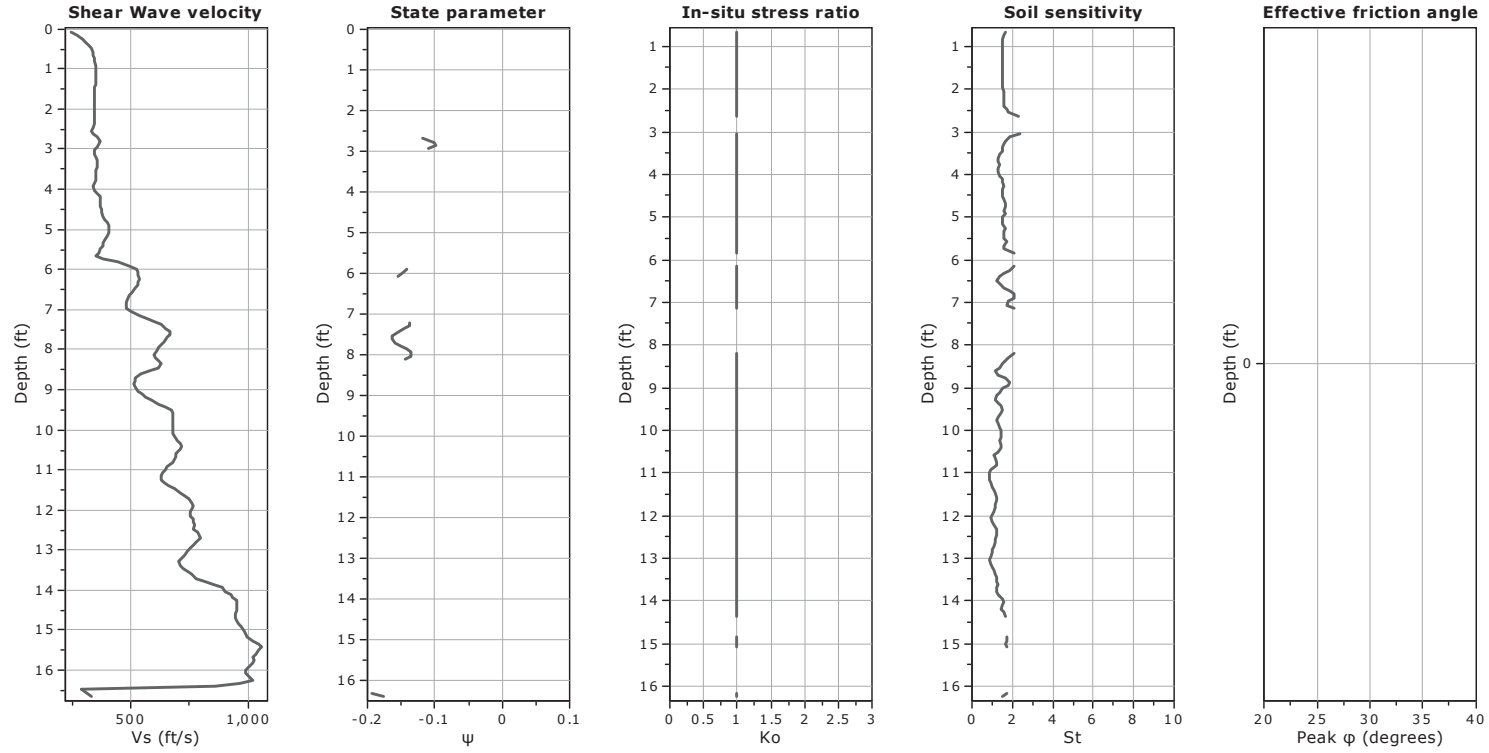
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-071
Total depth: 16.65 ft



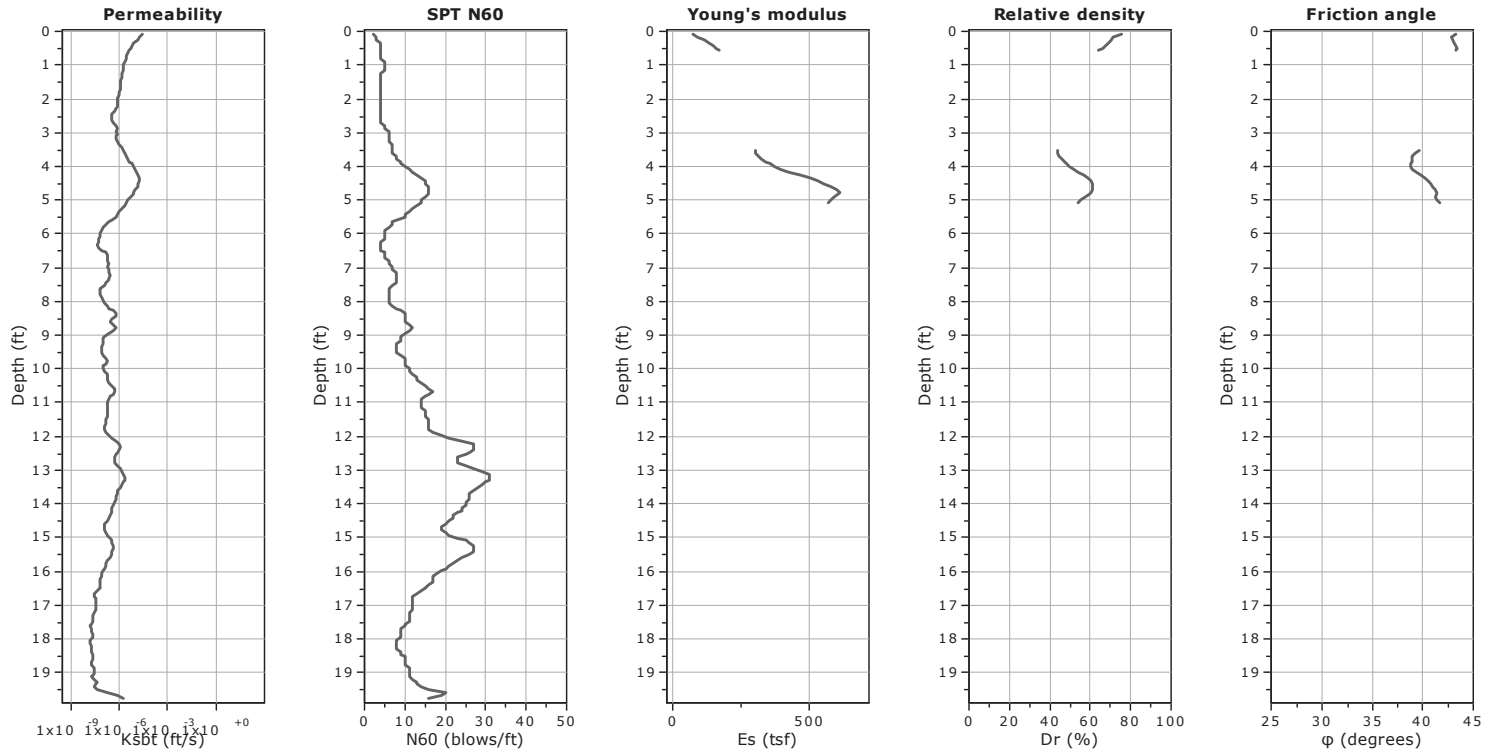
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-072
Total depth: 20.01 ft



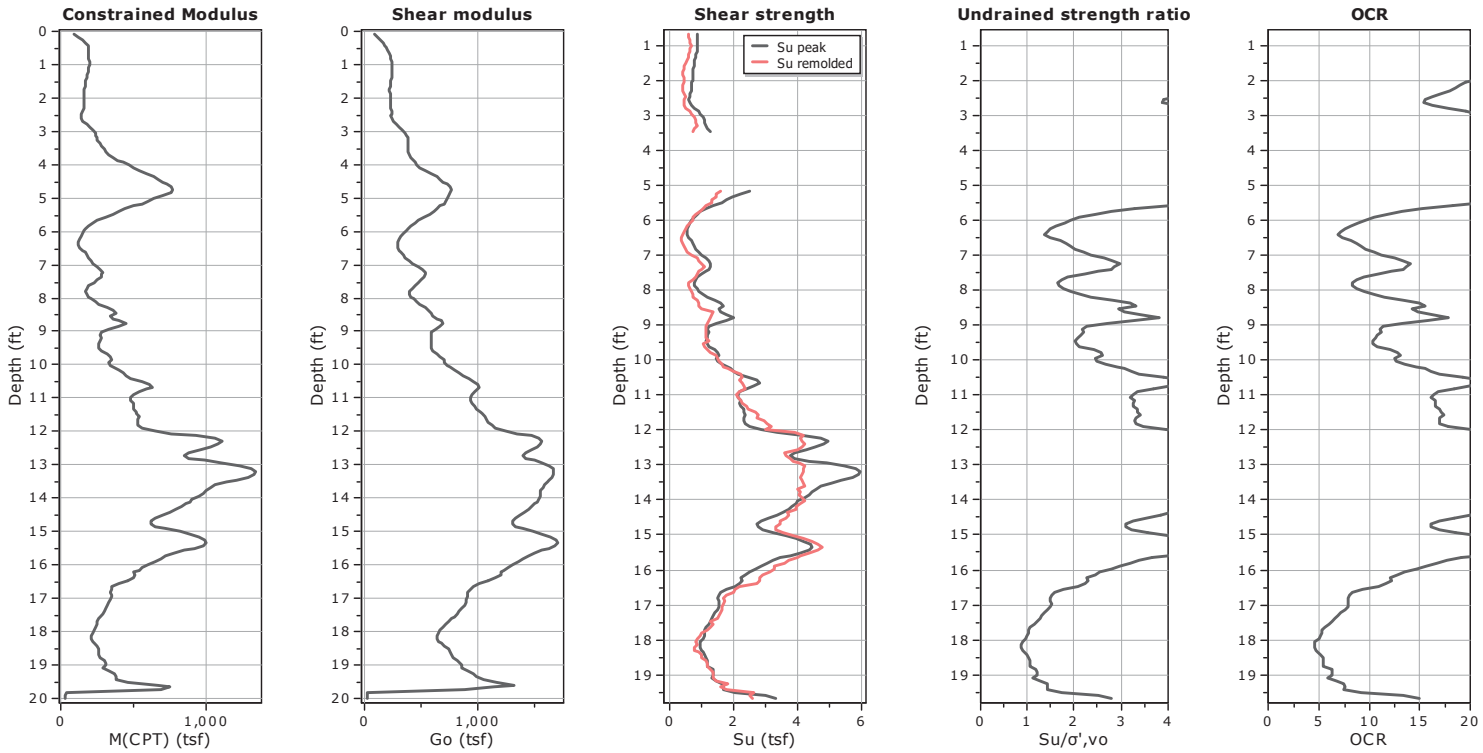
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-072
Total depth: 20.01 ft



Calculation parameters

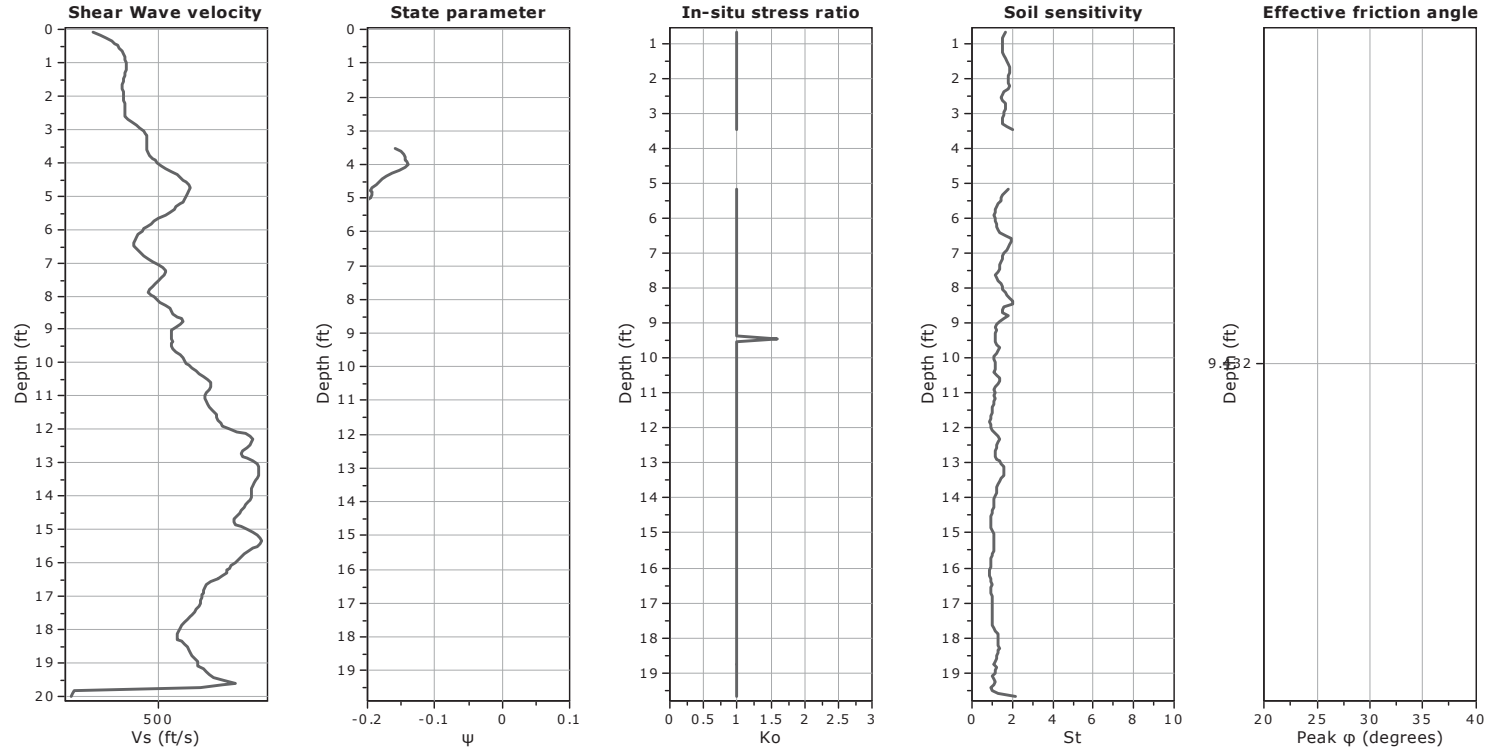
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-072
Total depth: 20.01 ft



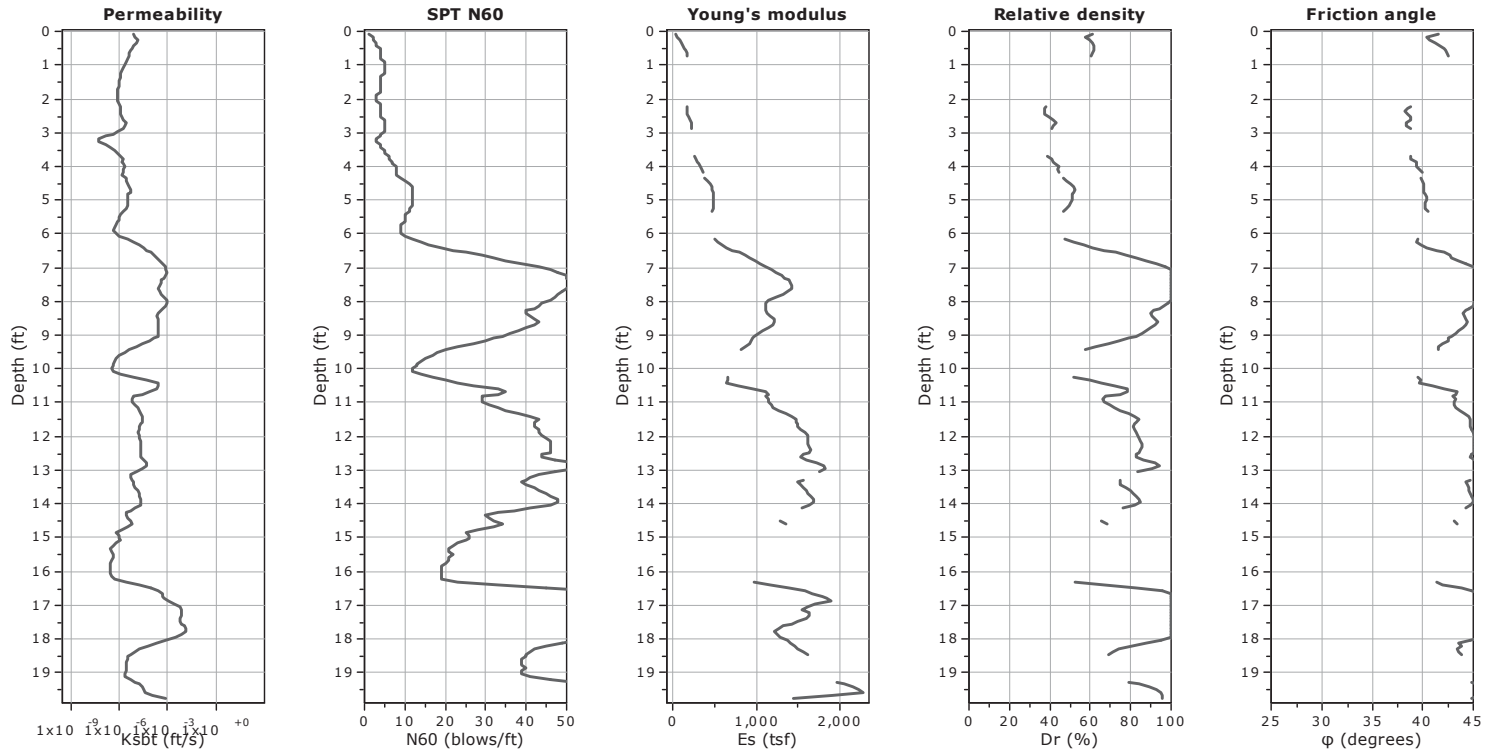
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-073
Total depth: 20.01 ft



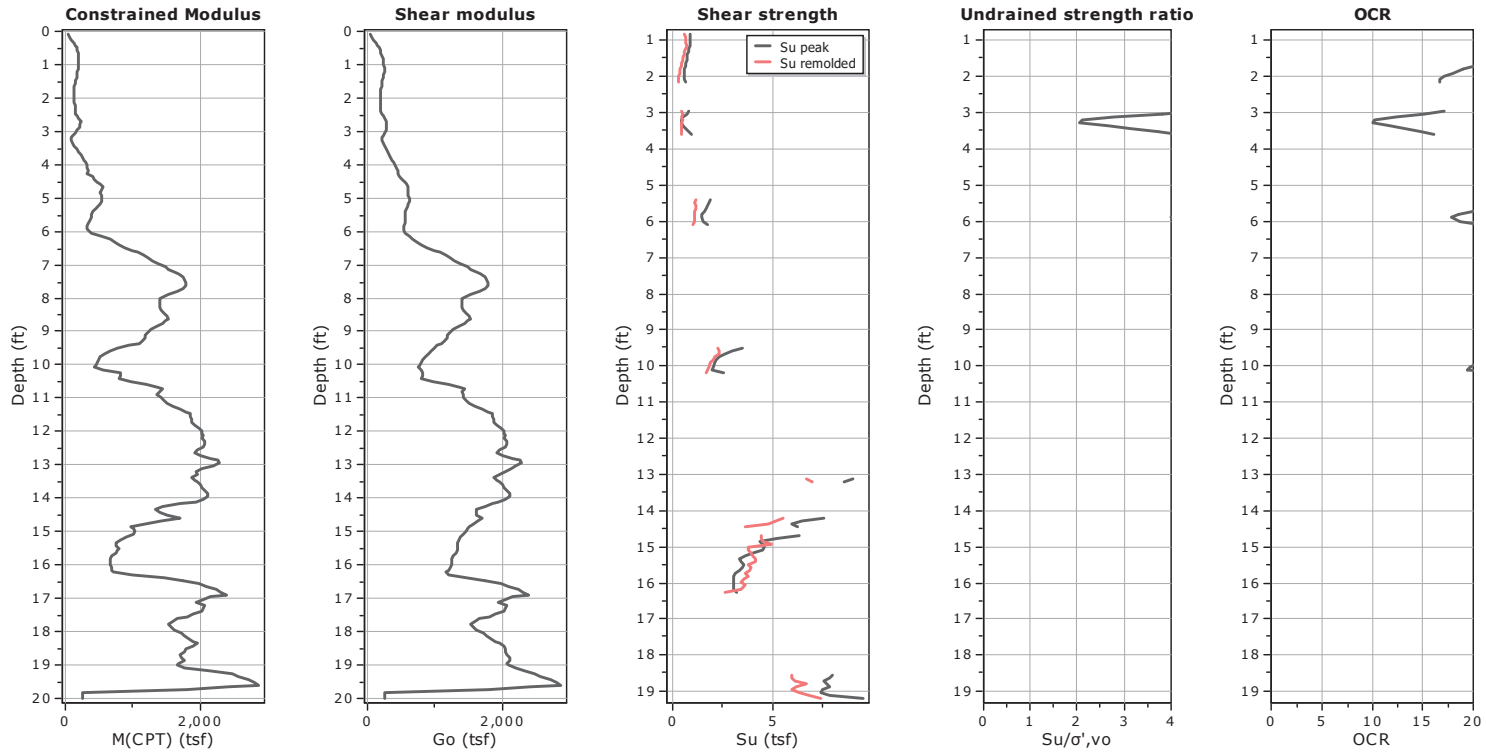
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-073
Total depth: 20.01 ft



Calculation parameters

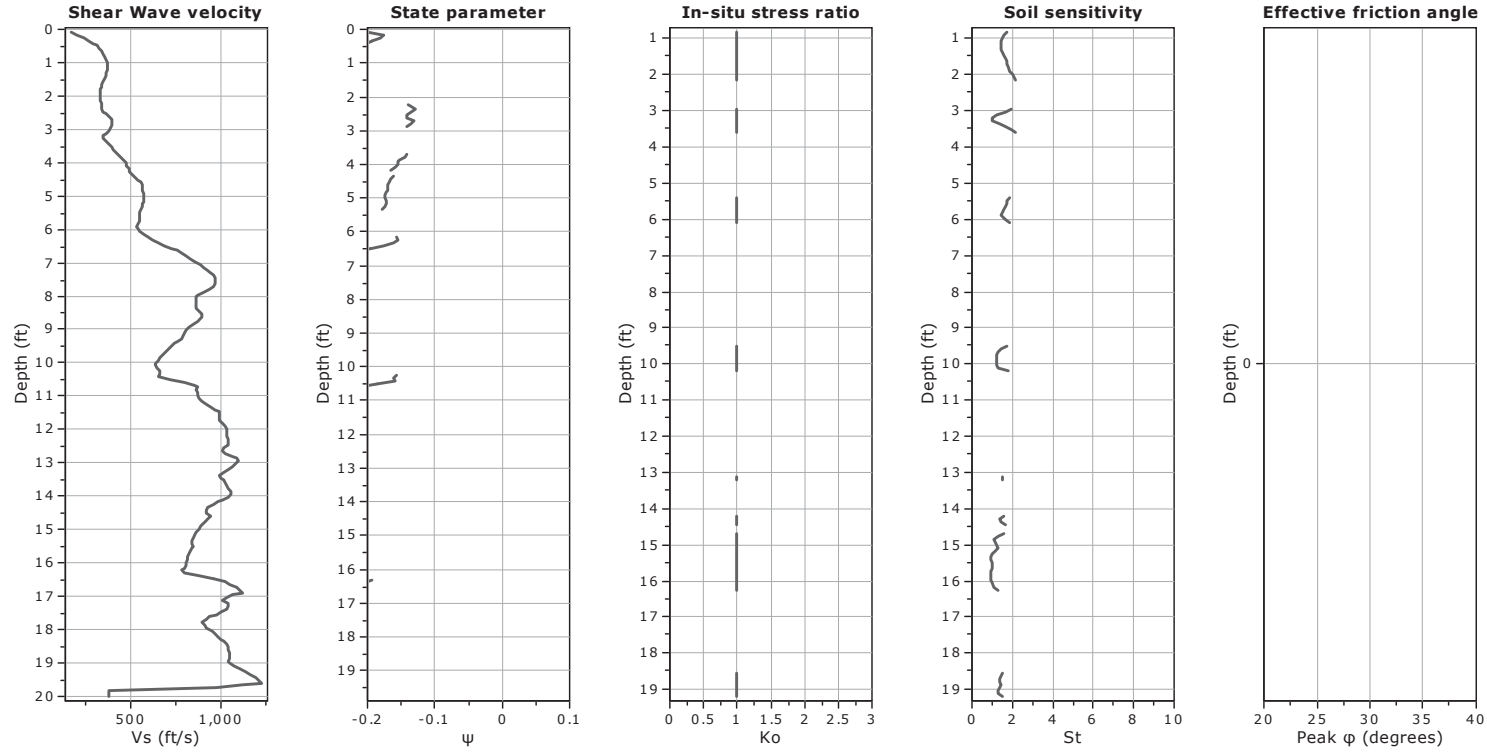
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-073
Total depth: 20.01 ft



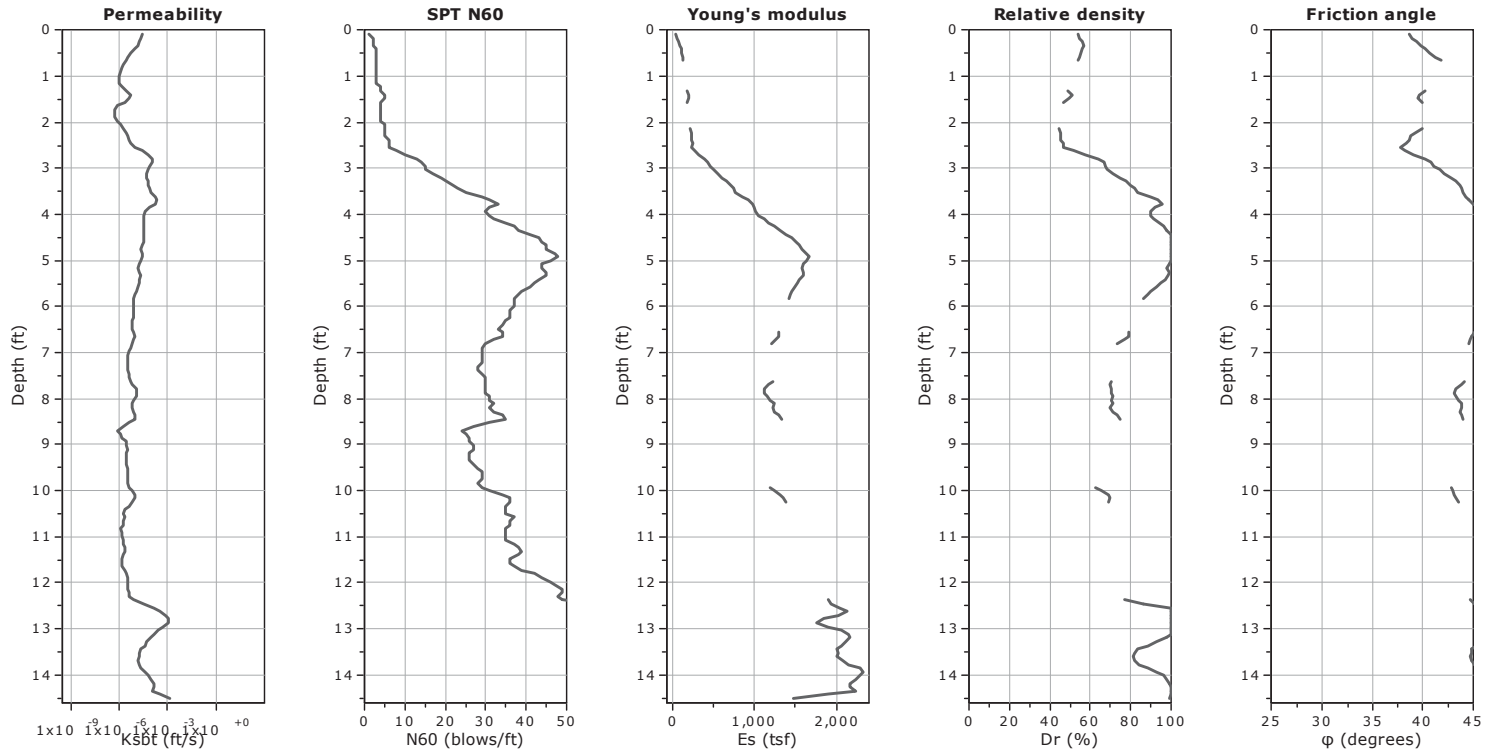
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-074
Total depth: 14.76 ft



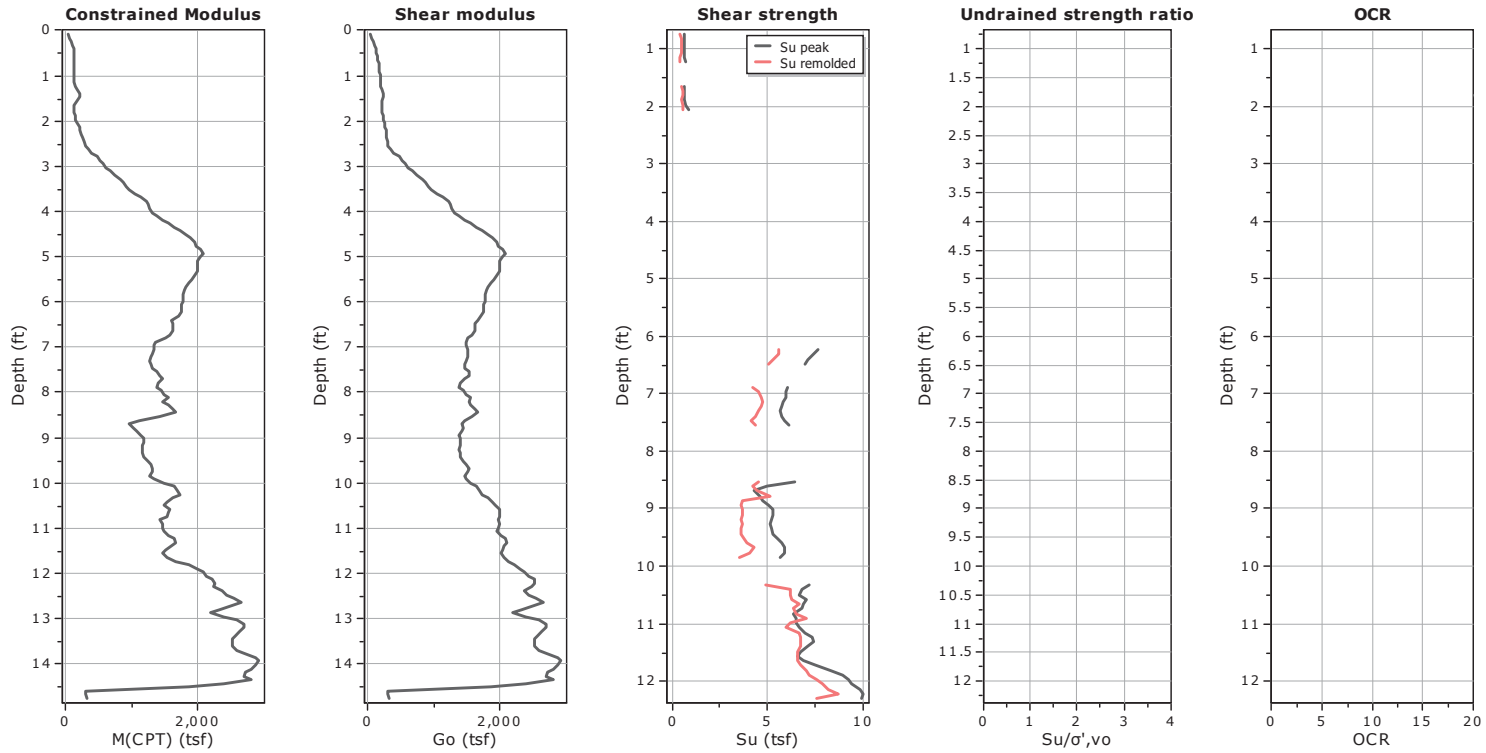
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-074
Total depth: 14.76 ft



Calculation parameters

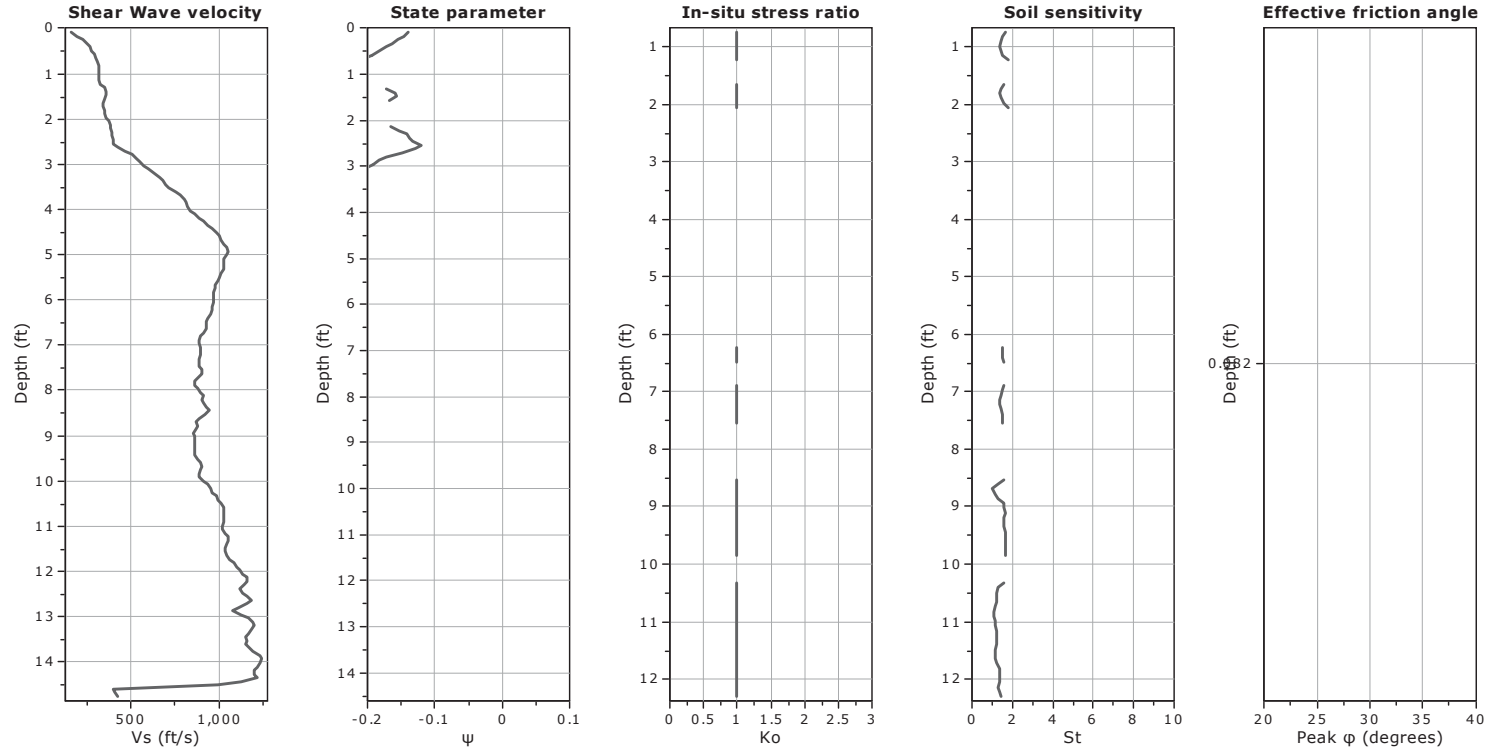
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-074
Total depth: 14.76 ft



Calculation parameters

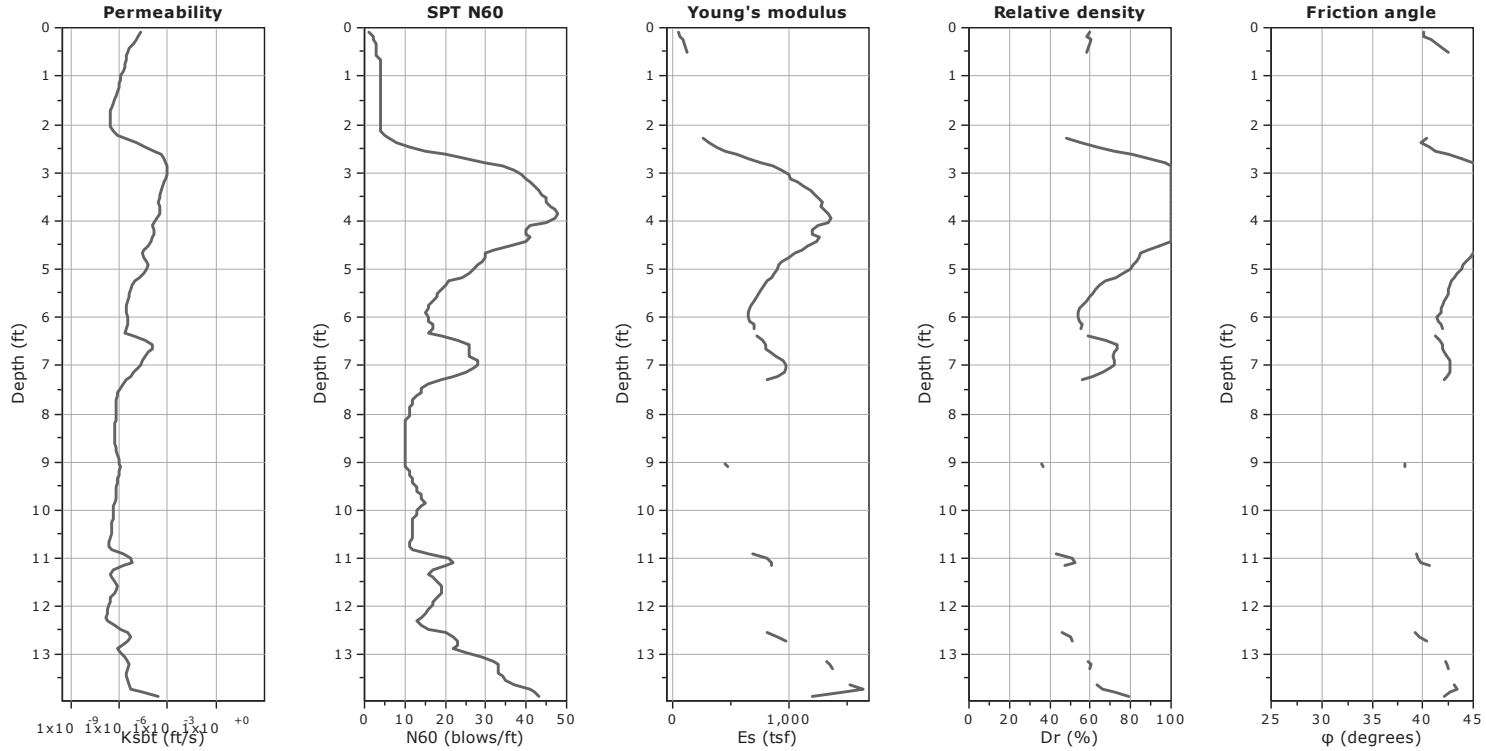
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-075
Total depth: 14.11 ft



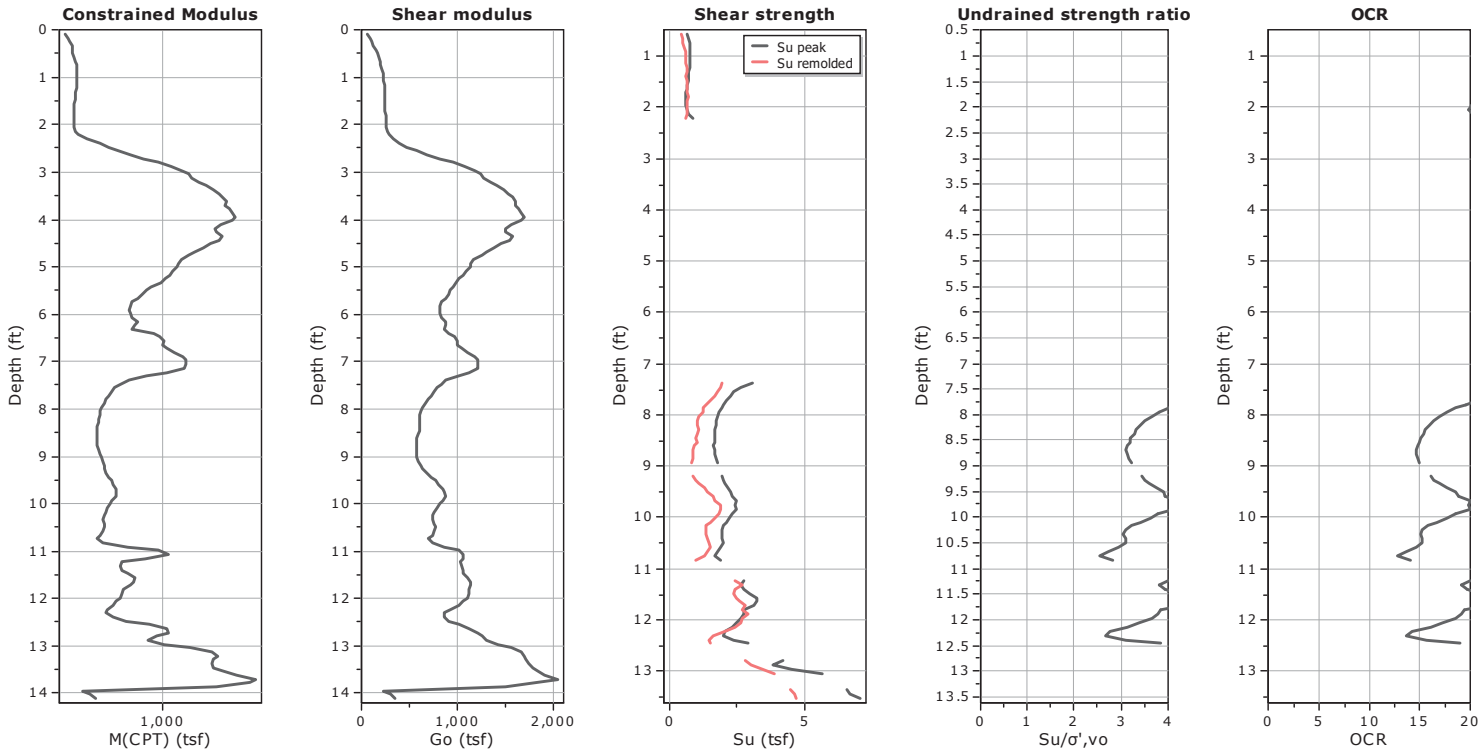
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-075
Total depth: 14.11 ft



Calculation parameters

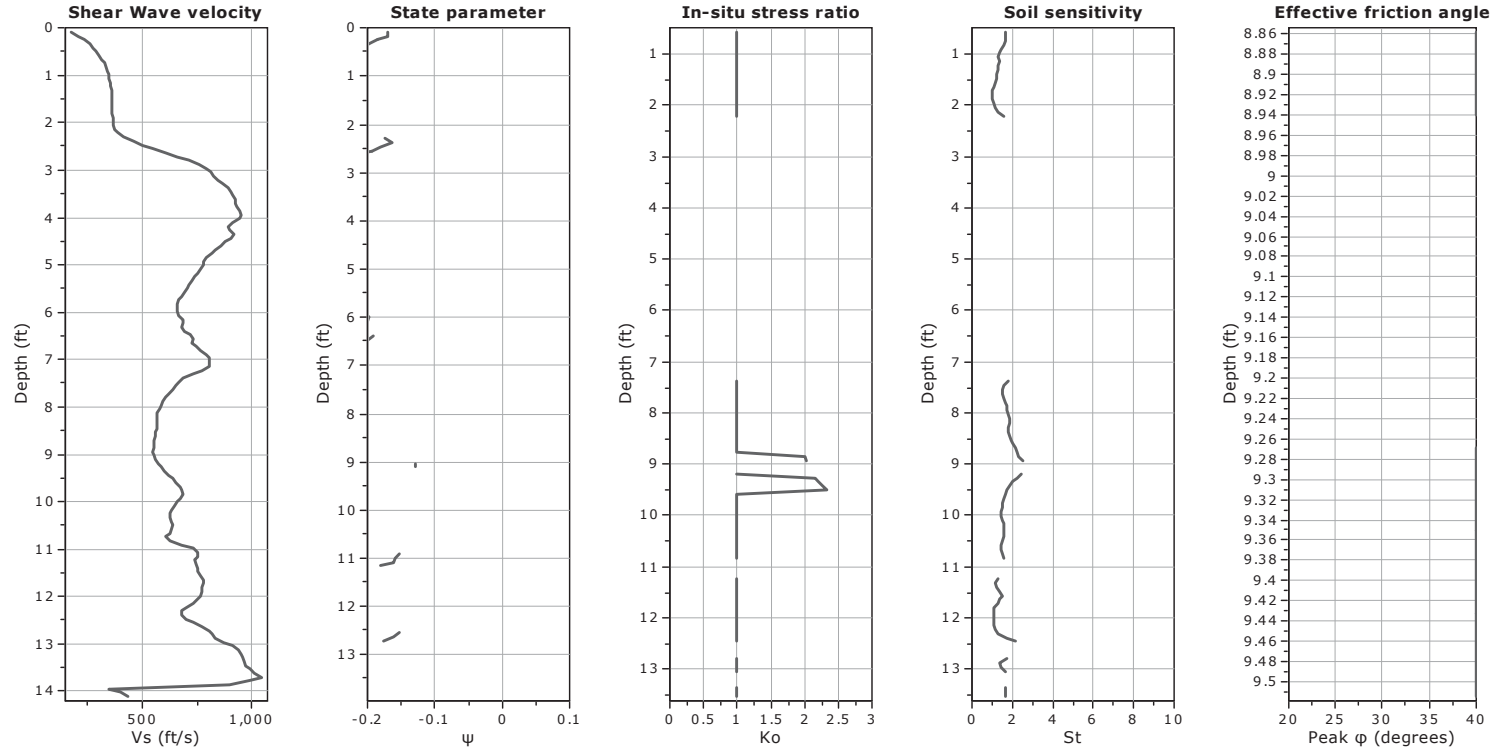
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-075
Total depth: 14.11 ft



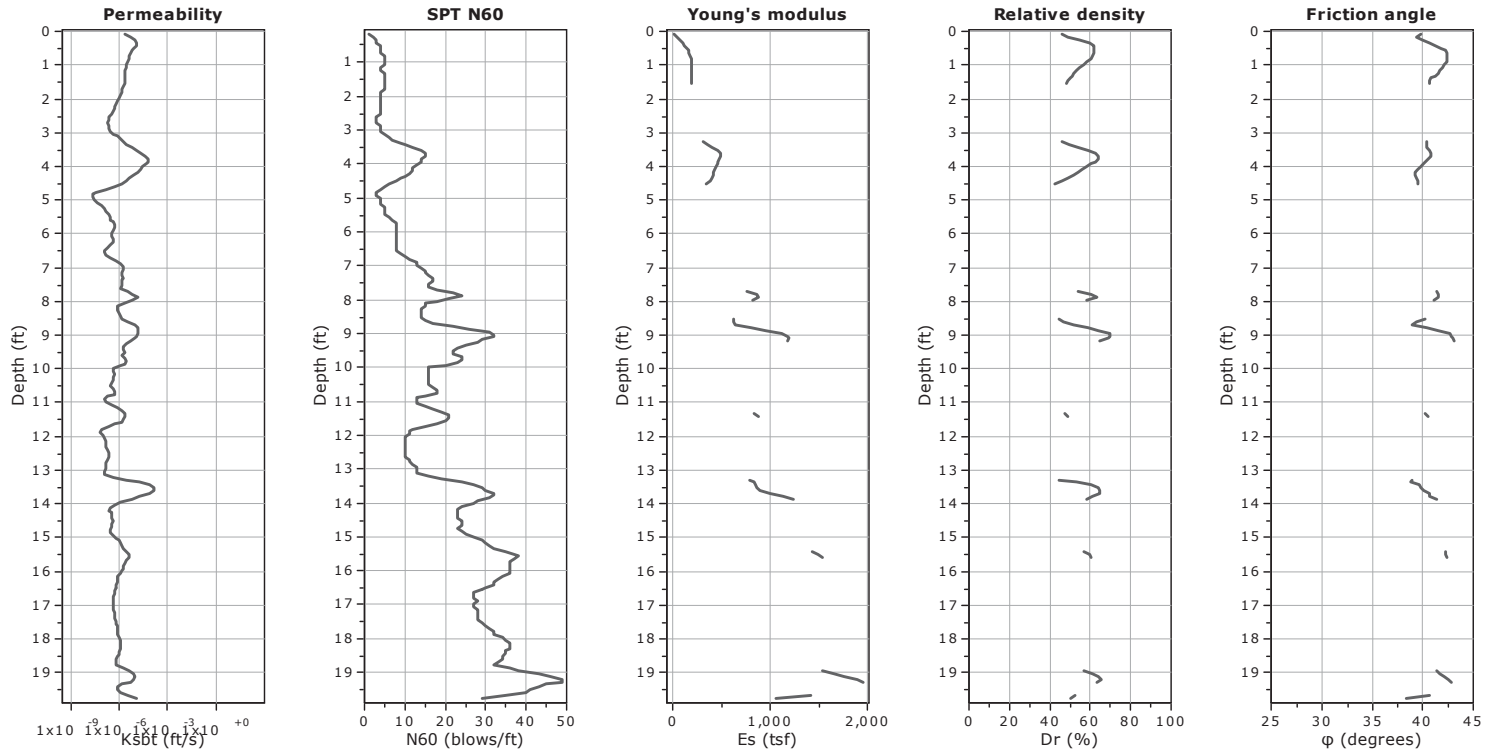
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-076
Total depth: 20.01 ft



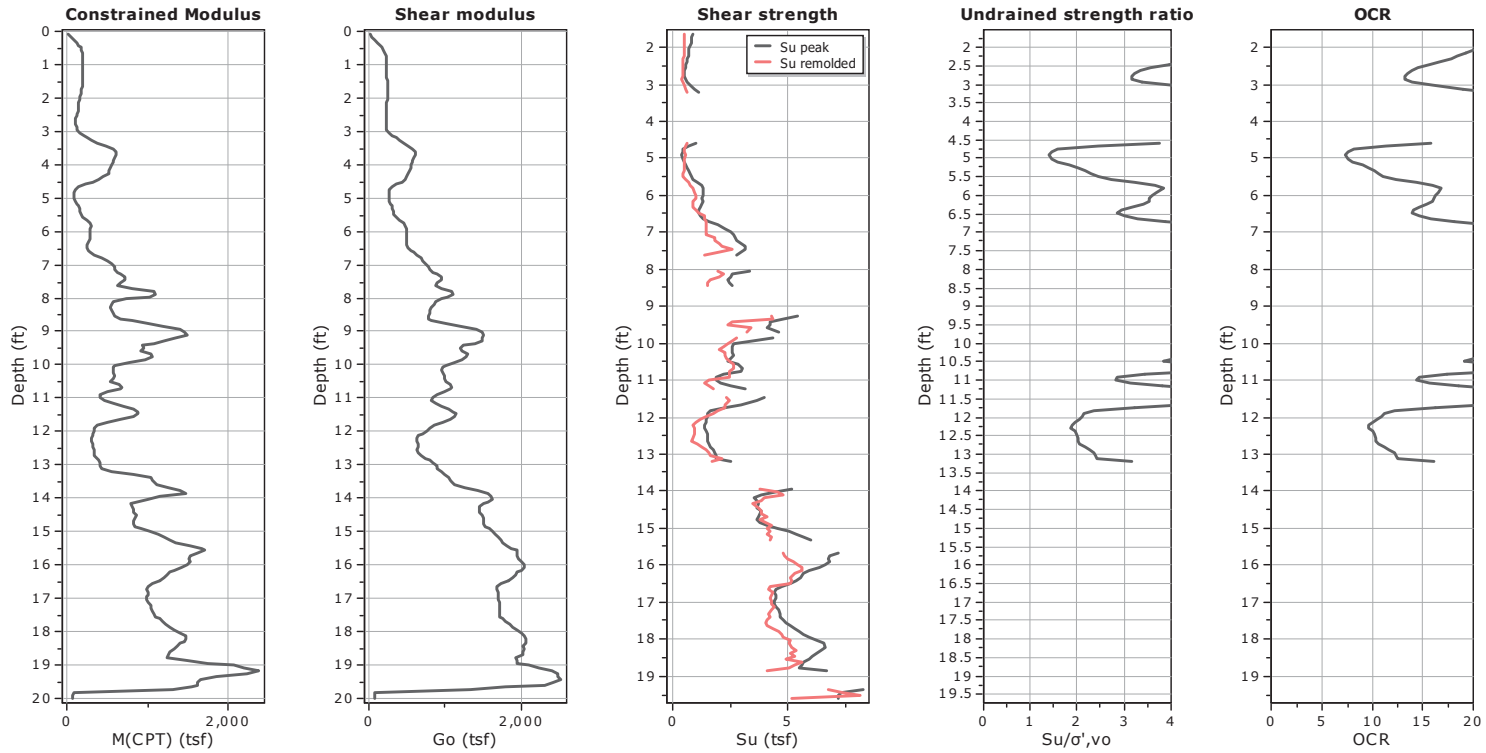
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-076
Total depth: 20.01 ft



Calculation parameters

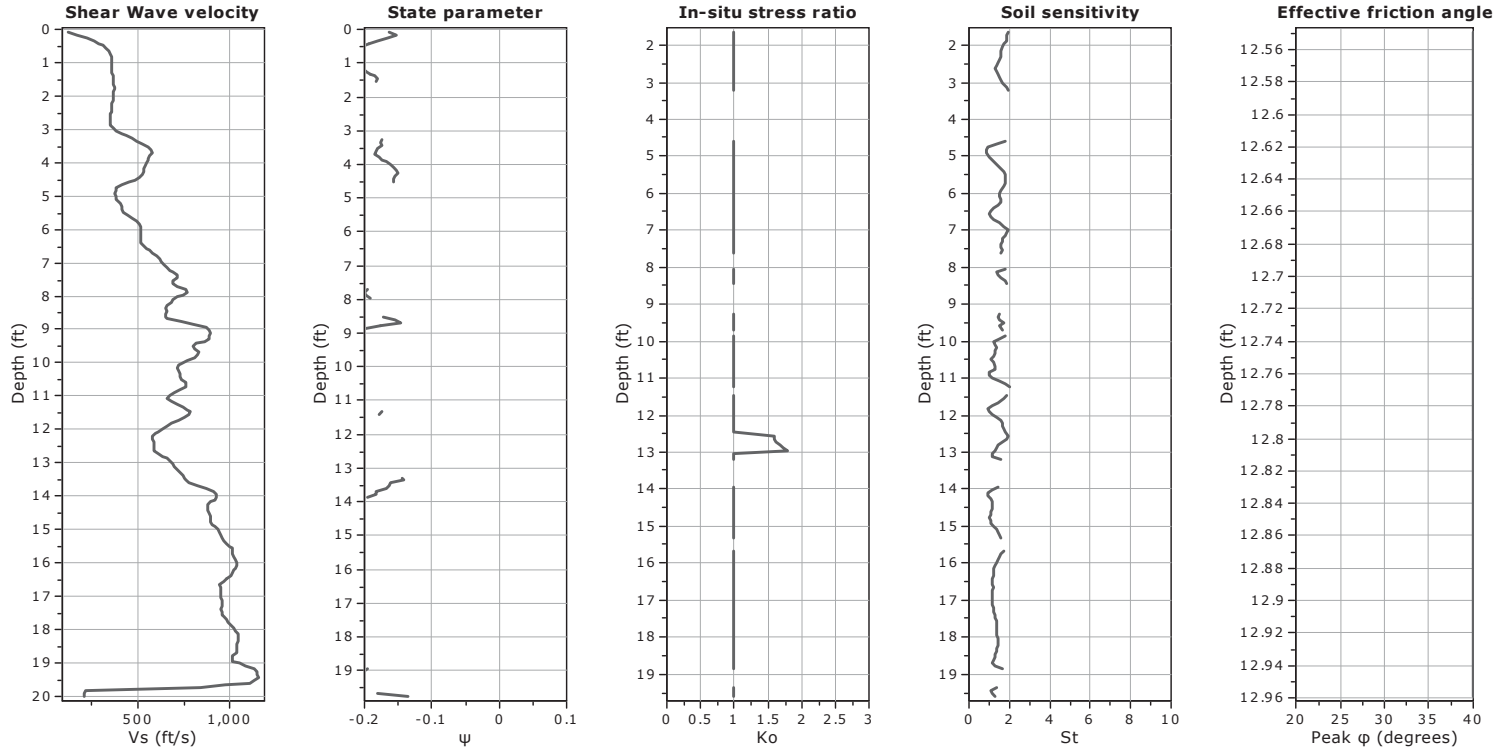
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-076
Total depth: 20.01 ft



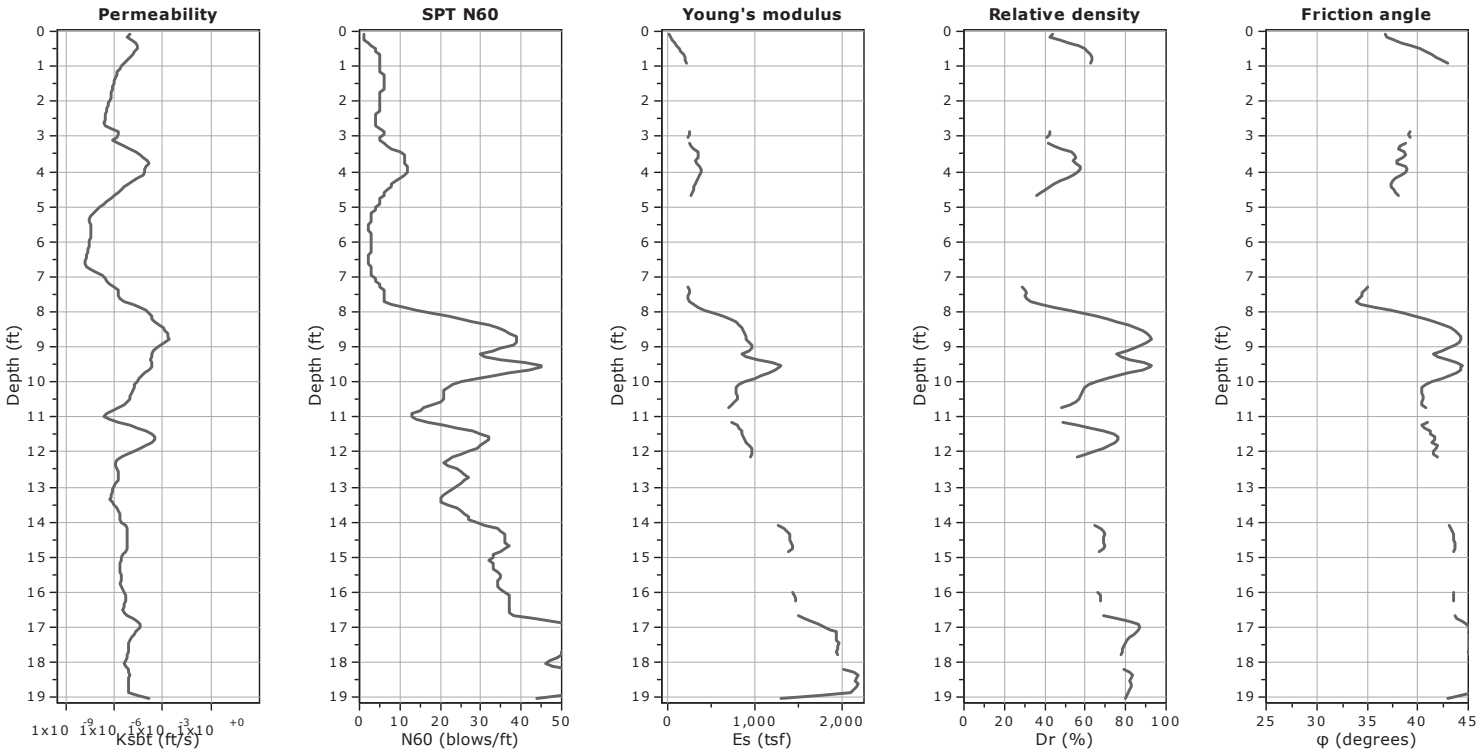
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-077
Total depth: 19.27 ft



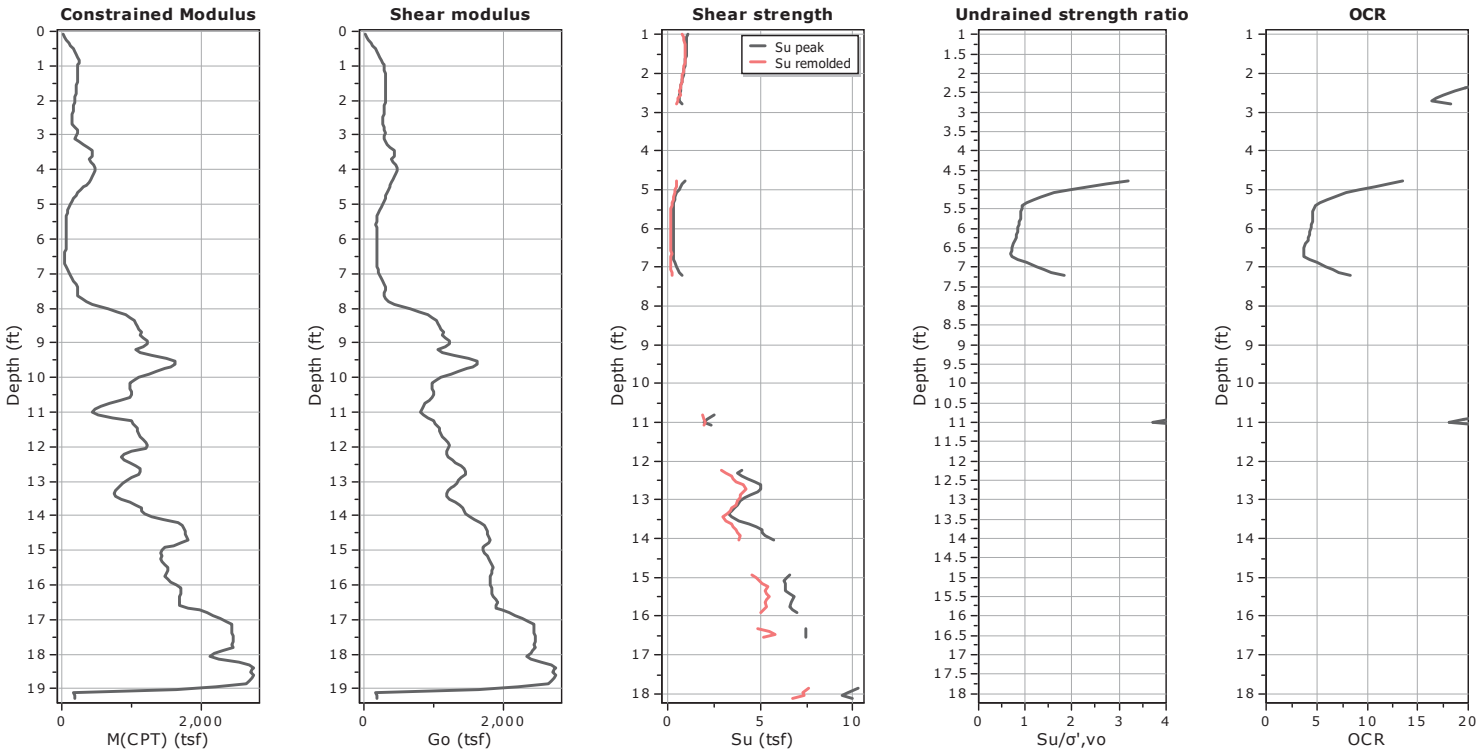
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-077
Total depth: 19.27 ft



Calculation parameters

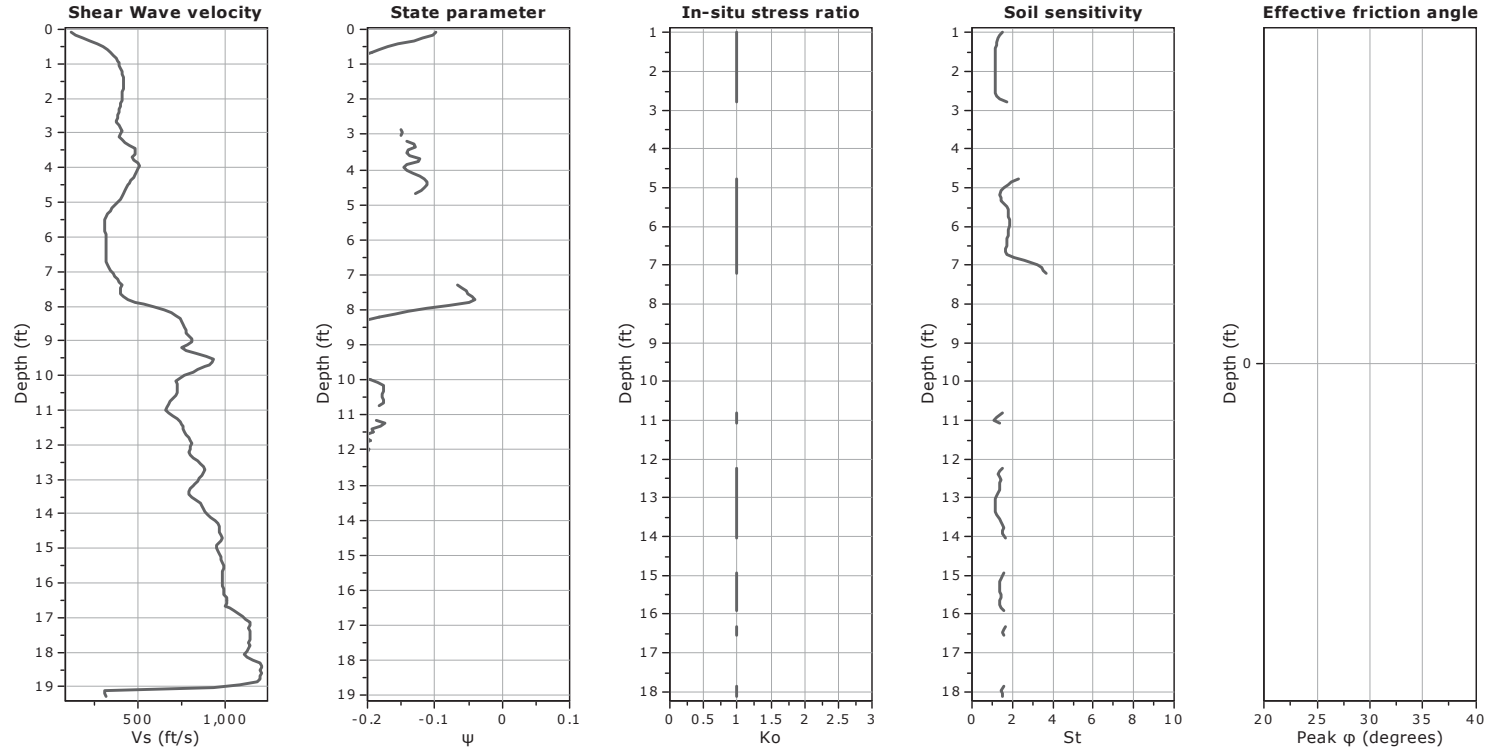
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-077
Total depth: 19.27 ft



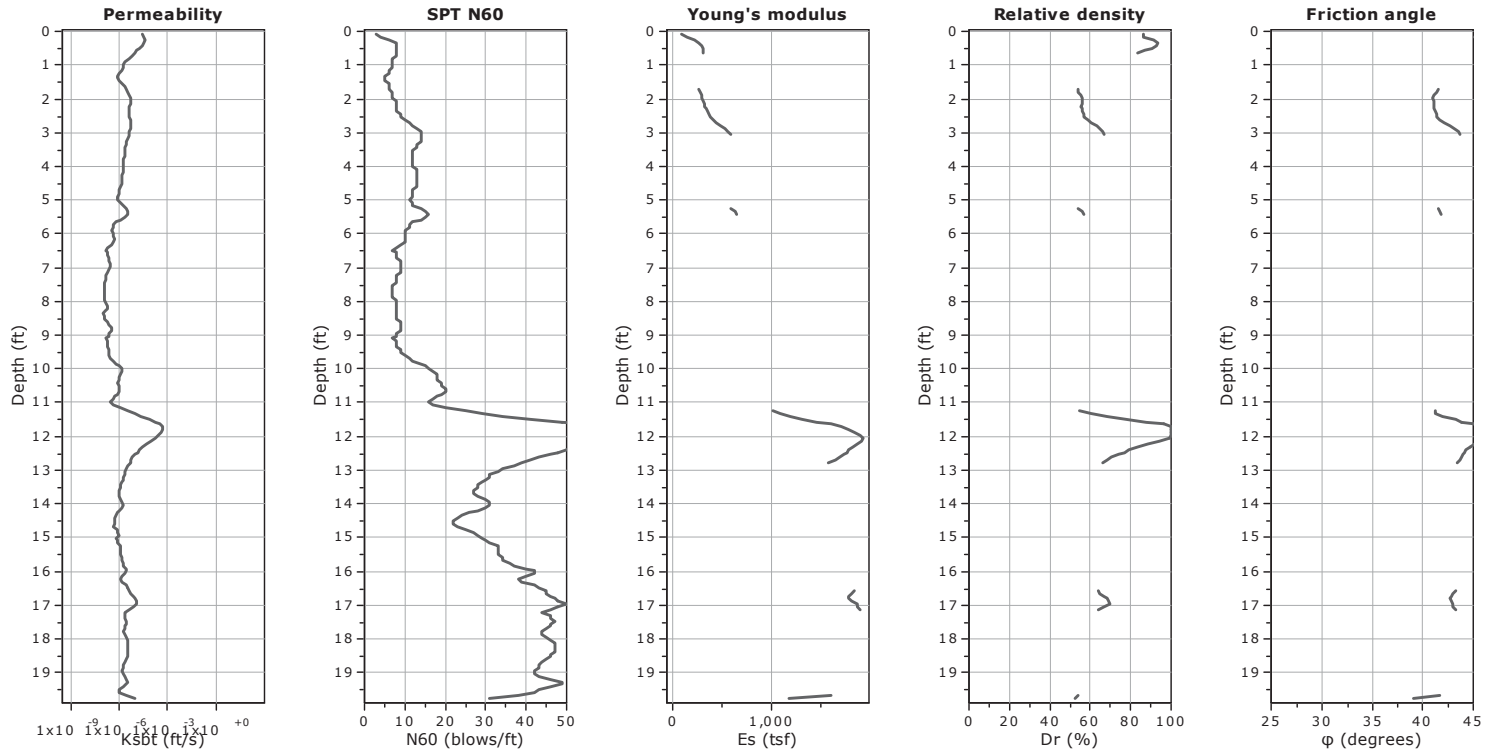
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-078
Total depth: 20.01 ft



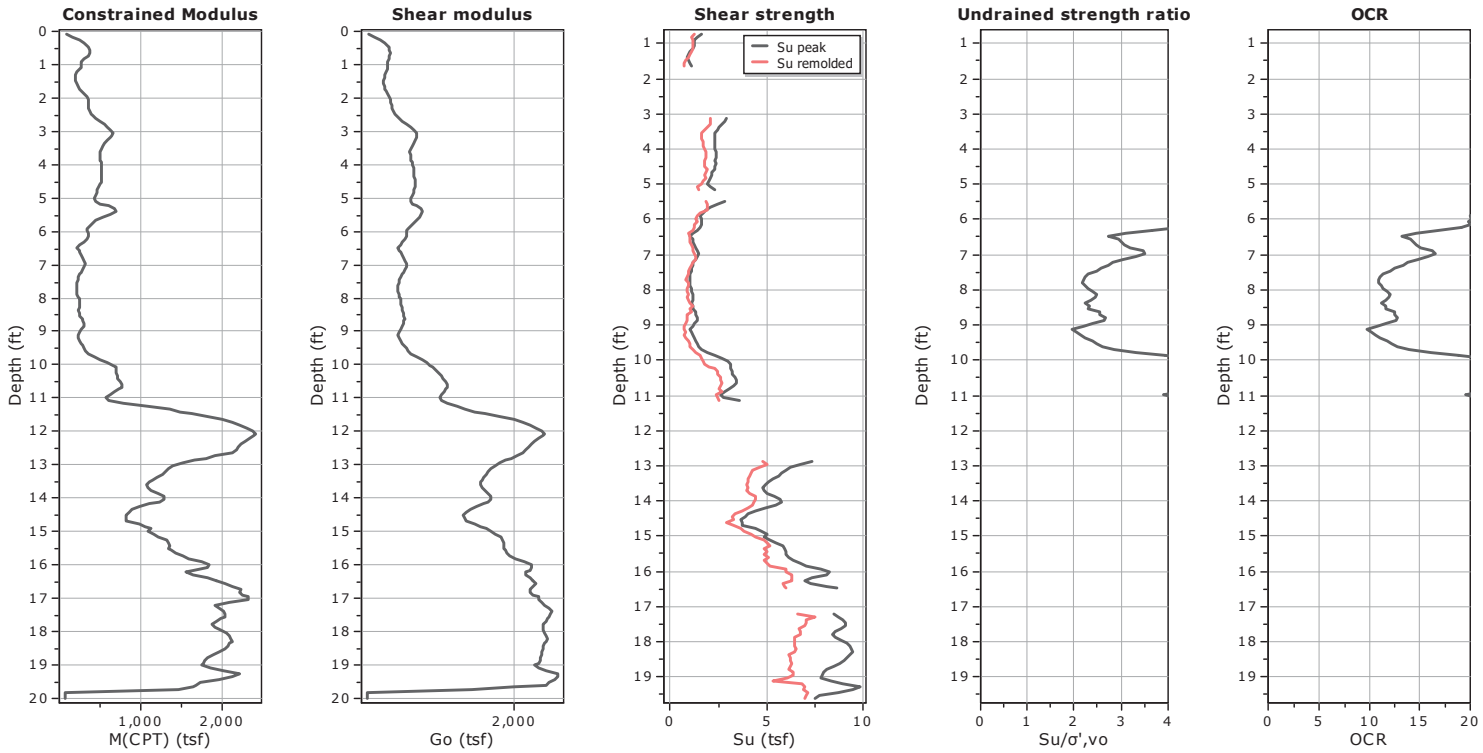
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
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Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-078
Total depth: 20.01 ft



Calculation parameters

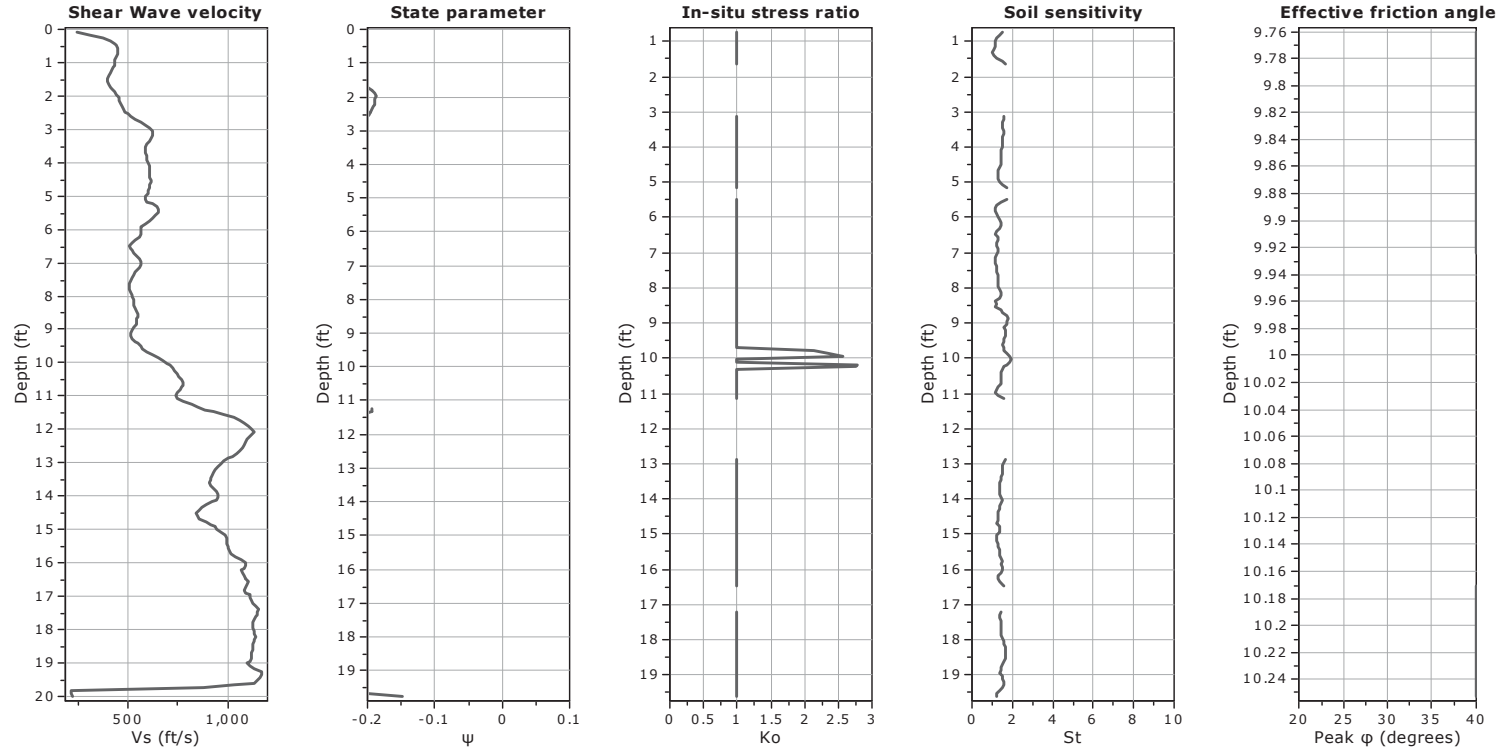
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-078
Total depth: 20.01 ft



Calculation parameters

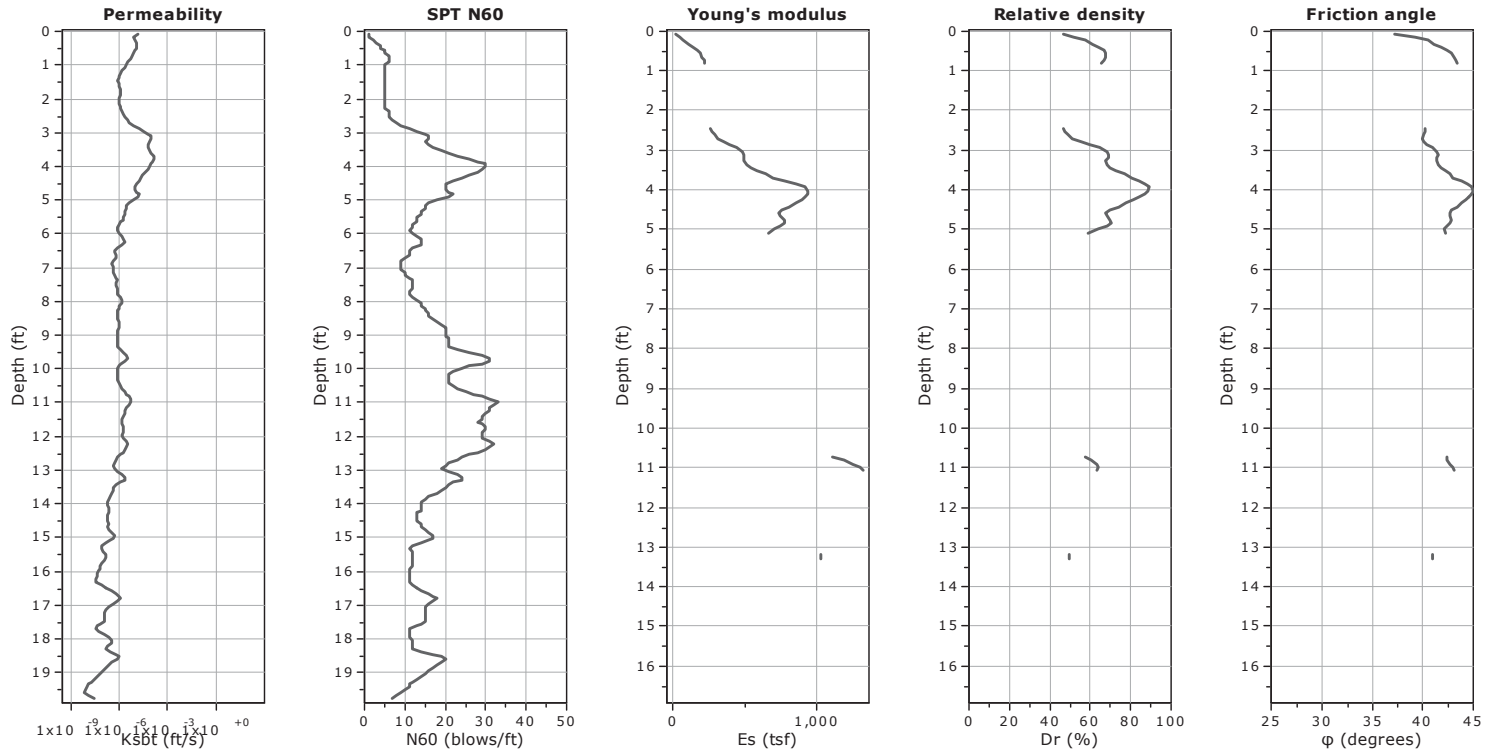
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-079
Total depth: 20.01 ft



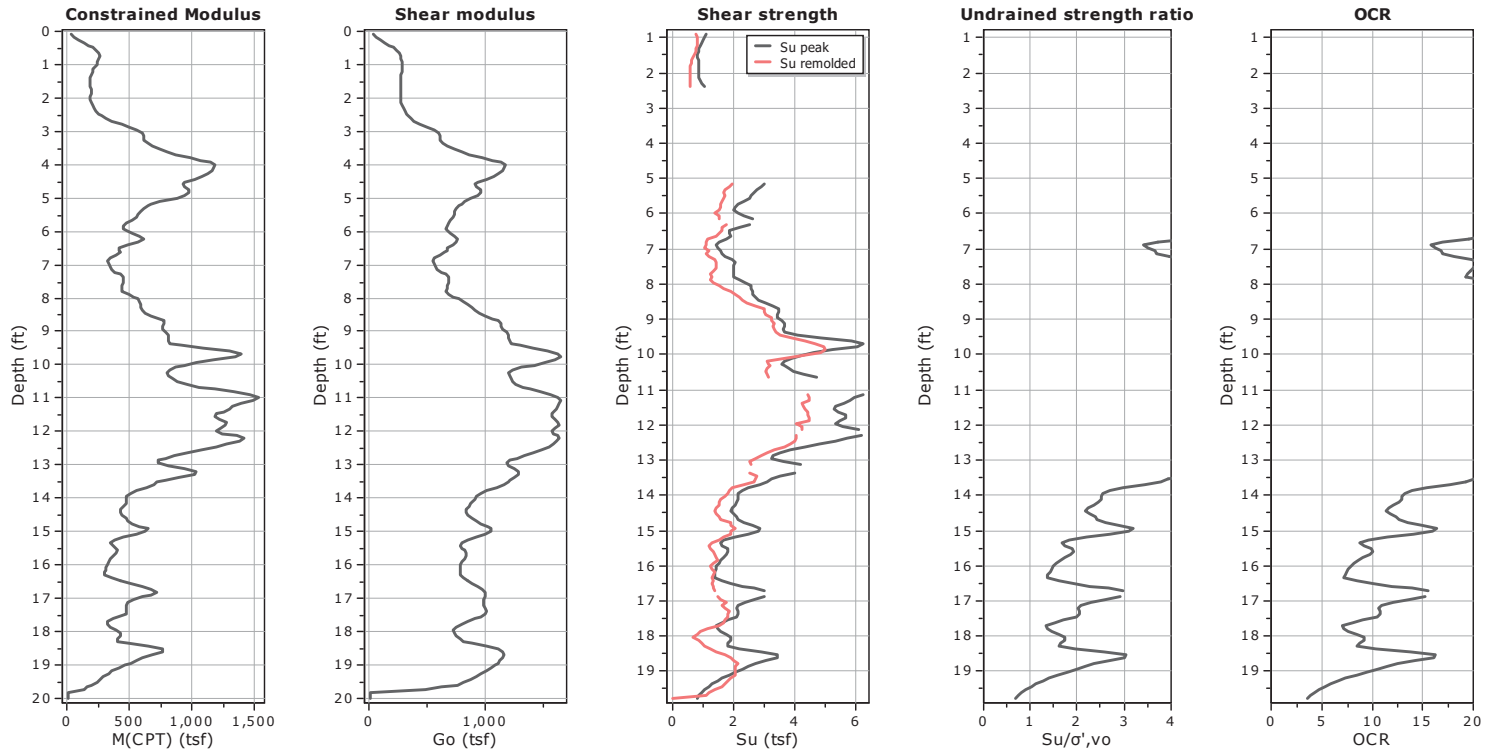
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-079
Total depth: 20.01 ft



Calculation parameters

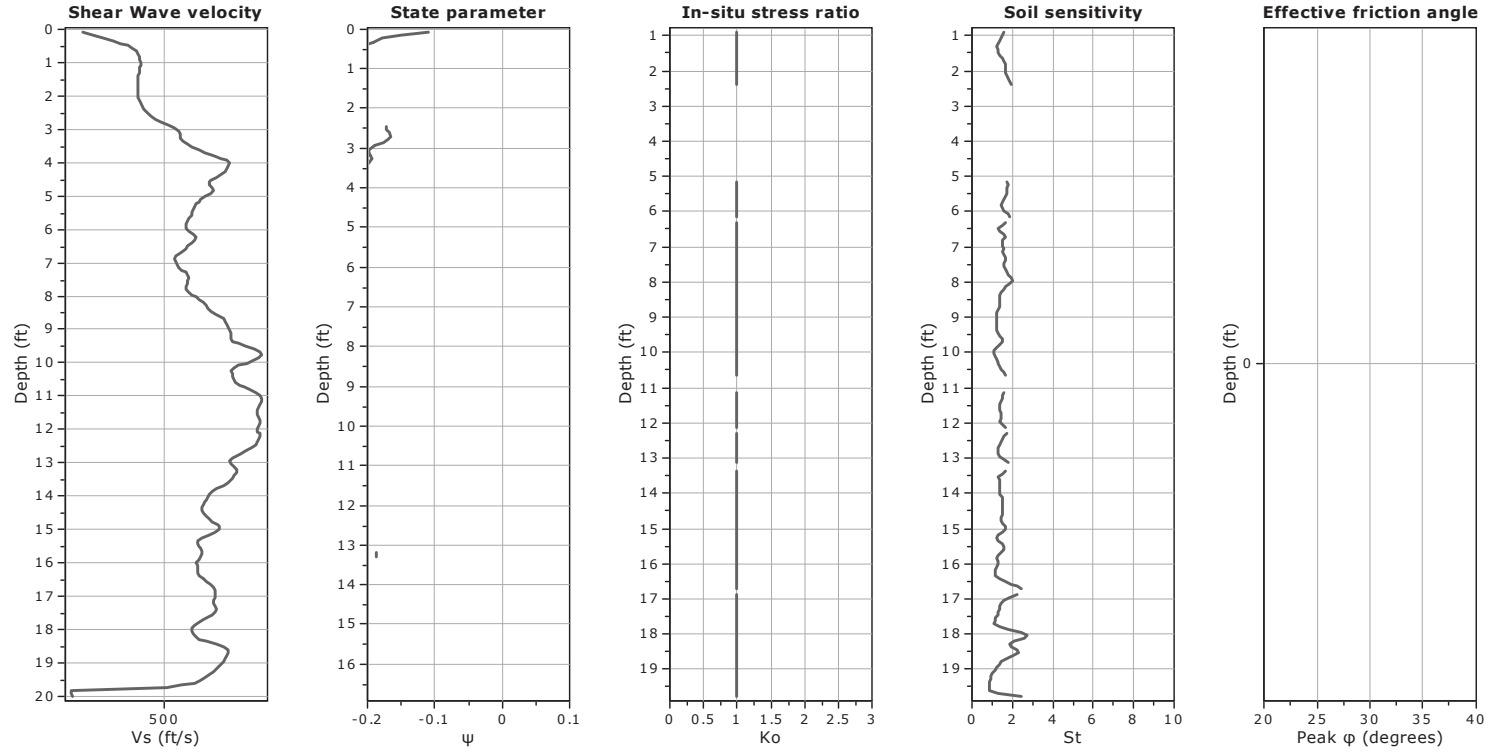
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-079
Total depth: 20.01 ft



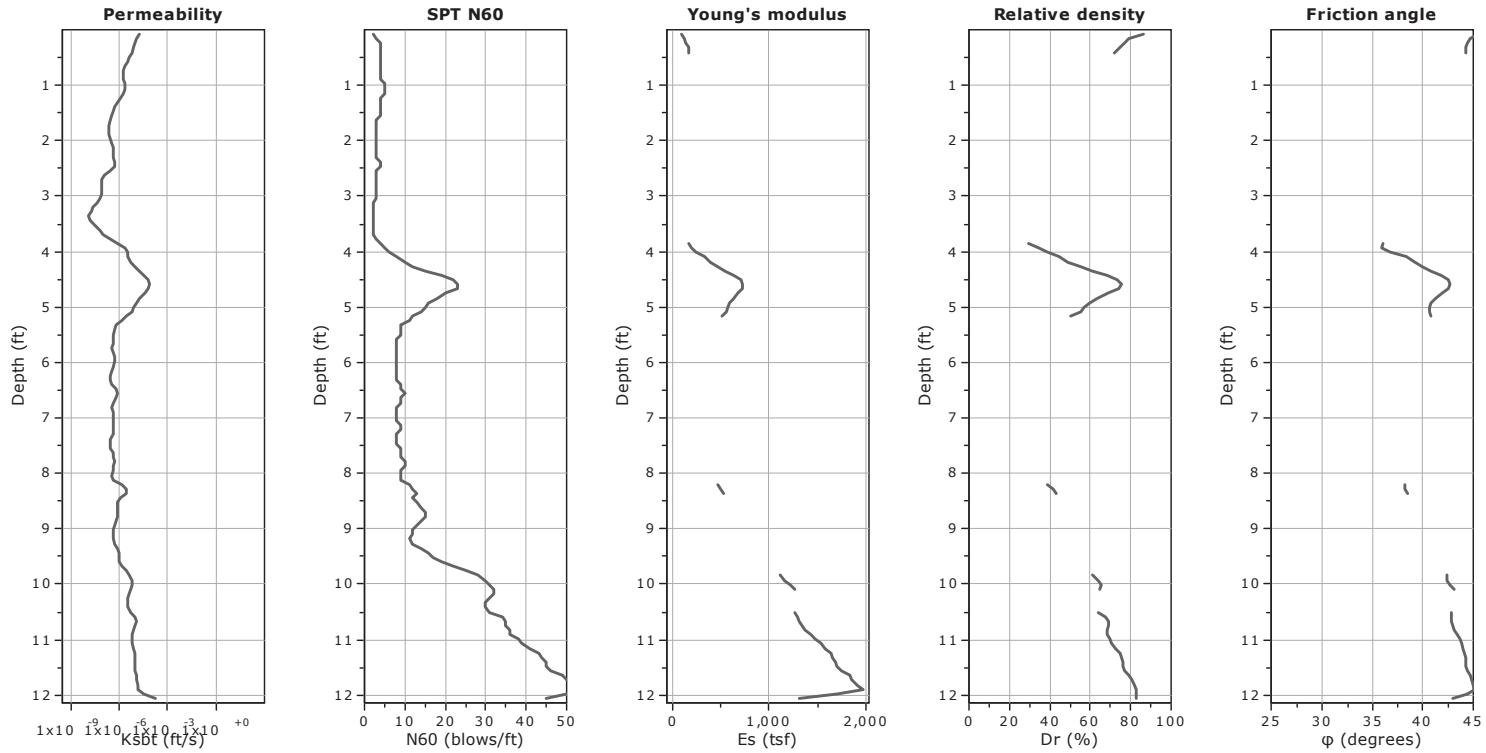
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-080
Total depth: 12.30 ft



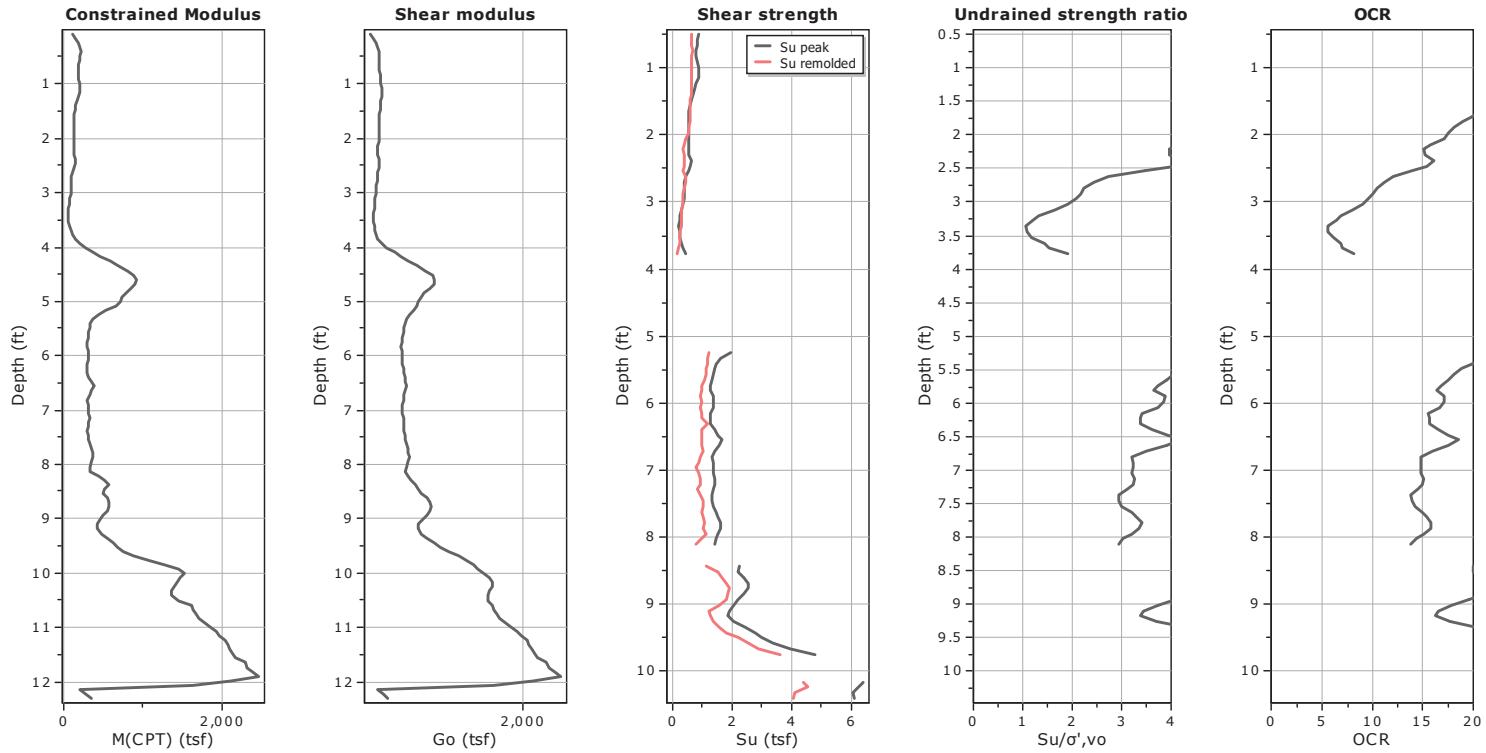
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-080
Total depth: 12.30 ft



Calculation parameters

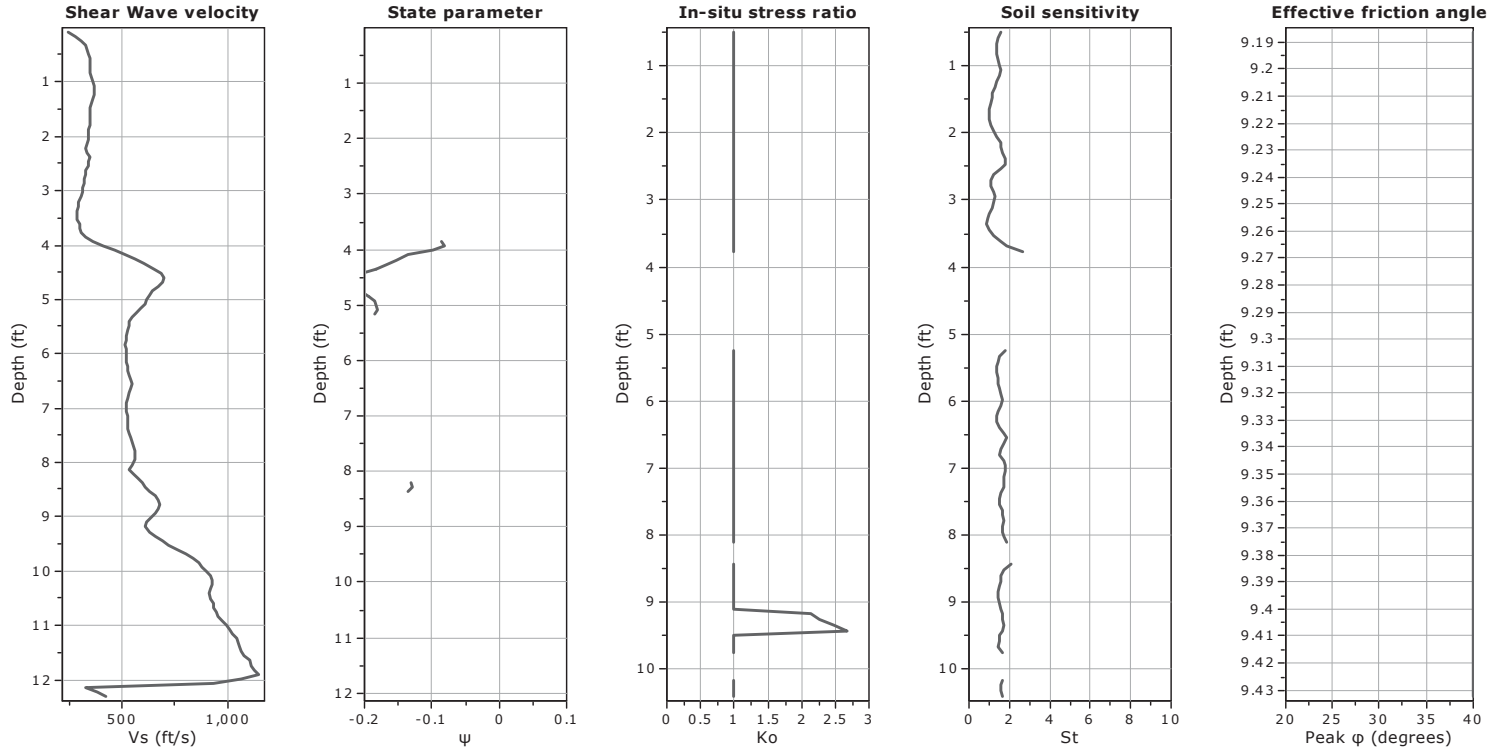
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-080
Total depth: 12.30 ft



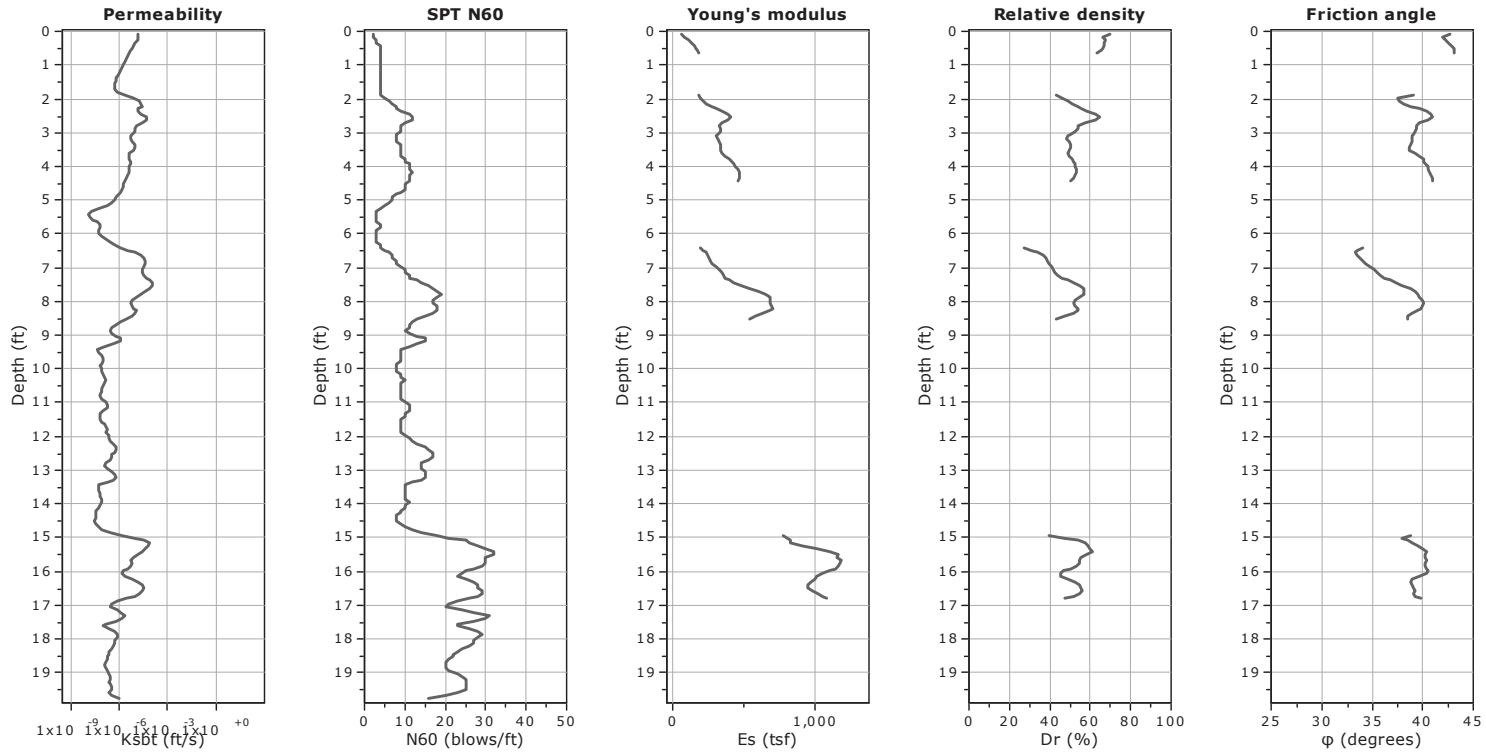
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-081
Total depth: 20.01 ft



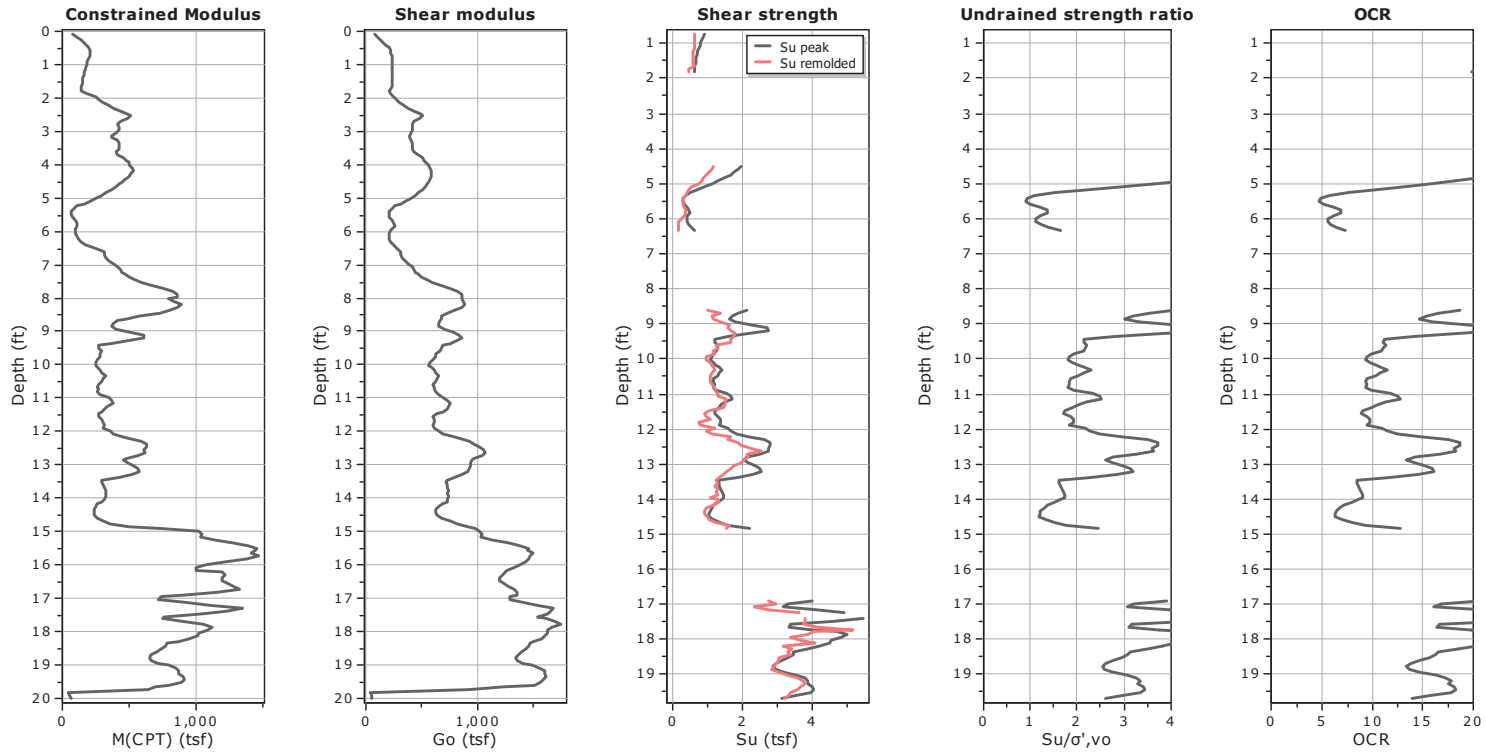
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-081
Total depth: 20.01 ft



Calculation parameters

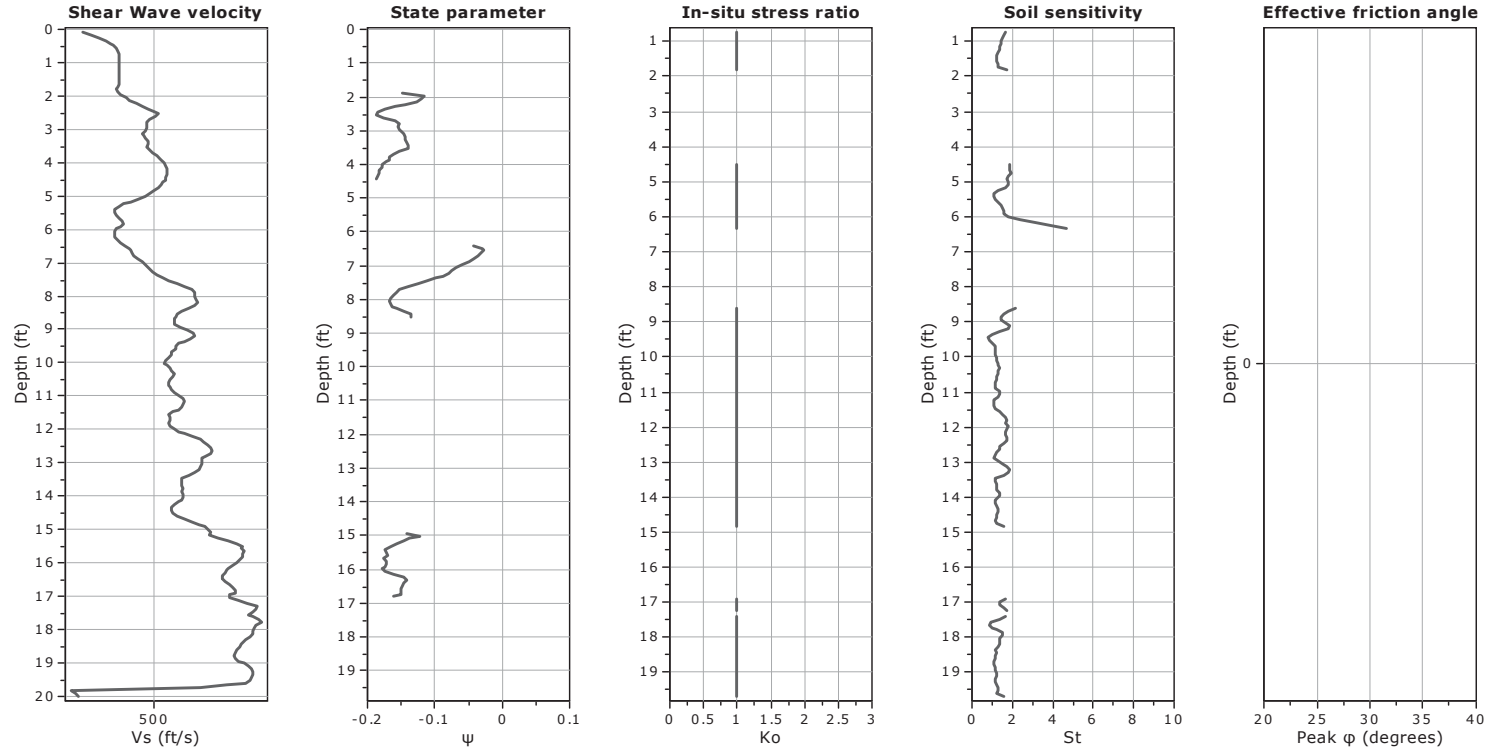
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-081
Total depth: 20.01 ft



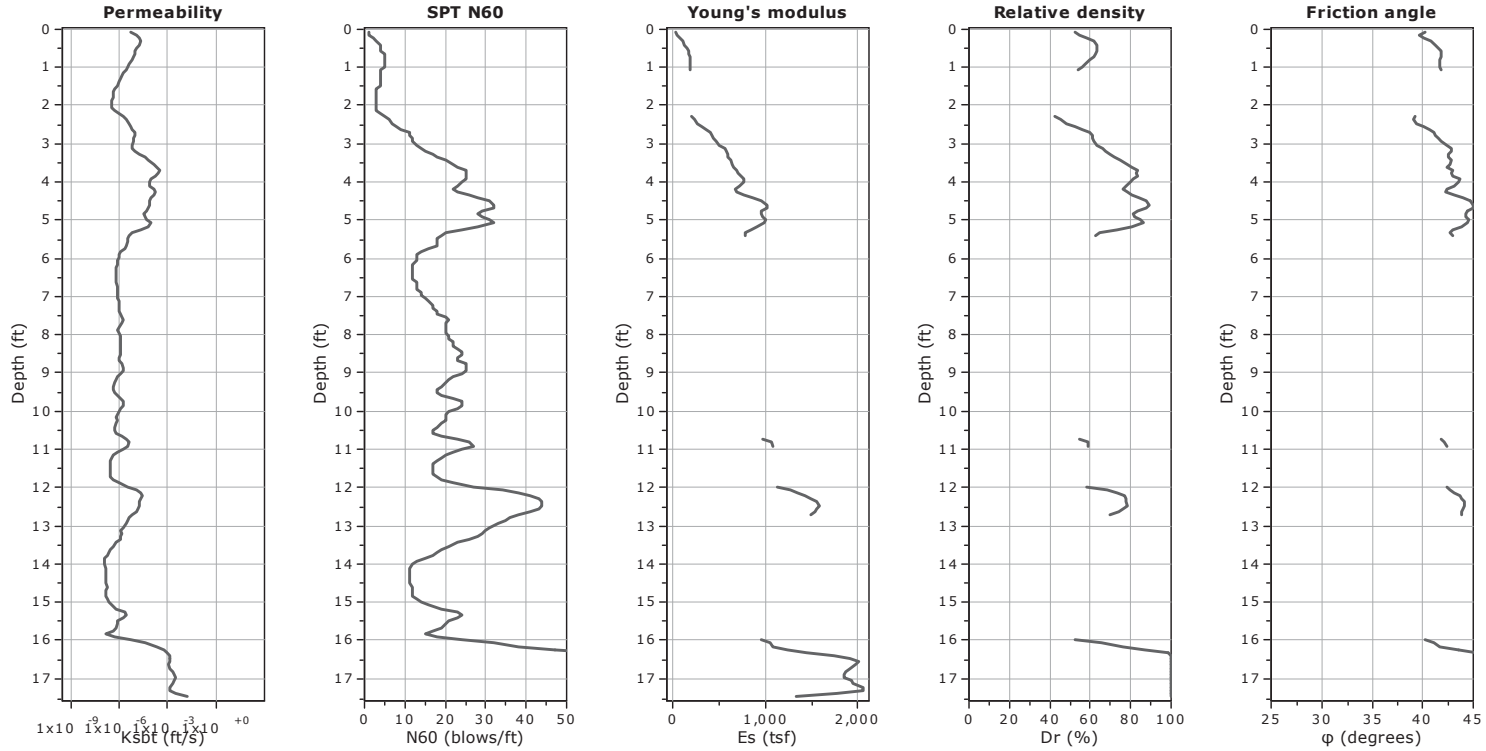
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-082
Total depth: 17.72 ft



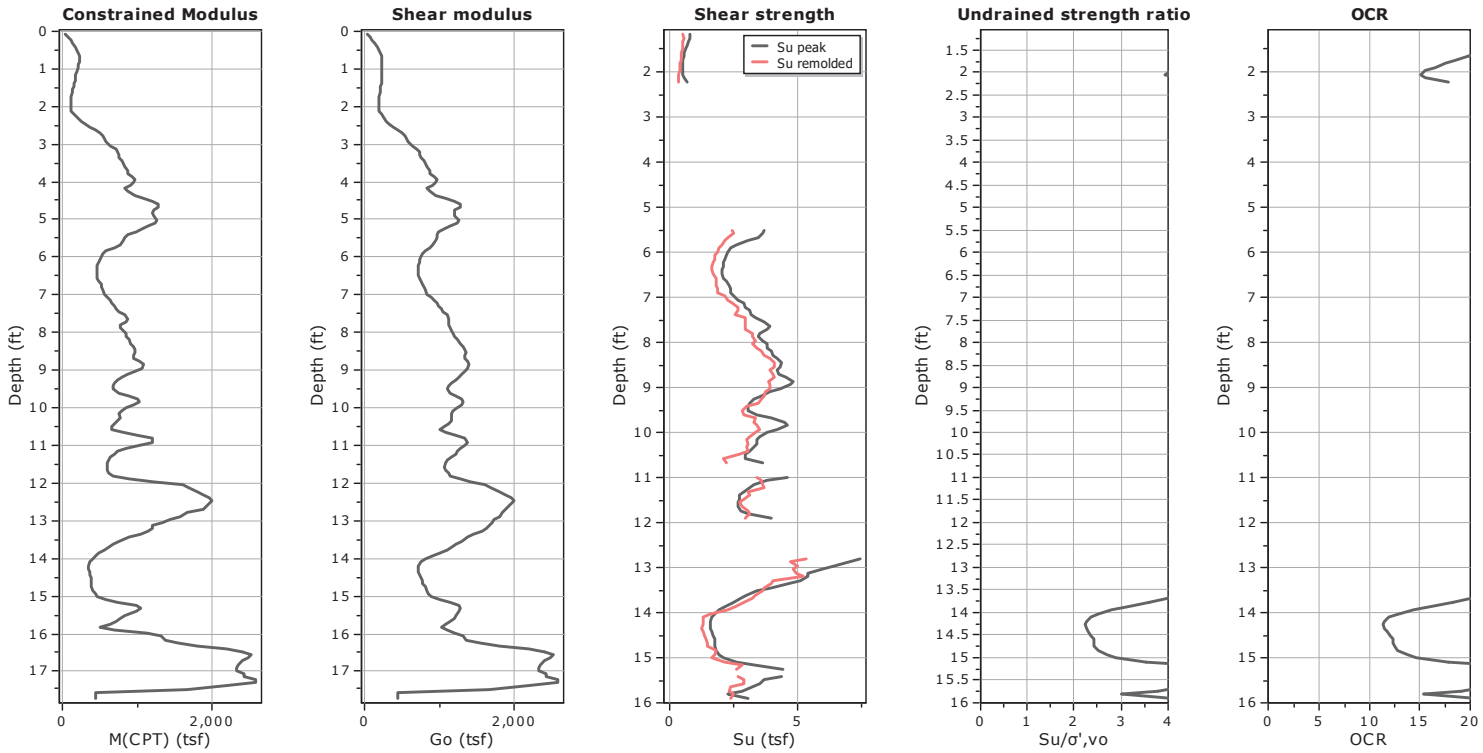
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-082
Total depth: 17.72 ft



Calculation parameters

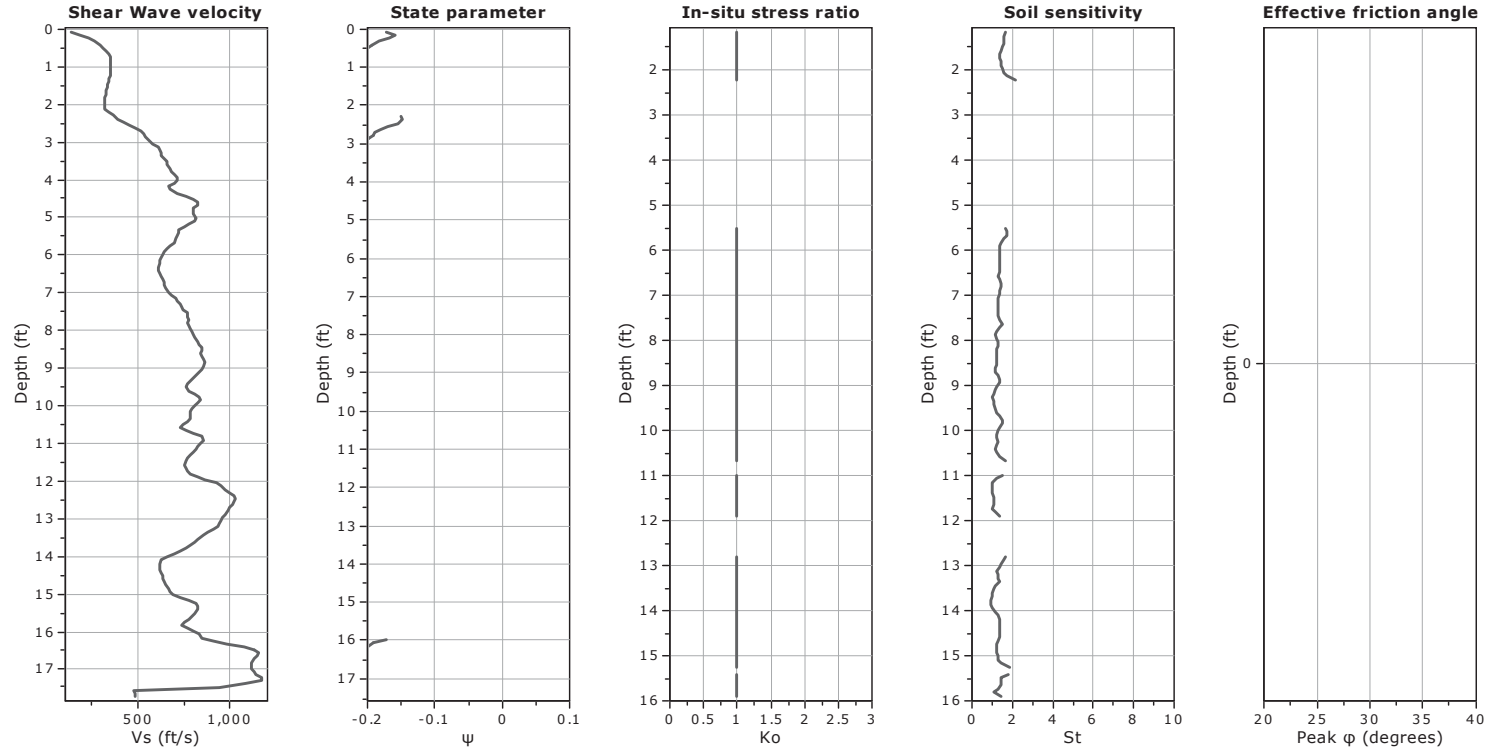
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-082
Total depth: 17.72 ft



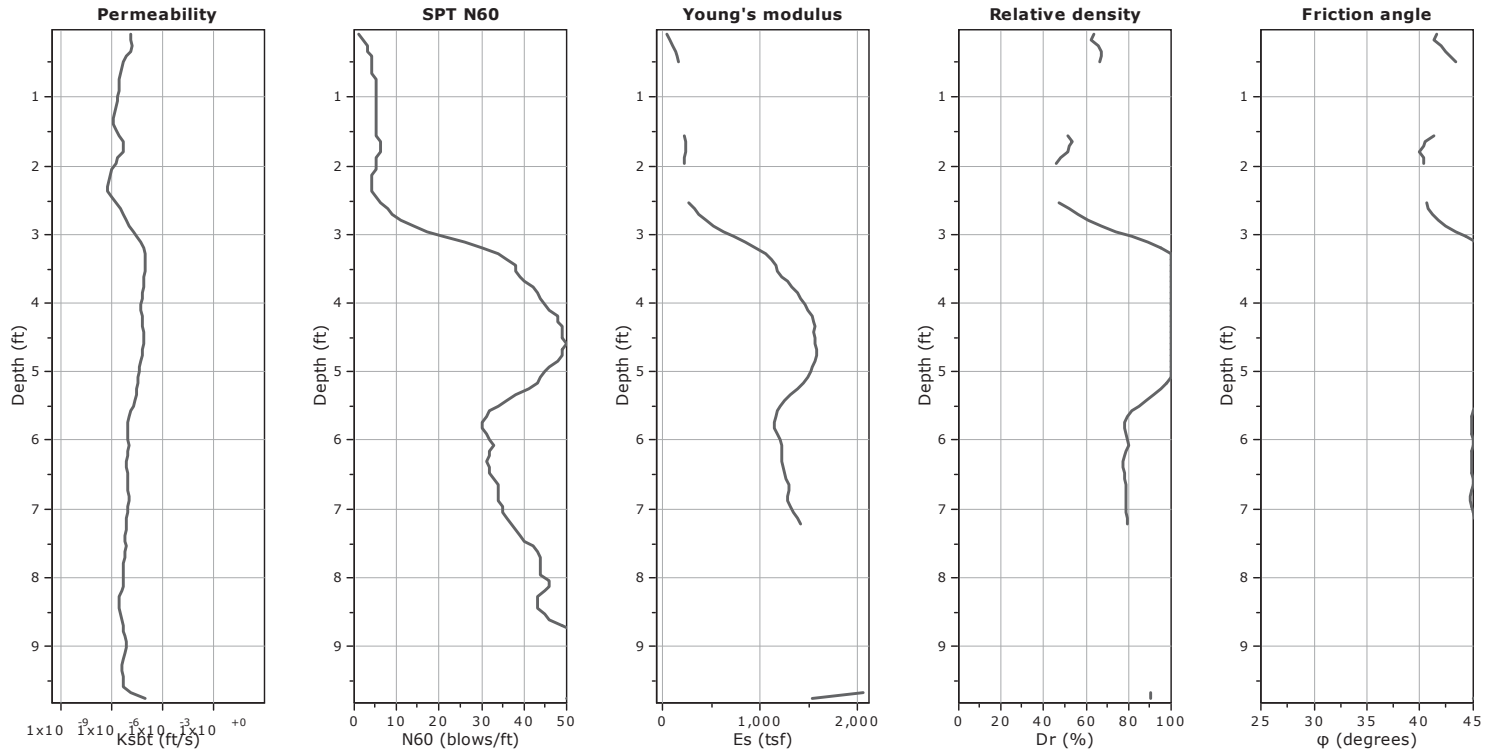
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-083
Total depth: 10.01 ft



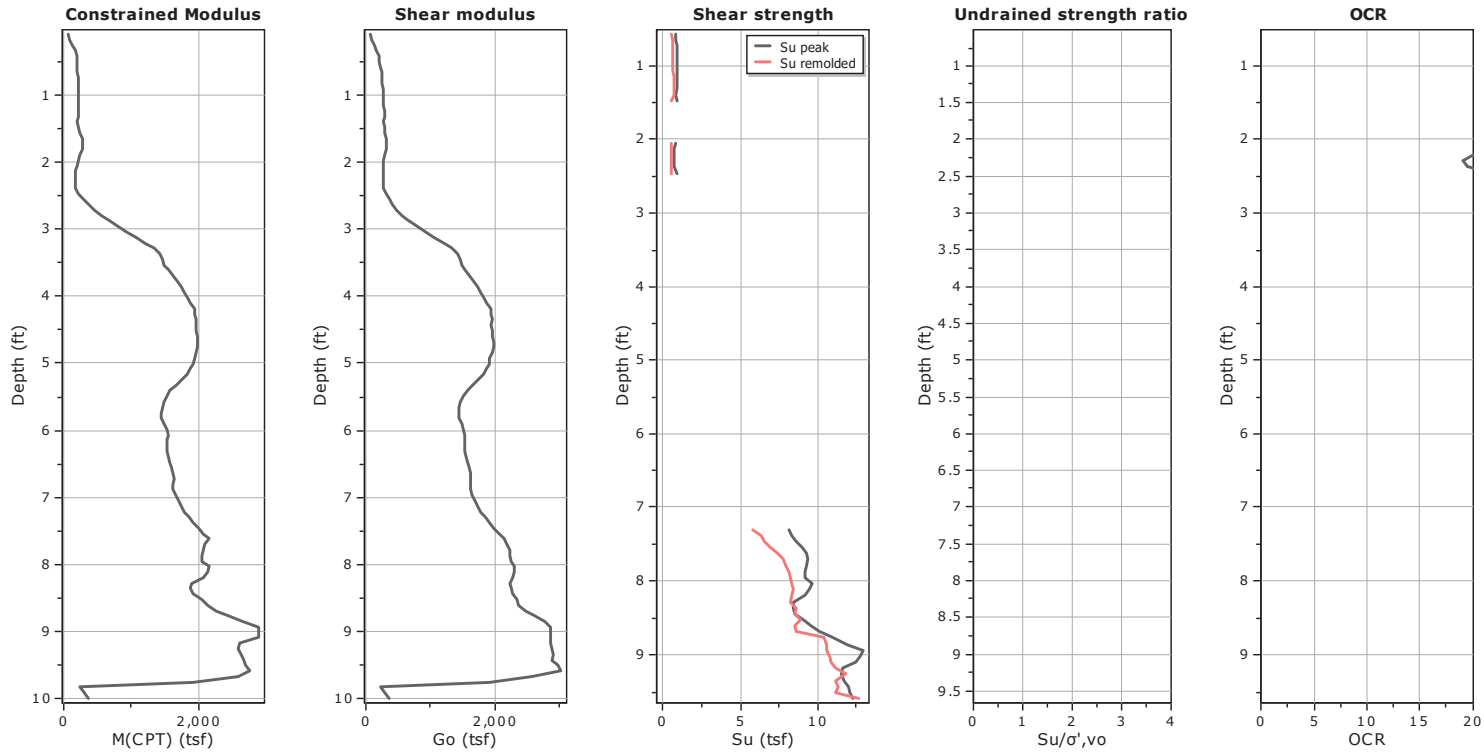
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-083
Total depth: 10.01 ft



Calculation parameters

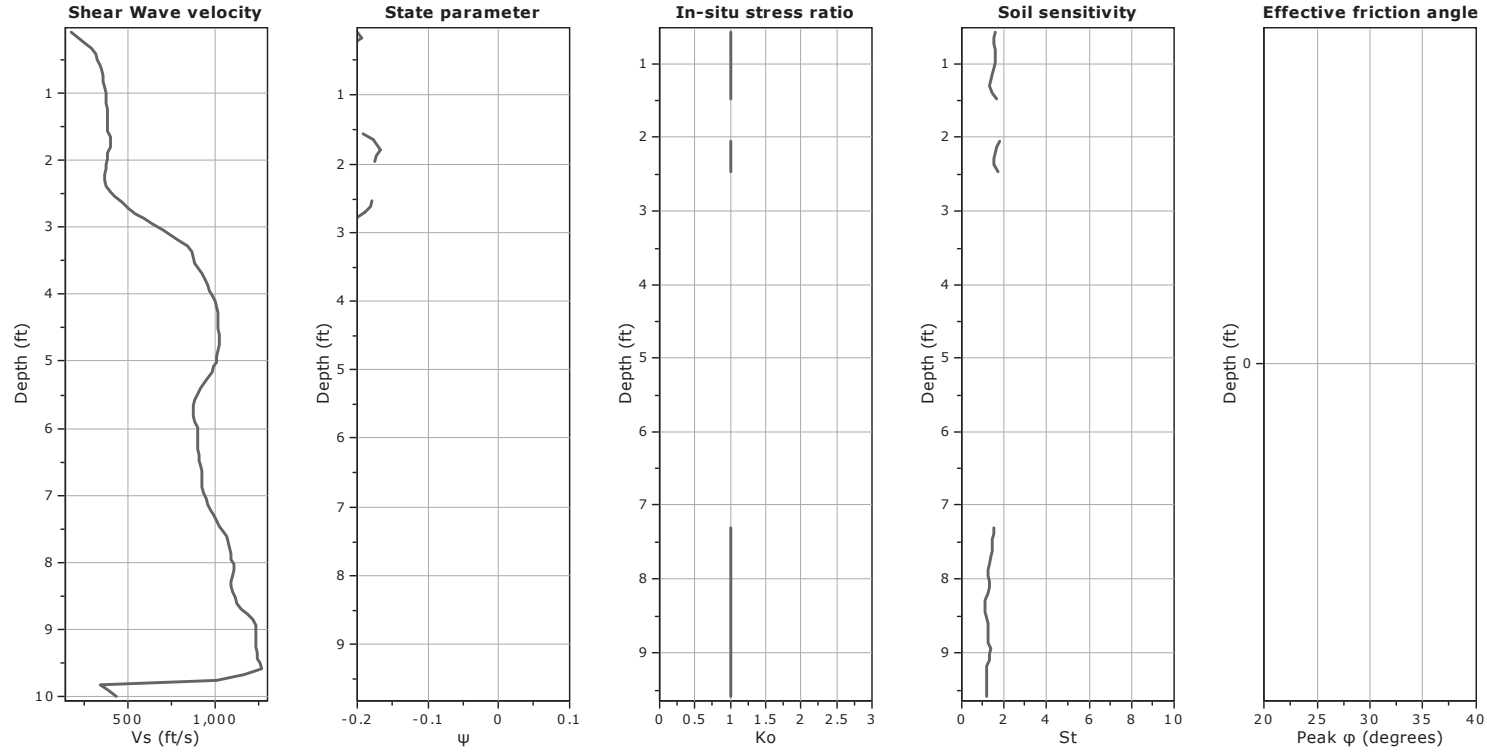
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-083
Total depth: 10.01 ft



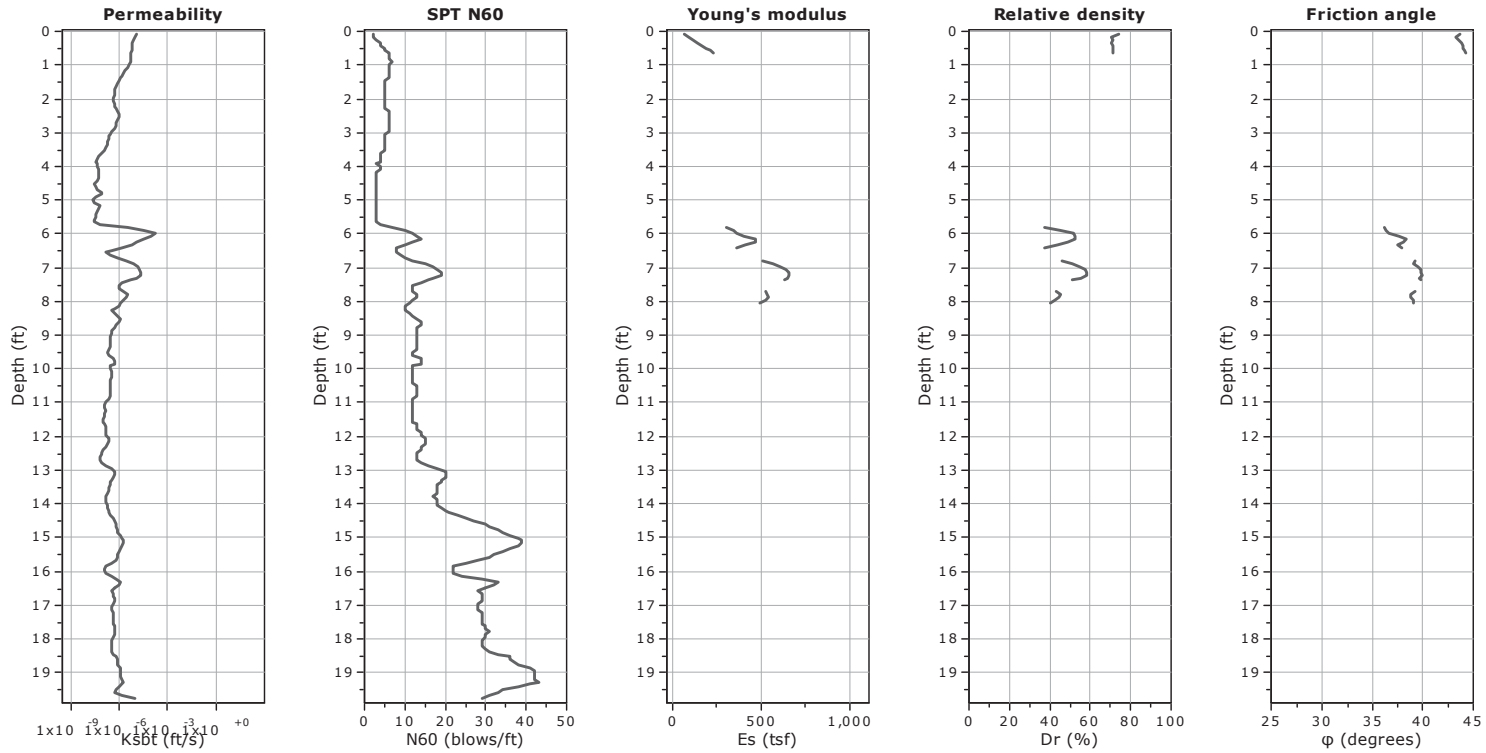
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-084
Total depth: 20.01 ft



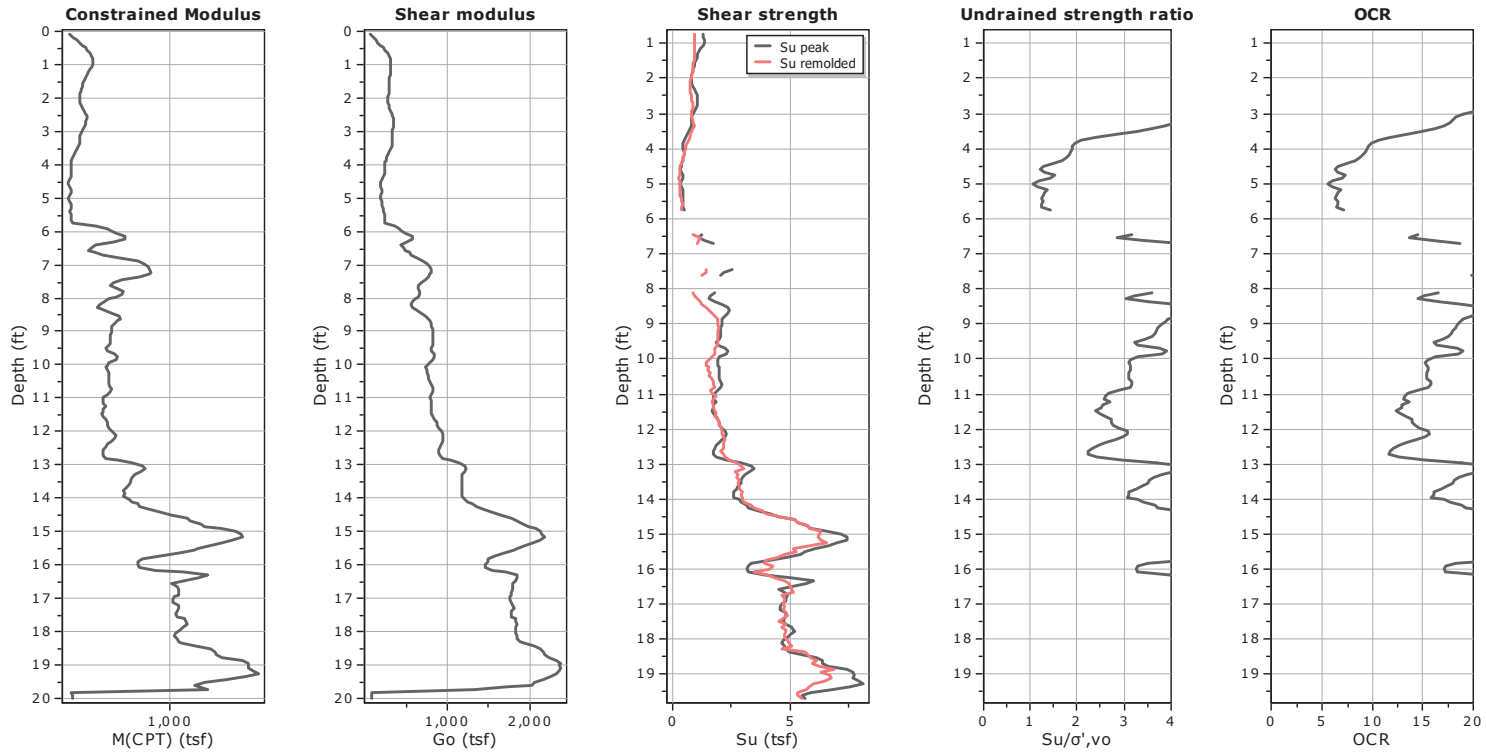
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-084
Total depth: 20.01 ft



Calculation parameters

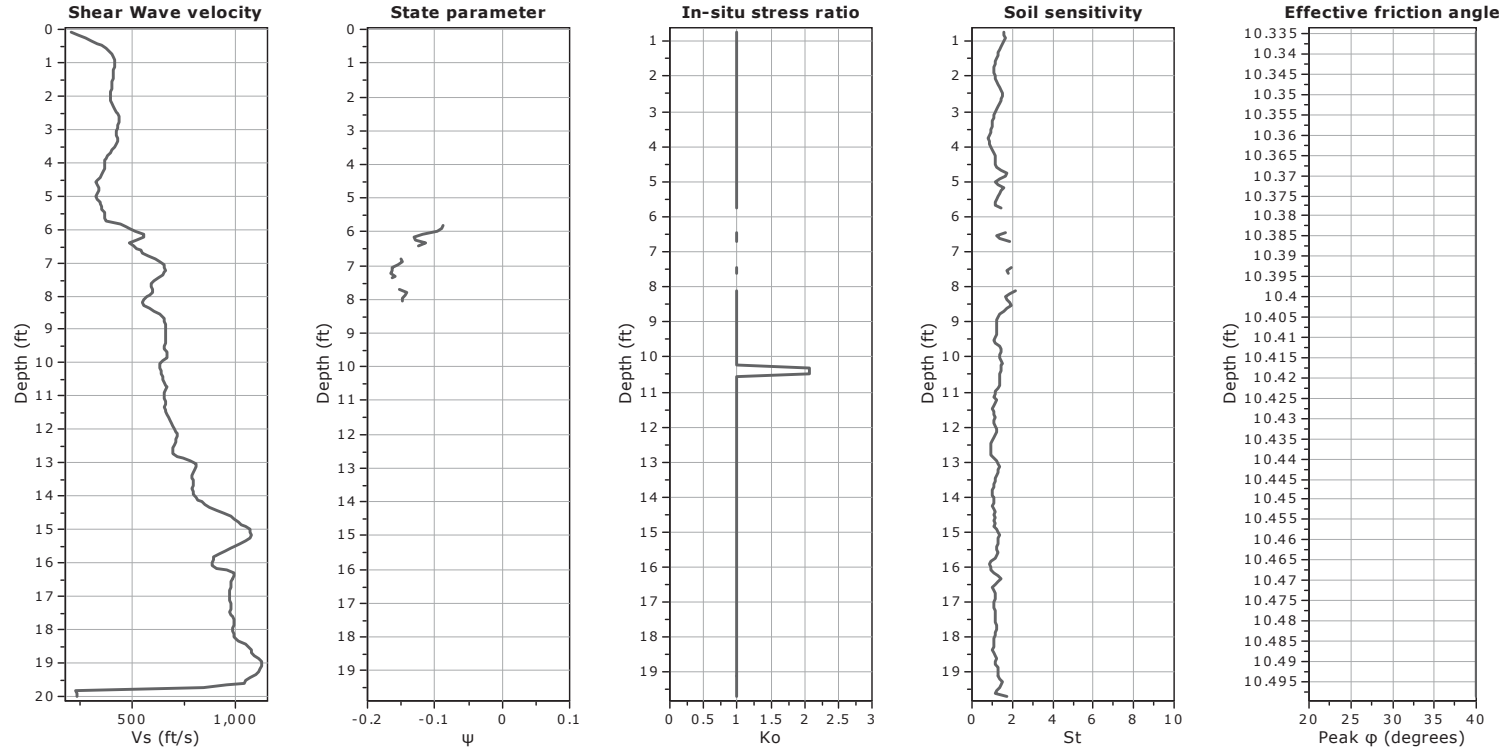
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-084
Total depth: 20.01 ft



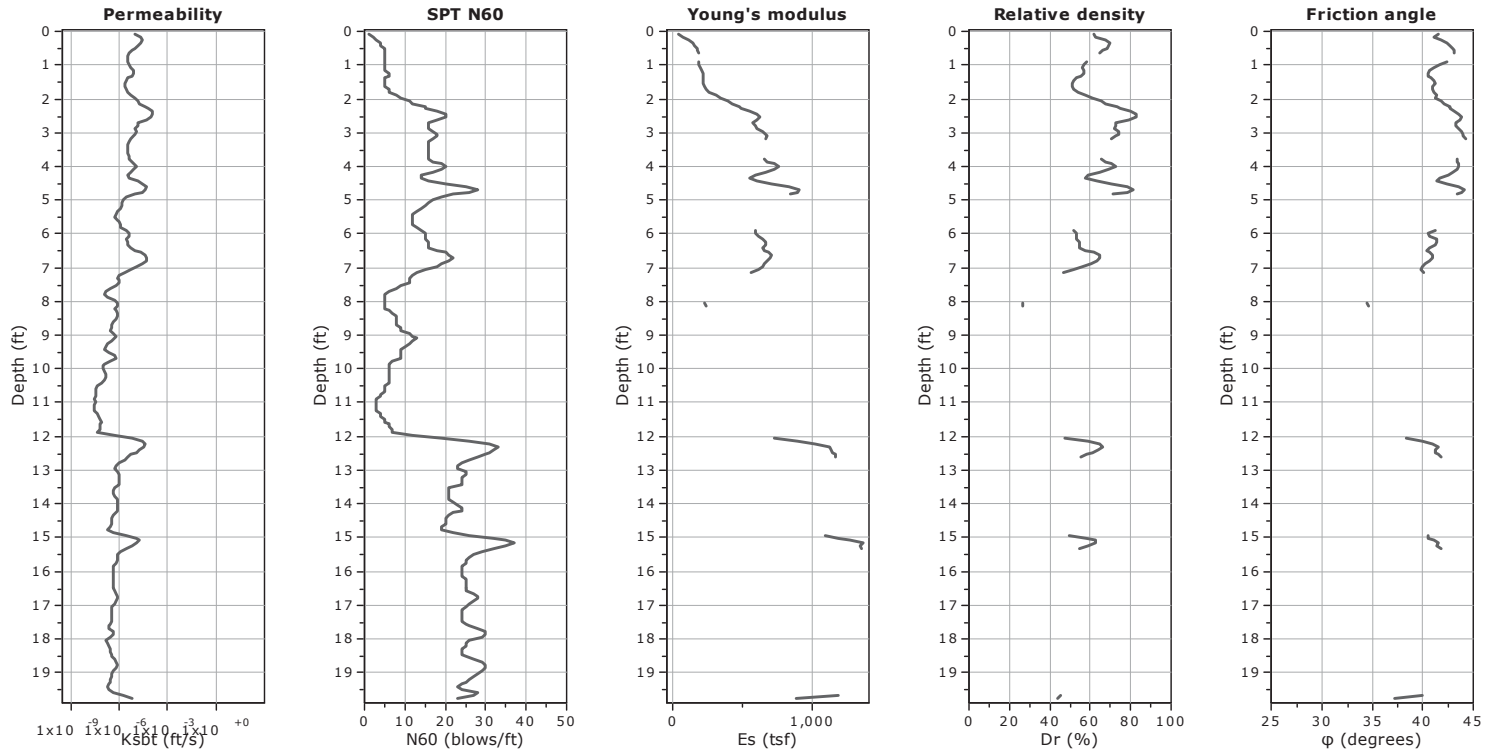
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-085
Total depth: 20.01 ft



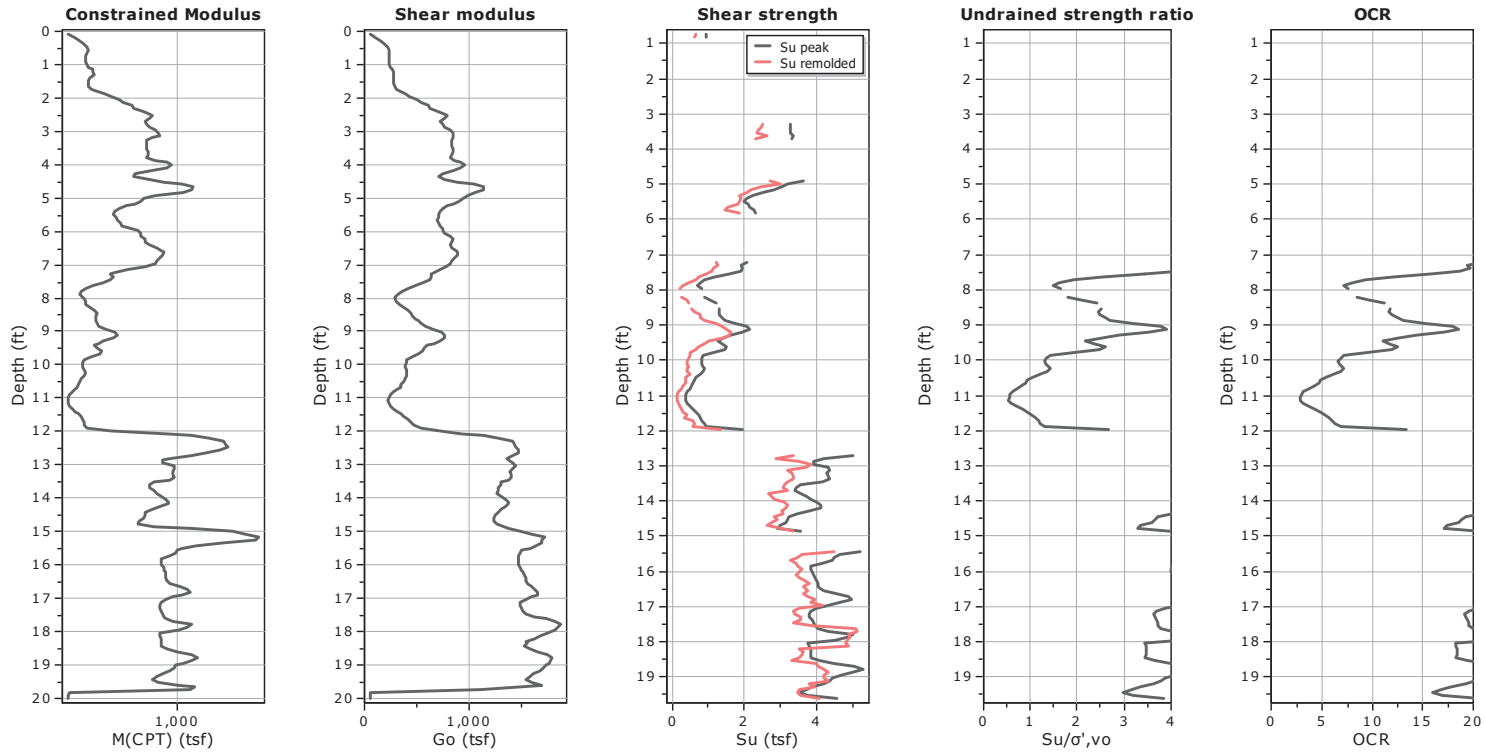
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-085
Total depth: 20.01 ft



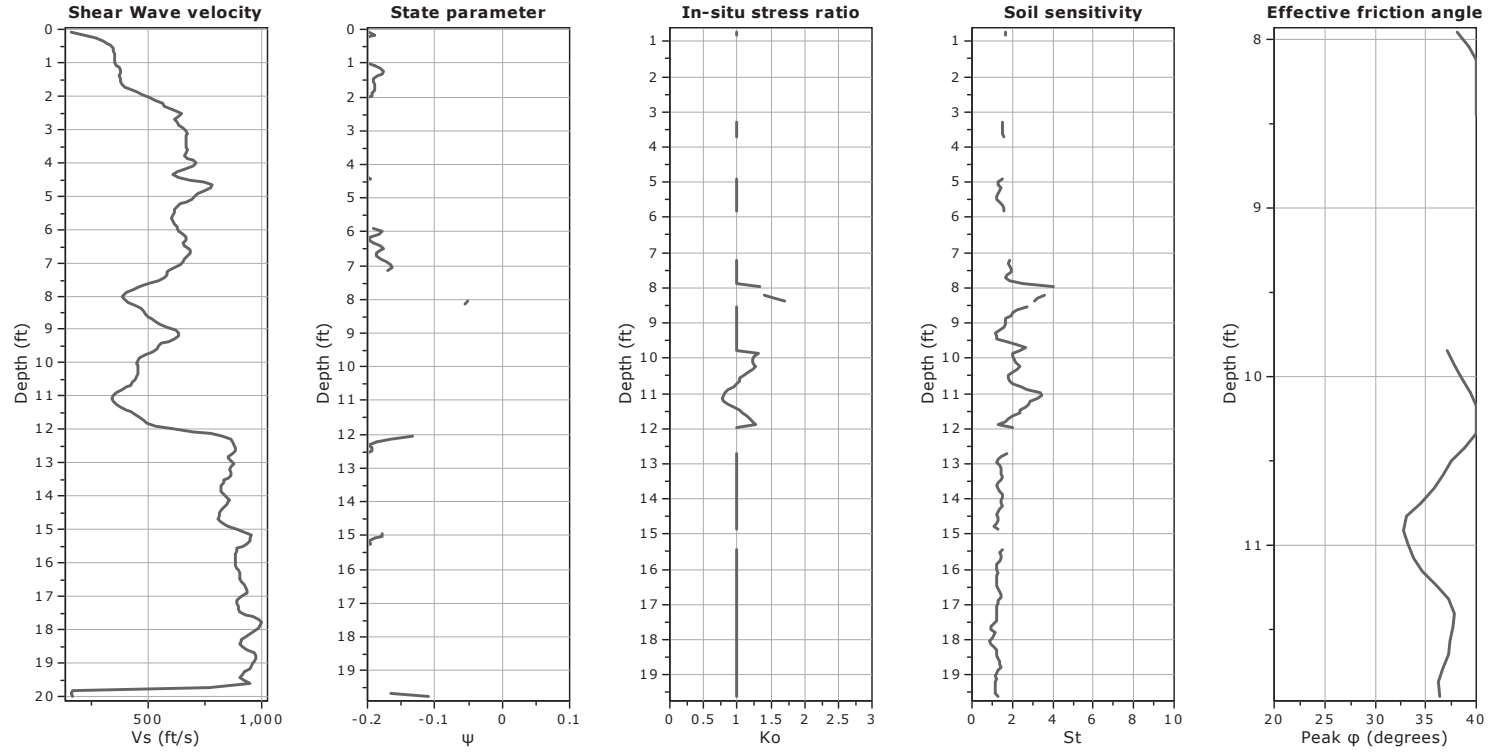
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-085
Total depth: 20.01 ft



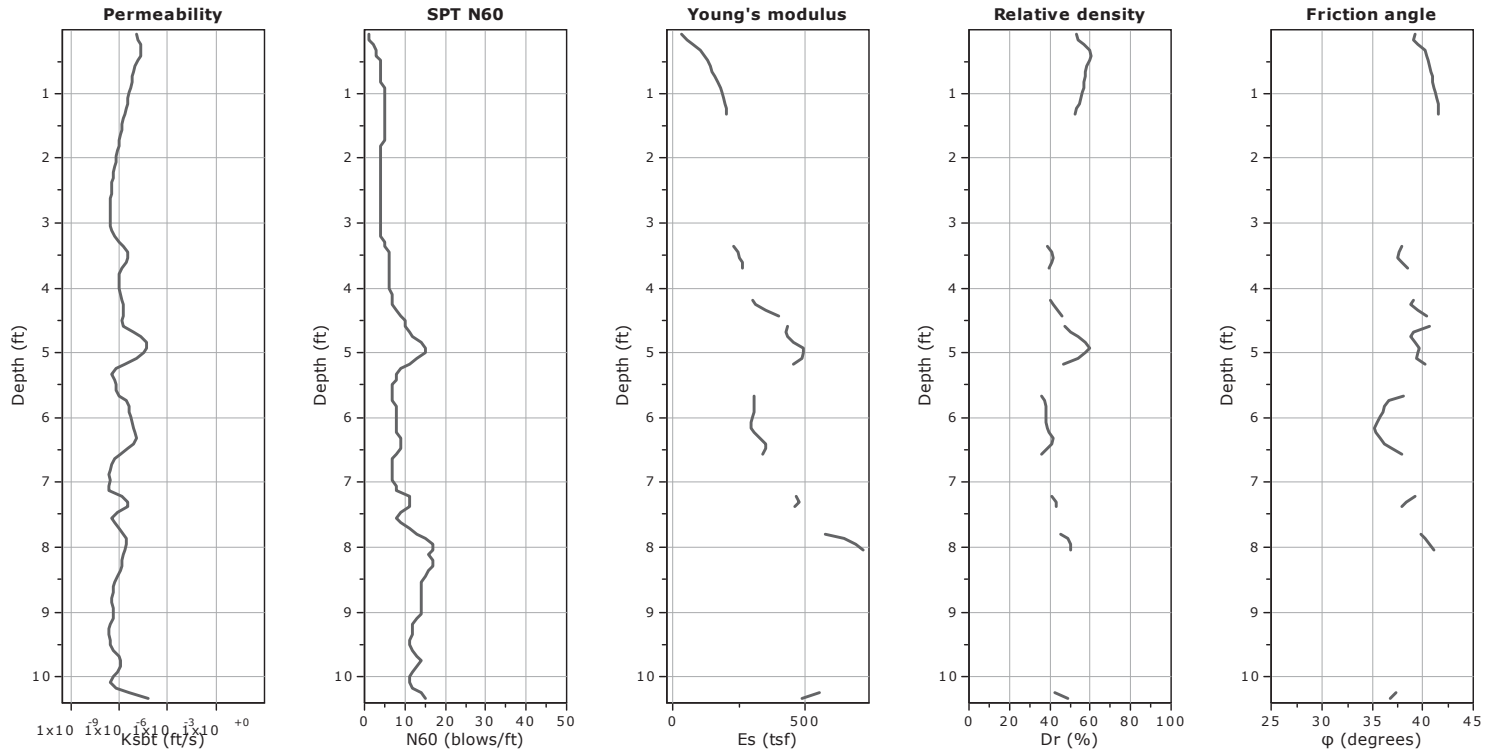
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-086
Total depth: 10.58 ft



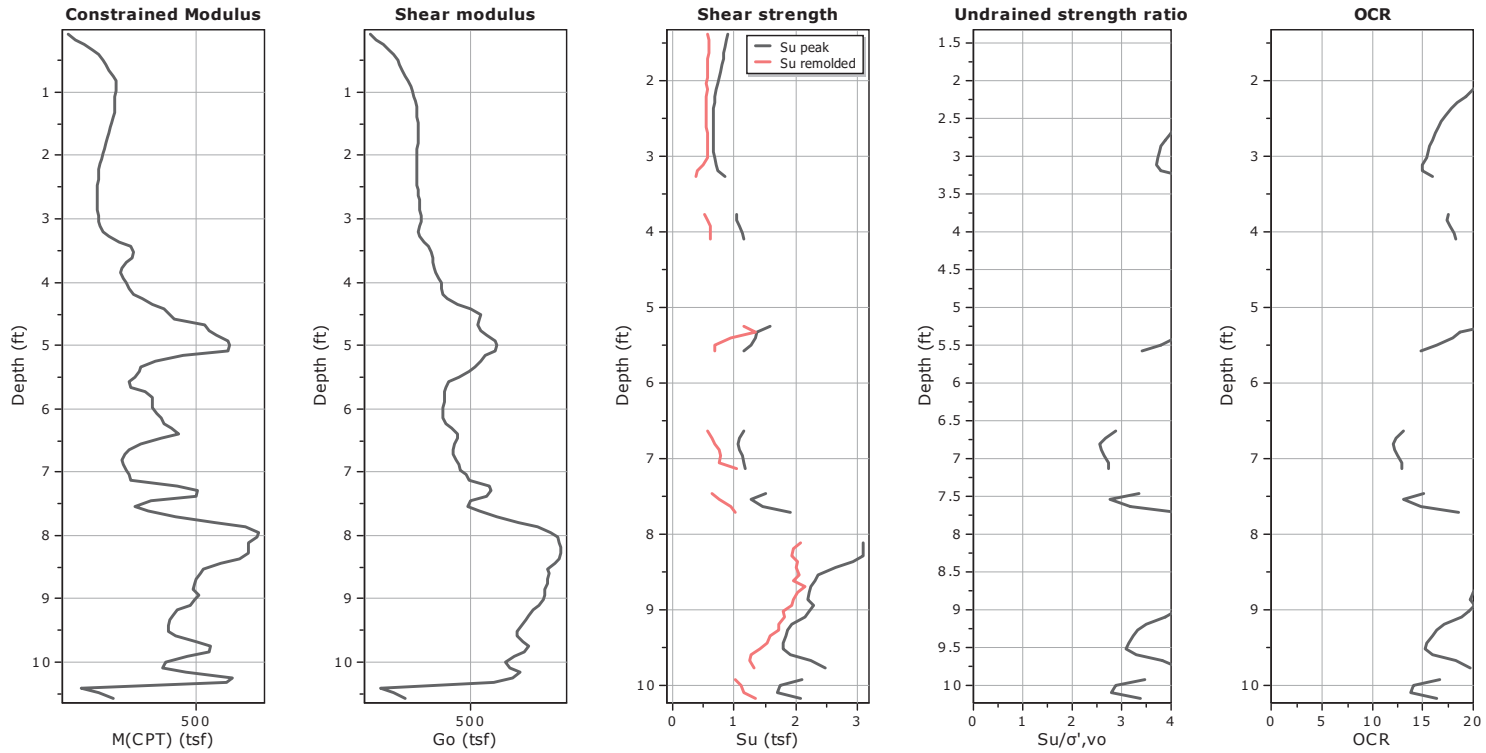
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-086
Total depth: 10.58 ft



Calculation parameters

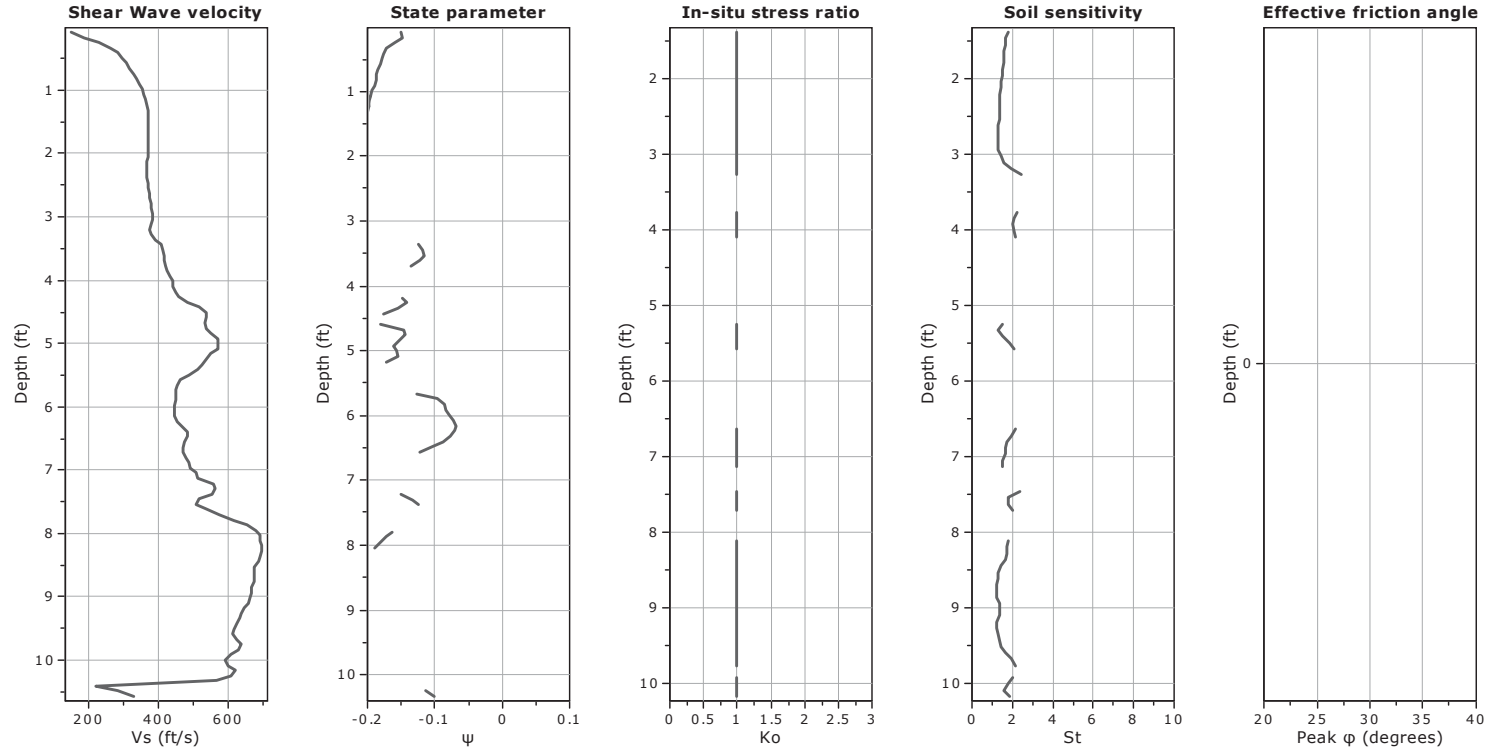
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-086
Total depth: 10.58 ft



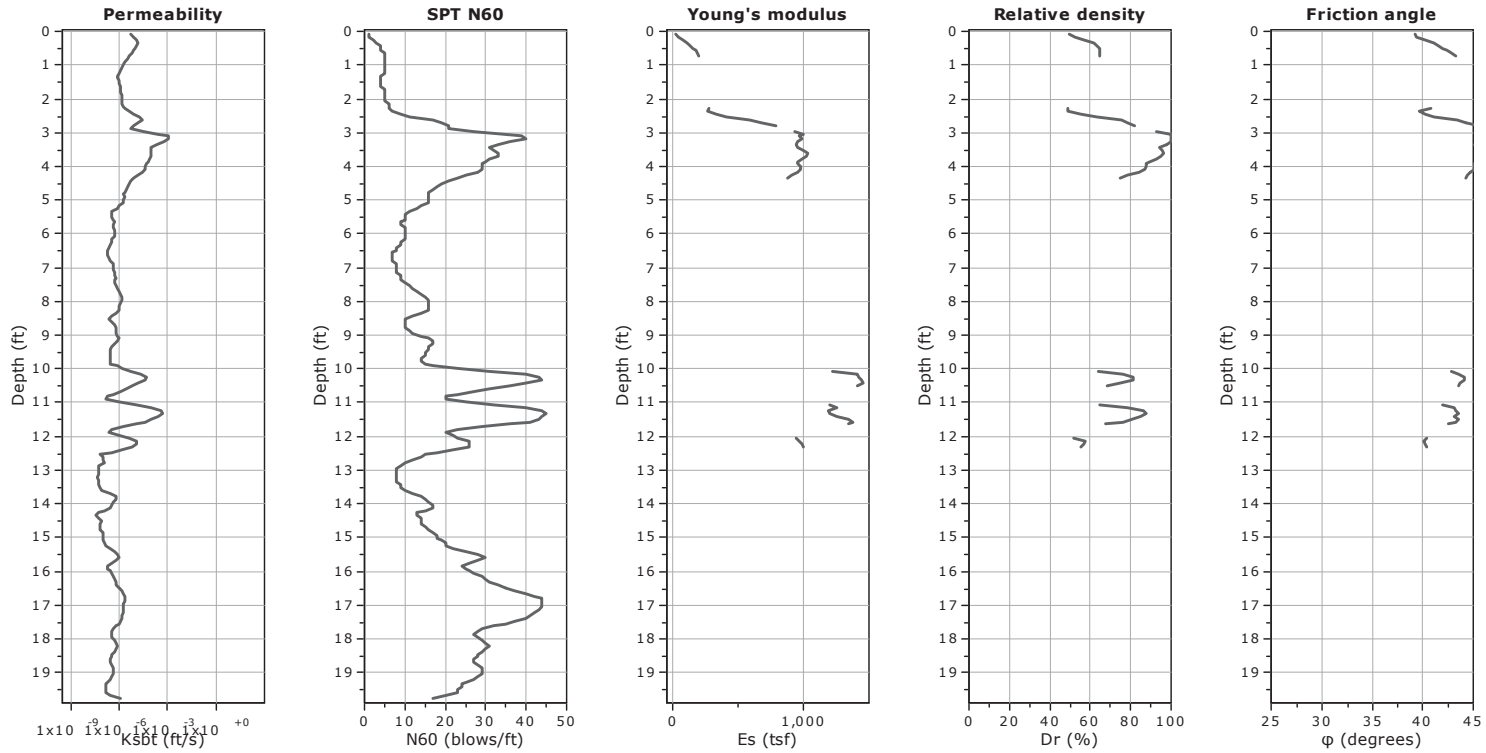
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-087
Total depth: 20.01 ft



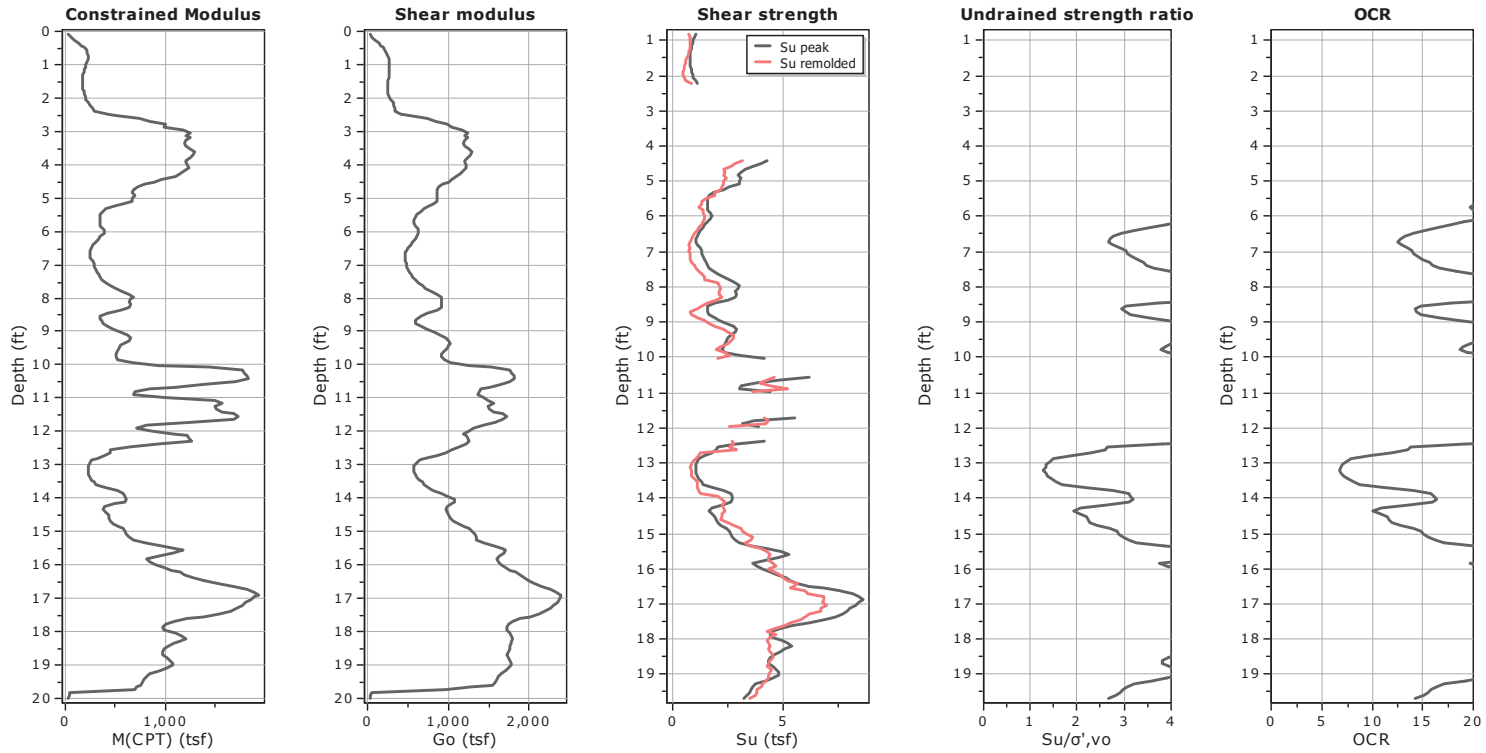
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-087
Total depth: 20.01 ft



Calculation parameters

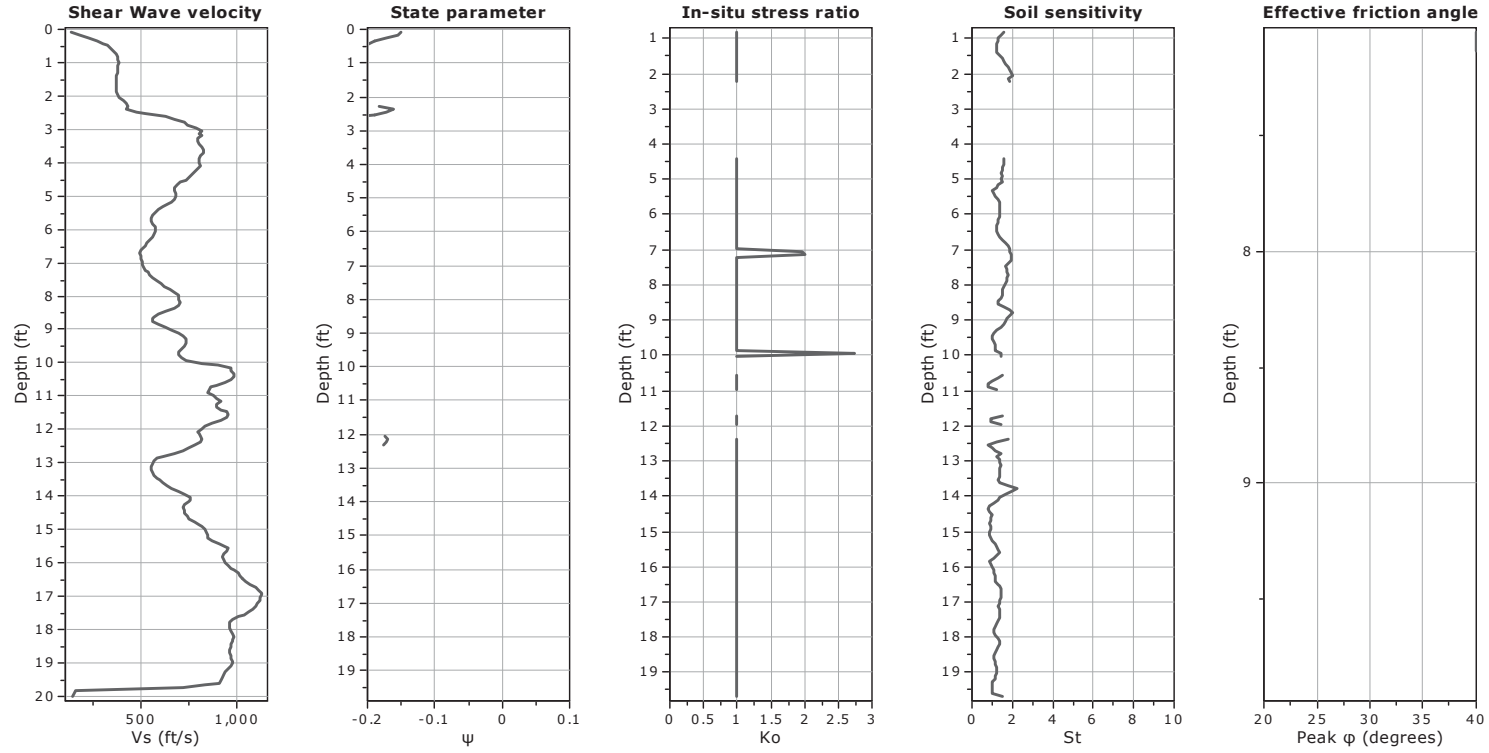
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-087
Total depth: 20.01 ft



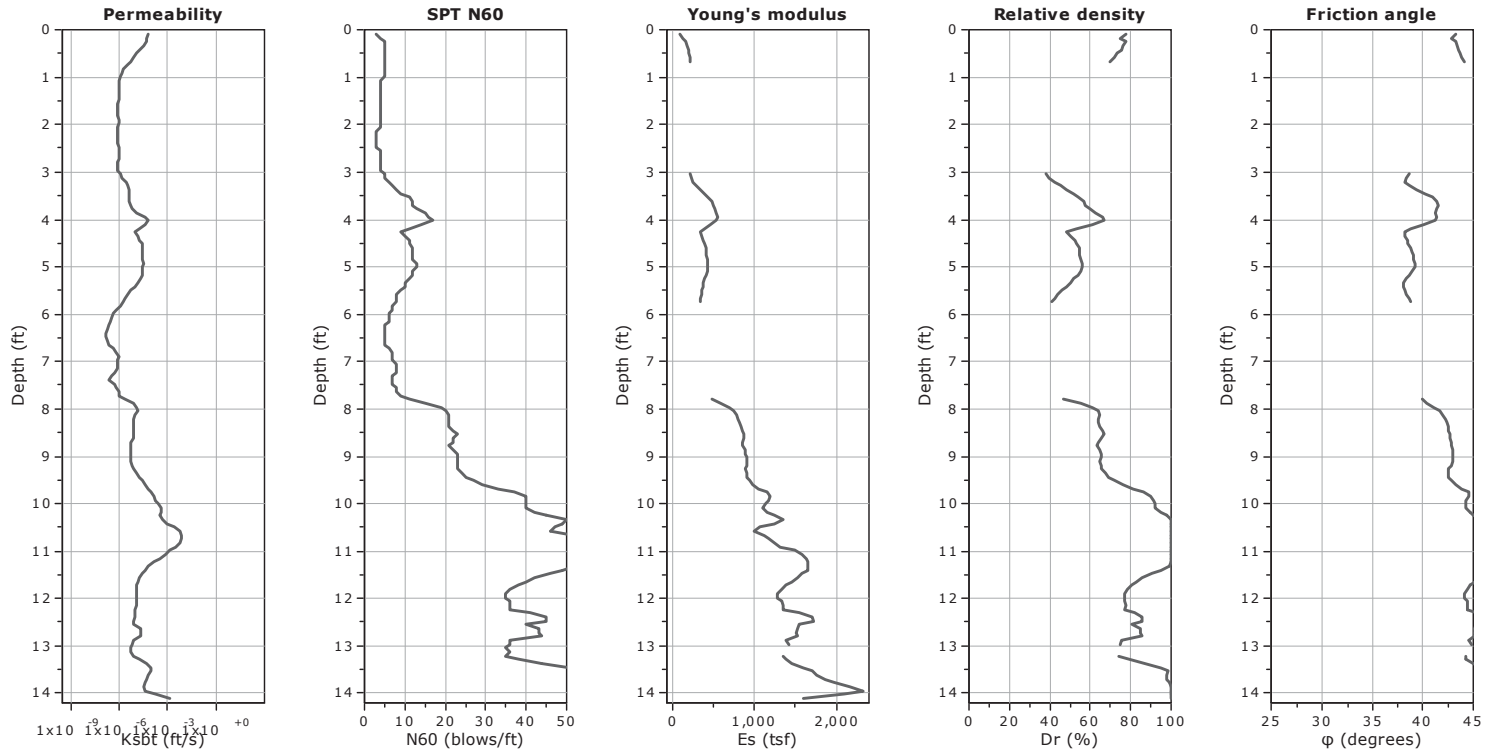
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-088
Total depth: 14.35 ft



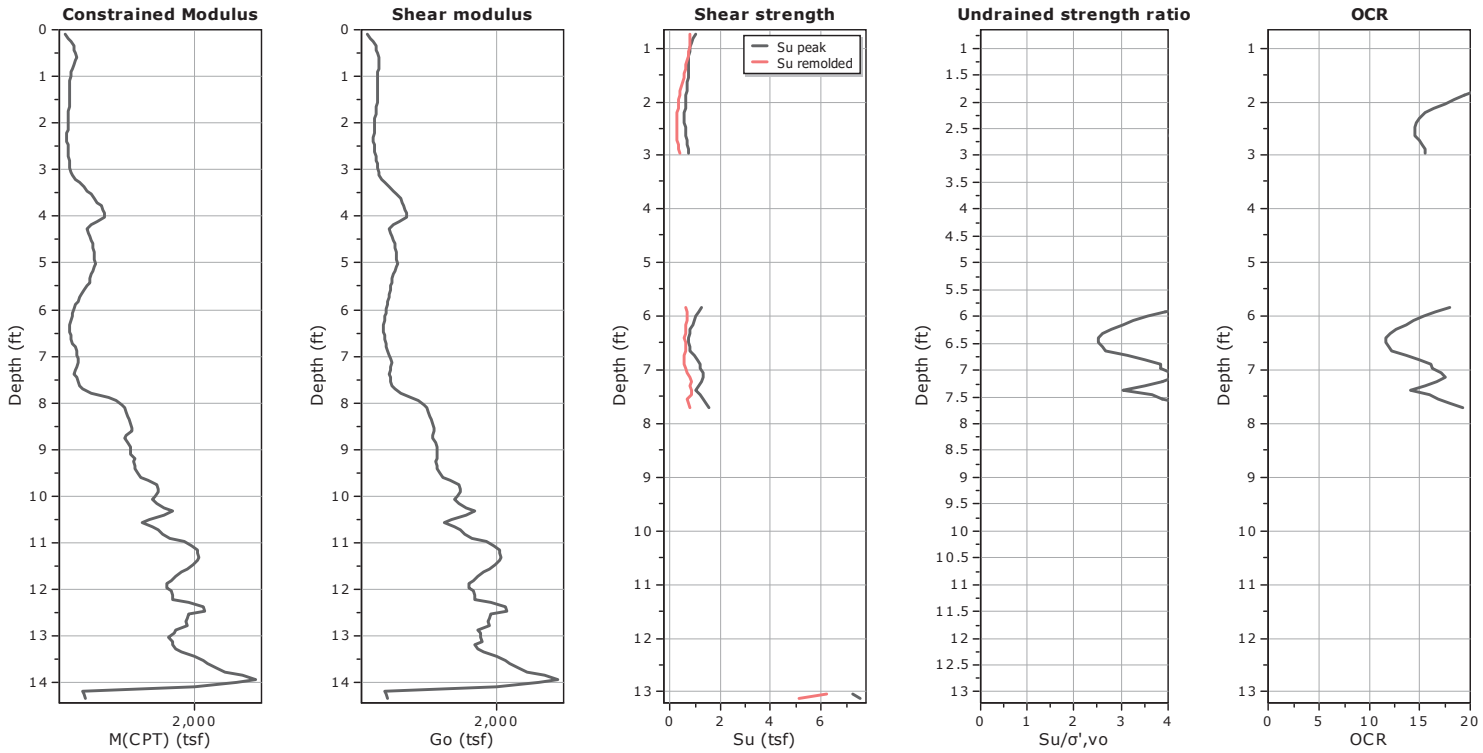
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-088
Total depth: 14.35 ft



Calculation parameters

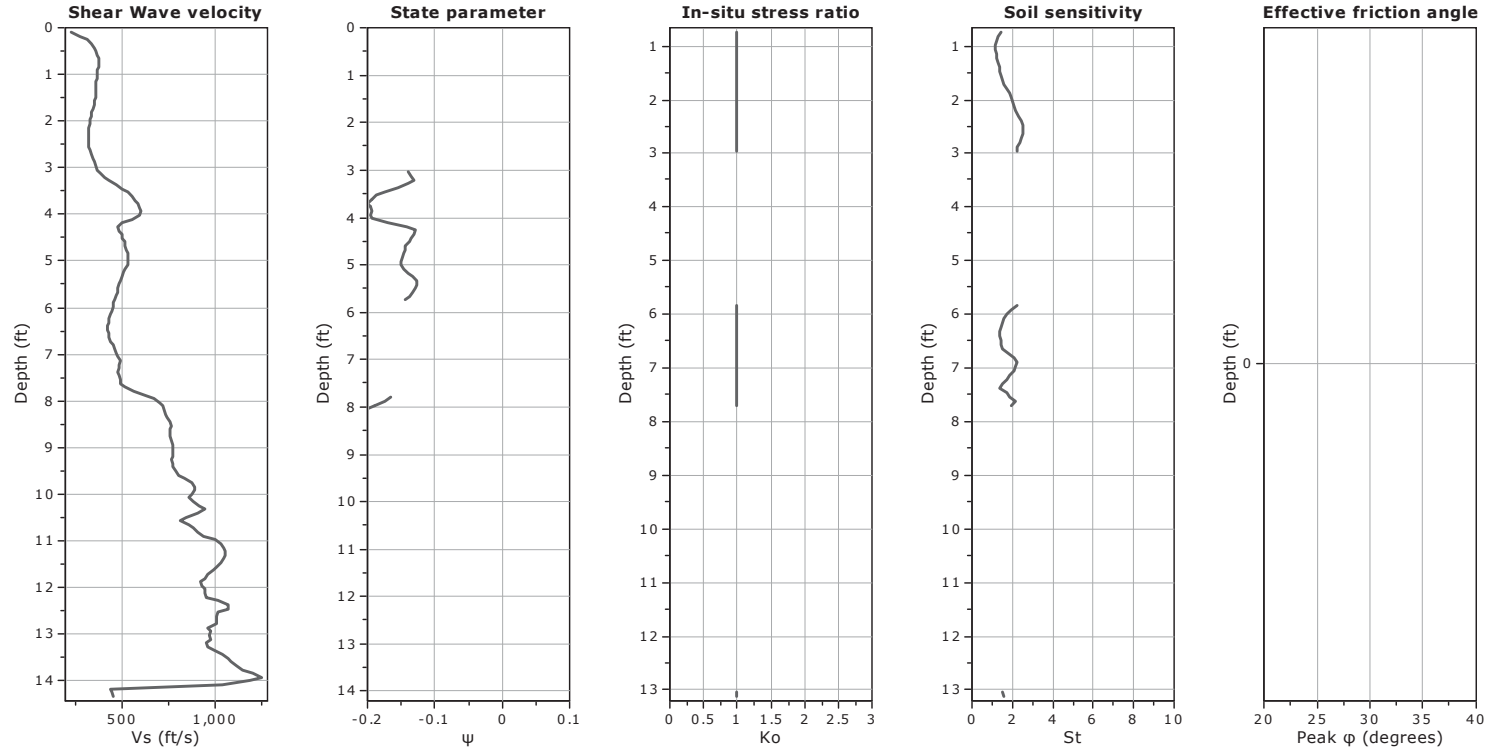
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-088
Total depth: 14.35 ft



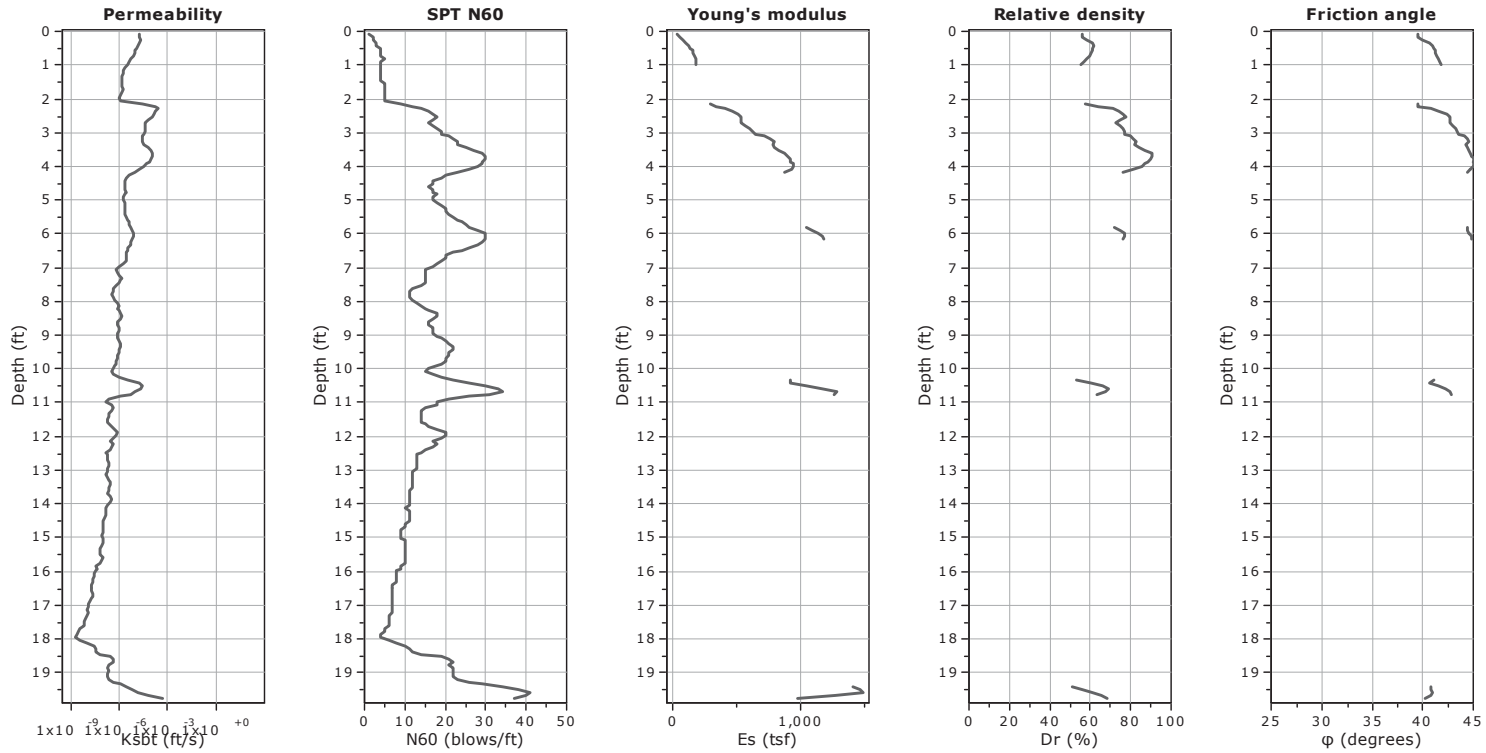
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-089
Total depth: 20.01 ft



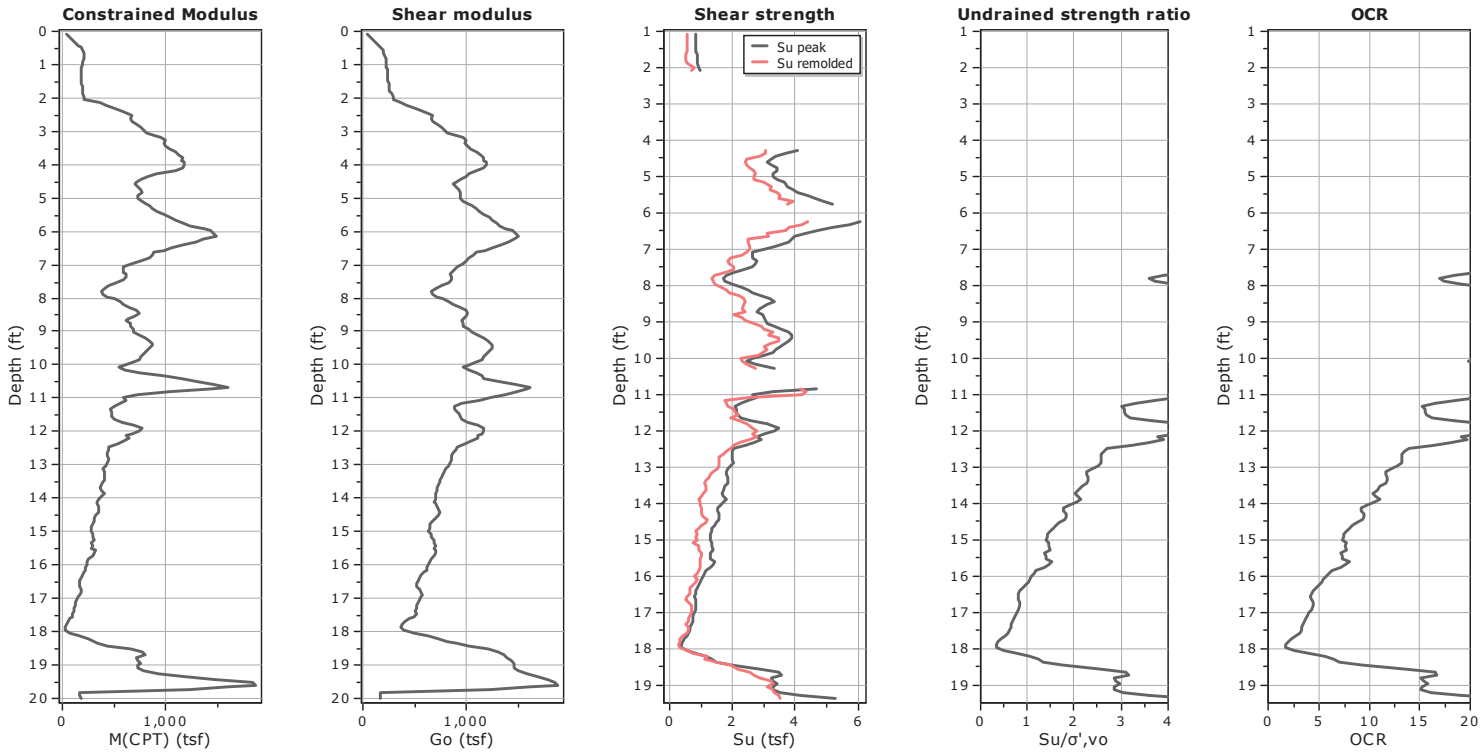
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-089
Total depth: 20.01 ft



Calculation parameters

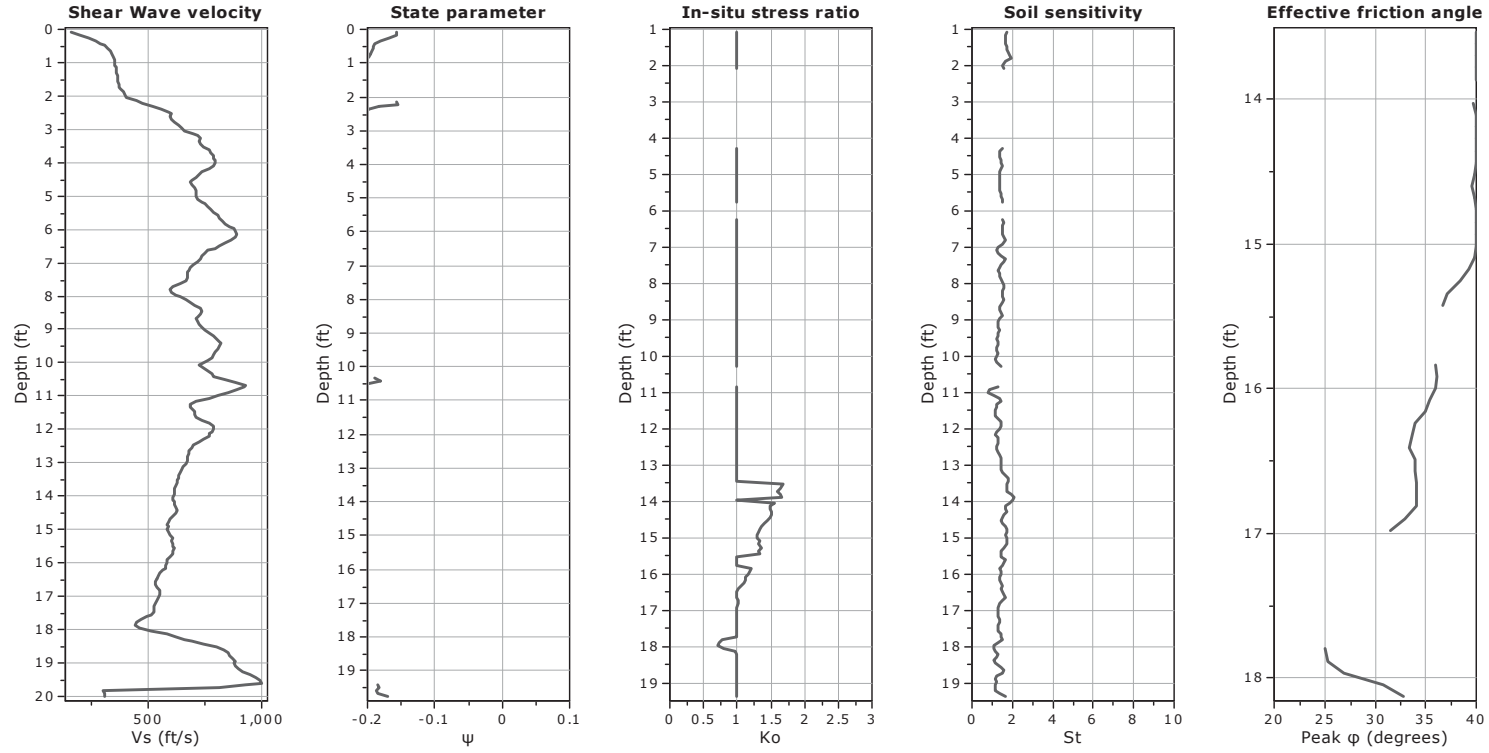
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-089
Total depth: 20.01 ft



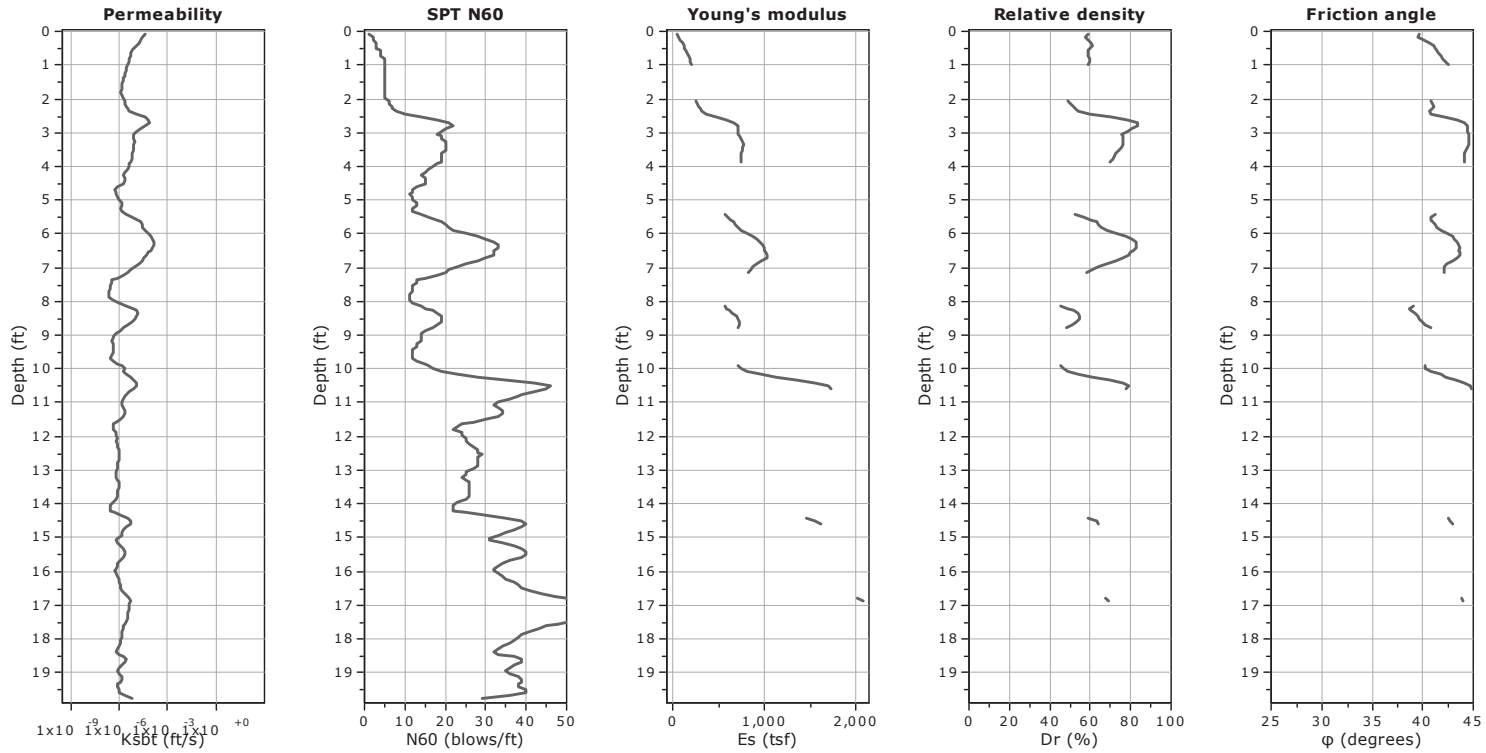
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-090
Total depth: 20.01 ft



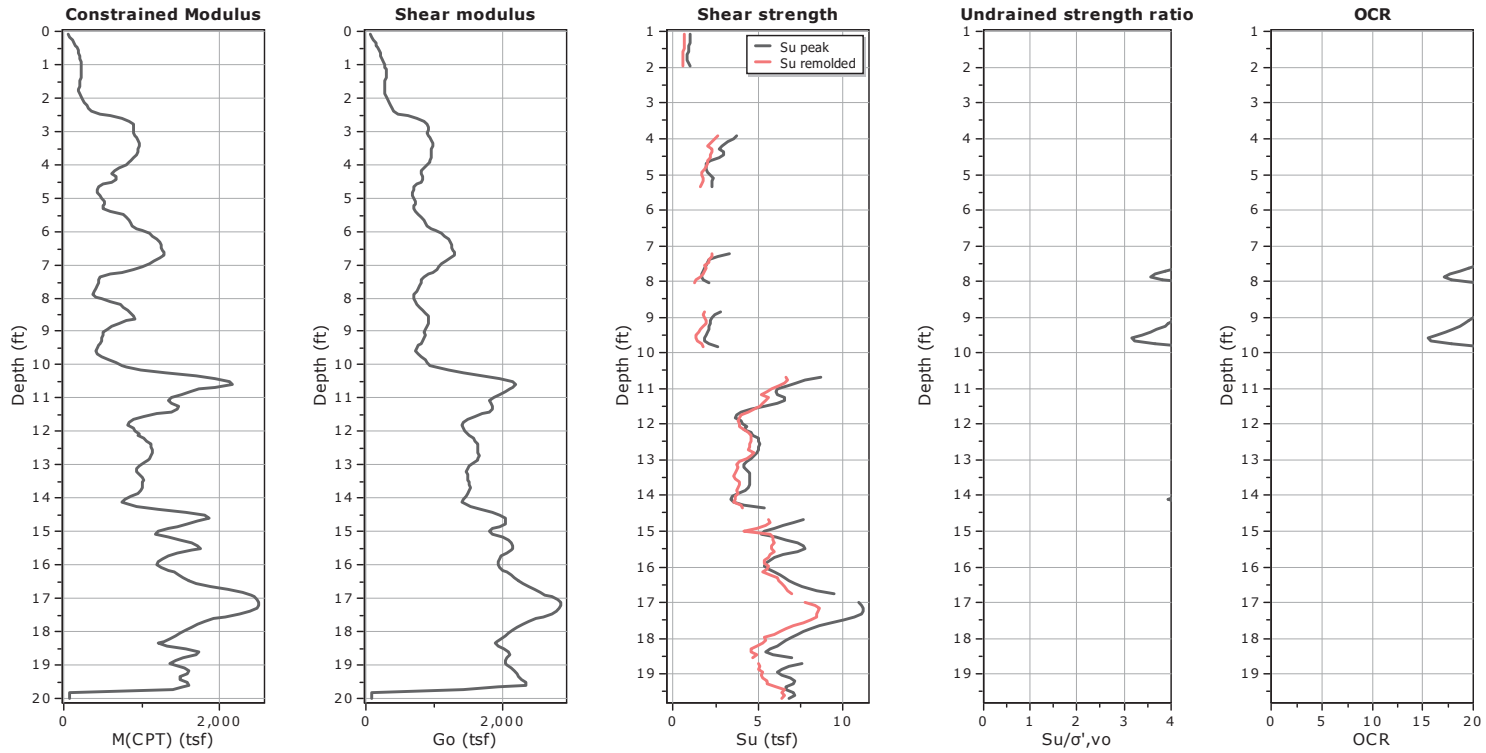
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-090
Total depth: 20.01 ft



Calculation parameters

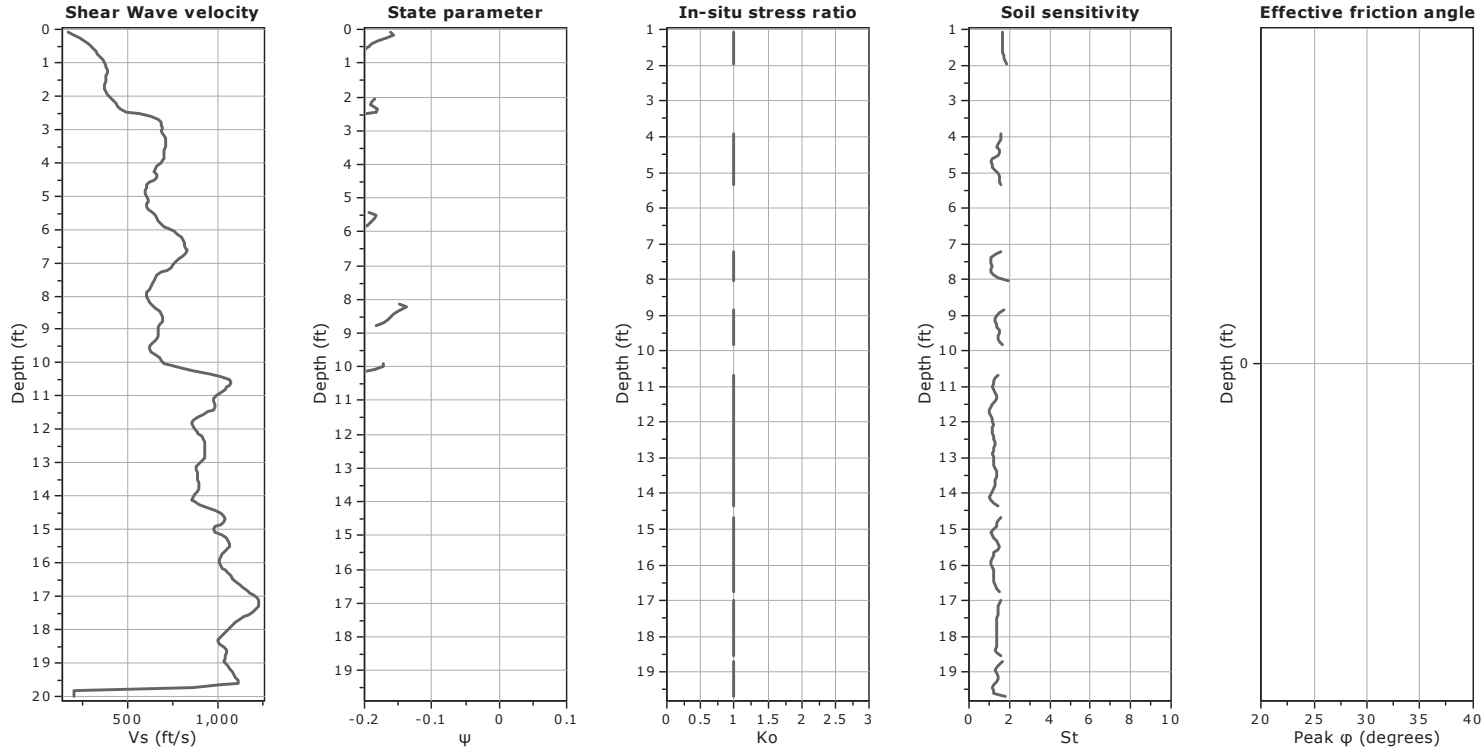
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-090
Total depth: 20.01 ft



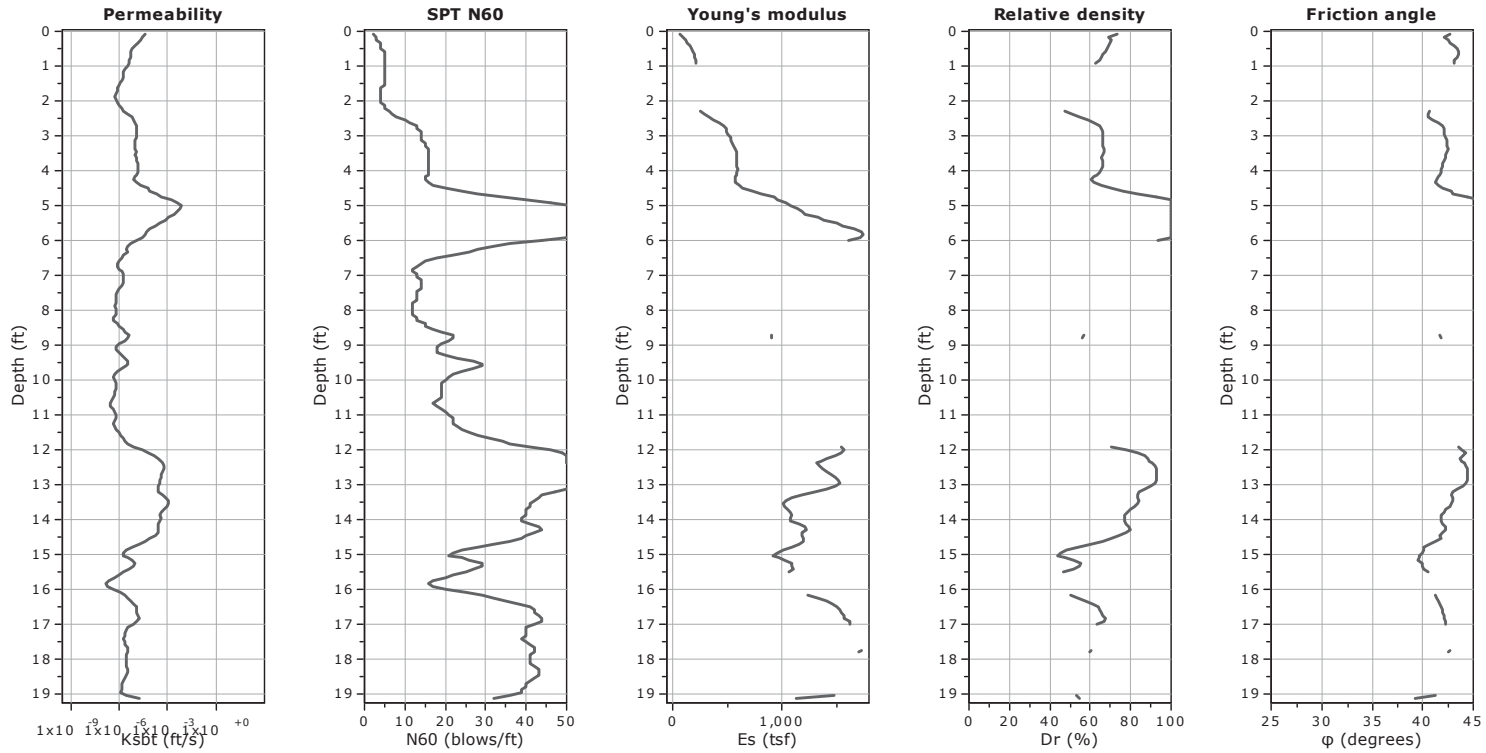
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-091
Total depth: 19.36 ft



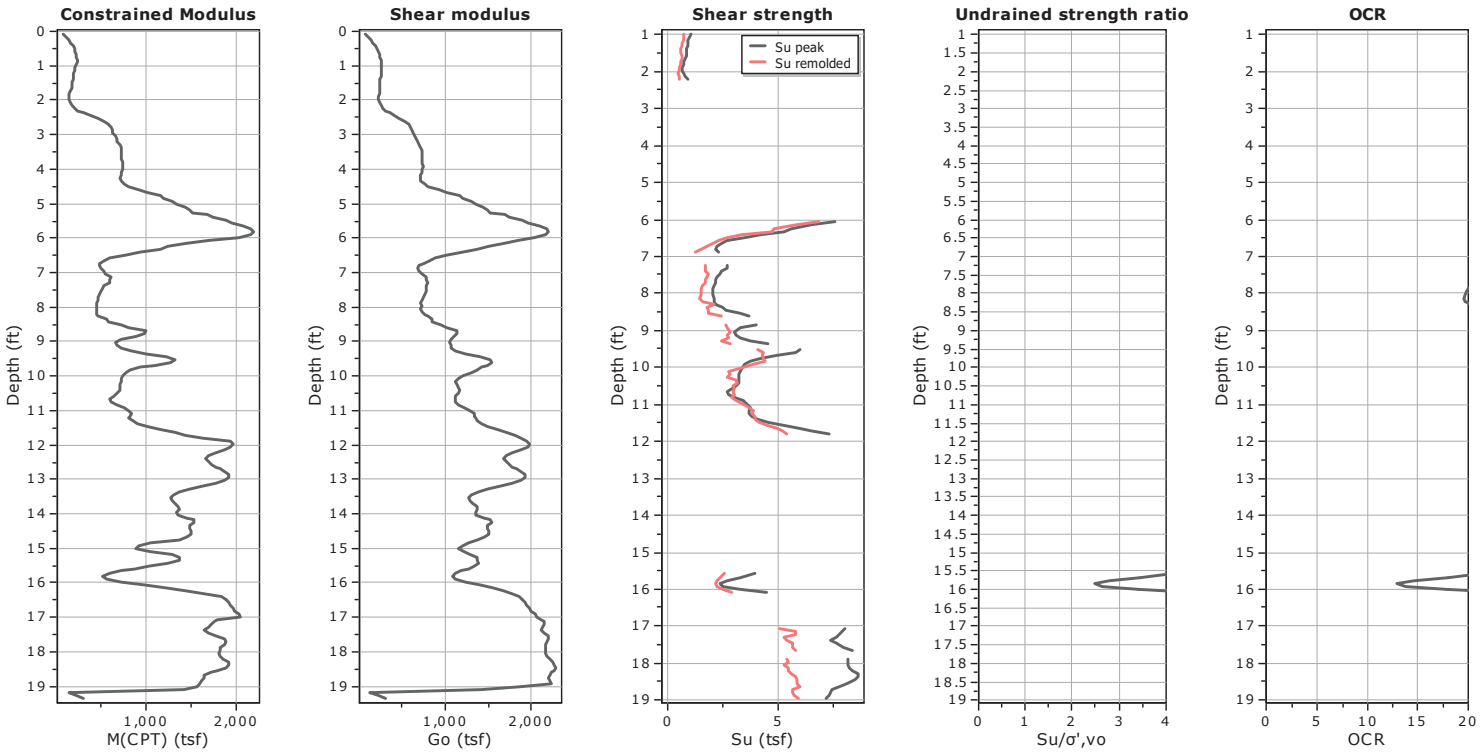
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-091
Total depth: 19.36 ft



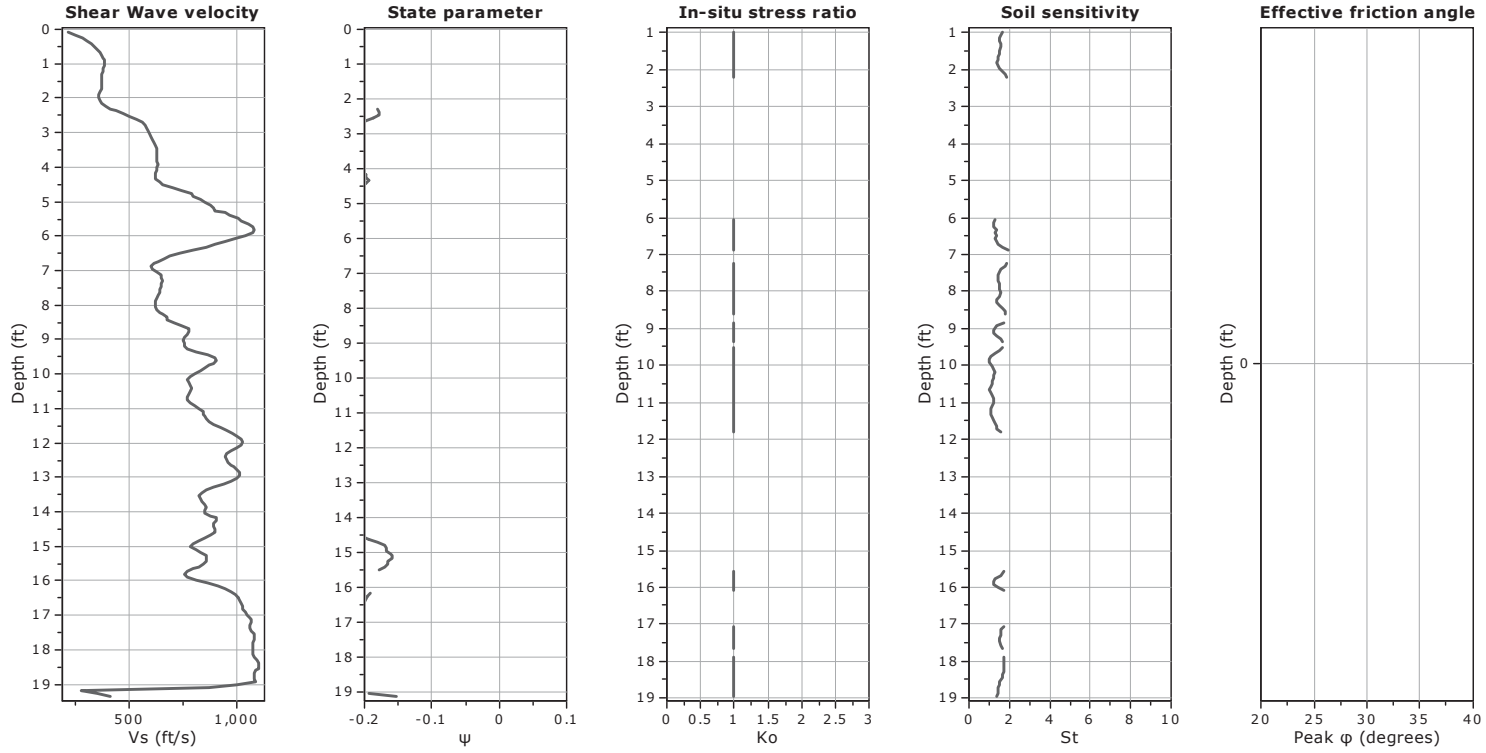
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-091
Total depth: 19.36 ft



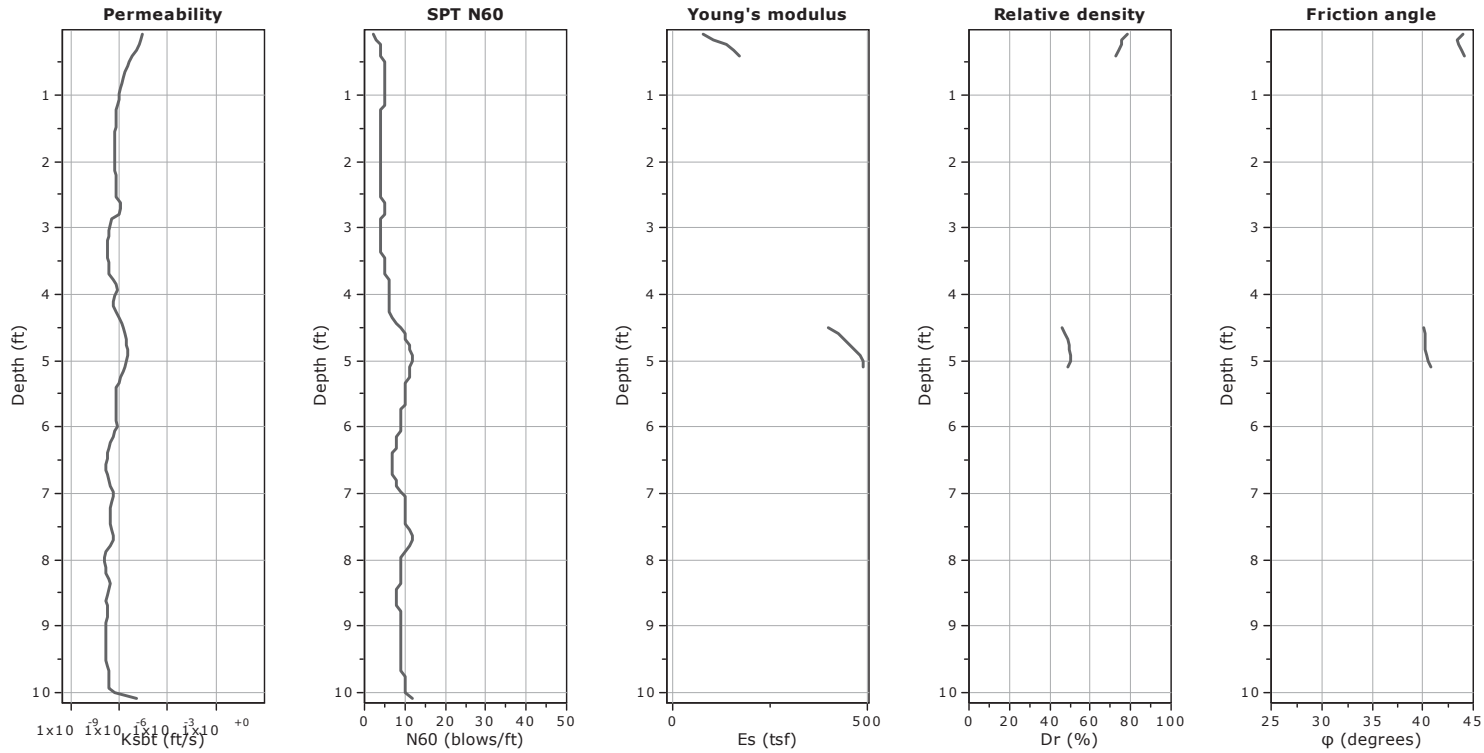
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-092
Total depth: 10.33 ft



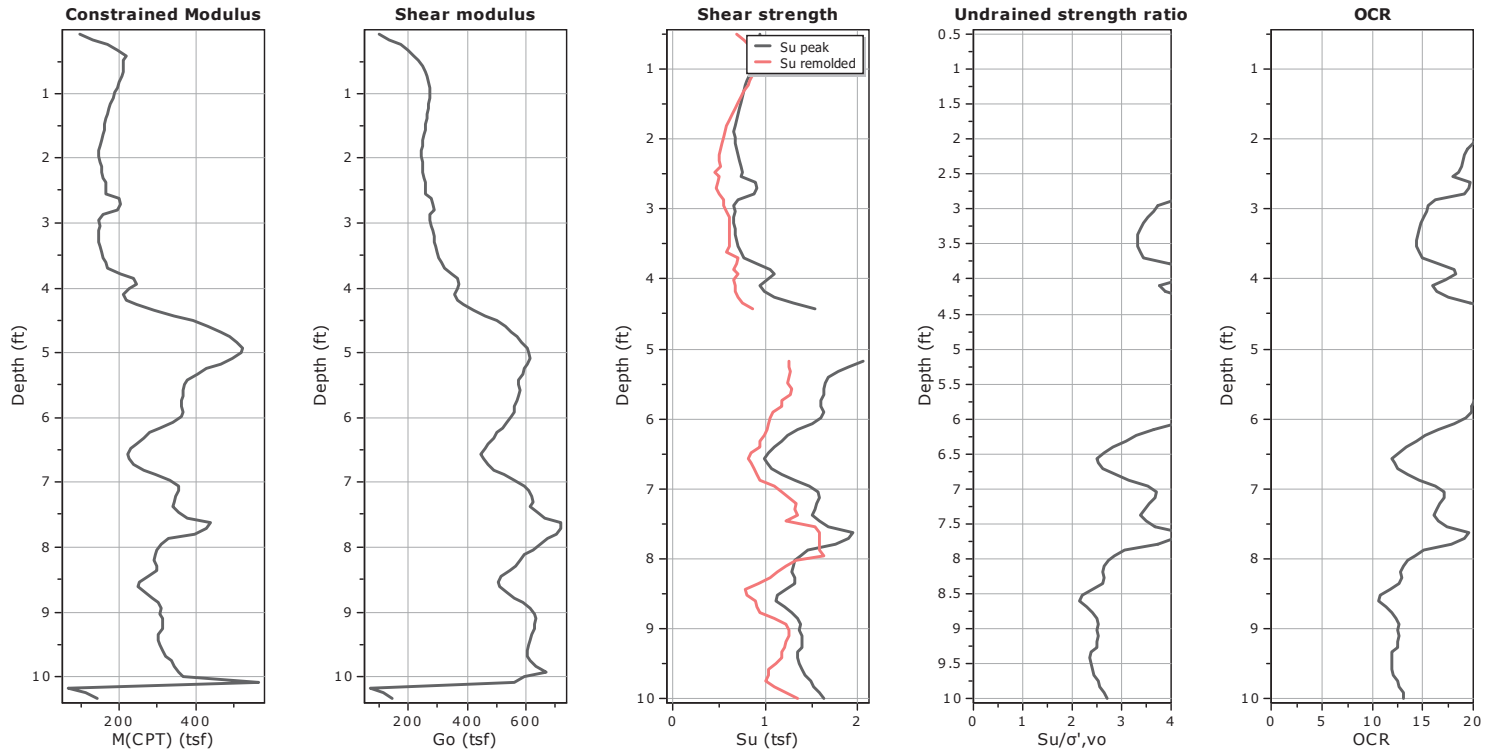
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-092
Total depth: 10.33 ft



Calculation parameters

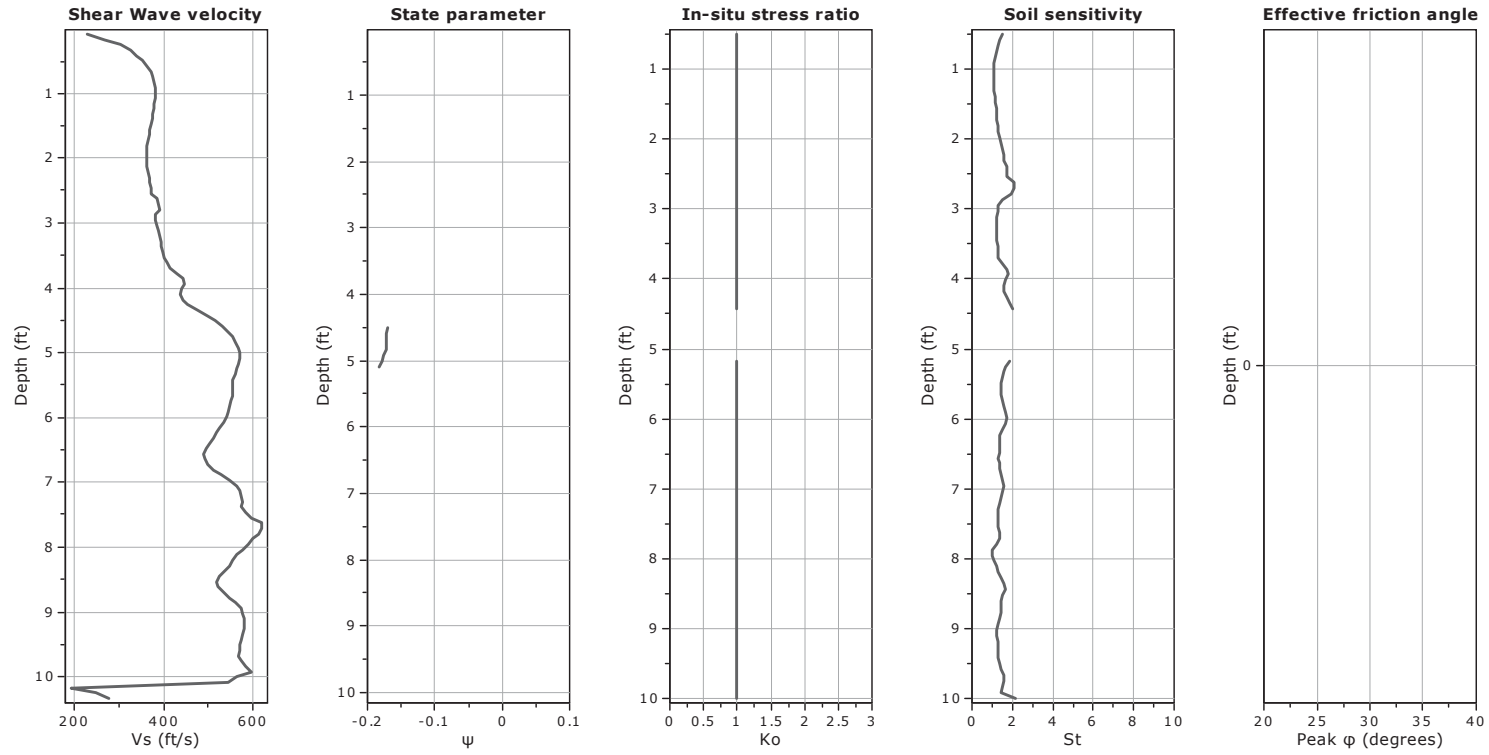
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-092
Total depth: 10.33 ft



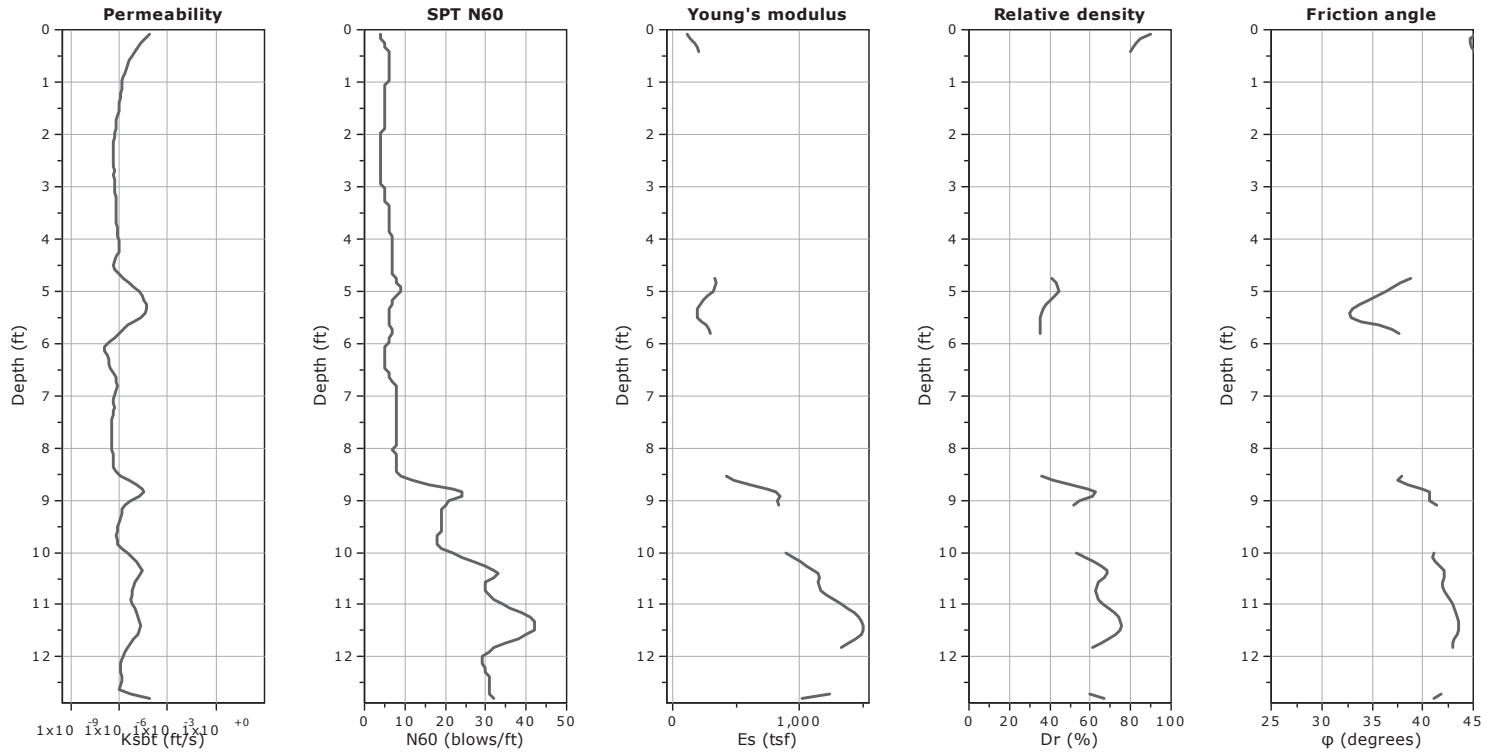
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-093
Total depth: 13.04 ft



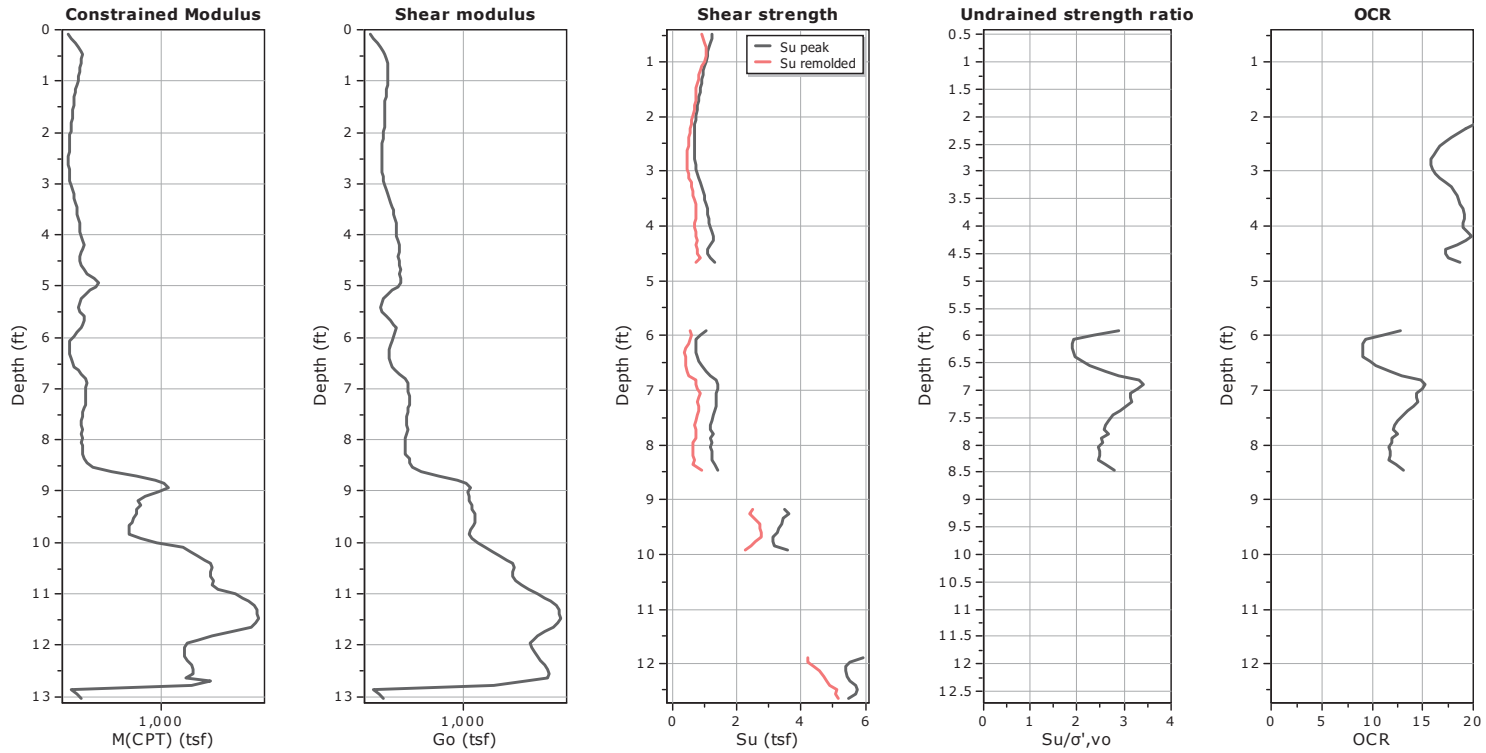
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-093
Total depth: 13.04 ft



Calculation parameters

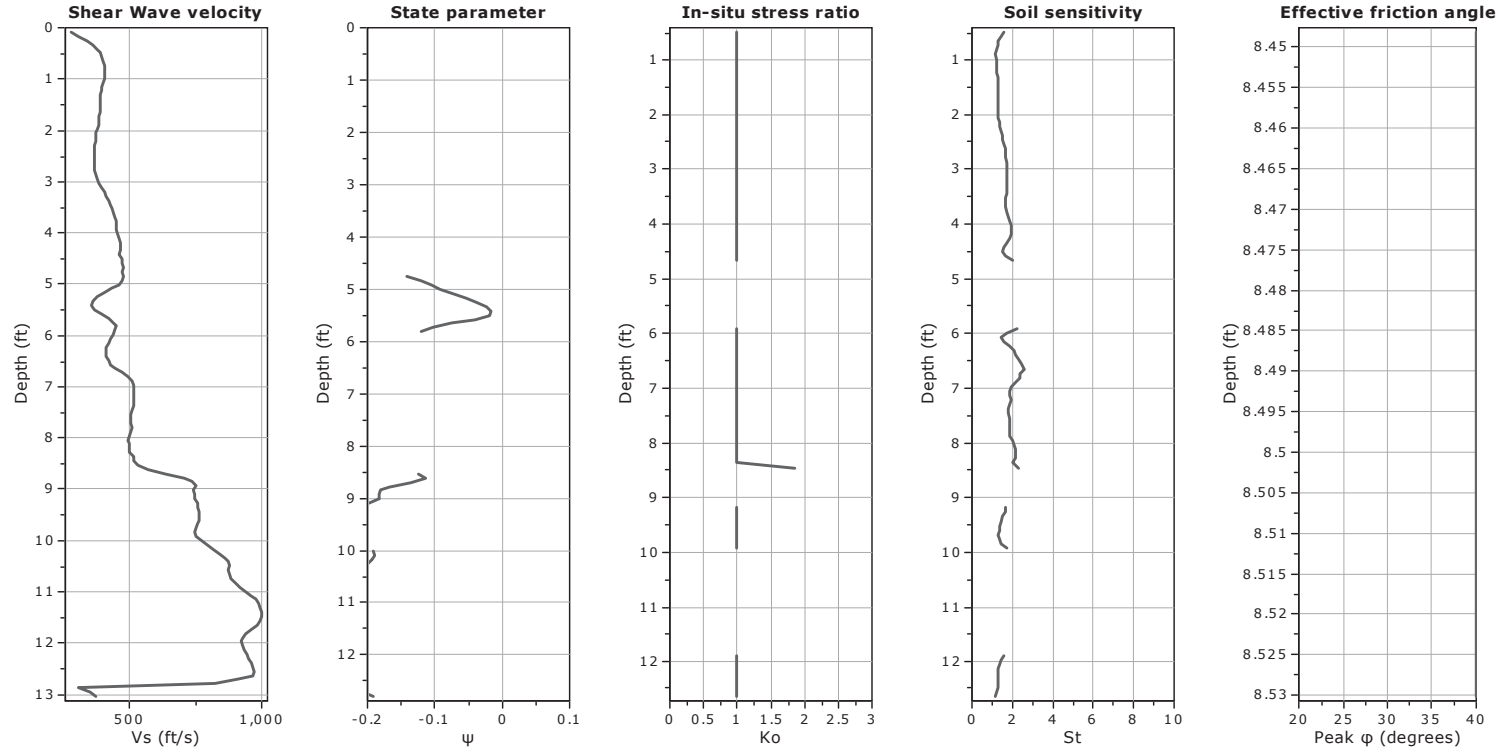
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-093
Total depth: 13.04 ft



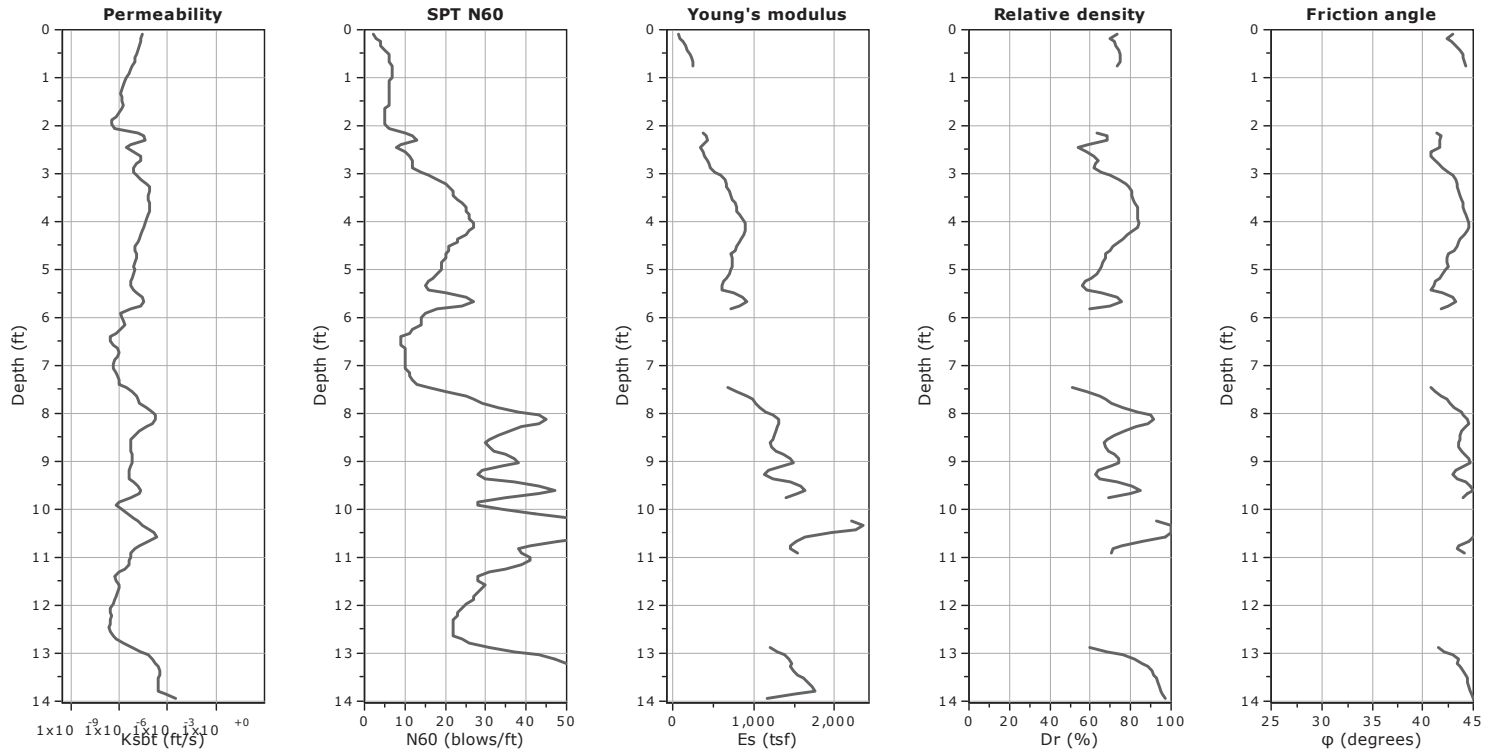
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-094
Total depth: 14.19 ft



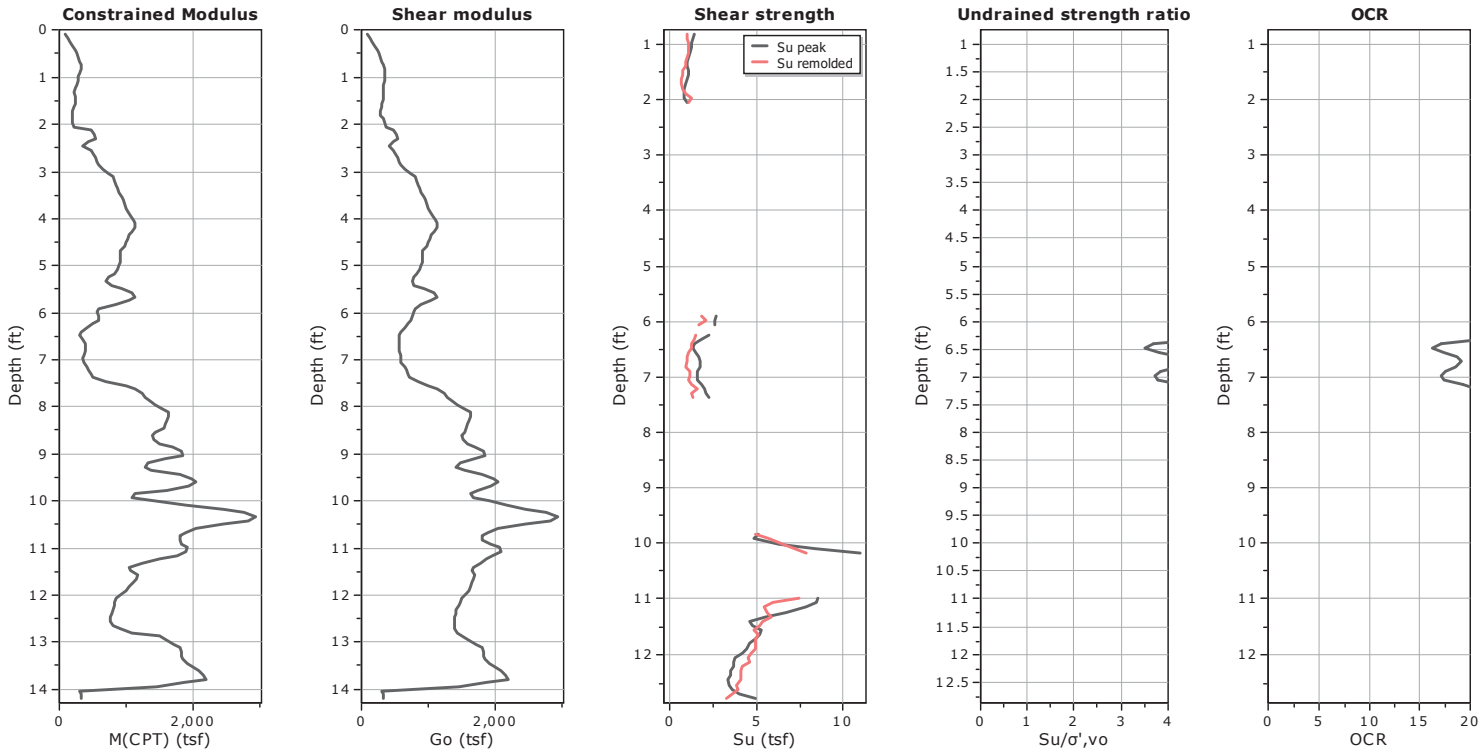
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-094
Total depth: 14.19 ft



Calculation parameters

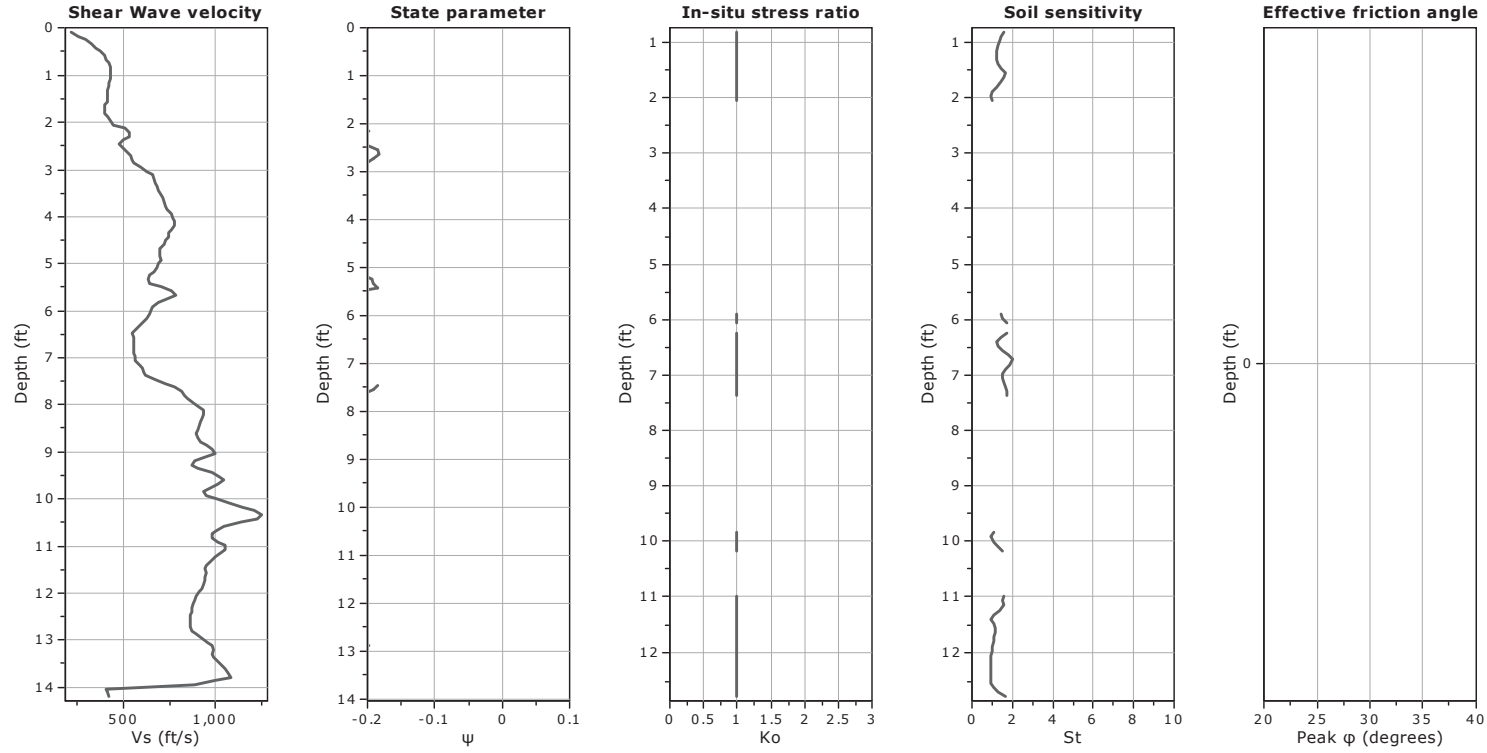
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-094
Total depth: 14.19 ft



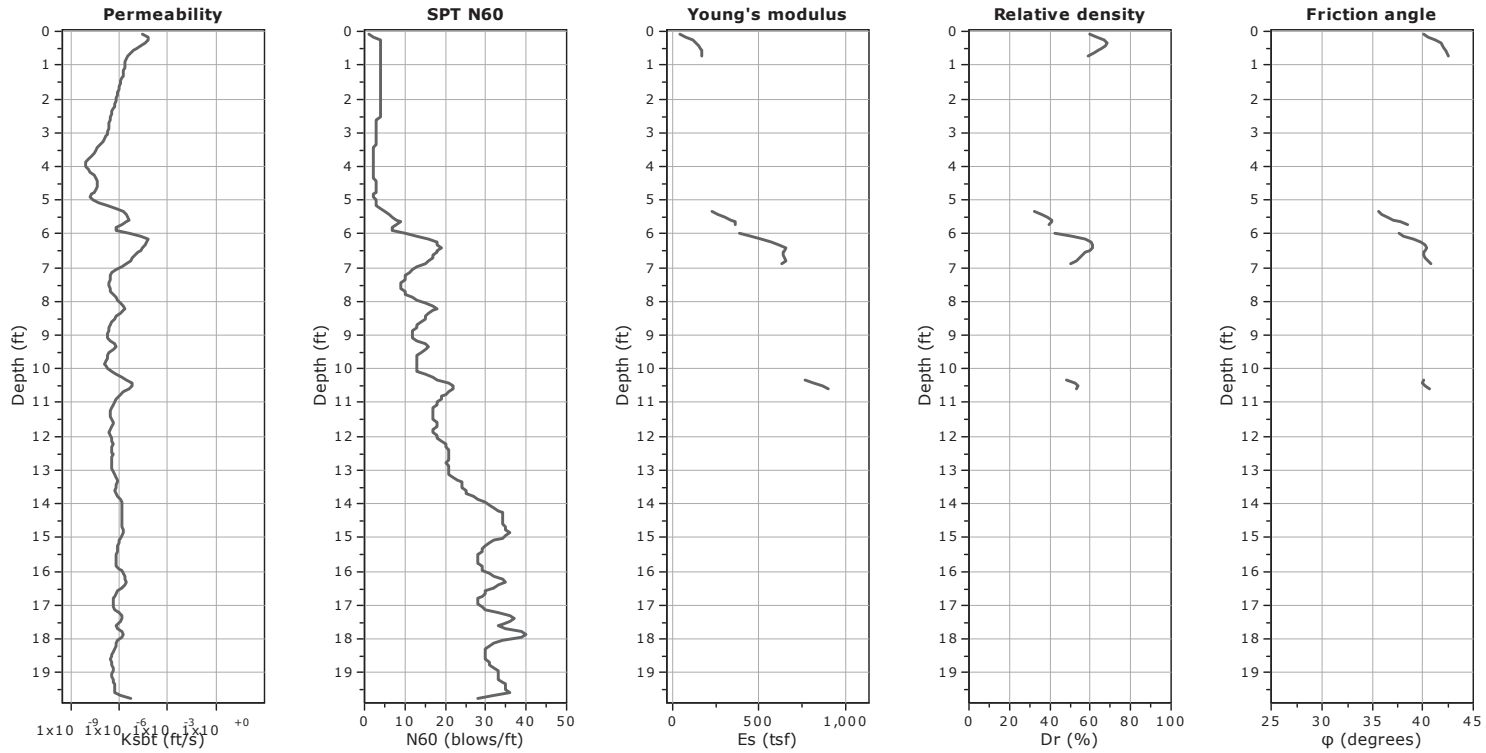
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-095
Total depth: 20.01 ft



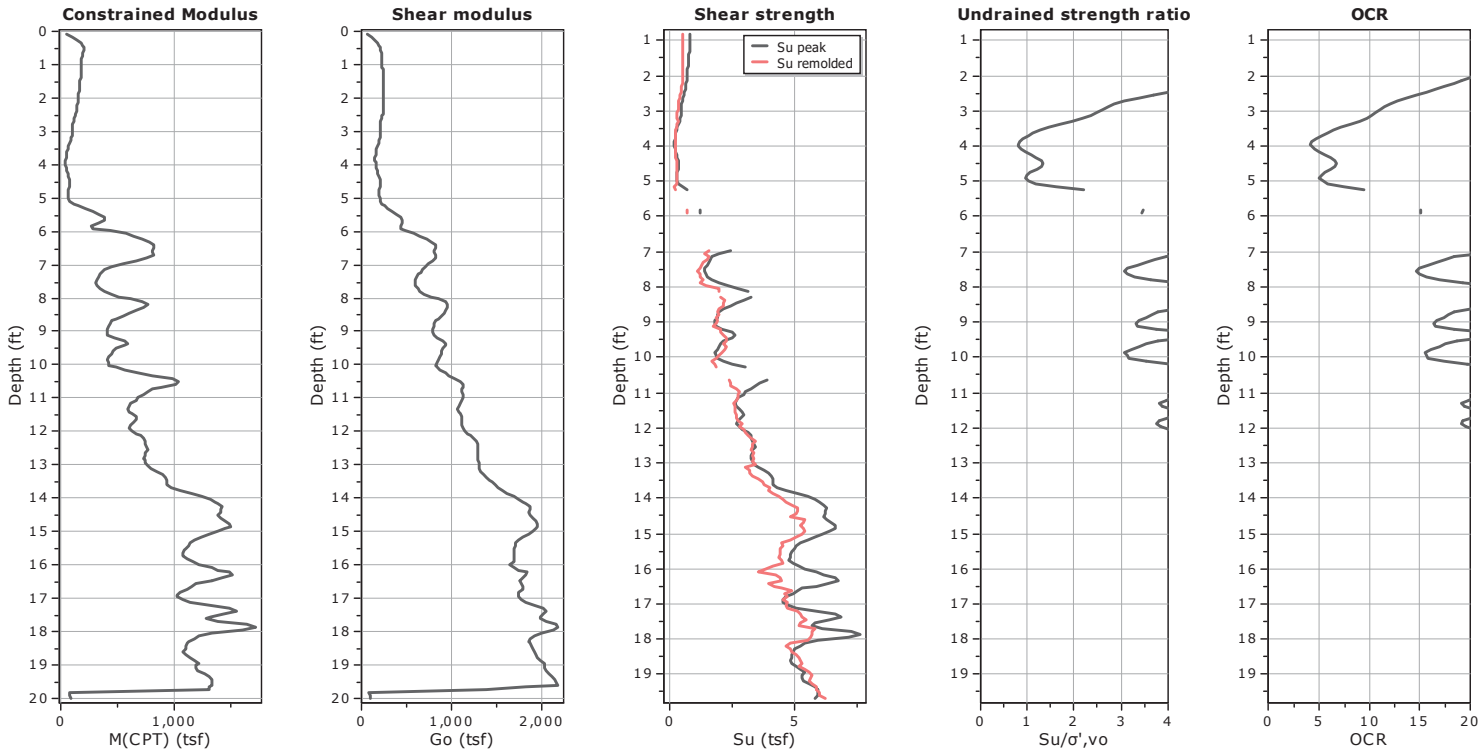
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-095
Total depth: 20.01 ft



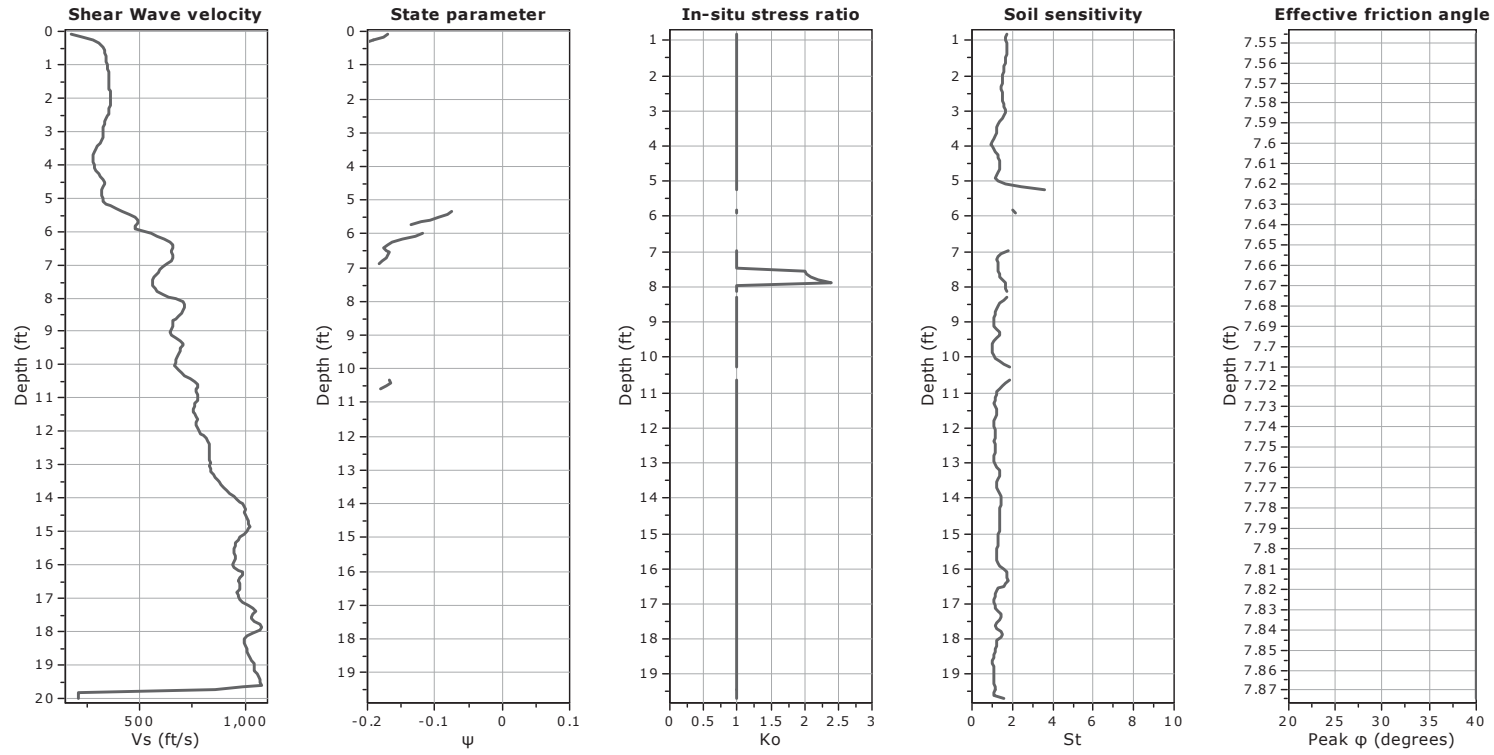
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-095
Total depth: 20.01 ft



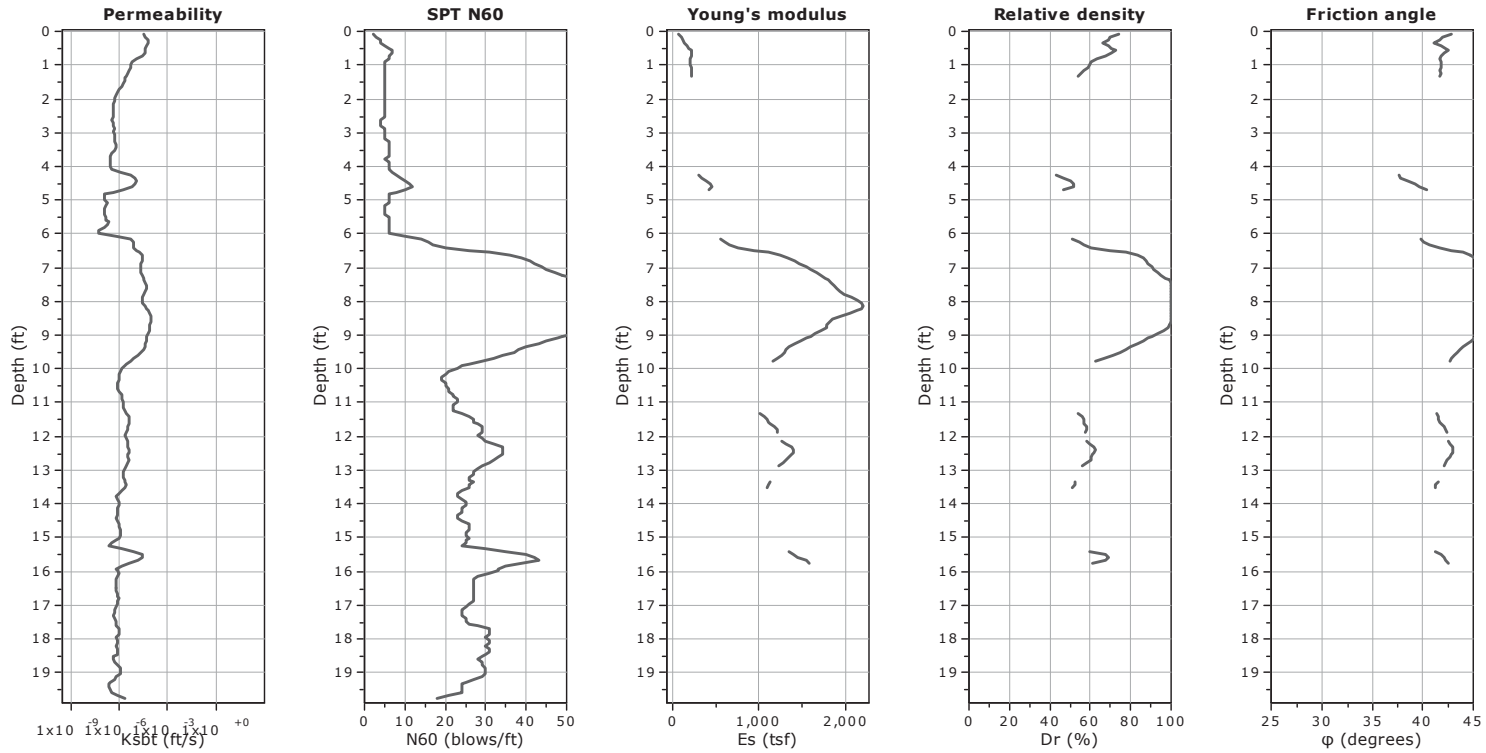
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-096
Total depth: 20.01 ft



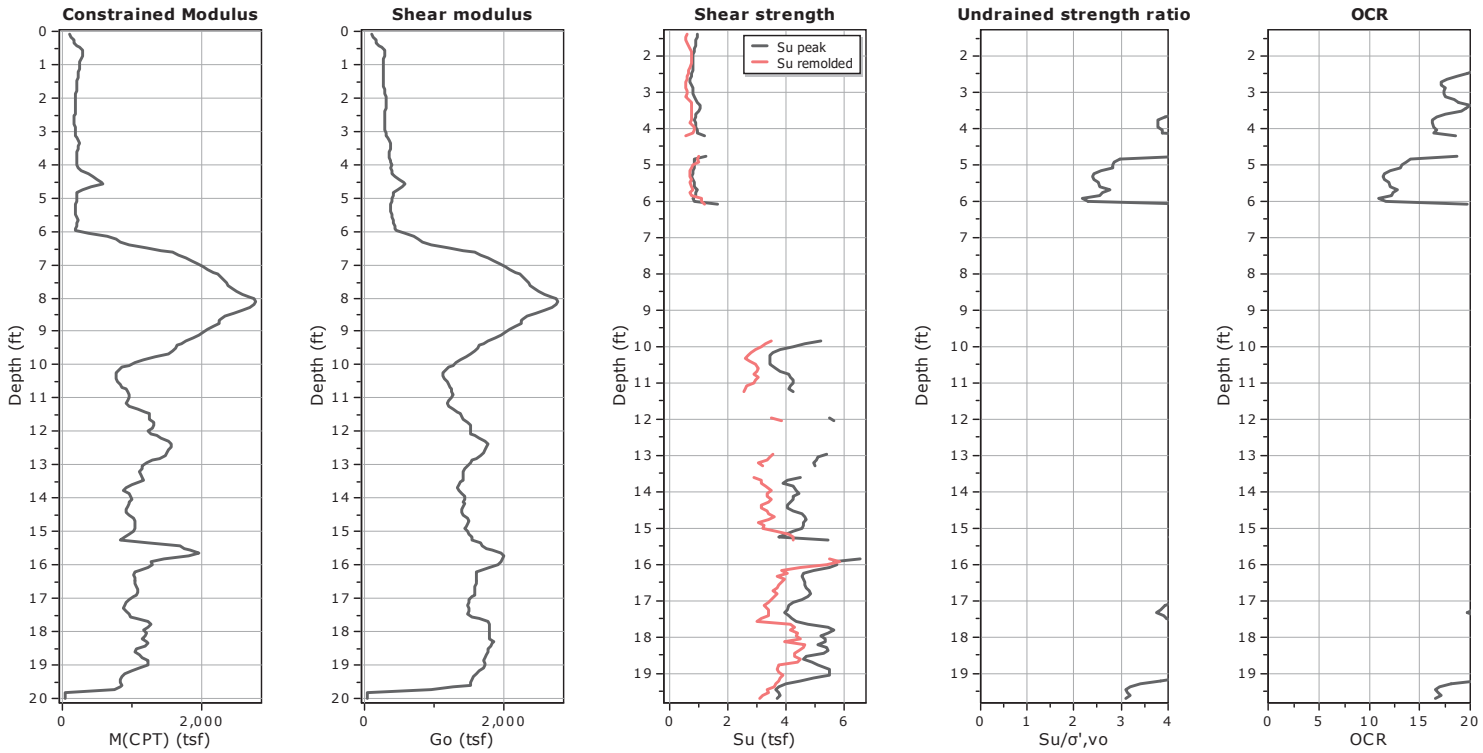
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-096
Total depth: 20.01 ft



Calculation parameters

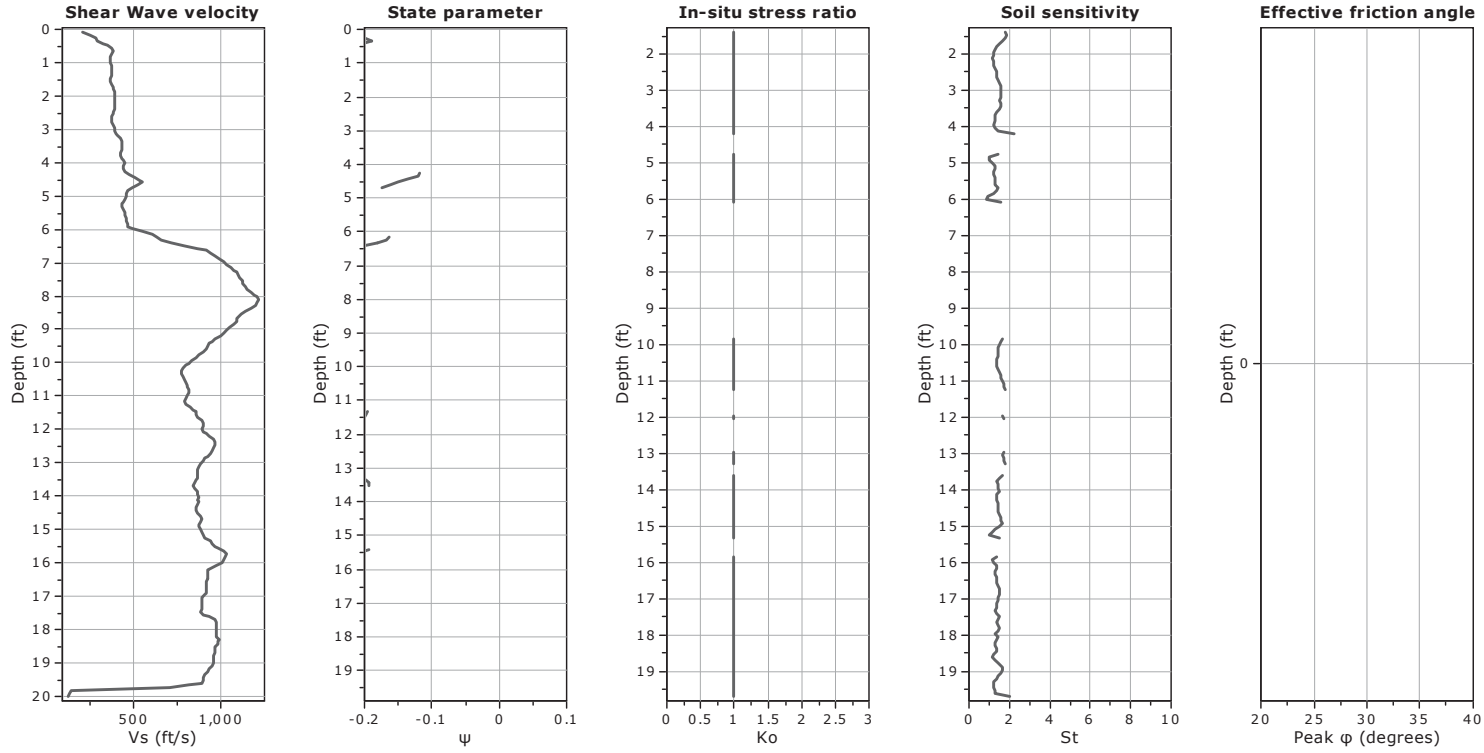
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-096
Total depth: 20.01 ft



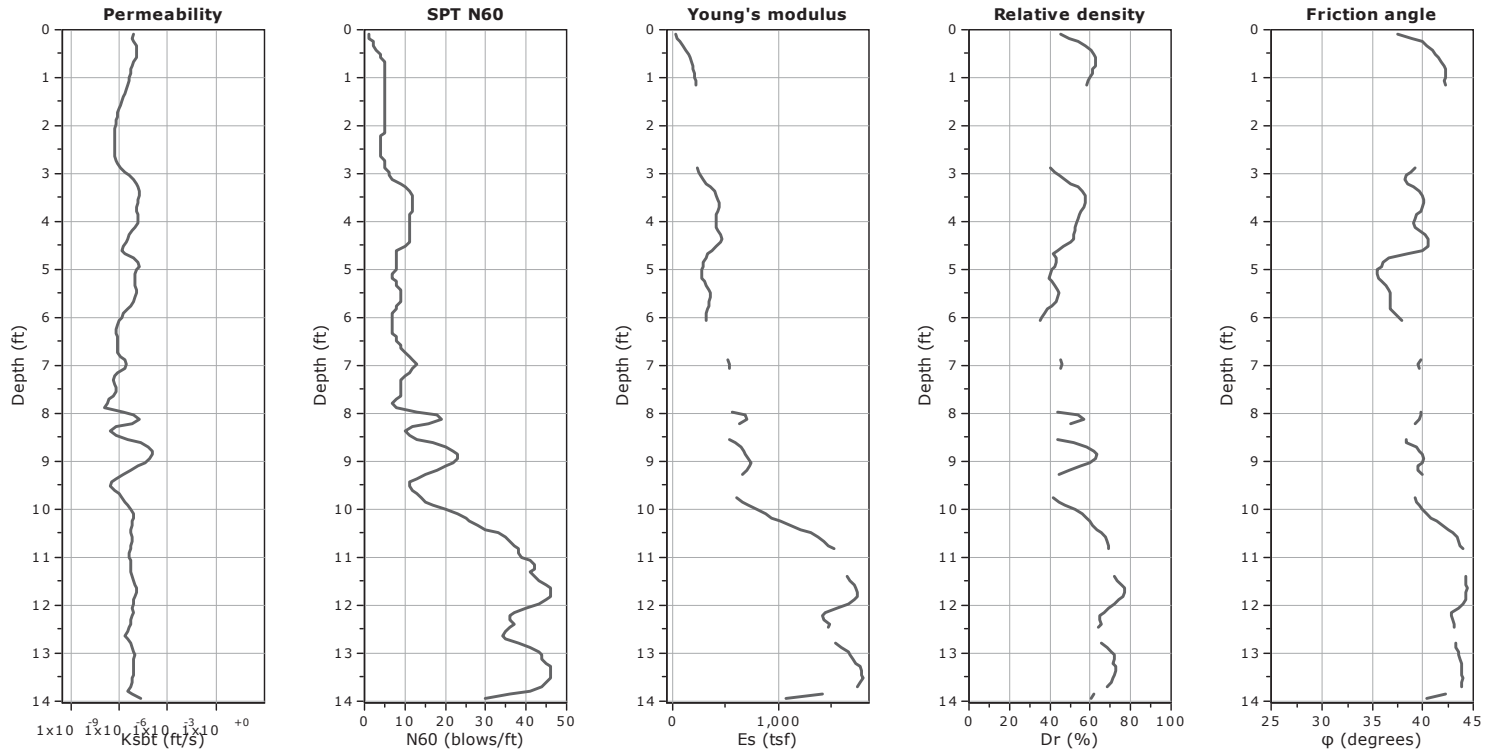
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-097
Total depth: 14.19 ft



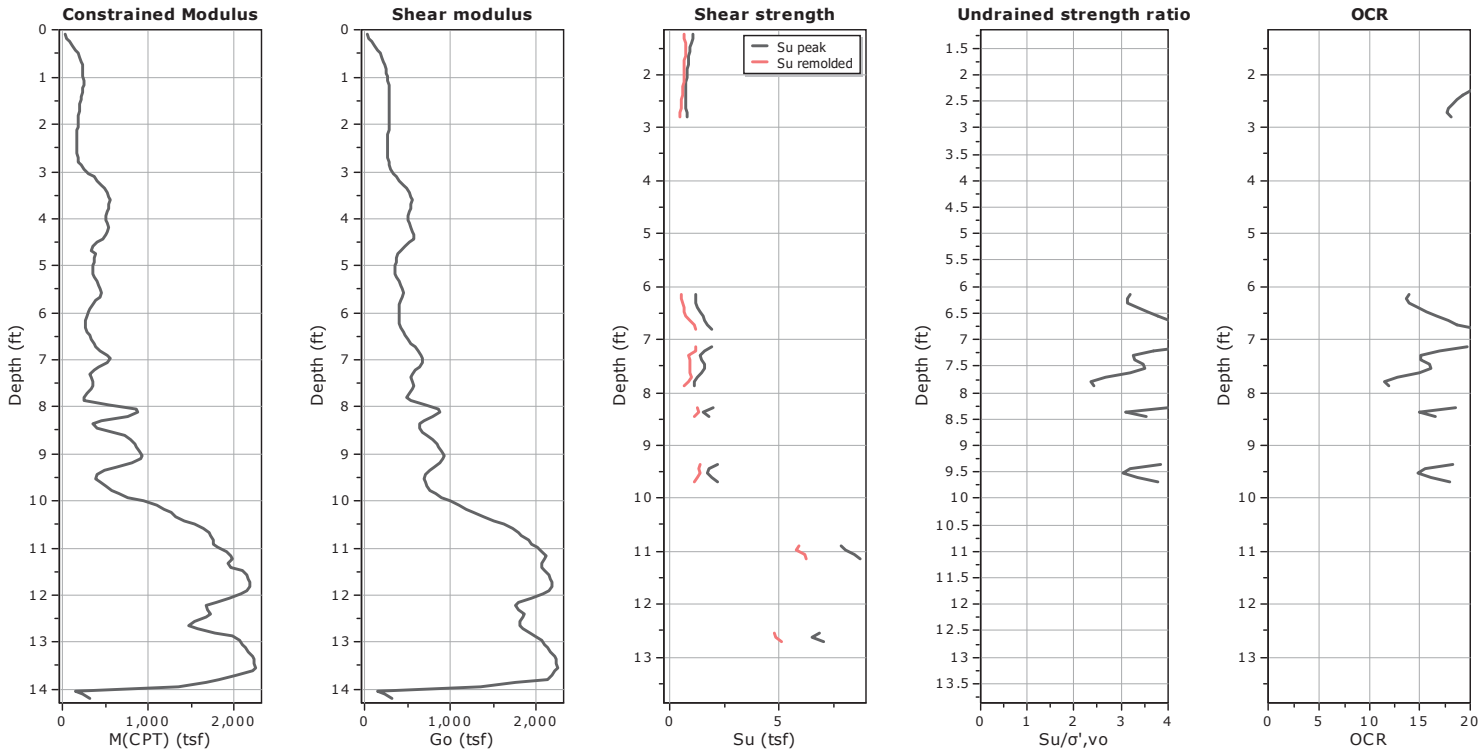
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-097
Total depth: 14.19 ft



Calculation parameters

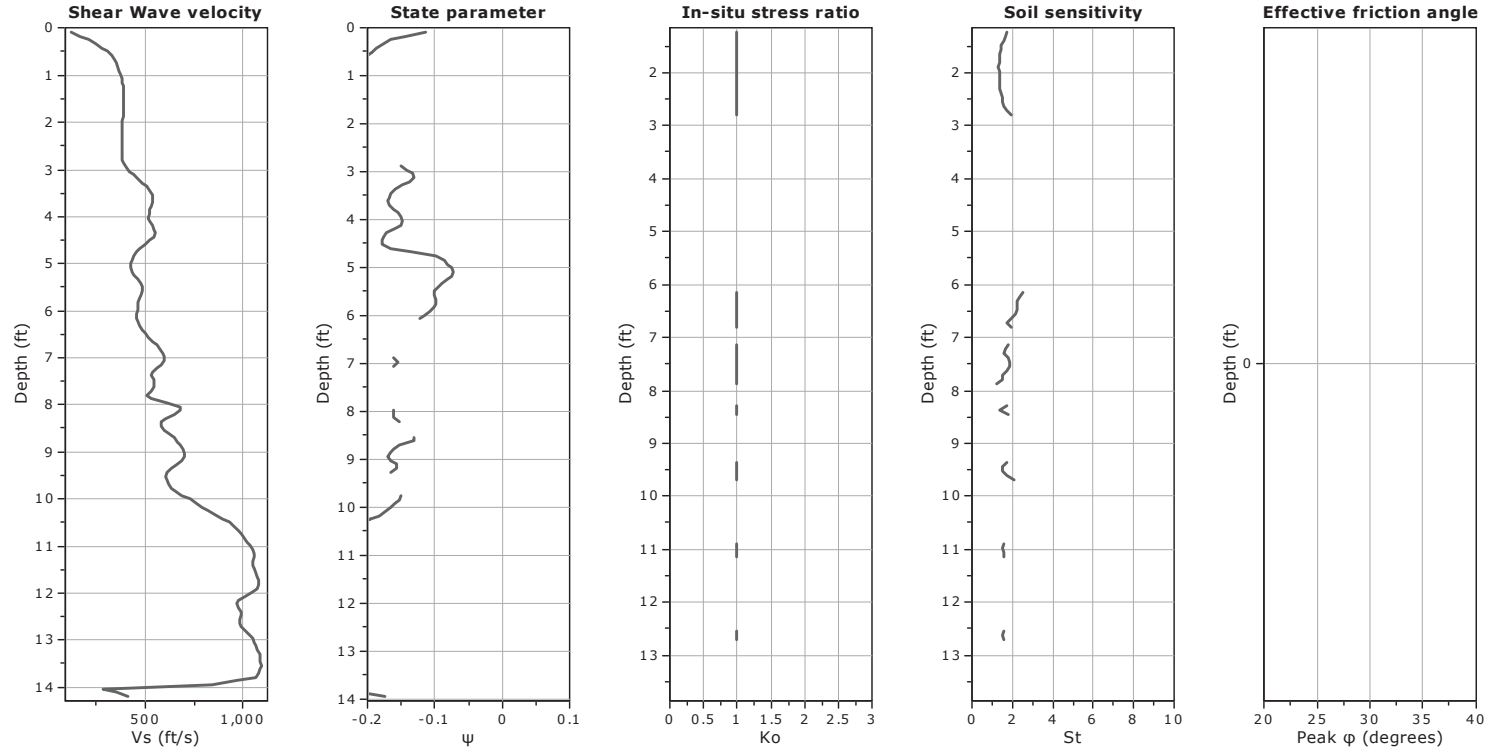
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-097
Total depth: 14.19 ft



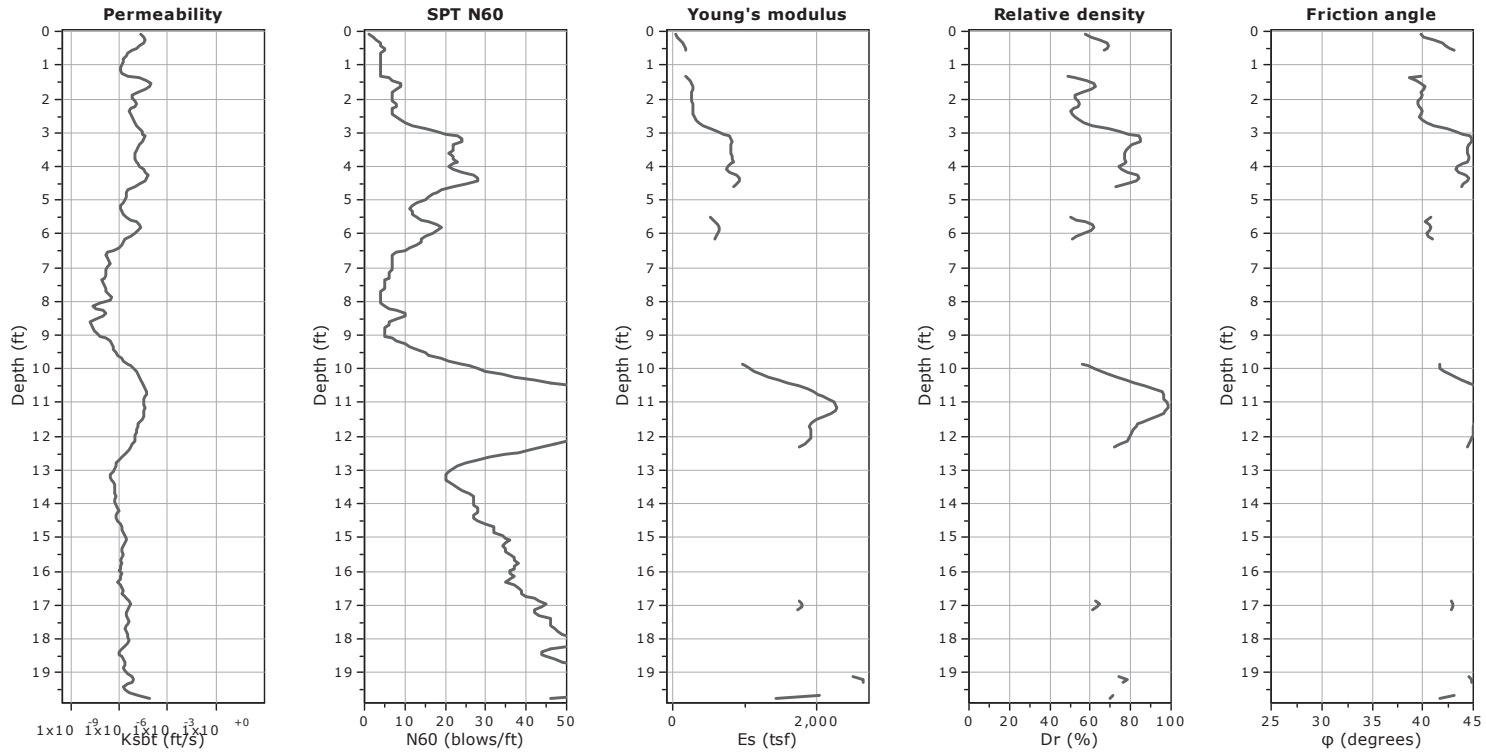
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-098
Total depth: 20.01 ft



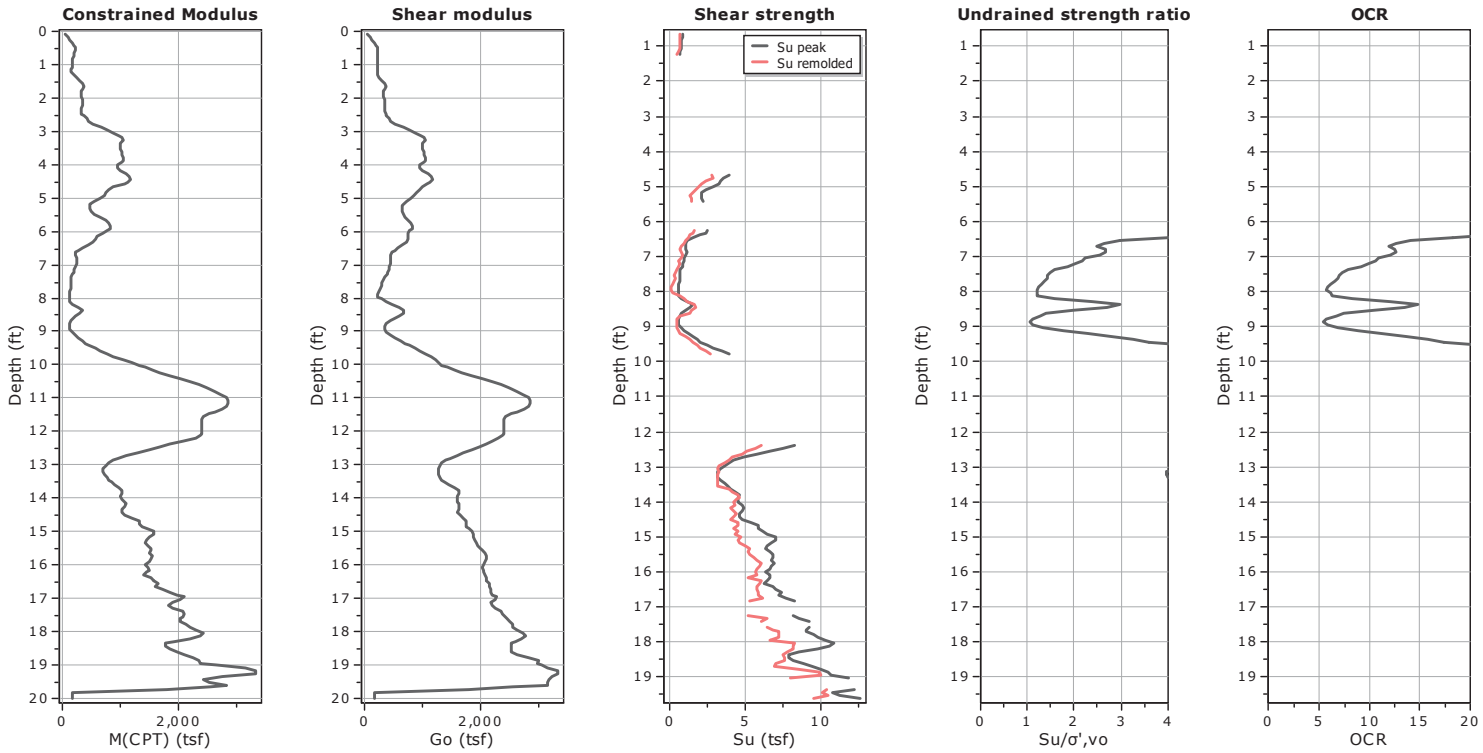
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-098
Total depth: 20.01 ft



Calculation parameters

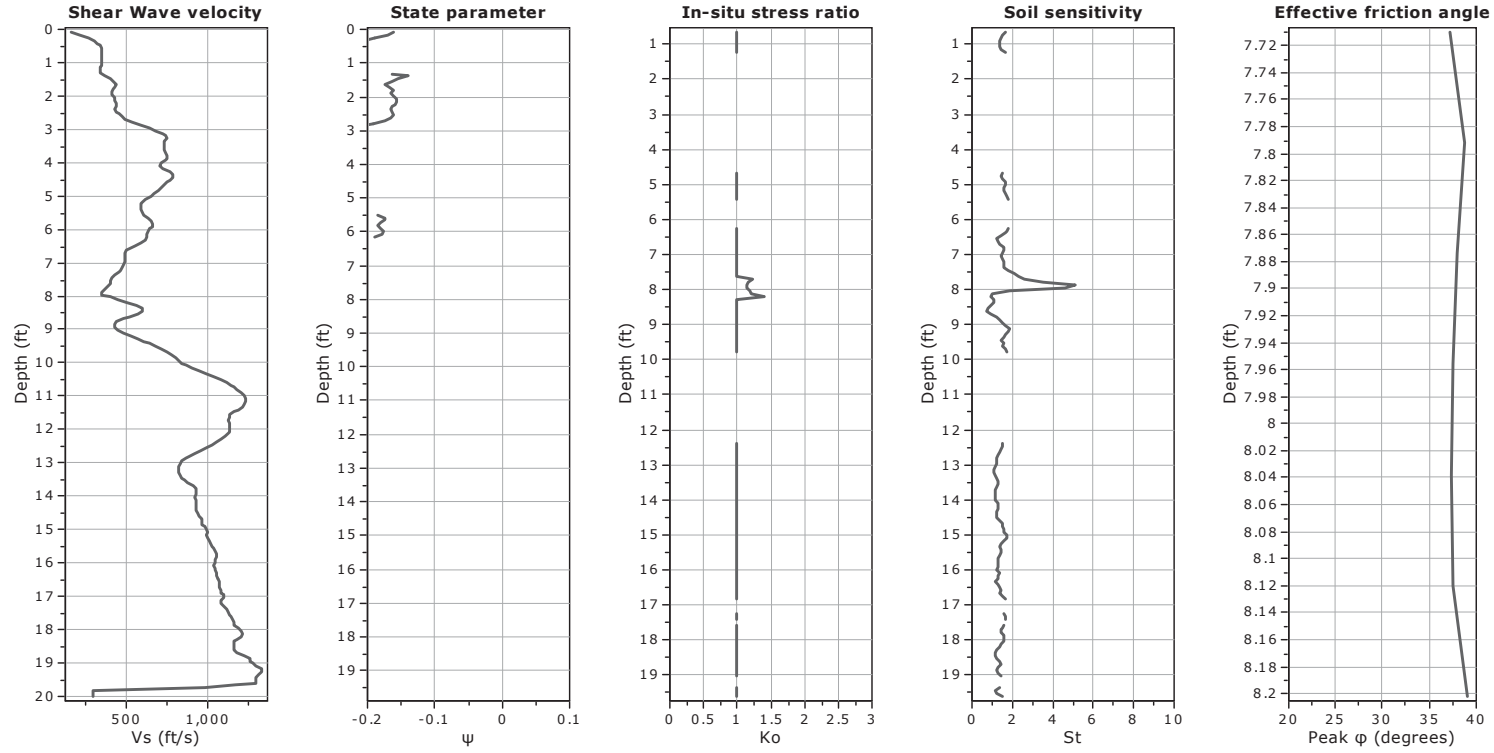
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-098
Total depth: 20.01 ft



Calculation parameters

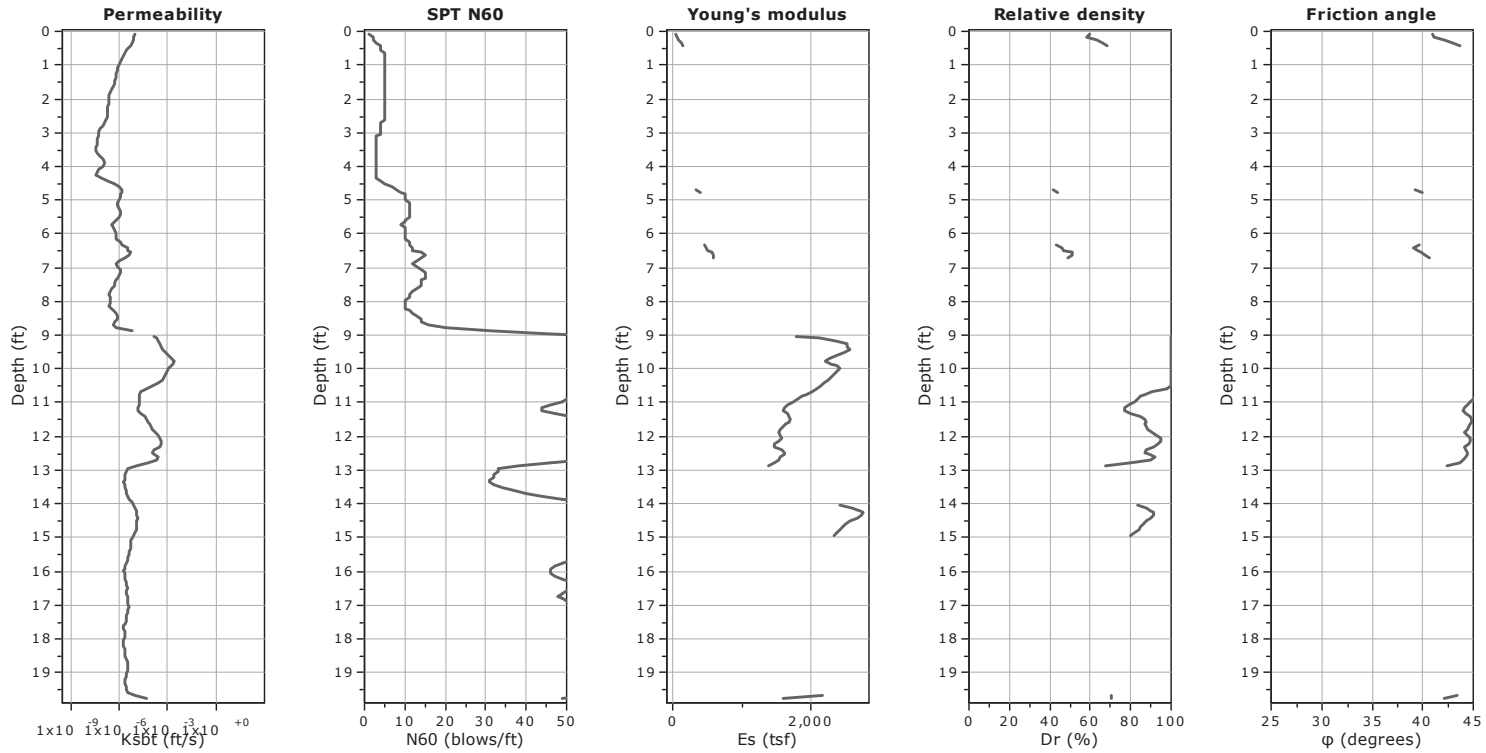
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-099A
Total depth: 20.01 ft



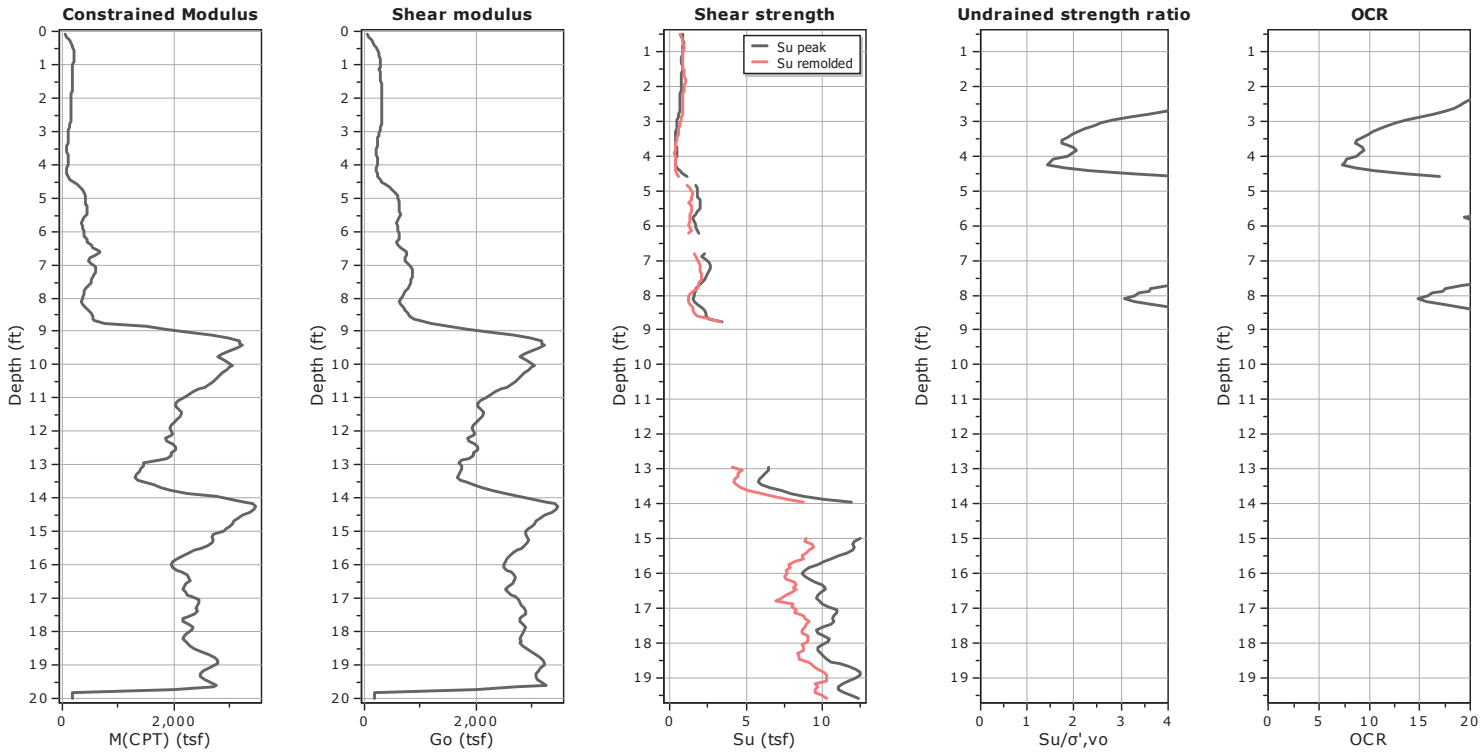
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-099A
Total depth: 20.01 ft



Calculation parameters

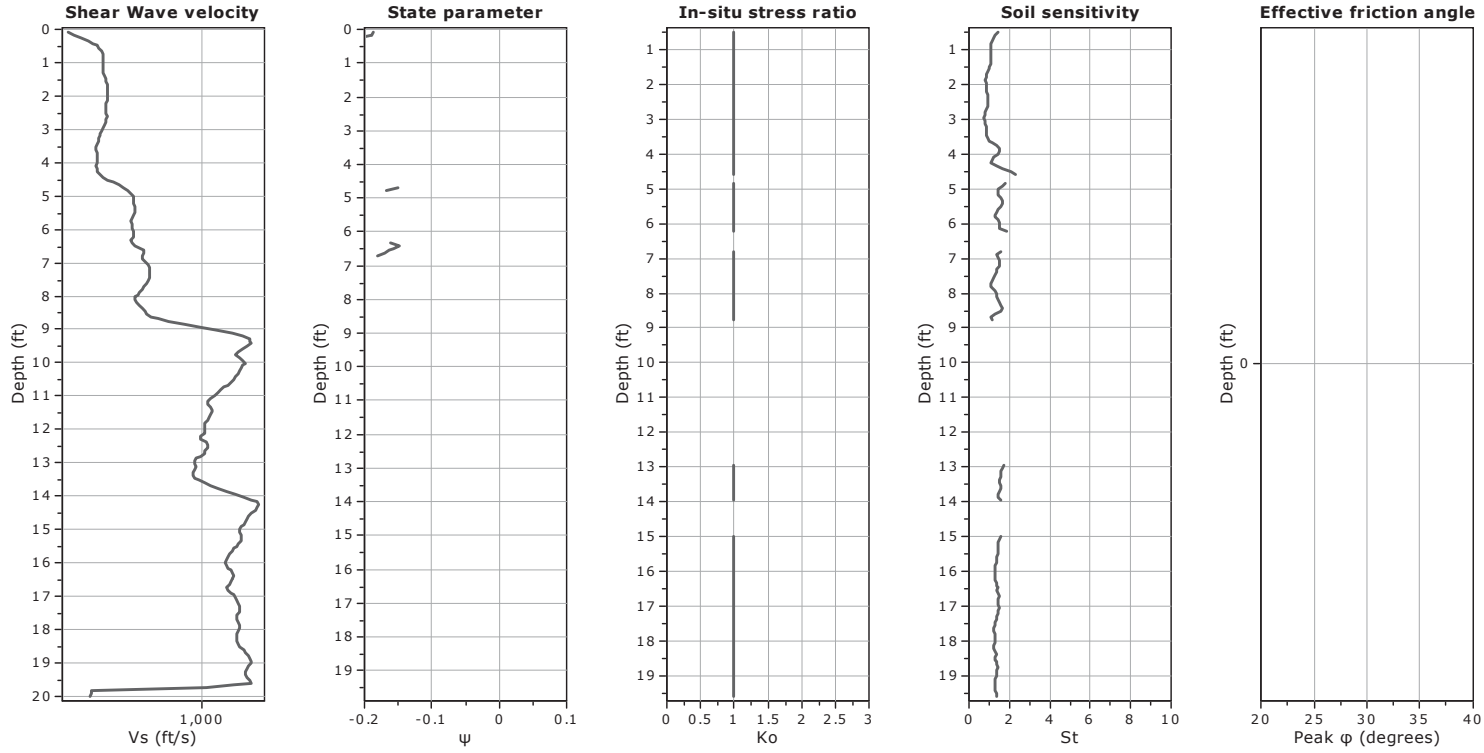
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-099A
Total depth: 20.01 ft



Calculation parameters

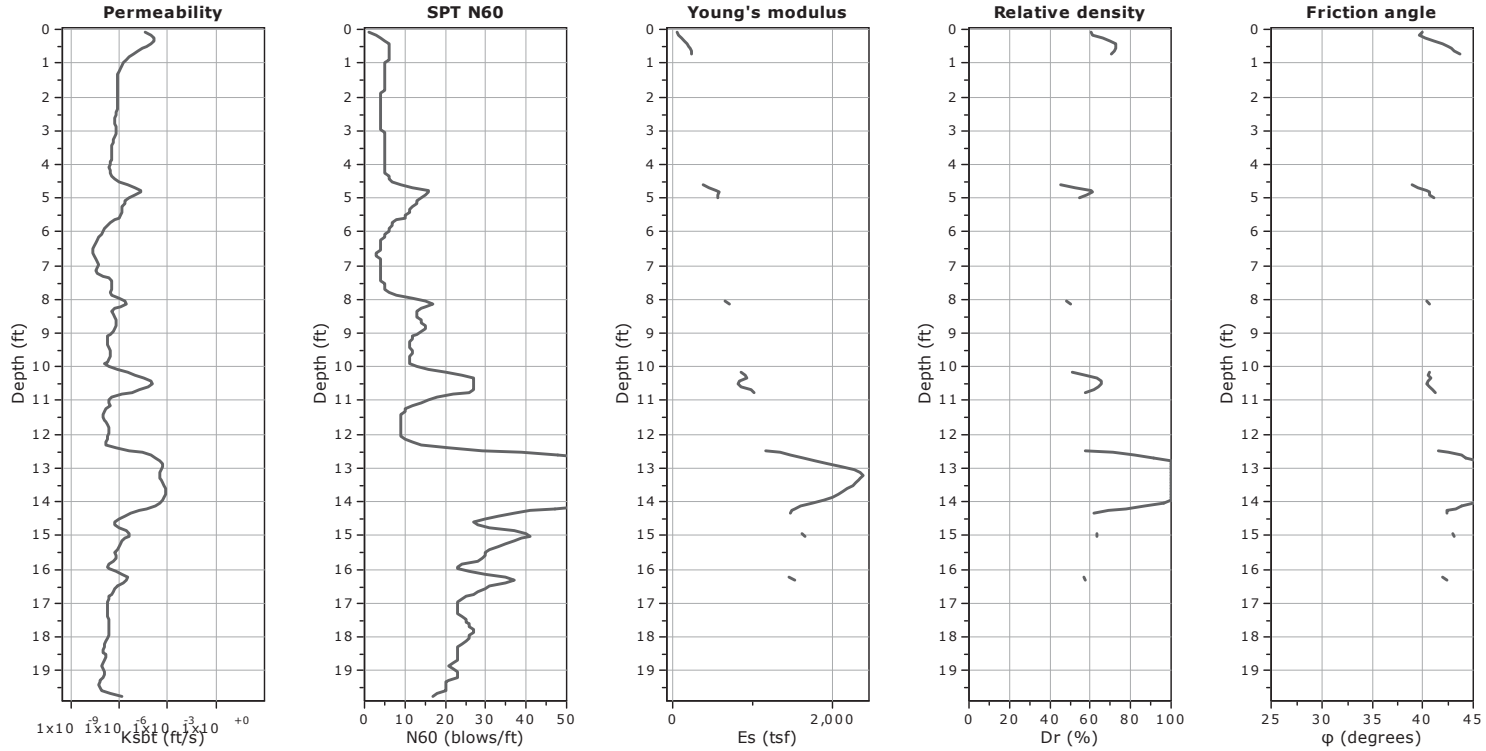
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-100
Total depth: 20.01 ft



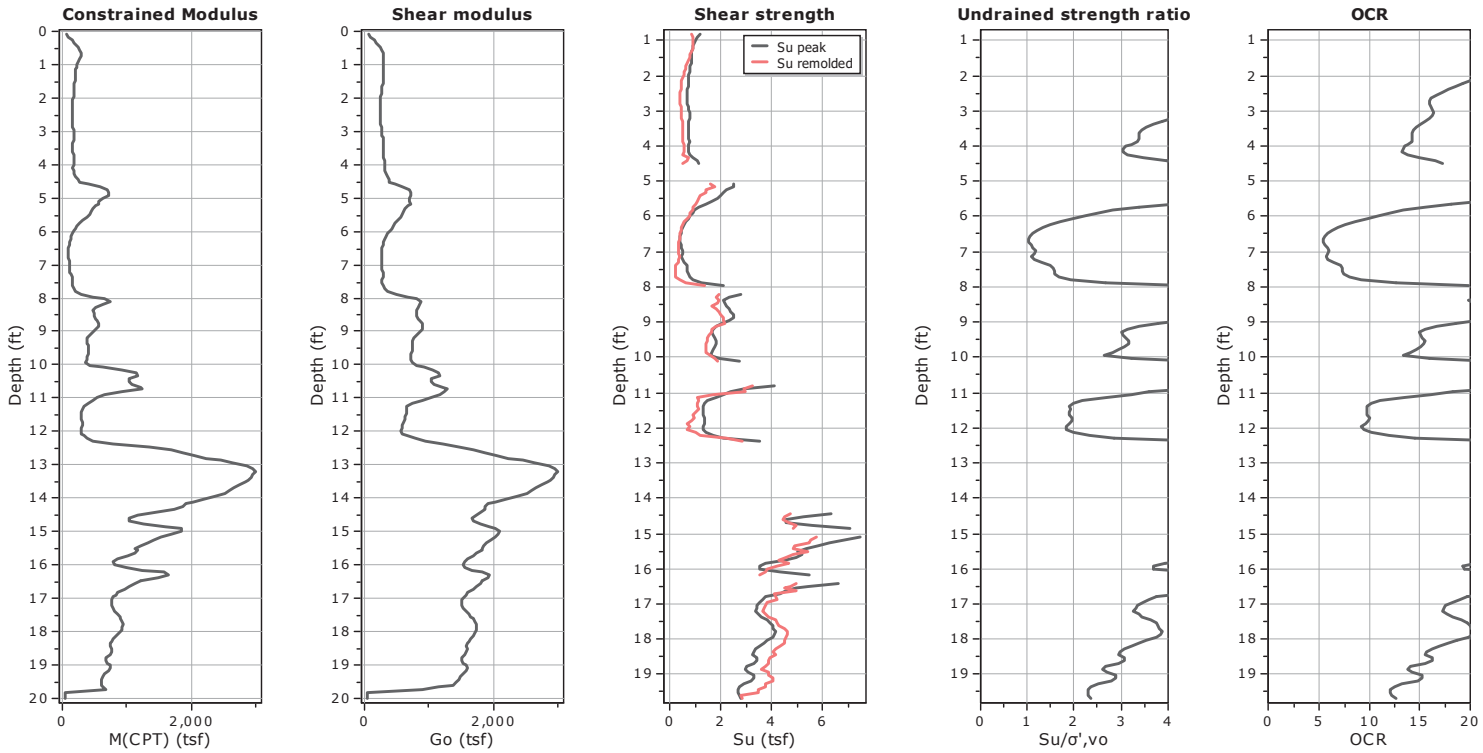
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-100
Total depth: 20.01 ft



Calculation parameters

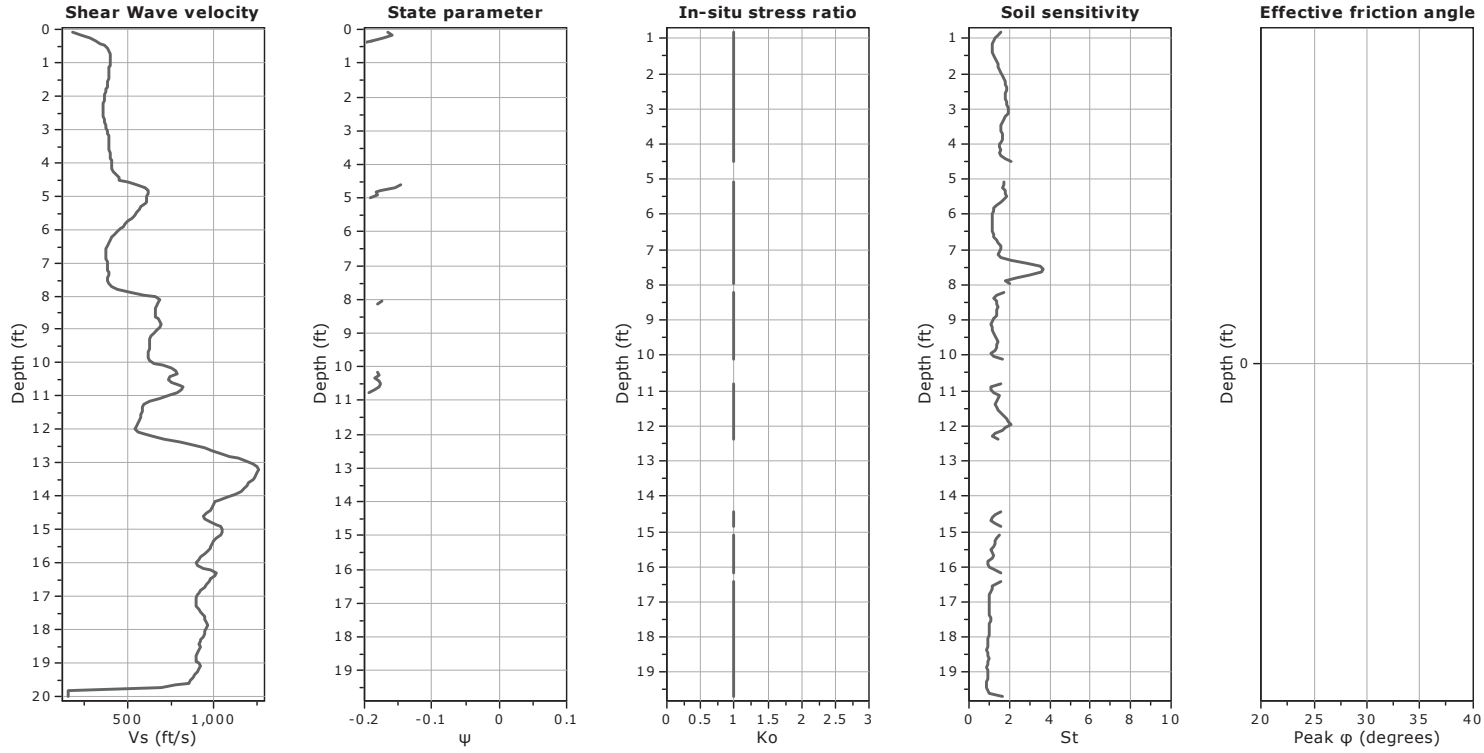
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-100
Total depth: 20.01 ft



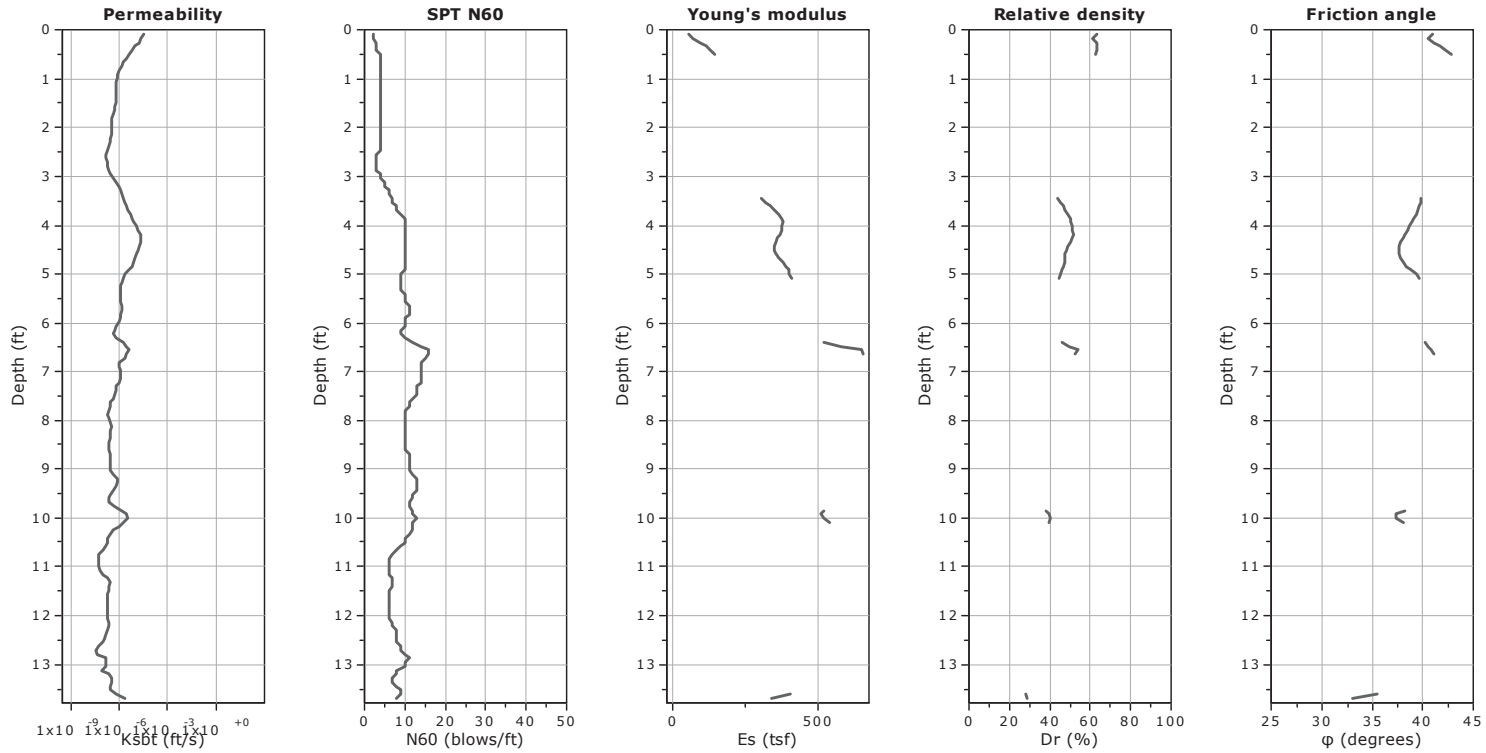
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-101
Total depth: 13.94 ft



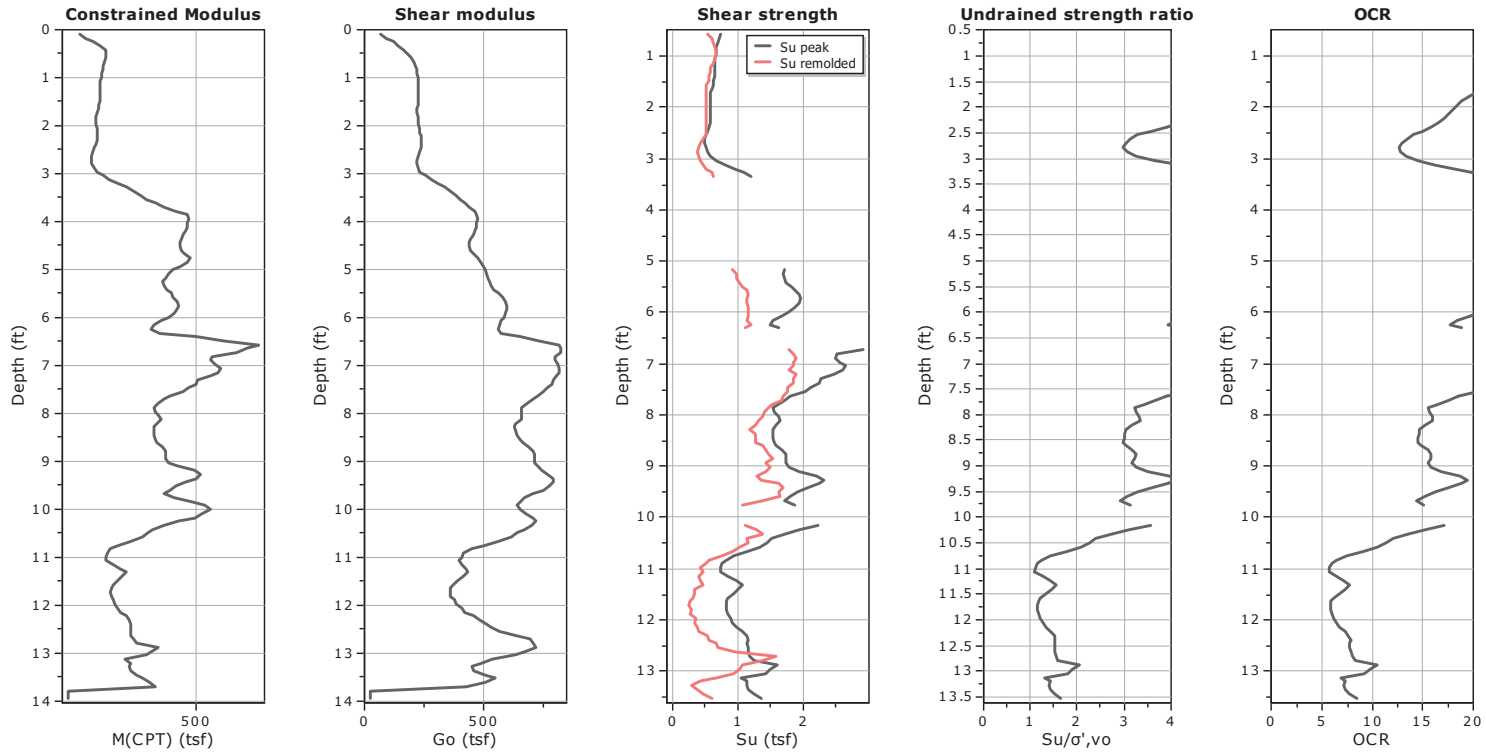
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-101
Total depth: 13.94 ft



Calculation parameters

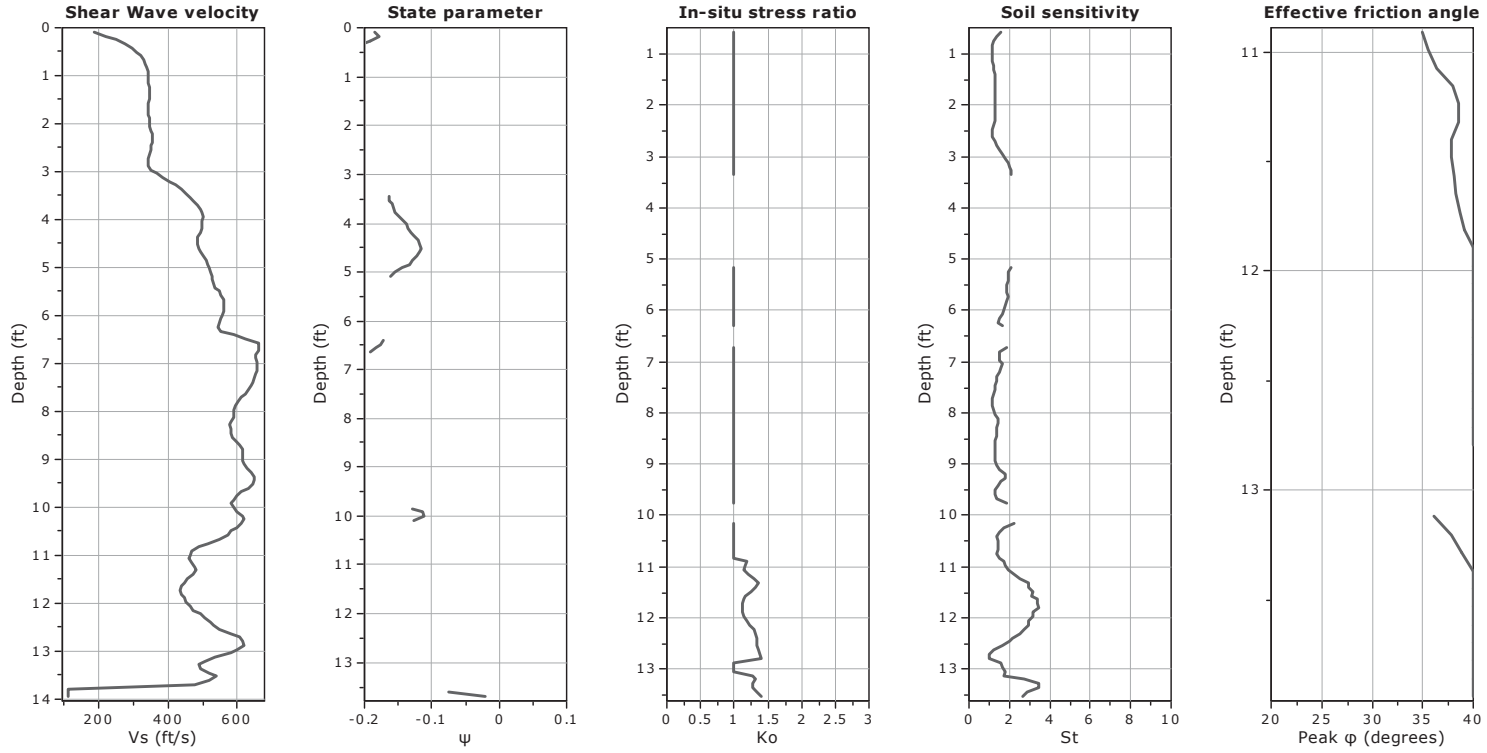
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-101
Total depth: 13.94 ft



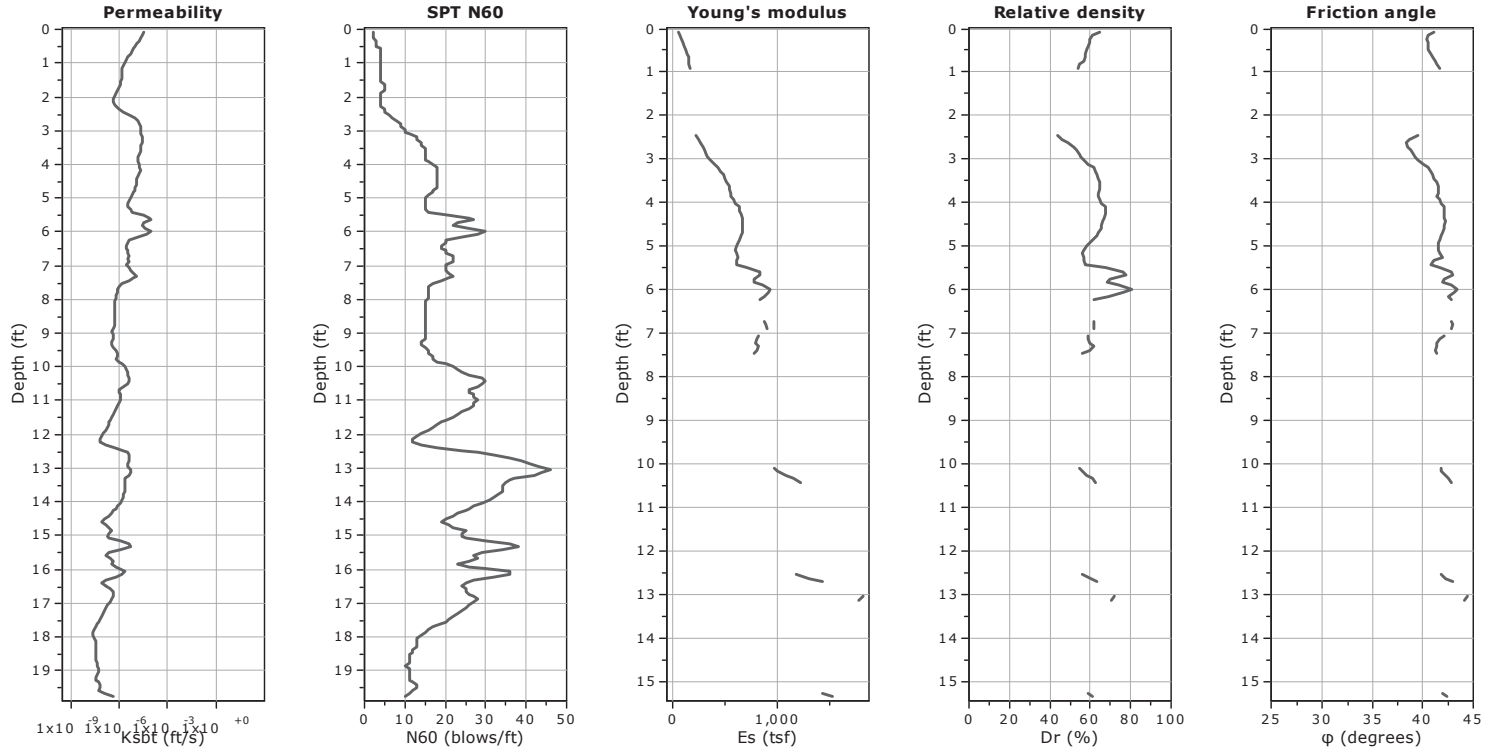
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-102
Total depth: 20.01 ft



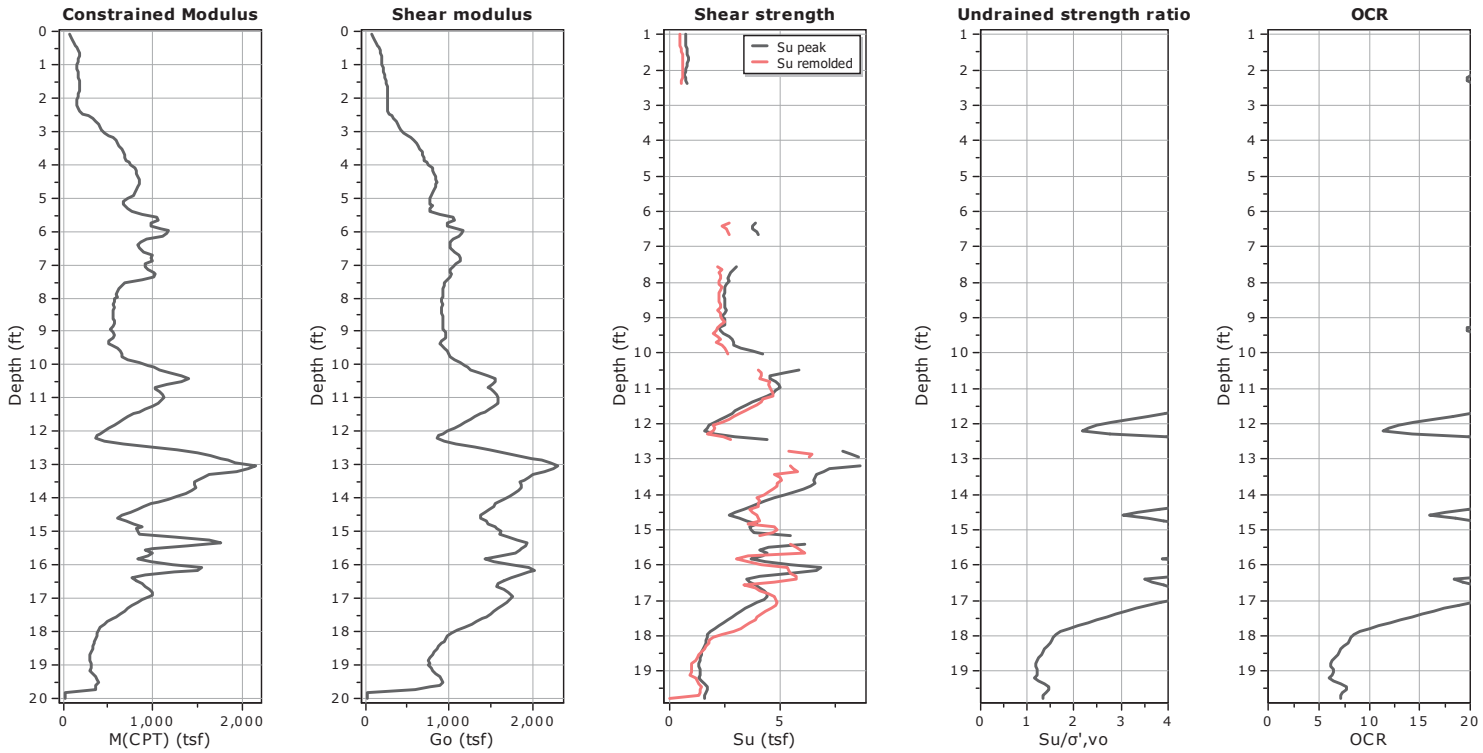
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-102
Total depth: 20.01 ft



Calculation parameters

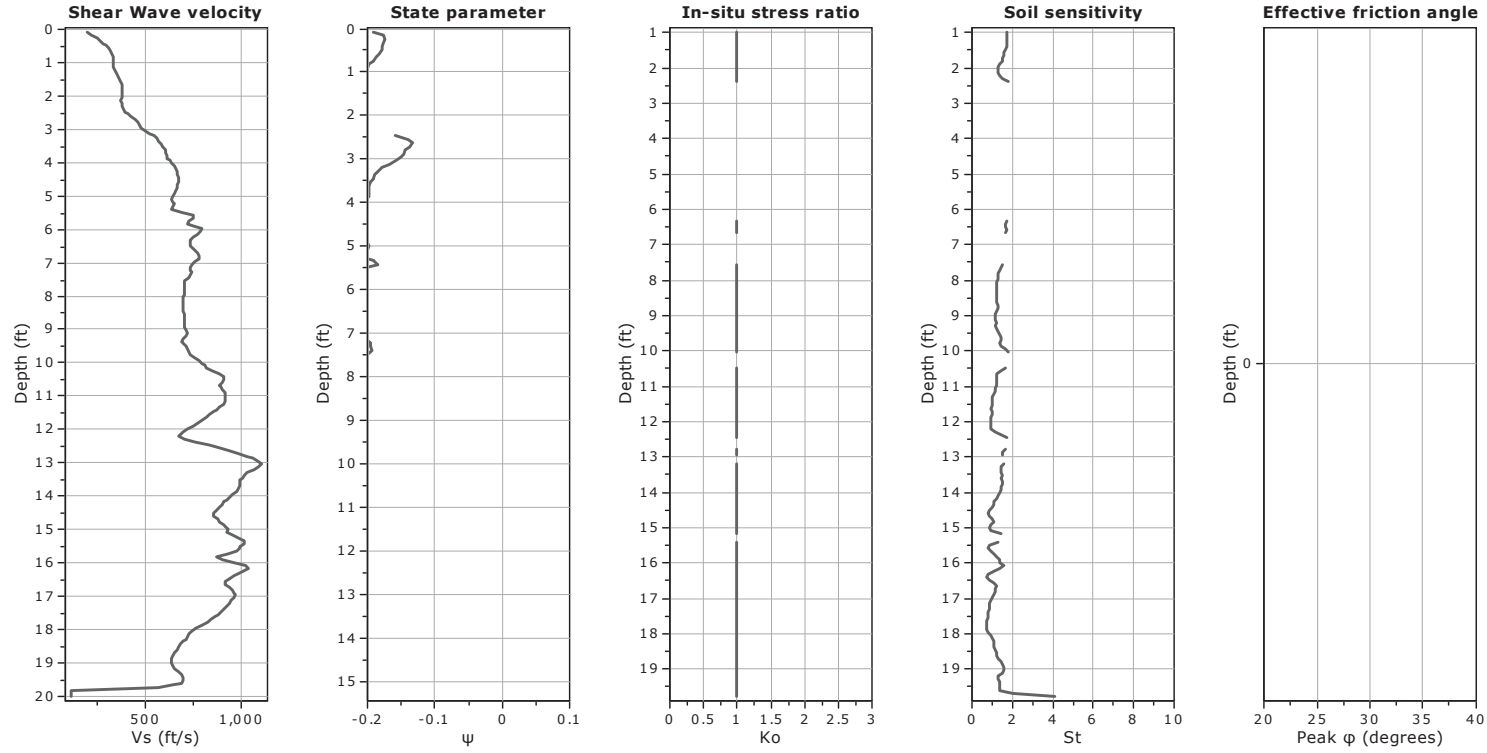
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-102
Total depth: 20.01 ft



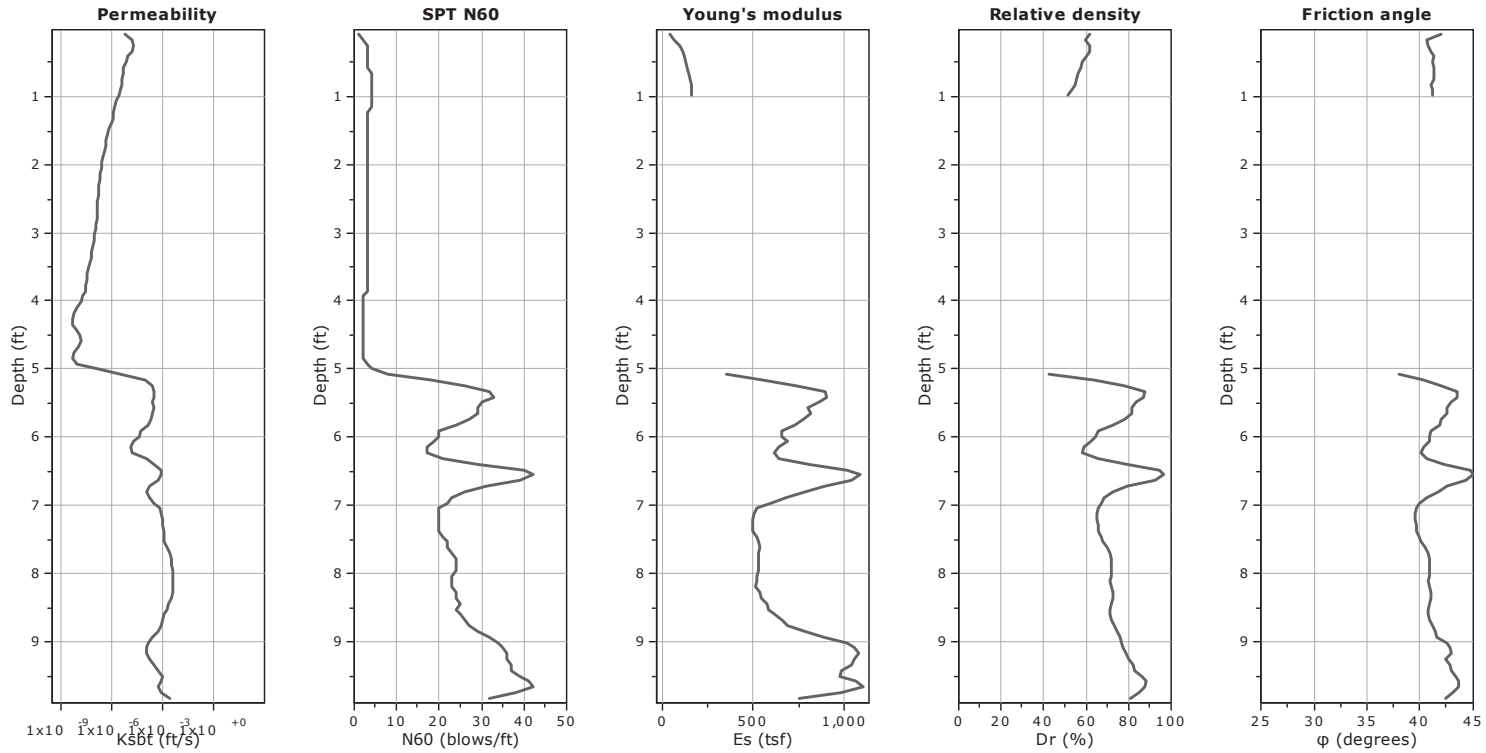
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-103
Total depth: 10.09 ft



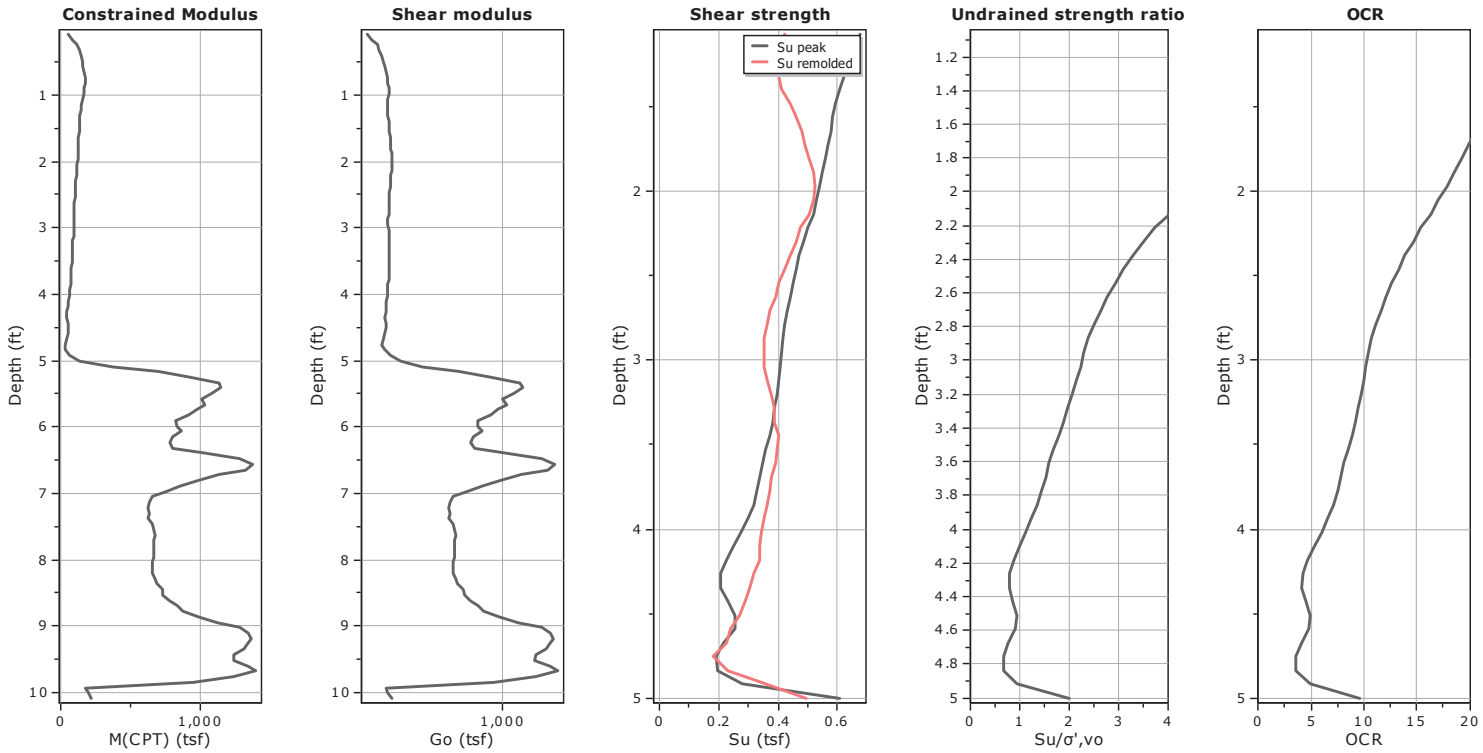
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-103
Total depth: 10.09 ft



Calculation parameters

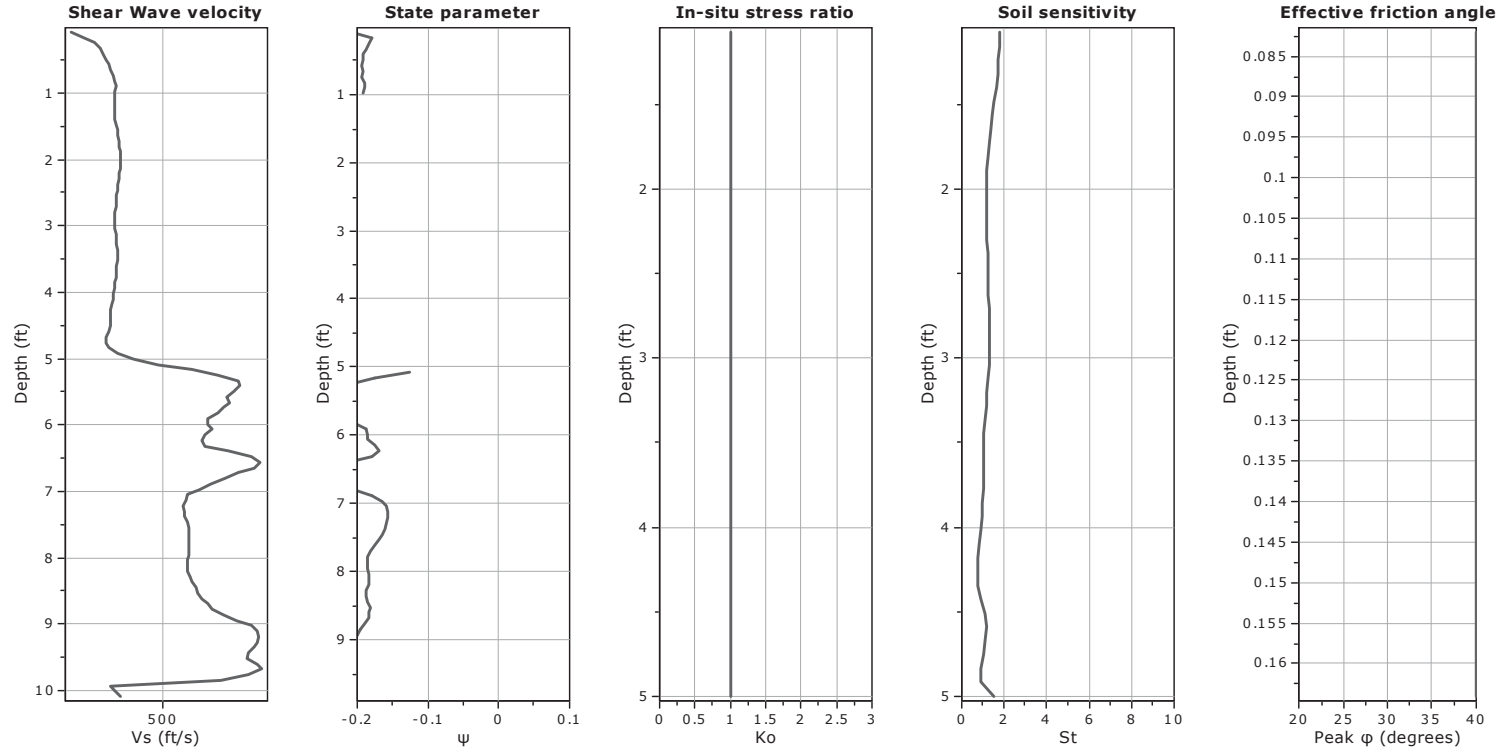
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-103
Total depth: 10.09 ft



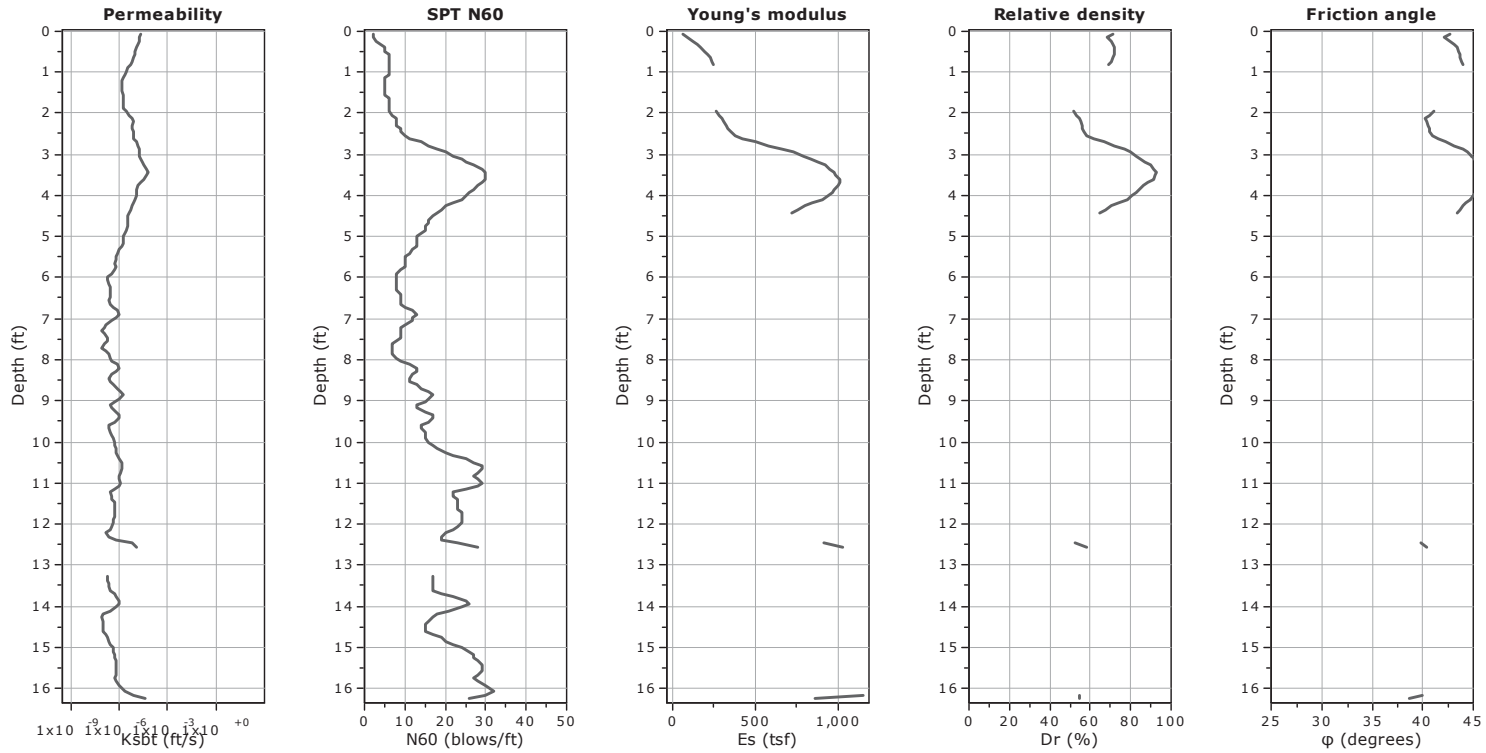
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-104
Total depth: 16.49 ft



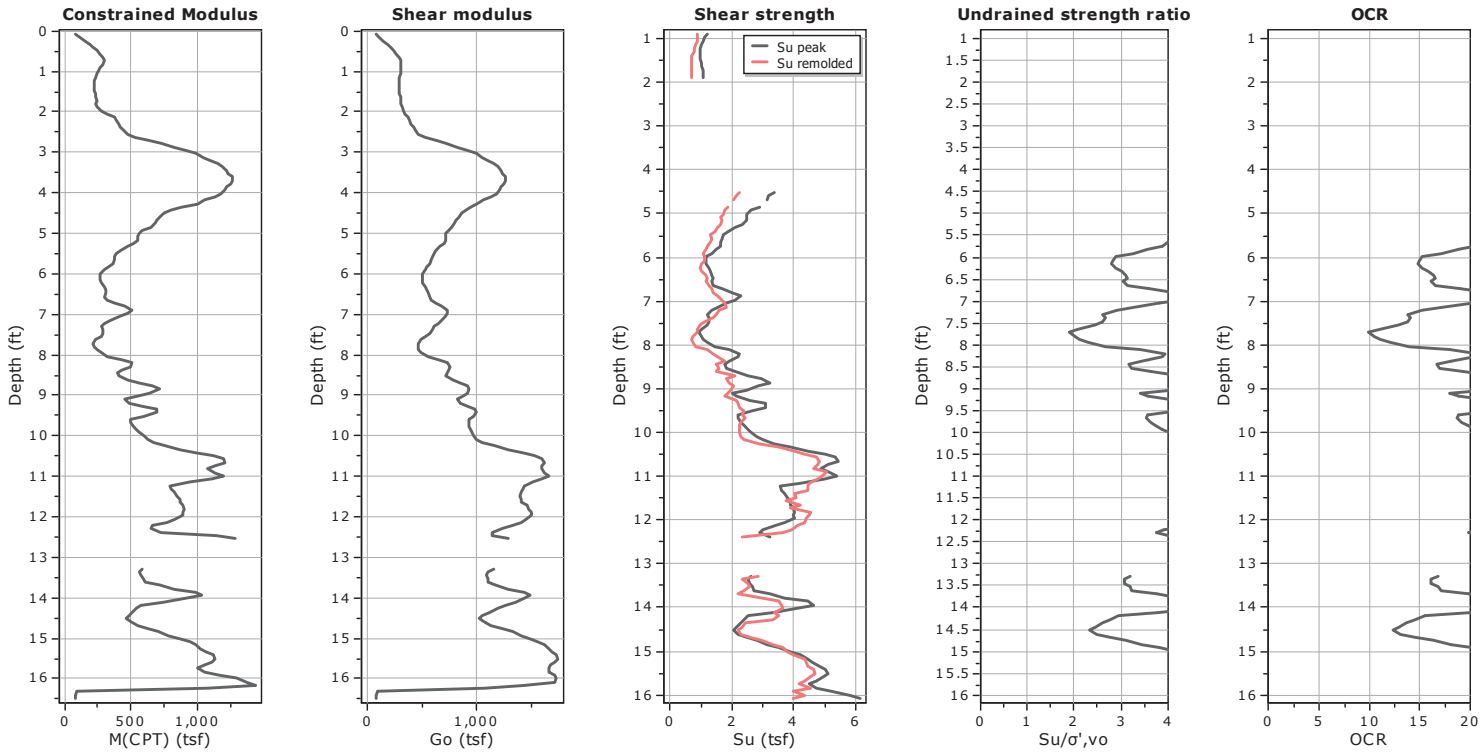
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-104
Total depth: 16.49 ft



Calculation parameters

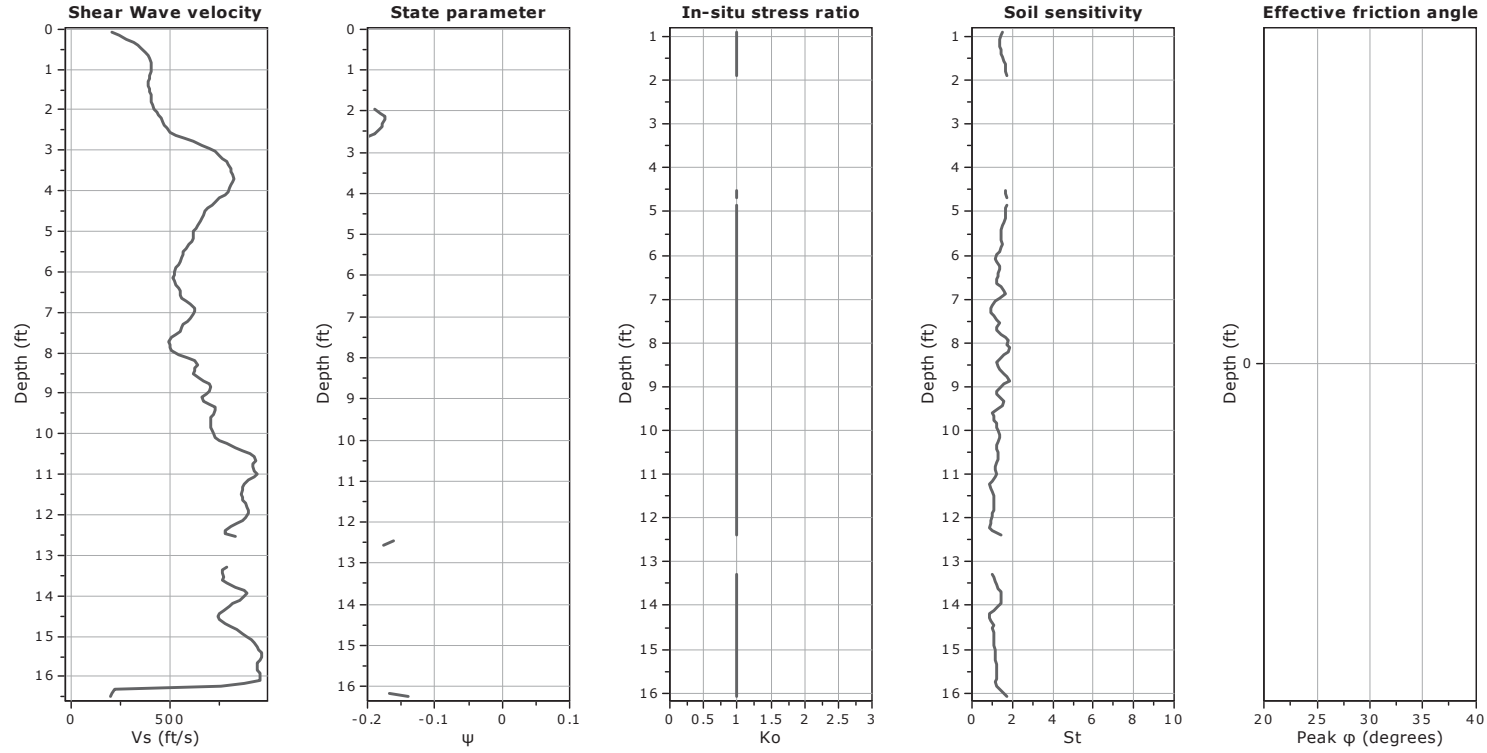
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-104
Total depth: 16.49 ft



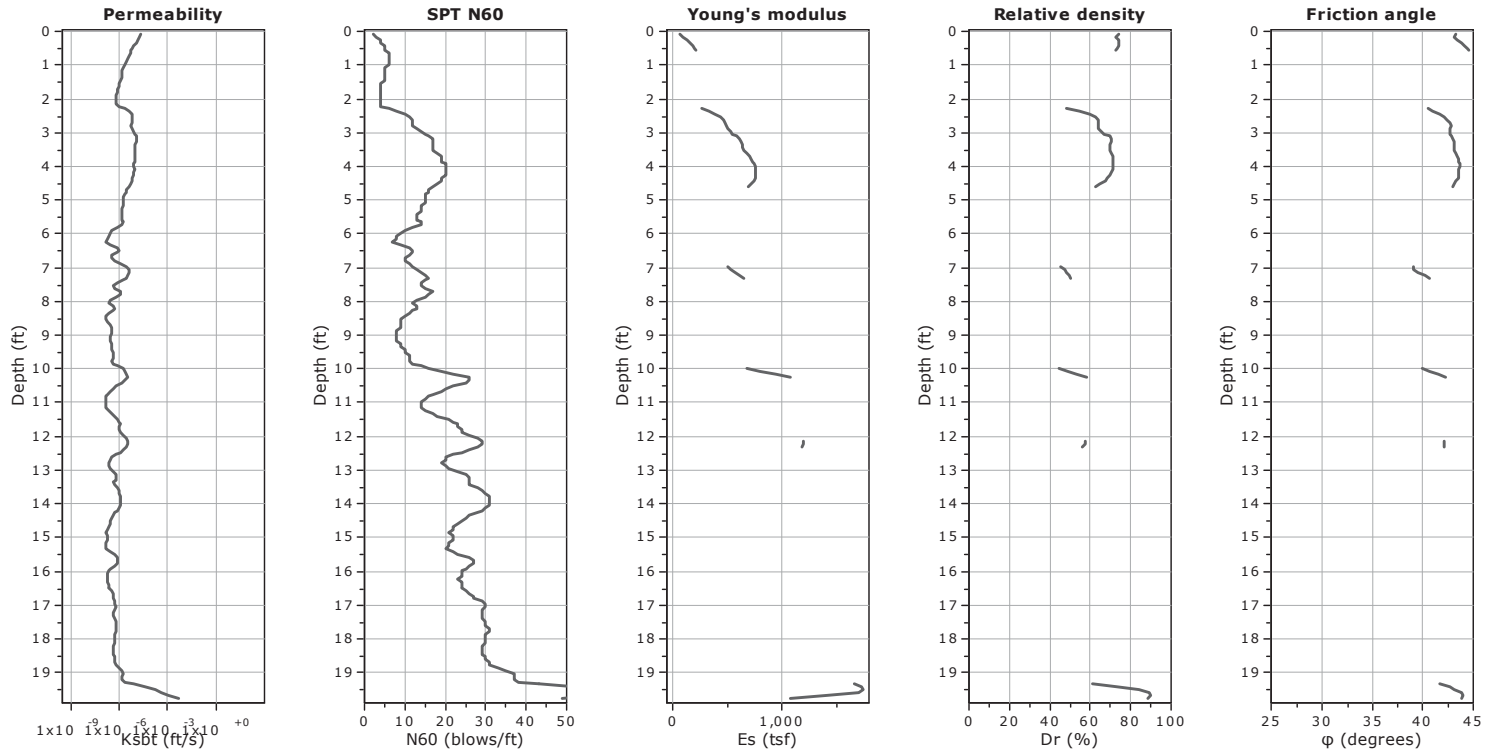
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-105
Total depth: 20.01 ft



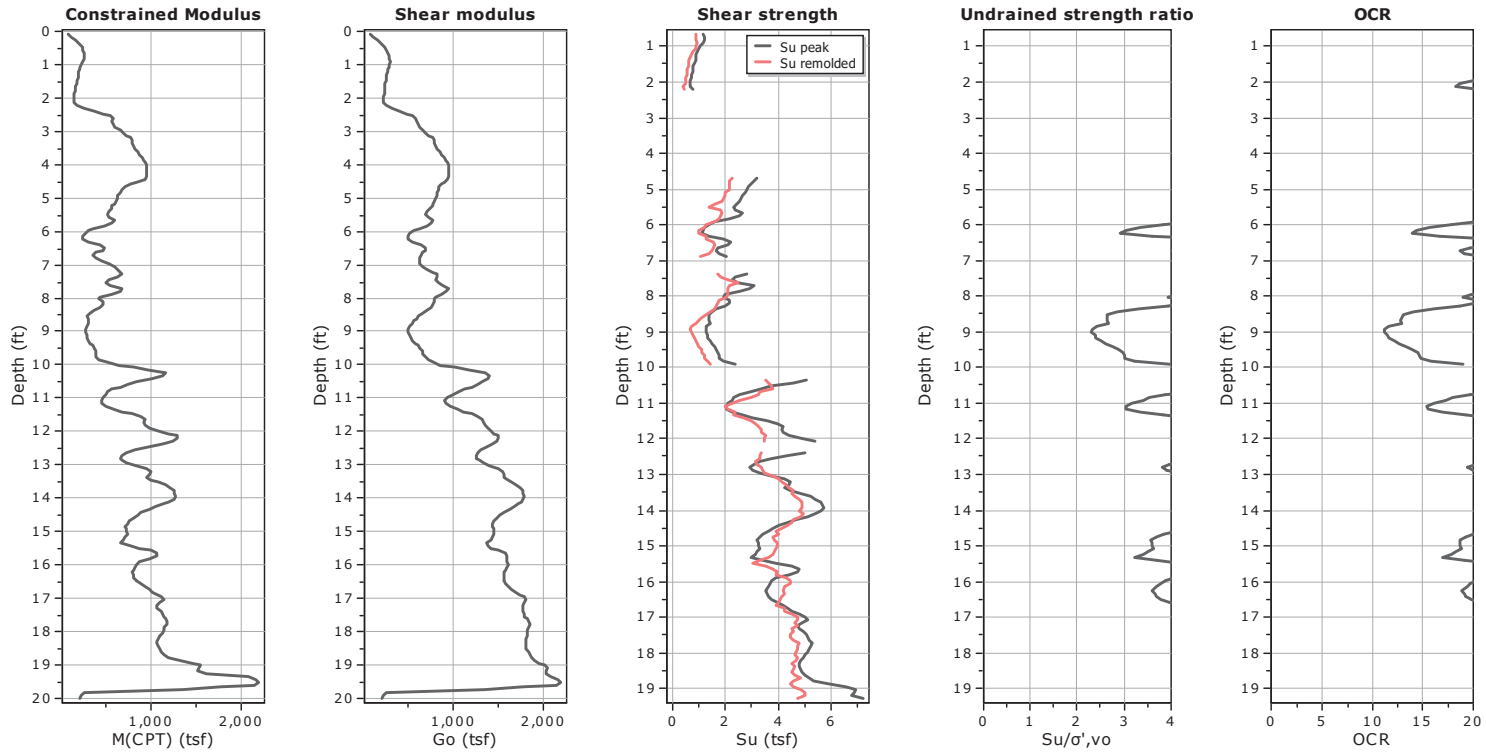
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-105
Total depth: 20.01 ft



Calculation parameters

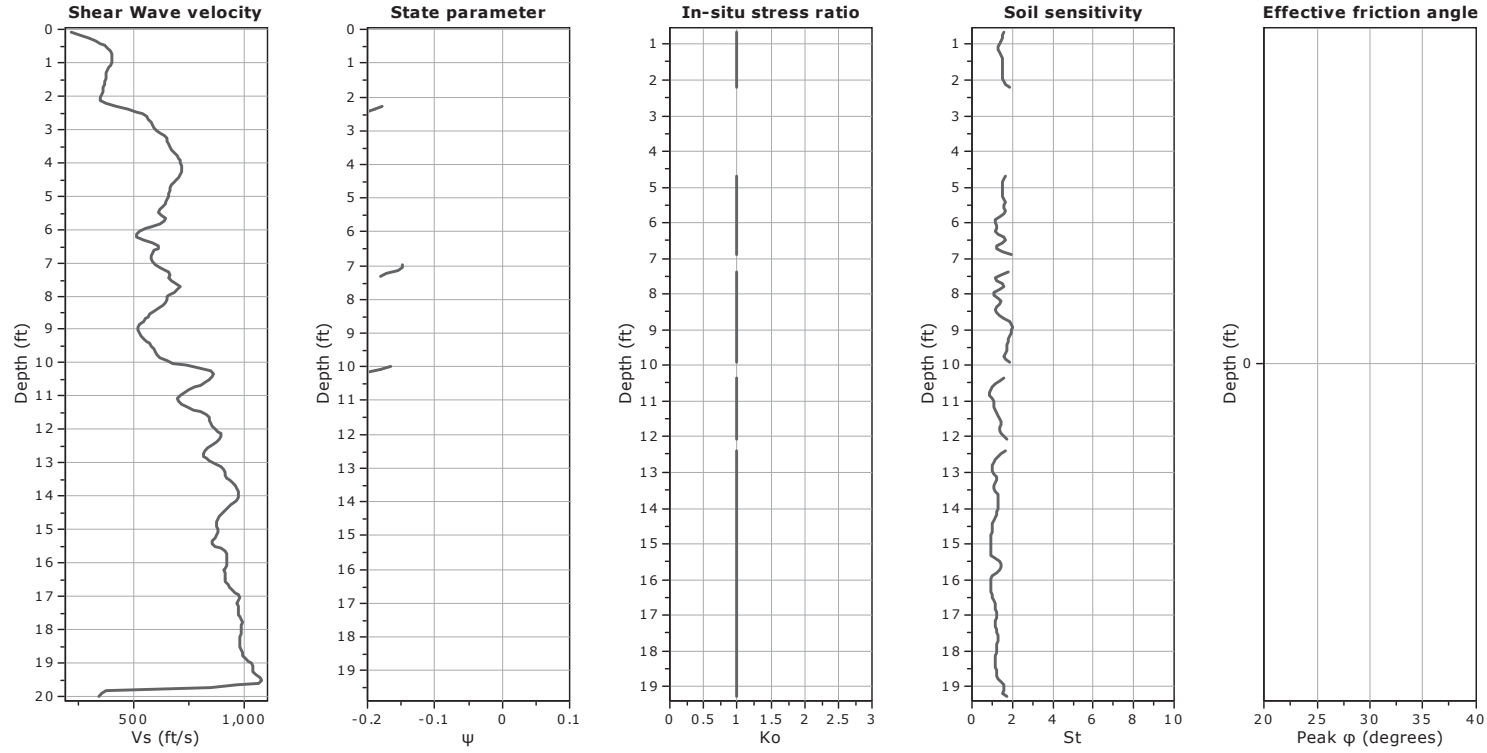
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-105
Total depth: 20.01 ft



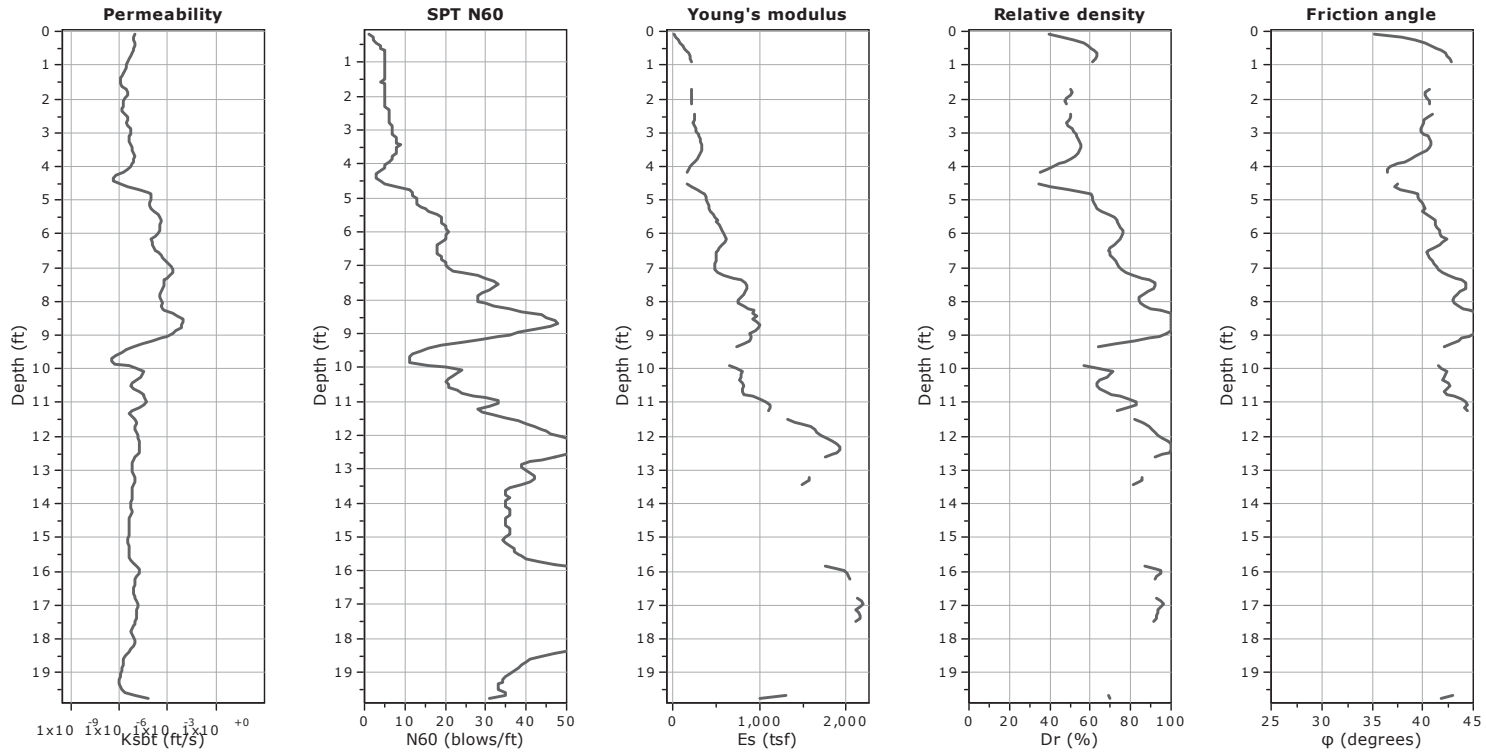
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-106
Total depth: 20.01 ft



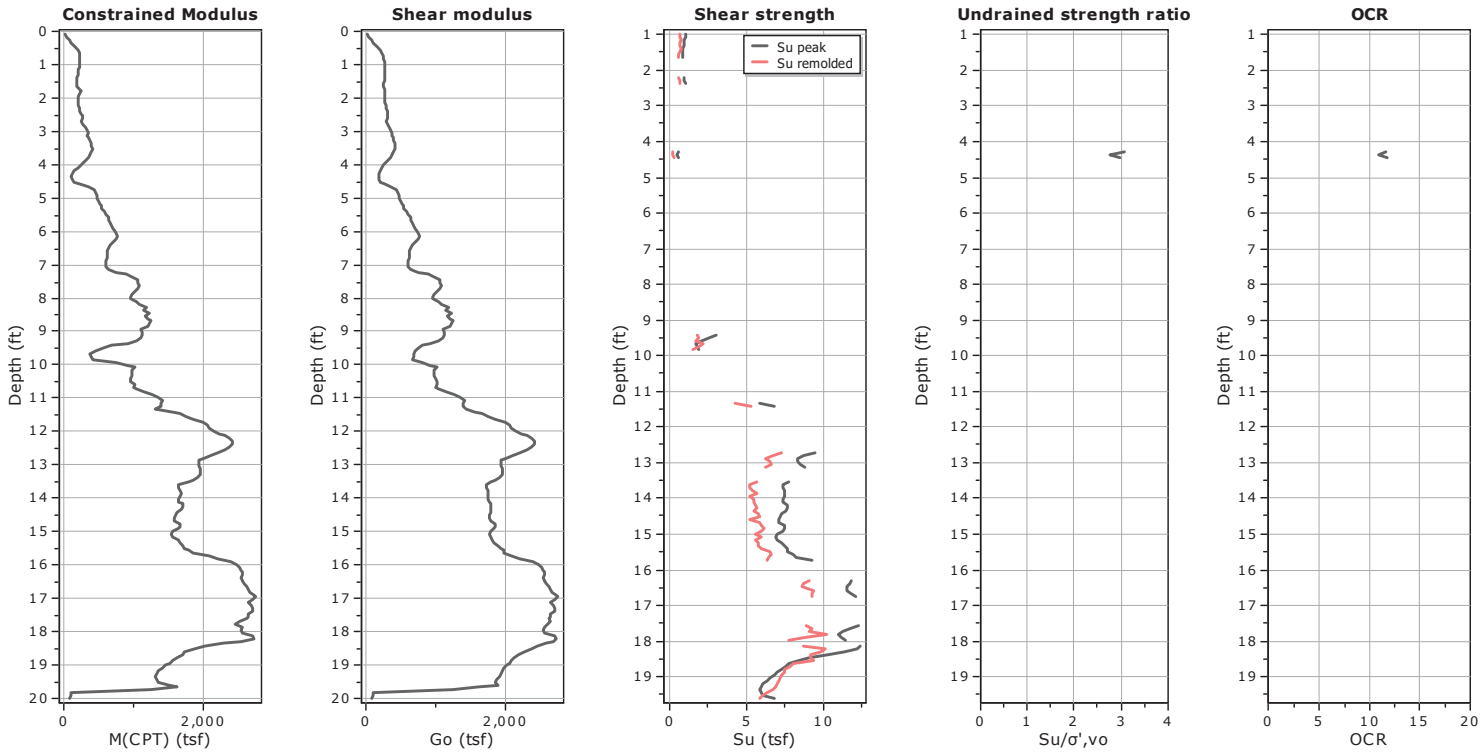
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-106
Total depth: 20.01 ft



Calculation parameters

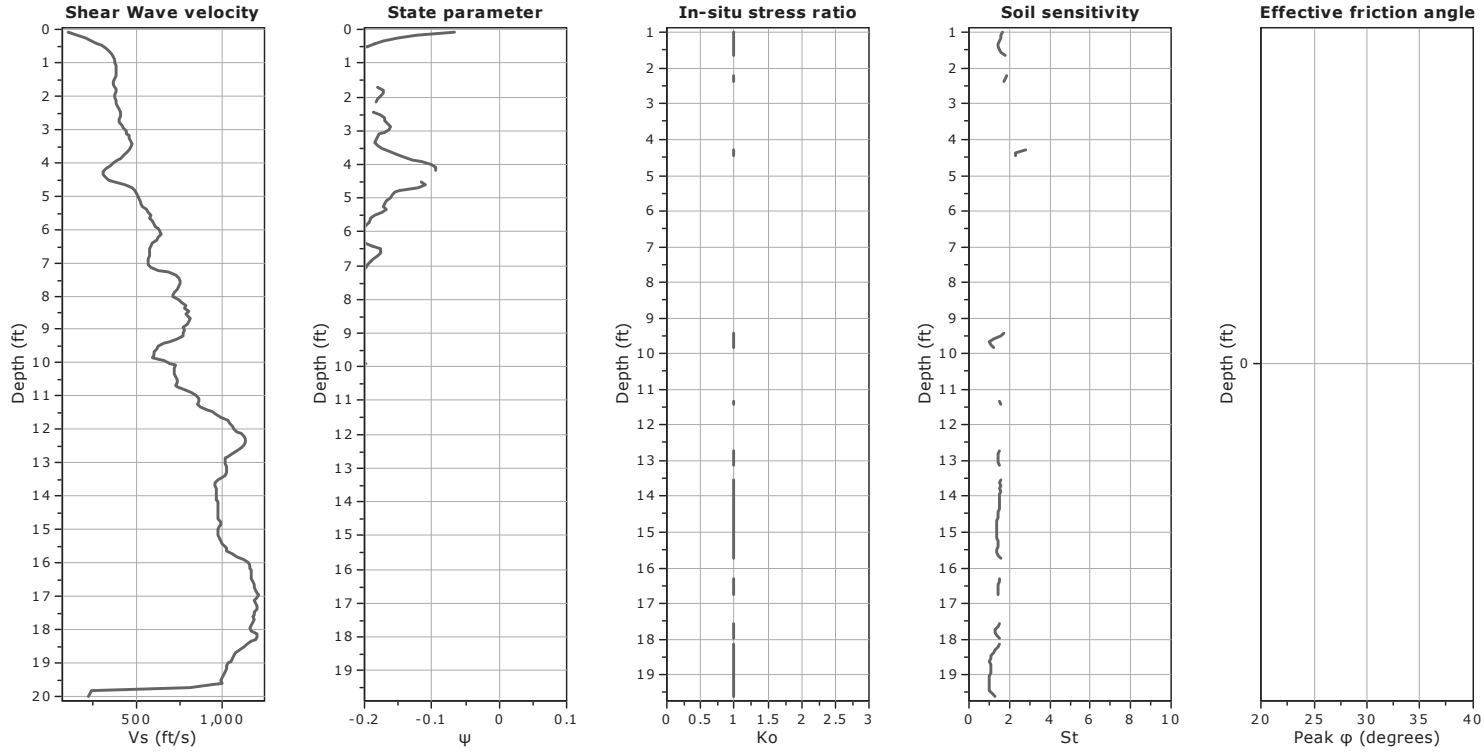
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-106
Total depth: 20.01 ft



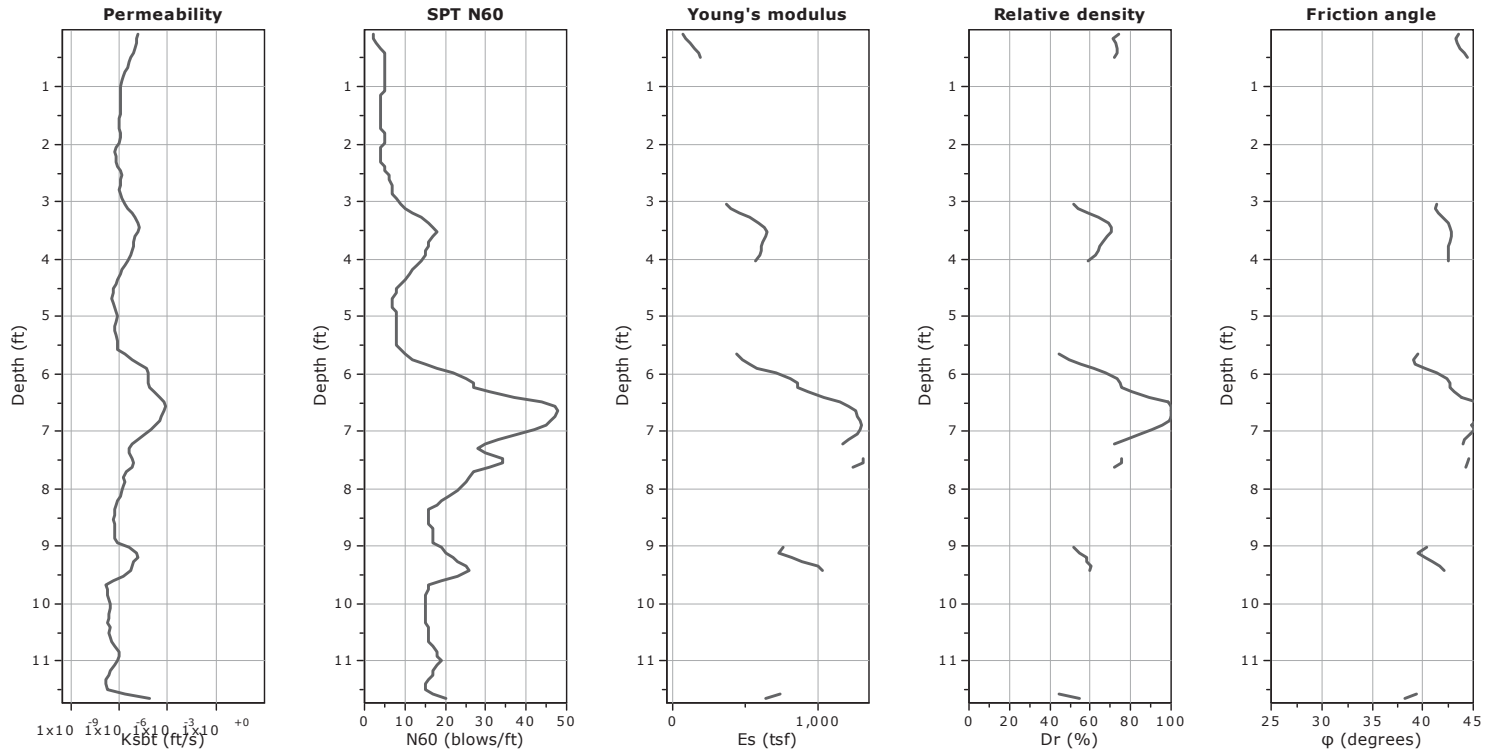
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-108
Total depth: 11.89 ft



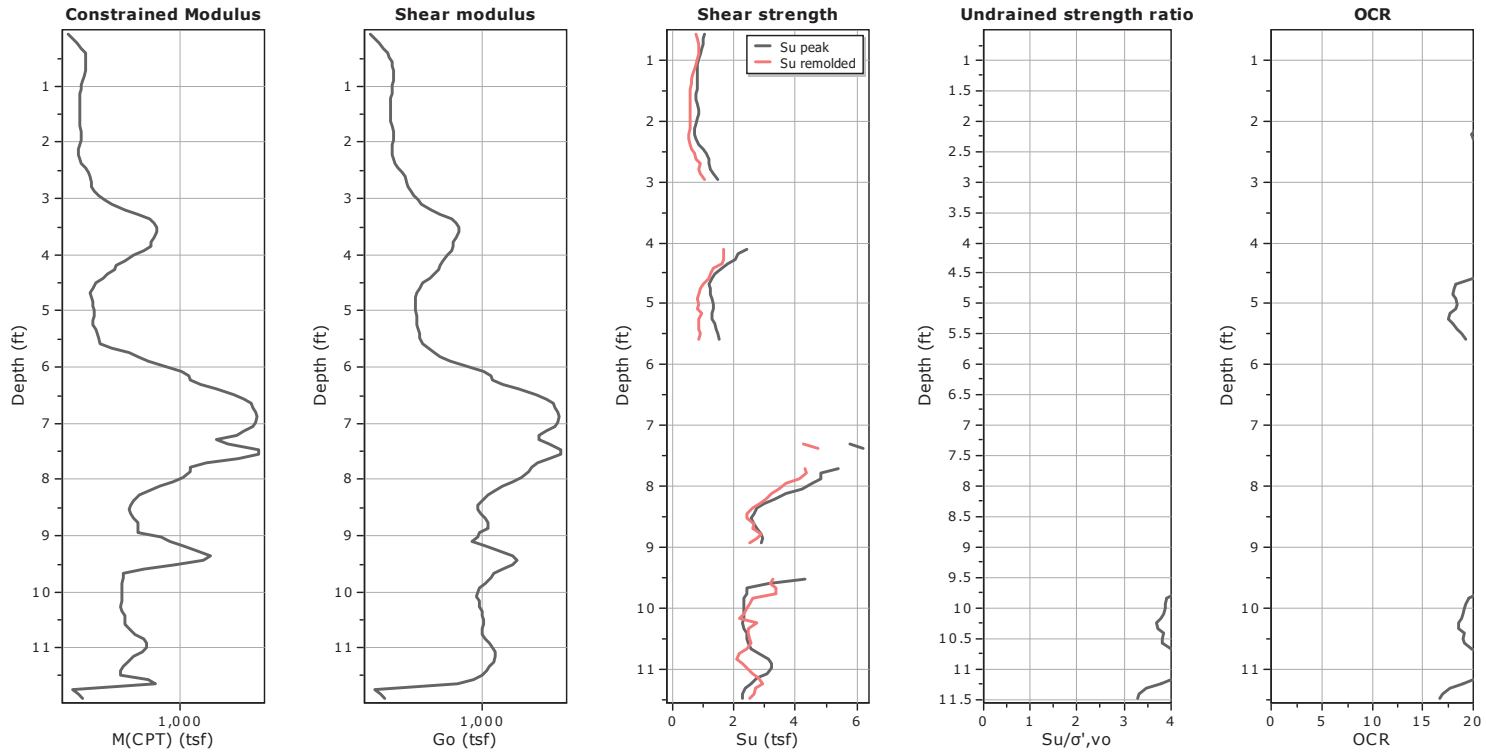
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-108
Total depth: 11.89 ft



Calculation parameters

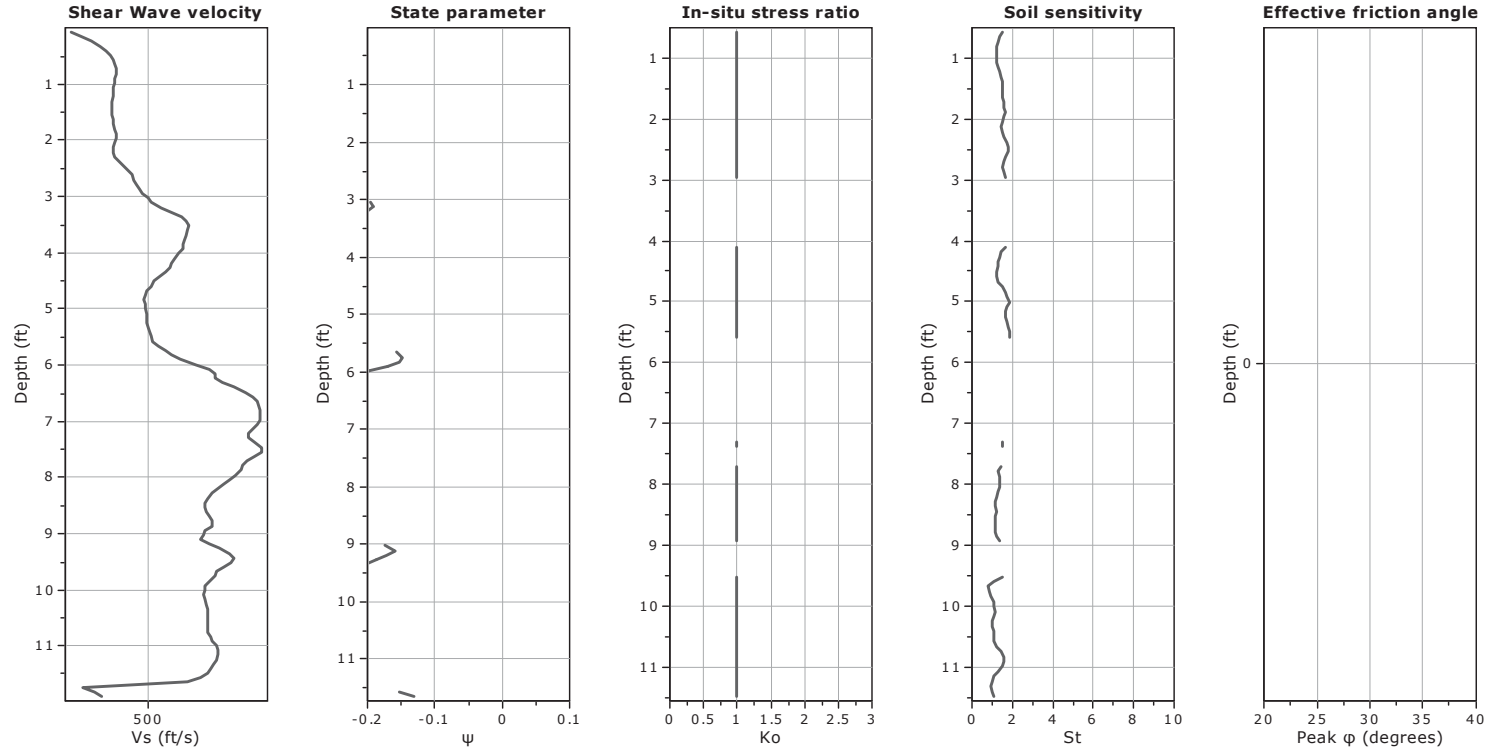
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-108
Total depth: 11.89 ft



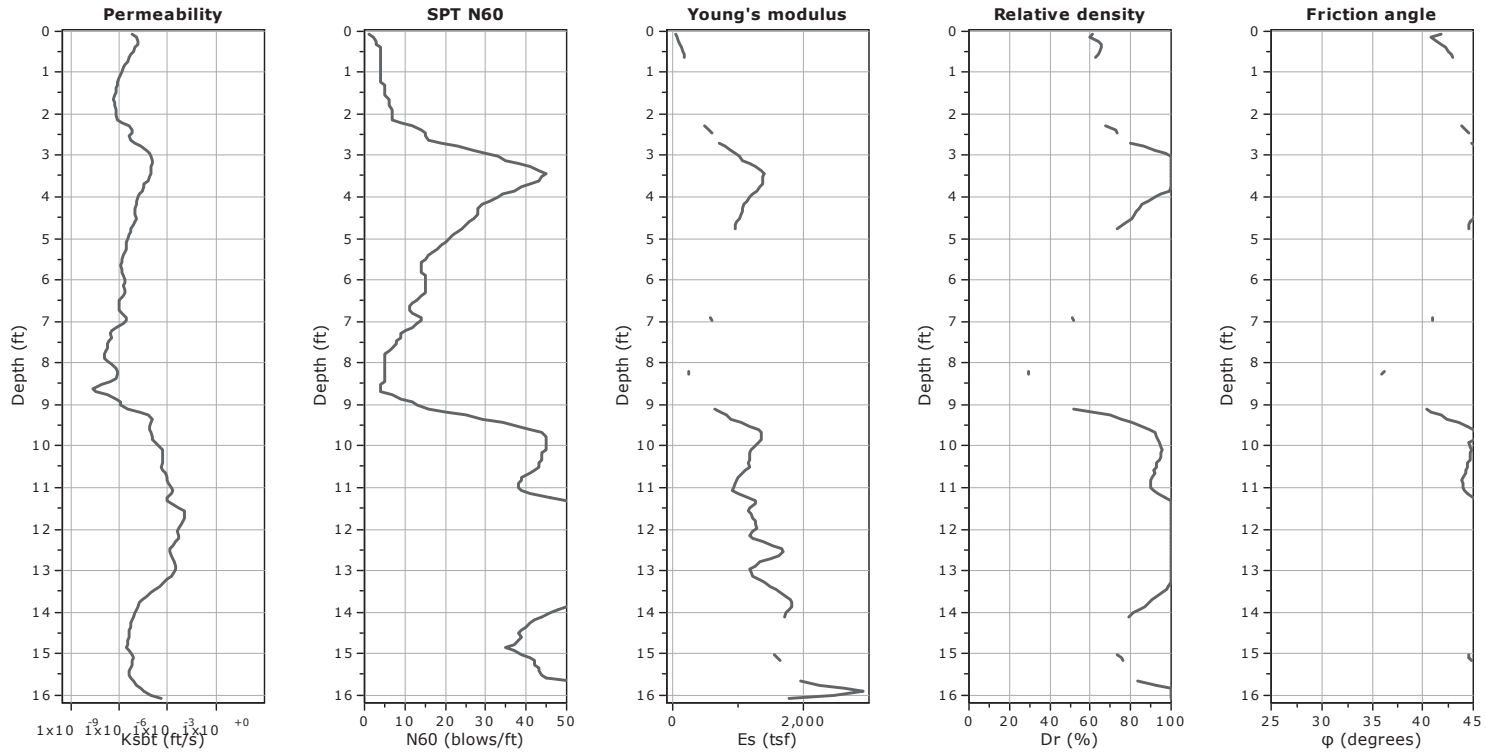
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-108A
Total depth: 16.32 ft



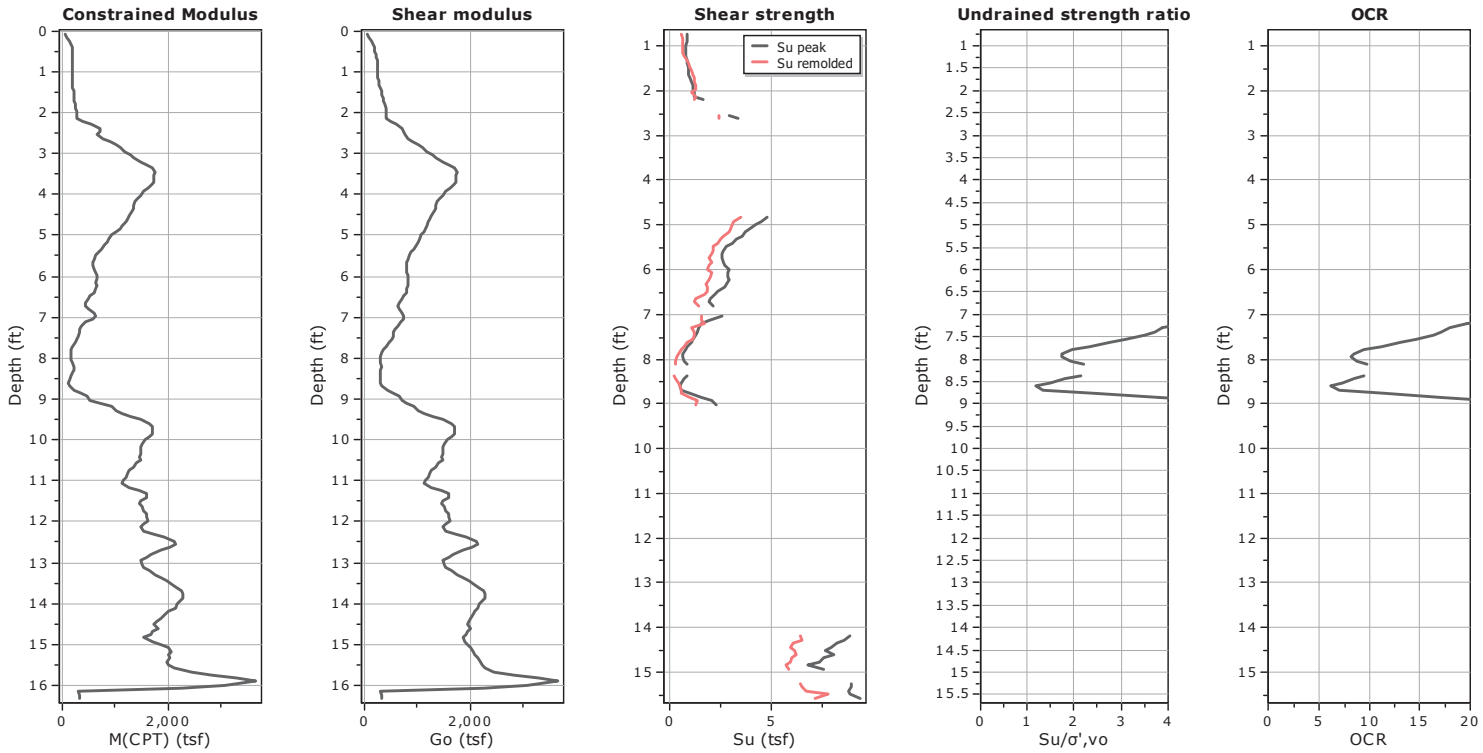
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-108A
Total depth: 16.32 ft



Calculation parameters

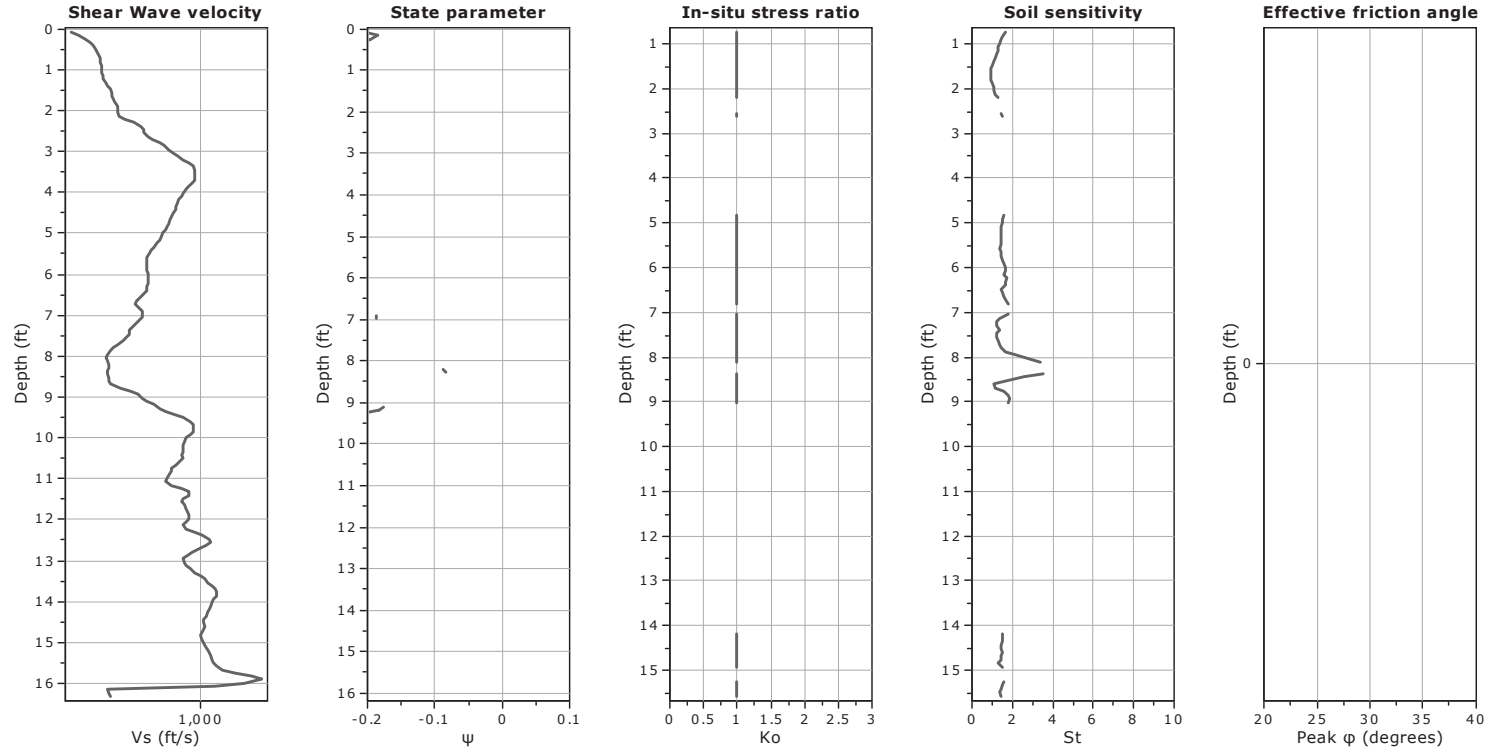
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-108A
Total depth: 16.32 ft



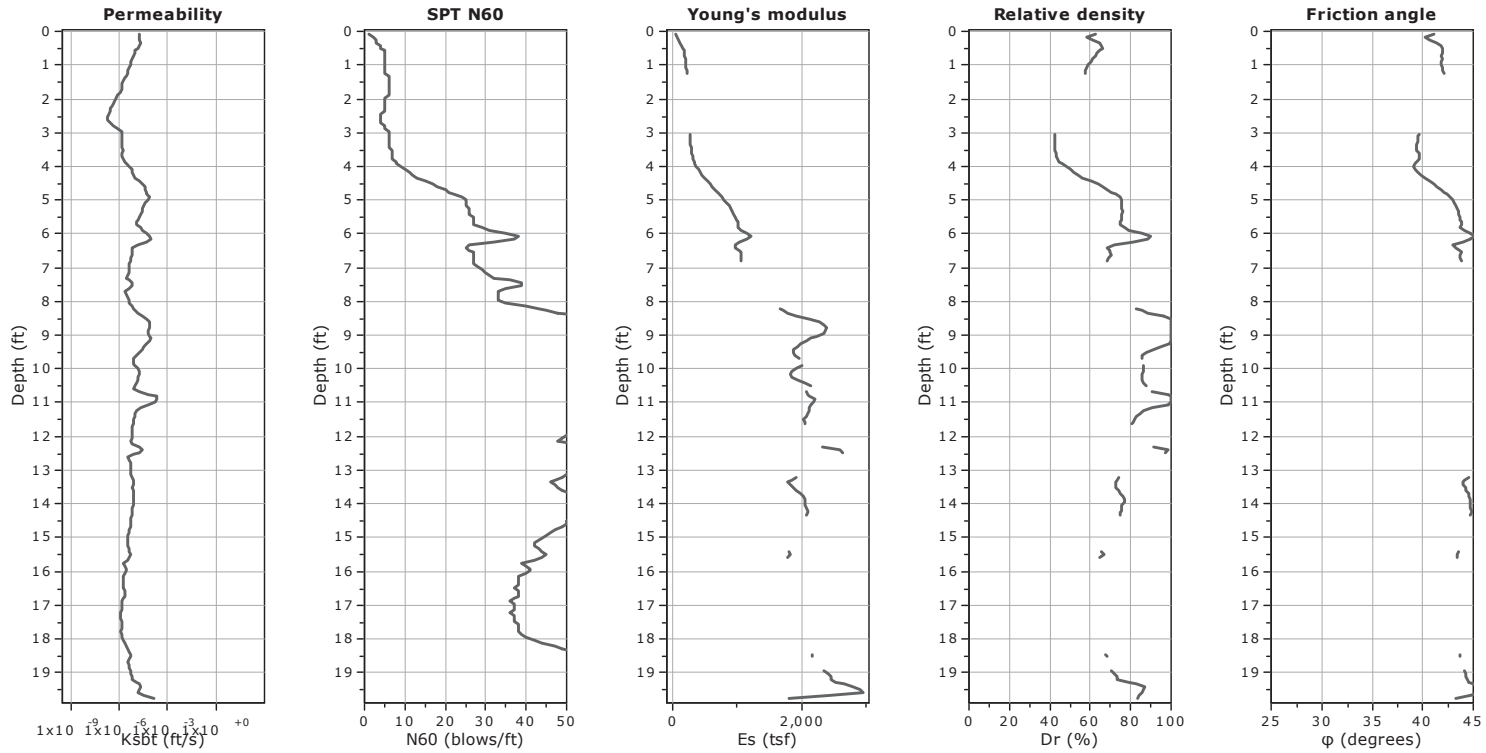
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-109
Total depth: 20.01 ft



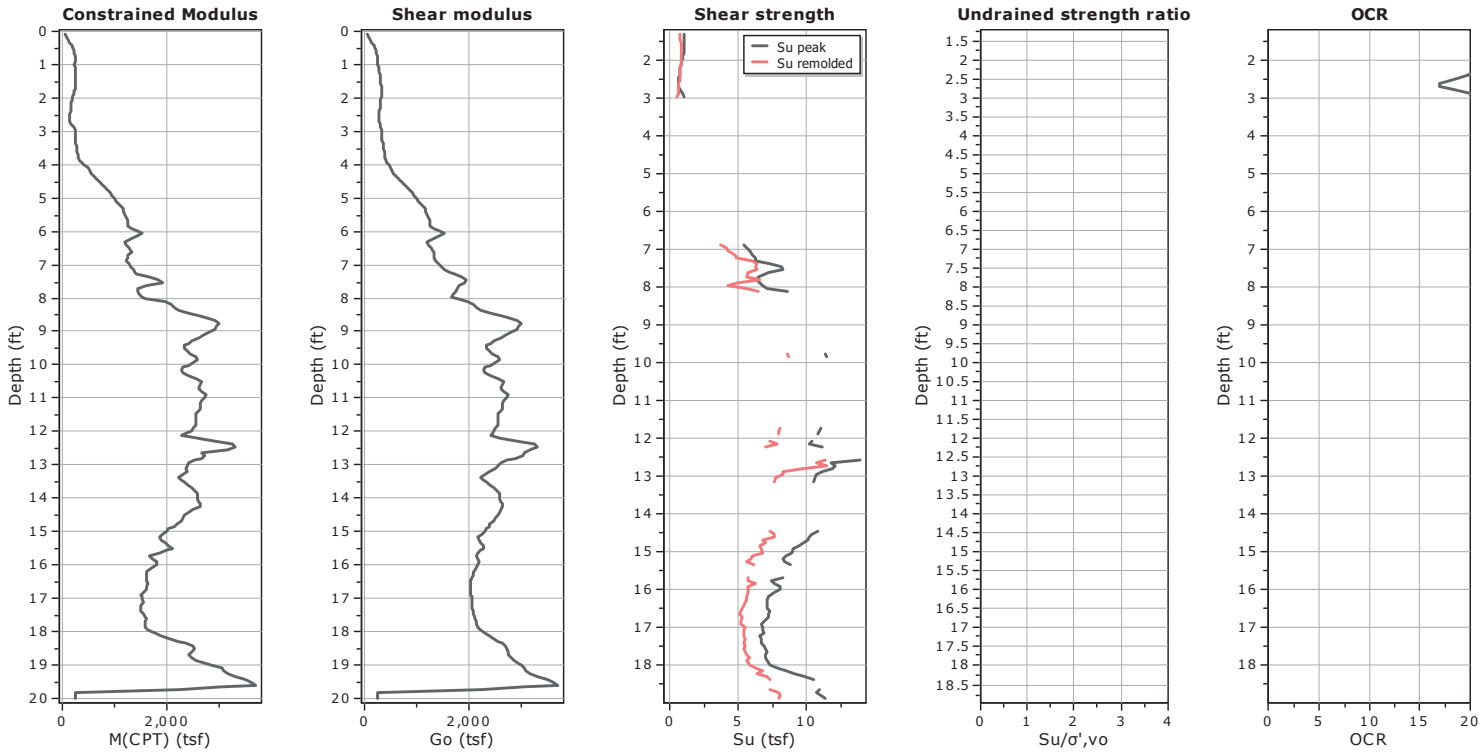
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-109
Total depth: 20.01 ft



Calculation parameters

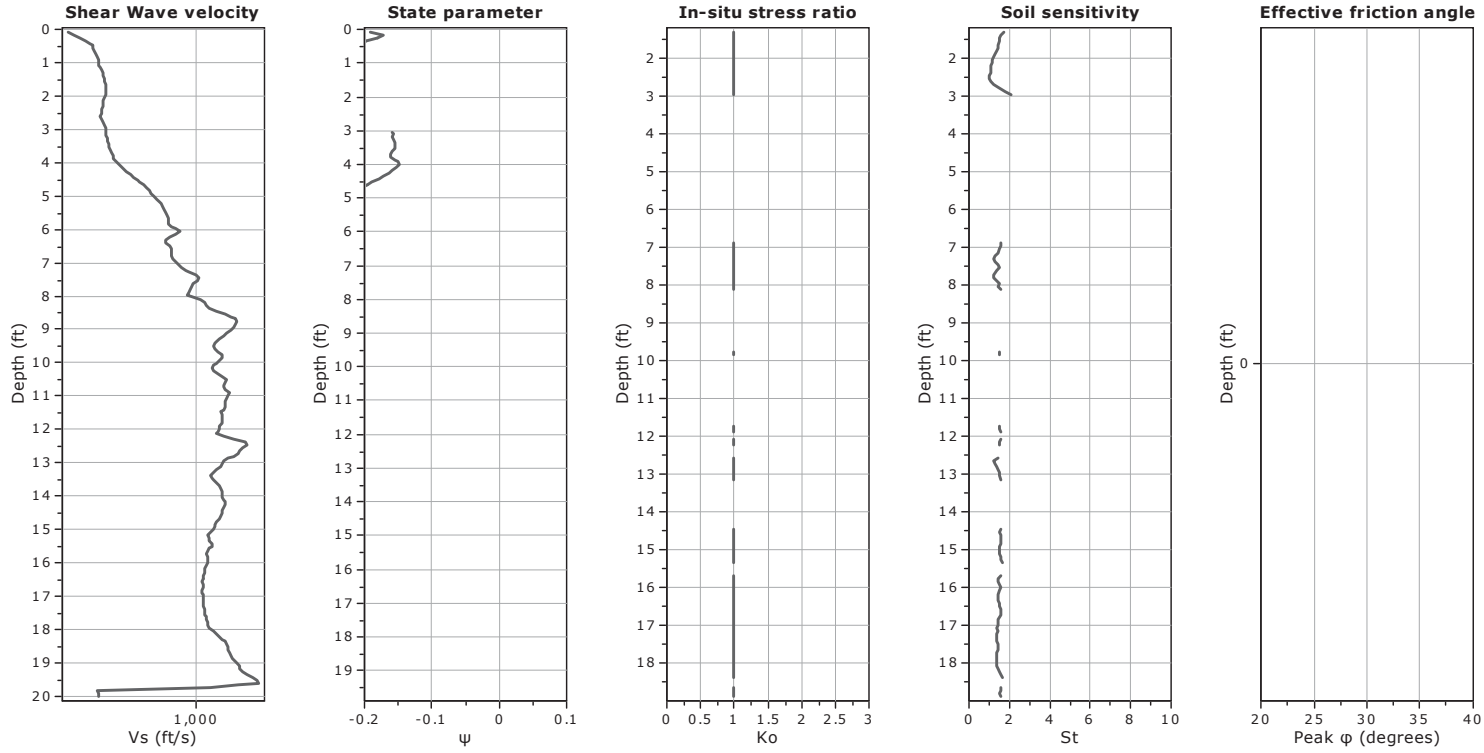
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-109
Total depth: 20.01 ft



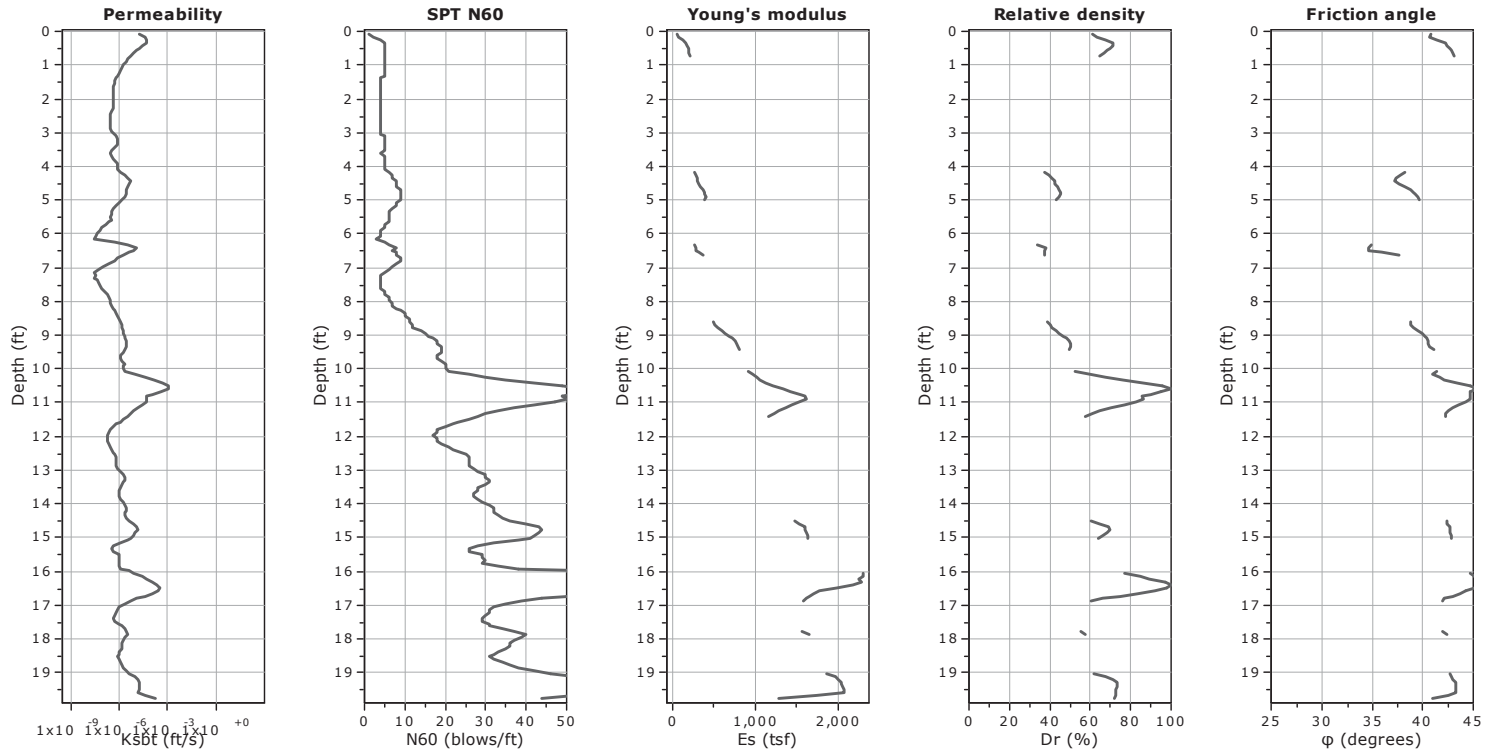
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-110
Total depth: 20.01 ft



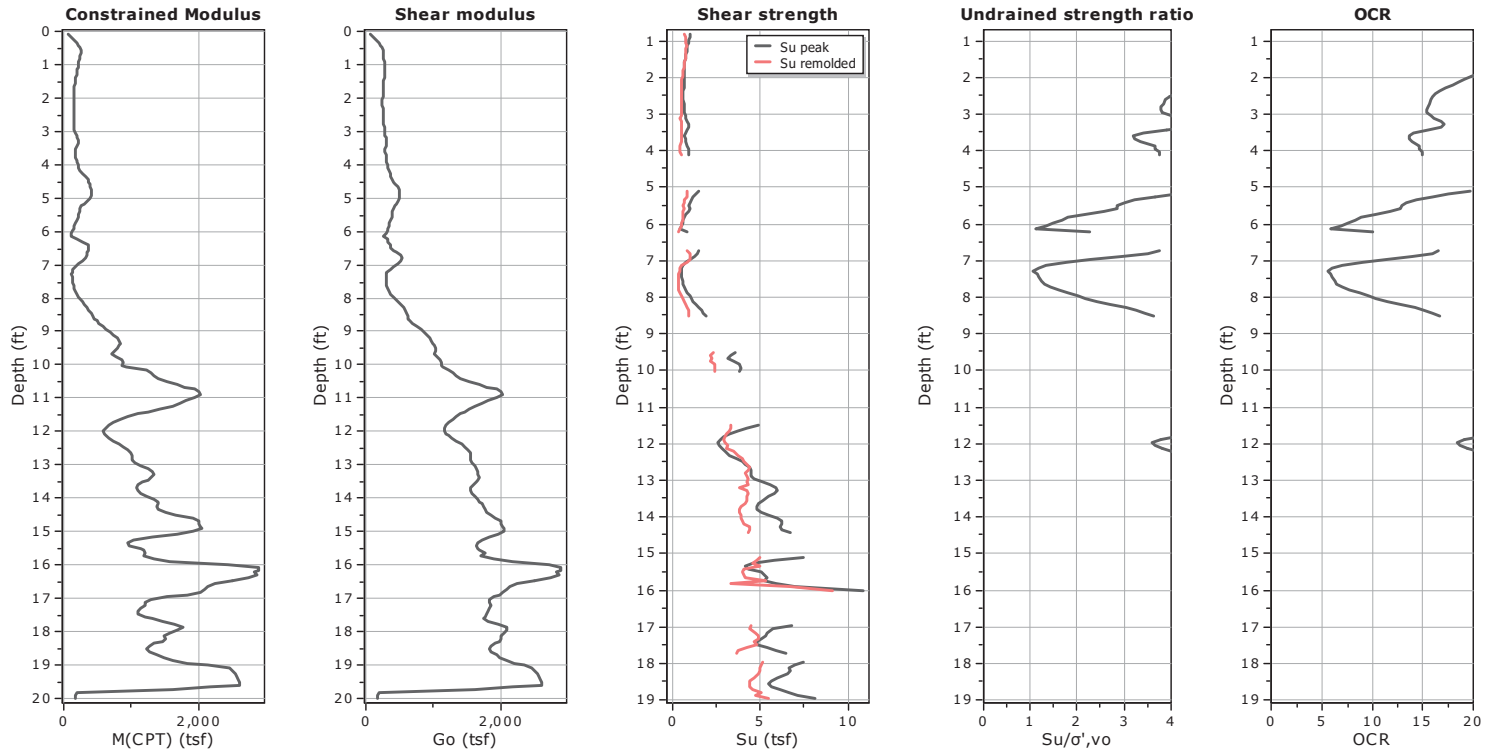
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-110
Total depth: 20.01 ft



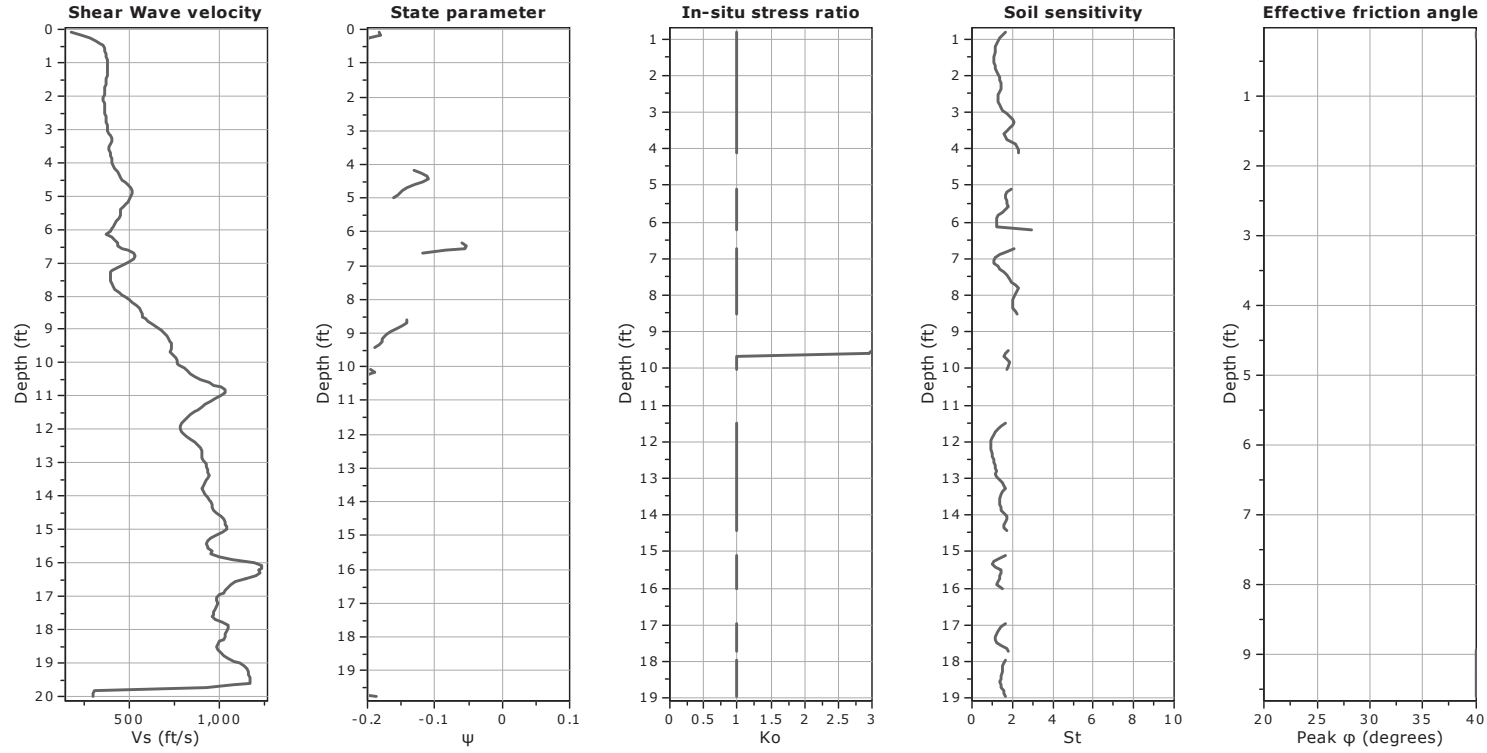
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-110
Total depth: 20.01 ft



Calculation parameters

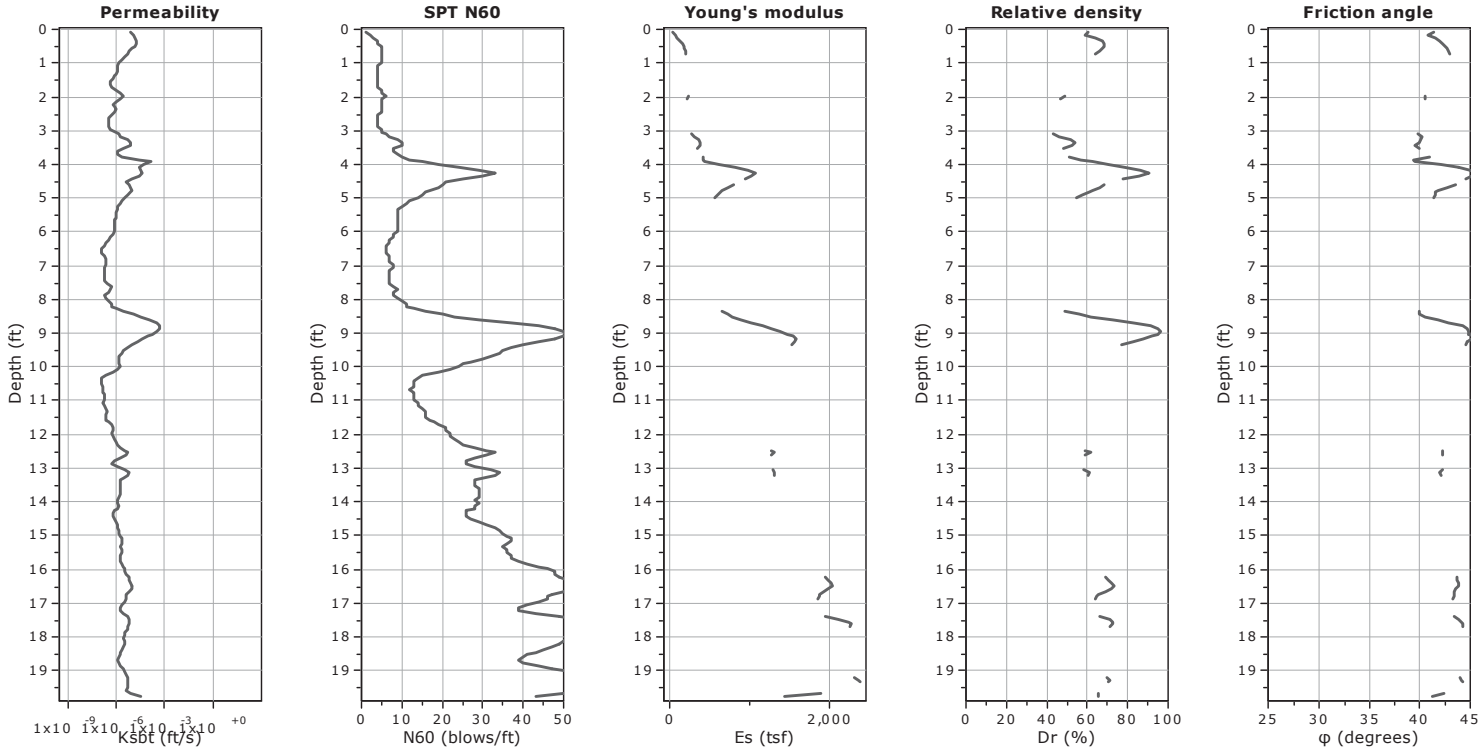
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-111
Total depth: 20.01 ft



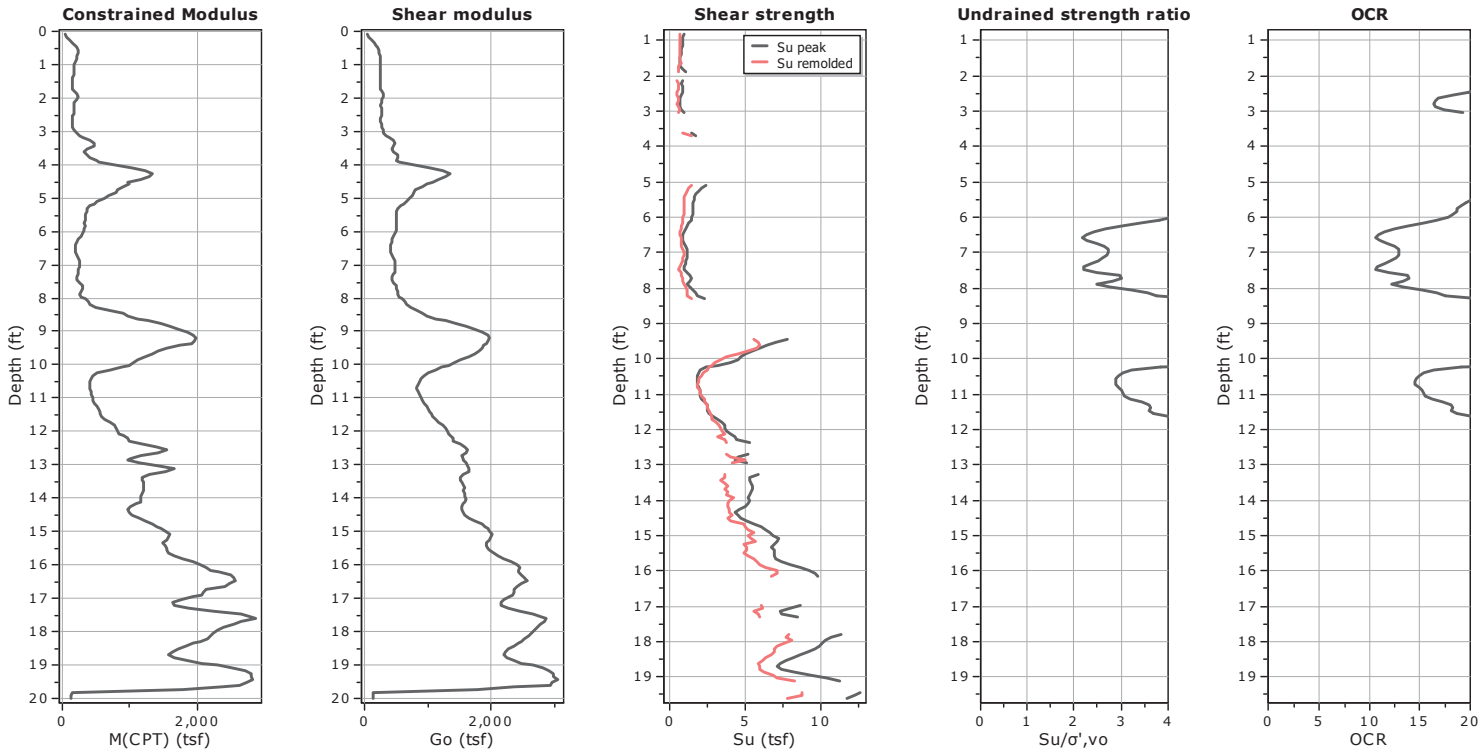
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-111
Total depth: 20.01 ft



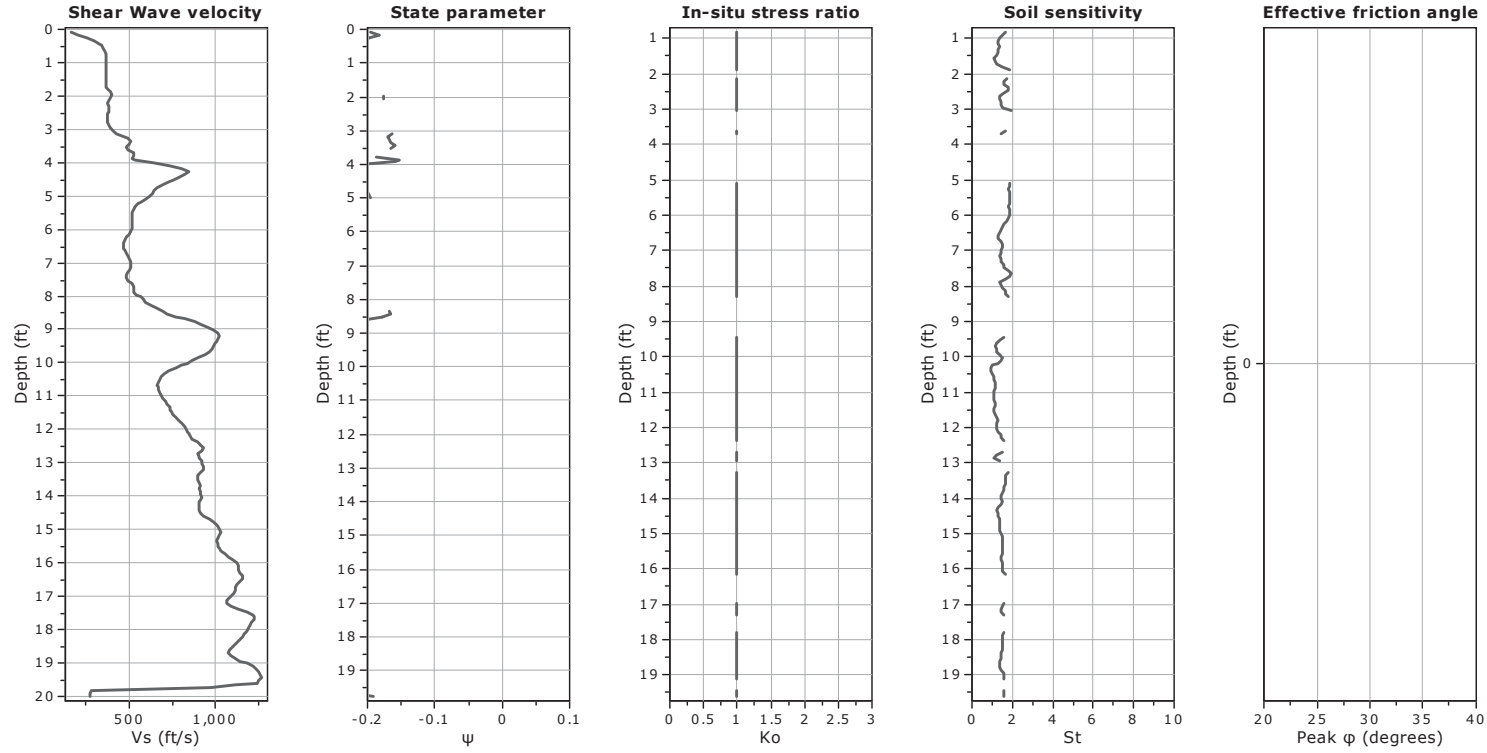
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-111
Total depth: 20.01 ft



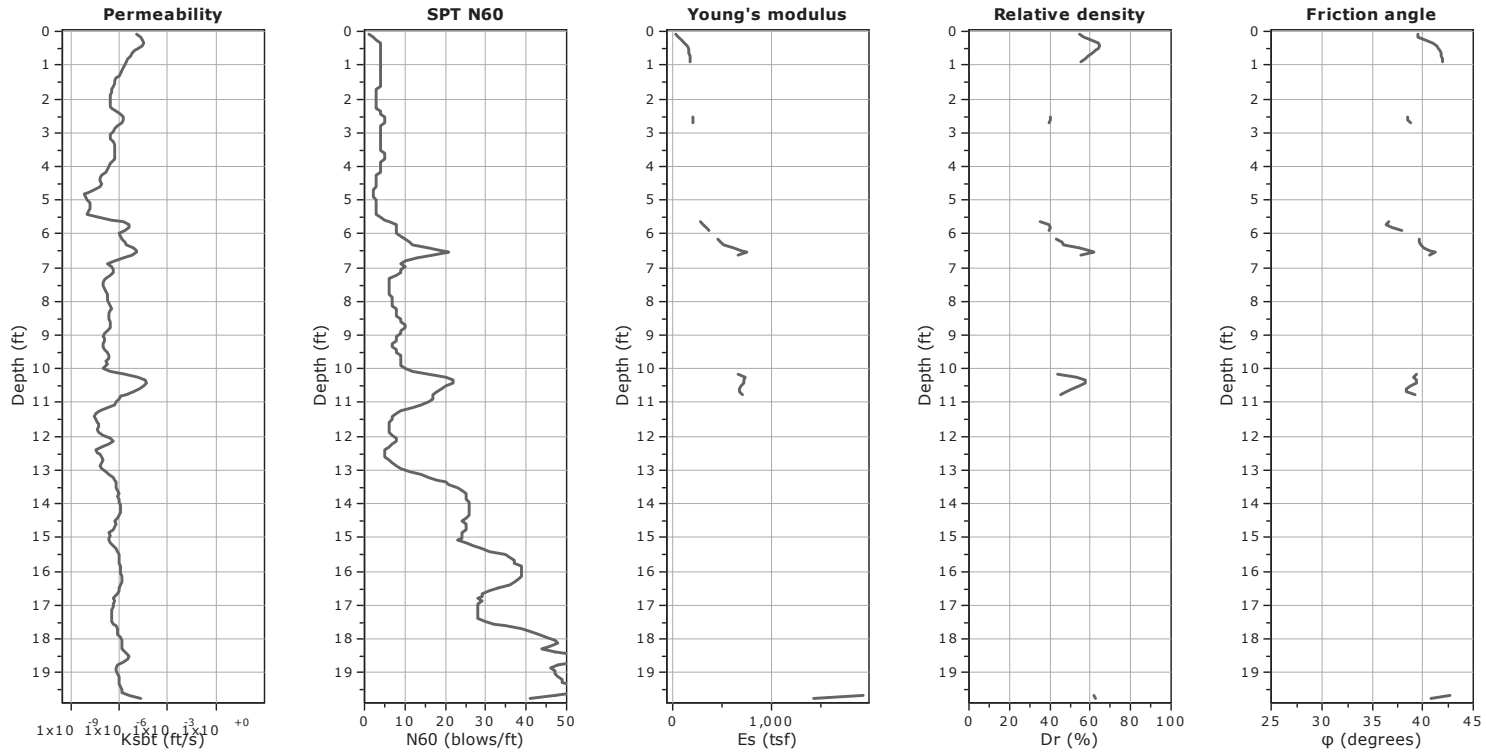
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-112
Total depth: 20.01 ft



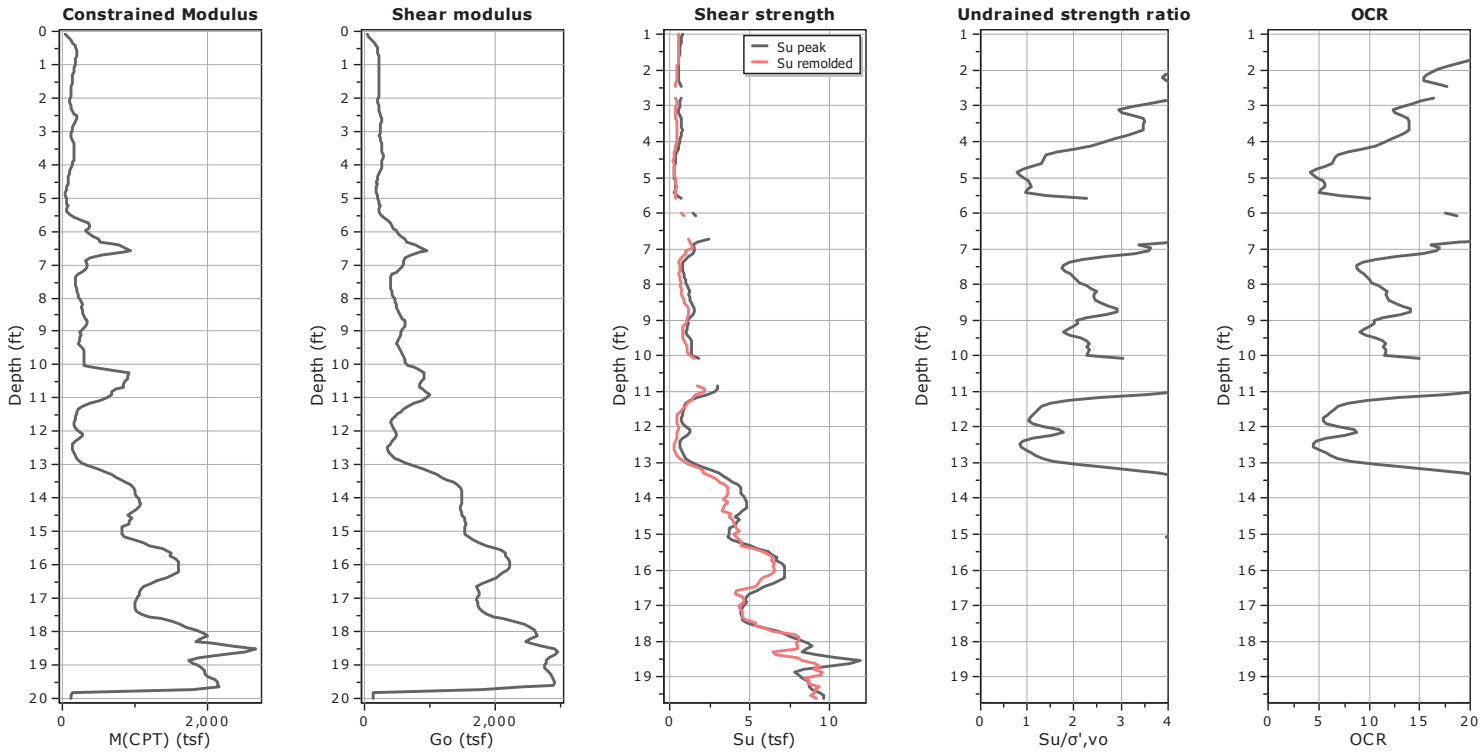
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-112
Total depth: 20.01 ft



Calculation parameters

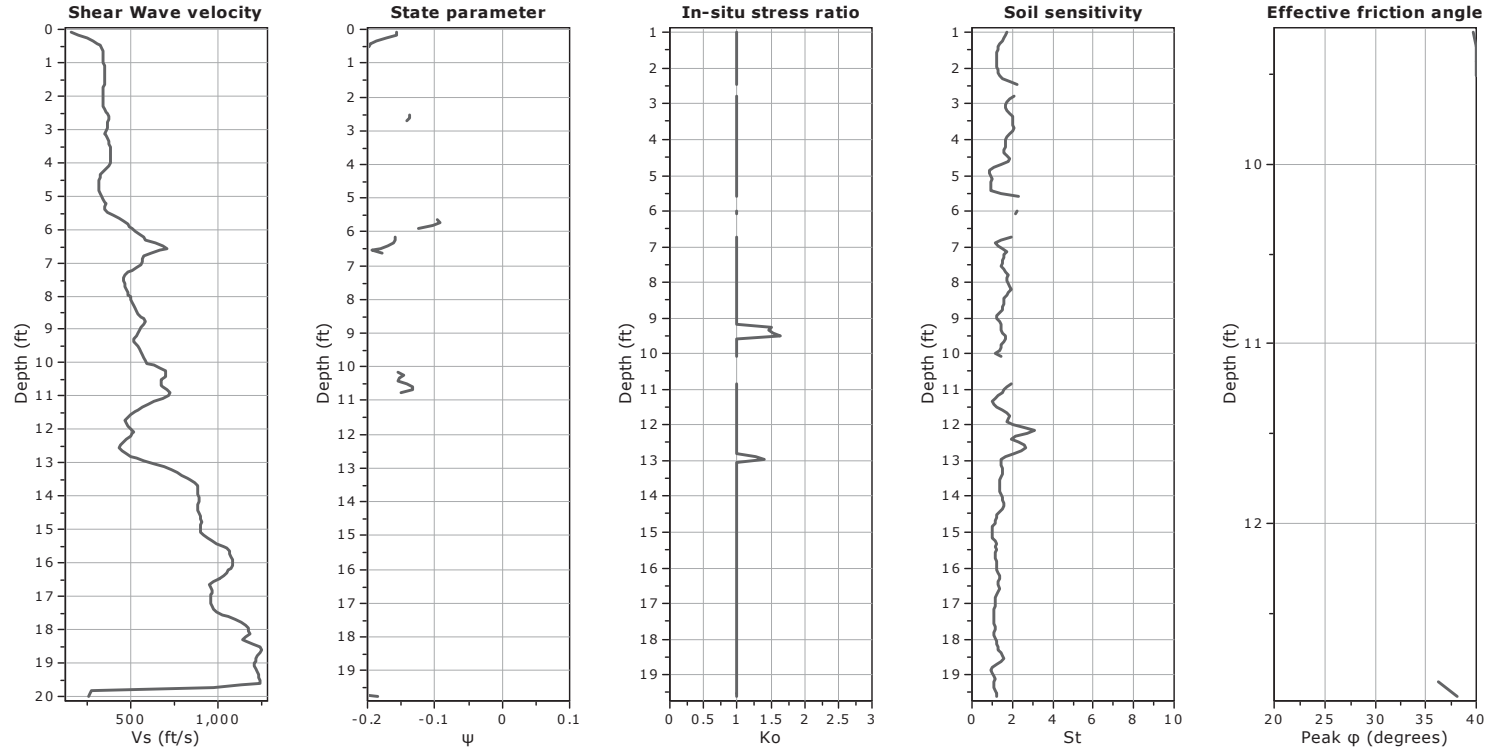
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-112
Total depth: 20.01 ft



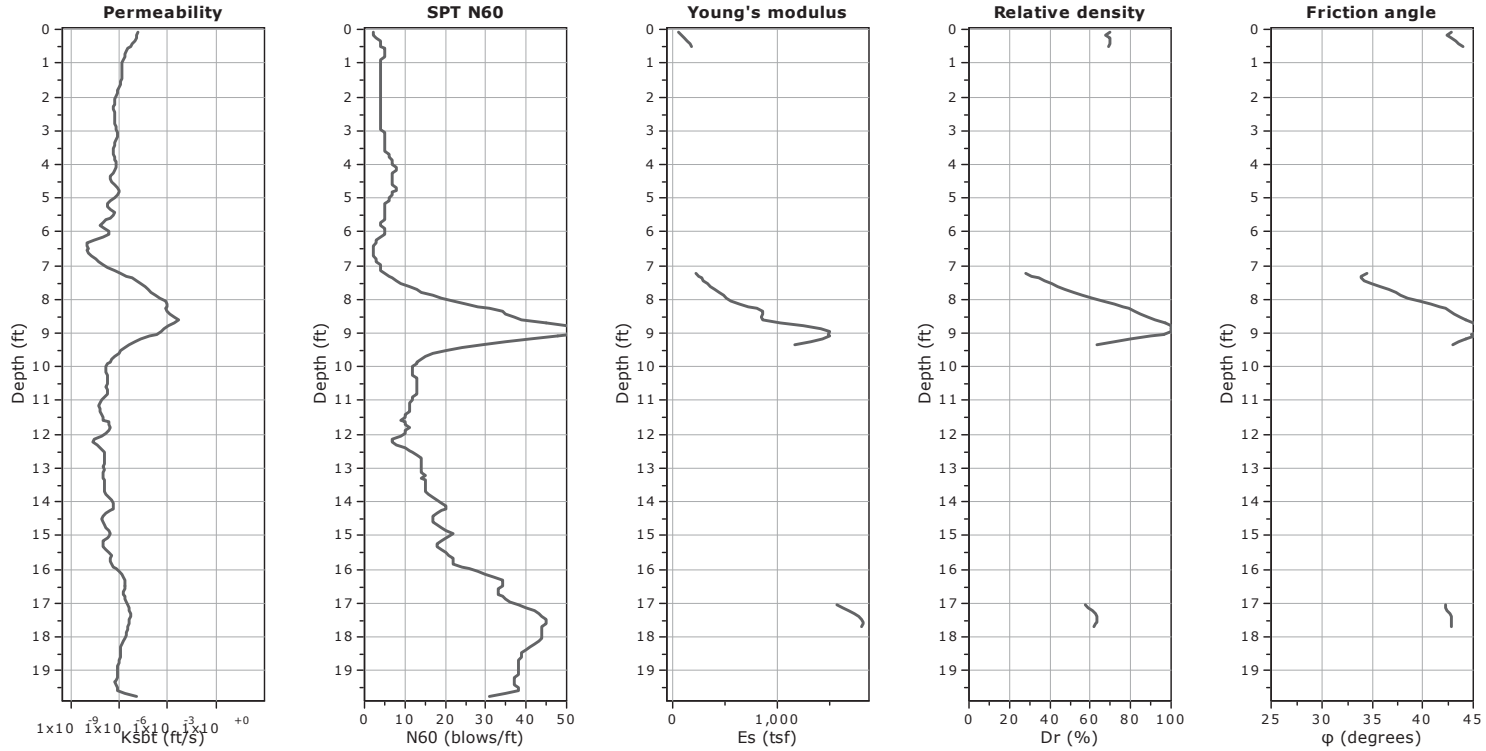
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-113
Total depth: 20.01 ft



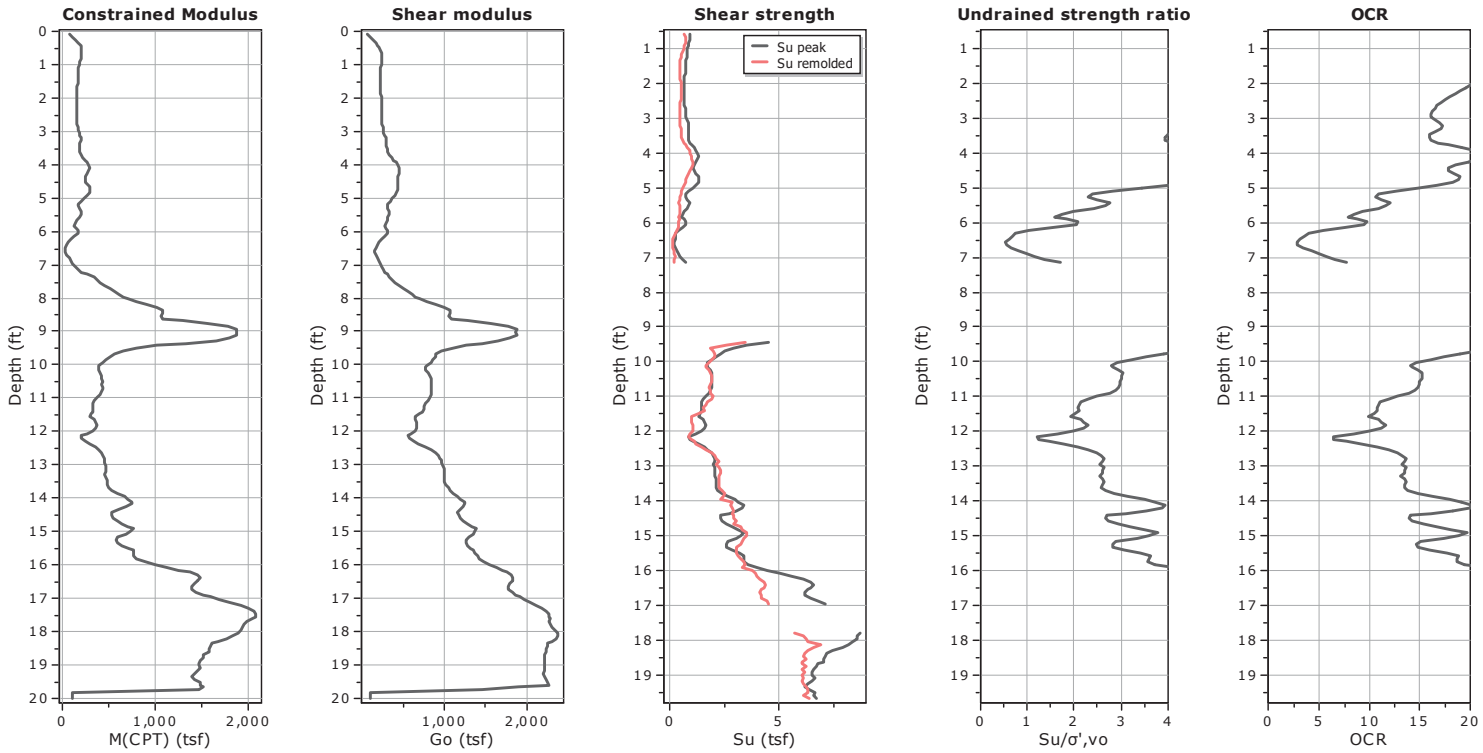
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-113
Total depth: 20.01 ft



Calculation parameters

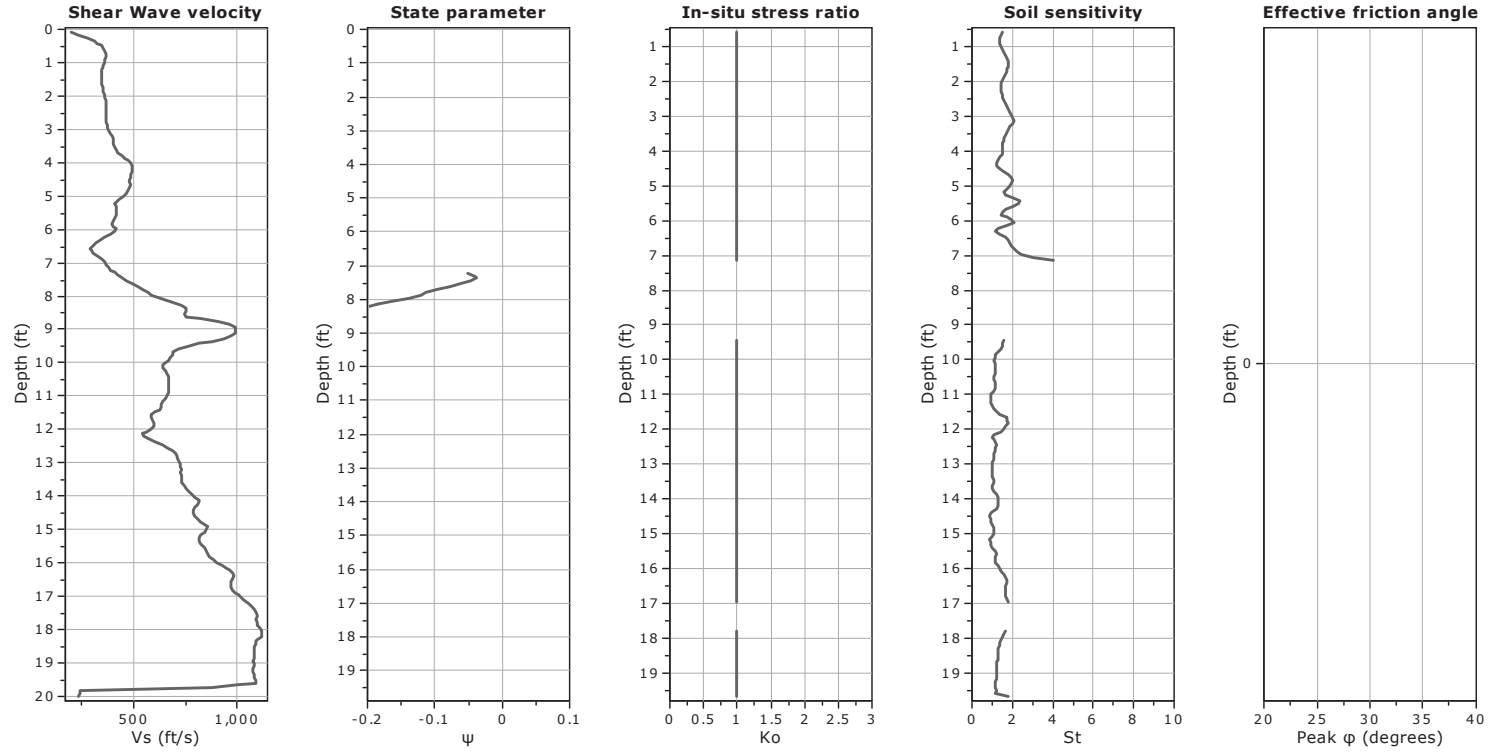
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-113
Total depth: 20.01 ft



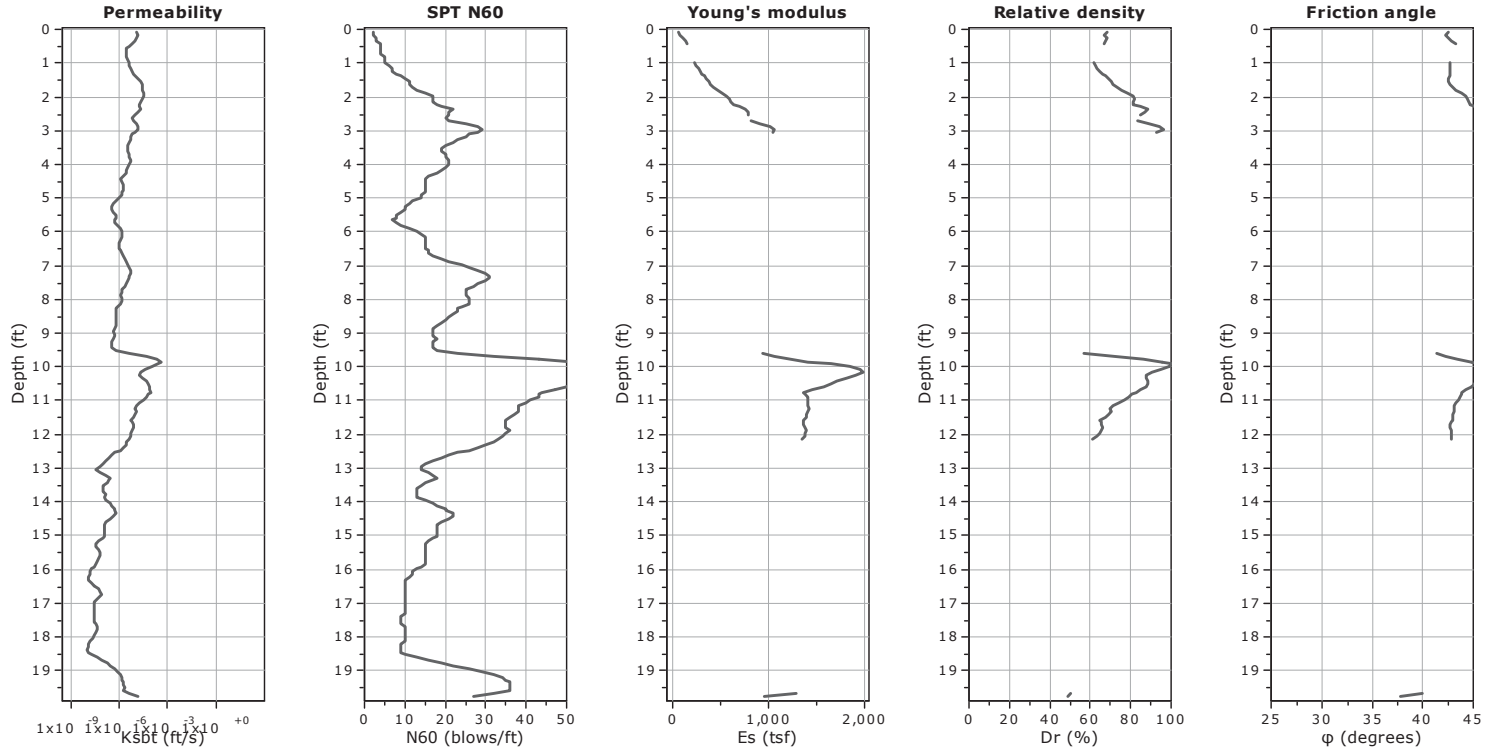
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-114
Total depth: 20.01 ft



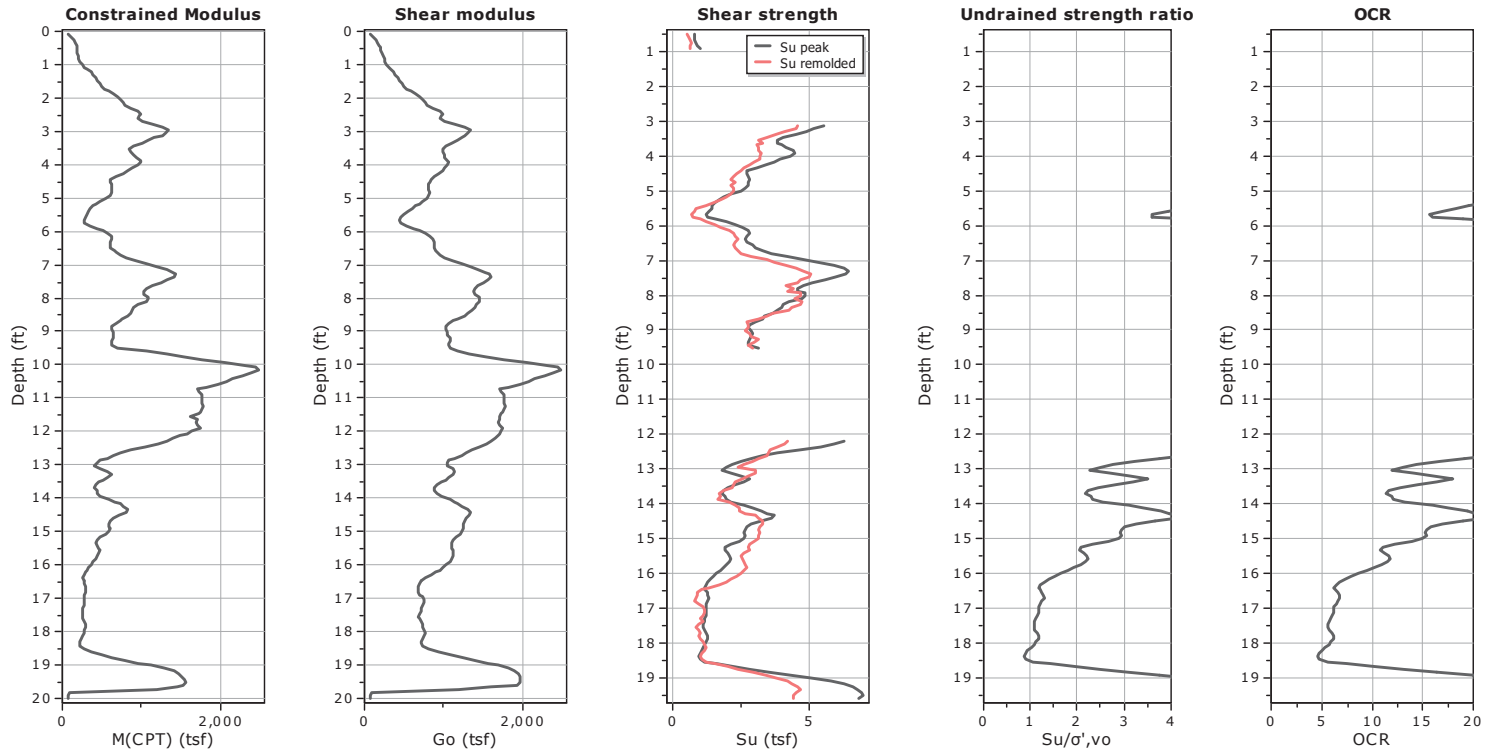
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-114
Total depth: 20.01 ft



Calculation parameters

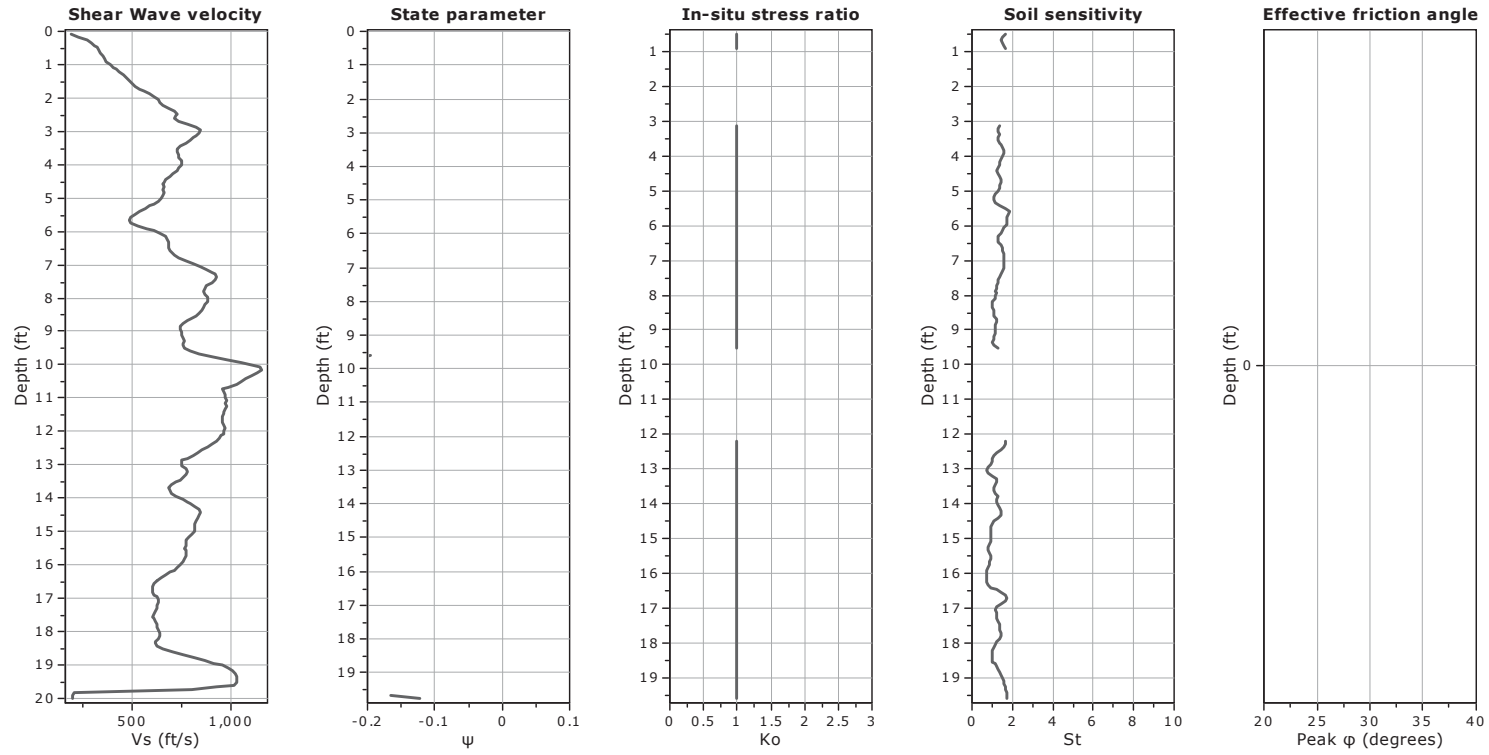
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-114
Total depth: 20.01 ft



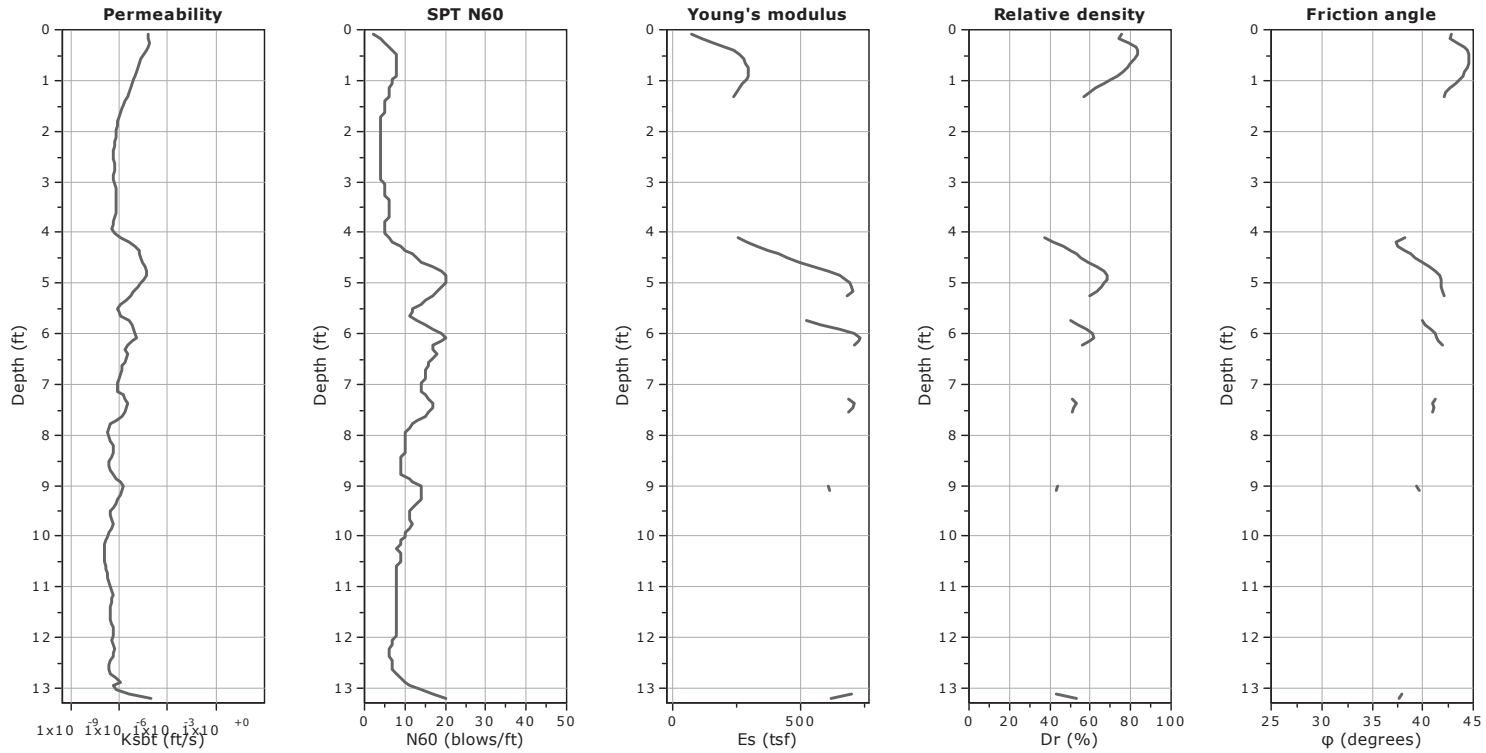
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-115
Total depth: 13.45 ft



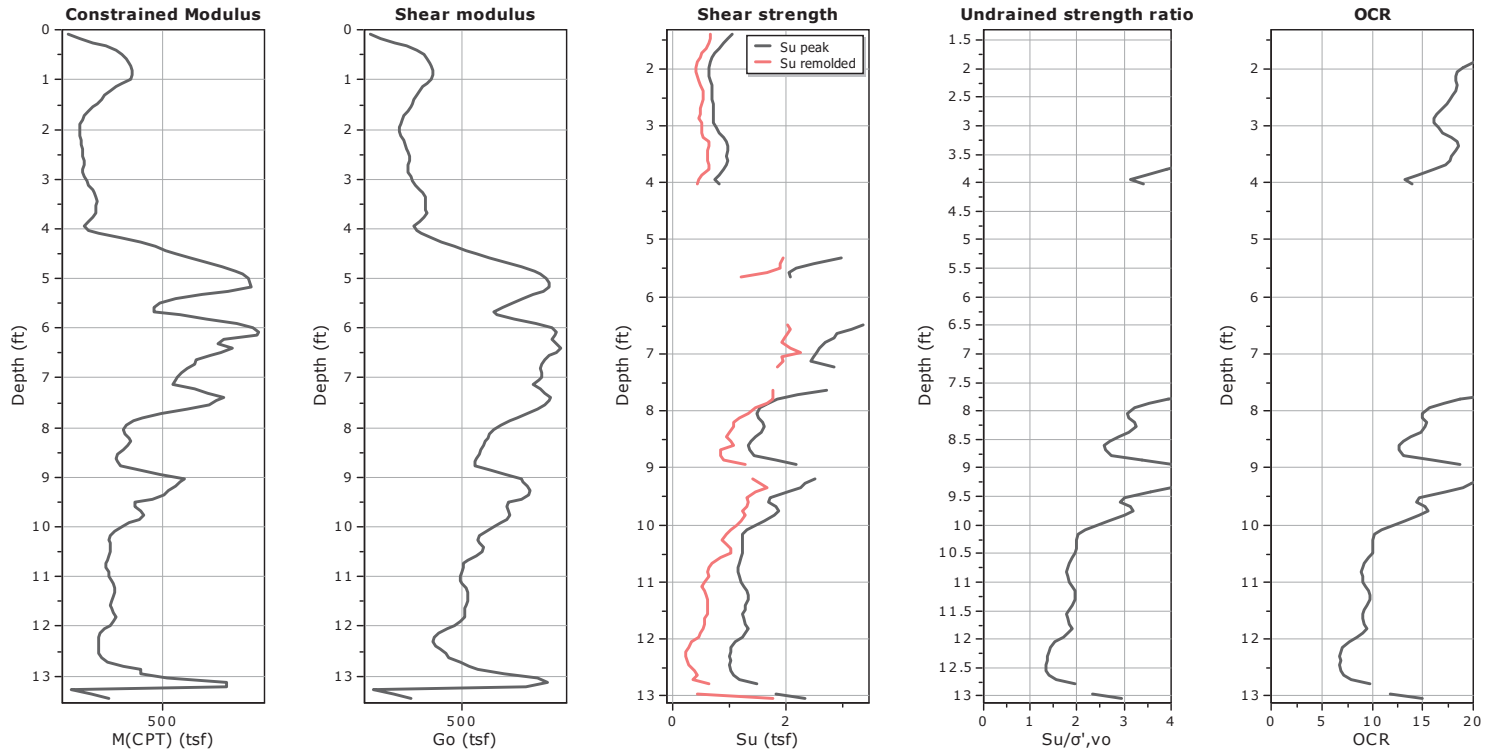
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-115
Total depth: 13.45 ft



Calculation parameters

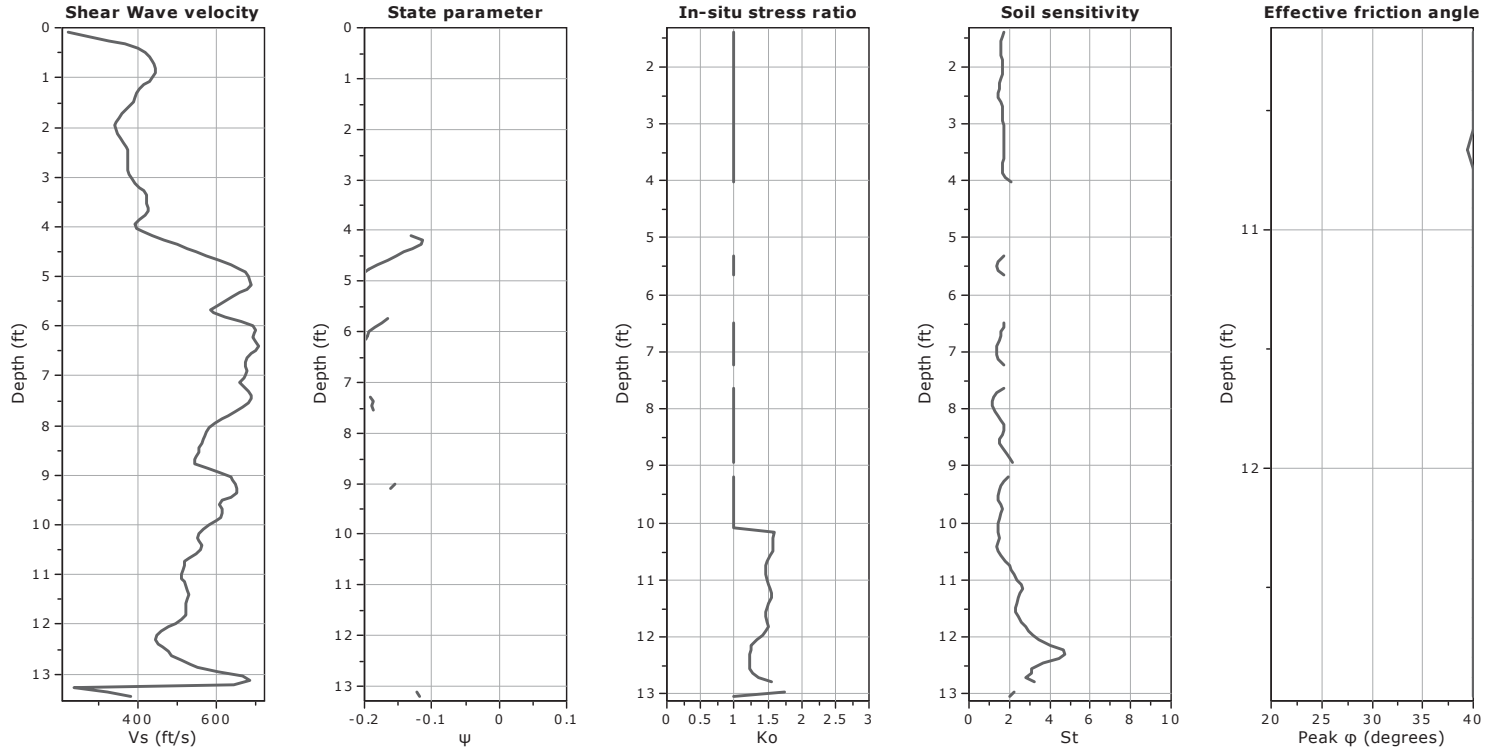
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-115
Total depth: 13.45 ft



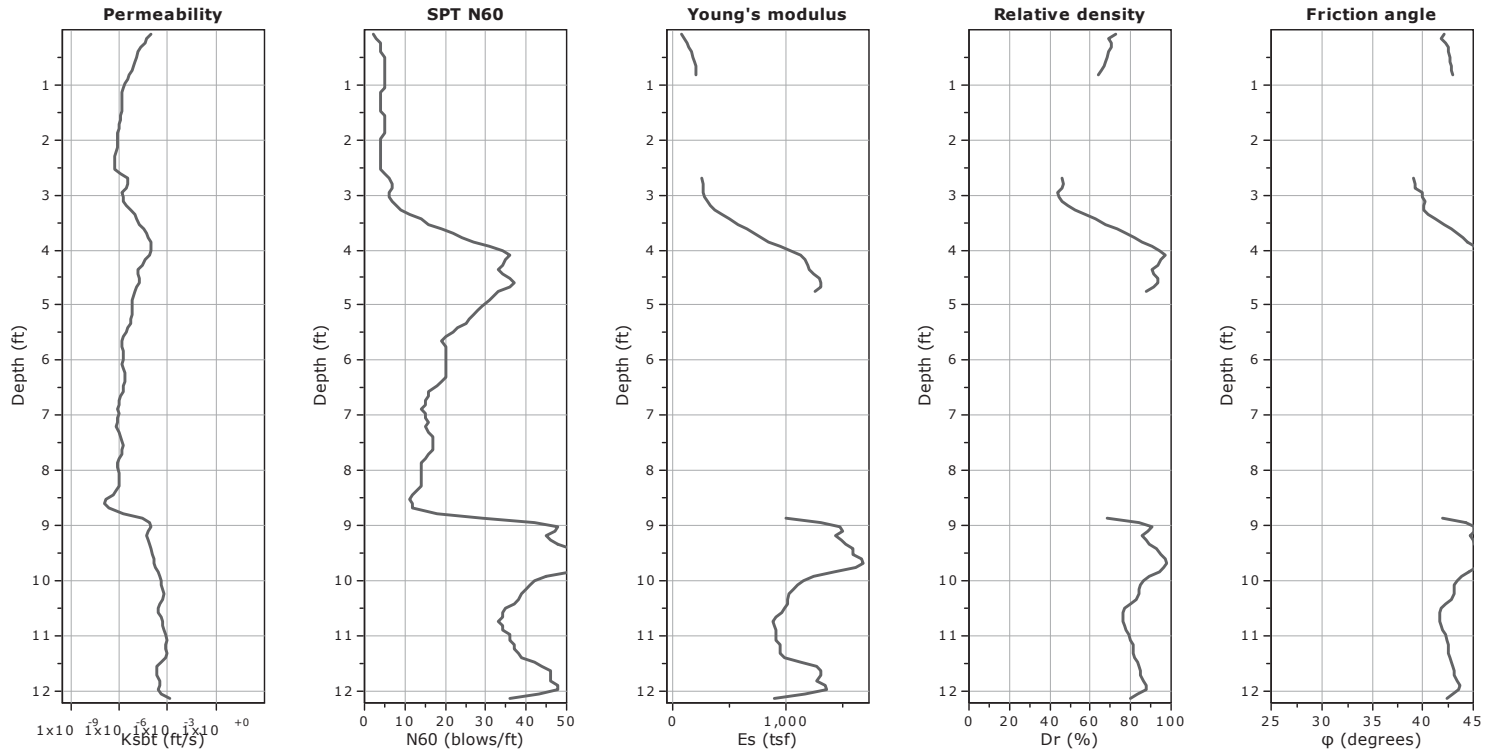
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-116
Total depth: 12.39 ft



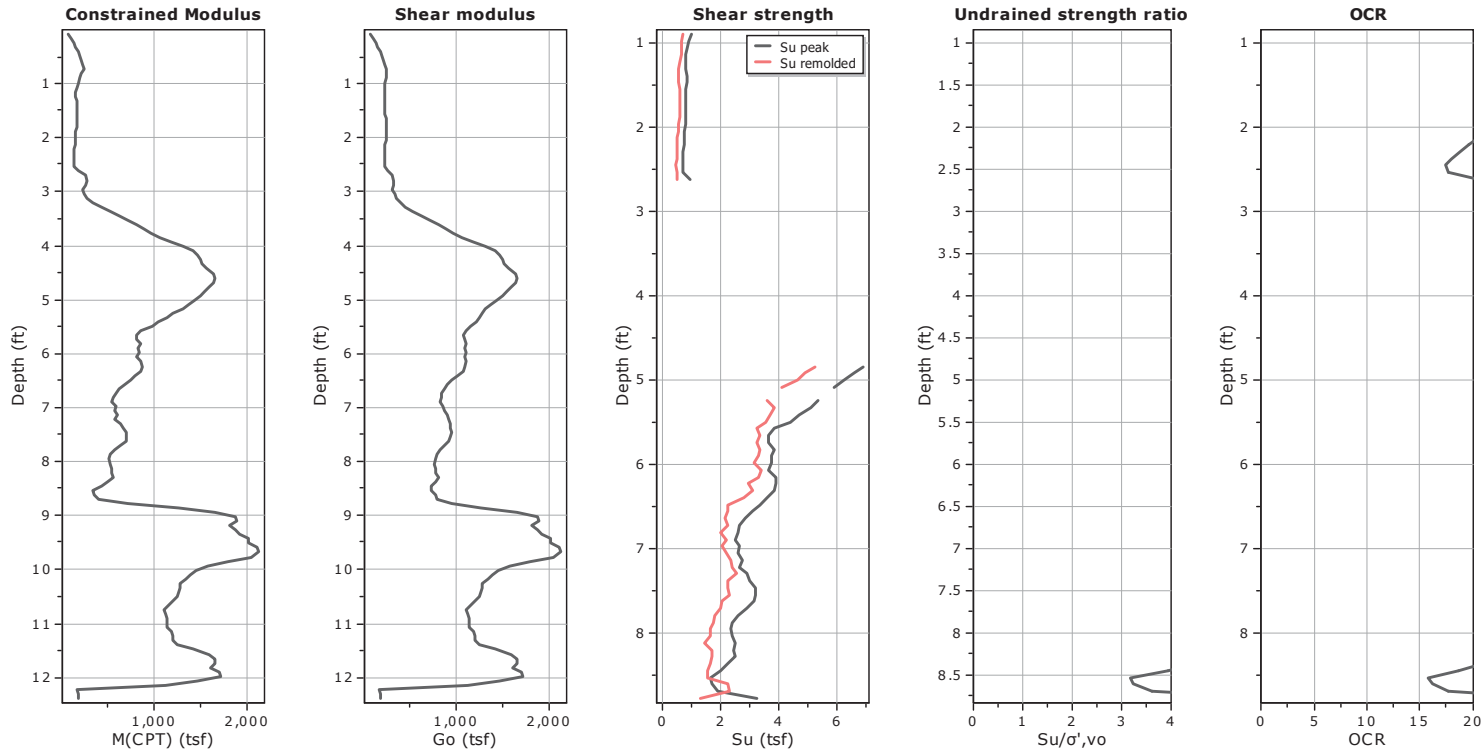
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-116
Total depth: 12.39 ft



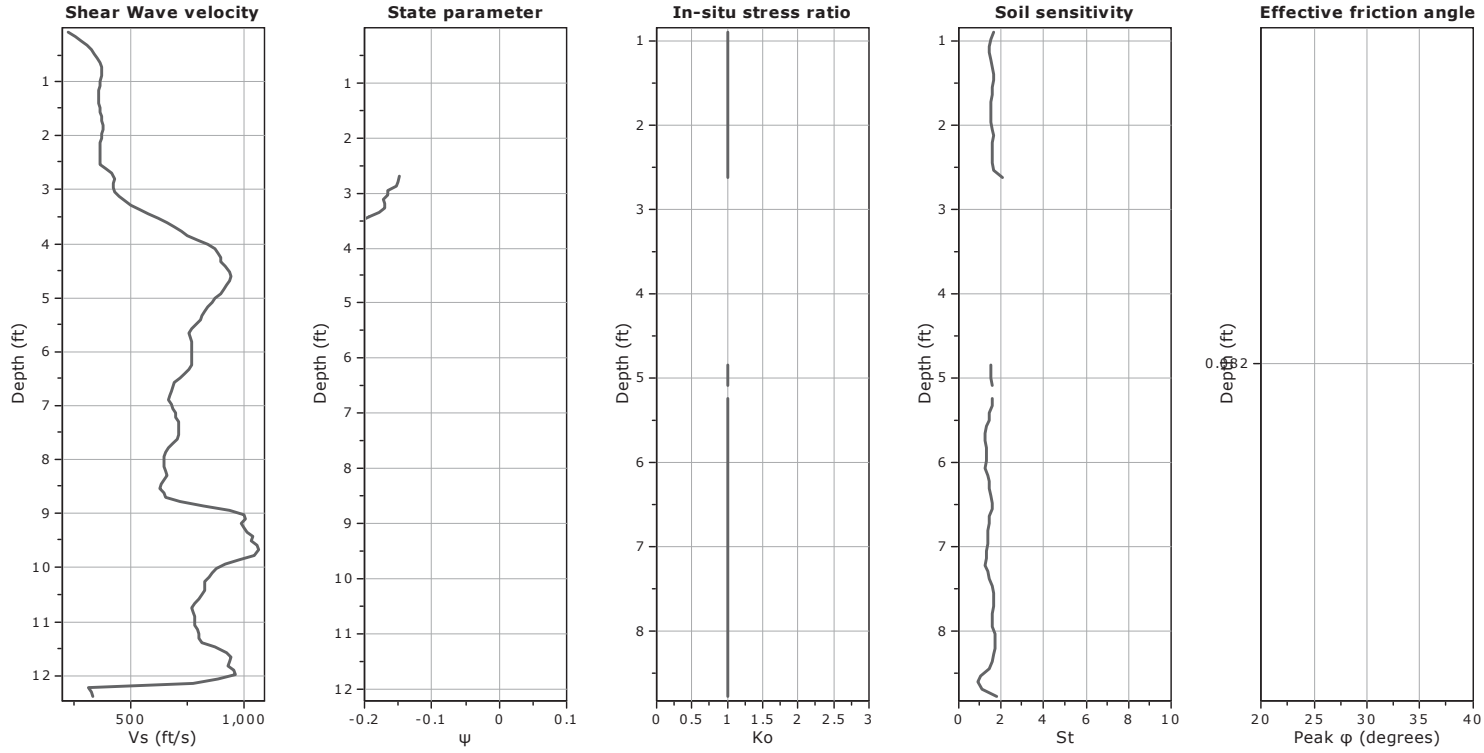
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-116
Total depth: 12.39 ft



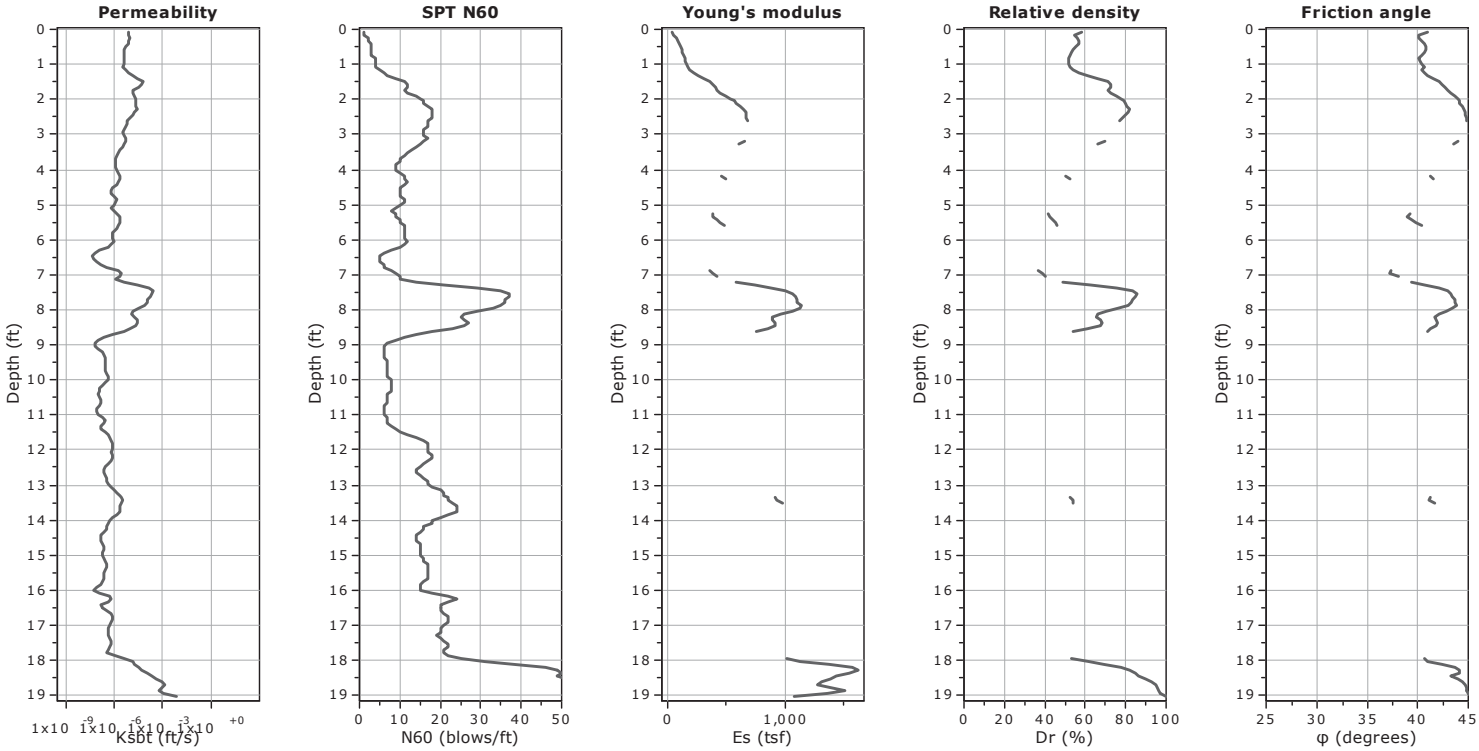
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-117
Total depth: 19.27 ft



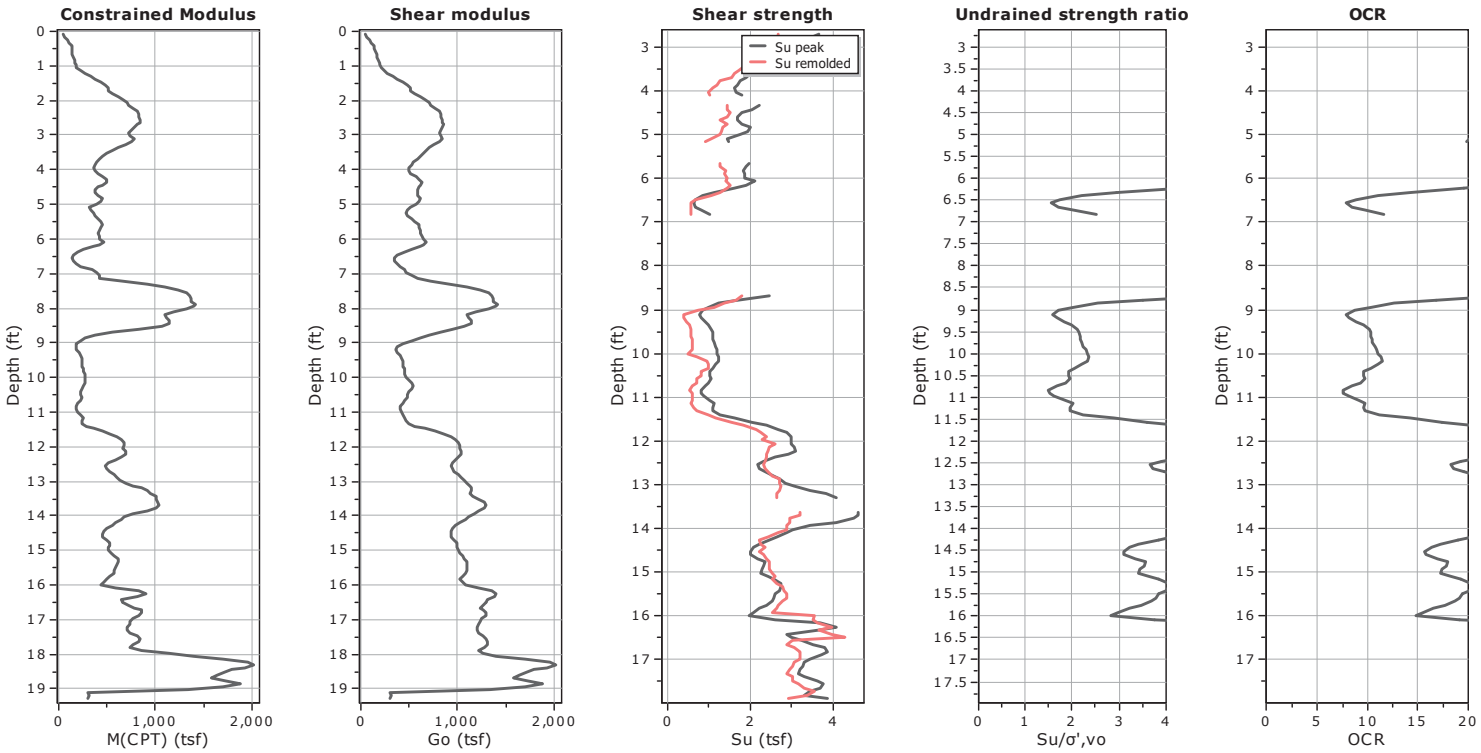
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-117
Total depth: 19.27 ft



Calculation parameters

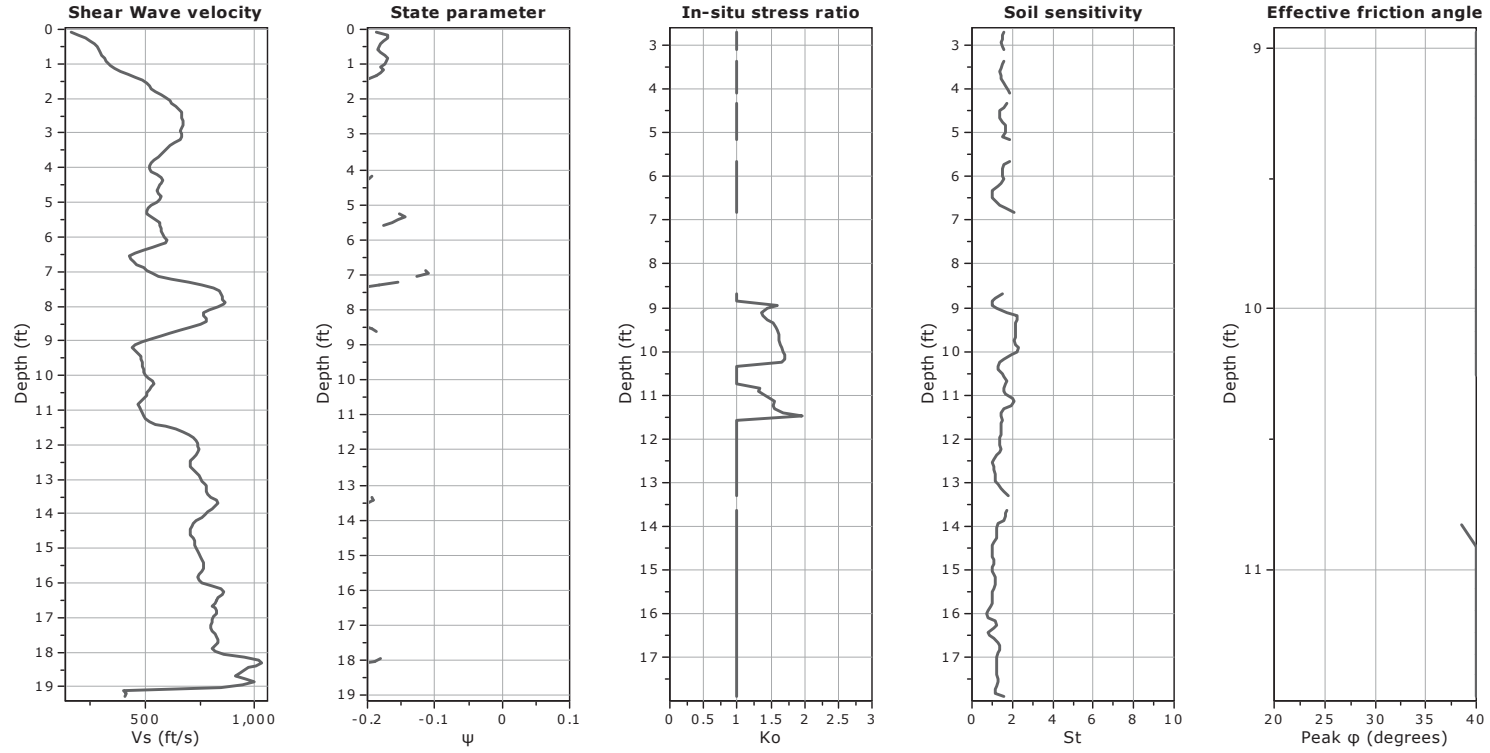
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-117
Total depth: 19.27 ft



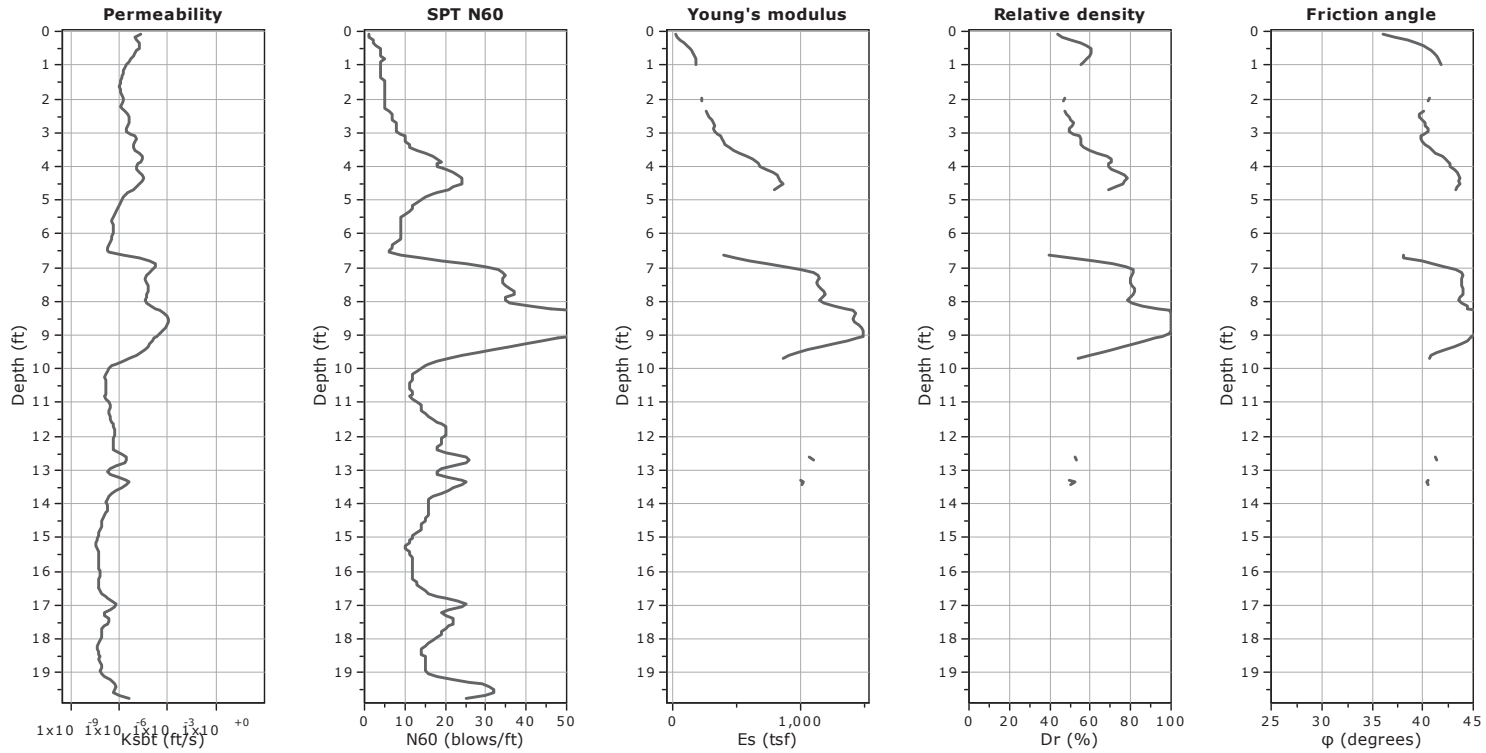
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-118
Total depth: 20.01 ft



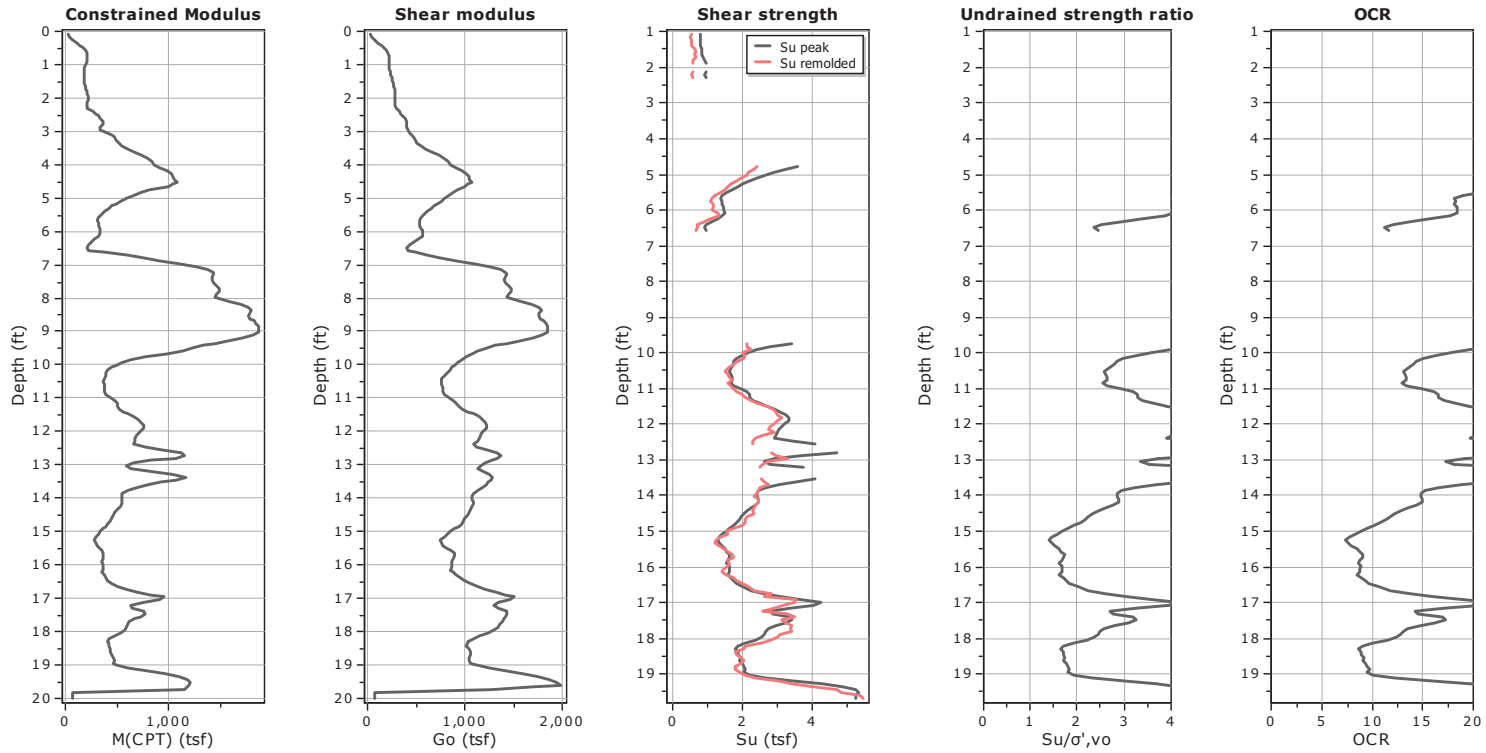
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-118
Total depth: 20.01 ft



Calculation parameters

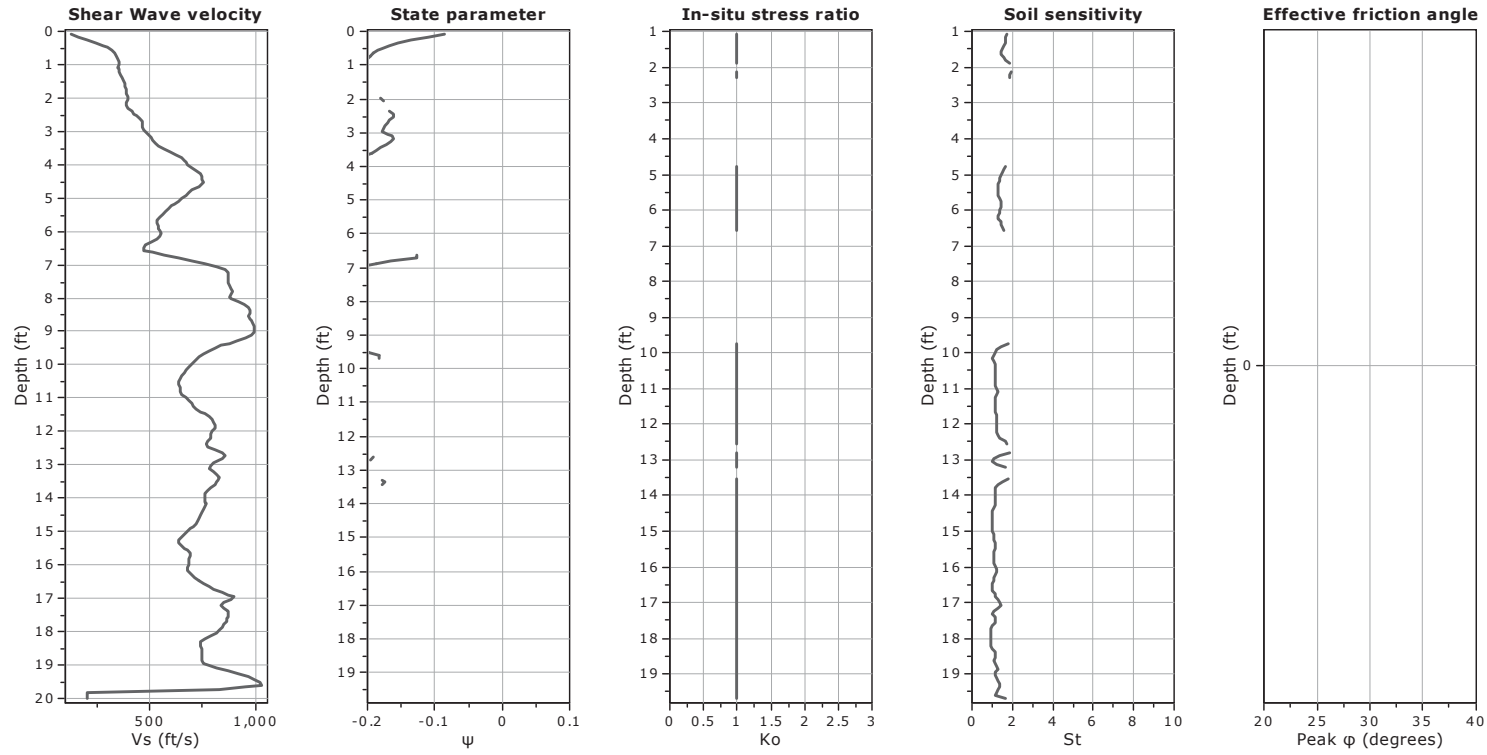
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-118
Total depth: 20.01 ft



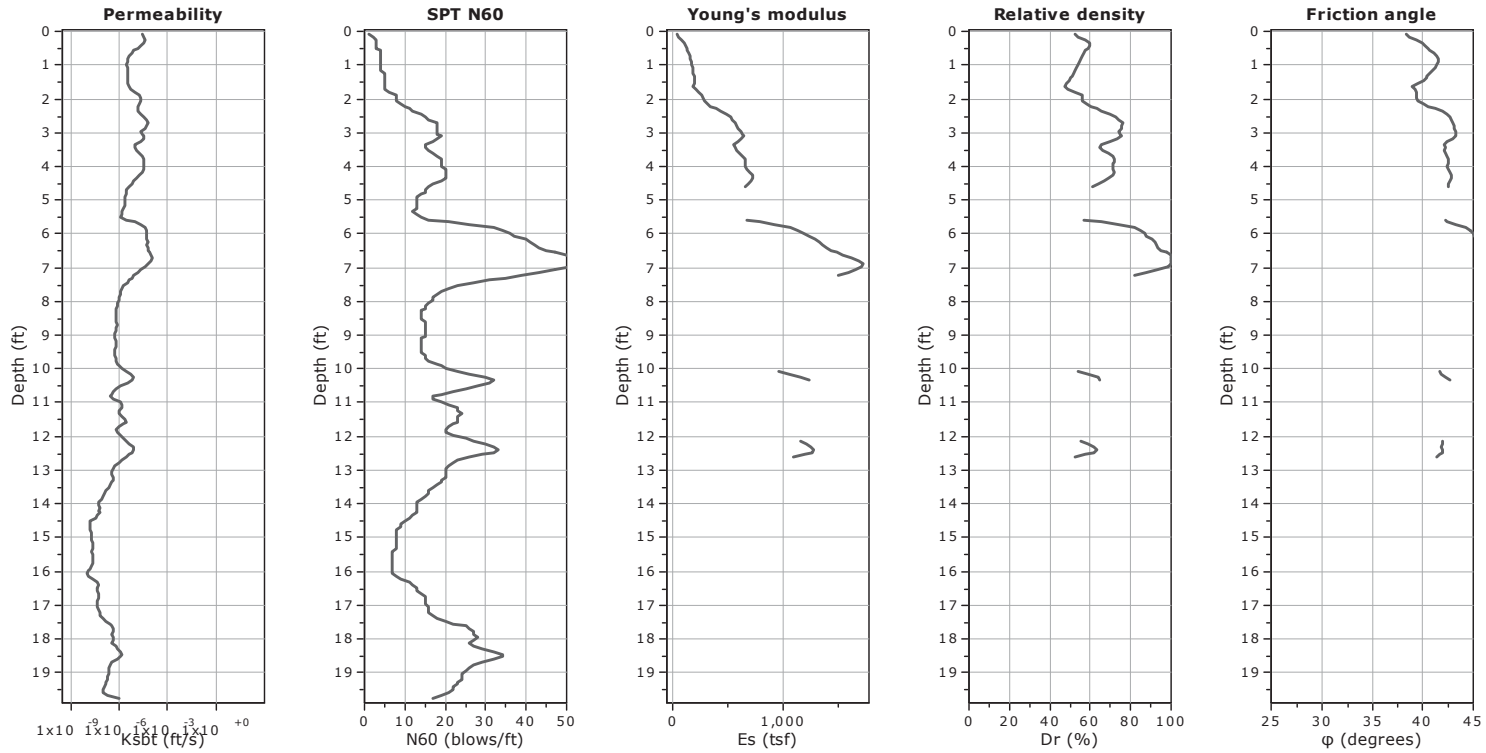
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-119
Total depth: 20.01 ft



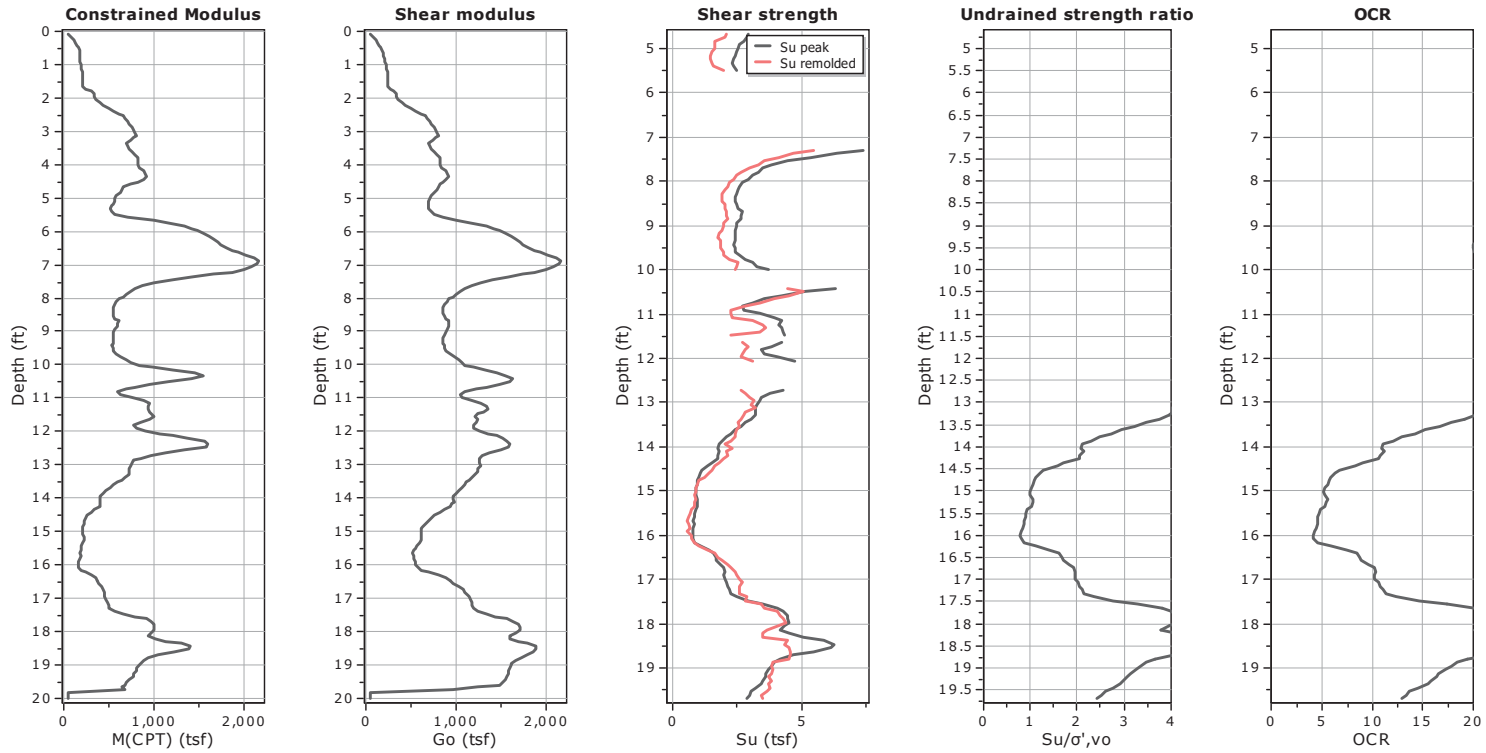
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-119
Total depth: 20.01 ft



Calculation parameters

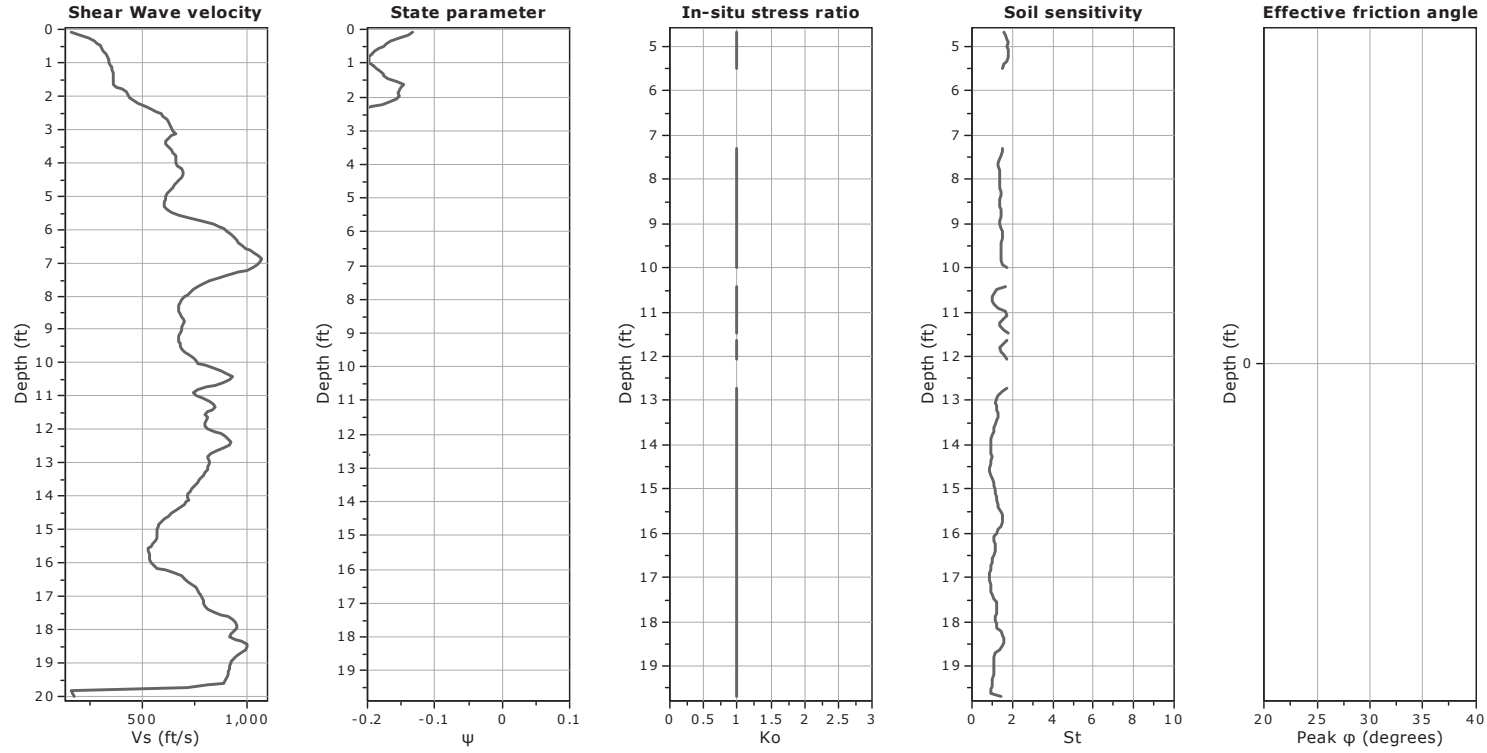
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-119
Total depth: 20.01 ft



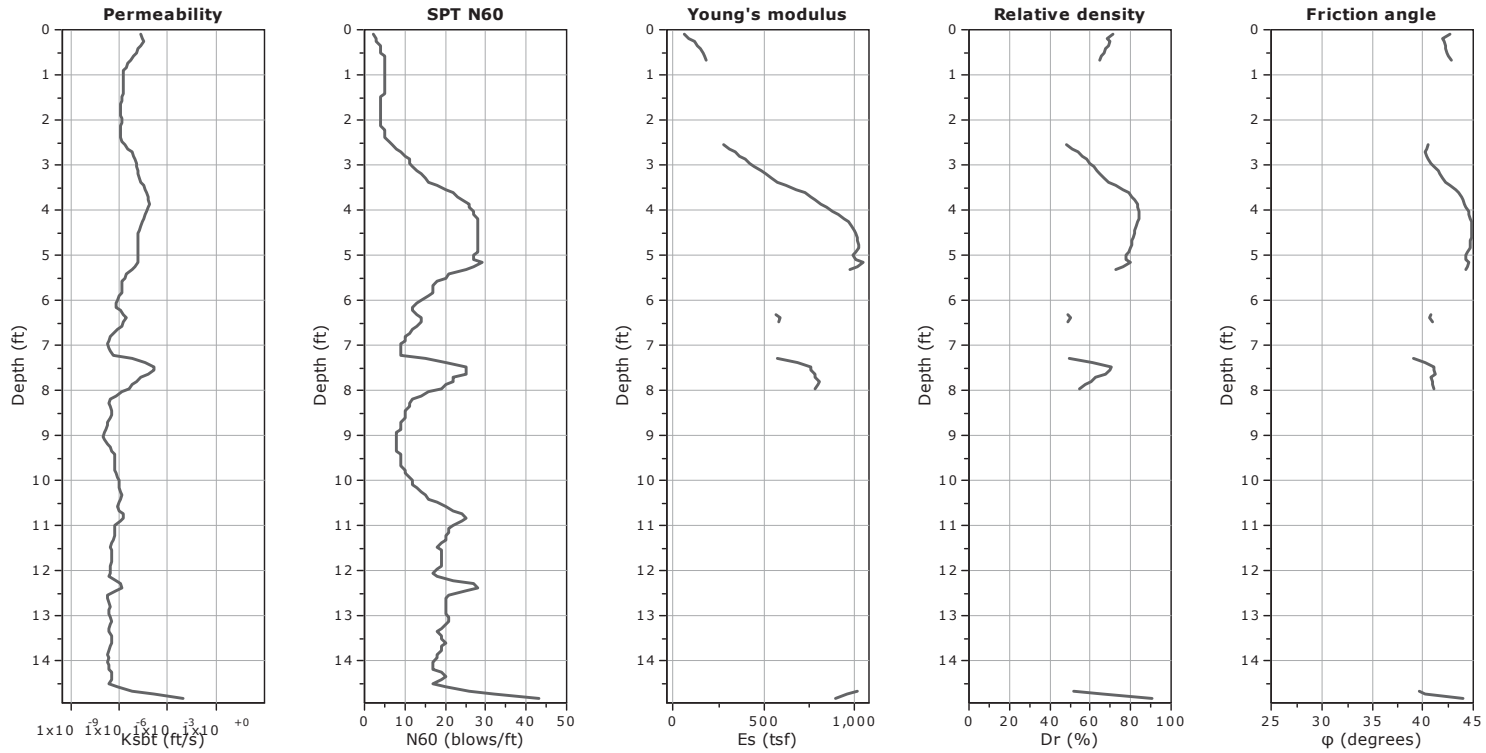
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-201
Total depth: 15.09 ft



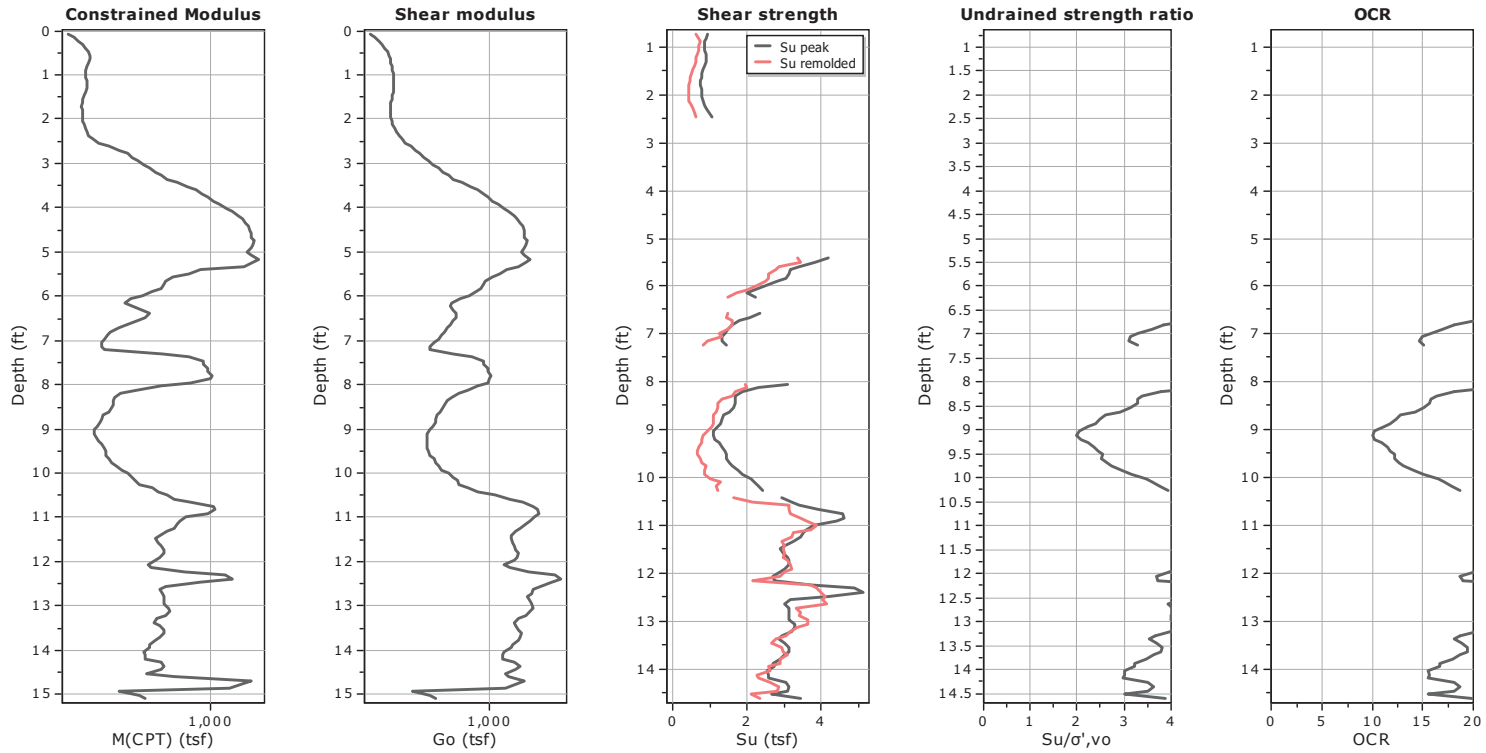
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-201
Total depth: 15.09 ft



Calculation parameters

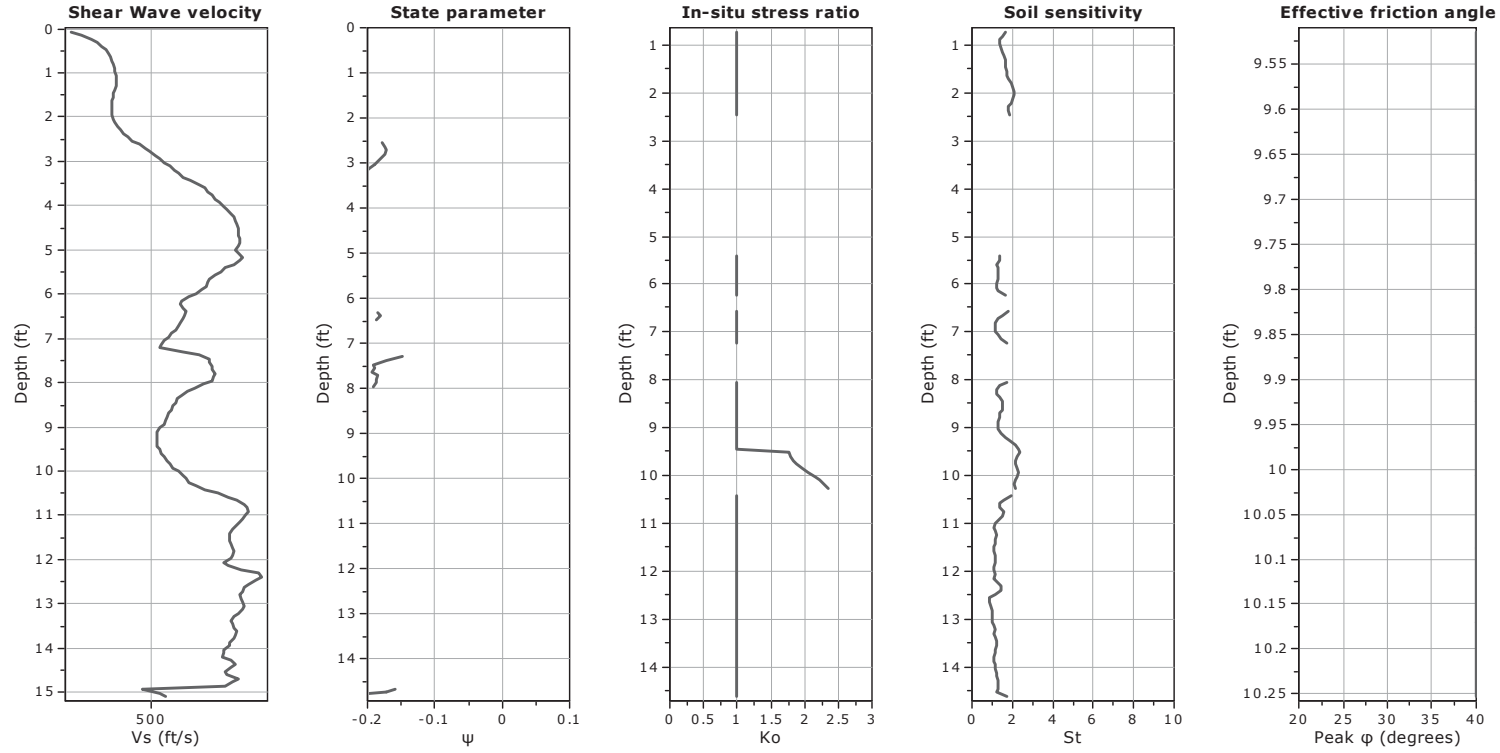
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-201
Total depth: 15.09 ft



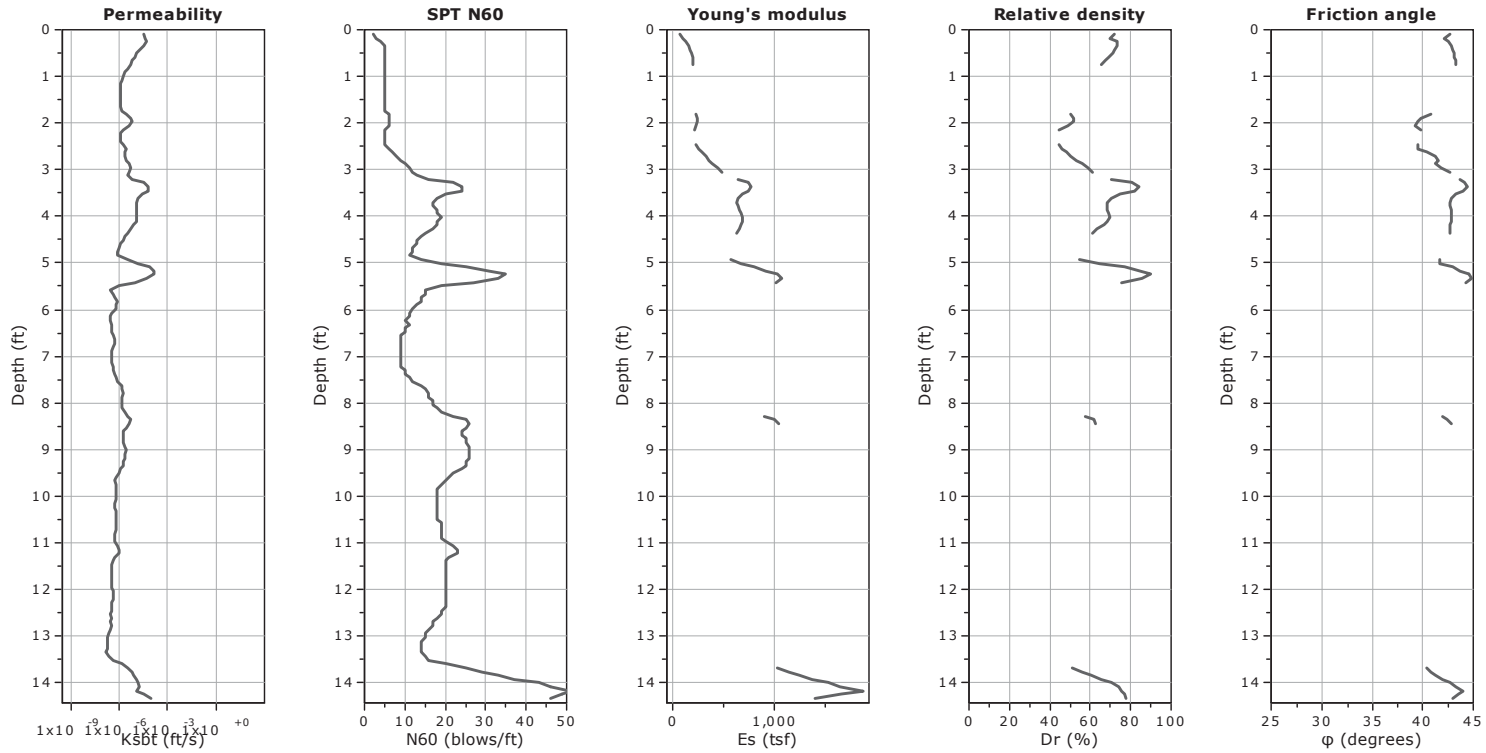
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-202
Total depth: 14.60 ft



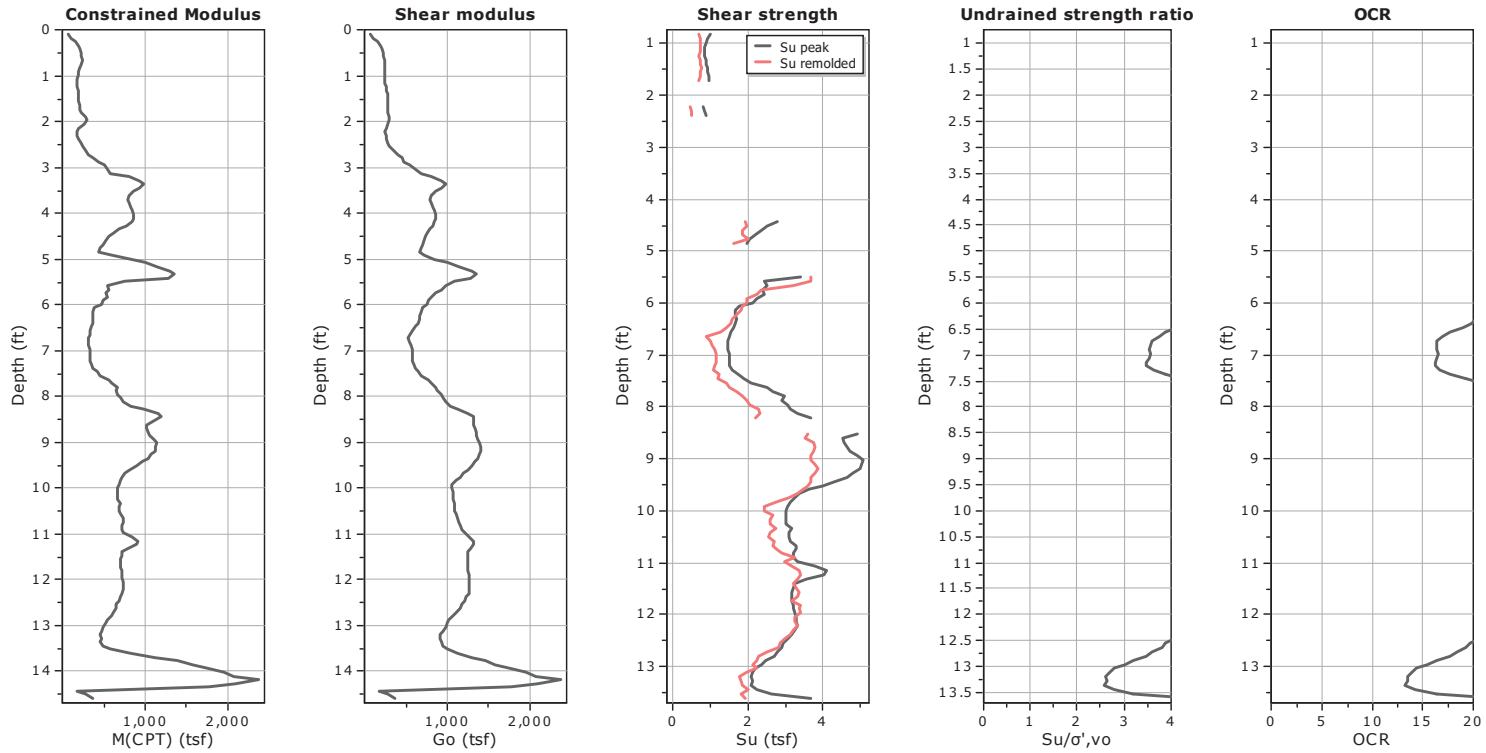
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-202
Total depth: 14.60 ft



Calculation parameters

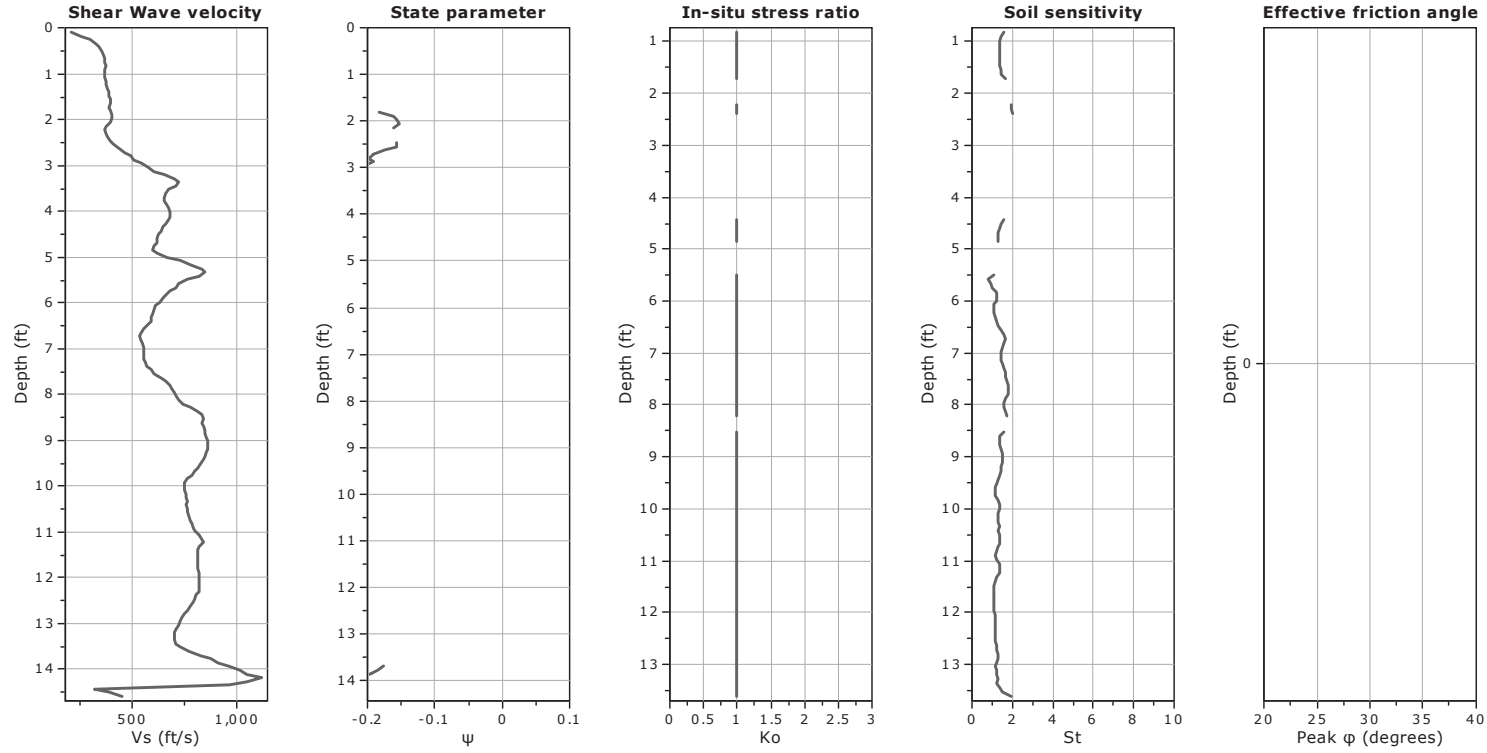
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-202
Total depth: 14.60 ft



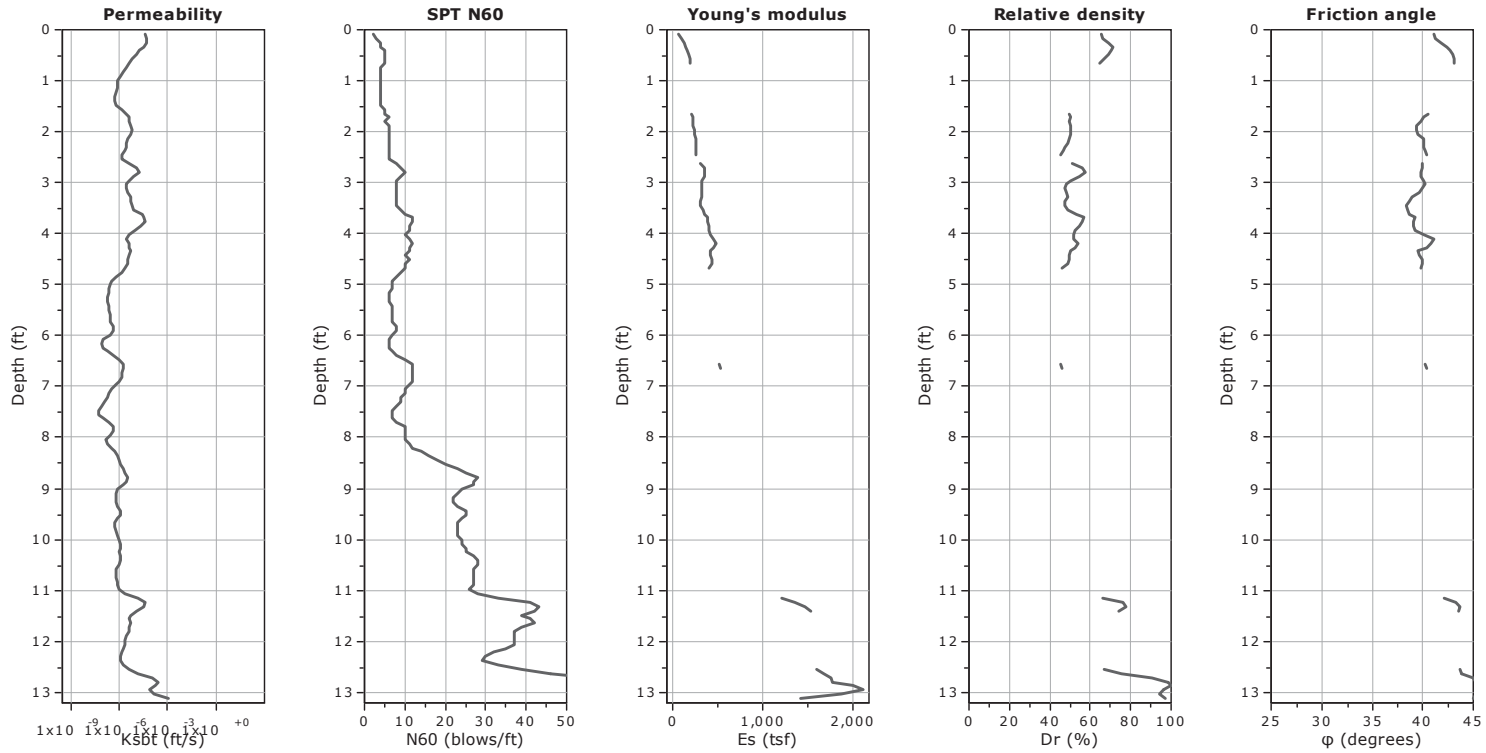
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-203
Total depth: 13.37 ft



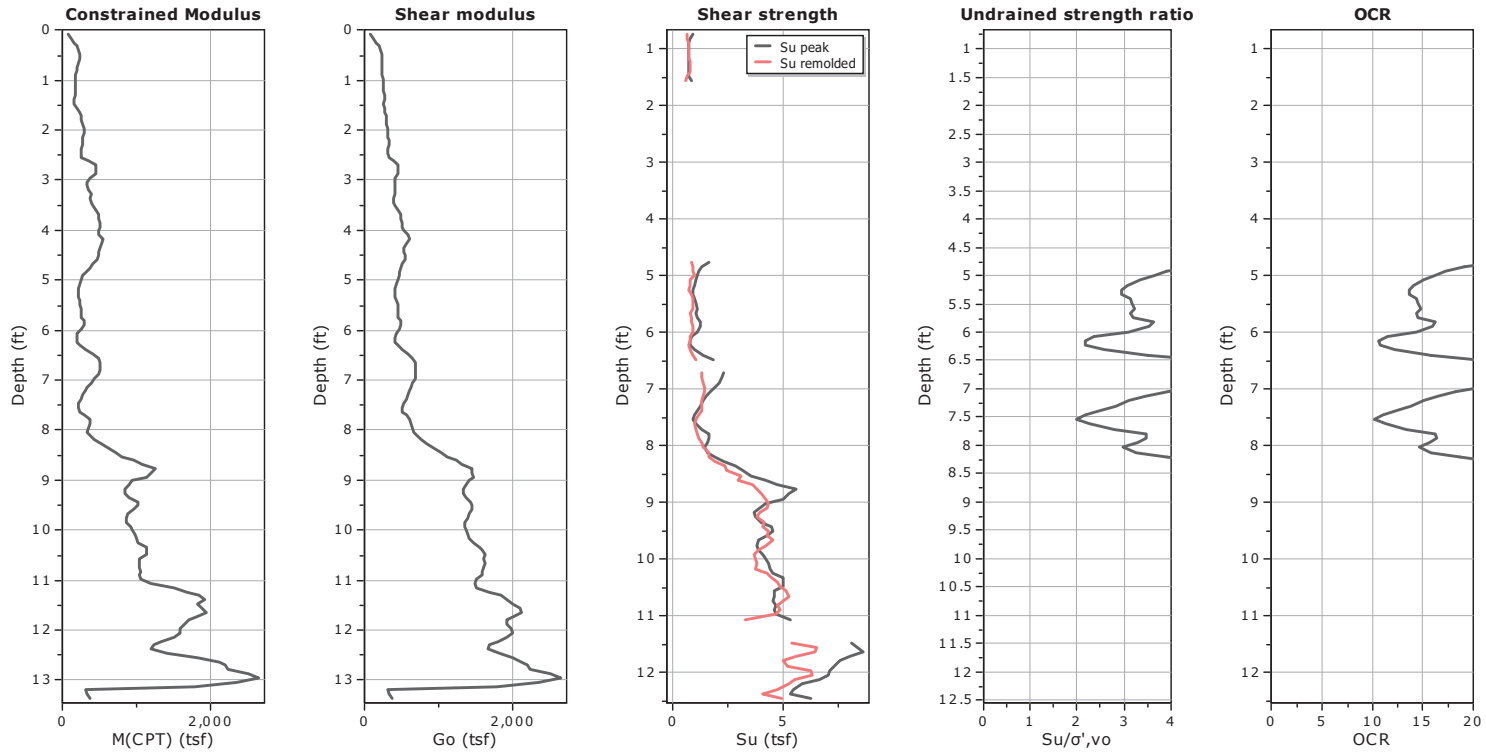
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-203
Total depth: 13.37 ft



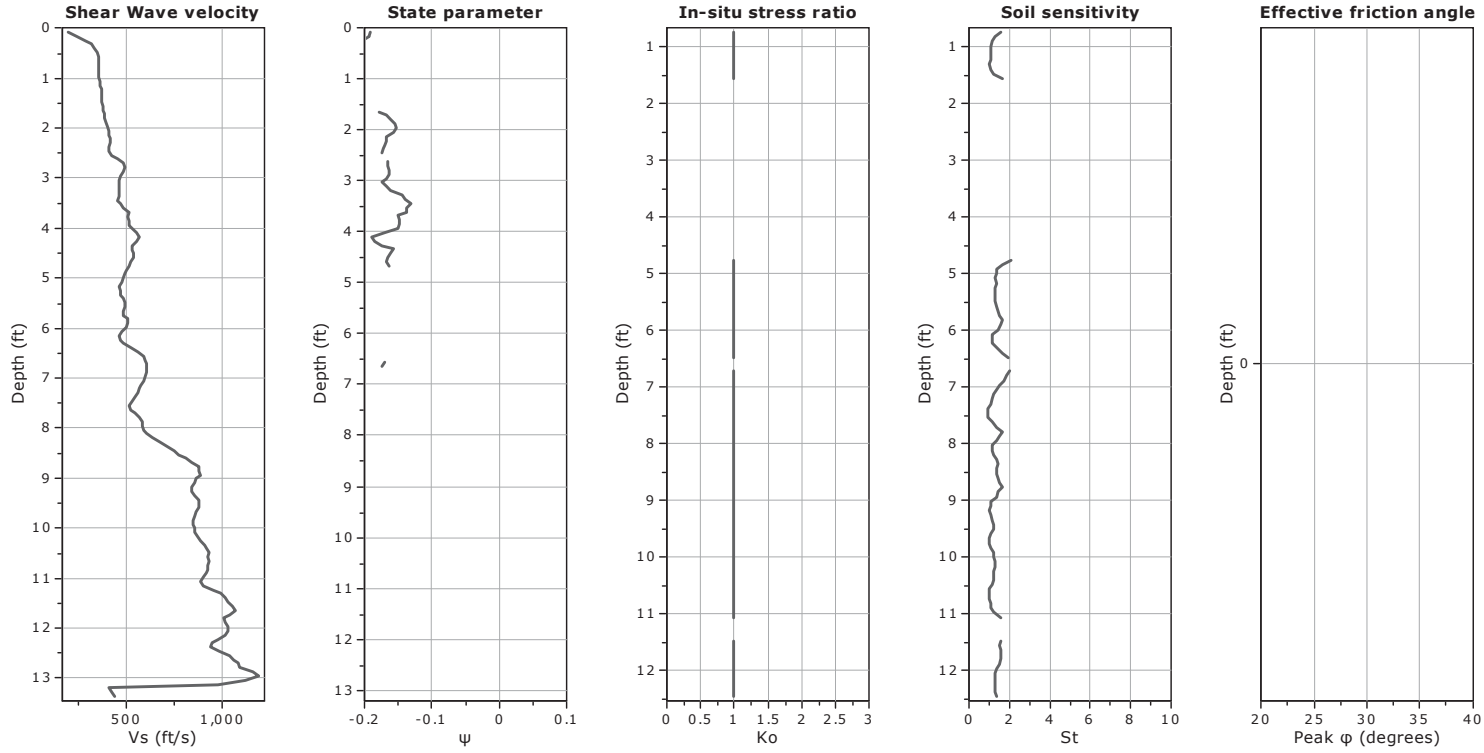
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-203
Total depth: 13.37 ft



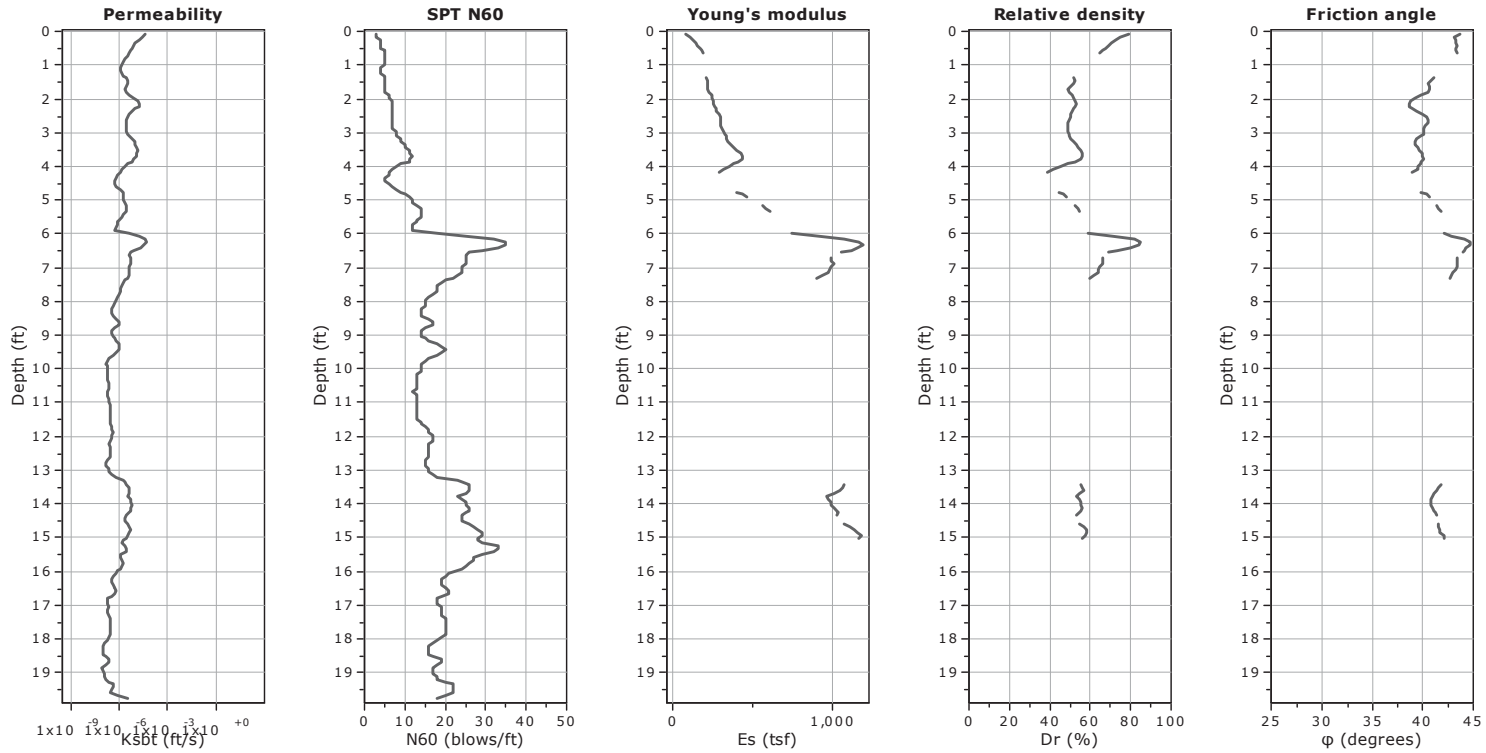
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-204
Total depth: 20.01 ft



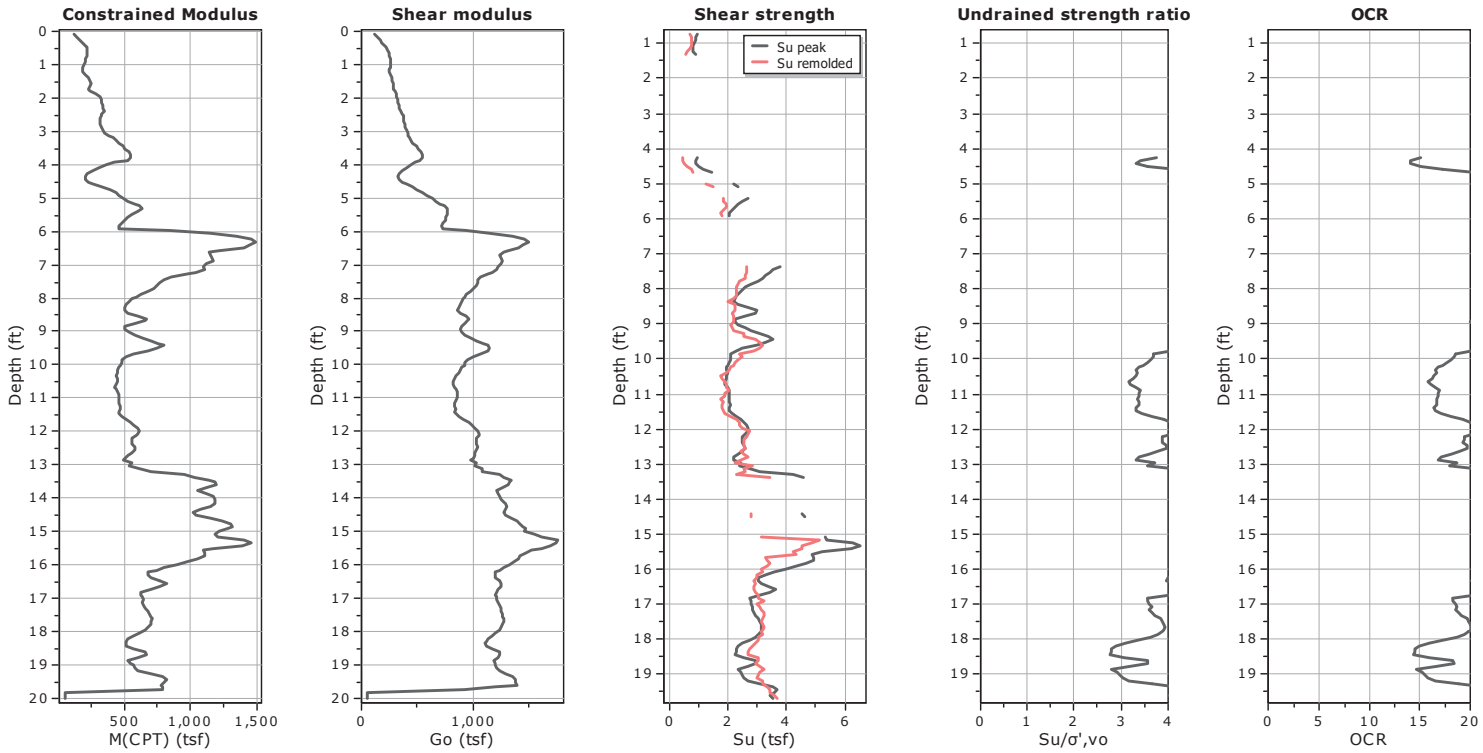
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-204
Total depth: 20.01 ft



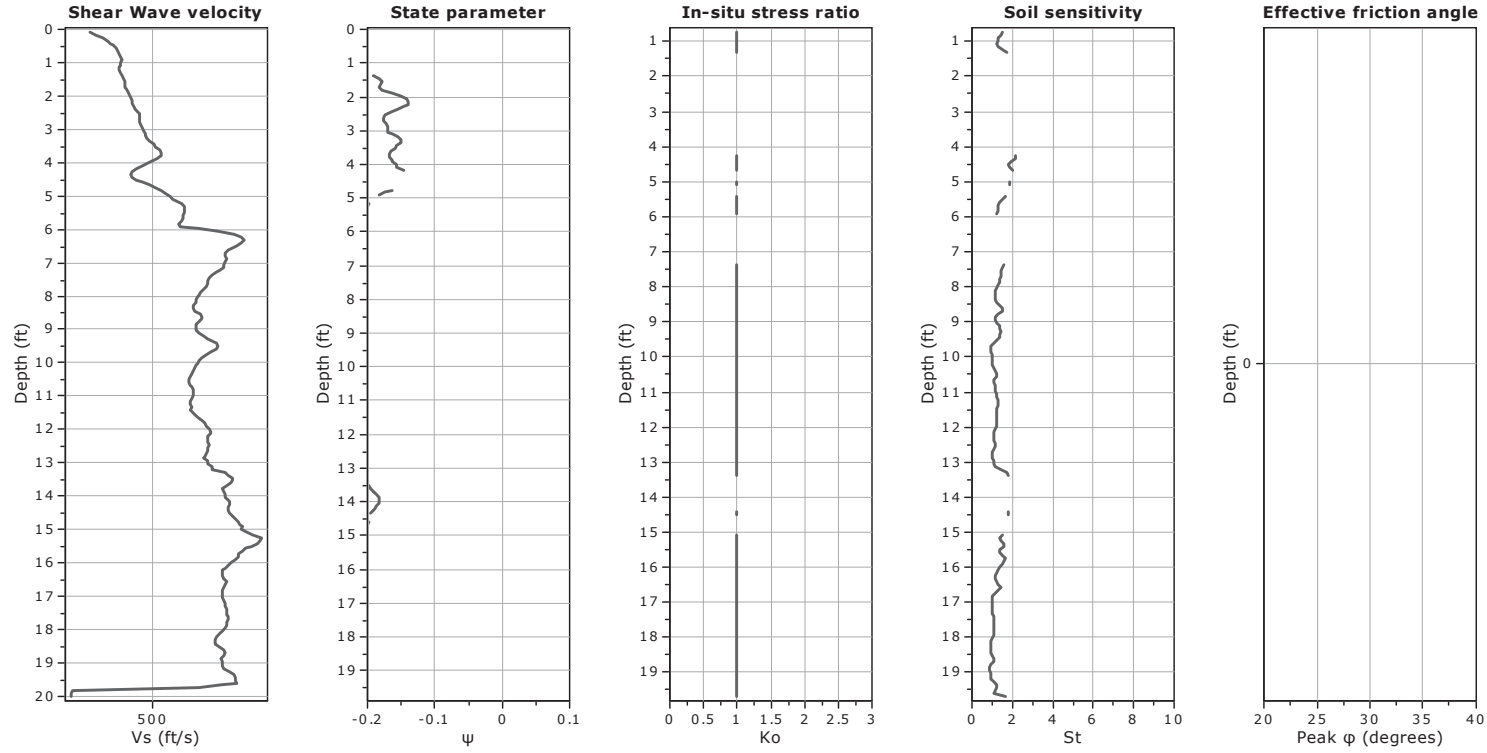
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-204
Total depth: 20.01 ft



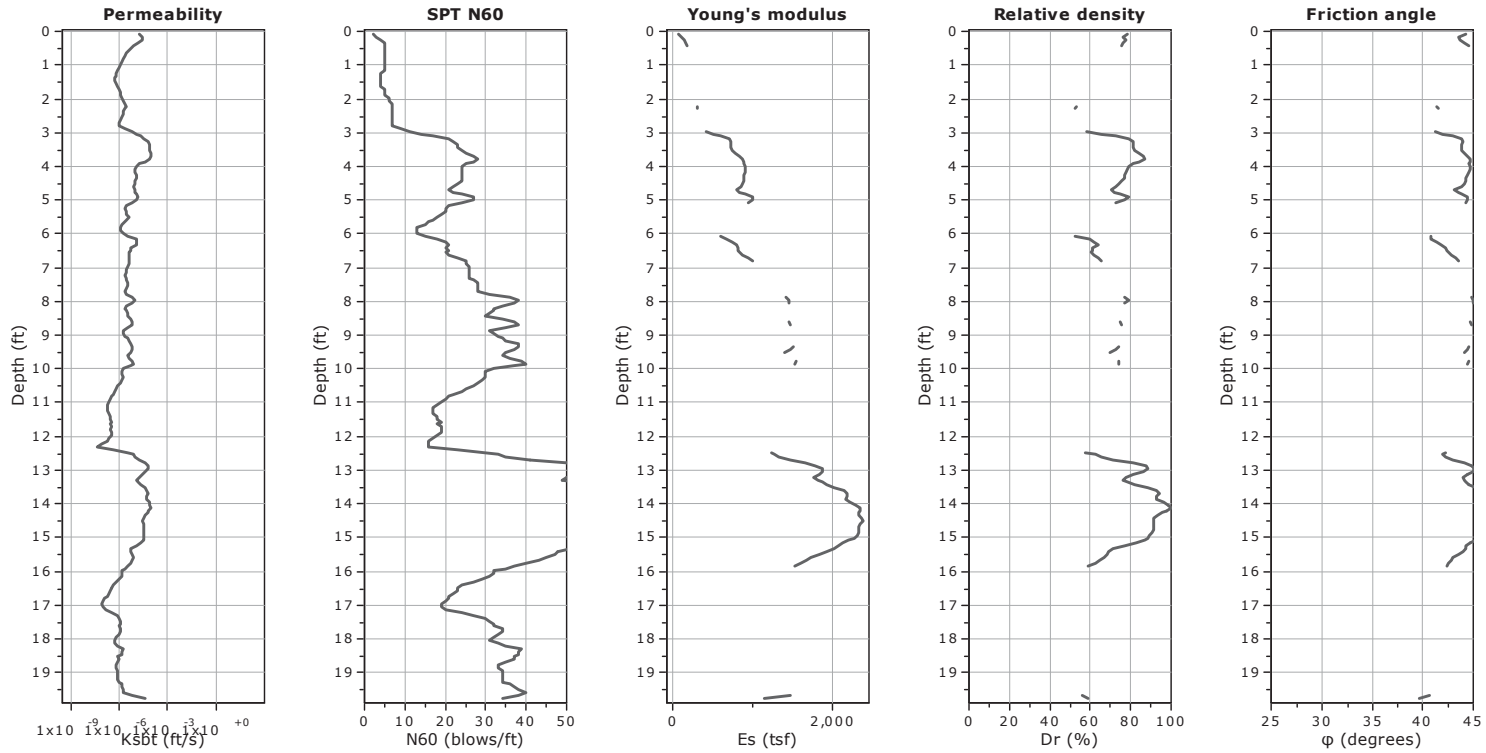
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-205
Total depth: 20.01 ft



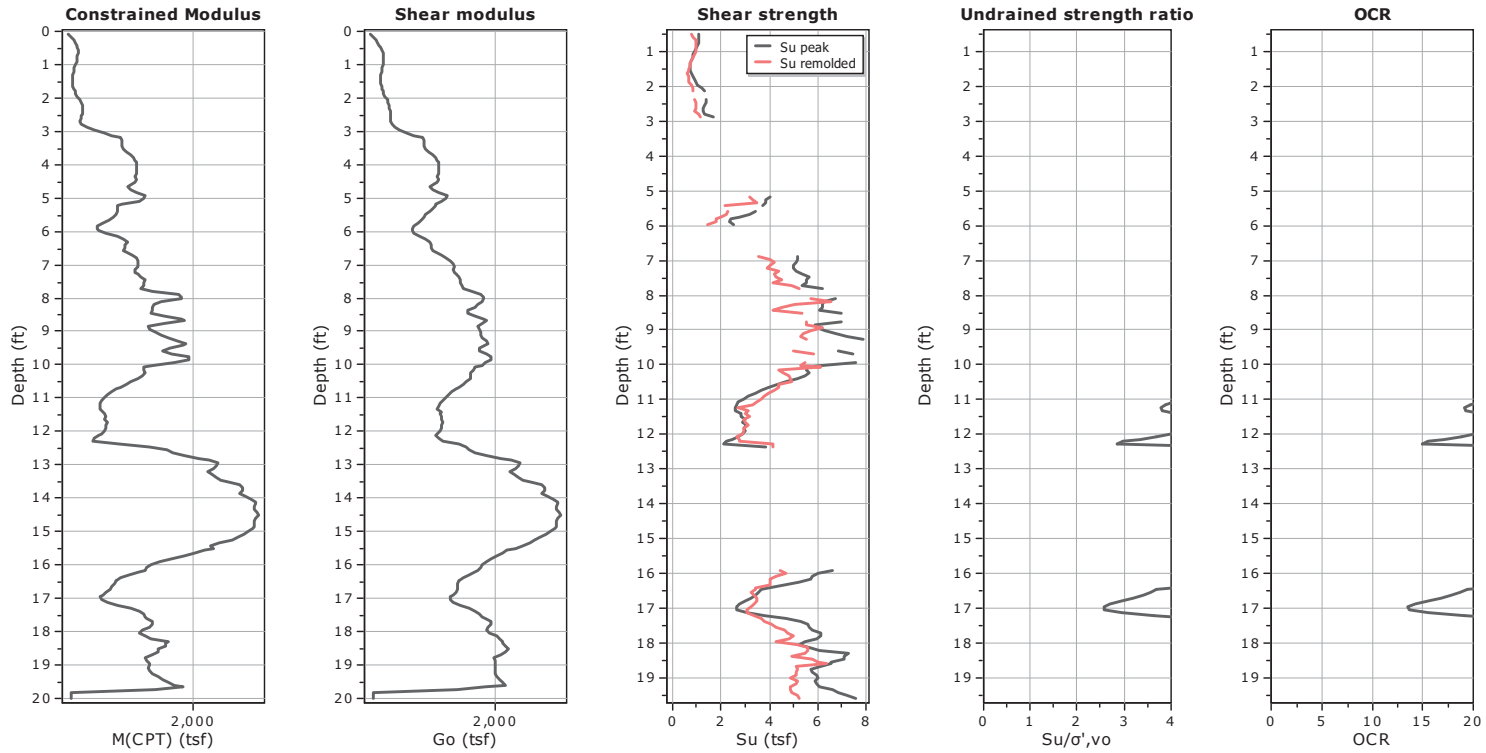
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-205
Total depth: 20.01 ft



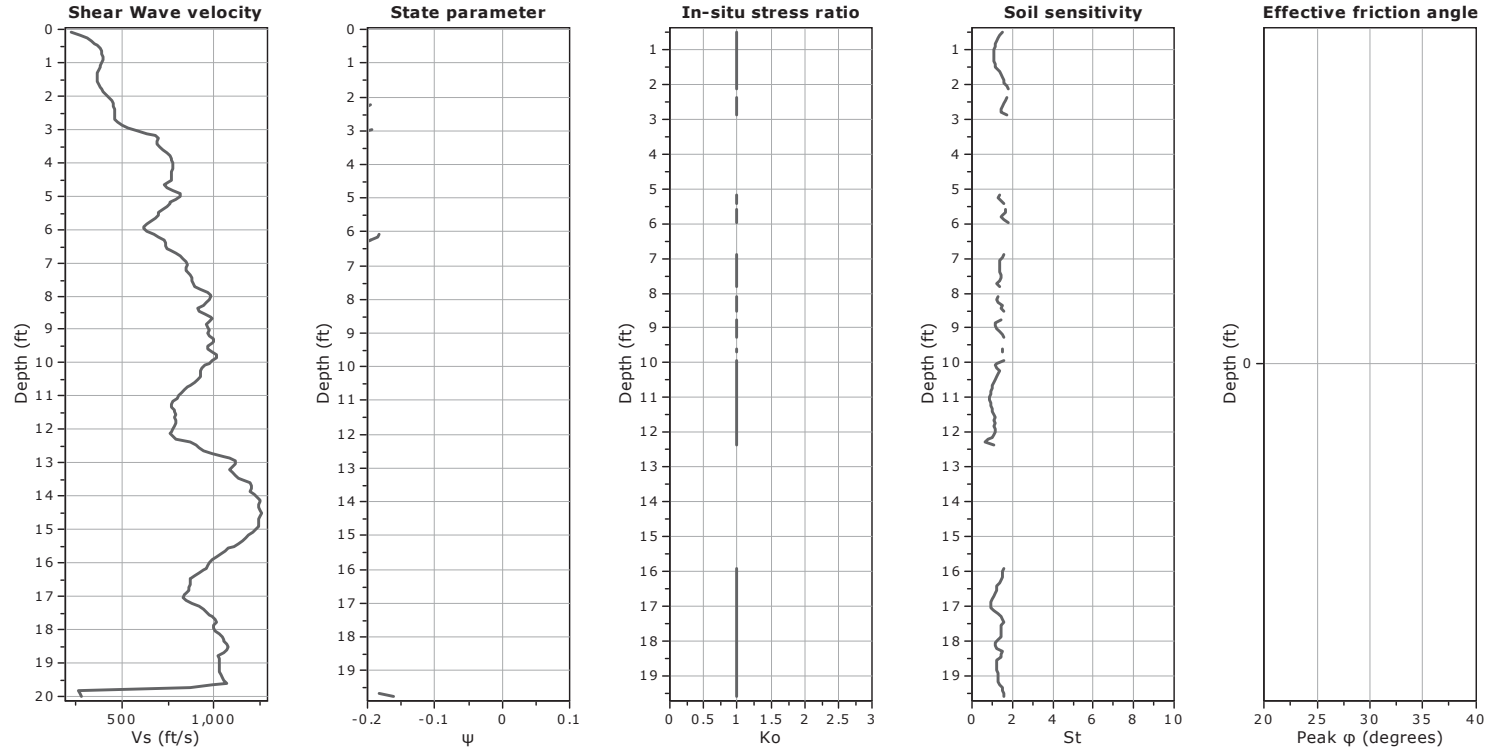
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-205
Total depth: 20.01 ft



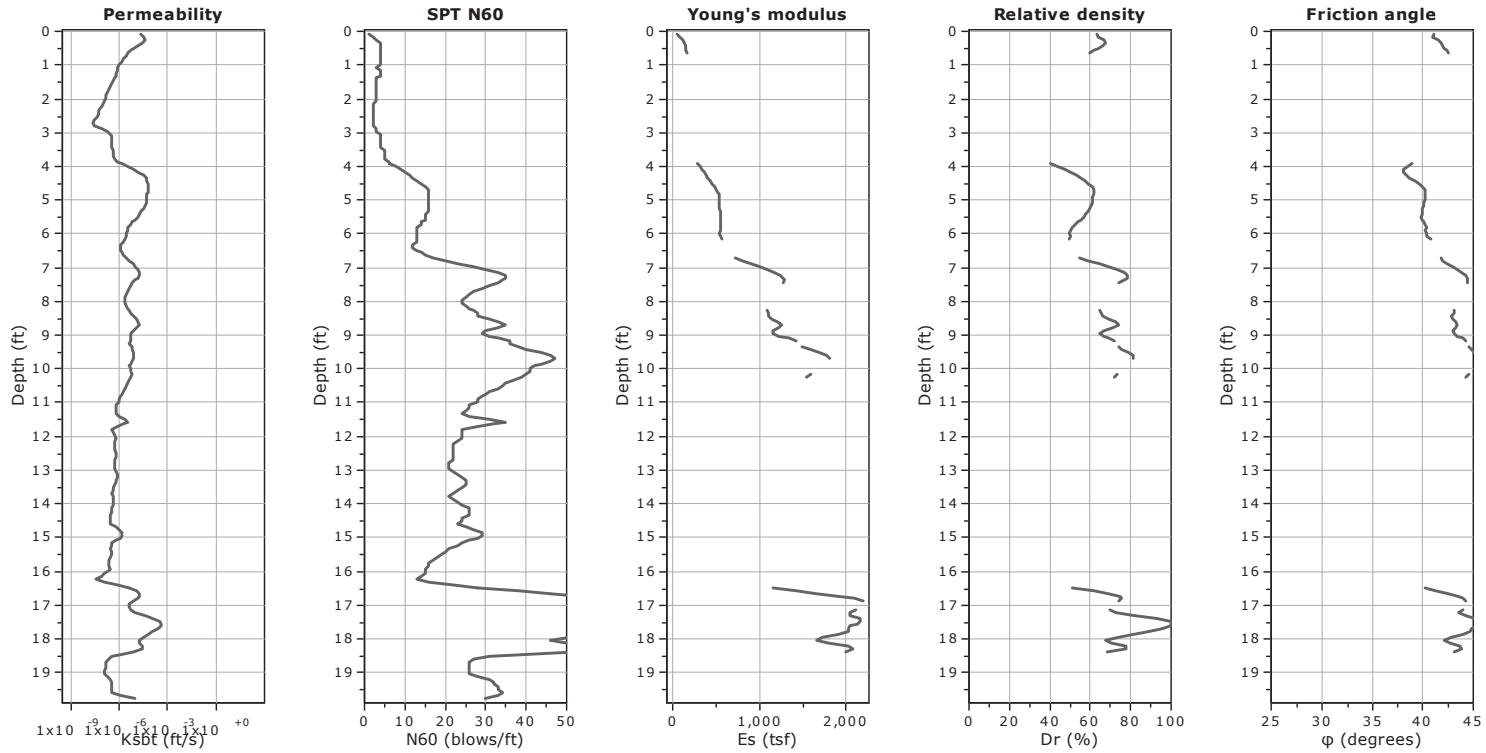
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-206
Total depth: 20.01 ft



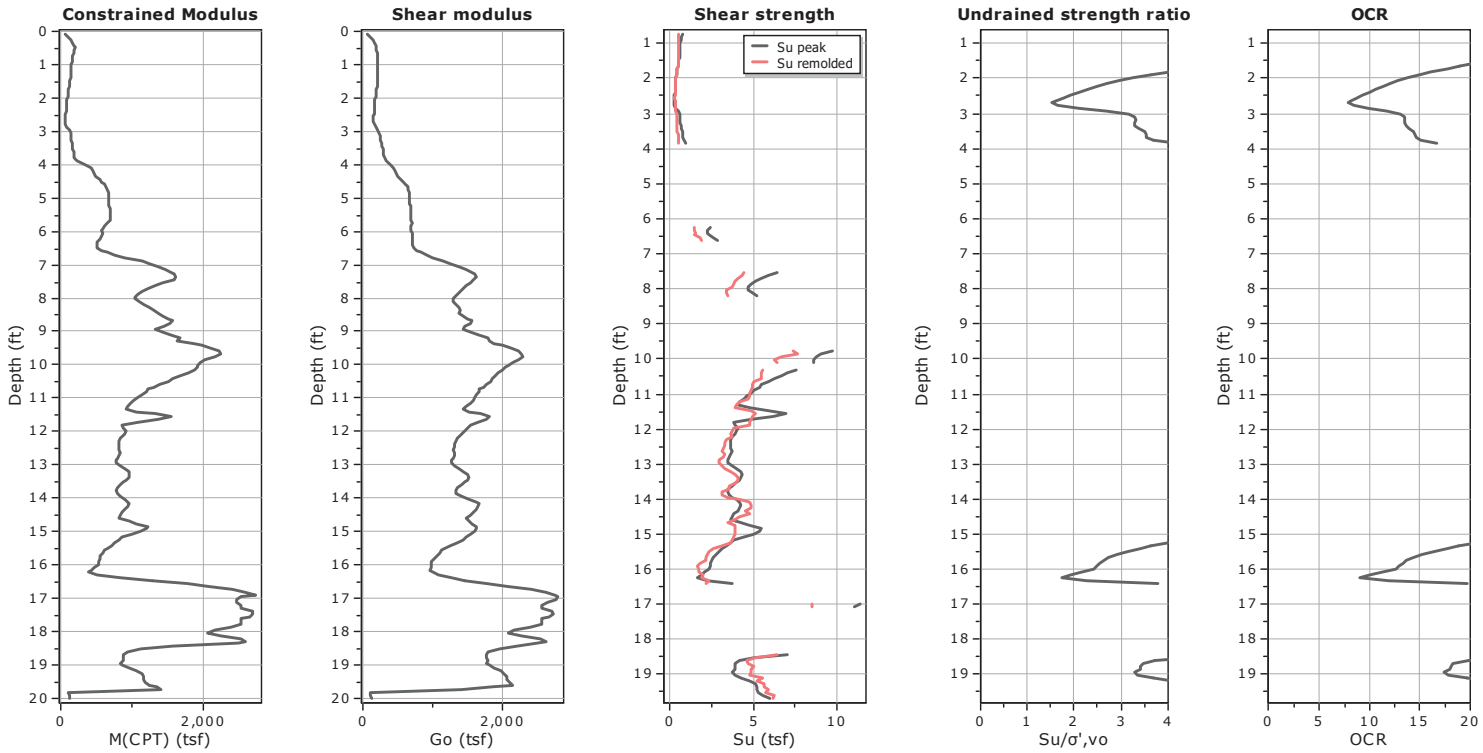
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-206
Total depth: 20.01 ft



Calculation parameters

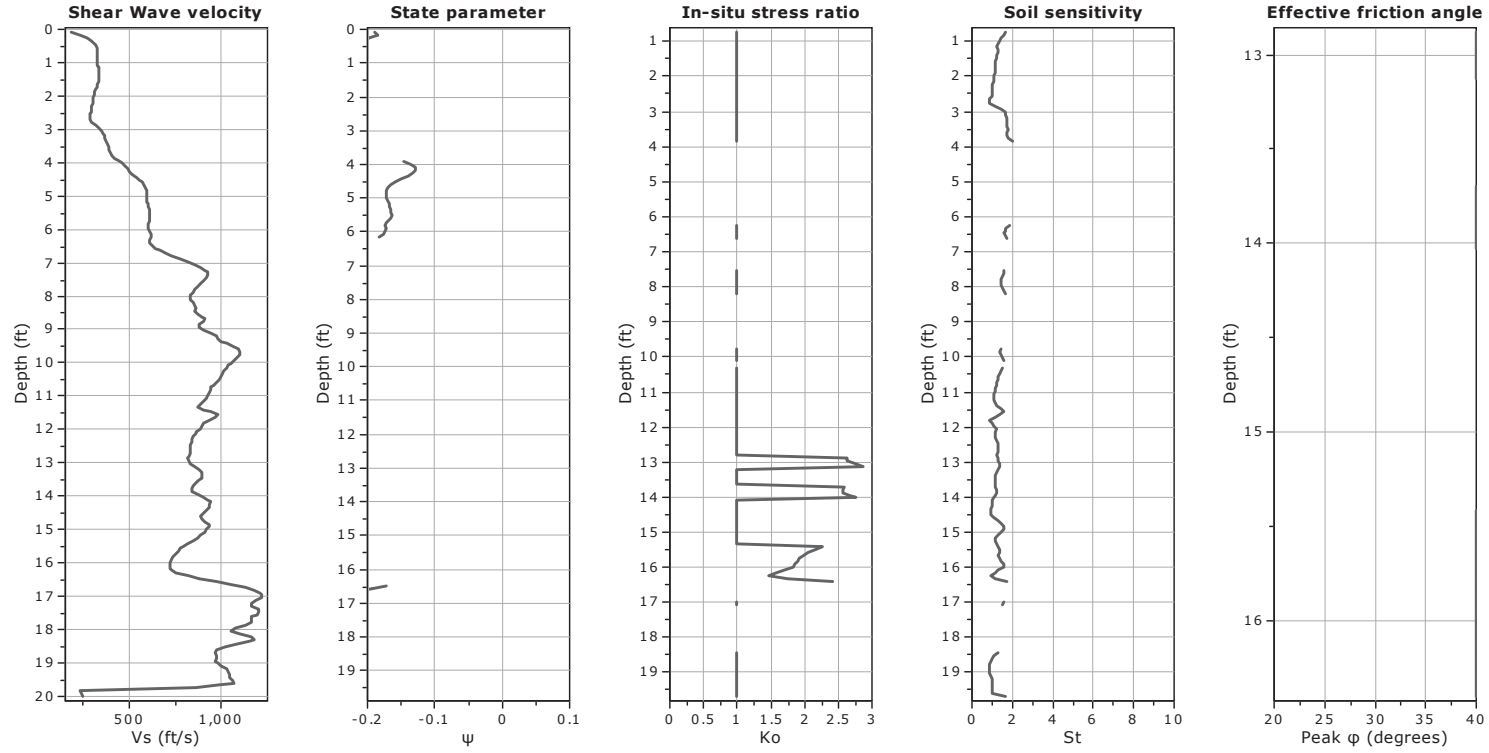
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-206
Total depth: 20.01 ft



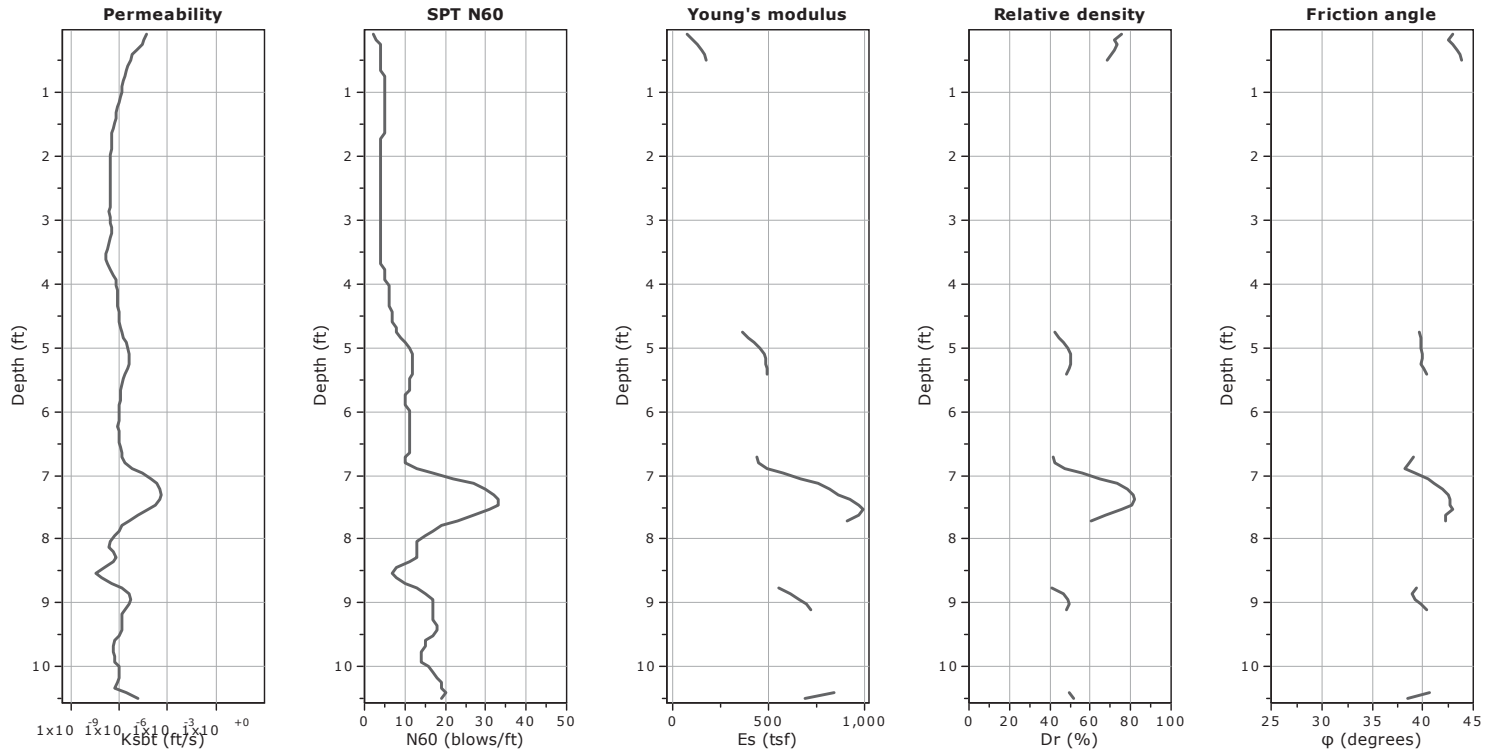
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-207
Total depth: 10.74 ft



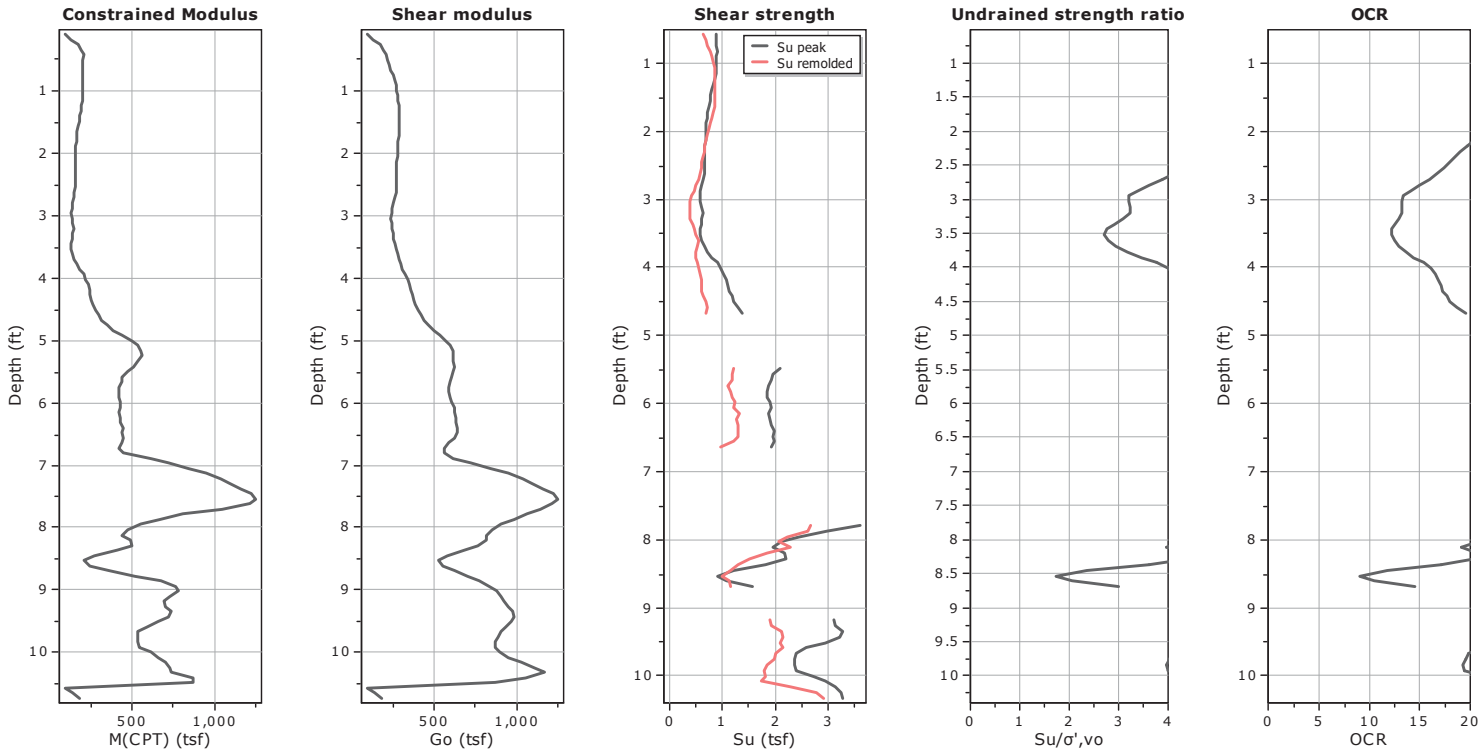
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-207
Total depth: 10.74 ft



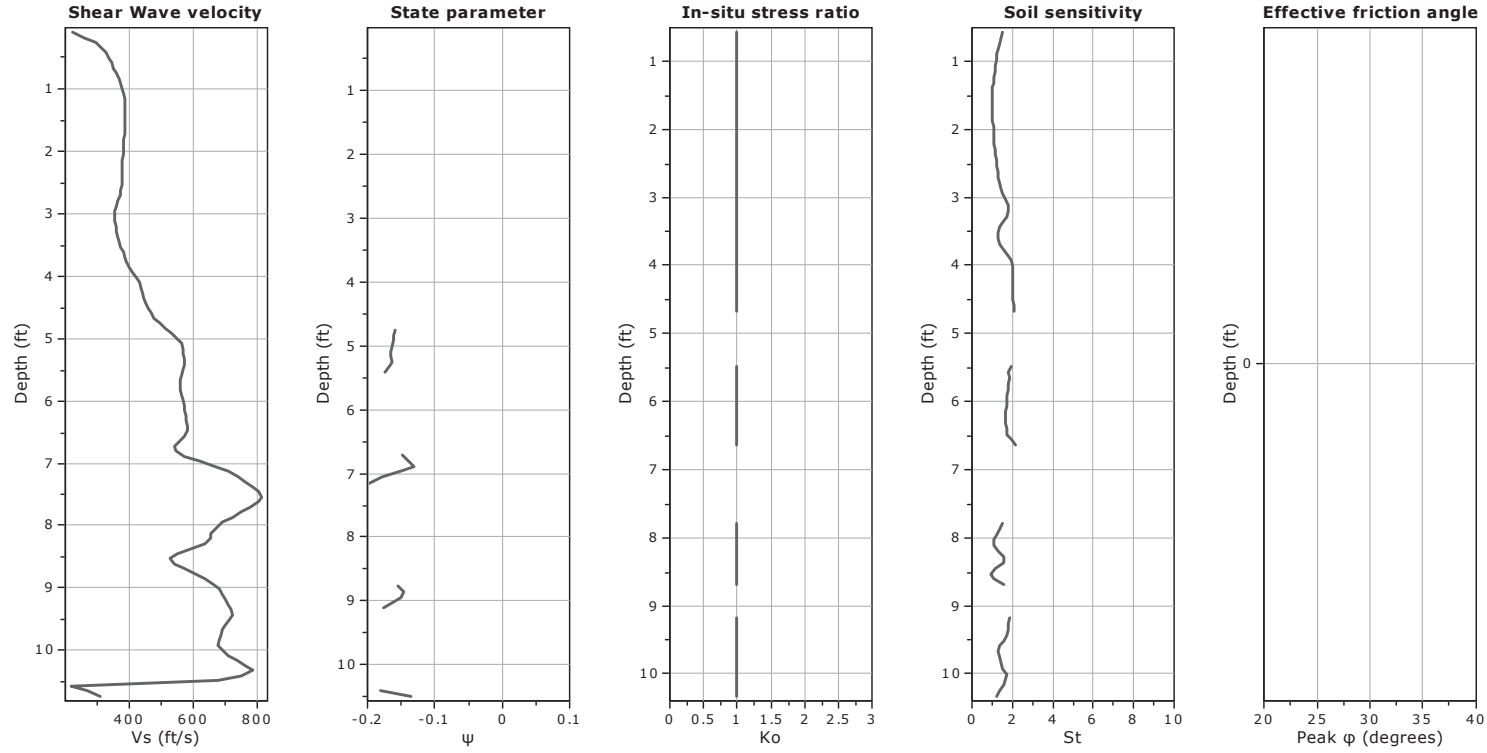
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-207
Total depth: 10.74 ft



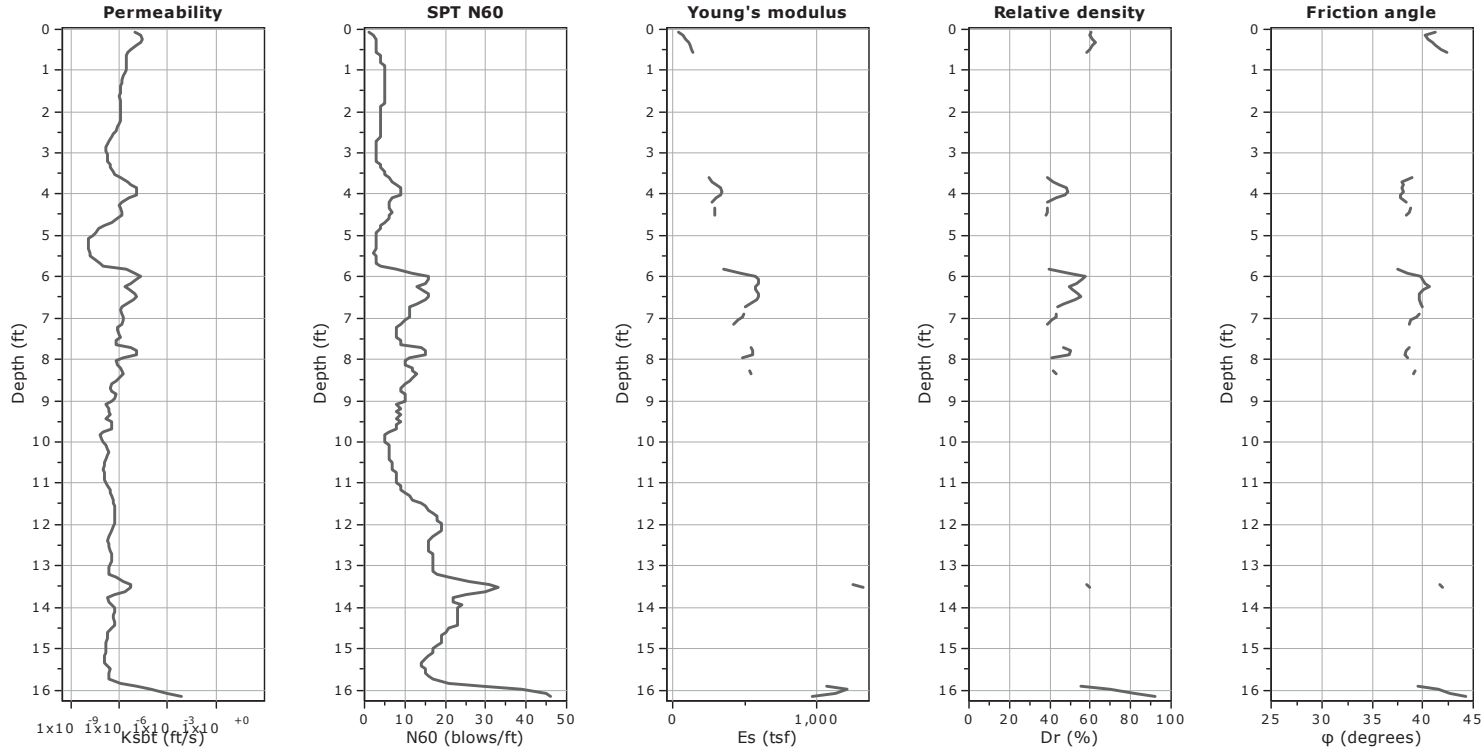
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-208
Total depth: 16.40 ft



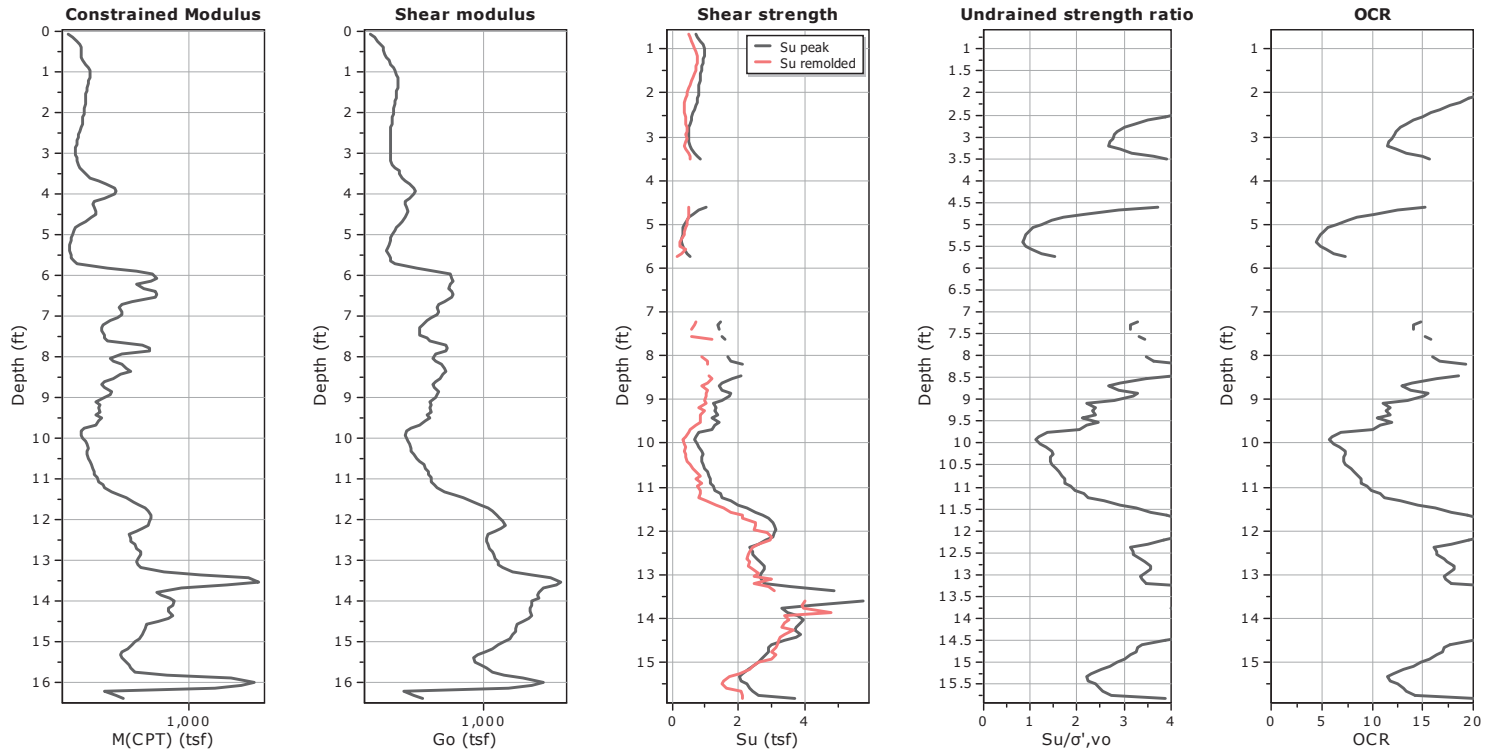
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-208
Total depth: 16.40 ft



Calculation parameters

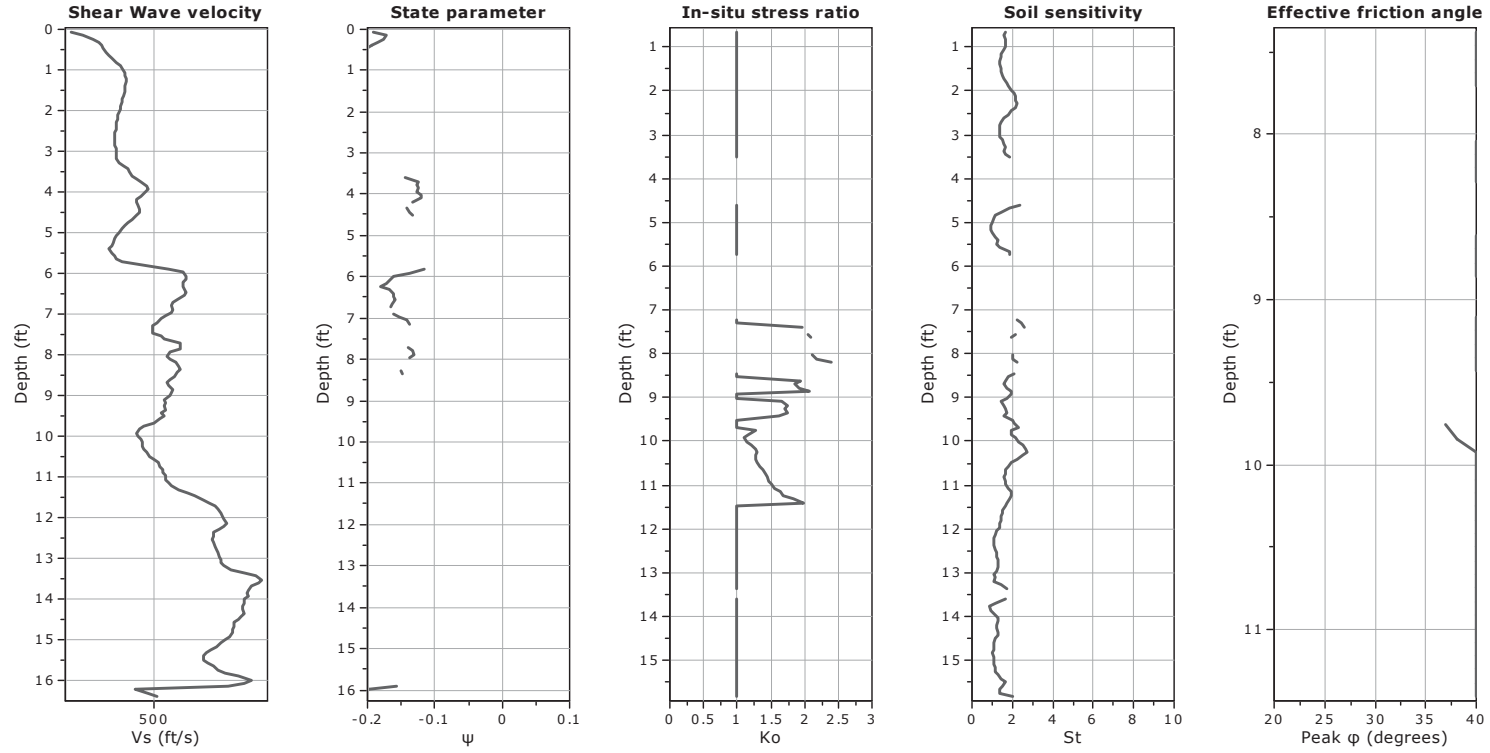
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-208
Total depth: 16.40 ft



Calculation parameters

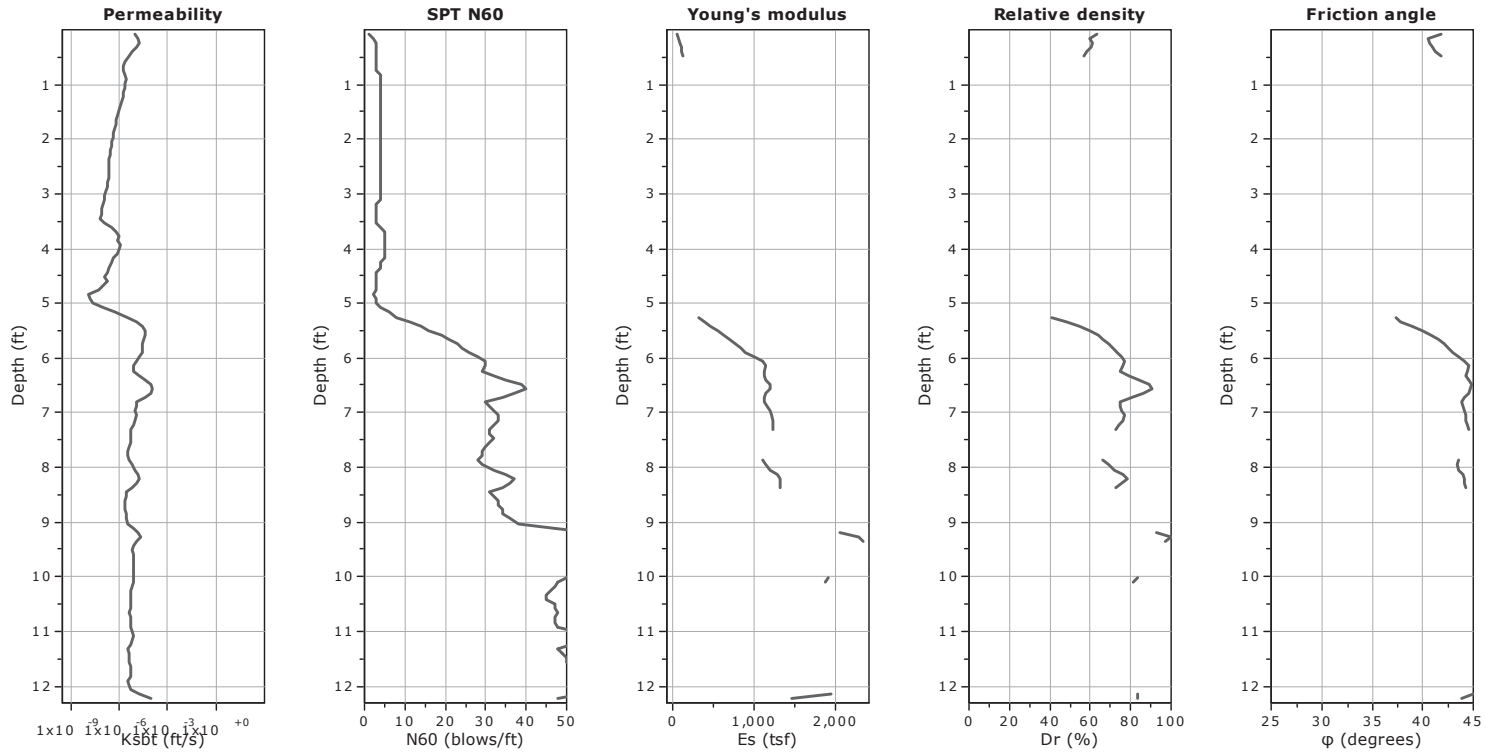
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-209
Total depth: 12.47 ft



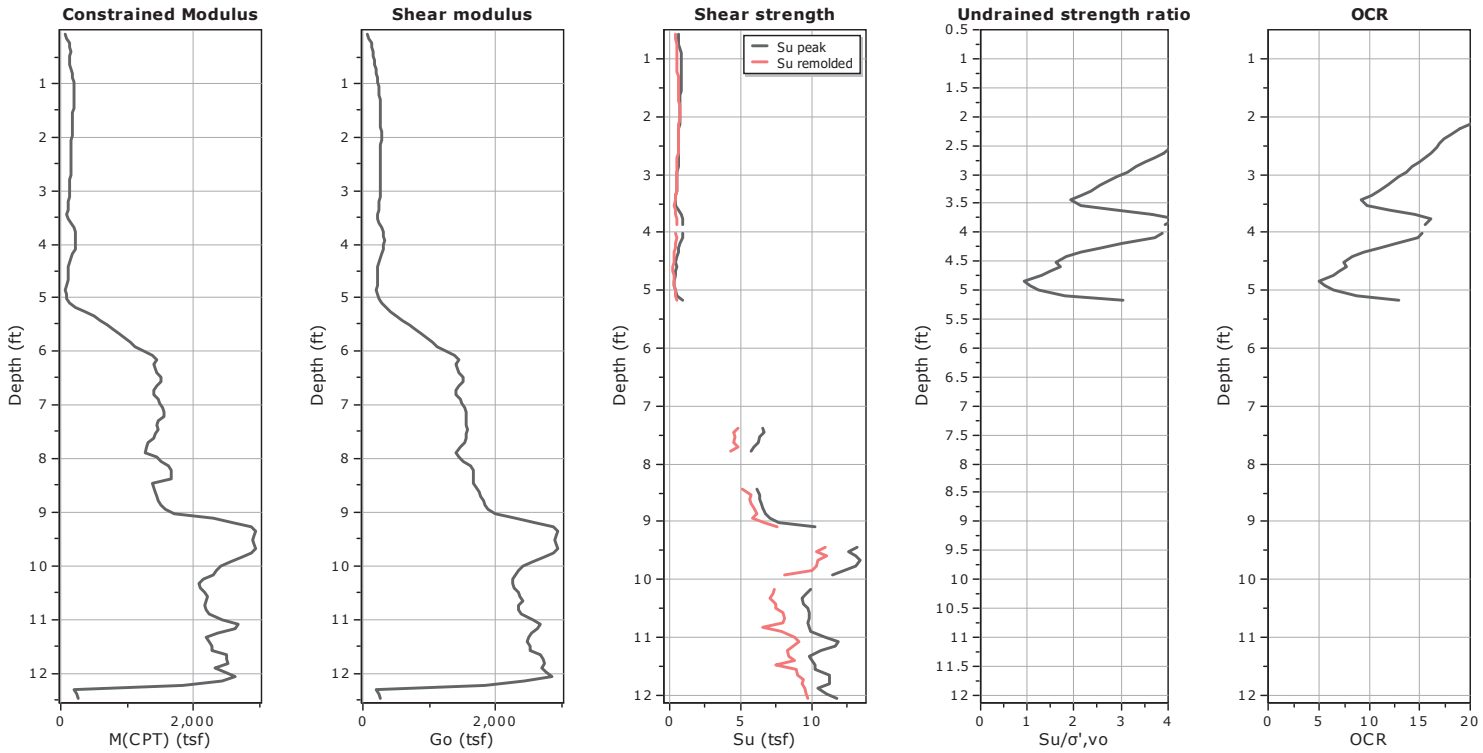
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-209
Total depth: 12.47 ft



Calculation parameters

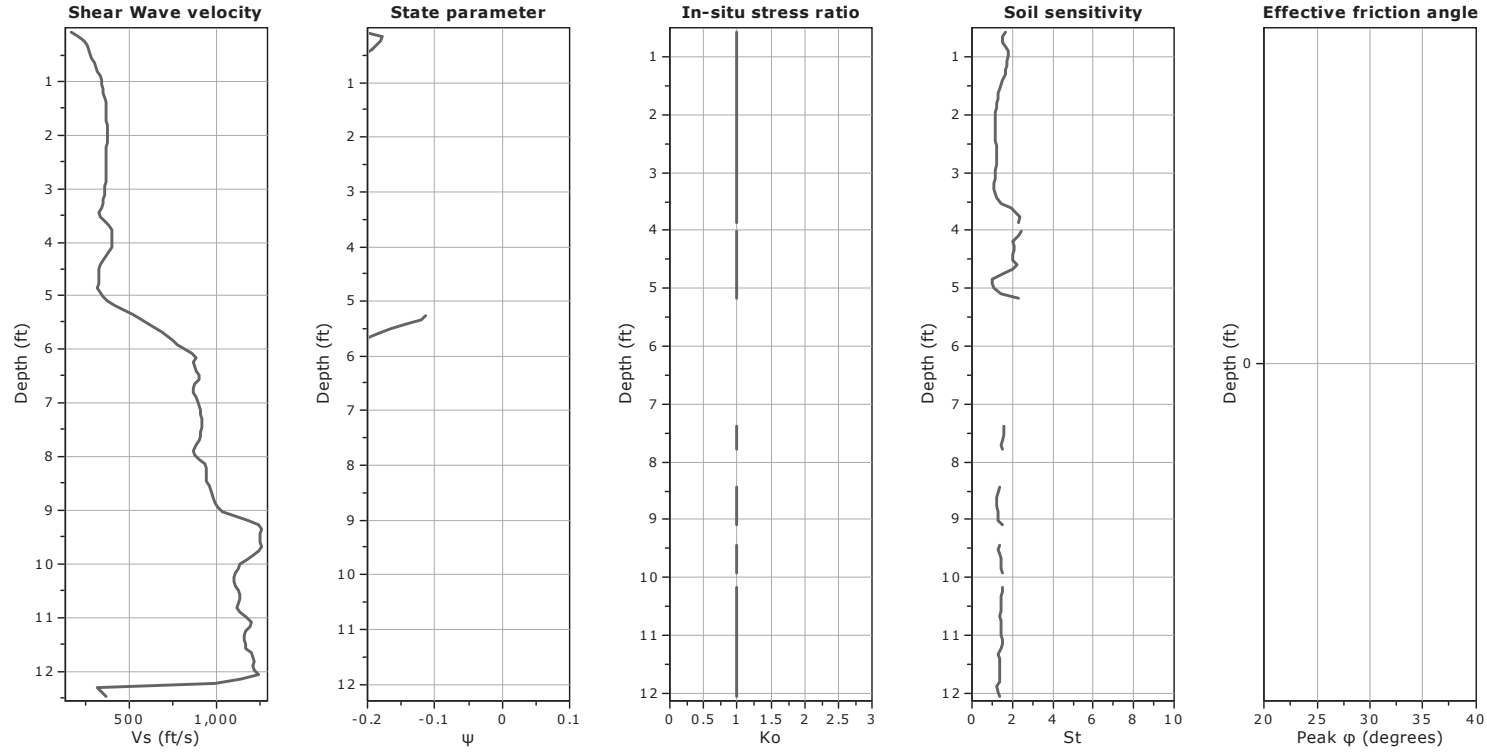
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-209
Total depth: 12.47 ft



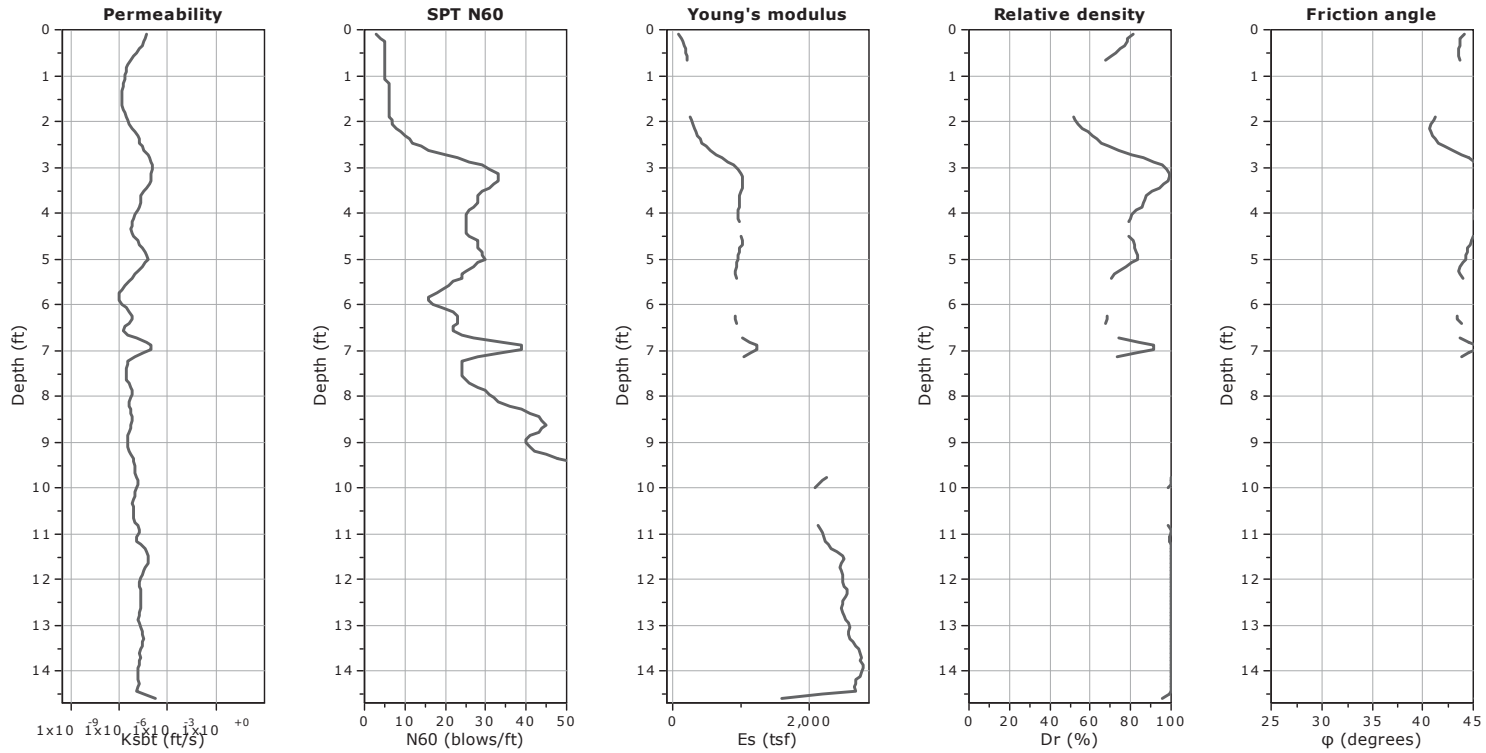
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-210
Total depth: 14.85 ft



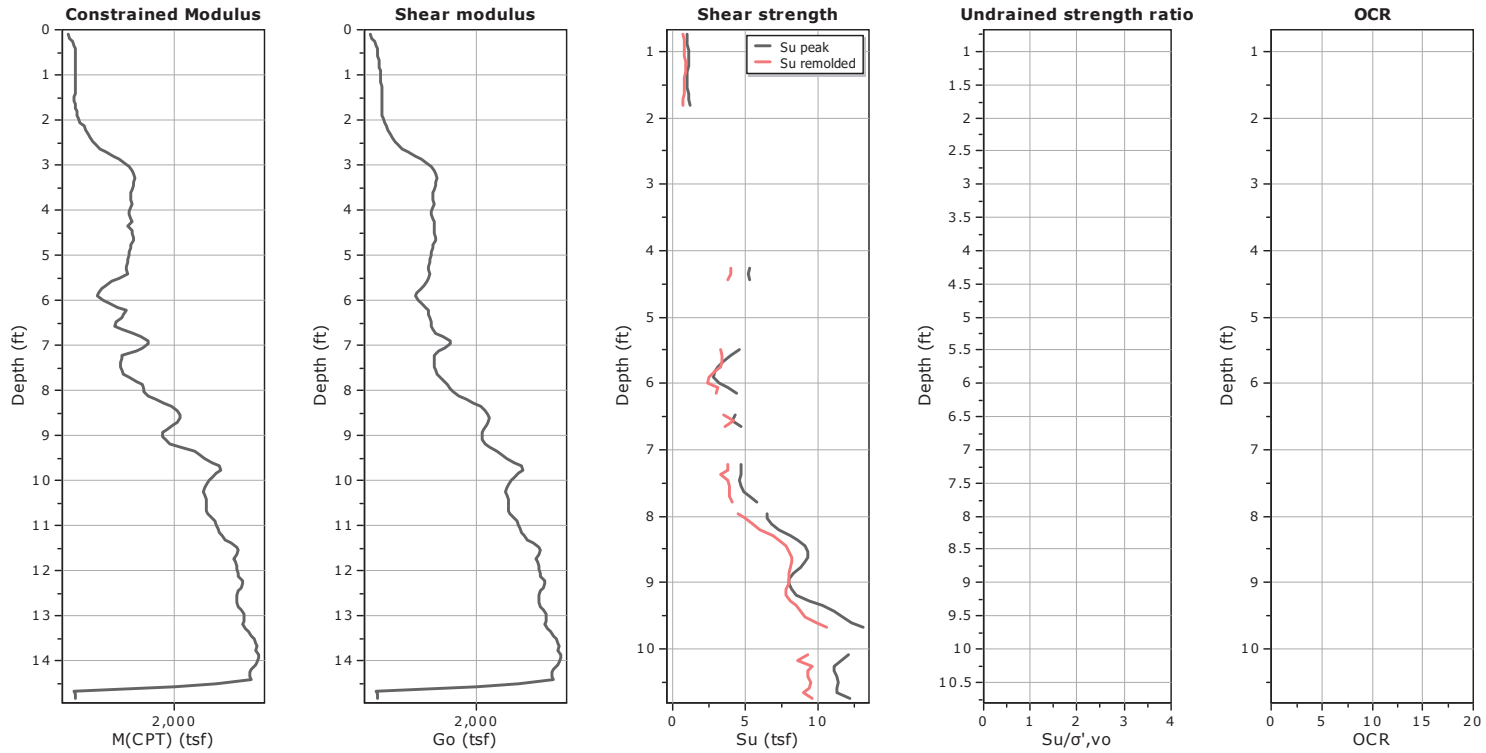
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-210
Total depth: 14.85 ft



Calculation parameters

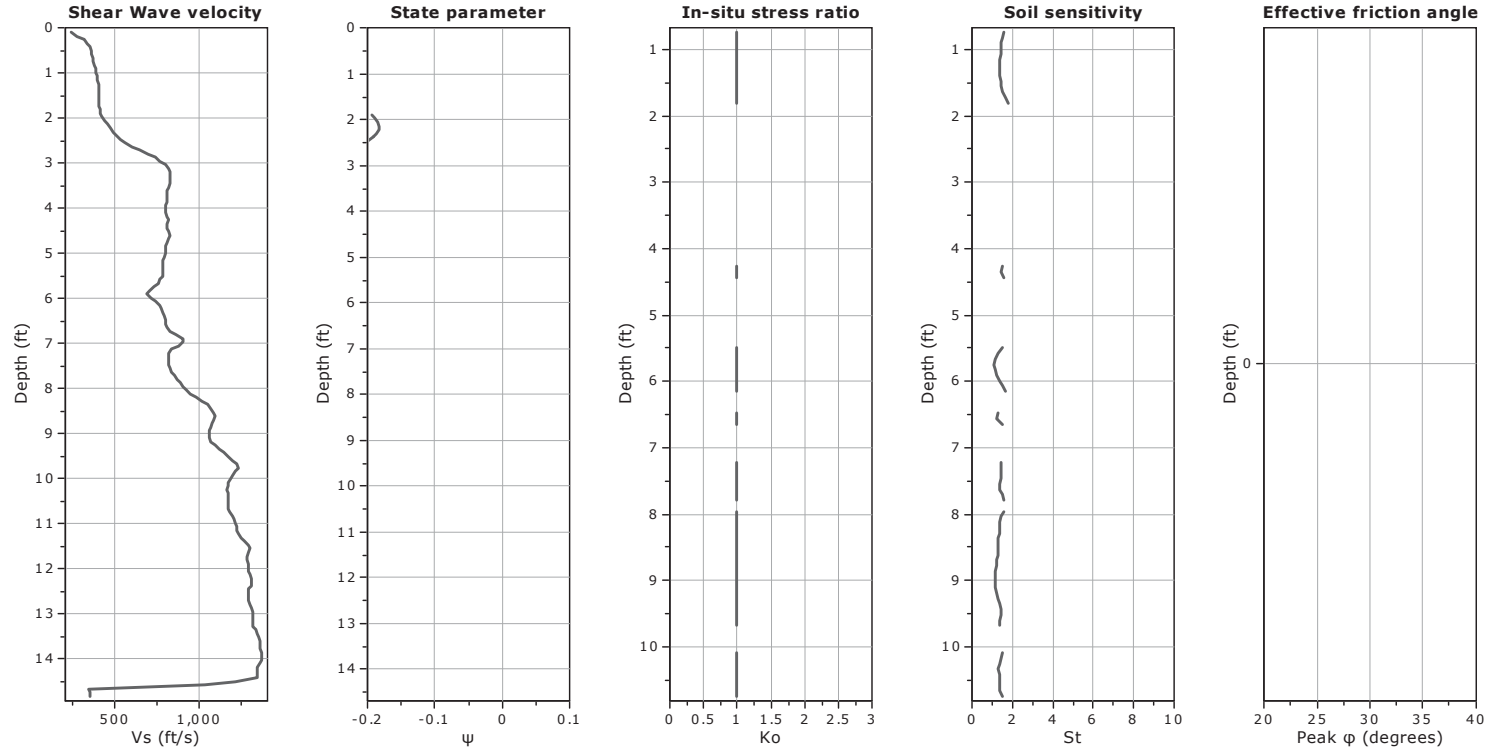
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-210
Total depth: 14.85 ft



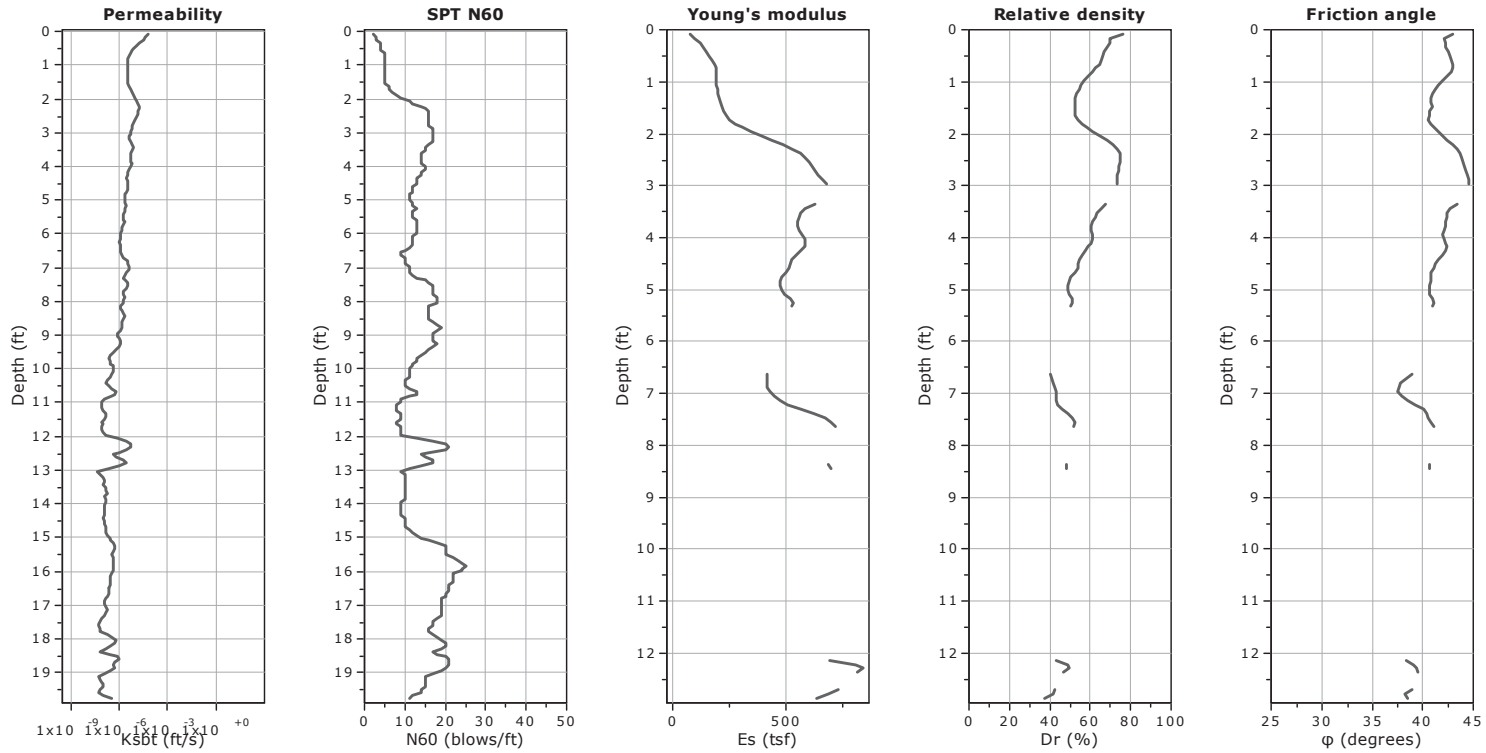
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-211
Total depth: 20.01 ft



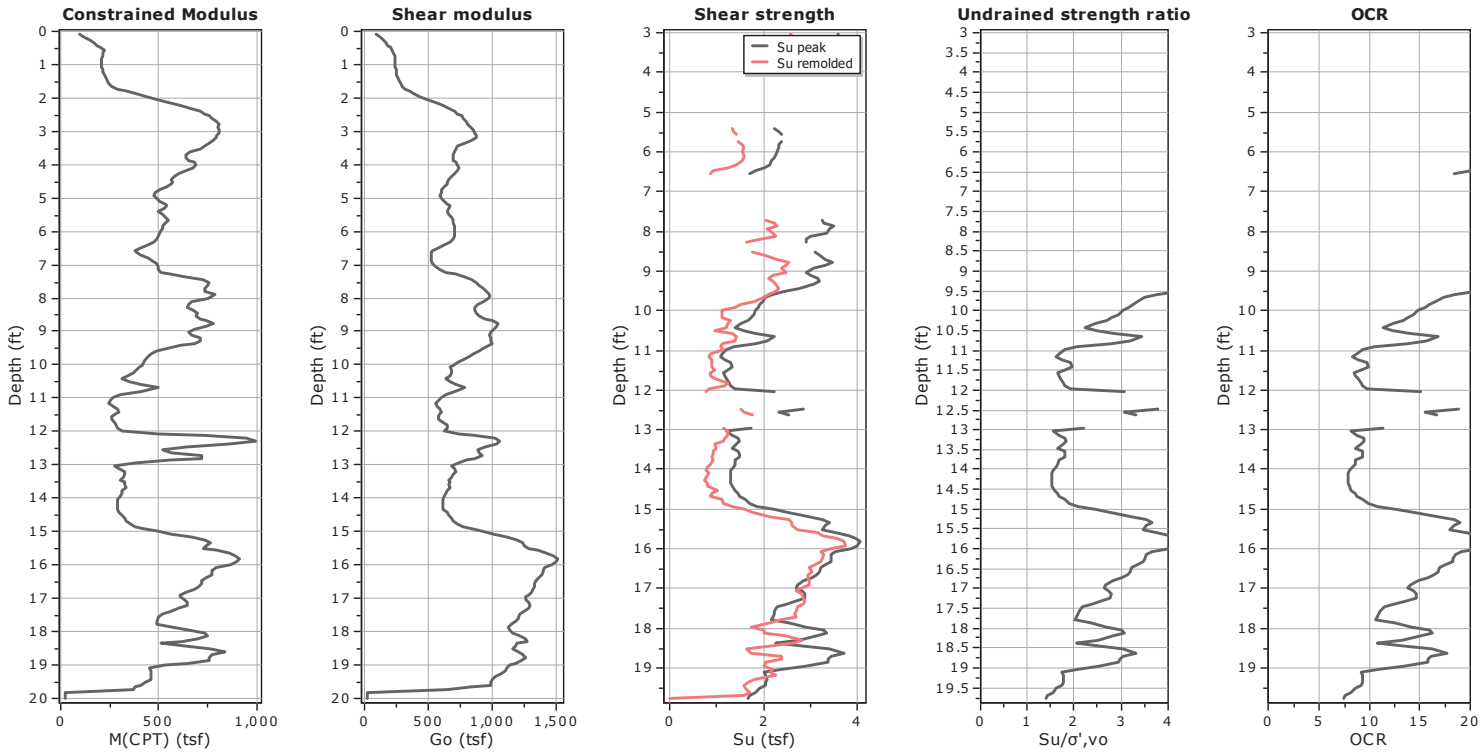
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-211
Total depth: 20.01 ft



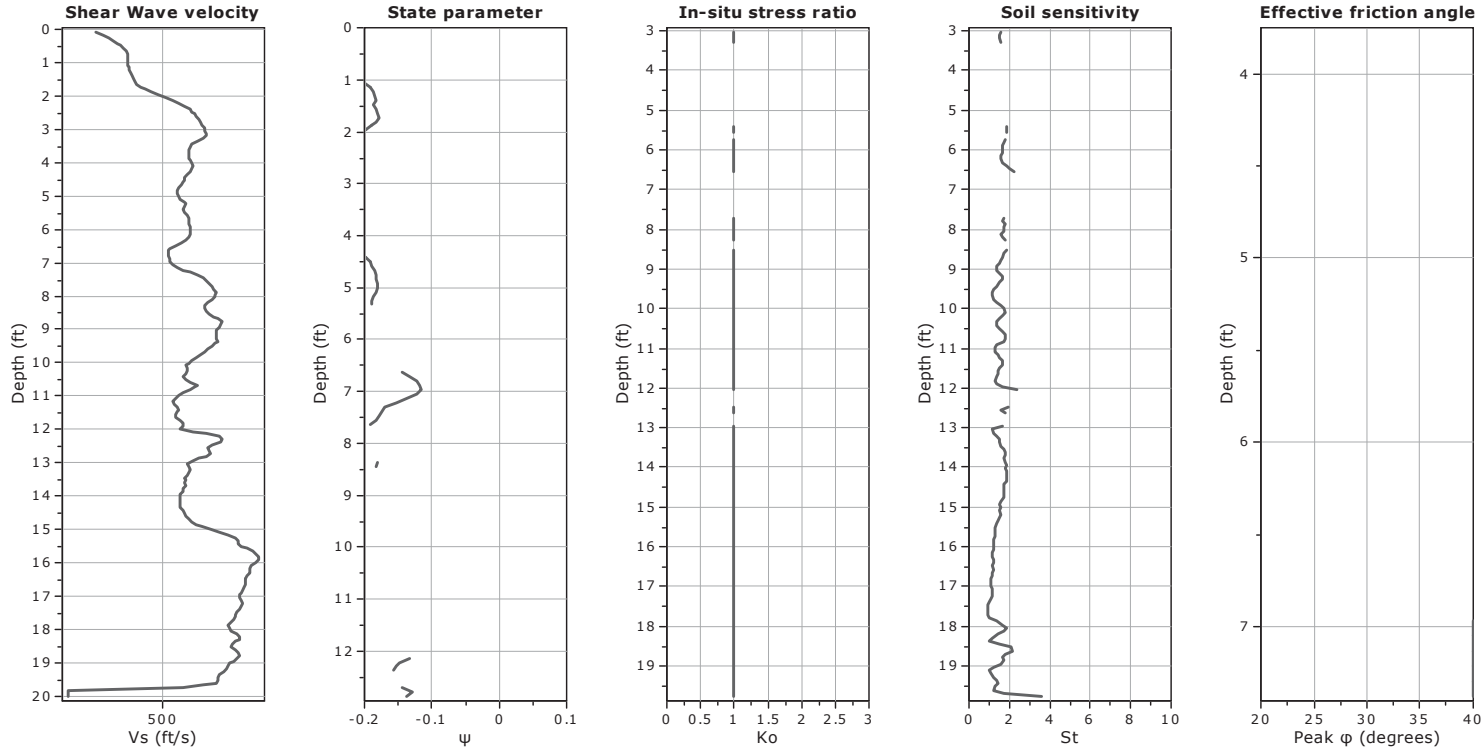
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-211
Total depth: 20.01 ft



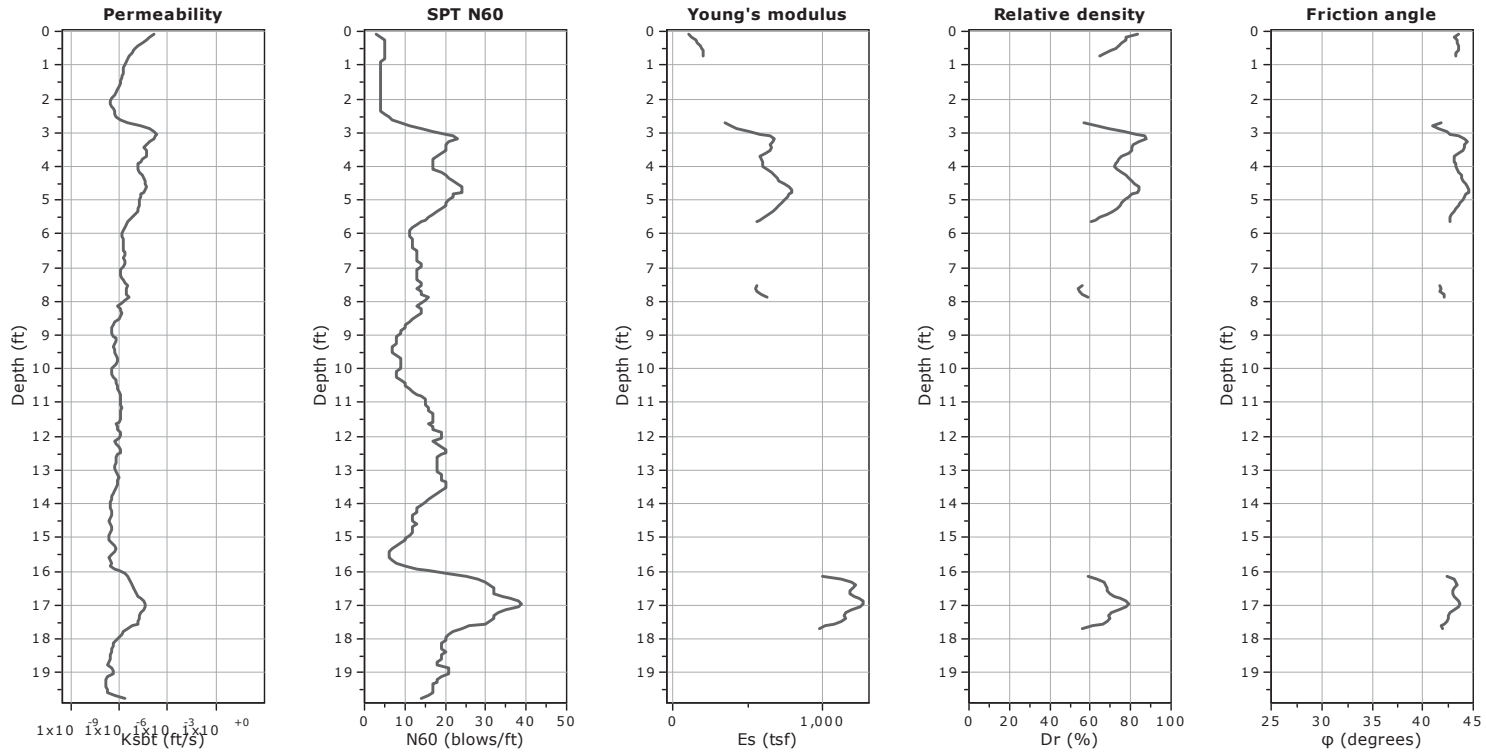
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-212
Total depth: 20.01 ft



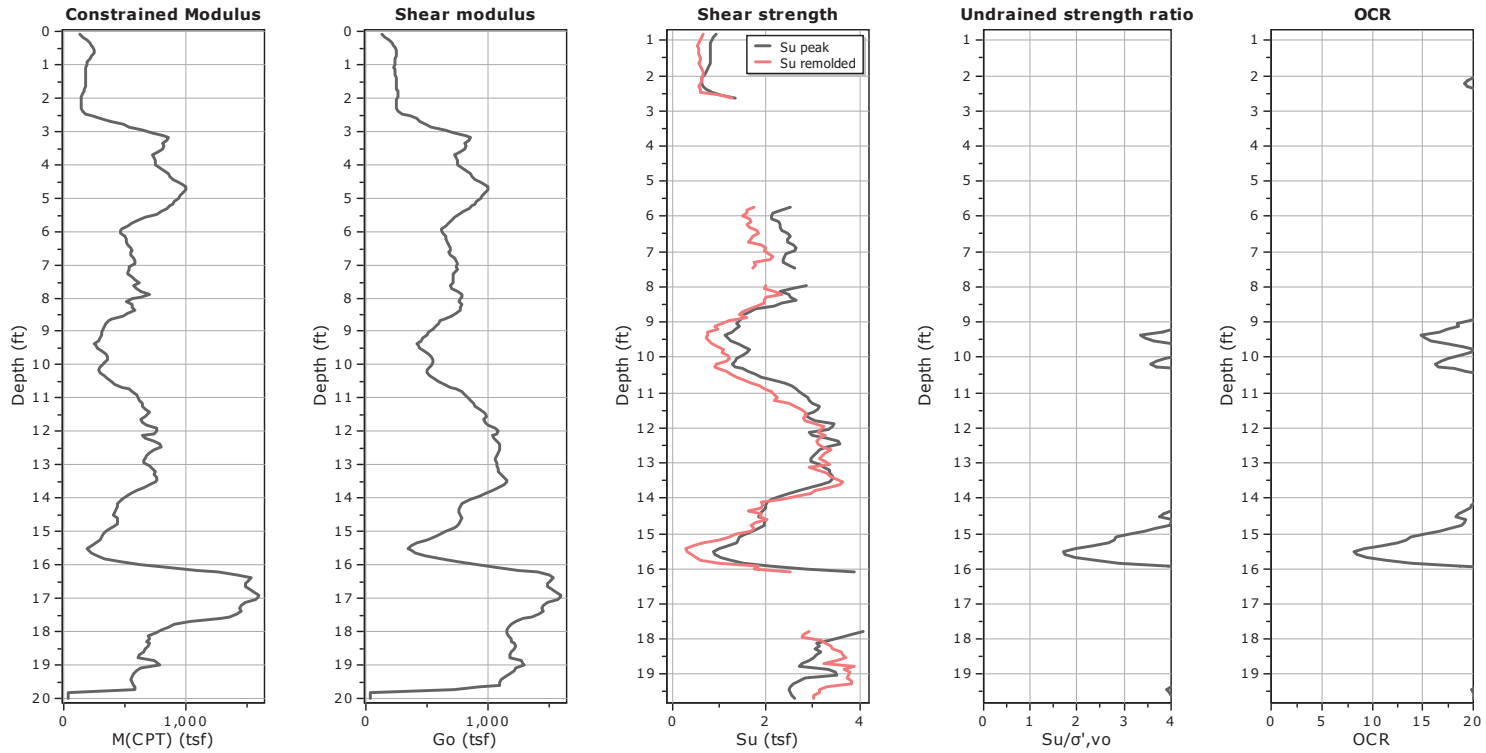
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-212
Total depth: 20.01 ft



Calculation parameters

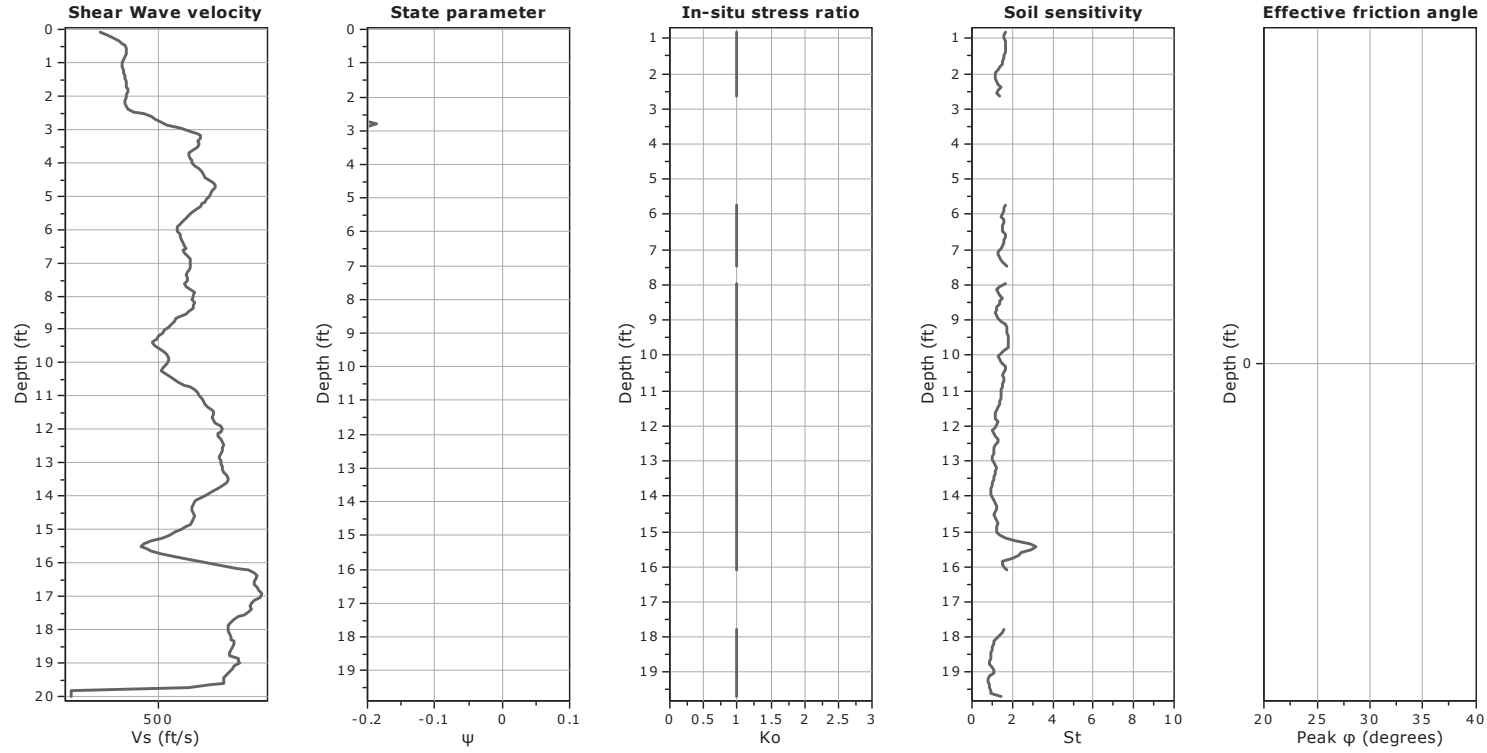
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-212
Total depth: 20.01 ft



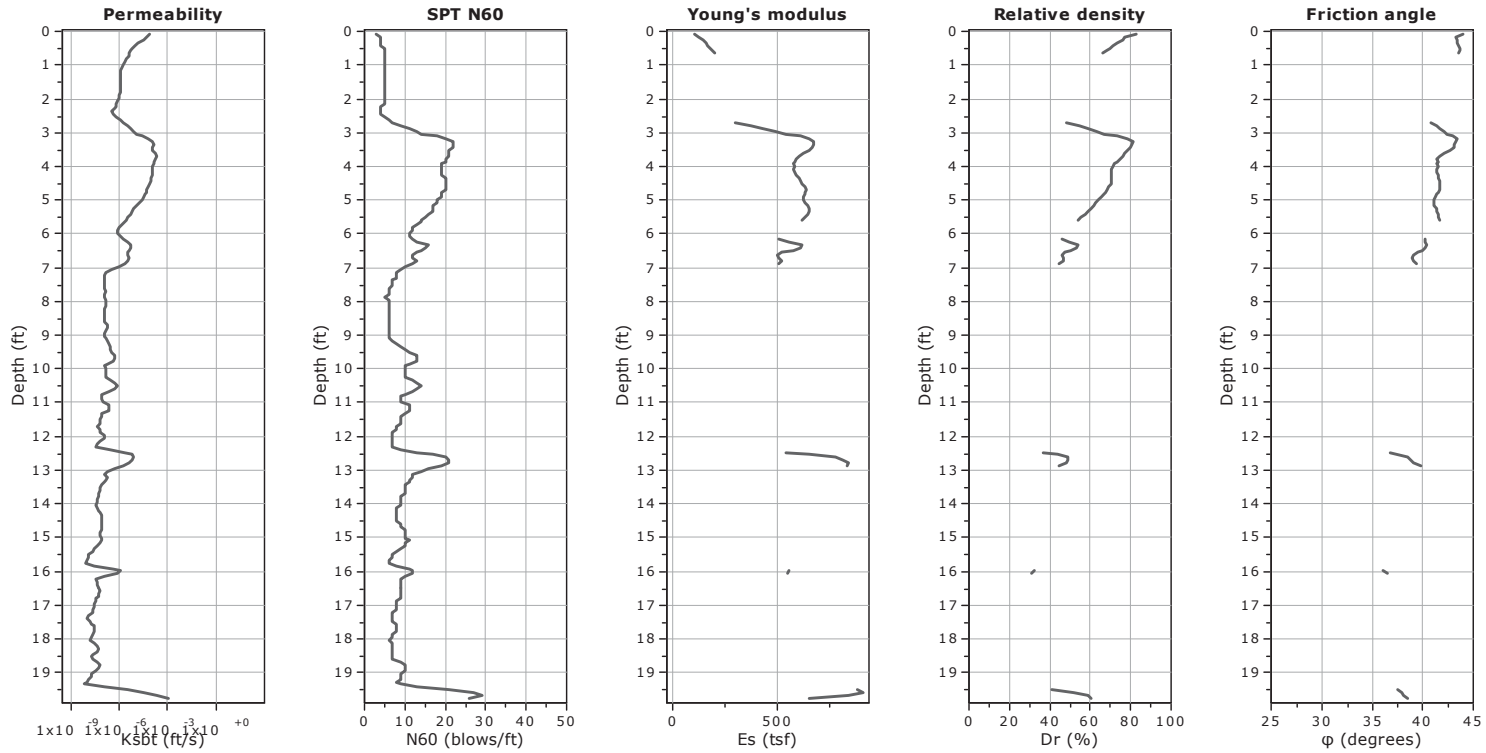
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-213
Total depth: 20.01 ft



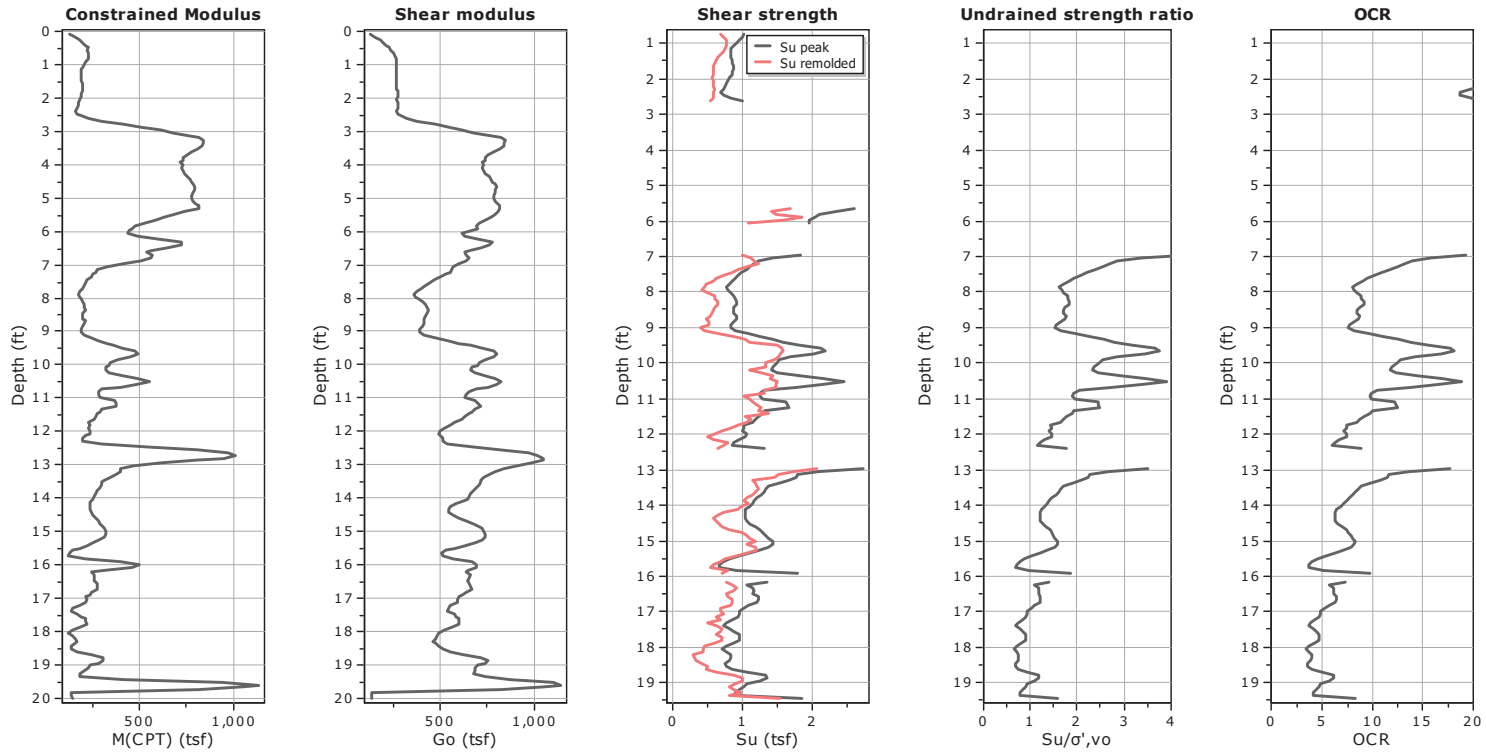
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-213
Total depth: 20.01 ft



Calculation parameters

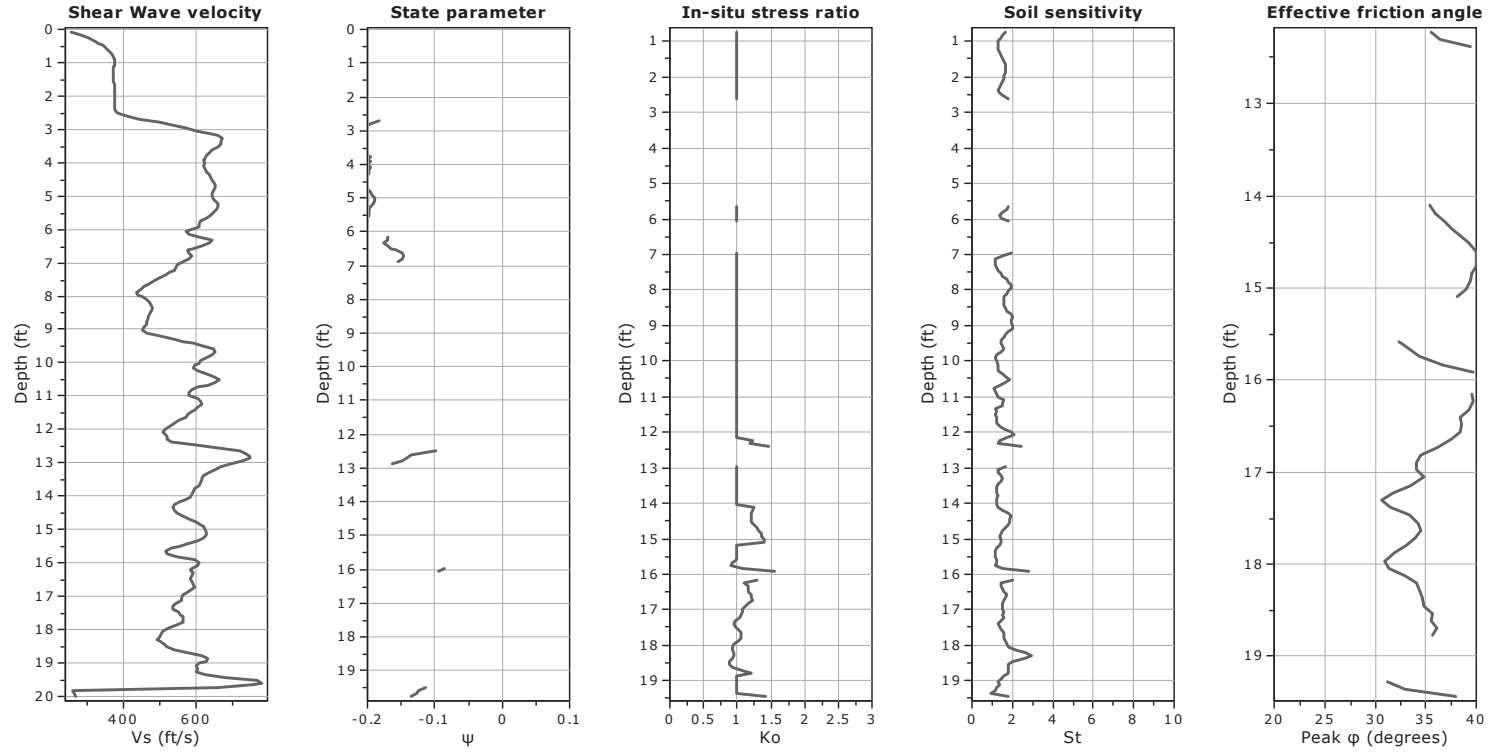
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-213
Total depth: 20.01 ft



Calculation parameters

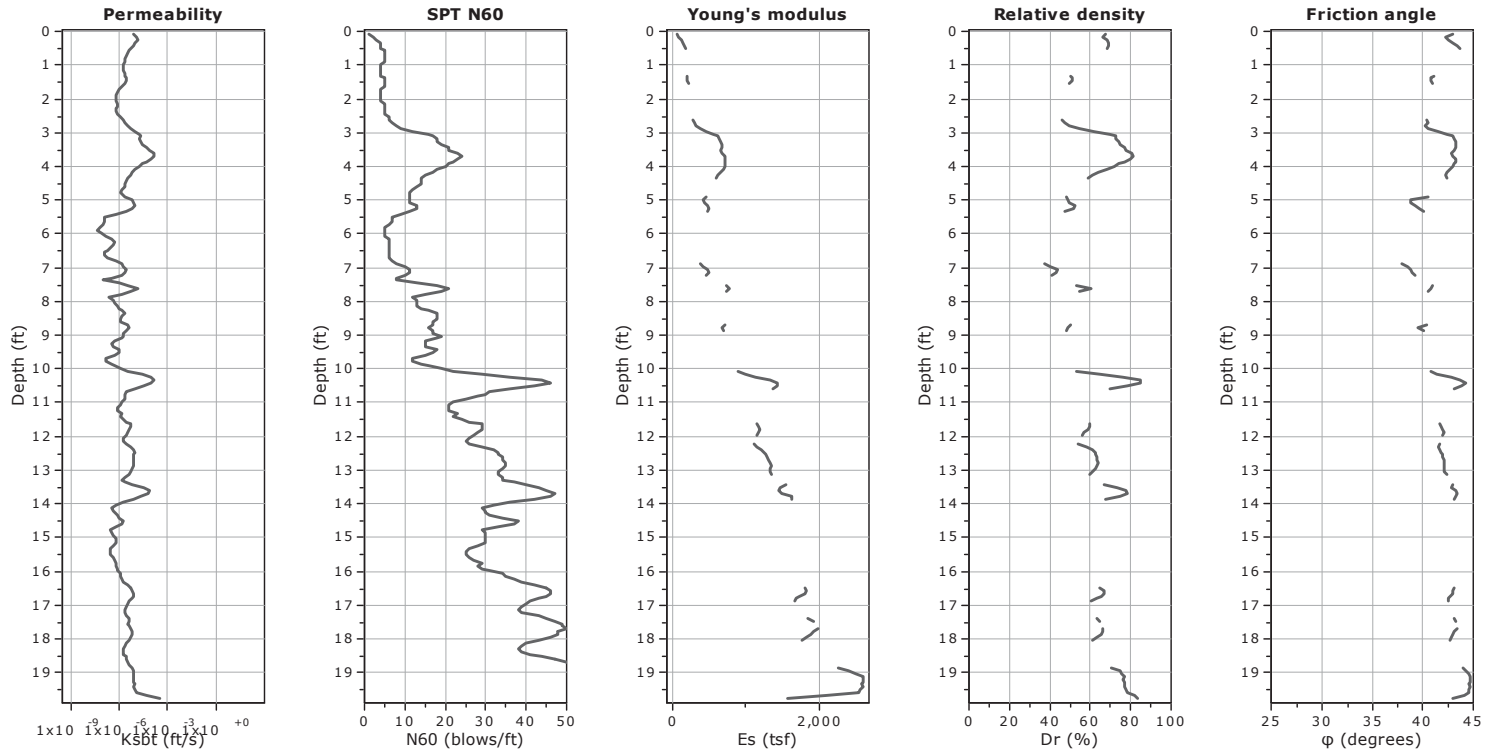
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-214
Total depth: 20.01 ft



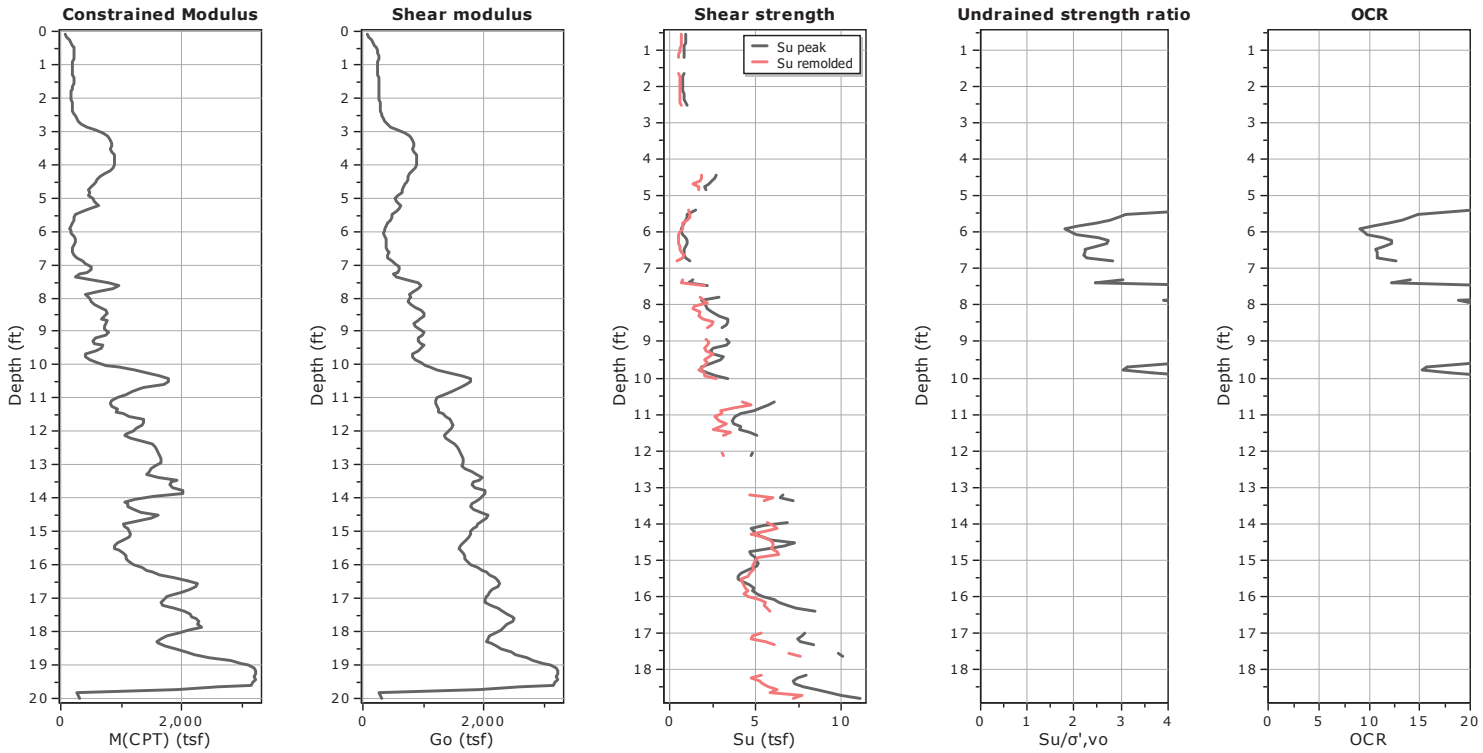
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-214
Total depth: 20.01 ft



Calculation parameters

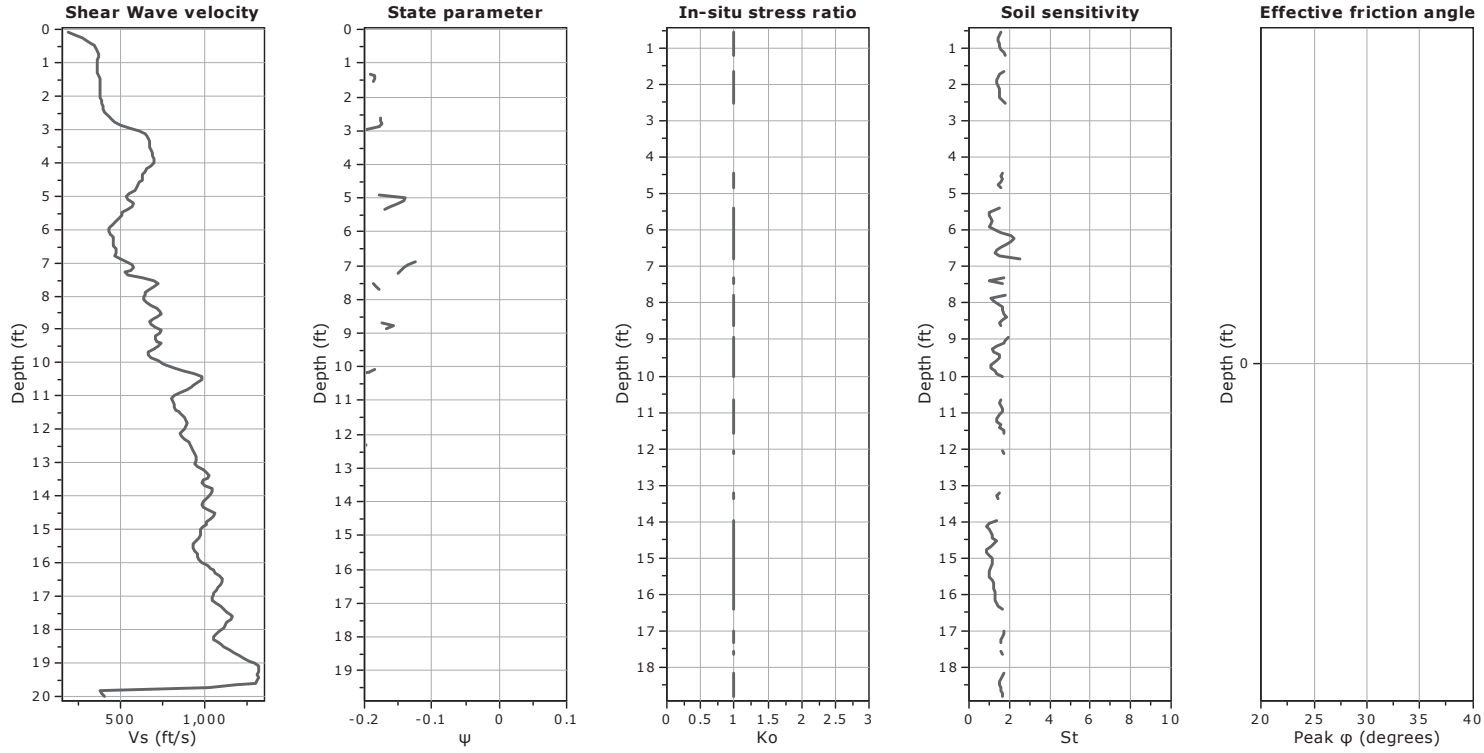
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-214
Total depth: 20.01 ft



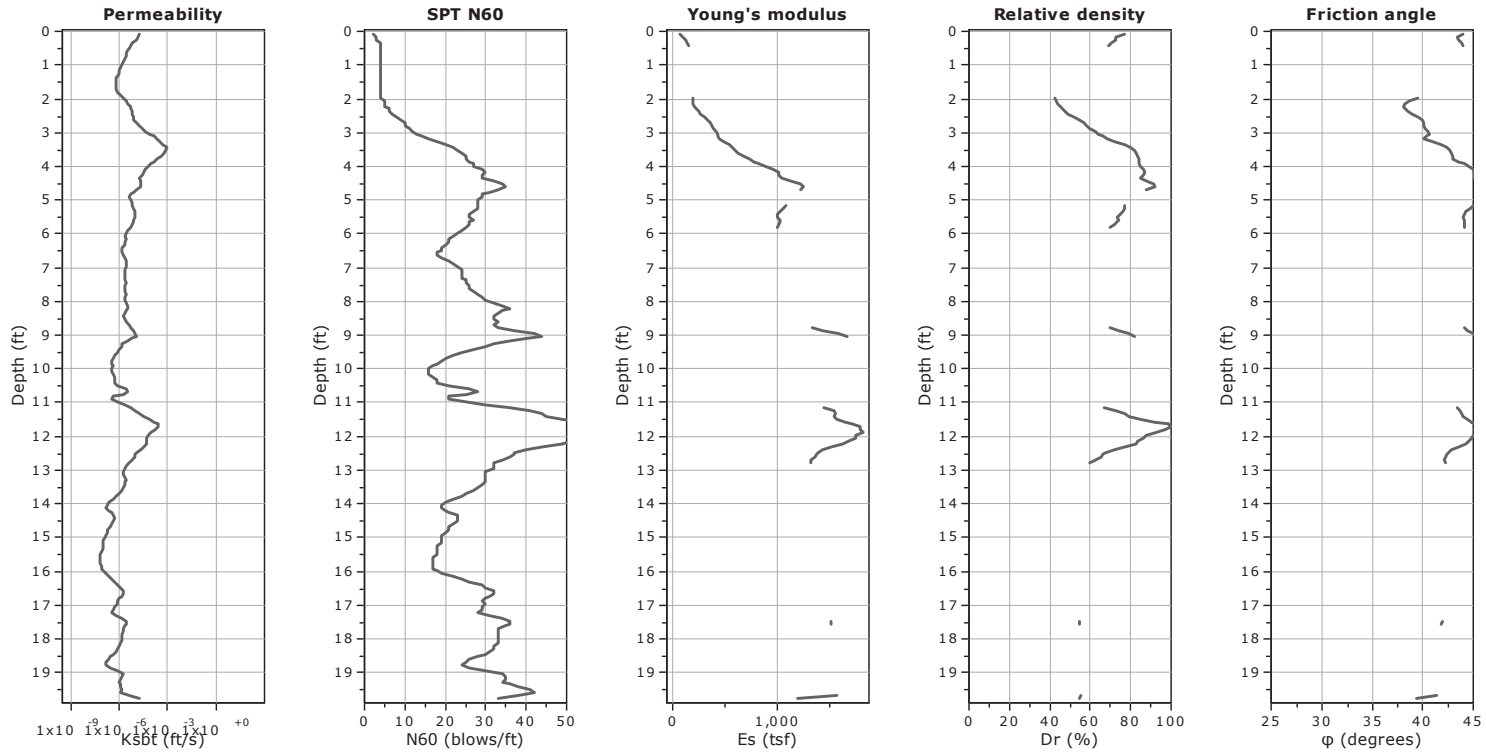
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-215
Total depth: 20.01 ft



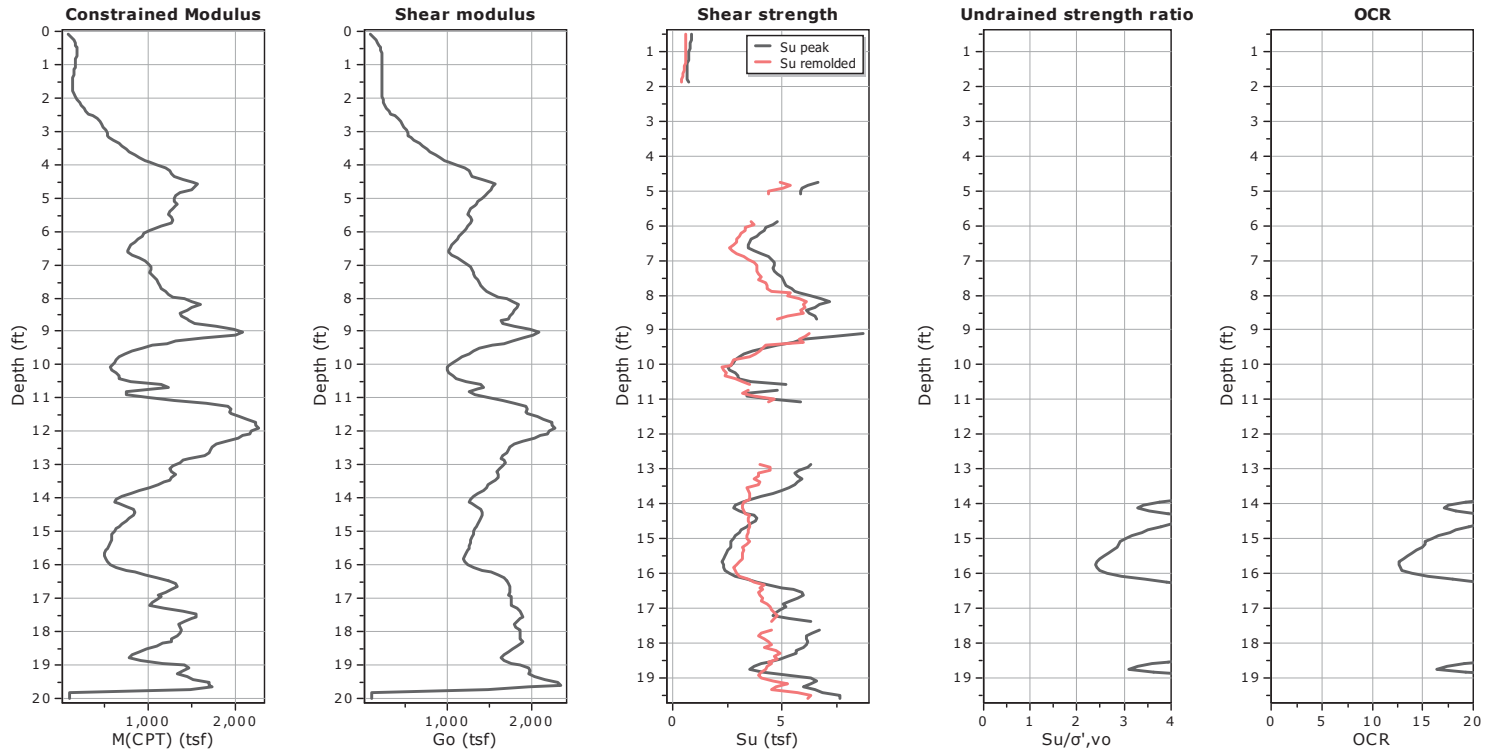
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-215
Total depth: 20.01 ft



Calculation parameters

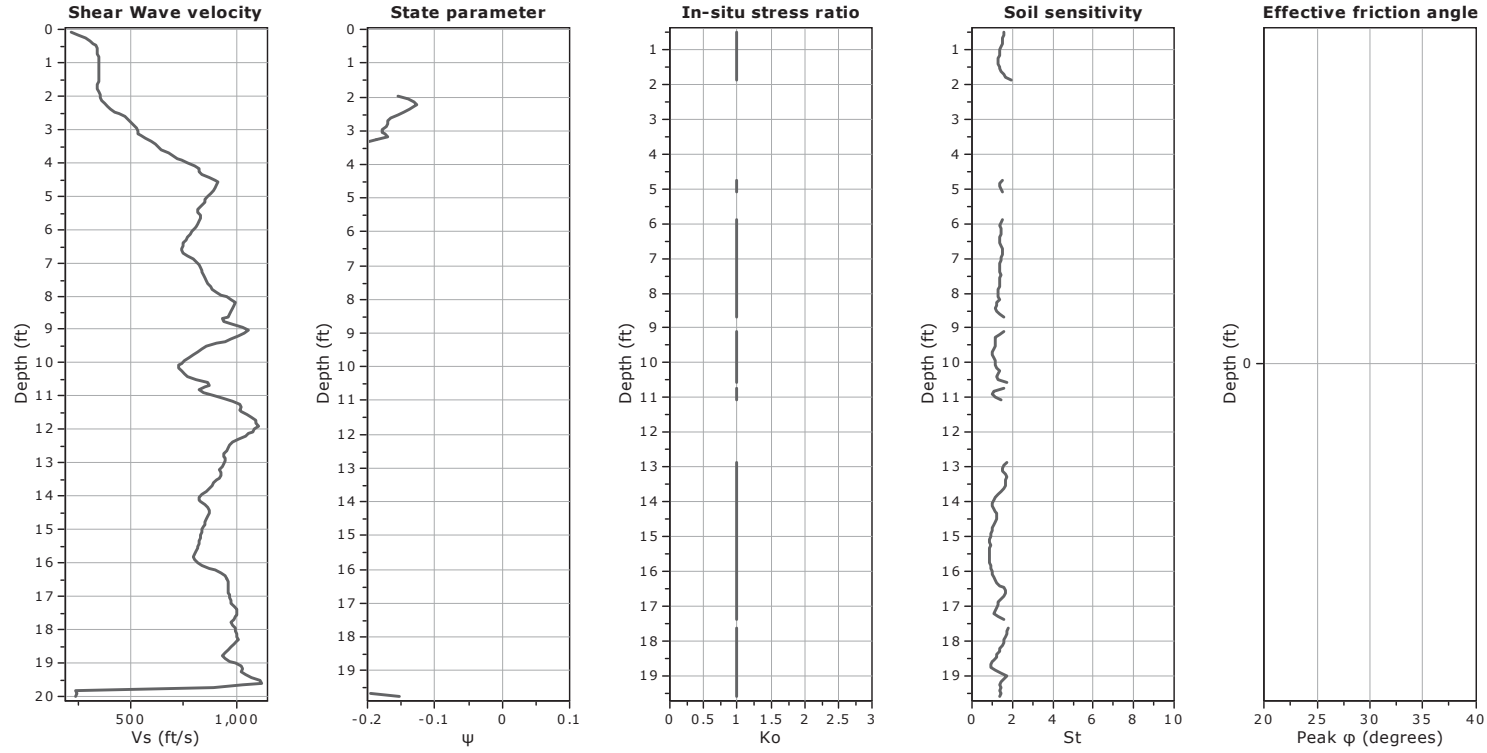
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-215
Total depth: 20.01 ft



Calculation parameters

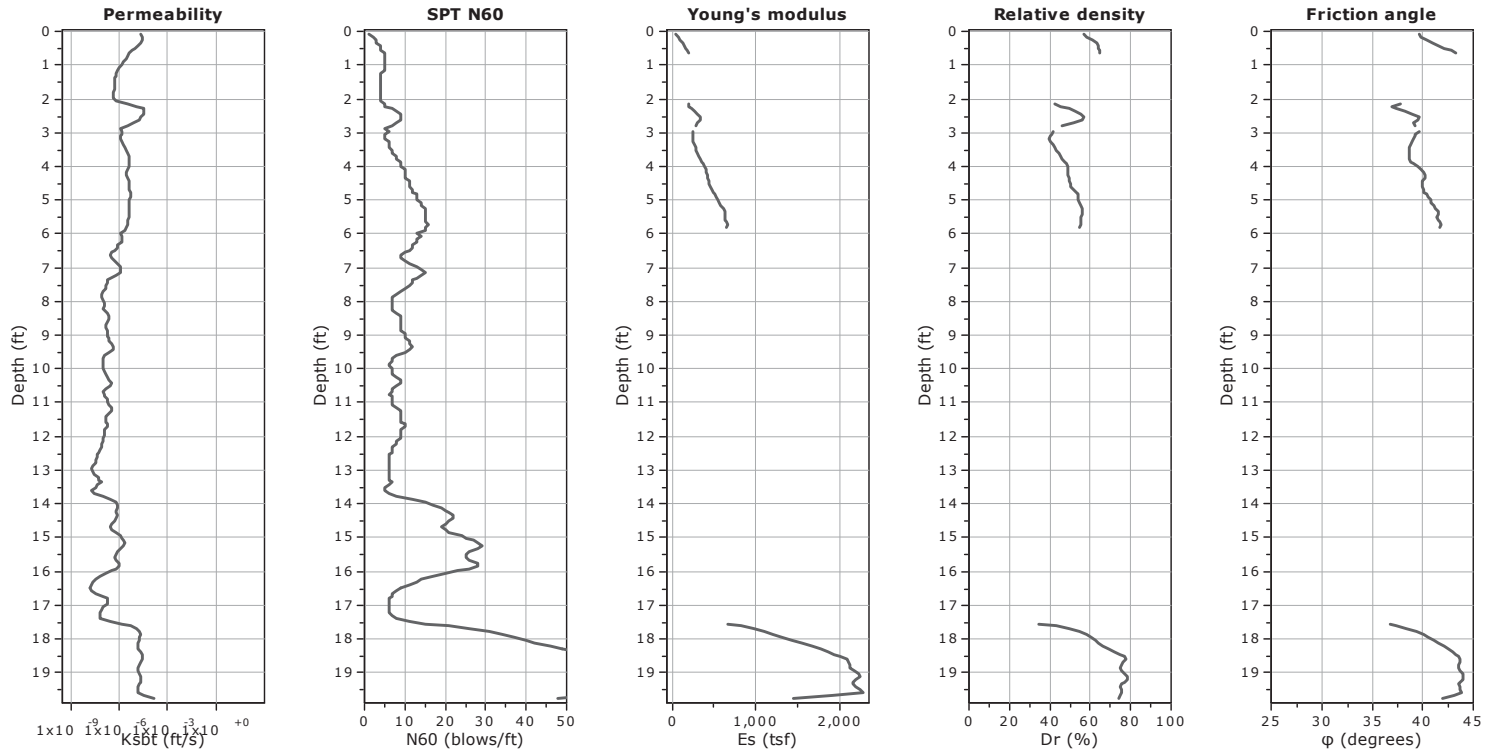
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-216
Total depth: 20.01 ft



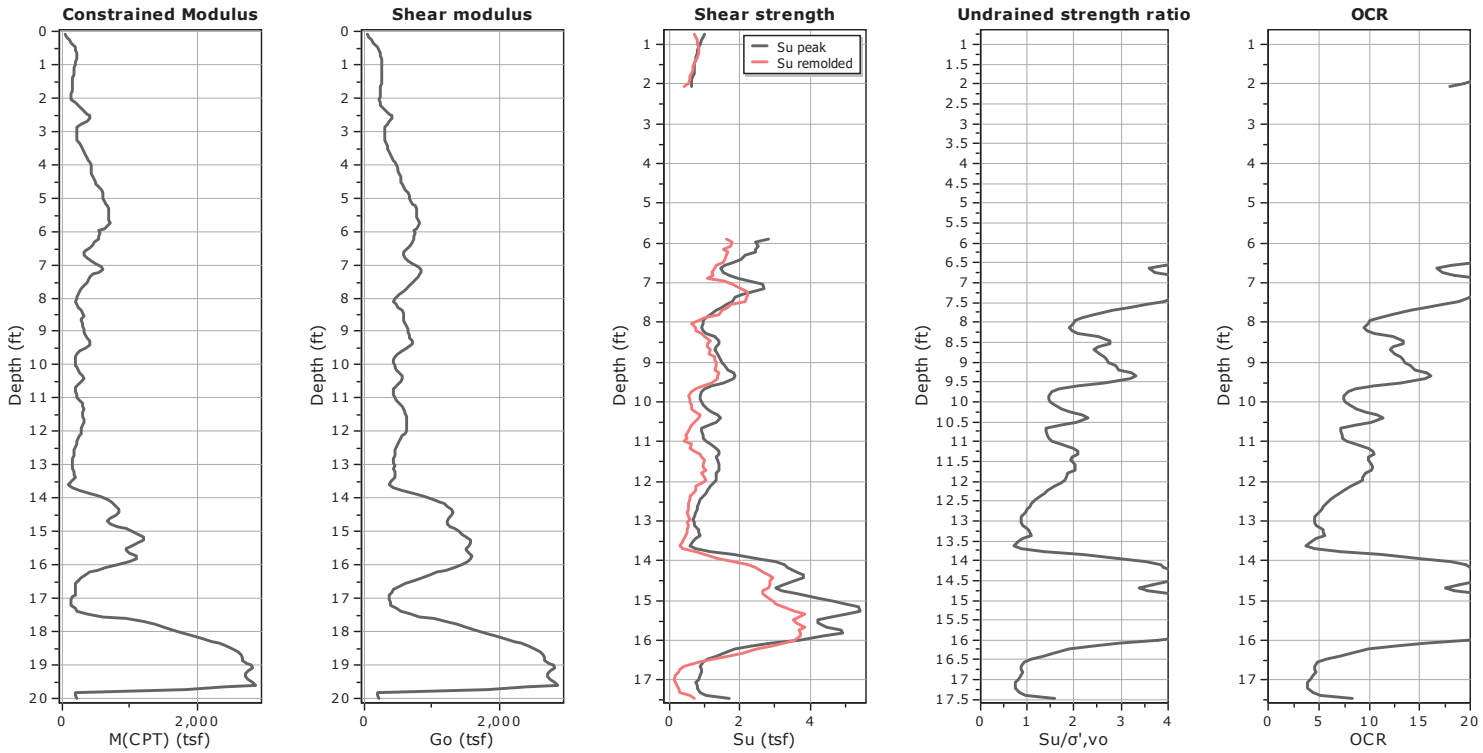
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-216
Total depth: 20.01 ft



Calculation parameters

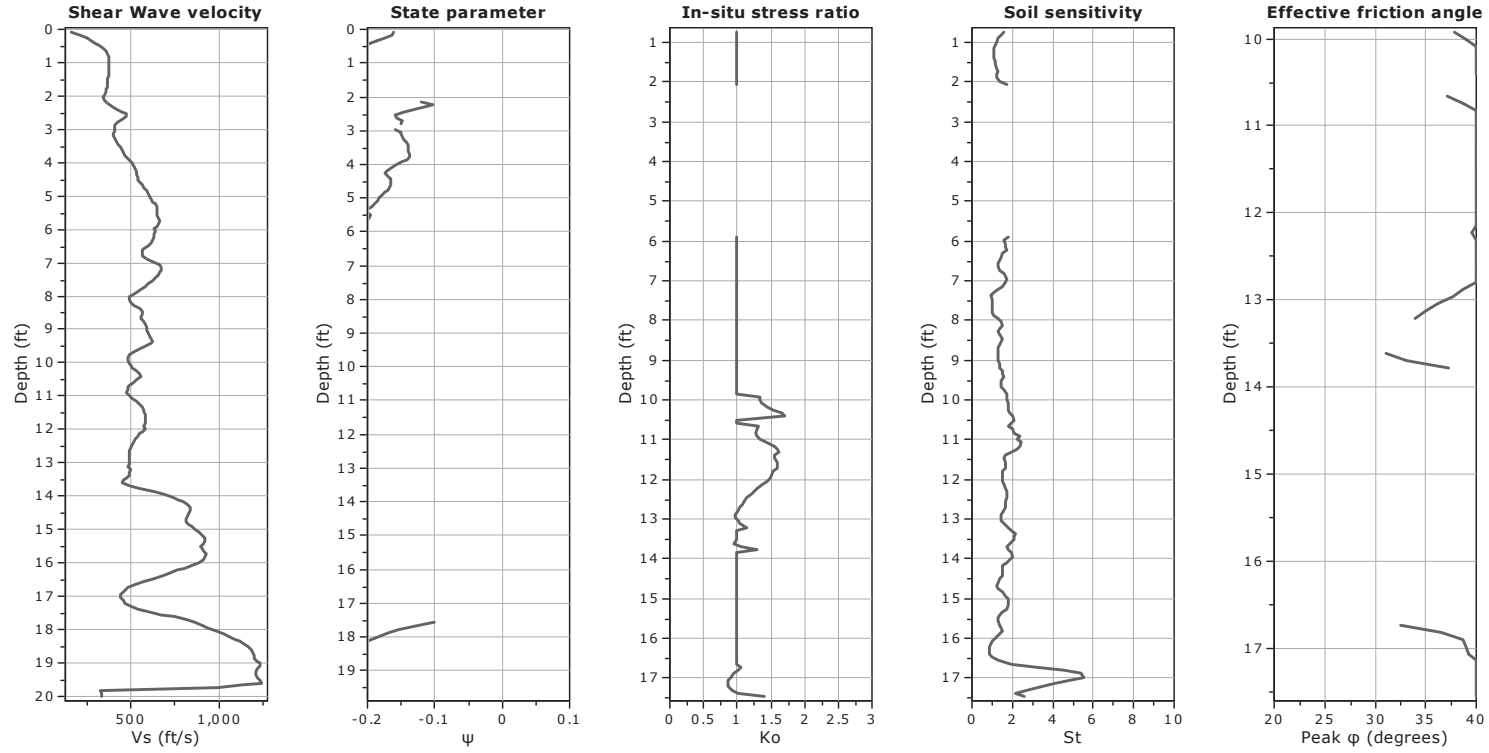
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-216
Total depth: 20.01 ft



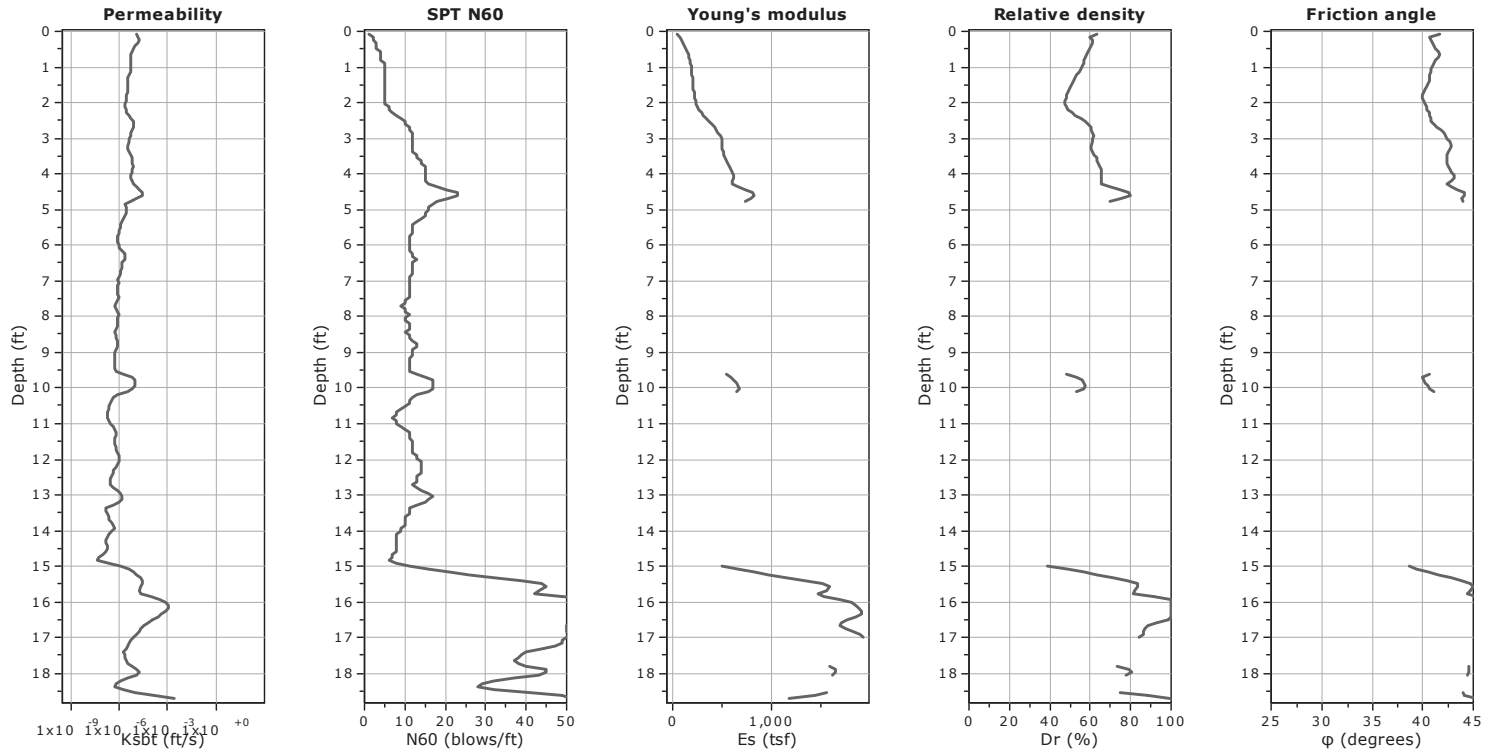
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-217
Total depth: 18.95 ft



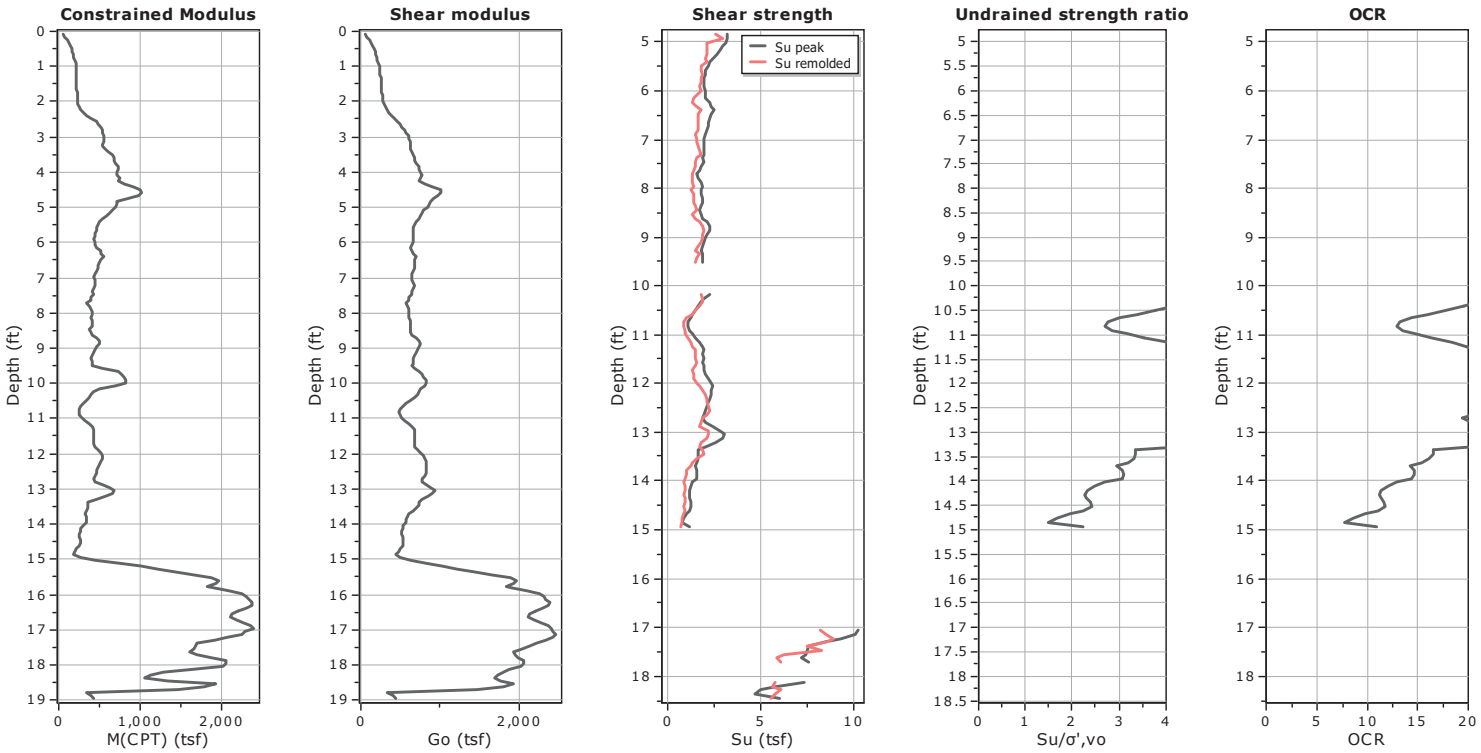
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-217
Total depth: 18.95 ft



Calculation parameters

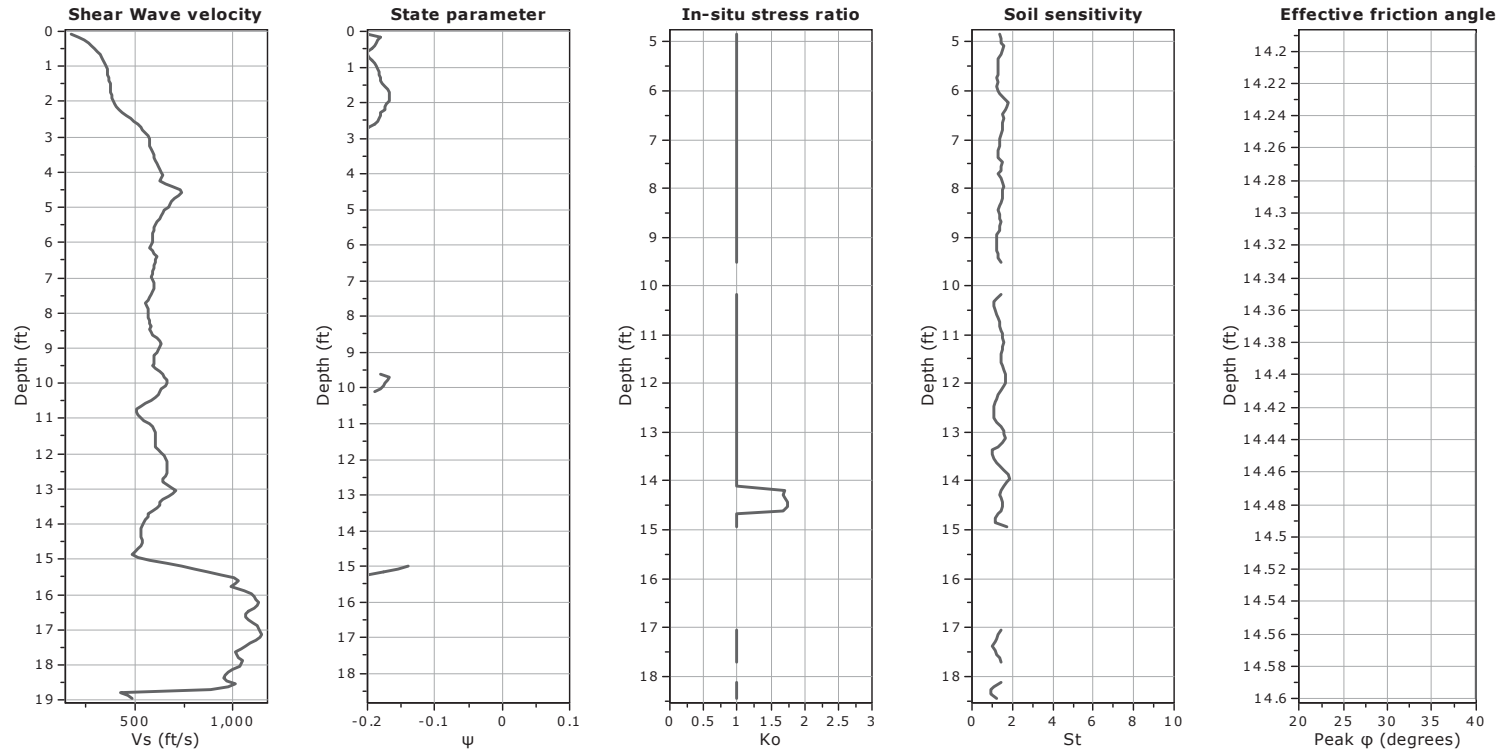
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-217
Total depth: 18.95 ft



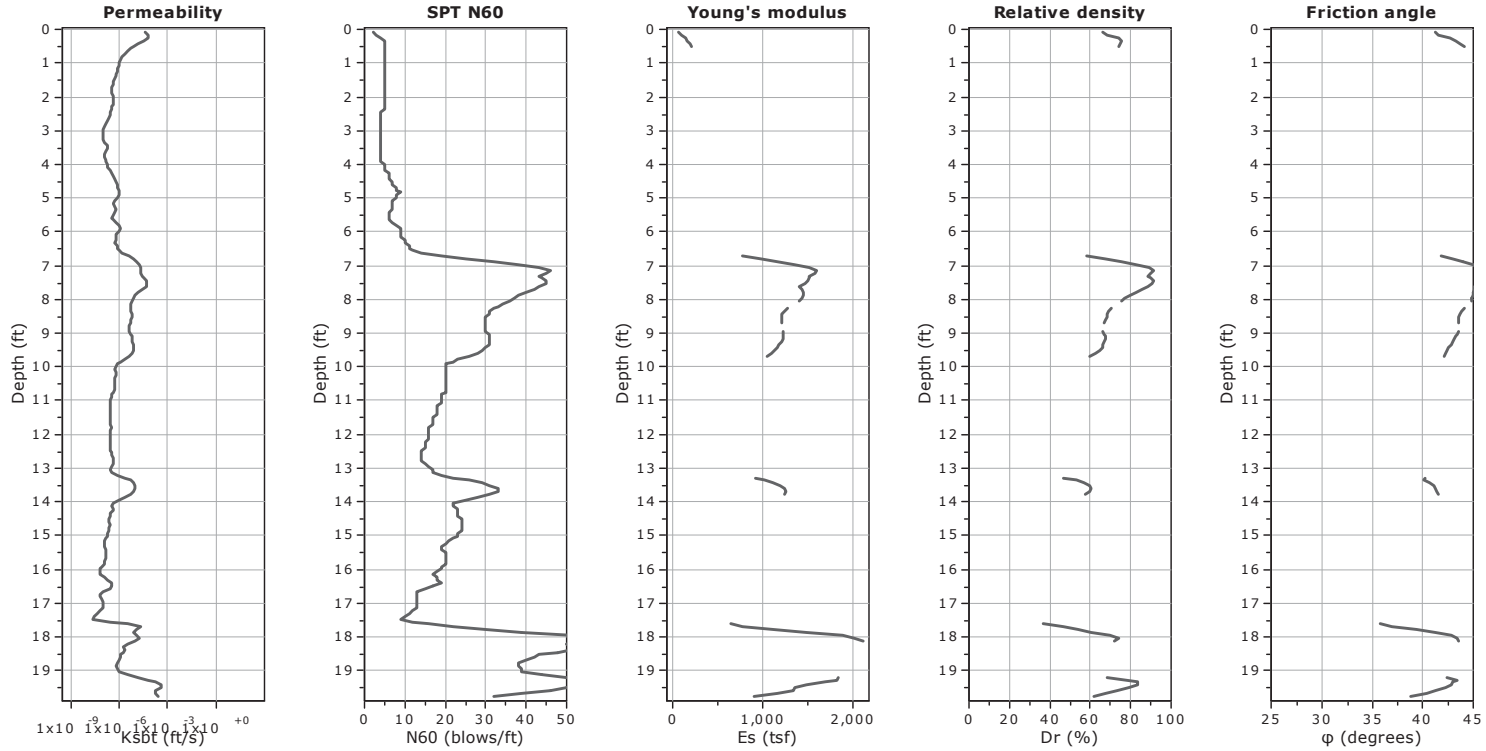
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-218
Total depth: 20.01 ft



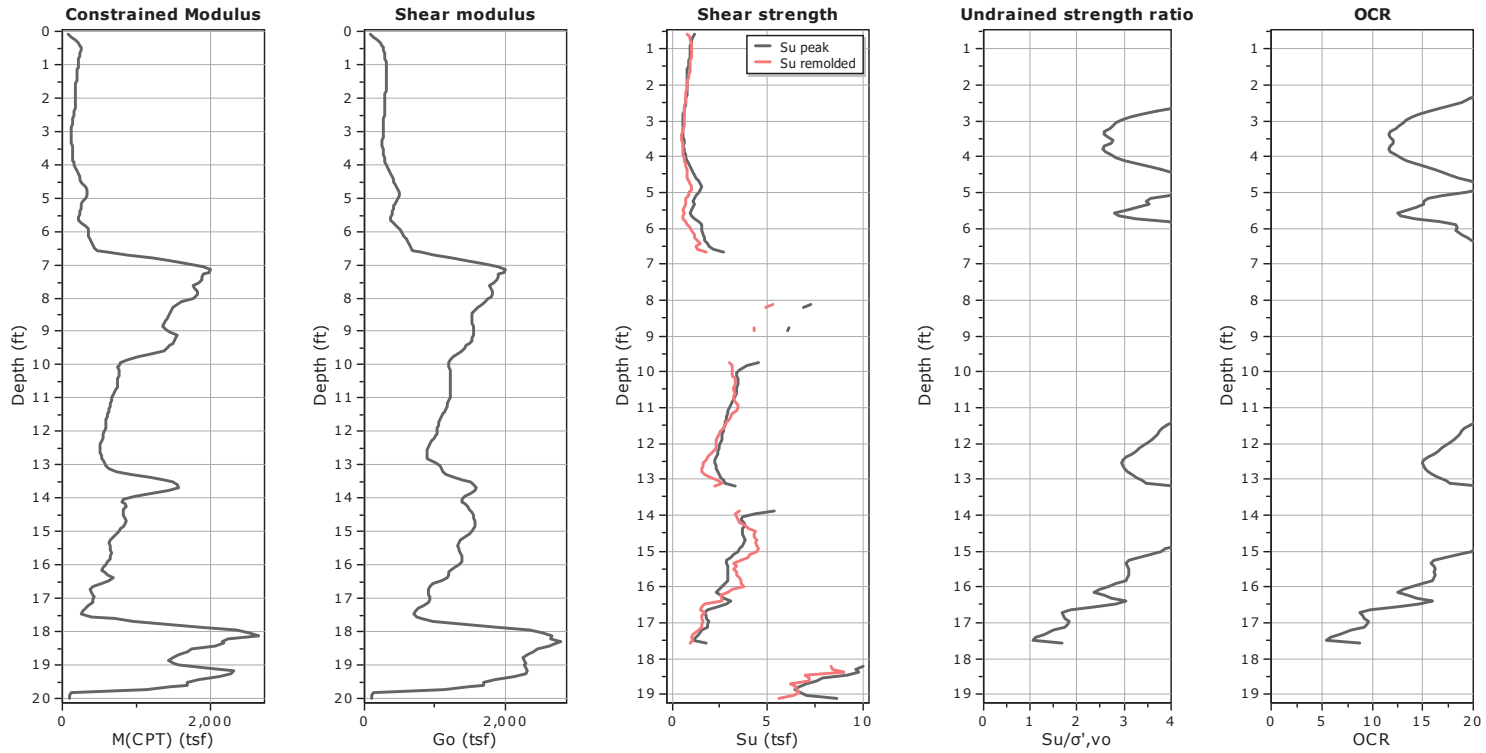
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-218
Total depth: 20.01 ft



Calculation parameters

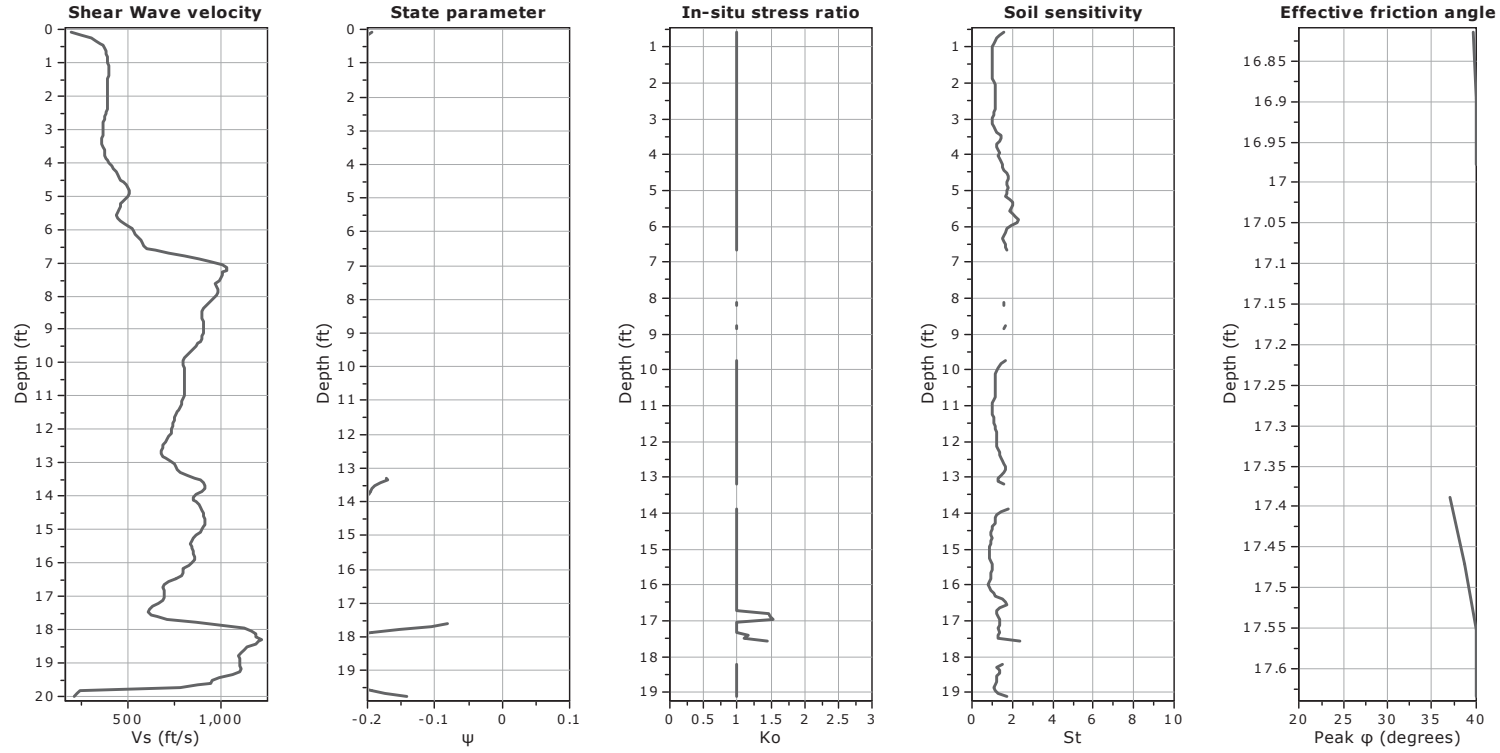
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-218
Total depth: 20.01 ft



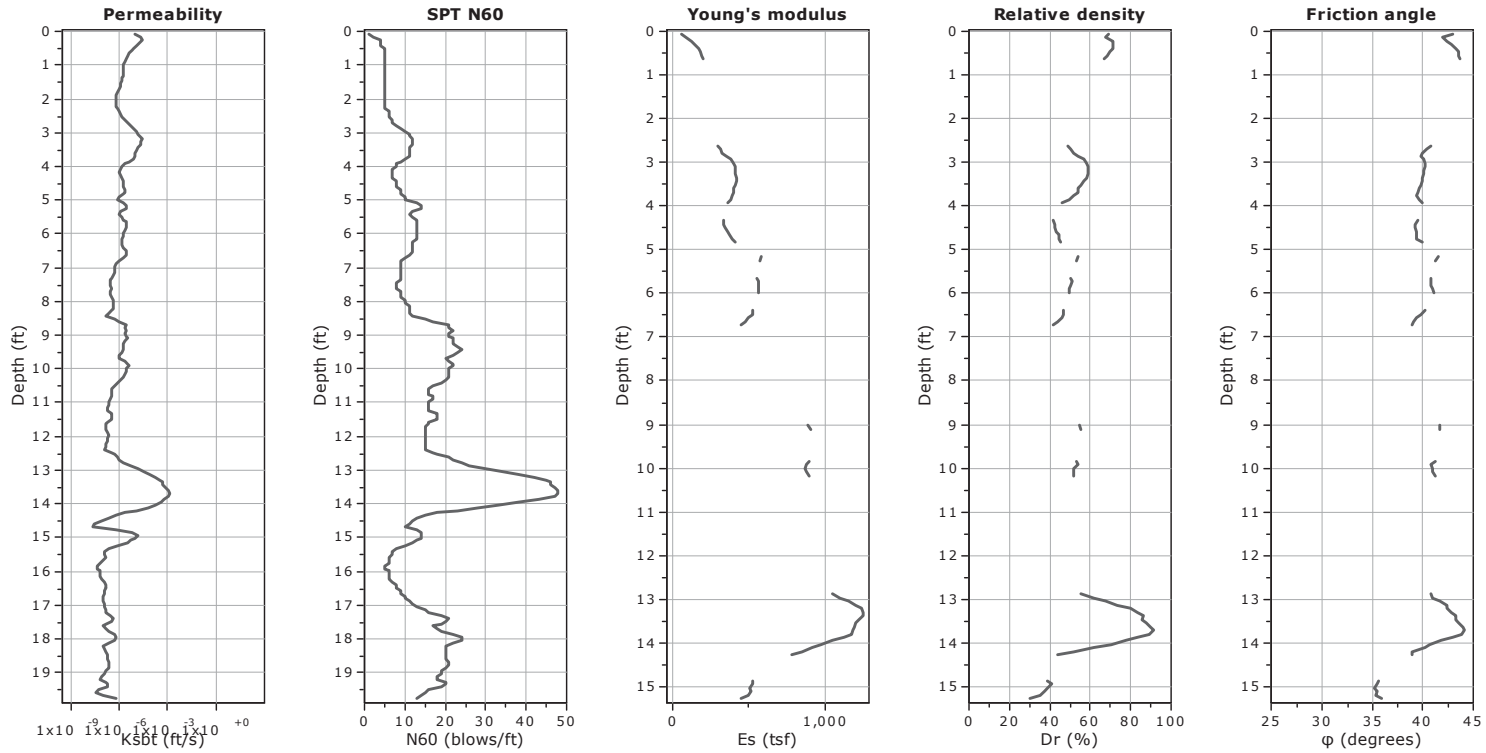
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-219
Total depth: 20.01 ft



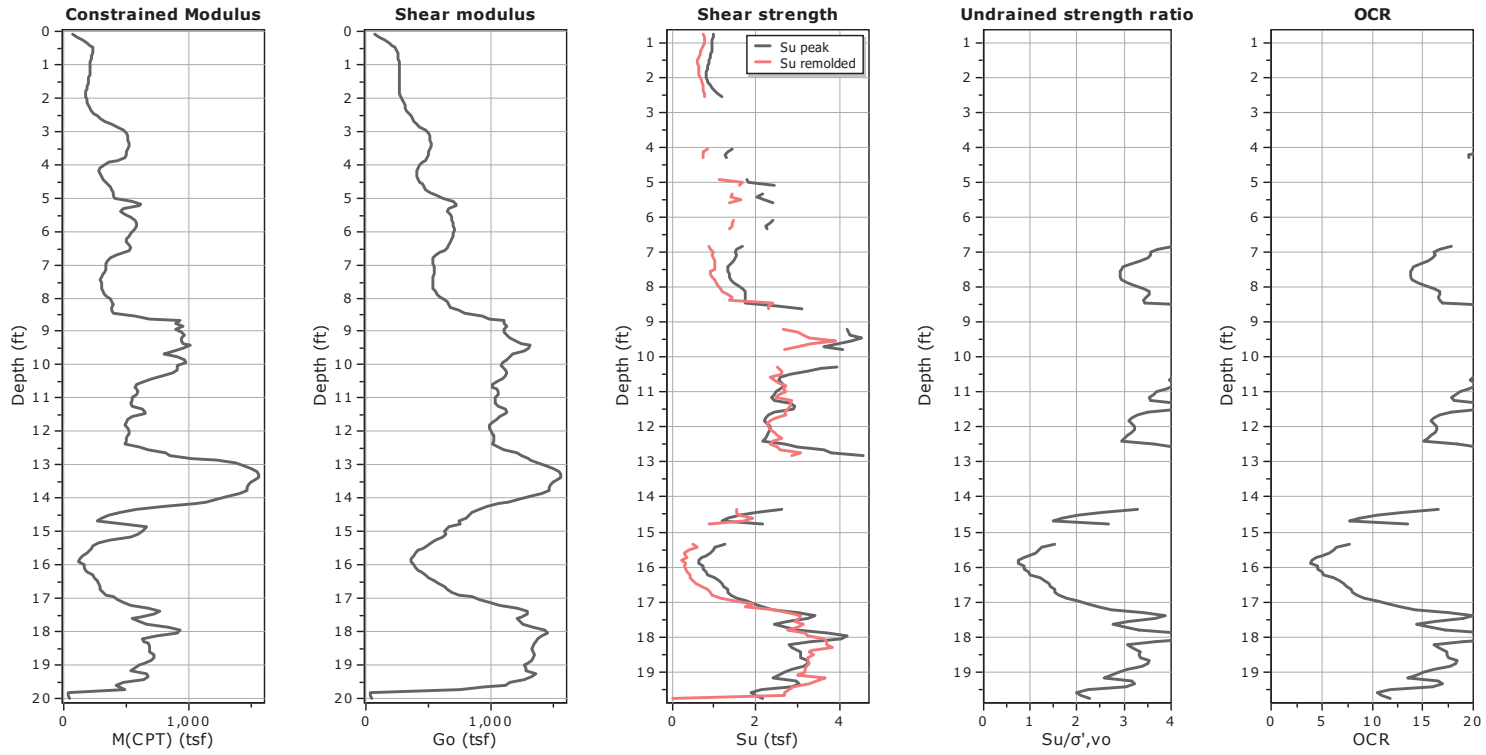
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-219
Total depth: 20.01 ft



Calculation parameters

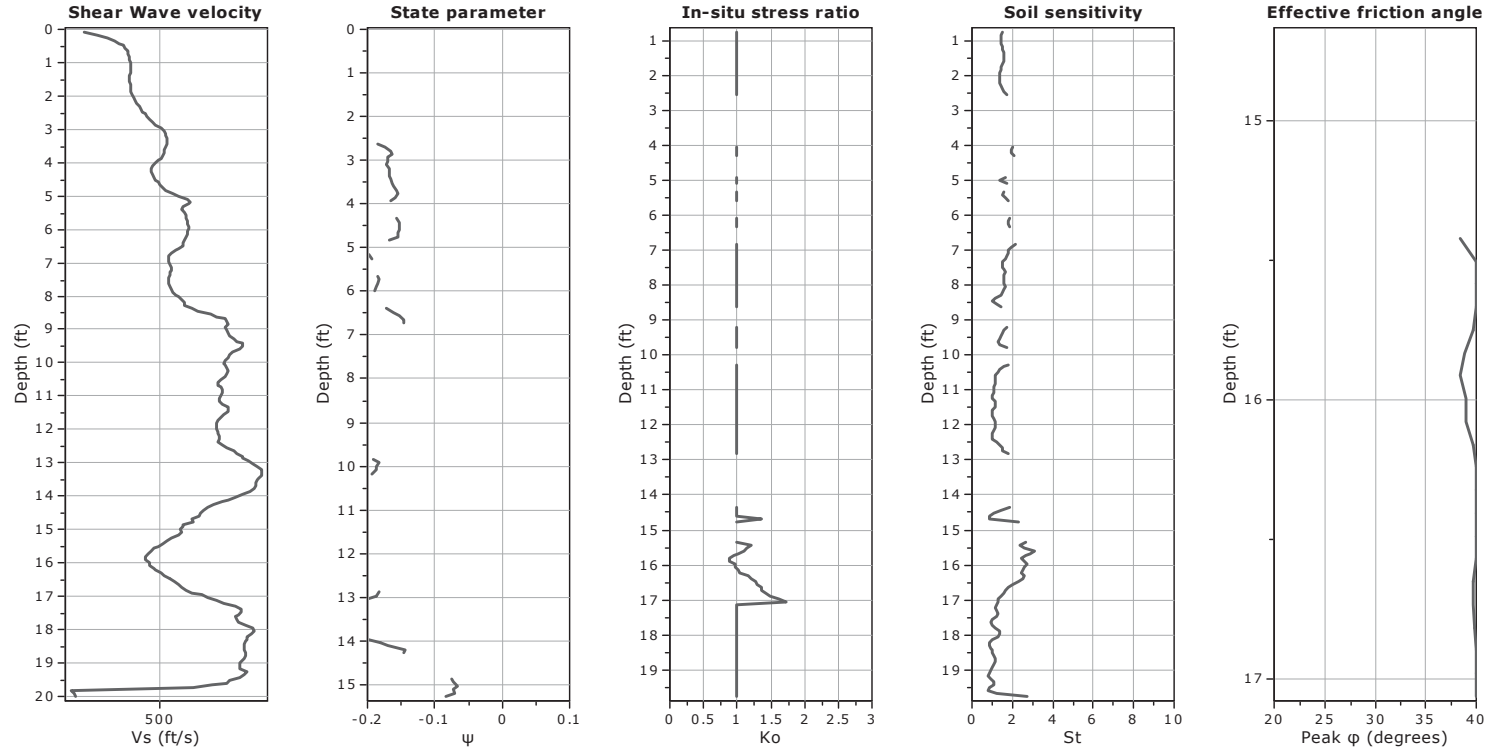
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-219
Total depth: 20.01 ft



Calculation parameters

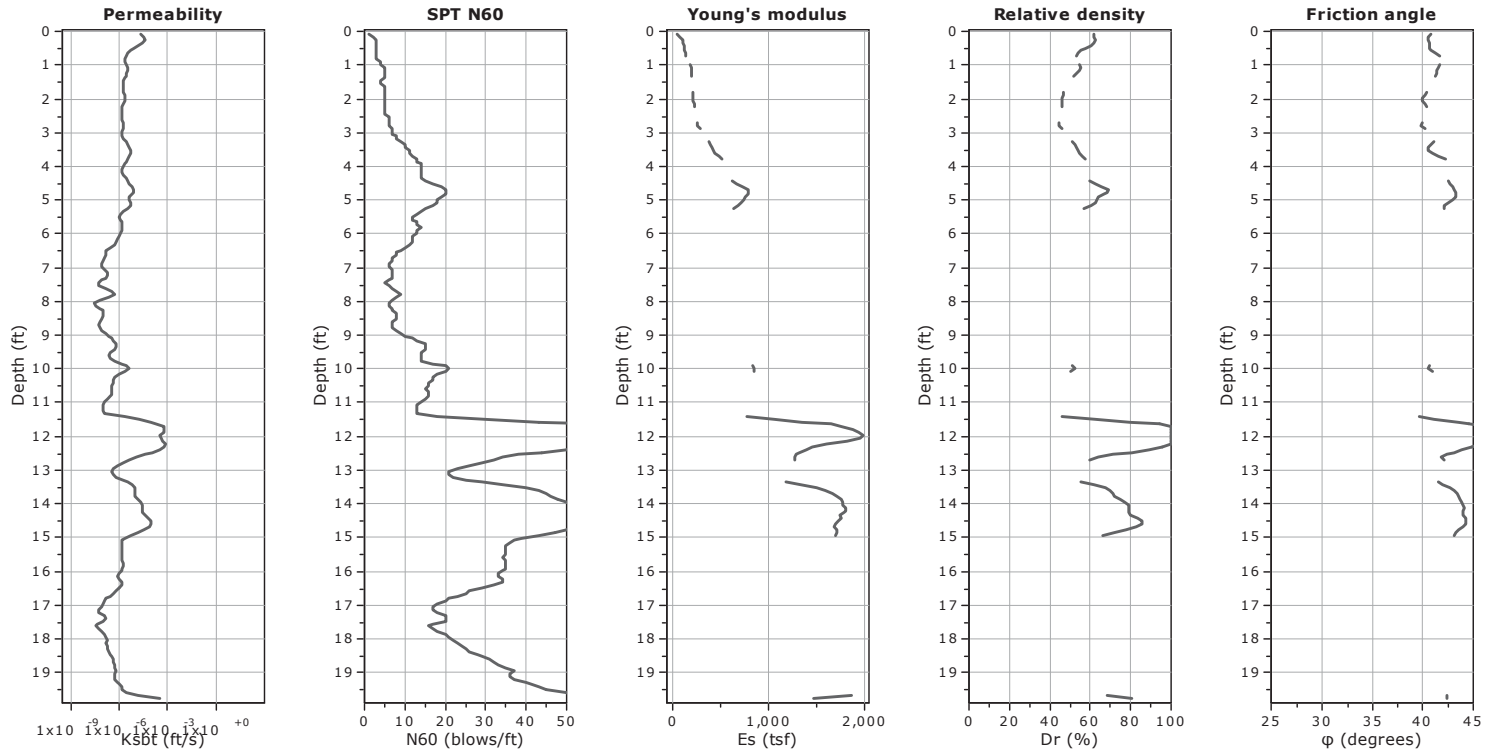
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-220
Total depth: 20.01 ft



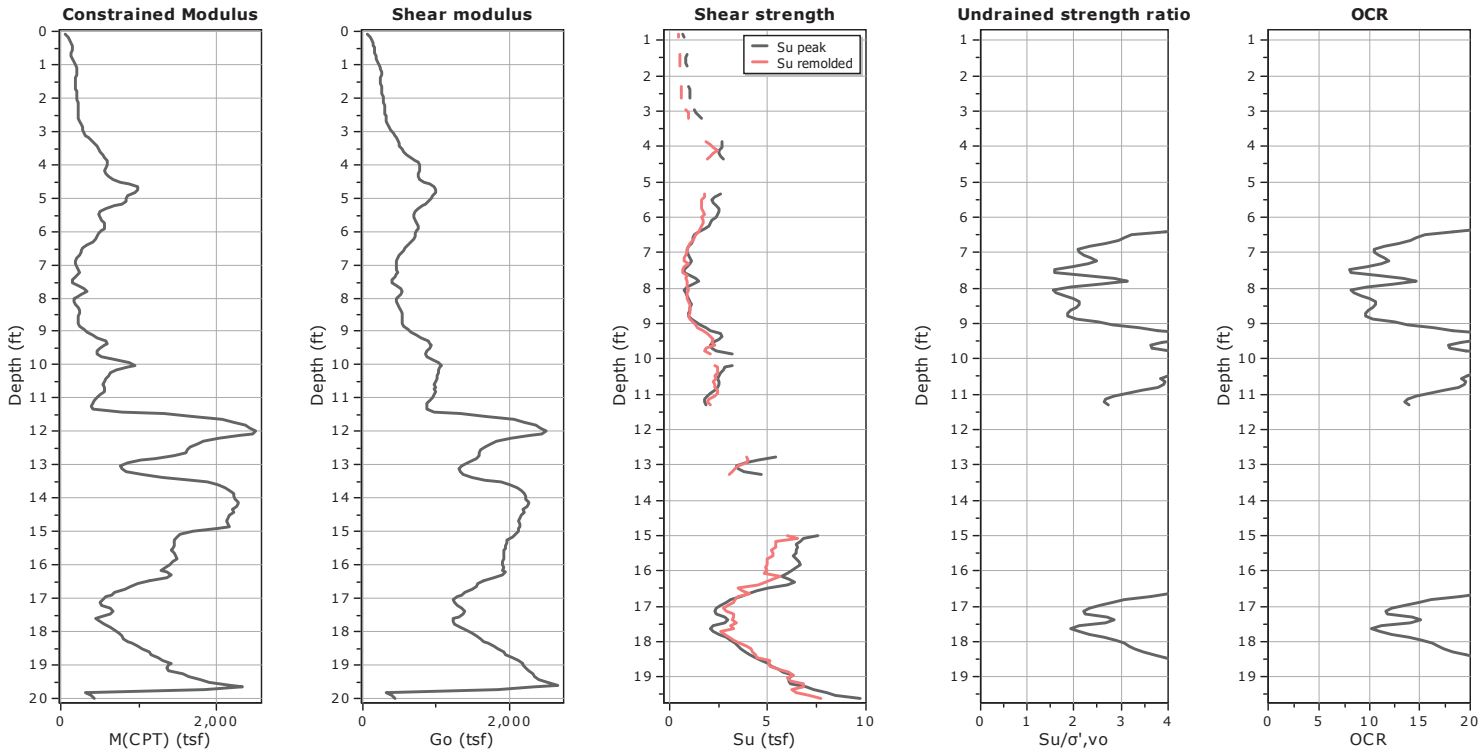
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-220
Total depth: 20.01 ft



Calculation parameters

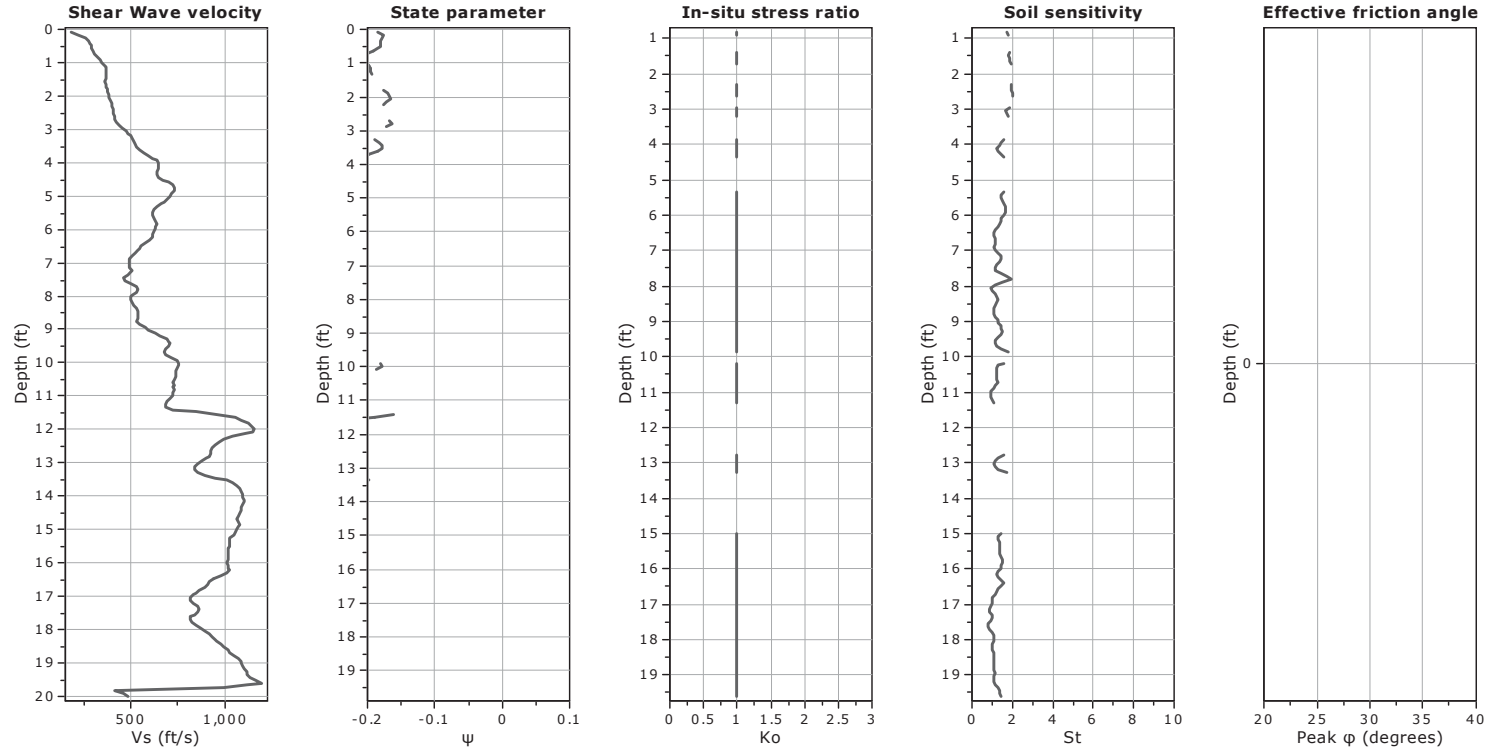
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-220
Total depth: 20.01 ft



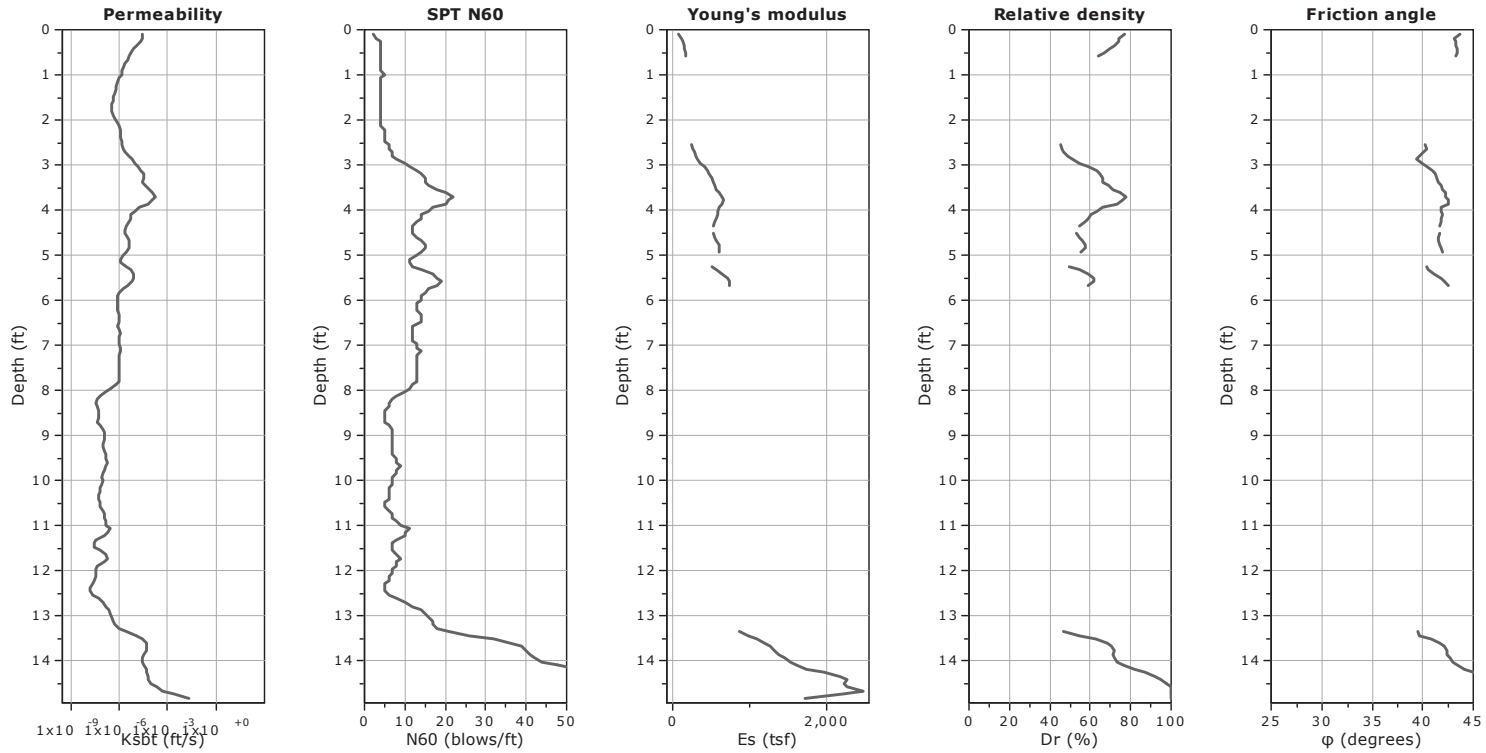
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-221
Total depth: 15.09 ft



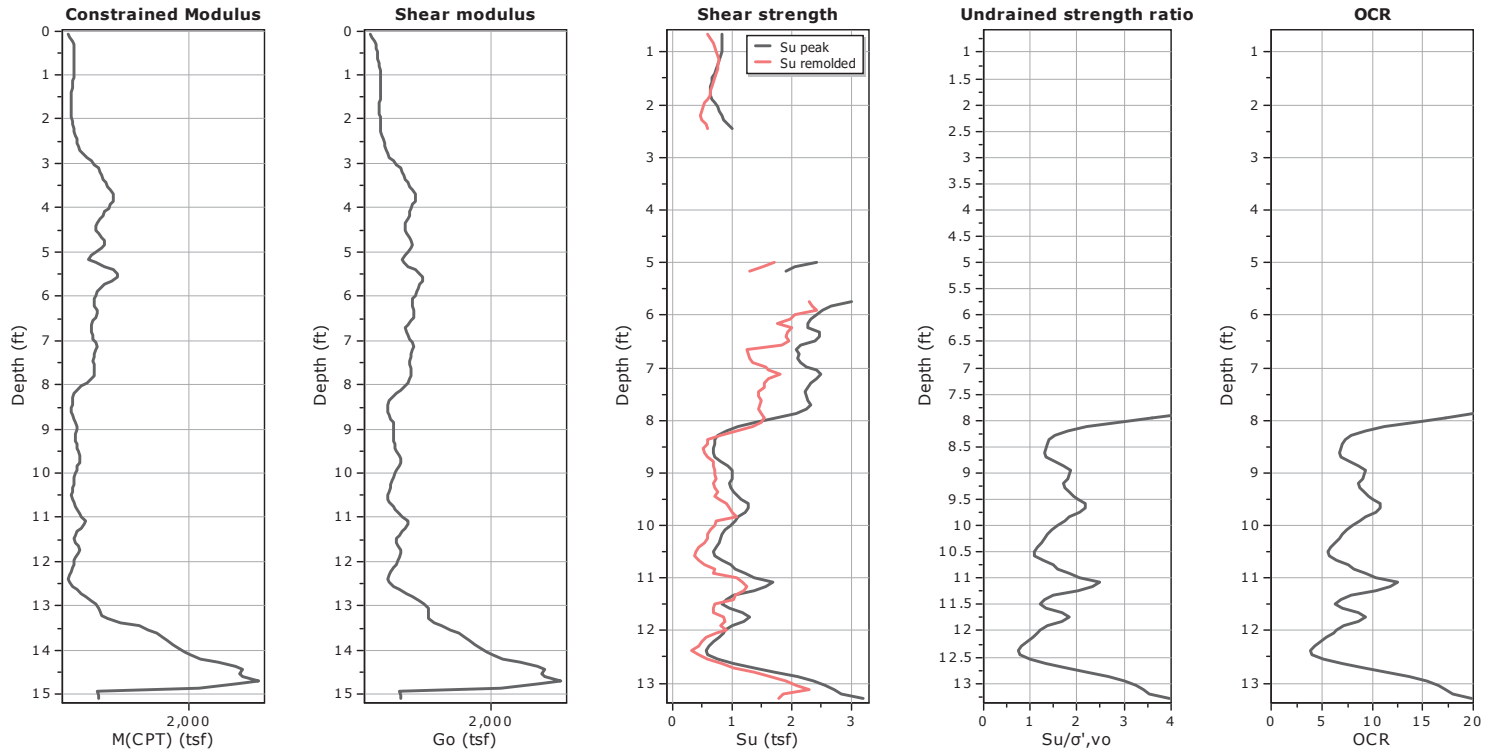
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-221
Total depth: 15.09 ft



Calculation parameters

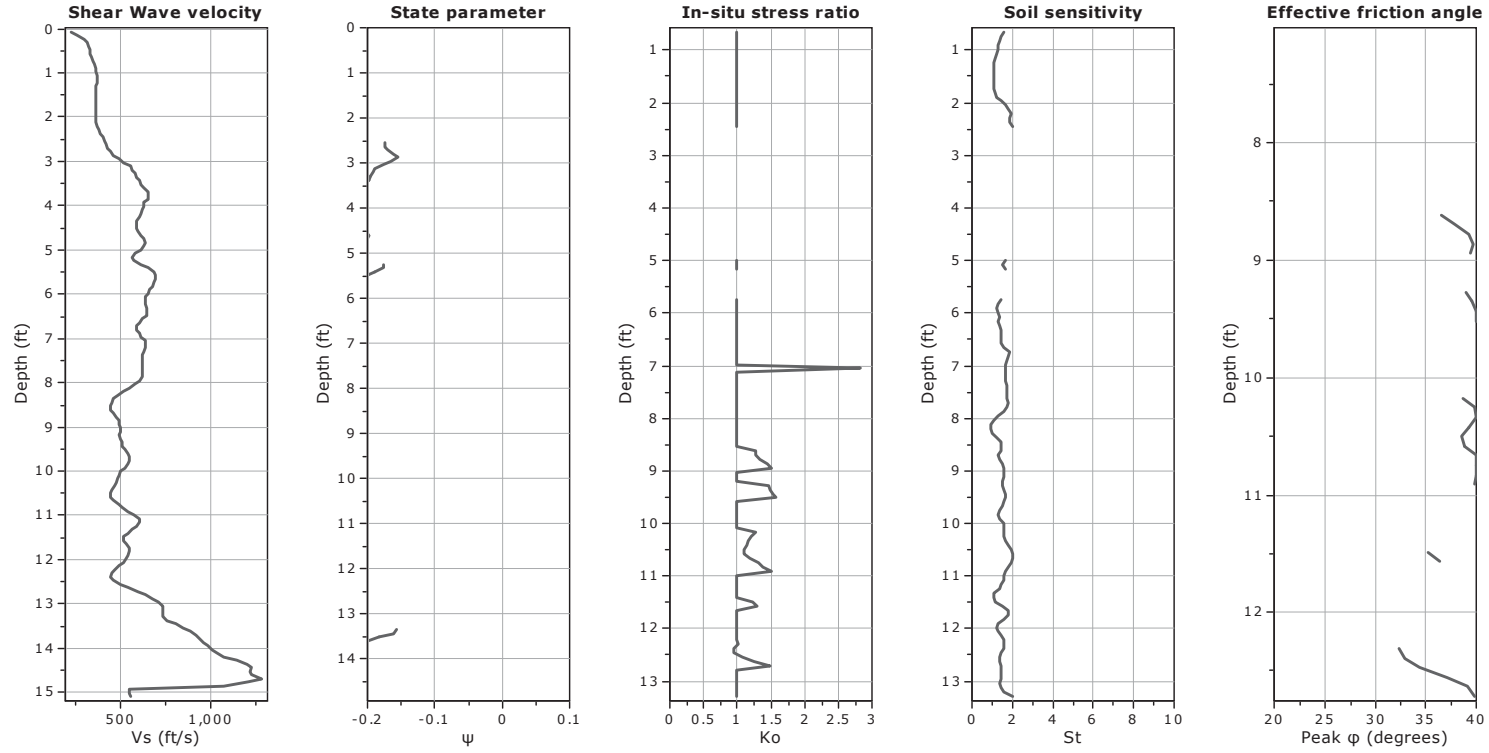
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-221
Total depth: 15.09 ft



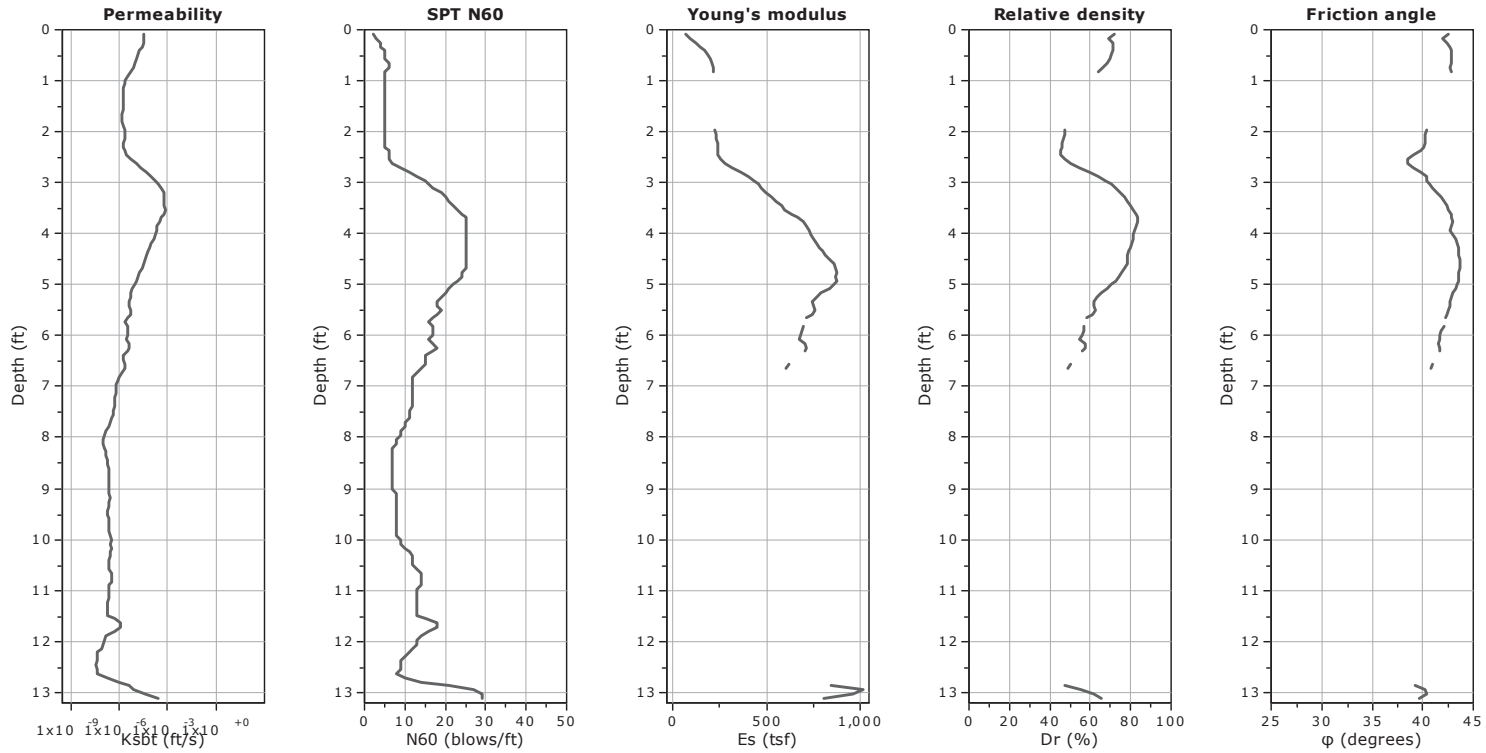
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-222
Total depth: 13.37 ft



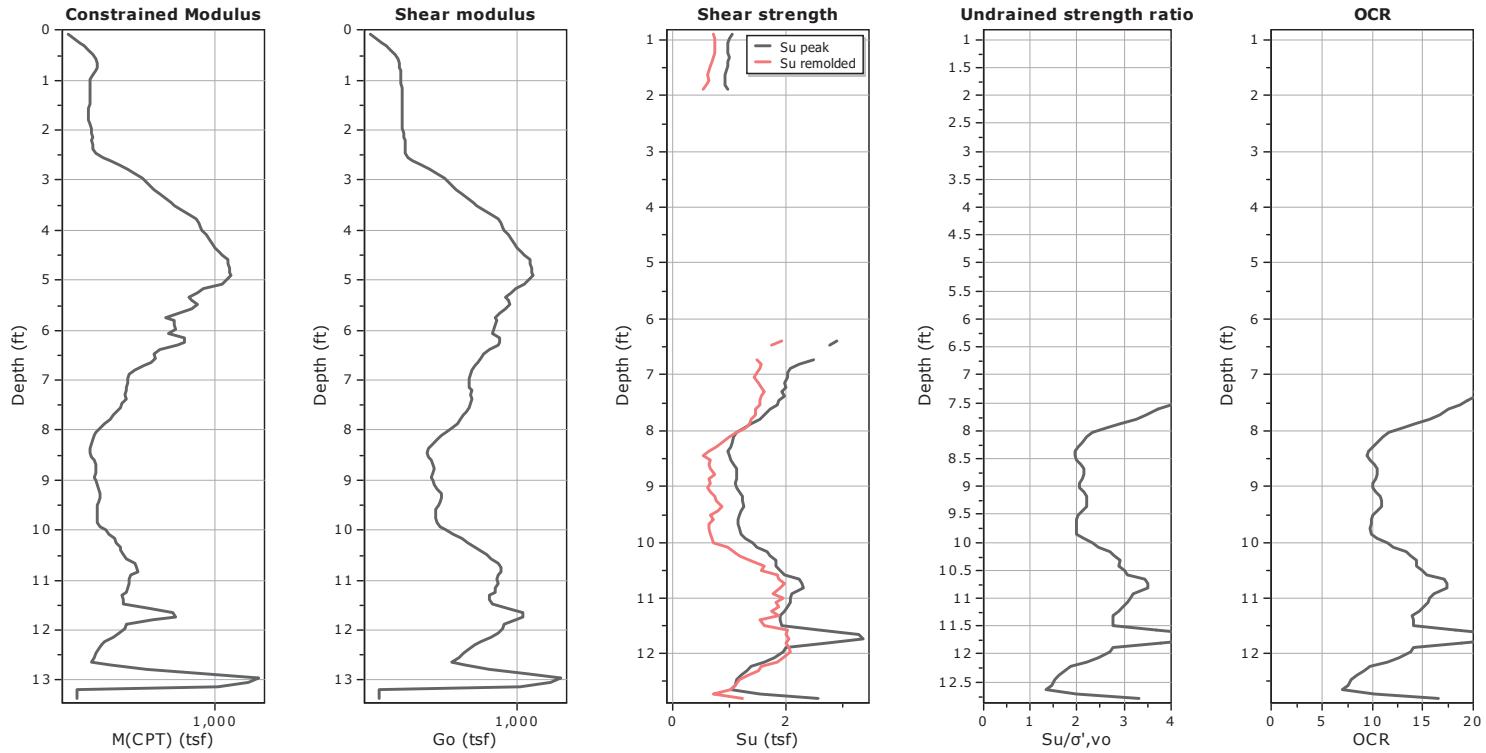
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-222
Total depth: 13.37 ft



Calculation parameters

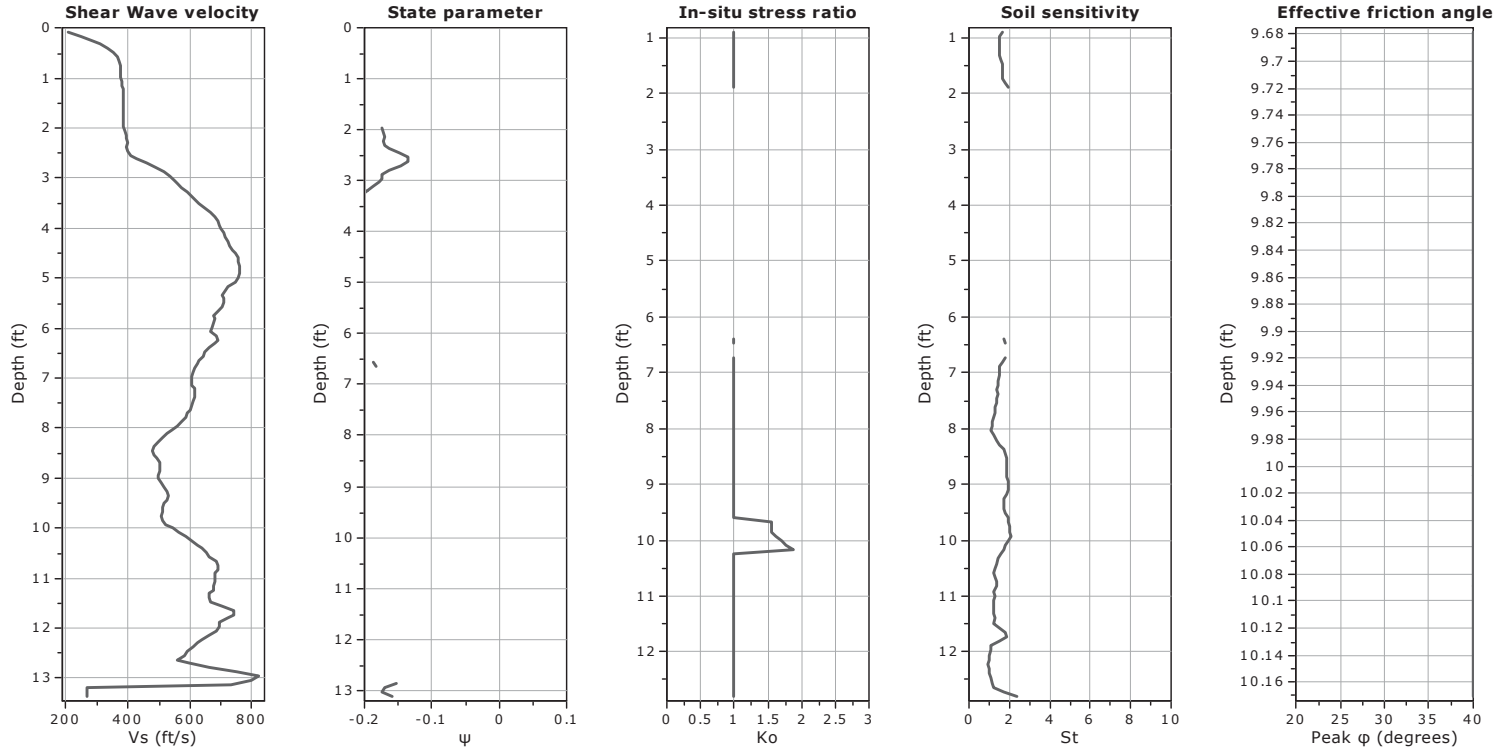
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-222
Total depth: 13.37 ft



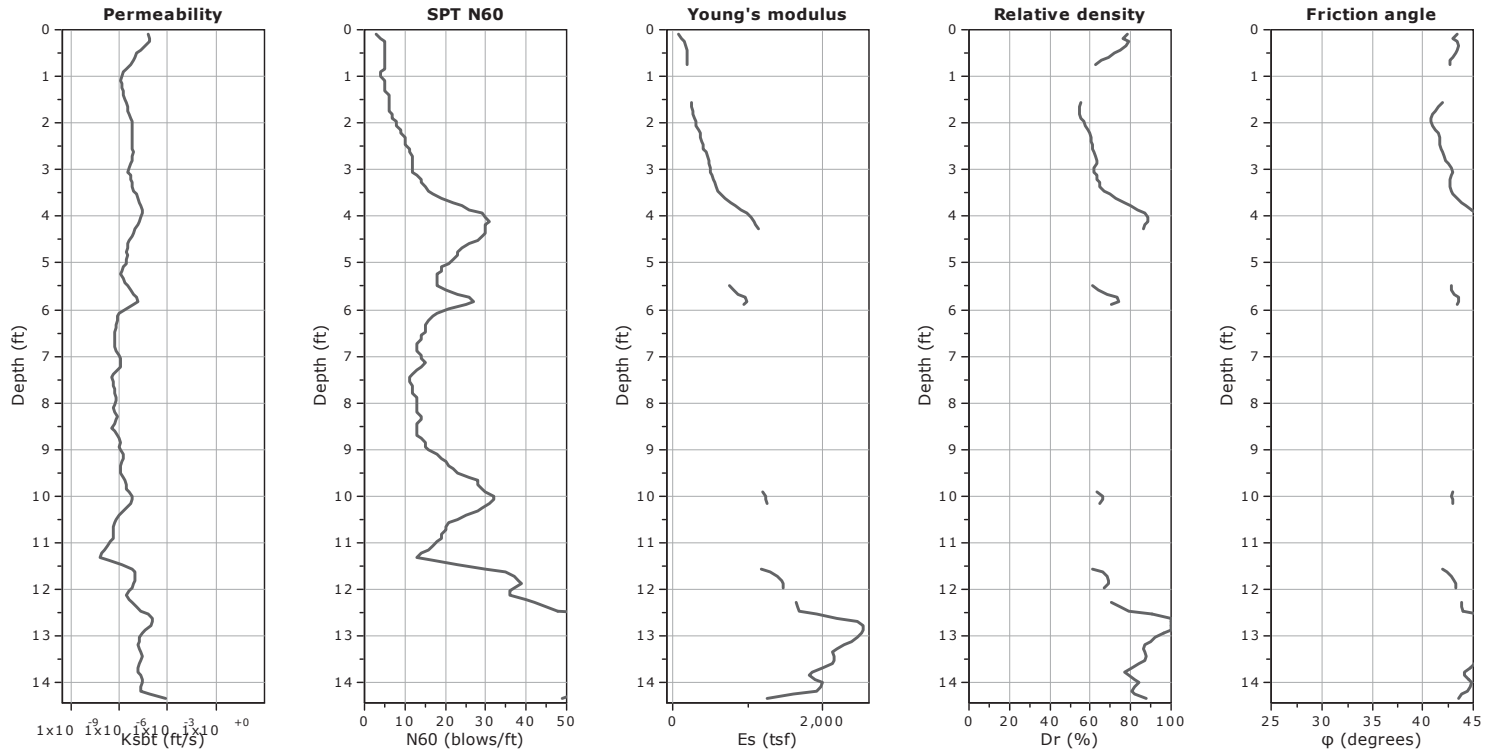
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-223
Total depth: 14.60 ft



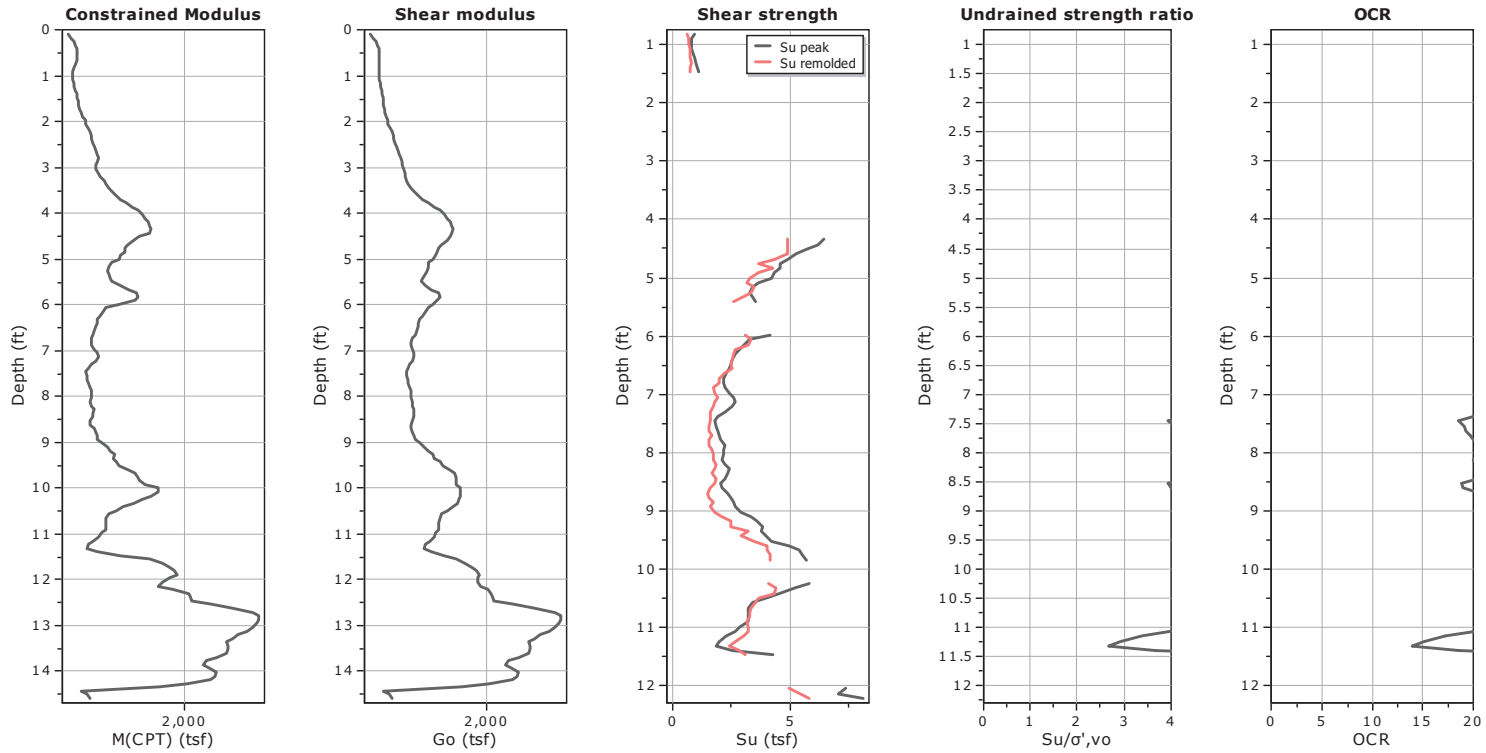
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-223
Total depth: 14.60 ft



Calculation parameters

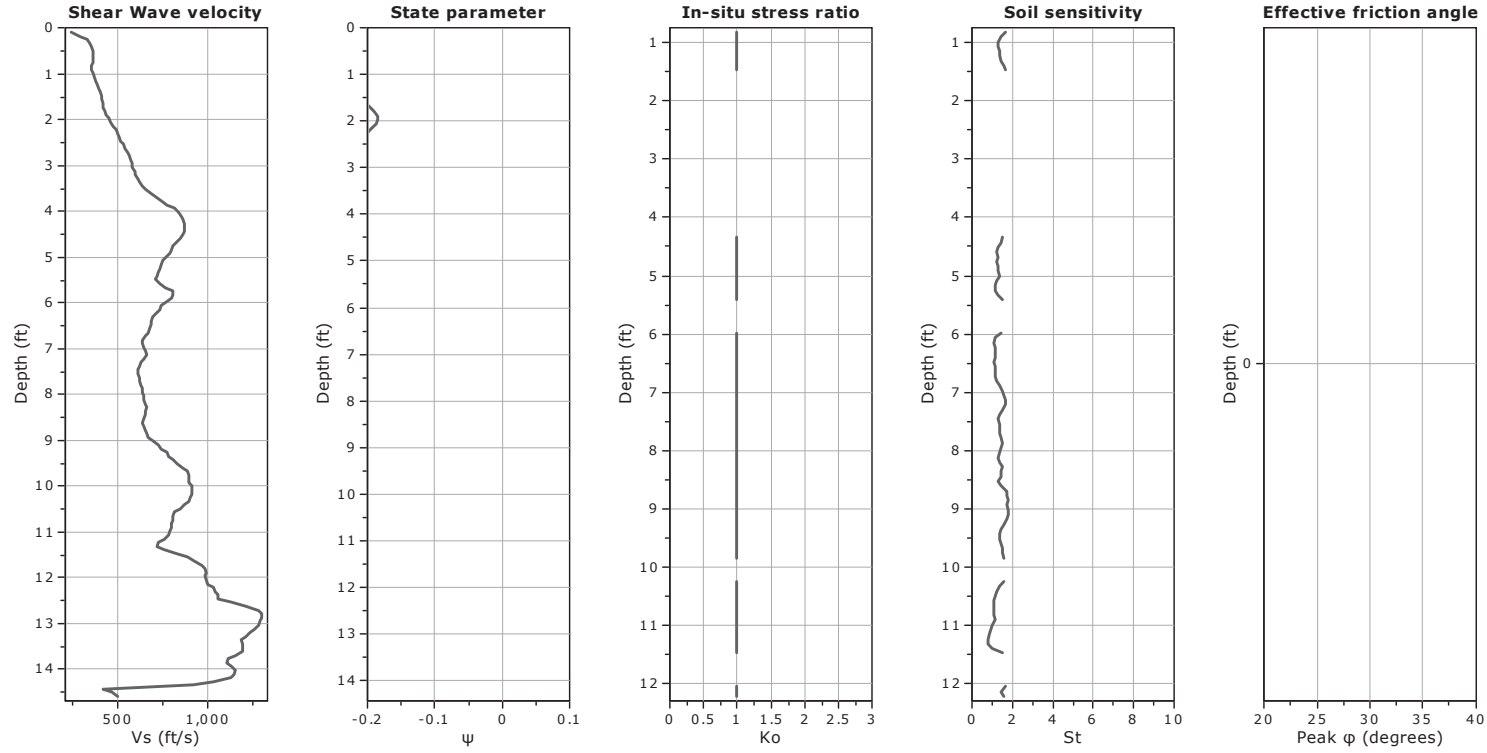
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-223
Total depth: 14.60 ft



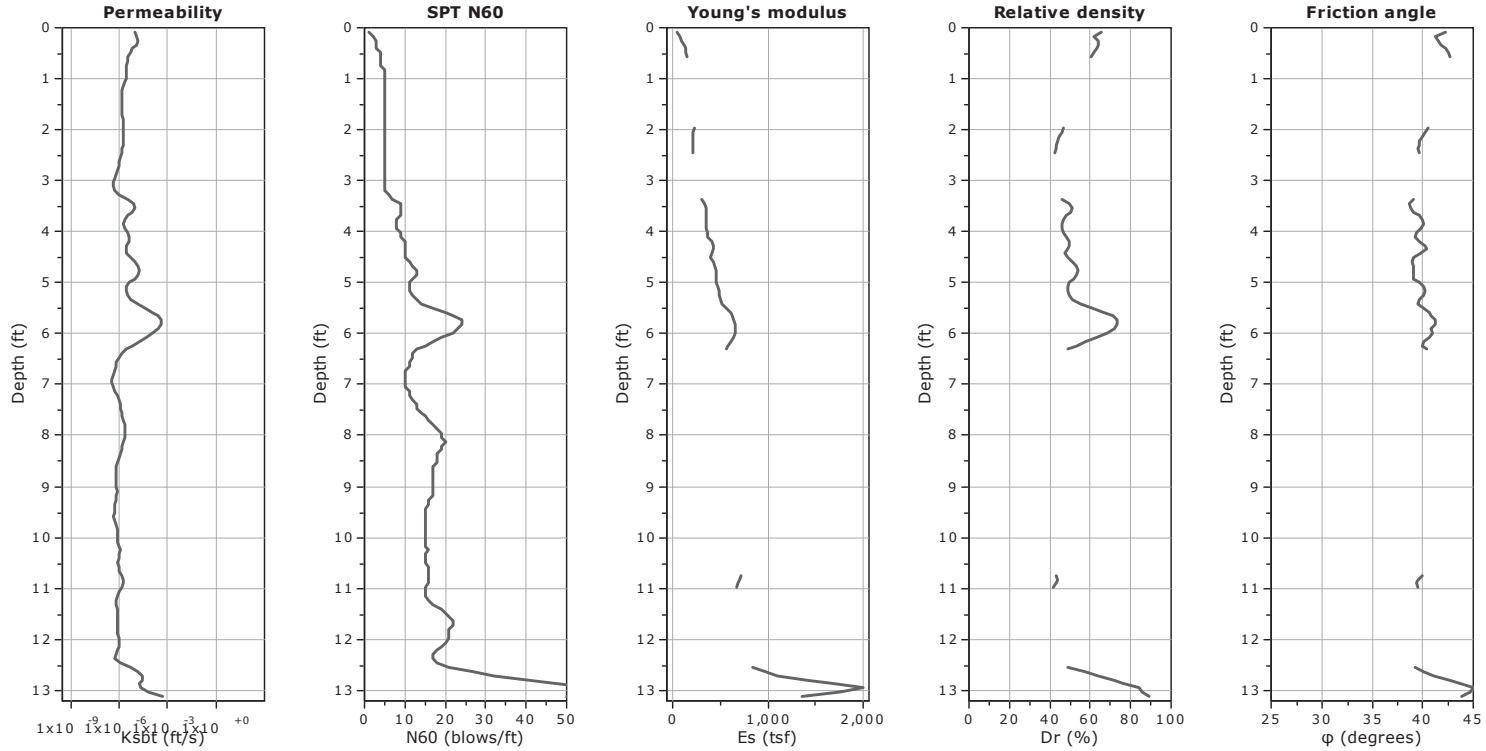
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-224
Total depth: 13.37 ft



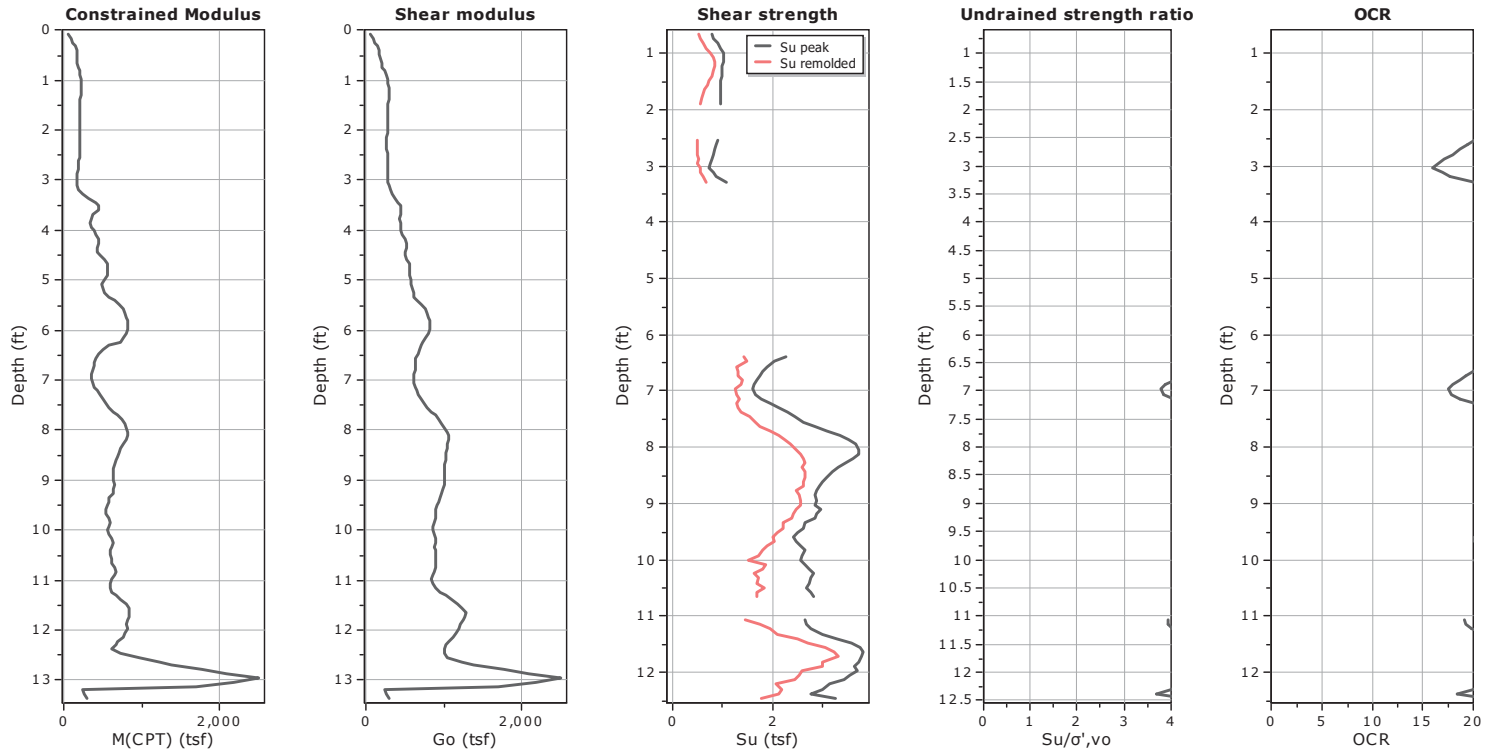
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-224
Total depth: 13.37 ft



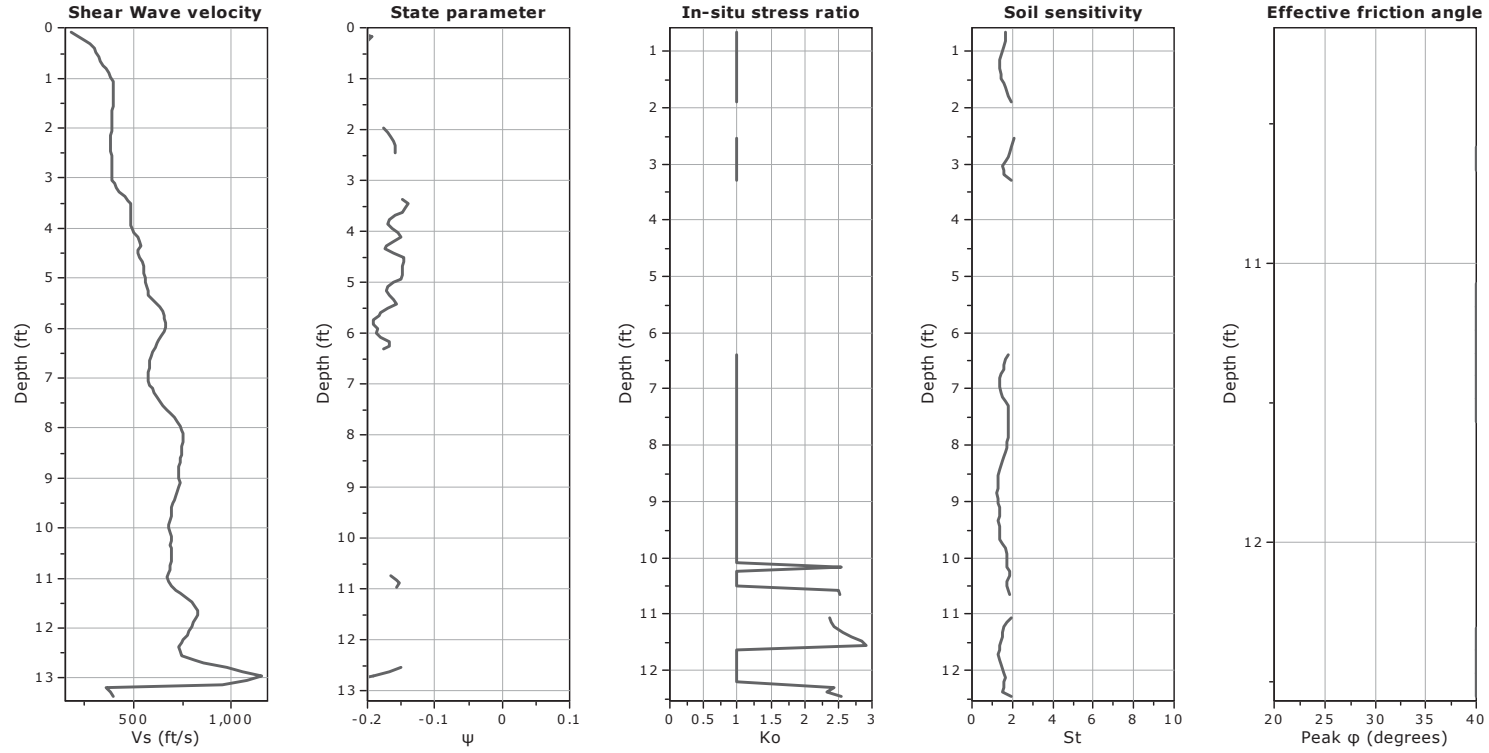
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-224
Total depth: 13.37 ft



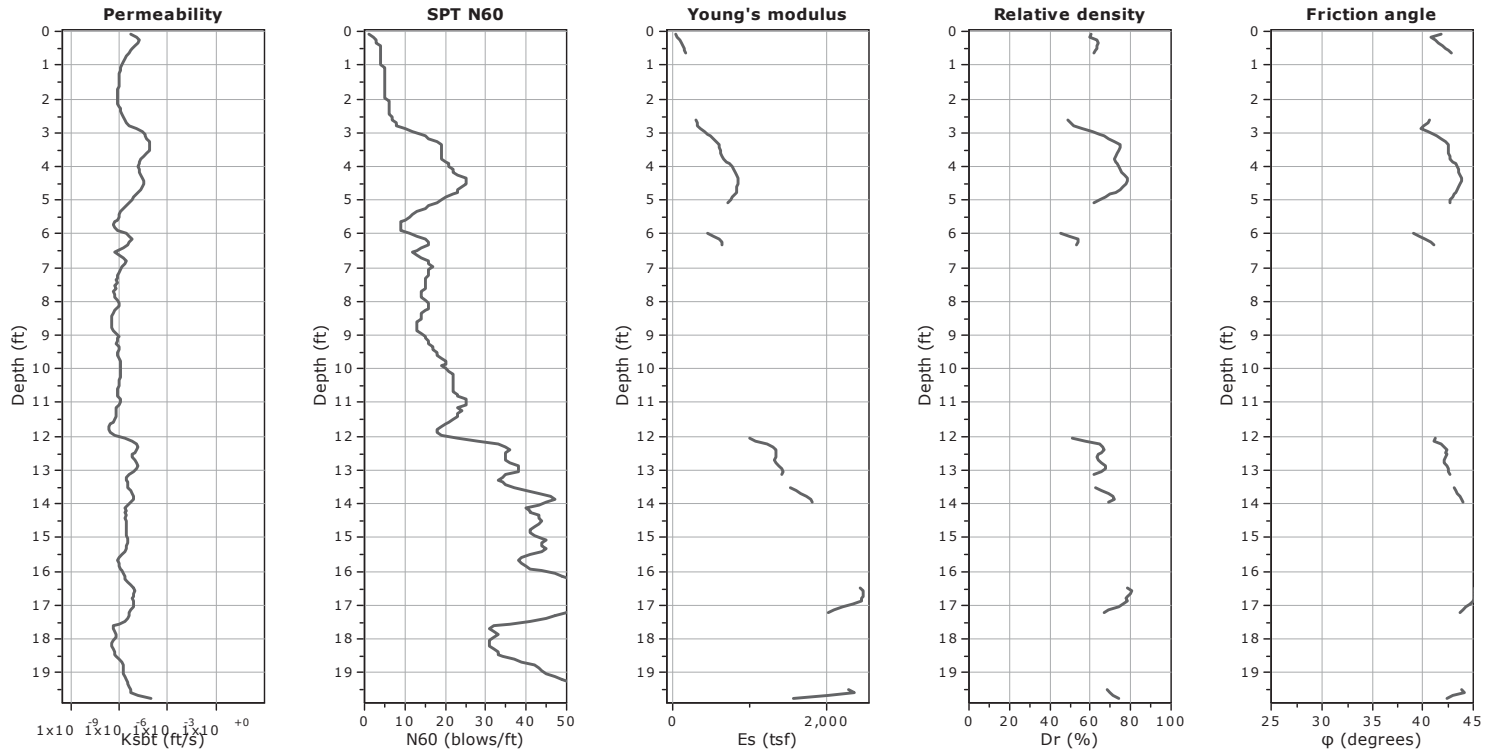
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-225
Total depth: 20.01 ft



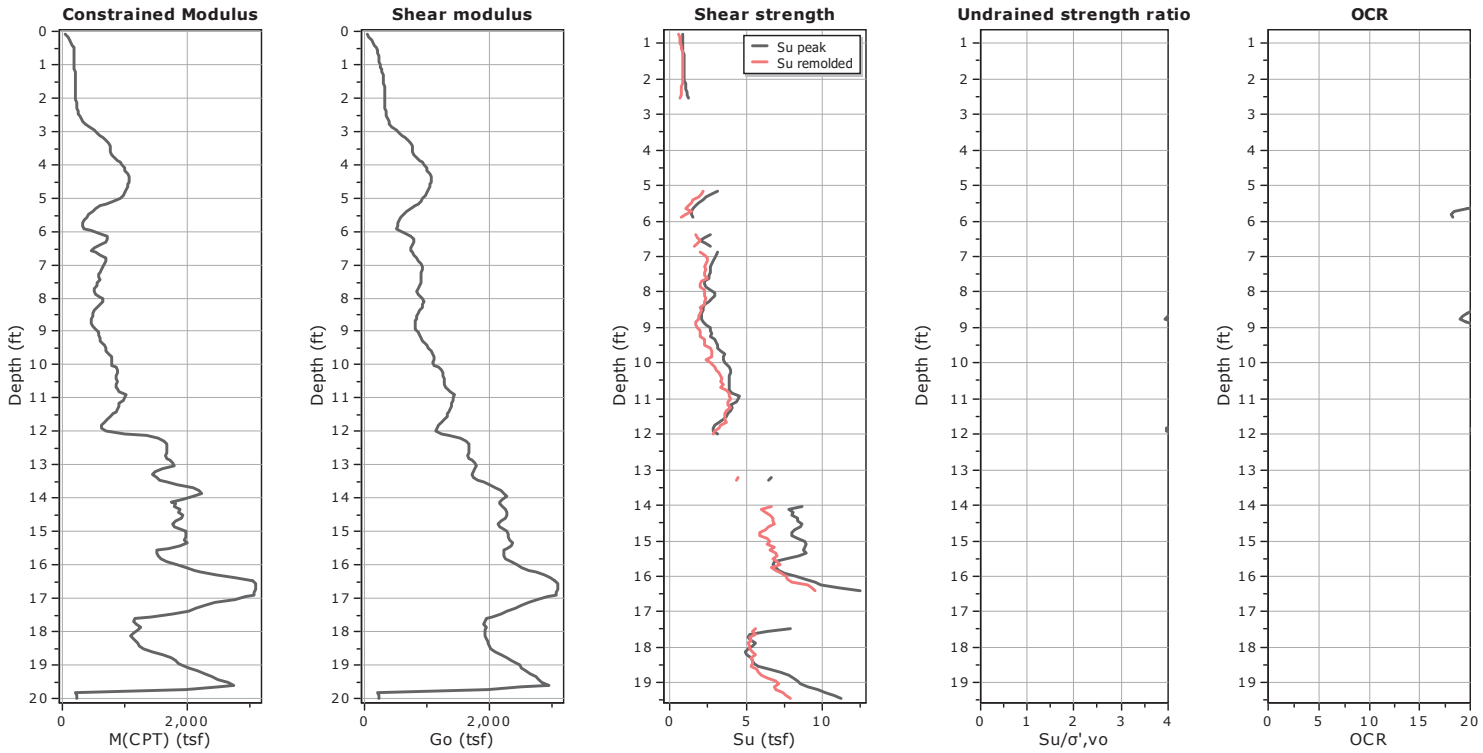
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-225
Total depth: 20.01 ft



Calculation parameters

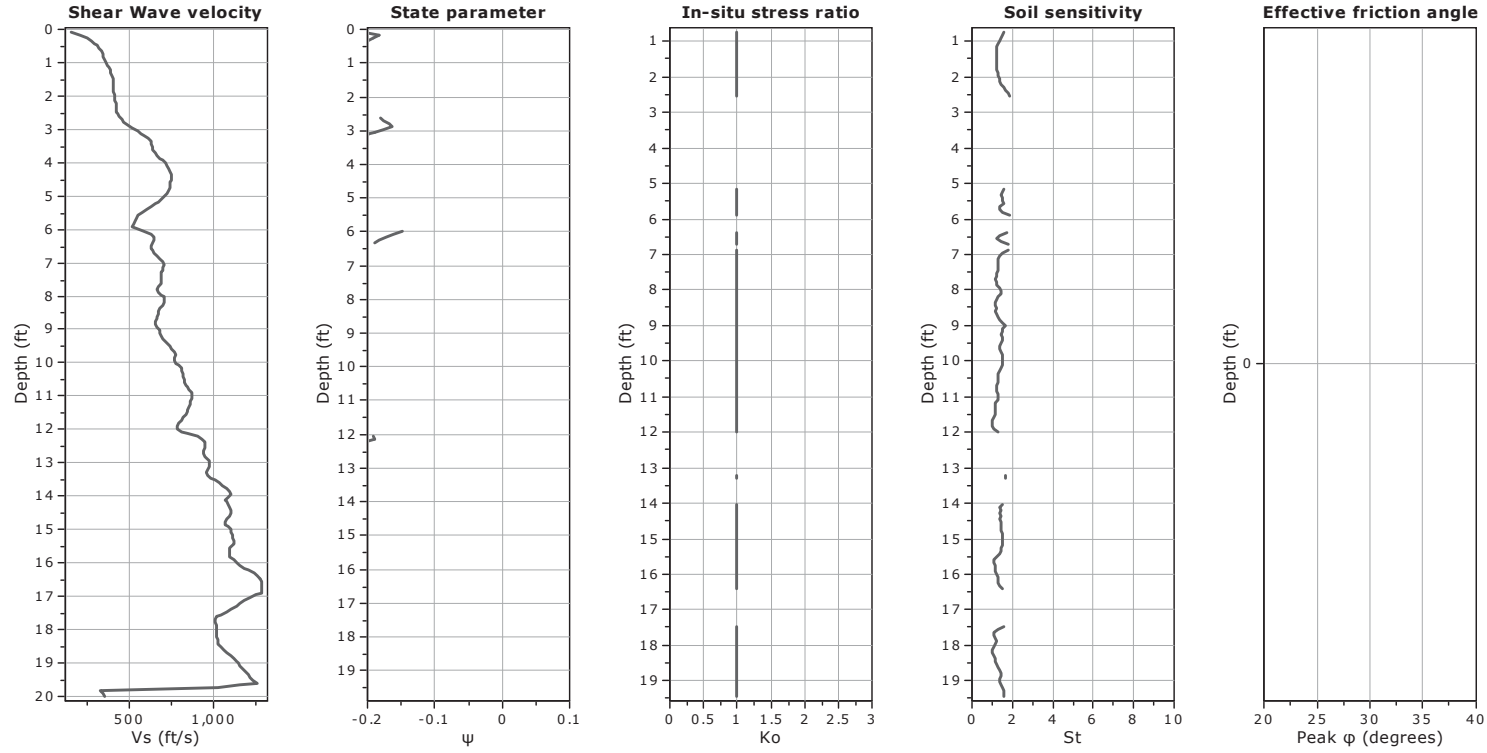
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-225
Total depth: 20.01 ft



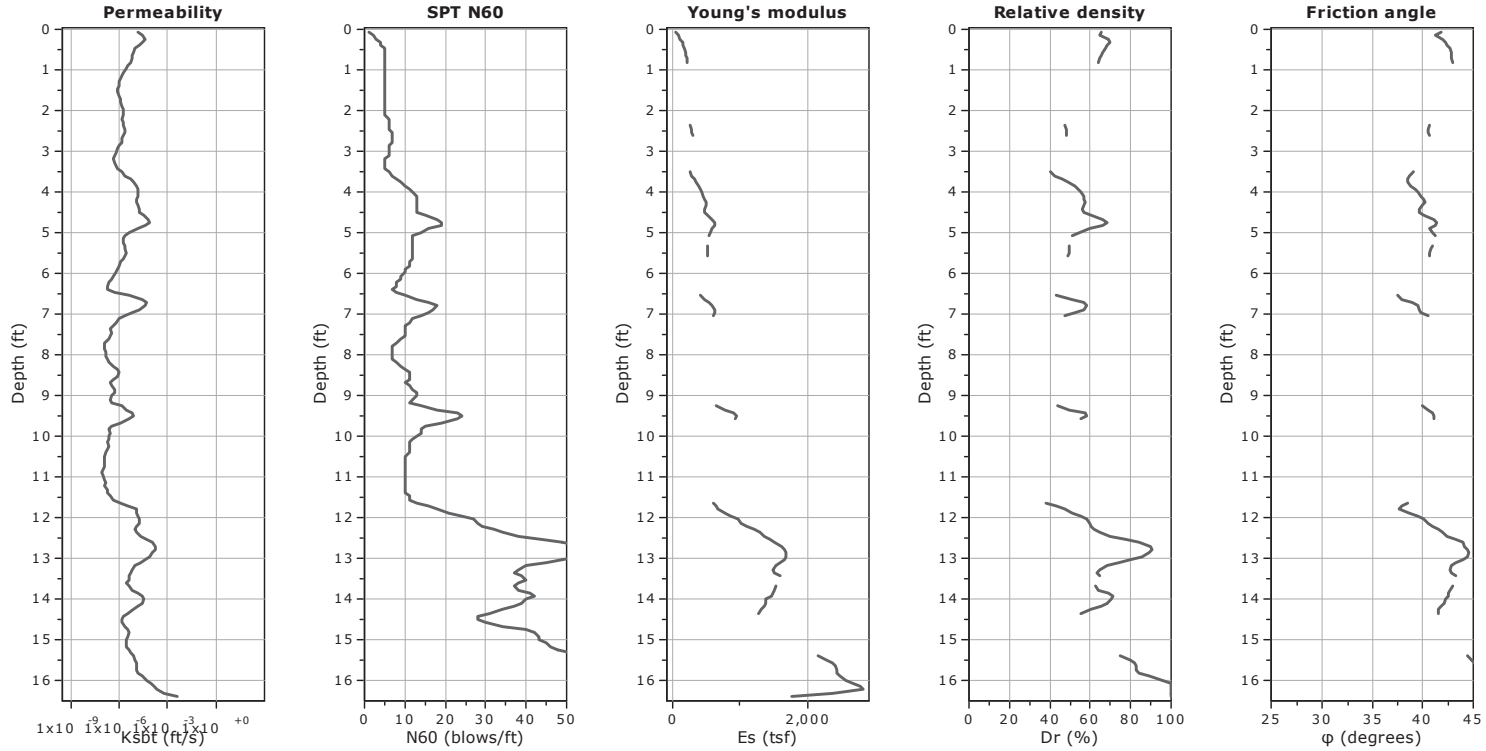
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-226
Total depth: 16.65 ft



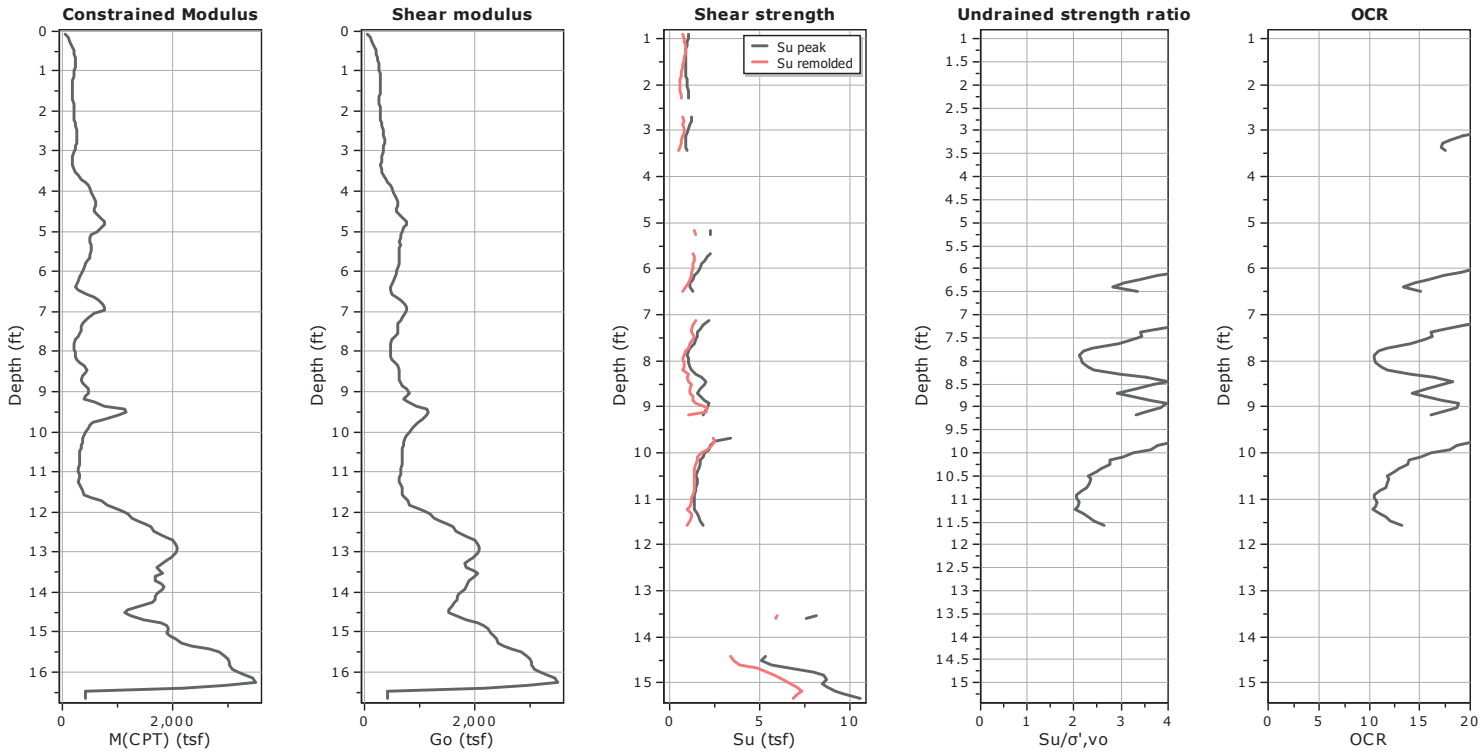
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-226
Total depth: 16.65 ft



Calculation parameters

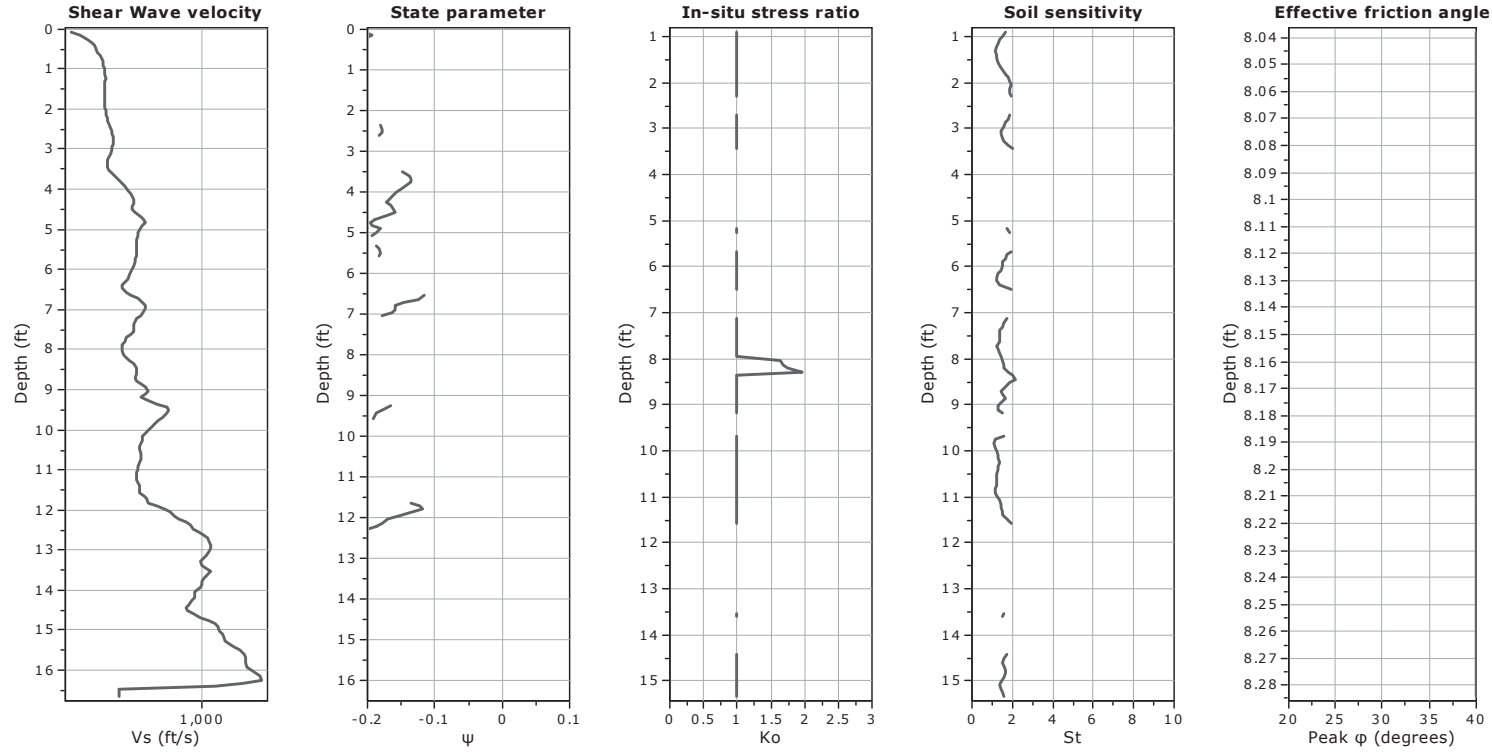
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-226
Total depth: 16.65 ft



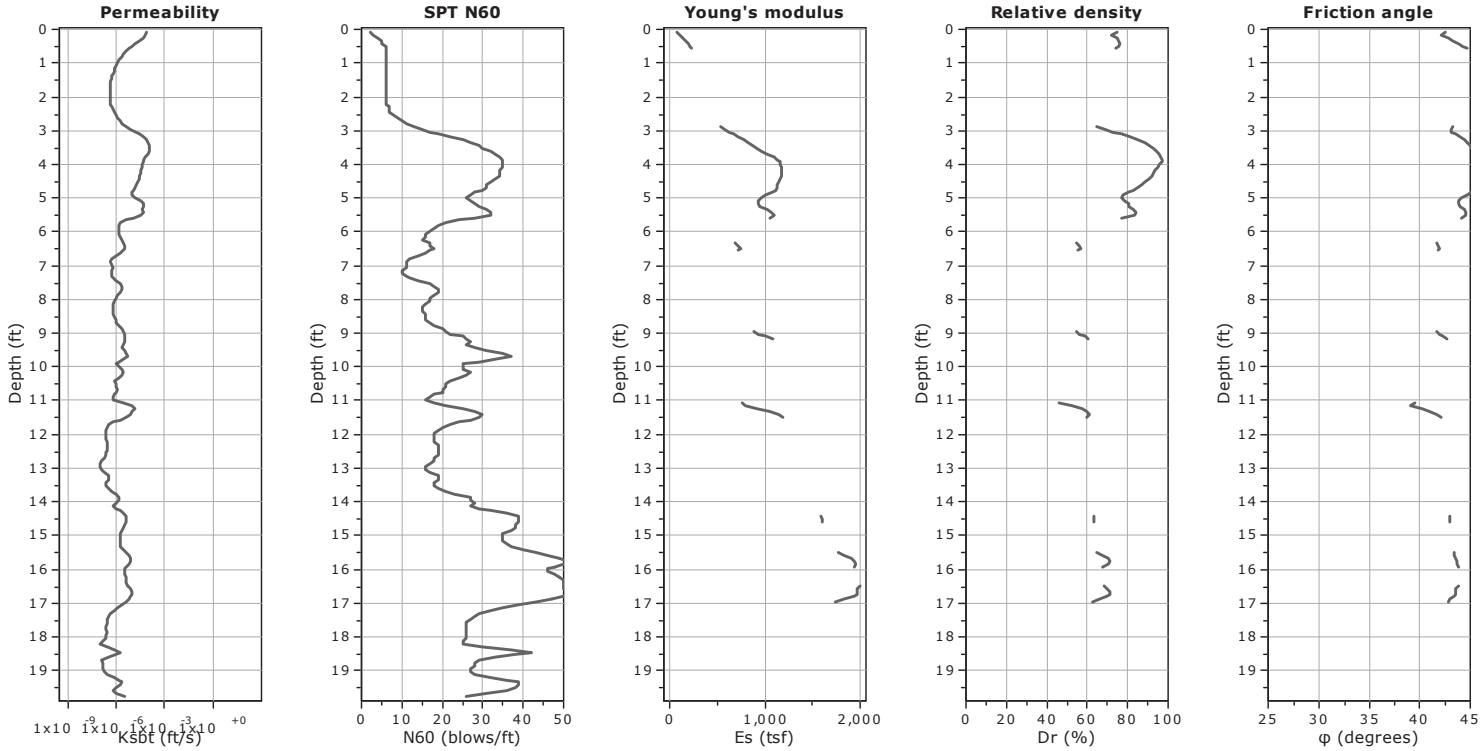
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-227A
Total depth: 20.01 ft



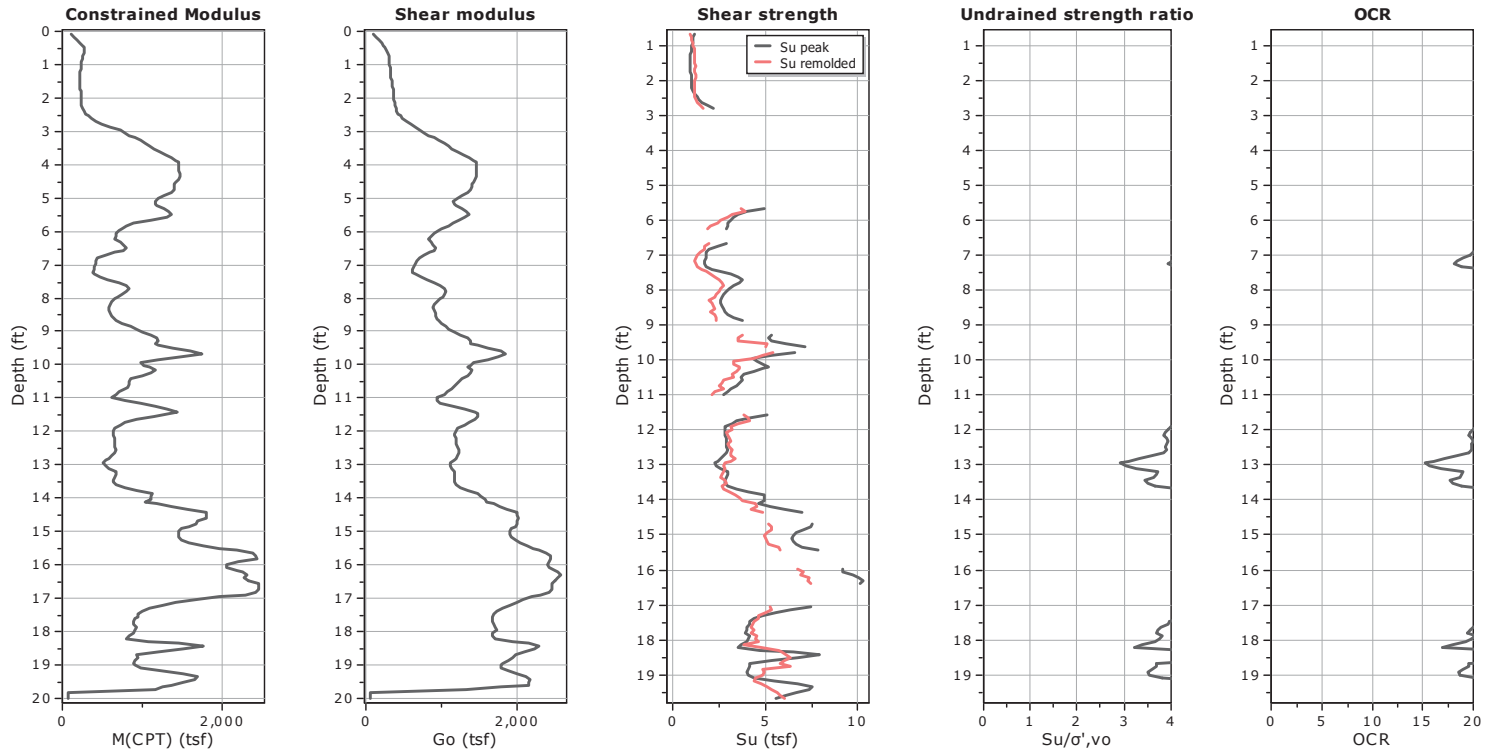
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-227A
Total depth: 20.01 ft



Calculation parameters

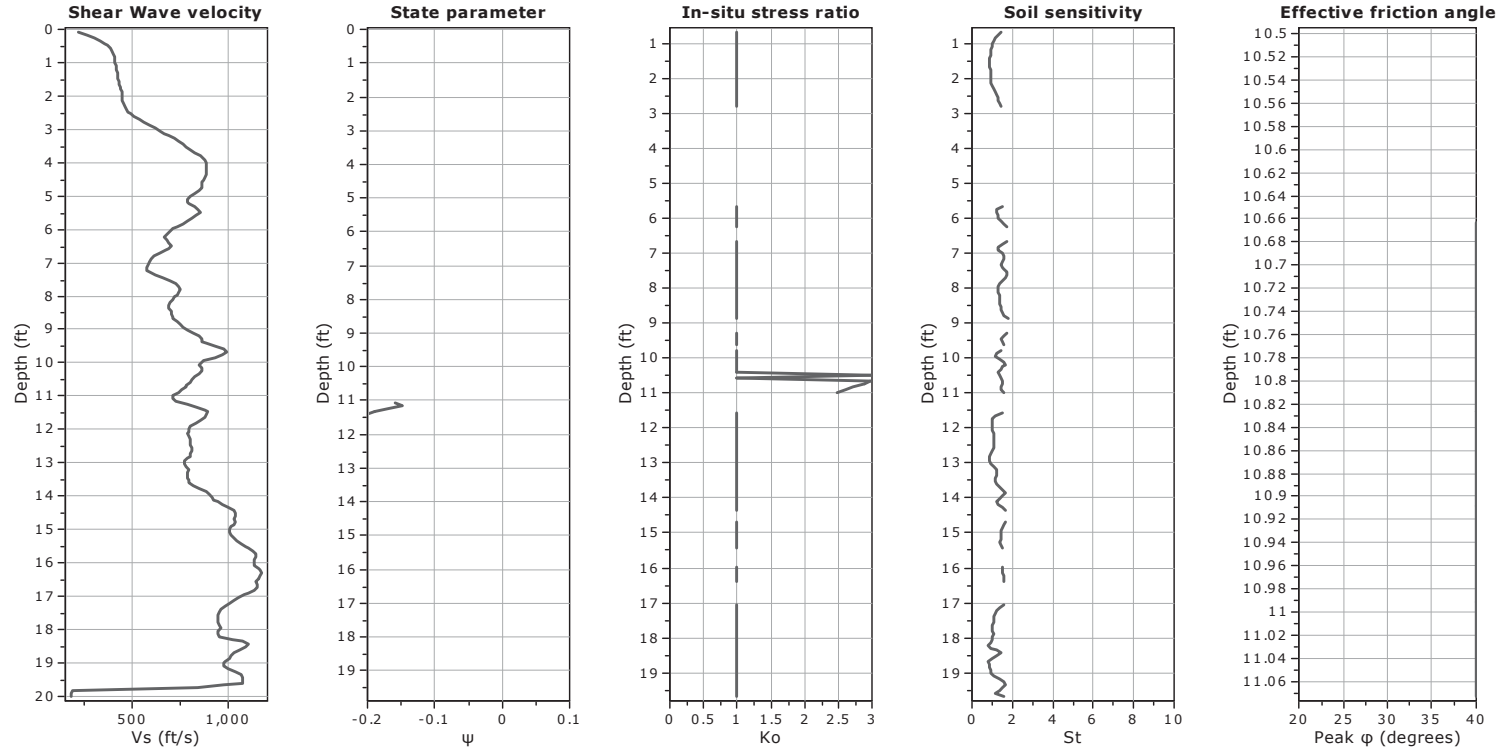
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-227A
Total depth: 20.01 ft



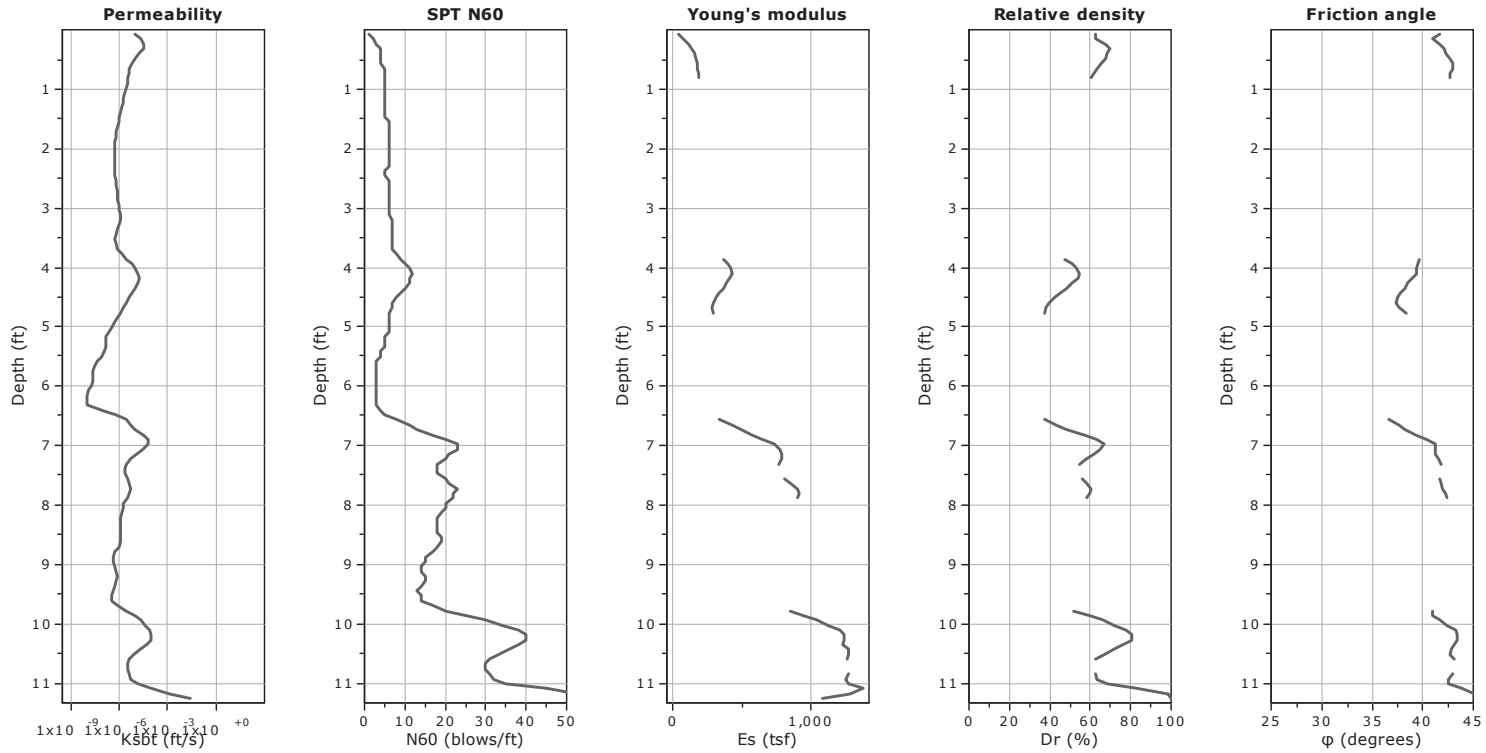
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-228
Total depth: 11.48 ft



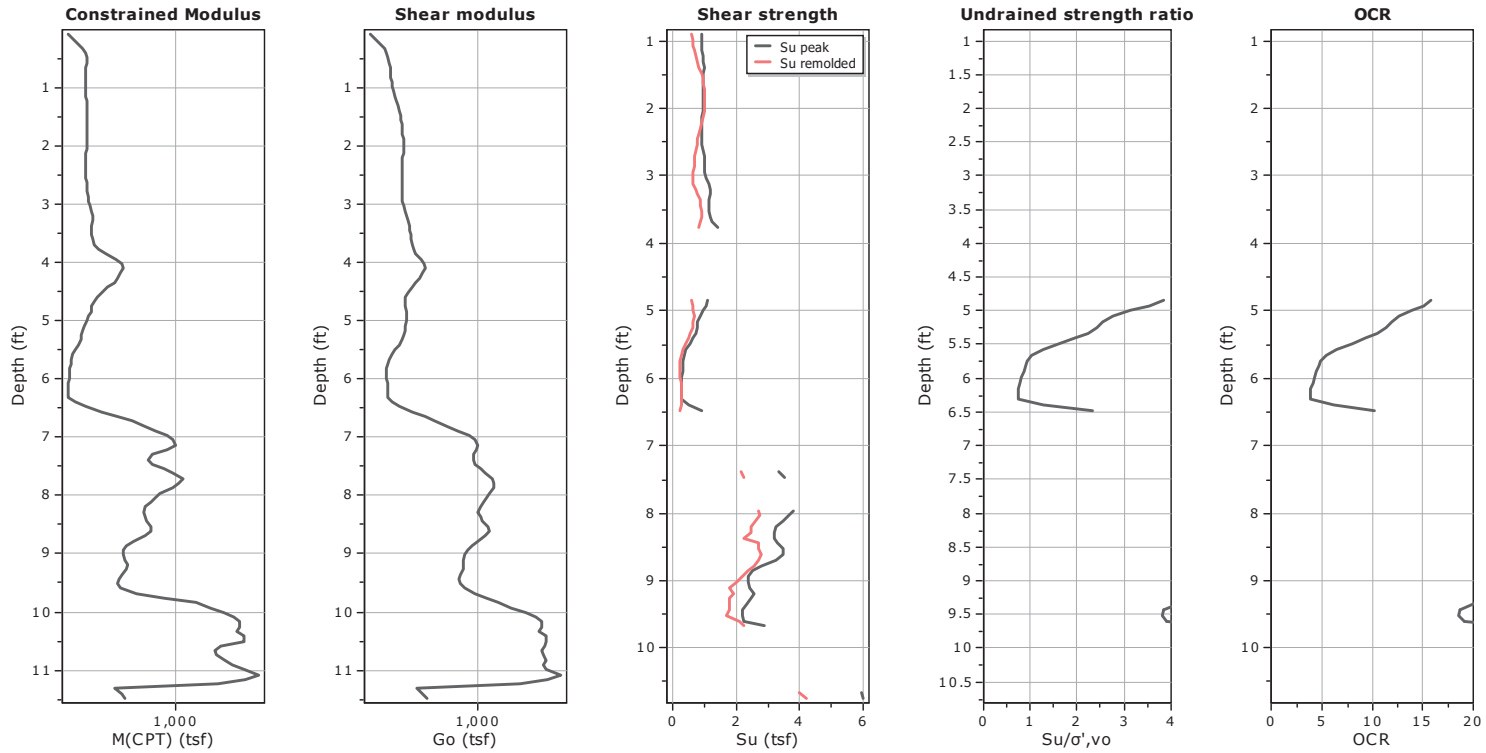
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-228
Total depth: 11.48 ft



Calculation parameters

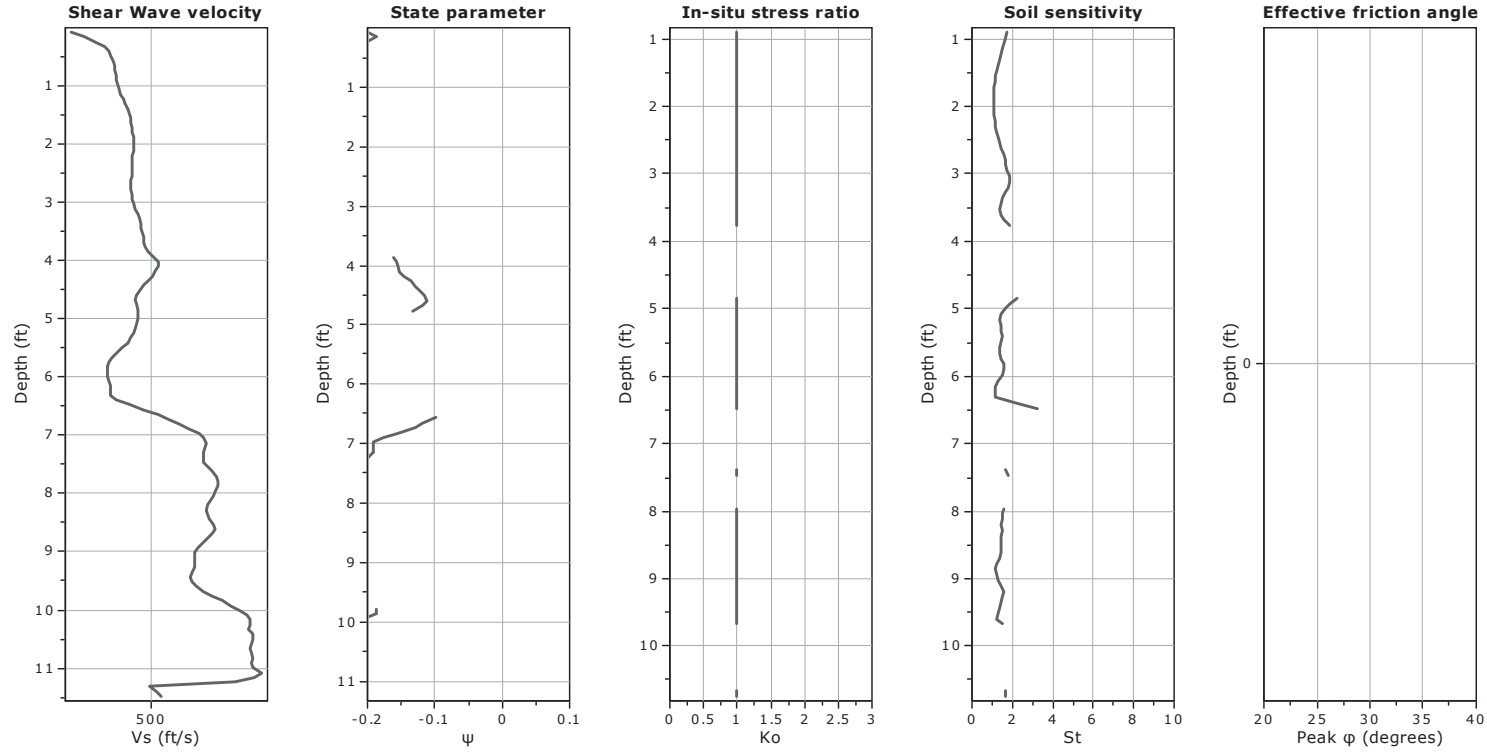
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-228
Total depth: 11.48 ft



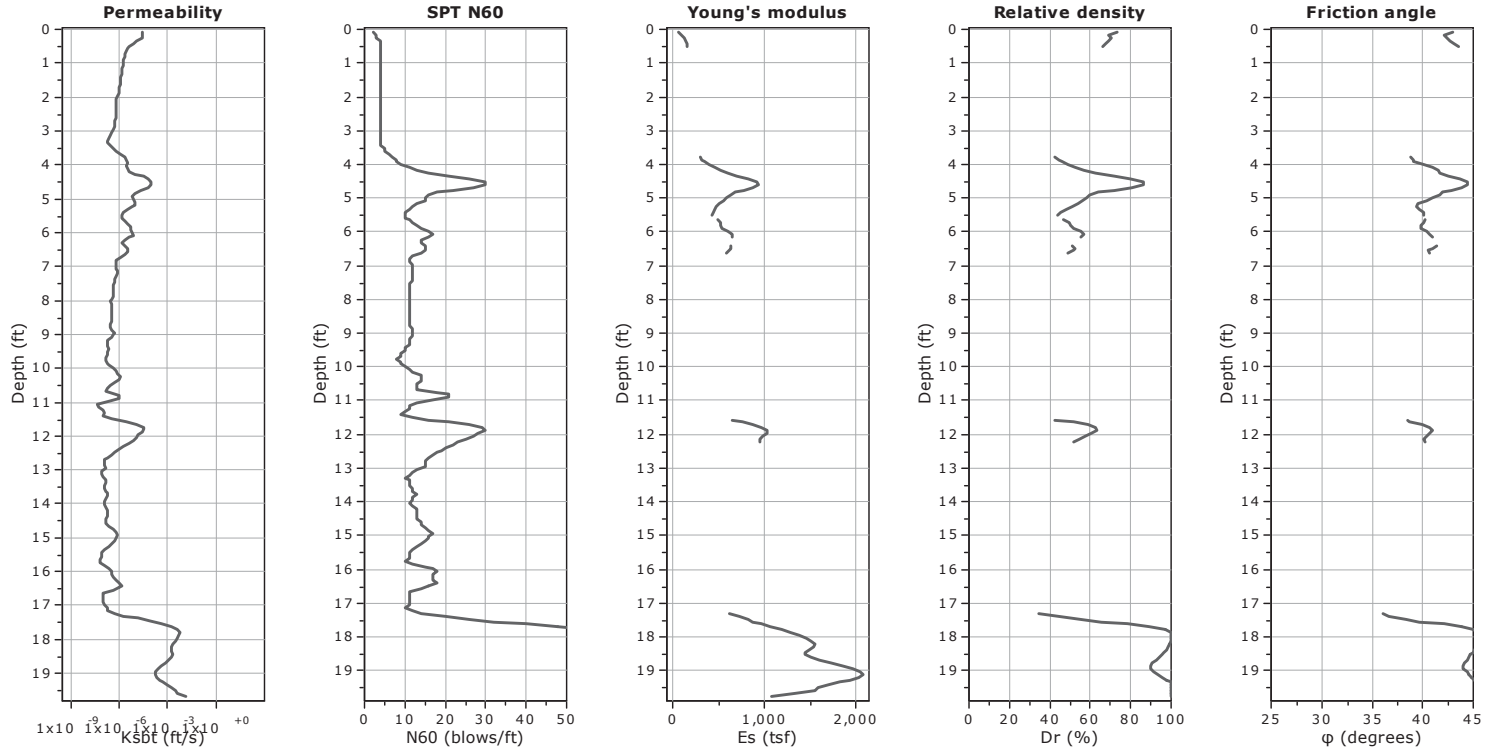
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-229
Total depth: 20.01 ft



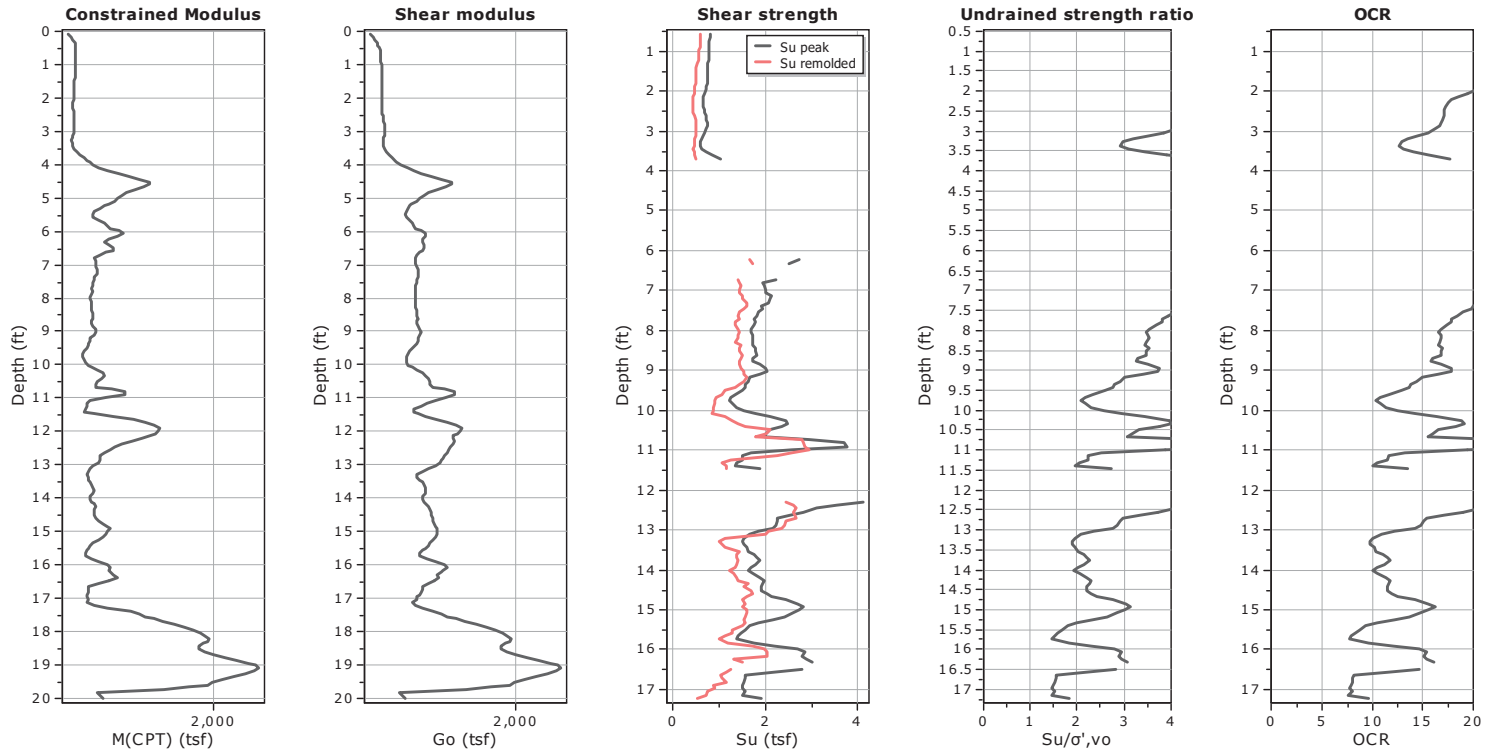
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-229
Total depth: 20.01 ft



Calculation parameters

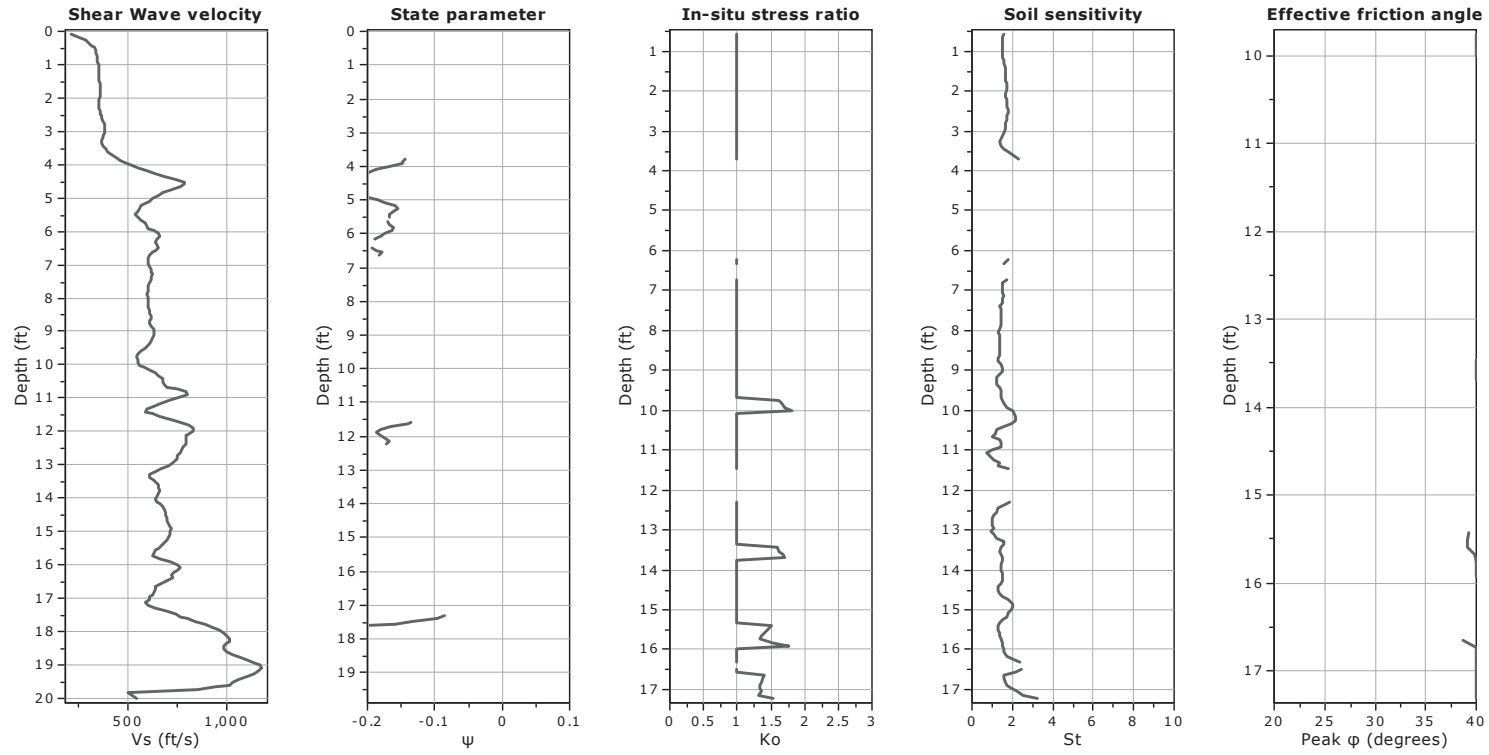
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-229
Total depth: 20.01 ft



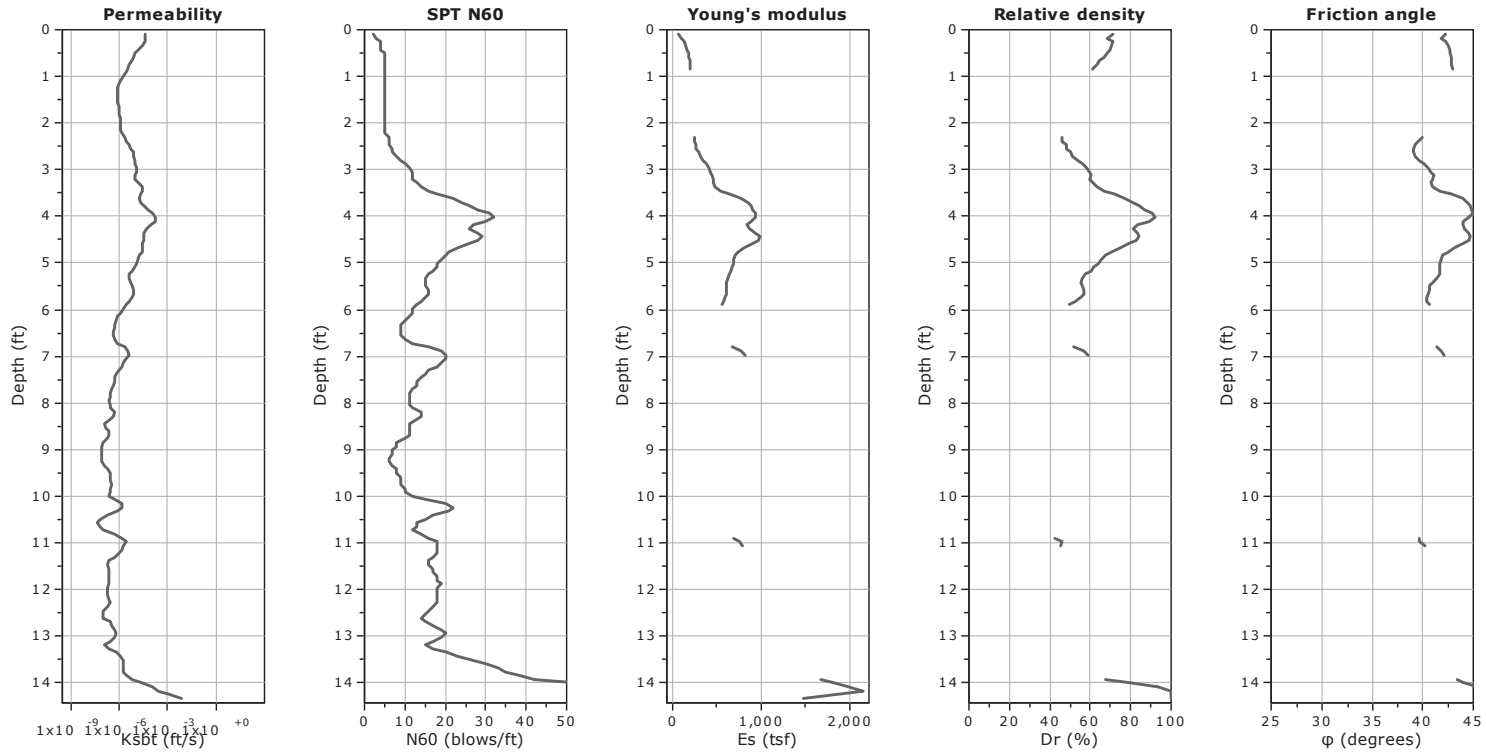
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-230
Total depth: 14.60 ft



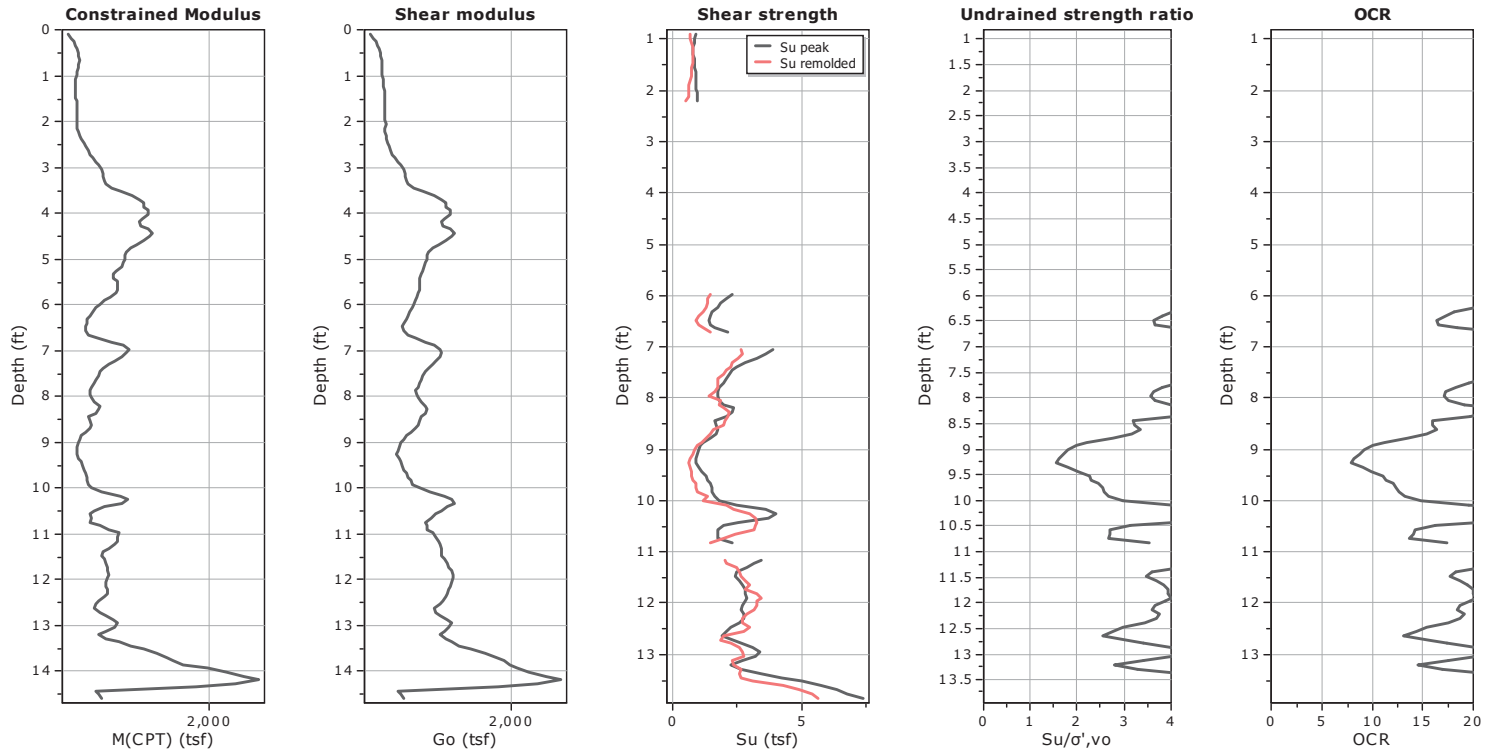
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-230
Total depth: 14.60 ft



Calculation parameters

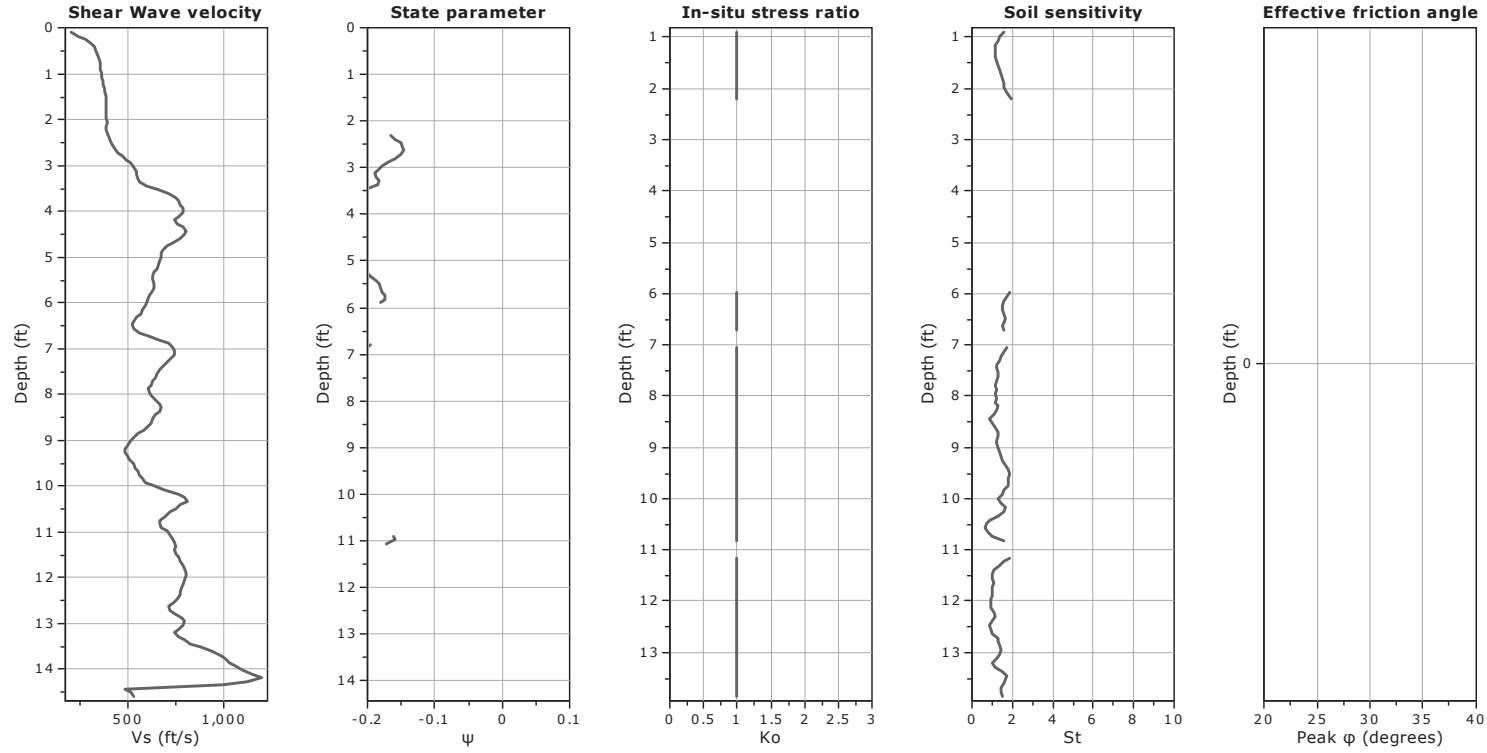
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-230
Total depth: 14.60 ft



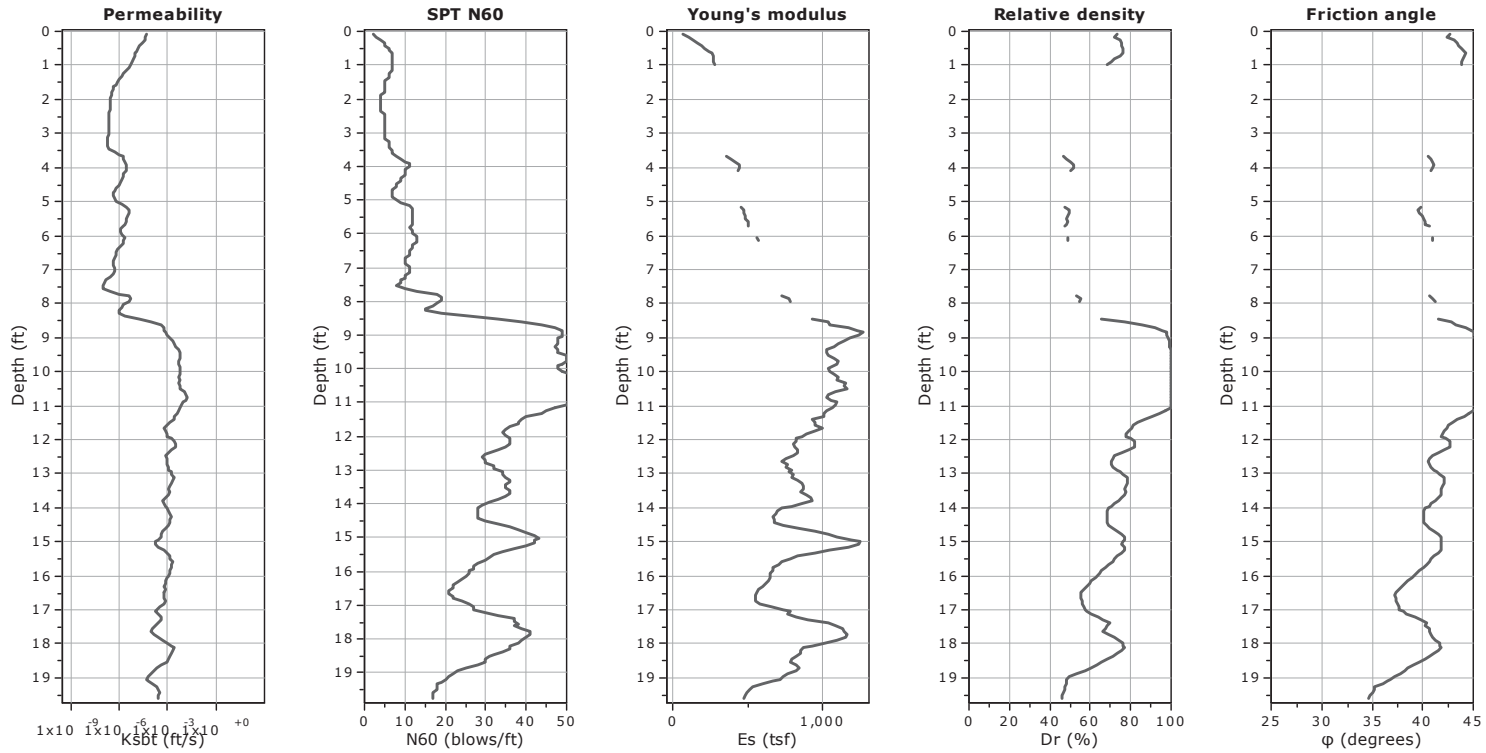
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-231
Total depth: 20.01 ft



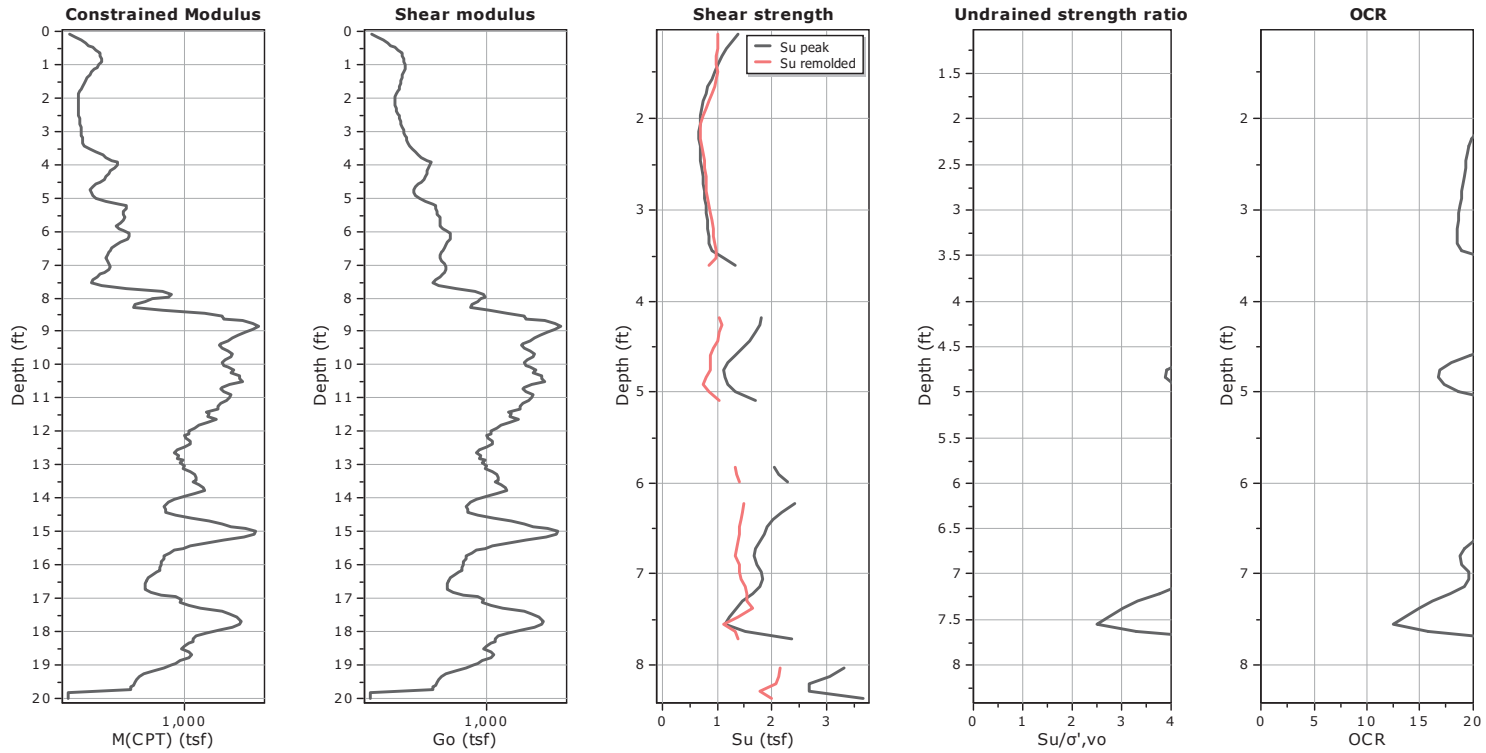
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-231
Total depth: 20.01 ft



Calculation parameters

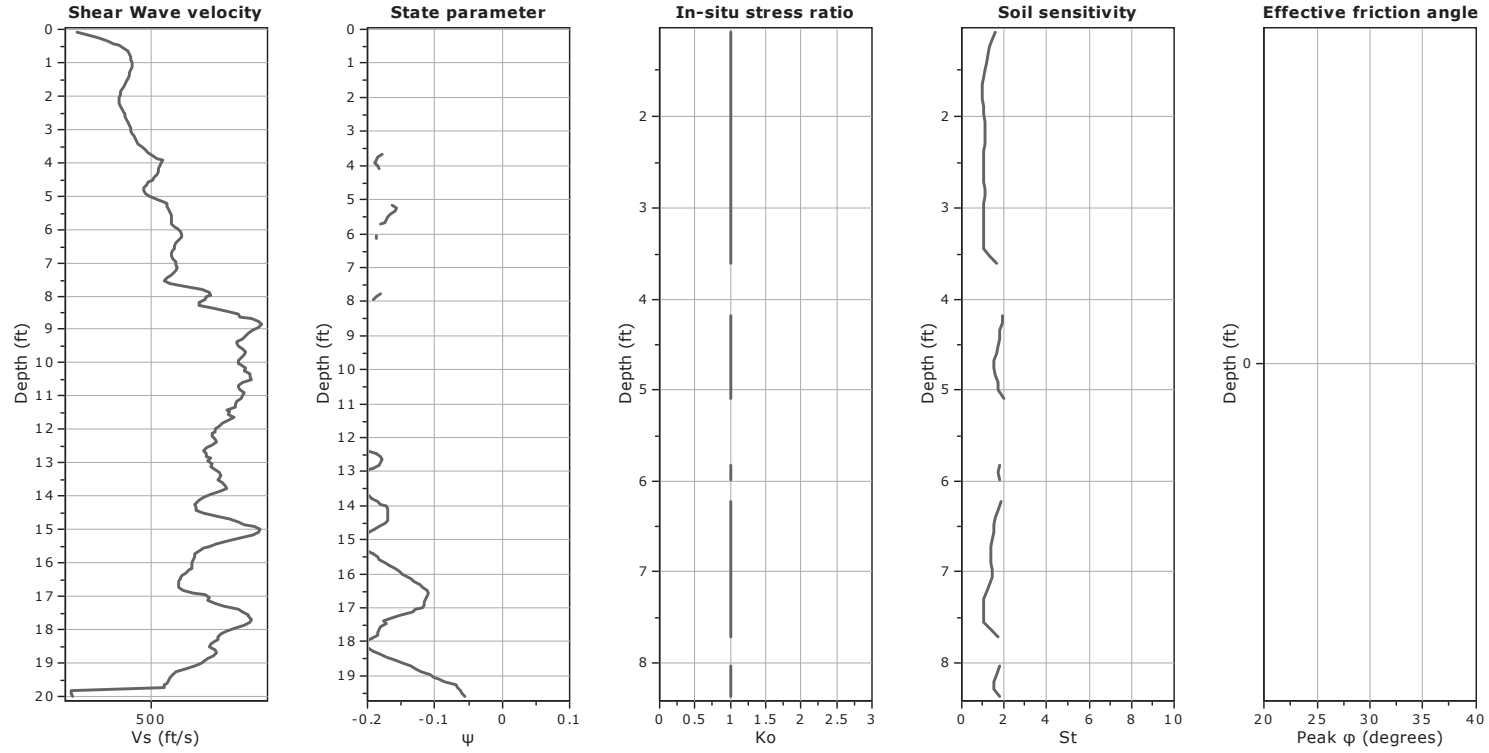
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-231
Total depth: 20.01 ft



Calculation parameters

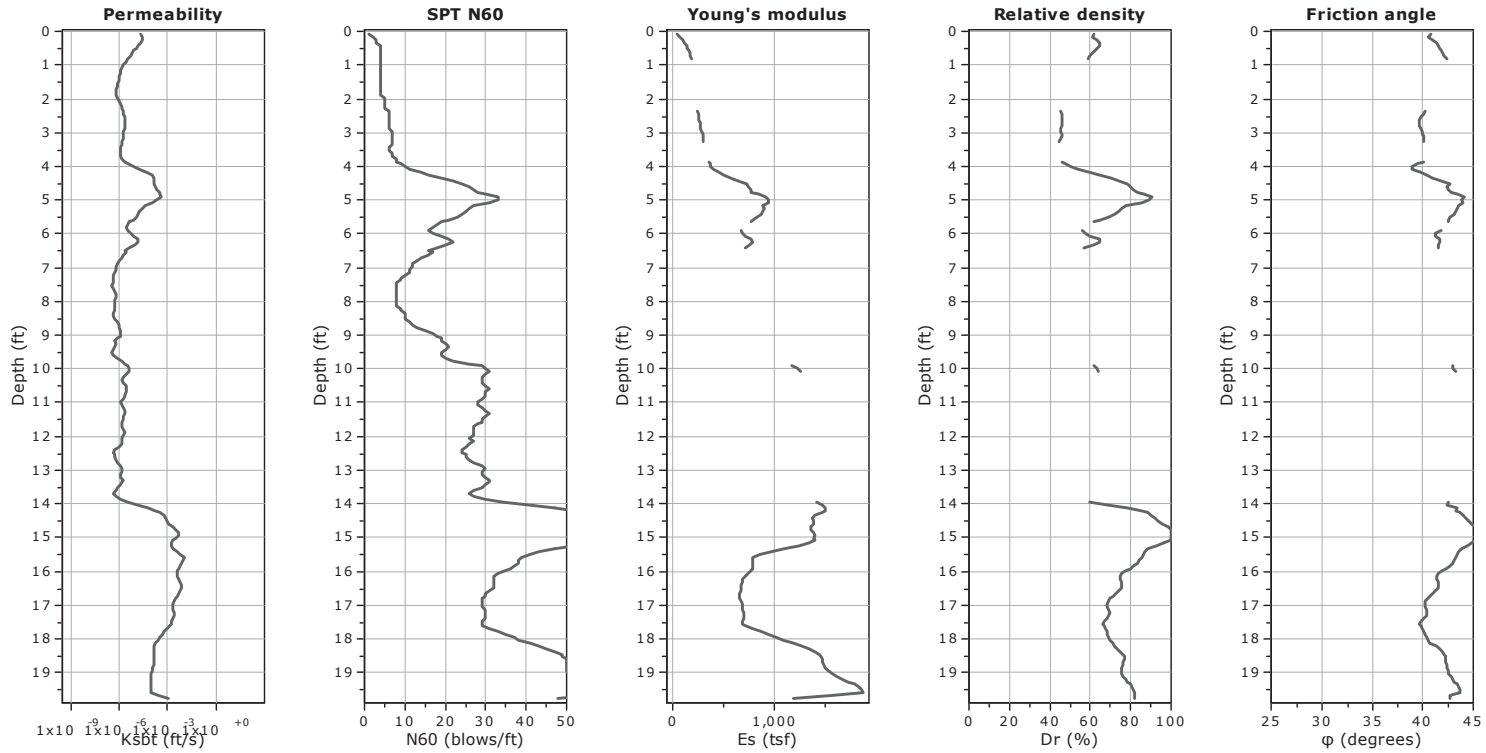
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-232
Total depth: 20.01 ft



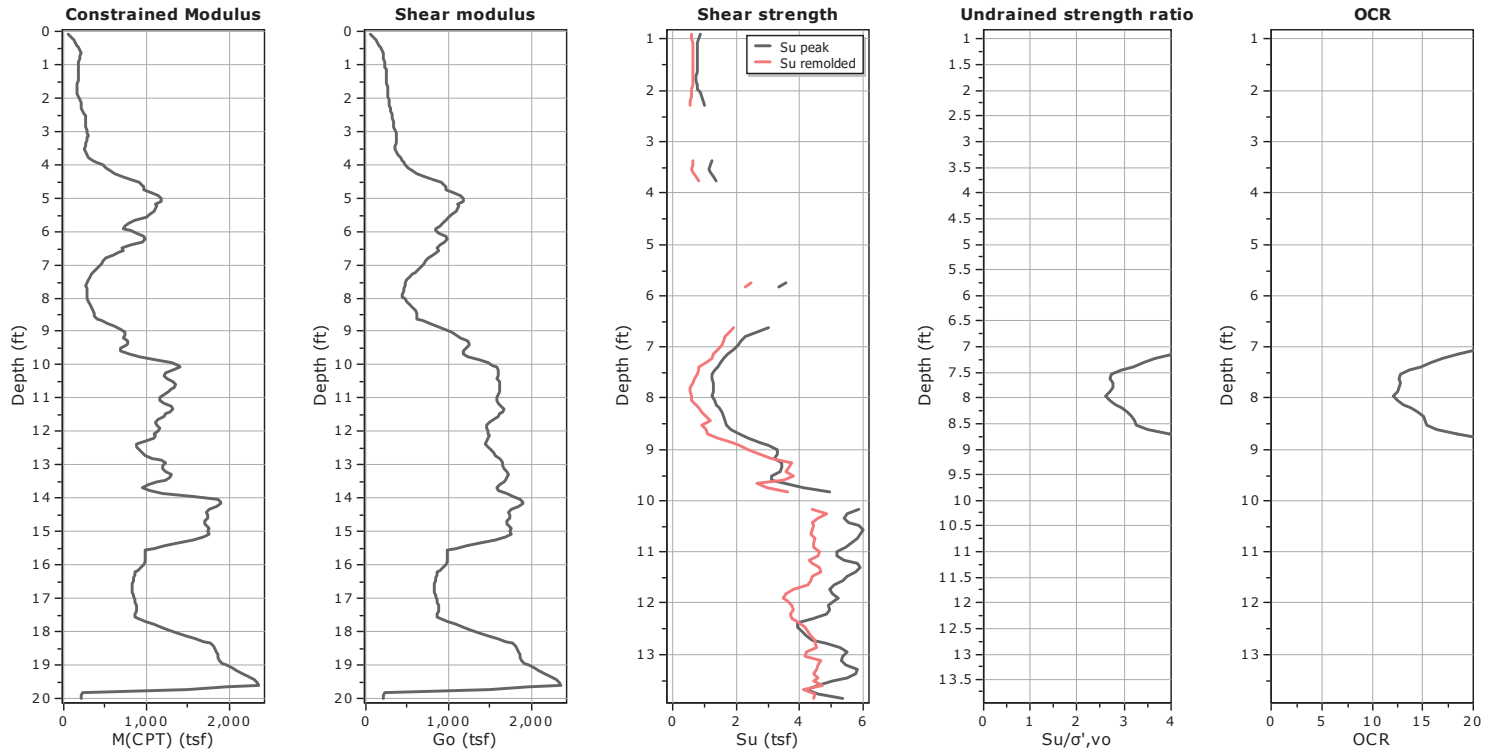
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-232
Total depth: 20.01 ft



Calculation parameters

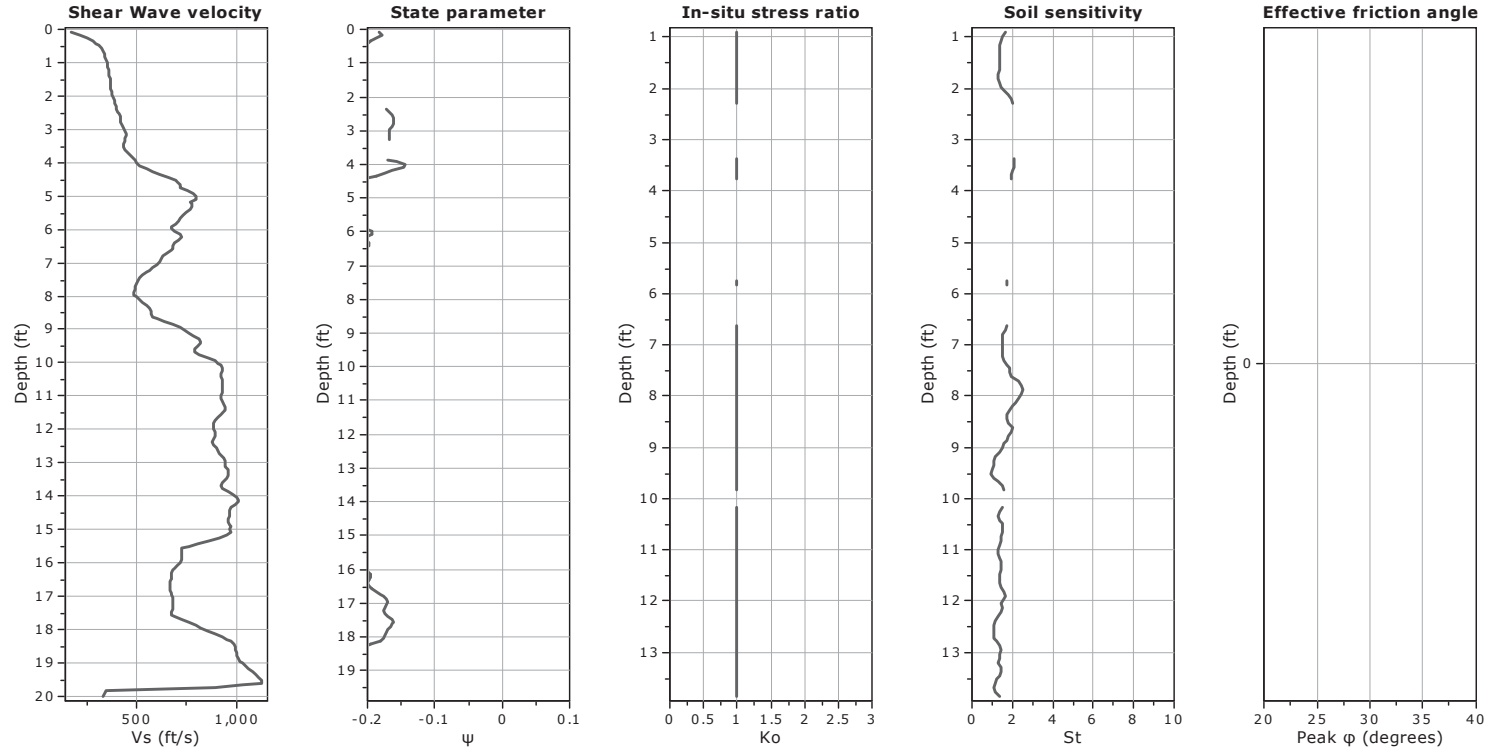
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-232
Total depth: 20.01 ft



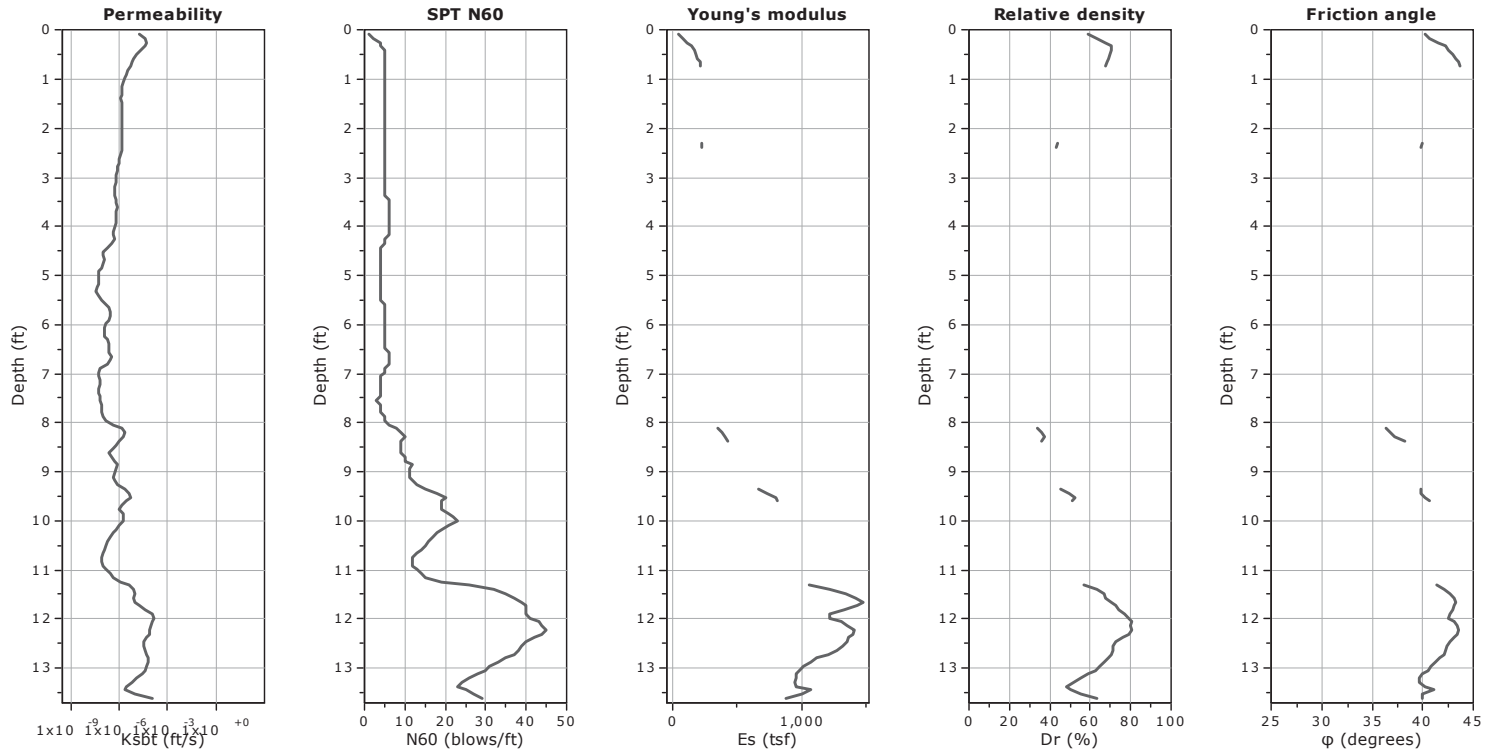
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-233
Total depth: 13.86 ft



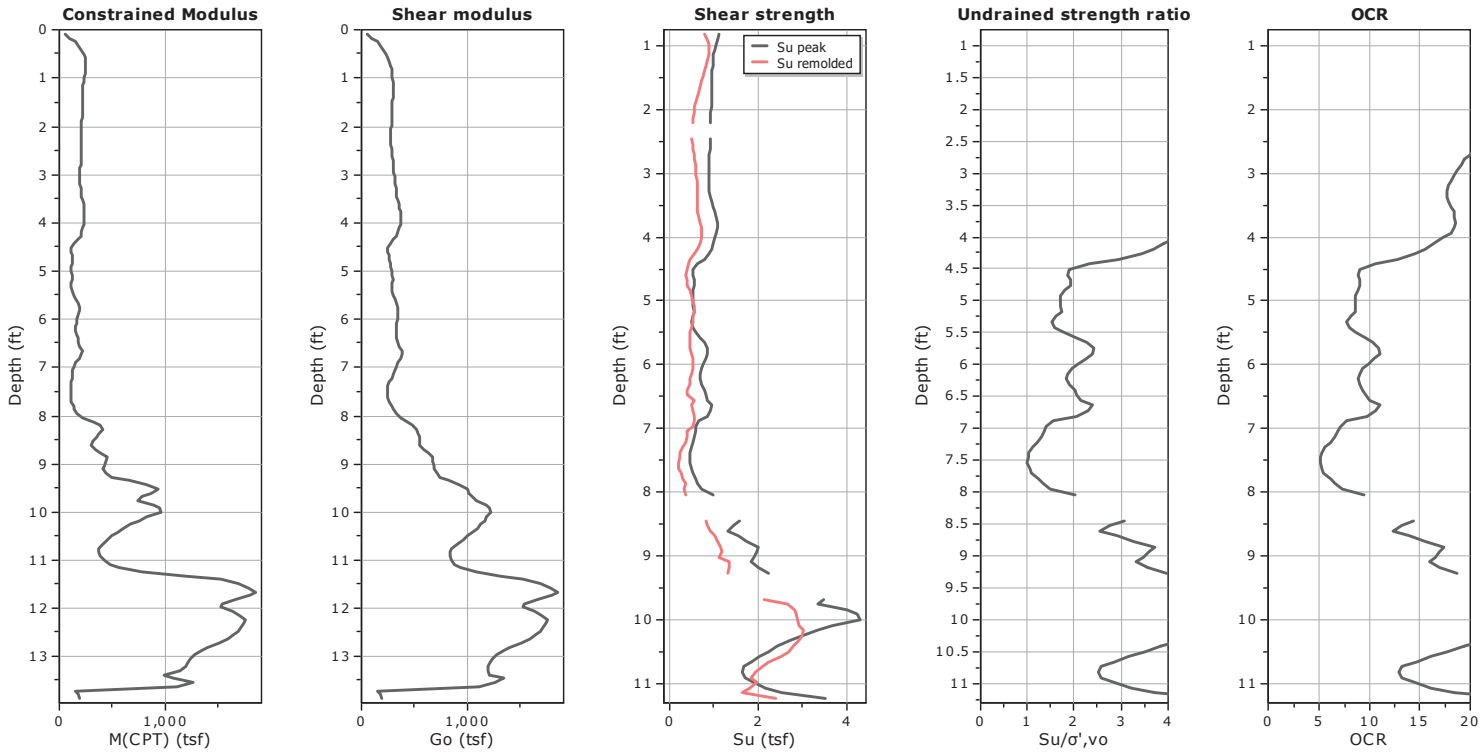
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-233
Total depth: 13.86 ft



Calculation parameters

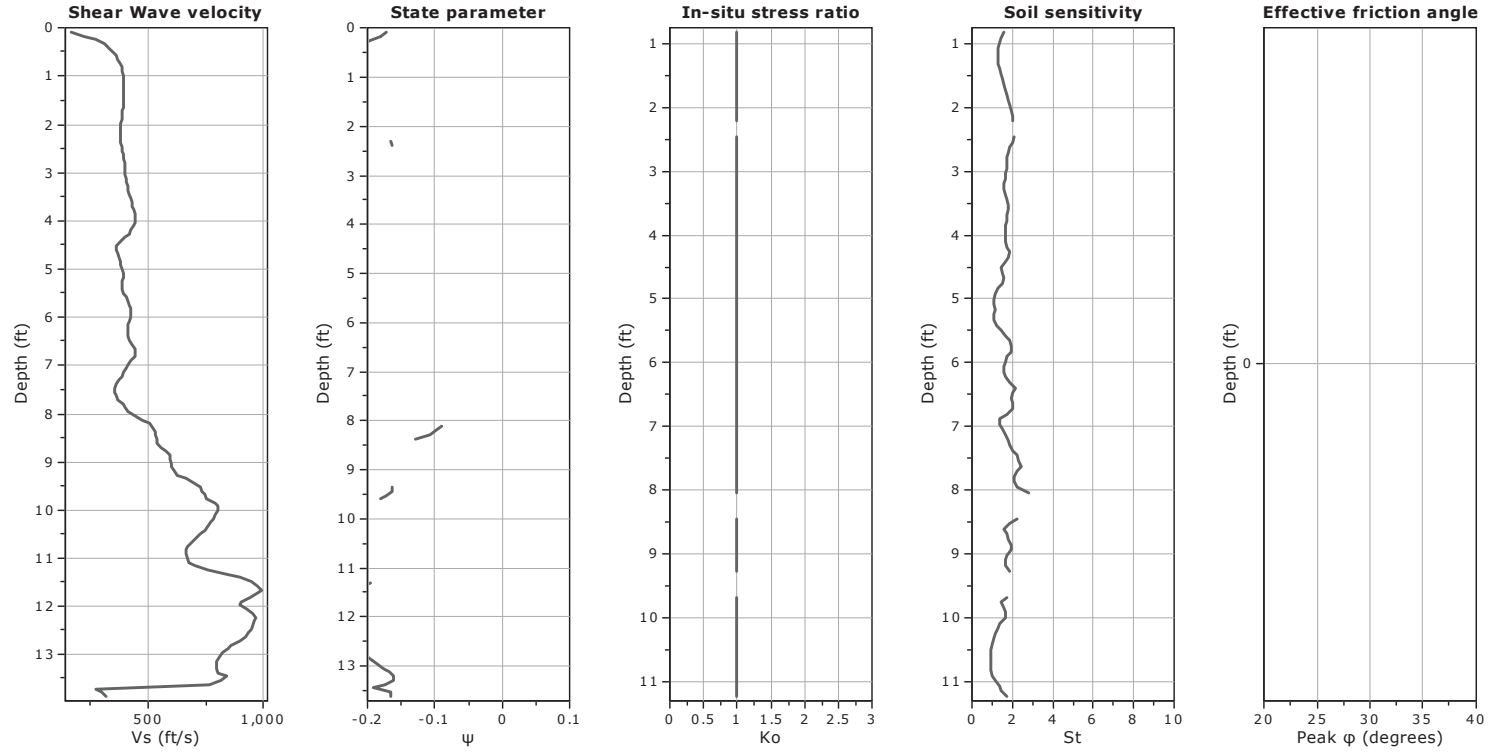
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-233
Total depth: 13.86 ft



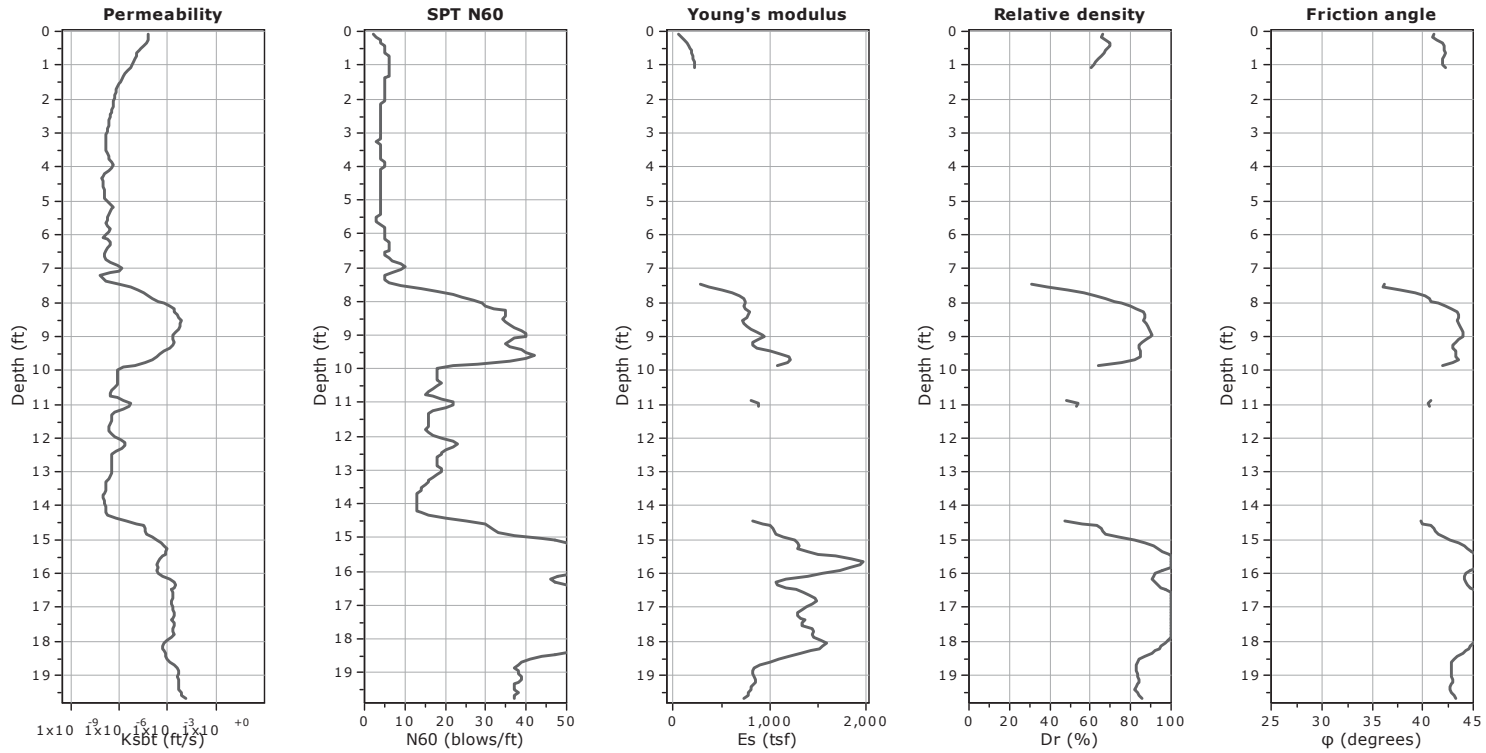
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-234
Total depth: 20.01 ft



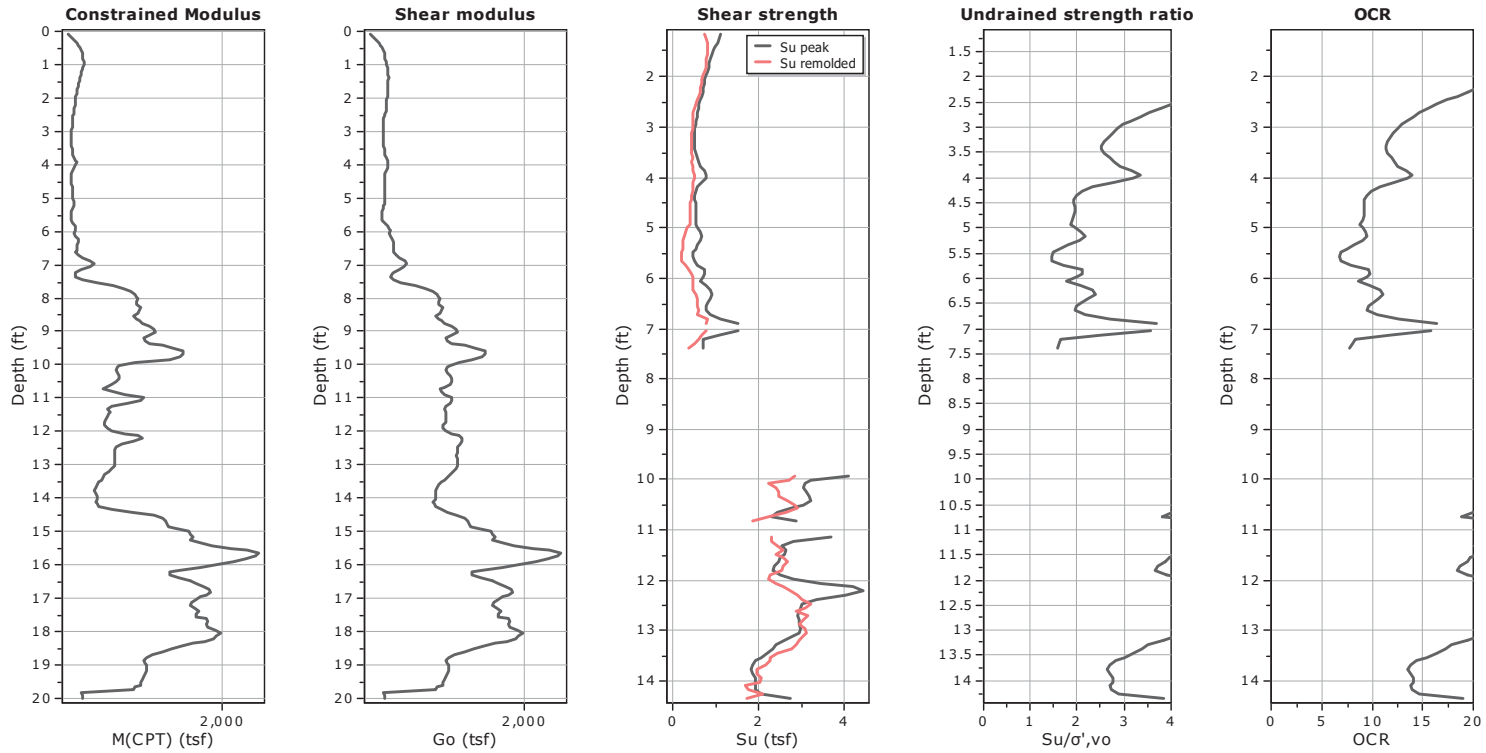
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-234
Total depth: 20.01 ft



Calculation parameters

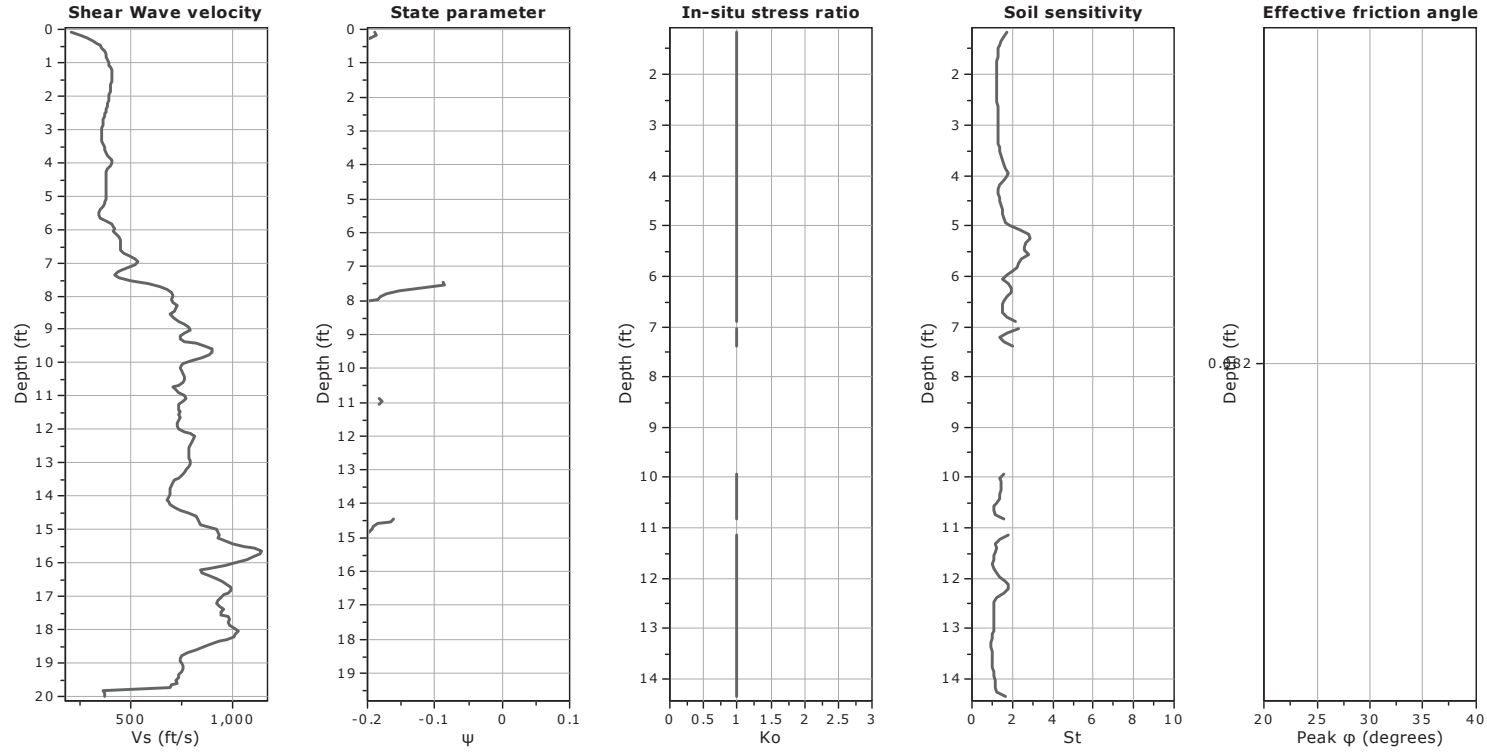
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-234
Total depth: 20.01 ft



Calculation parameters

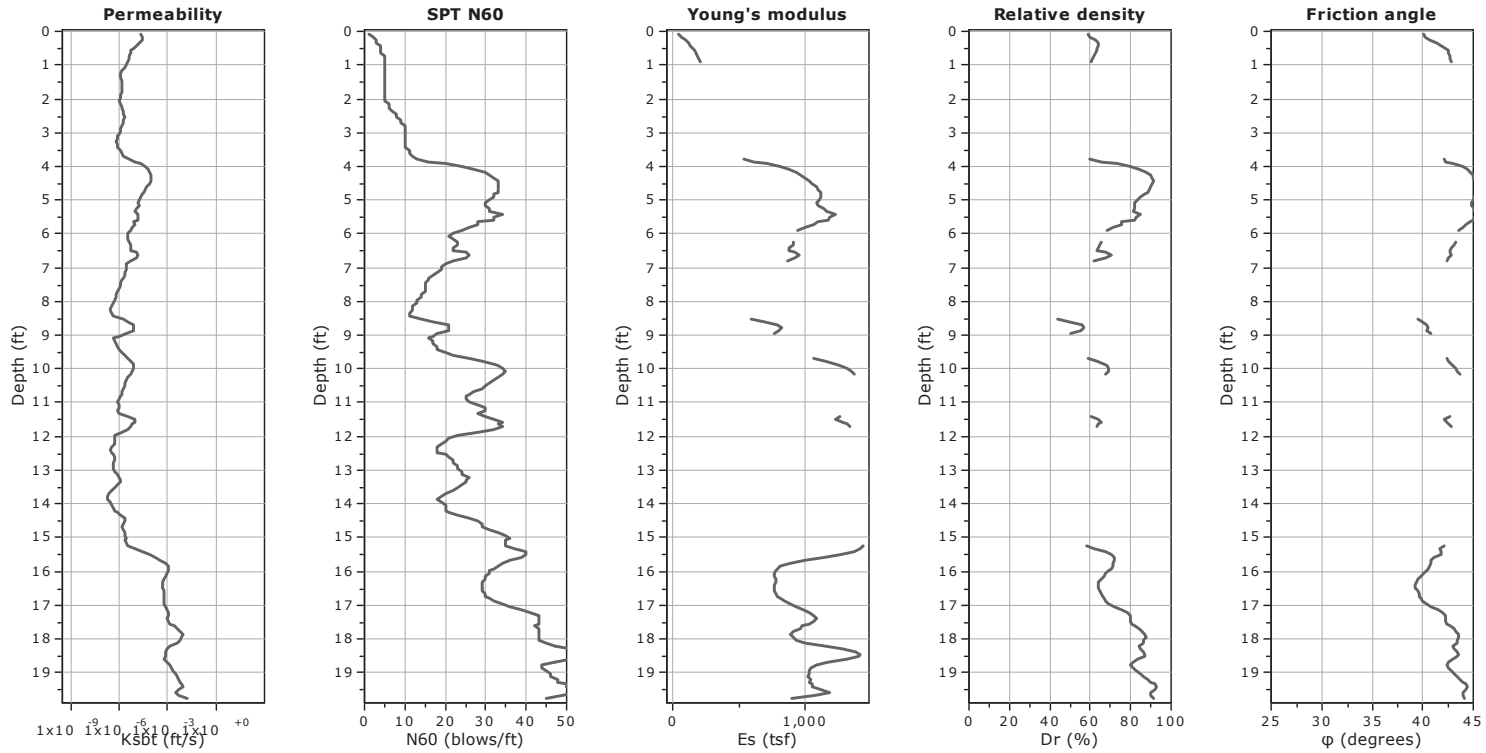
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-235
Total depth: 20.01 ft



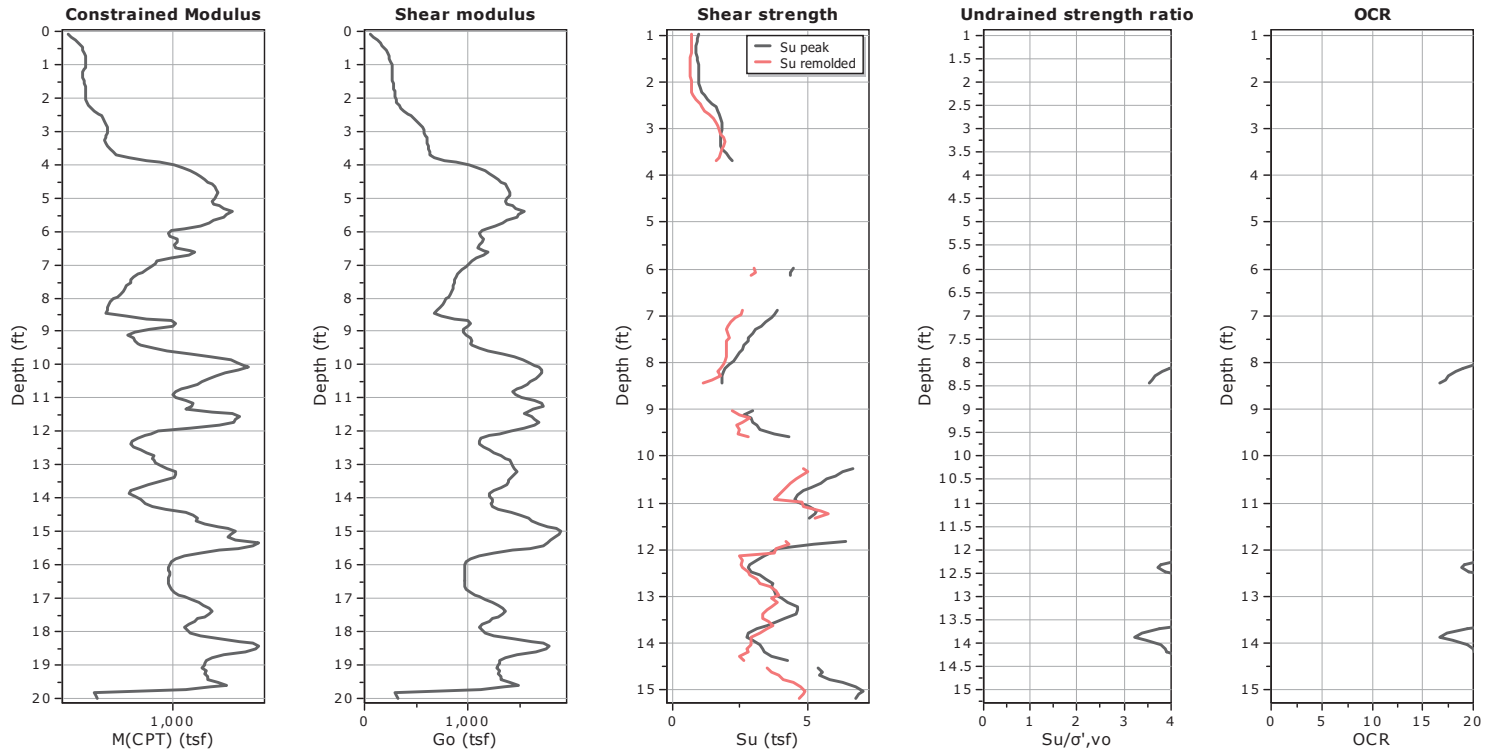
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-235
Total depth: 20.01 ft



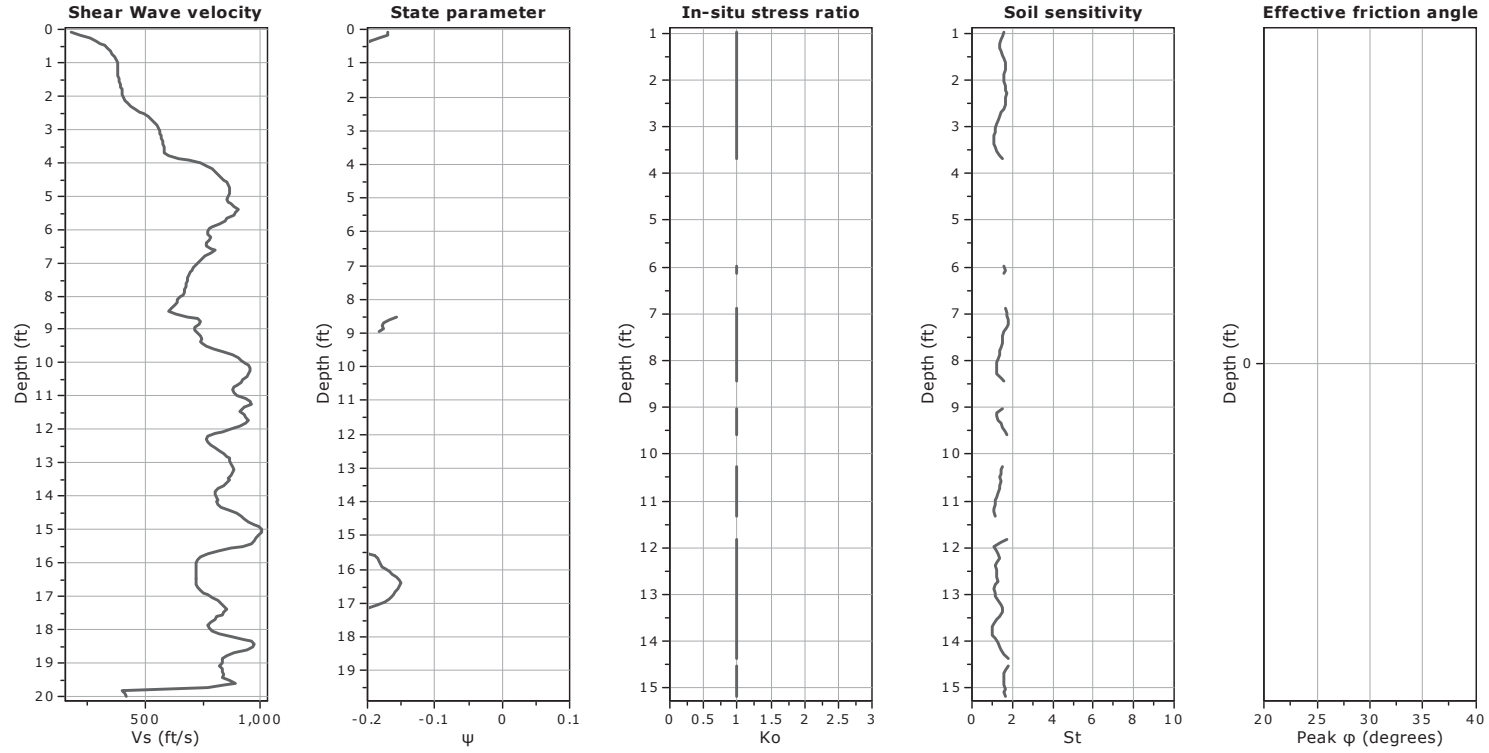
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-235
Total depth: 20.01 ft



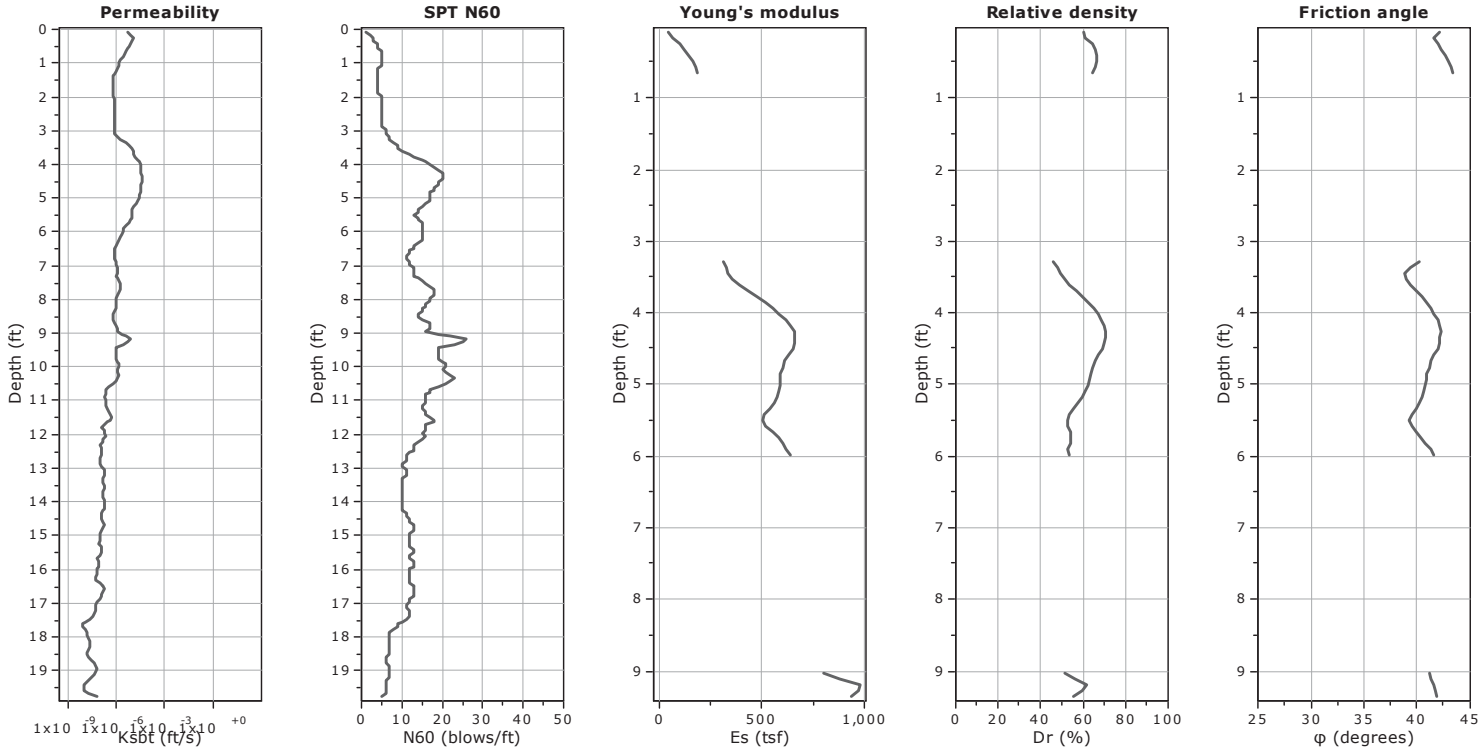
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-236
Total depth: 20.01 ft



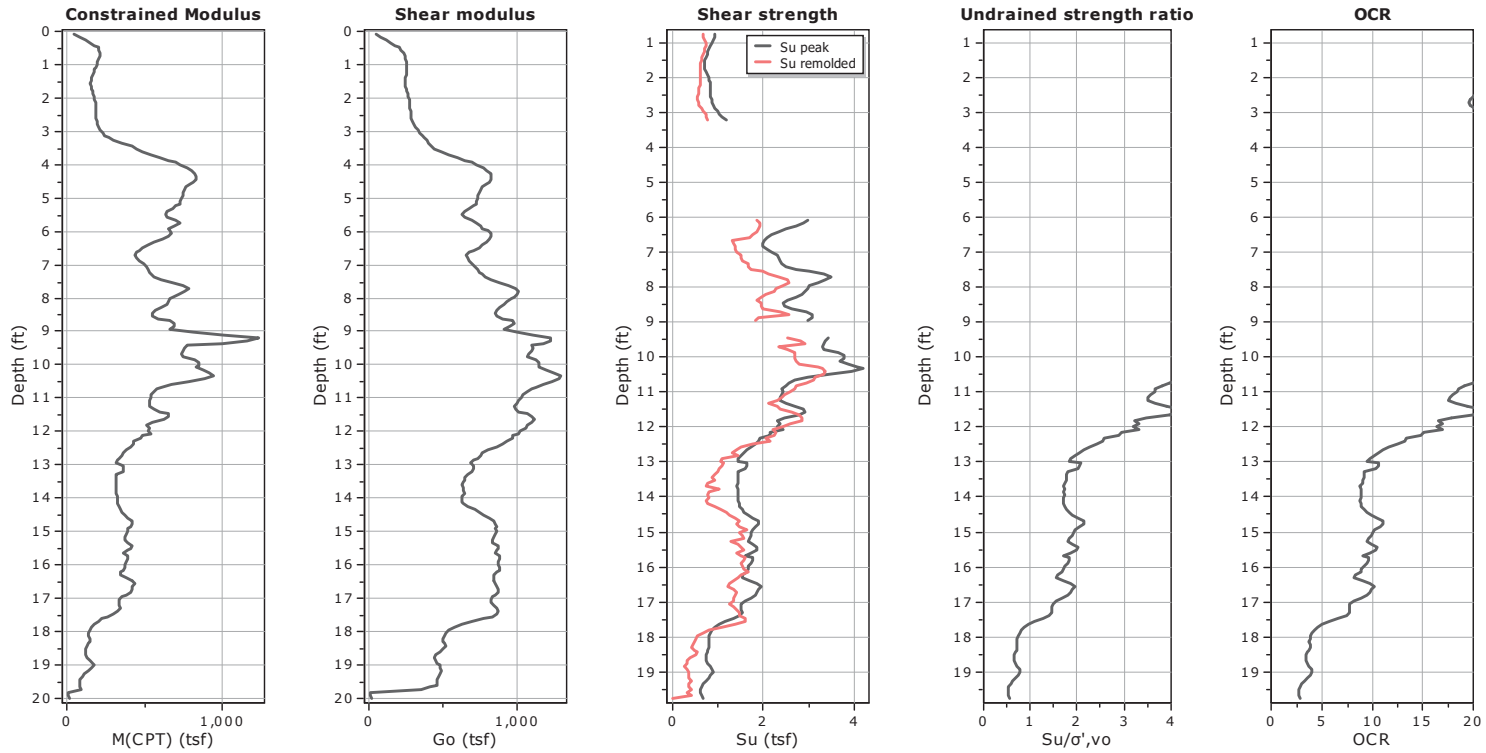
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-236
Total depth: 20.01 ft



Calculation parameters

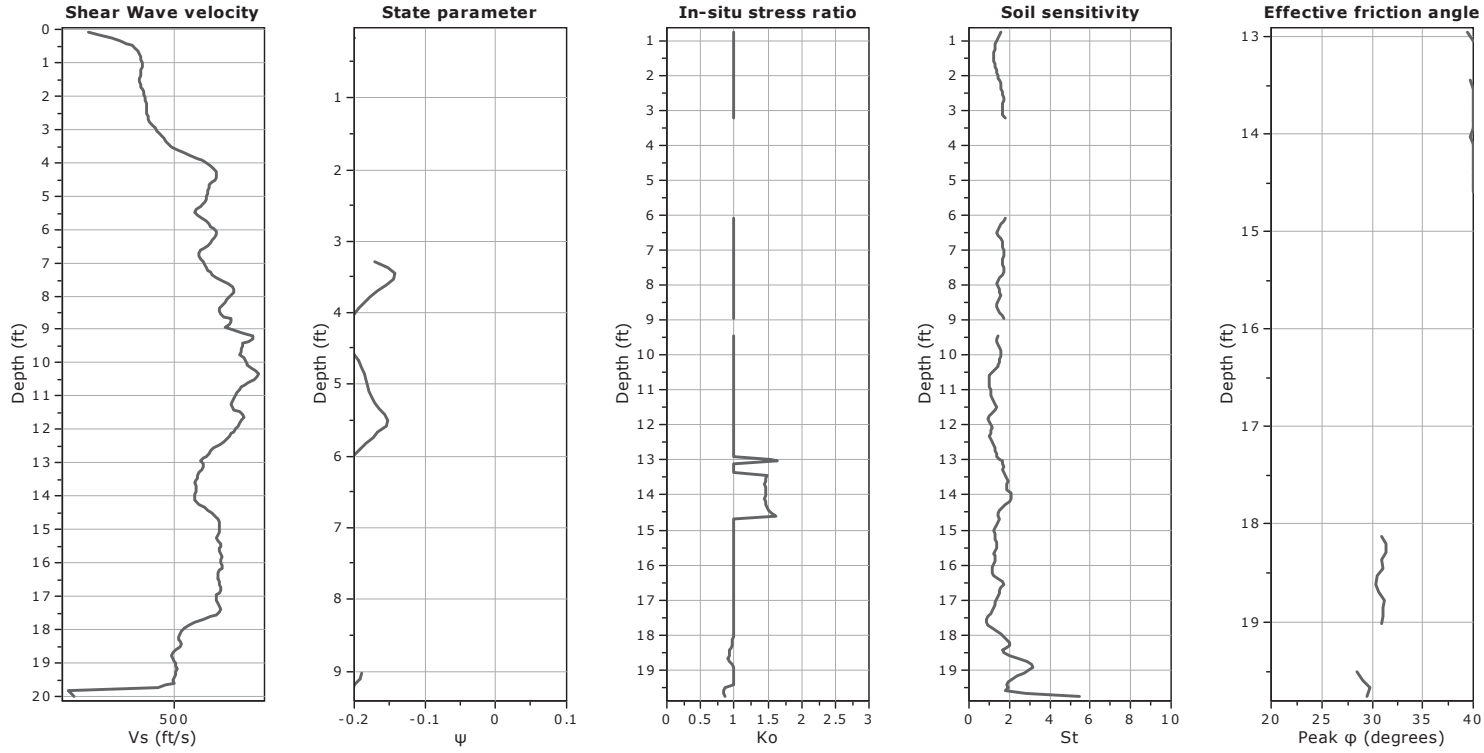
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-236
Total depth: 20.01 ft



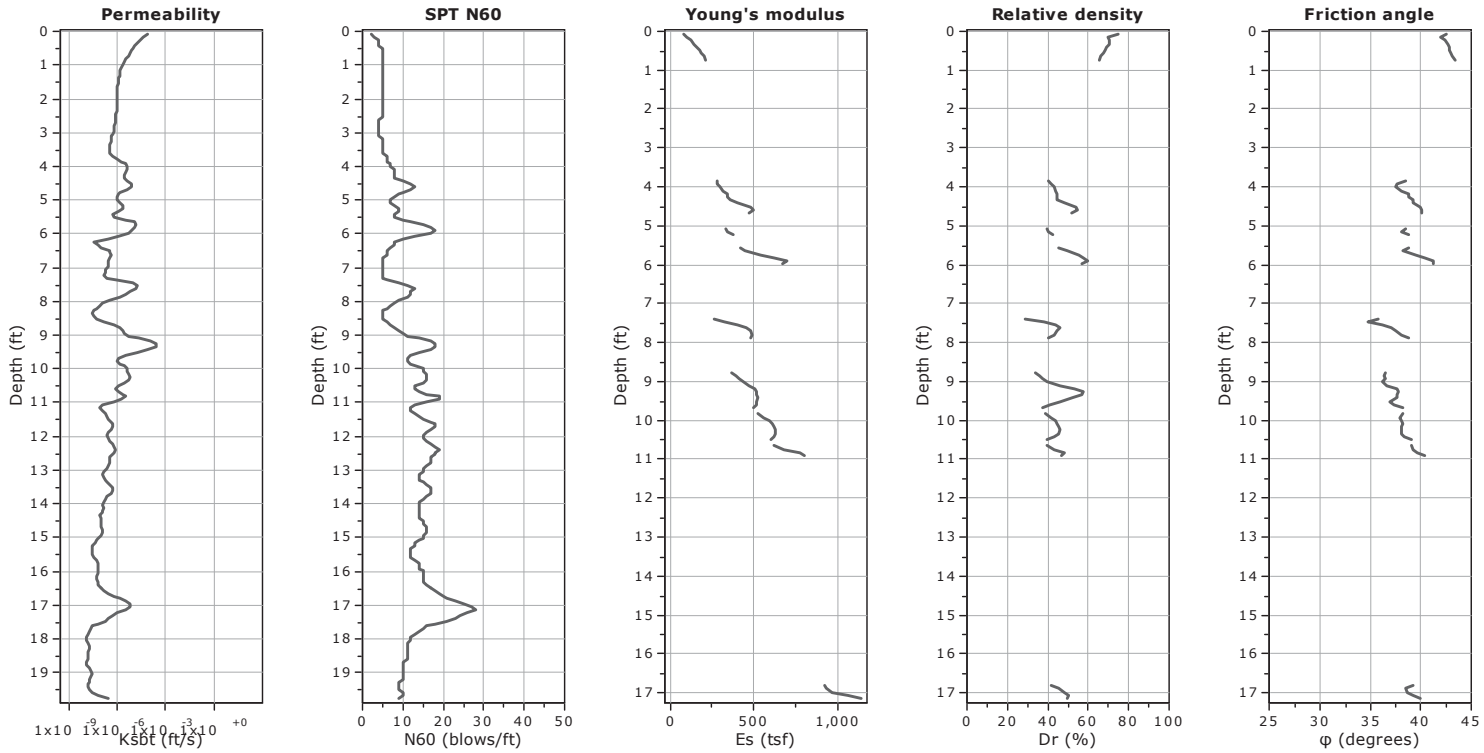
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-237
Total depth: 20.01 ft



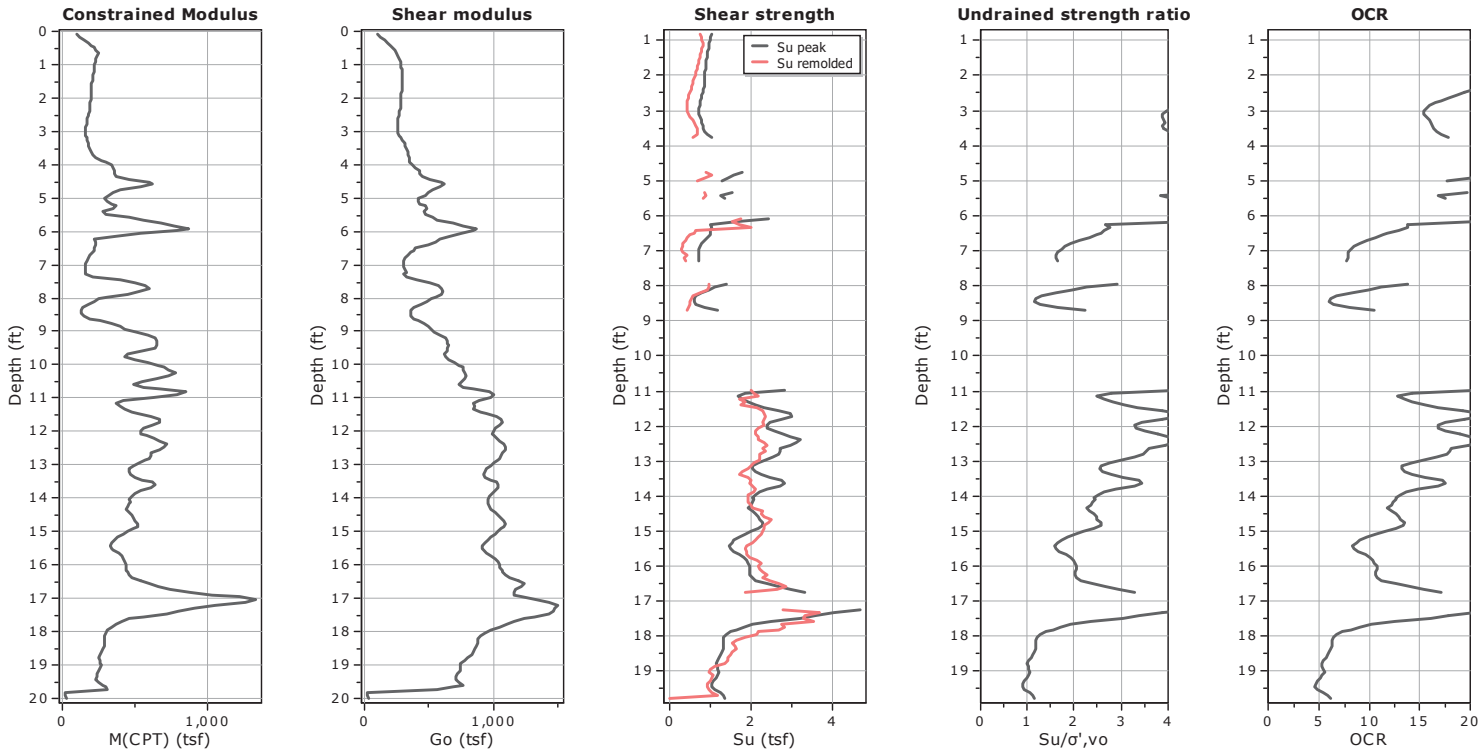
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-237
Total depth: 20.01 ft



Calculation parameters

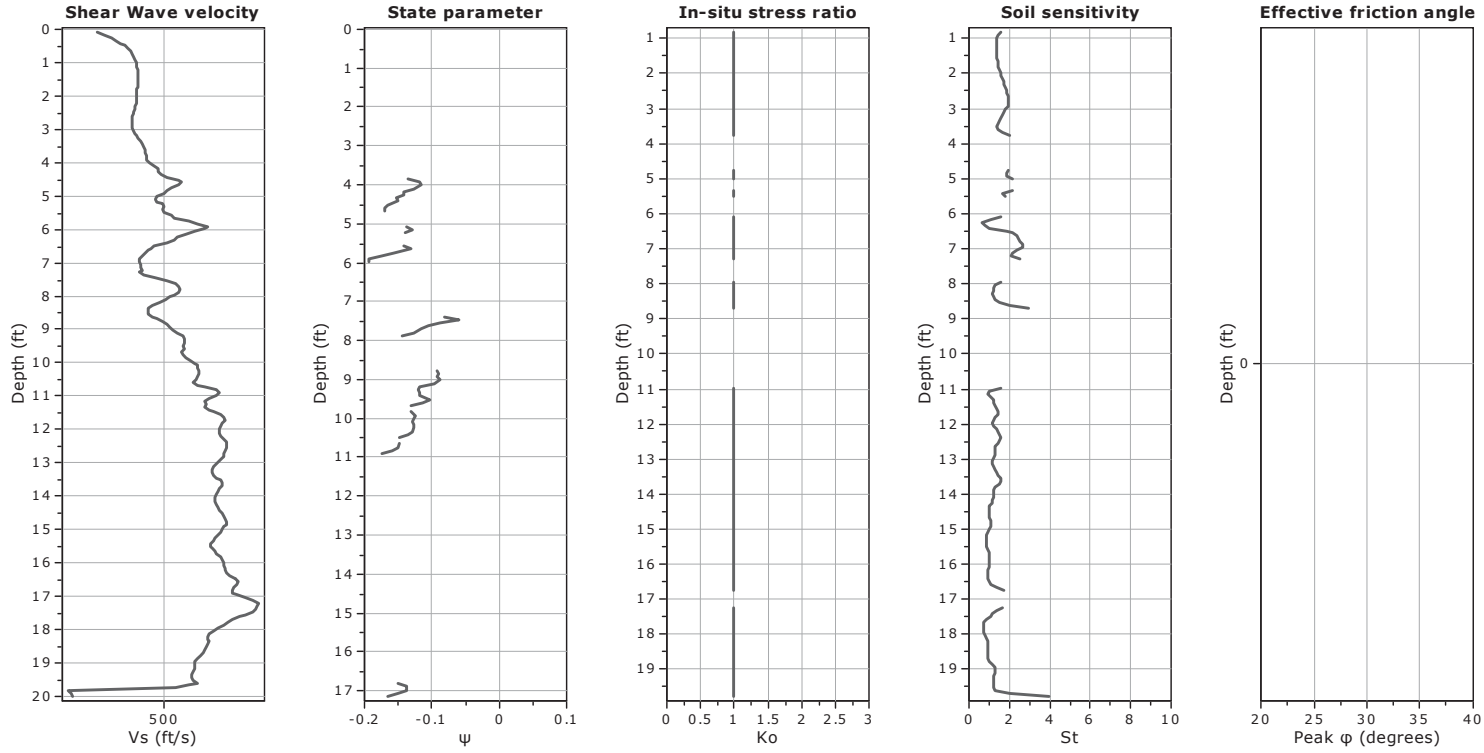
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-237
Total depth: 20.01 ft



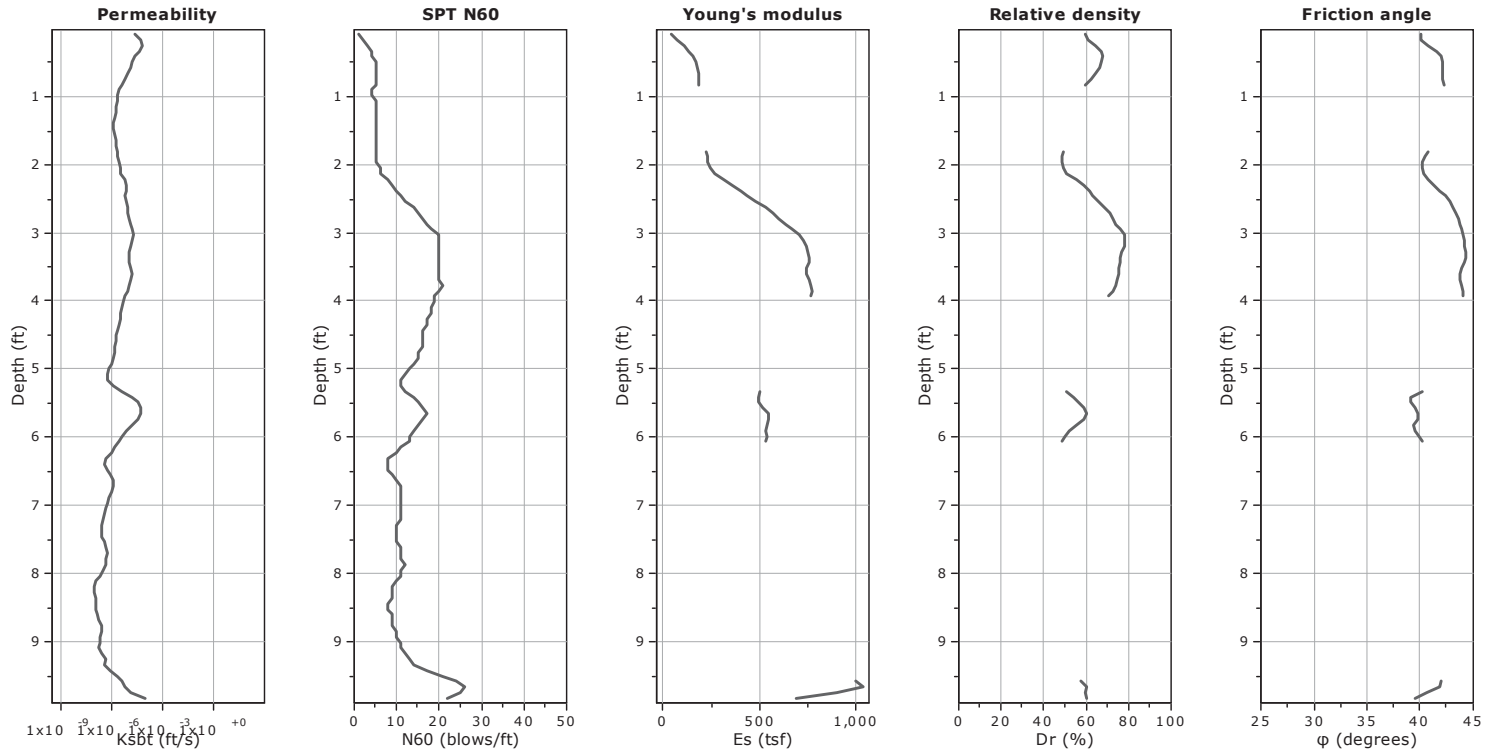
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-238
Total depth: 10.09 ft



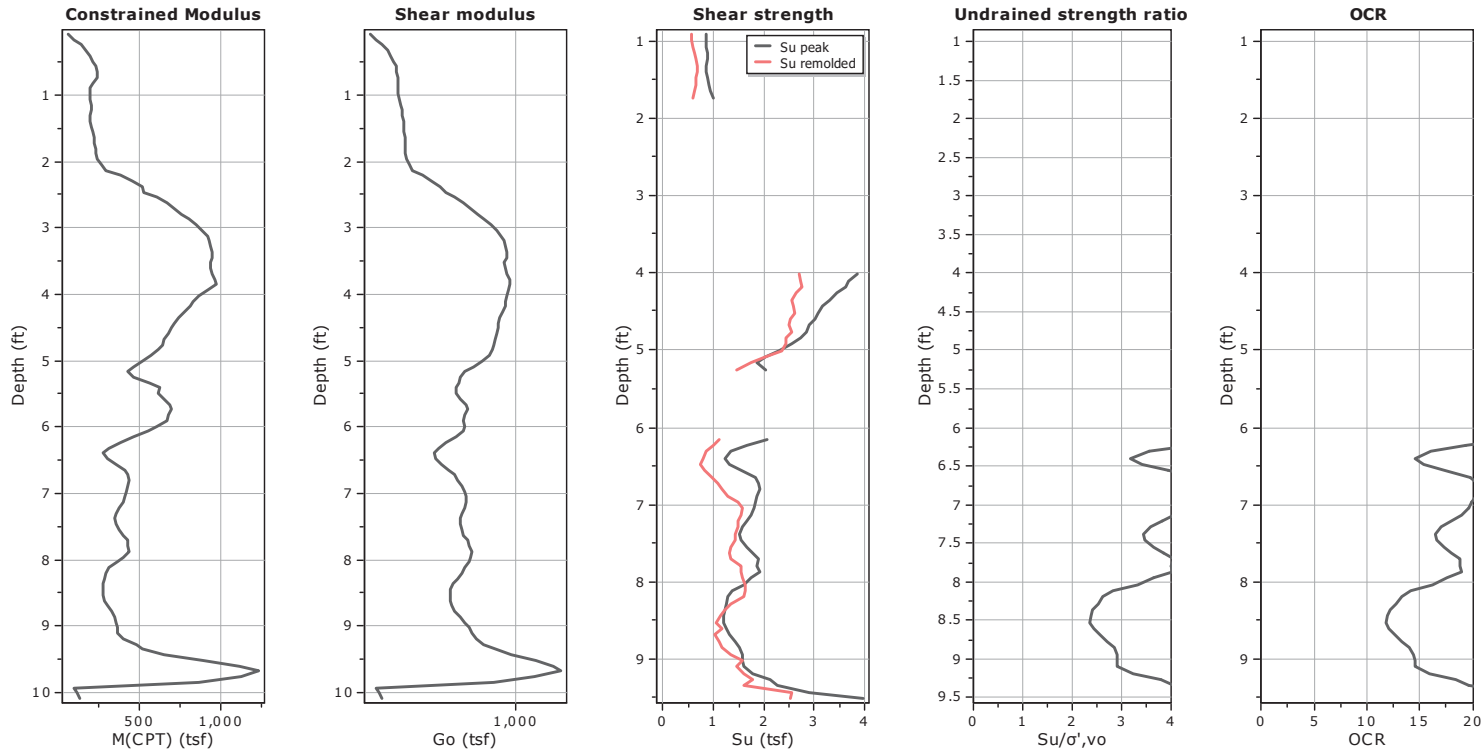
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-238
Total depth: 10.09 ft



Calculation parameters

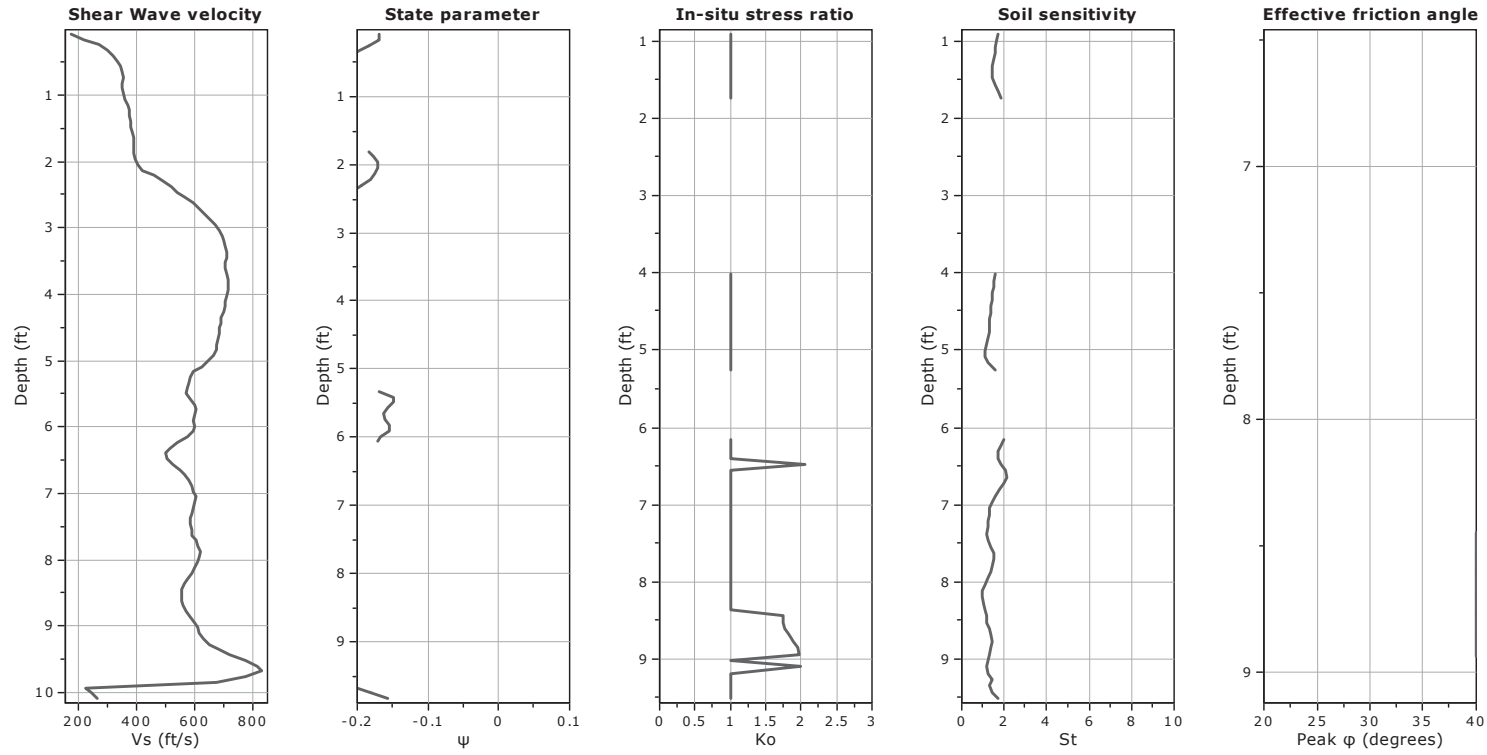
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-238
Total depth: 10.09 ft



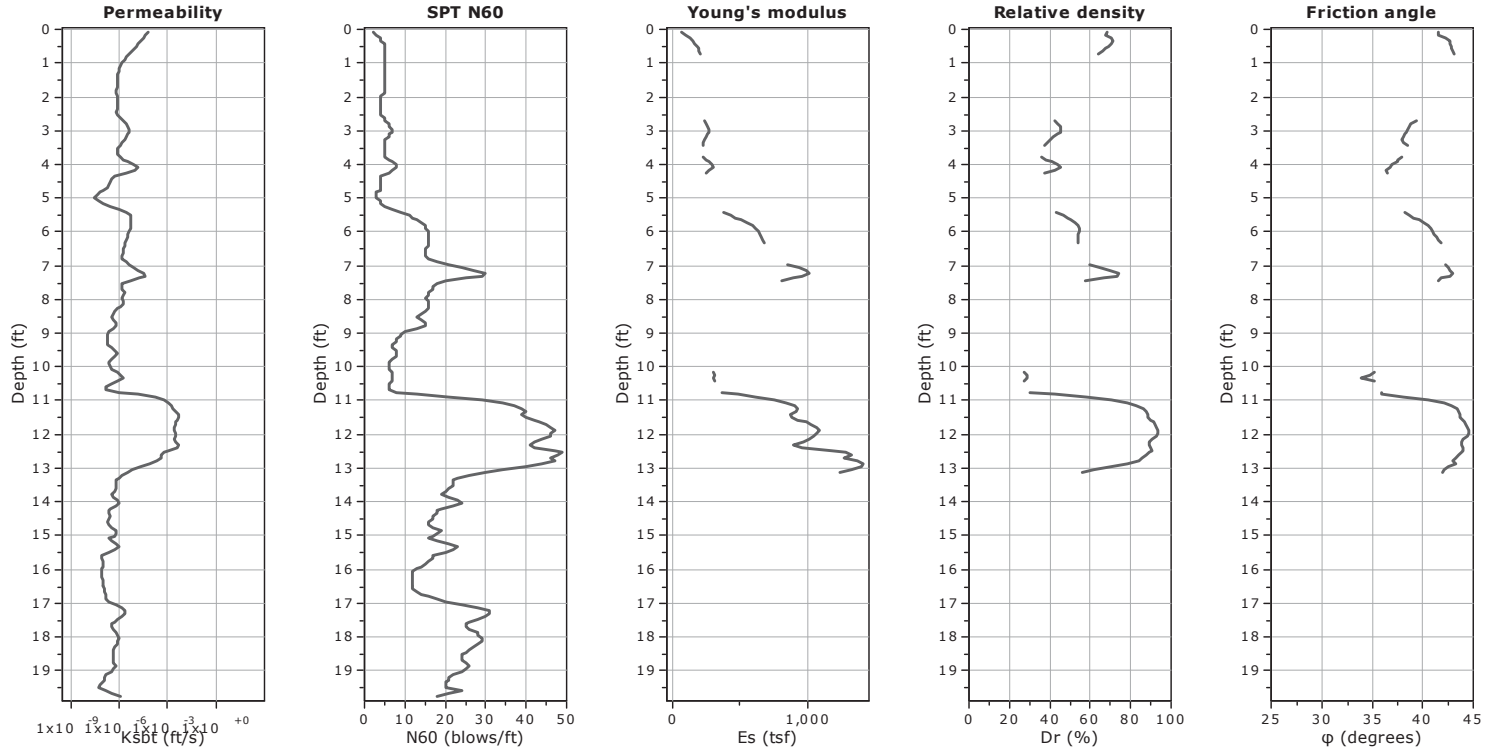
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-239A
Total depth: 20.01 ft



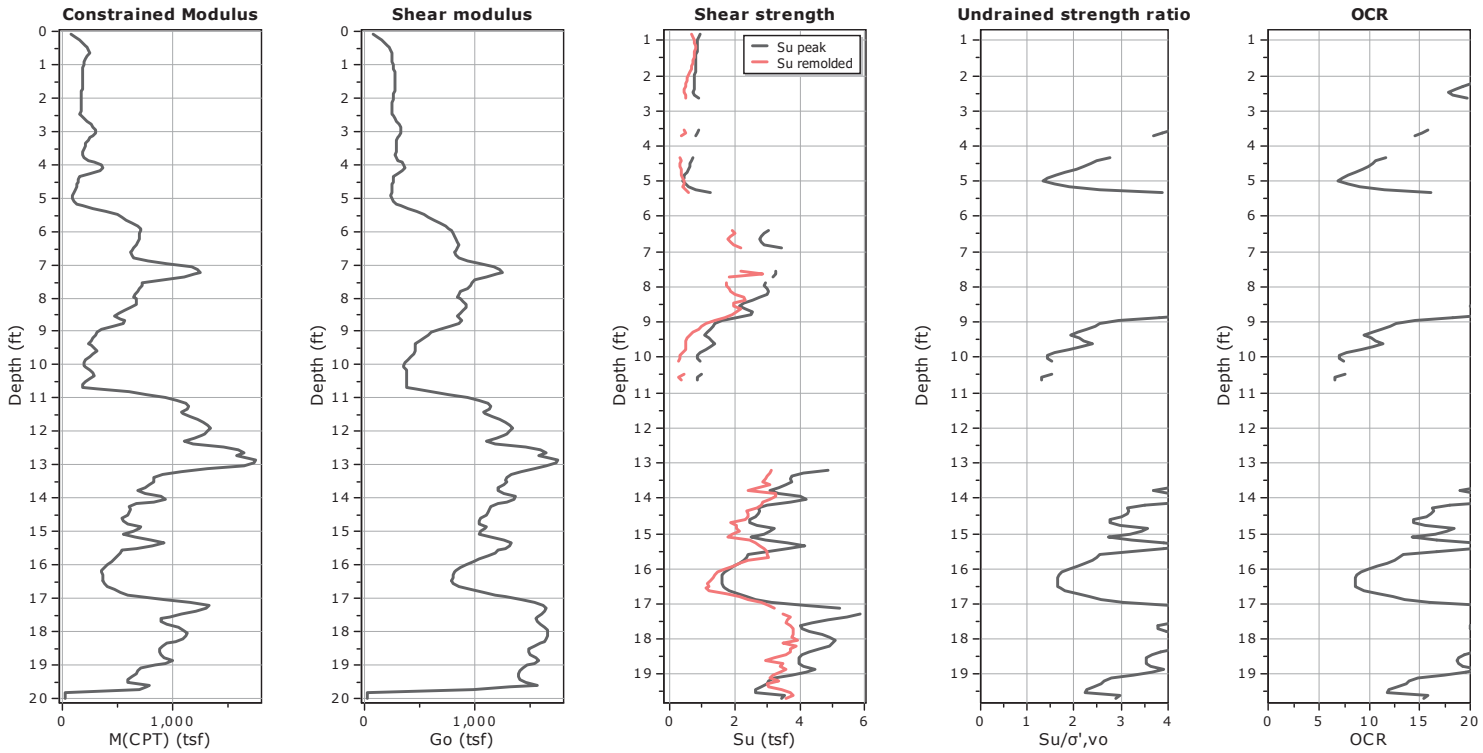
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-239A
Total depth: 20.01 ft



Calculation parameters

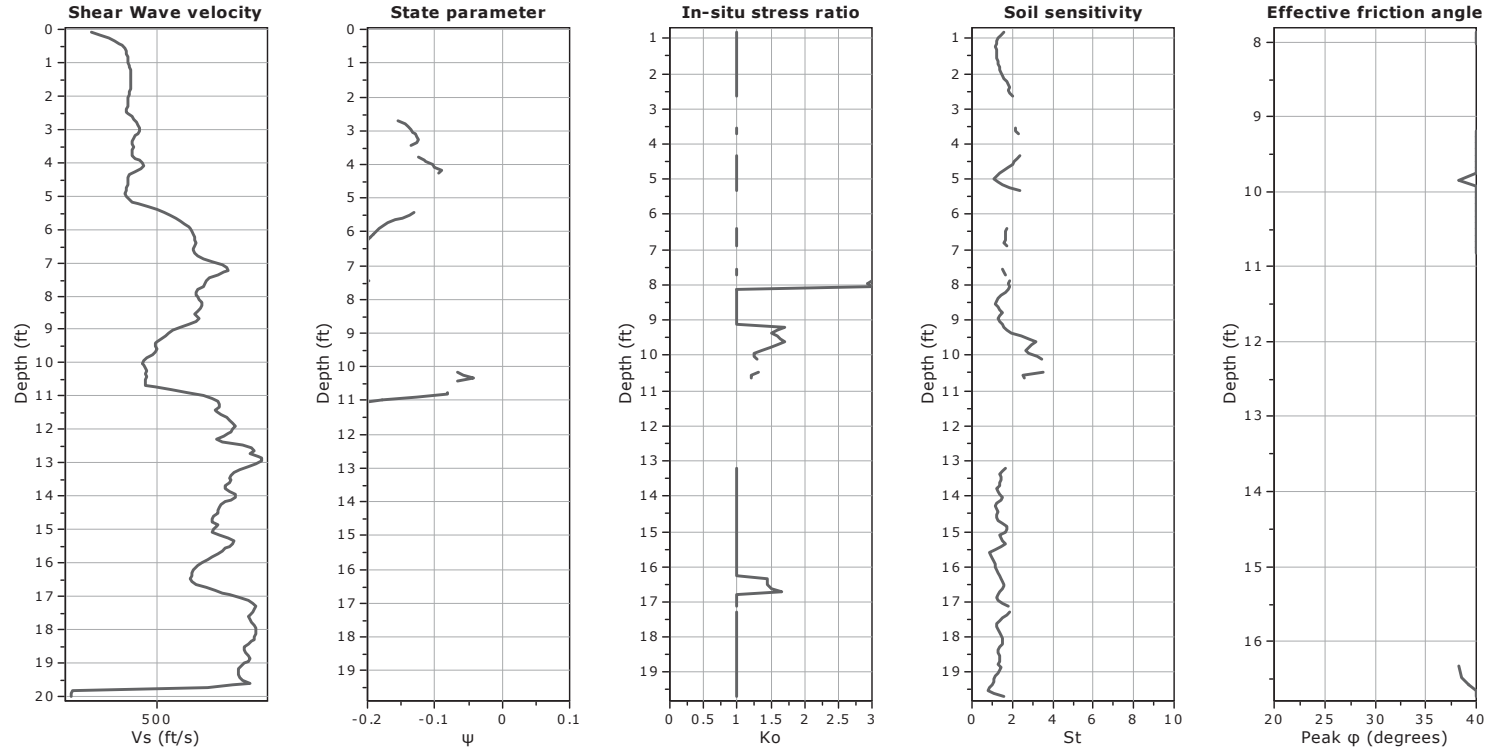
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-239A
Total depth: 20.01 ft



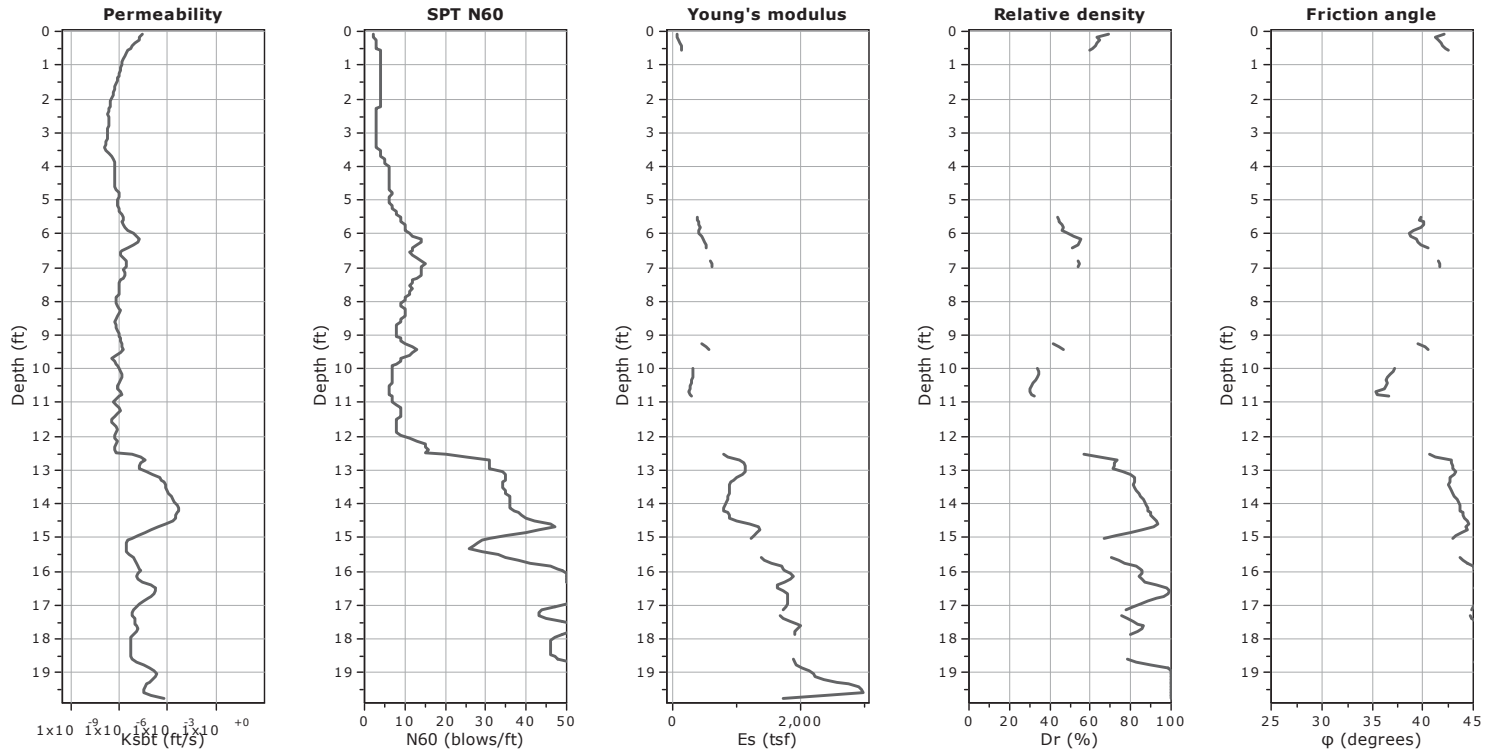
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-240
Total depth: 20.01 ft



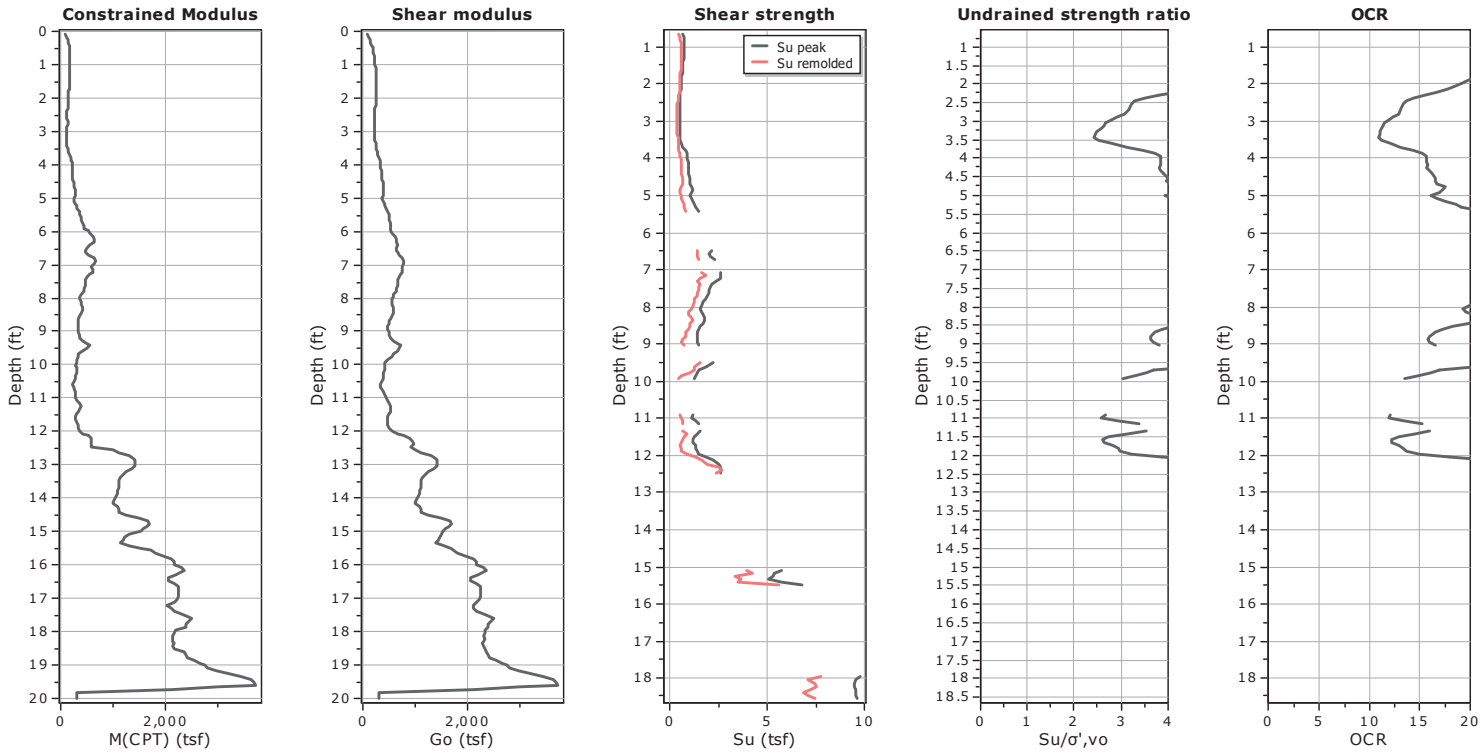
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-240
Total depth: 20.01 ft



Calculation parameters

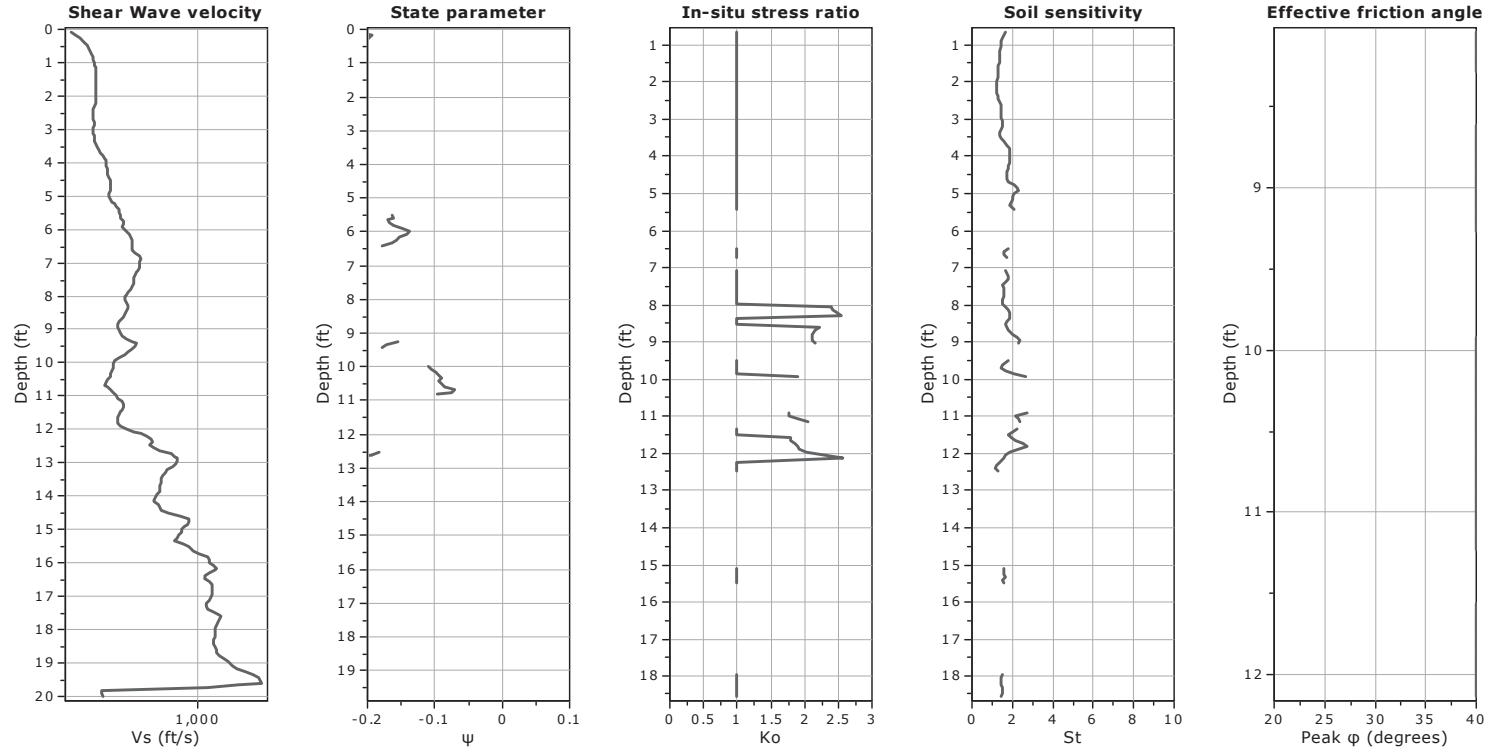
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-240
Total depth: 20.01 ft



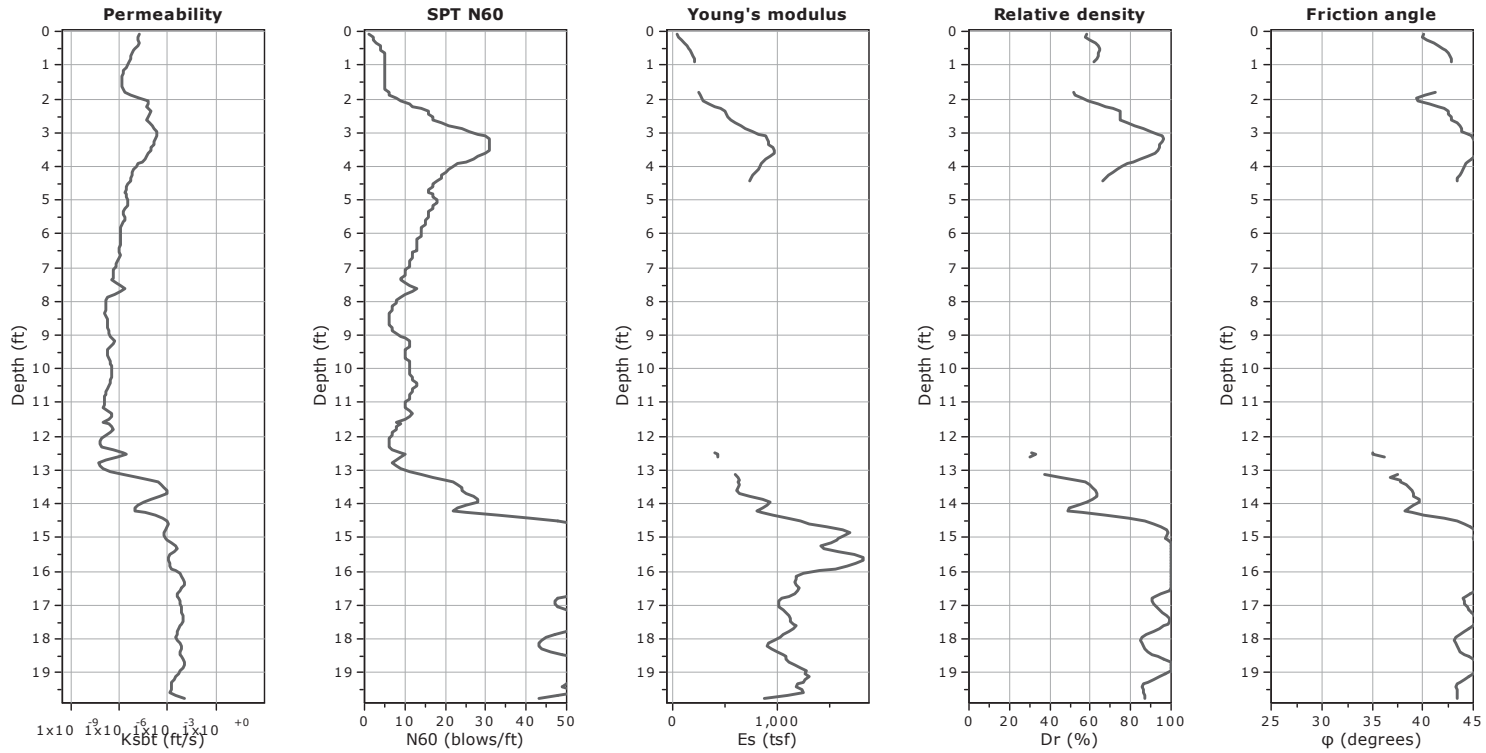
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-241
Total depth: 20.01 ft



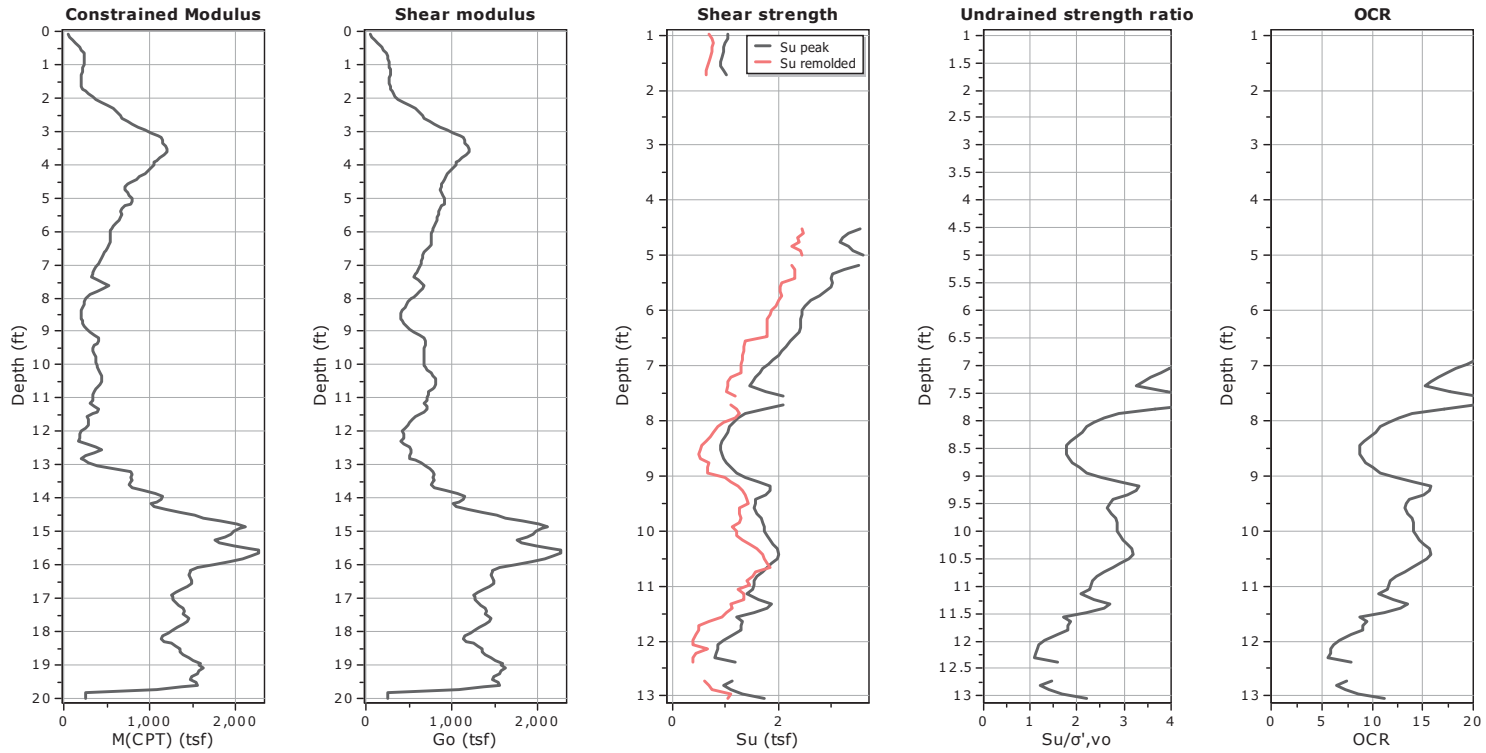
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-241
Total depth: 20.01 ft



Calculation parameters

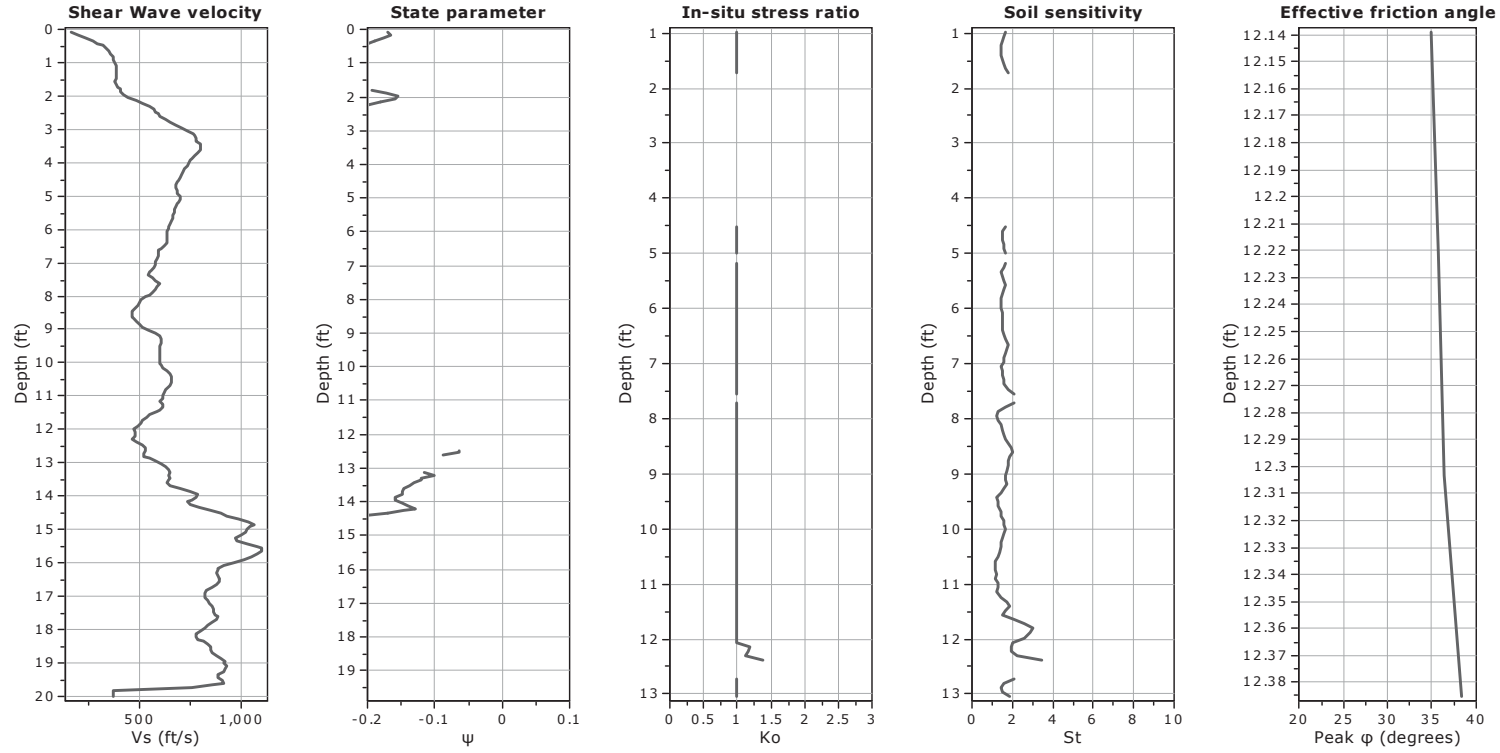
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-241
Total depth: 20.01 ft



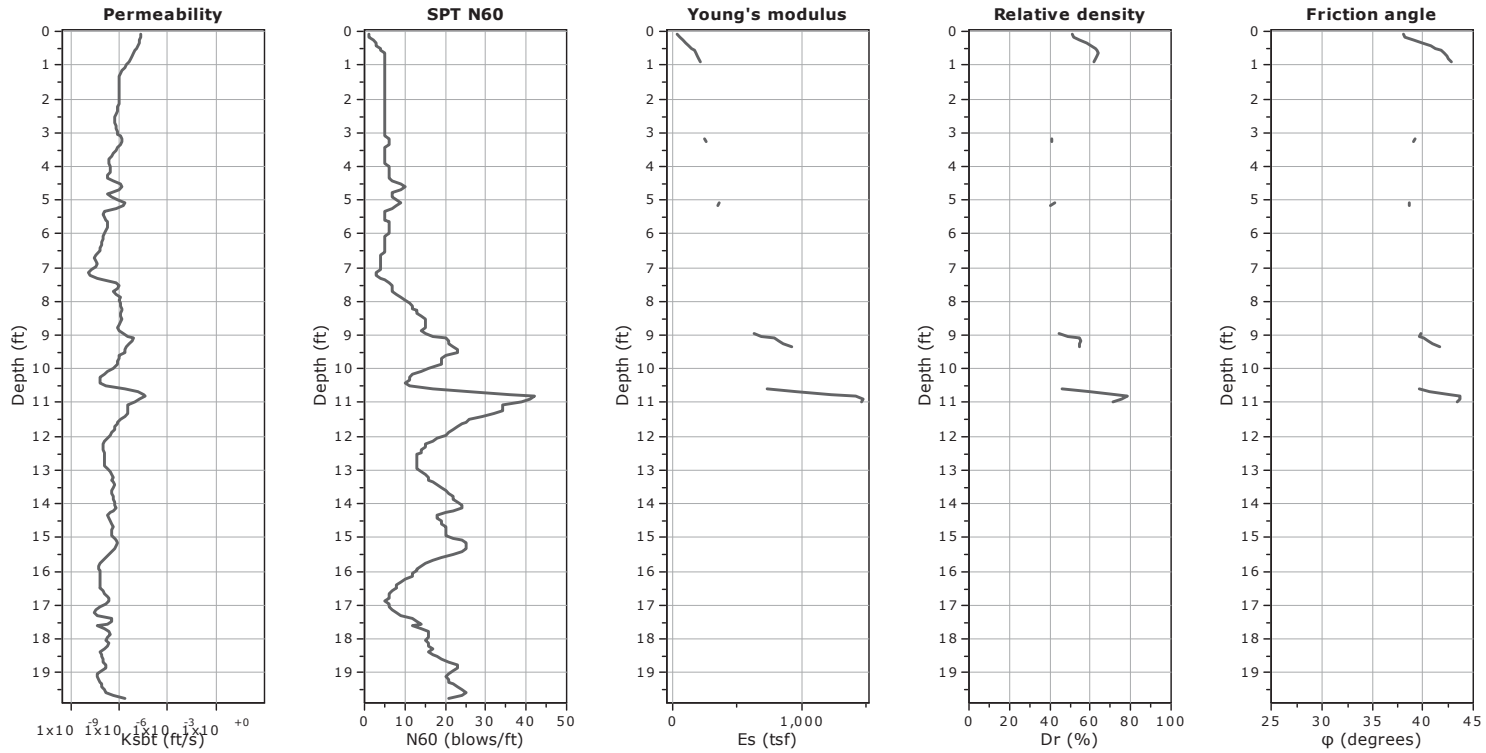
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-242
Total depth: 20.01 ft



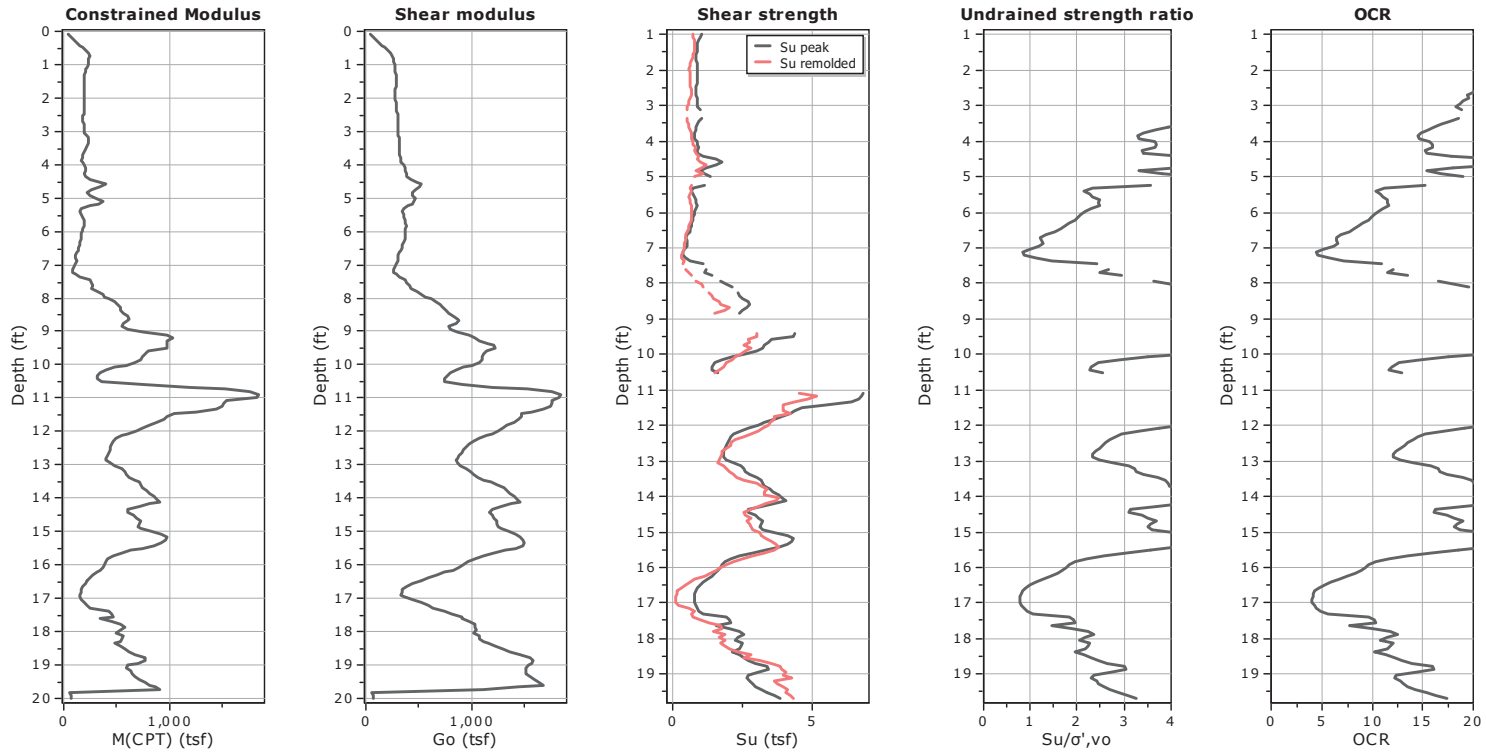
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-242
Total depth: 20.01 ft



Calculation parameters

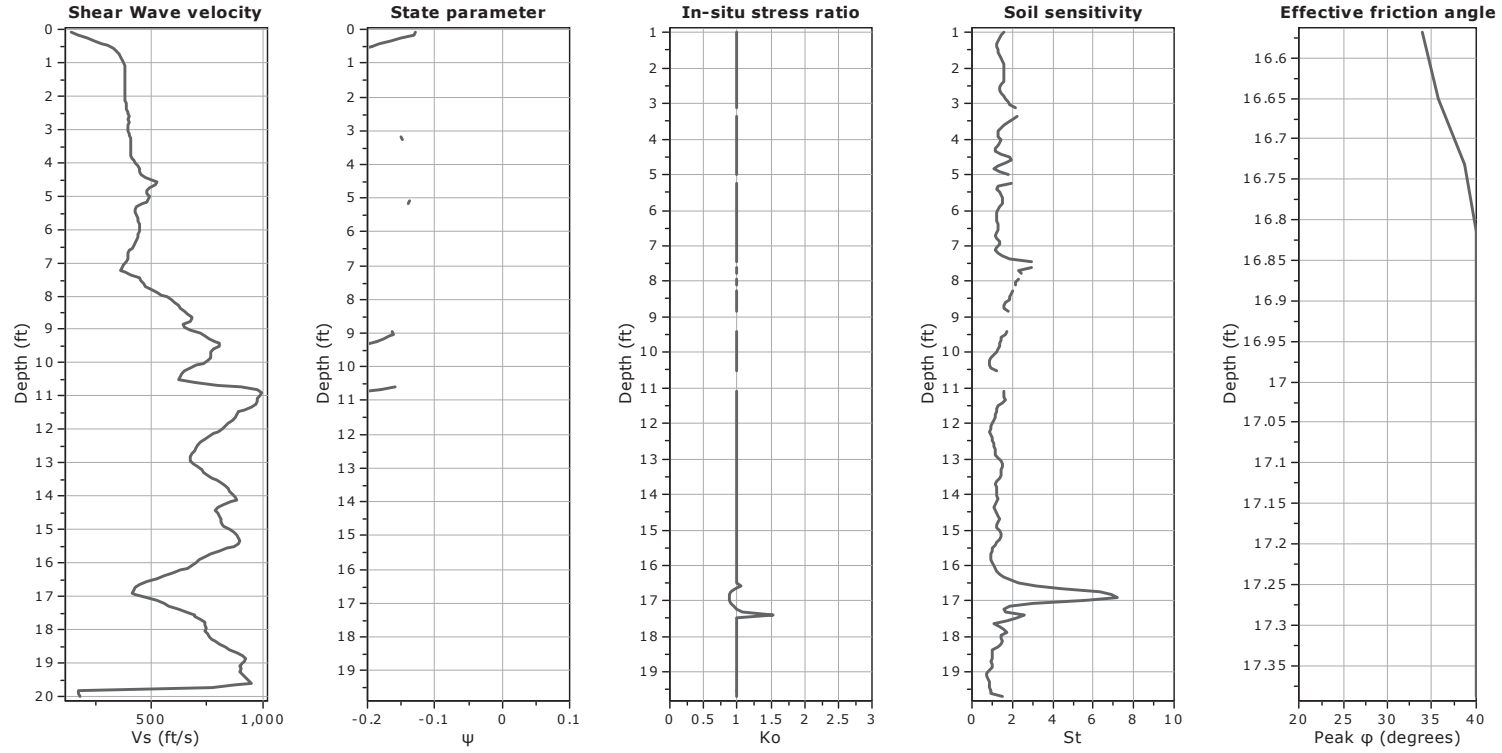
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-242
Total depth: 20.01 ft



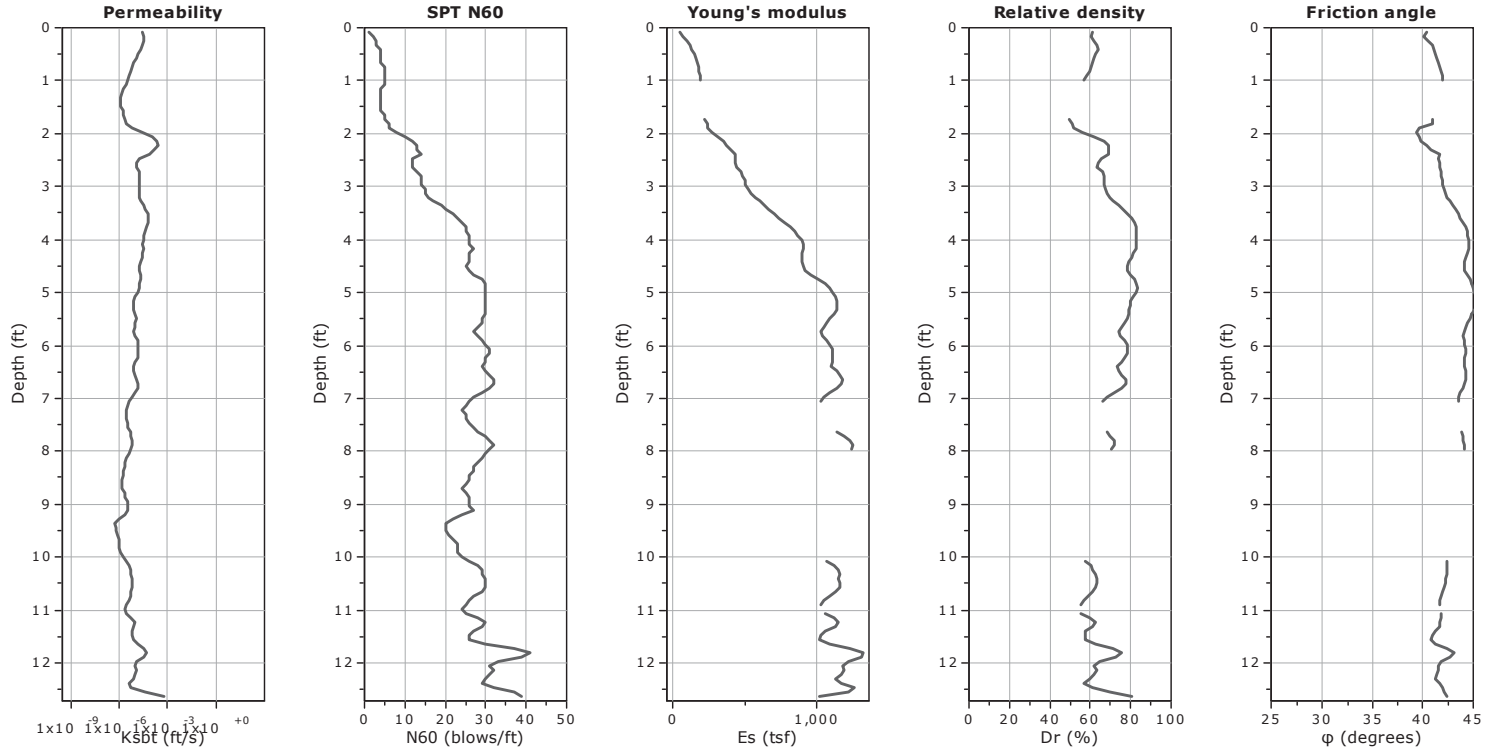
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-243
Total depth: 12.88 ft



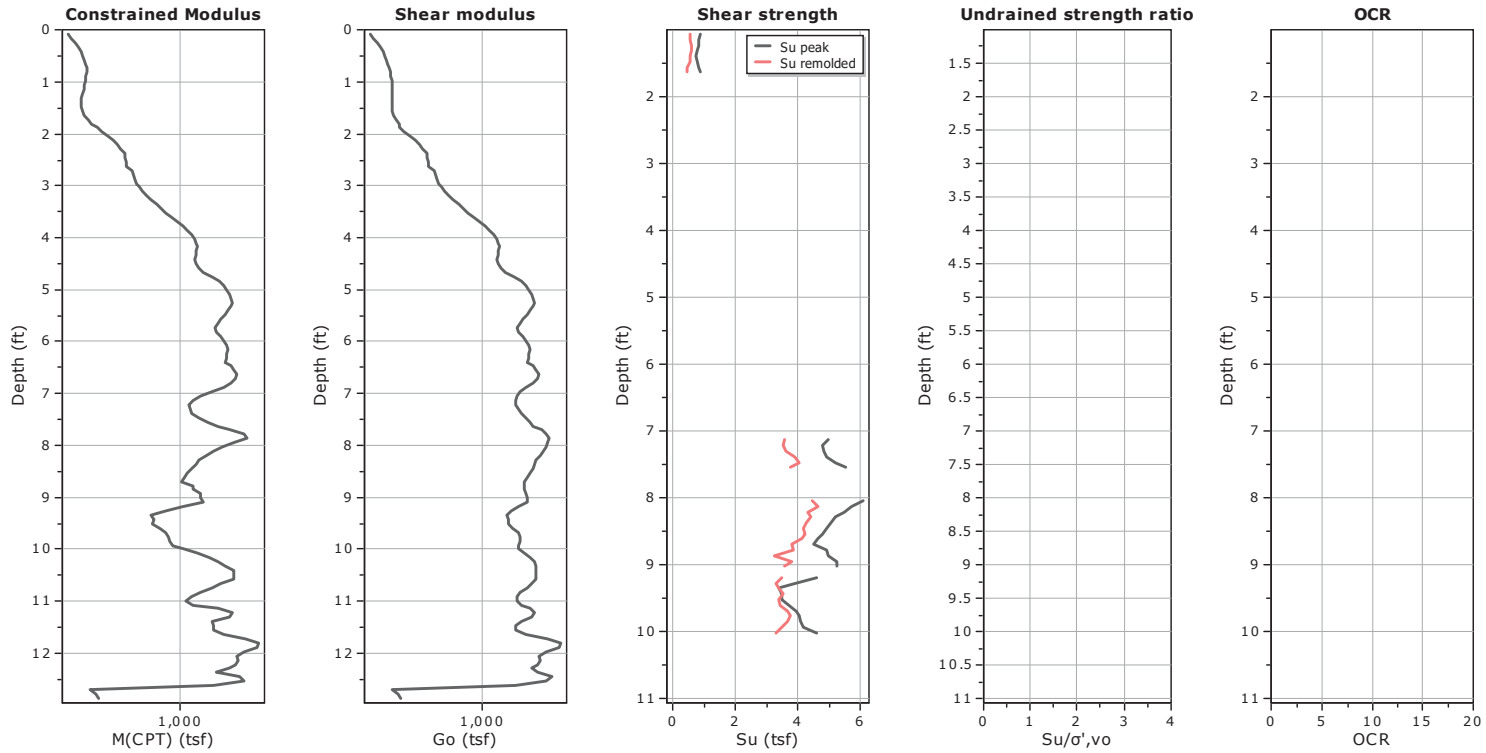
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-243
Total depth: 12.88 ft



Calculation parameters

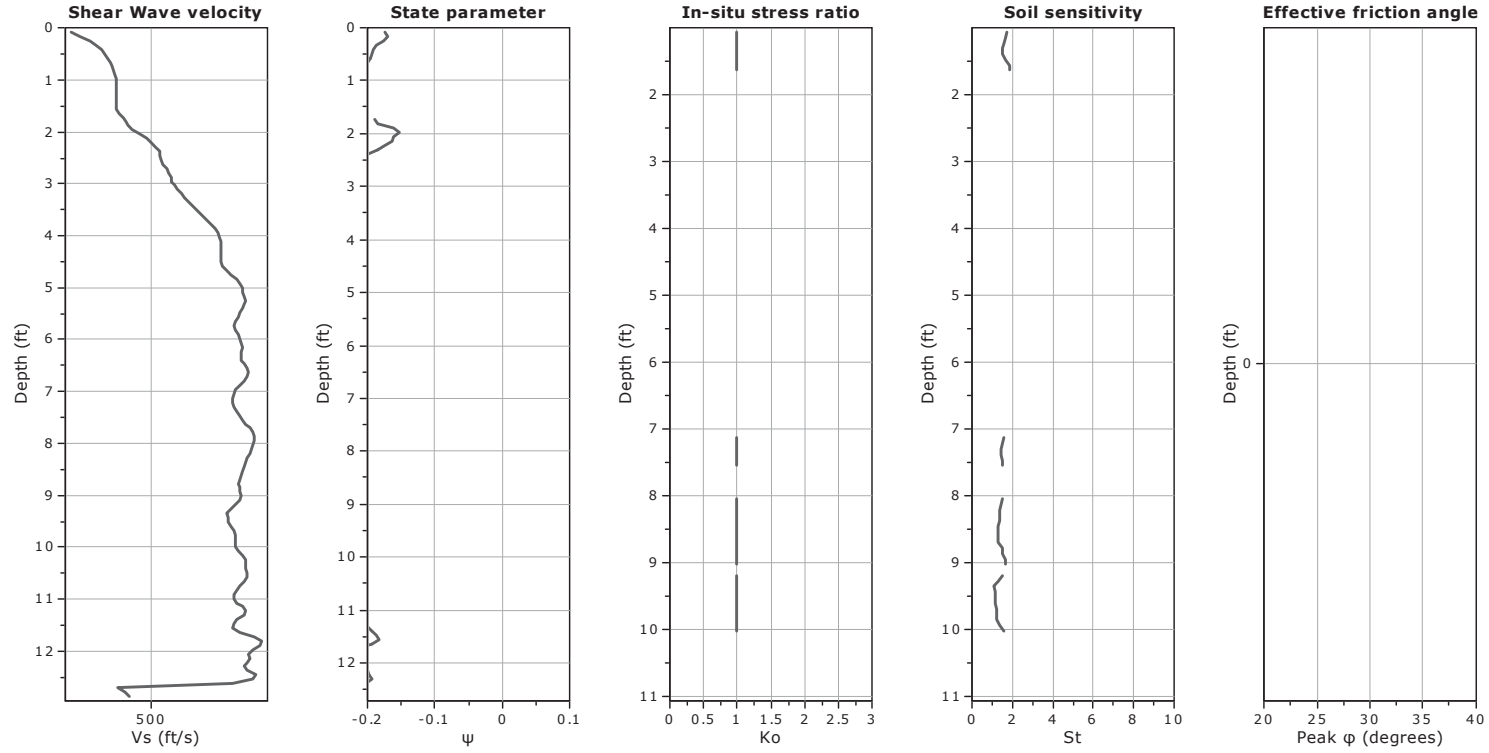
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-243
Total depth: 12.88 ft



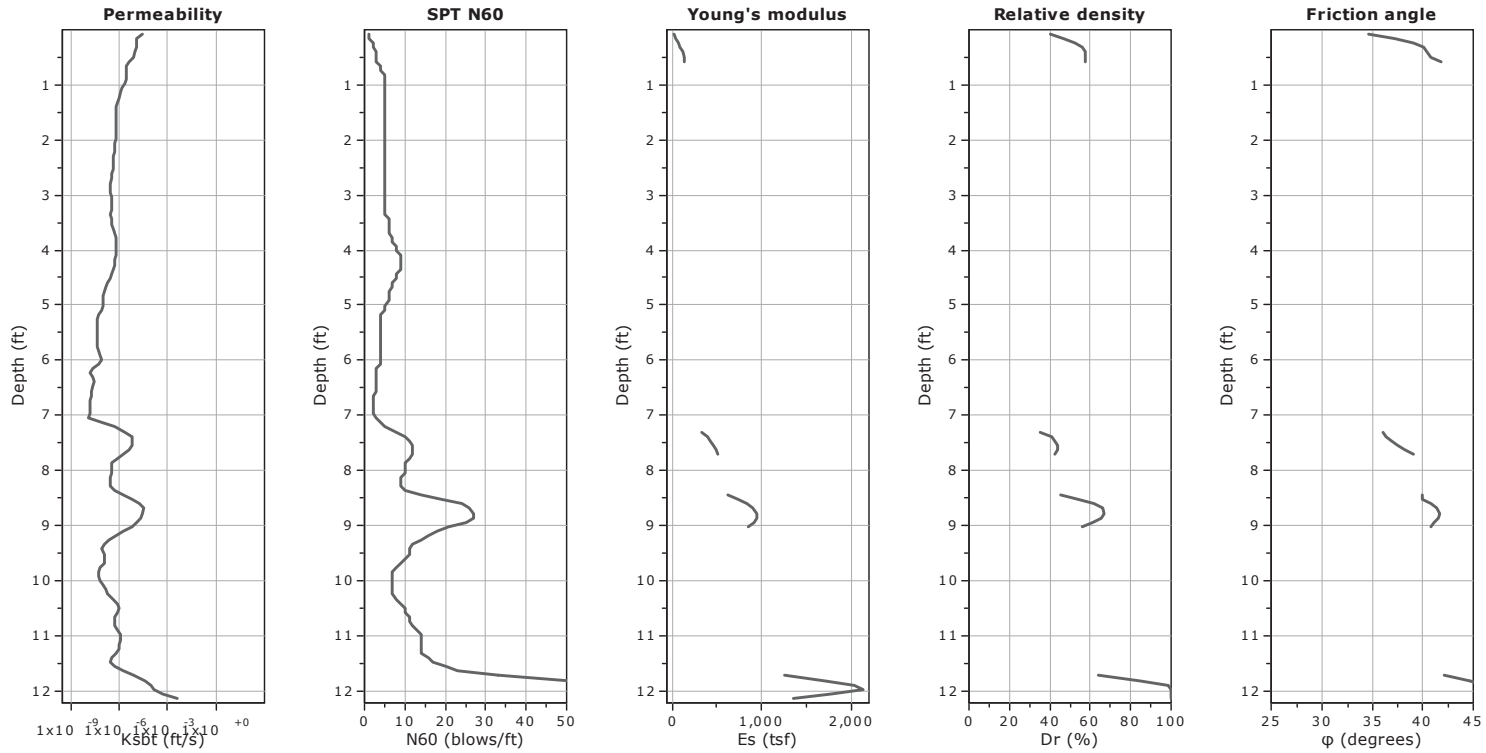
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-244
Total depth: 12.39 ft



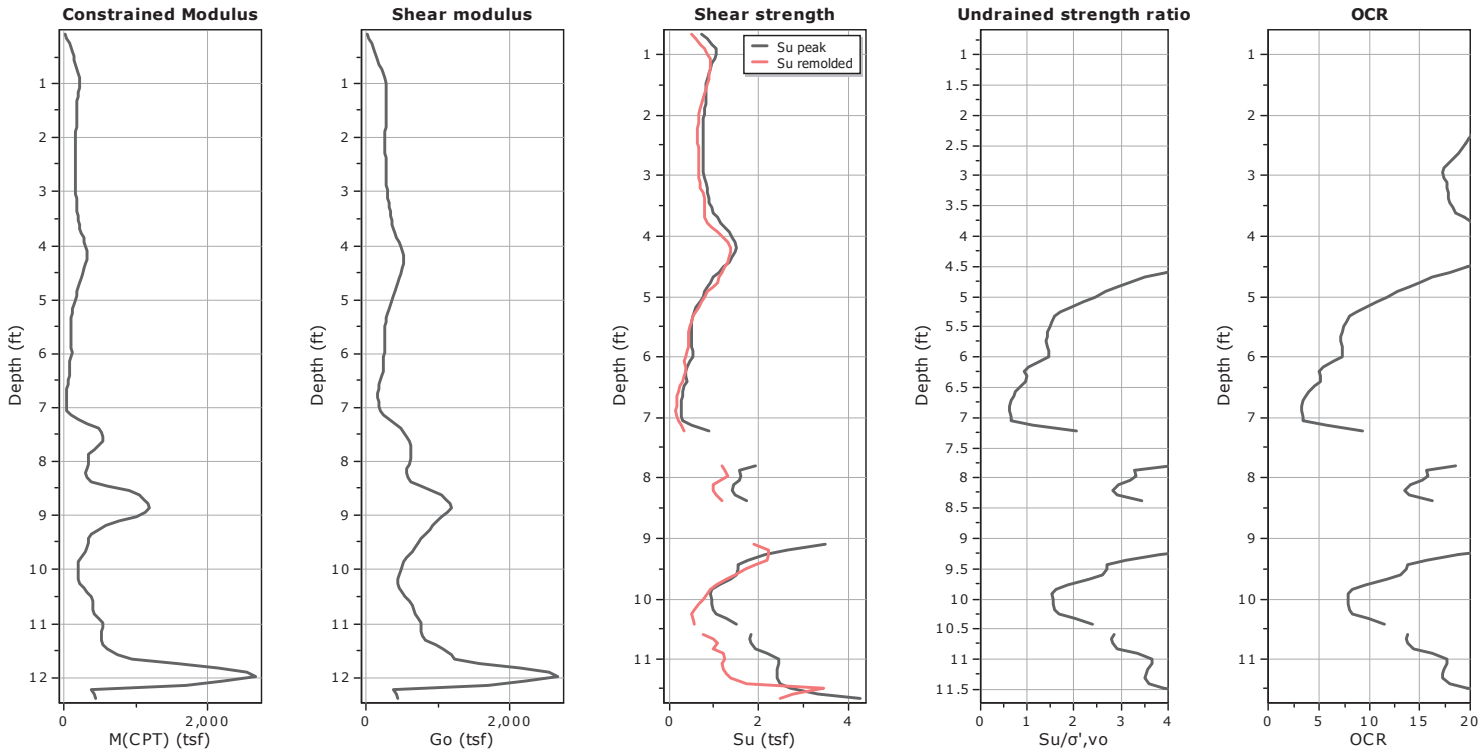
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-244
Total depth: 12.39 ft



Calculation parameters

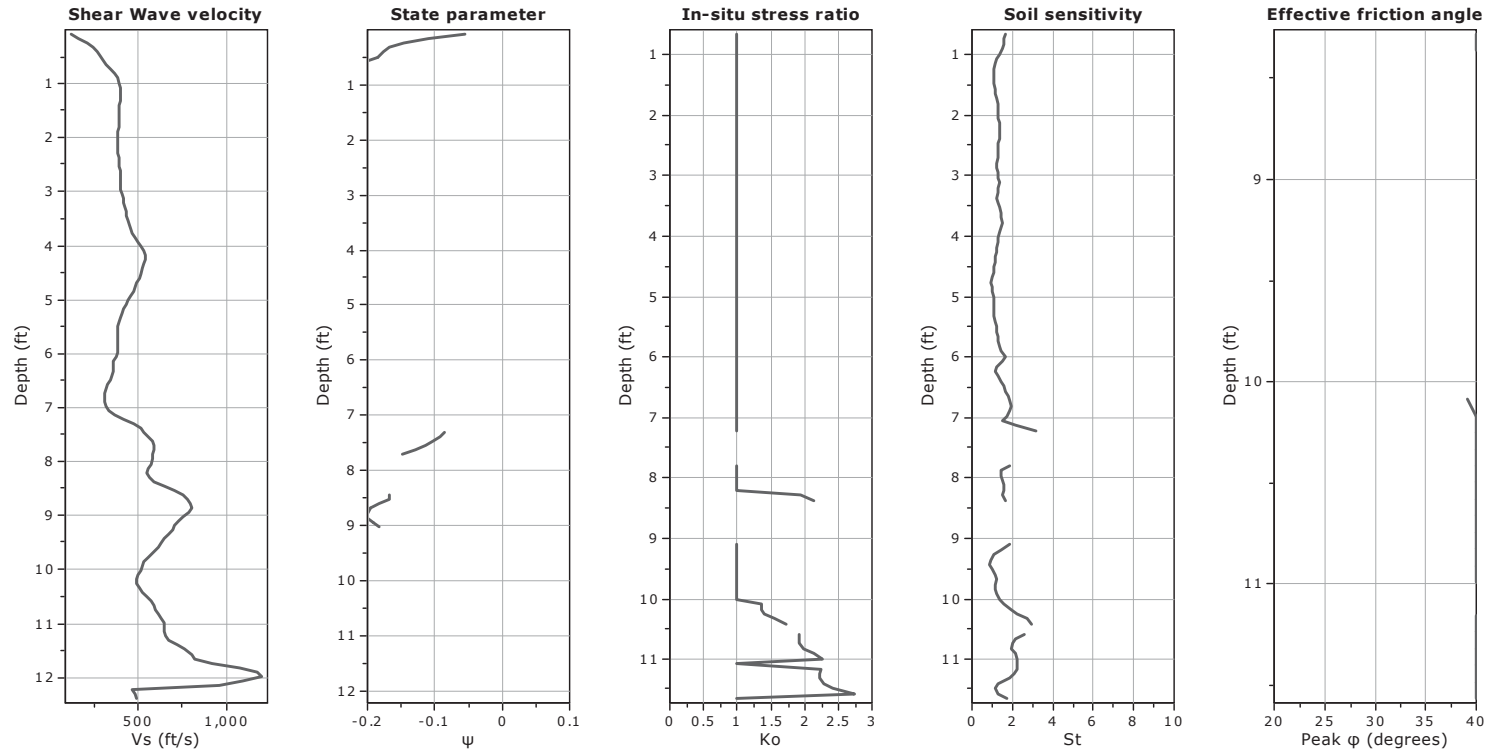
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-244
Total depth: 12.39 ft



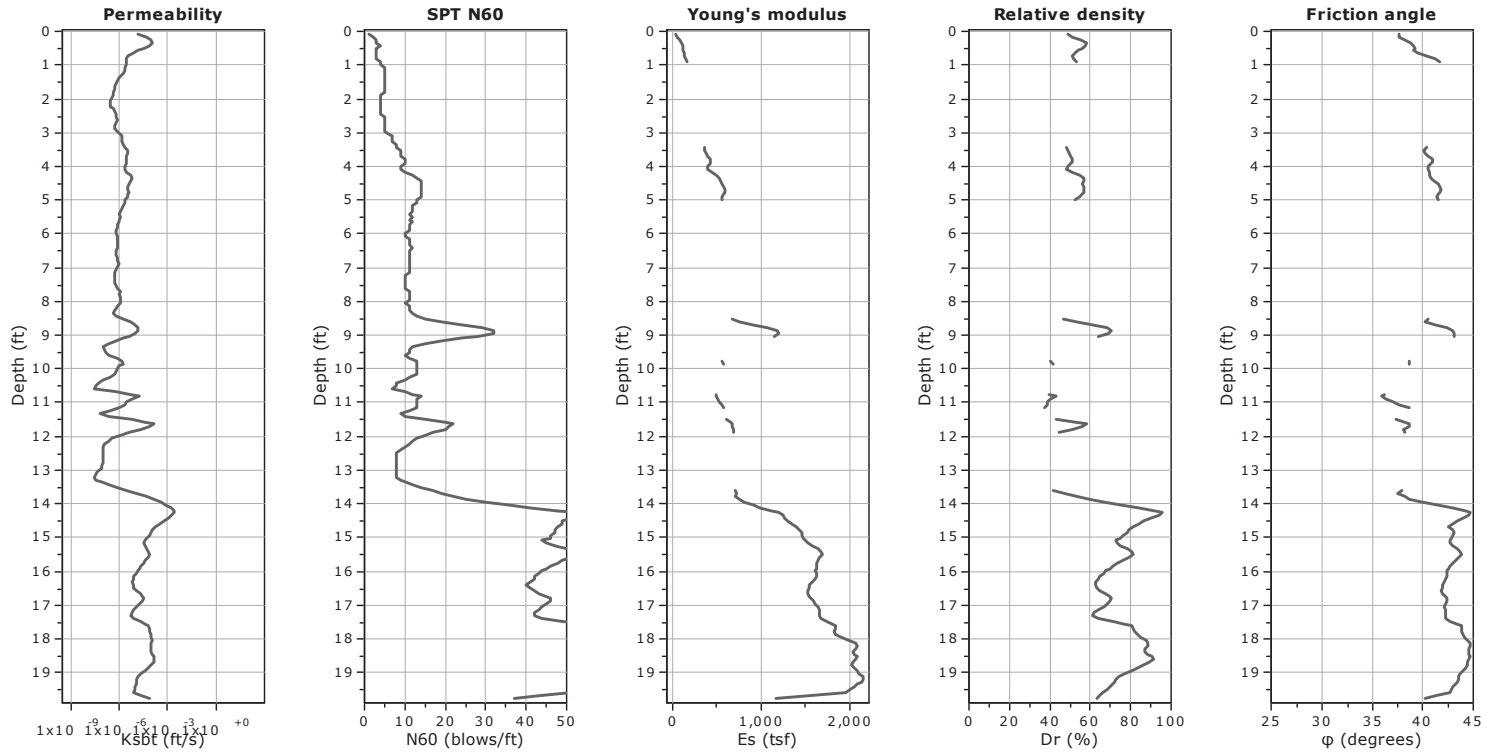
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-245
Total depth: 20.01 ft



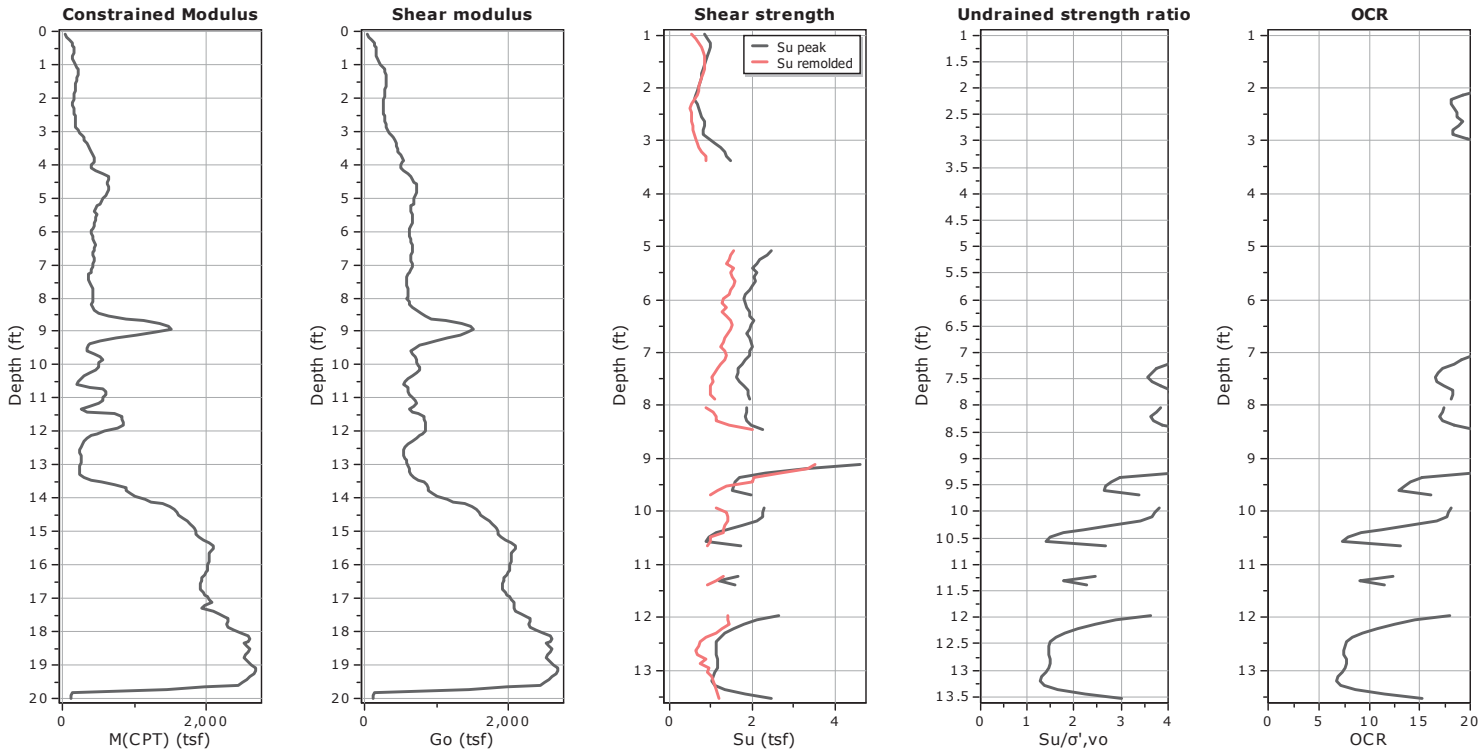
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-245
Total depth: 20.01 ft



Calculation parameters

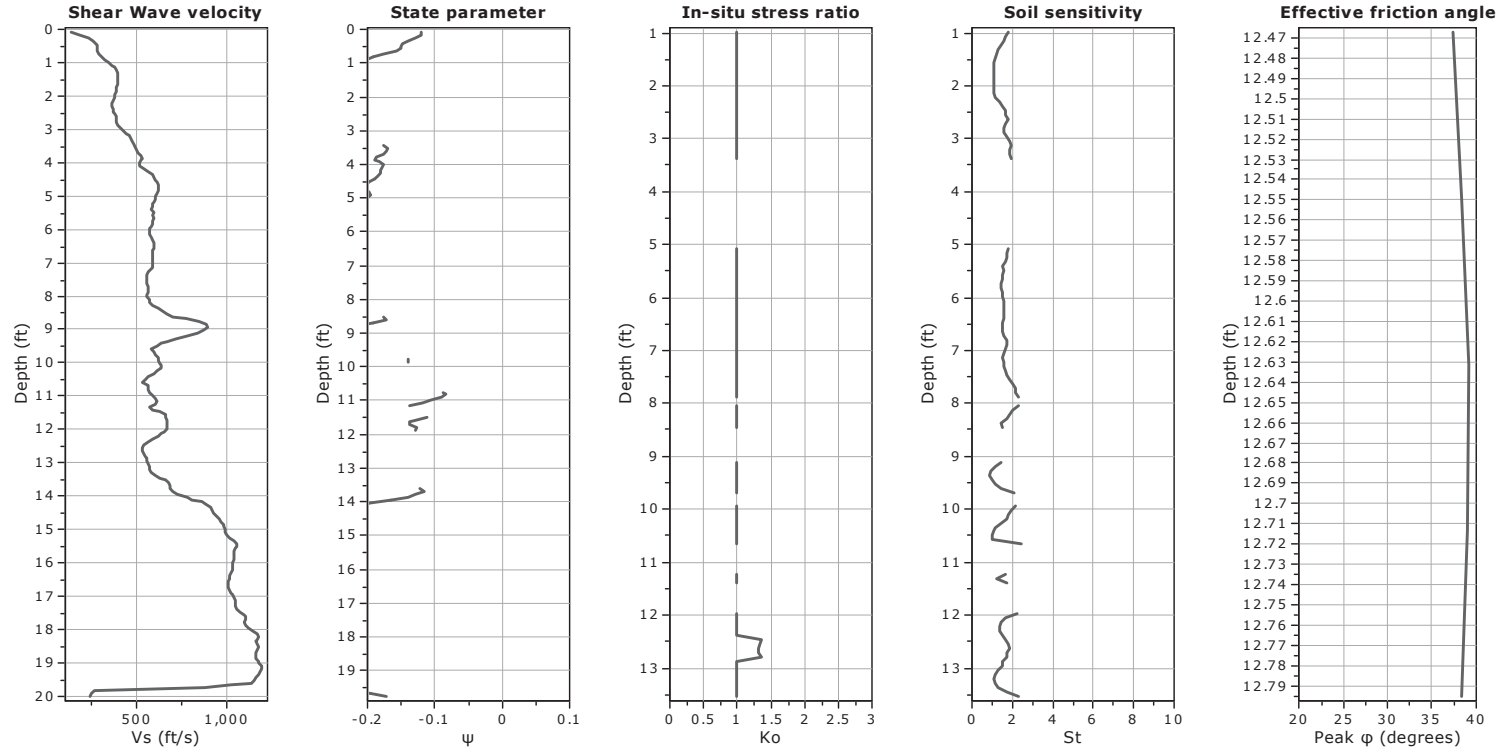
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-245
Total depth: 20.01 ft



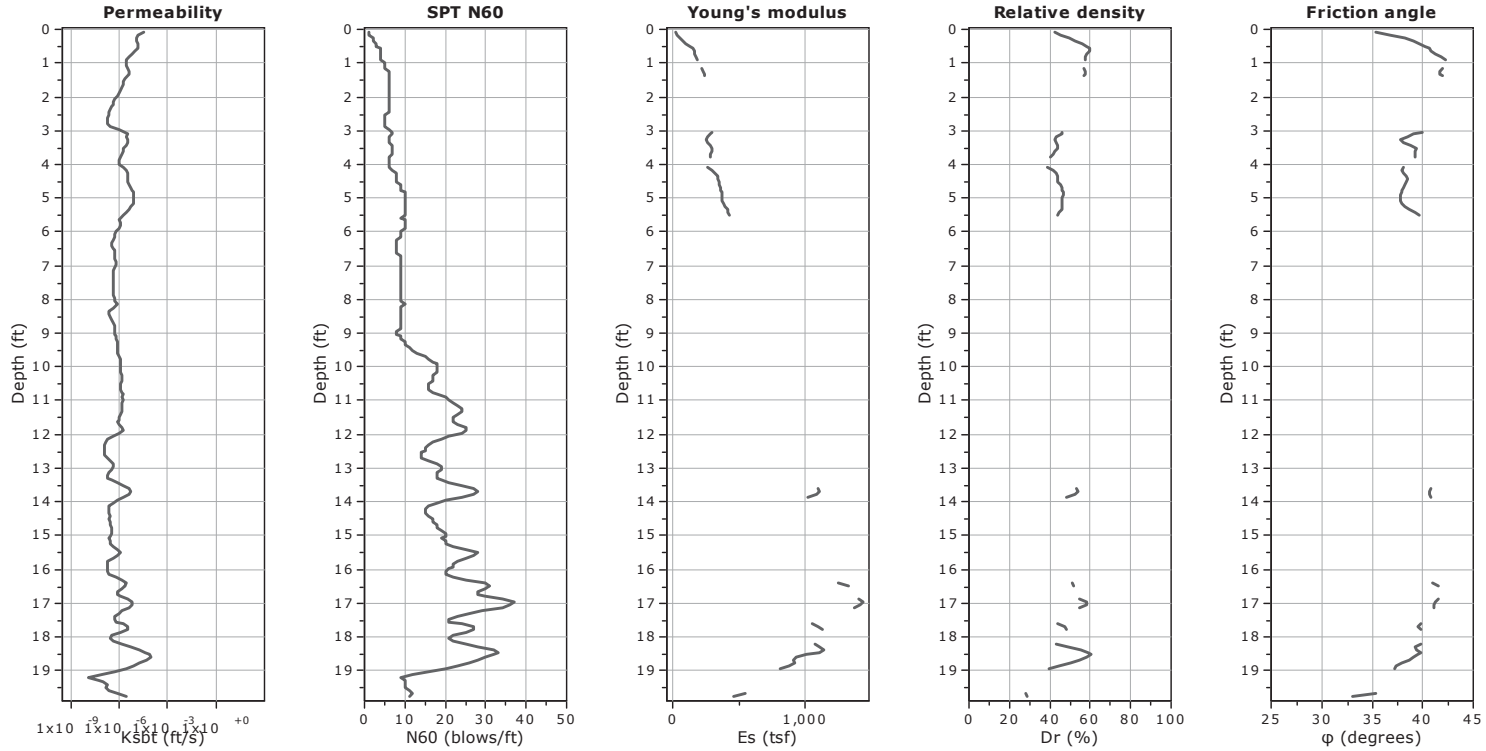
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-246
Total depth: 20.01 ft



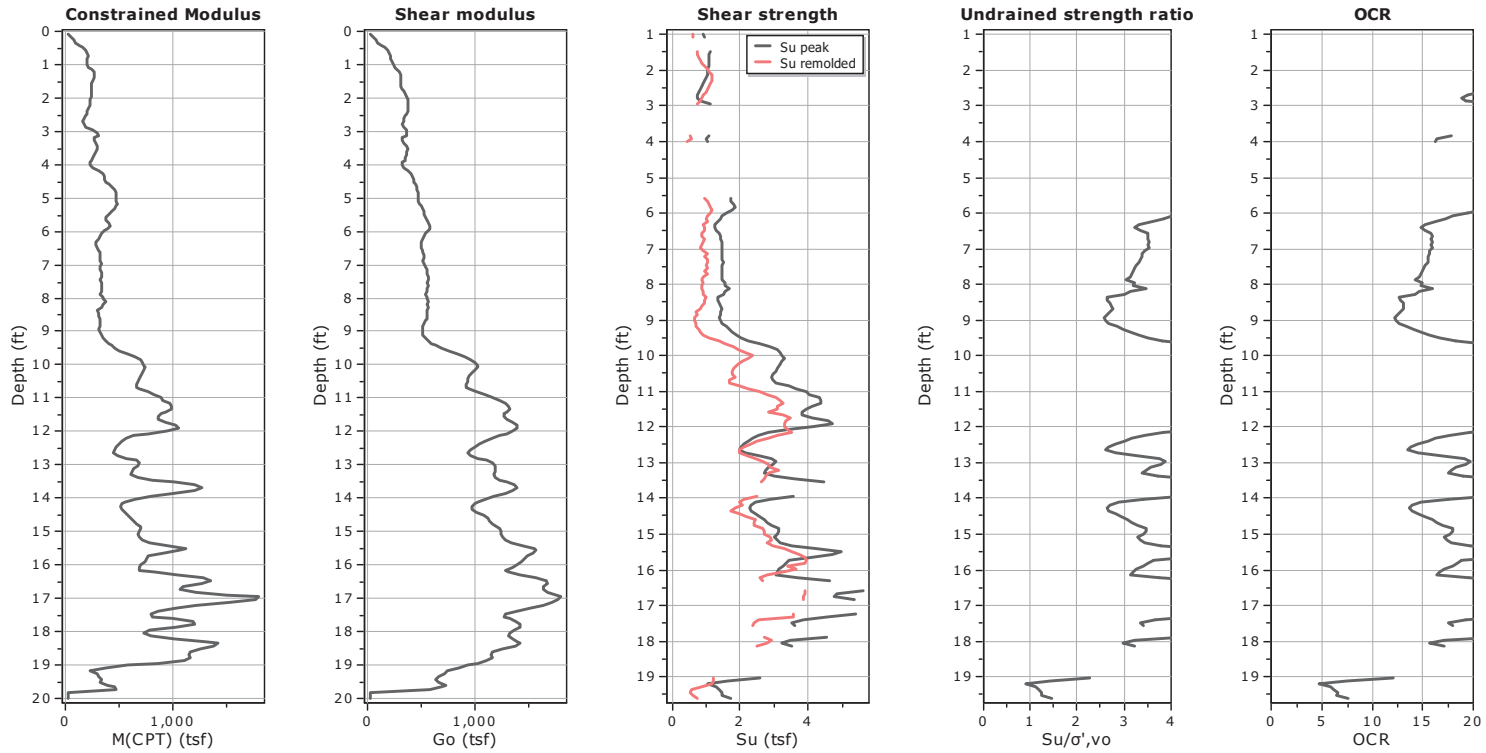
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-246
Total depth: 20.01 ft



Calculation parameters

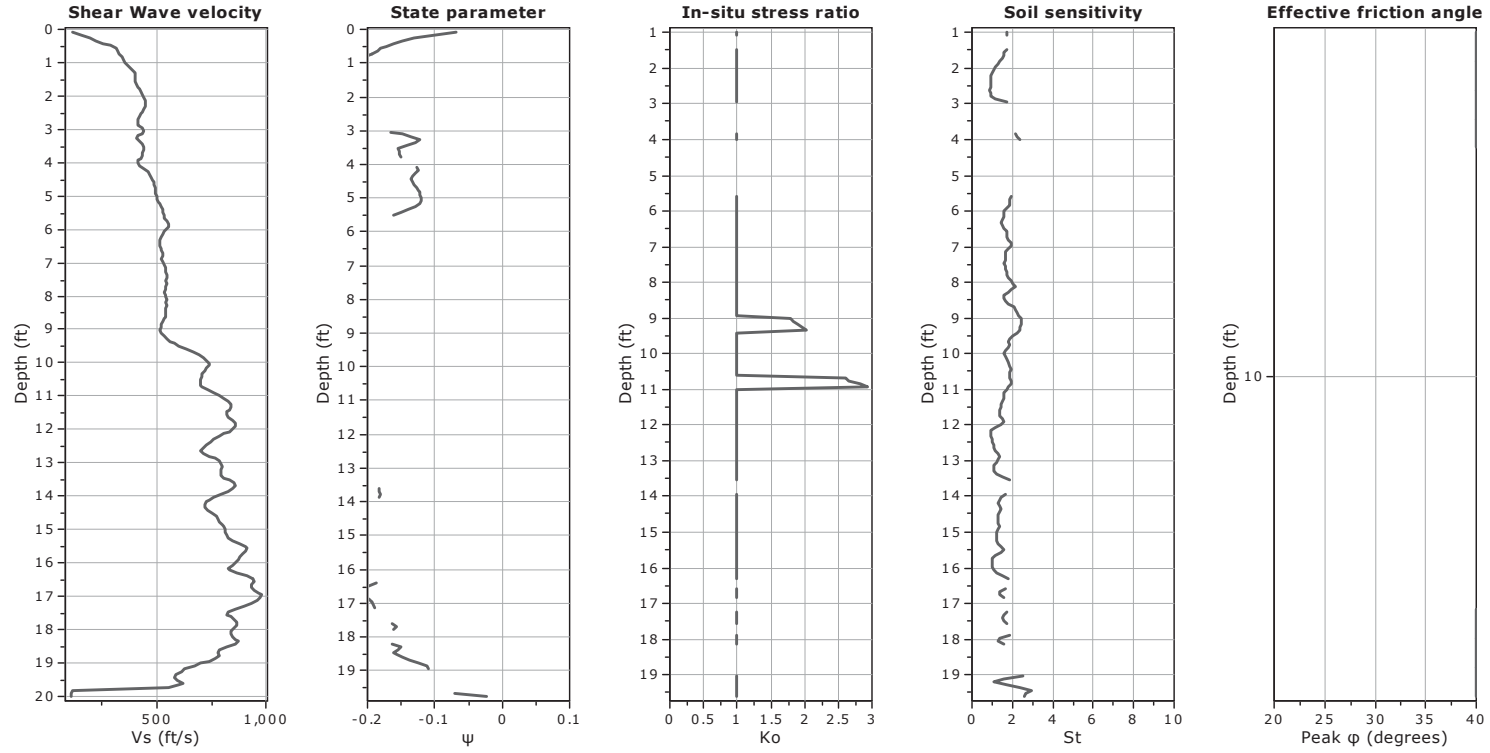
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-246
Total depth: 20.01 ft



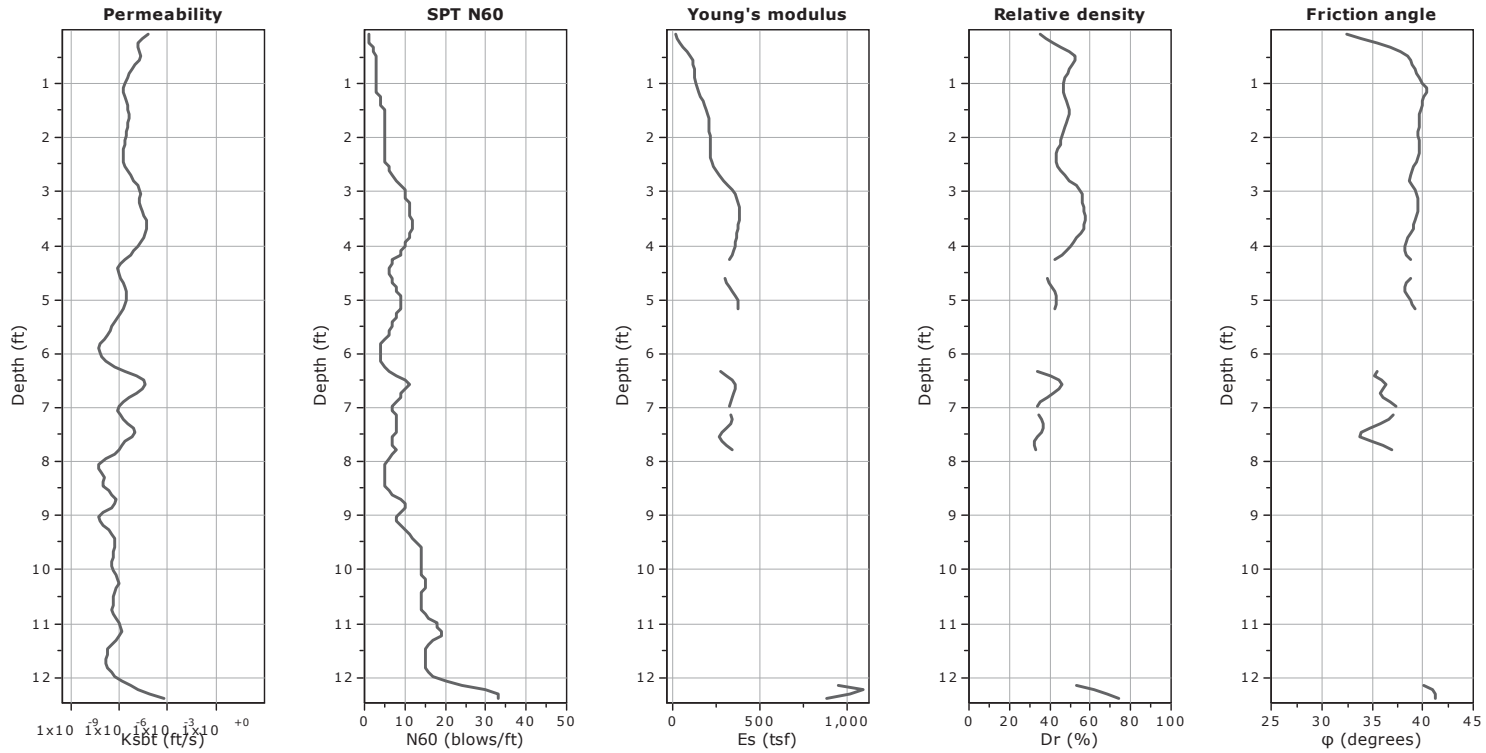
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-247
Total depth: 12.63 ft



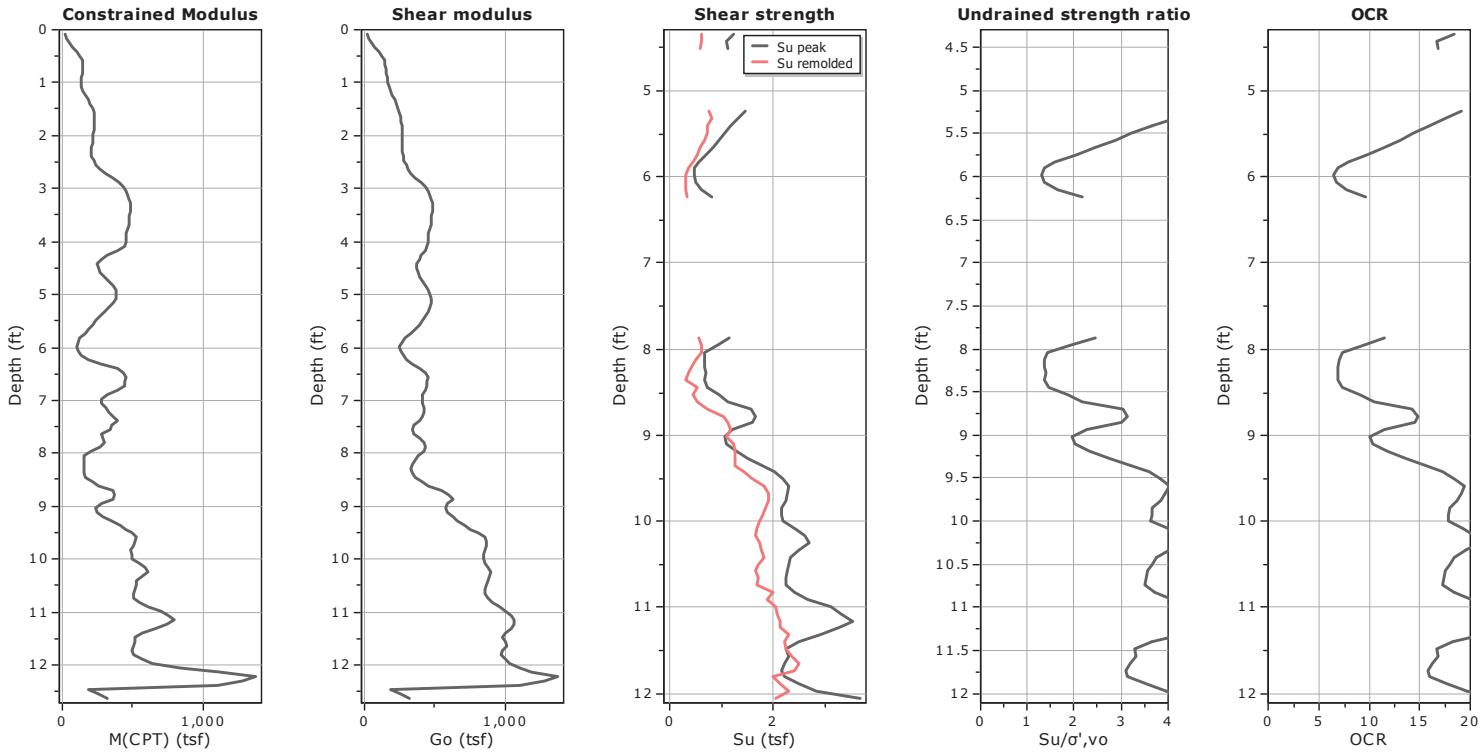
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-247
Total depth: 12.63 ft



Calculation parameters

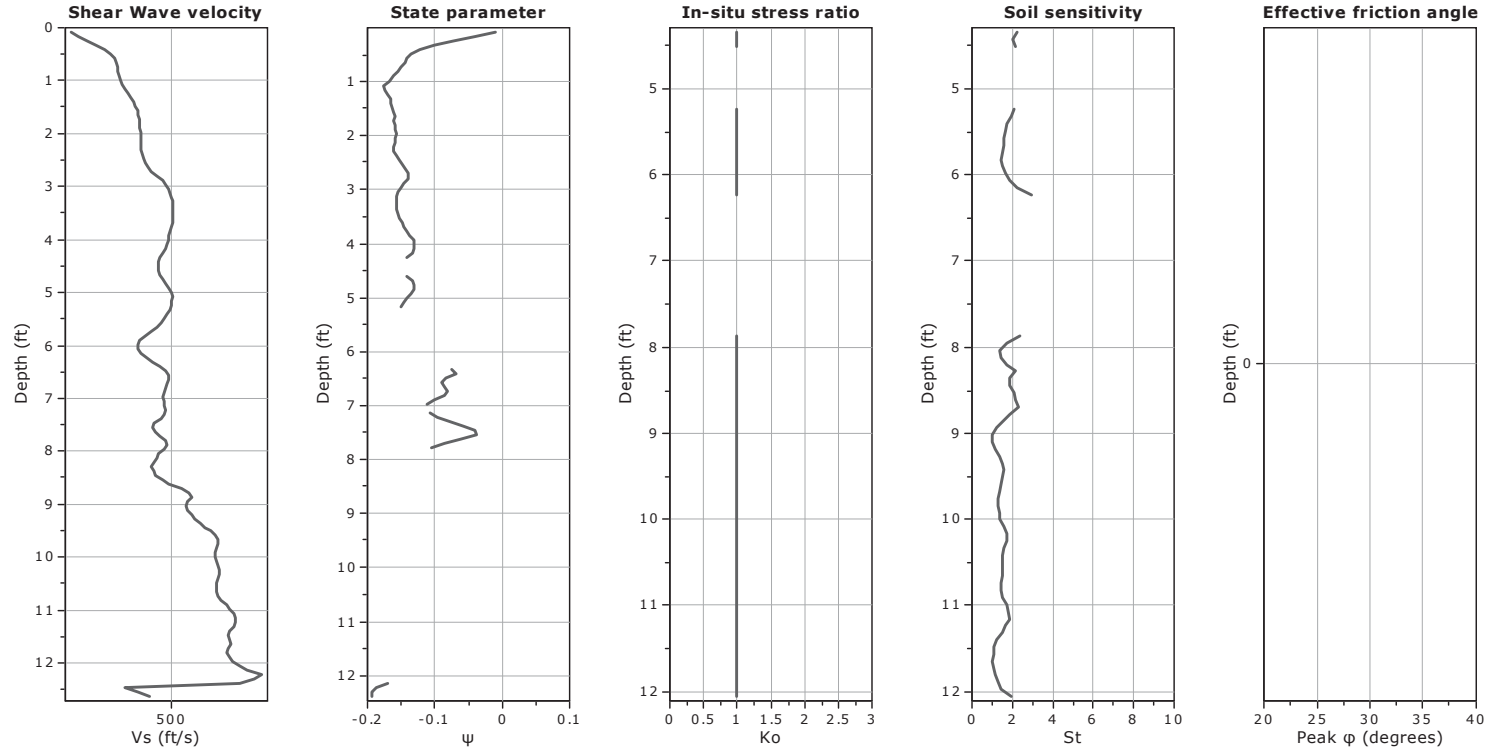
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-247
Total depth: 12.63 ft



Calculation parameters

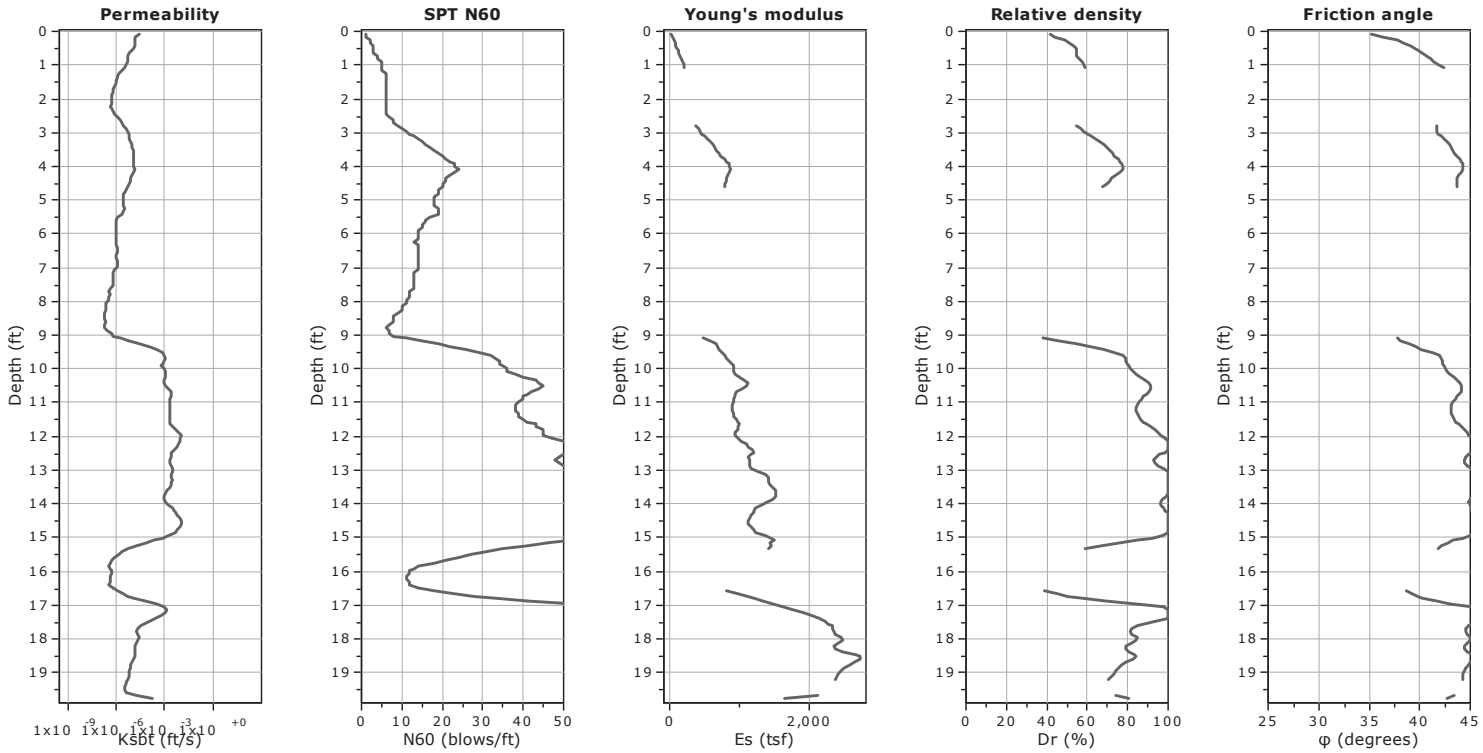
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-248
Total depth: 20.01 ft



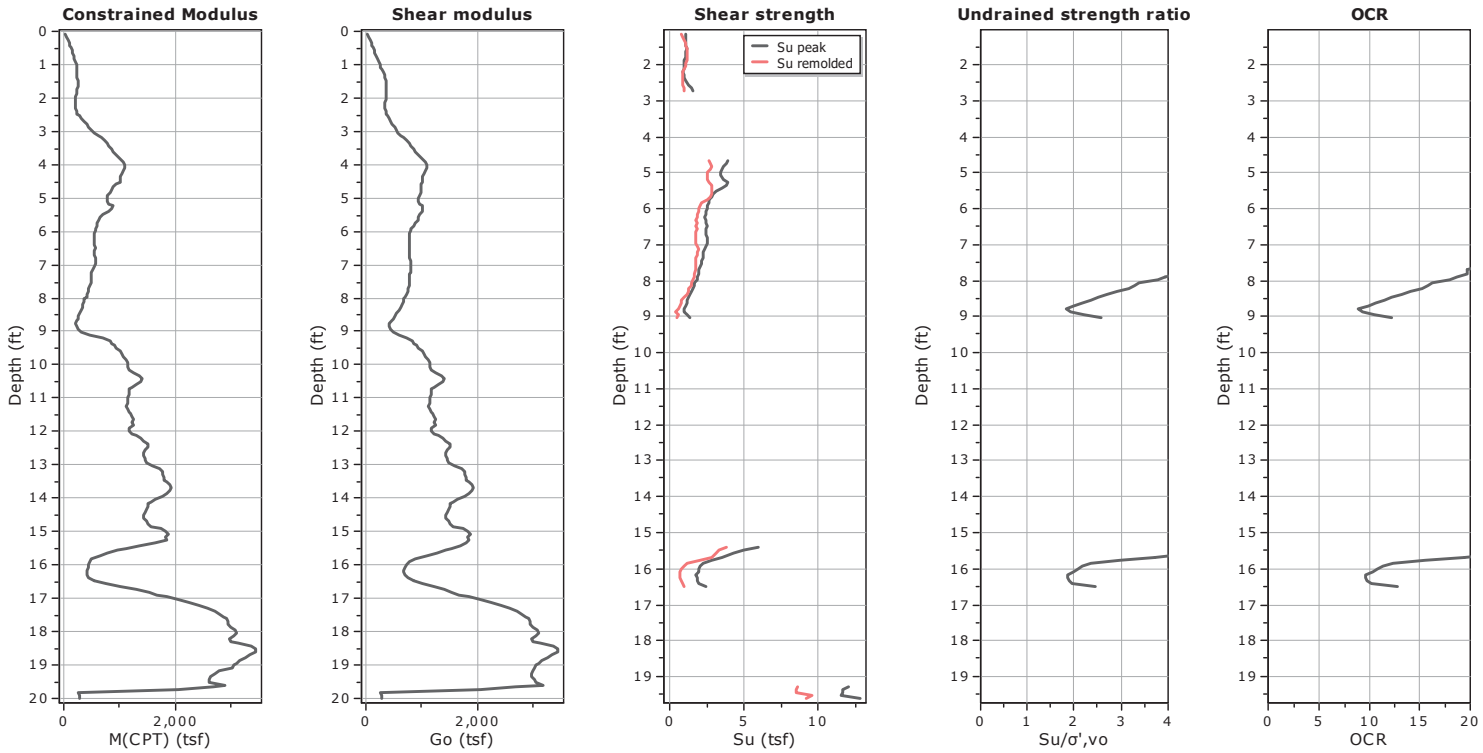
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-248
Total depth: 20.01 ft



Calculation parameters

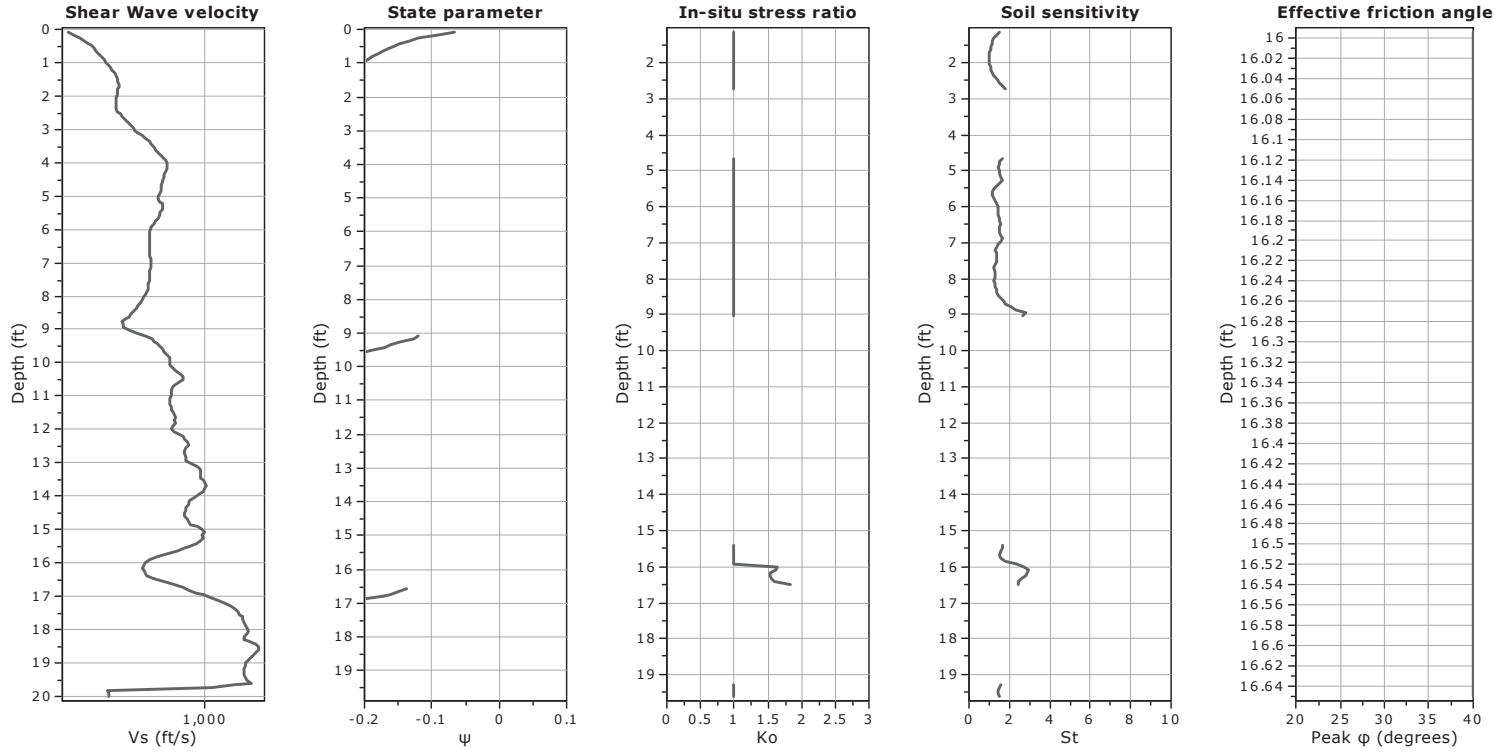
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-248
Total depth: 20.01 ft



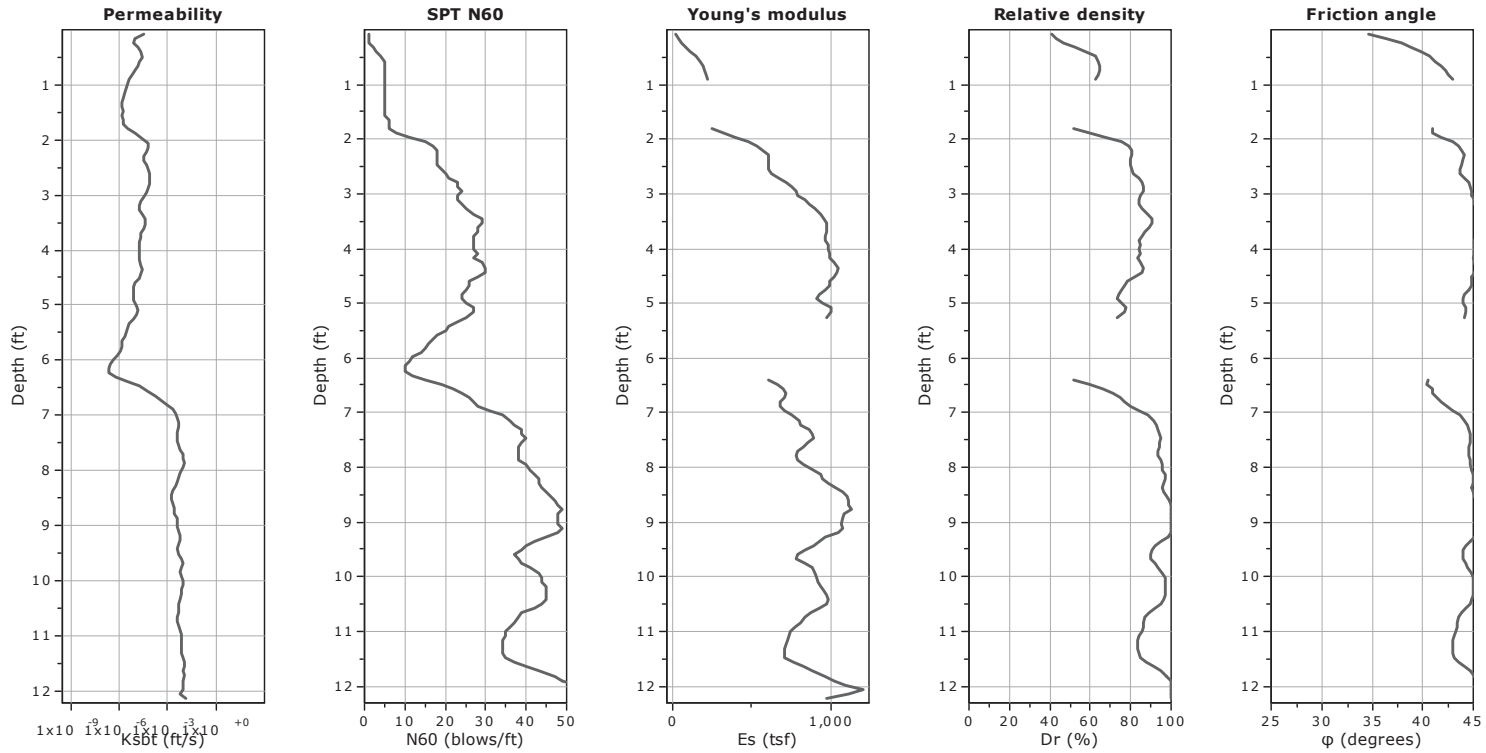
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-249
Total depth: 12.47 ft



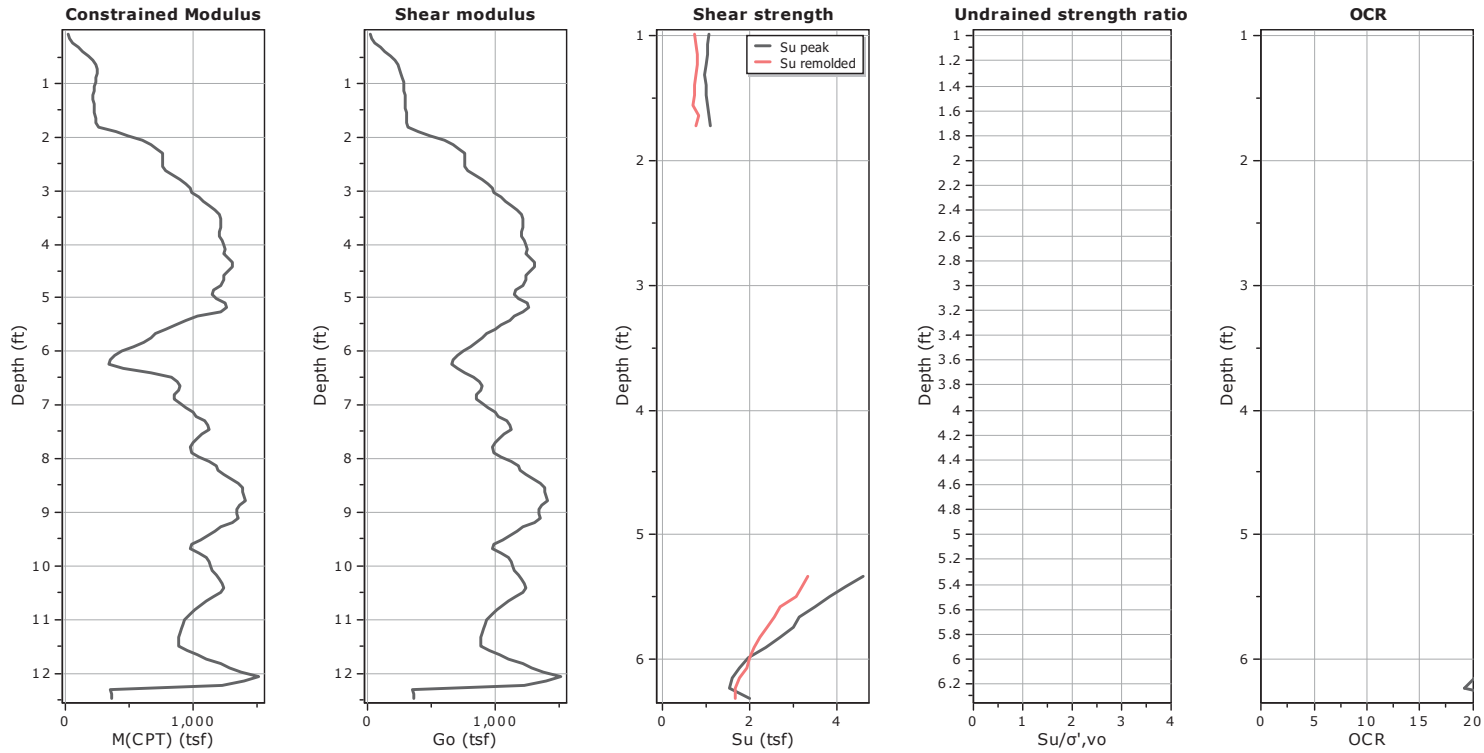
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-249
Total depth: 12.47 ft



Calculation parameters

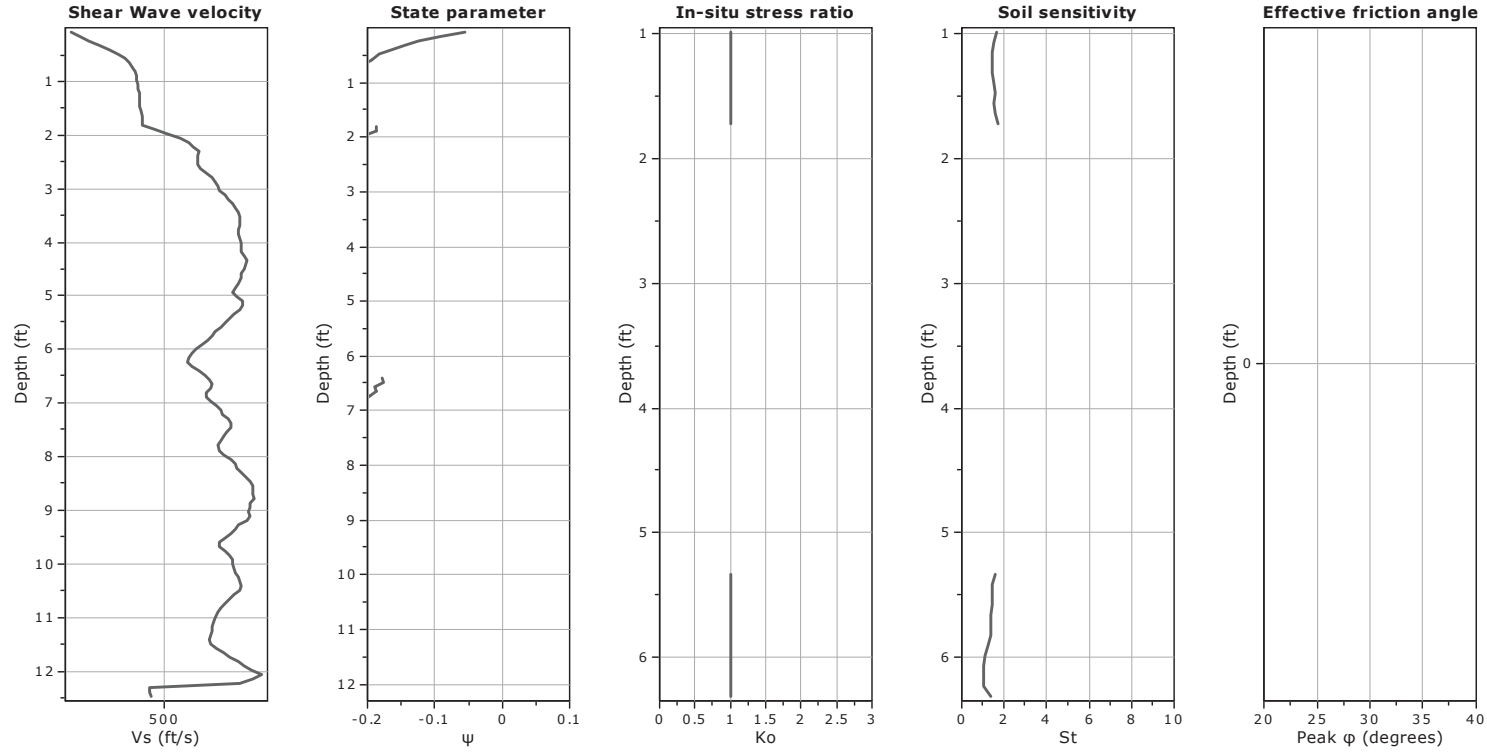
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-249
Total depth: 12.47 ft



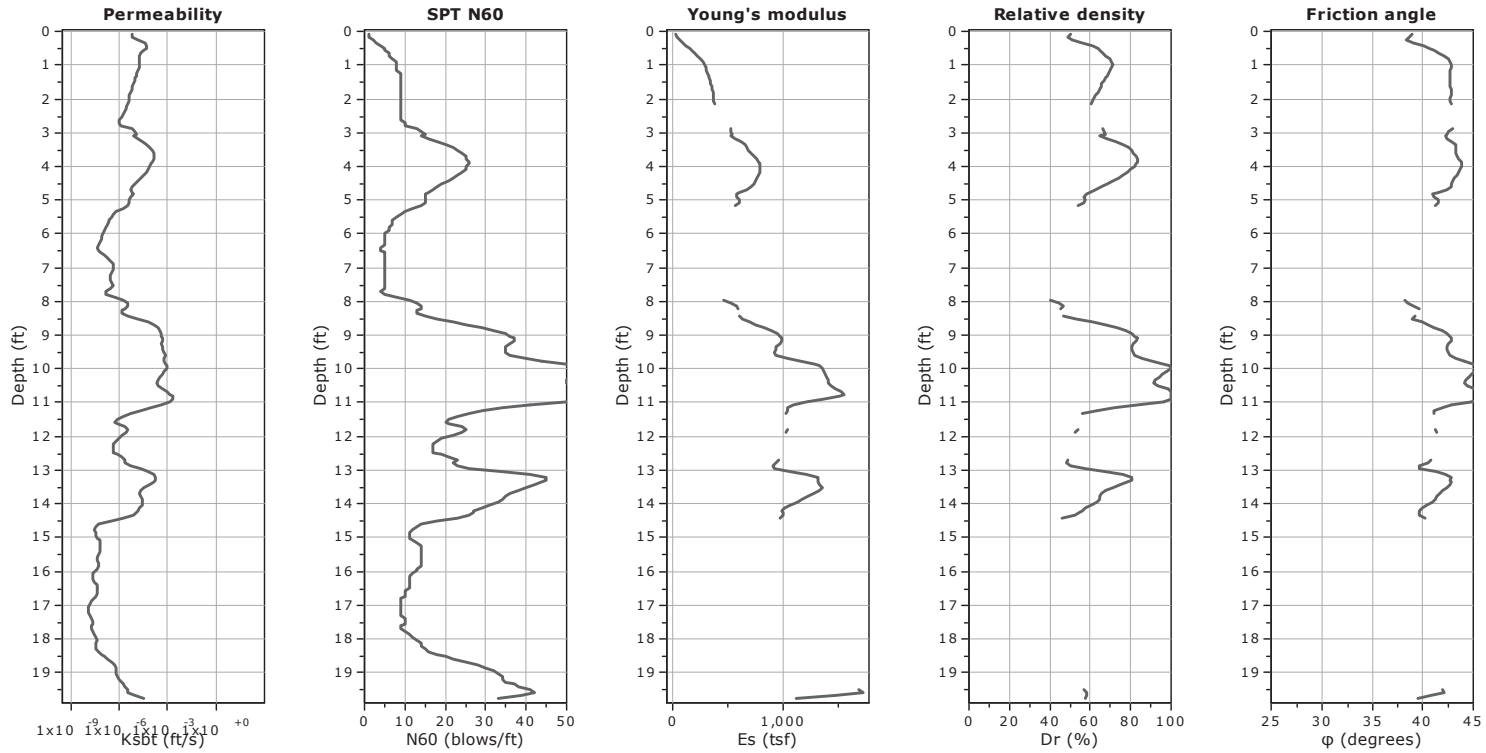
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-250
Total depth: 20.01 ft



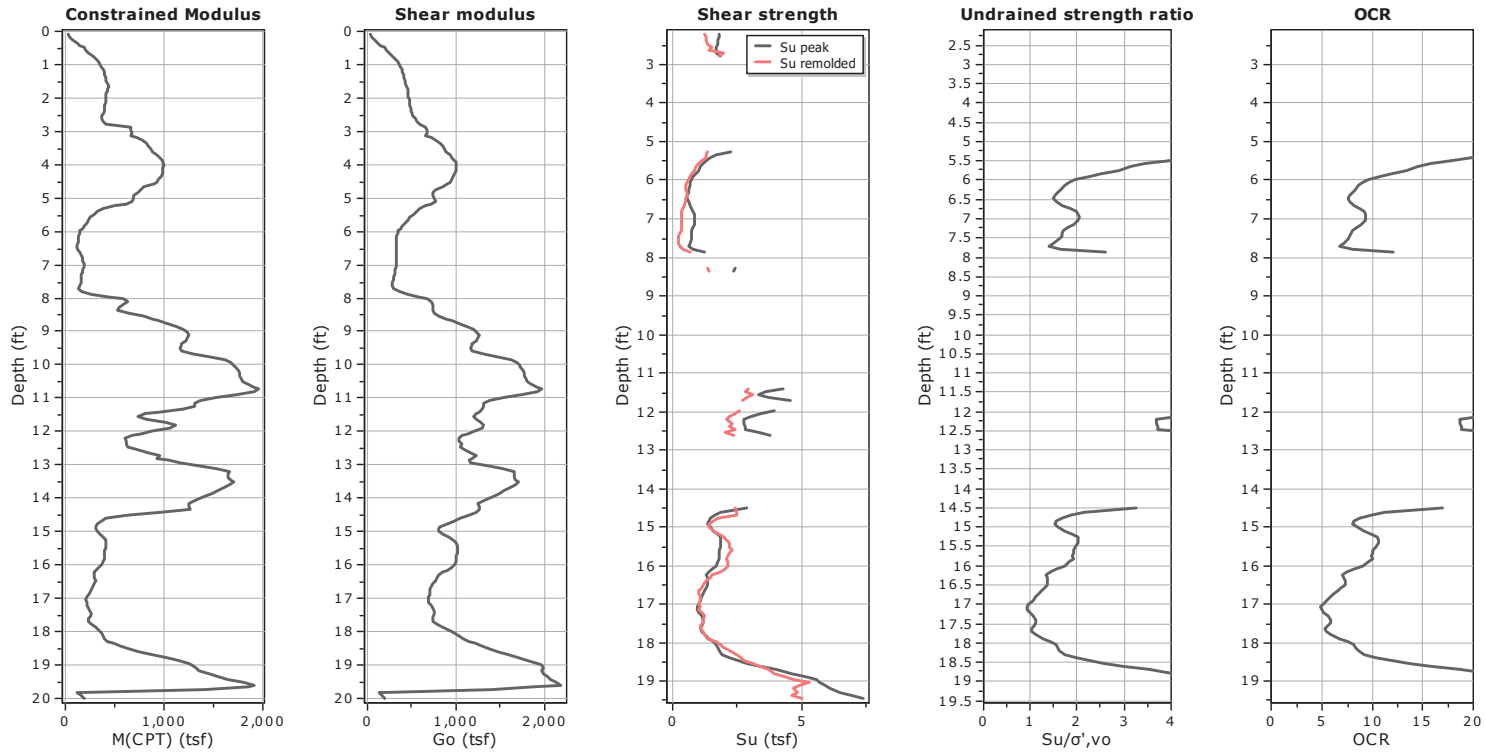
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-250
Total depth: 20.01 ft



Calculation parameters

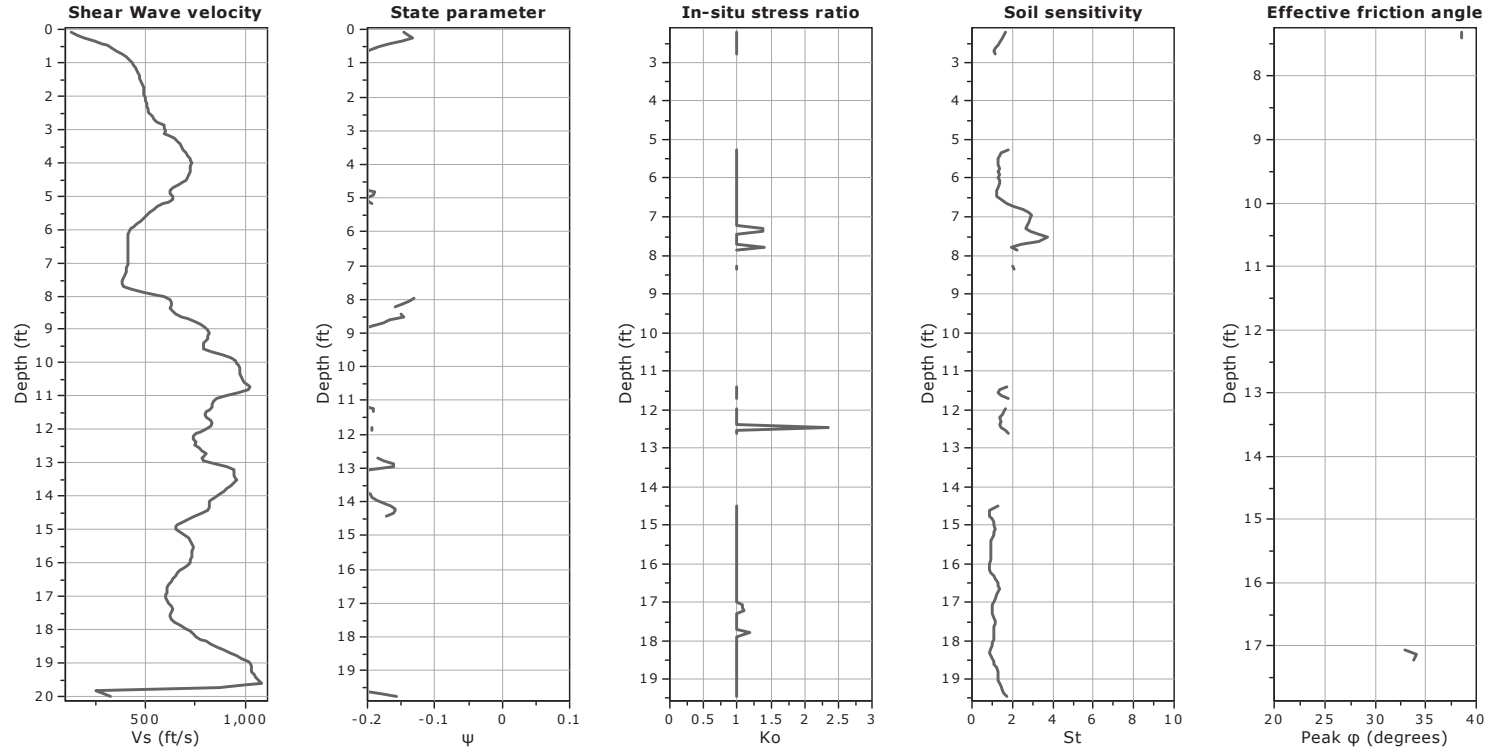
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-250
Total depth: 20.01 ft



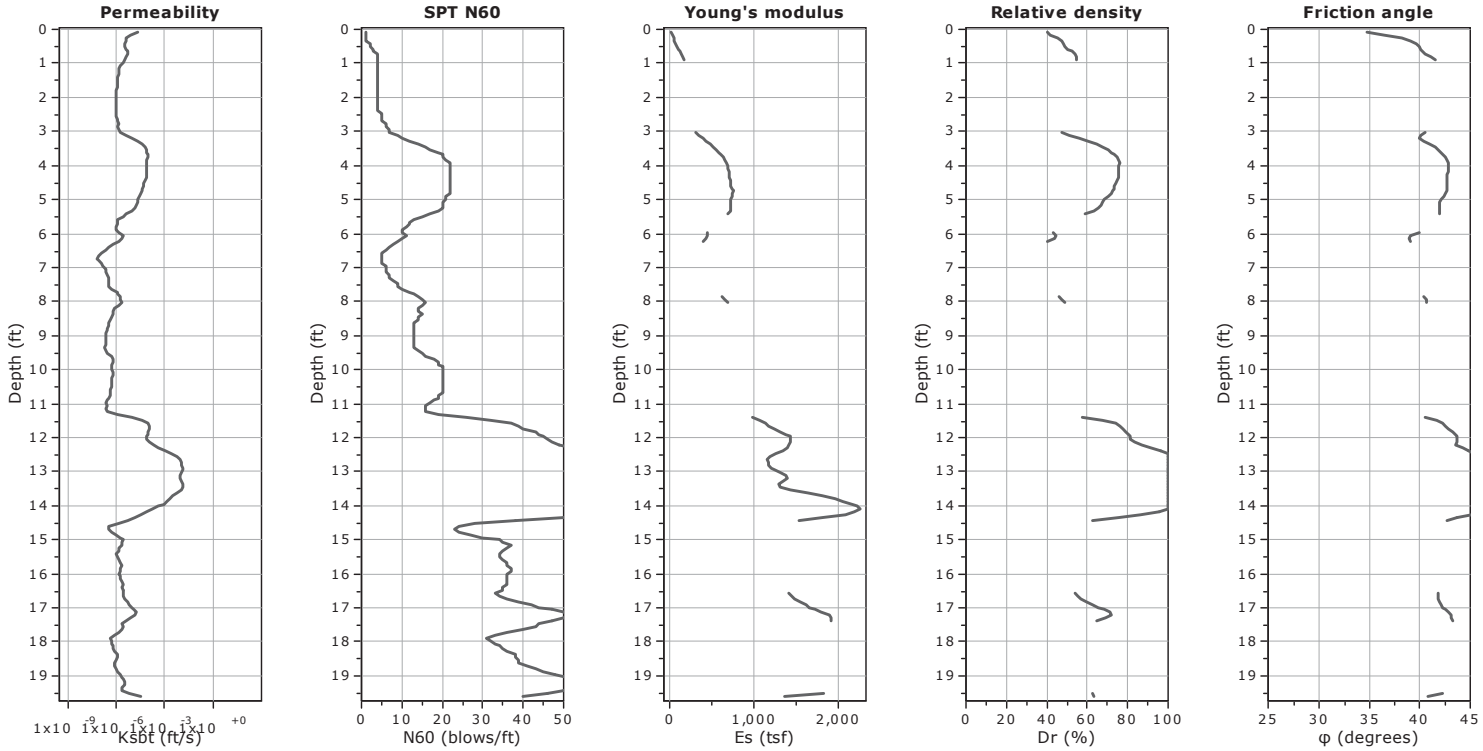
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-251
Total depth: 19.85 ft



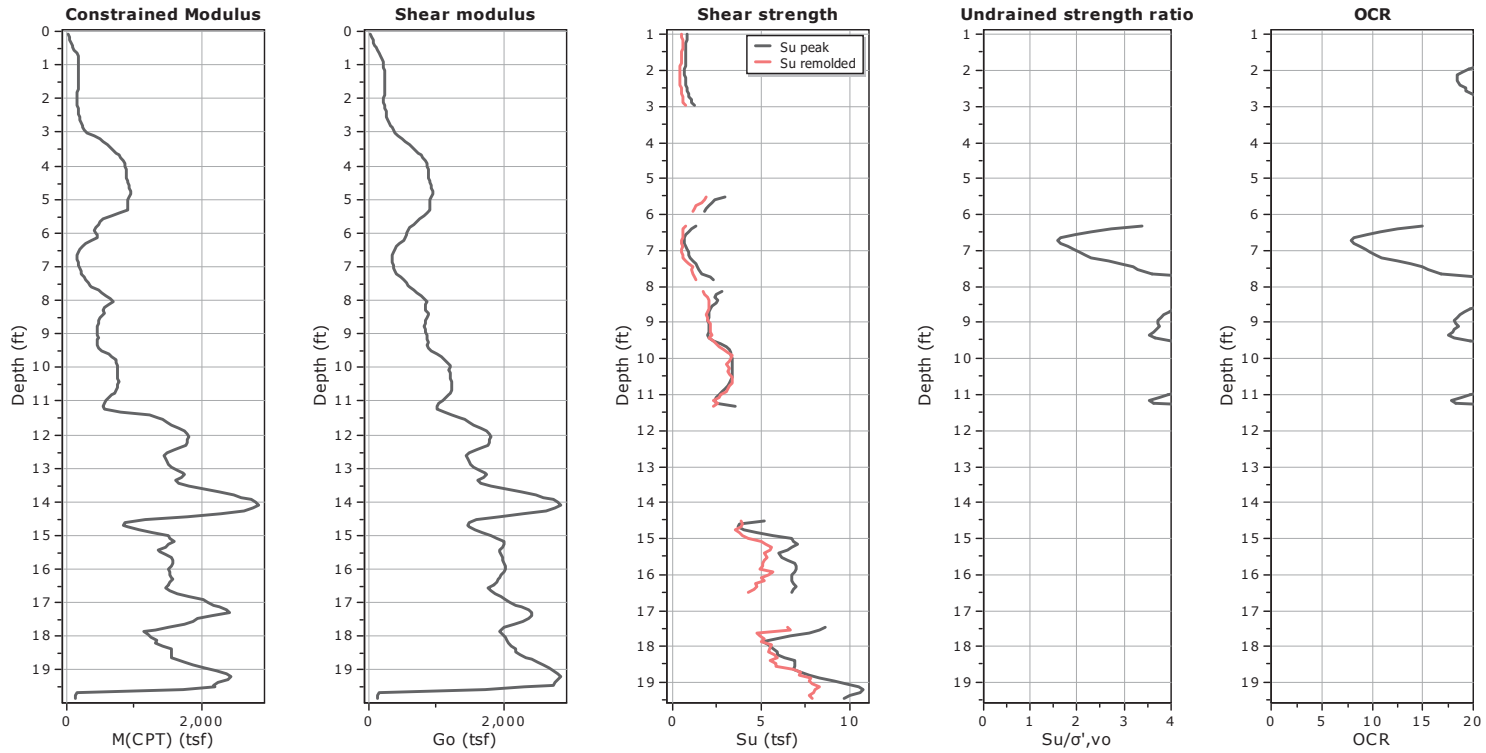
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-251
Total depth: 19.85 ft



Calculation parameters

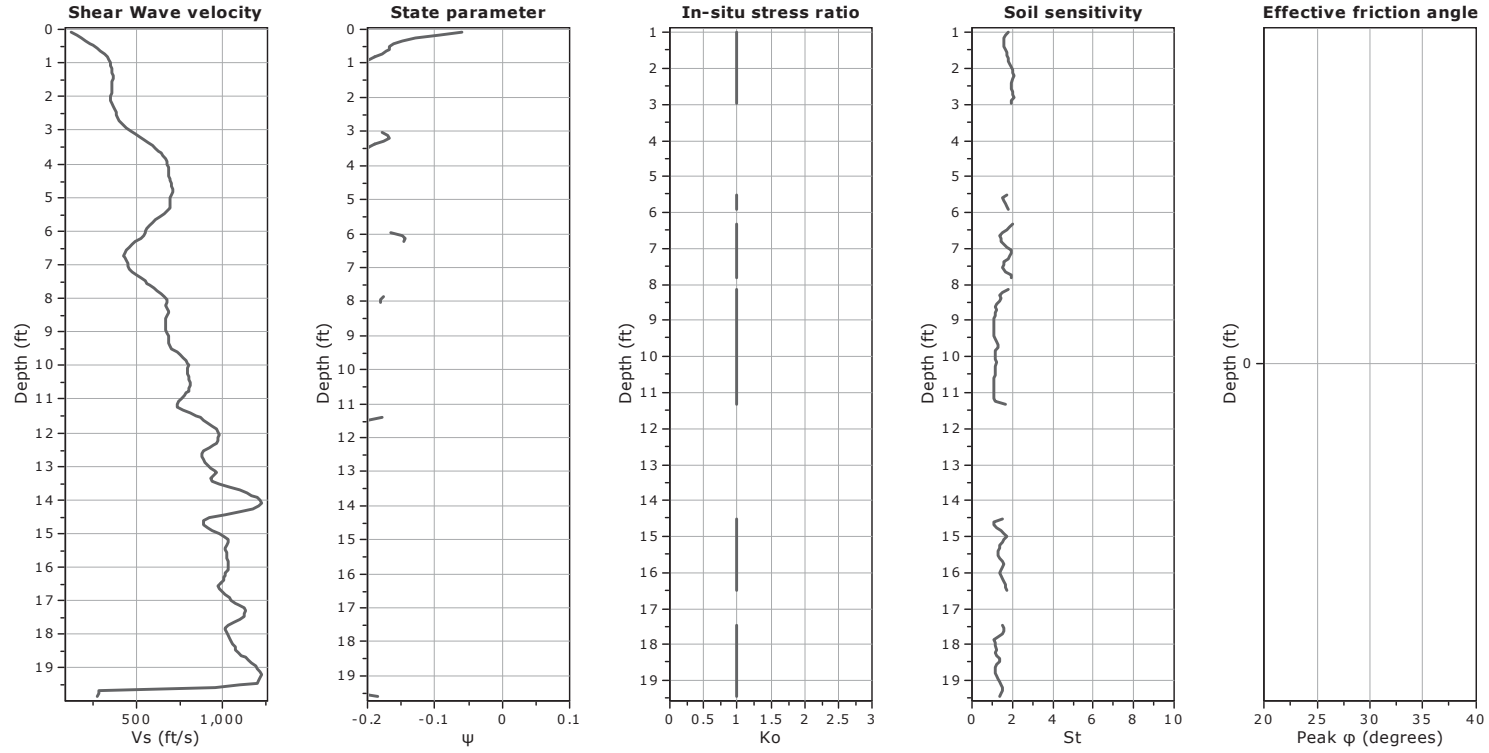
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-251
Total depth: 19.85 ft



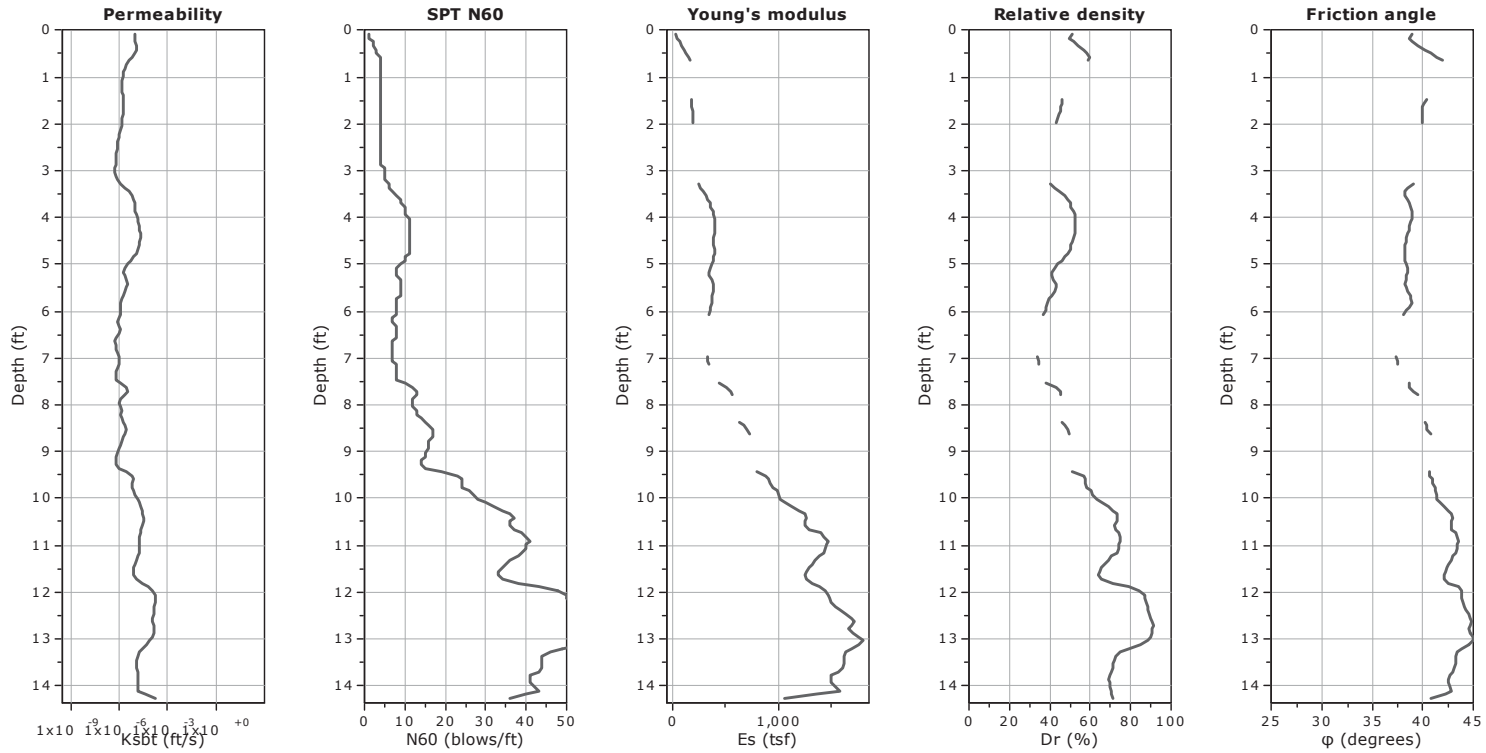
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-252
Total depth: 14.52 ft



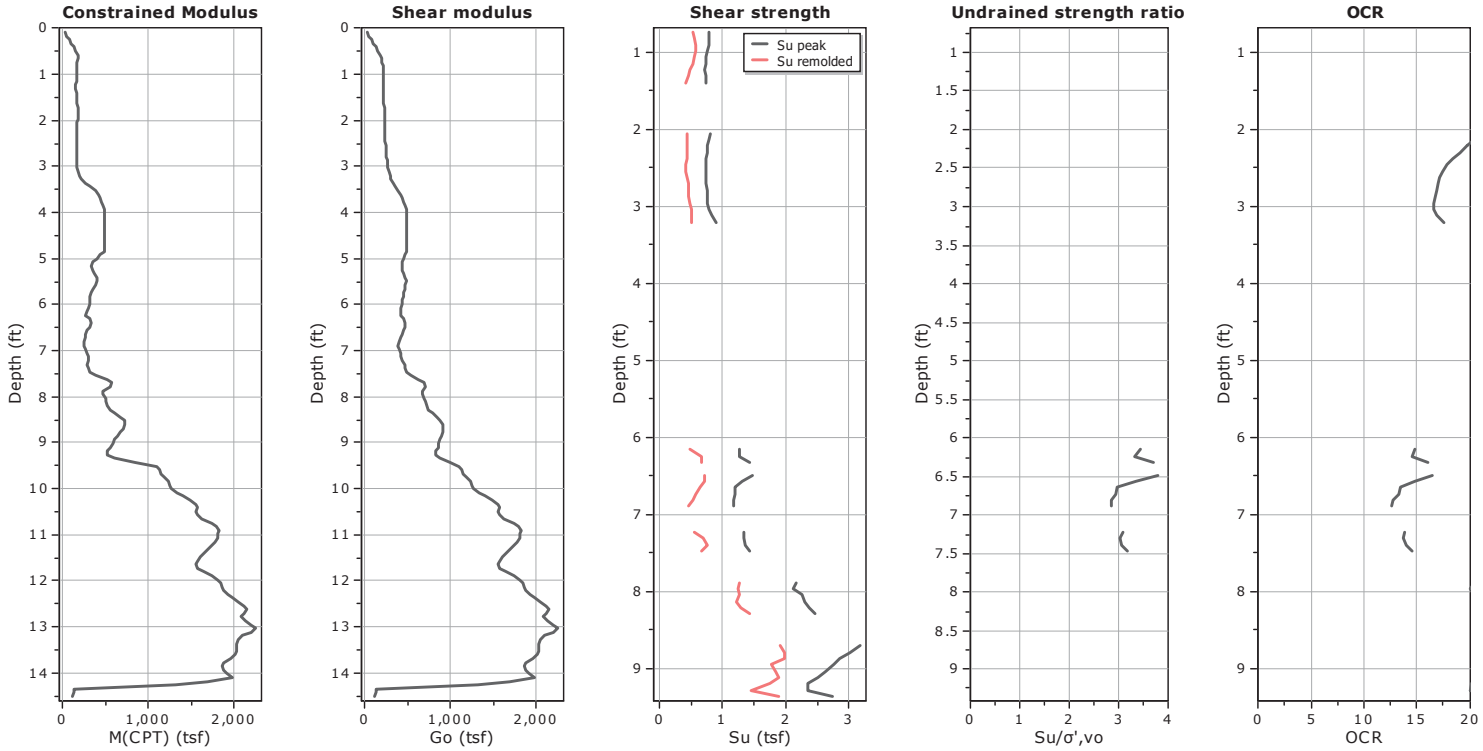
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-252
Total depth: 14.52 ft



Calculation parameters

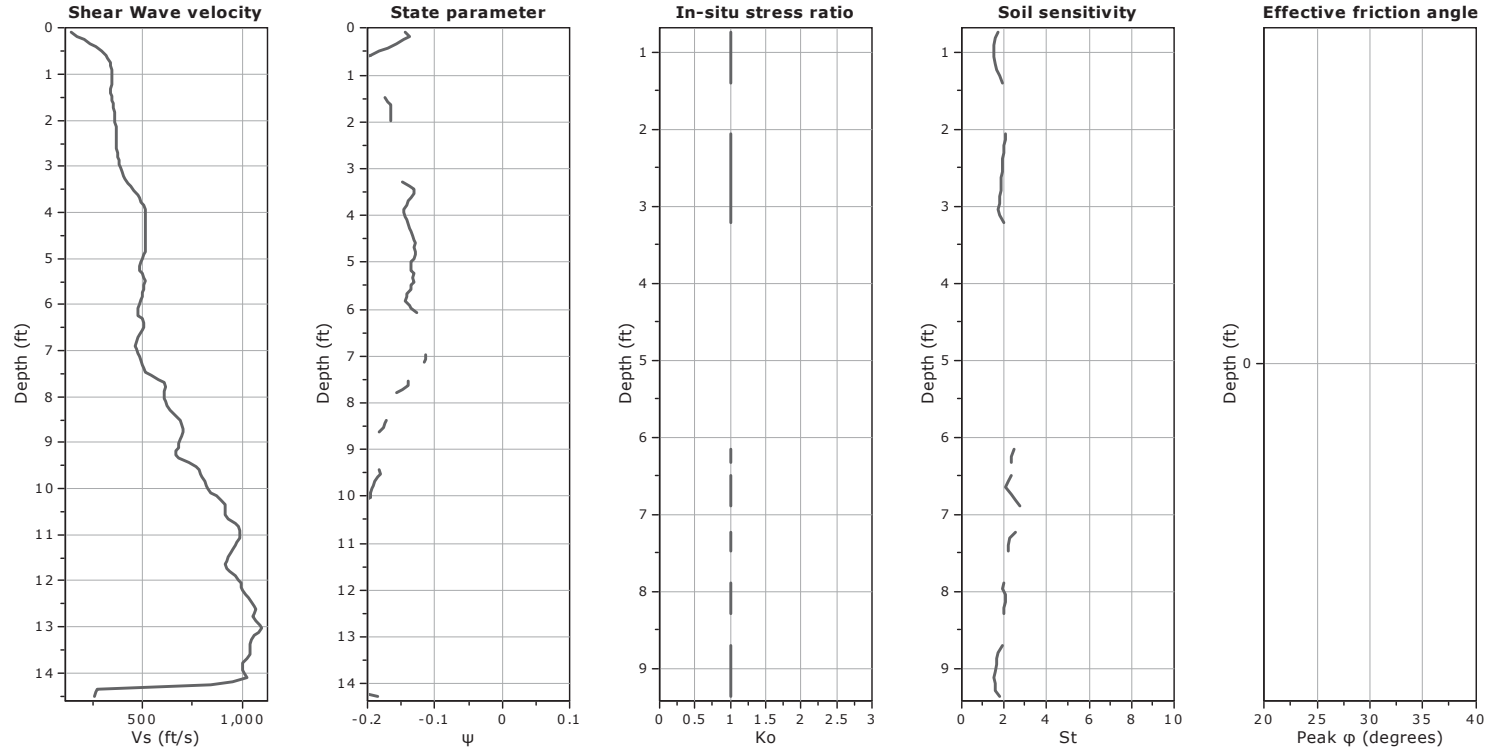
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-252
Total depth: 14.52 ft



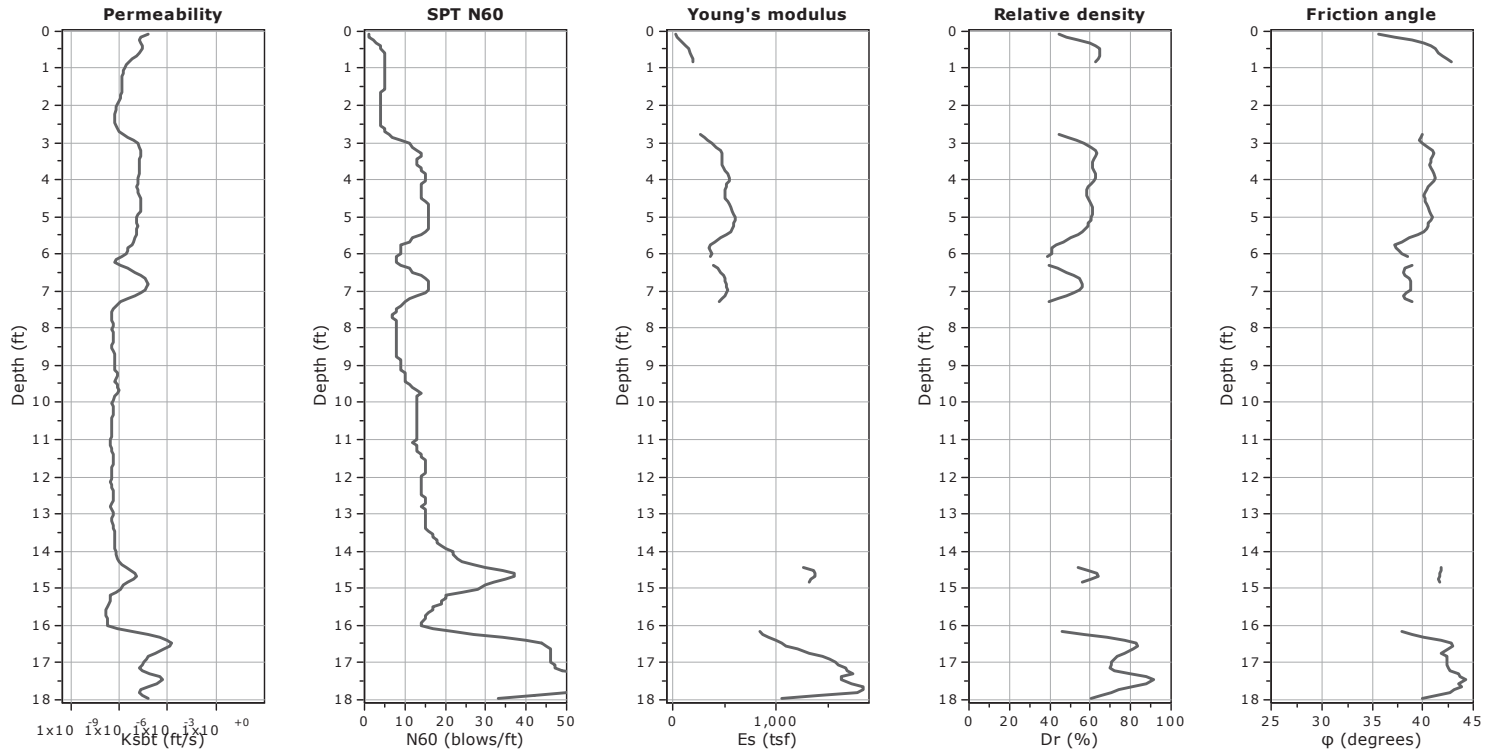
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-253
Total depth: 18.21 ft



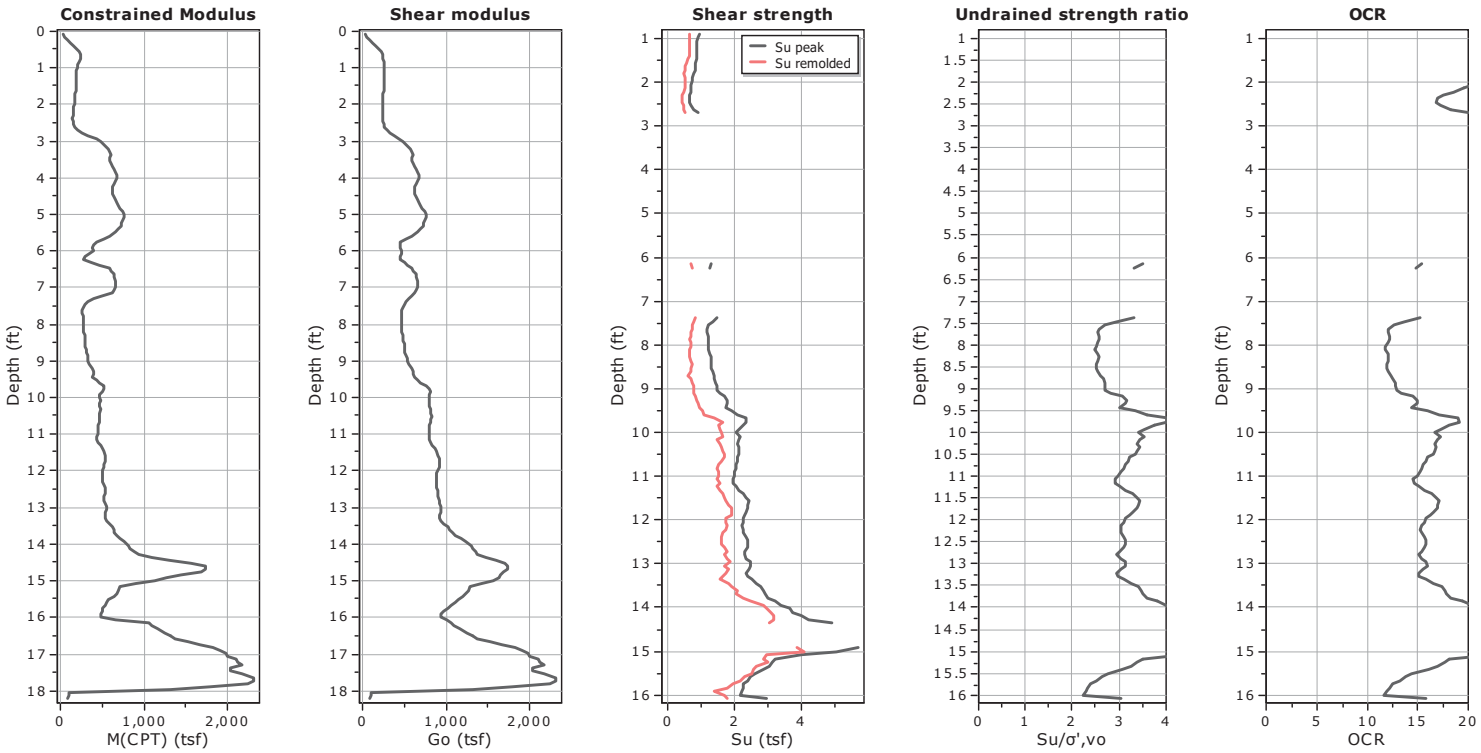
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-253
Total depth: 18.21 ft



Calculation parameters

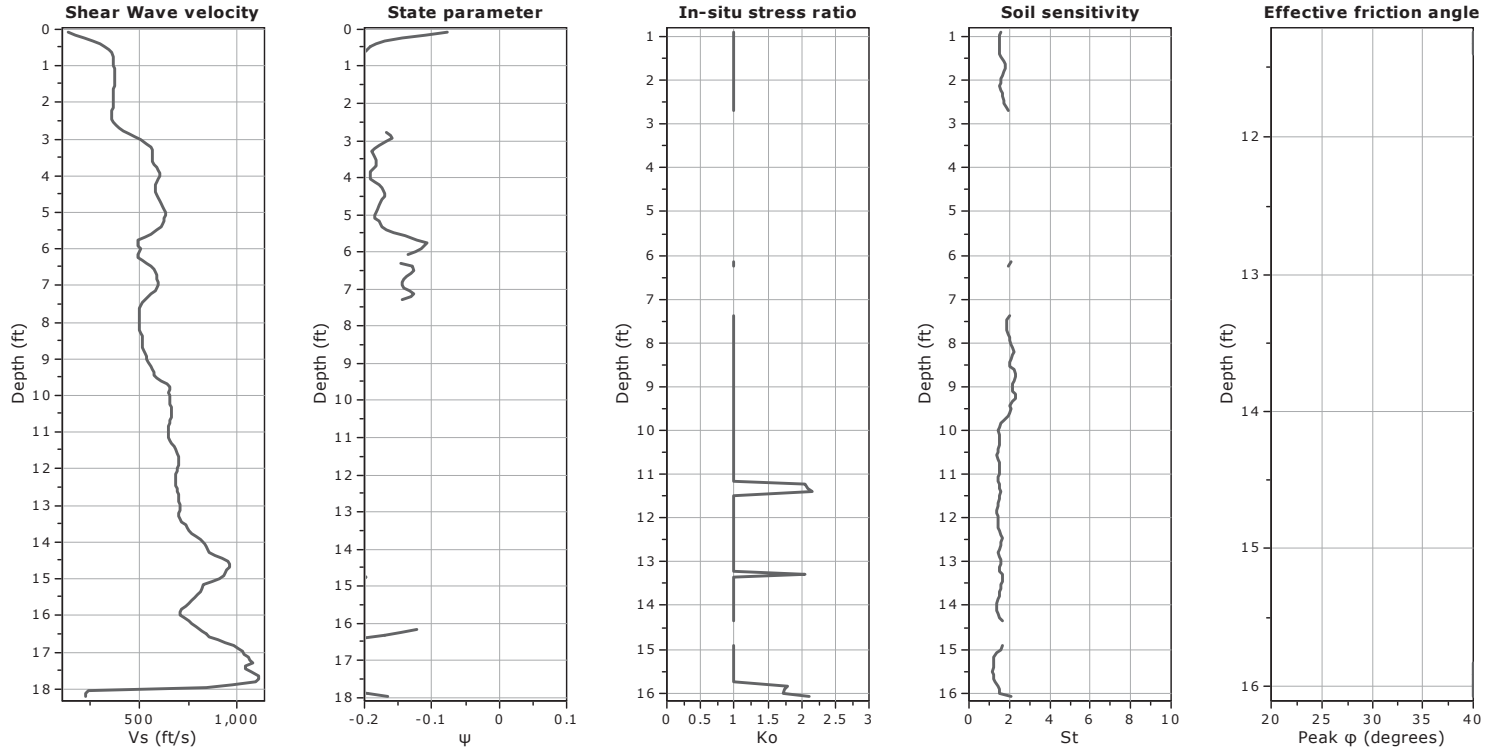
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-253
Total depth: 18.21 ft



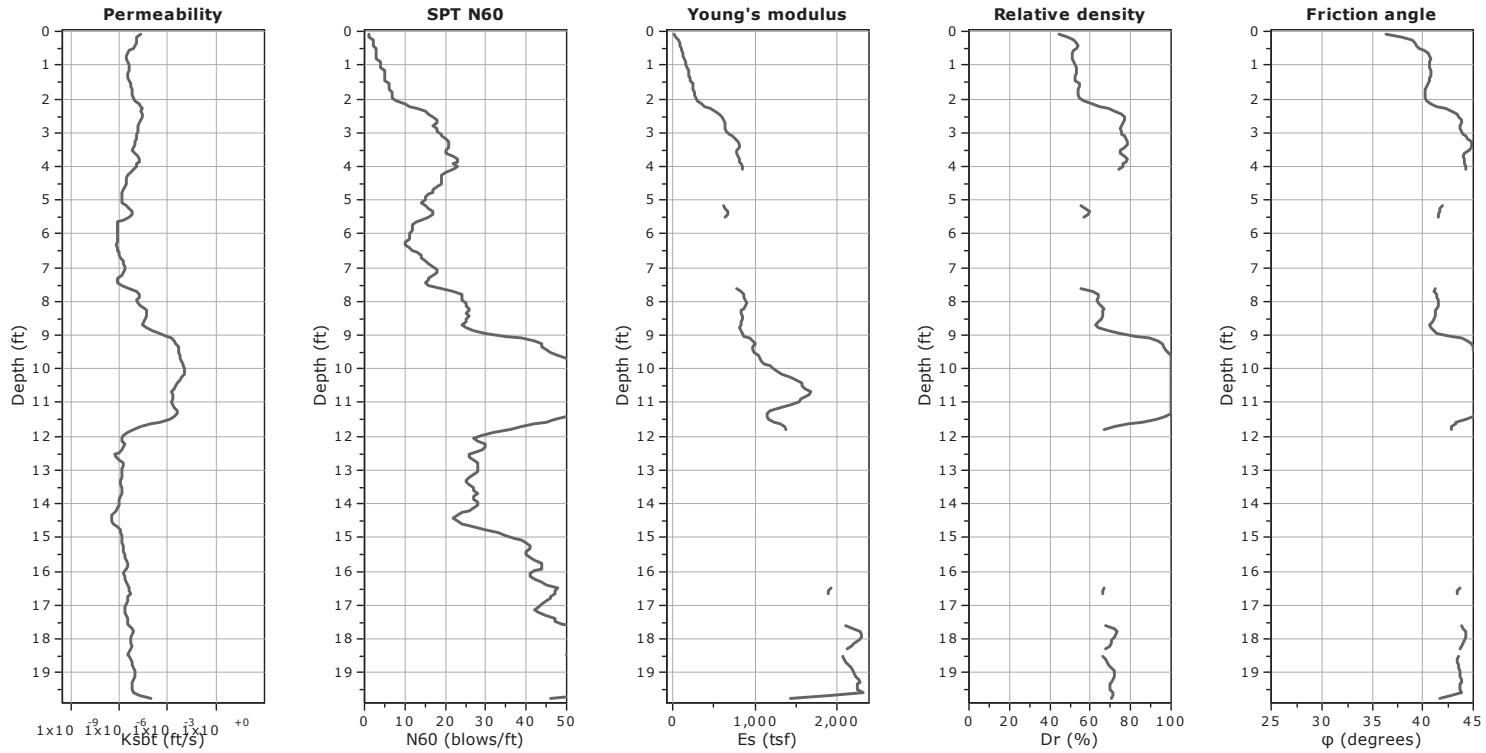
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-254
Total depth: 20.01 ft



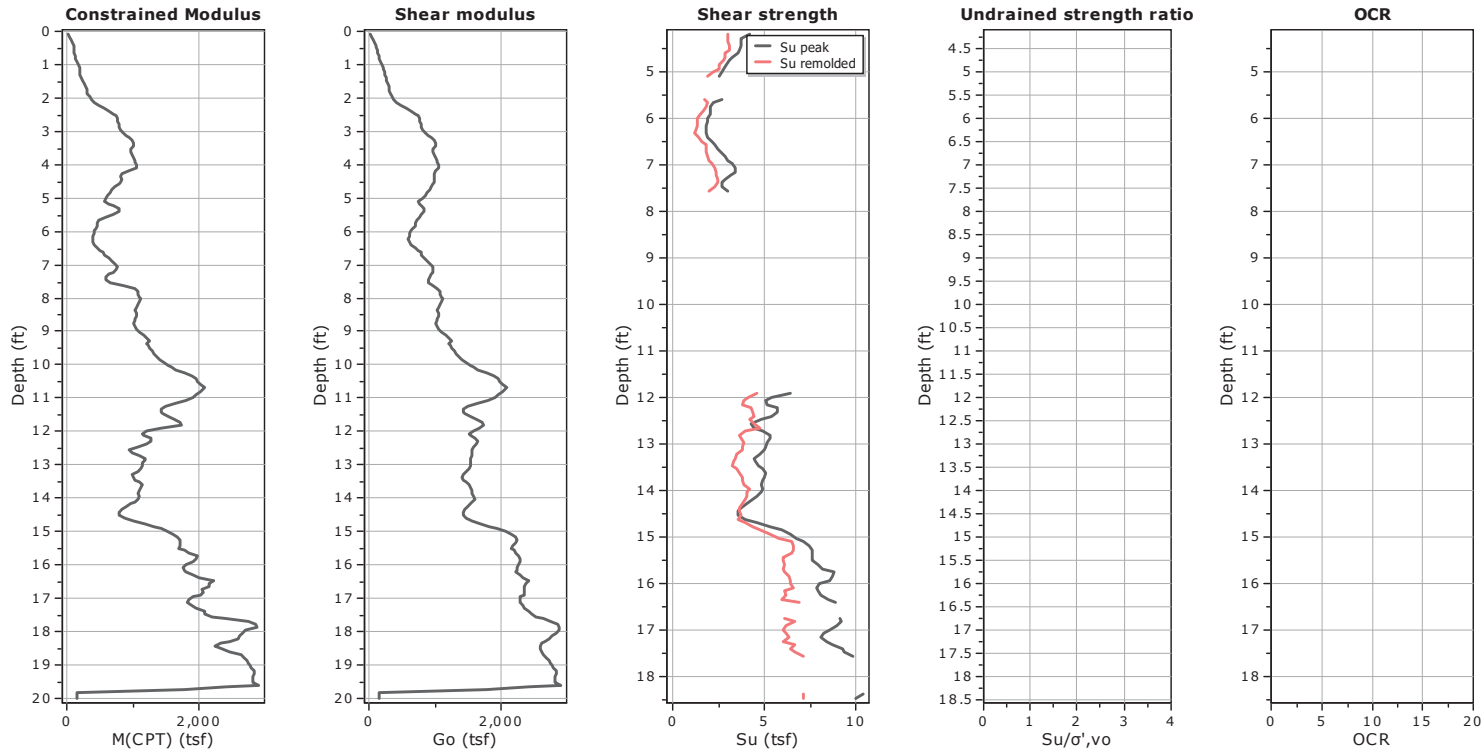
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-254
Total depth: 20.01 ft



Calculation parameters

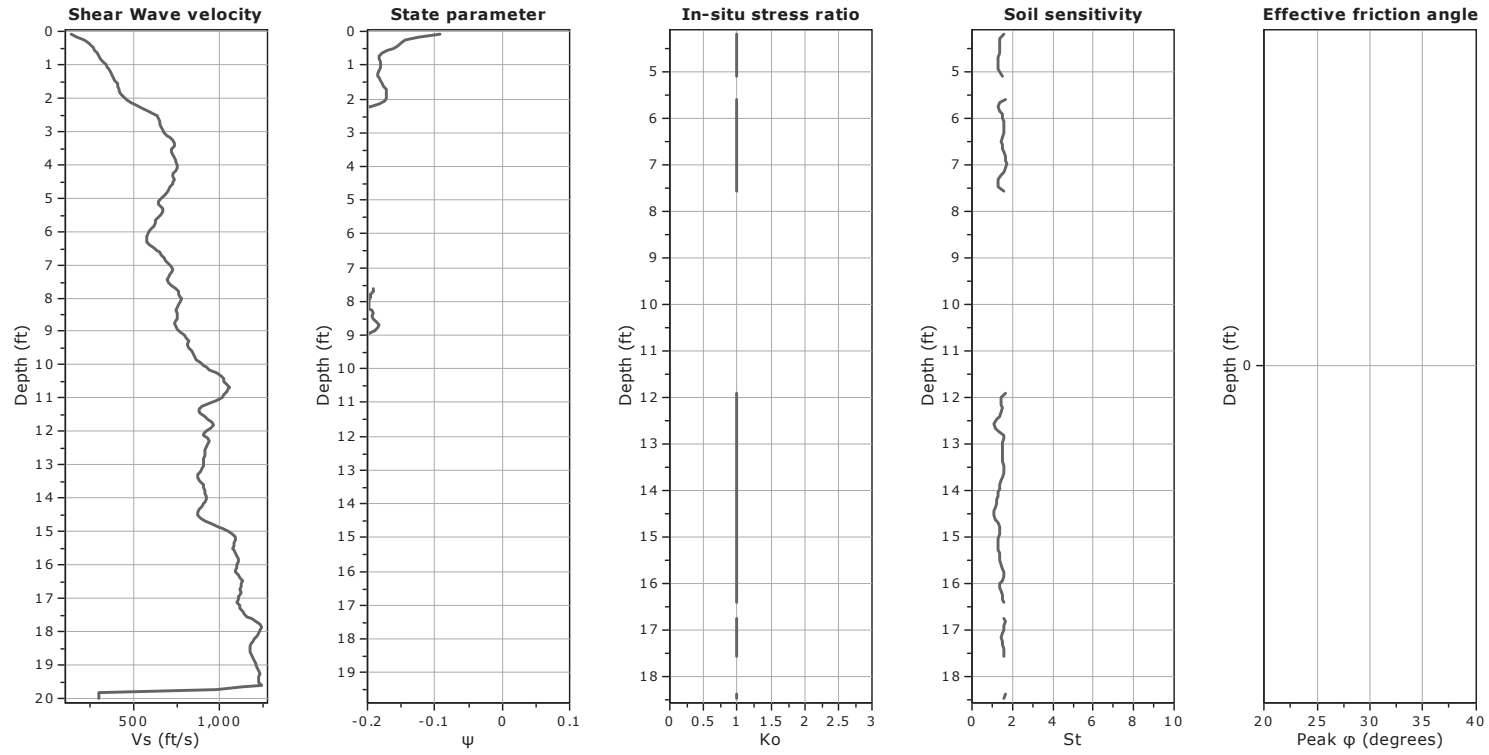
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-254
Total depth: 20.01 ft



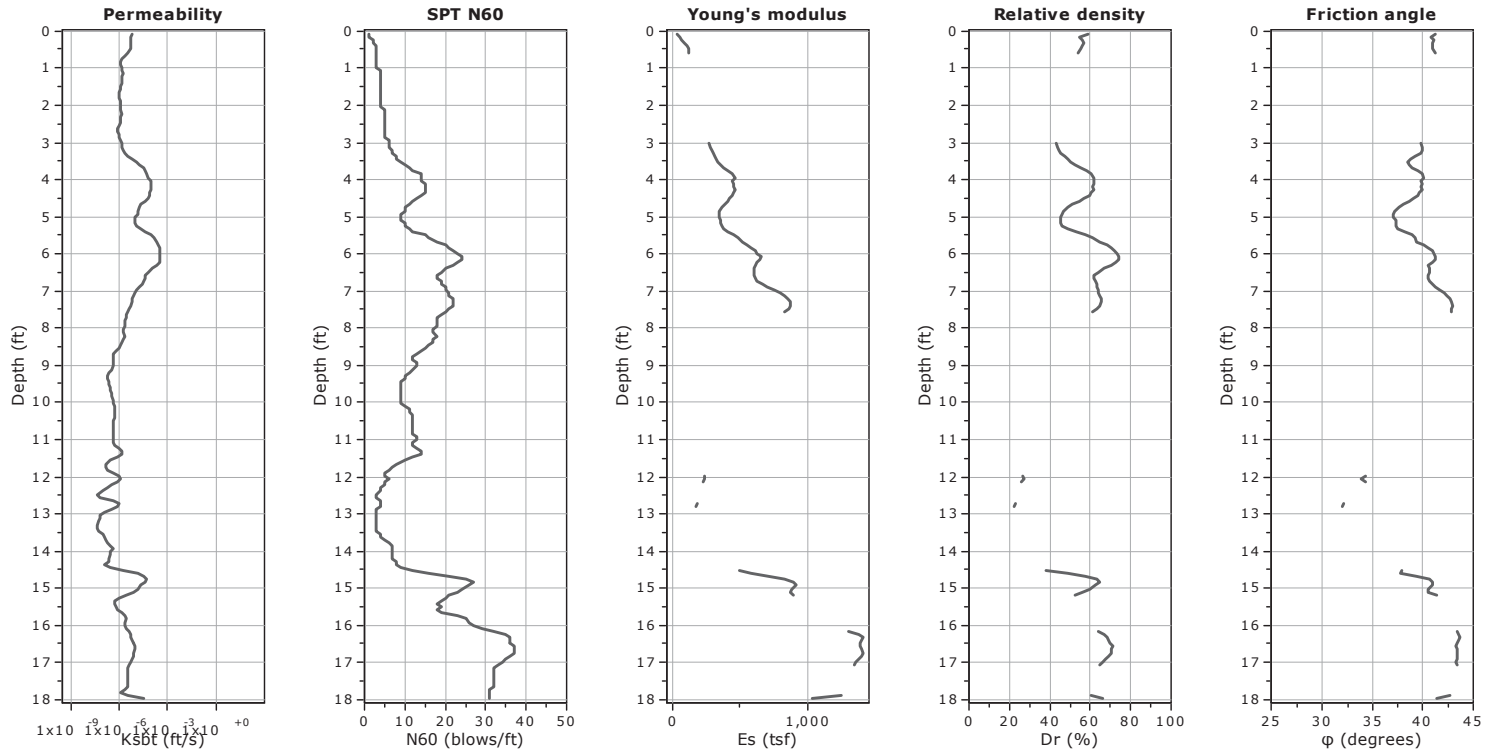
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-255
Total depth: 18.21 ft



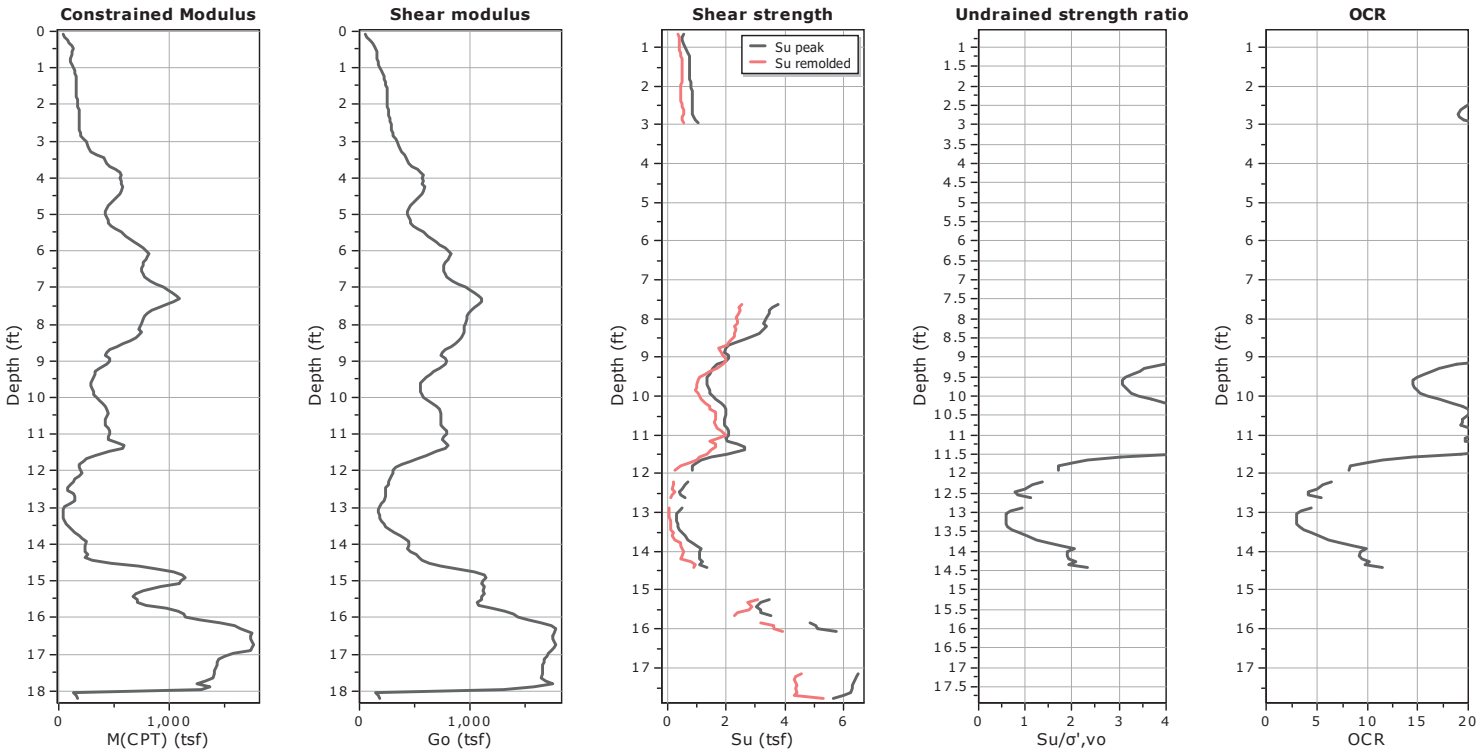
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-255
Total depth: 18.21 ft



Calculation parameters

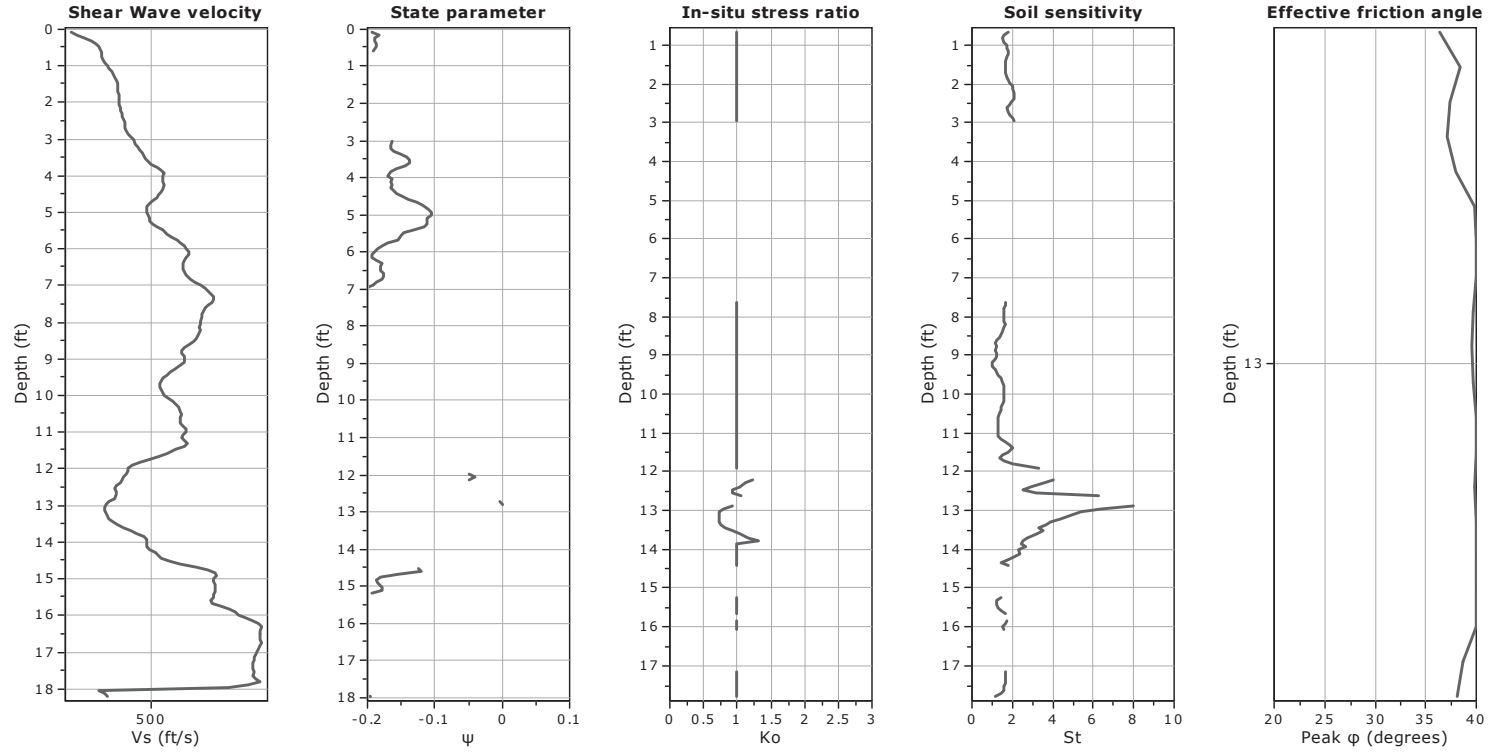
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-255
Total depth: 18.21 ft



Calculation parameters

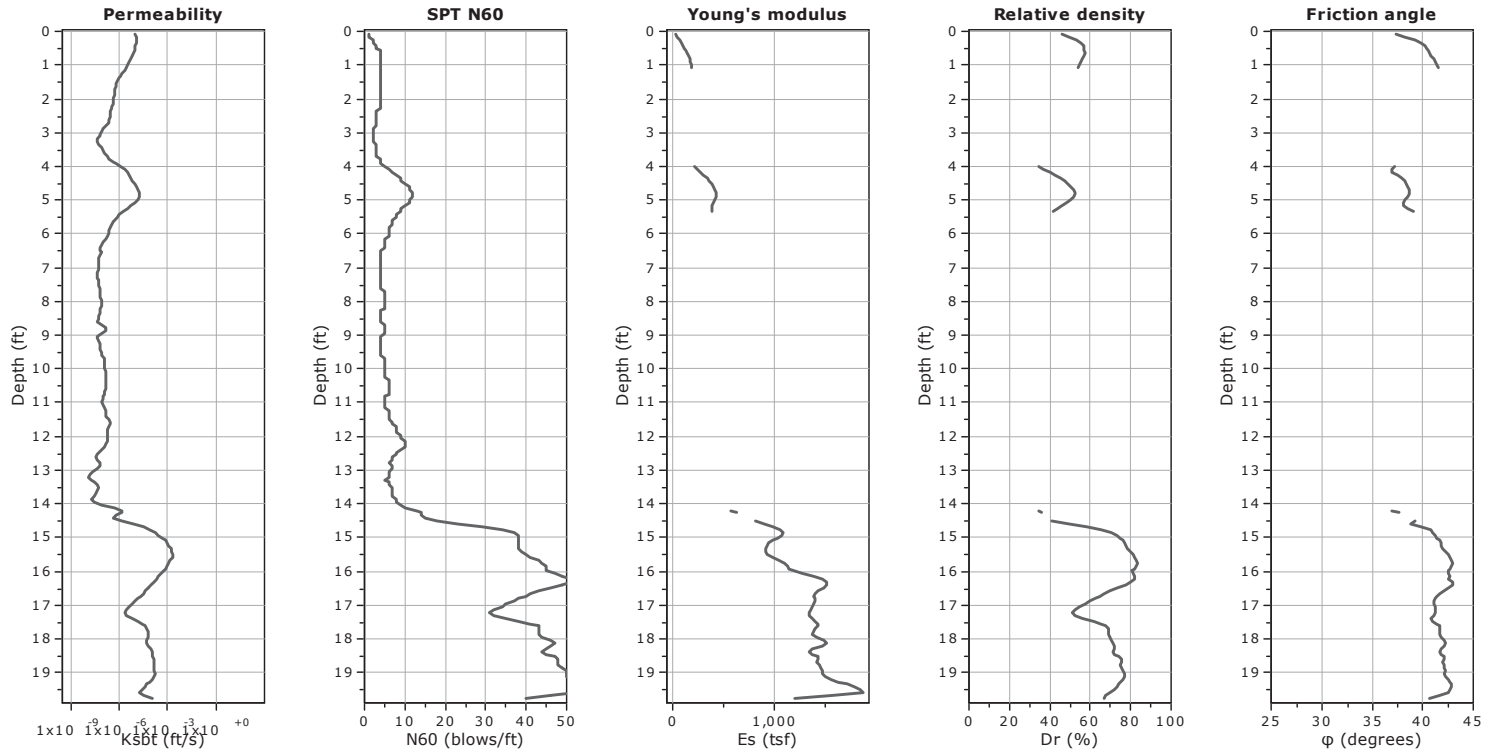
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-256
Total depth: 20.01 ft



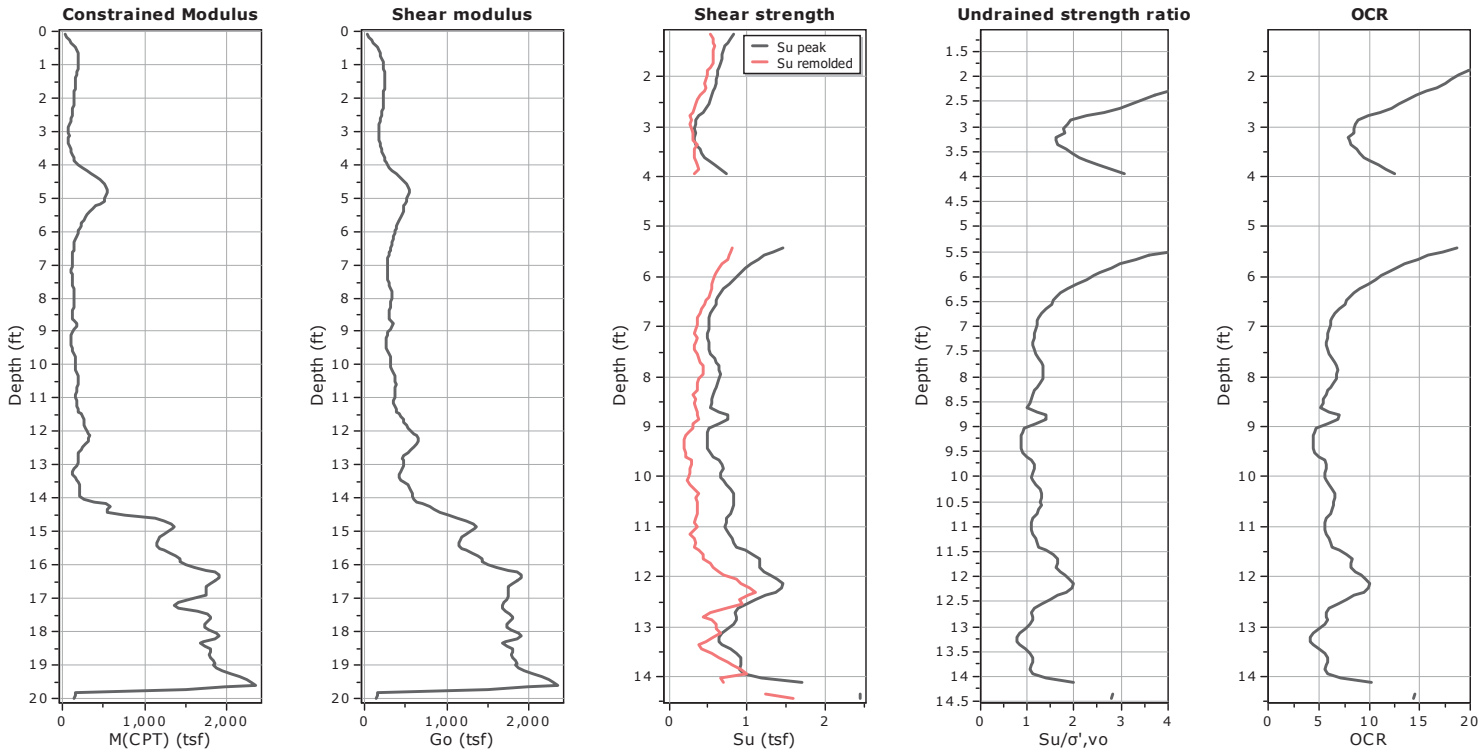
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-256
Total depth: 20.01 ft



Calculation parameters

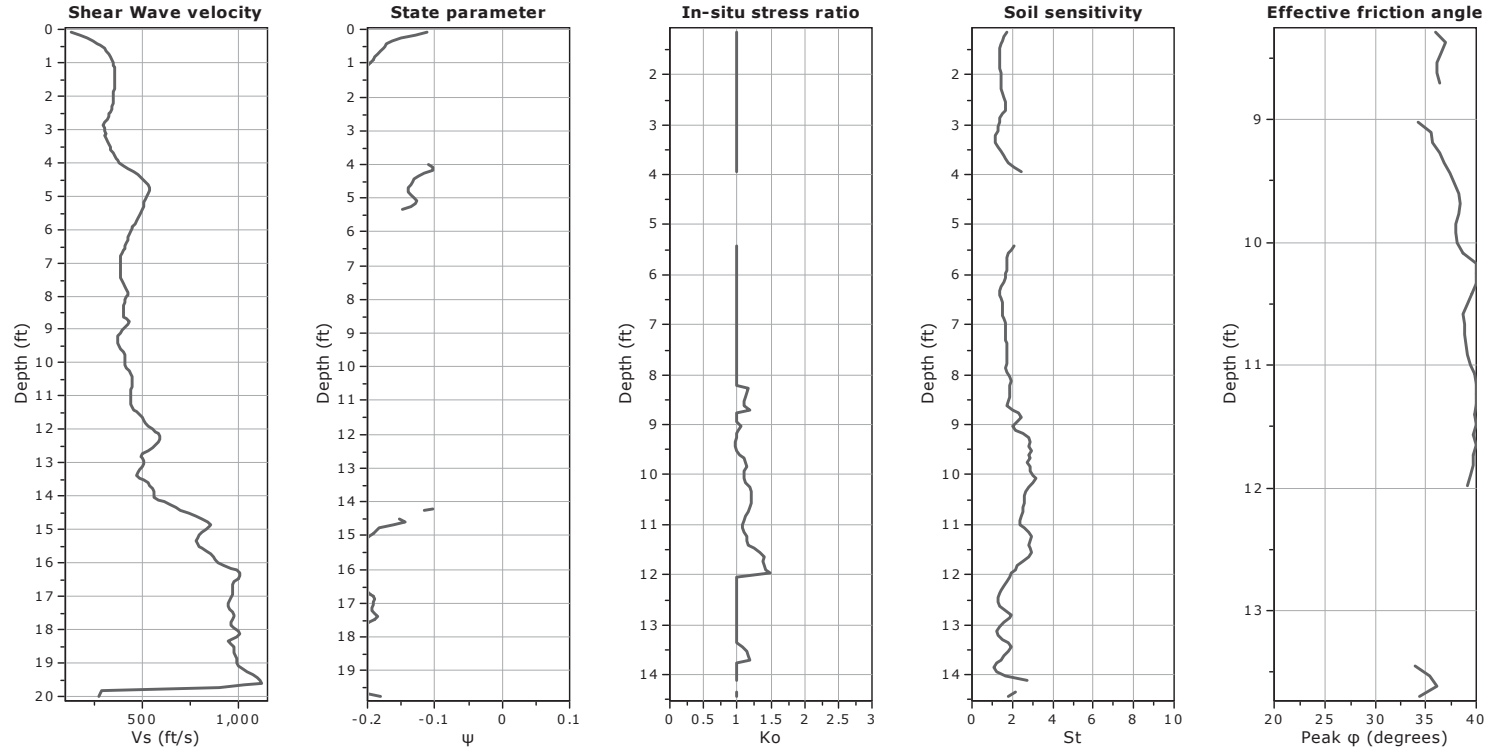
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-256
Total depth: 20.01 ft



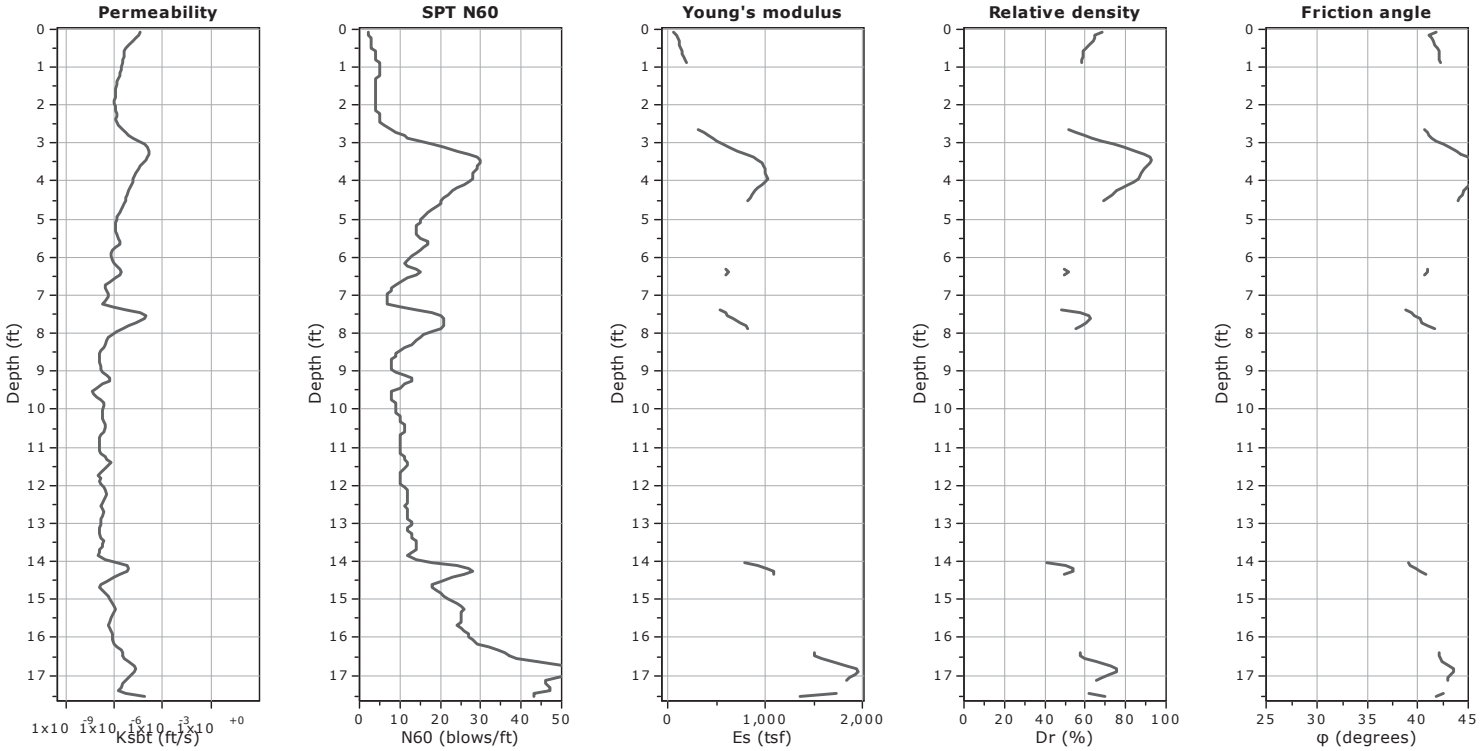
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-257
Total depth: 17.80 ft



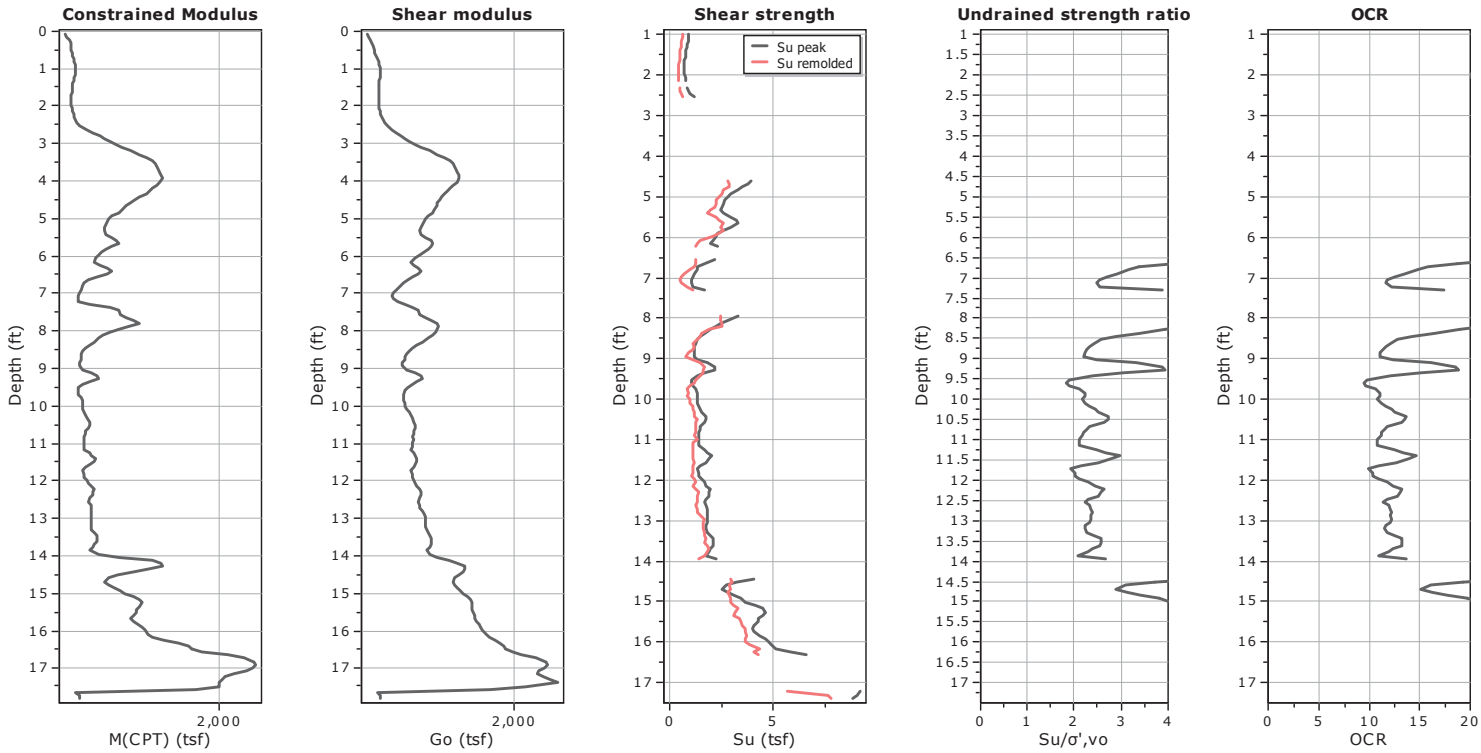
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-257
Total depth: 17.80 ft



Calculation parameters

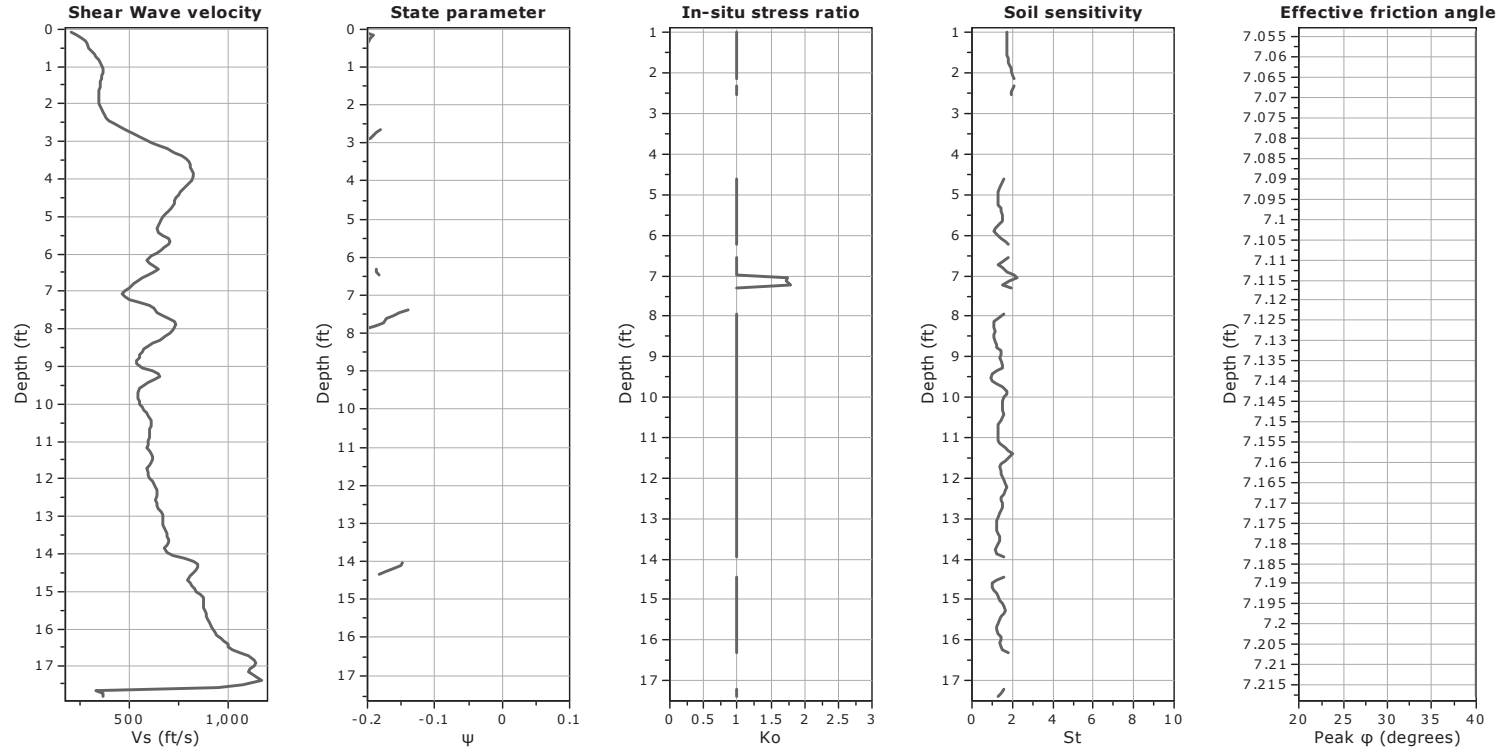
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: GEO-257
Total depth: 17.80 ft



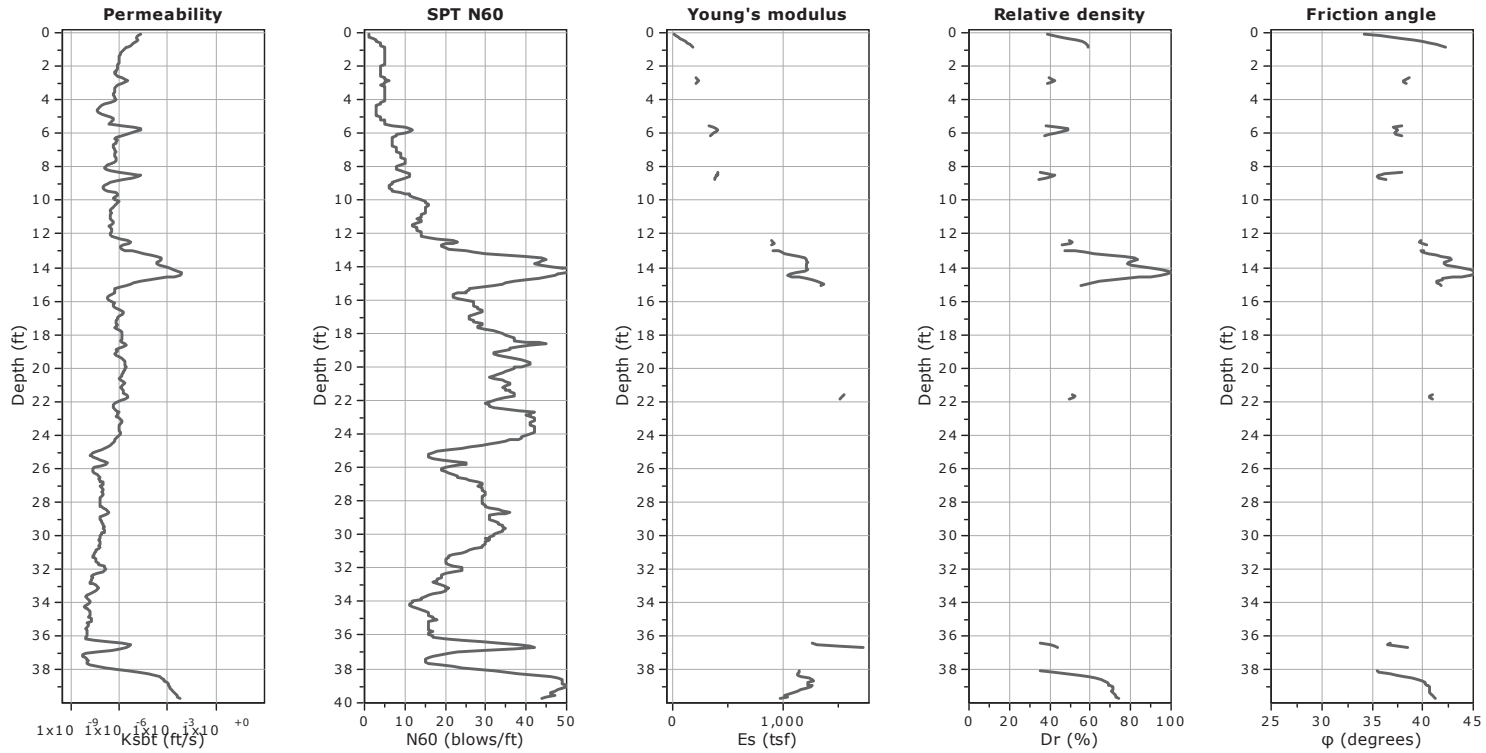
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-05
Total depth: 40.03 ft



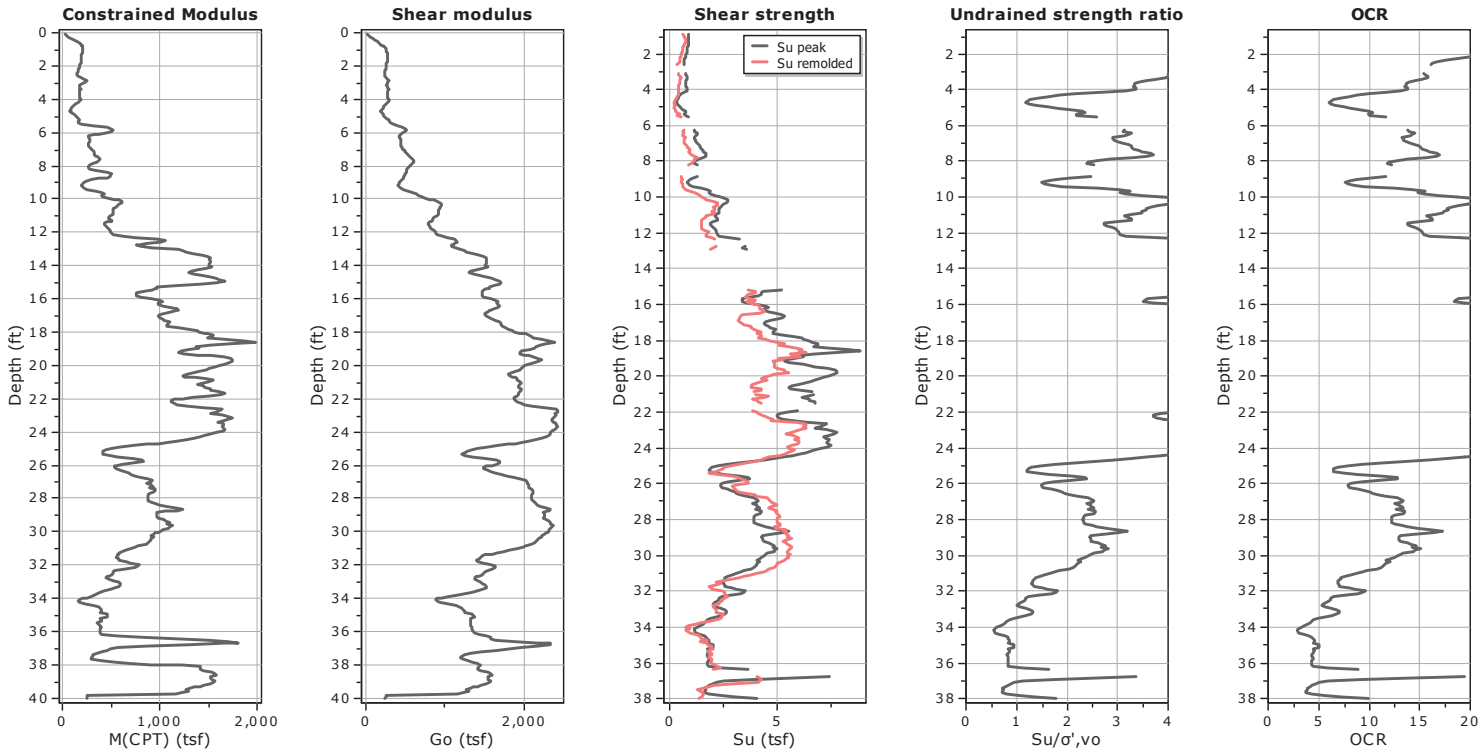
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-05
Total depth: 40.03 ft



Calculation parameters

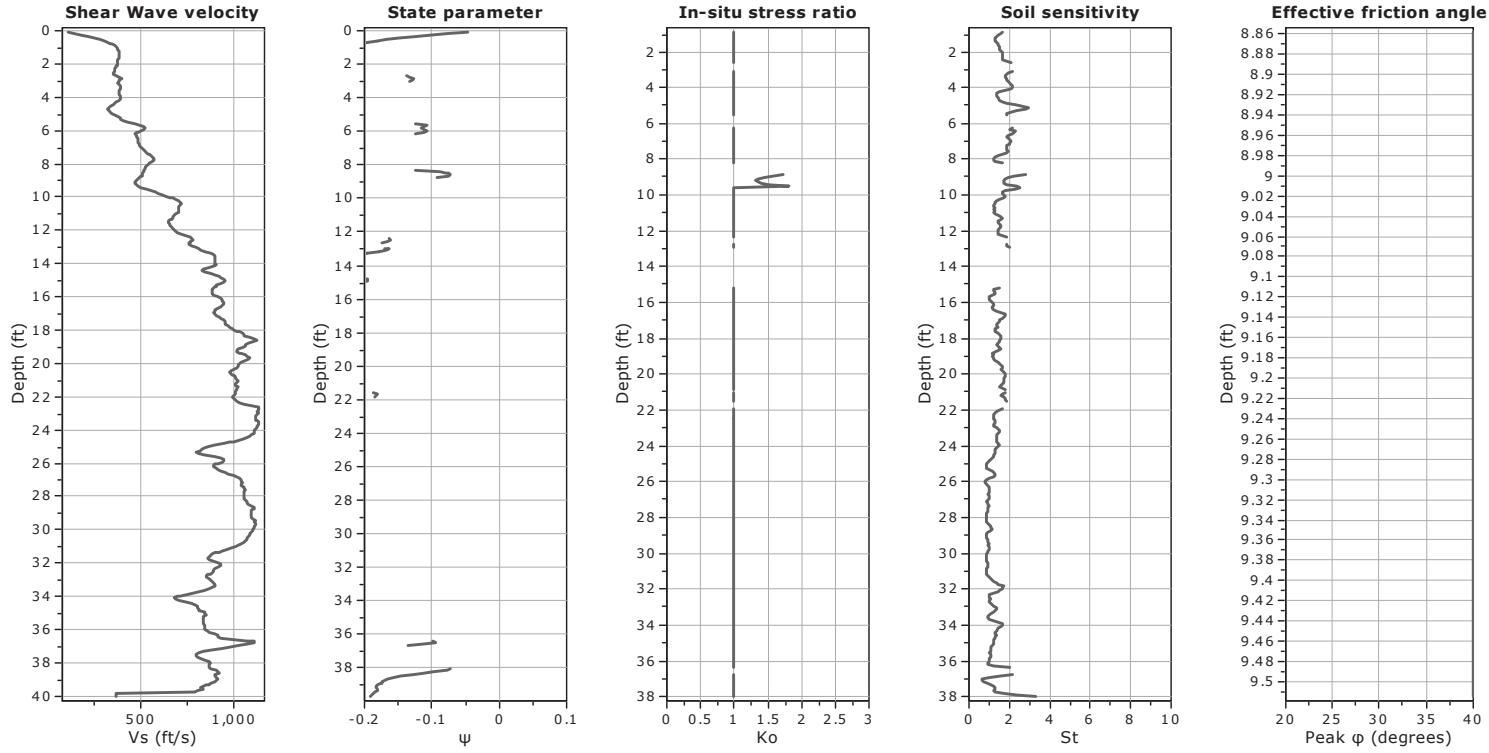
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-05
Total depth: 40.03 ft



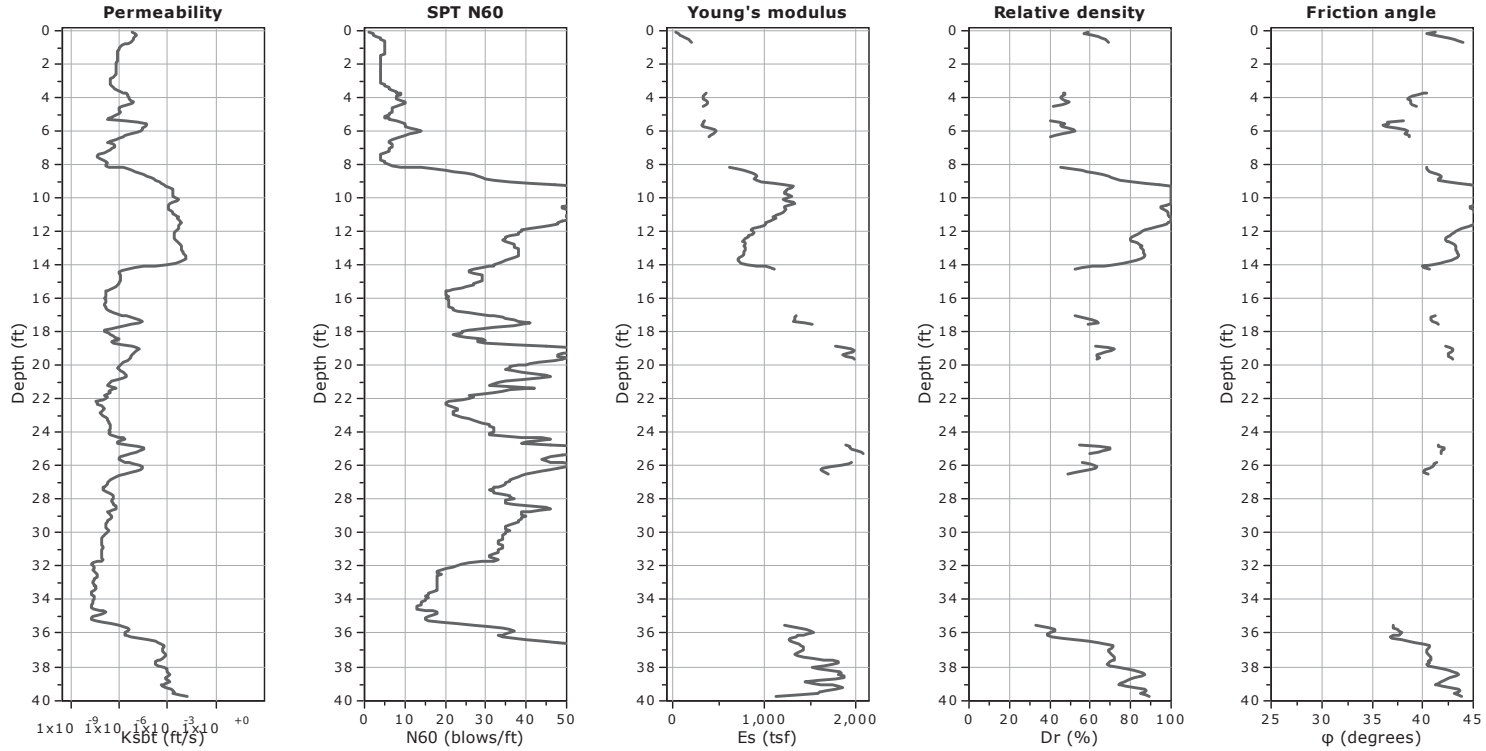
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-01
Total depth: 40.03 ft



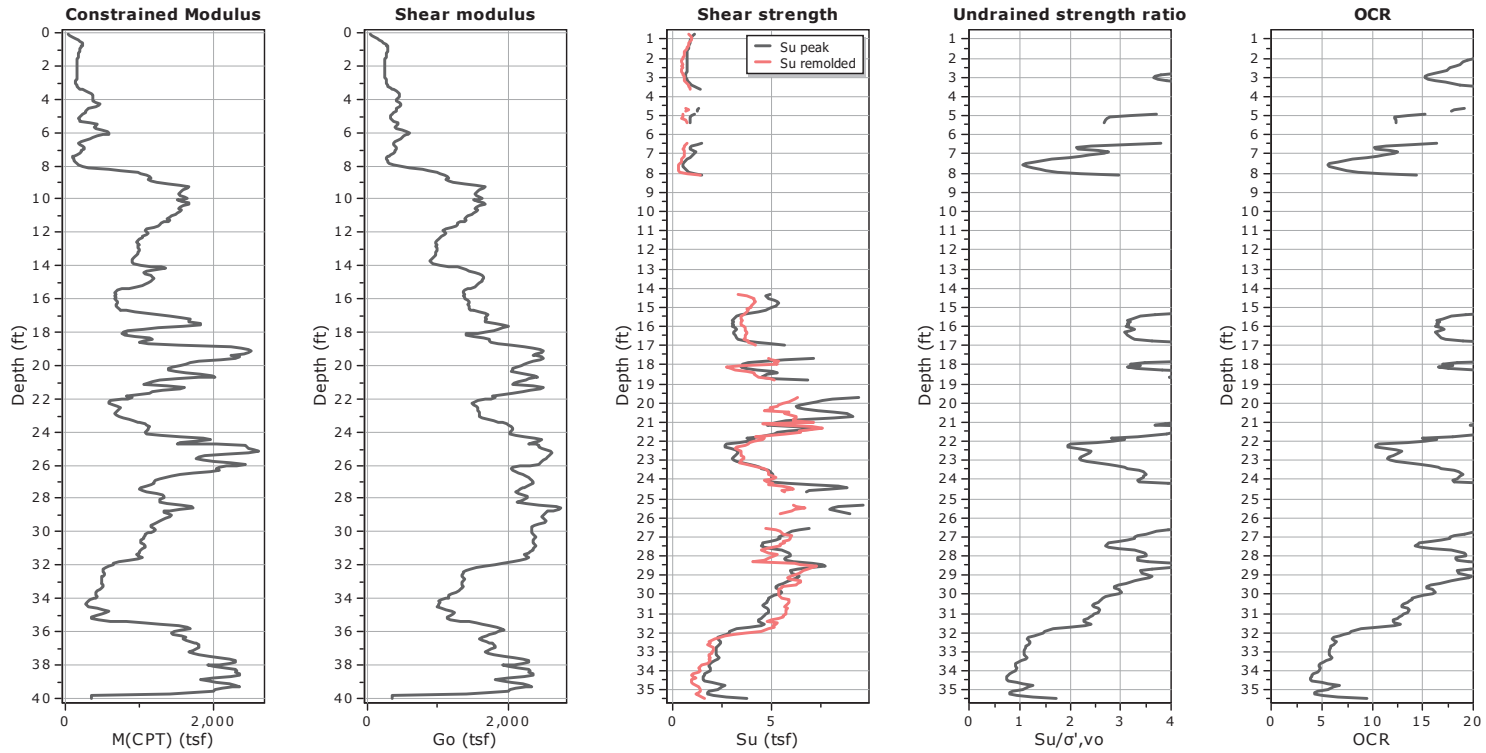
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-01
Total depth: 40.03 ft



Calculation parameters

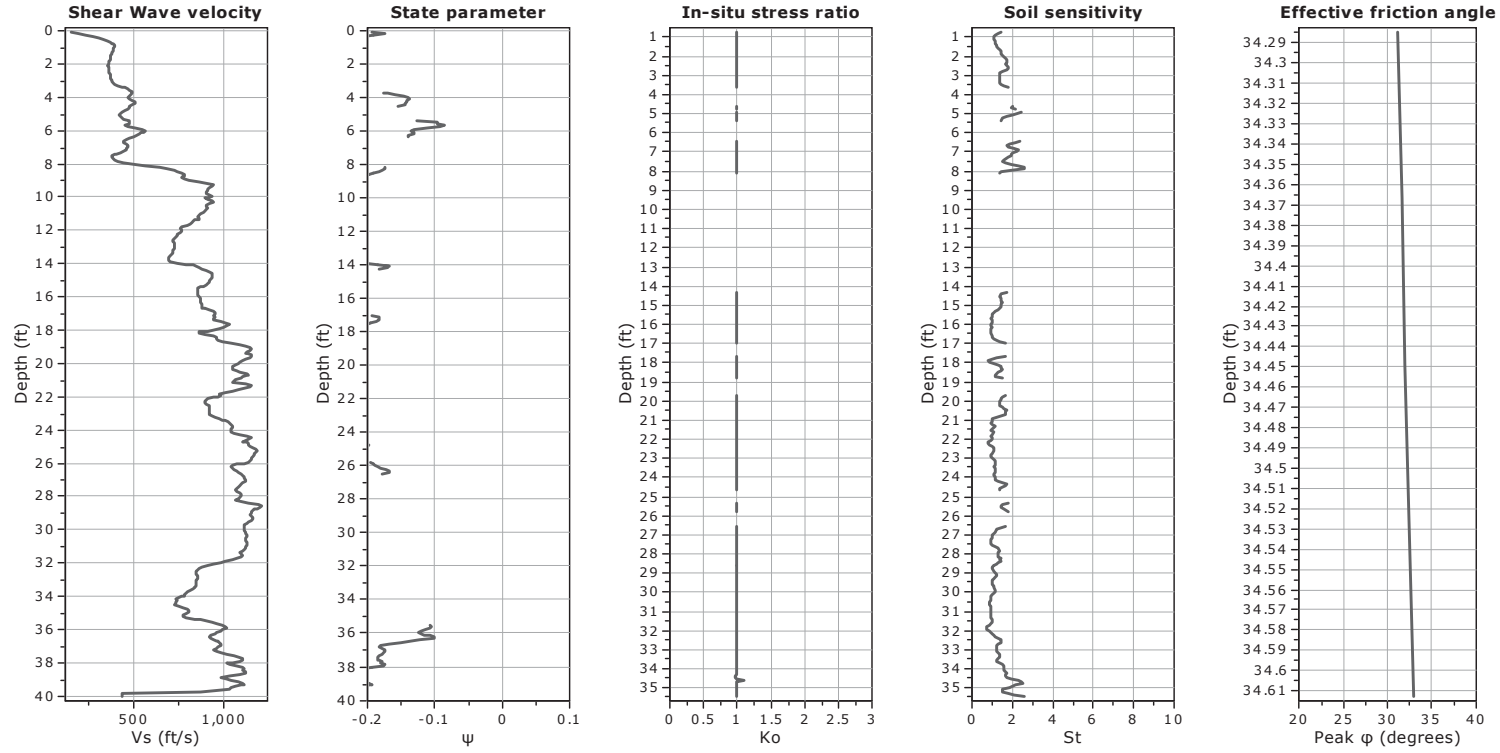
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-01
Total depth: 40.03 ft



Calculation parameters

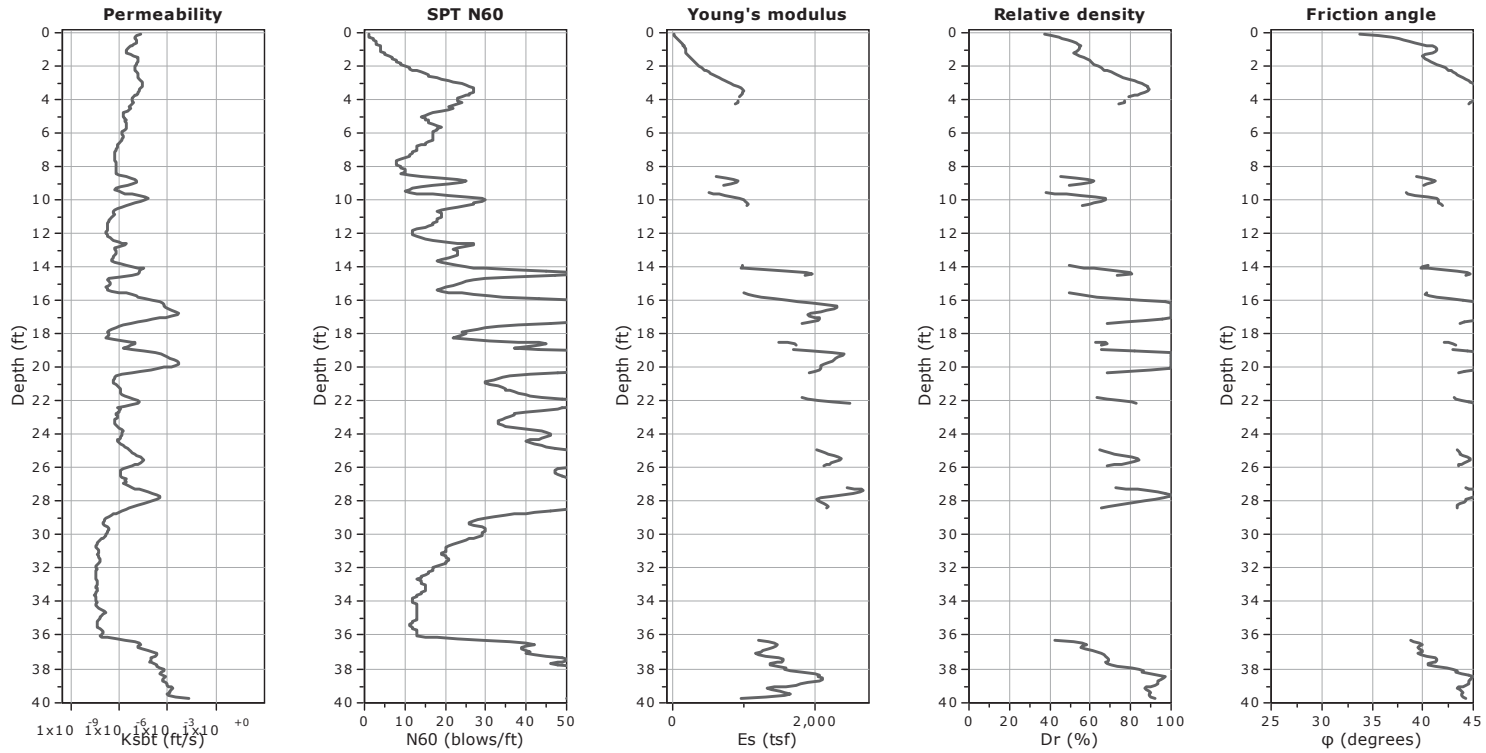
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-02
Total depth: 40.03 ft



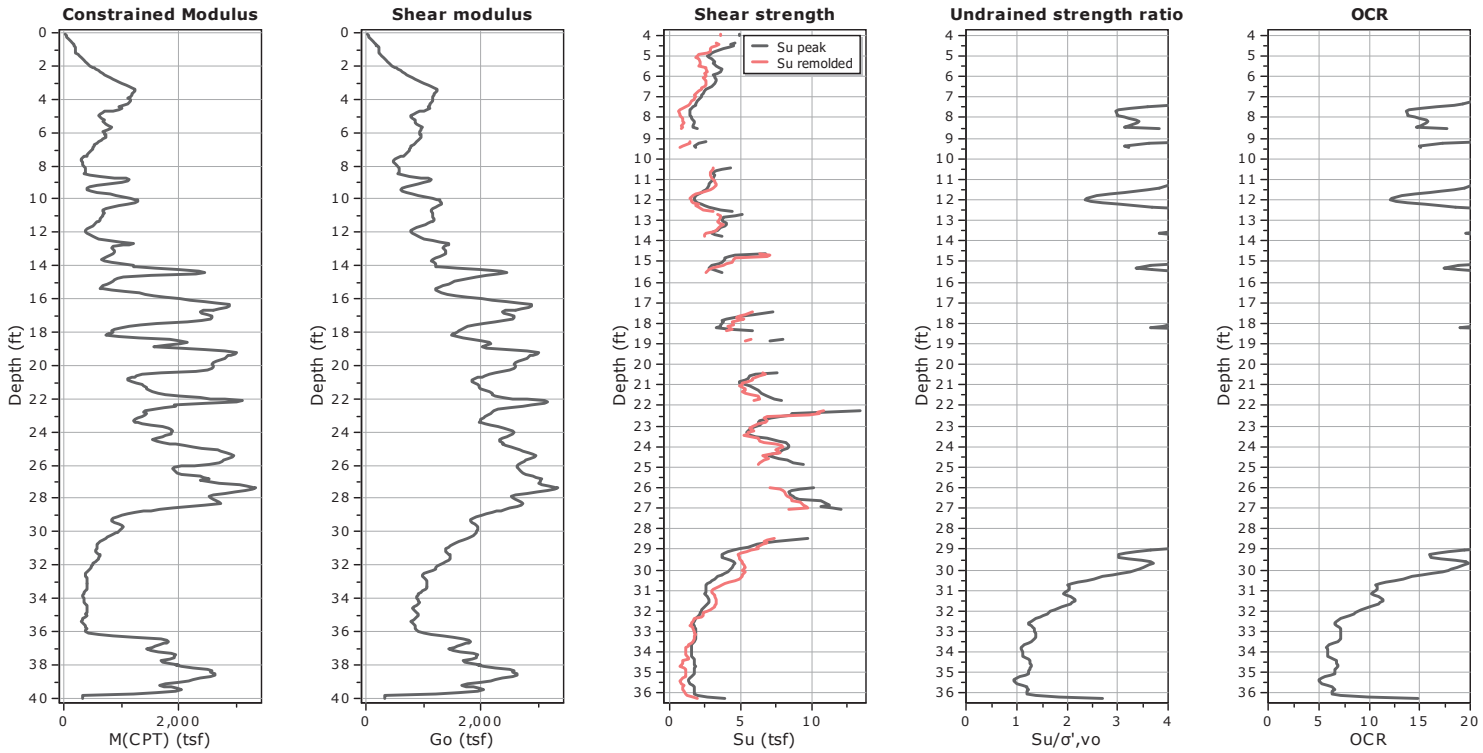
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-02
Total depth: 40.03 ft



Calculation parameters

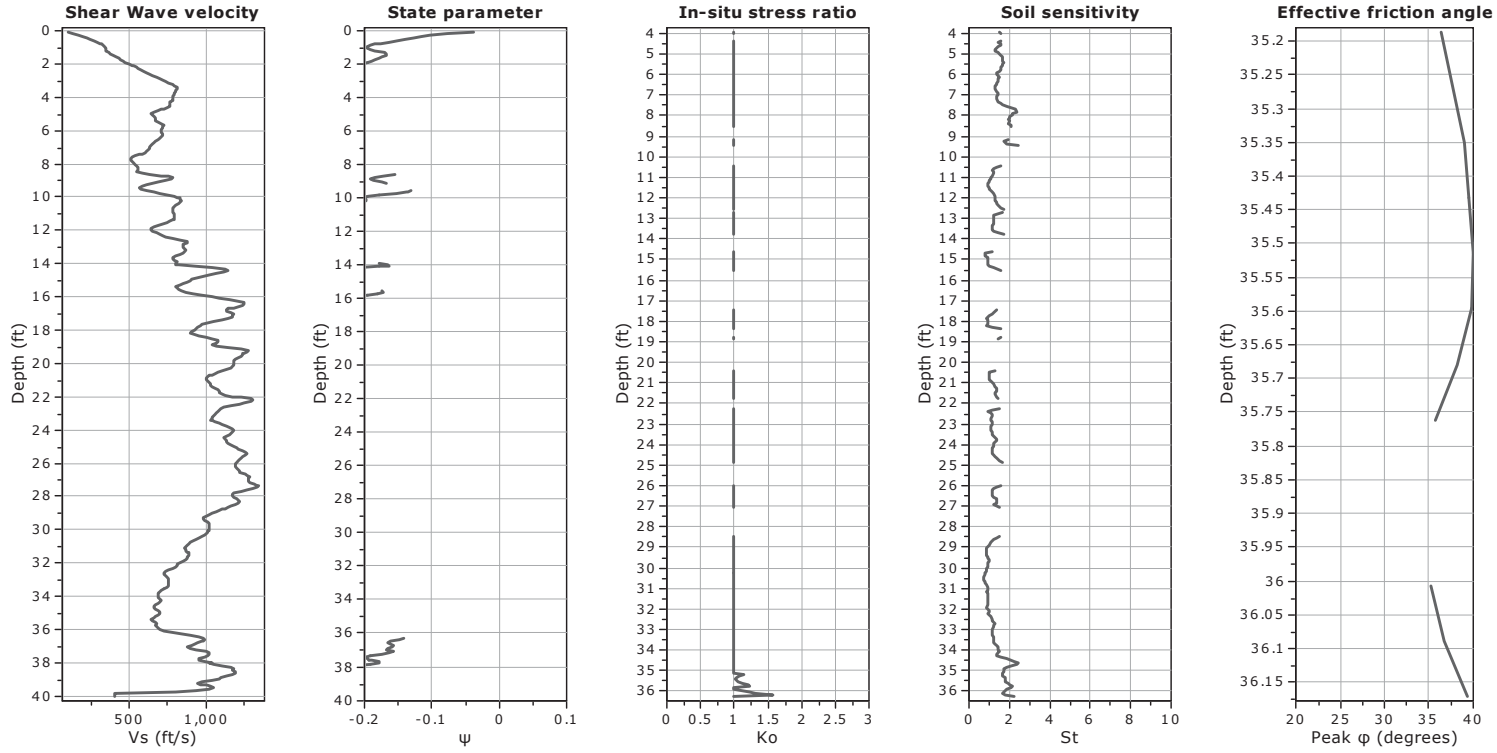
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-02
Total depth: 40.03 ft



Calculation parameters

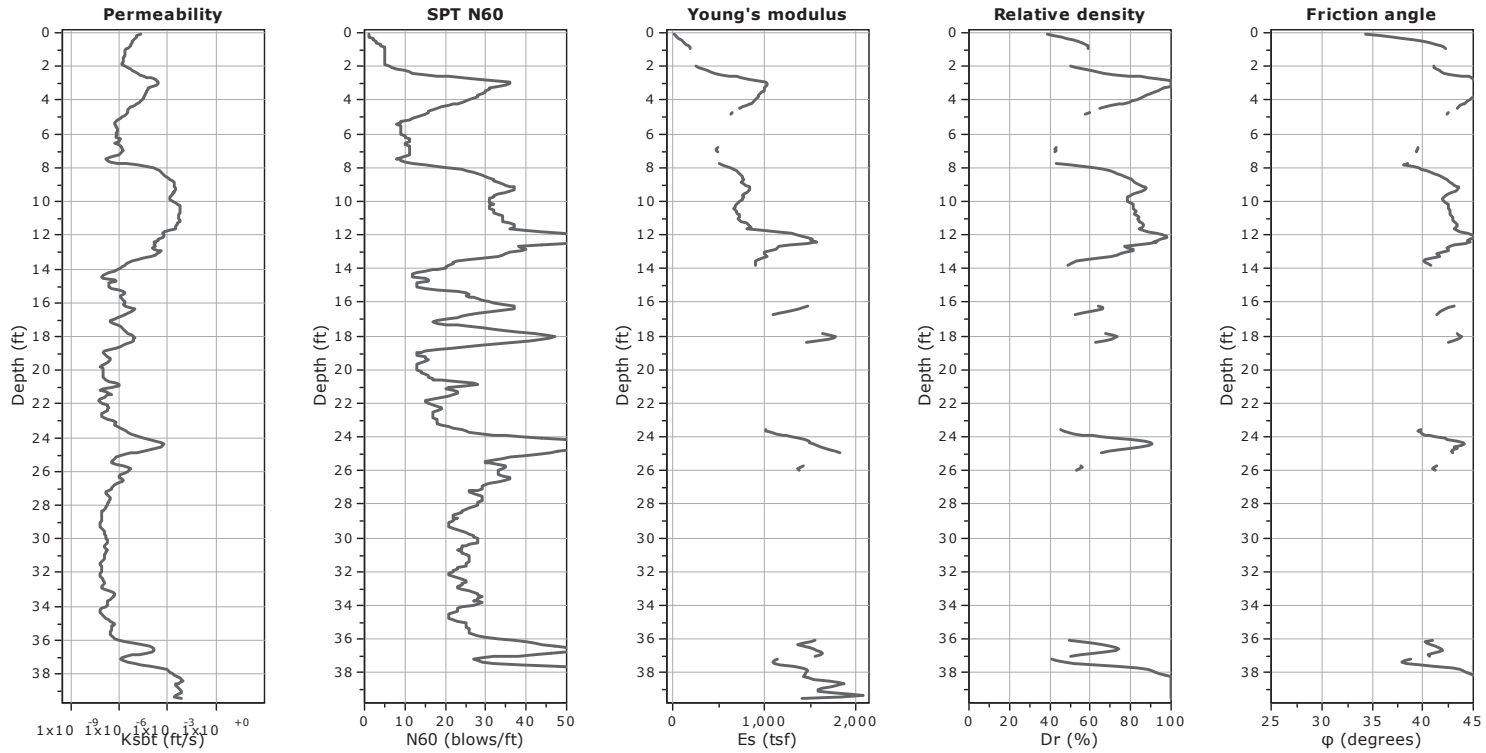
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-03
Total depth: 39.78 ft



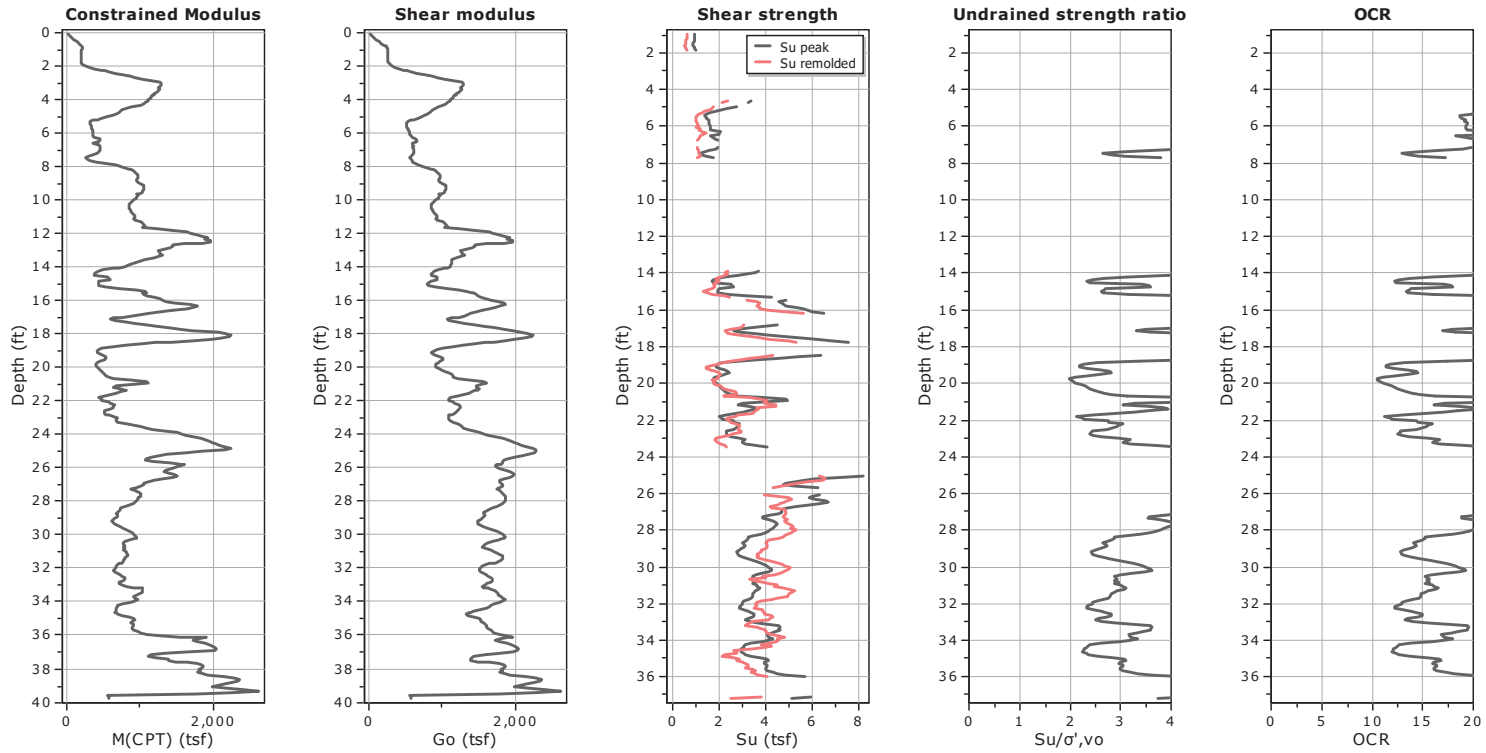
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-03
Total depth: 39.78 ft



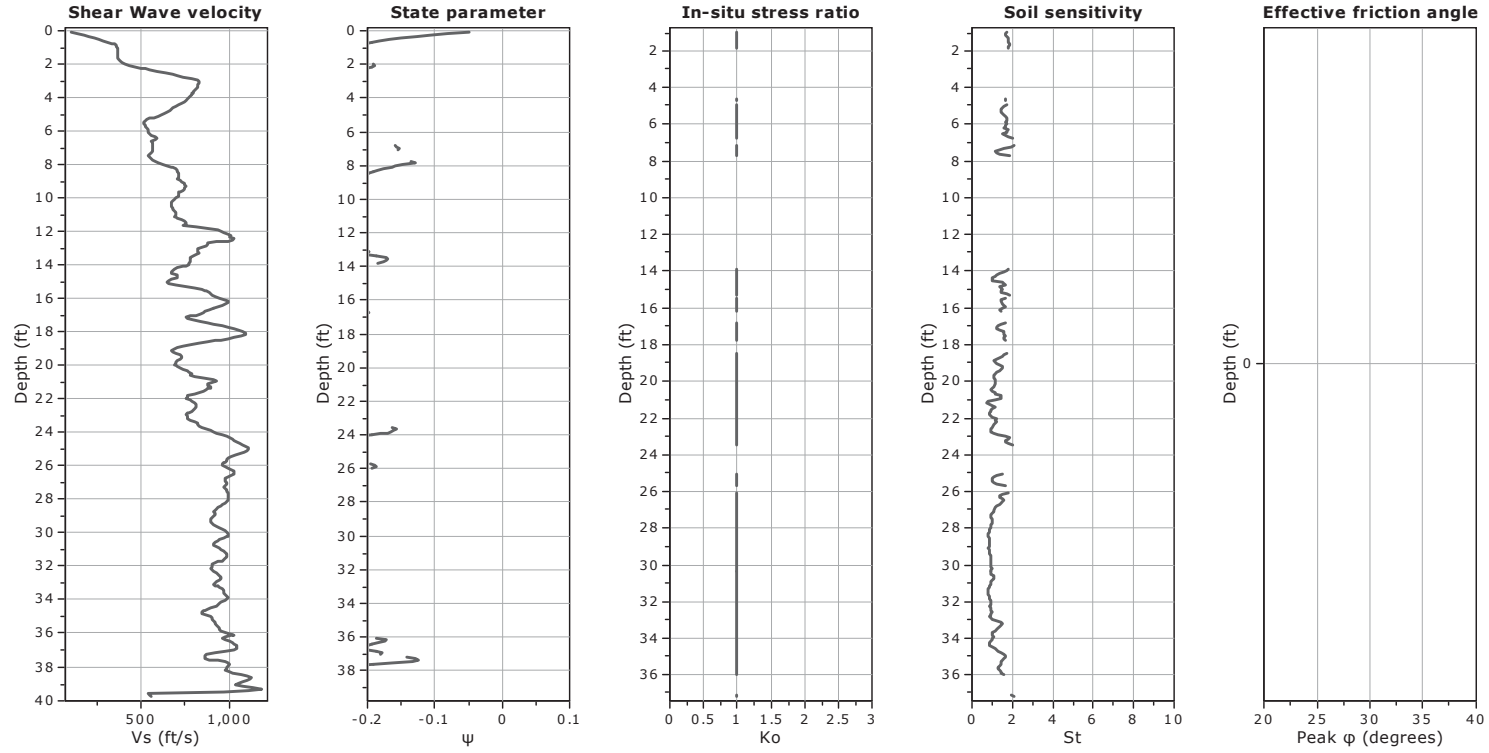
Calculation parameters

Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16
OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-03
Total depth: 39.78 ft



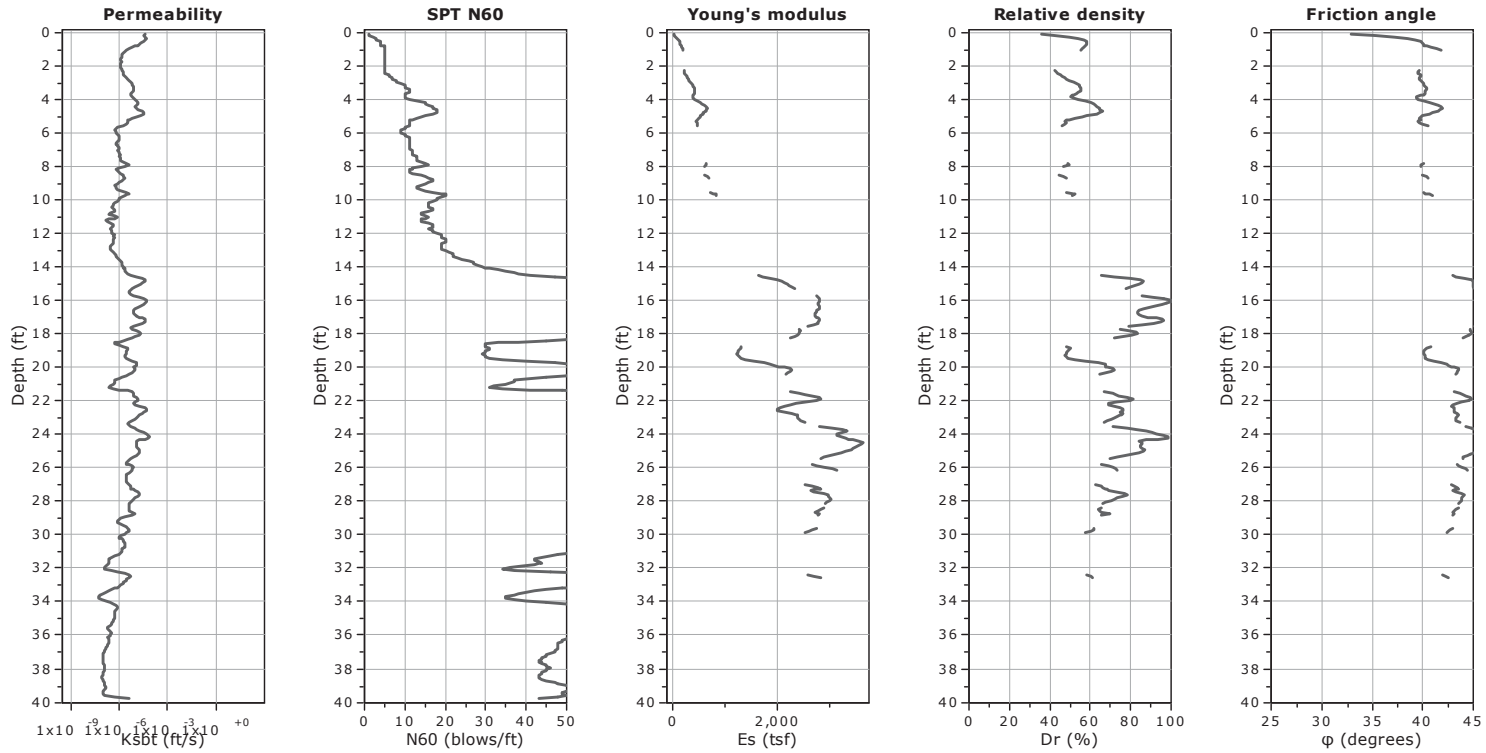
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-04
Total depth: 40.03 ft



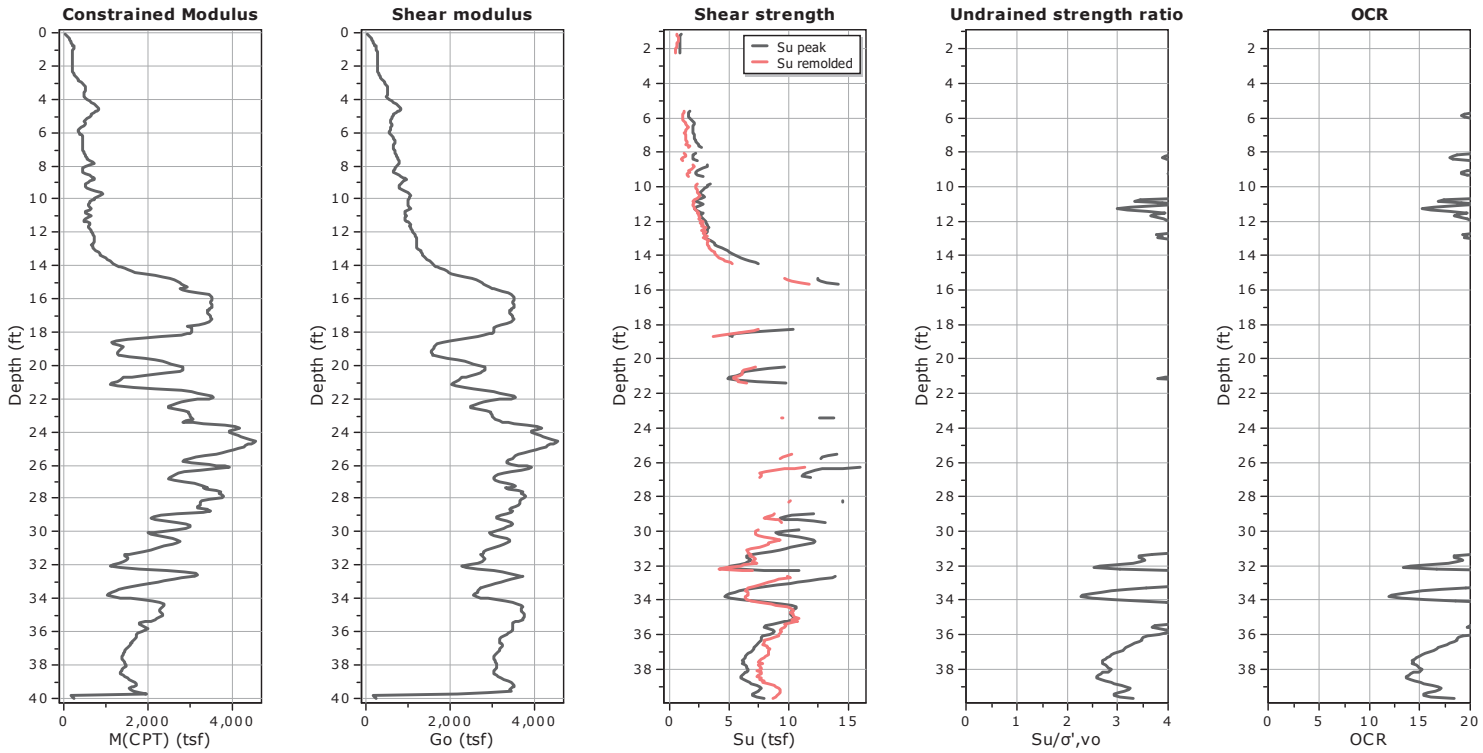
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-04
Total depth: 40.03 ft



Calculation parameters

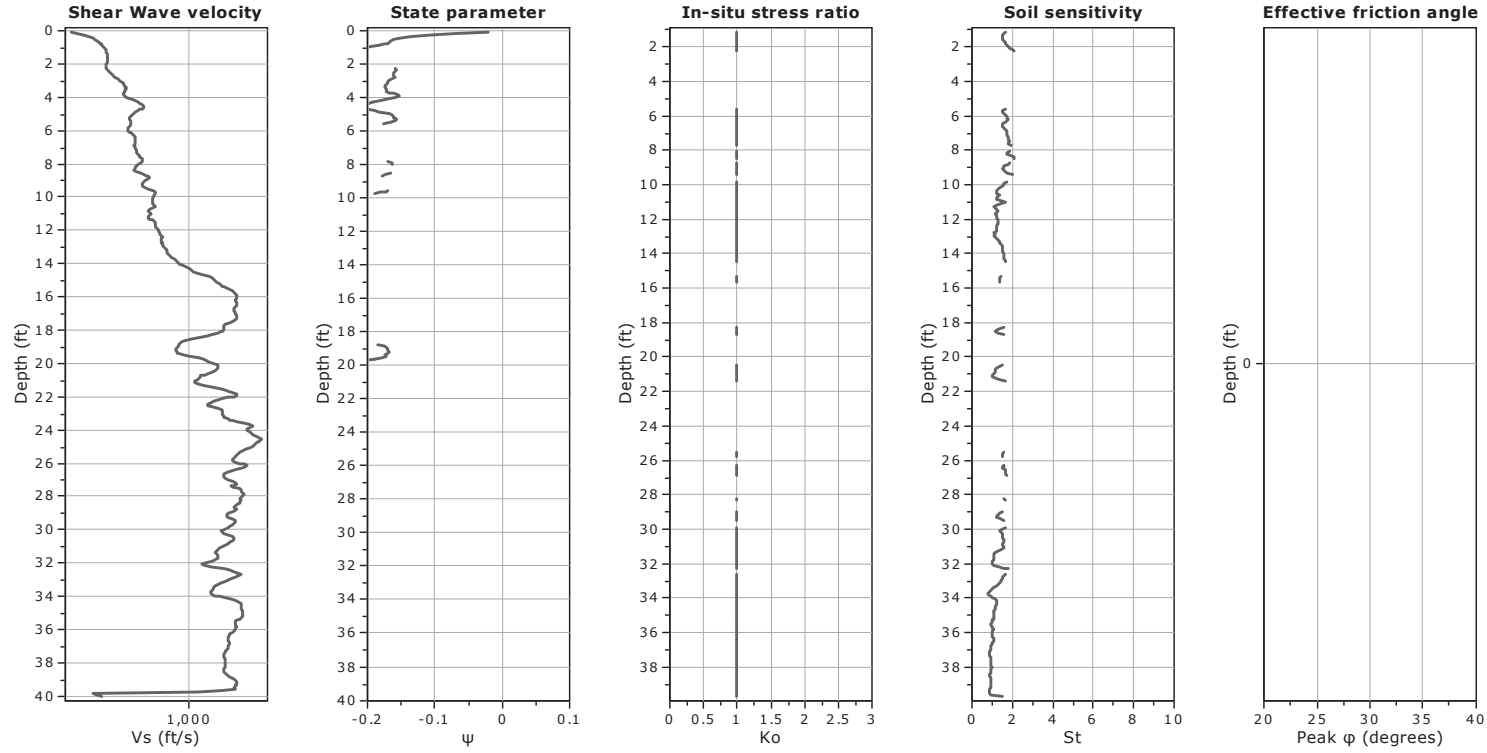
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-04
Total depth: 40.03 ft



Calculation parameters

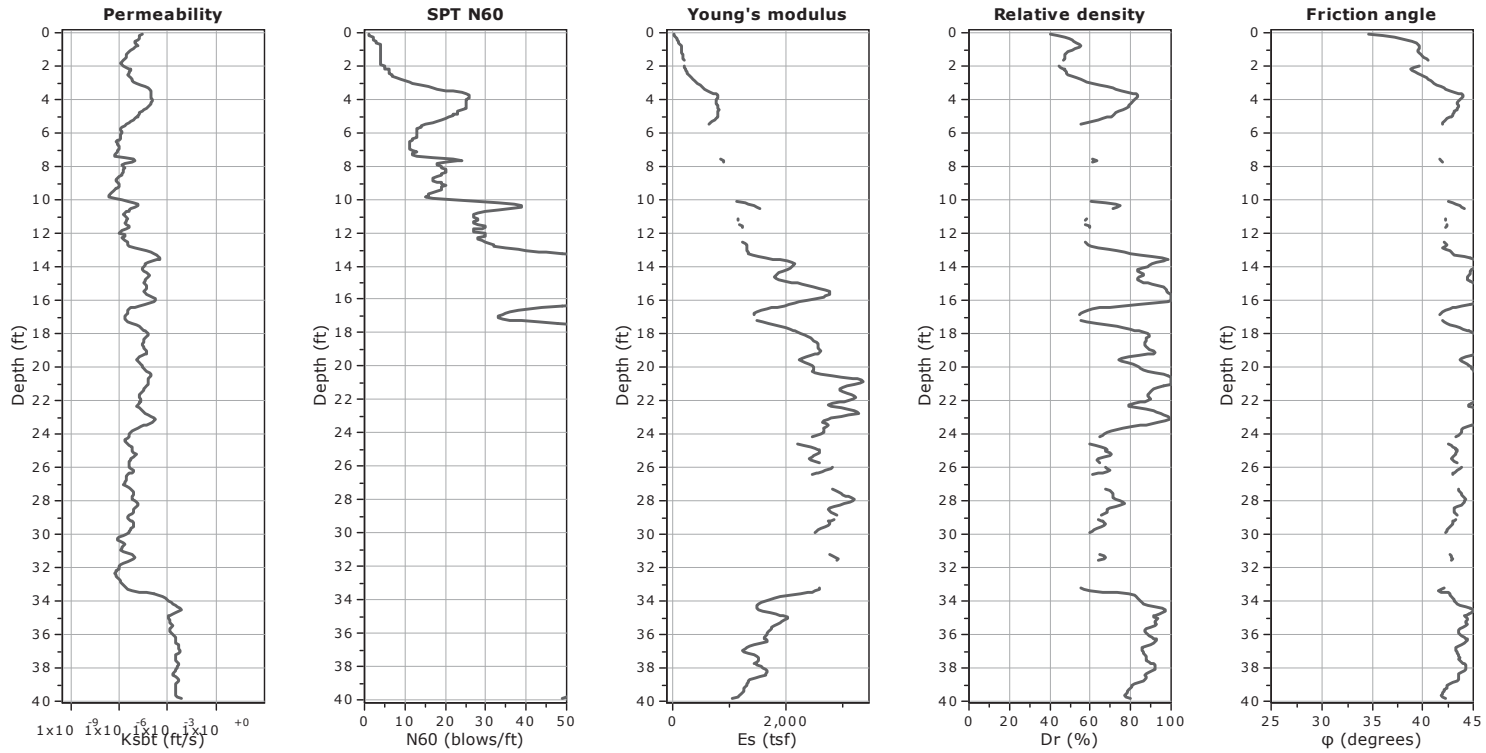
Soil Sensitivity factor, N_S: 7.00

User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-06
Total depth: 40.19 ft



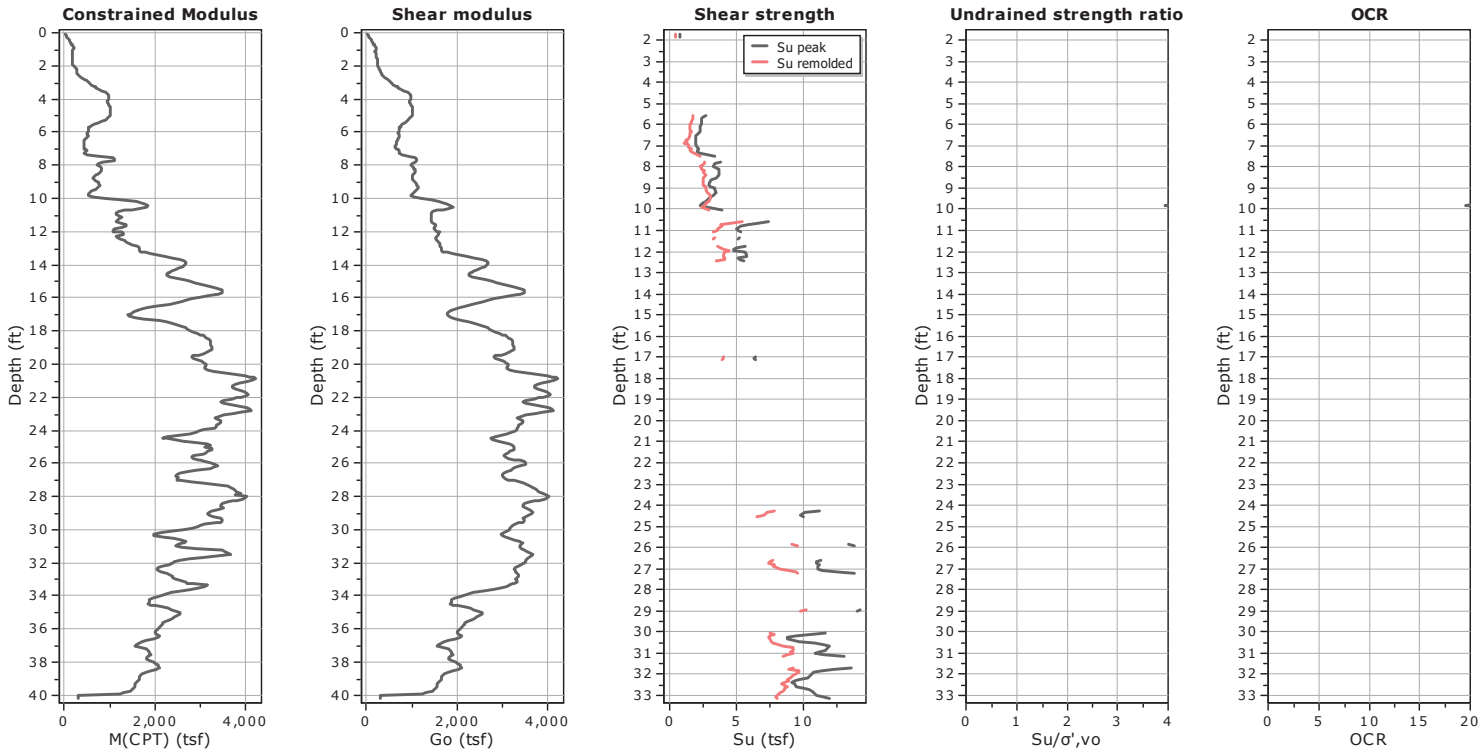
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-06
Total depth: 40.19 ft



Calculation parameters

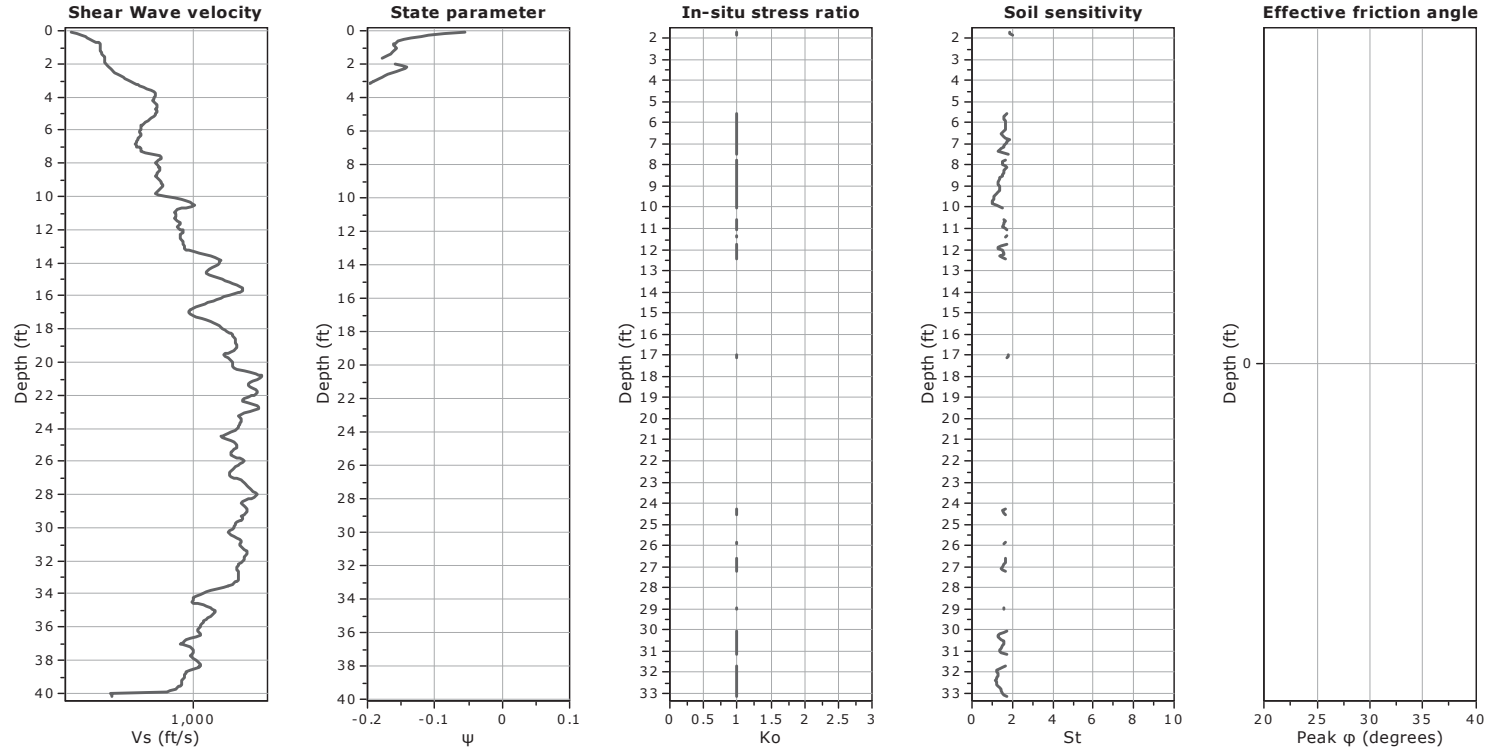
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-06
Total depth: 40.19 ft



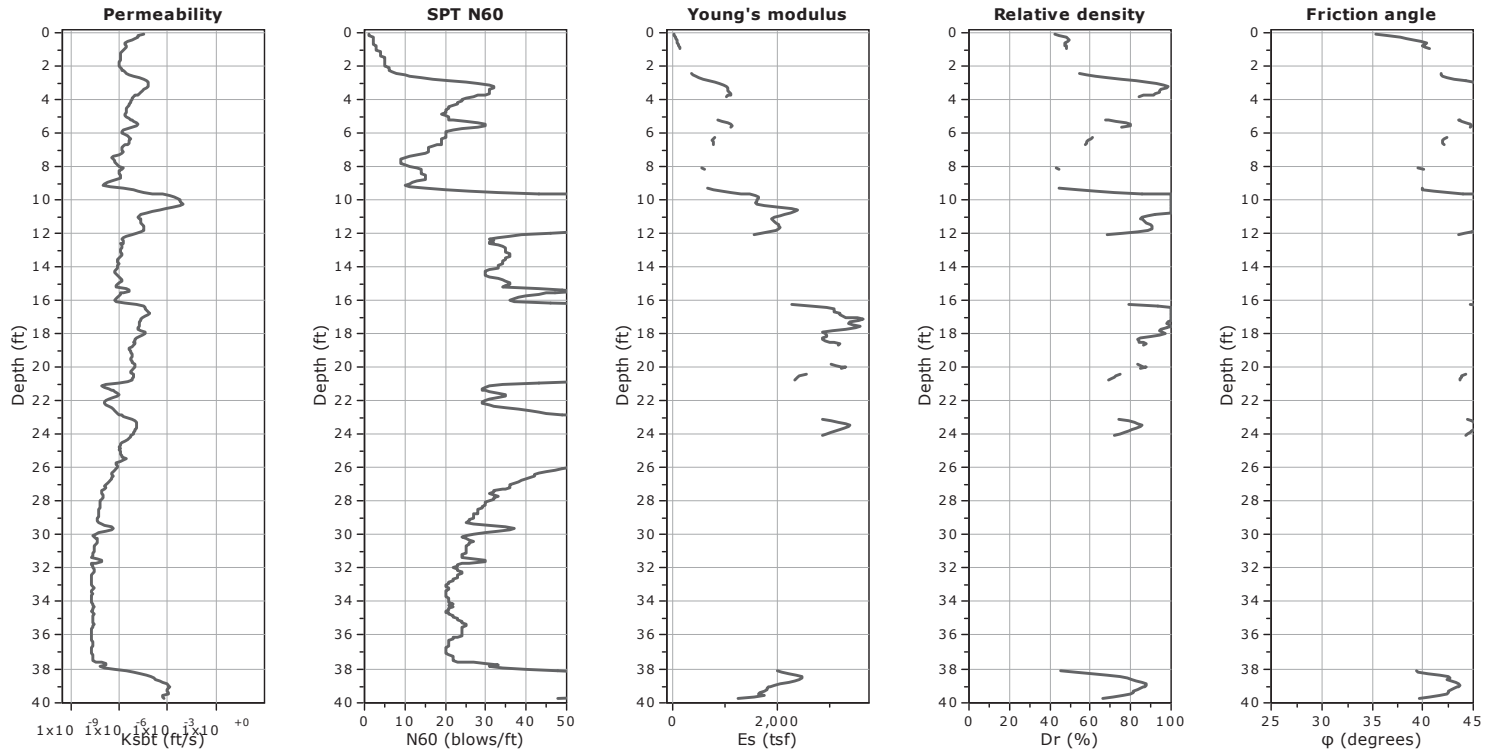
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-07A
Total depth: 40.03 ft



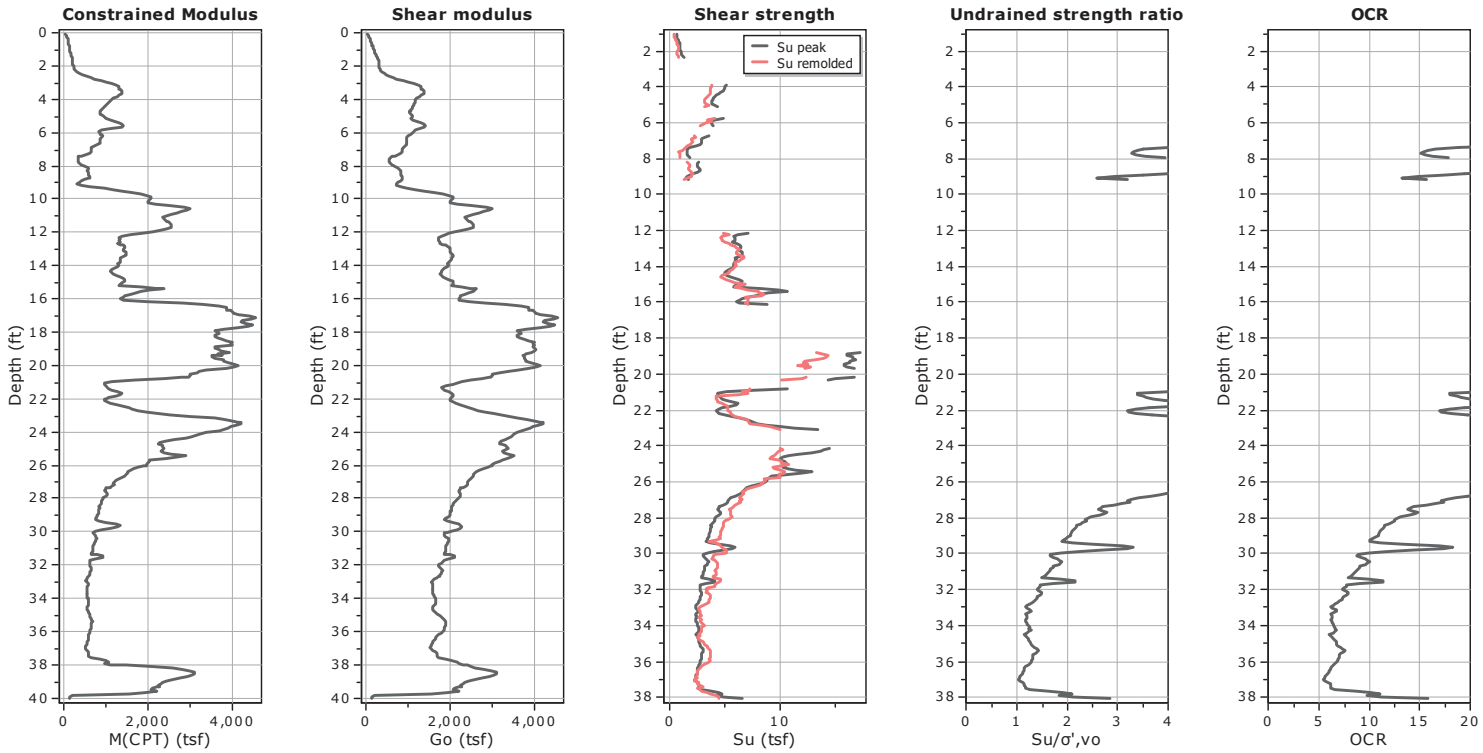
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-07A
Total depth: 40.03 ft



Calculation parameters

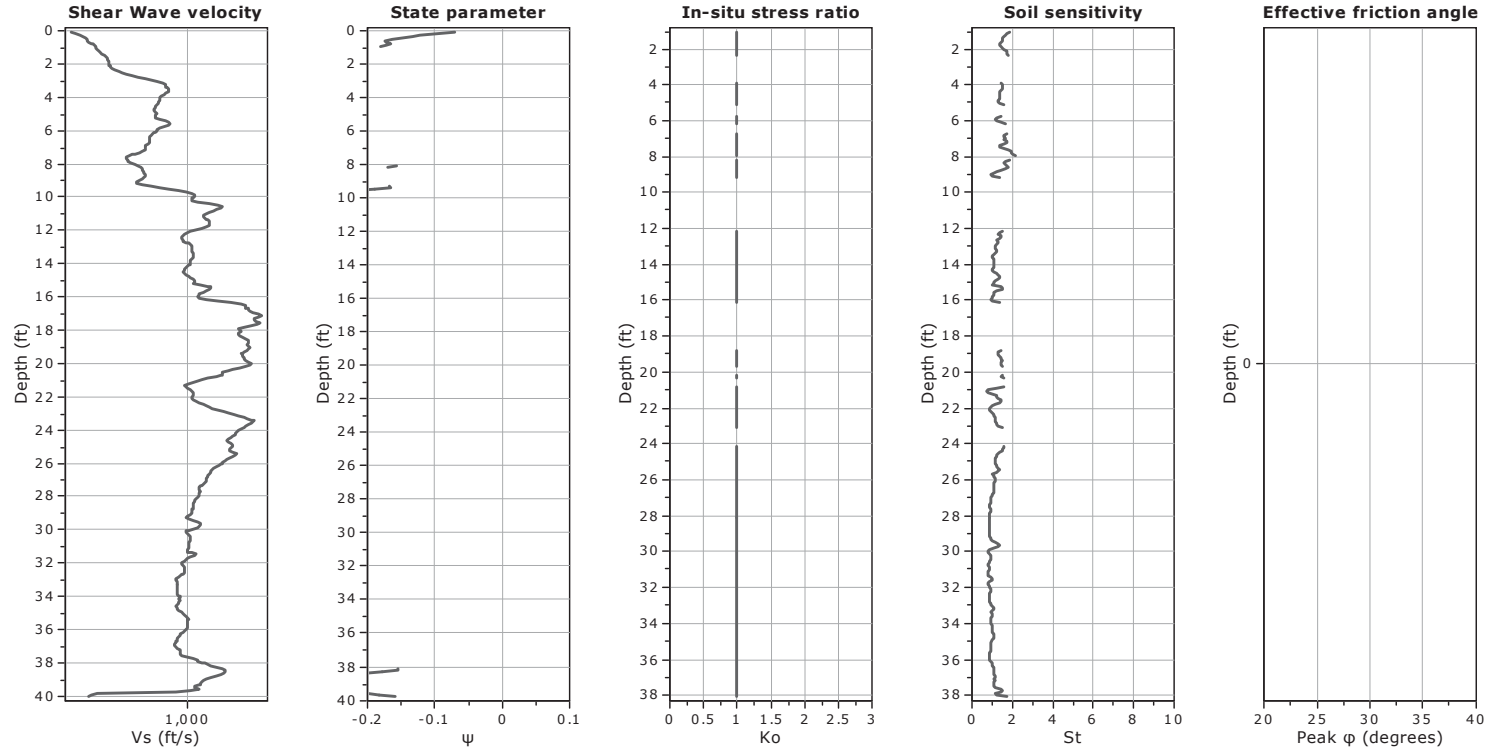
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-07A
Total depth: 40.03 ft



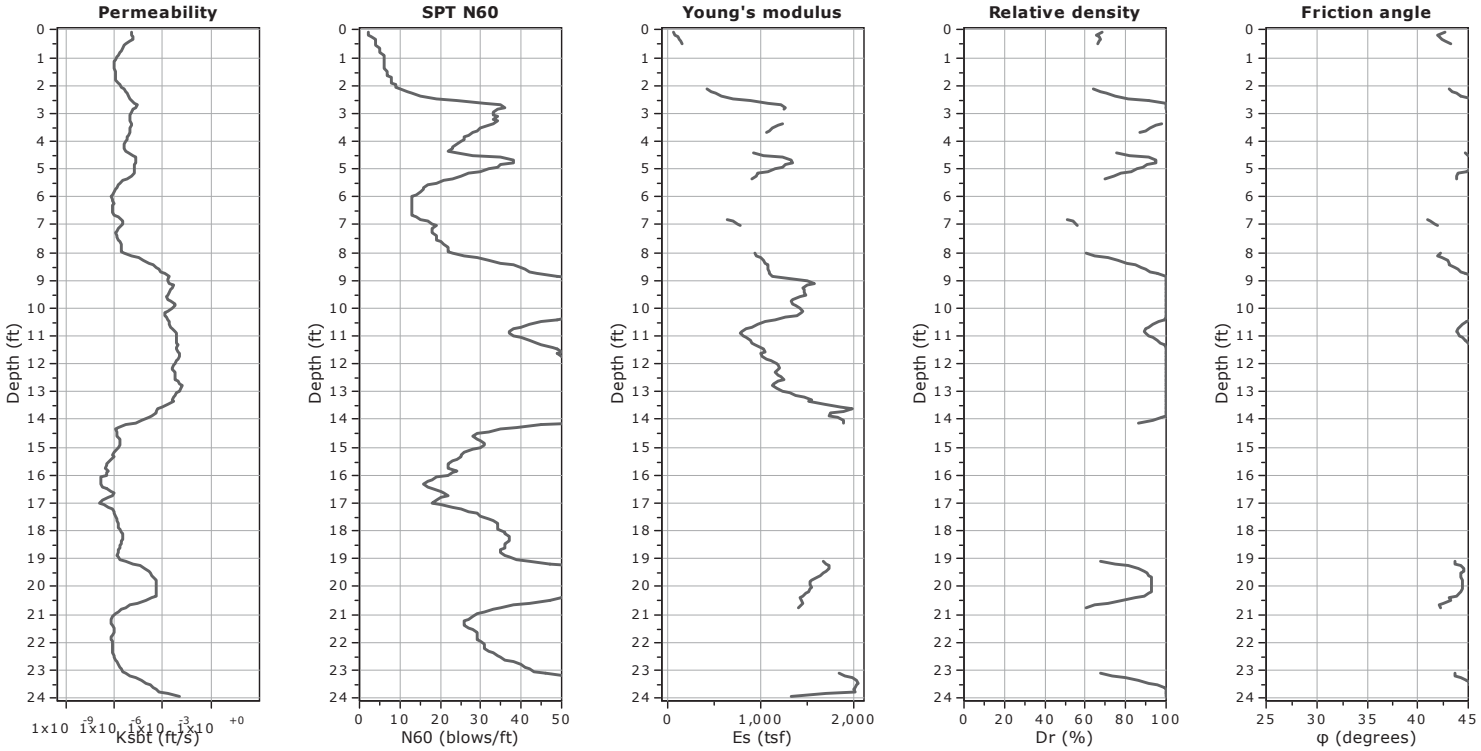
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-08A
Total depth: 24.20 ft



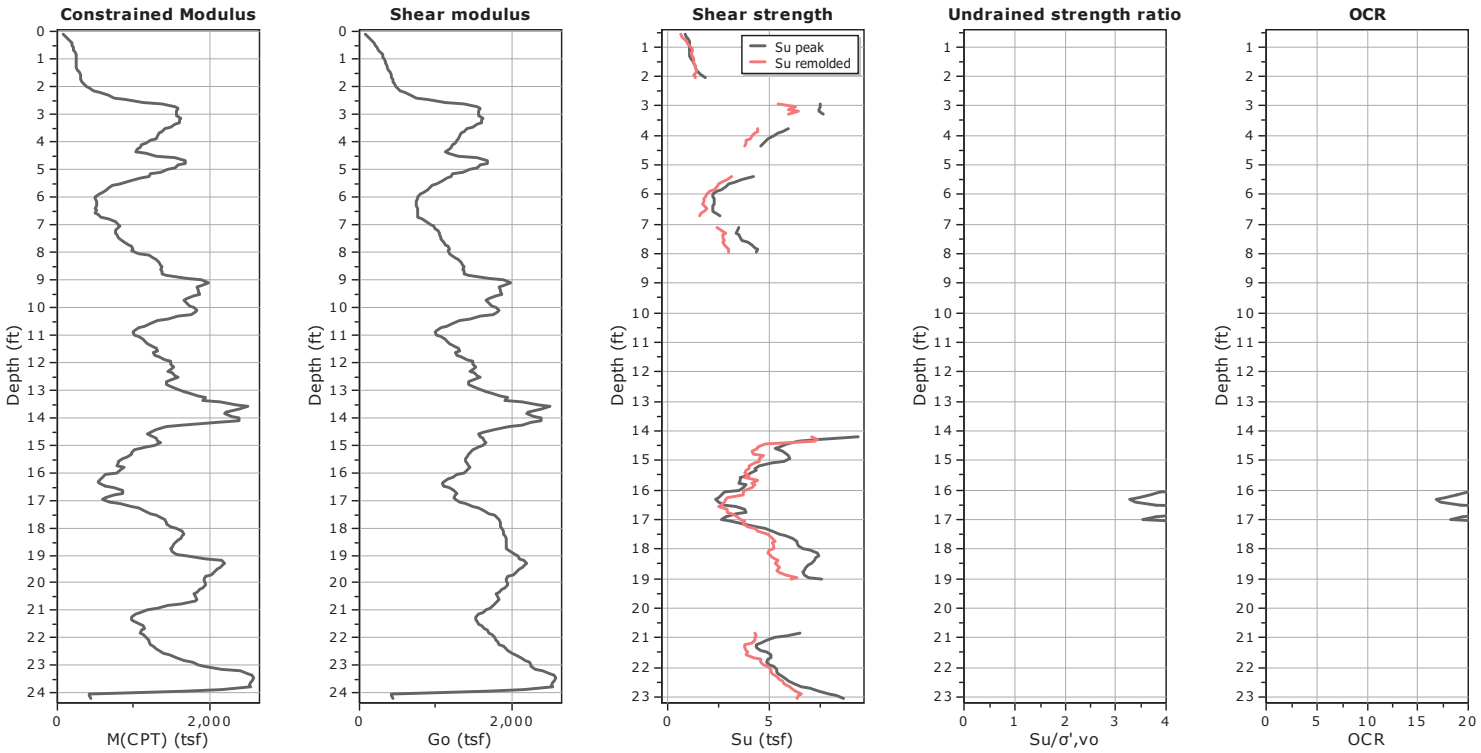
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-08A
Total depth: 24.20 ft



Calculation parameters

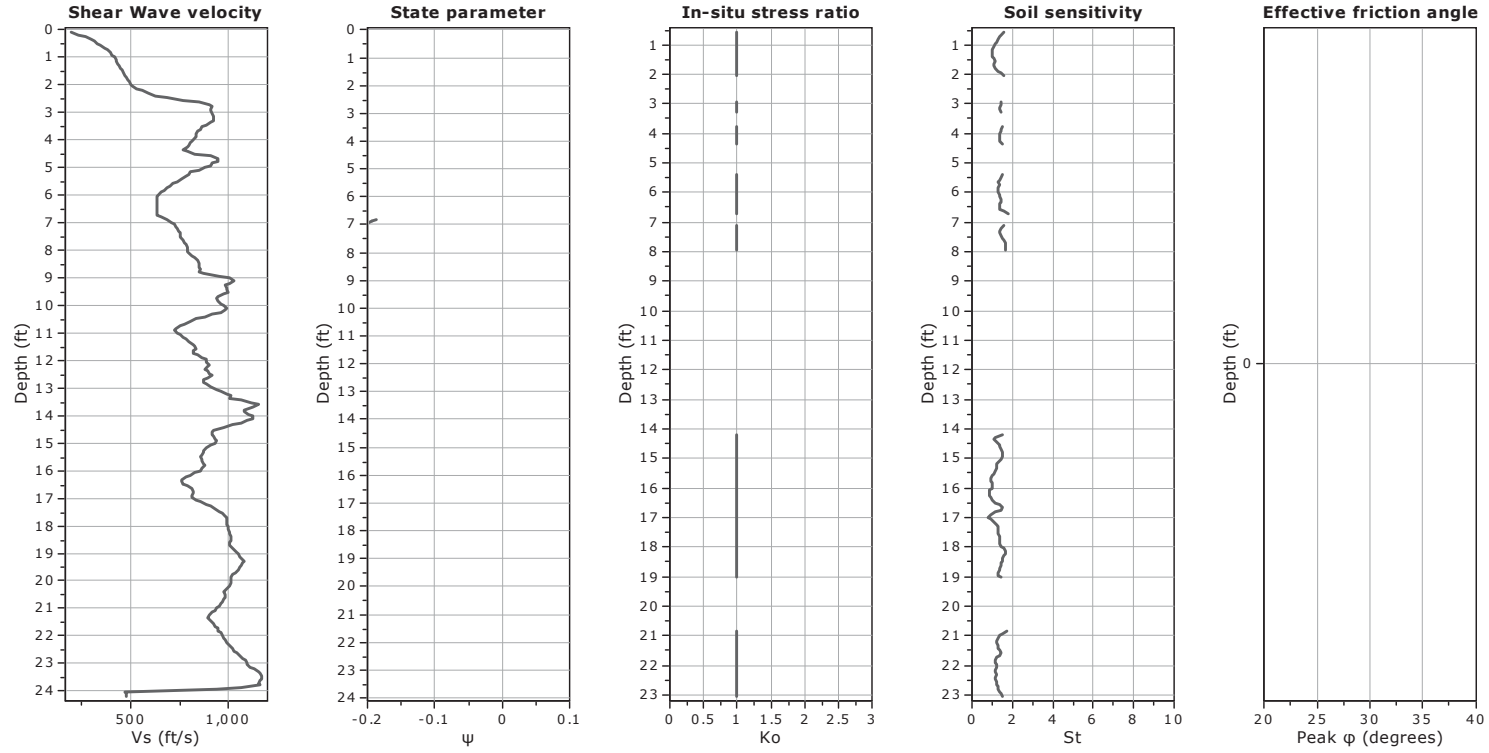
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-08A
Total depth: 24.20 ft



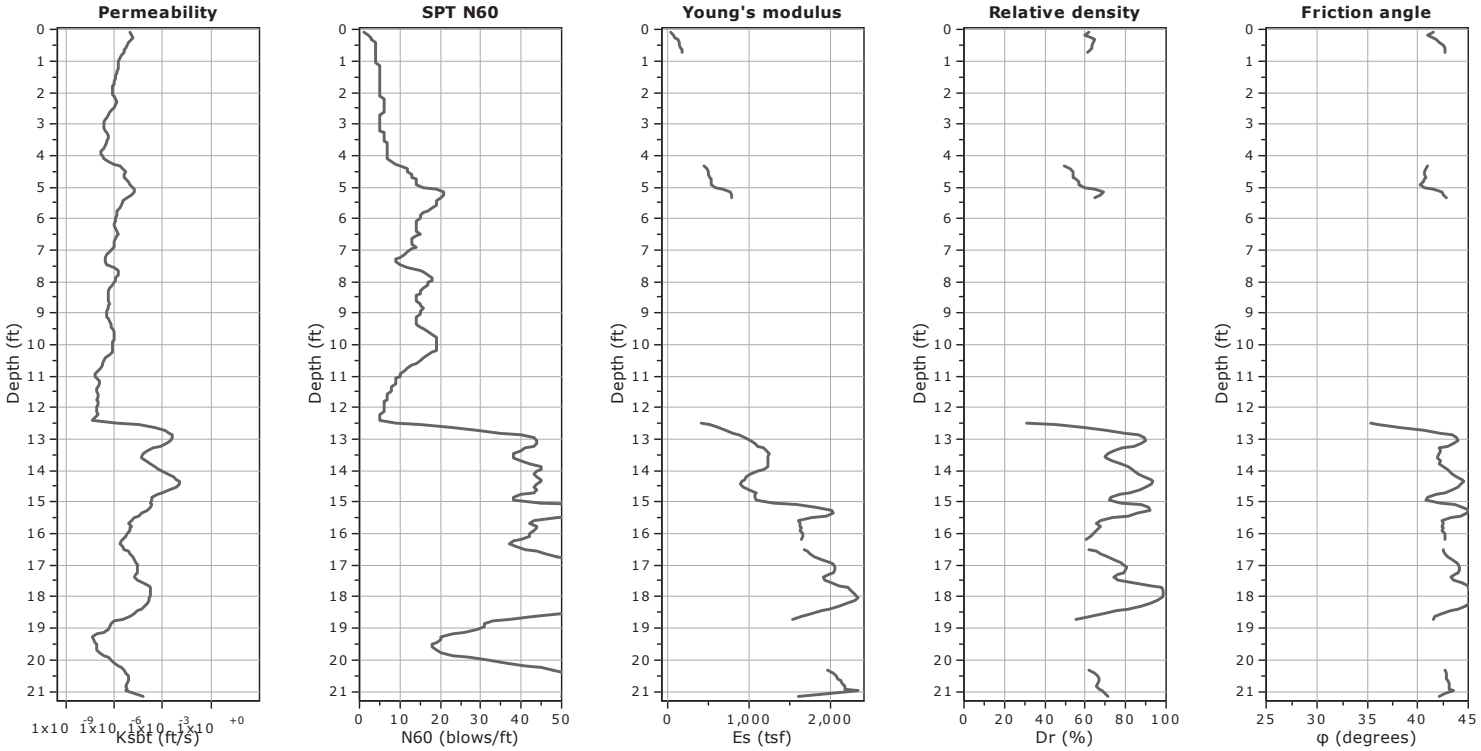
Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-09
Total depth: 21.41 ft



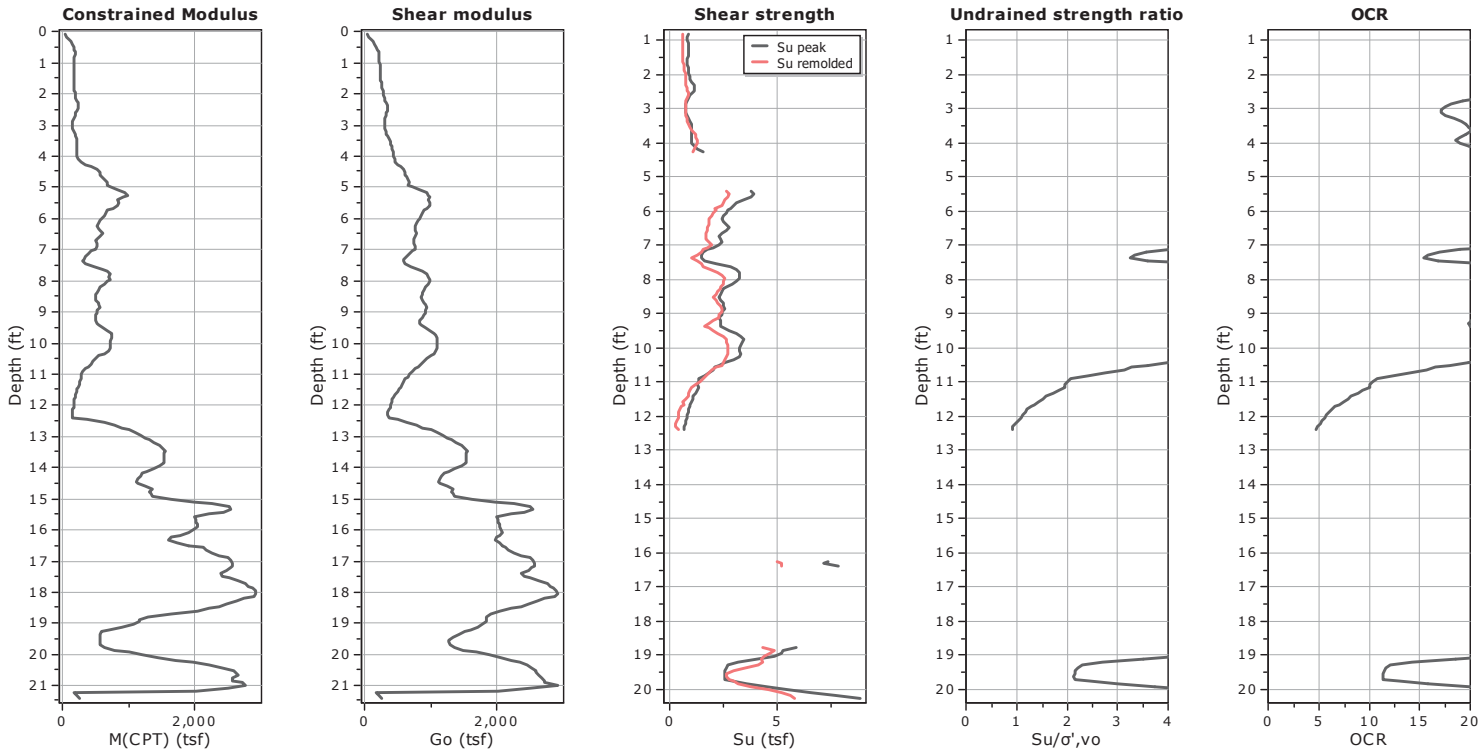
Calculation parameters

Permeability: Based on SBT_n
SPT N_{60}: Based on I_c and q_t
Young's modulus: Based on variable alpha using I_c (Robertson, 2009)
Relative density constant, C_{Dr}: 350.0
Phi: Based on Kulhawy & Mayne (1990)
User defined estimation data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-09
Total depth: 21.41 ft



Calculation parameters

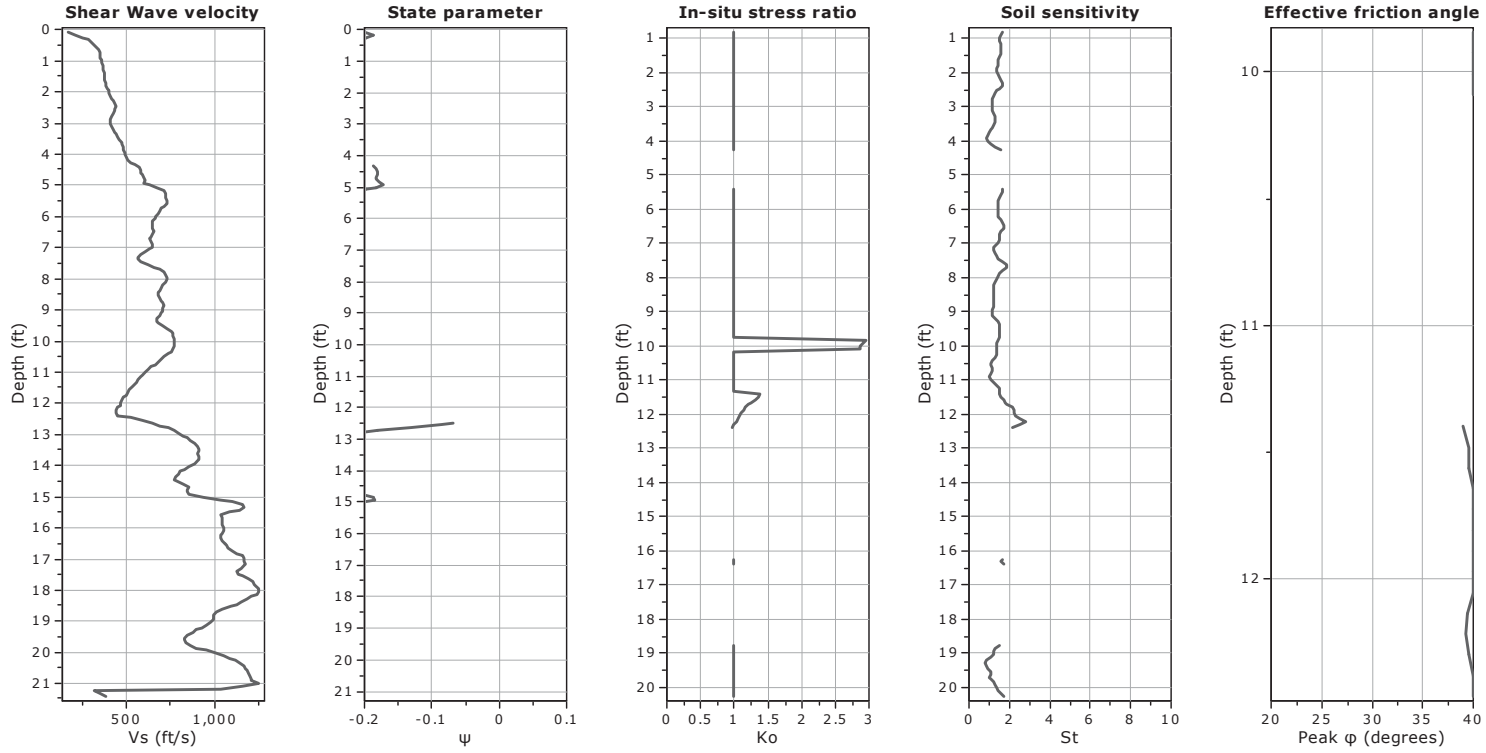
Constrained modulus: Based on variable *alpha* using I_c and Q_{tn} (Robertson, 2009)
Go: Based on variable *alpha* using I_c (Robertson, 2009)
Undrained shear strength cone factor for clays, N_{kt}: 16

OCR factor for clays, N_{kt}: 0.33
User defined estimation data
Flat Dilatometer Test data

Olsson
1700 E. 123rd Street
Olathe, KS 66061

Project: **Fox Squirrel Solar Project**
Location: **Madison County, Ohio**

CPT: SUB-09
Total depth: 21.41 ft



Calculation parameters

Soil Sensitivity factor, N_S: 7.00
User defined estimation data

Presented below is a list of formulas used for the estimation of various soil properties. The formulas are presented in SI unit system and assume that all components are expressed in the same units.

:: Unit Weight, g (kN/m³) ::

$$g = g_w \cdot \left(0.27 \cdot \log(R_f) + 0.36 \cdot \log(\frac{q_t}{p_a}) + 1.236 \right)$$

where g_w = water unit weight

:: Permeability, k (m/s) ::

$I_c < 3.27$ and $I_c > 1.00$ then $k = 10^{0.952-3.04 \cdot I_c}$

$I_c \leq 4.00$ and $I_c > 3.27$ then $k = 10^{-4.52-1.37 \cdot I_c}$

:: N_{SPT} (blows per 30 cm) ::

$$N_{60} = \left(\frac{q_c}{P_a} \right) \cdot \frac{1}{10^{1.1268-0.2817 \cdot I_c}}$$

$$N_{1(60)} = Q_{tn} \cdot \frac{1}{10^{1.1268-0.2817 \cdot I_c}}$$

:: Young's Modulus, Es (MPa) ::

$$(q_t - \sigma_v) \cdot 0.015 \cdot 10^{0.55 \cdot I_c + 1.68}$$

(applicable only to $I_c < I_{c\_cutoff}$)

:: Relative Density, Dr (%) ::

$$100 \cdot \sqrt{\frac{Q_{tn}}{k_{DR}}}$$ (applicable only to SBT_n: 5, 6, 7 and 8 or $I_c < I_{c\_cutoff}$)

:: State Parameter, ψ ::

$$\psi = 0.56 - 0.33 \cdot \log(Q_{tn,cs})$$

:: Drained Friction Angle, φ (°) ::

$$\varphi = \varphi'_{cv} + 15.94 \cdot \log(Q_{tn,cs}) - 26.88$$

(applicable only to SBT_n: 5, 6, 7 and 8 or $I_c < I_{c\_cutoff}$)

:: 1-D constrained modulus, M (MPa) ::

If $I_c > 2.20$
$\alpha = 14$ for $Q_{tn} > 14$
$\alpha = Q_{tn}$ for $Q_{tn} \leq 14$
$M_{CPT} = \alpha \cdot (q_t - \sigma_v)$

If $I_c \geq 2.20$

$$M_{CPT} = 0.03 \cdot (q_t - \sigma_v) \cdot 10^{0.55 \cdot I_c + 1.68}$$

:: Small strain shear Modulus, Go (MPa) ::

$$G_0 = (q_t - \sigma_v) \cdot 0.0188 \cdot 10^{0.55 \cdot I_c + 1.68}$$

:: Shear Wave Velocity, Vs (m/s) ::

$$V_s = \left(\frac{G_0}{\rho} \right)^{0.50}$$

:: Undrained peak shear strength, Su (kPa) ::

$N_{kt} = 10.50 + 7 \cdot \log(F_r)$ or user defined

$$S_u = \frac{(q_t - \sigma_v)}{N_{kt}}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Remolded undrained shear strength, Su(rem) (kPa) ::

$S_{u(rem)} = f_s$ (applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Overconsolidation Ratio, OCR ::

$$k_{OCR} = \left[\frac{Q_{tn}^{0.20}}{0.25 \cdot (10.50 \cdot +7 \cdot \log(F_r))} \right]^{1.25}$$ or user defined

$OCR = k_{OCR} \cdot Q_{tn}$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: In situ Stress Ratio, Ko ::

$$K_O = (1 - \sin\varphi') \cdot OCR^{\sin\varphi'}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Soil Sensitivity, S_t ::

$$S_t = \frac{N_S}{F_r}$$

(applicable only to SBT_n: 1, 2, 3, 4 and 9 or $I_c > I_{c\_cutoff}$)

:: Peak Friction Angle, φ' (°) ::

$$\varphi' = 29.5^\circ \cdot B_q^{0.121} \cdot (0.256 + 0.336 \cdot B_q + \log Q_t)$$

(applicable for $0.10 < B_q < 1.00$)

References

• Robertson, P.K., Cabal K.L., Guide to Cone Penetration Testing for Geotechnical Engineering, Gregg Drilling & Testing, Inc., 5th Edition, November 2012

• Robertson, P.K., Interpretation of Cone Penetration Tests - a unified approach., Can. Geotech. J. 46(11): 1337–1355 (2009)

APPENDIX D

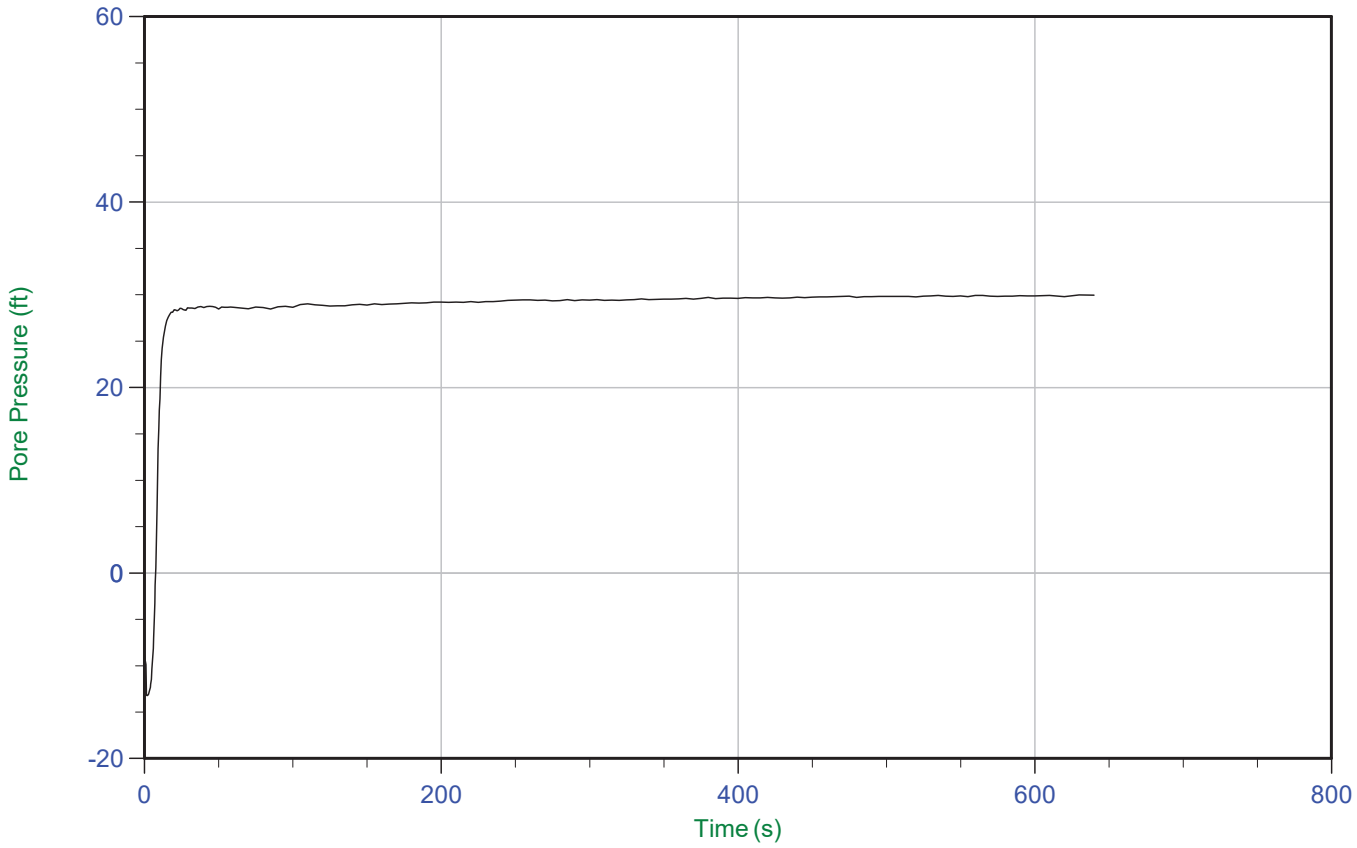
PPD Testing Logs

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 11/15/2020 03:20
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-SUB-01
Cone: EC600 Area=15 cm²



Trace Summary:

Filename: 20-61-21576_CP01.ppd2
Depth: 12.200 m / 40.026 ft
Duration: 640.0 s

u Min: -13.2 ft
u Max: 30.0 ft
u Final: 30.0 ft

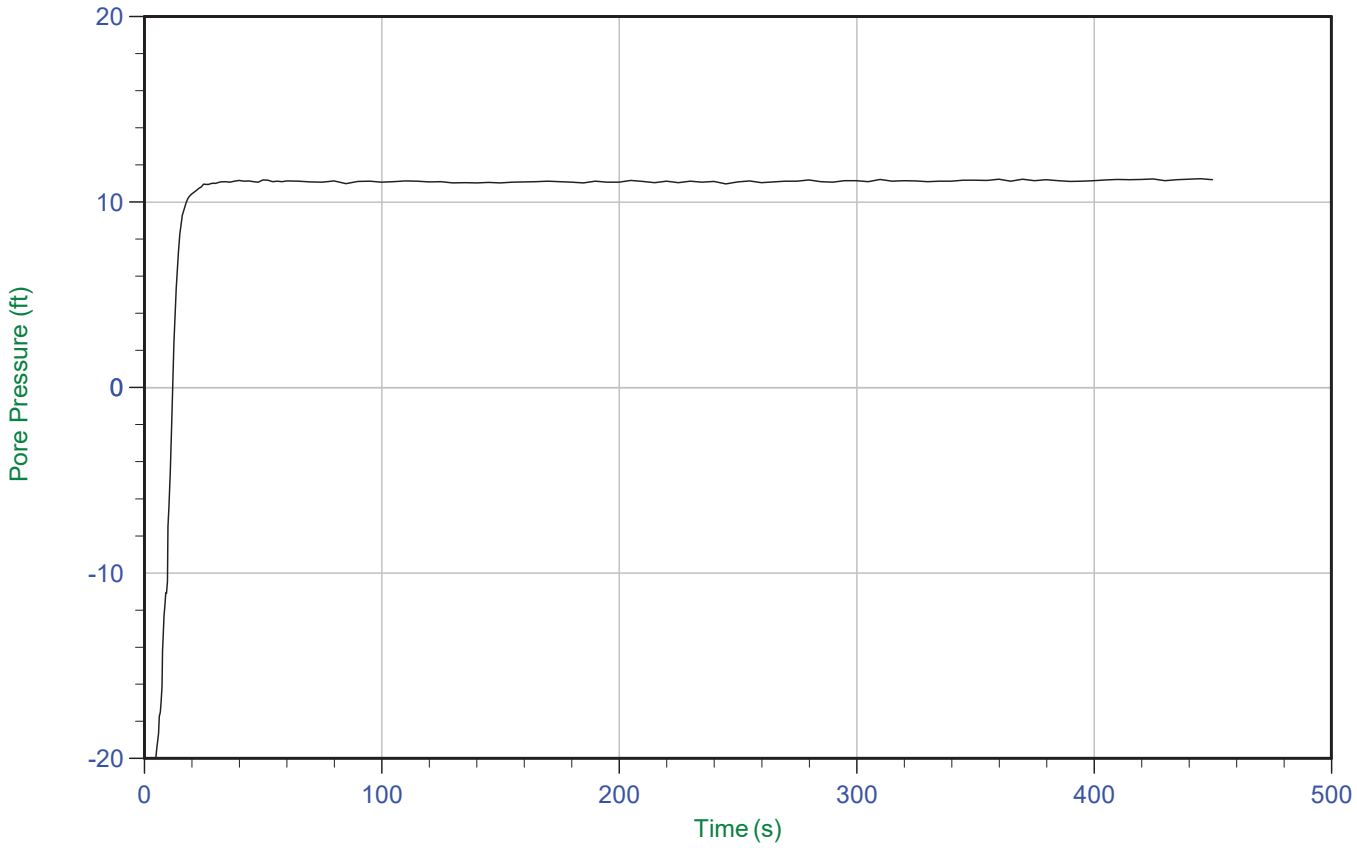
WT: 3.075 m / 10.090 ft
Ueq: 29.9 ft

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 11/16/2020 10:00
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-013
Cone: EC600 Area=15 cm²



Trace Summary:

Filename: 20-61-21576_CP013.ppd2
Depth: 6.100 m / 20.013 ft
Duration: 450.0 s

u Min: -24.2 ft
u Max: 11.3 ft
u Final: 11.2 ft

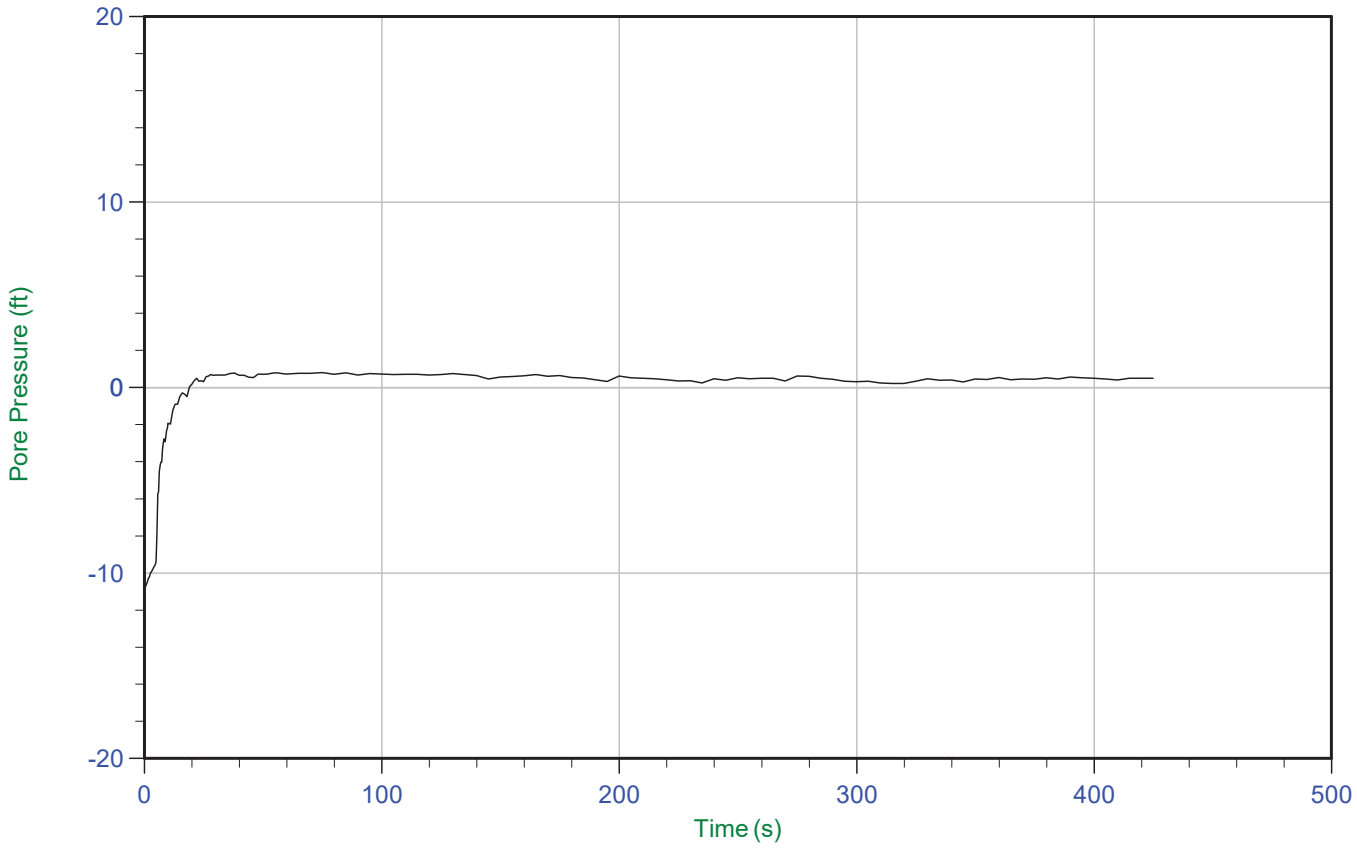
WT: 2.696 m / 8.845 ft
Ueq: 11.2 ft

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 11/13/2020 03:13
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-070
Cone: EC600 Area=15 cm²



Trace Summary:

Filename: 20-61-21576_CP070.ppd2
Depth: 2.300 m / 7.546 ft
Duration: 425.0 s

u Min: -10.9 ft
u Max: 0.8 ft
u Final: 0.5 ft

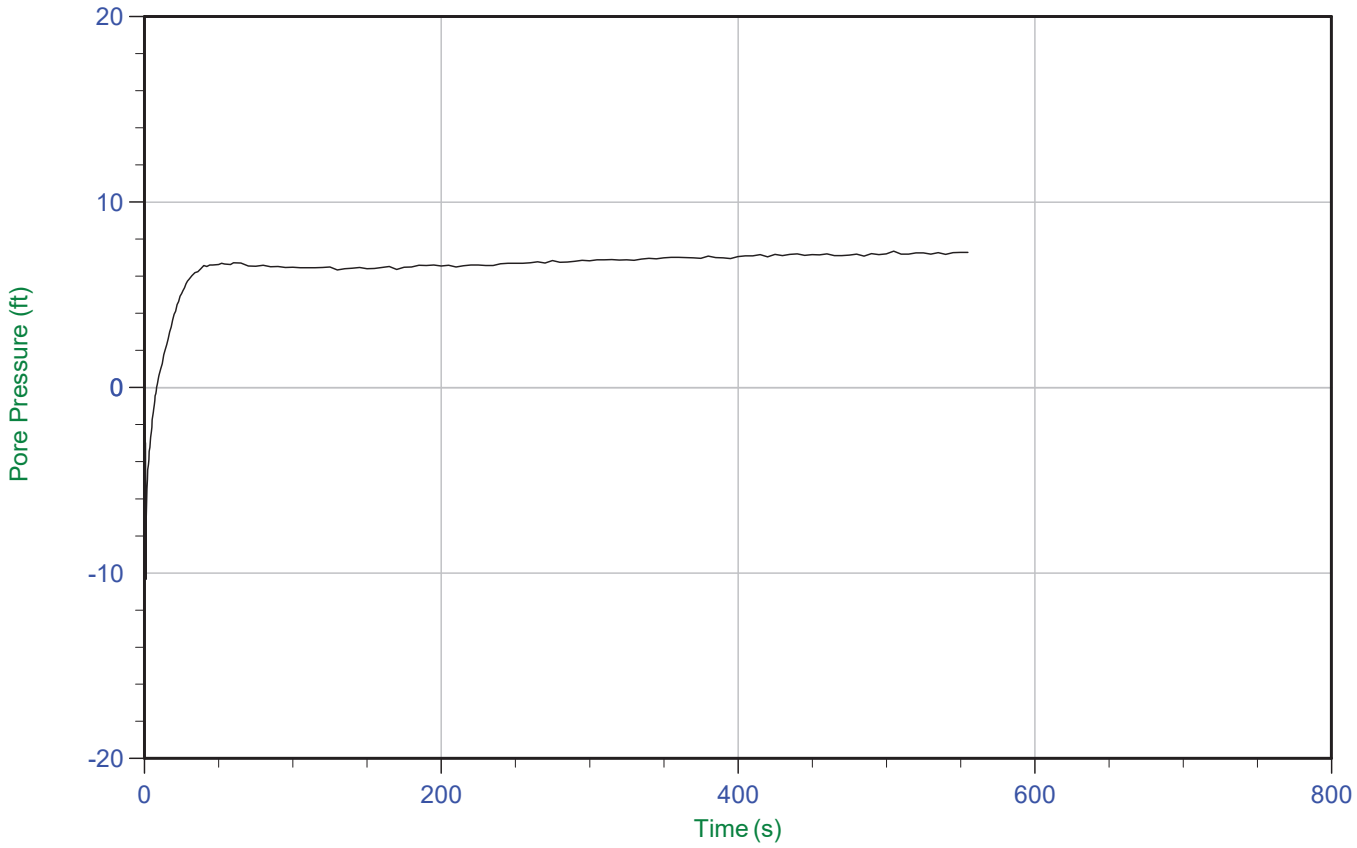
WT: 2.167 m / 7.111 ft
Ueq: 0.4 ft

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 11/10/2020 12:31
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-208
Cone: EC600 Area=15 cm²



Trace Summary:

Filename: 20-61-21576_CP208.ppd2
Depth: 5.000 m / 16.404 ft
Duration: 555.0 s

u Min: -10.3 ft
u Max: 7.4 ft
u Final: 7.3 ft

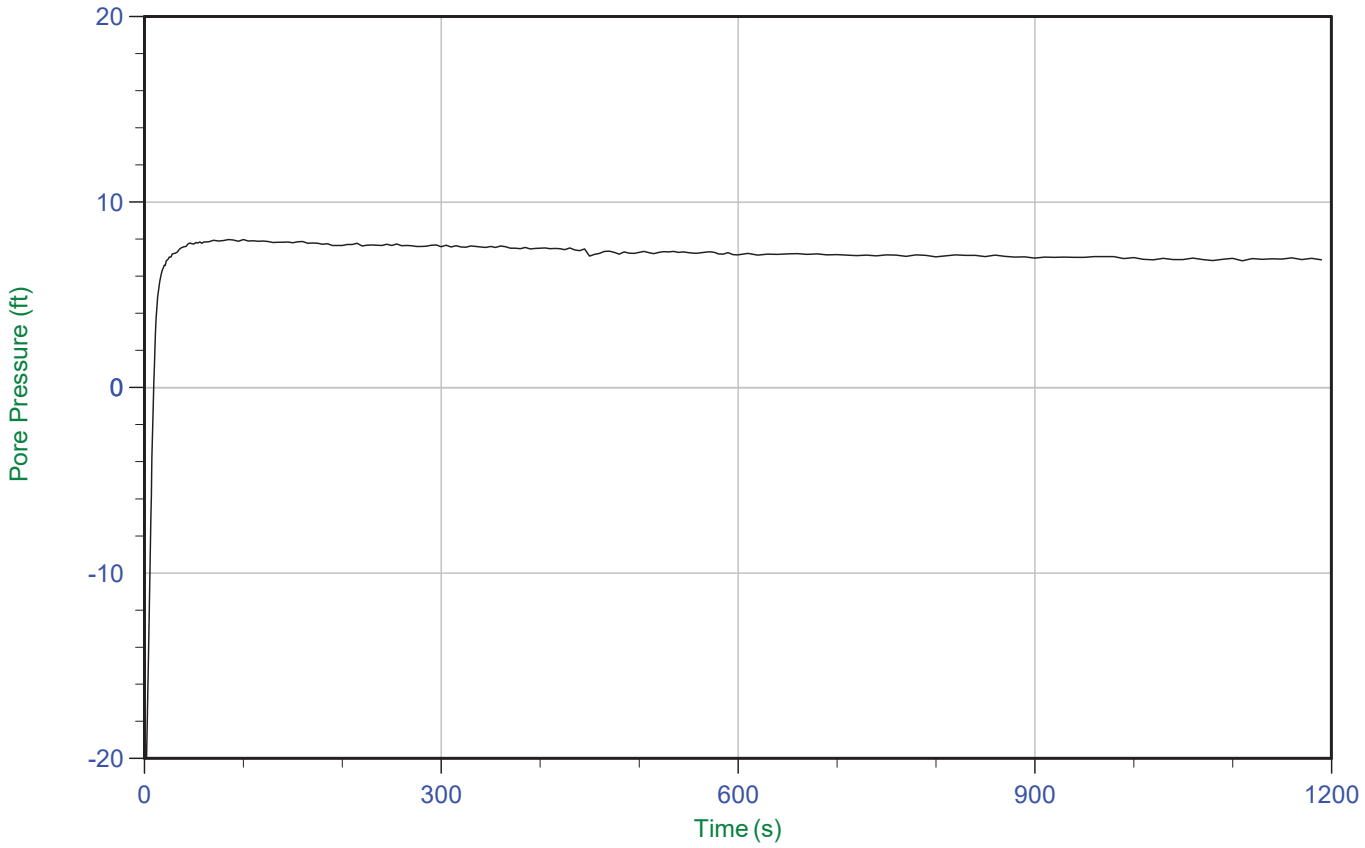
WT: 2.787 m / 9.143 ft
Ueq: 7.3 ft

CONETEC

Olsson Associates

Job No: 20-61-21576
Date: 11/17/2020 09:26
Site: Fox Squirrel Solar, London, OH

Sounding: CPT20-GEO-253
Cone: EC600 Area=15 cm²



Trace Summary:

Filename: 20-61-21576_CP253.ppd2
Depth: 5.550 m / 18.208 ft
Duration: 1190.0 s

u Min: -26.1 ft
u Max: 8.0 ft
u Final: 6.9 ft

WT: 3.460 m / 11.351 ft
Ueq: 6.9 ft

APPENDIX E
Soil Boring Logs

SYMBOLS AND NOMENCLATURE

DRILLING NOTES

DRILLING AND SAMPLING SYMBOLS

SS:	Split-Spoon Sample (1.375" ID, 2.0" OD)	HSA:	Hollow Stem Auger	NE:	Not Encountered
U:	Thin-Walled Tube Sample (3.0" OD)	CFA:	Continuous Flight Auger	NP:	Not Performed
CS:	Continuous Sample	HA:	Hand Auger	NA:	Not Applicable
BS:	Bulk Sample	CPT:	Cone Penetration Test	% Rec:	Percent of Recovery
MC:	Modified California Sampler	WB:	Wash Bore	WD:	While Drilling
GB:	Grab Sample	FT:	Fish Tail Bit	IAD:	Immediately After Drilling
SPT:	Standard Penetration Test Blows per 6.0"	RB:	Rock Bit	AD:	After Drilling
				CI:	Cave-In

DRILLING PROCEDURES

Soil samples designated as "U" samples on the boring logs were obtained in using Thin-Walled Tube Sampling techniques. Soil samples designated as "SS" samples were obtained during Penetration Test using a Split-Spoon Barrel sampler. The standard penetration resistance 'N' value is the number of blows of a 140 pound hammer falling 30 inches to drive the Split-Spoon sampler one foot. Soil samples designated as "MC" were obtained in using Thick-Walled, Ring-Lined, Split-Barrel Drive sampling techniques. Recovered samples were sealed in containers, labeled, and protected for transportation to the laboratory for testing.

WATER LEVEL MEASUREMENTS

Water levels indicated on the boring logs are levels measured in the borings at the times indicated. In relatively high permeable materials, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels is not possible with only short-term observations.

SOIL PROPERTIES & DESCRIPTIONS

Descriptions of the soils encountered in the soil test borings were prepared using Visual-Manual Procedures for Descriptions and Identification of Soils.

PARTICLE SIZE

Boulders	12 in. +	Coarse Sand	4.75mm-2.0mm	Silt	0.075mm-0.005mm
Cobbles	12 in.-3 in.	Medium Sand	2.0mm-0.425mm	Clay	<0.005mm
Gravel	3 in.-4.75mm	Fine Sand	0.425mm-0.075mm		

COHESIVE SOILS

Consistency	Unconfined Compressive Strength (Qu) (tsf)
Very Soft	<0.25
Soft	0.25 – 0.5
Firm	0.5 – 1.0
Stiff	1.0 – 2.0
Very Stiff	2.0 – 4.0
Hard	> 4.0

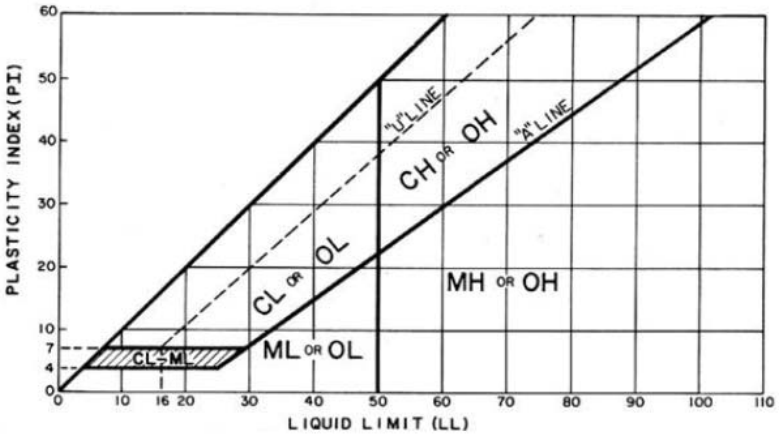
COHESIONLESS SOILS

Relative Density	'N' Value
Very Loose	0 – 3
Loose	4 – 9
Medium Dense	10 – 29
Dense	30 – 49
Very Dense	≥ 50

COMPONENT %

Description	Percent (%)
Trace	<5
Few	5 - 10
Little	15 - 25
Some	30 - 45
Mostly	50 - 100

PLASTICITY CHART

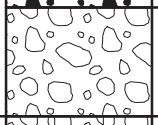
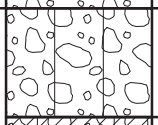
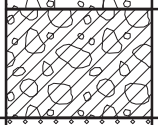
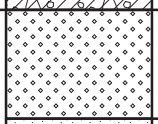
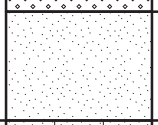
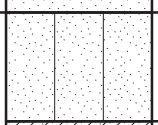
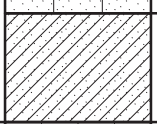
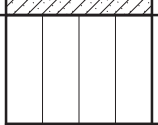
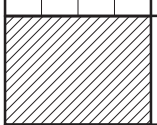
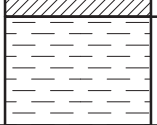
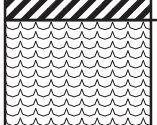
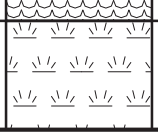


ROCK QUALITY DESIGNATION (RQD)

Description	RQD (%)
Very Poor	0 – 25
Poor	25 – 50
Fair	50 – 75
Good	75 – 90
Excellent	90 – 100

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SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

BOREHOLE REPORT NO. GEO-007

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.79051 **LONG**: -83.39455

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist to wet; with sand; trace gravel gravel; stiff to very stiff*		0	SS 1		2-4-7 N=11					PP = 4.5
			5	U 2							PP = 4.5
				SS 3		4-5-6 N=11					PP = 3.5
			10	SS 4		4-8-9 N=17				21/8	PP = 4
	13.5'										
	LEAN CLAY *dark grayish brown; moist to wet; with sand; trace gravel; hard*		15	SS 5		7-15-17 N=32					PP = 3.5
	▼		20	SS 6		11-20-28 N=48		10.4			PP = 4.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 18.0 ft
IAD	▼ 18.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-011

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.78472 **LONG**: -83.39854

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark brown; moist; little sand; trace gravel; trace roots to 3.5'; medium stiff*		0	SS 1		3-3-4 N=7					PP = 2.5
			5	SS 2		3-4-4 N=8		20.8		41/22	P-200 = 78.7% PP = 2.75
	5.5' ***LEAN CLAY*** *brown to reddish brown; moist to wet; with sand; trace gravel; stiff to very stiff*			U 3							PP = 4.5
			10	SS 4		5-8-13 N=21					PP = 2.5
	13.5': fine to coarse grained sand seams		15	SS 5		3-4-5 N=9		14.4			PP = 4.5
	20.0'		20	SS 6		6-7-10 N=17					PP = 4

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 18.0 ft
IAD	▼ 17.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

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BOREHOLE REPORT NO. GEO-014

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	**EDF Renewables**
PROJECT NUMBER	**LOCATION**
020-32750	**Madison County, Ohio**

Split Spoon ■ Shelby Tube

LAT: 39.77863 **LONG**: -83.40044

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY		0								
	brown with gray mottling; moist; with sand; trace gravel; trace roots to 3.5'; medium stiff to stiff			SS 1		1-3-4 N=7					PP = 2.75
			5	U 2							PP = 4.5
				SS 3		5-5-5 N=10				23/9	PP = 3.75
			10	SS 4		4-2-3 N=5					PP = 1.5
			15	SS 5		4-3-5 N=8		11.5			PP = 2
			20	SS 6		4-6-4 N=10					PP = 1.5
		20.0'									

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

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BOREHOLE REPORT NO. GEO-018

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**

CLIENT: **EDF Renewables**

PROJECT NUMBER: **020-32750**

LOCATION: **Madison County, Ohio**

Split Spoon ☒ Shelby Tube ■

LAT: 39.77313 **LONG**: -83.40039

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY		0								
	brown to dark brown; moist; with sand; trace gravel; trace roots to 3.5'; medium stiffto stiff			SS 1		2-2-3 N=5					PP = 2.5
	3.5': transitions to brown and gray		5	SS 2		3-5-6 N=11					PP = 1.75
				U 3			2.4	11.1	126.3	25/12	PP = 2.5
			10	SS 4		4-4-3 N=7					PP = 3
			15	SS 5		3-4-5 N=9		10.2			PP = 2.25
	18.0'										
	LEAN CLAY *dark grayish brown; moist; with sand; trace gravel; hard* ***20.0'***		20	SS 6		16-22-15 N=37					PP = 2.75

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-020

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ☒ Shelby Tube ■

LAT: 39.77255 **LONG**: -83.3922

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist; with sand; trace gravel; medium stiff to stiff*		0	SS 1		4-6-6 N=12					PP = 3.5
			5	U 2				12.2	127.6		PP = 2
				SS 3		3-3-2 N=5					PP = 1.5
			10	SS 4		2-6-6 N=12		11.3			PP = 3.5
	12.0'										
	SILTY CLAY *dark grayish brown; moist; with sand; trace gravel; stiff*		15	SS 5		4-4-6 N=10				18/5	PP = 3
	20.0'		20	SS 6		7-7-7 N=14		12.4			PP = 3

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-028

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ☒ Shelby Tube ■

LAT: 39.77893 **LONG**: -83.38814

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist; with sand; trace gravel; trace roots; stiff*		0	SS 1		2-5-10 N=15		12.3		35/18	PP = 3
	3.0'										
	LEAN CLAY *brown; moist; with sand; trace gravel; medium stiff to very stiff*		5	SS 2		5-4-8 N=12					PP = 4.5
	6.0': with coarse grained sand seams			U 3			1.6*	13.5	125.9		*UU Compressive Strength
			10	SS 4		2-3-4 N=7					PP = 1.5
			15	SS 5		6-7-11 N=18					PP = 1.75
	17.0' ***SILTY SAND*** *dark grayish brown; moist to wet; trace gravel; fine to coarse grained; medium dense*		20	SS 6		4-9-11 N=20		13.6			P-200 = 22.6%
	20.0' ***BASE OF BORING AT 20.0 FEET***										

WATER LEVEL OBSERVATIONS	
WD	▽ 19.0 ft
IAD	▼ 19.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-034

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.77378 **LONG**: -83.38309

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown and gray; moist; with sand; few gravel; trace roots; stiff*		0	SS 1		3-5-8 N=13		11.0			P-200 = 55.5% PP = 4.5
	3.5'										
	LEAN CLAY *brown; moist; with sand; few gravel; medium stiff to stiff*		5	U 2			3.6*	12.0	128.6		*UU Compressive StrengthPP = 3.75
				SS 3		3-4-4 N=8					PP = 3.5
			10	SS 4		3-9-6 N=15					PP = 4.25
	13.5'										
	SILTY CLAY *dark grayish brown; moist; with sand; few gravel; medium stiff to stiff*		15	SS 5		2-3-3 N=6		14.2		21/7	PP = 1.5
			20	SS 6		4-4-5 N=9					PP = 1.75
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-036

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

MATERIAL DESCRIPTION

LAT: 39.78893 **LONG**: -83.38136

ELEVATION (ft)	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
		0								
			SS 1		2-4-8 N=12					PP = 3.5
			SS 2		4-6-8 N=14		11.7			PP = 4.5
		5								
			SS 3		3-5-9 N=14				24/10	PP = 1.75
			SS 4		4-5-8 N=13					PP = 1.5
		10								
			U 5							
			SS 6		3-4-3 N=7					PP = 1.5
		15								
			SS 7		7-9-14 N=23		10.6			PP = 4.5
		20								

LEAN CLAY

brown and gray; moist; with sand; trace gravel; medium stiff to very stiff

20.0'

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-041

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

■ Shelby Tube ⊠ Split Spoon

LAT: 39.78305 **LONG**: -83.37641

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown and gray; moist; with sand; trace gravel; medium stiff to stiff*		0	U 1			2.3*	16.6	110.2		*UU Compressive StrengthPP = 4.5
			5	SS 2		4-6-5 N=11					PP = 4
				SS 3		2-3-5 N=8		23.9			PP = 2.5
			10	SS 4		2-2-5 N=7					PP = 3
	12.0'										
	LEAN CLAY *grayish brown; moist; with sand; trace gravel; hard*		15	SS 5		7-14-19 N=33		9.1		26/11	PP = 2.5
	18.5': transitions to dark grayish brown		20	SS 6		14-16-15 N=31					PP = 4.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-044

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.77631 **LONG**: -83.37558

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown with gray; moist; with sand; trace gravel; medium stiff to stiff*		0	SS 1		2-3-5 N=8					PP = 2.5
			5	U 2			2.9*	10.9	127.0		*UU Compressive StrengthPP = 4.5
				SS 3		6-7-8 N=15					PP = 4.5
	8.0'										
	SILTY CLAY *brown with gray; moist; with sand; trace gravel; medium stiff to very stiff*		10	SS 4		3-3-4 N=7		13.8		20/6	P-200 = 61.5% PP = 1.5
			15	SS 5		6-7-9 N=16		11.1			
	20.0'		20	SS 6		9-9-10 N=19					

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-053

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ☒ Shelby Tube ■

LAT: 39.79489 **LONG**: -83.34294

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist; with sand; with gravel; medium stiff*		0	SS 1		2-3-2 N=5		17.5			P-200 = 64.0% PP = 2.5
	3.0'										
	LEAN CLAY *brown to reddish brown; moist; little sand; medium stiff to stiff; few gravel*		5	SS 2		2-4-4 N=8				28/11	PP = 1.5
				SS 3		3-4-5 N=9					PP = 1.25
			10	U 4				10.1			PP = 4.5
	12.0'										
	SILTY SAND *dark grayish brown; moist to wet; fine to coarse grained; few gravel; medium dense to dense*		15	SS 5		9-15-21 N=36					
	20.0'		20	SS 6		9-10-10 N=20					

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 14.0 ft
IAD	▼ 13.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-055

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.79489 **LONG**: -83.3344

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist; with sand; trace gravel; trace roots to 3.5'; medium stiff to very stiff*		0	SS 1		2-3-4 N=7					PP = 3
			5	U 2							PP = 4.5
				SS 3		5-8-8 N=16					
			10	SS 4		2-3-4 N=7		14.3		26/10	PP = 2
	12.0'										
	SILTY SAND *dark grayish brown; moist to wet; fine to coarse grained; few gravel; medium dense to dense*		15	SS 5		3-7-7 N=14		12.8			P-200 = 46.0%
	20.0'		20	SS 6		13-15-17 N=32					

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 14.0 ft
IAD	▼ 15.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/16/20	FINISHED:	11/16/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-063

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

MATERIAL DESCRIPTION

LAT: 39.79173 **LONG**: -83.3284

ELEVATION (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	0								
		SS 1		2-3-3 N=6		27.7			PP = 3
		SS 2		2-3-2 N=5					PP = 1.75
	5								
		SS 3		2-5-6 N=11					PP = 3.5
		U 4							PP = 4.5
		SS 5		10-12-18 N=30					PP = 4.5
	10								
		SS 6		10-17-32 N=49		8.7		22/9	P-200 = 54.7% PP = 4.5
	15								
		SS 7		10-17-32 N=49					PP = 4.5
	20								

LEAN CLAY

dark grayish brown; moist; with sand; trace roots to 3.5'; medium stiff to stiff; trace gravel

8.0'

LEAN CLAY

dark grayish brown; moist; with sand; few gravel; hard

20.0'

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/16/20	FINISHED:	11/16/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-065

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.78858 **LONG**: -83.34967

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist; with sand; few gravel; very stiff*		0	SS 1		4-5-16 N=21					PP = 2.25
			5	SS 2		5-7-9 N=16		11.7		23/8	P-200 = 54.0% PP = 3.5
	5.5'										
	LEAN CLAY *brown to dark grayish brown; moist to wet; with sand; trace gravel; medium stiff to very stiff*			U 3							PP = 4.5
			10	SS 4		6-4-4 N=8		20.5			PP = 2
			15	SS 5		12-8-8 N=16					PP = 4.5
	▼ ▽ ***20.0'***		20	SS 6		8-8-11 N=19					PP = 4

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 19.5 ft
IAD	▼ 19.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-067

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.78858 **LONG**: -83.34141

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	SILTY CLAY *brown; moist; with sand; trace gravel; medium stiff to stiff*		0								
				SS 1		2-2-5 N=7		27.9			PP = 3.5
				SS 2		3-4-4 N=8				21/7	PP = 3
			5								
				U 3			2.9*	12.1	131.5		*UU Compressive StrengthPP = 4.5
				SS 4		4-6-7 N=13					PP = 4.5
			10								
	12.0'										
	LEAN CLAY *dark grayish brown; moist; with sand; trace gravel; few fine to coarse sand seams; very stiff*										
			15	SS 5		5-8-10 N=18					PP = 4.5
	17.0'										
	POORLY GRADED SAND ▽ ▼ *dark grayish brown; moist to wet; trace gravel; fine to coarse grained; medium dense*										
	20.0'		20	SS 6		4-7-12 N=19		9.2			

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 18.0 ft
IAD	▼ 18.5 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/16/20	FINISHED:	11/16/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-069

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ▪ Shelby Tube

LAT: 39.78858 **LONG**: -83.33316

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark grayish brown; moist; with sand; few gravel; soft to medium stiff*		0	SS 1		2-2-2 N=4					PP = 2
			5	U 2				26.9	90.1	38/22	PP = 4.5
				SS 3		3-3-3 N=6					PP = 2.25
	8.0'										
	LEAN CLAY *dark grayish brown; moist to wet; with sand; trace gravel; very stiff to hard*		10	SS 4		4-8-8 N=16		9.8			PP = 4.5
			15	SS 5		4-14-19 N=33					PP = 4.5
	20.0'		20	SS 6		6-8-22 N=30					PP = 4

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 20.0 ft
IAD	▼ 19.5 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/16/20	FINISHED:	11/16/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

olsson

BOREHOLE REPORT NO. GEO-078

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	**EDF Renewables**
PROJECT NUMBER	**LOCATION**
020-32750	**Madison County, Ohio**

Split Spoon Shelby Tube

MATERIAL DESCRIPTION

LAT: 39.78226 **LONG**: -83.35615

ELEVATION (ft)	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
		0								
			SS 1		2-1-2 N=3		18.7		37/18	P-200 = 65.0% PP = 3
		5	U 2			1.0*	11.6	118.1		*UU Compressive StrengthPP = 4.5
			SS 3		3-5-5 N=10					PP = 3.5
		10	SS 4		2-3-5 N=8					PP = 2.5
		15	SS 5		3-4-2 N=6		12.3			PP = 3
		20	SS 6		7-8-8 N=16					PP = 3.25

LEAN CLAY

brown; moist; with sand; trace gravel; soft to very stiff

20.0'

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-080

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.78226 **LONG**: -83.34797

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY		0								
	brown with gray mottling; moist; with sand; trace roots to 6'; trace gravel; soft to stiff			SS 1		3-2-2 N=4					PP = 2.5
				U 2				11.7	126.7		PP = 4.5
			5	SS 3		5-6-8 N=14					PP = 2.5
	8.0'										
	LEAN CLAY			SS 4		5-7-10 N=17					PP = 3
	brown; moist; with sand; trace gravel; very stiff		10								
	13.0'										
	CLAYEY GRAVEL			SS 5		12-18-16 N=34		13.1			P-200 = 42.2%
	brown with gray; moist; dense		15								
	18.0'										
	LEAN CLAY			SS 6		10-16-18 N=34					PP = 4.5
	dark grayish brown; moist; with sand; trace gravel; hard ***20.0'***		20								
	18.5': transitions to dark grayish brown										
	BASE OF BORING AT 20.0 FEET										

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-082

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.78226 **LONG**: -83.33979

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	SILTY CLAY *brown; moist; with sand; trace roots to 5.5'; trace gravel; medium stiff to stiff*		0	SS 1		2-2-4 N=6		15.4		20/6	PP = 2.5
				SS 2		5-6-6 N=12					PP = 4.5
			5	U 3							PP = 4.5
	9.0'			SS 4		4-7-6 N=13					PP = 4.25
	LEAN CLAY *dark grayish brown; moist; with sand; with gravel; stiff*		10								
	17.0'			SS 5		4-4-6 N=10					PP = 3.75
	CLAYEY GRAVEL *dark grayish brown; moist to wet; with sand; very dense*		15								
	20.0'		20	SS 6		5-21-33 N=54		10.5			P-200 = 7.8%

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 18.0 ft
IAD	▼ 18.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-084

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ☒ Shelby Tube ■

LAT: 39.78226 **LONG**: -83.33156

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist; with sand; trace gravel; trace roots to 3.5'; medium stiff to stiff*		0	SS 1		2-2-3 N=5					PP = 2
			5	U 2			1.8*	22.3	132.9		*UU Compressive StrengthPP = 2.75
				SS 3		7-3-4 N=7					PP = 3
			10	SS 4		4-6-8 N=14		11.6		29/14	PP = 2
	12.0'										
	LEAN CLAY *dark grayish brown; moist; with sand; trace gravel; very stiff to hard*		15	SS 5		34-27-33 N=60					PP = 1.5
			20	SS 6		8-10-14 N=24		9.5			PP = 4.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

olsson

BOREHOLE REPORT NO. GEO-088

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	**EDF Renewables**
PROJECT NUMBER	**LOCATION**
020-32750	**Madison County, Ohio**

Split Spoon Shelby Tube

LAT: 39.77911 **LONG**: -83.36823

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist; with sand; trace gravel; trace roots; medium stiff to stiff*		0	SS 1		2-2-3 N=5					PP = 2
				SS 2		4-6-5 N=11		11.0		34/17	PP = 2.5
			5	SS 3		2-3-5 N=8					PP = 2.75
				U 4							PP = 4.5
			10								
	12.0'										
	CLAYEY SAND *dark grayish brown; moist; fine to coarse grained; few gravel; very dense*			SS 5		20-33-50/4"		10.3			P-200 = 49.1%
			15								
	20.0'		20	SS 6		21-29-32 N=61					

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-099

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ☒ Shelby Tube ■

LAT: 39.77848 **LONG**: -83.3232

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark grayish brown; moist; with sand; trace roots to 3.5'; medium stiff; trace gravel*		0	SS 1		3-3-4 N=7		26.1			PP = 1.25
				SS 2		3-4-4 N=8					PP = 1.75
	5.5'		5								
	SILTY CLAY *brownish gray; moist; with sand; trace gravel; hard*			U 3							PP = 4
			10	SS 4		17-30-23 N=53				21/7	PP = 3.75
			15	SS 5		15-23-21 N=44					PP = 4.5
			20	SS 6		10-14-17 N=31		8.9			PP = 4.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-102

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon Shelby Tube

MATERIAL DESCRIPTION

LAT: 39.77734 **LONG**: -83.36125

ELEVATION (ft)	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
		0								
			SS 1		2-2-2 N=4					PP = 2.5
			SS 2		4-5-6 N=11		16.7		28/13	PP = 3.5
		5								
			U 3							PP = 4.5
			SS 4		2-5-7 N=12					PP = 4.25
		10								
			SS 5		9-9-9 N=18		11.5			PP = 4.5
		15								
			SS 6		4-5-10 N=15					PP = 4.5
		20								

LEAN CLAY

brown; moist; with sand; trace gravel; soft to very stiff

20.0'

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-105

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.77595 **LONG**: -83.35334

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown and gray; moist; with sand; trace gravel; medium stiff to very stiff*		0	SS 1		2-3-3 N=6					PP = 2.5
			5	U 2			1.7*	11.1	129.8		*UU Compressive StrengthPP = 4.5
				SS 3		4-5-4 N=9					PP = 3.5
			10	SS 4		3-9-9 N=18		11.5			PP = 3
			15	SS 5		10-13-13 N=26					
	17.0'										
	LEAN CLAY *dark grayish brown; moist; with sand; trace gravel; very stiff*		20	SS 6		5-7-10 N=17		10.7			PP = 4.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-107

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ☒ Shelby Tube ■

LAT: 39.77585 **LONG**: -83.34516

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown to dark brown; with sand; trace gravel; trace roots; medium stiff*		0	SS 1		2-2-4 N=6					PP = 2
	3.0'										
	LEAN CLAY *brown and gray; moist; with sand; trace gravel; stiff to hard*		5	U 2			1.0*	12.0	120.7	42/22	*UU Compressive StrengthPP = 3.5
				SS 3		3-5-8 N=13					PP = 4.5
			10	SS 4		4-6-6 N=12		11.4			PP = 4
			15	SS 5		8-8-10 N=18					PP = 4.25
			20	SS 6		11-14-17 N=31		12.7			PP = 4.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-109

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.77595 **LONG**: -83.33708

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark grayish brown; moist; with sand; trace roots; trace gravel; medium stiff*		0	SS 1		3-1-4 N=5		22.5		48/29	PP = 3
	3.5'										
	LEAN CLAY *brown; moist; with sand; trace gravel; stiff*		5	SS 2		4-8-6 N=14					PP = 3.5
				U 3							
	8.0'										
	LEAN CLAY *dark grayish brown; moist; with sand; few gravel; hard*		10	SS 4		18-21-18 N=39					PP = 4.5
			15	SS 5		50/3"		8.0			P-200 = 54.4%
	20.0'		20	SS 6		34-15-17 N=32					PP = 4.5

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-111

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.77595 **LONG**: -83.32879

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark brown to brown; moist; with sand; trace gravel; trace roots; medium stiff*		0	SS 1		2-3-3 N=6		20.3			PP = 2.5
	3.0'										
	SILTY CLAY *brown with gray mottling; moist; with sand; trace gravel; stiff to hard*		5	SS 2		3-8-5 N=13				21/7	PP = 2
				U 3							PP = 4.5
	8.5': some gray		10	SS 4		4-6-10 N=16		12.6			PP = 4
	13.5'										
	LEAN CLAY *dark grayish brown; moist; with sand; trace gravel; very stiff to hard*		15	SS 5		4-10-10 N=20					PP = 4.5
	20.0'		20	SS 6		33-15-18 N=33		8.7			PP = 4.5

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/17/20	FINISHED:	11/17/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-208

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.81938 **LONG**: -83.39809

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark grayish brown; moist; trace gravel; with sand; trace roots; medium stiff*		0	SS 1		3-3-3 N=6		26.4			PP = 3.5
	3.5'										
	LEAN CLAY *brown; moist; with sand; trace gravel; medium stiff to hard*		5	SS 2		3-2-3 N=5				34/17	PP = 3.75
				U 3			2.6*	13.2	15.5		*UU Compressive StrengthPP = 3.5
			10	SS 4		2-3-5 N=8					PP = 2
			15	SS 5		5-7-9 N=16		10.1			PP = 3
			20	SS 6		15-19-18 N=37					PP = 1.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-210

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

☒ Split Spoon ■ Shelby Tube

MATERIAL DESCRIPTION

LAT: 39.81877 **LONG**: -83.38916

ELEVATION (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	0								
		SS 1		2-4-7 N=11		10.4			PP = 2.5
	5	U 2							PP = 4.5
		SS 3		7-13-14 N=27					PP = 4.5
	10	SS 4		17-36-31 N=67		9.2		23/9	P-200 = 62.9% PP = 4.5
	15	SS 5		12-23-24 N=47					PP = 4
	20	SS 6		10-14-22 N=36					PP = 4.5

LEAN CLAY

brown with gray; moist; with sand; trace gravel; trace roots to 3.5'; stiff

5.5'

LEAN CLAY

brown; moist; with sand; trace gravel; very stiff to hard

20.0'

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-211

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**

CLIENT: **EDF Renewables**

PROJECT NUMBER: **020-32750**

LOCATION: **Madison County, Ohio**

☒ Split Spoon ■ Shelby Tube

LAT: 39.81728 **LONG**: -83.40522

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	SILTY CLAY *brown; moist; with sand; trace gravel; medium stiff to stiff*		0	SS 1		4-4-6 N=10					PP = 3.5
			5	U 2			1.7*	10.3	130.0		*UU Compressive StrengthPP = 3.75
				SS 3		3-4-4 N=8				21/7	PP = 2.75
	9.0'										
	LEAN CLAY *brown; moist; with sand; trace gravel; stiff to very stiff*		10	SS 4		7-13-8 N=21					PP = 2.5
			15	SS 5		5-5-8 N=13		10.0			PP = 4
	20.0'		20	SS 6		6-9-9 N=18					PP = 4.5

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-222

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.81044 **LONG**: -83.40172

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	SILTY CLAY		0								
	brown to dark brown; moist; with sand; trace gravel; medium stiff to very stiff			SS 1		2-3-3 N=6		16.9			PP = 3.5
				SS 2		5-7-8 N=15					PP = 3
			5	SS 3		3-3-4 N=7				21/7	PP = 1.75
				U 4				11.9			
			10								
			15	SS 5		4-6-6 N=12					PP = 2.5
			20	SS 6		8-11-12 N=23		11.2			PP = 4
			20.0'								

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-224

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ☒ Shelby Tube ■

LAT: 39.80997 **LONG**: -83.39355

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown and gray; moist; with sand; trace gravel; medium stiff to stiff*		0	SS 1		2-3-3 N=6		23.8			PP = 3
				SS 2		2-3-4 N=7				39/21	PP = 3.5
			5	SS 3		5-6-8 N=14		11.0			PP = 3.75
	8.0'										
	LEAN CLAY *dark grayish brown; moist; with sand; trace gravel*			U 4							PP = 4.5
			10								
	12.0'										
	CLAYEY GRAVEL *dark grayish brown; moist to wet; with sand; dense* ▼ ▽			SS 5		14-21-24 N=45		9.6			P-200 = 6.8%
			15								
	17.0'										
	LEAN CLAY *dark grayish brown; wet; with sand; trace gravel; hard*			SS 6		18-16-15 N=31					PP = 4.5
	20.0'		20								

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 14.0 ft
IAD	▼ 13.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-234

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.80383 **LONG**: -83.41219

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark brown; moist; trace gravel; with sand; trace roots; soft*		0	SS 1		3-2-2 N=4		24.0			PP = 2.25
	3.5'										
	LEAN CLAY *brown to dark brown; moist to wet; with sand; trace gravel; stiff to hard*		5	U 2			0.9	19.9	109.2		PP = 4
				SS 3		4-5-5 N=10					PP = 2.5
	▼		10	SS 4		3-5-4 N=9				36/19	PP = 1
			15	SS 5		5-5-9 N=14		10.6			PP = 4.5
			20	SS 6		13-16-18 N=34					
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 9.0 ft
IAD	▼ 9.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-236

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Shelby Tube ▪ Split Spoon

LAT: 39.8044 **LONG**: -83.40435

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown; moist; with sand; trace gravel; stiff*		0	U 1			2.9*	19.6	106.2		*UU Compressive StrengthPP = 4.5
			5	SS 2		5-6-5 N=11					PP = 4.5
				SS 3		3-5-8 N=13		10.8		27/12	PP = 3.5
	8.0' ***LEAN CLAY*** *grayish brown; moist to wet; with sand; trace gravel; stiff to very stiff*		10	SS 4		3-7-8 N=15					PP = 4.5
			15	SS 5		5-9-10 N=19					PP = 2.25
	▼ ***20.0'***		20	SS 6		3-3-8 N=11		12.2			PP = 1.5

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 18.0 ft
IAD	▼ 18.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-241

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.799 **LONG**: -83.40704

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark brown; moist; with sand; trace gravel; trace roots; soft*		0	SS 1		2-1-2 N=3					PP = 3
	3.5'										
	LEAN CLAY *brown; moist; with sand; trace gravel; medium stiff to very stiff*		5	U 2			2.7*	19.7	108.7		*UU Compressive StrengthPP = 4.25
				SS 3		2-3-4 N=7				34/18	PP = 3.25
			10	SS 4		9-9-8 N=17		19.4			PP = 3.5
			15	SS 5		6-7-7 N=14					PP = 2.5
			20	SS 6		4-7-7 N=14					PP = 4.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-244

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Split Spoon ▪ Shelby Tube

LAT: 39.79727 **LONG**: -83.41367

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark brown; moist; with sand; trace gravel; soft to medium stiff*		0								
				SS 1		2-3-3 N=6					PP = 3
			5	SS 2		3-2-1 N=3		28.7		47/27	PP = 3.5
				U 3			3.1*	9.6	131.8		*UU Compressive StrengthPP = 3
			10	SS 4		3-4-4 N=8					PP = 1.5
	12.0'										
	LEAN CLAY *grayish brown; moist to wet; with sand; trace gravel; very stiff to hard*		15	SS 5		4-8-9 N=17		11.9			PP = 2
	▽ (WD) ▼ (IAD)		20	SS 6		9-17-16 N=33					PP = 4.5
	20.0'										

BASE OF BORING AT 20.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 17.0 ft
IAD	▼ 18.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. GEO-254

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ☒ Shelby Tube ■

LAT: 39.78153 **LONG**: -83.39287

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	SILTY CLAY		0								
	brown; moist; with sand; some gravel; medium stiff to very stiff			SS 1		3-5-7 N=12					PP = 4
			5	U 2			3.1	13.0	122.7		PP = 4.25
				SS 3		3-4-4 N=8					PP = 3
			10	SS 4		3-4-10 N=14		10.8		22/7	P-200 = 53.4% PP = 4.5
			15	SS 5		5-9-12 N=21					PP = 4.5
			20	SS 6		9-12-17 N=29					PP = 4.5
	BASE OF BORING AT 20.0 FEET		***20.0'***								

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. SUB-1

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.79541 **LONG**: -83.40054

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown to dark brown; moist to wet; with sand; trace to few gravel; medium stiff to stiff*		0	SS 1		2-3-3 N=6					PP = 3
			5	U 2			3.1*	11.7	123.2	29/14	*UU Compressive StrengthPP = 1.5
				SS 3		3-3-3 N=6					
			10	SS 4		2-5-6 N=11		22.2			PP = 2
			15	SS 5		5-5-6 N=11					PP = 4.5
	18.5'										
	LEAN CLAY *grayish brown; wet; with sand; trace gravel; stiff to hard*		20	SS 6		6-13-18 N=31		9.6			PP = 3.5
			25	SS 7		6-6-7 N=13					PP = 4.5
			30	SS 8		9-9-12 N=21					PP = 4.5
	35.0'		35	SS 9		9-5-6 N=11		10.3			PP = 4.5

BASE OF BORING AT 35.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 9.0 ft
IAD	▼ 9.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. SUB-5

Sheet 1 of 1

PROJECT NAME	CLIENT
Fox Squirrel Solar Project	EDF Renewables
PROJECT NUMBER	**LOCATION**
020-32750	Madison County, Ohio

Split Spoon ▪ Shelby Tube

LAT: 39.79456 **LONG**: -83.40017

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *dark brown to brown; moist; with sand; trace gravel; trace roots to 3.5'; medium stiff*		0	SS 1		3-2-3 N=5					PP = 3
			5	U 2			4.7*	11.6	128.3		*UU Compressive StrengthPP = 4.5
				SS 3		4-3-4 N=7					PP = 4.5
	8.0'										
	LEAN CLAY *grayish brown; moist; with sand; trace gravel; stiff to very stiff*		10	SS 4		2-5-5 N=10					PP = 4.5
	12.0'										
	▼ ***SILTY CLAY*** *dark grayish brown; wet; with sand; trace gravel; stiff*		15	SS 5		5-10-9 N=19		10.4			P-200 = 52.4% PP = 2
			20	SS 6		8-10-10 N=20					PP = 4.5
			25	SS 7		6-5-7 N=12		9.7			PP = 4.5
			30	SS 8		7-8-9 N=17				20/7	PP = 4.5
	35.0'		35	SS 9		7-6-7 N=13		9.9			PP = 4

BASE OF BORING AT 35.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ 13.0 ft
IAD	▼ 13.0 ft
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/19/20	FINISHED:	11/19/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

BOREHOLE REPORT NO. SUB-6

Sheet 1 of 1

PROJECT NAME: **Fox Squirrel Solar Project**	CLIENT: **EDF Renewables**
PROJECT NUMBER: **020-32750**	LOCATION: **Madison County, Ohio**

Shelby Tube ▪ Split Spoon

LAT: 39.79489 **LONG**: -83.39889

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY *brown with gray mottling; moist; with sand; trace gravel; stiff to very stiff*		0	U 1			2.6*	23.8	106.1		*UU Compressive StrengthPP = 4.5
			5	SS 2		5-9-7 N=16					PP = 4
				SS 3		3-7-5 N=12		11.9			PP = 2
			10	SS 4		4-7-9 N=16					PP = 4.5
	12.0'										
	LEAN CLAY *dark grayish brown; moist; with sand; trace gravel; very stiff to hard*		15	SS 5		13-13-14 N=27		15.5			PP = 4.5
			20	SS 6		18-20-21 N=41					PP = 4.5
			25	SS 7		16-27-21 N=48		7.8		20/8	PP = 4.5
			30	SS 8		50/1"					
	32.0'										
	SILTY SAND *dark grayish brown; moist; few gravel; fine to coarse grained; medium dense* ***35.0'***		35	SS 9		13-16-12 N=28		11.2			P-200 = 15.9%

BASE OF BORING AT 35.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Performed

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/18/20	FINISHED:	11/18/20
DRILL CO.:	GEOCON	DRILL RIG:	ATV
DRILLER:	GEOCON	LOGGED BY:	J. FOSTER
METHOD: HOLLOW STEM AUGER			

APPENDIX F
Laboratory Test Results

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

SUMMARY OF LABORATORY RESULTS

PROJECT NAME: Fox Squirrel Solar Project
PROJECT NUMBER: 020-32750
CLIENT: EDF Renewables
PROJECT LOCATION: Madison County, Ohio

BORING NUMBER	SAMPLE I.D.	SAMPLE DEPTH (ft)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	VOID RATIO	SATURATION (%)	UNCONFINED STRENGTH (tsf)	STRAIN (%)	ATTERBERG LIMITS			P-200	USCS CLASS.
									LIQUID LIMIT	PLASTIC LIMIT	PLASTIC INDEX		
GEO-007	SS-4	8.5 - 10.0'							21	13	8		
GEO-007	SS-6	18.5 - 20.0'	10.4										
GEO-011	SS-2	3.5 - 5.0'	20.8						41	19	22	78.7	
GEO-011	SS-5	13.5 - 15.0'	14.4										
GEO-014	SS-3	6.0 - 7.5'							23	14	9		
GEO-014	SS-5	13.5 - 15.0'	11.5										
GEO-018	U-3	6.0 - 8.0'	11.1	126.3	0.335	89.8	2.4	7.6	25	13	12		
GEO-018	SS-5	13.5 - 15.0'	10.2										
GEO-020	U-2	3.5 - 5.5'	12.2	127.6	0.321	100.0							
GEO-020	SS-4	8.5 - 10.0'	11.3										
GEO-020	SS-5	13.5 - 15.0'							18	13	5		
GEO-020	SS-6	18.5 - 20.0'	12.4										
GEO-028	SS-1	1.0 - 2.5'	12.3						35	17	18		
GEO-028	U-3	6.0 - 8.0'	13.5	125.9	0.339	100.0	1.6 (UU)	14.7					
GEO-028	SS-6	18.5 - 20.0'	13.6									22.6	
GEO-034	SS-1	1.0 - 2.5'	11.0									55.5	
GEO-034	U-2	3.5 - 5.5'	12.0	128.6	0.311	100.0	3.6 (UU)	11.5					
GEO-034	SS-5	13.5 - 15.0'	14.2						21	14	7		
GEO-036	SS-2	3.5 - 5.0'	11.7										
GEO-036	SS-3	6.0 - 7.5'							24	14	10		
GEO-036	SS-7	18.5 - 20.0'	10.6										
GEO-041	U-1	1.0 - 3.0'	16.6	110.2	0.530	84.7	2.3 (UU)	4.5					
GEO-041	SS-3	6.0 - 7.5'	23.9										
GEO-041	SS-5	13.5 - 15.0'	9.1						26	15	11		
GEO-044	U-2	3.5 - 5.5'	10.9	127.0	0.327	89.6	2.9 (UU)	4.6					
GEO-044	SS-4	8.5 - 10.0'	13.8						20	14	6	61.5	
GEO-044	SS-5	13.5 - 15.0'	11.1										
GEO-053	SS-1	1.0 - 2.5'	17.5									64.0	
GEO-053	SS-2	3.5 - 5.0'							28	17	11		
GEO-053	U-4	8.5 - 10.5'	10.1										

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

SUMMARY OF LABORATORY RESULTS

PROJECT NAME: Fox Squirrel Solar Project
PROJECT NUMBER: 020-32750
CLIENT: EDF Renewables
PROJECT LOCATION: Madison County, Ohio

BORING NUMBER	SAMPLE I.D.	SAMPLE DEPTH (ft)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	VOID RATIO	SATURATION (%)	UNCONFINED STRENGTH (tsf)	STRAIN (%)	ATTERBERG LIMITS			P-200	USCS CLASS.
									LIQUID LIMIT	PLASTIC LIMIT	PLASTIC INDEX		
GEO-055	SS-4	8.5 - 10.0'	14.3						26	16	10		
GEO-055	SS-5	13.5 - 15.0'	12.8									46.0	
GEO-063	SS-1	1.0 - 2.5'	27.7										
GEO-063	SS-6	13.5 - 15.0'	8.7						22	13	9	54.7	
GEO-065	SS-2	3.5 - 5.0'	11.7						23	15	8	54.0	
GEO-065	SS-4	8.5 - 10.0'	20.5										
GEO-067	SS-1	1.0 - 2.5'	27.9										
GEO-067	SS-2	3.5 - 5.0'							21	14	7		
GEO-067	U-3	6.0 - 8.0'	12.1	131.5	0.282	100.0	2.9 (UU)	13.1					
GEO-067	SS-6	18.5 - 20.0'	9.2										
GEO-069	U-2	3.5 - 5.5'	26.9	90.1	0.872	83.3			38	16	22		
GEO-069	SS-4	8.5 - 10.0'	9.8										
GEO-078	SS-1	1.0 - 2.5'	18.7						37	19	18	65.0	
GEO-078	U-2	3.5 - 5.5'	11.6	118.1	0.427	73.3	1.0 (UU)	15.0					
GEO-078	SS-5	13.5 - 15.0'	12.3										
GEO-080	U-2	3.5 - 5.5'	11.7	126.7	0.330	95.5							
GEO-080	SS-5	13.5 - 15.0'	13.1									42.2	
GEO-082	SS-1	1.0 - 2.5'	15.4						20	14	6		
GEO-082	SS-6	18.5 - 20.0'	10.5									7.8	
GEO-084	U-2	3.5 - 5.5'	22.3	132.9	0.268	100.0	1.8 (UU)	10.3					
GEO-084	SS-4	8.5 - 10.0'	11.6						29	15	14		
GEO-084	SS-6	18.5 - 20.0'	9.5										
GEO-088	SS-2	3.5 - 5.0'	11.0						34	17	17		
GEO-088	SS-5	13.5 - 14.8'	10.3									49.1	
GEO-099	SS-1	1.0 - 2.5'	26.1										
GEO-099	SS-4	8.5 - 10.0'							21	14	7		
GEO-099	SS-6	18.5 - 20.0'	8.9										
GEO-102	SS-2	3.5 - 5.0'	16.7						28	15	13		
GEO-102	SS-5	13.5 - 15.0'	11.5										
GEO-105	U-2	3.5 - 5.5'	11.1	129.8	0.298	100.0	1.7 (UU)	7.4					

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

SUMMARY OF LABORATORY RESULTS

PROJECT NAME: Fox Squirrel Solar Project
PROJECT NUMBER: 020-32750
CLIENT: EDF Renewables
PROJECT LOCATION: Madison County, Ohio

BORING NUMBER	SAMPLE I.D.	SAMPLE DEPTH (ft)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	VOID RATIO	SATURATION (%)	UNCONFINED STRENGTH (tsf)	STRAIN (%)	ATTERBERG LIMITS			P-200	USCS CLASS.
									LIQUID LIMIT	PLASTIC LIMIT	PLASTIC INDEX		
GEO-105	SS-4	8.5 - 10.0'	11.5										
GEO-105	SS-6	18.5 - 20.0'	10.7										
GEO-107	U-2	3.5 - 5.5'	12.0	120.7	0.397	81.7	1.0 (UU)	13.6	42	20	22		
GEO-107	SS-4	8.5 - 10.0'	11.4										
GEO-107	SS-6	18.5 - 20.0'	12.7										
GEO-109	SS-1	1.0 - 2.5'	22.5						48	19	29		
GEO-109	SS-5	13.5 - 13.8'	8.0									54.4	
GEO-111	SS-1	1.0 - 2.5'	20.3										
GEO-111	SS-2	3.5 - 5.0'							21	14	7		
GEO-111	SS-4	8.5 - 10.0'	12.6										
GEO-111	SS-6	18.5 - 20.0'	8.7										
GEO-208	SS-1	1.0 - 2.5'	26.4										
GEO-208	SS-2	3.5 - 5.0'							34	17	17		
GEO-208	U-3	6.0 - 8.0'	13.2	15.5	9.867	3.6	2.6 (UU)	13.3					
GEO-208	SS-5	13.5 - 15.0'	10.1										
GEO-210	SS-1	1.0 - 2.5'	10.4										
GEO-210	SS-4	8.5 - 10.0'	9.2						23	14	9	62.9	
GEO-211	U-2	3.5 - 5.5'	10.3	130.0	0.296	94.2	1.7 (UU)	12.4					
GEO-211	SS-3	6.0 - 7.5'							21	14	7		
GEO-211	SS-5	13.5 - 15.0'	10.0										
GEO-222	SS-1	1.0 - 2.5'	16.9										
GEO-222	SS-3	6.0 - 7.5'							21	14	7		
GEO-222	U-4	8.0 - 10.0'	11.9										
GEO-222	SS-6	18.5 - 20.0'	11.2										
GEO-224	SS-1	1.0 - 2.5'	23.8										
GEO-224	SS-2	3.5 - 5.0'							39	18	21		
GEO-224	SS-3	6.0 - 7.5'	11.0										
GEO-224	SS-5	13.5 - 15.0'	9.6									6.8	
GEO-234	SS-1	1.0 - 2.5'	24.0										
GEO-234	U-2	3.5 - 5.5'	19.9	109.2	0.544	99.0	0.9	10.5					

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

SUMMARY OF LABORATORY RESULTS

PROJECT NAME: Fox Squirrel Solar Project
PROJECT NUMBER: 020-32750
CLIENT: EDF Renewables
PROJECT LOCATION: Madison County, Ohio

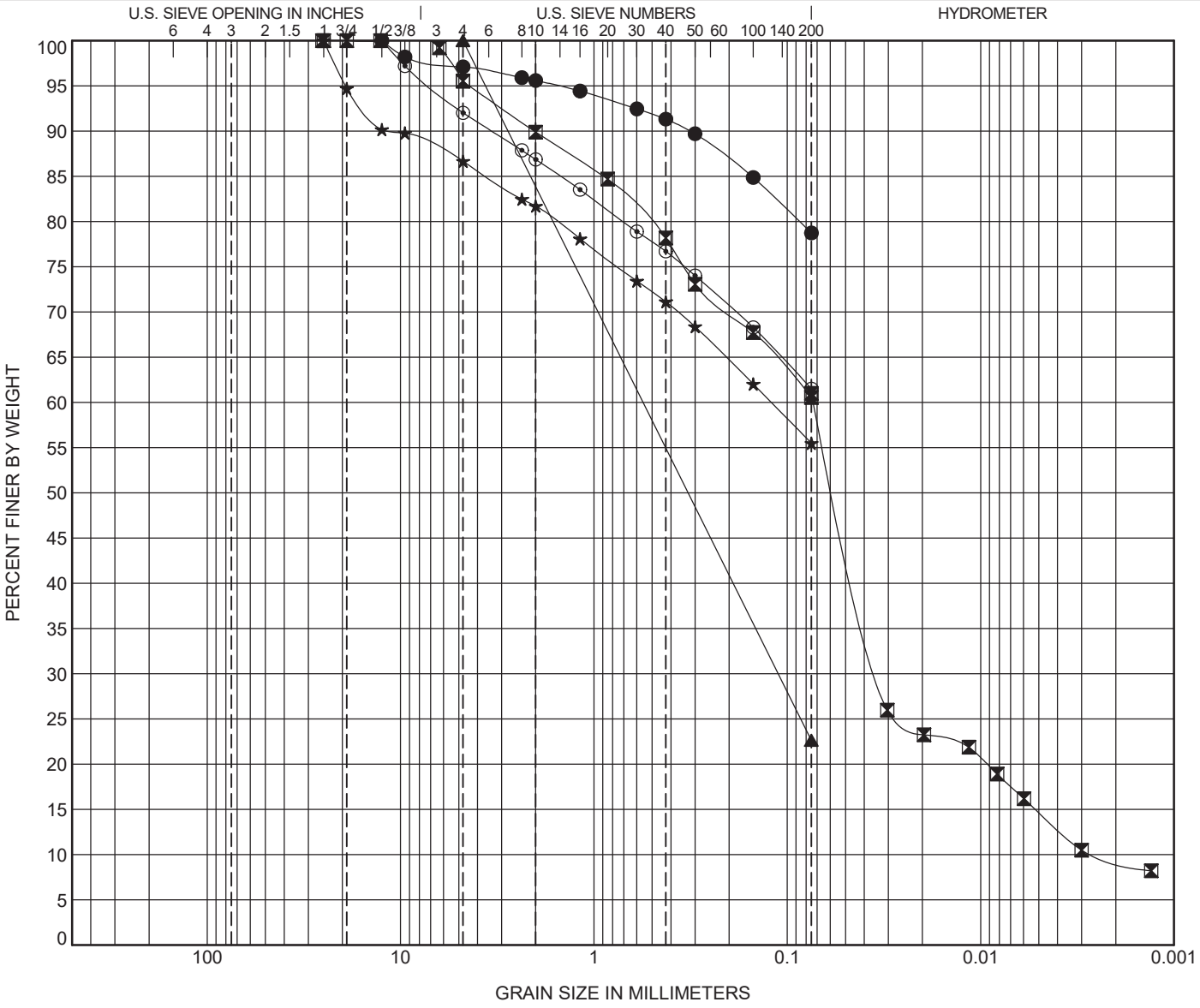
BORING NUMBER	SAMPLE I.D.	SAMPLE DEPTH (ft)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	VOID RATIO	SATURATION (%)	UNCONFINED STRENGTH (tsf)	STRAIN (%)	ATTERBERG LIMITS			P-200	USCS CLASS.
									LIQUID LIMIT	PLASTIC LIMIT	PLASTIC INDEX		
GEO-234	SS-4	8.5 - 10.0'							36	17	19		
GEO-234	SS-5	13.5 - 15.0'	10.6										
GEO-236	U-1	1.0 - 3.0'	19.6	106.2	0.587	90.0	2.9 (UU)	10.1					
GEO-236	SS-3	6.0 - 7.5'	10.8						27	15	12		
GEO-236	SS-6	18.5 - 20.0'	12.2										
GEO-241	U-2	3.5 - 5.5'	19.7	108.7	0.551	96.2	2.7 (UU)	7.7					
GEO-241	SS-3	6.0 - 7.5'							34	16	18		
GEO-241	SS-4	8.5 - 10.0'	19.4										
GEO-244	SS-2	3.5 - 5.0'	28.7						47	20	27		
GEO-244	U-3	6.0 - 8.0'	9.6	131.8	0.278	92.7	3.1 (UU)	4.1					
GEO-244	SS-5	13.5 - 15.0'	11.9										
GEO-254	U-2	3.5 - 5.5'	13.0	122.7	0.374	93.8	3.1	13.0					
GEO-254	SS-4	8.5 - 10.0'	10.8						22	15	7	53.4	
SUB-1	U-2	3.5 - 5.5'	11.7	123.2	0.368	85.5	3.1 (UU)	5.4	29	15	14		
SUB-1	SS-4	8.5 - 10.0'	22.2										
SUB-1	SS-6	18.5 - 20.0'	9.6										
SUB-1	SS-9	33.5 - 35.0'	10.3										
SUB-5	U-2	3.5 - 5.5'	11.6	128.3	0.313	100.0	4.7 (UU)	3.5					
SUB-5	SS-5	13.5 - 15.0'	10.4									52.4	
SUB-5	SS-7	23.5 - 25.0'	9.7										
SUB-5	SS-8	28.5 - 30.0'							20	13	7		
SUB-5	SS-9	33.5 - 35.0'	9.9										
SUB-6	U-1	1.0 - 3.0'	23.8	106.1	0.588	100.0	2.6 (UU)	7.6					
SUB-6	SS-3	6.0 - 7.5'	11.9										
SUB-6	SS-5	13.5 - 15.0'	15.5										
SUB-6	SS-7	23.5 - 25.0'	7.8						20	12	8		
SUB-6	SS-9	33.5 - 35.0'	11.2									15.9	

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

GRAIN SIZE DISTRIBUTION

PROJECT NAME: Fox Squirrel Solar Project **CLIENT:** EDF Renewables

PROJECT NUMBER: 020-32750 **PROJECT LOCATION:** Madison County, Ohio



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

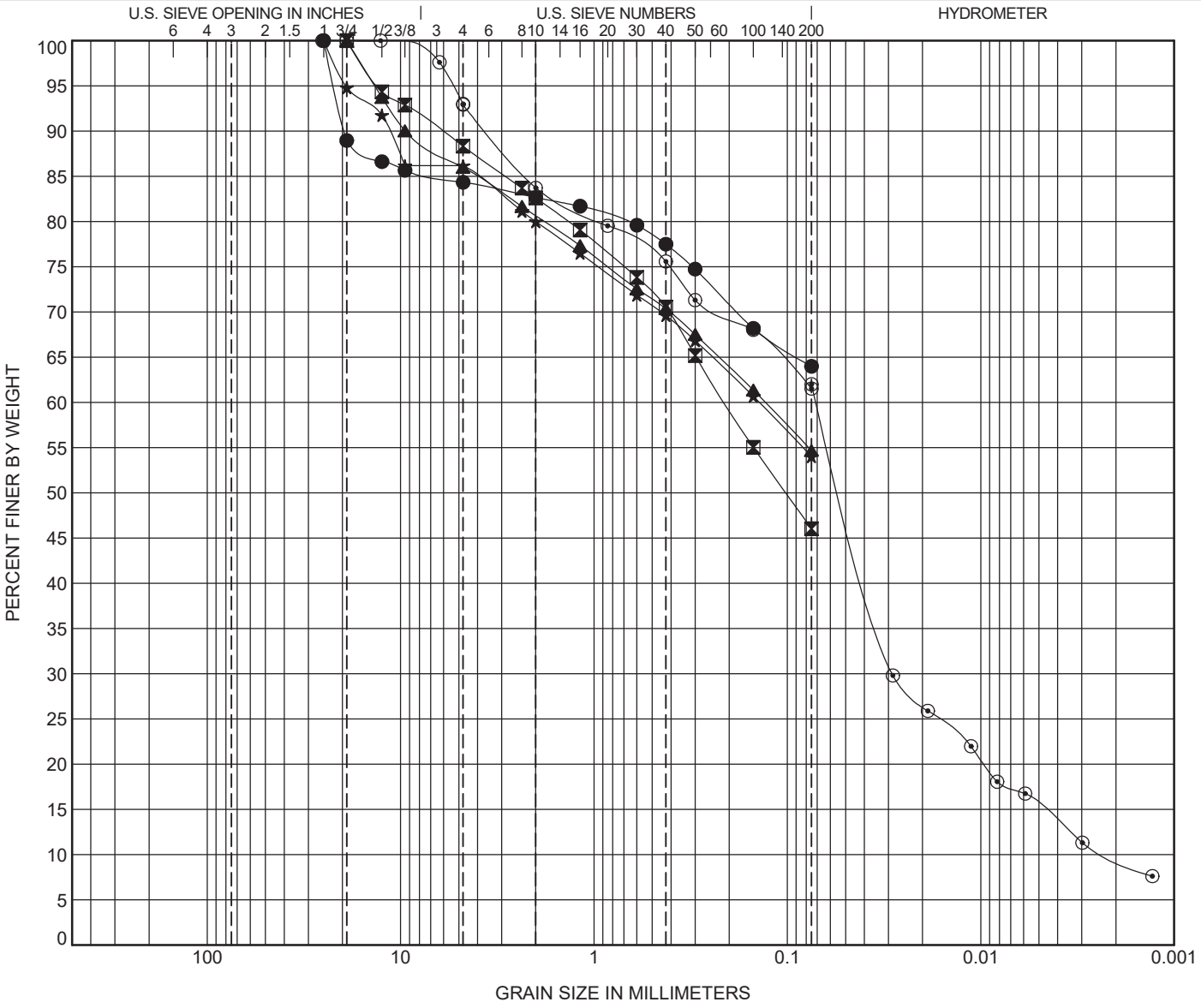
Boring No.	Sample ID	Depth (ft)	Classification	LL	PL	PI	Cc	Cu
● GEO-011	SS-2	3.5 - 5.0'		41	19	22		
⊠ GEO-018	U-3	6.0 - 7.5'		25	13	12	6.10	29.28
▲ GEO-028	SS-6	18.5 - 20.0'						
★ GEO-034	SS-1	1.0 - 2.5'						
⊙ GEO-044	SS-4	8.5 - 10.0'		20	14	6		

Boring No.	Sample ID	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● GEO-011	SS-2	12.5				2.9	18.4	78.7	
⊠ GEO-018	U-3	25	0.074	0.034	0.003	4.5	34.5	46.3	14.7
▲ GEO-028	SS-6	4.75	0.556	0.111		0.0	77.4	22.6	
★ GEO-034	SS-1	25	0.121			13.3	31.2	55.5	
⊙ GEO-044	SS-4	12.5				8.0	30.5	61.5	

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

GRAIN SIZE DISTRIBUTION

PROJECT NAME: Fox Squirrel Solar Project
CLIENT: EDF Renewables
PROJECT NUMBER: 020-32750
PROJECT LOCATION: Madison County, Ohio



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring No.	Sample ID	Depth (ft)	Classification	LL	PL	PI	Cc	Cu
● GEO-053	SS-1	1.0 - 3.0'						
⊠ GEO-055	SS-5	13.5 - 15.5'						
▲ GEO-063	SS-6	13.5 - 15.5'		22	13	9		
★ GEO-065	SS-2	3.5 - 5.5'		23	15	8		
⊙ GEO-069	U-2	3.5 - 5.5'		38	16	22	5.17	32.29

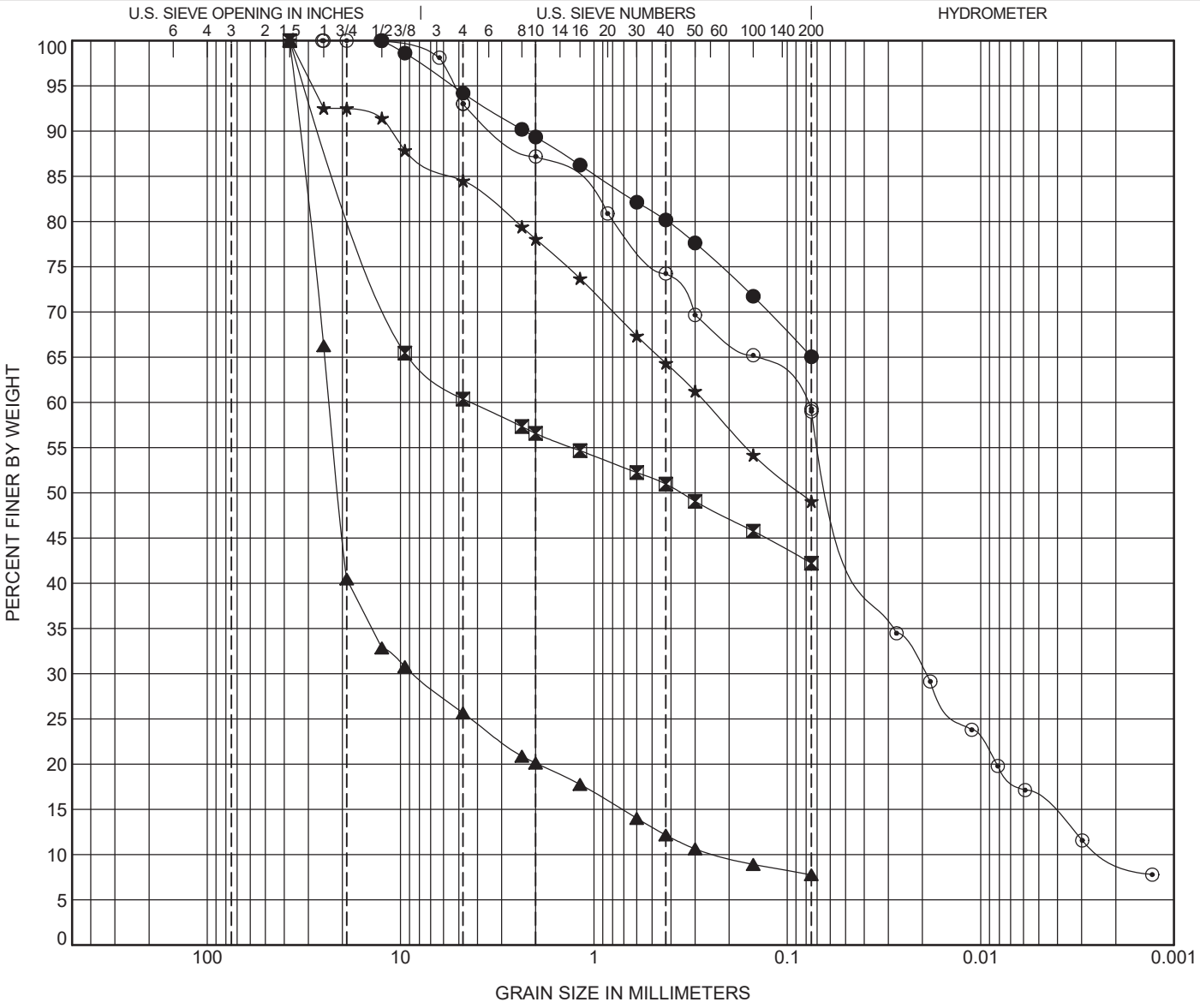
Boring No.	Sample ID	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● GEO-053	SS-1	25							
⊠ GEO-055	SS-5	19	0.211						
▲ GEO-063	SS-6	19	0.13						
★ GEO-065	SS-2	25	0.14						
⊙ GEO-069	U-2	25	0.072	0.029	0.002				

OLSSON, INC.
1700 E. 123RD STREET
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GRAIN SIZE DISTRIBUTION

PROJECT NAME: Fox Squirrel Solar Project **CLIENT:** EDF Renewables

PROJECT NUMBER: 020-32750 **PROJECT LOCATION:** Madison County, Ohio



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring No.	Sample ID	Depth (ft)	Classification	LL	PL	PI	Cc	Cu
● GEO-078	SS-1	1.0 - 2.5'		37	19	18		
⊠ GEO-080	SS-5	13.5 - 15.0'						
▲ GEO-082	SS-6	18.5 - 20.0'					13.42	100.66
★ GEO-088	SS-5	13.5 - 15.0'						
⊙ GEO-105	SS-4	8.5 - 10.0'					2.19	38.62

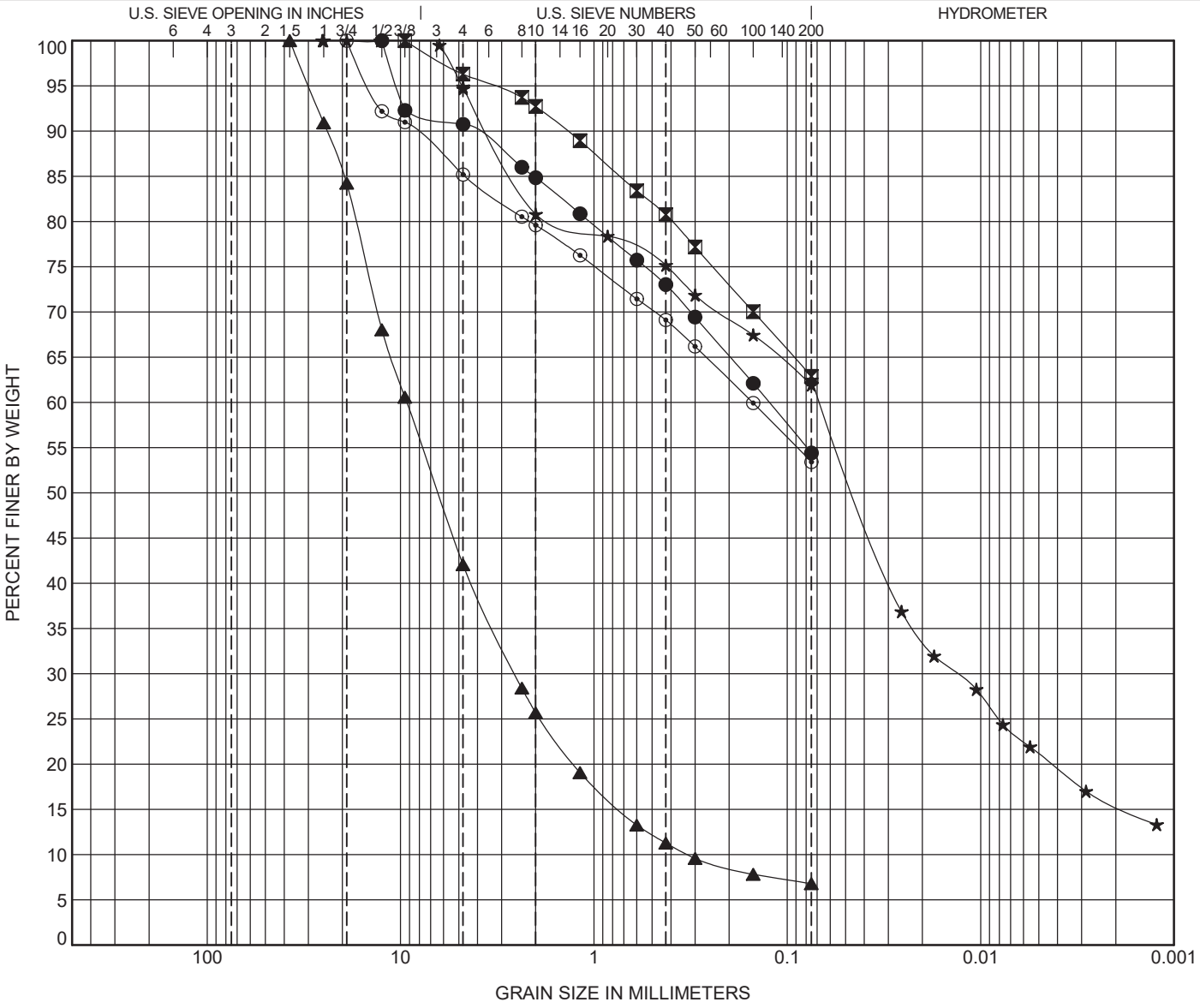
Boring No.	Sample ID	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● GEO-078	SS-1	12.5							
⊠ GEO-080	SS-5	37.5	4.357						
▲ GEO-082	SS-6	37.5	23.391	8.542	0.232				
★ GEO-088	SS-5	37.5	0.265						
⊙ GEO-105	SS-4	25	0.081	0.019	0.002				

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

GRAIN SIZE DISTRIBUTION

PROJECT NAME: Fox Squirrel Solar Project **CLIENT:** EDF Renewables

PROJECT NUMBER: 020-32750 **PROJECT LOCATION:** Madison County, Ohio



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

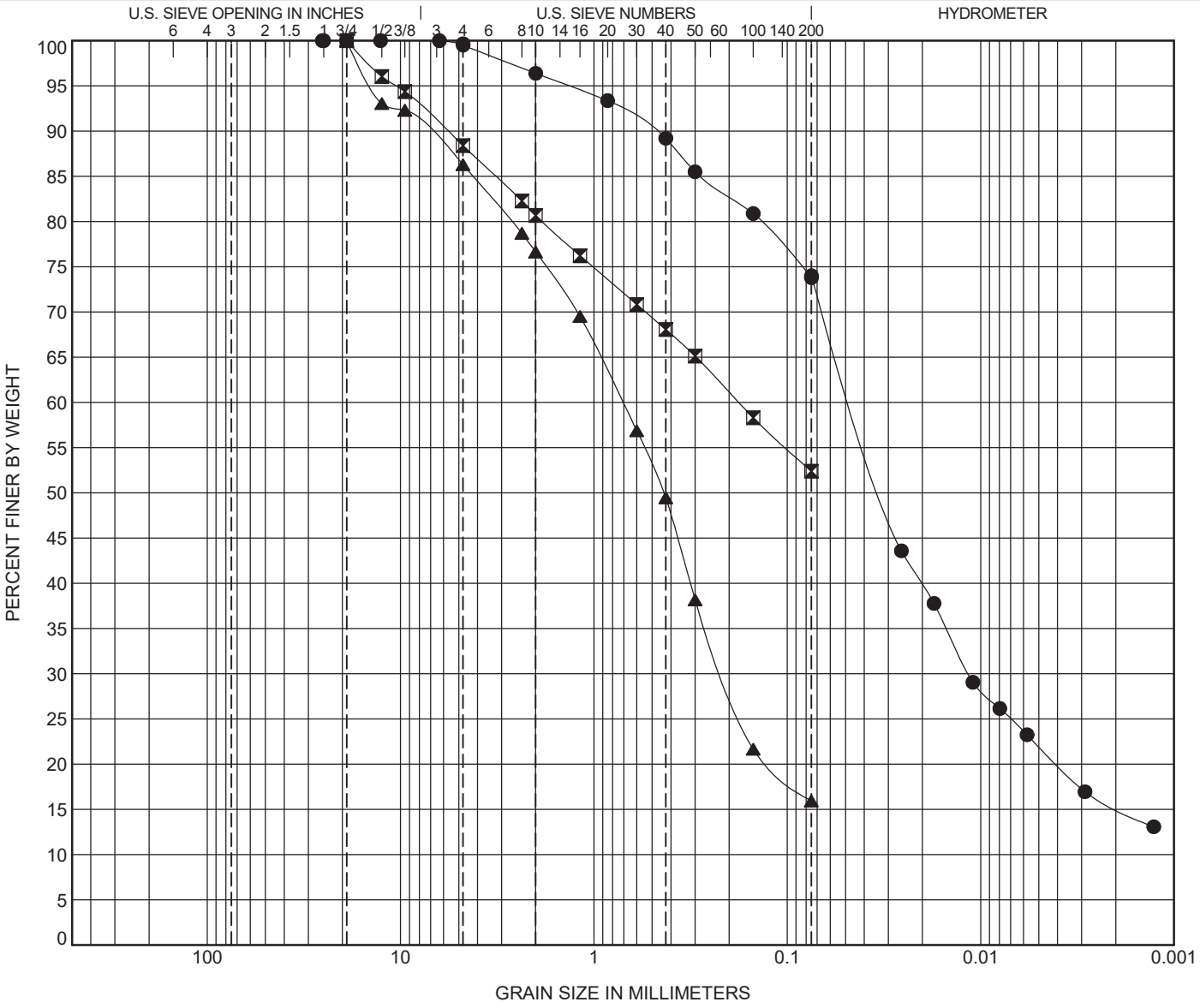
Boring No.	Sample ID	Depth (ft)	Classification	LL	PL	PI	Cc	Cu
● GEO-109	SS-5	13.5 - 15.0'						
⊠ GEO-210	SS-4	8.5 - 10.0'		23	14	9		
▲ GEO-224	SS-5	13.5 - 15.0'					2.16	28.41
★ GEO-234	SS-1	1.0 - 2.5'						
⊙ GEO-254	SS-4	8.5 - 10.0'		22	15	7		

Boring No.	Sample ID	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● GEO-109	SS-5	12.5	0.124			9.2	36.3	54.4	
⊠ GEO-210	SS-4	9.5				3.7	33.4	62.9	
▲ GEO-224	SS-5	37.5	9.295	2.56	0.327	57.9	35.3	6.8	
★ GEO-234	SS-1	25	0.069	0.013		5.3	32.2	41.4	21.1
⊙ GEO-254	SS-4	19	0.151			14.8	31.8	53.4	

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

GRAIN SIZE DISTRIBUTION

PROJECT NAME: Fox Squirrel Solar Project
CLIENT: EDF Renewables
PROJECT NUMBER: 020-32750
PROJECT LOCATION: Madison County, Ohio



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring No.	Sample ID	Depth (ft)	Classification	LL	PL	PI	Cc	Cu
● **SUB-1**	**U-2**	**3.5 - 5.0'**		**29**	**15**	**14**		
⊠ **SUB-5**	**SS-5**	**13.5 - 15.0'**						
▲ **SUB-6**	**SS-9**	**33.5 - 35.0'**						

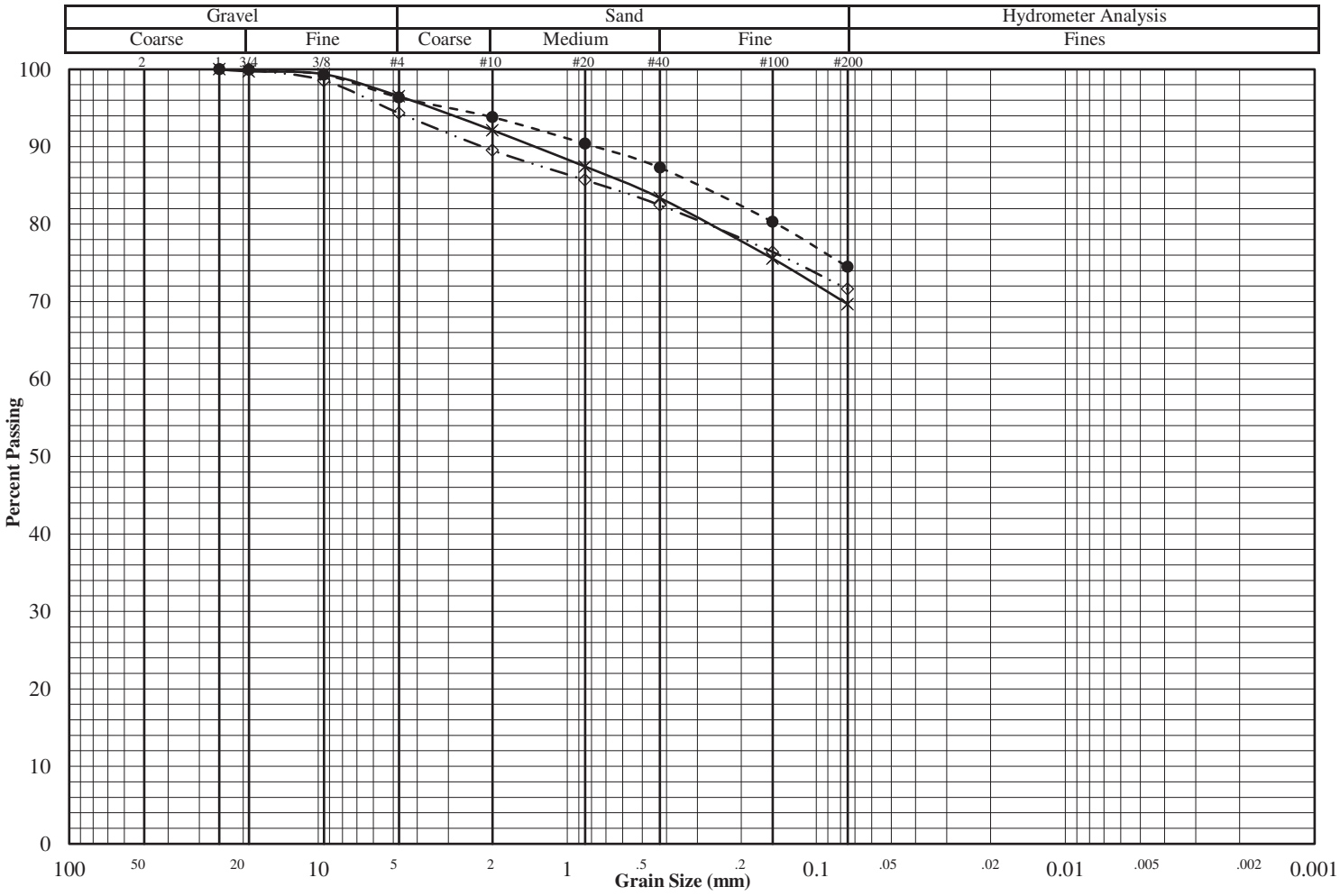
Boring No.	Sample ID	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● **SUB-1**	**U-2**	**25**	**0.046**	**0.012**		**0.5**	**25.5**	**52.0**	**22.0**
⊠ **SUB-5**	**SS-5**	**19**	**0.178**			**11.6**	**36.0**	**52.4**	
▲ **SUB-6**	**SS-9**	**19**	**0.709**	**0.213**		**13.7**	**70.3**	**15.9**	

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-07		1-5	Bulk	Sandy Lean Clay w/a trace of gravel (CL)
●	Geo-11		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)
◇	Geo-14		1-5	Bulk	Lean Clay w/sand a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	34	38	33
Plastic Limit	16	17	17
Plasticity Index ASTM:D4316	18	21	16
Water Content ASTM:D2216	17.2	18.8	14.2
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	20680.0	18319.0	14808.0
2"			
1.5"			
1"	100.0	100.0	
3/4"	99.7	99.9	100.0
3/8"	99.4	99.3	98.5
#4	96.5	96.4	94.3
#10	92.1	93.8	89.5
#20	87.4	90.4	85.7
#40	83.4	87.3	82.5
#100	75.6	80.3	76.4
#200	69.7	74.5	71.6

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

9530 James Ave South

SOIL ENGINEERING TESTING, INC.

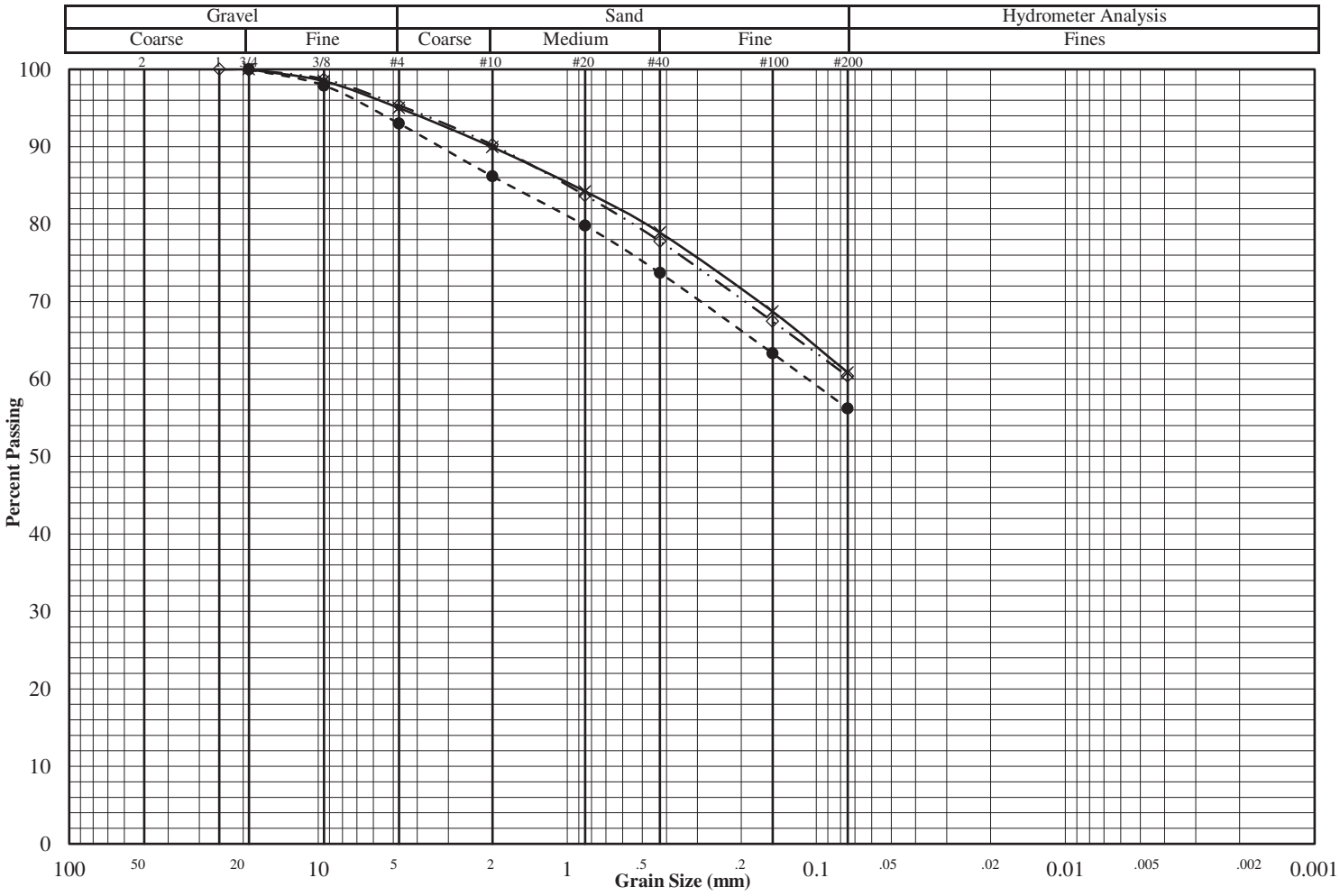
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-18		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
●	Geo-20		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
◇	Geo-28		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	34	27	34
Plastic Limit	16	15	16
Plasticity Index ASTM:D4316	18	12	18
Water Content ASTM:D2216	15.4	14.1	14.9
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	14886.0	15409.0	15813.0
2"			
1.5"			
1"			100.0
3/4"	100.0	100.0	99.9
3/8"	98.5	97.9	98.7
#4	95.0	93.0	95.4
#10	90.0	86.2	90.2
#20	84.2	79.8	83.7
#40	78.9	73.7	77.8
#100	68.7	63.3	67.5
#200	60.8	56.2	60.4

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

9530 James Ave South

SOIL ENGINEERING TESTING, INC.

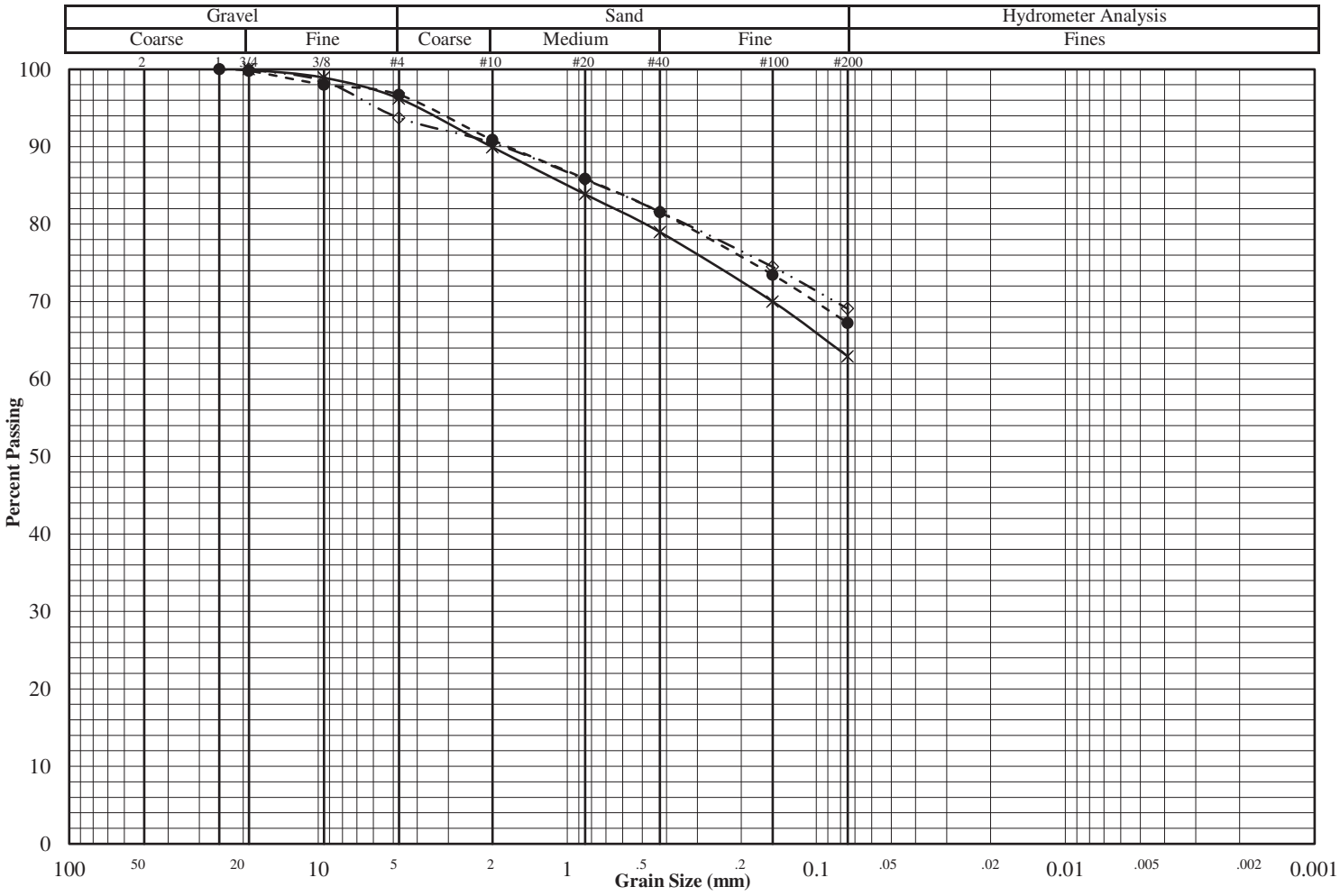
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-34		1-5	Bulk	Sandy Lean Clay w/a trace of gravel (CL)
●	Geo-36		1-5	Bulk	Sandy Lean Clay w/a trace of gravel (CL)
◇	Geo-41		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	28	35	34
Plastic Limit	16	16	16
Plasticity Index ASTM:D4316	12	19	18
Water Content ASTM:D2216	13.5	15.3	15.4
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	15492.0	21448.0	16456.0
2"			
1.5"			
1"		100.0	
3/4"	100.0	99.8	100.0
3/8"	98.9	98.0	98.5
#4	96.2	96.7	93.7
#10	89.9	90.9	90.5
#20	83.9	85.9	85.8
#40	79.0	81.6	81.6
#100	70.0	73.5	74.5
#200	62.9	67.3	69.1

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

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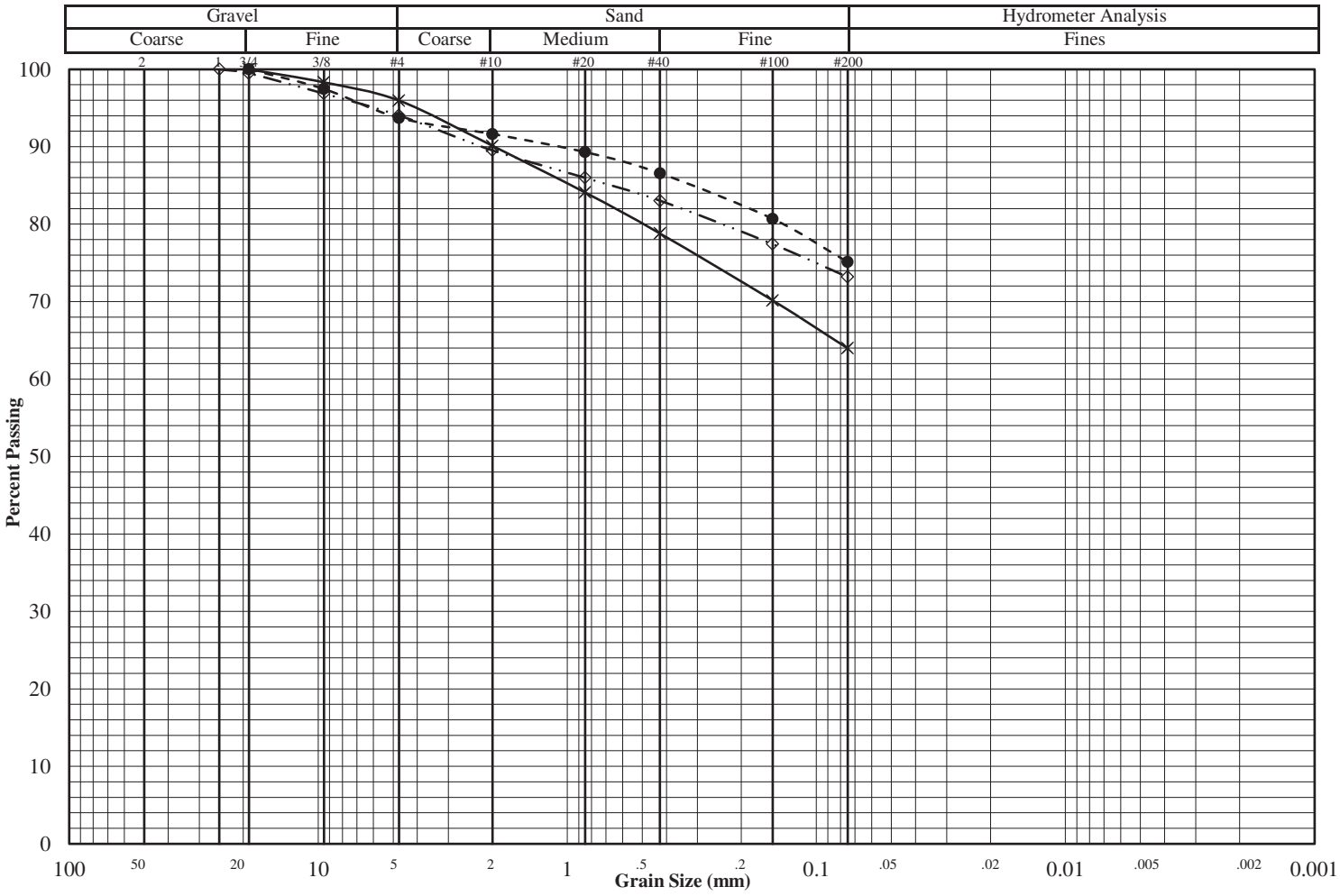
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-44		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
●	Geo-53		1-5	Bulk	Lean Clay w/sand and a little gravel (CL)
◇	Geo-55		1-5	Bulk	Lean Clay w/sand and a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	30	29	35
Plastic Limit	16	18	17
Plasticity Index ASTM:D4316	14	11	18
Water Content ASTM:D2216	12.9	22.5	19.1
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	16650.0	16149.0	15391.0
2"			
1.5"			
1"			100.0
3/4"	100.0	100.0	99.5
3/8"	98.3	97.5	96.9
#4	96.0	93.7	94.1
#10	90.1	91.6	89.5
#20	84.1	89.3	86.0
#40	78.8	86.6	83.0
#100	70.2	80.7	77.4
#200	64.0	75.1	73.2

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

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SOIL ENGINEERING TESTING, INC.

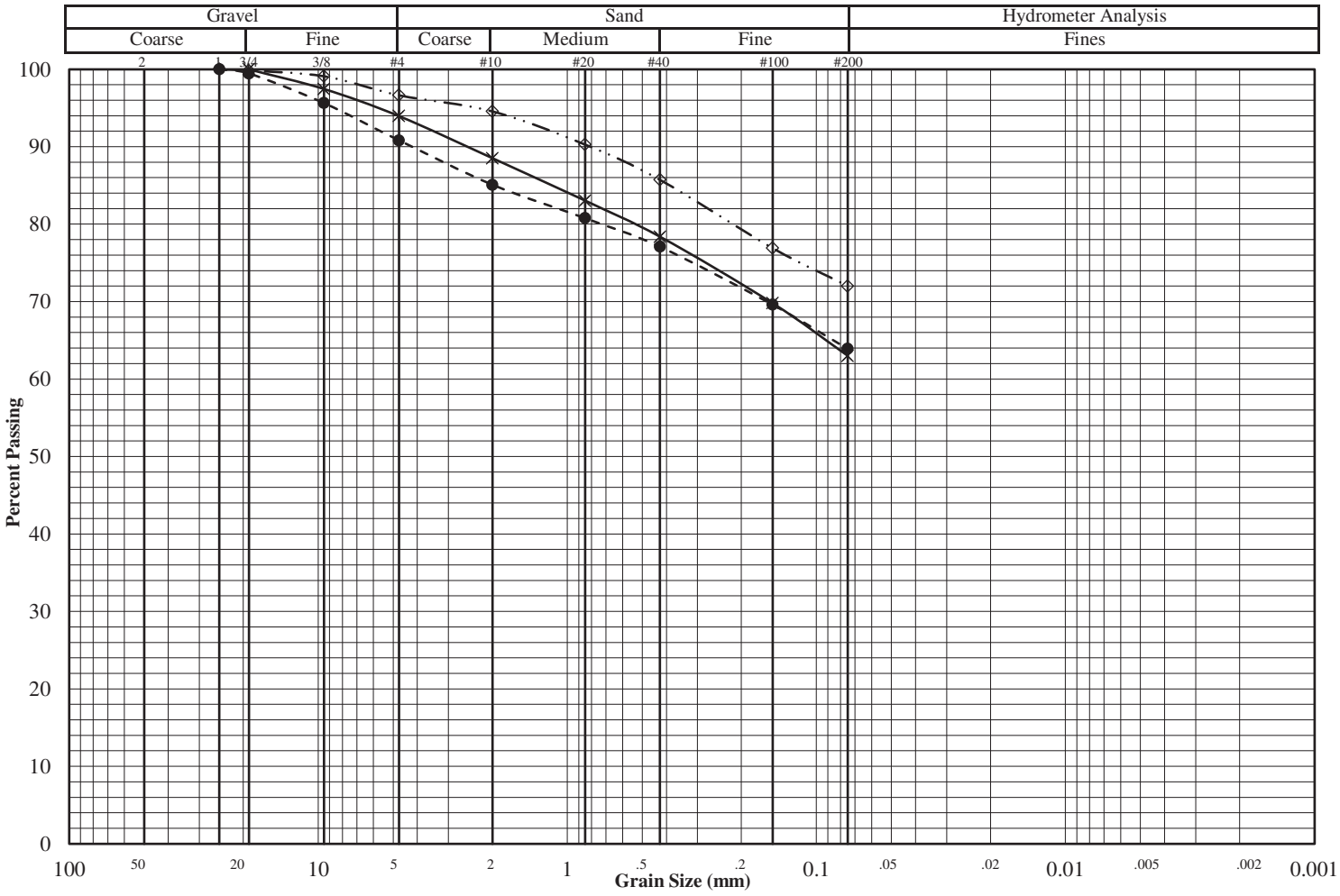
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-63		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
●	Geo-65		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
◇	Geo-67		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)



Additional Results	*	●	◇
Liquid Limit	33	35	45
Plastic Limit	16	17	19
Plasticity Index ASTM:D4316	17	18	26
Water Content ASTM:D2216	17.5	17.9	23.7
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

(* = assumed)

Percent Passing

	*	●	◇
Mass (g)	13754.0	15912.0	13686.0
2"			
1.5"			
1"		100.0	100.0
3/4"	100.0	99.5	99.8
3/8"	97.5	95.7	99.1
#4	94.0	90.8	96.7
#10	88.5	85.1	94.6
#20	83.0	80.8	90.3
#40	78.4	77.1	85.7
#100	69.8	69.6	76.9
#200	63.0	63.9	72.0

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

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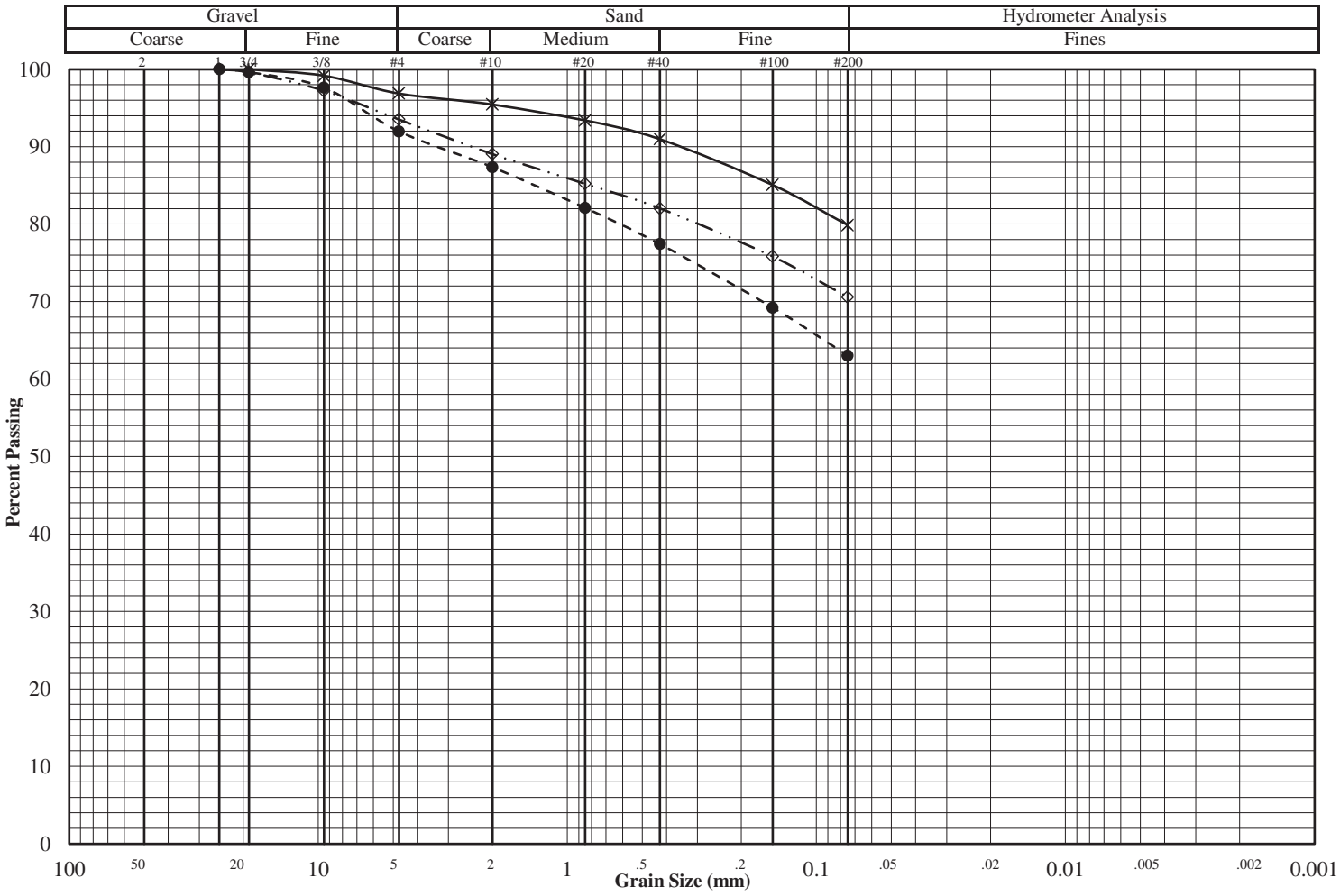
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Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-69		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)
●	Geo-78		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
◇	Geo-80		1-5	Bulk	Lean Clay w/sand and a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	48	29	36
Plastic Limit	20	16	17
Plasticity Index ASTM:D4316	28	13	19
Water Content ASTM:D2216	24.4	14.3	18.0
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	13685.0	14917.0	14468.0
2"			
1.5"			
1"		100.0	100.0
3/4"	100.0	99.6	99.6
3/8"	99.2	97.6	97.2
#4	96.9	92.0	93.5
#10	95.5	87.4	89.1
#20	93.4	82.1	85.2
#40	91.0	77.4	82.0
#100	85.1	69.2	75.8
#200	79.9	63.1	70.6

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

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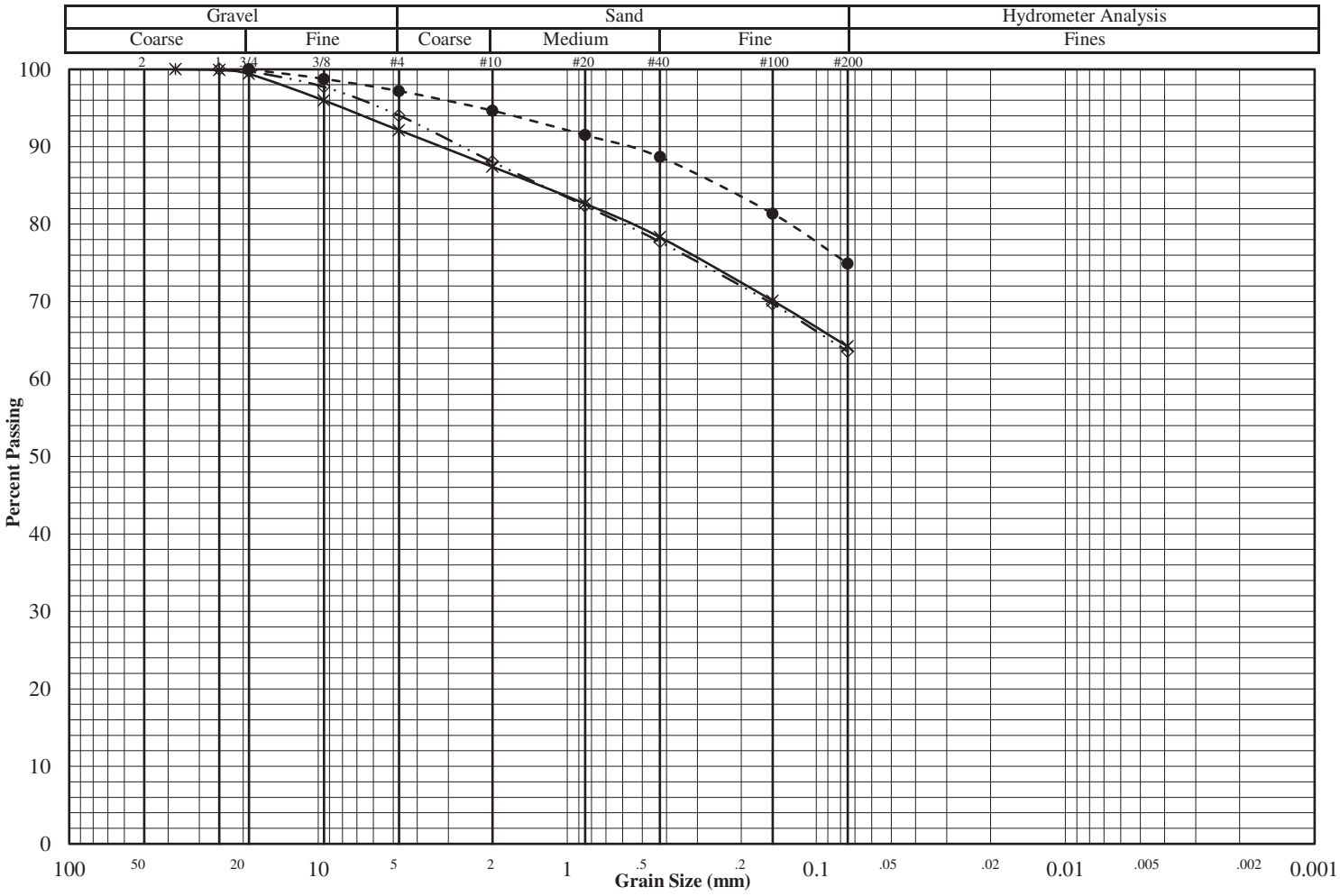
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-82		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
●	Geo-84		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)
◇	Geo-88		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	31	40	33
Plastic Limit	16	17	16
Plasticity Index ASTM:D4316	15	23	17
Water Content ASTM:D2216	16.3	19.3	13.8
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	20868.0	14650.0	15232.0
2"			
1.5"	100.0		
1"	99.9		100.0
3/4"	99.4	100.0	99.7
3/8"	96.0	98.8	97.7
#4	92.1	97.2	94.0
#10	87.4	94.7	88.1
#20	82.7	91.5	82.4
#40	78.3	88.7	77.7
#100	70.1	81.4	69.7
#200	64.2	74.9	63.6

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

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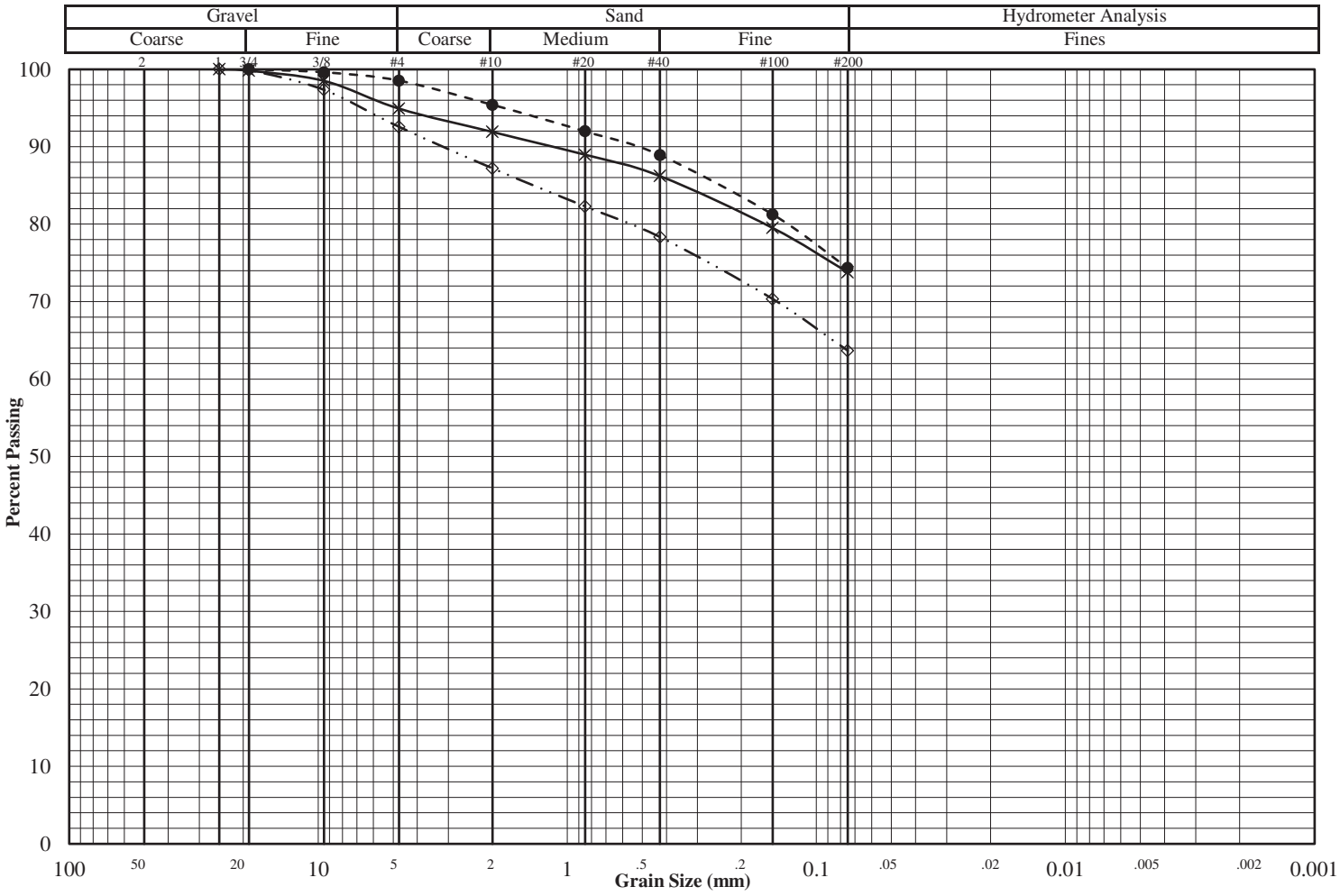
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-99		1-5	Bulk	Lean Clay w/sand and a little gravel (CL)
●	Geo-102		1-5	Bulk	Lean Clay w/sand (CL)
◇	Geo-105		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	44	34	29
Plastic Limit	18	16	15
Plasticity Index ASTM:D4316	26	18	14
Water Content ASTM:D2216	21.4	16.8	14.4
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	12757.0	15021.0	16187.0
2"			
1.5"			
1"	100.0		100.0
3/4"	99.8	100.0	99.9
3/8"	98.5	99.6	97.4
#4	94.9	98.5	92.6
#10	91.9	95.4	87.2
#20	89.0	92.0	82.3
#40	86.2	88.9	78.4
#100	79.5	81.3	70.4
#200	73.8	74.4	63.7

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

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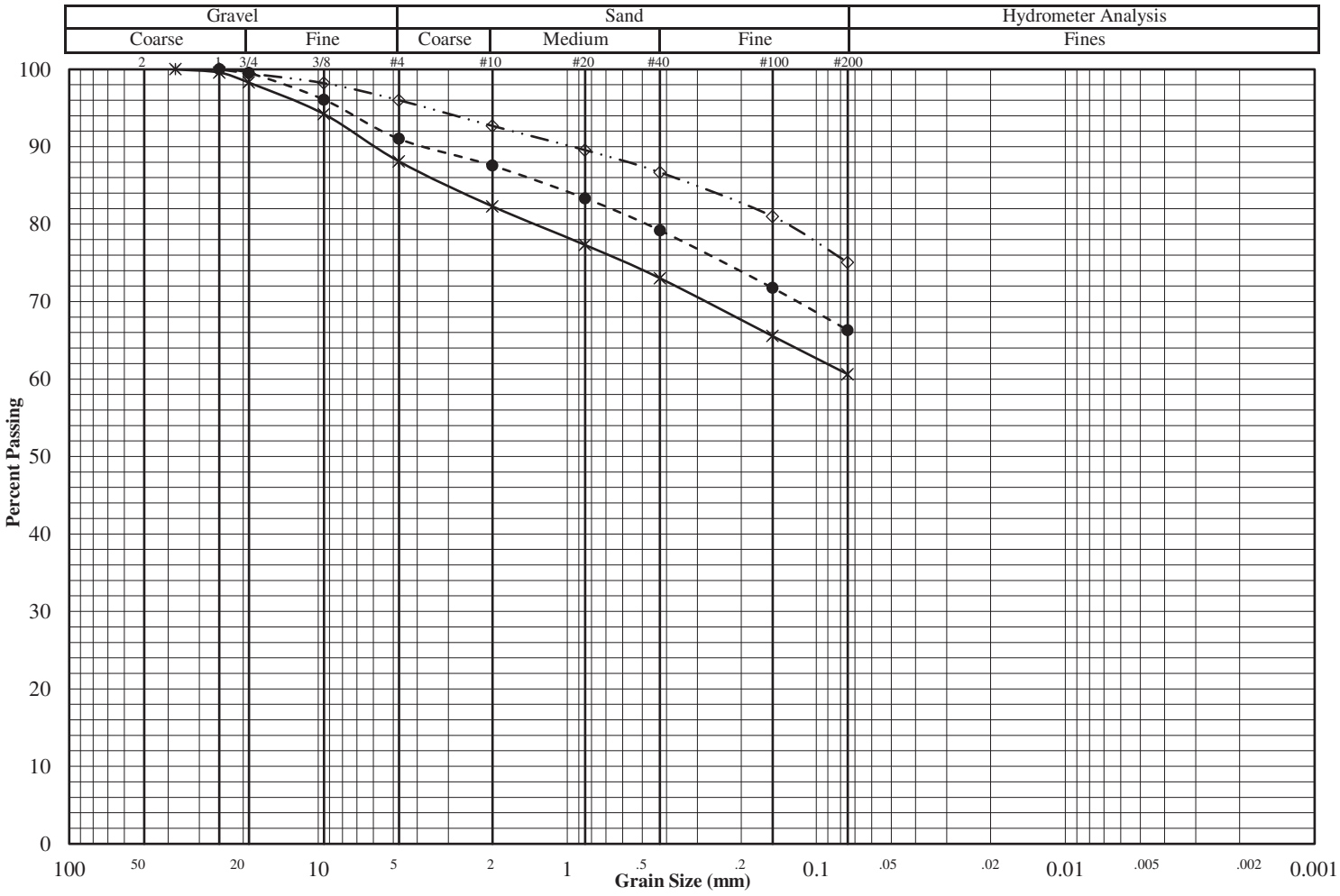
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-107		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
●	Geo-109		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
◇	Geo-111		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)



Additional Results	*	●	◇
Liquid Limit	29	38	30
Plastic Limit	16	17	16
Plasticity Index ASTM:D4316	13	21	14
Water Content ASTM:D2216	21.2	18.0	17.9
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

(* = assumed)

Percent Passing

	*	●	◇
Mass (g)	17087.0	14686.0	16183.0
2"			
1.5"	100.0		
1"	99.6	100.0	100.0
3/4"	98.3	99.5	99.5
3/8"	94.2	96.1	98.2
#4	88.1	91.0	96.0
#10	82.3	87.6	92.7
#20	77.3	83.3	89.6
#40	73.0	79.2	86.7
#100	65.6	71.8	81.0
#200	60.6	66.3	75.1

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

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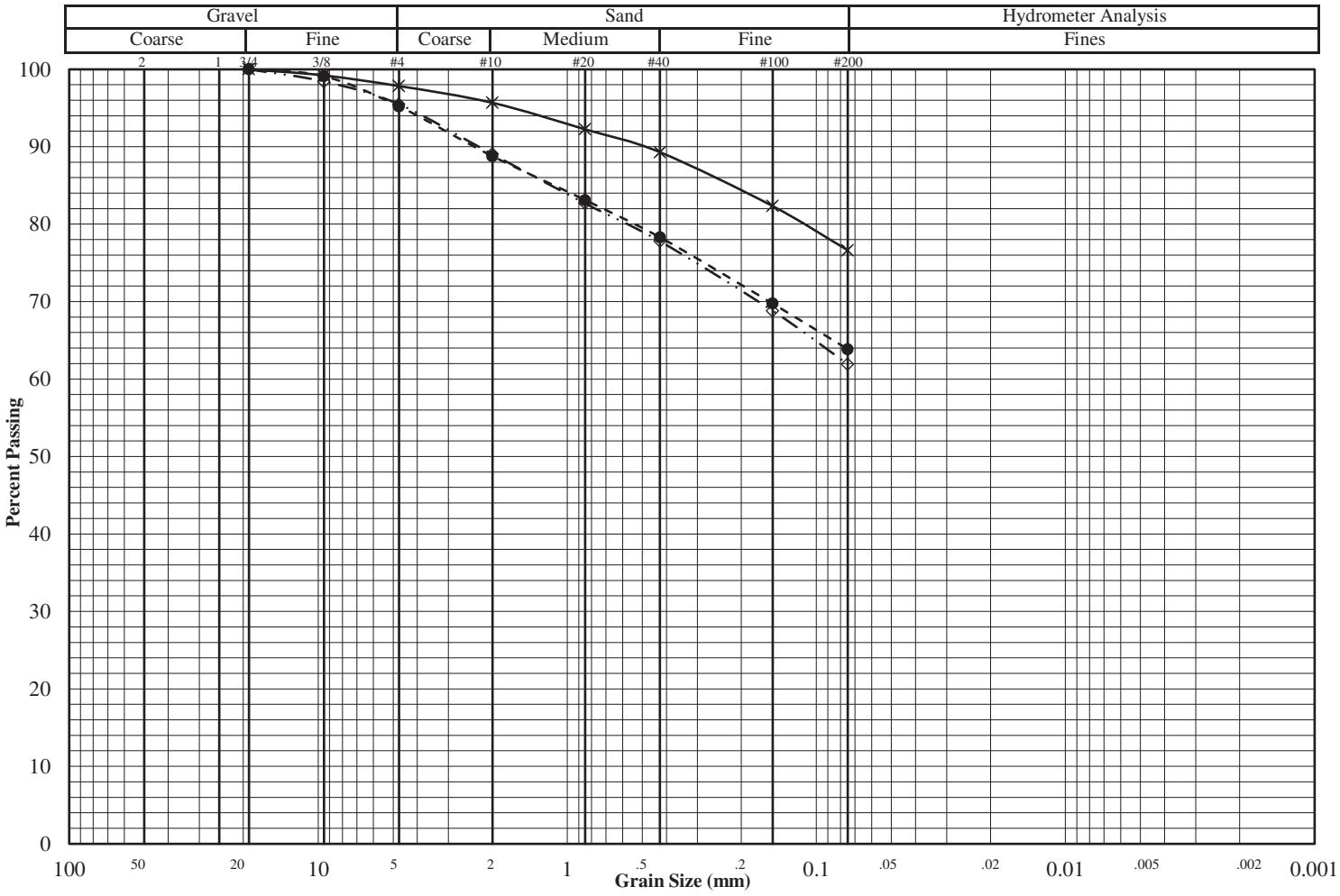
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/29/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-208		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)
●	Geo-210		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
◇	Geo-211		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	40	35	26
Plastic Limit	17	17	15
Plasticity Index ASTM:D4316	23	18	11
Water Content ASTM:D2216	21.6	12.8	12.8
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	15400.0	18103.0	17355.0
2"			
1.5"			
1"			
3/4"	100.0	100.0	100.0
3/8"	99.2	99.1	98.4
#4	97.9	95.2	95.5
#10	95.7	88.8	89.1
#20	92.3	83.1	82.7
#40	89.3	78.3	77.8
#100	82.3	69.8	68.8
#200	76.6	63.9	61.9

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

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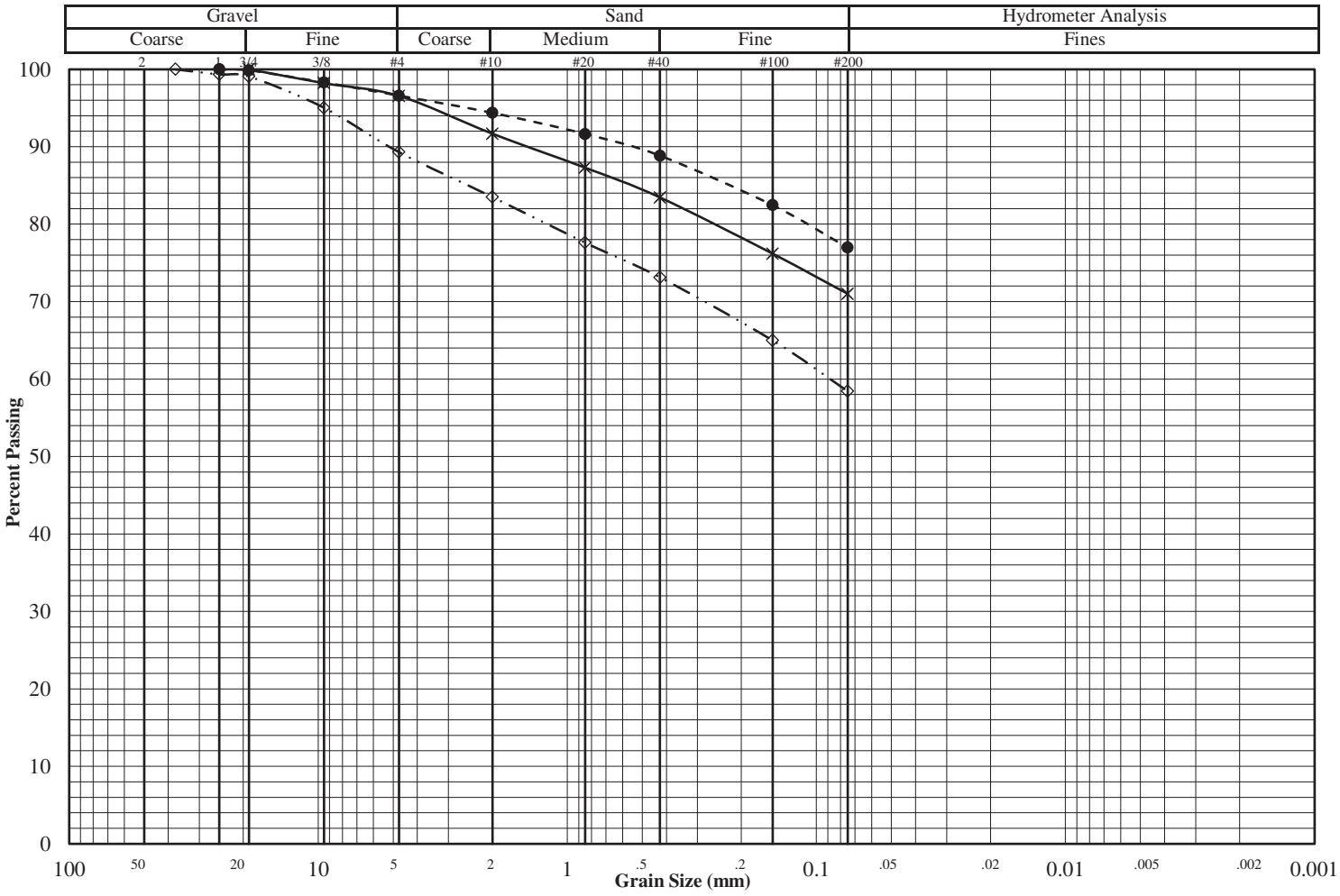
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/24/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-222		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)
●	Geo-224		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)
◇	Geo-234		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	31	39	28
Plastic Limit	16	17	16
Plasticity Index ASTM:D4316	15	22	12
Water Content ASTM:D2216	17.4	20.3	18.7
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

(* = assumed)

Percent Passing

	*	●	◇
Mass (g)	16053.0	14422.0	16386.0
2"			
1.5"			100.0
1"		100.0	99.3
3/4"	100.0	99.9	99.1
3/8"	98.2	98.3	95.0
#4	96.6	96.6	89.3
#10	91.7	94.4	83.5
#20	87.3	91.7	77.6
#40	83.5	88.8	73.1
#100	76.2	82.5	65.0
#200	71.0	77.0	58.4

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

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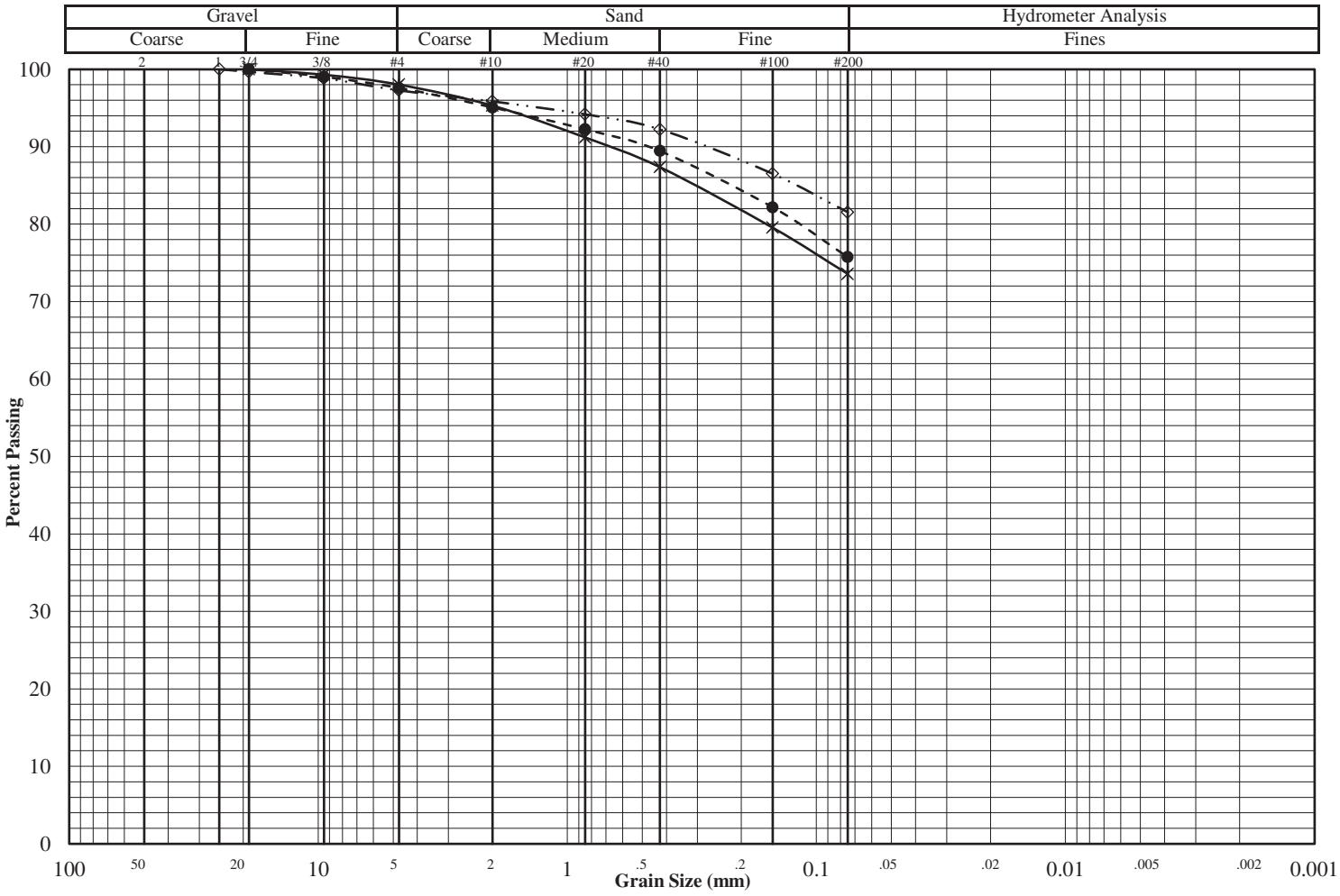
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/29/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-236		1-5	Bulk	Lean Clay w/sand (CL)
●	Geo-242		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)
◇	Geo-244		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)



Additional Results	*	●	◇
Liquid Limit	31	39	46
Plastic Limit	16	17	19
Plasticity Index ASTM:D4316	15	22	27
Water Content ASTM:D2216	17.0	19.6	20.5
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

(* = assumed)

Percent Passing

	*	●	◇
Mass (g)	16533.0	15766.0	15631.0
2"			
1.5"			
1"			100.0
3/4"	100.0	100.0	99.7
3/8"	99.3	99.0	98.8
#4	98.0	97.6	97.3
#10	95.3	95.1	95.9
#20	91.2	92.3	94.2
#40	87.4	89.5	92.2
#100	79.6	82.2	86.5
#200	73.6	75.8	81.5

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

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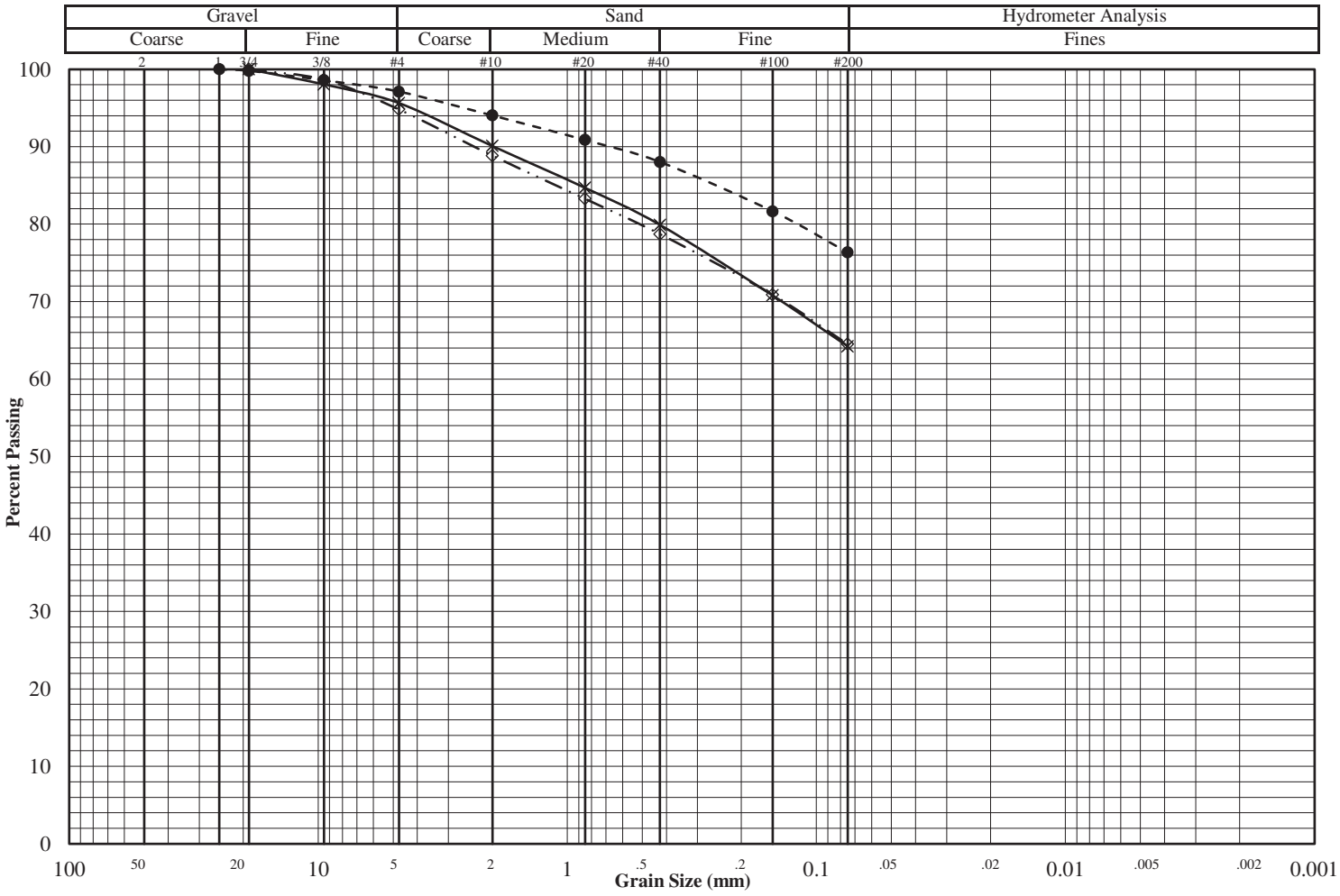
Bloomington, MN 55431

Grain Size Distribution ASTM D422-16

Job No. : **12900**

Project:	Fox Squirrel	Test Date:	11/29/20
Reported To:	Olsson Associates	Report Date:	12/4/20

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	Geo-254		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)
●	Sub-5		1-5	Bulk	Lean Clay w/sand and a trace of gravel (CL)
◇	Sub-6		1-5	Bulk	Sandy Lean Clay w/a little gravel (CL)



Additional Results	*	●	◇
Liquid Limit	29	41	28
Plastic Limit	16	19	16
Plasticity Index ASTM:D4316	13	22	12
Water Content ASTM:D2216	14.7	18.1	17.3
Dry Density (pcf) ASTM:D7263			
Specific Gravity ASTM:D854			
Porosity			
Organic Content ASTM:D2974			
pH ASTM:D4972 Method B			

Percent Passing

	*	●	◇
Mass (g)	16336.0	13577.0	15039.0
2"			
1.5"			
1"		100.0	
3/4"	100.0	99.8	100.0
3/8"	98.1	98.6	98.7
#4	95.6	97.1	94.8
#10	90.1	94.0	88.8
#20	84.7	90.9	83.3
#40	79.9	88.0	78.7
#100	70.8	81.7	70.9
#200	64.2	76.4	64.5

	*	●	◇
D_{60}			
D_{30}			
D_{10}			
C_U			
C_C			

Remarks:

(* = assumed)

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California Bearing Ratio ASTM:D1883

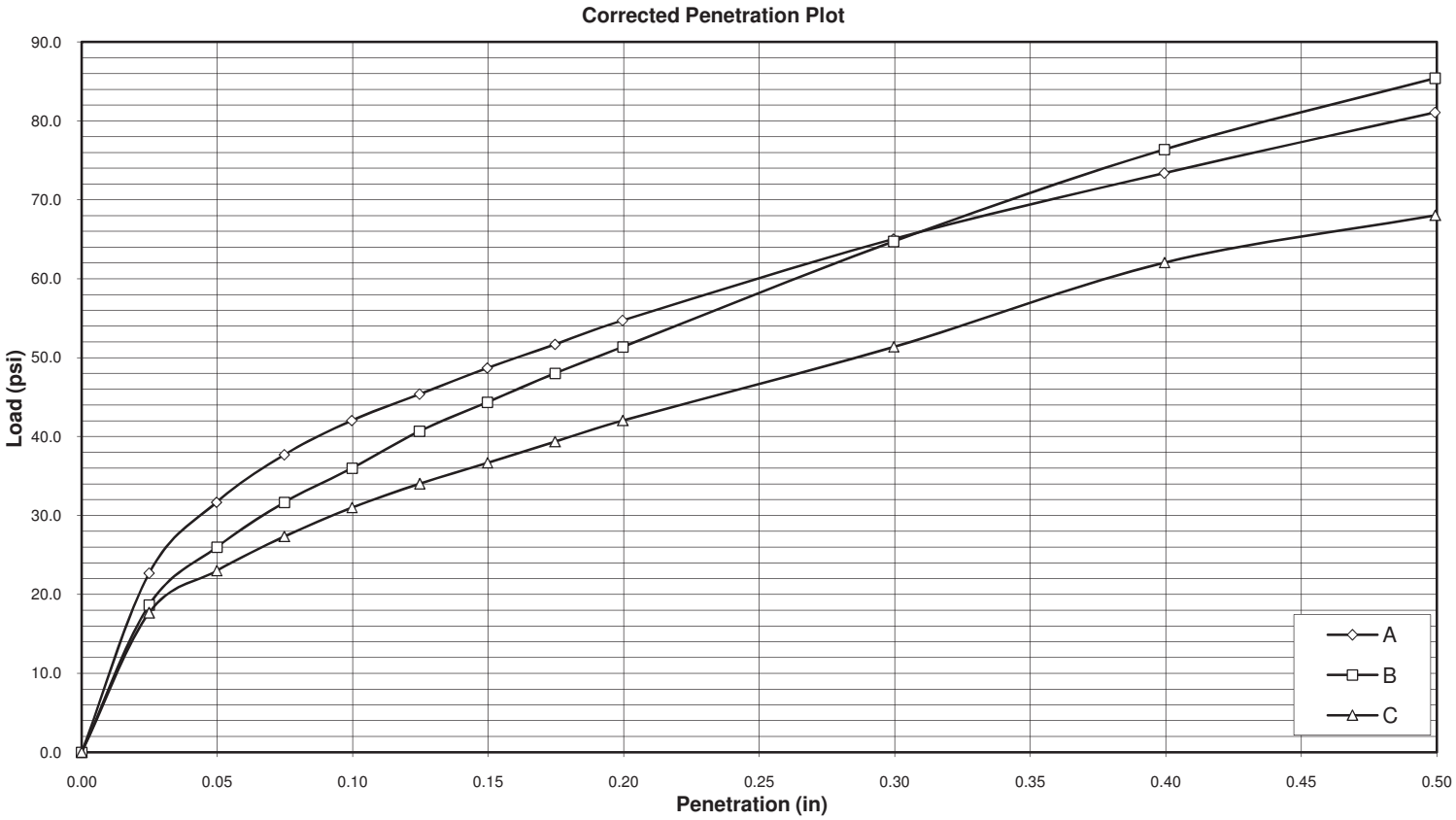
Project:	Fox Squirrel	Job:	**12900-A**
Client:	Olsson Associates	Date:	1/20/21

Boring #:	Geo-7	Geo-20	Geo-44	Procedural Method:
Sample:				Specimens compacted to approximately 95% of maximum standard proctor density at optimum moisture content. Specimens soaked for a period of 4 days before CBR test was performed.
Depth (ft):	1-5	1-5	1-5	
Type:	Bulk	Bulk	Bulk	
Classification:	Sandy Lean Clay w/a trace of gravel (CL)	Sandy Lean Clay w/a little gravel (CL)	Sandy Lean Clay w/a little gravel (CL)	

Laboratory Moisture-Density Values				Index Properties	
Method:	ASTM:D698 Method B			LL:	Gs:
Maximum Dry Density (PCF):	114.6	121.6	117.5	PL:	Organic Content:
Optimum Water Content:	14.8%	12.9%	14.5%	PI:	pH:

Initial Molding Conditions			
Specimen	A	B	C
Compaction Hammer:	5 lb	5 lb	5 lb
Number of Layers:	3	3	3
Blows per Layer:	NA	NA	NA
Initial Moisture Content:	14.8%	12.9%	14.5%
Initial Dry Density (PCF)	108.7	115.3	111.6
Relative Compaction	94.9%	94.8%	95.0%
Soaking Phase			
Days Soaked	4	4	4
Surcharge (psf)	50	50	50
Total Swell (%)	0.6%	0.1%	0.0%
Penetration Phase			
Surcharge (psf)	50	50	50
Corrected CBR Values			
at 0.1 inch (%)	**4.2%**	**3.6%**	**3.1%**
at 0.2 inch (%)	3.6%	3.4%	2.8%
Moisture Content After Penetration			
Top 1" of Specimen:	17.3%	14.5%	15.4%
Average of specimen:	16.8%	14.1%	15.6%

Stress vs. Penetration Graph



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California Bearing Ratio ASTM:D1883

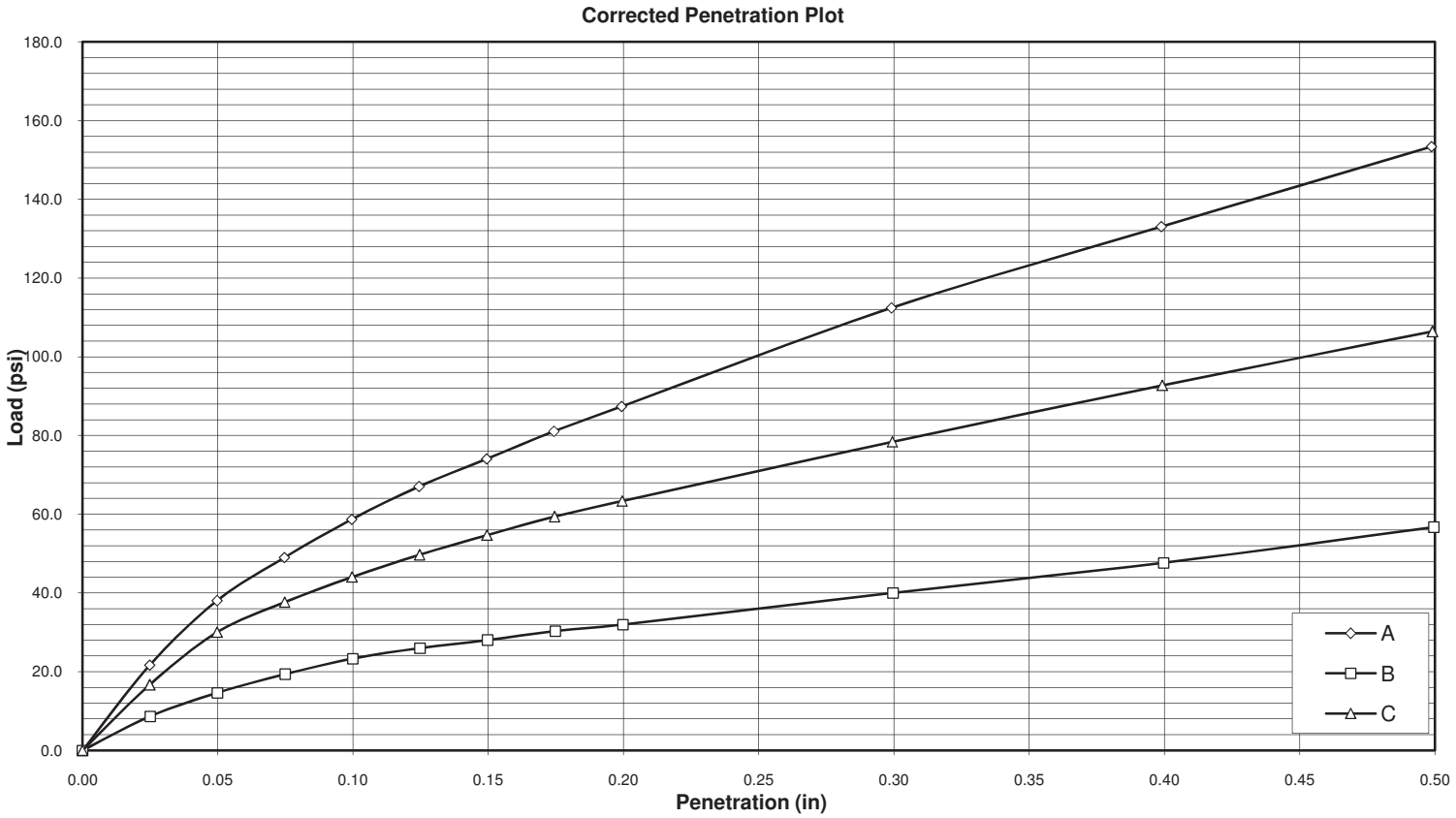
Project:	Fox Squirrel	Job:	**12900-A**
Client:	Olsson Associates	Date:	1/20/21

Boring #:	Geo-53	Geo-99	Geo-222	Procedural Method:
Sample:				Specimens compacted to approximately 95% of maximum standard proctor density at optimum moisture content. Specimens soaked for a period of 4 days before CBR test was performed.
Depth (ft):	1-5	1-5	1-5	
Type:	Bulk	Bulk	Bulk	
Classification:	Lean Clay w/sand and a little gravel (CL)	Lean Clay w/sand and a little gravel (CL)	Lean Clay w/sand and a trace of gravel (CL)	

Laboratory Moisture-Density Values				Index Properties	
Method:	ASTM:D698 Method B			LL:	Gs:
Maximum Dry Density (PCF):	116.6	105.4	118.7	PL:	Organic Content:
Optimum Water Content:	14.6%	19.1%	14.3%	PI:	pH:

Initial Molding Conditions			
Specimen	A	B	C
Compaction Hammer:	5 lb	5 lb	5 lb
Number of Layers:	3	3	3
Blows per Layer:	NA	NA	NA
Initial Moisture Content:	14.6%	19.1%	14.3%
Initial Dry Density (PCF)	110.8	100.2	113.0
Relative Compaction	95.0%	95.1%	95.2%
Soaking Phase			
Days Soaked	4	4	4
Surcharge (psf)	50	50	50
Total Swell (%)	0.7%	4.0%	0.9%
Penetration Phase			
Surcharge (psf)	50	50	50
Corrected CBR Values			
at 0.1 inch (%)	**5.9%**	**2.3%**	**4.4%**
at 0.2 inch (%)	5.8%	2.1%	4.2%
Moisture Content After Penetration			
Top 1" of Specimen:	16.1%	24.1%	15.5%
Average of specimen:	16.0%	21.4%	14.9%

Stress vs. Penetration Graph



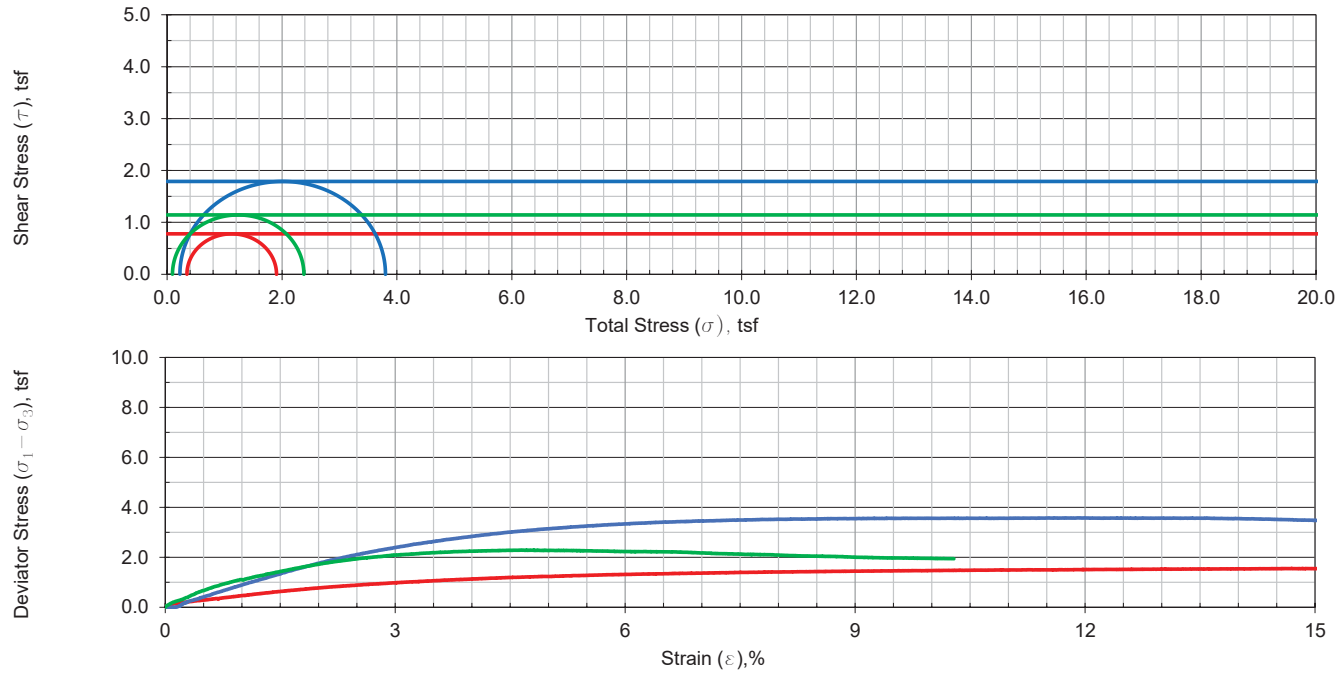
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SOIL ENGINEERING TESTING, INC.

Bloomington, MN 55431

1700 East 123rd Street
Olathe, KS 66061
TEL 913.829.0078
FAX 913.829.0258
www.olssonassociates.com

Unconsolidated Undrained Triaxial Test (ASTM D2850)

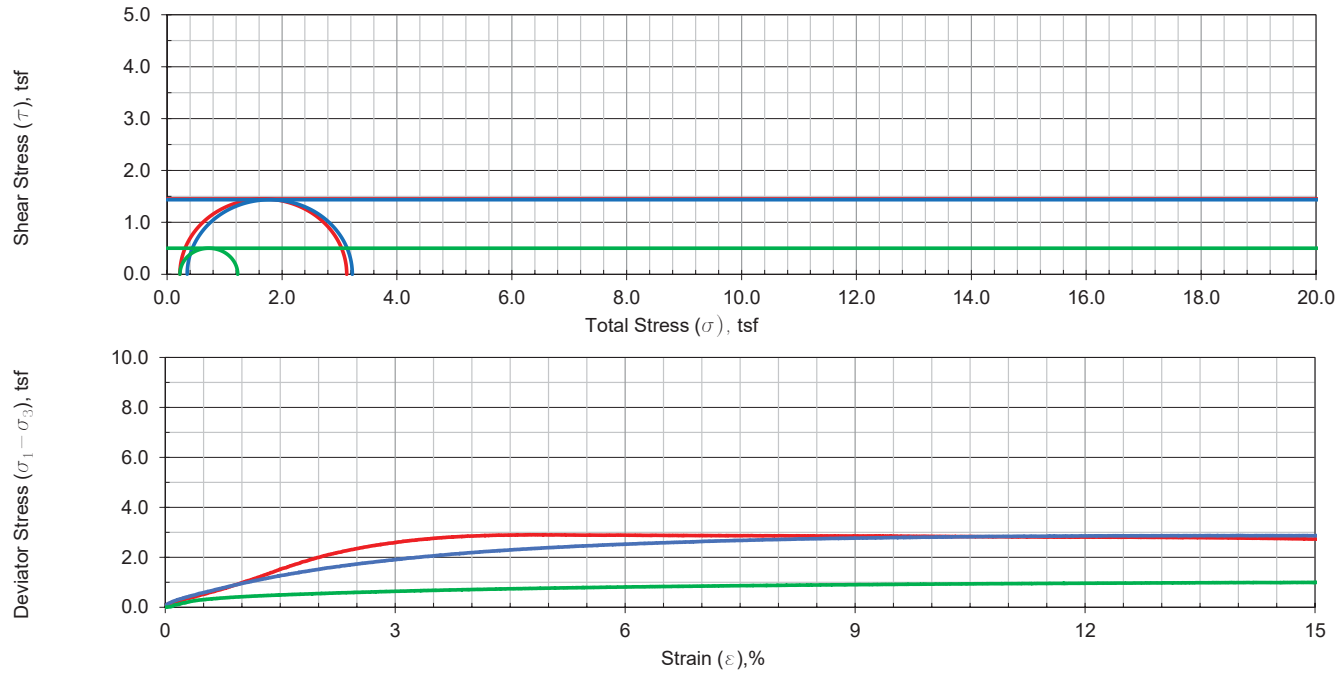


Project Information	
Project Name:	Fox Squirrel Solar Project
Project Number:	020-3275
Client Name:	EDF Renewable Energy
Project Location:	Madison County, OH

Test Information				
Boring		GEO-28	GEO-34	GEO-41
Sample		U-3	U-2	U-1
Initial	**Diameter (in)**	2.852	2.853	2.865
	Height, (in)	5.506	5.658	5.680
	Water Content, (%)	13.5	12.0	16.6
	Dry Density, (pcf)	125.7	128.7	110.2
	Saturation, (%)	100.0	100.0	84.9
	Void Ratio	0.340	0.309	0.529
Rate of Axial Strain, (%/min)		1.0	1.0	1.0
@ Failure	**Axial Strain, (%)**	15.5	15.5	10.3
	Shear Stress, (tsf)	0.78	1.79	1.14
	Minor Principal Stress, (σ_3)	0.35	0.22	0.09
	Major Principal Stress, (σ_1)	1.90	3.80	2.38
Liquid Limit		N/A	N/A	N/A
Plastic Limit		N/A	N/A	N/A
Plasticity Index		N/A	N/A	N/A
Remarks				

1700 East 123rd Street
Olathe, KS 66061
TEL 913.829.0078
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Unconsolidated Undrained Triaxial Test (ASTM D2850)



Project Information

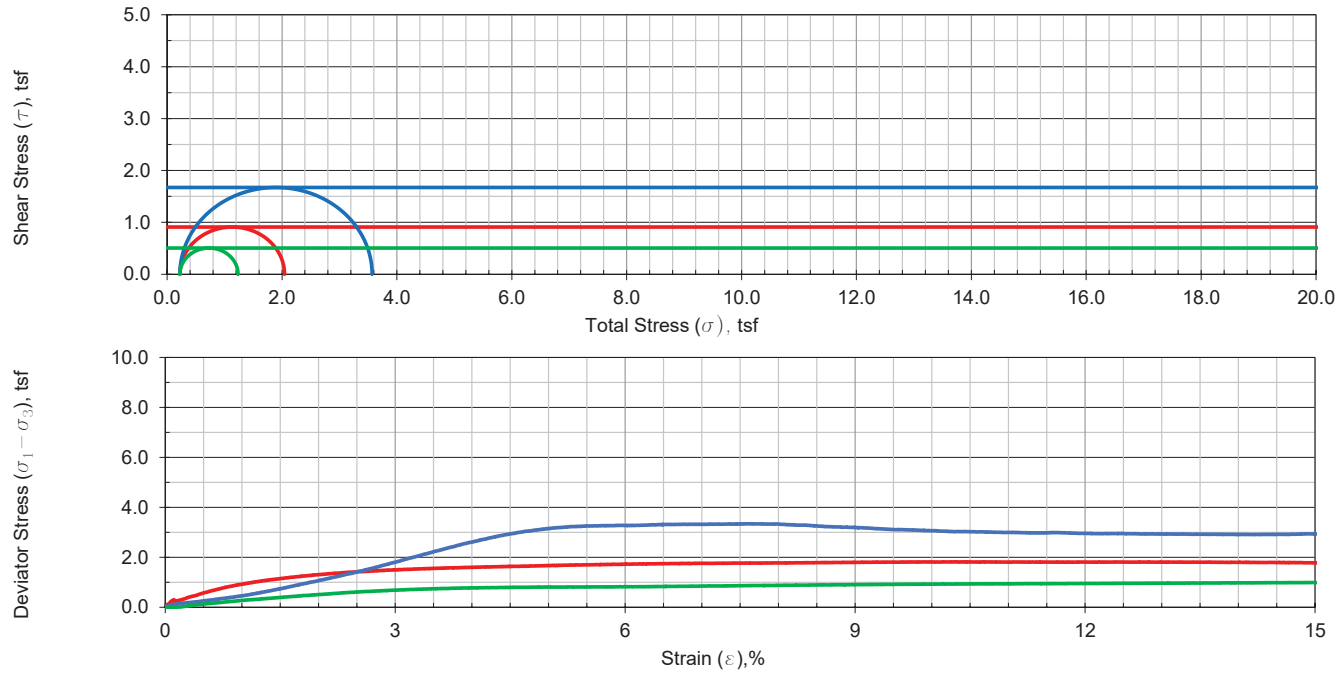
Project Name:	Fox Squirrel Solar Project
Project Number:	020-3275
Client Name:	EDF Renewable Energy
Project Location:	Madison County, OH

Test Information

Boring		GEO-44	GEO-67	GEO-78
Sample		U-2	U-3	U-2
Initial	**Diameter (in)**	2.865	2.817	2.865
	Height, (in)	5.681	5.698	5.684
	Water Content, (%)	10.9	12.1	11.6
	Dry Density, (pcf)	127.0	130.7	118.2
	Saturation, (%)	89.9	100.0	73.6
	Void Ratio	0.327	0.289	0.425
Rate of Axial Strain, (%/min)		1.0	1.0	1.0
@ Failure	**Axial Strain, (%)**	15.6	15.6	15.6
	Shear Stress, (tsf)	1.45	1.44	0.50
	Minor Principal Stress, (σ_3)	0.22	0.35	0.22
	Major Principal Stress, (σ_1)	3.13	3.22	1.23
Liquid Limit		N/A	N/A	N/A
Plastic Limit		N/A	N/A	N/A
Plasticity Index		N/A	N/A	N/A
Remarks				

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FAX 913.829.0258
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Unconsolidated Undrained Triaxial Test (ASTM D2850)



Project Information

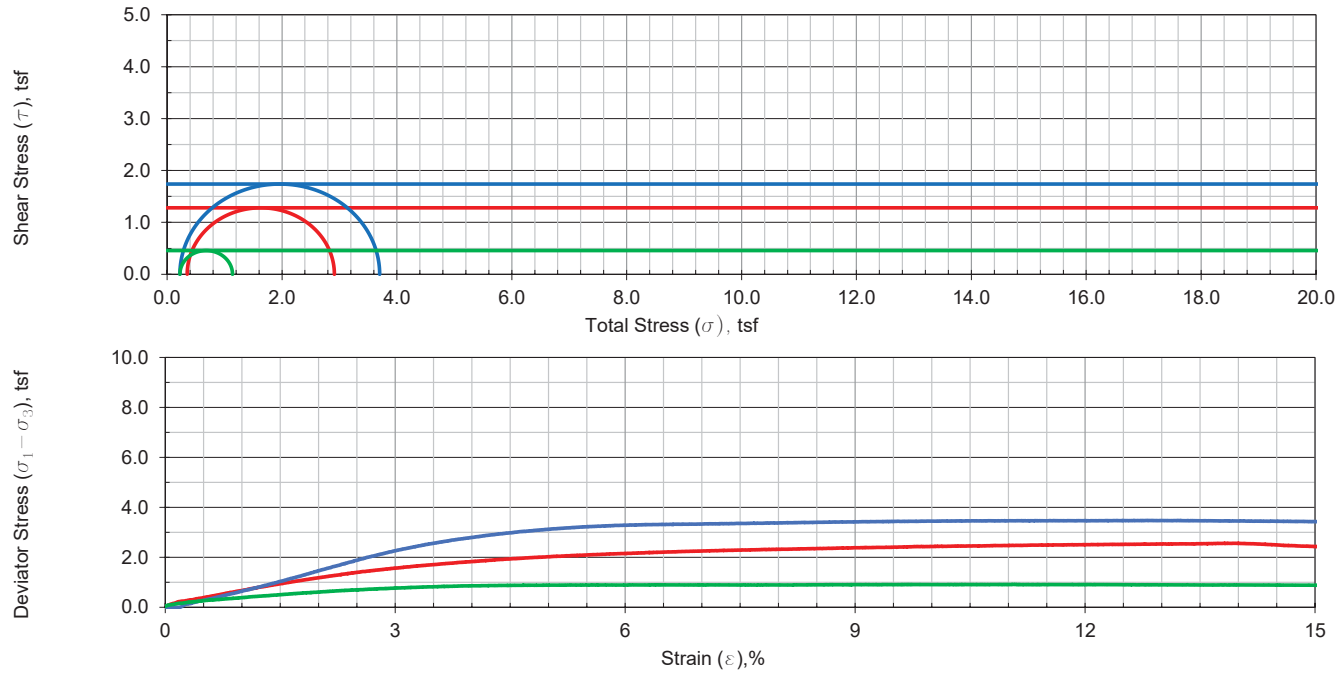
Project Name:	Fox Squirrel Solar Project
Project Number:	020-3275
Client Name:	EDF Renewable Energy
Project Location:	Madison County, OH

Test Information

Boring		GEO-84	GEO-105	GEO-107
Sample		U-2	U-2	U-2
Initial	**Diameter (in)**	2.851	2.854	2.846
	Height, (in)	5.701	5.737	4.369
	Water Content, (%)	22.3	11.1	12.0
	Dry Density, (pcf)	132.8	129.8	120.7
	Saturation, (%)	100.0	100.0	81.9
	Void Ratio	0.269	0.298	0.396
Rate of Axial Strain, (%/min)		1.0	1.0	1.0
@ Failure	**Axial Strain, (%)**	15.6	15.6	19.1
	Shear Stress, (tsf)	0.91	1.67	0.51
	Minor Principal Stress, (σ_3)	0.22	0.22	0.22
	Major Principal Stress, (σ_1)	2.04	3.57	1.23
Liquid Limit		N/A	N/A	N/A
Plastic Limit		N/A	N/A	N/A
Plasticity Index		N/A	N/A	N/A
Remarks				

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Olathe, KS 66061
TEL 913.829.0078
FAX 913.829.0258
www.olssonassociates.com

Unconsolidated Undrained Triaxial Test (ASTM D2850)



Project Information

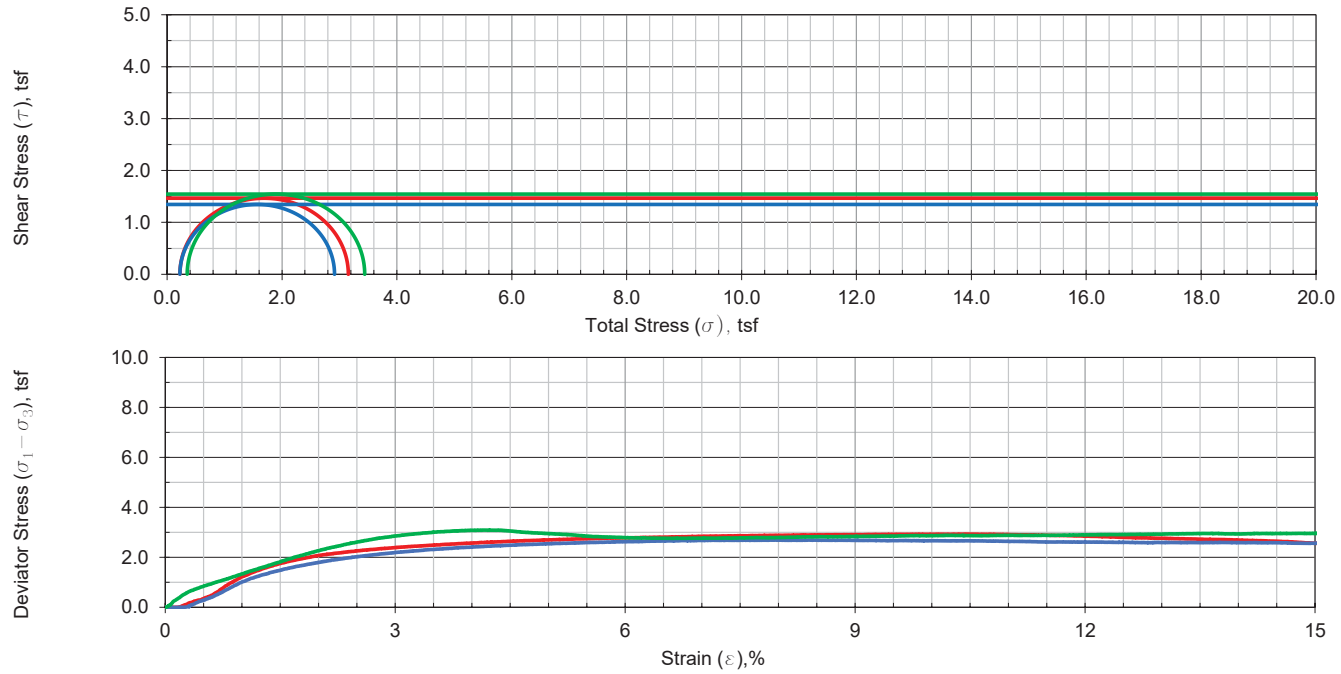
Project Name:	Fox Squirrel Solar Project
Project Number:	020-3275
Client Name:	EDF Renewable Energy
Project Location:	Madison County, OH

Test Information

Boring		GEO-208	GEO-211	GEO-234
Sample		U-3	U-2	U-2
Initial	**Diameter (in)**	2.857	2.837	2.824
	Height, (in)	4.698	5.723	5.641
	Water Content, (%)	13.2	10.3	19.9
	Dry Density, (pcf)	127.2	130.1	109.0
	Saturation, (%)	100.0	94.7	98.8
	Void Ratio	0.325	0.295	0.545
Rate of Axial Strain, (%/min)		1.0	1.0	1.0
@ Failure	**Axial Strain, (%)**	15.5	15.6	15.6
	Shear Stress, (tsf)	1.28	1.74	0.46
	Minor Principal Stress, (σ_3)	0.35	0.22	0.22
	Major Principal Stress, (σ_1)	2.91	3.70	1.14
Liquid Limit		N/A	N/A	N/A
Plastic Limit		N/A	N/A	N/A
Plasticity Index		N/A	N/A	N/A
Remarks				

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Unconsolidated Undrained Triaxial Test (ASTM D2850)

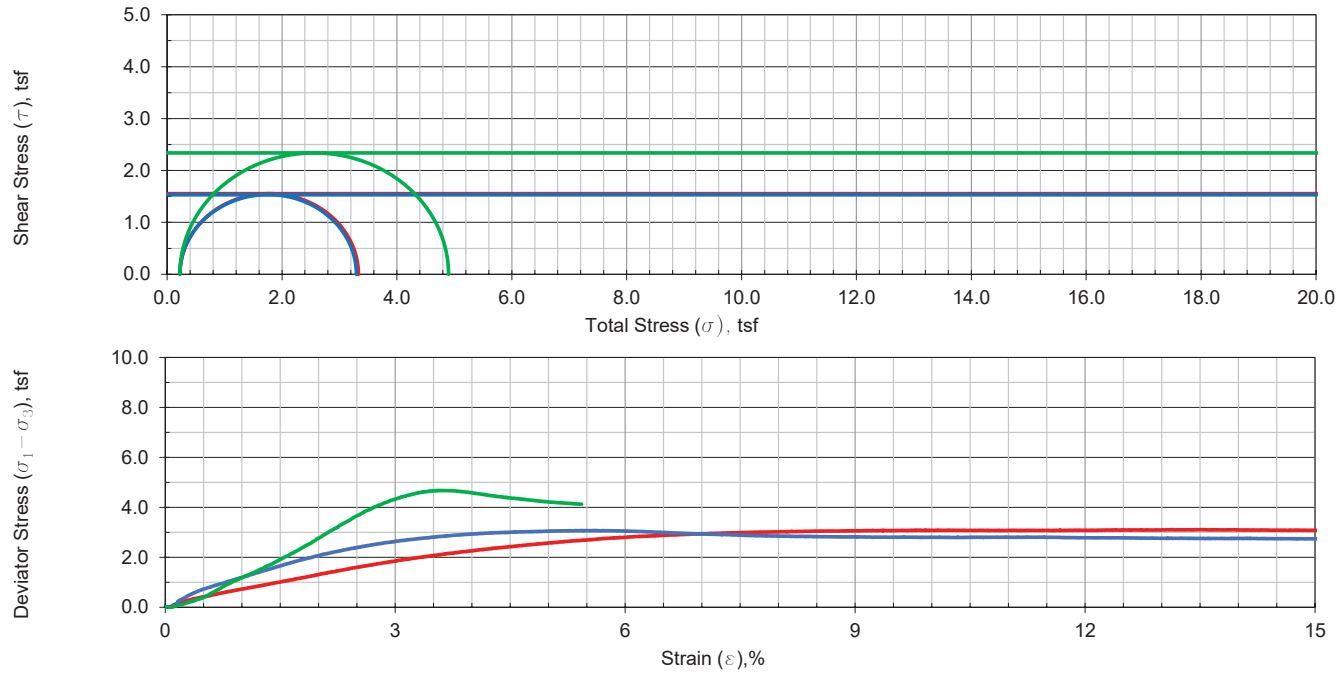


Project Information	
Project Name:	Fox Squirrel Solar Project
Project Number:	020-3275
Client Name:	EDF Renewable Energy
Project Location:	Madison County, OH

Test Information				
Boring		GEO-236	GEO-241	GEO-244
Sample		U-1	U-2	U-3
Initial	**Diameter (in)**	2.856	2.852	2.854
	Height, (in)	5.502	5.658	5.697
	Water Content, (%)	19.6	19.7	13.0
	Dry Density, (pcf)	106.3	108.5	122.6
	Saturation, (%)	90.4	95.9	93.8
	Void Ratio	0.585	0.553	0.374
Rate of Axial Strain, (%/min)		1.0	1.0	1.0
@ Failure	**Axial Strain, (%)**	15.3	15.5	15.6
	Shear Stress, (tsf)	1.47	1.35	1.54
	Minor Principal Stress, (σ_3)	0.22	0.22	0.35
	Major Principal Stress, (σ_1)	3.15	2.91	3.44
Liquid Limit		N/A	N/A	N/A
Plastic Limit		N/A	N/A	N/A
Plasticity Index		N/A	N/A	N/A
Remarks				

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Project Information

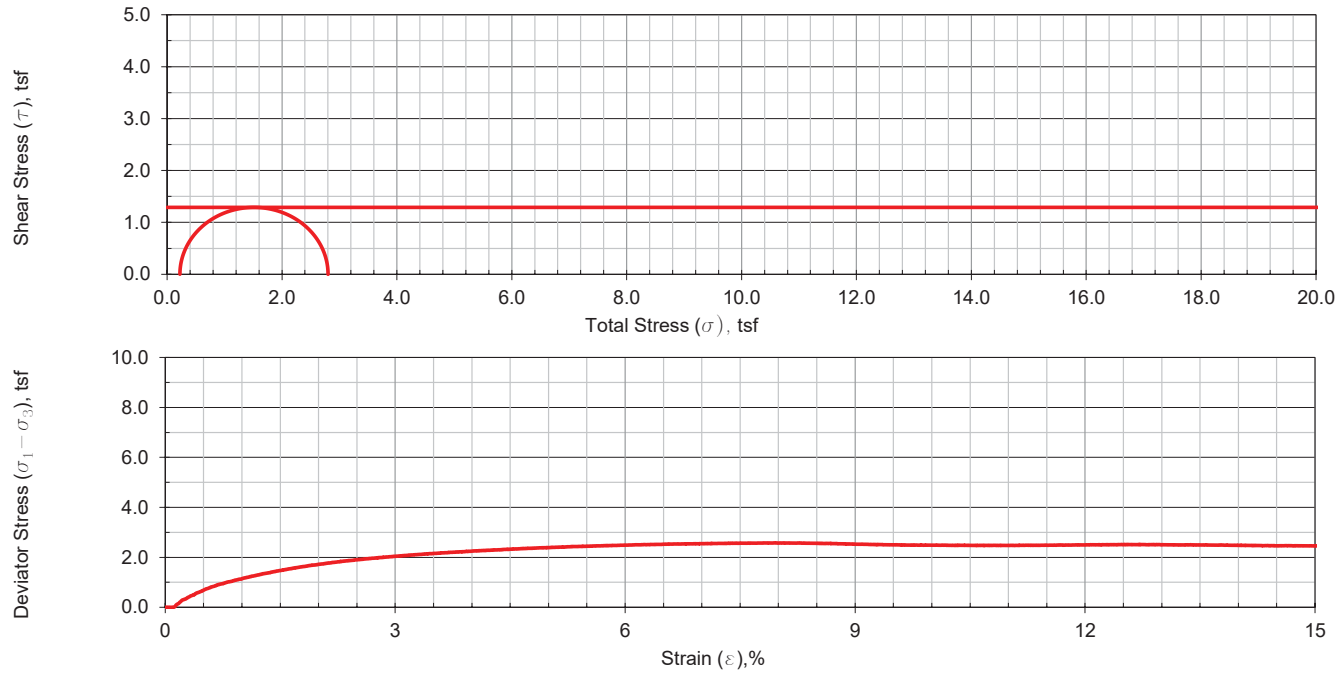
Project Name:	Fox Squirrel Solar Project
Project Number:	020-3275
Client Name:	EDF Renewable Energy
Project Location:	Madison County, OH

Test Information

Boring		GEO-254	SUB-1	SUB-5
Sample		U-2	U-2	U-2
Initial	**Diameter (in)**	2.854	2.854	2.841
	Height, (in)	5.697	5.449	5.440
	Water Content, (%)	13.0	11.7	11.6
	Dry Density, (pcf)	122.6	123.1	128.5
	Saturation, (%)	93.8	85.5	100.0
	Void Ratio	0.374	0.368	0.311
Rate of Axial Strain, (%/min)		1.0	1.0	1.0
@ Failure	**Axial Strain, (%)**	15.5	15.6	5.4
	Shear Stress, (tsf)	1.55	1.54	2.34
	Minor Principal Stress, (σ_3)	0.22	0.22	0.22
	Major Principal Stress, (σ_1)	3.33	3.29	4.90
Liquid Limit		N/A	N/A	N/A
Plastic Limit		N/A	N/A	N/A
Plasticity Index		N/A	N/A	N/A
Remarks				

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Unconsolidated Undrained Triaxial Test (ASTM D2850)



Project Information	
Project Name:	Fox Squirrel Solar Project
Project Number:	020-3275
Client Name:	EDF Renewable Energy
Project Location:	Madison County, OH

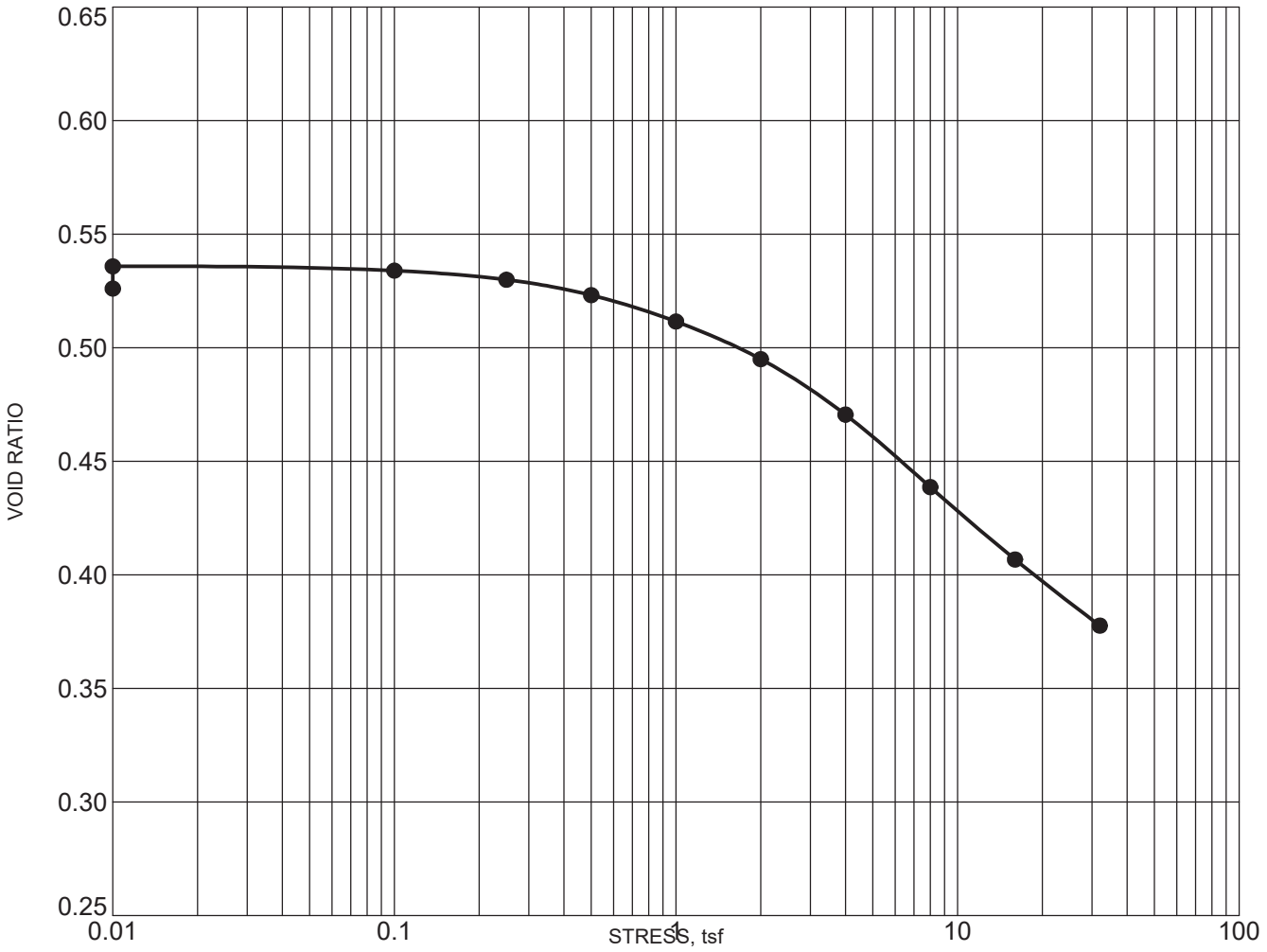
Test Information				
Boring		SUB-6		
Sample		U-1		
Initial	**Diameter (in)**	2.857		
	Height, (in)	5.532		
	Water Content, (%)	23.8		
	Dry Density, (pcf)	106.2		
	Saturation, (%)	100.0		
	Void Ratio	0.587		
Rate of Axial Strain, (%/min)		1.0		
@ Failure	**Axial Strain, (%)**	15.6		
	Shear Stress, (tsf)	1.29		
	Minor Principal Stress, (σ_3)	0.22		
	Major Principal Stress, (σ_1)	2.80		
Liquid Limit		N/A		
Plastic Limit		N/A		
Plasticity Index		N/A		
Remarks				

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SWELL / CONSOLIDATION TEST

PROJECT NAME: Fox Squirrel Solar Project **CLIENT:** EDF Renewables

PROJECT NUMBER: 020-32750 **PROJECT LOCATION:** Madison County, Ohio



Boring No: GEO-18

Sample ID: U-3

Sample Depth: 6.0 - 8.0'

Start Date: 12/22/20

Technician: J.Caulfield

Apparatus: LT II

Specific Gravity: 2.7

Initial Water Content (%): 17.7

Final Water Content (%): 13.9

Initial Dry Density (pcf): 110.5

Initial Void Ratio: 0.526

Final Void Ratio: 0.378

Initial Degree of Saturation (%): 90.7

Final Degree of Saturation (%): 99.3

Est. Preconsolidation Stress (tsf): N/A

Laboratory Water Type: Distilled Water

Test Procedure Method: C

Interpretation Procedure: 1

Stress at Inundation (psf): 20.0

Specimen Trimming Method: Cutting Shoe

ATTERBERG LIMITS

LL	PL	PI	Classification
25	**13**	**12**	

Sample Description: Brown and dark brown, moist, with fine gravel, trace sannd/silt

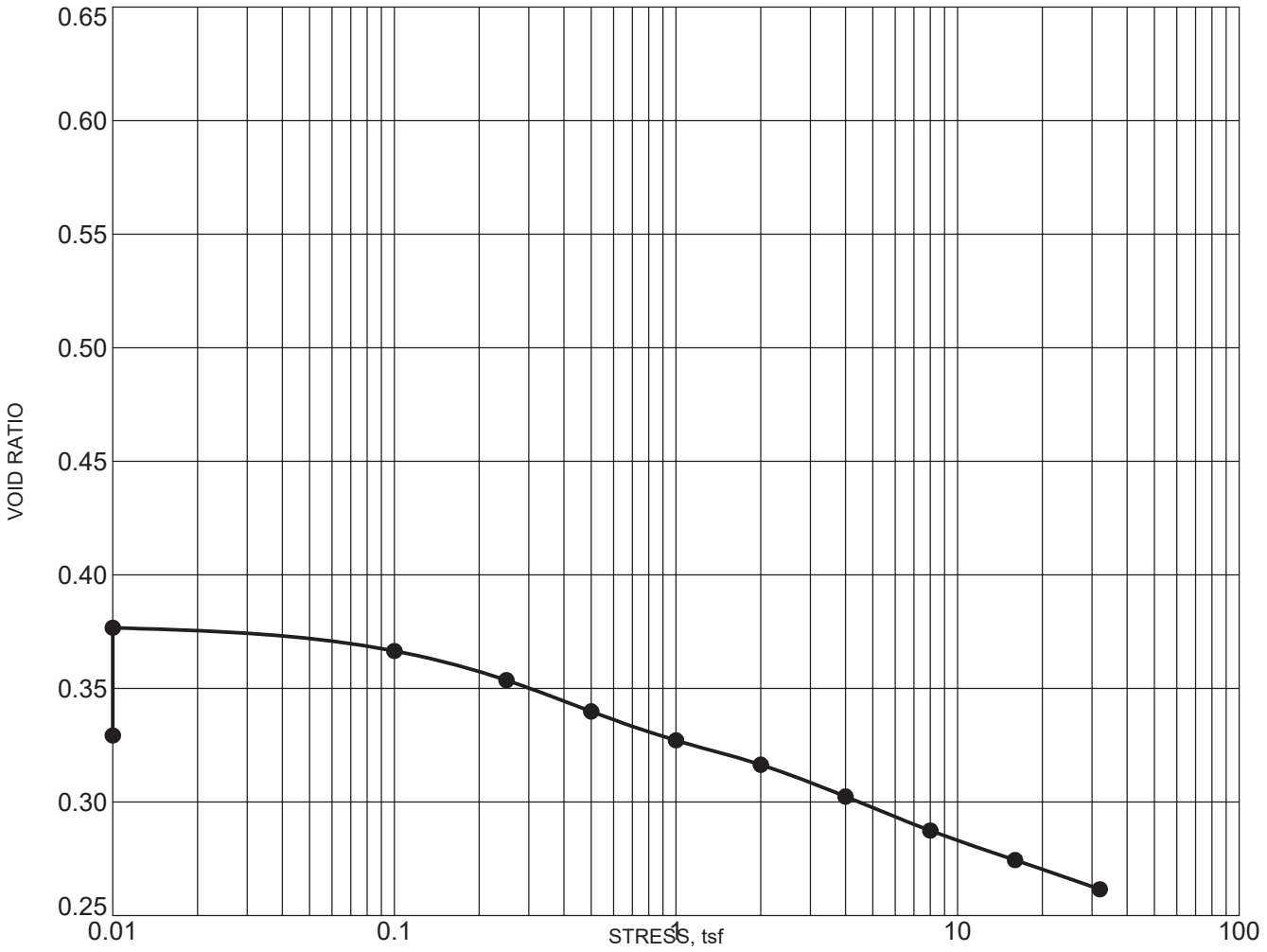
Notes: N/A

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SWELL TEST

PROJECT NAME: Fox Squirrel Solar Project **CLIENT:** EDF Renewables

PROJECT NUMBER: 020-32750 **PROJECT LOCATION:** Madison County, Ohio



Boring No: GEO-69

Sample ID: U-2

Sample Depth: 3.5 - 5.5'

Start Date: 1/7/2020

Technician: J. Caulfield

Apparatus: NA

Specific Gravity: 2.7

Initial Water Content (%): 9.7

Final Water Content (%): 10.8

Initial Dry Density (pcf): 127.1

Initial Void Ratio: 0.327

Final Void Ratio: 0.288

Initial Degree of Saturation (%): 80.1

Final Degree of Saturation (%): 100.0

Est. Preconsolidation Stress (tsf): N/A

Laboratory Water Type: Distilled Water

Test Procedure Method: NA

Interpretation Procedure: NA

Stress at Inundation (psf): 0.0

Specimen Trimming Method: Cutting Shoe

ATTERBERG LIMITS

LL	PL	PI	Classification
38	**16**	**22**	

Sample Description:

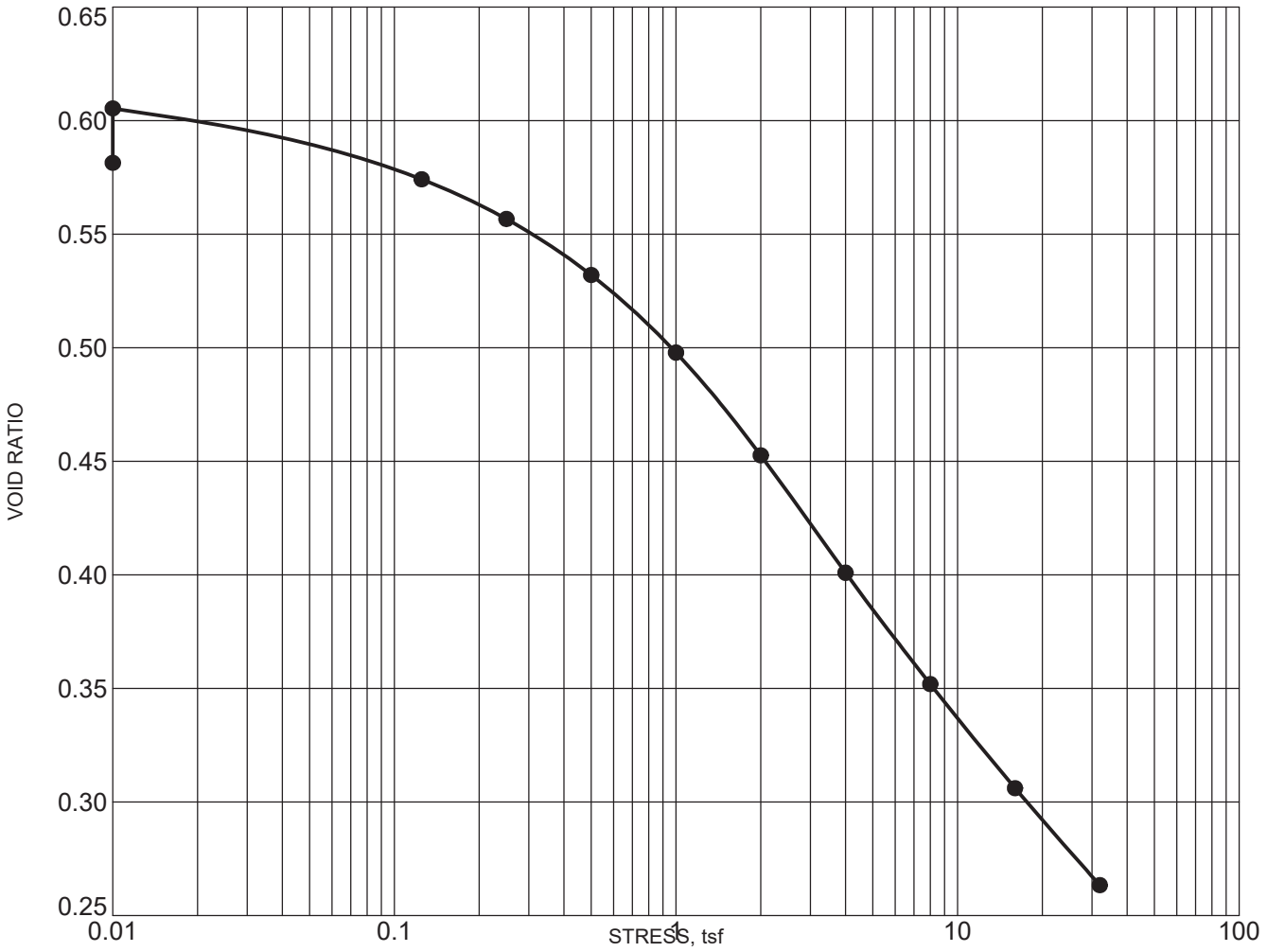
Notes:

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SWELL / CONSOLIDATION TEST

PROJECT NAME: Fox Squirrel Solar Project **CLIENT:** EDF Renewables

PROJECT NUMBER: 020-32750 **PROJECT LOCATION:** Madison County, Ohio



Boring No: SUB-1

Sample ID: U-2

Sample Depth: 3.5 - 5.5'

Start Date: 1/4/2021

Technician: J.Caulfield

Apparatus: LT II

Specific Gravity: 2.7

Initial Water Content (%): 11.7

Final Water Content (%): 16.3

Initial Dry Density (pcf): 106.6

Initial Void Ratio: 0.581

Final Void Ratio: 0.305

Initial Degree of Saturation (%): 54.2

Final Degree of Saturation (%): 100.0

Est. Preconsolidation Stress (tsf): N/A

Laboratory Water Type: Tap Water

Test Procedure Method: NA

Interpretation Procedure: NA

Stress at Inundation (psf): 0.0

Specimen Trimming Method: Cutting Shoe

ATTERBERG LIMITS

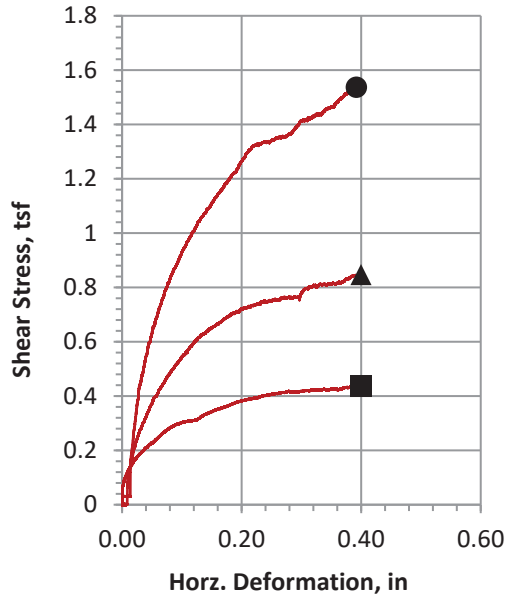
LL	PL	PI	Classification
29	**15**	**14**	

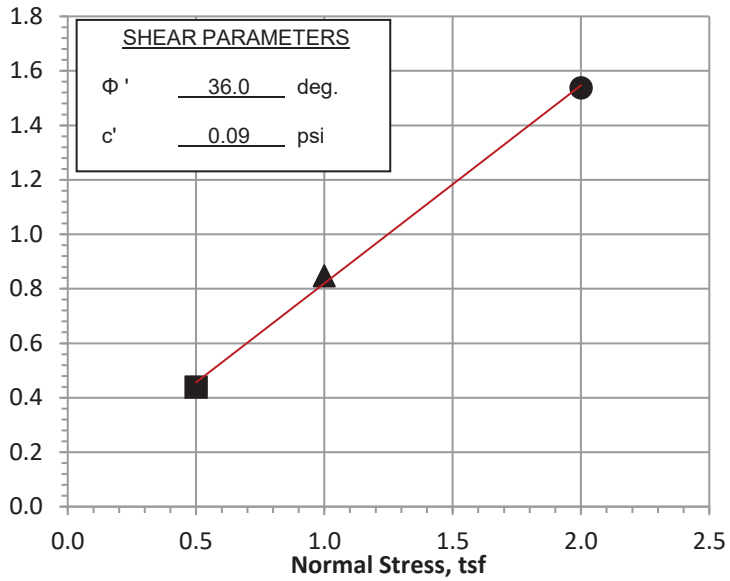
Sample Description: Lean to fat clay, brown with gray, moist, trace fine sand.

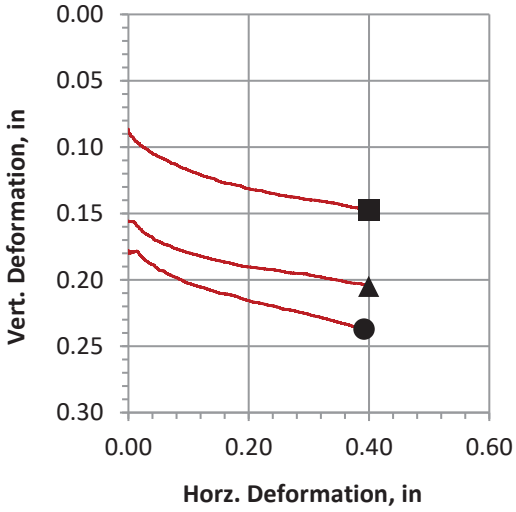
Notes: N/A

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Direct Shear Test of Soils Under Consolidated Drained Conditions ASTM D 3080







Symbol		■	▲	●
Test No.		1	2	3
Sample No.		SS-5	SS-5	SS-5
Depth, ft		13.5-15	13.5-15	13.5-15
Shape		Circular	Circular	Circular
Initial	Diameter, in	2.5	2.5	2.5
	Area, in^2	4.91	4.91	4.91
	Height, in	0.990	1.000	1.000
	Water Content, %	7.2	7.0	7.0
	Dry Density, pcf	107.7	106.9	107.0
	Saturation, %	34.7	32.8	33.0
	Void Ratio	0.564	0.576	0.574
Consol. Height, in		1.027	1.003	0.987
Consol. Void Ratio		0.622	0.580	0.554
Final	Water Content, %	15.0	13.7	14.2
	Dry Density, pcf	129.1	136.3	143.0
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.305	0.236	0.178
Normal Strees, psi		0.5	1.0	2.0
Max. Shear Stress, psi		0.4	0.8	1.5
Time to Failure, min		315	307	328
Disp. Rate, in/min		0.001	0.001	0.001
Estimated Specific Gravity		2.7	2.7	2.7
Liquid Limit		N/A	N/A	N/A
Plastic Limit		N/A	N/A	N/A
Plasticity Index		N/A	N/A	N/A

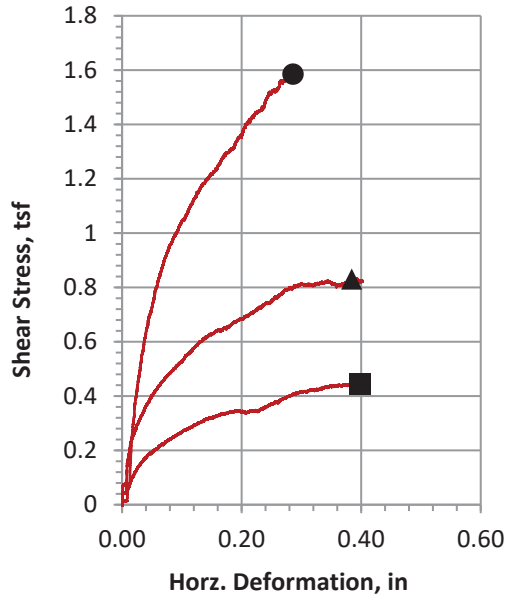
Project Name:	Fox Squirrel Solar
Location:	Madison County, OH
Project No:	020-3275
Boring No:	GEO-53
Sample Type:	Split Spoon

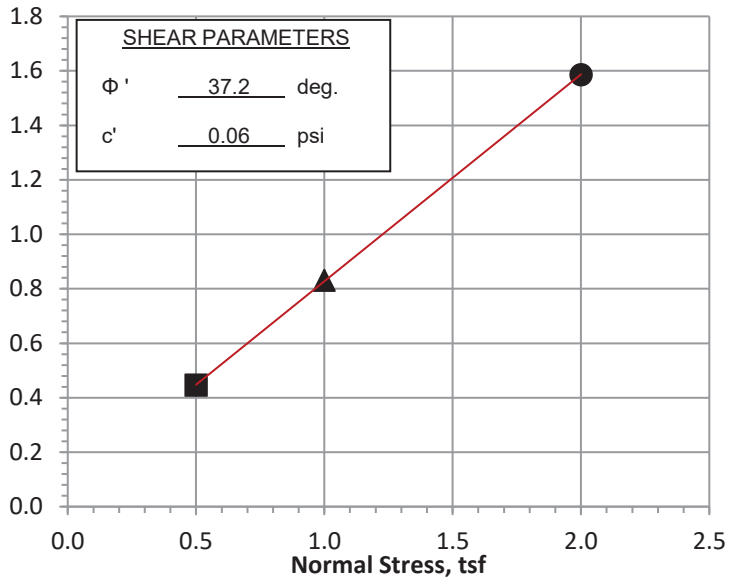
Description: SP Poorly graded sand, brown, moist, with gravel and clay

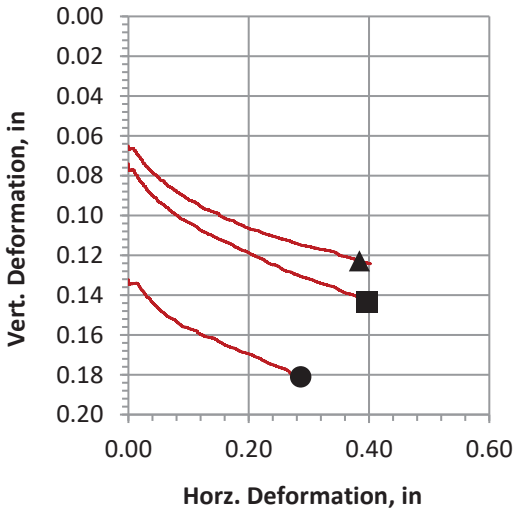
Remarks: N/A

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Direct Shear Test of Soils Under Consolidated Drained Conditions ASTM D 3080







Symbol		■	▲	●
Test No.		1	2	3
Sample No.		SS-6	SS-6	SS-6
Depth, ft		18.5-20	18.5-20	18.5-20
Shape		Circular	Circular	Circular
Initial	Diameter, in	2.5	2.5	2.5
	Area, in^2	4.91	4.91	4.91
	Height, in	1.000	0.990	1.000
	Water Content, %	6.9	7.0	7.1
	Dry Density, pcf	107.1	108.0	106.9
	Saturation, %	32.3	33.8	33.2
	Void Ratio	0.573	0.560	0.576
Consol. Height, in		1.027	1.003	0.987
Consol. Void Ratio		0.616	0.580	0.556
Final	Water Content, %	17.0	13.1	12.6
	Dry Density, pcf	125.1	125.9	135.7
	Saturation, %	100.0	100.0	100.0
	Void Ratio	0.347	0.338	0.241
Normal Strees, psi		0.5	1.0	2.0
Max. Shear Stress, psi		0.4	0.8	1.6
Time to Failure, min		326	326	256
Disp. Rate, in/min		0.001	0.001	0.001
Estimated Specific Gravity		2.7	2.7	2.7
Liquid Limit		N/A	N/A	N/A
Plastic Limit		N/A	N/A	N/A
Plasticity Index		N/A	N/A	N/A

Project Name:	Fox Squirrel Solar
Location:	Madison County, OH
Project No:	020-3275
Boring No:	GEO-67
Sample Type:	Split Spoon

Description: SP Poorly graded sand, brown, moist, with gravel and clay

Remarks: N/A

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

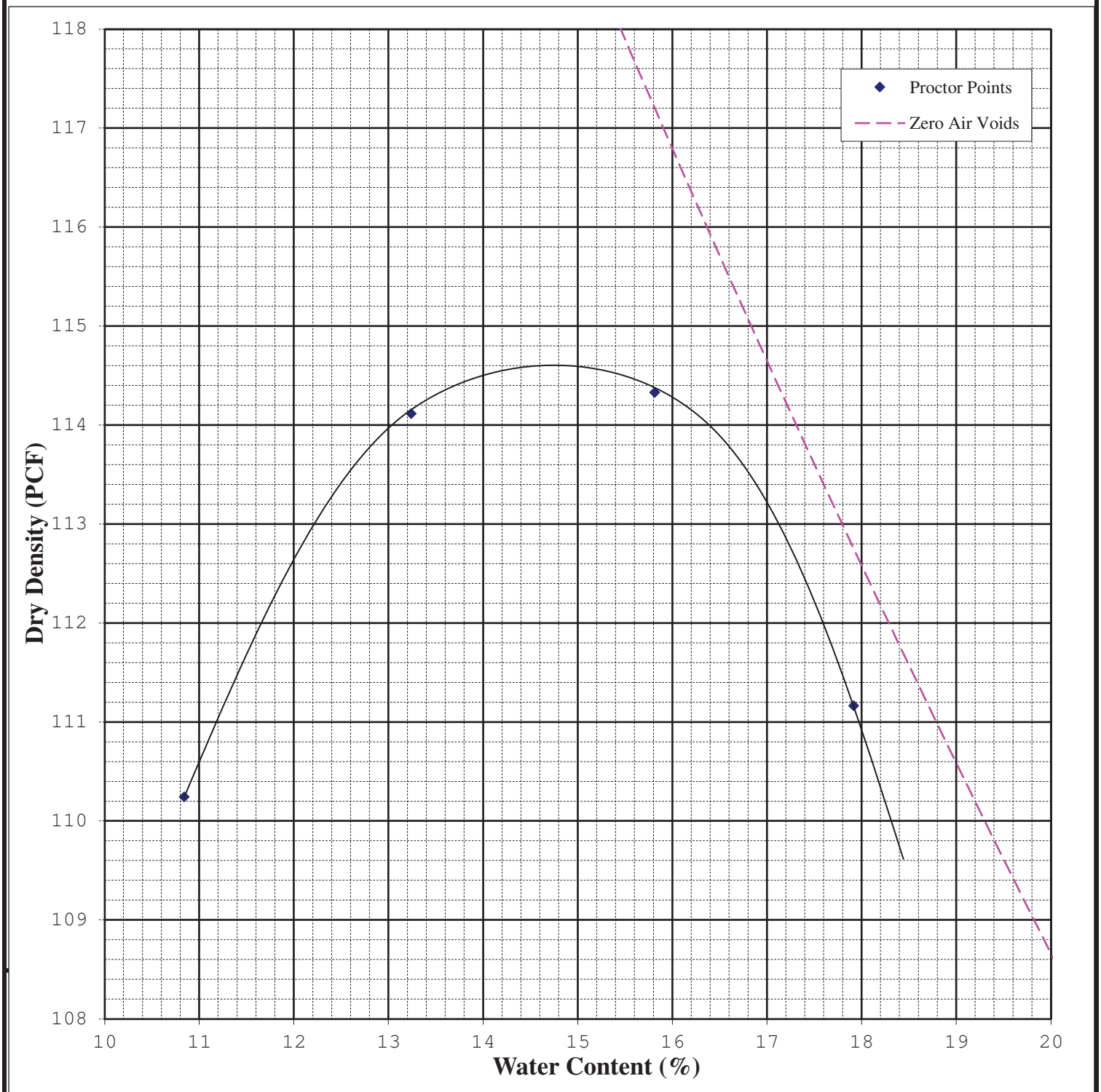
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-07** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a trace of gravel (CL)**

As Received W.C. (%): **17.2** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **114.6** Opt. Water Content (%): **14.8**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

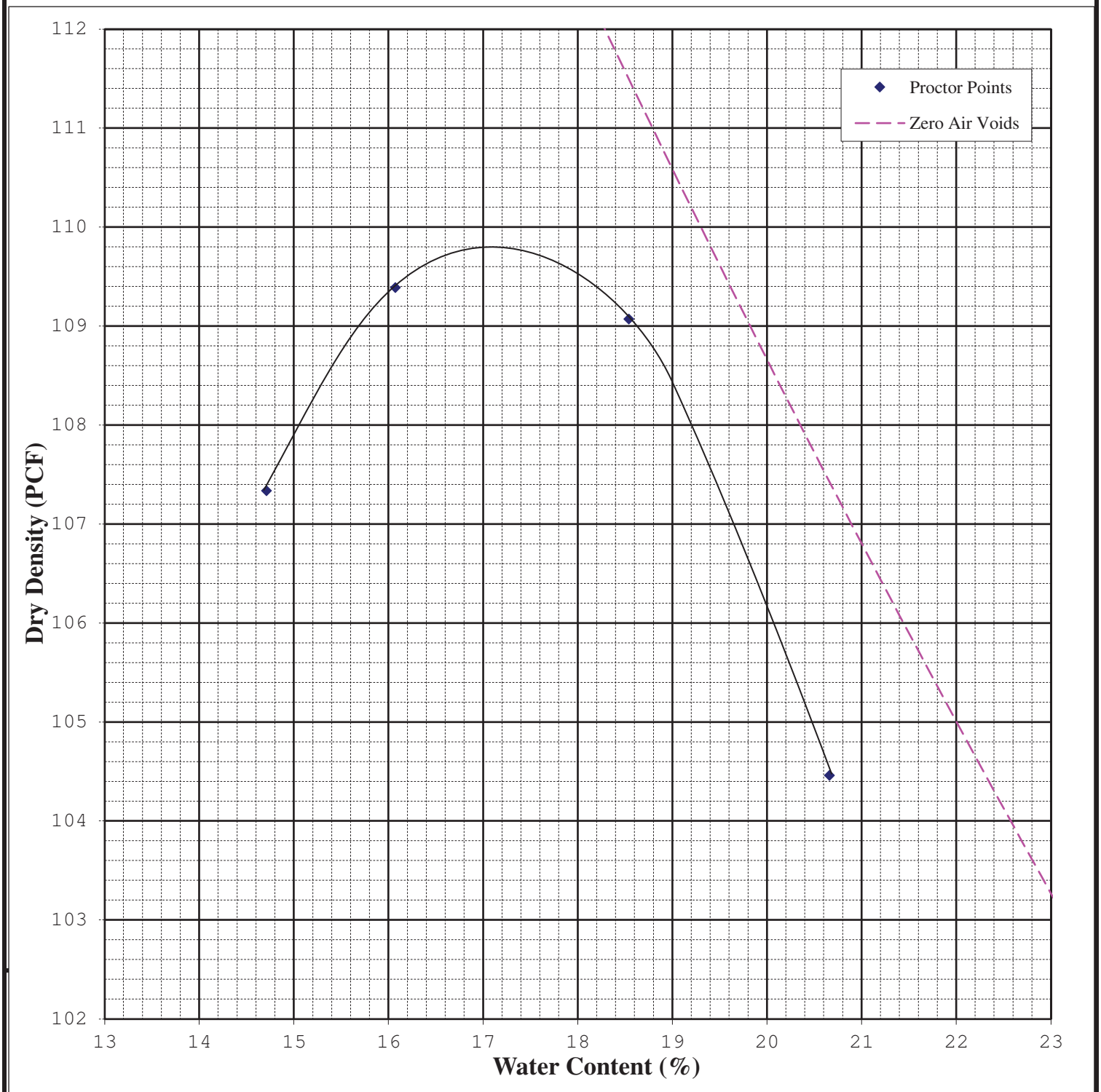
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-11** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **19.7** LL: **38** PL: **17** PI: **21** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **109.8** Opt. Water Content (%): **17.1**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

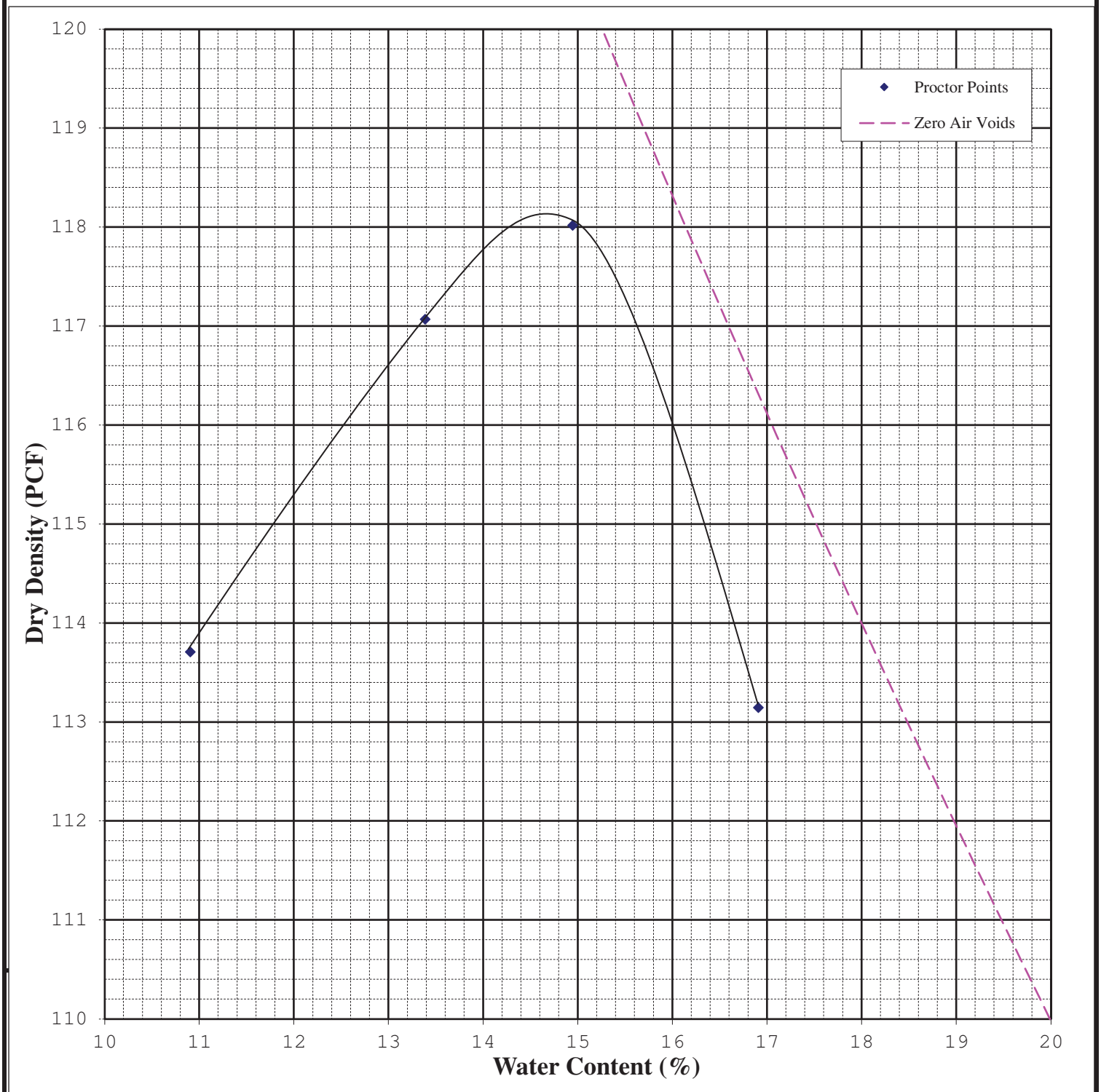
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-14** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **14.2** LL: **33** PL: **17** PI: **16** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **118.1** Opt. Water Content (%): **14.6**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

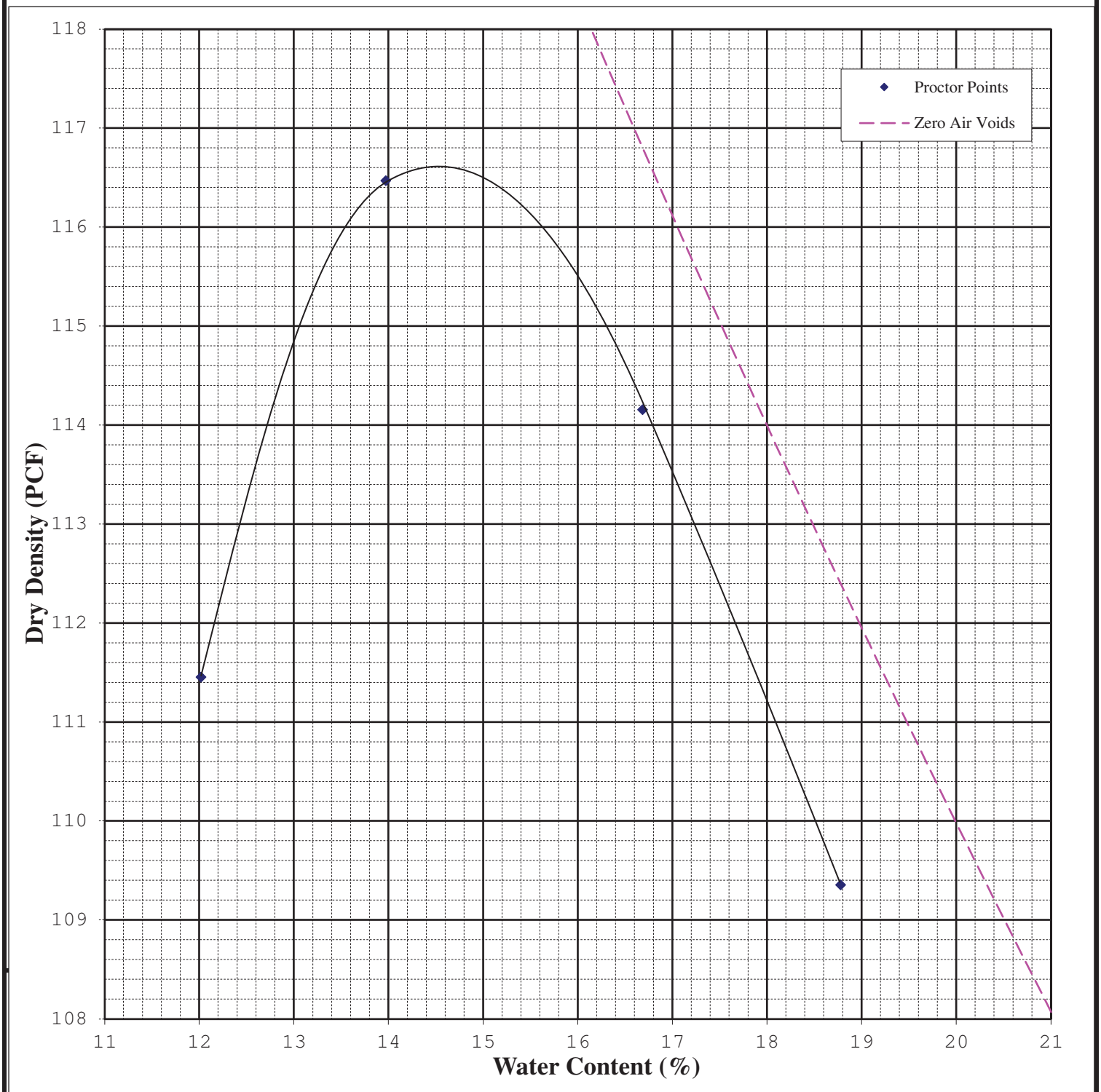
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-18** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **15.4** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **116.6** Opt. Water Content (%): **14.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

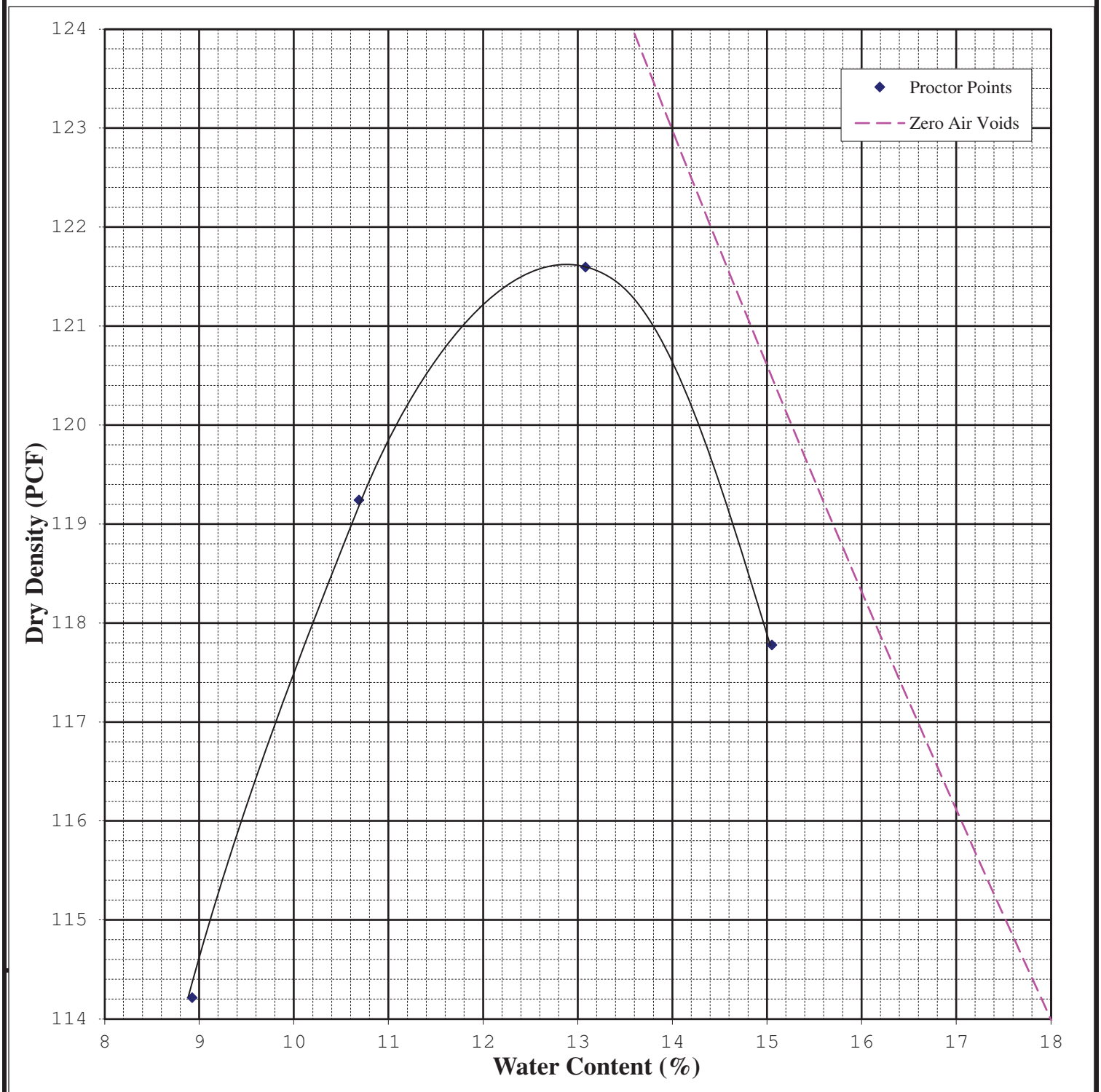
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-20** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.1** LL: **27** PL: **15** PI: **12** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **121.6** Opt. Water Content (%): **12.9**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

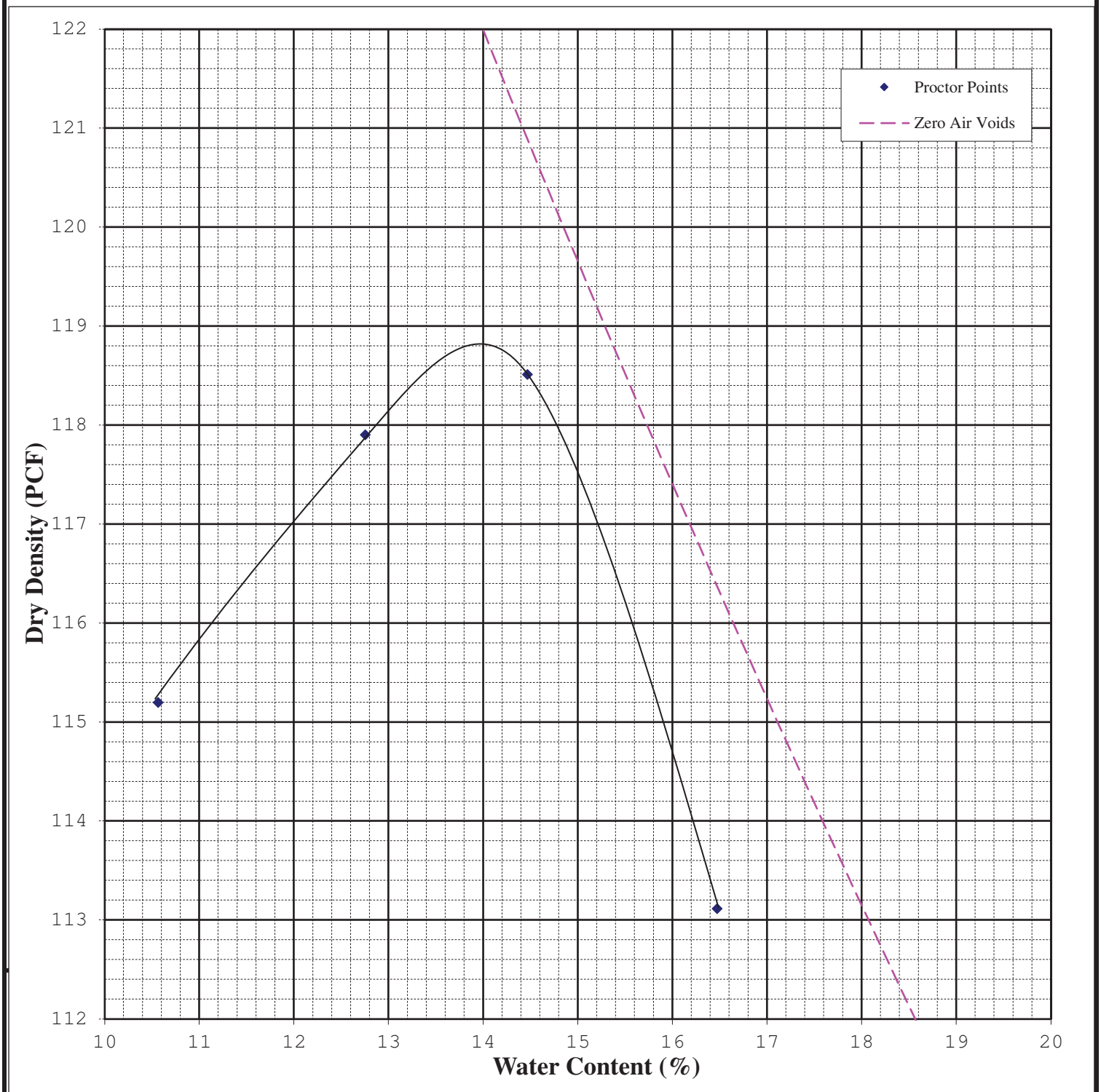
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-28** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.9** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **118.8** Opt. Water Content (%): **14.0**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

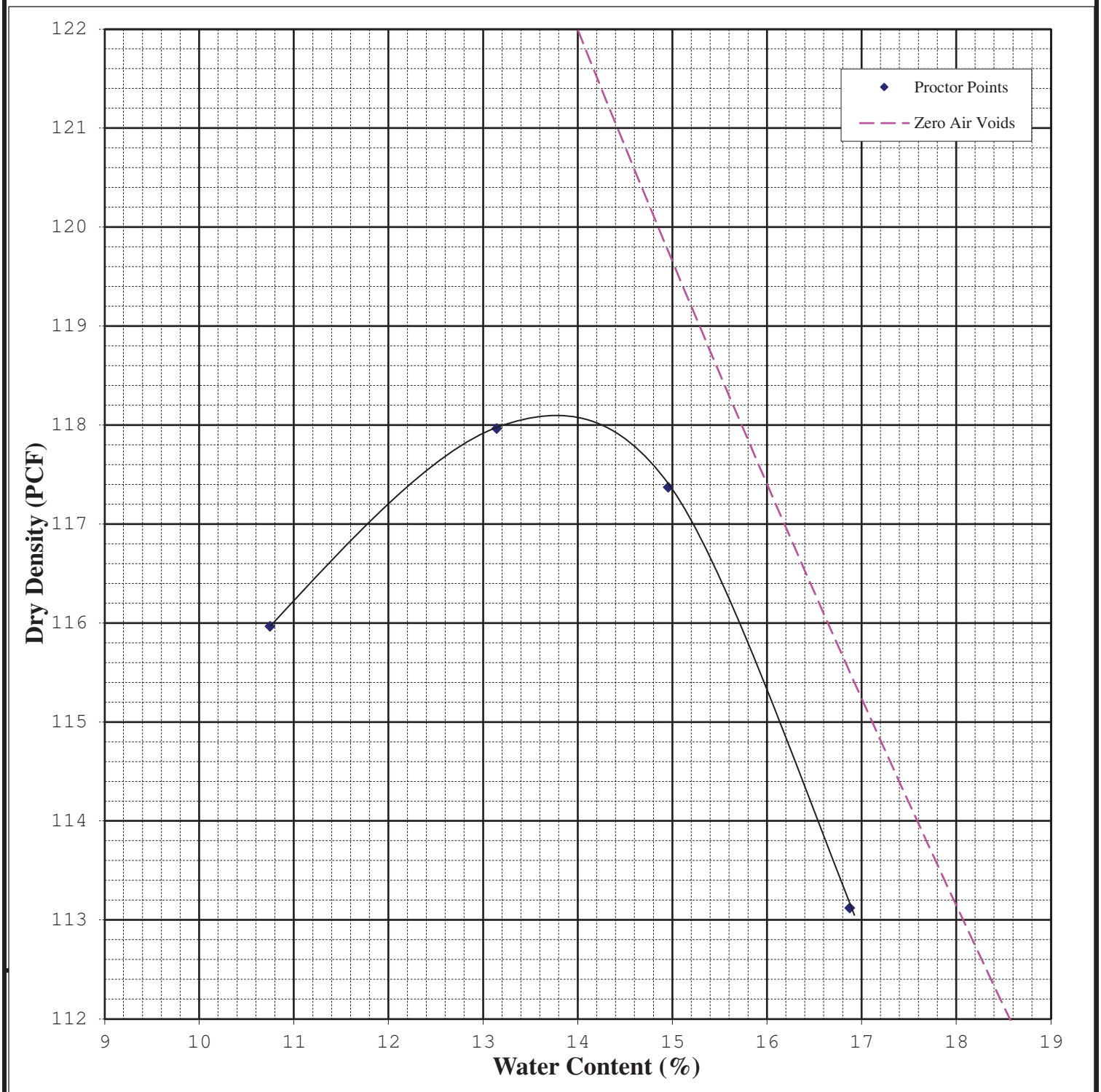
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-34** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a trace of gravel (CL)**

As Received W.C. (%): **13.5** LL: **28** PL: **16** PI: **12** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **118.1** Opt. Water Content (%): **13.8**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

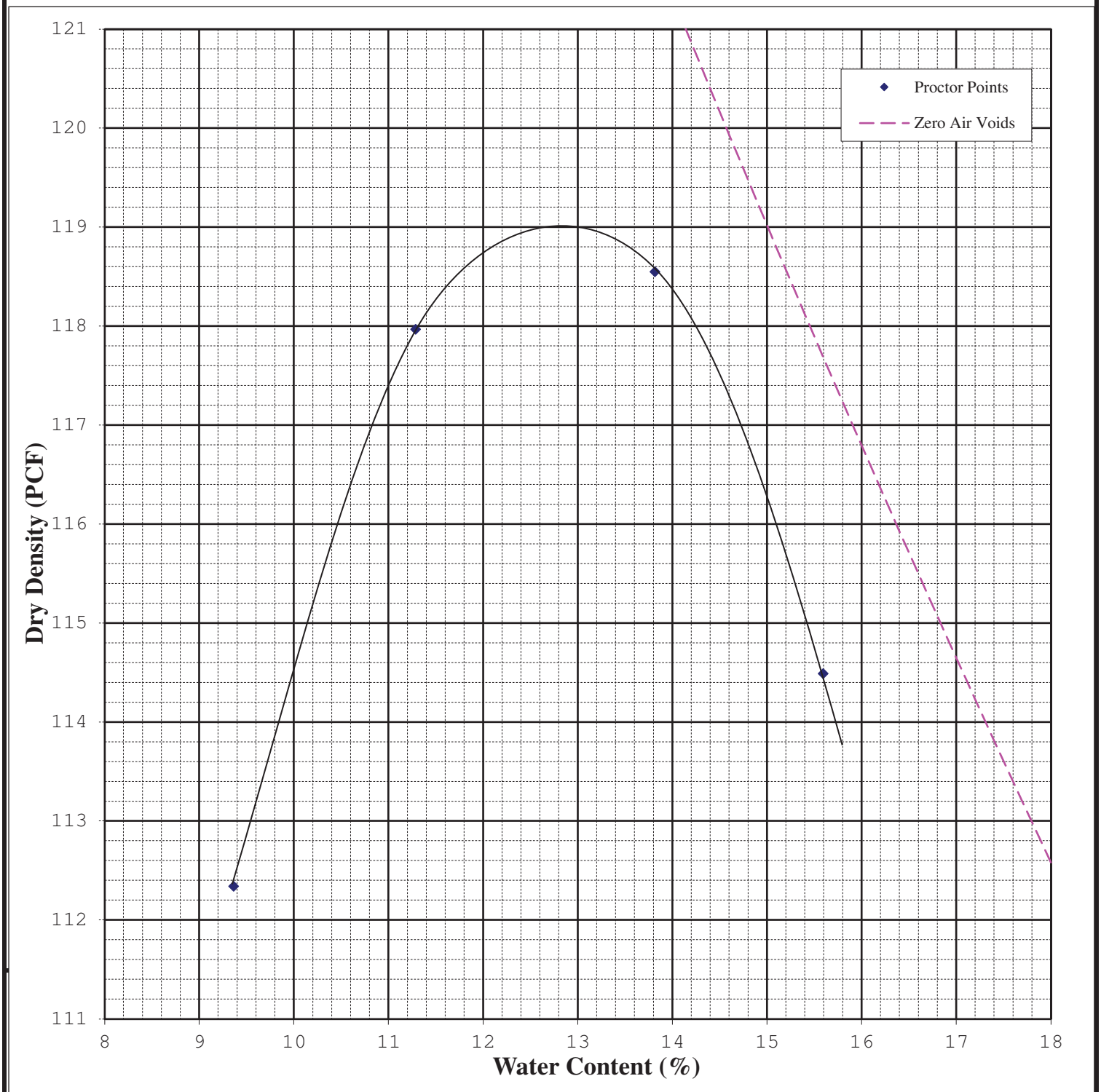
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-36** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a trace of gravel (CL)**

As Received W.C. (%): **15.3** LL: **35** PL: **16** PI: **19** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **119.0** Opt. Water Content (%): **12.8**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

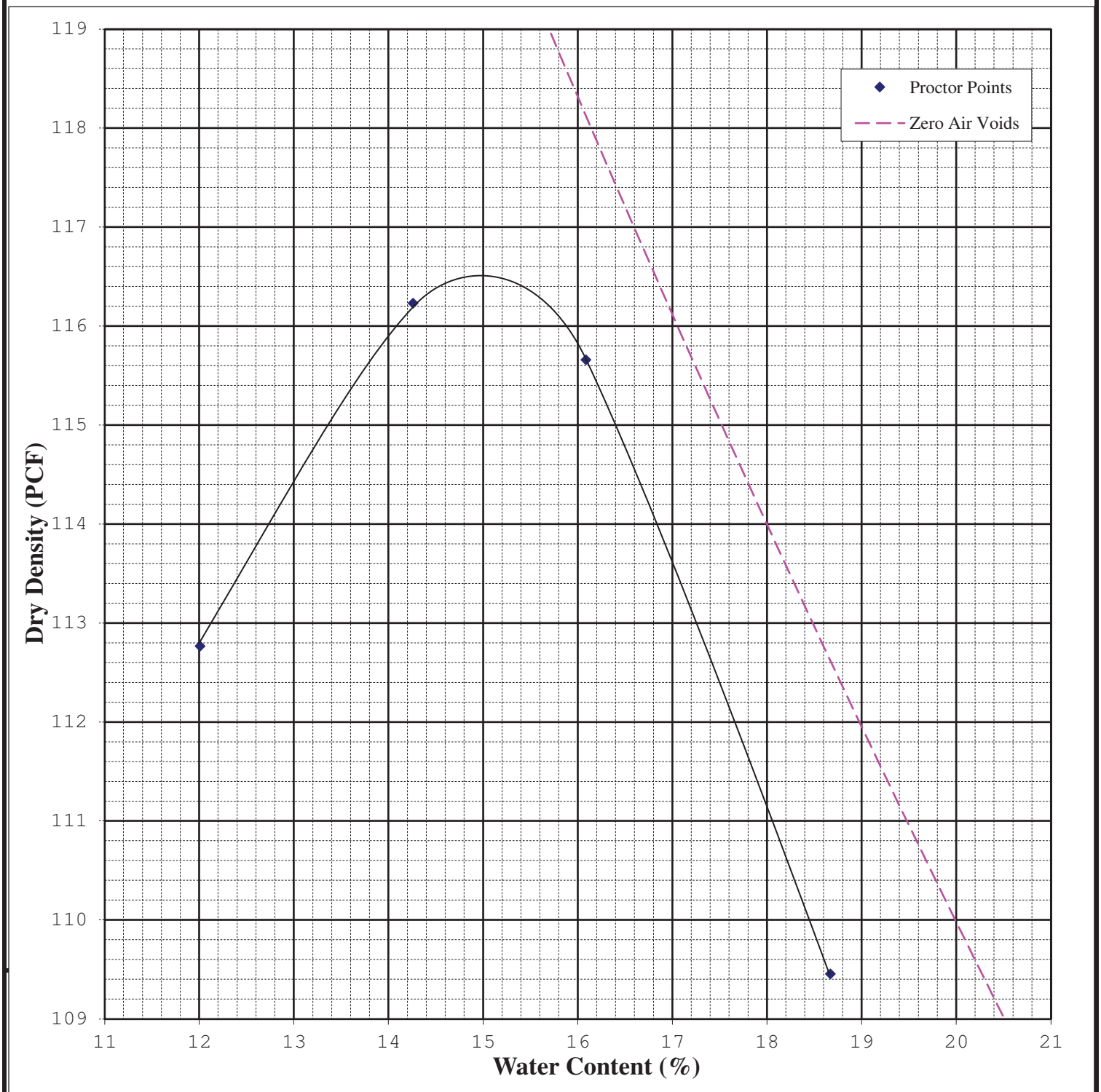
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-41** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **15.4** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **116.5** Opt. Water Content (%): **15.0**



9530 James Ave South

SOIL ENGINEERING TESTING, INC.

Bloomington, MN 55431

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

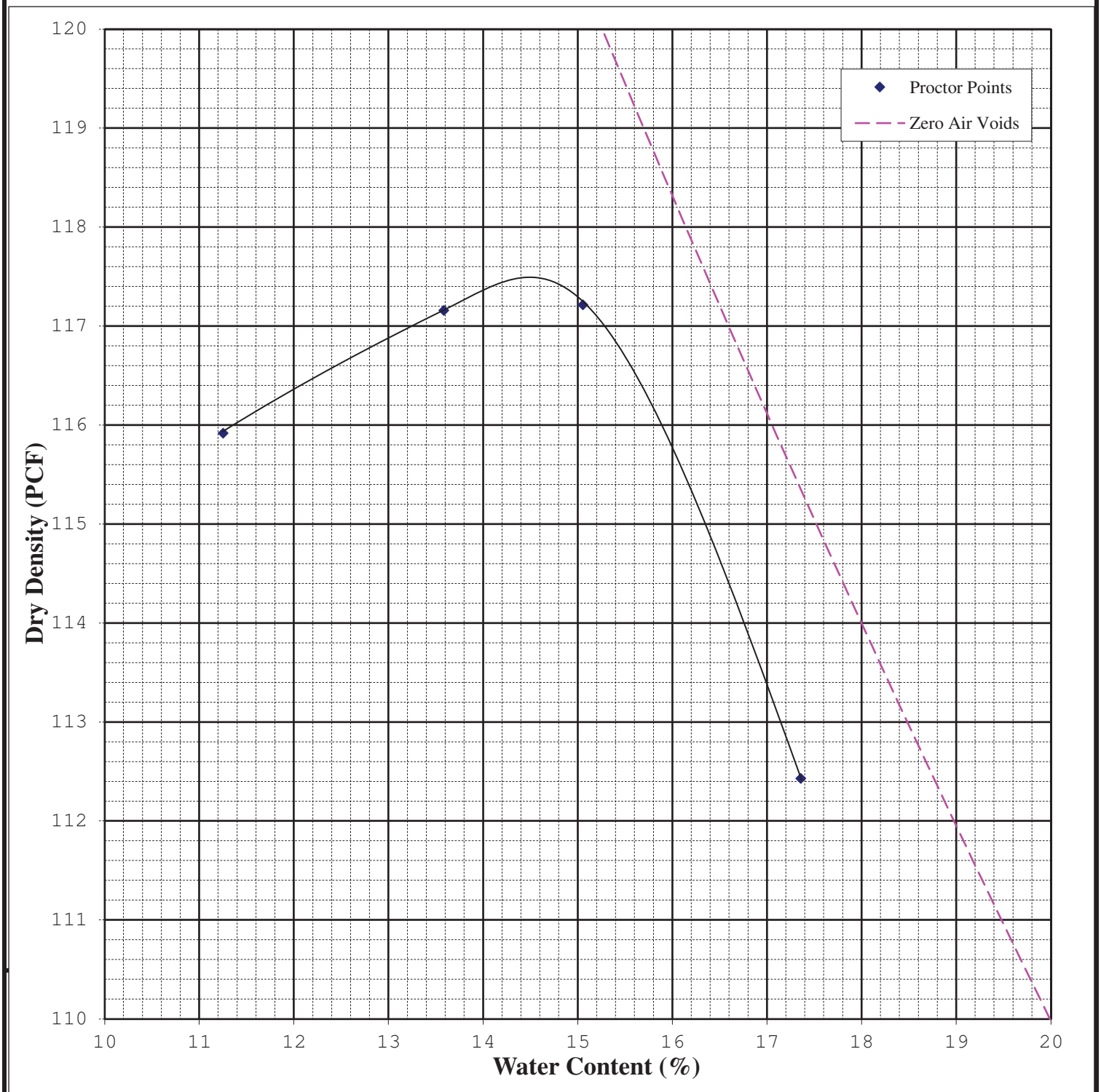
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-44** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **12.9** LL: **30** PL: **16** PI: **14** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **117.5** Opt. Water Content (%): **14.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

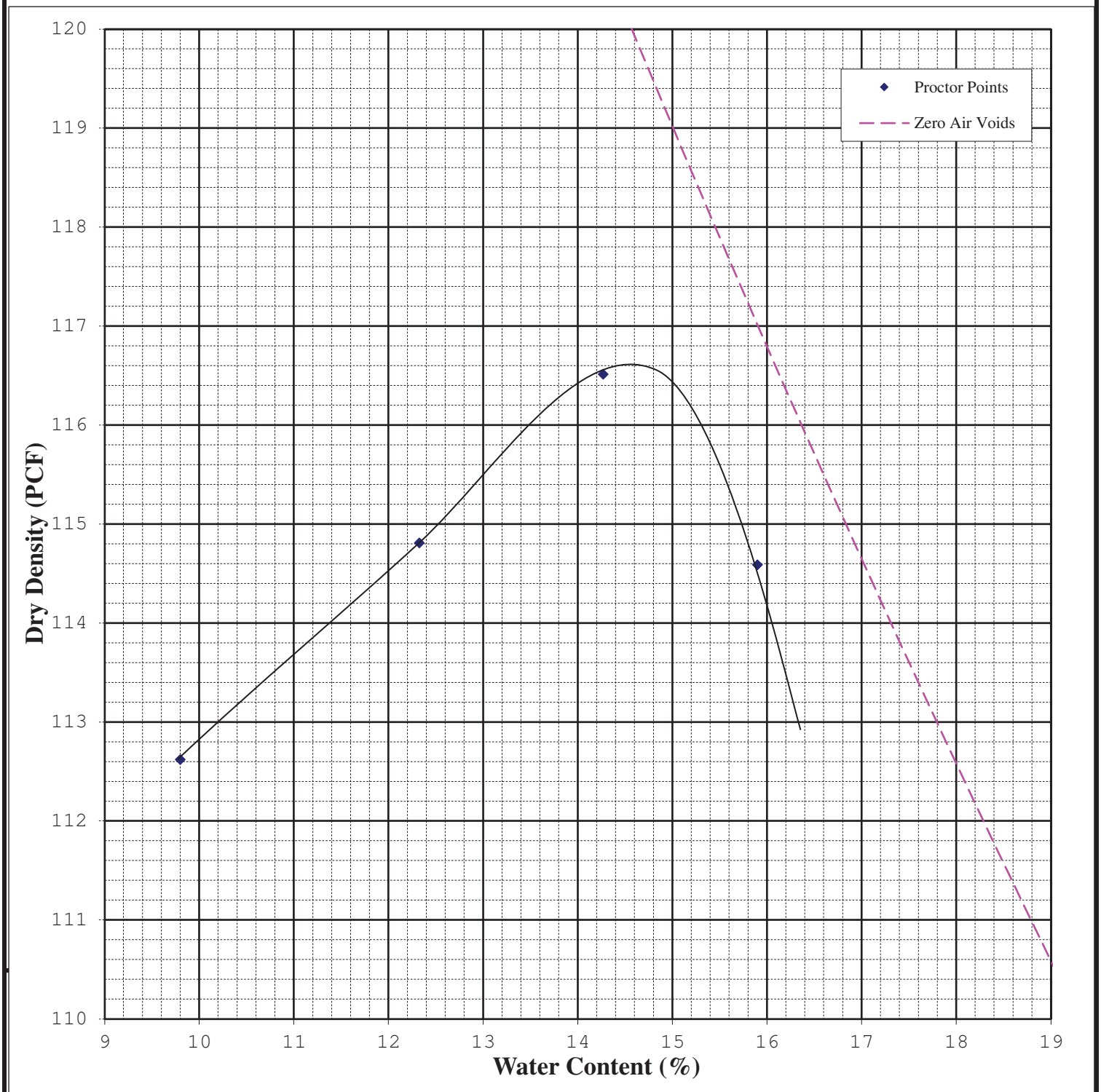
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-53** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **22.5** LL: **29** PL: **18** PI: **11** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **116.6** Opt. Water Content (%): **14.6**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

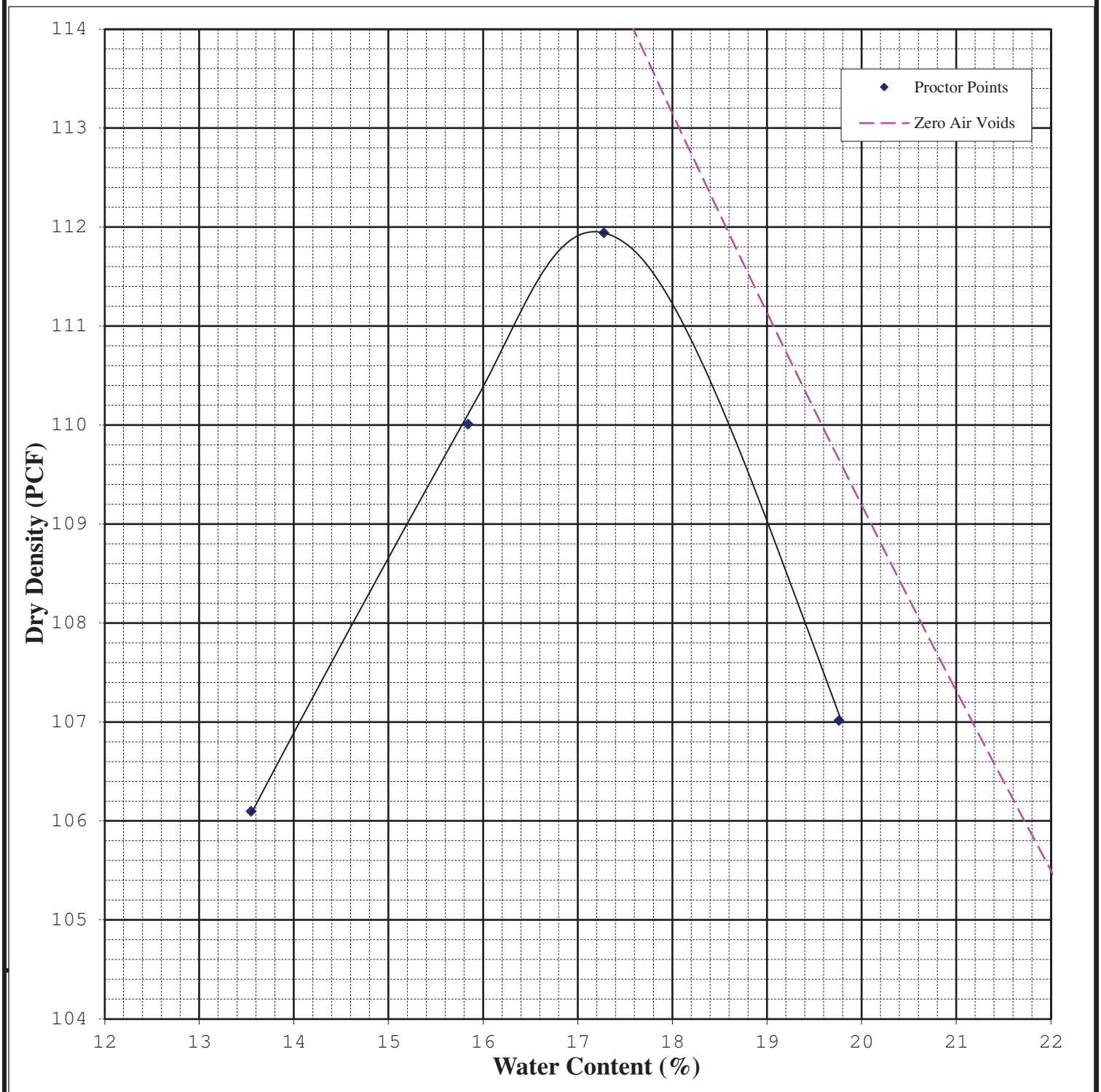
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-55** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **19.1** LL: **35** PL: **17** PI: **18** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **111.9** Opt. Water Content (%): **17.2**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

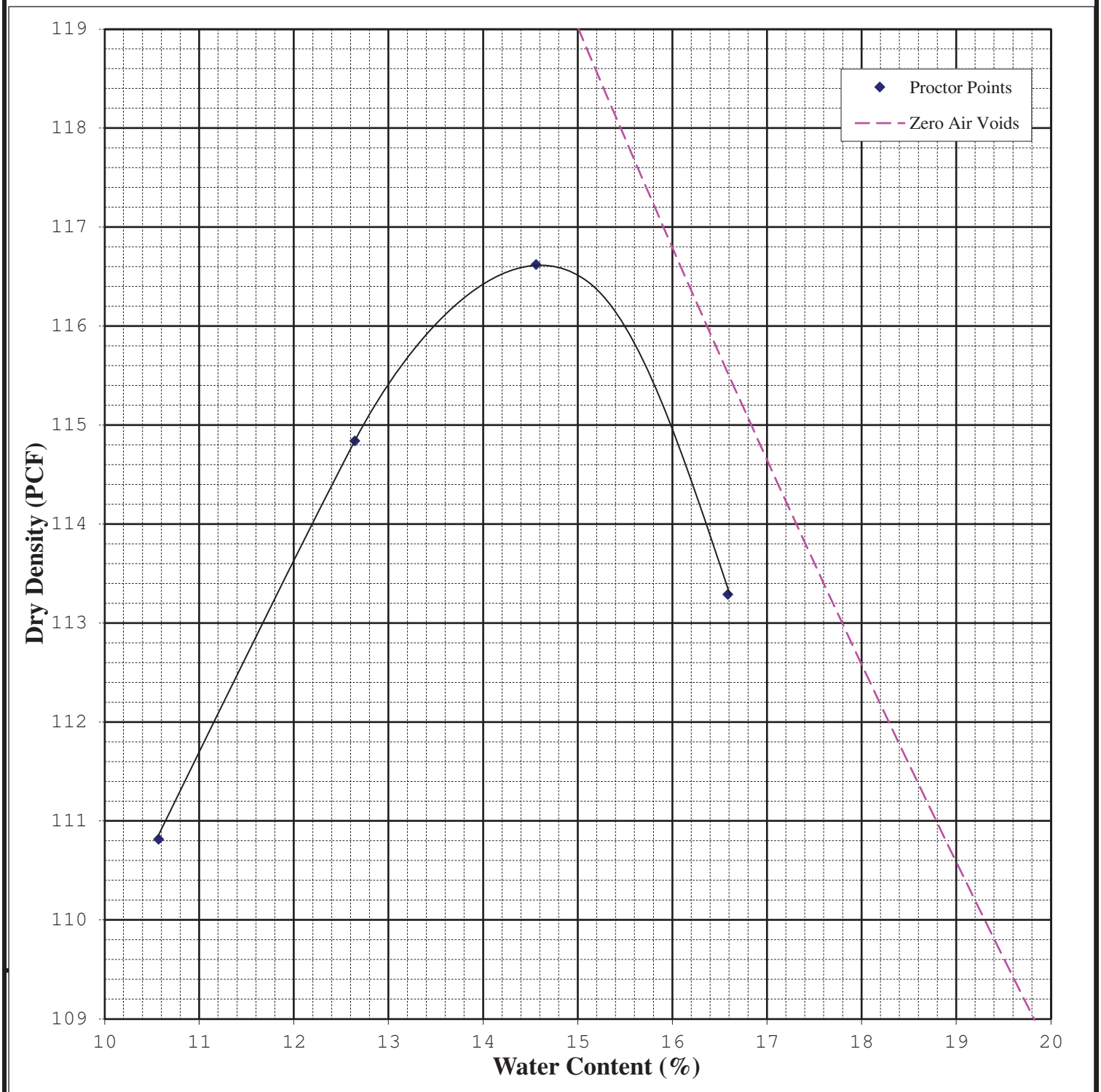
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-63** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **17.5** LL: **33** PL: **16** PI: **17** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **116.6** Opt. Water Content (%): **14.6**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

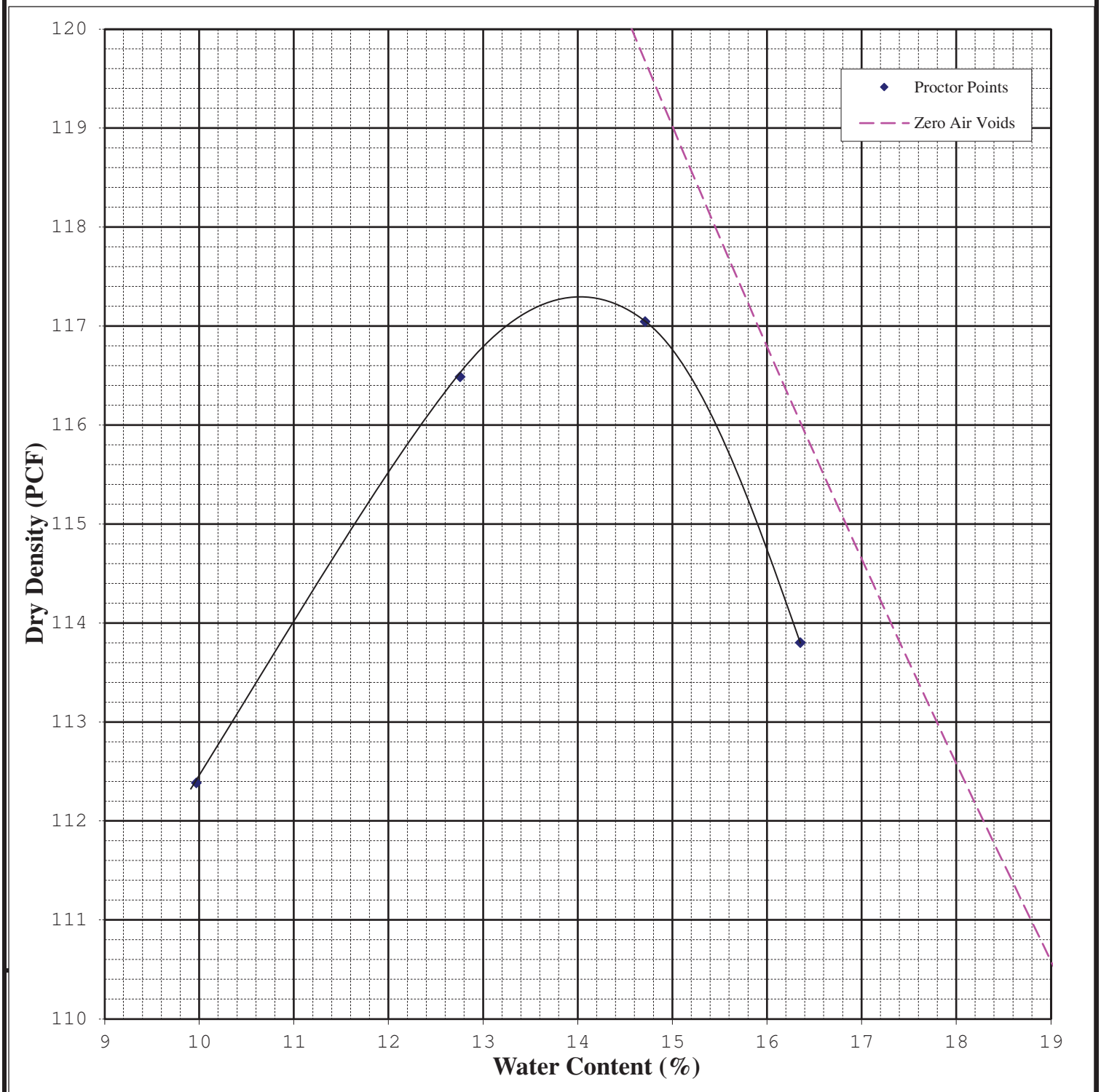
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-65** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **17.9** LL: **35** PL: **17** PI: **18** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **117.3** Opt. Water Content (%): **14.0**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

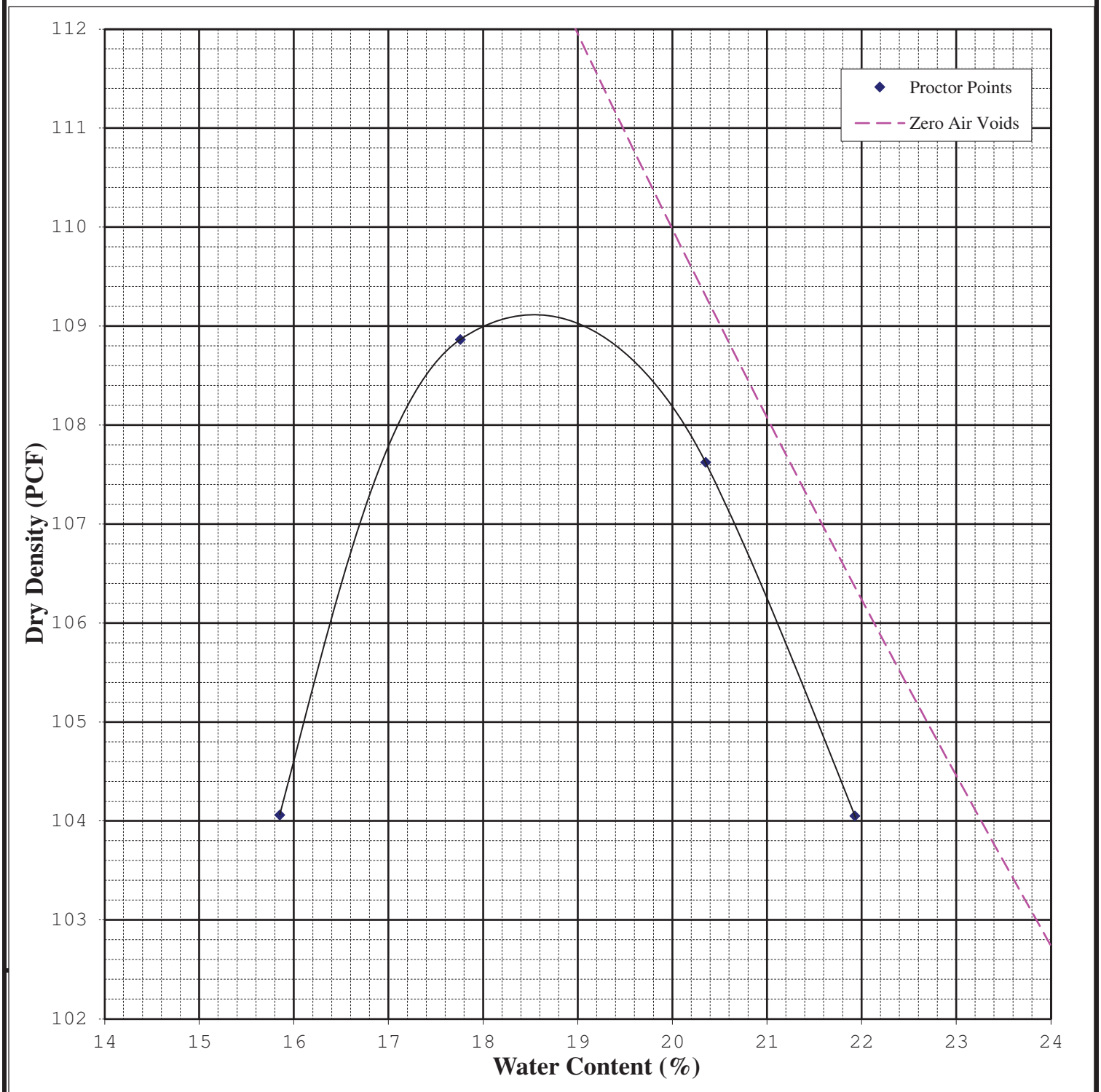
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-67** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **23.7** LL: **45** PL: **19** PI: **26** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **109.1** Opt. Water Content (%): **18.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

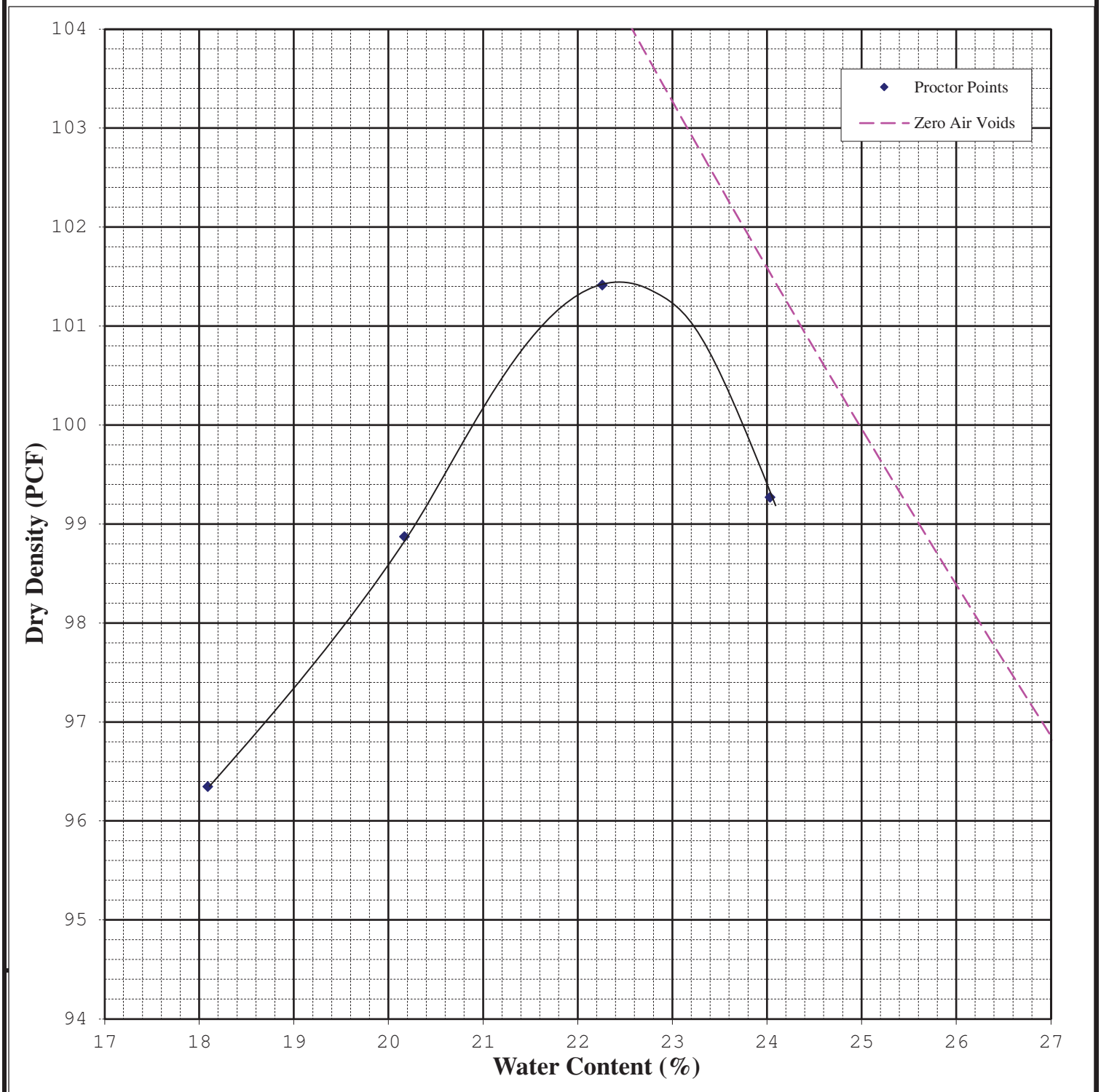
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-69** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand a a trace of gravel (CL)**

As Received W.C. (%): **24.4** LL: **48** PL: **20** PI: **28** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **101.4** Opt. Water Content (%): **22.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

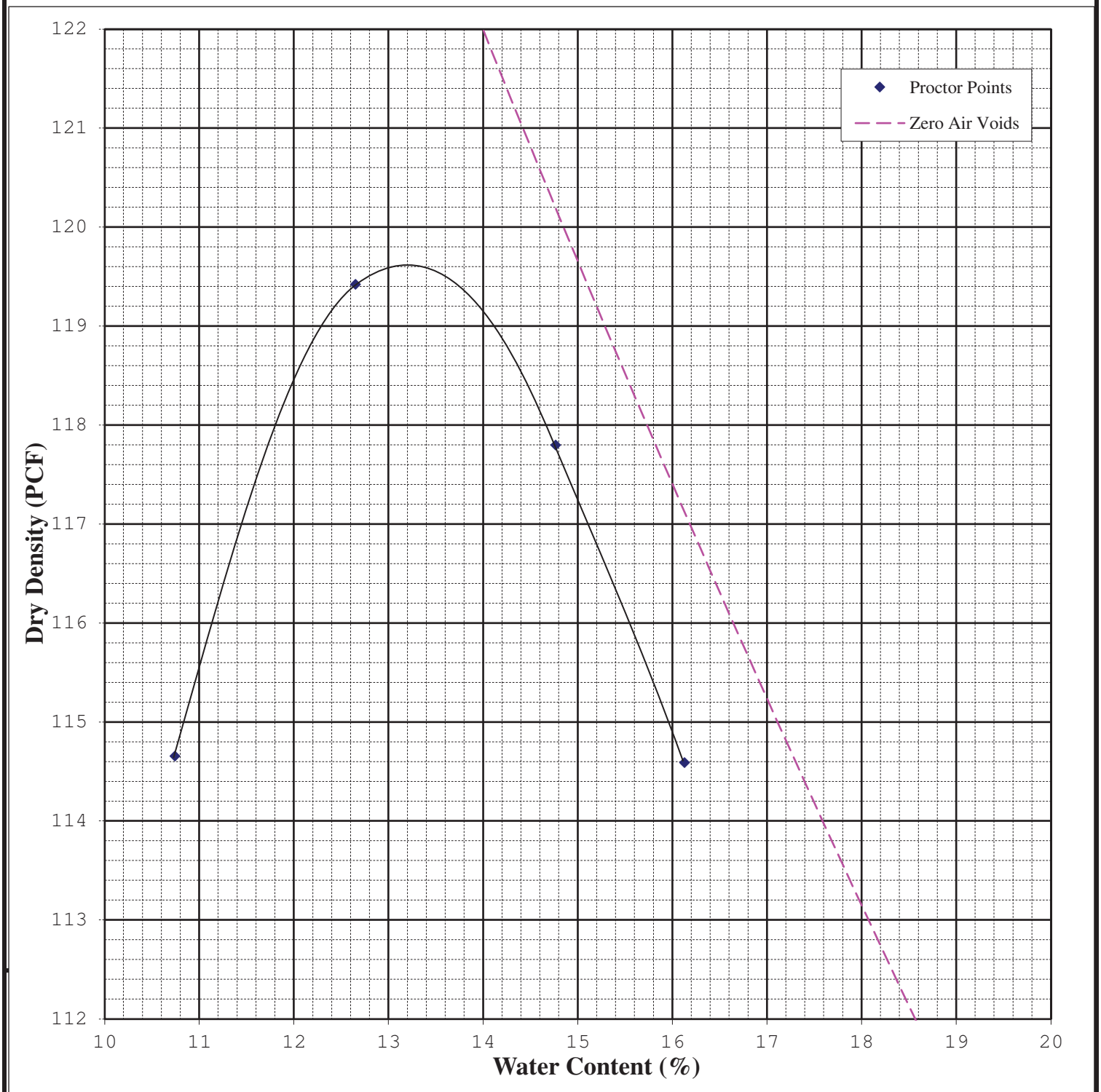
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-78** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.3** LL: **29** PL: **16** PI: **13** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **119.6** Opt. Water Content (%): **13.2**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

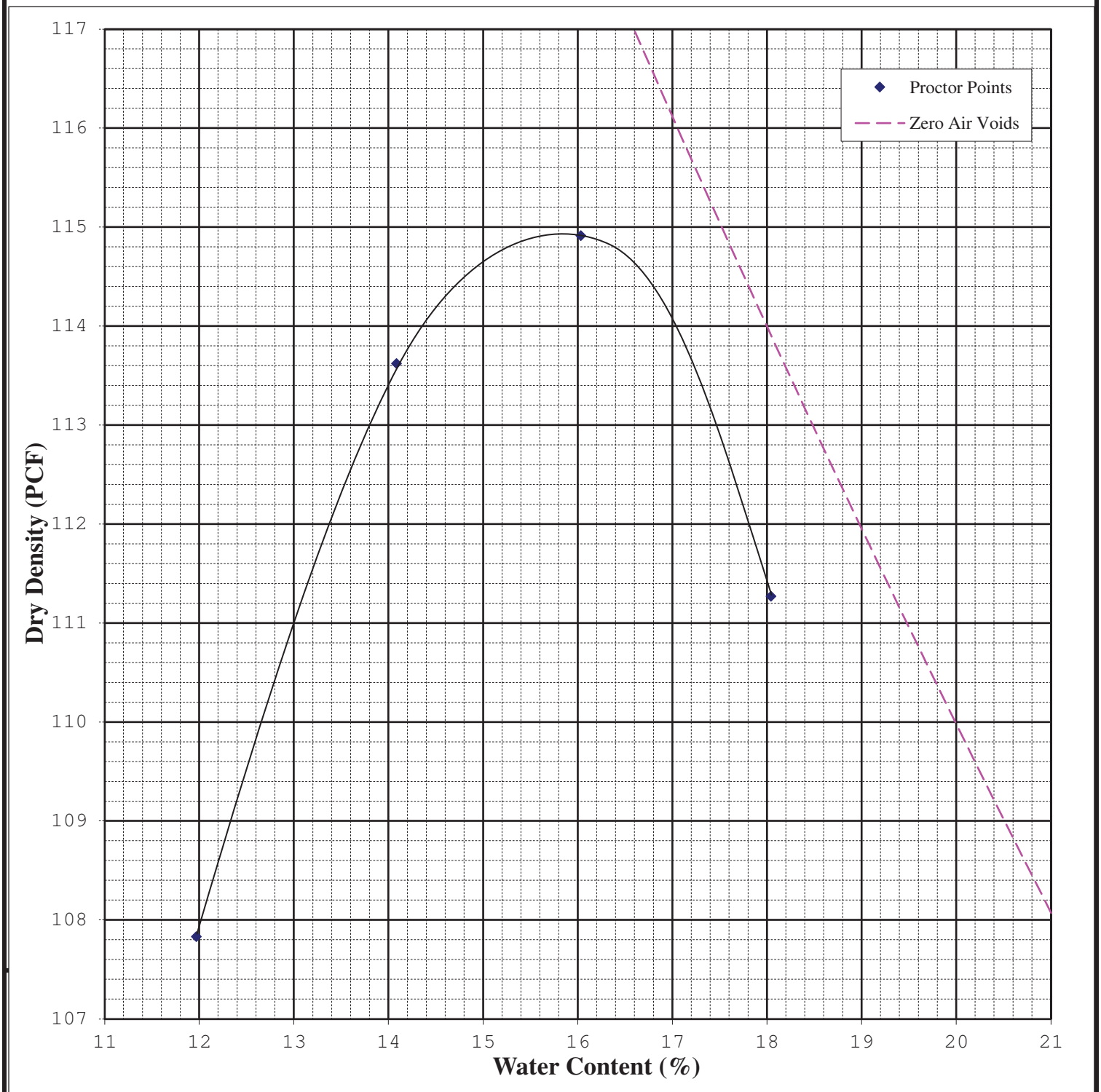
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-80** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **18.0** LL: **36** PL: **17** PI: **19** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **114.9** Opt. Water Content (%): **15.8**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

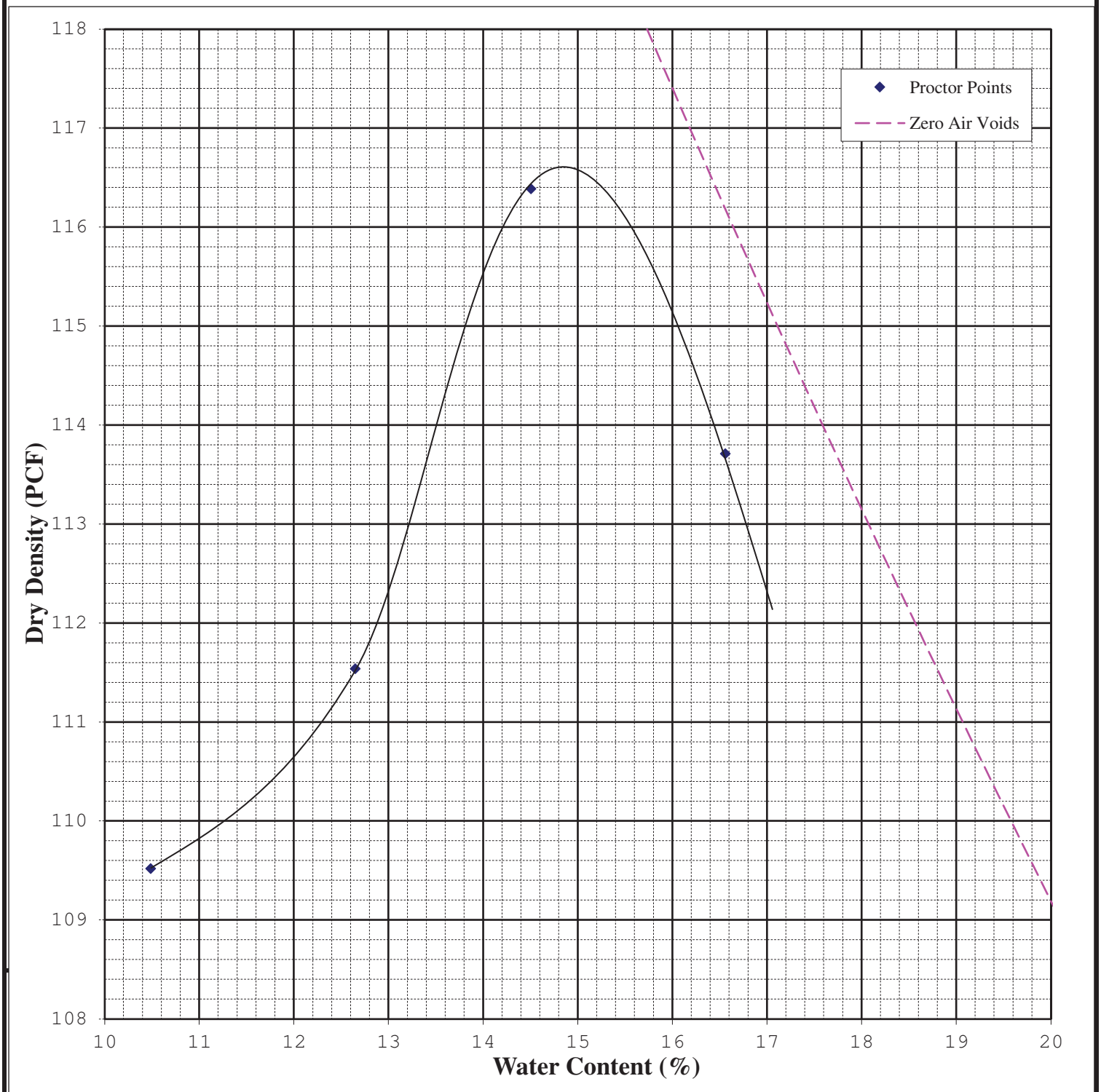
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-82** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **16.3** LL: **31** PL: **16** PI: **15** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **116.6** Opt. Water Content (%): **14.8**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

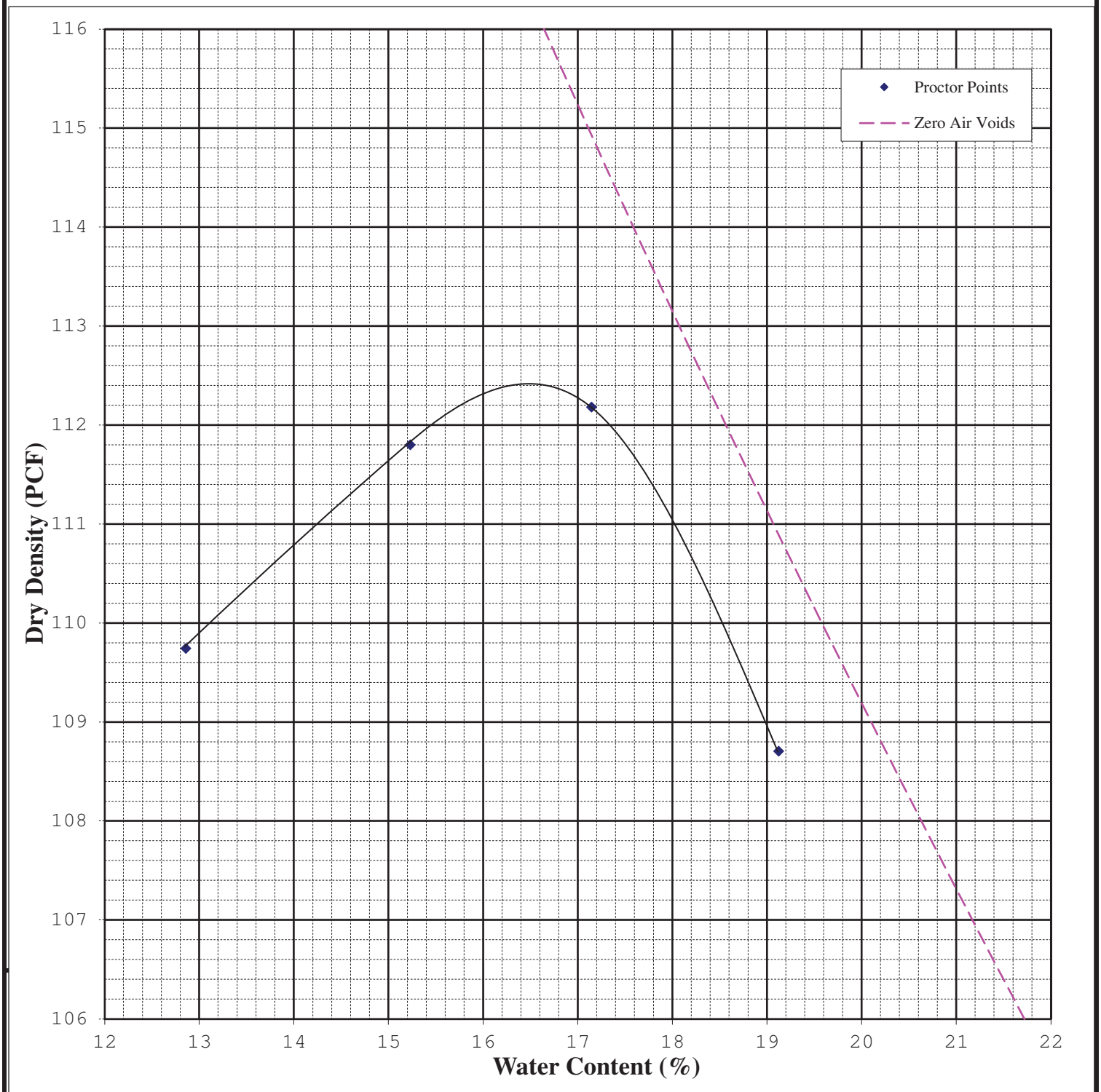
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-84** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **19.3** LL: **40** PL: **17** PI: **23** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **112.4** Opt. Water Content (%): **16.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

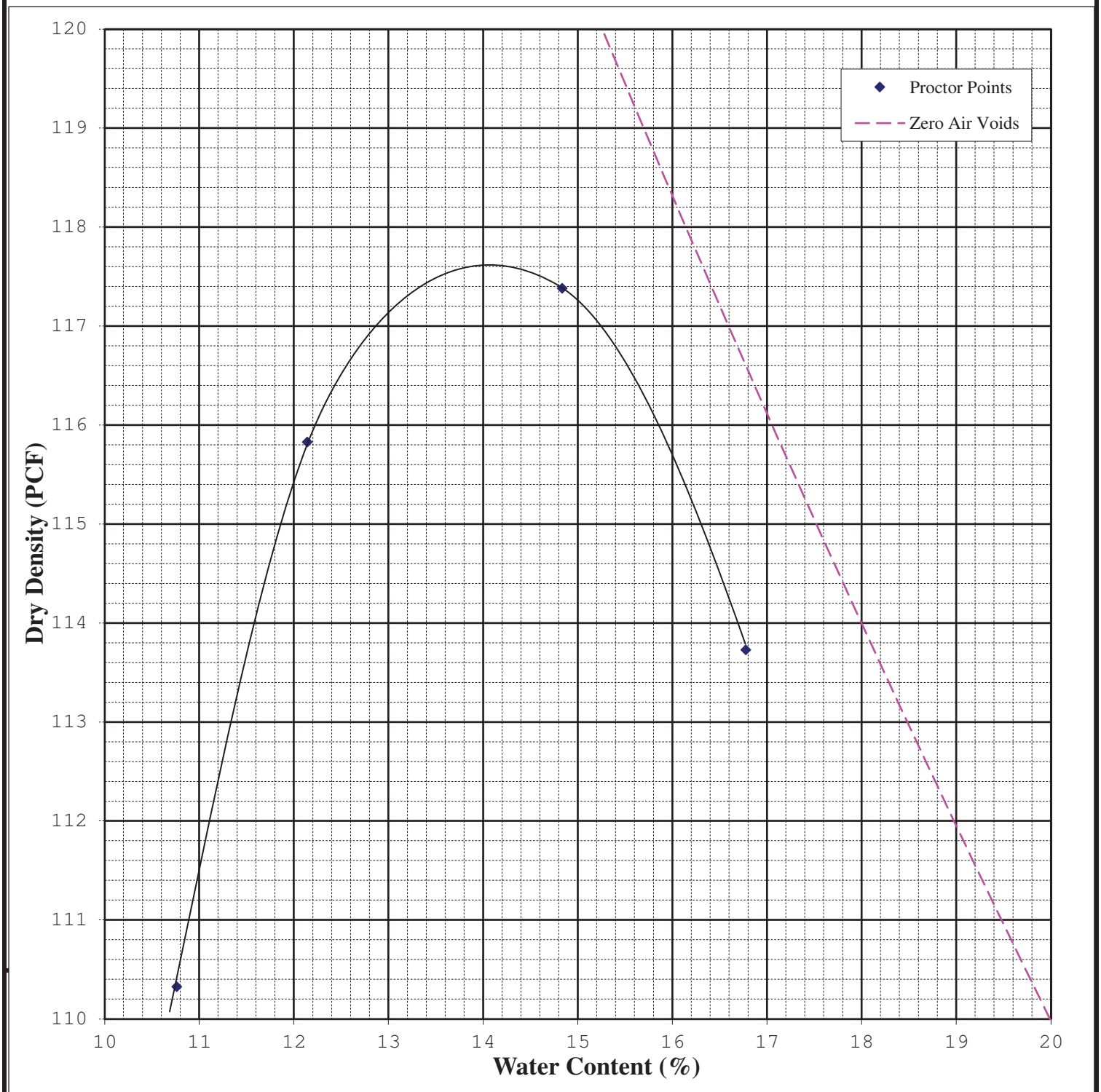
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-88** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **13.8** LL: **33** PL: **16** PI: **17** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **117.6** Opt. Water Content (%): **14.1**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

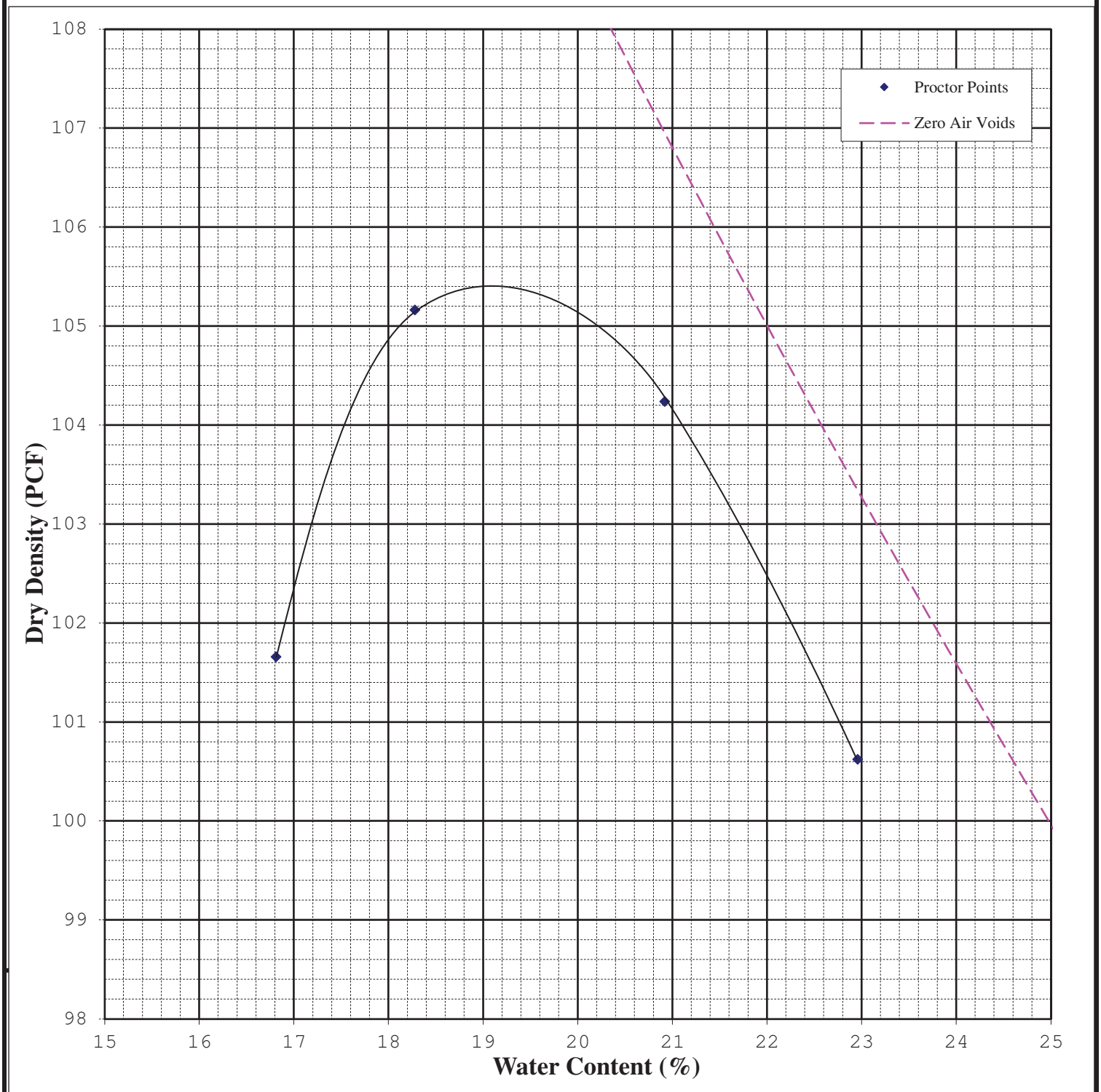
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-99** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **21.4** LL: **44** PL: **18** PI: **26** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **105.4** Opt. Water Content (%): **19.1**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

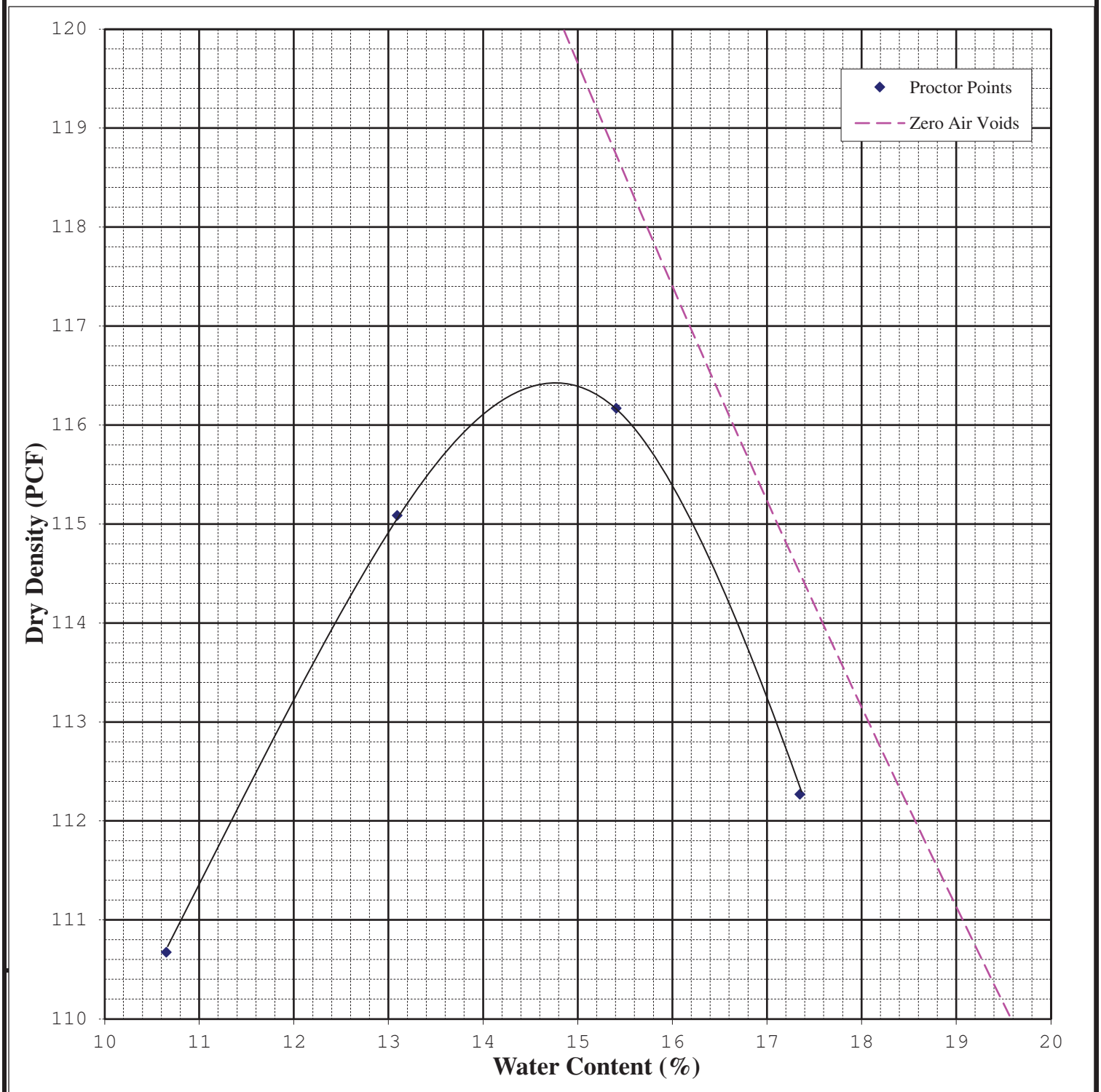
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-102** Sample: Depth(ft): **1-3** Location:

Soil Type: **Lean Clay w/sand (CL)**

As Received W.C. (%): **16.8** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **116.4** Opt. Water Content (%): **14.8**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

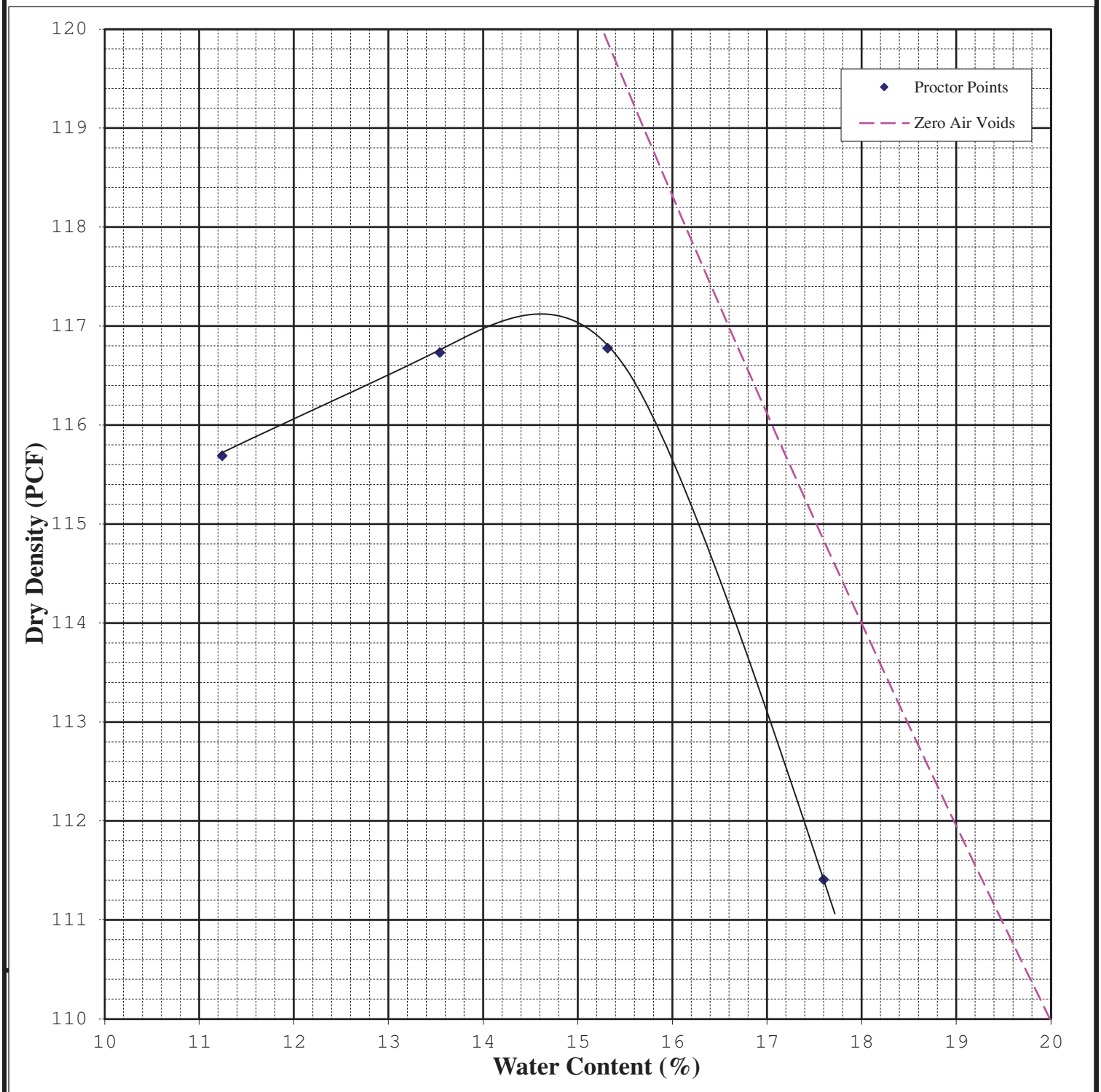
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-105** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.4** LL: **29** PL: **15** PI: **14** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **117.1** Opt. Water Content (%): **14.6**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

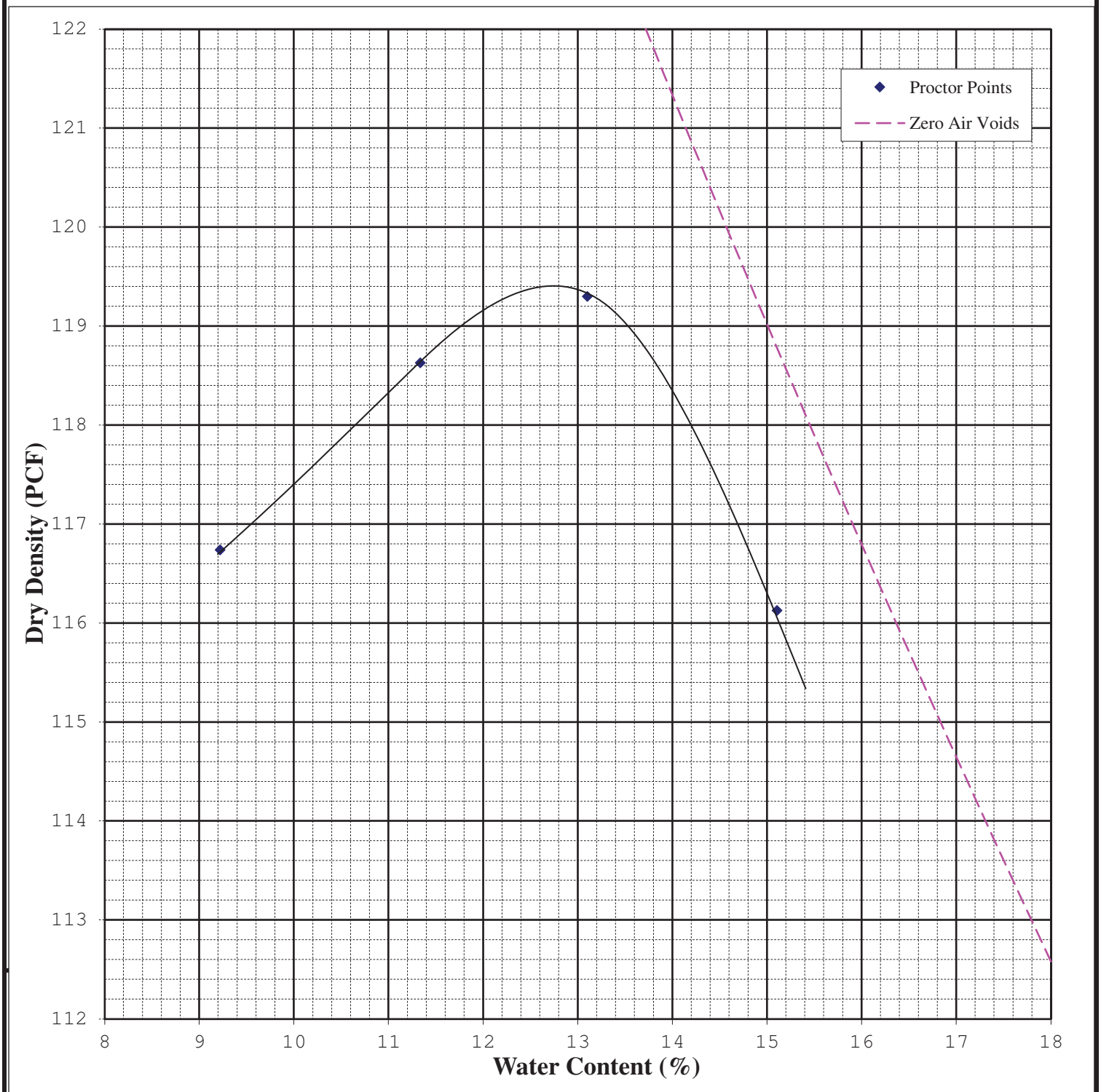
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-107** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **21.2** LL: **29** PL: **16** PI: **13** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **119.4** Opt. Water Content (%): **12.7**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

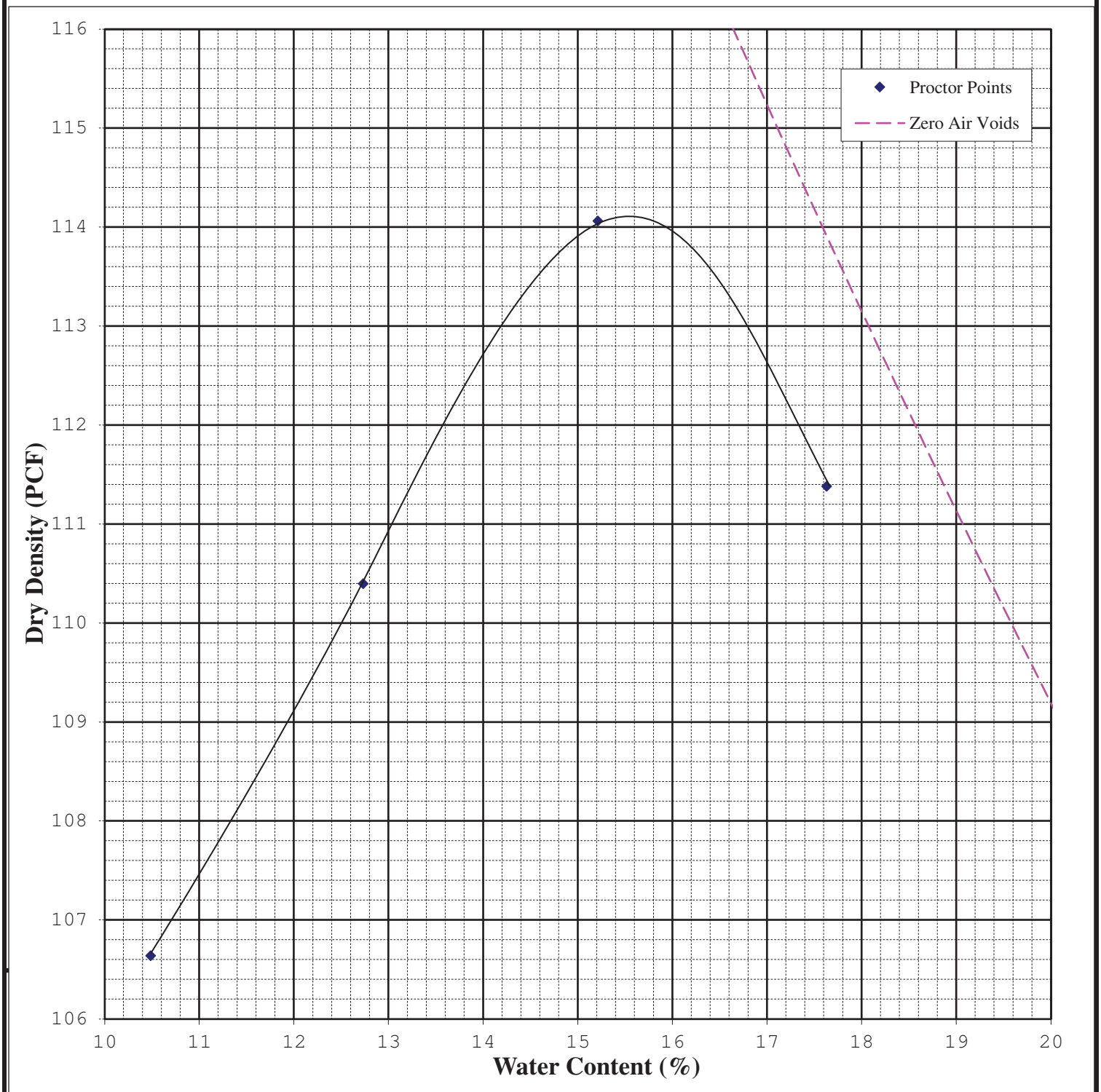
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-109** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **18.0** LL: **38** PL: **17** PI: **21** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **114.1** Opt. Water Content (%): **15.6**



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Project: **Fox Squirrel** Date: **12/11/20**

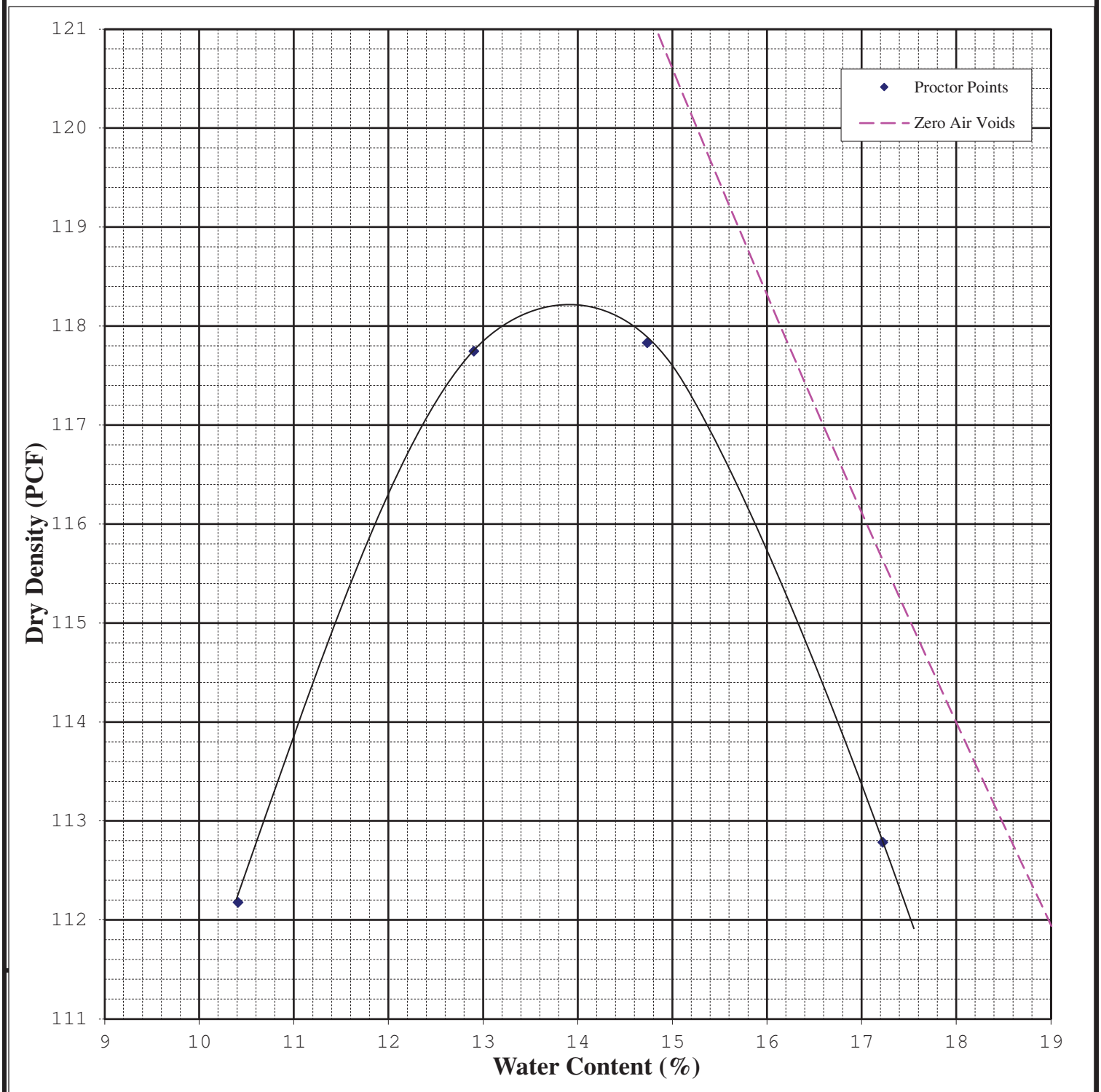
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-111** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **17.9** LL: **30** PL: **16** PI: **14** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **118.2** Opt. Water Content (%): **13.9**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

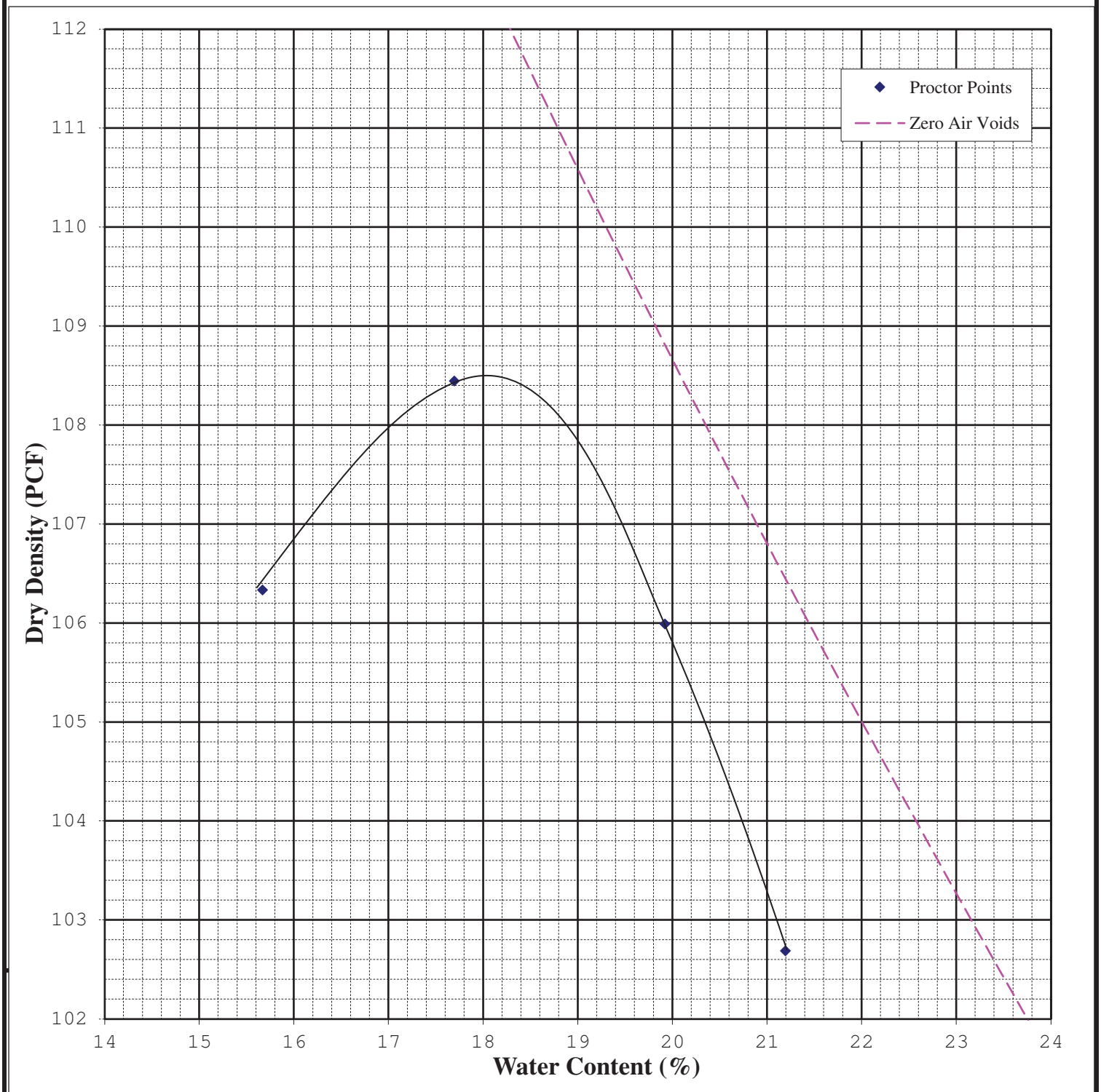
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-208** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **21.6** LL: **40** PL: **17** PI: **23** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **108.5** Opt. Water Content (%): **18.0**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

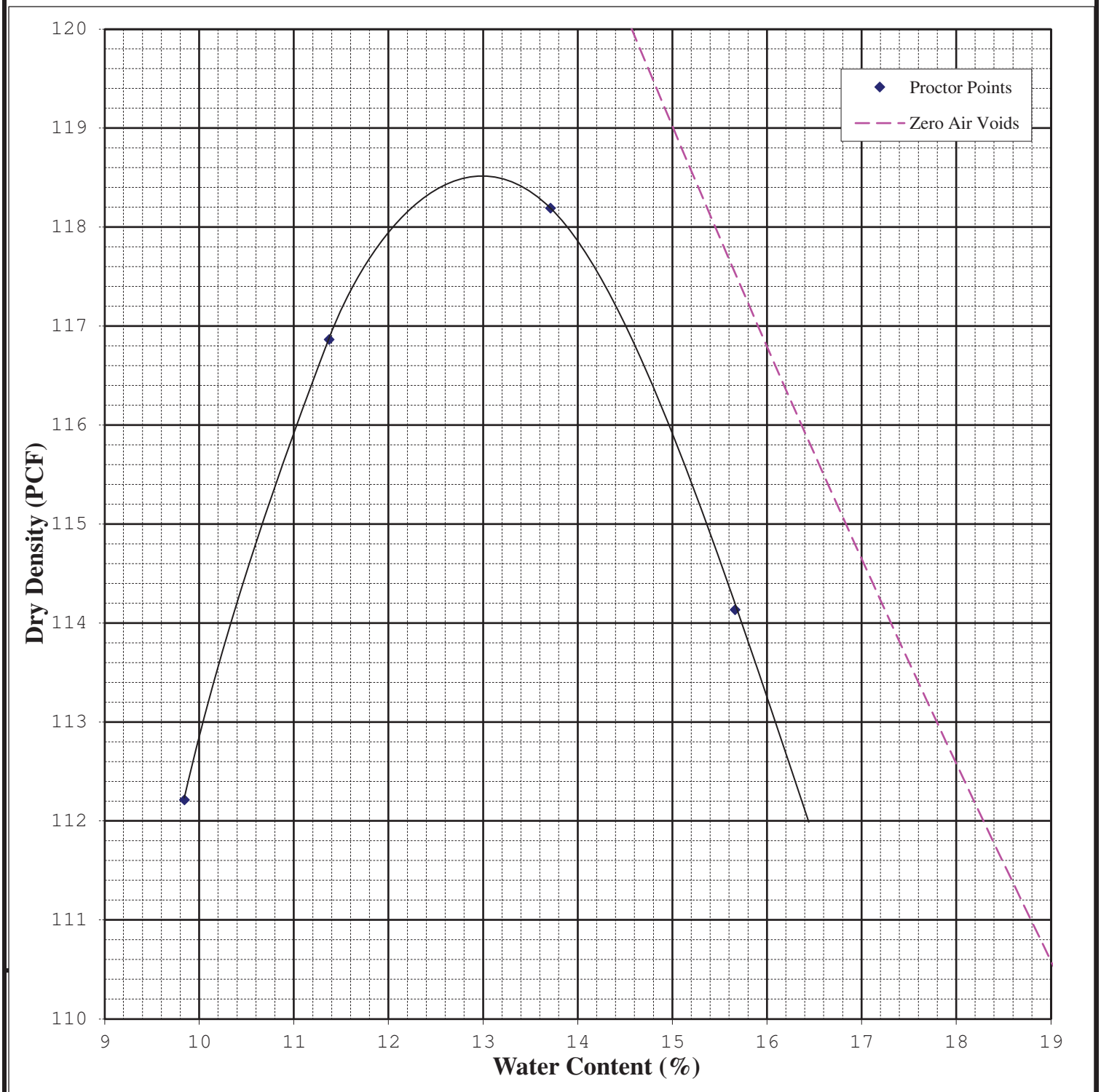
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-210** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **12.8** LL: **35** PL: **17** PI: **18** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **118.5** Opt. Water Content (%): **13.0**



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Project: **Fox Squirrel** Date: **12/11/20**

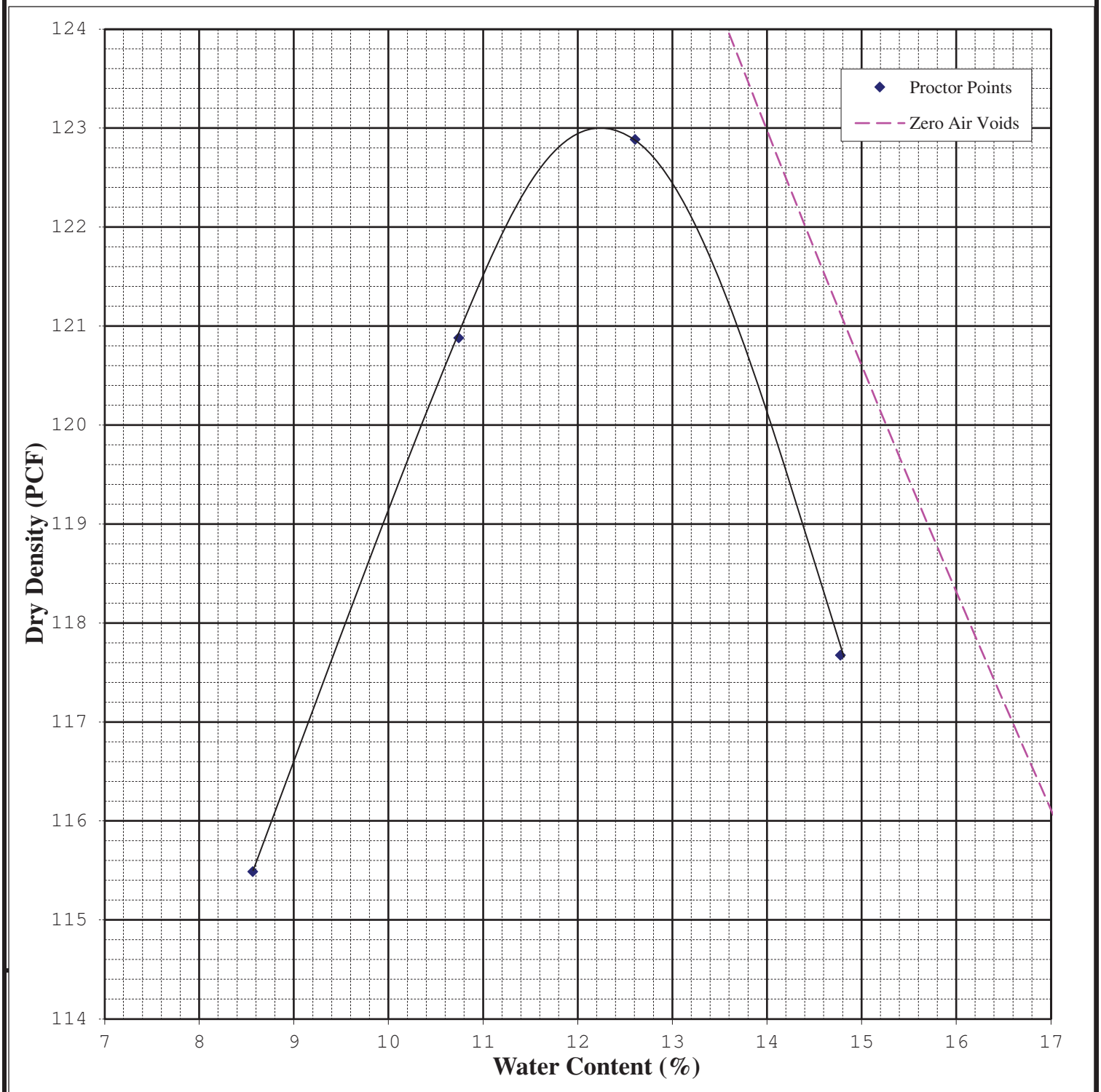
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-211** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **12.8** LL: **26** PL: **15** PI: **11** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **123.0** Opt. Water Content (%): **12.2**



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Project: **Fox Squirrel** Date: **12/11/20**

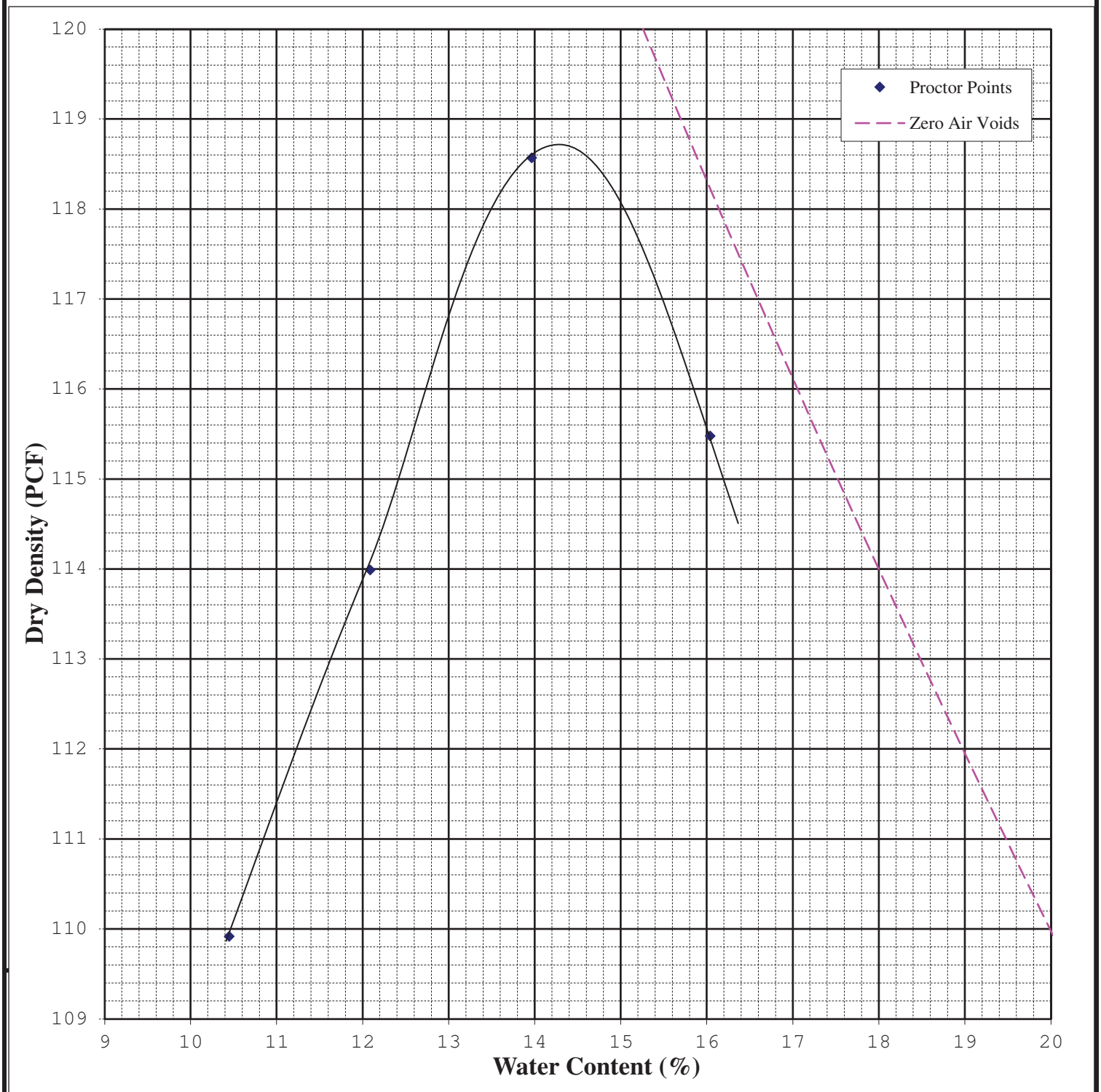
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-222** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **17.4** LL: **31** PL: **16** PI: **15** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **118.7** Opt. Water Content (%): **14.3**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

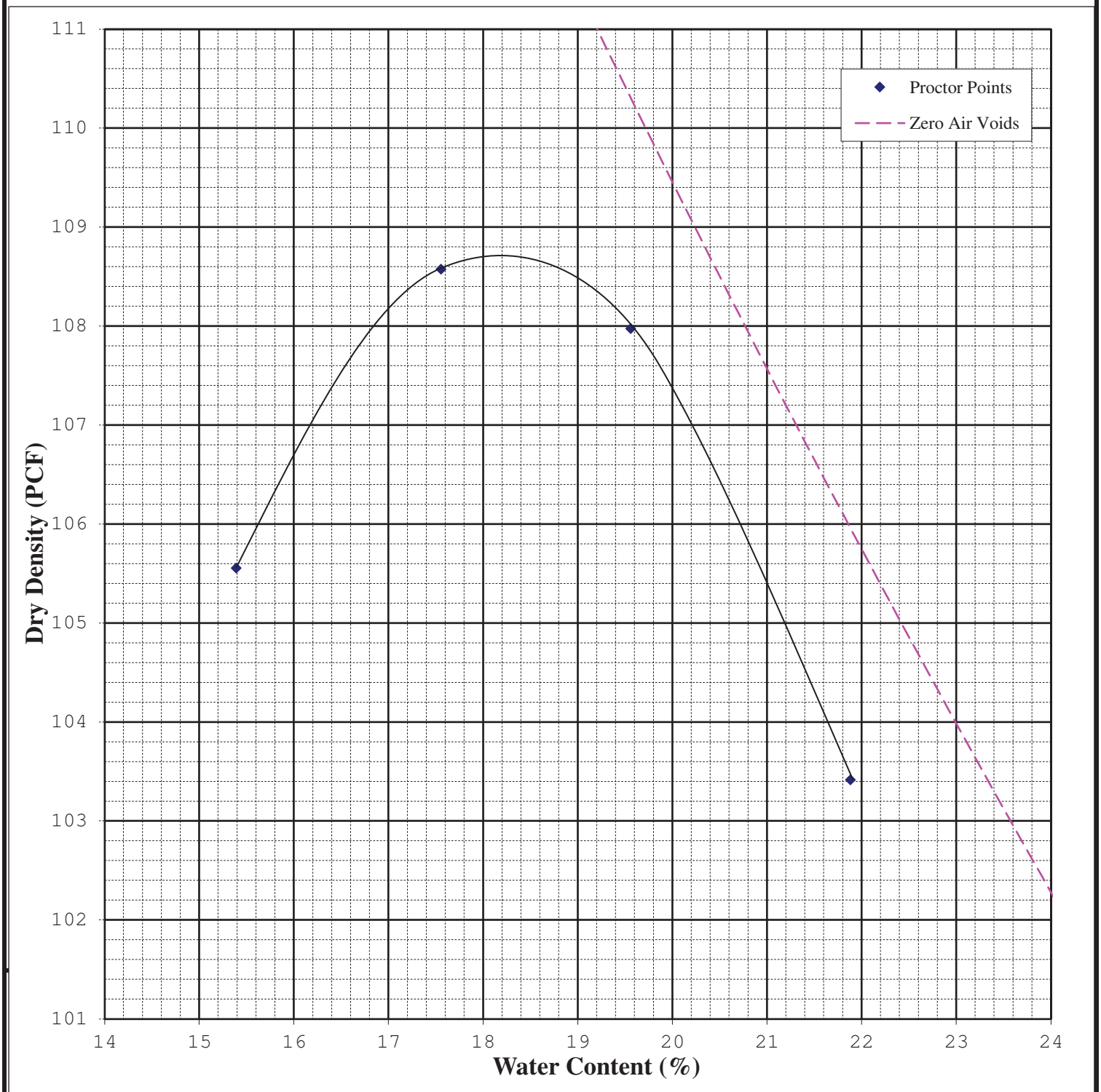
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-224** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **20.3** LL: **39** PL: **17** PI: **22** Specific Gravity: **2.70** *Assumed

Maximum Dry Density (pcf): **108.7** Opt. Water Content (%): **18.2**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

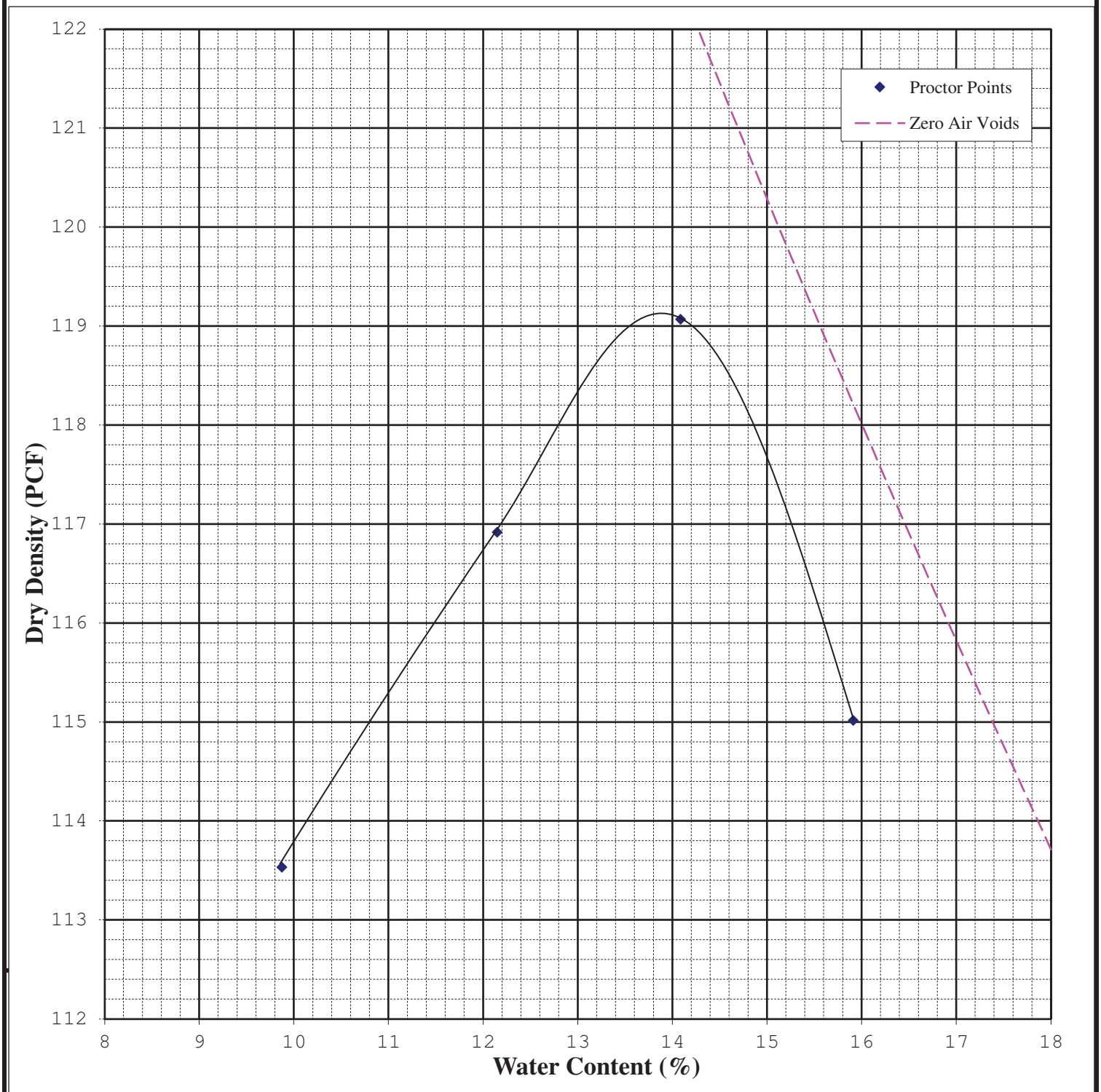
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-234** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **18.7** LL: **28** PL: **16** PI: **12** Specific Gravity: **2.71** *Assumed

Maximum Dry Density (pcf): **119.1** Opt. Water Content (%): **13.9**



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Project: **Fox Squirrel** Date: **12/11/20**

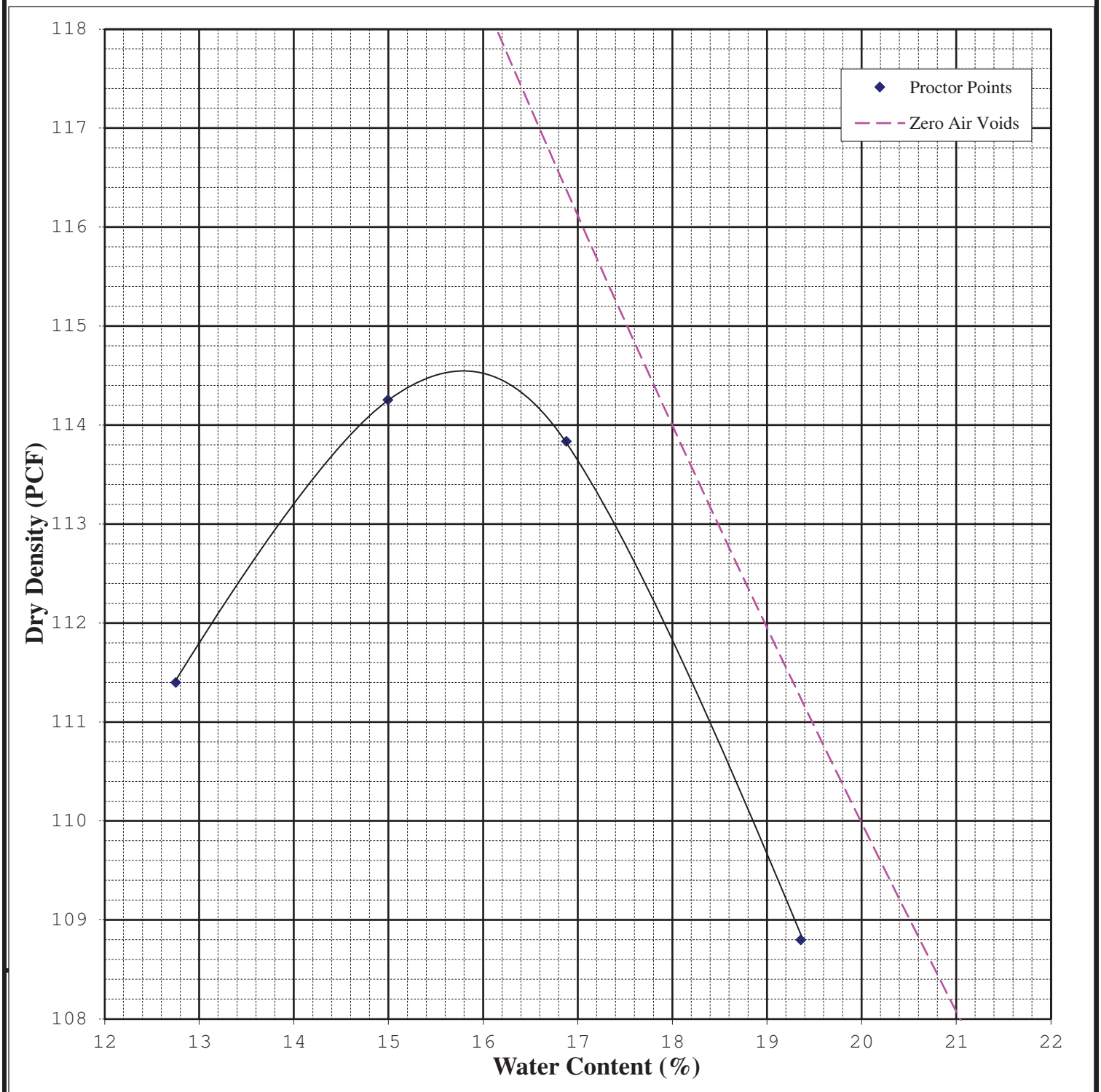
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-236** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand (CL)**

As Received W.C. (%): **17.0** LL: **31** PL: **16** PI: **15** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **114.5** Opt. Water Content (%): **15.8**



9530 James Ave South

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Bloomington, MN 55431

SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

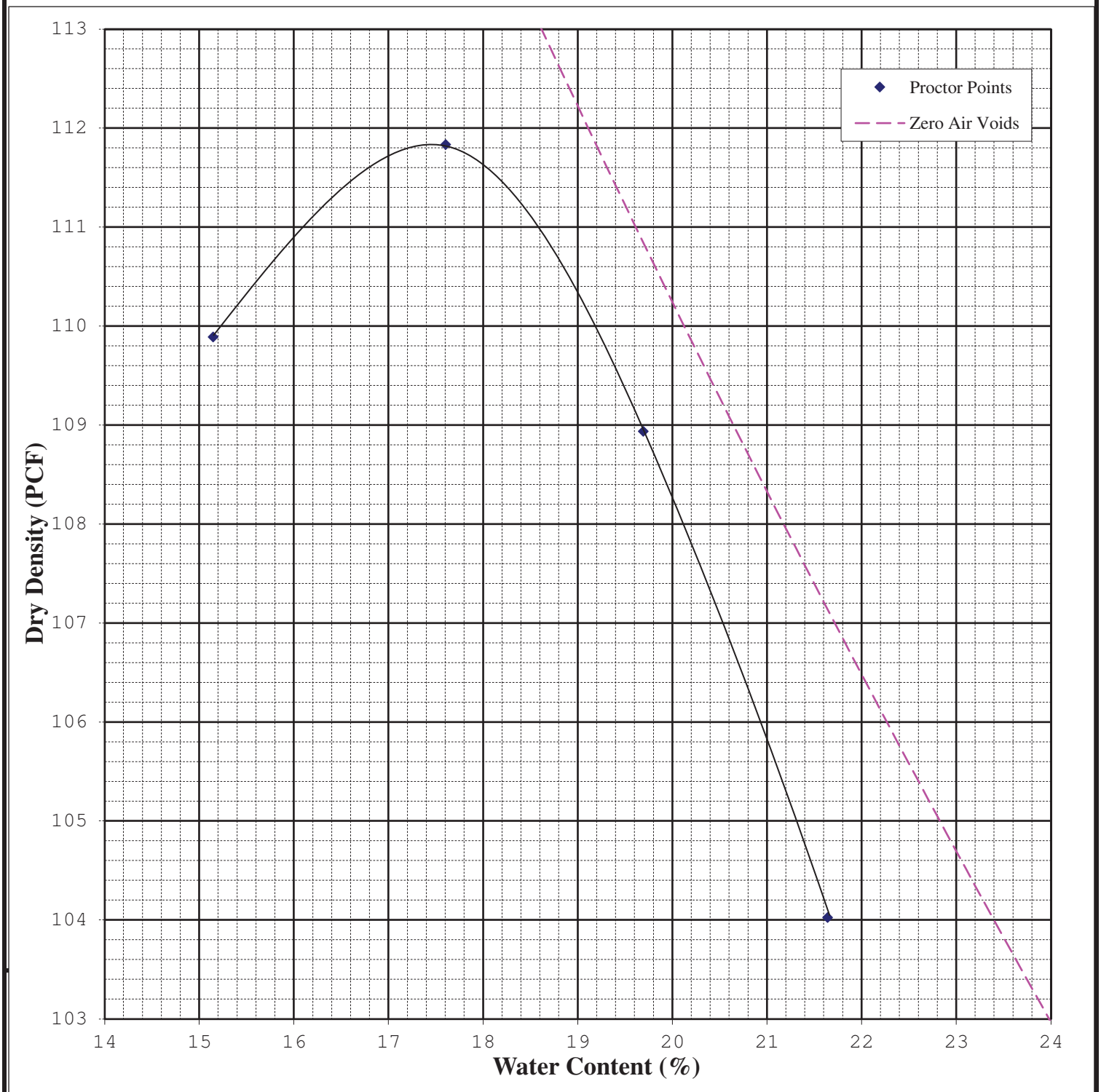
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-242** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **19.6** LL: **39** PL: **17** PI: **22** Specific Gravity: **2.73** *Assumed

Maximum Dry Density (pcf): **111.8** Opt. Water Content (%): **17.5**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

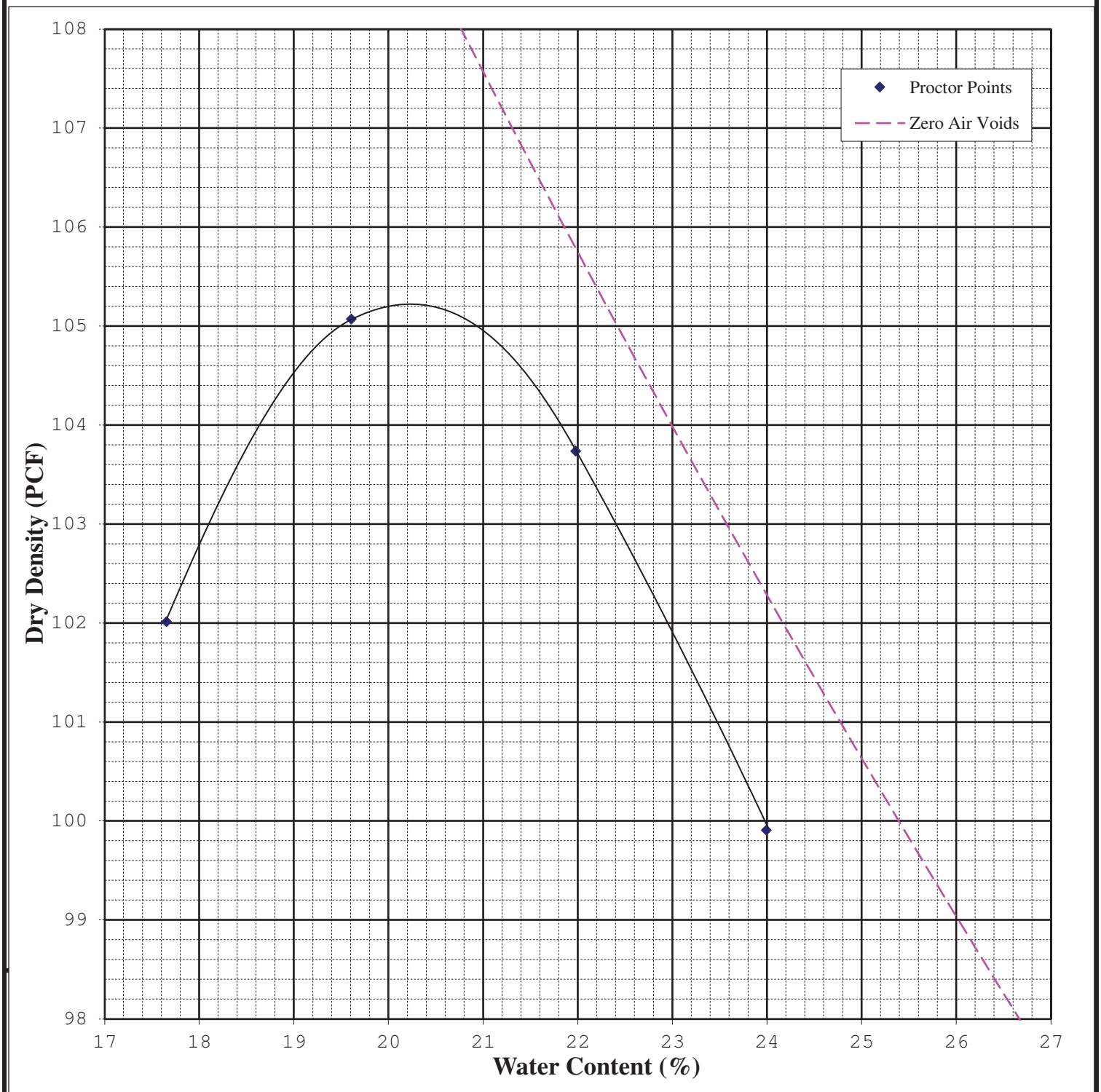
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-244** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **20.5** LL: **46** PL: **19** PI: **27** Specific Gravity: **2.70** *Assumed

Maximum Dry Density (pcf): **105.2** Opt. Water Content (%): **20.2**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

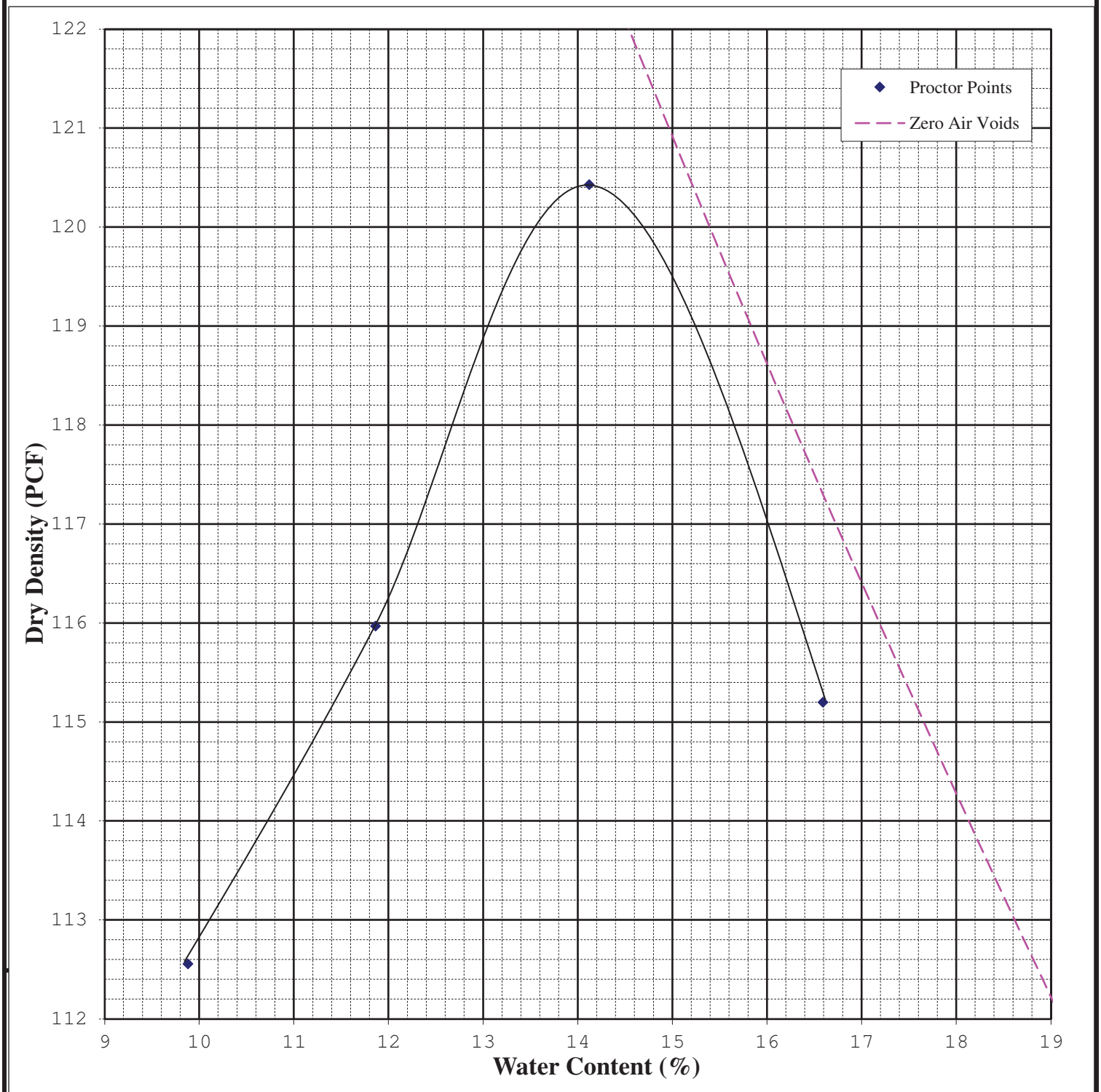
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-254** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.7** LL: **29** PL: **16** PI: **13** Specific Gravity: **2.73** *Assumed

Maximum Dry Density (pcf): **120.4** Opt. Water Content (%): **14.1**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

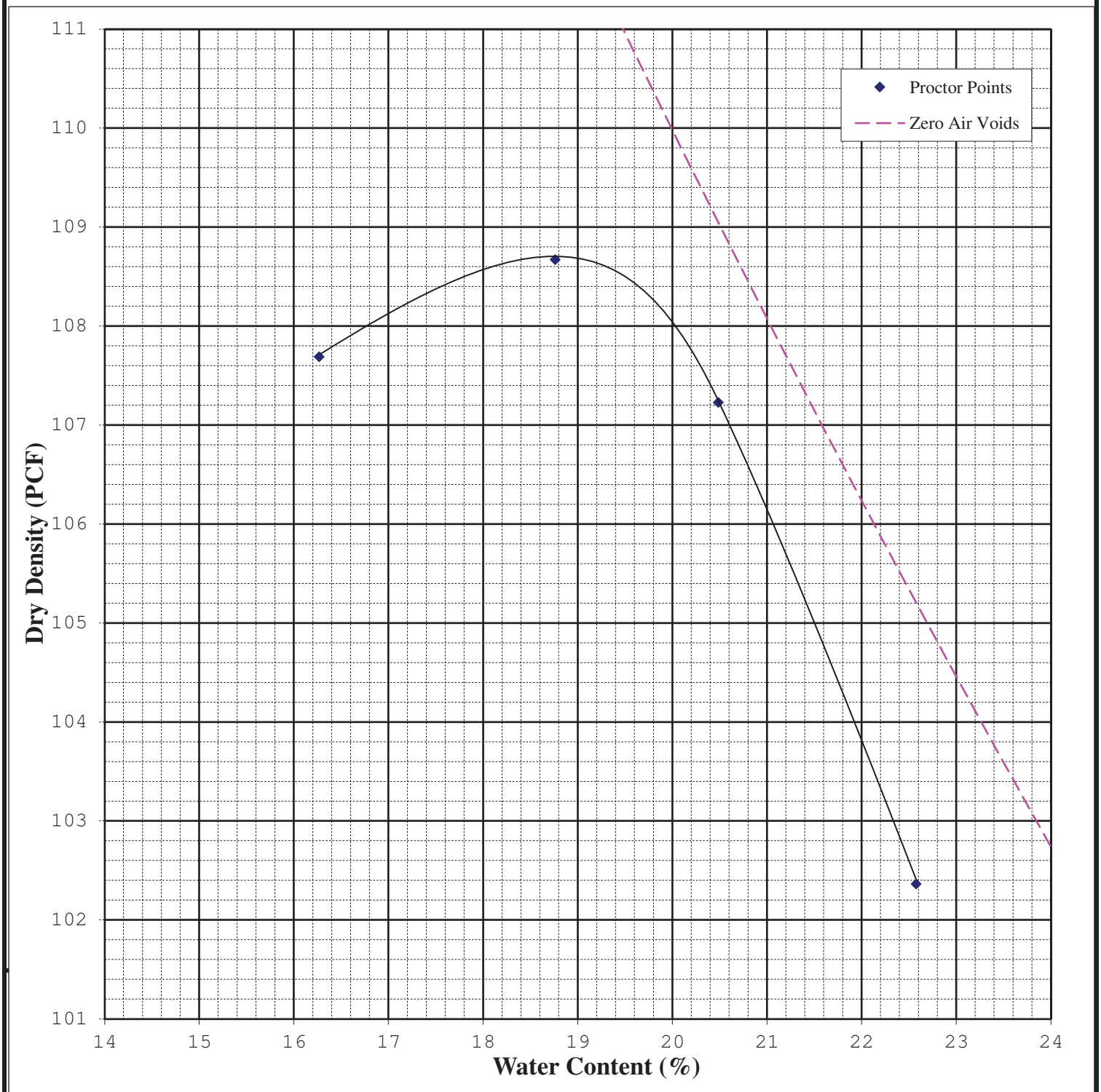
Client: **Olsson Associates** Job No. **12900**

Boring No. **Sub-5** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **18.1** LL: **41** PL: **19** PI: **22** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **108.7** Opt. Water Content (%): **18.8**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

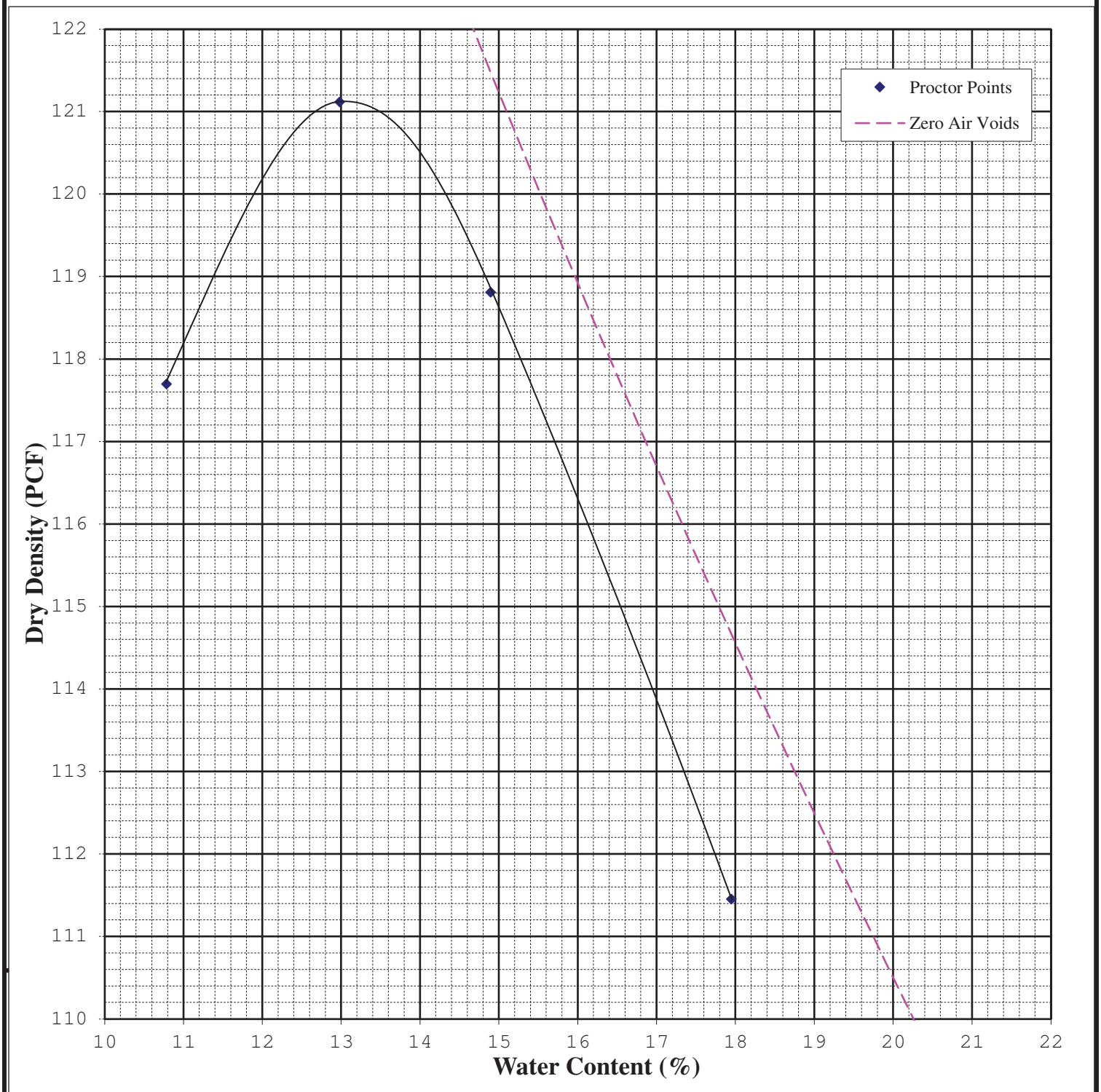
Client: **Olsson Associates** Job No. **12900**

Boring No. **Sub-6** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **17.3** LL: **28** PL: **16** PI: **12** Specific Gravity: **2.74** *Assumed

Maximum Dry Density (pcf): **121.1** Opt. Water Content (%): **13.0**



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SET-R18a

pH Testing Summary Sheet (ASTM:D4972)

Project: **Fox Squirrel** Job: **12900-A**

Client: **Olsson Associates** Date: **1/15/2021**

Boring / Location	Sample	Sample Type	Depth (ft)	pH	Visual Classification
Geo-07		**Bulk**	**1-5**	**7.3**	**Sandy Lean Clay w/a trace of gravel (CL)**
Geo-11		**Bulk**	**1-5**	**7.2**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-14		**Bulk**	**1-5**	**7.5**	**Lean Clay w/sand a little gravel (CL)**
Geo-18		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-20		**Bulk**	**1-5**	**7.5**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-28		**Bulk**	**1-5**	**7.5**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-34		**Bulk**	**1-5**	**7.5**	**Sandy Lean Clay w/a trace of gravel (CL)**
Geo-36		**Bulk**	**1-5**	**7.3**	**Sandy Lean Clay w/a trace of gravel (CL)**
Geo-41		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-44		**Bulk**	**1-5**	**7.3**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-53		**Bulk**	**1-5**	**7.4**	**Lean Clay w/sand and a little gravel (CL)**
Geo-55		**Bulk**	**1-5**	**7.3**	**Lean Clay w/sand and a little gravel (CL)**

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Bloomington, MN 55431

pH Testing Summary Sheet (ASTM:D4972)

Project: **Fox Squirrel** Job: **12900-A**

Client: **Olsson Associates** Date: **1/15/2021**

Boring / Location	Sample	Sample Type	Depth (ft)	pH	Visual Classification
Geo-63		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-65		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-67		**Bulk**	**1-5**	**7.2**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-69		**Bulk**	**1-5**	**7.3**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-78		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-80		**Bulk**	**1-5**	**7.4**	**Lean Clay w/sand and a little gravel (CL)**
Geo-82		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-84		**Bulk**	**1-5**	**7.3**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-88		**Bulk**	**1-5**	**7.3**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-99		**Bulk**	**1-5**	**7.4**	**Lean Clay w/sand and a little gravel (CL)**
Geo-102		**Bulk**	**1-5**	**7.4**	**Lean Clay w/sand (CL)**
Geo-105		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**

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pH Testing Summary Sheet (ASTM:D4972)

Project: **Fox Squirrel** Job: **12900-A**

Client: **Olsson Associates** Date: **1/15/2021**

Boring / Location	Sample	Sample Type	Depth (ft)	pH	Visual Classification
Geo-107		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-109		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-111		**Bulk**	**1-5**	**7.5**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-208		**Bulk**	**1-5**	**7.2**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-210		**Bulk**	**1-5**	**7.3**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-211		**Bulk**	**1-5**	**7.4**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-222		**Bulk**	**1-5**	**7.3**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-224		**Bulk**	**1-5**	**7.4**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-234		**Bulk**	**1-5**	**7.3**	**Sandy Lean Clay w/a little gravel (CL)**
Geo-236		**Bulk**	**1-5**	**7.4**	**Lean Clay w/sand (CL)**
Geo-242		**Bulk**	**1-5**	**7.3**	**Lean Clay w/sand and a trace of gravel (CL)**
Geo-244		**Bulk**	**1-5**	**7.2**	**Lean Clay w/sand and a trace of gravel (CL)**

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Bloomington, MN 55431

pH Testing Summary Sheet (ASTM:D4972)

Project: **Fox Squirrel** Job: **12900-A**

Client: **Olsson Associates** Date: **1/15/2021**

Boring / Location	Sample	Sample Type	Depth (ft)	pH	Visual Classification
Geo-254		**Bulk**	**1-5**	**7.3**	**Sandy Lean Clay w/a little gravel (CL)**
Sub-5		**Bulk**	**1-5**	**7.3**	**Lean Clay w/sand and a trace of gravel (CL)**

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 15, 2021

Soil Engineering Testing, Inc.

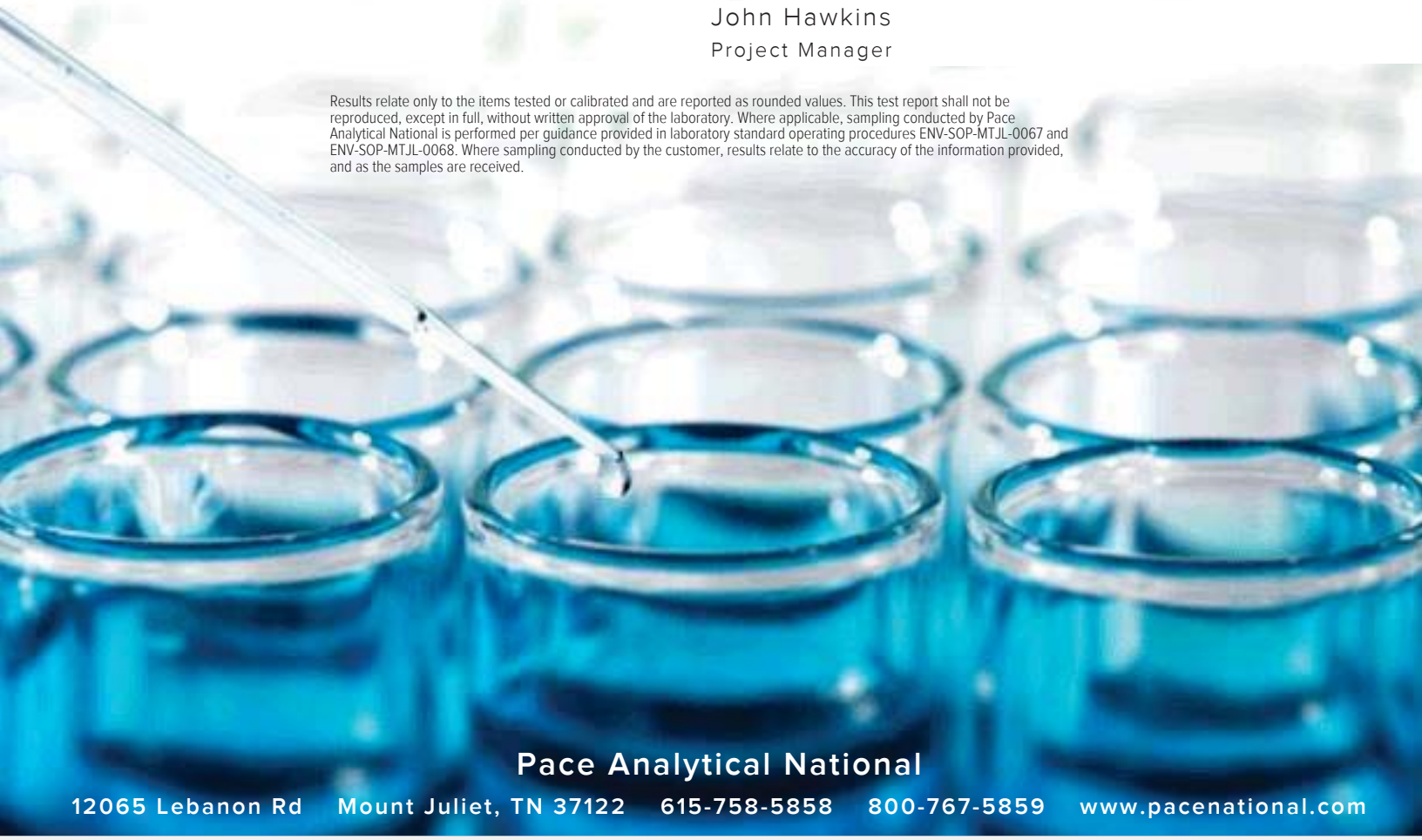
Sample Delivery Group:	L1304319
Samples Received:	01/08/2021
Project Number:	12900-A
Description:	FOX Squirrel

Report To: John Whelan
9530 James Ave. South
Bloomington, MN 55431

Entire Report Reviewed By:

John Hawkins
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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GEO-07 L1304319-01 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 00:04	ELN	Mt. Juliet, TN

GEO-11 L1304319-02 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 00:36	ELN	Mt. Juliet, TN

GEO-14 L1304319-03 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 00:52	ELN	Mt. Juliet, TN

GEO-18 L1304319-04 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 01:09	ELN	Mt. Juliet, TN

GEO-20 L1304319-05 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 01:25	ELN	Mt. Juliet, TN

GEO-28 L1304319-06 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 01:42	ELN	Mt. Juliet, TN

GEO-34 L1304319-07 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 01:58	ELN	Mt. Juliet, TN

GEO-36 L1304319-08 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 02:47	ELN	Mt. Juliet, TN

GEO-41 L1304319-09 Solid

			Collected by	Collected date/time	Received date/time
				01/07/21 15:00	01/08/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 03:04	ELN	Mt. Juliet, TN

GEO-44 L1304319-10 Solid

			Collected by	Collected date/time	Received date/time
				01/07/21 15:00	01/08/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603430	1	01/11/21 20:15	01/12/21 03:20	ELN	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/12/2021 00:04	WG1603430
Sulfate	ND		50.0	1	01/12/2021 00:04	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/12/2021 00:36	WG1603430
Sulfate	ND		50.0	1	01/12/2021 00:36	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/12/2021 00:52	WG1603430
Sulfate	ND		50.0	1	01/12/2021 00:52	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/12/2021 01:09	WG1603430
Sulfate	ND		50.0	1	01/12/2021 01:09	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	01/12/2021 01:25	WG1603430
Sulfate	ND		50.0	1	01/12/2021 01:25	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/12/2021 01:42	WG1603430
Sulfate	ND		50.0	1	01/12/2021 01:42	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/12/2021 01:58	WG1603430
Sulfate	ND		50.0	1	01/12/2021 01:58	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/12/2021 02:47	WG1603430
Sulfate	ND		50.0	1	01/12/2021 02:47	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/12/2021 03:04	WG1603430
Sulfate	ND		50.0	1	01/12/2021 03:04	WG1603430

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	01/12/2021 03:20	WG1603430
Sulfate	ND		50.0	1	01/12/2021 03:20	WG1603430

Method Blank (MB)

(MB) R3611718-1 01/11/21 23:04

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0
Sulfate	U		12.9	50.0

L1304319-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1304319-01 01/12/21 00:04 • (DUP) R3611718-3 01/12/21 00:19

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

L1304350-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1304350-05 01/12/21 05:15 • (DUP) R3611718-6 01/12/21 06:05

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3611718-2 01/11/21 23:20

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
Chloride	200	201	101	80.0-120	
Sulfate	200	193	96.6	80.0-120	

L1304350-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1304350-01 01/12/21 03:37 • (MS) R3611718-4 01/12/21 03:53 • (MSD) R3611718-5 01/12/21 04:10

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	500	ND	510	513	102	103	1	80.0-120			0.419	15
Sulfate	500	ND	505	507	101	101	1	80.0-120			0.437	15

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA

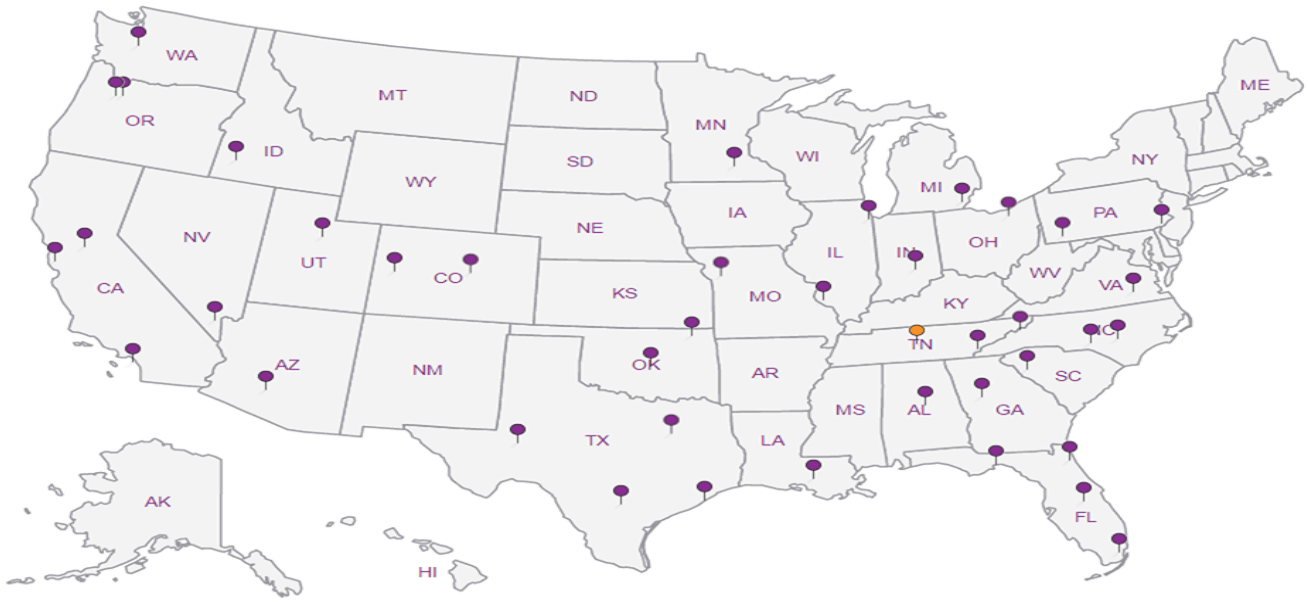
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Soil Engineering Testing, Inc.
9530 James Ave S.
Bloomington, MN 55431
952-406-8957

Billing Information:
John Whelan
Soil Engineering Testing, Inc.
Bloomington, MN 55431
952-406-8957

Report to: John Whelan

Email To: jwhelan@soilengineeringtesting.com

Project Description: Fox Squirrel

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project # 12900-A

Lab Project #

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: 1/15/21

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Sulfate Ion	Chloride Ion								Remarks	Sample # (lab only)
Geo - 07			1-5	1/7/21	15:00	1	X	X									-01
Geo - 11			↓	↓	↓	1	X	X									02
Geo - 14						1	X	X									03
Geo - 18						1	X	X									04
Geo - 20						1	X	X									05
Geo - 28						1	X	X									06
Geo - 34						1	X	X									07
Geo - 36						1	X	X									08
Geo - 41						1	X	X									09
Geo - 44						1	X	X									10

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

D221

Table # L1364319

Acctnum:
Template:
Prelogin:
PM:
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Rush Please

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier ____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___Y ___N
COC Signed/Accurate: ✓Y ___N
Bottles arrive intact: ✓Y ___N
Correct bottles used: ✓Y ___N
Sufficient volume sent: ✓Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N
RAD Screen <0.5 mR/hr: ✓Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
[signature]	1/7/21	17:00			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 10	If preservation required by Login: Date, Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/8 Time: 0930	Hold: / Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 15, 2021

Soil Engineering Testing, Inc.

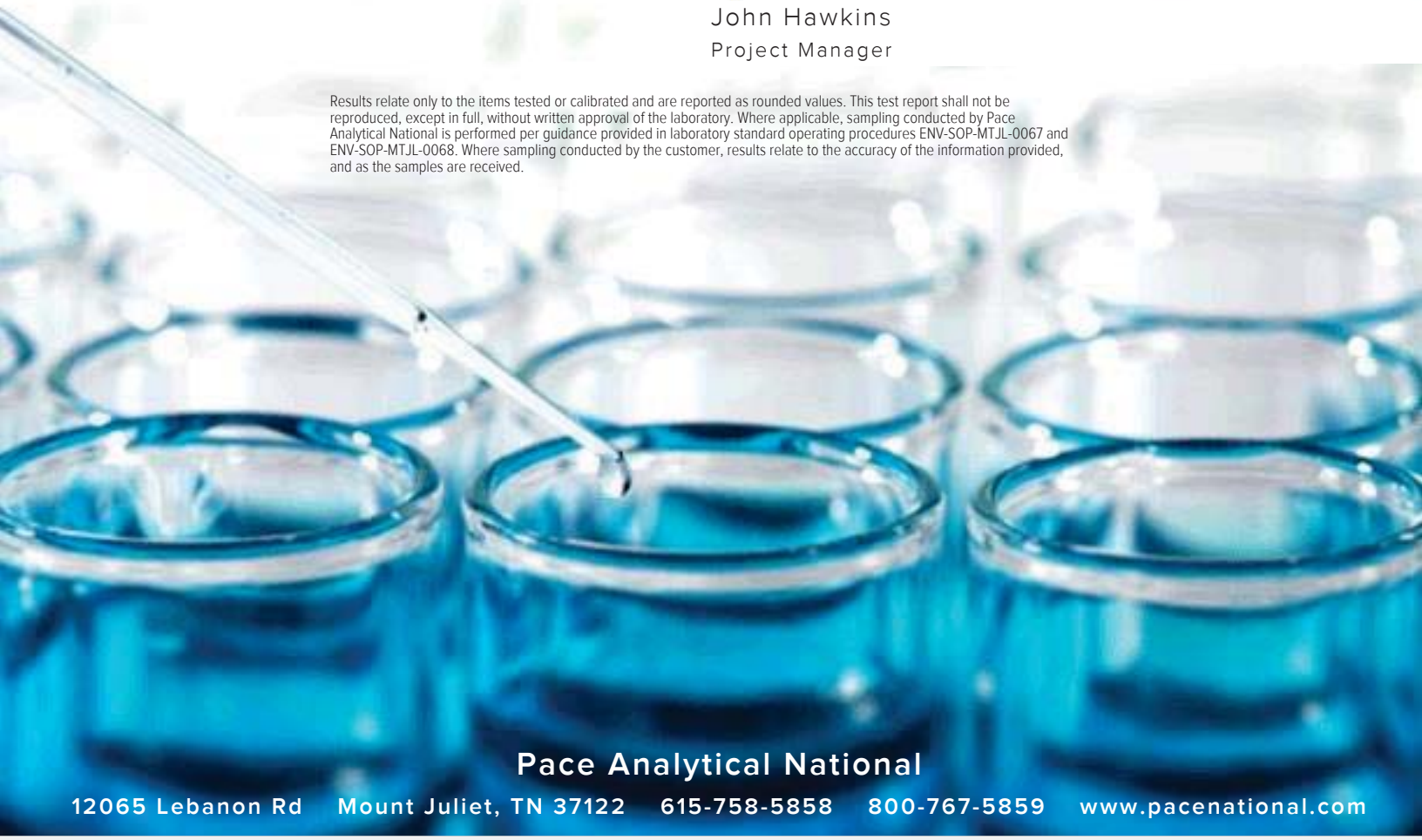
Sample Delivery Group:	L1304310
Samples Received:	01/08/2021
Project Number:	12900-A
Description:	Fox Squirrel

Report To: John Whelan
9530 James Ave. South
Bloomington, MN 55431

Entire Report Reviewed By:

John Hawkins
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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GEO-53 L1304310-01 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 22:06	ELN	Mt. Juliet, TN

GEO-55 L1304310-02 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 22:24	ELN	Mt. Juliet, TN

GEO-63 L1304310-03 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 22:43	ELN	Mt. Juliet, TN

GEO-65 L1304310-04 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 23:01	ELN	Mt. Juliet, TN

GEO-67 L1304310-05 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 23:20	ELN	Mt. Juliet, TN

GEO-69 L1304310-06 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/11/21 00:15	ELN	Mt. Juliet, TN

GEO-78 L1304310-07 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/11/21 00:33	ELN	Mt. Juliet, TN

GEO-80 L1304310-08 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/11/21 00:52	ELN	Mt. Juliet, TN

GEO-82 L1304310-09 Solid

			Collected by	Collected date/time	Received date/time
				01/07/21 15:00	01/08/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/11/21 01:10	ELN	Mt. Juliet, TN

GEO-84 L1304310-10 Solid

			Collected by	Collected date/time	Received date/time
				01/07/21 15:00	01/08/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/11/21 01:29	ELN	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 22:06	WG1603159
Sulfate	ND		50.0	1	01/10/2021 22:06	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 22:24	WG1603159
Sulfate	ND		50.0	1	01/10/2021 22:24	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 22:43	WG1603159
Sulfate	ND		50.0	1	01/10/2021 22:43	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 23:01	WG1603159
Sulfate	ND		50.0	1	01/10/2021 23:01	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 23:20	WG1603159
Sulfate	144		50.0	1	01/10/2021 23:20	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/11/2021 00:15	WG1603159
Sulfate	ND		50.0	1	01/11/2021 00:15	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/11/2021 00:33	WG1603159
Sulfate	ND		50.0	1	01/11/2021 00:33	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/11/2021 00:52	WG1603159
Sulfate	ND		50.0	1	01/11/2021 00:52	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	01/11/2021 01:10	WG1603159
Sulfate	ND		50.0	1	01/11/2021 01:10	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/11/2021 01:29	WG1603159
Sulfate	ND		50.0	1	01/11/2021 01:29	WG1603159

Method Blank (MB)

(MB) R3611313-1 01/10/21 16:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0
Sulfate	U		12.9	50.0

L1304306-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1304306-01 01/10/21 17:30 • (DUP) R3611313-3 01/10/21 17:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

L1304310-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1304310-10 01/11/21 01:29 • (DUP) R3611313-6 01/11/21 01:47

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3611313-2 01/10/21 17:11

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
Chloride	200	198	98.9	80.0-120	
Sulfate	200	195	97.4	80.0-120	

L1304306-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1304306-10 01/10/21 21:11 • (MS) R3611313-4 01/10/21 21:29 • (MSD) R3611313-5 01/10/21 21:48

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	500	ND	524	521	105	104	1	80.0-120			0.727	15
Sulfate	500	ND	532	531	106	106	1	80.0-120			0.0756	15

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
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Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
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Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA

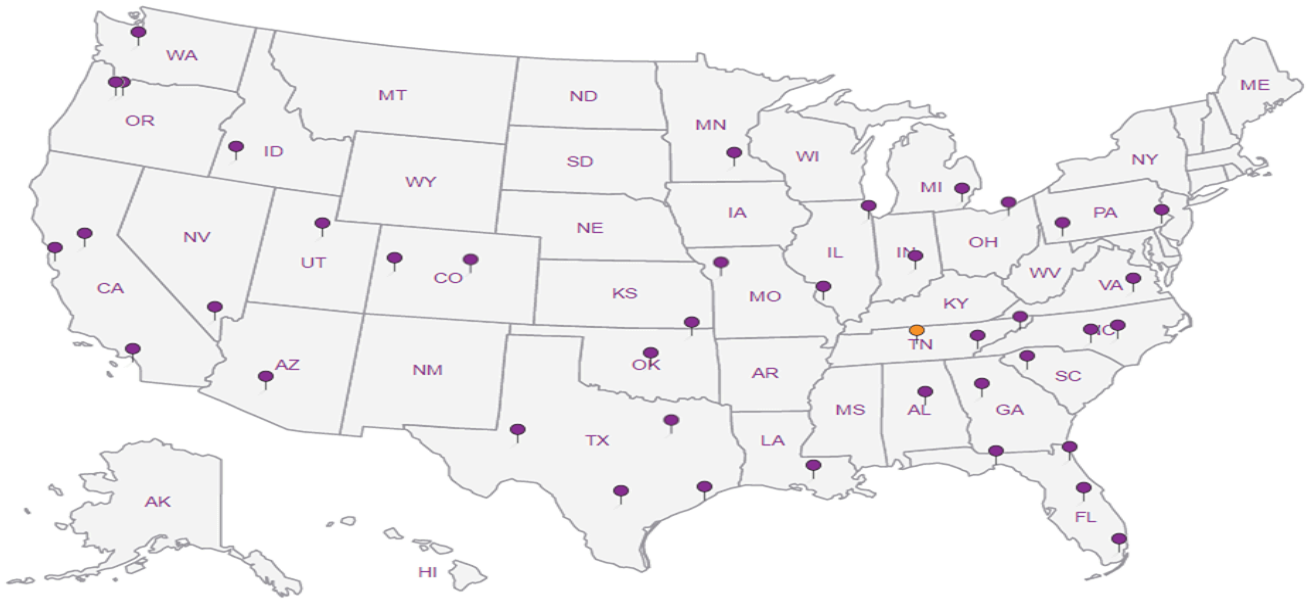
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Soil Engineering Testing, Inc.
9530 James Ave S.
Bloomington, MN 55431
952-406-8957

Billing Information:
John Whelan
Soil Engineering Testing, Inc.
Bloomington, MN 55431
952-406-8957

Pres Chk

Report to: John Whelan

Email To: jwhelan@soilengineeringtesting.com

Project Description: Fox Squirrel

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project # 12900-A

Lab Project #

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed 1/15/21

No. of Cntrs

Analysis / Container / Preservative: Sulfate Ion; Chloride Ion

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

D218

Table # L1364310

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Sulfate Ion	Chloride Ion	Remarks	Sample # (lab only)
Geo - 53			1-5	1/7/21	15:00	1	X	X		-01
Geo - 55						1	X	X		02
Geo - 63						1	X	X		03
Geo - 65						1	X	X		04
Geo - 67						1	X	X		05
Geo - 69						1	X	X		06
Geo - 78						1	X	X		07
Geo - 80						1	X	X		08
Geo - 82						1	X	X		09
Geo - 84			↓	↓	↓	1	X	X		10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Rush Please

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N
RAD Screen <0.5 mR/hr: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
John Erdman	1/7/21	17:00			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: AMD °C Bottles Received: 10	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/8 Time: 0830	Hold: Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 15, 2021

Soil Engineering Testing, Inc.

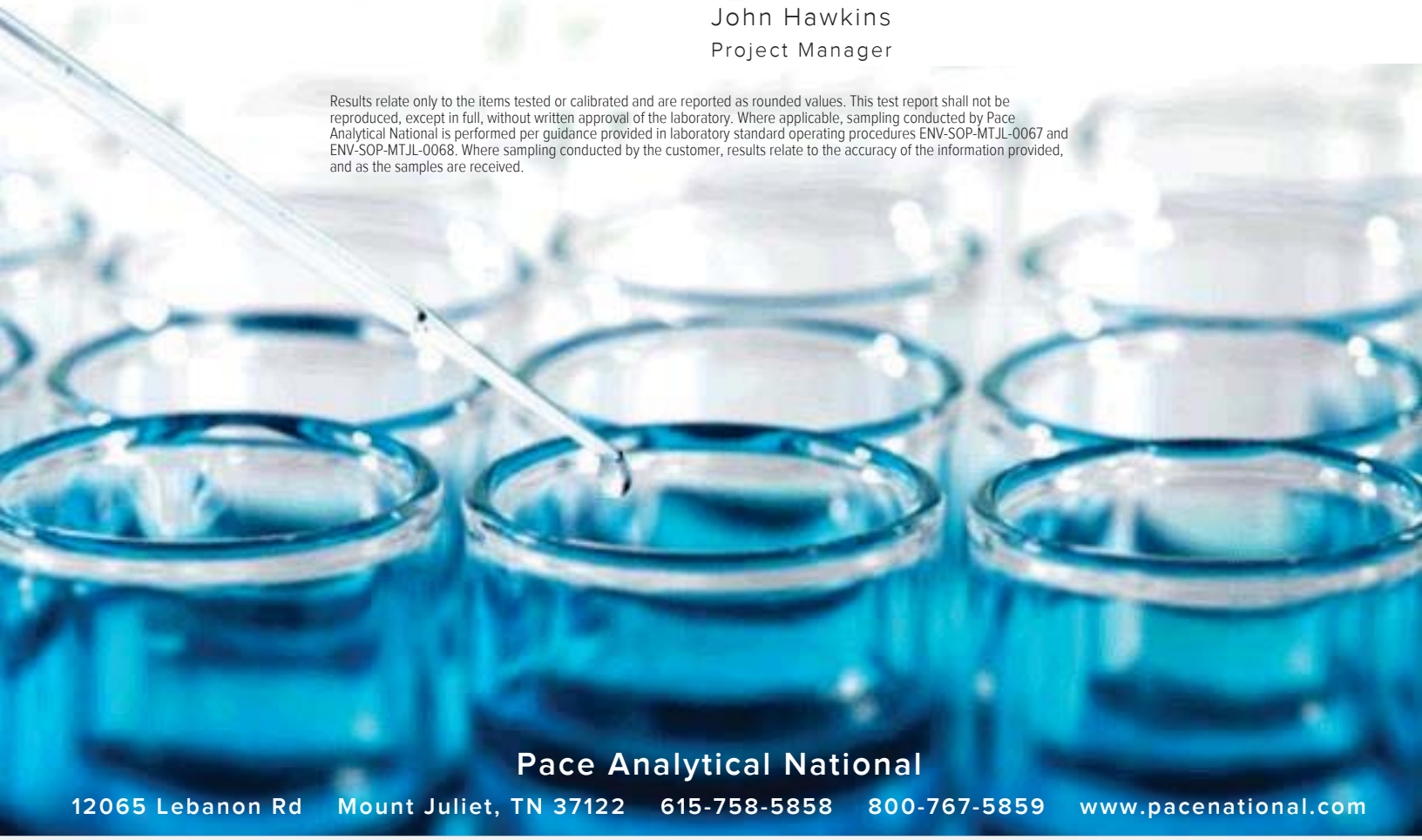
Sample Delivery Group:	L1304306
Samples Received:	01/08/2021
Project Number:	12900-A
Description:	Fox Squirrel

Report To: John Whelan
9530 James Ave. South
Bloomington, MN 55431

Entire Report Reviewed By:

John Hawkins
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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GEO-88 L1304306-01 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 17:30	ELN	Mt. Juliet, TN

GEO-99 L1304306-02 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 18:07	ELN	Mt. Juliet, TN

GEO-102 L1304306-03 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 18:25	ELN	Mt. Juliet, TN

GEO-105 L1304306-04 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 18:43	ELN	Mt. Juliet, TN

GEO-107 L1304306-05 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 19:02	ELN	Mt. Juliet, TN

GEO-109 L1304306-06 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 19:20	ELN	Mt. Juliet, TN

GEO-111 L1304306-07 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 19:39	ELN	Mt. Juliet, TN

GEO-208 L1304306-08 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 09:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 20:34	ELN	Mt. Juliet, TN

GEO-210 L1304306-09 Solid

			Collected by	Collected date/time	Received date/time
				01/07/21 15:00	01/08/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 20:52	ELN	Mt. Juliet, TN

GEO-211 L1304306-10 Solid

			Collected by	Collected date/time	Received date/time
				01/07/21 15:00	01/08/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603159	1	01/09/21 15:11	01/10/21 21:11	ELN	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 17:30	WG1603159
Sulfate	ND		50.0	1	01/10/2021 17:30	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 18:07	WG1603159
Sulfate	ND		50.0	1	01/10/2021 18:07	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 18:25	WG1603159
Sulfate	ND		50.0	1	01/10/2021 18:25	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 18:43	WG1603159
Sulfate	ND		50.0	1	01/10/2021 18:43	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 19:02	WG1603159
Sulfate	ND		50.0	1	01/10/2021 19:02	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 19:20	WG1603159
Sulfate	ND		50.0	1	01/10/2021 19:20	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 19:39	WG1603159
Sulfate	ND		50.0	1	01/10/2021 19:39	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	01/10/2021 20:34	WG1603159
Sulfate	ND		50.0	1	01/10/2021 20:34	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	01/10/2021 20:52	WG1603159
Sulfate	ND		50.0	1	01/10/2021 20:52	WG1603159

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 21:11	WG1603159
Sulfate	ND		50.0	1	01/10/2021 21:11	WG1603159

Method Blank (MB)

(MB) R3611313-1 01/10/21 16:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0
Sulfate	U		12.9	50.0

L1304306-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1304306-01 01/10/21 17:30 • (DUP) R3611313-3 01/10/21 17:48

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3611313-2 01/10/21 17:11

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
Chloride	200	198	98.9	80.0-120	
Sulfate	200	195	97.4	80.0-120	

L1304306-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1304306-10 01/10/21 21:11 • (MS) R3611313-4 01/10/21 21:29 • (MSD) R3611313-5 01/10/21 21:48

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	500	ND	524	521	105	104	1	80.0-120			0.727	15
Sulfate	500	ND	532	531	106	106	1	80.0-120			0.0756	15

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA

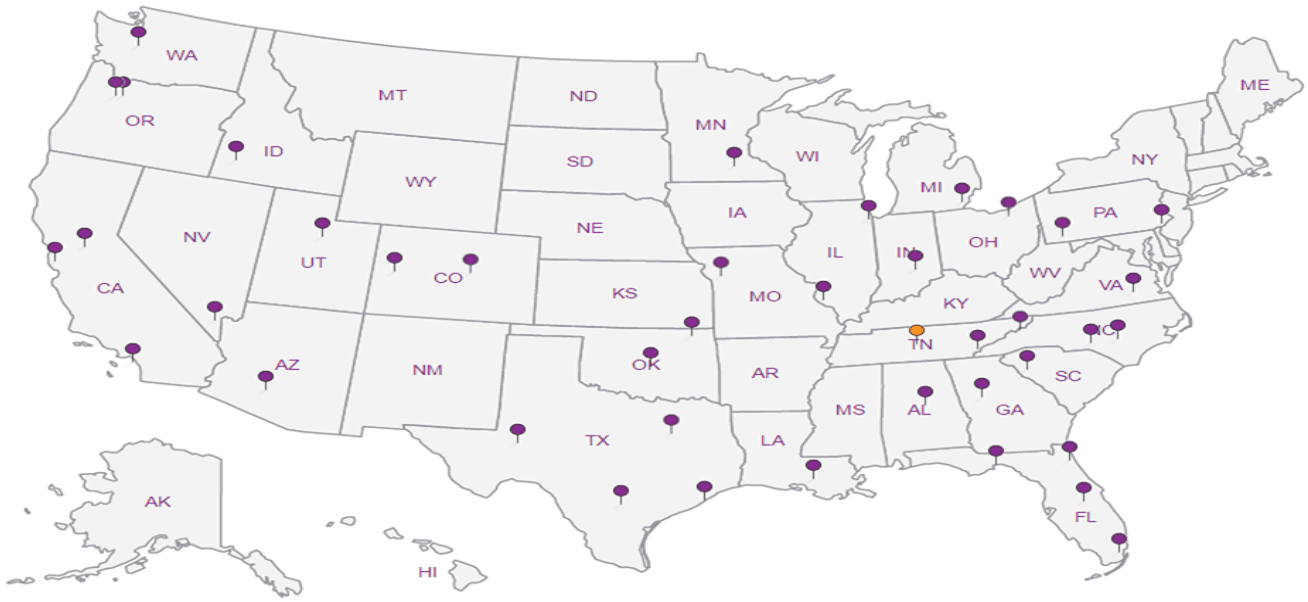
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Soil Engineering Testing, Inc.
9530 James Ave S.
Bloomington, MN 55431
952-406-8957

Billing Information:
John Whelan
Soil Engineering Testing, Inc.
Bloomington, MN 55431
952-406-8957

Pres Chk

Report to: John Whelan

Email To: jwhelan@soilengineeringtesting.com

Project Description: Fox Squirrel

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project # 12900-A

Lab Project #

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed 1/15/21

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Sulfate Ion	Chloride Ion	Remarks	Sample # (lab only)
Geo - 88			1-5	1/7/21	15:00	1	X	X		-01
Geo - 99						1	X	X		02
Geo - 102						1	X	X		03
Geo - 105						1	X	X		04
Geo - 107						1	X	X		05
Geo - 109						1	X	X		06
Geo - 111						1	X	X		07
Geo - 208						1	X	X		08
Geo - 210						1	X	X		09
Geo - 211						1	X	X		10

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # D219

L1364306

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Rush Please

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
___ UPS ___ FedEx ___ Courier ___ ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N
RAD Screen <0.5 mR/hr: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
[signature]	1/7/21	17:00			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb °C Bottles Received: 10	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/8 Time: 0830	Hold: / Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 12, 2021

Soil Engineering Testing, Inc.

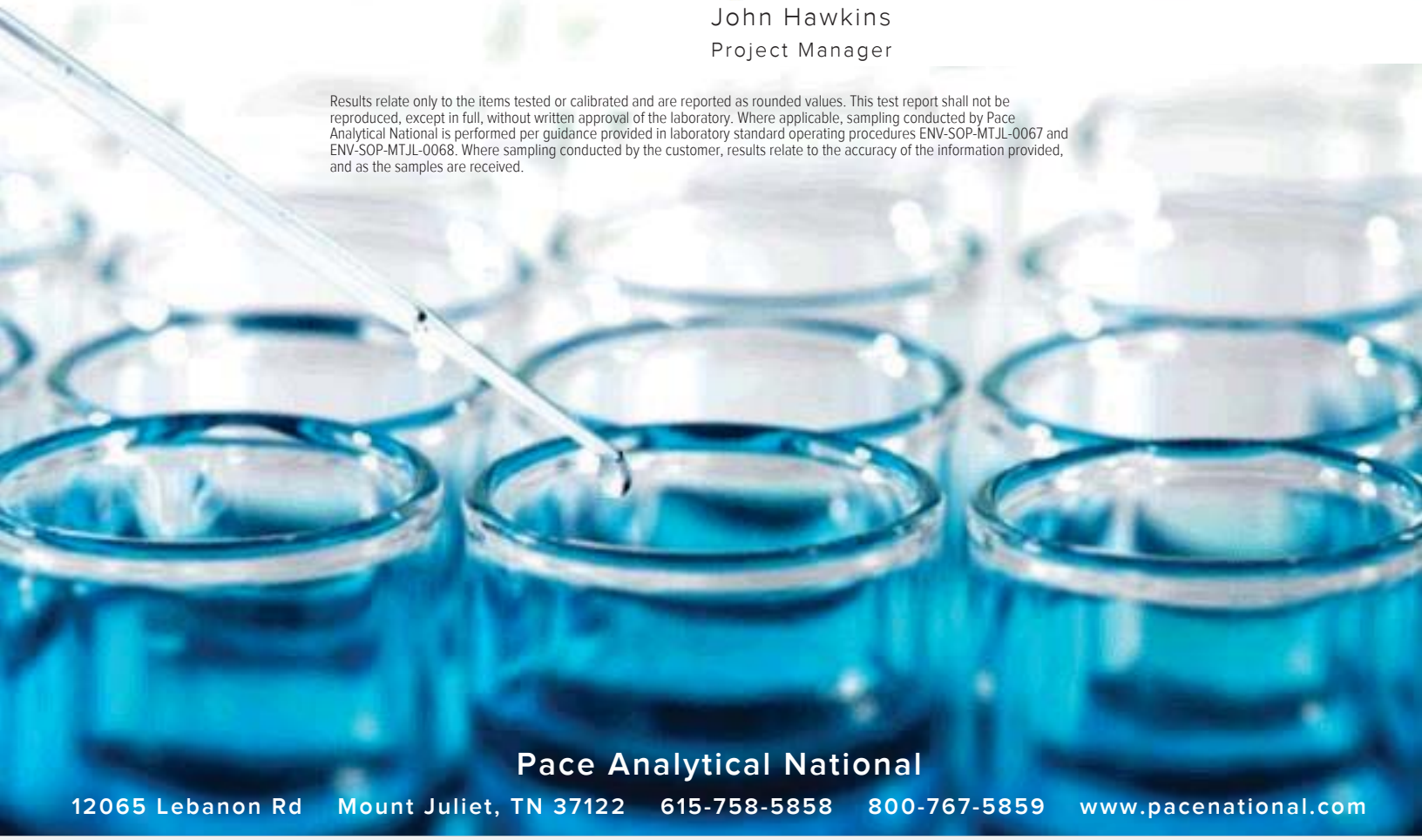
Sample Delivery Group:	L1304303
Samples Received:	01/08/2021
Project Number:	12900-A
Description:	Fox Squirrel

Report To: John Whelan
9530 James Ave. South
Bloomington, MN 55431

Entire Report Reviewed By:

John Hawkins
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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GEO-222 L1304303-01 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 08:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603158	1	01/10/21 15:47	01/10/21 20:49	ELN	Mt. Juliet, TN

GEO-224 L1304303-02 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 08:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603158	1	01/10/21 15:47	01/10/21 21:38	ELN	Mt. Juliet, TN

GEO-234 L1304303-03 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 08:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603158	1	01/10/21 15:47	01/10/21 21:54	ELN	Mt. Juliet, TN

GEO-236 L1304303-04 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 08:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603158	1	01/10/21 15:47	01/10/21 22:11	ELN	Mt. Juliet, TN

GEO-242 L1304303-05 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 08:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603158	1	01/10/21 15:47	01/10/21 22:27	ELN	Mt. Juliet, TN

GEO-244 L1304303-06 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 08:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603158	1	01/10/21 15:47	01/10/21 23:17	ELN	Mt. Juliet, TN

GEO-254 L1304303-07 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 08:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603158	1	01/10/21 15:47	01/10/21 23:33	ELN	Mt. Juliet, TN

SUB-5 L1304303-08 Solid

			Collected by	Collected date/time	Received date/time	
				01/07/21 15:00	01/08/21 08:30	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1603158	1	01/10/21 15:47	01/10/21 23:50	ELN	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John Hawkins
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 20:49	WG1603158
Sulfate	ND		50.0	1	01/10/2021 20:49	WG1603158

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	01/10/2021 21:38	WG1603158
Sulfate	ND		50.0	1	01/10/2021 21:38	WG1603158

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	ND		20.0	1	01/10/2021 21:54	WG1603158
Sulfate	181		50.0	1	01/10/2021 21:54	WG1603158

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 22:11	WG1603158
Sulfate	ND		50.0	1	01/10/2021 22:11	WG1603158

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 22:27	WG1603158
Sulfate	ND		50.0	1	01/10/2021 22:27	WG1603158

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 23:17	WG1603158
Sulfate	ND		50.0	1	01/10/2021 23:17	WG1603158

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 23:33	WG1603158
Sulfate	ND		50.0	1	01/10/2021 23:33	WG1603158

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		20.0	1	01/10/2021 23:50	WG1603158
Sulfate	53.0		50.0	1	01/10/2021 23:50	WG1603158

Method Blank (MB)

(MB) R3611394-1 01/10/21 16:43

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Chloride	U		9.20	20.0
Sulfate	U		12.9	50.0

L1303854-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1303854-01 01/10/21 17:16 • (DUP) R3611394-3 01/10/21 17:31

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

L1304303-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1304303-08 01/10/21 23:50 • (DUP) R3611394-6 01/11/21 00:06

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	mg/kg	mg/kg		%		%
Chloride	ND	ND	1	0.000		15
Sulfate	53.0	56.4	1	6.14		15

Laboratory Control Sample (LCS)

(LCS) R3611394-2 01/10/21 16:59

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
Chloride	200	197	98.3	80.0-120	
Sulfate	200	189	94.5	80.0-120	

L1304303-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1304303-01 01/10/21 20:49 • (MS) R3611394-4 01/10/21 21:05 • (MSD) R3611394-5 01/10/21 21:22

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	500	ND	524	478	105	95.7	1	80.0-120			9.10	15
Sulfate	500	ND	518	473	101	91.9	1	80.0-120			9.01	15

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA

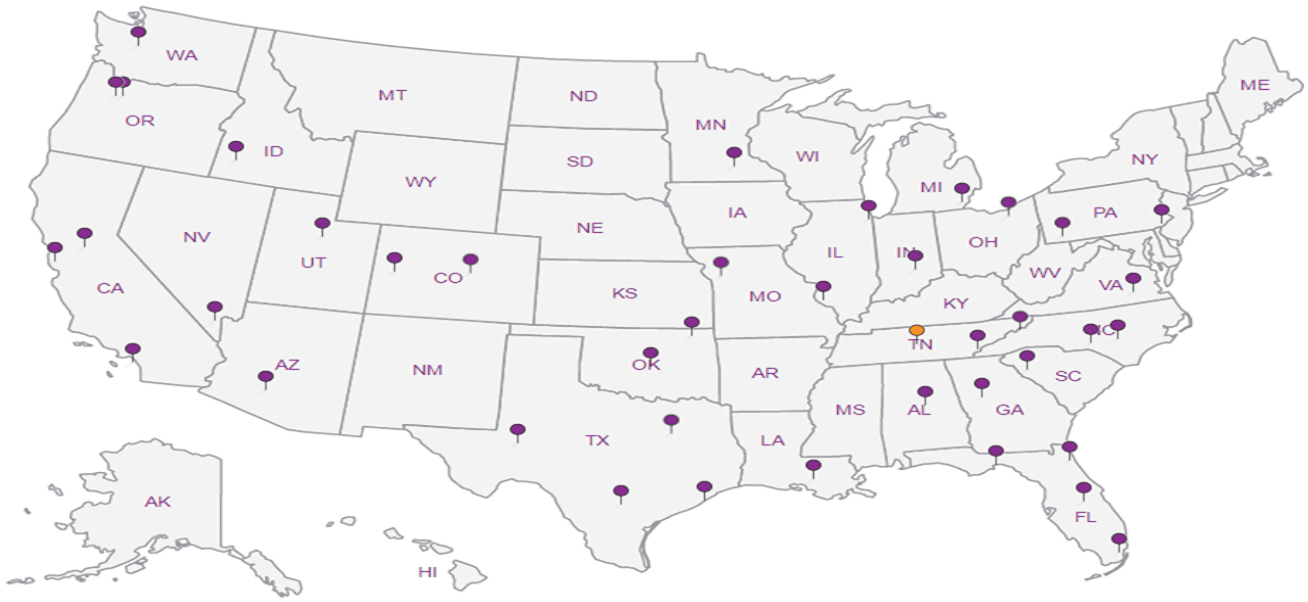
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Soil Engineering Testing, Inc.
9530 James Ave S.
Bloomington, MN 55431
952-406-8957

Billing Information:
John Whelan
Soil Engineering Testing, Inc.
Bloomington, MN 55431
952-406-8957

Pres Chk

Report to: John Whelan

Email To: jwhelar@soilengineeringtesting.com

Project Description: Fox Squirrel

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project # 12900-A

Lab Project #

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y___

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed 1/15/21

No. of Cntrs

Analysis / Container / Preservative: Sulfate Ion; Chloride Ion

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

D220

Table # L1364303

Acctnum:

Template:

Prelogin:

PM:

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Sulfate Ion	Chloride Ion	Remarks	Sample # (lab only)
Geo - 222			1-5	1/7/21	15:00	1	X	X		-01
Geo - 224			↓	↓	↓	1	X	X		02
Geo - 234						1	X	X		03
Geo - 236						1	X	X		04
Geo - 242						1	X	X		05
Geo - 244						1	X	X		06
Geo - 254						1	X	X		07
Sub - 5						1	X	X		08

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Rush Please

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
___ UPS ___ FedEx ___ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct Bottles Used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
John Erdman	1/7/21	17:00			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb °C Bottles Received: 9	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/8 Time: 0730	Hold: Condition: NCF / OK

APPENDIX G

Electrical Resistivity Report

January 14, 2021

Mr. Gene Bryant, P. E.
EDF Renewables
15545 Innovation Dr.
San Diego, CA 92128

Re: Electrical Resistivity Testing Results
Fox Squirrel Solar Project
Madison County, Ohio

Dear Mr. Bryant:

Olsson, Inc. (Olsson), under contract and authorization with EDF Renewables (EDF) performed soil electrical resistivity measurements at the Fox Squirrel Solar Project in December of 2020. This letter presents the methods and results.

Methods

A total of 39 electrical resistivity tests were completed by Olsson, including 37 within the proposed solar array areas and two at the proposed substation location (SUB-05 and SUB-06). Test locations were provided by EDF prior to beginning the site explorations and were verified in the field by Olsson using handheld GPS units. The tests were centered as close to the proposed test location as possible while trying to avoid ground disturbed by geotechnical borings. The test locations, coordinates of each test location, and other pertinent information are provided in Table 1 and indicated on Figure 1.

Olsson conducted the work in accordance with ASTM method G57 “Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method” (equivalent to IEEE Std. 81).

At the test locations, a single resistivity array orientation was utilized, and resistivity measurements were obtained. Each measurement for the tested locations corresponded to one of the following seven electrode (“a”) spacings: 2, 5, 10, 20, 50, 100, and 200 feet. After one set of readings were taken, the array orientation was then rotated 90 degrees with measurements taken at the same “a” spacings.

The equipment used to collect the data consisted of a resistivity meter, four metal electrodes and connecting wire. The meter used for the investigation was a SuperSting R1+ manufactured by Advanced Geosciences, Inc. The resistivity meter reads resistance (Ω) directly but records the electric potential (V) and inductance (I). The meter outputs the apparent resistivity (ρ_a) for a given “a” spacing.

Table 1: Testing Conditions and Coordinates

Geotech ID	Ambient Air Temperature [ºF]	Geographic Coordinates, NAD83 (degrees)	
		Latitude	Longitude
GEO-007	34	39.79051	-83.39455
GEO-011	40	39.78472	-83.39854
GEO-014	28	39.77863	-83.40044
GEO-018	30	39.77313	-83.40039
GEO-020	30	39.77255	-83.39220
GEO-030	37	39.77640	-83.39105
GEO-034	36	39.77378	-83.38309
GEO-036	27	39.78893	-83.38136
GEO-041	27	39.78305	-83.37641
GEO-044	34	39.77631	-83.37558
GEO-053	28	39.79489	-83.34294
GEO-055	43	39.79489	-83.33440
GEO-063	40	39.79173	-83.32840
GEO-065	52	39.78858	-83.34967
GEO-067	50	39.78858	-83.34141
GEO-069	43	39.78858	-83.33316
GEO-078	55	39.78226	-83.35615
GEO-080	55	39.78226	-83.34797
GEO-082	50	39.78226	-83.33979
GEO-084	39	39.78226	-83.33156

Geotech ID	Ambient Air Temperature [ºF]	Geographic Coordinates, NAD83 (degrees)	
		Latitude	Longitude
GEO-088	40	39.77911	-83.36823
GEO-099	30	39.77848	-83.32320
GEO-102	50	39.77734	-83.36125
GEO-105	63	39.77595	-83.35334
GEO-107	50	39.77585	-83.34516
GEO-109	40	39.77595	-83.33708
GEO-111	36	39.77595	-83.32879
GEO-208	46	39.81938	-83.39809
GEO-210	36	39.81877	-83.38916
GEO-211	36	39.81728	-83.40522
GEO-223	46	39.81017	-83.39764
GEO-224	46	39.80997	-83.39355
GEO-234	25	39.80383	-83.41219
GEO-236	28	39.80440	-83.40435
GEO-241	28	39.79900	-83.40704
GEO-244	34	39.79727	-83.41367
GEO-254	30	39.78153	-83.39287
SUB-05	34	39.79456	-83.40017
SUB-06	36	39.79489	-83.39889

Olsson conducted the work in accordance with ASTM method G57 “Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method” (equivalent to IEEE Std. 81).

At the test locations, a single resistivity array orientation was utilized, and resistivity measurements were obtained. Each measurement for the tested locations corresponded to one of the following seven electrode (“a”) spacings: 2, 5, 10, 20, 50, 100, and 200 feet. After one set of readings were taken, the array orientation was then rotated 90 degrees with measurements taken at the same “a” spacings.

The equipment used to collect the data consisted of a resistivity meter, four metal electrodes and connecting wire. The meter used for the investigation was an AEMC Ground Tester Model 4620. The resistivity meter read in resistance (Ω) directly, and did not require the conversion of electrical potential (V) and inductance (I) to calculate resistance (V/I in Ω). Before and after each array was completed, the resistivity meter was connected to a resistor of known resistance, and the resulting values were compared to the known resistance value for quality assurance and quality control purposes. The meter was properly calibrated for all test locations and no instrument adjustments had to be made.

Co-linear arrays of four electrodes were placed in the ground for each measurement. Electrical current was input to the ground through the two outer electrodes of the array. The voltage

drop produced by the resulting electrical field was measured across the two inner electrodes. The “a” spacing was increased with each measurement, expanding the array about a common center. Increasing the electrode separation increases the depth of investigation, and indicates vertical variation in resistivity.

In order to check the accuracy of the single resistivity array, a perpendicular array was set up at each test location for all electrode spacings.

Apparent resistivity (ρ_a) was calculated for each measurement and corresponding electrode spacing (a) using the resistance measurement (Ω) and the geometric factor (K) as follows:

$$\rho_a = K(V/I)$$

where:

$$K = 2\pi a$$

The field results and calculated values are presented in the attachments.

Results and Discussion

Apparent resistivity measurements for the tested locations ranged from 2,366 to 15,325 ohm-centimeters (Ω-cm), with an average of 6,019 Ω-cm. Detailed results for the tested locations are attached to this letter report and summarized in Table 2.

Soil resistivity variations are likely associated with differences in soil type, layer thicknesses, and degree of water saturation in the near surface soils. Higher moisture contents and higher clay contents (particularly fat clay soil) generally reduce the electrical resistivity of a soil. Generally, the majority of the apparent resistivity results from the test locations fell within a relatively tight range of 4,000 to 7,000 Ω-cm.

Apparent resistivity test results below 2,000 Ω-cm indicate that the soil could be considered severely corrosive to metal foundations placed in direct contact with the soil. Test results indicated that the tested locations generally exhibited apparent resistivity values above 2,000 Ω-cm. Conversely, locations GEO-208, GEO-211, GEO-223, GEO-234, and GEO-236 exhibited higher apparent resistivity at the 200-foot “a” spacing than the other tested locations. The foundation designer should select appropriate protection for the foundations.

Table 2: Apparent Resistivity versus Electrode Spacing for Tested Locations

Electrode Spacing (feet)	Apparent Resistivity [Ω-cm]		
	Range	Mean	Standard Deviation
2	2,366 – 7,969	4,056	1,079
5	2,701 – 9,137	4,859	1,086
10	3,640 – 8,218	5,756	834
20	4,559 – 7,931	6,443	700
50	4,981 – 8,812	6,748	813
100	4,789 – 9,195	6,646	959
200	4,597 – 15,325	7,628	2,267

Closing

Thank you for the opportunity to provide this service. Please call me at 952-356-4419 with questions or requests for additional information.

Sincerely,

Robb Roy
Senior Engineer

Bill Kussmann
Senior Geotechnical Professional

Attachments:
Electrical Resistivity Test Results
Figure 1: Electrical Resistivity Test Locations

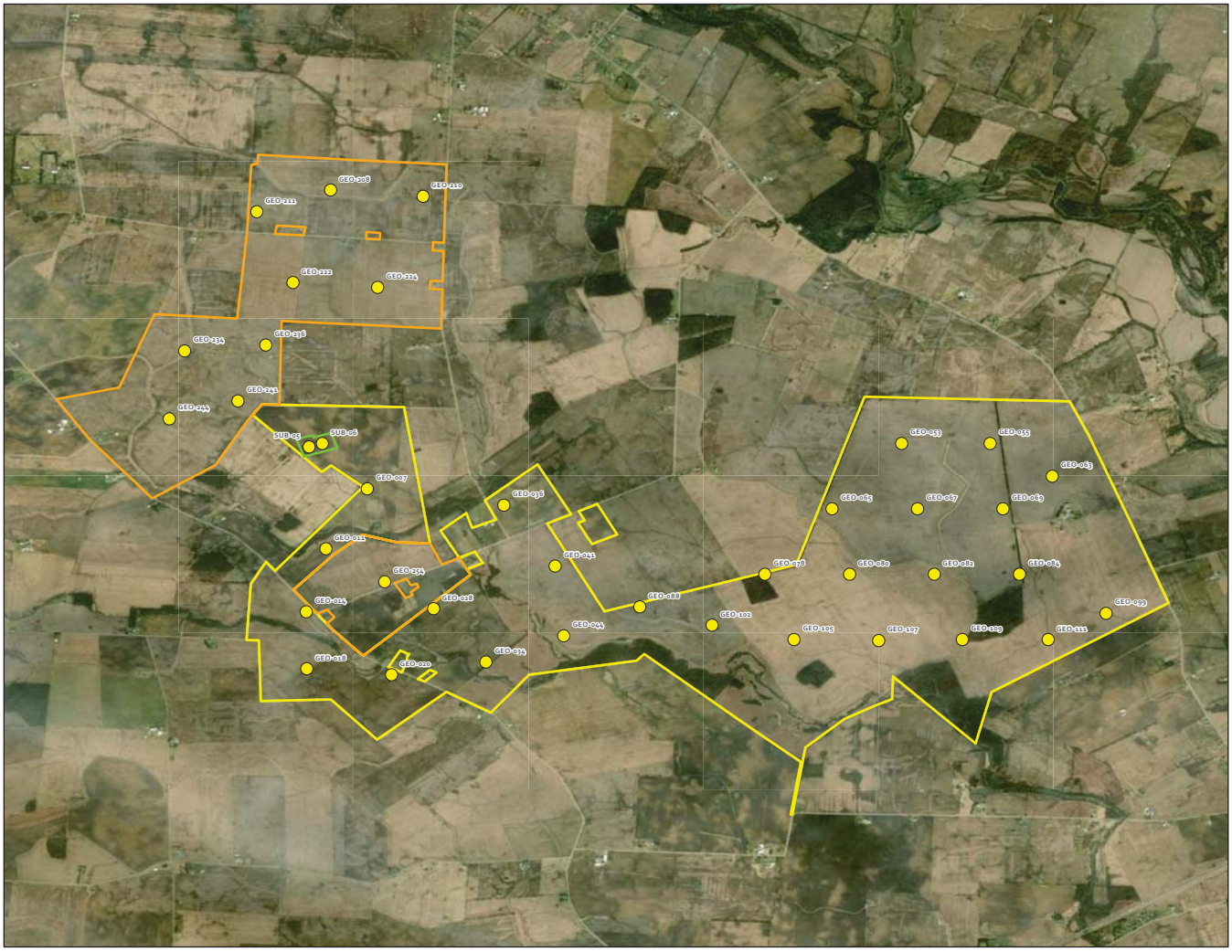


Figure 1

Electrical Resistivity Testing Locations

Fox Squirrel Solar
Madison County, Ohio USA

WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

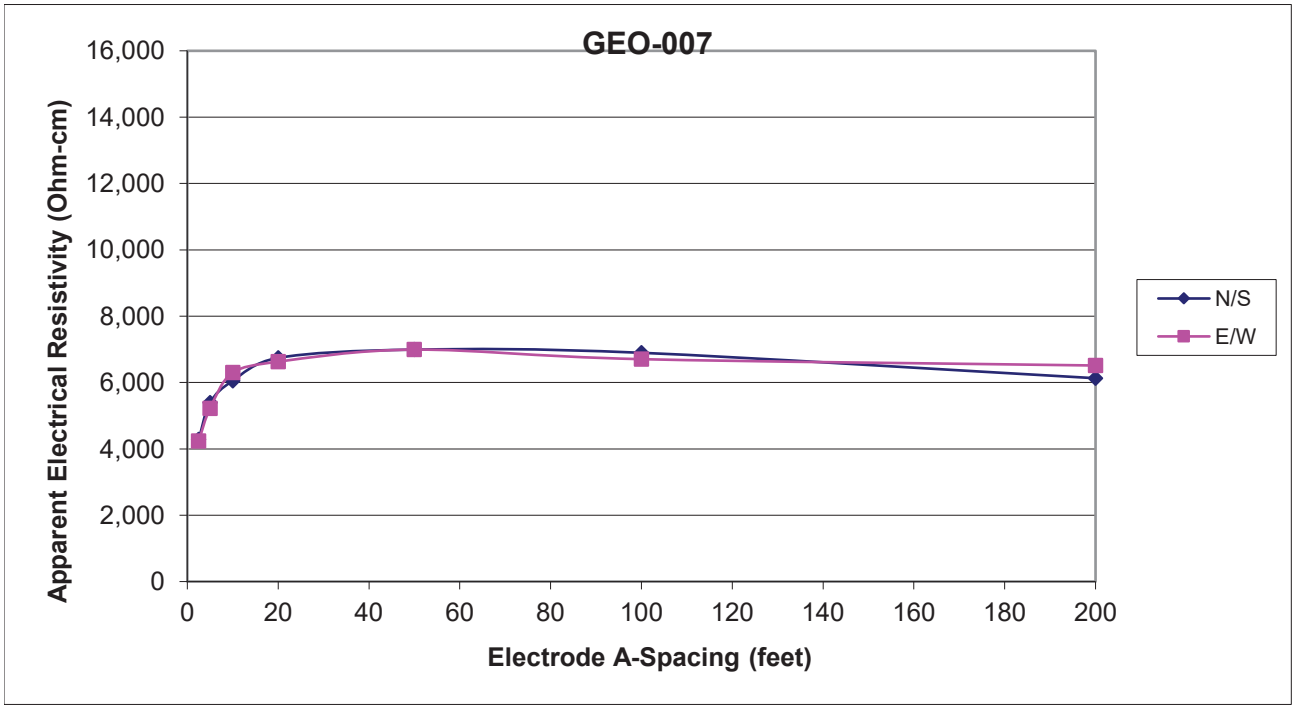
Test No. **30** **Date** **12/19/2020**

Observer **SF**

Location **GEO-007**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	8.95	15.71	140.59	4286.2
5	5.630	31.42	176.87	5392.4
10	3.160	62.83	198.55	6053.3
20	1.760	125.66	221.17	6742.9
50	0.730	314.16	229.34	6992.0
100	0.360	628.32	226.20	6896.2
200	0.160	1256.64	201.06	6130.0
E/W Orientation				
2.5	8.85	15.71	139.02	4238.3
5	5.450	31.42	171.22	5220.0
10	3.290	62.83	206.72	6302.4
20	1.730	125.66	217.40	6628.0
50	0.730	314.16	229.34	6992.0
100	0.350	628.32	219.91	6704.6
200	0.170	1256.64	213.63	6513.1

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 34F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

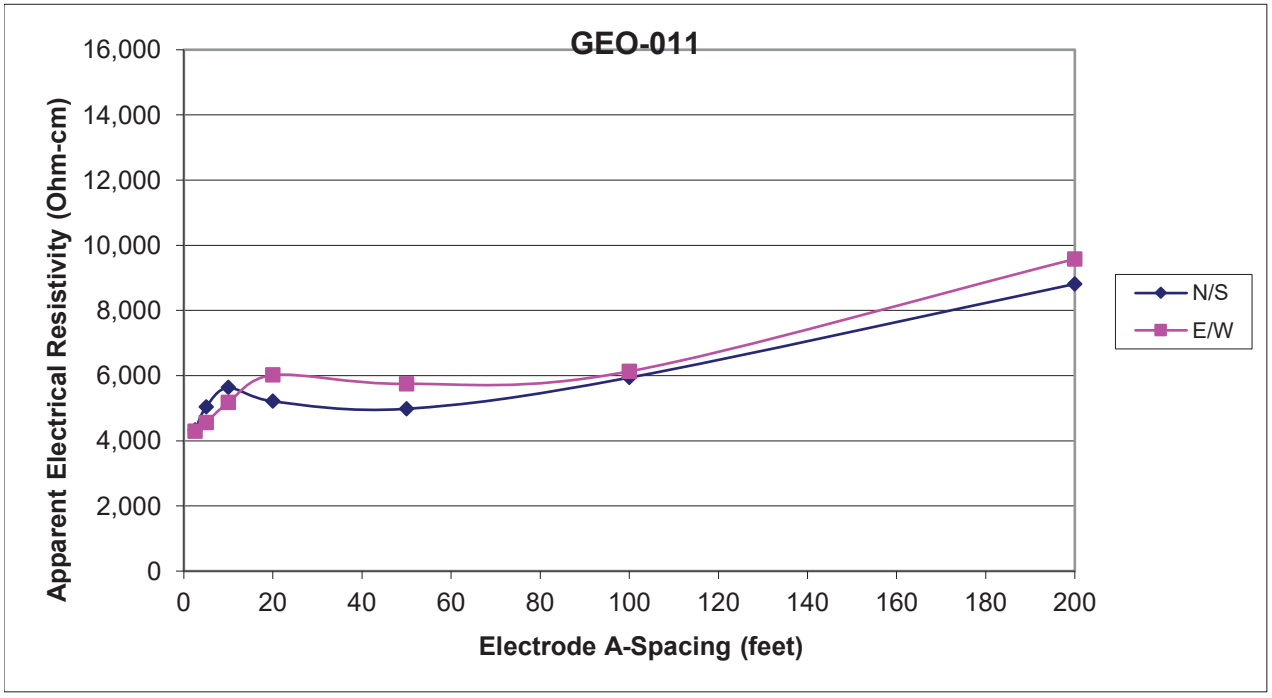
Test No. **35** **Date** **12/21/2020**

Observer **SF**

Location **GEO-011**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	9.05	15.71	142.16	4334.1
5	5.260	31.42	165.25	5038.1
10	2.940	62.83	184.73	5631.9
20	1.360	125.66	170.90	5210.5
50	0.520	314.16	163.36	4980.6
100	0.310	628.32	194.78	5938.4
200	0.230	1256.64	289.03	8811.8
E/W Orientation				
2.5	8.96	15.71	140.74	4291.0
5	4.760	31.42	149.54	4559.2
10	2.700	62.83	169.65	5172.1
20	1.570	125.66	197.29	6015.0
50	0.600	314.16	188.50	5746.8
100	0.320	628.32	201.06	6130.0
200	0.250	1256.64	314.16	9578.0

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 40F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

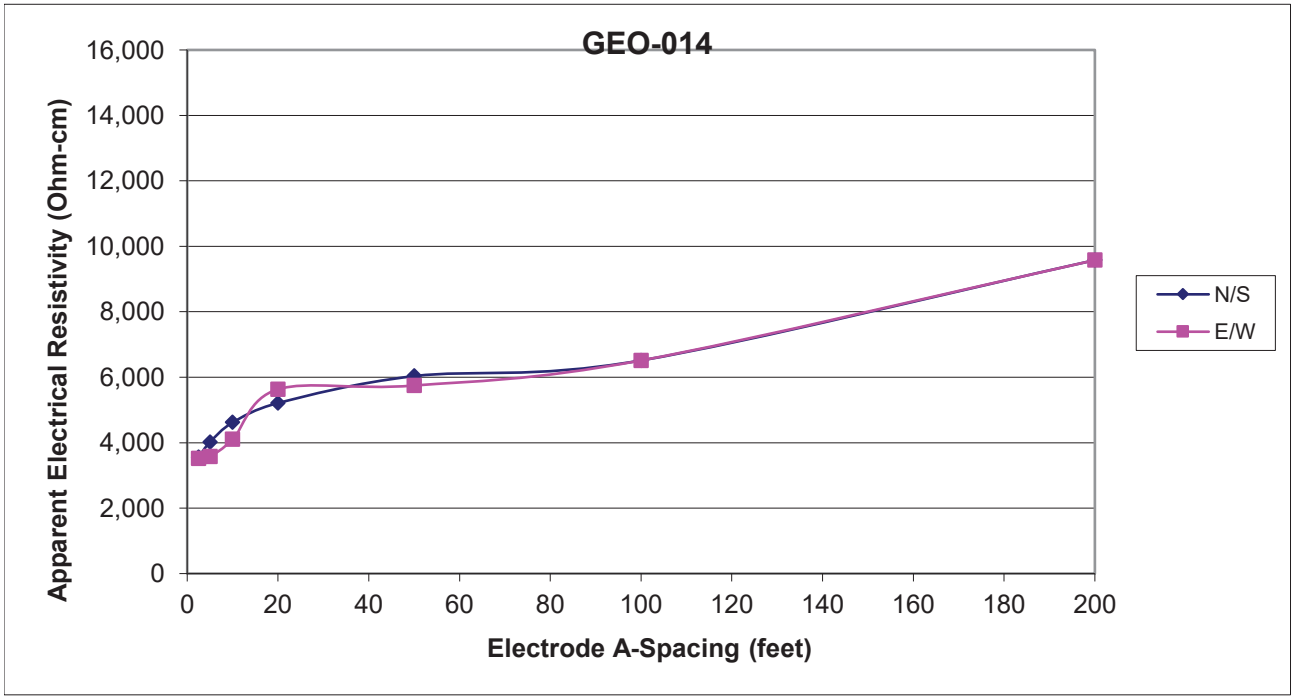
Test No. **22** **Date** **12/16/2020**

Observer **SF**

Location **GEO-014**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	7.43	15.71	116.71	3558.2
5	4.190	31.42	131.63	4013.2
10	2.410	62.83	151.43	4616.6
20	1.360	125.66	170.90	5210.5
50	0.630	314.16	197.92	6034.2
100	0.340	628.32	213.63	6513.1
200	0.250	1256.64	314.16	9578.0
E/W Orientation				
2.5	7.34	15.71	115.30	3515.1
5	3.730	31.42	117.18	3572.6
10	2.140	62.83	134.46	4099.4
20	1.470	125.66	184.73	5631.9
50	0.600	314.16	188.50	5746.8
100	0.340	628.32	213.63	6513.1
200	0.250	1256.64	314.16	9578.0

Cultural Features	None
Ground Cover	Untilled Corn Field, moist ground
Weather	Partly cloudy, 28F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

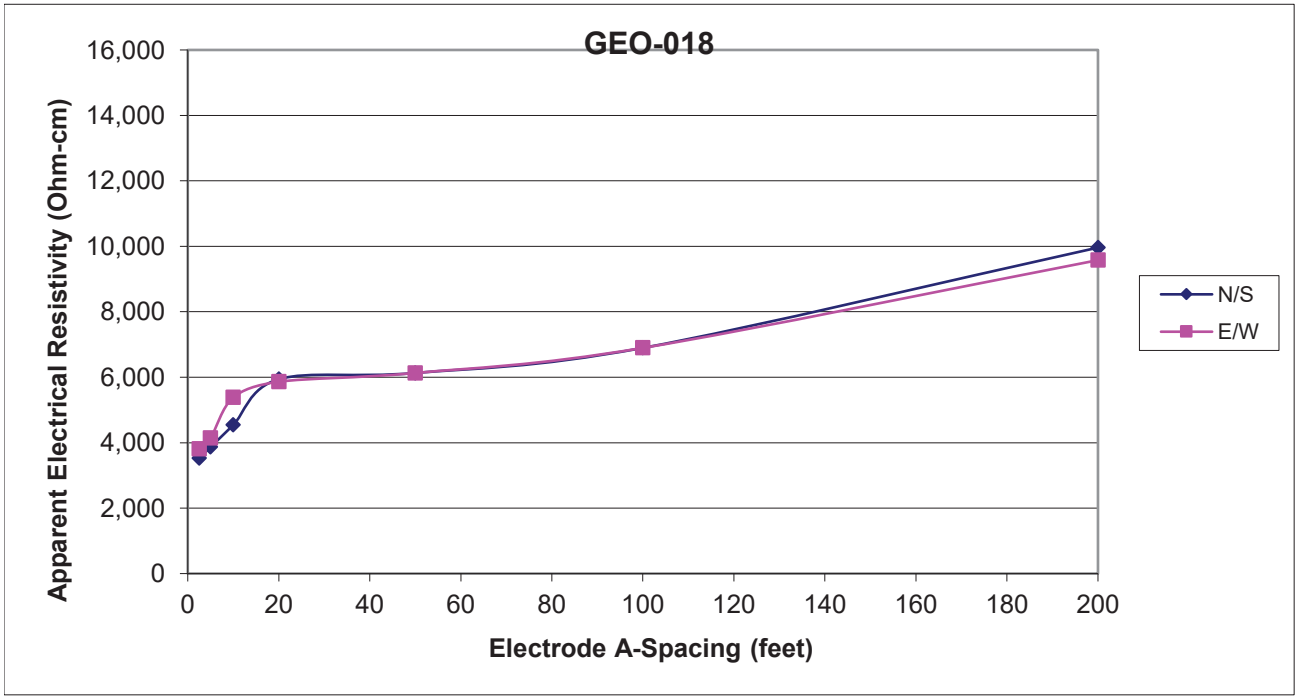
Test No. **26** **Date** **12/17/2020**

Observer **SF**

Location **GEO-018**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	7.36	15.71	115.61	3524.7
5	4.040	31.42	126.92	3869.5
10	2.370	62.83	148.91	4540.0
20	1.550	125.66	194.78	5938.4
50	0.640	314.16	201.06	6130.0
100	0.360	628.32	226.20	6896.2
200	0.260	1256.64	326.73	9961.2
E/W Orientation				
2.5	7.96	15.71	125.04	3812.1
5	4.320	31.42	135.72	4137.7
10	2.810	62.83	176.56	5382.9
20	1.530	125.66	192.27	5861.8
50	0.640	314.16	201.06	6130.0
100	0.360	628.32	226.20	6896.2
200	0.250	1256.64	314.16	9578.0

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 30F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

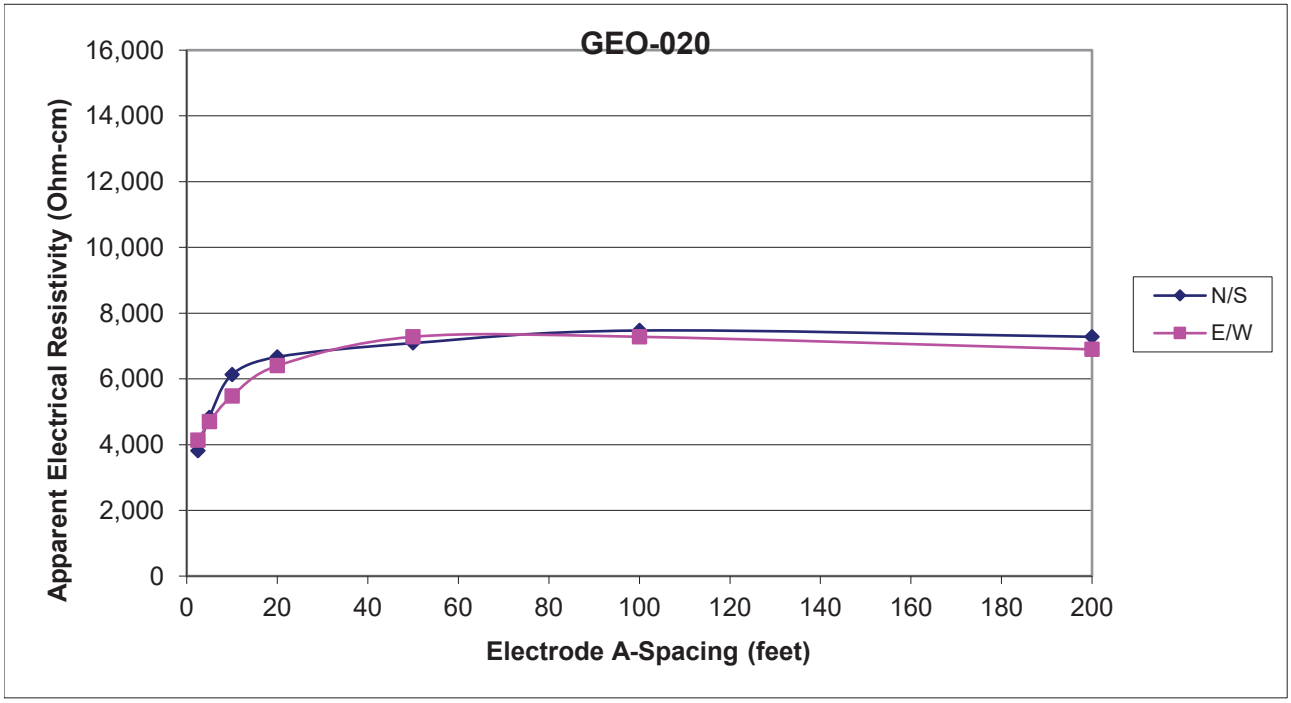
Test No. **25** **Date** **12/17/2020**

Observer **SF**

Location **GEO-020**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	7.96	15.71	125.04	3812.1
5	5.040	31.42	158.34	4827.3
10	3.200	62.83	201.06	6130.0
20	1.740	125.66	218.66	6666.3
50	0.740	314.16	232.48	7087.8
100	0.390	628.32	245.04	7470.9
200	0.190	1256.64	238.76	7279.3
E/W Orientation				
2.5	8.63	15.71	135.56	4132.9
5	4.900	31.42	153.94	4693.2
10	2.860	62.83	179.70	5478.6
20	1.670	125.66	209.86	6398.1
50	0.760	314.16	238.76	7279.3
100	0.380	628.32	238.76	7279.3
200	0.180	1256.64	226.20	6896.2

Cultural Features	None
Ground Cover	Tilled Bean Field, moist ground
Weather	Partly cloudy, 30F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

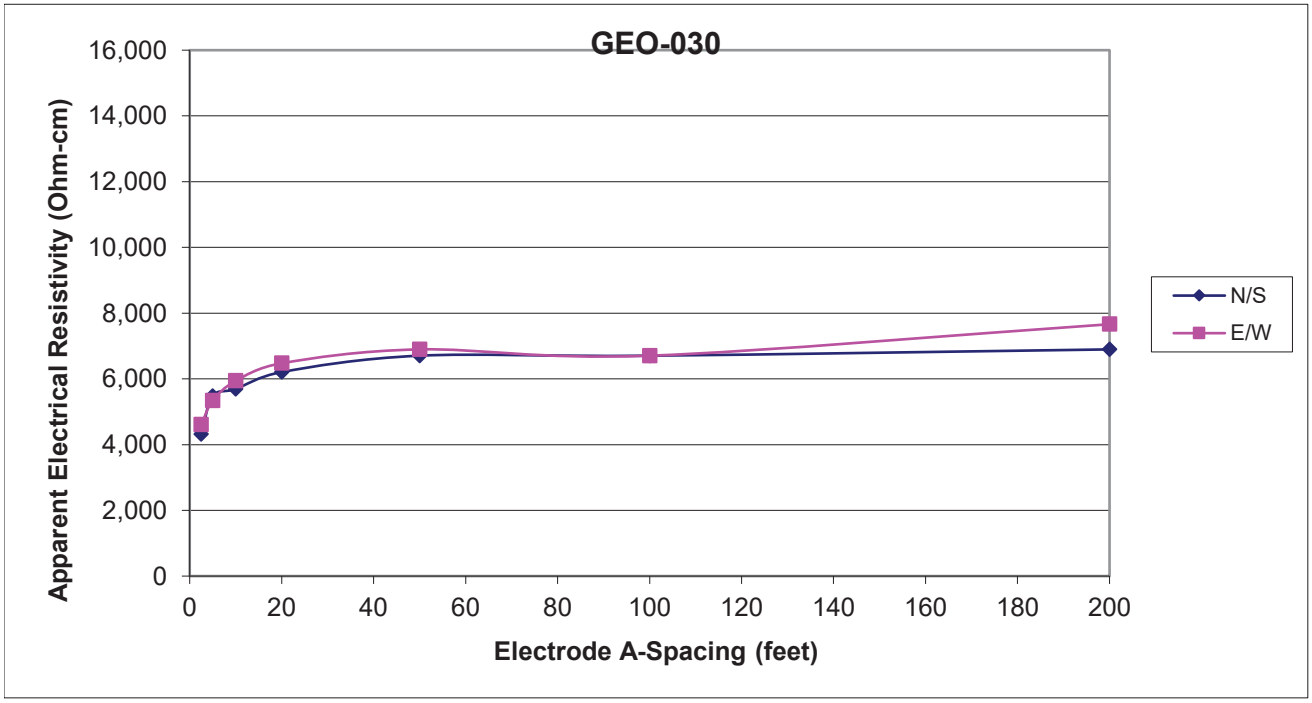
Test No. **35** **Date** **12/22/2020**

Observer **SF**

Location **GEO-030**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	9.02	15.71	141.69	4319.7
5	5.720	31.42	179.70	5478.6
10	2.970	62.83	186.61	5689.4
20	1.620	125.66	203.58	6206.6
50	0.700	314.16	219.91	6704.6
100	0.350	628.32	219.91	6704.6
200	0.180	1256.64	226.20	6896.2
E/W Orientation				
2.5	9.62	15.71	151.11	4607.0
5	5.570	31.42	174.99	5335.0
10	3.100	62.83	194.78	5938.4
20	1.690	125.66	212.37	6474.8
50	0.720	314.16	226.20	6896.2
100	0.350	628.32	219.91	6704.6
200	0.200	1256.64	251.33	7662.4

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 37F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

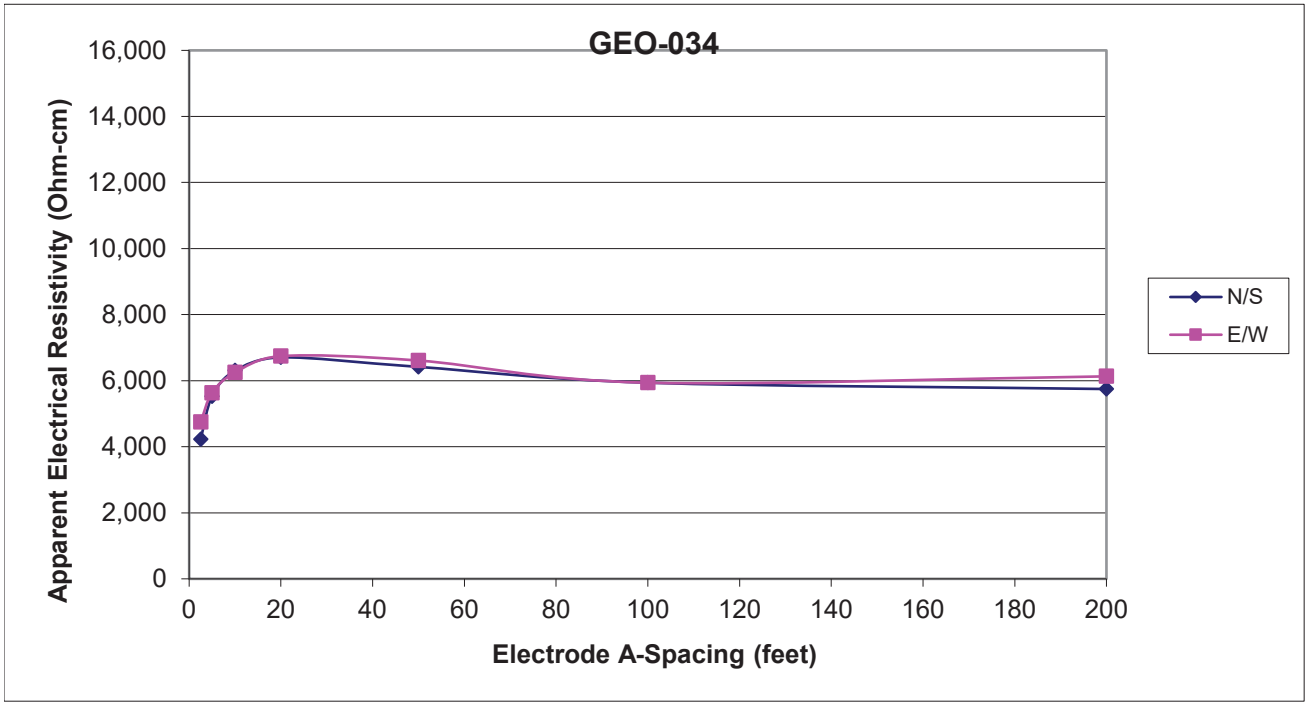
Test No. **34** **Date** **12/21/2020**

Observer **SF**

Location **GEO-034**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	8.82	15.71	138.54	4223.9
5	5.770	31.42	181.27	5526.5
10	3.290	62.83	206.72	6302.4
20	1.750	125.66	219.91	6704.6
50	0.670	314.16	210.49	6417.3
100	0.310	628.32	194.78	5938.4
200	0.150	1256.64	188.50	5746.8
E/W Orientation				
2.5	9.92	15.71	155.82	4750.7
5	5.880	31.42	184.73	5631.9
10	3.260	62.83	204.83	6244.9
20	1.760	125.66	221.17	6742.9
50	0.690	314.16	216.77	6608.9
100	0.310	628.32	194.78	5938.4
200	0.160	1256.64	201.06	6130.0

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 36F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

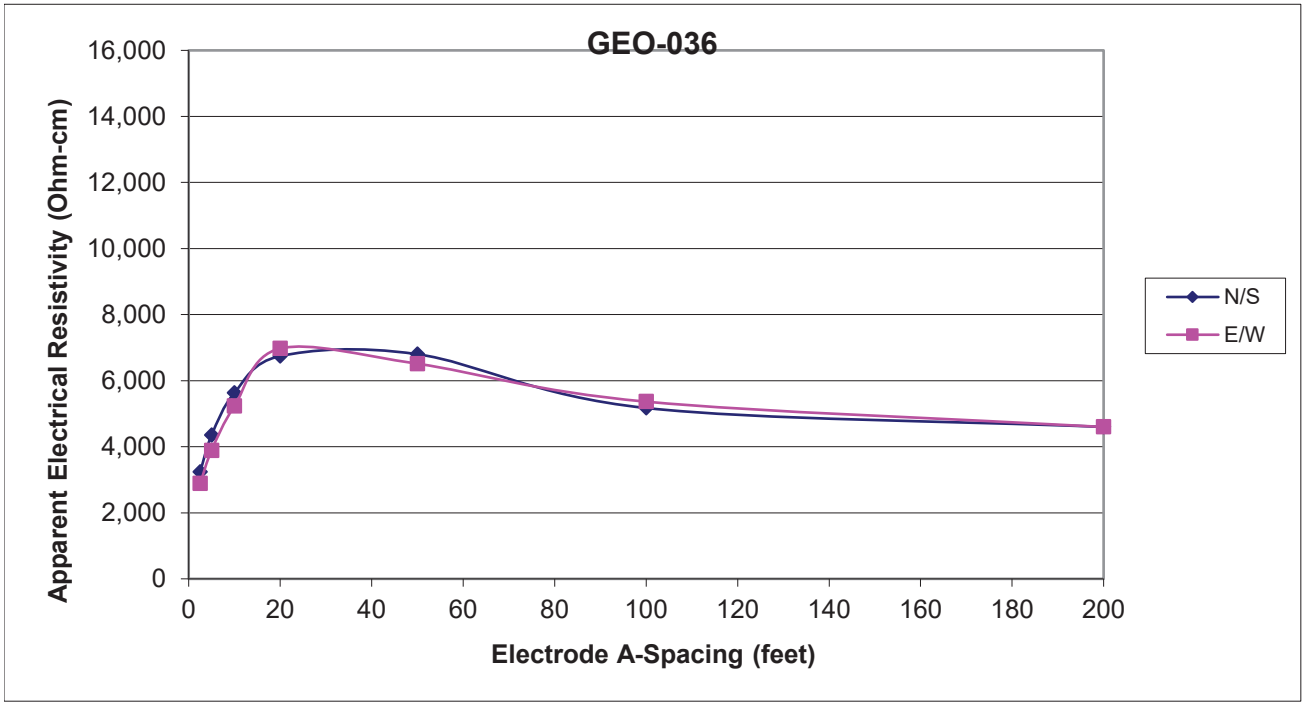
Test No. **20** **Date** **12/15/2020**

Observer **SF**

Location **GEO-036**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	6.76	15.71	106.19	3237.4
5	4.540	31.42	142.63	4348.4
10	2.940	62.83	184.73	5631.9
20	1.760	125.66	221.17	6742.9
50	0.710	314.16	223.05	6800.4
100	0.270	628.32	169.65	5172.1
200	0.120	1256.64	150.80	4597.5
E/W Orientation				
2.5	6.02	15.71	94.56	2883.0
5	4.060	31.42	127.55	3888.7
10	2.730	62.83	171.53	5229.6
20	1.820	125.66	228.71	6972.8
50	0.680	314.16	213.63	6513.1
100	0.280	628.32	175.93	5363.7
200	0.120	1256.64	150.80	4597.5

Cultural Features	None
Ground Cover	Untilled Corn Field, moist ground
Weather	Partly cloudy, 27F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

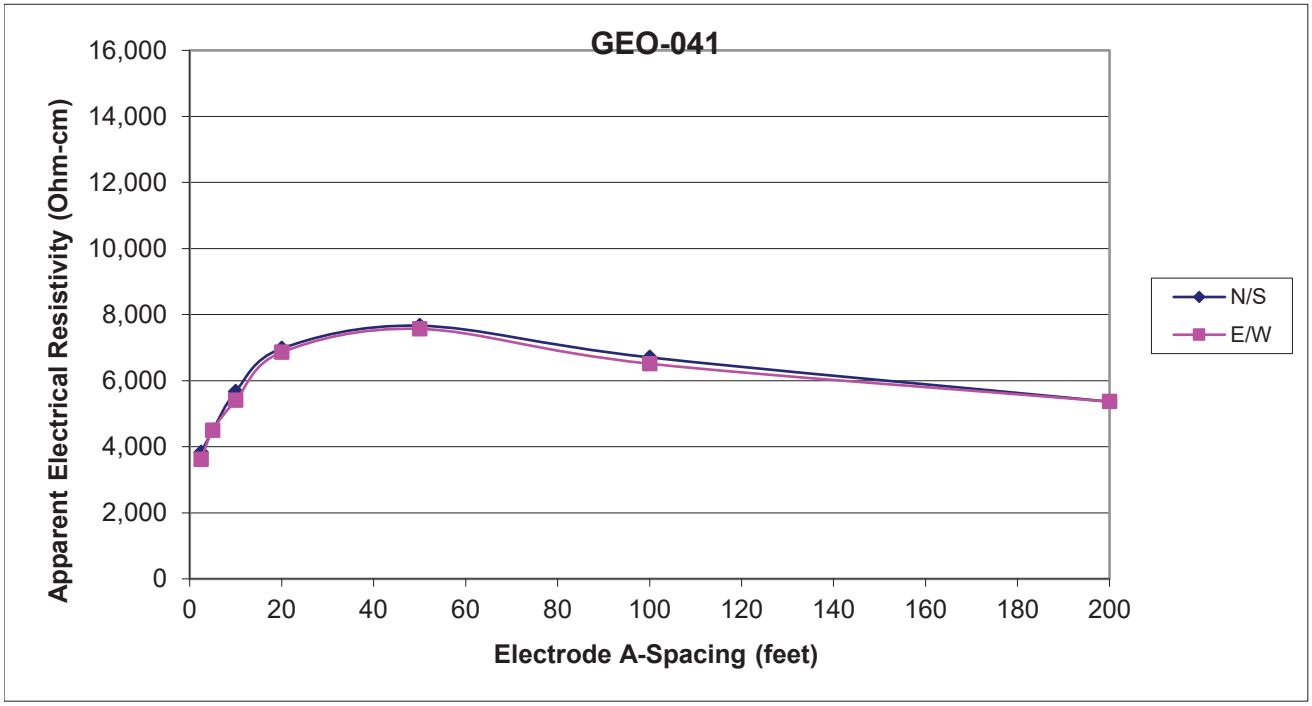
Test No. **19** **Date** **12/15/2020**

Observer **SF**

Location **GEO-041**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	8.00	15.71	125.66	3831.2
5	4.690	31.42	147.34	4492.1
10	2.960	62.83	185.98	5670.2
20	1.820	125.66	228.71	6972.8
50	0.800	314.16	251.33	7662.4
100	0.350	628.32	219.91	6704.6
200	0.140	1256.64	175.93	5363.7
E/W Orientation				
2.5	7.54	15.71	118.44	3610.9
5	4.690	31.42	147.34	4492.1
10	2.820	62.83	177.19	5402.0
20	1.790	125.66	224.94	6857.9
50	0.790	314.16	248.19	7566.7
100	0.340	628.32	213.63	6513.1
200	0.140	1256.64	175.93	5363.7

Cultural Features	None
Ground Cover	Untilled Bean Field, moist ground
Weather	Partly cloudy, 27F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

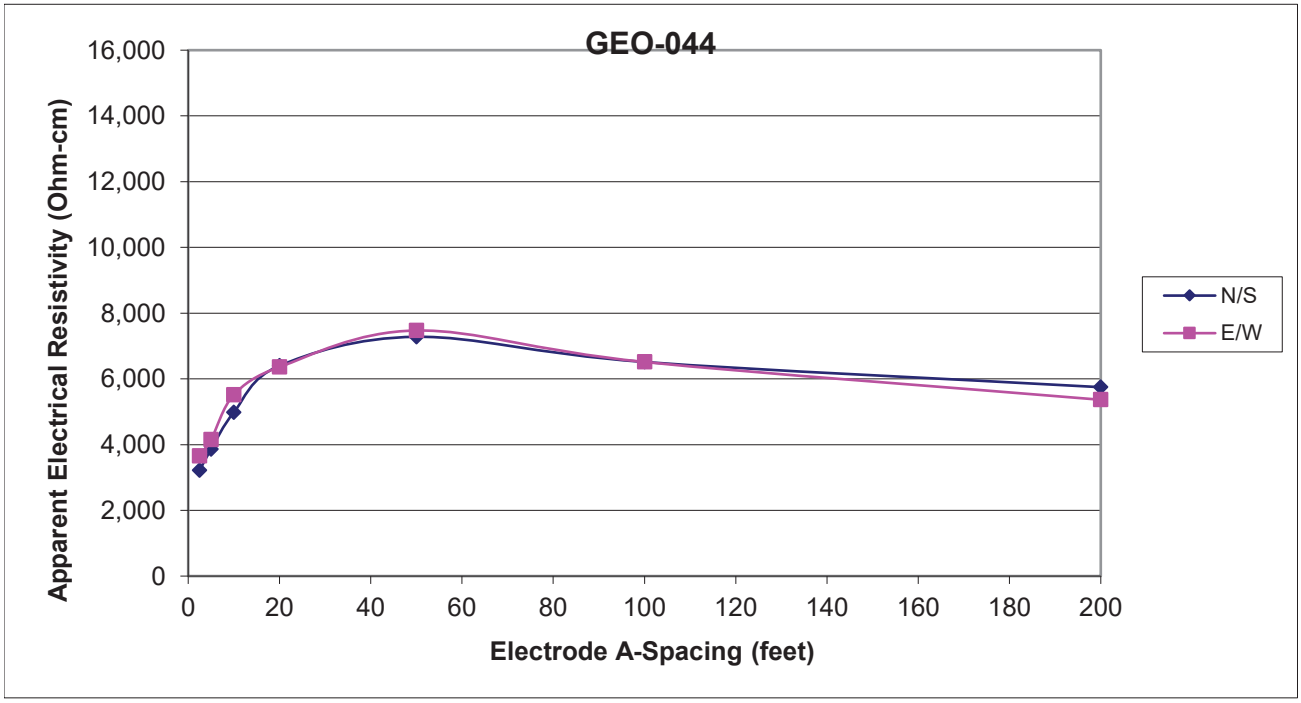
Test No. **16** **Date** **12/14/2020**

Observer **SF**

Location **GEO-044**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	6.71	15.71	105.40	3213.4
5	4.030	31.42	126.61	3860.0
10	2.600	62.83	163.36	4980.6
20	1.670	125.66	209.86	6398.1
50	0.760	314.16	238.76	7279.3
100	0.340	628.32	213.63	6513.1
200	0.150	1256.64	188.50	5746.8
E/W Orientation				
2.5	7.63	15.71	119.85	3654.0
5	4.330	31.42	136.03	4147.3
10	2.880	62.83	180.96	5517.0
20	1.660	125.66	208.60	6359.8
50	0.780	314.16	245.04	7470.9
100	0.340	628.32	213.63	6513.1
200	0.140	1256.64	175.93	5363.7

Cultural Features	None
Ground Cover	Untilled Bean Field, wet ground
Weather	Partly cloudy, 34F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

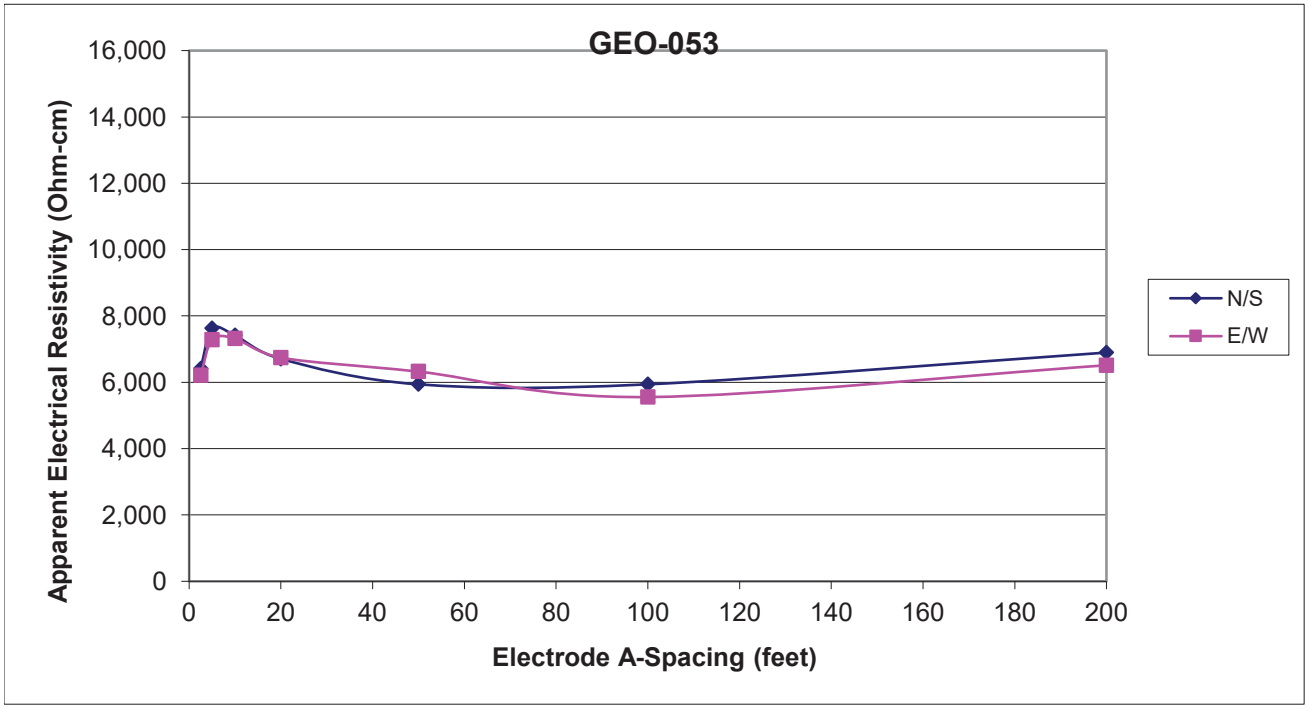
Test No. **6** **Date** **12/10/2020**

Observer **SF**

Location **GEO-053**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	13.4	15.71	210.49	6417.3
5	7.960	31.42	250.07	7624.1
10	3.870	62.83	243.16	7413.4
20	1.750	125.66	219.91	6704.6
50	0.620	314.16	194.78	5938.4
100	0.310	628.32	194.78	5938.4
200	0.180	1256.64	226.20	6896.2
E/W Orientation				
2.5	12.96	15.71	203.58	6206.6
5	7.600	31.42	238.76	7279.3
10	3.820	62.83	240.02	7317.6
20	1.760	125.66	221.17	6742.9
50	0.660	314.16	207.35	6321.5
100	0.290	628.32	182.21	5555.3
200	0.170	1256.64	213.63	6513.1

Cultural Features	None
Ground Cover	Untilled Bean Field, moist ground
Weather	Partly cloudy, 28F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

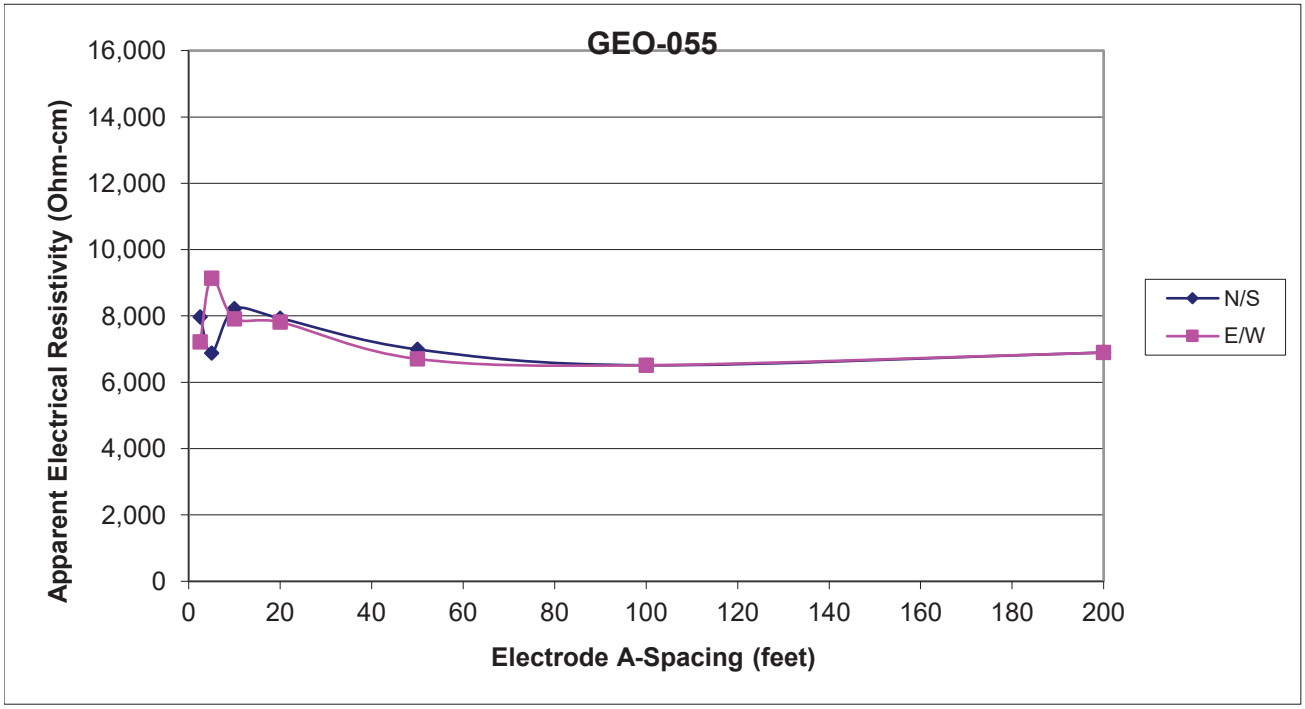
Test No. **2** **Date** **12/8/2020**

Observer **SF**

Location **GEO-055**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	16.64	15.71	261.38	7968.9
5	7.180	31.42	225.57	6877.0
10	4.290	62.83	269.55	8218.0
20	2.070	125.66	260.12	7930.6
50	0.730	314.16	229.34	6992.0
100	0.340	628.32	213.63	6513.1
200	0.180	1256.64	226.20	6896.2
E/W Orientation				
2.5	15.07	15.71	236.72	7217.1
5	9.540	31.42	299.71	9137.5
10	4.130	62.83	259.50	7911.5
20	2.040	125.66	256.35	7815.7
50	0.700	314.16	219.91	6704.6
100	0.340	628.32	213.63	6513.1
200	0.180	1256.64	226.20	6896.2

Cultural Features	None
Ground Cover	Untilled Wheat Field, moist ground
Weather	Partly cloudy, 43F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

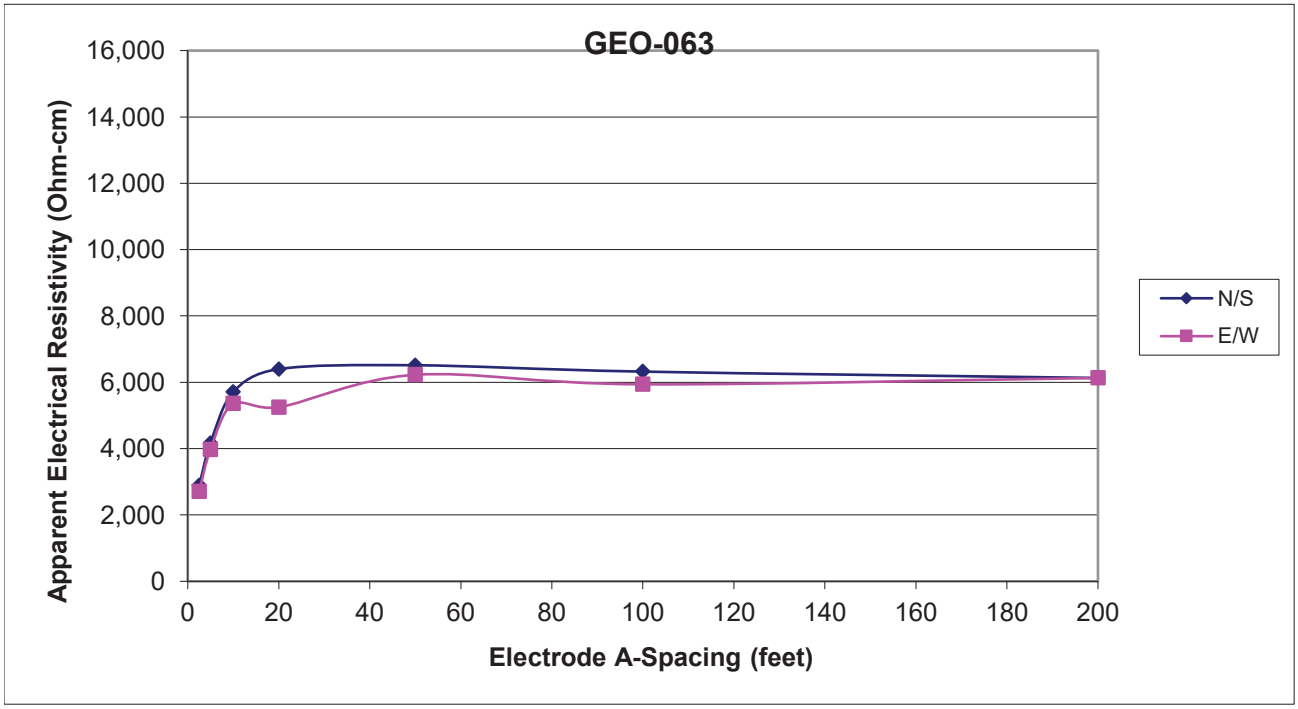
Test No. **13** **Date** **12/13/2020**

Observer **SF**

Location **GEO-063**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	6.03	15.71	94.72	2887.8
5	4.350	31.42	136.66	4166.5
10	2.980	62.83	187.24	5708.5
20	1.670	125.66	209.86	6398.1
50	0.680	314.16	213.63	6513.1
100	0.330	628.32	207.35	6321.5
200	0.160	1256.64	201.06	6130.0
E/W Orientation				
2.5	5.66	15.71	88.91	2710.6
5	4.150	31.42	130.38	3974.9
10	2.800	62.83	175.93	5363.7
20	1.370	125.66	172.16	5248.8
50	0.650	314.16	204.20	6225.7
100	0.310	628.32	194.78	5938.4
200	0.160	1256.64	201.06	6130.0

Cultural Features	None
Ground Cover	Untilled Bean Field, wet ground
Weather	Partly cloudy, 40F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

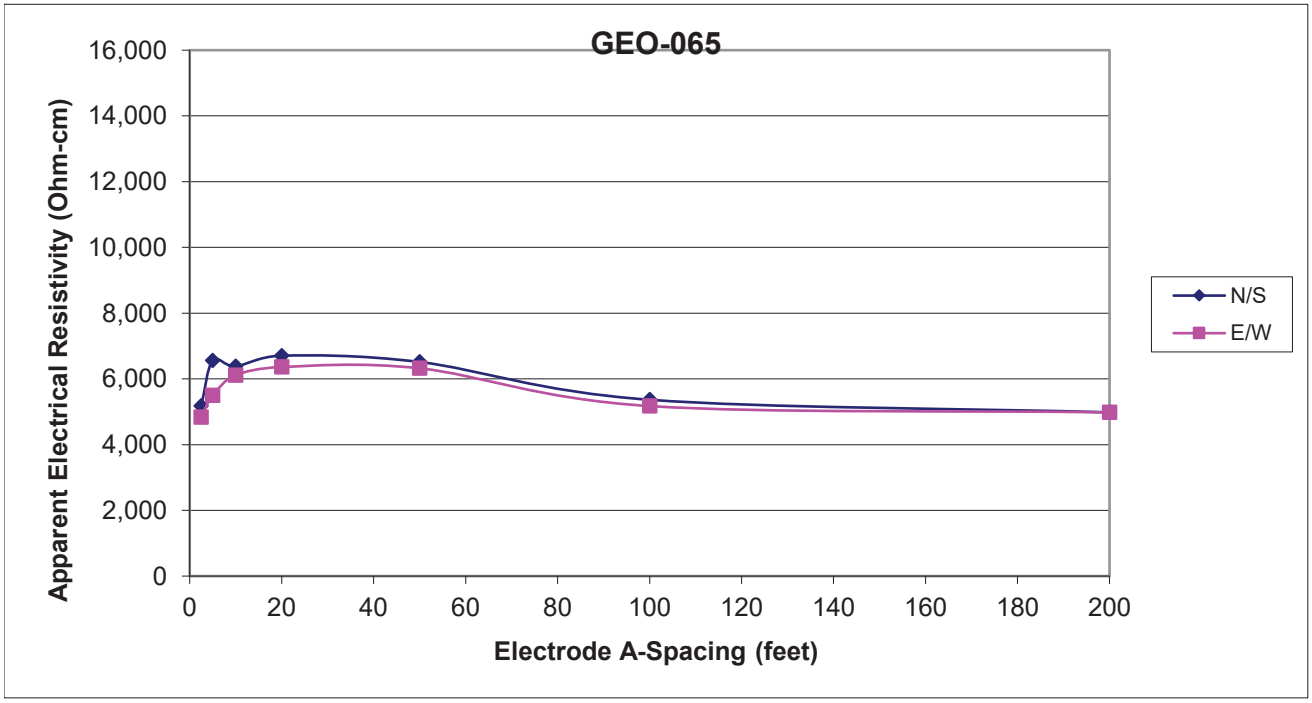
Test No. 7 **Date** 12/10/2020

Observer SF

Location GEO-065

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	10.81	15.71	169.80	5176.9
5	6.840	31.42	214.89	6551.4
10	3.330	62.83	209.23	6379.0
20	1.750	125.66	219.91	6704.6
50	0.680	314.16	213.63	6513.1
100	0.280	628.32	175.93	5363.7
200	0.130	1256.64	163.36	4980.6
E/W Orientation				
2.5	10.1	15.71	158.65	4836.9
5	5.740	31.42	180.33	5497.8
10	3.190	62.83	200.43	6110.8
20	1.660	125.66	208.60	6359.8
50	0.660	314.16	207.35	6321.5
100	0.270	628.32	169.65	5172.1
200	0.130	1256.64	163.36	4980.6

Cultural Features	None
Ground Cover	Untilled Bean Field, moist ground
Weather	Partly cloudy, 52F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

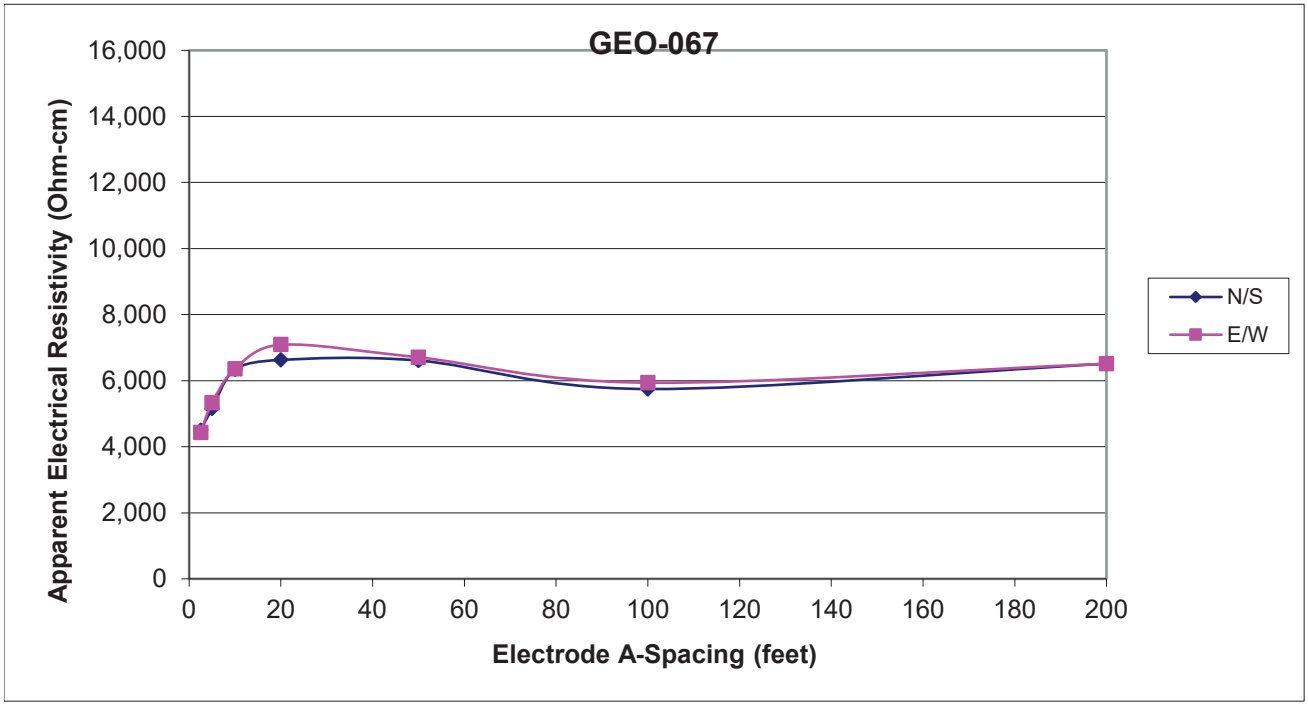
Test No. **5** **Date** **12/9/2020**

Observer **SF**

Location **GEO-067**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	9.39	15.71	147.50	4496.9
5	5.380	31.42	169.02	5153.0
10	3.310	62.83	207.97	6340.7
20	1.730	125.66	217.40	6628.0
50	0.690	314.16	216.77	6608.9
100	0.300	628.32	188.50	5746.8
200	0.170	1256.64	213.63	6513.1
E/W Orientation				
2.5	9.24	15.71	145.14	4425.1
5	5.560	31.42	174.67	5325.4
10	3.320	62.83	208.60	6359.8
20	1.850	125.66	232.48	7087.8
50	0.700	314.16	219.91	6704.6
100	0.310	628.32	194.78	5938.4
200	0.170	1256.64	213.63	6513.1

Cultural Features	None
Ground Cover	Untilled Bean Field, moist ground
Weather	Partly cloudy, 50F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

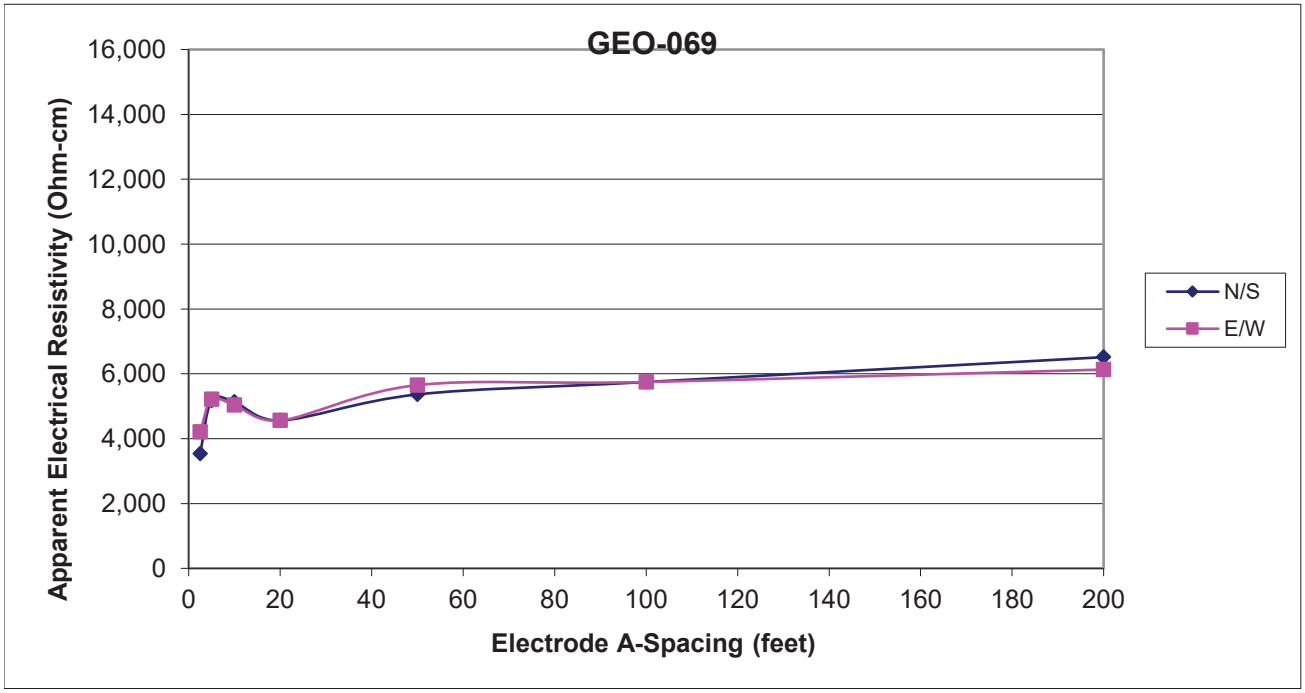
Test No. 1 **Date** 12/8/2020

Observer SF

Location GEO-069

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	7.38	15.71	115.93	3534.3
5	5.400	31.42	169.65	5172.1
10	2.680	62.83	168.39	5133.8
20	1.190	125.66	149.54	4559.2
50	0.560	314.16	175.93	5363.7
100	0.300	628.32	188.50	5746.8
200	0.170	1256.64	213.63	6513.1
E/W Orientation				
2.5	8.79	15.71	138.07	4209.6
5	5.440	31.42	170.90	5210.5
10	2.630	62.83	165.25	5038.1
20	1.190	125.66	149.54	4559.2
50	0.590	314.16	185.35	5651.0
100	0.300	628.32	188.50	5746.8
200	0.160	1256.64	201.06	6130.0

Cultural Features	None
Ground Cover	Untilled Wheat Field, moist ground
Weather	Partly cloudy, 43F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

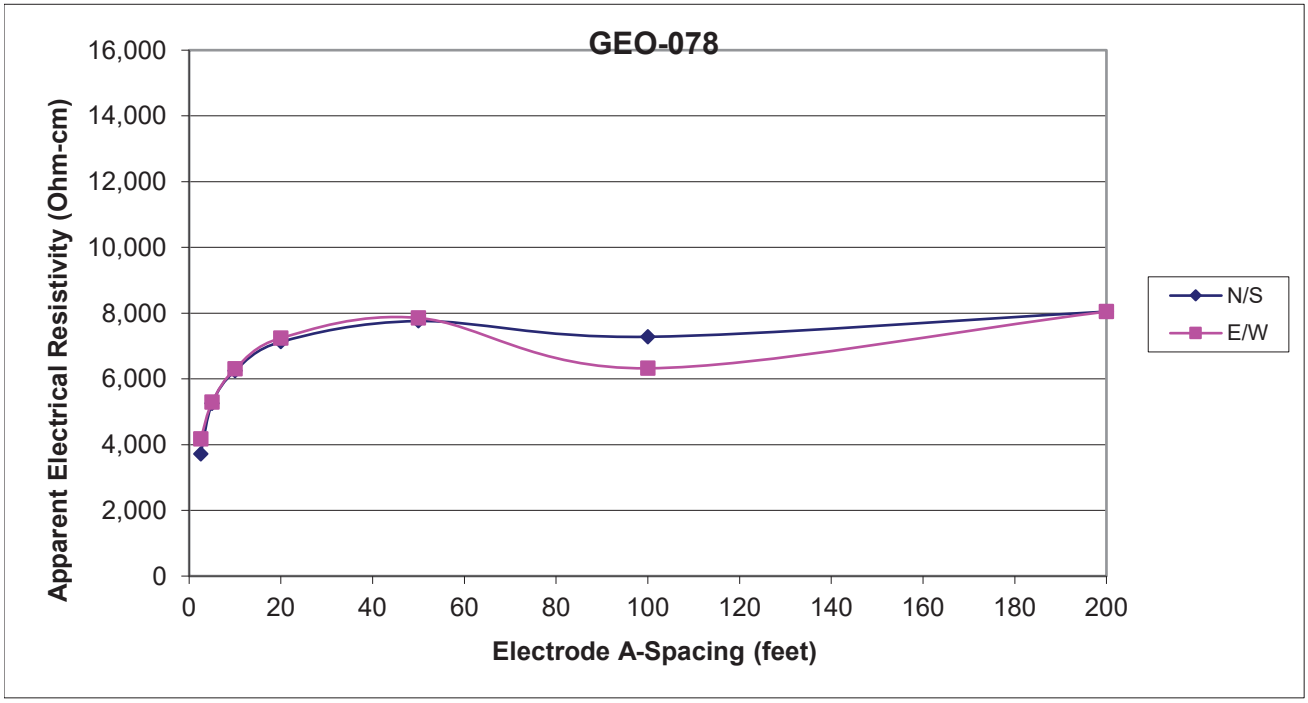
Test No. 9 **Date** 12/11/2020

Observer SF

Location GEO-078

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	7.76	15.71	121.89	3716.3
5	5.480	31.42	172.16	5248.8
10	3.260	62.83	204.83	6244.9
20	1.860	125.66	233.74	7126.1
50	0.810	314.16	254.47	7758.2
100	0.380	628.32	238.76	7279.3
200	0.210	1256.64	263.89	8045.6
E/W Orientation				
2.5	8.7	15.71	136.66	4166.5
5	5.520	31.42	173.42	5287.1
10	3.290	62.83	206.72	6302.4
20	1.890	125.66	237.50	7241.0
50	0.820	314.16	257.61	7854.0
100	0.330	628.32	207.35	6321.5
200	0.210	1256.64	263.89	8045.6

Cultural Features	None
Ground Cover	Untilled Corn Field, moist ground
Weather	Partly cloudy, 55F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

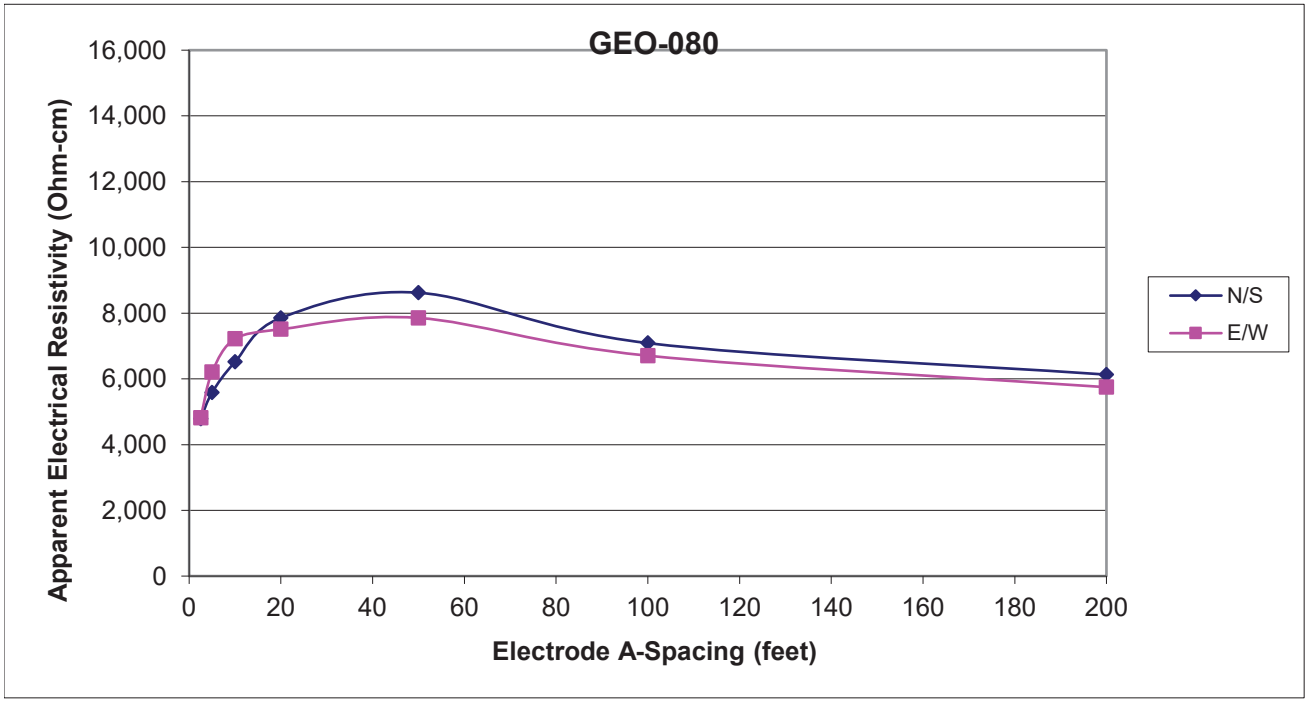
Test No. 8 **Date** 12/10/2020

Observer SF

Location GEO-080

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	9.99	15.71	156.92	4784.2
5	5.830	31.42	183.16	5584.0
10	3.400	62.83	213.63	6513.1
20	2.050	125.66	257.61	7854.0
50	0.900	314.16	282.74	8620.2
100	0.370	628.32	232.48	7087.8
200	0.160	1256.64	201.06	6130.0
E/W Orientation				
2.5	10.06	15.71	158.02	4817.8
5	6.480	31.42	203.58	6206.6
10	3.770	62.83	236.88	7221.8
20	1.960	125.66	246.30	7509.2
50	0.820	314.16	257.61	7854.0
100	0.350	628.32	219.91	6704.6
200	0.150	1256.64	188.50	5746.8

Cultural Features	None
Ground Cover	Tilled Corn Field and Grass, moist ground
Weather	Partly cloudy, 55F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

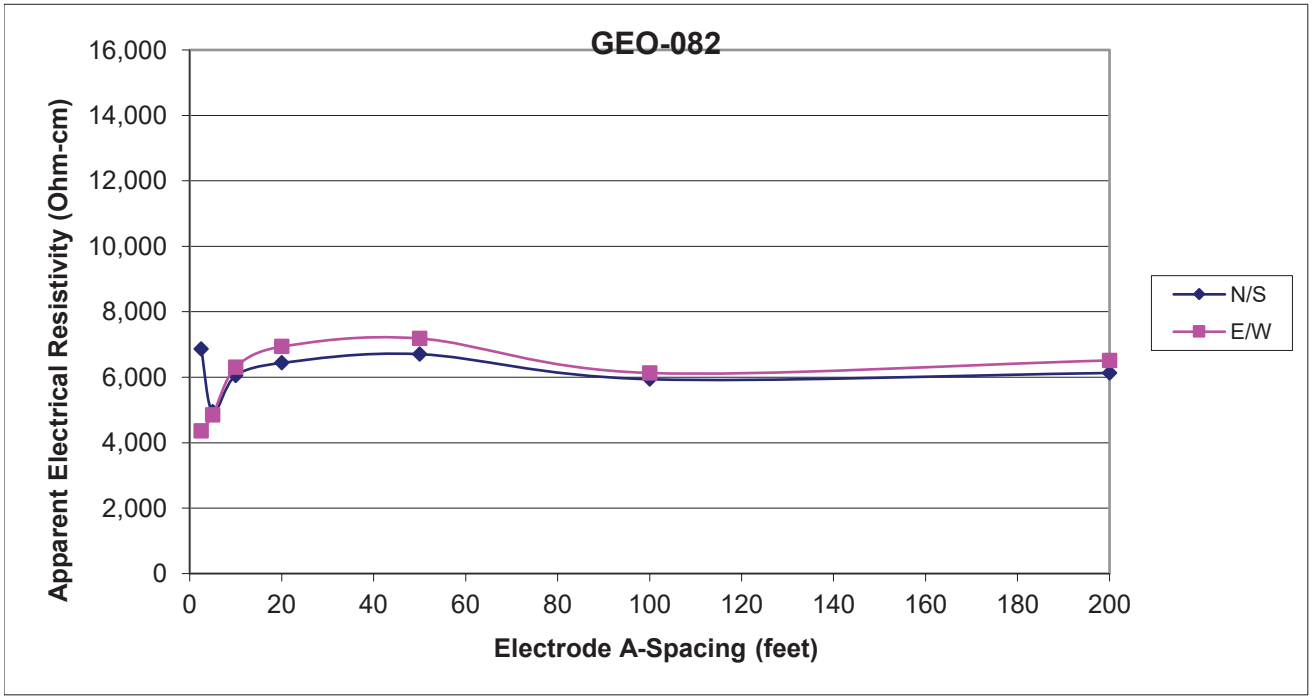
Test No. 4 **Date** 12/9/2020

Observer SF

Location GEO-082

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	14.32	15.71	224.94	6857.9
5	5.160	31.42	162.11	4942.3
10	3.160	62.83	198.55	6053.3
20	1.680	125.66	211.12	6436.4
50	0.700	314.16	219.91	6704.6
100	0.310	628.32	194.78	5938.4
200	0.160	1256.64	201.06	6130.0
E/W Orientation				
2.5	9.09	15.71	142.79	4353.2
5	5.060	31.42	158.96	4846.5
10	3.290	62.83	206.72	6302.4
20	1.810	125.66	227.45	6934.5
50	0.750	314.16	235.62	7183.5
100	0.320	628.32	201.06	6130.0
200	0.170	1256.64	213.63	6513.1

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 50F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

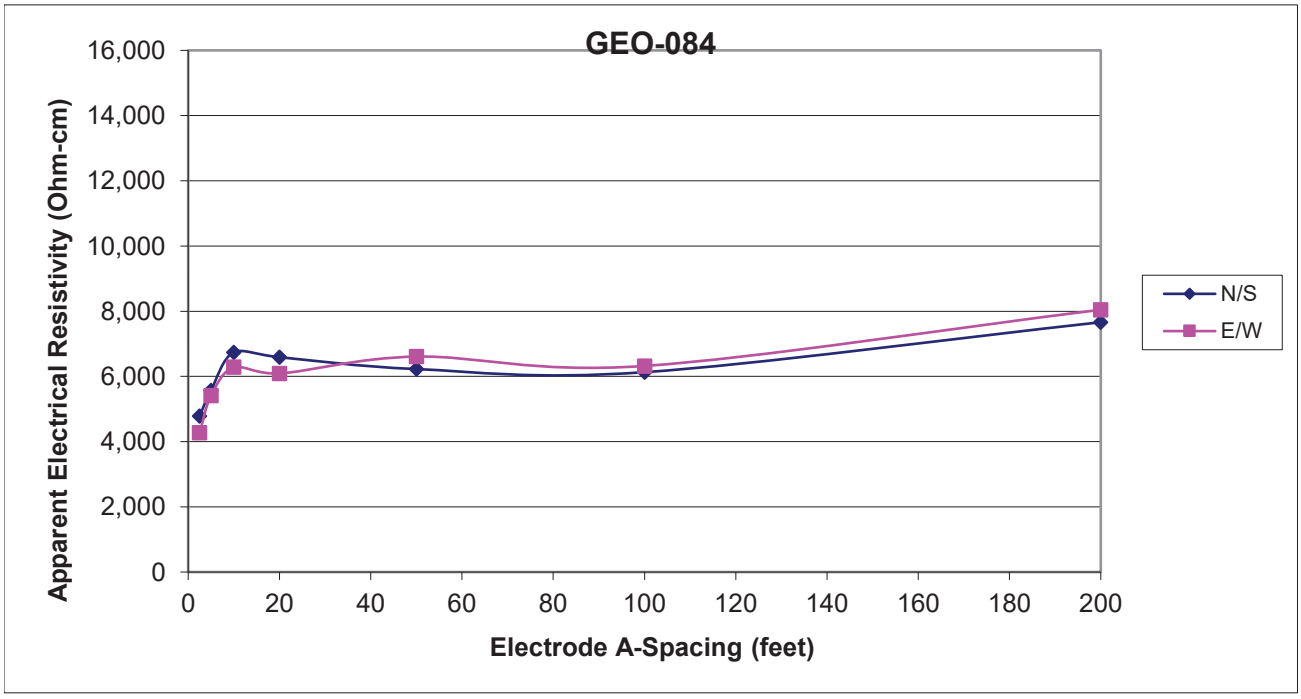
Test No. 3 **Date** 12/9/2020

Observer SF

Location GEO-084

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	10	15.71	157.08	4789.0
5	5.820	31.42	182.84	5574.4
10	3.520	62.83	221.17	6742.9
20	1.720	125.66	216.14	6589.7
50	0.650	314.16	204.20	6225.7
100	0.320	628.32	201.06	6130.0
200	0.200	1256.64	251.33	7662.4
E/W Orientation				
2.5	8.93	15.71	140.27	4276.6
5	5.650	31.42	177.50	5411.6
10	3.280	62.83	206.09	6283.2
20	1.590	125.66	199.81	6091.6
50	0.690	314.16	216.77	6608.9
100	0.330	628.32	207.35	6321.5
200	0.210	1256.64	263.89	8045.6

Cultural Features	None
Ground Cover	Untilled Bean Field, moist ground
Weather	Partly cloudy, 39F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

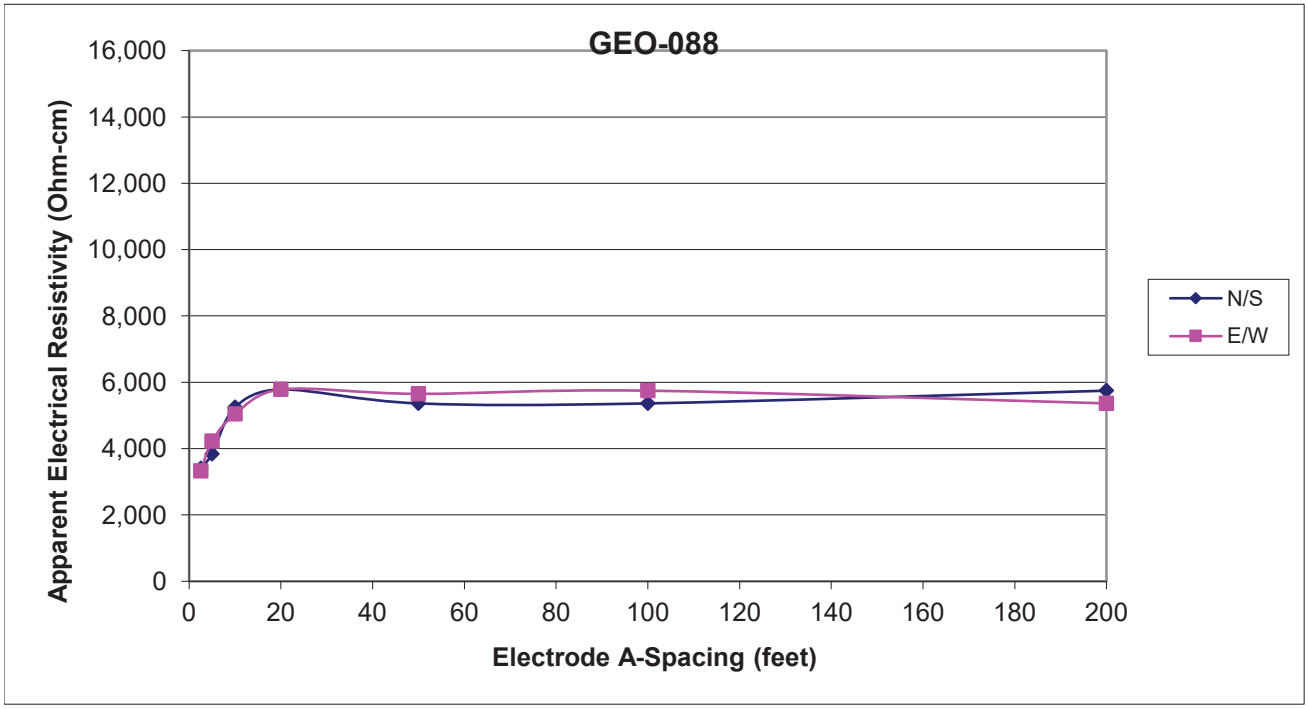
Test No. **15** **Date** **12/13/2020**

Observer **SF**

Location **GEO-088**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	7.1	15.71	111.53	3400.2
5	4.010	31.42	125.98	3840.8
10	2.740	62.83	172.16	5248.8
20	1.510	125.66	189.75	5785.1
50	0.560	314.16	175.93	5363.7
100	0.280	628.32	175.93	5363.7
200	0.150	1256.64	188.50	5746.8
E/W Orientation				
2.5	6.94	15.71	109.01	3323.6
5	4.410	31.42	138.54	4223.9
10	2.630	62.83	165.25	5038.1
20	1.510	125.66	189.75	5785.1
50	0.590	314.16	185.35	5651.0
100	0.300	628.32	188.50	5746.8
200	0.140	1256.64	175.93	5363.7

Cultural Features	None
Ground Cover	Untilled Bean Field, wet ground
Weather	Partly cloudy, 40F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

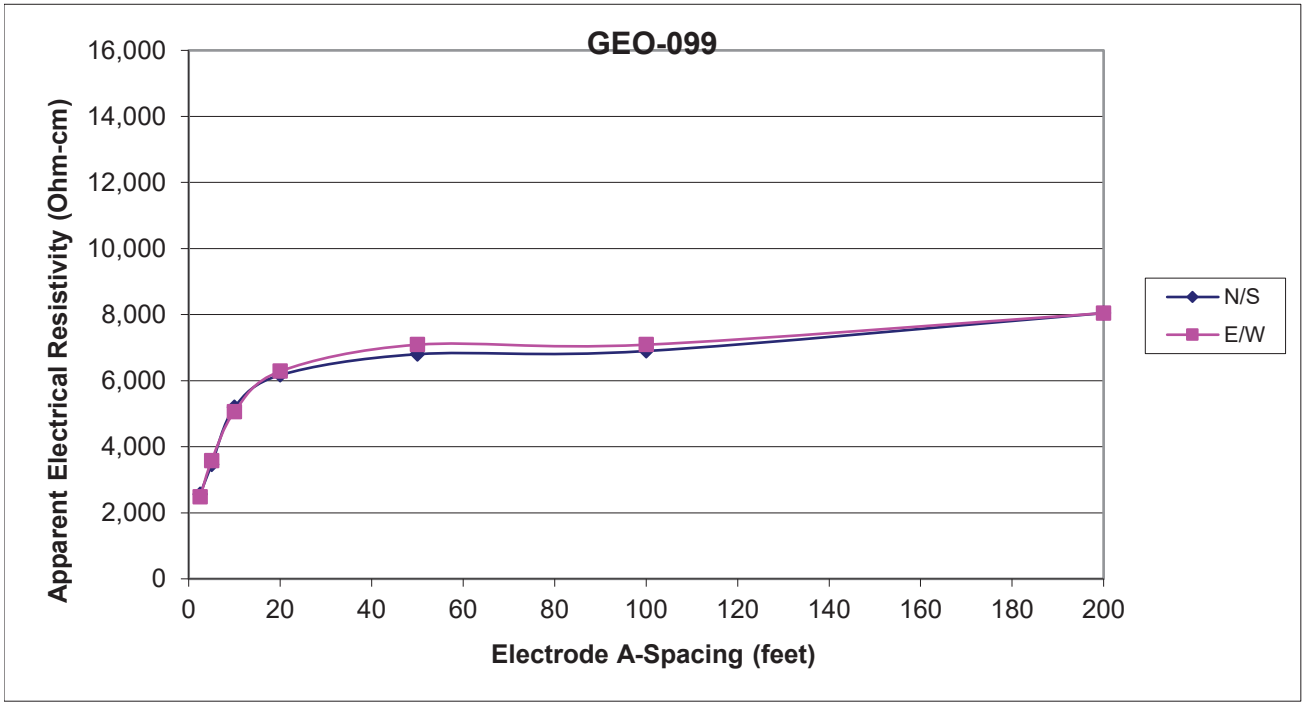
Test No. **18** **Date** **12/14/2020**

Observer **SF**

Location **GEO-099**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	5.35	15.71	84.04	2562.1
5	3.610	31.42	113.41	3457.7
10	2.710	62.83	170.27	5191.3
20	1.610	125.66	202.32	6168.3
50	0.710	314.16	223.05	6800.4
100	0.360	628.32	226.20	6896.2
200	0.210	1256.64	263.89	8045.6
E/W Orientation				
2.5	5.17	15.71	81.21	2475.9
5	3.730	31.42	117.18	3572.6
10	2.640	62.83	165.88	5057.2
20	1.640	125.66	206.09	6283.2
50	0.740	314.16	232.48	7087.8
100	0.370	628.32	232.48	7087.8
200	0.210	1256.64	263.89	8045.6

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 30F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

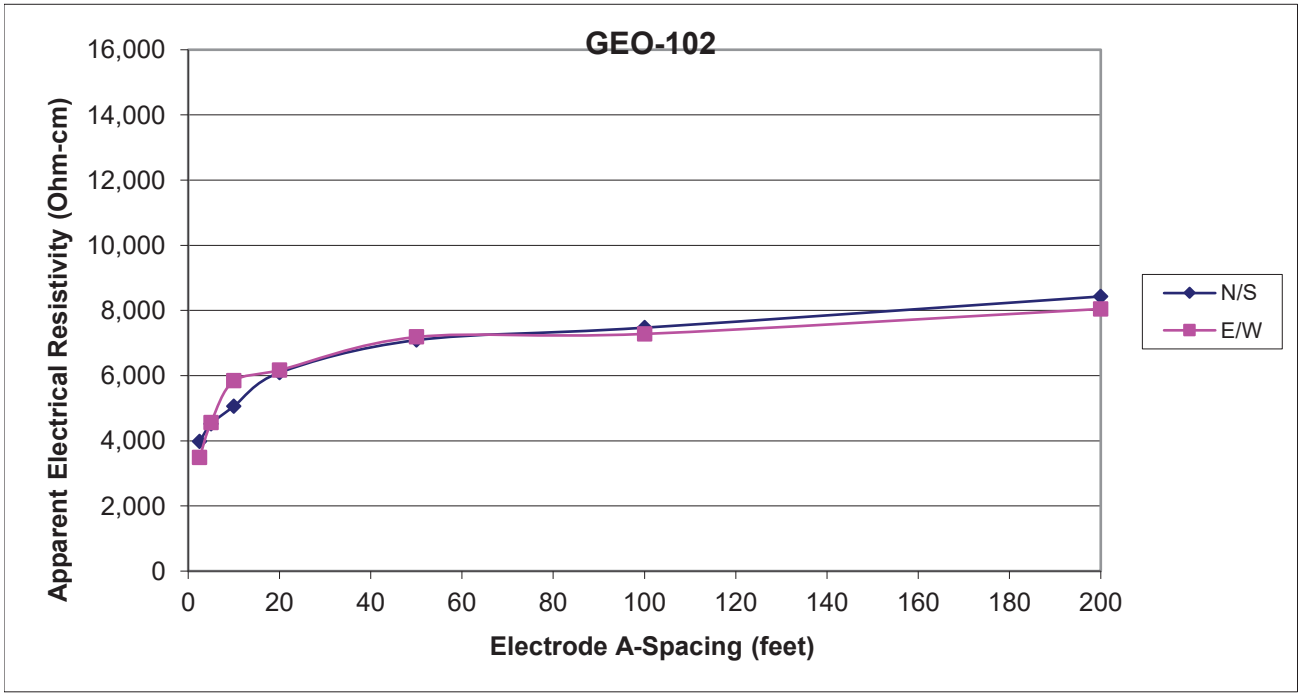
Test No. **10** **Date** **12/11/2020**

Observer **SF**

Location **GEO-102**

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	8.31	15.71	130.53	3979.7
5	4.710	31.42	147.97	4511.3
10	2.640	62.83	165.88	5057.2
20	1.590	125.66	199.81	6091.6
50	0.740	314.16	232.48	7087.8
100	0.390	628.32	245.04	7470.9
200	0.220	1256.64	276.46	8428.7
E/W Orientation				
2.5	7.28	15.71	114.35	3486.4
5	4.760	31.42	149.54	4559.2
10	3.050	62.83	191.64	5842.6
20	1.610	125.66	202.32	6168.3
50	0.750	314.16	235.62	7183.5
100	0.380	628.32	238.76	7279.3
200	0.210	1256.64	263.89	8045.6

Cultural Features	None
Ground Cover	Tilled Bean Field, moist ground
Weather	Partly cloudy, 50F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

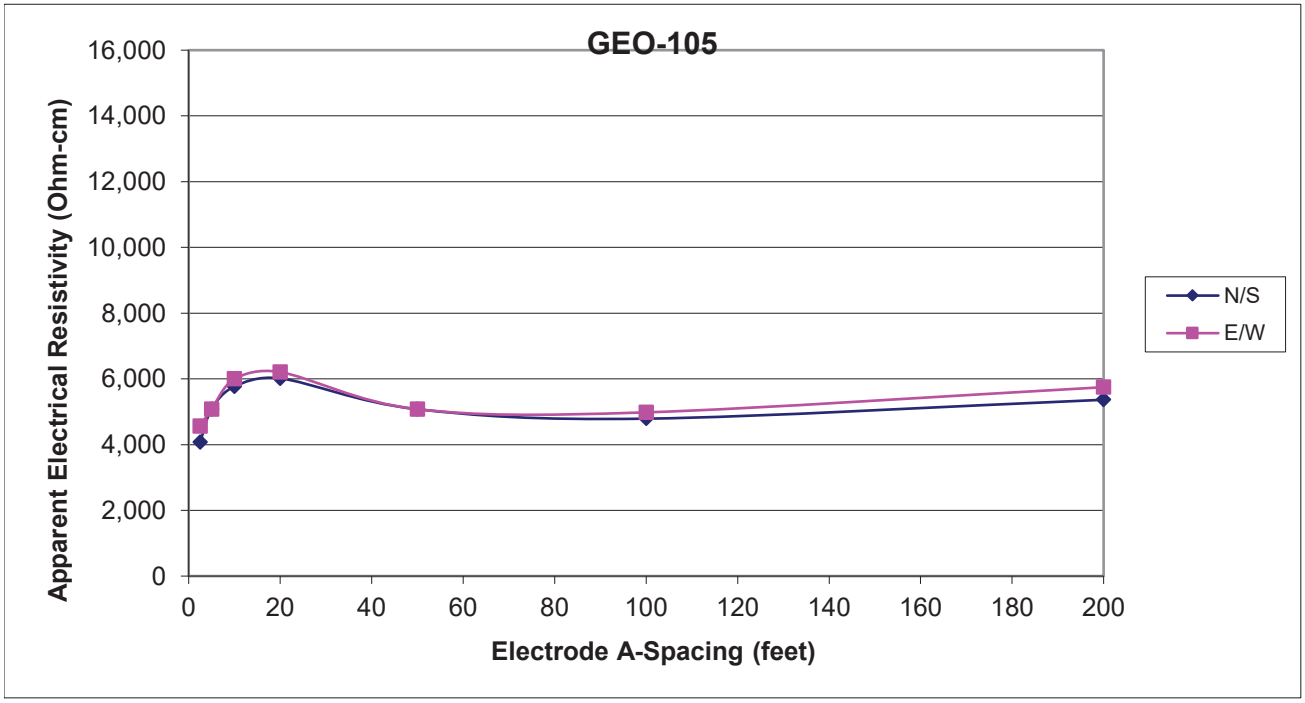
Test No. **12** **Date** **12/11/2020**

Observer **SF**

Location **GEO-105**

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	8.51	15.71	133.68	4075.5
5	5.300	31.42	166.50	5076.4
10	3.010	62.83	189.12	5766.0
20	1.570	125.66	197.29	6015.0
50	0.530	314.16	166.50	5076.4
100	0.250	628.32	157.08	4789.0
200	0.140	1256.64	175.93	5363.7
E/W Orientation				
2.5	9.53	15.71	149.70	4563.9
5	5.300	31.42	166.50	5076.4
10	3.130	62.83	196.66	5995.9
20	1.620	125.66	203.58	6206.6
50	0.530	314.16	166.50	5076.4
100	0.260	628.32	163.36	4980.6
200	0.150	1256.64	188.50	5746.8

Cultural Features	None
Ground Cover	Untilled Corn Field, moist ground
Weather	Partly cloudy, 63F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

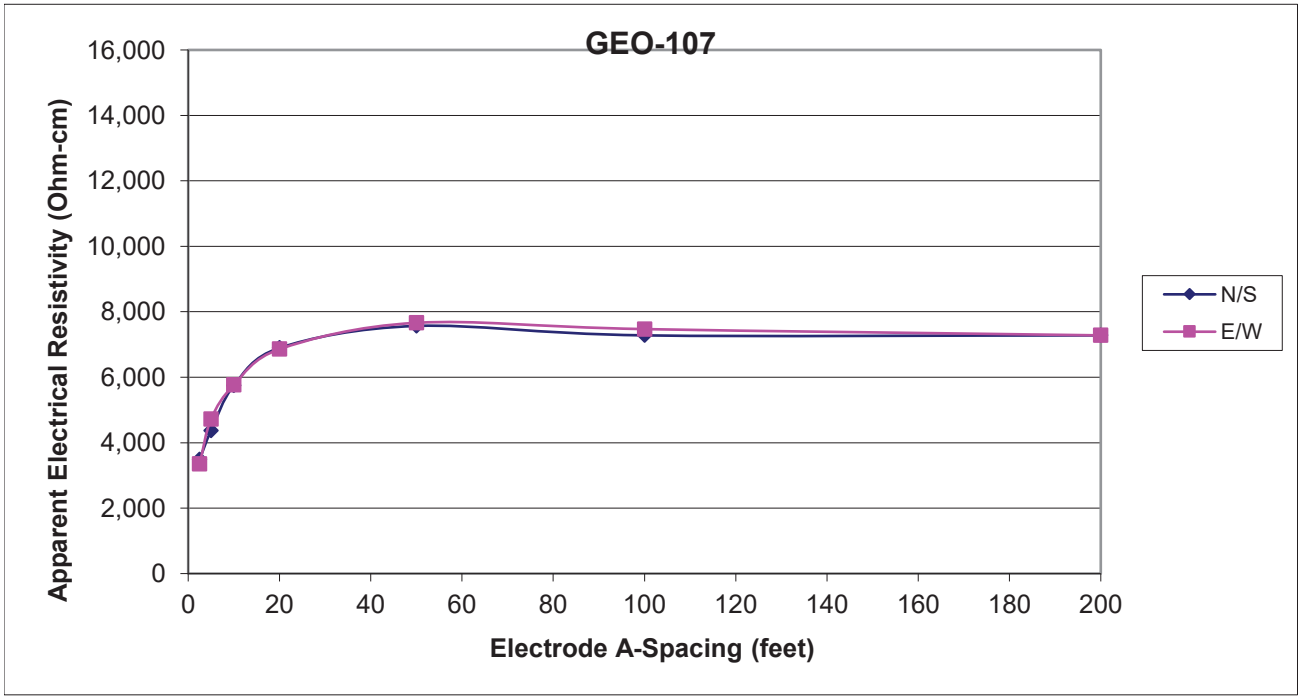
Test No. **11** **Date** **12/11/2020**

Observer **SF**

Location **GEO-107**

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	7.29	15.71	114.51	3491.2
5	4.560	31.42	143.26	4367.6
10	3.000	62.83	188.50	5746.8
20	1.800	125.66	226.20	6896.2
50	0.790	314.16	248.19	7566.7
100	0.380	628.32	238.76	7279.3
200	0.190	1256.64	238.76	7279.3
E/W Orientation				
2.5	7.00	15.71	109.96	3352.3
5	4.930	31.42	154.88	4722.0
10	3.010	62.83	189.12	5766.0
20	1.790	125.66	224.94	6857.9
50	0.800	314.16	251.33	7662.4
100	0.390	628.32	245.04	7470.9
200	0.190	1256.64	238.76	7279.3

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 50F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

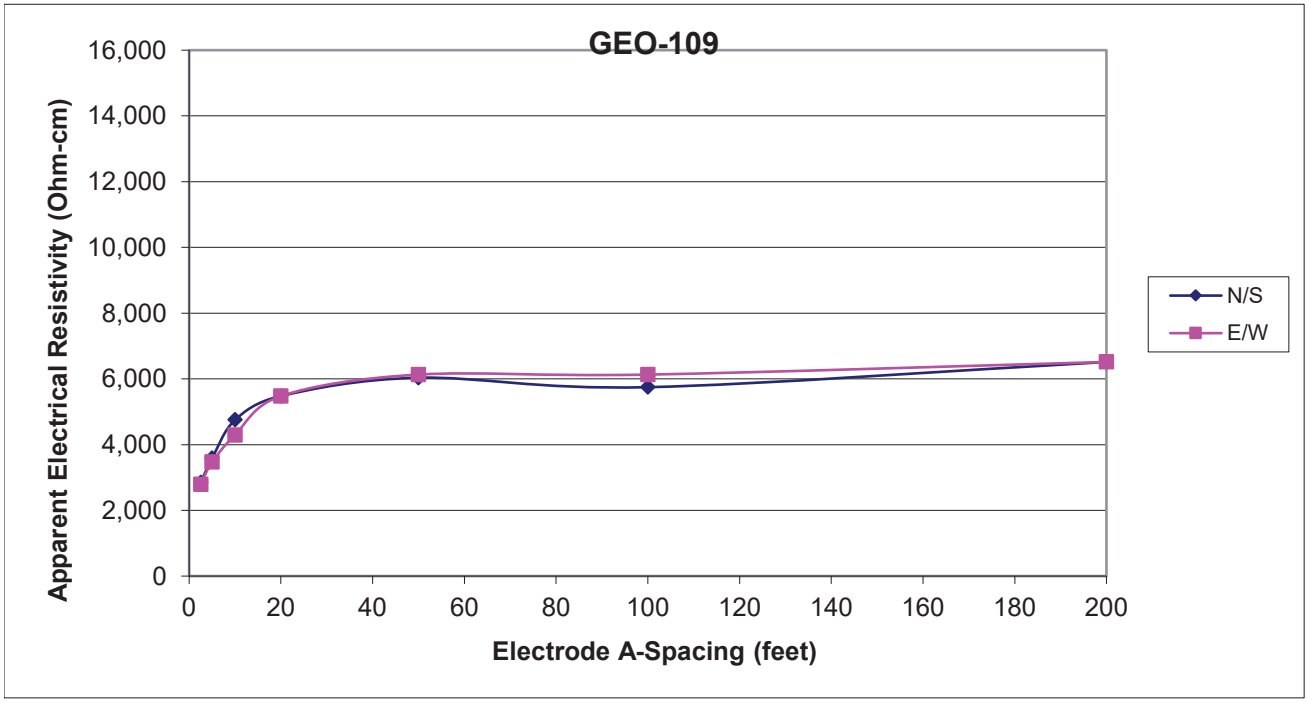
Test No. **14** **Date** **12/13/2020**

Observer **SF**

Location **GEO-109**

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	5.94	15.71	93.31	2844.7
5	3.740	31.42	117.50	3582.2
10	2.480	62.83	155.82	4750.7
20	1.430	125.66	179.70	5478.6
50	0.630	314.16	197.92	6034.2
100	0.300	628.32	188.50	5746.8
200	0.170	1256.64	213.63	6513.1
E/W Orientation				
2.5	5.82	15.71	91.42	2787.2
5	3.620	31.42	113.73	3467.3
10	2.240	62.83	140.74	4291.0
20	1.430	125.66	179.70	5478.6
50	0.640	314.16	201.06	6130.0
100	0.320	628.32	201.06	6130.0
200	0.170	1256.64	213.63	6513.1

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 40F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

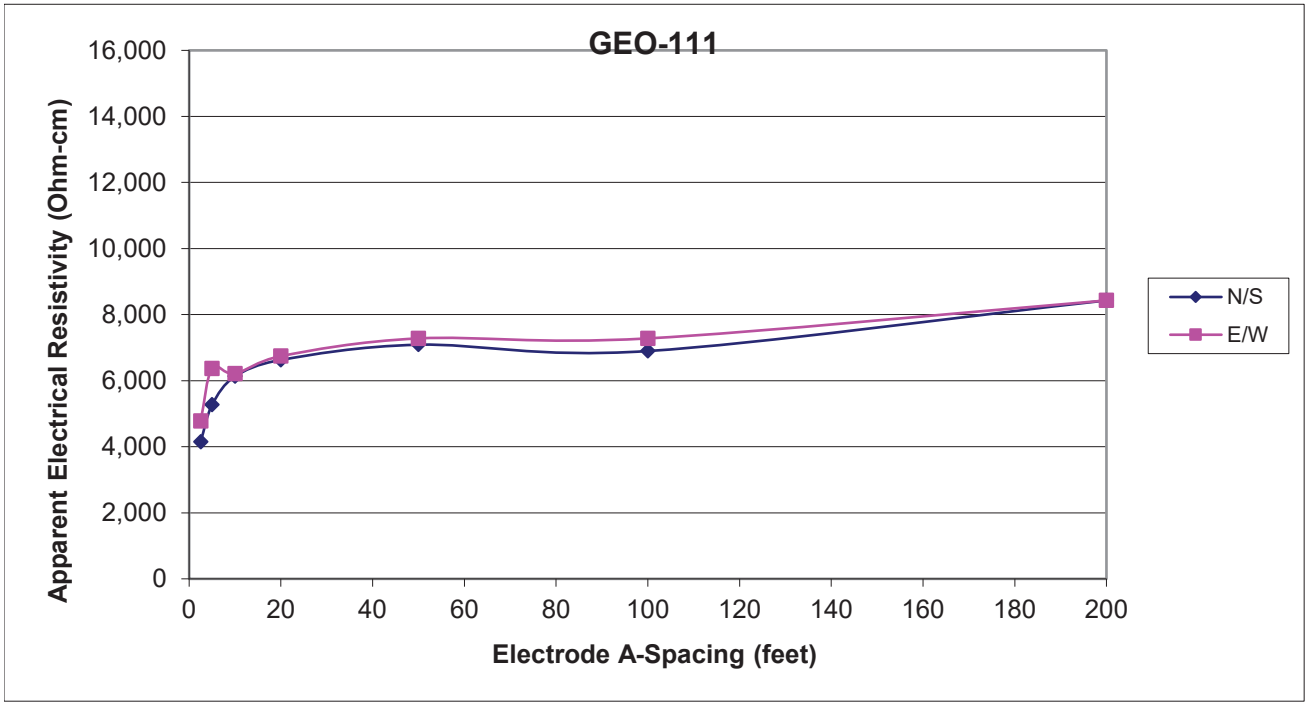
Test No. **17** **Date** **12/14/2020**

Observer **SF**

Location **GEO-111**

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	8.66	15.71	136.03	4147.3
5	5.500	31.42	172.79	5267.9
10	3.200	62.83	201.06	6130.0
20	1.730	125.66	217.40	6628.0
50	0.740	314.16	232.48	7087.8
100	0.360	628.32	226.20	6896.2
200	0.220	1256.64	276.46	8428.7
E/W Orientation				
2.5	9.97	15.71	156.61	4774.7
5	6.650	31.42	208.92	6369.4
10	3.240	62.83	203.58	6206.6
20	1.760	125.66	221.17	6742.9
50	0.760	314.16	238.76	7279.3
100	0.380	628.32	238.76	7279.3
200	0.220	1256.64	276.46	8428.7

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 36F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

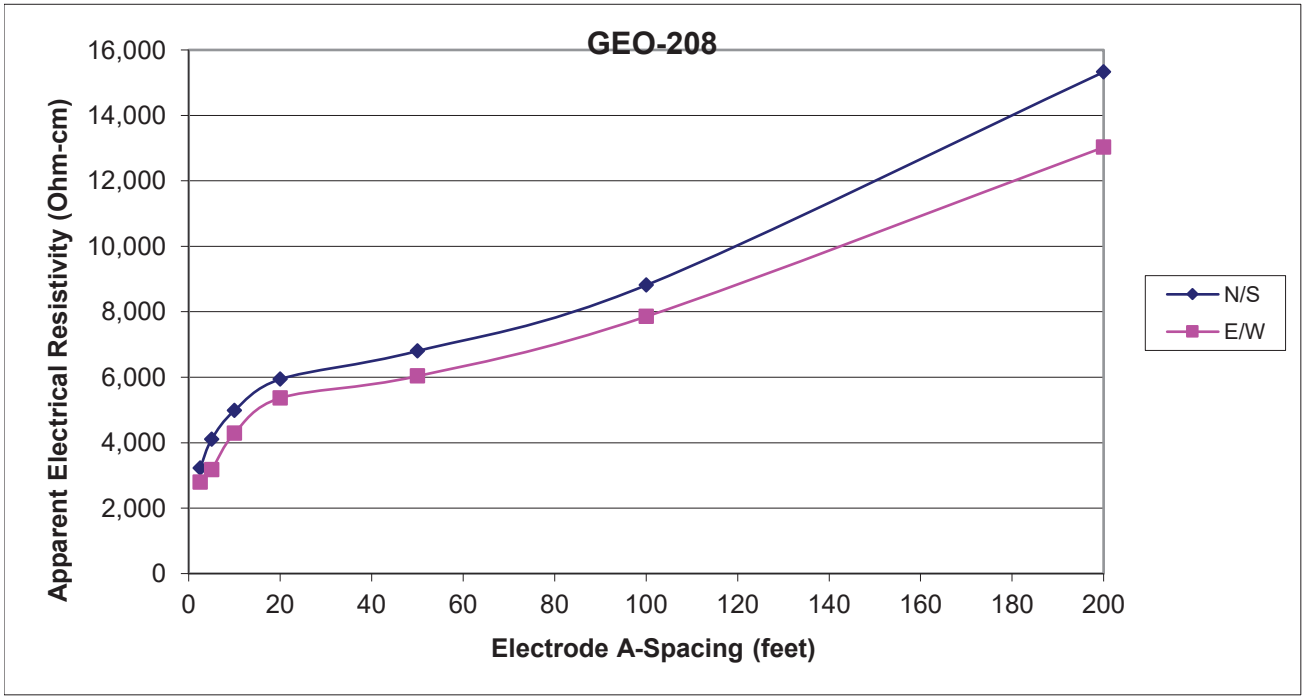
Test No. **38** **Date** **12/23/2020**

Observer **SF**

Location **GEO-208**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	6.73	15.71	105.71	3223.0
5	4.280	31.42	134.46	4099.4
10	2.600	62.83	163.36	4980.6
20	1.550	125.66	194.78	5938.4
50	0.710	314.16	223.05	6800.4
100	0.460	628.32	289.03	8811.8
200	0.400	1256.64	502.66	15324.9
E/W Orientation				
2.5	5.84	15.71	91.73	2796.8
5	3.310	31.42	103.99	3170.3
10	2.240	62.83	140.74	4291.0
20	1.400	125.66	175.93	5363.7
50	0.630	314.16	197.92	6034.2
100	0.410	628.32	257.61	7854.0
200	0.340	1256.64	427.26	13026.1

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 46F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

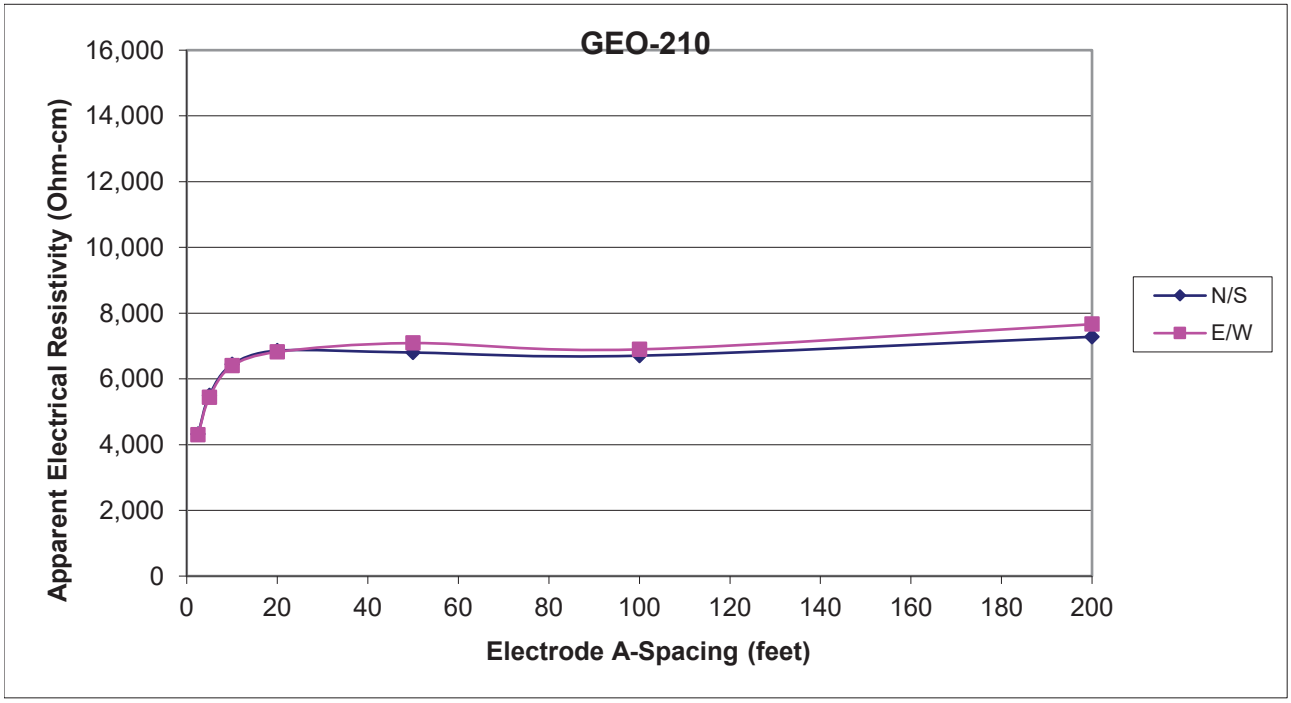
Test No. **32** **Date** **12/20/2020**

Observer **SF**

Location **GEO-210**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	9.02	15.71	141.69	4319.7
5	5.740	31.42	180.33	5497.8
10	3.360	62.83	211.12	6436.4
20	1.790	125.66	224.94	6857.9
50	0.710	314.16	223.05	6800.4
100	0.350	628.32	219.91	6704.6
200	0.190	1256.64	238.76	7279.3
E/W Orientation				
2.5	8.98	15.71	141.06	4300.5
5	5.680	31.42	178.44	5440.3
10	3.340	62.83	209.86	6398.1
20	1.780	125.66	223.68	6819.6
50	0.740	314.16	232.48	7087.8
100	0.360	628.32	226.20	6896.2
200	0.200	1256.64	251.33	7662.4

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 36F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

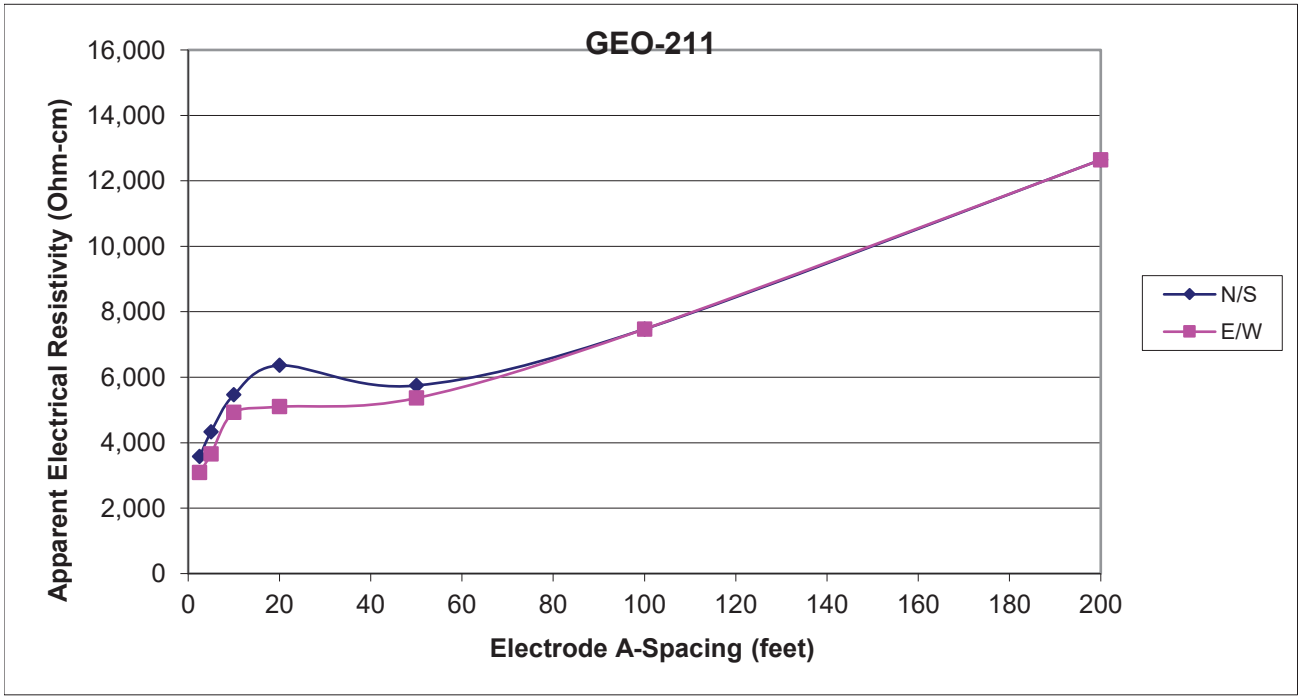
Test No. **33** **Date** **12/20/2020**

Observer **SF**

Location **GEO-211**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	7.46	15.71	117.18	3572.6
5	4.520	31.42	142.00	4329.3
10	2.850	62.83	179.07	5459.5
20	1.660	125.66	208.60	6359.8
50	0.600	314.16	188.50	5746.8
100	0.390	628.32	245.04	7470.9
200	0.330	1256.64	414.69	12643.0
E/W Orientation				
2.5	6.45	15.71	101.32	3088.9
5	3.810	31.42	119.69	3649.2
10	2.570	62.83	161.48	4923.1
20	1.330	125.66	167.13	5095.5
50	0.560	314.16	175.93	5363.7
100	0.390	628.32	245.04	7470.9
200	0.330	1256.64	414.69	12643.0

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 36F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

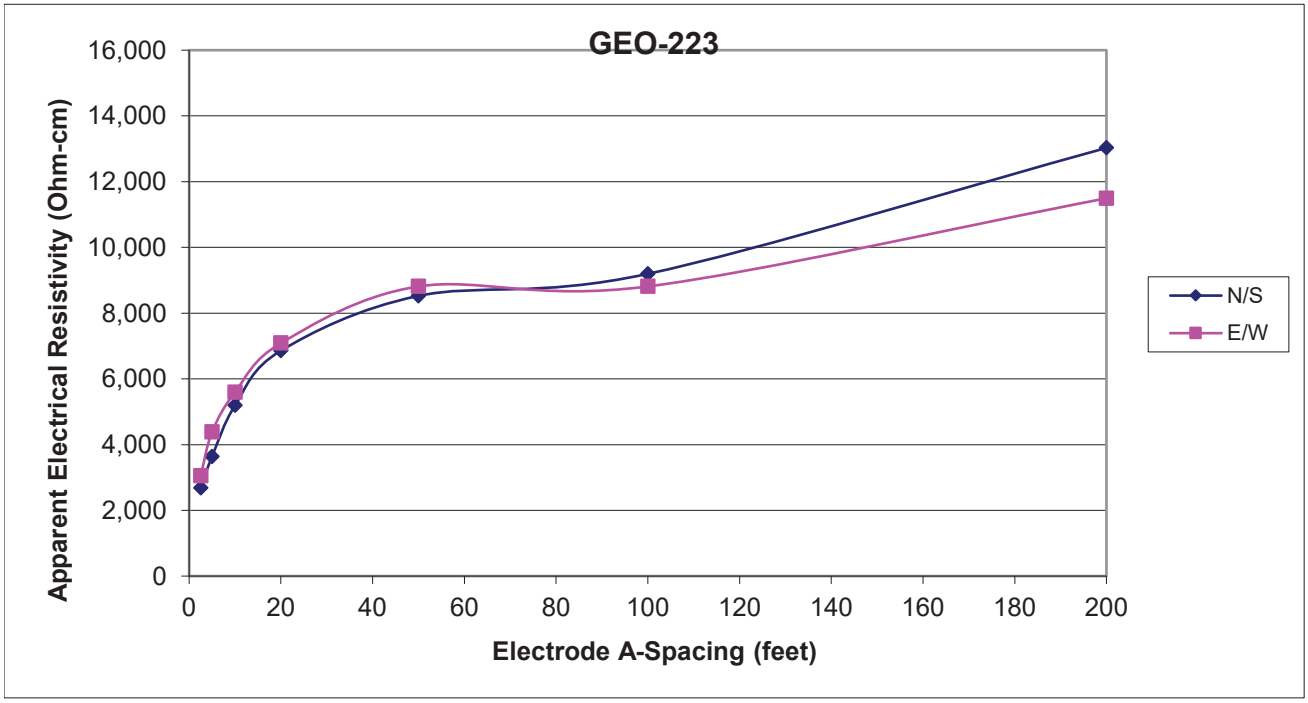
Test No. **36** **Date** **12/22/2020**

Observer **SF**

Location **GEO-223**

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	5.59	15.71	87.81	2677.1
5	3.800	31.42	119.38	3639.7
10	2.710	62.83	170.27	5191.3
20	1.790	125.66	224.94	6857.9
50	0.890	314.16	279.60	8524.5
100	0.480	628.32	301.59	9194.9
200	0.340	1256.64	427.26	13026.1
E/W Orientation				
2.5	6.37	15.71	100.06	3050.6
5	4.580	31.42	143.89	4386.7
10	2.920	62.83	183.47	5593.6
20	1.850	125.66	232.48	7087.8
50	0.920	314.16	289.03	8811.8
100	0.460	628.32	289.03	8811.8
200	0.300	1256.64	376.99	11493.7

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 46F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

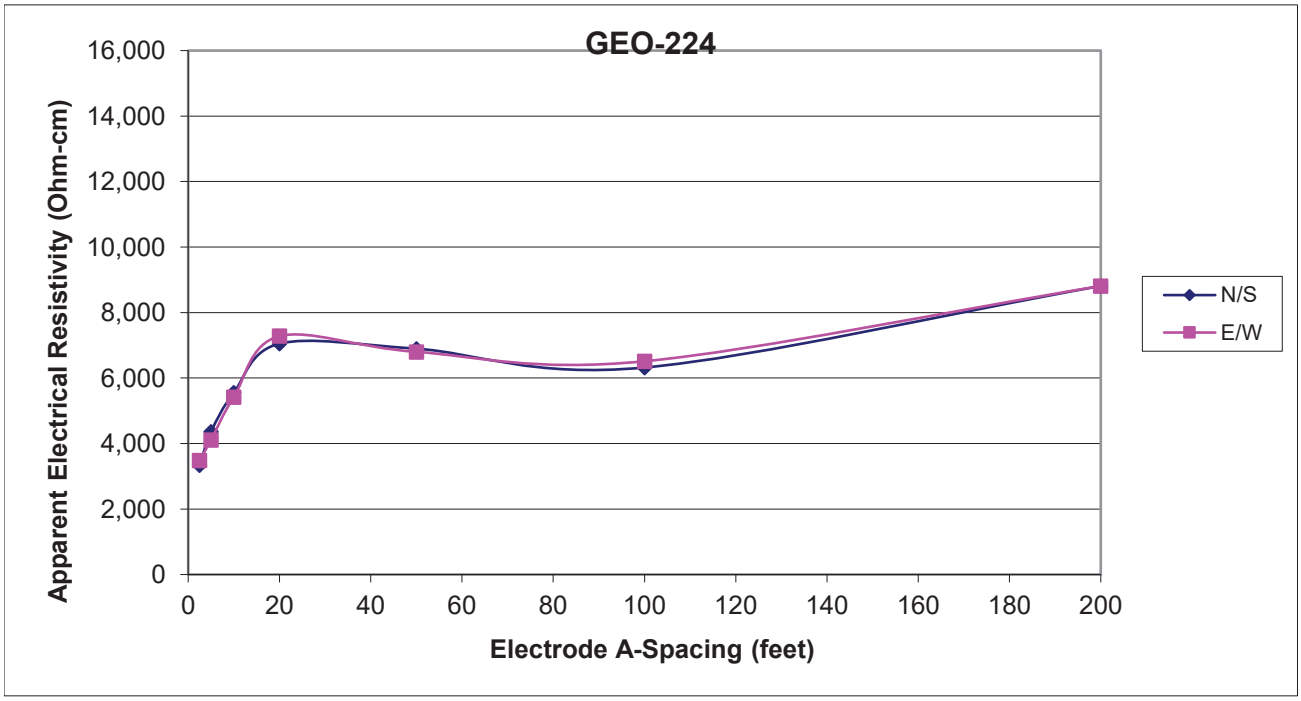
Test No. **37** **Date** **12/22/2020**

Observer **SF**

Location **GEO-224**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	6.96	15.71	109.33	3333.2
5	4.550	31.42	142.94	4358.0
10	2.900	62.83	182.21	5555.3
20	1.840	125.66	231.22	7049.4
50	0.720	314.16	226.20	6896.2
100	0.330	628.32	207.35	6321.5
200	0.230	1256.64	289.03	8811.8
E/W Orientation				
2.5	7.28	15.71	114.35	3486.4
5	4.290	31.42	134.77	4109.0
10	2.830	62.83	177.81	5421.2
20	1.900	125.66	238.76	7279.3
50	0.710	314.16	223.05	6800.4
100	0.340	628.32	213.63	6513.1
200	0.230	1256.64	289.03	8811.8

Cultural Features	None
Ground Cover	Tilled Corn Field, wet ground
Weather	Partly cloudy, 46F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

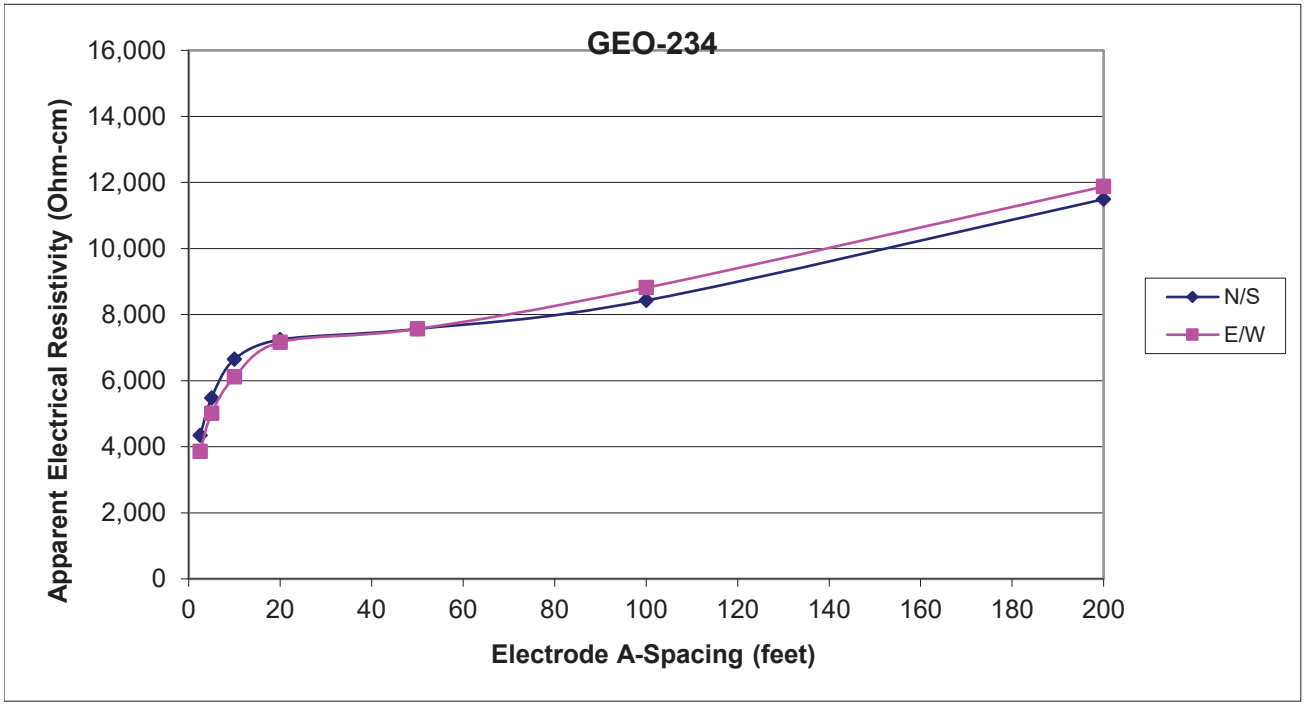
Test No. **27** **Date** **12/18/2020**

Observer **SF**

Location **GEO-234**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	9.06	15.71	142.31	4338.9
5	5.720	31.42	179.70	5478.6
10	3.470	62.83	218.03	6647.2
20	1.890	125.66	237.50	7241.0
50	0.790	314.16	248.19	7566.7
100	0.440	628.32	276.46	8428.7
200	0.300	1256.64	376.99	11493.7
E/W Orientation				
2.5	8.05	15.71	126.45	3855.2
5	5.230	31.42	164.31	5009.3
10	3.190	62.83	200.43	6110.8
20	1.870	125.66	234.99	7164.4
50	0.790	314.16	248.19	7566.7
100	0.460	628.32	289.03	8811.8
200	0.310	1256.64	389.56	11876.8

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 25F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

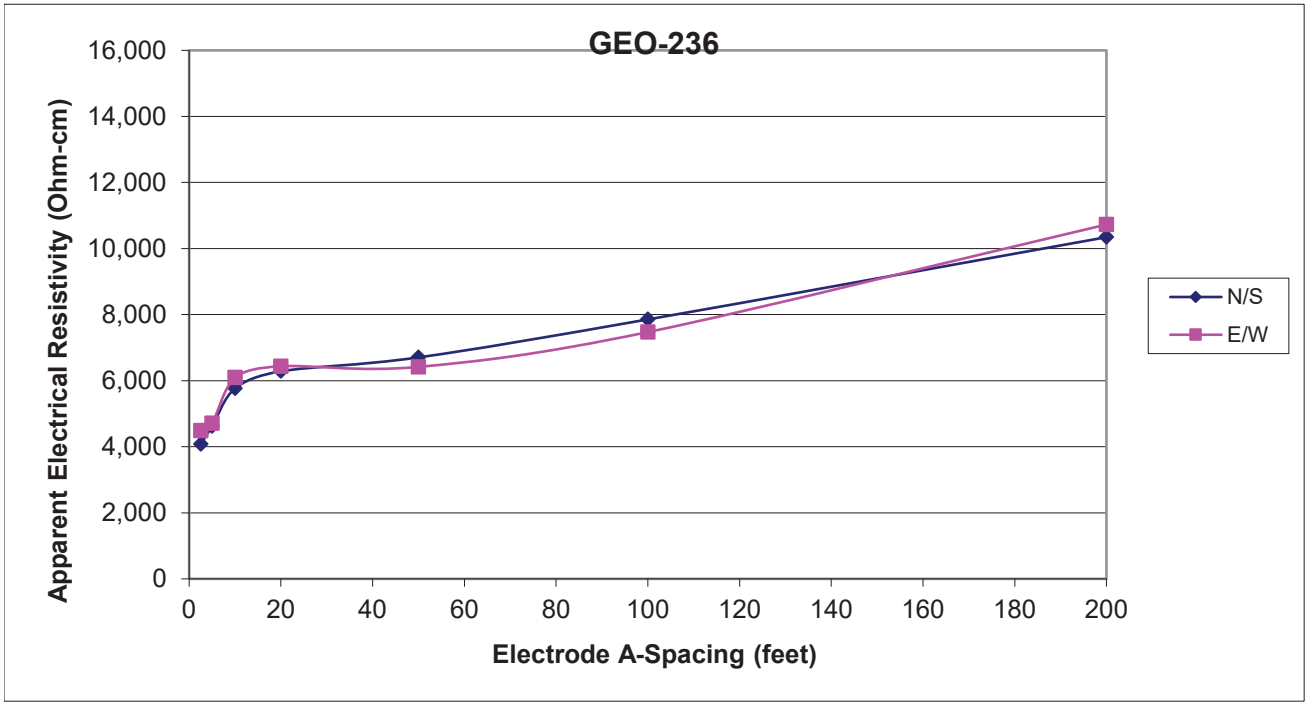
Test No. **24** **Date** **12/17/2020**

Observer **SF**

Location **GEO-236**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	8.52	15.71	133.83	4080.2
5	4.820	31.42	151.43	4616.6
10	3.010	62.83	189.12	5766.0
20	1.640	125.66	206.09	6283.2
50	0.700	314.16	219.91	6704.6
100	0.410	628.32	257.61	7854.0
200	0.270	1256.64	339.29	10344.3
E/W Orientation				
2.5	9.36	15.71	147.03	4482.5
5	4.920	31.42	154.57	4712.4
10	3.180	62.83	199.81	6091.6
20	1.680	125.66	211.12	6436.4
50	0.670	314.16	210.49	6417.3
100	0.390	628.32	245.04	7470.9
200	0.280	1256.64	351.86	10727.4

Cultural Features	None
Ground Cover	Tilled Bean Field, moist ground
Weather	Partly cloudy, 28F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

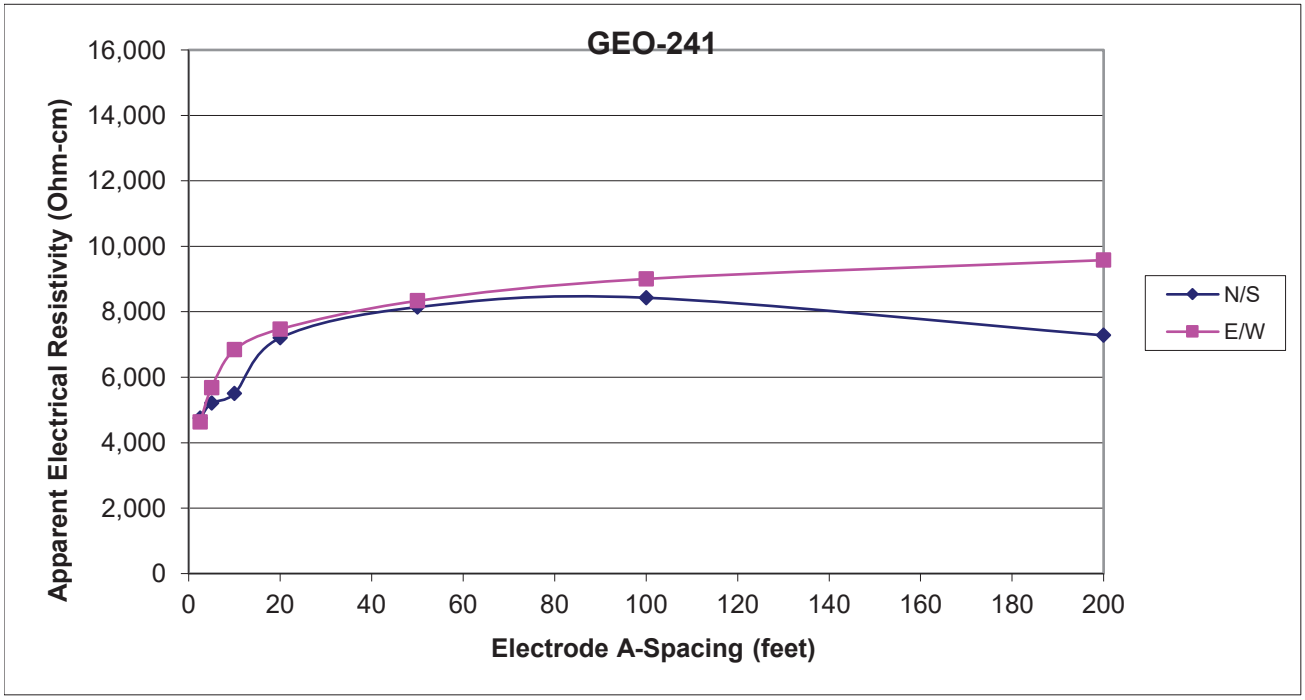
Test No. **23** **Date** **12/16/2020**

Observer **SF**

Location **GEO-241**

Electrode Spacing "a"	Resistance V/I	Geometric Factor $K=2\pi a$	Apparent Resistivity $\rho_a=K(V/I)$	Apparent Resistivity $\rho_a=K(V/I)$
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	9.92	15.71	155.82	4750.7
5	5.440	31.42	170.90	5210.5
10	2.870	62.83	180.33	5497.8
20	1.880	125.66	236.25	7202.7
50	0.850	314.16	267.04	8141.3
100	0.440	628.32	276.46	8428.7
200	0.190	1256.64	238.76	7279.3
E/W Orientation				
2.5	9.67	15.71	151.90	4631.0
5	5.930	31.42	186.30	5679.8
10	3.570	62.83	224.31	6838.7
20	1.950	125.66	245.04	7470.9
50	0.870	314.16	273.32	8332.9
100	0.470	628.32	295.31	9003.4
200	0.250	1256.64	314.16	9578.0

Cultural Features	None
Ground Cover	Tilled Bean Field, moist ground
Weather	Partly cloudy, 28F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

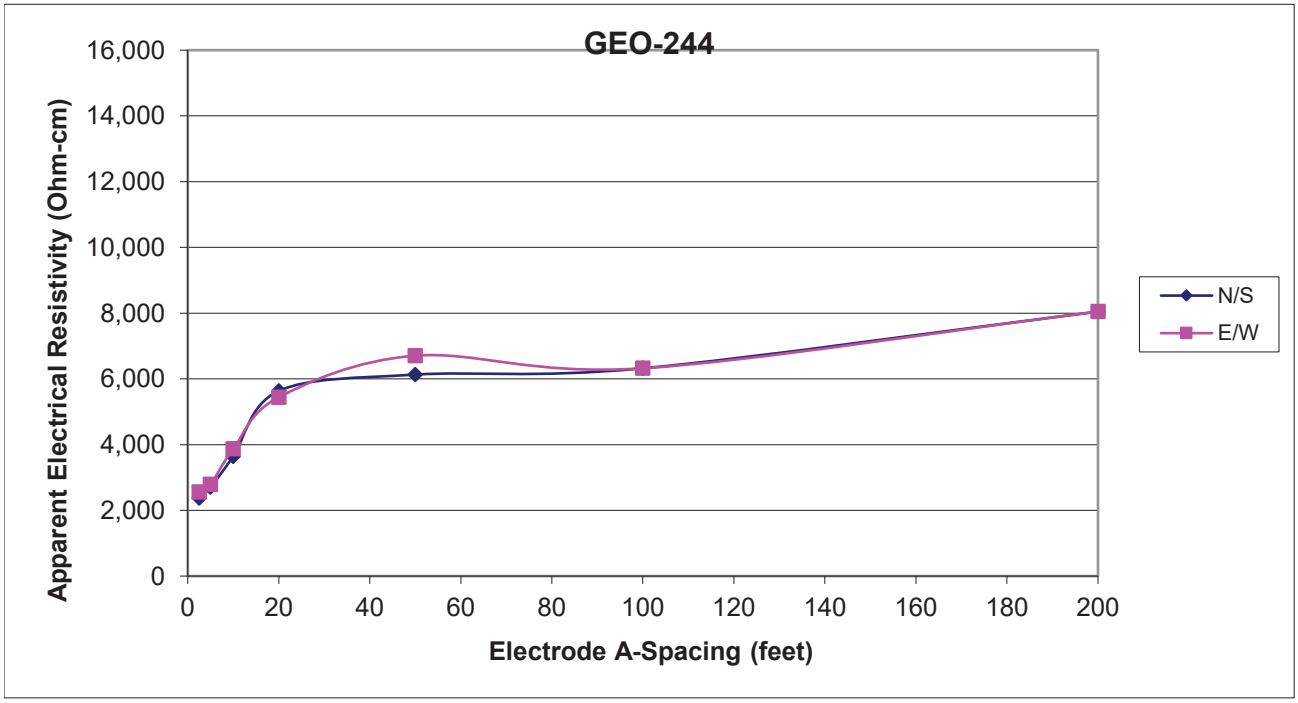
Test No. **28** **Date** **12/18/2020**

Observer **SF**

Location **GEO-244**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	4.94	15.71	77.60	2365.8
5	2.820	31.42	88.59	2701.0
10	1.900	62.83	119.38	3639.7
20	1.470	125.66	184.73	5631.9
50	0.640	314.16	201.06	6130.0
100	0.330	628.32	207.35	6321.5
200	0.210	1256.64	263.89	8045.6
E/W Orientation				
2.5	5.33	15.71	83.72	2552.6
5	2.910	31.42	91.42	2787.2
10	2.020	62.83	126.92	3869.5
20	1.420	125.66	178.44	5440.3
50	0.700	314.16	219.91	6704.6
100	0.330	628.32	207.35	6321.5
200	0.210	1256.64	263.89	8045.6

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 34F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

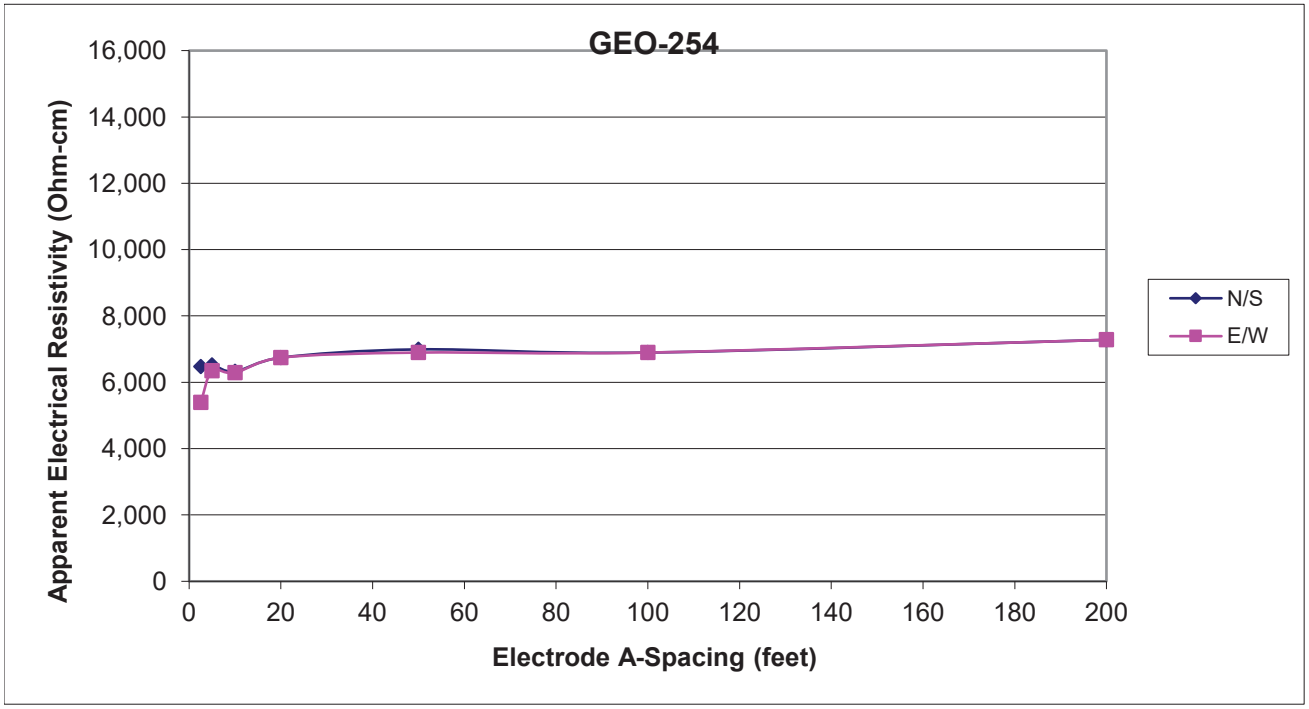
Test No. **21** **Date** **12/15/2020**

Observer **SF**

Location **GEO-254**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	13.51	15.71	212.22	6470.0
5	6.810	31.42	213.94	6522.7
10	3.300	62.83	207.35	6321.5
20	1.760	125.66	221.17	6742.9
50	0.730	314.16	229.34	6992.0
100	0.360	628.32	226.20	6896.2
200	0.190	1256.64	238.76	7279.3
E/W Orientation				
2.5	11.25	15.71	176.72	5387.7
5	6.620	31.42	207.97	6340.7
10	3.280	62.83	206.09	6283.2
20	1.760	125.66	221.17	6742.9
50	0.720	314.16	226.20	6896.2
100	0.360	628.32	226.20	6896.2
200	0.190	1256.64	238.76	7279.3

Cultural Features	None
Ground Cover	Tilled Bean Field, moist ground
Weather	Partly cloudy, 30F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

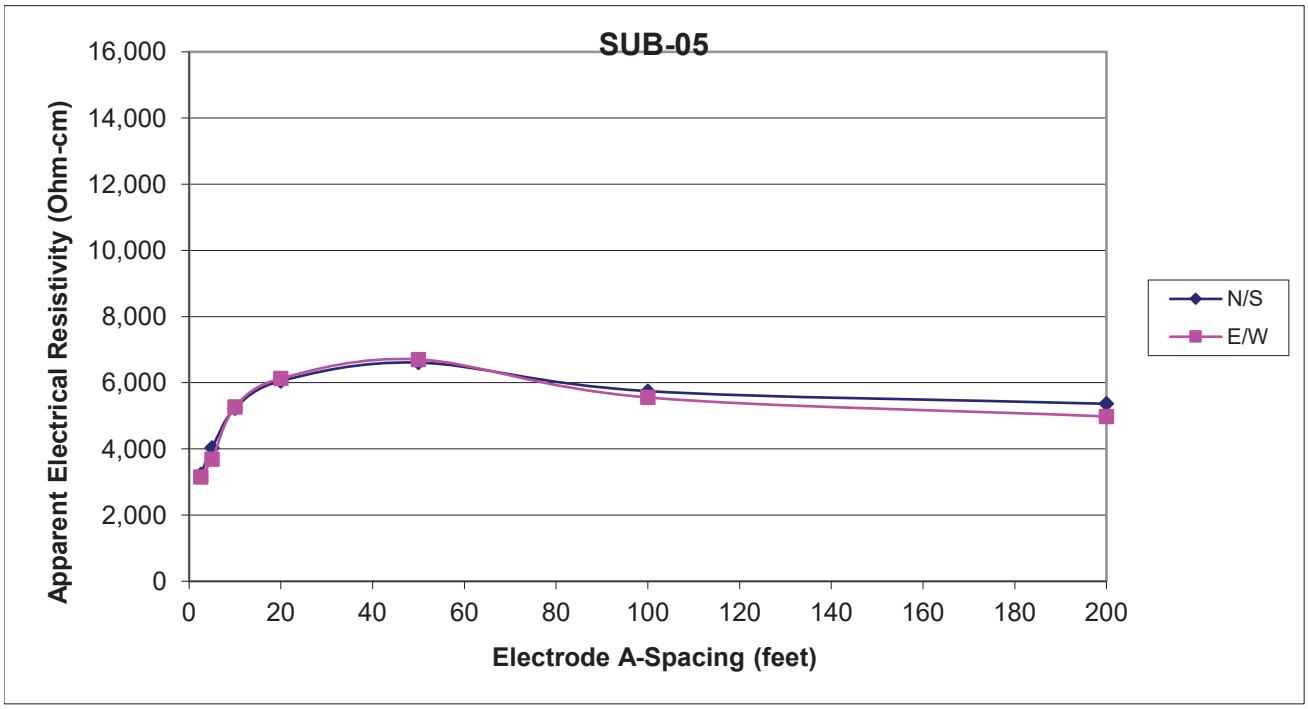
Test No. **29** **Date** **12/18/2020**

Observer **SF**

Location **SUB-05**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	6.74	15.71	105.87	3227.8
5	4.210	31.42	132.26	4032.4
10	2.730	62.83	171.53	5229.6
20	1.580	125.66	198.55	6053.3
50	0.690	314.16	216.77	6608.9
100	0.300	628.32	188.50	5746.8
200	0.140	1256.64	175.93	5363.7
E/W Orientation				
2.5	6.58	15.71	103.36	3151.2
5	3.860	31.42	121.27	3697.1
10	2.750	62.83	172.79	5267.9
20	1.600	125.66	201.06	6130.0
50	0.700	314.16	219.91	6704.6
100	0.290	628.32	182.21	5555.3
200	0.130	1256.64	163.36	4980.6

Cultural Features	None
Ground Cover	Tilled Corn Field, moist ground
Weather	Partly cloudy, 34F
Line Location and Bearing	N-S/E-W



WENNER SOUNDING

PROJECT: **Fox Squirrel Solar Project**

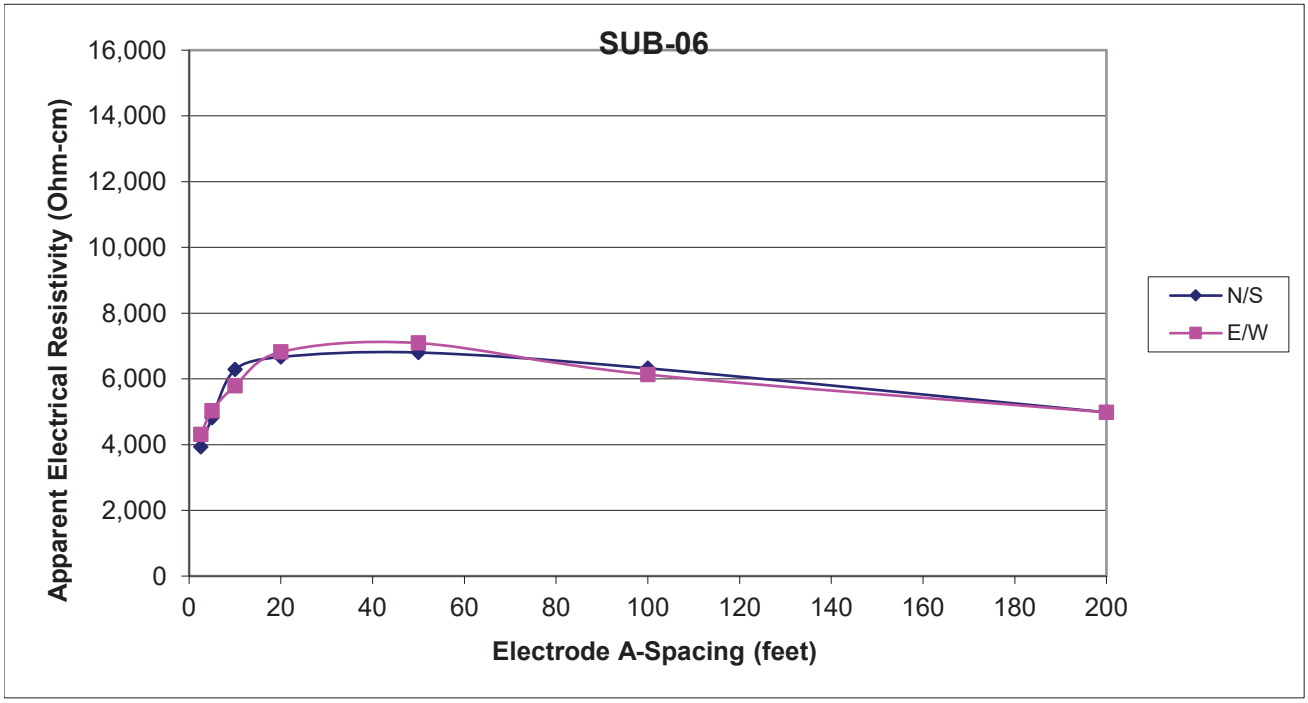
Test No. **31** **Date** **12/19/2020**

Observer **SF**

Location **SUB-06**

Electrode Spacing "a"	Resistance V/I	Geometric Factor K=2πa	Apparent Resistivity ρ_a=K(V/I)	Apparent Resistivity ρ_a=K(V/I)
feet	Ohms	feet	Ohm-feet	Ohm-cm
N/S Orientation				
2.5	8.2	15.71	128.81	3927.0
5	5.030	31.42	158.02	4817.8
10	3.280	62.83	206.09	6283.2
20	1.740	125.66	218.66	6666.3
50	0.710	314.16	223.05	6800.4
100	0.330	628.32	207.35	6321.5
200	0.130	1256.64	163.36	4980.6
E/W Orientation				
2.5	9	15.71	141.37	4310.1
5	5.250	31.42	164.93	5028.5
10	3.020	62.83	189.75	5785.1
20	1.780	125.66	223.68	6819.6
50	0.740	314.16	232.48	7087.8
100	0.320	628.32	201.06	6130.0
200	0.130	1256.64	163.36	4980.6

Cultural Features	None
Ground Cover	Tilled Bean Field, moist ground
Weather	Partly cloudy, 36F
Line Location and Bearing	N-S/E-W



Electrical Resistivity Test Results
Summary Table
Fox Squirrel Solar Project
Madison County, Ohio
020-32750

	'a' Spacing (ft)	GEO-007 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-011 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-014 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-018 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-020 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-030 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-034 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-036 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-041 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-044 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-053 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-055 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-063 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-065 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-067 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-069 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-078 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-080 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-082 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-084 Resistivity ρ_a=K(V/I) Ohm-cm
N/S Orientation	2.5	4286	4334	3558	3525	3812	4320	4224	3237	3831	3213	6417	7969	2888	5177	4497	3534	3716	4784	6858	4789
	5	5392	5038	4013	3870	4827	5479	5527	4348	4492	3860	7624	6877	4166	6551	5153	5172	5249	5584	4942	5574
	10	6053	5632	4617	4540	6130	5689	6302	5632	5670	4981	7413	8218	5709	6379	6341	5134	6245	6513	6053	6743
	20	6743	5210	5210	5938	6666	6207	6705	6743	6973	6398	6705	7931	6398	6705	6628	4559	7126	7854	6436	6590
	50	6992	4981	6034	6130	7088	6705	6417	6800	7662	7279	5938	6992	6513	6513	6609	5364	7758	8620	6705	6226
	100	6896	5938	6513	6896	7471	6705	5938	5172	6705	6513	5938	6513	6322	5364	5747	5747	7279	7088	5938	6130
	200	6130	8812	9578	9961	7279	6896	5747	4597	5364	5747	6896	6896	6130	4981	6513	6513	8046	6130	6130	7662
E/W Orientation	2.5	4238	4291	3515	3812	4133	4607	4751	2883	3611	3654	6207	7217	2711	4837	4425	4210	4166	4818	4353	4277
	5	5220	4559	3573	4138	4693	5335	5632	3889	4492	4147	7279	9137	3975	5498	5325	5210	5287	6207	4846	5412
	10	6302	5172	4099	5383	5479	5938	6245	5230	5402	5517	7318	7911	5364	6111	6360	5038	6302	7222	6302	6283
	20	6628	6015	5632	5862	6398	6475	6743	6973	6858	6360	6743	7816	5249	6360	7088	4559	7241	7509	6935	6092
	50	6992	5747	5747	6130	7279	6896	6609	6513	7567	7471	6322	6705	6226	6322	6705	5651	7854	7854	7184	6609
	100	6705	6130	6513	6896	7279	6705	5938	5364	6513	6513	5555	6513	5938	5172	5938	5747	6322	6705	6130	6322
	200	6513	9578	9578	9578	6896	7662	6130	4597	5364	5364	6513	6896	6130	4981	6513	6130	8046	5747	6513	8046
	Average:	6,078	5,817	5,584	5,904	6,102	6,116	5,922	5,141	5,750	5,501	6,633	7,399	5,266	5,782	5,989	5,183	6,474	6,617	6,095	6,197

	'a' Spacing (ft)	GEO-088 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-099 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-102 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-105 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-107 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-109 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-111 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-208 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-210 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-211 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-223 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-224 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-234 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-236 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-241 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-244 Resistivity ρ_a=K(V/I) Ohm-cm	GEO-254 Resistivity ρ_a=K(V/I) Ohm-cm	SUB-05 Resistivity ρ_a=K(V/I) Ohm-cm	SUB-06 Resistivity ρ_a=K(V/I) Ohm-cm
N/S Orientation	2.5	3400	2562	3980	4075	3491	2845	4147	3223	4320	3573	2677	3333	4339	4080	4751	2366	6470	3228	3927	
	5	3841	3458	4511	5076	4368	3582	5268	4099	5498	4329	3640	4358	5479	4617	5210	2701	6523	4032	4818	
	10	5249	5191	5057	5766	5747	4751	6130	4981	6436	5459	5191	5555	6647	5766	5498	3640	6322	5230	6283	
	20	5785	6168	6092	6015	6896	5479	6628	5938	6858	6360	6858	7049	7241	6283	7203	5632	6743	6053	6666	
	50	5364	6800	7088	5076	7567	6034	7088	6800	6800	5747	8524	6896	7567	6705	8141	6130	6992	6609	6800	
	100	5364	6896	7471	4789	7279	5747	6896	8812	6705	7471	9195	6322	8429	7854	8429	6322	6896	5747	6322	
	200	5747	8046	8429	5364	7279	6513	8429	15325	7279	12643	13026	8812	11494	10344	7279	8046	7279	5364	4981	
E/W Orientation	2.5	3324	2476	3486	4564	3352	2787	4775	2797	4301	3089	3051	3486	3855	4483	4631	2553	5388	3151	4310	
	5	4224	3573	4559	5076	4722	3467	6369	3170	5440	3649	4387	4109	5009	4712	5680	2787	6341	3697	5028	
	10	5038	5057	5843	5996	5766	4291	6207	4291	6398	4923	5594	5421	6111	6092	6839	3870	6283	5268	5785	
	20	5785	6283	6168	6207	6858	5479	6743	5364	6820	5096	7088	7279	7164	6436	7471	5440	6743	6130	6820	
	50	5651	7088	7184	5076	7662	6130	7279	6034	7088	5364	8812	6800	7567	6417	8333	6705	6896	6705	7088	
	100	5747	7088	7279	4981	7471	6130	7279	7854	6896	7471	8812	6513	8812	7471	9003	6322	6896	5555	6130	
	200	5364	8046	8046	5747	7279	6513	8429	13026	7662	12643	11494	8812	11877	10727	9578	8046	7279	4981	4981	
	Average:	4,992	5,624	6,085	5,272	6,124	4,982	6,548	6,551	6,322	6,273	7,025	6,053	7,256	6,571	7,003	5,040	6,646	5,125	5,710	

	"a" Spacing (ft)	Maximum	Minimum	Summary NS & EW		
				Range	Average	Standard Deviation
N/S & E/W Orientation	2.5	7,969	2,366	2366 - 7969	4,056	1,079
	5	9,137	2,701	2701 - 9137	4,859	1,086
	10	8,218	3,640	3640 - 8218	5,756	834
	20	7,931	4,559	4559 - 7931	6,443	700
	50	8,812	4,981	4981 - 8812	6,748	813
	100	9,195	4,789	4789 - 9195	6,646	959
	200	15,325	4,597	4597 - 15325	7,628	2,267

Geotechnical Investigation: Apparent Resistivity Average (Ohm-cm)	6,019

APPENDIX H

Thermal Resistivity Report

January 14, 2021

Mr. Gene Bryant, P. E.
EDF Renewables
15545 Innovation Dr.
San Diego, CA 92128

Re: Thermal Resistivity Testing Results
Fox Squirrel Solar Project
Madison County, Ohio

Dear Mr. Bryant:

Olsson, Inc. (Olsson), under contract and authorization with EDF Renewables (EDF), performed soil thermal resistivity measurements at the Fox Squirrel Solar Project in Madison County, Ohio. Samples were collected and laboratory testing was completed in November through December of 2020. This letter presents the methods and results.

Methods

A total of 39 samples for thermal resistivity tests were collected by Olsson at the project site. The majority of the samples were collected within the proposed PV array areas, and two samples were collected from the proposed substation location (SUB-05 and SUB-06). Test locations were provided to Olsson by EDF prior to beginning the exploration and were verified in the field using handheld GPS units. All tests were centered as close to the proposed test location as possible while trying to avoid ground disturbed by geotechnical borings. The test locations, coordinates of each test location, and other pertinent information are provided in Table 1 and Figure 1. Test locations are indicated the thermal resistivity locations figure attached to this report.

Soil samples were collected by Olsson personnel at the test locations. Samples were collected using auger techniques to drill down to a depth of approximately 5 feet, or by the utilization of an excavator to dig test pits down to approximately 5 feet. Samples were obtained from the cuttings generated by the augers and test pits between a depth of 1 to 5 feet, excluding the highly organic topsoil. The samples were placed in five-gallon buckets and sealed in the field to preserve the in-situ moisture content. The samples were delivered to Soil Engineering Testing, Inc. (SET) of Bloomington, Minnesota, for laboratory testing.

In addition to the thermal resistivity testing, index testing consisting of Atterberg Limits, moisture content, grain size, and standard Proctor density testing were also performed. Results of those tests are summarized in the attachments. Full results of the laboratory testing are provided with the geotechnical report.

Table 1: Testing Coordinates and Nomenclature

Geotech ID	Depth (feet)	Type	Geographic Coordinates, NAD83 (degrees)	
			Latitude	Longitude
GEO-007	1-5	Solar Array	39.79051	-83.39455
GEO-011	1-5	Solar Array	39.78472	-83.39854
GEO-014	1-5	Solar Array	39.77863	-83.40044
GEO-018	1-5	Solar Array	39.77313	-83.40039
GEO-020	1-5	Solar Array	39.77255	-83.39220
GEO-028	1-5	Solar Array	39.77893	-83.38814
GEO-034	1-5	Solar Array	39.77378	-83.38309
GEO-036	1-5	Solar Array	39.78893	-83.38136
GEO-041	1-5	Solar Array	39.78305	-83.37641
GEO-044	1-5	Solar Array	39.77631	-83.37558
GEO-053	1-5	Solar Array	39.79489	-83.34294
GEO-055	1-5	Solar Array	39.79489	-83.33440
GEO-063	1-5	Solar Array	39.79173	-83.32840
GEO-065	1-5	Solar Array	39.78858	-83.34967
GEO-067	1-5	Solar Array	39.78858	-83.34141
GEO-069	1-5	Solar Array	39.78858	-83.33316
GEO-078	1-5	Solar Array	39.78226	-83.35615
GEO-080	1-5	Solar Array	39.78226	-83.34797
GEO-082	1-5	Solar Array	39.78226	-83.33979
GEO-084	1-5	Solar Array	39.78226	-83.33156
GEO-088	1-5	Solar Array	39.77911	-83.36823
GEO-099	1-5	Solar Array	39.77848	-83.32320
GEO-102	1-5	Solar Array	39.77734	-83.36125
GEO-105	1-5	Solar Array	39.77595	-83.35334
GEO-107	1-5	Solar Array	39.77585	-83.34516
GEO-109	1-5	Solar Array	39.77595	-83.33708
GEO-111	1-5	Solar Array	39.77595	-83.32879
GEO-208	1-5	Solar Array	39.81938	-83.39809
GEO-210	1-5	Solar Array	39.81877	-83.38916
GEO-211	1-5	Solar Array	39.81728	-83.40522
GEO-222	1-5	Solar Array	39.81044	-83.40172
GEO-224	1-5	Solar Array	39.80997	-83.39355
GEO-234	1-5	Solar Array	39.80383	-83.41219
GEO-236	1-5	Solar Array	39.80440	-83.40435
GEO-241	1-5	Solar Array	39.79900	-83.40704
GEO-244	1-5	Solar Array	39.79727	-83.41367
GEO-254	1-5	Solar Array	39.78153	-83.39287
SUB-05	1-5	Substation	39.79456	-83.40017
SUB-06	1-5	Substation	39.79489	-83.39889

Soil samples were collected by Olsson personnel at the test locations. Samples were collected using auger techniques to drill down to a depth of approximately 5 feet, or by the utilization of an excavator to dig test pits down to approximately 5 feet. Samples were obtained from the cuttings generated by the augers and test pits between a depth of 1 to 5 feet, excluding the highly organic topsoil. The samples were placed in five-gallon buckets and sealed in the field to preserve the in-situ moisture content. The samples were delivered to Soil Engineering Testing, Inc. (SET) of Bloomington, Minnesota, for laboratory testing.

In addition to the thermal resistivity testing, index testing consisting of Atterberg Limits, moisture content, grain size, and standard Proctor density testing were also performed. Results of those tests are summarized in the attachments. Full results of the laboratory testing are provided with the geotechnical report.

SET completed the laboratory testing in accordance with ASTM D5334, “Standard Test Method for Determination of Thermal Conductivity of Soil and Soft Rock by Thermal Needle Probe Procedure”. Laboratory tests included measurement of the soil’s in-situ moisture content, maximum dry density and optimum moisture content according to Standard Proctor, and thermal dryout characteristics, which is a function of moisture content. Bulk samples were re-compacted to approximately 85 percent of the maximum dry density according to Standard Proctor. Reconstituted samples were compacted in four layers in test molds (75 mm diameter by 150 mm tall) to minimize contact resistance at the soil/probe interface and to ensure a

uniform density. The substation samples were also tested at approximately 95 percent of the maximum dry density according to Standard Proctor.

Thermal dryout characteristics were measured using a laboratory type thermal needle held central and vertical in the base plate. Thermal resistivity measurements were conducted starting at the existing moisture content of the soil sample to the totally dry condition. At the end of each drying stage, samples were sealed and brought to thermal equilibrium with the ambient air to ensure uniform moisture re-distribution through the sample. Tests were conducted using a KD2 Thermal Property Analyzer. The instrument was calibrated prior to performing the testing.

Results

The resulting laboratory soil thermal resistivity measurements presented in tabular form with full dryout curves are included in the attachments.

Closing

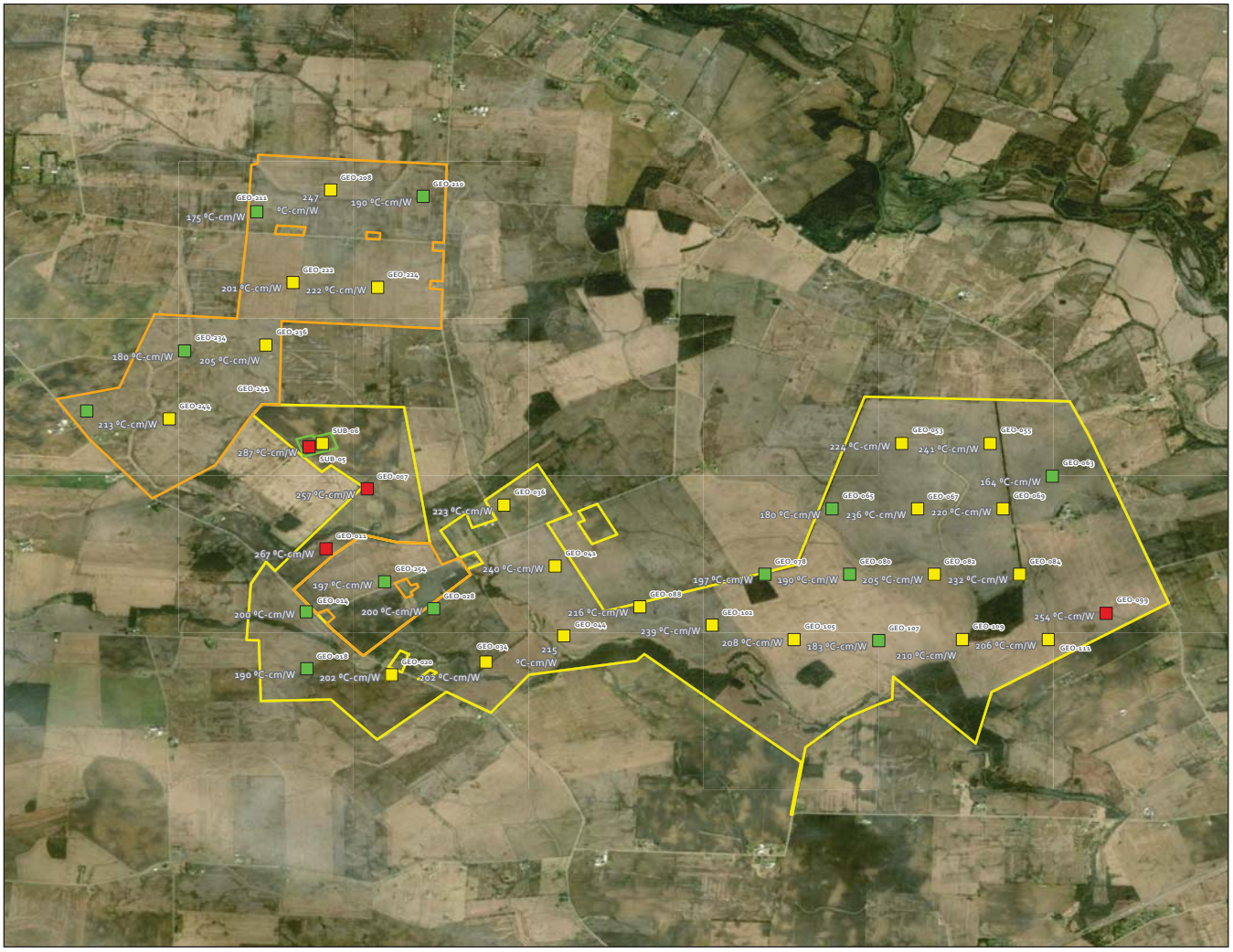
Thank you for the opportunity to provide this service. Please call me at 952-356-4419 with questions or requests for additional information.

Sincerely,

Robb Roy
Senior Engineer

Bill Kussmann, P.E.
Senior Geotechnical Professional

Attachments:
Figure 1: Thermal Resistivity Test Locations
Thermal Resistivity Test Results
Table 1: Summary of Index Test Results from Bulk Samples



Legend

- Initial Project Area
- Boundary Change Area
- Substation and POI Boundary
- County Boundary

Dry Thermal Resistivity

- 15-200 °C-cm/W
- 200-250 °C-cm/W
- 250-300 °C-cm/W

N

0 0.19 0.38 0.75 Miles

0 0.3 0.6 1.21 Kilometers

Figure 1

Thermal Resistivity Testing Locations

Fox Squirrel Solar
Madison County, Ohio USA

Table 1
Summary of Index Test Results from Bulk Samples

Geotech ID	Depth [ft]	Soil Type	Standard Proctor Data: Maximum Dry Density [pcf]	Standard Proctor Data: Optimum Moisture [%]	As-Received Moisture [%]	Liquid Limit [%]	Plastic Limit [%]	Plasticity Index [%]	Percent Gravel [%]	Percent Sand [%]	Percent Fines [%]	85% Compaction: In-Situ Thermal Resistivity °C-cm/W	85% Compaction: Dry Thermal Resistivity °C-cm/W
GEO-007	1-5	CL	114.6	14.8	17.2	34	16	18	3.5	26.8	69.7	81	257
GEO-011	1-5	CL	109.8	17.1	19.7	38	17	21	3.6	21.9	74.5	84	267
GEO-014	1-5	CL	118.1	14.6	14.2	33	17	16	5.7	22.7	71.6	70	200
GEO-018	1-5	CL	116.6	14.5	15.4	34	16	18	5.0	34.2	60.8	69	190
GEO-020	1-5	CL	121.6	12.9	14.1	27	15	12	7.0	36.8	56.2	74	202
GEO-028	1-5	CL	118.8	14.0	14.9	34	16	18	4.6	35.0	60.4	71	200
GEO-034	1-5	CL	118.1	13.8	13.5	28	16	12	3.8	33.3	62.9	68	202
GEO-036	1-5	CL	119.0	12.8	15.3	35	16	19	3.3	29.4	67.3	75	223
GEO-041	1-5	CL	116..5	15.0	15.4	34	16	18	6.3	24.6	69.1	76	240
GEO-044	1-5	CL	117.5	14.5	12.9	30	16	14	4.0	32.0	64.0	78	215
GEO-053	1-5	CL	116.6	14.6	22.5	29	18	11	6.3	18.6	75.1	71	224
GEO-055	1-5	CL	111.9	17.2	19.1	35	17	18	5.9	20.9	73.2	77	241
GEO-063	1-5	CL	116.6.	14.6	17.5	33	16	17	6.0	31.0	63.0	63	164
GEO-065	1-5	CL	117.3	14.0	17.9	35	17	18	9.2	26.9	63.9	67	180
GEO-067	1-5	CL	109.1	18.5	23.7	45	19	26	3.3	24.7	72.0	76	236
GEO-069	1-5	CL	101.4	22.5	24.4	48	20	28	3.1	17.0	79.9	92	220
GEO-078	1-5	CL	119.6	13.2	14.3	29	16	13	8.0	28.9	63.1	71	197
GEO-080	1-5	CL	114.9	15.8	18.0	36	17	19	6.5	22.9	70.6	72	190
GEO-082	1-5	CL	116.6.	14.8	16.3	31	16	15	7.9	27.9	64.2	69	205
GEO-084	1-5	CL	112.4	16.5	19.3	40	17	23	2.8	22.3	74.9	75	232
GEO-088	1-5	CL	117.6	14.1	13.8	33	16	17	6.0	30.4	63.6	70	216
GEO-099	1-5	CL	105.4	19.1	21.4	44	18	26	5.1	21.1	73.8	80	254
GEO-102	1-5	CL	116.4	14.8	16.8	34	16	18	1.5	24.1	74.4	81	239
GEO-105	1-5	CL	117.1	14.6	14.4	29	15	14	7.4	28.9	63.7	71	208
GEO-107	1-5	CL	119.4	12.7	21.2	29	16	13	11.9	27.5	60.6	66	183
GEO-109	1-5	CL	114.1	15..6	18.0	38	17	21	9.0	24.7	66.3	74	210
GEO-111	1-5	CL	118.2	13.9	17.9	30	16	14	4.0	20.9	75.1	72	206
GEO-208	1-5	CL	108.5	18.0	21.6	40	17	23	2.1	21.3	76.6	90	247
GEO-210	1-5	CL	118.5	13.0	12.8	35	17	18	4.8	31.3	63.9	72	190
GEO-211	1-5	CL	123.0	12.2	12.8	26	15	11	4.5	33.6	61.9	64	175
GEO-222	1-5	CL	118.7	14.3	17.4	31	16	15	3.4	25.6	71.0	72	201
GEO-224	1-5	CL	108.7	18.2	20.3	39	17	22	3.4	19.6	77.0	75	222
GEO-234	1-5	CL	119.1	13.9	18.7	28	16	12	10.7	30.9	58.4	68	180
GEO-236	1-5	CL	114.5	15.8	17.0	31	16	15	2.0	24.4	73.6	75	205
GEO-242	1-5	CL	111.8	17.5	19.6	39	17	22	2.4	21.8	75.8	70	194
GEO-244	1-5	CL	105.2	20.2	20.5	46	19	27	2.7	15.8	81.5	82	213
GEO-254	1-5	CL	120.4	14.1	14.7	29	16	13	4.4	33.2	62.4	72	197
SUB-05	1-5	CL	108.7	18.8	18.1	41	19	22	2.9	20.7	76.4	87	287
SUB-06	1-5	CL	121.1	13.0	17.3	28	16	12	5.2	30.3	64.5	72	210

Mean	115.1	15.4	17.4	34.3	16.6	17.7	5.1	26.3	68.6	74.2	213.4
Standard Deviation	5.2	2.3	3.1	5.6	1.1	4.6	2.4	5.4	6.5	6.6	26.6
Minimum	101.4	12.2	12.8	26.0	15.0	11.0	1.5	15.8	56.2	63.0	164.0
Maximum	123.0	22.5	24.4	48.0	20.0	28.0	11.9	36.8	81.5	92.0	287.0

*SUB-05 and SUB-06 results at compaction of 95% maximum dry density not provided in this table but can be found below in the test reports.

Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
					Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Geo-7	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a trace of gravel (CL)**	**97.7**	**14.5%**	**81**	**257**
Geo-11	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**93.7**	**16.9%**	**84**	**267**
Geo-14	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a little gravel (CL)**	**100.2**	**14.4%**	**70**	**200**
Geo-18	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**99.0**	**14.7%**	**69**	**190**
Geo-20	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**103.3**	**13.1%**	**74**	**202**
	Specimens reconstituted to approximately 85% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

9530 James Ave South SOIL ENGINEERING TESTING, INC. Bloomington, MN 55431

http://www.soilengineeringtesting.com

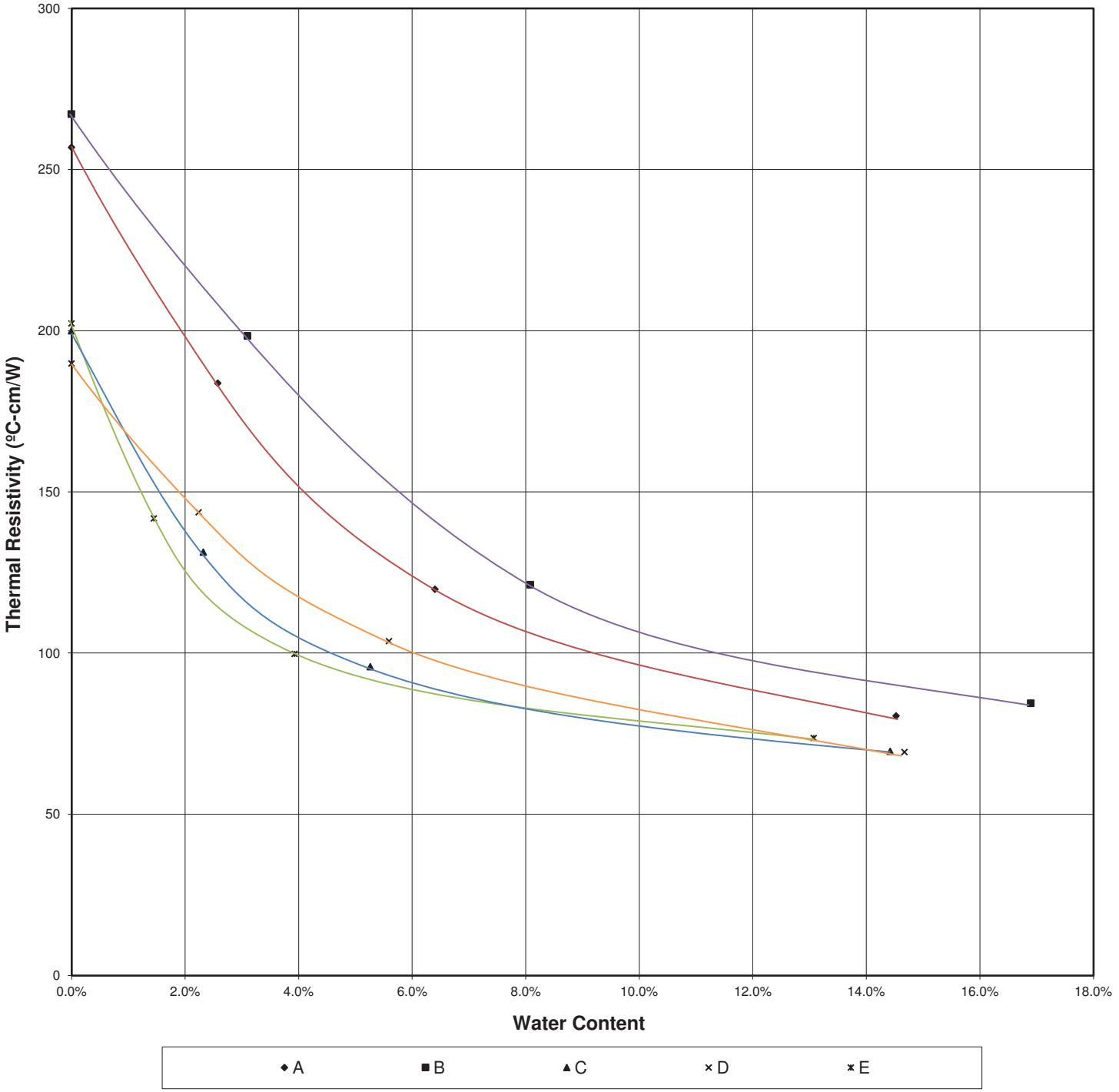
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)
Specimen A:	Geo-7	1-5
Specimen B:	Geo-11	1-5
Specimen C:	Geo-14	1-5
Specimen D:	Geo-18	1-5
Specimen E:	Geo-20	1-5

Thermal Dryout Curves (Water Content vs. Resistivity)



9530 James Ave South

SOIL ENGINEERING TESTING, INC.

Bloomington, MN 55431

http://www.soilengineeringtesting.com

Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
					Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Geo-28	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**100.9**	**14.2%**	**71**	**200**
Geo-34	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a trace of gravel (CL)**	**100.4**	**13.6%**	**68**	**202**
Geo-36	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a trace of gravel (CL)**	**101.3**	**12.6%**	**75**	**223**
Geo-41	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**98.9**	**15.3%**	**76**	**240**
Geo-44	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**100.3**	**12.6%**	**78**	**215**
	Specimens reconstituted to approximately 85% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

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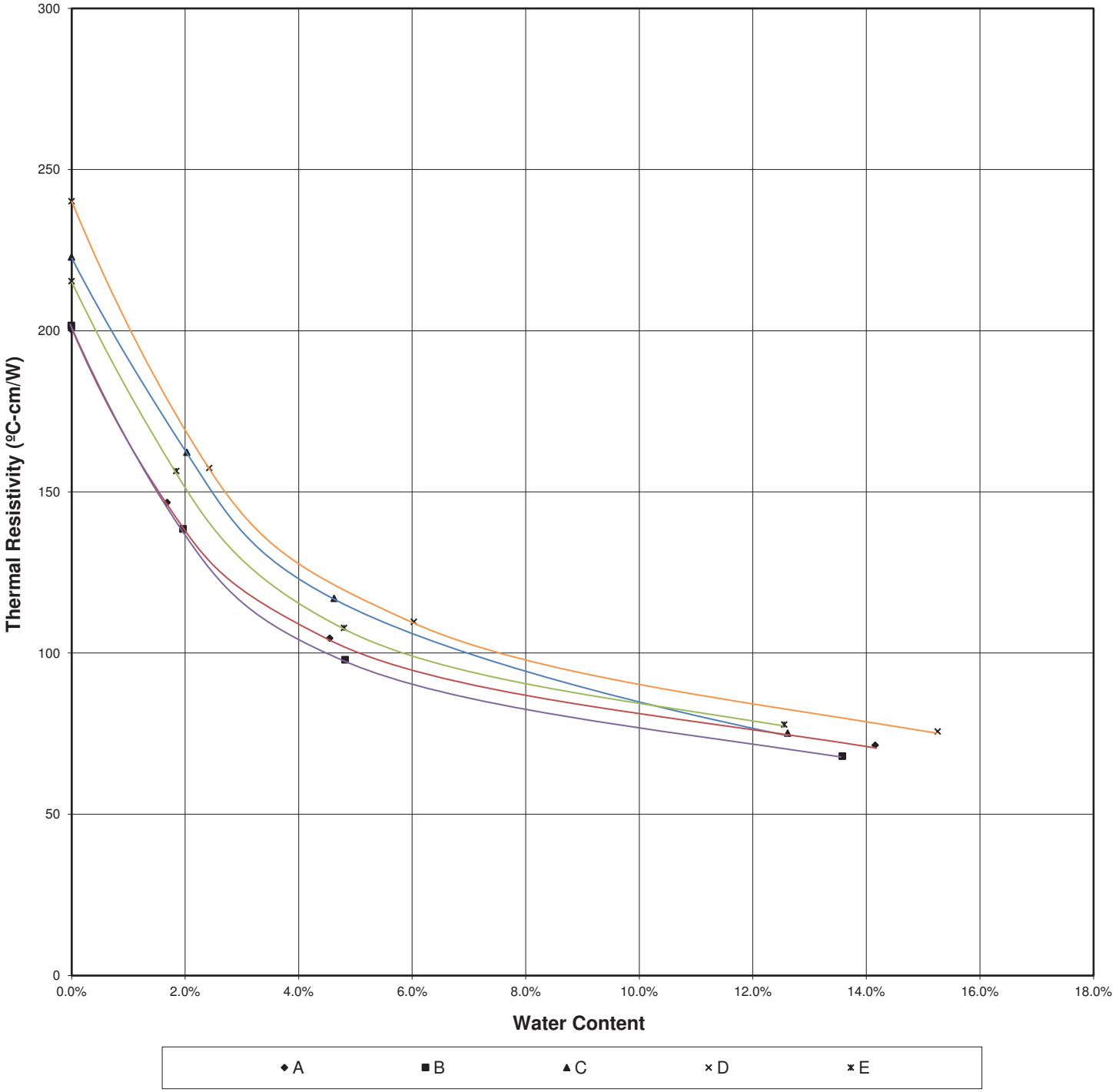
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)
Specimen A:	Geo-28	1-5
Specimen B:	Geo-34	1-5
Specimen C:	Geo-36	1-5
Specimen D:	Geo-41	1-5
Specimen E:	Geo-44	1-5

Thermal Dryout Curves (Water Content vs. Resistivity)



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Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
					Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Geo-53	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a little gravel (CL)**	**99.5**	**14.4%**	**71**	**224**
Geo-55	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a little gravel (CL)**	**95.4**	**16.9%**	**77**	**241**
Geo-63	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**99.3**	**14.4%**	**63**	**164**
Geo-65	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**99.6**	**14.1%**	**67**	**180**
Geo-67	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**92.9**	**18.3%**	**76**	**236**
	Specimens reconstituted to approximately 85% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

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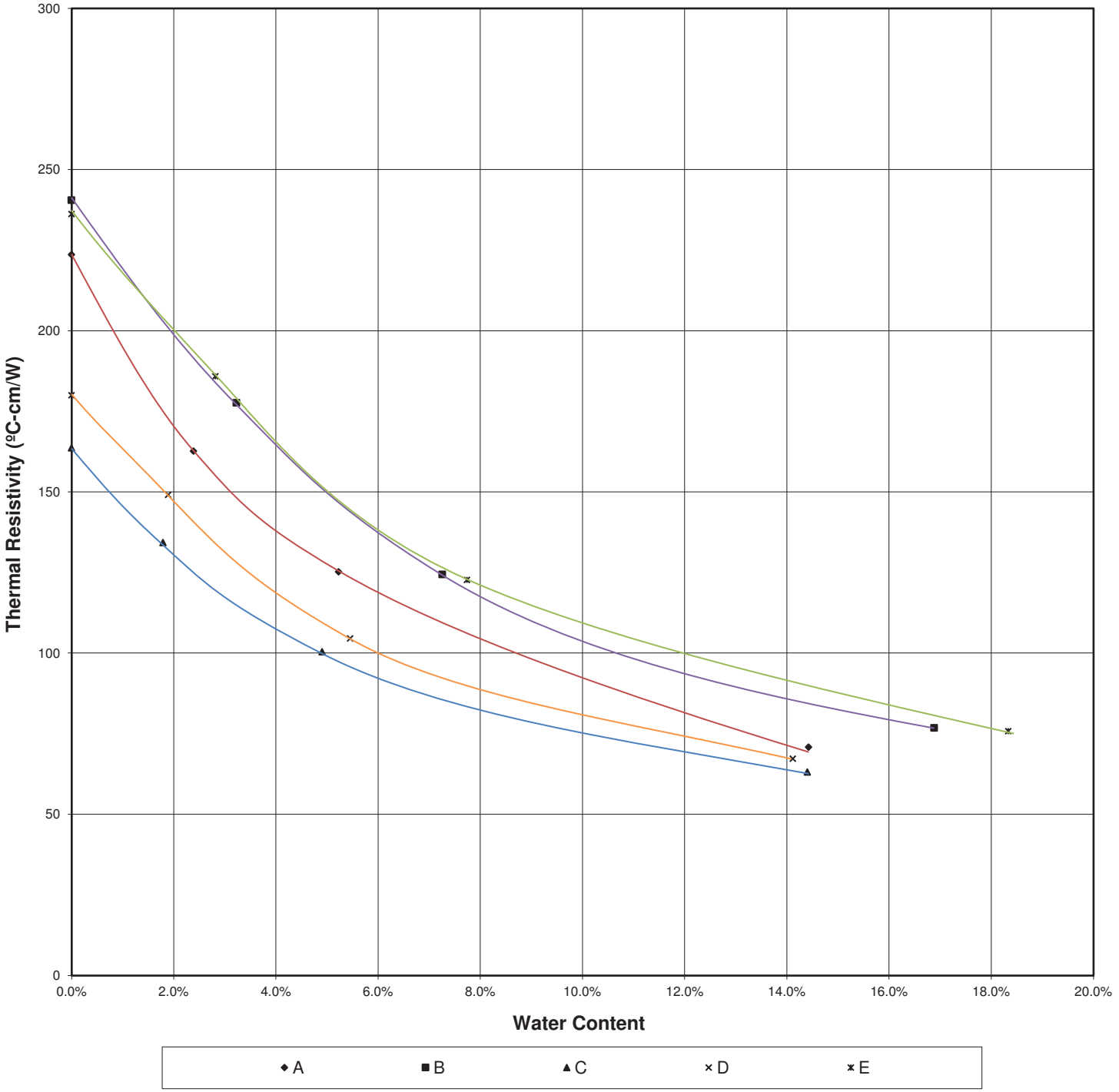
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)
Specimen A:	Geo-53	1-5
Specimen B:	Geo-55	1-5
Specimen C:	Geo-63	1-5
Specimen D:	Geo-65	1-5
Specimen E:	Geo-67	1-5

Thermal Dryout Curves (Water Content vs. Resistivity)



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Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
					Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Geo-69	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**86.7**	**22.3%**	**92**	**220**
Geo-78	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**101.9**	**13.1%**	**71**	**197**
Geo-80	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a little (CL)**	**97.7**	**15.8%**	**72**	**190**
Geo-82	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**99.3**	**14.7%**	**69**	**205**
Geo-84	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**95.8**	**16.2%**	**75**	**232**
	Specimens reconstituted to approximately 85% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

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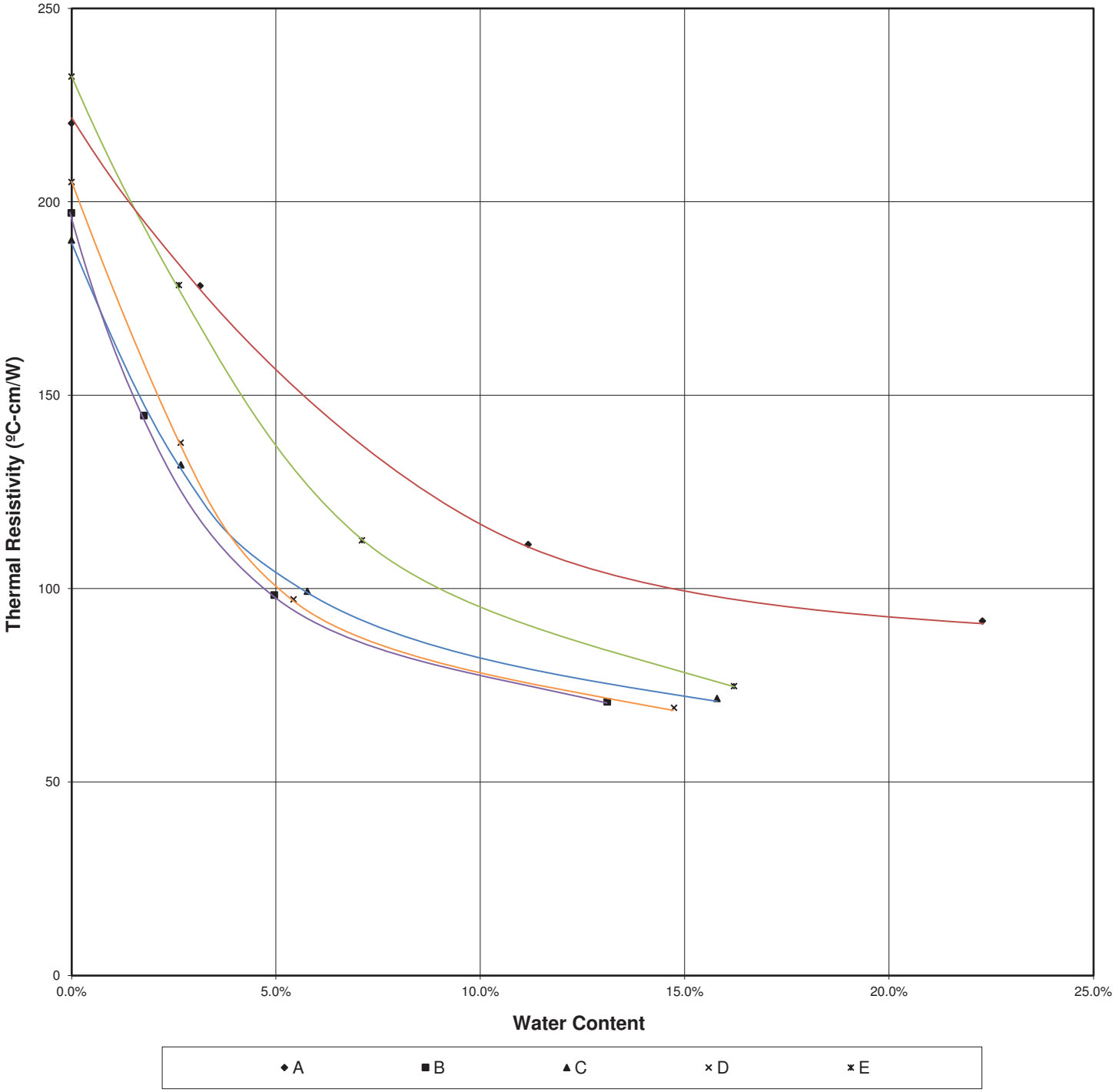
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)
Specimen A:	Geo-69	1-5
Specimen B:	Geo-78	1-5
Specimen C:	Geo-80	1-5
Specimen D:	Geo-82	1-5
Specimen E:	Geo-84	1-5

Thermal Dryout Curves (Water Content vs. Resistivity)



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Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
					Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Geo-88	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**99.7**	**14.1%**	**70**	**216**
Geo-99	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a little gravel (CL)**	**89.5**	**19.2%**	**80**	**254**
Geo-102	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand (CL)**	**98.9**	**14.9%**	**81**	**239**
Geo-105	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**99.7**	**14.5%**	**71**	**208**
Geo-107	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**101.9**	**12.3%**	**66**	**183**
	Specimens reconstituted to approximately 85% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

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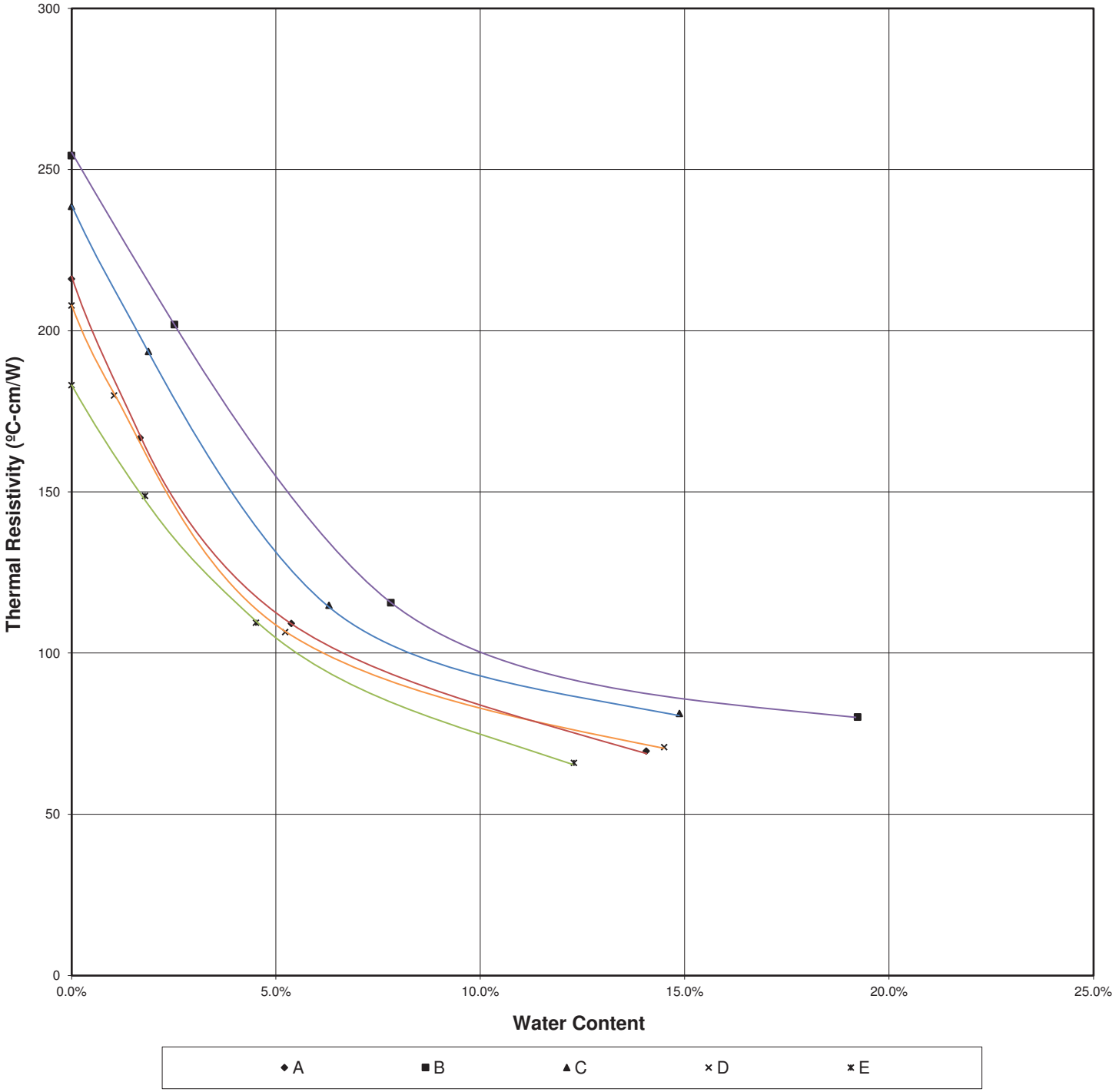
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)
Specimen A:	Geo-88	1-5
Specimen B:	Geo-99	1-5
Specimen C:	Geo-102	1-5
Specimen D:	Geo-105	1-5
Specimen E:	Geo-107	1-5

Thermal Dryout Curves (Water Content vs. Resistivity)



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Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
					Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Geo-109	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**97.3**	**15.5%**	**74**	**210**
Geo-111	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**100.8**	**13.6%**	**72**	**206**
Geo-208	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**92.0**	**18.2%**	**90**	**247**
Geo-210	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**100.7**	**12.9%**	**72**	**190**
Geo-211	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**104.5**	**12.3%**	**64**	**175**
	Specimens reconstituted to approximately 85% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

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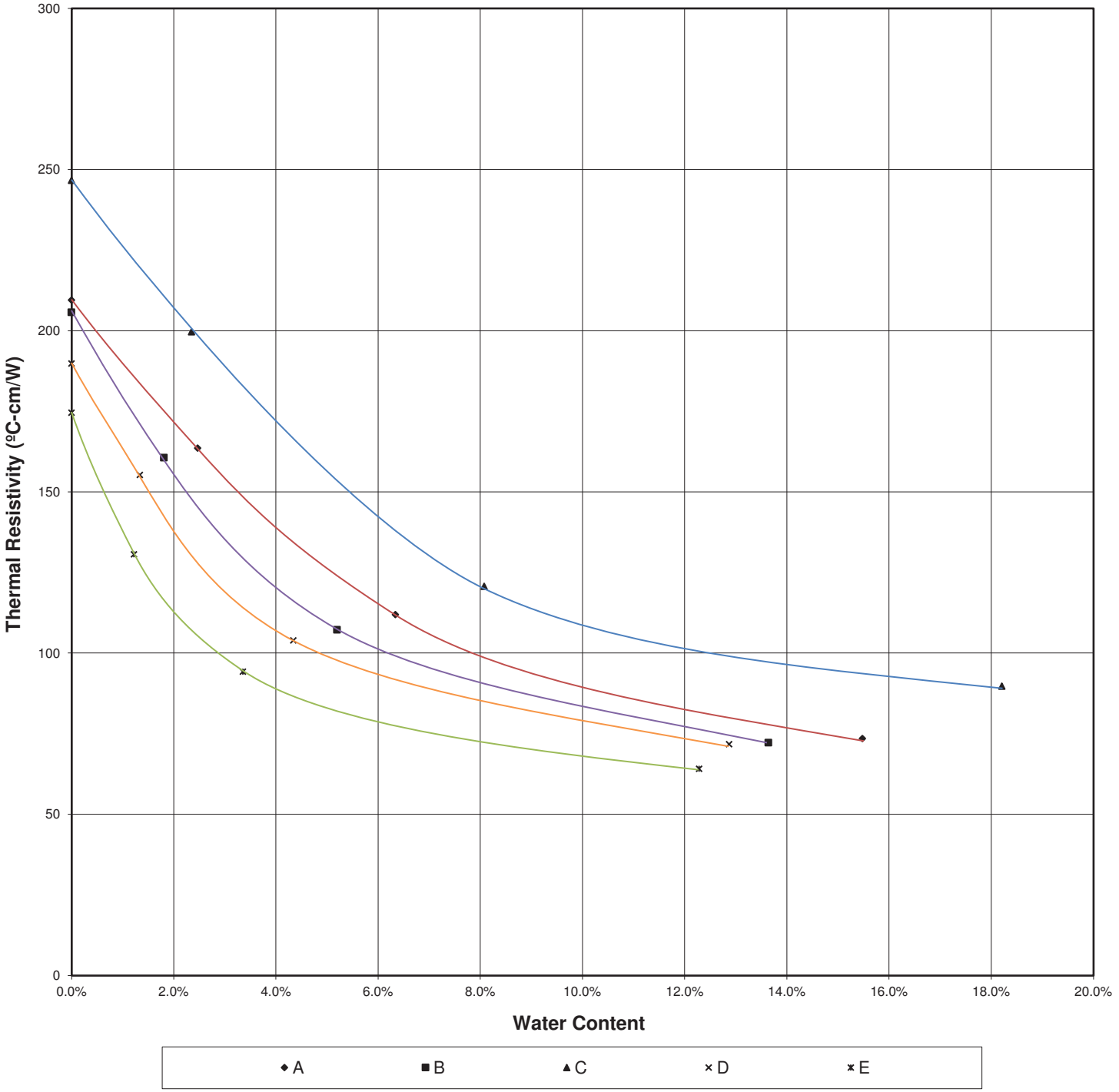
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)
Specimen A:	Geo-109	1-5
Specimen B:	Geo-111	1-5
Specimen C:	Geo-208	1-5
Specimen D:	Geo-210	1-5
Specimen E:	Geo-211	1-5

Thermal Dryout Curves (Water Content vs. Resistivity)



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Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
					Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Geo-222	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**100.7**	**14.5%**	**72**	**201**
Geo-224	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**92.6**	**17.9%**	**75**	**222**
Geo-234	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**101.6**	**13.6%**	**68**	**180**
Geo-236	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand (CL)**	**97.3**	**15.8%**	**75**	**205**
Geo-242	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**95.3**	**17.3%**	**70**	**194**
	Specimens reconstituted to approximately 85% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

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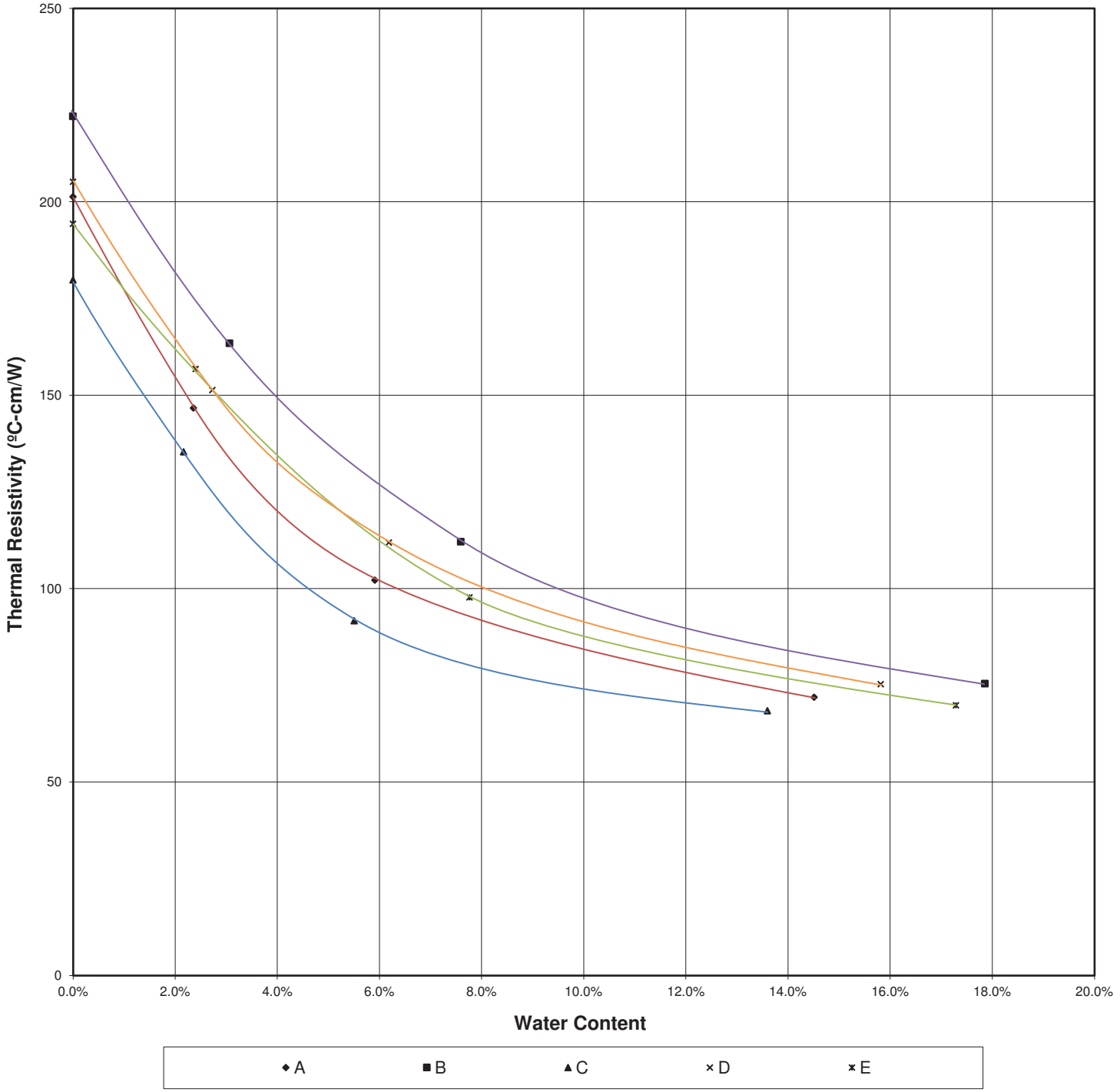
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)
Specimen A:	Geo-222	1-5
Specimen B:	Geo-224	1-5
Specimen C:	Geo-234	1-5
Specimen D:	Geo-236	1-5
Specimen E:	Geo-242	1-5

Thermal Dryout Curves (Water Content vs. Resistivity)



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Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
					Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Geo-244	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**89.5**	**20.3%**	**82**	**213**
Geo-254	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**102.4**	**14.1%**	**72**	**197**
	Specimens reconstituted to approximately 85% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

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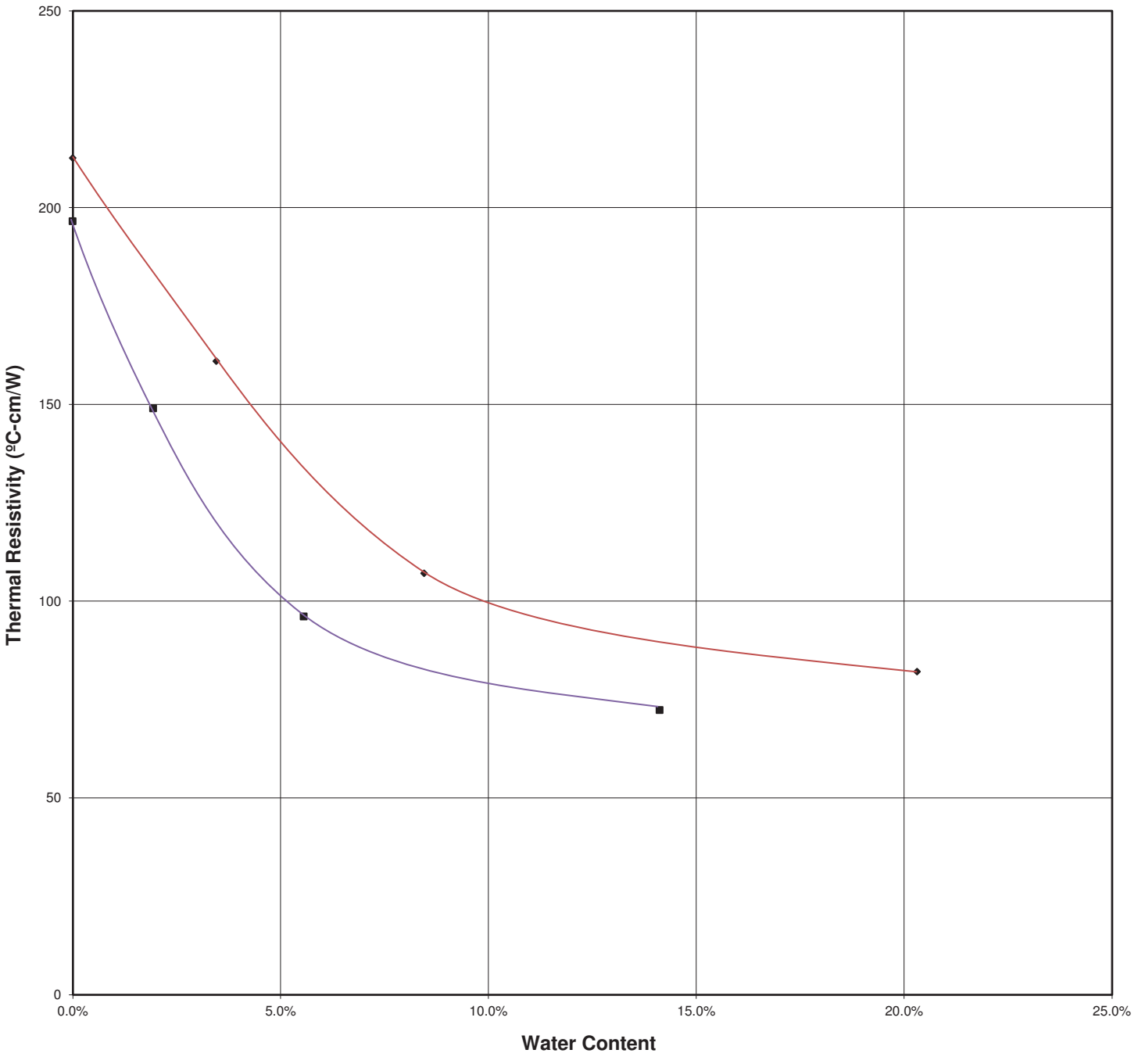
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)
Specimen A:	Geo-244	1-5
Specimen B:	Geo-254	1-5

Thermal Dryout Curves (Water Content vs. Resistivity)



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Thermal Resistivity Report ASTM D:5334

Project: **Fox Squirrel** Job #: **12900**

Client: **Olsson Associates** Date: **12/17/20**

Boring	Compaction	Specimen Type	Depth (ft)	Type	Classification	Initial Conditions			Dry
						Dry Density (PCF)	WC (%)	Thermal Resistivity (ºC-cm/W)	Thermal Resistivity (ºC-cm/W)
Sub-5	**85%**	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**92.4**	**18.1%**	**87**	**287**
Sub-5	**95%**	**Reconstituted**	**1-5**	**Bulk**	**Lean Clay with sand and a trace of gravel (CL)**	**103.5**	**18.0%**	**68**	**179**
Sub-6	**85%**	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**103.0**	**13.1%**	**72**	**210**
Sub-6	**95%**	**Reconstituted**	**1-5**	**Bulk**	**Sandy Lean Clay with a little gravel (CL)**	**114.8**	**13.2%**	**53**	**141**
		Specimens reconstituted to approximately 85% and 95% of maximum standard proctor density near the lower of the as received or optimum moisture content.							

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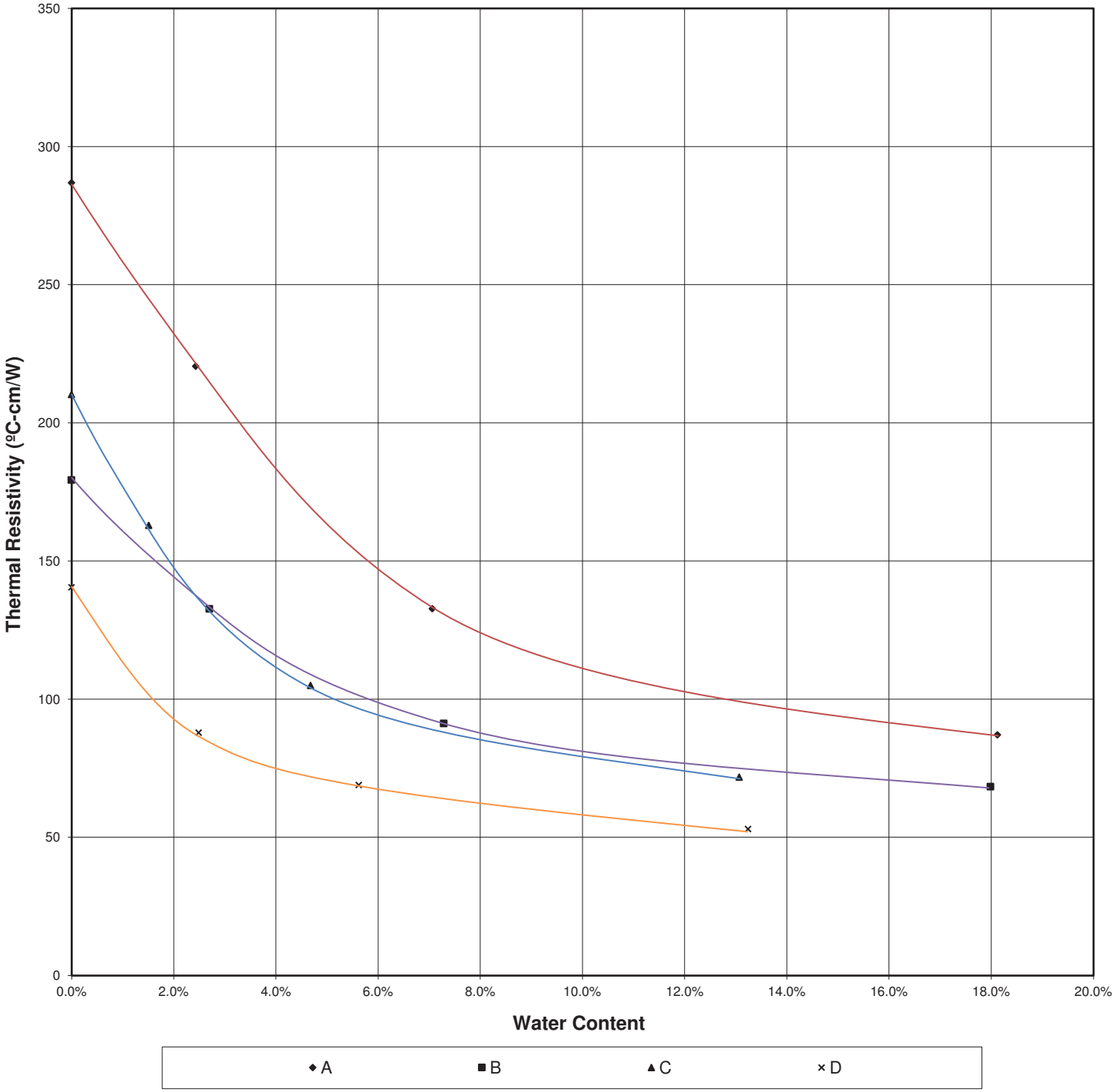
Thermal Resistivity Report ASTM D:5334

Project: Fox Squirrel — Job: 12900

Client: Olsson Associates — Date: 12/17/20

	Boring	Depth (ft)	Compaction
Specimen A:	Sub-5	1-5	85%
Specimen B:	Sub-5	1-5	95%
Specimen C:	Sub-6	1-5	85%
Specimen D:	Sub-6	1-5	95%

Thermal Dryout Curves (Water Content vs. Resistivity)



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

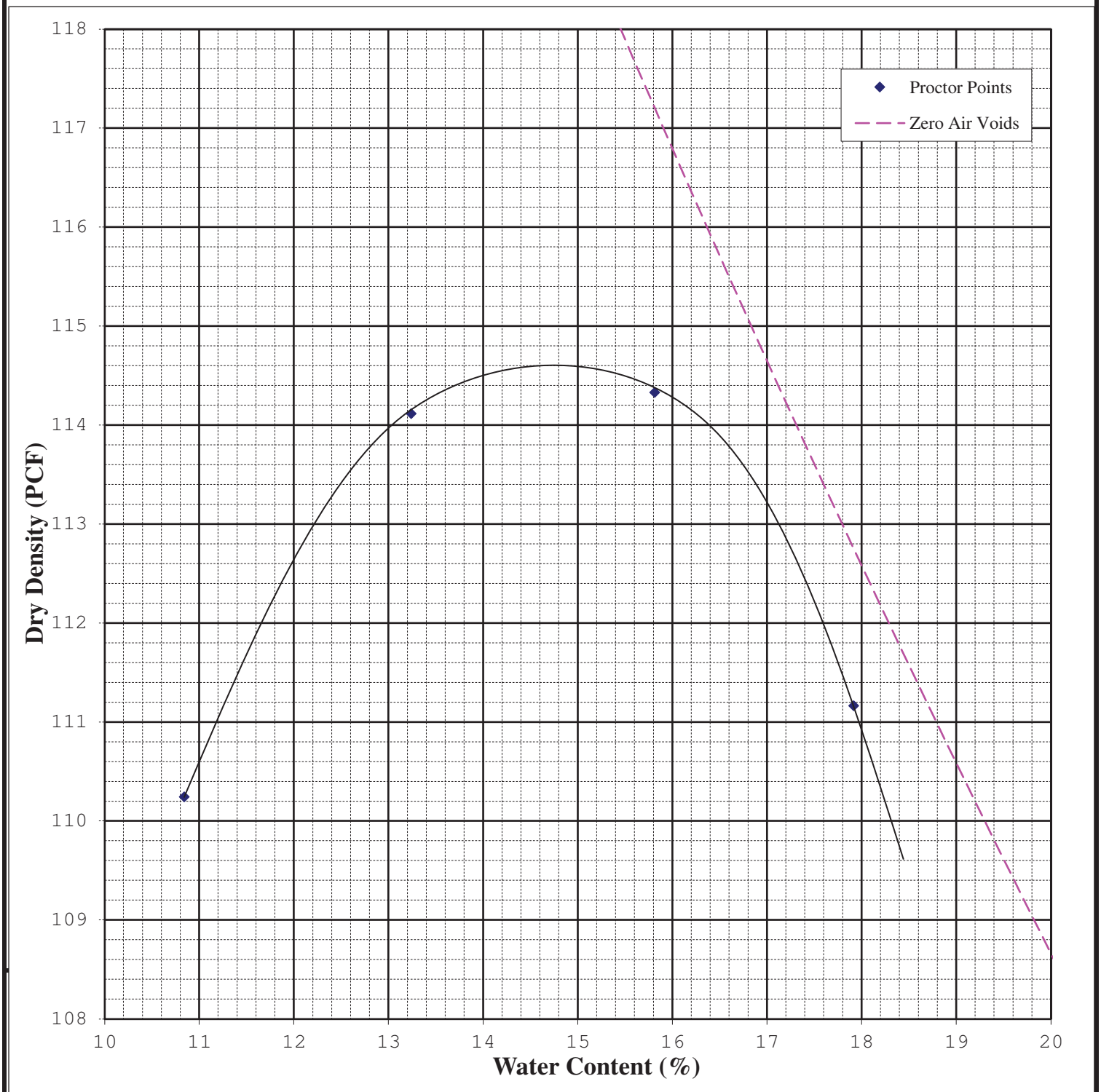
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-07** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a trace of gravel (CL)**

As Received W.C. (%): **17.2** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **114.6** Opt. Water Content (%): **14.8**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

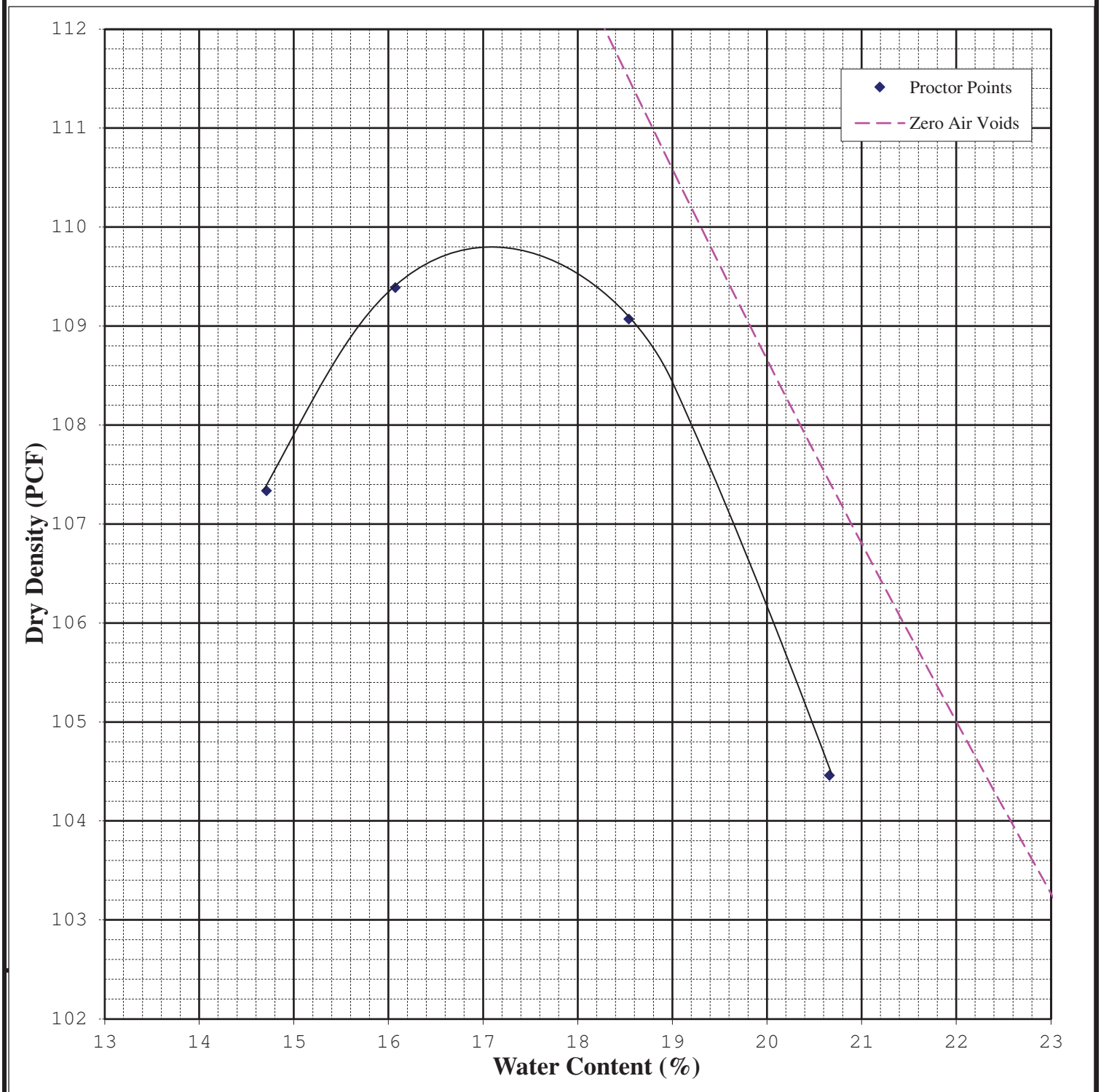
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-11** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **19.7** LL: **38** PL: **17** PI: **21** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **109.8** Opt. Water Content (%): **17.1**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

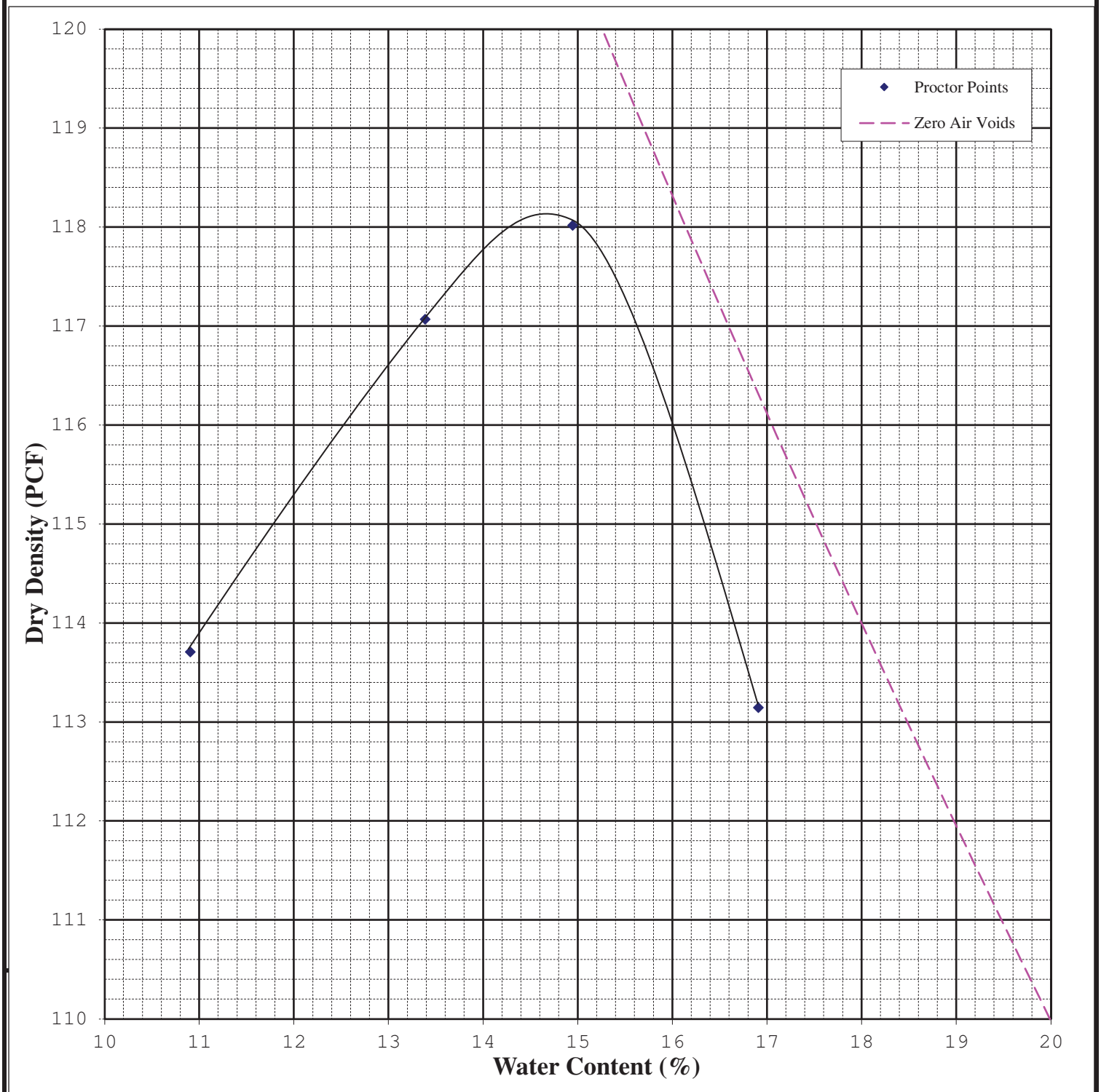
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-14** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **14.2** LL: **33** PL: **17** PI: **16** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **118.1** Opt. Water Content (%): **14.6**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

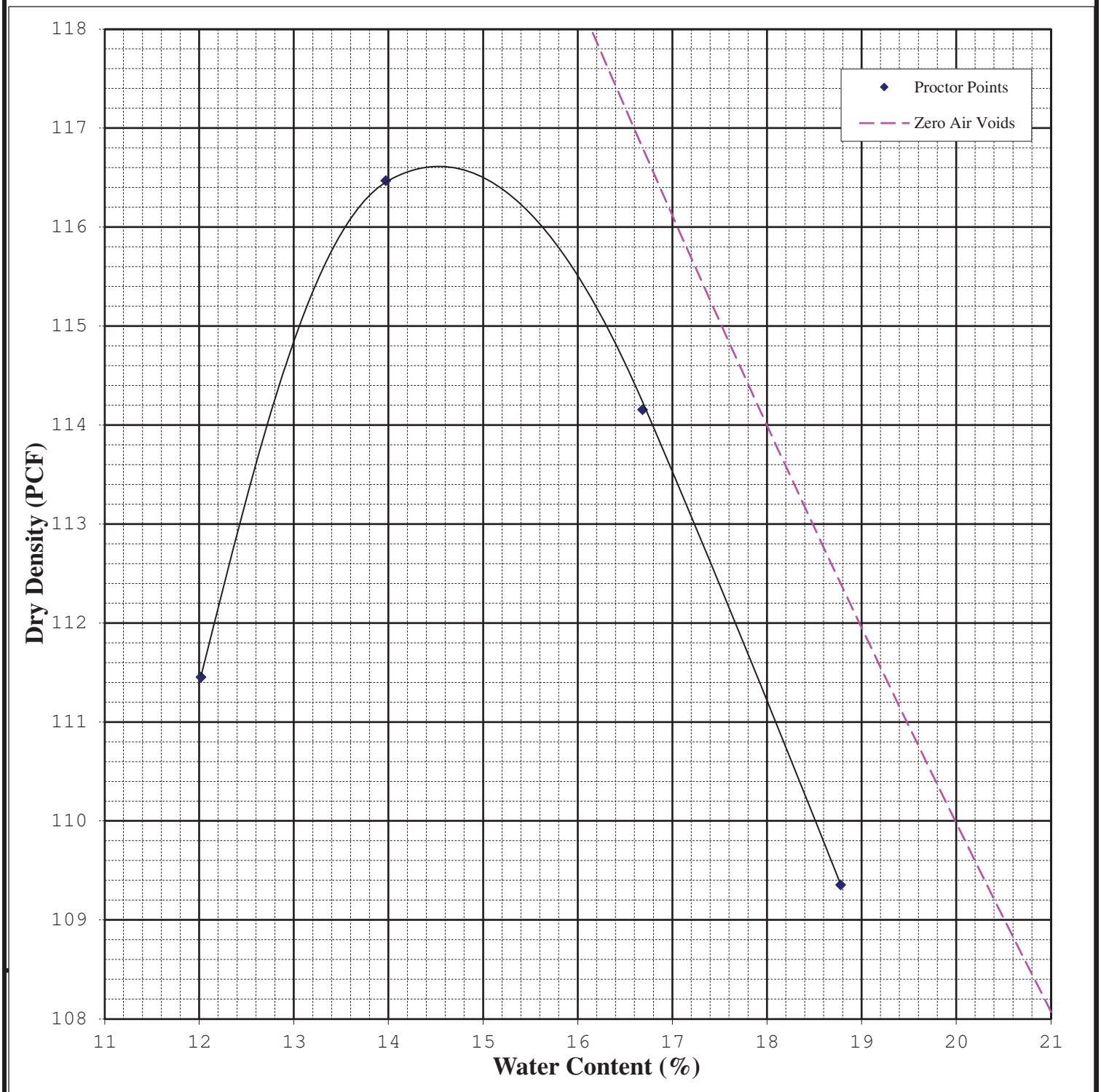
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-18** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **15.4** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **116.6** Opt. Water Content (%): **14.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

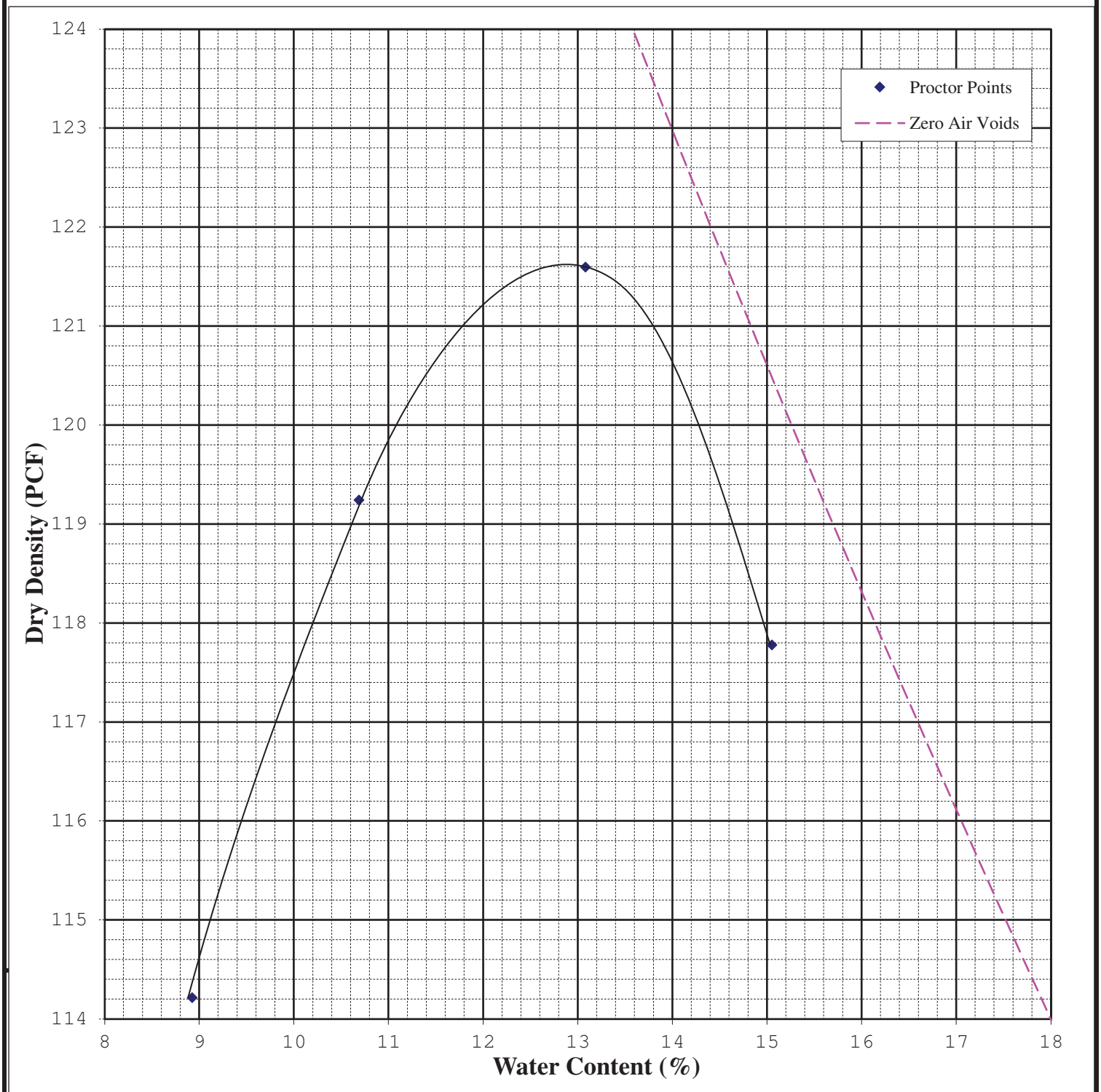
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-20** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.1** LL: **27** PL: **15** PI: **12** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **121.6** Opt. Water Content (%): **12.9**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

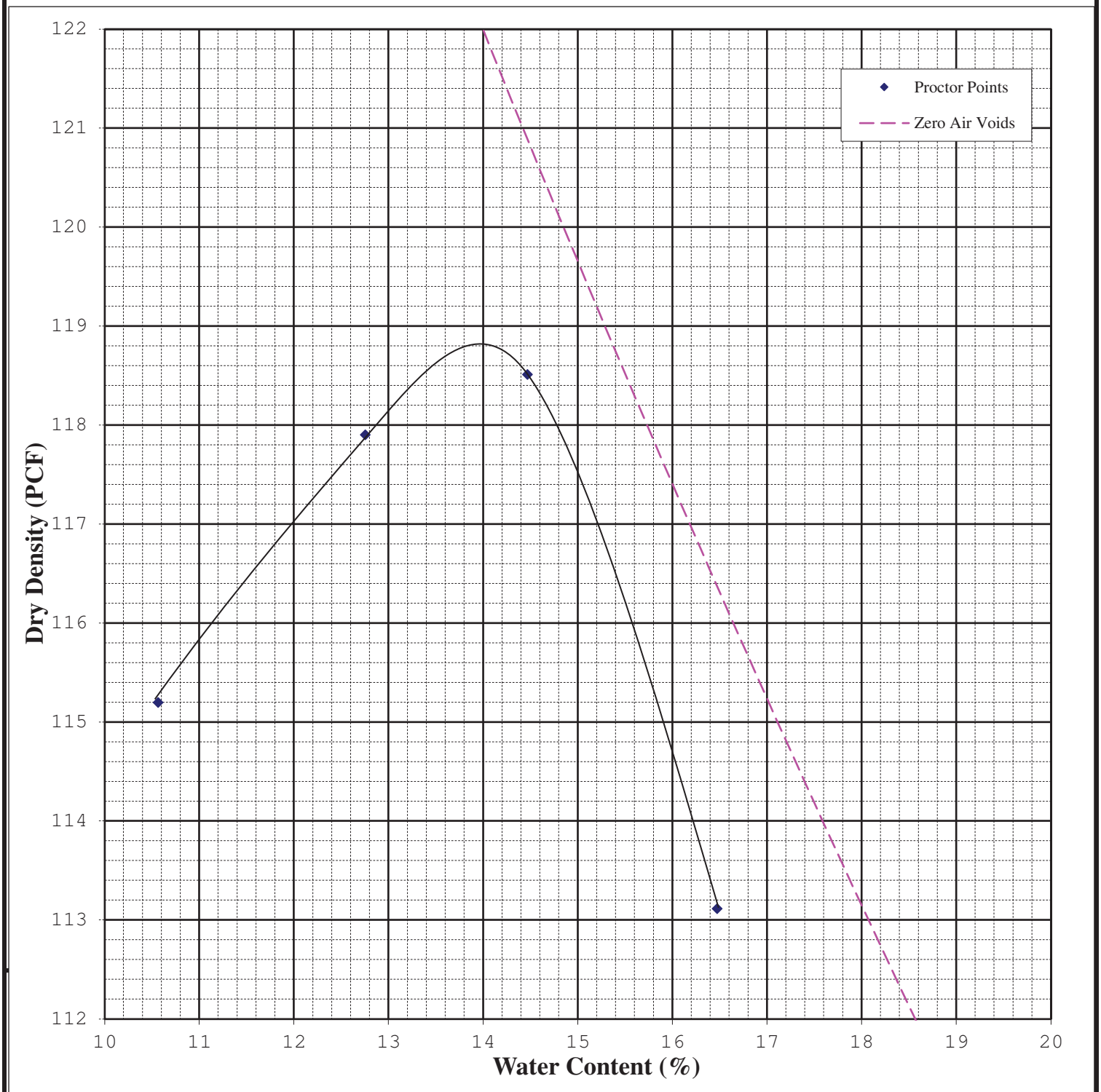
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-28** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.9** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **118.8** Opt. Water Content (%): **14.0**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

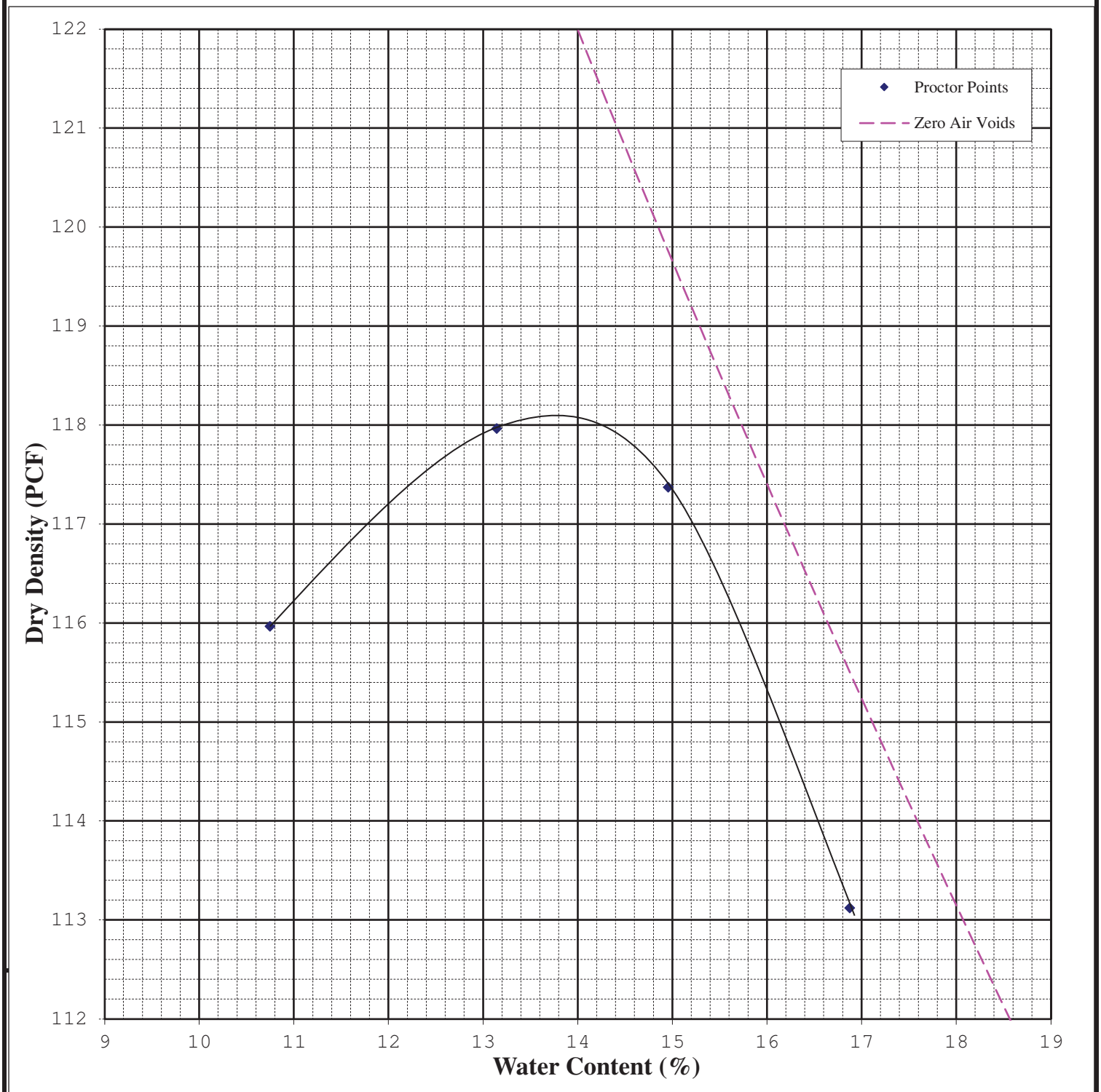
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-34** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a trace of gravel (CL)**

As Received W.C. (%): **13.5** LL: **28** PL: **16** PI: **12** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **118.1** Opt. Water Content (%): **13.8**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

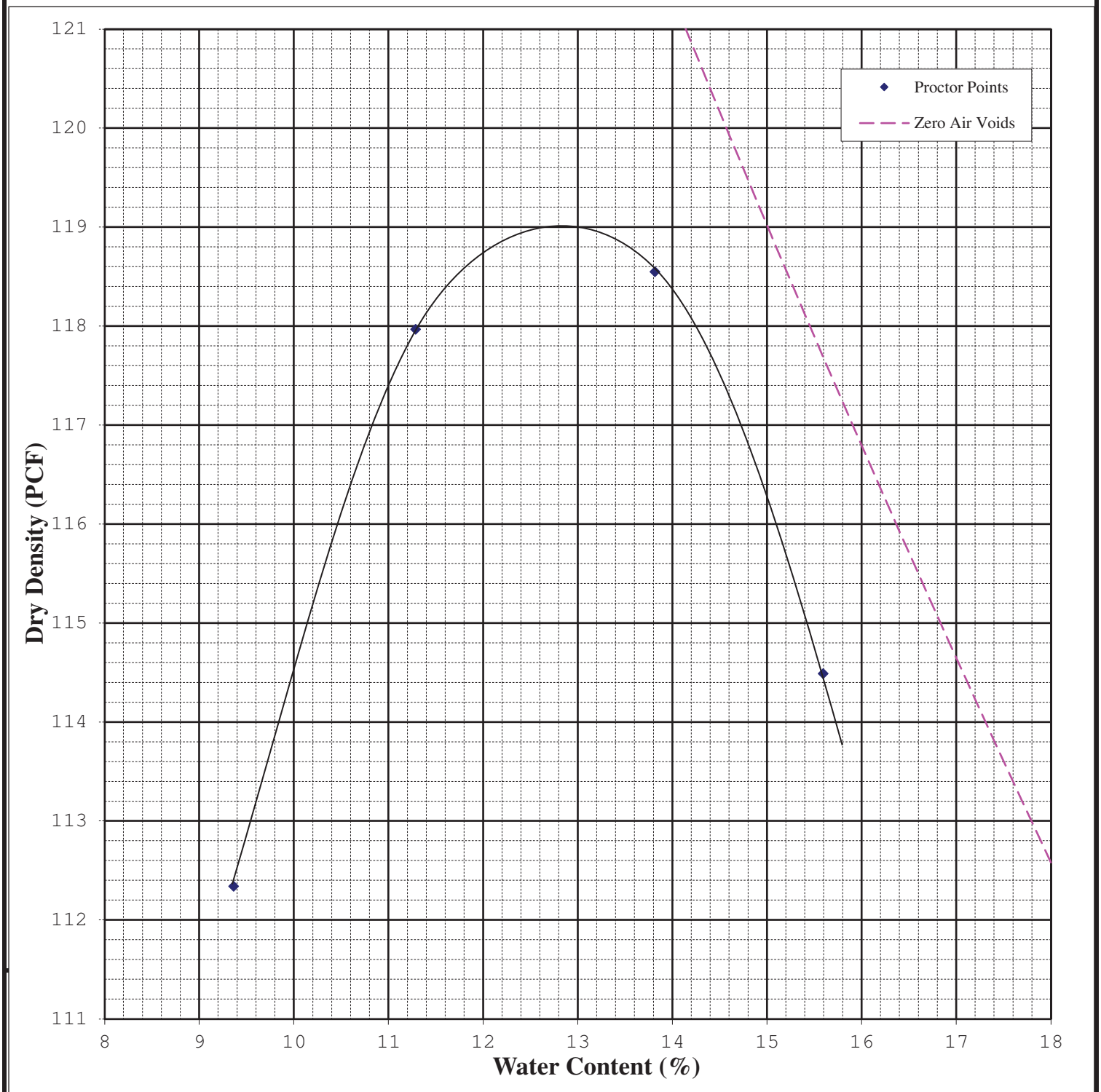
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-36** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a trace of gravel (CL)**

As Received W.C. (%): **15.3** LL: **35** PL: **16** PI: **19** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **119.0** Opt. Water Content (%): **12.8**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

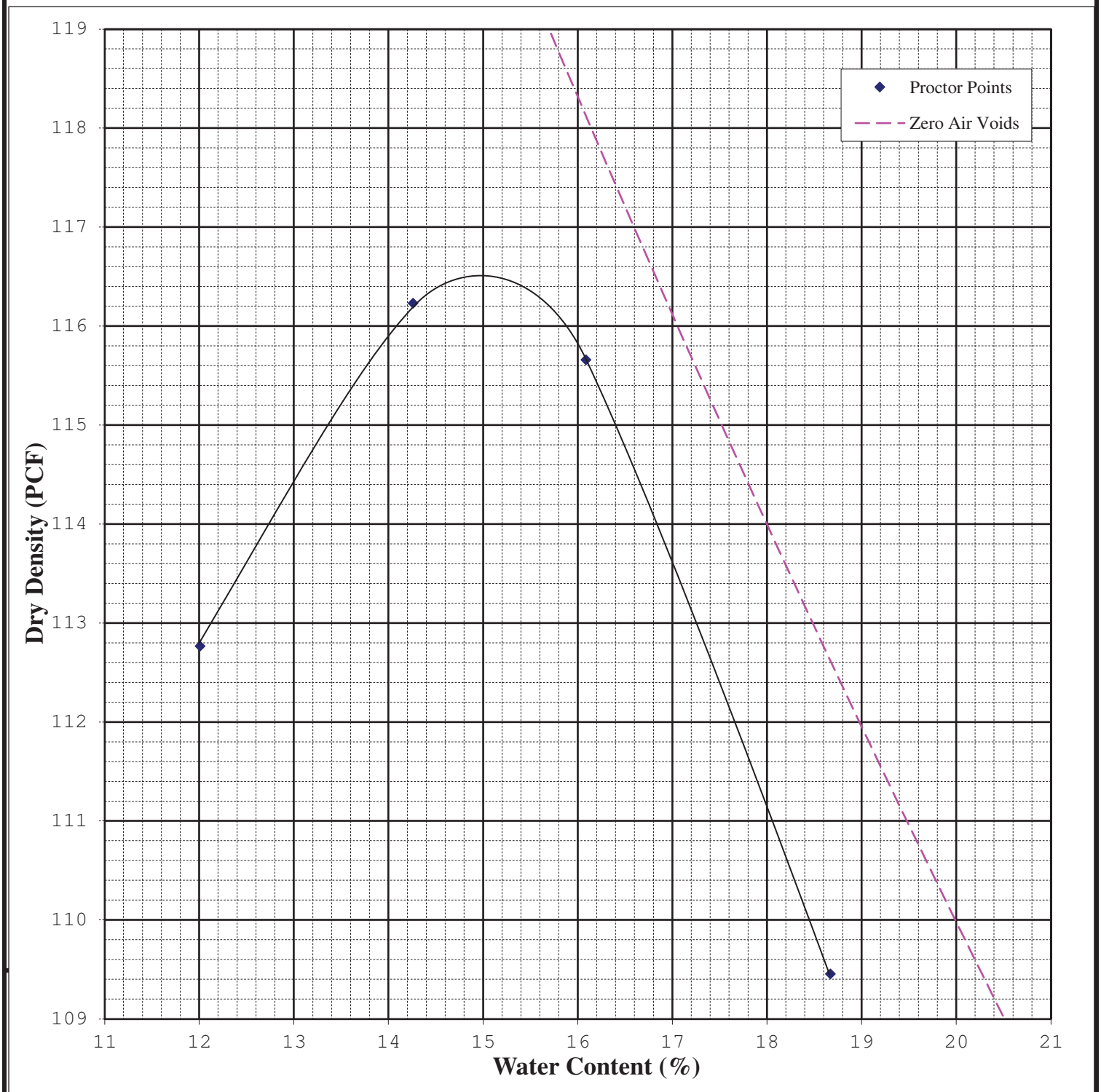
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-41** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **15.4** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **116.5** Opt. Water Content (%): **15.0**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

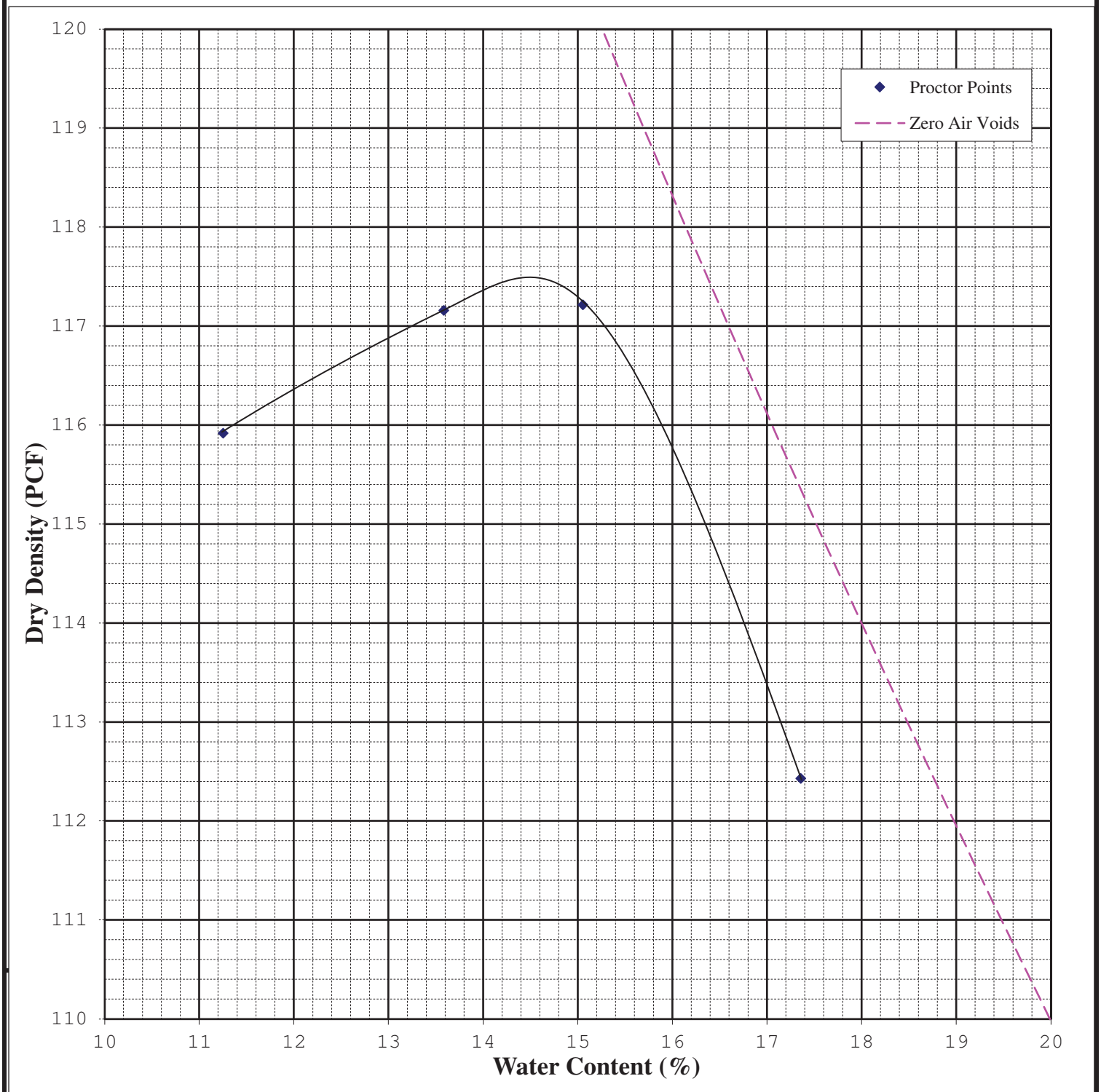
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-44** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **12.9** LL: **30** PL: **16** PI: **14** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **117.5** Opt. Water Content (%): **14.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

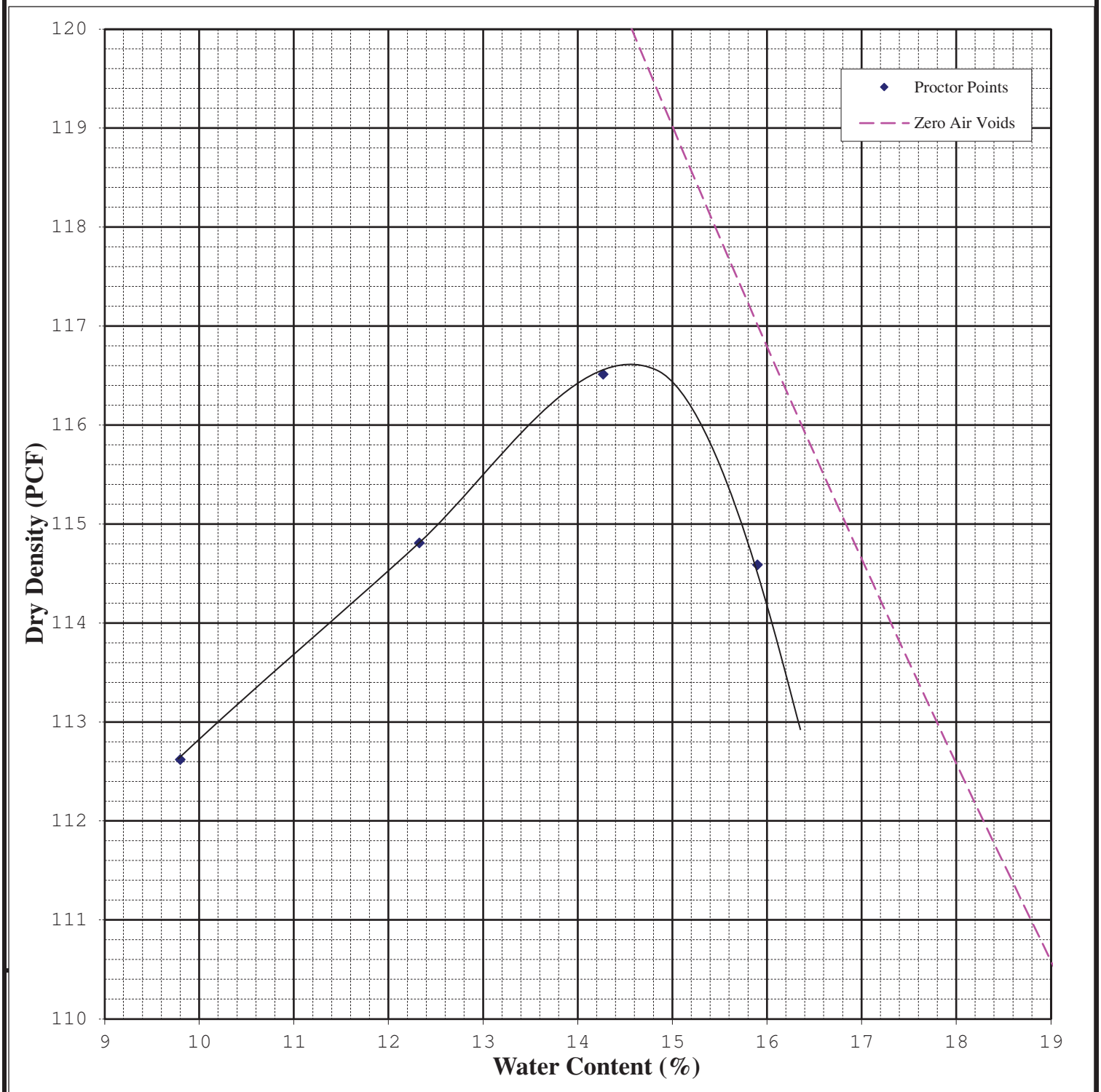
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-53** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **22.5** LL: **29** PL: **18** PI: **11** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **116.6** Opt. Water Content (%): **14.6**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

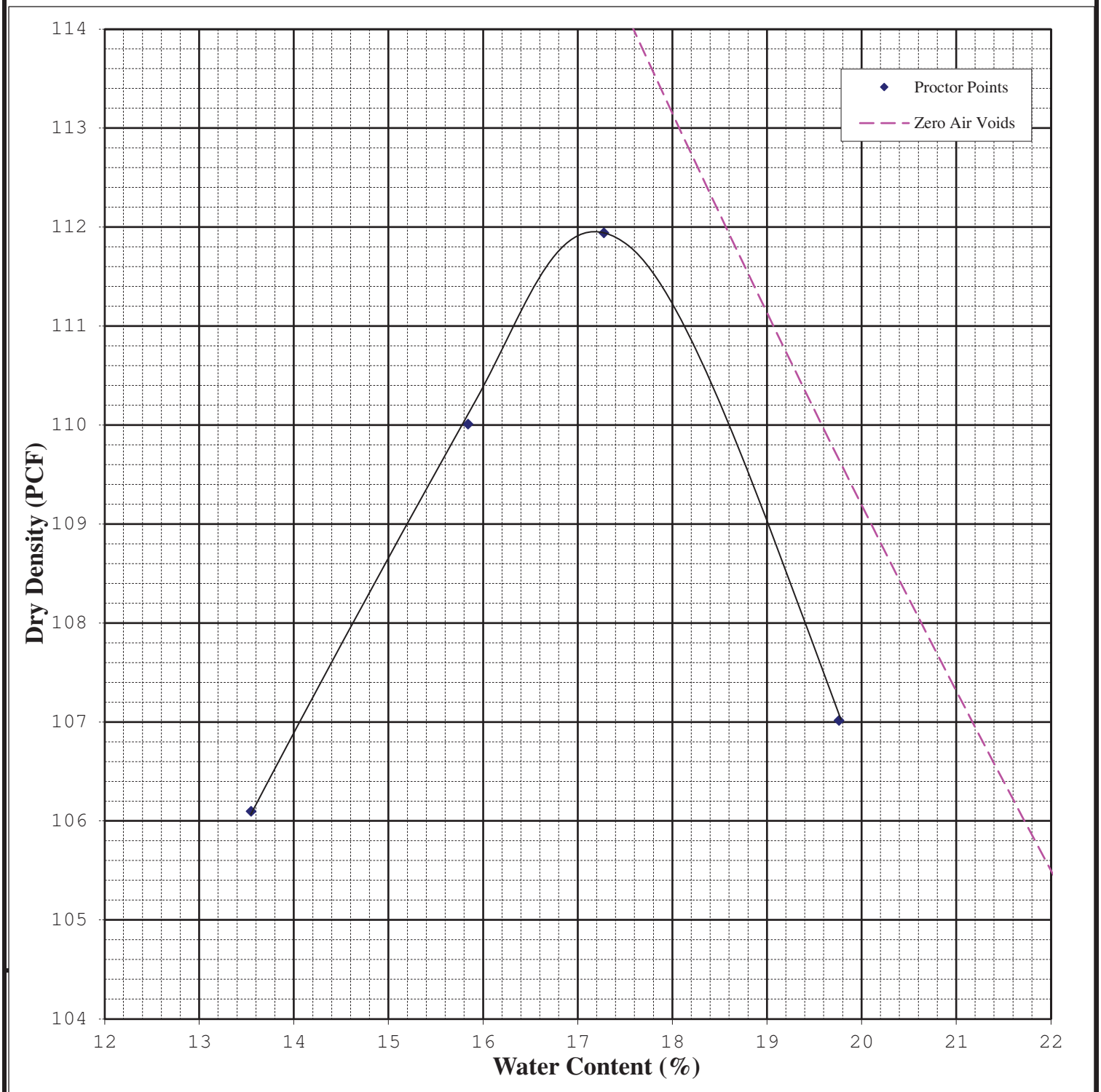
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-55** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **19.1** LL: **35** PL: **17** PI: **18** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **111.9** Opt. Water Content (%): **17.2**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

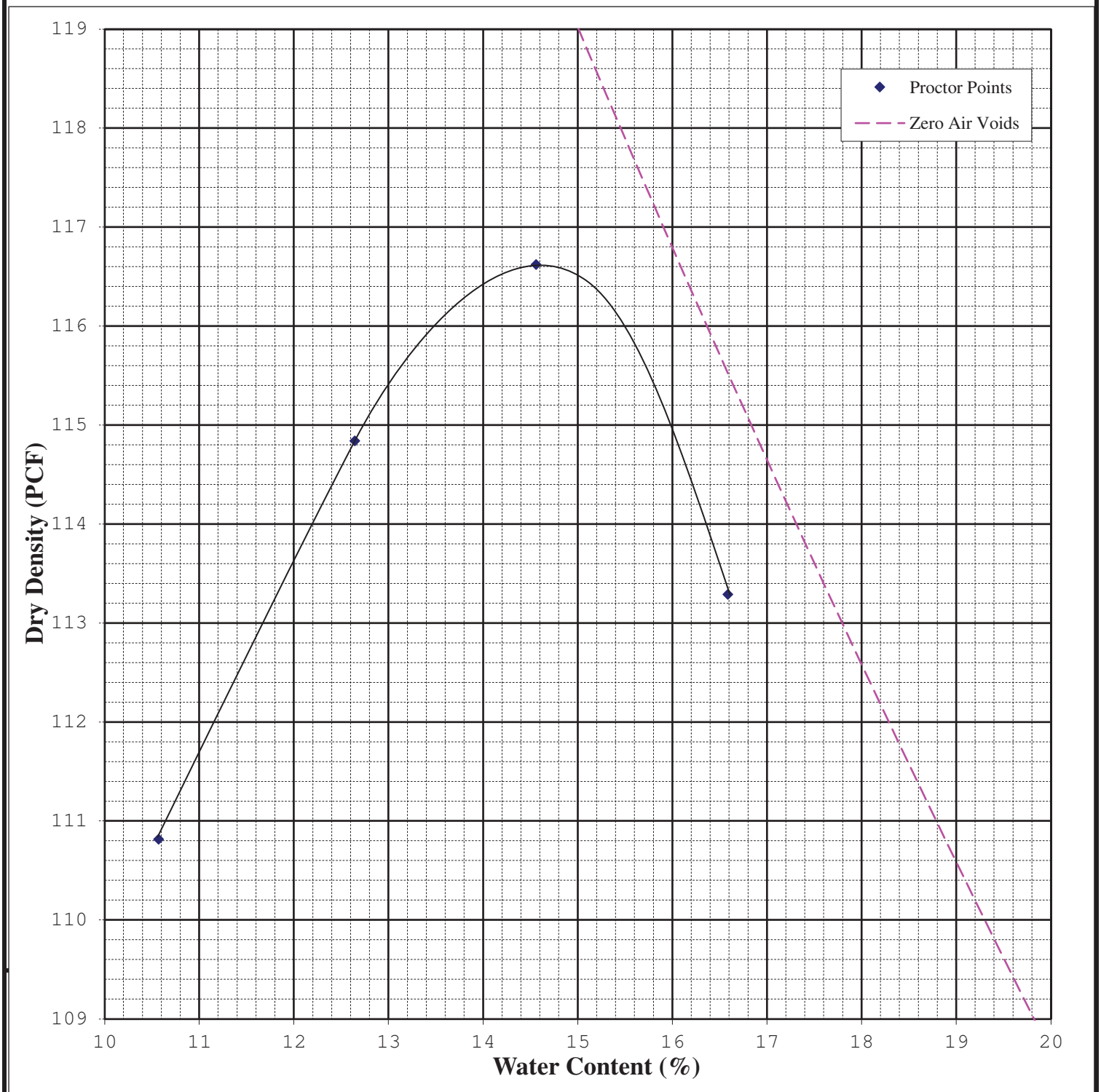
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-63** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **17.5** LL: **33** PL: **16** PI: **17** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **116.6** Opt. Water Content (%): **14.6**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

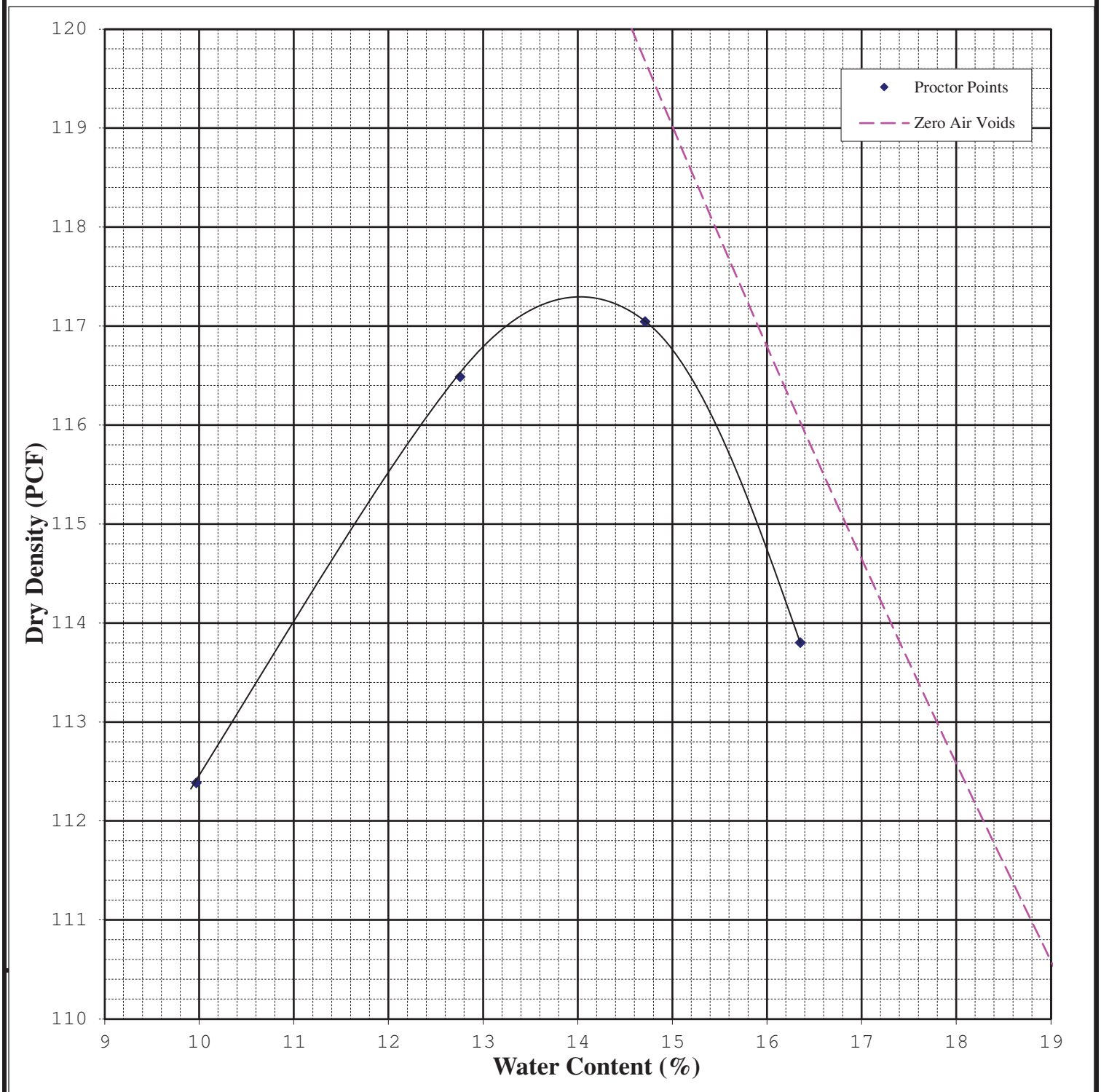
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-65** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **17.9** LL: **35** PL: **17** PI: **18** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **117.3** Opt. Water Content (%): **14.0**



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Project: **Fox Squirrel** Date: **12/11/20**

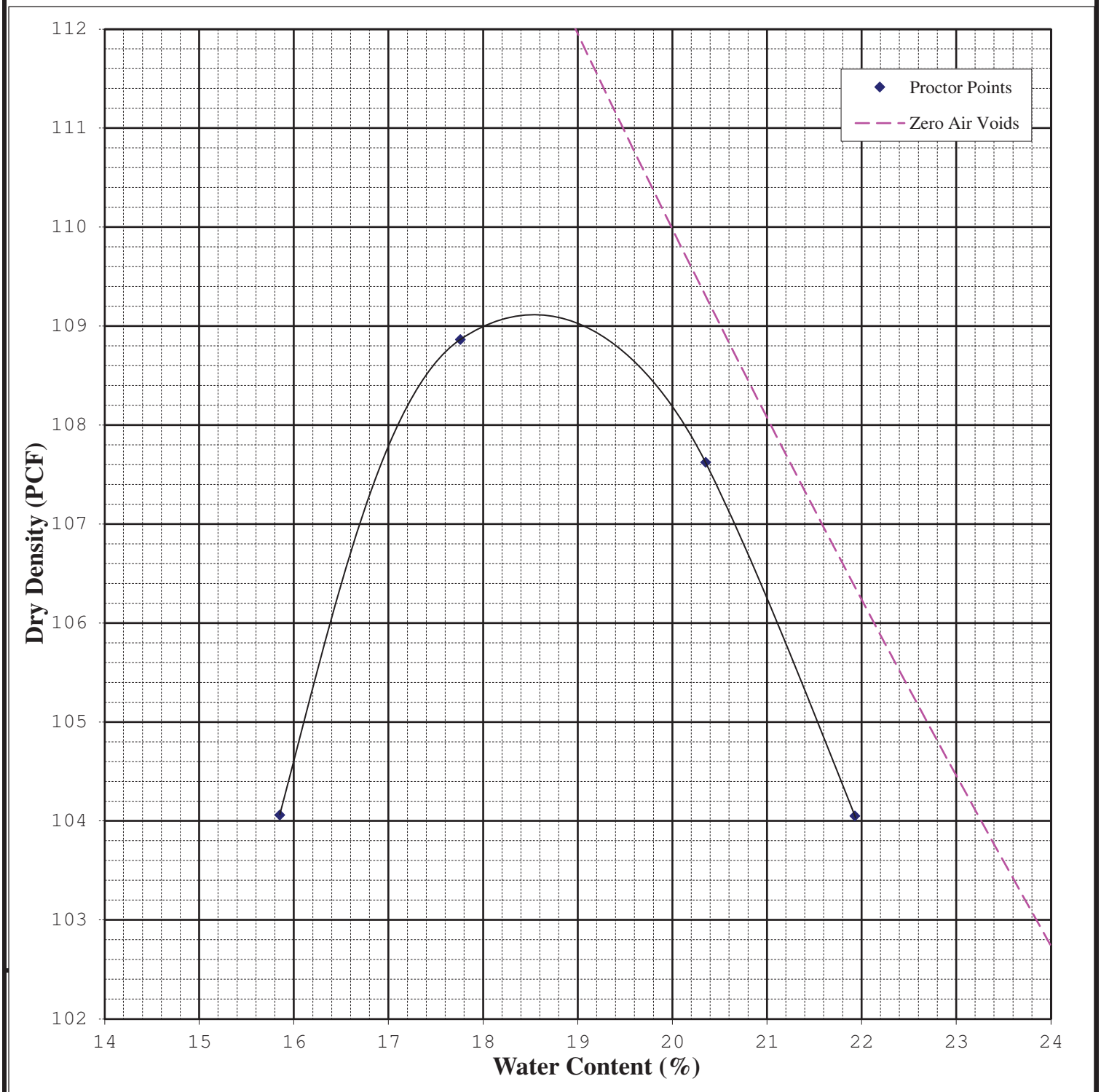
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-67** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **23.7** LL: **45** PL: **19** PI: **26** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **109.1** Opt. Water Content (%): **18.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

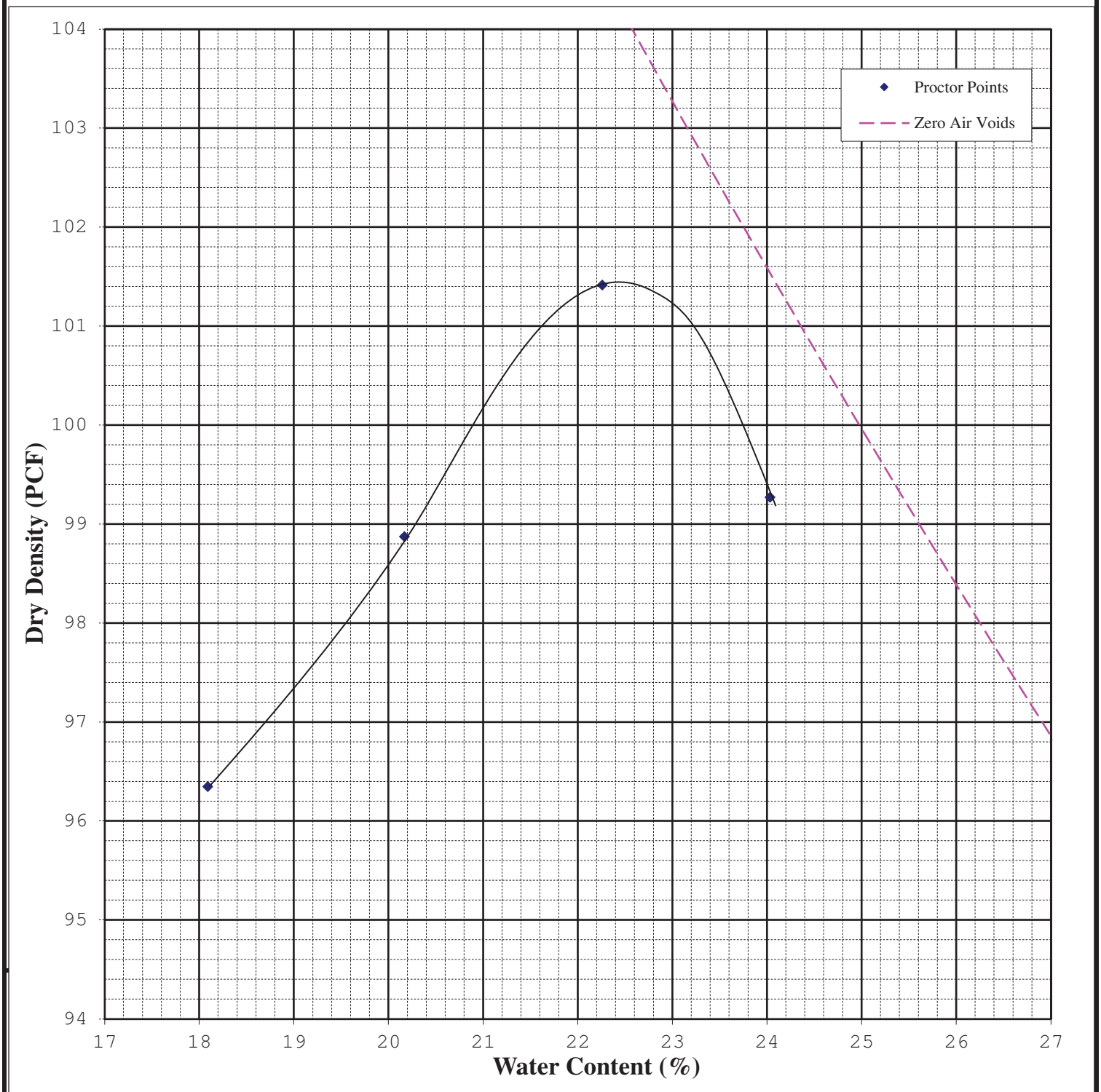
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-69** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand a a trace of gravel (CL)**

As Received W.C. (%): **24.4** LL: **48** PL: **20** PI: **28** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **101.4** Opt. Water Content (%): **22.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

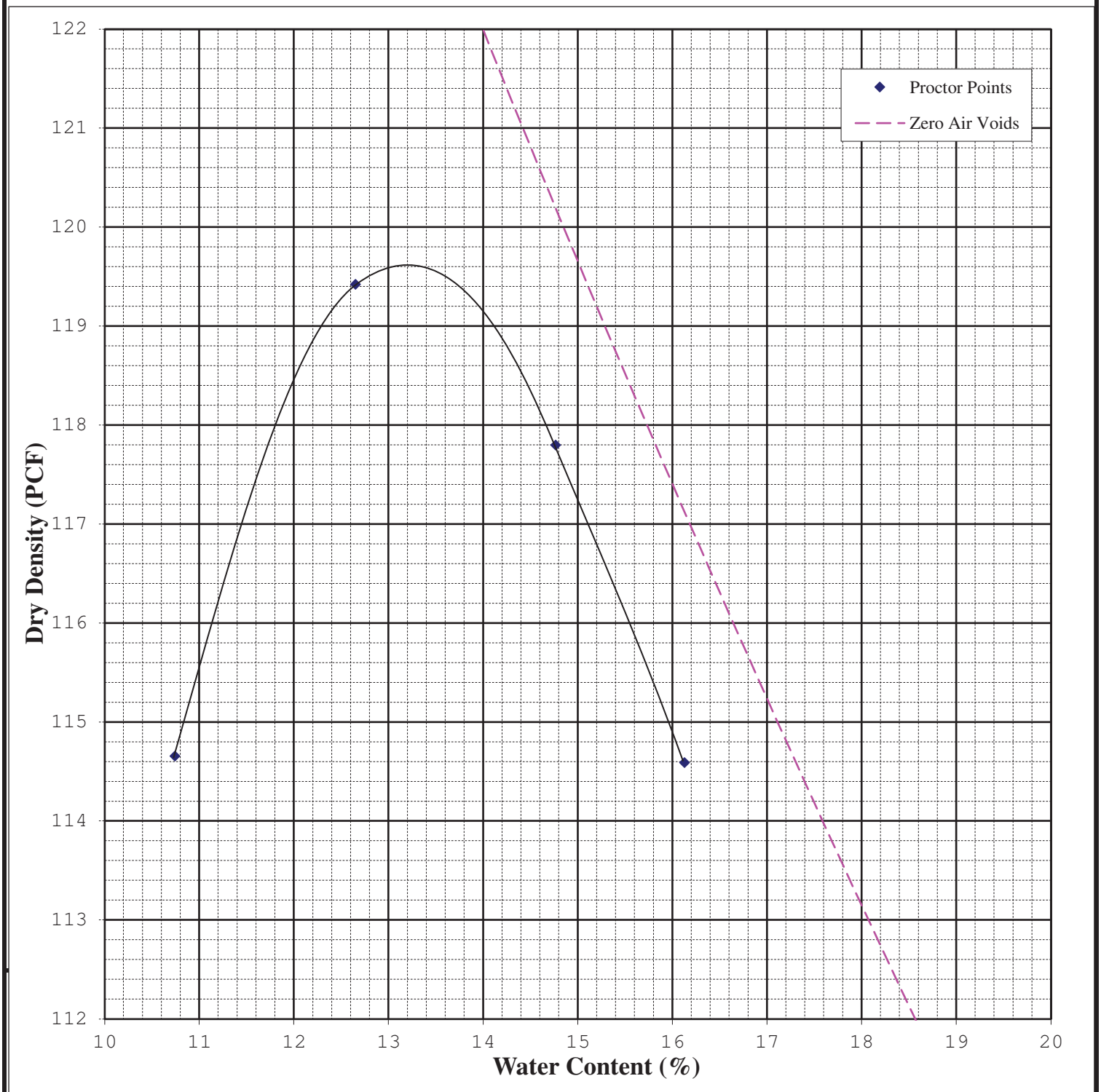
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-78** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.3** LL: **29** PL: **16** PI: **13** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **119.6** Opt. Water Content (%): **13.2**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

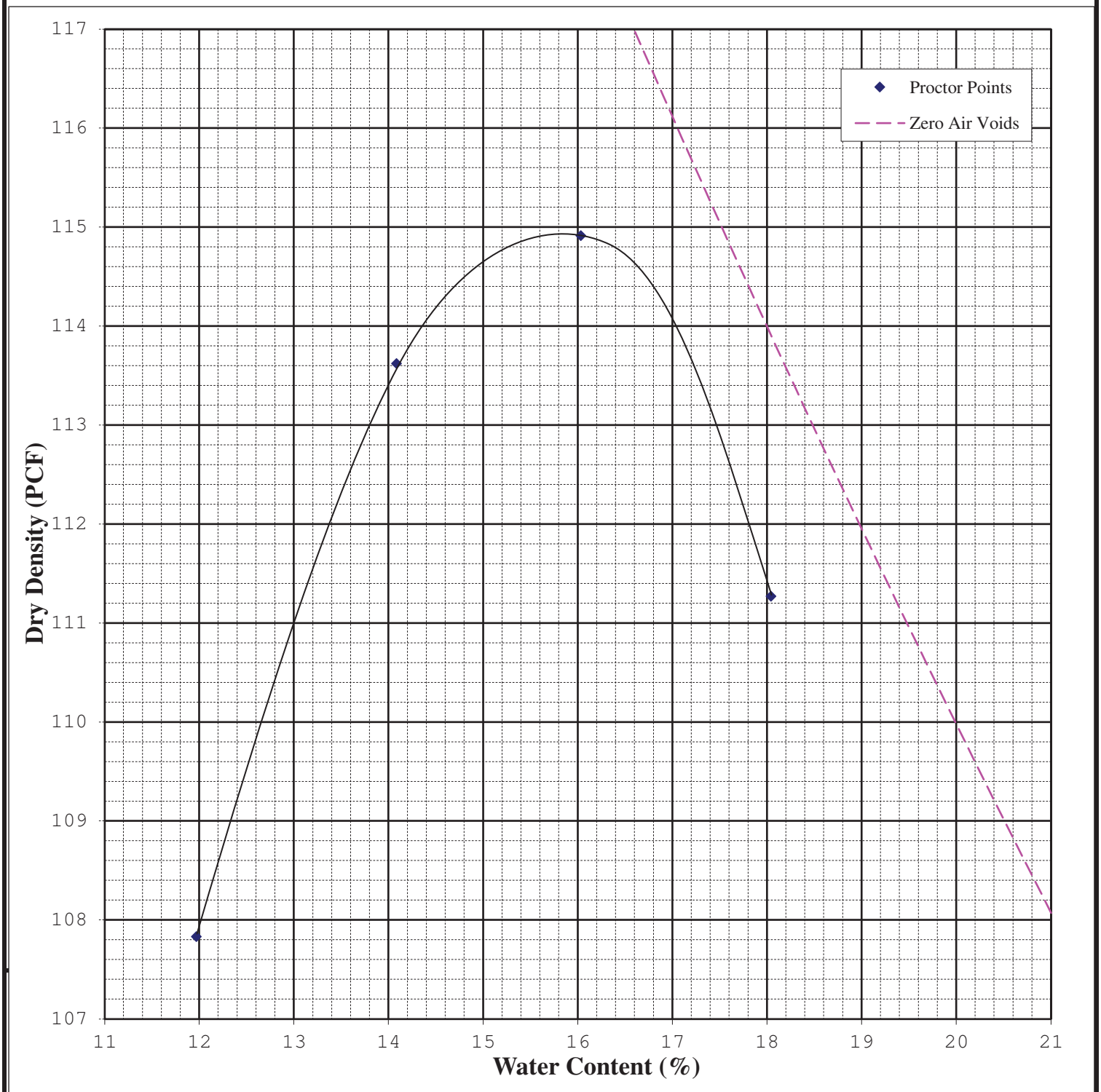
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-80** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **18.0** LL: **36** PL: **17** PI: **19** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **114.9** Opt. Water Content (%): **15.8**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

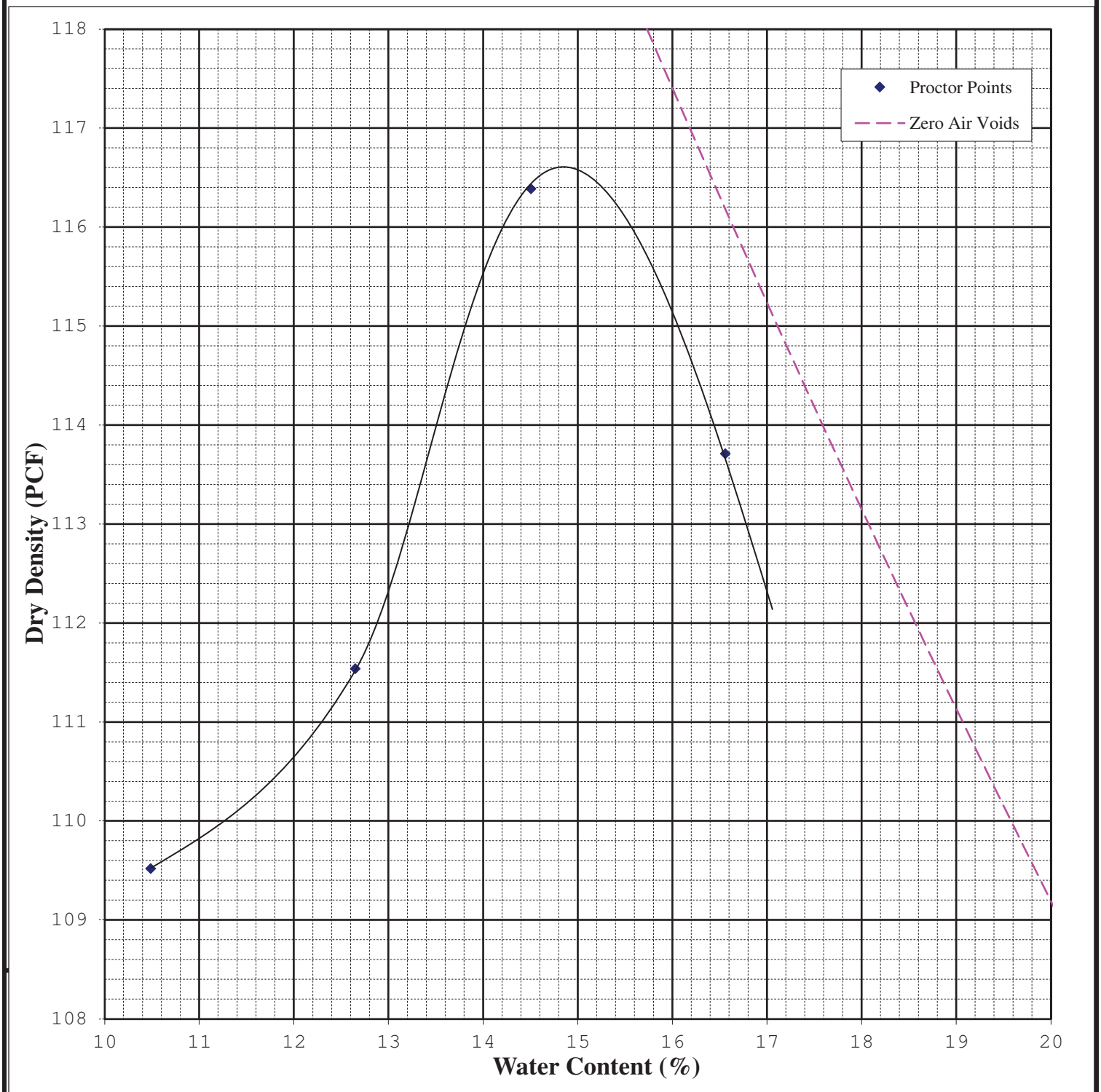
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-82** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **16.3** LL: **31** PL: **16** PI: **15** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **116.6** Opt. Water Content (%): **14.8**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

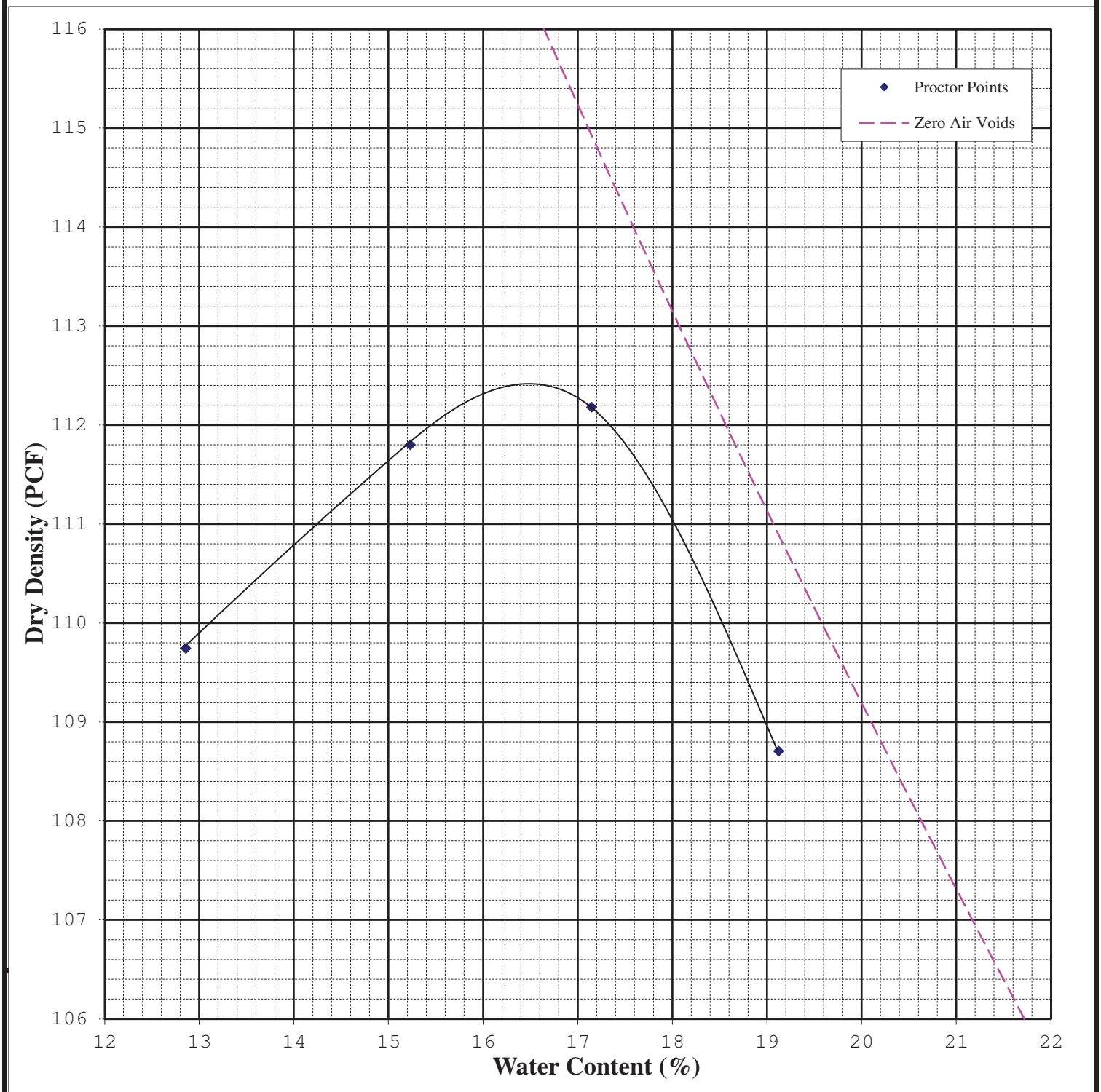
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-84** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **19.3** LL: **40** PL: **17** PI: **23** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **112.4** Opt. Water Content (%): **16.5**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

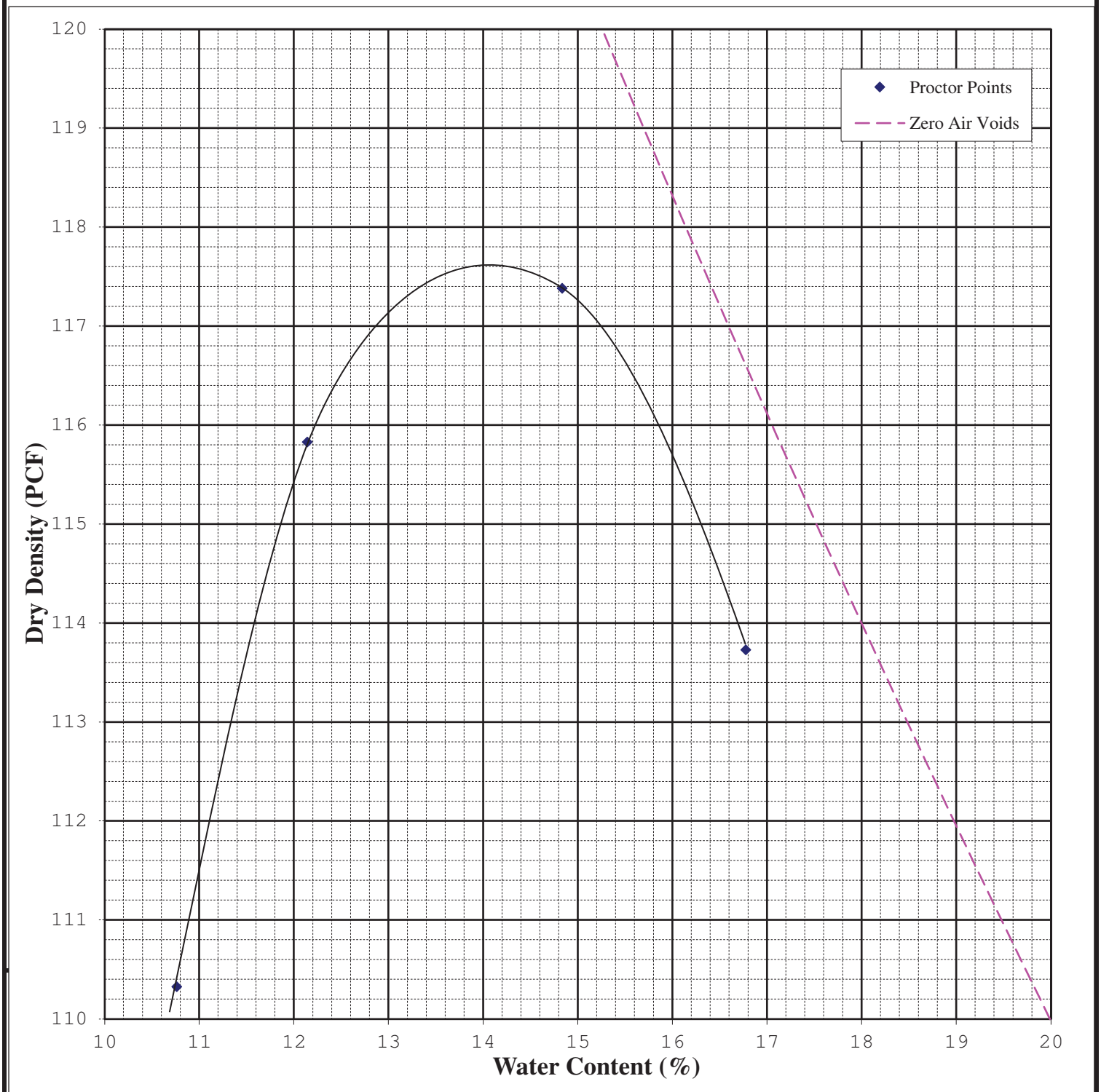
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-88** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **13.8** LL: **33** PL: **16** PI: **17** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **117.6** Opt. Water Content (%): **14.1**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

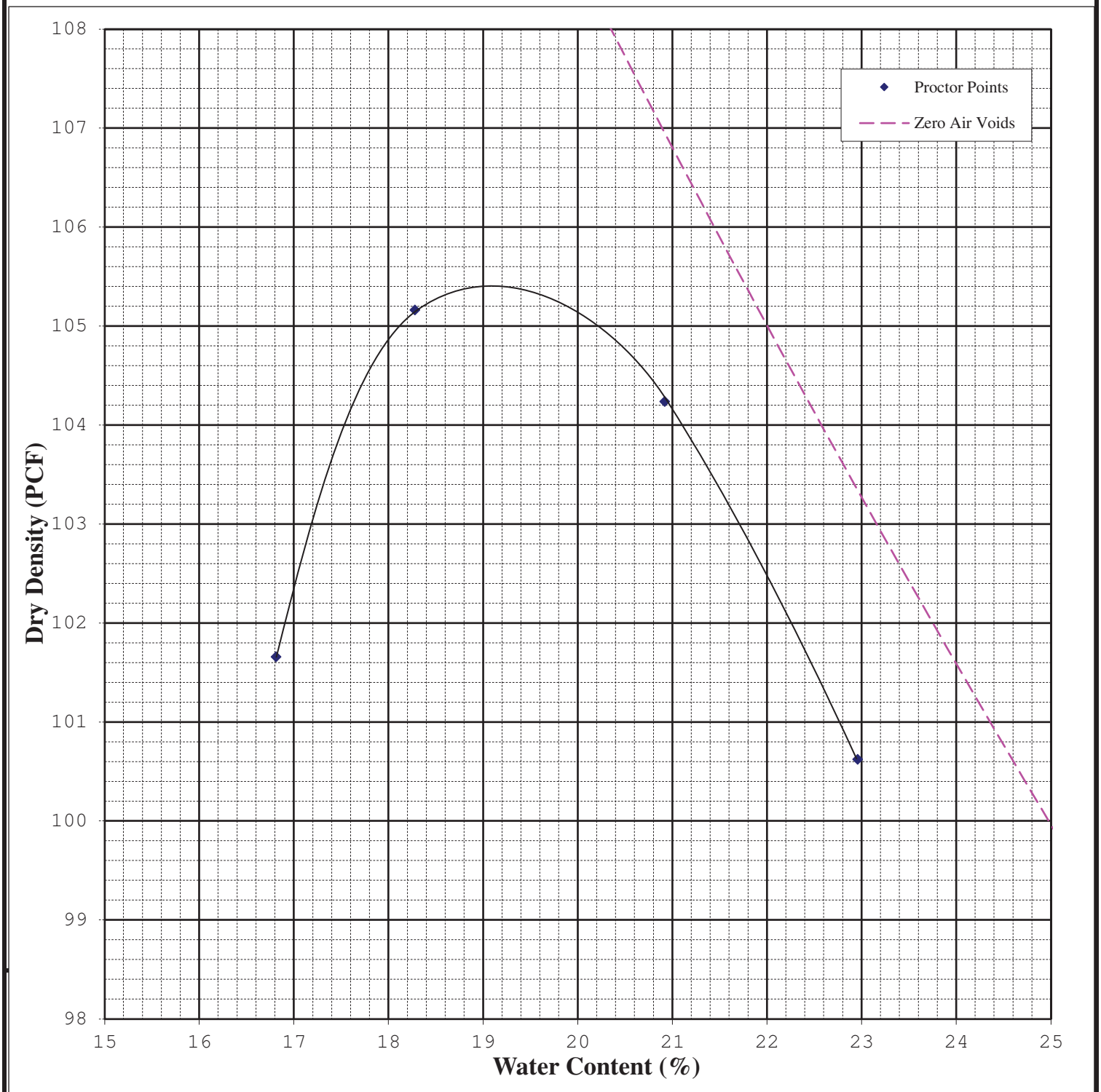
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-99** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a little gravel (CL)**

As Received W.C. (%): **21.4** LL: **44** PL: **18** PI: **26** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **105.4** Opt. Water Content (%): **19.1**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

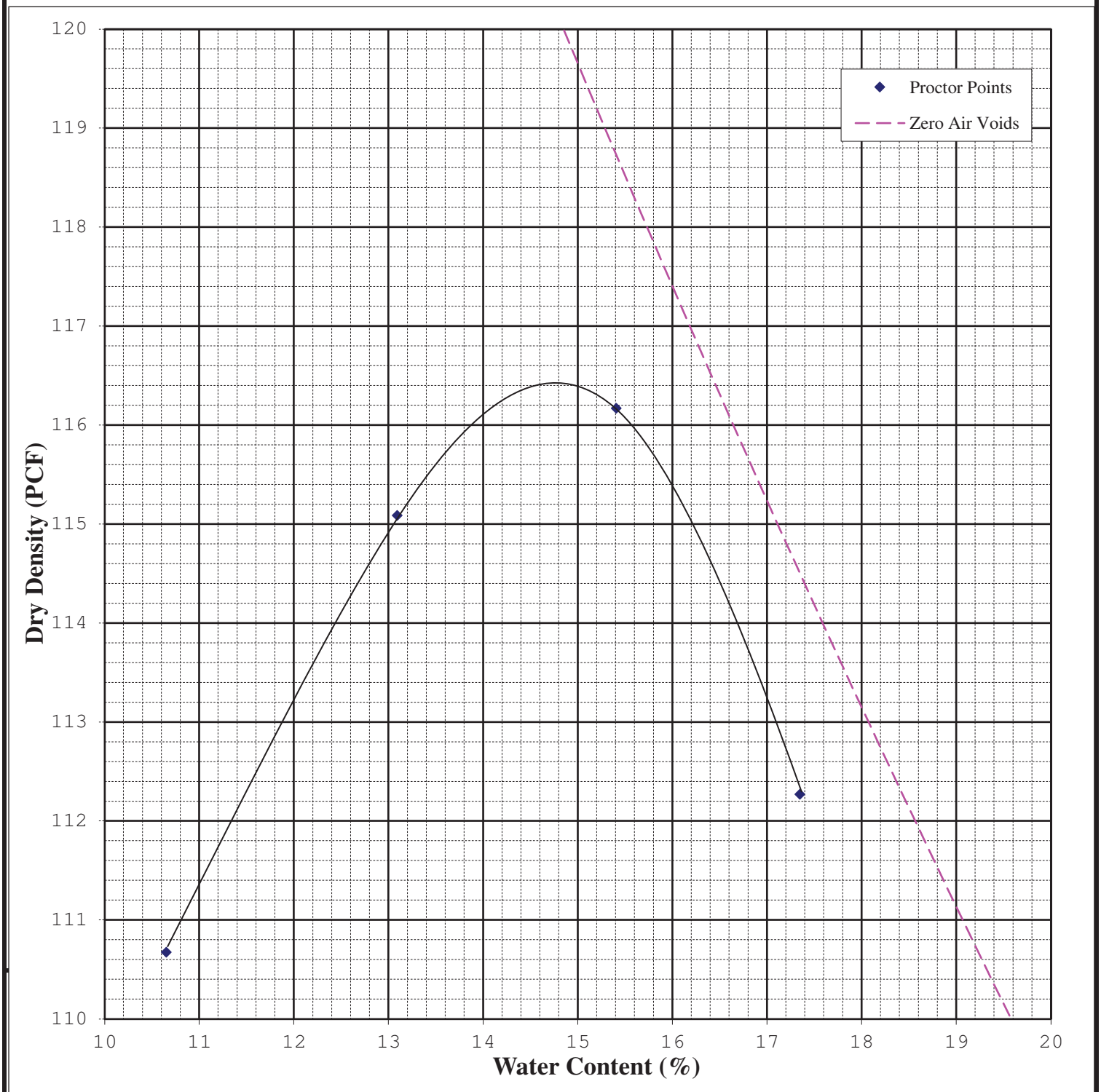
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-102** Sample: Depth(ft): **1-3** Location:

Soil Type: **Lean Clay w/sand (CL)**

As Received W.C. (%): **16.8** LL: **34** PL: **16** PI: **18** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **116.4** Opt. Water Content (%): **14.8**



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Project: **Fox Squirrel** Date: **12/11/20**

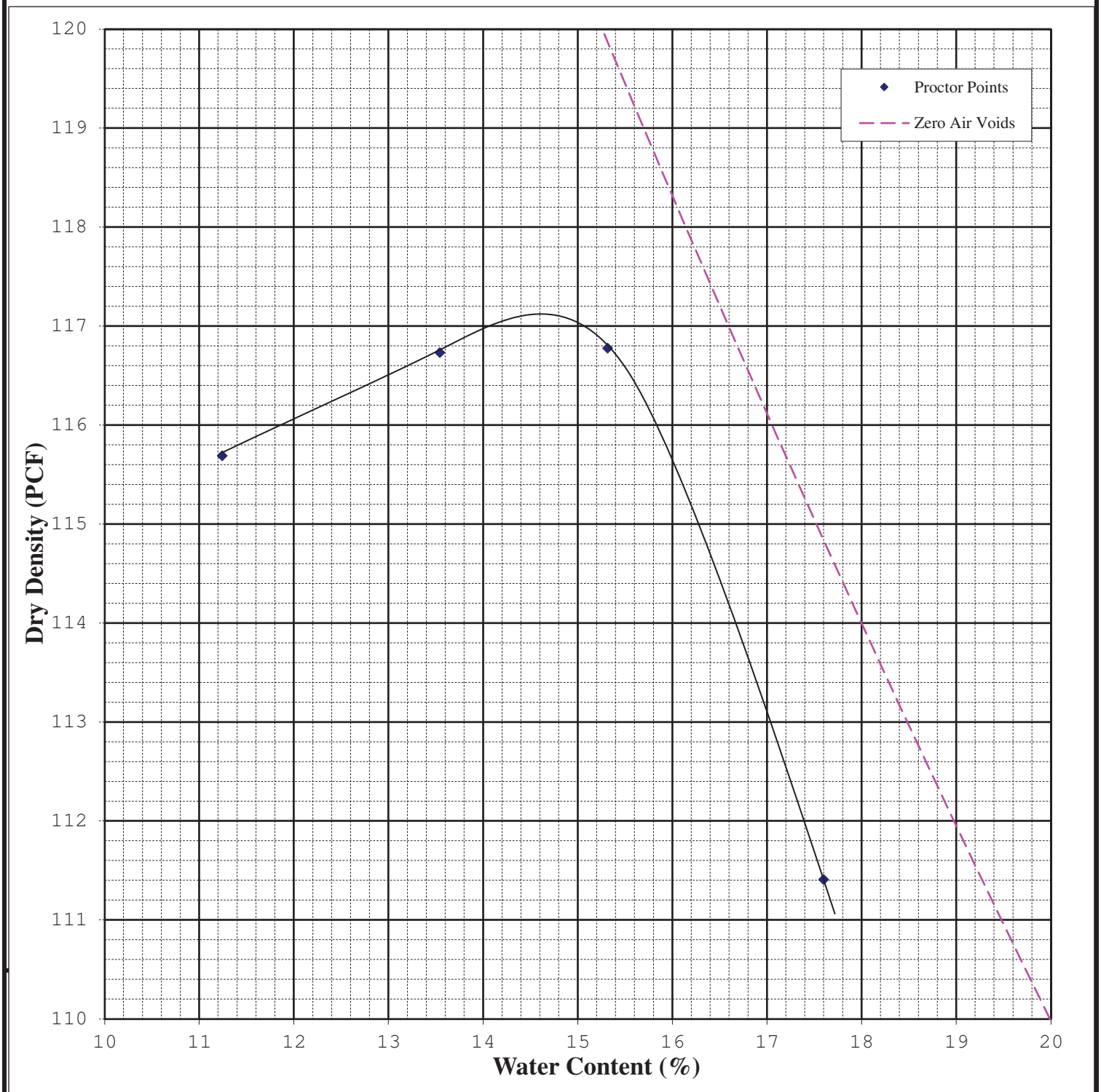
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-105** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.4** LL: **29** PL: **15** PI: **14** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **117.1** Opt. Water Content (%): **14.6**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

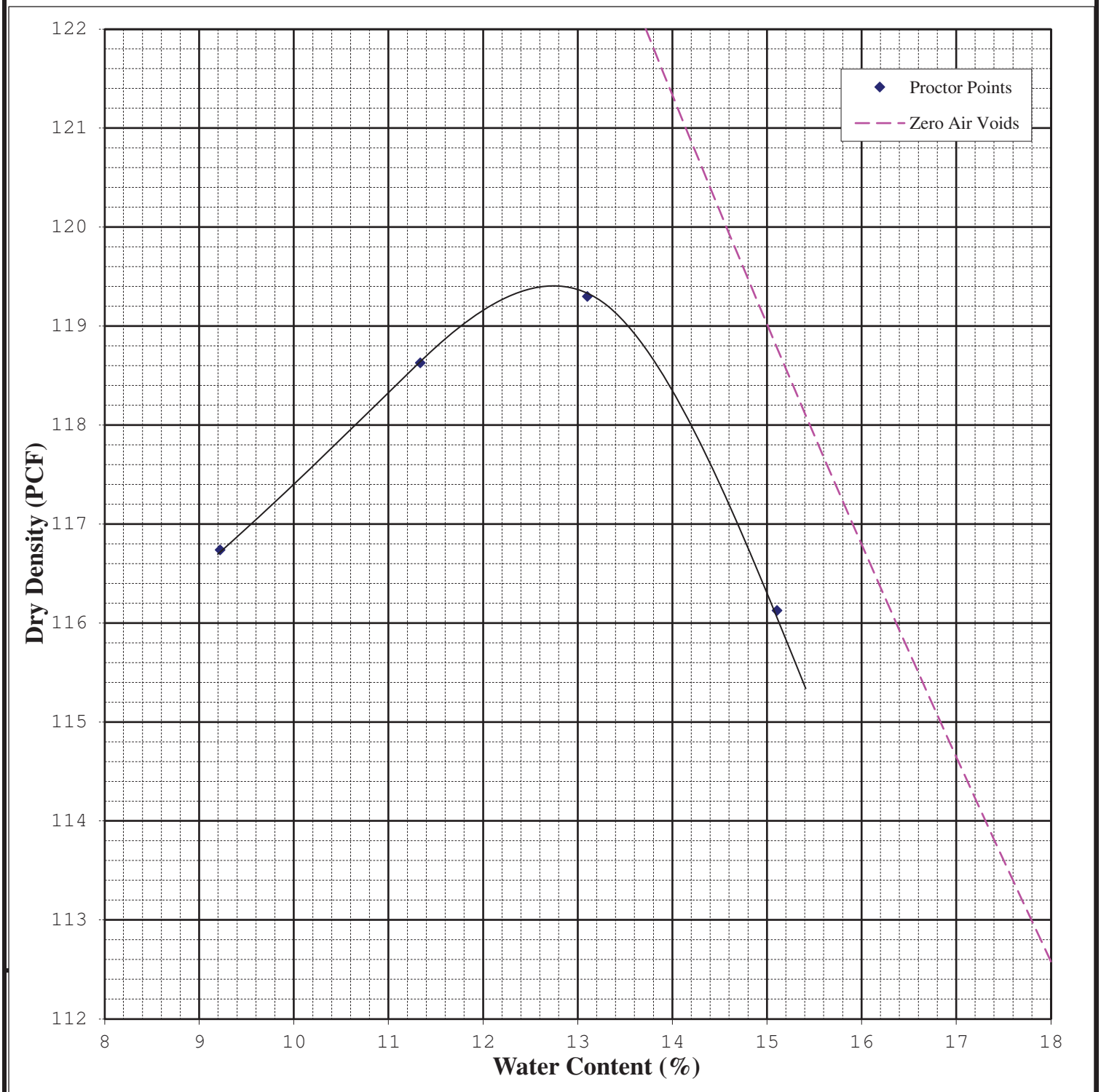
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-107** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **21.2** LL: **29** PL: **16** PI: **13** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **119.4** Opt. Water Content (%): **12.7**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

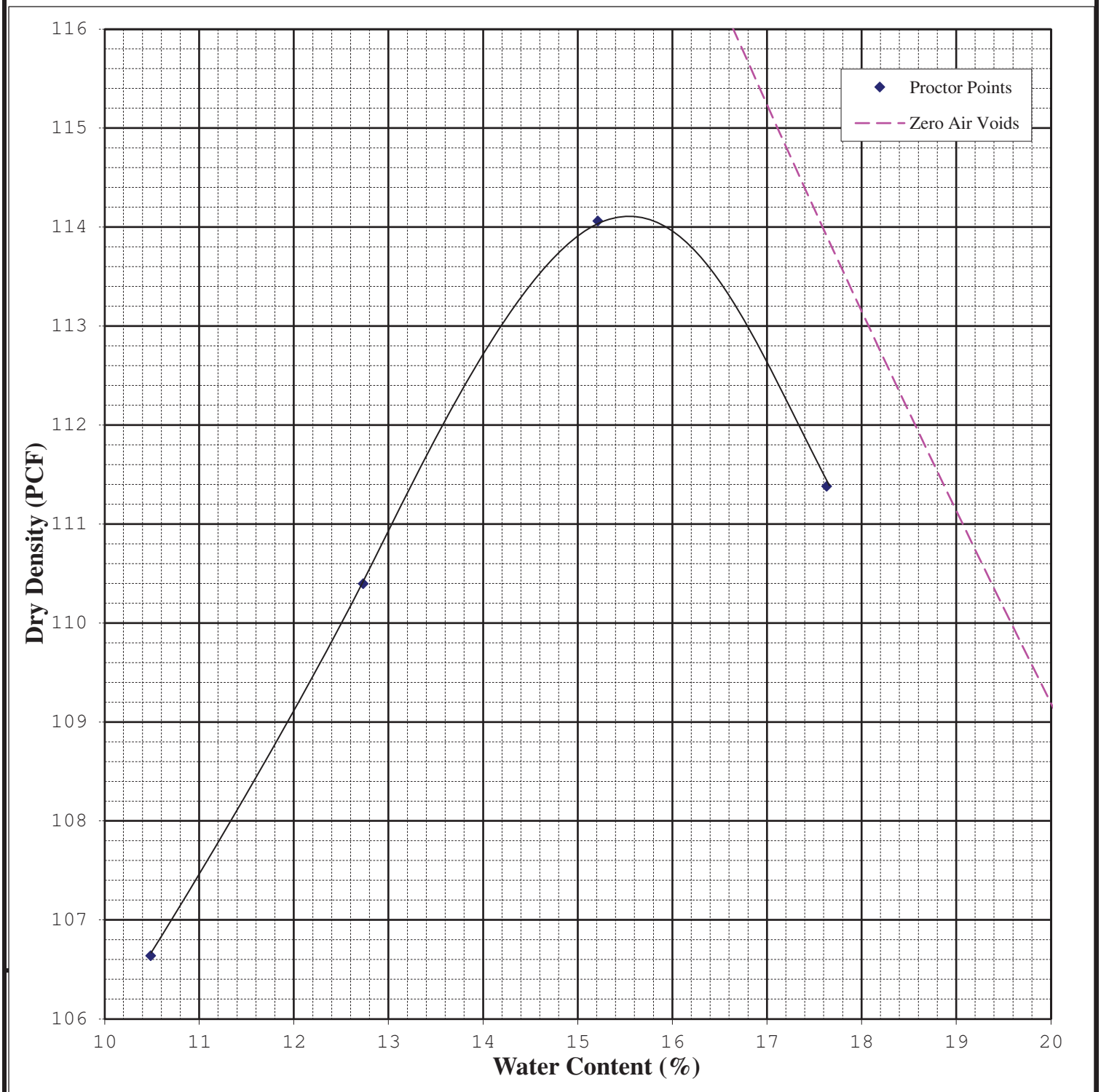
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-109** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **18.0** LL: **38** PL: **17** PI: **21** Specific Gravity: **2.69** *Assumed

Maximum Dry Density (pcf): **114.1** Opt. Water Content (%): **15.6**



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Project: **Fox Squirrel** Date: **12/11/20**

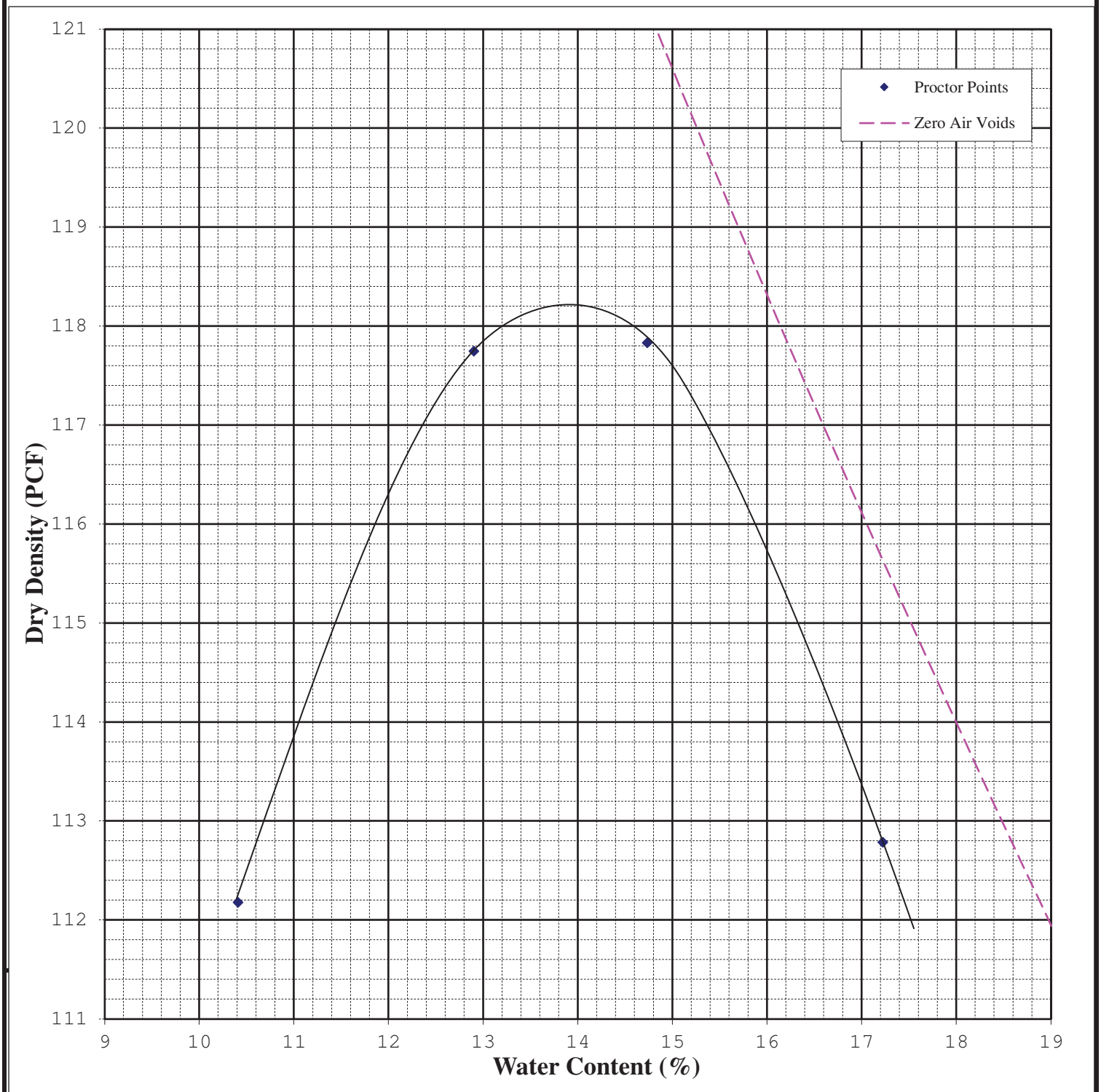
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-111** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **17.9** LL: **30** PL: **16** PI: **14** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **118.2** Opt. Water Content (%): **13.9**



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Project: **Fox Squirrel** Date: **12/11/20**

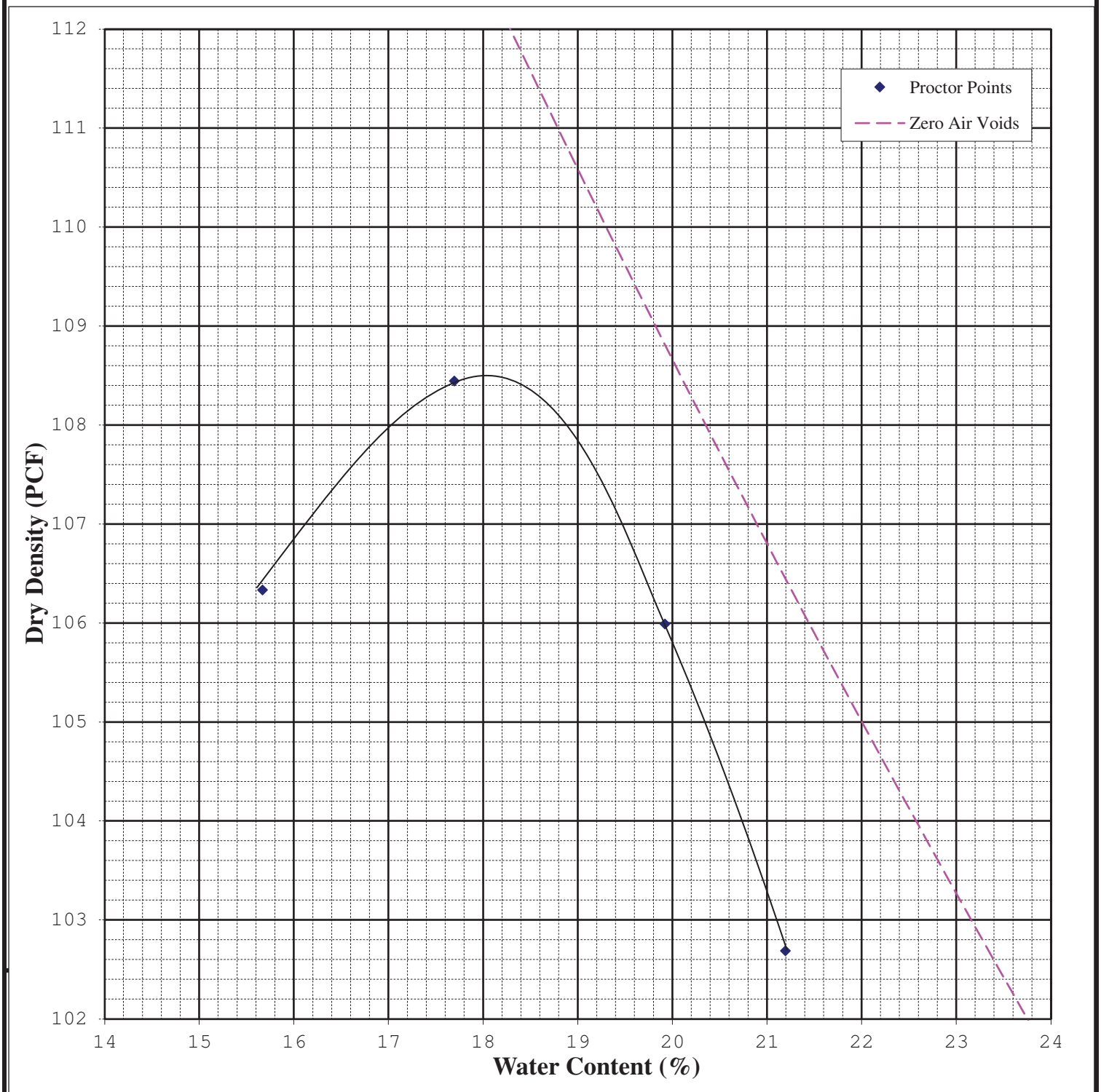
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-208** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **21.6** LL: **40** PL: **17** PI: **23** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **108.5** Opt. Water Content (%): **18.0**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

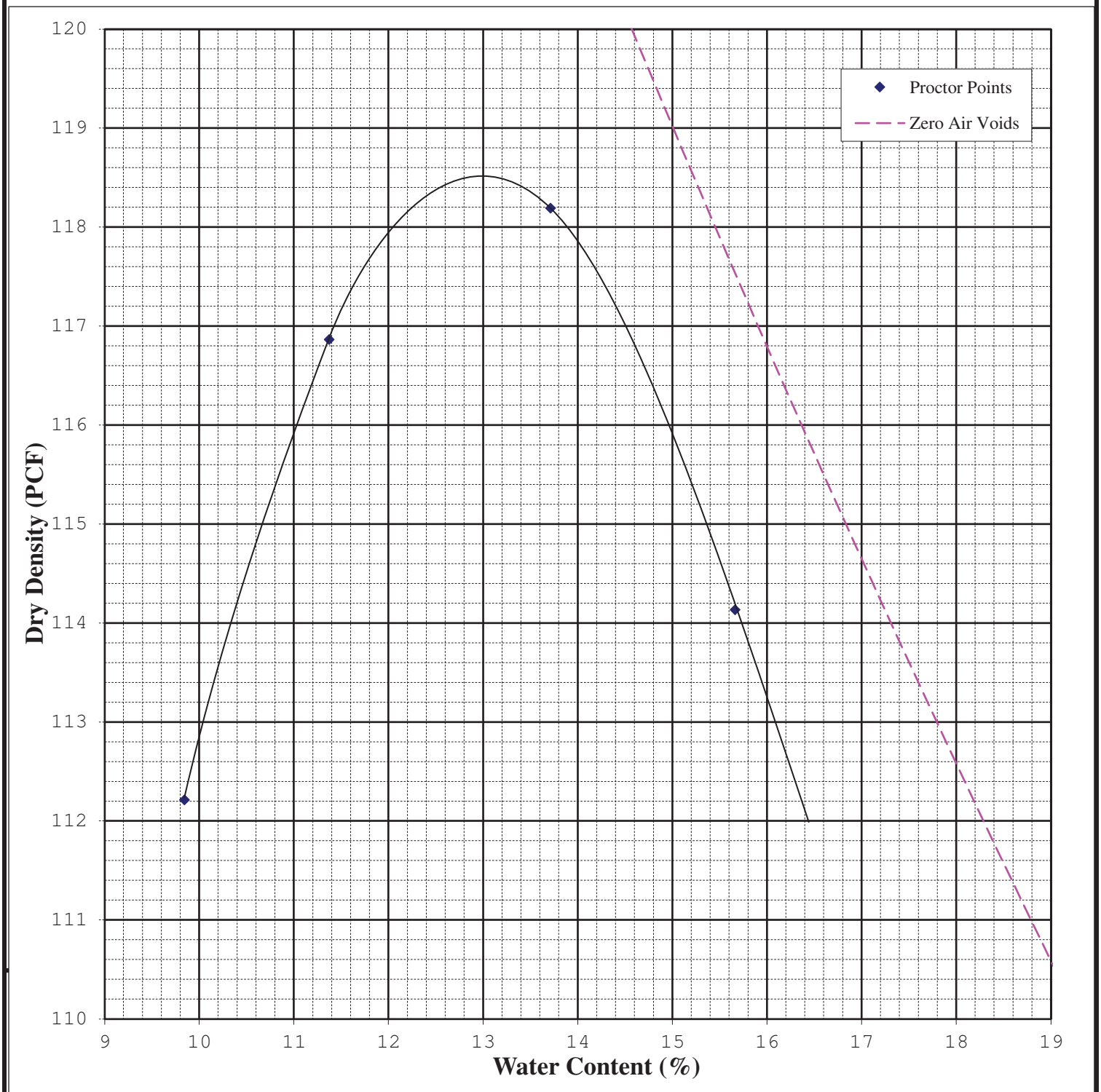
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-210** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **12.8** LL: **35** PL: **17** PI: **18** Specific Gravity: **2.67** *Assumed

Maximum Dry Density (pcf): **118.5** Opt. Water Content (%): **13.0**



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Project: **Fox Squirrel** Date: **12/11/20**

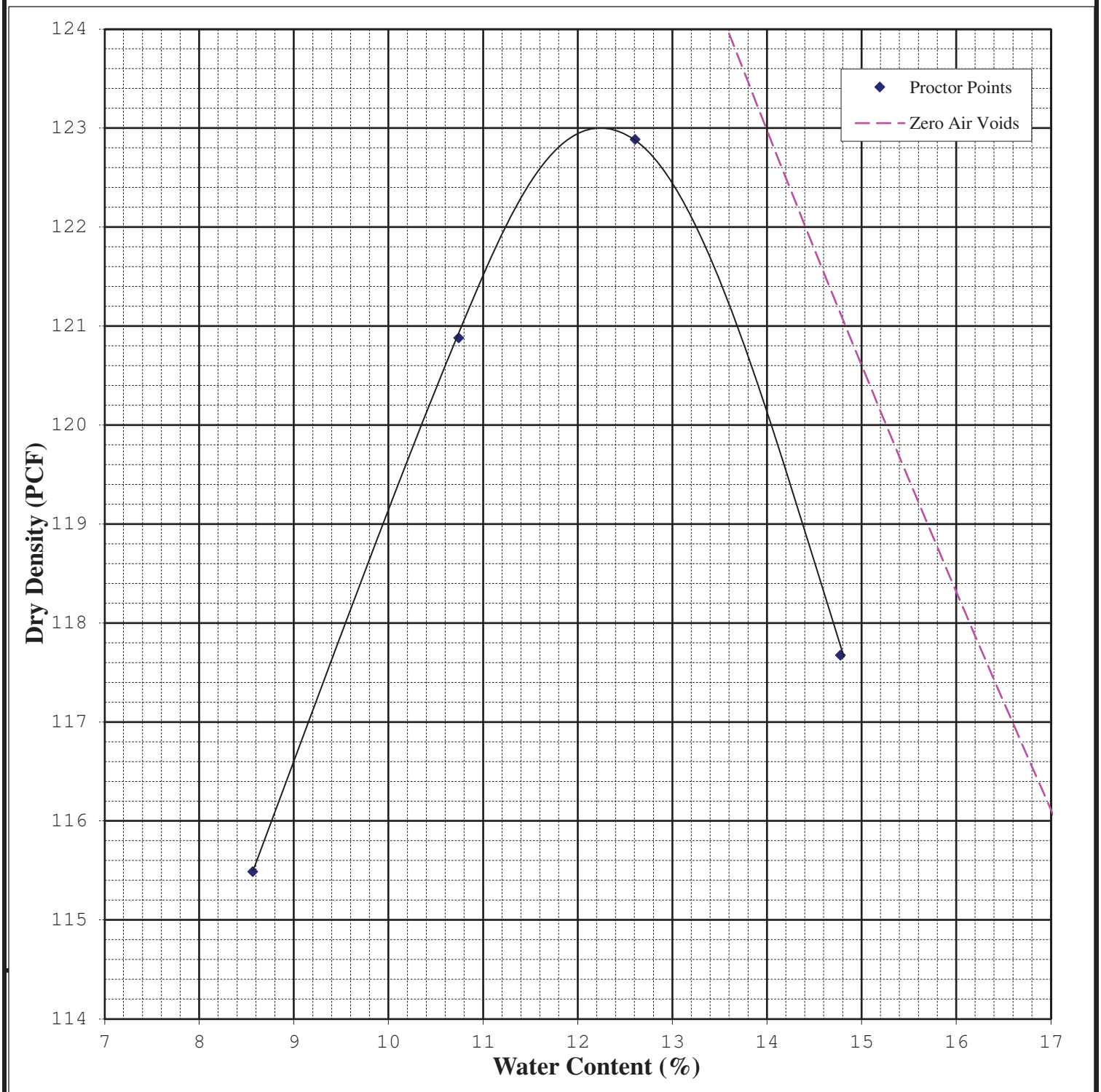
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-211** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **12.8** LL: **26** PL: **15** PI: **11** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **123.0** Opt. Water Content (%): **12.2**



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Project: **Fox Squirrel** Date: **12/11/20**

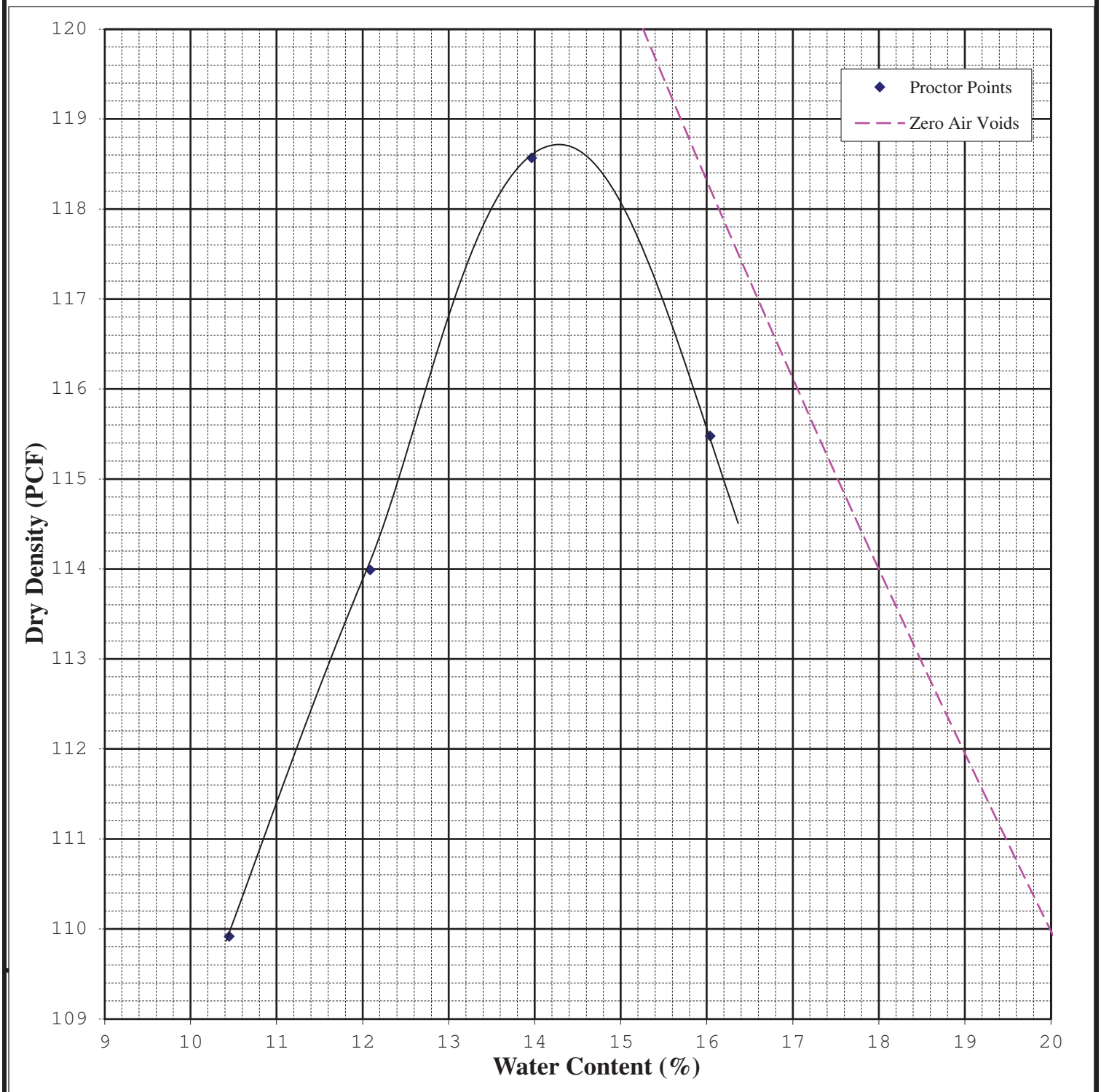
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-222** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **17.4** LL: **31** PL: **16** PI: **15** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **118.7** Opt. Water Content (%): **14.3**



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Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

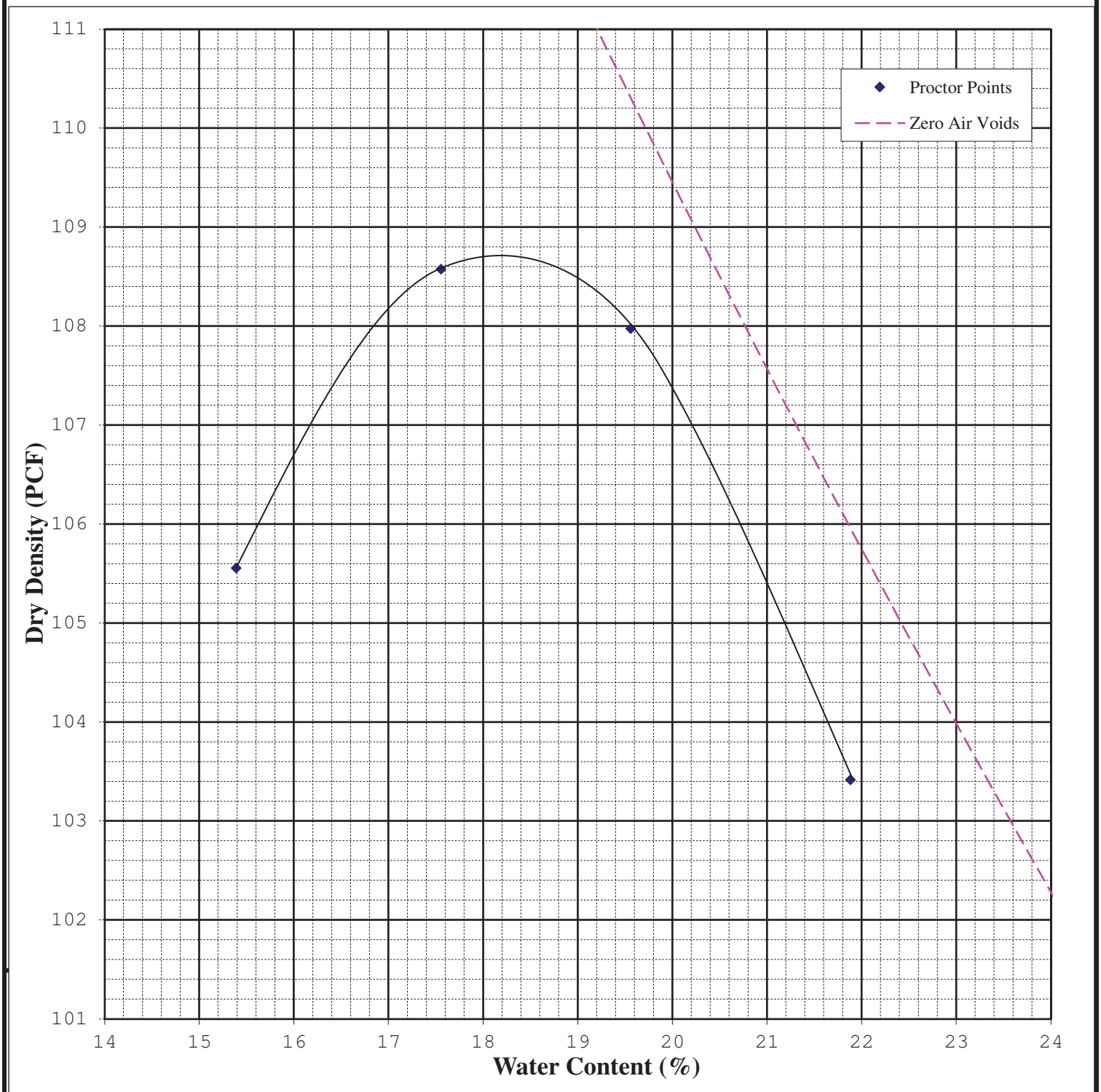
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-224** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **20.3** LL: **39** PL: **17** PI: **22** Specific Gravity: **2.70** *Assumed

Maximum Dry Density (pcf): **108.7** Opt. Water Content (%): **18.2**



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SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

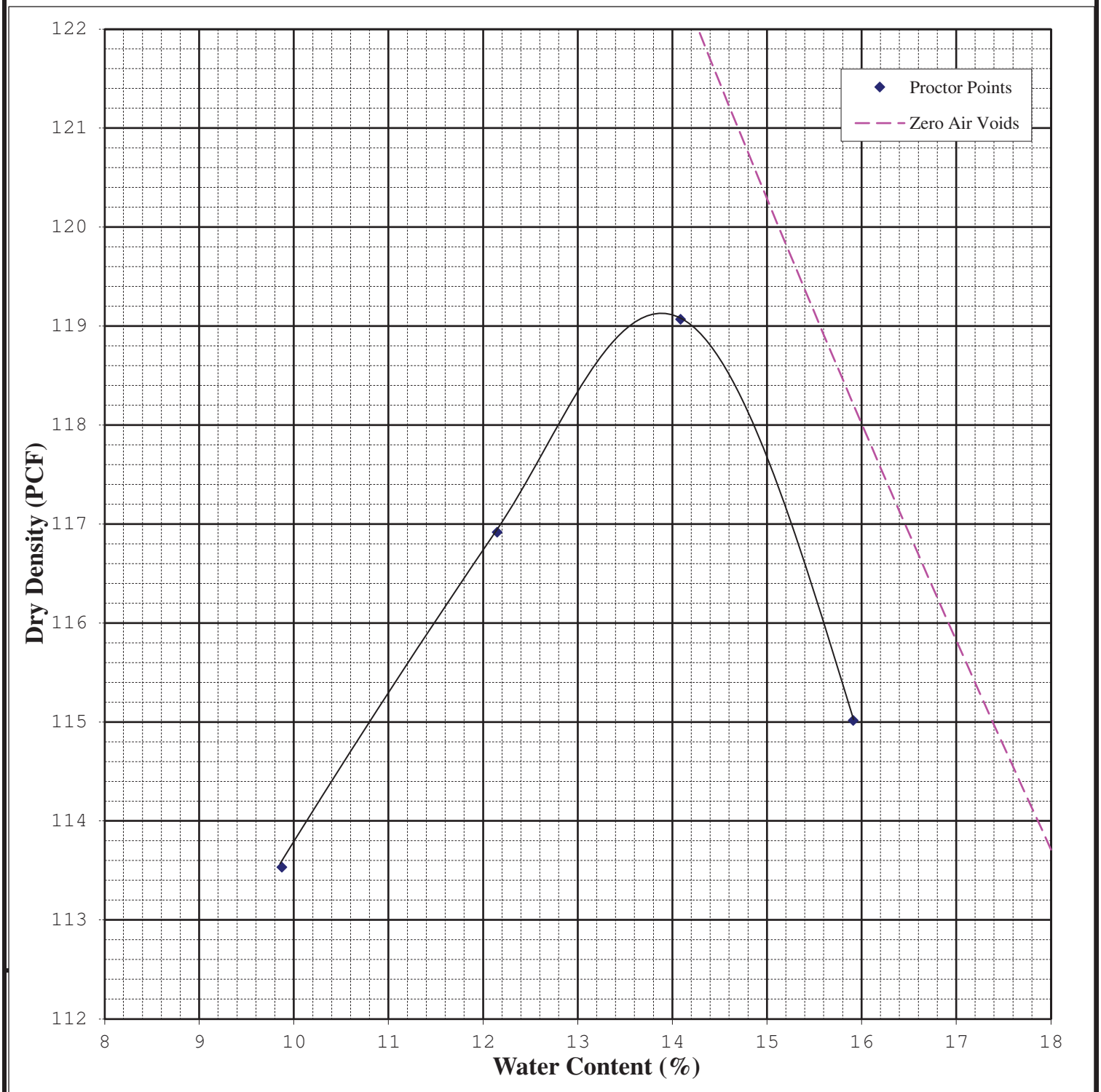
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-234** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **18.7** LL: **28** PL: **16** PI: **12** Specific Gravity: **2.71** *Assumed

Maximum Dry Density (pcf): **119.1** Opt. Water Content (%): **13.9**



9530 James Ave South

SOIL ENGINEERING TESTING, INC.

Bloomington, MN 55431

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

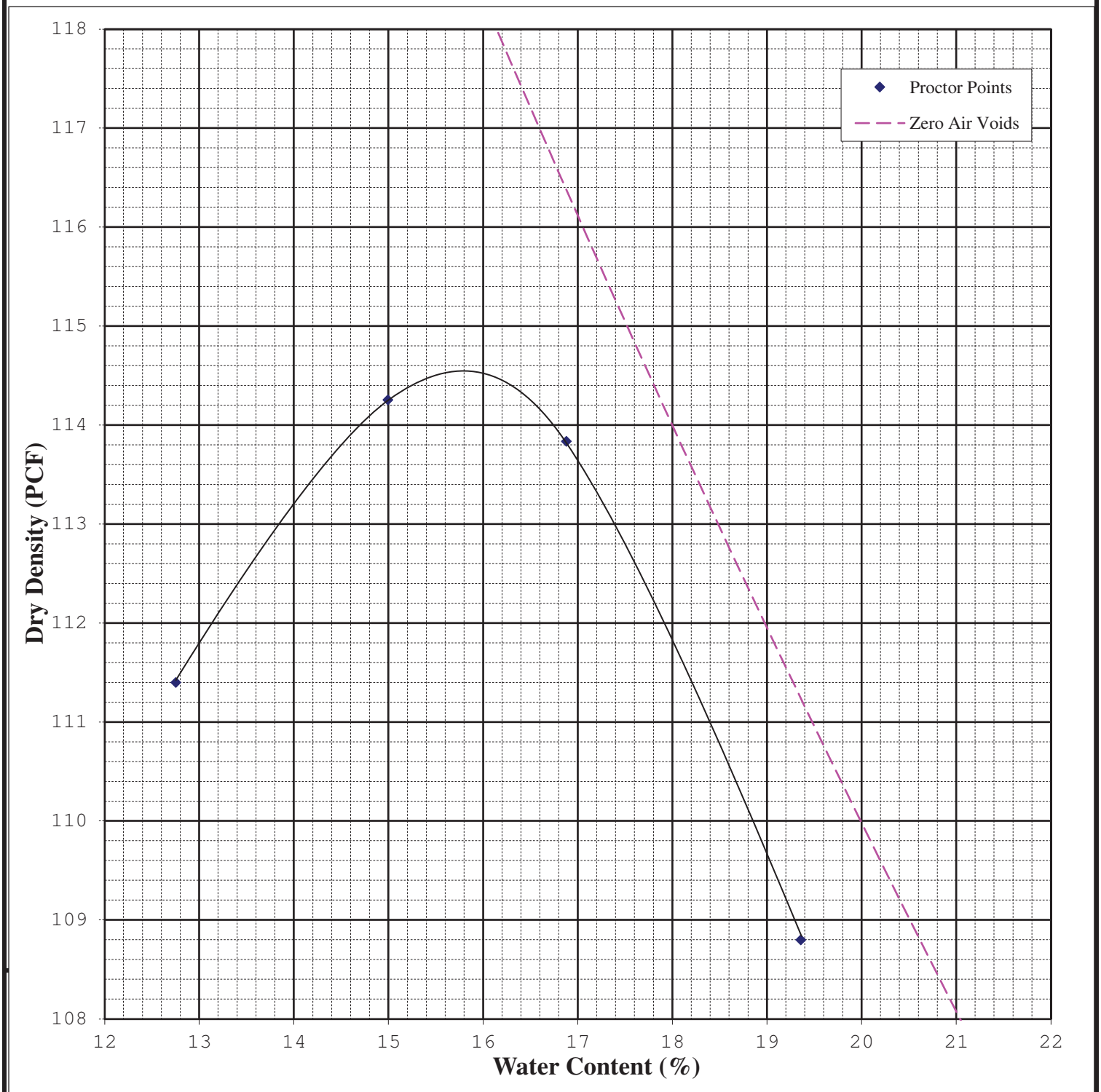
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-236** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand (CL)**

As Received W.C. (%): **17.0** LL: **31** PL: **16** PI: **15** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **114.5** Opt. Water Content (%): **15.8**



9530 James Ave South

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Bloomington, MN 55431

SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

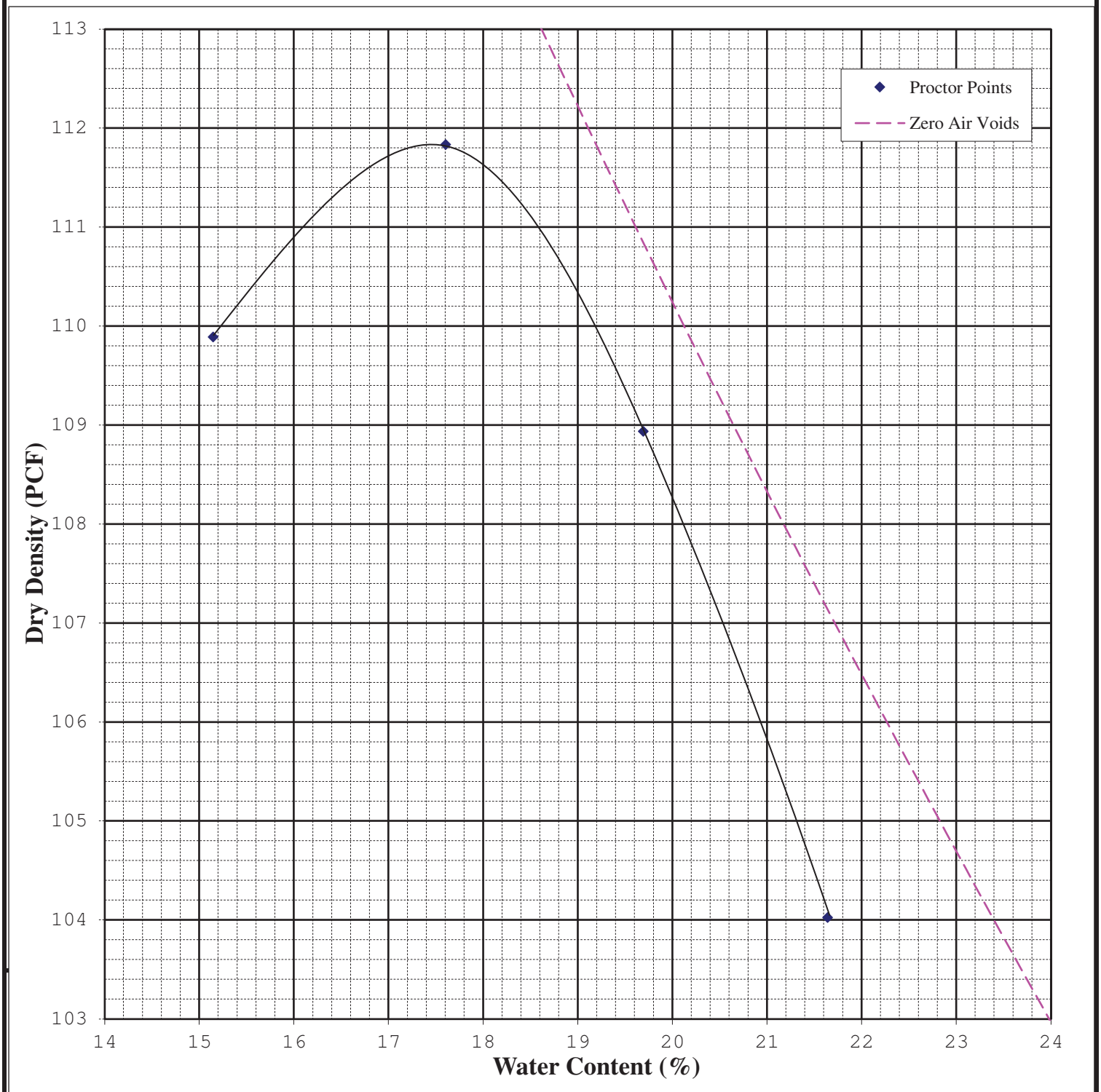
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-242** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **19.6** LL: **39** PL: **17** PI: **22** Specific Gravity: **2.73** *Assumed

Maximum Dry Density (pcf): **111.8** Opt. Water Content (%): **17.5**



9530 James Ave South

SOIL ENGINEERING TESTING, INC.

Bloomington, MN 55431

SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

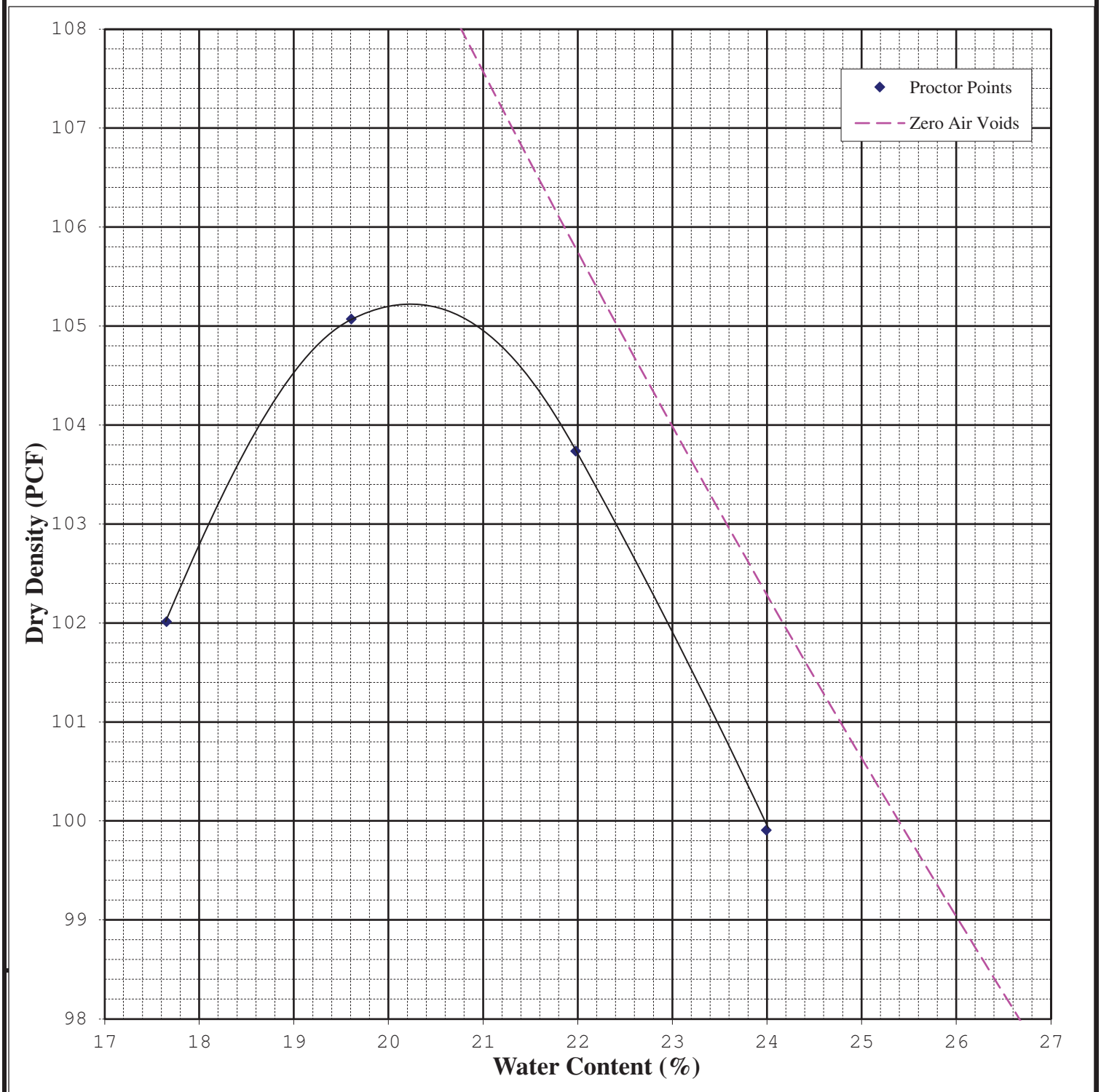
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-244** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **20.5** LL: **46** PL: **19** PI: **27** Specific Gravity: **2.70** *Assumed

Maximum Dry Density (pcf): **105.2** Opt. Water Content (%): **20.2**



9530 James Ave South

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Bloomington, MN 55431

SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

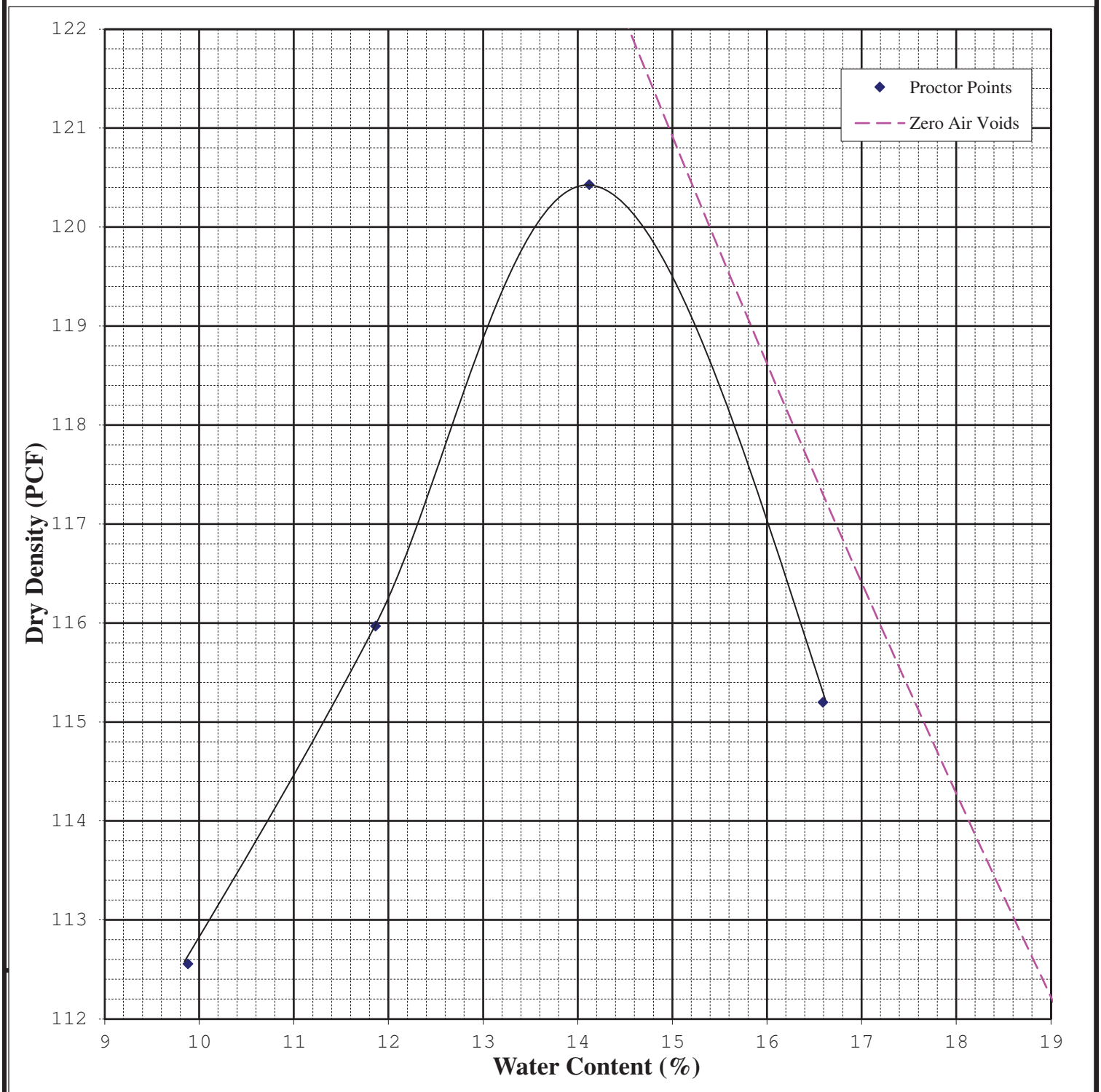
Client: **Olsson Associates** Job No. **12900**

Boring No. **Geo-254** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **14.7** LL: **29** PL: **16** PI: **13** Specific Gravity: **2.73** *Assumed

Maximum Dry Density (pcf): **120.4** Opt. Water Content (%): **14.1**



9530 James Ave South

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Bloomington, MN 55431

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

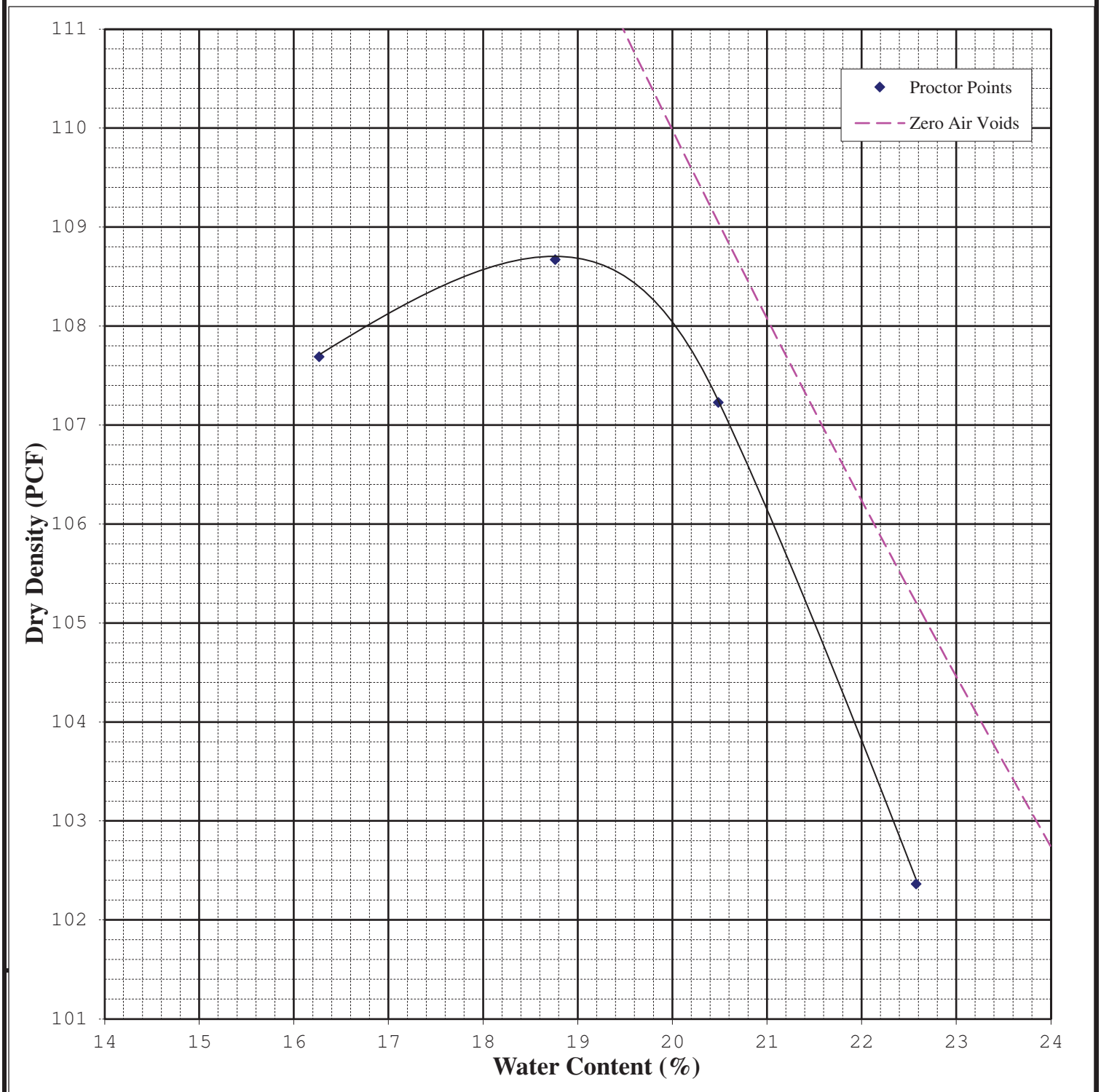
Client: **Olsson Associates** Job No. **12900**

Boring No. **Sub-5** Sample: Depth(ft): **1-5** Location:

Soil Type: **Lean Clay w/sand and a trace of gravel (CL)**

As Received W.C. (%): **18.1** LL: **41** PL: **19** PI: **22** Specific Gravity: **2.72** *Assumed

Maximum Dry Density (pcf): **108.7** Opt. Water Content (%): **18.8**



9530 James Ave South

SOIL ENGINEERING TESTING, INC.

Bloomington, MN 55431

SET-R18a

Moisture Density Curve ASTM: D698, Method B

Project: **Fox Squirrel** Date: **12/11/20**

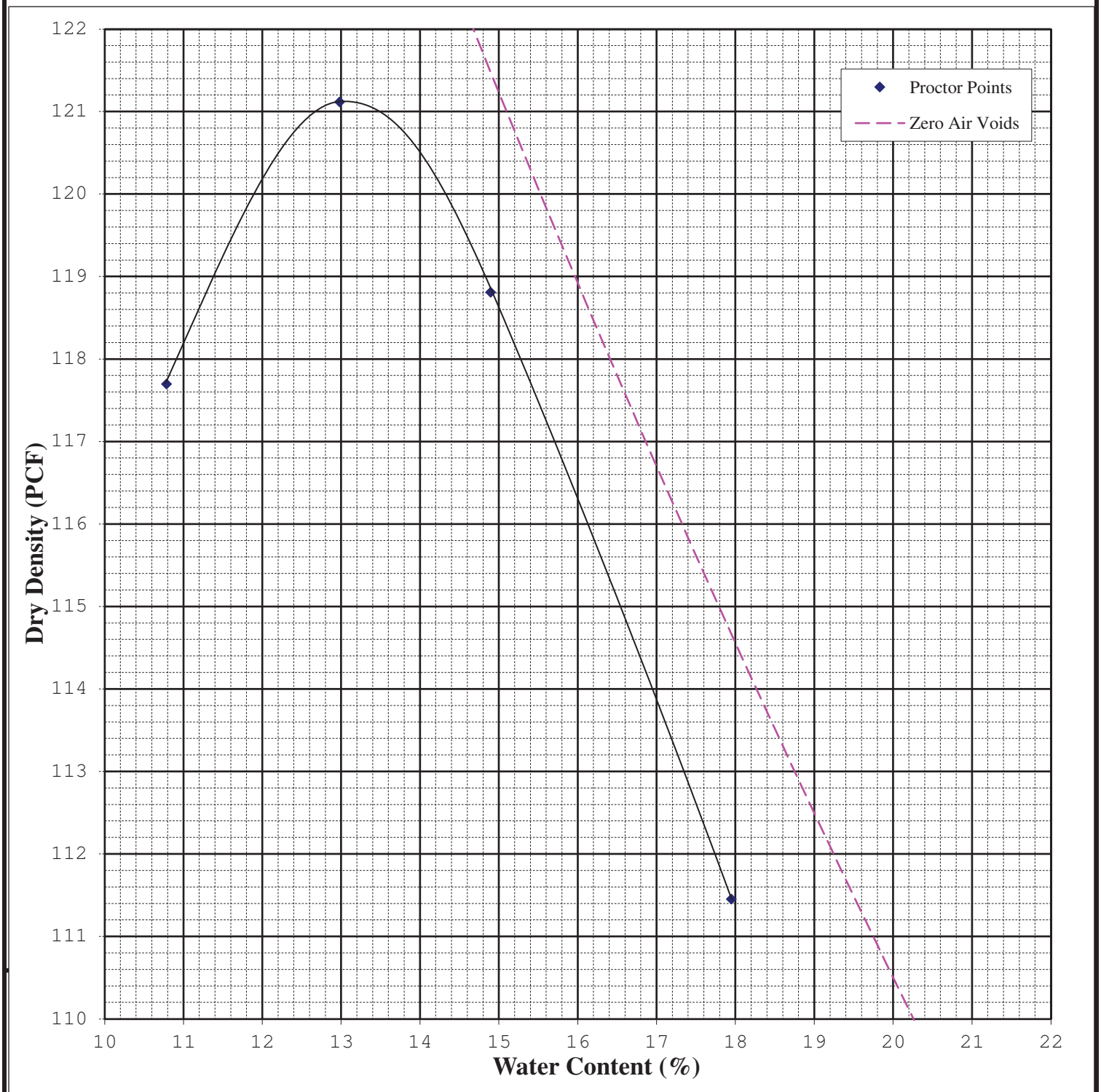
Client: **Olsson Associates** Job No. **12900**

Boring No. **Sub-6** Sample: Depth(ft): **1-5** Location:

Soil Type: **Sandy Lean Clay w/a little gravel (CL)**

As Received W.C. (%): **17.3** LL: **28** PL: **16** PI: **12** Specific Gravity: **2.74** *Assumed

Maximum Dry Density (pcf): **121.1** Opt. Water Content (%): **13.0**



9530 James Ave South

SOIL ENGINEERING TESTING, INC.

Bloomington, MN 55431

SET-R18a

APPENDIX I

Field Pile Testing Results

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.993	0.007	0.007	3.993	0.007	0.007
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.990	0.003	0.010	3.990	0.003	0.010
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.987	0.003	0.013	3.987	0.003	0.013
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.985	0.002	0.015	3.985	0.002	0.015
5000	3.995	0.005	0.005	3.995	0.005	0.005	3.983	0.002	0.017	3.983	0.002	0.017
6000	3.985	0.010	0.015	3.985	0.010	0.015	3.979	0.004	0.021	3.978	0.005	0.022
7000	3.976	0.009	0.024	3.975	0.010	0.025	3.975	0.004	0.025	3.973	0.005	0.027
8000	3.961	0.015	0.039	3.960	0.015	0.040	3.965	0.010	0.035	3.963	0.010	0.037
9000	3.937	0.024	0.063	3.935	0.025	0.065	3.947	0.018	0.053	3.943	0.020	0.057
10000	3.915	0.022	0.085	3.911	0.024	0.089	3.927	0.020	0.073	3.920	0.023	0.080
11000	3.880	0.035	0.120	3.870	0.041	0.130	3.892	0.035	0.108	3.882	0.038	0.118
12000	3.818	0.062	0.182	3.805	0.065	0.195	3.833	0.059	0.167	3.817	0.065	0.183
13000	3.724	0.094	0.276	3.700	0.105	0.300	3.743	0.090	0.257	3.713	0.104	0.287
14000	3.574	0.150	0.426	3.535	0.165	0.465	3.592	0.151	0.408	3.551	0.162	0.449
14740	3.061	0.513	0.939	2.998	0.537	1.002	3.084	0.508	0.916	3.021	0.530	0.979
0	3.093	-0.032	0.907	3.094	-0.096	0.906	3.123	-0.039	0.877	3.123	-0.102	0.877

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Location:	GEO-001
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

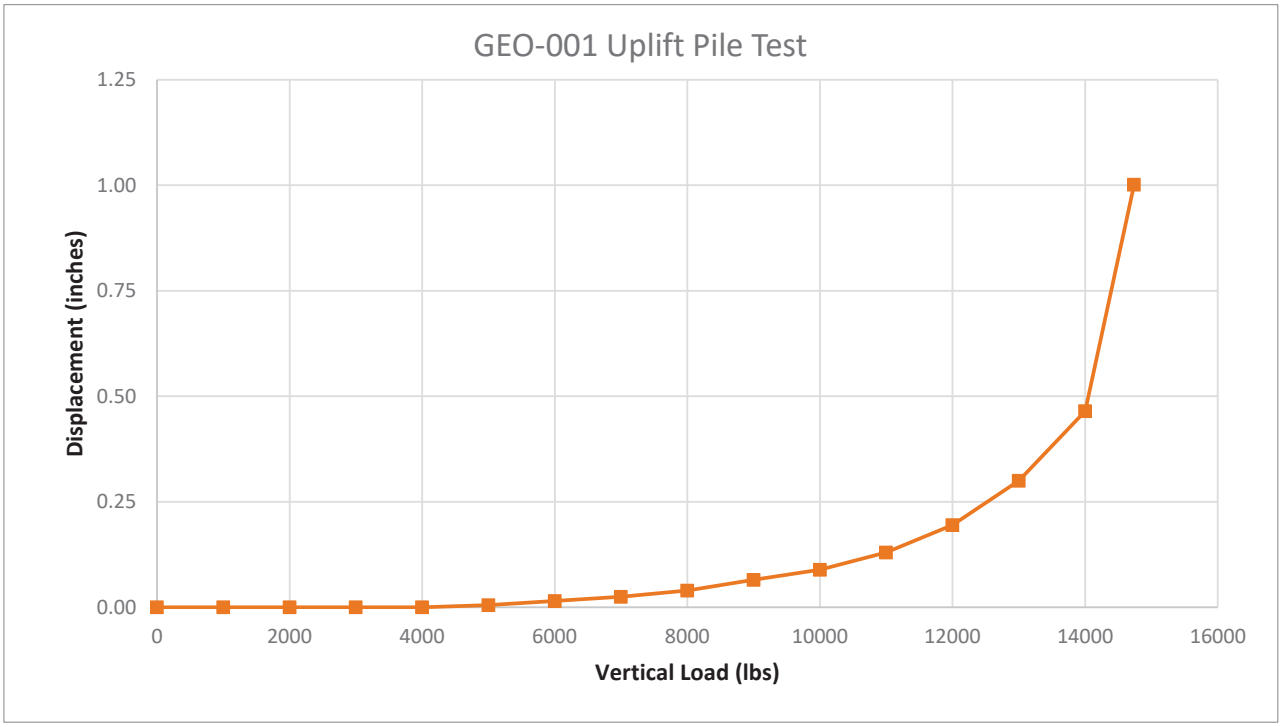
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.755	0.245	0.245	3.754	0.246	0.246	3.920	0.080	0.080	3.915	0.085	0.085
1000	3.515	0.240	0.485	3.514	0.241	0.486	3.815	0.105	0.185	3.808	0.112	0.192
1500	3.318	0.197	0.682	3.318	0.197	0.682	3.680	0.135	0.320	3.673	0.142	0.327
0	3.930	-0.612	0.070	3.942	-0.624	0.058	3.962	-0.282	0.038	3.966	-0.286	0.034
1500	3.278	0.652	0.722	3.279	0.651	0.721	3.694	0.268	0.306	3.692	0.270	0.308
2000	3.023	0.255	0.977	3.023	0.255	0.977	3.585	0.109	0.415	3.577	0.117	0.423
2500	2.735	0.288	1.265	2.736	0.287	1.264	3.450	0.135	0.550	3.439	0.146	0.561
0	3.858	-1.123	0.142	3.887	-1.152	0.113	3.915	-0.465	0.085	3.924	-0.474	0.076
2500	2.600	1.258	1.400	2.605	1.253	1.395	3.370	0.545	0.630	3.365	0.550	0.635
3000	2.306	0.294	1.694	2.305	0.295	1.695	3.226	0.144	0.774	3.215	0.155	0.785
3500	1.929	0.377	2.071	1.927	0.379	2.073	3.041	0.185	0.959	3.018	0.208	0.982
0	3.748	-1.819	0.252	3.780	-1.851	0.220	3.831	-0.790	0.169	3.858	-0.817	0.142
3500	1.831	1.917	2.169	1.831	1.917	2.169	2.971	0.860	1.029	2.959	0.872	1.041
4000	1.462	0.369	2.538	1.459	0.372	2.541	2.788	0.183	1.212	2.769	0.202	1.231
4500	1.115	0.347	2.885	1.109	0.353	2.891	2.610	0.178	1.390	2.581	0.207	1.419
0	3.639	-2.524	0.361	3.677	-2.562	0.323	3.772	-1.162	0.228	3.787	-1.177	0.213
4500	0.904	2.735	3.096	0.903	2.736	3.097	2.473	1.299	1.527	2.454	1.318	1.546
5000	0.395	0.509	3.605	0.388	0.516	3.612	2.204	0.269	1.796	2.179	0.294	1.821
5380	0.000	0.395	4.000	0.000	0.395	4.000	2.006	0.198	1.994	1.983	0.221	2.017
0	3.448	-3.448	0.552	3.492	-3.492	0.508	3.585	-1.579	0.415	3.635	-1.629	0.365

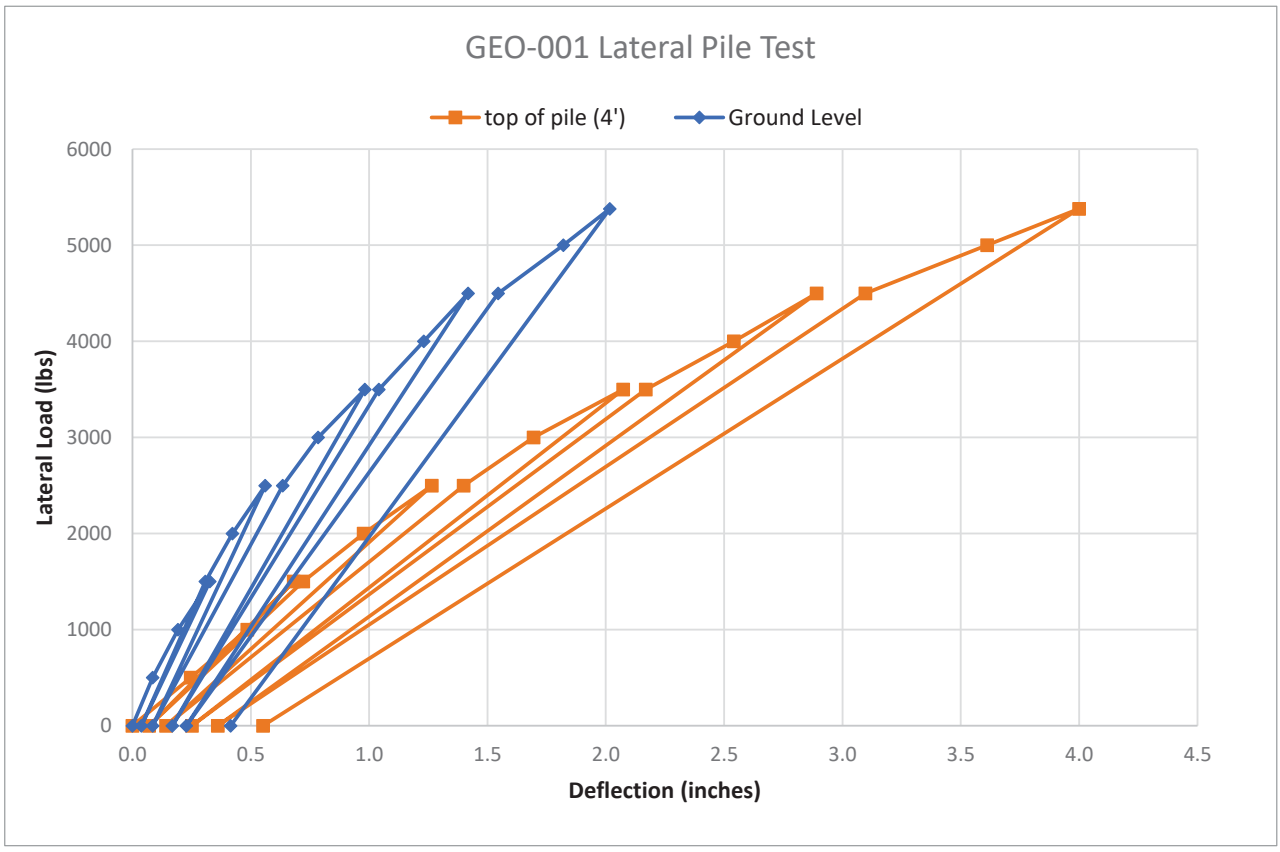
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Field Pile Testing Results

Location:	GEO-001
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-001
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.006	0.006	3.994	0.006	0.006
3000	3.997	0.003	0.003	3.991	0.009	0.009	3.992	0.002	0.008	3.992	0.002	0.008
4000	3.990	0.007	0.010	3.989	0.002	0.011	3.988	0.004	0.012	3.988	0.004	0.012
5000	3.980	0.010	0.020	3.980	0.009	0.020	3.984	0.004	0.016	3.982	0.006	0.018
6000	3.967	0.013	0.033	3.967	0.013	0.033	3.976	0.008	0.024	3.974	0.008	0.026
7000	3.949	0.018	0.051	3.949	0.018	0.051	3.967	0.009	0.033	3.965	0.009	0.035
8000	3.925	0.024	0.075	3.921	0.028	0.079	3.953	0.014	0.047	3.944	0.021	0.056
9000	3.892	0.033	0.108	3.886	0.035	0.114	3.921	0.032	0.079	3.913	0.031	0.087
10000	3.834	0.058	0.166	3.828	0.058	0.172	3.881	0.040	0.119	3.862	0.051	0.138
11000	3.771	0.063	0.229	3.745	0.083	0.255	3.807	0.074	0.193	3.783	0.079	0.217
12000	3.595	0.176	0.405	3.569	0.176	0.431	3.657	0.150	0.343	3.624	0.159	0.376
13000	3.351	0.244	0.649	3.328	0.241	0.672	3.415	0.242	0.585	3.382	0.242	0.618
14000	2.487	0.864	1.513	2.468	0.860	1.532	2.981	0.434	1.019	2.959	0.423	1.041
0	3.859	-1.372	0.141	3.859	-1.391	0.141	3.926	-0.945	0.074	3.926	-0.967	0.074

olsson

Location:	GEO-003
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

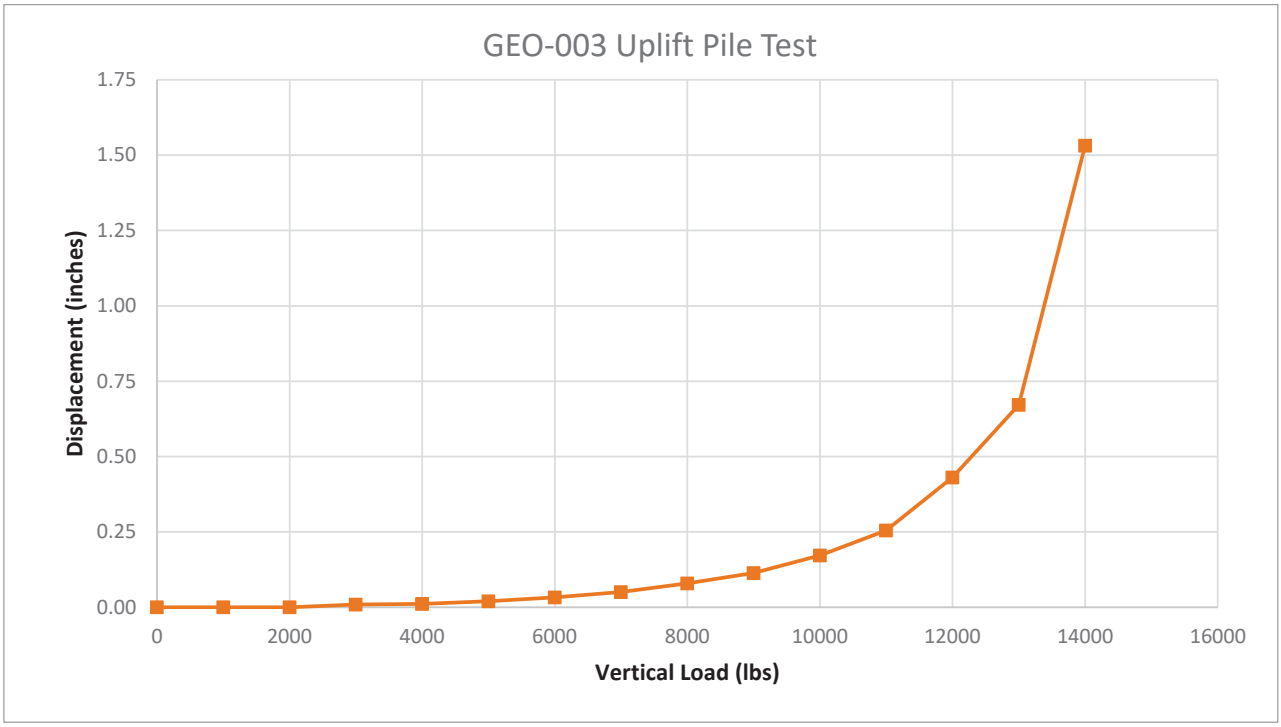
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.867	0.133	0.133	3.867	0.133	0.133	3.945	0.055	0.055	3.945	0.055	0.055
1000	3.610	0.257	0.390	3.610	0.257	0.390	3.833	0.112	0.167	3.826	0.119	0.174
1500	3.358	0.252	0.642	3.357	0.253	0.643	3.712	0.121	0.288	3.707	0.126	0.293
0	3.925	-0.567	0.075	3.926	-0.568	0.074	3.978	-0.266	0.022	3.889	-0.177	0.111
1500	3.352	0.573	0.648	3.358	0.567	0.642	3.692	0.286	0.308	3.689	0.289	0.311
2000	3.118	0.234	0.882	3.118	0.234	0.882	3.582	0.110	0.418	3.571	0.121	0.429
2500	2.825	0.293	1.175	2.824	0.294	1.176	3.451	0.131	0.549	3.422	0.160	0.578
0	3.924	-1.099	0.076	3.835	-1.010	0.165	3.886	-0.435	0.114	3.990	-0.539	0.010
2500	2.764	1.160	1.236	2.774	1.150	1.226	3.386	0.500	0.614	3.374	0.512	0.626
3000	2.454	0.310	1.546	2.458	0.306	1.542	3.232	0.154	0.768	3.246	0.140	0.754
3500	2.112	0.342	1.888	2.112	0.342	1.888	3.044	0.188	0.956	3.024	0.208	0.976
0	3.845	-1.733	0.155	3.862	-1.750	0.138	3.808	-0.764	0.192	3.821	-0.777	0.179
3500	1.969	1.876	2.031	1.979	1.866	2.021	2.848	0.960	1.152	2.928	0.880	1.072
4000	1.576	0.393	2.424	1.576	0.393	2.424	2.742	0.106	1.258	2.714	0.134	1.286
4500	1.144	0.432	2.856	1.145	0.431	2.855	2.504	0.238	1.496	2.466	0.276	1.534
0	3.572	-2.428	0.428	3.604	-2.460	0.396	3.595	-1.091	0.405	3.626	-1.122	0.374
4500	0.882	2.690	3.118	0.886	2.686	3.114	2.313	1.282	1.687	2.286	1.309	1.714
5000	0.496	0.386	3.504	0.500	0.382	3.500	2.098	0.215	1.902	2.059	0.254	1.941
5280	0.000	0.496	4.000	0.000	0.496	4.000	1.795	0.303	2.205	1.749	0.349	2.251
0	3.205	-3.205	0.795	3.305	-3.305	0.695	3.295	-1.500	0.705	3.328	-1.533	0.672

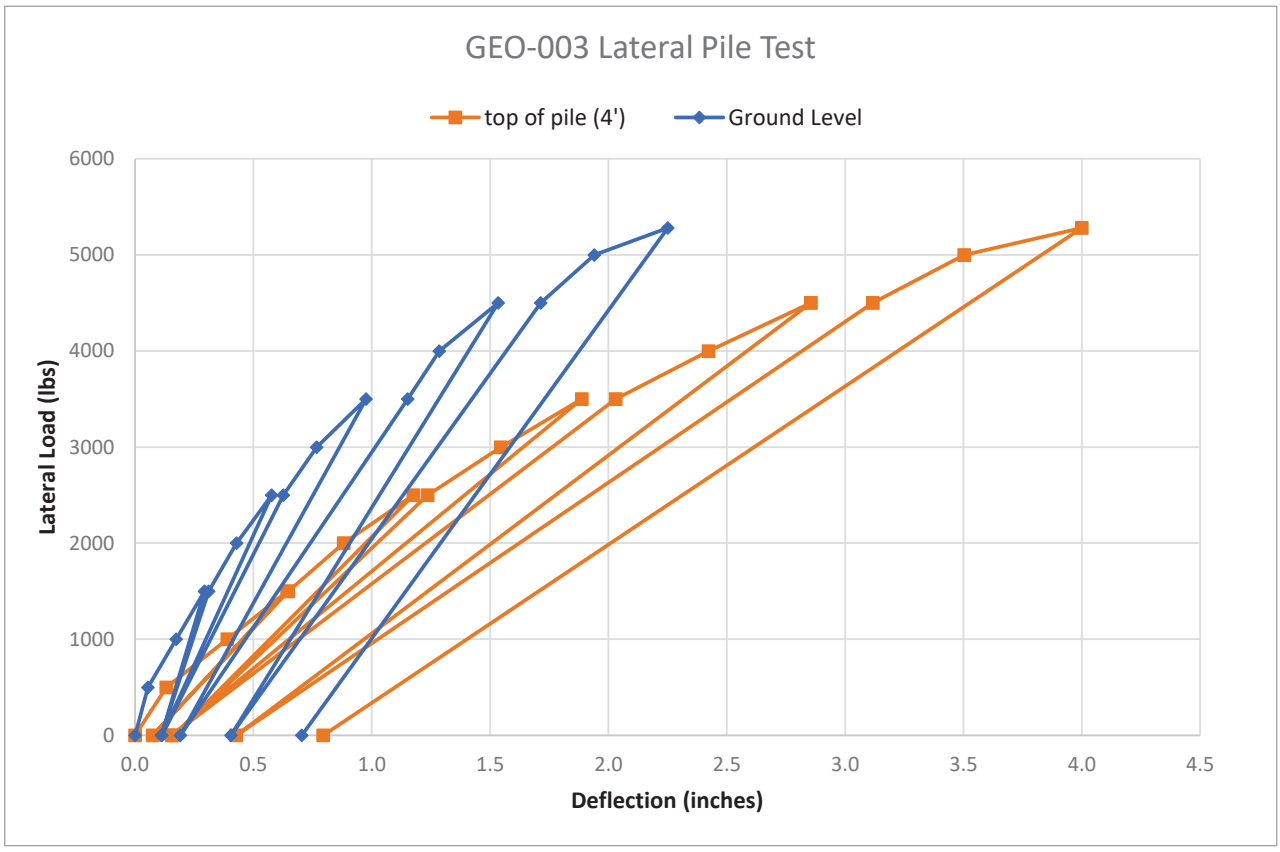
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Field Pile Testing Results

Location:	GEO-003
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-003
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.006	0.006	3.994	0.006	0.006
2000	3.995	0.005	0.005	3.992	0.008	0.008	3.992	0.002	0.008	3.992	0.002	0.008
3000	3.982	0.013	0.018	3.977	0.015	0.023	3.989	0.003	0.011	3.989	0.003	0.011
4000	3.961	0.021	0.039	3.958	0.019	0.042	3.987	0.002	0.013	3.986	0.003	0.014
5000	3.945	0.016	0.055	3.942	0.016	0.058	3.985	0.002	0.015	3.983	0.003	0.017
6000	3.923	0.022	0.077	3.922	0.020	0.078	3.978	0.007	0.022	3.976	0.007	0.024
7000	3.895	0.028	0.105	3.893	0.029	0.107	3.970	0.008	0.030	3.966	0.010	0.034
8000	3.865	0.030	0.135	3.861	0.032	0.139	3.955	0.015	0.045	3.950	0.016	0.050
9000	3.811	0.054	0.189	3.803	0.058	0.197	3.921	0.034	0.079	3.908	0.042	0.092
10000	3.755	0.056	0.245	3.739	0.064	0.261	3.875	0.046	0.125	3.857	0.051	0.143
11000	3.644	0.111	0.356	3.620	0.119	0.380	3.774	0.101	0.226	3.752	0.105	0.248
12000	3.524	0.120	0.476	3.503	0.117	0.497	3.659	0.115	0.341	3.628	0.124	0.372
13000	3.345	0.179	0.655	3.313	0.190	0.687	3.495	0.164	0.505	3.463	0.165	0.537
14000	3.147	0.198	0.853	3.105	0.208	0.895	3.309	0.186	0.691	3.273	0.190	0.727
15000	2.784	0.363	1.216	2.719	0.386	1.281	2.992	0.317	1.008	2.941	0.332	1.059
16000	2.333	0.451	1.667	2.286	0.433	1.714	2.661	0.331	1.339	2.609	0.332	1.391
0	2.359	-0.026	1.641	2.360	-0.074	1.640	2.639	0.022	1.361	2.642	-0.033	1.358

olsson

Location:	GEO-005
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

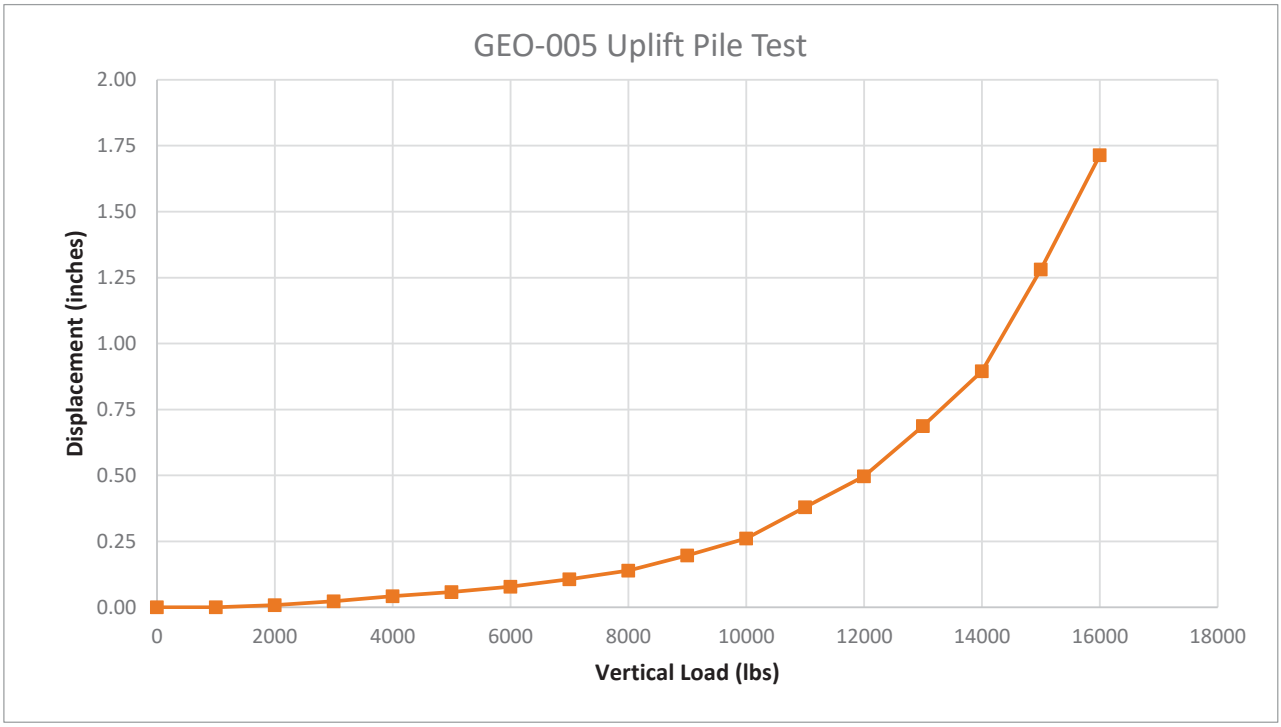
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.830	0.170	0.170	3.830	0.170	0.170	3.933	0.067	0.067	3.929	0.071	0.071
1000	3.632	0.198	0.368	3.632	0.198	0.368	3.850	0.083	0.150	3.845	0.088	0.155
1500	3.374	0.258	0.626	3.374	0.258	0.626	3.740	0.110	0.260	3.731	0.119	0.269
0	3.940	-0.566	0.060	3.955	-0.581	0.045	3.933	-0.193	0.067	3.934	-0.194	0.066
1500	3.337	0.603	0.663	3.337	0.603	0.663	3.698	0.235	0.302	3.705	0.228	0.295
2000	3.093	0.244	0.907	3.092	0.245	0.908	3.592	0.106	0.408	3.583	0.115	0.417
2500	2.789	0.304	1.211	2.786	0.307	1.214	3.450	0.142	0.550	3.438	0.154	0.562
0	3.850	-1.061	0.150	3.870	-1.081	0.130	3.878	-0.428	0.122	3.890	-0.440	0.110
2500	2.722	1.128	1.278	2.722	1.128	1.278	3.403	0.475	0.597	3.395	0.483	0.605
3000	2.436	0.286	1.564	2.434	0.288	1.566	3.273	0.130	0.727	3.256	0.147	0.744
3500	2.083	0.353	1.917	2.078	0.358	1.922	3.098	0.175	0.902	3.073	0.200	0.927
0	3.751	-1.668	0.249	3.777	-1.694	0.223	3.808	-0.710	0.192	3.824	-0.726	0.176
3500	1.930	1.821	2.070	1.929	1.822	2.071	3.003	0.805	0.997	2.989	0.819	1.011
4000	1.625	0.305	2.375	1.622	0.308	2.378	2.857	0.146	1.143	2.833	0.170	1.167
4500	1.256	0.369	2.744	1.251	0.374	2.749	2.669	0.188	1.331	2.639	0.218	1.361
0	3.600	-2.344	0.400	3.613	-2.357	0.387	3.708	-1.039	0.292	3.712	-1.043	0.288
4500	1.055	2.545	2.945	1.053	2.547	2.947	2.540	1.168	1.460	2.516	1.192	1.484
5000	0.583	0.472	3.417	0.576	0.479	3.424	2.306	0.234	1.694	2.278	0.262	1.722
5500	0.000	0.583	4.000	0.000	0.583	4.000	2.004	0.302	1.996	1.983	0.323	2.017
0	2.942	-2.942	1.058	2.973	-2.973	1.027	3.335	-1.331	0.665	3.354	-1.350	0.646

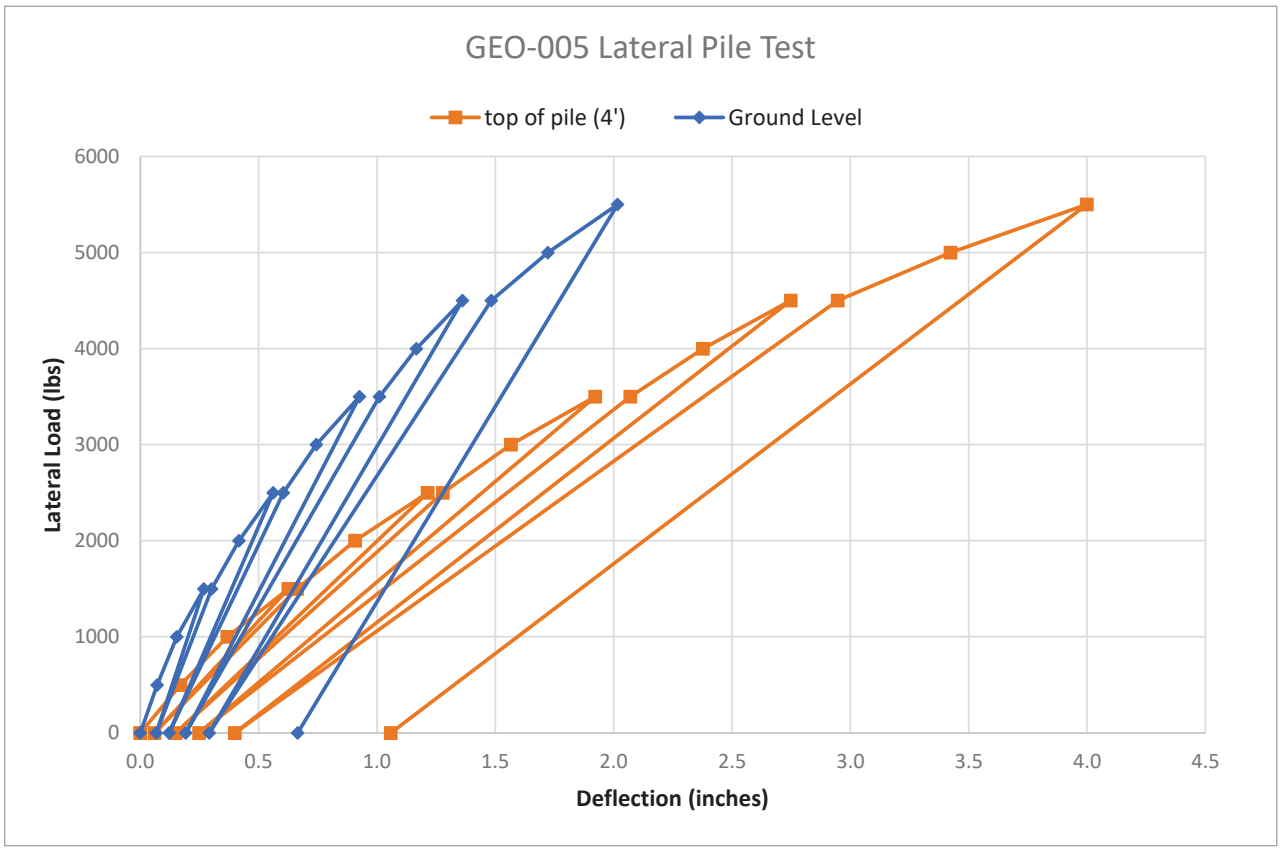
olsson

Field Pile Testing Results

Location:	GEO-005
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-005
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.996	0.004	0.004	3.996	0.004	0.004	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.995	0.001	0.005	3.995	0.001	0.005	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.990	0.005	0.010	3.990	0.005	0.010	3.992	0.008	0.008	3.992	0.008	0.008
5000	3.984	0.006	0.016	3.984	0.006	0.016	3.992	0.000	0.008	3.992	0.000	0.008
6000	3.976	0.008	0.024	3.975	0.009	0.025	3.992	0.000	0.008	3.992	0.000	0.008
7000	3.964	0.012	0.036	3.961	0.014	0.039	3.991	0.001	0.009	3.991	0.001	0.009
8000	3.950	0.014	0.050	3.949	0.012	0.051	3.989	0.002	0.011	3.985	0.006	0.015
9000	3.934	0.016	0.066	3.933	0.016	0.067	3.980	0.009	0.020	3.978	0.007	0.022
10000	3.918	0.016	0.082	3.914	0.019	0.086	3.971	0.009	0.029	3.965	0.013	0.035
11000	3.895	0.023	0.105	3.991	-0.077	0.009	3.955	0.016	0.045	3.947	0.018	0.053
12000	3.868	0.027	0.132	3.865	0.126	0.135	3.935	0.020	0.065	3.924	0.023	0.076
13000	3.831	0.037	0.169	3.819	0.046	0.181	3.900	0.035	0.100	3.885	0.039	0.115
14000	3.785	0.046	0.215	3.770	0.049	0.230	3.876	0.024	0.124	3.841	0.044	0.159
15000	3.731	0.054	0.269	3.720	0.050	0.280	3.816	0.060	0.184	3.788	0.053	0.212
16000	3.661	0.070	0.339	3.646	0.074	0.354	3.739	0.077	0.261	3.724	0.064	0.276
17000	3.598	0.063	0.402	3.578	0.068	0.422	3.685	0.054	0.315	3.669	0.055	0.331
18000	3.511	0.087	0.489	3.487	0.091	0.513	3.615	0.070	0.385	3.577	0.092	0.423
0	3.538	-0.027	0.462	5.541	-2.054	-1.541	3.612	0.003	0.388	3.612	-0.035	0.388

olsson

Location:	GEO-007
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

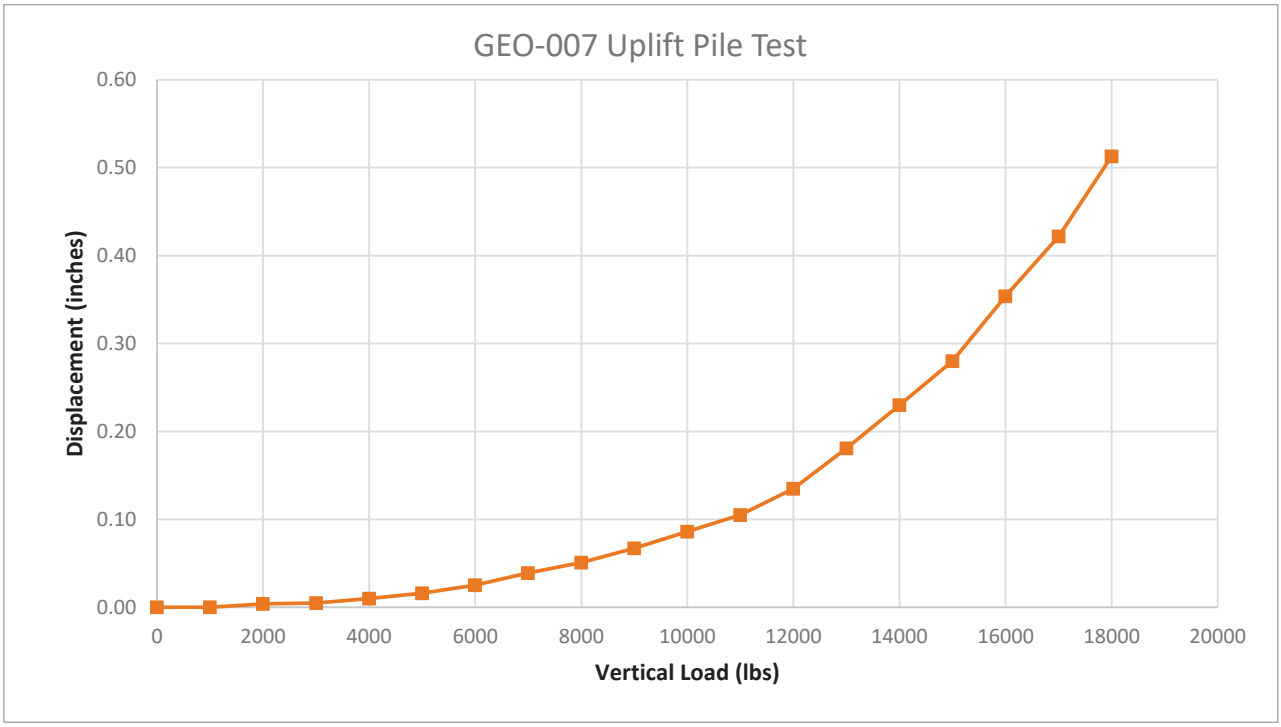
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.855	0.145	0.145	3.850	0.150	0.150	3.955	0.045	0.045	3.954	0.046	0.046
1000	3.675	0.180	0.325	3.669	0.186	0.331	3.887	0.068	0.113	3.884	0.071	0.116
1500	3.429	0.246	0.571	3.429	0.246	0.571	3.785	0.102	0.215	3.783	0.104	0.217
0	3.926	-0.497	0.074	3.940	-0.511	0.060	3.971	-0.186	0.029	3.982	-0.197	0.018
1500	3.418	0.508	0.582	3.420	0.506	0.580	3.783	0.188	0.217	3.783	0.188	0.217
2000	3.196	0.222	0.804	3.196	0.222	0.804	3.686	0.097	0.314	3.681	0.102	0.319
2500	2.992	0.204	1.008	2.991	0.205	1.009	3.597	0.089	0.403	3.590	0.096	0.410
0	3.881	-0.889	0.119	3.898	-0.906	0.102	3.932	-0.335	0.068	3.939	-0.342	0.061
2500	2.944	0.937	1.056	2.941	0.940	1.059	3.559	0.373	0.441	3.552	0.380	0.448
3000	2.709	0.235	1.291	2.704	0.240	1.296	3.451	0.108	0.549	3.439	0.120	0.561
3500	2.421	0.288	1.579	2.421	0.288	1.579	3.319	0.132	0.681	3.296	0.155	0.704
0	3.811	-1.390	0.189	3.835	-1.414	0.165	3.867	-0.548	0.133	3.897	-0.578	0.103
3500	2.318	1.493	1.682	2.315	1.496	1.685	3.247	0.620	0.753	3.235	0.632	0.765
4000	2.067	0.251	1.933	2.065	0.253	1.935	3.131	0.116	0.869	3.108	0.139	0.892
4500	1.722	0.345	2.278	1.716	0.351	2.284	2.952	0.179	1.048	2.928	0.203	1.072
0	3.692	-1.970	0.308	3.733	-2.011	0.267	3.798	-0.846	0.202	3.820	-0.868	0.180
4500	1.655	2.037	2.345	1.655	2.037	2.345	2.857	0.941	1.143	2.840	0.958	1.160
5000	1.268	0.387	2.732	1.266	0.389	2.734	2.698	0.159	1.302	2.682	0.175	1.318
5500	0.893	0.375	3.107	0.891	0.377	3.109	2.509	0.189	1.491	2.482	0.216	1.518
0	3.489	-2.596	0.511	3.491	-2.598	0.509	3.645	-1.136	0.355	3.672	-1.163	0.328

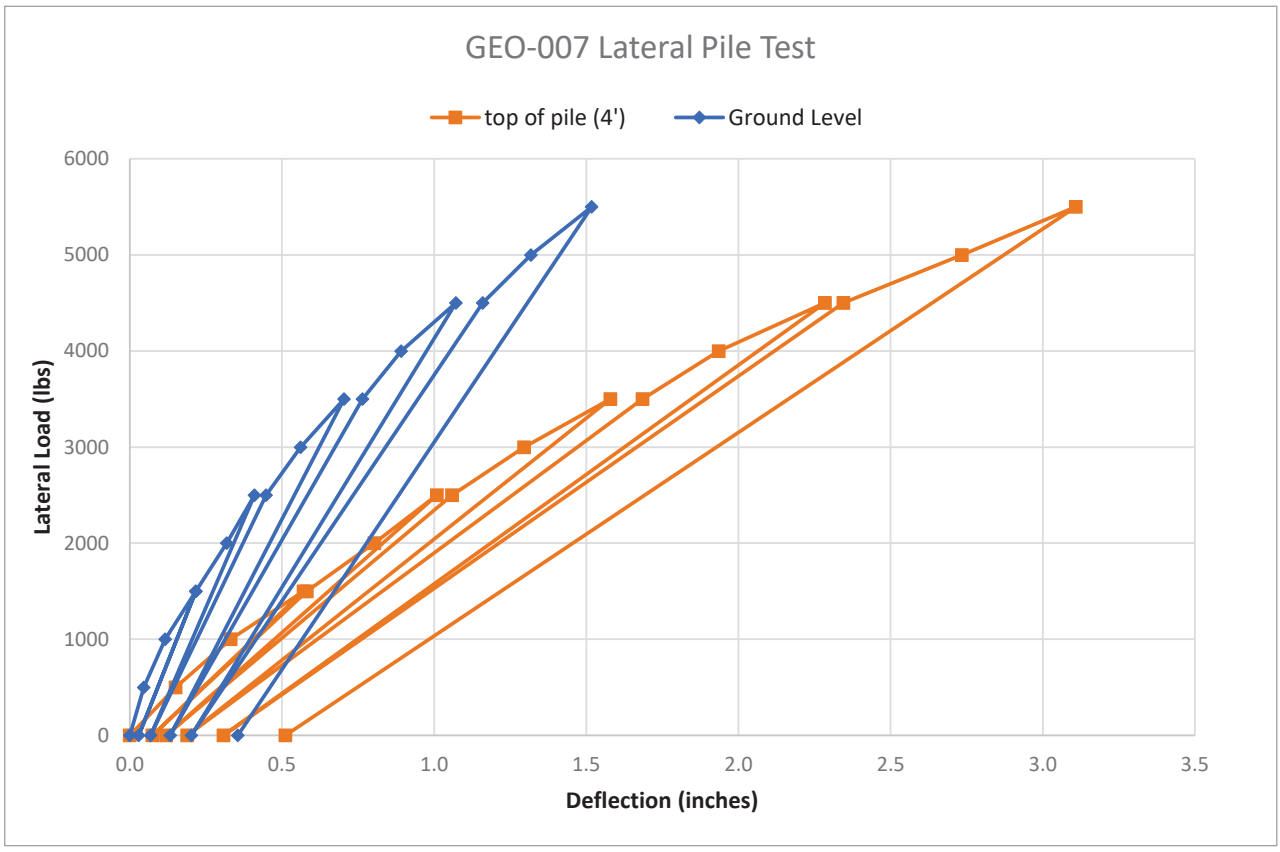
olsson

Field Pile Testing Results

Location:	GEO-007
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-007
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.005	0.005	3.995	0.005	0.005
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.003	0.008	3.993	0.002	0.007
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.988	0.004	0.012	3.988	0.005	0.012
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.975	0.013	0.025	3.975	0.013	0.025
5000	4.000	0.000	0.000	4.000	0.000	0.000	3.970	0.005	0.030	3.970	0.005	0.030
6000	3.997	0.003	0.003	3.996	0.004	0.004	3.966	0.004	0.034	3.965	0.005	0.035
7000	3.987	0.010	0.013	3.985	0.011	0.015	3.956	0.010	0.044	3.955	0.010	0.045
8000	3.971	0.016	0.029	3.968	0.017	0.032	3.942	0.014	0.058	3.937	0.018	0.063
9000	3.943	0.028	0.057	3.939	0.029	0.061	3.914	0.028	0.086	3.907	0.030	0.093
10000	3.875	0.068	0.125	3.865	0.074	0.135	3.907	0.007	0.093	3.897	0.010	0.103
11000	3.851	0.024	0.149	3.839	0.026	0.161	3.813	0.094	0.187	3.804	0.093	0.196
12000	3.780	0.071	0.220	3.765	0.074	0.235	3.743	0.070	0.257	3.729	0.075	0.271
13000	3.696	0.084	0.304	3.675	0.090	0.325	3.655	0.088	0.345	3.639	0.090	0.361
14000	3.608	0.088	0.392	3.582	0.093	0.418	3.569	0.086	0.431	3.547	0.092	0.453
15000	3.488	0.120	0.512	3.458	0.124	0.542	3.453	0.116	0.547	3.426	0.121	0.574
16000	3.252	0.236	0.748	3.206	0.252	0.794	3.241	0.212	0.759	3.201	0.225	0.799
17000	3.001	0.251	0.999	2.963	0.243	1.037	3.043	0.198	0.957	3.017	0.184	0.983
18000	2.561	0.440	1.439	2.494	0.469	1.506	2.779	0.264	1.221	2.745	0.272	1.255
0	2.507	0.054	1.493	2.509	-0.015	1.491	2.790	-0.011	1.210	2.791	-0.046	1.209

olsson

Location:	GEO-010
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

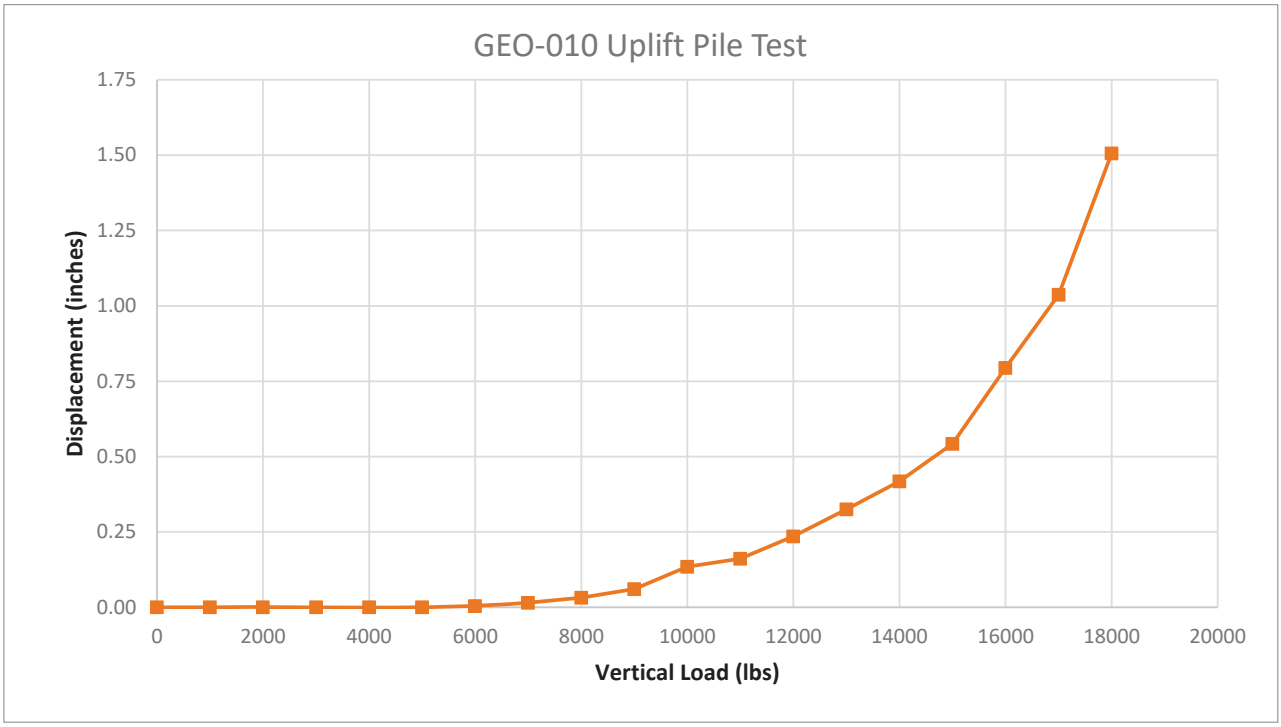
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.791	0.209	0.209	3.791	0.209	0.209	3.929	0.071	0.071	3.927	0.073	0.073
1000	3.592	0.199	0.408	3.592	0.199	0.408	3.848	0.081	0.152	3.843	0.086	0.157
1500	3.343	0.249	0.657	3.343	0.249	0.657	3.742	0.106	0.258	3.736	0.112	0.264
0	3.914	-0.571	0.086	3.917	-0.574	0.083	3.958	-0.216	0.042	3.962	-0.220	0.038
1500	3.279	0.635	0.721	3.278	0.636	0.722	3.709	0.249	0.291	3.704	0.254	0.296
2000	3.101	0.178	0.899	3.101	0.178	0.899	3.633	0.076	0.367	3.626	0.083	0.374
2500	2.854	0.247	1.146	2.852	0.249	1.148	3.525	0.108	0.475	3.516	0.117	0.484
0	3.868	-1.014	0.132	3.880	-1.026	0.120	3.933	-0.408	0.067	3.935	-0.410	0.065
2500	2.779	1.089	1.221	2.779	1.089	1.221	3.485	0.448	0.515	3.481	0.452	0.519
3000	2.568	0.211	1.432	2.568	0.211	1.432	3.397	0.088	0.603	3.389	0.096	0.611
3500	2.308	0.260	1.692	2.308	0.260	1.692	3.282	0.115	0.718	3.278	0.119	0.722
0	3.820	-1.512	0.180	3.826	-1.518	0.174	3.912	-0.630	0.088	3.914	-0.632	0.086
3500	2.190	1.630	1.810	2.190	1.630	1.810	3.222	0.690	0.778	3.217	0.695	0.783
4000	1.930	0.260	2.070	1.930	0.260	2.070	3.108	0.114	0.892	3.101	0.121	0.899
4500	1.658	0.272	2.342	1.656	0.274	2.344	2.990	0.118	1.010	2.974	0.134	1.026
0	3.750	-2.092	0.250	3.760	-2.102	0.240	3.878	-0.888	0.122	3.887	-0.897	0.113
4500	1.514	2.236	2.486	1.514	2.236	2.486	2.910	0.968	1.090	2.906	0.972	1.094
5000	1.250	0.264	2.750	1.250	0.264	2.750	2.799	0.111	1.201	2.784	0.126	1.216
5500	0.851	0.399	3.149	0.848	0.402	3.152	2.612	0.187	1.388	2.597	0.202	1.403
0	3.525	-2.674	0.475	3.545	-2.694	0.455	3.776	-1.164	0.224	3.788	-1.176	0.212

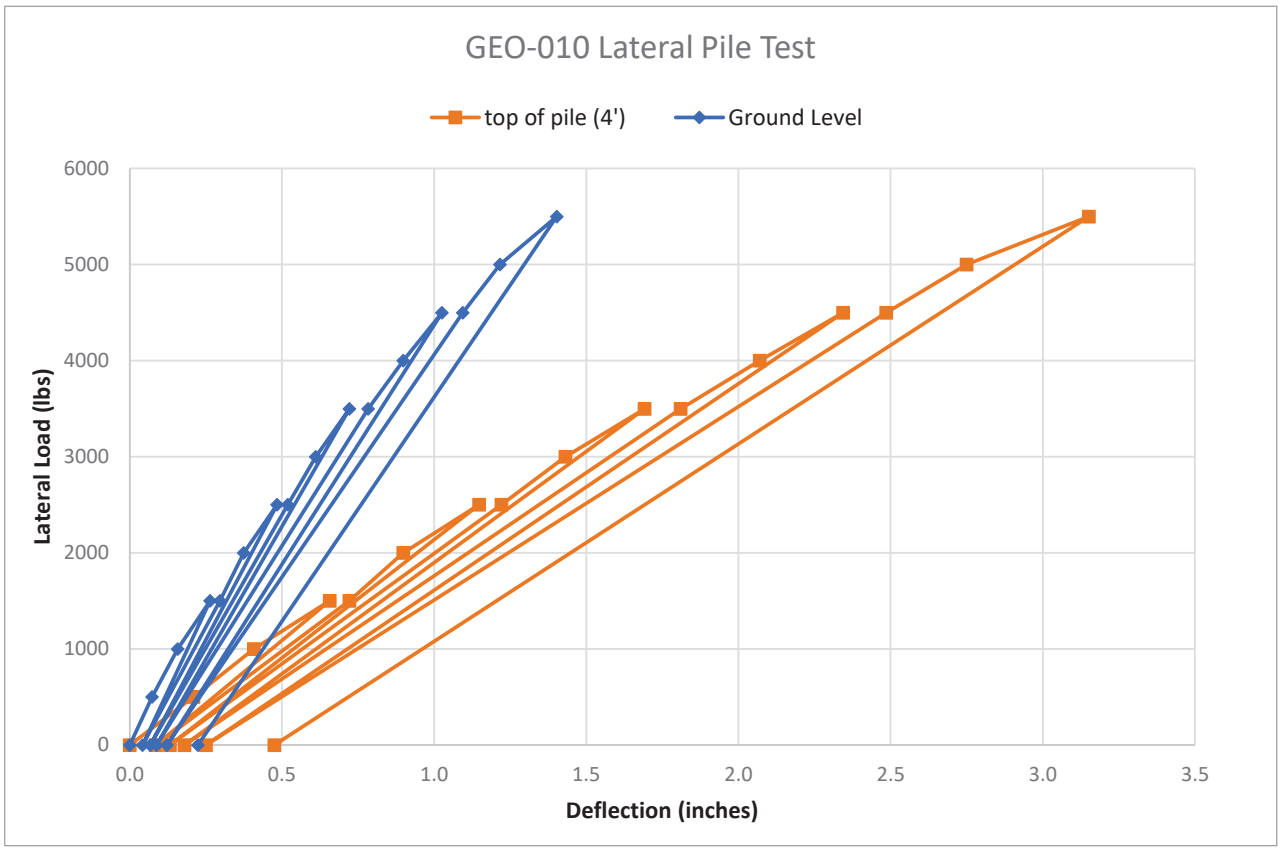
olsson

Location:	GEO-010
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-010
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.991	0.009	0.009	3.991	0.009	0.009
2000	3.999	0.001	0.001	3.999	0.001	0.001	3.989	0.002	0.011	3.989	0.002	0.011
3000	3.992	0.007	0.008	3.992	0.007	0.008	3.987	0.002	0.013	3.986	0.003	0.014
4000	3.981	0.011	0.019	3.981	0.011	0.019	3.984	0.003	0.016	3.982	0.004	0.018
5000	3.964	0.017	0.036	3.963	0.018	0.037	3.977	0.007	0.023	3.975	0.007	0.025
6000	3.951	0.013	0.049	3.934	0.029	0.066	3.959	0.018	0.041	3.950	0.025	0.050
7000	3.877	0.074	0.123	3.860	0.074	0.140	3.922	0.037	0.078	3.898	0.052	0.102
8000	3.759	0.118	0.241	3.725	0.135	0.275	3.811	0.111	0.189	3.774	0.124	0.226
9000	3.578	0.181	0.422	3.537	0.188	0.463	3.643	0.168	0.357	3.600	0.174	0.400
10000	3.329	0.249	0.671	3.288	0.249	0.712	3.408	0.235	0.592	3.359	0.241	0.641
11000	2.981	0.348	1.019	2.921	0.367	1.079	3.089	0.319	0.911	3.029	0.330	0.971
11720	2.221	0.760	1.779	2.144	0.777	1.856	2.444	0.645	1.556	2.374	0.655	1.626
0	2.356	-0.135	1.644	2.357	-0.213	1.643	2.398	0.046	1.602	2.401	-0.027	1.599

olsson

Location:	GEO-011
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.006	-0.006	-0.006	0.005	-0.005	-0.005	0.009	-0.009	-0.009	0.010	-0.010	-0.010
2000	0.007	-0.001	-0.007	0.006	-0.001	-0.006	0.021	-0.012	-0.021	0.023	-0.013	-0.023
3000	0.007	0.000	-0.007	0.010	-0.004	-0.010	0.035	-0.014	-0.035	0.050	-0.027	-0.050
4000	0.007	0.000	-0.007	0.011	-0.001	-0.011	0.085	-0.050	-0.085	0.096	-0.046	-0.096
5000	0.034	-0.027	-0.034	0.045	-0.034	-0.045	0.122	-0.037	-0.122	0.124	-0.028	-0.124
6000	0.091	-0.057	-0.091	0.111	-0.066	-0.111	0.172	-0.050	-0.172	0.208	-0.084	-0.208
7000	0.187	-0.096	-0.187	0.243	-0.132	-0.243	0.333	-0.161	-0.333	0.325	-0.117	-0.325
8000	0.361	-0.174	-0.361	0.412	-0.169	-0.412	0.454	-0.121	-0.454	0.510	-0.185	-0.510
9000	0.657	-0.296	-0.657	0.800	-0.388	-0.800	0.759	-0.305	-0.759	0.844	-0.334	-0.844
9440	0.998	-0.341	-0.998	1.085	-0.285	-1.085	1.032	-0.273	-1.032	1.108	-0.264	-1.108

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Field Pile Testing Results

Location:	GEO-011
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

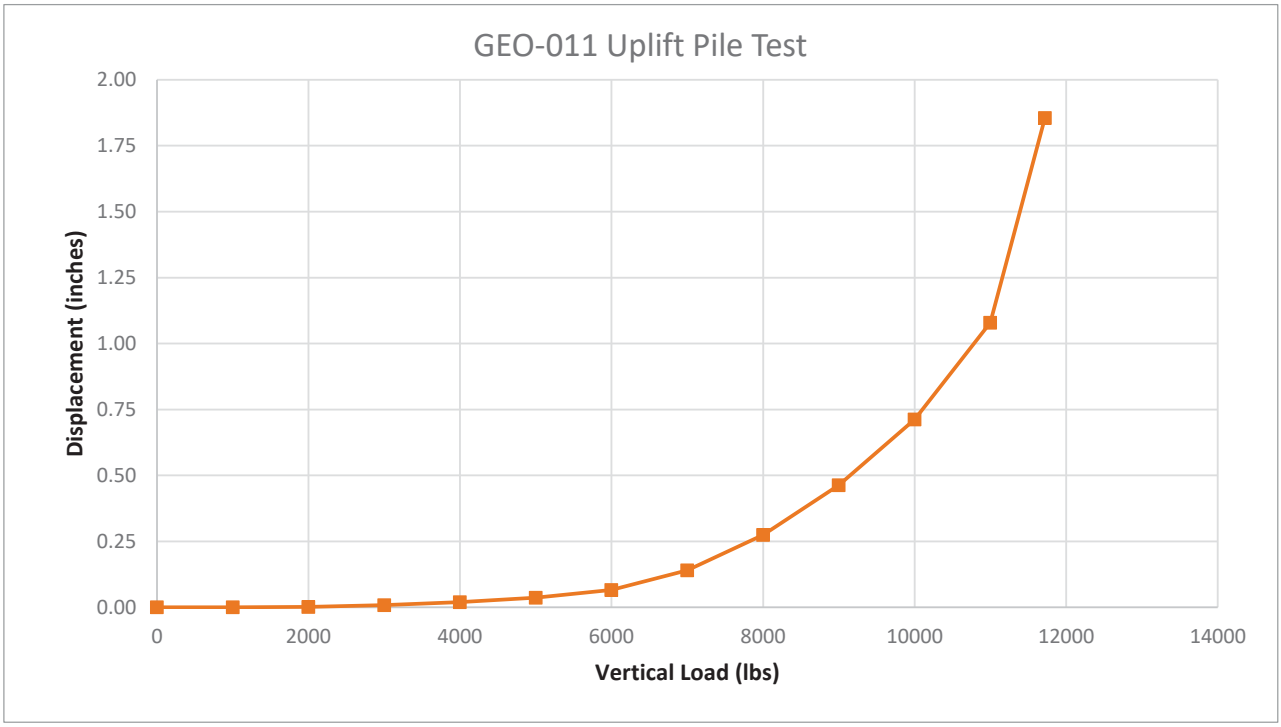
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.797	0.203	0.203	3.788	0.212	0.212	3.938	0.062	0.062	3.934	0.066	0.066
1000	3.611	0.186	0.389	3.604	0.193	0.396	3.859	0.079	0.141	3.855	0.083	0.145
1500	3.346	0.265	0.654	3.342	0.269	0.658	3.746	0.113	0.254	3.740	0.119	0.260
0	3.878	-0.532	0.122	3.886	-0.540	0.114	3.964	-0.218	0.036	3.968	-0.222	0.032
1500	3.283	0.595	0.717	3.283	0.595	0.717	3.719	0.245	0.281	3.717	0.247	0.283
2000	3.012	0.271	0.988	3.008	0.275	0.992	3.598	0.121	0.402	3.590	0.129	0.410
2500	2.712	0.300	1.288	2.711	0.301	1.289	3.455	0.143	0.545	3.443	0.155	0.557
0	3.752	-1.040	0.248	3.767	-1.055	0.233	3.908	-0.453	0.092	3.911	-0.456	0.089
2500	2.603	1.149	1.397	2.602	1.150	1.398	3.400	0.508	0.600	3.389	0.519	0.611
3000	2.298	0.305	1.702	2.292	0.311	1.708	3.246	0.154	0.754	3.235	0.165	0.765
3500	1.975	0.323	2.025	1.964	0.334	2.036	3.088	0.158	0.912	3.061	0.185	0.939
0	3.571	-1.596	0.429	3.595	-1.620	0.405	3.732	-0.644	0.268	3.739	-0.651	0.261
3500	1.781	1.790	2.219	1.774	1.797	2.226	2.959	0.773	1.041	2.953	0.779	1.047
4000	1.421	0.360	2.579	1.410	0.371	2.590	2.776	0.183	1.224	2.761	0.198	1.239
4500	1.006	0.415	2.994	0.993	0.428	3.007	2.572	0.204	1.428	2.555	0.221	1.445
0	3.172	-2.166	0.828	3.211	-2.205	0.789	3.580	-1.008	0.420	3.598	-1.026	0.402
4500	0.726	2.446	3.274	0.725	2.447	3.275	2.392	1.188	1.608	2.388	1.192	1.612
5000	0.196	0.530	3.804	0.194	0.532	3.806	2.111	0.281	1.889	2.091	0.301	1.909
5120	0.000	0.196	4.000	0.000	0.196	4.000	1.933	0.178	2.067	1.921	0.190	2.079
0	2.498	-2.498	1.502	2.531	-2.531	1.469	3.119	-1.186	0.881	3.129	-1.196	0.871

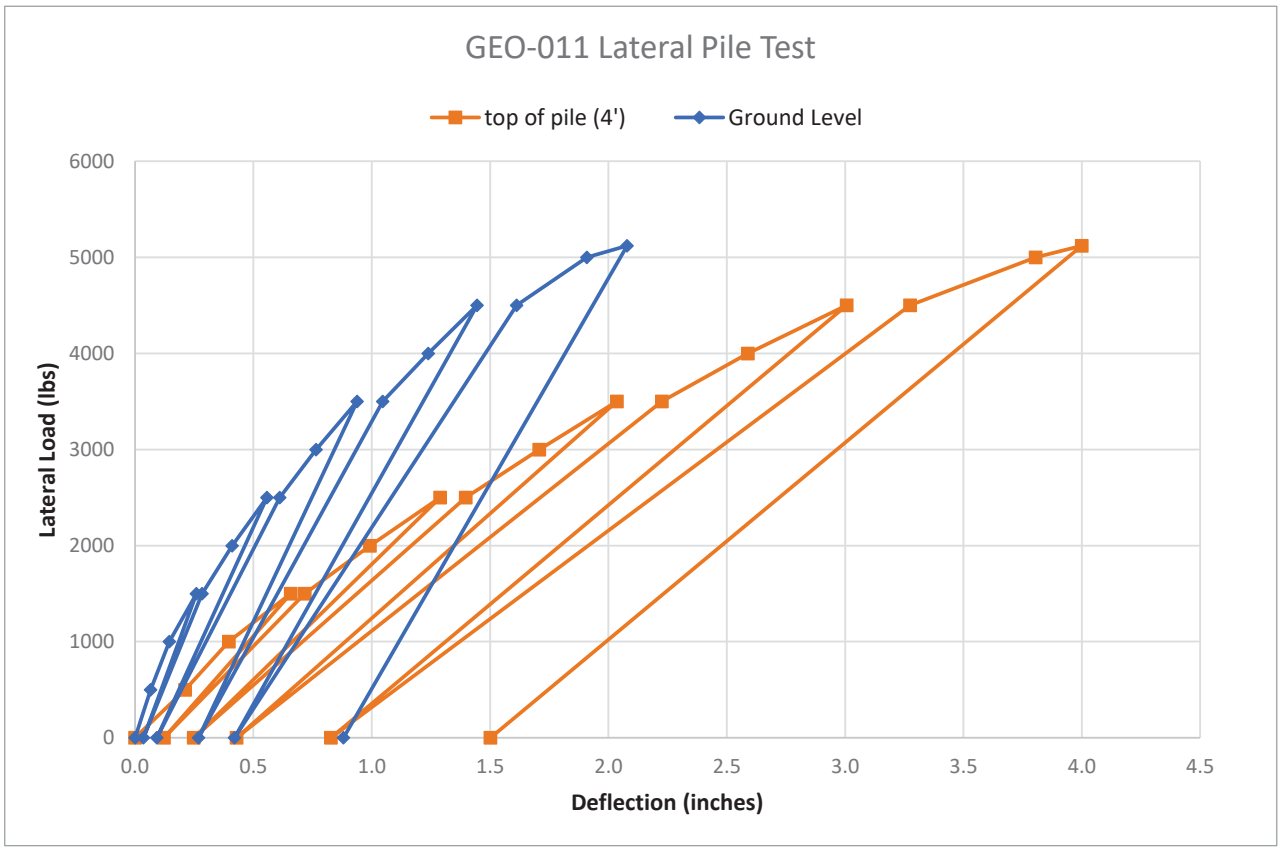
olsson

Field Pile Testing Results

Location:	GEO-011
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-011
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.006	0.006	3.994	0.006	0.006
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.989	0.005	0.011	3.989	0.005	0.011
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.986	0.003	0.014	3.986	0.003	0.014
4000	3.996	0.004	0.004	3.996	0.004	0.004	3.983	0.003	0.017	3.981	0.005	0.019
5000	3.995	0.001	0.005	3.995	0.001	0.005	3.977	0.006	0.023	3.975	0.006	0.025
6000	3.987	0.008	0.013	3.987	0.008	0.013	3.971	0.006	0.029	3.969	0.006	0.031
7000	3.971	0.016	0.029	3.970	0.017	0.030	3.964	0.007	0.036	3.960	0.009	0.040
8000	3.950	0.021	0.050	3.950	0.020	0.050	3.951	0.013	0.049	3.947	0.013	0.053
9000	3.925	0.025	0.075	3.924	0.026	0.076	3.932	0.019	0.068	3.926	0.021	0.074
10000	3.894	0.031	0.106	3.887	0.037	0.113	3.905	0.027	0.095	3.893	0.033	0.107
11000	3.826	0.068	0.174	3.812	0.075	0.188	3.841	0.064	0.159	3.821	0.072	0.179
12000	3.734	0.092	0.266	3.709	0.103	0.291	3.745	0.096	0.255	3.720	0.101	0.280
13000	3.552	0.182	0.448	3.524	0.185	0.476	3.572	0.173	0.428	3.545	0.175	0.455
14000	3.299	0.253	0.701	3.254	0.270	0.746	3.332	0.240	0.668	3.295	0.250	0.705
15000	2.923	0.376	1.077	2.897	0.357	1.103	3.029	0.303	0.971	2.997	0.298	1.003
15740	2.214	0.709	1.786	2.158	0.739	1.842	2.460	0.569	1.540	2.413	0.584	1.587
0	2.208	0.006	1.792	2.210	-0.052	1.790	2.434	0.026	1.566	2.434	-0.021	1.566

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Location:	GEO-013
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

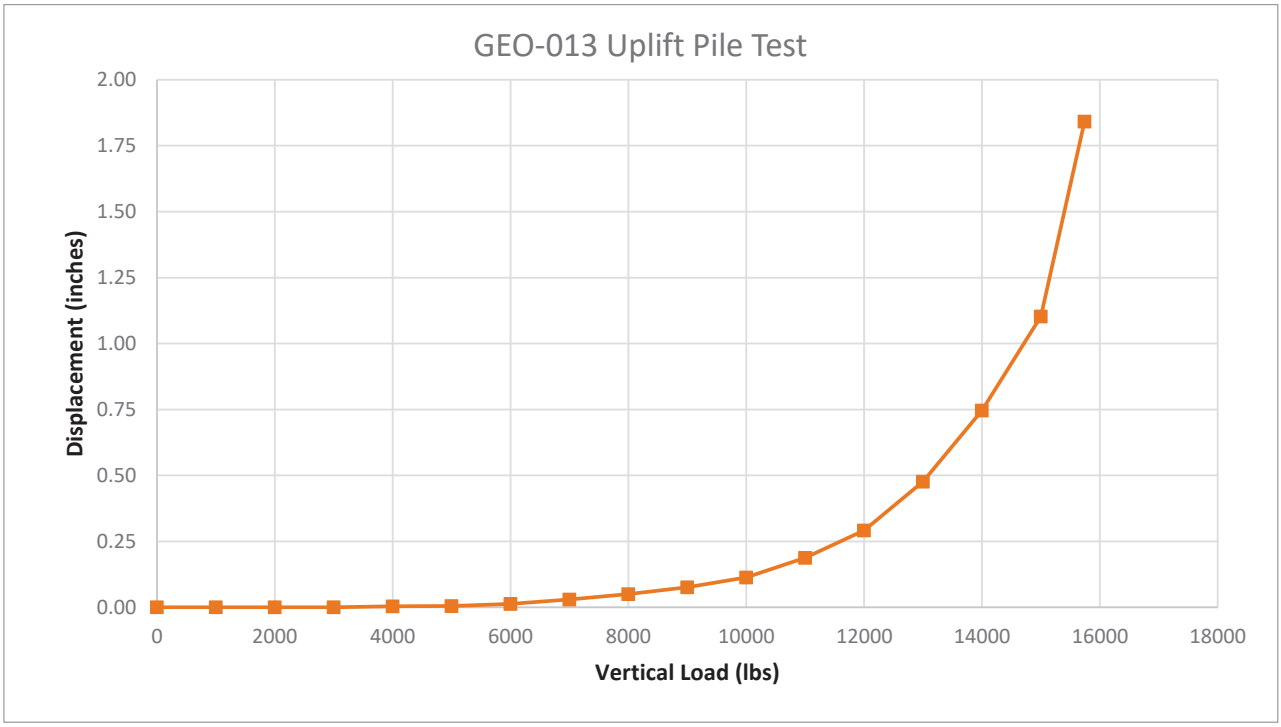
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.815	0.185	0.185	3.821	0.179	0.179	3.939	0.061	0.061	3.937	0.063	0.063
1000	3.636	0.179	0.364	3.643	0.172	0.357	3.872	0.067	0.128	3.871	0.068	0.129
1500	3.423	0.213	0.577	3.423	0.213	0.577	3.790	0.082	0.210	3.788	0.084	0.212
0	3.950	-0.527	0.050	3.962	-0.539	0.038	3.970	-0.180	0.030	3.971	-0.181	0.029
1500	3.388	0.562	0.612	3.388	0.562	0.612	3.769	0.201	0.231	3.768	0.202	0.232
2000	3.200	0.188	0.800	3.200	0.188	0.800	3.698	0.071	0.302	3.695	0.074	0.305
2500	2.958	0.242	1.042	2.957	0.243	1.043	3.602	0.096	0.398	3.594	0.104	0.406
0	3.907	-0.949	0.093	3.923	-0.965	0.077	3.924	-0.322	0.076	3.931	-0.329	0.069
2500	2.905	1.002	1.095	2.904	1.003	1.096	3.572	0.352	0.428	3.568	0.356	0.432
3000	2.686	0.219	1.314	2.682	0.223	1.318	3.487	0.085	0.513	3.481	0.091	0.519
3500	2.448	0.238	1.552	2.427	0.259	1.573	3.382	0.105	0.618	3.369	0.118	0.631
0	3.862	-1.414	0.138	3.878	-1.430	0.122	3.915	-0.533	0.085	3.918	-0.536	0.082
3500	2.336	1.526	1.664	2.336	1.526	1.664	3.331	0.584	0.669	3.321	0.594	0.679
4000	2.072	0.264	1.928	2.071	0.265	1.929	3.221	0.110	0.779	3.212	0.119	0.788
4500	1.794	0.278	2.206	1.791	0.281	2.209	3.100	0.121	0.900	3.085	0.136	0.915
0	3.791	-1.997	0.209	3.803	-2.009	0.197	3.826	-0.726	0.174	3.831	-0.731	0.169
4500	1.653	2.138	2.347	1.653	2.138	2.347	3.023	0.803	0.977	3.014	0.812	0.986
5000	1.397	0.256	2.603	1.394	0.259	2.606	2.911	0.112	1.089	2.894	0.129	1.106
5500	1.033	0.364	2.967	1.028	0.369	2.972	2.745	0.166	1.255	2.727	0.184	1.273
0	3.585	-2.552	0.415	3.603	-2.570	0.397	3.719	-0.974	0.281	3.725	-0.980	0.275

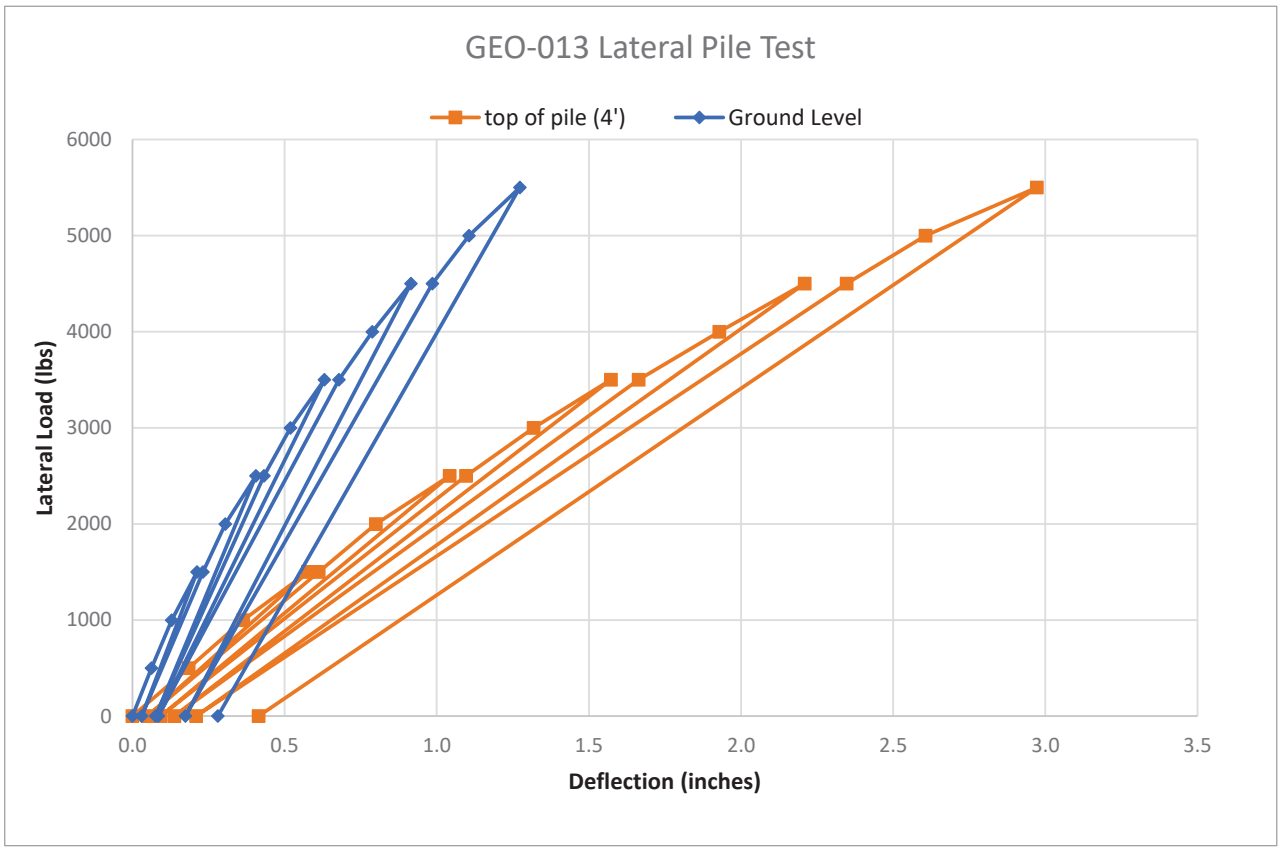
olsson

Field Pile Testing Results

Location:	GEO-013
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-013
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.993	0.007	0.007	3.993	0.007	0.007
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.985	0.008	0.015	3.985	0.008	0.015
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.983	0.002	0.017	3.983	0.002	0.017
4000	3.998	0.002	0.002	3.998	0.002	0.002	3.977	0.006	0.023	3.976	0.007	0.024
5000	3.992	0.006	0.008	3.988	0.010	0.012	3.969	0.008	0.031	3.968	0.008	0.032
6000	3.972	0.020	0.028	3.971	0.017	0.029	3.962	0.007	0.038	3.962	0.006	0.038
7000	3.961	0.011	0.039	3.956	0.015	0.044	3.953	0.009	0.047	3.952	0.010	0.048
8000	3.947	0.014	0.053	3.941	0.015	0.059	3.941	0.012	0.059	3.939	0.013	0.061
9000	3.921	0.026	0.079	3.914	0.027	0.086	3.919	0.022	0.081	3.914	0.025	0.086
10000	3.892	0.029	0.108	3.881	0.033	0.119	3.892	0.027	0.108	3.885	0.029	0.115
11000	3.845	0.047	0.155	3.827	0.054	0.173	3.847	0.045	0.153	3.833	0.052	0.167
12000	3.777	0.068	0.223	3.760	0.067	0.240	3.781	0.066	0.219	3.764	0.069	0.236
13000	3.668	0.109	0.332	3.654	0.106	0.346	3.672	0.109	0.328	3.666	0.098	0.334
14000	3.591	0.077	0.409	3.557	0.097	0.443	3.603	0.069	0.397	3.575	0.091	0.425
15000	3.468	0.123	0.532	3.427	0.130	0.573	3.479	0.124	0.521	3.450	0.125	0.550
16000	3.350	0.118	0.650	3.276	0.151	0.724	3.383	0.096	0.617	3.311	0.139	0.689
17000	3.104	0.246	0.896	3.067	0.209	0.933	3.134	0.249	0.866	3.111	0.200	0.889
18000	2.895	0.209	1.105	2.704	0.363	1.296	2.913	0.221	1.087	2.859	0.252	1.141
0	2.826	0.069	1.174	2.830	-0.126	1.170	2.928	-0.015	1.072	2.930	-0.071	1.070

olsson

Location:	GEO-017
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

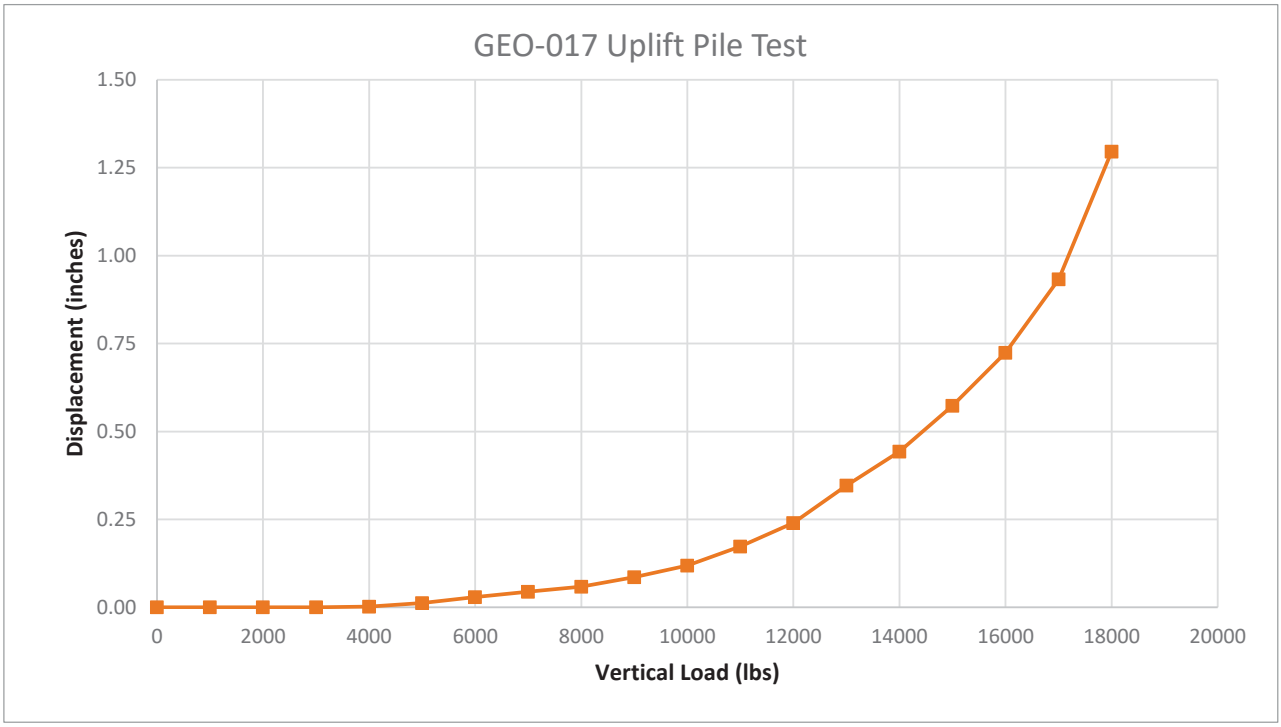
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.852	0.148	0.148	3.850	0.150	0.150	3.955	0.045	0.045	3.952	0.048	0.048
1000	3.707	0.145	0.293	3.707	0.145	0.293	3.902	0.053	0.098	3.898	0.057	0.102
1500	3.525	0.182	0.475	3.523	0.184	0.477	3.827	0.075	0.173	3.825	0.077	0.175
0	3.968	-0.443	0.032	3.968	-0.443	0.032	3.953	-0.126	0.047	3.954	-0.127	0.046
1500	3.505	0.463	0.495	3.502	0.466	0.498	3.816	0.137	0.184	3.814	0.139	0.186
2000	3.296	0.209	0.704	3.294	0.211	0.706	3.741	0.075	0.259	3.729	0.087	0.271
2500	3.127	0.169	0.873	3.126	0.170	0.874	3.665	0.076	0.335	3.655	0.086	0.345
0	3.926	-0.799	0.074	3.928	-0.801	0.072	3.921	-0.256	0.079	3.921	-0.256	0.079
2500	3.085	0.841	0.915	3.083	0.843	0.917	3.634	0.287	0.366	3.628	0.293	0.372
3000	2.847	0.238	1.153	2.835	0.250	1.165	3.538	0.096	0.462	3.520	0.114	0.480
3500	2.639	0.208	1.361	2.635	0.212	1.365	3.446	0.092	0.554	3.428	0.110	0.572
0	3.831	-1.192	0.169	3.859	-1.220	0.141	3.874	-0.428	0.126	3.891	-0.445	0.109
3500	2.559	1.272	1.441	2.562	1.269	1.438	3.397	0.477	0.603	3.390	0.484	0.610
4000	2.321	0.238	1.679	2.320	0.239	1.680	3.292	0.105	0.708	3.284	0.113	0.716
4500	2.115	0.206	1.885	2.080	0.241	1.920	3.181	0.111	0.819	3.175	0.117	0.825
0	3.764	-1.649	0.236	3.801	-1.686	0.199	3.818	-0.637	0.182	3.824	-0.643	0.176
4500	1.996	1.768	2.004	2.000	1.764	2.000	3.134	0.684	0.866	3.126	0.692	0.874
5000	1.815	0.181	2.185	1.783	0.213	2.217	3.007	0.127	0.993	25.000	-21.866	-21.000
5500	1.450	0.365	2.550	1.452	0.363	2.548	2.895	0.112	1.105	2.875	0.132	1.125
0	3.669	-2.219	0.331	3.680	-2.230	0.320	3.721	-0.826	0.279	3.731	-0.836	0.269

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Field Pile Testing Results

Location:	GEO-017
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-017
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.005	0.005	3.995	0.005	0.005
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.003	0.008	3.992	0.003	0.008
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.990	0.002	0.010	3.990	0.002	0.010
4000	3.992	0.008	0.008	3.992	0.008	0.008	3.988	0.002	0.012	3.987	0.003	0.013
5000	3.977	0.015	0.023	3.975	0.017	0.025	3.981	0.007	0.019	3.978	0.009	0.022
6000	3.941	0.036	0.059	3.932	0.043	0.068	3.959	0.022	0.041	3.951	0.027	0.049
7000	3.895	0.046	0.105	3.884	0.048	0.116	3.922	0.037	0.078	3.912	0.039	0.088
8000	3.826	0.069	0.174	3.814	0.070	0.186	3.861	0.061	0.139	3.849	0.063	0.151
9000	3.704	0.122	0.296	3.685	0.129	0.315	3.748	0.113	0.252	3.730	0.119	0.270
10000	3.531	0.173	0.469	3.495	0.190	0.505	3.582	0.166	0.418	3.546	0.184	0.454
11000	3.131	0.400	0.869	3.081	0.414	0.919	3.191	0.391	0.809	3.143	0.403	0.857
11480	2.431	0.700	1.569	2.379	0.702	1.621	2.491	0.700	1.509	2.443	0.700	1.557
0	2.423	0.008	1.577	2.431	-0.052	1.569	2.478	0.013	1.522	2.482	-0.039	1.518

olsson

Location:	GEO-018
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.004	-0.004	-0.004	0.004	-0.004	-0.004	0.010	-0.010	-0.010	0.012	-0.012	-0.012
2000	0.002	0.002	-0.002	0.005	-0.001	-0.005	0.016	-0.006	-0.016	0.016	-0.004	-0.016
3000	0.018	-0.016	-0.018	0.017	-0.012	-0.017	0.018	-0.002	-0.018	0.019	-0.003	-0.019
4000	0.044	-0.026	-0.044	0.054	-0.037	-0.054	0.027	-0.009	-0.027	0.038	-0.019	-0.038
5000	0.084	-0.040	-0.084	0.101	-0.047	-0.101	0.135	-0.108	-0.135	0.135	-0.097	-0.135
6000	0.178	-0.094	-0.178	0.202	-0.101	-0.202	0.222	-0.087	-0.222	0.229	-0.094	-0.229
7000	0.281	-0.103	-0.281	0.337	-0.135	-0.337	0.365	-0.143	-0.365	0.406	-0.177	-0.406
8000	0.726	-0.445	-0.726	0.772	-0.435	-0.772	0.765	-0.400	-0.765	0.812	-0.406	-0.812

olsson

Field Pile Testing Results

Location:	GEO-018
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

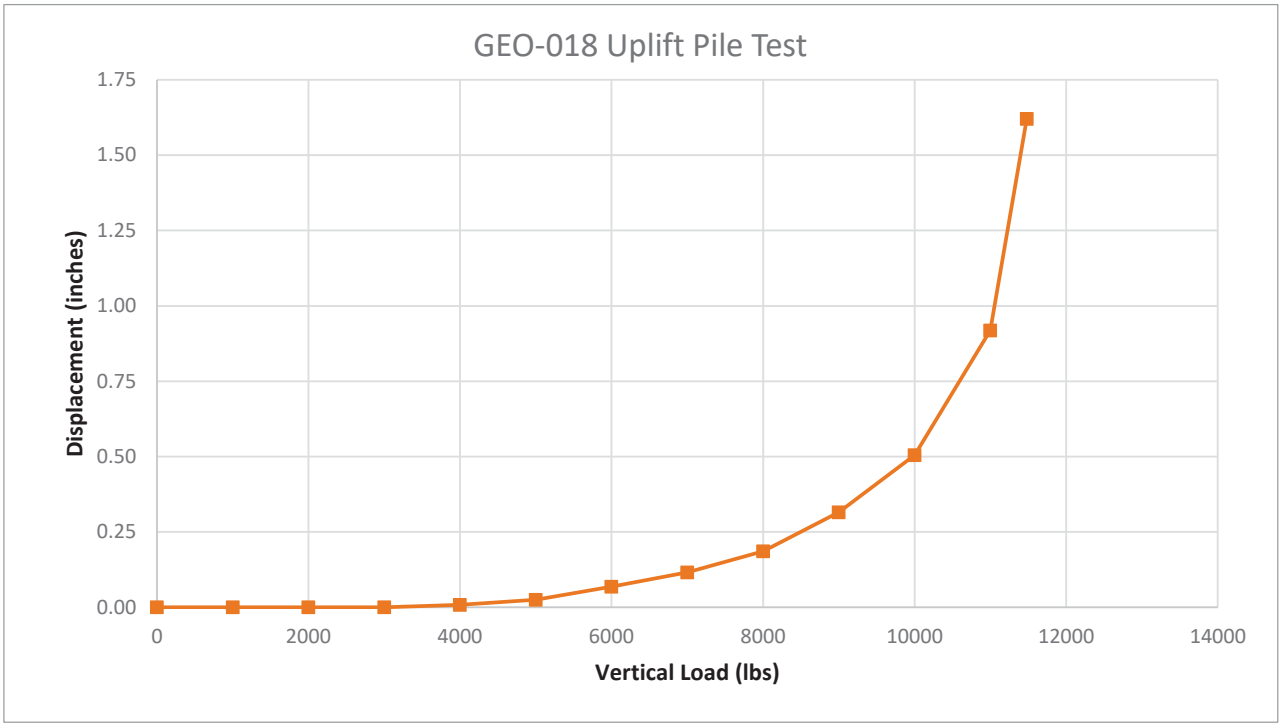
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.796	0.204	0.204	3.808	0.192	0.192	3.938	0.062	0.062	3.938	0.062	0.062
1000	3.548	0.248	0.452	3.548	0.248	0.452	3.839	0.099	0.161	3.838	0.100	0.162
1500	3.271	0.277	0.729	3.268	0.280	0.732	3.720	0.119	0.280	3.713	0.126	0.287
0	3.892	-0.621	0.108	3.905	-0.634	0.095	3.933	-0.213	0.067	3.935	-0.215	0.065
1500	3.237	0.655	0.763	3.237	0.655	0.763	3.700	0.233	0.300	3.697	0.236	0.303
2000	2.973	0.264	1.027	2.971	0.266	1.029	3.585	0.115	0.415	3.575	0.125	0.425
2500	2.591	0.382	1.409	2.588	0.385	1.412	3.398	0.187	0.602	3.383	0.202	0.617
0	3.854	-1.263	0.146	3.876	-1.285	0.124	3.891	-0.493	0.109	3.900	-0.502	0.100
2500	2.511	1.343	1.489	2.511	1.343	1.489	3.347	0.544	0.653	3.343	0.548	0.657
3000	2.171	0.340	1.829	2.168	0.343	1.832	3.183	0.164	0.817	3.168	0.179	0.832
3500	1.737	0.434	2.263	1.733	0.438	2.267	2.967	0.216	1.033	2.939	0.244	1.061
0	3.565	-1.828	0.435	3.599	-1.862	0.401	3.775	-0.808	0.225	3.790	-0.823	0.210
3500	1.619	1.946	2.381	1.619	1.946	2.381	2.877	0.898	1.123	2.863	0.912	1.137
4000	1.163	0.456	2.837	1.159	0.460	2.841	2.652	0.225	1.348	2.621	0.256	1.379
4500	0.786	0.377	3.214	0.781	0.382	3.219	2.442	0.210	1.558	2.414	0.238	1.586
0	3.315	-2.529	0.685	3.356	-2.570	0.644	3.607	-1.165	0.393	3.618	-1.176	0.382
4500	0.548	2.767	3.452	0.554	2.761	3.446	2.241	1.366	1.759	2.263	1.344	1.737
5000	0.105	0.443	3.895	0.103	0.445	3.897	2.037	0.204	1.963	2.015	0.226	1.985
5040	0.000	0.105	4.000	0.000	0.105	4.000	1.952	0.085	2.048	1.928	0.109	2.072
0	3.031	-3.031	0.969	3.043	-3.043	0.957	3.414	-1.462	0.586	3.419	-1.467	0.581

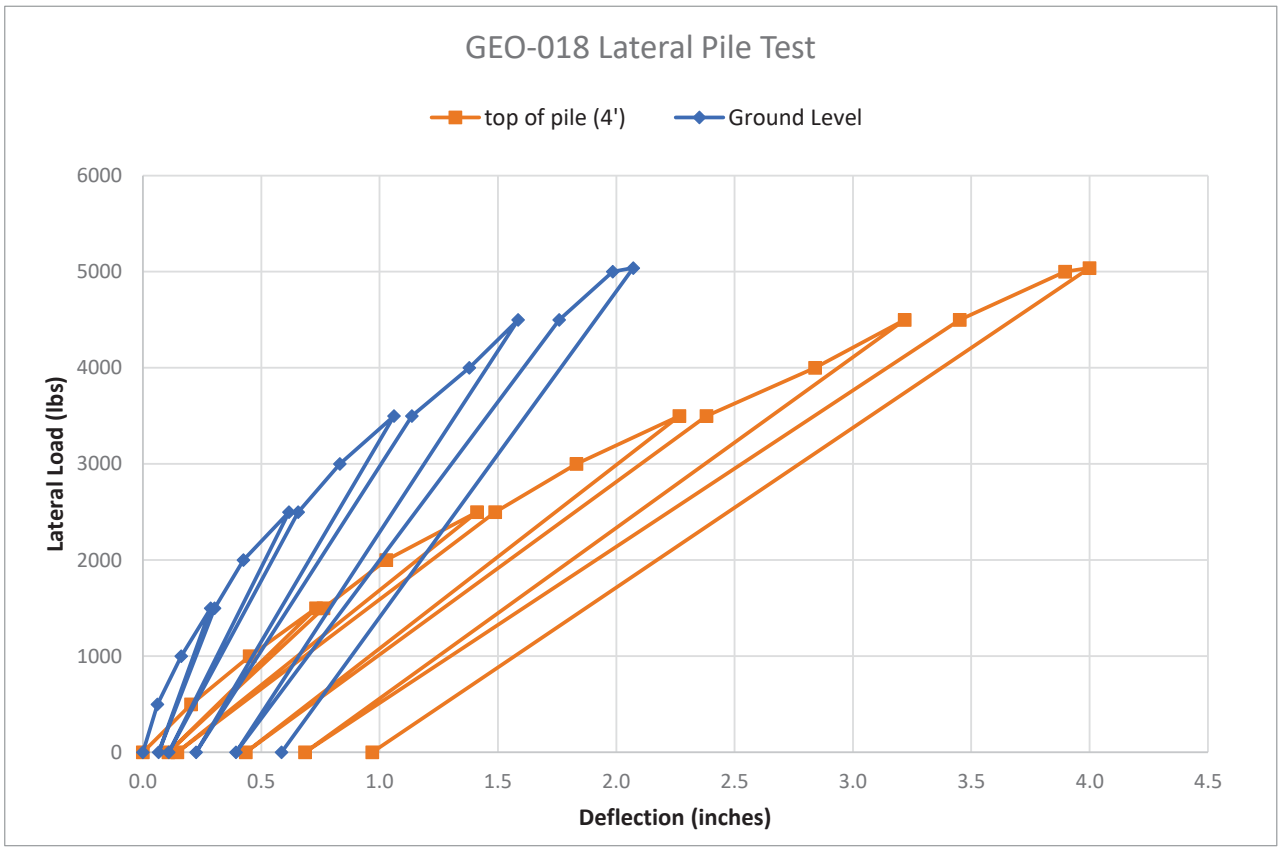
olsson

Field Pile Testing Results

Location:	GEO-018
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-018
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.996	0.004	0.004	3.996	0.004	0.004	3.997	0.003	0.003	3.997	0.003	0.003
2000	3.990	0.006	0.010	3.990	0.006	0.010	3.996	0.001	0.004	3.996	0.001	0.004
3000	3.980	0.010	0.020	3.980	0.010	0.020	3.995	0.001	0.005	3.995	0.001	0.005
4000	3.967	0.013	0.033	3.967	0.013	0.033	3.994	0.001	0.006	3.993	0.002	0.007
5000	3.943	0.024	0.057	3.941	0.026	0.059	3.982	0.012	0.018	3.978	0.015	0.022
6000	3.914	0.029	0.086	3.908	0.033	0.092	3.965	0.017	0.035	3.957	0.021	0.043
7000	3.866	0.048	0.134	3.858	0.050	0.142	3.931	0.034	0.069	3.919	0.038	0.081
8000	3.821	0.045	0.179	3.813	0.045	0.187	3.895	0.036	0.105	3.888	0.031	0.112
9000	3.735	0.086	0.265	3.710	0.103	0.290	3.815	0.080	0.185	3.789	0.099	0.211
10000	3.592	0.143	0.408	3.563	0.147	0.437	3.685	0.130	0.315	3.655	0.134	0.345
11000	3.431	0.161	0.569	3.400	0.163	0.600	3.540	0.145	0.460	3.511	0.144	0.489
12000	3.164	0.267	0.836	3.114	0.286	0.886	3.209	0.331	0.791	3.164	0.347	0.836
12760	2.591	0.573	1.409	2.534	0.580	1.466	2.836	0.373	1.164	2.795	0.369	1.205
0	2.506	0.085	1.494	2.515	0.019	1.485	2.823	0.013	1.177	2.826	-0.031	1.174

olsson

Location:	GEO-019
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

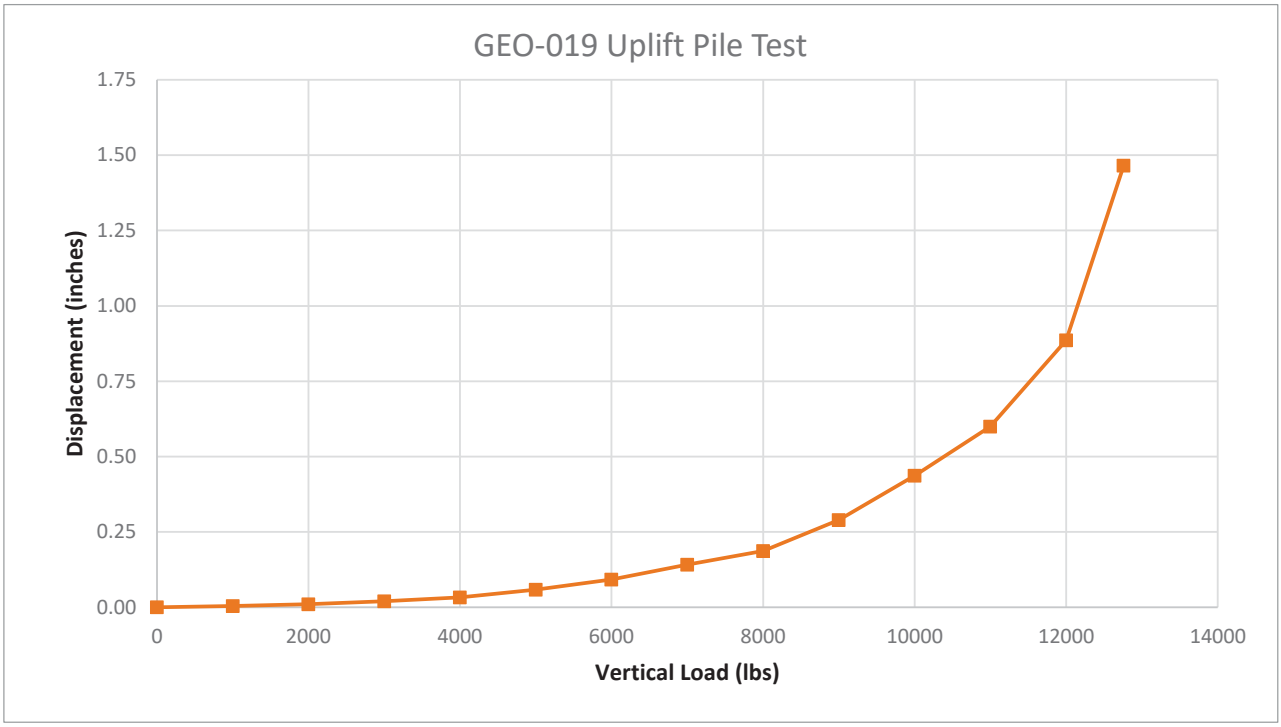
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.801	0.199	0.199	3.803	0.197	0.197	3.937	0.063	0.063	3.935	0.065	0.065
1000	3.664	0.137	0.336	3.663	0.138	0.337	3.881	0.056	0.119	3.880	0.057	0.120
1500	3.410	0.254	0.590	3.413	0.251	0.587	3.776	0.105	0.224	3.773	0.108	0.227
0	3.963	-0.553	0.037	3.971	-0.561	0.029	3.961	-0.185	0.039	3.962	-0.186	0.038
1500	3.364	0.599	0.636	3.378	0.585	0.622	3.759	0.202	0.241	3.760	0.201	0.240
2000	3.198	0.166	0.802	3.218	0.146	0.782	3.677	0.082	0.323	3.678	0.081	0.322
2500	2.952	0.246	1.048	2.963	0.235	1.037	3.568	0.109	0.432	3.567	0.110	0.433
0	3.936	-0.984	0.064	3.936	-0.984	0.064	3.951	-0.383	0.049	3.952	-0.384	0.048
2500	2.930	1.006	1.070	2.943	0.993	1.057	3.554	0.397	0.446	3.554	0.397	0.446
3000	2.724	0.206	1.276	2.726	0.204	1.274	3.464	0.090	0.536	3.461	0.093	0.539
3500	2.466	0.258	1.534	2.472	0.252	1.528	3.352	0.112	0.648	3.349	0.115	0.651
0	3.903	-1.437	0.097	3.912	-1.446	0.088	3.936	-0.584	0.064	3.937	-0.585	0.063
3500	2.399	1.504	1.601	2.403	1.500	1.597	3.310	0.626	0.690	3.310	0.626	0.690
4000	2.159	0.240	1.841	2.162	0.237	1.838	3.210	0.100	0.790	3.206	0.104	0.794
4500	1.895	0.264	2.105	1.895	0.264	2.105	3.093	0.117	0.907	3.087	0.123	0.913
0	3.864	-1.969	0.136	3.875	-1.980	0.125	3.917	-0.824	0.083	3.918	-0.825	0.082
4500	1.791	2.073	2.209	1.801	2.063	2.199	3.045	0.872	0.955	3.044	0.873	0.956
5000	1.509	0.282	2.491	1.509	0.282	2.491	2.922	0.123	1.078	2.918	0.127	1.082
5500	1.218	0.291	2.782	1.215	0.294	2.785	2.790	0.132	1.210	2.778	0.144	1.222
0	3.698	-2.480	0.302	3.716	-2.498	0.284	3.804	-1.014	0.196	3.805	-1.015	0.195

olsson

Field Pile Testing Results

Location:	GEO-019
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-019
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.997	0.003	0.003	3.997	0.003	0.003	3.993	0.007	0.007	3.993	0.007	0.007
2000	3.986	0.011	0.014	3.987	0.010	0.013	3.989	0.004	0.011	3.988	0.005	0.012
3000	3.966	0.020	0.034	3.966	0.021	0.034	3.976	0.013	0.024	3.974	0.014	0.026
4000	3.938	0.028	0.062	3.936	0.030	0.064	3.952	0.024	0.048	3.952	0.022	0.048
5000	3.900	0.038	0.100	3.894	0.042	0.106	3.931	0.021	0.069	3.922	0.030	0.078
6000	3.847	0.053	0.153	3.837	0.057	0.163	3.889	0.042	0.111	3.874	0.048	0.126
7000	3.738	0.109	0.262	3.723	0.114	0.277	3.790	0.099	0.210	3.772	0.102	0.228
8000	3.612	0.126	0.388	3.590	0.133	0.410	3.671	0.119	0.329	3.652	0.120	0.348
9000	3.451	0.161	0.549	3.430	0.160	0.570	3.331	0.340	0.669	3.313	0.339	0.687
10000	3.227	0.224	0.773	3.199	0.231	0.801	3.320	0.011	0.680	3.309	0.004	0.691
11000	2.826	0.401	1.174	2.795	0.404	1.205	2.992	0.328	1.008	2.961	0.348	1.039
11700	2.271	0.555	1.729	2.232	0.563	1.768	2.541	0.451	1.459	2.519	0.442	1.481
0	2.318	-0.047	1.682	2.320	-0.088	1.680	2.532	0.009	1.468	2.533	-0.014	1.467

olsson

Location:	GEO-025
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	-0.010	-0.010	0.010	-0.010	-0.010
2000	0.001	-0.001	-0.001	0.002	-0.002	-0.002	0.015	-0.005	-0.015	0.016	-0.006	-0.016
3000	0.003	-0.002	-0.003	0.004	-0.002	-0.004	0.019	-0.004	-0.019	0.019	-0.003	-0.019
4000	0.004	-0.001	-0.004	0.004	0.000	-0.004	0.022	-0.003	-0.022	0.023	-0.004	-0.023
5000	0.006	-0.002	-0.006	0.009	-0.005	-0.009	0.026	-0.004	-0.026	0.028	-0.005	-0.028
6000	0.016	-0.010	-0.016	0.018	-0.009	-0.018	0.033	-0.007	-0.033	0.036	-0.008	-0.036
7000	0.025	-0.009	-0.025	0.027	-0.009	-0.027	0.037	-0.004	-0.037	0.038	-0.002	-0.038
8000	0.033	-0.008	-0.033	0.034	-0.007	-0.034	0.039	-0.002	-0.039	0.039	-0.001	-0.039
9000	0.036	-0.003	-0.036	0.036	-0.002	-0.036	0.040	-0.001	-0.040	0.040	-0.001	-0.040

olsson

Location:	GEO-025
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

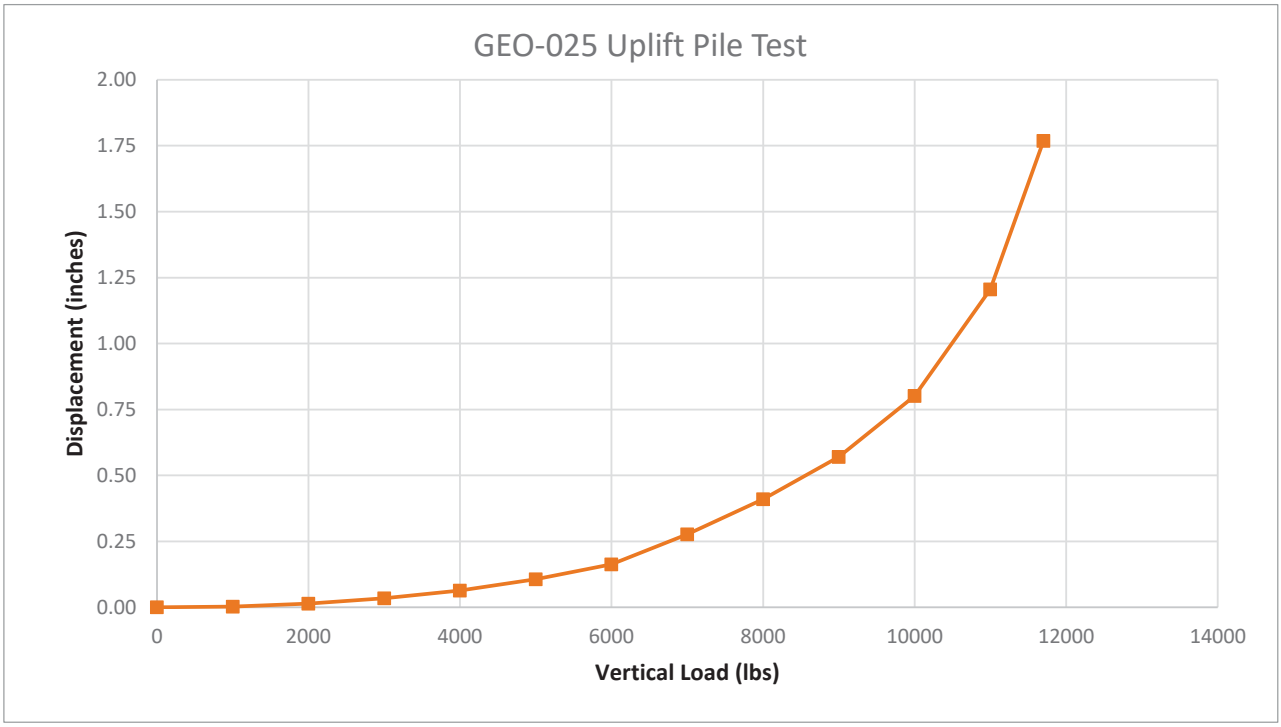
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.835	0.165	0.165	3.834	0.166	0.166	3.966	0.034	0.034	3.968	0.032	0.032
1000	3.640	0.195	0.360	3.640	0.195	0.360	3.912	0.054	0.088	3.912	0.054	0.088
1500	3.415	0.225	0.585	3.414	0.226	0.586	3.825	0.087	0.175	3.824	0.088	0.176
0	3.918	-0.503	0.082	3.922	-0.507	0.078	3.961	-0.136	0.039	3.962	-0.137	0.038
1500	3.403	0.515	0.597	3.402	0.516	0.598	3.822	0.139	0.178	3.822	0.139	0.178
2000	3.146	0.257	0.854	3.146	0.257	0.854	3.723	0.099	0.277	3.721	0.101	0.279
2500	2.948	0.198	1.052	2.948	0.198	1.052	3.643	0.080	0.357	3.639	0.084	0.361
0	3.805	-0.857	0.195	3.814	-0.866	0.186	3.893	-0.250	0.107	3.894	-0.251	0.106
2500	2.911	0.894	1.089	2.911	0.894	1.089	3.623	0.270	0.377	3.622	0.271	0.378
3000	2.657	0.254	1.343	2.654	0.257	1.346	3.524	0.099	0.476	3.518	0.105	0.482
3500	2.449	0.208	1.551	2.448	0.209	1.552	3.441	0.083	0.559	3.433	0.091	0.567
0	3.742	-1.293	0.258	3.754	-1.305	0.246	3.873	-0.432	0.127	3.874	-0.433	0.126
3500	2.377	1.365	1.623	3.377	0.365	0.623	3.403	0.470	0.597	3.401	0.472	0.599
4000	2.138	0.239	1.862	2.138	0.239	1.862	3.306	0.097	0.694	3.301	0.102	0.699
4500	1.928	0.210	2.072	1.927	0.211	2.073	3.214	0.092	0.786	3.209	0.097	0.791
0	3.802	-1.874	0.198	3.803	-1.875	0.197	3.860	-0.646	0.140	3.863	-0.649	0.137
4500	1.830	1.972	2.170	1.830	1.972	2.170	3.160	0.700	0.840	3.160	0.700	0.840
5000	1.580	0.250	2.420	1.579	0.251	2.421	3.059	0.101	0.941	3.052	0.108	0.948
5500	1.252	0.328	2.748	1.249	0.331	2.751	2.914	0.145	1.086	2.906	0.153	1.094
0	3.642	-2.390	0.358	3.676	-2.424	0.324	3.848	-0.934	0.152	3.854	-0.940	0.146

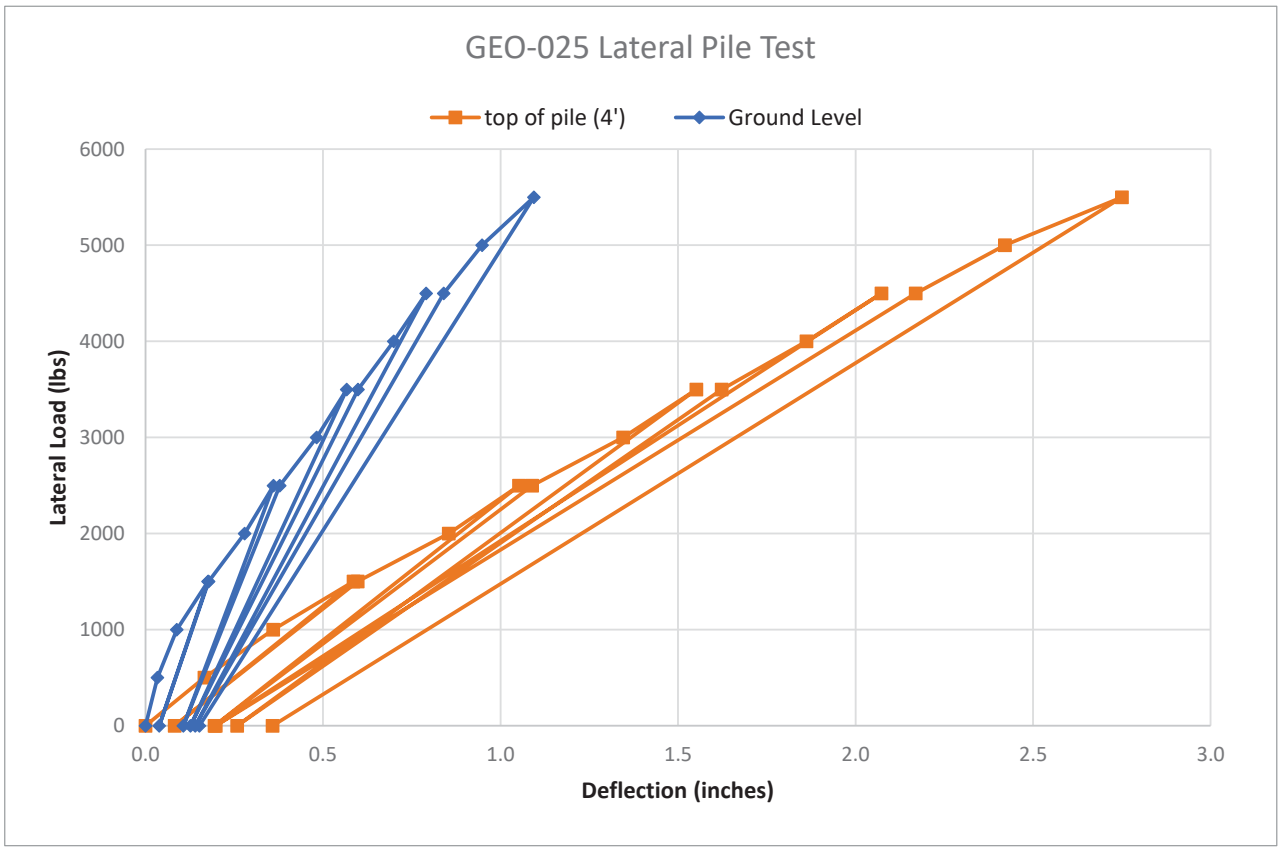
olsson

Field Pile Testing Results

Location:	GEO-025
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-025
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.006	0.006	3.994	0.006	0.006
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.990	0.004	0.010	3.990	0.004	0.010
3000	3.994	0.006	0.006	3.994	0.006	0.006	3.989	0.001	0.011	3.988	0.002	0.012
4000	3.987	0.007	0.013	3.990	0.004	0.010	3.987	0.002	0.013	3.987	0.001	0.013
5000	3.981	0.006	0.019	3.981	0.009	0.019	3.972	0.015	0.028	3.971	0.016	0.029
6000	3.974	0.007	0.026	3.974	0.007	0.026	3.970	0.002	0.030	3.970	0.001	0.030
7000	3.969	0.005	0.031	3.969	0.005	0.031	3.970	0.000	0.030	3.970	0.000	0.030
8000	3.964	0.005	0.036	3.965	0.004	0.035	3.970	0.000	0.030	3.970	0.000	0.030
9000	3.959	0.005	0.041	3.959	0.006	0.041	3.954	0.016	0.046	3.955	0.015	0.045
10000	3.958	0.001	0.042	3.958	0.001	0.042	3.947	0.007	0.053	3.948	0.007	0.052
11000	3.957	0.001	0.043	3.957	0.001	0.043	3.942	0.005	0.058	3.942	0.006	0.058
12000	3.956	0.001	0.044	3.956	0.001	0.044	3.933	0.009	0.067	3.933	0.009	0.067
13000	3.955	0.001	0.045	3.955	0.001	0.045	3.924	0.009	0.076	3.924	0.009	0.076
14000	3.953	0.002	0.047	3.953	0.002	0.047	3.915	0.009	0.085	3.916	0.008	0.084
15000	3.949	0.004	0.051	3.949	0.004	0.051	3.904	0.011	0.096	3.903	0.013	0.097
16000	3.938	0.011	0.062	3.937	0.012	0.063	3.872	0.032	0.128	3.972	-0.069	0.028
17000	3.931	0.007	0.069	3.928	0.009	0.072	3.857	0.015	0.143	3.956	0.016	0.044
18000	3.915	0.016	0.085	3.912	0.016	0.088	3.839	0.018	0.161	3.837	0.119	0.163
0	3.970	-0.055	0.030	3.971	-0.059	0.029	3.925	-0.086	0.075	3.925	-0.088	0.075

olsson

Location:	GEO-028
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000						
2000	0.000	0.000	0.000	0.000	0.000	0.000						
3000	0.000	0.000	0.000	0.000	0.000	0.000	Gauge not working					
4000	0.000	0.000	0.000	0.000	0.000	0.000						
5000	0.005	-0.005	-0.005	0.006	-0.006	-0.006						
6000	0.013	-0.008	-0.013	0.015	-0.009	-0.015						
7000	0.023	-0.010	-0.023	0.028	-0.013	-0.028						
8000	0.031	-0.008	-0.031	0.034	-0.006	-0.034						
9000	0.039	-0.008	-0.039	0.043	-0.009	-0.043						

olsson

Field Pile Testing Results

Location:	GEO-028
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

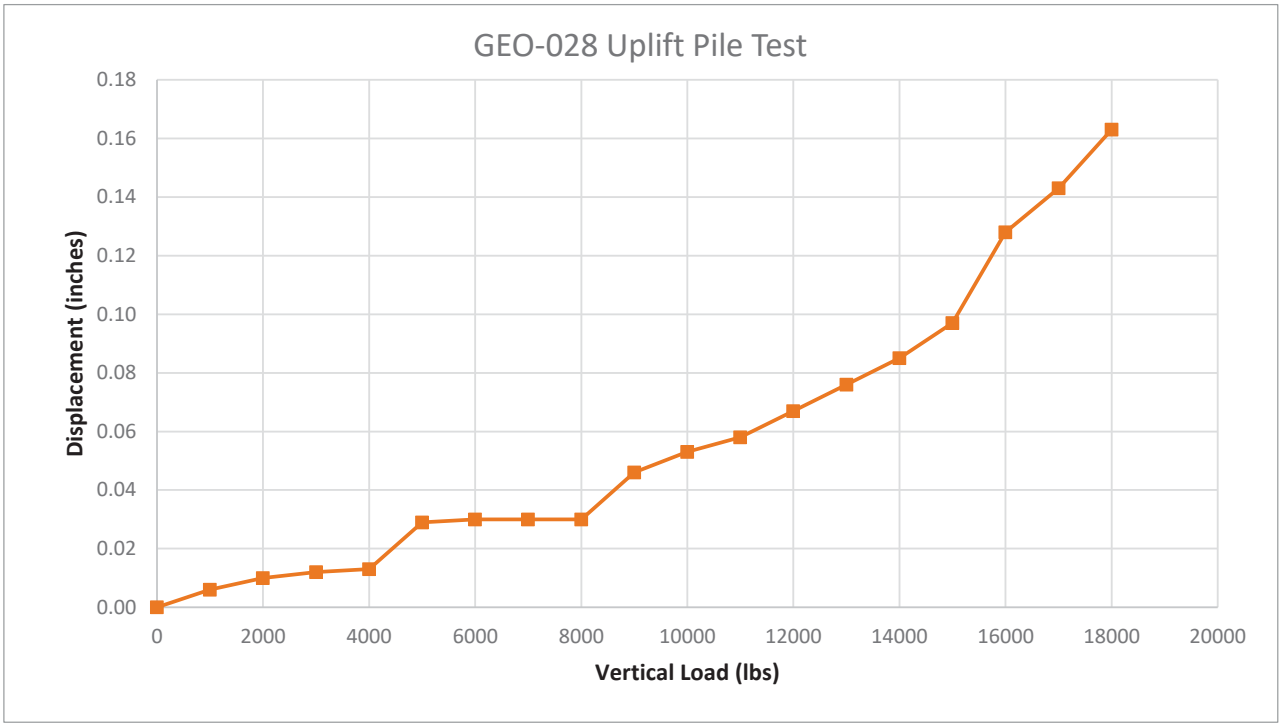
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.829	0.171	0.171	3.845	0.155	0.155	3.918	0.082	0.082	3.912	0.088	0.088
1000	3.691	0.138	0.309	3.706	0.123	0.294	3.837	0.081	0.163	3.831	0.087	0.169
1500	3.543	0.148	0.457	3.553	0.138	0.447	3.759	0.078	0.241	3.754	0.083	0.246
0	3.963	-0.420	0.037	3.965	-0.422	0.035	3.983	-0.224	0.017	3.988	-0.229	0.012
1500	3.550	0.413	0.450	3.559	0.404	0.441	3.730	0.253	0.270	3.732	0.251	0.268
2000	3.375	0.175	0.625	3.384	0.166	0.616	3.648	0.082	0.352	3.646	0.084	0.354
2500	3.165	0.210	0.835	3.170	0.205	0.830	3.551	0.097	0.449	3.547	0.101	0.453
0	3.952	-0.787	0.048	3.954	-0.789	0.046	3.970	-0.419	0.030	3.973	-0.422	0.027
2500	3.142	0.810	0.858	3.155	0.797	0.845	3.524	0.446	0.476	3.523	0.447	0.477
3000	2.927	0.215	1.073	2.932	0.210	1.068	3.427	0.097	0.573	3.426	0.098	0.574
3500	2.673	0.254	1.327	2.676	0.251	1.324	3.313	0.114	0.687	3.311	0.116	0.689
0	3.943	-1.270	0.057	3.945	-1.272	0.055	3.962	-0.649	0.038	3.965	-0.652	0.035
3500	2.590	1.353	1.410	2.599	1.344	1.401	3.270	0.692	0.730	3.270	0.692	0.730
4000	2.392	0.198	1.608	2.396	0.194	1.604	3.183	0.087	0.817	3.180	0.090	0.820
4500	2.137	0.255	1.863	2.138	0.254	1.862	3.069	0.114	0.931	3.066	0.117	0.934
0	3.931	-1.794	0.069	3.933	-1.796	0.067	3.949	-0.880	0.051	3.952	-0.883	0.048
4500	2.075	1.856	1.925	2.085	1.846	1.915	3.031	0.918	0.969	3.029	0.920	0.971
5000	1.796	0.279	2.204	1.797	0.278	2.203	2.907	0.124	1.093	2.902	0.129	1.098
5500	1.286	0.510	2.714	1.287	0.509	2.713	2.672	0.235	1.328	2.671	0.236	1.329
0	3.818	-2.532	0.182	3.833	-2.547	0.167	3.854	-1.182	0.146	3.862	-1.190	0.138

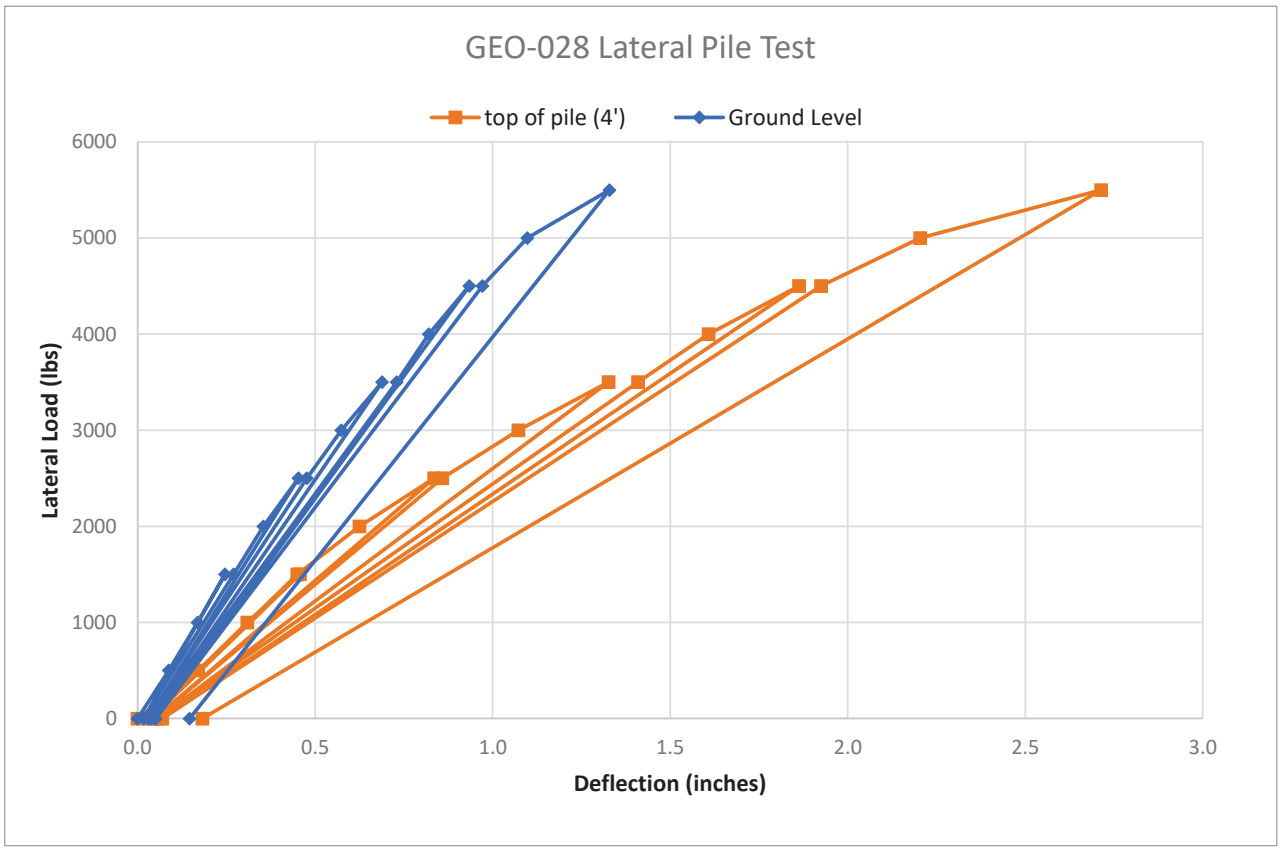
olsson

Field Pile Testing Results

Location:	GEO-028
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-028
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.998	0.002	0.002	3.998	0.002	0.002	3.997	0.003	0.003	3.997	0.003	0.003
3000	3.992	0.006	0.008	3.992	0.006	0.008	3.996	0.001	0.004	3.996	0.001	0.004
4000	3.984	0.008	0.016	3.984	0.008	0.016	3.995	0.001	0.005	3.994	0.002	0.006
5000	3.973	0.011	0.027	3.973	0.011	0.027	3.992	0.003	0.008	3.992	0.002	0.008
6000	3.963	0.010	0.037	3.963	0.010	0.037	3.990	0.002	0.010	3.990	0.002	0.010
7000	3.952	0.011	0.048	3.951	0.012	0.049	3.987	0.003	0.013	3.987	0.003	0.013
8000	3.942	0.010	0.058	3.942	0.009	0.058	3.983	0.004	0.017	3.982	0.005	0.018
9000	3.928	0.014	0.072	3.928	0.014	0.072	3.976	0.007	0.024	3.974	0.008	0.026
10000	3.915	0.013	0.085	3.913	0.015	0.087	3.968	0.008	0.032	3.964	0.010	0.036
11000	3.899	0.016	0.101	3.898	0.015	0.102	3.958	0.010	0.042	3.954	0.010	0.046
12000	3.878	0.021	0.122	3.874	0.024	0.126	3.944	0.014	0.056	3.939	0.015	0.061
13000	3.850	0.028	0.150	3.845	0.029	0.155	3.924	0.020	0.076	3.917	0.022	0.083
14000	3.826	0.024	0.174	3.821	0.024	0.179	3.903	0.021	0.097	3.894	0.023	0.106
15000	3.792	0.034	0.208	3.782	0.039	0.218	3.874	0.029	0.126	3.864	0.030	0.136
16000	3.750	0.042	0.250	3.740	0.042	0.260	3.839	0.035	0.161	3.828	0.036	0.172
17000	3.707	0.043	0.293	3.696	0.044	0.304	3.802	0.037	0.198	3.789	0.039	0.211
18000	3.654	0.053	0.346	3.639	0.057	0.361	3.755	0.047	0.245	3.739	0.050	0.261
0	3.703	-0.049	0.297	3.706	-0.067	0.294	3.750	0.005	0.250	3.756	-0.017	0.244

olsson

Location:	GEO-034
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

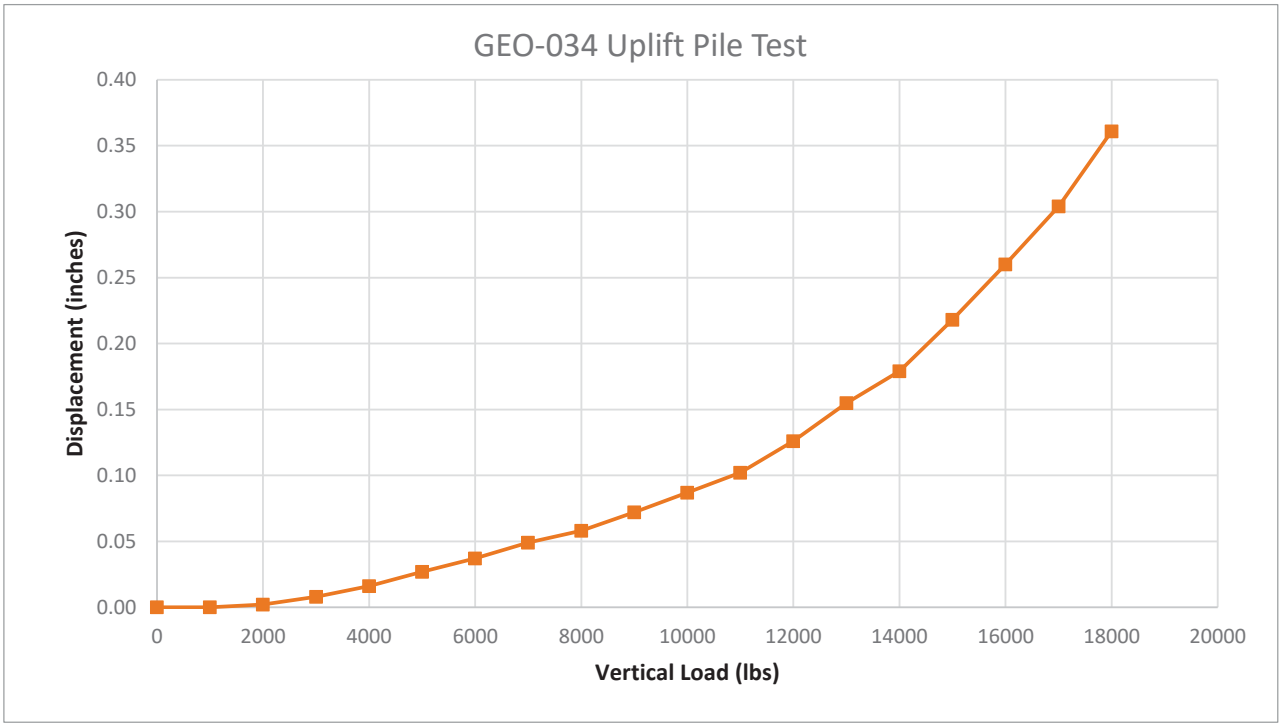
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.780	0.220	0.220	3.778	0.222	0.222	3.940	0.060	0.060	3.938	0.062	0.062
1000	3.567	0.213	0.433	3.568	0.212	0.432	3.857	0.083	0.143	3.855	0.085	0.145
1500	3.338	0.229	0.662	3.338	0.229	0.662	3.767	0.090	0.233	3.761	0.096	0.239
0	3.865	-0.527	0.135	3.870	-0.532	0.130	3.944	-0.177	0.056	3.948	-0.181	0.052
1500	3.275	0.590	0.725	3.275	0.590	0.725	3.734	0.210	0.266	3.733	0.211	0.267
2000	3.071	0.204	0.929	3.072	0.203	0.928	3.653	0.081	0.347	3.650	0.084	0.350
2500	2.846	0.225	1.154	2.849	0.222	1.151	3.560	0.093	0.440	3.556	0.097	0.444
0	3.796	-0.950	0.204	3.811	-0.965	0.189	3.925	-0.365	0.075	3.931	-0.371	0.069
2500	2.781	1.015	1.219	2.784	1.012	1.216	3.527	0.398	0.473	3.527	0.398	0.473
3000	2.565	0.216	1.435	2.573	0.208	1.427	3.444	0.083	0.556	3.442	0.085	0.558
3500	2.303	0.262	1.697	2.305	0.260	1.695	3.333	0.111	0.667	3.331	0.113	0.669
0	3.732	-1.429	0.268	3.747	-1.444	0.253	3.854	-0.521	0.146	3.856	-0.523	0.144
3500	2.225	1.507	1.775	2.233	1.499	1.767	3.295	0.559	0.705	3.294	0.560	0.706
4000	2.001	0.224	1.999	2.002	0.223	1.998	3.206	0.089	0.794	3.202	0.093	0.798
4500	1.785	0.216	2.215	1.785	0.216	2.215	3.110	0.096	0.890	3.109	0.097	0.891
0	3.668	-1.883	0.332	3.690	-1.905	0.310	3.767	-0.657	0.233	3.778	-0.668	0.222
4500	1.691	1.977	2.309	1.692	1.976	2.308	3.067	0.700	0.933	3.064	0.703	0.936
5000	1.449	0.242	2.551	1.449	0.242	2.551	2.968	0.099	1.032	2.962	0.105	1.038
5500	1.195	0.254	2.805	1.194	0.255	2.806	2.859	0.109	1.141	2.852	0.116	1.148
0	3.553	-2.358	0.447	3.576	-2.381	0.424	3.718	-0.859	0.282	3.728	-0.869	0.272

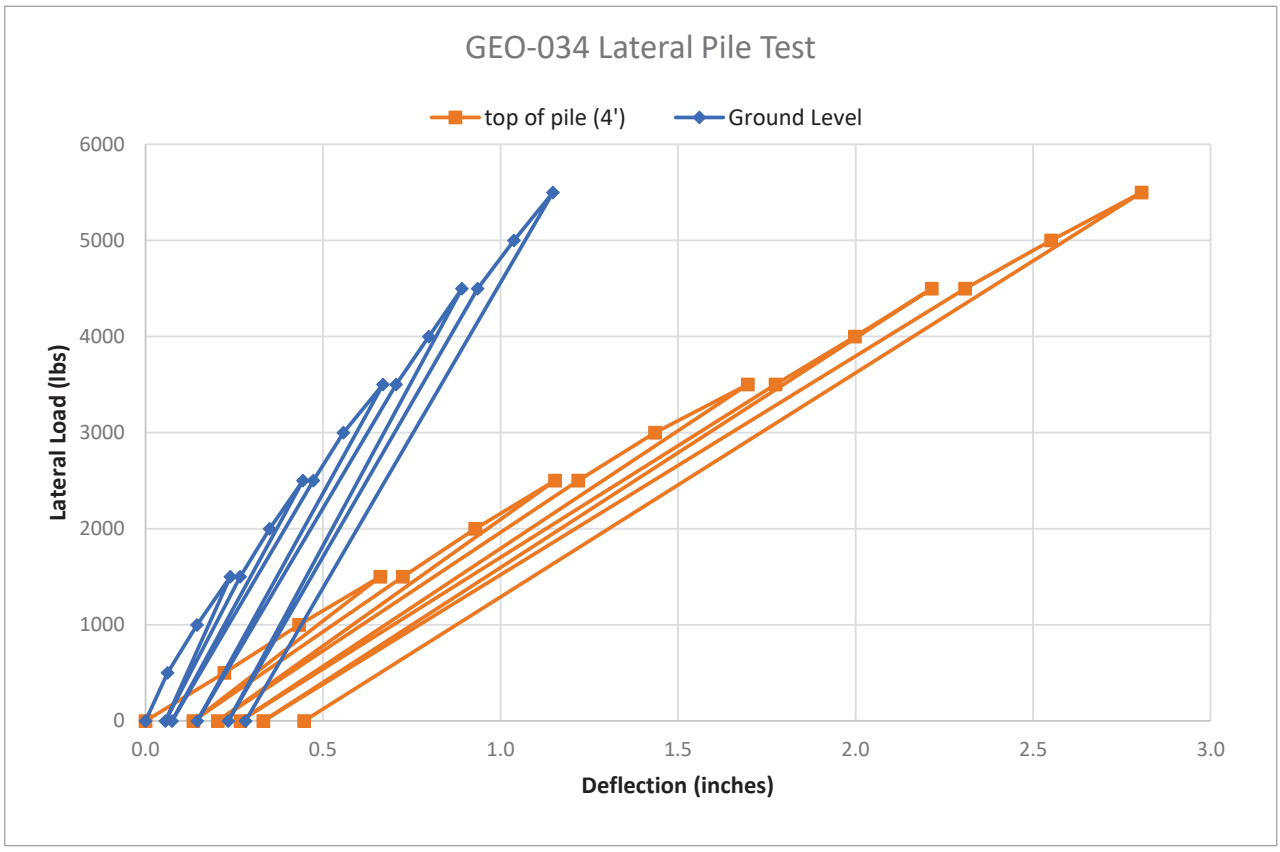
olsson

Field Pile Testing Results

Location:	GEO-034
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-034
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.005	0.005	3.995	0.005	0.005
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.003	0.008	3.992	0.003	0.008
3000	3.997	0.003	0.003	3.997	0.003	0.003	3.991	0.001	0.009	3.991	0.001	0.009
4000	3.994	0.003	0.006	3.994	0.003	0.006	3.989	0.002	0.011	3.988	0.003	0.012
5000	3.986	0.008	0.014	3.986	0.008	0.014	3.985	0.004	0.015	3.985	0.003	0.015
6000	3.972	0.014	0.028	3.970	0.016	0.030	3.969	0.016	0.031	3.968	0.017	0.032
7000	3.952	0.020	0.048	3.947	0.023	0.053	3.955	0.014	0.045	3.950	0.018	0.050
8000	3.921	0.031	0.079	3.908	0.039	0.092	3.929	0.026	0.071	3.916	0.034	0.084
9000	3.842	0.079	0.158	3.826	0.082	0.174	3.857	0.072	0.143	3.842	0.074	0.158
10000	3.761	0.081	0.239	3.743	0.083	0.257	3.788	0.069	0.212	3.776	0.066	0.224
11000	3.672	0.089	0.328	3.654	0.089	0.346	3.729	0.059	0.271	3.714	0.062	0.286
12000	3.577	0.095	0.423	3.557	0.097	0.443	3.669	0.060	0.331	3.654	0.060	0.346
13000	3.425	0.152	0.575	3.388	0.169	0.612	3.581	0.088	0.419	3.561	0.093	0.439
14000	3.211	0.214	0.789	3.166	0.222	0.834	3.472	0.109	0.528	3.454	0.107	0.546
15000	2.752	0.459	1.248	2.682	0.484	1.318	3.309	0.163	0.691	3.286	0.168	0.714
15460	2.391	0.361	1.609	2.301	0.381	1.699	3.172	0.137	0.828	3.144	0.142	0.856
0	2.306	0.085	1.694	2.307	-0.006	1.693	3.174	-0.002	0.826	3.175	-0.031	0.825

olsson

Location:	GEO-036
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000						
2000	0.000	0.000	0.000	0.000	0.000	0.000						
3000	0.000	0.000	0.000	0.000	0.000	0.000	Gauge not working					
4000	0.000	0.000	0.000	0.000	0.000	0.000						
5000	0.000	0.000	0.000	0.000	0.000	0.000						
6000	0.001	-0.001	-0.001	0.003	-0.003	-0.003						
7000	0.021	-0.020	-0.021	0.025	-0.022	-0.025						
8000	0.042	-0.021	-0.042	0.047	-0.022	-0.047						
9000	0.078	-0.036	-0.078	0.085	-0.038	-0.085						
10000	0.144	-0.066	-0.144	0.152	-0.067	-0.152						

olsson

Location:	GEO-036
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

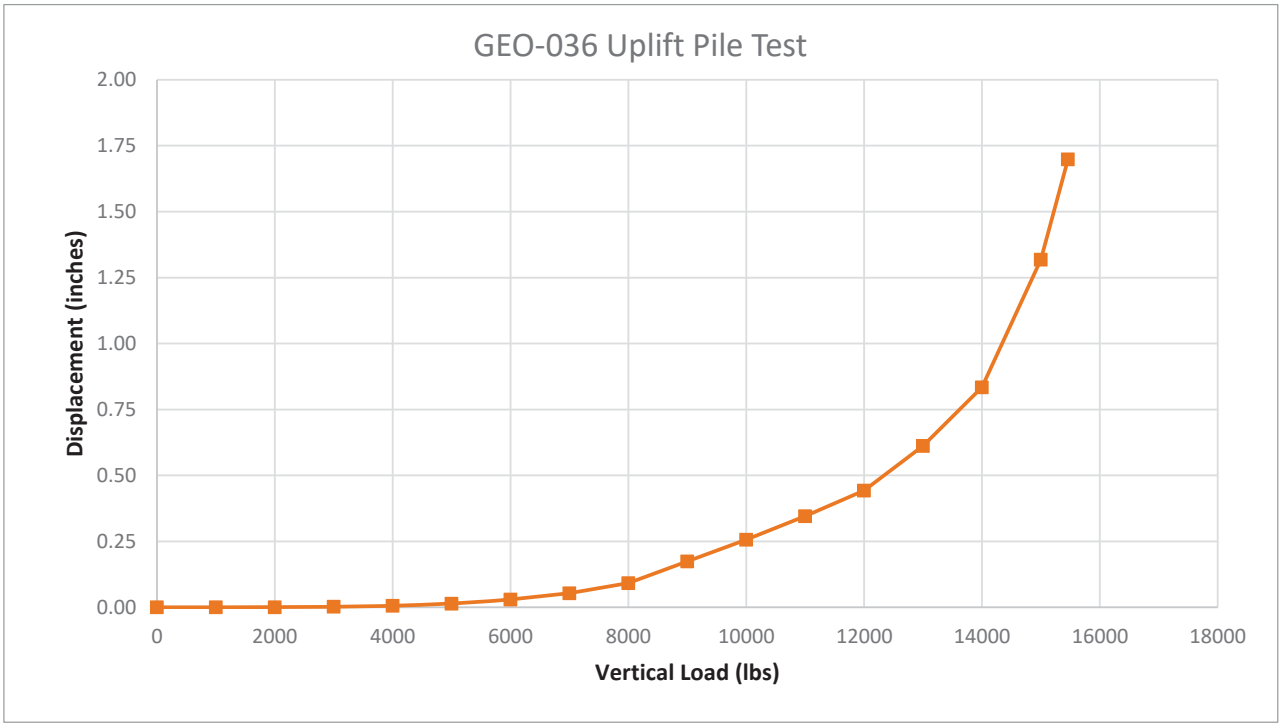
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.838	0.162	0.162	3.846	0.154	0.154	3.953	0.047	0.047	3.953	0.047	0.047
1000	3.653	0.185	0.347	3.652	0.186	0.348	3.888	0.065	0.112	3.886	0.067	0.114
1500	3.444	0.209	0.556	3.444	0.209	0.556	3.808	0.080	0.192	3.805	0.083	0.195
0	3.927	-0.483	0.073	3.936	-0.492	0.064	3.961	-0.153	0.039	3.965	-0.157	0.035
1500	3.416	0.511	0.584	3.416	0.511	0.584	3.796	0.165	0.204	3.792	0.169	0.208
2000	3.184	0.232	0.816	3.184	0.232	0.816	3.705	0.091	0.295	3.702	0.094	0.298
2500	2.939	0.245	1.061	2.939	0.245	1.061	3.609	0.096	0.391	3.605	0.100	0.395
0	3.876	-0.937	0.124	3.890	-0.951	0.110	3.935	-0.326	0.065	3.937	-0.328	0.063
2500	2.892	0.984	1.108	2.893	0.983	1.107	3.587	0.348	0.413	3.585	0.350	0.415
3000	2.644	0.248	1.356	2.644	0.248	1.356	3.490	0.097	0.510	3.487	0.100	0.513
3500	2.387	0.257	1.613	2.387	0.257	1.613	3.385	0.105	0.615	3.381	0.109	0.619
0	3.811	-1.424	0.189	3.845	-1.458	0.155	3.905	-0.520	0.095	3.915	-0.530	0.085
3500	2.328	1.483	1.672	2.331	1.480	1.669	3.352	0.553	0.648	3.347	0.558	0.653
4000	2.077	0.251	1.923	2.078	0.250	1.922	3.250	0.102	0.750	3.247	0.105	0.753
4500	1.791	0.286	2.209	1.790	0.287	2.210	3.130	0.120	0.870	3.124	0.126	0.876
0	3.764	-1.973	0.236	3.787	-1.996	0.213	3.864	-0.734	0.136	3.876	-0.746	0.124
4500	1.680	2.084	2.320	1.680	2.084	2.320	3.070	0.794	0.930	3.065	0.799	0.935
5000	1.394	0.286	2.606	1.391	0.289	2.609	2.951	0.119	1.049	2.942	0.128	1.058
5500	1.065	0.329	2.935	1.063	0.331	2.937	2.707	0.244	1.293	2.699	0.252	1.301
0	3.574	-2.509	0.426	3.600	-2.535	0.400	3.767	-1.060	0.233	3.783	-1.076	0.217

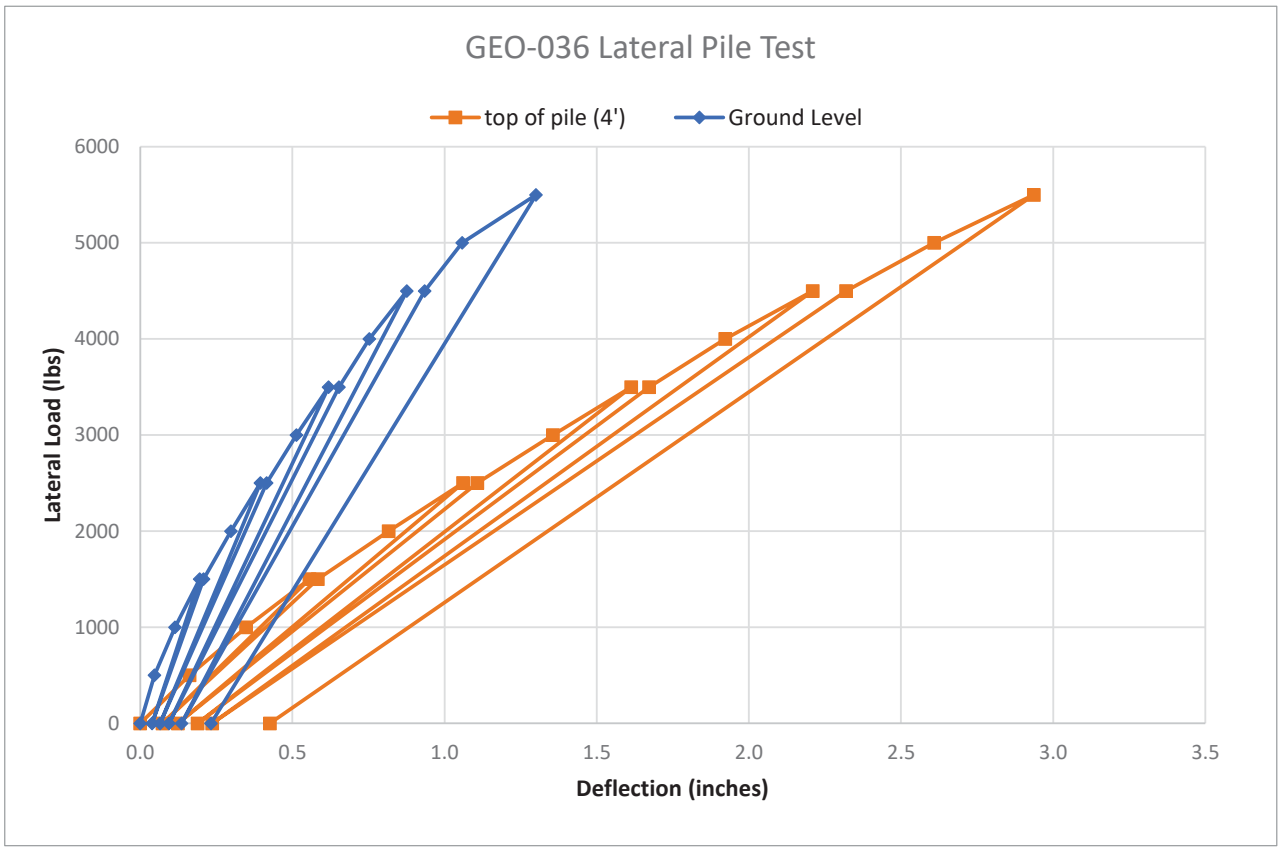
olsson

Field Pile Testing Results

Location:	GEO-036
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-036
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.003	0.006	3.994	0.003	0.006
3000	3.997	0.003	0.003	3.997	0.003	0.003	3.992	0.002	0.008	3.992	0.002	0.008
4000	3.988	0.009	0.012	3.988	0.009	0.012	3.987	0.005	0.013	3.987	0.005	0.013
5000	3.967	0.021	0.033	3.964	0.024	0.036	3.971	0.016	0.029	3.965	0.022	0.035
6000	3.908	0.059	0.092	3.889	0.075	0.111	3.915	0.056	0.085	3.897	0.068	0.103
7000	3.694	0.214	0.306	3.664	0.225	0.336	3.705	0.210	0.295	3.677	0.220	0.323
8000	3.051	0.643	0.949	2.989	0.675	1.011	3.072	0.633	0.928	3.016	0.661	0.984
8320	2.081	0.970	1.919	2.022	0.967	1.978	2.268	0.804	1.732	2.219	0.797	1.781
0	2.070	0.011	1.930	2.075	-0.053	1.925	2.234	0.034	1.766	2.237	-0.018	1.763

olsson

Location:	GEO-039
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

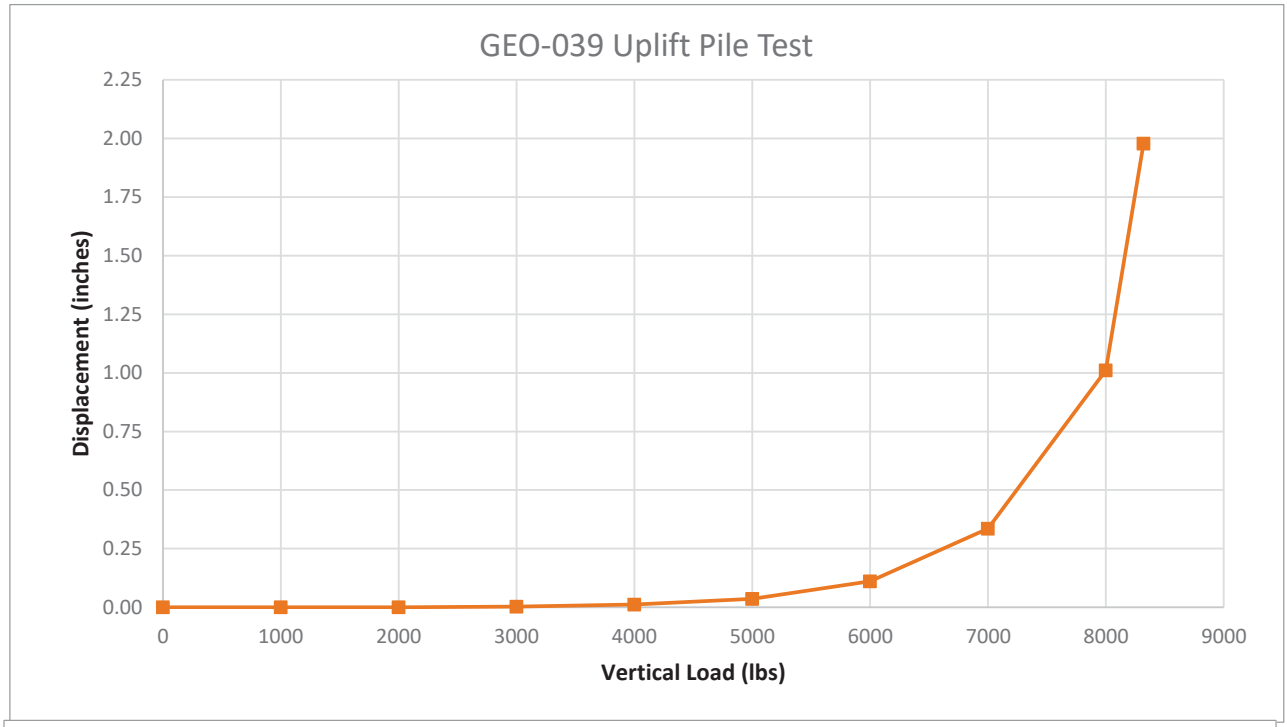
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.791	0.209	0.209	3.791	0.209	0.209	3.931	0.069	0.069	3.929	0.071	0.071
1000	3.611	0.180	0.389	3.604	0.187	0.396	3.855	0.076	0.145	3.850	0.081	0.150
1500	3.372	0.239	0.628	3.363	0.248	0.637	3.749	0.106	0.251	3.743	0.112	0.257
0	3.916	-0.544	0.084	3.935	-0.563	0.065	3.959	-0.210	0.041	3.967	-0.218	0.033
1500	3.325	0.591	0.675	3.325	0.591	0.675	3.726	0.233	0.274	3.724	0.235	0.276
2000	3.067	0.258	0.933	3.065	0.260	0.935	3.609	0.117	0.391	3.603	0.123	0.397
2500	2.731	0.336	1.269	2.729	0.338	1.271	3.445	0.164	0.555	3.437	0.172	0.563
0	3.818	-1.087	0.182	3.841	-1.110	0.159	3.904	-0.459	0.096	3.915	-0.470	0.085
2500	2.656	1.162	1.344	2.656	1.162	1.344	3.405	0.499	0.595	3.400	0.504	0.600
3000	2.340	0.316	1.660	2.342	0.314	1.658	3.250	0.155	0.750	3.242	0.163	0.758
3500	1.963	0.377	2.037	1.963	0.377	2.037	3.056	0.194	0.944	3.043	0.207	0.957
0	3.689	-1.726	0.311	3.711	-1.748	0.289	3.817	-0.761	0.183	3.829	-0.773	0.171
3500	1.805	1.884	2.195	1.803	1.886	2.197	2.954	0.863	1.046	2.942	0.875	1.058
4000	1.431	0.374	2.569	1.427	0.378	2.573	2.752	0.202	1.248	2.739	0.215	1.261
4500	0.915	0.516	3.085	0.905	0.526	3.095	2.475	0.277	1.525	2.448	0.304	1.552
0	3.302	-2.387	0.698	3.343	-2.428	0.657	3.569	-1.094	0.431	3.592	-1.117	0.408
4500	0.667	2.635	3.333	0.662	2.640	3.338	2.315	1.254	1.685	2.291	1.278	1.709
5000	0.195	0.472	3.805	0.182	0.485	3.818	2.056	0.259	1.944	2.019	0.296	1.981
5040	0.000	0.195	4.000	0.000	0.195	4.000	1.926	0.130	2.074	1.900	0.156	2.100
0	2.822	-2.822	1.178	2.885	-2.885	1.115	3.248	-1.322	0.752	3.280	-1.354	0.720

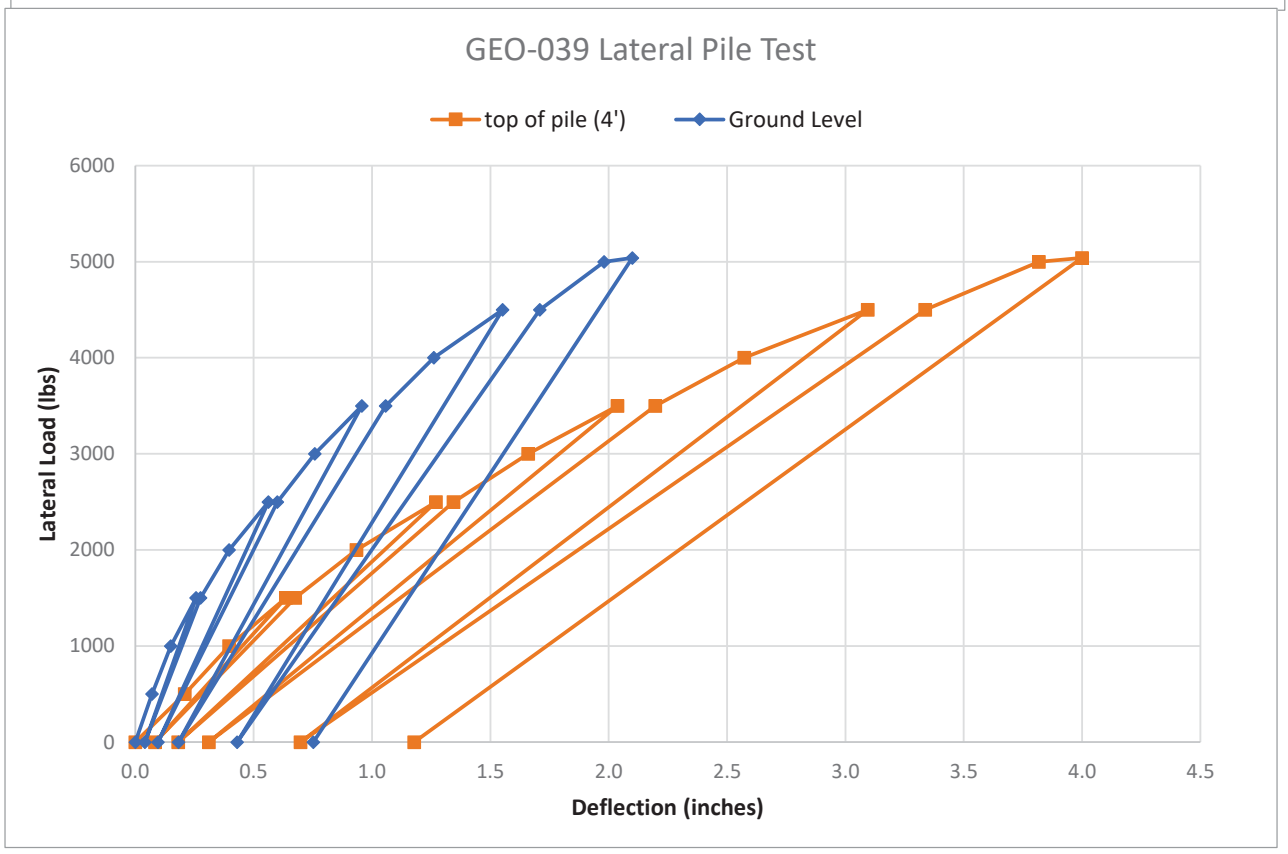
olsson

Field Pile Testing Results

Location:	GEO-039
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-039
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.999	0.001	0.001	3.999	0.001	0.001	3.998	0.002	0.002	3.998	0.002	0.002
2000	3.997	0.002	0.003	3.997	0.002	0.003	3.997	0.001	0.003	3.997	0.001	0.003
3000	3.991	0.006	0.009	3.991	0.006	0.009	3.996	0.001	0.004	3.996	0.001	0.004
4000	3.981	0.010	0.019	3.981	0.010	0.019	3.995	0.001	0.005	3.995	0.001	0.005
5000	3.970	0.011	0.030	3.970	0.011	0.030	3.993	0.002	0.007	3.993	0.002	0.007
6000	3.957	0.013	0.043	3.958	0.012	0.042	3.990	0.003	0.010	3.990	0.003	0.010
7000	3.942	0.015	0.058	3.941	0.017	0.059	3.986	0.004	0.014	3.984	0.006	0.016
8000	3.923	0.019	0.077	3.919	0.022	0.081	3.978	0.008	0.022	3.974	0.010	0.026
9000	3.883	0.040	0.117	3.877	0.042	0.123	3.957	0.021	0.043	3.951	0.023	0.049
10000	3.845	0.038	0.155	3.838	0.039	0.162	3.935	0.022	0.065	3.927	0.024	0.073
11000	3.795	0.050	0.205	3.783	0.055	0.217	3.896	0.039	0.104	3.883	0.044	0.117
12000	3.710	0.085	0.290	3.690	0.093	0.310	3.822	0.074	0.178	3.808	0.075	0.192
13000	3.683	0.027	0.317	3.657	0.033	0.343	3.715	0.107	0.285	3.695	0.113	0.305
14000	3.400	0.283	0.600	3.368	0.289	0.632	3.555	0.160	0.445	3.537	0.158	0.463
15000	3.160	0.240	0.840	3.129	0.239	0.871	3.366	0.189	0.634	3.350	0.187	0.650
16000	2.780	0.380	1.220	2.732	0.397	1.268	3.118	0.248	0.882	3.100	0.250	0.900
16700	1.950	0.830	2.050	1.886	0.846	2.114	2.830	0.288	1.170	2.820	0.280	1.180
0	1.989	-0.039	2.011	1.994	-0.108	2.006	2.804	0.026	1.196	2.805	0.015	1.195

olsson

Field Pile Testing Results

Location:	GEO-040
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

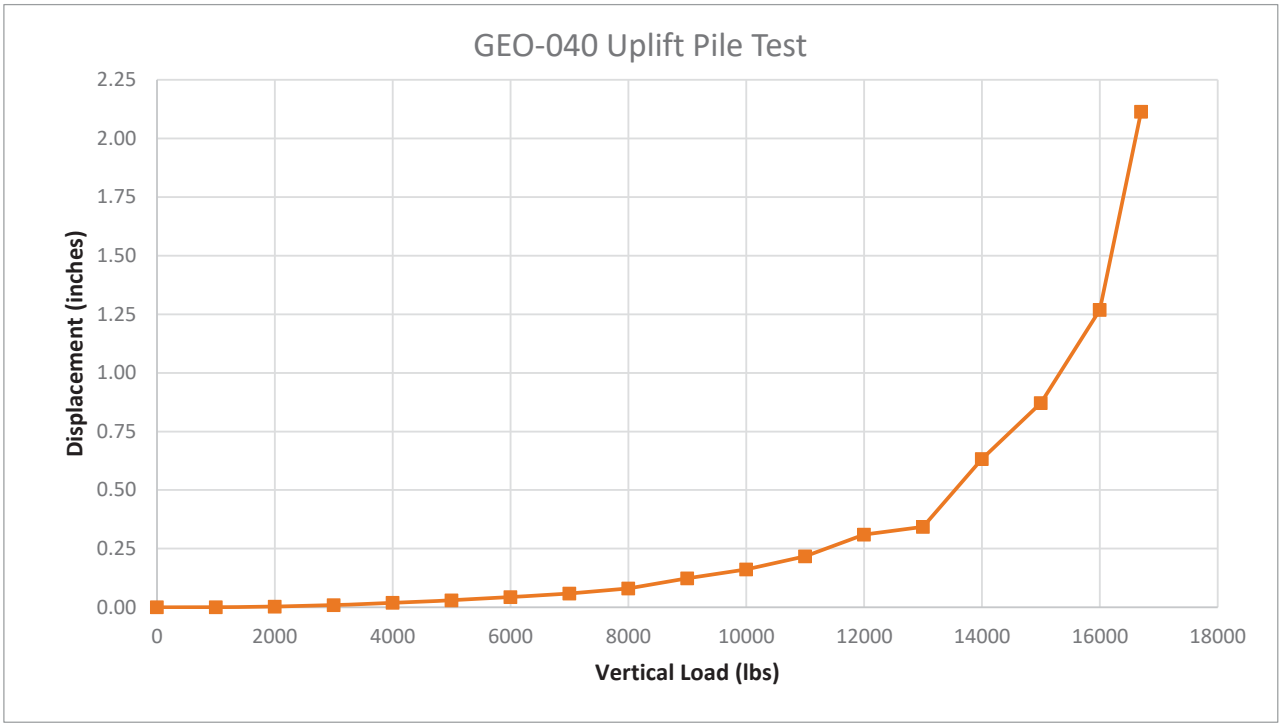
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.816	0.184	0.184	3.819	0.181	0.181	3.952	0.048	0.048	3.952	0.048	0.048
1000	3.616	0.200	0.384	3.617	0.199	0.383	3.888	0.064	0.112	3.888	0.064	0.112
1500	3.385	0.231	0.615	3.385	0.231	0.615	3.801	0.087	0.199	3.800	0.088	0.200
0	3.939	-0.554	0.061	3.949	-0.564	0.051	3.969	-0.168	0.031	3.973	-0.172	0.027
1500	3.358	0.581	0.642	3.358	0.581	0.642	3.791	0.178	0.209	3.791	0.178	0.209
2000	3.139	0.219	0.861	3.139	0.219	0.861	3.705	0.086	0.295	3.701	0.090	0.299
2500	2.896	0.243	1.104	2.896	0.243	1.104	3.610	0.095	0.390	3.605	0.100	0.395
0	3.894	-0.998	0.106	3.903	-1.007	0.097	3.934	-0.324	0.066	3.937	-0.327	0.063
2500	2.824	1.070	1.176	2.823	1.071	1.177	3.572	0.362	0.428	3.568	0.366	0.432
3000	2.576	0.248	1.424	2.576	0.248	1.424	3.474	0.098	0.526	3.467	0.105	0.533
3500	2.322	0.254	1.678	2.221	0.355	1.779	3.368	0.106	0.632	3.360	0.114	0.640
0	3.830	-1.508	0.170	3.849	-1.527	0.151	3.900	-0.532	0.100	3.906	-0.538	0.094
3500	2.247	1.583	1.753	2.246	1.584	1.754	3.325	0.575	0.675	3.317	0.583	0.683
4000	1.992	0.255	2.008	1.990	0.257	2.010	3.221	0.104	0.779	3.214	0.111	0.786
4500	1.701	0.291	2.299	1.698	0.294	2.302	3.100	0.121	0.900	3.088	0.133	0.912
0	3.729	-2.028	0.271	3.748	-2.047	0.252	3.836	-0.736	0.164	3.844	-0.744	0.156
4500	1.569	2.160	2.431	1.569	2.160	2.431	3.020	0.816	0.980	3.014	0.822	0.986
5000	1.263	0.306	2.737	1.259	0.310	2.741	2.890	0.130	1.110	2.880	0.140	1.120
5500	0.812	0.451	3.188	0.804	0.459	3.196	2.707	0.183	1.293	2.693	0.197	1.307
0	3.380	-2.568	0.620	3.400	-2.588	0.600	3.682	-0.975	0.318	3.695	-0.988	0.305

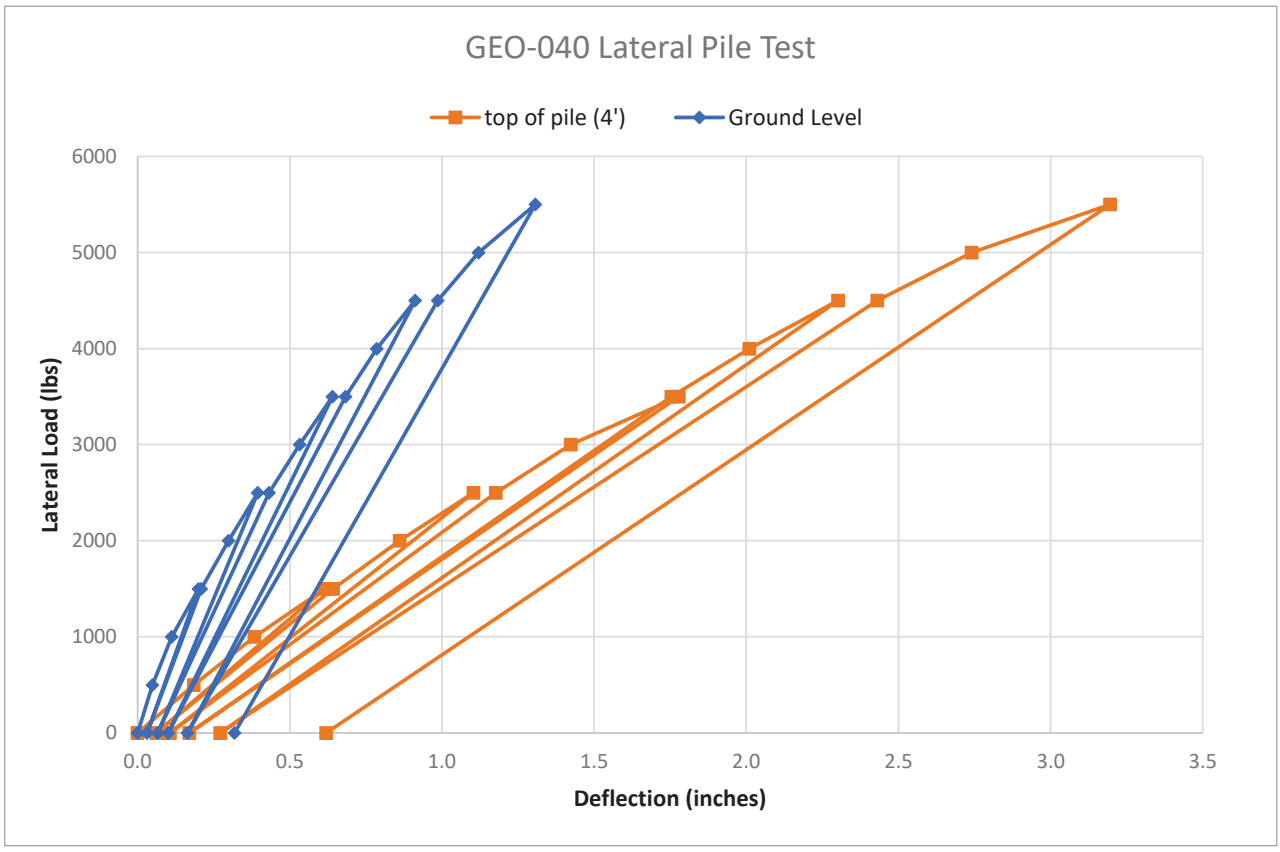
olsson

Field Pile Testing Results

Location:	GEO-040
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project





olsson

Location:	GEO-040
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.997	0.003	0.003	3.997	0.003	0.003	3.998	0.002	0.002	3.998	0.002	0.002
2000	3.991	0.006	0.009	3.991	0.006	0.009	3.998	0.000	0.002	3.998	0.000	0.002
3000	3.988	0.003	0.012	3.989	0.002	0.011	3.992	0.006	0.008	3.992	0.006	0.008
4000	3.977	0.011	0.023	3.978	0.011	0.022	3.990	0.002	0.010	3.990	0.002	0.010
5000	3.965	0.012	0.035	3.966	0.012	0.034	3.986	0.004	0.014	3.985	0.005	0.015
6000	3.946	0.019	0.054	3.947	0.019	0.053	3.976	0.010	0.024	3.974	0.011	0.026
7000	3.917	0.029	0.083	3.916	0.031	0.084	3.960	0.016	0.040	3.954	0.020	0.046
8000	3.880	0.037	0.120	3.875	0.041	0.125	3.932	0.028	0.068	3.926	0.028	0.074
9000	3.818	0.062	0.182	3.805	0.070	0.195	3.880	0.052	0.120	3.864	0.062	0.136
10000	3.730	0.088	0.270	3.714	0.091	0.286	3.805	0.075	0.195	3.787	0.077	0.213
11000	3.630	0.100	0.370	3.611	0.103	0.389	3.710	0.095	0.290	3.689	0.098	0.311
12000	3.510	0.120	0.490	3.489	0.122	0.511	3.600	0.110	0.400	3.587	0.102	0.413
13000	3.358	0.152	0.642	3.333	0.156	0.667	3.453	0.147	0.547	3.432	0.155	0.568
14000	3.169	0.189	0.831	3.131	0.202	0.869	3.277	0.176	0.723	3.241	0.191	0.759
15000	2.895	0.274	1.105	2.856	0.275	1.144	3.010	0.267	0.990	2.982	0.259	1.018
16000	2.392	0.503	1.608	2.335	0.521	1.665	2.562	0.448	1.438	2.519	0.463	1.481
0	2.458	-0.066	1.542	2.460	-0.125	1.540	2.558	0.004	1.442	2.559	-0.040	1.441

olsson

Location:	GEO-043
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

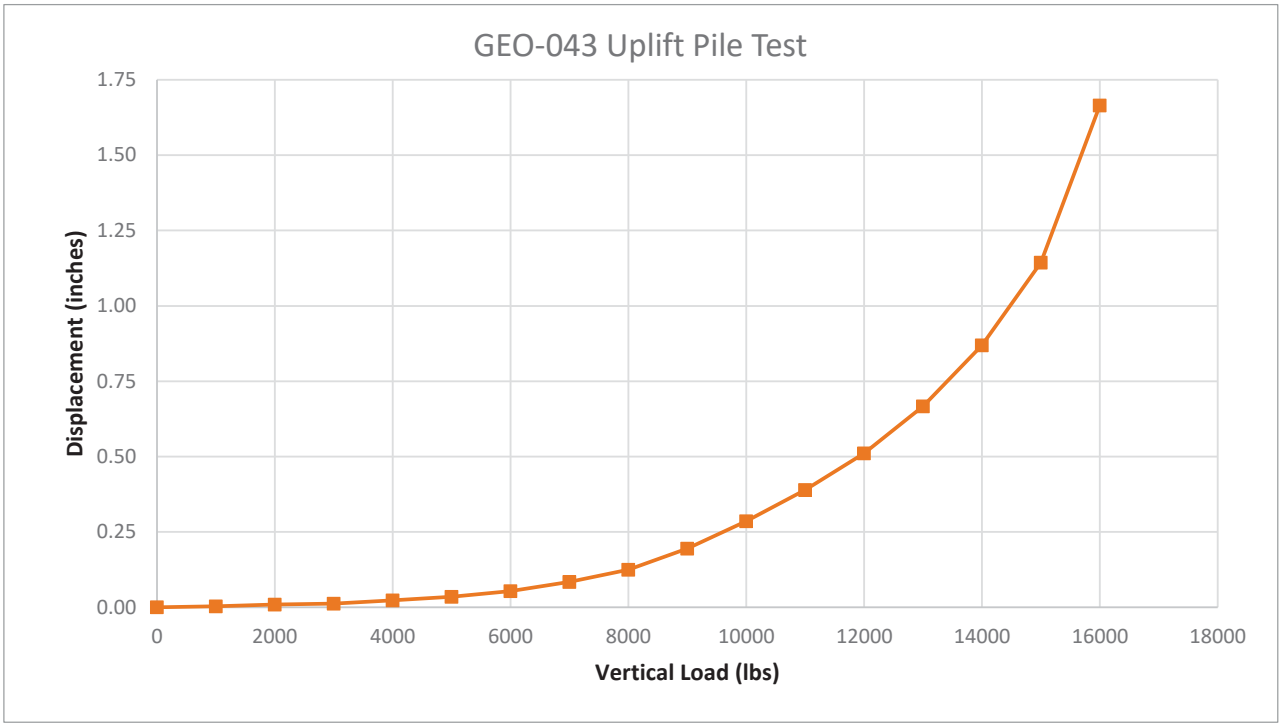
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.704	0.296	0.296	3.704	0.296	0.296	3.897	0.103	0.103	3.896	0.104	0.104
1000	3.574	0.130	0.426	3.574	0.130	0.426	3.845	0.052	0.155	3.843	0.054	0.157
1500	3.315	0.259	0.685	3.319	0.255	0.681	3.742	0.103	0.258	3.738	0.107	0.262
0	3.940	-0.625	0.060	3.955	-0.640	0.045	3.962	-0.220	0.038	3.967	-0.225	0.033
1500	3.280	0.660	0.720	3.280	0.660	0.720	3.720	0.242	0.280	3.717	0.245	0.283
2000	3.010	0.270	0.990	3.009	0.271	0.991	3.605	0.115	0.395	3.597	0.123	0.403
2500	2.683	0.327	1.317	3.680	-0.670	0.320	3.454	0.151	0.546	3.444	0.161	0.556
0	3.855	-1.172	0.145	3.870	-1.187	0.130	3.911	-0.457	0.089	3.919	-0.465	0.081
2500	2.560	1.295	1.440	2.560	1.295	1.440	3.390	0.521	0.610	3.383	0.528	0.617
3000	2.250	0.310	1.750	2.248	0.312	1.752	3.247	0.143	0.753	3.232	0.158	0.768
3500	1.869	0.381	2.131	1.863	0.387	2.137	3.063	0.184	0.937	3.040	0.207	0.960
0	3.651	-1.782	0.349	3.684	-1.815	0.316	3.789	-0.726	0.211	3.803	-0.740	0.197
3500	1.668	1.983	2.332	1.668	1.983	2.332	2.943	0.846	1.057	2.926	0.863	1.074
4000	1.252	0.416	2.748	1.244	0.424	2.756	2.737	0.206	1.263	2.712	0.231	1.288
4500	0.790	0.462	3.210	0.777	0.475	3.223	2.500	0.237	1.500	2.462	0.275	1.538
0	3.230	-2.440	0.770	3.284	-2.494	0.716	3.530	-1.030	0.470	3.552	-1.052	0.448
4500	0.401	2.829	3.599	0.363	2.867	3.637	2.240	1.290	1.760	2.210	1.320	1.790
5000	0.000	0.401	4.000	0.000	0.401	4.000	1.975	0.265	2.025	1.952	0.288	2.048
5500	-0.750	0.750	4.750	-0.750	0.750	4.750	1.563	0.412	2.437	1.540	0.435	2.460
0	2.145	-2.895	1.855	2.205	-2.955	1.795	2.886	-1.323	1.114	2.919	-1.356	1.081

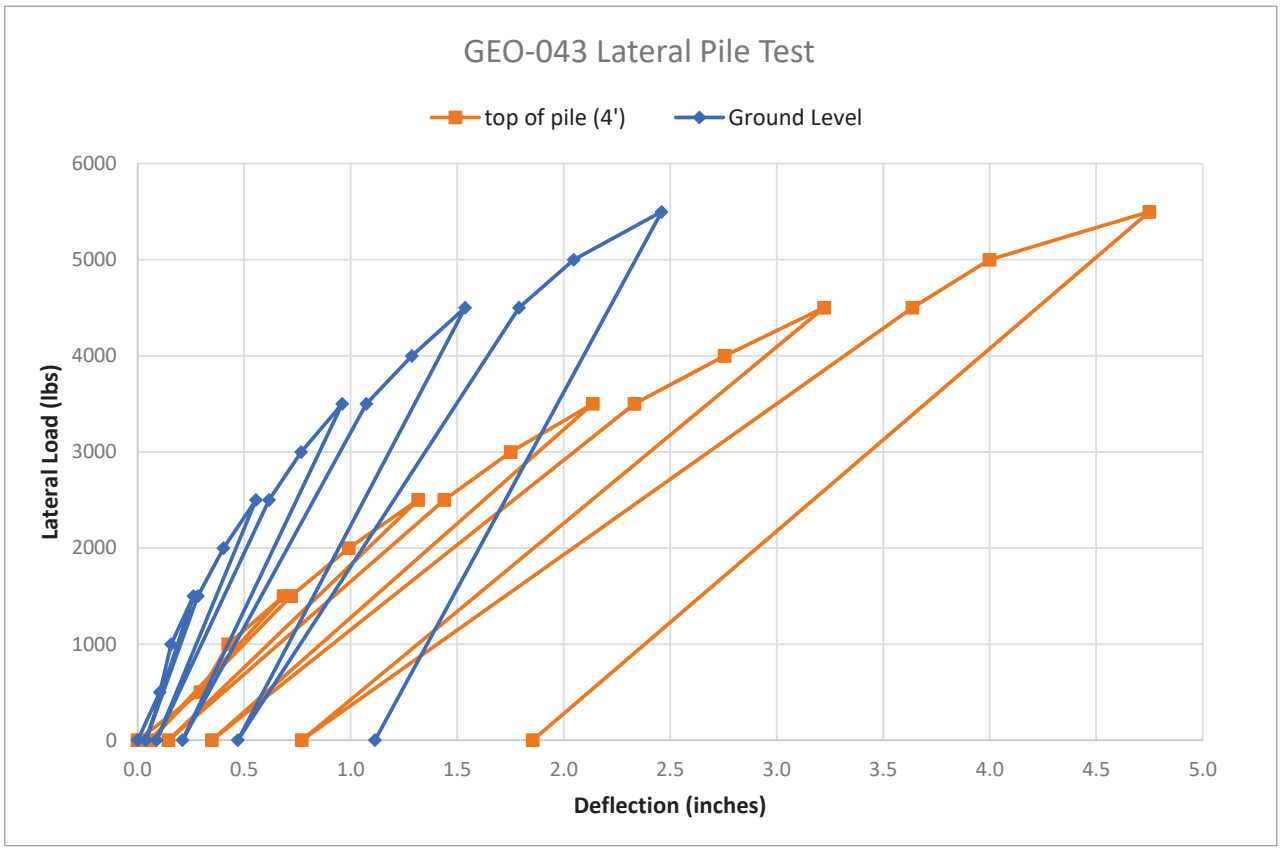
olsson

Location:	GEO-043
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-043
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.999	0.001	0.001	3.999	0.001	0.001
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.002	0.003	3.997	0.002	0.003
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.000	0.003	3.997	0.000	0.003
4000	3.994	0.006	0.006	3.994	0.006	0.006	3.997	0.000	0.003	3.997	0.000	0.003
5000	3.987	0.007	0.013	3.987	0.007	0.013	3.997	0.000	0.003	3.997	0.000	0.003
6000	3.978	0.009	0.022	3.978	0.009	0.022	3.995	0.002	0.005	3.995	0.002	0.005
7000	3.967	0.011	0.033	3.970	0.008	0.030	3.994	0.001	0.006	3.993	0.002	0.007
8000	3.953	0.014	0.047	3.959	0.011	0.041	3.992	0.002	0.008	3.989	0.004	0.011
9000	3.943	0.010	0.057	3.947	0.012	0.053	3.988	0.004	0.012	3.986	0.003	0.014
10000	3.928	0.015	0.072	3.929	0.018	0.071	3.980	0.008	0.020	3.979	0.007	0.021
11000	3.911	0.017	0.089	3.913	0.016	0.087	3.973	0.007	0.027	3.969	0.010	0.031
12000	3.891	0.020	0.109	3.892	0.021	0.108	3.961	0.012	0.039	3.957	0.012	0.043
13000	3.868	0.023	0.132	3.871	0.021	0.129	3.945	0.016	0.055	3.940	0.017	0.060
14000	3.843	0.025	0.157	3.843	0.028	0.157	3.923	0.022	0.077	3.919	0.021	0.081
15000	3.813	0.030	0.187	3.812	0.031	0.188	3.899	0.024	0.101	3.892	0.027	0.108
16000	3.779	0.034	0.221	3.778	0.034	0.222	3.866	0.033	0.134	3.861	0.031	0.139
17000	3.738	0.041	0.262	3.734	0.044	0.266	3.831	0.035	0.169	3.821	0.040	0.179
18000	3.694	0.044	0.306	3.689	0.045	0.311	3.791	0.040	0.209	3.778	0.043	0.222
0	3.746	-0.052	0.254	3.752	-0.063	0.248	3.804	-0.013	0.196	3.805	-0.027	0.195

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Field Pile Testing Results

Location:	GEO-044
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000						
2000	0.000	0.000	0.000	0.000	0.000	0.000						
3000	0.000	0.000	0.000	0.000	0.000	0.000						
4000	0.000	0.000	0.000	0.000	0.000	0.000	Gauge not working					
5000	0.000	0.000	0.000	0.000	0.000	0.000						
6000	0.000	0.000	0.000	0.000	0.000	0.000						
7000	0.000	0.000	0.000	0.000	0.000	0.000						
8000	0.001	-0.001	-0.001	0.002	-0.002	-0.002						
9000	0.012	-0.011	-0.012	0.014	-0.012	-0.014						
10000	0.028	-0.016	-0.028	0.028	-0.014	-0.028						
10500	0.032	-0.004	-0.032	0.032	-0.004	-0.032						

olsson

Location:	GEO-044
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

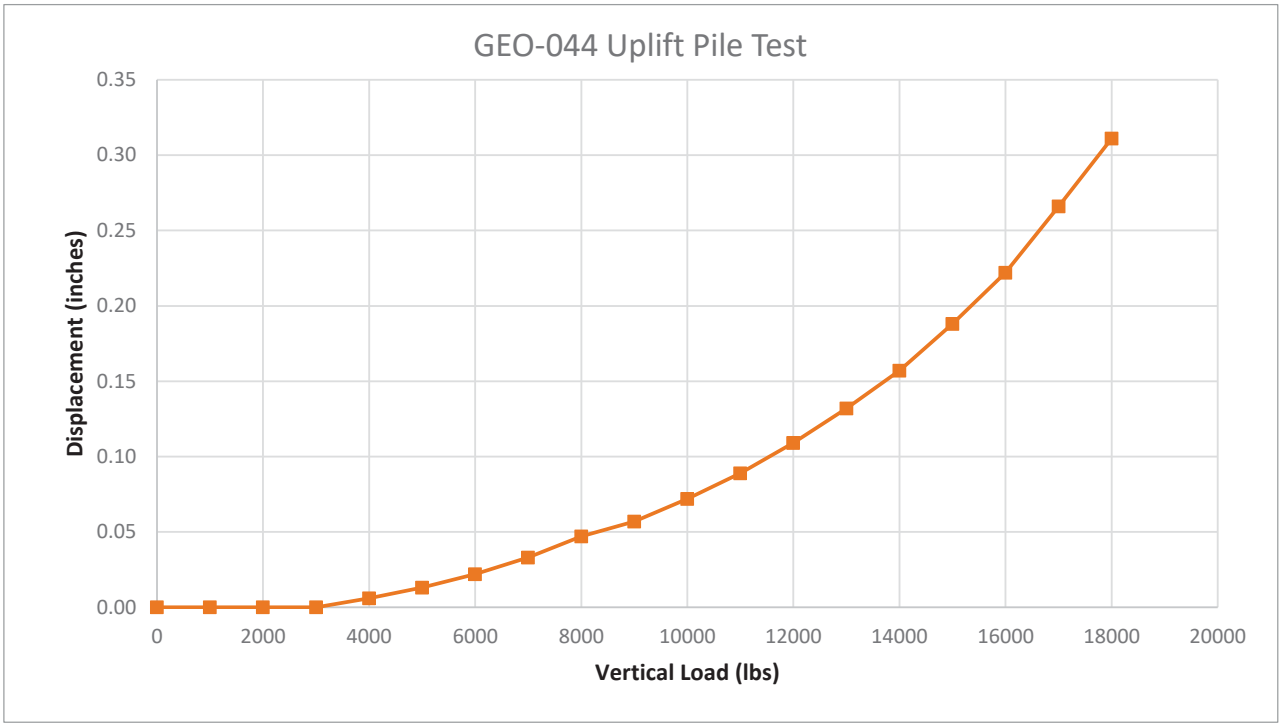
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.815	0.185	0.185	3.805	0.195	0.195	3.933	0.067	0.067	3.930	0.070	0.070
1000	3.587	0.228	0.413	3.586	0.229	0.414	3.847	0.086	0.153	3.843	0.090	0.157
1500	3.355	0.232	0.645	3.353	0.234	0.647	3.751	0.096	0.249	3.749	0.098	0.251
0	3.925	-0.570	0.075	3.931	-0.576	0.069	3.961	-0.210	0.039	3.966	-0.215	0.034
1500	3.318	0.607	0.682	3.318	0.607	0.682	3.735	0.226	0.265	3.733	0.228	0.267
2000	3.073	0.245	0.927	3.073	0.245	0.927	3.632	0.103	0.368	3.629	0.106	0.371
2500	2.804	0.269	1.196	2.804	0.269	1.196	3.515	0.117	0.485	3.509	0.123	0.491
0	3.867	-1.063	0.133	3.877	-1.073	0.123	3.929	-0.414	0.071	3.934	-0.419	0.066
2500	2.731	1.136	1.269	2.731	1.136	1.269	3.479	0.450	0.521	3.477	0.452	0.523
3000	2.470	0.261	1.530	2.470	0.261	1.530	3.380	0.099	0.620	3.377	0.102	0.623
3500	2.160	0.310	1.840	2.161	0.309	1.839	3.227	0.153	0.773	3.223	0.157	0.777
0	3.711	-1.551	0.289	3.722	-1.562	0.278	3.898	-0.671	0.102	3.903	-0.676	0.097
3500	2.067	1.644	1.933	2.076	1.635	1.924	3.177	0.721	0.823	3.175	0.723	0.825
4000	1.769	0.298	2.231	1.769	0.298	2.231	3.048	0.129	0.952	3.040	0.137	0.960
4500	1.404	0.365	2.596	1.401	0.368	2.599	2.873	0.175	1.127	2.865	0.183	1.135
0	3.678	-2.274	0.322	3.693	-2.289	0.307	3.825	-0.952	0.175	3.833	-0.960	0.167
4500	1.259	2.419	2.741	1.257	2.421	2.743	2.792	1.033	1.208	2.786	1.039	1.214
5000	0.744	0.515	3.256	0.736	0.523	3.264	2.555	0.237	1.445	2.543	0.249	1.457
5300	0.000	0.744	4.000	0.000	0.744	4.000	2.154	0.401	1.846	2.142	0.413	1.858
0	2.633	-2.633	1.367	2.652	-2.652	1.348	3.314	-1.160	0.686	3.323	-1.169	0.677

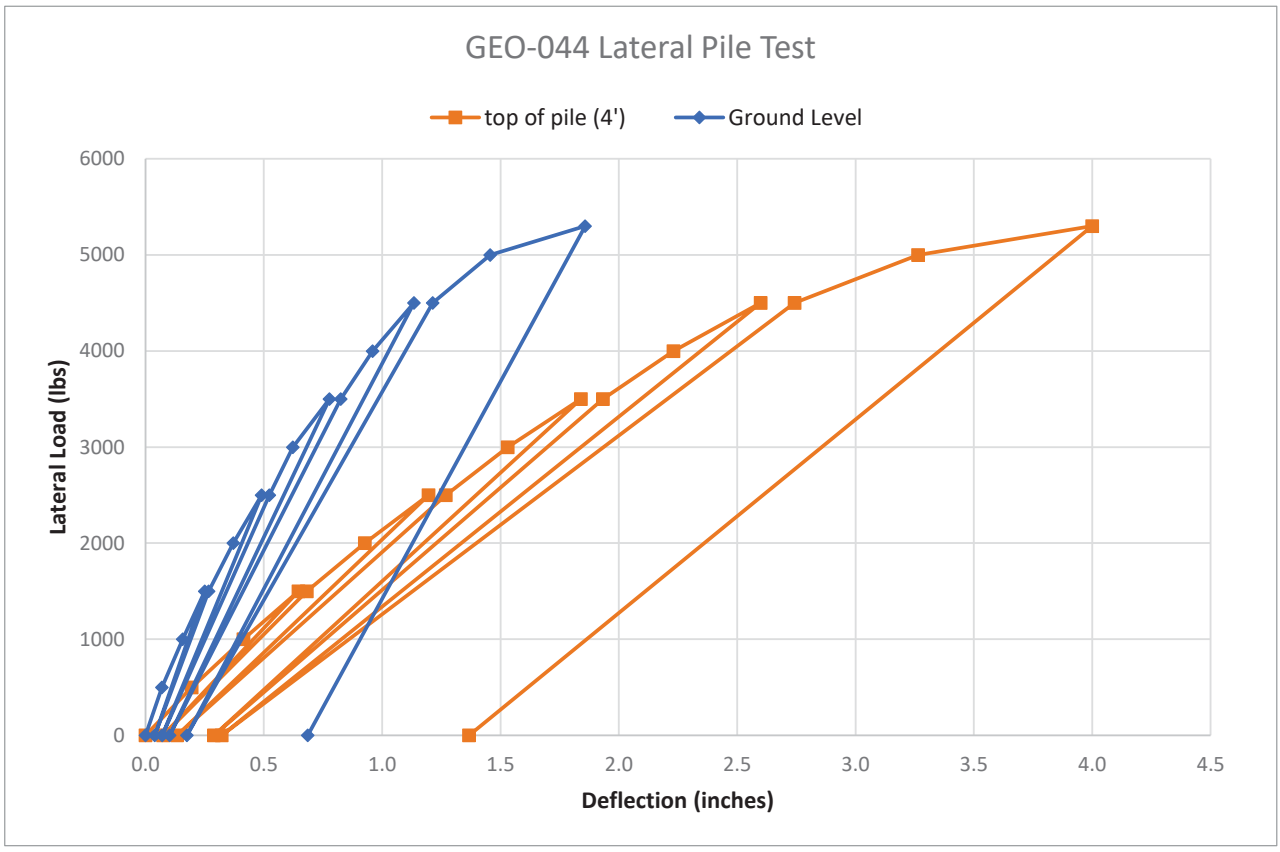
olsson

Field Pile Testing Results

Location:	GEO-044
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





Field Pile Testing Results

Location:	GEO-044
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.996	0.004	0.004	3.995	0.005	0.005	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.991	0.005	0.009	3.990	0.005	0.010	3.998	0.002	0.002	3.998	0.002	0.002
3000	3.978	0.013	0.022	3.973	0.017	0.027	3.987	0.011	0.013	3.985	0.013	0.015
4000	3.905	0.073	0.095	3.881	0.092	0.119	3.912	0.075	0.088	3.897	0.088	0.103
5000	3.555	0.350	0.445	3.526	0.355	0.474	3.565	0.347	0.435	3.545	0.352	0.455
5500	2.870	0.685	1.130	2.838	0.688	1.162	2.924	0.641	1.076	2.903	0.642	1.097
0	2.868	0.002	1.132	2.868	-0.030	1.132	2.923	0.001	1.077	2.924	-0.021	1.076

Field Pile Testing Results

Location:	GEO-046
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

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Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3000	0.001	-0.001	-0.001	0.001	-0.001	-0.001	0.001	-0.001	-0.001	0.001	-0.001	-0.001
4000	0.008	-0.007	-0.008	0.010	-0.009	-0.010	0.010	-0.009	-0.010	0.011	-0.010	-0.011
5000	0.023	-0.015	-0.023	0.028	-0.018	-0.028	0.022	-0.012	-0.022	0.024	-0.013	-0.024
6000	0.043	-0.020	-0.043	0.045	-0.017	-0.045	0.035	-0.013	-0.035	0.037	-0.013	-0.037
7000	0.063	-0.020	-0.063	0.070	-0.025	-0.070	0.053	-0.018	-0.053	0.055	-0.018	-0.055
8000	0.095	-0.032	-0.095	0.100	-0.030	-0.100	0.082	-0.029	-0.082	0.088	-0.033	-0.088
9000	0.140	-0.045	-0.140	0.151	-0.051	-0.151	0.118	-0.036	-0.118	0.123	-0.035	-0.123
10000	0.195	-0.055	-0.195	0.218	-0.067	-0.218	0.176	-0.058	-0.176	0.187	-0.064	-0.187
11000	0.280	-0.085	-0.280	0.287	-0.069	-0.287	0.248	-0.072	-0.248	0.275	-0.088	-0.275
12000	0.400	-0.120	-0.400	0.454	-0.167	-0.454	0.270	-0.022	-0.270	0.416	-0.141	-0.416

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Field Pile Testing Results

Location:	GEO-046
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

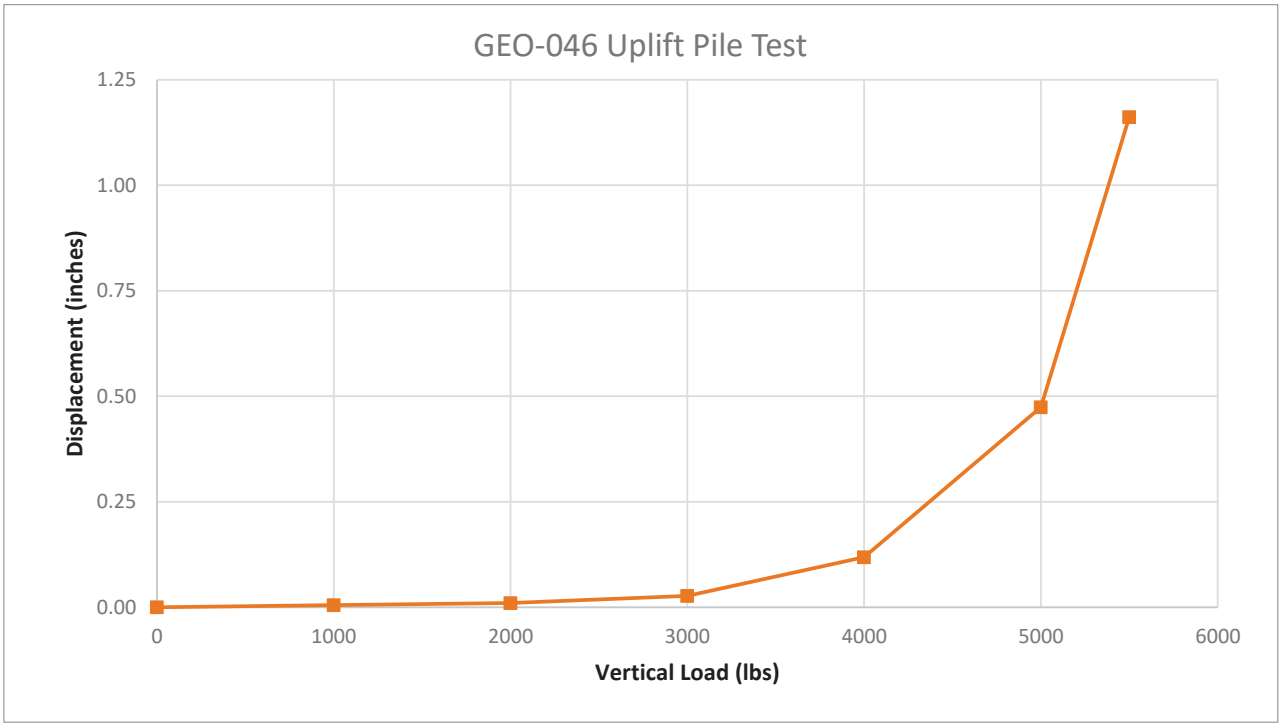
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.824	0.176	0.176	3.824	0.176	0.176	3.956	0.044	0.044	3.955	0.045	0.045
1000	3.631	0.193	0.369	3.631	0.193	0.369	3.891	0.065	0.109	3.889	0.067	0.111
1500	3.416	0.215	0.584	3.416	0.215	0.584	3.808	0.083	0.192	3.804	0.087	0.196
0	3.955	-0.539	0.045	3.968	-0.552	0.032	3.984	-0.176	0.016	3.989	-0.181	0.011
1500	3.380	0.575	0.620	3.383	0.572	0.617	3.790	0.194	0.210	3.791	0.193	0.209
2000	3.131	0.249	0.869	3.129	0.251	0.871	3.696	0.094	0.304	3.688	0.102	0.312
2500	2.876	0.255	1.124	2.874	0.257	1.126	3.585	0.111	0.415	3.578	0.118	0.422
0	3.910	-1.034	0.090	3.924	-1.048	0.076	3.950	-0.365	0.050	3.958	-0.373	0.042
2500	2.795	1.115	1.205	2.795	1.115	1.205	3.540	0.410	0.460	3.535	0.415	0.465
3000	2.516	0.279	1.484	2.513	0.282	1.487	3.420	0.120	0.580	3.410	0.130	0.590
3500	2.195	0.321	1.805	2.191	0.325	1.809	3.274	0.146	0.726	3.261	0.159	0.739
0	3.820	-1.625	0.180	3.843	-1.648	0.157	3.879	-0.605	0.121	3.888	-0.614	0.112
3500	2.073	1.747	1.927	2.073	1.747	1.927	3.192	0.687	0.808	3.182	0.697	0.818
4000	1.771	0.302	2.229	1.764	0.309	2.236	3.052	0.140	0.948	3.036	0.156	0.964
4500	1.385	0.386	2.615	1.380	0.391	2.620	2.864	0.188	1.136	2.846	0.206	1.154
0	3.575	-2.190	0.425	3.590	-2.205	0.410	3.708	-0.844	0.292	3.715	-0.851	0.285
4500	1.229	2.346	2.771	1.227	2.348	2.773	2.740	0.968	1.260	2.724	0.984	1.276
5000	0.801	0.428	3.199	0.794	0.435	3.206	2.535	0.205	1.465	2.510	0.230	1.490
5500	0.420	0.381	3.580	0.420	0.381	3.580	2.302	0.233	1.698	2.275	0.260	1.725
0	3.230	-2.810	0.770	3.275	-2.855	0.725	3.461	-1.159	0.539	3.482	-1.180	0.518

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Location:	GEO-046
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





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Location:	GEO-046
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.988	0.012	0.012	3.988	0.012	0.012	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.977	0.011	0.023	3.977	0.011	0.023	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.963	0.014	0.037	3.965	0.012	0.035	4.000	0.000	0.000	4.000	0.000	0.000
5000	3.950	0.013	0.050	3.953	0.012	0.047	4.000	0.000	0.000	4.000	0.000	0.000
6000	3.930	0.020	0.070	3.931	0.022	0.069	3.992	0.008	0.008	3.989	0.011	0.011
7000	3.897	0.033	0.103	3.897	0.034	0.103	3.973	0.019	0.027	3.968	0.021	0.032
8000	3.840	0.057	0.160	3.837	0.060	0.163	3.931	0.042	0.069	3.924	0.044	0.076
9000	3.743	0.097	0.257	3.740	0.097	0.260	3.849	0.082	0.151	3.844	0.080	0.156
10000	3.636	0.107	0.364	3.631	0.109	0.369	3.758	0.091	0.242	3.751	0.093	0.249
11000	3.476	0.160	0.524	3.474	0.157	0.526	3.624	0.134	0.376	3.618	0.133	0.382
12000	3.252	0.224	0.748	3.224	0.250	0.776	3.456	0.168	0.544	3.438	0.180	0.562
13000	2.957	0.295	1.043	2.932	0.292	1.068	3.299	0.157	0.701	3.290	0.148	0.710
13380	2.528	0.429	1.472	2.496	0.436	1.504	3.197	0.102	0.803	3.194	0.096	0.806
0	2.612	-0.084	1.388	2.621	-0.125	1.379	3.168	0.029	0.832	3.167	0.027	0.833

olsson

Location:	GEO-048
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral GEO-048

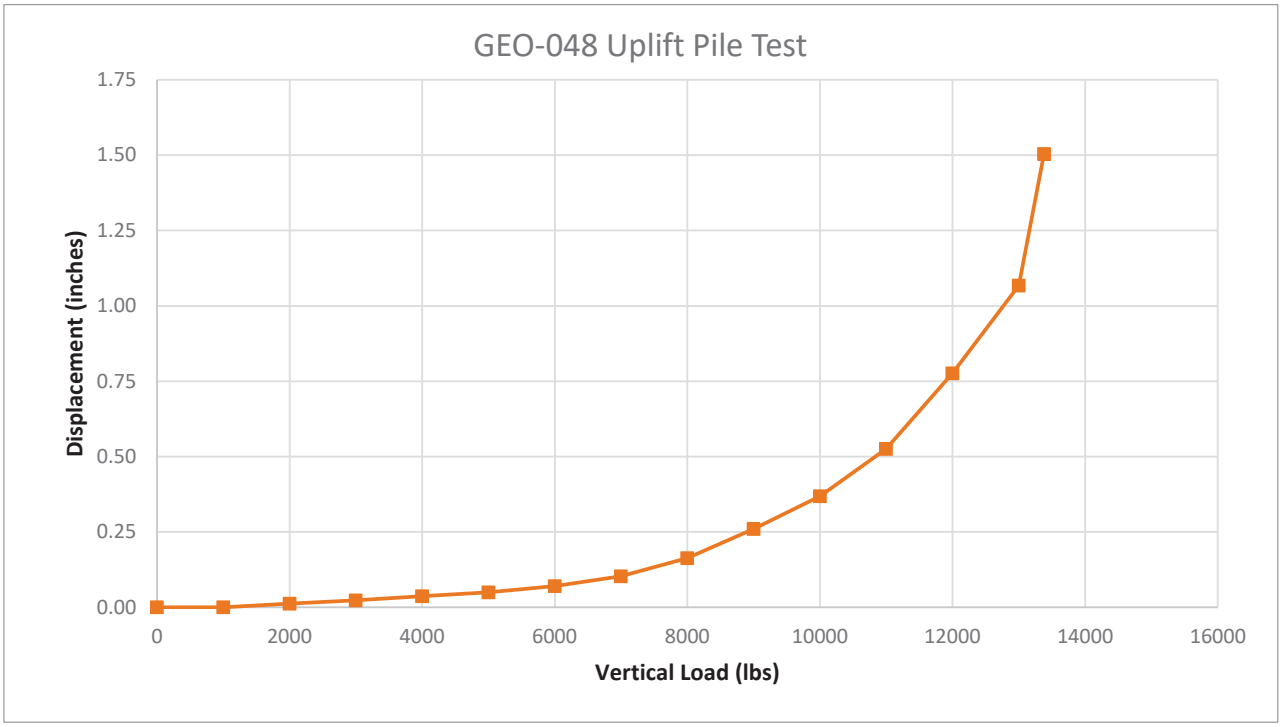
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.808	0.192	0.192	3.808	0.192	0.192	3.953	0.047	0.047	3.952	0.048	0.048
1000	3.591	0.217	0.409	3.591	0.217	0.409	3.880	0.073	0.120	3.879	0.074	0.121
1500	3.362	0.229	0.638	3.362	0.229	0.638	3.794	0.086	0.206	3.792	0.088	0.208
0	3.927	-0.565	0.073	3.938	-0.576	0.062	3.958	-0.164	0.042	3.977	-0.183	0.023
1500	3.327	0.600	0.673	3.328	0.599	0.672	3.778	0.180	0.222	3.777	0.181	0.223
2000	3.088	0.239	0.912	3.088	0.239	0.912	3.688	0.090	0.312	3.684	0.094	0.316
2500	2.838	0.250	1.162	2.838	0.250	1.162	3.589	0.099	0.411	3.584	0.104	0.416
0	3.882	-1.044	0.118	3.895	-1.057	0.105	3.948	-0.359	0.052	3.956	-0.367	0.044
2500	2.779	1.103	1.221	2.778	1.104	1.222	3.557	0.391	0.443	3.554	0.394	0.446
3000	2.510	0.269	1.490	2.509	0.270	1.491	3.452	0.105	0.548	3.447	0.110	0.553
3500	2.213	0.297	1.787	2.209	0.301	1.791	3.328	0.124	0.672	3.321	0.131	0.679
0	3.831	-1.618	0.169	3.846	-1.633	0.154	3.918	-0.590	0.082	3.928	-0.600	0.072
3500	2.140	1.691	1.860	2.139	1.692	1.861	3.289	0.629	0.711	3.284	0.634	0.716
4000	1.836	0.304	2.164	1.834	0.306	2.166	3.163	0.126	0.837	3.153	0.136	0.847
4500	1.504	0.332	2.496	1.503	0.333	2.497	3.021	0.142	0.979	3.010	0.153	0.990
0	3.760	-2.256	0.240	3.772	-2.268	0.228	3.883	-0.862	0.117	3.887	-0.866	0.113
4500	1.361	2.399	2.639	1.359	2.401	2.641	2.944	0.939	1.056	2.934	0.949	1.066
5000	1.054	0.307	2.946	1.052	0.309	2.948	2.807	0.137	1.193	2.801	0.143	1.199
5500	0.617	0.437	3.383	0.612	0.442	3.388	2.617	0.190	1.383	2.605	0.202	1.395
0	3.473	-2.856	0.527	3.514	-2.897	0.486	3.728	-1.111	0.272	3.761	-1.144	0.239

olsson

Location:	GEO-048
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-048
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.008	0.008	3.992	0.008	0.008
2000	4.000	0.000	0.000	3.999	0.001	0.001	3.986	0.006	0.014	3.985	0.007	0.015
3000	3.988	0.012	0.012	3.984	0.015	0.016	3.972	0.014	0.028	3.969	0.016	0.031
4000	3.947	0.041	0.053	3.937	0.047	0.063	3.933	0.039	0.067	3.925	0.044	0.075
5000	3.854	0.093	0.146	3.840	0.097	0.160	3.845	0.088	0.155	3.834	0.091	0.166
6000	3.668	0.186	0.332	3.642	0.198	0.358	3.666	0.179	0.334	3.649	0.185	0.351
7000	3.355	0.313	0.645	3.330	0.312	0.670	3.375	0.291	0.625	3.354	0.295	0.646
8000	2.420	0.935	1.580	2.378	0.952	1.622	2.525	0.850	1.475	2.485	0.869	1.515
0	1.990	0.430	2.010	1.997	0.381	2.003	2.172	0.353	1.828	2.173	0.312	1.827

olsson

Location:	GEO-050
Test Date:	12/3/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.005	-0.005	-0.005	0.005	-0.005	-0.005	0.002	-0.002	-0.002	0.002	-0.002	-0.002
3000	0.013	-0.008	-0.013	0.014	-0.009	-0.014	0.006	-0.004	-0.006	0.006	-0.004	-0.006
4000	0.024	-0.011	-0.024	0.025	-0.011	-0.025	0.013	-0.007	-0.013	0.014	-0.008	-0.014
5000	0.042	-0.018	-0.042	0.045	-0.020	-0.045	0.022	-0.009	-0.022	0.024	-0.010	-0.024
6000	0.068	-0.026	-0.068	0.072	-0.027	-0.072	0.035	-0.013	-0.035	0.038	-0.014	-0.038
7000	0.108	-0.040	-0.108	0.114	-0.042	-0.114	0.058	-0.023	-0.058	0.064	-0.026	-0.064
8000	0.155	-0.047	-0.155	0.166	-0.052	-0.166	0.085	-0.027	-0.085	0.091	-0.027	-0.091
9000	0.226	-0.071	-0.226	0.238	-0.072	-0.238	0.121	-0.036	-0.121	0.140	-0.049	-0.140
10000	0.331	-0.105	-0.331	0.345	-0.107	-0.345	0.210	-0.089	-0.210	0.233	-0.093	-0.233
11000	0.513	-0.182	-0.513	0.542	-0.197	-0.542	0.355	-0.145	-0.355	0.399	-0.166	-0.399
12000	0.940	-0.427	-0.940	0.972	-0.430	-0.972	0.720	-0.365	-0.720	0.755	-0.356	-0.755
0	0.849	0.091	-0.849	0.827	0.145	-0.827	0.692	0.028	-0.692	0.690	0.065	-0.690

olsson

Field Pile Testing Results

Location:	GEO-050
Test Date:	12/3/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project

Lateral

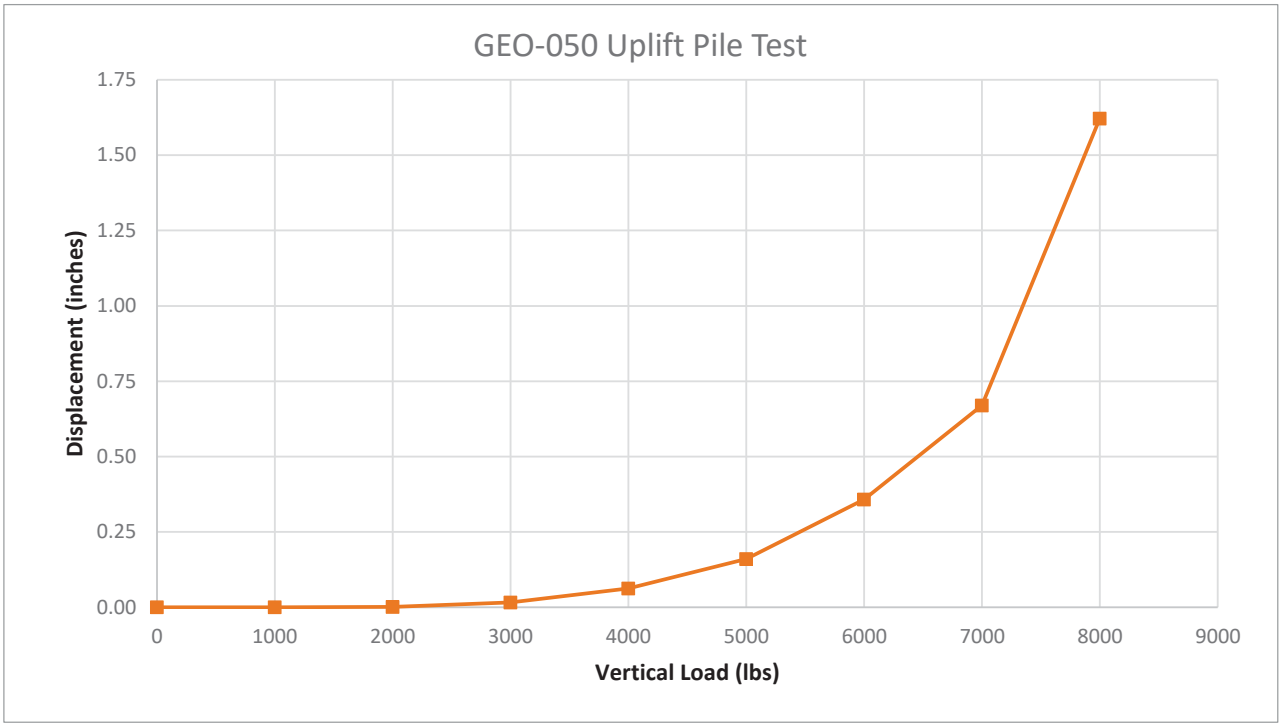
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.838	0.162	0.162	3.838	0.162	0.162	3.934	0.066	0.066	3.934	0.066	0.066
1000	3.643	0.195	0.357	3.643	0.195	0.357	3.851	0.083	0.149	3.849	0.085	0.151
1500	3.409	0.234	0.591	3.409	0.234	0.591	3.740	0.111	0.260	3.737	0.114	0.263
0	3.944	-0.535	0.056	3.951	-0.542	0.049	3.926	-0.186	0.074	3.926	-0.186	0.074
1500	3.361	0.583	0.639	3.361	0.583	0.639	3.715	0.211	0.285	3.714	0.212	0.286
2000	3.119	0.242	0.881	3.119	0.242	0.881	3.598	0.117	0.402	3.595	0.120	0.405
2500	2.855	0.264	1.145	2.855	0.264	1.145	3.468	0.130	0.532	3.462	0.136	0.538
0	3.869	-1.014	0.131	3.879	-1.024	0.121	3.943	-0.475	0.057	3.950	-0.482	0.050
2500	2.741	1.128	1.259	2.741	1.128	1.259	3.403	0.540	0.597	3.400	0.543	0.600
3000	2.441	0.300	1.559	2.441	0.300	1.559	3.250	0.153	0.750	3.245	0.158	0.755
3500	2.130	0.311	1.870	2.130	0.311	1.870	3.086	0.164	0.914	3.078	0.172	0.922
0	3.781	-1.651	0.219	3.791	-1.661	0.209	3.890	-0.804	0.110	3.897	-0.811	0.103
3500	1.974	1.807	2.026	1.974	1.807	2.026	2.987	0.903	1.013	2.982	0.908	1.018
4000	1.641	0.333	2.359	1.642	0.332	2.358	2.814	0.173	1.186	2.803	0.184	1.197
4500	1.261	0.380	2.739	1.261	0.380	2.739	2.599	0.215	1.401	2.585	0.229	1.415
0	3.565	-2.304	0.435	3.585	-2.324	0.415	3.721	-1.122	0.279	3.755	-1.156	0.245
4500	0.967	2.598	3.033	0.967	2.598	3.033	2.405	1.316	1.595	2.385	1.336	1.615
5000	0.515	0.452	3.485	0.504	0.463	3.496	2.131	0.274	1.869	2.103	0.302	1.897
5500	-0.188	0.703	4.188	-0.188	0.703	4.188	1.641	0.490	2.359	1.600	0.531	2.400
0	2.285	-2.473	1.715	2.315	-2.503	1.685	2.899	-1.258	1.101	2.917	-1.276	1.083

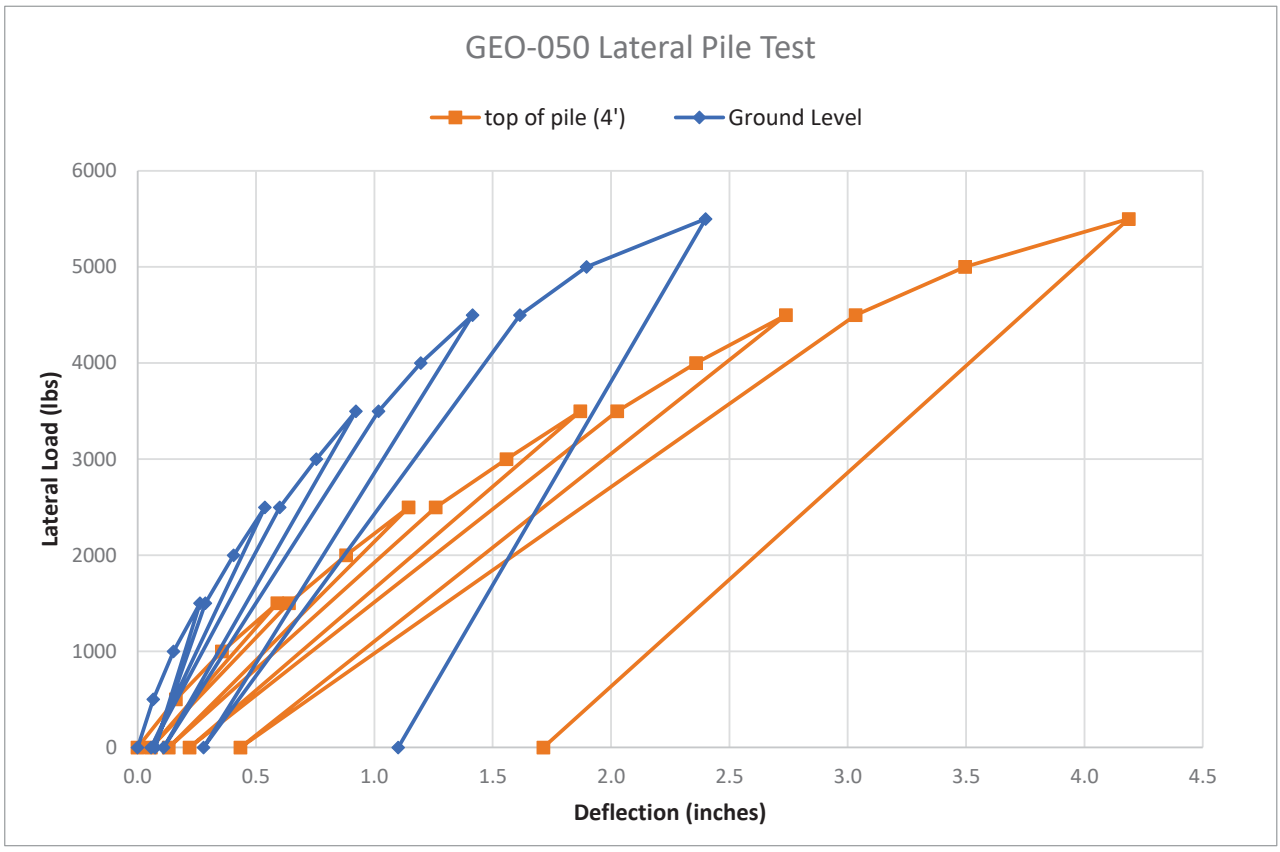
olsson

Location:	GEO-050
Test Date:	12/3/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-050
Test Date:	12/3/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.999	0.001	0.001	3.999	0.001	0.001	3.995	0.005	0.005	3.995	0.005	0.005
2000	3.997	0.002	0.003	3.997	0.002	0.003	3.990	0.005	0.010	3.990	0.005	0.010
3000	3.993	0.004	0.007	3.993	0.004	0.007	3.987	0.003	0.013	3.987	0.003	0.013
4000	3.982	0.011	0.018	3.982	0.011	0.018	3.981	0.006	0.019	3.980	0.007	0.020
5000	3.969	0.013	0.031	3.969	0.013	0.031	3.973	0.008	0.027	3.972	0.008	0.028
6000	3.938	0.031	0.062	3.936	0.033	0.064	3.952	0.021	0.048	3.948	0.024	0.052
7000	3.888	0.050	0.112	3.880	0.056	0.120	3.909	0.043	0.091	3.899	0.049	0.101
8000	3.805	0.083	0.195	3.794	0.086	0.206	3.835	0.074	0.165	3.820	0.079	0.180
9000	3.660	0.145	0.340	3.647	0.147	0.353	3.695	0.140	0.305	3.678	0.142	0.322
10000	3.450	0.210	0.550	3.433	0.214	0.567	3.502	0.193	0.498	3.481	0.197	0.519
11000	2.990	0.460	1.010	2.968	0.465	1.032	3.125	0.377	0.875	3.102	0.379	0.898
11700	2.580	0.410	1.420	2.555	0.413	1.445	2.810	0.315	1.190	2.784	0.318	1.216
0	2.610	-0.030	1.390	2.614	-0.059	1.386	2.814	-0.004	1.186	2.816	-0.032	1.184

olsson

Location:	GEO-053
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

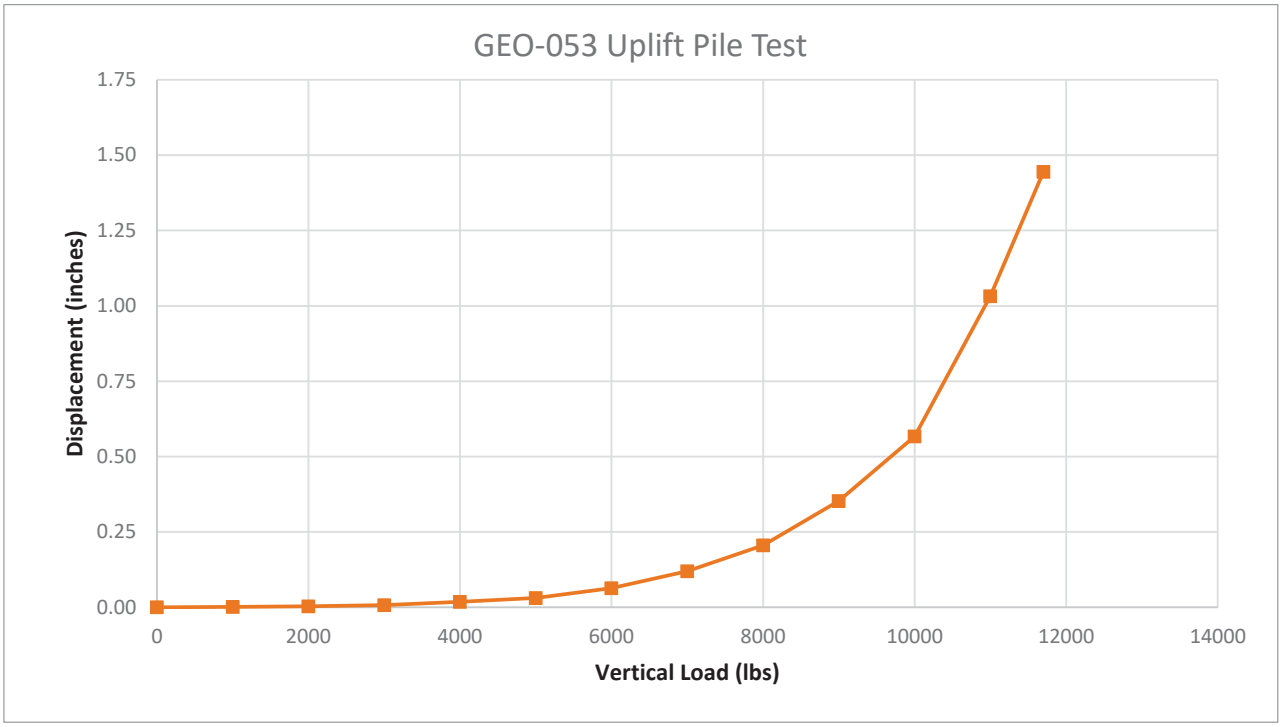
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.799	0.201	0.201	3.798	0.202	0.202	3.936	0.064	0.064	3.934	0.066	0.066
1000	3.597	0.202	0.403	3.593	0.206	0.407	3.860	0.076	0.140	3.855	0.081	0.145
1500	3.343	0.254	0.657	3.341	0.256	0.659	3.753	0.107	0.247	3.747	0.113	0.253
0	3.917	-0.574	0.083	3.925	-0.582	0.075	3.958	-0.205	0.042	3.965	-0.212	0.035
1500	3.275	0.642	0.725	3.274	0.643	0.726	3.720	0.238	0.280	3.714	0.244	0.286
2000	3.050	0.225	0.950	3.048	0.227	0.952	3.621	0.099	0.379	3.612	0.108	0.388
2500	2.725	0.325	1.275	2.723	0.327	1.277	3.472	0.149	0.528	3.459	0.162	0.541
0	3.770	-1.045	0.230	3.780	-1.055	0.220	3.874	-0.402	0.126	3.879	-0.407	0.121
2500	2.645	1.125	1.355	2.644	1.126	1.356	3.419	0.455	0.581	3.412	0.462	0.588
3000	2.387	0.258	1.613	2.387	0.258	1.613	3.300	0.119	0.700	3.289	0.130	0.711
3500	2.030	0.357	1.970	2.026	0.361	1.974	3.125	0.175	0.875	3.109	0.191	0.891
0	3.665	-1.635	0.335	3.679	-1.649	0.321	3.803	-0.678	0.197	3.809	-0.684	0.191
3500	1.885	1.780	2.115	1.885	1.780	2.115	3.030	0.773	0.970	3.020	0.783	0.980
4000	1.540	0.345	2.460	1.539	0.346	2.461	2.863	0.167	1.137	2.845	0.185	1.155
4500	1.202	0.338	2.798	1.200	0.340	2.800	2.687	0.176	1.313	2.666	0.197	1.334
0	3.515	-2.313	0.485	3.539	-2.337	0.461	3.694	-1.007	0.306	3.704	-1.017	0.296
4500	0.969	2.546	3.031	0.969	2.546	3.031	2.540	1.154	1.460	2.525	1.169	1.475
5000	0.625	0.344	3.375	0.625	0.344	3.375	2.358	0.182	1.642	2.340	0.200	1.660
5500	0.089	0.536	3.911	0.089	0.536	3.911	2.081	0.277	1.919	2.065	0.293	1.935
0	3.164	-3.075	0.836	3.168	-3.079	0.832	3.464	-1.383	0.536	3.477	-1.396	0.523

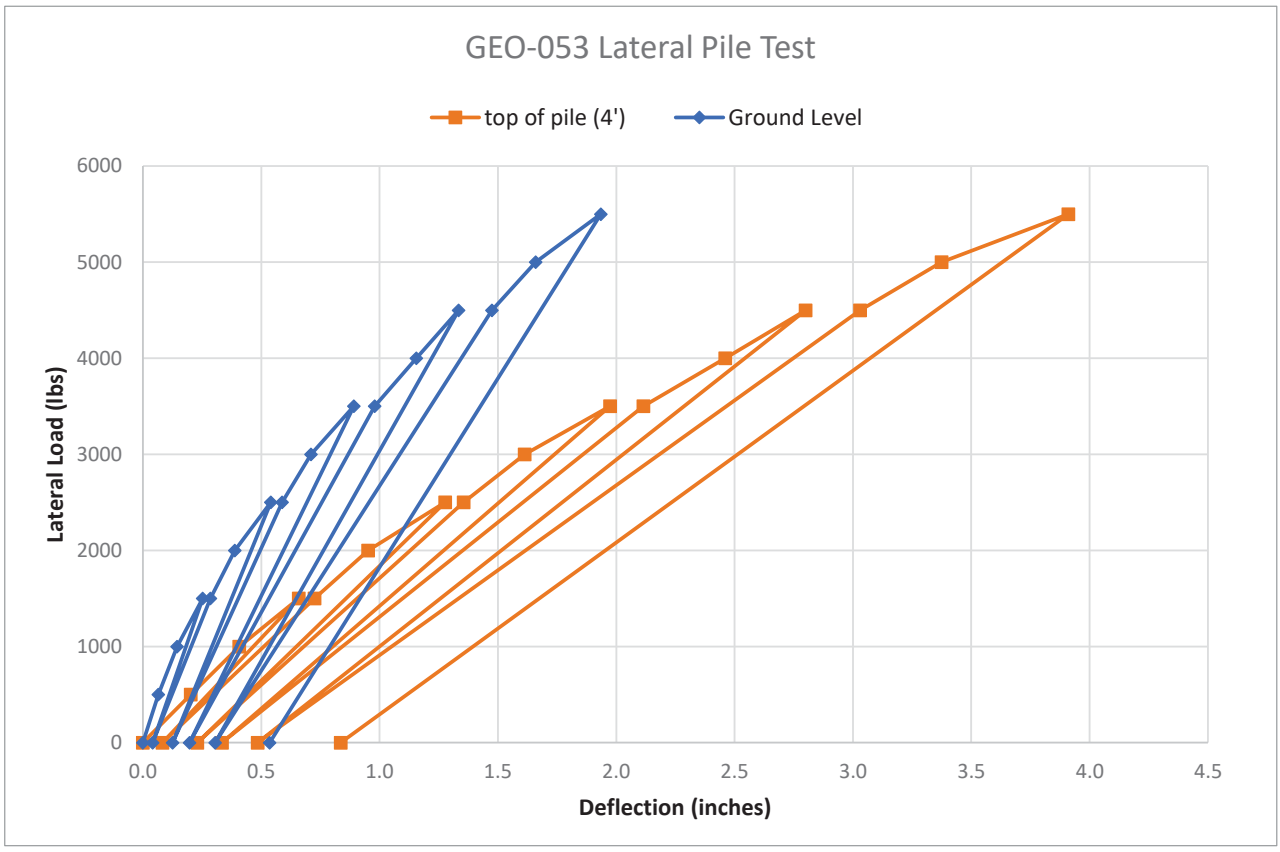
olsson

Location:	GEO-053
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-053
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
3000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.996	0.004	0.004	3.999	0.001	0.001	4.000	0.000	0.000	4.000	0.000	0.000
5000	3.986	0.010	0.014	3.989	0.010	0.011	3.999	0.001	0.001	3.999	0.001	0.001
6000	3.974	0.012	0.026	3.976	0.013	0.024	3.999	0.000	0.001	3.999	0.000	0.001
7000	3.963	0.011	0.037	3.965	0.011	0.035	3.995	0.004	0.005	3.995	0.004	0.005
8000	3.953	0.010	0.047	3.955	0.010	0.045	3.989	0.006	0.011	3.989	0.006	0.011
9000	3.941	0.012	0.059	3.942	0.013	0.058	3.986	0.003	0.014	3.982	0.007	0.018
10000	3.926	0.015	0.074	3.927	0.015	0.073	3.976	0.010	0.024	3.971	0.011	0.029
11000	3.908	0.018	0.092	3.909	0.018	0.091	3.962	0.014	0.038	3.957	0.014	0.043
12000	3.890	0.018	0.110	3.890	0.019	0.110	3.947	0.015	0.053	3.940	0.017	0.060
13000	3.866	0.024	0.134	3.866	0.024	0.134	3.926	0.021	0.074	3.919	0.021	0.081
14000	3.823	0.043	0.177	3.821	0.045	0.179	3.885	0.041	0.115	3.876	0.043	0.124
15000	3.757	0.066	0.243	3.752	0.069	0.248	3.822	0.063	0.178	3.811	0.065	0.189
16000	3.650	0.107	0.350	3.634	0.118	0.366	3.712	0.110	0.288	3.699	0.112	0.301
17000	3.495	0.155	0.505	3.478	0.156	0.522	3.569	0.143	0.431	3.549	0.150	0.451
17400	3.369	0.126	0.631	3.363	0.115	0.637	3.437	0.132	0.563	3.435	0.114	0.565
0	3.490	-0.121	0.510	3.495	-0.132	0.505	3.437	0.000	0.563	3.439	-0.004	0.561

olsson

Location:	GEO-055
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral GEO-055

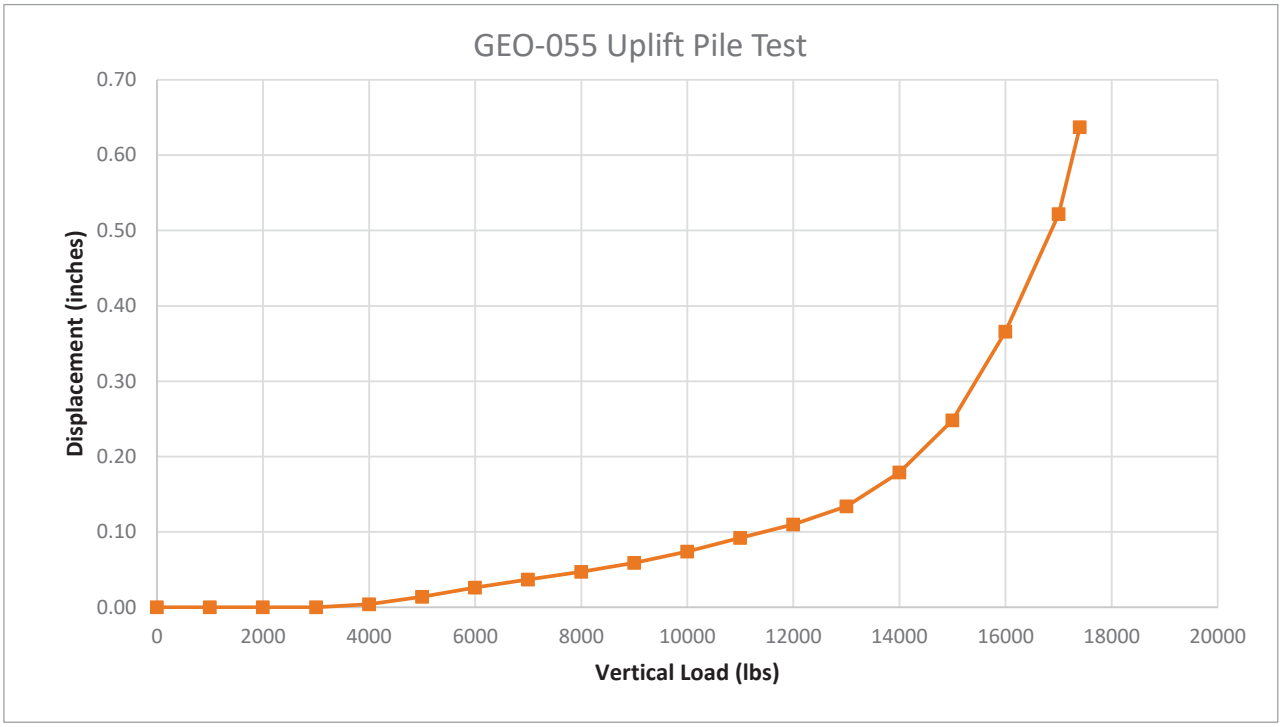
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.687	0.313	0.313	3.801	0.199	0.199	3.955	0.045	0.045	3.955	0.045	0.045
1000	3.567	0.120	0.433	3.567	0.120	0.433	3.869	0.086	0.131	3.869	0.086	0.131
1500	3.323	0.244	0.677	3.323	0.244	0.677	3.784	0.085	0.216	3.782	0.087	0.218
0	3.923	-0.600	0.077	3.932	-0.609	0.068	3.969	-0.185	0.031	3.976	-0.192	0.024
1500	3.277	0.646	0.723	3.281	0.642	0.719	3.763	0.206	0.237	3.762	0.207	0.238
2000	3.063	0.214	0.937	3.061	0.216	0.939	3.687	0.076	0.313	3.687	0.076	0.313
2500	2.811	0.252	1.189	2.814	0.249	1.186	3.590	0.097	0.410	3.589	0.098	0.411
0	3.860	-1.049	0.140	3.874	-1.063	0.126	3.929	-0.339	0.071	3.929	-0.339	0.071
2500	2.656	1.204	1.344	2.663	1.197	1.337	3.526	0.403	0.474	3.525	0.404	0.475
3000	2.480	0.176	1.520	2.480	0.176	1.520	3.459	0.067	0.541	3.454	0.072	0.546
3500	2.183	0.297	1.817	2.179	0.301	1.821	3.343	0.116	0.657	3.335	0.124	0.665
0	3.787	-1.604	0.213	3.801	-1.618	0.199	3.902	-0.559	0.098	3.909	-0.566	0.091
3500	2.065	1.722	1.935	2.070	1.717	1.930	3.287	0.615	0.713	3.281	0.621	0.719
4000	1.781	0.284	2.219	1.782	0.283	2.218	3.170	0.117	0.830	3.165	0.122	0.835
4500	1.485	0.296	2.515	1.484	0.297	2.516	3.045	0.125	0.955	3.037	0.133	0.963
0	3.640	-2.155	0.360	3.656	-2.171	0.344	3.831	-0.786	0.169	3.841	-0.796	0.159
4500	1.341	2.299	2.659	1.341	2.299	2.659	2.971	0.860	1.029	2.968	0.863	1.032
5000	1.020	0.321	2.980	1.018	0.323	2.982	2.840	0.131	1.160	2.833	0.138	1.167
5500	-0.250	1.270	4.250	-0.233	1.253	4.233	2.593	0.247	1.407	2.577	0.263	1.423
0	3.120	-3.370	0.880	3.120	-3.370	0.880	3.600	-1.007	0.400	3.600	-1.007	0.400

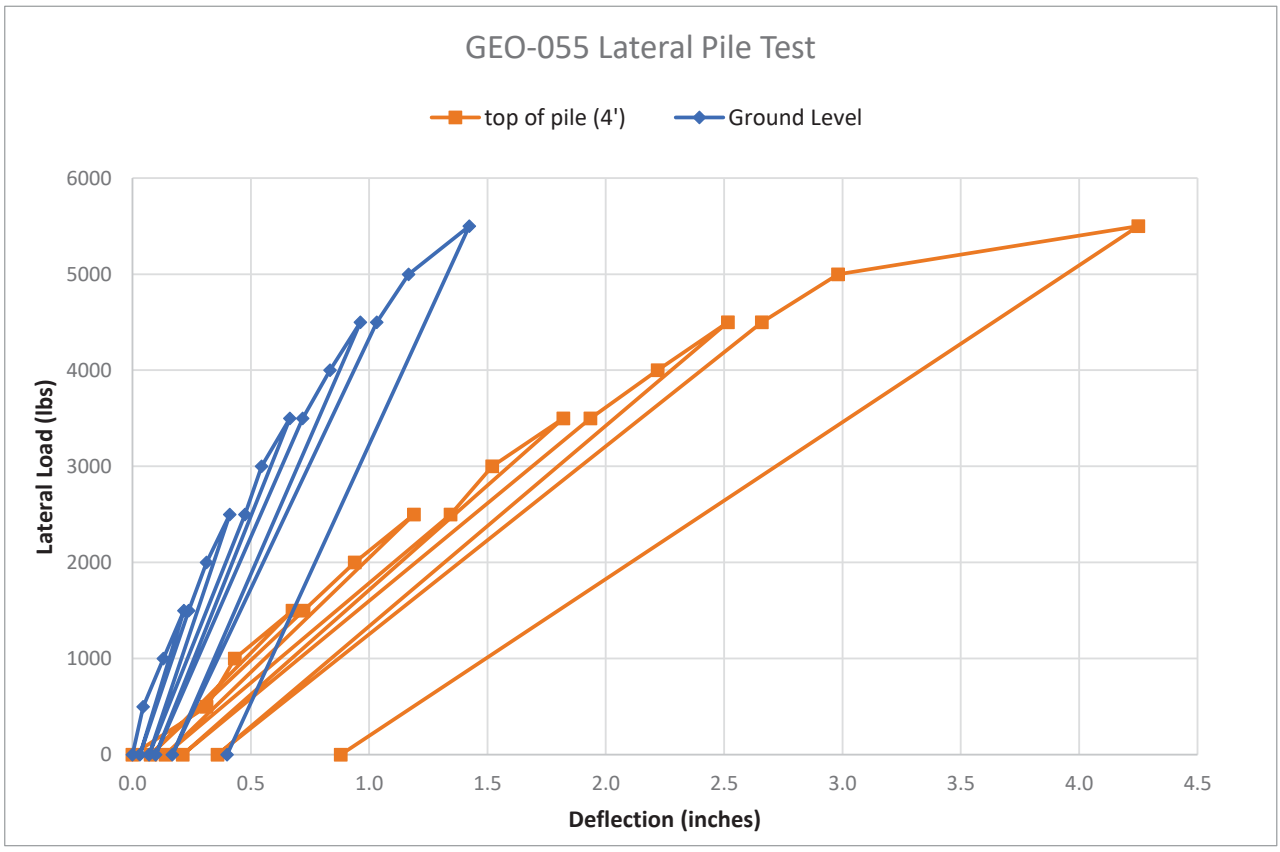
olsson

Field Pile Testing Results

Location:	GEO-055
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project





olsson

Location:	GEO-055
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.998	0.002	0.002	3.998	0.002	0.002	4.000	0.000	0.000	3.999	0.001	0.001
2000	3.994	0.004	0.006	3.995	0.003	0.005	3.995	0.005	0.005	3.995	0.004	0.005
3000	3.988	0.006	0.012	3.988	0.007	0.012	3.994	0.001	0.006	3.994	0.001	0.006
9000	3.783	0.205	0.217	3.777	0.211	0.223	3.834	0.160	0.166	3.840	0.154	0.160
10000	3.695	0.088	0.305	3.689	0.088	0.311	3.710	0.124	0.290	3.740	0.100	0.260
11000	3.533	0.162	0.467	3.533	0.156	0.467	3.529	0.181	0.471	3.527	0.213	0.473
12000	3.440	0.093	0.560	3.428	0.105	0.572	3.429	0.100	0.571	3.419	0.108	0.581
13000	3.290	0.150	0.710	3.269	0.159	0.731	3.270	0.159	0.730	3.258	0.161	0.742
14000	2.810	0.480	1.190	2.775	0.494	1.225	2.780	0.490	1.220	2.765	0.493	1.235
0	3.154	-0.344	0.846	3.156	-0.381	0.844	3.171	-0.391	0.829	3.173	-0.408	0.827

olsson

Location:	GEO-057
Test Date:	12/1/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	0.000	-	0.000	x	-	-	0.000	-	0.000	x	-	-
1000	0.005	-0.005	-0.005	0.003	-0.003	-0.003	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.010	-0.005	-0.010	0.007	-0.004	-0.007	0.000	0.000	0.000	0.000	0.000	0.000
3000	0.017	-0.007	-0.017	0.015	-0.008	-0.015	0.000	0.000	0.000	0.000	0.000	0.000
4000	0.033	-0.016	-0.033	0.031	-0.016	-0.031	0.000	0.000	0.000	0.000	0.000	0.000
5000	0.047	-0.014	-0.047	0.045	-0.014	-0.045	0.000	0.000	0.000	0.000	0.000	0.000
6000	0.061	-0.014	-0.061	0.059	-0.014	-0.059	0.000	0.000	0.000	0.000	0.000	0.000
7000	0.075	-0.014	-0.075	0.073	-0.014	-0.073	0.000	0.000	0.000	0.000	0.000	0.000
8000	0.084	-0.009	-0.084	0.082	-0.009	-0.082	0.002	-0.002	-0.002	0.002	-0.002	-0.002
9000	0.090	-0.006	-0.090	0.086	-0.004	-0.086	0.011	-0.009	-0.011	0.016	-0.014	-0.016
10000	0.096	-0.006	-0.096	0.093	-0.007	-0.093	0.030	-0.019	-0.030	0.035	-0.019	-0.035
0	0.044	0.052	-0.044	0.044	0.049	-0.044	0.010	0.020	-0.010	0.007	0.028	-0.007

olsson

Field Pile Testing Results

Location:	GEO-057
Test Date:	12/1/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project

Lateral

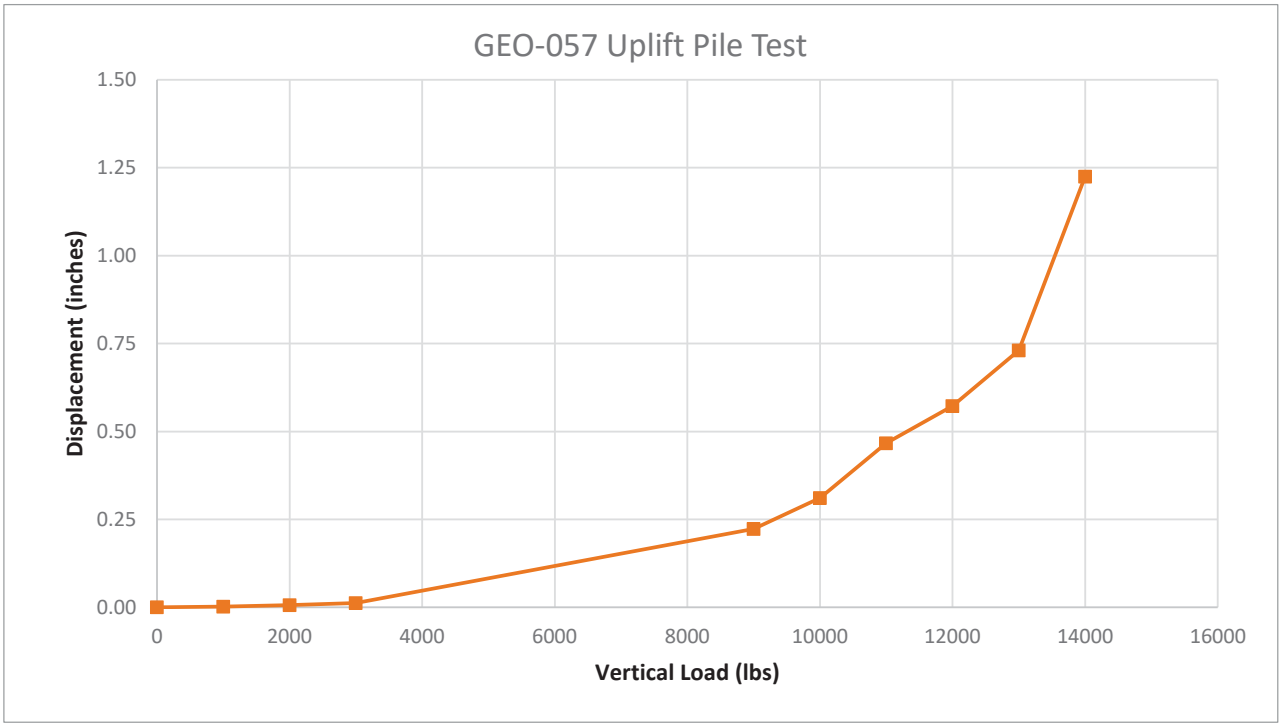
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.728	0.272	0.272	3.728	0.272	0.272	3.892	0.108	0.108	3.891	0.109	0.109
1000	3.547	0.181	0.453	3.542	0.186	0.458	3.817	0.075	0.183	3.815	0.077	0.185
1500	3.259	0.288	0.741	3.255	0.292	0.745	3.695	0.122	0.305	3.690	0.127	0.310
0	3.955	-0.696	0.045	3.966	-0.707	0.034	3.970	-0.275	0.030	3.976	-0.281	0.024
1500	3.219	0.736	0.781	3.220	0.735	0.780	3.672	0.298	0.328	3.669	0.301	0.331
2000	2.944	0.275	1.056	2.941	0.278	1.059	3.549	0.123	0.451	3.541	0.131	0.459
2500	2.605	0.339	1.395	2.599	0.345	1.401	3.389	0.160	0.611	3.373	0.176	0.627
0	3.855	-1.250	0.145	3.874	-1.269	0.126	3.905	-0.516	0.095	3.915	-0.526	0.085
2500	2.466	1.389	1.534	2.468	1.387	1.532	3.304	0.601	0.696	3.299	0.606	0.701
3000	2.110	0.356	1.890	2.107	0.359	1.893	3.136	0.168	0.864	3.119	0.185	0.881
3500	1.708	0.402	2.292	1.705	0.405	2.295	2.930	0.206	1.070	2.910	0.226	1.090
0	3.670	-1.962	0.330	3.707	-1.999	0.293	3.785	-0.855	0.215	3.802	-0.872	0.198
3500	1.490	2.180	2.510	1.495	2.175	2.505	2.795	0.990	1.205	2.780	1.005	1.220
4000	1.087	0.403	2.913	1.084	0.406	2.916	2.594	0.201	1.406	2.569	0.226	1.431
4500	0.641	0.446	3.359	0.636	0.451	3.364	2.352	0.242	1.648	2.329	0.265	1.671
0	3.470	-2.829	0.530	3.431	-2.790	0.569	3.685	-1.333	0.315	3.615	-1.263	0.385
4500	0.310	3.160	3.690	0.313	3.157	3.687	2.150	1.535	1.850	2.136	1.549	1.864
5000	-0.375	0.685	4.375	-0.313	0.623	4.313	1.827	0.323	2.173	1.819	0.331	2.181
0	1.008	-1.383	2.992	1.008	-1.383	2.992	2.684	-0.857	1.316	2.684	-0.857	1.316

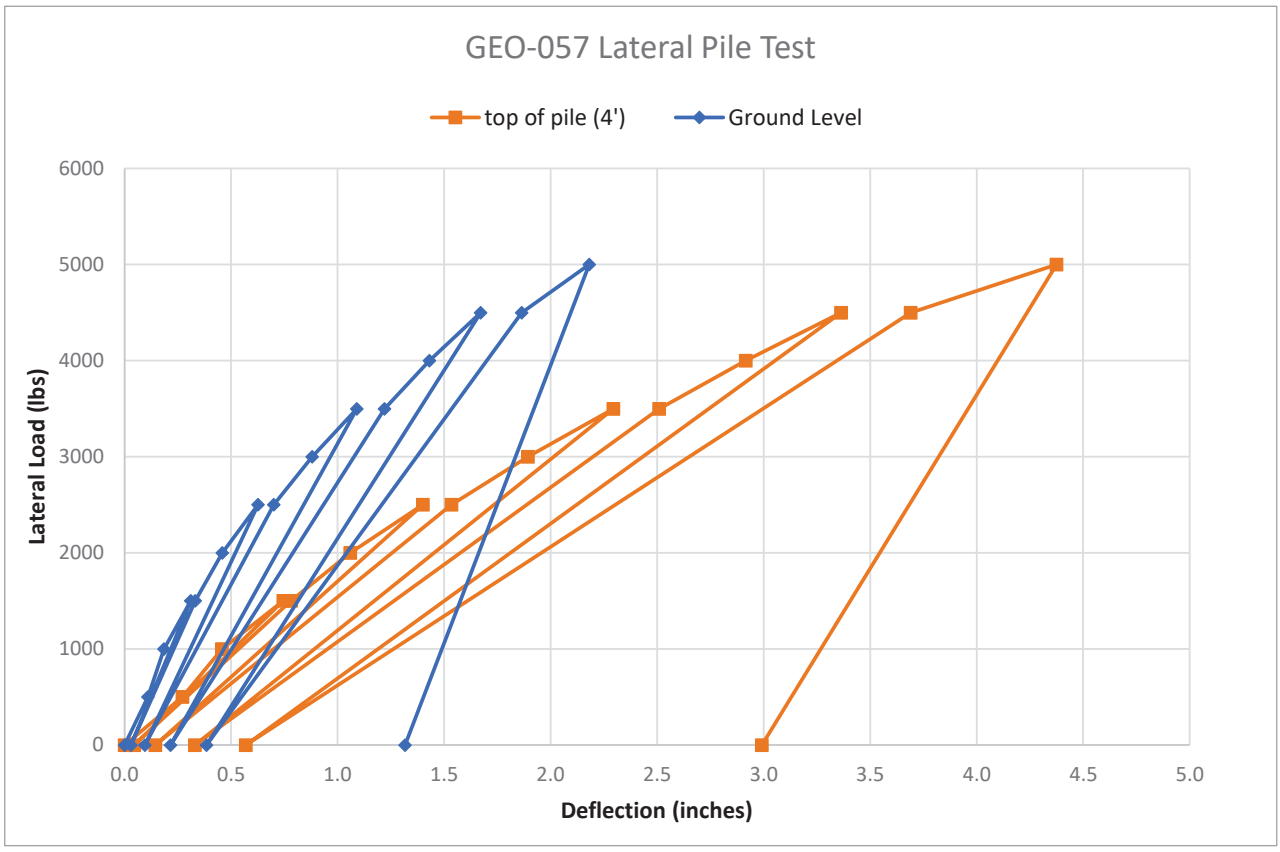
olsson

Location:	GEO-057
Test Date:	12/1/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-057
Test Date:	12/1/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.006	0.006	3.994	0.006	0.006
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.991	0.003	0.009	3.991	0.003	0.009
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.987	0.004	0.013	3.987	0.004	0.013
5000	4.000	0.000	0.000	4.000	0.000	0.000	3.982	0.005	0.018	3.982	0.005	0.018
6000	3.993	0.007	0.007	3.990	0.010	0.010	3.974	0.008	0.026	3.972	0.010	0.028
7000	3.985	0.008	0.015	3.982	0.008	0.018	3.966	0.008	0.034	3.964	0.008	0.036
8000	3.972	0.013	0.028	3.967	0.015	0.033	3.952	0.014	0.048	3.950	0.014	0.050
9000	3.952	0.020	0.048	3.946	0.021	0.054	3.935	0.017	0.065	3.931	0.019	0.069
10000	3.928	0.024	0.072	3.918	0.028	0.082	3.914	0.021	0.086	3.906	0.025	0.094
11000	3.892	0.036	0.108	3.879	0.039	0.121	3.878	0.036	0.122	3.867	0.039	0.133
12000	3.844	0.048	0.156	3.829	0.050	0.171	3.832	0.046	0.168	3.820	0.047	0.180
13000	3.778	0.066	0.222	3.757	0.072	0.243	3.766	0.066	0.234	3.750	0.070	0.250
14000	3.706	0.072	0.294	3.681	0.076	0.319	3.698	0.068	0.302	3.676	0.074	0.324
15000	3.611	0.095	0.389	3.576	0.105	0.424	3.609	0.089	0.391	3.577	0.099	0.423
16000	3.482	0.129	0.518	3.451	0.125	0.549	3.491	0.118	0.509	3.465	0.112	0.535
17000	3.319	0.163	0.681	3.281	0.170	0.719	3.349	0.142	0.651	3.325	0.140	0.675
18000	3.062	0.257	0.938	2.999	0.282	1.001	3.171	0.178	0.829	3.135	0.190	0.865
0	3.012	0.050	0.988	3.028	-0.029	0.972	3.203	-0.032	0.797	3.209	-0.074	0.791

Field Pile Testing Results

Location:	GEO-059
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

olsson

Lateral

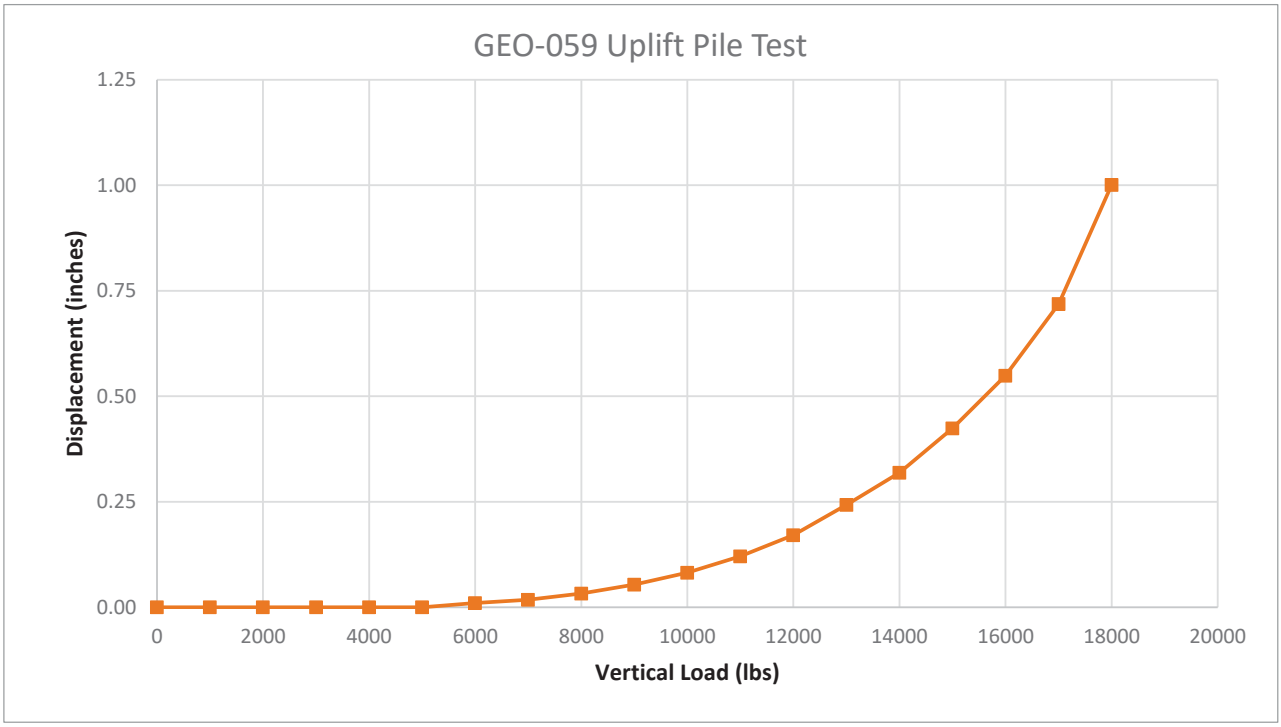
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.781	0.219	0.219	3.781	0.219	0.219	3.919	0.081	0.081	3.919	0.081	0.081
1000	3.586	0.195	0.414	3.586	0.195	0.414	3.844	0.075	0.156	3.841	0.078	0.159
1500	3.305	0.281	0.695	3.313	0.273	0.687	3.726	0.118	0.274	3.724	0.120	0.276
0	3.946	-0.641	0.054	3.962	-0.657	0.038	3.968	-0.242	0.032	3.975	-0.249	0.025
1500	3.271	0.675	0.729	3.289	0.657	0.711	3.705	0.263	0.295	3.709	0.259	0.291
2000	2.995	0.276	1.005	3.005	0.266	0.995	3.585	0.120	0.415	3.584	0.121	0.416
2500	2.649	0.346	1.351	2.646	0.349	1.354	3.427	0.158	0.573	3.420	0.165	0.580
0	3.904	-1.255	0.096	3.919	-1.270	0.081	3.936	-0.509	0.064	3.938	-0.511	0.062
2500	2.581	1.323	1.419	2.580	1.324	1.420	3.386	0.550	0.614	3.383	0.553	0.617
3000	2.247	0.334	1.753	2.245	0.336	1.755	3.237	0.149	0.763	3.229	0.157	0.771
3500	1.866	0.381	2.134	1.863	0.384	2.137	3.058	0.179	0.942	3.046	0.191	0.954
0	3.821	-1.955	0.179	3.844	-1.978	0.156	3.883	-0.825	0.117	3.894	-0.836	0.106
3500	1.772	2.049	2.228	1.775	2.046	2.225	2.994	0.889	1.006	2.988	0.895	1.012
4000	1.391	0.381	2.609	1.389	0.383	2.611	2.814	0.180	1.186	2.803	0.191	1.197
4500	0.912	0.479	3.088	0.907	0.484	3.093	2.575	0.239	1.425	2.561	0.253	1.439
0	3.623	-2.711	0.377	3.657	-2.745	0.343	3.758	-1.183	0.242	3.777	-1.202	0.223
4500	0.693	2.930	3.307	0.694	2.929	3.306	2.441	1.317	1.559	2.430	1.328	1.570
5000	0.076	0.617	3.924	0.072	0.621	3.928	2.143	0.298	1.857	2.127	0.314	1.873
5500	-1.000	1.076	5.000	-1.000	1.076	5.000	1.598	0.545	2.402	1.585	0.558	2.415
0	2.296	-3.296	1.704	2.336	-3.336	1.664	3.068	-1.470	0.932	3.079	-1.481	0.921

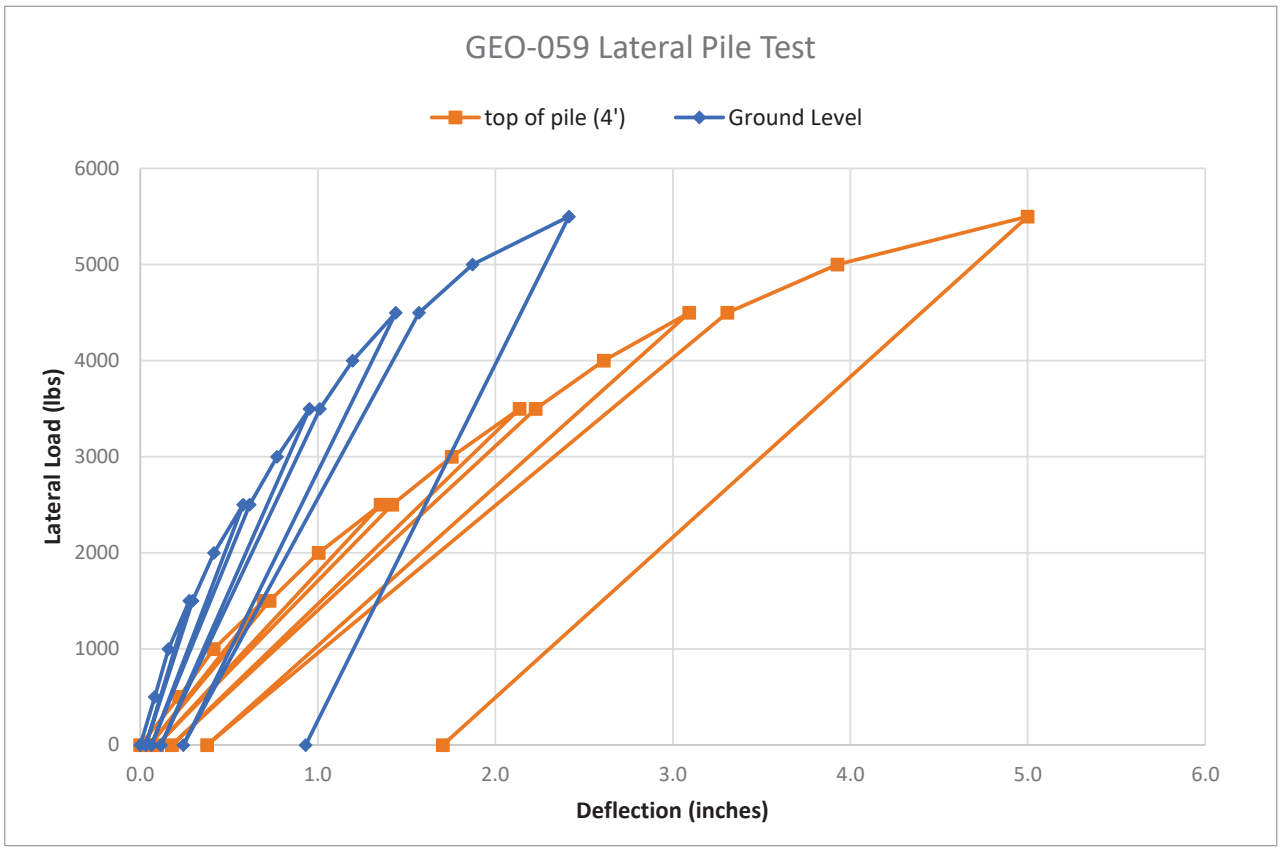
olsson

Field Pile Testing Results

Location:	GEO-059
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-059
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift GEO-061

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.448	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.999	0.001	0.001	3.999	0.001	0.001
4000	3.998	0.002	0.002	3.998	0.002	0.002	3.997	0.002	0.003	3.997	0.002	0.003
5000	3.994	0.004	0.006	3.994	0.004	0.006	3.993	0.004	0.007	3.993	0.004	0.007
6000	3.988	0.006	0.012	3.987	0.007	0.013	3.985	0.008	0.015	3.985	0.008	0.015
7000	3.981	0.007	0.019	3.981	0.006	0.019	3.978	0.007	0.022	3.978	0.007	0.022
8000	3.960	0.021	0.040	3.954	0.027	0.046	3.953	0.025	0.047	3.948	0.030	0.052
9000	3.914	0.046	0.086	3.907	0.047	0.093	3.904	0.049	0.096	3.899	0.049	0.101
10000	3.866	0.048	0.134	3.856	0.051	0.144	3.854	0.050	0.146	3.845	0.054	0.155
11000	3.809	0.057	0.191	3.796	0.060	0.204	3.793	0.061	0.207	3.783	0.062	0.217
12000	3.694	0.115	0.306	3.672	0.124	0.328	3.676	0.117	0.324	3.658	0.125	0.342
13000	3.573	0.121	0.427	3.555	0.117	0.445	3.552	0.124	0.448	3.547	0.111	0.453
14000	3.471	0.102	0.529	3.448	0.107	0.552	3.444	0.108	0.556	3.425	0.122	0.575
15000	3.325	0.146	0.675	3.298	0.150	0.702	3.295	0.149	0.705	3.274	0.151	0.726
16000	3.151	0.174	0.849	3.117	0.181	0.883	3.119	0.176	0.881	3.085	0.189	0.915
16280	2.642	0.509	1.358	2.608	0.509	1.392	2.603	0.516	1.397	2.571	0.514	1.429
0	2.639	0.003	1.361	2.640	-0.032	1.360	2.643	-0.040	1.357	2.645	-0.074	1.355

olsson

Field Pile Testing Results

Location:	GEO-061
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	0.000	-	0.000	x	-	-	0.000	-	0.000	x	-	-
1000	0.002	-0.002	-0.002	0.002	-0.002	-0.002	0.003	-0.003	-0.003	0.003	-0.003	-0.003
2000	0.003	-0.001	-0.003	0.003	-0.001	-0.003	0.007	-0.004	-0.007	0.007	-0.004	-0.007
3000	0.003	0.000	-0.003	0.003	0.000	-0.003	0.013	-0.006	-0.013	0.013	-0.006	-0.013
4000	0.005	-0.002	-0.005	0.006	-0.003	-0.006	0.016	-0.003	-0.016	0.017	-0.004	-0.017
5000	0.010	-0.005	-0.010	0.011	-0.005	-0.011	0.020	-0.004	-0.020	0.020	-0.003	-0.020
6000	0.018	-0.008	-0.018	0.019	-0.008	-0.019	0.022	-0.002	-0.022	0.022	-0.002	-0.022
7000	0.027	-0.009	-0.027	0.028	-0.009	-0.028	0.024	-0.002	-0.024	0.023	-0.001	-0.023
8000	0.043	-0.016	-0.043	0.044	-0.016	-0.044	0.025	-0.001	-0.025	0.025	-0.002	-0.025
9000	0.060	-0.017	-0.060	0.063	-0.019	-0.063	0.025	0.000	-0.025	0.025	0.000	-0.025
10000	0.084	-0.024	-0.084	0.090	-0.027	-0.090	0.025	0.000	-0.025	0.025	0.000	-0.025
11000	0.120	-0.036	-0.120	0.131	-0.041	-0.131	0.025	0.000	-0.025	0.025	0.000	-0.025
12000	0.161	-0.041	-0.161	0.170	-0.039	-0.170	0.025	0.000	-0.025	0.025	0.000	-0.025

olsson

Location:	GEO-061
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

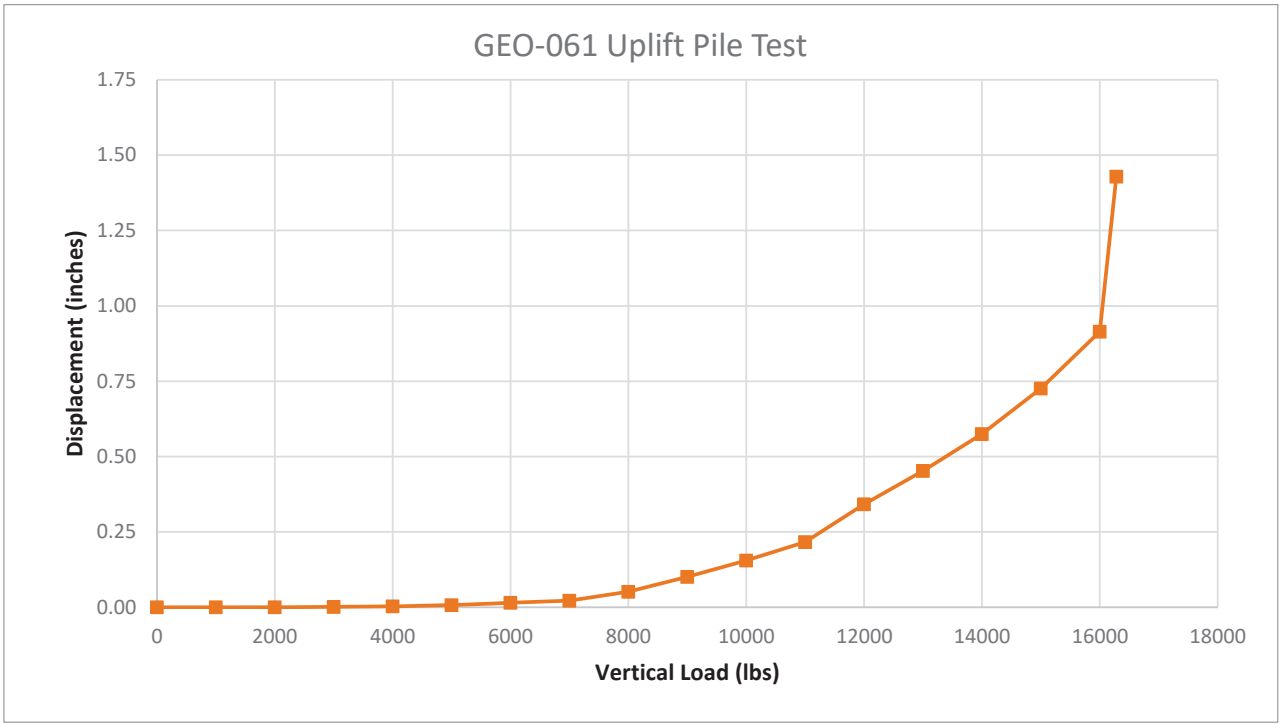
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.843	0.157	0.157	3.845	0.155	0.155	3.946	0.054	0.054	3.945	0.055	0.055
1000	3.634	0.209	0.366	3.632	0.211	0.368	3.861	0.085	0.139	3.858	0.088	0.142
1500	3.379	0.255	0.621	3.377	0.257	0.623	3.753	0.108	0.247	3.749	0.112	0.251
0	3.921	-0.542	0.079	3.927	-0.548	0.073	3.954	-0.201	0.046	3.963	-0.210	0.037
1500	3.360	0.561	0.640	3.361	0.560	0.639	3.738	0.216	0.262	3.736	0.218	0.264
2000	3.116	0.244	0.884	3.116	0.244	0.884	3.632	0.106	0.368	3.629	0.109	0.371
2500	2.876	0.240	1.124	2.876	0.240	1.124	3.523	0.109	0.477	3.519	0.113	0.481
0	3.872	-0.996	0.128	3.876	-1.000	0.124	3.916	-0.393	0.084	3.917	-0.394	0.083
2500	2.806	1.066	1.194	2.806	1.066	1.194	3.486	0.430	0.514	3.484	0.432	0.516
3000	2.568	0.238	1.432	2.568	0.238	1.432	3.378	0.108	0.622	3.375	0.111	0.625
3500	2.255	0.313	1.745	2.255	0.313	1.745	3.234	0.144	0.766	3.229	0.149	0.771
0	3.800	-1.545	0.200	3.810	-1.555	0.190	3.880	-0.646	0.120	3.883	-0.649	0.117
3500	2.155	1.645	1.845	2.157	1.643	1.843	3.179	0.701	0.821	3.176	0.704	0.824
4000	1.884	0.271	2.116	1.884	0.271	2.116	3.053	0.126	0.947	3.048	0.131	0.952
4500	1.510	0.374	2.490	1.510	0.374	2.490	2.874	0.179	1.126	2.869	0.184	1.131
0	3.633	-2.123	0.367	3.642	-2.132	0.358	3.787	-0.913	0.213	3.788	-0.914	0.212
4500	1.480	2.153	2.520	1.479	2.154	2.521	2.800	0.987	1.200	2.798	0.989	1.202
5000	0.976	0.504	3.024	0.976	0.504	3.024	2.618	0.182	1.382	2.614	0.186	1.386
5500	-0.265	1.241	4.265	-0.265	1.241	4.265	2.003	0.615	1.997	2.005	0.613	1.995
0	2.432	-2.697	1.568	2.438	-2.703	1.562	3.191	-1.188	0.809	3.193	-1.190	0.807

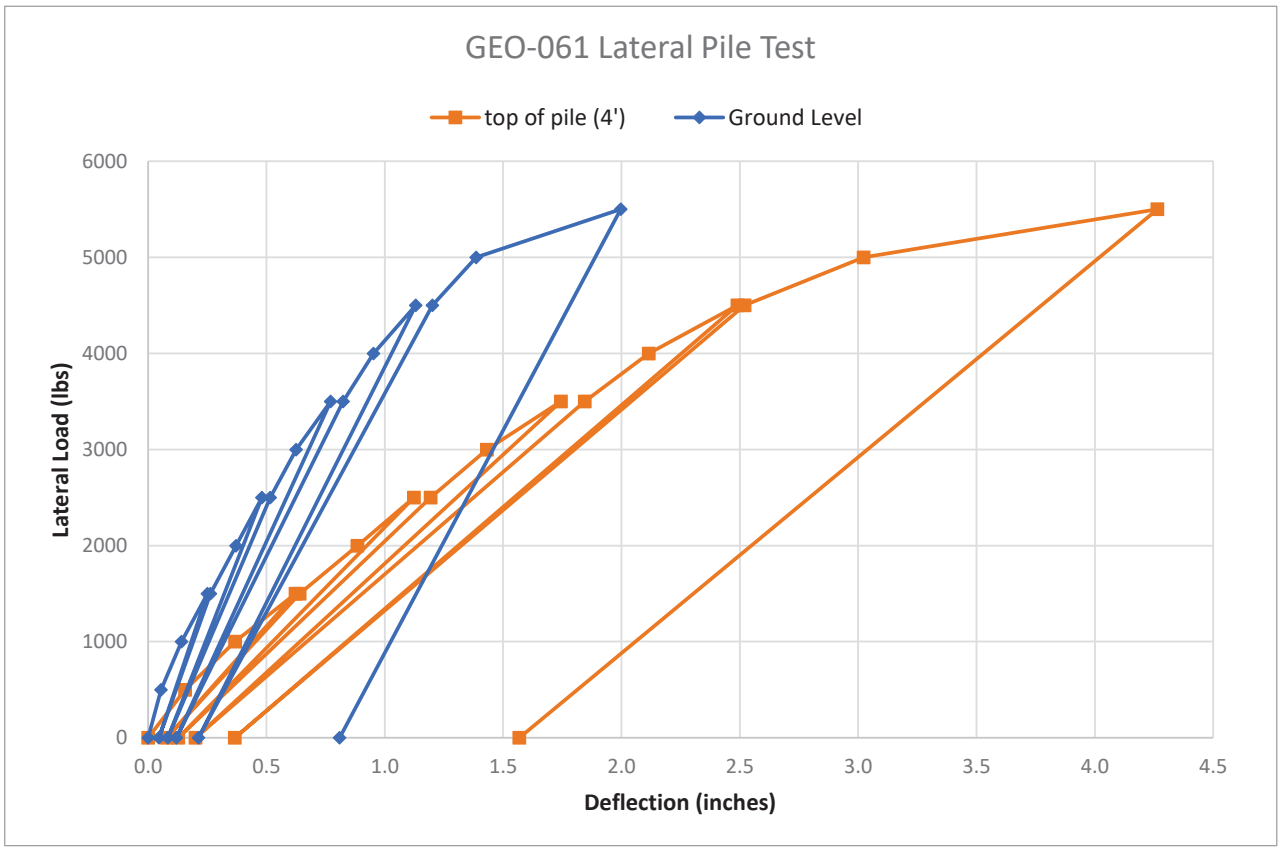
olsson

Field Pile Testing Results

Location:	GEO-061
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project





olsson

Location:	GEO-061
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.994	0.006	0.006	3.997	0.003	0.003	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.980	0.014	0.020	3.985	0.012	0.015	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.956	0.024	0.044	3.960	0.025	0.040	3.992	0.008	0.008	3.900	0.100	0.100
5000	3.909	0.047	0.091	3.910	0.050	0.090	3.962	0.030	0.038	3.958	-0.058	0.042
6000	3.830	0.079	0.170	3.829	0.081	0.171	3.910	0.052	0.090	3.904	0.054	0.096
7000	3.720	0.110	0.280	3.719	0.110	0.281	3.831	0.079	0.169	3.824	0.080	0.176
8000	3.615	0.105	0.385	3.615	0.104	0.385	3.756	0.075	0.244	3.750	0.074	0.250
9000	3.445	0.170	0.555	3.441	0.174	0.559	3.635	0.121	0.365	3.624	0.126	0.376
10000	3.270	0.175	0.730	3.268	0.173	0.732	3.519	0.116	0.481	3.506	0.118	0.494
11000	3.075	0.195	0.925	3.071	0.197	0.929	3.390	0.129	0.610	3.375	0.131	0.625
12000	2.690	0.385	1.310	2.680	0.391	1.320	3.182	0.208	0.818	3.168	0.207	0.832
12680	2.095	0.595	1.905	2.086	0.594	1.914	2.910	0.272	1.090	2.892	0.276	1.108
0	2.165	-0.070	1.835	2.161	-0.075	1.839	2.870	0.040	1.130	2.868	0.024	1.132

olsson

Location:	GEO-063
Test Date:	12/2/2020
Project No.:	A20-1851
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.001	-0.001	-0.001	0.001	-0.001	-0.001	0.002	-0.002	-0.002	0.003	-0.003	-0.003
2000	0.001	0.000	-0.001	0.001	0.000	-0.001	0.003	-0.001	-0.003	0.003	0.000	-0.003
3000	0.001	0.000	-0.001	0.001	0.000	-0.001	0.011	-0.008	-0.011	0.011	-0.008	-0.011
4000	0.002	-0.001	-0.002	0.002	-0.001	-0.002	0.015	-0.004	-0.015	0.015	-0.004	-0.015
5000	0.021	-0.019	-0.021	0.025	-0.023	-0.025	0.023	-0.008	-0.023	0.023	-0.008	-0.023
6000	0.064	-0.043	-0.064	0.068	-0.043	-0.068	0.032	-0.009	-0.032	0.031	-0.008	-0.031

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Field Pile Testing Results

Location:	GEO-063
Test Date:	12/2/2020
Project No.:	A20-1851
Prepared by:	Jake Vencil

Fox Squirrel Solar Project

Lateral

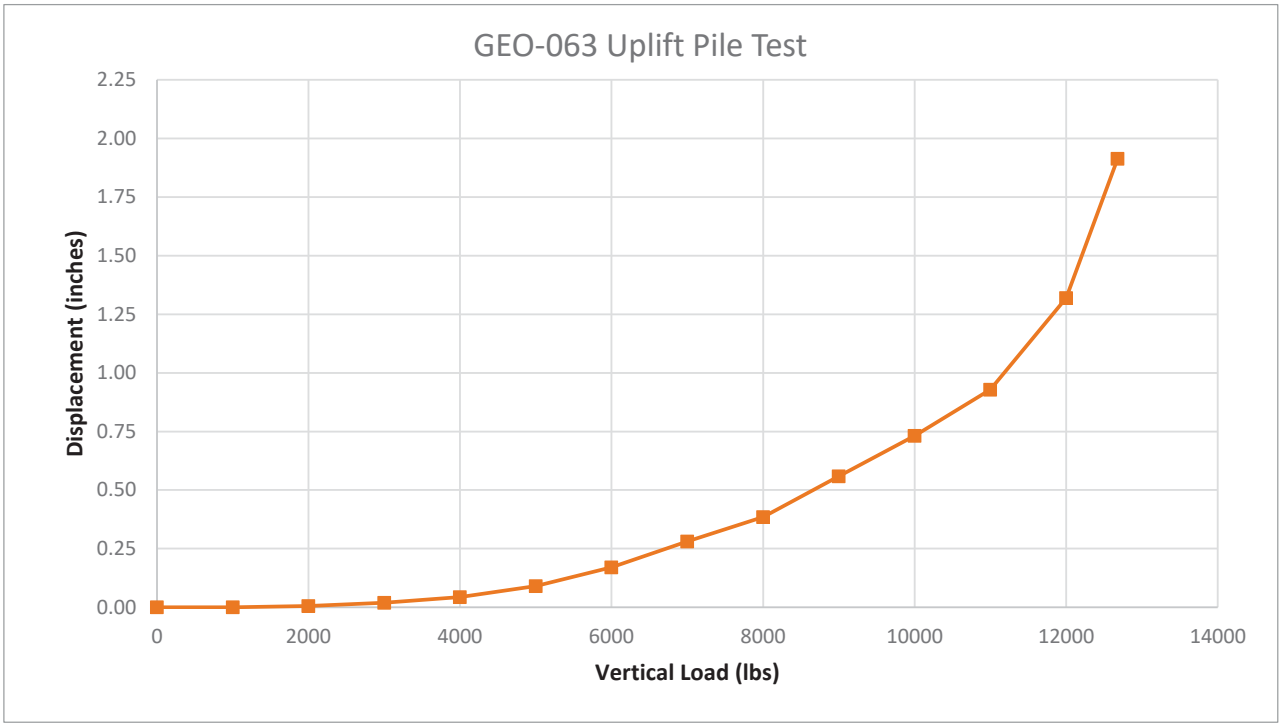
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.837	0.163	0.163	3.836	0.164	0.164	3.947	0.053	0.053	3.946	0.054	0.054
1000	3.623	0.214	0.377	3.623	0.214	0.377	3.862	0.085	0.138	3.861	0.086	0.139
1500	3.350	0.273	0.650	3.348	0.275	0.652	3.744	0.118	0.256	3.740	0.122	0.260
0	3.915	-0.565	0.085	3.930	-0.580	0.070	3.957	-0.213	0.043	3.960	-0.216	0.040
1500	3.321	0.594	0.679	3.322	0.593	0.678	3.725	0.232	0.275	3.724	0.233	0.276
2000	3.063	0.258	0.937	3.057	0.264	0.943	3.610	0.115	0.390	3.607	0.118	0.393
2500	2.770	0.293	1.230	2.764	0.299	1.236	3.476	0.134	0.524	3.474	0.136	0.526
0	3.851	-1.081	0.149	3.863	-1.093	0.137	3.914	-0.438	0.086	3.914	-0.438	0.086
2500	2.650	1.201	1.350	2.648	1.203	1.352	3.410	0.504	0.590	3.406	0.508	0.594
3000	2.368	0.282	1.632	2.363	0.287	1.637	3.277	0.133	0.723	3.269	0.141	0.731
3500	2.028	0.340	1.972	2.017	0.351	1.983	3.112	0.165	0.888	3.094	0.183	0.906
0	3.735	-1.707	0.265	3.761	-1.733	0.239	3.863	-0.751	0.137	3.875	-0.763	0.125
3500	1.896	1.839	2.104	1.893	1.842	2.107	3.025	0.838	0.975	3.018	0.845	0.982
4000	1.533	0.363	2.467	1.528	0.368	2.472	2.845	0.180	1.155	2.831	0.194	1.169
4500	1.150	0.383	2.850	1.141	0.392	2.859	2.646	0.199	1.354	2.626	0.219	1.374
0	3.556	-2.406	0.444	3.584	-2.434	0.416	3.752	-1.106	0.248	3.770	-1.124	0.230
4500	0.911	2.645	3.089	0.908	2.648	3.092	2.495	1.257	1.505	2.481	1.271	1.519
5000	0.510	0.401	3.490	0.501	0.410	3.499	2.284	0.211	1.716	2.262	0.233	1.738
5500	0.324	0.186	3.676	0.324	0.186	3.676	2.019	0.265	1.981	1.992	0.292	2.008
0	3.248	-2.924	0.752	3.282	-2.958	0.718	3.563	-1.544	0.437	3.581	-1.562	0.419

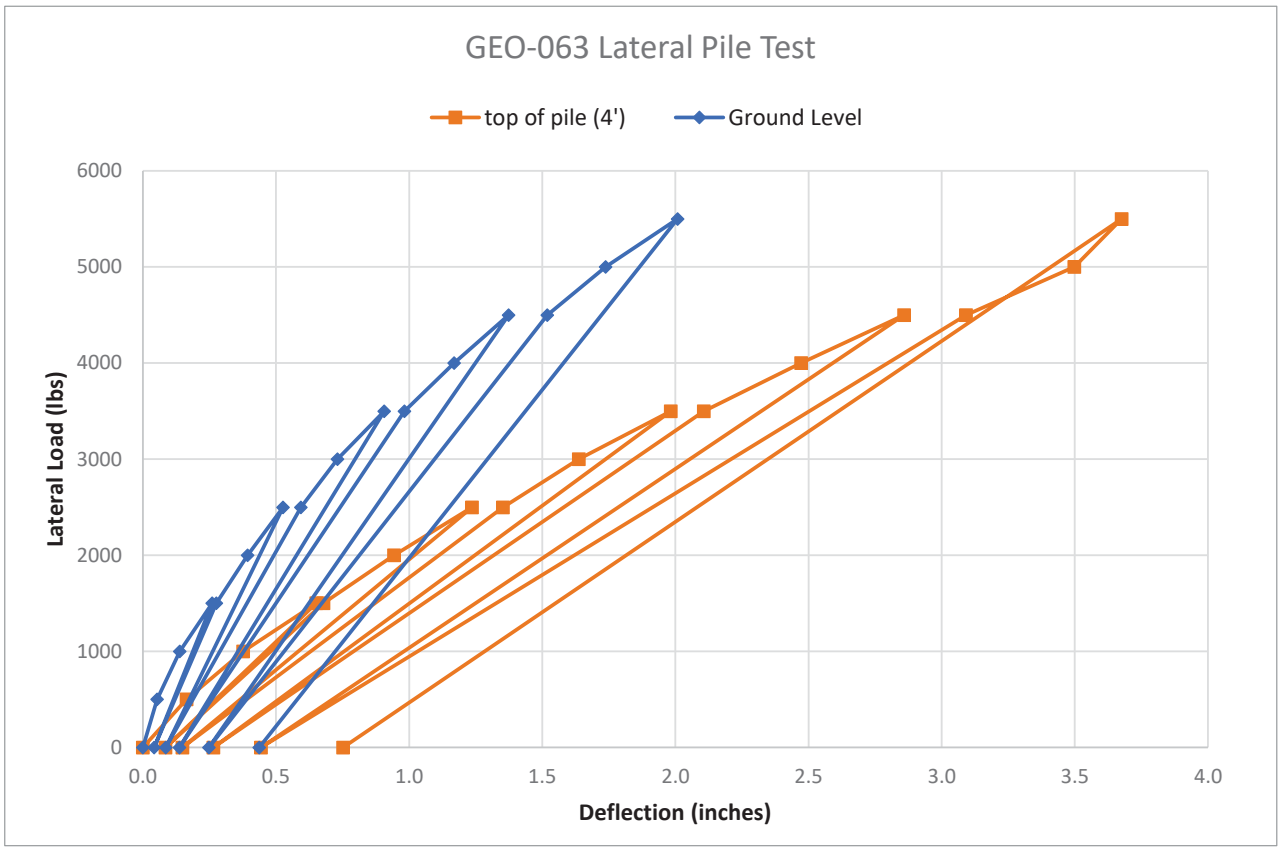
olsson

Field Pile Testing Results

Location:	GEO-063
Test Date:	12/2/2020
Project No.:	A20-1851
Prepared by:	Jake Vencil

Fox Squirrel Solar Project





olsson

Location:	GEO-063
Test Date:	12/2/2020
Project No.:	A20-1851
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.999	0.001	0.001	3.999	0.001	0.001	3.994	0.006	0.006	3.995	0.005	0.005
2000	3.999	0.000	0.001	3.998	0.001	0.002	3.988	0.006	0.012	3.989	0.005	0.011
3000	3.997	0.002	0.003	3.997	0.002	0.003	3.983	0.005	0.017	3.984	0.004	0.016
4000	3.991	0.006	0.009	3.990	0.007	0.010	3.980	0.003	0.020	3.980	0.003	0.020
5000	3.982	0.009	0.018	3.982	0.008	0.018	3.975	0.005	0.025	3.975	0.005	0.025
6000	3.972	0.010	0.028	3.972	0.010	0.028	3.972	0.003	0.028	3.972	0.003	0.028
7000	3.961	0.011	0.039	3.962	0.010	0.038	3.967	0.005	0.033	3.966	0.006	0.034
8000	3.950	0.011	0.050	3.952	0.010	0.048	3.960	0.007	0.040	3.959	0.008	0.041
9000	3.939	0.011	0.061	3.940	0.012	0.060	3.952	0.008	0.048	3.950	0.010	0.050
10000	3.921	0.018	0.079	3.922	0.018	0.078	3.939	0.013	0.061	9.936	-5.984	-5.936
11000	3.900	0.021	0.100	3.900	0.022	0.100	3.919	0.020	0.081	3.914	6.022	0.086
12000	3.867	0.033	0.133	3.866	0.034	0.134	3.985	-0.066	0.015	3.881	0.033	0.119
13000	3.827	0.040	0.173	3.824	0.042	0.176	3.846	0.139	0.154	3.841	0.040	0.159
14000	3.776	0.051	0.224	3.773	0.051	0.227	3.796	0.050	0.204	3.787	0.054	0.213
15000	3.725	0.051	0.275	3.719	0.054	0.281	3.741	0.055	0.259	3.734	0.053	0.266
16000	3.670	0.055	0.330	3.665	0.054	0.335	3.688	0.053	0.312	3.678	0.056	0.322
17000	3.609	0.061	0.391	3.601	0.064	0.399	3.624	0.064	0.376	3.614	0.064	0.386
18000	3.542	0.067	0.458	3.533	0.068	0.467	3.555	0.069	0.445	3.545	0.069	0.455
0	3.578	-0.036	0.422	3.583	-0.050	0.417	3.590	-0.035	0.410	3.590	-0.045	0.410

olsson

Location:	GEO-065
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.003	-0.003	-0.003	0.004	-0.004	-0.004	0.000	0.000	0.000	0.000	0.000	0.000
3000	0.007	-0.004	-0.007	0.007	-0.003	-0.007	0.001	-0.001	-0.001	0.001	-0.001	-0.001
4000	0.009	-0.002	-0.009	0.009	-0.002	-0.009	0.003	-0.002	-0.003	0.003	-0.002	-0.003
5000	0.011	-0.002	-0.011	0.012	-0.003	-0.012	0.006	-0.003	-0.006	0.006	-0.003	-0.006
6000	0.015	-0.004	-0.015	0.016	-0.004	-0.016	0.008	-0.002	-0.008	0.008	-0.002	-0.008
7000	0.019	-0.004	-0.019	0.019	-0.003	-0.019	0.012	-0.004	-0.012	0.012	-0.004	-0.012
8000	0.026	-0.007	-0.026	0.031	-0.012	-0.031	0.015	-0.003	-0.015	0.015	-0.003	-0.015
9000	0.030	-0.004	-0.030	0.033	-0.002	-0.033	0.017	-0.002	-0.017	0.017	-0.002	-0.017
10000	0.036	-0.006	-0.036	0.046	-0.013	-0.046	0.022	-0.005	-0.022	0.020	-0.003	-0.020
11000	0.044	-0.008	-0.044	0.055	-0.009	-0.055	0.025	-0.003	-0.025	0.024	-0.004	-0.024

olsson

Location:	GEO-065
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

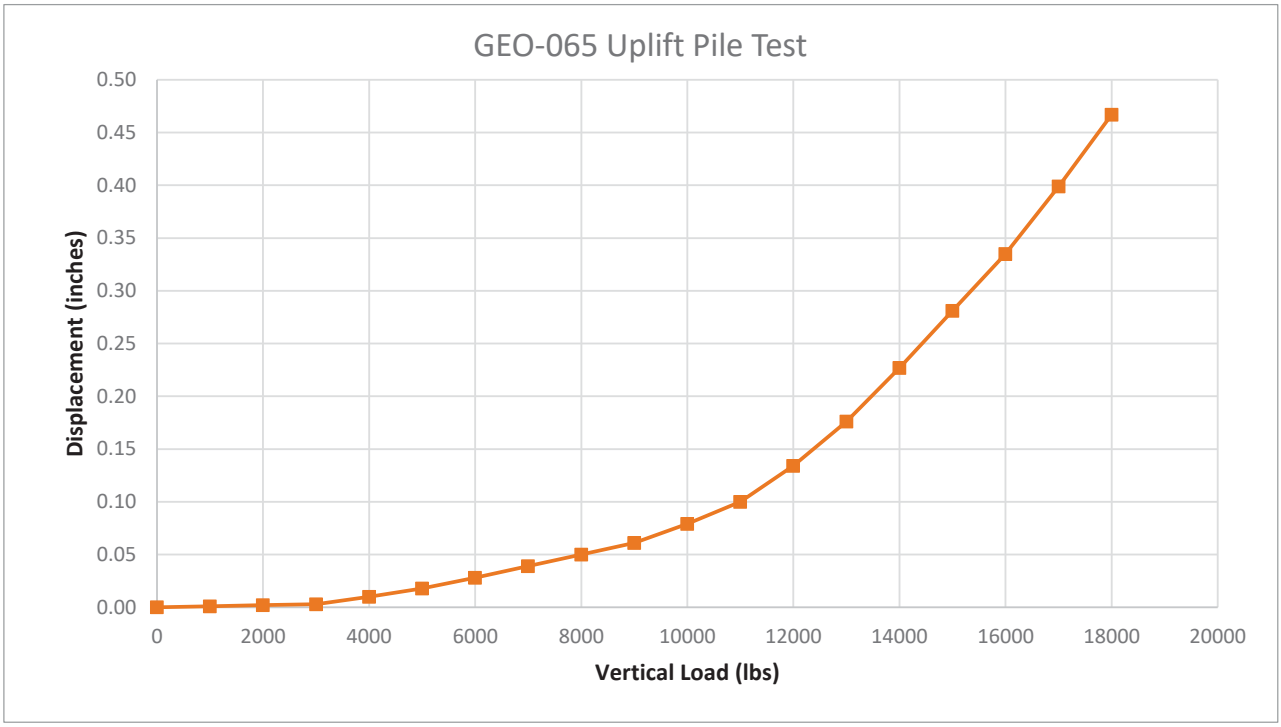
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.817	0.183	0.183	3.814	0.001	0.001	3.957	0.006	0.006	3.957	0.005	0.043
1000	3.638	0.179	0.362	3.636	0.001	0.002	3.894	0.006	0.012	3.894	0.005	0.106
1500	3.439	0.199	0.561	3.438	0.002	0.003	3.815	0.005	0.017	3.814	0.004	0.186
0	3.966	-0.527	0.034	3.972	0.025	0.028	4.000	0.003	0.020	4.000	0.003	0.000
1500	3.424	0.542	0.576	3.427	0.564	0.573	3.813	0.005	0.025	3.813	0.005	0.187
2000	3.201	0.223	0.799	3.201	0.223	0.799	3.722	0.253	0.278	3.722	0.253	0.278
2500	2.993	0.208	1.007	2.993	0.208	1.007	3.636	0.086	0.364	3.636	0.086	0.364
0	3.942	-0.949	0.058	3.949	-0.956	0.051	4.000	-0.364	0.000	4.000	-0.364	0.000
2500	2.953	0.989	1.047	2.953	0.989	1.047	3.620	0.380	0.380	3.619	0.381	0.381
3000	2.730	0.223	1.270	2.730	0.223	1.270	3.530	0.090	0.470	3.526	0.094	0.474
3500	2.481	0.249	1.519	2.481	0.249	1.519	3.422	0.108	0.578	3.418	0.112	0.582
0	3.914	-1.433	0.086	3.923	-1.442	0.077	4.000	-0.578	0.000	4.000	-0.578	0.000
3500	2.447	1.467	1.553	2.447	1.467	1.553	3.404	0.596	0.596	3.403	0.597	0.597
4000	2.213	0.234	1.787	2.212	0.235	1.788	3.306	0.098	0.694	3.303	0.101	0.697
4500	1.957	0.256	2.043	1.956	0.257	2.044	3.195	0.111	0.805	3.190	0.116	0.810
0	3.855	-1.898	0.145	3.865	-1.908	0.135	3.982	-0.787	0.018	3.986	-0.791	0.014
4500	1.866	1.989	2.134	1.866	1.989	2.134	3.147	0.835	0.853	3.145	0.837	0.855
5000	1.554	0.312	2.446	1.552	0.314	2.448	3.008	0.139	0.992	3.004	0.143	0.996
5500	1.045	0.509	2.955	1.040	0.514	2.960	2.775	0.233	1.225	2.768	0.240	1.232
0	3.365	-2.320	0.635	3.376	-2.331	0.624	3.753	-0.978	0.247	3.758	-0.983	0.242

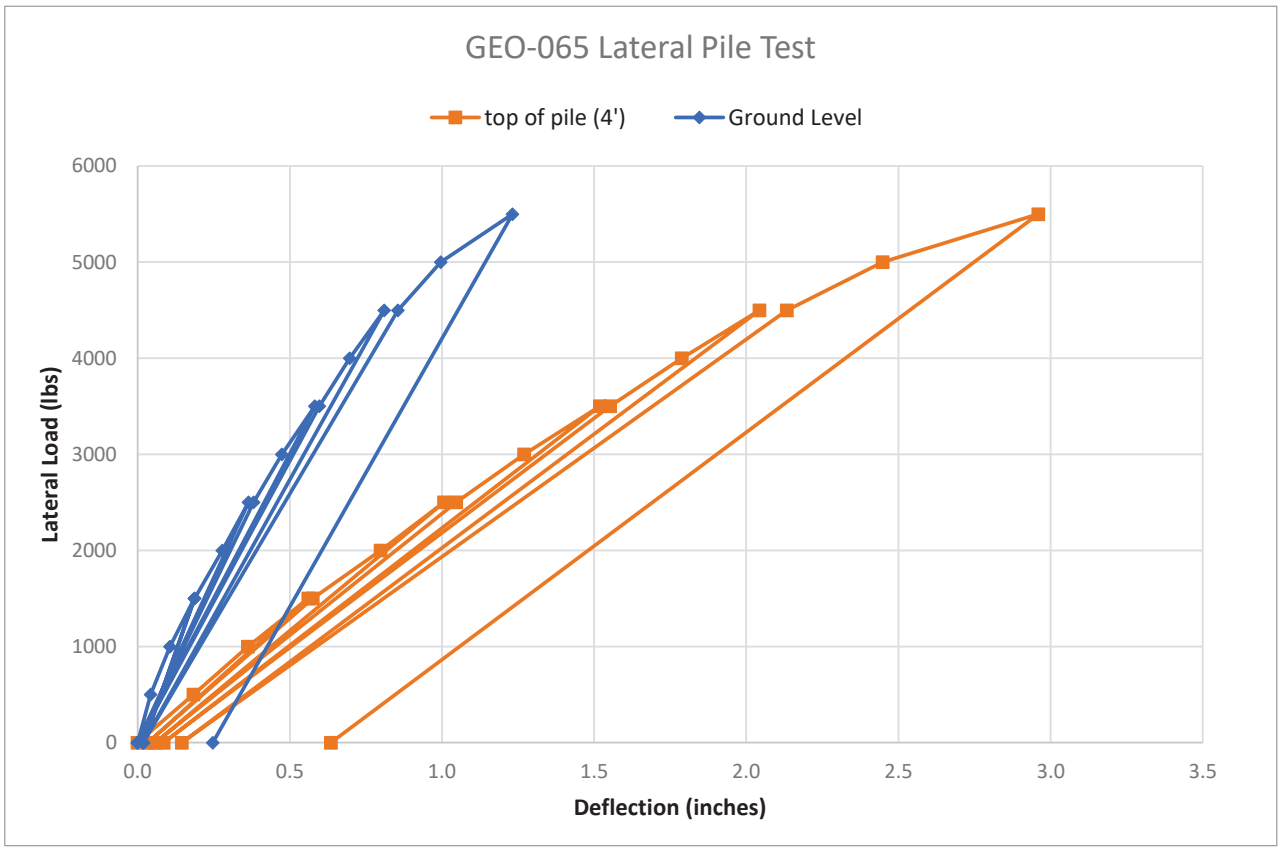
olsson

Location:	GEO-065
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-065
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.005	0.008	3.992	0.005	0.008
3000	3.998	0.002	0.002	3.997	0.003	0.003	3.987	0.005	0.013	3.987	0.005	0.013
4000	3.991	0.007	0.009	3.991	0.006	0.009	3.980	0.007	0.020	3.980	0.007	0.020
5000	3.975	0.016	0.025	3.975	0.016	0.025	3.963	0.017	0.037	3.962	0.018	0.038
6000	3.939	0.036	0.061	3.936	0.039	0.064	3.931	0.032	0.069	3.928	0.034	0.072
7000	3.879	0.060	0.121	3.875	0.061	0.125	3.874	0.057	0.126	3.870	0.058	0.130
8000	3.808	0.071	0.192	3.802	0.073	0.198	3.805	0.069	0.195	3.802	0.068	0.198
9000	3.679	0.129	0.321	3.669	0.133	0.331	3.679	0.126	0.321	3.670	0.132	0.330
10000	3.530	0.149	0.470	3.520	0.149	0.480	3.535	0.144	0.465	3.526	0.144	0.474
11000	3.310	0.220	0.690	3.303	0.217	0.697	3.322	0.213	0.678	3.314	0.212	0.686
12000	3.085	0.225	0.915	3.070	0.233	0.930	3.099	0.223	0.901	3.084	0.230	0.916
12840	2.670	0.415	1.330	2.658	0.412	1.342	2.700	0.399	1.300	2.689	0.395	1.311
0	2.700	-0.030	1.300	2.712	-0.054	1.288	2.735	-0.035	1.265	2.742	-0.053	1.258

Field Pile Testing Results

Location:	GEO-067
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

olsson

Lateral

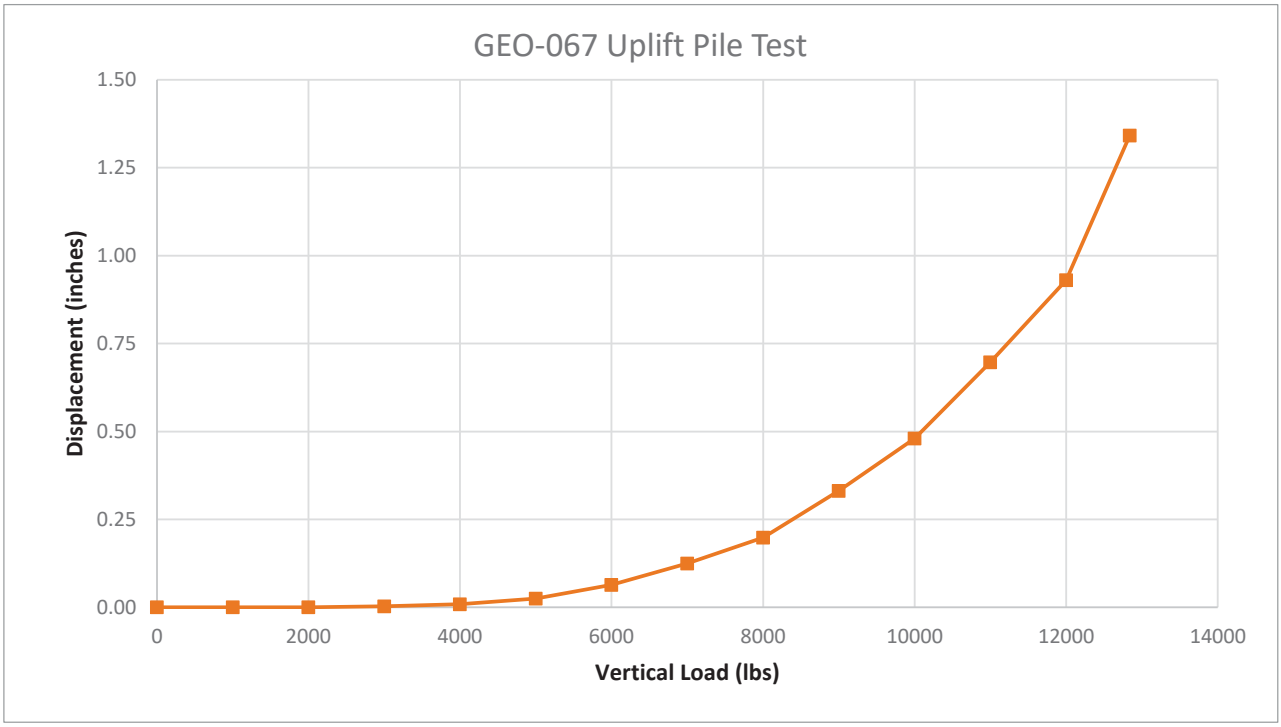
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.792	0.208	0.208	3.792	0.208	0.208	3.937	0.063	0.063	3.937	0.063	0.063
1000	3.614	0.178	0.386	3.614	0.178	0.386	3.878	0.059	0.122	3.878	0.059	0.122
1500	3.411	0.203	0.589	3.411	0.203	0.589	3.794	0.084	0.206	3.791	0.087	0.209
0	3.945	-0.534	0.055	3.950	-0.539	0.050	3.968	-0.174	0.032	3.970	-0.176	0.030
1500	3.385	0.560	0.615	3.385	0.560	0.615	3.783	0.185	0.217	3.783	0.185	0.217
2000	3.133	0.252	0.867	3.133	0.252	0.867	3.686	0.097	0.314	3.684	0.099	0.316
2500	2.893	0.240	1.107	2.892	0.241	1.108	3.590	0.096	0.410	3.585	0.101	0.415
0	3.892	-0.999	0.108	3.896	-1.003	0.104	3.940	-0.350	0.060	3.943	-0.353	0.057
2500	2.831	1.061	1.169	2.831	1.061	1.169	3.560	0.380	0.440	3.557	0.383	0.443
3000	2.581	0.250	1.419	2.581	0.250	1.419	3.460	0.100	0.540	3.455	0.105	0.545
3500	2.305	0.276	1.695	2.303	0.278	1.697	3.345	0.115	0.655	3.336	0.124	0.664
0	3.821	-1.516	0.179	3.824	-1.519	0.176	3.909	-0.564	0.091	3.914	-0.569	0.086
3500	2.223	1.598	1.777	2.223	1.598	1.777	3.300	0.609	0.700	3.295	0.614	0.705
4000	1.941	0.282	2.059	1.940	0.283	2.060	3.184	0.116	0.816	3.174	0.126	0.826
4500	1.640	0.301	2.360	1.636	0.305	2.364	3.050	0.134	0.950	3.038	0.146	0.962
0	3.734	-2.094	0.266	3.755	-2.115	0.245	3.857	-0.807	0.143	3.867	-0.817	0.133
4500	1.496	2.238	2.504	1.495	2.239	2.505	2.973	0.884	1.027	2.966	0.891	1.034
5000	1.140	0.356	2.860	1.136	0.360	2.864	2.821	0.152	1.179	2.808	0.165	1.192
5500	0.577	0.563	3.423	0.573	0.567	3.427	2.573	0.248	1.427	2.562	0.259	1.438
0	3.253	-2.676	0.747	3.266	-2.689	0.734	3.618	-1.045	0.382	3.647	-1.074	0.353

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Location:	GEO-067
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-067
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
3000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.983	0.017	0.017	3.986	0.014	0.014	3.993	0.007	0.007	3.993	0.007	0.007
5000	3.960	0.023	0.040	3.955	0.031	0.045	3.973	0.020	0.027	3.970	0.023	0.030
6000	3.885	0.075	0.115	3.879	0.076	0.121	3.907	0.066	0.093	3.900	0.070	0.100
7000	3.755	0.130	0.245	3.748	0.131	0.252	3.783	0.124	0.217	3.780	0.120	0.220
8000	3.535	0.220	0.465	3.518	0.230	0.482	3.612	0.171	0.388	3.600	0.180	0.400
9000	3.080	0.455	0.920	2.955	0.563	1.045	3.838	-0.226	0.162	3.826	-0.226	0.174
9800	2.316	0.764	1.684	2.282	0.673	1.718	3.100	0.738	0.900	3.078	0.748	0.922
0	2.352	-0.036	1.648				3.093	0.007	0.907			

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Field Pile Testing Results

Location:	GEO-069
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.009	-0.009	-0.009	0.009	-0.009	-0.009	0.003	-0.003	-0.003	0.003	-0.003	-0.003
3000	0.010	-0.001	-0.010	0.010	-0.001	-0.010	0.005	-0.002	-0.005	0.005	-0.002	-0.005
4000	0.013	-0.003	-0.013	0.013	-0.003	-0.013	0.010	-0.005	-0.010	0.010	-0.005	-0.010
5000	0.022	-0.009	-0.022	0.022	-0.009	-0.022	0.018	-0.008	-0.018	0.018	-0.008	-0.018
6000	0.038	-0.016	-0.038	0.038	-0.016	-0.038	0.025	-0.007	-0.025	0.025	-0.007	-0.025
7000	0.051	-0.013	-0.051	0.051	-0.013	-0.051	0.031	-0.006	-0.031	0.031	-0.006	-0.031

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Field Pile Testing Results

Location:	GEO-069
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

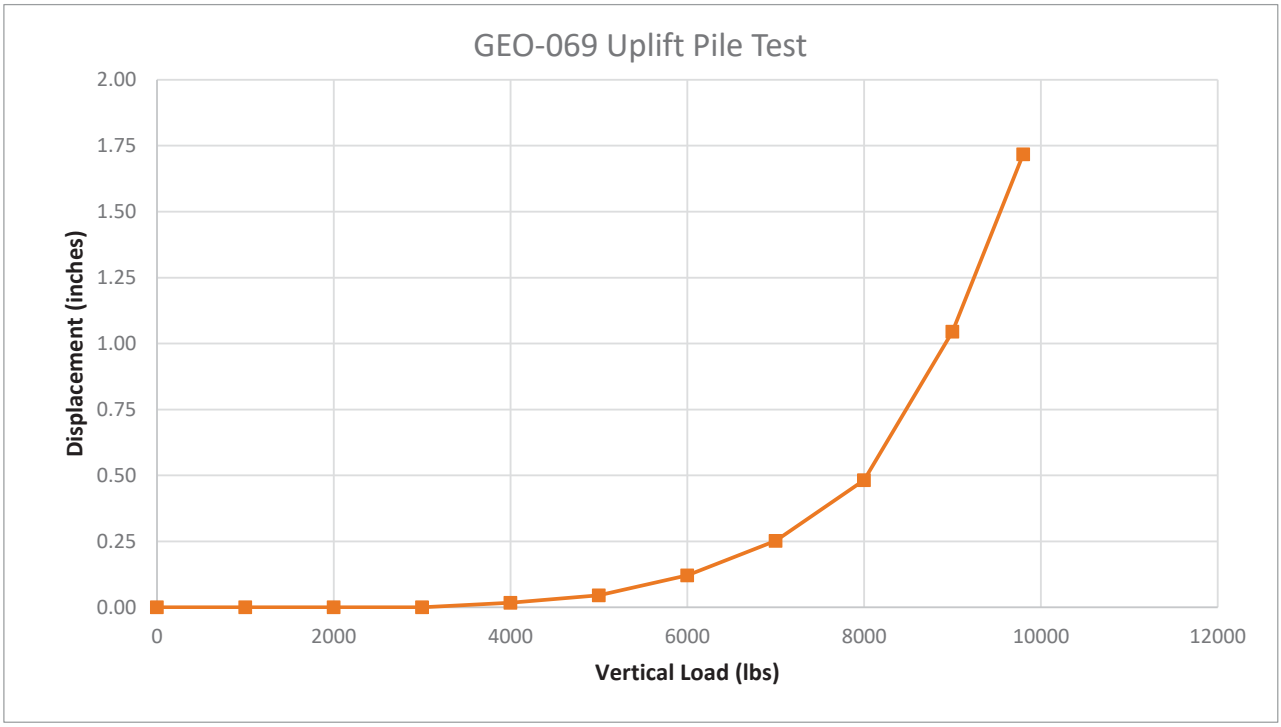
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.775	0.225	0.225	3.777	0.223	0.223	3.922	0.078	0.078	3.922	0.078	0.078
1000	3.549	0.226	0.451	3.548	0.227	0.452	3.832	0.090	0.168	3.830	0.092	0.170
1500	3.265	0.284	0.735	3.265	0.284	0.735	3.709	0.123	0.291	3.704	0.128	0.296
0	3.945	-0.680	0.055	3.956	-0.691	0.044	3.970	-0.261	0.030	3.976	-0.267	0.024
1500	3.220	0.725	0.780	3.219	0.726	0.781	3.680	0.290	0.320	3.680	0.290	0.320
2000	2.932	0.288	1.068	2.931	0.289	1.069	3.552	0.128	0.448	3.546	0.134	0.454
2500	2.559	0.373	1.441	2.555	0.377	1.445	3.379	0.173	0.621	3.366	0.186	0.634
0	3.862	-1.303	0.138	3.877	-1.318	0.123	3.926	-0.547	0.074	3.933	-0.554	0.067
2500	2.431	1.431	1.569	2.430	1.432	1.570	3.309	0.617	0.691	3.301	0.625	0.699
3000	2.058	0.373	1.942	2.054	0.377	1.946	3.125	0.184	0.875	3.110	0.199	0.890
3500	1.631	0.427	2.369	1.625	0.433	2.375	2.881	0.244	1.119	2.879	0.246	1.121
0	3.704	-2.073	0.296	3.716	-2.085	0.284	3.829	-0.948	0.171	3.836	-0.955	0.164
3500	1.392	2.312	2.608	1.389	2.315	2.611	2.760	1.069	1.240	2.747	1.082	1.253
4000	0.920	0.472	3.080	0.915	0.477	3.085	2.515	0.245	1.485	2.490	0.270	1.510
4500	0.104	0.816	3.896	0.102	0.818	3.898	2.074	0.441	1.926	2.057	0.458	1.943
0	3.094	-2.990	0.906	3.100	-2.996	0.900	3.450	-1.376	0.550	3.456	-1.382	0.544

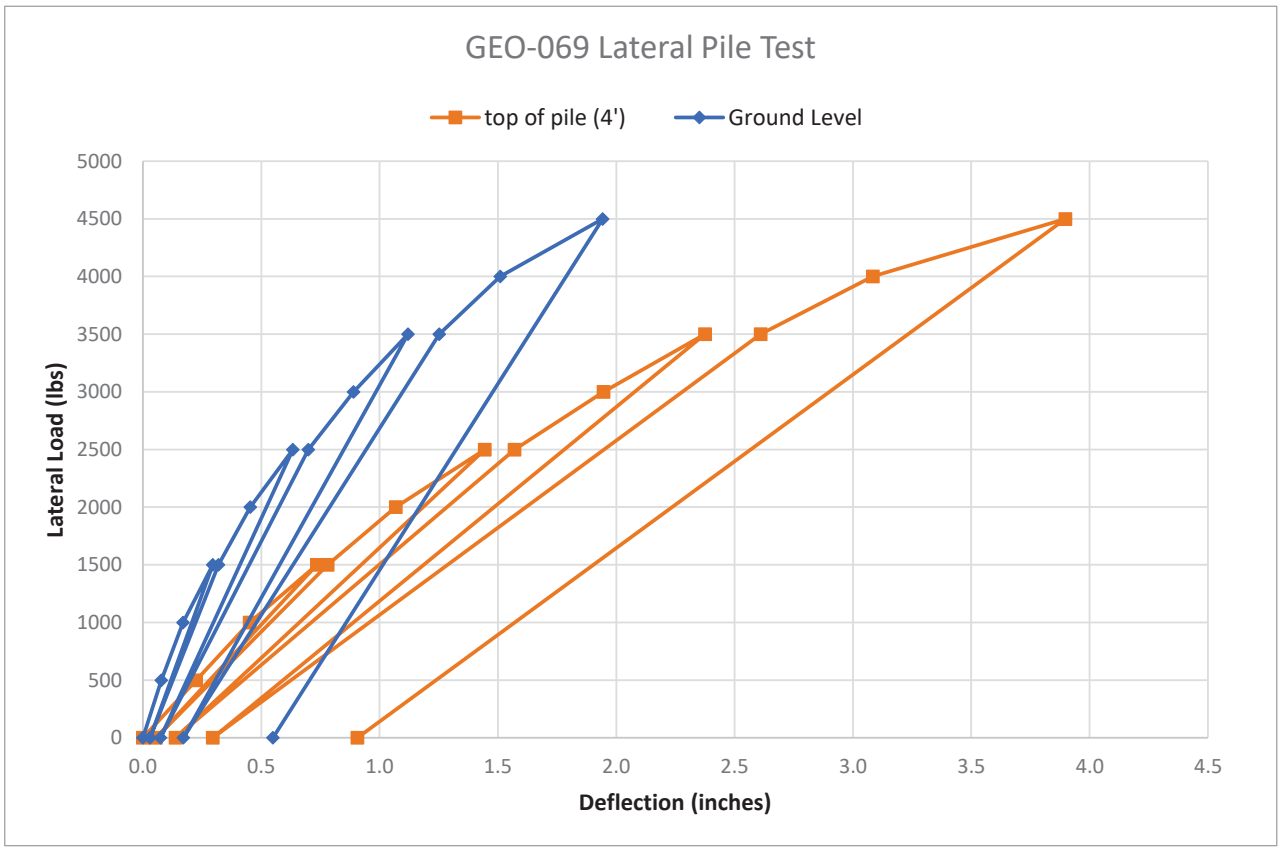
olsson

Location:	GEO-069
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





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Location:	GEO-069
Test Date:	12/7/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.993	0.004	0.007	3.993	0.004	0.007
3000	3.994	0.006	0.006	3.994	0.006	0.006	3.988	0.005	0.012	3.988	0.005	0.012
4000	3.976	0.018	0.024	3.974	0.020	0.026	3.976	0.012	0.024	3.974	0.014	0.026
5000	3.930	0.046	0.070	3.924	0.050	0.076	3.940	0.036	0.060	3.932	0.042	0.068
6000	3.857	0.073	0.143	3.846	0.078	0.154	3.873	0.067	0.127	3.863	0.069	0.137
7000	3.743	0.114	0.257	3.723	0.123	0.277	3.769	0.104	0.231	3.751	0.112	0.249
8000	3.525	0.218	0.475	3.494	0.229	0.506	3.575	0.194	0.425	3.546	0.205	0.454
9000	3.046	0.479	0.954	2.994	0.500	1.006	3.194	0.381	0.806	3.146	0.400	0.854
9520	2.364	0.682	1.636	2.311	0.683	1.689	2.751	0.443	1.249	2.702	0.444	1.298
0	2.381	-0.017	1.619	2.393	-0.082	1.607	2.733	0.018	1.267	2.739	-0.037	1.261

olsson

Location:	GEO-072
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	-0.003	-0.003	0.003	-0.003	-0.003
3000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	-0.005	-0.008	0.008	-0.005	-0.008
4000	0.000	0.000	0.000	0.002	-0.002	-0.002	0.015	-0.007	-0.015	0.016	-0.008	-0.016
5000	0.003	-0.003	-0.003	0.003	-0.001	-0.003	0.023	-0.008	-0.023	0.024	-0.008	-0.024
6000	0.003	0.000	-0.003	0.003	0.000	-0.003	0.031	-0.008	-0.031	0.033	-0.009	-0.033
7000	0.021	-0.018	-0.021	0.029	-0.026	-0.029	0.039	-0.008	-0.039	0.039	-0.006	-0.039
8000	0.035	-0.014	-0.035	0.042	-0.013	-0.042	0.046	-0.007	-0.046	0.046	-0.007	-0.046
9000	0.046	-0.011	-0.046	0.052	-0.010	-0.052	0.061	-0.015	-0.061	0.063	-0.017	-0.063

olsson

Field Pile Testing Results

Location:	GEO-072
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

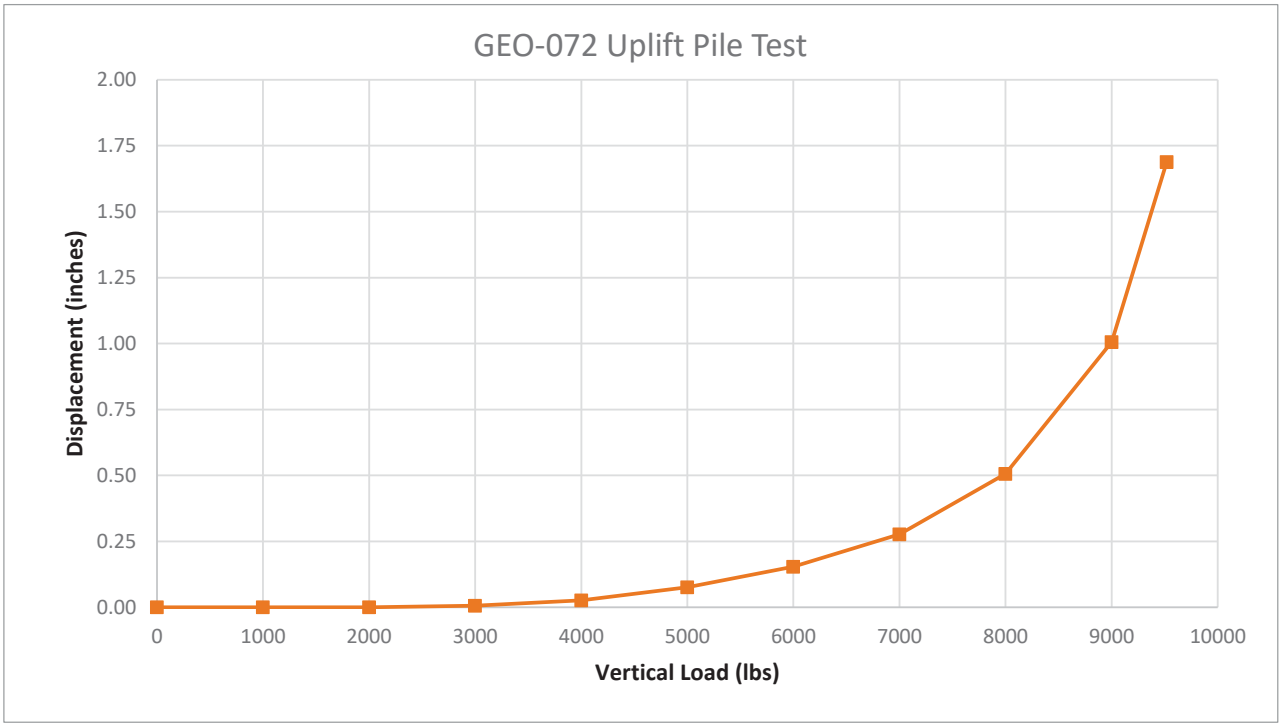
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.791	0.209	0.209	3.791	0.209	0.209	3.942	0.058	0.058	3.940	0.060	0.060
1000	3.556	0.235	0.444	3.555	0.236	0.445	3.855	0.087	0.145	3.851	0.091	0.149
1500	3.264	0.292	0.736	3.263	0.293	0.737	3.738	0.117	0.262	3.735	0.120	0.265
0	3.913	-0.649	0.087	3.917	-0.653	0.083	3.968	-0.230	0.032	3.972	-0.234	0.028
1500	3.215	0.698	0.785	3.215	0.698	0.785	3.719	0.249	0.281	3.718	0.250	0.282
2000	2.820	0.395	1.180	2.820	0.395	1.180	3.600	0.119	0.400	3.592	0.127	0.408
2500	2.530	0.290	1.470	2.528	0.292	1.472	3.425	0.175	0.575	3.418	0.182	0.582
0	3.818	-1.288	0.182	3.829	-1.299	0.171	3.922	-0.497	0.078	3.936	-0.511	0.064
2500	2.443	1.375	1.557	2.443	1.375	1.557	3.378	0.544	0.622	3.372	0.550	0.628
3000	2.051	0.392	1.949	2.049	0.394	1.951	3.203	0.175	0.797	3.191	0.187	0.809
3500	1.604	0.447	2.396	1.599	0.452	2.401	2.985	0.218	1.015	2.967	0.236	1.033
0	3.612	-2.008	0.388	3.647	-2.043	0.353	3.803	-0.818	0.197	3.818	-0.833	0.182
3500	1.393	2.219	2.607	1.390	2.222	2.610	2.862	0.941	1.138	2.848	0.955	1.152
4000	0.927	0.466	3.073	0.919	0.474	3.081	2.641	0.221	1.359	2.609	0.253	1.391
4500	0.369	0.558	3.631	0.360	0.567	3.640	2.340	0.301	1.660	2.305	0.336	1.695
0	2.981	-2.612	1.019	3.013	-2.644	0.987	3.412	-1.072	0.588	3.430	-1.090	0.570

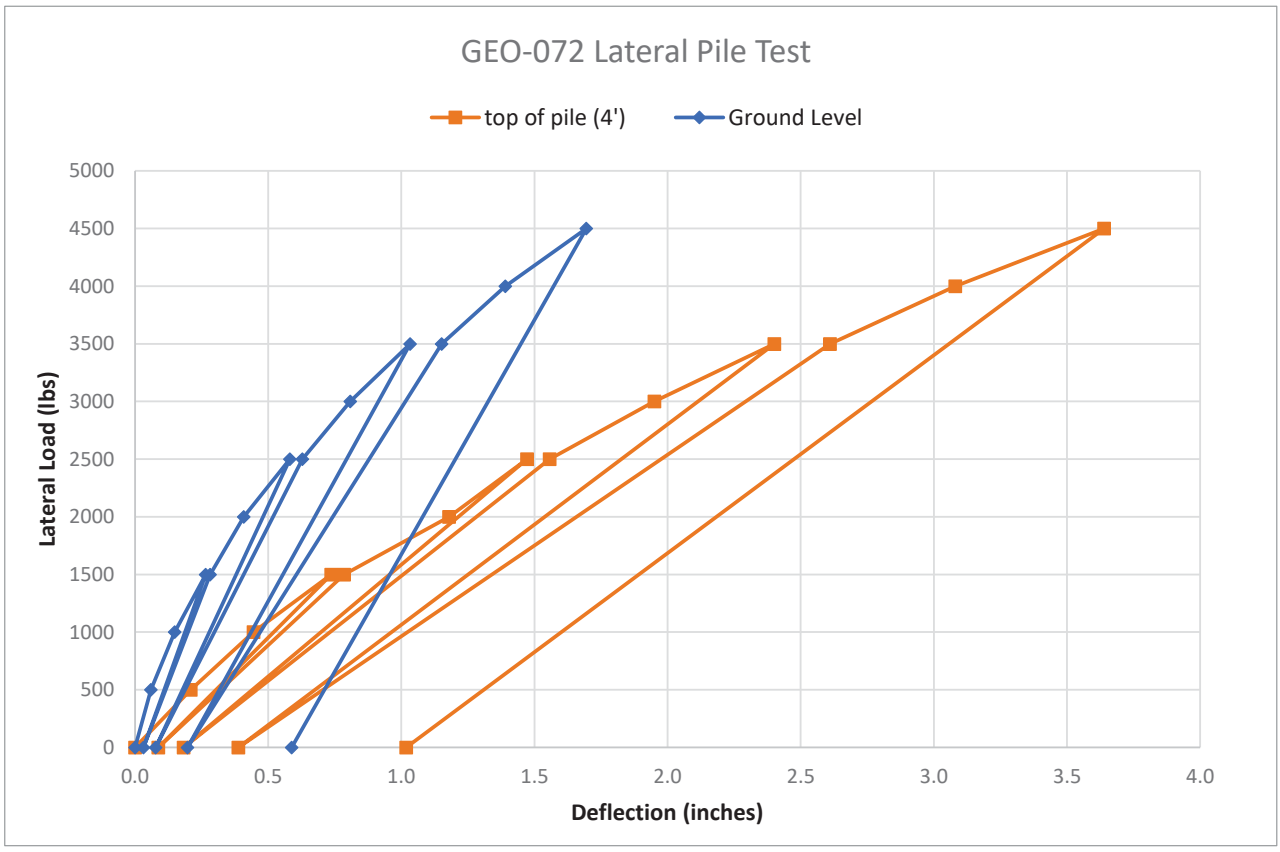
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Field Pile Testing Results

Location:	GEO-072
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-072
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.996	0.004	0.004	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.004	0.008	3.992	0.005	0.008
3000	4.000	0.000	0.000	3.999	0.001	0.001	3.990	0.002	0.010	3.990	0.002	0.010
4000	3.994	0.006	0.006	3.994	0.005	0.006	3.988	0.002	0.012	3.988	0.002	0.012
5000	3.988	0.006	0.012	3.988	0.006	0.012	3.985	0.003	0.015	3.985	0.003	0.015
6000	3.980	0.008	0.020	3.980	0.008	0.020	3.983	0.002	0.017	3.982	0.003	0.018
7000	3.970	0.010	0.030	3.969	0.011	0.031	3.978	0.005	0.022	3.976	0.006	0.024
8000	3.958	0.012	0.042	3.957	0.012	0.043	3.971	0.007	0.029	3.969	0.007	0.031
9000	3.945	0.013	0.055	3.943	0.014	0.057	3.963	0.008	0.037	3.960	0.009	0.040
10000	3.932	0.013	0.068	3.930	0.013	0.070	3.953	0.010	0.047	3.950	0.010	0.050
11000	3.916	0.016	0.084	3.914	0.016	0.086	3.941	0.012	0.059	3.936	0.014	0.064
12000	3.895	0.021	0.105	3.892	0.022	0.108	3.921	0.020	0.079	3.916	0.020	0.084
13000	3.870	0.025	0.130	3.868	0.024	0.132	3.901	0.020	0.099	3.895	0.021	0.105
14000	3.841	0.029	0.159	3.838	0.030	0.162	3.875	0.026	0.125	3.867	0.028	0.133
15000	3.812	0.029	0.188	3.807	0.031	0.193	3.847	0.028	0.153	3.839	0.028	0.161
16000	3.778	0.034	0.222	3.772	0.035	0.228	3.814	0.033	0.186	3.806	0.033	0.194
17000	3.733	0.045	0.267	3.730	0.042	0.270	3.776	0.038	0.224	3.766	0.040	0.234
18000	3.700	0.033	0.300	3.690	0.040	0.310	3.740	0.036	0.260	3.729	0.037	0.271
0	3.759	-0.059	0.241	3.761	-0.071	0.239	3.769	-0.029	0.231	3.771	-0.042	0.229

olsson

Location:	GEO-074
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

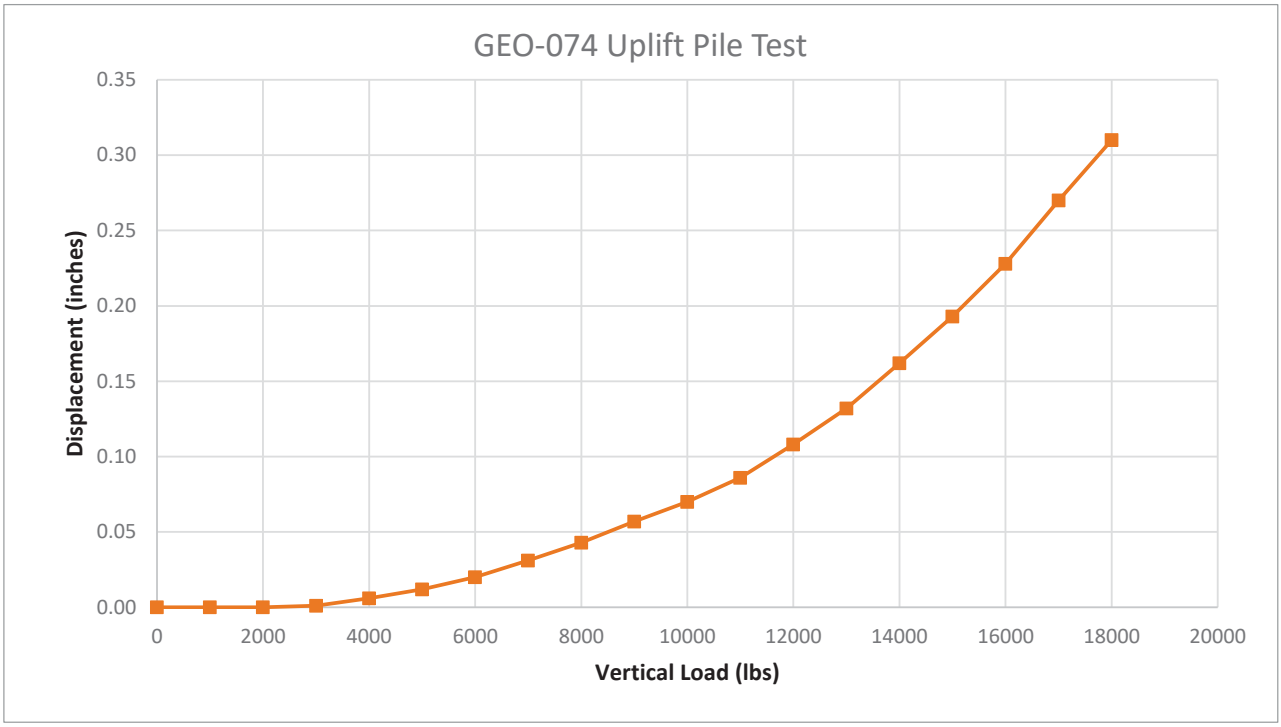
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.844	0.156	0.156	3.845	0.155	0.155	3.951	0.049	0.049	3.952	0.048	0.048
1000	3.645	0.199	0.355	3.645	0.199	0.355	3.876	0.075	0.124	3.874	0.077	0.126
1500	3.423	0.222	0.577	3.424	0.221	0.576	3.787	0.089	0.213	3.785	0.091	0.215
0	3.963	-0.540	0.037	3.969	-0.546	0.031	3.984	-0.197	0.016	3.985	-0.198	0.015
1500	3.372	0.591	0.628	3.374	0.589	0.626	3.763	0.221	0.237	3.762	0.222	0.238
2000	3.166	0.206	0.834	3.167	0.205	0.833	3.683	0.080	0.317	3.680	0.083	0.320
2500	2.895	0.271	1.105	2.902	0.264	1.098	3.571	0.112	0.429	3.570	0.113	0.430
0	3.937	-1.042	0.063	3.946	-1.051	0.054	3.969	-0.398	0.031	3.972	-0.401	0.028
2500	2.869	1.068	1.131	2.880	1.057	1.120	3.553	0.416	0.447	3.553	0.416	0.447
3000	2.611	0.258	1.389	2.612	0.257	1.388	3.450	0.103	0.550	3.447	0.106	0.553
3500	2.394	0.217	1.606	2.395	0.216	1.605	3.360	0.090	0.640	3.356	0.094	0.644
0	3.916	-1.522	0.084	3.929	-1.535	0.071	3.957	-0.597	0.043	3.961	-0.601	0.039
3500	2.337	1.579	1.663	2.349	1.567	1.651	3.328	0.629	0.672	3.326	0.631	0.674
4000	2.087	0.250	1.913	2.090	0.247	1.910	3.228	0.100	0.772	3.224	0.104	0.776
4500	1.856	0.231	2.144	1.857	0.230	2.143	3.132	0.096	0.868	3.127	0.101	0.873
0	3.887	-2.031	0.113	3.900	-2.044	0.100	3.938	-0.806	0.062	3.944	-0.812	0.056
4500	1.713	2.174	2.287	1.715	2.172	2.285	3.062	0.876	0.938	3.058	0.880	0.942
5000	1.465	0.248	2.535	1.464	0.249	2.536	2.960	0.102	1.040	2.955	0.107	1.045
5500	0.847	0.618	3.153	0.842	0.623	3.158	2.695	0.265	1.305	2.684	0.276	1.316
0	3.320	-2.473	0.680	3.335	-2.488	0.665	3.685	-0.990	0.315	3.692	-0.997	0.308

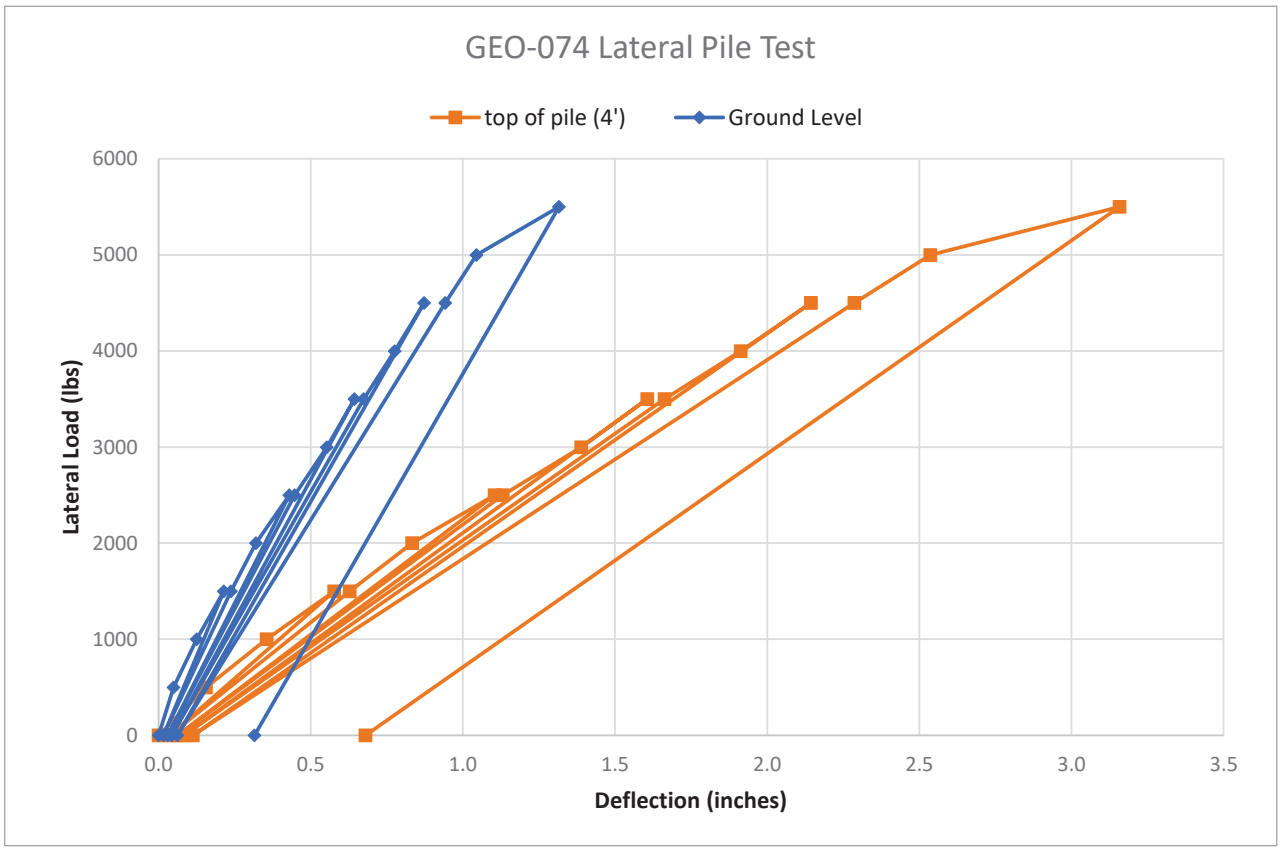
olsson

Field Pile Testing Results

Location:	GEO-074
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project





olsson

Location:	GEO-074
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.006	0.006	3.993	0.007	0.007
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.988	0.006	0.012	3.988	0.005	0.012
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.985	0.003	0.015	3.984	0.004	0.016
4000	3.997	0.003	0.003	3.997	0.003	0.003	3.982	0.003	0.018	3.981	0.003	0.019
5000	3.991	0.006	0.009	3.992	0.005	0.008	3.979	0.003	0.021	3.977	0.004	0.023
6000	3.981	0.010	0.019	3.981	0.011	0.019	3.973	0.006	0.027	3.971	0.006	0.029
7000	3.965	0.016	0.035	3.962	0.019	0.038	3.963	0.010	0.037	3.959	0.012	0.041
8000	3.928	0.037	0.072	3.924	0.038	0.076	3.934	0.029	0.066	3.930	0.029	0.070
9000	3.875	0.053	0.125	3.868	0.056	0.132	3.890	0.044	0.110	3.879	0.051	0.121
10000	3.805	0.070	0.195	3.795	0.073	0.205	3.824	0.066	0.176	3.814	0.065	0.186
11000	3.712	0.093	0.288	3.699	0.096	0.301	3.742	0.082	0.258	3.728	0.086	0.272
12000	3.586	0.126	0.414	3.552	0.147	0.448	3.617	0.125	0.383	3.594	0.134	0.406
13000	3.360	0.226	0.640	3.318	0.234	0.682	3.422	0.195	0.578	3.387	0.207	0.613
14000	3.023	0.337	0.977	2.964	0.354	1.036	3.141	0.281	0.859	3.092	0.295	0.908
14800	1.499	1.524	2.501	1.433	1.531	2.567	2.183	0.958	1.817	2.138	0.954	1.862
0	1.479	0.020	2.521	1.479	-0.046	2.521	2.149	0.034	1.851	2.143	-0.005	1.857

olsson

Location:	GEO-076
Test Date:	12/3/2020
Project No.:	A20-1851
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	-0.002	-0.002	0.002	-0.002	-0.002
2000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	-0.002	-0.004	0.005	-0.003	-0.005
3000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	-0.005	-0.009	0.010	-0.005	-0.010
4000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	-0.007	-0.016	0.017	-0.007	-0.017
5000	0.000	0.000	0.000	0.000	0.000	0.000	0.024	-0.008	-0.024	0.024	-0.007	-0.024
6000	0.000	0.000	0.000	0.000	0.000	0.000	0.033	-0.009	-0.033	0.034	-0.010	-0.034
7000	0.000	0.000	0.000	0.000	0.000	0.000	0.040	-0.007	-0.040	0.043	-0.009	-0.043
8000	0.000	0.000	0.000	0.000	0.000	0.000	0.050	-0.010	-0.050	0.054	-0.011	-0.054
9000	0.000	0.000	0.000	0.000	0.000	0.000	0.060	-0.010	-0.060	0.065	-0.011	-0.065
10000	0.000	0.000	0.000	0.000	0.000	0.000	0.073	-0.013	-0.073	0.072	-0.007	-0.072
11000	0.000	0.000	0.000	0.000	0.000	0.000	0.085	-0.012	-0.085	0.098	-0.026	-0.098
12000	0.009	-0.009	-0.009	0.008	-0.008	-0.008	0.300	-0.215	-0.300	0.400	-0.302	-0.400
13000	0.019	-0.010	-0.019	0.019	-0.011	-0.019	1.011	-0.711	-1.011	1.017	-0.617	-1.017
0	0.015	0.004	-0.015	0.015	0.004	-0.015	0.024	0.987	-0.024	0.024	0.993	-0.024

olsson

Field Pile Testing Results

Location:	GEO-076
Test Date:	12/3/2020
Project No.:	A20-1851
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

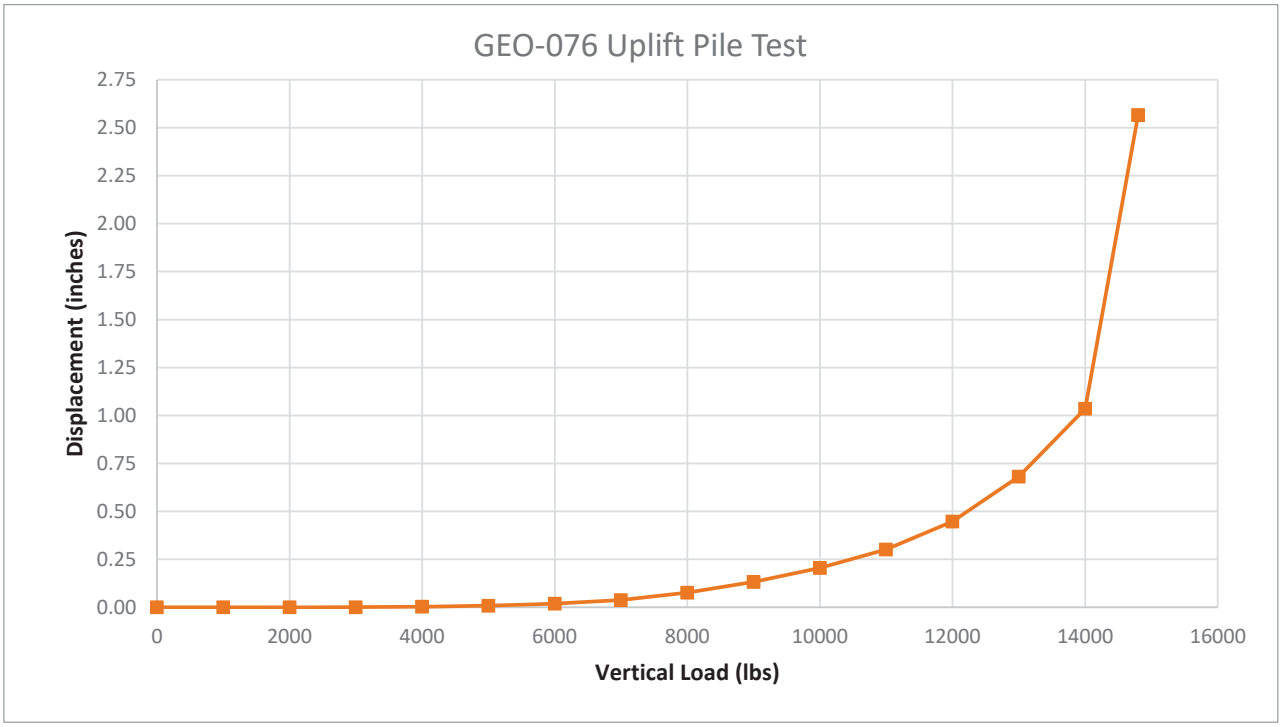
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.763	0.237	0.237	3.764	0.236	0.236	3.907	0.093	0.093	3.907	0.093	0.093
1000	3.474	0.289	0.526	3.479	0.284	0.521	3.794	0.113	0.206	3.794	0.113	0.206
1500	3.235	0.239	0.765	3.242	0.232	0.758	3.700	0.094	0.300	3.699	0.095	0.301
0	3.963	-0.728	0.037	3.978	-0.743	0.022	3.979	-0.279	0.021	3.981	-0.281	0.019
1500	3.237	0.726	0.763	3.246	0.717	0.754	3.700	0.279	0.300	3.699	0.280	0.301
2000	3.004	0.233	0.996	3.012	0.225	0.988	3.607	0.093	0.393	3.607	0.093	0.393
2500	2.758	0.246	1.242	2.767	0.237	1.233	3.505	0.102	0.495	3.505	0.102	0.495
0	3.953	-1.195	0.047	3.968	-1.210	0.032	3.972	-0.467	0.028	3.979	-0.474	0.021
2500	2.721	1.232	1.279	2.730	1.223	1.270	3.487	0.485	0.513	3.487	0.485	0.513
3000	2.437	0.284	1.563	2.448	0.273	1.552	3.369	0.118	0.631	3.366	0.121	0.634
3500	2.194	0.243	1.806	2.200	0.237	1.800	3.259	0.110	0.741	3.254	0.115	0.746
0	3.920	-1.726	0.080	3.940	-1.746	0.060	3.948	-0.689	0.052	3.957	-0.698	0.043
3500	2.082	1.838	1.918	2.095	1.825	1.905	3.198	0.750	0.802	3.198	0.750	0.802
4000	1.754	0.328	2.246	1.765	0.317	2.235	3.056	0.142	0.944	3.048	0.150	0.952
4500	1.468	0.286	2.532	1.478	0.276	2.522	2.920	0.136	1.080	2.911	0.145	1.089
0	3.820	-2.352	0.180	3.836	-2.368	0.164	3.894	-0.974	0.106	3.906	-0.986	0.094
4500	1.320	2.500	2.680	1.341	2.479	2.659	2.832	1.062	1.168	2.825	1.069	1.175
5000	0.936	0.384	3.064	0.950	0.370	3.050	2.656	0.176	1.344	2.643	0.189	1.357
5500	0.523	0.413	3.477	0.531	0.405	3.469	2.460	0.196	1.540	2.447	0.209	1.553
0	3.700	-3.177	0.300	3.723	-3.200	0.277	3.822	-1.362	0.178	3.834	-1.374	0.166

olsson

Location:	GEO-076
Test Date:	12/3/2020
Project No.:	A20-1851
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-076
Test Date:	12/3/2020
Project No.:	A20-1851
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.998	0.002	0.002	3.998	0.002	0.002
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.996	0.002	0.004	3.996	0.002	0.004
3000	3.997	0.003	0.003	3.997	0.003	0.003	3.995	0.001	0.005	3.995	0.001	0.005
4000	3.990	0.007	0.010	3.990	0.007	0.010	3.993	0.002	0.007	3.993	0.002	0.007
5000	3.981	0.009	0.019	3.981	0.009	0.019	3.988	0.005	0.012	3.988	0.005	0.012
6000	3.966	0.015	0.034	3.965	0.016	0.035	3.978	0.010	0.022	3.976	0.012	0.024
7000	3.938	0.028	0.062	3.931	0.034	0.069	3.959	0.019	0.041	3.952	0.024	0.048
8000	3.884	0.054	0.116	3.874	0.057	0.126	3.918	0.041	0.082	3.907	0.045	0.093
9000	3.798	0.086	0.202	3.781	0.093	0.219	3.844	0.074	0.156	3.831	0.076	0.169
10000	3.705	0.093	0.295	3.683	0.098	0.317	3.768	0.076	0.232	3.750	0.081	0.250
11000	3.576	0.129	0.424	3.549	0.134	0.451	3.671	0.097	0.329	3.653	0.097	0.347
12000	3.352	0.224	0.648	3.319	0.230	0.681	3.538	0.133	0.462	3.522	0.131	0.478
12820	2.303	1.049	1.697	2.359	0.960	1.641	3.298	0.240	0.702	3.292	0.230	0.708
0	2.414	-0.111	1.586	2.415	-0.056	1.585	3.296	0.002	0.704	3.296	-0.004	0.704

olsson

Location:	GEO-078
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

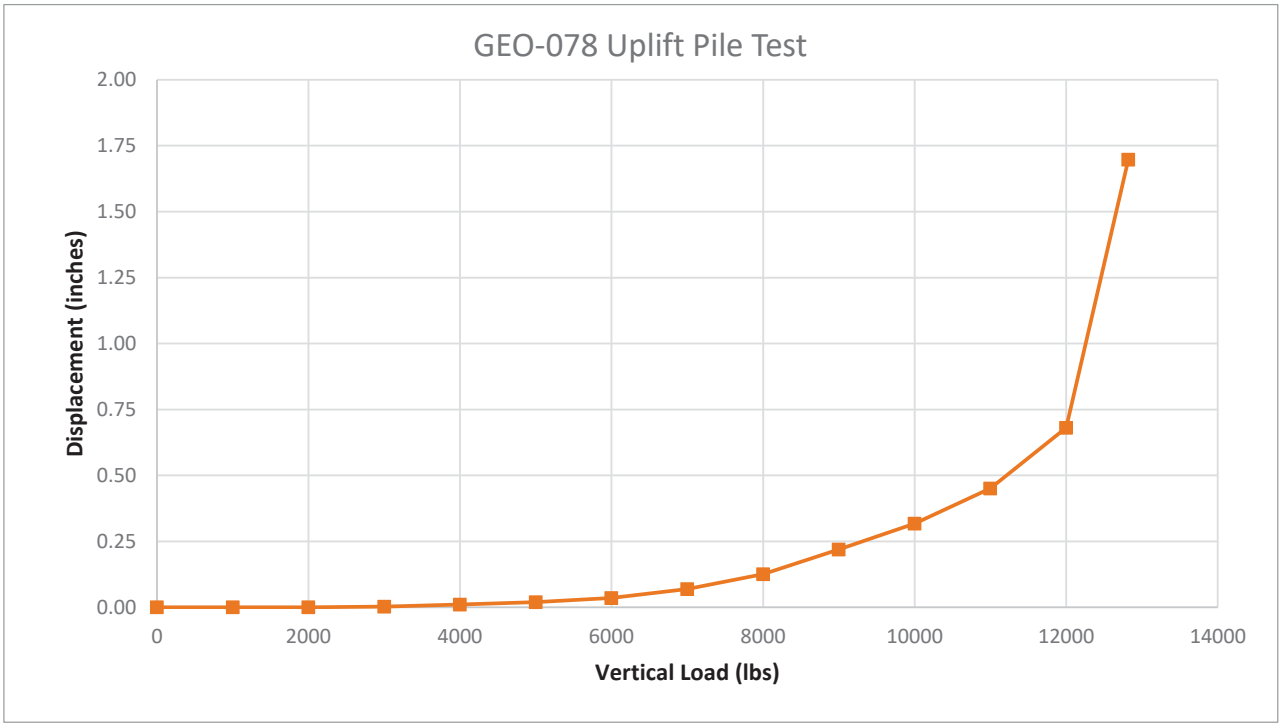
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.900	0.100	0.100	3.900	0.100	0.100	3.965	0.035	0.035	3.965	0.035	0.035
1000	3.738	0.162	0.262	3.738	0.162	0.262	3.903	0.062	0.097	3.900	0.065	0.100
1500	3.525	0.213	0.475	3.523	0.215	0.477	3.810	0.093	0.190	3.805	0.098	0.195
0	3.965	-0.440	0.035	3.970	-0.445	0.030	3.925	-0.115	0.075	3.924	-0.114	0.076
1500	3.503	0.462	0.497	3.503	0.462	0.497	3.793	0.132	0.207	3.791	0.134	0.209
2000	3.302	0.201	0.698	3.302	0.201	0.698	3.709	0.084	0.291	3.706	0.087	0.294
2500	3.103	0.199	0.897	3.102	0.200	0.898	3.624	0.085	0.376	3.619	0.090	0.381
0	3.911	-0.808	0.089	3.919	-0.816	0.081	3.930	-0.306	0.070	3.933	-0.309	0.067
2500	3.032	0.879	0.968	3.031	0.880	0.969	3.583	0.347	0.417	3.580	0.350	0.420
3000	2.811	0.221	1.189	2.811	0.221	1.189	3.487	0.096	0.513	3.483	0.100	0.517
3500	2.570	0.241	1.430	2.569	0.242	1.431	3.378	0.109	0.622	3.375	0.112	0.625
0	3.862	-1.292	0.138	3.866	-1.296	0.134	3.893	-0.515	0.107	3.894	-0.516	0.106
3500	2.522	1.340	1.478	2.522	1.340	1.478	3.345	0.548	0.655	3.343	0.550	0.657
4000	2.273	0.249	1.727	2.273	0.249	1.727	3.238	0.107	0.762	3.232	0.113	0.768
4500	2.041	0.232	1.959	2.039	0.234	1.961	3.134	0.104	0.866	3.126	0.112	0.874
0	3.788	-1.747	0.212	3.804	-1.763	0.196	3.849	-0.715	0.151	3.857	-0.723	0.143
4500	1.931	1.857	2.069	1.930	1.858	2.070	3.066	0.783	0.934	3.061	0.788	0.939
5000	1.669	0.262	2.331	1.666	0.265	2.334	2.954	0.112	1.046	2.947	0.119	1.053
5500	1.335	0.334	2.665	1.332	0.337	2.668	2.806	0.148	1.194	2.797	0.157	1.203
0	3.609	-2.274	0.391	3.641	-2.306	0.359	3.759	-0.953	0.241	3.772	-0.966	0.228

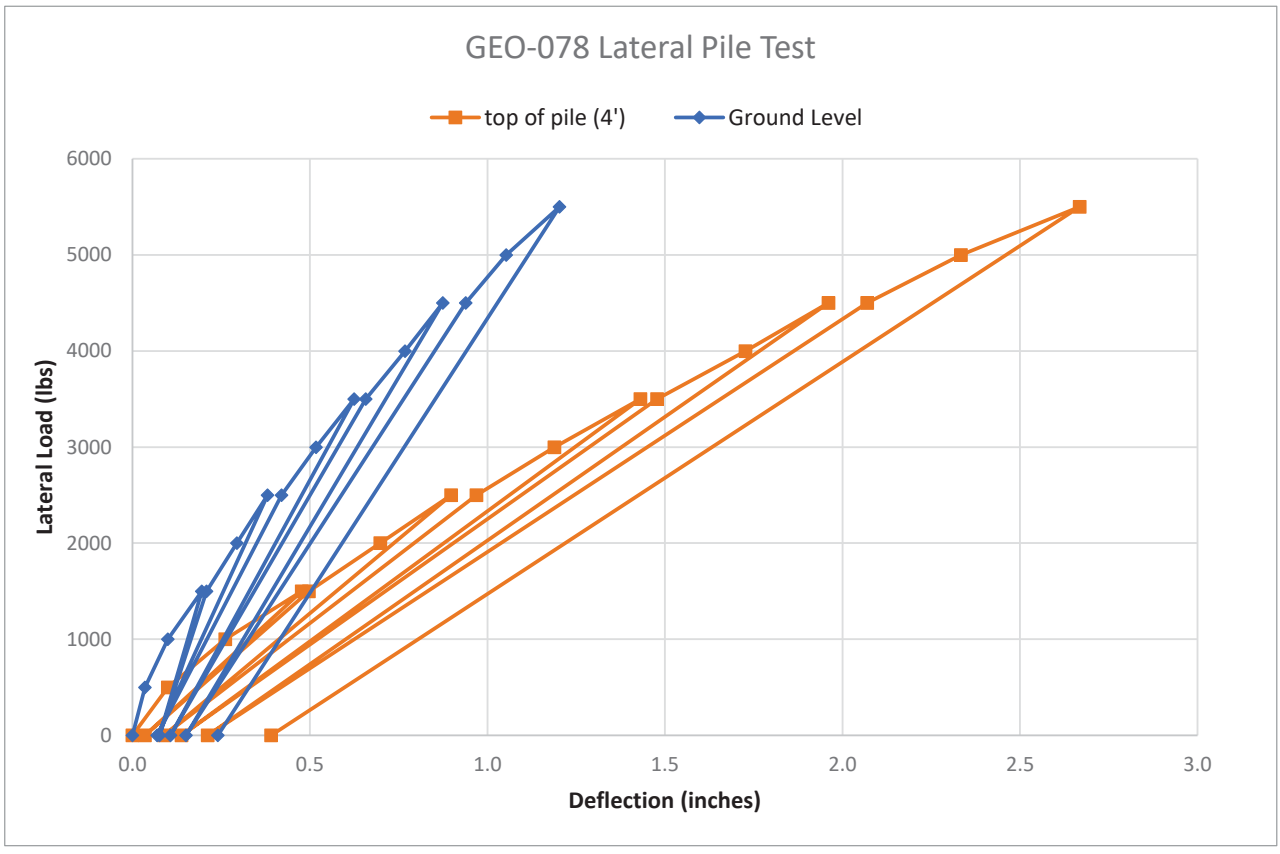
olsson

Field Pile Testing Results

Location:	GEO-078
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-078
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.999	0.001	0.001	3.999	0.001	0.001
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.002	0.003	3.997	0.002	0.003
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.002	0.005	3.995	0.002	0.005
4000	3.994	0.006	0.006	3.994	0.006	0.006	3.993	0.002	0.007	3.993	0.002	0.007
5000	3.986	0.008	0.014	3.986	0.008	0.014	3.990	0.003	0.010	3.989	0.004	0.011
6000	3.971	0.015	0.029	3.969	0.017	0.031	3.982	0.008	0.018	3.979	0.010	0.021
7000	3.940	0.031	0.060	3.934	0.035	0.066	3.962	0.020	0.038	3.958	0.021	0.042
8000	3.897	0.043	0.103	3.890	0.044	0.110	3.935	0.027	0.065	3.928	0.030	0.072
9000	3.823	0.074	0.177	3.816	0.074	0.184	3.878	0.057	0.122	3.872	0.056	0.128
10000	3.749	0.074	0.251	3.732	0.084	0.268	3.823	0.055	0.177	3.809	0.063	0.191
11000	3.621	0.128	0.379	3.607	0.125	0.393	3.727	0.096	0.273	3.714	0.095	0.286
12000	3.441	0.180	0.559	3.415	0.192	0.585	3.603	0.124	0.397	3.579	0.135	0.421
13000	3.203	0.238	0.797	3.163	0.252	0.837	3.443	0.160	0.557	3.412	0.167	0.588
13700	2.662	0.541	1.338	2.621	0.542	1.379	3.100	0.343	0.900	3.084	0.328	0.916
0	2.685	-0.023	1.315	2.694	-0.073	1.306	3.102	-0.002	0.898	3.103	-0.019	0.897

olsson

Field Pile Testing Results

Location:	GEO-080
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

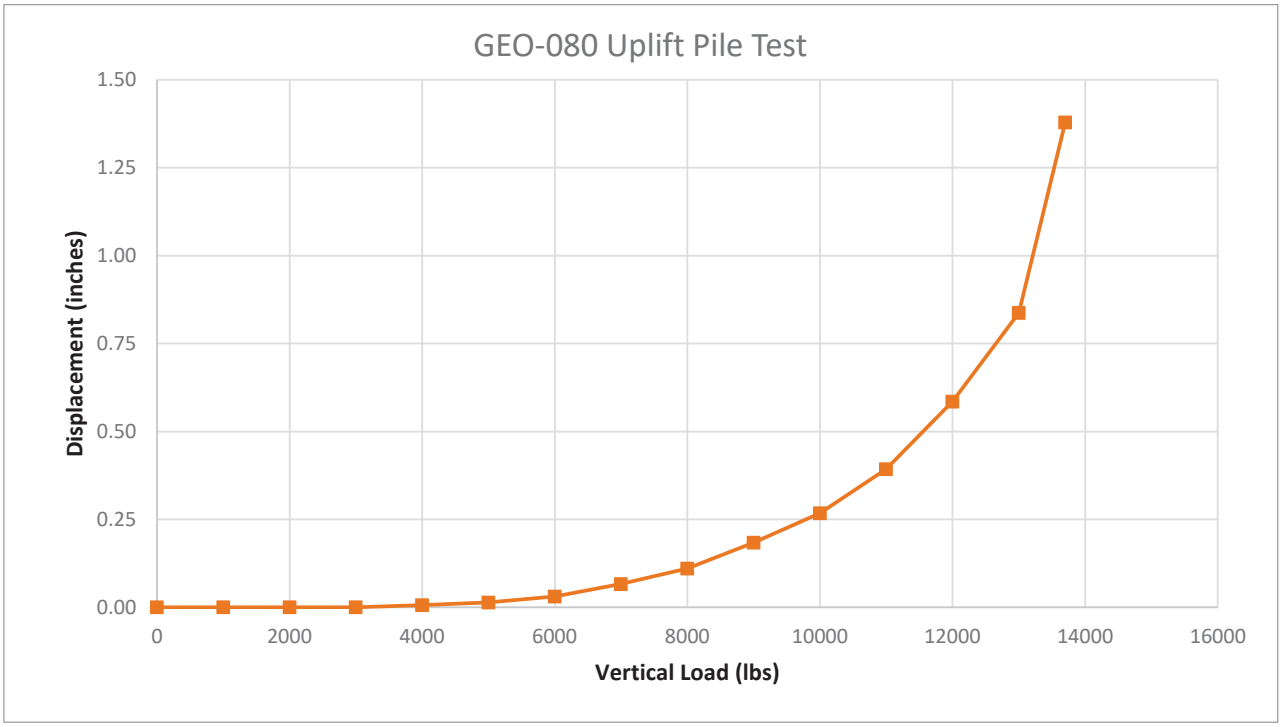
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.826	0.174	0.174	3.831	0.169	0.169	3.953	0.047	0.047	3.954	0.046	0.046
1000	3.593	0.233	0.407	3.594	0.232	0.406	3.869	0.084	0.131	3.868	0.085	0.132
1500	3.353	0.240	0.647	3.348	0.245	0.652	3.771	0.098	0.229	3.770	0.099	0.230
0	3.904	-0.551	0.096	3.908	-0.555	0.092	3.961	-0.190	0.039	3.967	-0.196	0.033
1500	3.300	0.604	0.700	3.303	0.601	0.697	3.753	0.208	0.247	3.753	0.208	0.247
2000	3.054	0.246	0.946	3.054	0.246	0.946	3.650	0.103	0.350	3.645	0.108	0.355
2500	2.754	0.300	1.246	2.754	0.300	1.246	3.518	0.132	0.482	3.512	0.138	0.488
0	3.841	-1.087	0.159	3.851	-1.097	0.149	3.921	-0.403	0.079	3.928	-0.410	0.072
2500	2.678	1.163	1.322	2.678	1.163	1.322	3.478	0.443	0.522	3.474	0.447	0.526
3000	2.380	0.298	1.620	2.379	0.299	1.621	3.345	0.133	0.655	3.337	0.141	0.663
3500	2.052	0.328	1.948	2.049	0.331	1.951	3.190	0.155	0.810	3.177	0.168	0.823
0	3.751	-1.699	0.249	3.765	-1.713	0.235	3.864	-0.674	0.136	3.874	-0.684	0.126
3500	1.894	1.857	2.106	1.893	1.858	2.107	3.100	0.764	0.900	3.093	0.771	0.907
4000	1.506	0.388	2.494	1.506	0.388	2.494	2.903	0.197	1.097	2.892	0.208	1.108
4500	1.069	0.437	2.931	1.064	0.442	2.936	2.685	0.218	1.315	2.662	0.241	1.338
0	3.557	-2.488	0.443	3.576	-2.507	0.424	3.719	-1.034	0.281	3.731	-1.046	0.269
4500	0.880	2.677	3.120	0.880	2.677	3.120	2.549	1.170	1.451	2.541	1.178	1.459
5000	0.496	0.384	3.504	0.496	0.384	3.504	2.327	0.222	1.673	2.311	0.238	1.689
5420	0.000	0.496	4.000	0.000	0.496	4.000	2.078	0.249	1.922	2.067	0.260	1.933
0	3.150	-3.150	0.850	3.192	-3.192	0.808	3.435	-1.357	0.565	3.498	-1.420	0.502

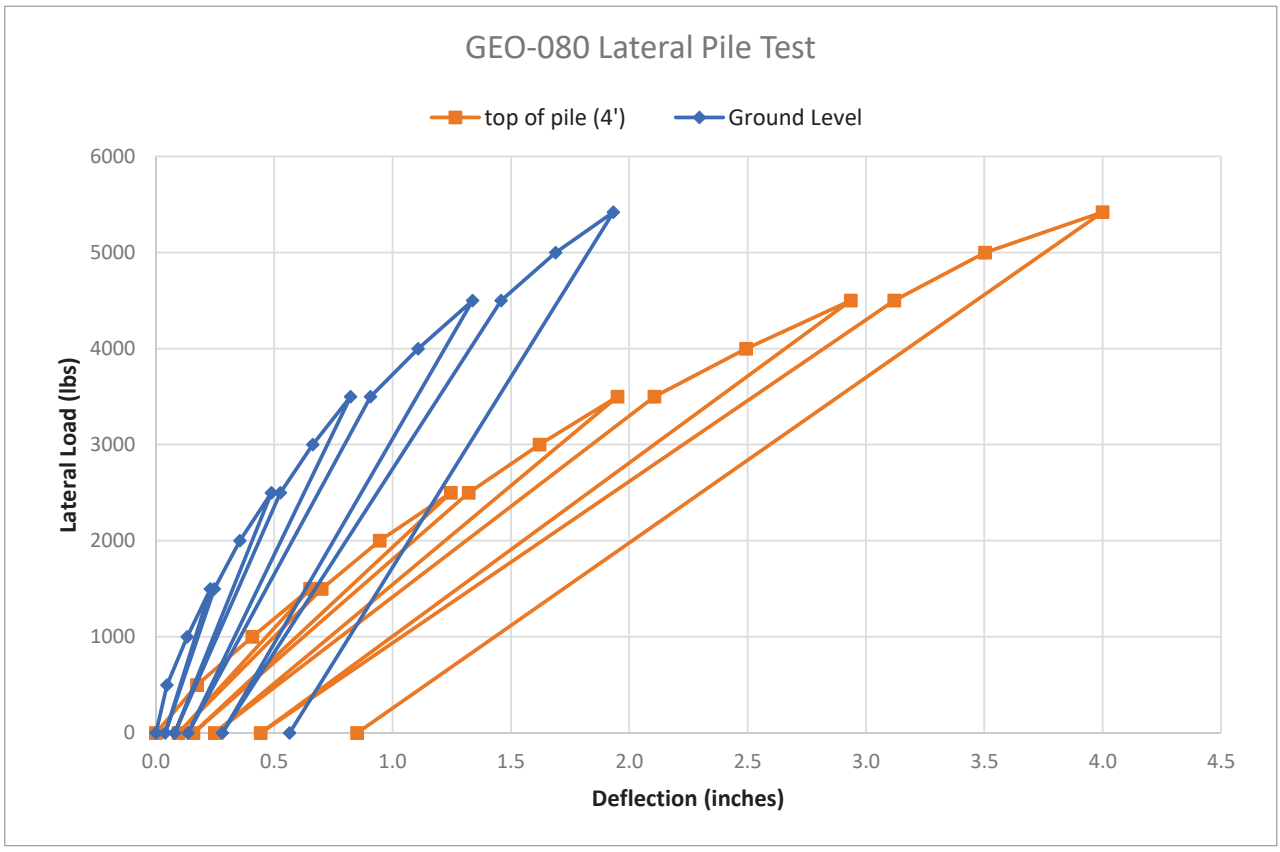
olsson

Location:	GEO-080
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project





Location:	GEO-080
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.996	0.001	0.004	3.996	0.001	0.004
4000	3.997	0.003	0.003	3.996	0.004	0.004	3.995	0.001	0.005	3.996	0.000	0.004
5000	3.991	0.006	0.009	3.990	0.006	0.010	3.993	0.002	0.007	3.993	0.003	0.007
6000	3.980	0.011	0.020	3.979	0.011	0.021	3.990	0.003	0.010	3.989	0.004	0.011
7000	3.967	0.013	0.033	3.965	0.014	0.035	3.984	0.006	0.016	3.982	0.007	0.018
8000	3.952	0.015	0.048	3.950	0.015	0.050	3.974	0.010	0.026	3.970	0.012	0.030
9000	3.934	0.018	0.066	3.931	0.019	0.069	3.961	0.013	0.039	3.957	0.013	0.043
10000	3.905	0.029	0.095	3.900	0.031	0.100	3.938	0.023	0.062	3.934	0.023	0.066
11000	3.873	0.032	0.127	3.867	0.033	0.133	3.912	0.026	0.088	3.907	0.027	0.093
12000	3.821	0.052	0.179	3.816	0.051	0.184	3.868	0.044	0.132	3.862	0.045	0.138
13000	3.757	0.064	0.243	3.743	0.073	0.257	3.806	0.062	0.194	3.798	0.064	0.202
14000	3.666	0.091	0.334	3.660	0.083	0.340	3.727	0.079	0.273	3.721	0.077	0.279
15000	3.541	0.125	0.459	3.518	0.142	0.482	3.610	0.117	0.390	3.595	0.126	0.405
16000	3.345	0.196	0.655	3.336	0.182	0.664	3.453	0.157	0.547	3.441	0.154	0.559
17000	3.072	0.273	0.928	3.037	0.299	0.963	3.298	0.155	0.702	3.286	0.155	0.714
0	3.119	-0.047	0.881	3.123	-0.086	0.877	3.293	0.005	0.707	3.294	-0.008	0.706

olsson

Location:	GEO-082
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

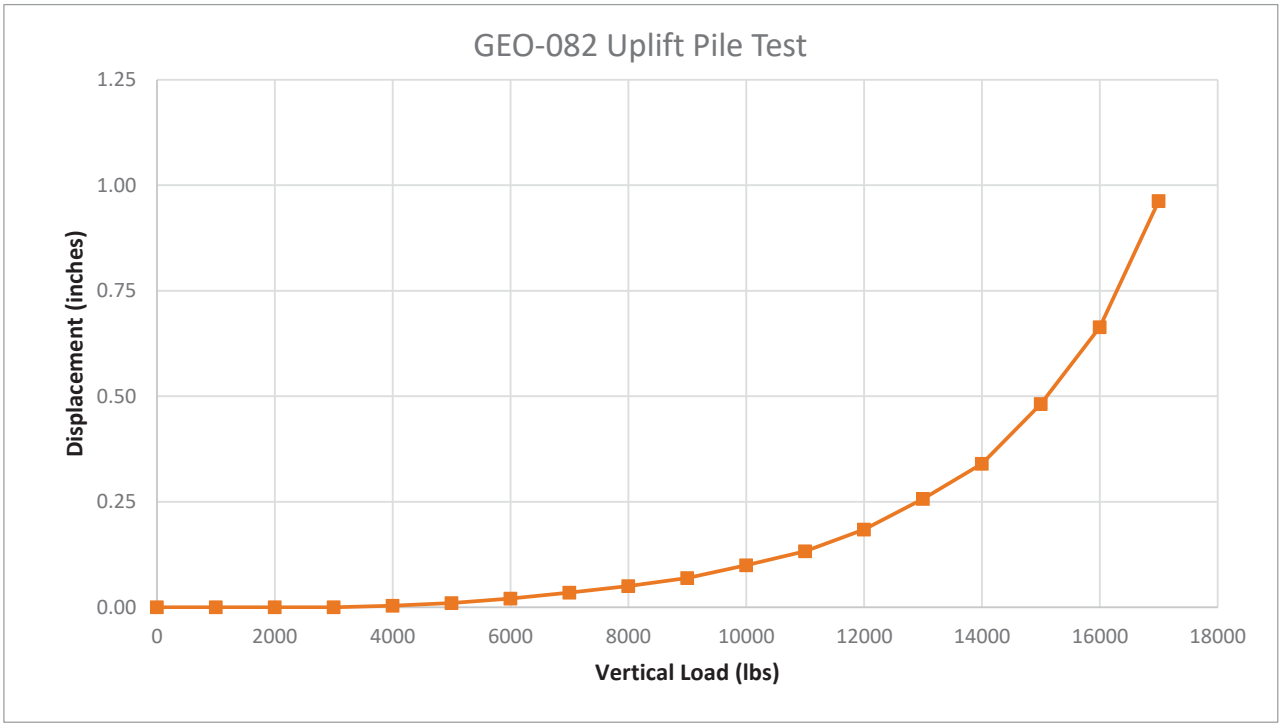
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.843	0.157	0.157	3.841	0.159	0.159	3.952	0.048	0.048	3.951	0.049	0.049
1000	3.607	0.236	0.393	3.607	0.236	0.393	3.863	0.089	0.137	3.861	0.091	0.139
1500	3.345	0.262	0.655	3.345	0.262	0.655	3.758	0.105	0.242	3.753	0.110	0.247
0	3.949	-0.604	0.051	3.958	-0.613	0.042	3.979	-0.221	0.021	3.983	-0.225	0.017
1500	3.285	0.664	0.715	3.283	0.666	0.717	3.726	0.253	0.274	3.724	0.255	0.276
2000	3.006	0.279	0.994	3.005	0.280	0.995	3.609	0.117	0.391	3.605	0.121	0.395
2500	2.743	0.263	1.257	2.742	0.264	1.258	3.498	0.111	0.502	3.490	0.119	0.510
0	3.903	-1.160	0.097	3.919	-1.176	0.081	3.958	-0.460	0.042	3.962	-0.464	0.038
2500	2.667	1.236	1.333	2.670	1.233	1.330	3.458	0.500	0.542	3.456	0.502	0.544
3000	2.363	0.304	1.637	2.363	0.304	1.637	3.325	0.133	0.675	3.317	0.141	0.683
3500	2.028	0.335	1.972	2.024	0.339	1.976	3.173	0.152	0.827	3.161	0.164	0.839
0	3.830	-1.802	0.170	3.855	-1.827	0.145	3.917	-0.744	0.083	3.925	-0.752	0.075
3500	1.901	1.929	2.099	1.902	1.928	2.098	3.098	0.819	0.902	3.092	0.825	0.908
4000	1.513	0.388	2.487	1.511	0.390	2.489	2.923	0.175	1.077	2.909	0.189	1.091
4500	1.151	0.362	2.849	1.148	0.365	2.852	2.749	0.174	1.251	2.731	0.192	1.269
0	3.716	-2.565	0.284	3.742	-2.591	0.258	3.845	-1.096	0.155	3.856	-1.107	0.144
4500	0.972	2.744	3.028	0.975	2.741	3.025	2.638	1.207	1.362	2.628	1.217	1.372
5000	0.557	0.415	3.443	0.554	0.418	3.446	2.443	0.195	1.557	2.428	0.210	1.572
5500	-0.813	1.370	4.813	-0.813	1.370	4.813	1.813	0.630	2.187	1.794	0.649	2.206
0	2.426	-3.239	1.574	2.451	-3.264	1.549	3.230	-1.417	0.770	3.242	-1.429	0.758

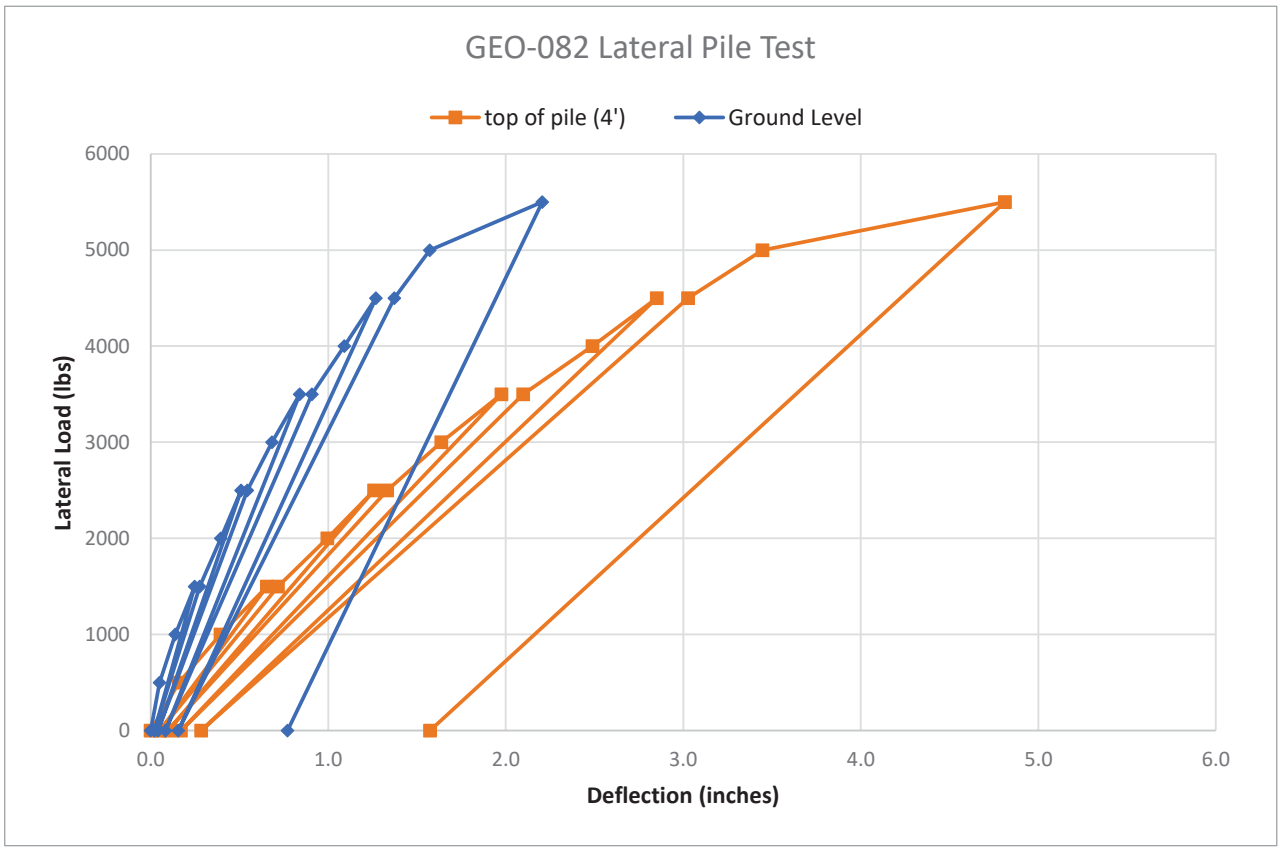
olsson

Location:	GEO-082
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-082
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.999	0.001	0.001	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.993	0.006	0.007	3.994	0.006	0.006	3.999	0.001	0.001	3.998	0.002	0.002
3000	3.983	0.010	0.017	3.984	0.010	0.016	3.998	0.001	0.002	3.997	0.001	0.003
4000	3.967	0.016	0.033	3.968	0.016	0.032	3.996	0.002	0.004	3.994	0.003	0.006
5000	3.944	0.023	0.056	3.943	0.025	0.057	3.988	0.008	0.012	3.986	0.008	0.014
6000	3.914	0.030	0.086	3.907	0.036	0.093	3.972	0.016	0.028	3.965	0.021	0.035
7000	3.859	0.055	0.141	3.847	0.060	0.153	3.936	0.036	0.064	3.926	0.039	0.074
8000	3.757	0.102	0.243	3.740	0.107	0.260	3.864	0.072	0.136	3.847	0.079	0.153
9000	3.570	0.187	0.430	3.545	0.195	0.455	3.734	0.130	0.266	3.715	0.132	0.285
10000	3.290	0.280	0.710	3.237	0.308	0.763	3.540	0.194	0.460	3.504	0.211	0.496
11000	2.710	0.580	1.290	2.638	0.599	1.362	3.194	0.346	0.806	3.162	0.342	0.838
0	3.043	-0.333	0.958	3.054	-0.416	0.946	3.295	-0.101	0.705	3.315	-0.153	0.685

olsson

Field Pile Testing Results

Location:	GEO-084
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project

Lateral

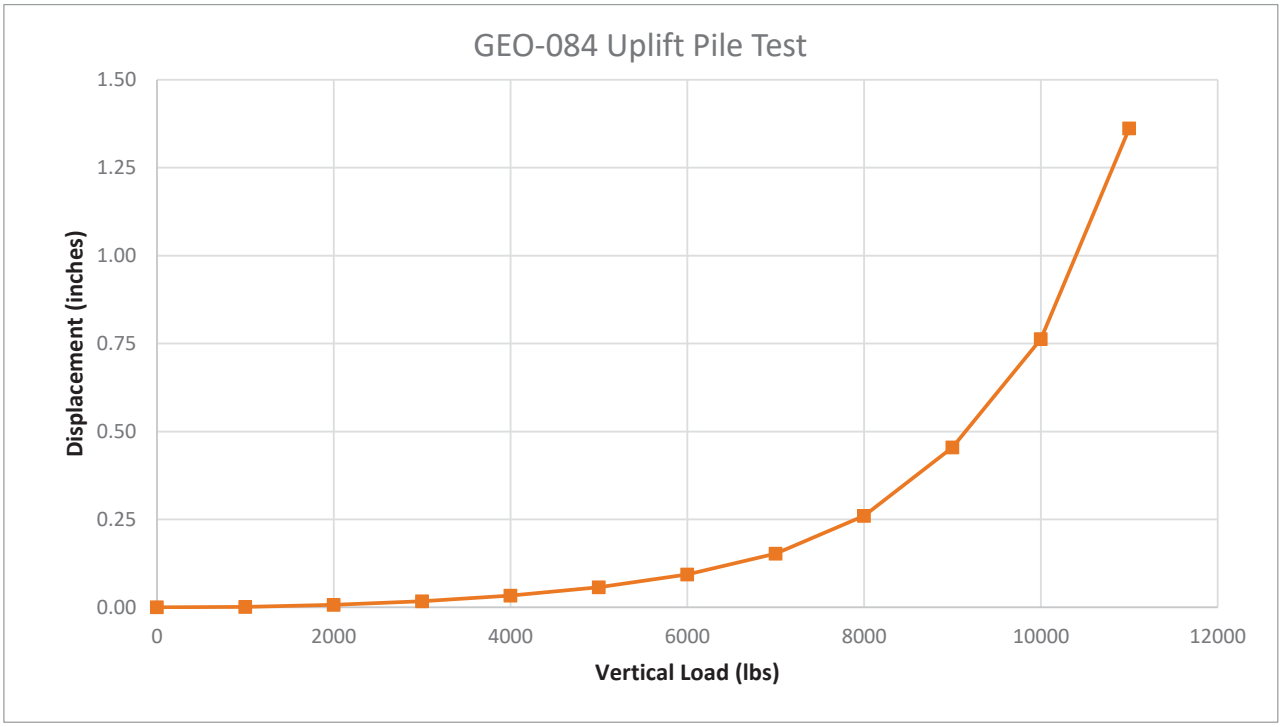
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.838	0.162	0.162	3.837	0.163	0.163	3.950	0.050	0.050	3.948	0.052	0.052
1000	3.665	0.173	0.335	3.663	0.175	0.337	3.843	0.107	0.157	3.846	0.104	0.154
1500	3.423	0.242	0.577	3.426	0.239	0.574	3.762	0.081	0.238	3.761	0.082	0.239
0	3.935	-0.512	0.065	3.946	-0.523	0.054	3.945	-0.183	0.055	3.956	-0.194	0.044
1500	3.389	0.546	0.611	3.390	0.545	0.610	3.742	0.203	0.258	3.741	0.204	0.259
2000	3.111	0.278	0.889	3.111	0.278	0.889	3.613	0.129	0.387	3.608	0.134	0.392
2500	2.817	0.294	1.183	2.815	0.296	1.185	3.470	0.143	0.530	3.460	0.153	0.540
0	3.859	-1.042	0.141	3.876	-1.059	0.124	3.904	-0.434	0.096	3.912	-0.442	0.088
2500	2.744	1.115	1.256	2.744	1.115	1.256	3.422	0.482	0.578	3.416	0.488	0.584
3000	2.448	0.296	1.552	2.447	0.297	1.553	3.278	0.144	0.722	3.268	0.154	0.732
3500	2.052	0.396	1.948	2.046	0.402	1.954	3.073	0.205	0.927	3.056	0.222	0.944
0	3.730	-1.678	0.270	3.756	-1.704	0.244	3.815	-0.742	0.185	3.829	-0.756	0.171
3500	1.936	1.794	2.064	1.936	1.794	2.064	2.994	0.821	1.006	2.983	0.832	1.017
4000	1.558	0.378	2.442	1.552	0.384	2.448	2.796	0.198	1.204	2.774	0.220	1.226
4500	1.143	0.415	2.857	1.133	0.425	2.867	2.570	0.226	1.430	2.539	0.257	1.461
0	3.480	-2.337	0.520	3.504	-2.361	0.496	3.636	-1.066	0.364	3.650	-1.080	0.350
4500	0.901	2.579	3.099	0.900	2.580	3.100	2.401	1.235	1.599	2.381	1.255	1.619
5000	0.382	0.519	3.618	0.381	0.520	3.619	2.116	0.285	1.884	2.087	0.314	1.913
5500	-0.281	0.663	4.281	-0.313	0.695	4.313	1.699	0.417	2.301	1.659	0.457	2.341
0	2.664	-2.945	1.336	2.693	-2.974	1.307	3.611	-1.912	0.389	3.636	-1.937	0.364

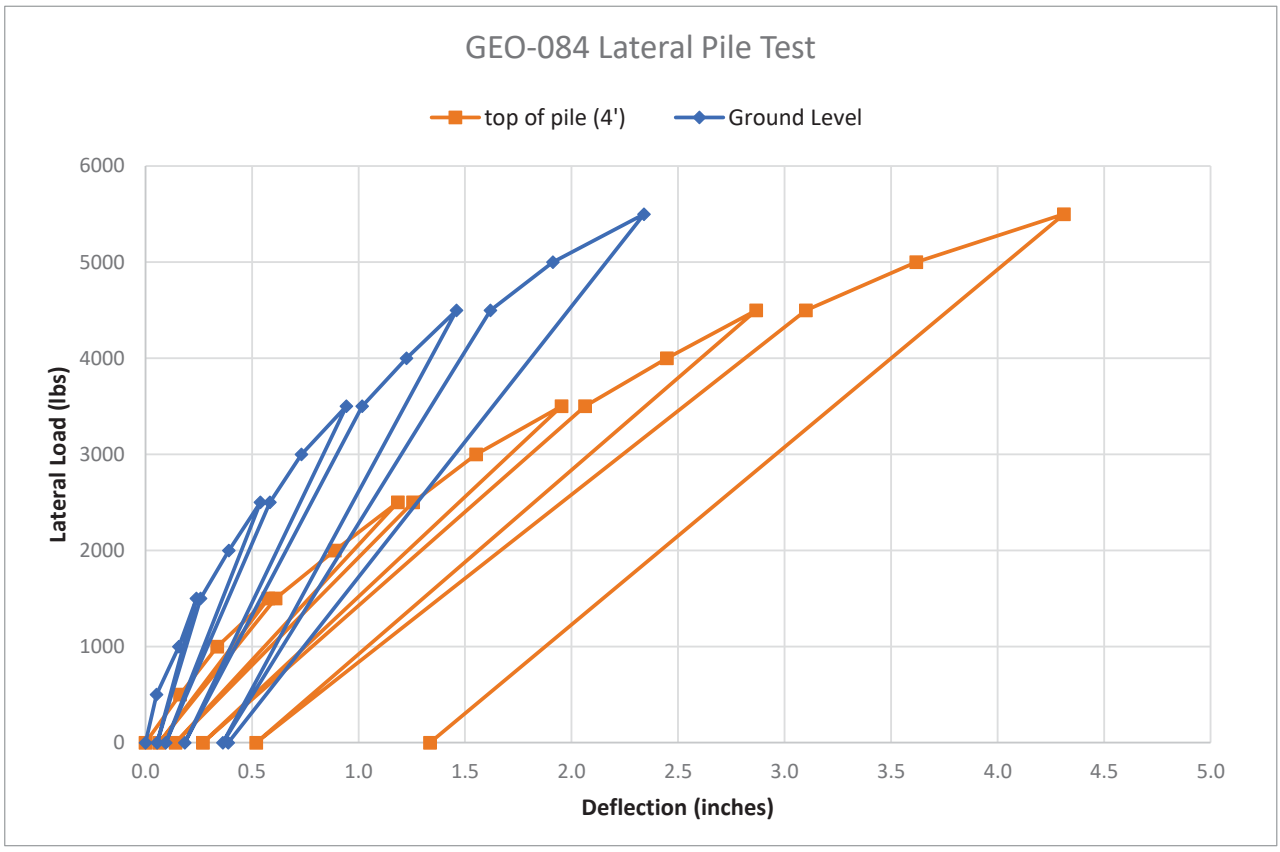
olsson

Location:	GEO-084
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-084
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.999	0.001	0.001	3.999	0.001	0.001
2000	3.998	0.002	0.002	3.998	0.002	0.002	3.996	0.003	0.004	3.996	0.003	0.004
3000	3.987	0.011	0.013	3.988	0.010	0.012	3.993	0.003	0.007	3.992	0.004	0.008
4000	3.961	0.026	0.039	3.960	0.028	0.040	3.981	0.012	0.019	3.978	0.014	0.022
5000	3.862	0.099	0.138	3.856	0.104	0.144	3.905	0.076	0.095	3.897	0.081	0.103
6000	3.680	0.182	0.320	3.674	0.182	0.326	3.775	0.130	0.225	3.766	0.131	0.234
7000	3.458	0.222	0.542	3.441	0.233	0.559	3.645	0.130	0.355	3.633	0.133	0.367
8000	3.090	0.368	0.910	3.070	0.371	0.930	3.490	0.155	0.510	3.482	0.151	0.518
9000	2.370	0.720	1.630	2.336	0.734	1.664	3.281	0.209	0.719	3.265	0.217	0.735

olsson

Field Pile Testing Results

Location:	GEO-086
Test Date:	12/3/202
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project

Lateral

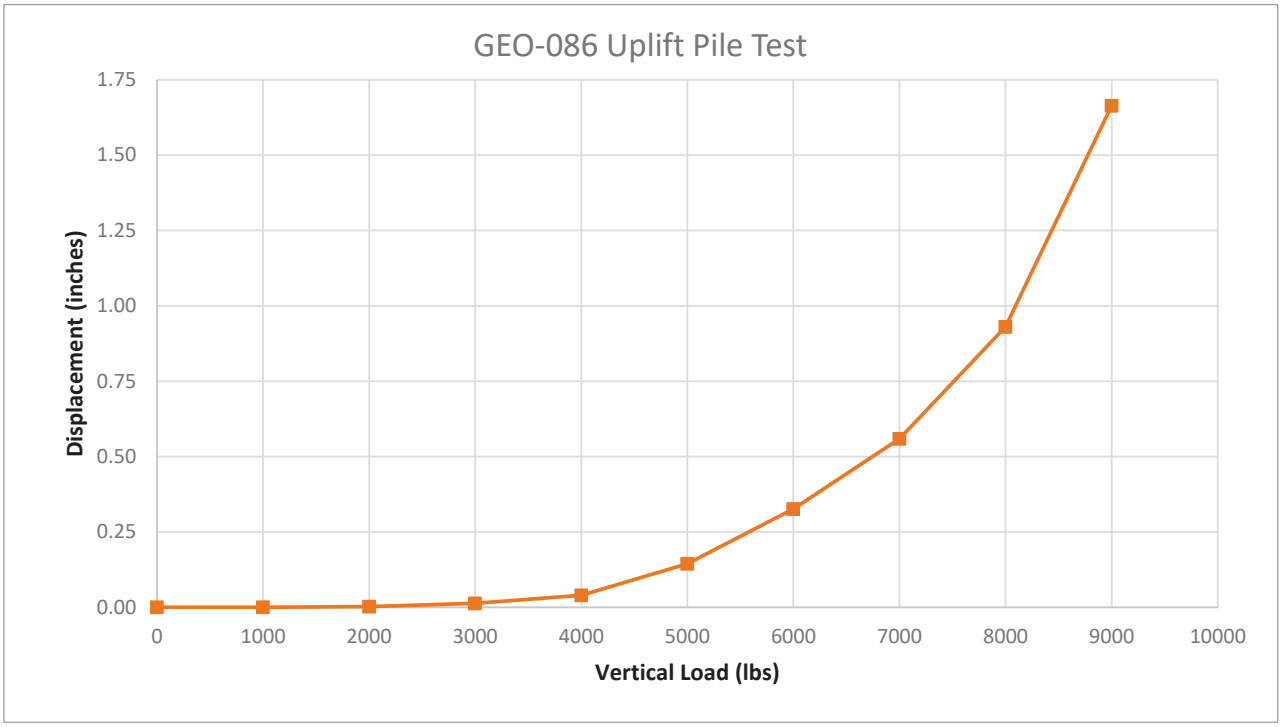
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.832	0.168	0.168	3.832	0.168	0.168	3.957	0.043	0.043	3.957	0.043	0.043
1000	3.652	0.180	0.348	3.653	0.179	0.347	3.889	0.068	0.111	3.888	0.069	0.112
1500	3.400	0.252	0.600	3.403	0.249	0.597	3.782	0.107	0.218	3.782	0.107	0.218
0	3.950	-0.550	0.050	3.957	-0.557	0.043	3.978	-0.196	0.022	3.978	-0.196	0.022
1500	3.375	0.575	0.625	3.378	0.572	0.622	3.764	0.214	0.236	3.764	0.214	0.236
2000	3.105	0.270	0.895	3.105	0.270	0.895	3.647	0.117	0.353	3.641	0.123	0.359
2500	2.811	0.294	1.189	2.808	0.297	1.192	3.510	0.137	0.490	3.501	0.146	0.499
0	3.839	-1.028	0.161	3.892	-1.081	0.108	3.938	-0.428	0.062	3.941	-0.431	0.059
2500	2.732	1.107	1.268	2.732	1.107	1.268	3.459	0.479	0.541	3.454	0.484	0.546
3000	2.420	0.312	1.580	2.417	0.315	1.583	3.314	0.145	0.686	3.301	0.158	0.699
3500	2.050	0.370	1.950	2.045	0.375	1.955	3.128	0.186	0.872	3.112	0.202	0.888
0	3.744	-1.694	0.256	3.760	-1.710	0.240	3.847	-0.719	0.153	3.856	-0.728	0.144
3500	1.905	1.839	2.095	1.905	1.839	2.095	3.033	0.814	0.967	3.025	0.822	0.975
4000	1.539	0.366	2.461	1.536	0.369	2.464	2.847	0.186	1.153	2.832	0.201	1.168
4500	1.103	0.436	2.897	1.096	0.443	2.904	2.615	0.232	1.385	2.590	0.257	1.410
0	3.466	-2.363	0.534	3.494	-2.391	0.506	3.669	-1.054	0.331	3.674	-1.059	0.326
4500	0.877	2.589	3.123	0.878	2.588	3.122	2.457	1.212	1.543	2.446	1.223	1.554
5000	0.411	0.466	3.589	0.402	0.475	3.598	2.214	0.243	1.786	2.181	0.276	1.819
5500	-0.188	0.599	4.188	-0.188	0.599	4.188	1.367	0.847	2.633	1.346	0.868	2.654
0	2.841	-3.029	1.159	2.861	-3.049	1.139	3.266	-1.899	0.734	3.272	-1.905	0.728

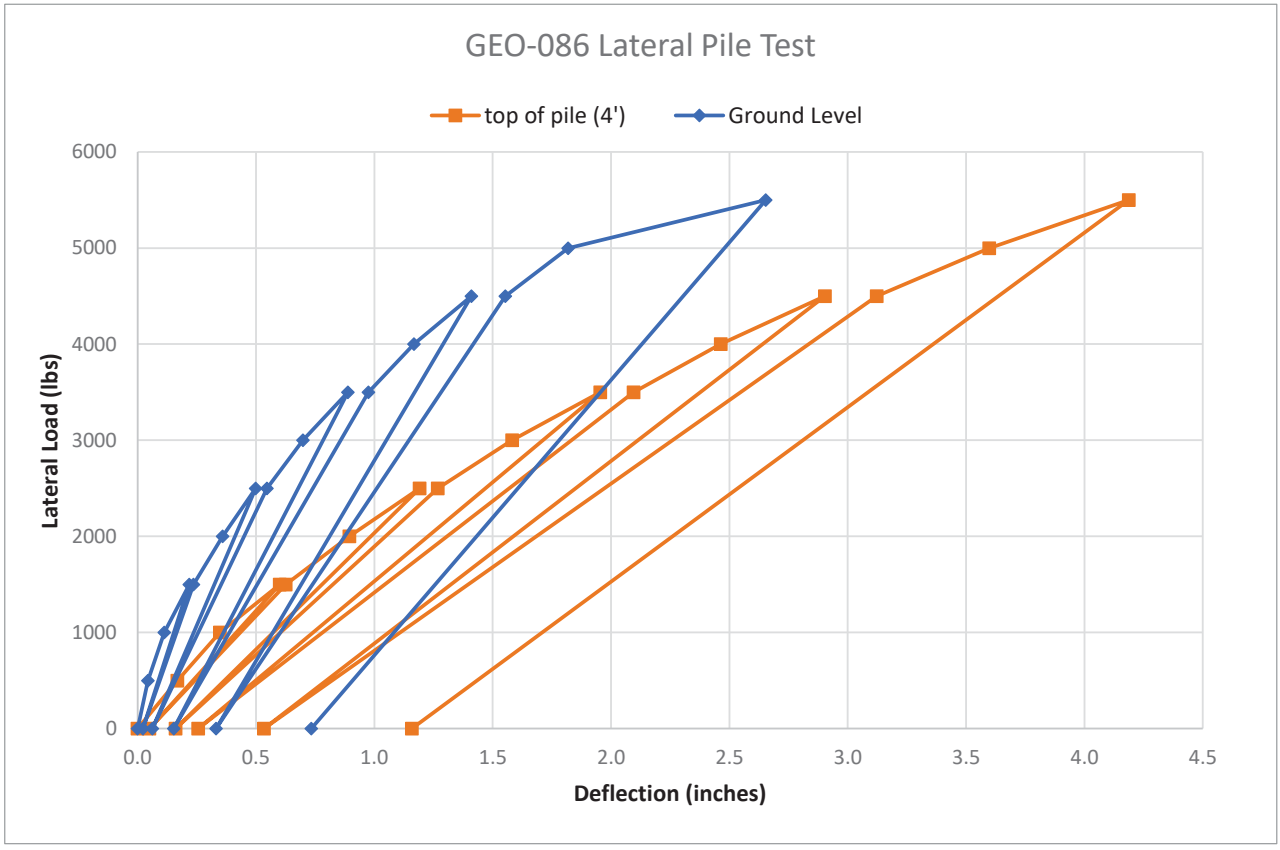
olsson

Field Pile Testing Results

Location:	GEO-086
Test Date:	12/3/202
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project





olsson

Location:	GEO-086
Test Date:	12/3/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.993	0.004	0.007	3.993	0.004	0.007
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.990	0.003	0.010	3.989	0.004	0.011
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.986	0.004	0.014	3.986	0.003	0.014
5000	3.993	0.007	0.007	3.990	0.010	0.010	3.979	0.007	0.021	3.978	0.008	0.022
6000	3.971	0.022	0.029	3.969	0.021	0.031	3.962	0.017	0.038	3.959	0.019	0.041
7000	3.942	0.029	0.058	3.935	0.034	0.065	3.938	0.024	0.062	3.929	0.030	0.071
8000	3.892	0.050	0.108	3.878	0.057	0.122	3.885	0.053	0.115	3.876	0.053	0.124
9000	3.806	0.086	0.194	3.785	0.093	0.215	3.808	0.077	0.192	3.783	0.093	0.217
10000	3.710	0.096	0.290	3.683	0.102	0.317	3.713	0.095	0.287	3.686	0.097	0.314
11000	3.559	0.151	0.441	3.518	0.165	0.482	3.561	0.152	0.439	3.529	0.157	0.471
12000	3.368	0.191	0.632	3.316	0.202	0.684	3.396	0.165	0.604	3.350	0.179	0.650
13000	2.756	0.612	1.244	2.662	0.654	1.338	3.022	0.374	0.978	2.991	0.359	1.009
13120	2.222	0.534	1.778	2.132	0.530	1.868	2.833	0.189	1.167	2.805	0.186	1.195
0	2.296	-0.074	1.704	2.201	-0.069	1.799	2.842	-0.009	1.158	2.845	-0.040	1.155

olsson

Field Pile Testing Results

Location:	GEO-088
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	-0.005	-0.005	0.005	-0.005	-0.005
2000	0.004	-0.004	-0.004	0.004	-0.004	-0.004	0.011	-0.006	-0.011	0.011	-0.006	-0.011
3000	0.004	0.000	-0.004	0.004	0.000	-0.004	0.019	-0.008	-0.019	0.019	-0.008	-0.019
4000	0.017	-0.013	-0.017	0.022	-0.018	-0.022	0.030	-0.011	-0.030	0.031	-0.012	-0.031
5000	0.028	-0.011	-0.028	0.036	-0.014	-0.036	0.044	-0.014	-0.044	0.048	-0.017	-0.048
6000	0.047	-0.019	-0.047	0.056	-0.020	-0.056	0.063	-0.019	-0.063	0.066	-0.018	-0.066
6700	0.064	-0.017	-0.064	0.074	-0.018	-0.074	0.079	-0.016	-0.079	0.084	-0.018	-0.084

olsson

Field Pile Testing Results

Location:	GEO-088
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

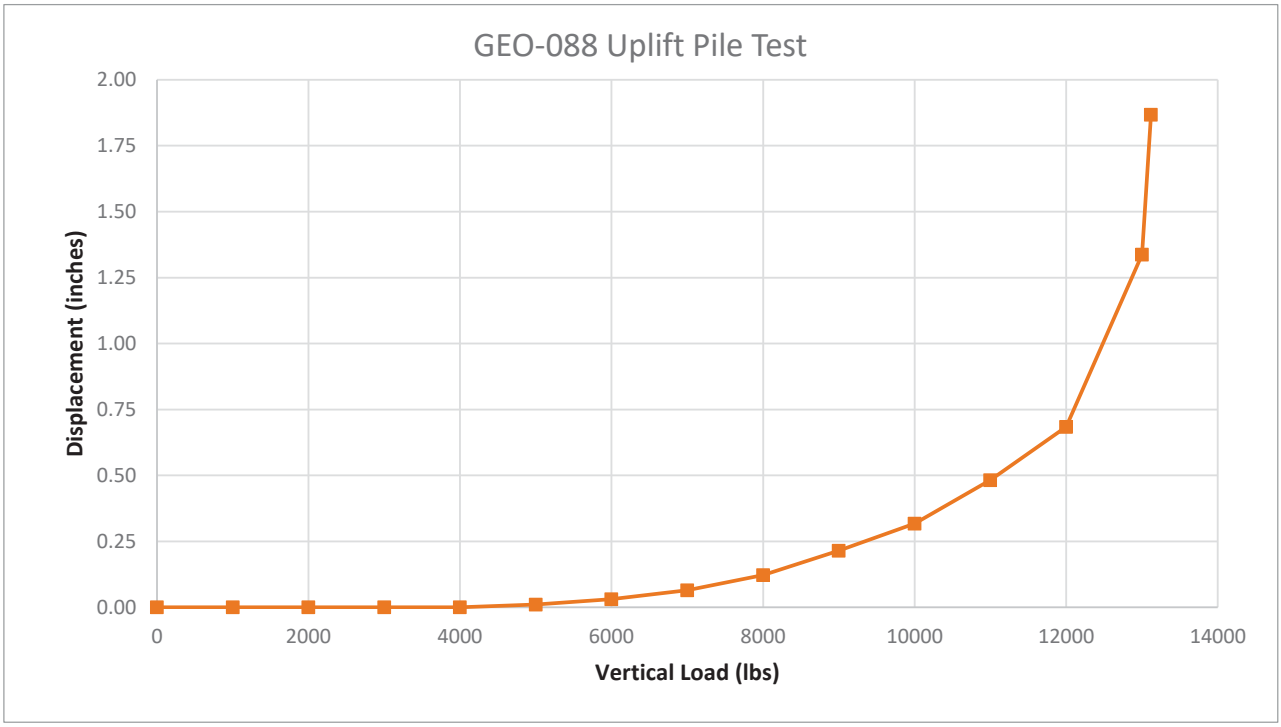
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.844	0.156	0.156	3.844	0.156	0.156	3.956	0.044	0.044	3.955	0.045	0.045
1000	3.623	0.221	0.377	3.623	0.221	0.377	3.878	0.078	0.122	3.878	0.078	0.122
1500	3.368	0.255	0.632	3.368	0.255	0.632	3.777	0.101	0.223	3.775	0.103	0.225
0	3.927	-0.559	0.073	3.944	-0.576	0.056	3.963	-0.186	0.037	3.972	-0.195	0.028
1500	3.318	0.609	0.682	3.317	0.610	0.683	3.758	0.205	0.242	3.755	0.208	0.245
2000	3.059	0.259	0.941	3.059	0.259	0.941	3.655	0.103	0.345	3.651	0.107	0.349
2500	2.755	0.304	1.245	2.750	0.309	1.250	3.528	0.127	0.472	3.519	0.136	0.481
0	3.851	-1.096	0.149	3.869	-1.114	0.131	3.919	-0.391	0.081	3.931	-0.403	0.069
2500	2.656	1.195	1.344	2.657	1.194	1.343	3.480	0.439	0.520	3.477	0.442	0.523
3000	2.363	0.293	1.637	2.363	0.293	1.637	3.351	0.129	0.649	3.344	0.136	0.656
3500	2.012	0.351	1.988	2.011	0.352	1.989	3.192	0.159	0.808	3.179	0.172	0.821
0	3.746	-1.734	0.254	3.769	-1.757	0.231	3.852	-0.660	0.148	3.862	-0.670	0.138
3500	1.862	1.884	2.138	1.861	1.885	2.139	3.108	0.744	0.892	3.099	0.753	0.901
4000	1.549	0.313	2.451	1.547	0.315	2.453	2.962	0.146	1.038	2.946	0.162	1.054
4500	1.102	0.447	2.898	1.097	0.452	2.903	2.735	0.227	1.265	2.721	0.241	1.279
0	3.551	-2.449	0.449	3.586	-2.484	0.414	3.718	-0.983	0.282	3.736	-1.001	0.264
4500	0.910	2.641	3.090	0.908	2.643	3.092	2.619	1.099	1.381	2.602	1.116	1.398
5000	0.467	0.443	3.533	0.465	0.445	3.535	2.373	0.246	1.627	2.347	0.272	1.653
5280	0.000	0.467	4.000	0.000	0.467	4.000	2.169	0.204	1.831	2.142	0.231	1.858
0	2.996	-2.996	1.004	3.045	-3.045	0.955	3.410	-1.241	0.590	3.433	-1.264	0.567

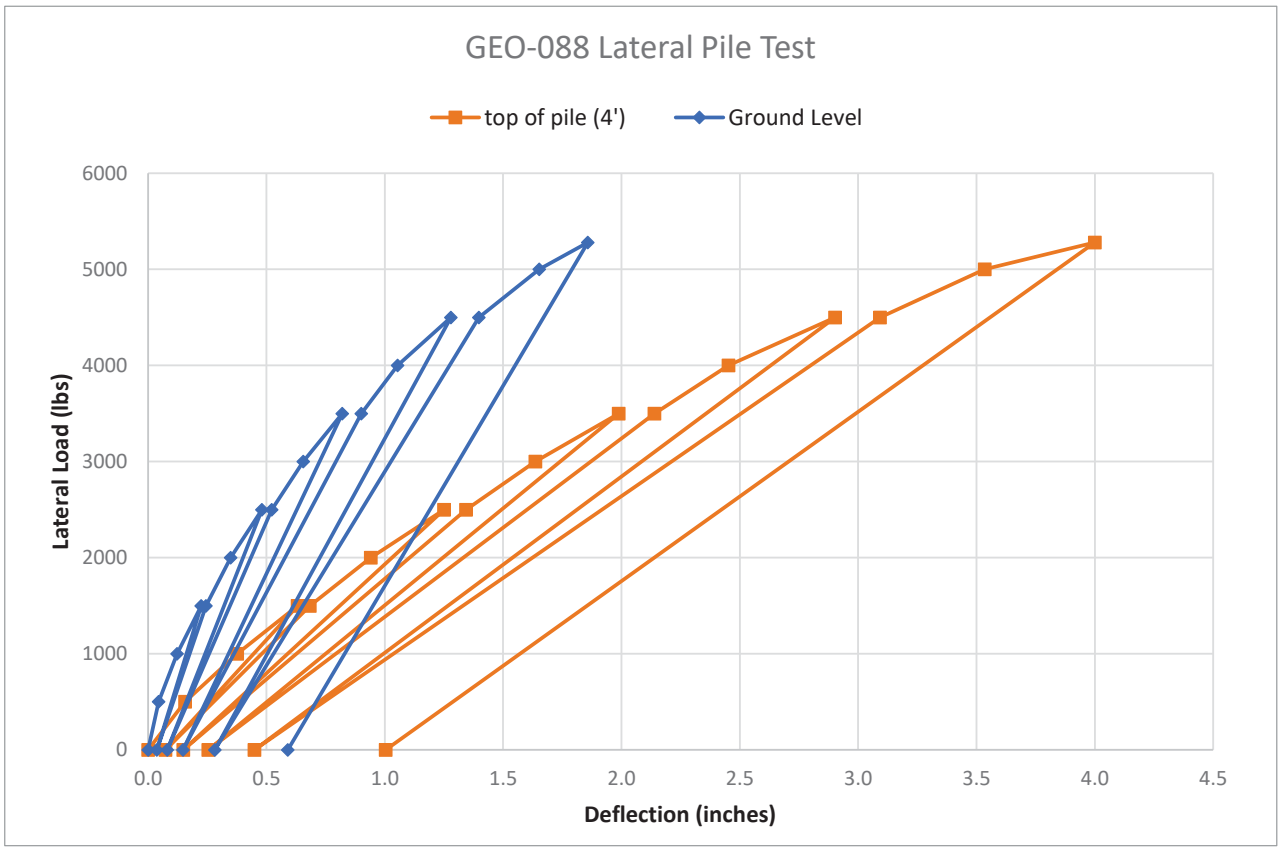
olsson

Field Pile Testing Results

Location:	GEO-088
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-088
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.999	0.001	0.001	3.998	0.002	0.002
2000	3.999	0.001	0.001	3.998	0.002	0.002	3.996	0.003	0.004	3.996	0.002	0.004
3000	3.996	0.003	0.004	3.995	0.003	0.005	3.994	0.002	0.006	3.994	0.002	0.006
4000	3.989	0.007	0.011	3.989	0.006	0.011	3.992	0.002	0.008	3.992	0.002	0.008
5000	3.982	0.007	0.018	3.980	0.009	0.020	3.988	0.004	0.012	3.982	0.010	0.018
6000	3.963	0.019	0.037	3.962	0.018	0.038	3.979	0.009	0.021	3.978	0.004	0.022
7000	3.932	0.031	0.068	3.925	0.037	0.075	3.957	0.022	0.043	3.953	0.025	0.047
8000	3.890	0.042	0.110	3.882	0.043	0.118	3.923	0.034	0.077	3.915	0.038	0.085
9000	3.836	0.054	0.164	3.828	0.054	0.172	3.873	0.050	0.127	3.865	0.050	0.135
10000	3.744	0.092	0.256	3.727	0.101	0.273	3.790	0.083	0.210	3.780	0.085	0.220
11000	3.600	0.144	0.400	3.583	0.144	0.417	3.678	0.112	0.322	3.667	0.113	0.333
12000	3.410	0.190	0.590	3.390	0.193	0.610	3.555	0.123	0.445	3.544	0.123	0.456
13000	3.120	0.290	0.880	3.075	0.315	0.925	3.416	0.139	0.584	3.409	0.135	0.591
14000	2.550	0.570	1.450	2.500	0.575	1.500	2.757	0.659	1.243	2.746	0.663	1.254
14460	1.930	0.620	2.070	1.882	0.618	2.118	2.120	0.637	1.880	2.089	0.657	1.911
0	1.951	-0.021	2.049	1.964	-0.082	2.036	2.124	-0.004	1.876	2.126	-0.037	1.874

olsson

Location:	GEO-092
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

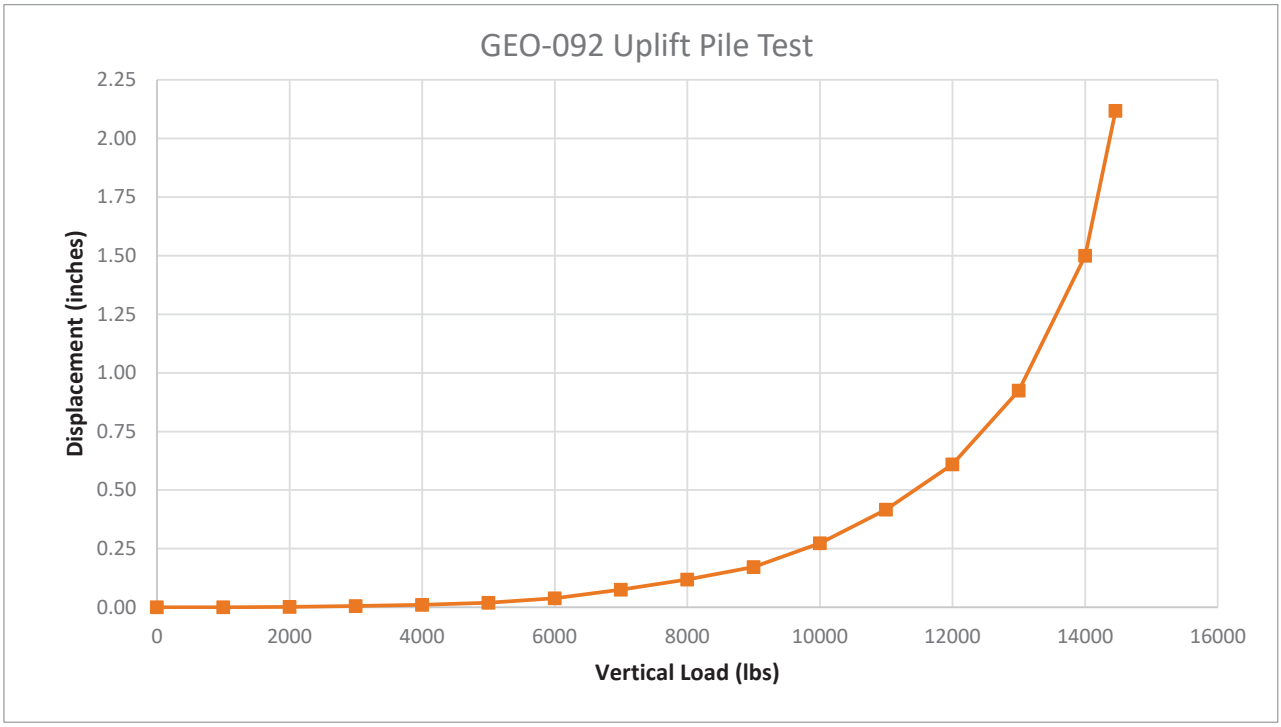
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.845	0.155	0.155	3.834	0.166	0.166	3.949	0.051	0.051	3.944	0.056	0.056
1000	3.664	0.181	0.336	3.665	0.180	0.335	3.877	0.072	0.123	3.875	0.074	0.125
1500	3.440	0.224	0.560	3.440	0.224	0.560	3.780	0.097	0.220	3.776	0.101	0.224
0	3.948	-0.508	0.052	3.959	-0.519	0.041	3.971	-0.191	0.029	3.975	-0.195	0.025
1500	3.395	0.553	0.605	3.395	0.553	0.605	3.757	0.214	0.243	3.754	0.217	0.246
2000	3.160	0.235	0.840	3.160	0.235	0.840	3.652	0.105	0.348	3.647	0.110	0.353
2500	2.841	0.319	1.159	2.840	0.320	1.160	3.500	0.152	0.500	3.492	0.160	0.508
0	3.893	-1.052	0.107	3.910	-1.069	0.090	3.931	-0.431	0.069	3.938	-0.438	0.062
2500	2.773	1.120	1.227	2.773	1.120	1.227	3.457	0.474	0.543	3.453	0.478	0.547
3000	2.506	0.267	1.494	2.505	0.268	1.495	3.332	0.125	0.668	3.324	0.133	0.676
3500	2.193	0.313	1.807	2.192	0.314	1.808	3.177	0.155	0.823	3.167	0.165	0.833
0	3.822	-1.629	0.178	3.828	-1.635	0.172	3.876	-0.699	0.124	3.885	-0.708	0.115
3500	2.035	1.787	1.965	2.035	1.787	1.965	3.087	0.789	0.913	3.078	0.798	0.922
4000	1.725	0.310	2.275	1.724	0.311	2.276	2.934	0.153	1.066	2.919	0.168	1.081
4500	1.336	0.389	2.664	1.331	0.394	2.669	2.727	0.207	1.273	2.706	0.228	1.294
0	3.669	-2.333	0.331	3.697	-2.361	0.303	3.770	-1.043	0.230	3.780	-1.053	0.220
4500	1.166	2.503	2.834	1.166	2.503	2.834	2.617	1.153	1.383	2.605	1.165	1.395
5000	0.743	0.423	3.257	0.740	0.426	3.260	2.389	0.228	1.611	2.375	0.242	1.625
5500	0.336	0.407	3.664	0.330	0.413	3.670	2.169	0.220	1.831	2.145	0.244	1.855
0	3.460	-3.124	0.540	3.473	-3.137	0.527	3.610	-1.441	0.390	3.616	-1.447	0.384

olsson

Field Pile Testing Results

Location:	GEO-092
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project





olsson

Location:	GEO-092
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.999	0.001	0.001	3.999	0.001	0.001	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.997	0.002	0.003	3.997	0.002	0.003	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.991	0.006	0.009	3.992	0.005	0.008	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.984	0.007	0.016	3.985	0.007	0.015	4.000	0.000	0.000	4.000	0.000	0.000
5000	3.974	0.010	0.026	3.975	0.010	0.025	4.000	0.000	0.000	4.000	0.000	0.000
6000	3.960	0.014	0.040	3.960	0.015	0.040	3.996	0.004	0.004	3.994	0.006	0.006
7000	3.939	0.021	0.061	3.938	0.022	0.062	3.986	0.010	0.014	3.984	0.010	0.016
8000	3.910	0.029	0.090	3.908	0.030	0.092	3.967	0.019	0.033	3.962	0.022	0.038
9000	3.860	0.050	0.140	3.855	0.053	0.145	3.929	0.038	0.071	3.922	0.040	0.078
10000	3.785	0.075	0.215	3.778	0.077	0.222	3.868	0.061	0.132	3.858	0.064	0.142
11000	3.685	0.100	0.315	3.675	0.103	0.325	3.784	0.084	0.216	3.772	0.086	0.228
12000	3.599	0.086	0.401	3.583	0.092	0.417	3.708	0.076	0.292	3.694	0.078	0.306
13000	3.468	0.131	0.532	3.453	0.130	0.547	3.599	0.109	0.401	3.584	0.110	0.416
14000	3.310	0.158	0.690	3.290	0.163	0.710	3.472	0.127	0.528	3.454	0.130	0.546
15000	3.108	0.202	0.892	3.080	0.210	0.920	3.336	0.136	0.664	3.317	0.137	0.683
16000	2.880	0.228	1.120	2.846	0.234	1.154	3.220	0.116	0.780	3.204	0.113	0.796
17000	2.440	0.440	1.560	2.396	0.450	1.604	3.080	0.140	0.920	3.064	0.140	0.936
0	2.441	-0.001	1.559	2.445	-0.049	1.555	3.034	0.046	0.966	3.034	0.030	0.966

olsson

Location:	GEO-094
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.002	-0.002	-0.002	0.001	-0.001	-0.001	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.004	-0.002	-0.004	0.003	-0.002	-0.003	0.000	0.000	0.000	0.000	0.000	0.000
3000	0.005	-0.001	-0.005	0.006	-0.003	-0.006	0.004	-0.004	-0.004	0.003	-0.003	-0.003
4000	0.010	-0.005	-0.010	0.010	-0.004	-0.010	0.003	0.001	-0.003	0.003	0.000	-0.003
5000	0.013	-0.003	-0.013	0.012	-0.002	-0.012	0.004	-0.001	-0.004	0.003	0.000	-0.003
6000	0.015	-0.002	-0.015	0.015	-0.003	-0.015	0.006	-0.002	-0.006	0.006	-0.003	-0.006
7000	0.019	-0.004	-0.019	0.019	-0.004	-0.019	0.009	-0.003	-0.009	0.008	-0.002	-0.008
8000	0.025	-0.006	-0.025	0.026	-0.007	-0.026	0.010	-0.001	-0.010	0.010	-0.002	-0.010
9000	0.032	-0.007	-0.032	0.032	-0.006	-0.032	0.012	-0.002	-0.012	0.012	-0.002	-0.012
10000	0.038	-0.006	-0.038	0.039	-0.007	-0.039	0.014	-0.002	-0.014	0.014	-0.002	-0.014
11000	0.042	-0.004	-0.042	0.047	-0.008	-0.047	0.019	-0.005	-0.019	0.017	-0.003	-0.017
0	0.008	0.034	-0.008	0.007	0.040	-0.007	0.011	0.008	-0.011	0.011	0.006	-0.011

olsson

Field Pile Testing Results

Location:	GEO-094
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project

Lateral

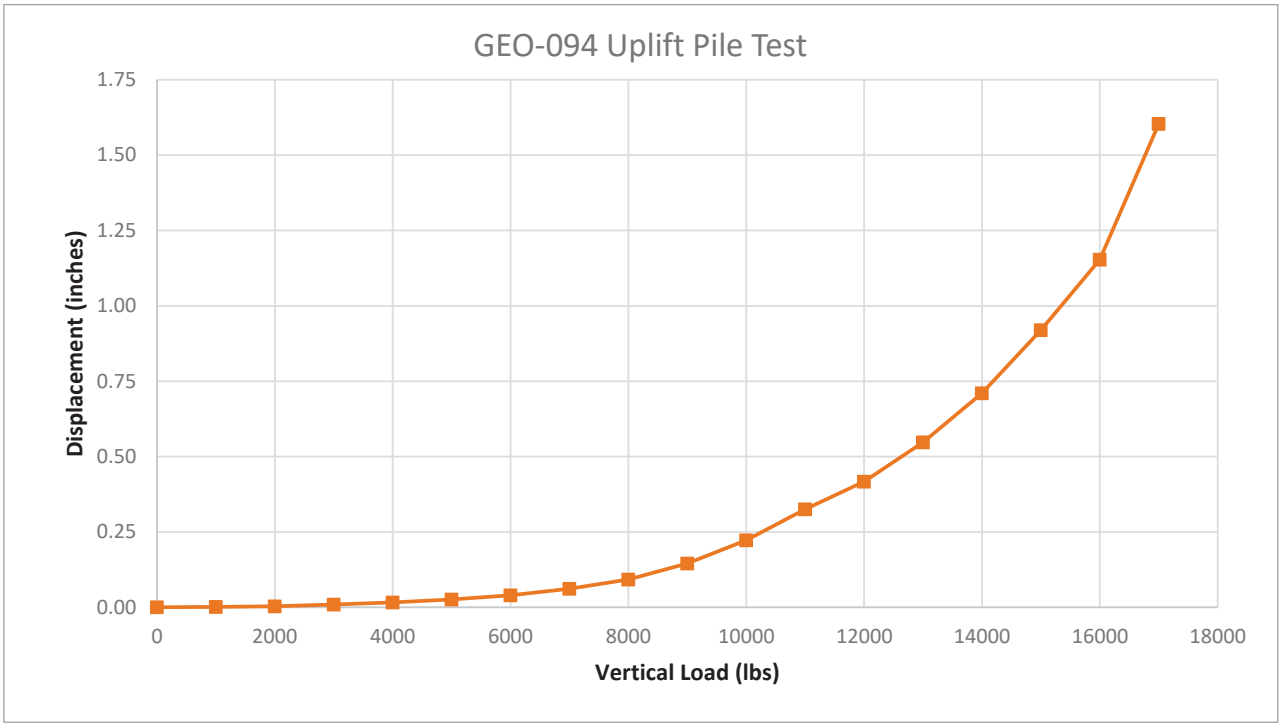
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.852	0.148	0.148	3.851	0.149	0.149	3.959	0.041	0.041	3.959	0.041	0.041
1000	3.665	0.187	0.335	3.665	0.187	0.335	3.900	0.059	0.100	3.898	0.061	0.102
1500	3.409	0.256	0.591	3.407	0.258	0.593	3.806	0.094	0.194	3.802	0.098	0.198
0	3.946	-0.537	0.054	3.953	-0.544	0.047	3.969	-0.163	0.031	3.971	-0.165	0.029
1500	3.392	0.554	0.608	3.394	0.552	0.606	3.794	0.175	0.206	3.793	0.176	0.207
2000	3.174	0.218	0.826	3.177	0.215	0.823	3.713	0.081	0.287	3.711	0.083	0.289
2500	2.903	0.271	1.097	2.907	0.267	1.093	3.605	0.108	0.395	3.601	0.112	0.399
0	3.899	-0.996	0.101	3.905	-1.002	0.095	3.945	-0.340	0.055	3.947	-0.342	0.053
2500	2.840	1.059	1.160	2.849	1.050	1.151	3.573	0.372	0.427	3.572	0.373	0.428
3000	2.575	0.265	1.425	2.584	0.256	1.416	3.469	0.104	0.531	3.465	0.108	0.535
3500	2.285	0.290	1.715	2.298	0.277	1.702	3.350	0.119	0.650	3.345	0.124	0.655
0	3.843	-1.558	0.157	3.853	-1.568	0.147	3.915	-0.565	0.085	3.919	-0.569	0.081
3500	2.192	1.651	1.808	2.209	1.634	1.791	3.301	0.614	0.699	3.299	0.616	0.701
4000	1.910	0.282	2.090	1.931	0.261	2.069	3.185	0.116	0.815	3.183	0.118	0.817
4500	1.593	0.317	2.407	1.615	0.295	2.385	3.046	0.139	0.954	3.043	0.142	0.957
0	3.777	-2.184	0.223	3.793	-2.200	0.207	3.880	-0.834	0.120	3.886	-0.840	0.114
4500	1.448	2.329	2.552	1.461	2.316	2.539	2.965	0.915	1.035	2.963	0.917	1.037
5000	1.151	0.297	2.849	1.165	0.283	2.835	2.839	0.126	1.161	2.834	0.131	1.166
5500	0.734	0.417	3.266	0.746	0.405	3.254	2.656	0.183	1.344	2.647	0.192	1.353
0	3.592	-2.858	0.408	3.612	-2.878	0.388	3.789	-1.133	0.211	3.798	-1.142	0.202

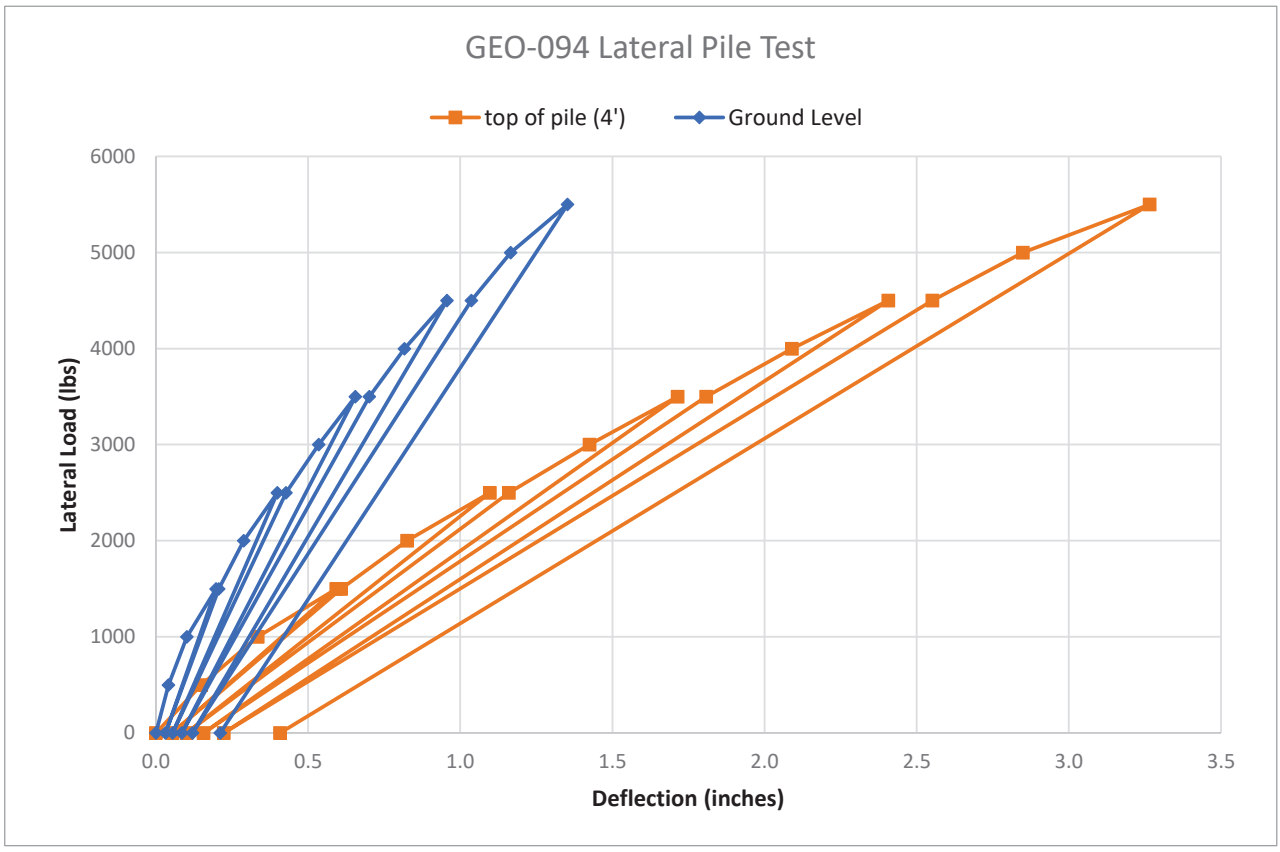
olsson

Location:	GEO-094
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-094
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.998	0.002	0.002	3.998	0.002	0.002	3.999	0.001	0.001	3.999	0.001	0.001
2000	3.992	0.006	0.008	3.994	0.004	0.006	3.999	0.000	0.001	3.999	0.000	0.001
3000	3.986	0.006	0.014	3.988	0.006	0.012	3.999	0.000	0.001	3.999	0.000	0.001
4000	3.979	0.007	0.021	3.982	0.006	0.018	3.999	0.000	0.001	3.999	0.000	0.001
5000	3.971	0.008	0.029	3.975	0.007	0.025	3.999	0.000	0.001	3.998	0.001	0.002
6000	3.961	0.010	0.039	3.964	0.011	0.036	3.997	0.002	0.003	3.996	0.002	0.004
7000	3.947	0.014	0.053	3.947	0.017	0.053	3.992	0.005	0.008	3.990	0.006	0.010
8000	3.922	0.025	0.078	3.920	0.027	0.080	3.979	0.013	0.021	3.975	0.015	0.025
9000	3.875	0.047	0.125	3.872	0.048	0.128	3.948	0.031	0.052	3.942	0.033	0.058
10000	3.825	0.050	0.175	3.822	0.050	0.178	3.913	0.035	0.087	3.904	0.038	0.096
11000	3.754	0.071	0.246	3.785	0.037	0.215	3.860	0.053	0.140	3.849	0.055	0.151
12000	3.650	0.104	0.350	3.641	0.144	0.359	3.778	0.082	0.222	3.766	0.083	0.234
13000	3.532	0.118	0.468	3.520	0.121	0.480	3.683	0.095	0.317	3.667	0.099	0.333
14000	3.393	0.139	0.607	3.378	0.142	0.622	3.571	0.112	0.429	3.556	0.111	0.444
15000	3.152	0.241	0.848	3.129	0.249	0.871	3.396	0.175	0.604	3.382	0.174	0.618
15800	2.220	0.932	1.780	2.126	1.003	1.874	2.885	0.511	1.115	2.864	0.518	1.136
0	2.232	-0.012	1.768	2.238	-0.112	1.762	2.841	0.044	1.159	2.841	0.023	1.159

olsson

Location:	GEO-096
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

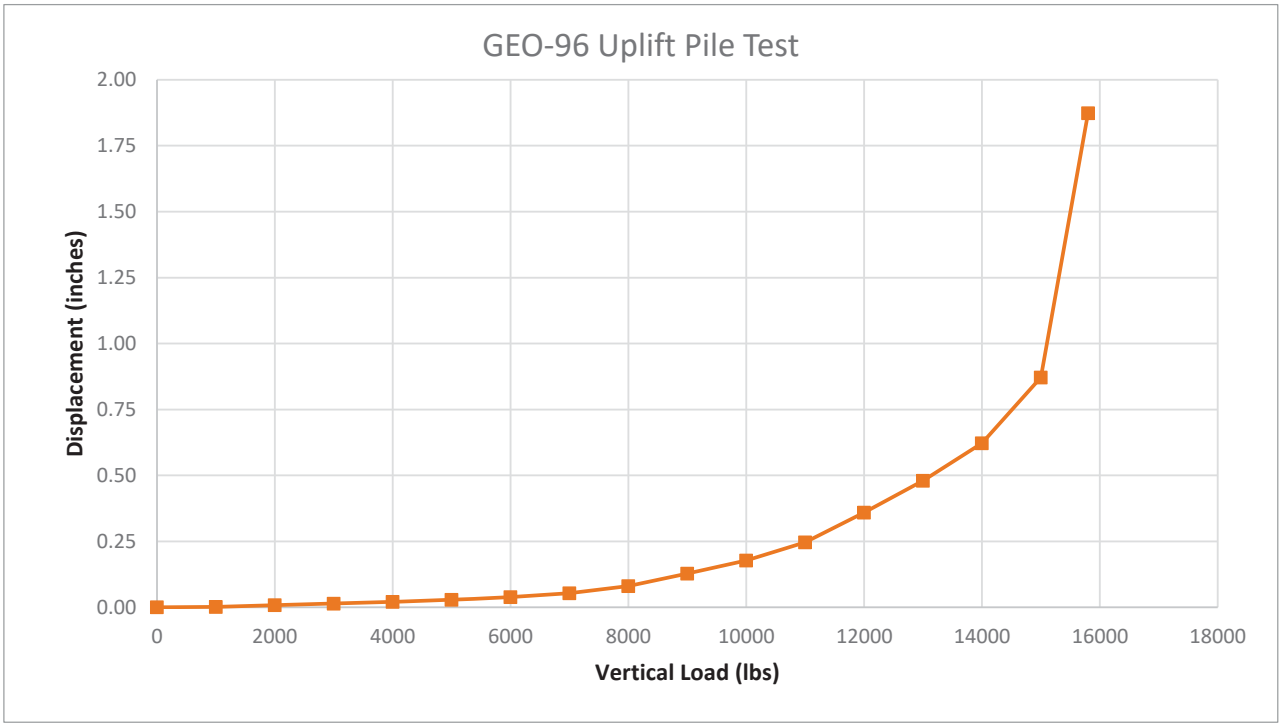
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.863	0.137	0.137	3.865	0.135	0.135	3.957	0.043	0.043	3.957	0.043	0.043
1000	3.655	0.208	0.345	3.662	0.201	0.338	3.885	0.072	0.115	3.885	0.072	0.115
1500	3.462	0.193	0.538	3.473	0.182	0.527	3.815	0.070	0.185	3.815	0.070	0.185
0	3.985	-0.523	0.015	3.988	-0.526	0.012	3.978	-0.163	0.022	3.979	-0.164	0.021
1500	3.449	0.536	0.551	3.455	0.530	0.545	3.804	0.174	0.196	3.804	0.174	0.196
2000	3.233	0.216	0.767	3.253	0.196	0.747	3.719	0.085	0.281	3.719	0.085	0.281
2500	2.985	0.248	1.015	3.029	0.204	0.971	3.608	0.111	0.392	3.608	0.111	0.392
0	3.935	-0.950	0.065	3.954	-0.969	0.046	3.953	-0.345	0.047	3.958	-0.350	0.042
2500	2.911	1.024	1.089	2.938	0.997	1.062	3.572	0.381	0.428	3.572	0.381	0.428
3000	2.645	0.266	1.355	2.651	0.260	1.349	3.455	0.117	0.545	3.457	0.115	0.543
3500	2.338	0.307	1.662	2.359	0.286	1.641	3.319	0.136	0.681	3.313	0.142	0.687
0	3.855	-1.517	0.145	3.876	-1.538	0.124	3.905	-0.586	0.095	3.912	-0.593	0.088
3500	2.220	1.635	1.780	2.234	1.621	1.766	3.249	0.656	0.751	3.243	0.662	0.757
4000	1.902	0.318	2.098	1.901	0.319	2.099	3.099	0.150	0.901	3.089	0.160	0.911
4500	1.568	0.334	2.432	1.568	0.334	2.432	2.951	0.148	1.049	2.937	0.162	1.063
0	3.730	-2.162	0.270	3.750	-2.182	0.250	3.820	-0.869	0.180	3.820	-0.869	0.180
4500	1.344	2.386	2.656	1.363	2.367	2.637	2.833	0.987	1.167	2.831	0.989	1.169
5000	0.771	0.573	3.229	0.782	0.562	3.218	2.617	0.216	1.383	2.615	0.218	1.385
0	2.155	-1.384	1.845	2.175	-1.404	1.825	3.051	-0.434	0.949	3.055	-0.438	0.945

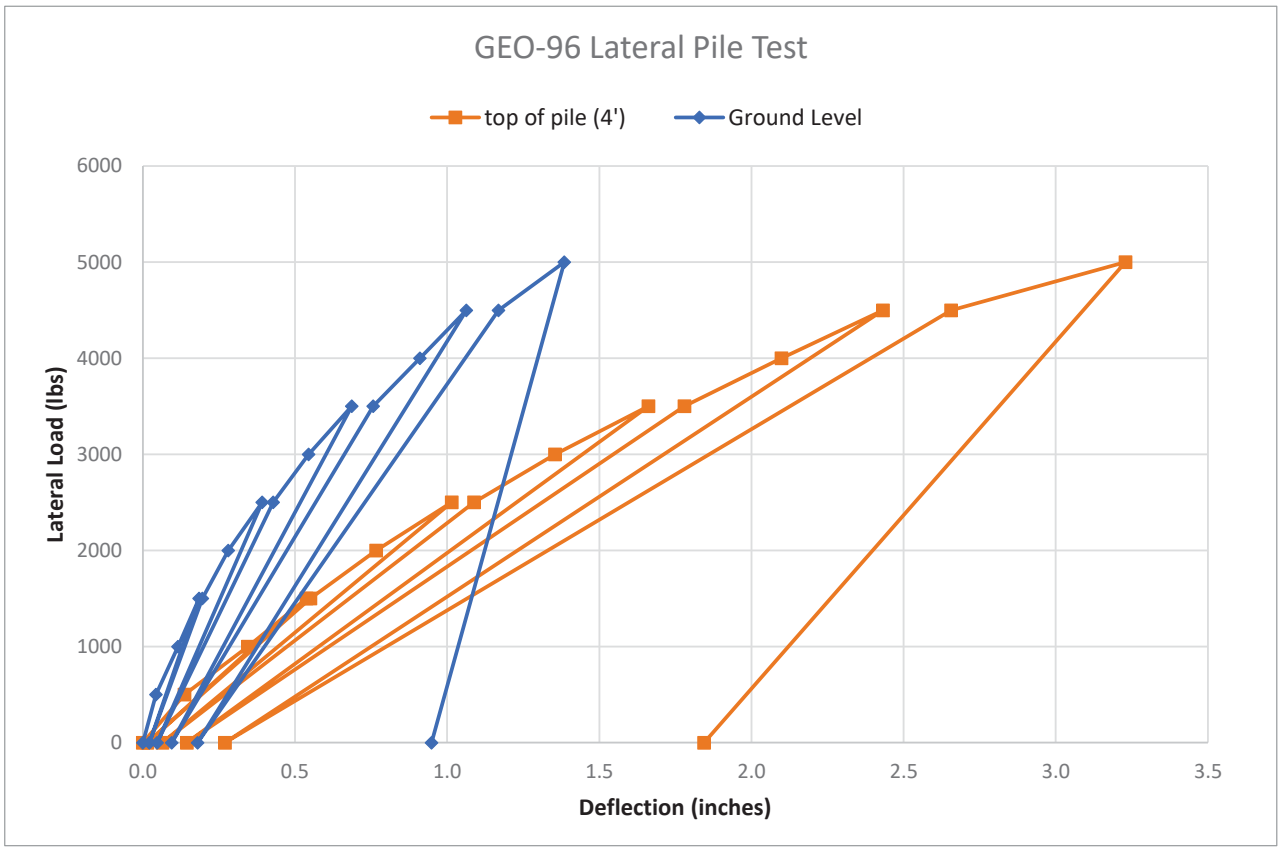
olsson

Field Pile Testing Results

Location:	GEO-096
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project





olsson

Location:	GEO-096
Test Date:	12/5/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.995	0.005	0.005	3.997	0.003	0.003	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.987	0.008	0.013	3.989	0.008	0.011	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.976	0.011	0.024	3.978	0.011	0.022	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.952	0.024	0.048	3.953	0.025	0.047	3.998	0.002	0.002	3.995	0.005	0.005
5000	3.918	0.034	0.082	3.914	0.039	0.086	3.983	0.015	0.017	3.976	0.019	0.024
6000	3.868	0.050	0.132	3.861	0.053	0.139	3.951	0.032	0.049	3.939	0.037	0.061
7000	3.804	0.064	0.196	3.786	0.075	0.214	3.904	0.047	0.096	3.884	0.055	0.116
8000	3.663	0.141	0.337	3.635	0.151	0.365	3.789	0.115	0.211	3.760	0.124	0.240
9000	3.452	0.211	0.548	3.420	0.215	0.580	3.602	0.187	0.398	3.574	0.186	0.426
10000	3.194	0.258	0.806	3.148	0.272	0.852	3.369	0.233	0.631	3.336	0.238	0.664
11000	2.712	0.482	1.288	2.660	0.488	1.340	2.972	0.397	1.028	2.929	0.407	1.071
0	2.028	0.684	1.972	2.028	0.632	1.972	2.428	0.544	1.572	2.424	0.505	1.576

olsson

Location:	GEO-098
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project
Wharton County, Ohio

Lateral

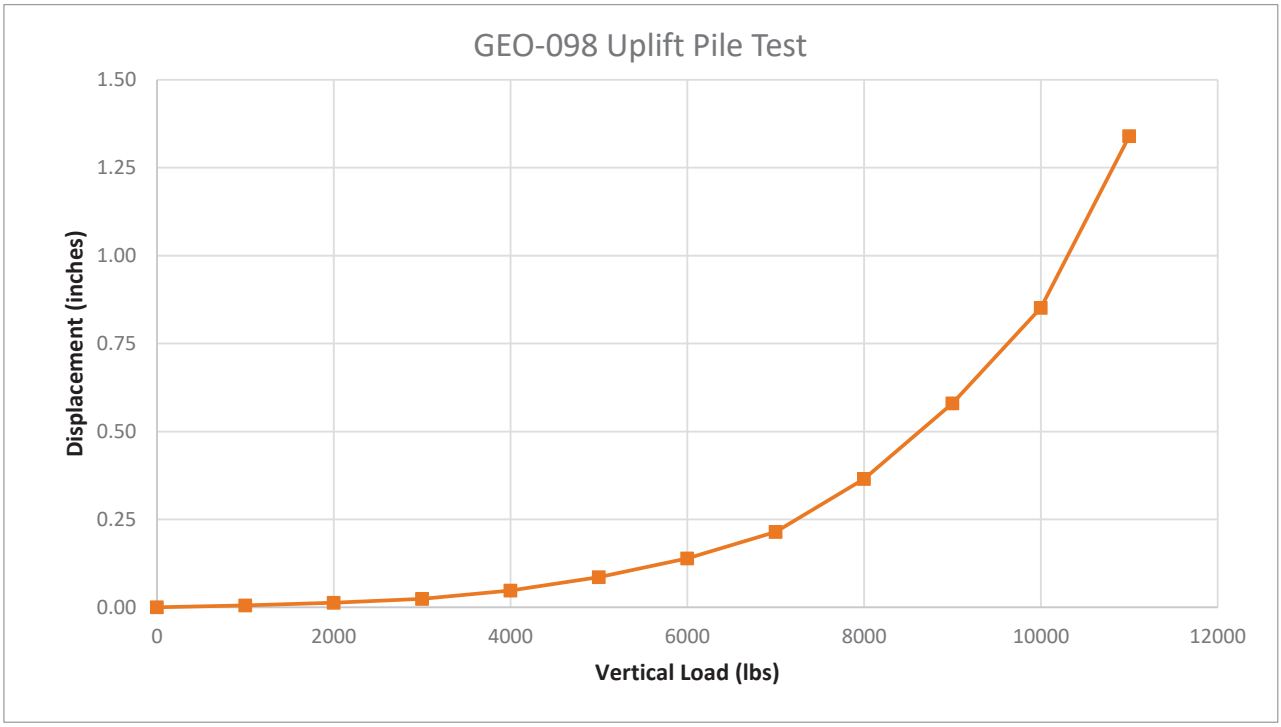
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.840	0.160	0.160	3.842	0.158	0.158	3.955	0.045	0.045	3.954	0.046	0.046
1000	3.600	0.240	0.400	3.592	0.248	0.408	3.869	0.086	0.131	3.866	0.089	0.134
1500	3.358	0.242	0.642	3.357	0.243	0.643	3.778	0.091	0.222	3.773	0.096	0.227
0	3.949	-0.591	0.051	3.951	-0.593	0.049	3.976	-0.198	0.024	3.976	-0.198	0.024
1500	3.310	0.639	0.690	3.310	0.639	0.690	3.753	0.223	0.247	3.752	0.224	0.248
2000	3.076	0.234	0.924	3.075	0.235	0.925	3.662	0.091	0.338	3.658	0.095	0.342
2500	2.792	0.284	1.208	2.796	0.280	1.204	3.547	0.115	0.453	3.541	0.121	0.459
0	3.912	-1.120	0.088	3.917	-1.125	0.083	3.963	-0.416	0.037	3.965	-0.418	0.035
2500	2.706	1.206	1.294	2.707	1.205	1.293	3.502	0.461	0.498	3.500	0.463	0.500
3000	2.465	0.241	1.535	2.463	0.243	1.537	3.402	0.100	0.598	3.397	0.105	0.603
3500	2.163	0.302	1.837	2.162	0.303	1.838	3.274	0.128	0.726	3.266	0.136	0.734
0	3.864	-1.701	0.136	3.872	-1.709	0.128	3.942	-0.668	0.058	3.945	-0.671	0.055
3500	2.094	1.770	1.906	2.095	1.769	1.905	3.232	0.710	0.768	3.226	0.716	0.774
4000	1.804	0.290	2.196	1.804	0.290	2.196	3.110	0.122	0.890	3.102	0.130	0.898
4500	1.515	0.289	2.485	1.513	0.291	2.487	2.984	0.126	1.016	2.972	0.138	1.028
0	3.803	-2.288	0.197	3.812	-2.297	0.188	3.894	-0.910	0.106	3.894	-0.910	0.106
4500	1.385	2.418	2.615	1.394	2.409	2.606	2.910	0.984	1.090	2.903	0.991	1.097
5000	0.947	0.438	3.053	0.945	0.440	3.055	2.719	0.191	1.281	2.711	0.199	1.289
5500	0.214	0.733	3.786	0.217	0.730	3.783	2.404	0.315	1.596	2.395	0.324	1.605
0	2.980	-2.766	1.020	3.000	-2.786	1.000	3.531	-1.127	0.469	3.539	-1.135	0.461

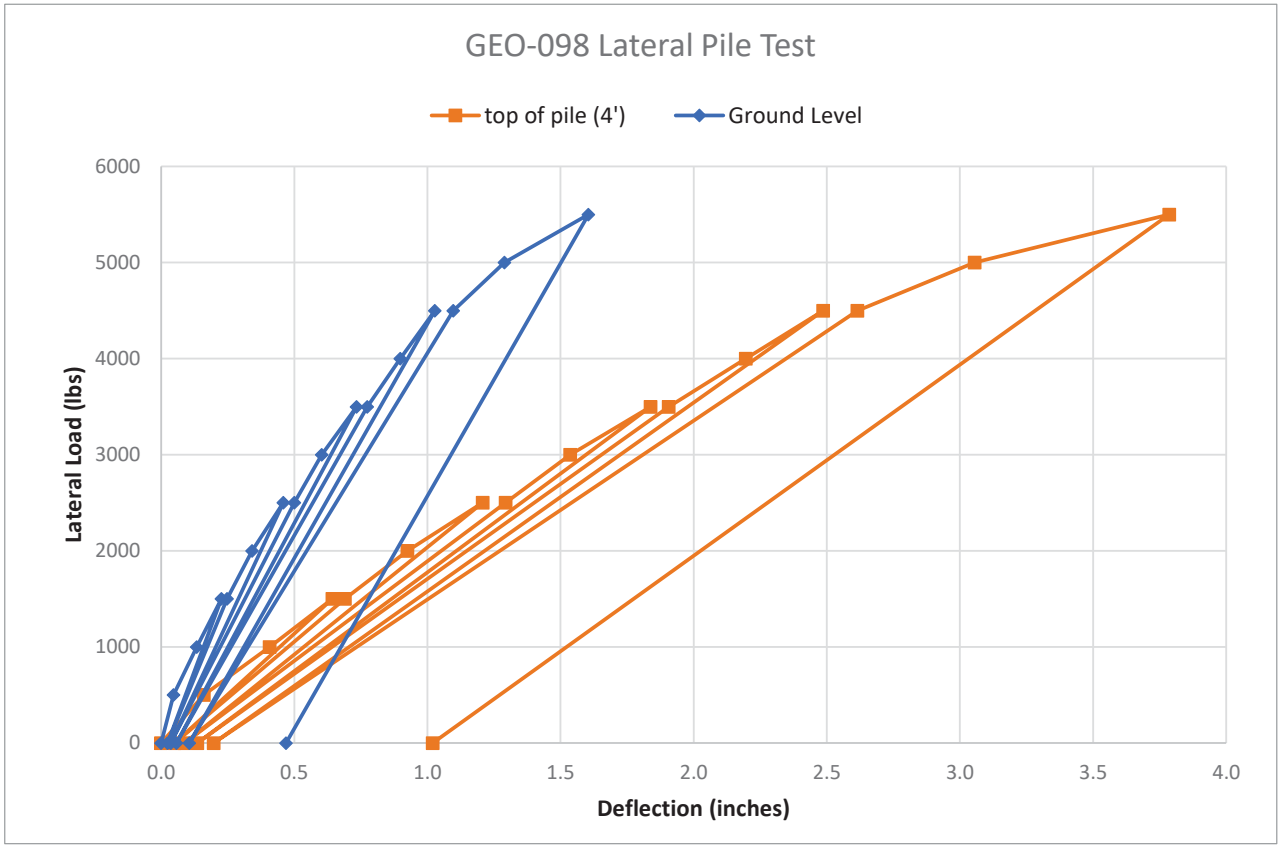
olsson

Location:	GEO-098
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project
Wharton County, Ohio





olsson

Location:	GEO-098
Test Date:	12/8/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project
Wharton County, Ohio

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.996	0.004	0.004	3.996	0.004	0.004
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.004	0.008	3.992	0.004	0.008
3000	3.999	0.001	0.001	3.999	0.001	0.001	3.988	0.004	0.012	3.988	0.004	0.012
4000	3.995	0.004	0.005	3.995	0.004	0.005	3.982	0.006	0.018	3.982	0.006	0.018
5000	3.986	0.009	0.014	3.985	0.010	0.015	3.971	0.011	0.029	3.968	0.014	0.032
6000	3.957	0.029	0.043	3.951	0.034	0.049	3.942	0.029	0.058	3.935	0.033	0.065
7000	3.870	0.087	0.130	3.864	0.087	0.136	3.855	0.087	0.145	3.839	0.096	0.161
8000	3.735	0.135	0.265	3.721	0.143	0.279	3.732	0.123	0.268	3.714	0.125	0.286
9000	3.513	0.222	0.487	3.486	0.235	0.514	3.515	0.217	0.485	3.490	0.224	0.510
10000	3.080	0.433	0.920	3.049	0.437	0.951	3.135	0.380	0.865	3.109	0.381	0.891
0	3.195	-0.115	0.805	3.312	-0.263	0.688	3.167	-0.032	0.833	3.189	-0.080	0.811

olsson

Field Pile Testing Results

Location:	GEO-100
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	0.000	-	0.000	x	-	-	0.000	-	0.000	x	-	-
1000	0.001	-0.001	-0.001	0.001	-0.001	-0.001	0.001	-0.001	-0.001	0.000	0.000	0.000
2000	0.004	-0.003	-0.004	0.005	-0.004	-0.005	0.002	-0.001	-0.002	0.001	-0.001	-0.001
3000	0.008	-0.004	-0.008	0.009	-0.004	-0.009	0.005	-0.003	-0.005	0.005	-0.004	-0.005
4000	0.015	-0.007	-0.015	0.017	-0.008	-0.017	0.015	-0.010	-0.015	0.016	-0.011	-0.016
5000	0.025	-0.010	-0.025	0.029	-0.012	-0.029	0.024	-0.009	-0.024	0.026	-0.010	-0.026
6000	0.038	-0.013	-0.038	0.043	-0.014	-0.043	0.039	-0.015	-0.039	0.041	-0.015	-0.041
7000	0.050	-0.012	-0.050	0.058	-0.015	-0.058	0.054	-0.015	-0.054	0.057	-0.016	-0.057
8000	0.066	-0.016	-0.066	0.076	-0.018	-0.076	0.070	-0.016	-0.070	0.073	-0.016	-0.073
9000	0.087	-0.021	-0.087	0.102	-0.026	-0.102	0.089	-0.019	-0.089	0.096	-0.023	-0.096
10000	0.123	-0.036	-0.123	0.141	-0.039	-0.141	0.123	-0.034	-0.123	0.134	-0.038	-0.134
11000	0.178	-0.055	-0.178	0.180	-0.039	-0.180	0.188	-0.065	-0.188	0.201	-0.067	-0.201
12000	0.241	-0.063	-0.241	0.261	-0.081	-0.261	0.268	-0.080	-0.268	0.283	-0.082	-0.283
13000	0.365	-0.124	-0.365	0.384	-0.123	-0.384	0.408	-0.140	-0.408	0.416	-0.133	-0.416
14000	0.600	-0.235	-0.600	0.648	-0.264	-0.648	0.661	-0.253	-0.661	0.699	-0.283	-0.699
0	0.629	-0.029	-0.629	0.627	0.021	-0.627	0.624	0.037	-0.624	0.622	0.077	-0.622

olsson

Location:	GEO-100
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

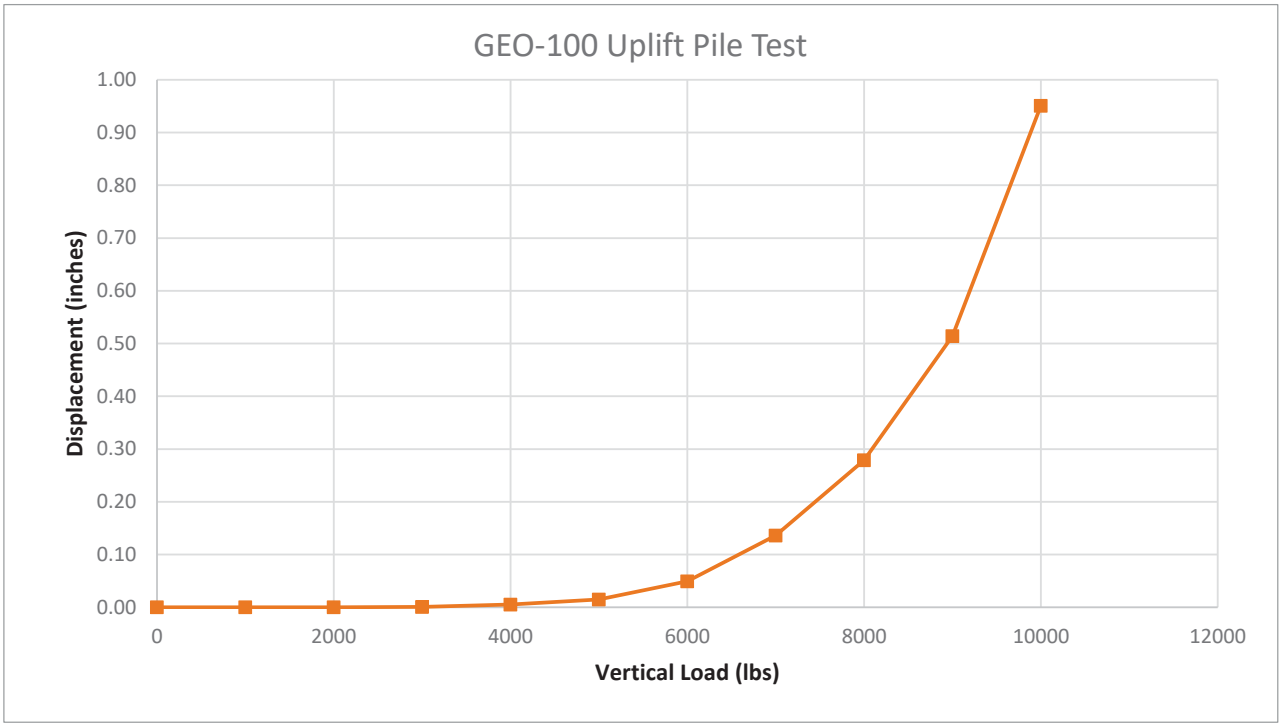
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.851	0.149	0.149	3.851	0.149	0.149	3.955	0.045	0.045	3.955	0.045	0.045
1000	3.660	0.191	0.340	3.660	0.191	0.340	3.889	0.066	0.111	3.888	0.067	0.112
1500	3.443	0.217	0.557	3.443	0.217	0.557	3.813	0.076	0.187	3.813	0.076	0.187
0	3.968	-0.525	0.032	3.975	-0.532	0.025	4.000	-0.187	0.000	4.000	-0.187	0.000
1500	3.417	0.551	0.583	3.417	0.551	0.583	3.820	0.180	0.180	3.820	0.180	0.180
2000	3.183	0.234	0.817	3.183	0.234	0.817	3.732	0.088	0.268	3.732	0.088	0.268
2500	2.904	0.279	1.096	2.904	0.279	1.096	3.619	0.113	0.381	3.617	0.115	0.383
0	3.913	-1.009	0.087	3.925	-1.021	0.075	4.000	-0.381	0.000	4.000	-0.381	0.000
2500	2.845	1.068	1.155	2.845	1.068	1.155	3.597	0.403	0.403	3.597	0.403	0.403
3000	2.558	0.287	1.442	2.580	0.265	1.420	3.476	0.121	0.524	3.472	0.125	0.528
3500	2.230	0.328	1.770	2.230	0.328	1.770	3.325	0.151	0.675	3.315	0.161	0.685
0	3.827	-1.597	0.173	3.846	-1.616	0.154	3.990	-0.665	0.010	4.000	-0.675	0.000
3500	2.106	1.721	1.894	2.107	1.720	1.893	3.258	0.732	0.742	3.253	0.737	0.747
4000	1.781	0.325	2.219	1.780	0.326	2.220	3.107	0.151	0.893	3.094	0.164	0.906
4500	1.364	0.417	2.636	1.360	0.421	2.640	2.899	0.208	1.101	2.882	0.225	1.118
0	3.590	-2.226	0.410	3.612	-2.248	0.388	3.851	-0.952	0.149	3.864	-0.965	0.136
4500	1.168	2.422	2.832	1.174	2.416	2.826	2.783	1.068	1.217	2.773	1.078	1.227
5000	0.733	0.435	3.267	0.735	0.433	3.265	2.568	0.215	1.432	2.550	0.233	1.450
5500	0.143	0.590	3.857	0.143	0.590	3.857	2.286	0.282	1.714	2.265	0.303	1.735
0	3.095	-2.952	0.905	3.135	-2.992	0.865	3.552	-1.266	0.448	3.574	-1.288	0.426

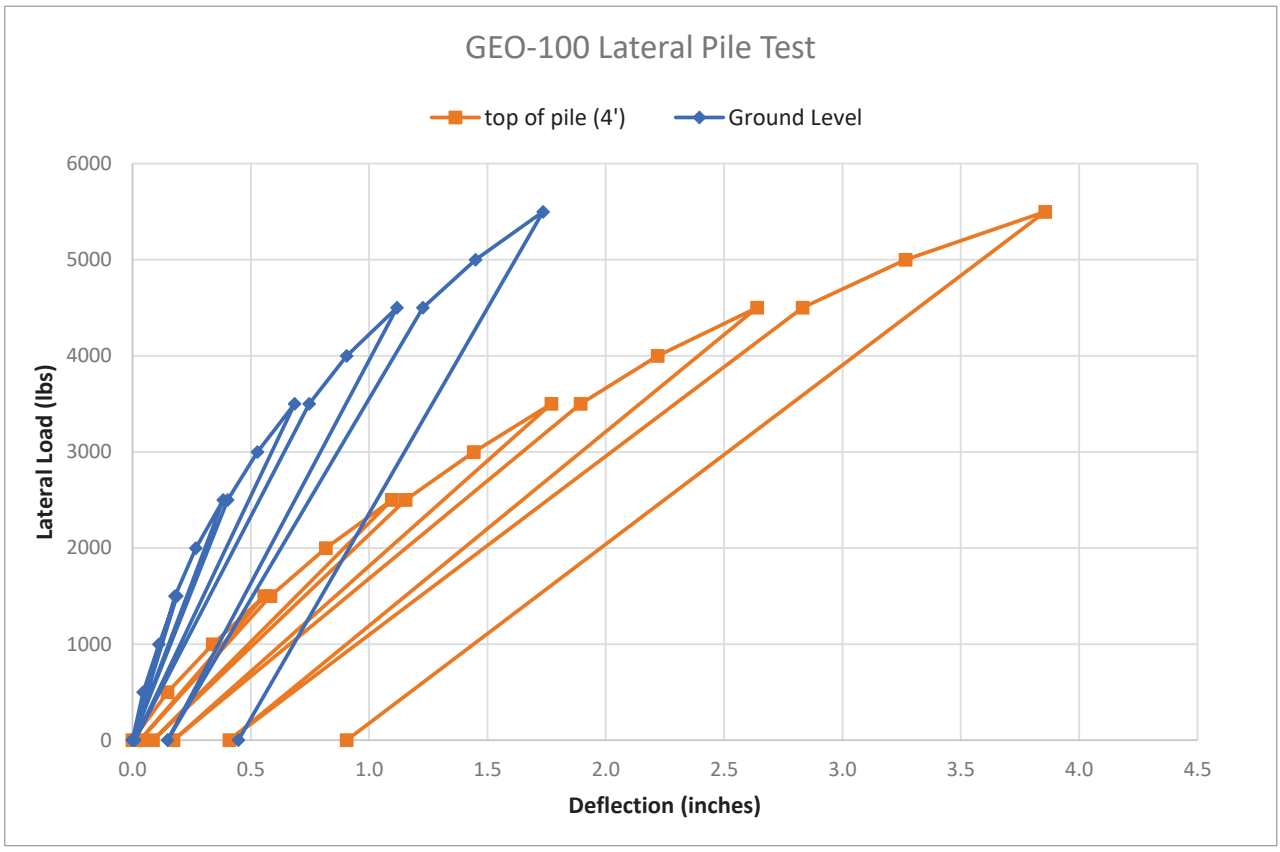
olsson

Location:	GEO-100
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-100
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.995	0.005	0.005	3.998	0.002	0.002	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.991	0.004	0.009	3.995	0.003	0.005	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.983	0.008	0.017	3.988	0.007	0.012	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.967	0.016	0.033	3.974	0.014	0.026	4.000	0.000	0.000	4.000	0.000	0.000
5000	3.955	0.012	0.045	3.964	0.010	0.036	4.000	0.000	0.000	4.000	0.000	0.000
6000	3.940	0.015	0.060	3.947	0.017	0.053	4.000	0.000	0.000	4.000	0.000	0.000
7000	3.920	0.020	0.080	3.923	0.024	0.077	4.000	0.000	0.000	4.000	0.000	0.000
8000	3.902	0.018	0.098	3.906	0.017	0.094	4.000	0.000	0.000	4.000	0.000	0.000
9000	3.880	0.022	0.120	3.885	0.021	0.115	4.000	0.000	0.000	4.000	0.000	0.000
10000	3.842	0.038	0.158	3.845	0.040	0.155	3.993	0.007	0.007	3.988	0.012	0.012
11000	3.810	0.032	0.190	3.809	0.036	0.191	3.980	0.013	0.020	3.974	0.014	0.026
12000	3.749	0.061	0.251	3.748	0.061	0.252	3.950	0.030	0.050	3.943	0.031	0.057
13000	3.677	0.072	0.323	3.673	0.075	0.327	3.909	0.041	0.091	3.897	0.046	0.103
14000	3.605	0.072	0.395	3.597	0.076	0.403	3.861	0.048	0.139	3.848	0.049	0.152
15000	3.515	0.090	0.485	3.506	0.091	0.494	3.800	0.061	0.200	3.790	0.058	0.210
16000	3.403	0.112	0.597	3.381	0.125	0.619	3.725	0.075	0.275	3.709	0.081	0.291
17000	3.200	0.203	0.800	3.157	0.224	0.843	3.600	0.125	0.400	3.569	0.140	0.431
17540	2.925	0.275	1.075	2.901	0.256	1.099	3.338	0.262	0.662	3.326	0.243	0.674
0	3.061	-0.136	0.939	3.068	-0.167	0.932	3.366	-0.028	0.634	3.363	-0.037	0.637

olsson

Location:	GEO-102
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.001	-0.001	-0.001	0.001	-0.001	-0.001	0.000	0.000	0.000	0.000	0.000	0.000
3000	0.004	-0.003	-0.004	0.004	-0.003	-0.004	0.000	0.000	0.000	0.000	0.000	0.000
4000	0.009	-0.005	-0.009	0.010	-0.006	-0.010	0.001	-0.001	-0.001	0.001	-0.001	-0.001
5000	0.013	-0.004	-0.013	0.014	-0.004	-0.014	0.002	-0.001	-0.002	0.002	-0.001	-0.002
6000	0.018	-0.005	-0.018	0.020	-0.006	-0.020	0.005	-0.003	-0.005	0.005	-0.003	-0.005
7000	0.022	-0.004	-0.022	0.024	-0.004	-0.024	0.008	-0.003	-0.008	0.008	-0.003	-0.008
8000	0.024	-0.002	-0.024	0.030	-0.006	-0.030	0.011	-0.003	-0.011	0.011	-0.003	-0.011
9000	0.035	-0.011	-0.035	0.039	-0.009	-0.039	0.017	-0.006	-0.017	0.017	-0.006	-0.017
9700	0.045	-0.010	-0.045	0.052	-0.013	-0.052	0.020	-0.003	-0.020	0.020	-0.003	-0.020

olsson

Field Pile Testing Results

Location:	GEO-102
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

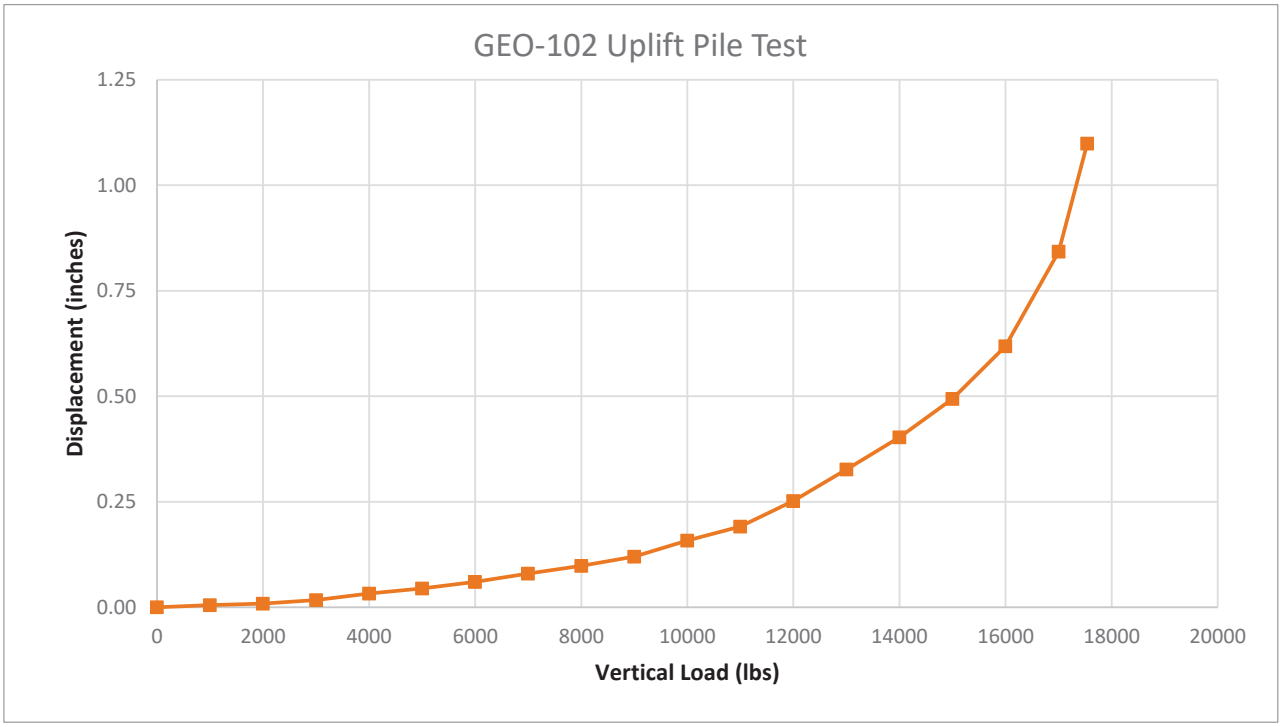
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.860	0.140	0.140	3.861	0.139	0.139	3.945	0.055	0.055	3.944	0.056	0.056
1000	3.670	0.190	0.330	3.675	0.185	0.325	3.865	0.080	0.135	3.864	0.081	0.136
1500	3.454	0.216	0.546	3.468	0.202	0.532	3.771	0.094	0.229	3.771	0.094	0.229
0	3.986	-0.532	0.014	3.994	-0.540	0.006	3.973	-0.202	0.027	3.975	-0.204	0.025
1500	3.406	0.580	0.594	3.404	0.582	0.596	3.739	0.234	0.261	3.737	0.236	0.263
2000	3.205	0.201	0.795	3.204	0.202	0.796	3.650	0.089	0.350	3.647	0.092	0.353
2500	2.909	0.296	1.091	2.908	0.297	1.092	3.512	0.138	0.488	3.507	0.143	0.493
0	3.945	-1.036	0.055	3.957	-1.048	0.043	3.935	-0.423	0.065	3.935	-0.423	0.065
2500	2.837	1.108	1.163	2.840	1.105	1.160	3.474	0.461	0.526	3.470	0.465	0.530
3000	2.589	0.248	1.411	2.589	0.248	1.411	3.357	0.117	0.643	3.353	0.121	0.647
3500	2.336	0.253	1.664	2.337	0.252	1.663	3.237	0.120	0.763	3.233	0.124	0.767
0	3.894	-1.558	0.106	3.912	-1.576	0.088	3.912	-0.675	0.088	3.917	-0.680	0.083
3500	2.217	1.677	1.783	2.217	1.677	1.783	3.168	0.744	0.832	3.164	0.748	0.836
4000	1.935	0.282	2.065	1.935	0.282	2.065	3.034	0.134	0.966	3.027	0.141	0.973
4500	1.628	0.307	2.372	1.627	0.308	2.373	2.882	0.152	1.118	2.873	0.161	1.127
0	3.810	-2.182	0.190	3.824	-2.196	0.176	3.835	-0.953	0.165	3.835	-0.953	0.165
4500	1.497	2.313	2.503	1.501	2.309	2.499	2.802	1.033	1.198	2.797	1.038	1.203
5000	1.195	0.302	2.805	1.195	0.302	2.805	2.652	0.150	1.348	2.644	0.158	1.356
5500	0.781	0.414	3.219	0.777	0.418	3.223	2.445	0.207	1.555	2.432	0.220	1.568
0	3.600	-2.819	0.400	3.622	-2.841	0.378	3.743	-1.298	0.257	3.755	-1.310	0.245

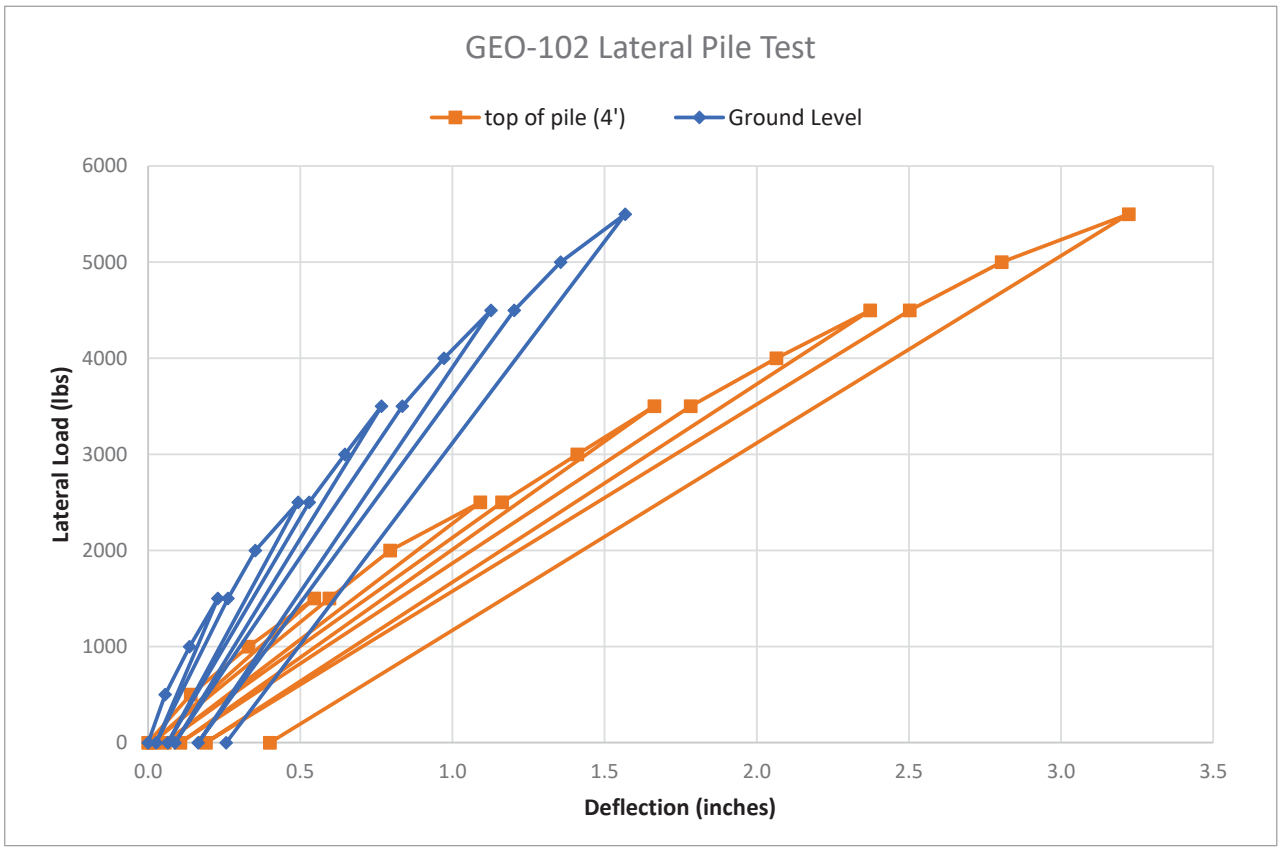
olsson

Location:	GEO-102
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-102
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.993	0.004	0.007	3.993	0.004	0.007
3000	3.998	0.002	0.002	3.998	0.002	0.002	3.991	0.002	0.009	3.991	0.002	0.009
4000	3.994	0.004	0.006	3.994	0.004	0.006	3.989	0.002	0.011	3.989	0.002	0.011
5000	3.988	0.006	0.012	3.989	0.005	0.011	3.986	0.003	0.014	3.986	0.003	0.014
6000	3.978	0.010	0.022	3.978	0.011	0.022	3.980	0.006	0.020	3.980	0.006	0.020
7000	3.965	0.013	0.035	3.965	0.013	0.035	3.970	0.010	0.030	3.968	0.012	0.032
8000	3.943	0.022	0.057	3.942	0.023	0.058	3.952	0.018	0.048	3.951	0.017	0.049
9000	3.916	0.027	0.084	3.915	0.027	0.085	3.929	0.023	0.071	3.927	0.024	0.073
10000	3.880	0.036	0.120	3.875	0.040	0.125	3.891	0.038	0.109	3.886	0.041	0.114
11000	3.800	0.080	0.200	3.797	0.078	0.203	3.816	0.075	0.184	3.812	0.074	0.188
12000	3.725	0.075	0.275	3.718	0.079	0.282	3.743	0.073	0.257	3.736	0.076	0.264
13000	3.613	0.112	0.387	3.596	0.122	0.404	3.630	0.113	0.370	3.616	0.120	0.384
13500	3.048	0.565	0.952	3.030	0.566	0.970	3.077	0.553	0.923	3.060	0.556	0.940
0	3.064	-0.016	0.936	3.070	-0.040	0.930	3.097	-0.020	0.903	3.100	-0.040	0.900

olsson

Location:	GEO-105
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

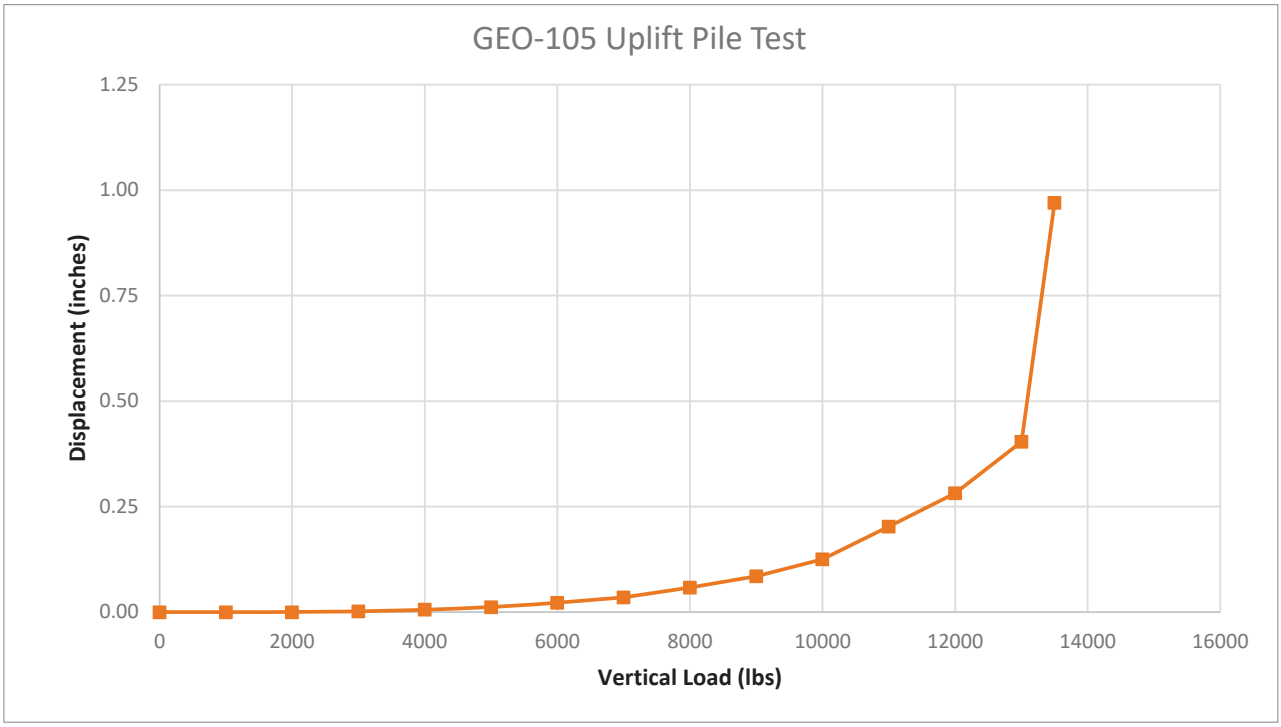
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.778	0.222	0.222	3.790	0.210	0.210	3.926	0.074	0.074	3.928	0.072	0.072
1000	3.604	0.174	0.396	3.604	0.174	0.396	3.854	0.072	0.146	3.853	0.073	0.147
1500	3.361	0.243	0.639	3.361	0.243	0.639	3.748	0.106	0.252	3.745	0.109	0.255
0	3.940	-0.579	0.060	3.951	-0.590	0.049	3.979	-0.231	0.021	3.984	-0.236	0.016
1500	3.345	0.595	0.655	3.345	0.595	0.655	3.737	0.242	0.263	3.736	0.243	0.264
2000	3.107	0.238	0.893	3.106	0.239	0.894	3.631	0.106	0.369	3.628	0.109	0.372
2500	2.840	0.267	1.160	2.837	0.270	1.163	3.507	0.124	0.493	3.500	0.131	0.500
0	3.890	-1.050	0.110	3.901	-1.061	0.099	3.949	-0.442	0.051	3.954	-0.447	0.046
2500	2.785	1.105	1.215	2.785	1.105	1.215	3.472	0.477	0.528	3.468	0.481	0.532
3000	2.508	0.277	1.492	2.506	0.279	1.494	3.346	0.126	0.654	3.340	0.132	0.660
3500	2.187	0.321	1.813	2.182	0.326	1.818	3.192	0.154	0.808	3.179	0.167	0.821
0	3.818	-1.631	0.182	3.835	-1.648	0.165	3.898	-0.706	0.102	3.906	-0.714	0.094
3500	2.091	1.727	1.909	2.089	1.729	1.911	3.128	0.770	0.872	3.122	0.776	0.878
4000	1.780	0.311	2.220	1.778	0.313	2.222	2.981	0.147	1.019	2.971	0.157	1.029
4500	1.461	0.319	2.539	1.455	0.325	2.545	2.820	0.161	1.180	2.811	0.170	1.189
0	3.708	-2.247	0.292	3.730	-2.269	0.270	3.828	-1.008	0.172	3.838	-1.018	0.162
4500	1.292	2.416	2.708	1.292	2.416	2.708	2.721	1.107	1.279	2.713	1.115	1.287
5000	0.937	0.355	3.063	0.936	0.356	3.064	2.548	0.173	1.452	2.536	0.185	1.464
5500	0.595	0.342	3.405	0.590	0.347	3.410	2.375	0.173	1.625	2.357	0.191	1.643
0	3.464	-2.869	0.536	3.490	-2.895	0.510	3.679	-1.304	0.321	3.693	-1.318	0.307

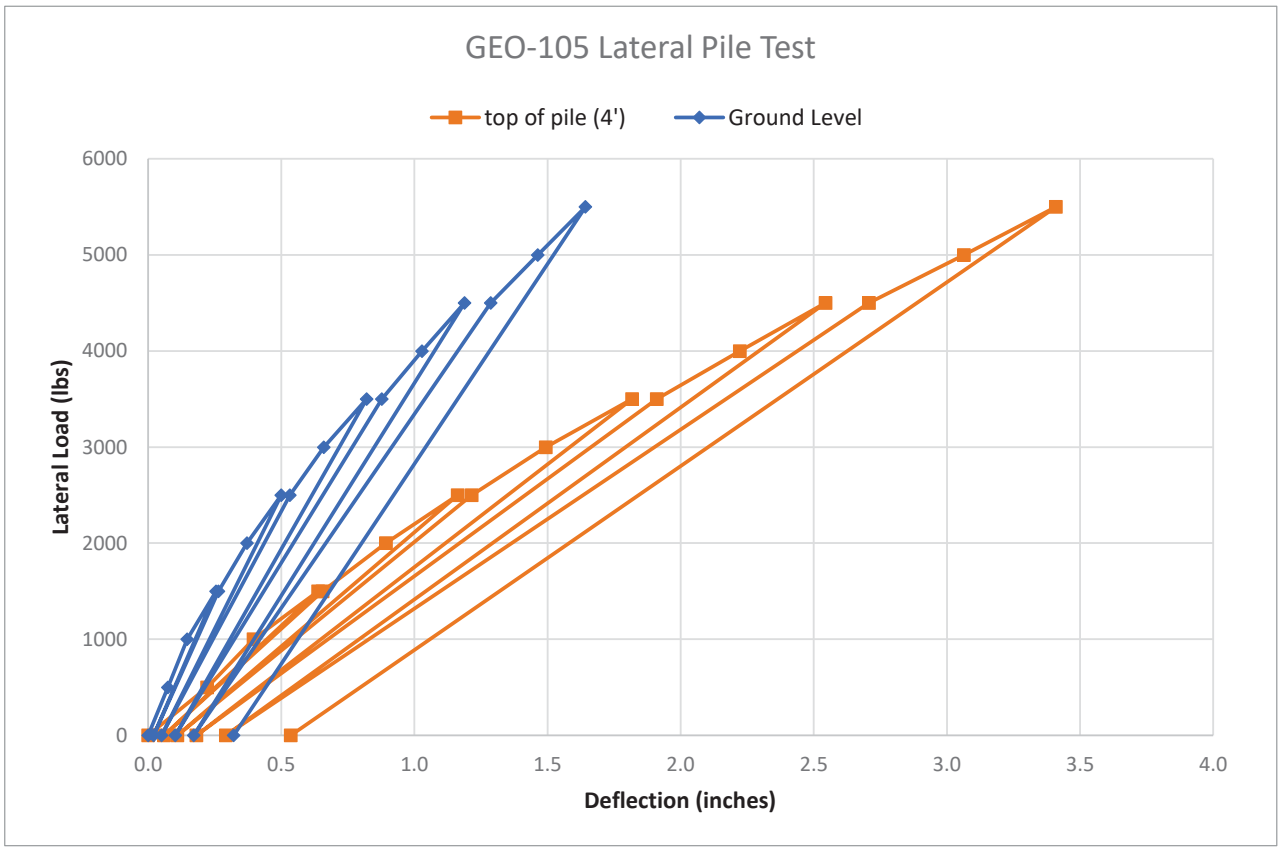
olsson

Field Pile Testing Results

Location:	GEO-105
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project





olsson

Location:	GEO-105
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.003	0.006	3.994	0.003	0.006
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.002	0.008	3.992	0.002	0.008
4000	3.998	0.002	0.002	3.999	0.001	0.001	3.988	0.004	0.012	3.988	0.004	0.012
5000	3.999	-0.001	0.001	3.999	0.000	0.001	3.984	0.004	0.016	3.984	0.004	0.016
6000	3.995	0.004	0.005	3.995	0.004	0.005	3.977	0.007	0.023	3.976	0.008	0.024
7000	3.982	0.013	0.018	3.980	0.015	0.020	3.961	0.016	0.039	3.960	0.016	0.040
8000	3.953	0.029	0.047	3.952	0.028	0.048	3.937	0.024	0.063	3.935	0.025	0.065
9000	3.897	0.056	0.103	3.893	0.059	0.107	3.895	0.042	0.105	3.881	0.054	0.119
10000	3.822	0.075	0.178	3.815	0.078	0.185	3.813	0.082	0.187	3.805	0.076	0.195
11000	3.708	0.114	0.292	3.699	0.116	0.301	3.695	0.118	0.305	3.690	0.115	0.310
12000	3.565	0.143	0.435	3.550	0.149	0.450	3.553	0.142	0.447	3.544	0.146	0.456
13000	3.399	0.166	0.601	3.376	0.174	0.624	3.388	0.165	0.612	3.368	0.176	0.632
14000	3.040	0.359	0.960	3.014	0.362	0.986	3.038	0.350	0.962	3.014	0.354	0.986
14780	2.430	0.610	1.570	2.400	0.614	1.600	2.431	0.607	1.569	2.407	0.607	1.593
0	2.447	-0.017	1.553	2.452	-0.052	1.548	2.458	-0.027	1.542	2.460	-0.053	1.540

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Field Pile Testing Results

Location:	GEO-107
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

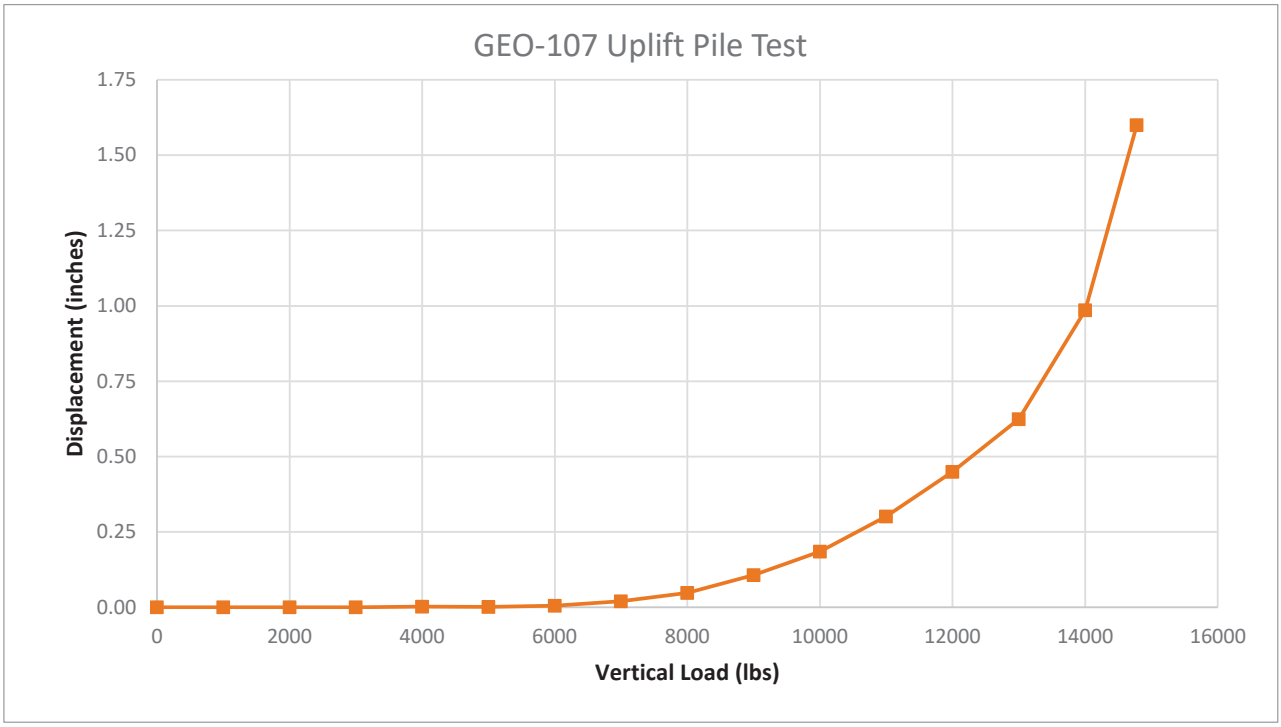
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.815	0.185	0.185	3.790	0.210	0.210	3.935	0.065	0.065	3.927	0.073	0.073
1000	3.650	0.165	0.350	3.654	0.161	0.346	3.870	0.065	0.130	3.869	0.066	0.131
1500	3.427	0.223	0.573	3.427	0.223	0.573	3.770	0.100	0.230	3.767	0.103	0.233
0	3.918	-0.491	0.082	3.929	-0.502	0.071	3.961	-0.191	0.039	3.967	-0.197	0.033
1500	3.372	0.546	0.628	3.372	0.546	0.628	3.745	0.216	0.255	3.742	0.219	0.258
2000	3.139	0.233	0.861	3.137	0.235	0.863	3.636	0.109	0.364	3.635	0.110	0.365
2500	2.870	0.269	1.130	2.870	0.269	1.130	3.510	0.126	0.490	3.506	0.130	0.494
0	3.851	-0.981	0.149	3.865	-0.995	0.135	3.928	-0.418	0.072	3.933	-0.423	0.067
2500	2.792	1.059	1.208	2.792	1.059	1.208	3.468	0.460	0.532	3.467	0.461	0.533
3000	2.523	0.269	1.477	2.528	0.264	1.472	3.344	0.124	0.656	3.343	0.125	0.657
3500	2.220	0.303	1.780	2.220	0.303	1.780	3.197	0.147	0.803	3.191	0.153	0.809
0	3.760	-1.540	0.240	3.799	-1.579	0.201	3.870	-0.673	0.130	3.888	-0.691	0.112
3500	2.120	1.640	1.880	2.120	1.640	1.880	3.137	0.733	0.863	3.133	0.737	0.867
4000	1.821	0.299	2.179	1.819	0.301	2.181	2.993	0.144	1.007	2.982	0.155	1.018
4500	1.505	0.316	2.495	1.500	0.321	2.500	2.835	0.158	1.165	2.824	0.169	1.176
0	3.690	-2.185	0.310	3.715	-2.210	0.285	3.825	-0.990	0.175	3.837	-1.002	0.163
4500	1.368	2.322	2.632	1.368	2.322	2.632	2.751	1.074	1.249	2.743	1.082	1.257
5000	1.054	0.314	2.946	1.049	0.319	2.951	2.600	0.151	1.400	2.585	0.166	1.415
5500	0.447	0.607	3.553	0.445	0.609	3.555	2.313	0.287	1.687	2.302	0.298	1.698
0	3.165	-2.718	0.835	3.194	-2.747	0.806	3.555	-1.242	0.445			

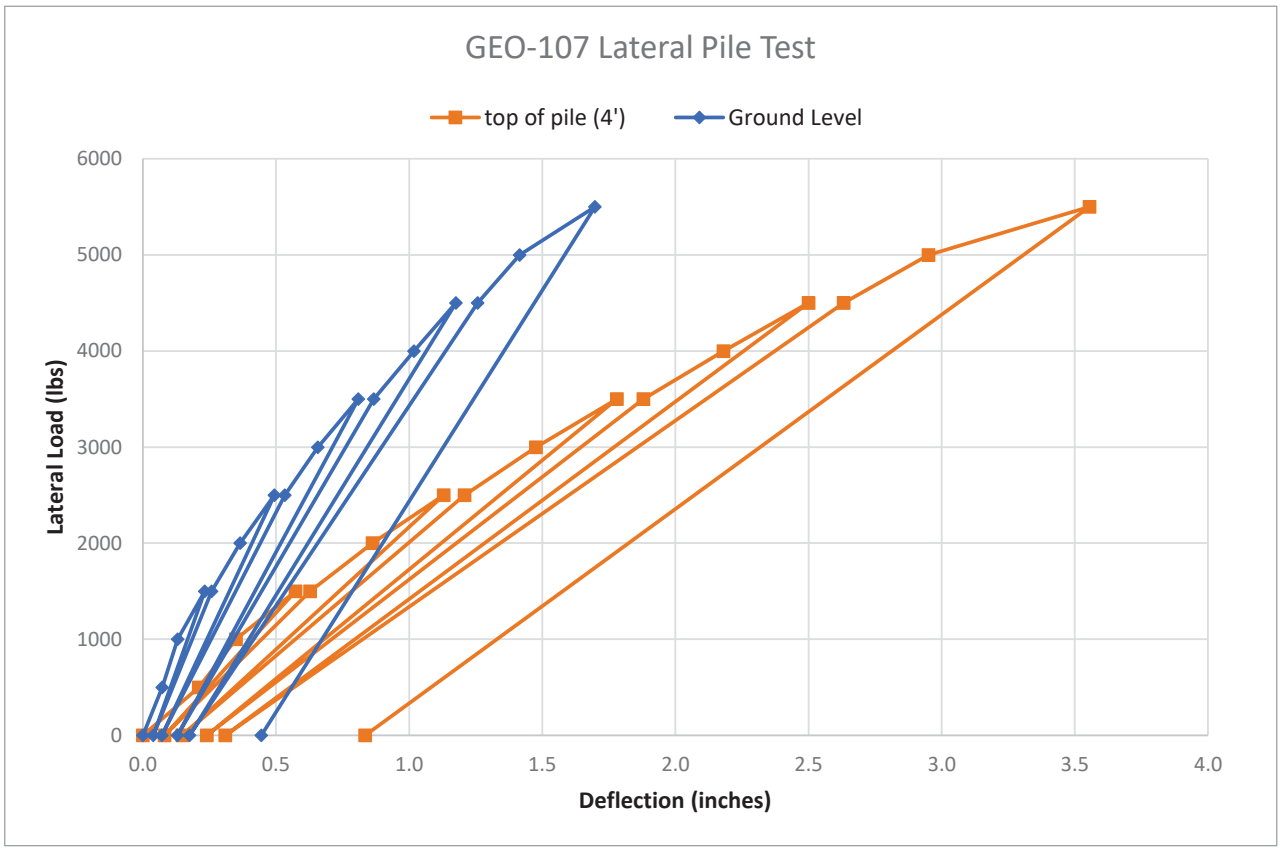
olsson

Location:	GEO-107
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-107
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.996	0.004	0.004	3.996	0.004	0.004
2000	3.999	0.001	0.001	3.999	0.001	0.001	3.992	0.004	0.008	3.992	0.004	0.008
3000	3.998	0.001	0.002	3.998	0.001	0.002	3.990	0.002	0.010	3.990	0.002	0.010
4000	3.994	0.004	0.006	3.994	0.004	0.006	3.989	0.001	0.011	3.989	0.001	0.011
5000	3.989	0.005	0.011	3.990	0.004	0.010	3.988	0.001	0.012	3.988	0.001	0.012
6000	3.984	0.005	0.016	3.985	0.005	0.015	3.987	0.001	0.013	3.987	0.001	0.013
7000	3.980	0.004	0.020	3.980	0.005	0.020	3.986	0.001	0.014	3.986	0.001	0.014
8000	3.975	0.005	0.025	3.977	0.003	0.023	3.985	0.001	0.015	3.985	0.001	0.015
9000	3.971	0.004	0.029	3.973	0.004	0.027	3.983	0.002	0.017	3.983	0.002	0.017
10000	3.964	0.007	0.036	3.966	0.007	0.034	3.980	0.003	0.020	3.980	0.003	0.020
11000	3.961	0.003	0.039	3.961	0.005	0.039	3.978	0.002	0.022	3.978	0.002	0.022
12000	3.958	0.003	0.042	3.959	0.002	0.041	3.975	0.003	0.025	3.974	0.004	0.026
13000	3.949	0.009	0.051	3.951	0.008	0.049	3.970	0.005	0.030	3.969	0.005	0.031
14000	3.940	0.009	0.060	3.941	0.010	0.059	3.963	0.007	0.037	3.962	0.007	0.038
15000	3.933	0.007	0.067	3.933	0.008	0.067	3.956	0.007	0.044	3.955	0.007	0.045
16000	3.920	0.013	0.080	3.920	0.013	0.080	3.948	0.008	0.052	3.946	0.009	0.054
17000	3.910	0.010	0.090	3.909	0.011	0.091	3.937	0.011	0.063	3.935	0.011	0.065
18000	3.897	0.013	0.103	3.897	0.012	0.103	3.925	0.012	0.075	3.923	0.012	0.077
0	3.937	-0.040	0.063	3.939	-0.042	0.061	3.951	-0.026	0.049	3.952	-0.029	0.048

olsson

Location:	GEO-109
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

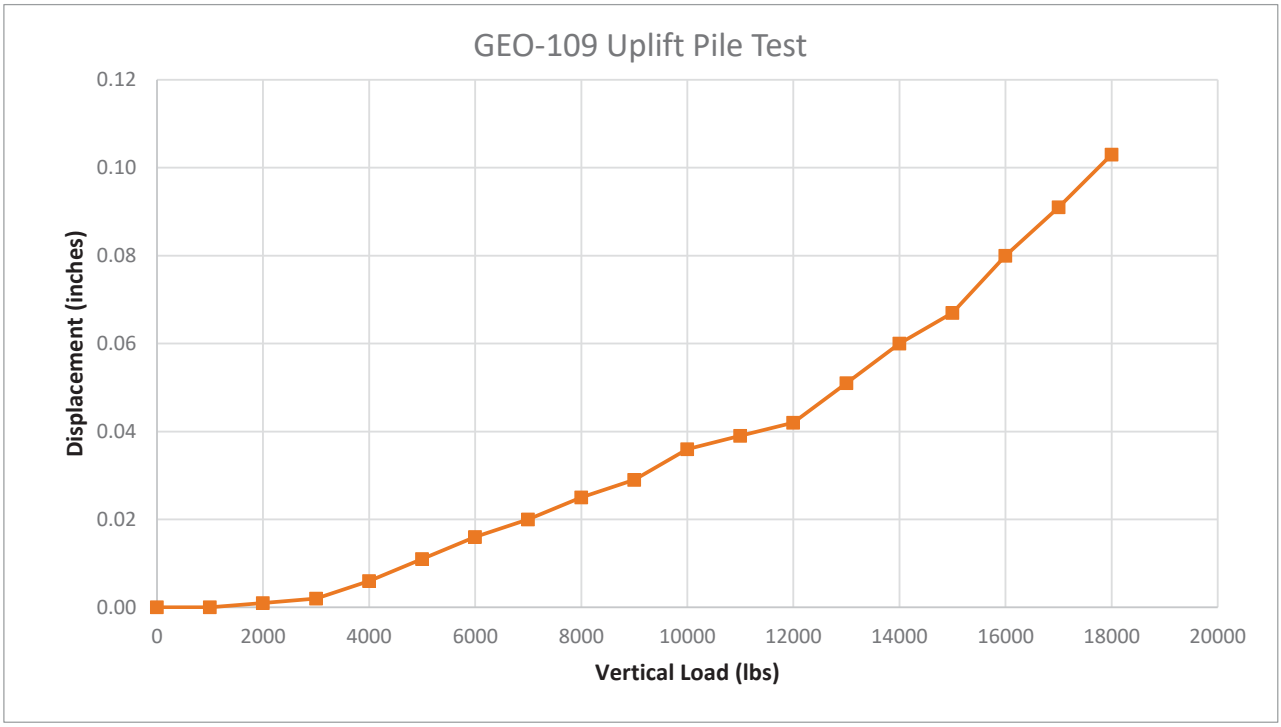
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.798	0.202	0.202	3.798	0.202	0.202	3.938	0.062	0.062	3.935	0.065	0.065
1000	3.628	0.170	0.372	3.628	0.170	0.372	3.870	0.068	0.130	3.867	0.071	0.133
1500	3.420	0.208	0.580	3.418	0.210	0.582	3.783	0.087	0.217	3.779	0.091	0.221
0	3.937	-0.517	0.063	3.948	-0.528	0.052	3.974	-0.191	0.026	3.978	-0.195	0.022
1500	3.387	0.550	0.613	3.388	0.549	0.612	3.768	0.206	0.232	3.766	0.208	0.234
2000	3.161	0.226	0.839	3.163	0.224	0.837	3.674	0.094	0.326	3.671	0.097	0.329
2500	2.914	0.247	1.086	2.913	0.248	1.087	3.563	0.111	0.437	3.557	0.117	0.443
0	3.870	-0.956	0.130	3.885	-0.971	0.115	3.920	-0.357	0.080	3.920	-0.357	0.080
2500	2.835	1.035	1.165	2.837	1.033	1.163	3.522	0.398	0.478	3.519	0.401	0.481
3000	2.593	0.242	1.407	2.592	0.243	1.408	3.415	0.107	0.585	3.407	0.115	0.593
3500	2.300	0.293	1.700	2.299	0.294	1.701	3.280	0.135	0.720	3.277	0.138	0.723
0	3.800	-1.500	0.200	3.810	-1.510	0.190	3.896	-0.616	0.104	3.903	-0.623	0.097
3500	2.190	1.610	1.810	2.196	1.604	1.804	3.216	0.680	0.784	3.212	0.684	0.788
4000	1.916	0.274	2.084	1.910	0.280	2.090	3.084	0.132	0.916	3.076	0.140	0.924
4500	1.629	0.287	2.371	1.624	0.292	2.376	2.952	0.132	1.048	2.938	0.146	1.062
0	3.700	-2.071	0.300	3.731	-2.102	0.269	3.834	-0.882	0.166	3.847	-0.895	0.153
4500	1.472	2.228	2.528	1.473	2.227	2.527	2.846	0.988	1.154	2.848	0.986	1.152
5000	1.186	0.286	2.814	1.183	0.289	2.817	2.719	0.127	1.281	2.706	0.140	1.294
5500	0.815	0.371	3.185	0.812	0.374	3.188	2.540	0.179	1.460	2.524	0.195	1.476
0	3.496	-2.681	0.504	3.511	-2.696	0.489	3.704	-1.164	0.296	3.711	-1.171	0.289

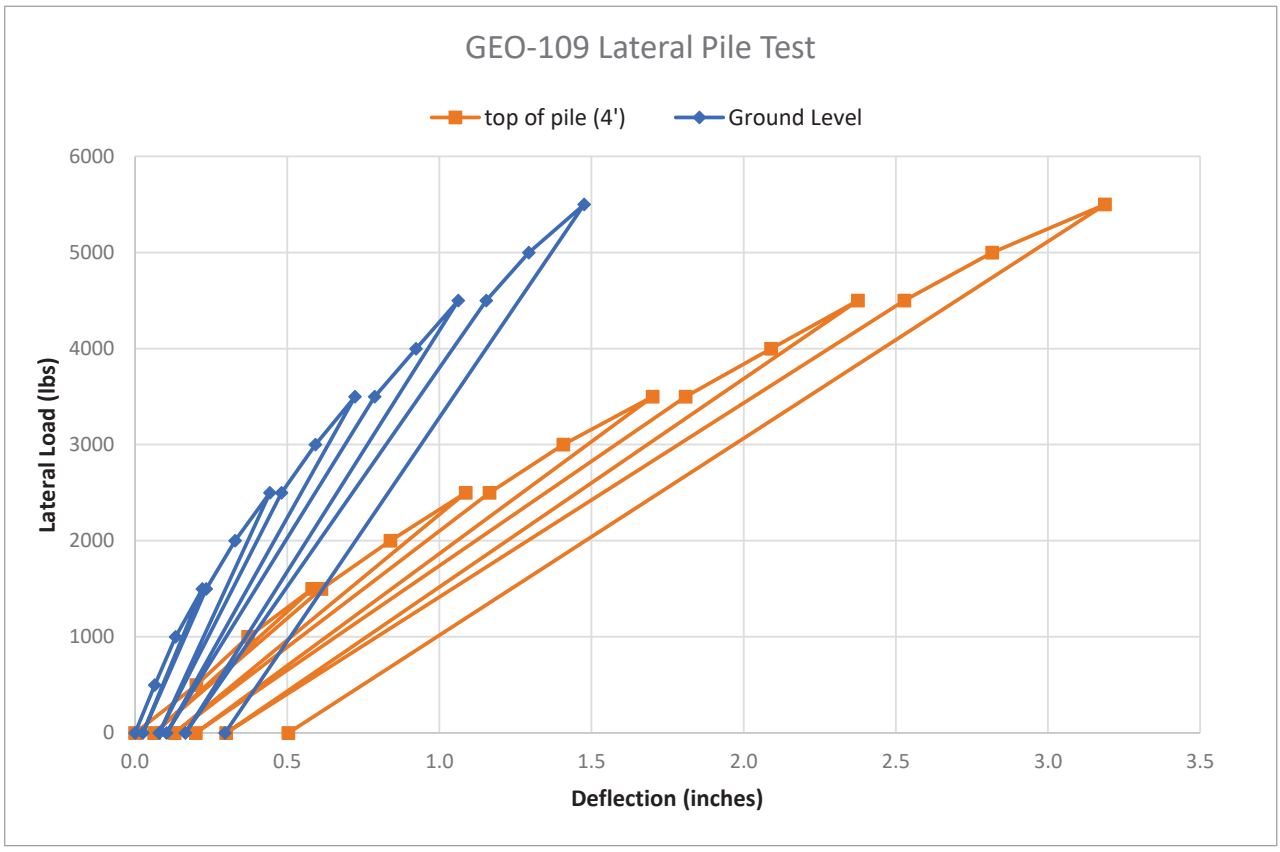
olsson

Field Pile Testing Results

Location:	GEO-109
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project





olsson

Location:	GEO-109
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.997	0.003	0.003	3.998	0.002	0.002	3.998	0.002	0.002	3.999	0.001	0.001
2000	3.992	0.005	0.008	3.992	0.006	0.008	3.996	0.002	0.004	3.996	0.003	0.004
3000	3.985	0.007	0.015	3.986	0.006	0.014	3.994	0.002	0.006	3.994	0.002	0.006
4000	3.974	0.011	0.026	3.976	0.010	0.024	3.991	0.003	0.009	3.990	0.004	0.010
5000	3.957	0.017	0.043	3.957	0.019	0.043	3.982	0.009	0.018	3.981	0.009	0.019
6000	3.933	0.024	0.067	3.930	0.027	0.070	3.966	0.016	0.034	3.962	0.019	0.038
7000	3.893	0.040	0.107	3.887	0.043	0.113	3.935	0.031	0.065	3.929	0.033	0.071
8000	3.824	0.069	0.176	3.810	0.077	0.190	3.875	0.060	0.125	3.860	0.069	0.140
9000	3.702	0.122	0.298	3.683	0.127	0.317	3.762	0.113	0.238	3.742	0.118	0.258
10000	3.515	0.187	0.485	3.481	0.202	0.519	3.583	0.179	0.417	3.550	0.192	0.450
11000	3.235	0.280	0.765	3.188	0.293	0.812	3.312	0.271	0.688	3.268	0.282	0.732
11700	2.205	1.030	1.795	2.154	1.034	1.846	2.380	0.932	1.620	2.326	0.942	1.674
0	2.210	-0.005	1.790	2.210	-0.056	1.790	2.459	-0.079	1.541	2.460	-0.134	1.540

olsson

Location:	GEO-111
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.001	-0.001	-0.001	0.001	-0.001	-0.001	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.003	-0.002	-0.003	0.003	-0.002	-0.003	0.001	-0.001	-0.001	0.001	-0.001	-0.001
3000	0.008	-0.005	-0.008	0.008	-0.005	-0.008	0.002	-0.001	-0.002	0.002	-0.001	-0.002
4000	0.020	-0.012	-0.020	0.020	-0.012	-0.020	0.002	0.000	-0.002	0.003	-0.001	-0.003
5000	0.030	-0.010	-0.030	0.030	-0.010	-0.030	0.008	-0.006	-0.008	0.008	-0.005	-0.008
6000	0.037	-0.007	-0.037	0.037	-0.007	-0.037	0.014	-0.006	-0.014	0.015	-0.007	-0.015
7000	0.049	-0.012	-0.049	0.051	-0.014	-0.051	0.021	-0.007	-0.021	0.022	-0.007	-0.022
8000	0.063	-0.014	-0.063	0.067	-0.016	-0.067	0.031	0.032	-0.031	0.032	-0.010	-0.032
9000	0.081	-0.018	-0.081	0.091	-0.024	-0.091	0.043	0.032	-0.043	0.048	-0.016	-0.048
10000	0.940	-0.859	-0.940	0.940	-0.849	-0.940	0.065	0.032	-0.065	0.071	-0.023	-0.071
0	0.066	0.874	-0.066	0.063	0.877	-0.063	0.066	0.032	-0.066	0.063	0.008	-0.063

olsson

Location:	GEO-111
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

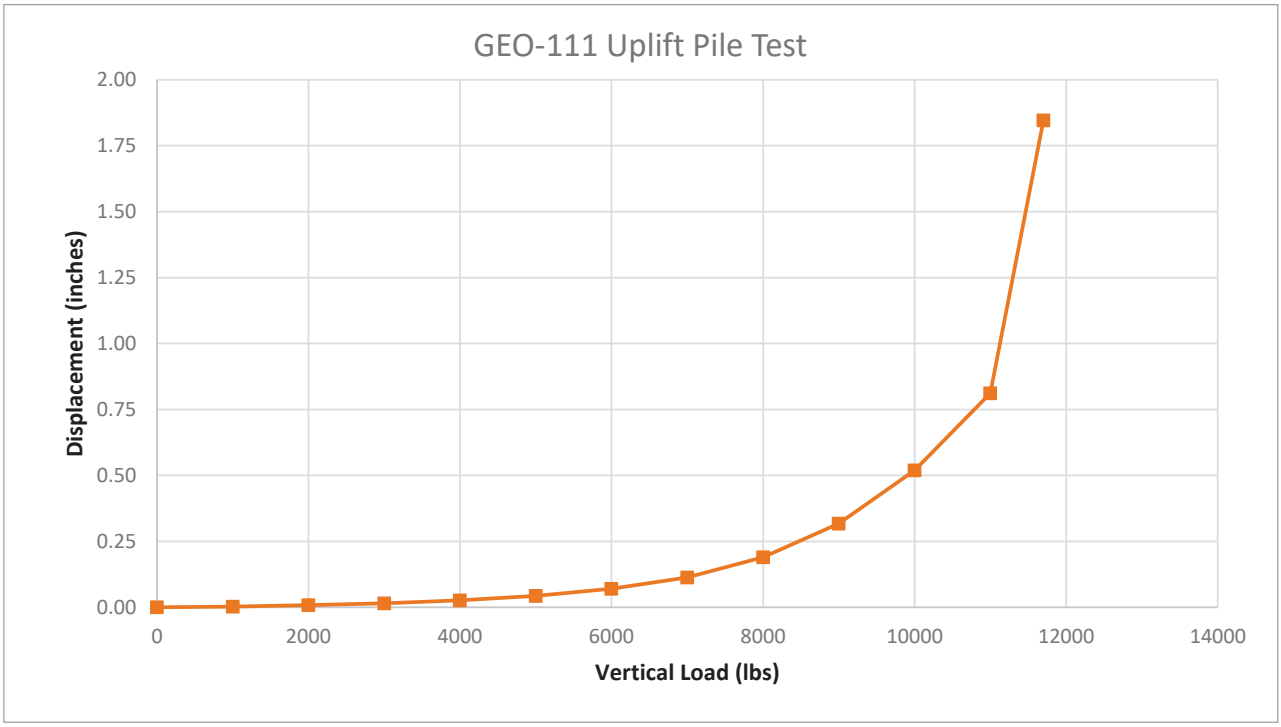
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.865	0.135	0.135	3.868	0.132	0.132	3.965	0.035	0.035	3.965	0.035	0.035
1000	3.700	0.165	0.300	3.700	0.165	0.300	3.905	0.060	0.095	3.902	0.063	0.098
1500	3.483	0.217	0.517	3.483	0.217	0.517	3.822	0.083	0.178	3.818	0.087	0.182
0	3.945	-0.462	0.055	3.953	-0.470	0.047	3.969	-0.147	0.031	3.972	-0.150	0.028
1500	3.434	0.511	0.566	3.435	0.510	0.565	3.796	0.173	0.204	3.796	0.173	0.204
2000	3.227	0.207	0.773	3.227	0.207	0.773	3.715	0.081	0.285	3.712	0.084	0.288
2500	2.960	0.267	1.040	2.959	0.268	1.041	3.605	0.110	0.395	3.598	0.117	0.402
0	3.874	-0.914	0.126	3.886	-0.926	0.114	3.923	-0.318	0.077	3.929	-0.324	0.071
2500	2.913	0.961	1.087	2.913	0.961	1.087	3.574	0.349	0.426	3.571	0.352	0.429
3000	2.625	0.288	1.375	2.624	0.289	1.376	3.456	0.118	0.544	3.449	0.125	0.551
3500	2.337	0.288	1.663	2.335	0.290	1.665	3.329	0.127	0.671	3.319	0.137	0.681
0	3.805	-1.468	0.195	3.815	-1.478	0.185	3.889	-0.560	0.111	3.890	-0.561	0.110
3500	2.231	1.574	1.769	2.242	1.563	1.758	3.272	0.617	0.728	3.267	0.622	0.733
4000	1.918	0.313	2.082	1.916	0.315	2.084	3.135	0.137	0.865	3.125	0.147	0.875
4500	1.626	0.292	2.374	1.624	0.294	2.376	3.004	0.131	0.996	2.990	0.145	1.010
0	3.704	-2.078	0.296	3.709	-2.083	0.291	3.821	-0.817	0.179	3.830	-0.826	0.170
4500	1.497	2.207	2.503	1.497	2.207	2.503	2.922	0.899	1.078	2.914	0.907	1.086
5000	1.176	0.321	2.824	1.174	0.323	2.826	2.779	0.143	1.221	2.765	0.157	1.235
5500	0.804	0.372	3.196	0.799	0.377	3.201	2.602	0.177	1.398	2.582	0.197	1.418
0	3.492	-2.688	0.508	3.509	-2.705	0.491	3.690	-1.088	0.310	3.706	-1.104	0.294

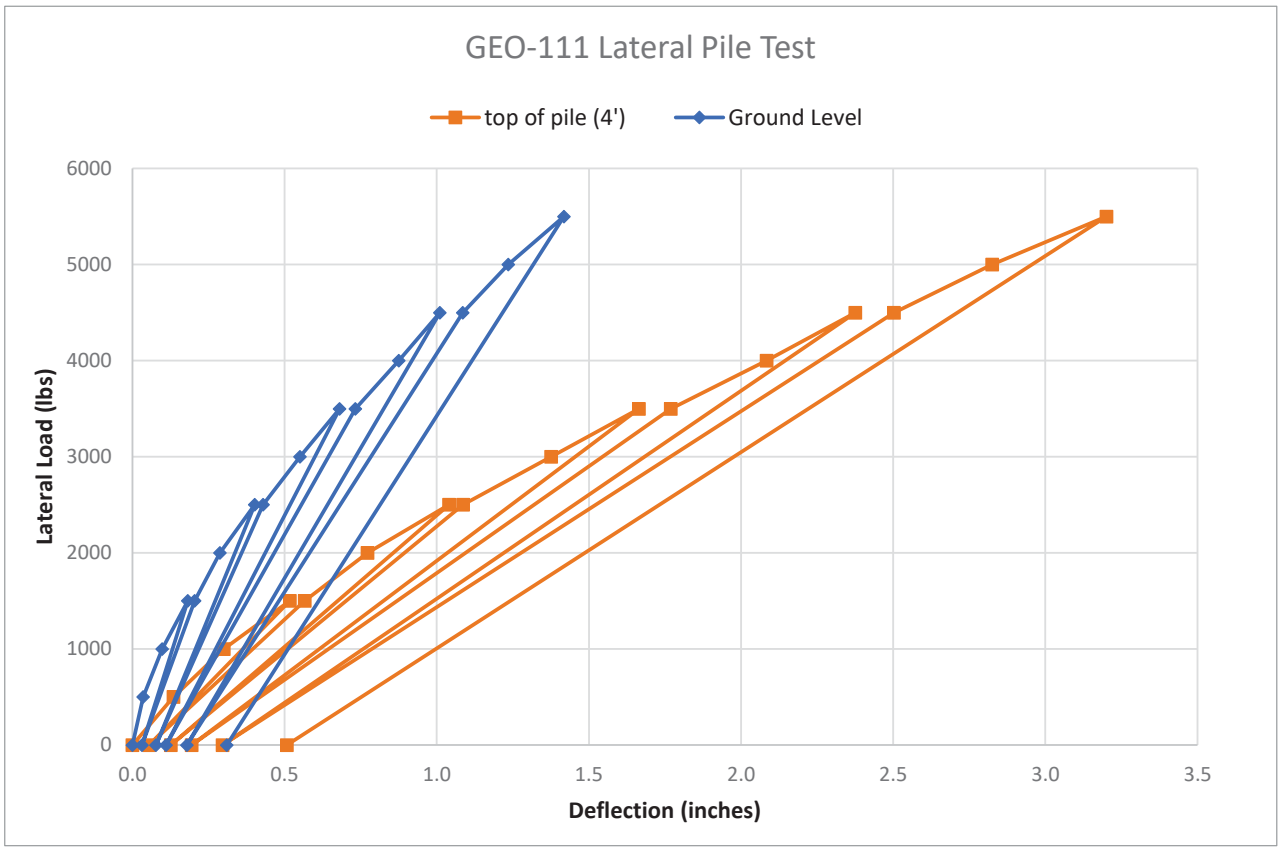
olsson

Field Pile Testing Results

Location:	GEO-111
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project





olsson

Location:	GEO-111
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.005	0.005	3.995	0.005	0.005
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.003	0.008	3.992	0.003	0.008
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.989	0.003	0.011	3.989	0.003	0.011
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.987	0.002	0.013	3.987	0.002	0.013
5000	3.999	0.001	0.001	3.999	0.001	0.001	3.985	0.002	0.015	3.985	0.002	0.015
6000	3.993	0.006	0.007	3.992	0.007	0.008	3.980	0.005	0.020	3.980	0.005	0.020
7000	3.982	0.011	0.018	3.981	0.011	0.019	3.973	0.007	0.027	3.973	0.007	0.027
8000	3.971	0.011	0.029	3.970	0.011	0.030	3.962	0.011	0.038	3.961	0.012	0.039
9000	3.949	0.022	0.051	3.944	0.026	0.056	3.944	0.018	0.056	3.939	0.022	0.061
10000	3.915	0.034	0.085	3.905	0.039	0.095	3.911	0.033	0.089	3.899	0.040	0.101
11000	3.846	0.069	0.154	3.829	0.076	0.171	3.843	0.068	0.157	3.825	0.074	0.175
12000	3.759	0.087	0.241	3.739	0.090	0.261	3.762	0.081	0.238	3.743	0.082	0.257
13000	3.632	0.127	0.368	3.602	0.137	0.398	3.654	0.108	0.346	3.632	0.111	0.368
14000	3.421	0.211	0.579	3.384	0.218	0.616	3.524	0.130	0.476	3.502	0.130	0.498
15000	3.110	0.311	0.890	3.062	0.322	0.938	3.371	0.153	0.629	3.349	0.153	0.651
15700	2.361	0.749	1.639	2.293	0.769	1.707	3.091	0.280	0.909	3.066	0.283	0.934
0	2.418	-0.057	1.582	2.438	-0.145	1.562	3.189	-0.098	0.811	3.197	-0.131	0.803

olsson

Location:	GEO-115
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

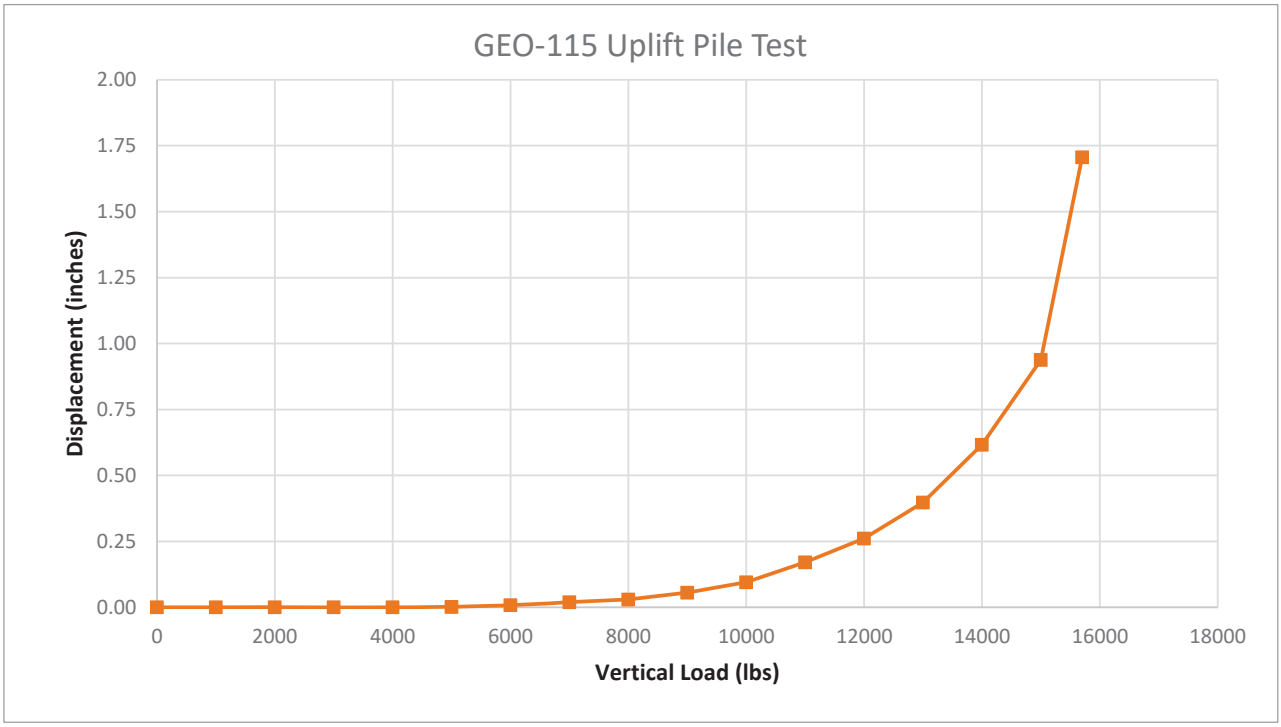
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.825	0.175	0.175	3.832	0.168	0.168	3.936	0.064	0.064	3.936	0.064	0.064
1000	3.646	0.179	0.354	3.649	0.176	0.351	3.878	0.058	0.122	3.878	0.058	0.122
1500	3.454	0.192	0.546	3.455	0.191	0.545	3.802	0.076	0.198	3.801	0.077	0.199
0	3.975	-0.521	0.025	3.986	-0.532	0.014	3.991	-0.189	0.009	3.992	-0.190	0.008
1500	3.449	0.526	0.551	3.453	0.522	0.547	3.796	0.195	0.204	3.797	0.194	0.203
2000	3.253	0.196	0.747	3.253	0.196	0.747	3.711	0.085	0.289	3.714	0.082	0.286
2500	3.034	0.219	0.966	3.034	0.219	0.966	3.622	0.089	0.378	3.617	0.094	0.383
0	3.927	-0.893	0.073	3.942	-0.908	0.058	3.969	-0.347	0.031	3.979	-0.357	0.021
2500	2.997	0.930	1.003	2.999	0.928	1.001	3.602	0.367	0.398	3.600	0.369	0.400
3000	2.769	0.228	1.231	2.769	0.228	1.231	3.503	0.099	0.497	3.499	0.103	0.501
3500	2.508	0.261	1.492	2.508	0.261	1.492	3.386	0.117	0.614	3.381	0.122	0.619
0	3.871	-1.363	0.129	3.892	-1.384	0.108	3.947	-0.561	0.053	3.958	-0.572	0.042
3500	2.403	1.468	1.597	2.405	1.466	1.595	3.338	0.609	0.662	3.335	0.612	0.665
4000	2.159	0.244	1.841	2.161	0.242	1.839	3.229	0.109	0.771	3.223	0.115	0.777
4500	1.886	0.273	2.114	1.884	0.275	2.116	3.101	0.128	0.899	3.091	0.138	0.909
0	3.798	-1.912	0.202	3.826	-1.940	0.174	3.904	-0.803	0.096	3.916	-0.815	0.084
4500	1.739	2.059	2.261	1.739	2.059	2.261	3.016	0.888	0.984	3.006	0.898	0.994
5000	1.483	0.256	2.517	1.480	0.259	2.520	2.898	0.118	1.102	2.886	0.130	1.114
5500	1.151	0.332	2.849	1.147	0.336	2.853	2.742	0.156	1.258	2.727	0.171	1.273
0	3.703	-2.552	0.297	3.726	-2.575	0.274	3.847	-1.105	0.153	3.859	-1.117	0.141

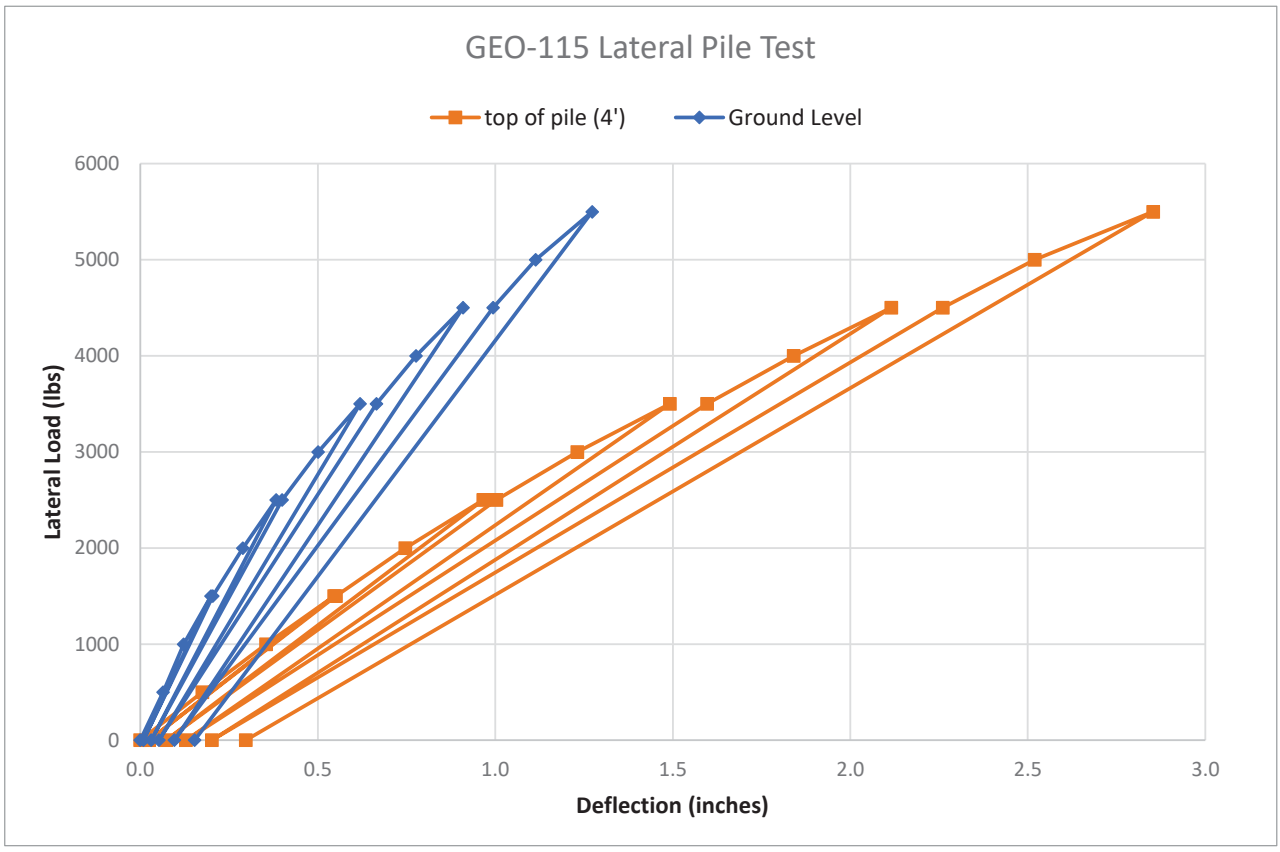
olsson

Location:	GEO-115
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-115
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.002	0.005	3.995	0.002	0.005
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.993	0.002	0.007	3.993	0.002	0.007
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.991	0.002	0.009	3.991	0.002	0.009
5000	4.000	0.000	0.000	4.000	0.000	0.000	3.989	0.002	0.011	3.989	0.002	0.011
6000	3.988	0.012	0.012	3.988	0.012	0.012	3.984	0.005	0.016	3.982	0.007	0.018
7000	3.970	0.018	0.030	3.970	0.018	0.030	3.977	0.007	0.023	3.975	0.007	0.025
8000	3.950	0.020	0.050	3.947	0.023	0.053	3.963	0.014	0.037	3.960	0.015	0.040
9000	3.912	0.038	0.088	3.909	0.038	0.091	3.936	0.027	0.064	3.931	0.029	0.069
10000	3.863	0.049	0.137	3.854	0.055	0.146	3.900	0.036	0.100	3.887	0.044	0.113
11000	3.791	0.072	0.209	3.779	0.075	0.221	3.831	0.069	0.169	3.823	0.064	0.177
12000	3.684	0.107	0.316	3.663	0.116	0.337	3.743	0.088	0.257	3.725	0.098	0.275
13000	3.556	0.128	0.444	3.513	0.150	0.487	3.579	0.164	0.421	3.538	0.187	0.462
14000	3.162	0.394	0.838	3.078	0.435	0.922	3.282	0.297	0.718	3.210	0.328	0.790
14280	2.562	0.600	1.438	2.473	0.605	1.527	2.881	0.401	1.119	2.769	0.441	1.231
0	3.511	-0.949	0.489	3.516	-1.043	0.484	3.811	-0.930	0.189	3.813	-1.044	0.187

olsson

Location:	GEO-117
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

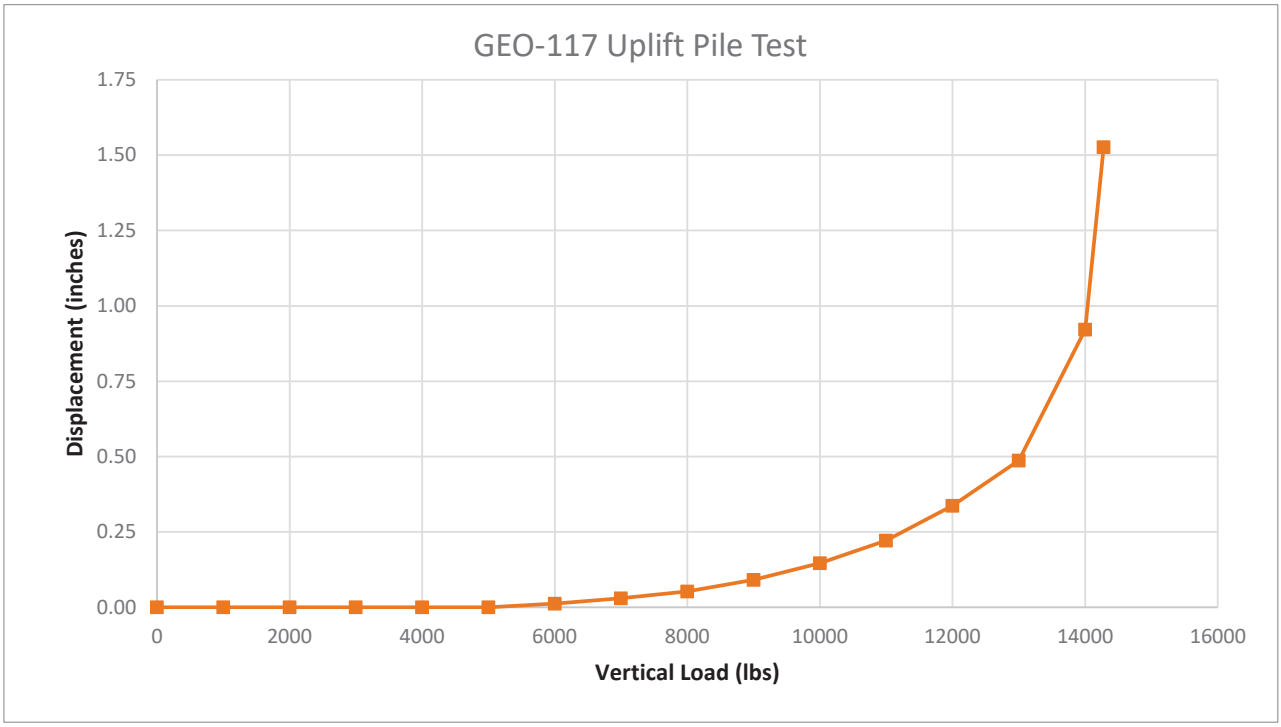
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.830	0.170	0.170	3.830	0.170	0.170	3.952	0.048	0.048	3.948	0.052	0.052
1000	3.617	0.213	0.383	3.617	0.213	0.383	3.867	0.085	0.133	3.866	0.086	0.134
1500	3.389	0.228	0.611	3.388	0.229	0.612	3.770	0.097	0.230	3.768	0.099	0.232
0	3.944	-0.555	0.056	3.953	-0.564	0.047	3.988	-0.218	0.012	3.992	-0.222	0.008
1500	3.363	0.581	0.637	3.362	0.582	0.638	3.761	0.227	0.239	3.759	0.229	0.241
2000	3.112	0.251	0.888	3.111	0.252	0.889	3.654	0.107	0.346	3.651	0.110	0.349
2500	2.855	0.257	1.145	2.852	0.260	1.148	3.541	0.113	0.459	3.536	0.118	0.464
0	3.898	-1.043	0.102	3.913	-1.058	0.087	3.969	-0.428	0.031	3.977	-0.436	0.023
2500	2.703	1.195	1.297	2.703	1.195	1.297	3.513	0.456	0.487	3.509	0.460	0.491
3000	2.554	0.149	1.446	2.551	0.152	1.449	3.402	0.111	0.598	3.396	0.117	0.604
3500	2.258	0.296	1.742	2.255	0.299	1.745	3.263	0.139	0.737	3.257	0.145	0.743
0	3.840	-1.582	0.160	3.863	-1.605	0.137	3.940	-0.677	0.060	3.950	-0.687	0.050
3500	2.181	1.659	1.819	2.181	1.659	1.819	3.218	0.722	0.782	3.214	0.726	0.786
4000	1.891	0.290	2.109	1.890	0.291	2.110	3.091	0.127	0.909	3.077	0.141	0.923
4500	1.550	0.341	2.450	1.546	0.345	2.454	2.922	0.169	1.078	2.909	0.182	1.091
0	3.768	-2.218	0.232	3.791	-2.241	0.209	3.896	-0.974	0.104	3.909	-0.987	0.091
4500	1.424	2.344	2.576	1.422	2.346	2.578	2.848	1.048	1.152	2.839	1.057	1.161
5000	1.078	0.346	2.922	1.074	0.350	2.926	2.682	0.166	1.318	2.668	0.180	1.332
5500	0.575	0.503	3.425	0.567	0.511	3.433	2.434	0.248	1.566	2.417	0.265	1.583
0	3.361	-2.786	0.639	3.393	-2.818	0.607	3.688	-1.254	0.312	3.709	-1.275	0.291

olsson

Location:	GEO-117
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-117
Test Date:	12/9/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.005	0.005	3.997	0.003	0.003
2000	3.998	0.002	0.002	3.998	0.002	0.002	3.994	0.001	0.006	3.994	0.003	0.006
3000	3.992	0.006	0.008	3.993	0.005	0.007	3.991	0.003	0.009	3.992	0.002	0.008
4000	3.984	0.008	0.016	3.984	0.009	0.016	3.990	0.001	0.010	3.989	0.003	0.011
5000	3.970	0.014	0.030	3.969	0.015	0.031	3.985	0.005	0.015	3.983	0.006	0.017
6000	3.952	0.018	0.048	3.949	0.020	0.051	3.975	0.010	0.025	3.970	0.013	0.030
7000	3.928	0.024	0.072	3.923	0.026	0.077	3.957	0.018	0.043	3.952	0.018	0.048
8000	3.892	0.036	0.108	3.884	0.039	0.116	3.932	0.025	0.068	3.924	0.028	0.076
9000	3.850	0.042	0.150	3.842	0.042	0.158	3.900	0.032	0.100	3.892	0.032	0.108
10000	3.800	0.050	0.200	3.789	0.053	0.211	3.859	0.041	0.141	3.849	0.043	0.151
11000	3.744	0.056	0.256	3.735	0.054	0.265	3.812	0.047	0.188	3.804	0.045	0.196
12000	3.680	0.064	0.320	3.666	0.069	0.334	3.760	0.052	0.240	3.745	0.059	0.255
13000	3.589	0.091	0.411	3.574	0.092	0.426	3.683	0.077	0.317	3.672	0.073	0.328
14000	3.504	0.085	0.496	3.474	0.100	0.526	3.612	0.071	0.388	3.594	0.078	0.406
15000	3.376	0.128	0.624	3.351	0.123	0.649	3.518	0.094	0.482	3.504	0.090	0.496
16000	3.205	0.171	0.795	3.154	0.197	0.846	3.403	0.115	0.597	3.374	0.130	0.626
16800	2.700	0.505	1.300	2.610	0.544	1.390	3.089	0.314	0.911	3.039	0.335	0.961
0	2.710	-0.010	1.290	2.715	-0.105	1.285	3.163	-0.074	0.837	3.168	-0.129	0.832

olsson

Field Pile Testing Results

Location:	GEO-118
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Fox Squirrel Solar Project

Lateral

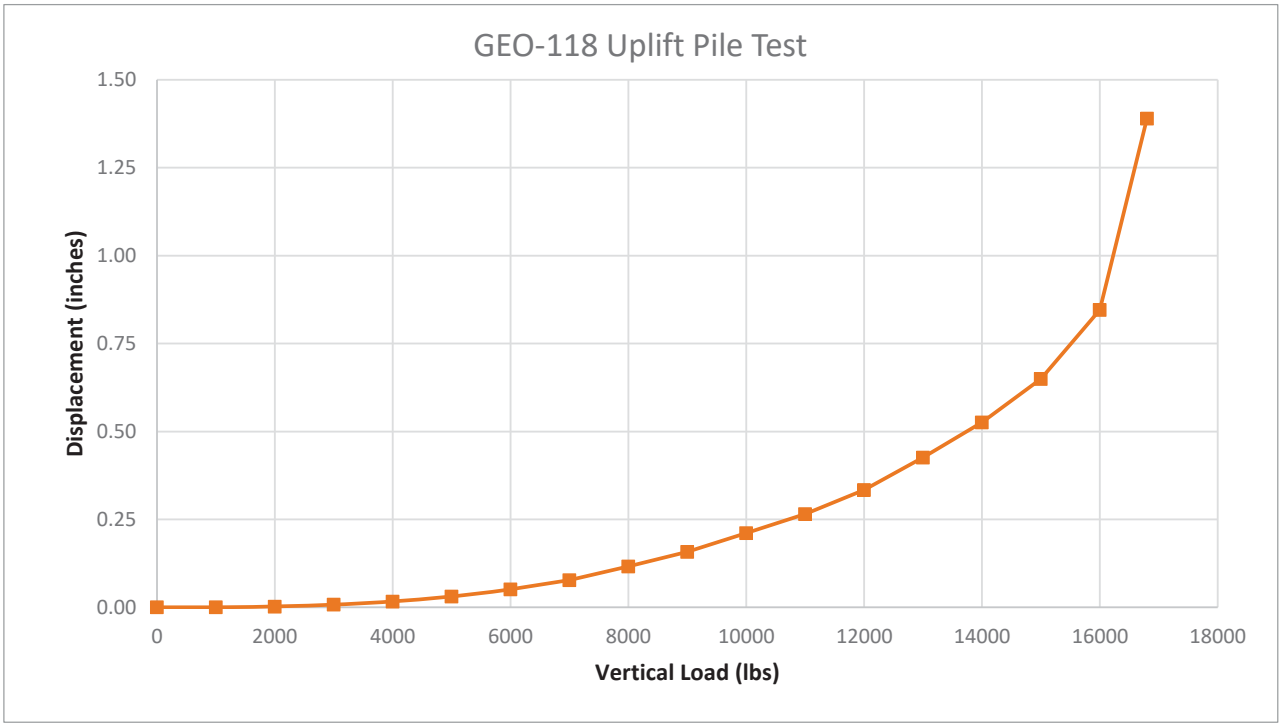
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.842	0.158	0.158	3.849	0.151	0.151	3.955	0.045	0.045	3.955	0.045	0.045
1000	3.642	0.200	0.358	3.644	0.198	0.356	3.886	0.069	0.114	3.886	0.069	0.114
1500	3.410	0.232	0.590	3.412	0.230	0.588	3.795	0.091	0.205	3.793	0.093	0.207
0	3.955	-0.545	0.045	3.963	-0.553	0.037	3.982	-0.187	0.018	3.983	-0.188	0.017
1500	3.372	0.583	0.628	3.380	0.575	0.620	3.774	0.208	0.226	3.774	0.208	0.226
2000	3.128	0.244	0.872	3.128	0.244	0.872	3.673	0.101	0.327	3.667	0.107	0.333
2500	2.850	0.278	1.150	2.847	0.281	1.153	3.550	0.123	0.450	3.542	0.131	0.458
0	3.889	-1.039	0.111	3.901	-1.051	0.099	3.947	-0.397	0.053	3.951	-0.401	0.049
2500	2.752	1.137	1.248	2.754	1.135	1.246	3.495	0.452	0.505	3.492	0.455	0.508
3000	2.476	0.276	1.524	2.471	0.281	1.529	3.375	0.120	0.625	3.366	0.129	0.634
3500	2.184	0.292	1.816	2.179	0.297	1.821	3.241	0.134	0.759	3.238	0.137	0.762
0	3.830	-1.646	0.170	3.845	-1.661	0.155	3.913	-0.672	0.087	3.920	-0.679	0.080
3500	2.031	1.799	1.969	2.035	1.795	1.965	3.156	0.757	0.844	3.150	0.763	0.850
4000	1.710	0.321	2.290	1.714	0.317	2.286	3.005	0.151	0.995	2.998	0.158	1.002
4500	1.385	0.325	2.615	1.381	0.329	2.619	2.853	0.152	1.147	2.839	0.166	1.161
0	3.760	-2.375	0.240	3.778	-2.393	0.222	3.868	-1.015	0.132	3.877	-1.024	0.123
4500	1.177	2.583	2.823	1.184	2.576	2.816	2.734	1.134	1.266	2.727	1.141	1.273
5000	0.762	0.415	3.238	0.757	0.420	3.243	2.541	0.193	1.459	2.528	0.206	1.472
5500	-0.063	0.825	4.063	-0.094	0.856	4.094	2.130	0.411	1.870	2.121	0.420	1.879
0	2.938	-3.001	1.062	2.962	-3.025	1.038	3.475	-1.345	0.525	3.487	-1.357	0.513

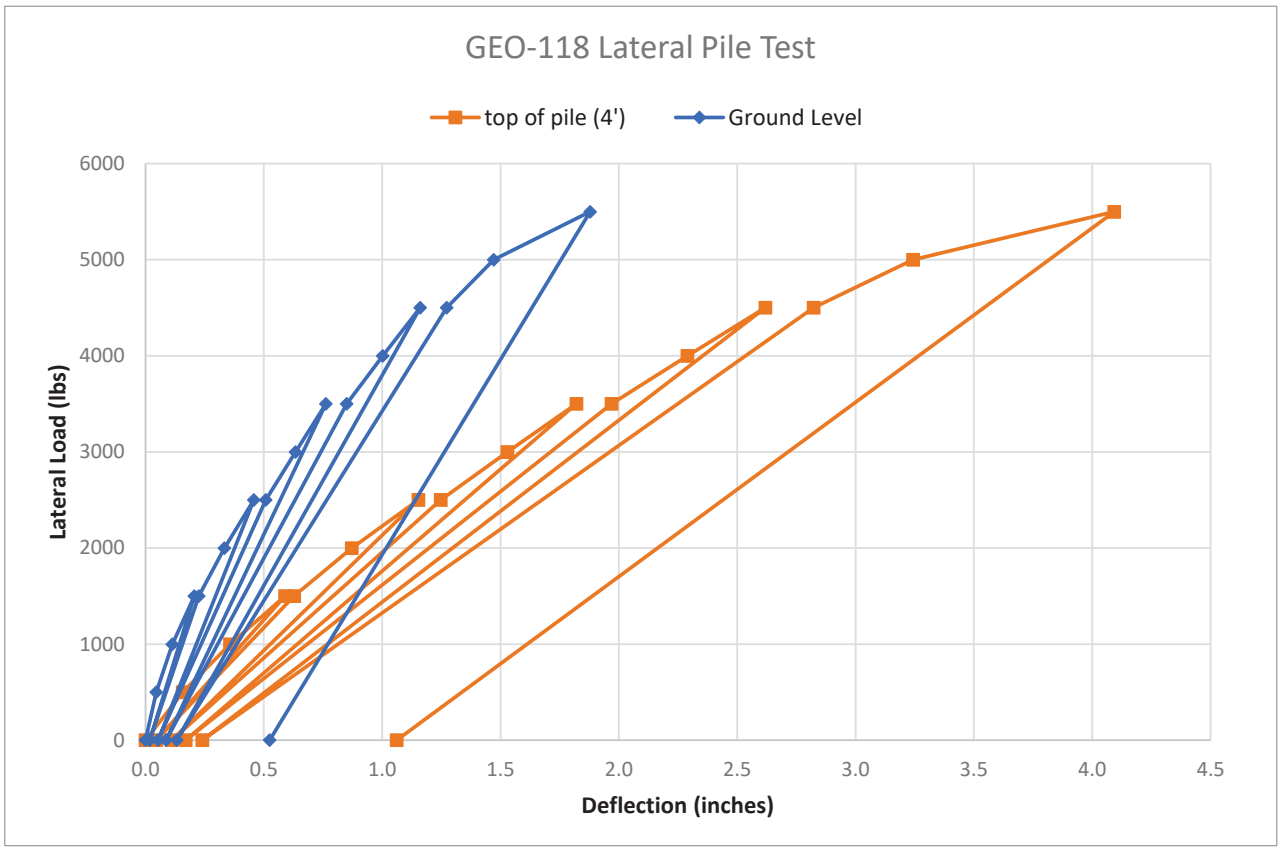
olsson

Location:	GEO-118
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-118
Test Date:	12/4/2020
Project No.:	020-3275
Prepared by:	Jake Vencil

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.997	0.003	0.003	3.997	0.003	0.003	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.988	0.009	0.012	3.990	0.007	0.010	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.977	0.011	0.023	3.981	0.009	0.019	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.959	0.018	0.041	3.965	0.016	0.035	4.000	0.000	0.000	4.000	0.000	0.000
5000	3.947	0.012	0.053	3.951	0.014	0.049	3.999	0.001	0.001	3.999	0.001	0.001
6000	3.929	0.018	0.071	3.931	0.020	0.069	3.996	0.003	0.004	3.994	0.005	0.006
7000	3.899	0.030	0.101	3.899	0.032	0.101	3.983	0.013	0.017	3.978	0.016	0.022
8000	3.856	0.043	0.144	3.853	0.046	0.147	3.958	0.025	0.042	3.961	0.017	0.039
9000	3.805	0.051	0.195	3.803	0.050	0.197	3.924	0.034	0.076	3.914	0.047	0.086
10000	3.736	0.069	0.264	3.732	0.071	0.268	3.870	0.054	0.130	3.860	0.054	0.140
11000	3.665	0.071	0.335	3.660	0.072	0.340	3.812	0.058	0.188	3.802	0.058	0.198
12000	3.585	0.080	0.415	3.580	0.080	0.420	3.741	0.071	0.259	3.730	0.072	0.270
13000	3.461	0.124	0.539	3.454	0.126	0.546	3.632	0.109	0.368	3.620	0.110	0.380
14000	3.351	0.110	0.649	3.339	0.115	0.661	3.536	0.096	0.464	3.520	0.100	0.480
15000	3.230	0.121	0.770	3.211	0.128	0.789	3.423	0.113	0.577	3.409	0.111	0.591
16000	3.065	0.165	0.935	3.033	0.178	0.967	3.285	0.138	0.715	3.256	0.153	0.744
17000	2.825	0.240	1.175	2.791	0.242	1.209	3.090	0.195	0.910	3.065	0.191	0.935
18000	2.550	0.275	1.450	2.516	0.275	1.484	2.885	0.205	1.115	2.865	0.200	1.135
0	2.670	-0.120	1.330	2.677	-0.161	1.323	2.949	-0.064	1.051	2.948	-0.083	1.052

olsson

Location:	GEO-202
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000							0.000	0.000	0.000	0.000	0.000	0.000
2000							0.001	-0.001	-0.001	0.001	-0.001	-0.001
3000							0.003	-0.002	-0.003	0.003	-0.002	-0.003
4000	Gauge not working						0.005	-0.002	-0.005	0.005	-0.002	-0.005
5000							0.008	-0.003	-0.008	0.008	-0.003	-0.008
6000							0.012	-0.004	-0.012	0.012	-0.004	-0.012
7000							0.018	-0.006	-0.018	0.017	-0.005	-0.017
8000							0.024	-0.006	-0.024	0.024	-0.007	-0.024
9000							0.029	-0.005	-0.029	0.029	-0.005	-0.029

olsson

Field Pile Testing Results

Location:	GEO-202
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

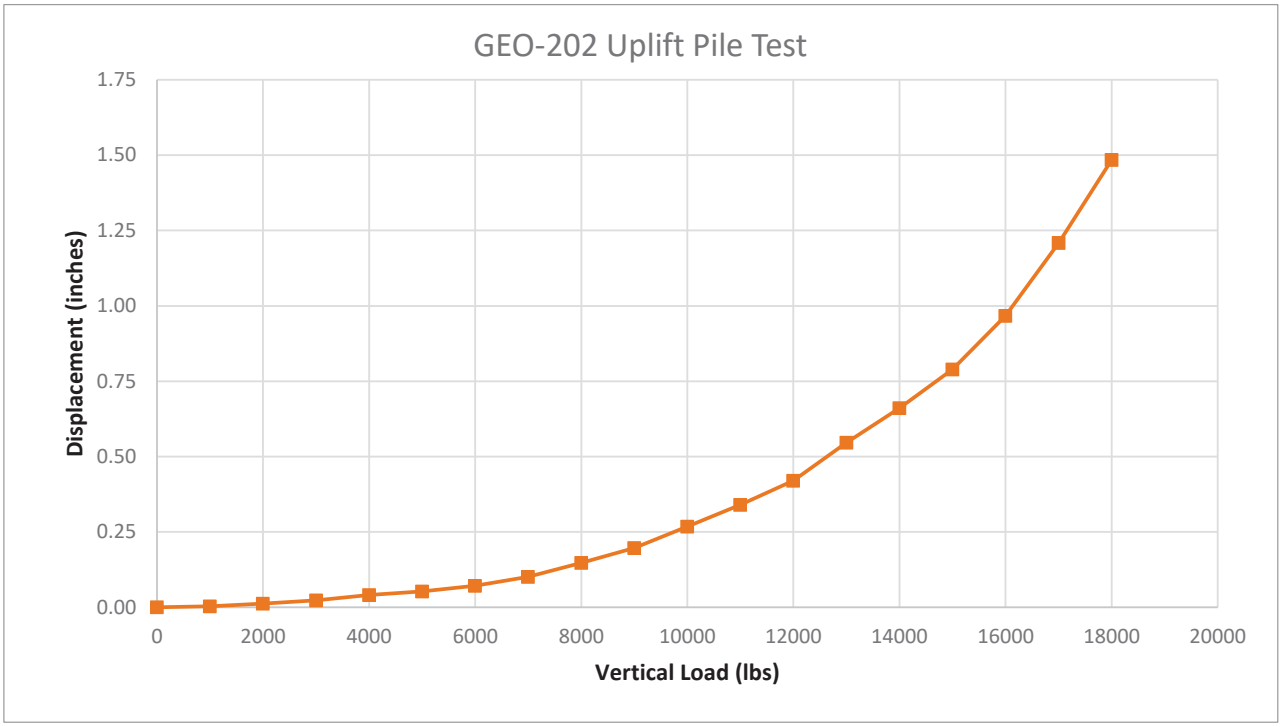
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.815	0.185	0.185	3.815	3.815	0.185	3.936	0.064	0.064	3.935	0.065	0.065
1000	3.637	0.178	0.363	3.636	0.179	0.364	3.864	0.072	0.136	3.863	0.073	0.137
1500	3.433	0.204	0.567	3.433	0.204	0.567	3.779	0.085	0.221	3.777	0.087	0.223
0	3.959	-0.526	0.041	3.969	-0.536	0.031	3.980	-0.201	0.020	3.984	-0.205	0.016
1500	3.398	0.561	0.602	3.398	0.561	0.602	3.763	0.217	0.237	3.762	0.218	0.238
2000	3.169	0.229	0.831	3.169	0.229	0.831	3.665	0.098	0.335	3.663	0.100	0.337
2500	2.917	0.252	1.083	2.915	0.254	1.085	3.555	0.110	0.445	3.552	0.113	0.448
0	3.914	-0.997	0.086	3.928	-1.011	0.072	3.961	-0.406	0.039	3.968	-0.413	0.032
2500	2.849	1.065	1.151	2.850	1.064	1.150	3.524	0.437	0.476	3.522	0.439	0.478
3000	2.629	0.220	1.371	2.629	0.220	1.371	3.423	0.101	0.577	3.423	0.101	0.577
3500	2.365	0.264	1.635	2.362	0.267	1.638	3.307	0.116	0.693	3.301	0.122	0.699
0	3.870	-1.505	0.130	3.886	-1.521	0.114	3.940	-0.633	0.060	3.948	-0.641	0.052
3500	2.251	1.619	1.749	2.252	1.618	1.748	3.250	0.690	0.750	3.246	0.694	0.754
4000	1.994	0.257	2.006	1.994	0.257	2.006	3.133	0.117	0.867	3.127	0.123	0.873
4500	1.720	0.274	2.280	1.718	0.276	2.282	3.003	0.130	0.997	2.996	0.137	1.004
0	3.815	-2.095	0.185	3.836	-2.116	0.164	3.910	-0.907	0.090	3.918	-0.915	0.082
4500	1.590	2.225	2.410	1.590	2.225	2.410	2.934	0.976	1.066	2.928	0.982	1.072
5000	1.300	0.290	2.700	1.297	0.293	2.703	2.797	0.137	1.203	2.788	0.146	1.212
5500	1.020	0.280	2.980	1.014	0.286	2.986	2.665	0.132	1.335	2.656	0.141	1.344
0	3.667	-2.647	0.333	3.694	-2.674	0.306	3.833	-1.168	0.167	3.847	-1.182	0.153

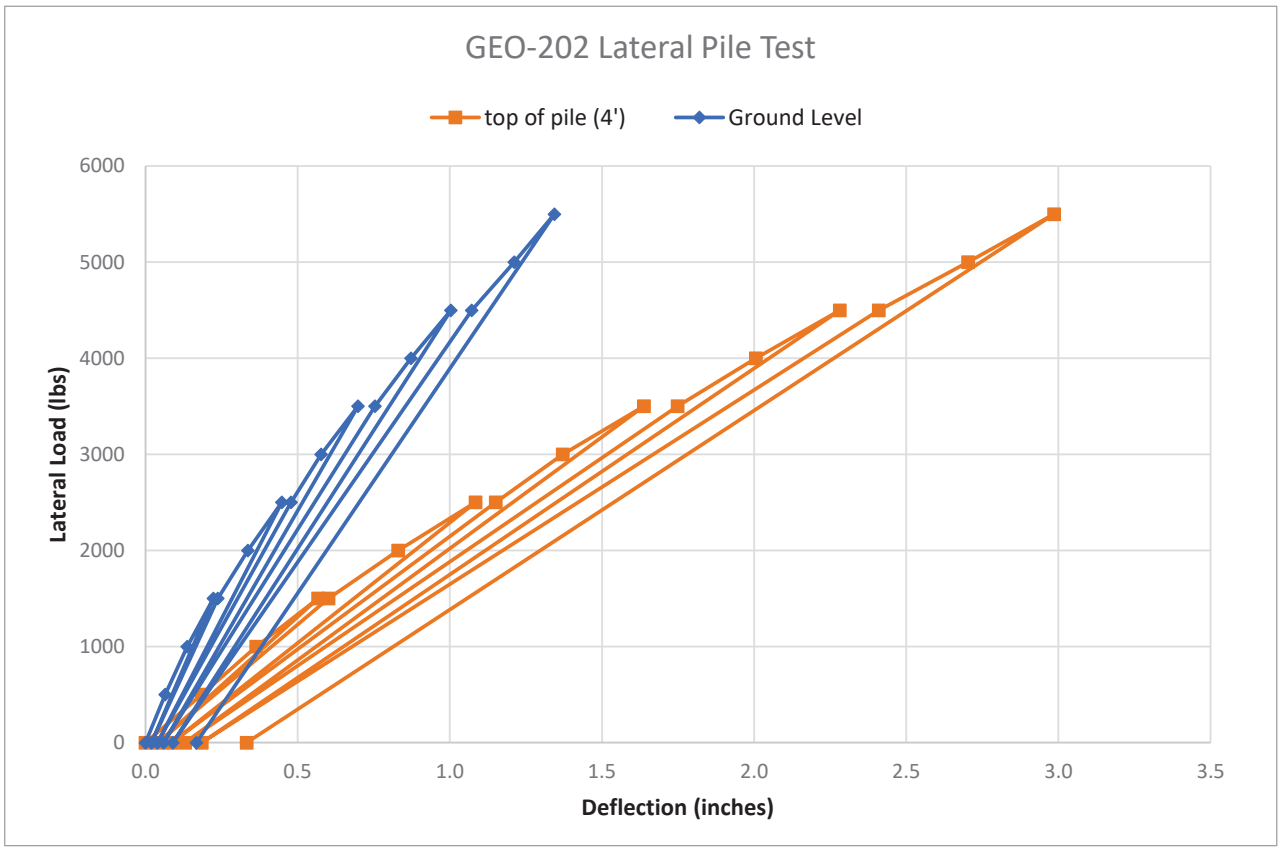
olsson

Field Pile Testing Results

Location:	GEO-202
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project





olsson

Location:	GEO-202
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.998	0.002	0.002	3.998	0.002	0.002	3.997	0.003	0.003	3.997	0.003	0.003
2000	3.993	0.005	0.007	3.994	0.004	0.006	3.994	0.003	0.006	3.994	0.003	0.006
3000	3.982	0.011	0.018	3.984	0.010	0.016	3.992	0.002	0.008	3.992	0.002	0.008
4000	3.971	0.011	0.029	3.973	0.011	0.027	3.990	0.002	0.010	3.990	0.002	0.010
5000	3.962	0.009	0.038	3.963	0.010	0.037	3.987	0.003	0.013	3.987	0.003	0.013
6000	3.953	0.009	0.047	3.954	0.009	0.046	3.981	0.006	0.019	3.981	0.006	0.019
7000	3.939	0.014	0.061	3.939	0.015	0.061	3.972	0.009	0.028	3.971	0.010	0.029
8000	3.923	0.016	0.077	3.923	0.016	0.077	3.960	0.012	0.040	3.959	0.012	0.041
9000	3.904	0.019	0.096	3.903	0.020	0.097	3.943	0.017	0.057	3.941	0.018	0.059
10000	3.875	0.029	0.125	3.872	0.031	0.128	3.915	0.028	0.085	3.912	0.029	0.088
11000	3.839	0.036	0.161	3.832	0.040	0.168	3.878	0.037	0.122	3.872	0.040	0.128
12000	3.797	0.042	0.203	3.791	0.041	0.209	3.838	0.040	0.162	3.831	0.041	0.169
13000	3.722	0.075	0.278	3.714	0.077	0.286	3.761	0.077	0.239	3.753	0.078	0.247
14000	3.650	0.072	0.350	3.639	0.075	0.361	3.681	0.080	0.319	3.677	0.076	0.323
15000	3.550	0.100	0.450	3.535	0.104	0.465	3.586	0.095	0.414	3.573	0.104	0.427
16000	3.459	0.091	0.541	3.439	0.096	0.561	3.493	0.093	0.507	3.477	0.096	0.523
17000	3.310	0.149	0.690	3.290	0.149	0.710	3.346	0.147	0.654	3.329	0.148	0.671
18000	3.150	0.160	0.850	3.120	0.170	0.880	3.185	0.161	0.815	3.159	0.170	0.841
0	3.187	-0.037	0.813	3.190	-0.070	0.810	3.226	-0.041	0.774	3.227	-0.068	0.773

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Field Pile Testing Results

Location:	GEO-204
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

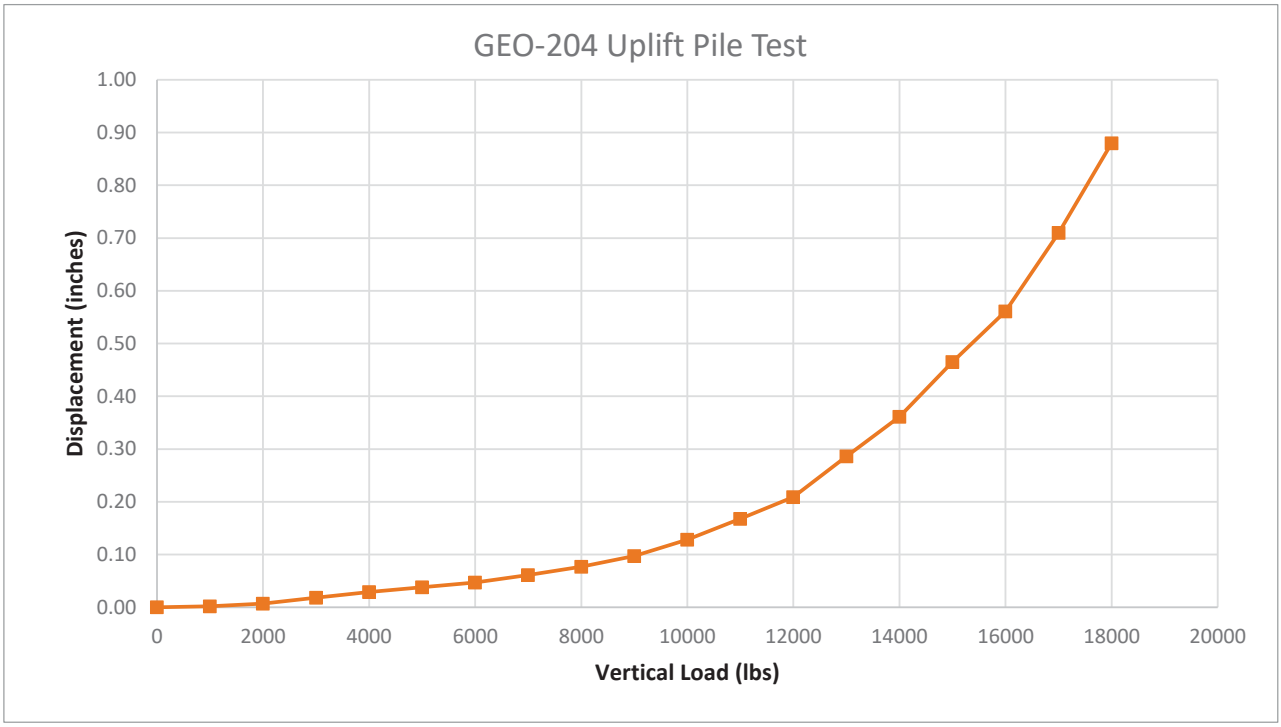
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.783	0.217	0.217	3.783	0.217	0.217	3.921	0.079	0.079	3.921	0.079	0.079
1000	3.594	0.189	0.406	3.594	0.189	0.406	3.847	0.074	0.153	3.844	0.077	0.156
1500	3.348	0.246	0.652	3.348	0.246	0.652	3.743	0.104	0.257	3.738	0.109	0.262
0	3.931	-0.583	0.069	3.946	-0.598	0.054	3.960	-0.217	0.040	3.965	-0.222	0.035
1500	3.277	0.654	0.723	3.277	0.654	0.723	3.708	0.252	0.292	3.706	0.254	0.294
2000	3.056	0.221	0.944	3.056	0.221	0.944	3.610	0.098	0.390	3.605	0.103	0.395
2500	2.732	0.324	1.268	2.731	0.325	1.269	3.462	0.148	0.538	3.456	0.154	0.544
0	3.850	-1.118	0.150	3.868	-1.136	0.132	3.914	-0.452	0.086	3.920	-0.458	0.080
2500	2.642	1.208	1.358	2.642	1.208	1.358	3.413	0.501	0.587	3.408	0.506	0.592
3000	2.320	0.322	1.680	2.317	0.325	1.683	3.265	0.148	0.735	3.254	0.159	0.746
3500	1.967	0.353	2.033	1.963	0.357	2.037	3.094	0.171	0.906	3.081	0.184	0.919
0	3.750	-1.783	0.250	3.774	-1.807	0.226	3.850	-0.756	0.150	3.863	-0.769	0.137
3500	1.843	1.907	2.157	1.843	1.907	2.157	3.019	0.831	0.981	3.010	0.840	0.990
4000	1.516	0.327	2.484	1.513	0.330	2.487	2.854	0.165	1.146	2.844	0.175	1.156
4500	1.105	0.411	2.895	1.102	0.414	2.898	2.654	0.200	1.346	2.637	0.217	1.363
0	3.600	-2.495	0.400	3.633	-2.528	0.367	3.738	-1.084	0.262	3.753	-1.099	0.247
4500	0.889	2.711	3.111	0.889	2.711	3.111	2.521	1.217	1.479	2.510	1.228	1.490
5000	0.546	0.343	3.454	0.541	0.348	3.459	2.351	0.170	1.649	2.336	0.185	1.664
5500	0.251	0.295	3.749	0.269	0.277	3.731	2.089	0.262	1.911	2.068	0.283	1.932
0	3.230	-2.979	0.770	3.269	-3.018	0.731	3.520	-1.431	0.480	3.540	-1.451	0.460

olsson

Location:	GEO-204
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-204
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.997	0.003	0.003	3.997	0.003	0.003	3.998	0.002	0.002	3.998	0.002	0.002
2000	3.995	0.002	0.005	3.995	0.002	0.005	3.997	0.001	0.003	3.997	0.001	0.003
3000	3.990	0.005	0.010	3.991	0.004	0.009	3.997	0.000	0.003	3.997	0.000	0.003
4000	3.982	0.008	0.018	3.983	0.008	0.017	3.997	0.000	0.003	3.997	0.000	0.003
5000	3.974	0.008	0.026	3.975	0.008	0.025	3.995	0.002	0.005	3.995	0.002	0.005
6000	3.961	0.013	0.039	3.961	0.014	0.039	3.993	0.002	0.007	3.993	0.002	0.007
7000	3.945	0.016	0.055	3.944	0.017	0.056	3.988	0.005	0.012	3.988	0.005	0.012
8000	3.923	0.022	0.077	3.920	0.024	0.080	3.981	0.007	0.019	3.976	0.012	0.024
9000	3.891	0.032	0.109	3.888	0.032	0.112	3.962	0.019	0.038	3.958	0.018	0.042
10000	3.854	0.037	0.146	3.848	0.040	0.152	3.939	0.023	0.061	3.930	0.028	0.070
11000	3.803	0.051	0.197	3.793	0.055	0.207	3.901	0.038	0.099	3.890	0.040	0.110
12000	3.735	0.068	0.265	3.724	0.069	0.276	3.845	0.056	0.155	3.838	0.052	0.162
13000	3.656	0.079	0.344	3.640	0.084	0.360	3.782	0.063	0.218	3.773	0.065	0.227
14000	3.518	0.138	0.482	3.489	0.151	0.511	3.685	0.097	0.315	3.663	0.110	0.337
15000	3.353	0.165	0.647	3.324	0.165	0.676	3.574	0.111	0.426	3.557	0.106	0.443
16000	3.141	0.212	0.859	3.090	0.234	0.910	3.452	0.122	0.548	3.429	0.128	0.571
16400	2.792	0.349	1.208	2.739	0.351	1.261	3.299	0.153	0.701	3.281	0.148	0.719
0	2.848	-0.056	1.152	2.863	-0.124	1.137	3.294	0.005	0.706	3.300	-0.019	0.700

olsson

Field Pile Testing Results

Location:	GEO-206
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000							0.000	0.000	0.000	0.000	0.000	0.000
2000							0.008	-0.008	-0.008	0.008	-0.008	-0.008
3000	Gauge not working						0.024	-0.016	-0.024	0.024	-0.016	-0.024
4000							0.035	-0.011	-0.035	0.036	-0.012	-0.036
5000							0.045	-0.010	-0.045	0.047	-0.011	-0.047
6000							0.055	-0.010	-0.055	0.056	-0.009	-0.056
7000							0.070	-0.015	-0.070	0.072	-0.016	-0.072
8000							0.080	-0.010	-0.080	0.080	-0.008	-0.080
	Pile slightly angled during installation											

olsson

Location:	GEO-206
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

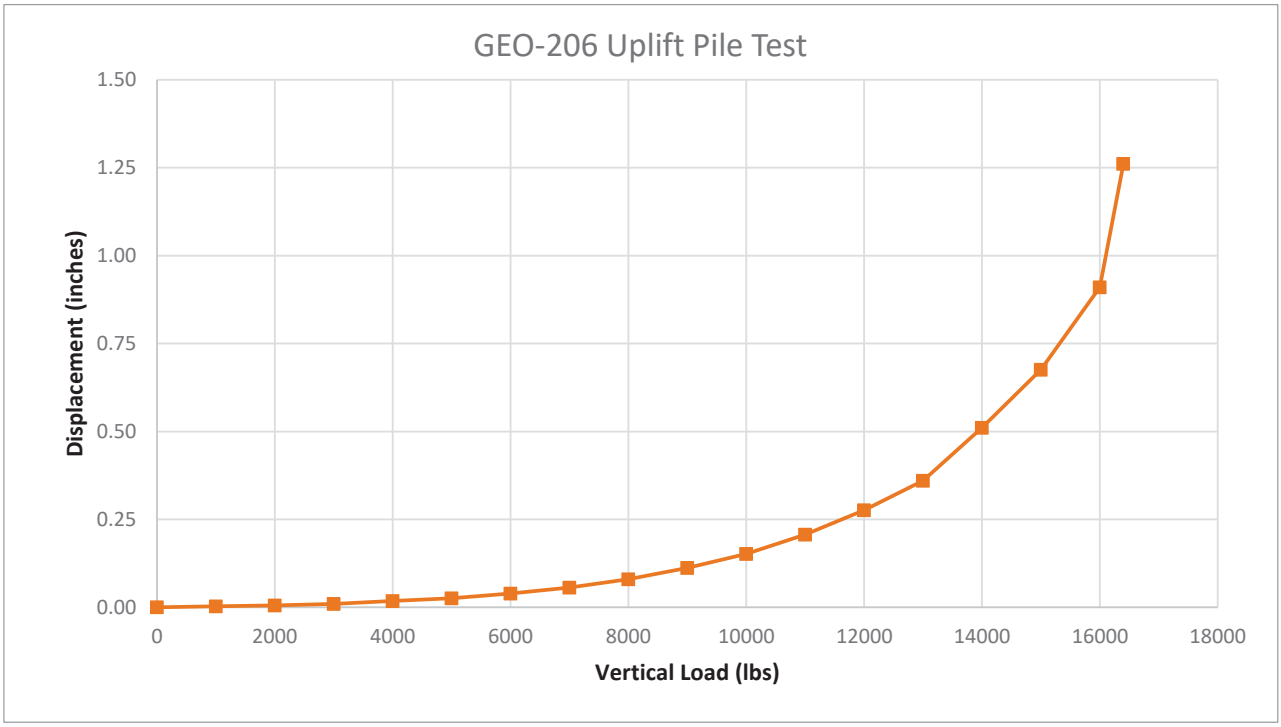
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.837	0.163	0.163	3.837	0.163	0.163	3.950	0.050	0.050	3.948	0.052	0.052
1000	3.615	0.222	0.385	3.615	0.222	0.385	3.867	0.083	0.133	3.864	0.086	0.136
1500	3.359	0.256	0.641	3.359	0.256	0.641	3.759	0.108	0.241	3.753	0.114	0.247
0	3.906	-0.547	0.094	3.922	-0.563	0.078	3.947	-0.188	0.053	3.955	-0.196	0.045
1500	3.302	0.604	0.698	3.302	0.604	0.698	3.731	0.216	0.269	3.728	0.219	0.272
2000	3.062	0.240	0.938	3.061	0.241	0.939	3.629	0.102	0.371	3.624	0.107	0.376
2500	2.801	0.261	1.199	2.801	0.261	1.199	3.516	0.113	0.484	3.509	0.120	0.491
0	3.821	-1.020	0.179	3.839	-1.038	0.161	3.906	-0.390	0.094	3.915	-0.399	0.085
2500	2.711	1.110	1.289	2.710	1.111	1.290	3.468	0.438	0.532	3.463	0.443	0.537
3000	2.433	0.278	1.567	2.433	0.278	1.567	3.349	0.119	0.651	3.337	0.131	0.663
3500	2.048	0.385	1.952	2.045	0.388	1.955	3.170	0.179	0.830	3.154	0.195	0.846
0	3.738	-1.690	0.262	3.755	-1.707	0.245	3.853	-0.683	0.147	3.863	-0.693	0.137
3500	1.959	1.779	2.041	1.959	1.779	2.041	3.109	0.744	0.891	3.102	0.751	0.898
4000	1.609	0.350	2.391	1.609	0.350	2.391	2.948	0.161	1.052	2.938	0.171	1.062
4500	1.163	0.446	2.837	1.160	0.449	2.840	2.743	0.205	1.257	2.728	0.220	1.272
0	3.512	-2.349	0.488	3.535	-2.372	0.465	3.731	-0.988	0.269	3.745	-1.002	0.255
4500	0.957	2.555	3.043	0.957	2.555	3.043	2.625	1.106	1.375	2.618	1.113	1.382
5000	0.175	0.782	3.825	0.750	0.207	3.250	2.318	0.307	1.682	2.310	0.315	1.690
5040	0.000	0.175	4.000	0.000	0.175	4.000	2.250	0.068	1.750	2.241	0.077	1.759
0	2.882	-2.882	1.118	2.922	-2.922	1.078	3.482	-1.232	0.518	3.505	-1.255	0.495

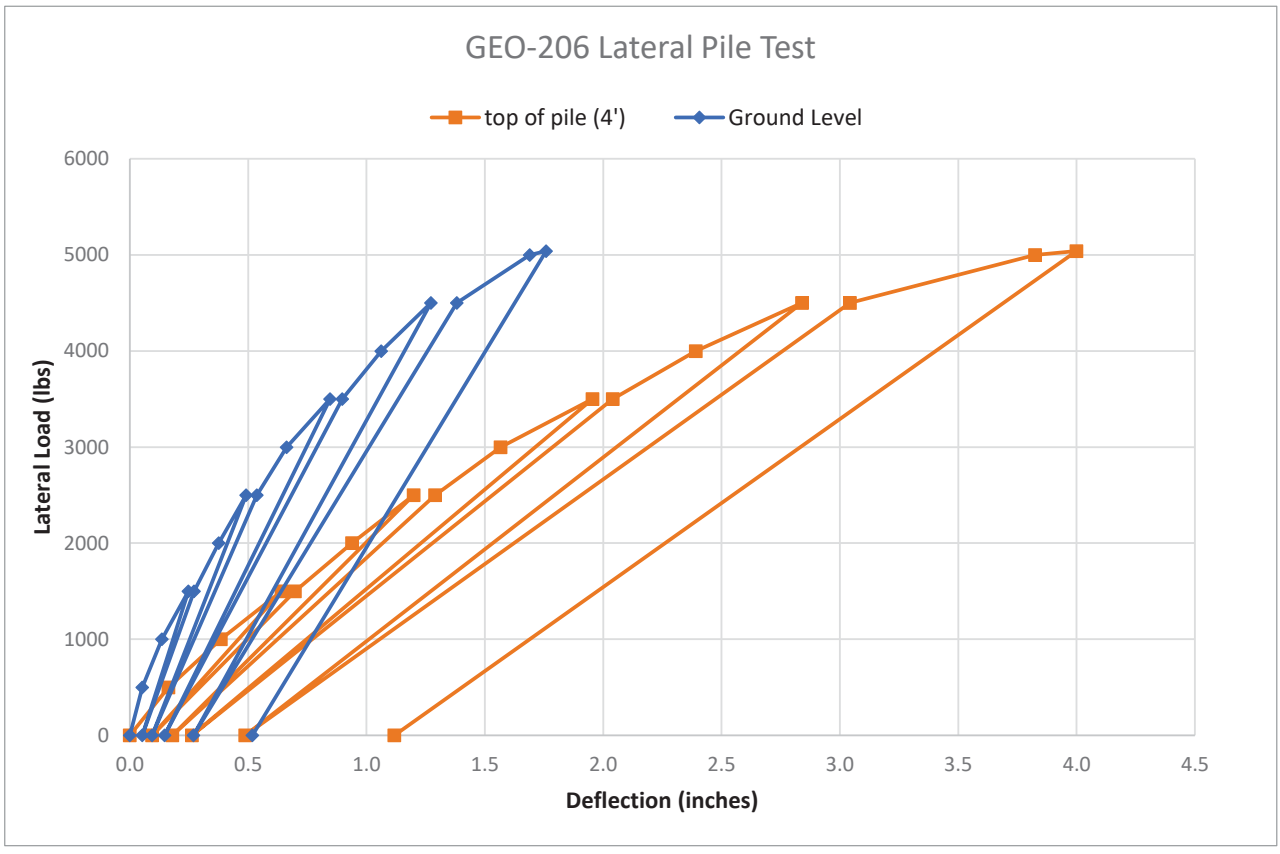
olsson

Field Pile Testing Results

Location:	GEO-206
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-206
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.996	0.004	0.004	3.996	0.004	0.004
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.004	0.008	3.992	0.004	0.008
3000	3.997	0.003	0.003	3.997	0.003	0.003	3.990	0.002	0.010	3.990	0.002	0.010
4000	3.995	0.002	0.005	3.995	0.002	0.005	3.988	0.002	0.012	3.988	0.002	0.012
5000	3.986	0.009	0.014	3.984	0.011	0.016	3.983	0.005	0.017	3.982	0.006	0.018
6000	3.966	0.020	0.034	3.960	0.024	0.040	3.965	0.018	0.035	3.962	0.020	0.038
7000	3.925	0.041	0.075	3.917	0.043	0.083	3.931	0.034	0.069	3.925	0.037	0.075
8000	3.851	0.074	0.149	3.825	0.092	0.175	3.857	0.074	0.143	3.837	0.088	0.163
9000	3.712	0.139	0.288	3.682	0.143	0.318	3.724	0.133	0.276	3.696	0.141	0.304
10000	3.438	0.274	0.562	3.380	0.302	0.620	3.482	0.242	0.518	3.445	0.251	0.555
11000	2.931	0.507	1.069	2.849	0.531	1.151	3.200	0.282	0.800	3.172	0.273	0.828
12000	2.456	0.475	1.544	2.265	0.584	1.735	3.011	0.189	0.989	2.977	0.195	1.023
0	3.293	-0.837	0.707	3.297	-1.032	0.703	3.195	-0.184	0.805	3.251	-0.274	0.749

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Field Pile Testing Results

Location:	GEO-208
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

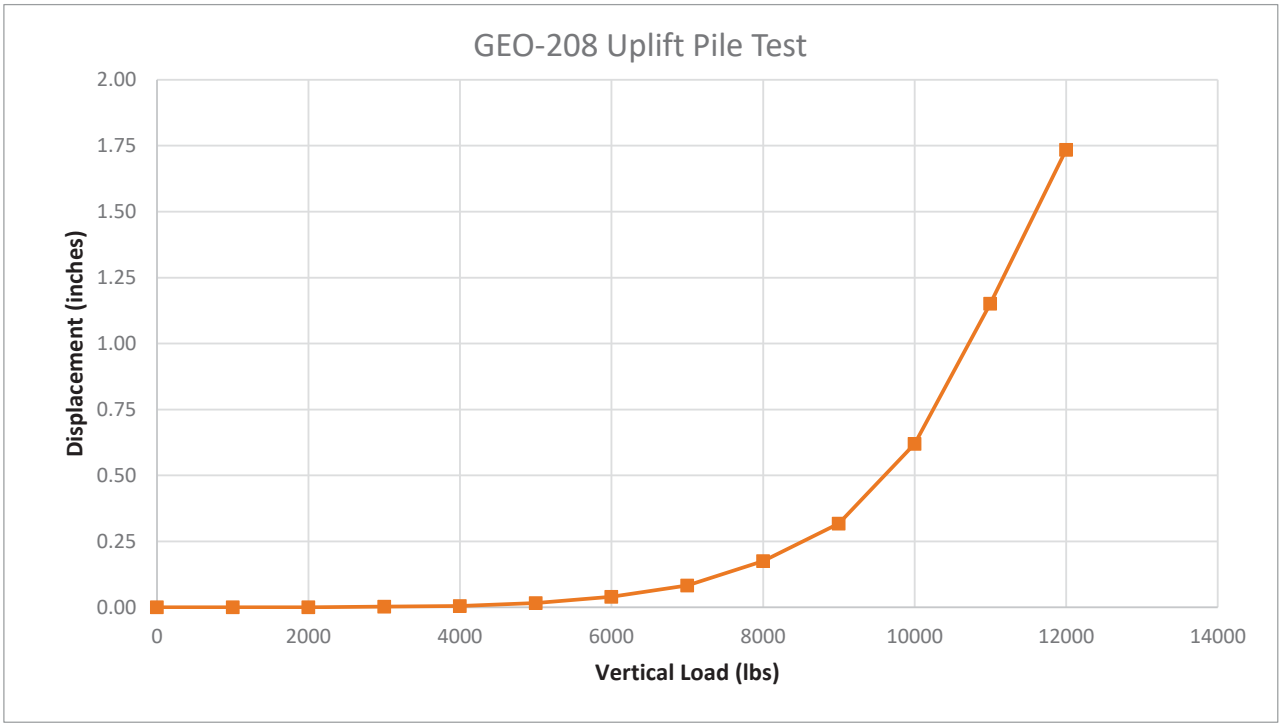
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.870	0.130	0.130	3.866	0.134	0.134	3.949	0.051	0.051	3.946	0.054	0.054
1000	3.651	0.219	0.349	3.646	0.224	0.354	3.867	0.082	0.133	3.860	0.089	0.140
1500	3.406	0.245	0.594	3.402	0.249	0.598	3.763	0.104	0.237	3.757	0.110	0.243
0	3.961	-0.555	0.039	3.980	-0.574	0.020	3.961	-0.198	0.039	3.966	-0.203	0.034
1500	3.376	0.585	0.624	3.374	0.587	0.626	3.742	0.219	0.258	3.738	0.223	0.262
2000	3.114	0.262	0.886	3.112	0.264	0.888	3.630	0.112	0.370	3.623	0.119	0.377
2500	2.790	0.324	1.210	2.785	0.329	1.215	3.480	0.150	0.520	3.471	0.159	0.529
0	3.891	-1.101	0.109	3.909	-1.119	0.091	3.909	-0.429	0.091	3.918	-0.438	0.082
2500	2.733	1.158	1.267	2.732	1.159	1.268	3.444	0.465	0.556	3.436	0.473	0.564
3000	2.406	0.327	1.594	2.401	0.332	1.599	3.293	0.151	0.707	3.281	0.163	0.719
3500	2.061	0.345	1.939	2.056	0.350	1.944	3.124	0.169	0.876	3.111	0.182	0.889
0	3.803	-1.742	0.197	3.830	-1.769	0.170	3.843	-0.719	0.157	3.861	-0.737	0.139
3500	1.932	1.871	2.068	1.926	1.877	2.074	3.042	0.801	0.958	3.030	0.813	0.970
4000	1.593	0.339	2.407	1.586	0.346	2.414	2.873	0.169	1.127	2.861	0.181	1.139
4500	1.251	0.342	2.749	1.243	0.350	2.757	2.704	0.169	1.296	2.687	0.186	1.313
0	3.673	-2.422	0.327	3.711	-2.460	0.289	3.755	-1.051	0.245	3.774	-1.070	0.226
4500	1.025	2.648	2.975	1.023	2.650	2.977	2.563	1.192	1.437	2.548	1.207	1.452
5000	0.643	0.382	3.357	0.634	0.391	3.366	2.367	0.196	1.633	2.346	0.217	1.654
5500	0.120	0.523	3.880	0.110	0.533	3.890	2.100	0.267	1.900	2.076	0.291	1.924
0	3.320	-3.200	0.680	3.362	-3.242	0.638	3.529	-1.429	0.471	3.552	-1.452	0.448

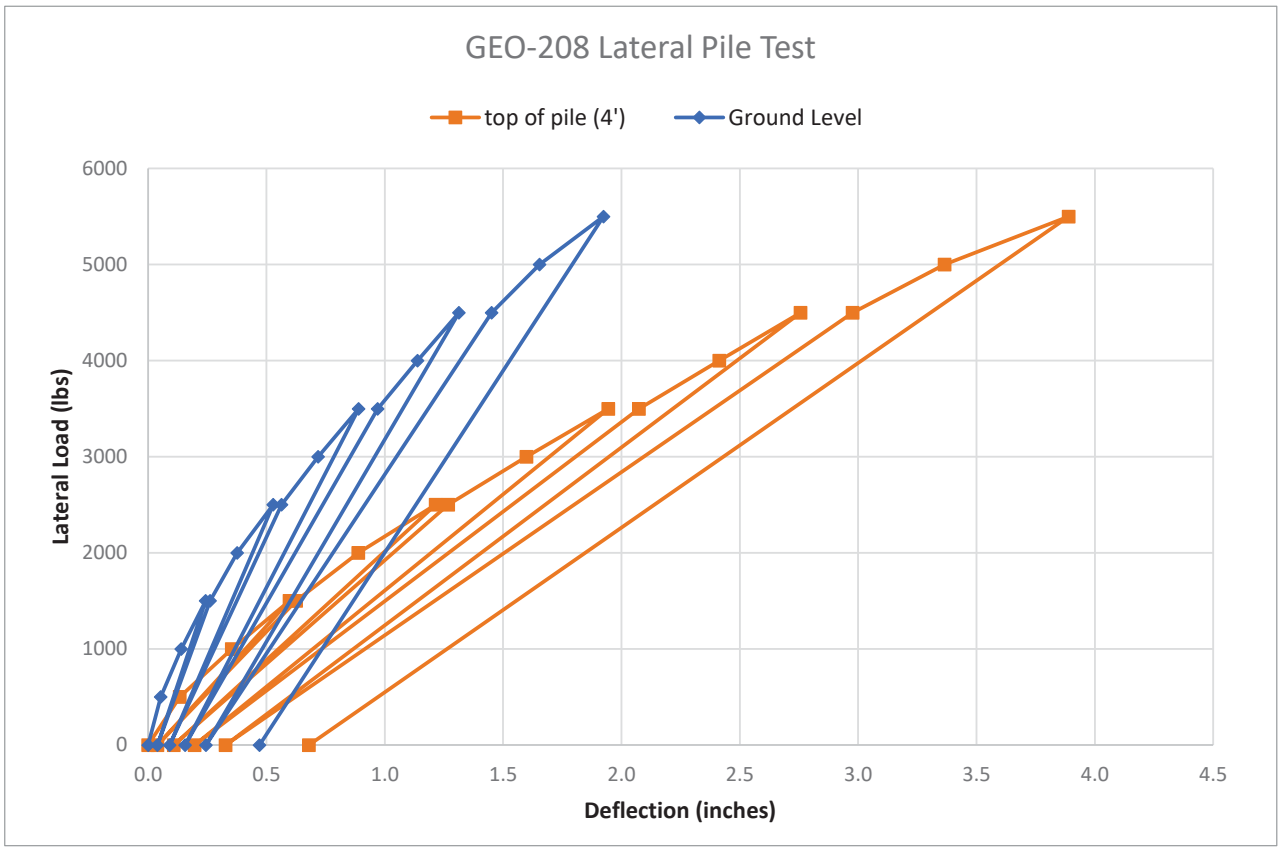
olsson

Field Pile Testing Results

Location:	GEO-208
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-208
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.986	0.014	0.014	3.986	0.014	0.014	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.983	0.003	0.017	3.983	0.003	0.017	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.980	0.003	0.020	3.980	0.003	0.020	4.000	0.000	0.000	4.000	0.000	0.000
5000	3.976	0.004	0.024	3.975	0.005	0.025	3.999	0.001	0.001	3.999	0.001	0.001
6000	3.971	0.005	0.029	3.970	0.005	0.030	3.997	0.002	0.003	3.997	0.002	0.003
7000	3.966	0.005	0.034	3.965	0.005	0.035	3.994	0.003	0.006	3.994	0.003	0.006
8000	3.960	0.006	0.040	3.959	0.006	0.041	3.988	0.006	0.012	3.988	0.006	0.012
9000	3.952	0.008	0.048	3.952	0.007	0.048	3.981	0.007	0.019	3.980	0.008	0.020
10000	3.945	0.007	0.055	3.942	0.010	0.058	3.971	0.010	0.029	3.970	0.010	0.030
11000	3.934	0.011	0.066	3.931	0.011	0.069	3.961	0.010	0.039	3.958	0.012	0.042
12000	3.922	0.012	0.078	3.916	0.015	0.084	3.947	0.014	0.053	3.941	0.017	0.059
13000	3.905	0.017	0.095	3.895	0.021	0.105	3.927	0.020	0.073	3.918	0.023	0.082
14000	3.880	0.025	0.120	3.870	0.025	0.130	3.900	0.027	0.100	3.893	0.025	0.107
15000	3.855	0.025	0.145	3.843	0.027	0.157	3.873	0.027	0.127	3.862	0.031	0.138
16000	3.828	0.027	0.172	3.812	0.031	0.188	3.842	0.031	0.158	3.830	0.032	0.170
17000	3.793	0.035	0.207	3.776	0.036	0.224	3.806	0.036	0.194	3.792	0.038	0.208
18000	3.759	0.034	0.241	3.746	0.030	0.254	3.771	0.035	0.229	3.758	0.034	0.242
0	3.788	-0.029	0.212	3.790	-0.044	0.210	3.809	-0.038	0.191	3.812	-0.054	0.188

Field Pile Testing Results

Location:	GEO-210
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

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Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.001	-0.001	-0.001	0.001	-0.001	-0.001						
2000	0.002	-0.001	-0.002	0.002	-0.001	-0.002						
3000	0.005	-0.003	-0.005	0.005	-0.003	-0.005						
4000	0.006	-0.001	-0.006	0.006	-0.001	-0.006						
5000	0.006	0.000	-0.006	0.006	0.000	-0.006	Gauge not working					
6000	0.011	-0.005	-0.011	0.011	-0.005	-0.011						
7000	0.021	-0.010	-0.021	0.022	-0.011	-0.022						
8000	0.028	-0.007	-0.028	0.029	-0.007	-0.029						
9000	0.034	-0.006	-0.034	0.036	-0.007	-0.036						
10000	0.046	-0.012	-0.046	0.047	-0.011	-0.047						

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Field Pile Testing Results

Location:	GEO-210
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

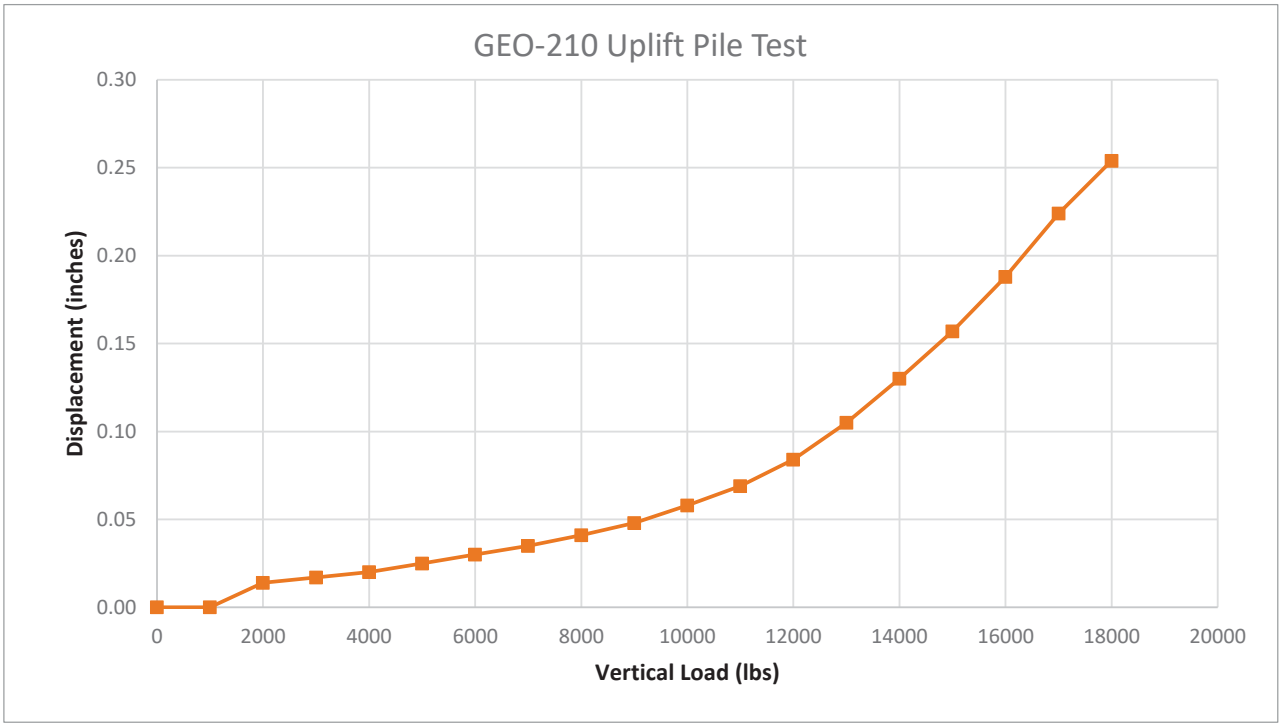
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.815	0.185	0.185	3.815	0.185	0.185	3.953	0.047	0.047	3.952	0.048	0.048
1000	3.646	0.169	0.354	3.648	0.167	0.352	3.895	0.058	0.105	3.893	0.060	0.107
1500	3.415	0.231	0.585	3.419	0.227	0.581	3.815	0.080	0.185	3.814	0.081	0.186
0	3.952	-0.537	0.048	3.961	-0.546	0.039	3.970	-0.155	0.030	3.975	-0.160	0.025
1500	3.389	0.563	0.611	3.392	0.560	0.608	3.802	0.168	0.198	3.801	0.169	0.199
2000	3.136	0.253	0.864	3.139	0.250	0.861	3.711	0.091	0.289	3.709	0.093	0.291
2500	2.946	0.190	1.054	2.950	0.186	1.050	3.639	0.072	0.361	3.936	-0.225	0.064
0	3.908	-0.962	0.092	3.923	-0.977	0.077	3.936	-0.297	0.064	3.945	-0.306	0.055
2500	2.861	1.047	1.139	2.867	1.041	1.133	3.601	0.335	0.399	3.600	0.336	0.400
3000	2.673	0.188	1.327	2.676	0.185	1.324	3.532	0.069	0.468	3.528	0.073	0.472
3500	2.399	0.274	1.601	2.398	0.275	1.602	3.425	0.107	0.575	3.419	0.113	0.581
0	3.868	-1.469	0.132	3.889	-1.490	0.111	3.916	-0.491	0.084	3.926	-0.501	0.074
3500	2.318	1.550	1.682	2.322	1.546	1.678	3.382	0.534	0.618	3.380	0.536	0.620
4000	2.074	0.244	1.926	2.076	0.242	1.924	3.288	0.094	0.712	3.283	0.099	0.717
4500	1.777	0.297	2.223	1.779	0.295	2.221	3.168	0.120	0.832	3.162	0.126	0.838
0	3.818	-2.041	0.182	3.843	-2.066	0.157	3.882	-0.714	0.118	3.893	-0.725	0.107
4500	1.679	2.139	2.321	1.682	2.136	2.318	3.118	0.764	0.882	3.110	0.772	0.890
5000	1.432	0.247	2.568	1.433	0.246	2.567	3.022	0.096	0.978	3.011	0.107	0.989
5500	1.147	0.285	2.853	1.143	0.289	2.857	2.898	0.124	1.102	2.890	0.132	1.110
0	3.691	-2.544	0.309	3.721	-2.574	0.279	3.809	-0.911	0.191	3.828	-0.930	0.172

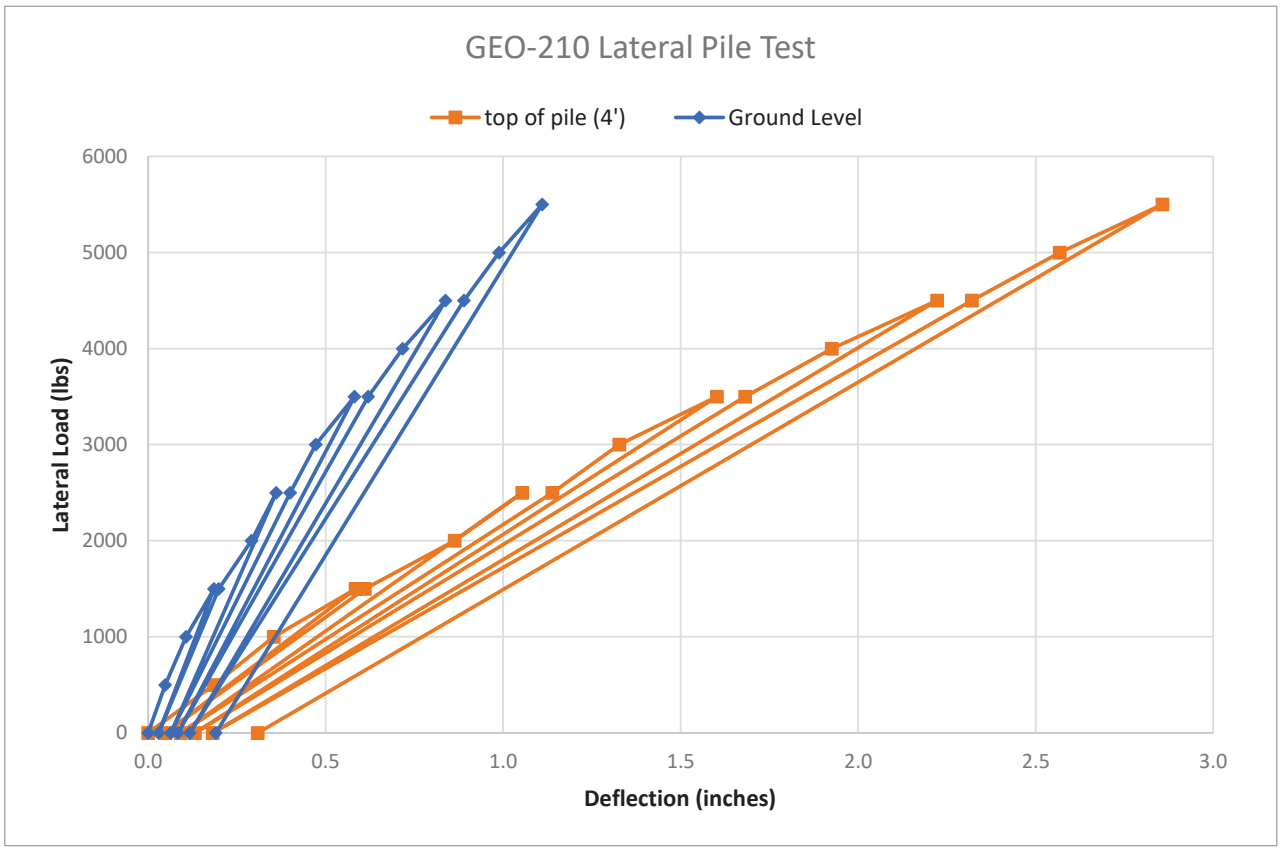
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Field Pile Testing Results

Location:	GEO-210
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-210
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.998	0.002	0.002	3.998	0.002	0.002
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.004	0.006	3.995	0.003	0.005
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.002	0.008	3.992	0.003	0.008
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.989	0.003	0.011	3.989	0.003	0.011
5000	3.997	0.003	0.003	3.996	0.004	0.004	3.985	0.004	0.015	3.984	0.005	0.016
6000	3.986	0.011	0.014	3.986	0.010	0.014	3.978	0.007	0.022	3.977	0.007	0.023
7000	3.972	0.014	0.028	3.971	0.015	0.029	3.965	0.013	0.035	3.963	0.014	0.037
8000	3.946	0.026	0.054	3.943	0.028	0.057	3.945	0.020	0.055	3.942	0.021	0.058
9000	3.916	0.030	0.084	3.913	0.030	0.087	3.918	0.027	0.082	3.914	0.028	0.086
10000	3.875	0.041	0.125	3.867	0.046	0.133	3.876	0.042	0.124	3.869	0.045	0.131
11000	3.805	0.070	0.195	3.794	0.073	0.206	3.810	0.066	0.190	3.799	0.070	0.201
12000	3.715	0.090	0.285	3.703	0.091	0.297	3.721	0.089	0.279	3.711	0.088	0.289
13000	3.582	0.133	0.418	3.562	0.141	0.438	3.591	0.130	0.409	3.577	0.134	0.423
14000	3.405	0.177	0.595	3.376	0.186	0.624	3.412	0.179	0.588	3.390	0.187	0.610
15000	3.100	0.305	0.900	3.048	0.328	0.952	3.105	0.307	0.895	3.066	0.324	0.934
16000	2.630	0.470	1.370	2.574	0.474	1.426	2.640	0.465	1.360	2.599	0.467	1.401
0	2.630	0.000	1.370	2.631	-0.057	1.369	2.660	-0.020	1.340	2.663	-0.064	1.337

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Field Pile Testing Results

Location:	GEO-212
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Fox Squirrel Solar Project

Lateral

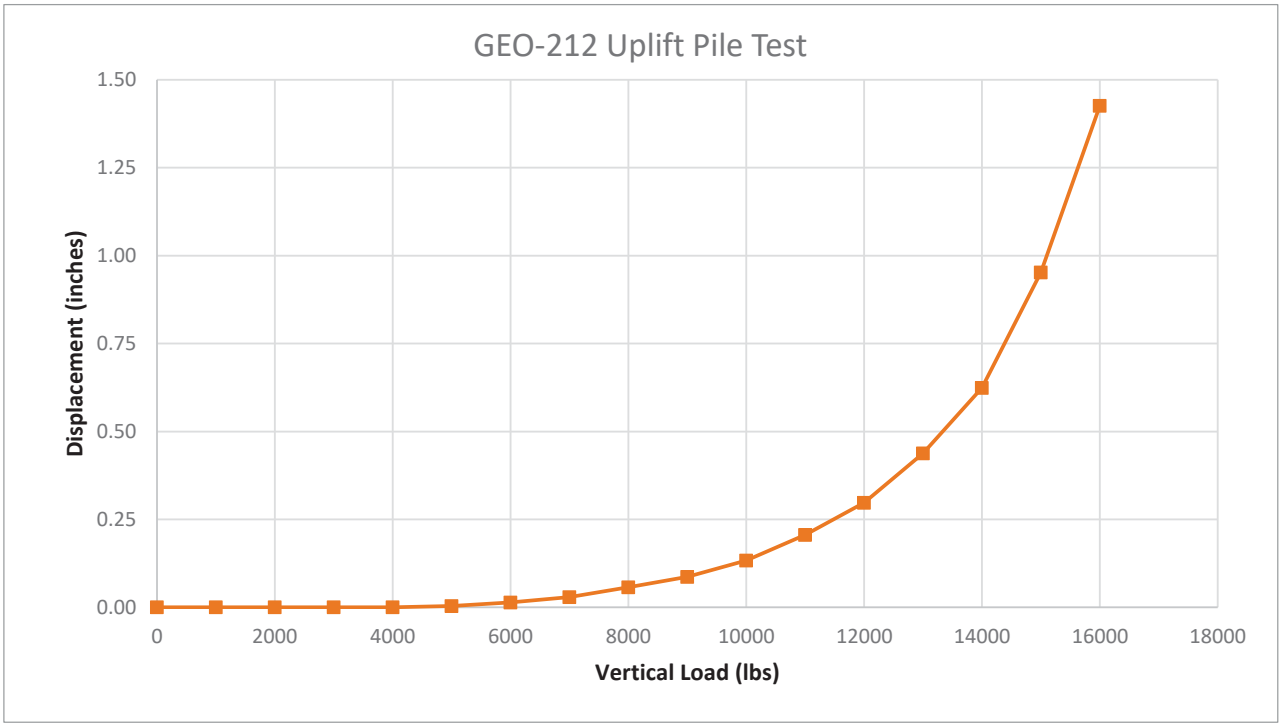
load	3.593						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.814	0.186	0.186	3.814	0.186	0.186	3.940	0.060	0.060	3.938	0.062	0.062
1000	3.593	0.221	0.407	3.593	0.221	0.407	3.852	0.088	0.148	3.849	0.091	0.151
1500	3.359	0.234	0.641	3.357	0.236	0.643	3.753	0.099	0.247	3.747	0.105	0.253
0	3.904	-0.545	0.096	3.912	-0.553	0.088	3.956	-0.203	0.044	3.963	-0.210	0.037
1500	3.328	0.576	0.672	3.328	0.576	0.672	3.735	0.221	0.265	3.733	0.223	0.267
2000	3.056	0.272	0.944	3.055	0.273	0.945	3.617	0.118	0.383	3.613	0.122	0.387
2500	2.811	0.245	1.189	2.807	0.249	1.193	3.505	0.112	0.495	3.497	0.120	0.503
0	3.838	-1.027	0.162	3.855	-1.044	0.145	3.912	-0.407	0.088	3.912	-0.407	0.088
2500	2.691	1.147	1.309	2.691	1.147	1.309	3.443	0.469	0.557	3.437	0.475	0.563
3000	2.397	0.294	1.603	2.394	0.297	1.606	3.305	0.138	0.695	3.295	0.148	0.705
3500	2.084	0.313	1.916	2.078	0.319	1.922	3.155	0.150	0.845	3.140	0.165	0.860
0	3.750	-1.666	0.250	3.774	-1.690	0.226	3.865	-0.710	0.135	3.875	-0.720	0.125
3500	1.915	1.835	2.085	1.915	1.835	2.085	3.057	0.808	0.943	3.048	0.817	0.952
4000	1.621	0.294	2.379	1.618	0.297	2.382	2.915	0.142	1.085	2.903	0.154	1.097
4500	1.235	0.386	2.765	1.231	0.390	2.769	2.717	0.198	1.283	2.710	0.205	1.290
0	3.600	-2.365	0.400	3.640	-2.405	0.360	3.770	-1.053	0.230	3.785	-1.068	0.215
4500	1.085	2.515	2.915	1.084	2.516	2.916	2.623	1.147	1.377	2.611	1.159	1.389
5000	0.677	0.408	3.323	0.672	0.413	3.328	2.422	0.201	1.578	2.404	0.219	1.596
5500	0.144	0.533	3.856	0.144	0.533	3.856	2.150	0.272	1.850	2.130	0.292	1.870
0	3.170	-3.026	0.830	3.201	-3.057	0.799	3.521	-1.371	0.479	3.539	-1.389	0.461

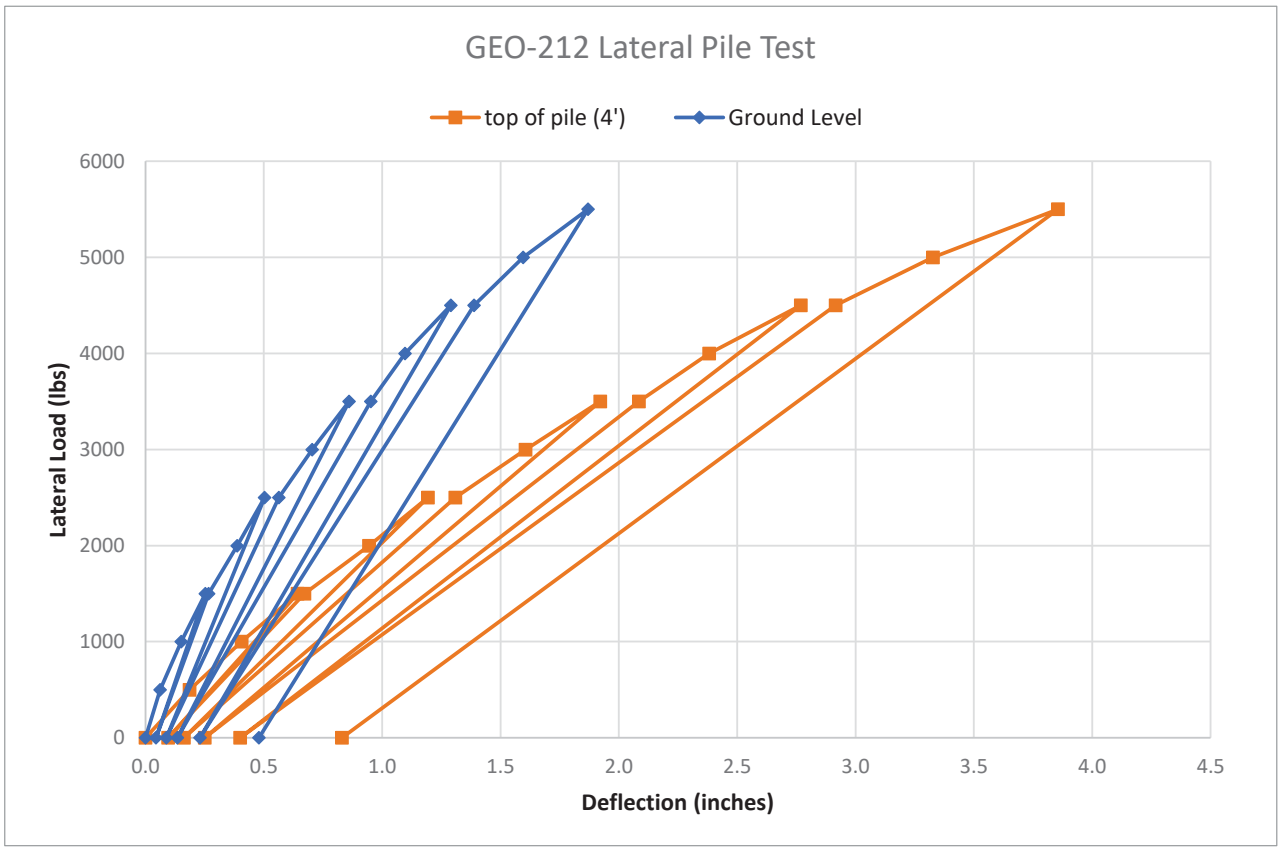
olsson

Location:	GEO-212
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-212
Test Date:	12/11/2020
Project No.:	020-3275
Prepared by:	David Sydnor

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.998	0.002	0.002	3.998	0.002	0.002
3000	3.999	0.001	0.001	3.999	0.001	0.001	3.995	0.003	0.005	3.995	0.003	0.005
4000	3.988	0.011	0.012	3.988	0.011	0.012	3.987	0.008	0.013	3.985	0.010	0.015
5000	3.970	0.018	0.030	3.969	0.019	0.031	3.969	0.018	0.031	3.965	0.020	0.035
6000	3.913	0.057	0.087	3.909	0.060	0.091	3.913	0.056	0.087	3.904	0.061	0.096
7000	3.868	0.045	0.132	3.853	0.056	0.147	3.860	0.053	0.140	3.849	0.055	0.151
8000	3.771	0.097	0.229	3.754	0.099	0.246	3.762	0.098	0.238	3.750	0.099	0.250
9000	3.623	0.148	0.377	3.588	0.166	0.412	3.617	0.145	0.383	3.584	0.166	0.416
10000	3.412	0.211	0.588	3.369	0.219	0.631	3.412	0.205	0.588	3.375	0.209	0.625
11000	3.138	0.274	0.862	3.091	0.278	0.909	3.151	0.261	0.849	3.116	0.259	0.884
12000	2.782	0.356	1.218	2.733	0.358	1.267	2.831	0.320	1.169	2.788	0.328	1.212
12580	2.328	0.454	1.672	2.268	0.465	1.732	2.406	0.425	1.594	2.340	0.448	1.660
0	3.202	-0.874	0.798	3.306	-1.038	0.694	3.398	-0.992	0.602	3.400	-1.060	0.600

olsson

Location:	GEO-214
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

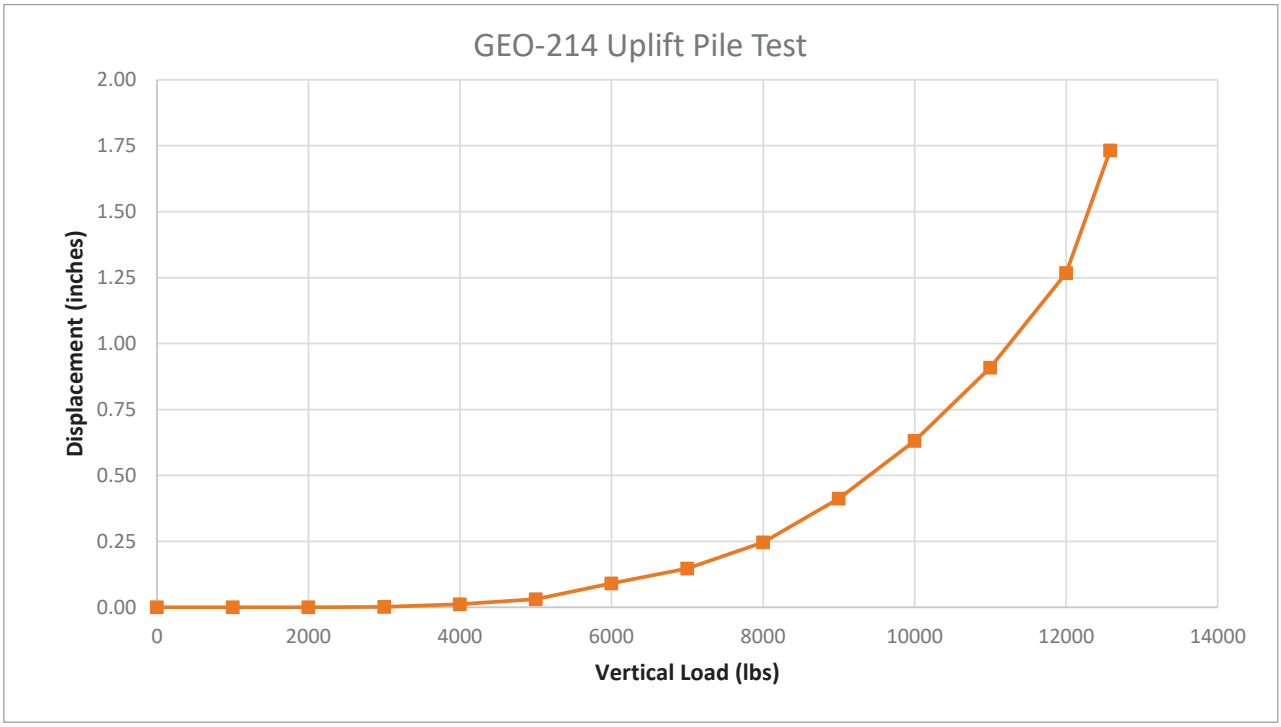
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.779	0.221	0.221	3.778	0.222	0.222	3.930	0.070	0.070	3.929	0.071	0.071
1000	3.534	0.245	0.466	3.534	0.245	0.466	3.838	0.092	0.162	3.836	0.094	0.164
1500	3.295	0.239	0.705	3.295	0.239	0.705	3.742	0.096	0.258	3.739	0.099	0.261
0	3.961	-0.666	0.039	3.965	-0.670	0.035	3.987	-0.245	0.013	3.989	-0.247	0.011
1500	3.264	0.697	0.736	3.265	0.696	0.735	3.726	0.261	0.274	3.725	0.262	0.275
2000	2.963	0.301	1.037	2.963	0.301	1.037	3.604	0.122	0.396	3.600	0.126	0.400
2500	2.736	0.227	1.264	2.736	0.227	1.264	3.506	0.098	0.494	3.501	0.103	0.499
0	3.935	-1.199	0.065	3.947	-1.211	0.053	3.953	-0.447	0.047	3.955	-0.449	0.045
2500	2.679	1.256	1.321	2.679	1.256	1.321	3.476	0.477	0.524	3.472	0.481	0.528
3000	2.381	0.298	1.619	2.381	0.298	1.619	3.350	0.126	0.650	3.341	0.135	0.659
3500	2.059	0.322	1.941	2.056	0.325	1.944	3.202	0.148	0.798	3.193	0.157	0.807
0	3.886	-1.827	0.114	3.908	-1.849	0.092	3.940	-0.738	0.060	3.955	-0.753	0.045
3500	1.963	1.923	2.037	1.963	1.923	2.037	3.145	0.795	0.855	3.139	0.801	0.861
4000	1.645	0.318	2.355	1.644	0.319	2.356	3.003	0.142	0.997	2.992	0.153	1.008
4500	1.269	0.376	2.731	1.267	0.378	2.733	2.824	0.179	1.176	2.810	0.193	1.190
0	3.777	-2.508	0.223	3.804	-2.535	0.196	3.859	-1.035	0.141	3.862	-1.038	0.138
4500	1.121	2.656	2.879	1.119	2.658	2.881	2.727	1.132	1.273	2.718	1.141	1.282
5000	0.746	0.375	3.254	0.742	0.379	3.258	2.552	0.175	1.448	2.536	0.191	1.464
5500	0.175	0.571	3.825	0.165	0.581	3.835	2.279	0.273	1.721	2.252	0.300	1.748
0	3.452	-3.277	0.548	3.476	-3.301	0.524	3.633	-1.354	0.367	3.650	-1.371	0.350

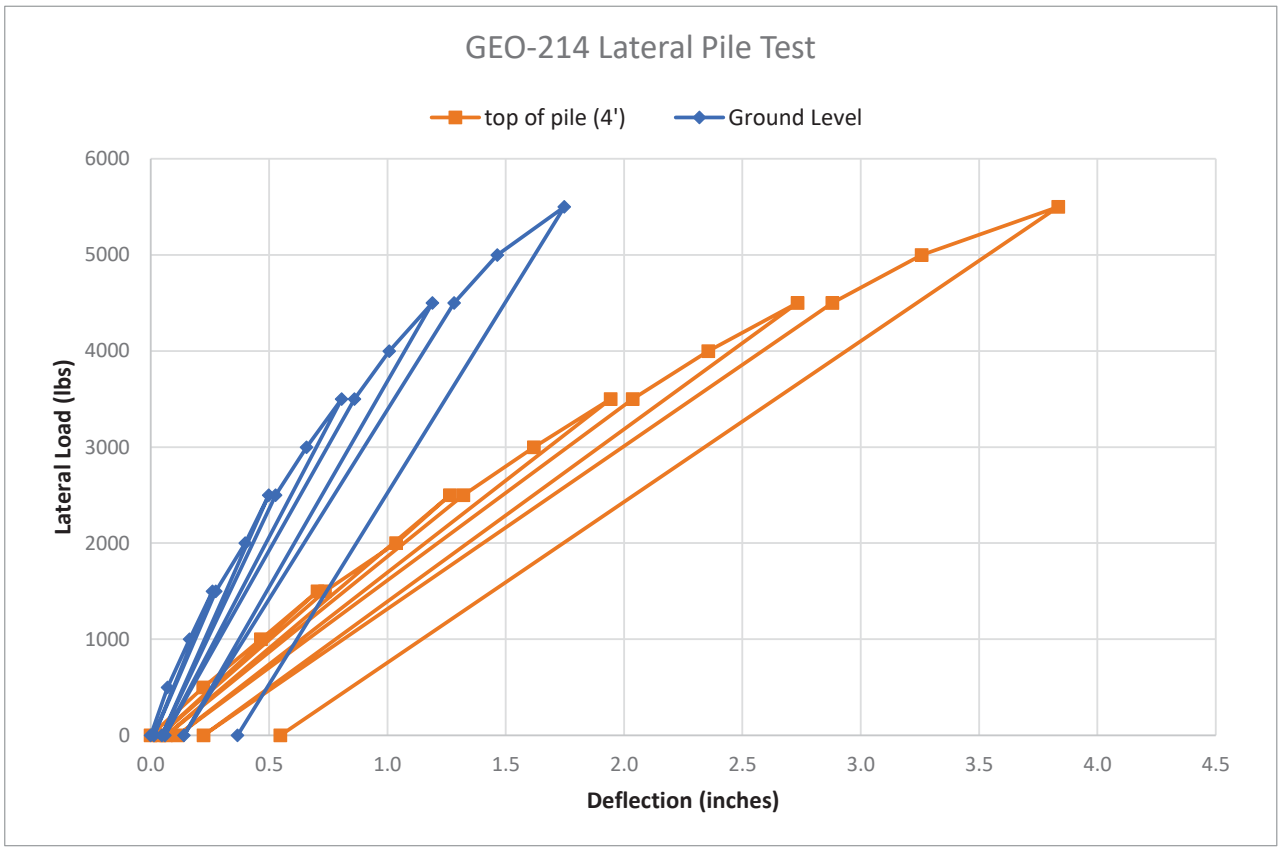
olsson

Location:	GEO-214
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-214
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.997	0.003	0.003	3.997	0.003	0.003	3.998	0.002	0.002	3.998	0.002	0.002
2000	3.994	0.003	0.006	3.994	0.003	0.006	3.997	0.001	0.003	3.997	0.001	0.003
3000	3.983	0.011	0.017	3.983	0.011	0.017	3.995	0.002	0.005	3.995	0.002	0.005
4000	3.970	0.013	0.030	3.975	0.008	0.025	3.990	0.005	0.010	3.990	0.005	0.010
5000	3.951	0.019	0.049	3.955	0.020	0.045	3.982	0.008	0.018	3.982	0.008	0.018
6000	3.925	0.026	0.075	3.926	0.029	0.074	3.970	0.012	0.030	3.968	0.014	0.032
7000	3.889	0.036	0.111	3.891	0.035	0.109	3.947	0.023	0.053	3.945	0.023	0.055
8000	3.851	0.038	0.149	3.849	0.042	0.151	3.918	0.029	0.082	3.912	0.033	0.088
9000	3.781	0.070	0.219	3.777	0.072	0.223	3.861	0.057	0.139	3.854	0.058	0.146
10000	3.721	0.060	0.279	3.710	0.067	0.290	3.812	0.049	0.188	3.799	0.055	0.201
11000	3.618	0.103	0.382	3.603	0.107	0.397	3.722	0.090	0.278	3.707	0.092	0.293
12000	3.433	0.185	0.567	3.417	0.186	0.583	3.584	0.138	0.416	3.577	0.130	0.423
13000	3.252	0.181	0.748	3.195	0.222	0.805	3.453	0.131	0.547	3.425	0.152	0.575
14000	2.669	0.583	1.331	2.598	0.597	1.402	3.165	0.288	0.835	3.123	0.302	0.877
14480	2.132	0.537	1.868	2.047	0.551	1.953	2.845	0.320	1.155	2.802	0.321	1.198
0	2.207	-0.075	1.793	2.210	-0.163	1.790	2.867	-0.022	1.133	2.872	-0.070	1.128

olsson

Location:	GEO-216
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	-0.003	-0.003	0.003	-0.003	-0.003
2000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	-0.005	-0.008	0.011	-0.008	-0.011
3000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	-0.012	-0.020	0.022	-0.011	-0.022
4000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	-0.019	-0.039	0.042	-0.020	-0.042
5000	0.000	0.000	0.000	0.000	0.000	0.000	0.052	-0.013	-0.052	0.052	-0.010	-0.052
6000	0.000	0.000	0.000	0.000	0.000	0.000	0.063	-0.011	-0.063	0.064	-0.012	-0.064
7000	0.000	0.000	0.000	0.000	0.000	0.000	0.072	-0.009	-0.072	0.072	-0.008	-0.072
8000	0.007	-0.007	-0.007	0.008	-0.008	-0.008	0.083	-0.011	-0.083	0.085	-0.013	-0.085
9000	0.014	-0.007	-0.014	0.015	-0.007	-0.015	0.113	-0.030	-0.113	0.116	-0.031	-0.116
10000	0.022	-0.008	-0.022	0.025	-0.010	-0.025	0.135	-0.022	-0.135	0.140	-0.024	-0.140

olsson

Field Pile Testing Results

Location:	GEO-216
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

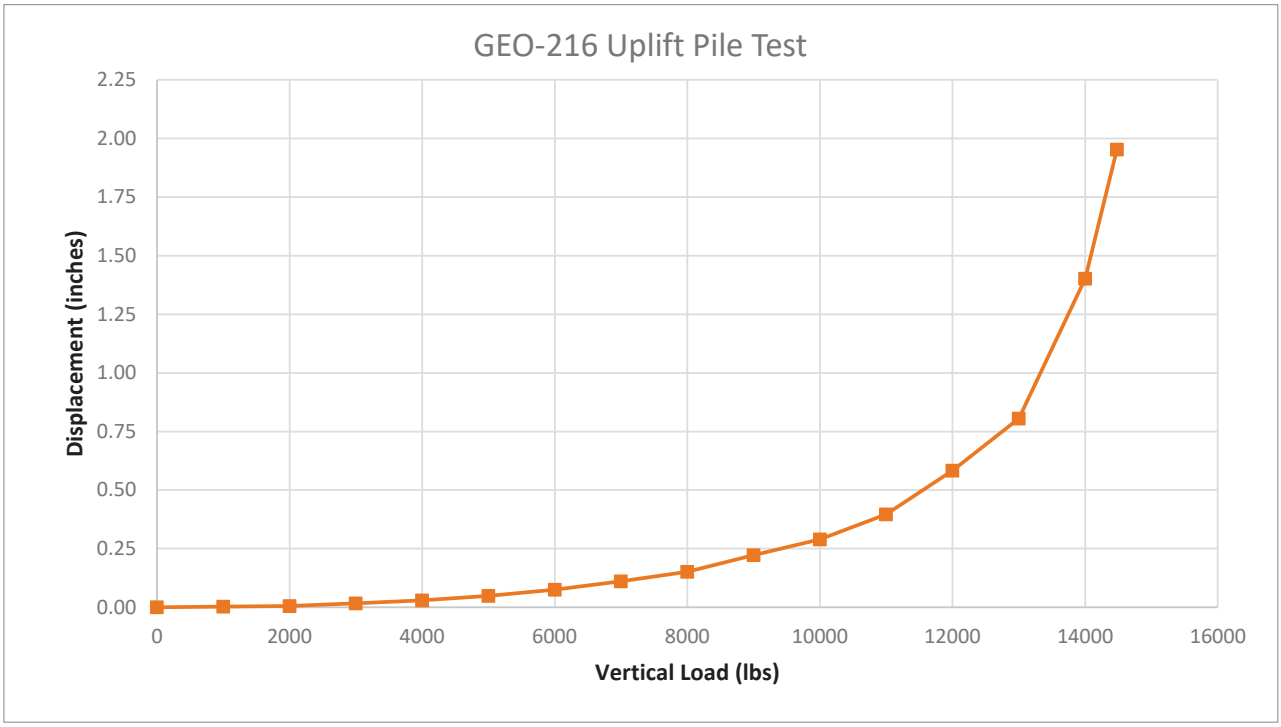
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.776	0.224	0.224	3.779	0.221	0.221	3.929	0.071	0.071	3.929	0.071	0.071
1000	3.608	0.168	0.392	3.612	0.164	0.388	3.864	0.065	0.136	3.866	0.063	0.134
1500	3.350	0.258	0.650	3.354	0.254	0.646	3.760	0.104	0.240	3.760	0.104	0.240
0	3.939	-0.589	0.061	3.953	-0.603	0.047	3.971	-0.211	0.029	3.973	-0.213	0.027
1500	3.311	0.628	0.689	3.311	0.628	0.689	3.740	0.231	0.260	3.738	0.233	0.262
2000	3.097	0.214	0.903	3.100	0.211	0.900	3.657	0.083	0.343	3.650	0.090	0.350
2500	2.798	0.299	1.202	2.798	0.299	1.202	3.522	0.135	0.478	3.517	0.140	0.483
0	3.897	-1.099	0.103	3.901	-1.103	0.099	3.943	-0.421	0.057	3.951	-0.429	0.049
2500	2.701	1.196	1.299	2.703	1.194	1.297	3.471	0.472	0.529	3.466	0.477	0.534
3000	2.435	0.266	1.565	2.433	0.268	1.567	3.358	0.113	0.642	3.346	0.125	0.654
3500	2.111	0.324	1.889	2.110	0.325	1.890	3.210	0.148	0.790	3.197	0.161	0.803
0	3.811	-1.700	0.189	3.812	-1.701	0.188	3.901	-0.691	0.099	3.910	-0.700	0.090
3500	1.975	1.836	2.025	1.975	1.836	2.025	3.131	0.770	0.869	3.122	0.779	0.878
4000	1.741	0.234	2.259	1.740	0.235	2.260	3.023	0.108	0.977	3.012	0.119	0.988
4500	1.363	0.378	2.637	1.361	0.380	2.639	2.845	0.178	1.155	2.830	0.193	1.170
0	3.681	-2.318	0.319	3.692	-2.329	0.308	3.822	-0.977	0.178	3.824	-0.979	0.176
4500	1.165	2.516	2.835	1.166	2.515	2.834	2.730	1.092	1.270	2.720	1.102	1.280
5000	0.824	0.341	3.176	0.822	0.343	3.178	2.570	0.160	1.430	2.552	0.178	1.448
5500	0.420	0.404	3.580	0.419	0.405	3.581	2.372	0.198	1.628	2.347	0.223	1.653
0	3.406	-2.986	0.594	3.407	-2.987	0.593	3.771	-1.399	0.229	3.782	-1.410	0.218

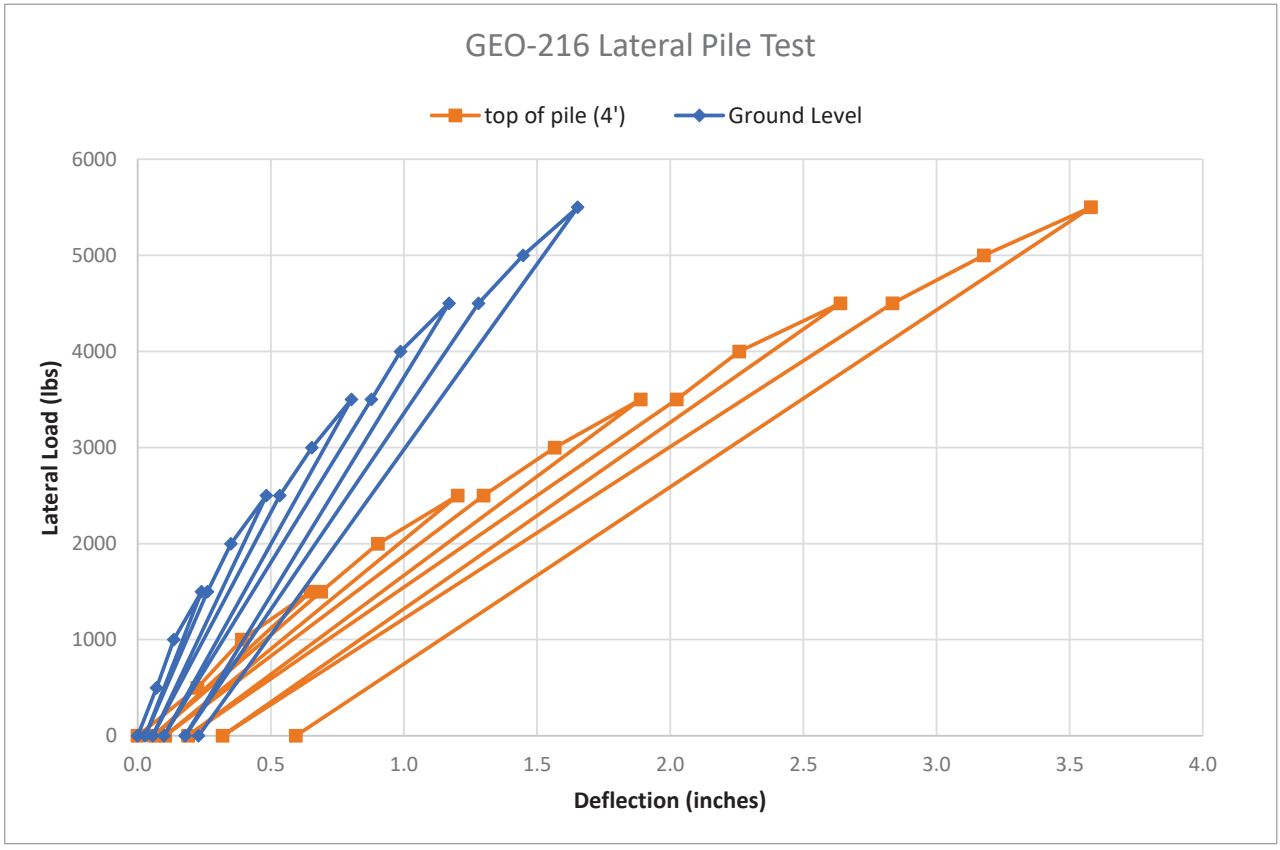
olsson

Field Pile Testing Results

Location:	GEO-216
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-216
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.994	0.006	0.006	3.994	0.006	0.006	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.989	0.005	0.011	3.989	0.005	0.011	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.982	0.007	0.018	3.982	0.007	0.018	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.977	0.005	0.023	3.977	0.005	0.023	3.992	0.008	0.008	3.992	0.008	0.008
5000	3.967	0.010	0.033	3.969	0.008	0.031	3.987	0.005	0.013	3.985	0.007	0.015
6000	3.946	0.021	0.054	3.946	0.023	0.054	3.975	0.012	0.025	3.974	0.011	0.026
7000	3.921	0.025	0.079	3.920	0.026	0.080	3.960	0.015	0.040	3.957	0.017	0.043
8000	3.876	0.045	0.124	3.868	0.052	0.132	3.926	0.034	0.074	3.913	0.044	0.087
9000	3.802	0.074	0.198	3.793	0.075	0.207	3.860	0.066	0.140	3.847	0.066	0.153
10000	3.665	0.137	0.335	3.649	0.144	0.351	3.741	0.119	0.259	3.710	0.137	0.290
11000	3.445	0.220	0.555	3.414	0.235	0.586	3.535	0.206	0.465	3.509	0.201	0.491
12000	3.182	0.263	0.818	3.141	0.273	0.859	3.376	0.159	0.624	3.349	0.160	0.651
12720	2.243	0.939	1.757	2.203	0.938	1.797	2.893	0.483	1.107	2.868	0.481	1.132
0	2.282	-0.039	1.718	2.287	-0.084	1.713	2.885	0.008	1.115	2.887	-0.019	1.113

olsson

Location:	GEO-218
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.002	-0.002	-0.002	0.002	-0.002	-0.002	0.005	-0.005	-0.005	0.005	-0.005	-0.005
2000	0.003	-0.001	-0.003	0.003	-0.001	-0.003	0.006	-0.001	-0.006	0.006	-0.001	-0.006
3000	0.004	-0.001	-0.004	0.004	-0.001	-0.004	0.012	-0.006	-0.012	0.012	-0.006	-0.012
4000	0.005	-0.001	-0.005	0.005	-0.001	-0.005	0.020	-0.008	-0.020	0.020	-0.008	-0.020
5000	0.006	-0.001	-0.006	0.007	-0.002	-0.007	0.033	-0.013	-0.033	0.033	-0.013	-0.033
6000	0.025	-0.019	-0.025	0.029	-0.022	-0.029	0.036	-0.003	-0.036	0.037	-0.004	-0.037
7000	0.048	-0.023	-0.048	0.053	-0.024	-0.053	0.051	-0.015	-0.051	0.051	-0.014	-0.051
8000	0.081	-0.033	-0.081	0.088	-0.035	-0.088	0.065	-0.014	-0.065	0.065	-0.014	-0.065
9000	0.139	-0.058	-0.139	0.154	-0.066	-0.154						
9540	0.179	-0.040	-0.179	0.194	-0.040	-0.194						

olsson

Field Pile Testing Results

Location:	GEO-218
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

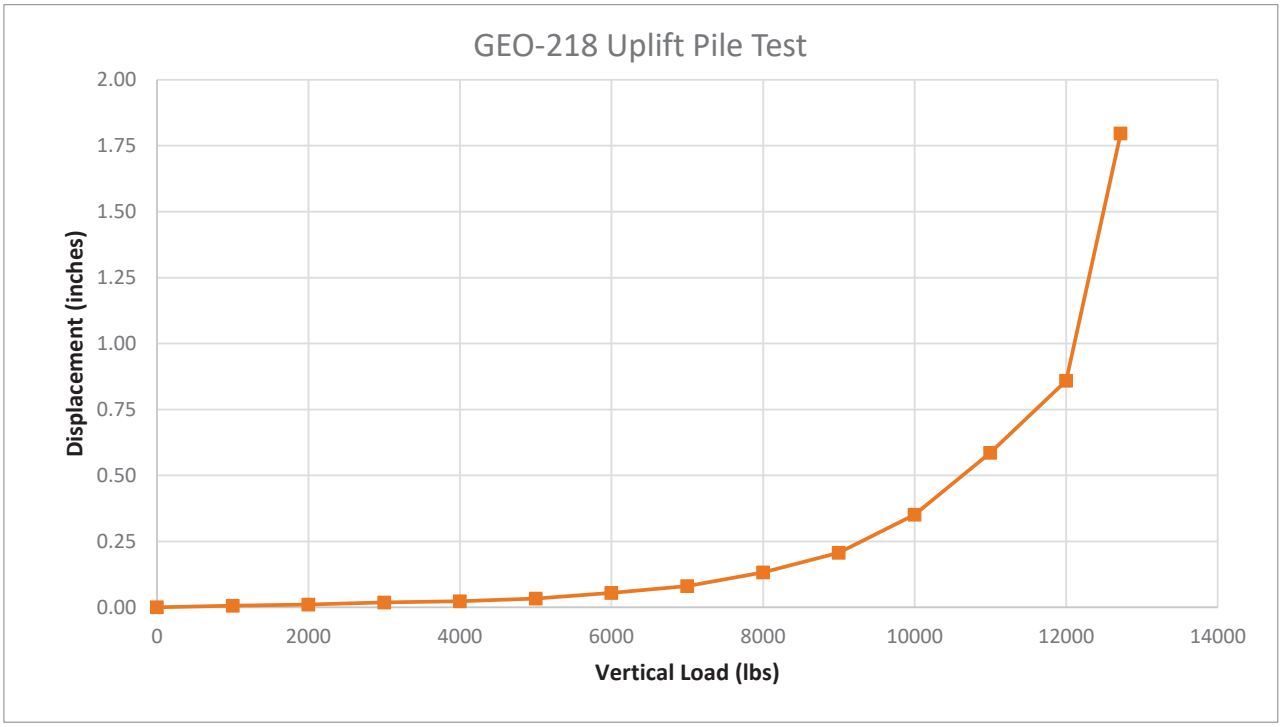
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.841	0.159	0.159	3.940	0.060	0.060	3.955	0.045	0.045	3.955	0.045	0.045
1000	3.531	0.310	0.469	3.531	0.310	0.469	3.880	0.075	0.120	3.876	0.079	0.124
1500	3.387	0.144	0.613	3.387	0.144	0.613	3.782	0.098	0.218	3.777	0.103	0.223
0	3.892	-0.505	0.108	3.903	-0.516	0.097	3.949	-0.167	0.051	3.951	-0.169	0.049
1500	3.335	0.557	0.665	3.337	0.555	0.663	3.754	0.195	0.246	3.752	0.197	0.248
2000	3.065	0.270	0.935	3.064	0.271	0.936	3.638	0.116	0.362	3.634	0.121	0.367
2500	2.831	0.234	1.169	2.830	0.235	1.170	3.530	0.108	0.470	3.527	0.111	0.473
0	3.786	-0.955	0.214	3.802	-0.971	0.198	3.892	-0.362	0.108	3.905	-0.375	0.095
2500	2.611	1.175	1.389	2.611	1.175	1.389	3.471	0.421	0.529	3.465	0.427	0.535
3000	2.305	0.306	1.695	2.303	0.308	1.697	3.334	0.137	0.666	3.324	0.147	0.676
3500	2.136	0.169	1.864	2.134	0.171	1.866	3.209	0.125	0.791	3.195	0.139	0.805
0	3.698	-1.562	0.302	3.710	-1.574	0.290	3.831	-0.622	0.169	3.838	-0.629	0.162
3500	1.991	1.707	2.009	1.991	1.707	2.009	3.125	0.706	0.875	3.118	0.713	0.882
4000	1.701	0.290	2.299	1.698	0.293	2.302	2.995	0.130	1.005	2.976	0.149	1.024
4500	1.372	0.329	2.628	1.368	0.333	2.632	2.832	0.163	1.168	2.818	0.177	1.182
0	3.559	-2.187	0.441	3.582	-2.210	0.418	3.734	-0.902	0.266	3.755	-0.923	0.245
4500	1.189	2.370	2.811	1.188	2.371	2.812	2.798	0.936	1.202	2.782	0.952	1.218
5000	0.836	0.353	3.164	0.829	0.360	3.171	2.587	0.211	1.413	2.564	0.234	1.436
5500	0.341	0.495	3.659	0.329	0.507	3.671	2.297	0.290	1.703	2.269	0.318	1.731
0	3.207	-2.866	0.793	3.221	-2.880	0.779	3.523	-1.226	0.477	3.525	-1.228	0.475

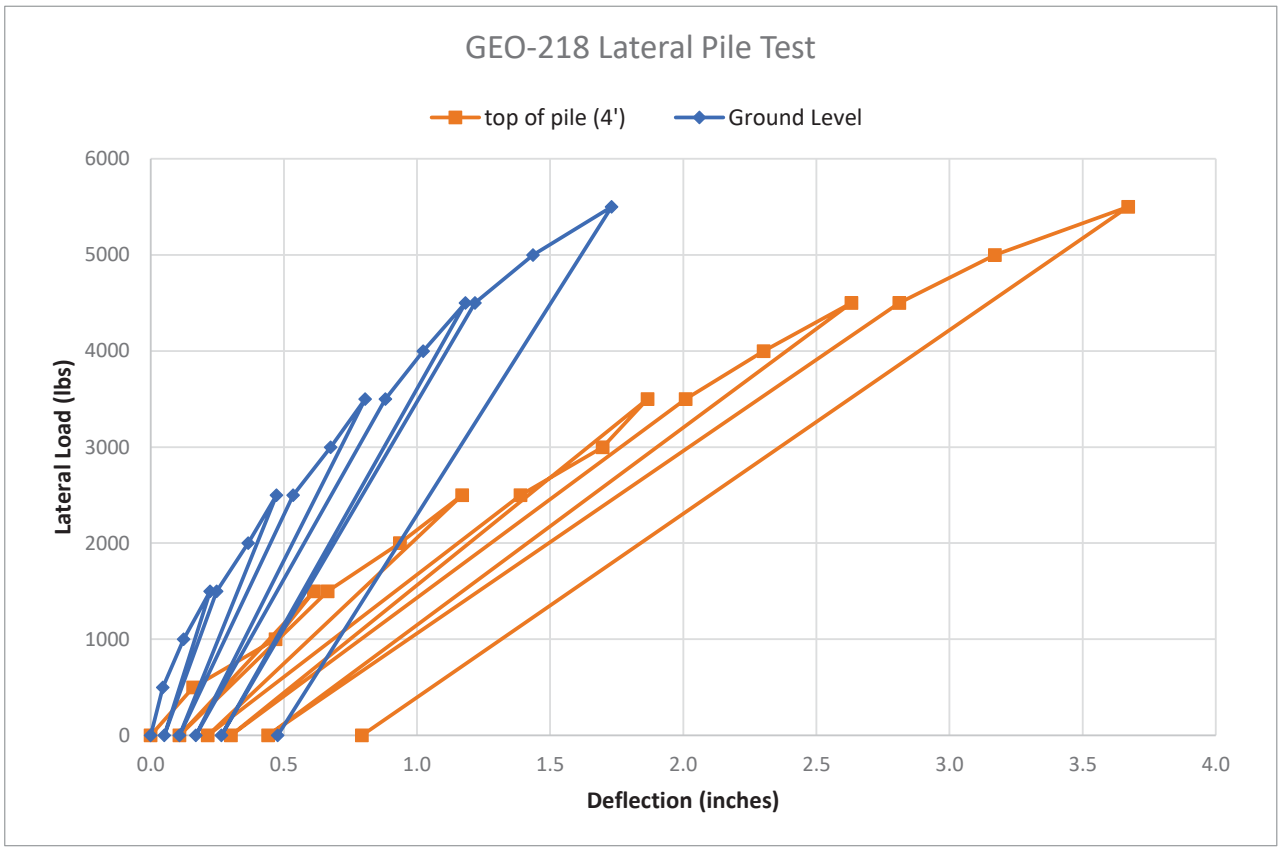
olsson

Location:	GEO-218
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-218
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.996	0.004	0.004	3.996	0.004	0.004	3.999	0.001	0.001	3.999	0.001	0.001
4000	3.992	0.004	0.008	3.992	0.004	0.008	3.996	0.003	0.004	3.996	0.003	0.004
5000	3.985	0.007	0.015	3.984	0.008	0.016	3.991	0.005	0.009	3.991	0.005	0.009
6000	3.974	0.011	0.026	3.972	0.012	0.028	3.983	0.008	0.017	3.983	0.008	0.017
7000	3.958	0.016	0.042	3.956	0.016	0.044	3.972	0.011	0.028	3.970	0.013	0.030
8000	3.943	0.015	0.057	3.941	0.015	0.059	3.957	0.015	0.043	3.955	0.015	0.045
9000	3.923	0.020	0.077	3.919	0.022	0.081	3.938	0.019	0.062	3.935	0.020	0.065
10000	3.892	0.031	0.108	3.890	0.029	0.110	3.913	0.025	0.087	3.909	0.026	0.091
11000	3.858	0.034	0.142	3.852	0.038	0.148	3.880	0.033	0.120	3.873	0.036	0.127
12000	3.811	0.047	0.189	3.804	0.048	0.196	3.841	0.039	0.159	3.832	0.041	0.168
13000	3.765	0.046	0.235	3.752	0.052	0.248	3.797	0.044	0.203	3.786	0.046	0.214
14000	3.707	0.058	0.293	3.695	0.057	0.305	3.741	0.056	0.259	3.728	0.058	0.272
15000	3.643	0.064	0.357	3.626	0.069	0.374	3.682	0.059	0.318	3.663	0.065	0.337
16000	3.551	0.092	0.449	3.528	0.098	0.472	3.598	0.084	0.402	3.575	0.088	0.425
17000	3.442	0.109	0.558	3.419	0.109	0.581	3.500	0.098	0.500	3.477	0.098	0.523
18000	3.293	0.149	0.707	3.253	0.166	0.747	3.343	0.157	0.657	3.316	0.161	0.684
0	3.355	-0.062	0.645	3.359	-0.106	0.641	3.378	-0.035	0.622	3.380	-0.064	0.620

olsson

Location:	GEO-220
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	-0.001	-0.001	0.001	-0.001	-0.001
2000	0.005	-0.005	-0.005	0.005	-0.005	-0.005	0.002	-0.001	-0.002	0.002	-0.001	-0.002
3000	0.009	-0.004	-0.009	0.009	-0.004	-0.009	0.003	-0.001	-0.003	0.003	-0.001	-0.003
4000	0.016	-0.007	-0.016	0.016	-0.007	-0.016	0.007	-0.004	-0.007	0.008	-0.005	-0.008
5000	0.018	-0.002	-0.018	0.018	-0.002	-0.018	0.008	-0.001	-0.008	0.008	0.000	-0.008
6000	0.021	-0.003	-0.021	0.022	-0.004	-0.022	0.008	0.000	-0.008	0.008	0.000	-0.008
7000	0.024	-0.003	-0.024	0.024	-0.002	-0.024	0.028	-0.020	-0.028	0.032	-0.024	-0.032
8000	0.025	-0.001	-0.025	0.025	-0.001	-0.025	0.037	-0.009	-0.037	0.039	-0.007	-0.039
9000							0.050	-0.013	-0.050	0.054	-0.015	-0.054
10000							0.062	-0.012	-0.062	0.066	-0.012	-0.066

olsson

Field Pile Testing Results

Location:	GEO-220
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

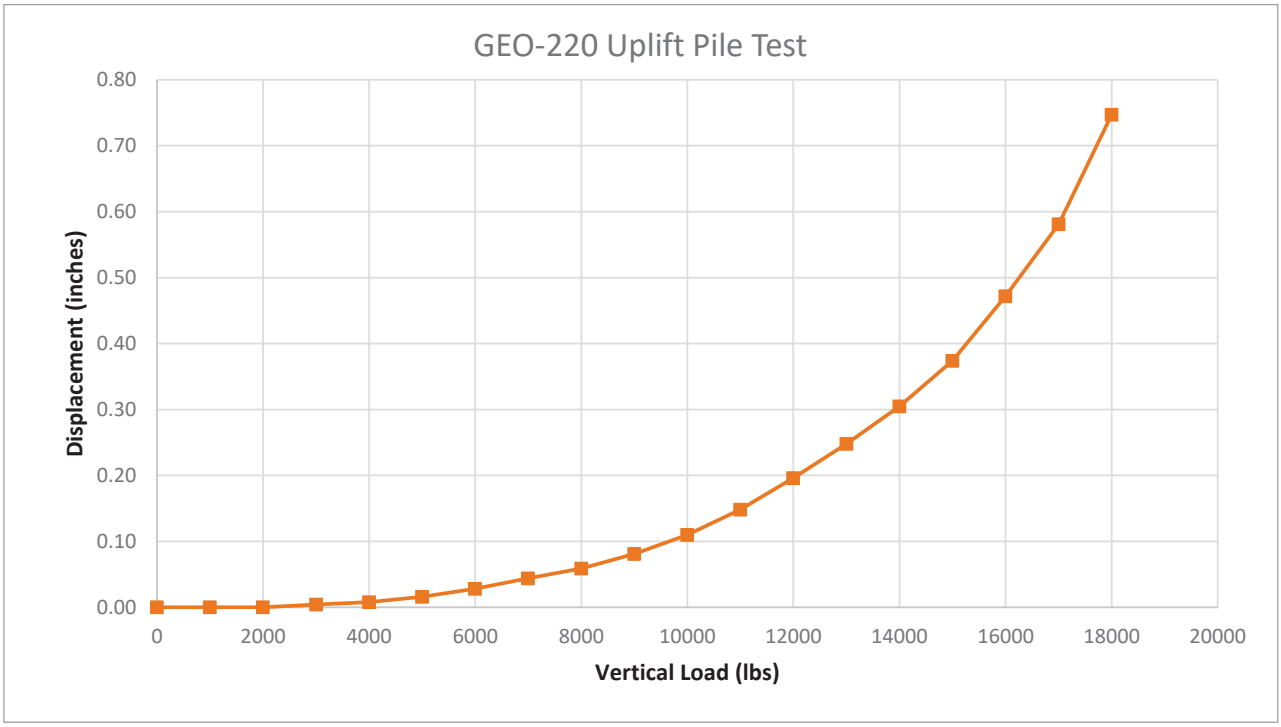
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.805	0.195	0.195	3.805	0.195	0.195	3.935	0.065	0.065	3.933	0.067	0.067
1000	3.558	0.247	0.442	3.558	0.247	0.442	3.843	0.092	0.157	3.841	0.094	0.159
1500	3.319	0.239	0.681	3.320	0.238	0.680	3.747	0.096	0.253	3.743	0.100	0.257
0	3.933	-0.614	0.067	3.946	-0.627	0.054	3.915	-0.168	0.085	3.915	-0.168	0.085
1500	3.245	0.688	0.755	3.255	0.678	0.745	3.713	0.202	0.287	3.713	0.202	0.287
2000	3.036	0.209	0.964	3.041	0.204	0.959	3.625	0.088	0.375	3.624	0.089	0.376
2500	2.698	0.338	1.302	2.699	0.337	1.301	3.478	0.147	0.522	3.475	0.150	0.525
0	3.861	-1.163	0.139	3.880	-1.182	0.120	3.900	-0.422	0.100	3.910	-0.432	0.090
2500	2.609	1.252	1.391	2.615	1.246	1.385	3.431	0.469	0.569	3.429	0.471	0.571
3000	2.312	0.297	1.688	2.311	0.298	1.689	3.300	0.131	0.700	3.394	0.037	0.606
3500	2.000	0.312	2.000	1.994	0.318	2.006	3.157	0.143	0.843	3.145	0.155	0.855
0	3.755	-1.755	0.245	3.786	-1.786	0.214	3.822	-0.665	0.178	3.824	-0.667	0.176
3500	1.834	1.921	2.166	1.834	1.921	2.166	3.069	0.753	0.931	3.062	0.760	0.938
4000	1.491	0.343	2.509	1.488	0.346	2.512	2.903	0.166	1.097	2.892	0.177	1.108
4500	1.085	0.406	2.915	1.079	0.412	2.921	2.710	0.193	1.290	2.689	0.214	1.311
0	3.492	-2.407	0.508	3.530	-2.445	0.470	3.703	-0.993	0.297	3.704	-0.994	0.296
4500	0.838	2.654	3.162	0.838	2.654	3.162	2.571	1.132	1.429	2.556	1.147	1.444
5000	0.438	0.400	3.562	0.438	0.400	3.562	2.370	0.201	1.630	2.356	0.215	1.644
5280	0.000	0.438	4.000	0.000	0.438	4.000	2.153	0.217	1.847	2.133	0.237	1.867
0	2.918	-2.918	1.082	2.962	-2.962	1.038	3.416	-1.263	0.584	3.445	-1.292	0.555

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Field Pile Testing Results

Location:	GEO-220
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-220
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.999	0.001	0.001	3.999	0.001	0.001
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.002	0.003	3.997	0.002	0.003
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.002	0.005	3.995	0.002	0.005
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.993	0.002	0.007	3.993	0.002	0.007
5000	4.000	0.000	0.000	4.000	0.000	0.000	3.990	0.003	0.010	3.990	0.003	0.010
6000	3.997	0.003	0.003	3.997	0.003	0.003	3.985	0.005	0.015	3.985	0.005	0.015
7000	3.983	0.014	0.017	3.981	0.016	0.019	3.974	0.011	0.026	3.973	0.012	0.027
8000	3.961	0.022	0.039	3.957	0.024	0.043	3.955	0.019	0.045	3.952	0.021	0.048
9000	3.929	0.032	0.071	3.918	0.039	0.082	3.924	0.031	0.076	3.916	0.036	0.084
10000	3.881	0.048	0.119	3.869	0.049	0.131	3.879	0.045	0.121	3.866	0.050	0.134
11000	3.815	0.066	0.185	3.803	0.066	0.197	3.814	0.065	0.186	3.801	0.065	0.199
12000	3.728	0.087	0.272	3.708	0.095	0.292	3.730	0.084	0.270	3.707	0.094	0.293
13000	3.632	0.096	0.368	3.603	0.105	0.397	3.632	0.098	0.368	3.605	0.102	0.395
14000	3.498	0.134	0.502	3.454	0.149	0.546	3.498	0.134	0.502	3.461	0.144	0.539
15000	3.191	0.307	0.809	3.139	0.315	0.861	3.204	0.294	0.796	3.159	0.302	0.841
15580	2.891	0.300	1.109	3.845	-0.706	0.155	2.931	0.273	1.069	2.892	0.267	1.108
0	2.979	-0.088	1.021	2.981	0.864	1.019	3.034	-0.103	0.966	3.163	-0.271	0.837

olsson

Field Pile Testing Results

Location:	GEO-222
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

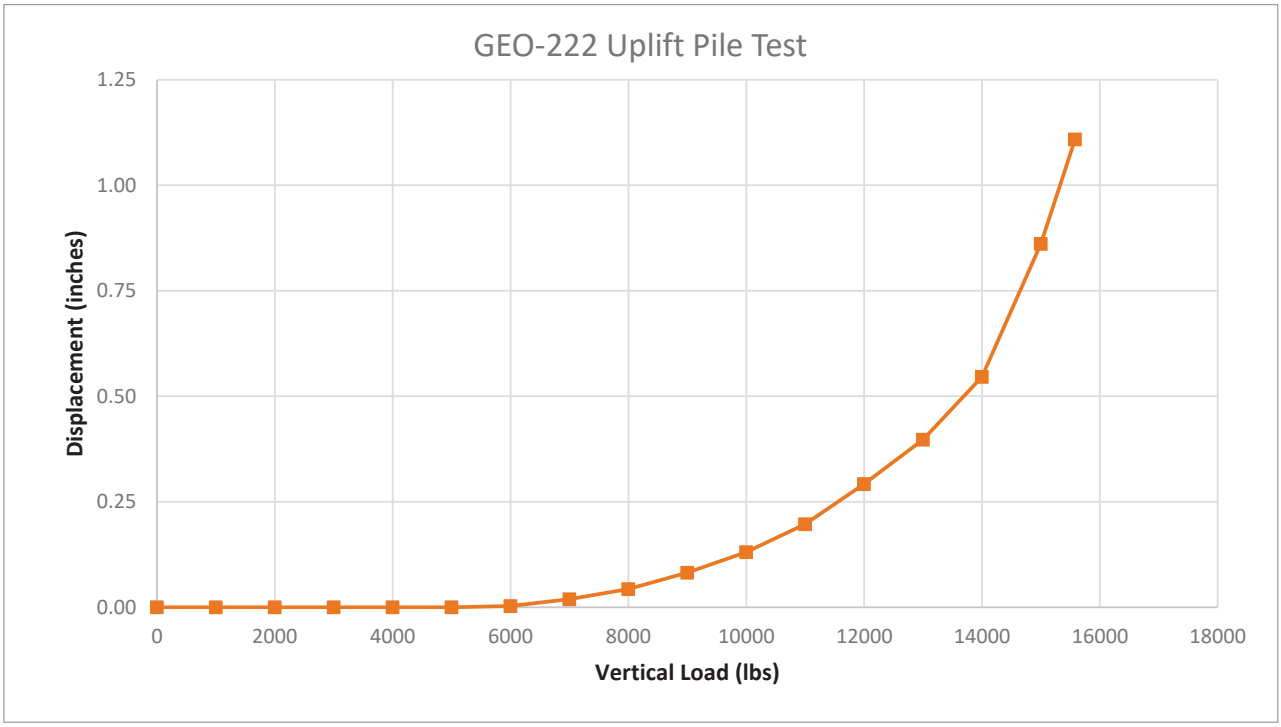
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.823	0.177	0.177	3.823	0.177	0.177	3.953	0.047	0.047	3.952	0.048	0.048
1000	3.610	0.213	0.390	3.611	0.212	0.389	3.880	0.073	0.120	3.878	0.075	0.122
1500	3.358	0.252	0.642	3.359	0.251	0.641	3.783	0.097	0.217	3.778	0.102	0.222
0	3.926	-0.568	0.074	3.927	-0.569	0.073	3.970	-0.187	0.030	3.972	-0.189	0.028
1500	3.319	0.607	0.681	3.319	0.607	0.681	3.755	0.215	0.245	3.753	0.217	0.247
2000	3.042	0.277	0.958	3.043	0.276	0.957	3.647	0.108	0.353	3.639	0.116	0.361
2500	2.797	0.245	1.203	2.796	0.246	1.204	3.541	0.106	0.459	3.533	0.114	0.467
0	3.862	-1.065	0.138	3.879	-1.082	0.121	3.930	-0.389	0.070	3.931	-0.390	0.069
2500	2.684	1.178	1.316	2.688	1.174	1.312	3.486	0.444	0.514	3.482	0.448	0.518
3000	2.408	0.276	1.592	2.409	0.275	1.591	3.367	0.119	0.633	3.358	0.128	0.642
3500	2.072	0.336	1.928	2.072	0.336	1.928	3.213	0.154	0.787	3.202	0.165	0.798
0	3.773	-1.701	0.227	3.791	-1.719	0.209	3.879	-0.666	0.121	3.885	-0.672	0.115
3500	1.930	1.843	2.070	1.930	1.843	2.070	3.133	0.746	0.867	3.127	0.752	0.873
4000	1.608	0.322	2.392	1.608	0.322	2.392	2.991	0.142	1.009	2.980	0.153	1.020
4500	1.230	0.378	2.770	1.230	0.378	2.770	2.823	0.168	1.177	2.799	0.192	1.201
0	3.646	-2.416	0.354	3.670	-2.440	0.330	3.802	-0.979	0.198	3.813	-0.990	0.187
4500	1.066	2.580	2.934	1.070	2.576	2.930	2.714	1.088	1.286	2.704	1.098	1.296
5000	0.701	0.365	3.299	0.701	0.365	3.299	2.543	0.171	1.457	2.526	0.188	1.474
5500	0.040	0.661	3.960	0.040	0.661	3.960	2.256	0.287	1.744	2.232	0.311	1.768
0	3.121	-3.081	0.879	3.134	-3.094	0.866	3.554	-1.298	0.446	3.565	-1.309	0.435

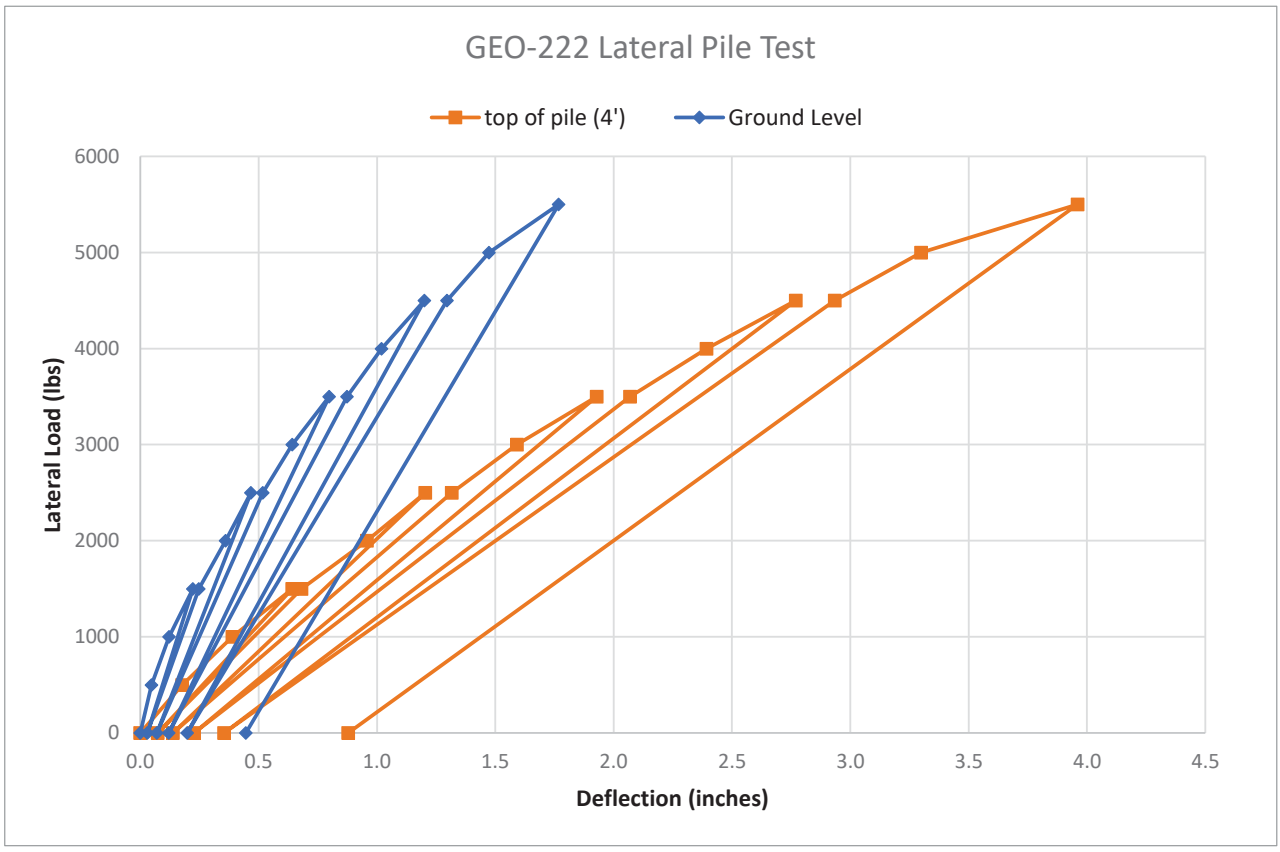
olsson

Field Pile Testing Results

Location:	GEO-222
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-222
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.996	0.004	0.004	3.996	0.004	0.004	3.999	0.001	0.001	3.999	0.001	0.001
3000	3.990	0.006	0.010	3.990	0.006	0.010	3.998	0.001	0.002	3.998	0.001	0.002
4000	3.982	0.008	0.018	3.983	0.007	0.017	3.997	0.001	0.003	3.997	0.001	0.003
5000	3.972	0.010	0.028	3.972	0.011	0.028	3.995	0.002	0.005	3.995	0.002	0.005
6000	3.958	0.014	0.042	3.957	0.015	0.043	3.989	0.006	0.011	3.987	0.008	0.013
7000	3.935	0.023	0.065	3.930	0.027	0.070	3.975	0.014	0.025	3.968	0.019	0.032
8000	3.879	0.056	0.121	3.869	0.061	0.131	3.930	0.045	0.070	3.917	0.051	0.083
9000	3.824	0.055	0.176	3.814	0.055	0.186	3.881	0.049	0.119	3.865	0.052	0.135
10000	3.736	0.088	0.264	3.714	0.100	0.286	3.796	0.085	0.204	3.772	0.093	0.228
11000	3.628	0.108	0.372	3.602	0.112	0.398	3.691	0.105	0.309	3.664	0.108	0.336
12000	3.405	0.223	0.595	3.386	0.216	0.614	3.492	0.199	0.508	3.460	0.204	0.540
13000	3.228	0.177	0.772	3.191	0.195	0.809	3.311	0.181	0.689	3.274	0.186	0.726
14000	2.978	0.250	1.022	2.918	0.273	1.082	3.078	0.233	0.922	3.029	0.245	0.971
14800	2.211	0.767	1.789	2.109	0.809	1.891	2.764	0.314	1.236	2.752	0.277	1.248
0	2.284	-0.073	1.716	2.285	-0.176	1.715	2.860	-0.096	1.140	2.867	-0.115	1.133

olsson

Location:	GEO-224
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

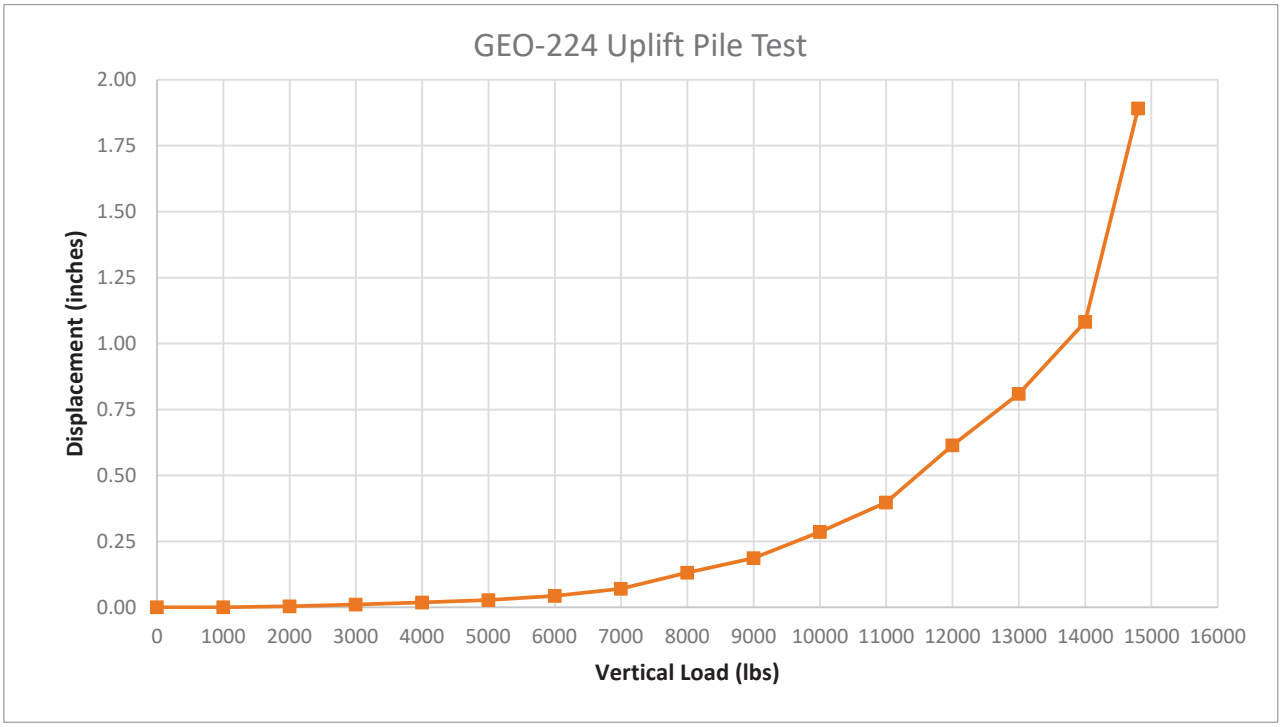
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.851	0.149	0.149	3.851	0.149	0.149	3.962	0.038	0.038	3.961	0.039	0.039
1000	3.603	0.248	0.397	3.603	0.248	0.397	3.880	0.082	0.120	3.878	0.084	0.122
1500	3.357	0.246	0.643	3.357	0.246	0.643	3.788	0.092	0.212	3.783	0.097	0.217
0	3.968	-0.611	0.032	3.977	-0.620	0.023	3.962	-0.174	0.038	3.962	-0.174	0.038
1500	3.277	0.691	0.723	3.277	0.691	0.723	3.750	0.212	0.250	3.746	0.216	0.254
2000	3.030	0.247	0.970	3.029	0.248	0.971	3.651	0.099	0.349	3.644	0.106	0.356
2500	2.764	0.266	1.236	2.762	0.268	1.238	3.541	0.110	0.459	3.530	0.121	0.470
0	3.903	-1.139	0.097	3.926	-1.162	0.074	3.919	-0.378	0.081	3.933	-0.392	0.067
2500	2.640	1.263	1.360	2.638	1.265	1.362	3.481	0.438	0.519	3.474	0.445	0.526
3000	2.332	0.308	1.668	2.330	0.310	1.670	3.350	0.131	0.650	3.340	0.141	0.660
3500	2.063	0.269	1.937	2.061	0.271	1.939	3.226	0.124	0.774	3.216	0.134	0.784
0	3.819	-1.756	0.181	3.848	-1.785	0.152	3.861	-0.635	0.139	3.876	-0.650	0.124
3500	1.901	1.918	2.099	1.903	1.916	2.097	3.144	0.717	0.856	3.132	0.729	0.868
4000	1.577	0.324	2.423	1.576	0.325	2.424	3.003	0.141	0.997	2.986	0.158	1.014
4500	1.239	0.338	2.761	1.236	0.341	2.764	2.843	0.160	1.157	2.823	0.180	1.177
0	3.694	-2.455	0.306	3.710	-2.471	0.290	3.774	-0.931	0.226	3.802	-0.959	0.198
4500	1.030	2.664	2.970	1.028	2.666	2.972	2.720	1.054	1.280	2.703	1.071	1.297
5000	0.648	0.382	3.352	0.645	0.385	3.355	2.532	0.188	1.468	2.518	0.202	1.482
5500	0.089	0.559	3.911	0.089	0.559	3.911	2.277	0.255	1.723	2.256	0.276	1.744
0	3.257	-3.168	0.743	3.282	-3.193	0.718	3.540	-1.263	0.460	3.545	-1.268	0.455

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Field Pile Testing Results

Location:	GEO-224
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-224
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.997	0.003	0.003	3.997	0.003	0.003
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.002	0.005	3.995	0.002	0.005
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.993	0.002	0.007	3.993	0.002	0.007
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.991	0.002	0.009	3.991	0.002	0.009
5000	4.000	0.000	0.000	4.000	0.000	0.000	3.988	0.003	0.012	3.988	0.003	0.012
6000	3.984	0.016	0.016	3.984	0.016	0.016	3.986	0.002	0.014	3.986	0.002	0.014
7000	3.977	0.007	0.023	3.977	0.007	0.023	3.983	0.003	0.017	3.982	0.004	0.018
8000	3.968	0.009	0.032	3.971	0.006	0.029	3.978	0.005	0.022	3.977	0.005	0.023
9000	3.957	0.011	0.043	3.960	0.011	0.040	3.970	0.008	0.030	3.969	0.008	0.031
10000	3.944	0.013	0.056	3.947	0.013	0.053	3.958	0.012	0.042	3.957	0.012	0.043
11000	3.923	0.021	0.077	3.922	0.025	0.078	3.939	0.019	0.061	3.935	0.022	0.065
12000	3.900	0.023	0.100	3.898	0.024	0.102	3.917	0.022	0.083	3.911	0.024	0.089
13000	3.868	0.032	0.132	3.865	0.033	0.135	3.883	0.034	0.117	3.875	0.036	0.125
14000	3.825	0.043	0.175	3.816	0.049	0.184	3.842	0.041	0.158	3.830	0.045	0.170
15000	3.777	0.048	0.223	3.767	0.049	0.233	3.794	0.048	0.206	3.780	0.050	0.220
16000	3.715	0.062	0.285	3.704	0.063	0.296	3.730	0.064	0.270	3.715	0.065	0.285
17000	3.657	0.058	0.343	3.656	0.048	0.344	3.671	0.059	0.329	3.645	0.070	0.355
0	3.689	-0.032	0.311	3.698	-0.042	0.302	3.672	-0.001	0.328	3.677	-0.032	0.323

olsson

Location:	GEO-228
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.003	-0.003	-0.003	0.003	-0.003	-0.003	0.000	0.000	0.000	0.001	-0.001	-0.001
2000	0.007	-0.004	-0.007	0.008	-0.005	-0.008	0.007	-0.007	-0.007	0.008	-0.007	-0.008
3000	0.013	-0.006	-0.013	0.015	-0.007	-0.015	0.013	-0.006	-0.013	0.016	-0.008	-0.016
4000	0.020	-0.007	-0.020	0.023	-0.008	-0.023	0.023	-0.010	-0.023	0.026	-0.010	-0.026
5000	0.025	-0.005	-0.025	0.031	-0.008	-0.031	0.032	-0.009	-0.032	0.036	-0.010	-0.036
6000	0.031	-0.006	-0.031	0.033	-0.002	-0.033	0.045	-0.013	-0.045	0.048	-0.012	-0.048
7000	0.037	-0.006	-0.037	0.037	-0.004	-0.037	0.062	-0.017	-0.062	0.062	-0.014	-0.062
8000	0.038	-0.001	-0.038	0.044	-0.007	-0.044	0.072	-0.010	-0.072	0.073	-0.011	-0.073
9000	0.045	-0.007	-0.045	0.072	-0.028	-0.072	0.123	-0.051	-0.123	0.125	-0.052	-0.125
10000	0.072	-0.027	-0.072	0.072	0.000	-0.072	0.178	-0.055	-0.178	0.192	-0.067	-0.192
11000	0.163	-0.091	-0.163	0.241	-0.169	-0.241	0.282	-0.104	-0.282	0.338	-0.146	-0.338
12000	0.324	-0.161	-0.324	0.342	-0.101	-0.342	0.437	-0.155	-0.437	0.472	-0.134	-0.472

olsson

Location:	GEO-228
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

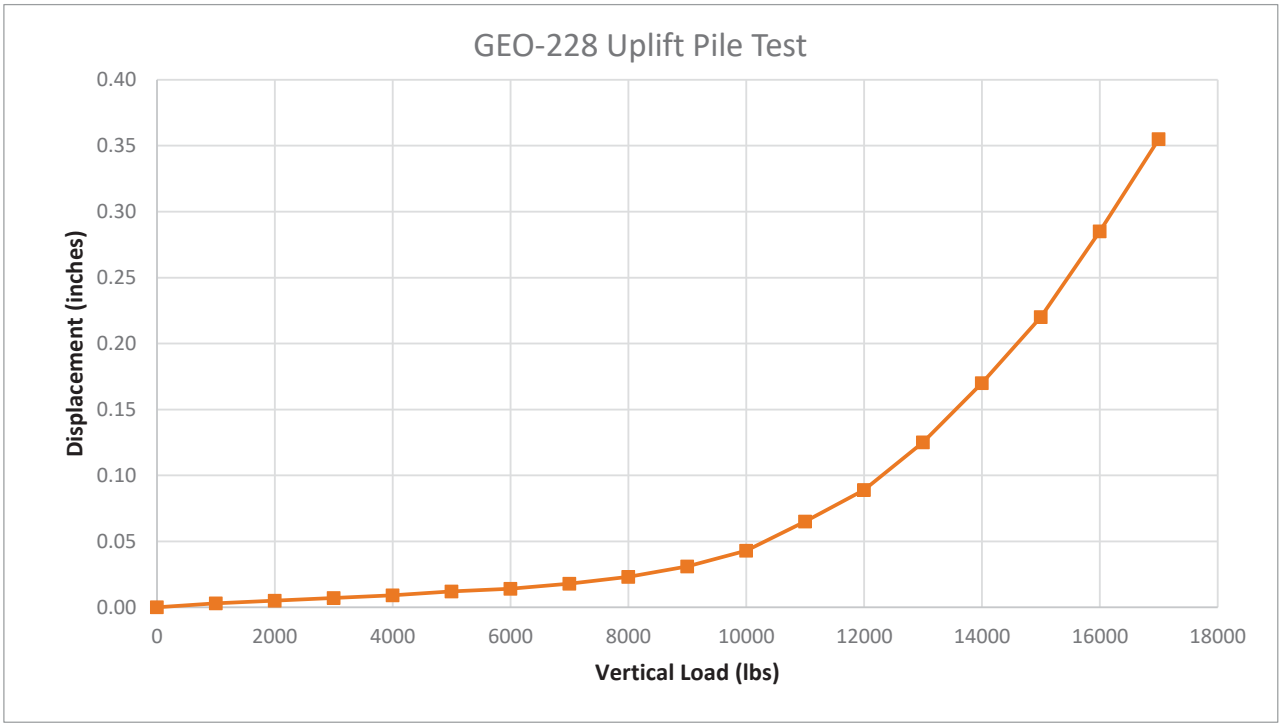
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.794	0.206	0.206	3.792	0.208	0.208	3.940	0.060	0.060	3.938	0.062	0.062
1000	3.563	0.231	0.437	3.561	0.233	0.439	3.856	0.084	0.144	3.853	0.087	0.147
1500	3.373	0.190	0.627	3.371	0.192	0.629	3.780	0.076	0.220	3.776	0.080	0.224
0	3.948	-0.575	0.052	3.960	-0.587	0.040	3.948	-0.168	0.052	3.948	-0.168	0.052
1500	3.279	0.669	0.721	3.279	0.669	0.721	3.738	0.210	0.262	3.734	0.214	0.266
2000	3.065	0.214	0.935	3.064	0.215	0.936	3.658	0.080	0.342	3.652	0.086	0.348
2500	2.782	0.283	1.218	2.778	0.287	1.222	3.540	0.118	0.460	3.525	0.133	0.475
0	3.852	-1.070	0.148	3.878	-1.096	0.122	3.915	-0.375	0.085	3.924	-0.384	0.076
2500	2.691	1.161	1.309	2.692	1.160	1.308	3.492	0.423	0.508	3.487	0.428	0.513
3000	2.417	0.274	1.583	2.414	0.277	1.586	3.369	0.123	0.631	3.362	0.130	0.638
3500	2.078	0.339	1.922	2.073	0.344	1.927	3.221	0.148	0.779	3.207	0.162	0.793
0	3.749	-1.671	0.251	3.788	-1.710	0.212	3.848	-0.627	0.152	3.849	-0.628	0.151
3500	1.876	1.873	2.124	1.873	1.876	2.127	3.134	0.714	0.866	3.116	0.732	0.884
4000	1.556	0.320	2.444	1.552	0.324	2.448	3.003	0.131	0.997	2.987	0.147	1.013
4500	1.232	0.324	2.768	1.228	0.328	2.772	2.846	0.157	1.154	2.822	0.181	1.178
0	3.523	-2.291	0.477	3.547	-2.315	0.453	3.718	-0.872	0.282	3.720	-0.874	0.280
4500	1.096	2.427	2.904	1.096	2.427	2.904	2.733	0.985	1.267	2.711	1.007	1.289
5000	0.723	0.373	3.277	0.722	0.374	3.278	2.553	0.180	1.447	2.536	0.197	1.464
5500	0.346	0.377	3.654	0.338	0.385	3.662	2.363	0.190	1.637	2.340	0.213	1.660
0	3.331	-2.985	0.669	3.373	-3.027	0.627	3.588	-1.225	0.412	3.610	-1.247	0.390

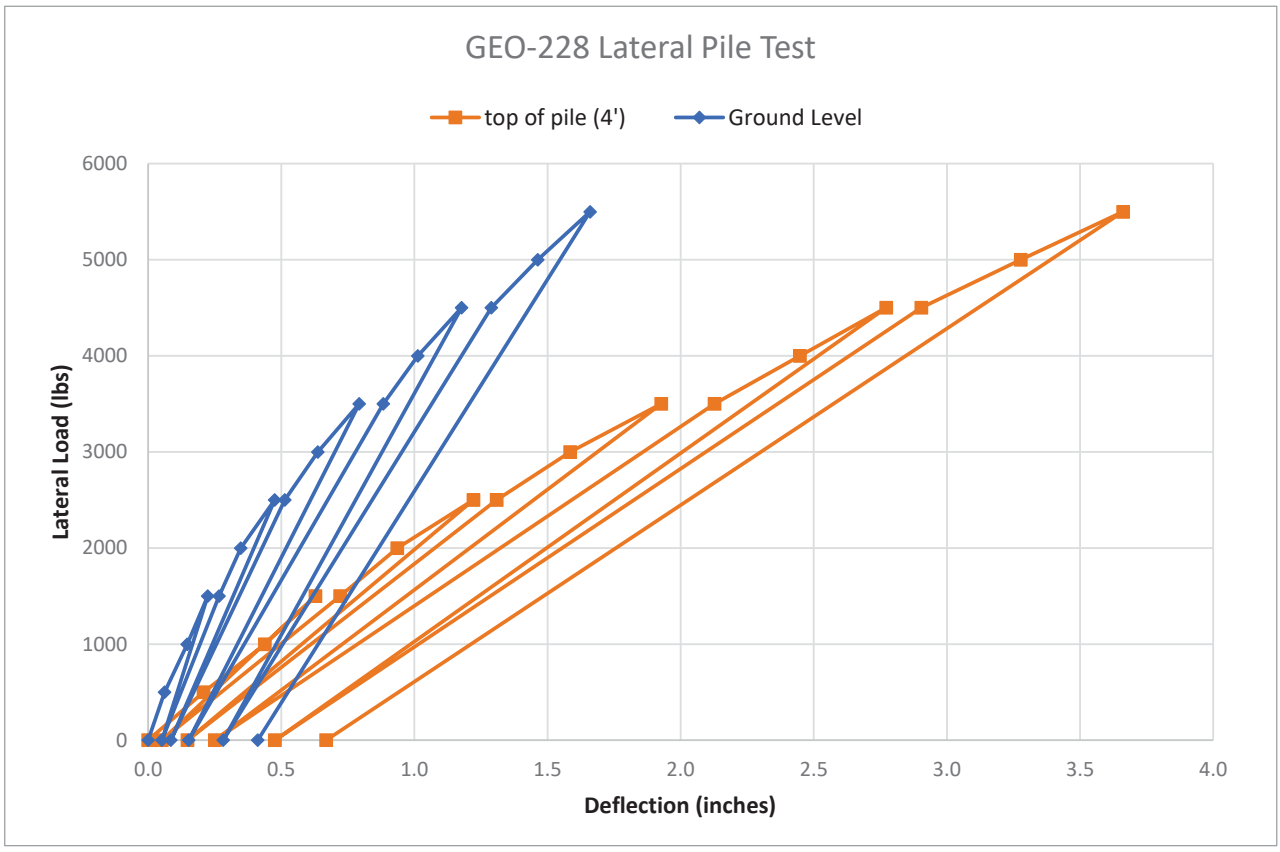
olsson

Field Pile Testing Results

Location:	GEO-228
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-228
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
3000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.998	0.002	0.002	3.998	0.002	0.002
5000	3.998	0.002	0.002	3.998	0.002	0.002	3.997	0.001	0.003	3.997	0.001	0.003
6000	3.998	0.000	0.002	3.998	0.000	0.002	3.985	0.012	0.015	3.985	0.012	0.015
7000	3.995	0.003	0.005	3.995	0.003	0.005	3.979	0.006	0.021	3.978	0.007	0.022
8000	3.984	0.011	0.016	3.983	0.012	0.017	3.967	0.012	0.033	3.966	0.012	0.034
9000	3.961	0.023	0.039	3.955	0.028	0.045	3.941	0.026	0.059	3.938	0.028	0.062
10000	3.931	0.030	0.069	3.922	0.033	0.078	3.911	0.030	0.089	3.902	0.036	0.098
11000	3.886	0.045	0.114	3.878	0.044	0.122	3.860	0.051	0.140	3.852	0.050	0.148
12000	3.820	0.066	0.180	3.816	0.062	0.184	3.790	0.070	0.210	3.783	0.069	0.217
13000	3.740	0.080	0.260	3.727	0.089	0.273	3.700	0.090	0.300	3.692	0.091	0.308
14000	3.663	0.077	0.337	3.637	0.090	0.363	3.624	0.076	0.376	3.600	0.092	0.400
15000	3.541	0.122	0.459	3.500	0.137	0.500	3.498	0.126	0.502	3.463	0.137	0.537
16000	3.398	0.143	0.602	3.347	0.153	0.653	3.358	0.140	0.642	3.303	0.160	0.697
17000	3.153	0.245	0.847	3.093	0.254	0.907	3.111	0.247	0.889	3.051	0.252	0.949
0	3.181	-0.028	0.819	3.182	-0.089	0.818	3.192	-0.081	0.808	3.197	-0.146	0.803

olsson

Location:	GEO-230
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

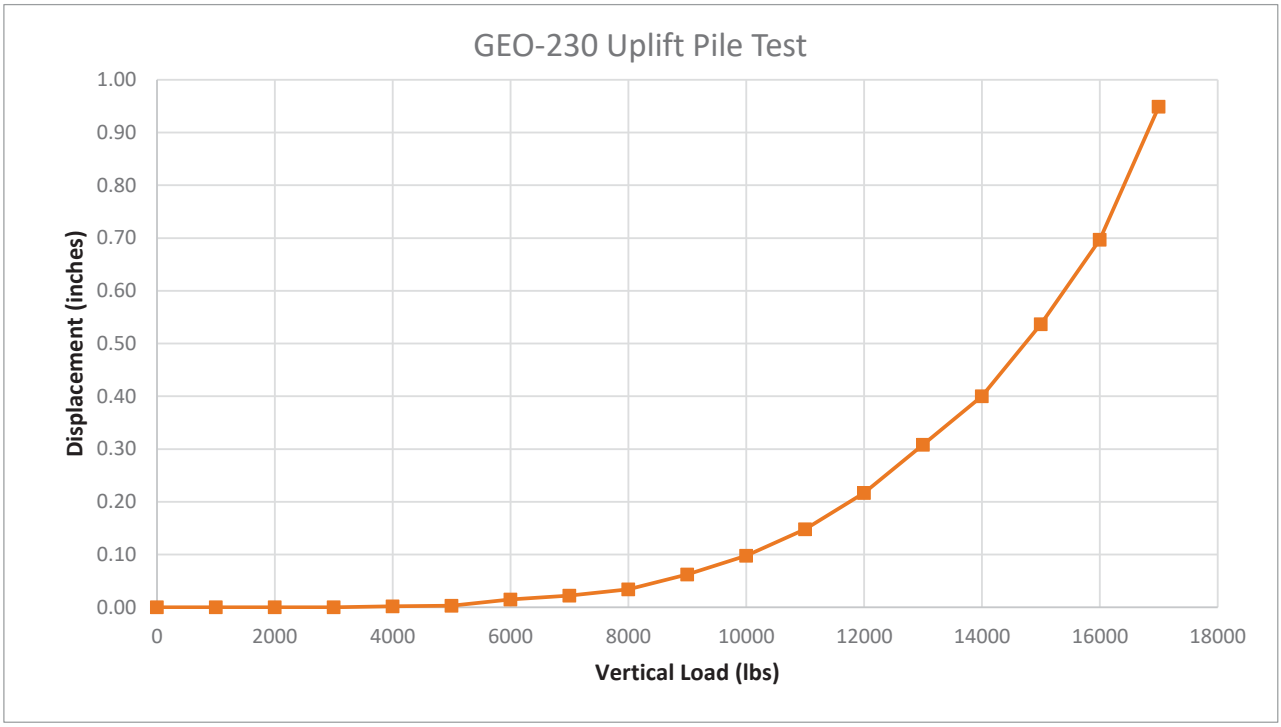
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.797	0.203	0.203	3.797	0.203	0.203	3.943	0.057	0.057	3.942	0.058	0.058
1000	3.625	0.172	0.375	3.627	0.170	0.373	3.880	0.063	0.120	3.879	0.064	0.121
1500	3.443	0.182	0.557	3.444	0.181	0.556	3.807	0.073	0.193	3.806	0.074	0.194
0	3.965	-0.522	0.035	3.980	-0.537	0.020	3.962	-0.155	0.038	3.962	-0.155	0.038
1500	3.403	0.562	0.597	3.405	0.560	0.595	3.782	0.180	0.218	3.780	0.182	0.220
2000	3.160	0.243	0.840	3.160	0.243	0.840	3.682	0.100	0.318	3.678	0.104	0.322
2500	2.973	0.187	1.027	2.973	0.187	1.027	3.598	0.084	0.402	3.595	0.087	0.405
0	3.921	-0.948	0.079	3.936	-0.963	0.064	3.931	-0.333	0.069	3.937	-0.339	0.063
2500	2.897	1.024	1.103	2.898	1.023	1.102	3.557	0.374	0.443	3.557	0.374	0.443
3000	2.657	0.240	1.343	2.655	0.242	1.345	3.461	0.096	0.539	3.453	0.104	0.547
3500	2.370	0.287	1.630	2.367	0.290	1.633	3.333	0.128	0.667	3.323	0.138	0.677
0	3.891	-1.521	0.109	3.893	-1.523	0.107	3.899	-0.566	0.101	3.905	-0.572	0.095
3500	2.272	1.619	1.728	2.273	1.618	1.727	3.275	0.624	0.725	3.270	0.629	0.730
4000	1.943	0.329	2.057	1.941	0.331	2.059	3.129	0.146	0.871	3.118	0.157	0.882
4500	1.712	0.231	2.288	1.708	0.235	2.292	3.025	0.104	0.975	3.009	0.120	0.991
0	3.778	-2.066	0.222	3.789	-2.077	0.211	3.825	-0.800	0.175	3.834	-0.809	0.166
4500	1.619	2.159	2.381	1.618	2.160	2.382	2.963	0.862	1.037	2.951	0.874	1.049
5000	1.322	0.297	2.678	1.319	0.300	2.681	2.825	0.138	1.175	2.811	0.152	1.189
5500	1.036	0.286	2.964	1.030	0.292	2.970	2.692	0.133	1.308	2.673	0.152	1.327
0	3.659	-2.623	0.341	3.678	-2.642	0.322	3.742	-1.050	0.258	3.755	-1.063	0.245

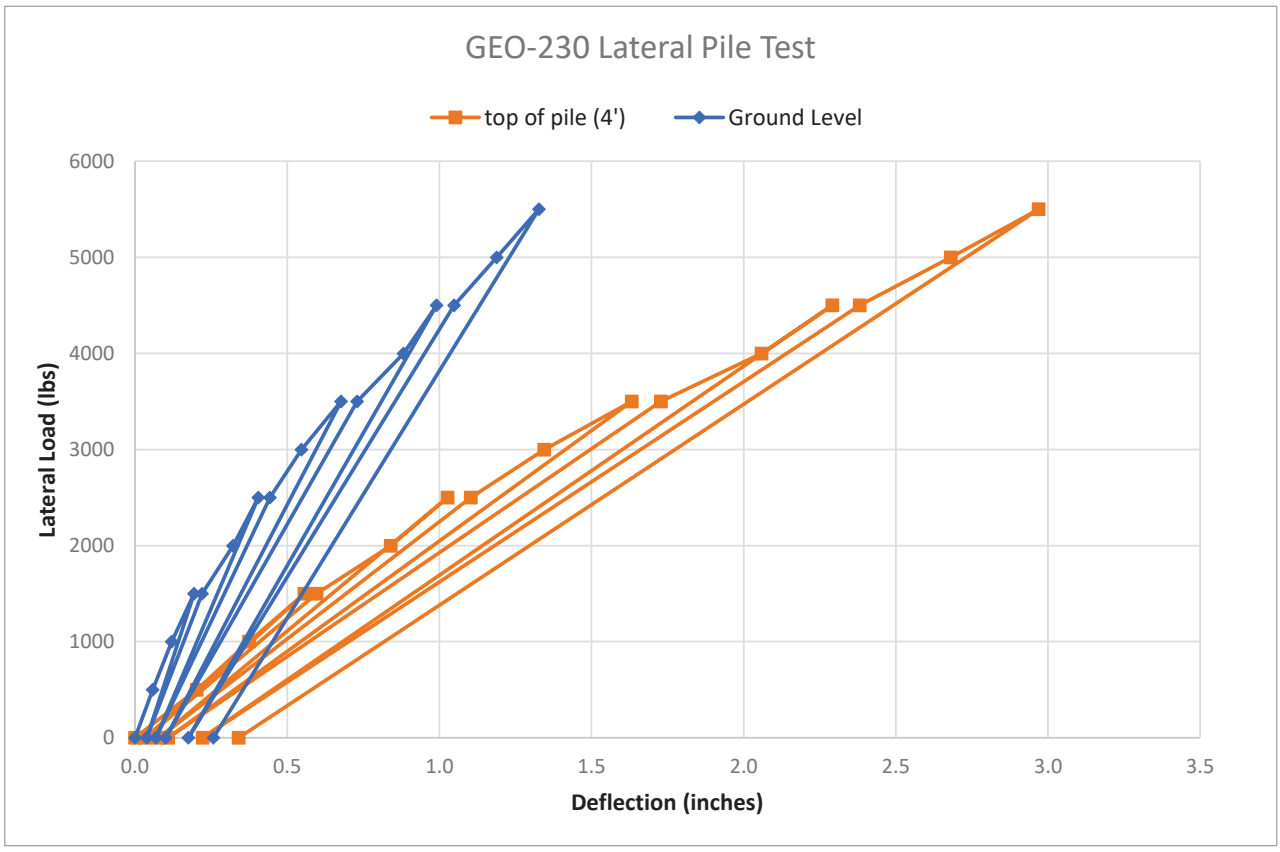
olsson

Field Pile Testing Results

Location:	GEO-230
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-230
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.999	0.001	0.001	3.999	0.001	0.001
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.996	0.003	0.004	3.996	0.003	0.004
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.992	0.004	0.008	3.992	0.004	0.008
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.988	0.004	0.012	3.988	0.004	0.012
5000	4.000	0.000	0.000	4.000	0.000	0.000	3.985	0.003	0.015	3.985	0.003	0.015
6000	4.000	0.000	0.000	4.000	0.000	0.000	3.981	0.004	0.019	3.980	0.005	0.020
7000	4.000	0.000	0.000	4.000	0.000	0.000	3.973	0.008	0.027	3.972	0.008	0.028
8000	4.000	0.000	0.000	3.999	0.001	0.001	3.964	0.009	0.036	3.962	0.010	0.038
9000	3.992	0.008	0.008	3.987	0.012	0.013	3.950	0.014	0.050	3.946	0.016	0.054
10000	3.972	0.020	0.028	3.967	0.020	0.033	3.929	0.021	0.071	3.924	0.022	0.076
11000	3.946	0.026	0.054	3.939	0.028	0.061	3.905	0.024	0.095	3.895	0.029	0.105
12000	3.905	0.041	0.095	3.895	0.044	0.105	3.867	0.038	0.133	3.854	0.041	0.146
13000	3.863	0.042	0.137	3.848	0.047	0.152	3.830	0.037	0.170	3.815	0.039	0.185
14000	3.799	0.064	0.201	3.779	0.069	0.221	3.779	0.051	0.221	3.763	0.052	0.237
15000	3.731	0.068	0.269	3.715	0.064	0.285	3.734	0.045	0.266	3.719	0.044	0.281
16000	3.646	0.085	0.354	3.624	0.091	0.376	3.675	0.059	0.325	3.656	0.063	0.344
17000	3.550	0.096	0.450	3.520	0.104	0.480	3.611	0.064	0.389	3.587	0.069	0.413
18000	3.415	0.135	0.585	3.384	0.136	0.616	3.530	0.081	0.470	3.505	0.082	0.495
0	3.493	-0.078	0.507	3.494	-0.110	0.506	3.550	-0.020	0.450	3.554	-0.049	0.446

olsson

Location:	GEO-232
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

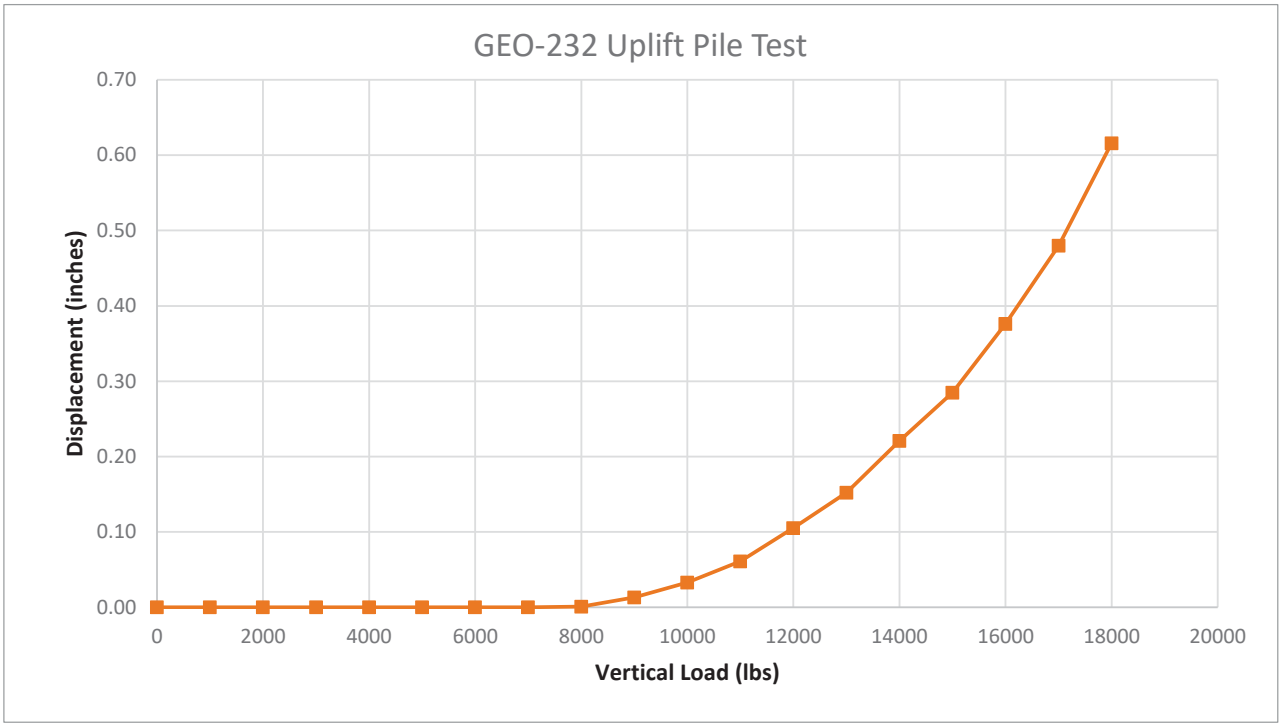
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.865	0.135	0.135	3.865	0.135	0.135	3.962	0.038	0.038	3.947	0.053	0.053
1000	3.676	0.189	0.324	3.678	0.187	0.322	3.876	0.086	0.124	3.873	0.089	0.127
1500	3.437	0.239	0.563	3.440	0.236	0.560	3.782	0.094	0.218	3.780	0.096	0.220
0	4.000	-0.563	0.000	4.000	-0.563	0.000	3.969	-0.187	0.031	3.975	-0.193	0.025
1500	3.398	0.602	0.602	3.402	0.598	0.598	3.757	0.212	0.243	3.755	0.214	0.245
2000	3.192	0.206	0.808	3.192	0.206	0.808	3.672	0.085	0.328	3.666	0.091	0.334
2500	2.935	0.257	1.065	2.938	0.254	1.062	3.565	0.107	0.435	3.554	0.118	0.446
0	4.000	-1.065	0.000	4.000	-1.065	0.000	3.930	-0.365	0.070	3.932	-0.367	0.068
2500	2.890	1.110	1.110	2.895	1.105	1.105	3.533	0.397	0.467	3.529	0.401	0.471
3000	2.690	0.200	1.310	2.695	0.195	1.305	3.445	0.088	0.555	3.438	0.095	0.562
3500	2.452	0.238	1.548	2.457	0.233	1.543	3.340	0.105	0.660	3.329	0.116	0.671
0	4.000	-1.548	0.000	4.000	-1.548	0.000	3.923	-0.583	0.077	3.925	-0.585	0.075
3500	2.326	1.674	1.674	2.335	1.665	1.665	3.287	0.636	0.713	3.282	0.641	0.718
4000	2.093	0.233	1.907	2.098	0.228	1.902	3.185	0.102	0.815	3.177	0.110	0.823
4500	1.811	0.282	2.189	1.814	0.279	2.186	3.057	0.128	0.943	3.044	0.141	0.956
0	3.989	-2.178	0.011	4.000	-2.189	0.000	3.893	-0.836	0.107	3.903	-0.846	0.097
4500	1.741	2.248	2.259	1.765	2.224	2.235	3.000	0.893	1.000	2.994	0.899	1.006
5000	1.436	0.305	2.564	1.443	0.298	2.557	2.855	0.145	1.145	2.845	0.155	1.155
5500	0.984	0.452	3.016	0.992	0.444	3.008	2.567	0.288	1.433	2.539	0.316	1.461
0	3.729	-2.745	0.271	3.730	-2.746	0.270	3.723	-1.156	0.277	3.724	-1.157	0.276

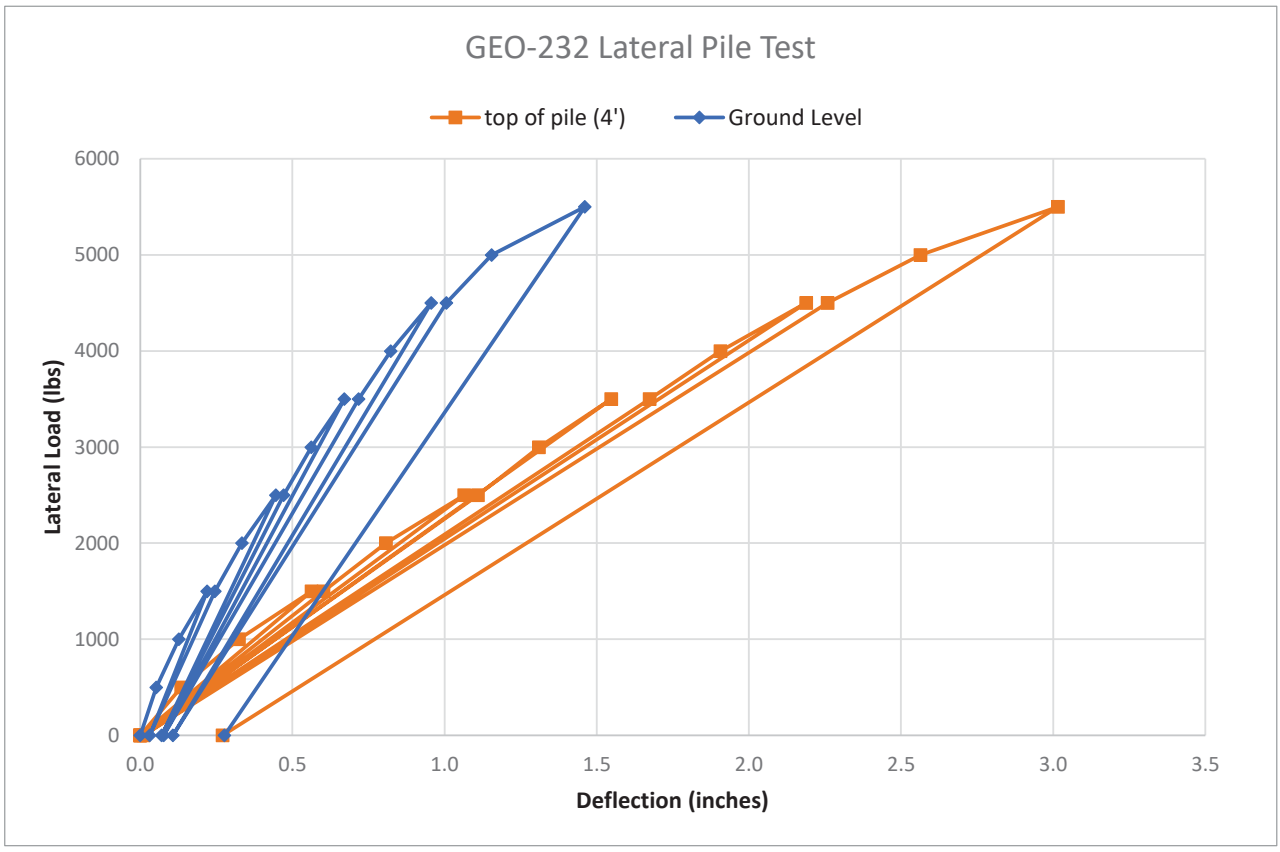
olsson

Field Pile Testing Results

Location:	GEO-232
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-232
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.996	0.004	0.004	3.996	0.004	0.004
2000	3.997	0.003	0.003	3.997	0.003	0.003	3.992	0.004	0.008	3.992	0.004	0.008
3000	3.989	0.008	0.011	3.989	0.008	0.011	3.989	0.003	0.011	3.989	0.003	0.011
4000	3.867	0.122	0.133	3.864	0.125	0.136	3.976	0.013	0.024	3.975	0.014	0.025
5000	3.822	0.045	0.178	3.809	0.055	0.191	3.945	0.031	0.055	3.929	0.046	0.071
6000	3.775	0.047	0.225	3.744	0.065	0.256	3.795	0.150	0.205	3.784	0.145	0.216
7000	3.434	0.341	0.566	3.405	0.339	0.595	3.510	0.285	0.490	3.497	0.287	0.503
8000	2.755	0.679	1.245	2.681	0.724	1.319	2.747	0.763	1.253	2.614	0.883	1.386
9000	2.024	0.731	1.976	1.958	0.723	2.042	2.429	0.318	1.571	2.426	0.188	1.574
0	2.042	-0.018	1.958	2.042	-0.084	1.958	2.936	-0.507	1.064	2.936	-0.510	1.064

olsson

Field Pile Testing Results

Location:	GEO-233
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	-0.004	-0.004	0.010	-0.010	-0.010
2000	0.000	0.000	0.000	0.002	-0.002	-0.002	0.016	-0.012	-0.016	0.018	-0.008	-0.018
3000	0.002	-0.002	-0.002	0.003	-0.001	-0.003	0.035	-0.019	-0.035	0.047	-0.029	-0.047
4000	0.007	-0.005	-0.007	0.007	-0.004	-0.007	0.063	-0.028	-0.063	0.075	-0.028	-0.075
5000	0.009	-0.002	-0.009	0.011	-0.004	-0.011	0.092	-0.029	-0.092	0.115	-0.040	-0.115
6000	0.020	-0.011	-0.020	0.029	-0.018	-0.029	0.130	-0.038	-0.130	0.135	-0.020	-0.135
7000	0.054	-0.034	-0.054	0.067	-0.038	-0.067	0.197	-0.067	-0.197	0.221	-0.086	-0.221
8000	0.105	-0.051	-0.105	0.129	-0.062	-0.129	0.280	-0.083	-0.280	0.215	0.006	-0.215
8600	0.187	-0.082	-0.187	0.211	-0.082	-0.211	0.393	-0.113	-0.393	0.431	-0.216	-0.431

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Field Pile Testing Results

Location:	GEO-233
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

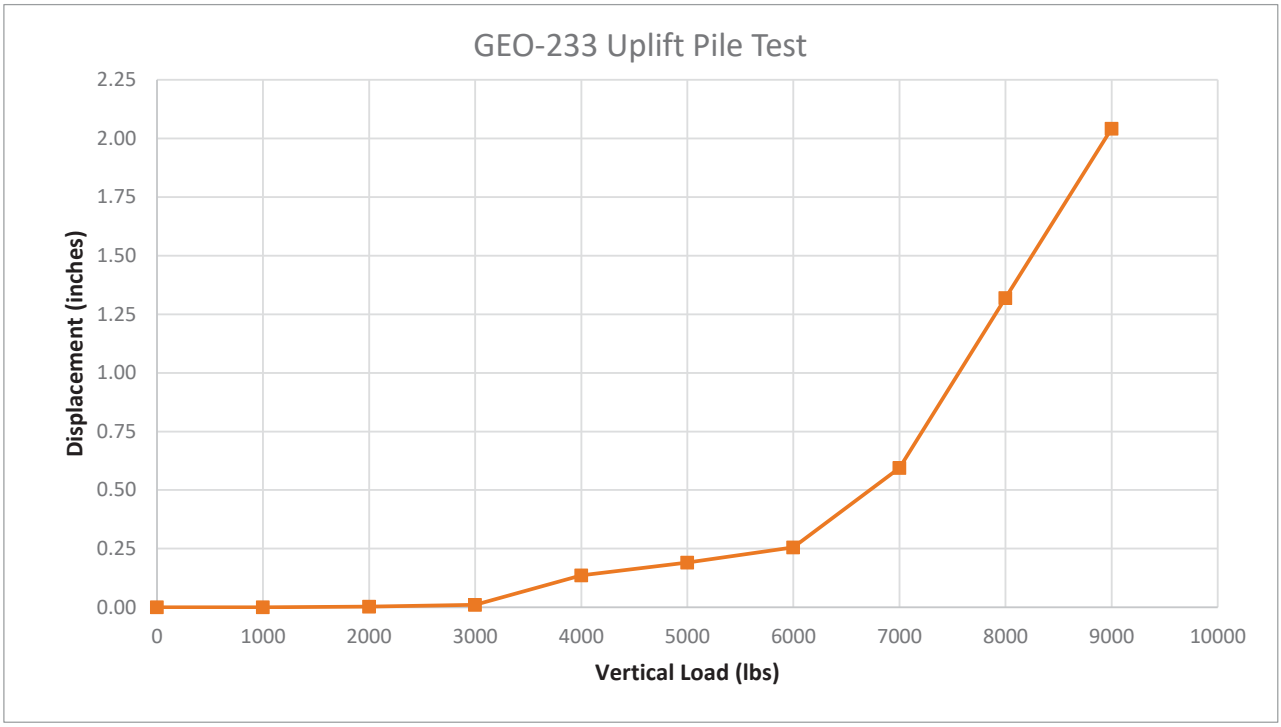
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.911	0.089	0.089	3.912	0.088	0.088	3.942	0.058	0.058	3.943	0.057	0.057
1000	3.619	0.292	0.381	3.622	0.289	0.378	3.872	0.070	0.128	3.869	0.073	0.131
1500	3.389	0.230	0.611	3.387	0.232	0.613	3.781	0.091	0.219	3.774	0.098	0.226
0	3.923	-0.534	0.077	3.923	-0.534	0.077	3.936	-0.155	0.064	3.936	-0.155	0.064
1500	3.351	0.572	0.649	3.351	0.572	0.649	3.767	0.169	0.233	3.766	0.170	0.234
2000	3.087	0.264	0.913	3.081	0.270	0.919	3.658	0.109	0.342	3.651	0.116	0.349
2500	2.725	0.362	1.275	2.712	0.375	1.288	3.545	0.113	0.455	3.532	0.126	0.468
0	3.825	-1.100	0.175	3.826	-1.101	0.174	3.909	-0.364	0.091	3.917	-0.372	0.083
2500	2.751	1.074	1.249	2.751	1.074	1.249	3.511	0.398	0.489	3.511	0.398	0.489
3000	2.472	0.279	1.528	2.464	0.287	1.536	3.395	0.116	0.605	3.384	0.127	0.616
3500	2.164	0.308	1.836	2.152	0.320	1.848	3.255	0.140	0.745	3.239	0.156	0.761
0	3.715	-1.551	0.285	3.724	-1.560	0.276	3.851	-0.596	0.149	3.863	-0.608	0.137
3500	2.006	1.709	1.994	2.005	1.710	1.995	3.179	0.672	0.821	3.164	0.687	0.836
4000	1.708	0.298	2.292	1.699	0.307	2.301	3.041	0.138	0.959	3.019	0.160	0.981
4500	1.319	0.389	2.681	1.307	0.401	2.693	2.848	0.193	1.152	2.823	0.218	1.177
0	3.495	-2.176	0.505	3.521	-2.202	0.479	3.749	-0.901	0.251	3.760	-0.912	0.240
4500	1.129	2.366	2.871	1.127	2.368	2.873	2.700	1.049	1.300	2.664	1.085	1.336
5000	0.676	0.453	3.324	0.668	0.461	3.332	2.505	0.195	1.495	2.476	0.224	1.524
5500	0.234	0.442	3.766	0.153	0.523	3.847	2.235	0.270	1.765	2.196	0.309	1.804
0	3.195	-2.961	0.805	3.161	-2.927	0.839	3.434	-1.199	0.566	3.453	-1.218	0.547

olsson

Location:	GEO-233
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project





olsson

Location:	GEO-233
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000	4.000	0.000	0.000
2000	3.995	0.005	0.005	3.995	0.005	0.005	4.000	0.000	0.000	4.000	0.000	0.000
3000	3.989	0.006	0.011	3.988	0.007	0.012	4.000	0.000	0.000	4.000	0.000	0.000
4000	3.975	0.014	0.025	3.977	0.011	0.023	3.998	0.002	0.002	3.998	0.002	0.002
5000	3.963	0.012	0.037	3.965	0.012	0.035	3.997	0.001	0.003	3.995	0.003	0.005
6000	3.945	0.018	0.055	3.948	0.017	0.052	3.993	0.004	0.007	3.992	0.003	0.008
7000	3.935	0.010	0.065	3.933	0.015	0.067	3.989	0.004	0.011	3.988	0.004	0.012
8000	3.918	0.017	0.082	3.918	0.015	0.082	3.985	0.004	0.015	3.981	0.007	0.019
9000	3.895	0.023	0.105	3.892	0.026	0.108	3.973	0.012	0.027	3.971	0.010	0.029
10000	3.866	0.029	0.134	3.865	0.027	0.135	3.963	0.010	0.037	3.957	0.014	0.043
11000	3.837	0.029	0.163	3.835	0.030	0.165	3.946	0.017	0.054	3.942	0.015	0.058
12000	3.799	0.038	0.201	3.790	0.045	0.210	3.928	0.018	0.072	3.923	0.019	0.077
13000	3.741	0.058	0.259	3.729	0.061	0.271	3.904	0.024	0.096	3.896	0.027	0.104
14000	3.692	0.049	0.308	3.675	0.054	0.325	3.879	0.025	0.121	3.868	0.028	0.132
15000	3.617	0.075	0.383	3.609	0.066	0.391	3.845	0.034	0.155	3.837	0.031	0.163
16000	3.539	0.078	0.461	3.522	0.087	0.478	3.813	0.032	0.187	3.802	0.035	0.198
17000	3.423	0.116	0.577	3.390	0.132	0.610	3.763	0.050	0.237	3.750	0.052	0.250
18000	3.230	0.193	0.770	3.179	0.211	0.821	3.690	0.073	0.310	3.670	0.080	0.330
0	3.298	-0.068	0.702	3.298	-0.119	0.702	3.775	-0.085	0.225	3.776	-0.106	0.224

olsson

Location:	GEO-236
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

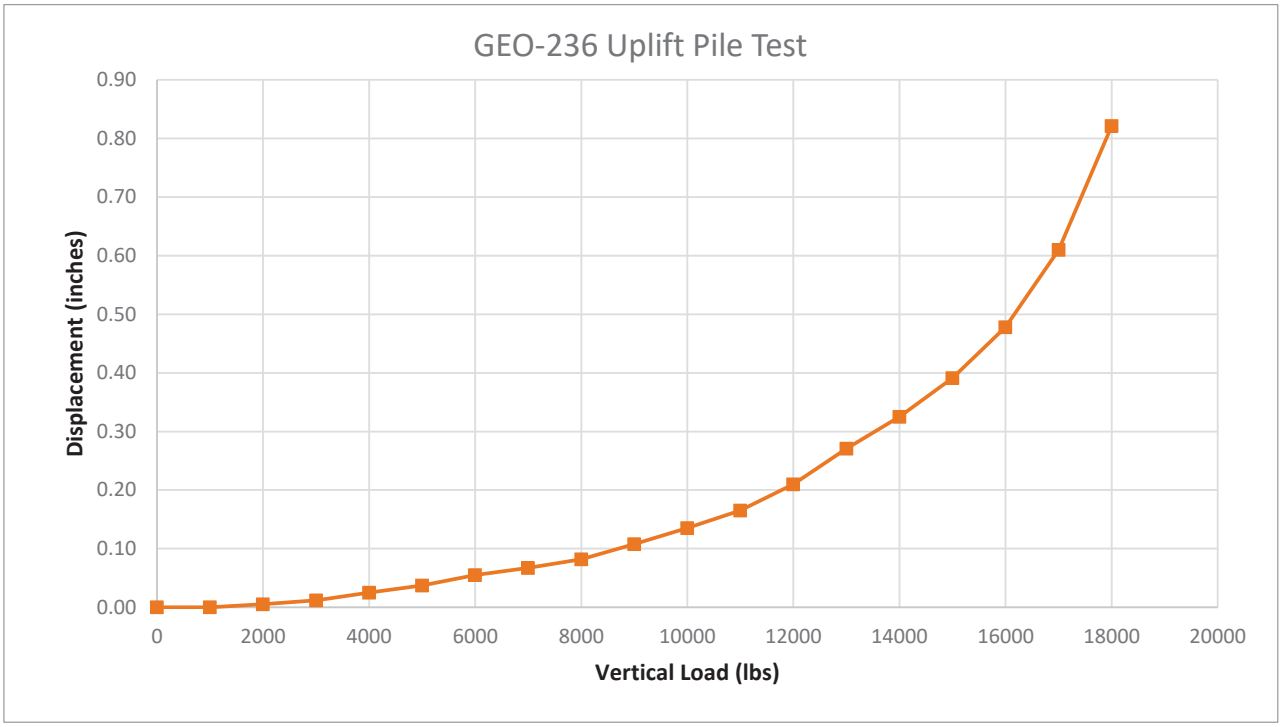
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.831	0.169	0.169	3.825	0.175	0.175	3.942	0.058	0.058	3.935	0.065	0.065
1000	3.623	0.208	0.377	3.617	0.214	0.383	3.859	0.083	0.141	3.852	0.090	0.148
1500	3.353	0.270	0.647	3.350	0.273	0.650	3.757	0.102	0.243	3.743	0.116	0.257
0	3.928	-0.575	0.072	3.929	-0.576	0.071	3.958	-0.201	0.042	3.963	-0.206	0.037
1500	3.315	0.613	0.685	3.315	0.613	0.685	3.723	0.235	0.277	3.721	0.237	0.279
2000	3.110	0.205	0.890	3.109	0.206	0.891	3.645	0.078	0.355	3.634	0.089	0.366
2500	2.808	0.302	1.192	2.807	0.303	1.193	3.512	0.133	0.488	3.503	0.142	0.497
0	3.876	-1.068	0.124	3.893	-1.085	0.107	3.914	-0.402	0.086	3.925	-0.413	0.075
2500	2.756	1.120	1.244	2.756	1.120	1.244	3.474	0.440	0.526	3.472	0.442	0.528
3000	2.440	0.316	1.560	2.448	0.308	1.552	3.353	0.121	0.647	3.336	0.138	0.664
3500	2.152	0.288	1.848	2.147	0.293	1.853	3.212	0.141	0.788	3.202	0.151	0.798
0	3.805	-1.653	0.195	3.807	-1.655	0.193	3.863	-0.651	0.137	3.875	-0.663	0.125
3500	2.049	1.756	1.951	2.047	1.758	1.953	3.152	0.711	0.848	3.139	0.724	0.861
4000	1.713	0.336	2.287	1.710	0.339	2.290	3.007	0.145	0.993	2.985	0.167	1.015
4500	1.417	0.296	2.583	1.417	0.296	2.583	2.847	0.160	1.153	2.836	0.171	1.164
0	3.713	-2.296	0.287	3.720	-2.303	0.280	3.795	-0.948	0.205	3.805	-0.958	0.195
4500	1.227	2.486	2.773	1.228	2.485	2.772	2.748	1.047	1.252	2.731	1.064	1.269
5000	0.781	0.446	3.219	0.780	0.447	3.220	2.540	0.208	1.460	2.518	0.230	1.482
5500	0.110	0.671	3.890	0.110	0.671	3.890	2.271	0.269	1.729	2.248	0.292	1.752
0	3.159	-3.049	0.841	3.191	-3.081	0.809	3.510	-1.239	0.490	3.522	-1.251	0.478

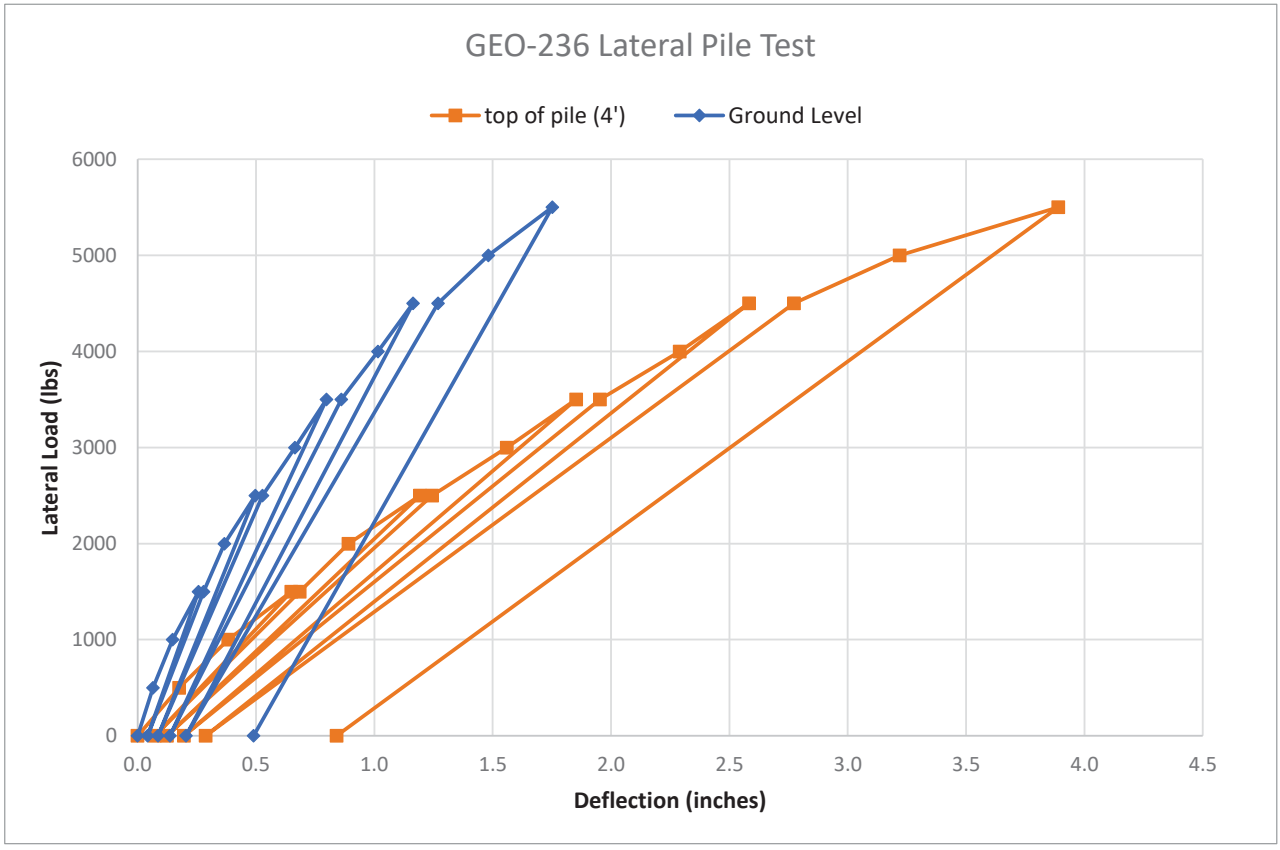
olsson

Field Pile Testing Results

Location:	GEO-236
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-236
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.005	0.005	3.994	0.006	0.006
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.989	0.006	0.011	3.989	0.005	0.011
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.985	0.004	0.015	3.986	0.003	0.014
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.981	0.004	0.019	3.982	0.004	0.018
5000	4.000	0.000	0.000	4.000	0.000	0.000	3.978	0.003	0.022	3.978	0.004	0.022
6000	3.997	0.003	0.003	3.995	0.005	0.005	3.972	0.006	0.028	3.973	0.005	0.027
7000	3.993	0.004	0.007	3.990	0.005	0.010	3.965	0.007	0.035	3.964	0.009	0.036
8000	3.986	0.007	0.014	3.982	0.008	0.018	3.955	0.010	0.045	3.953	0.011	0.047
9000	3.975	0.011	0.025	3.968	0.014	0.032	3.940	0.015	0.060	3.938	0.015	0.062
10000	3.954	0.021	0.046	3.947	0.021	0.053	3.918	0.022	0.082	3.913	0.025	0.087
11000	3.927	0.027	0.073	3.918	0.029	0.082	3.887	0.031	0.113	3.881	0.032	0.119
12000	3.894	0.033	0.106	3.884	0.034	0.116	3.850	0.037	0.150	3.842	0.039	0.158
13000	3.853	0.041	0.147	3.840	0.044	0.160	3.807	0.043	0.193	3.795	0.047	0.205
14000	3.798	0.055	0.202	3.783	0.057	0.217	3.747	0.060	0.253	3.734	0.061	0.266
15000	3.672	0.126	0.328	3.601	0.182	0.399	3.664	0.083	0.336	3.647	0.087	0.353
16000	3.539	0.133	0.461	3.515	0.086	0.485	3.579	0.085	0.421	3.535	0.112	0.465
0	3.603	-0.064	0.397	3.605	-0.090	0.395	3.630	-0.051	0.370	3.631	-0.096	0.369

olsson

Field Pile Testing Results

Location:	GEO-243
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

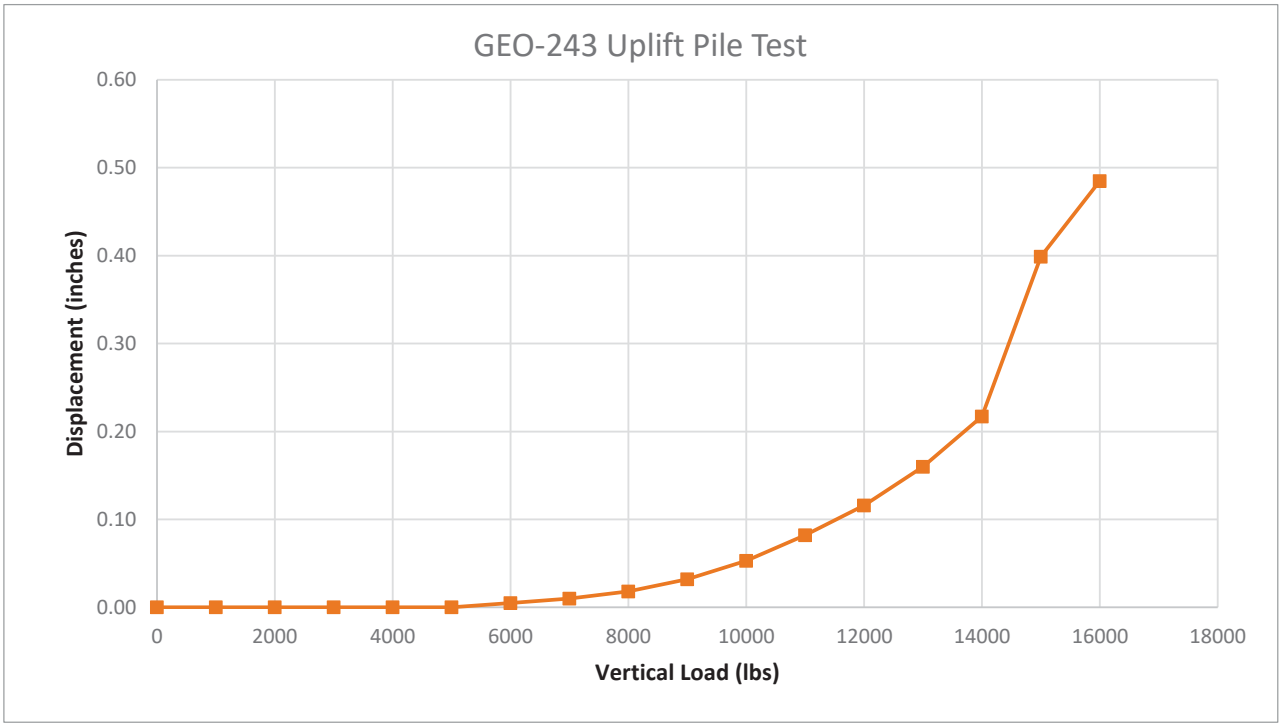
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.742	0.258	0.258	3.719	0.281	0.281	3.939	0.061	0.061	3.936	0.064	0.064
1000	3.518	0.224	0.482	3.505	0.237	0.495	3.867	0.072	0.133	3.862	0.077	0.138
1500	3.234	0.284	0.766	3.218	0.300	0.782	3.761	0.106	0.239	3.750	0.117	0.250
0	3.784	-0.550	0.216	3.784	-0.550	0.216	3.944	-0.183	0.056	3.950	-0.189	0.050
1500	3.157	0.627	0.843	3.155	0.629	0.845	3.737	0.207	0.263	3.735	0.209	0.265
2000	2.894	0.263	1.106	2.884	0.273	1.116	3.634	0.103	0.366	3.725	0.012	0.275
2500	2.513	0.381	1.487	2.503	0.391	1.497	3.518	0.116	0.482	3.506	0.128	0.494
0	3.651	-1.138	0.349	3.654	-1.141	0.346	3.897	-0.379	0.103	3.902	-0.384	0.098
2500	2.495	1.156	1.505	2.492	1.159	1.508	3.465	0.432	0.535	3.461	0.436	0.539
3000	2.246	0.249	1.754	2.244	0.251	1.756	3.360	0.105	0.640	3.354	0.111	0.646
3500	1.894	0.352	2.106	1.892	0.354	2.108	3.211	0.149	0.789	3.197	0.163	0.803
0	3.528	-1.634	0.472	3.541	-1.647	0.459	3.842	-0.631	0.158	3.857	-0.646	0.143
3500	1.735	1.793	2.265	1.735	1.793	2.265	3.133	0.709	0.867	3.135	0.707	0.865
4000	1.423	0.312	2.577	1.421	0.314	2.579	3.002	0.131	0.998	2.986	0.147	1.014
4500	1.058	0.365	2.942	1.052	0.371	2.948	2.832	0.170	1.168	2.814	0.188	1.186
0	3.405	-2.347	0.595	3.416	-2.358	0.584	3.782	-0.950	0.218	3.796	-0.964	0.204
4500	0.868	2.537	3.132	0.869	2.536	3.131	2.728	1.054	1.272	2.720	1.062	1.280
5000	0.407	0.461	3.593	0.408	0.460	3.592	2.572	0.156	1.428	2.558	0.170	1.442
5500	0.000	0.407	4.000	0.000	0.407	4.000	2.343	0.229	1.657	2.325	0.247	1.675
0	3.025	-3.025	0.975	3.033	-3.033	0.967	3.600	-1.257	0.400	3.623	-1.280	0.377

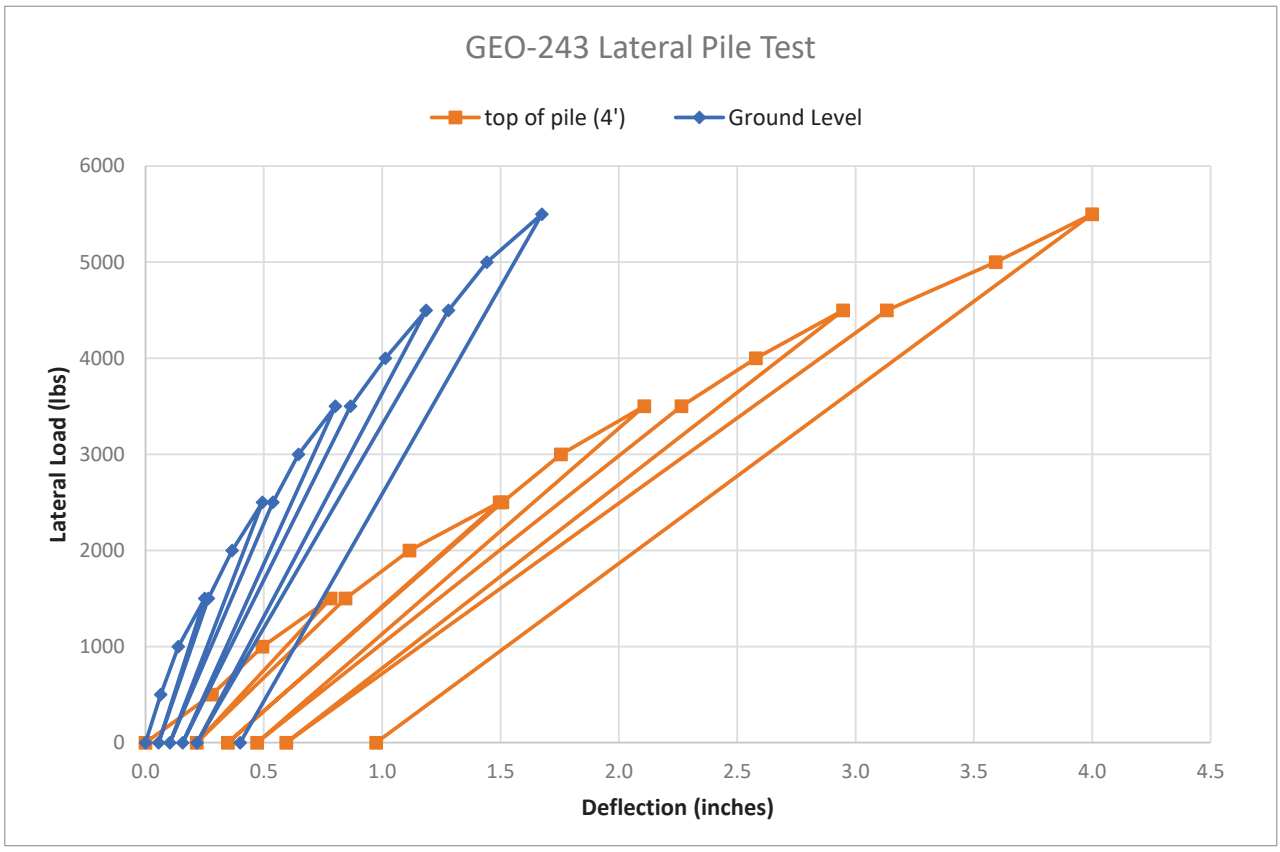
olsson

Field Pile Testing Results

Location:	GEO-243
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-243
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.994	0.006	0.006	3.996	0.004	0.004
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.991	0.003	0.009	3.991	0.005	0.009
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.987	0.004	0.013	3.987	0.004	0.013
4000	4.000	0.000	0.000	4.000	0.000	0.000	3.983	0.004	0.017	3.983	0.004	0.017
5000	3.995	0.005	0.005	3.992	0.008	0.008	3.975	0.008	0.025	3.972	0.011	0.028
6000	3.982	0.013	0.018	3.972	0.020	0.028	3.963	0.012	0.037	3.955	0.017	0.045
7000	3.935	0.047	0.065	3.928	0.044	0.072	3.932	0.031	0.068	3.919	0.036	0.081
8000	3.858	0.077	0.142	3.853	0.075	0.147	3.854	0.078	0.146	3.845	0.074	0.155
9000	3.752	0.106	0.248	3.727	0.126	0.273	3.761	0.093	0.239	3.727	0.118	0.273
10000	3.534	0.218	0.466	3.515	0.212	0.485	3.541	0.220	0.459	3.519	0.208	0.481
11000	3.258	0.276	0.742	3.231	0.284	0.769	3.264	0.277	0.736	3.247	0.272	0.753
12000	2.965	0.293	1.035	2.892	0.339	1.108	2.975	0.289	1.025	2.927	0.320	1.073
12400	2.178	0.787	1.822	2.075	0.817	1.925	2.483	0.492	1.517	2.430	0.497	1.570
0	2.232	-0.054	1.768	2.236	-0.161	1.764	2.561	-0.078	1.439	2.562	-0.132	1.438

Field Pile Testing Results

Location:	GEO-245
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

olsson

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	-0.006	-0.006	0.006	-0.006	-0.006
4000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	-0.007	-0.013	0.014	-0.008	-0.014
5000	0.002	-0.002	-0.002	0.002	-0.002	-0.002	0.027	-0.014	-0.027	0.027	-0.013	-0.027
6000	0.009	-0.007	-0.009	0.009	-0.007	-0.009	0.031	-0.004	-0.031	0.031	-0.004	-0.031
7000	0.024	-0.015	-0.024	0.025	-0.016	-0.025	0.032	-0.001	-0.032	0.032	-0.001	-0.032
8000	0.032	-0.008	-0.032	0.035	-0.010	-0.035	0.035	-0.003	-0.035	0.035	-0.003	-0.035
9000	0.041	-0.009	-0.041	0.043	-0.008	-0.043	0.043	-0.008	-0.043	0.043	-0.008	-0.043
10000	0.047	-0.006	-0.047	0.048	-0.005	-0.048	0.049	-0.006	-0.049	0.049	-0.006	-0.049

olsson

Location:	GEO-245
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

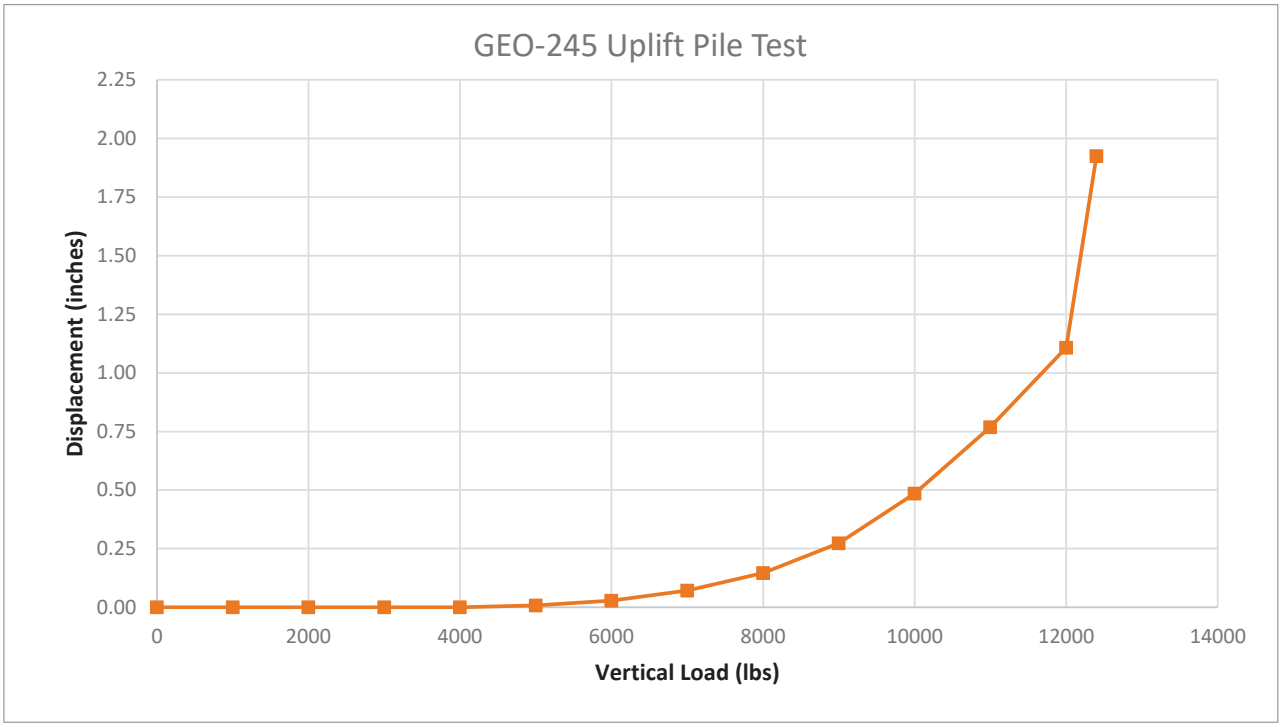
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.762	0.238	0.238	3.740	0.260	0.260	3.936	0.064	0.064	3.914	0.086	0.086
1000	3.503	0.259	0.497	3.498	0.264	0.502	3.825	0.111	0.175	3.814	0.122	0.186
1500	3.236	0.267	0.764	3.231	0.272	0.769	3.713	0.112	0.287	3.703	0.122	0.297
0	3.874	-0.638	0.126	3.887	-0.651	0.113	3.915	-0.202	0.085	3.923	-0.210	0.077
1500	3.174	0.700	0.826	3.174	0.700	0.826	3.674	0.241	0.326	3.672	0.243	0.328
2000	2.913	0.261	1.087	2.902	0.272	1.098	3.564	0.110	0.436	3.557	0.117	0.443
2500	2.606	0.307	1.394	2.605	0.308	1.395	3.435	0.129	0.565	3.421	0.143	0.579
0	3.825	-1.219	0.175	3.837	-1.231	0.163	3.887	-0.452	0.113	3.910	-0.475	0.090
2500	2.519	1.306	1.481	2.517	1.308	1.483	3.382	0.505	0.618	3.372	0.515	0.628
3000	2.307	0.212	1.693	2.302	0.217	1.698	3.241	0.141	0.759	3.233	0.149	0.767
3500	1.872	0.435	2.128	1.854	0.453	2.146	3.076	0.165	0.924	3.066	0.175	0.934
0	3.762	-1.890	0.238	3.769	-1.897	0.231	3.852	-0.776	0.148	3.868	-0.792	0.132
3500	1.767	1.995	2.233	1.749	2.013	2.251	3.017	0.835	0.983	3.003	0.849	0.997
4000	1.439	0.328	2.561	1.434	0.333	2.566	2.869	0.148	1.131	2.854	0.163	1.146
4500	1.073	0.366	2.927	1.065	0.374	2.935	2.695	0.174	1.305	2.681	0.188	1.319
0	3.645	-2.572	0.355	3.671	-2.598	0.329	3.768	-1.073	0.232	3.786	-1.091	0.214
4500	0.876	2.769	3.124	0.874	2.771	3.126	2.591	1.177	1.409	2.576	1.192	1.424
5000	0.513	0.363	3.487	0.512	0.364	3.488	2.424	0.167	1.576	2.402	0.189	1.598
5320	0.000	0.513	4.000	0.000	0.513	4.000	2.141	0.283	1.859	2.137	0.287	1.863
0	3.535	-3.535	0.465	3.548	-3.548	0.452	3.678	-1.537	0.322	3.696	-1.555	0.304

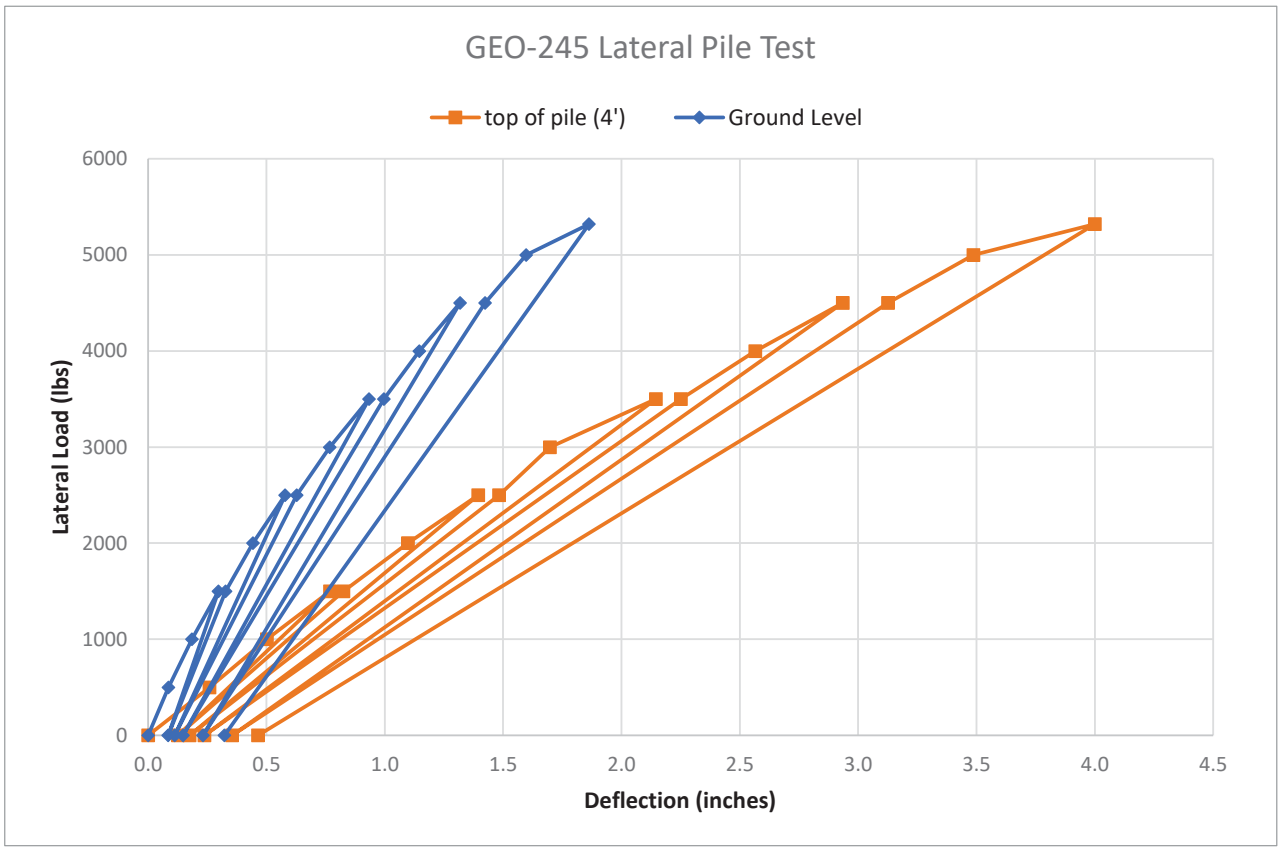
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Field Pile Testing Results

Location:	GEO-245
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

Location:	GEO-245
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	3.996	0.004	0.004	3.996	0.004	0.004	3.996	0.004	0.004	3.996	0.004	0.004
2000	3.992	0.004	0.008	3.992	0.004	0.008	3.992	0.004	0.008	3.992	0.004	0.008
3000	3.981	0.011	0.019	3.983	0.009	0.017	3.991	0.001	0.009	3.991	0.001	0.009
4000	3.969	0.012	0.031	3.972	0.011	0.028	3.990	0.001	0.010	3.990	0.001	0.010
5000	3.959	0.010	0.041	3.963	0.009	0.037	3.989	0.001	0.011	3.989	0.001	0.011
6000	3.947	0.012	0.053	3.948	0.015	0.052	3.988	0.001	0.012	3.987	0.002	0.013
7000	3.927	0.020	0.073	3.924	0.024	0.076	3.977	0.011	0.023	3.971	0.016	0.029
8000	3.900	0.027	0.100	3.897	0.027	0.103	3.955	0.022	0.045	3.950	0.021	0.050
9000	3.860	0.040	0.140	3.850	0.047	0.150	3.924	0.031	0.076	3.912	0.038	0.088
10000	3.801	0.059	0.199	3.793	0.057	0.207	3.870	0.054	0.130	3.856	0.056	0.144
11000	3.720	0.081	0.280	3.708	0.085	0.292	3.792	0.078	0.208	3.774	0.082	0.226
12000	3.632	0.088	0.368	3.612	0.096	0.388	3.712	0.080	0.288	3.685	0.089	0.315
13000	3.507	0.125	0.493	3.482	0.130	0.518	3.588	0.124	0.412	3.560	0.125	0.440
14000	3.393	0.114	0.607	3.361	0.121	0.639	2.480	1.108	1.520	3.445	0.115	0.555
15000	3.263	0.130	0.737	3.223	0.138	0.777	3.351	-0.871	0.649	3.308	0.137	0.692
16000	3.105	0.158	0.895	3.076	0.147	0.924	3.195	0.156	0.805	3.153	0.155	0.847
17000	2.779	0.326	1.221	2.747	0.329	1.253	2.911	0.284	1.089	2.886	0.267	1.114
18000	2.520	0.259	1.480	2.482	0.265	1.518	2.663	0.248	1.337	2.617	0.269	1.383
0	2.595	-0.075	1.405	2.597	-0.115	1.403	2.692	-0.029	1.308	2.695	-0.078	1.305

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Field Pile Testing Results

Location:	GEO-250
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Compression

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0		-	0.000	x	-	-		-	0.000	x	-	-
1000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	-0.007	-0.007	0.008	-0.008	-0.008
2000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	-0.013	-0.020	0.022	-0.014	-0.022
3000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	-0.014	-0.034	0.038	-0.016	-0.038
4000	0.000	0.000	0.000	0.000	0.000	0.000	0.049	-0.015	-0.049	0.055	-0.017	-0.055
5000	0.000	0.000	0.000	0.000	0.000	0.000	0.068	-0.019	-0.068	0.074	-0.019	-0.074
6000	0.017	-0.017	-0.017	0.023	-0.023	-0.023	0.080	-0.012	-0.080	0.085	-0.011	-0.085
7000	0.065	-0.048	-0.065	0.073	-0.050	-0.073	0.098	-0.018	-0.098	0.104	-0.019	-0.104

olsson

Location:	GEO-250
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Field Pile Testing Results

Fox Squirrel Solar Project

Lateral

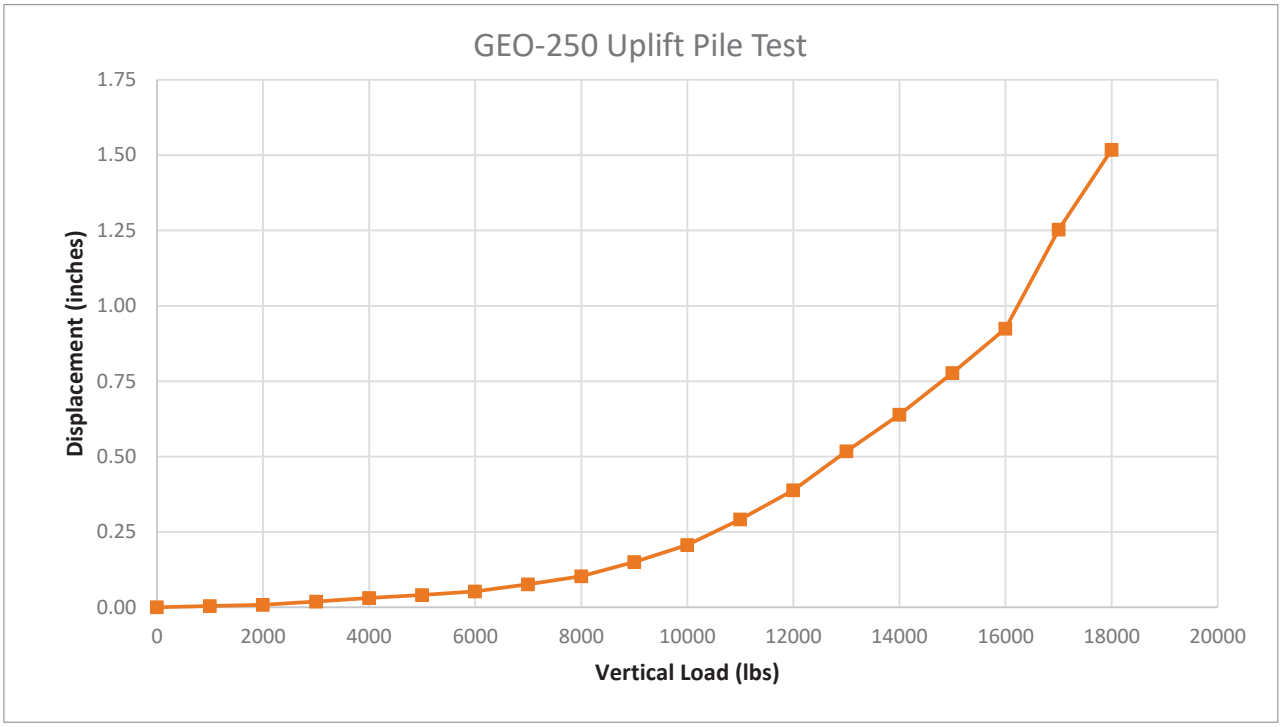
load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.830	0.170	0.170	3.830	0.170	0.170	3.920	0.080	0.080	3.917	0.083	0.083
1000	3.615	0.215	0.385	3.612	0.218	0.388	3.874	0.046	0.126	3.871	0.049	0.129
1500	3.409	0.206	0.591	3.407	0.208	0.593	3.798	0.076	0.202	3.794	0.080	0.206
0	3.969	-0.560	0.031	3.973	-0.564	0.027	3.989	-0.191	0.011	3.991	-0.193	0.009
1500	3.392	0.577	0.608	3.392	0.577	0.608	3.783	0.206	0.217	3.780	0.209	0.220
2000	3.203	0.189	0.797	3.203	0.189	0.797	3.710	0.073	0.290	3.703	0.080	0.297
2500	2.993	0.210	1.007	2.991	0.212	1.009	3.623	0.087	0.377	3.613	0.097	0.387
0	3.923	-0.930	0.077	3.929	-0.936	0.071	3.956	-0.333	0.044	3.965	-0.342	0.035
2500	2.898	1.025	1.102	2.898	1.025	1.102	3.565	0.391	0.435	3.565	0.391	0.435
3000	2.672	0.226	1.328	2.672	0.226	1.328	3.479	0.086	0.521	3.468	0.097	0.532
3500	2.459	0.213	1.541	2.457	0.215	1.543	3.385	0.094	0.615	3.372	0.107	0.628
0	3.881	-1.422	0.119	3.897	-1.438	0.103	3.919	-0.534	0.081	3.927	-0.542	0.073
3500	2.332	1.549	1.668	2.332	1.549	1.668	3.315	0.604	0.685	3.305	0.614	0.695
4000	2.104	0.228	1.896	2.102	0.230	1.898	3.214	0.101	0.786	3.202	0.113	0.798
4500	1.825	0.279	2.175	1.823	0.281	2.177	3.095	0.119	0.905	3.075	0.139	0.925
0	3.805	-1.980	0.195	3.822	-1.997	0.178	3.870	-0.775	0.130	3.884	-0.789	0.116
4500	1.679	2.126	2.321	1.678	2.127	2.322	3.005	0.865	0.995	2.995	0.875	1.005
5000	1.441	0.238	2.559	1.440	0.239	2.560	2.900	0.105	1.100	2.887	0.118	1.113
5500	0.985	0.456	3.015	0.984	0.457	3.016	2.710	0.190	1.290	2.688	0.212	1.312
0	3.695	-2.710	0.305	3.710	-2.725	0.290	3.732	-1.022	0.268	3.743	-1.033	0.257

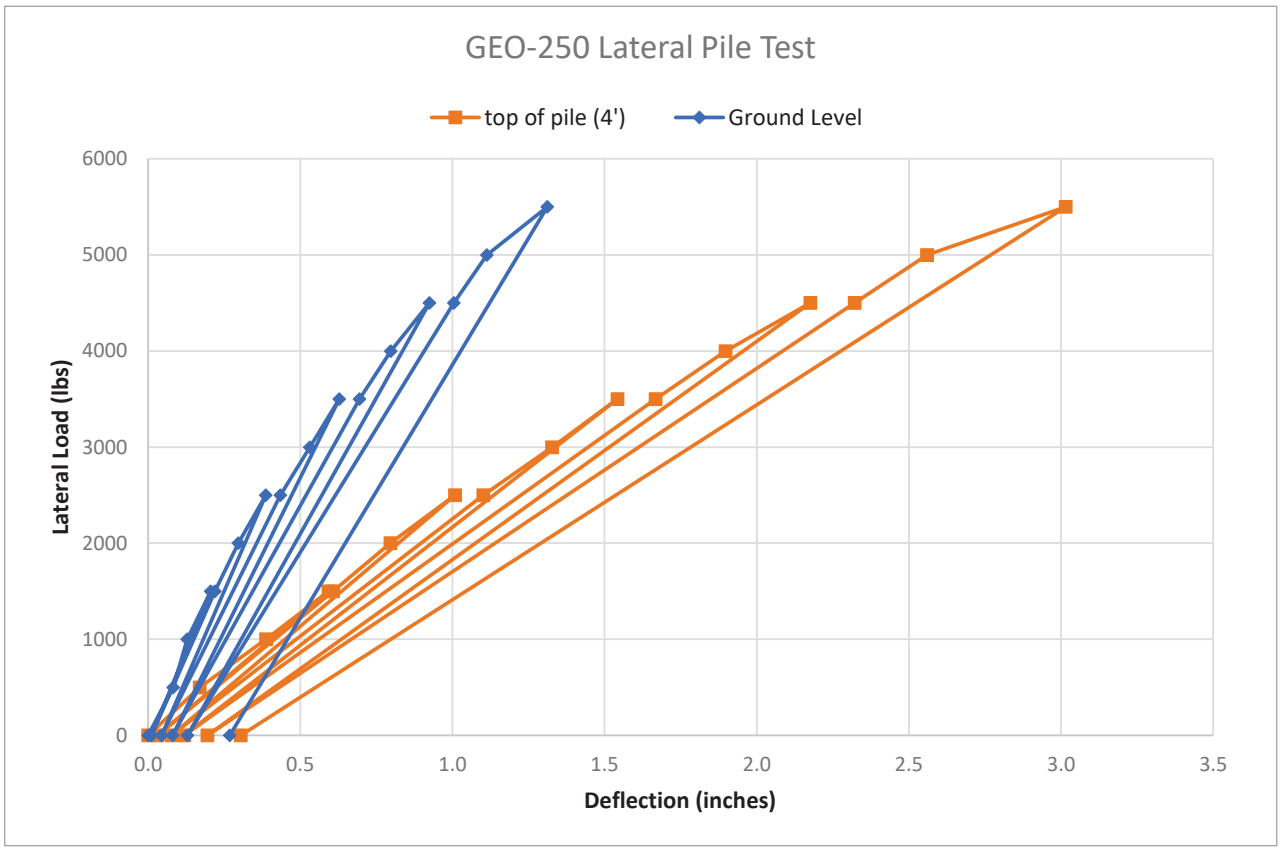
olsson

Field Pile Testing Results

Location:	GEO-250
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





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Location:	GEO-250
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

Fox Squirrel Solar Project

Uplift

load	Upper Reading (inches)						Lower Reading (inches)					
(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
1000	4.000	0.000	0.000	4.000	0.000	0.000	3.995	0.005	0.005	3.995	0.005	0.005
2000	4.000	0.000	0.000	4.000	0.000	0.000	3.990	0.005	0.010	3.990	0.005	0.010
3000	4.000	0.000	0.000	4.000	0.000	0.000	3.987	0.003	0.013	3.987	0.003	0.013
4000	3.998	0.002	0.002	3.996	0.004	0.004	3.983	0.004	0.017	3.984	0.003	0.016
5000	3.991	0.007	0.009	3.989	0.007	0.011	3.975	0.008	0.025	3.974	0.010	0.026
6000	3.976	0.015	0.024	3.974	0.015	0.026	3.965	0.010	0.035	3.964	0.010	0.036
7000	3.959	0.017	0.041	3.954	0.020	0.046	3.952	0.013	0.048	3.948	0.016	0.052
8000	3.948	0.011	0.052	3.936	0.018	0.064	3.946	0.006	0.054	3.932	0.016	0.068
9000	3.921	0.027	0.079	3.916	0.020	0.084	3.918	0.028	0.082	3.916	0.016	0.084
10000	3.902	0.019	0.098	3.892	0.024	0.108	3.902	0.016	0.098	3.894	0.022	0.106
11000	3.872	0.030	0.128	3.855	0.037	0.145	3.869	0.033	0.131	3.857	0.037	0.143
12000	3.821	0.051	0.179	3.808	0.047	0.192	3.829	0.040	0.171	3.815	0.042	0.185
13000	3.772	0.049	0.228	3.750	0.058	0.250	3.779	0.050	0.221	3.759	0.056	0.241
14000	3.711	0.061	0.289	3.690	0.060	0.310	3.726	0.053	0.274	3.701	0.058	0.299
15000	3.645	0.066	0.355	3.621	0.069	0.379	3.662	0.064	0.338	3.637	0.064	0.363
16000	3.577	0.068	0.423	3.552	0.069	0.448	3.591	0.071	0.409	3.632	0.005	0.368
17000	3.510	0.067	0.490	3.484	0.068	0.516	3.544	0.047	0.456	3.511	0.121	0.489
18000	3.408	0.102	0.592	3.374	0.110	0.626	3.453	0.091	0.547	3.431	0.080	0.569
0	3.419	-0.011	0.581	3.422	-0.048	0.578	3.487	-0.034	0.513	3.490	-0.059	0.510

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Field Pile Testing Results

Location:	GEO-254
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project

Lateral

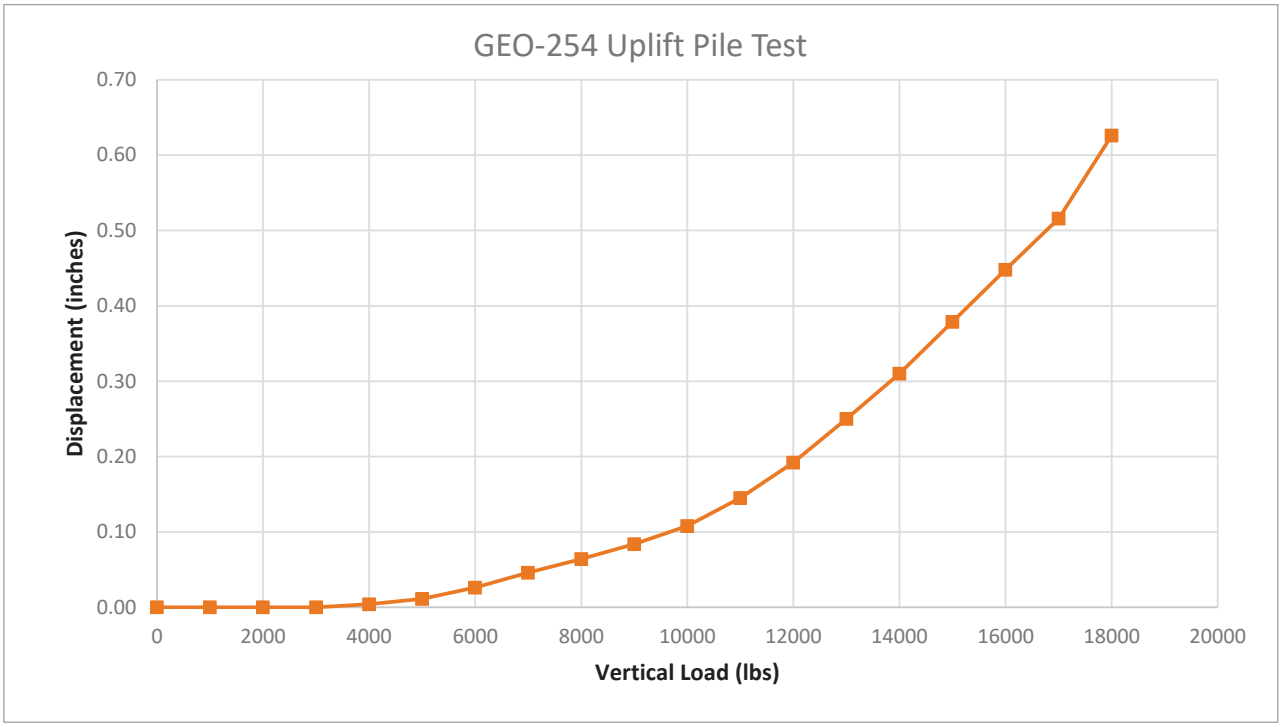
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(lbs)	0sec	incremental	cumulative	1 min	incremental	cumulative	0sec	incremental	cumulative	1 min	incremental	cumulative
0	4.000	-	0.000	x	-	-	4.000	-	0.000	x	-	-
500	3.834	0.166	0.166	3.834	0.166	0.166	3.936	0.064	0.064	3.936	0.064	0.064
1000	3.629	0.205	0.371	3.629	0.205	0.371	3.850	0.086	0.150	3.849	0.087	0.151
1500	3.441	0.188	0.559	3.442	0.187	0.558	3.768	0.082	0.232	3.764	0.086	0.236
0	3.989	-0.548	0.011	3.996	-0.555	0.004	3.938	-0.170	0.062	3.947	-0.179	0.053
1500	3.421	0.568	0.579	3.419	0.570	0.581	3.736	0.202	0.264	3.732	0.206	0.268
2000	3.253	0.168	0.747	3.248	0.173	0.752	3.660	0.076	0.340	3.653	0.083	0.347
2500	3.006	0.247	0.994	3.014	0.239	0.986	3.553	0.107	0.447	3.548	0.112	0.452
0	3.961	-0.955	0.039	3.974	-0.968	0.026	3.924	-0.371	0.076	3.927	-0.374	0.073
2500	2.973	0.988	1.027	2.980	0.981	1.020	3.524	0.400	0.476	3.516	0.408	0.484
3000	2.714	0.259	1.286	2.716	0.257	1.284	3.406	0.118	0.594	3.394	0.130	0.606
3500	2.511	0.203	1.489	3.514	-0.800	0.486	3.307	0.099	0.693	3.295	0.111	0.705
0	3.978	-1.467	0.022	3.985	-1.474	0.015	3.897	-0.590	0.103	3.902	-0.595	0.098
3500	2.495	1.483	1.505	2.498	1.480	1.502	3.266	0.631	0.734	3.265	0.632	0.735
4000	2.291	0.204	1.709	2.291	0.204	1.709	3.178	0.088	0.822	3.173	0.093	0.827
4500	2.035	0.256	1.965	2.034	0.257	1.966	3.062	0.116	0.938	3.050	0.128	0.950
0	3.962	-1.927	0.038	3.978	-1.943	0.022	3.830	-0.768	0.170	3.876	-0.814	0.124
4500	1.944	2.018	2.056	1.945	2.017	2.055	3.000	0.830	1.000	2.994	0.836	1.006
5000	1.690	0.254	2.310	1.690	0.254	2.310	2.883	0.117	1.117	2.874	0.126	1.126
5500	1.334	0.356	2.666	1.333	0.357	2.667	2.711	0.172	1.289	2.704	0.179	1.296
0	3.824	-2.490	0.176	3.839	-2.505	0.161	3.727	-1.016	0.273	3.732	-1.021	0.268

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Field Pile Testing Results

Location:	GEO-254
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabor

Fox Squirrel Solar Project





olsson

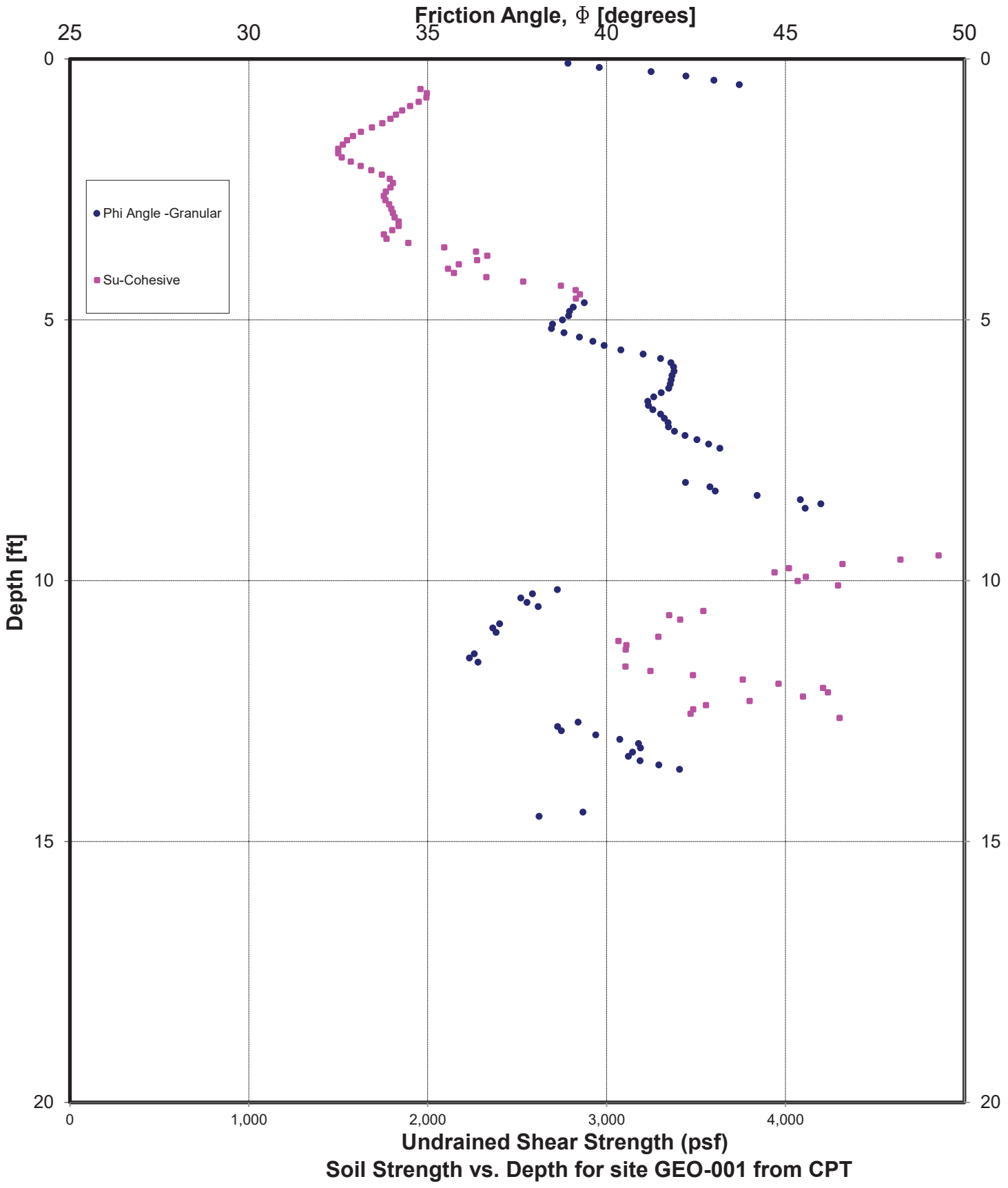
Location:	GEO-254
Test Date:	12/10/2020
Project No.:	020-3275
Prepared by:	Brandon Tabo

Field Pile Testing Results

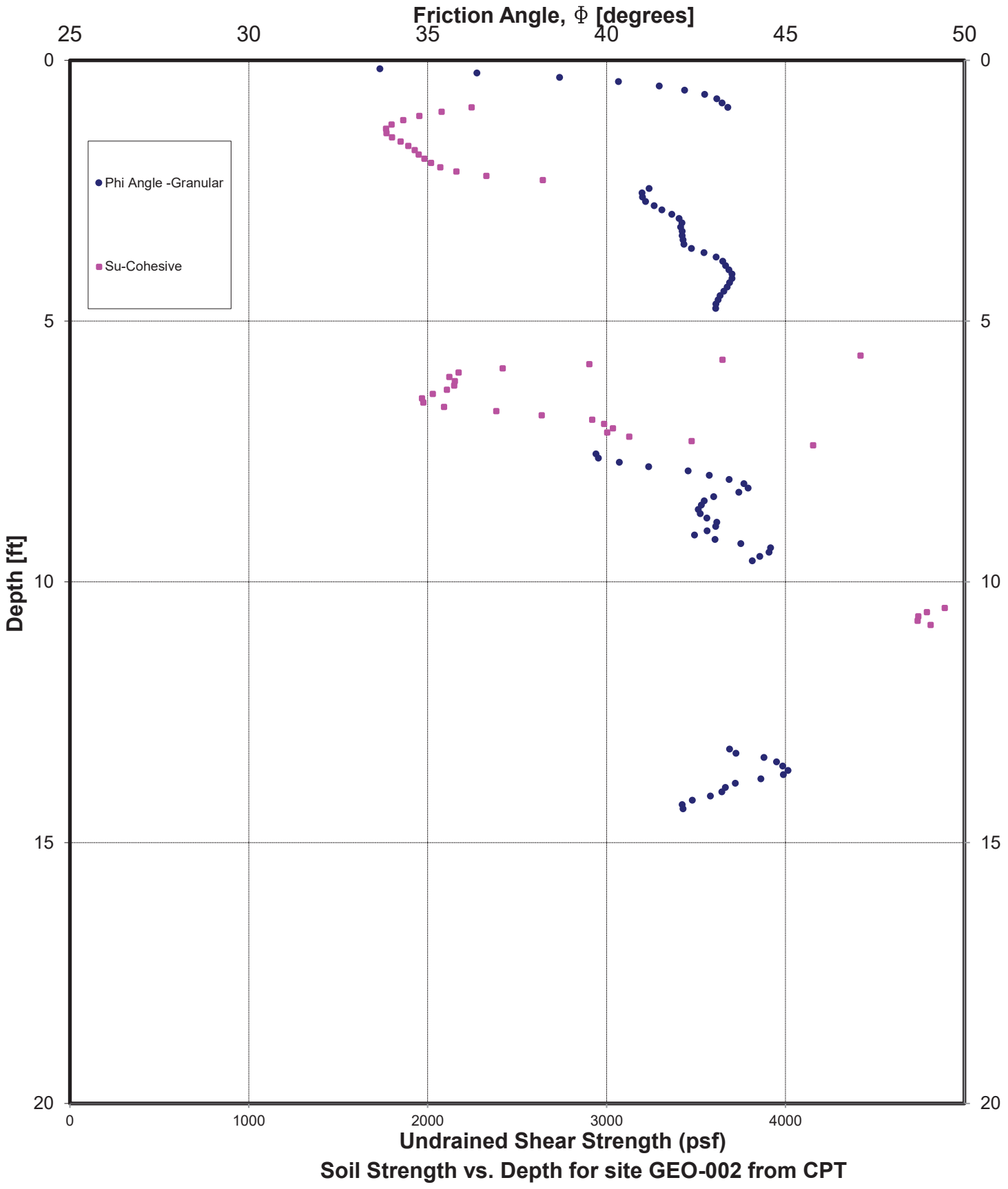
Fox Squirrel Solar Project

APPENDIX J

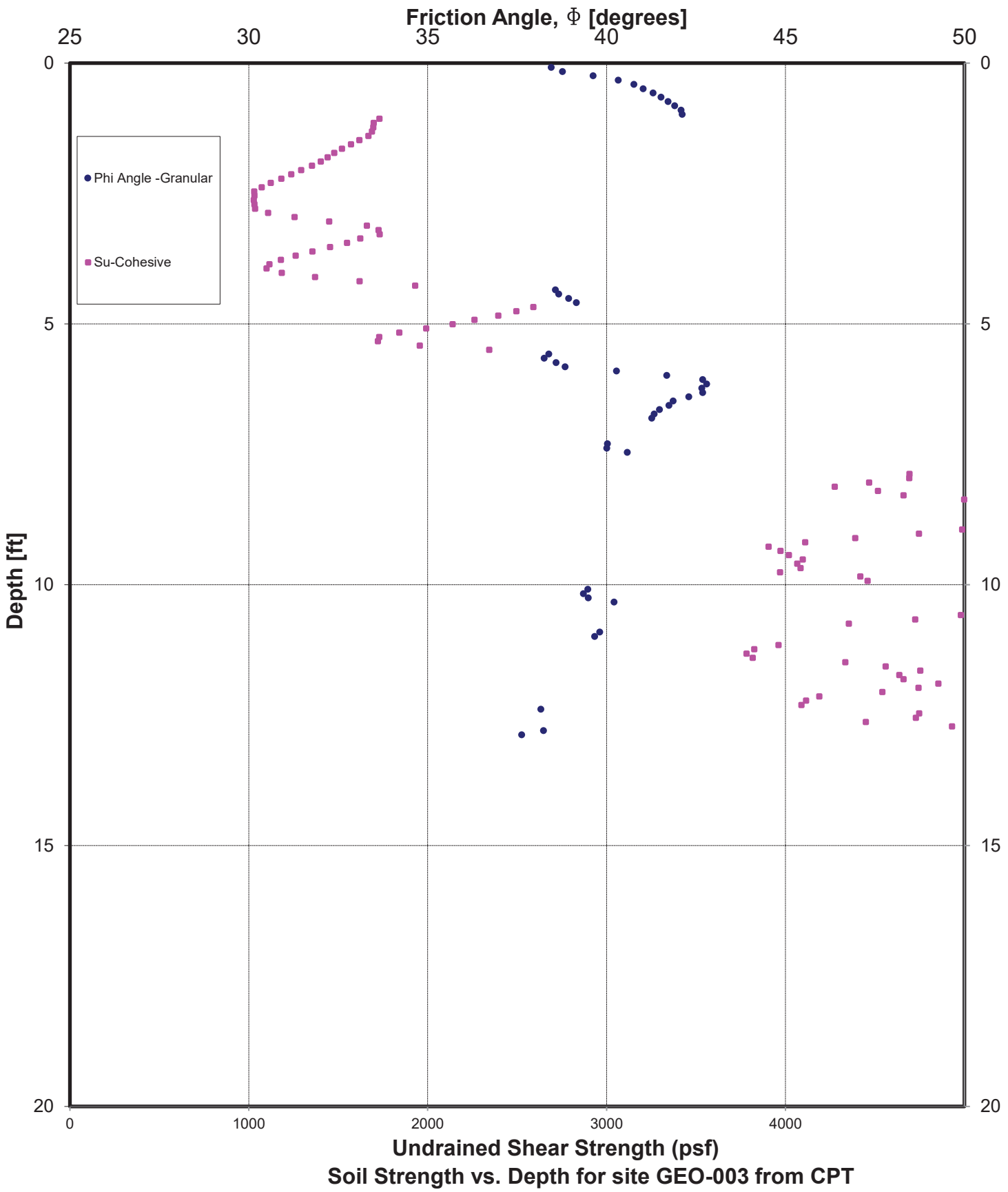
Shear Strength from CPT versus Depth



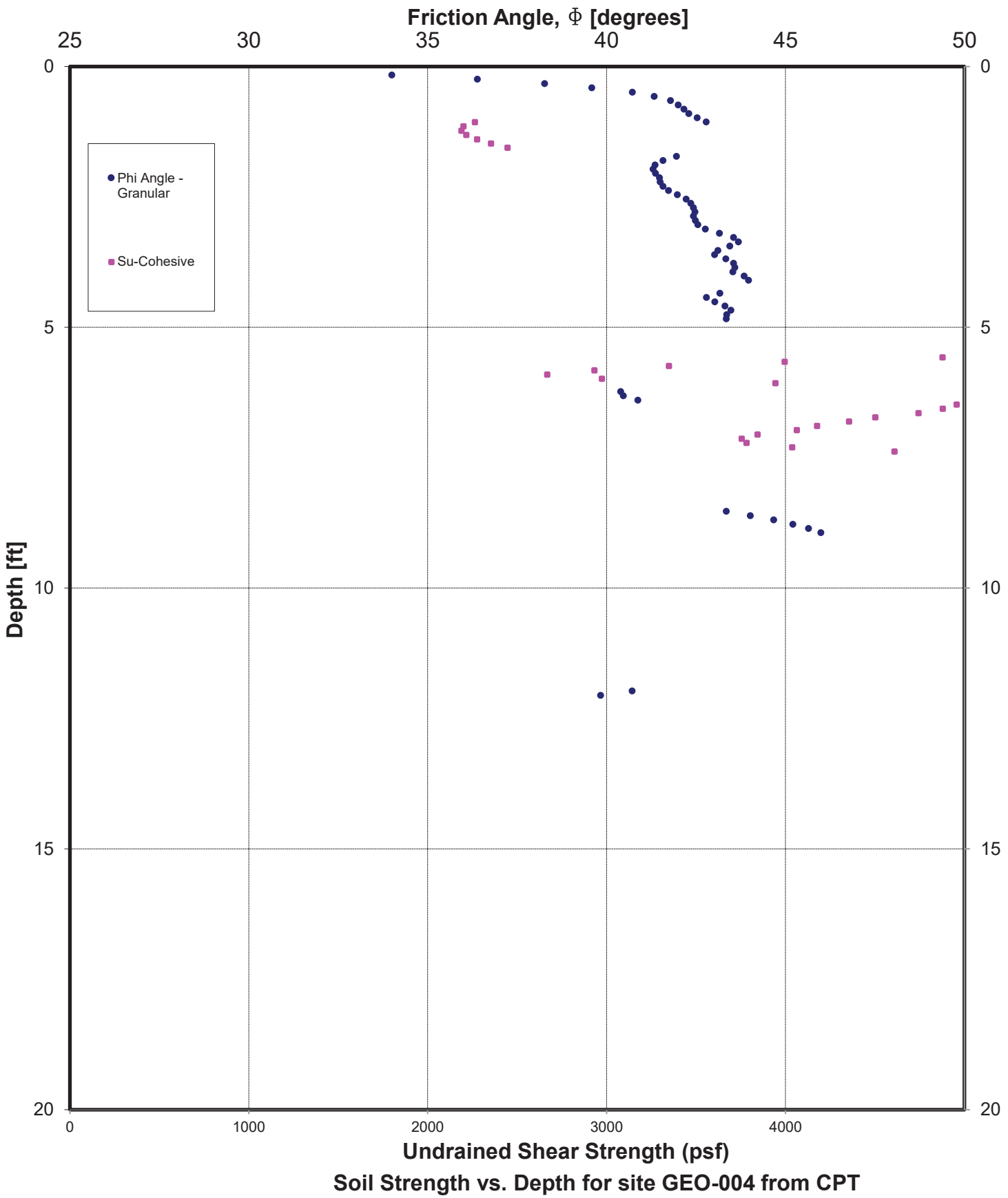
Soil Strength vs. Depth for site GEO-001 from CPT



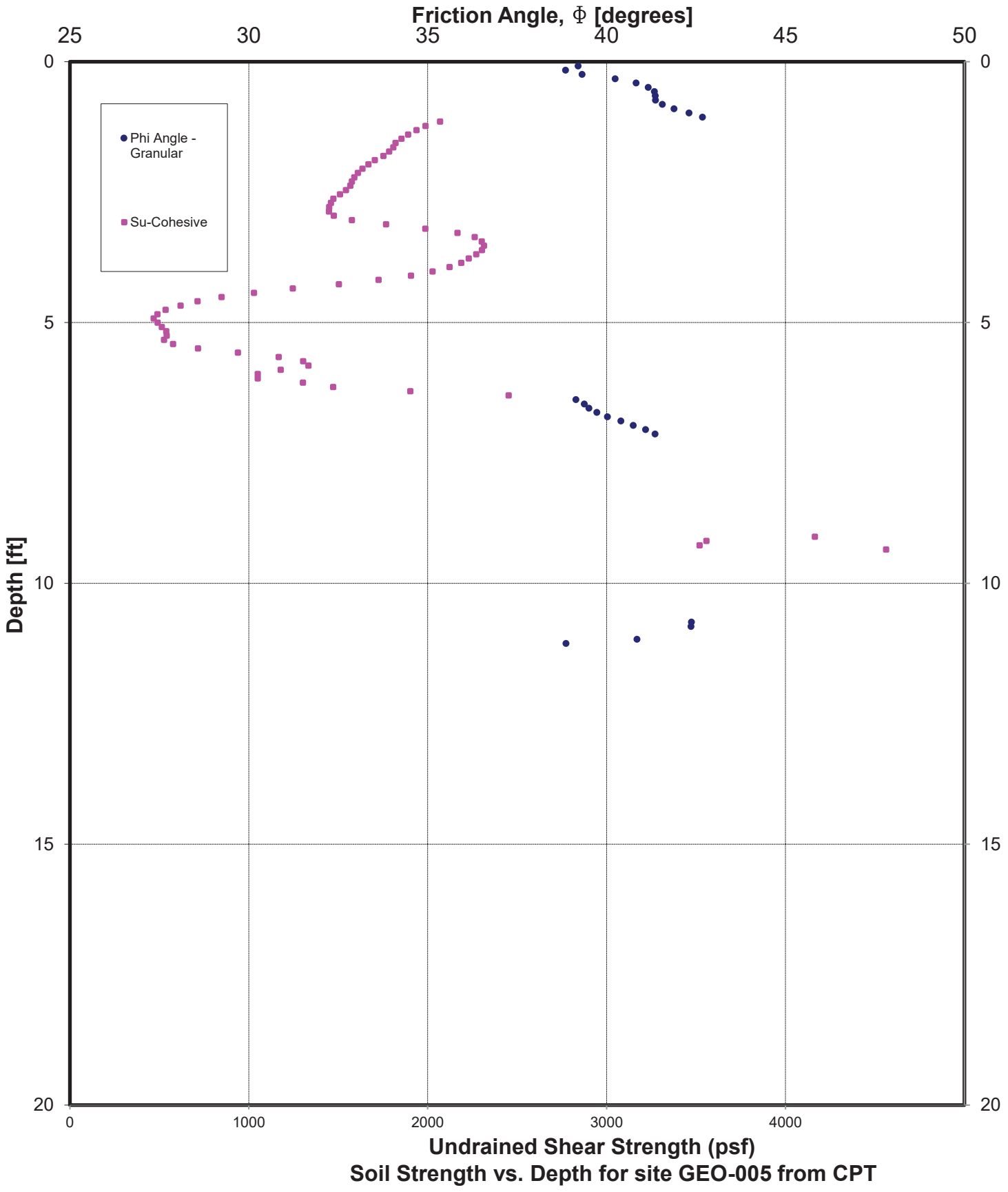
Soil Strength vs. Depth for site GEO-002 from CPT



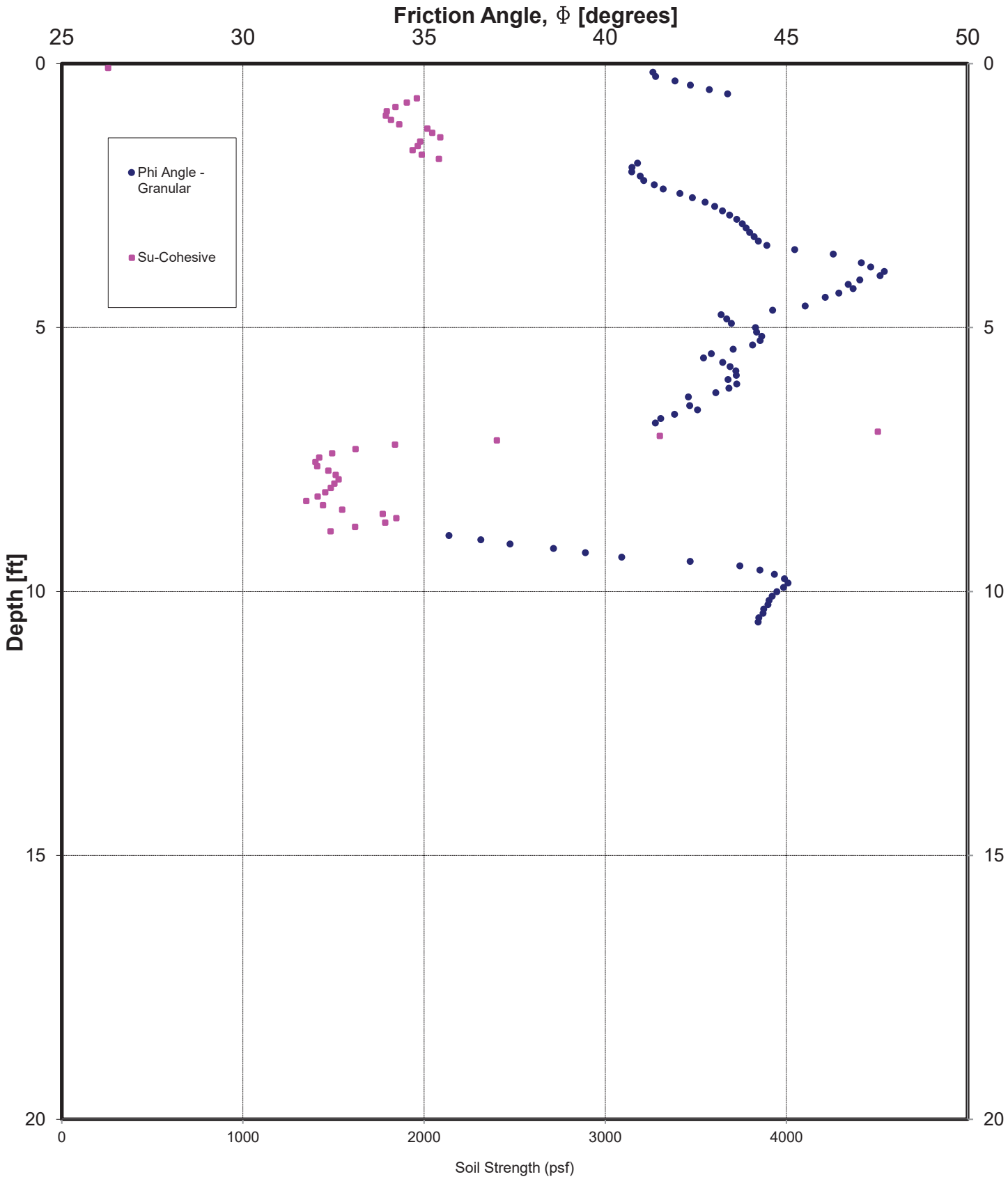
Soil Strength vs. Depth for site GEO-003 from CPT



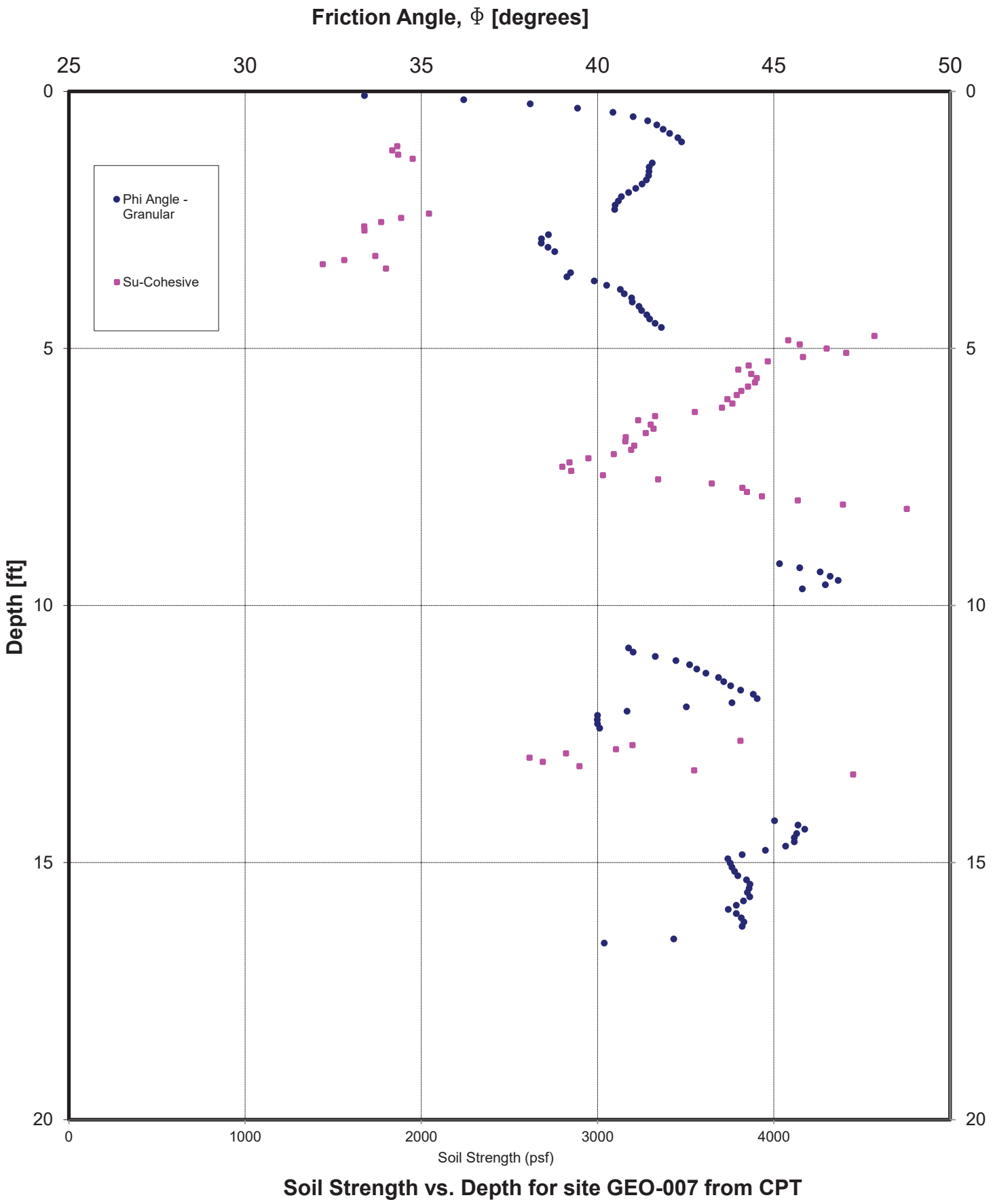
Soil Strength vs. Depth for site GEO-004 from CPT



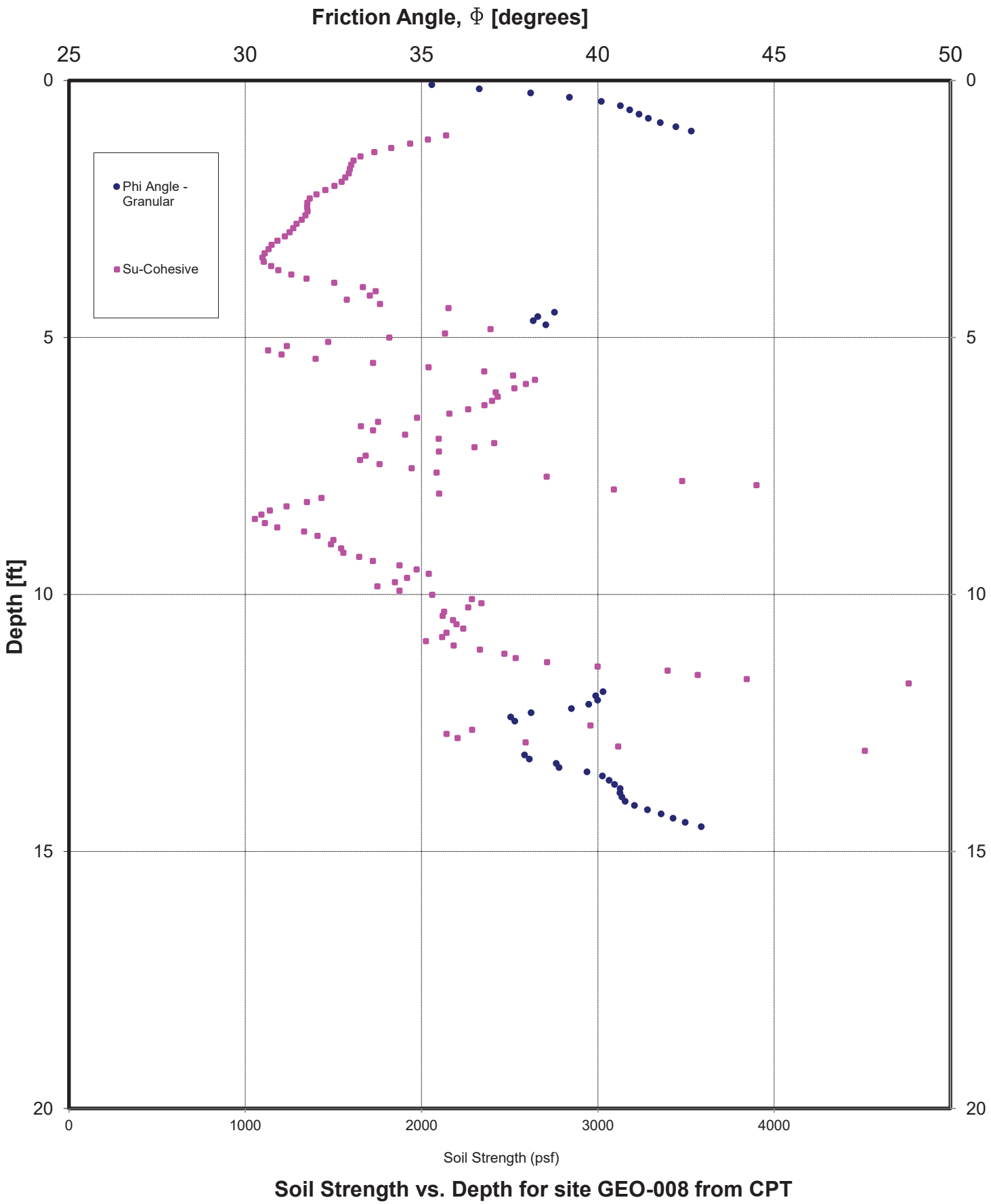
Soil Strength vs. Depth for site GEO-005 from CPT



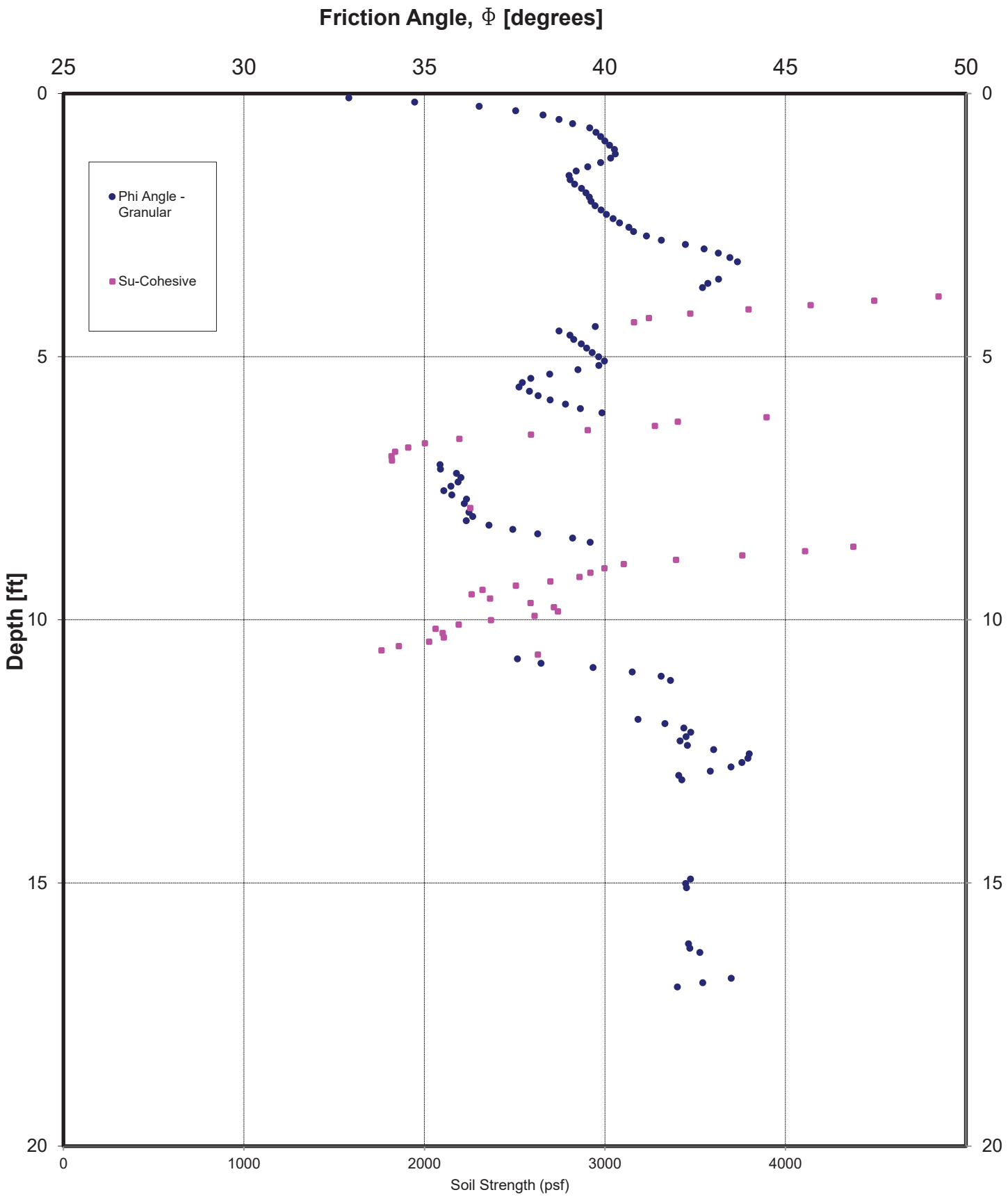
Soil Strength vs. Depth for site GEO-006 from CPT



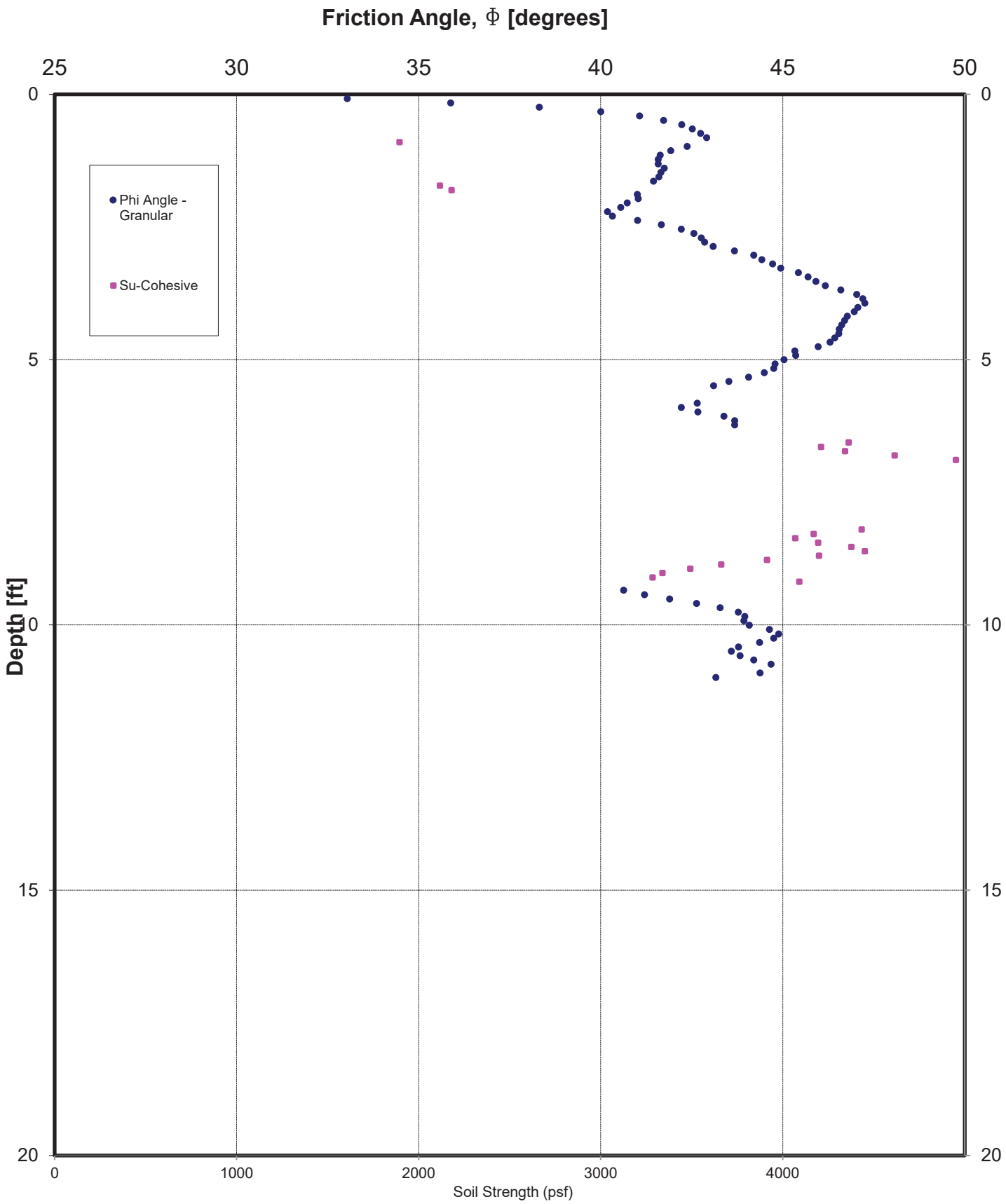
Soil Strength vs. Depth for site GEO-007 from CPT



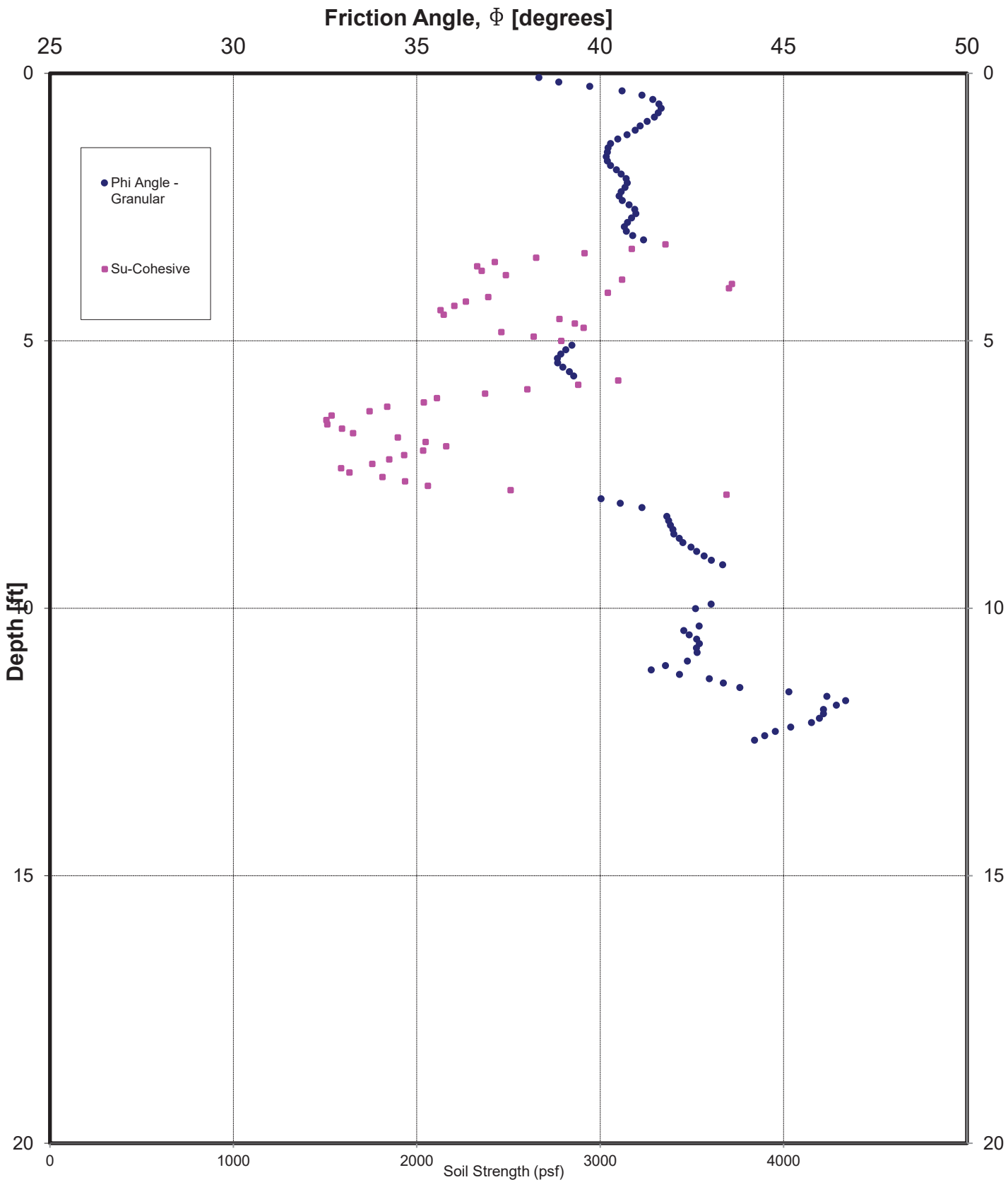
Soil Strength vs. Depth for site GEO-008 from CPT



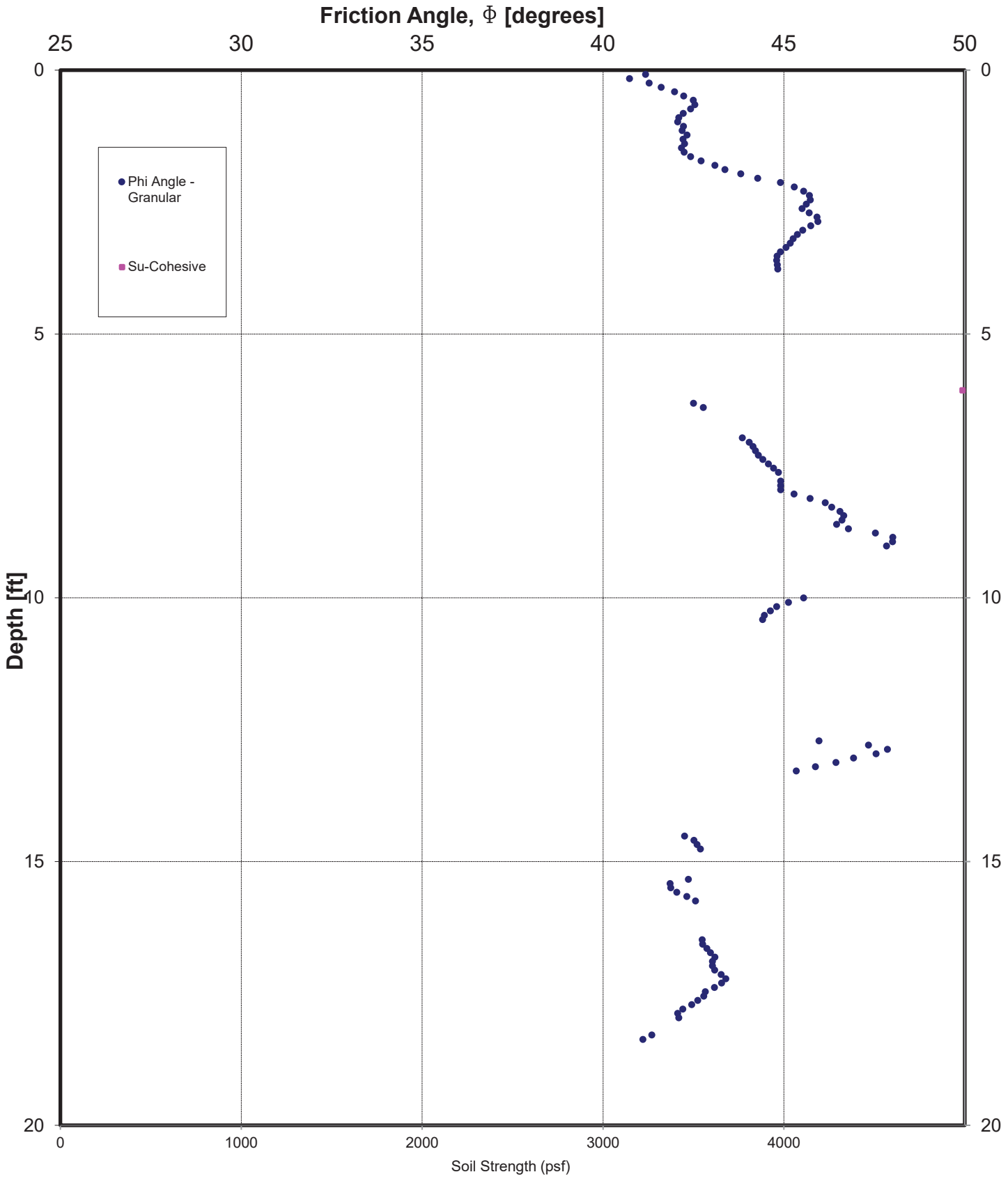
Soil Strength vs. Depth for site GEO-009 from CPT



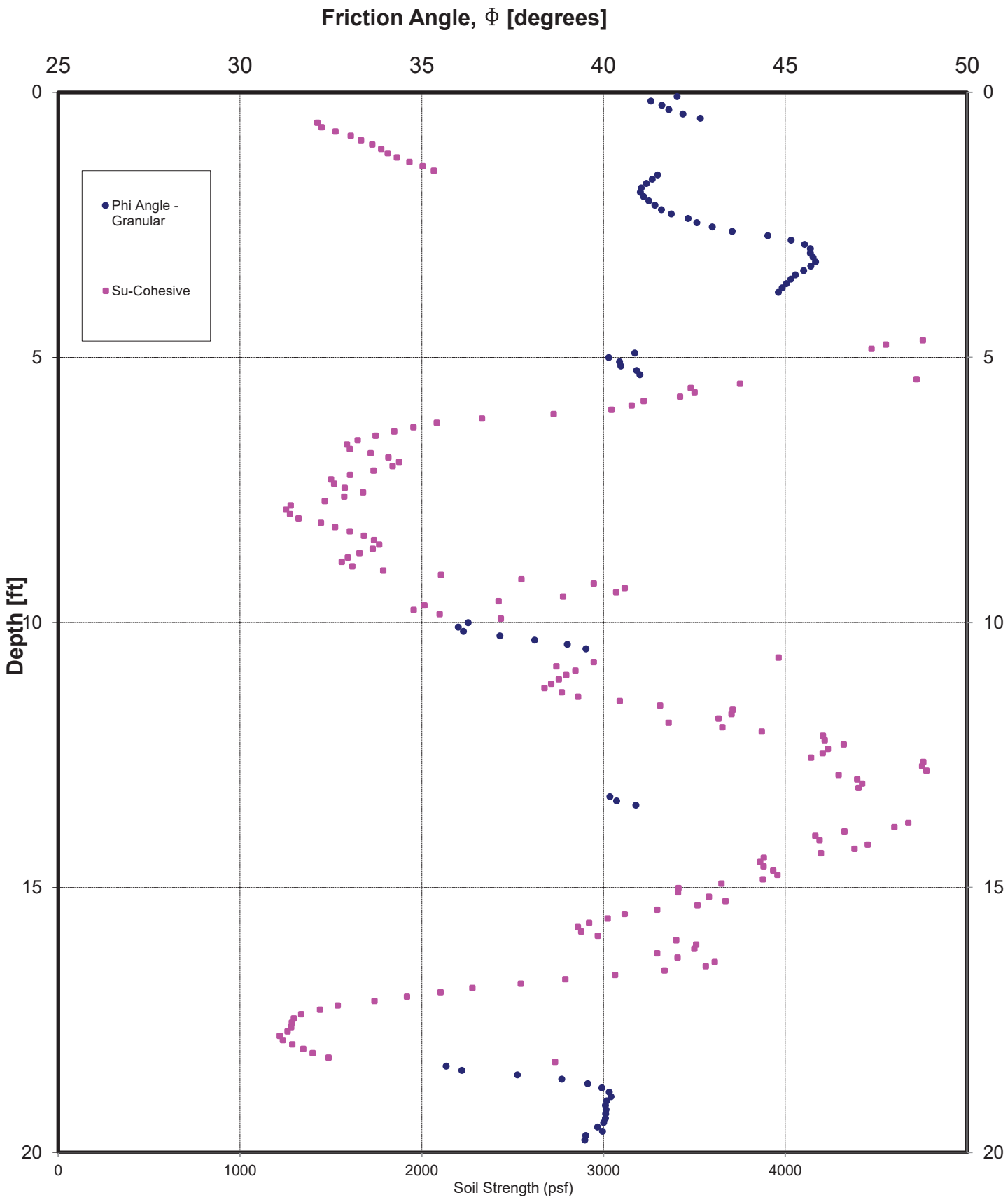
Soil Strength vs. Depth for site GEO-010 from CPT



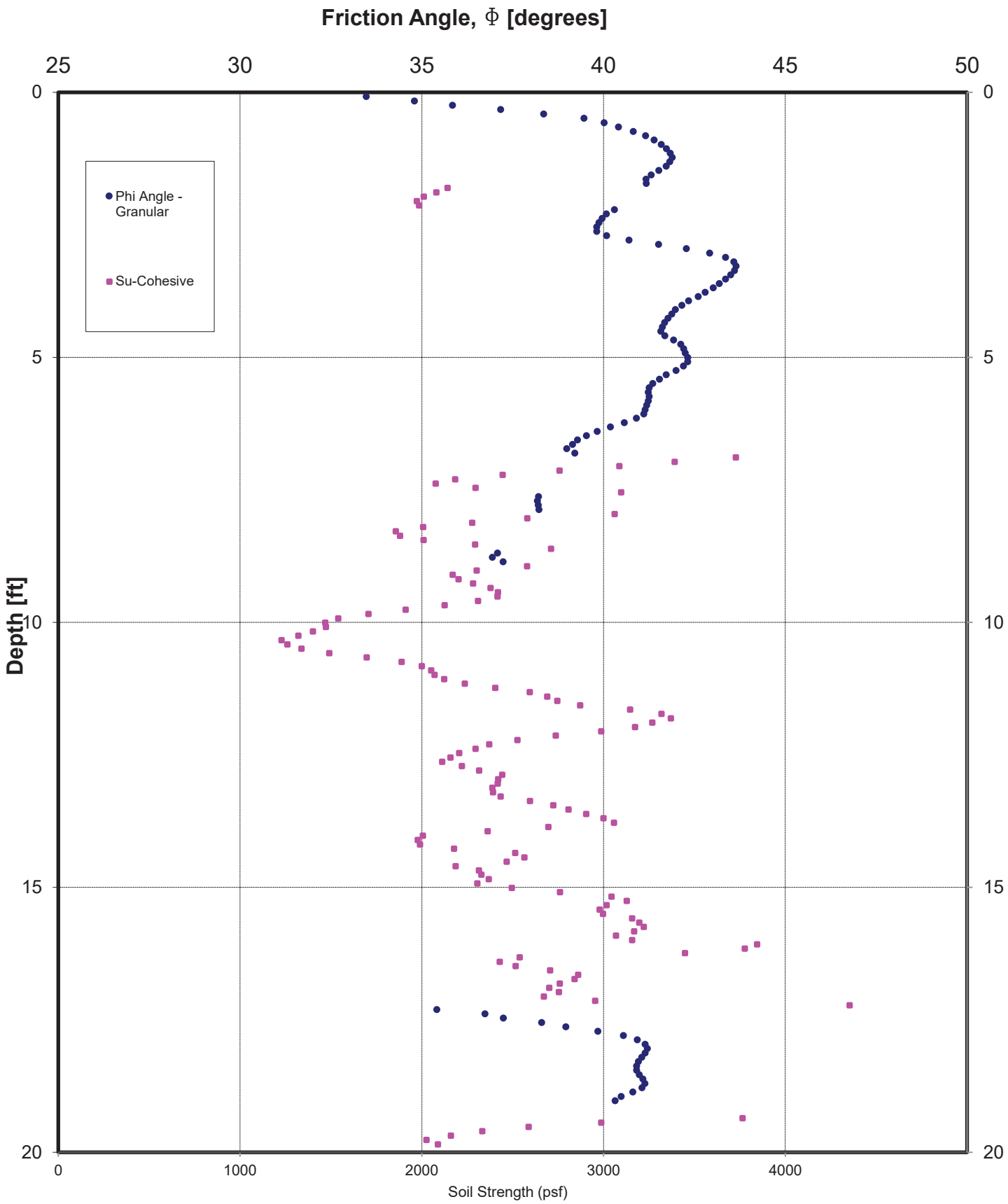
Soil Strength vs. Depth for site GEO-011 from CPT



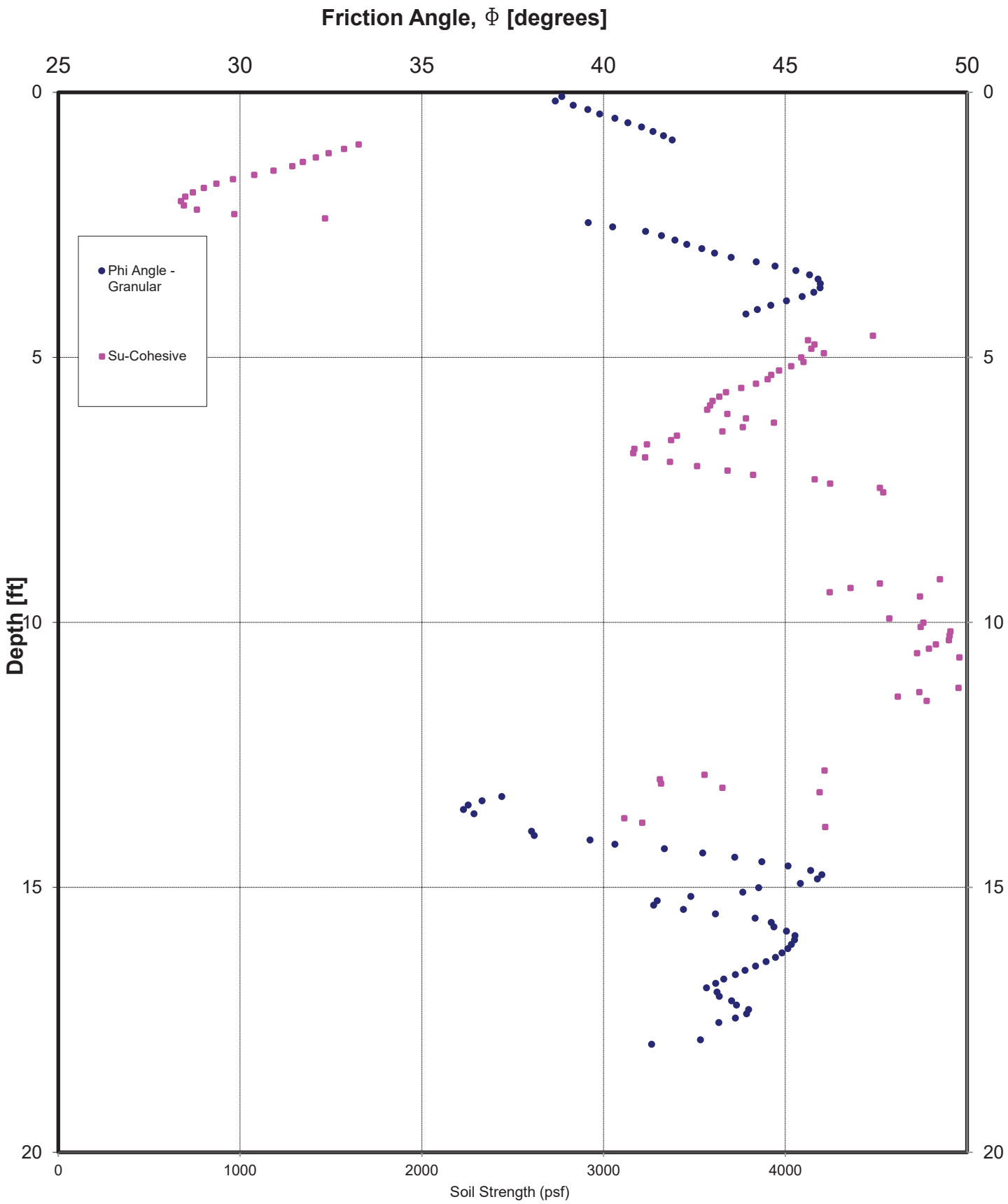
Soil Strength vs. Depth for site GEO-012 from CPT



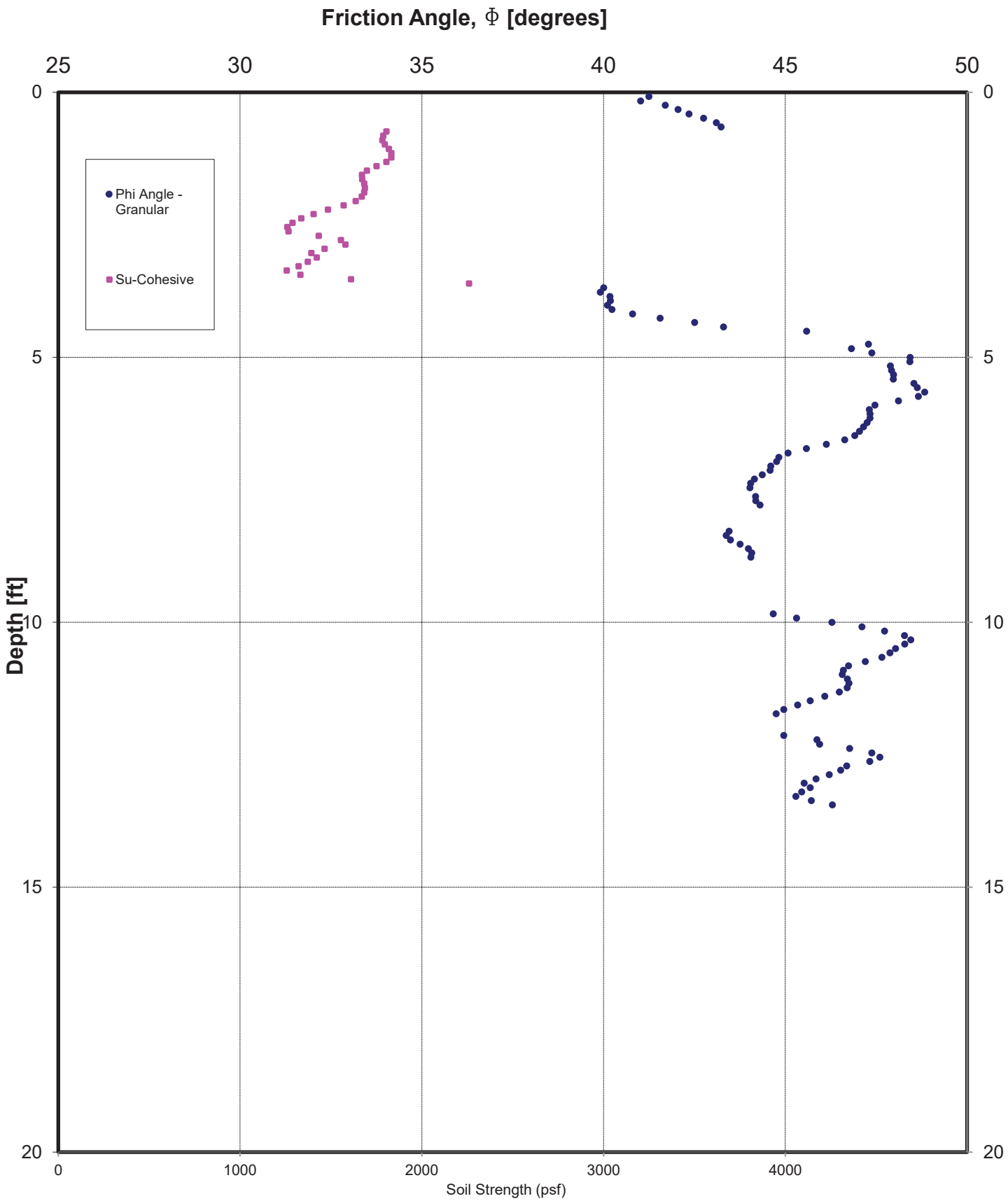
Soil Strength vs. Depth for site GEO-013 from CPT



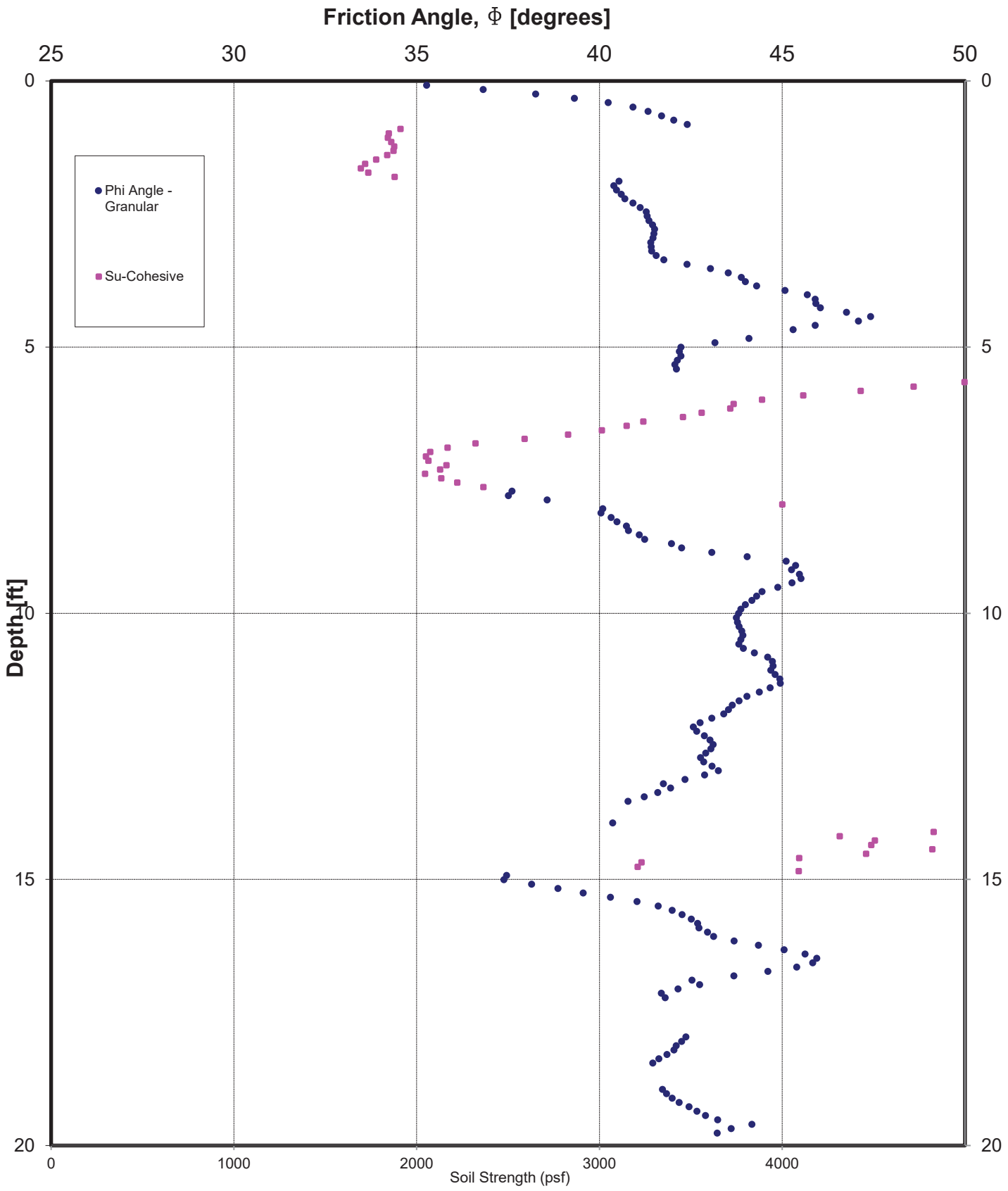
Soil Strength vs. Depth for site GEO-014 from CPT



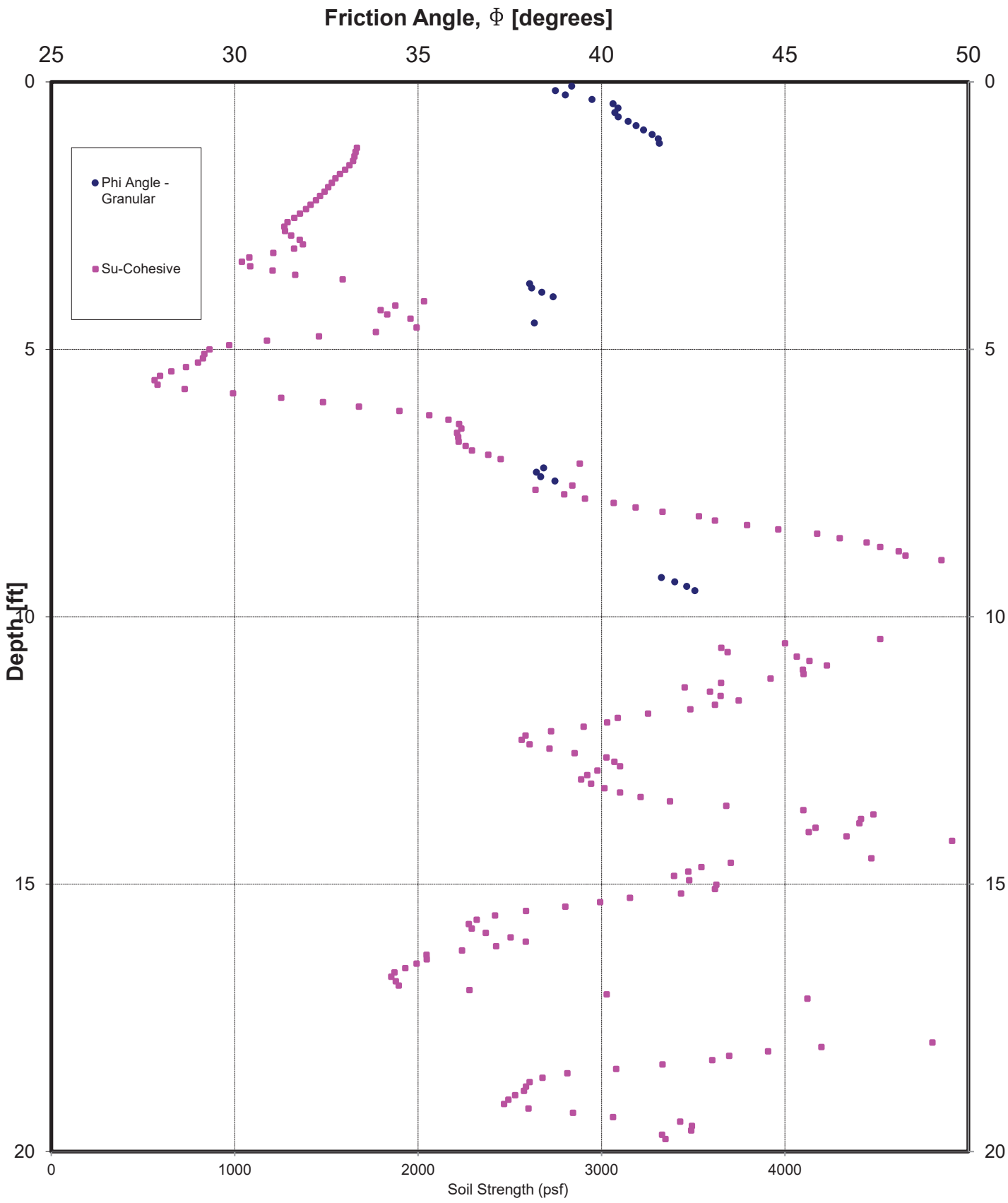
Soil Strength vs. Depth for site GEO-015 from CPT



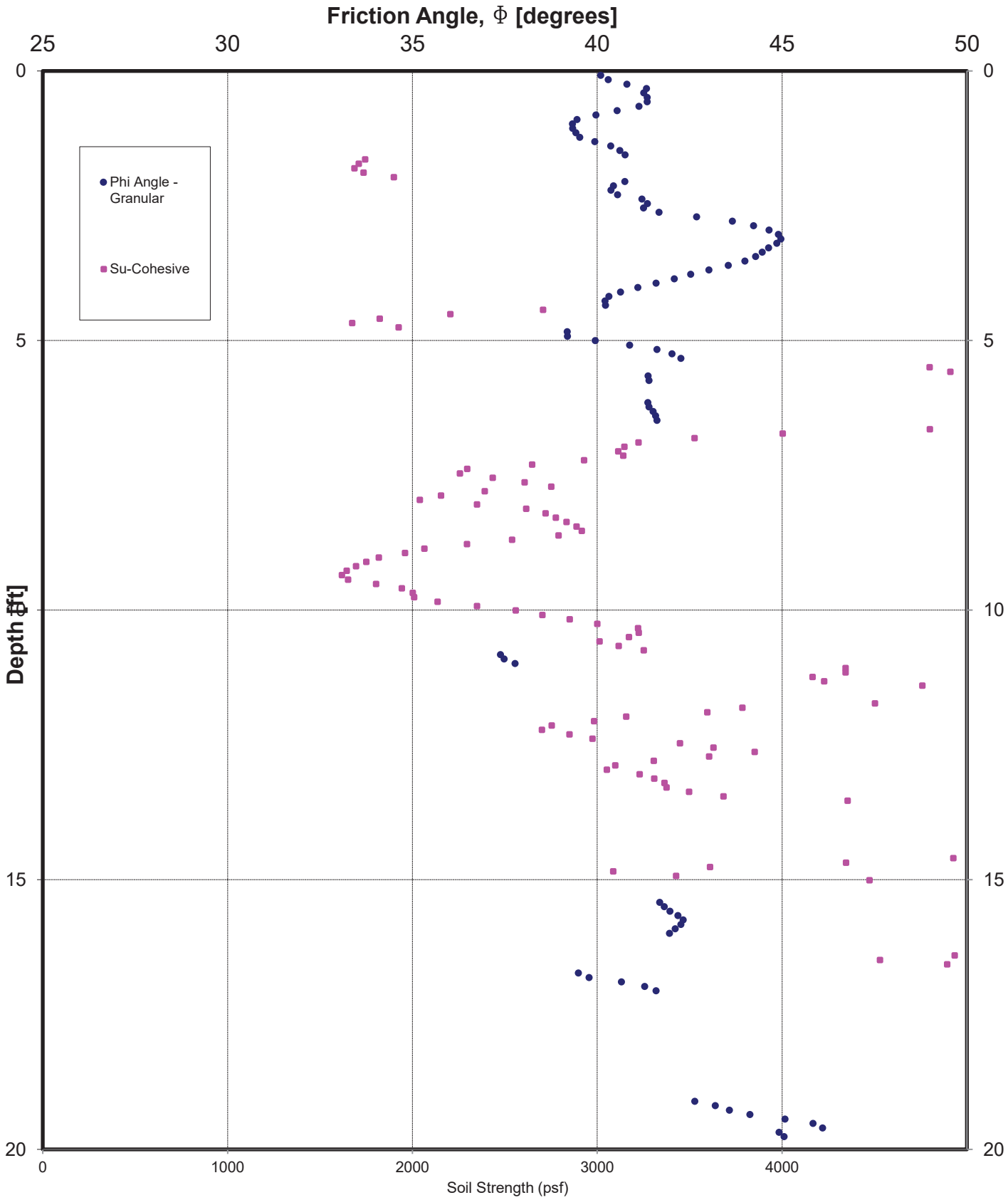
Soil Strength vs. Depth for site GEO-016 from CPT



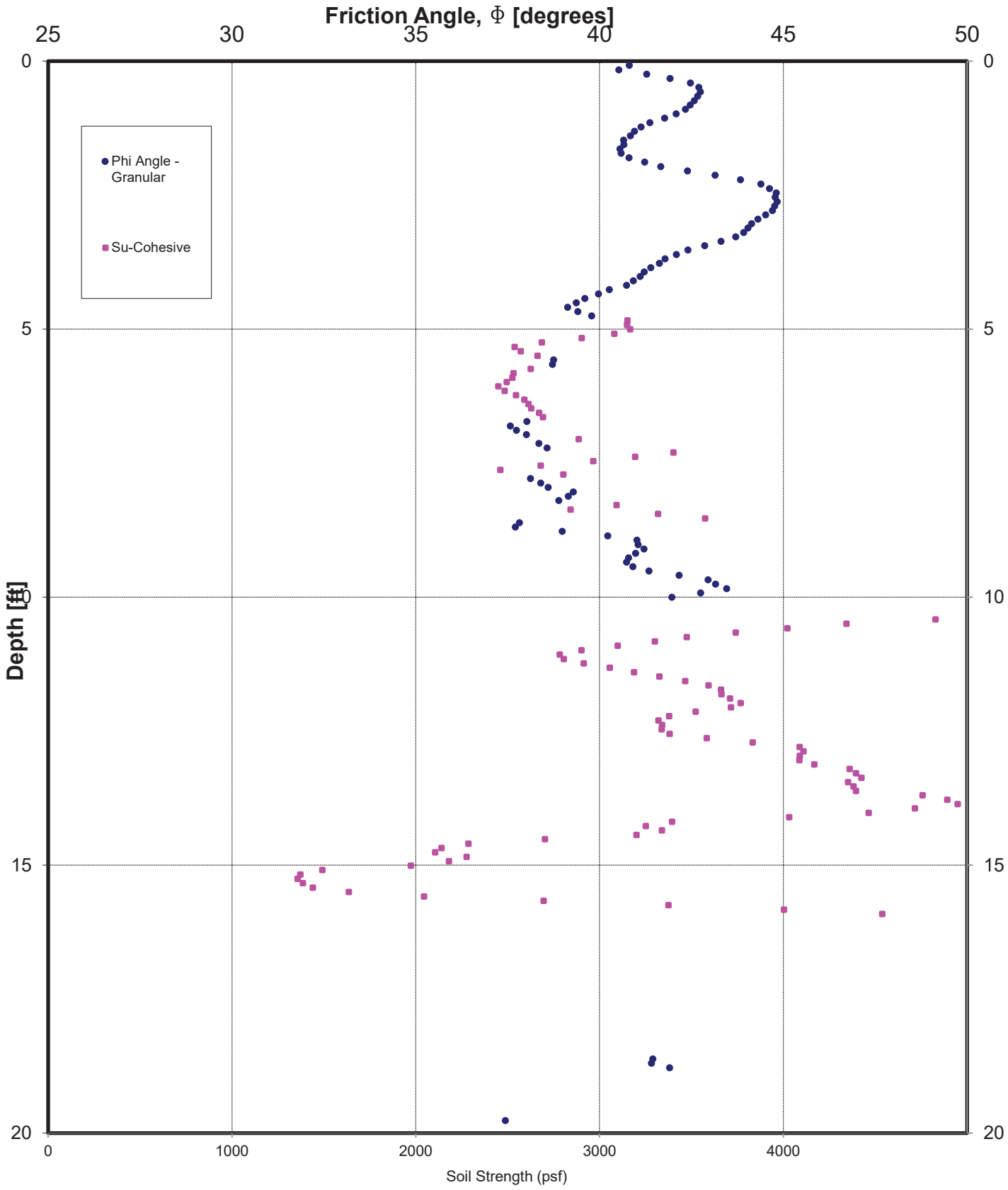
Soil Strength vs. Depth for site GEO-017 from CPT



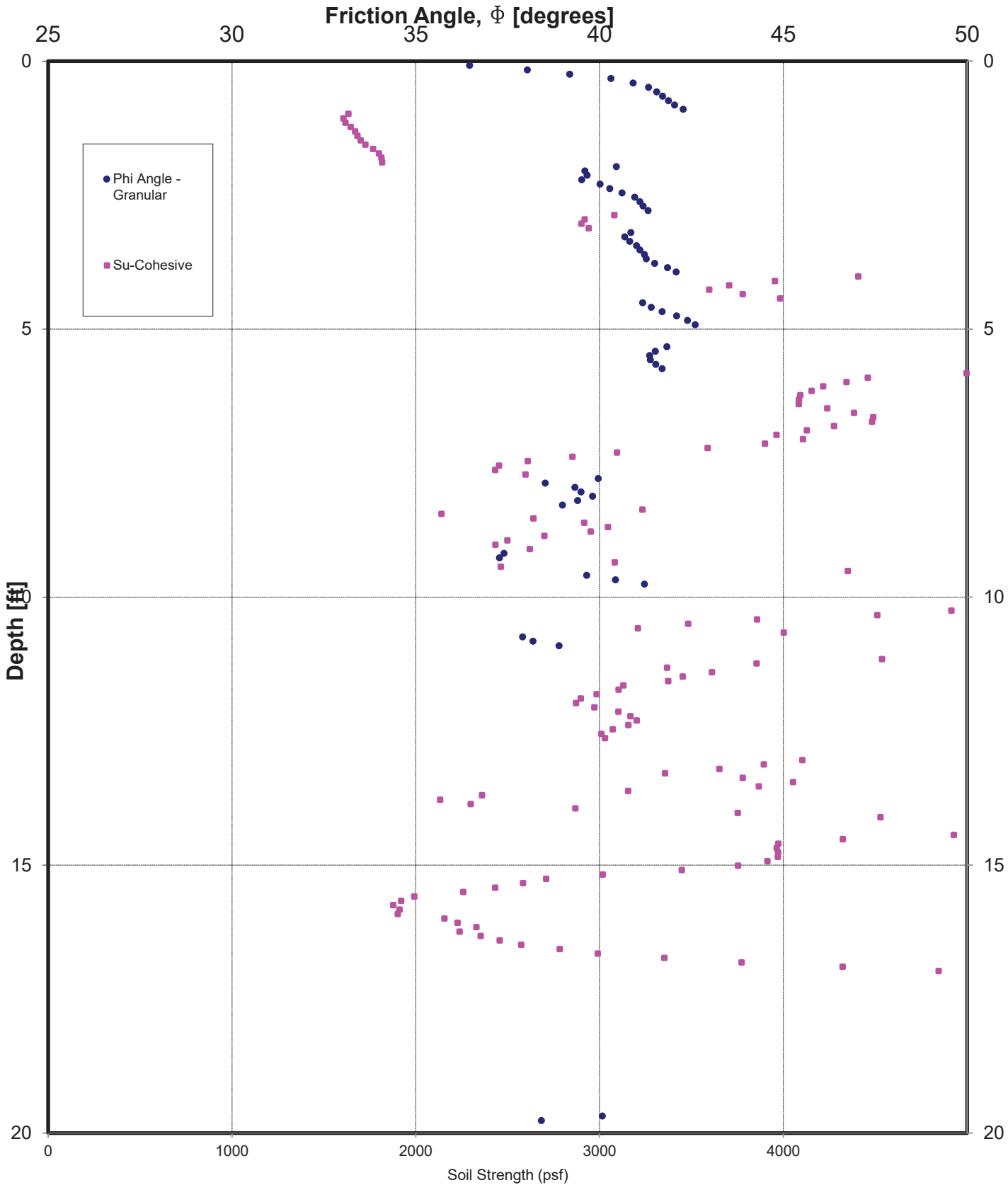
Soil Strength vs. Depth for site GEO-018 from CPT



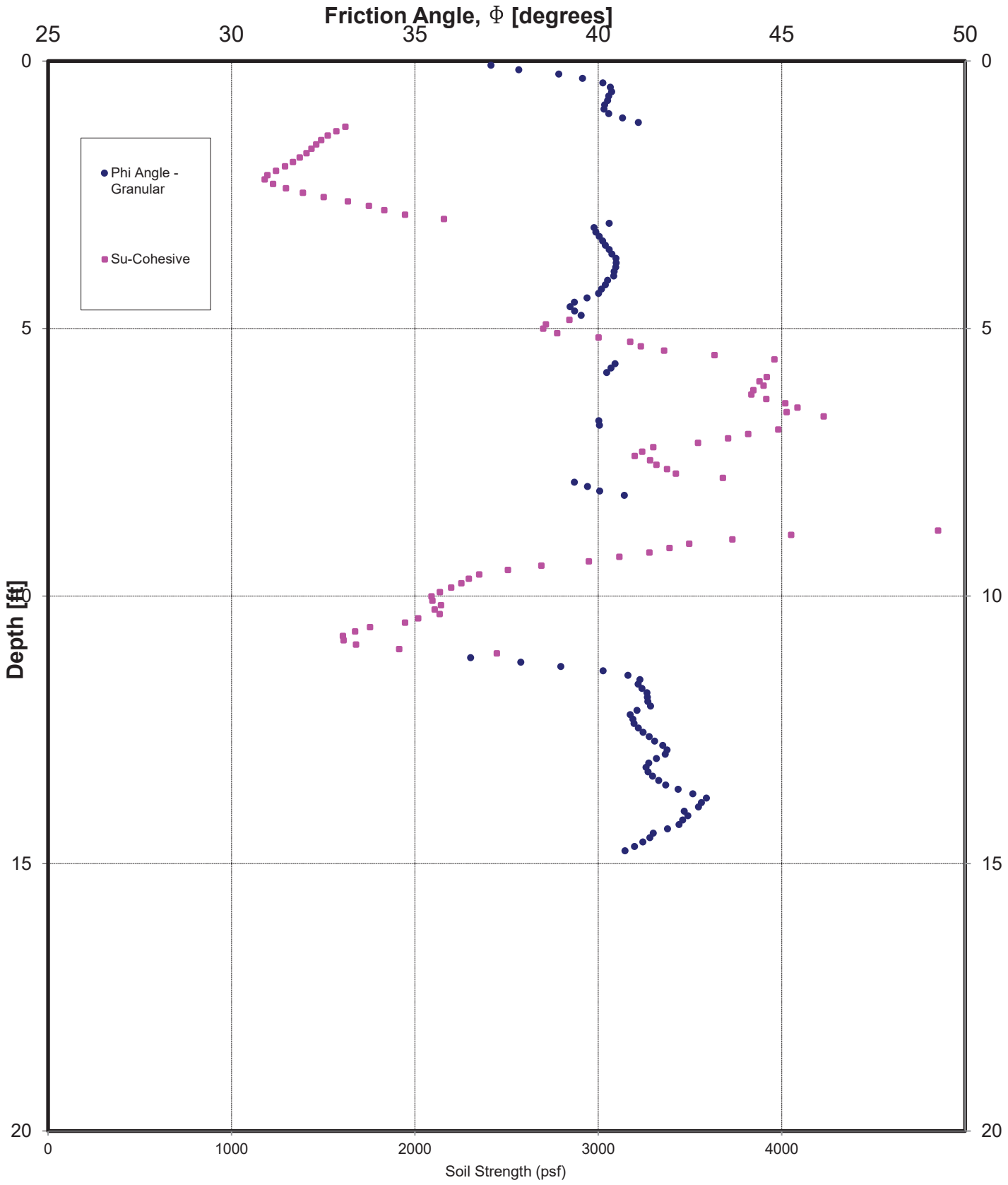
Soil Strength vs. Depth for site GEO-019 from CPT



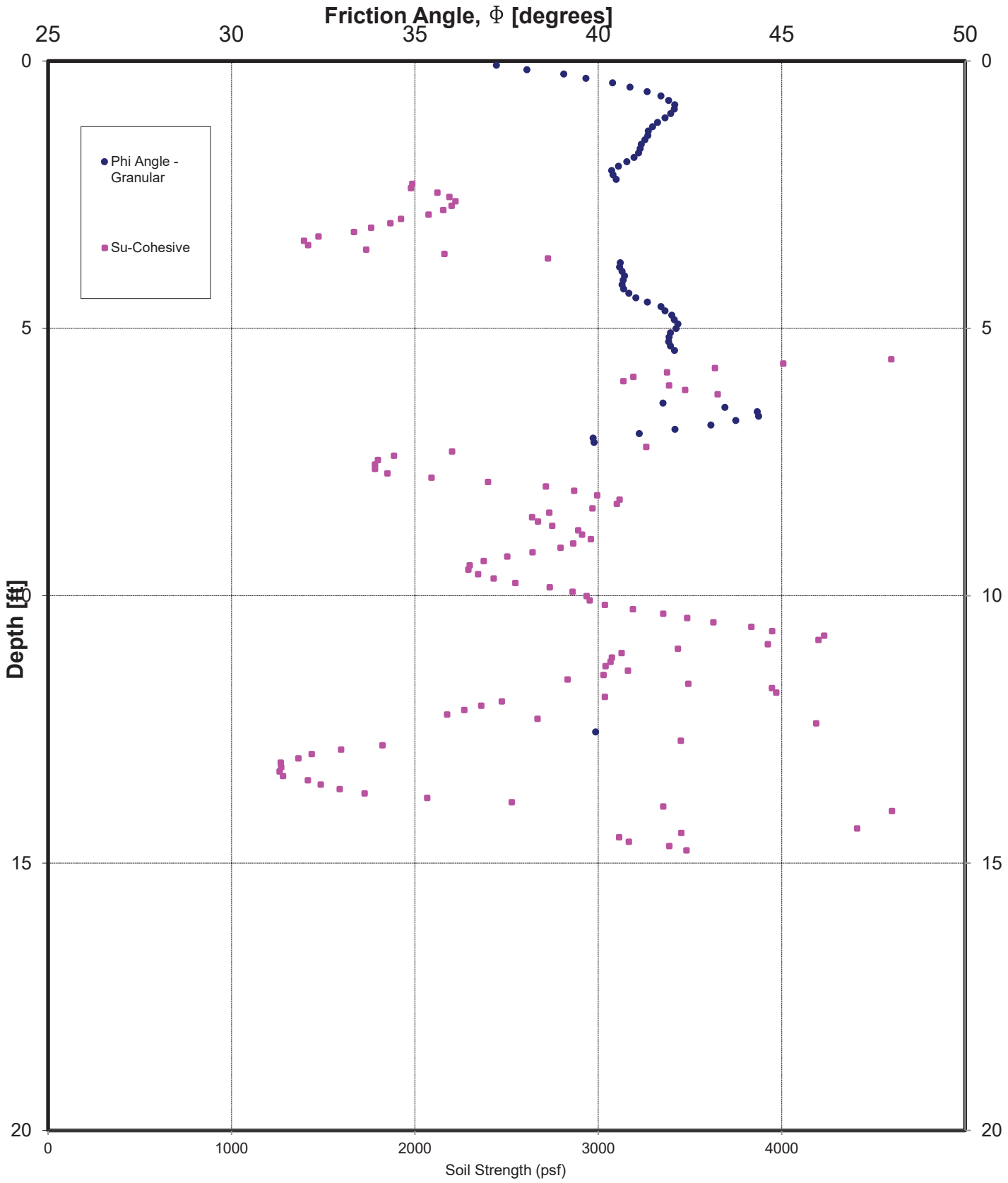
Soil Strength vs. Depth for site GEO-020 from CPT



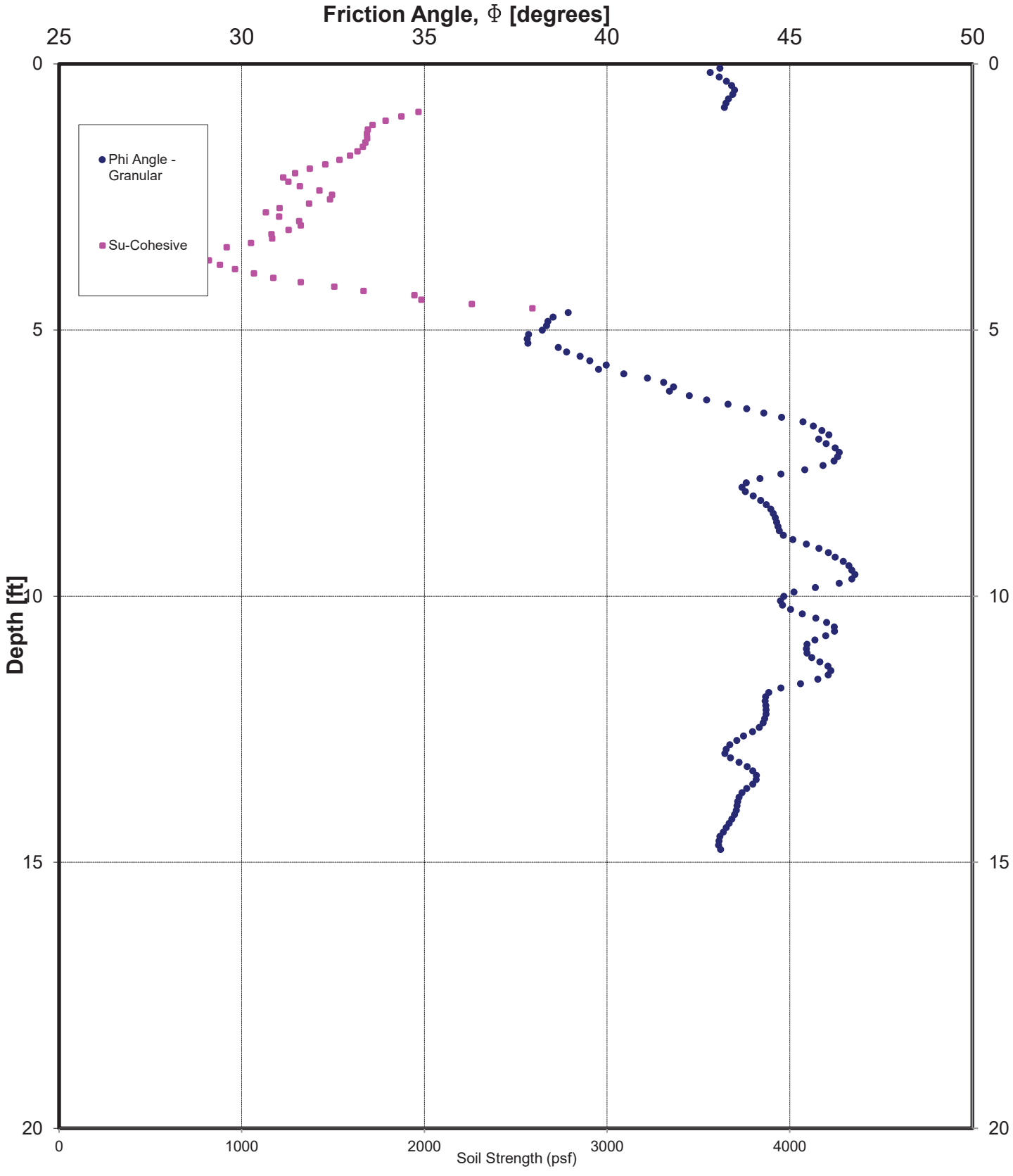
Soil Strength vs. Depth for site GEO-021 from CPT



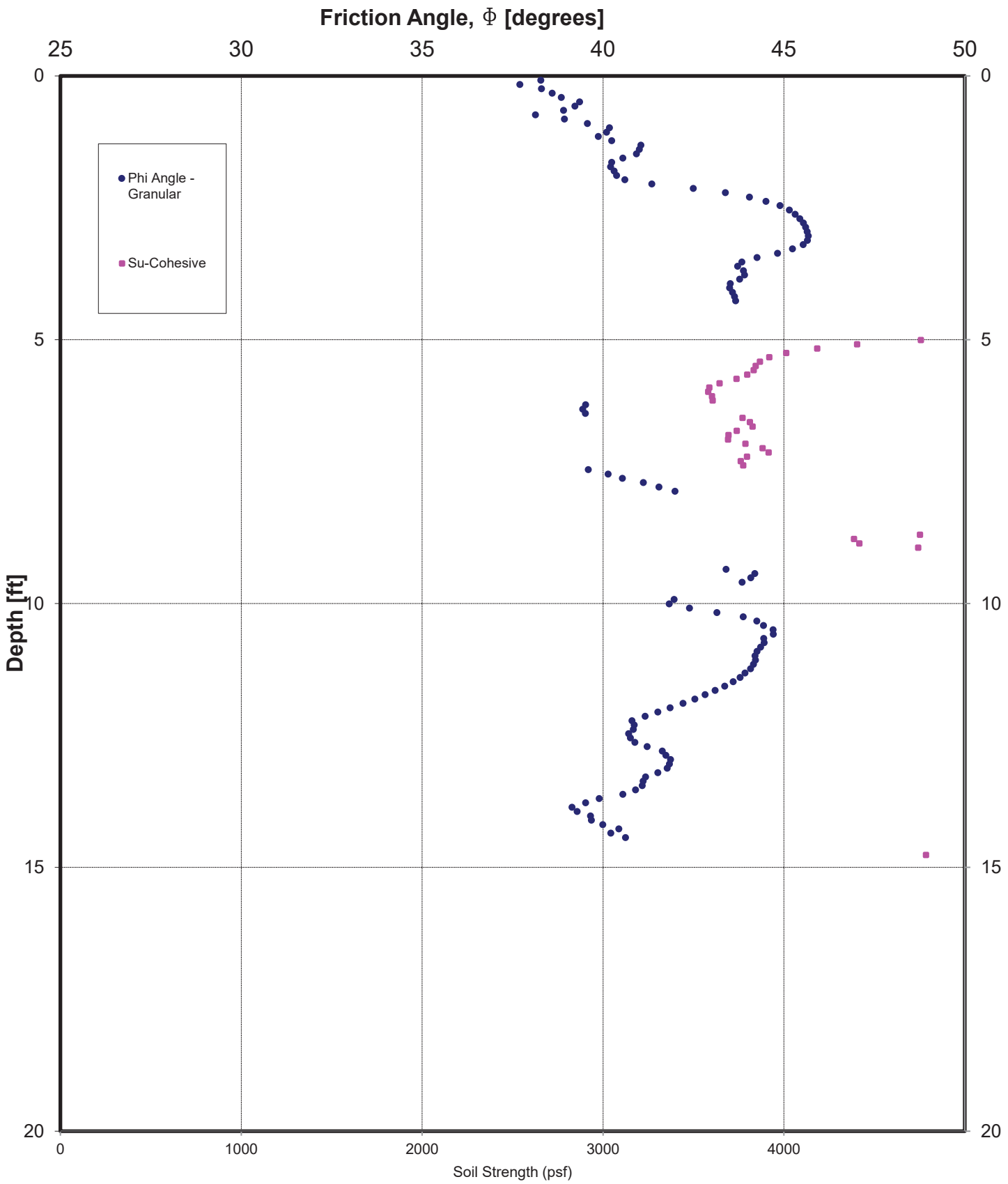
Soil Strength vs. Depth for site GEO-022 from CPT



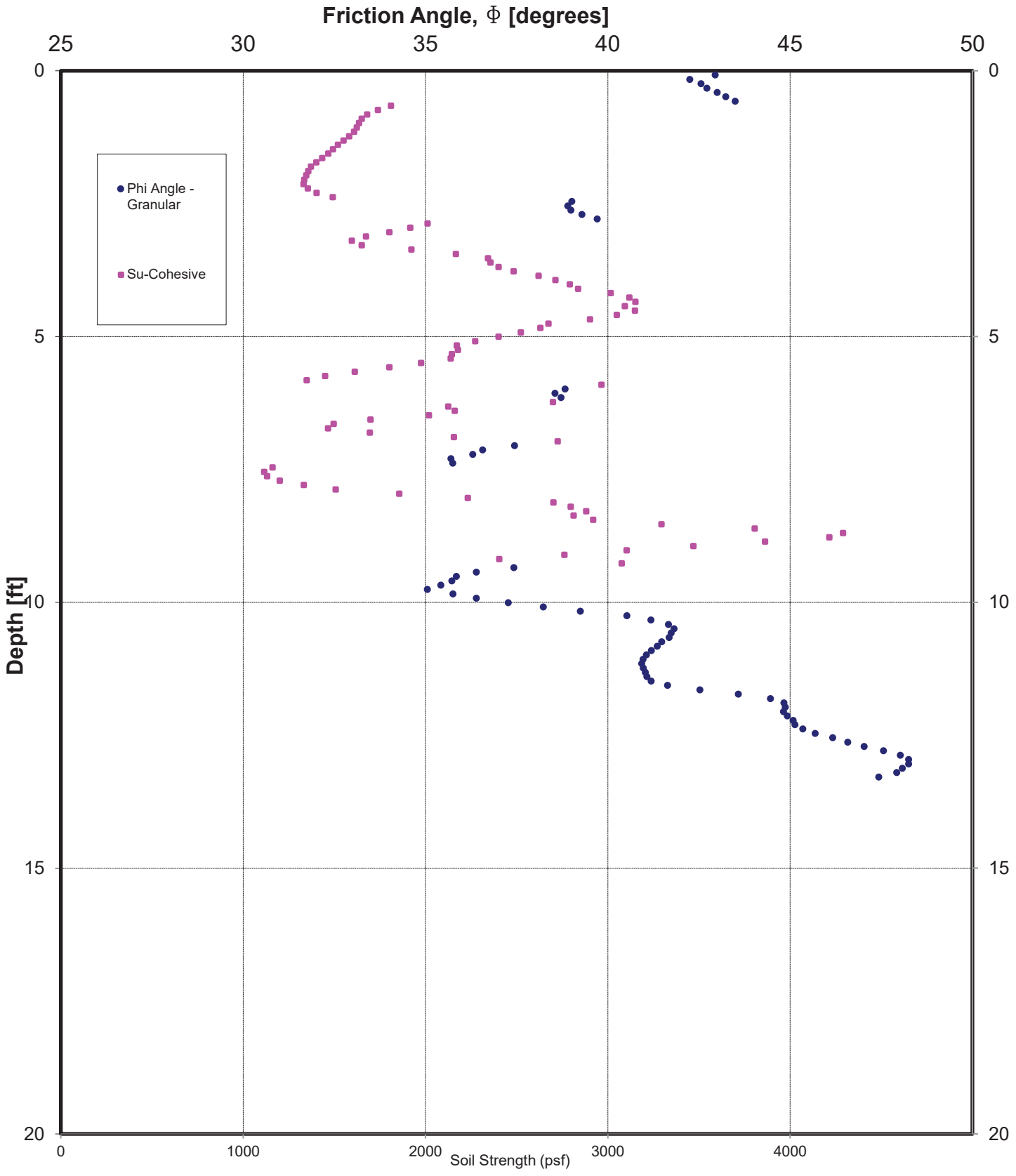
Soil Strength vs. Depth for site GEO-023 from CPT



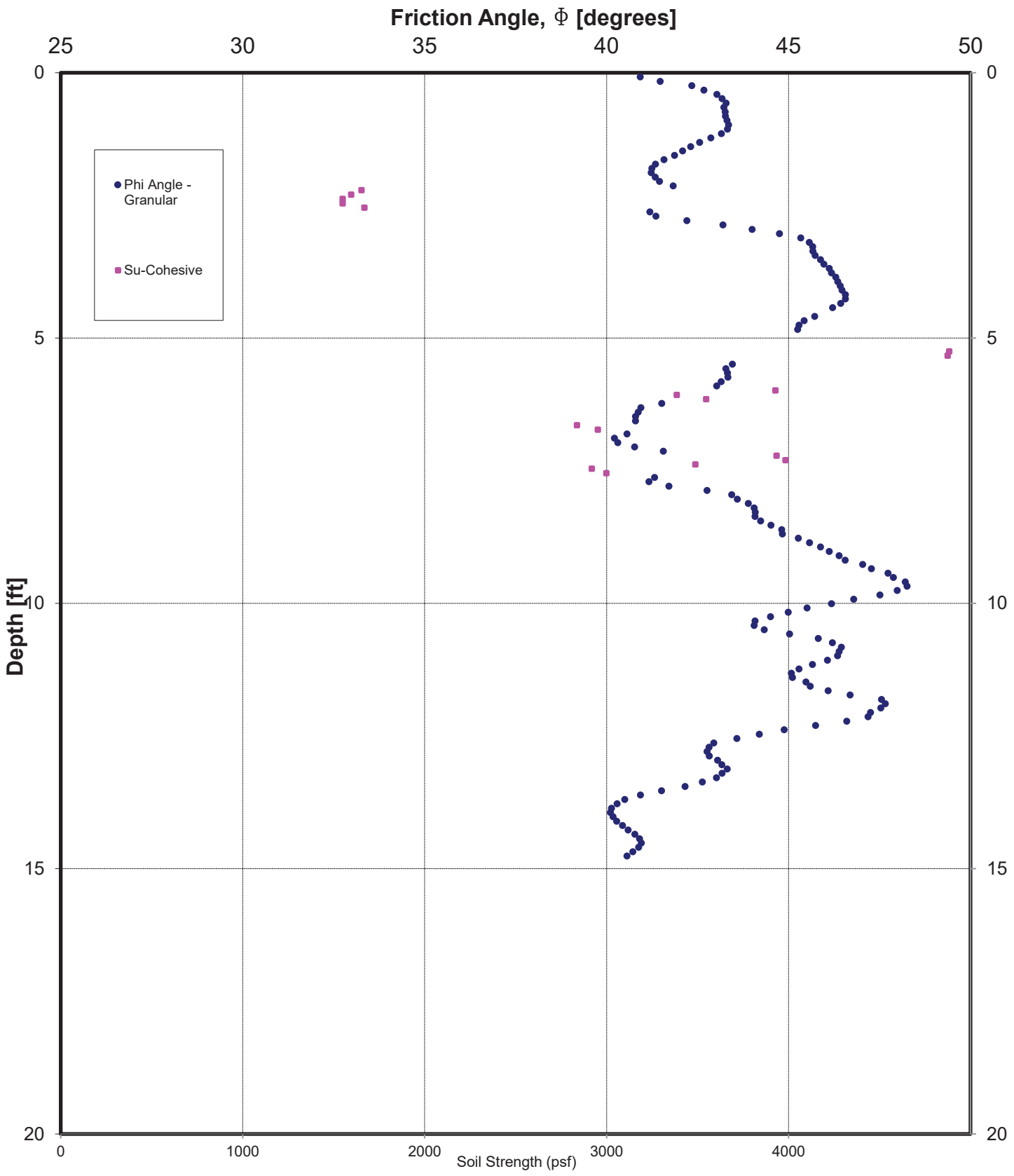
Soil Strength vs. Depth for site GEO-024 from CPT



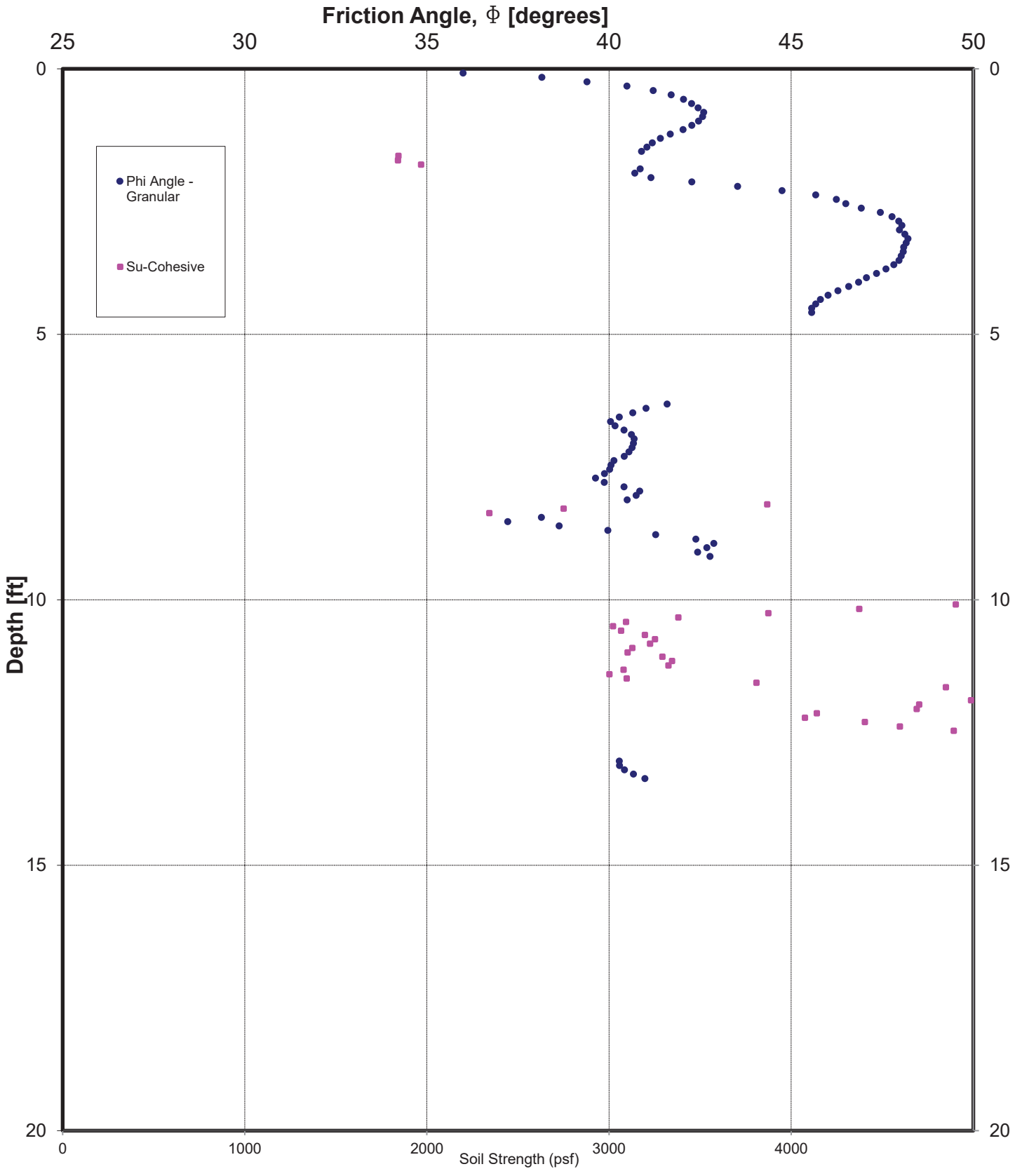
Soil Strength vs. Depth for site GEO-025 from CPT



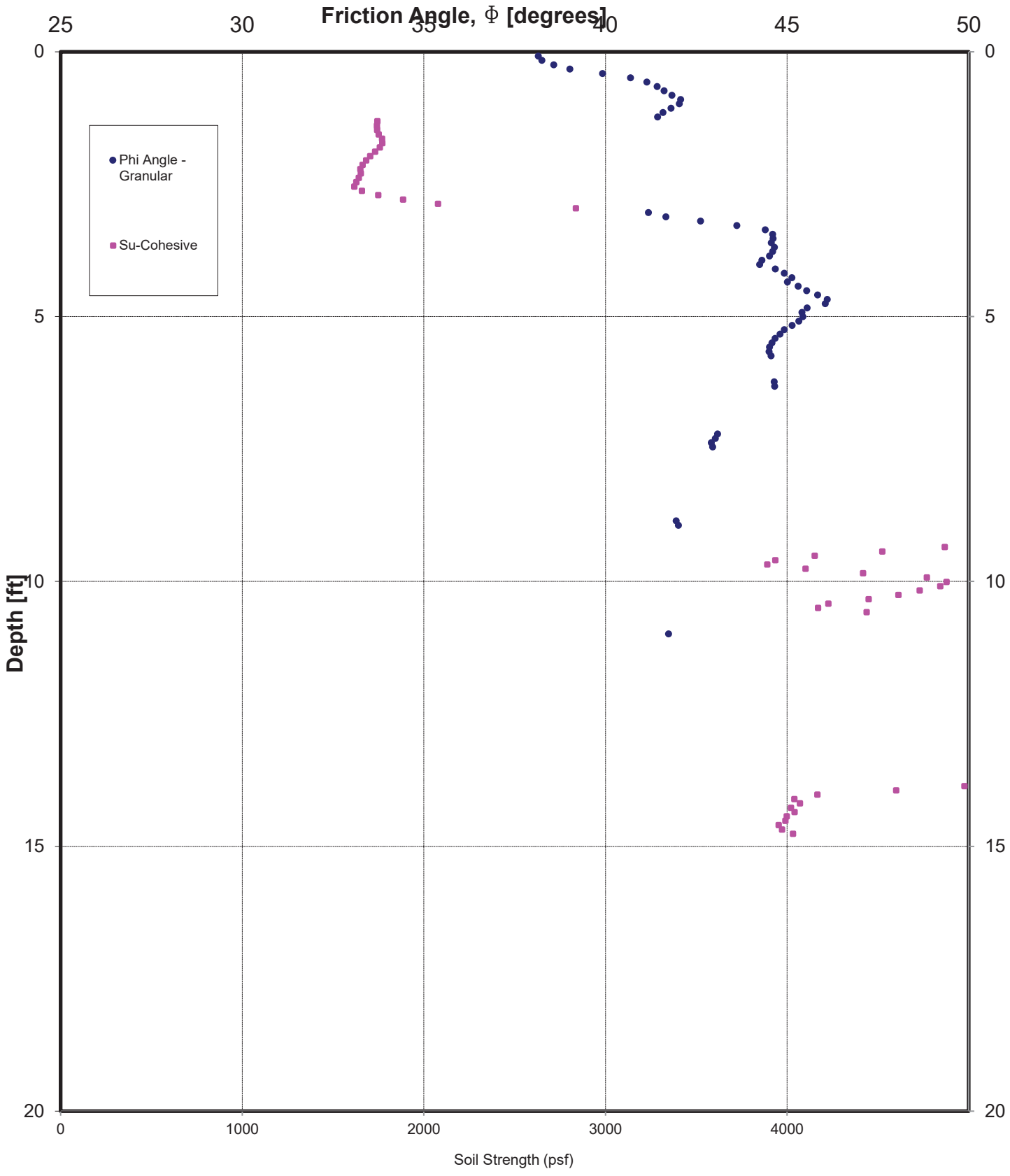
Soil Strength vs. Depth for site GEO-026 from CPT



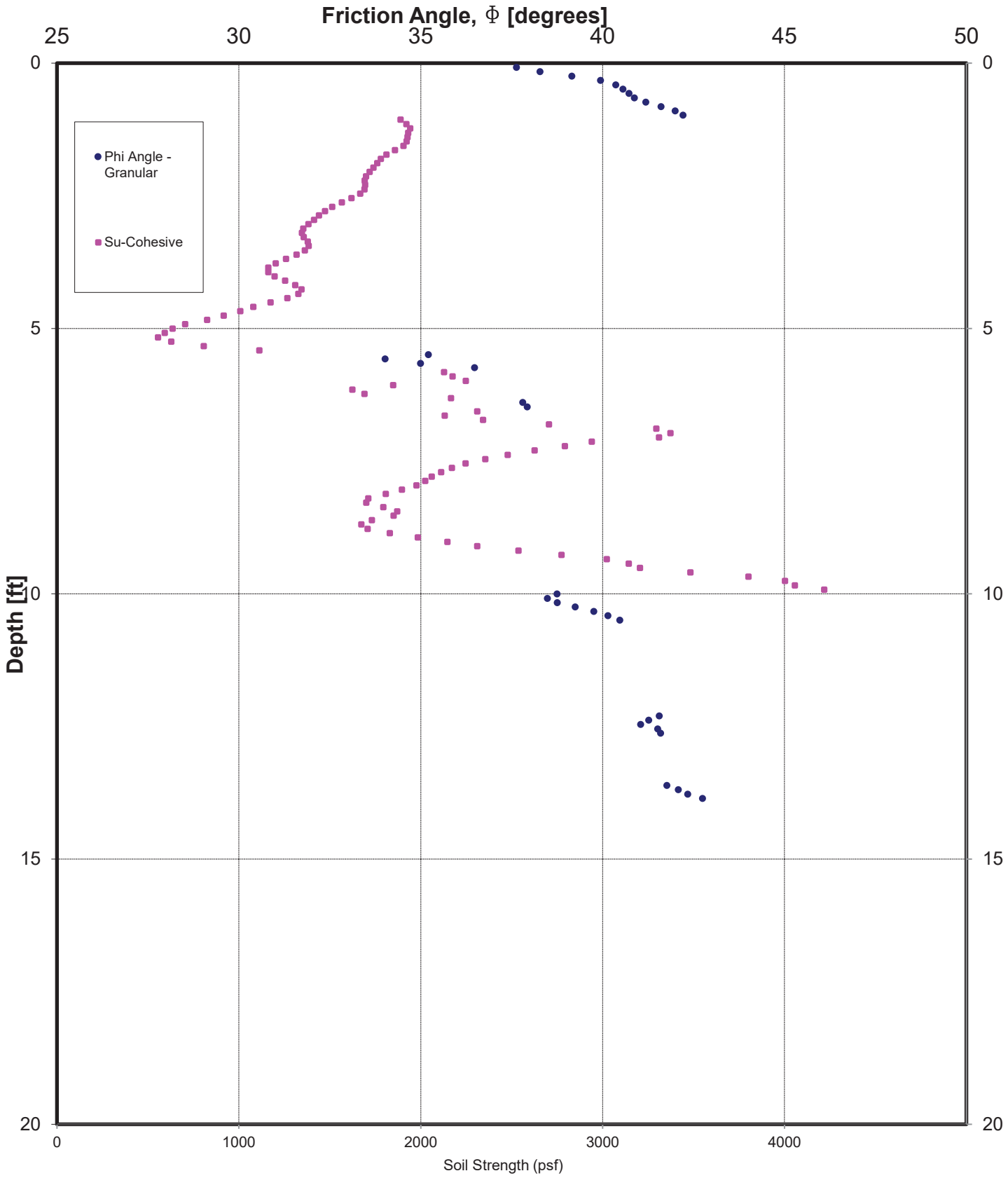
Soil Strength vs. Depth for site GEO-027 from CPT



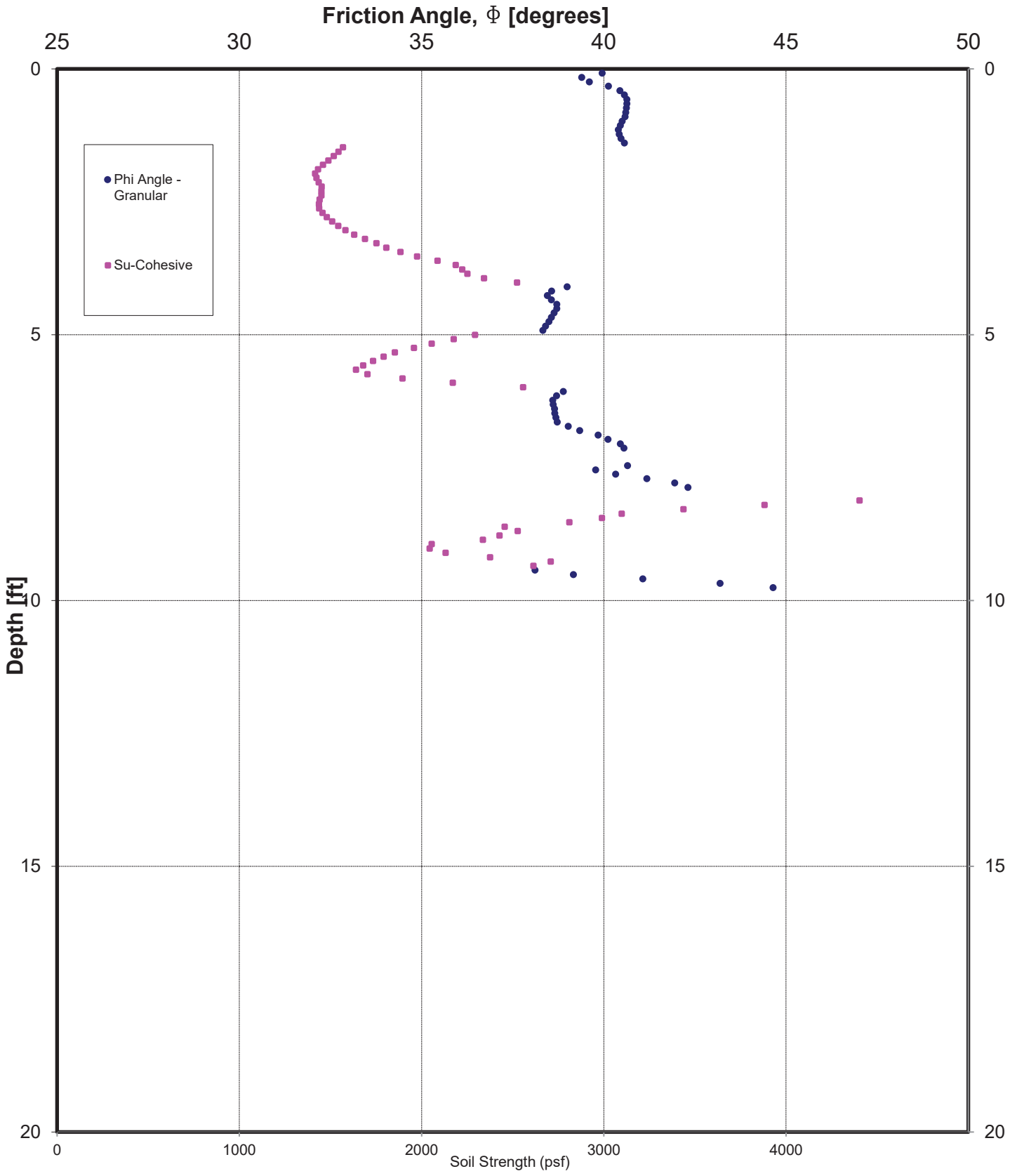
Soil Strength vs. Depth for site GEO-028 from CPT



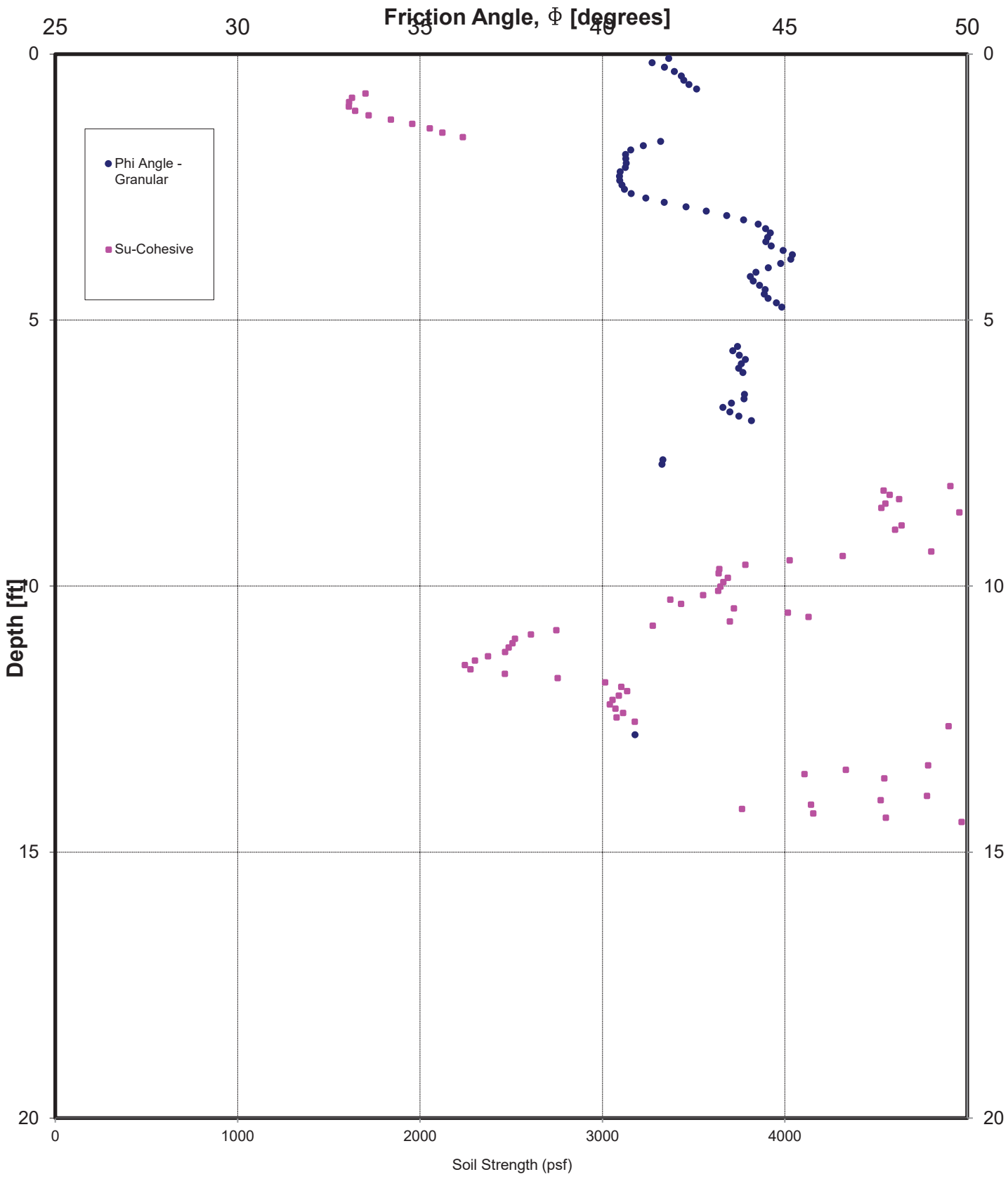
Soil Strength vs. Depth for site GEO-029 from CPT



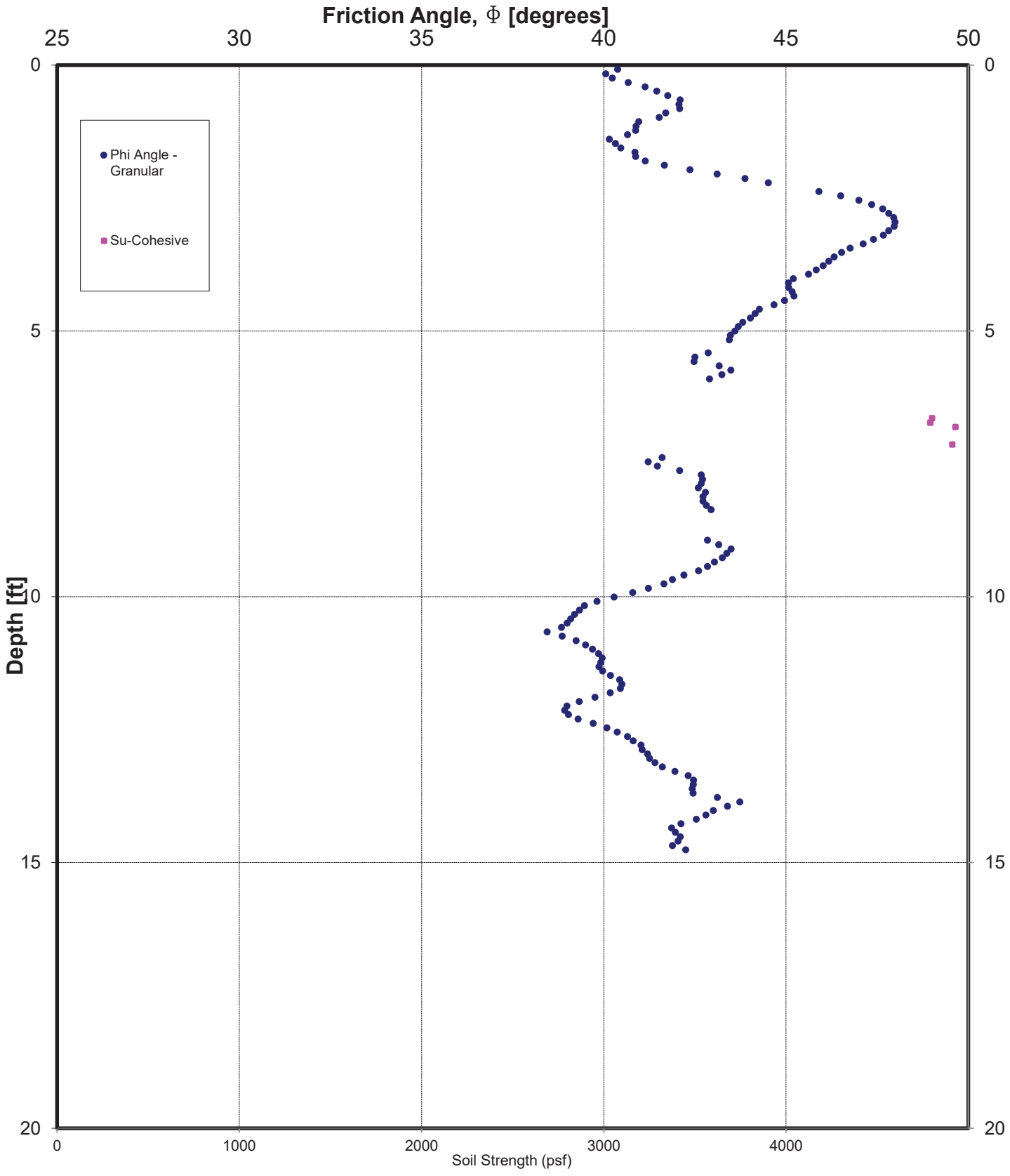
Soil Strength vs. Depth for site GEO-030 from CPT



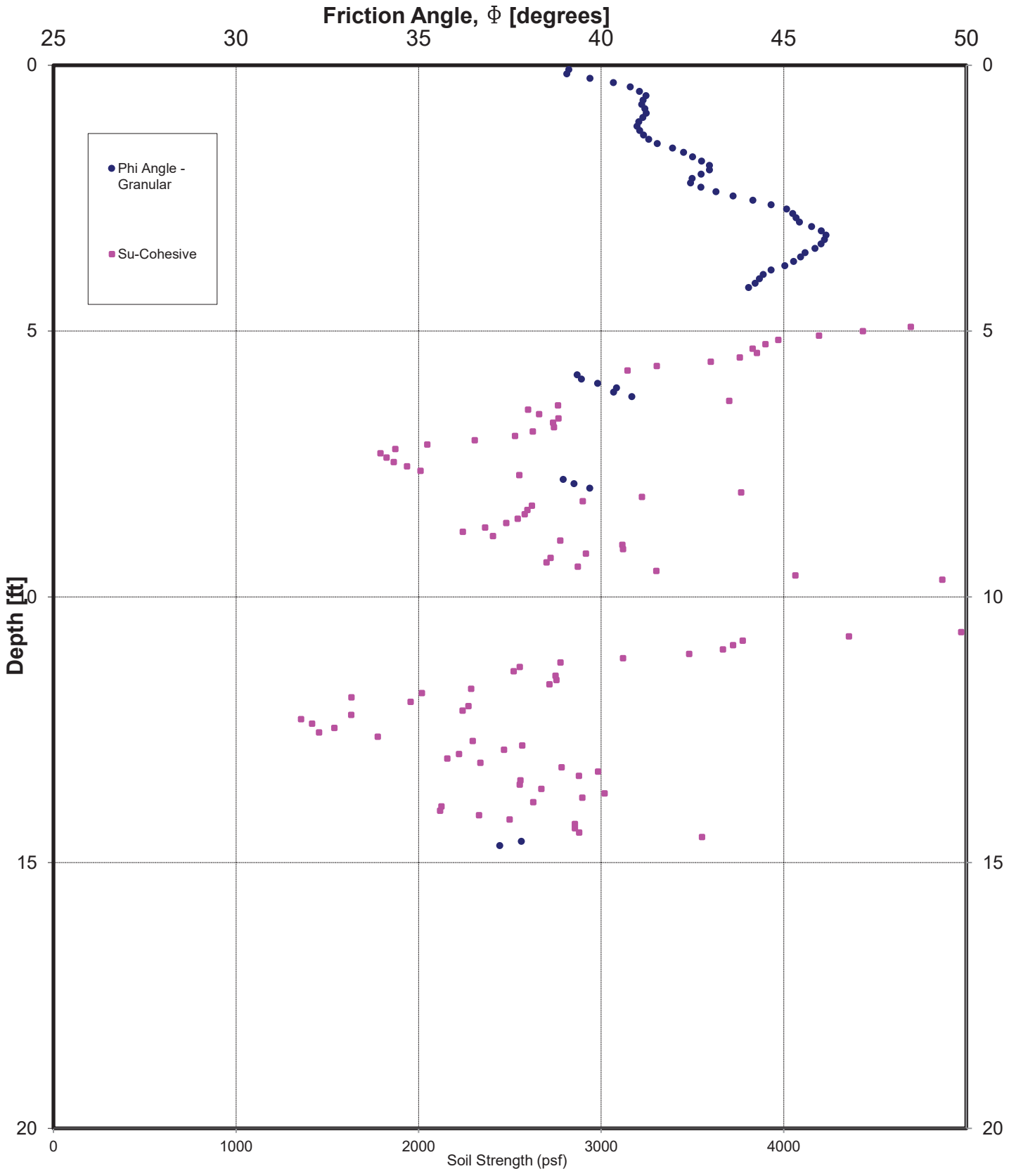
Soil Strength vs. Depth for site GEO-031 from CPT



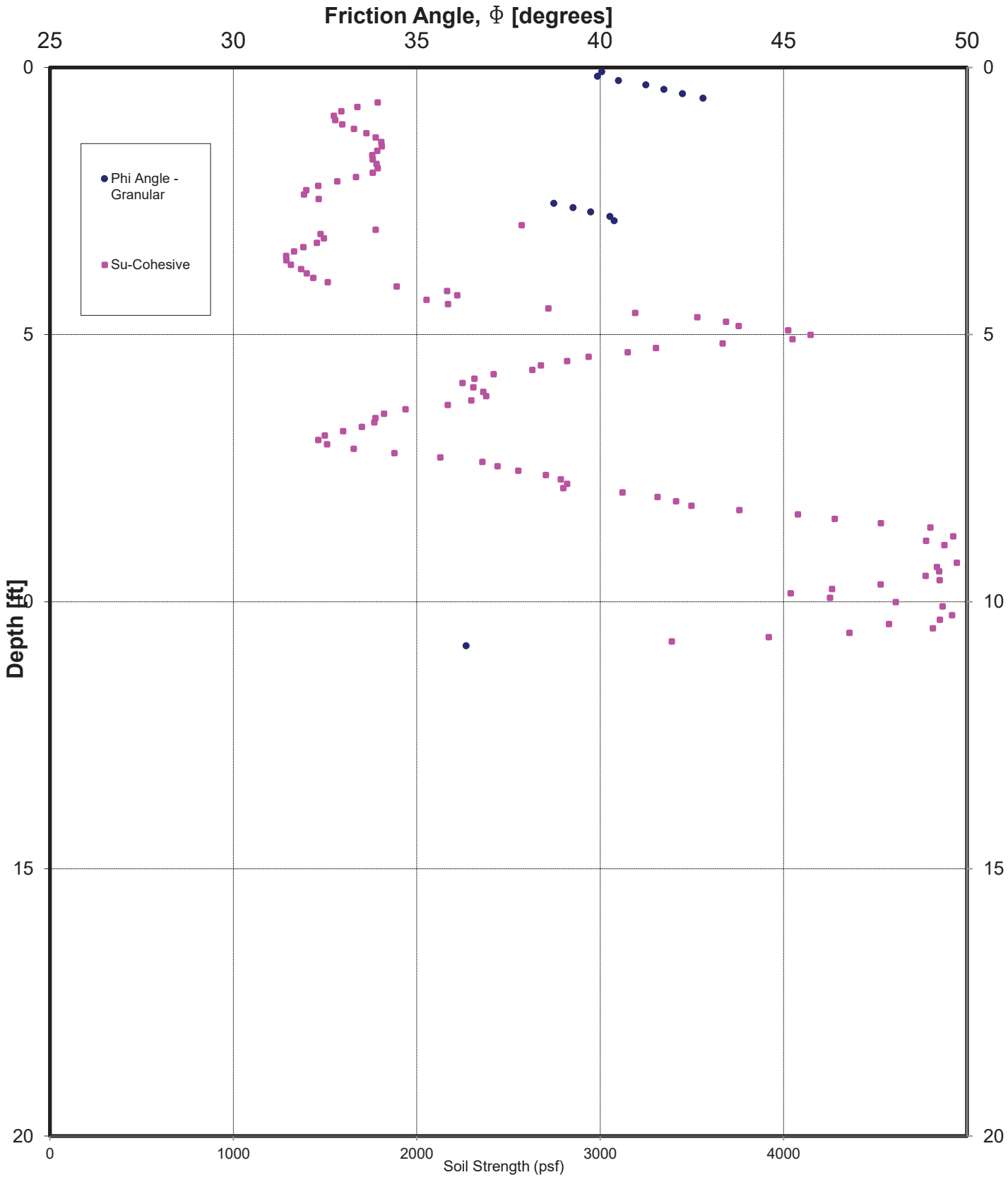
Soil Strength vs. Depth for site GEO-032 from CPT



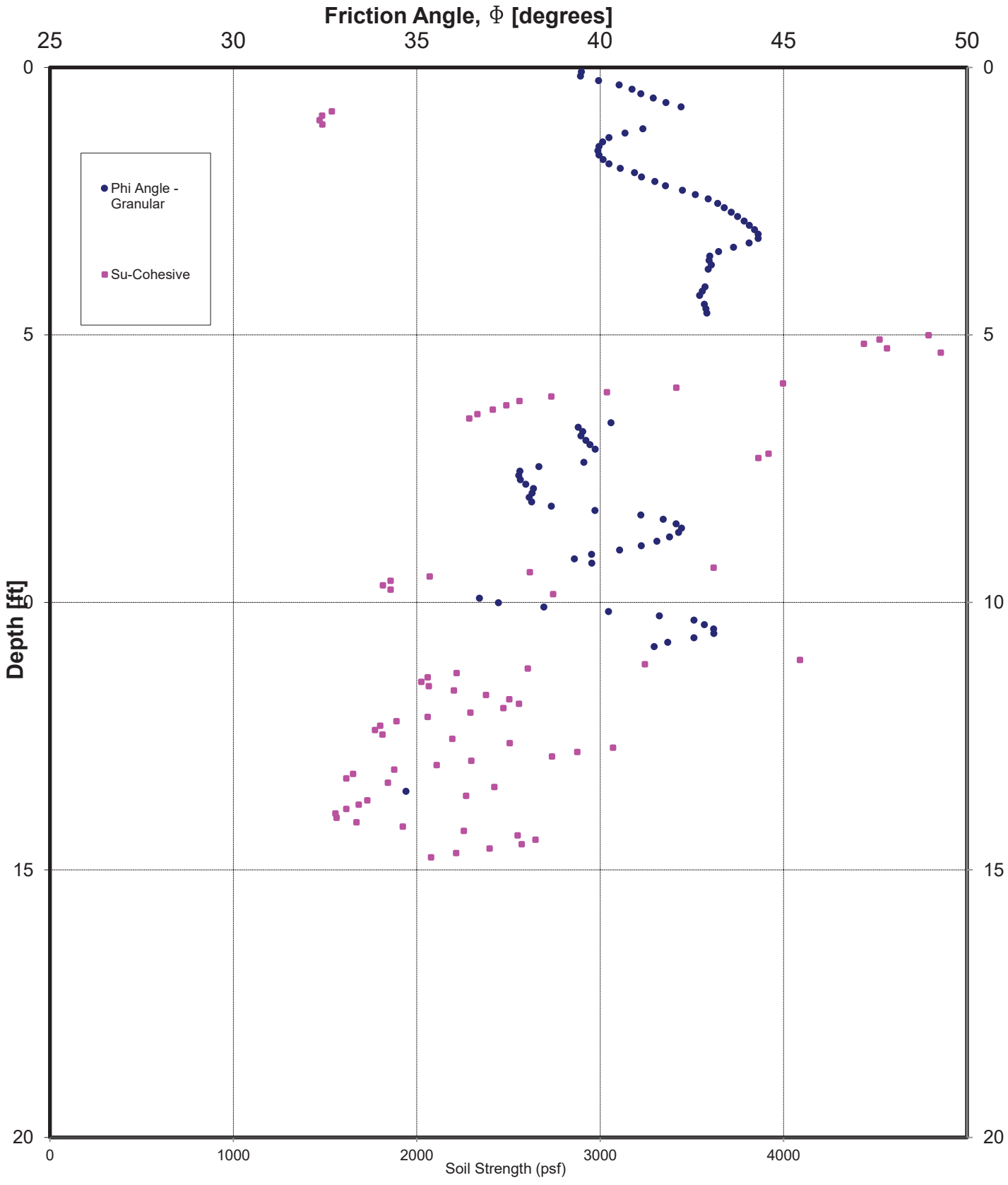
Soil Strength vs. Depth for site GEO-033 from CPT



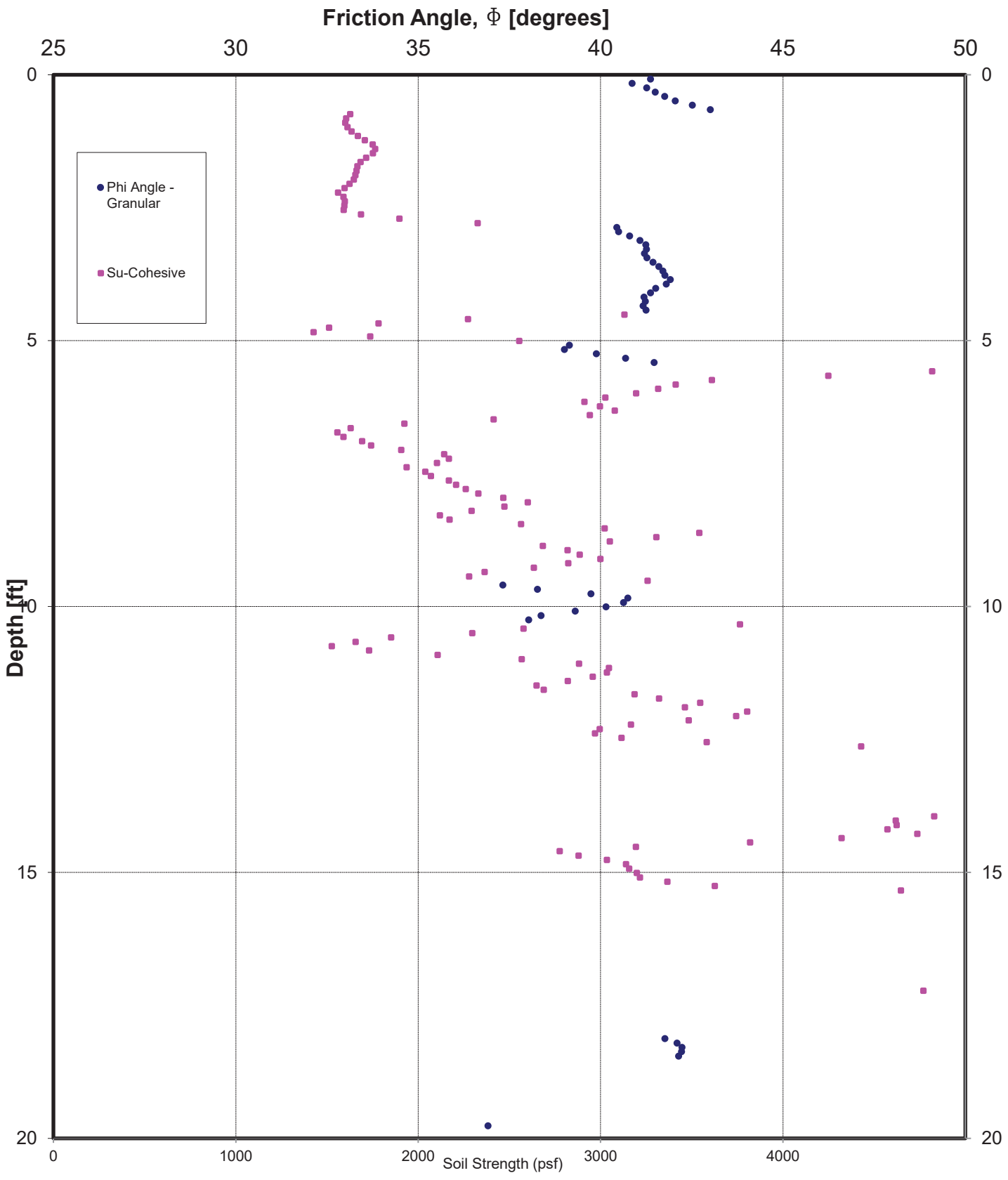
Soil Strength vs. Depth for site GEO-034 from CPT



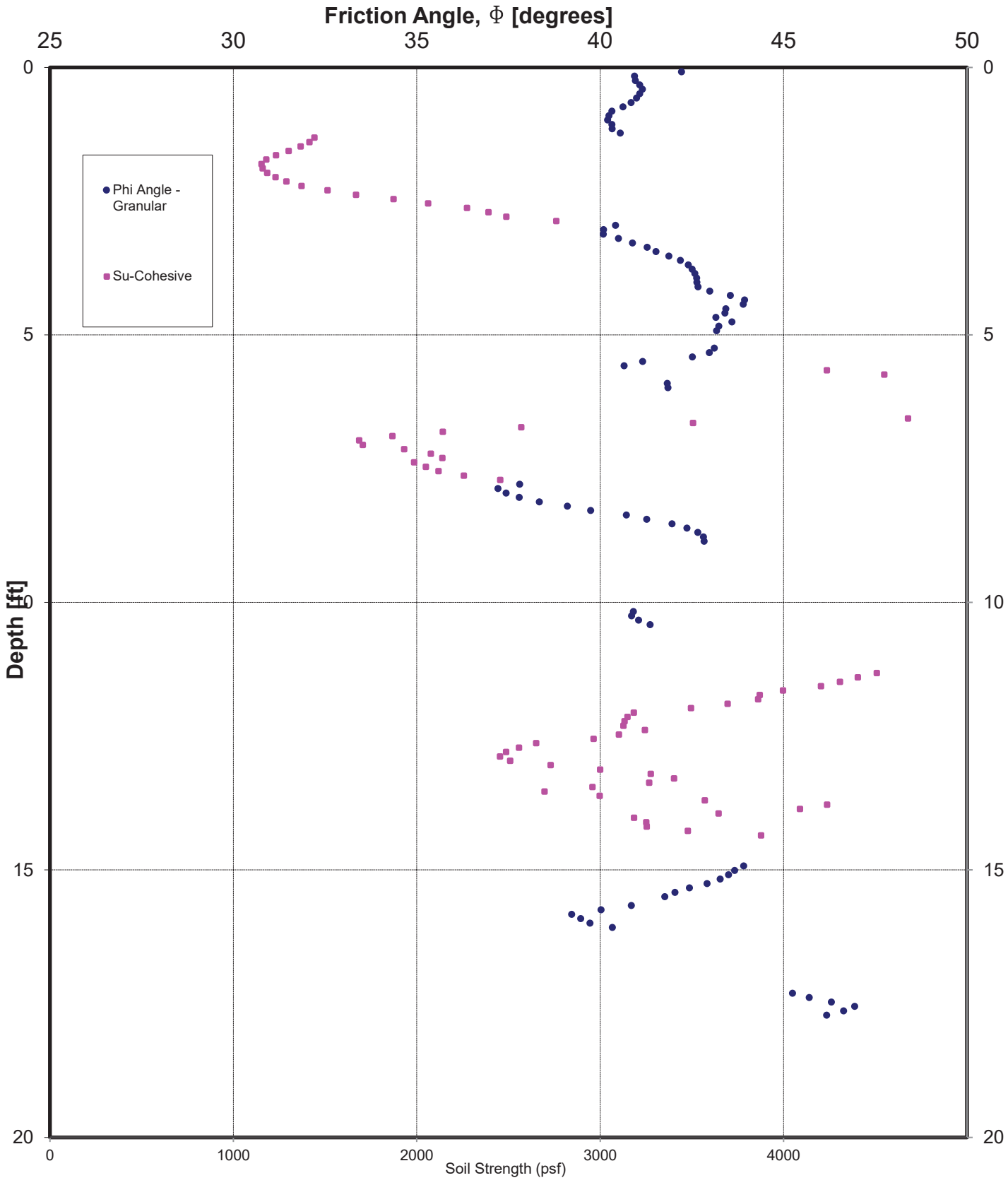
Soil Strength vs. Depth for site GEO-035 from CPT



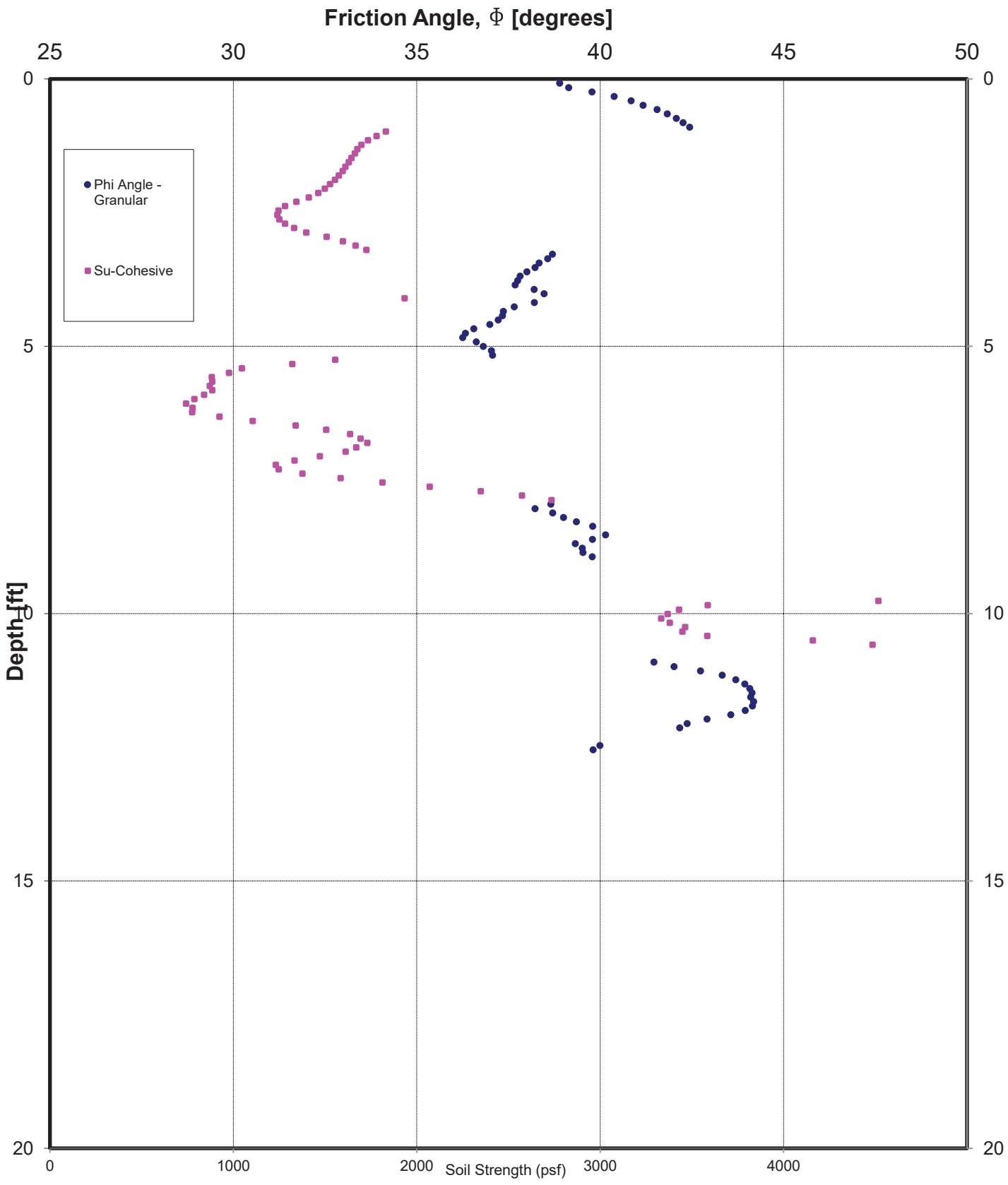
Soil Strength and vs. Depth for site GEO-036 from CPT



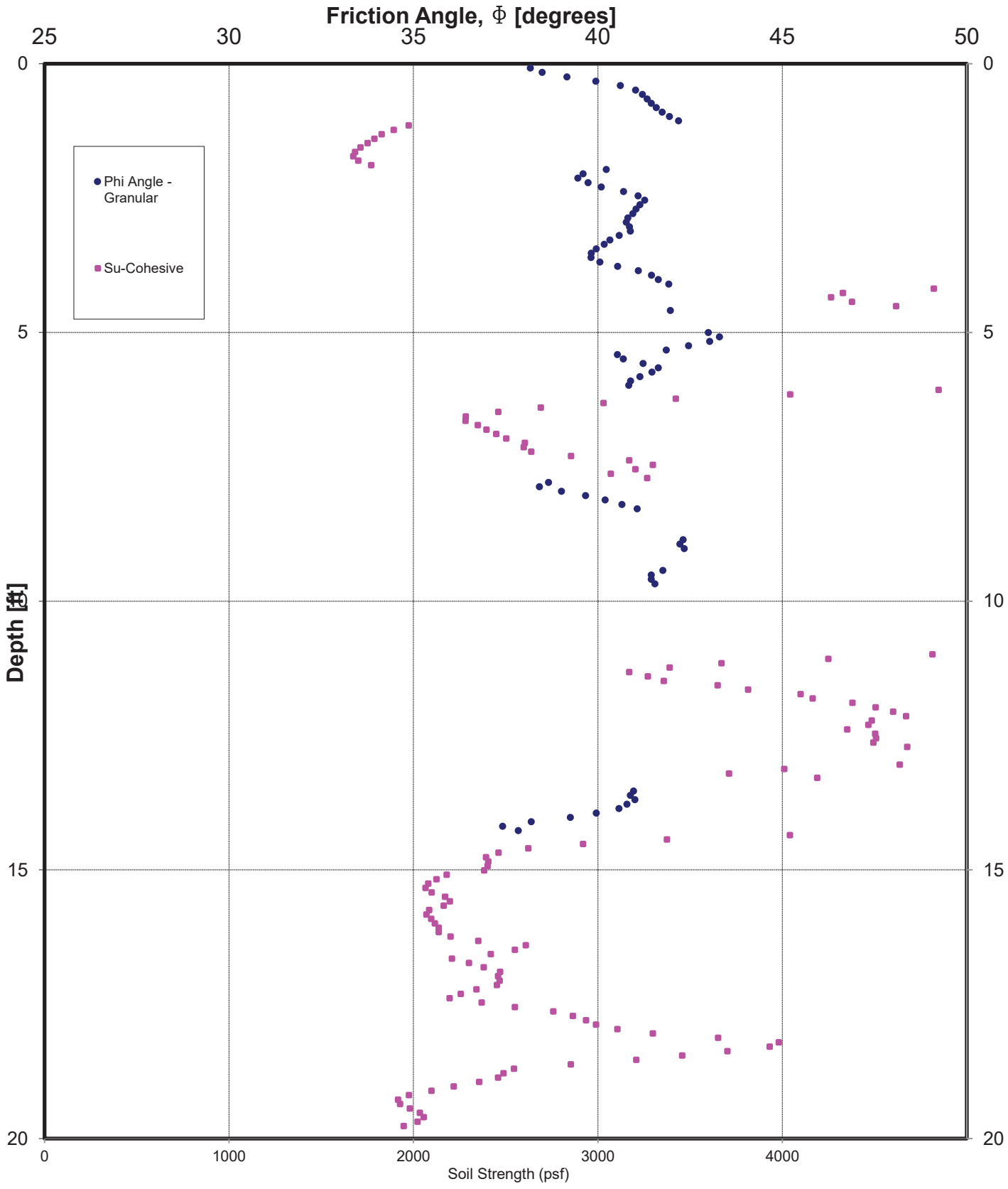
Soil Strength and vs. Depth for site GEO-037 from CPT



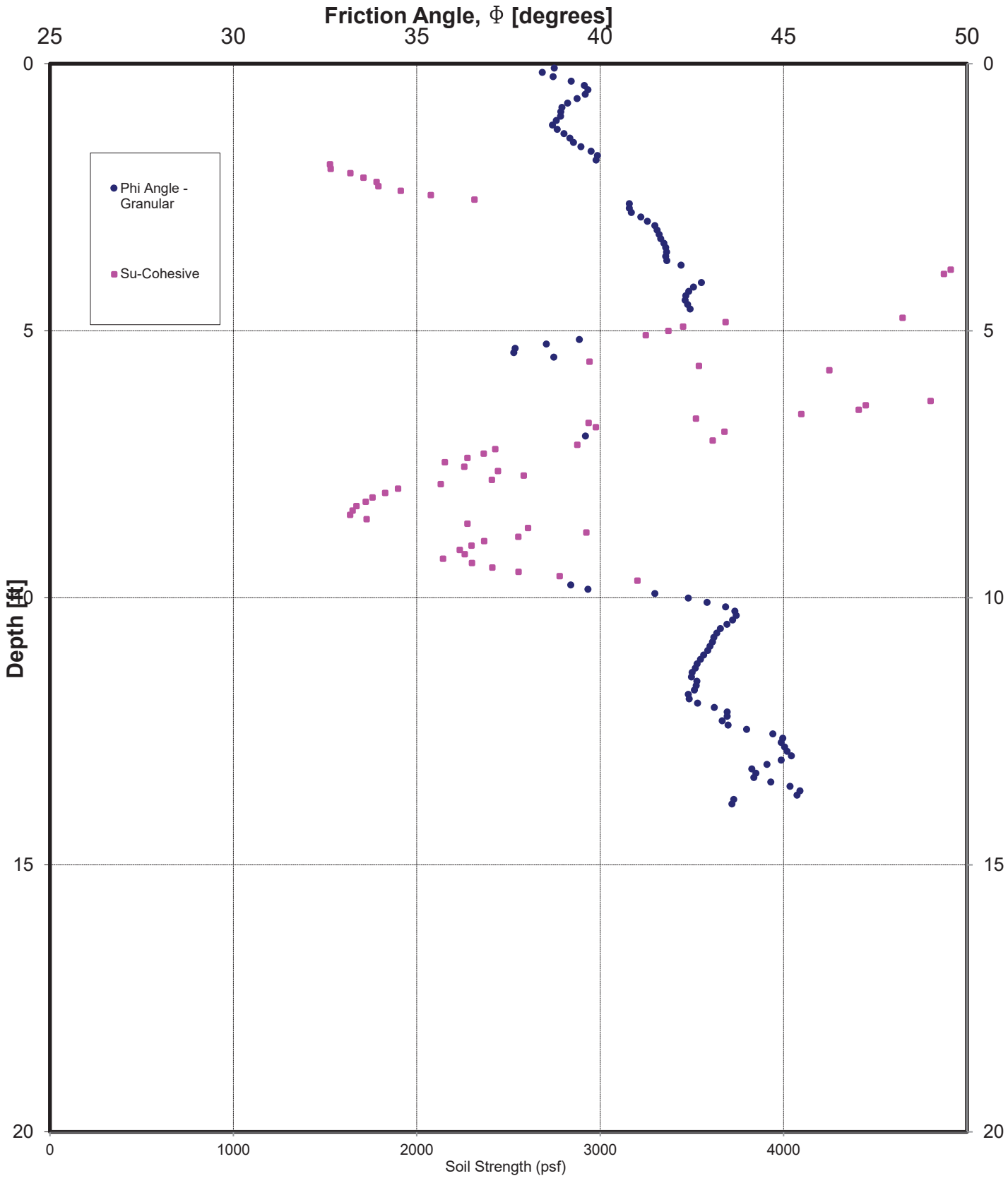
Soil Strength and vs. Depth for site GEO-038 from CPT



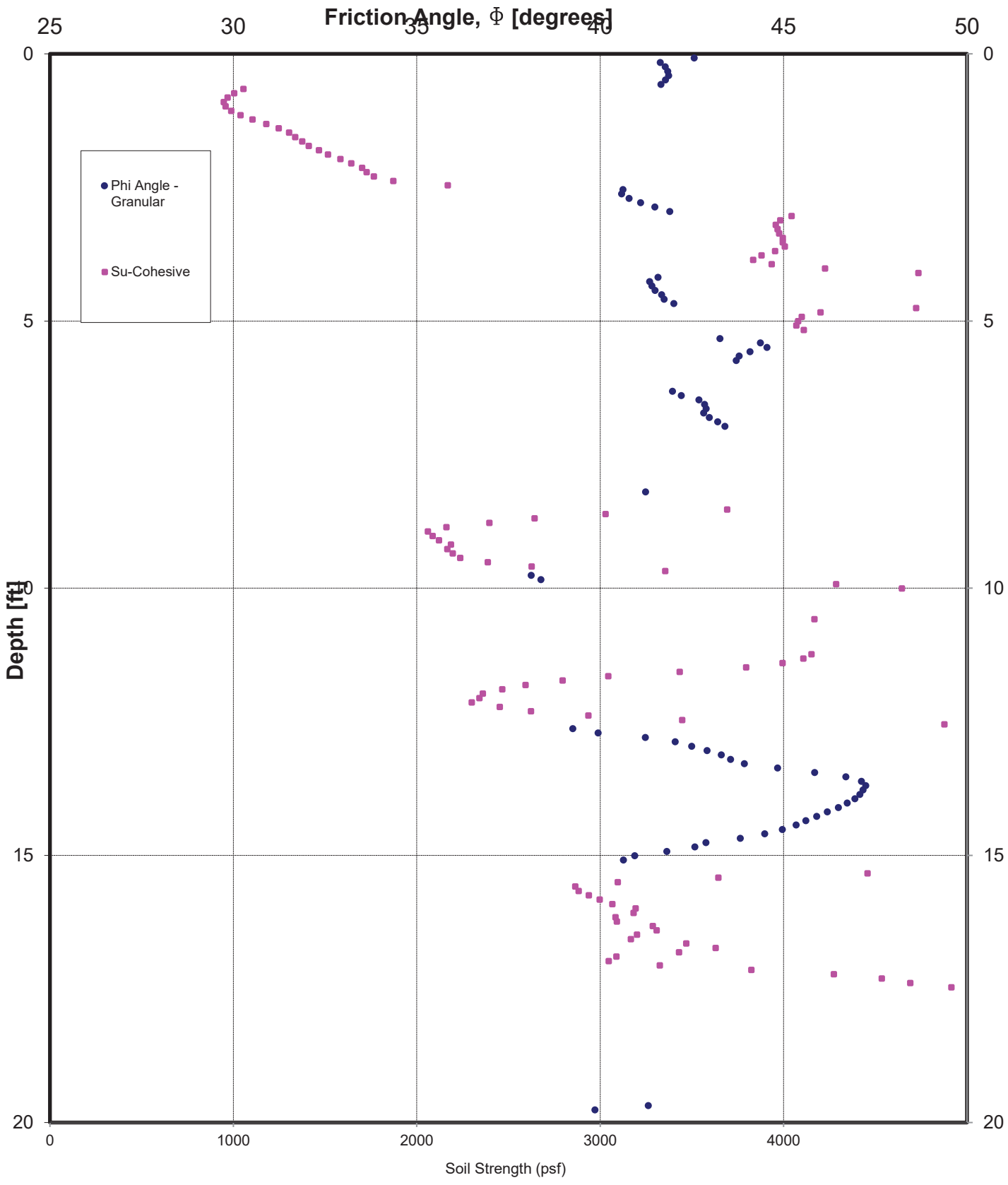
Soil Strength and vs. Depth for site GEO-039 from CPT



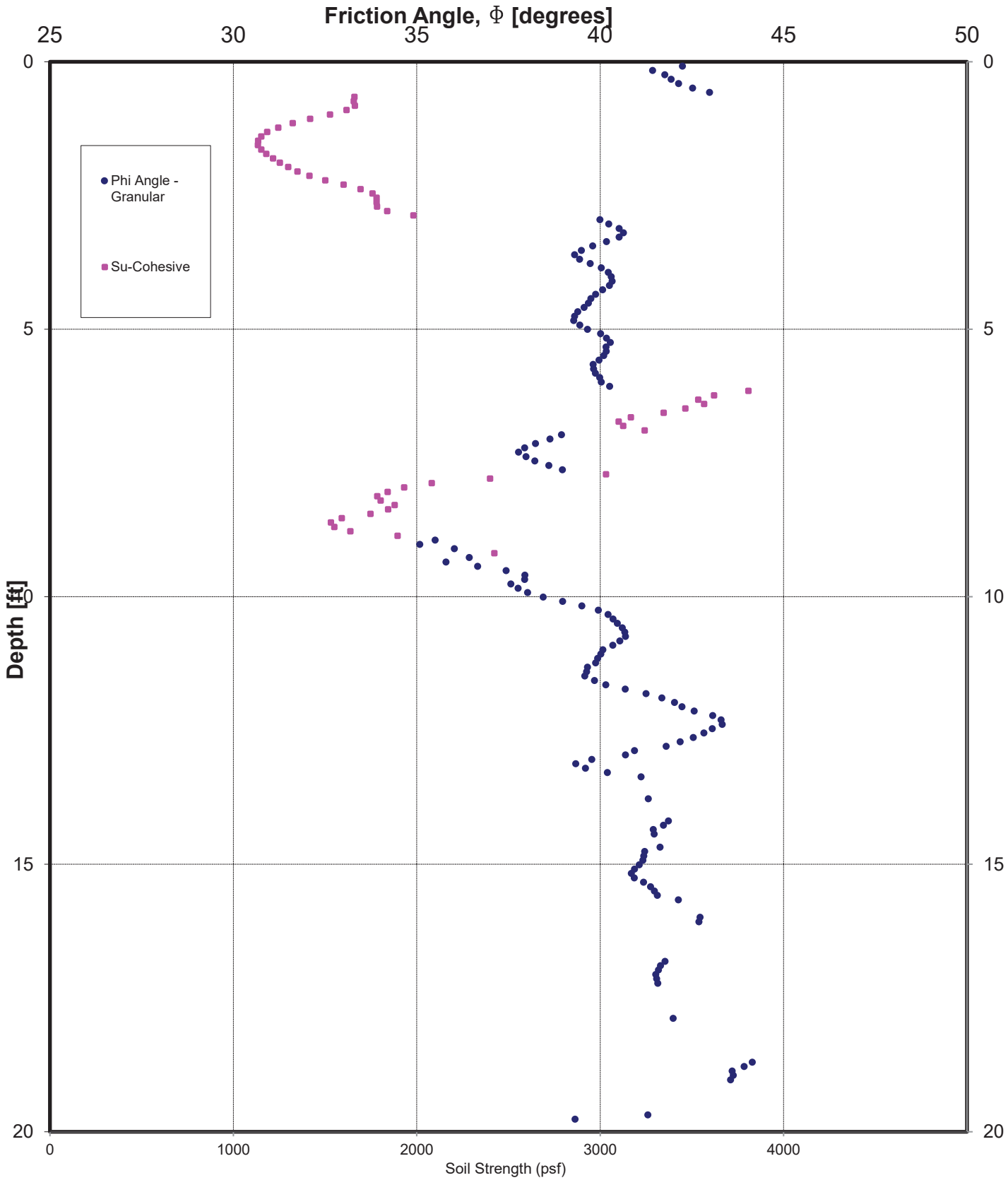
Soil Strength and vs. Depth for site GEO-040 from CPT



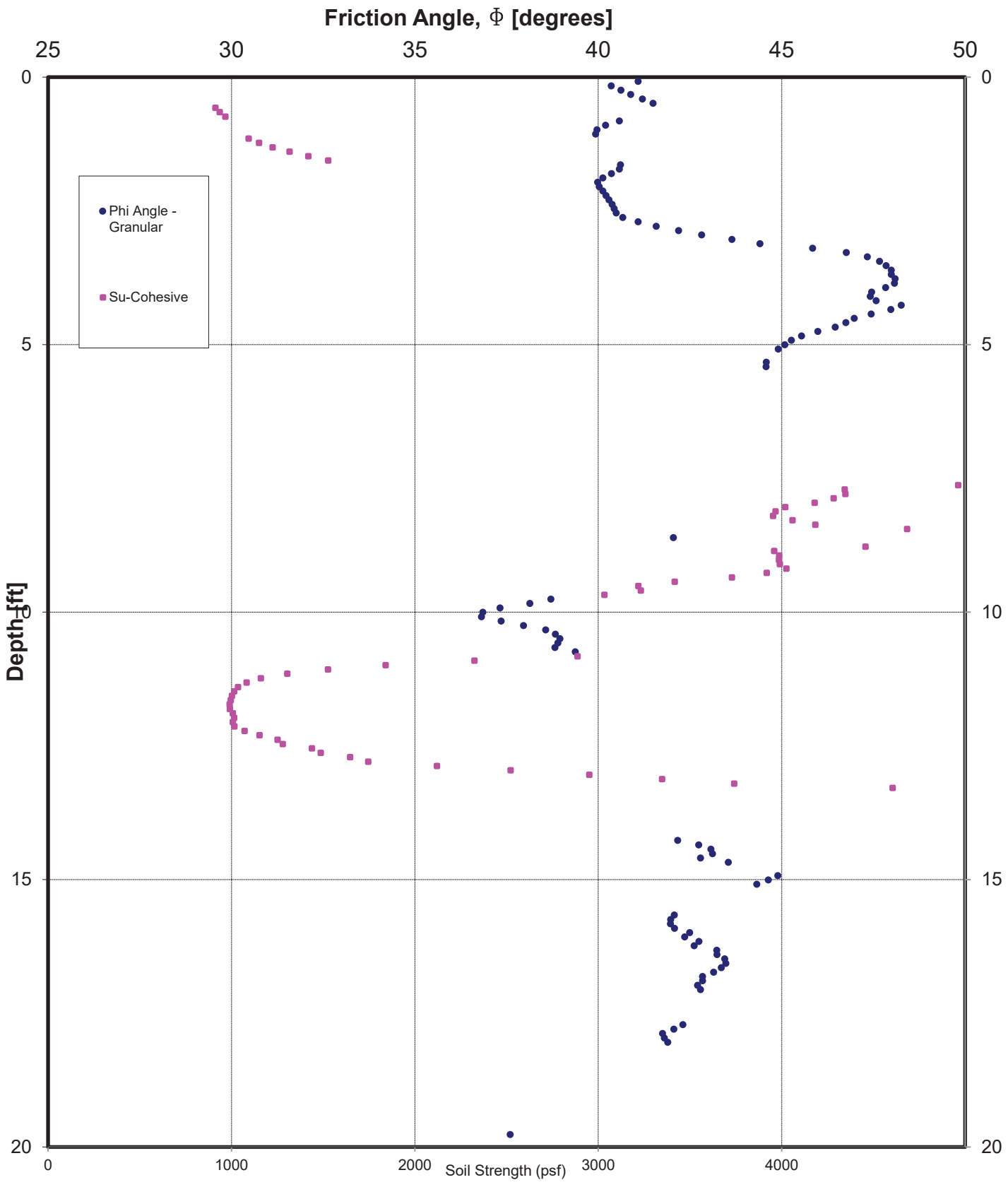
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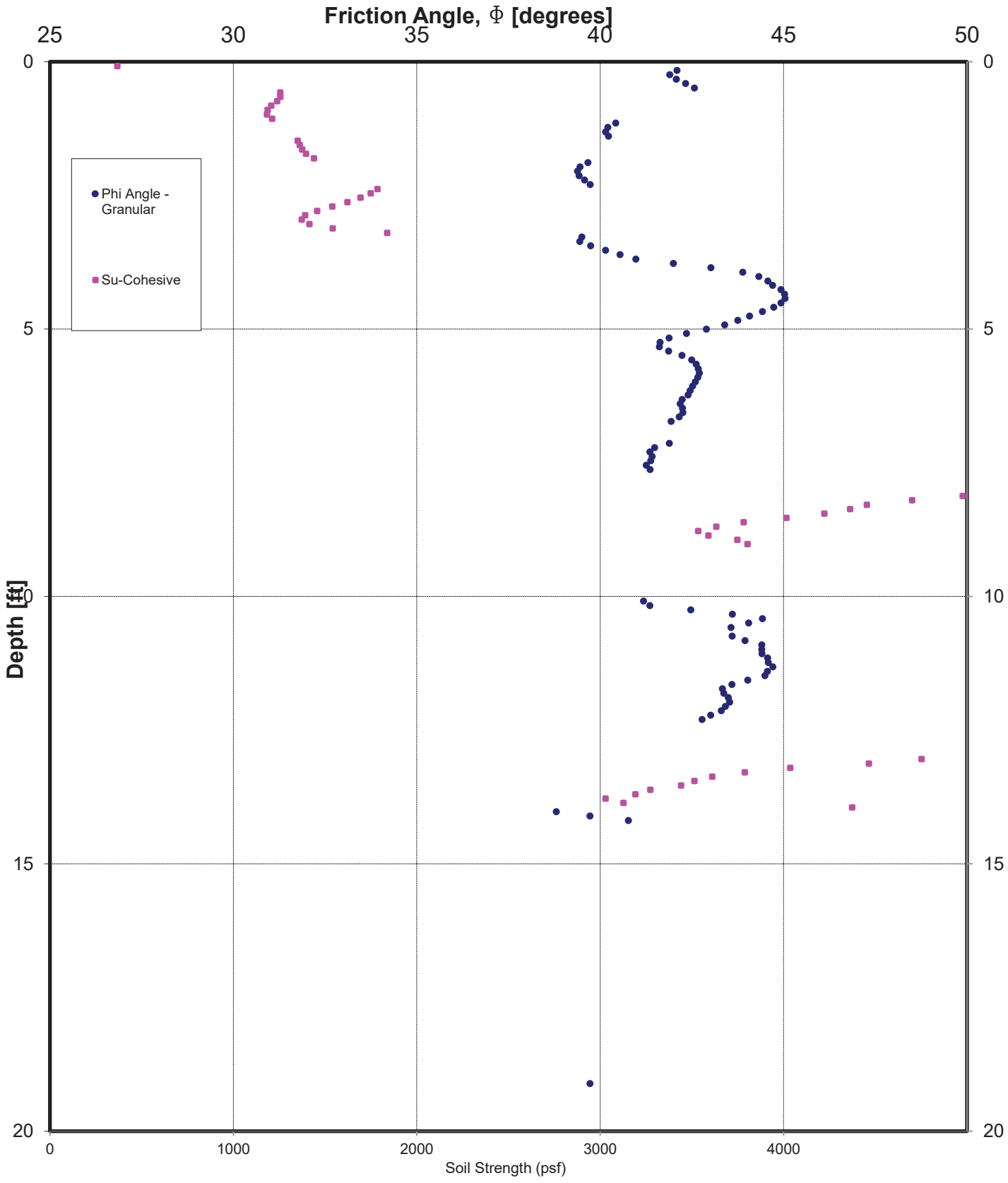
Soil Strength and vs. Depth for site GEO-042 from CPT



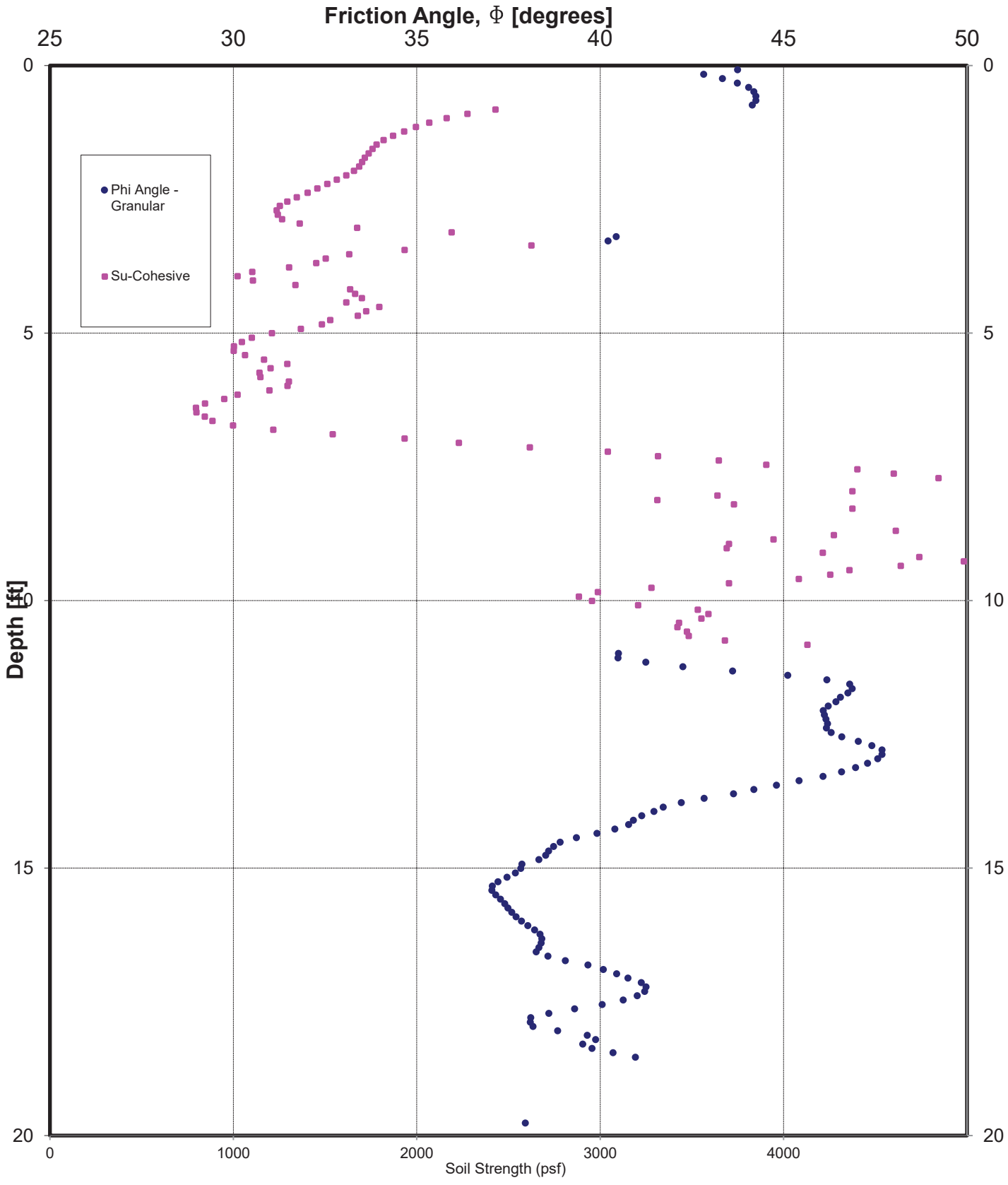
Soil Strength and vs. Depth for site GEO-043 from CPT



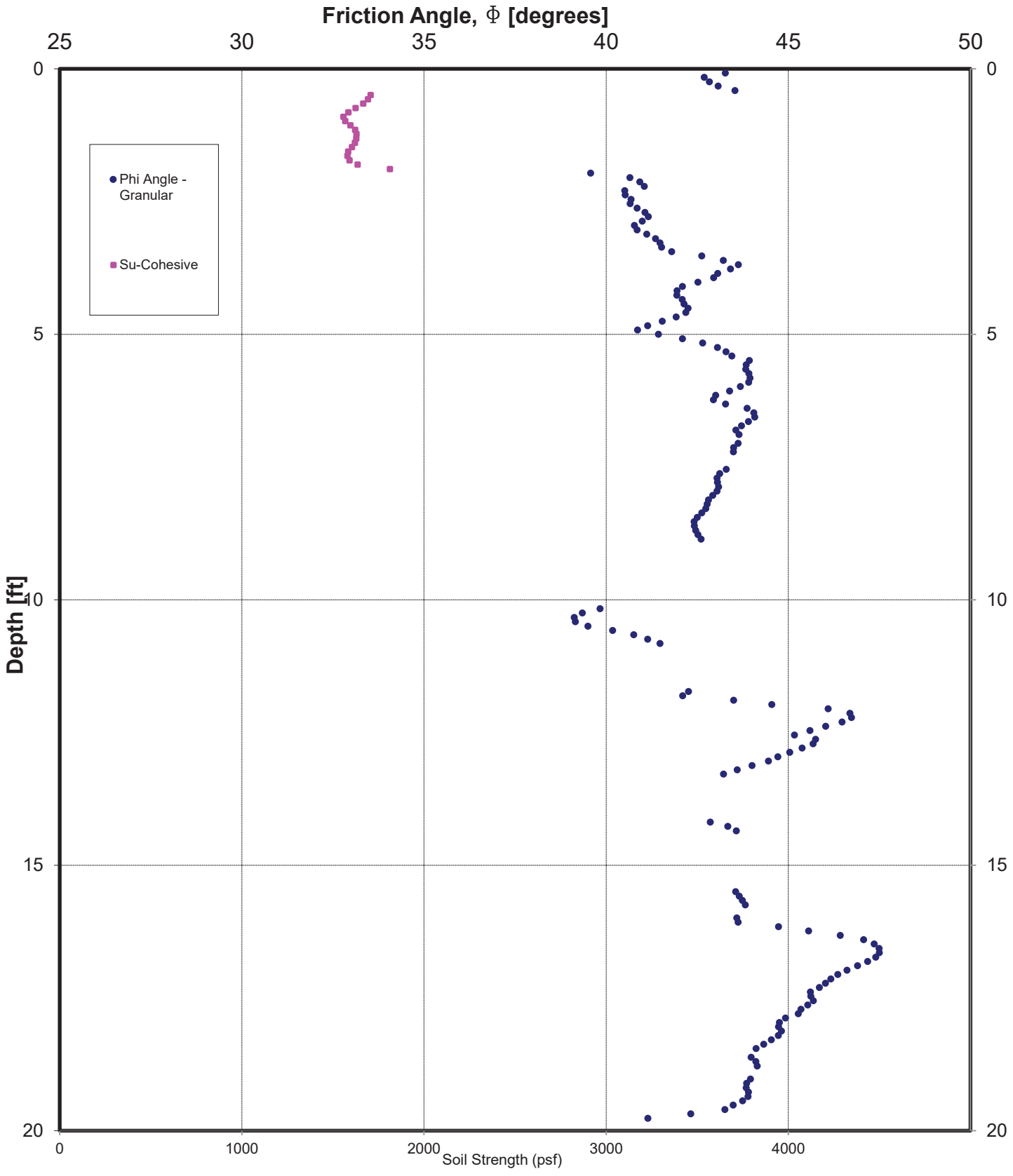
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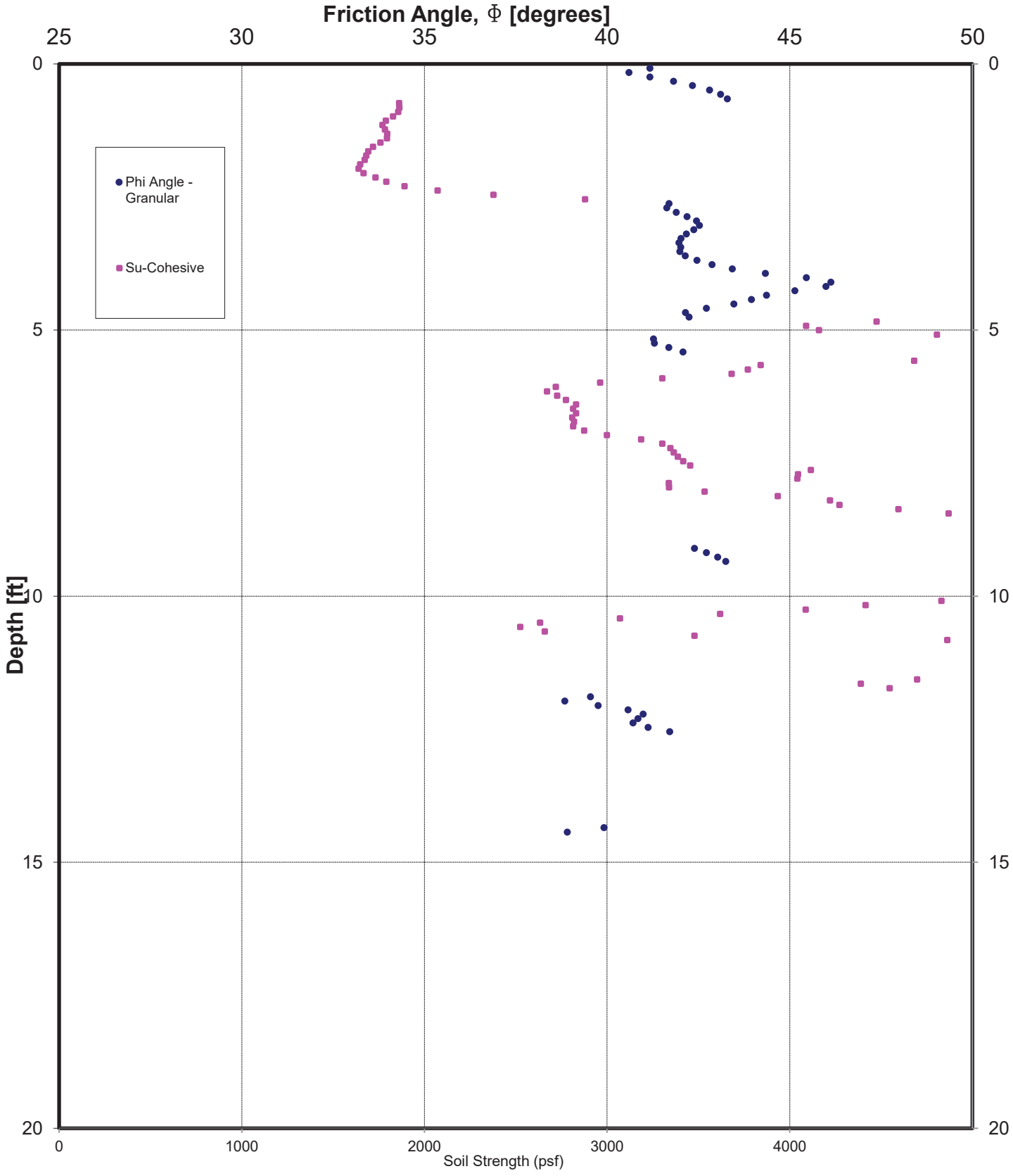
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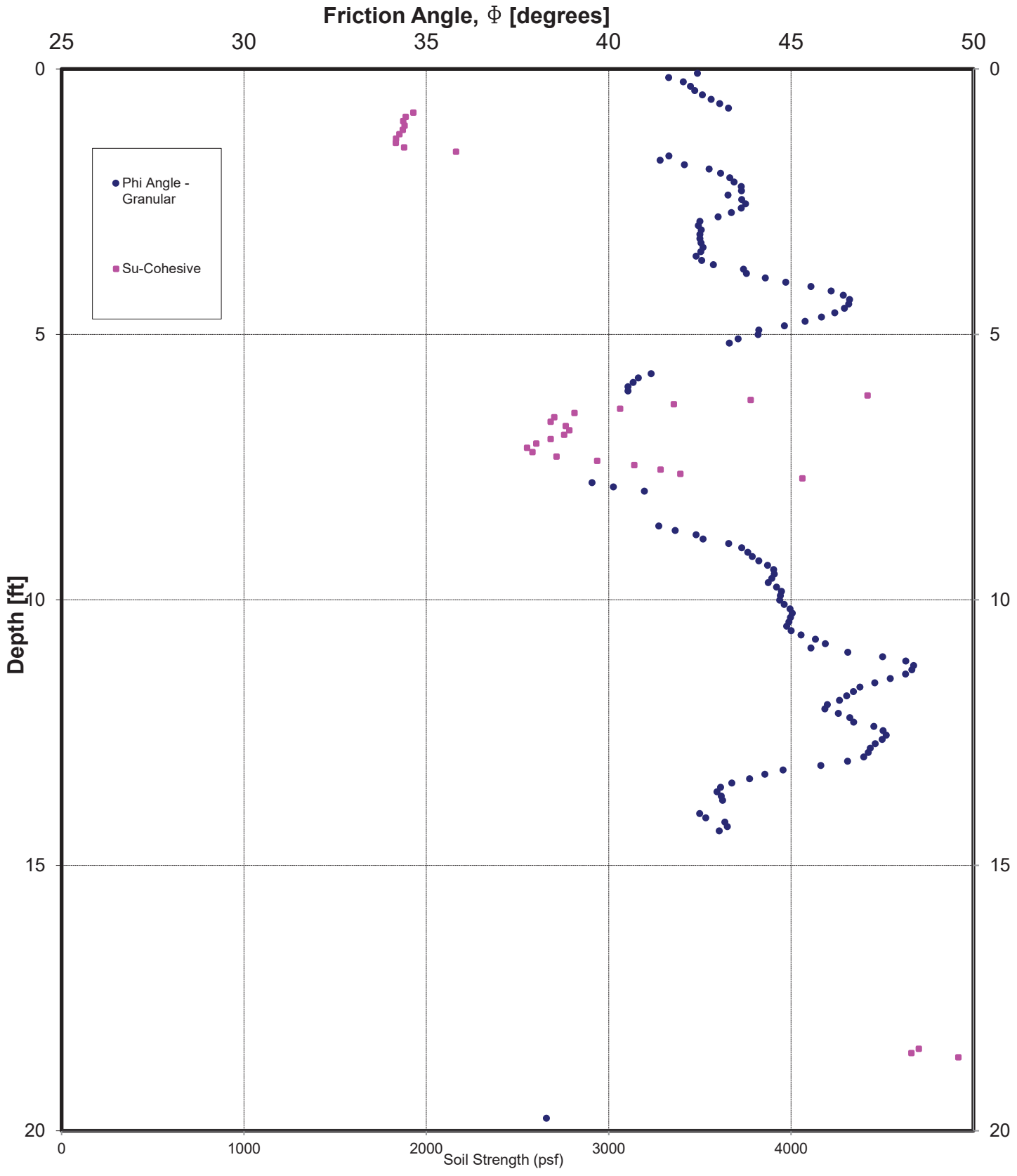
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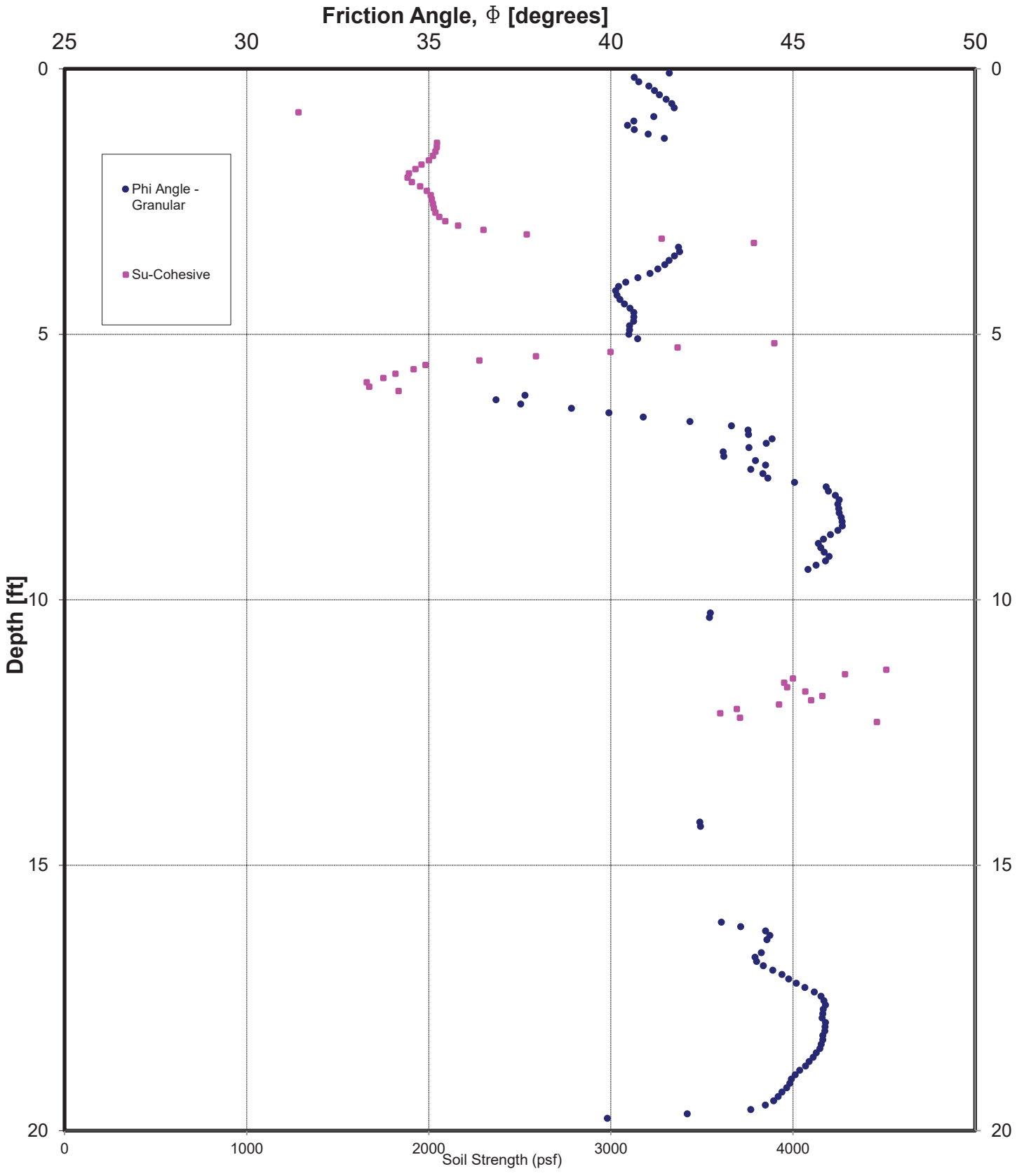
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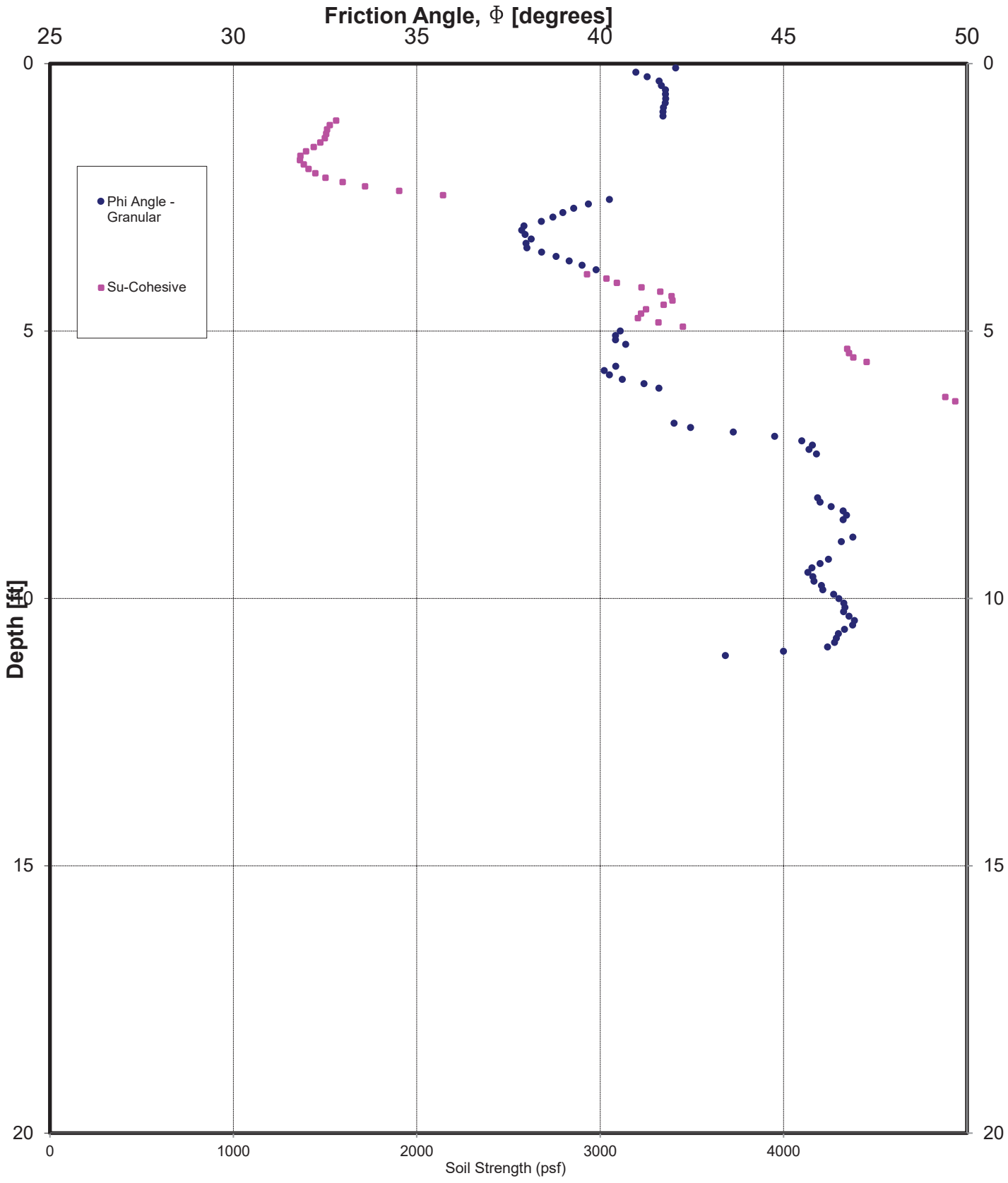
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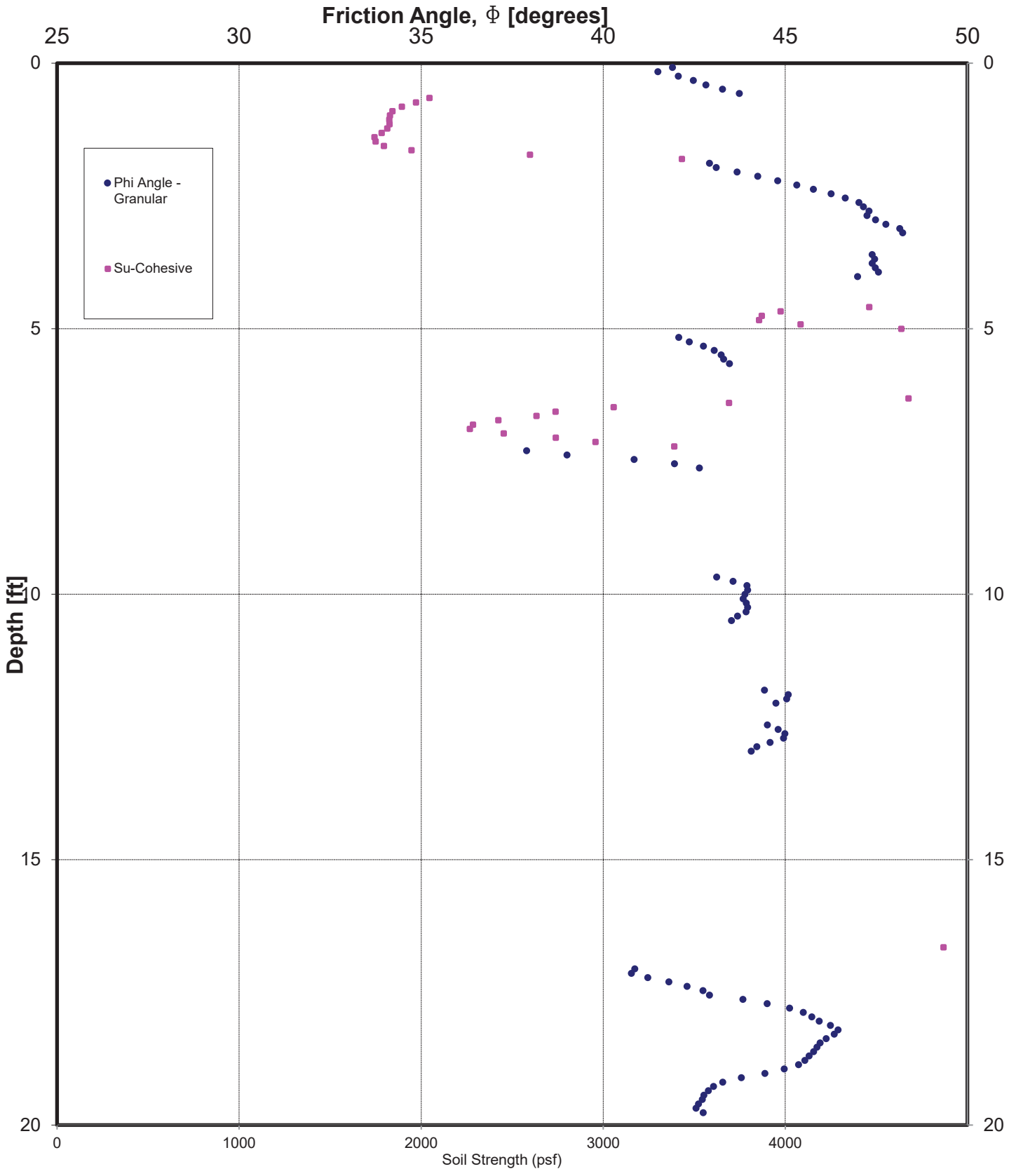
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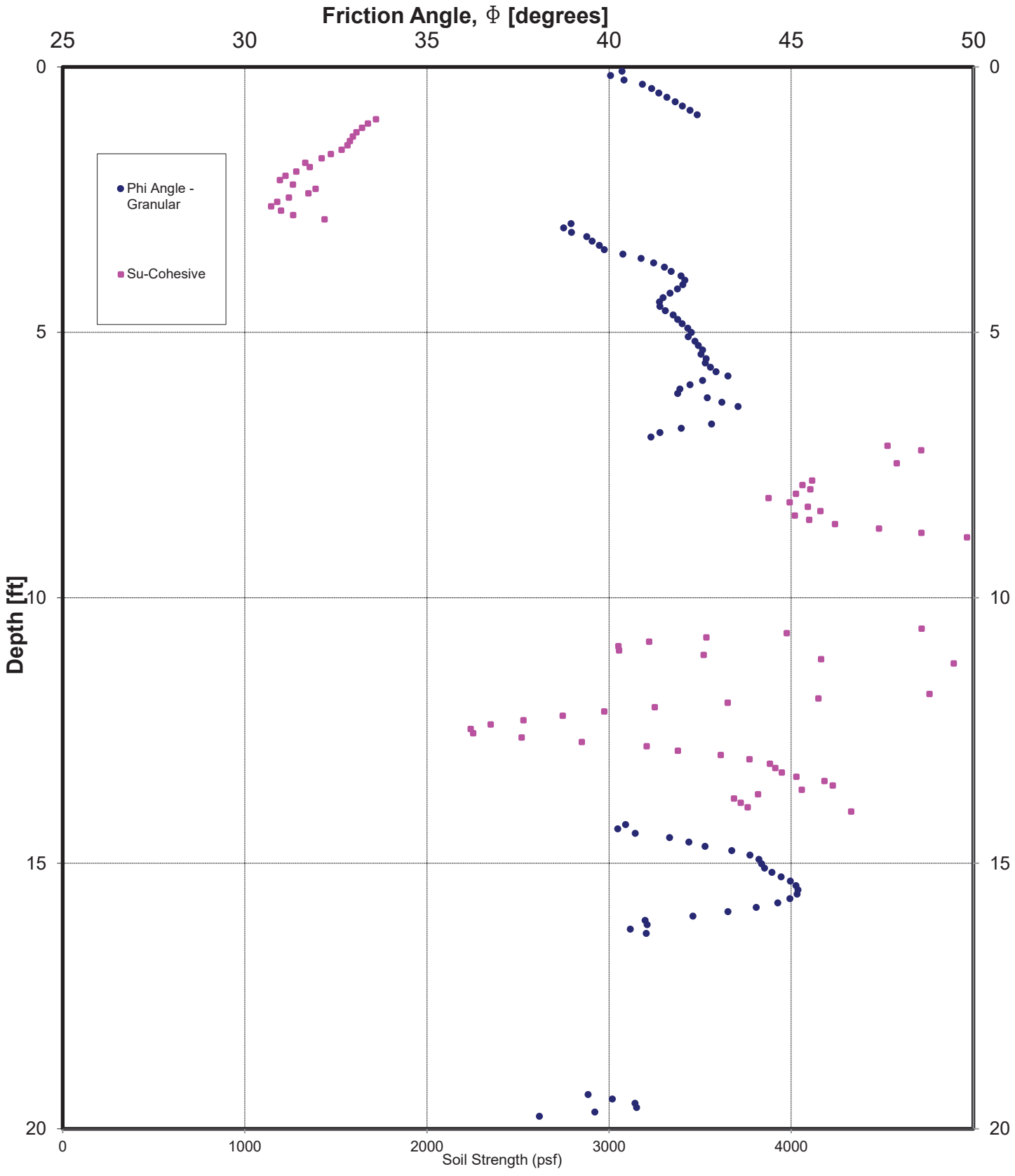
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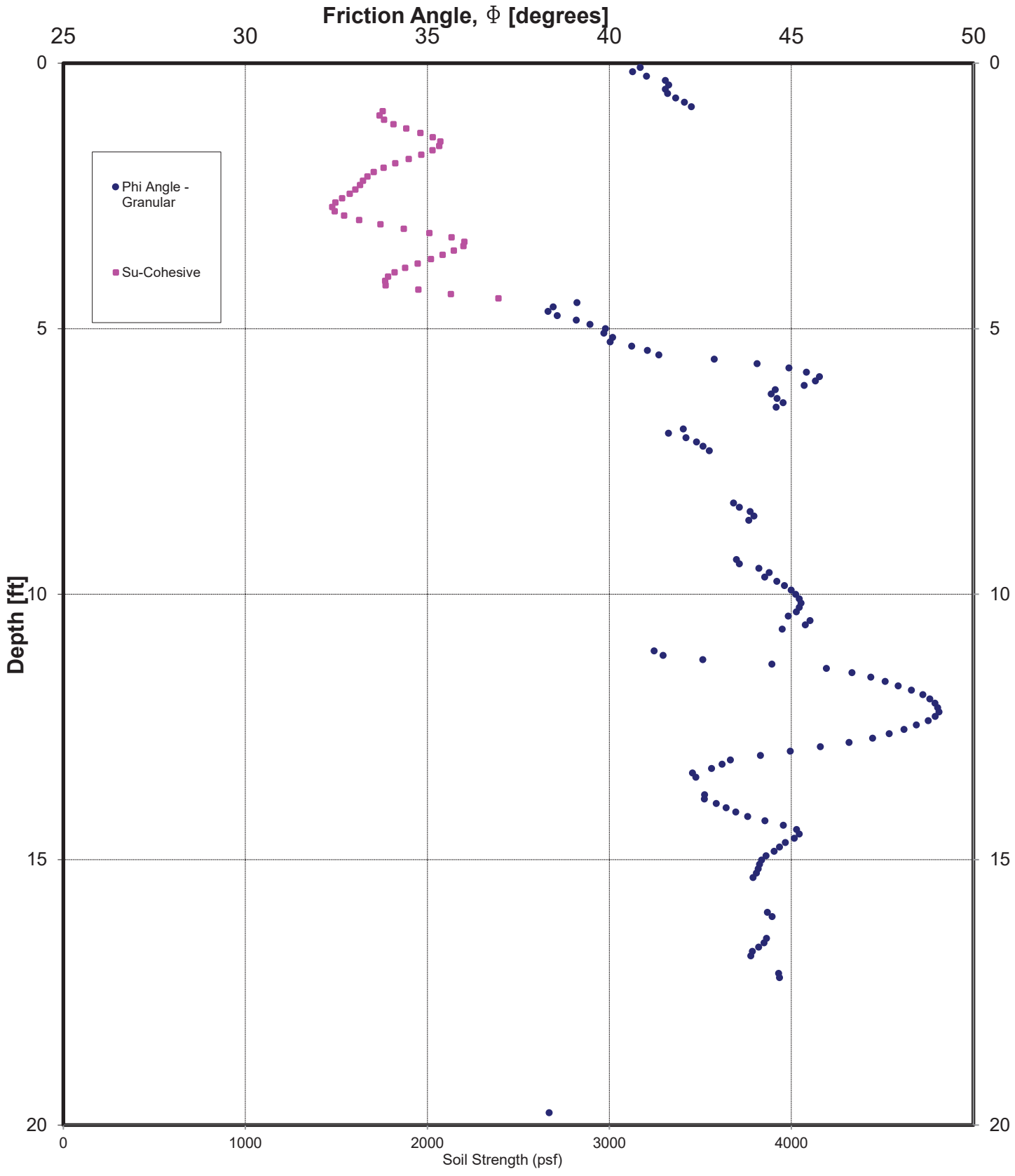
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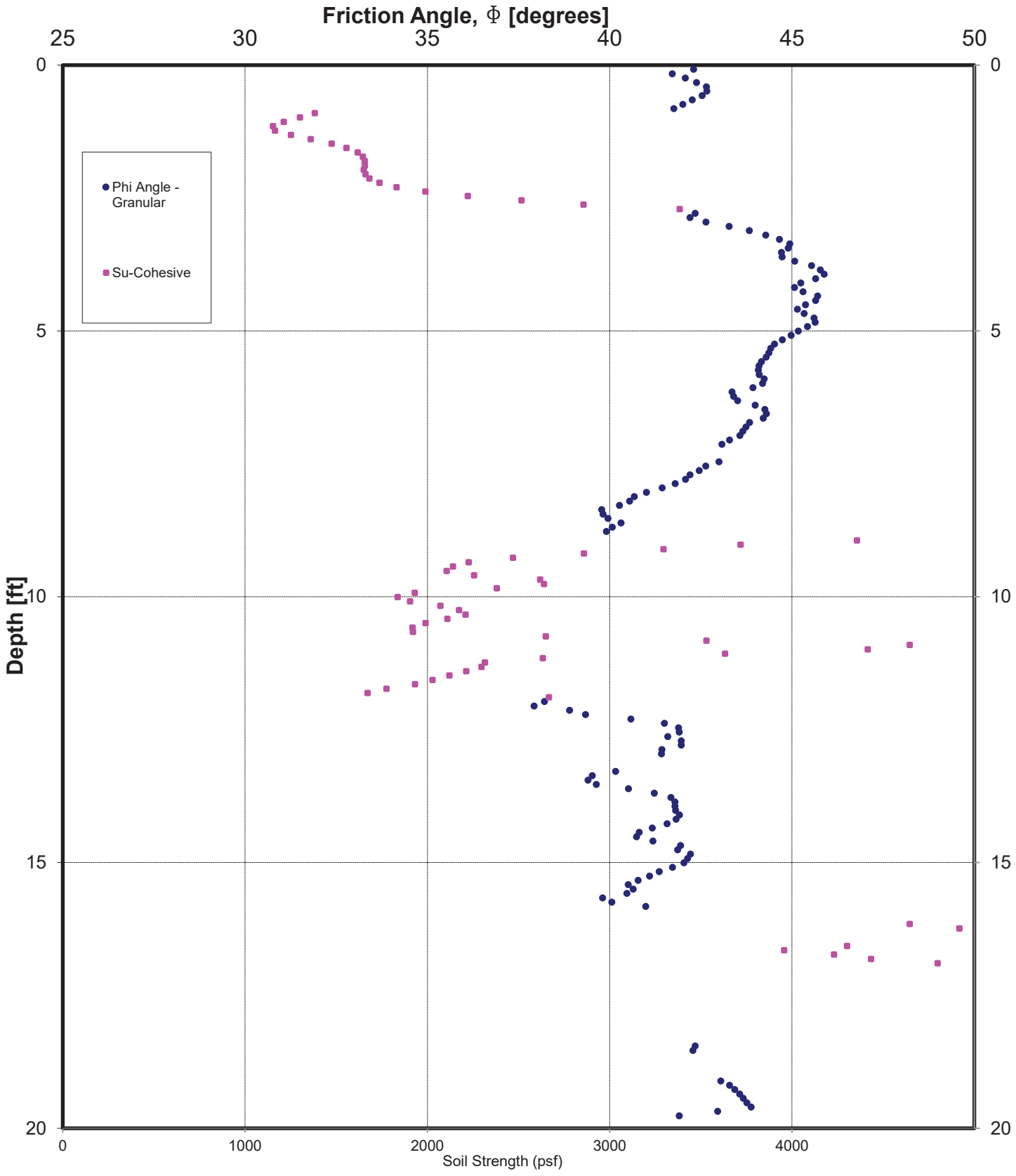
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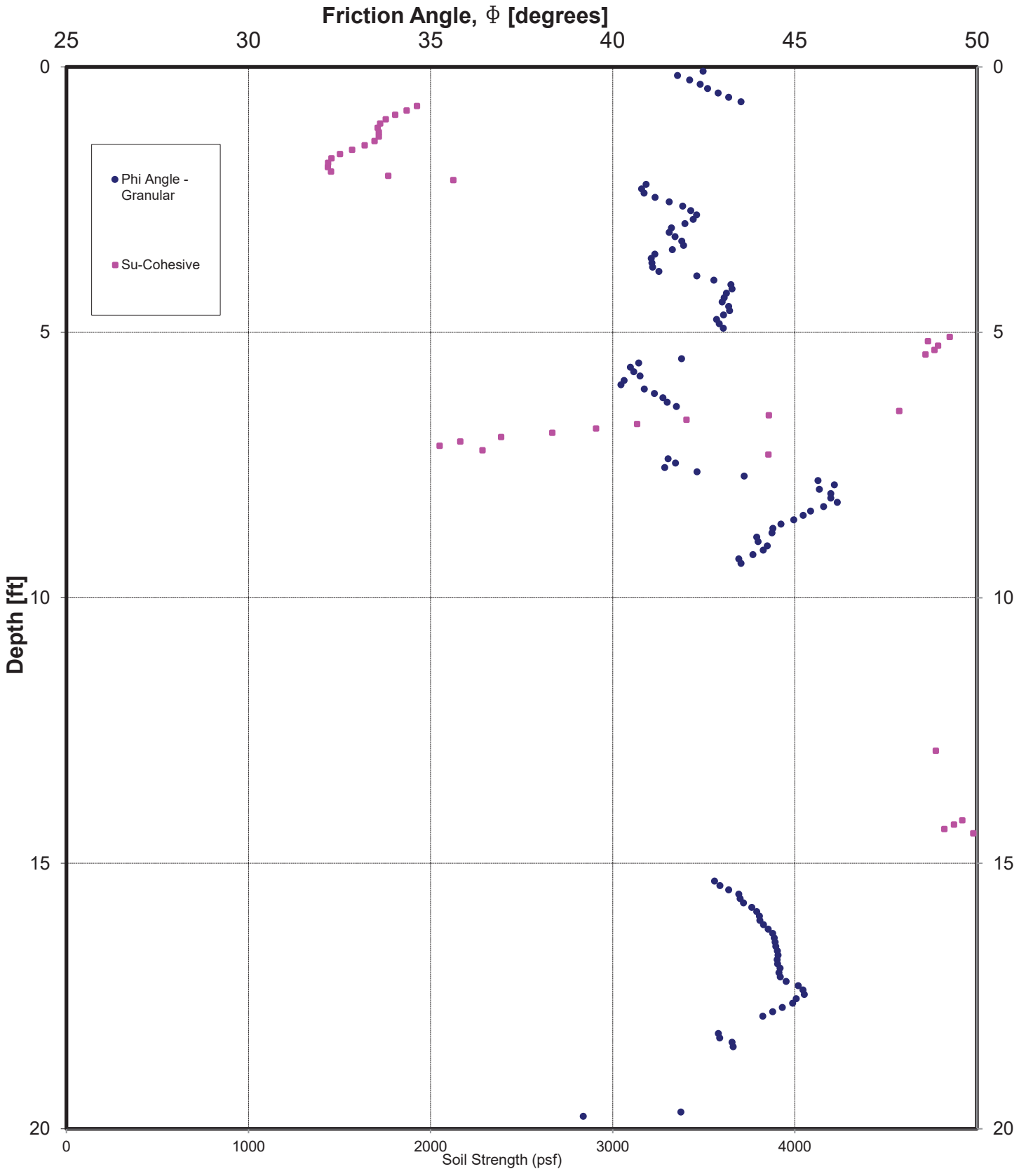
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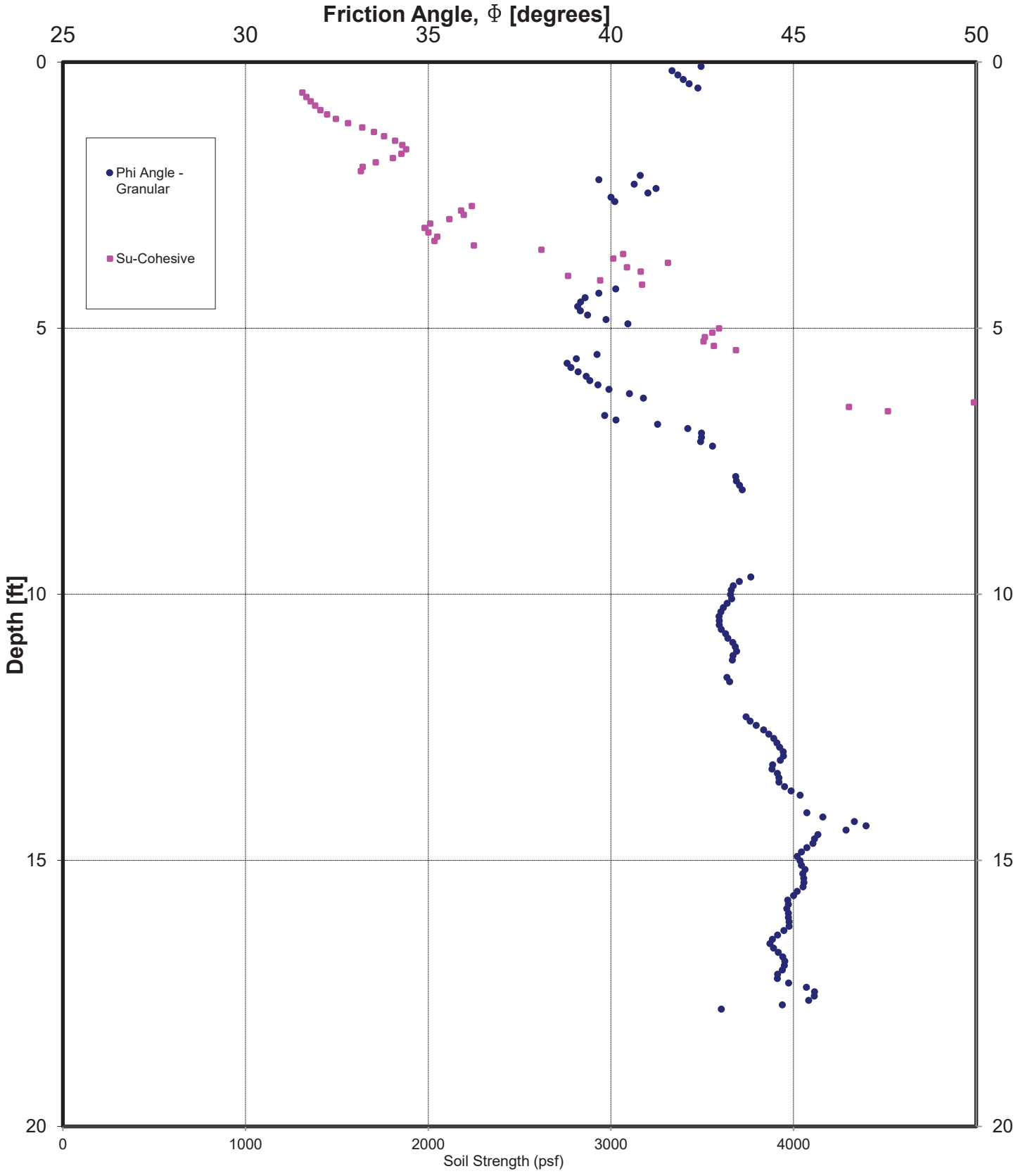
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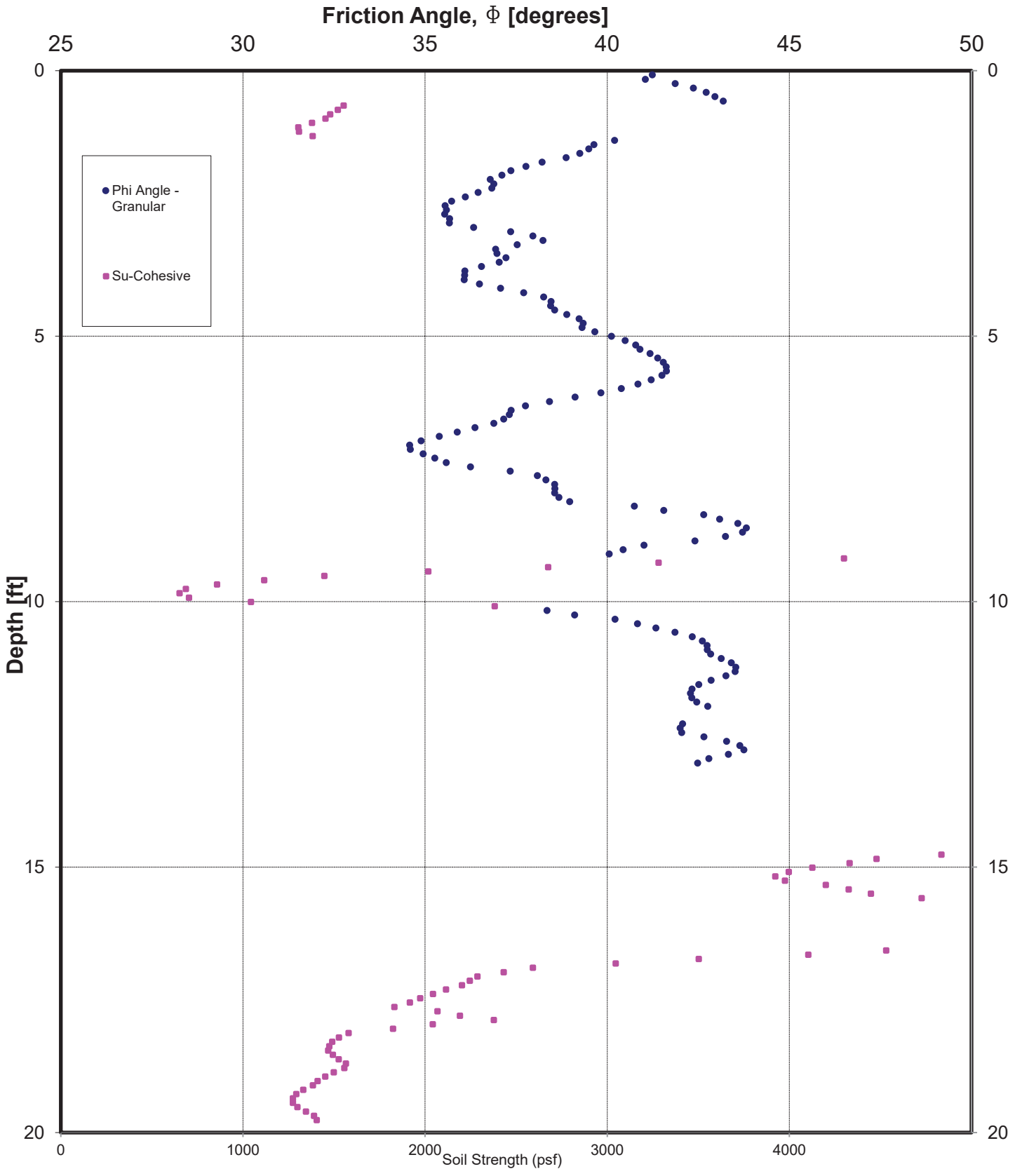
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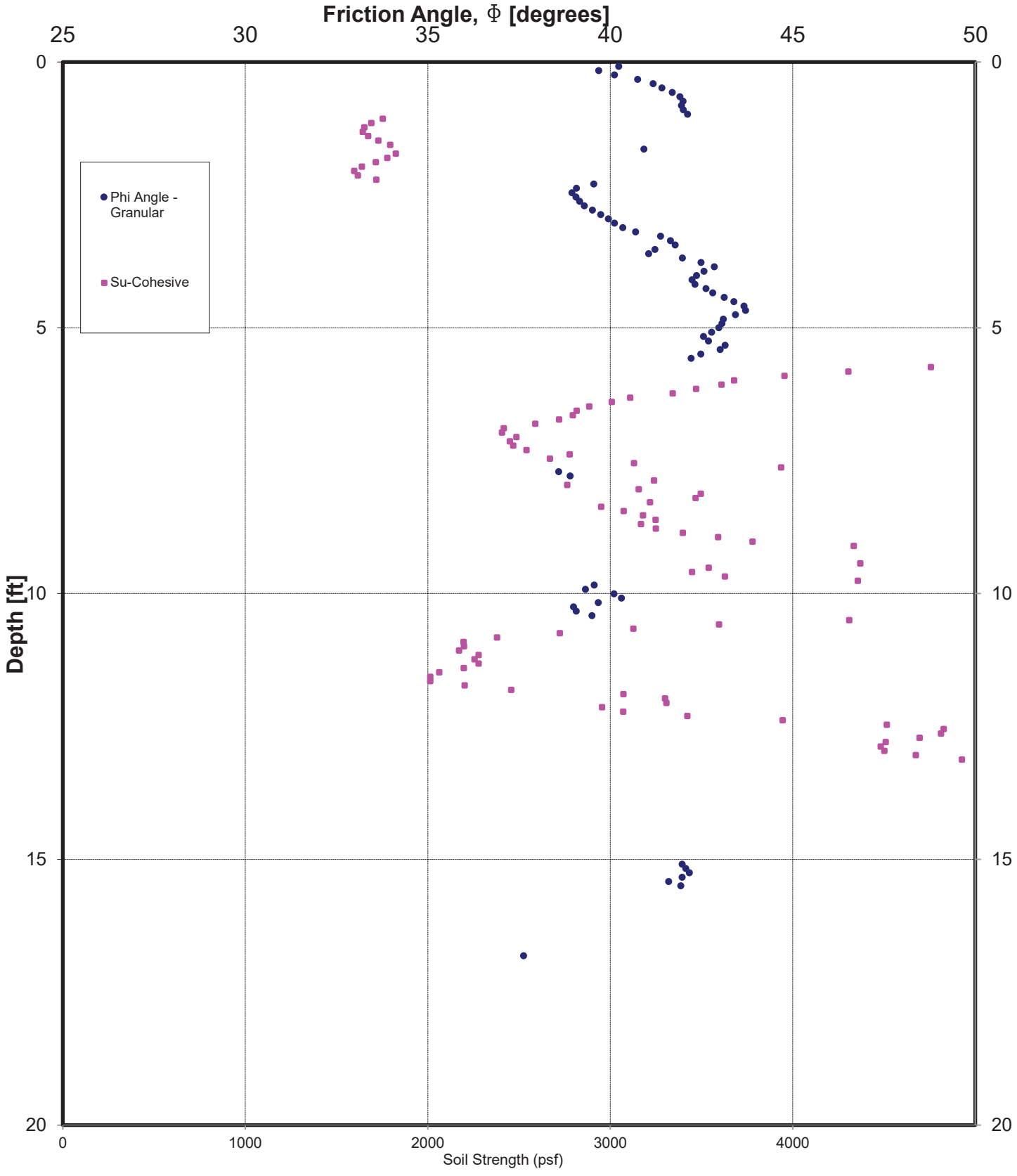
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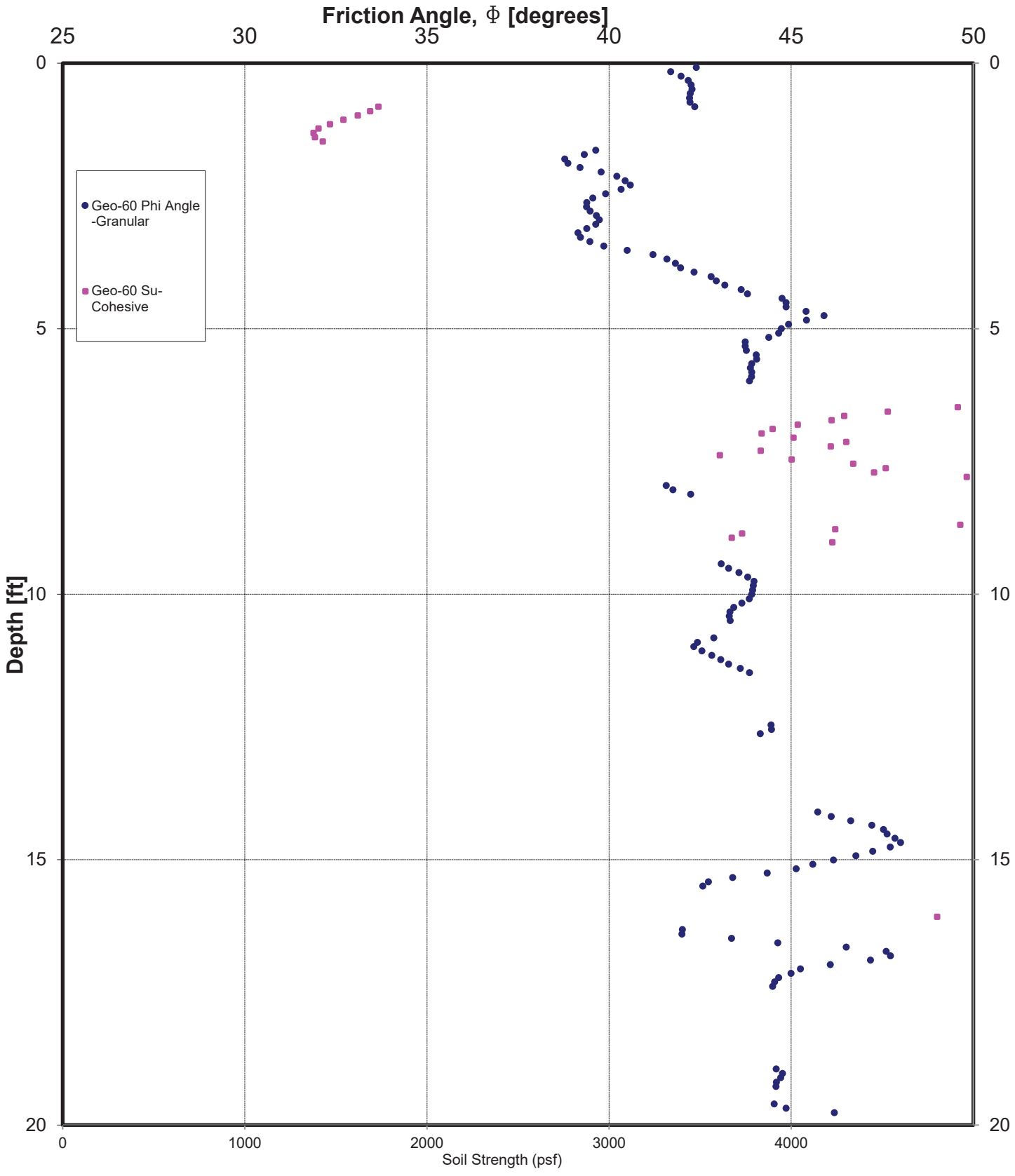
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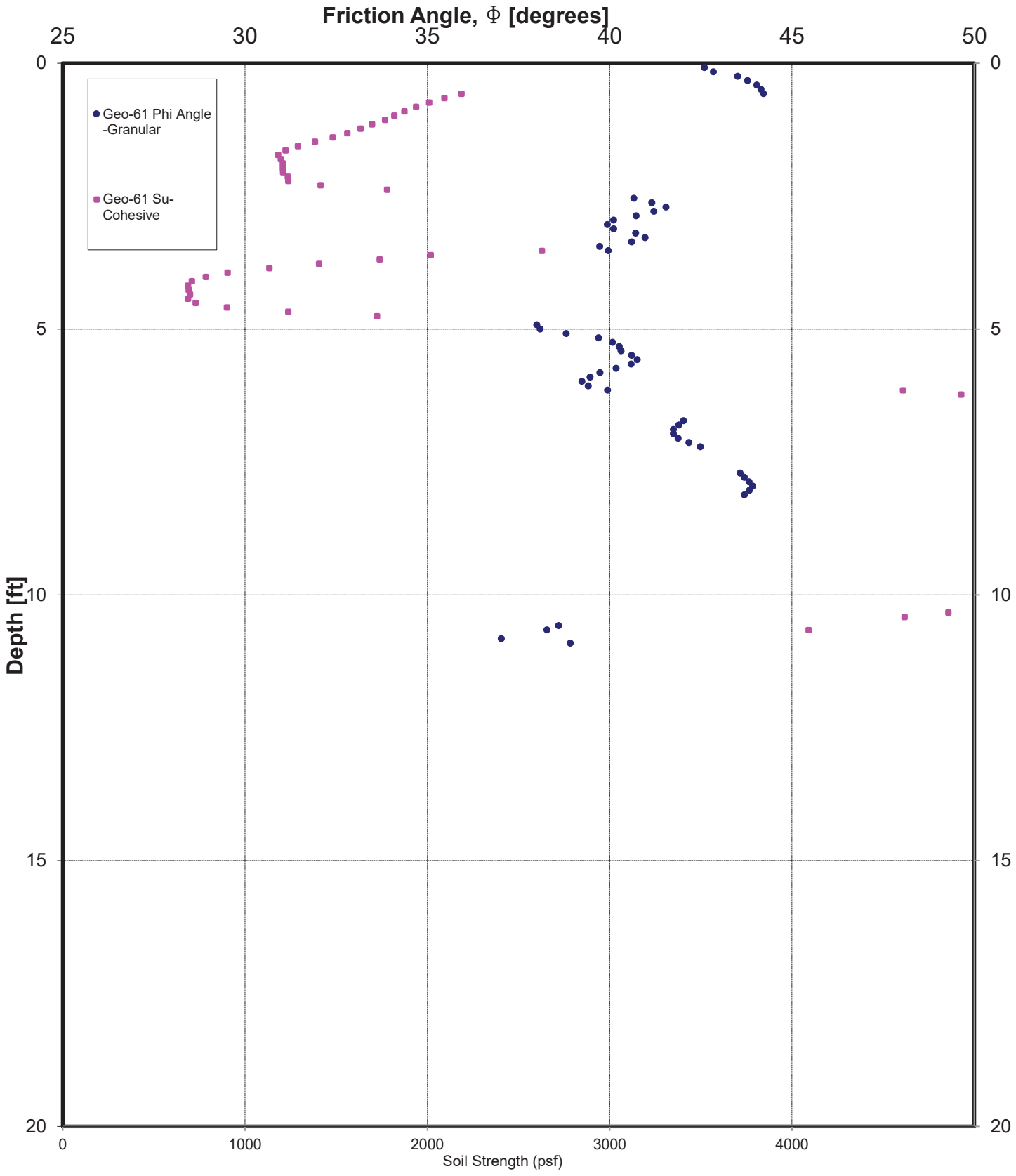
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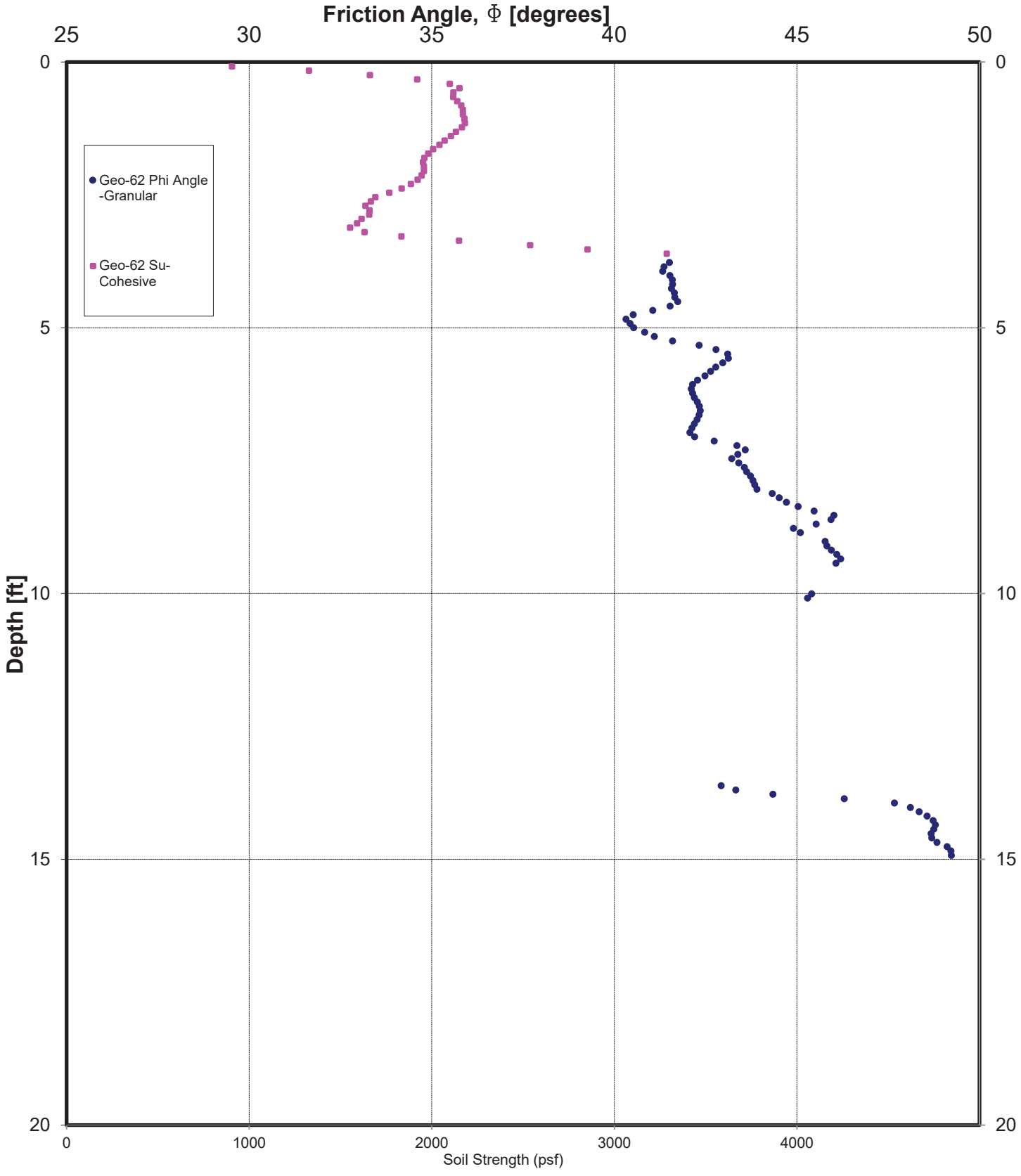
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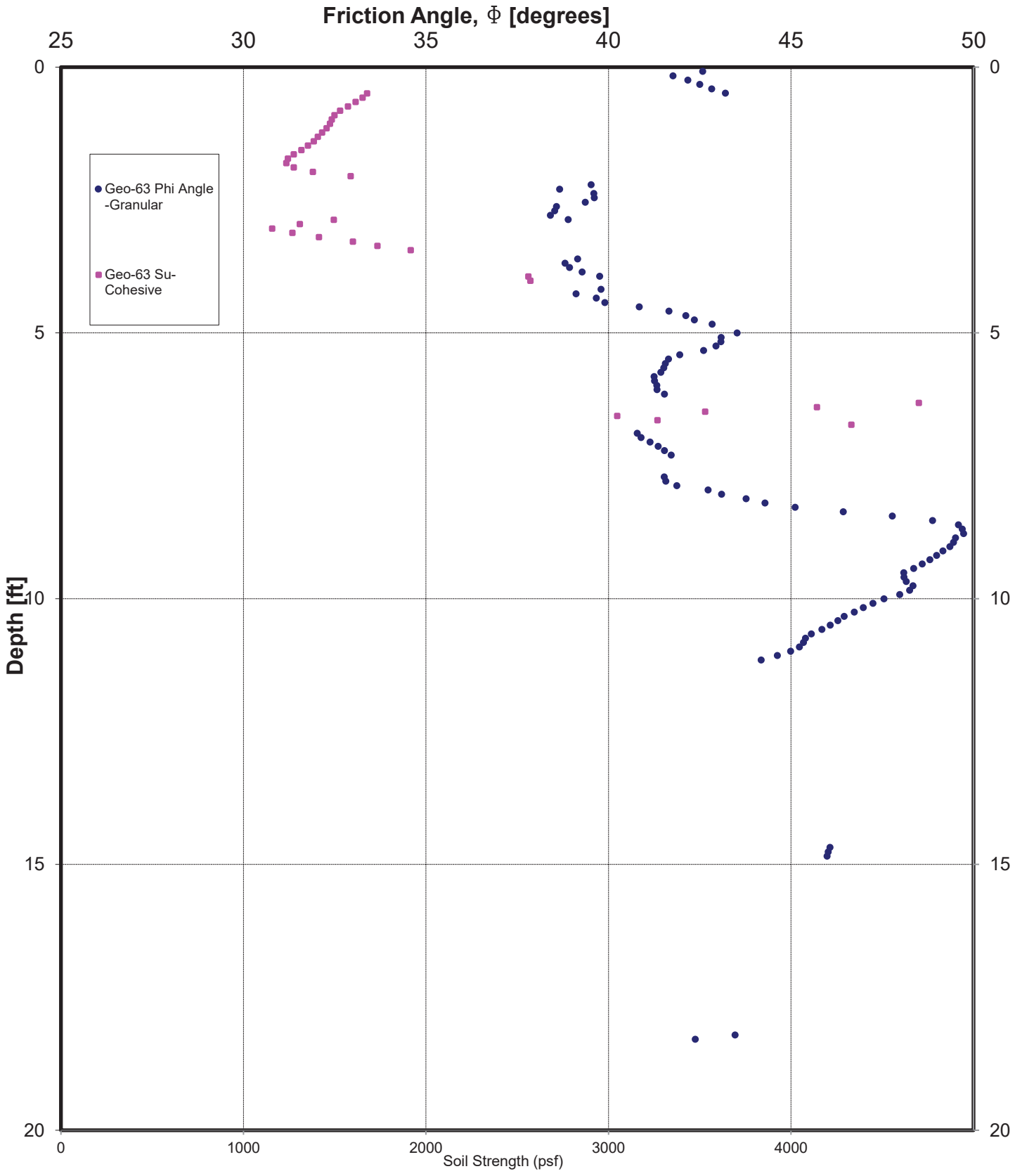
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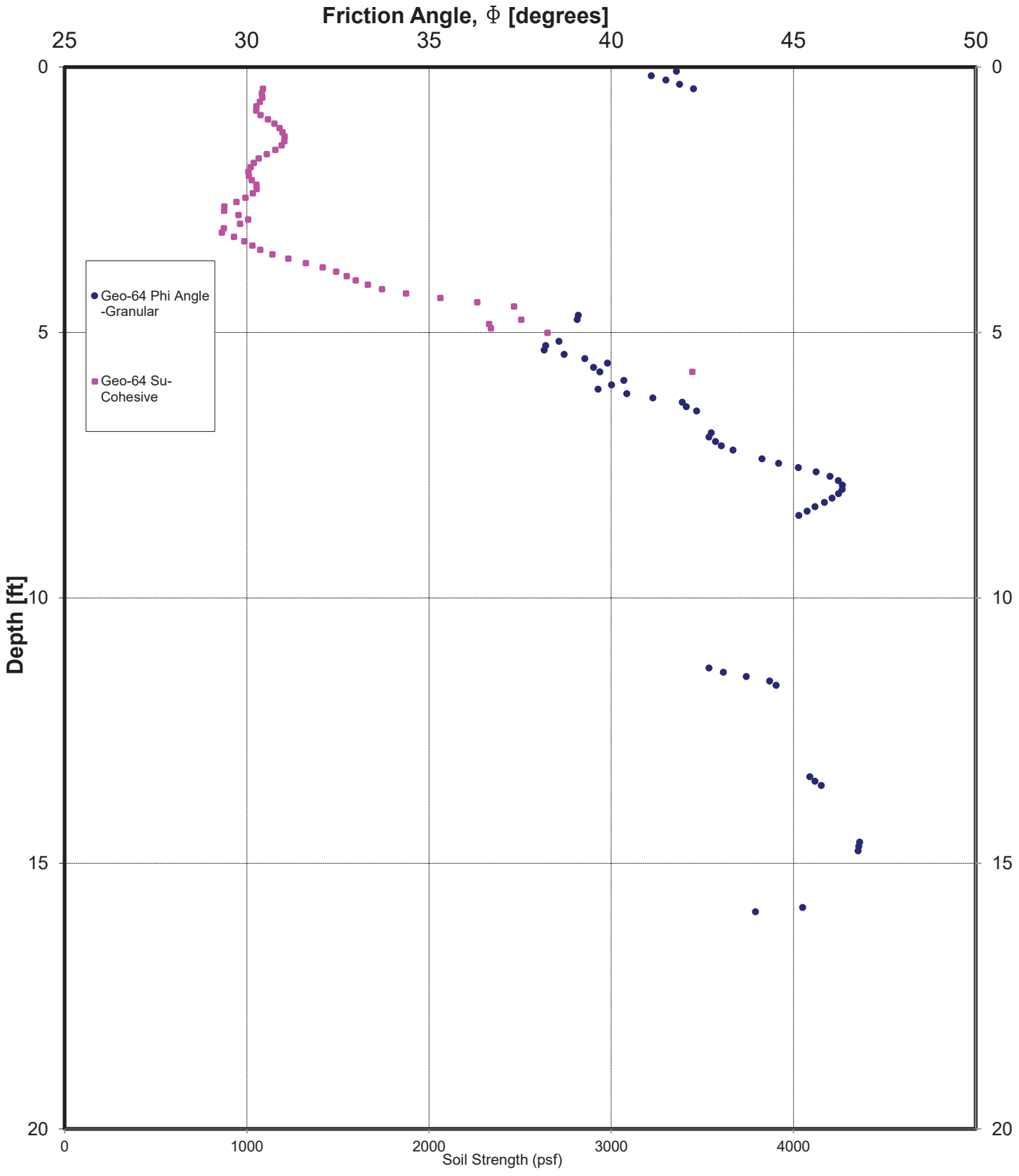
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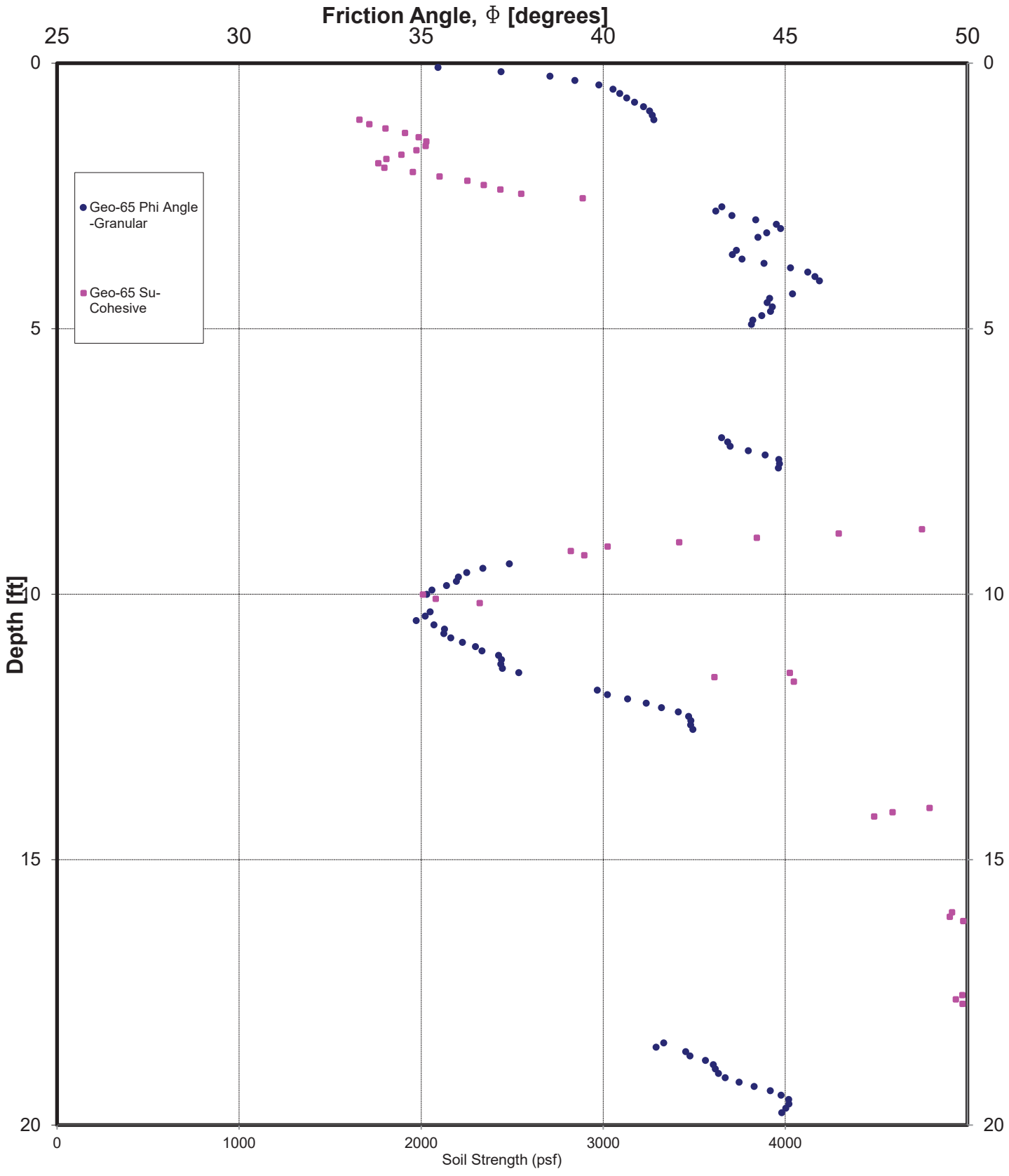
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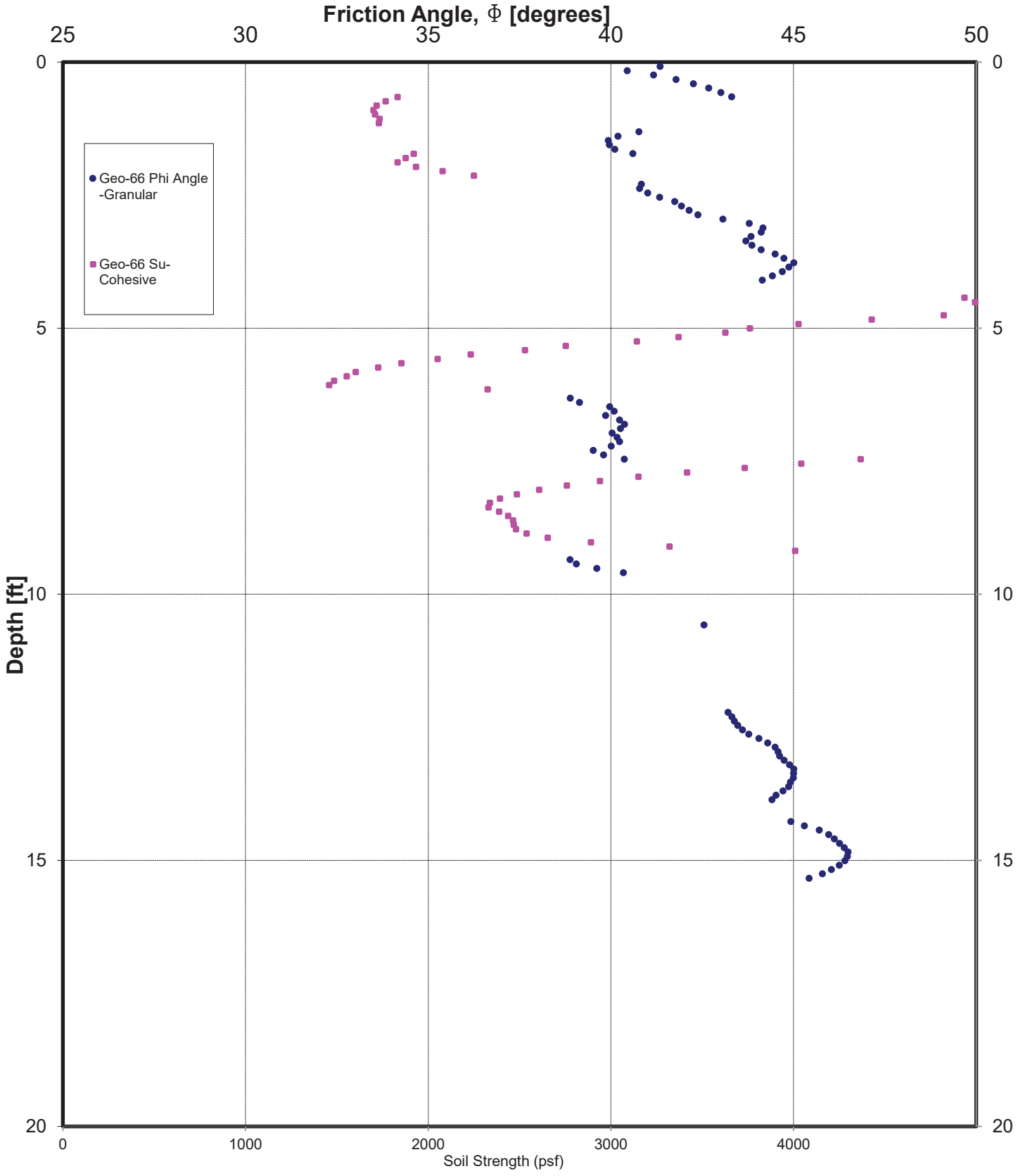
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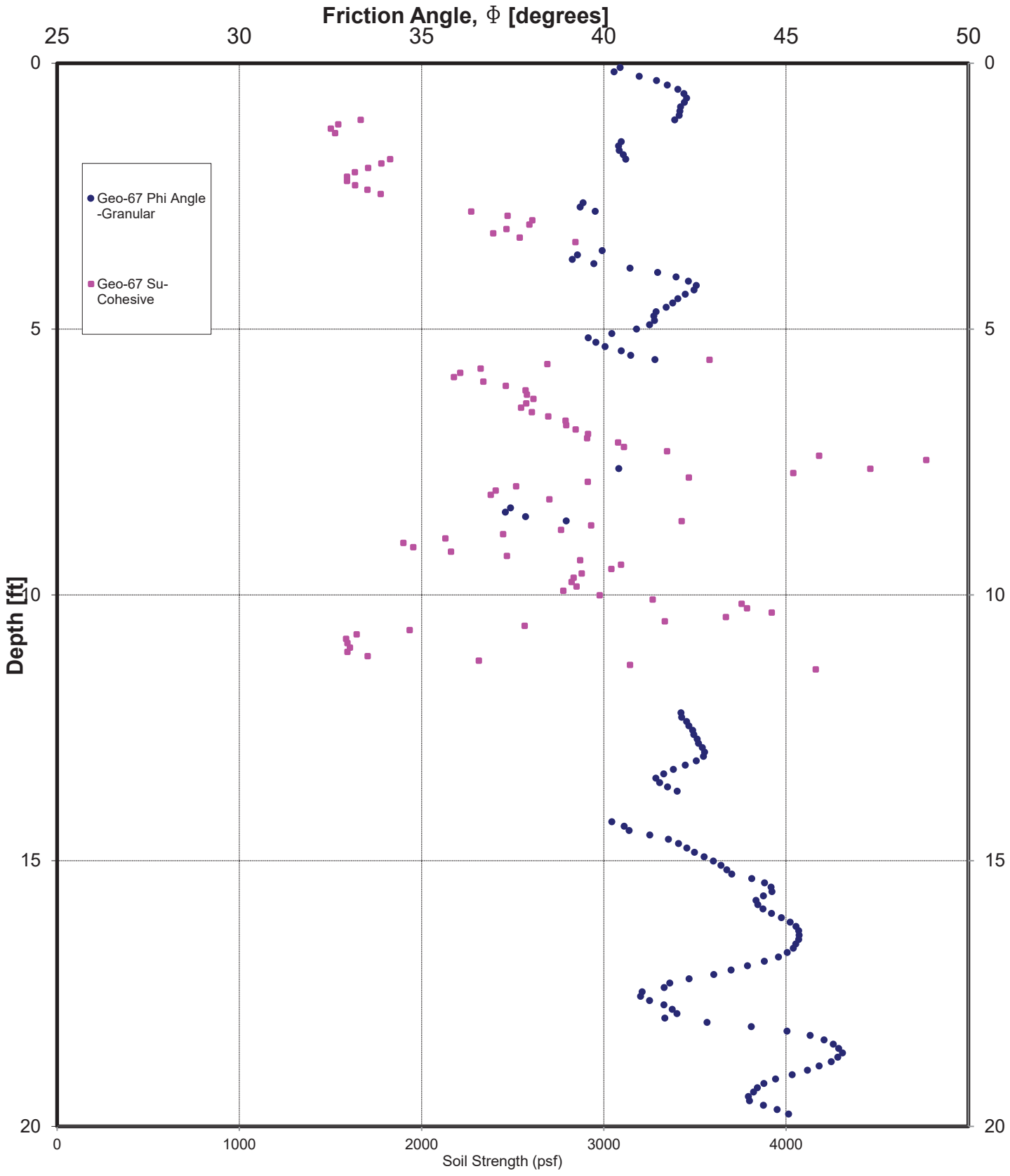
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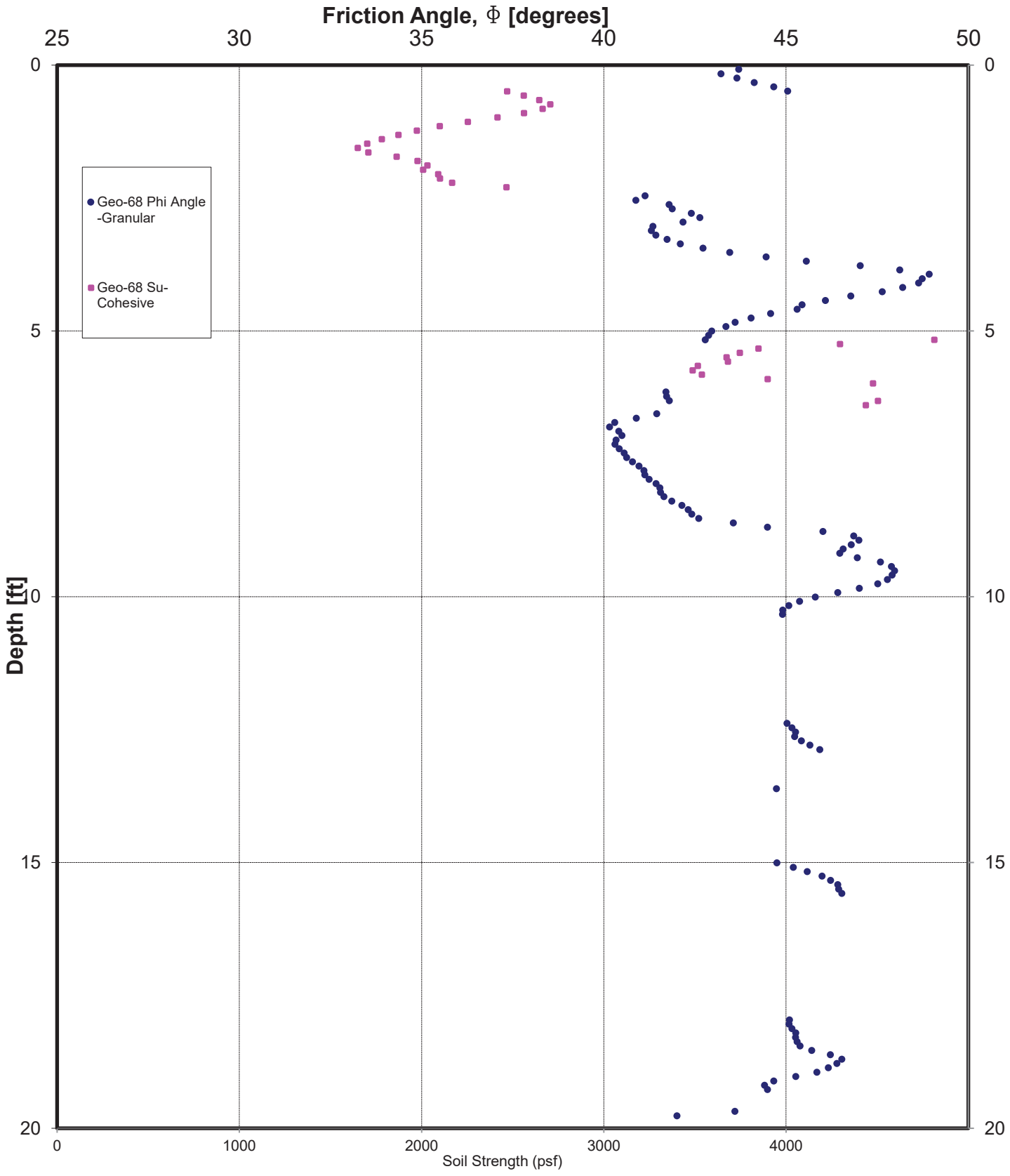
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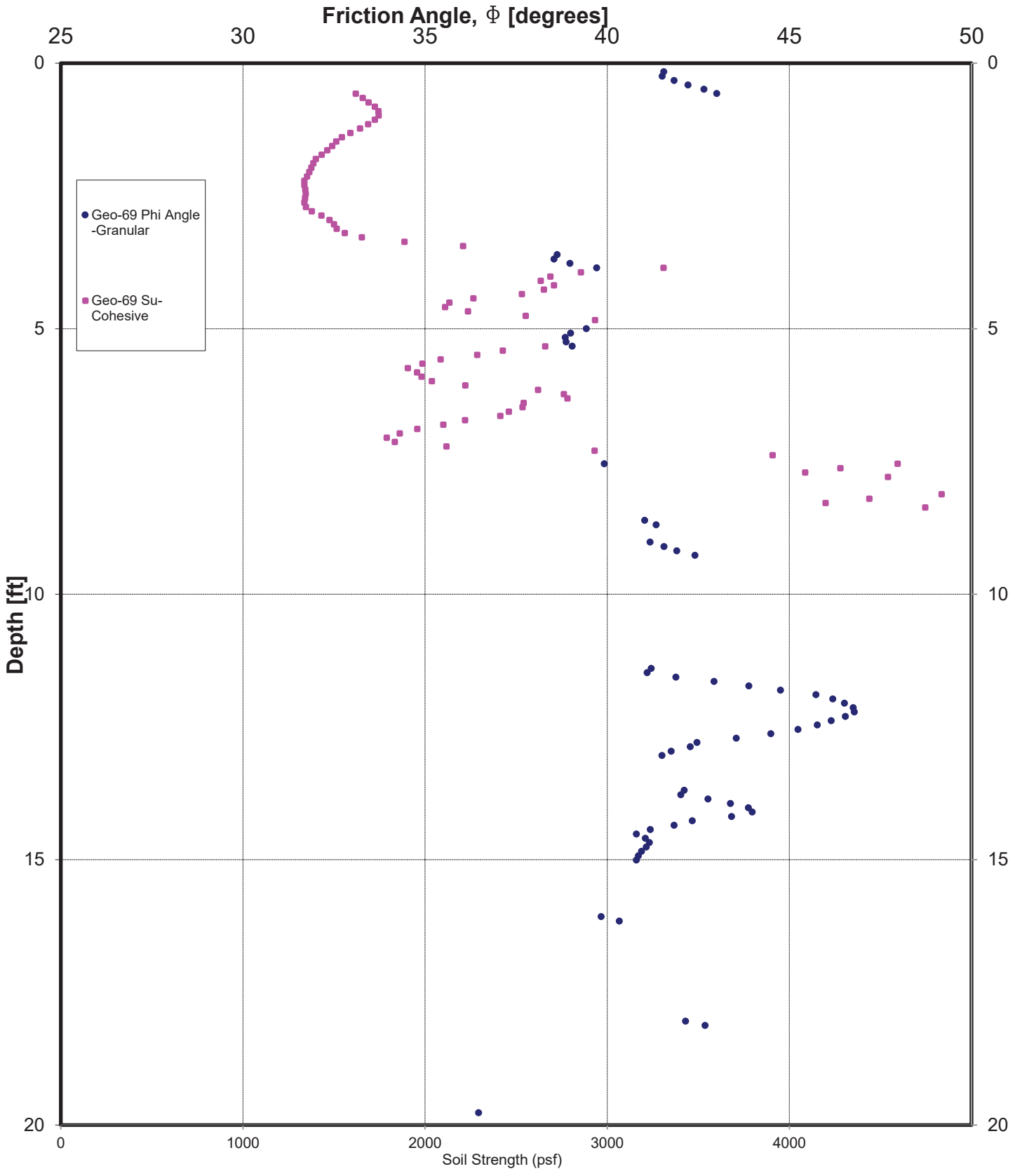
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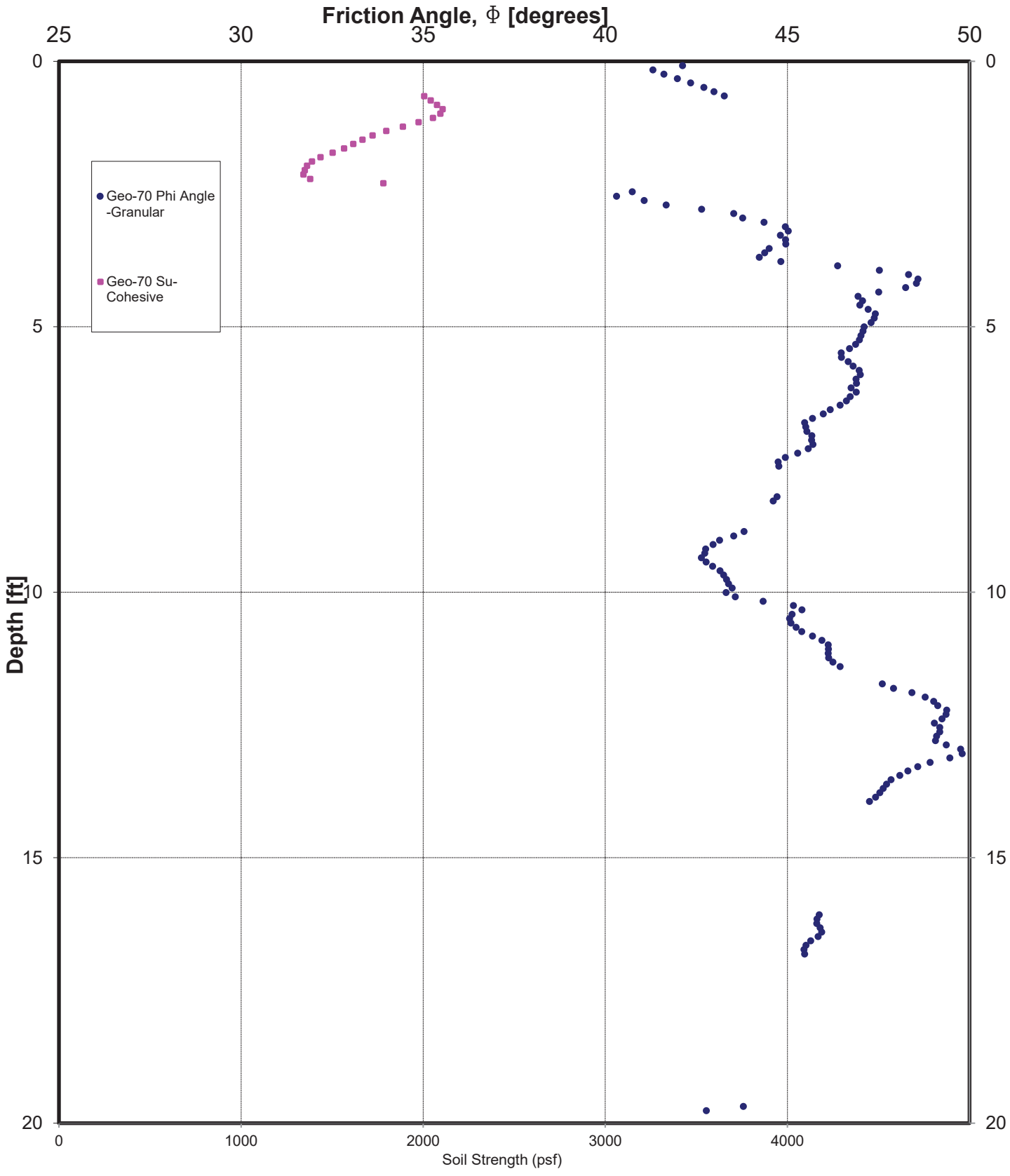
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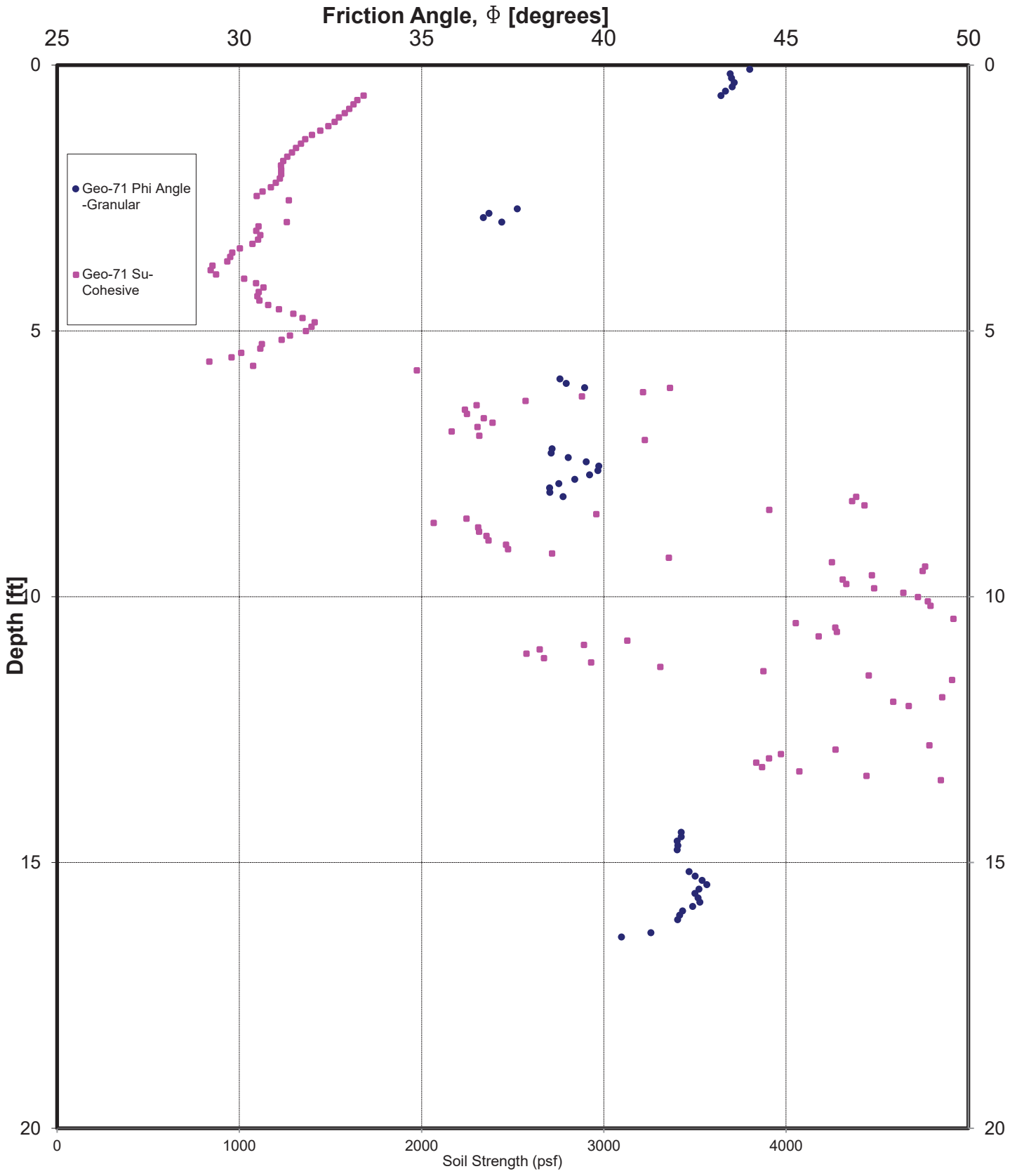
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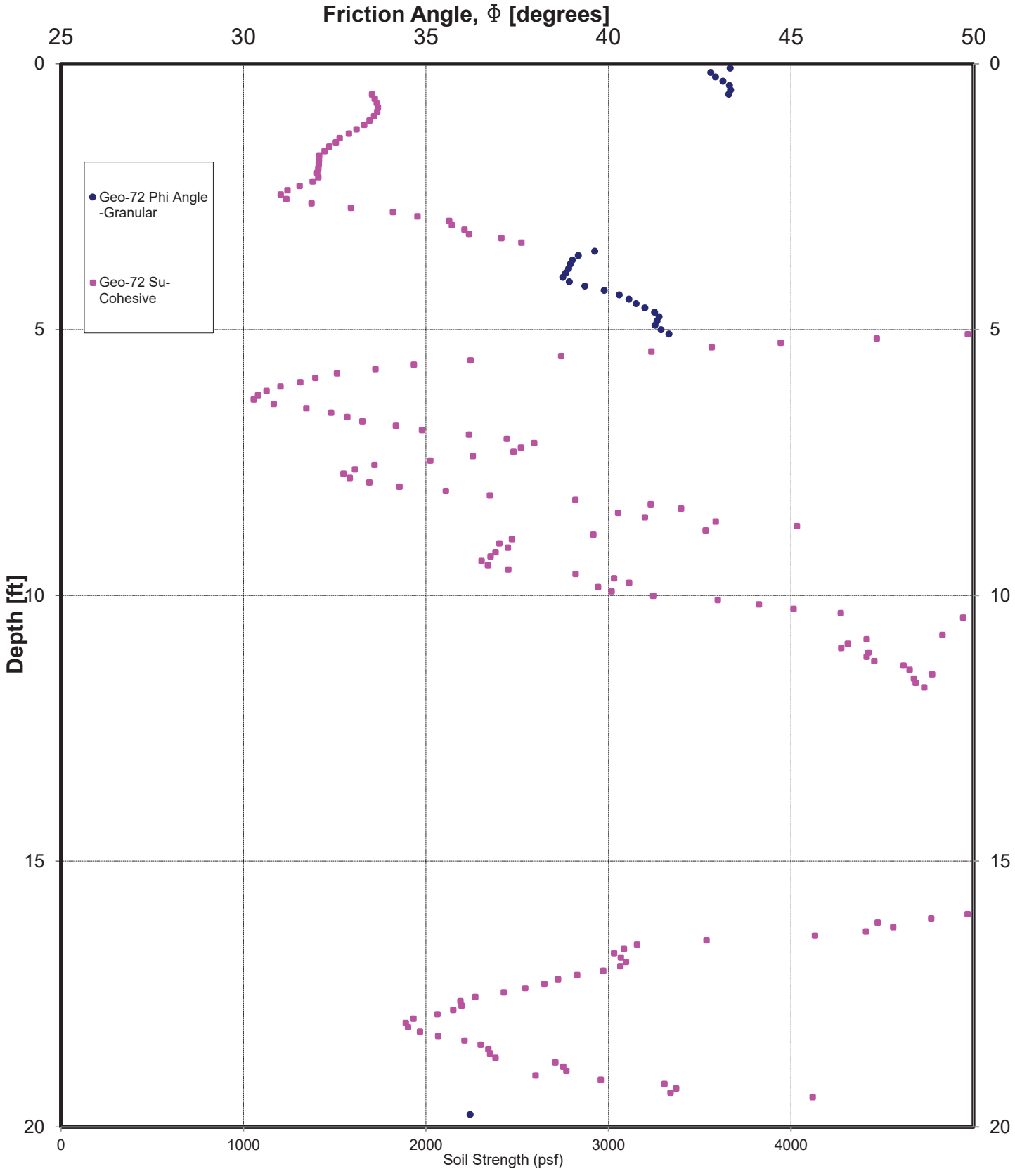
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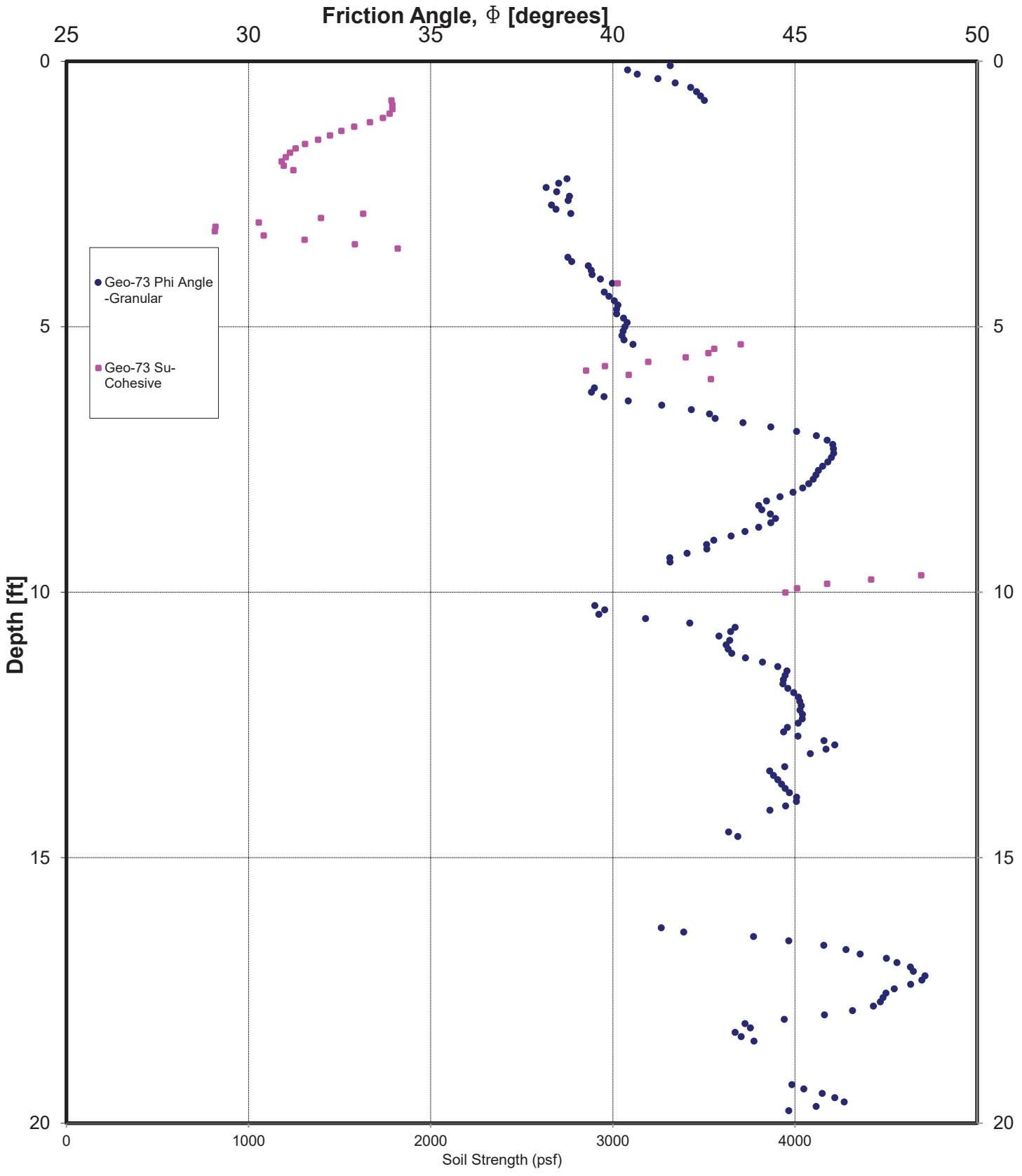
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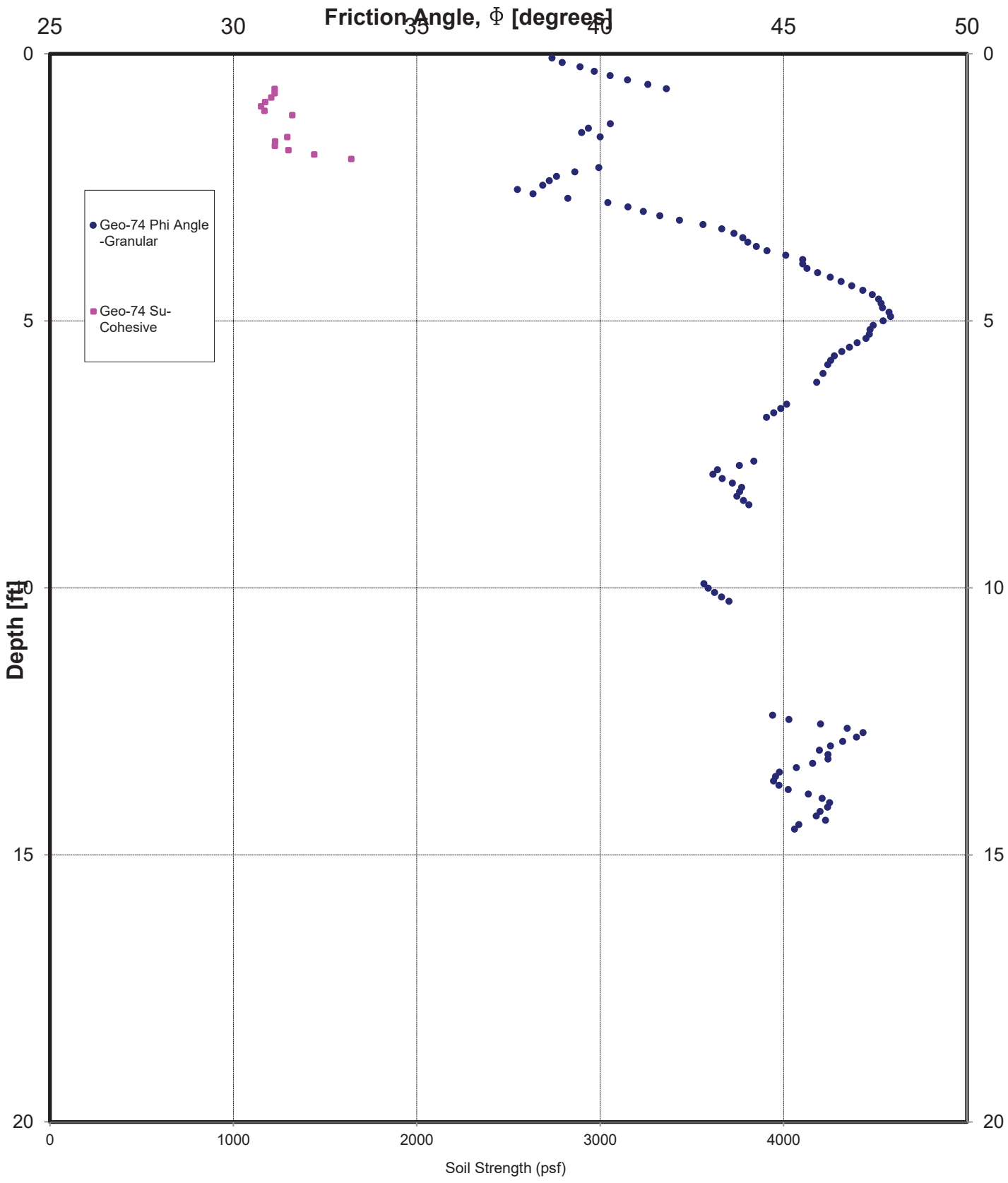
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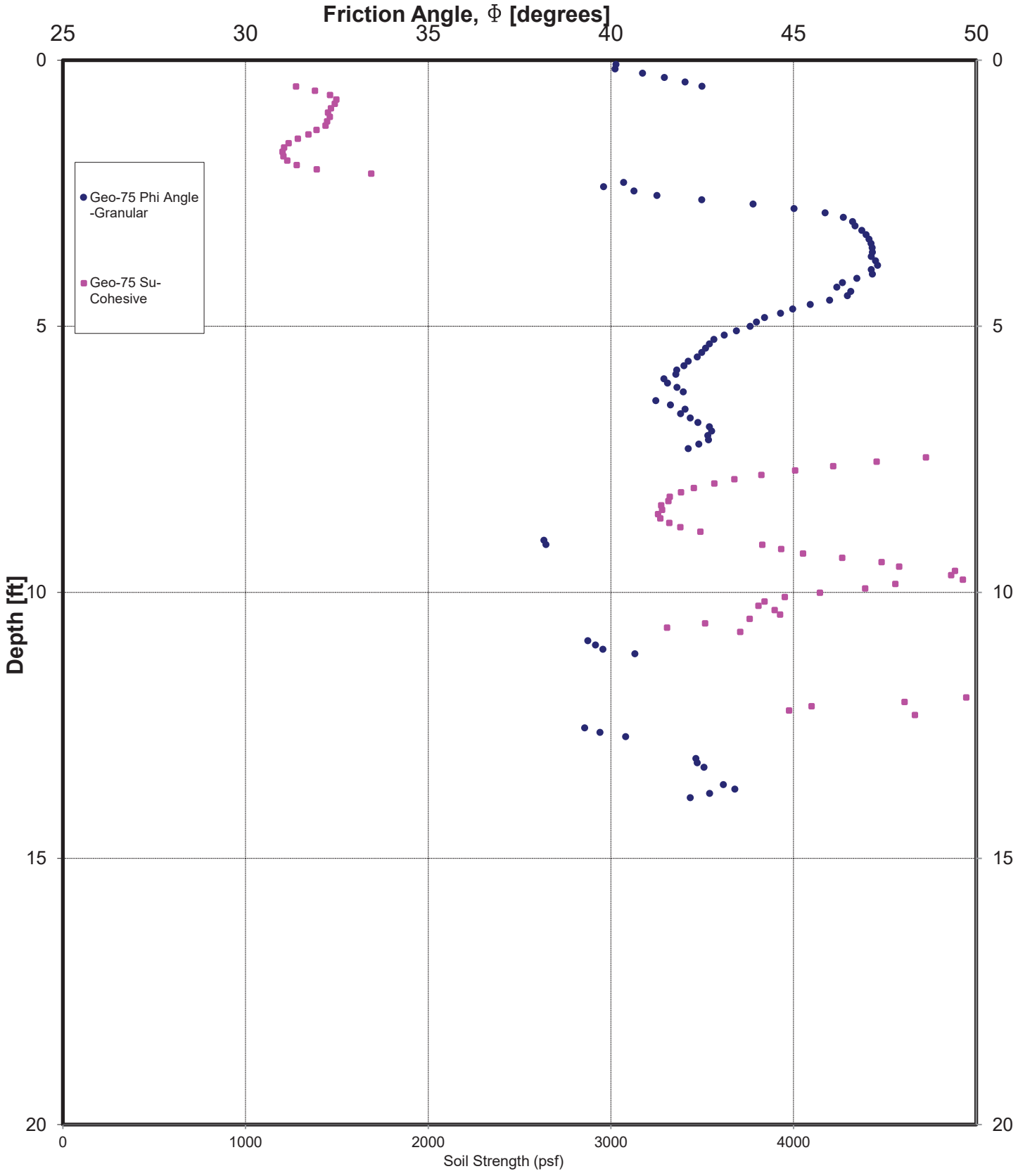
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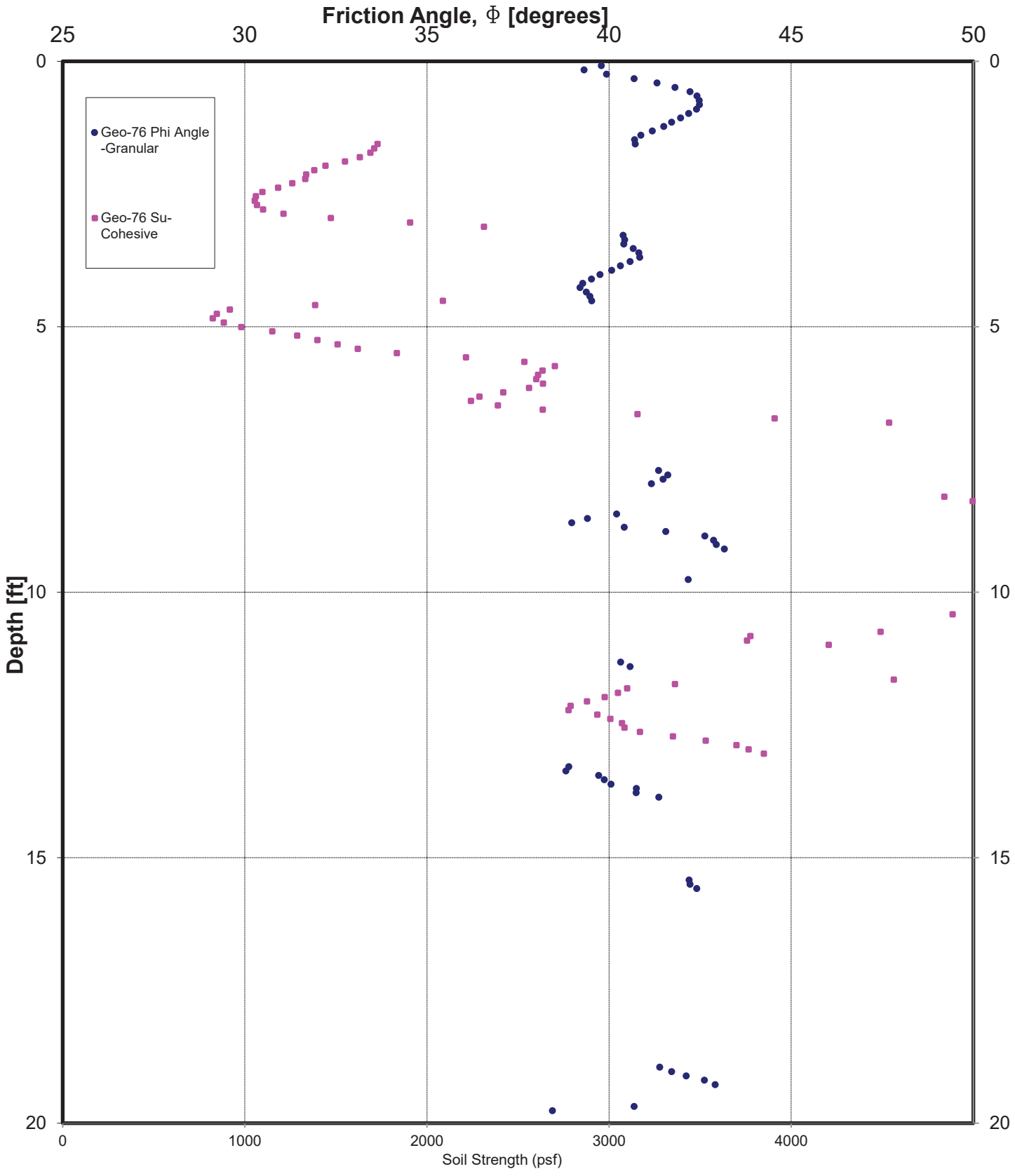
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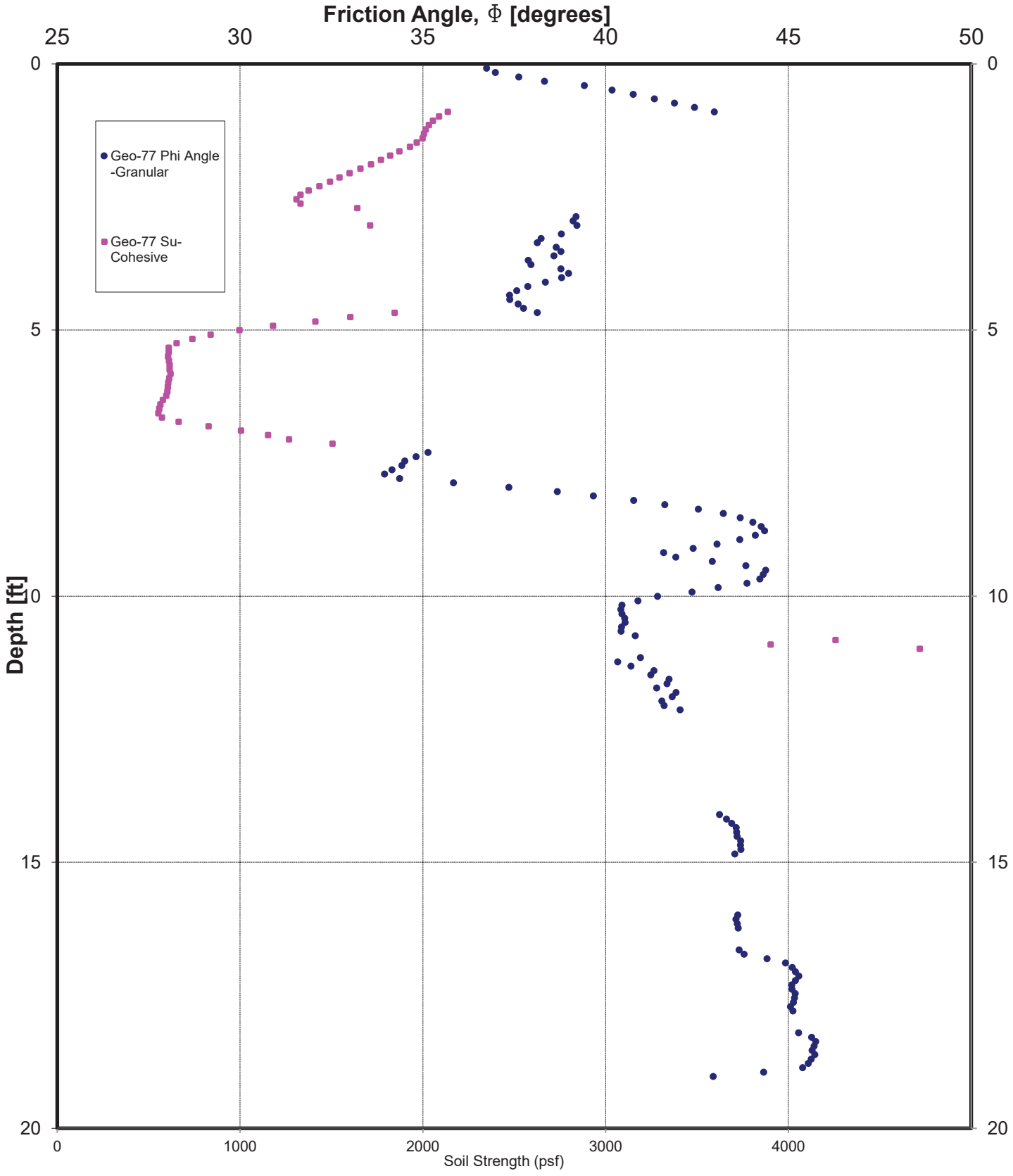
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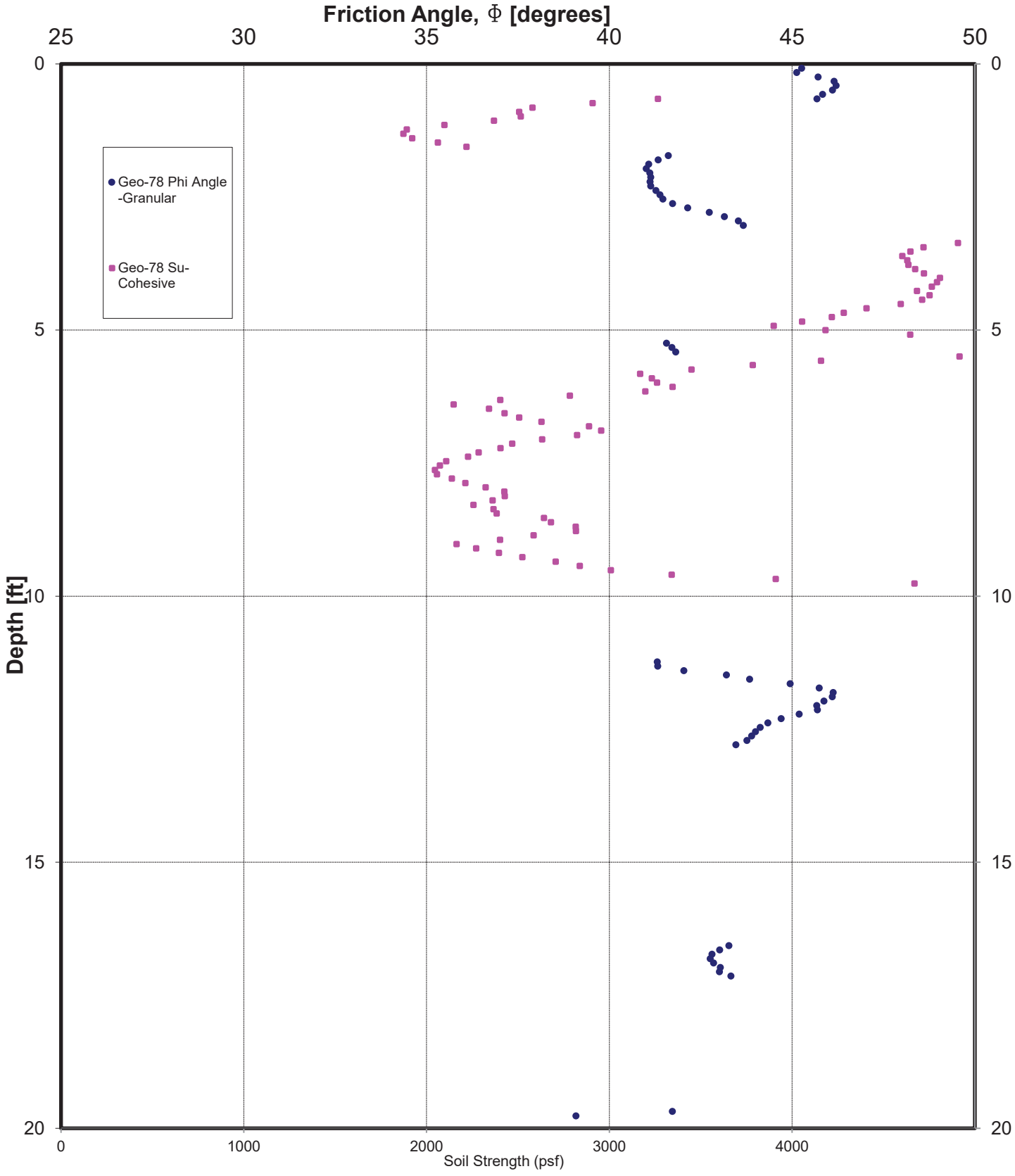
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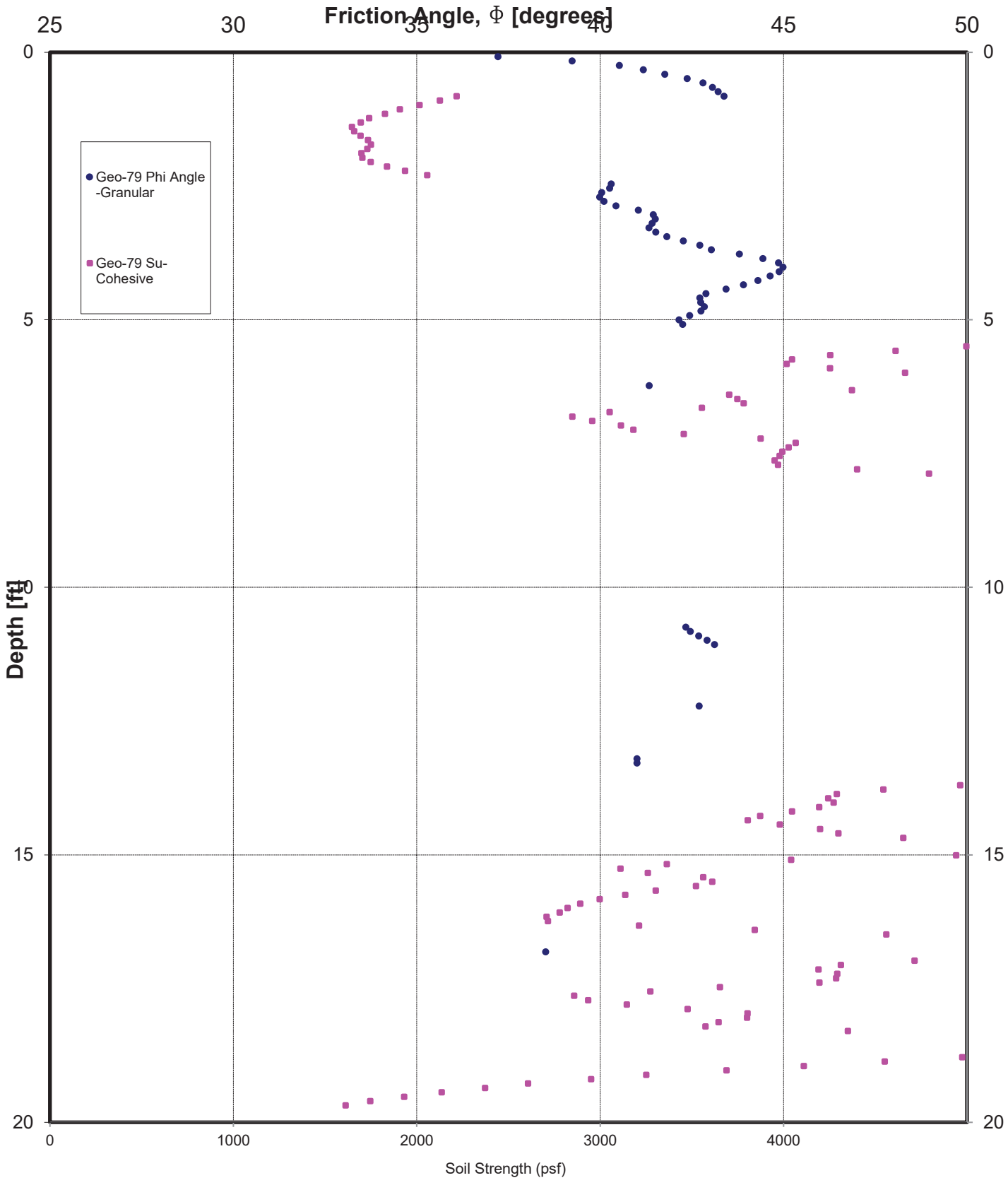
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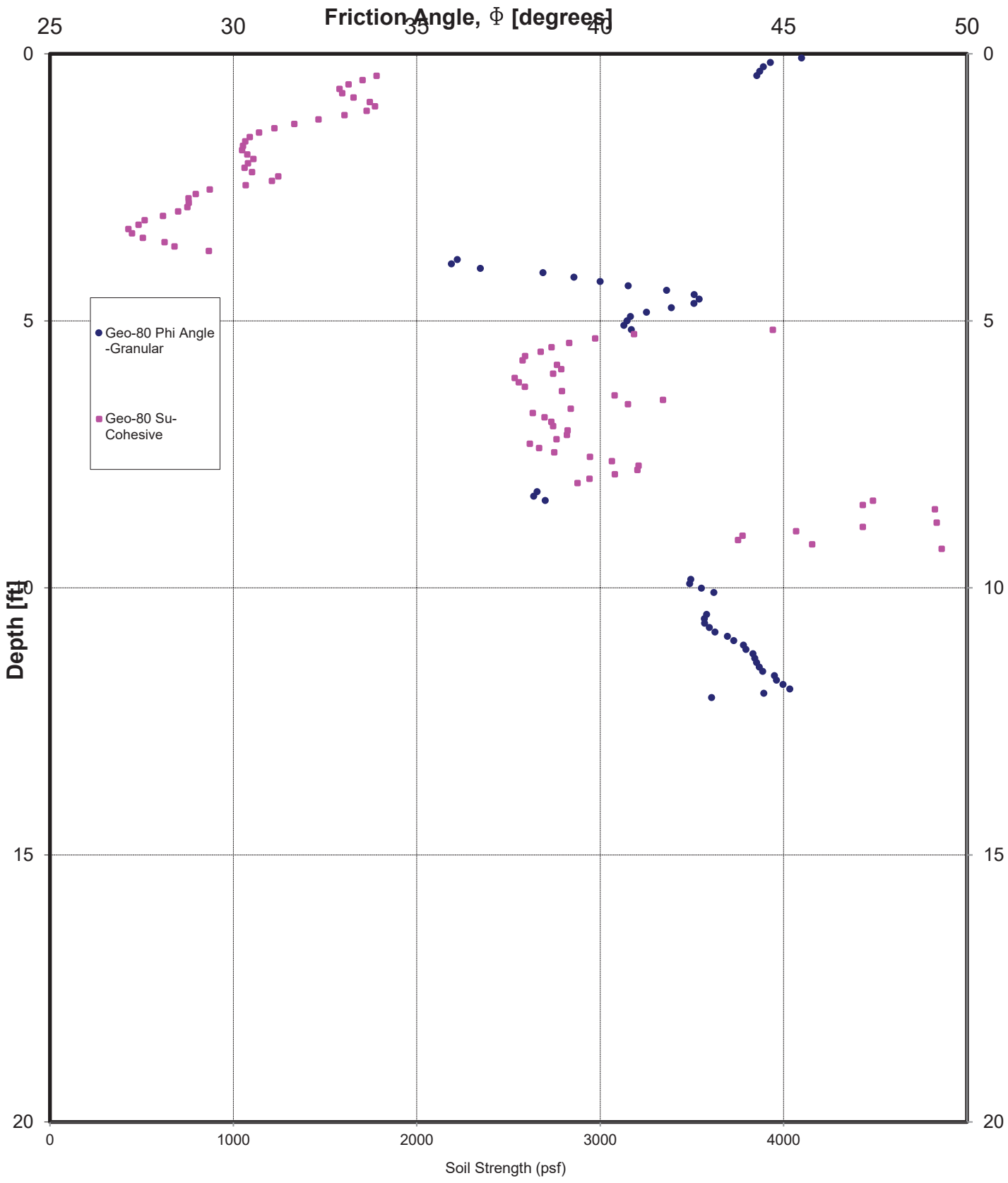
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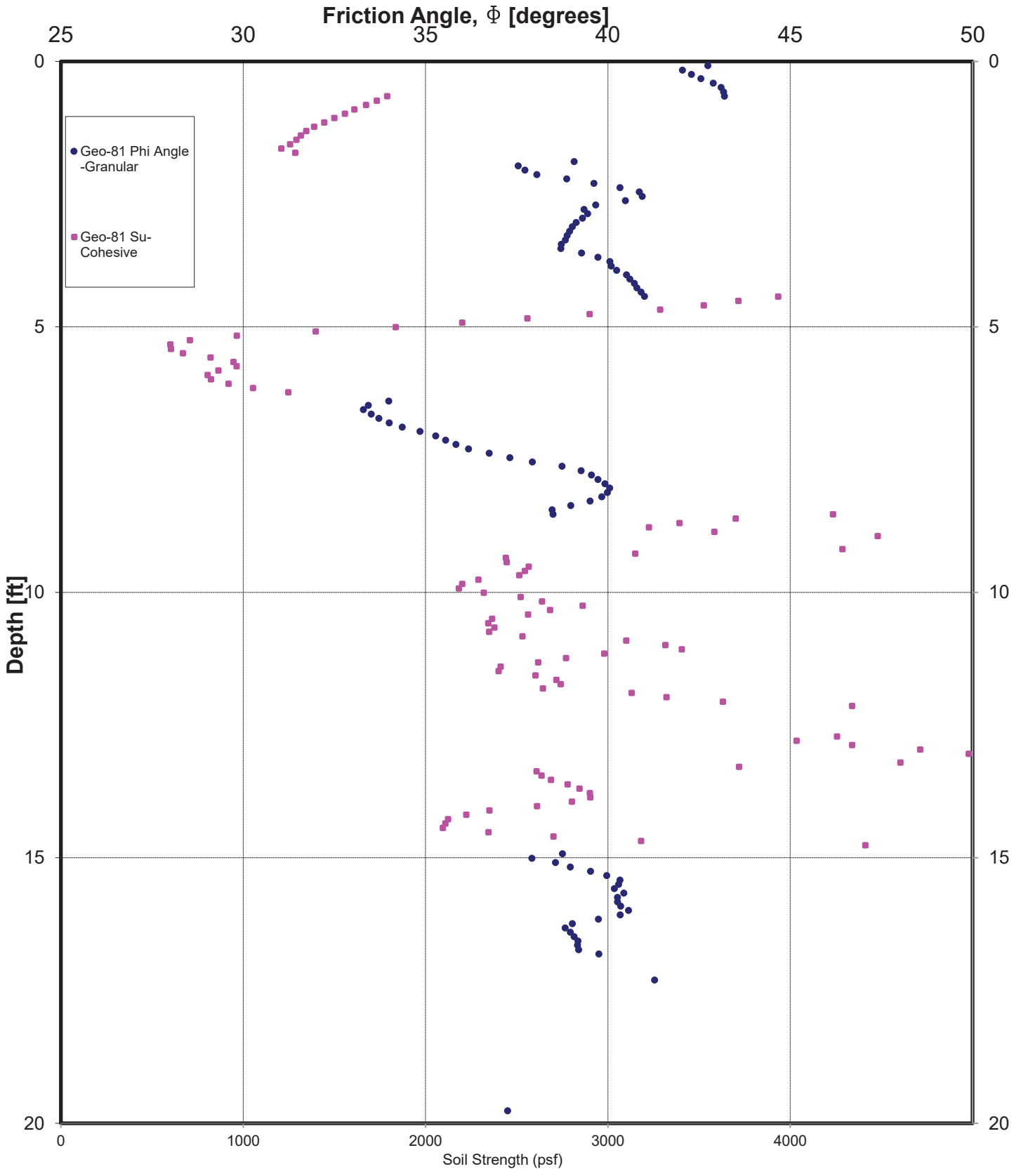
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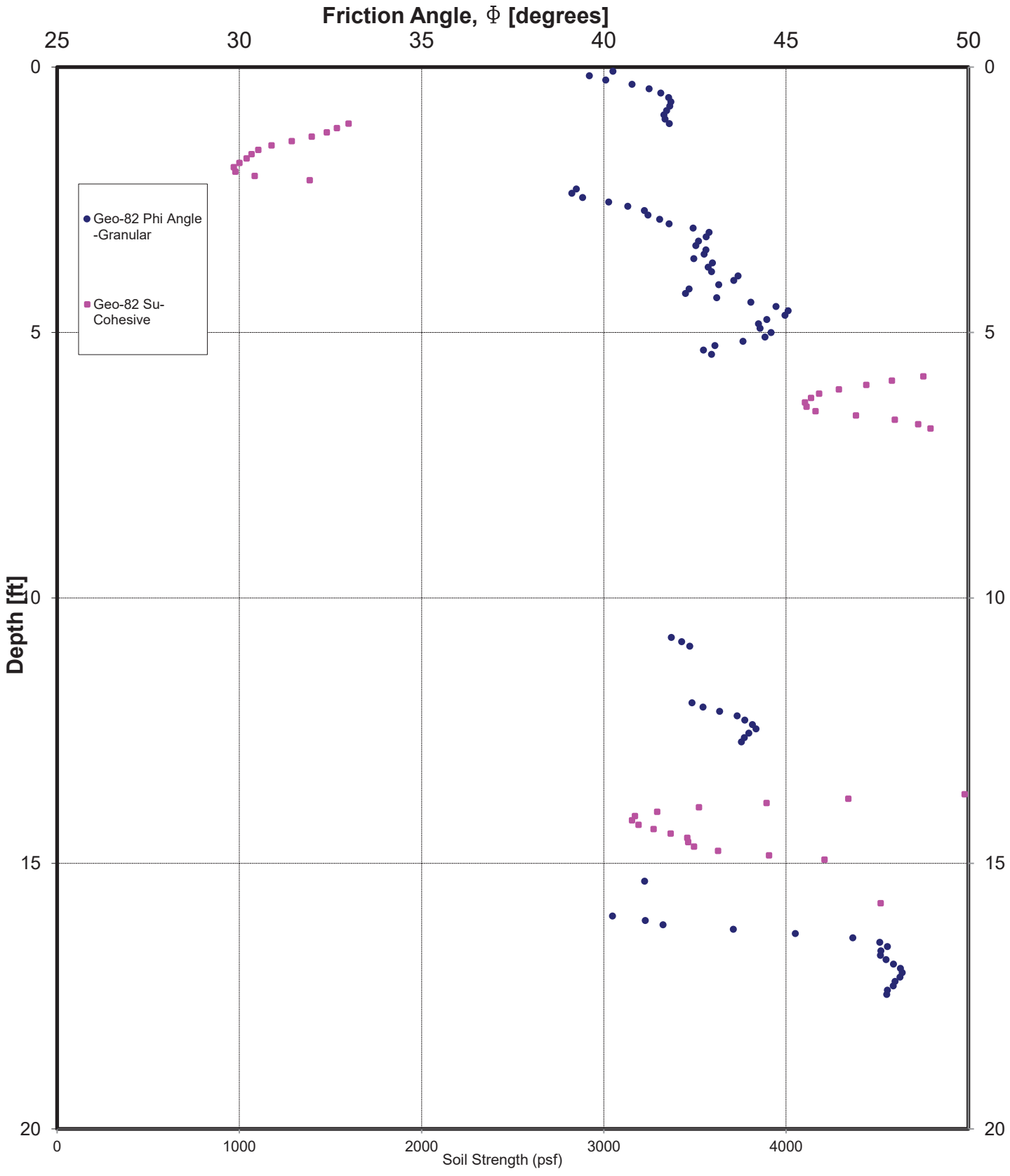
Soil Strength and vs. Depth for site GEO-079 from CPT



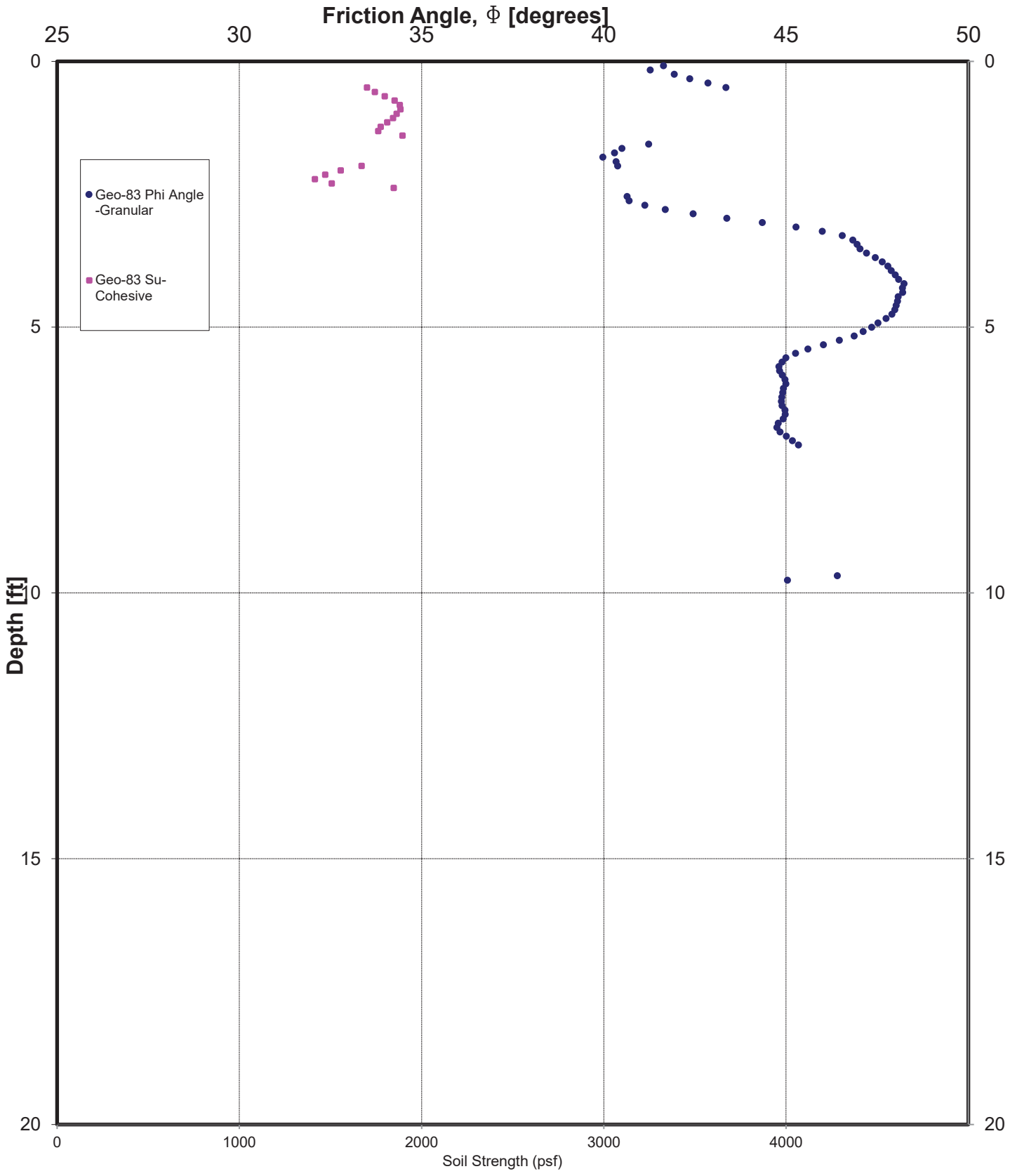
Soil Strength and vs. Depth for site GEO-080 from CPT



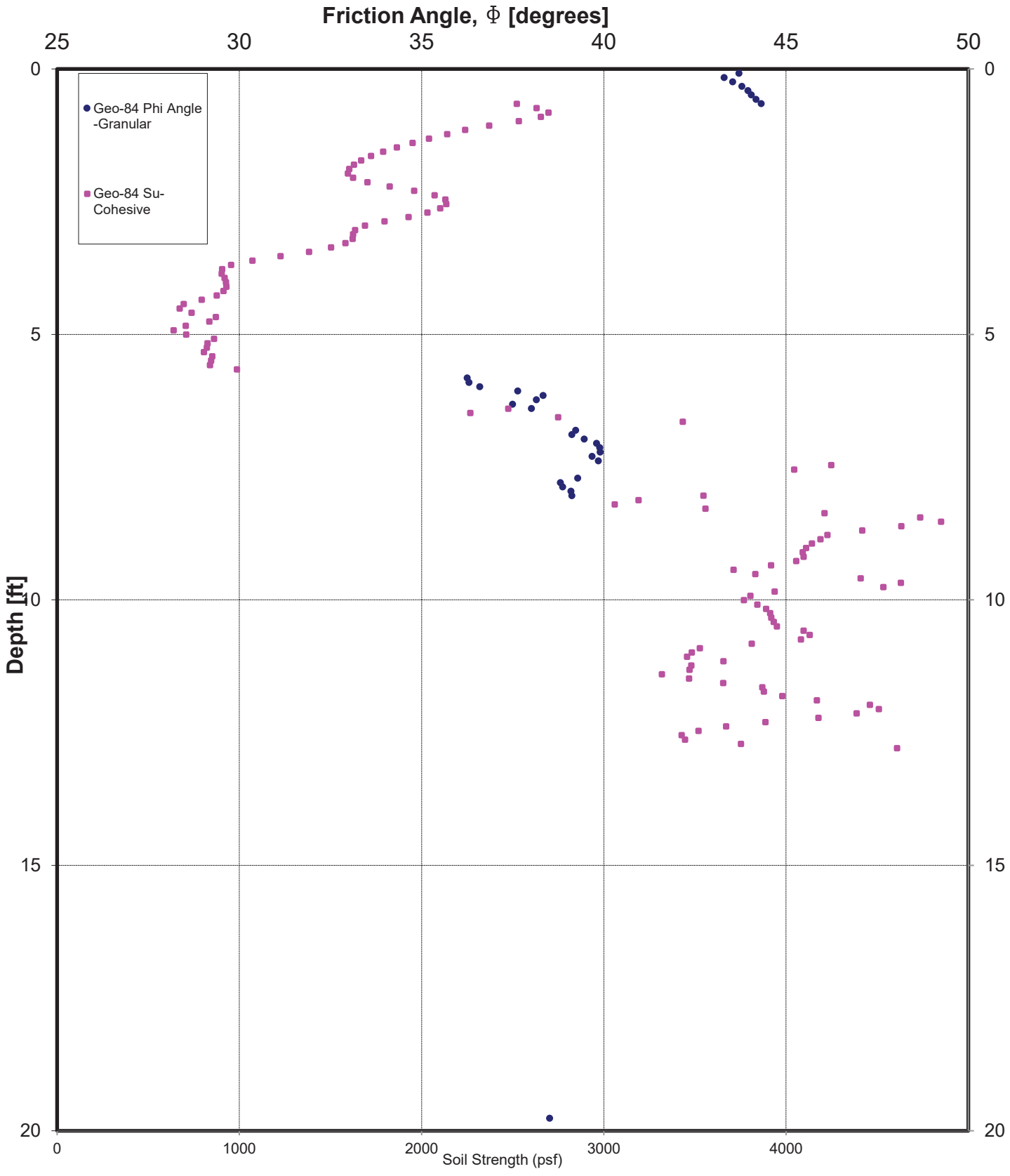
Soil Strength and vs. Depth for site GEO-081 from CPT



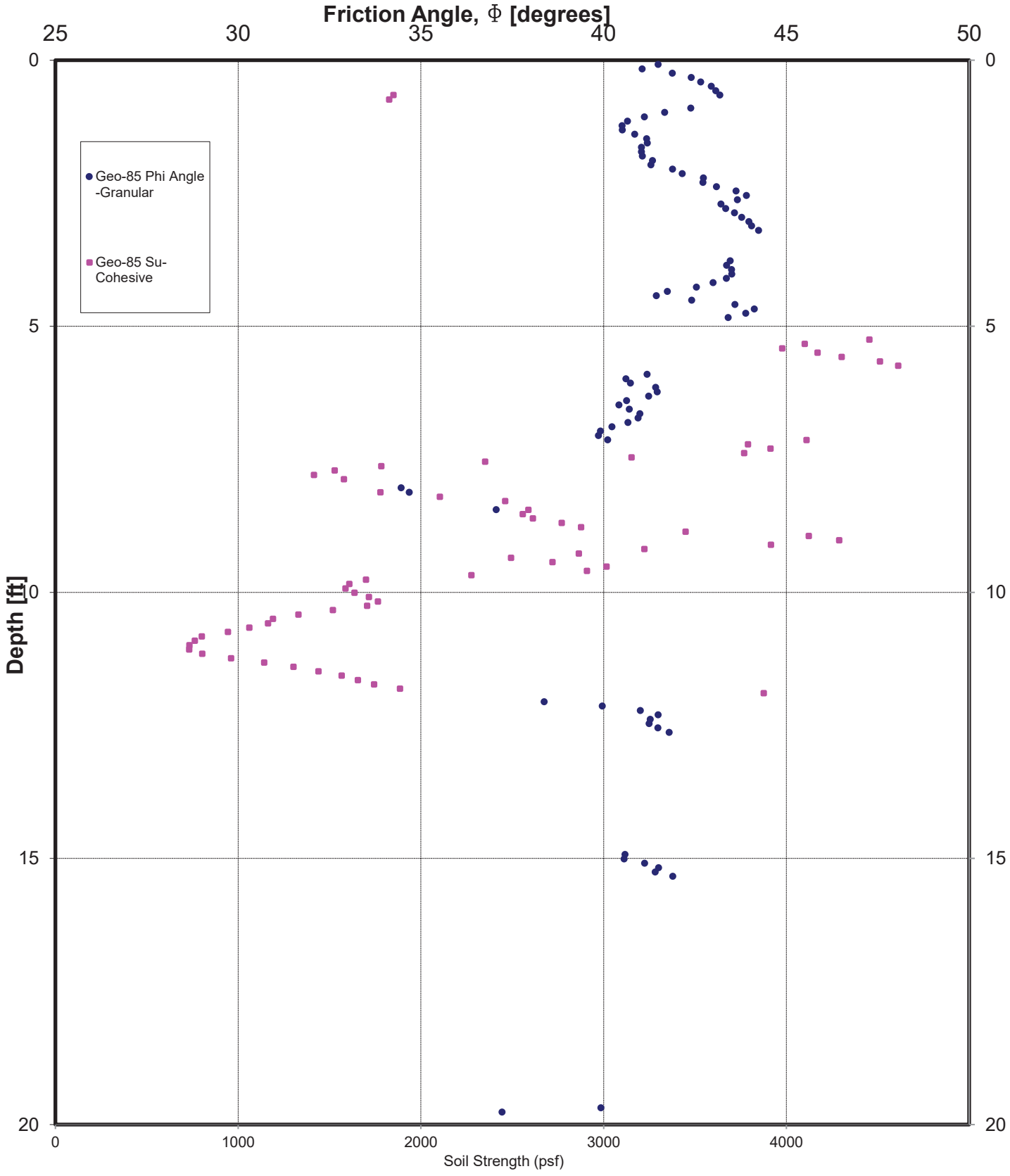
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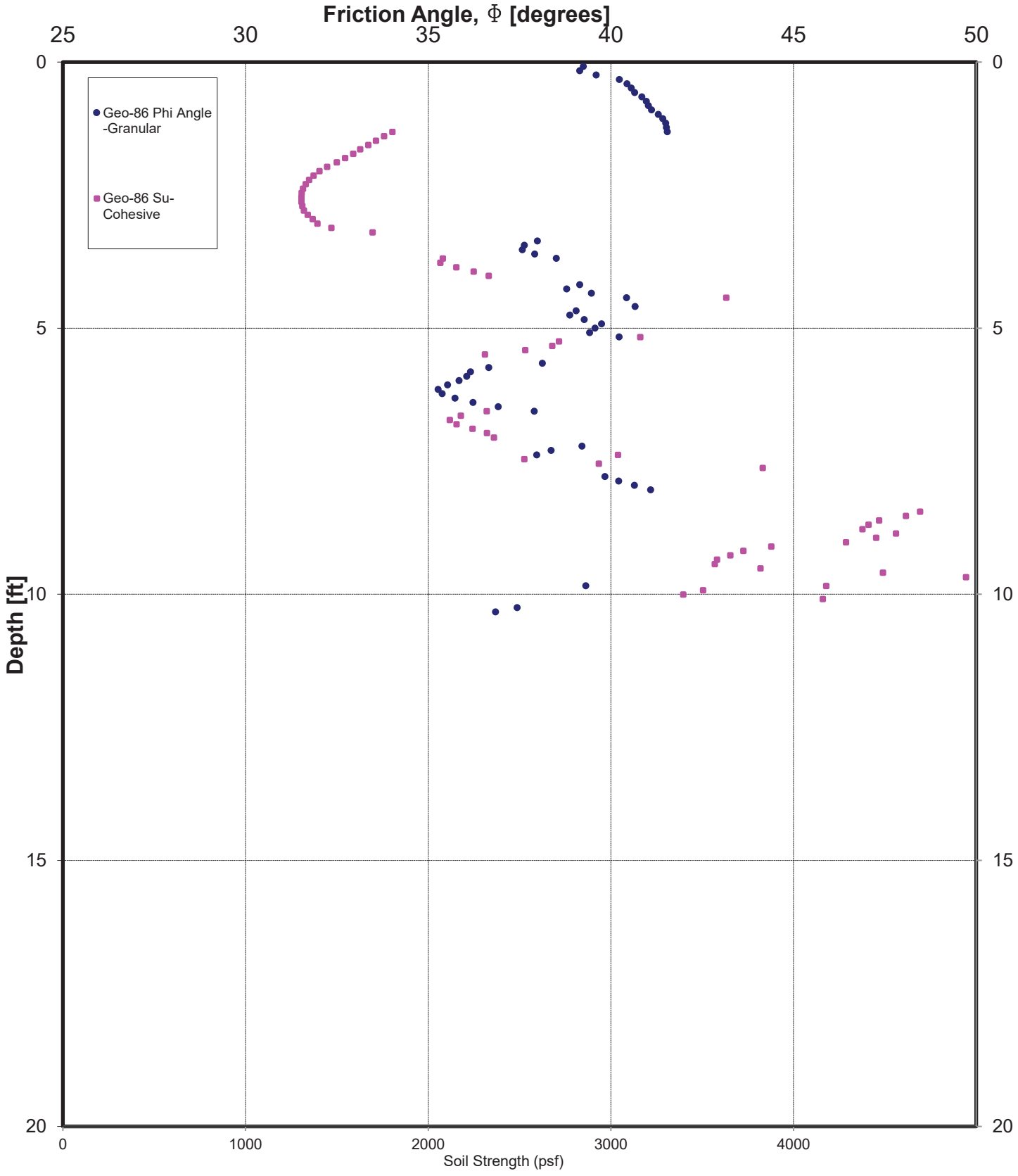
Soil Strength and vs. Depth for site GEO-083 from CPT



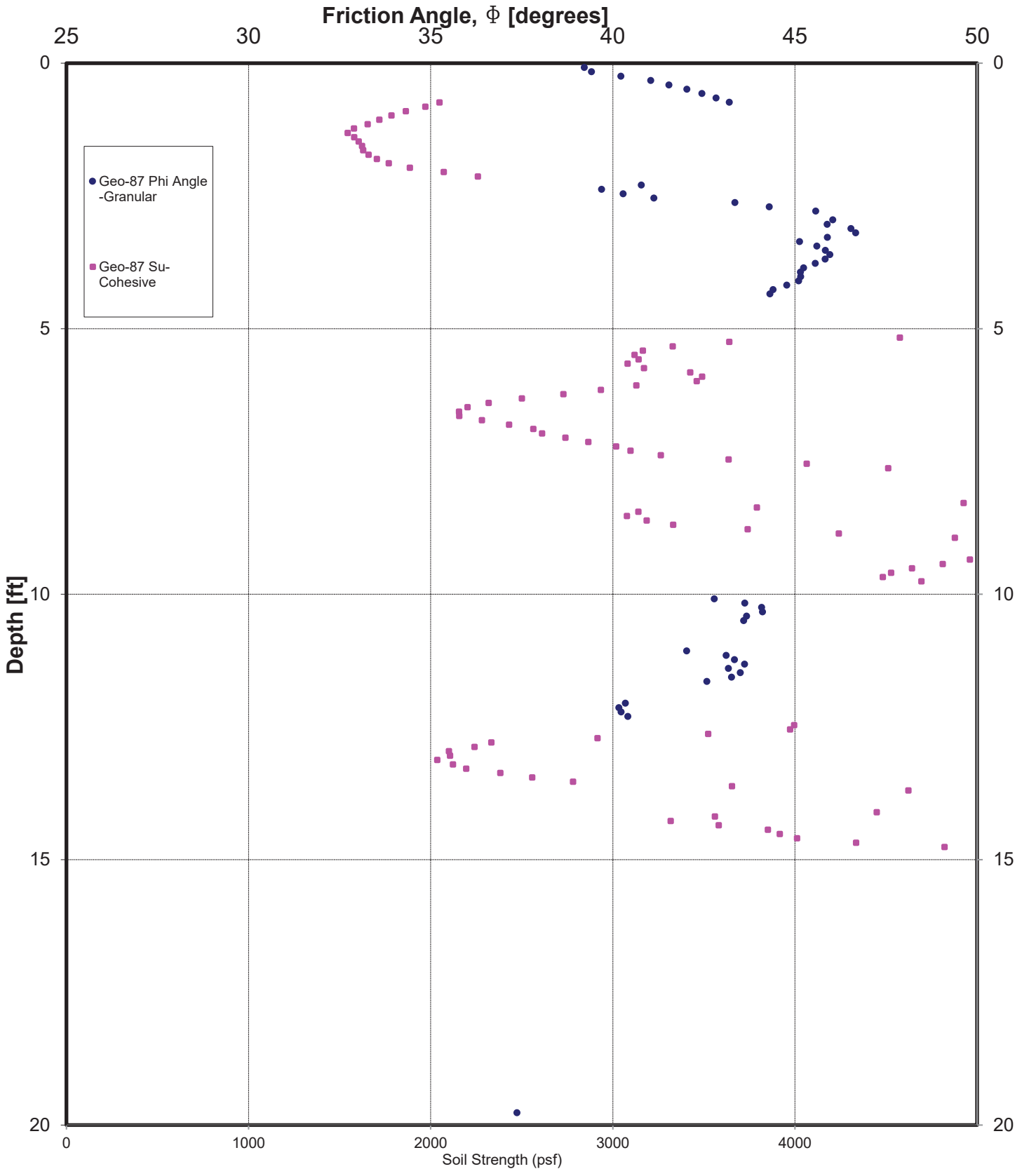
Soil Strength and vs. Depth for site GEO-084 from CPT



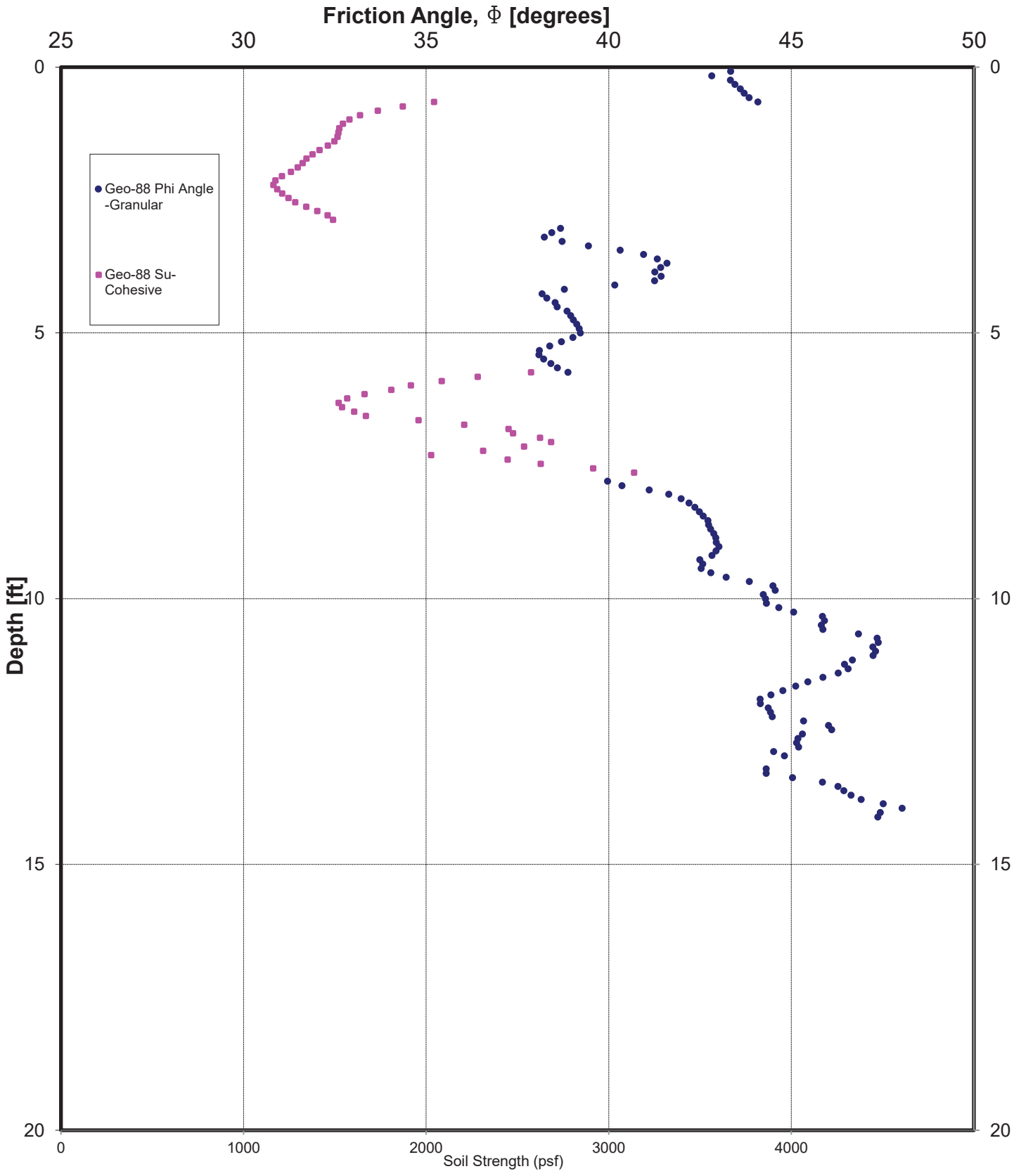
Soil Strength and vs. Depth for site GEO-085 from CPT



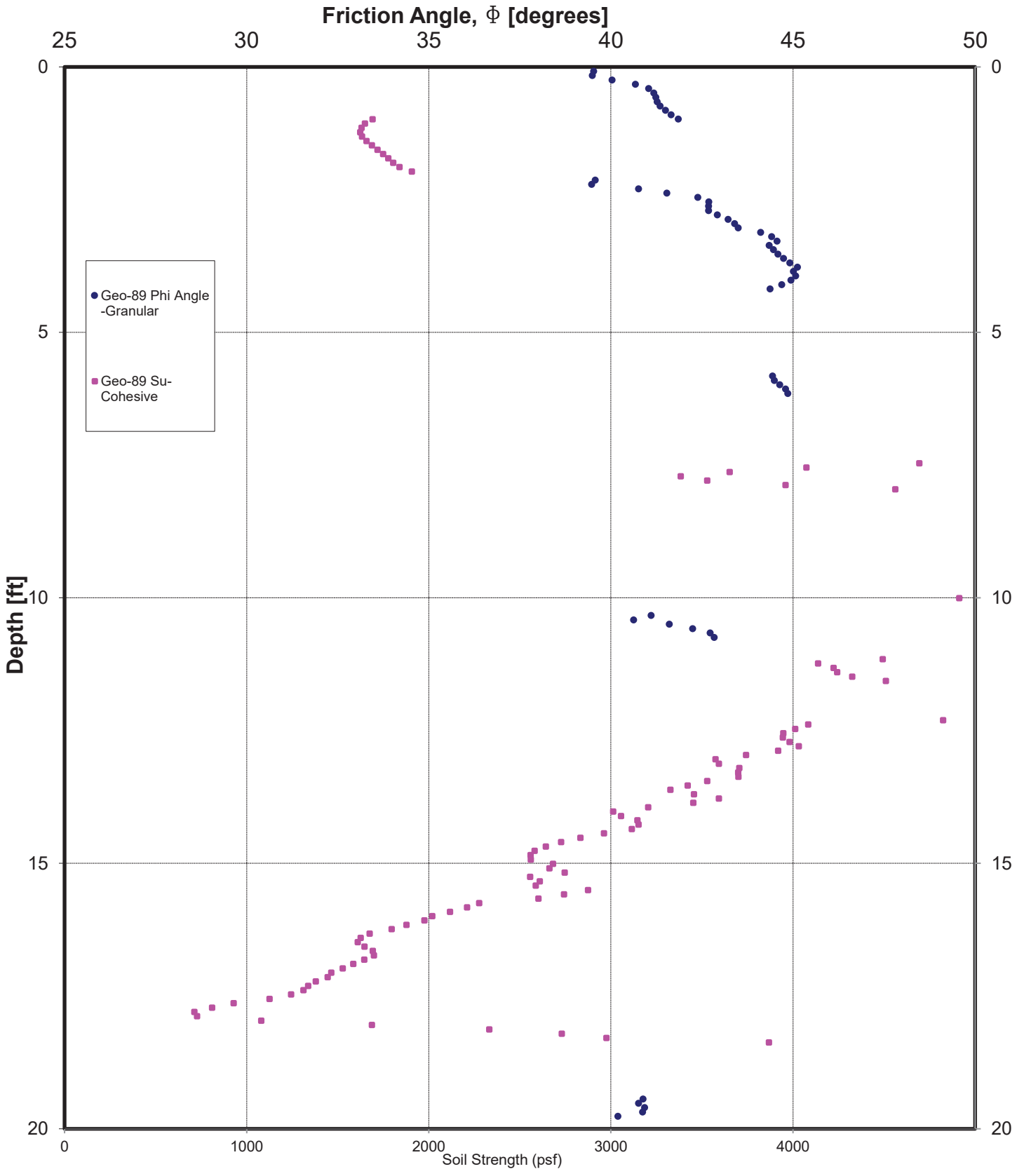
Soil Strength and vs. Depth for site GEO-086 from CPT



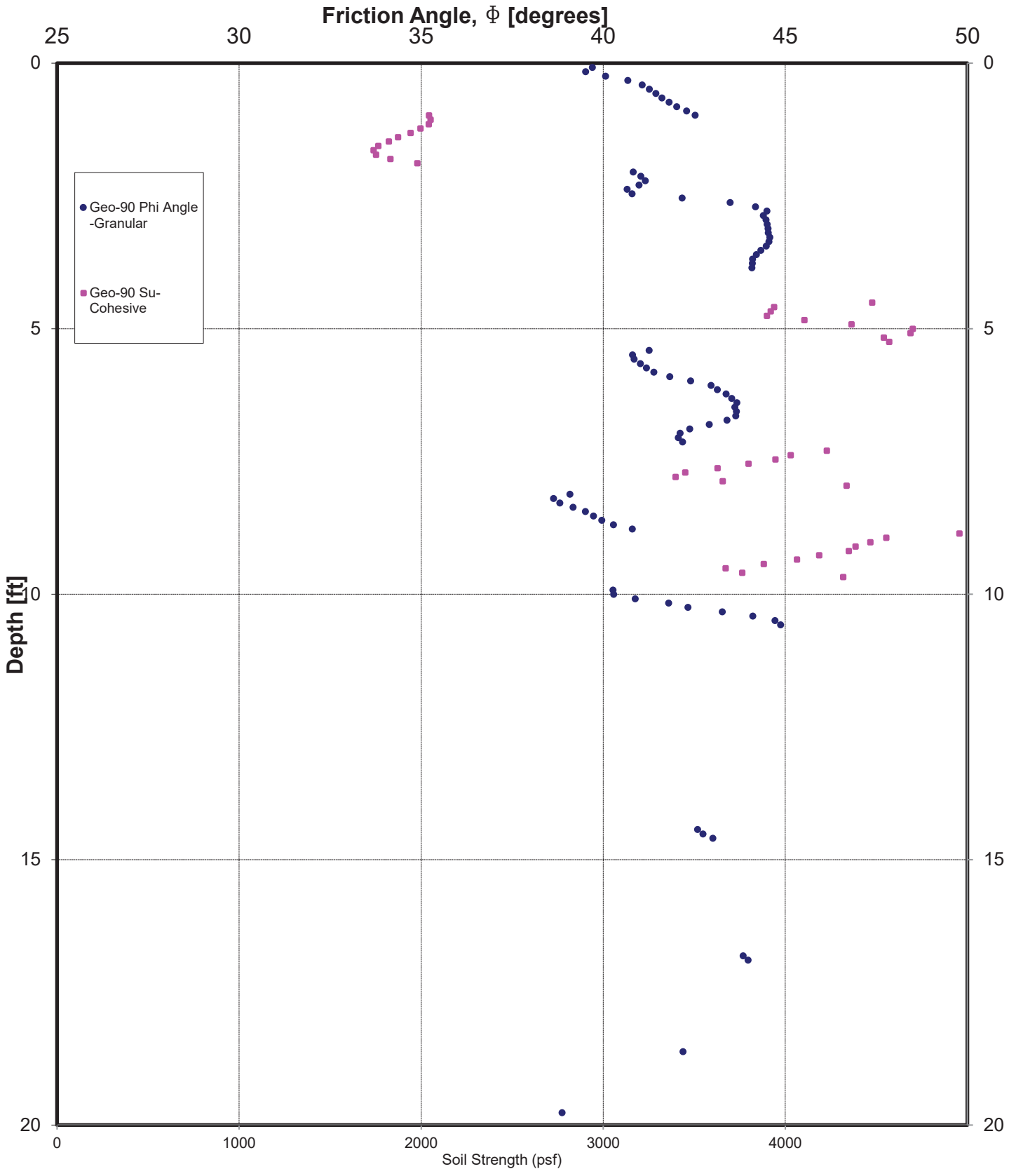
Soil Strength and vs. Depth for site GEO-087 from CPT



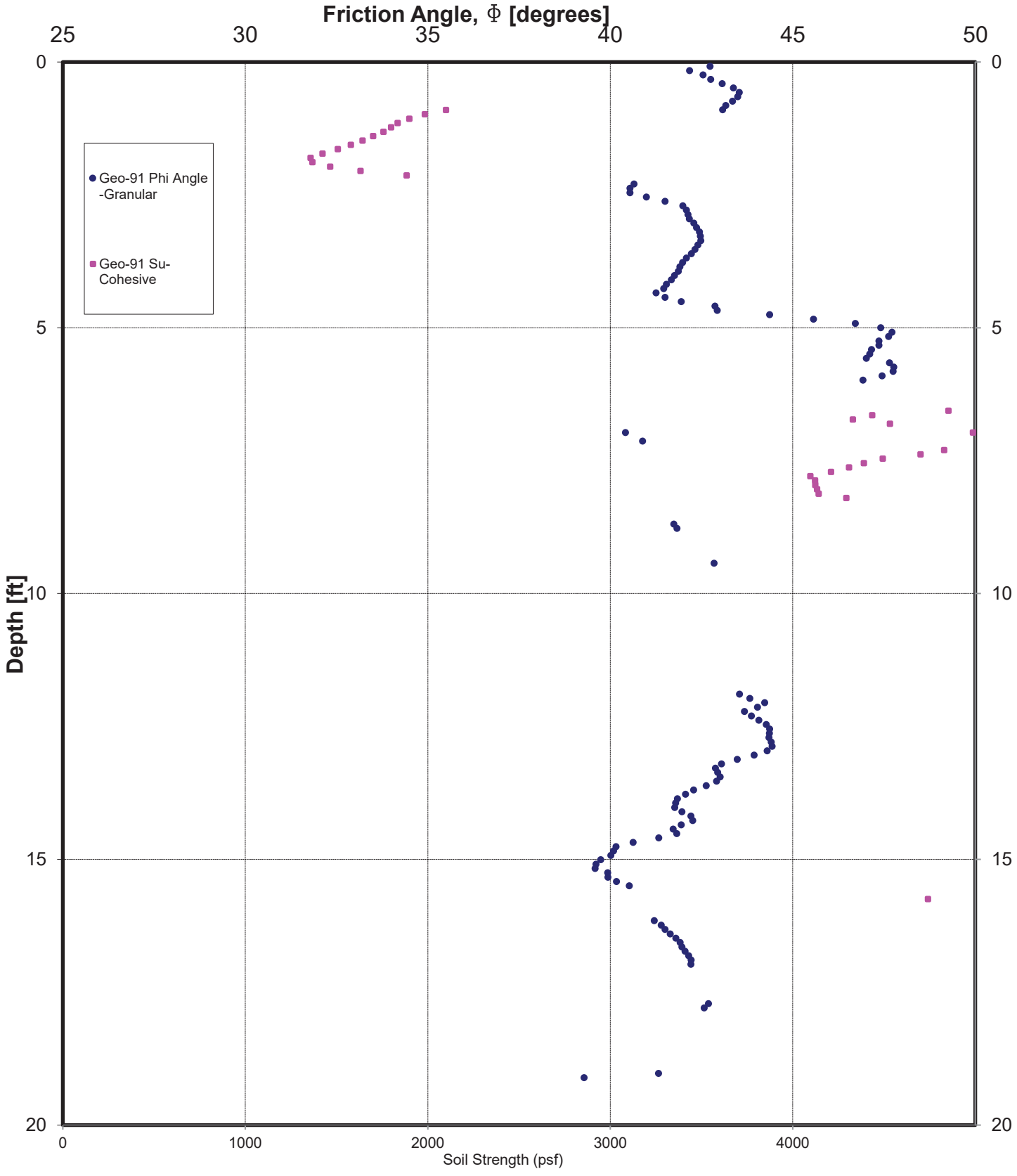
Soil Strength and vs. Depth for site GEO-088 from CPT



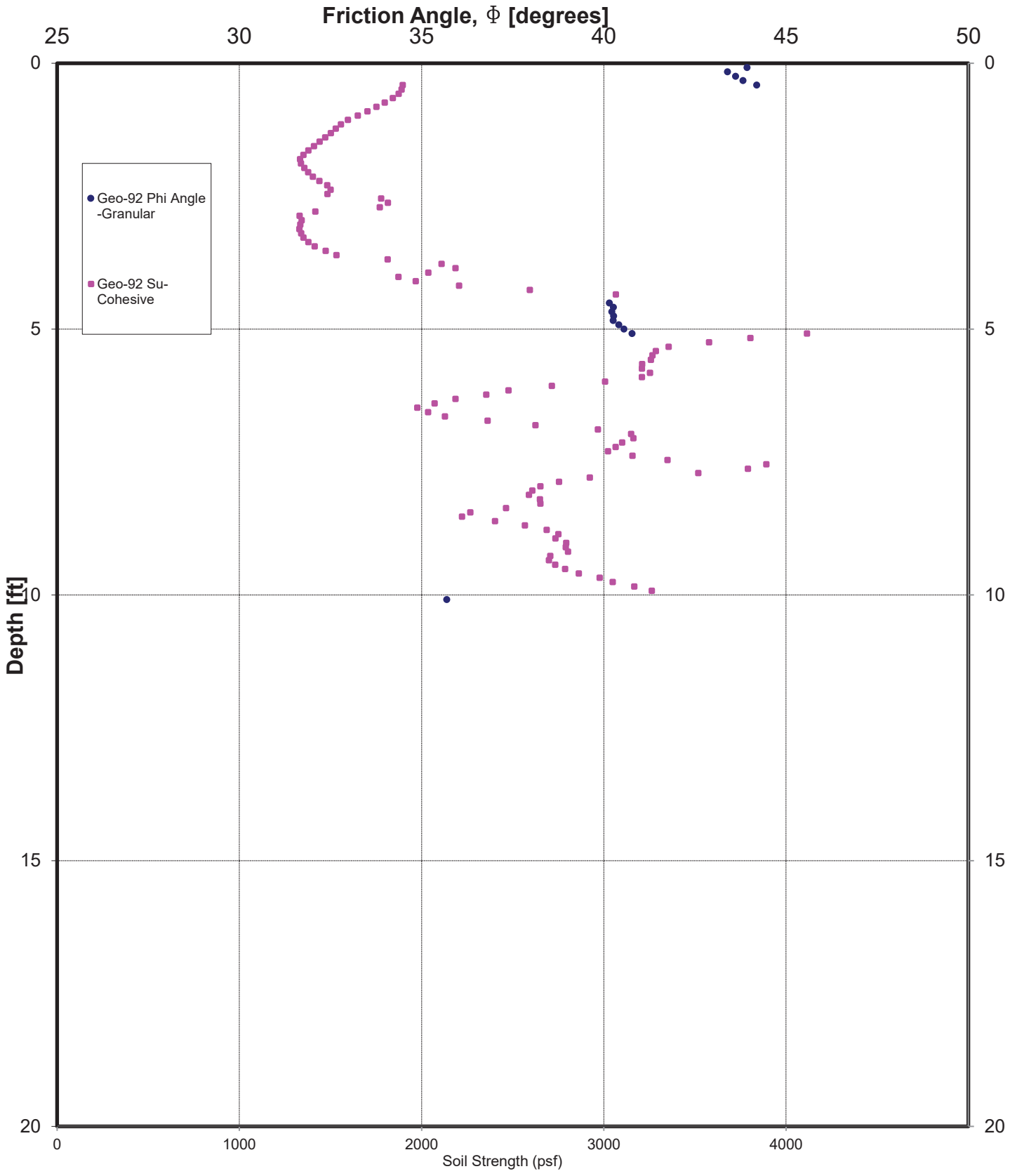
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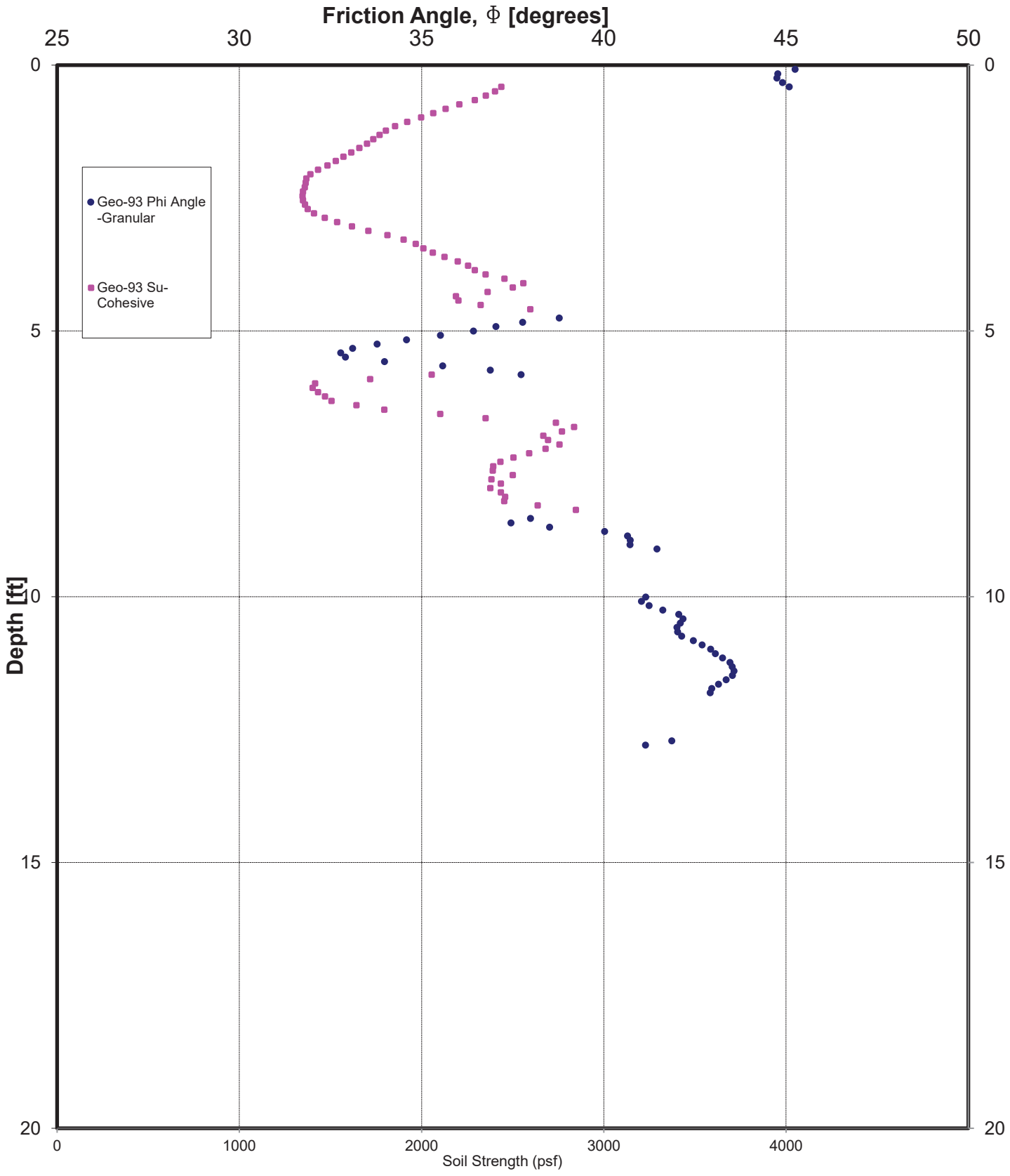
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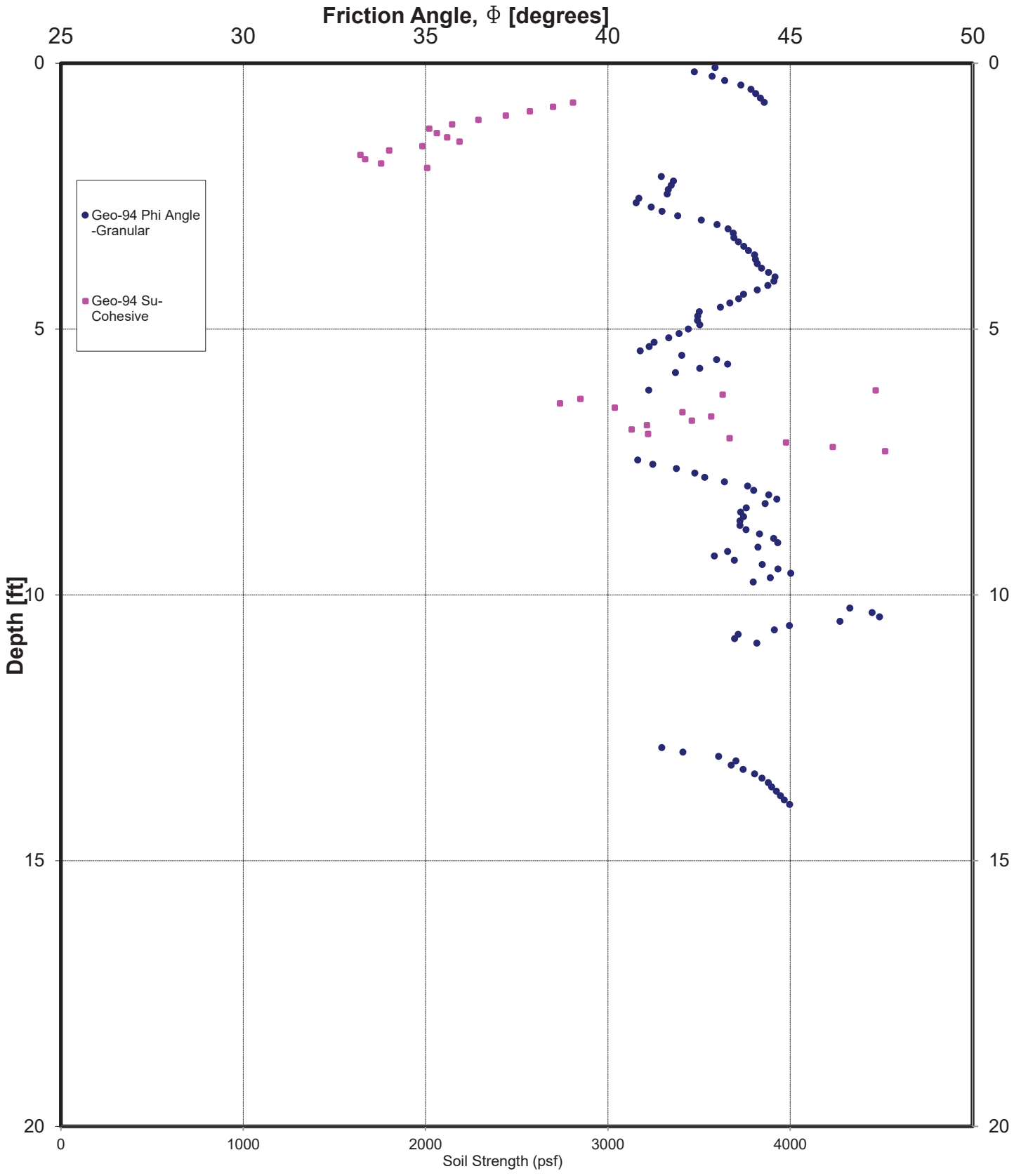
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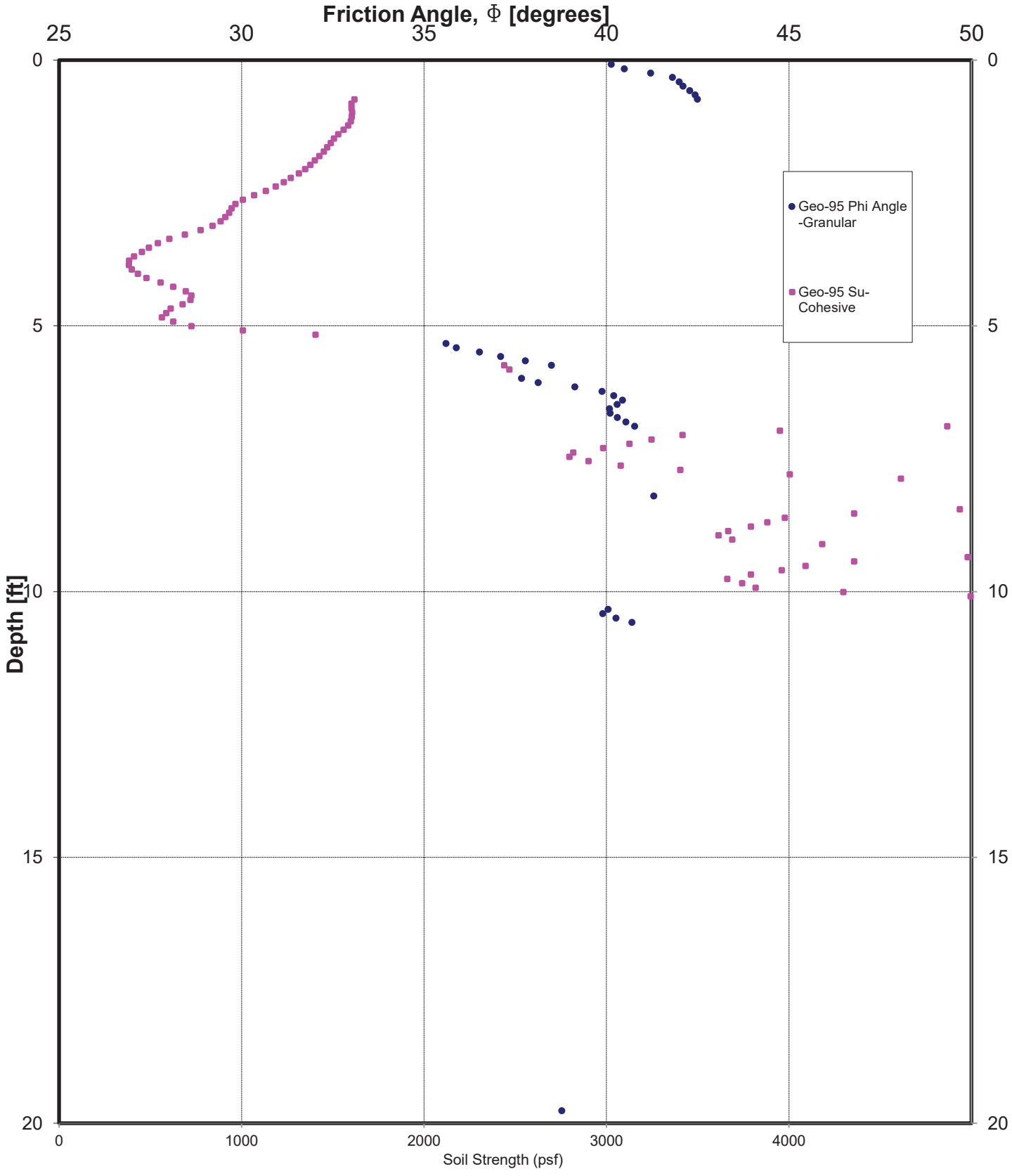
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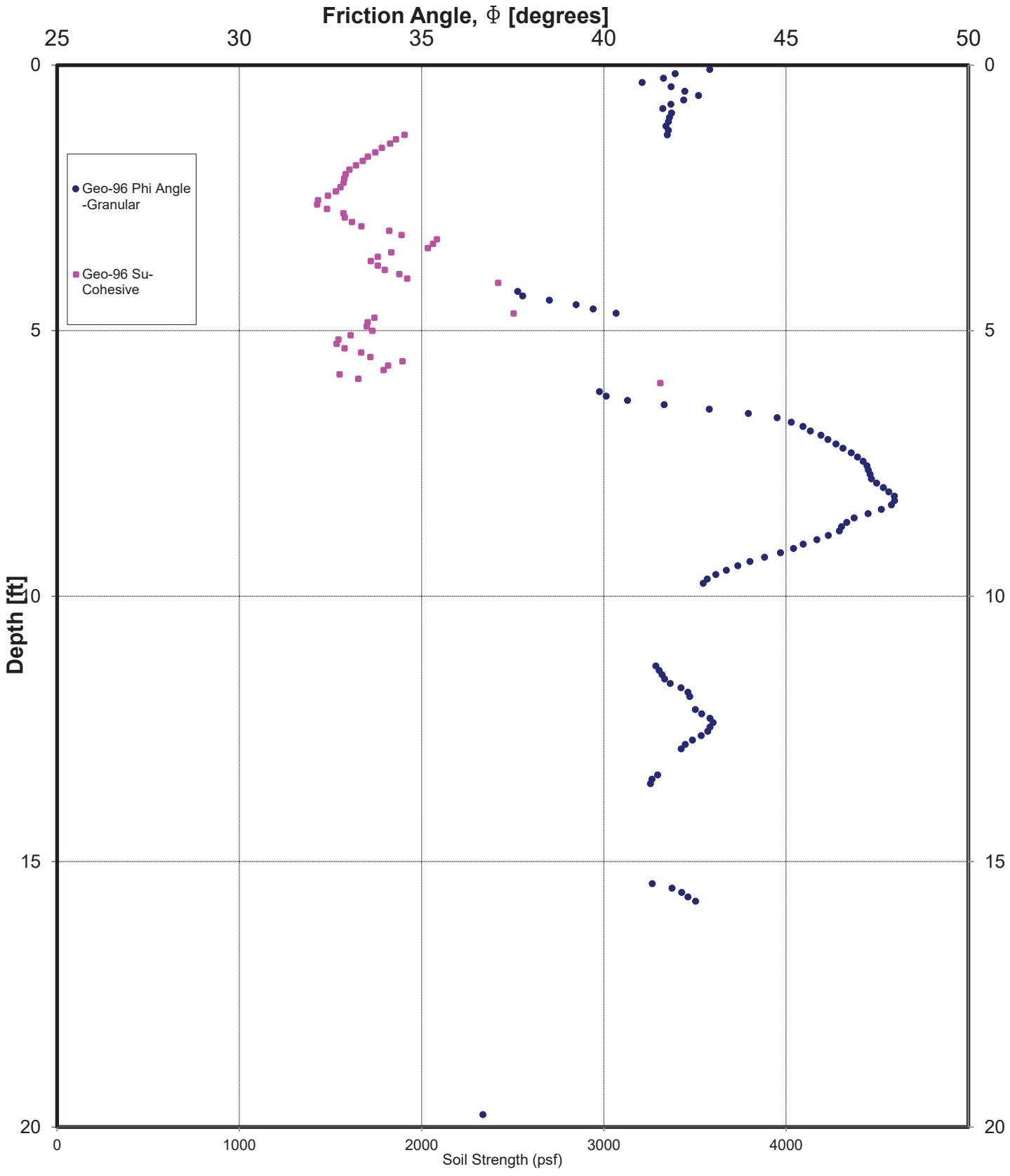
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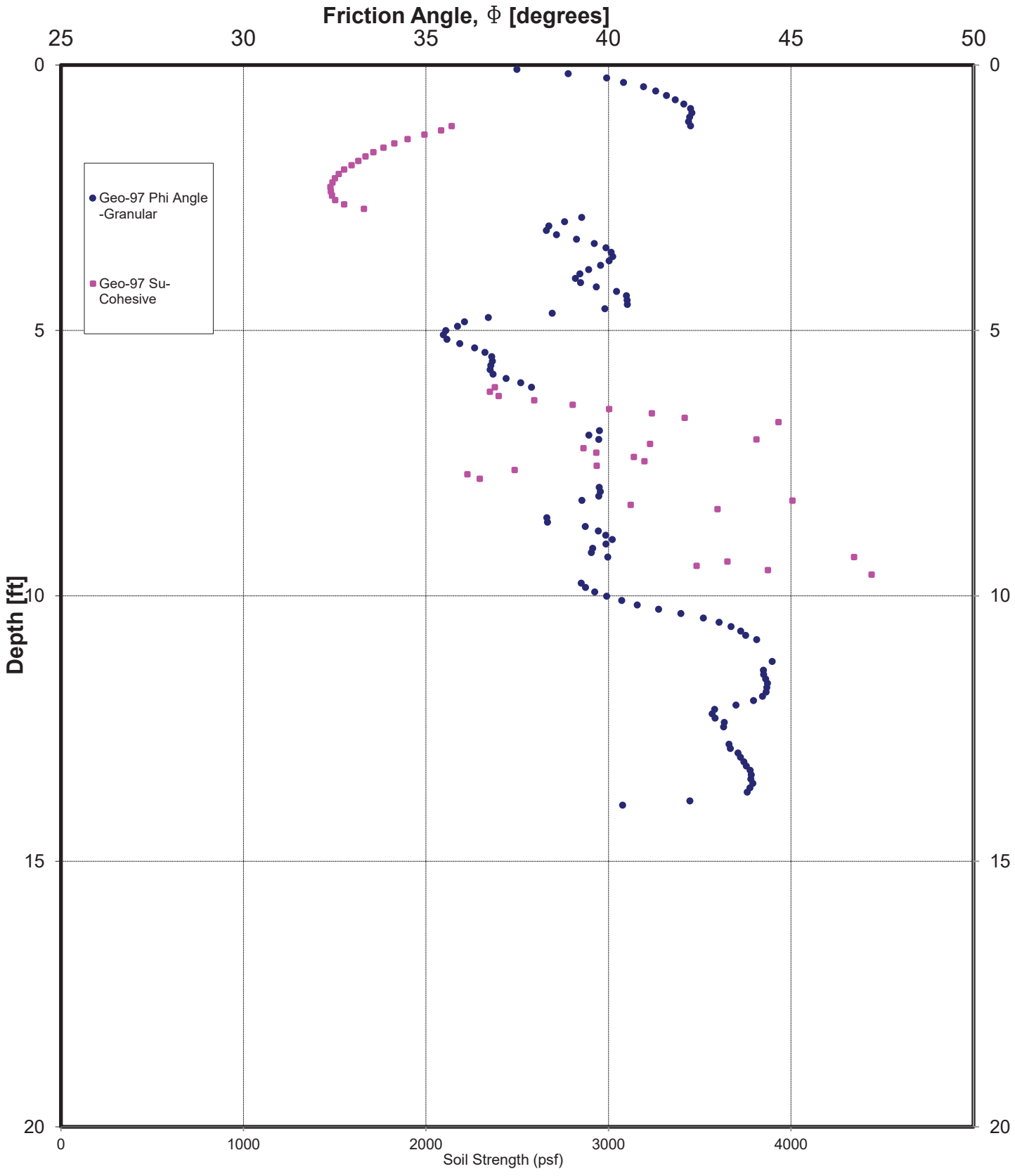
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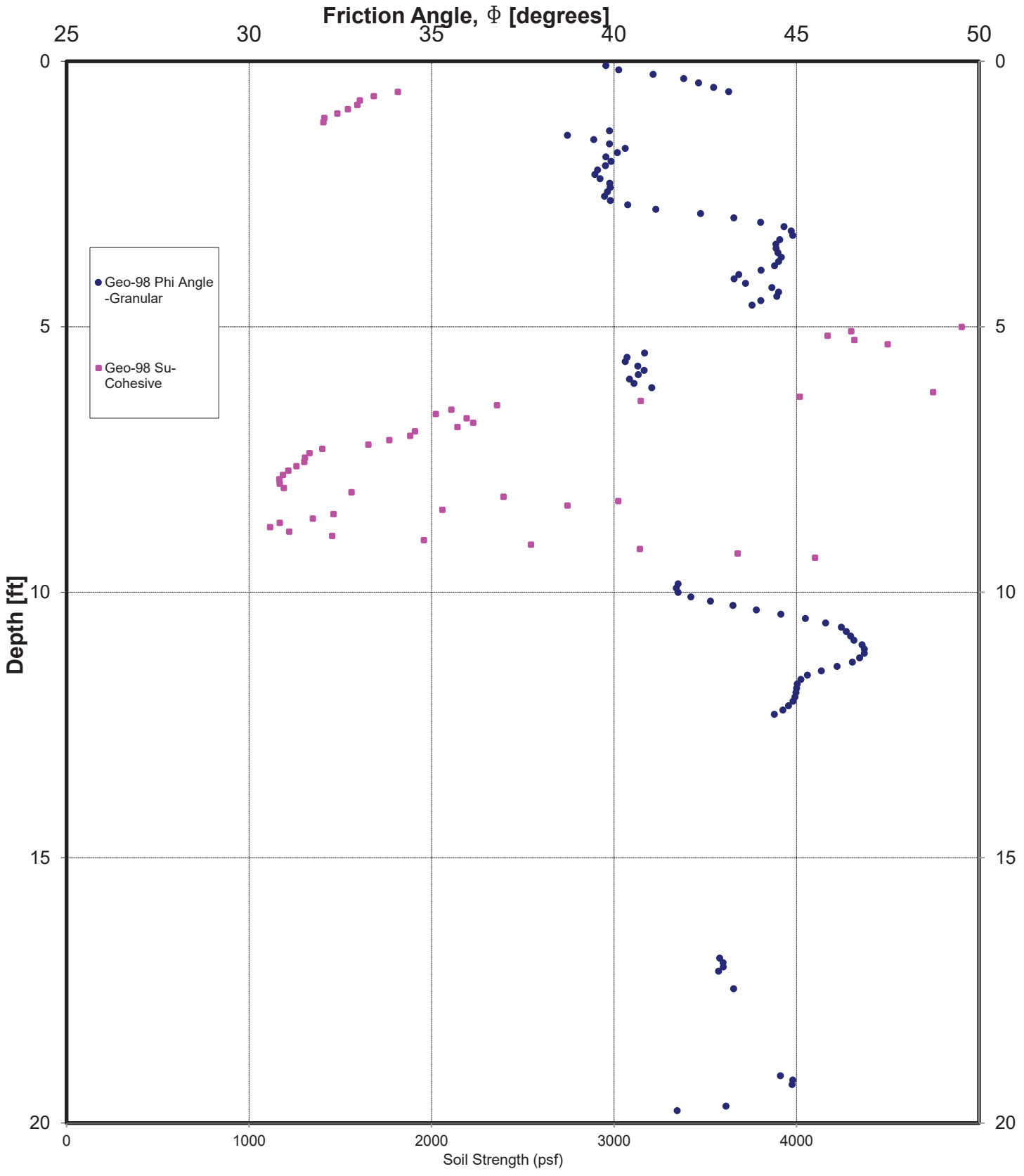
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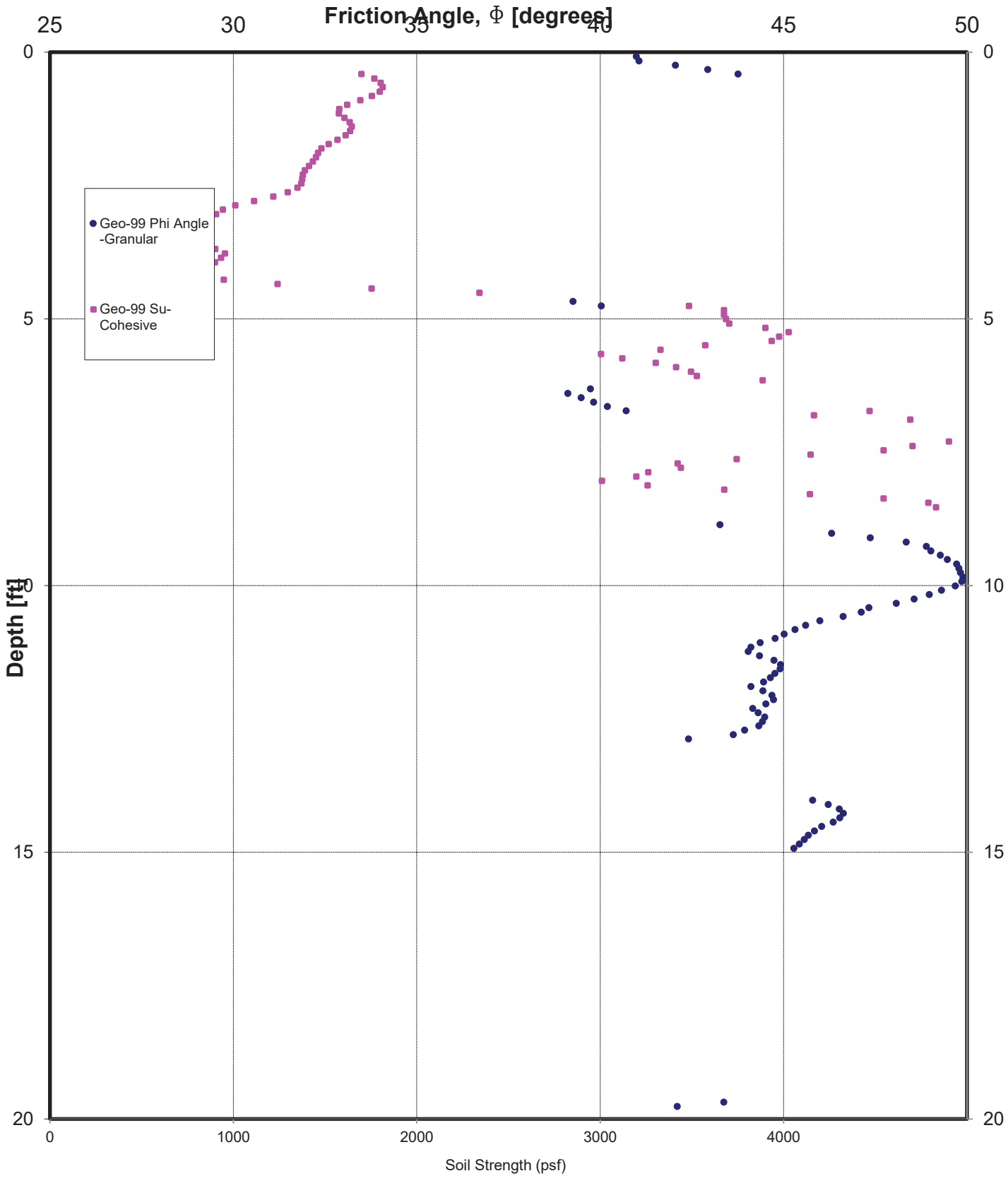
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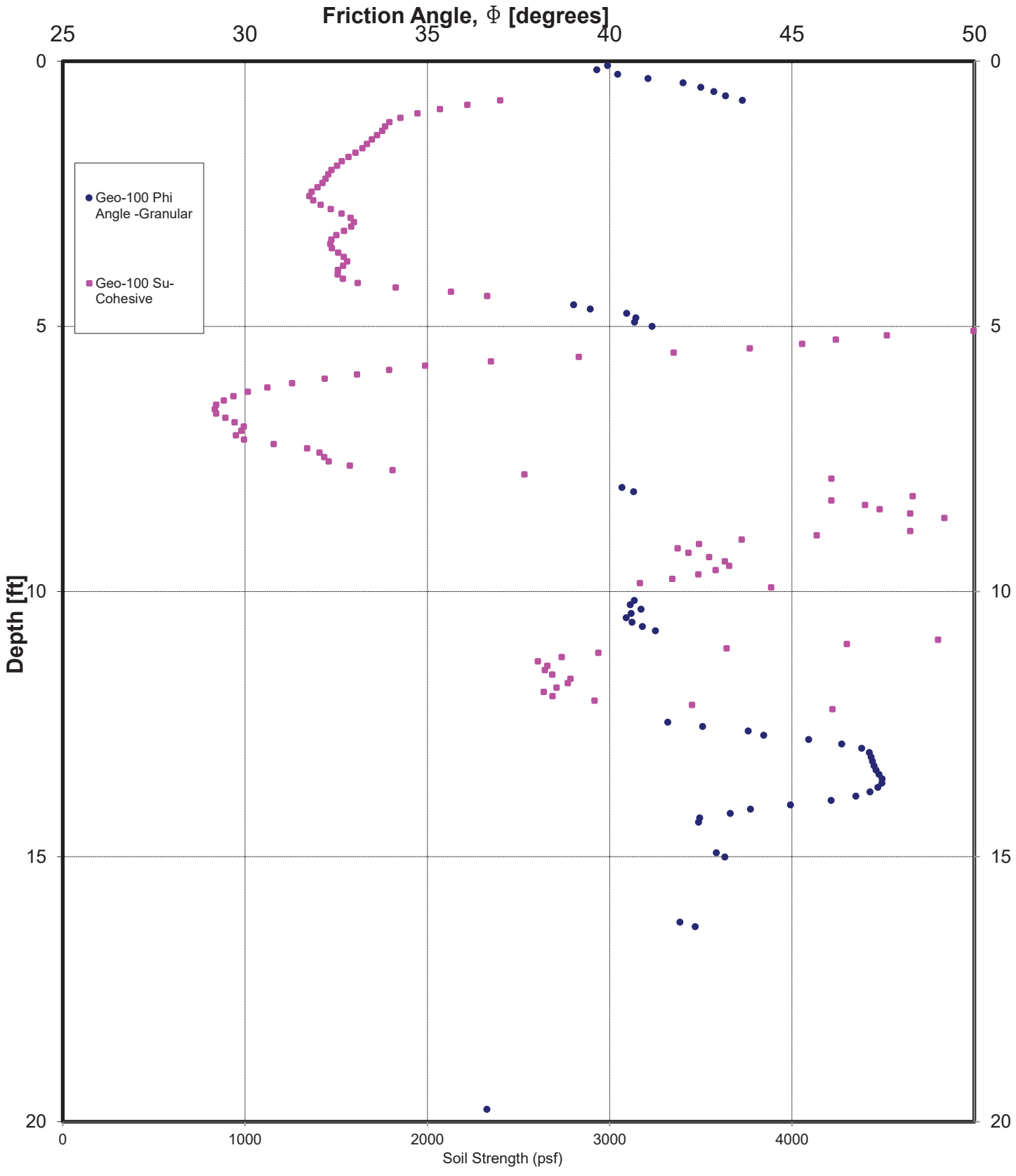
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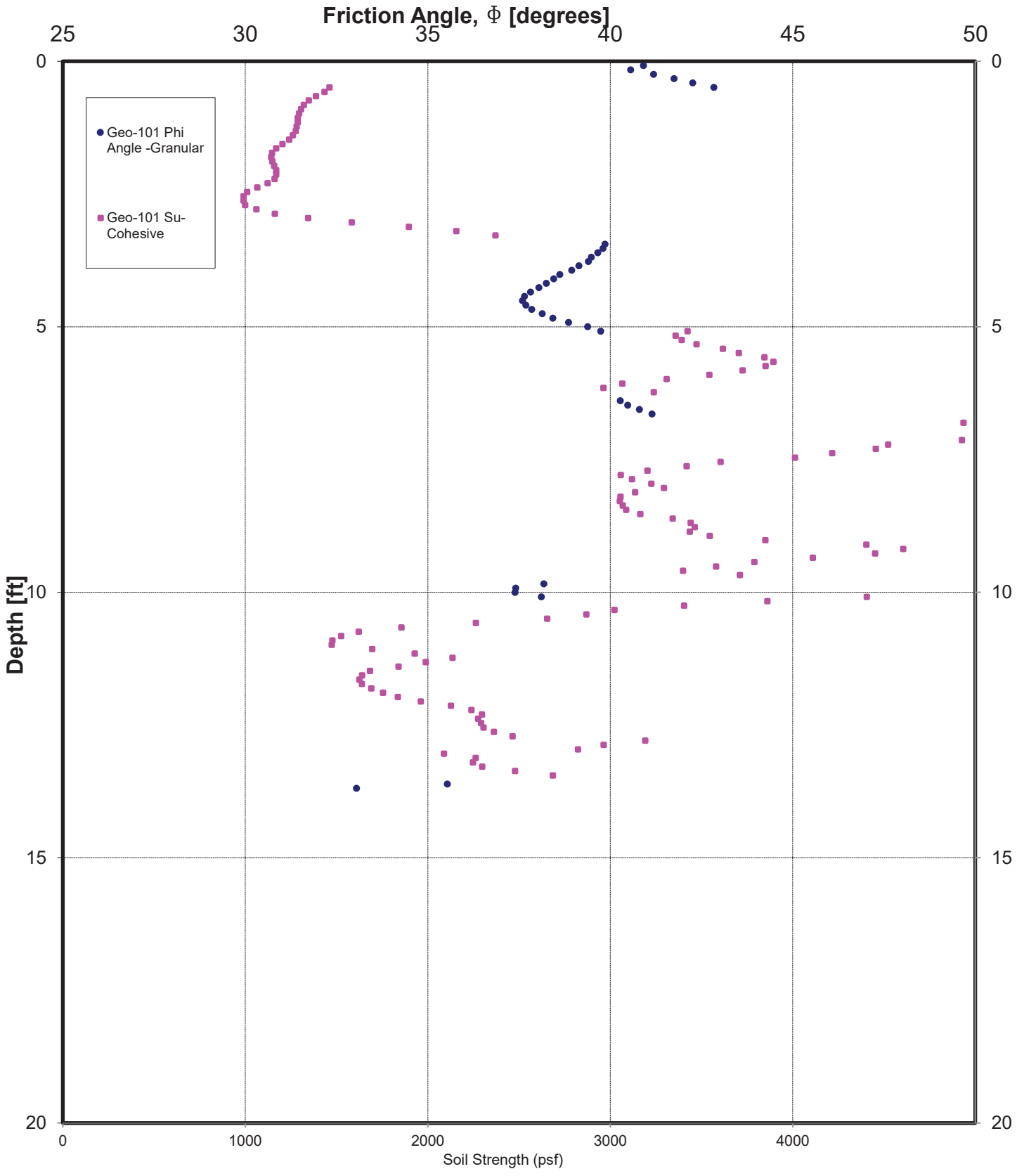
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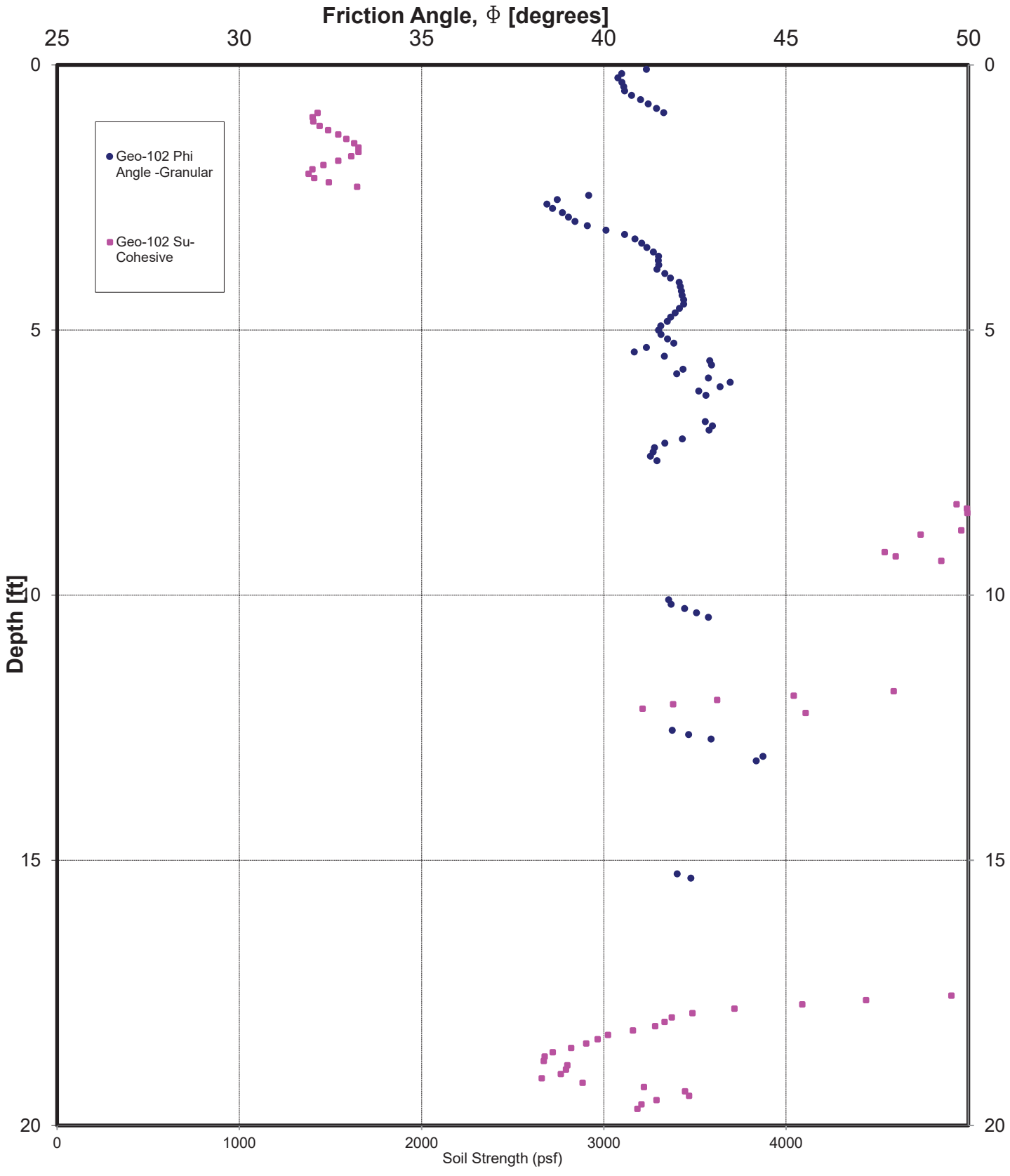
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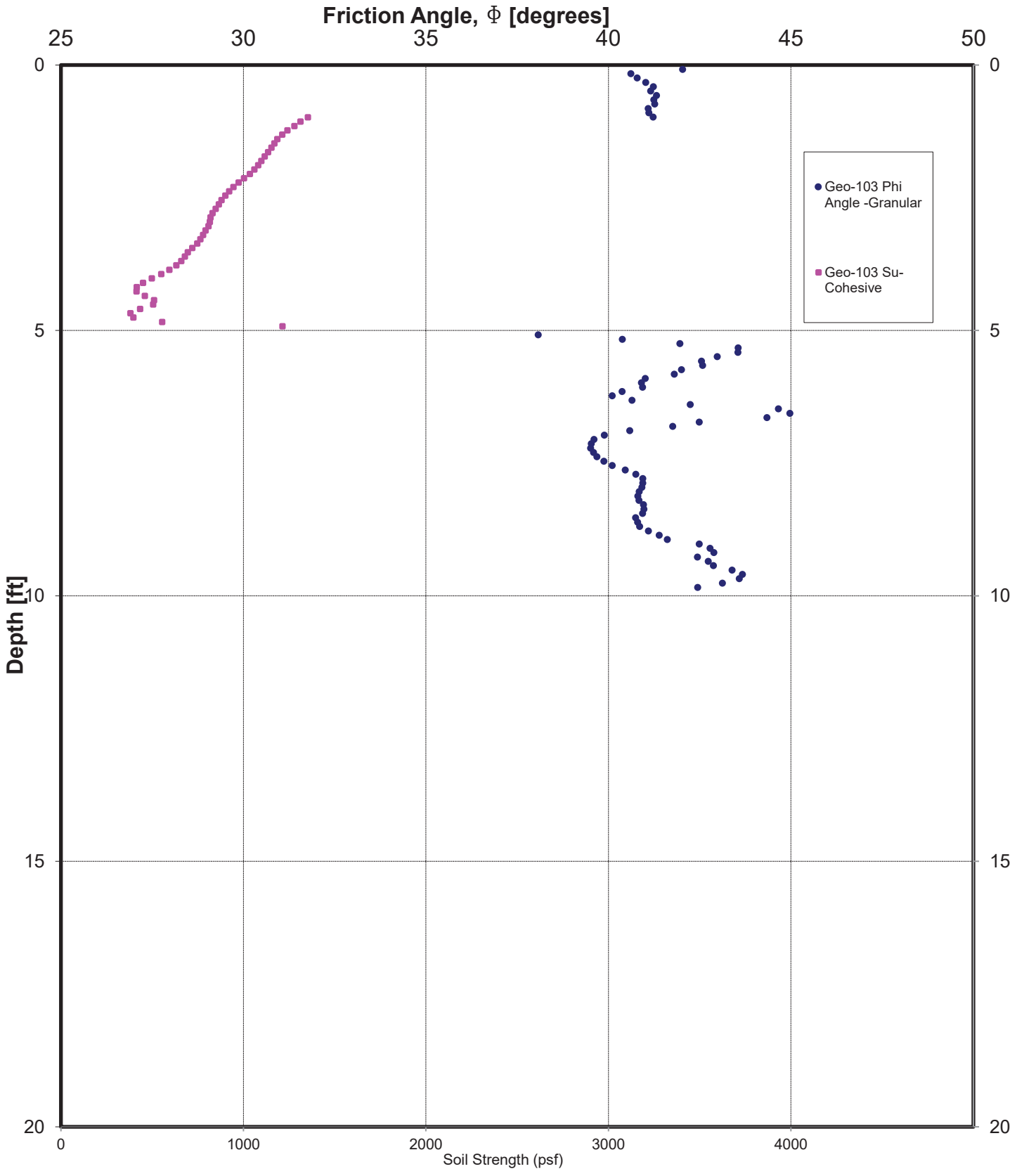
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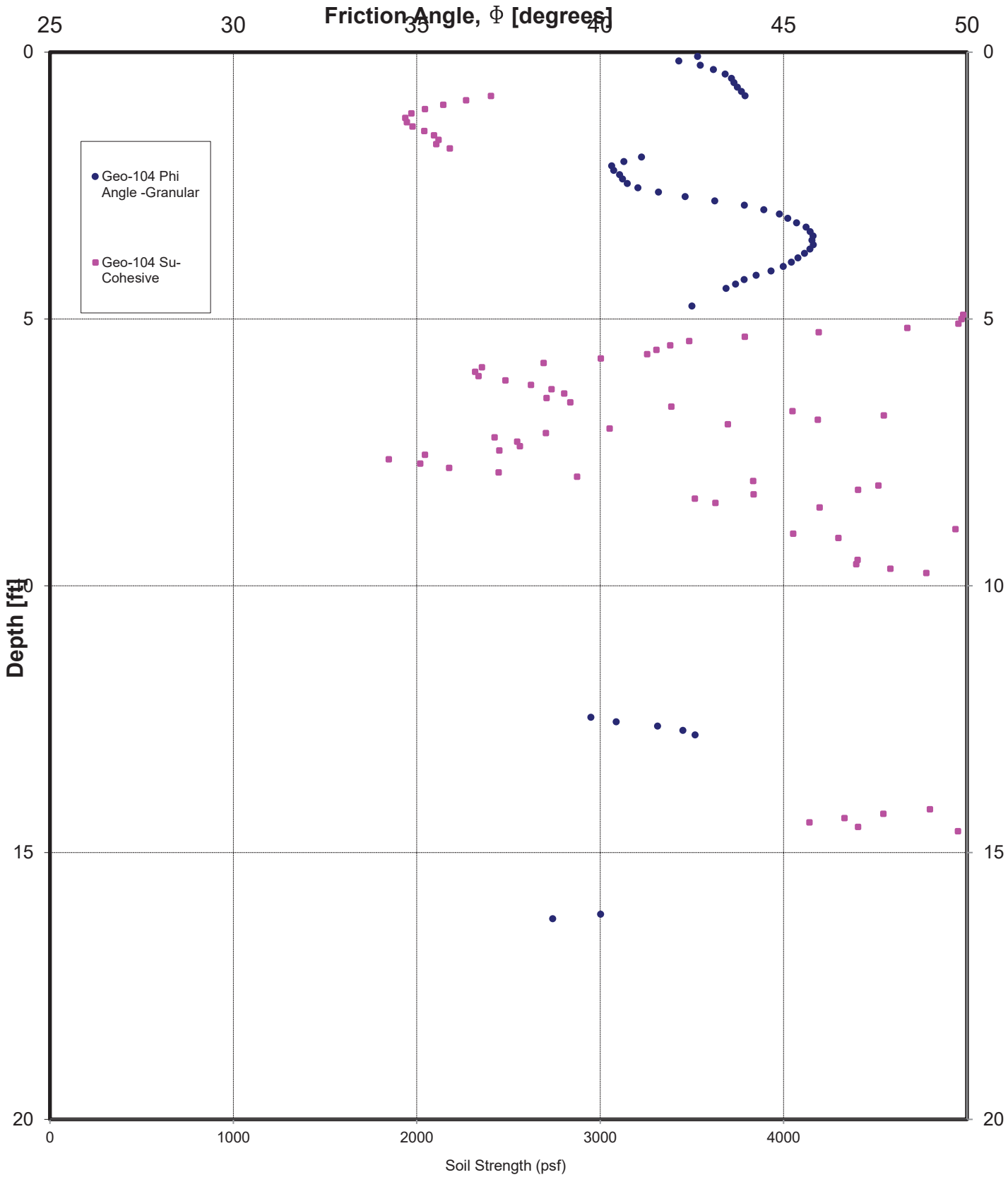
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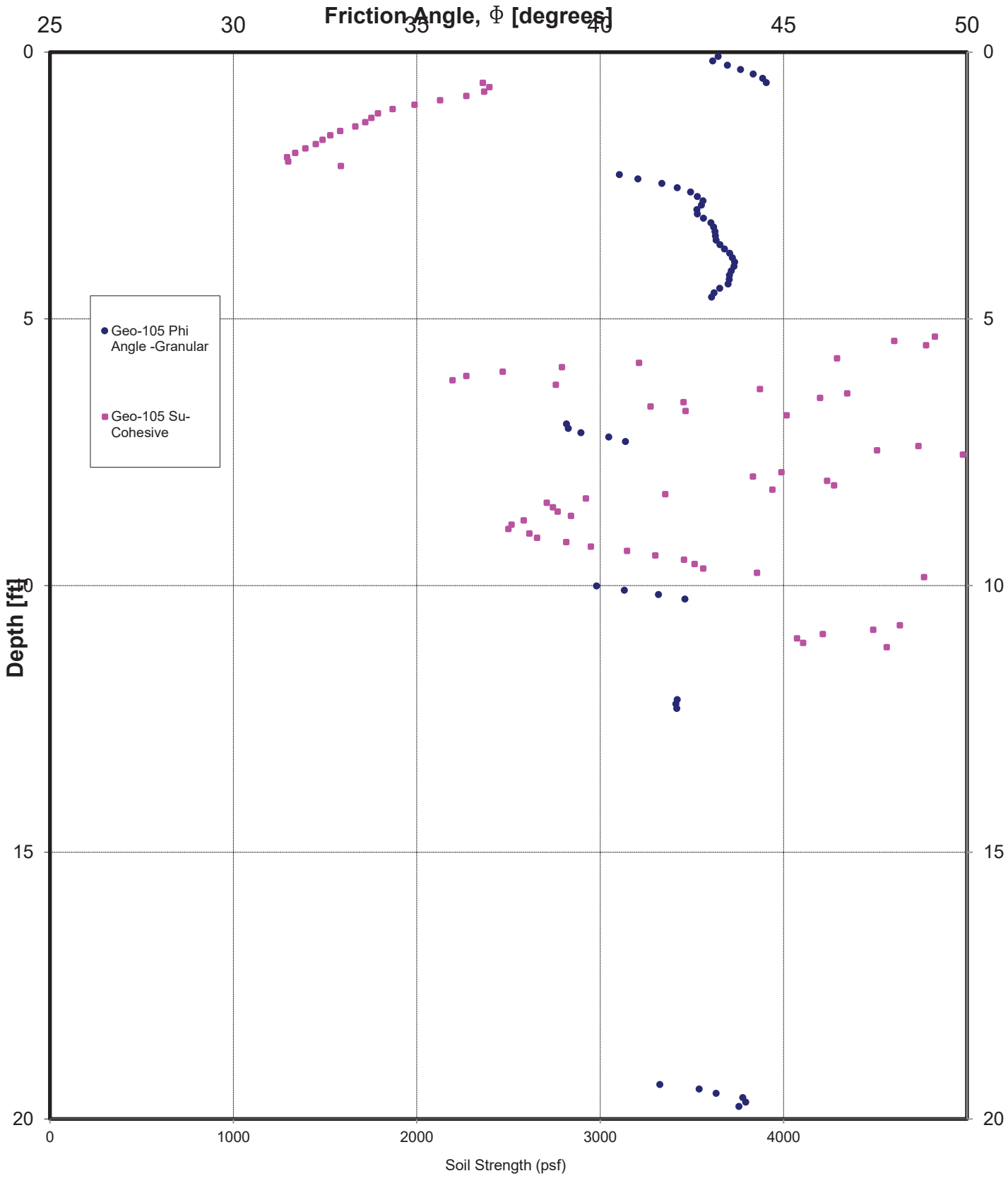
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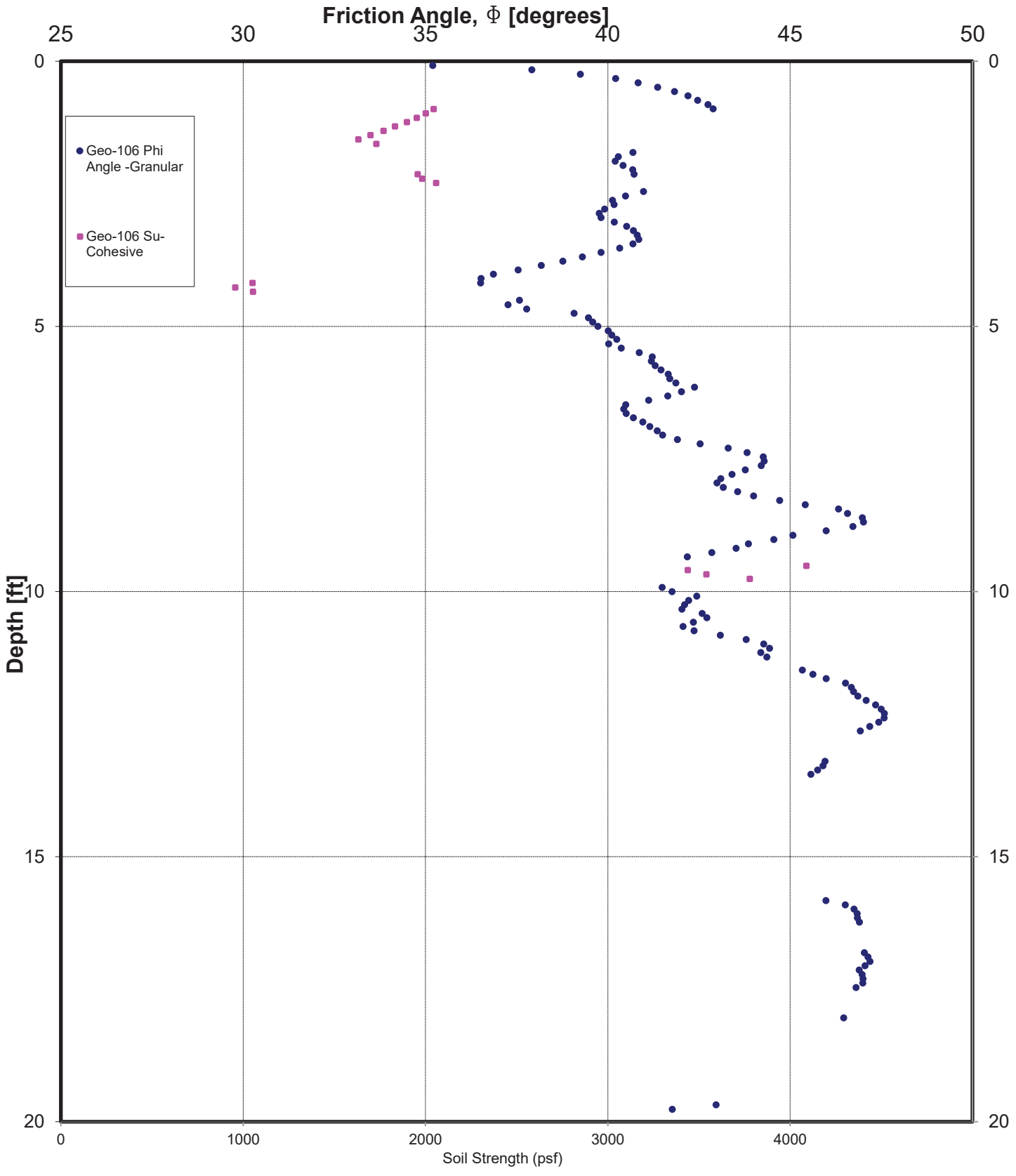
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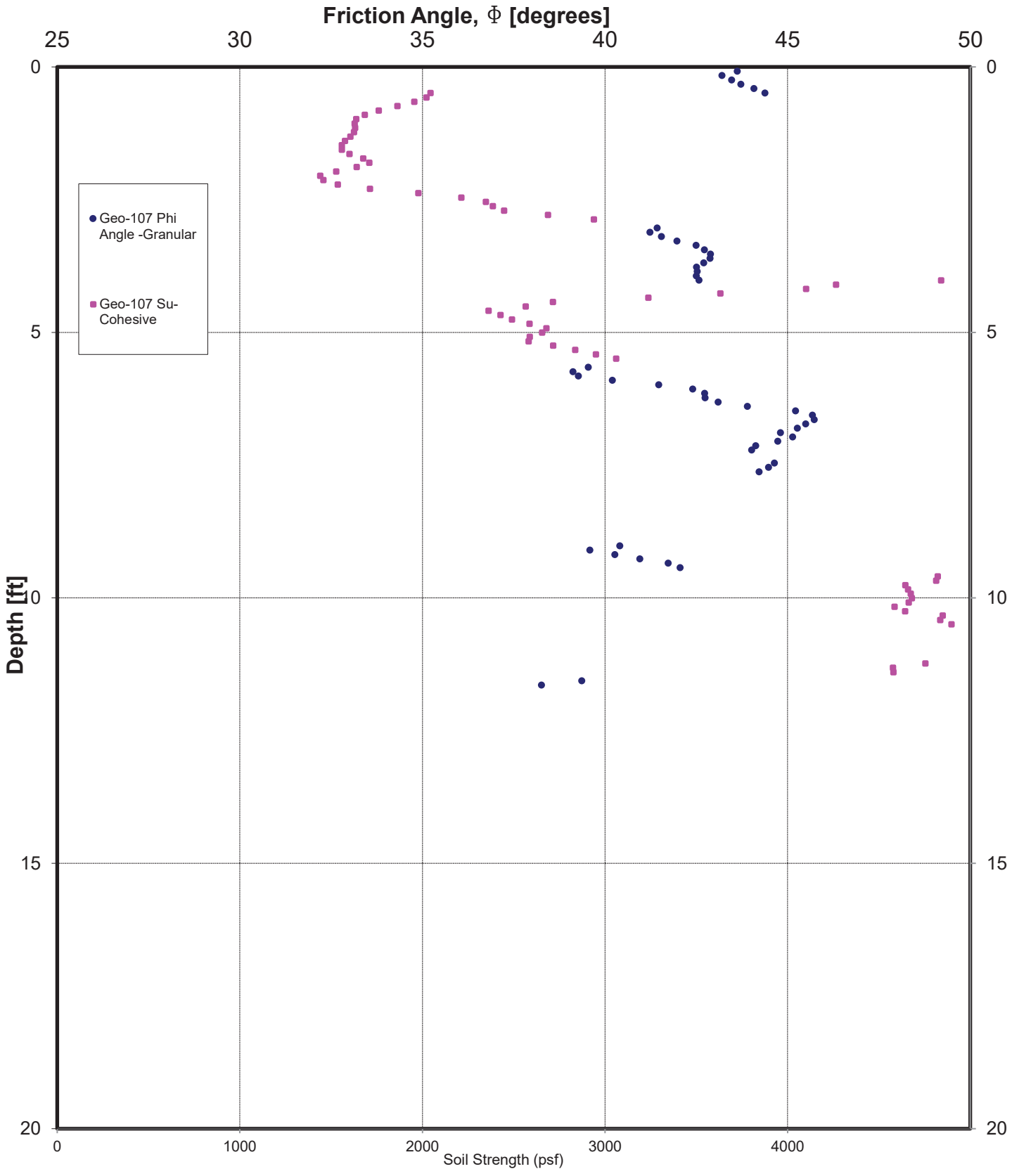
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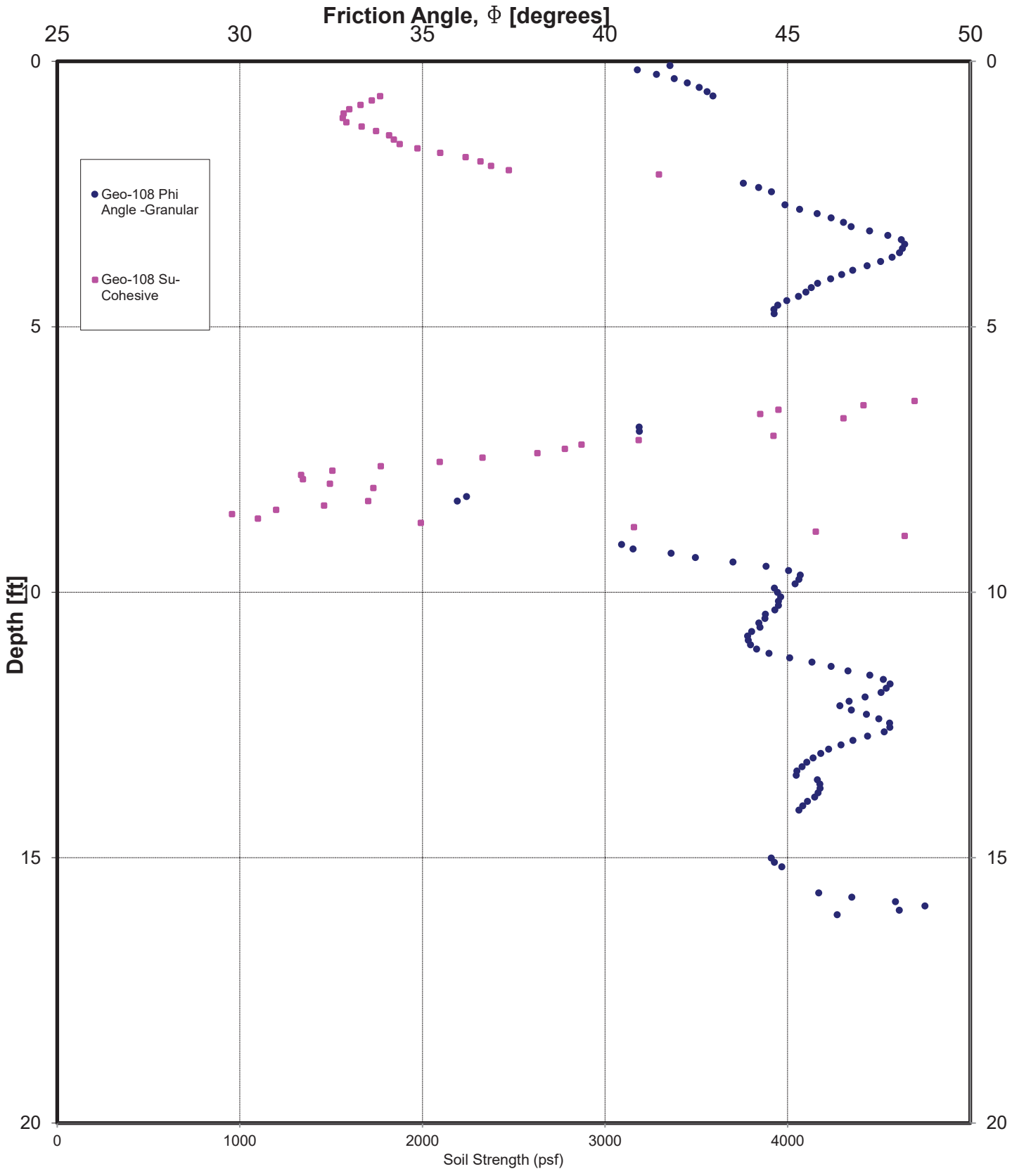
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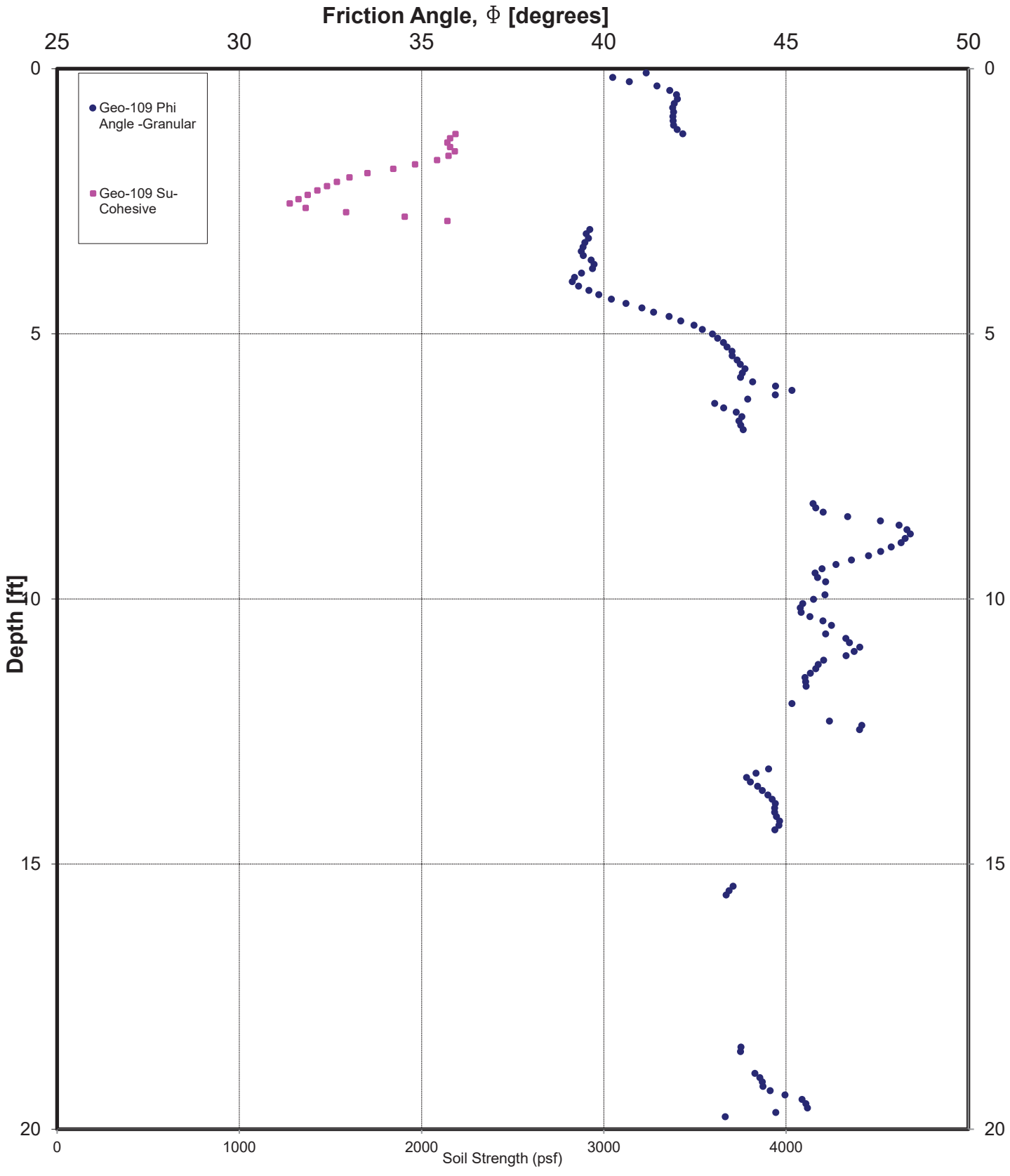
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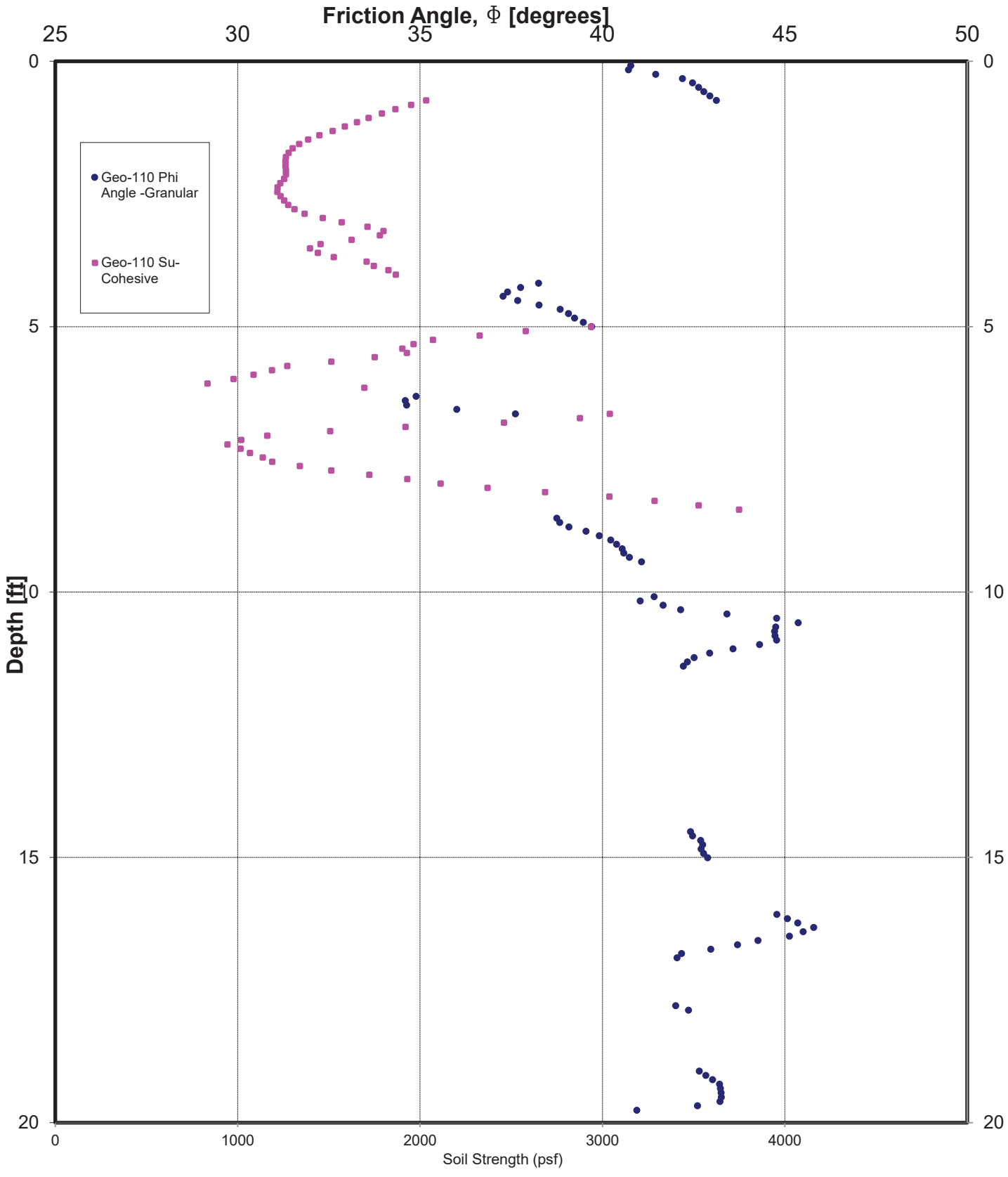
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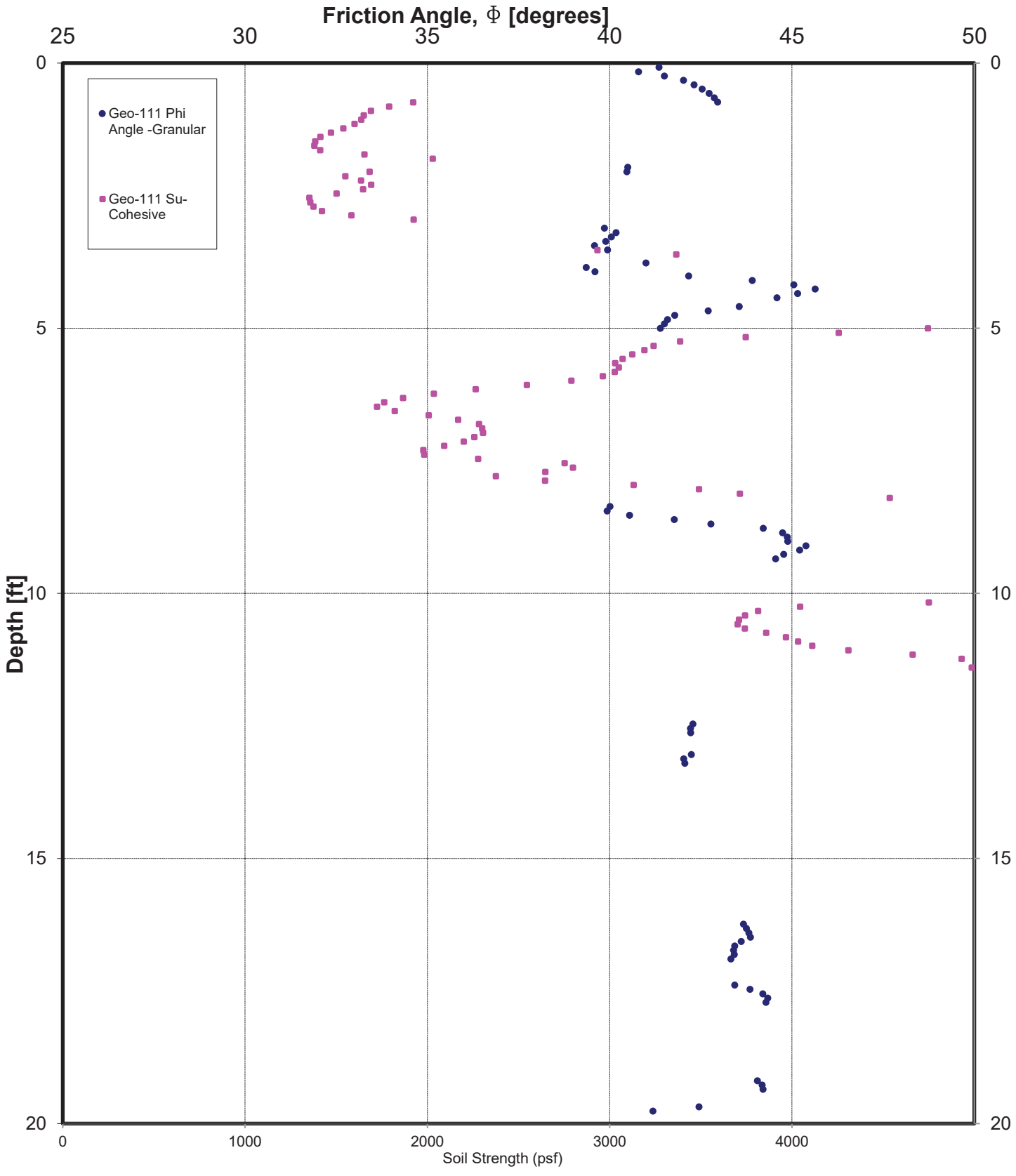
Soil Strength and vs. Depth for site GEO-108 from CPT



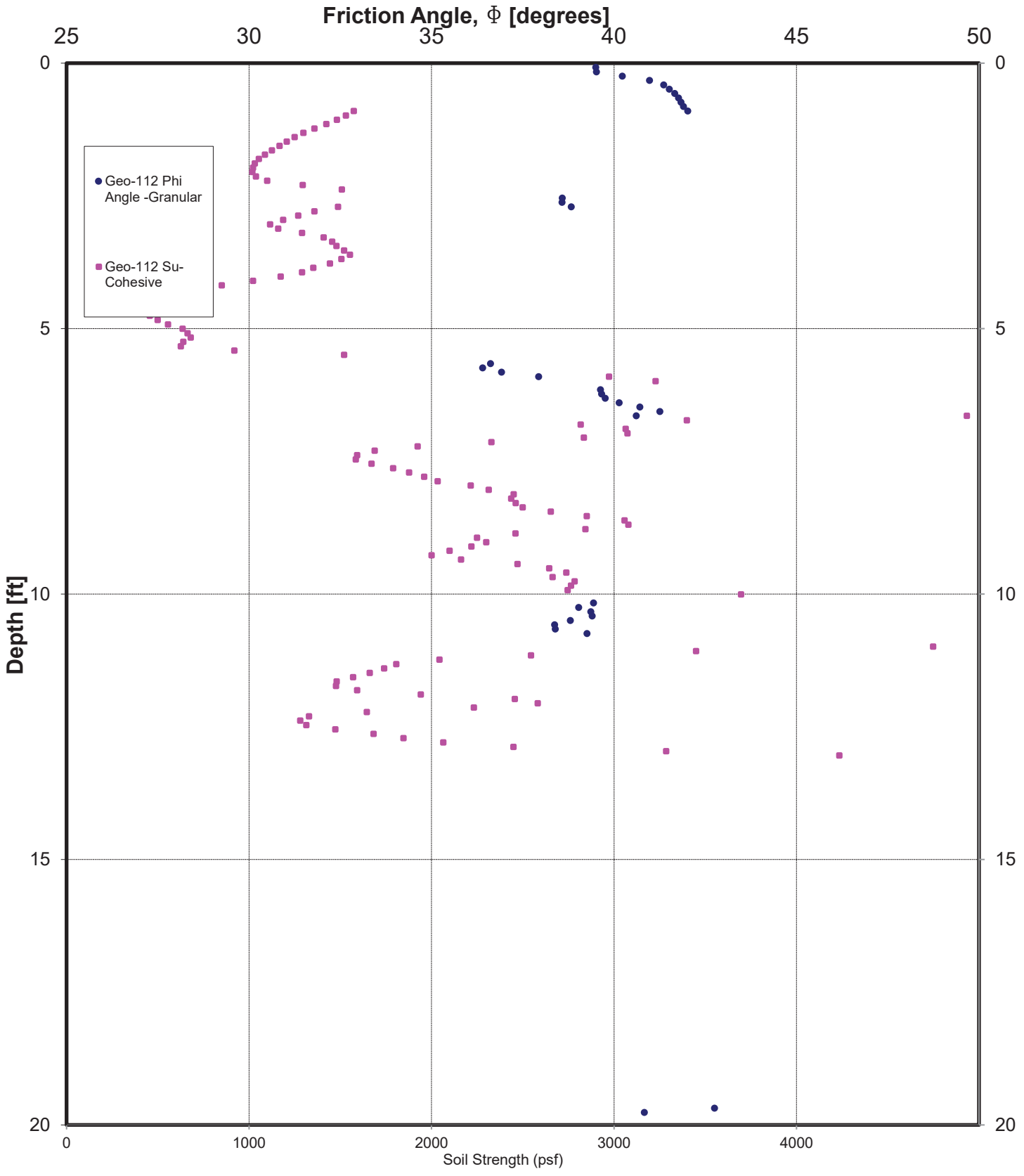
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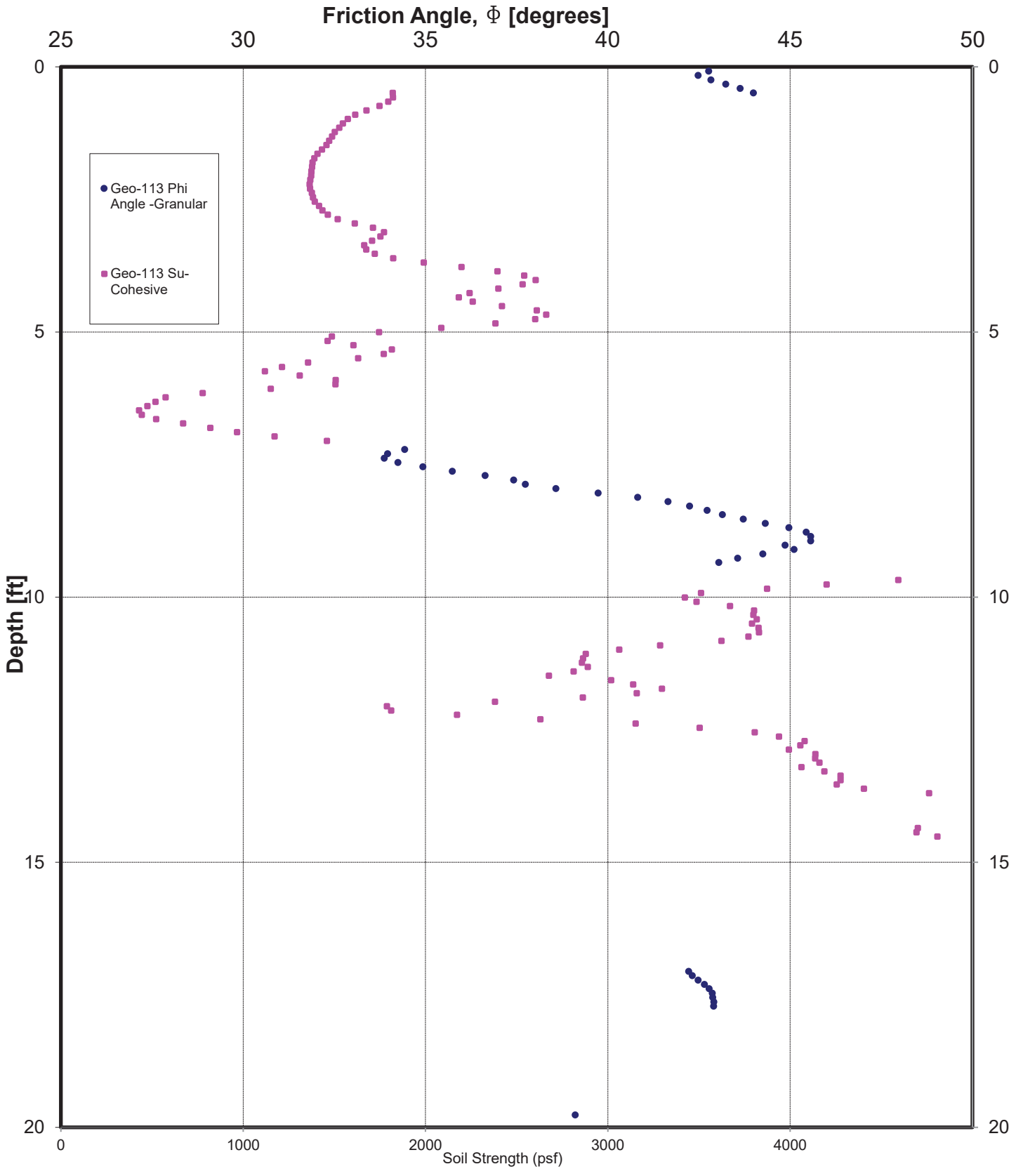
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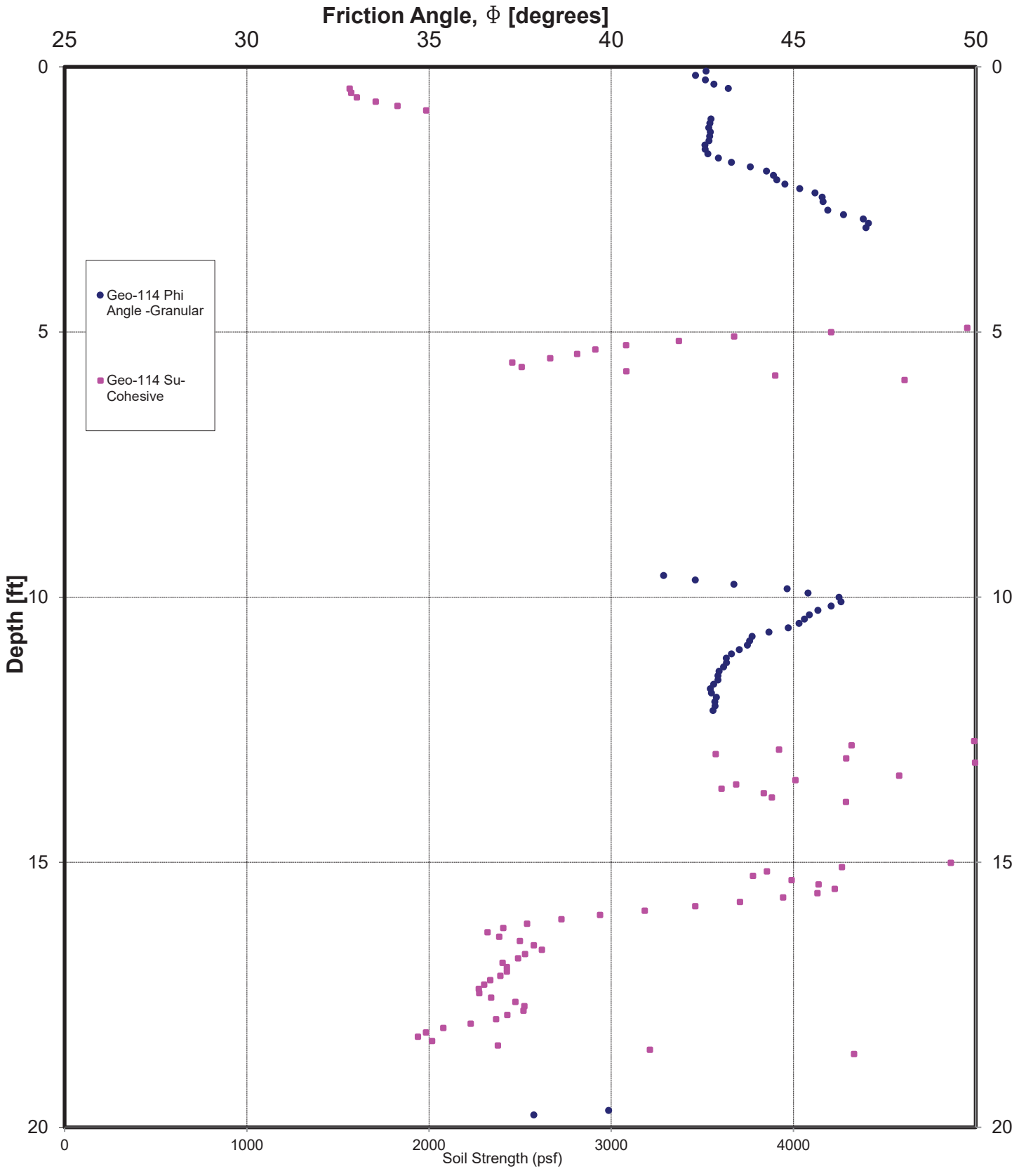
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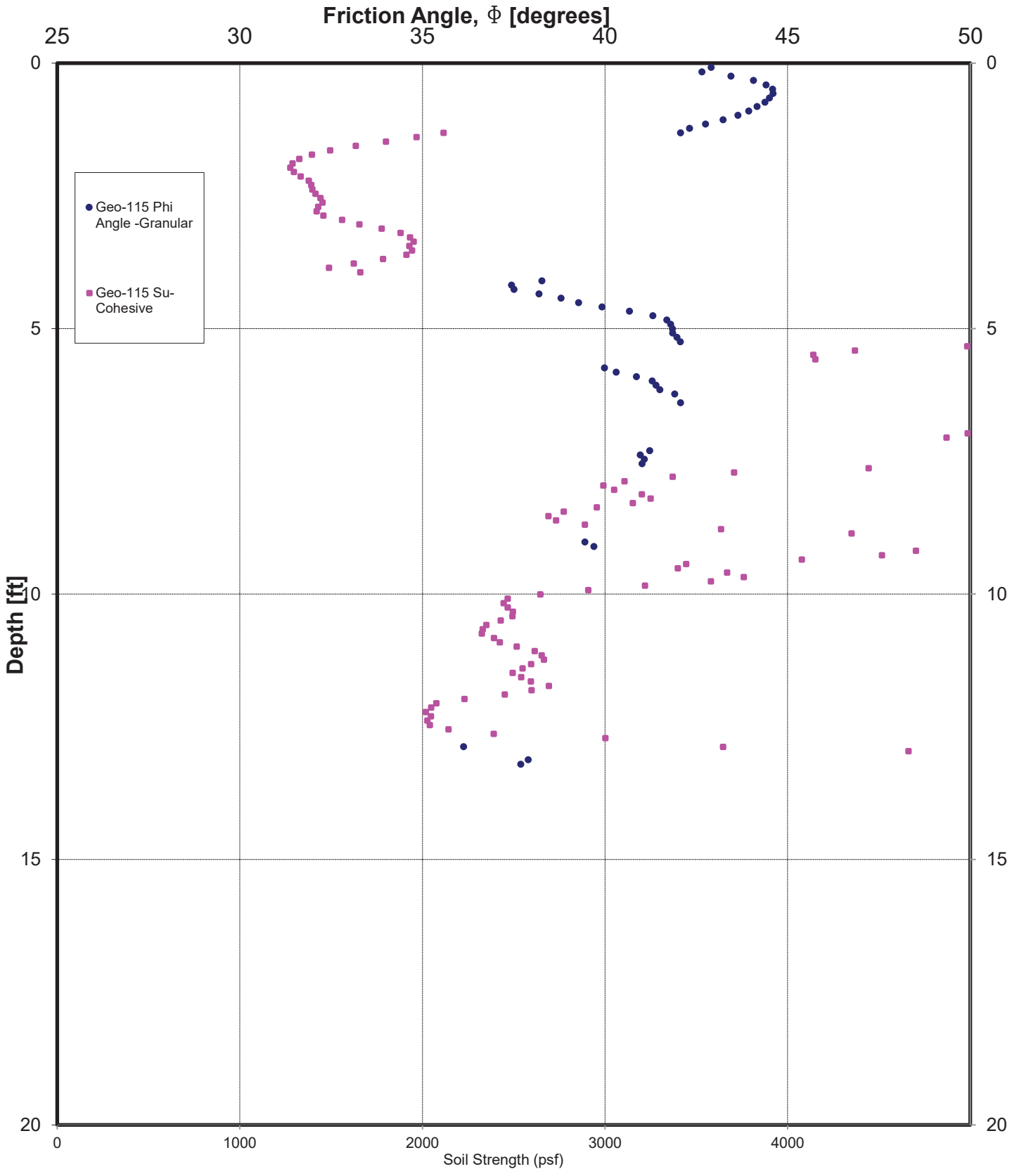
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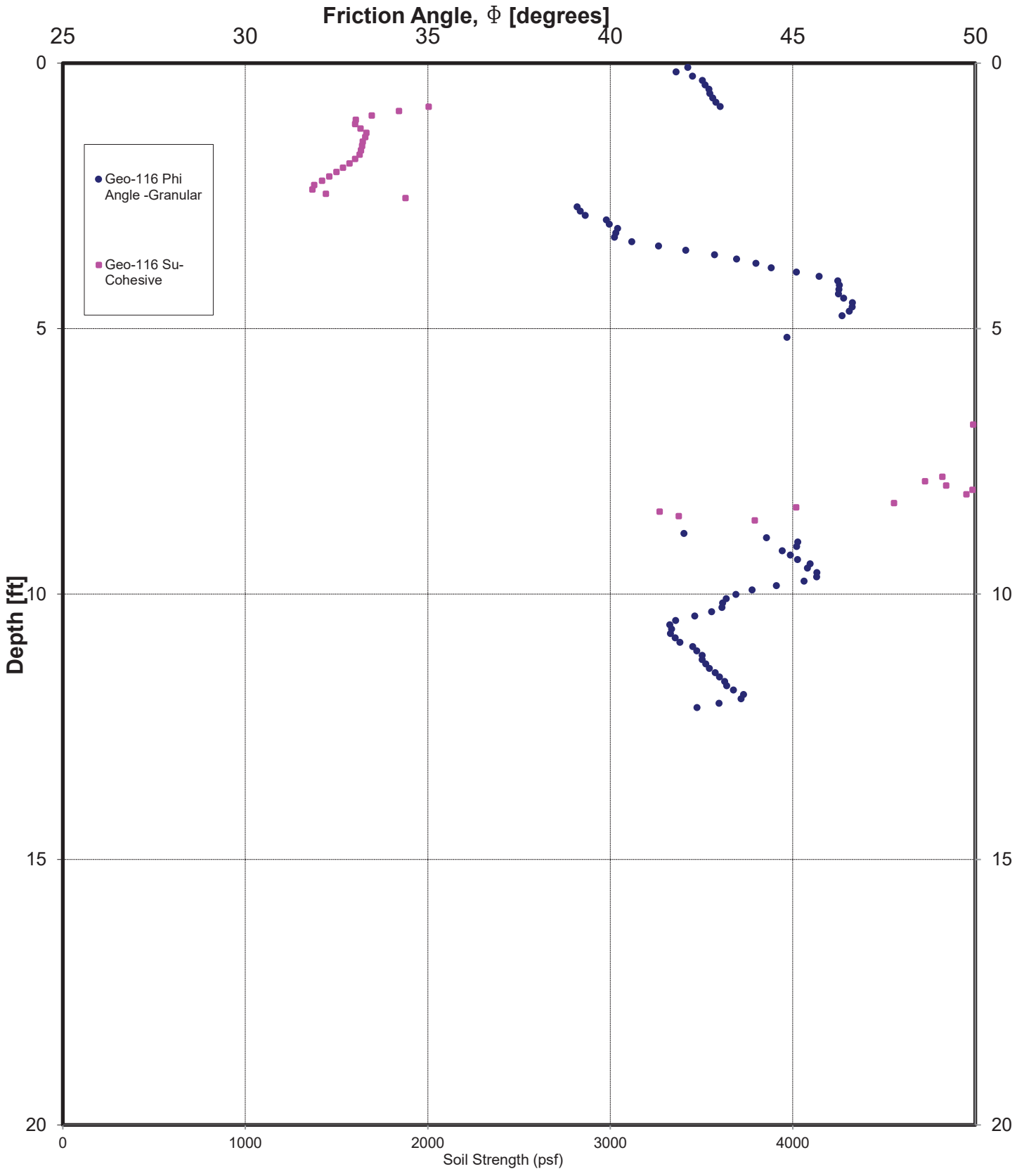
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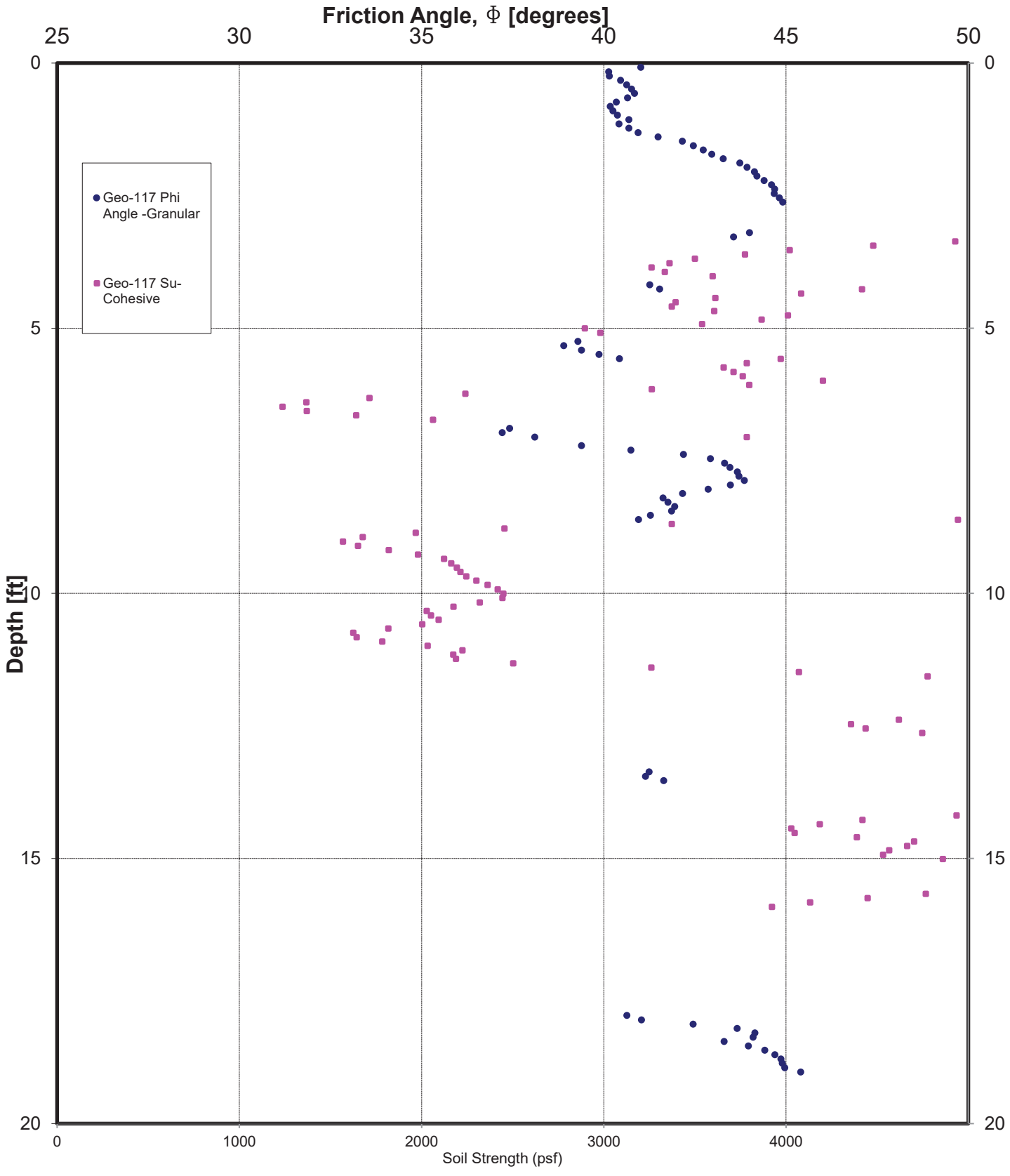
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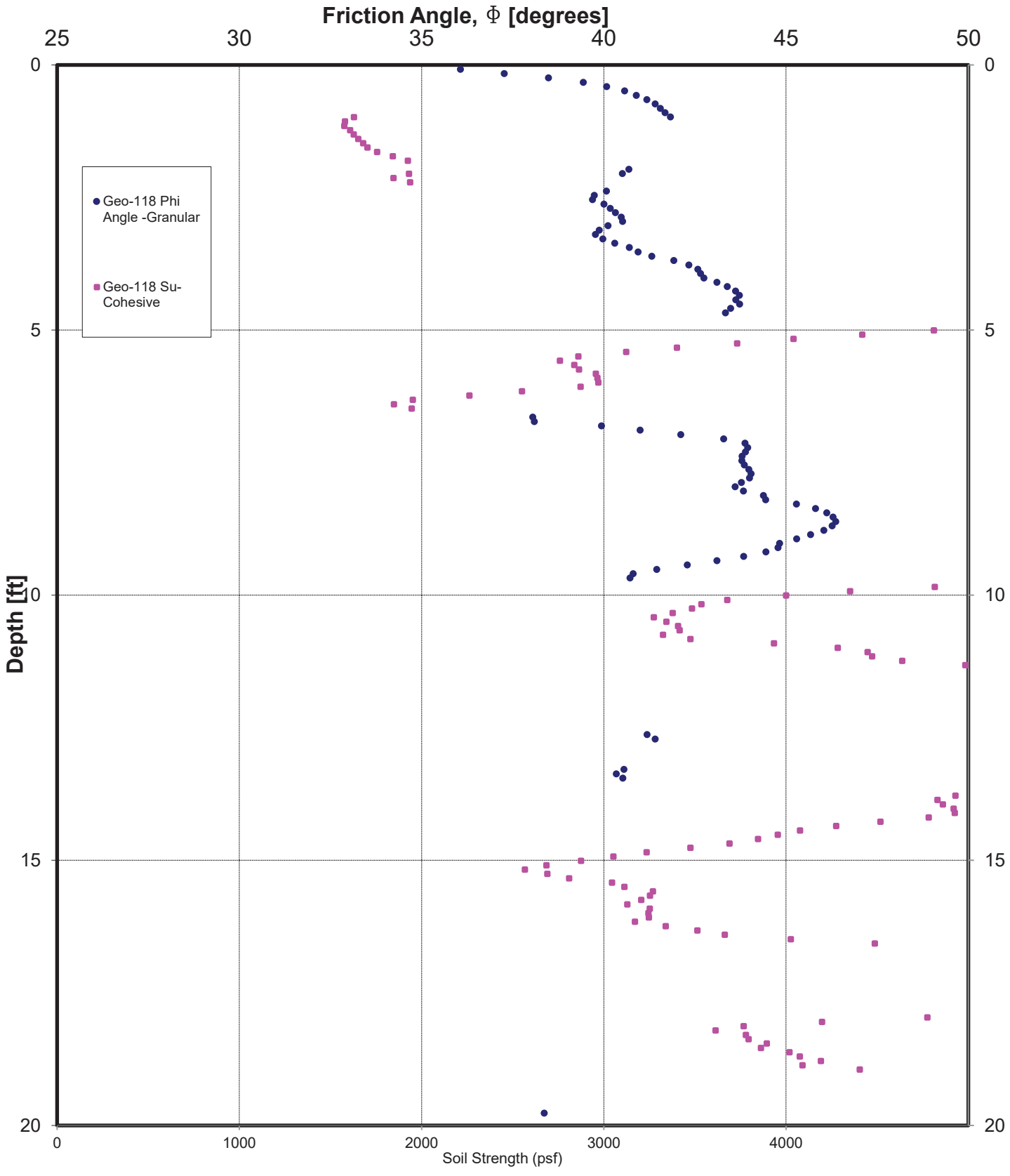
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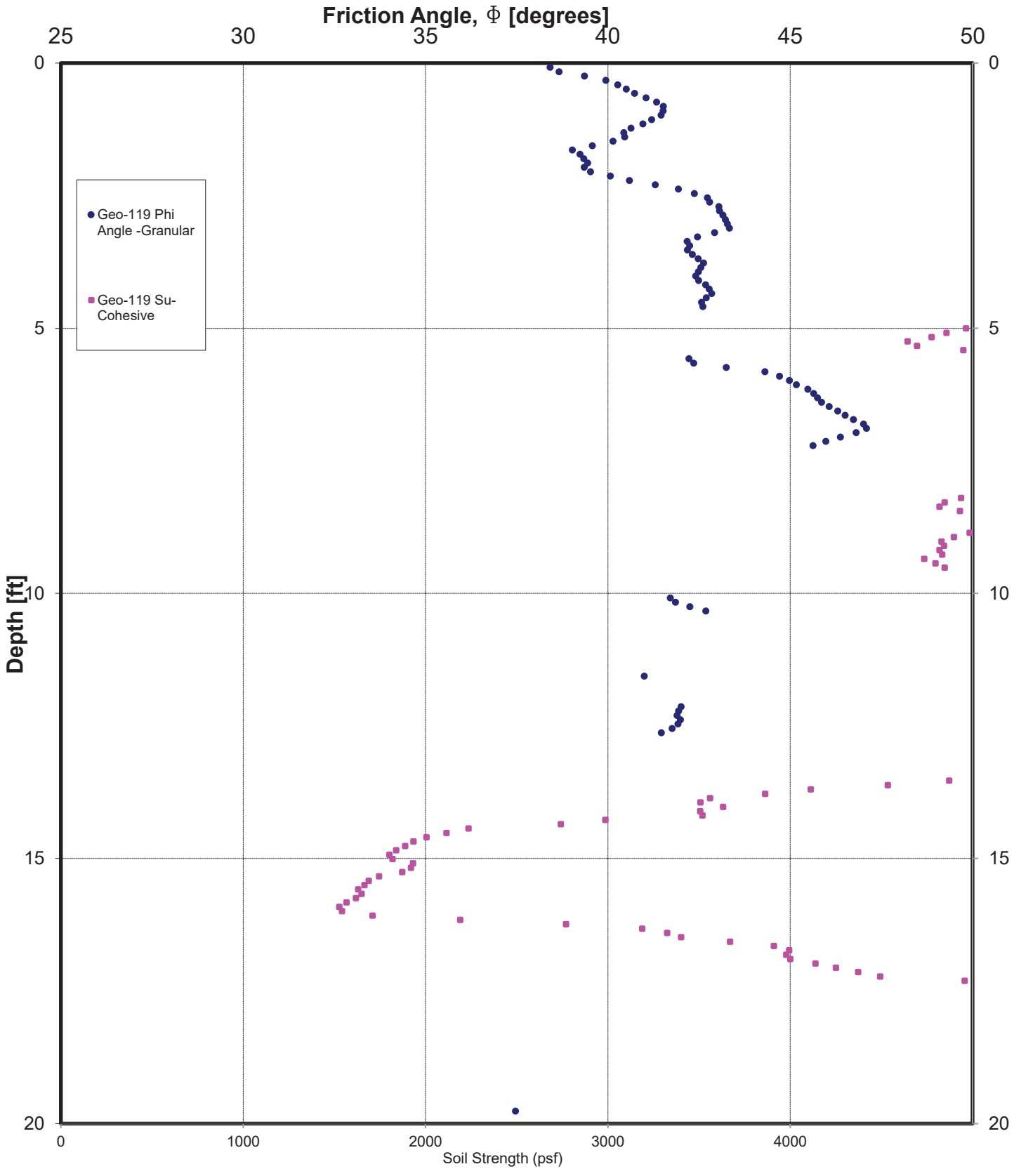
Soil Strength and vs. Depth for site GEO-116 from CPT



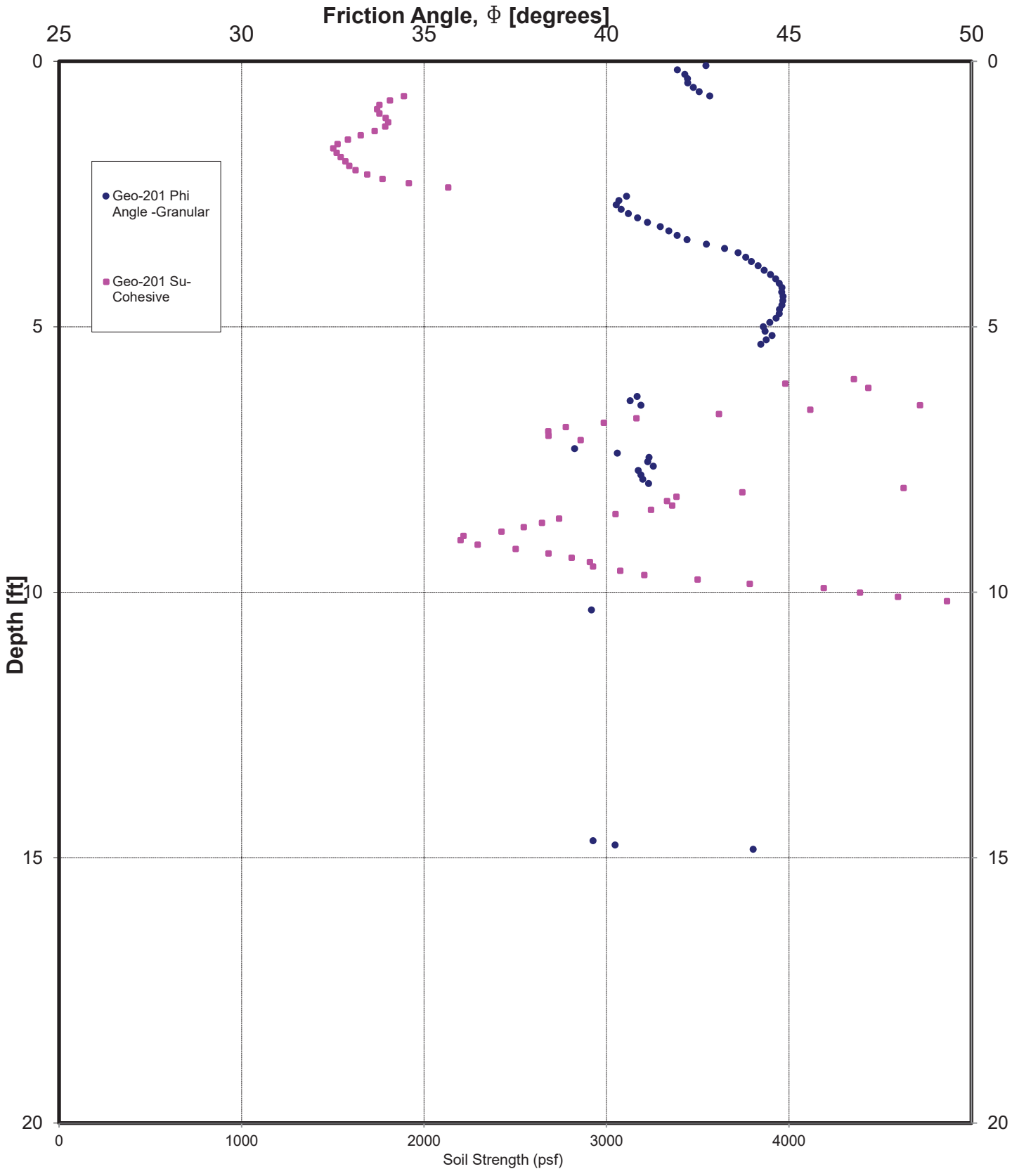
Soil Strength and vs. Depth for site GEO-117 from CPT



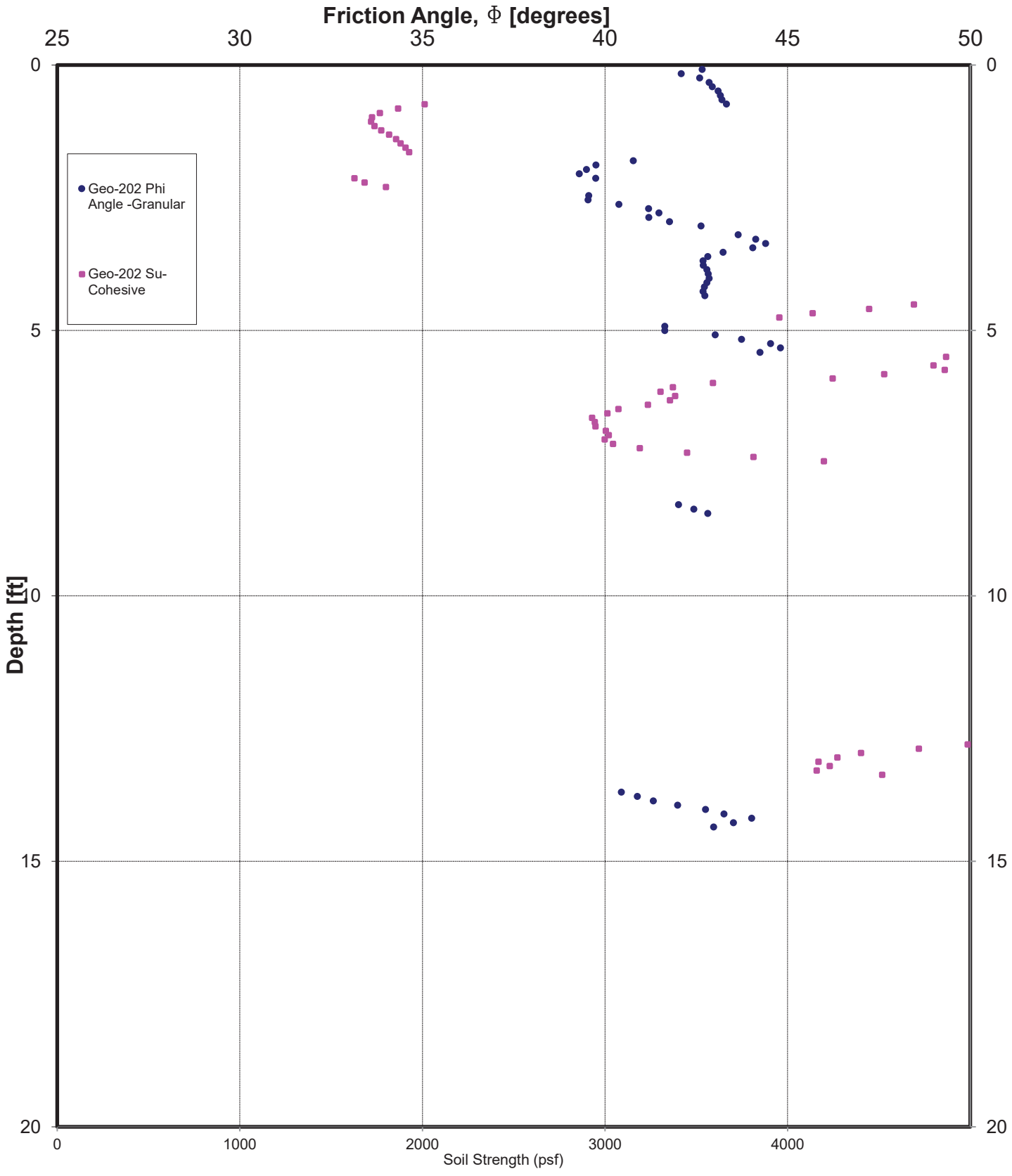
Soil Strength and vs. Depth for site GEO-118 from CPT



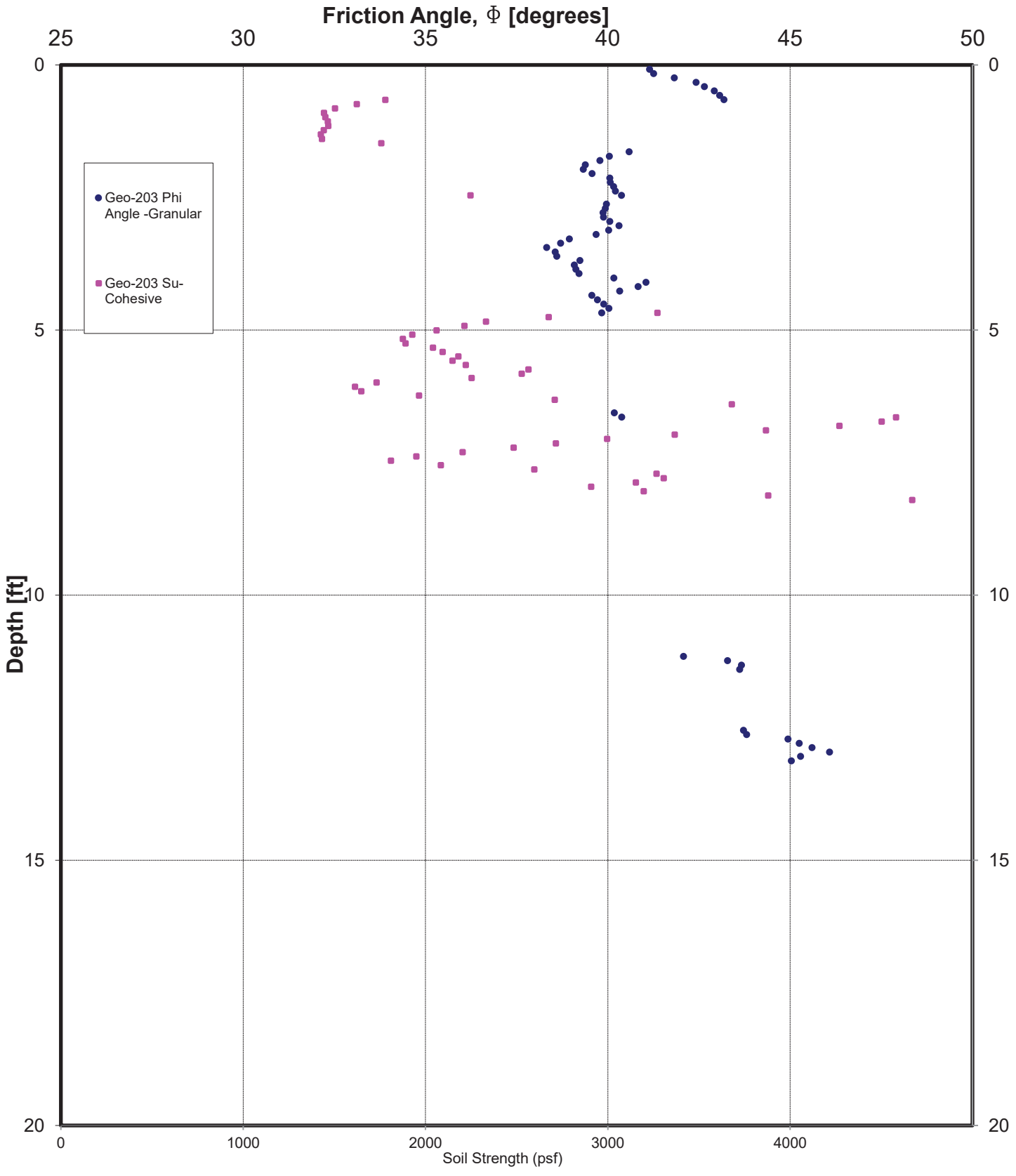
Soil Strength and vs. Depth for site GEO-119 from CPT



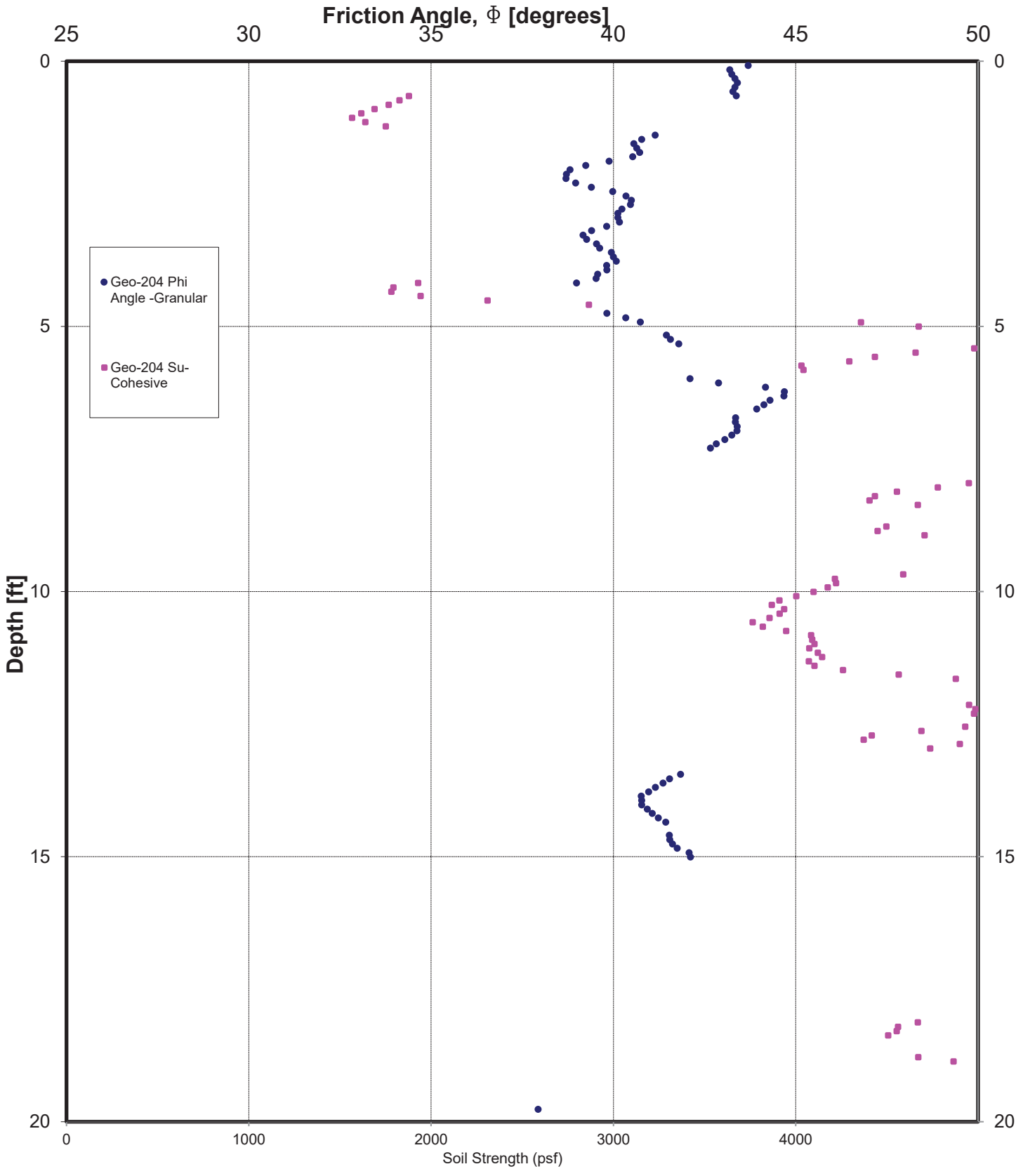
Soil Strength and vs. Depth for site GEO-201 from CPT



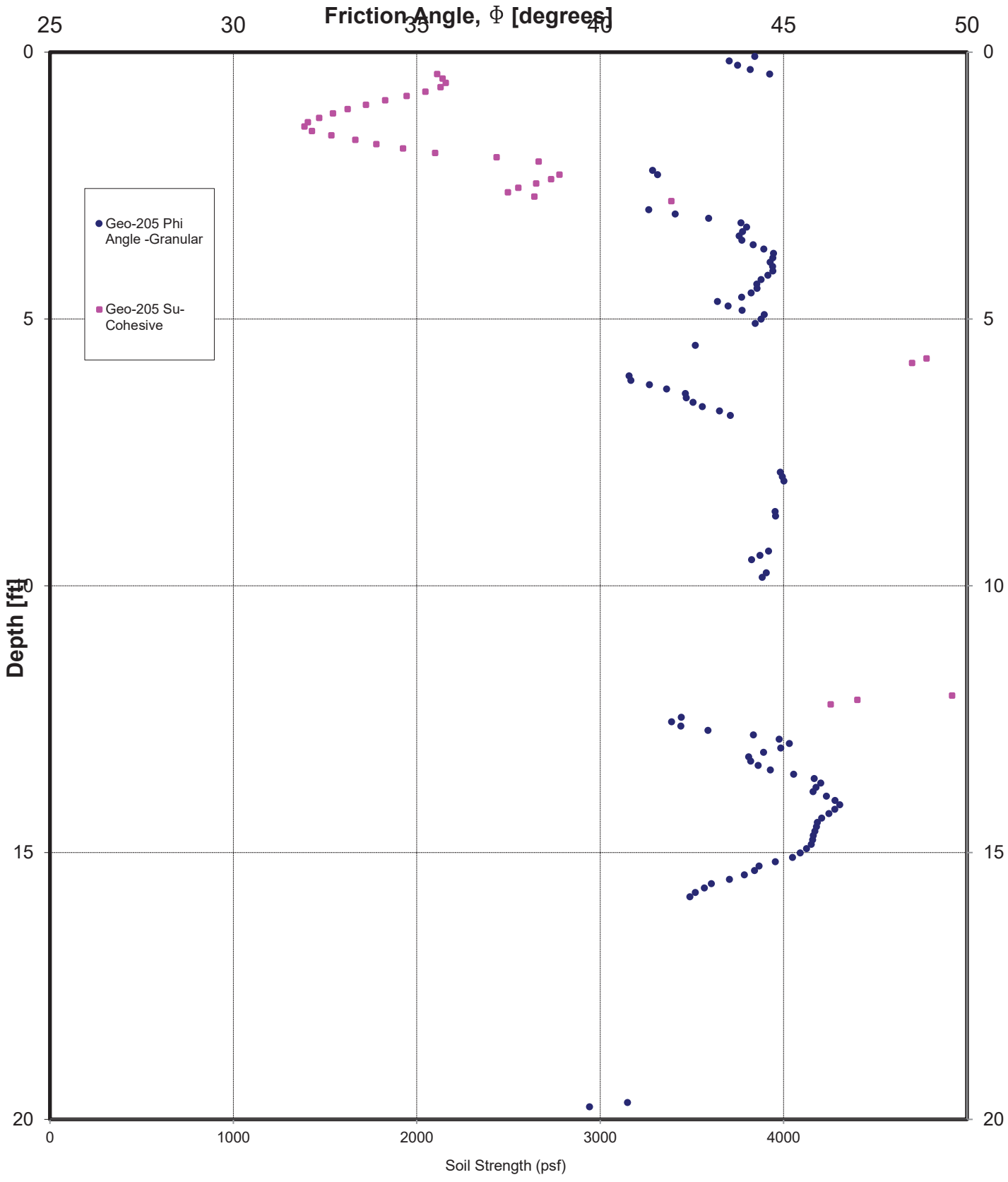
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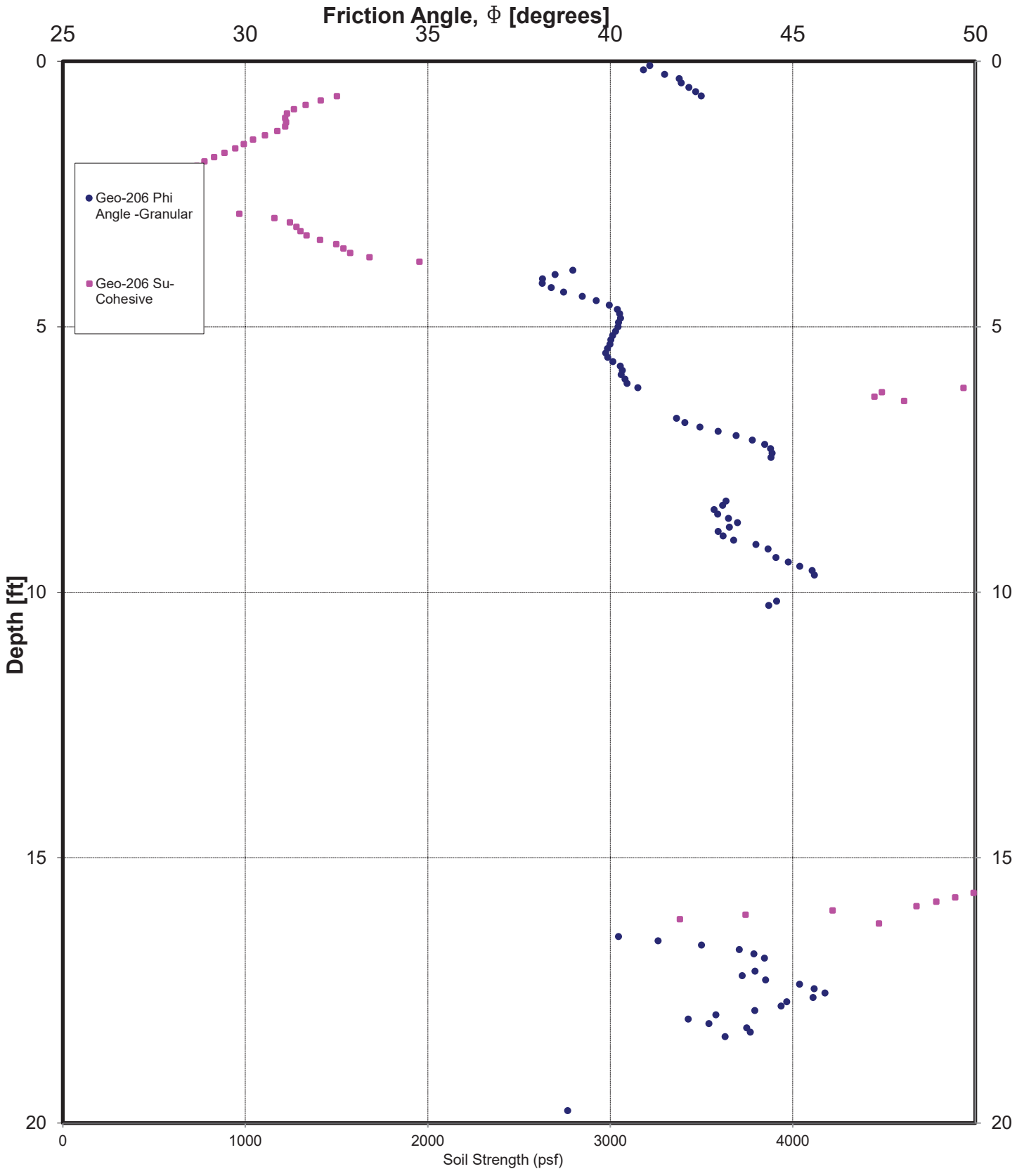
Soil Strength and vs. Depth for site GEO-203 from CPT



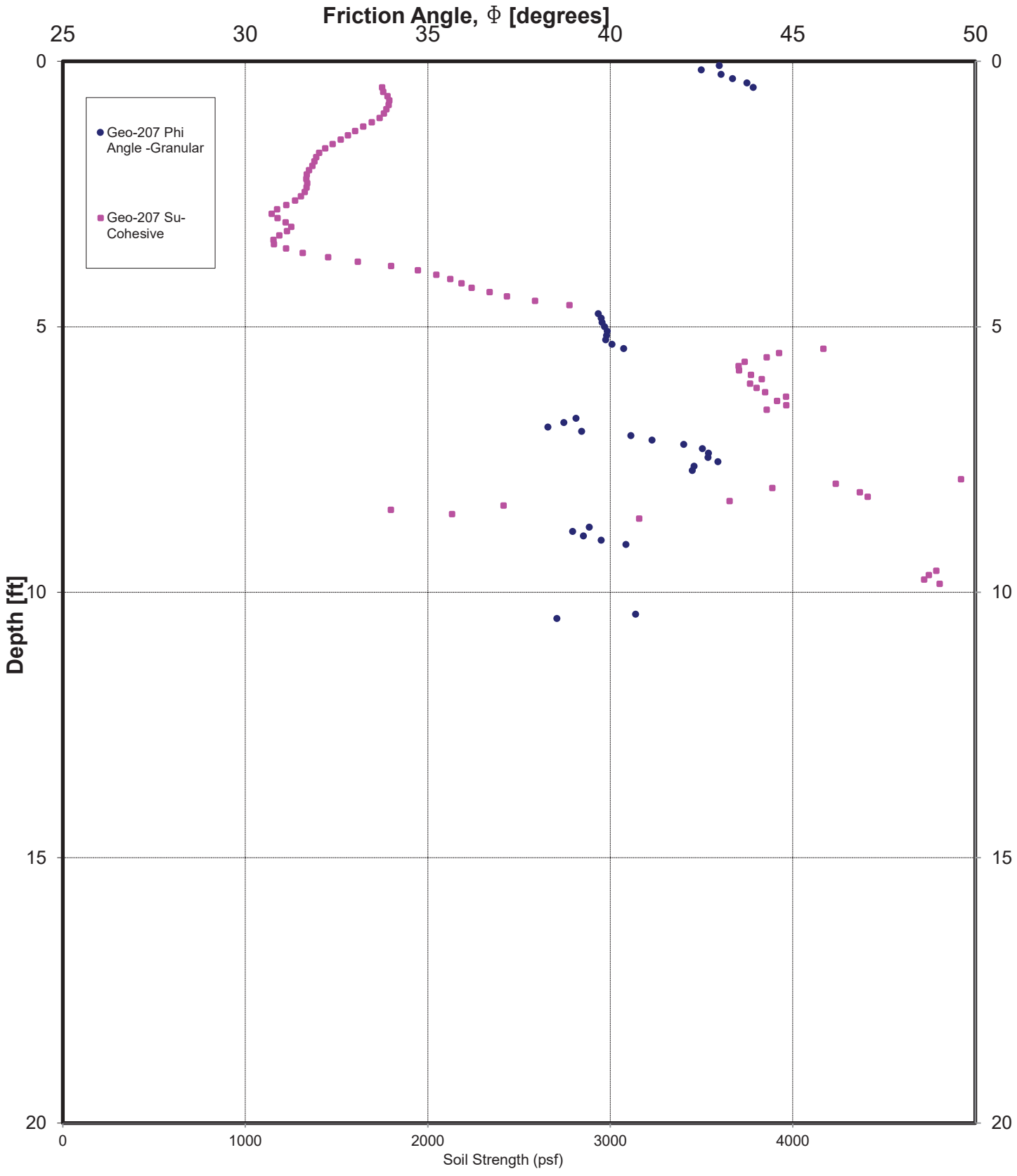
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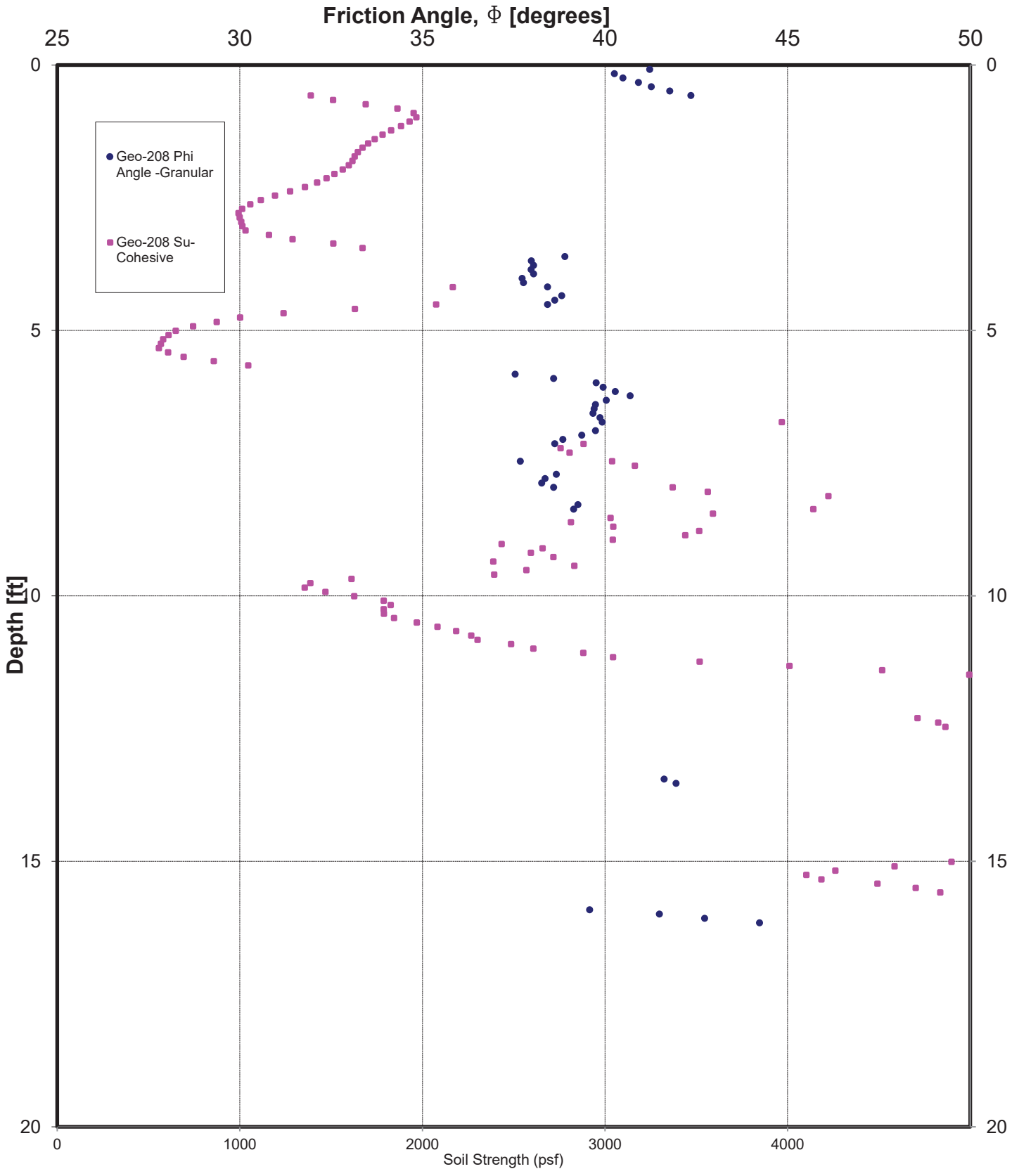
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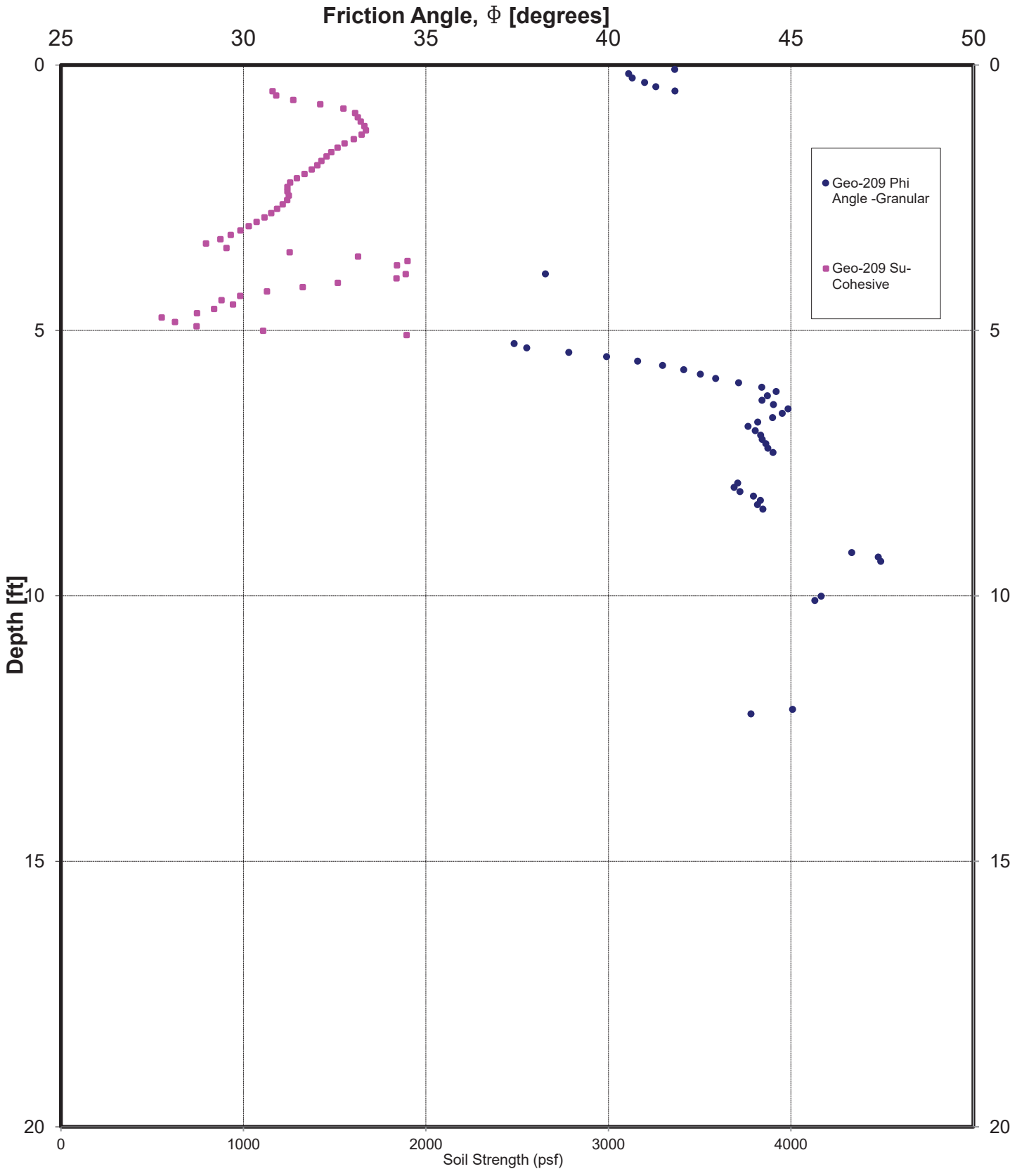
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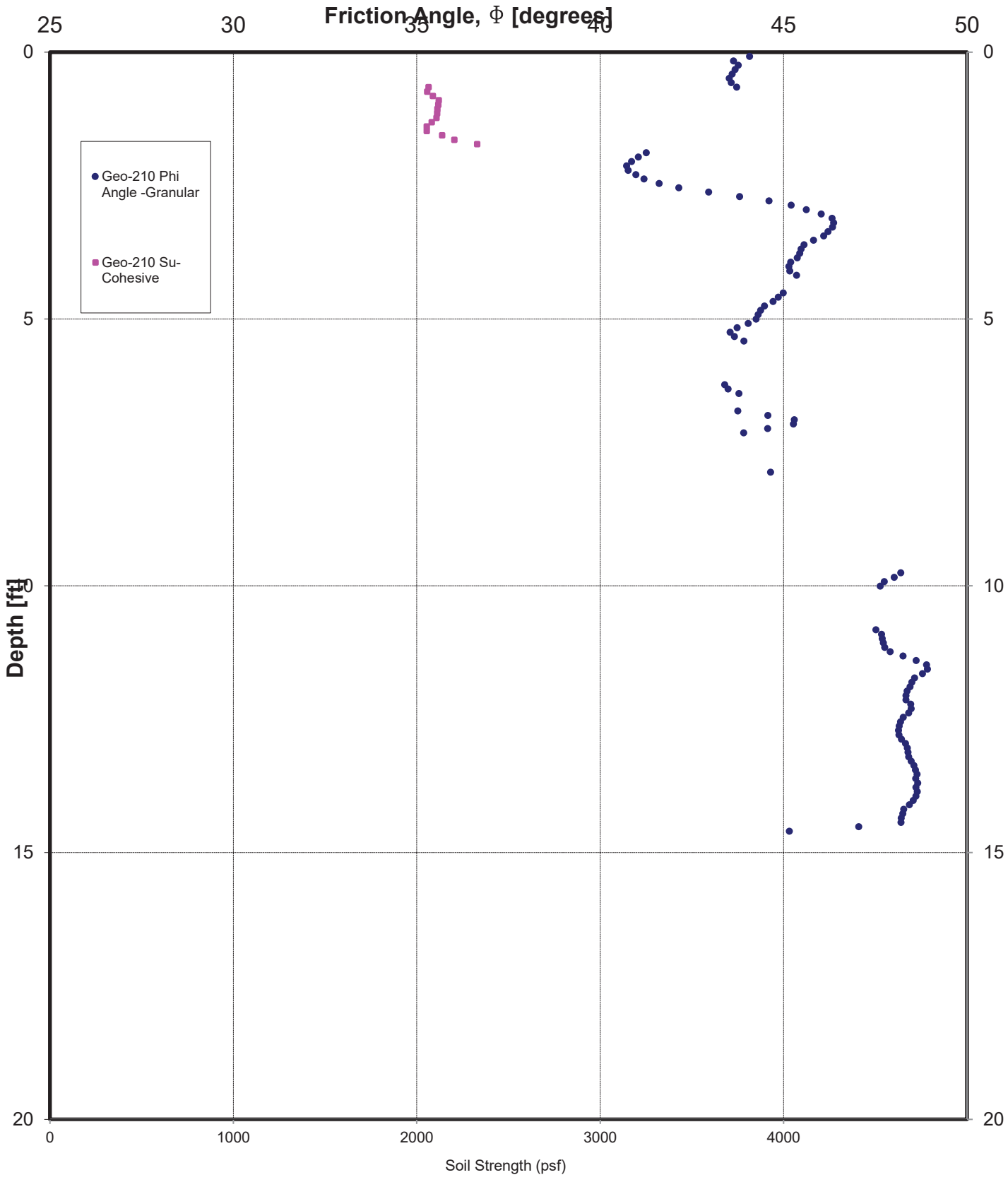
Soil Strength and vs. Depth for site GEO-207 from CPT



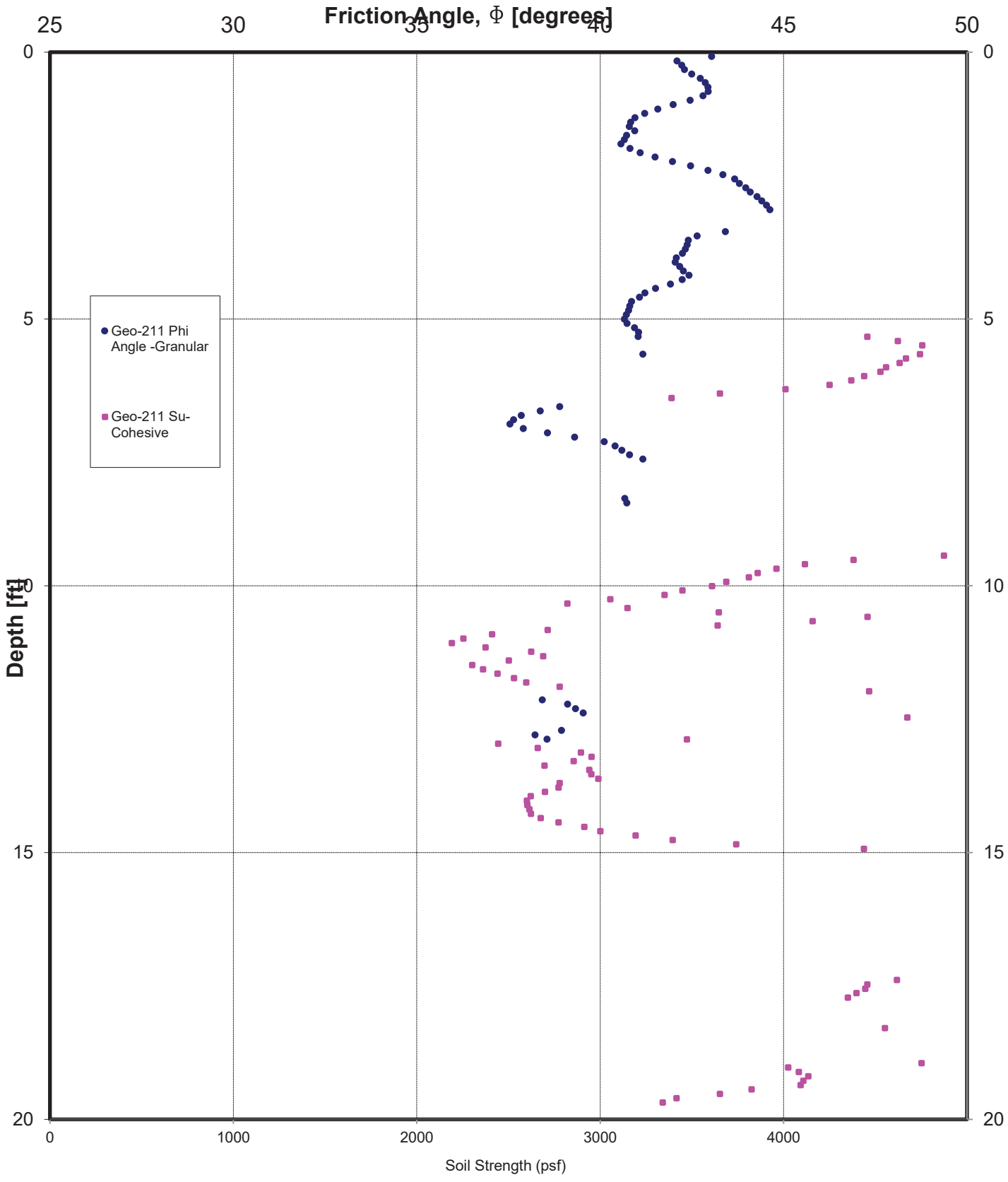
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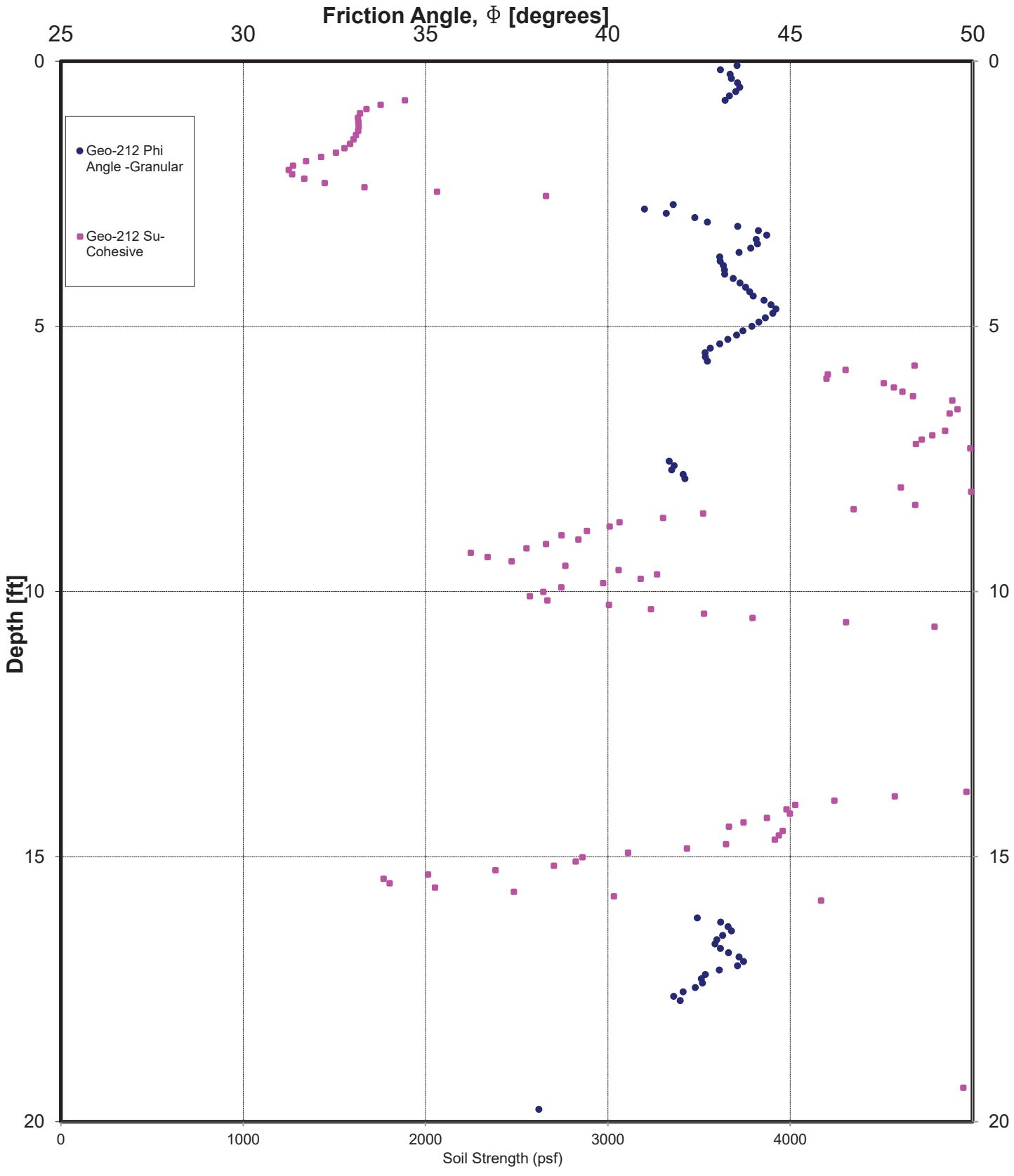
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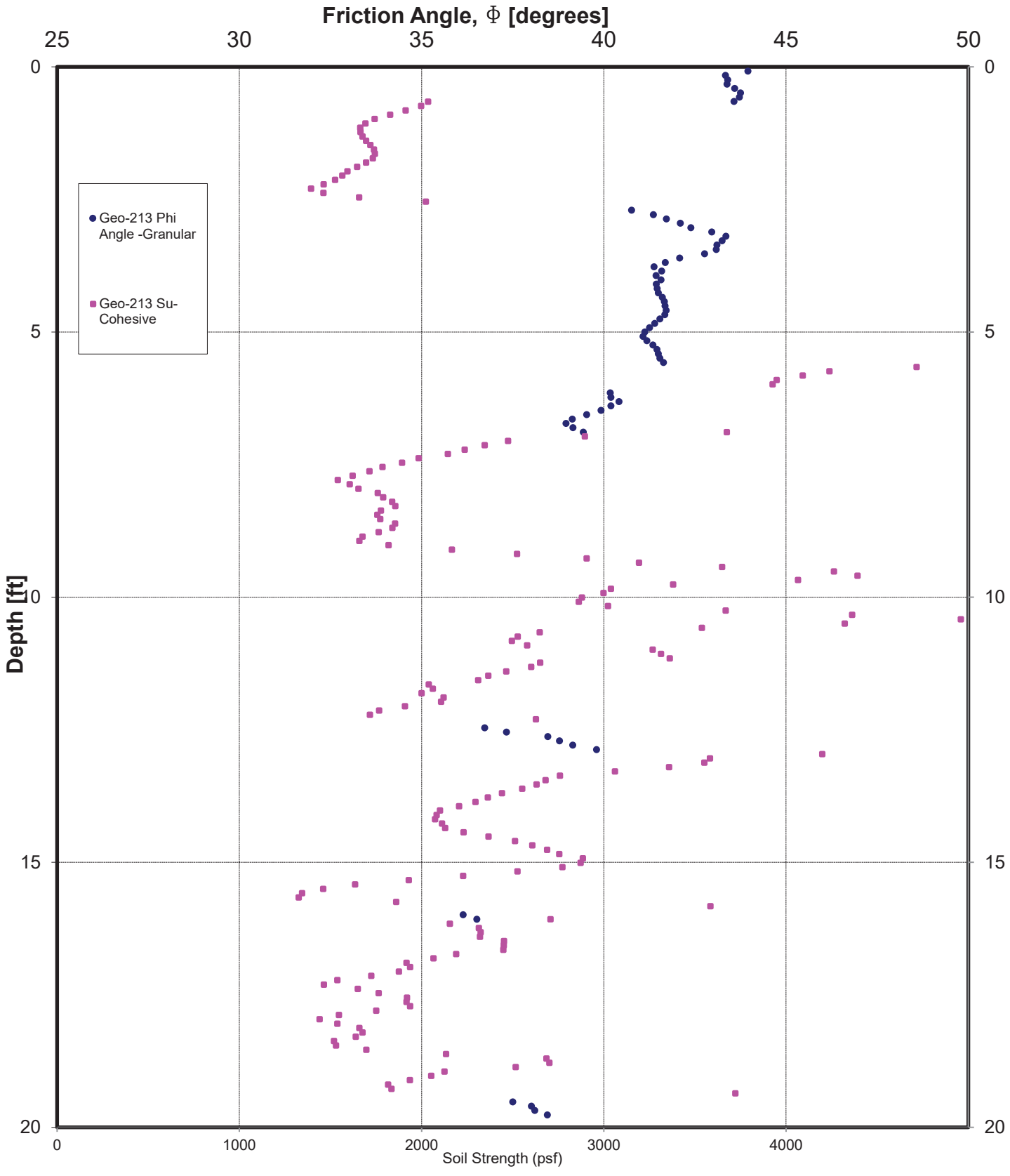
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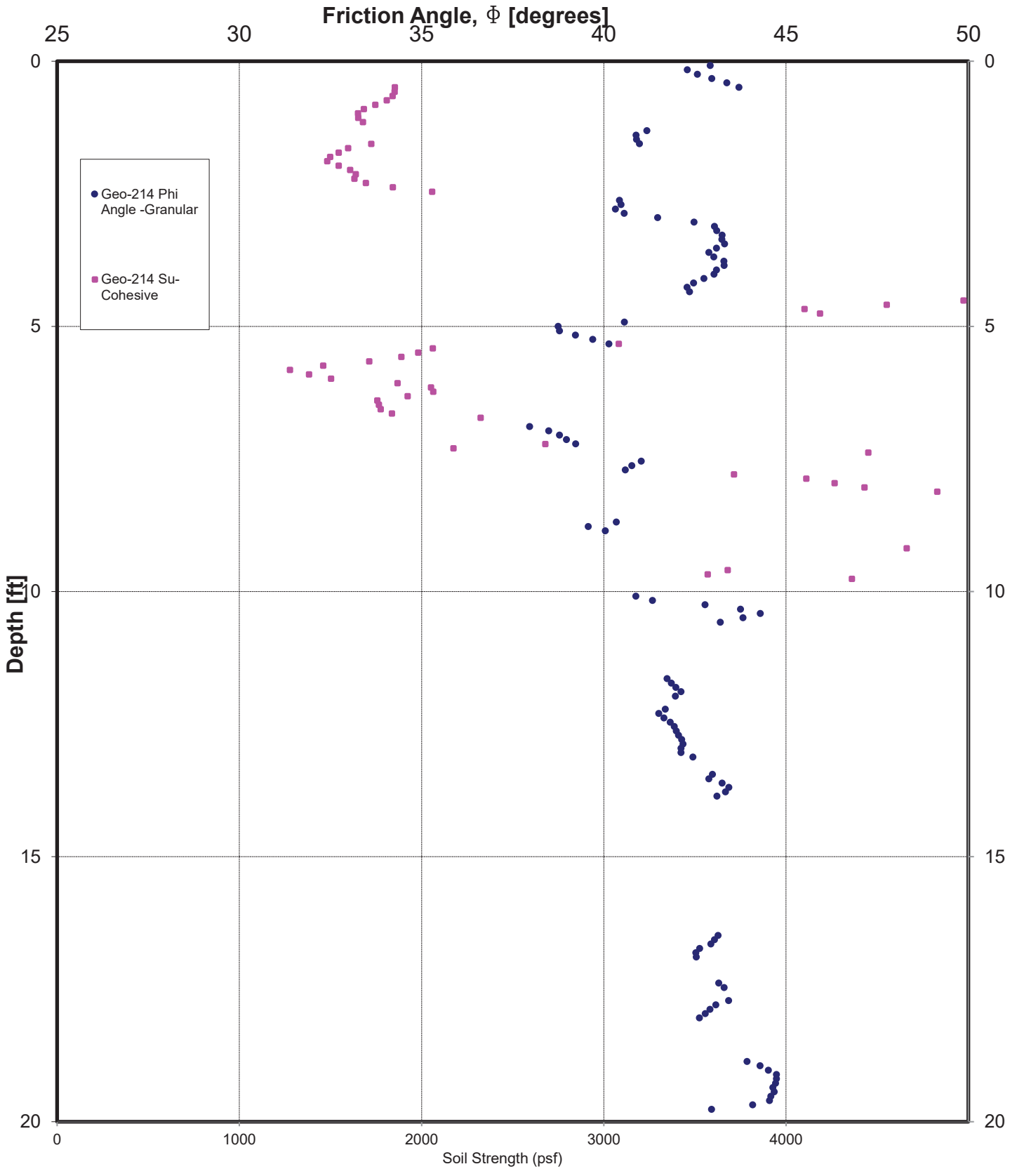
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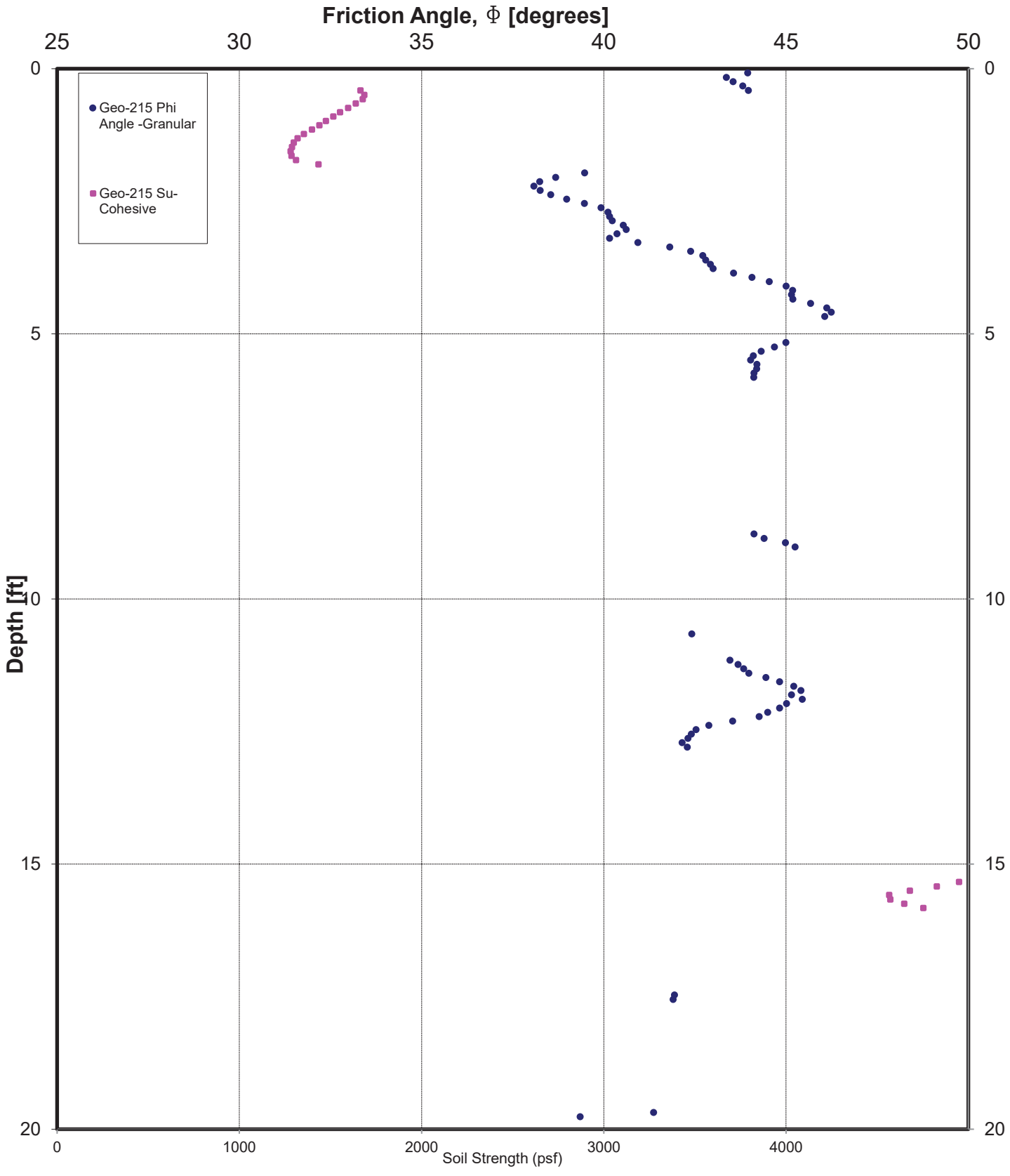
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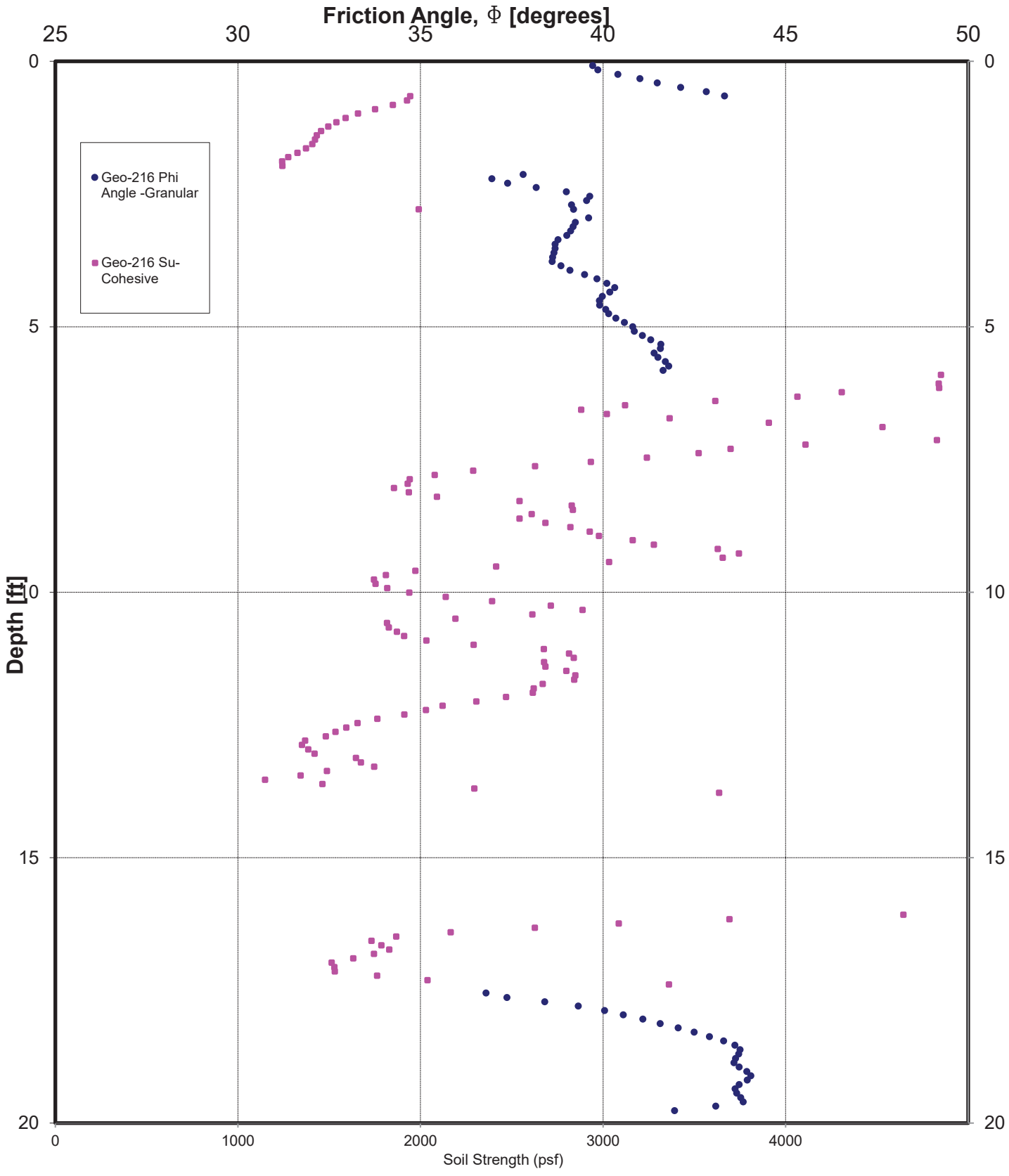
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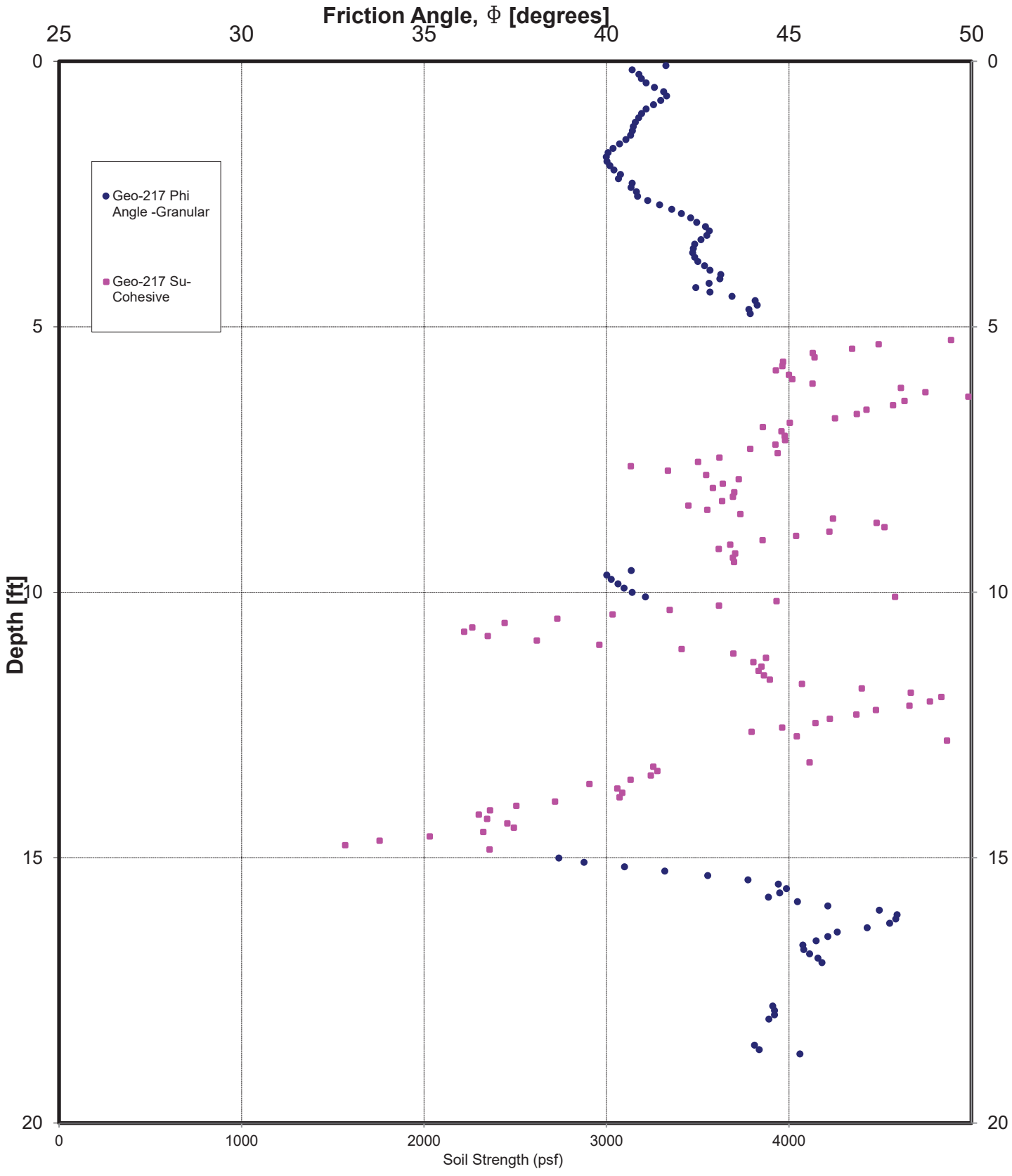
Soil Strength and vs. Depth for site GEO-214 from CPT



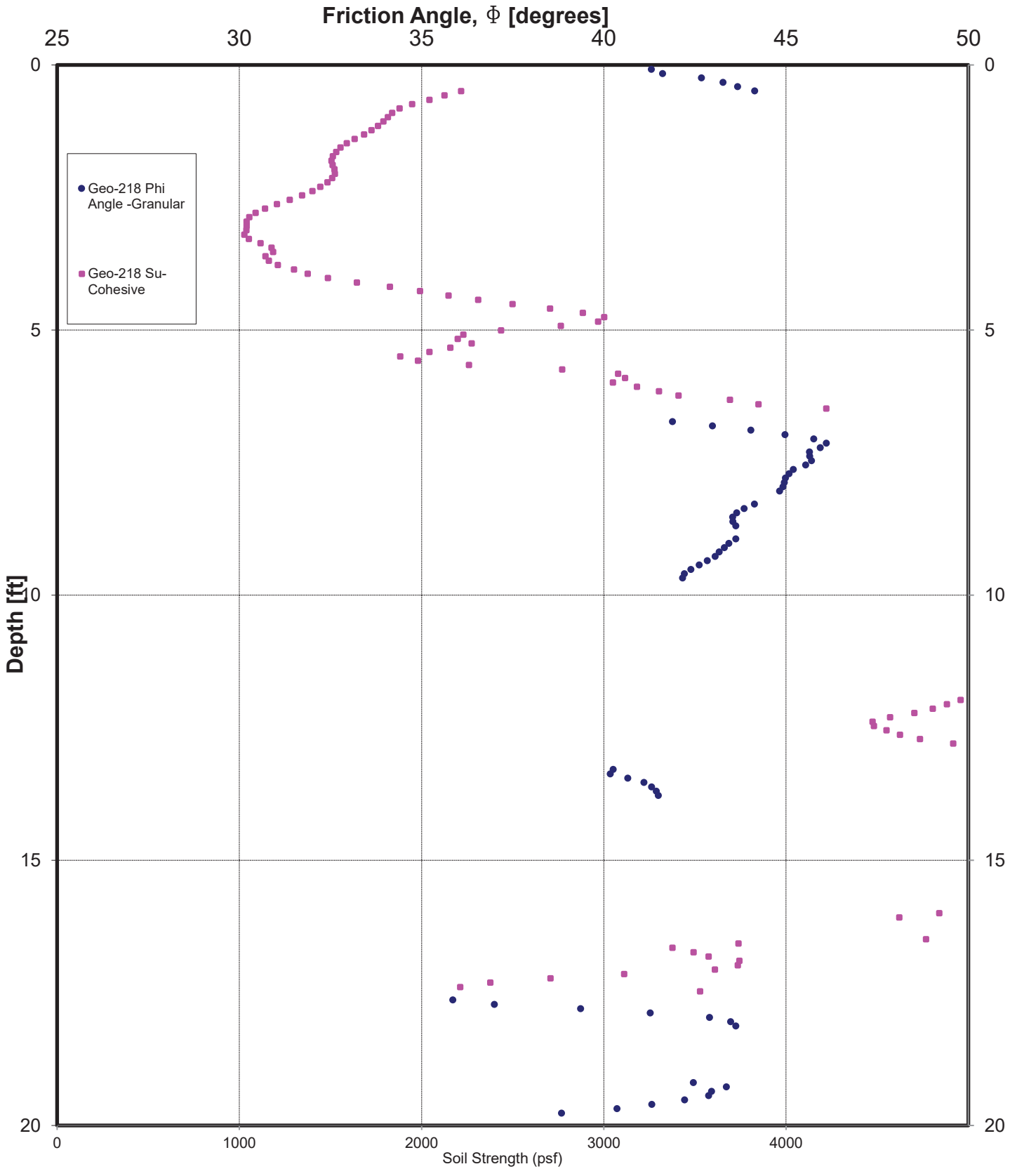
Soil Strength and vs. Depth for site GEO-215 from CPT



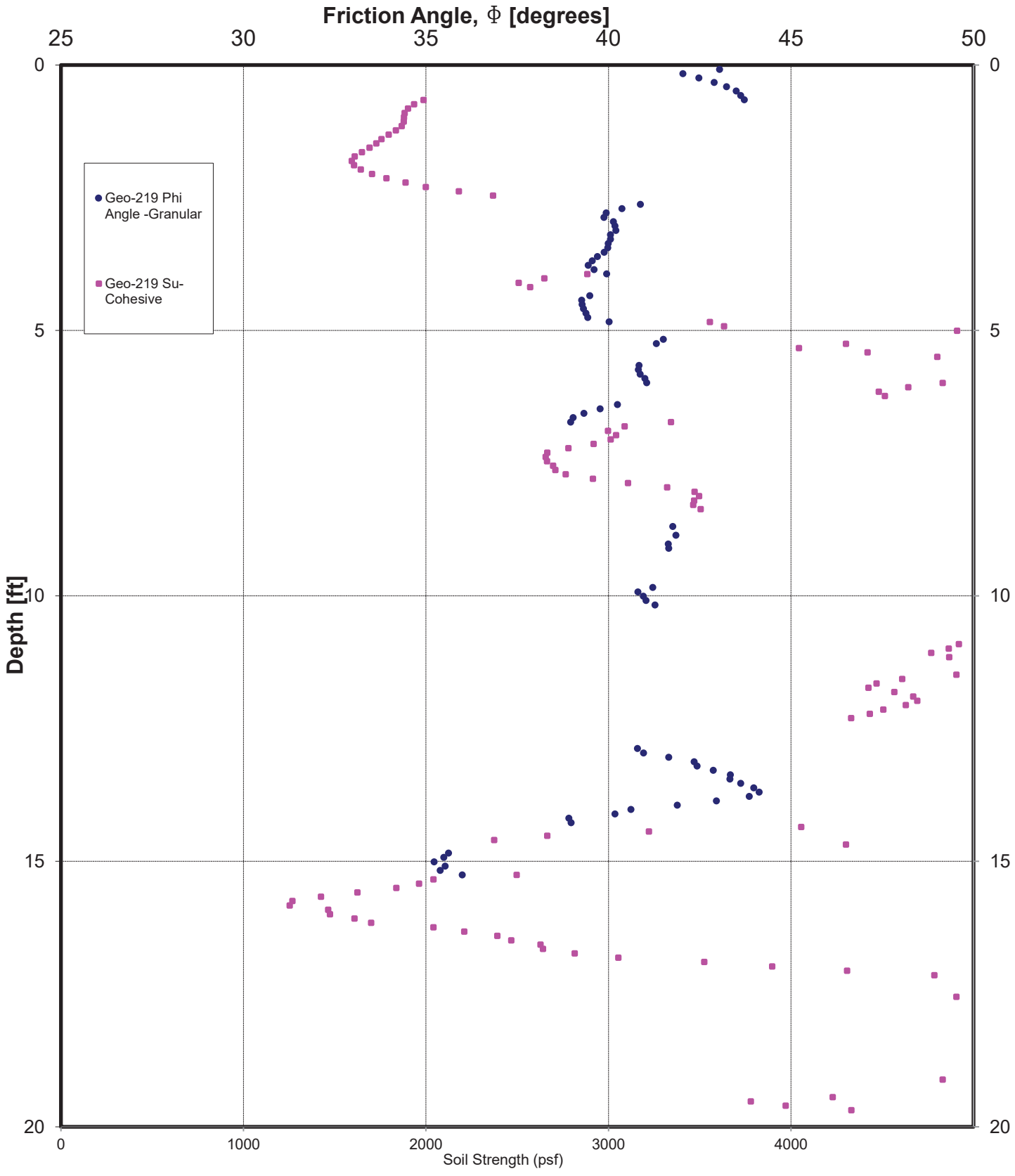
Soil Strength and vs. Depth for site GEO-216 from CPT



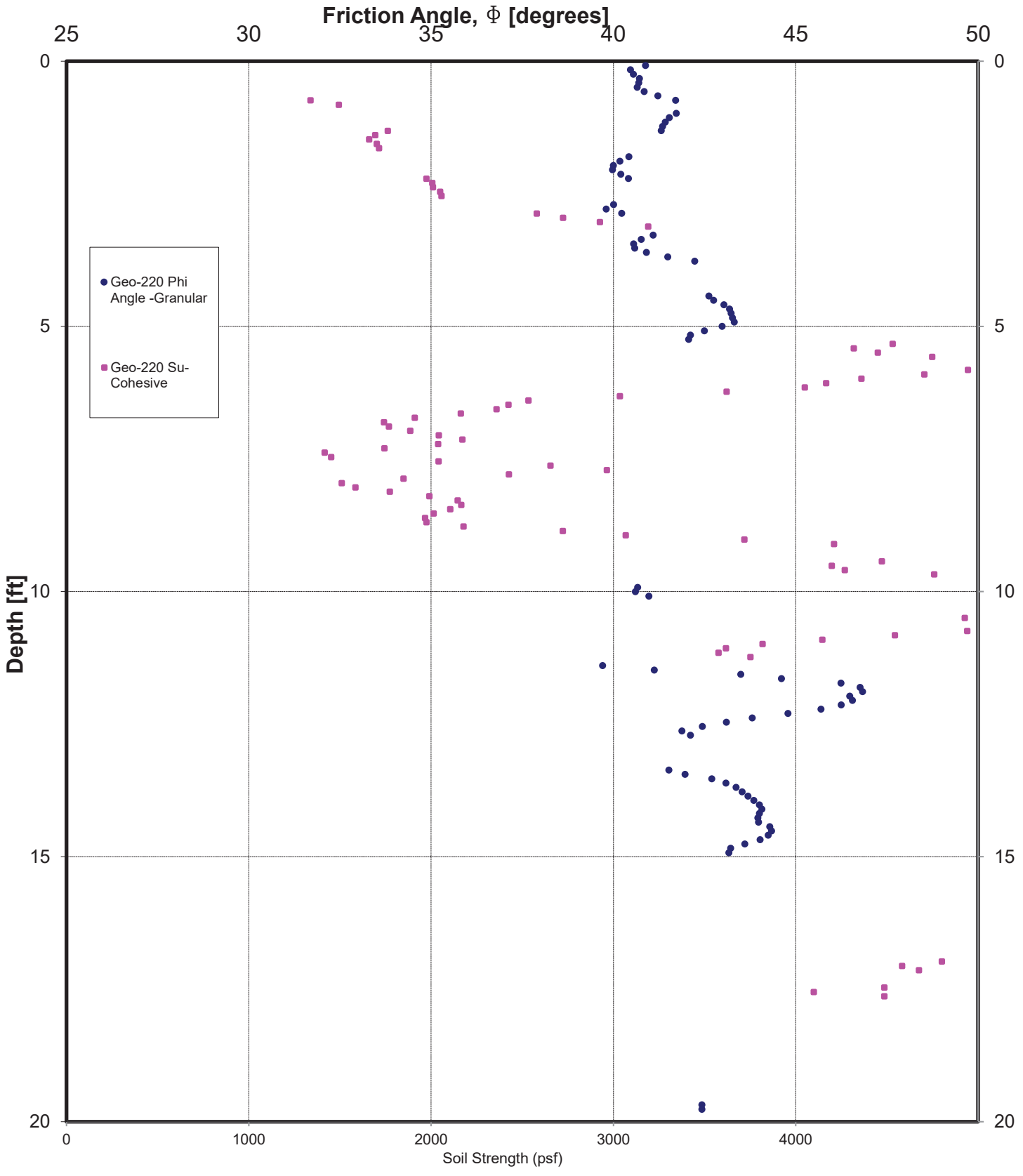
Soil Strength and vs. Depth for site GEO-217 from CPT



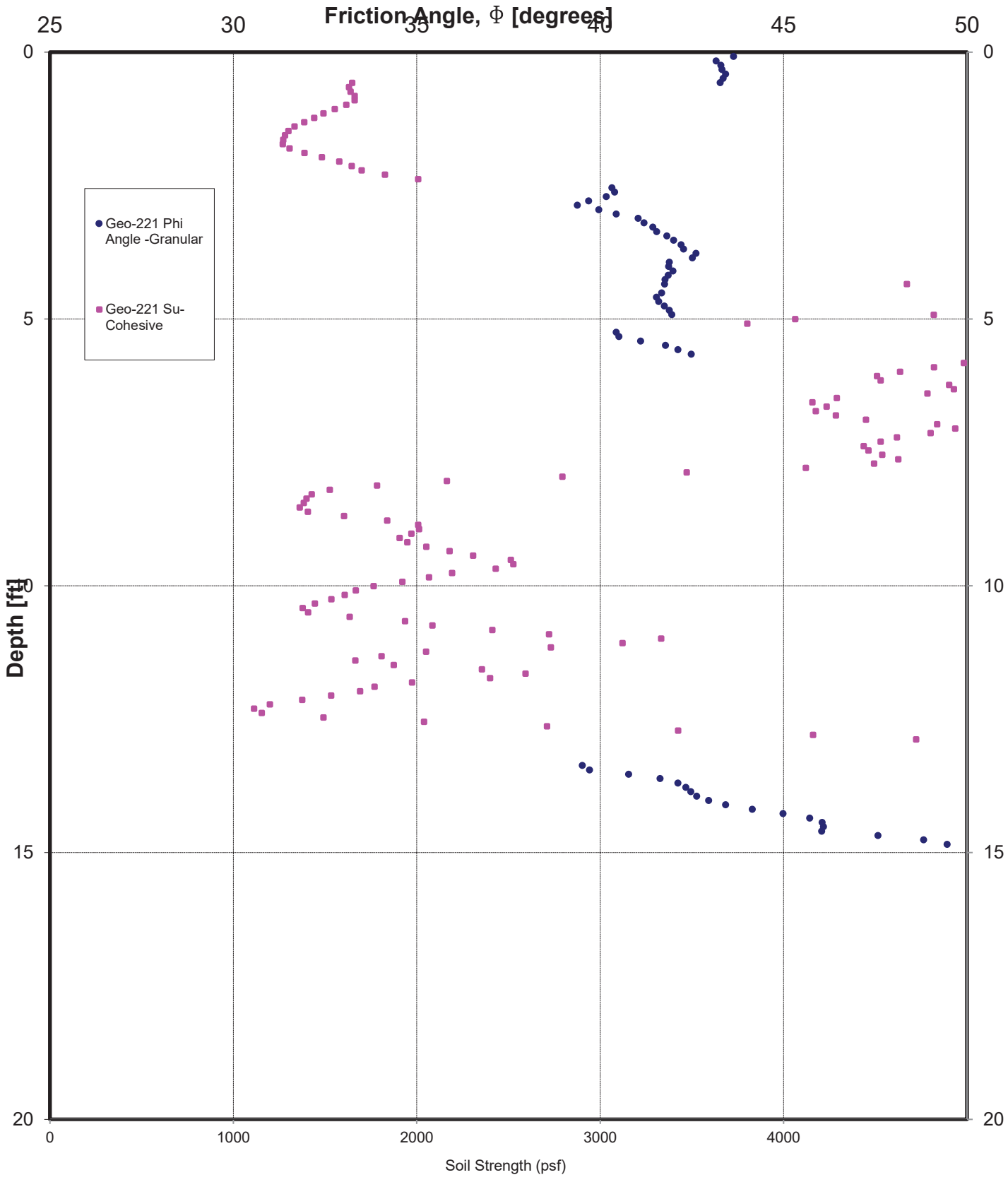
Soil Strength and vs. Depth for site GEO-218 from CPT



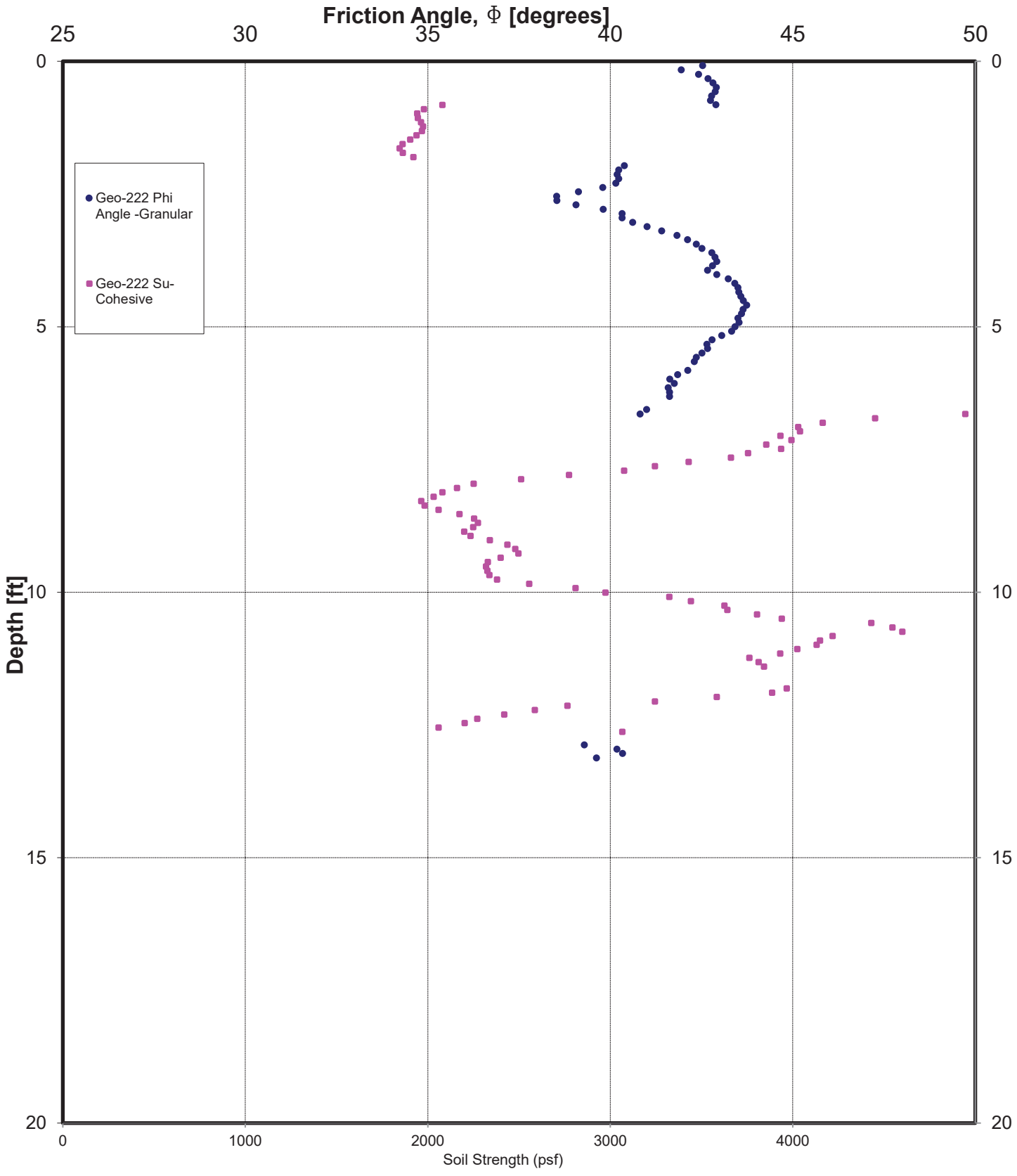
Soil Strength and vs. Depth for site GEO-219 from CPT



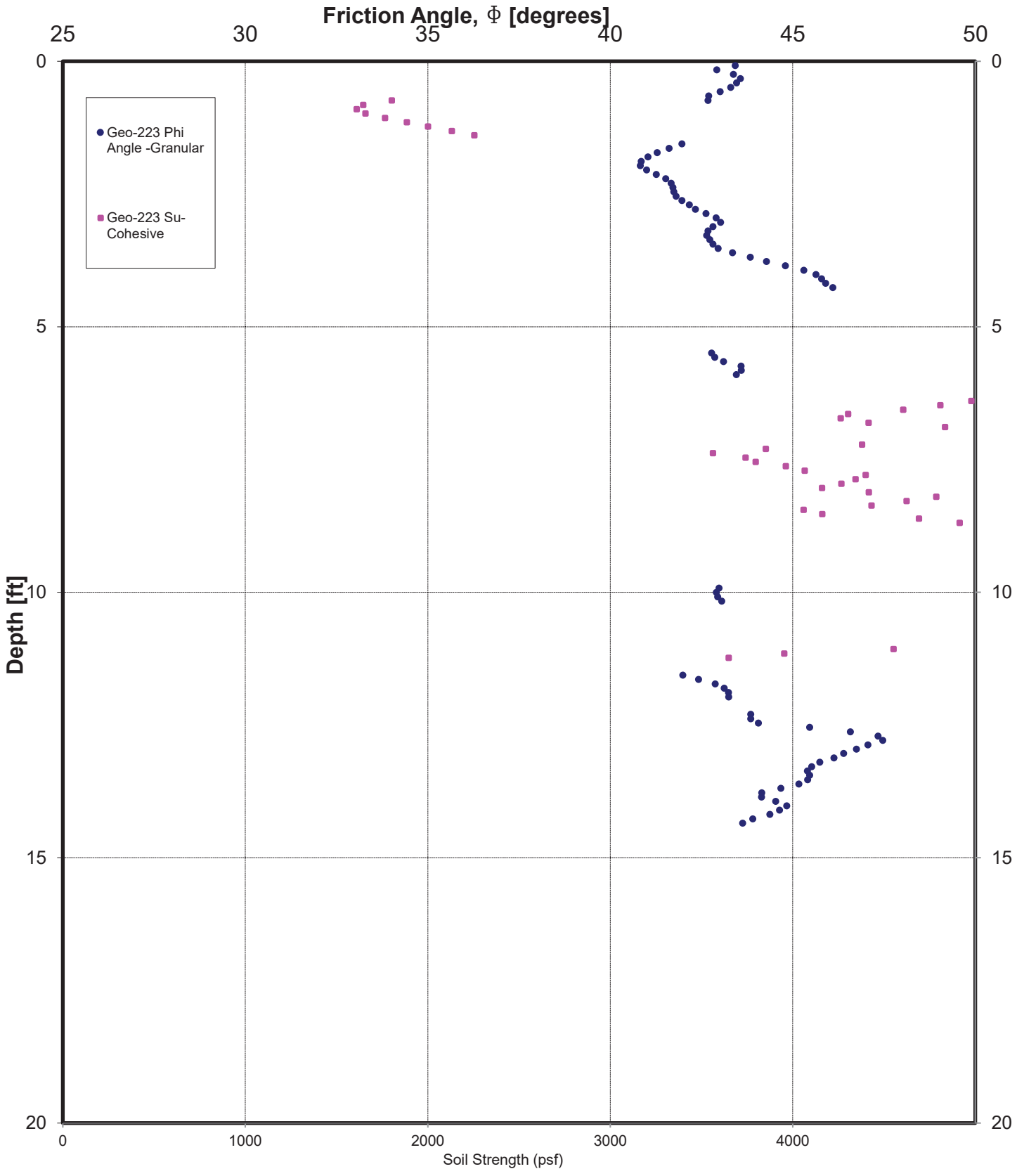
Soil Strength and vs. Depth for site GEO-220 from CPT



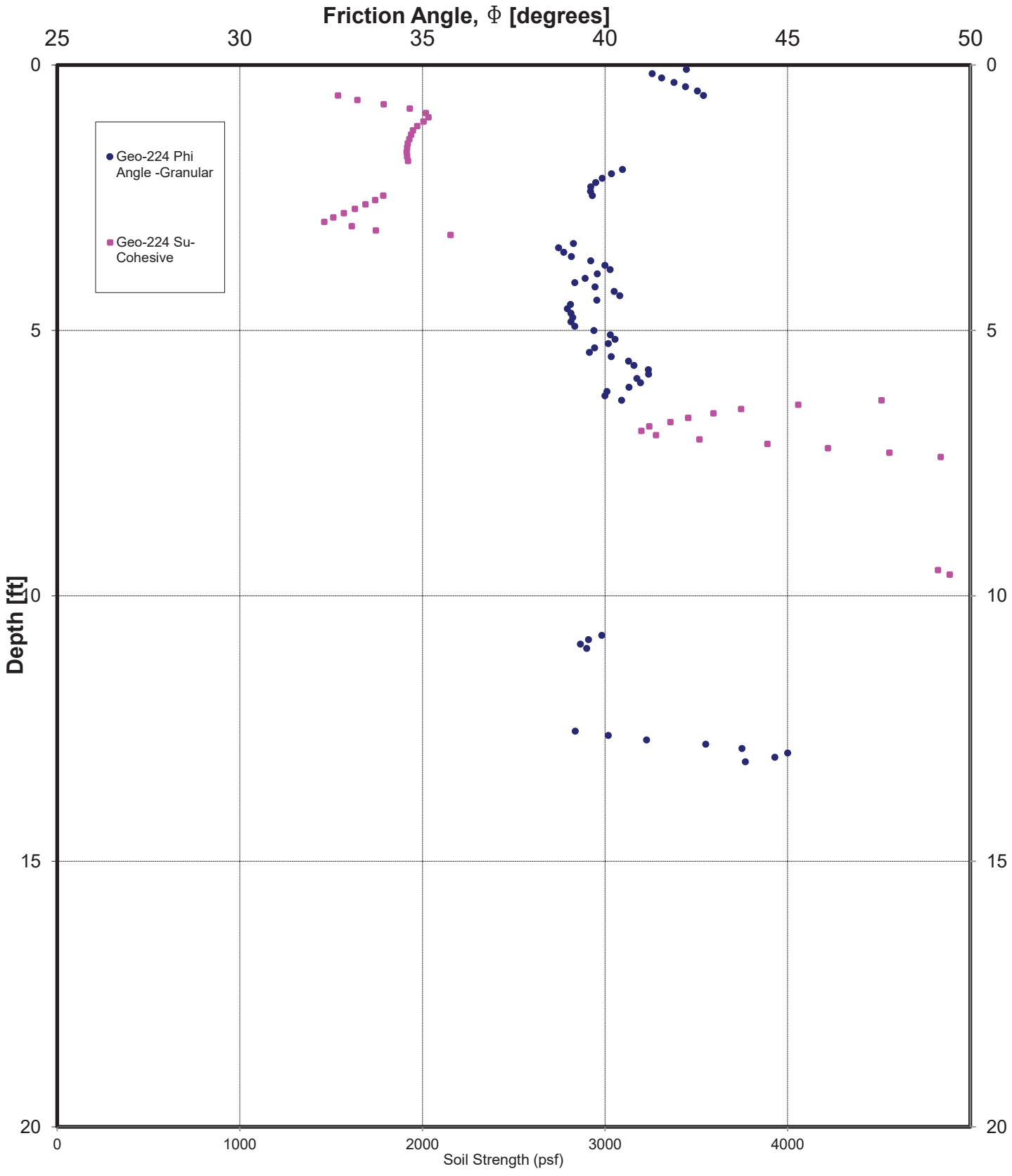
Soil Strength and vs. Depth for site GEO-221 from CPT



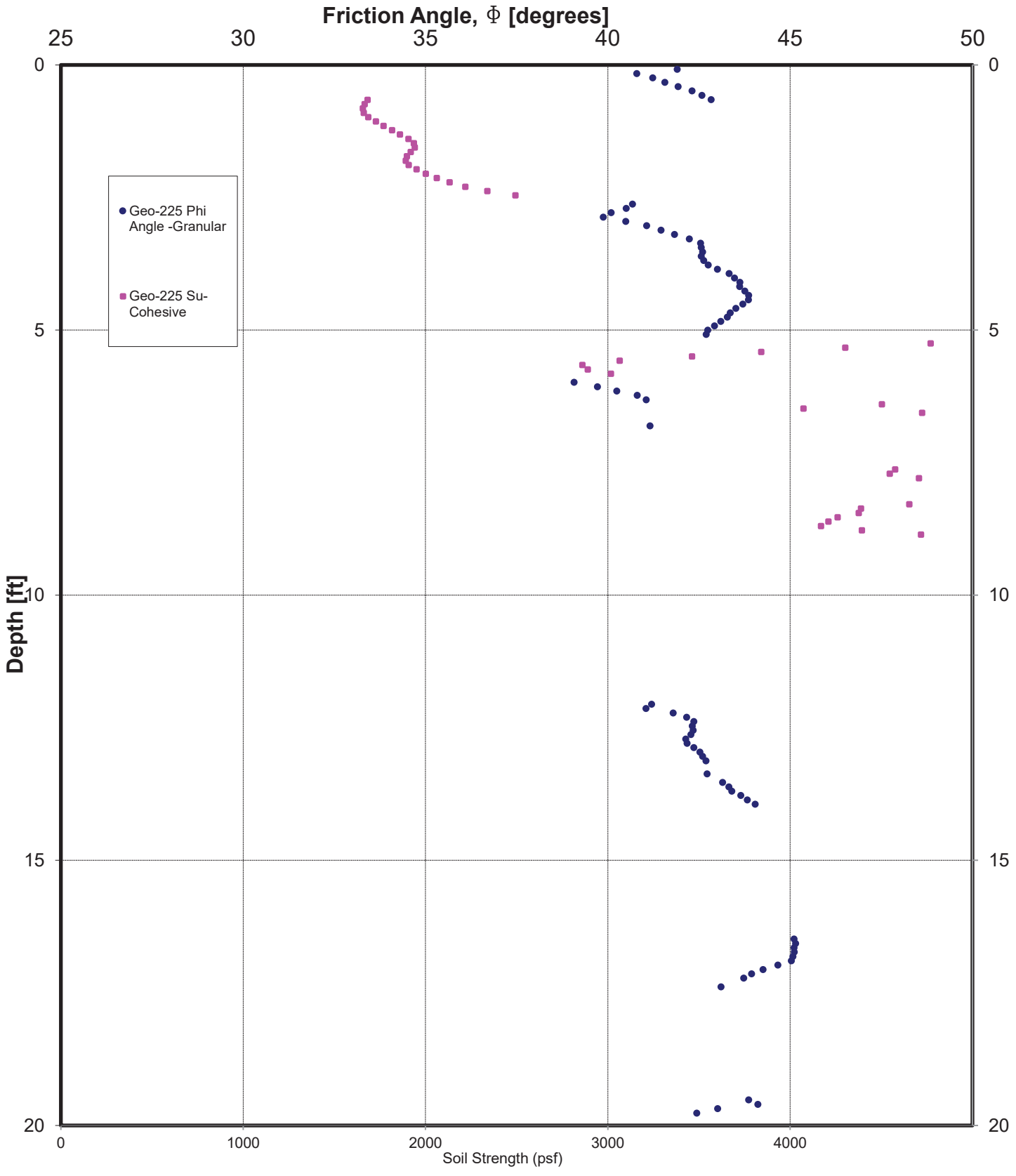
Soil Strength and vs. Depth for site GEO-222 from CPT



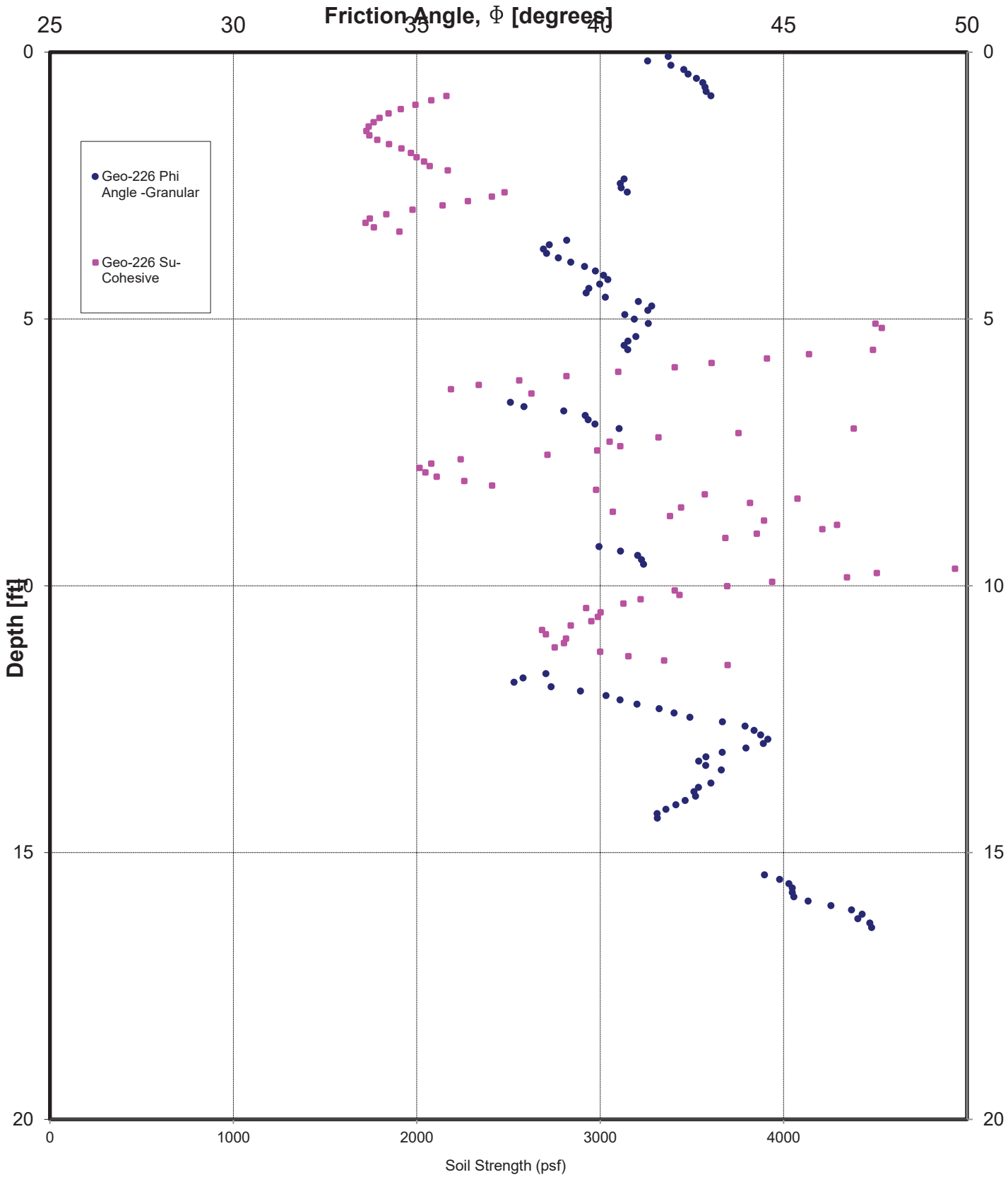
Soil Strength and vs. Depth for site GEO-223 from CPT



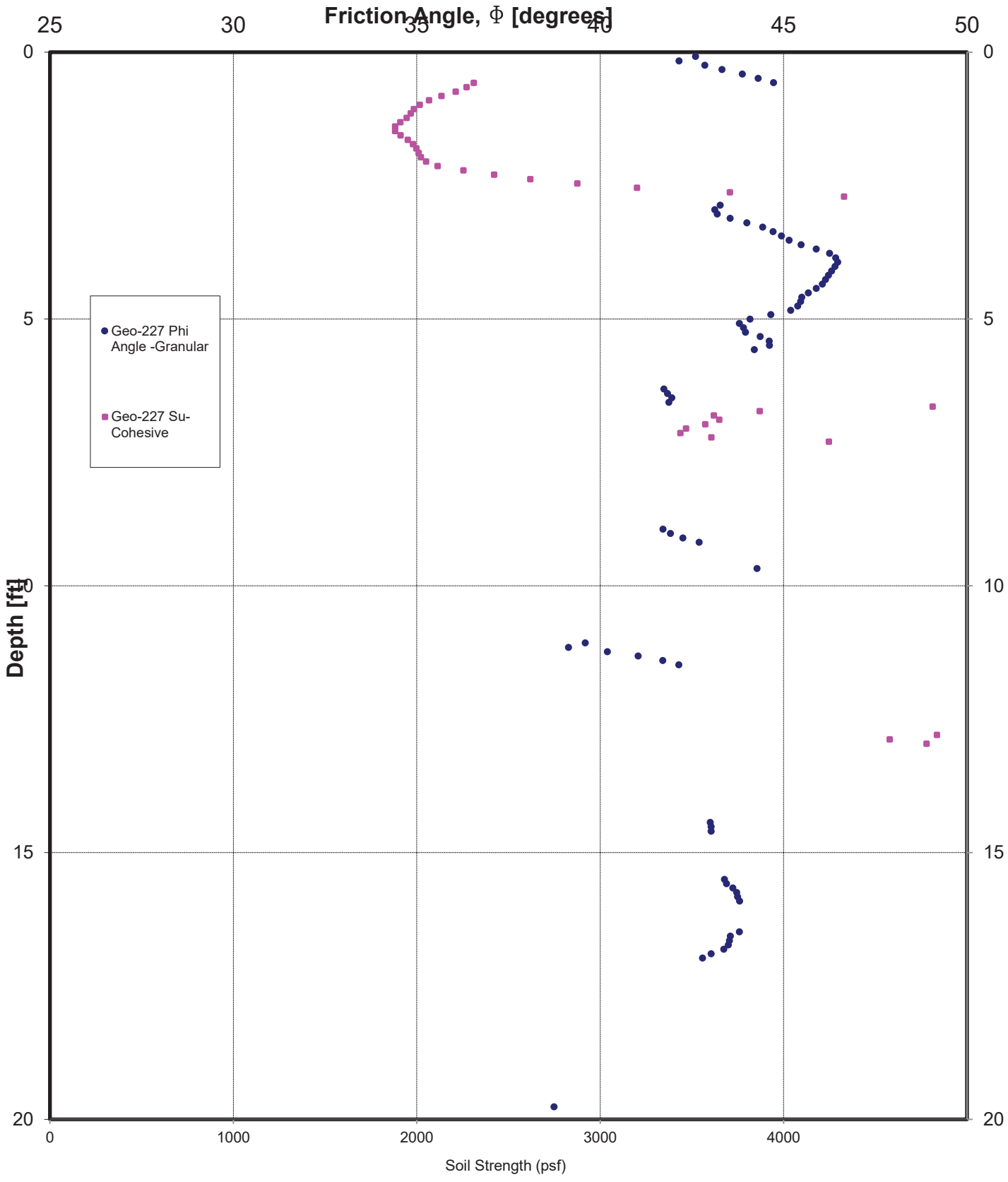
Soil Strength and vs. Depth for site GEO-224 from CPT



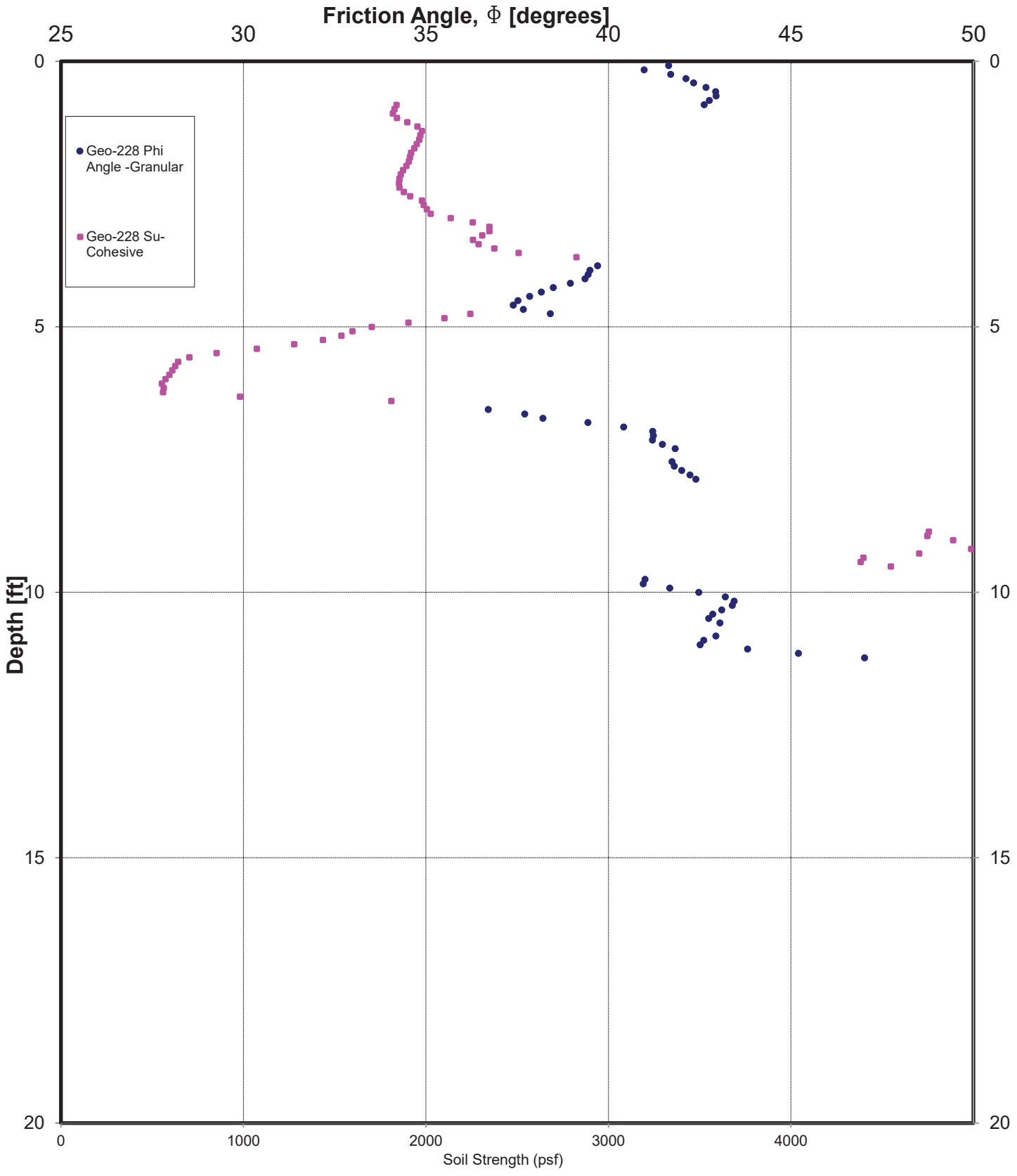
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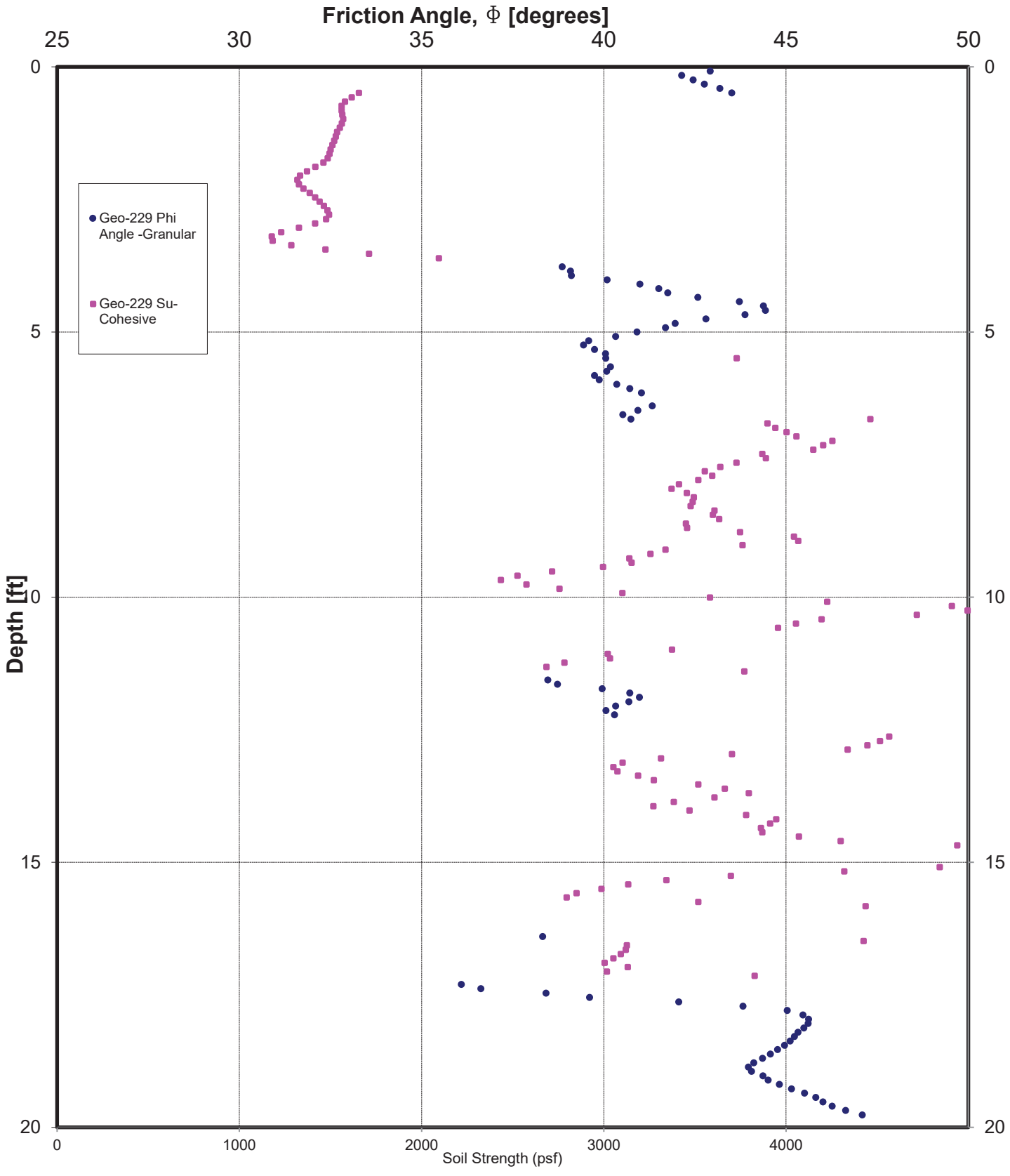
Soil Strength and vs. Depth for site GEO-226 from CPT



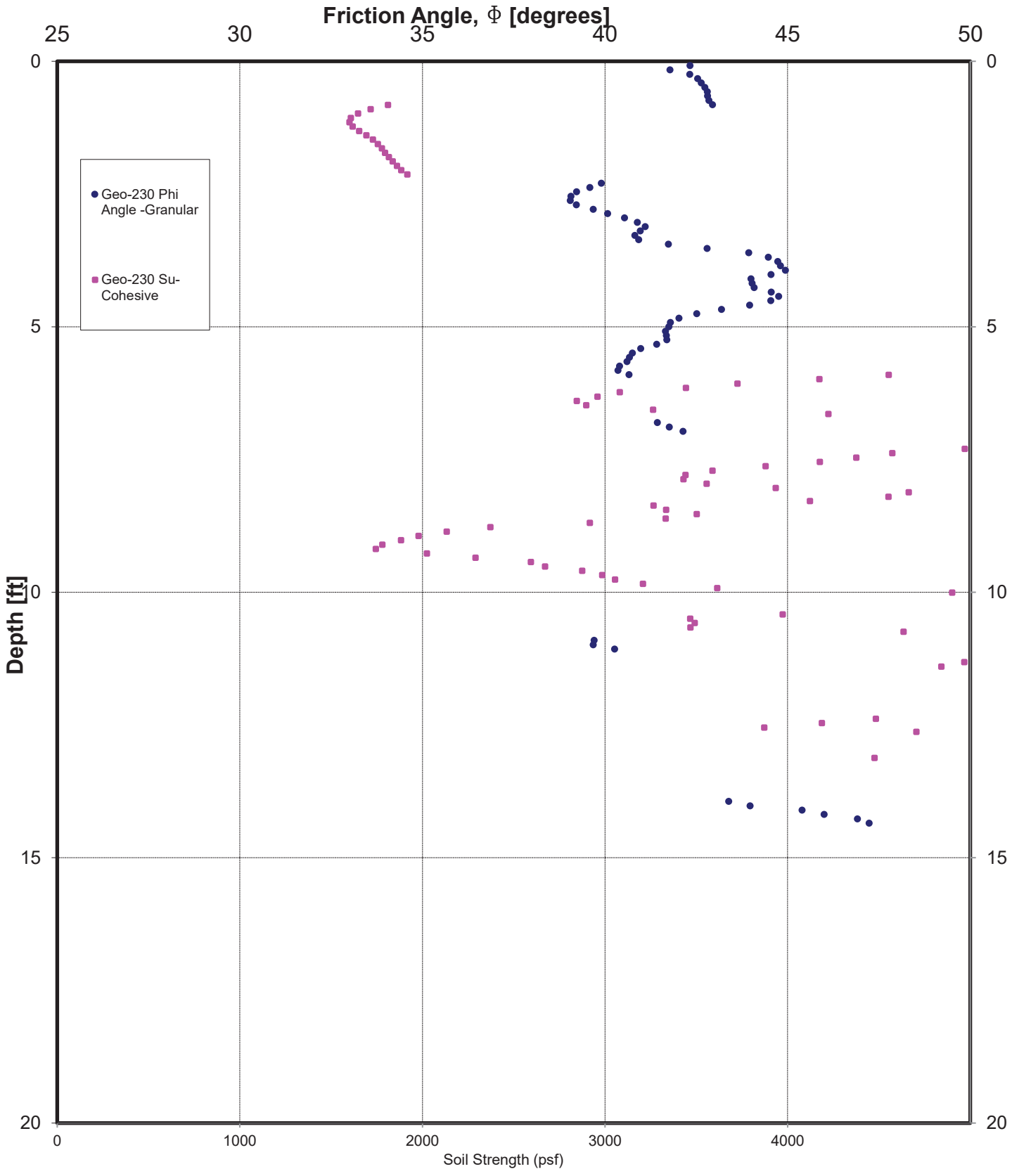
Soil Strength and vs. Depth for site GEO-227 from CPT



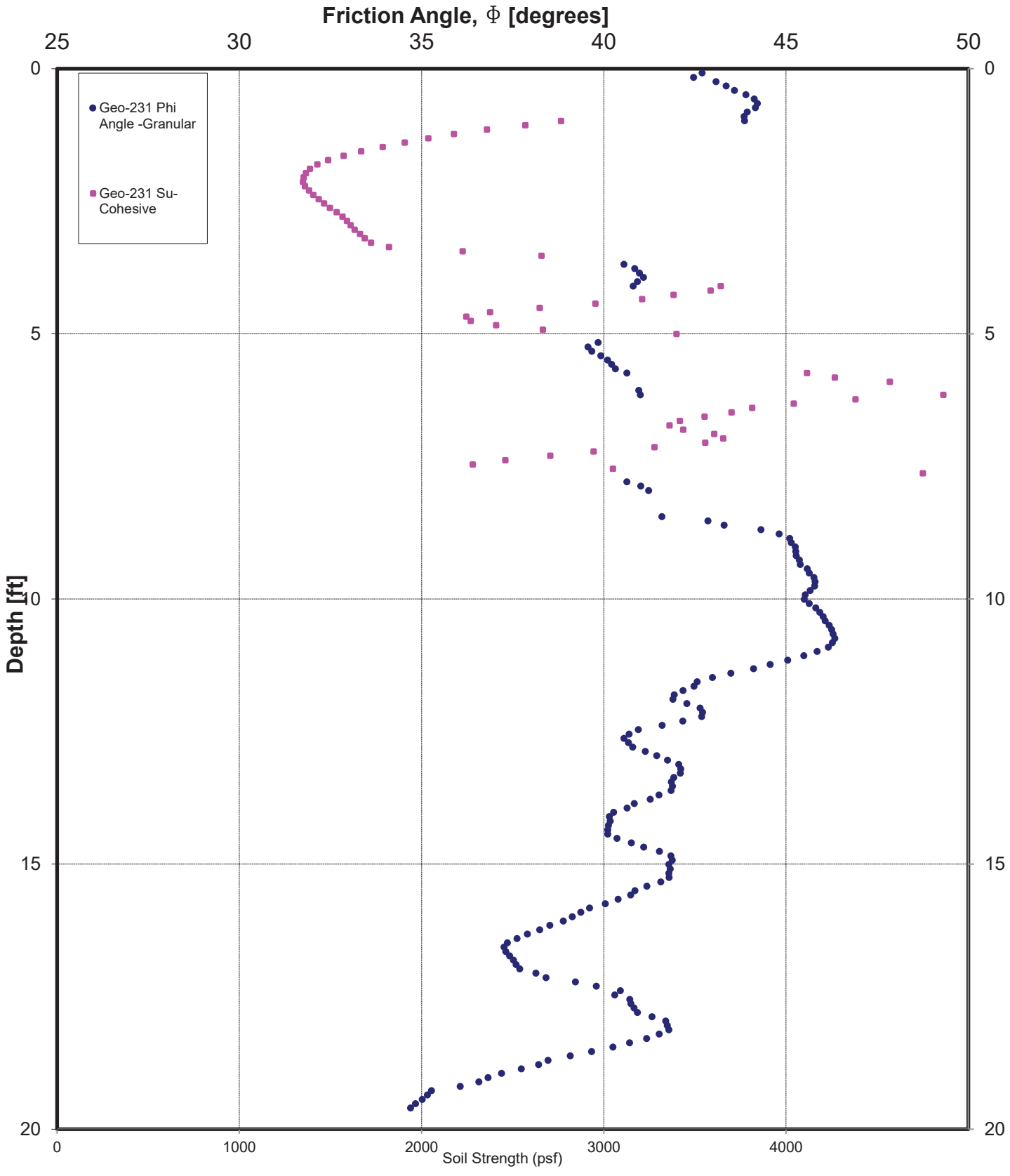
Soil Strength and vs. Depth for site GEO-228 from CPT



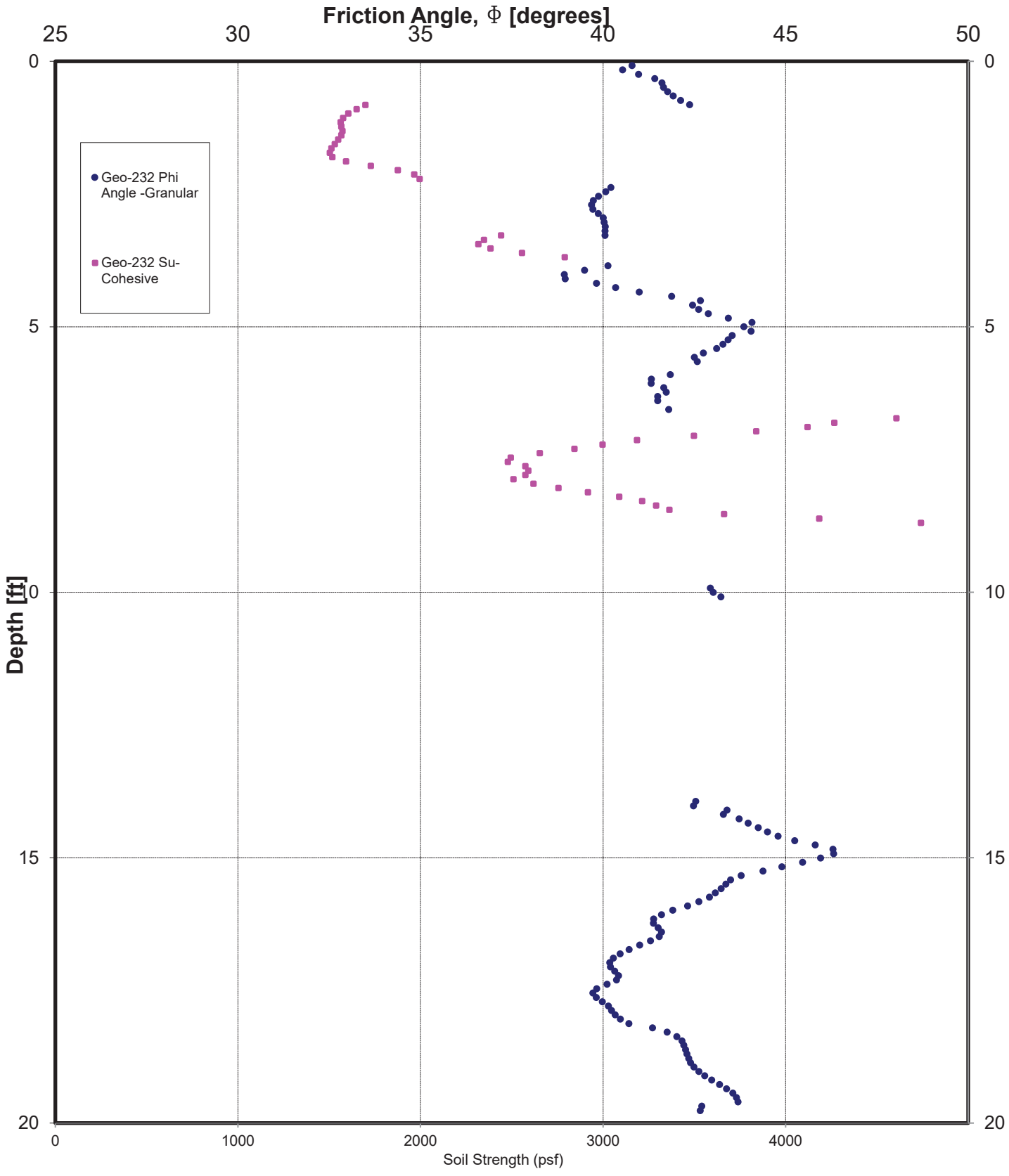
Soil Strength and vs. Depth for site GEO-229 from CPT



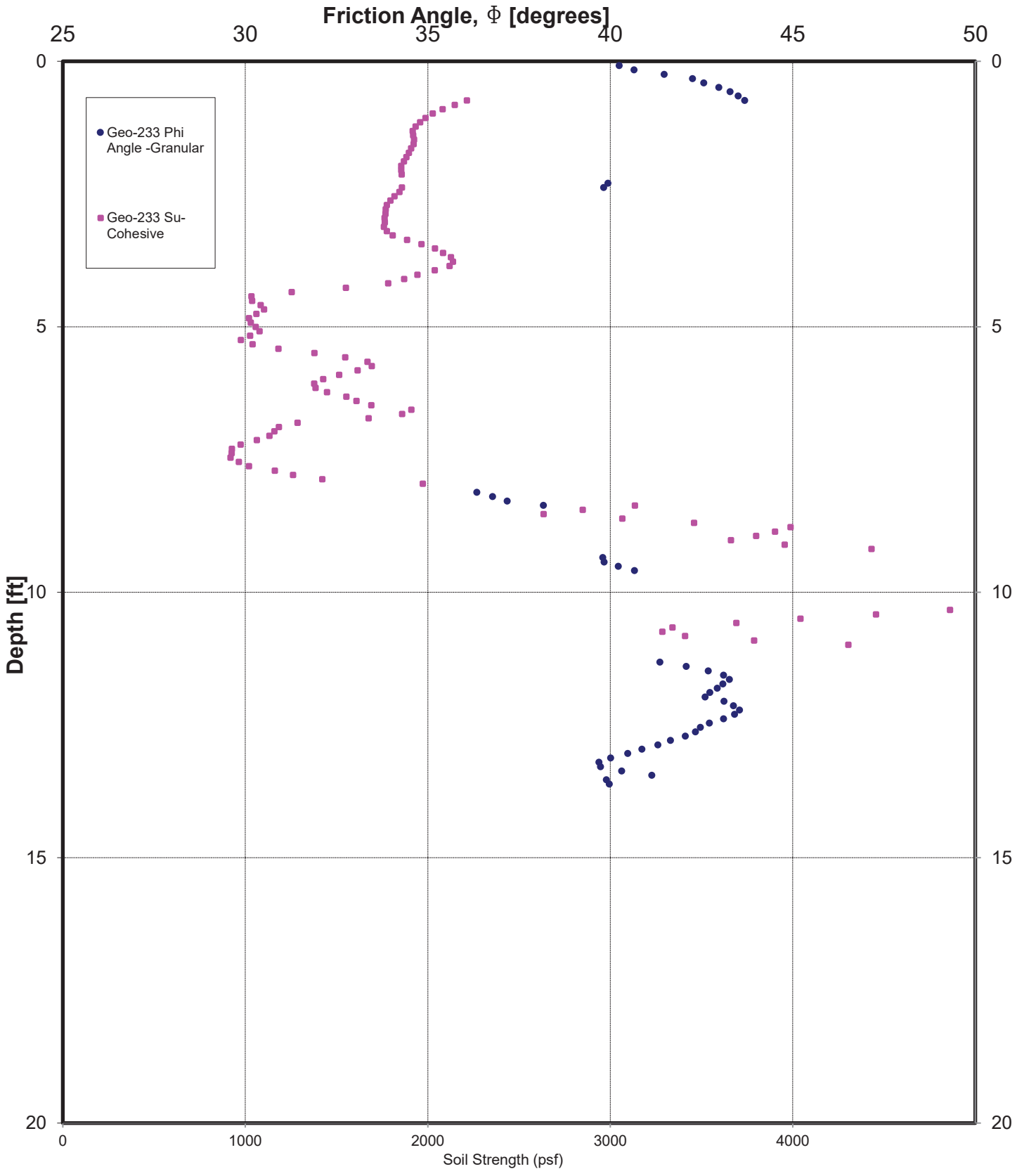
Soil Strength and vs. Depth for site GEO-230 from CPT



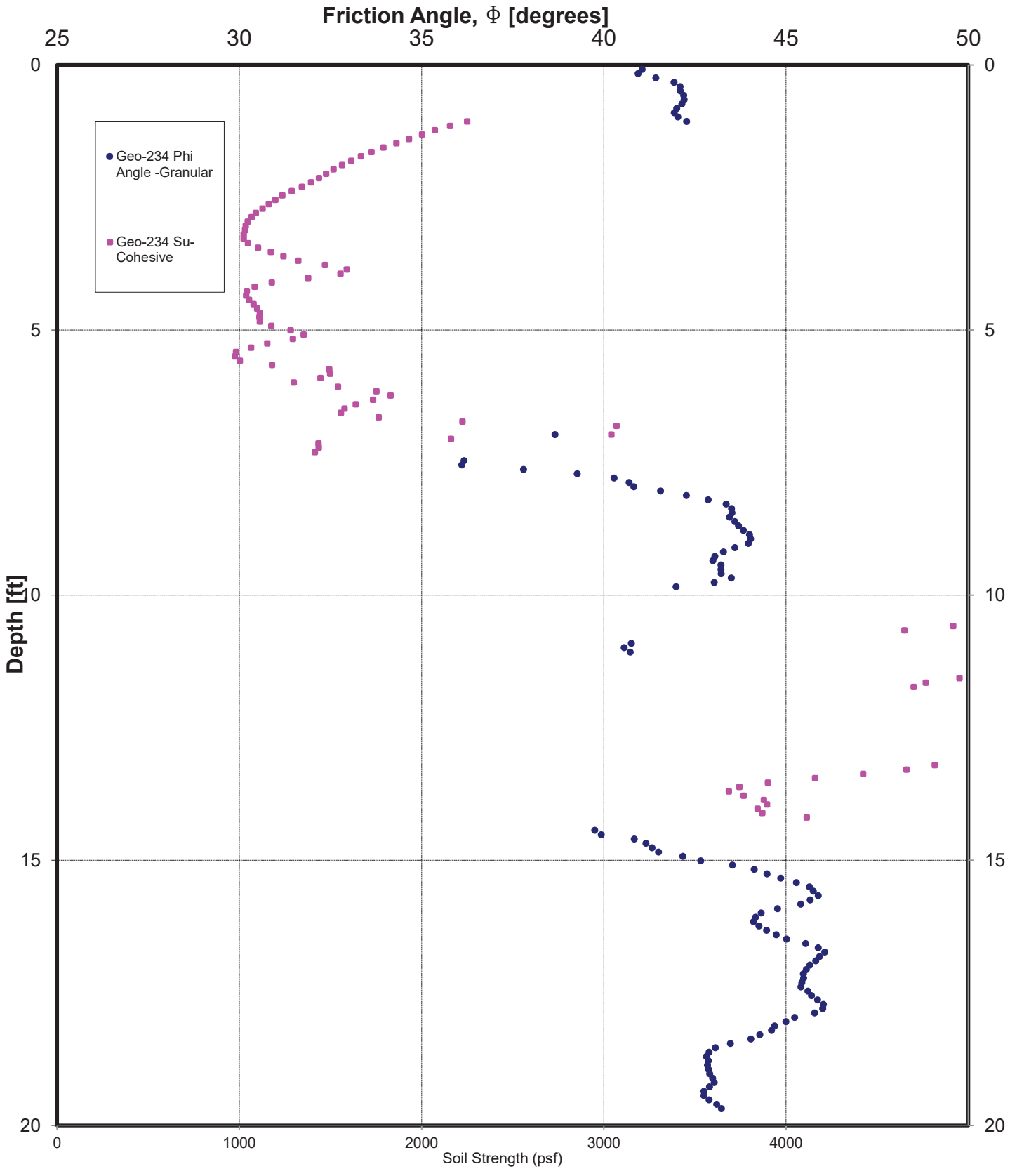
Soil Strength and vs. Depth for site GEO-231 from CPT



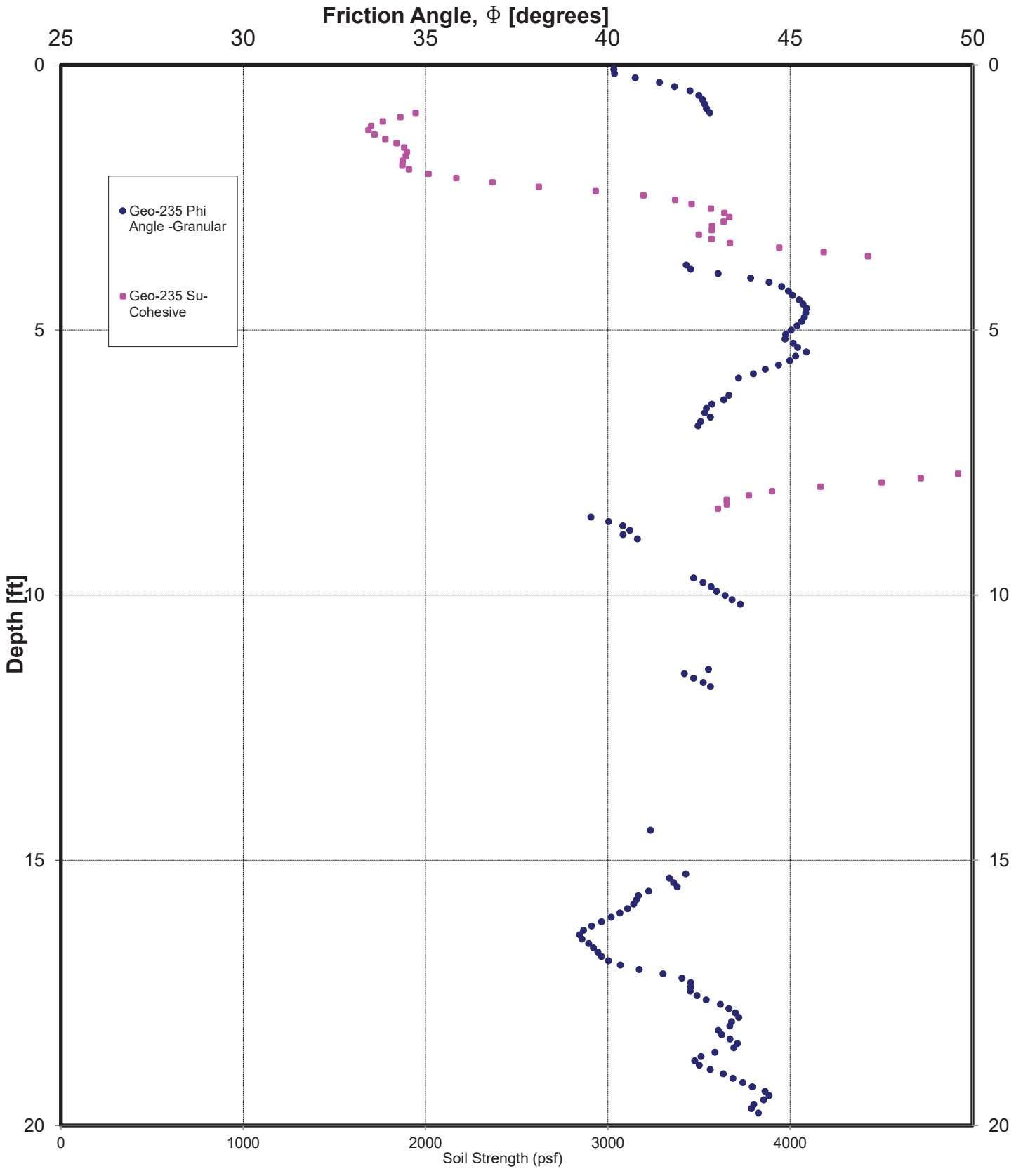
Soil Strength and vs. Depth for site GEO-232 from CPT



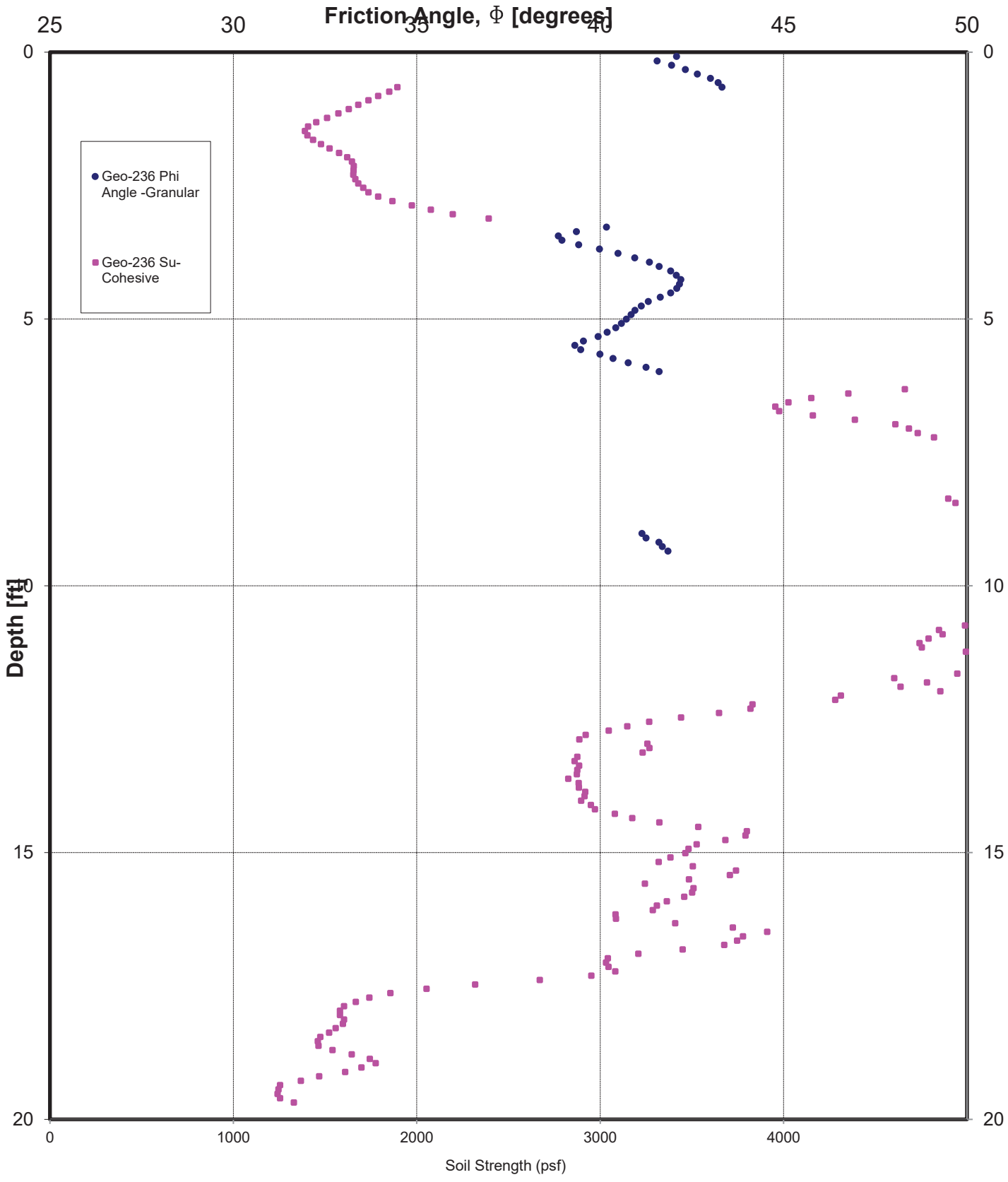
Soil Strength and vs. Depth for site GEO-233 from CPT



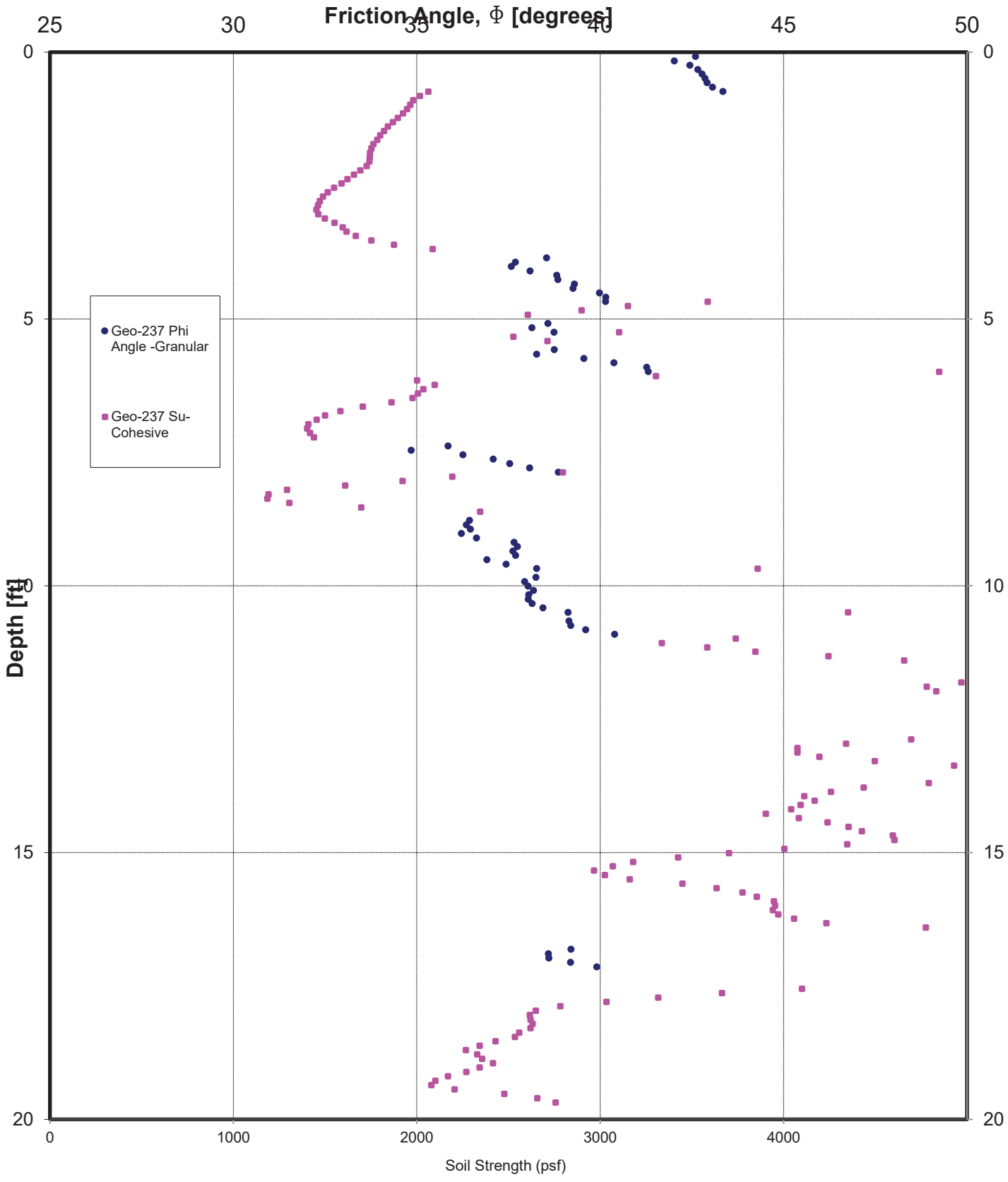
Soil Strength and vs. Depth for site GEO-234 from CPT



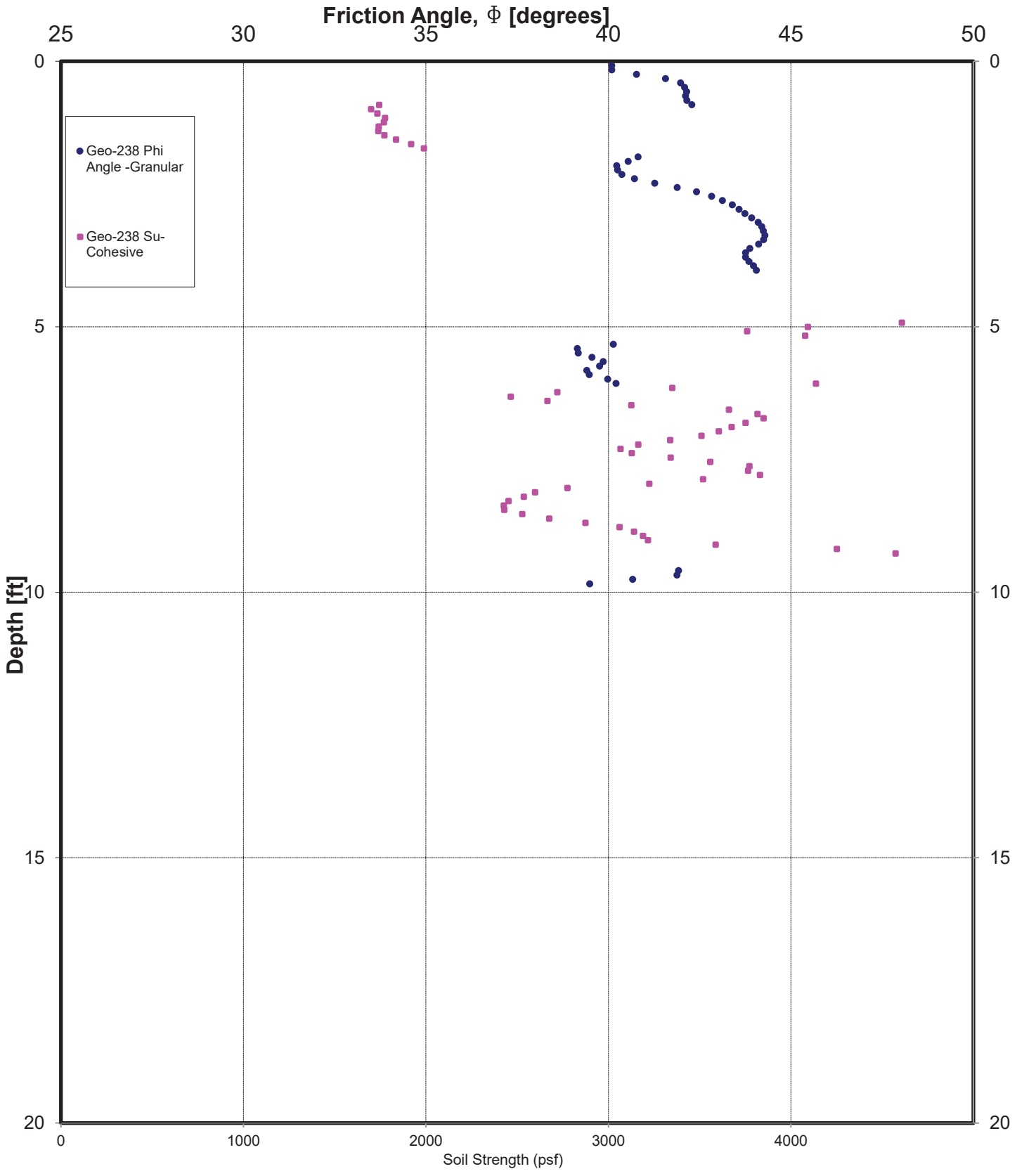
Soil Strength and vs. Depth for site GEO-235 from CPT



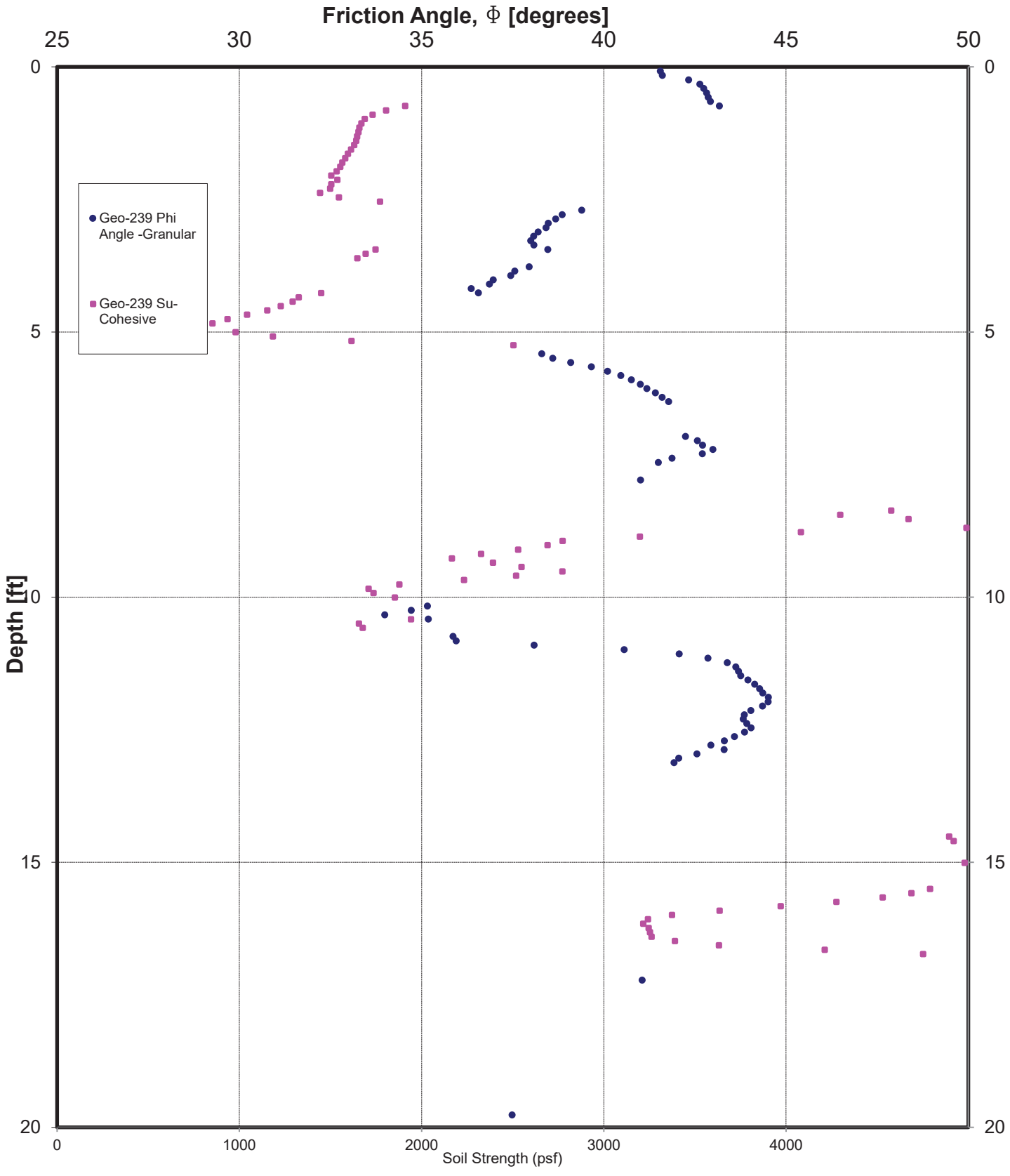
Soil Strength and vs. Depth for site GEO-236 from CPT



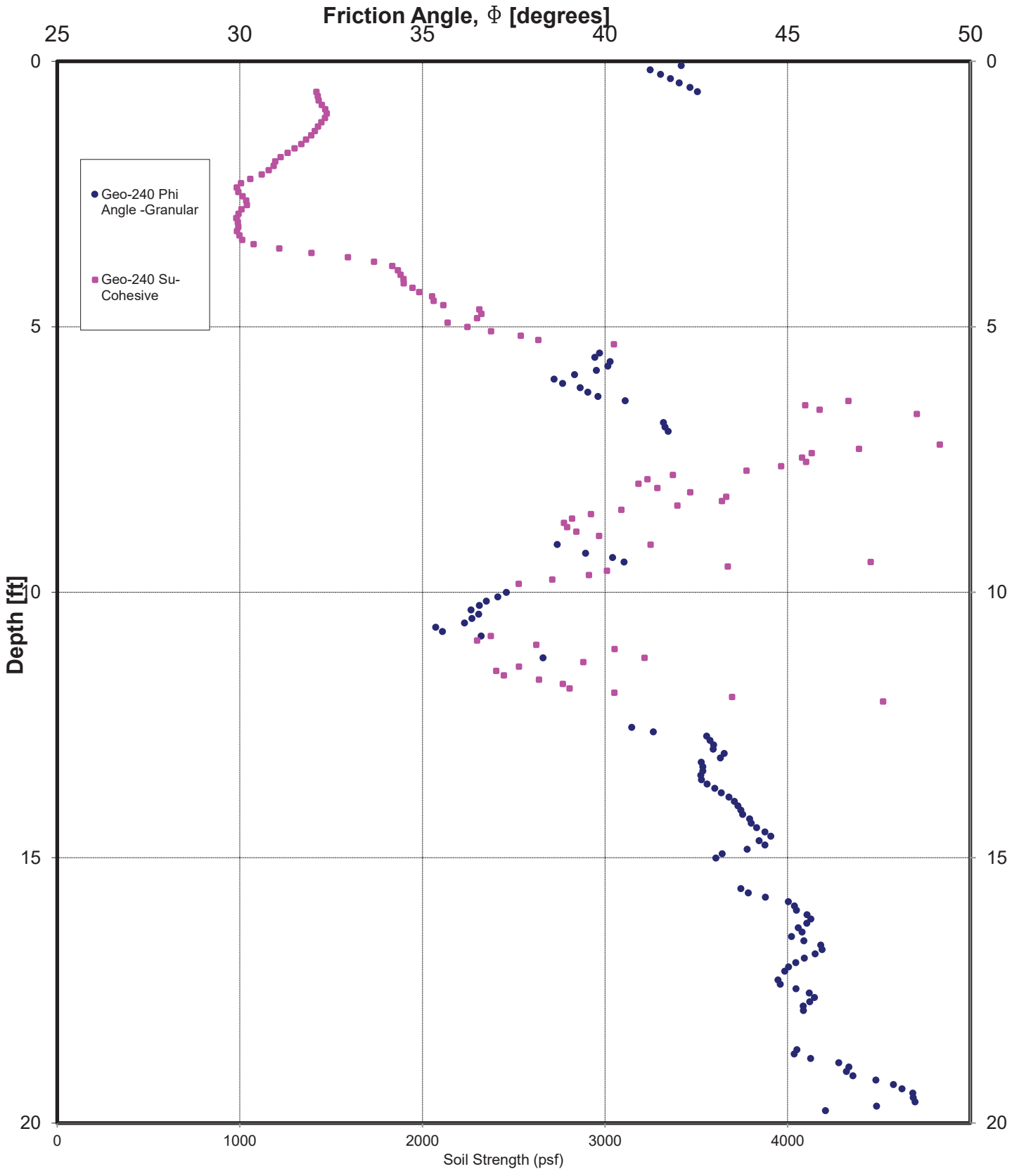
Soil Strength and vs. Depth for site GEO-237 from CPT



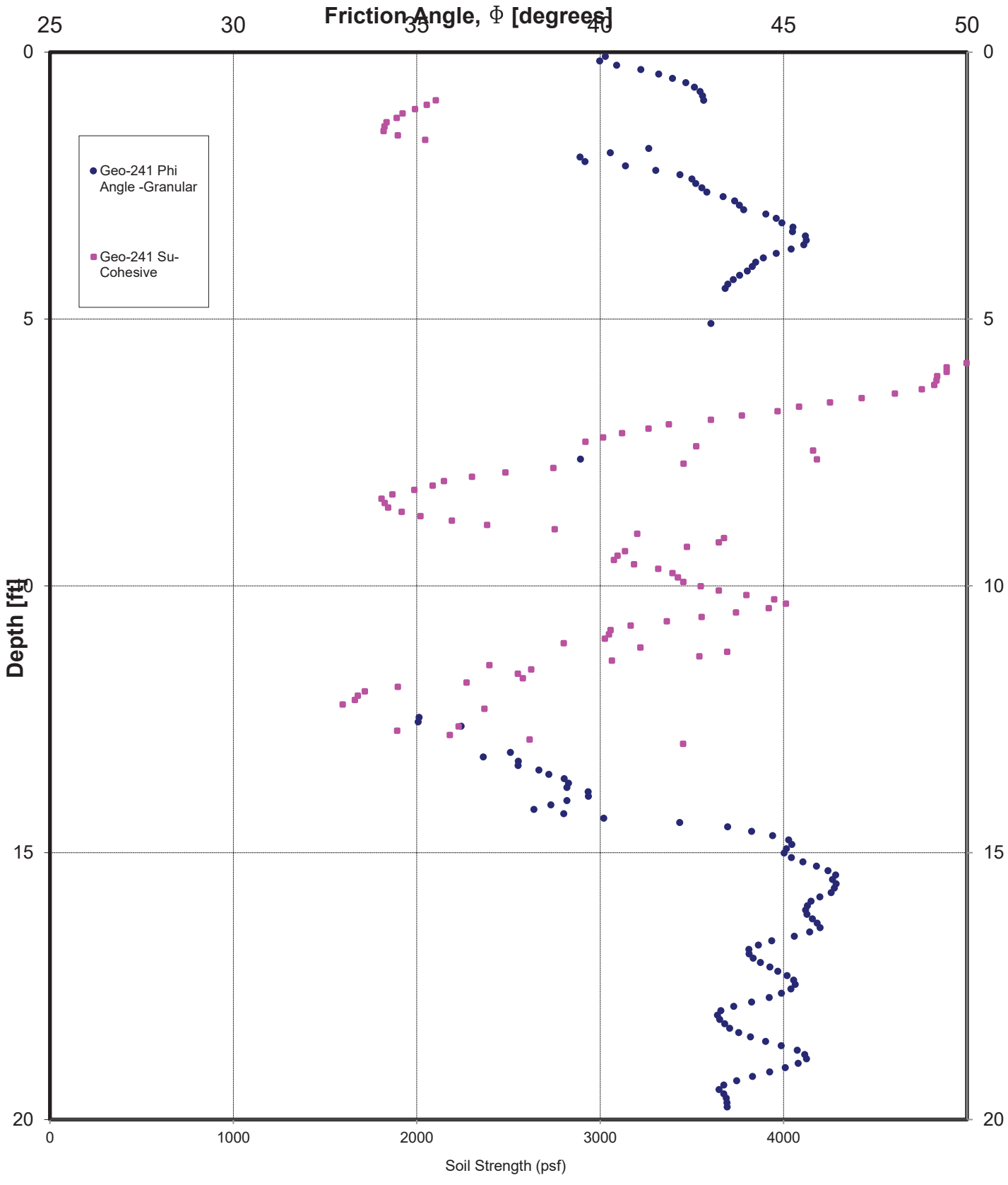
Soil Strength and vs. Depth for site GEO-238 from CPT



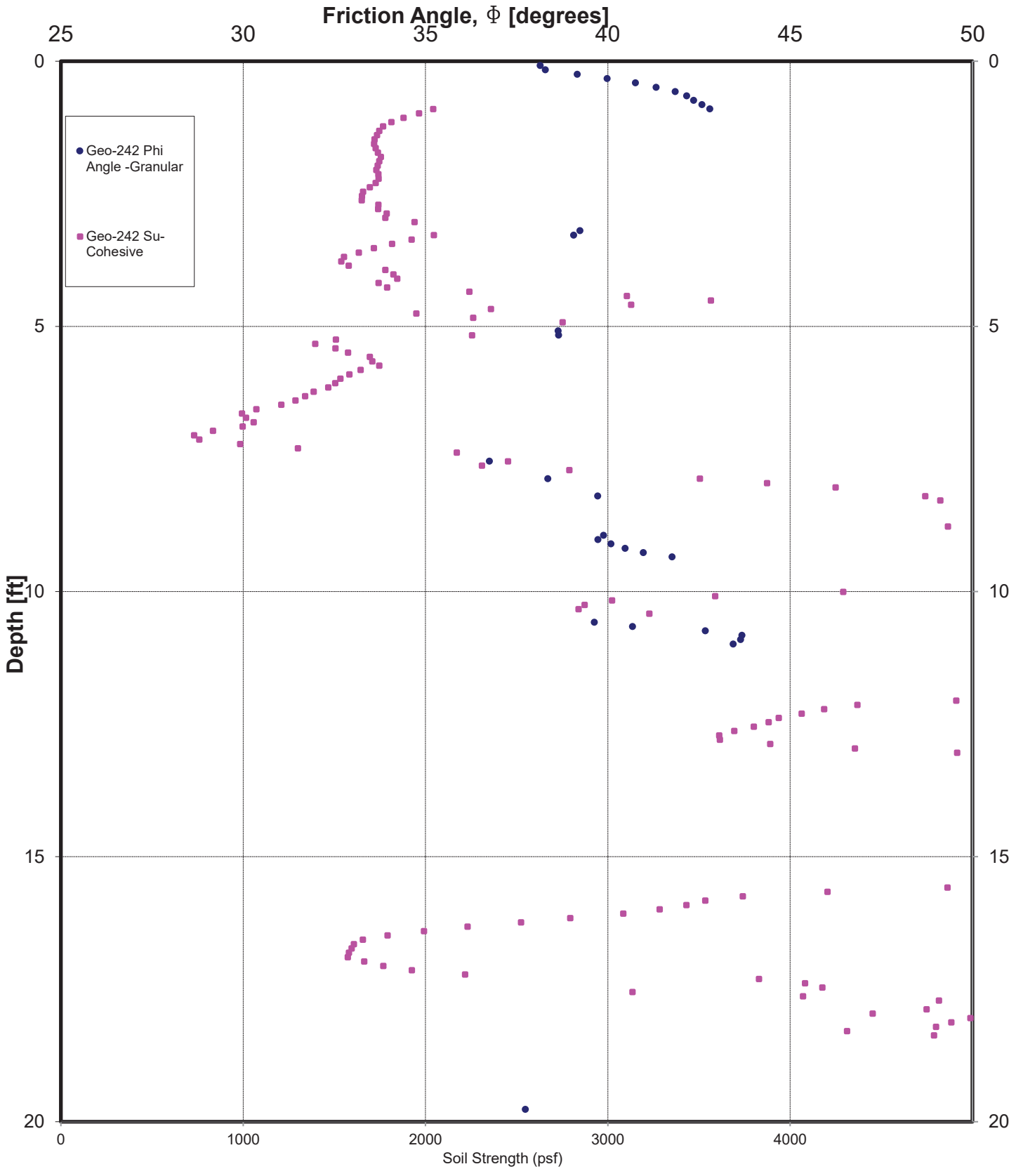
Soil Strength and vs. Depth for site GEO-239 from CPT



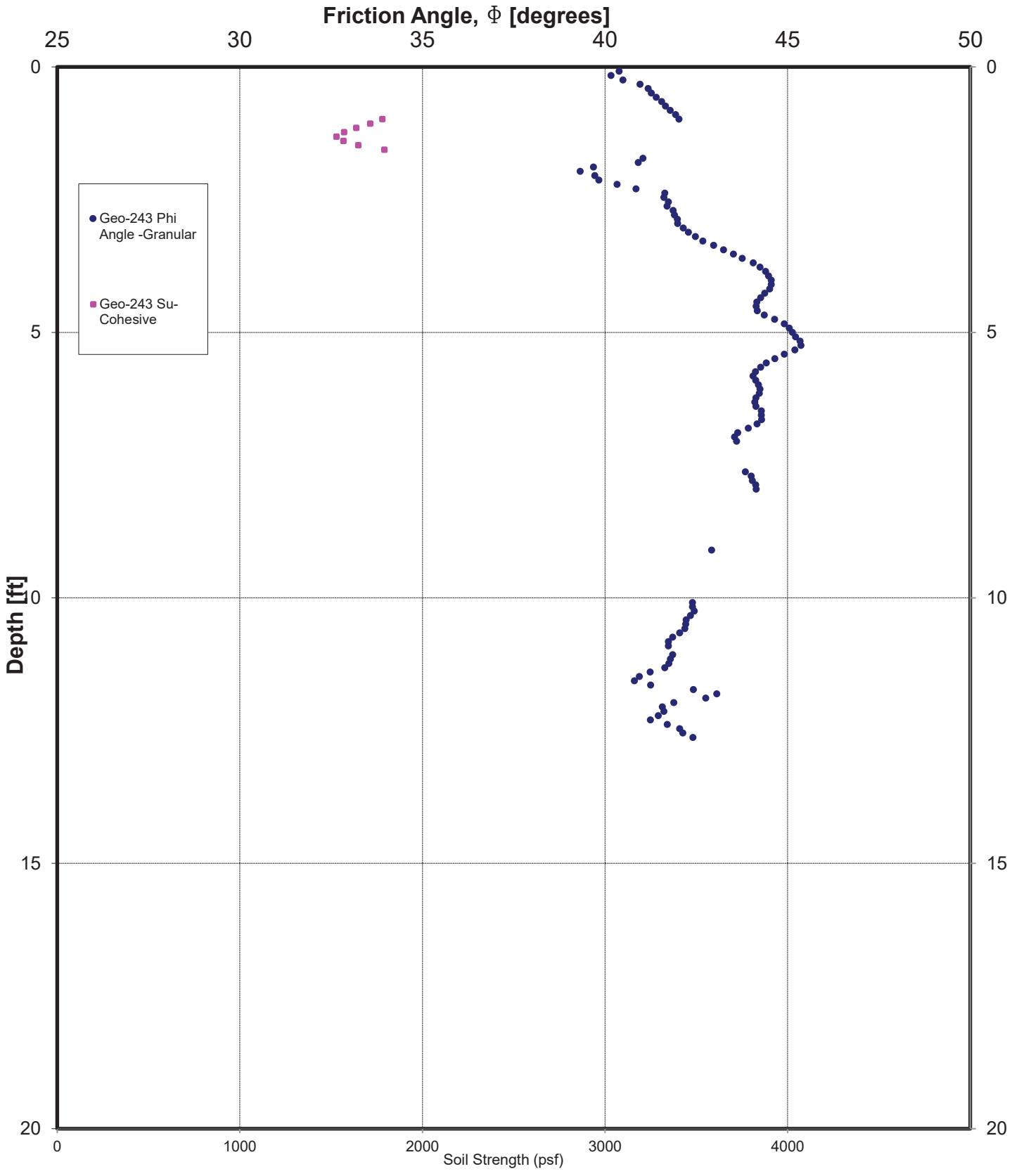
Soil Strength and vs. Depth for site GEO-240 from CPT



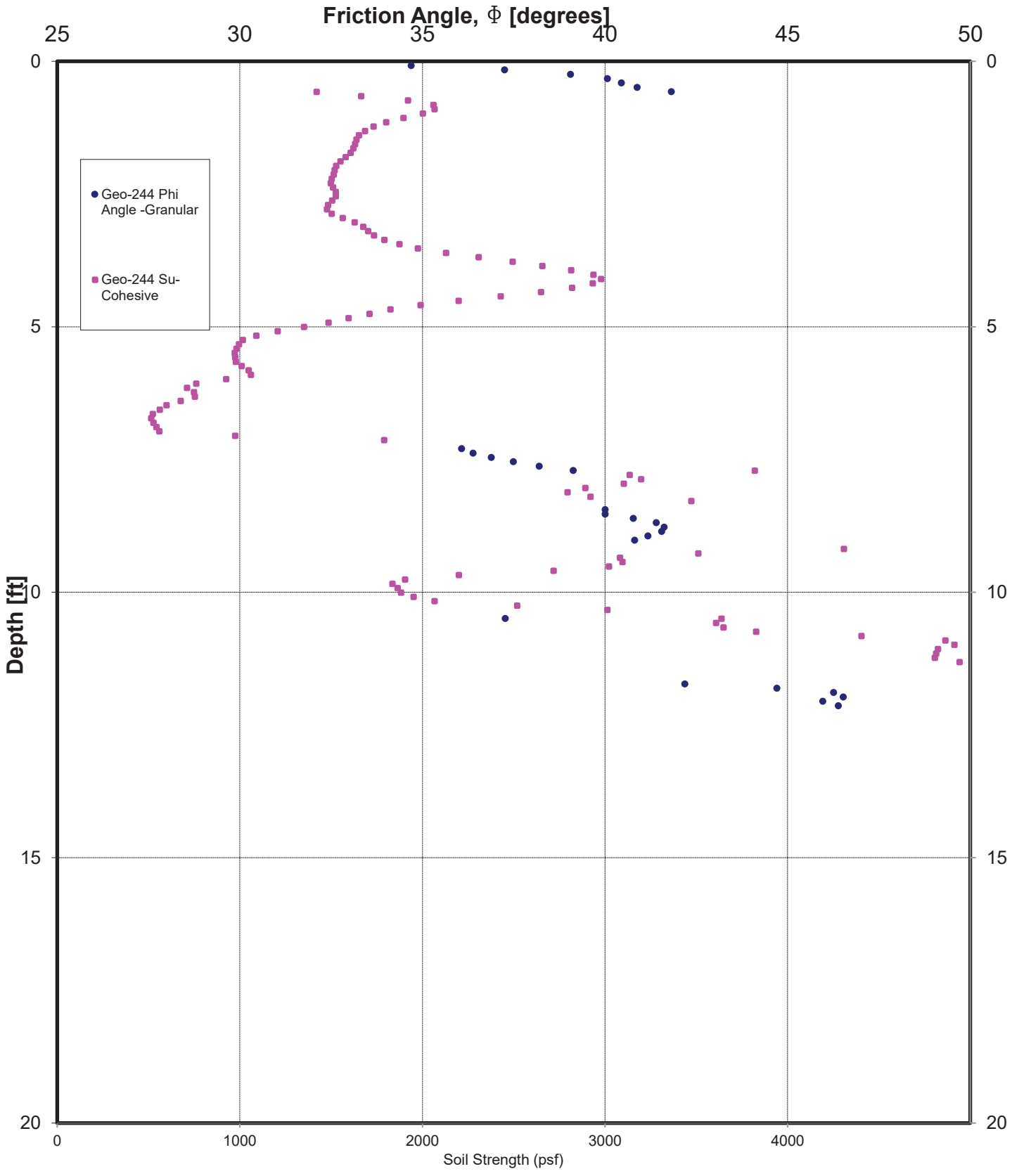
Soil Strength and vs. Depth for site GEO-241 from CPT



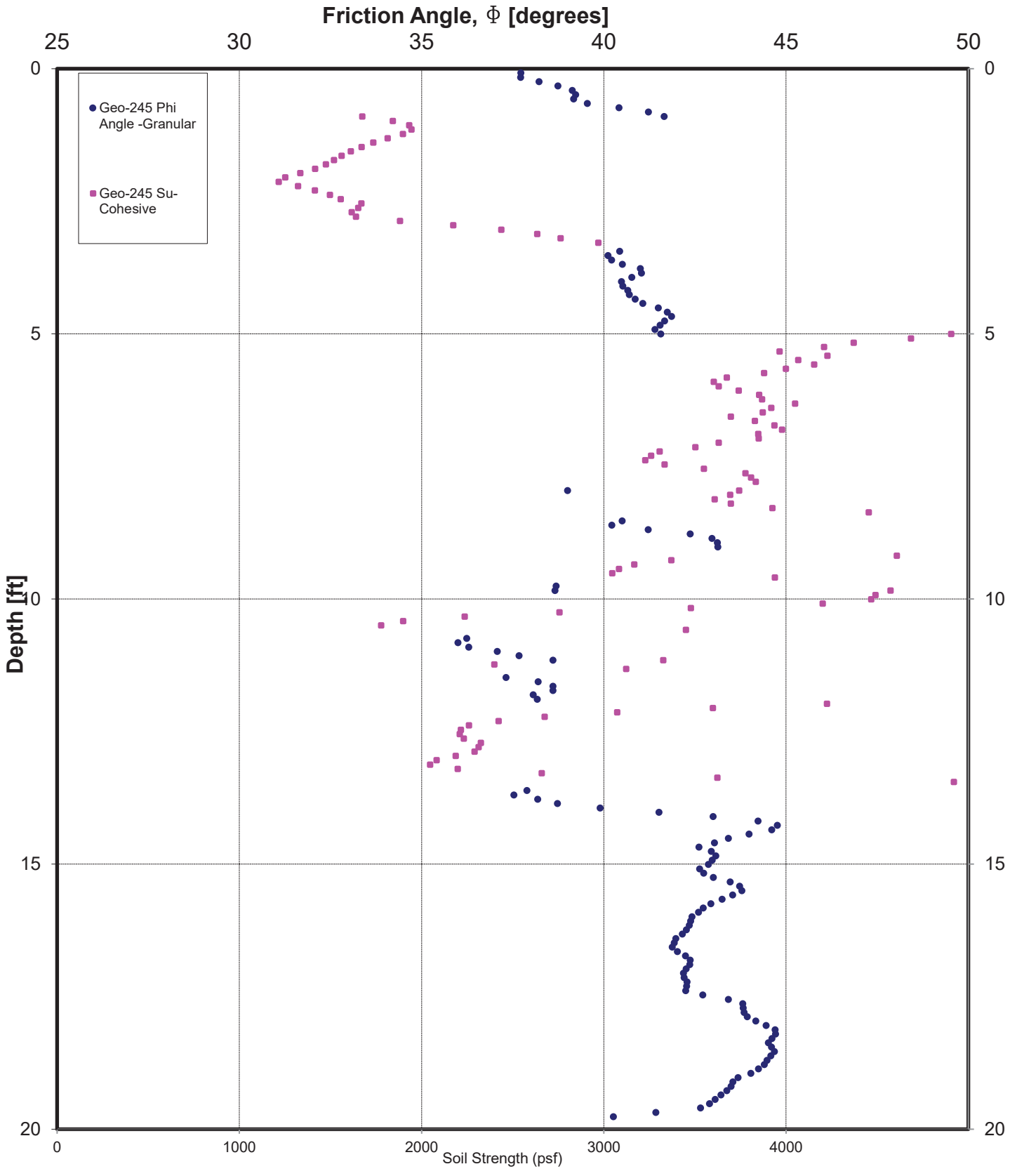
Soil Strength and vs. Depth for site GEO-242 from CPT



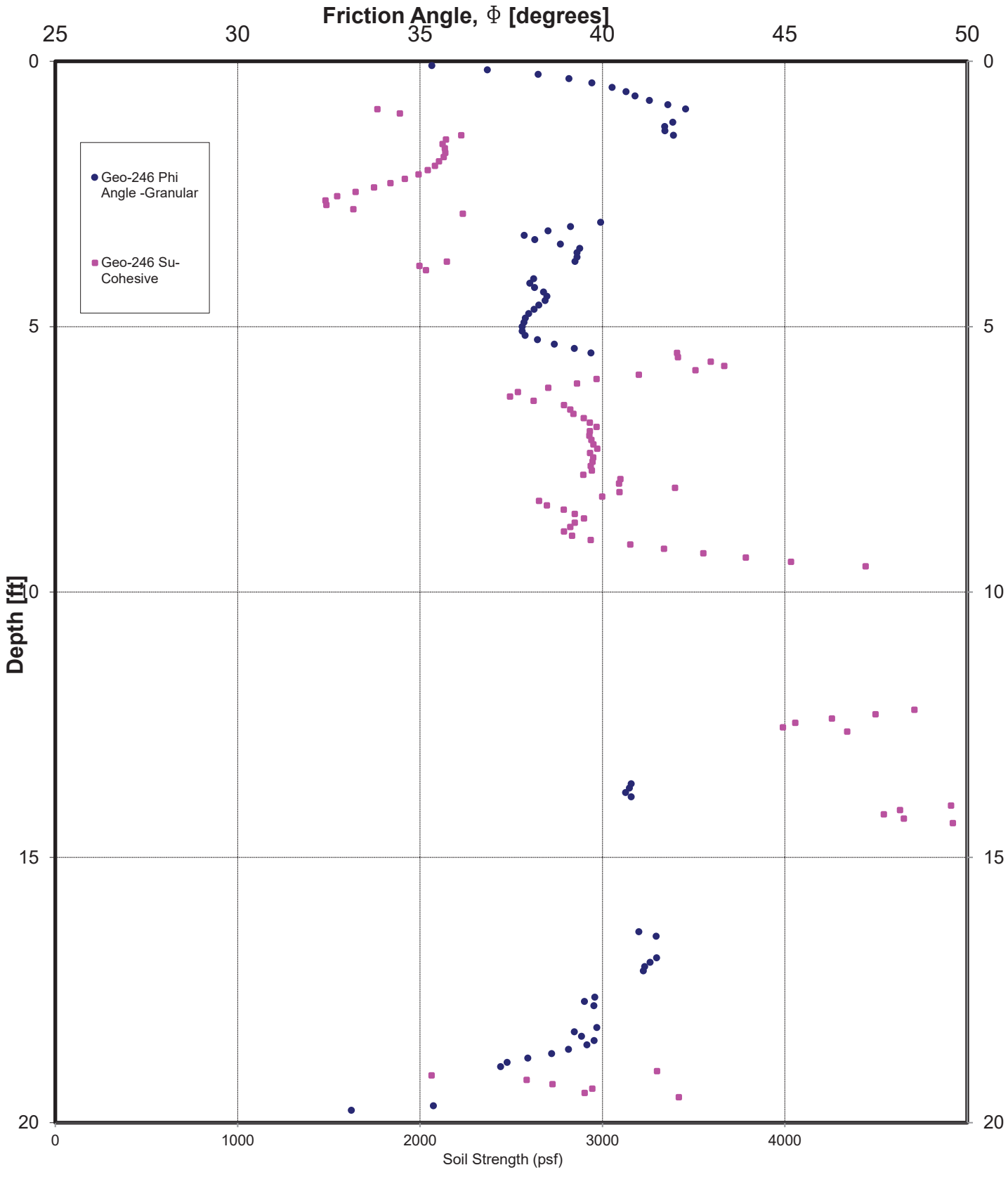
Soil Strength and vs. Depth for site GEO-243 from CPT



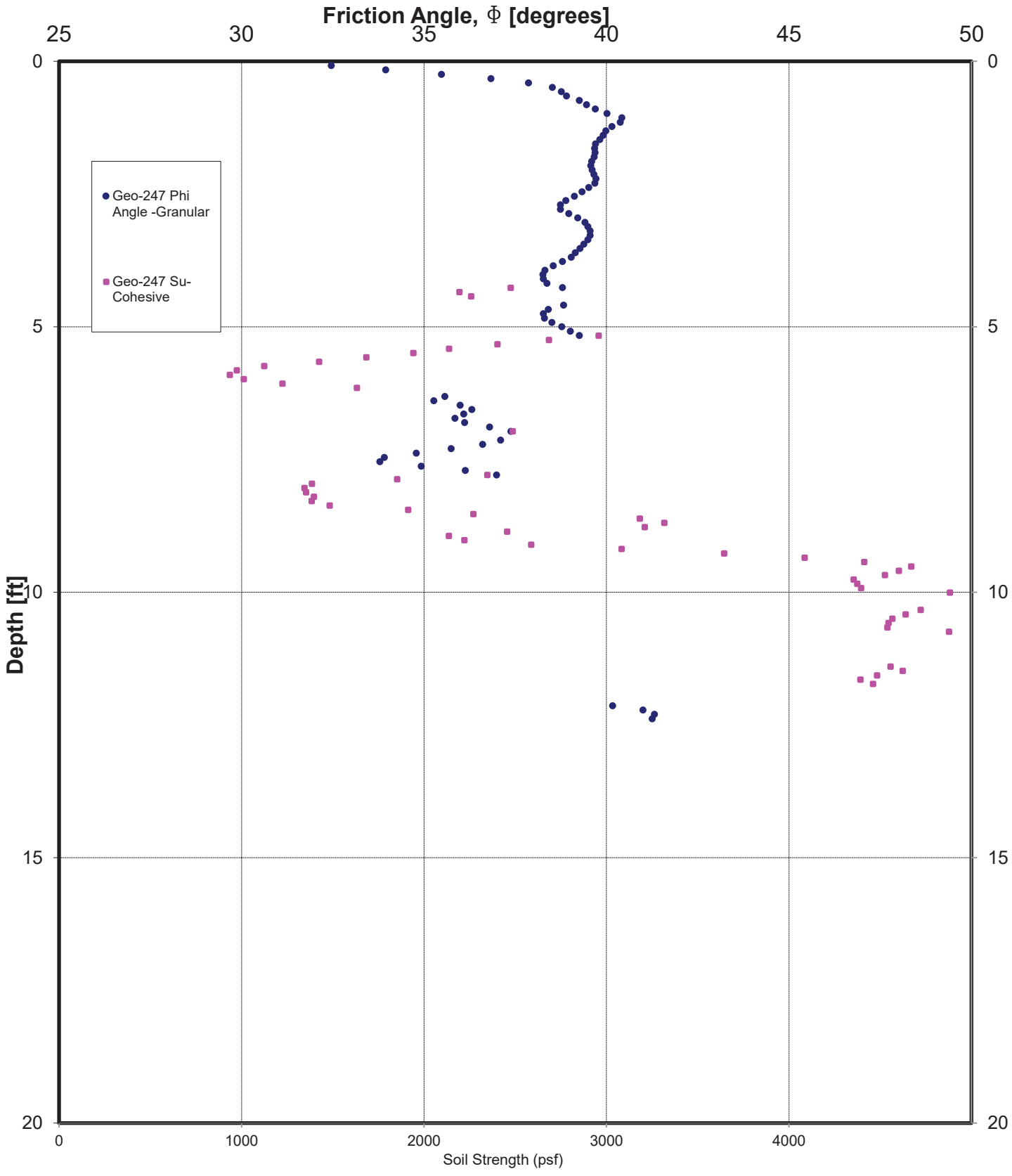
Soil Strength and vs. Depth for site GEO-244 from CPT



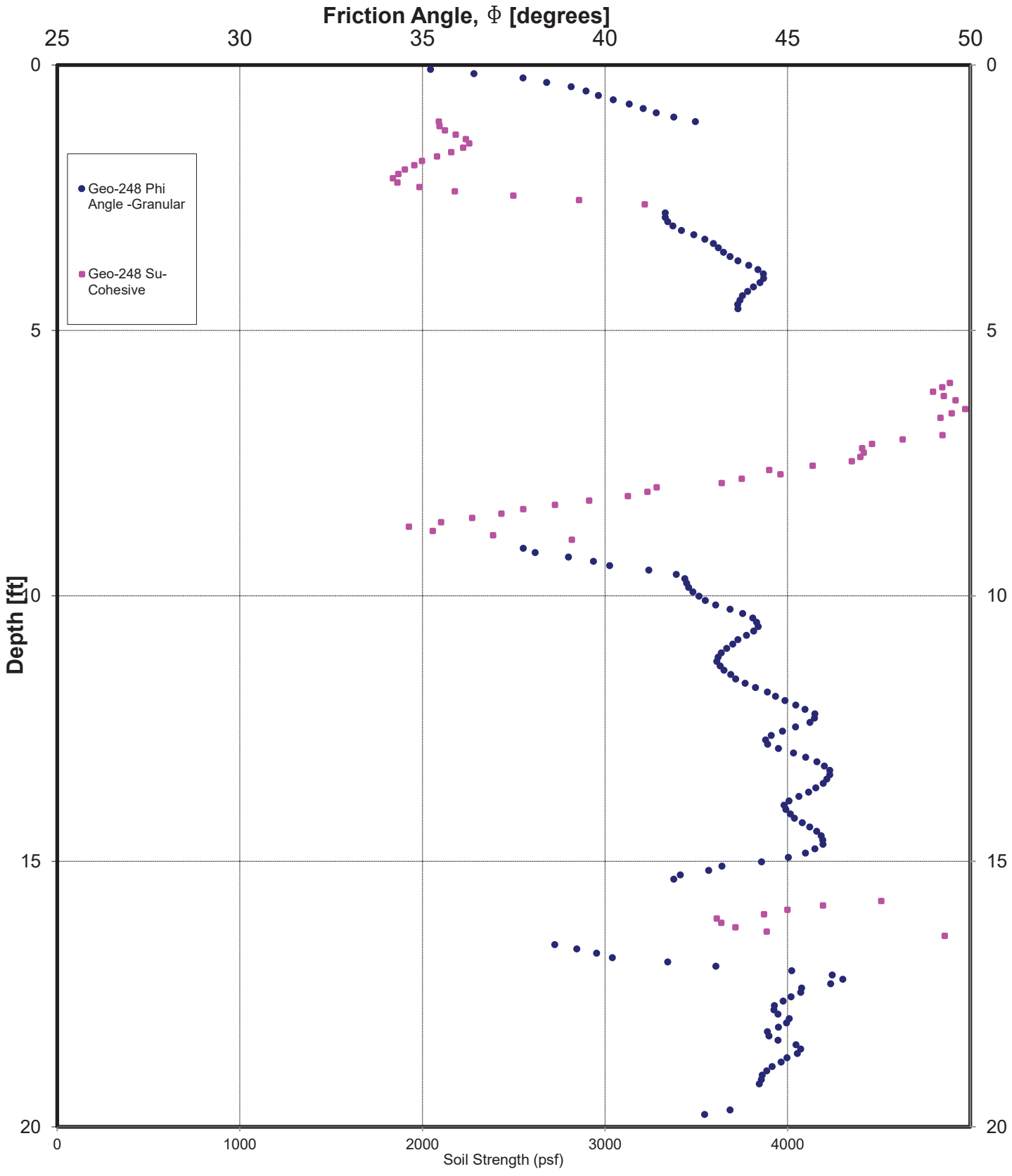
Soil Strength and vs. Depth for site GEO-245 from CPT



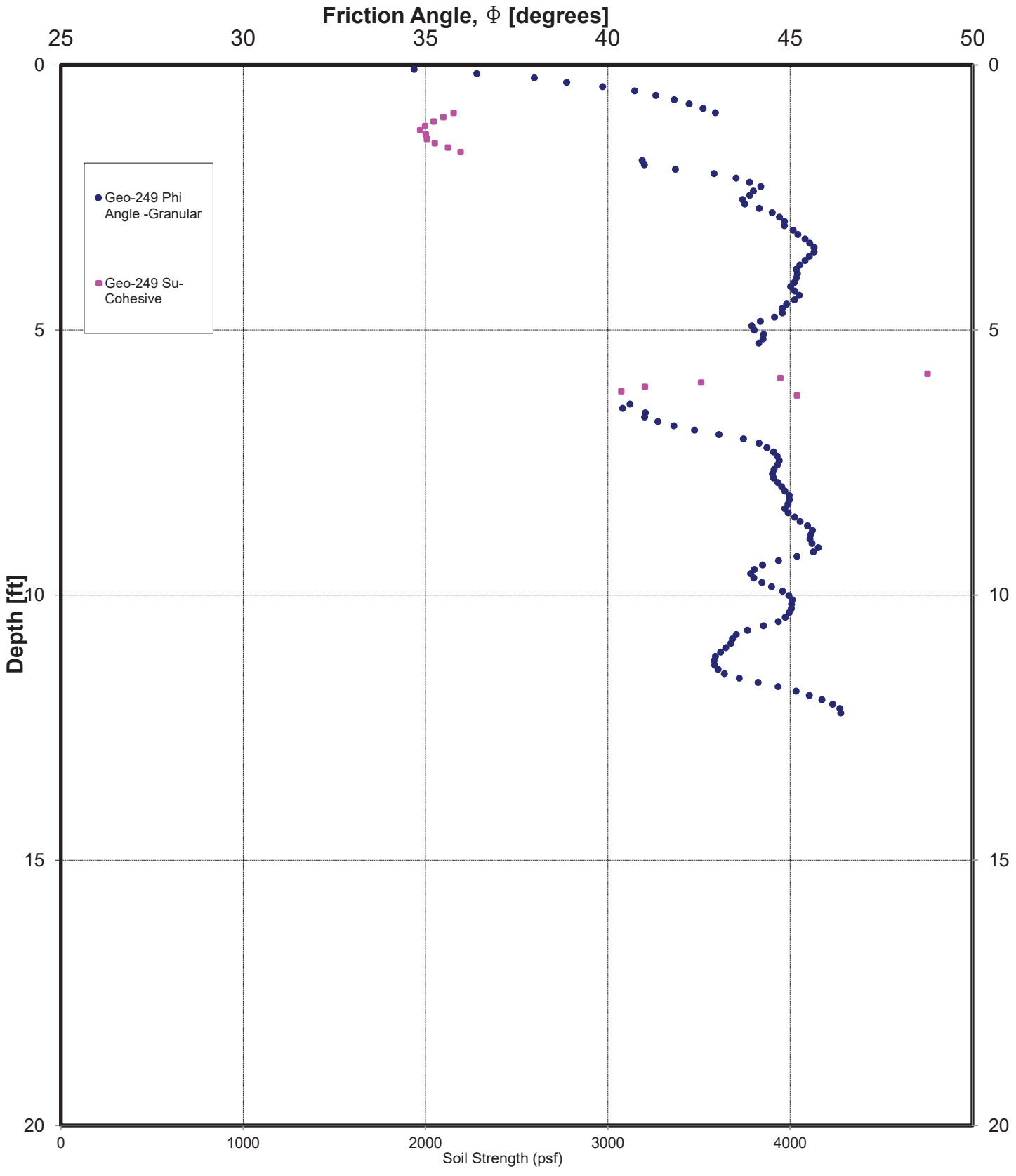
Soil Strength and vs. Depth for site GEO-246 from CPT



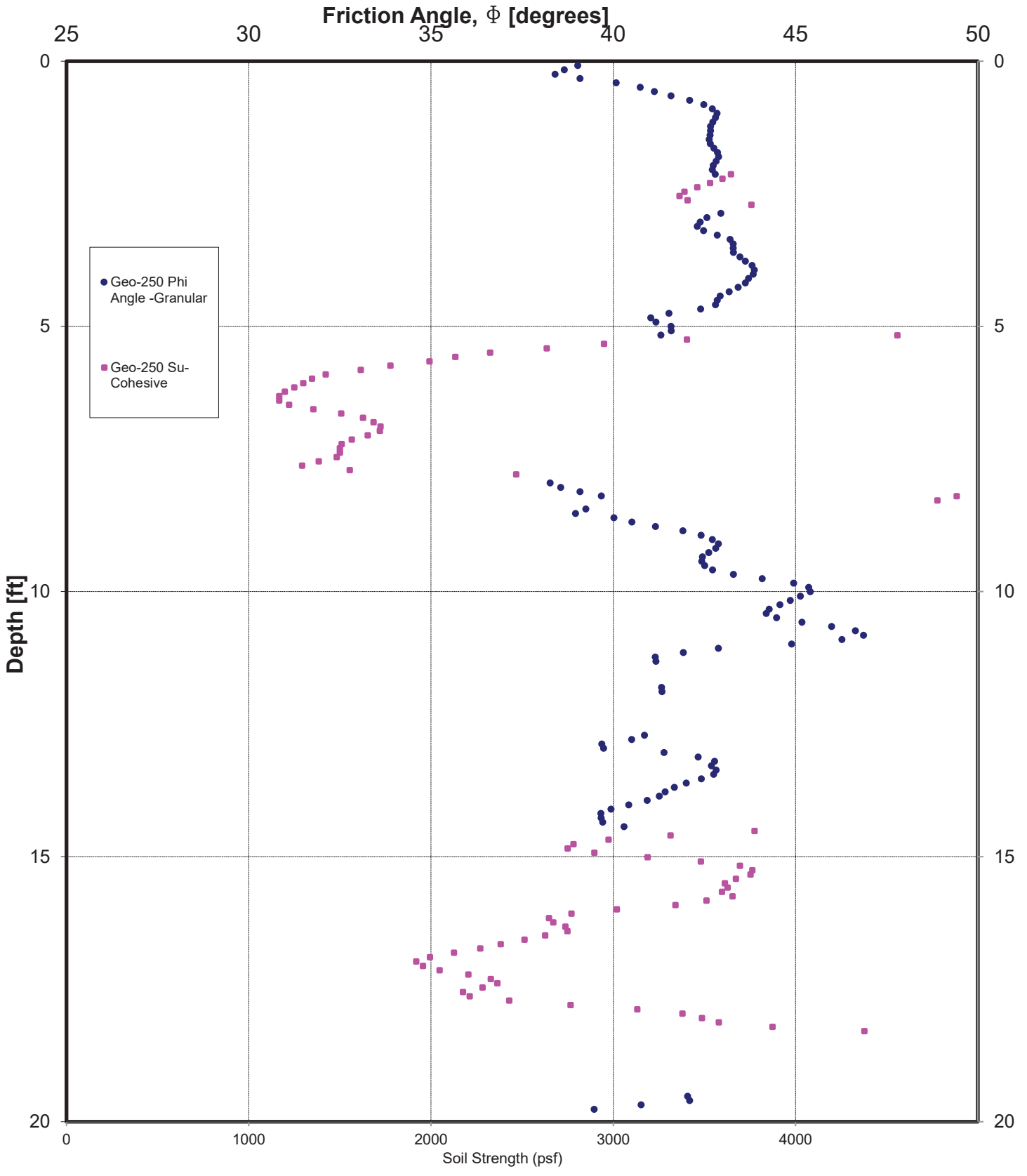
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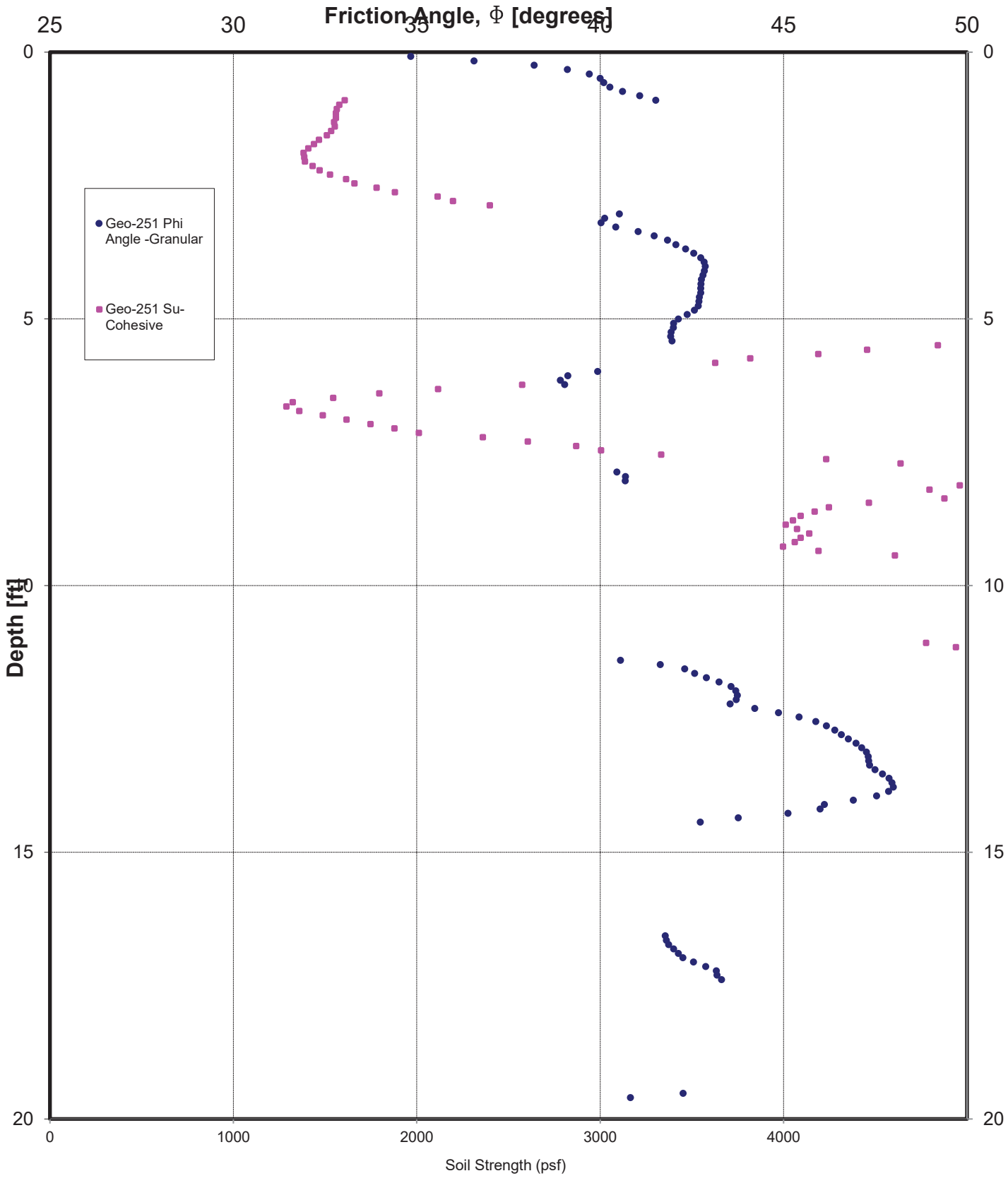
Soil Strength and vs. Depth for site GEO-248 from CPT



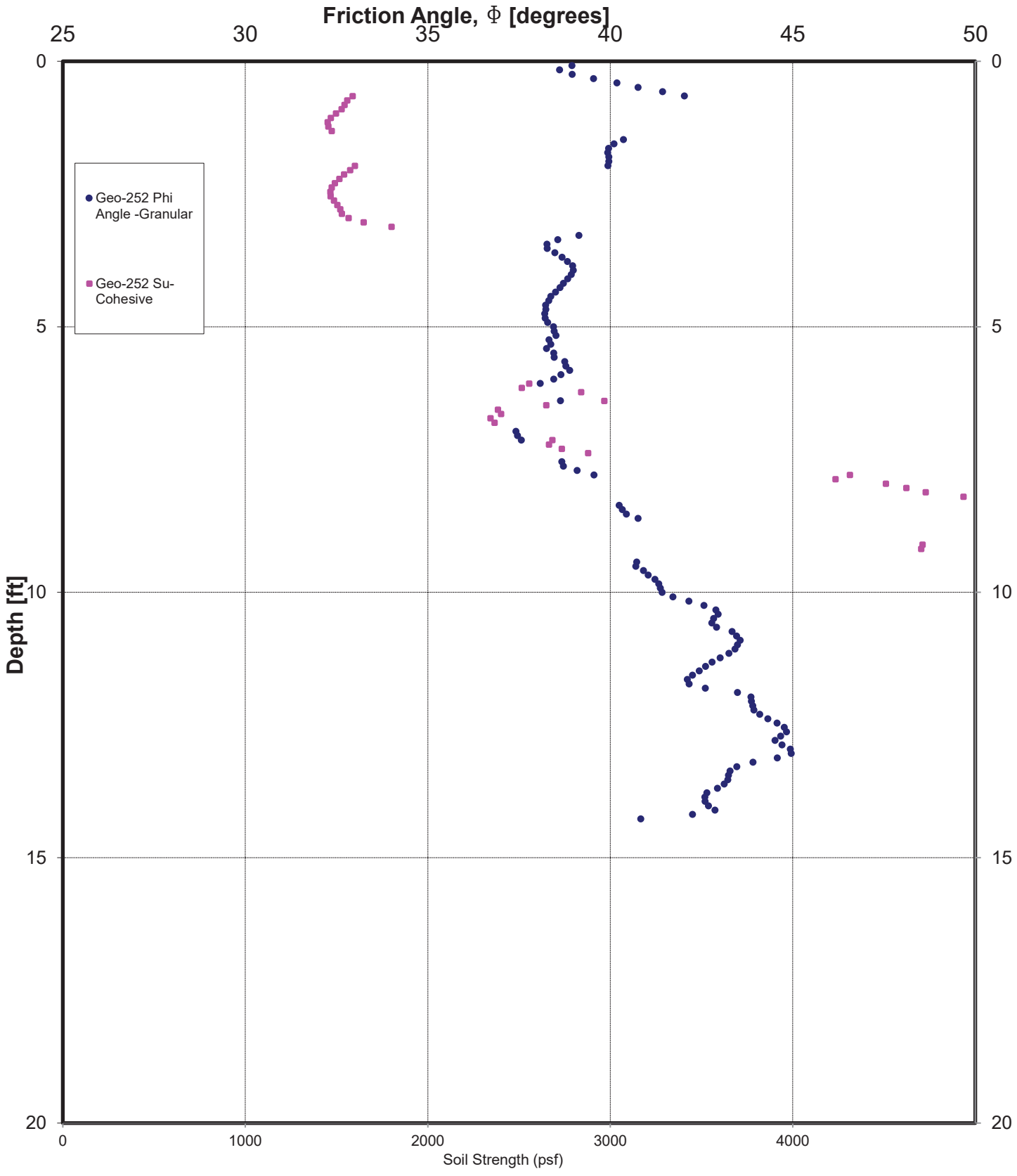
Soil Strength and vs. Depth for site GEO-249 from CPT



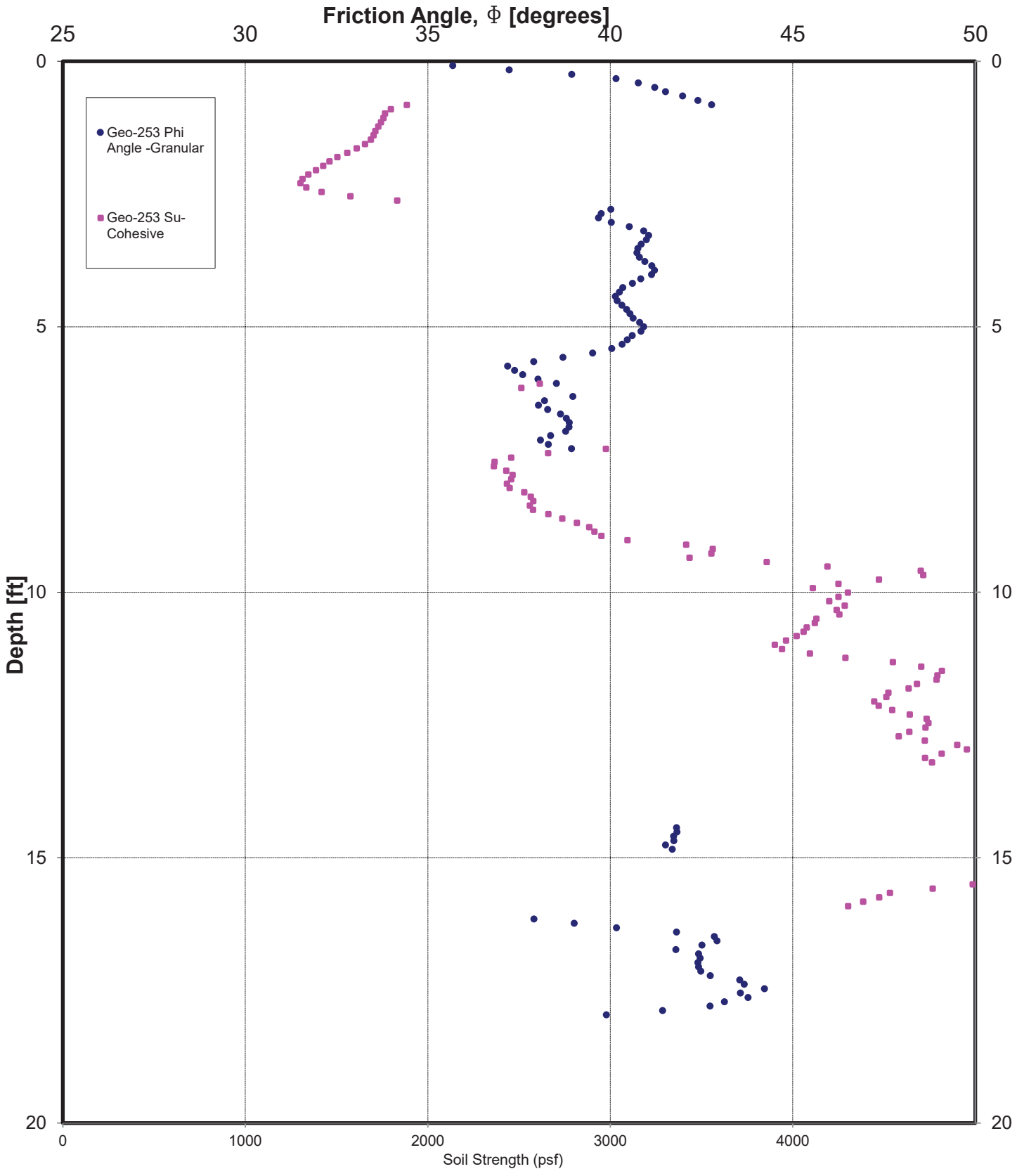
Soil Strength and vs. Depth for site GEO-250 from CPT



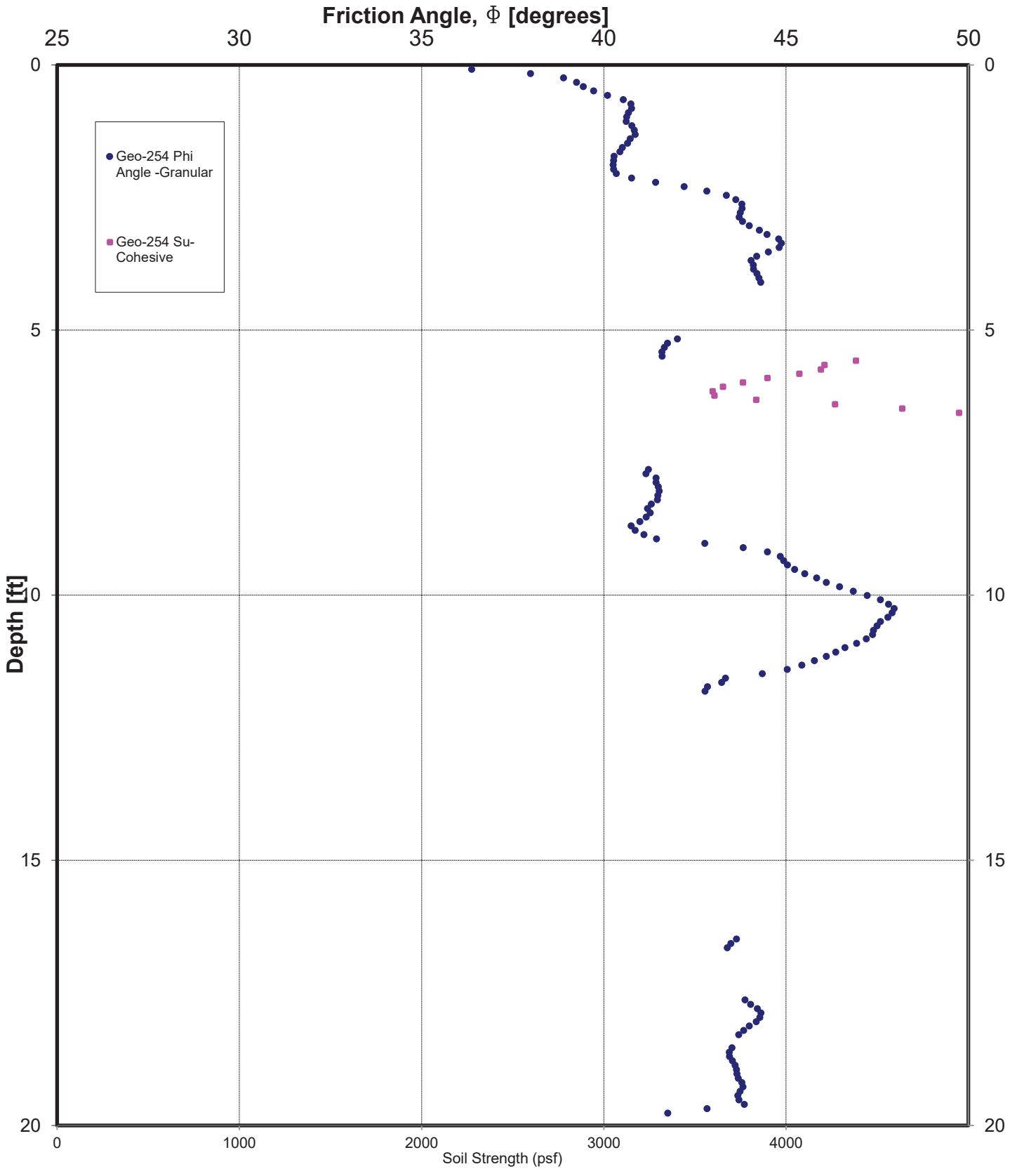
Soil Strength and vs. Depth for site GEO-251 from CPT



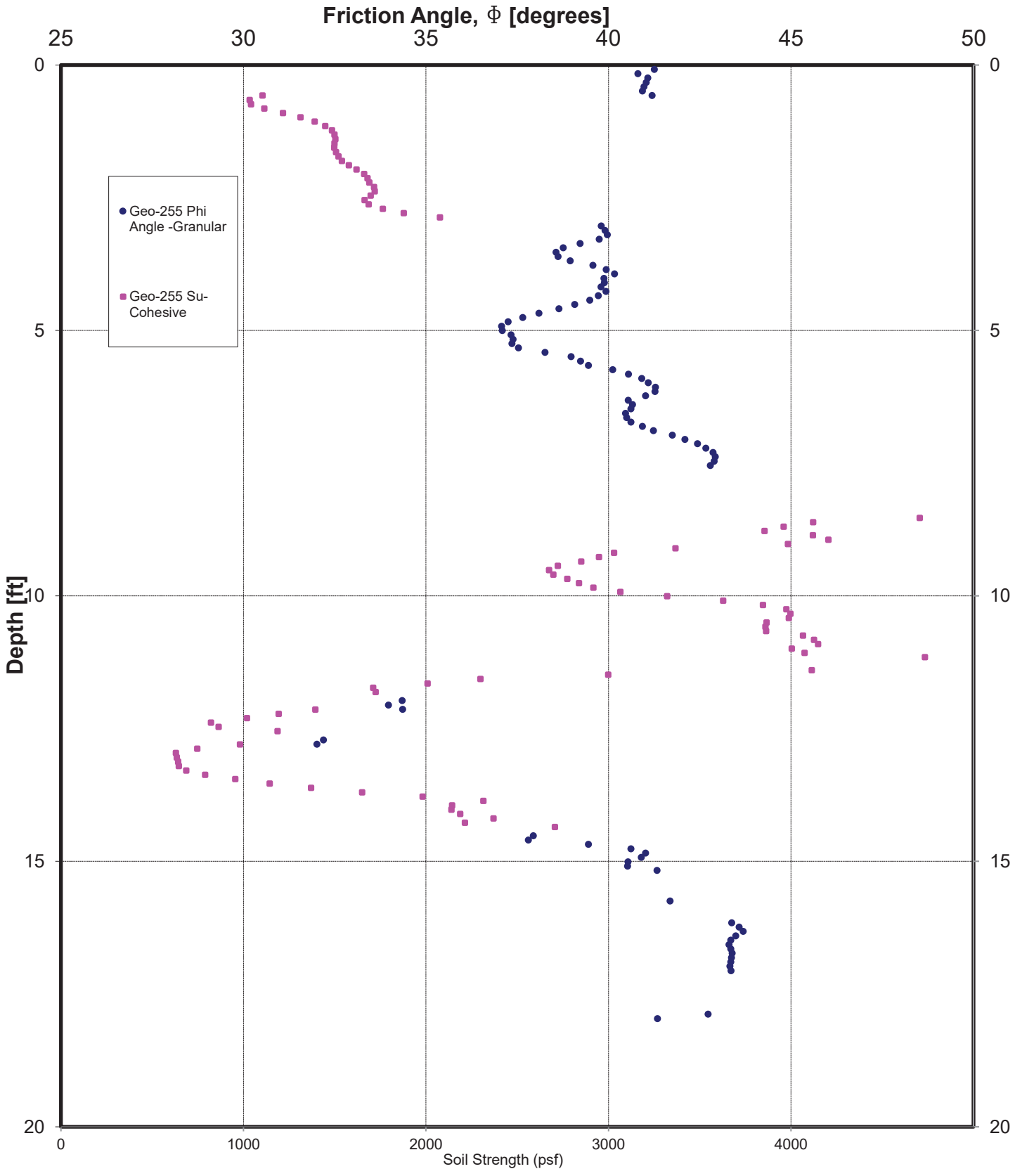
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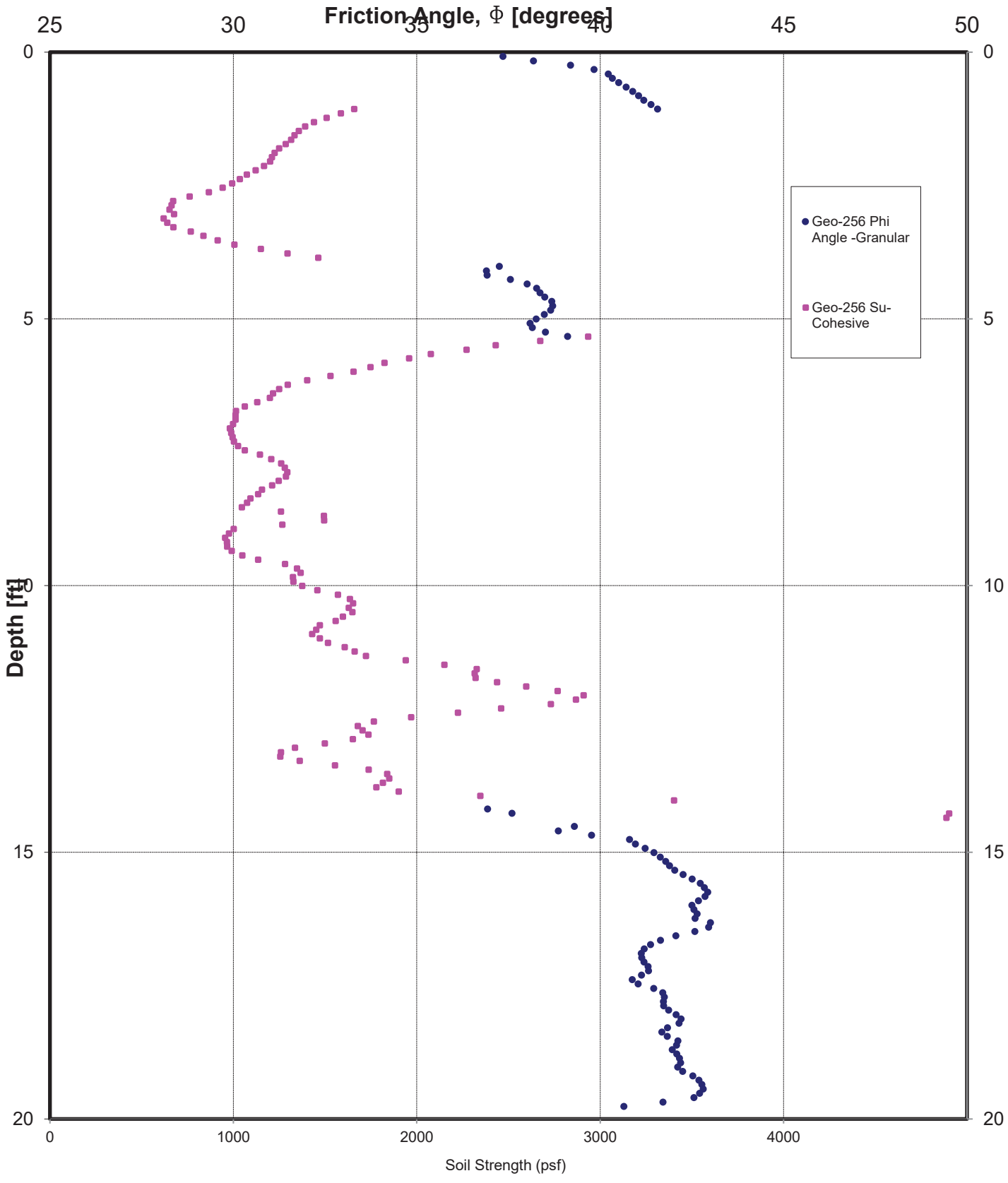
Soil Strength and vs. Depth for site GEO-253 from CPT



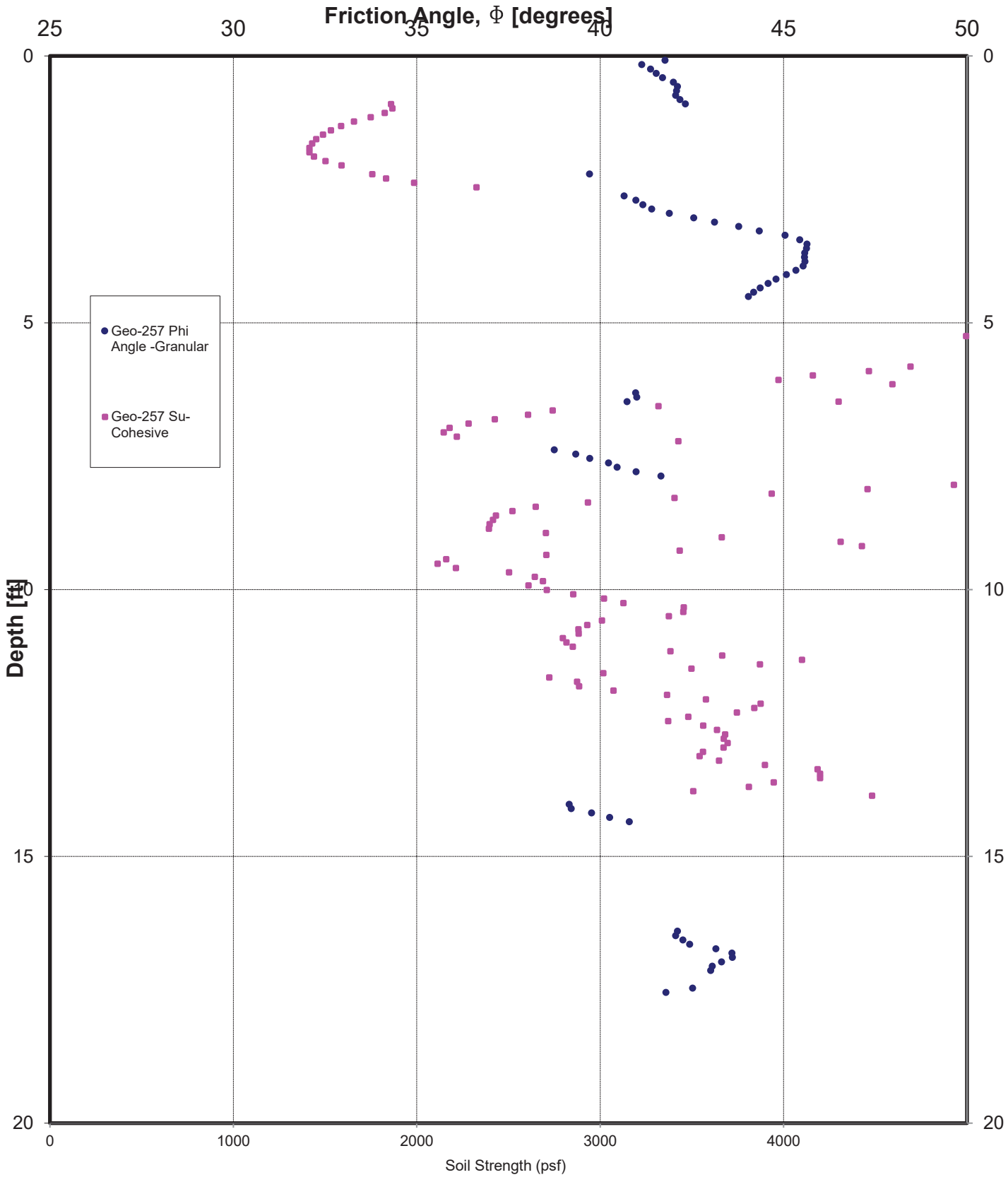
Soil Strength and vs. Depth for site GEO-254 from CPT



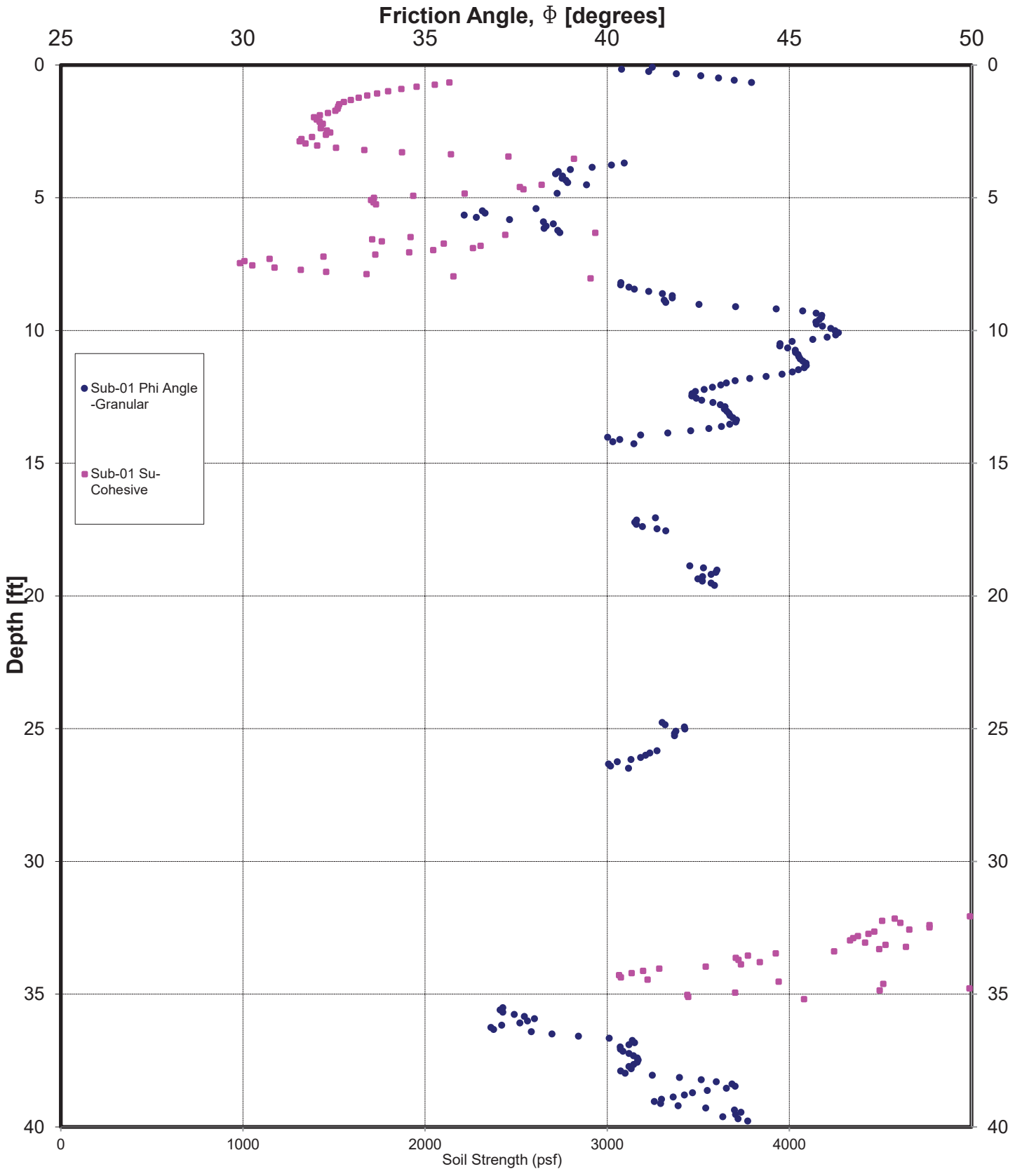
Soil Strength and vs. Depth for site GEO-255 from CPT



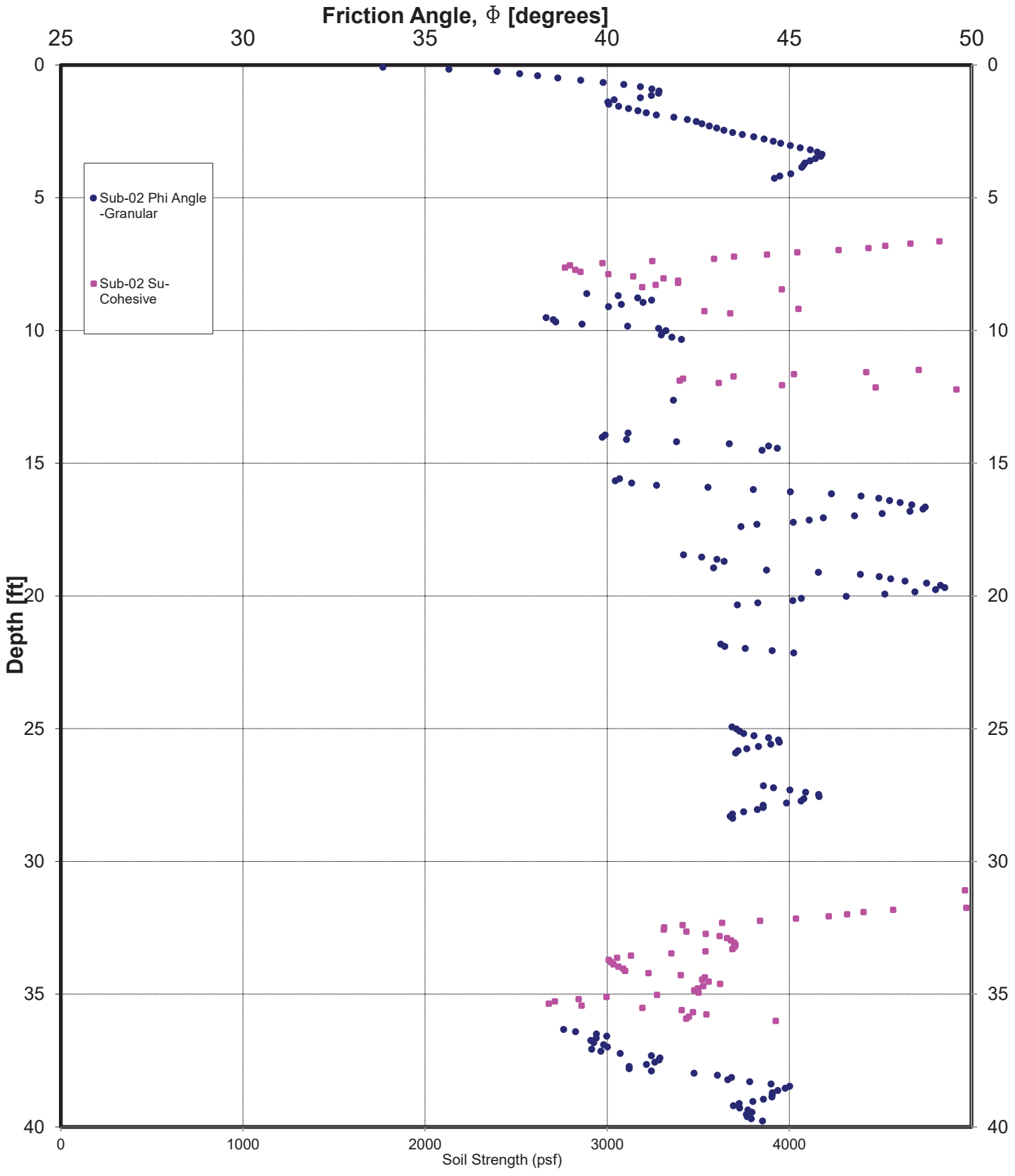
Soil Strength and vs. Depth for site GEO-256 from CPT



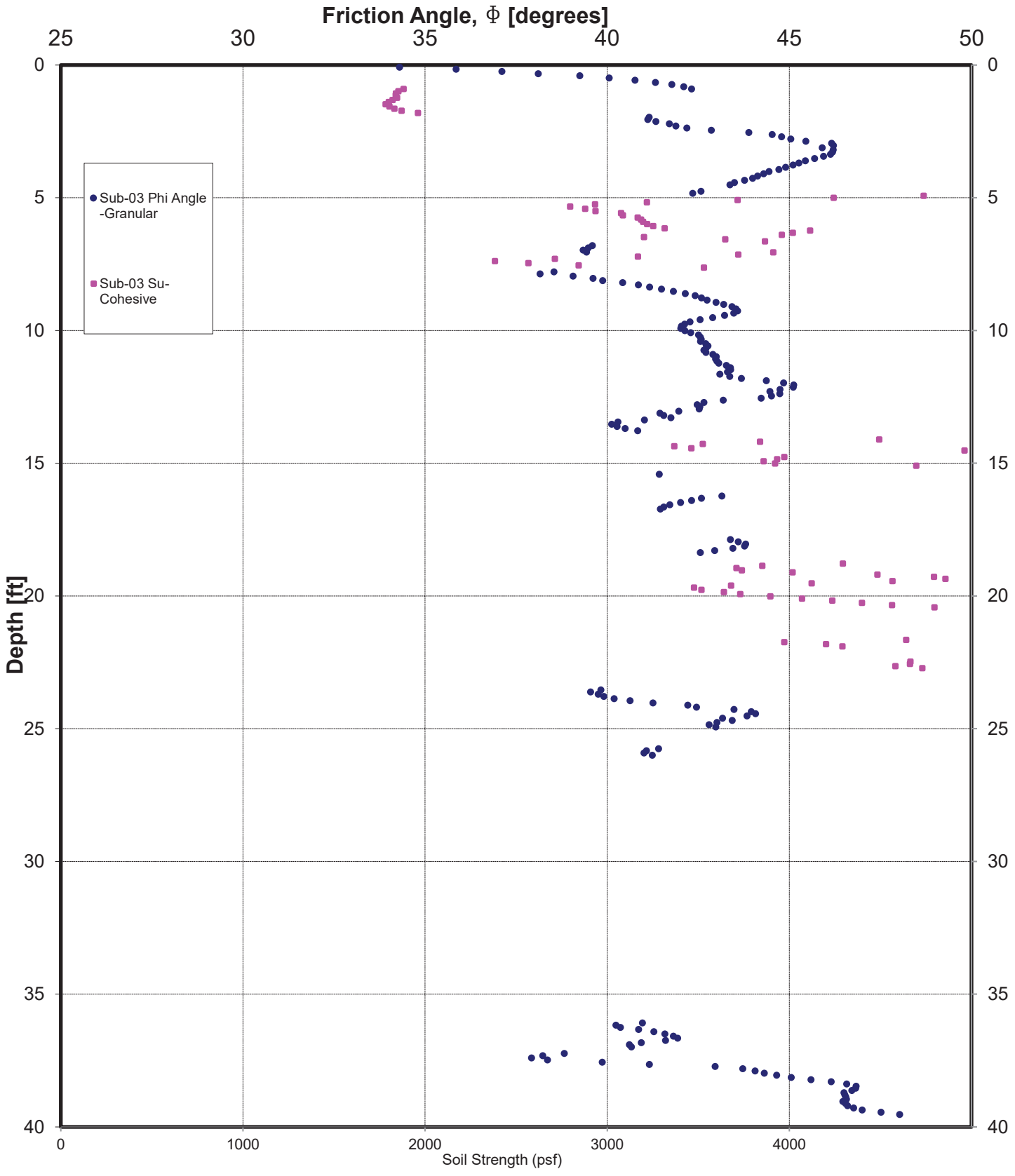
Soil Strength and vs. Depth for site GEO-257 from CPT



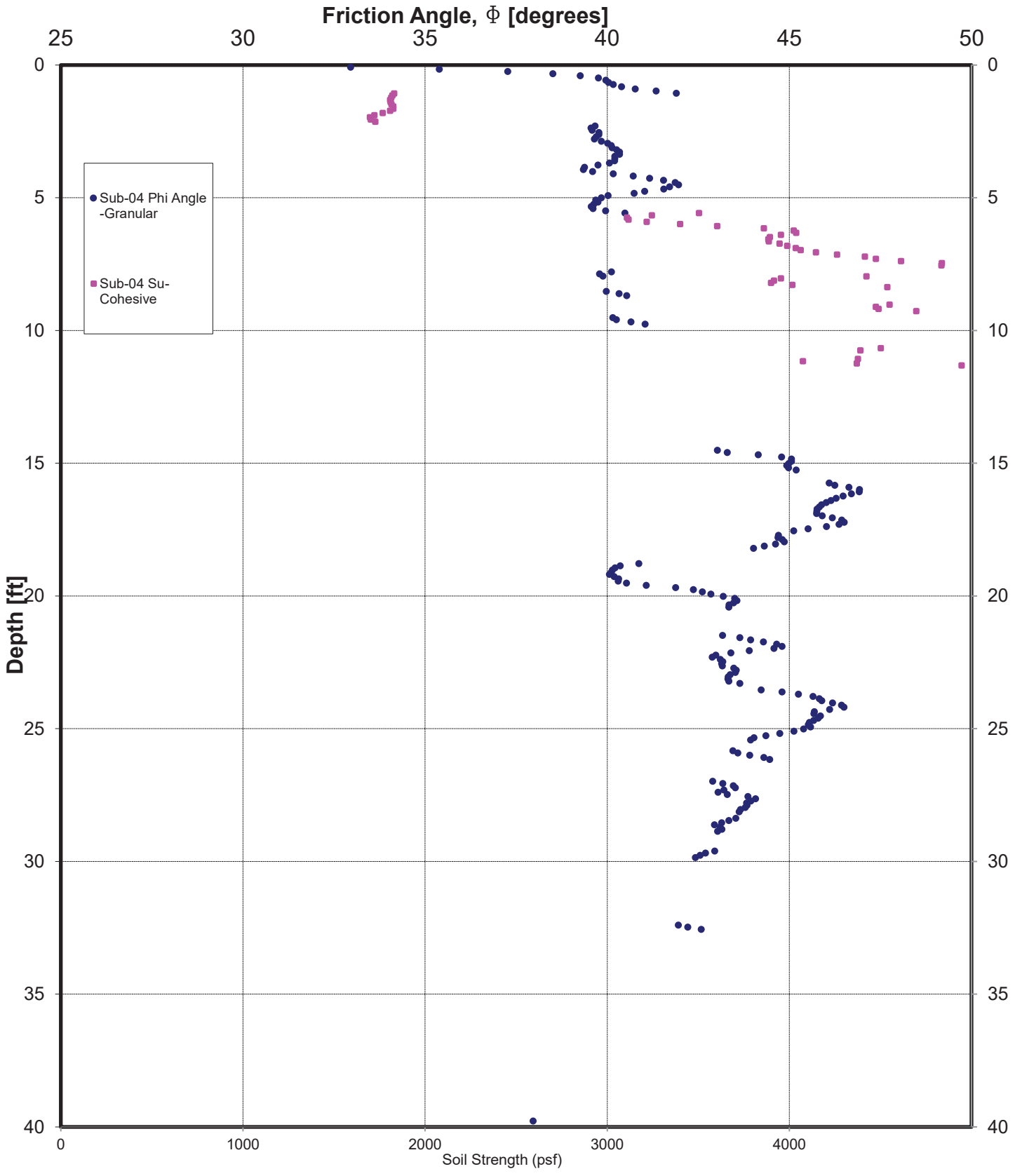
Soil Strength and vs. Depth for site Sub-01 from CPT



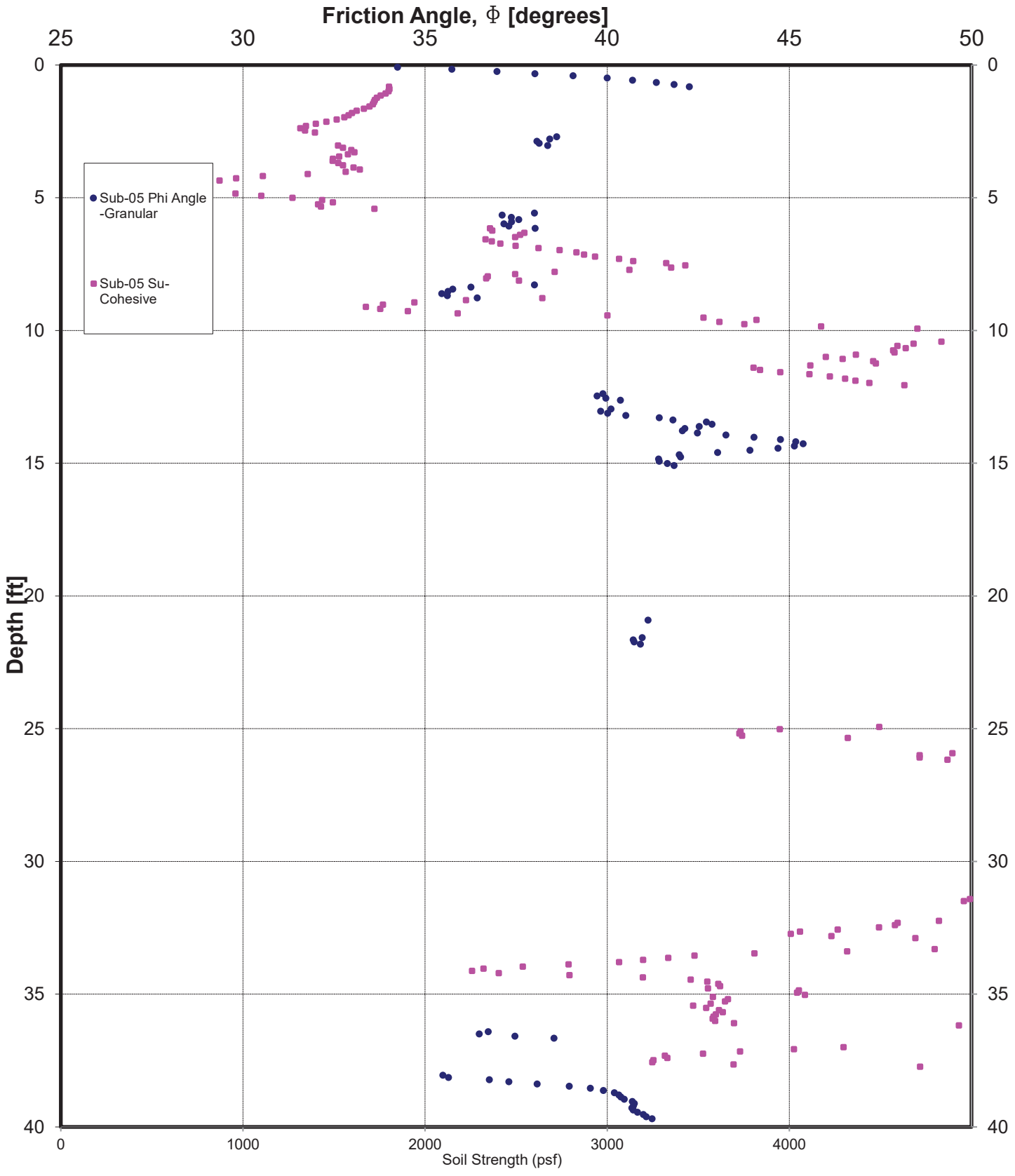
Soil Strength and vs. Depth for site Sub-02 from CPT



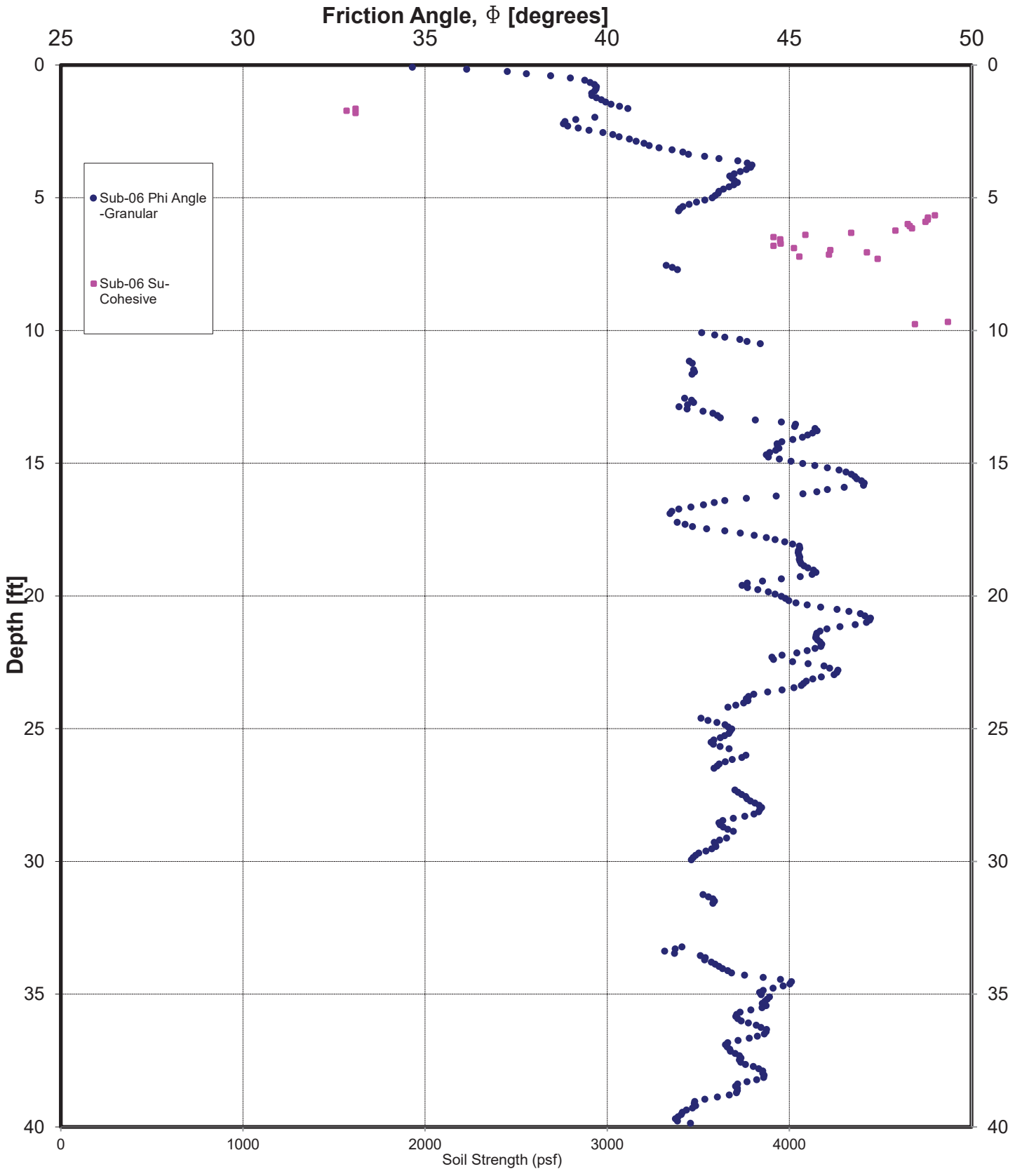
Soil Strength and vs. Depth for site Sub-03 from CPT



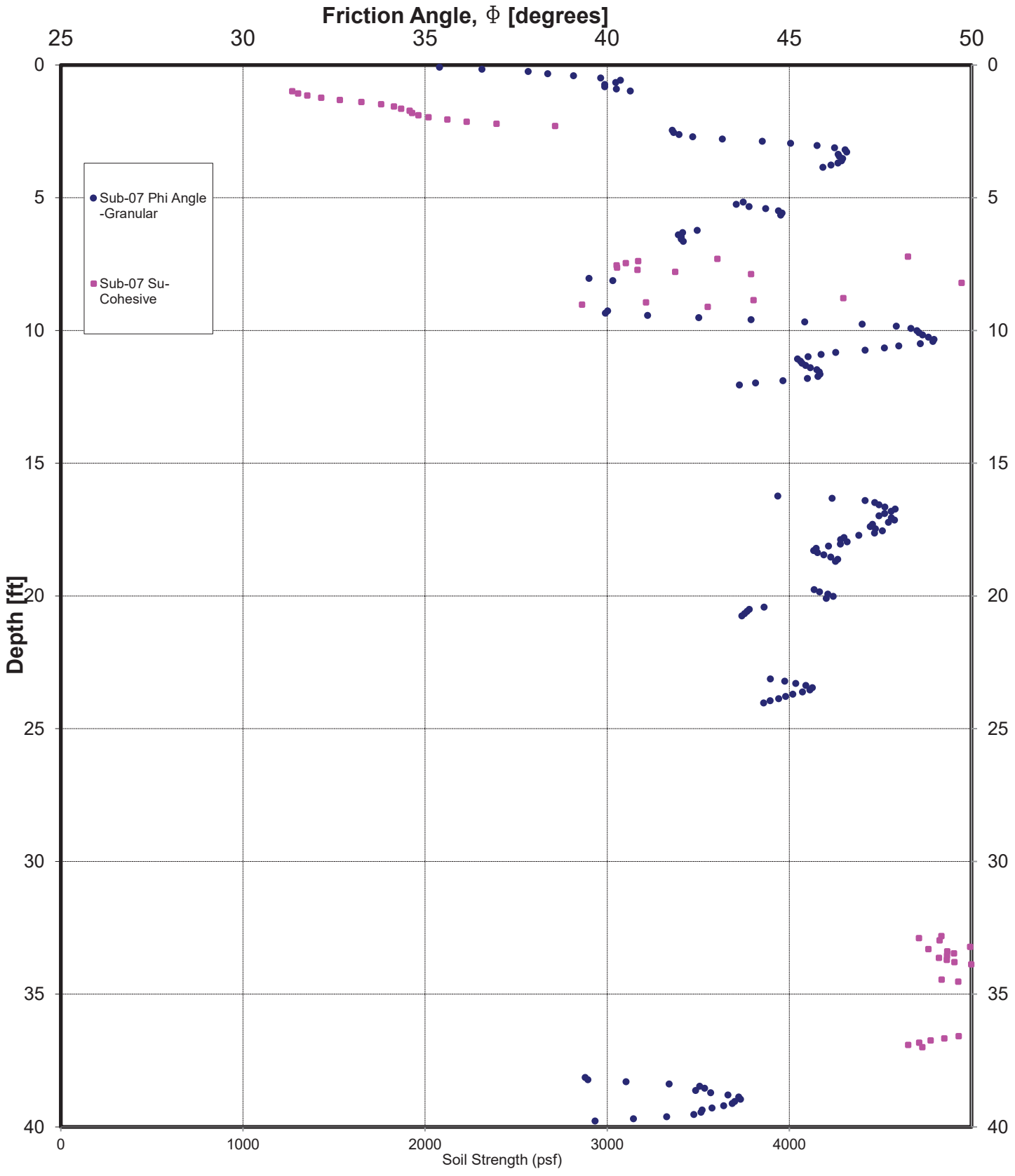
Soil Strength and vs. Depth for site Sub-04 from CPT



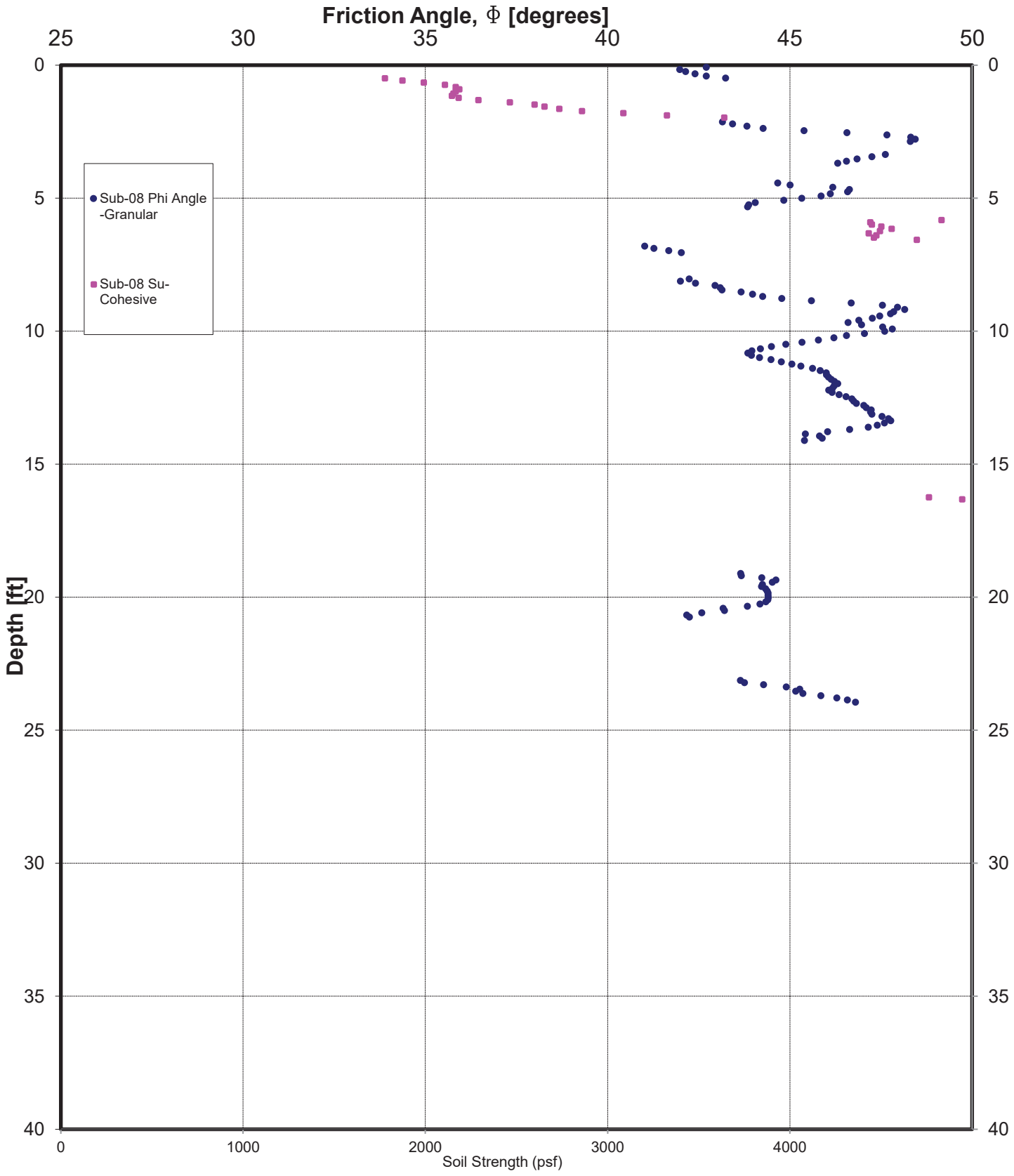
Soil Strength and vs. Depth for site Sub-05 from CPT



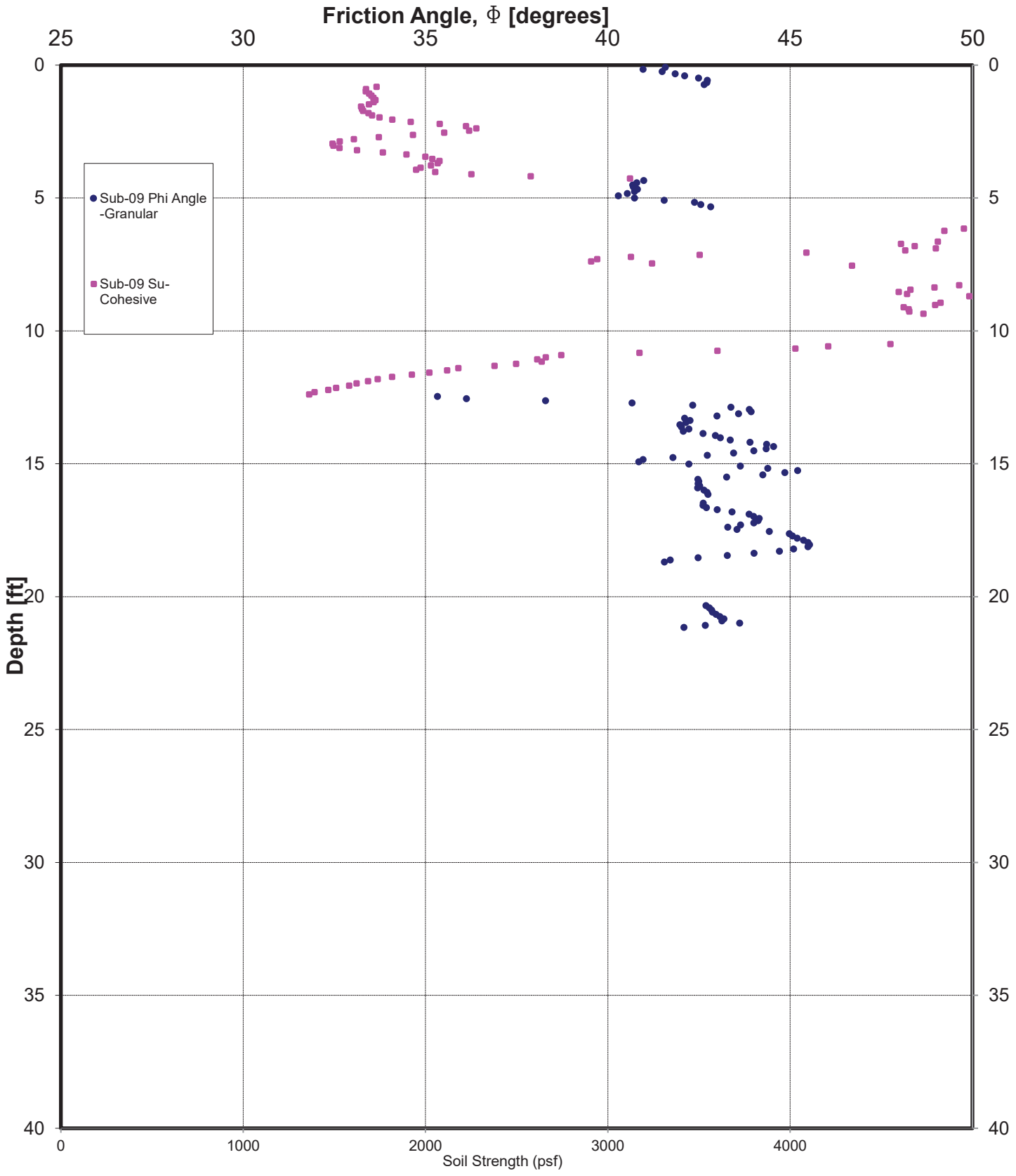
Soil Strength and vs. Depth for site Sub-06 from CPT



Soil Strength and vs. Depth for site Sub-07 from CPT



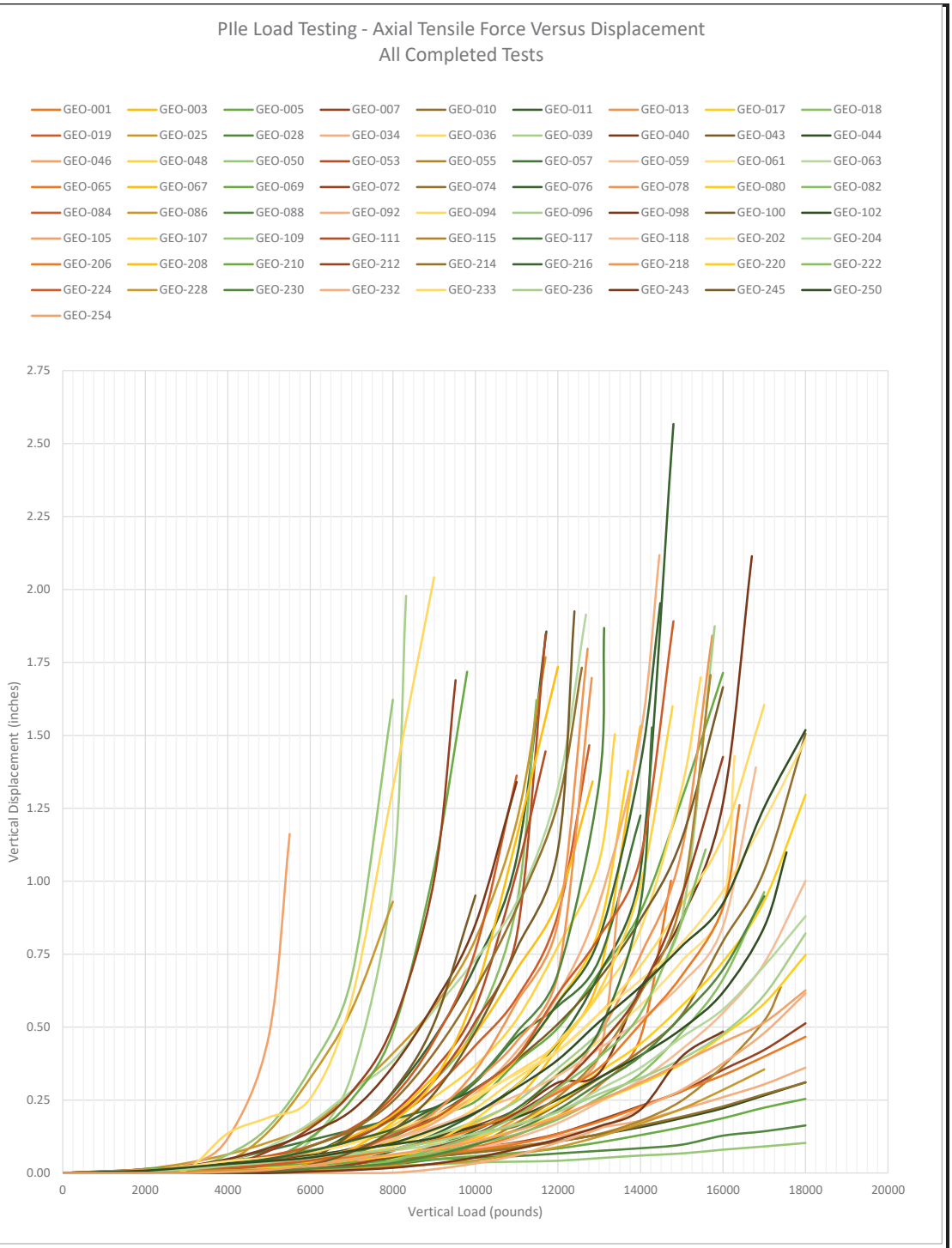
Soil Strength and vs. Depth for site Sub-08 from CPT



Soil Strength and vs. Depth for site Sub-09 from CPT

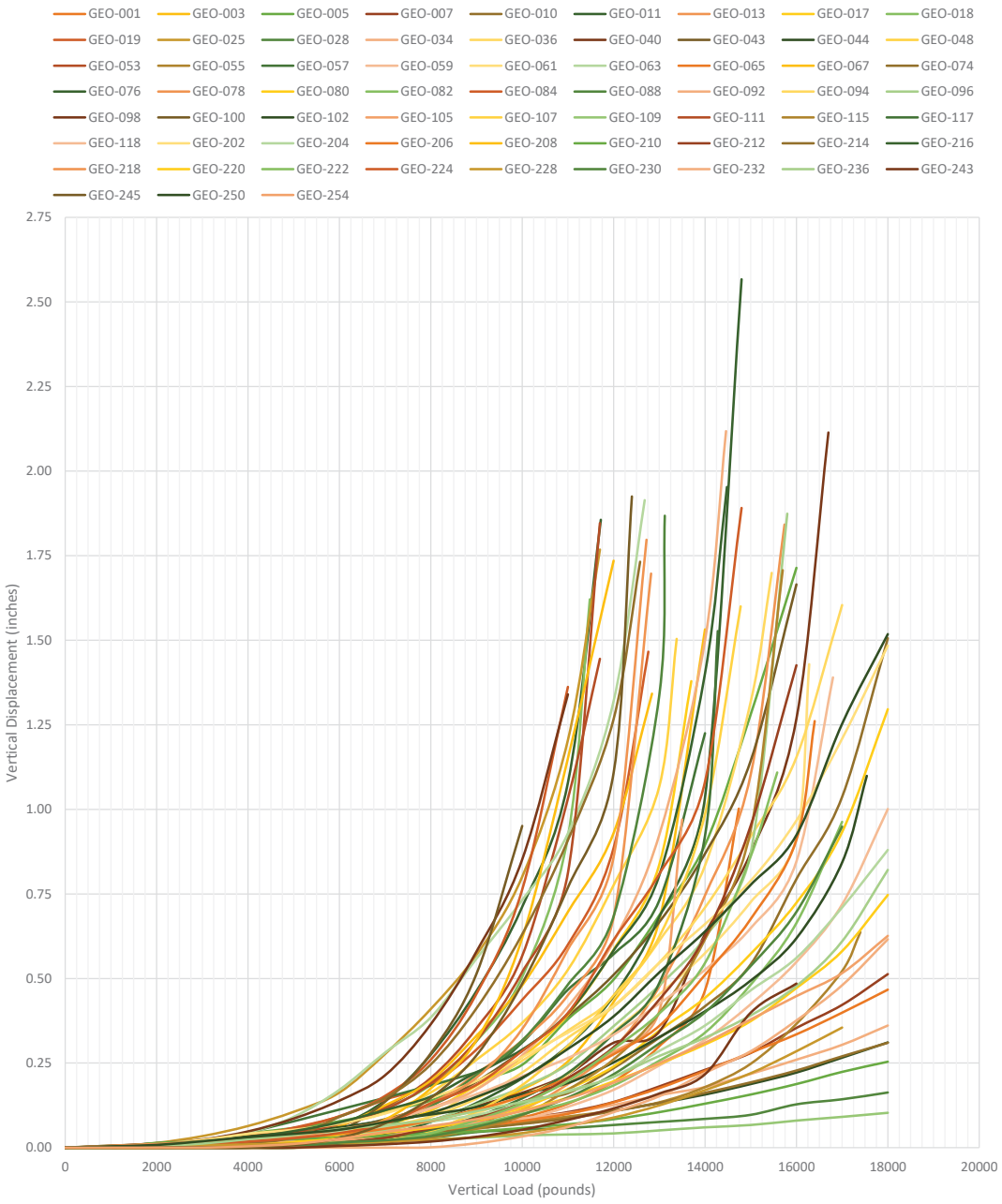
APPENDIX K

Axial Tensile Pile Load Test Results



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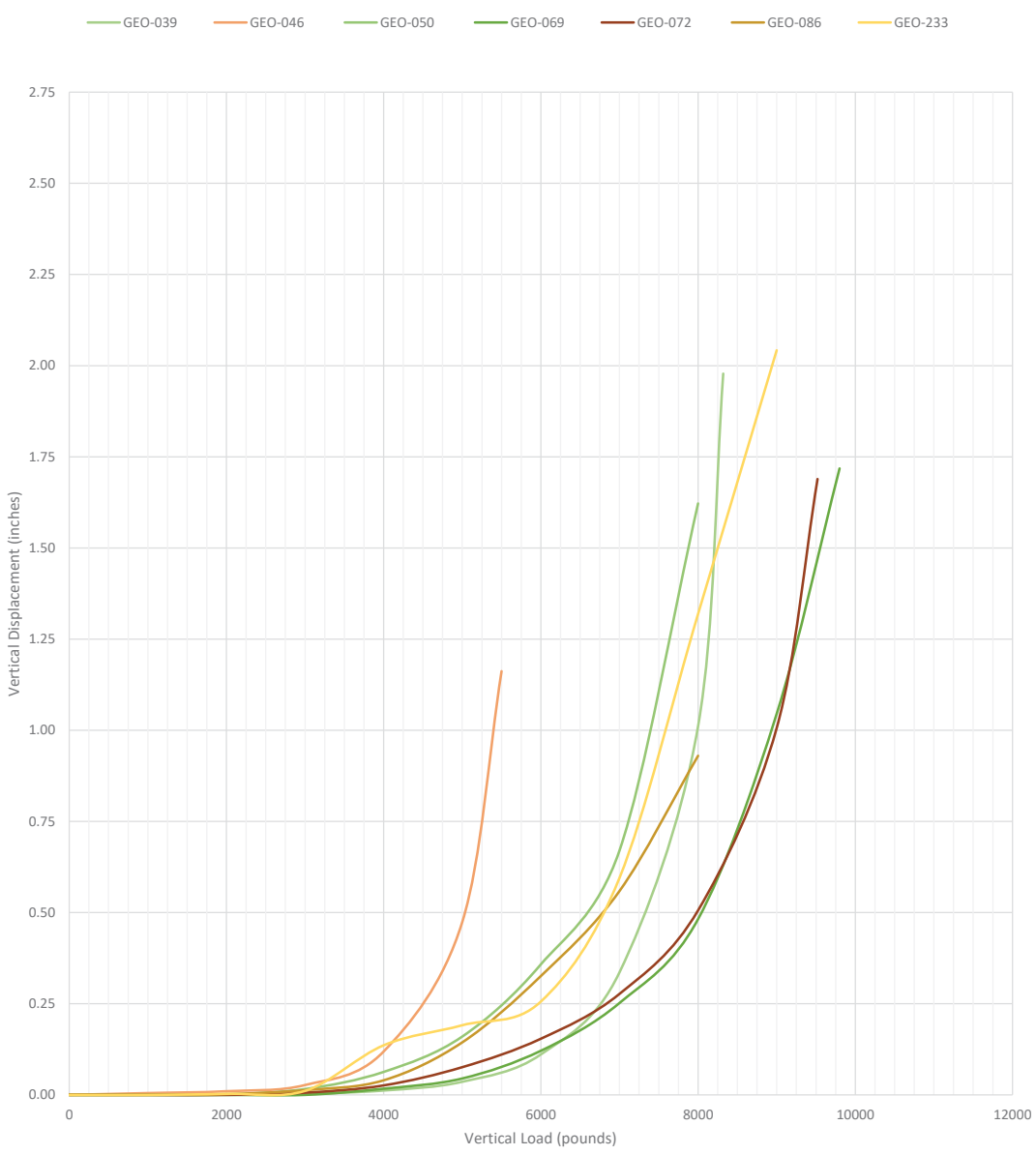
	Field Pile Testing Results
Tested: 12/2020 Project: 020-3275 Prepared by: WCG	**Fox Squirrel Solar Project**



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	Field Pile Testing Results
Tested: 12/2020 Project: 020-3275 Prepared by: WCG	**Fox Squirrel Solar Project**

PIle Load Testing - Axial Tensile Force Versus Displacement
Strata 2 & 3 - Weak to Moderate Clay Profile

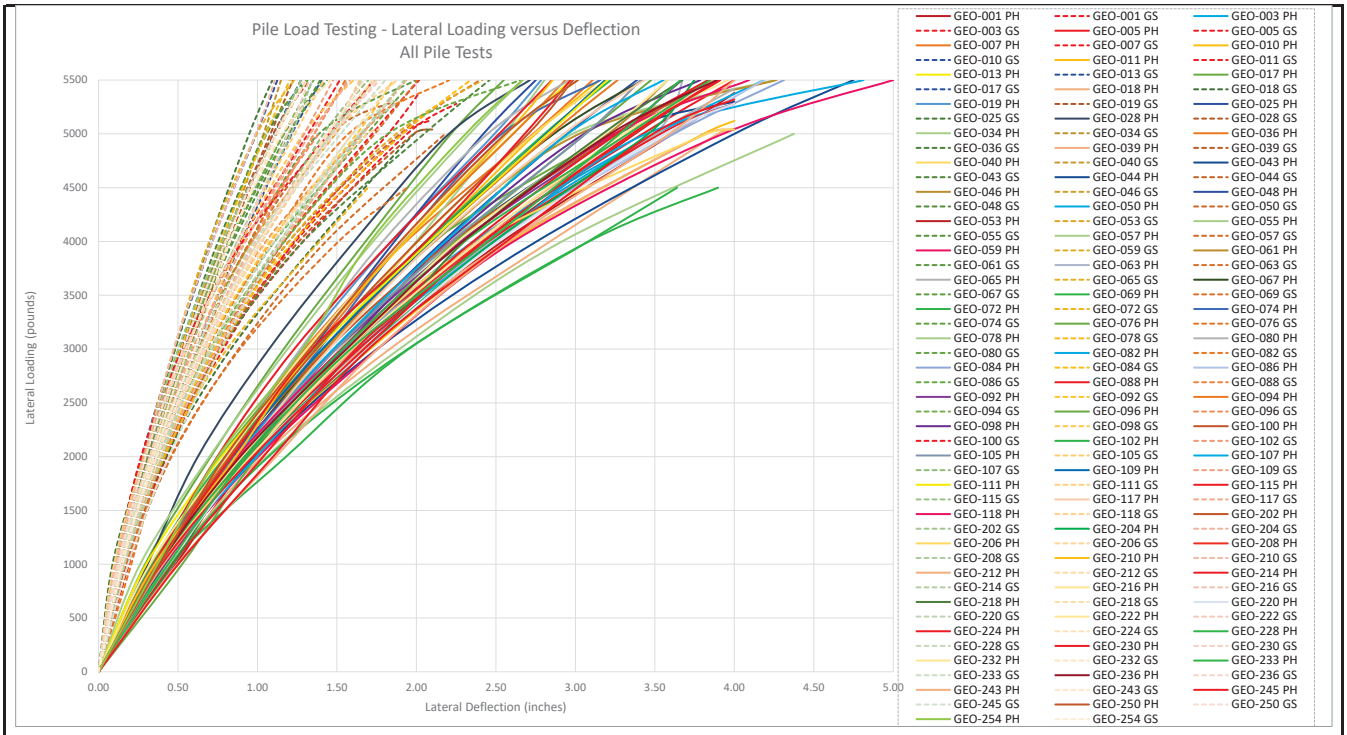


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Tested: 12/2020	**Field Pile Testing Results**
Project: 020-3275	**Fox Squirrel Solar Project**
Prepared by: WCG	

APPENDIX L

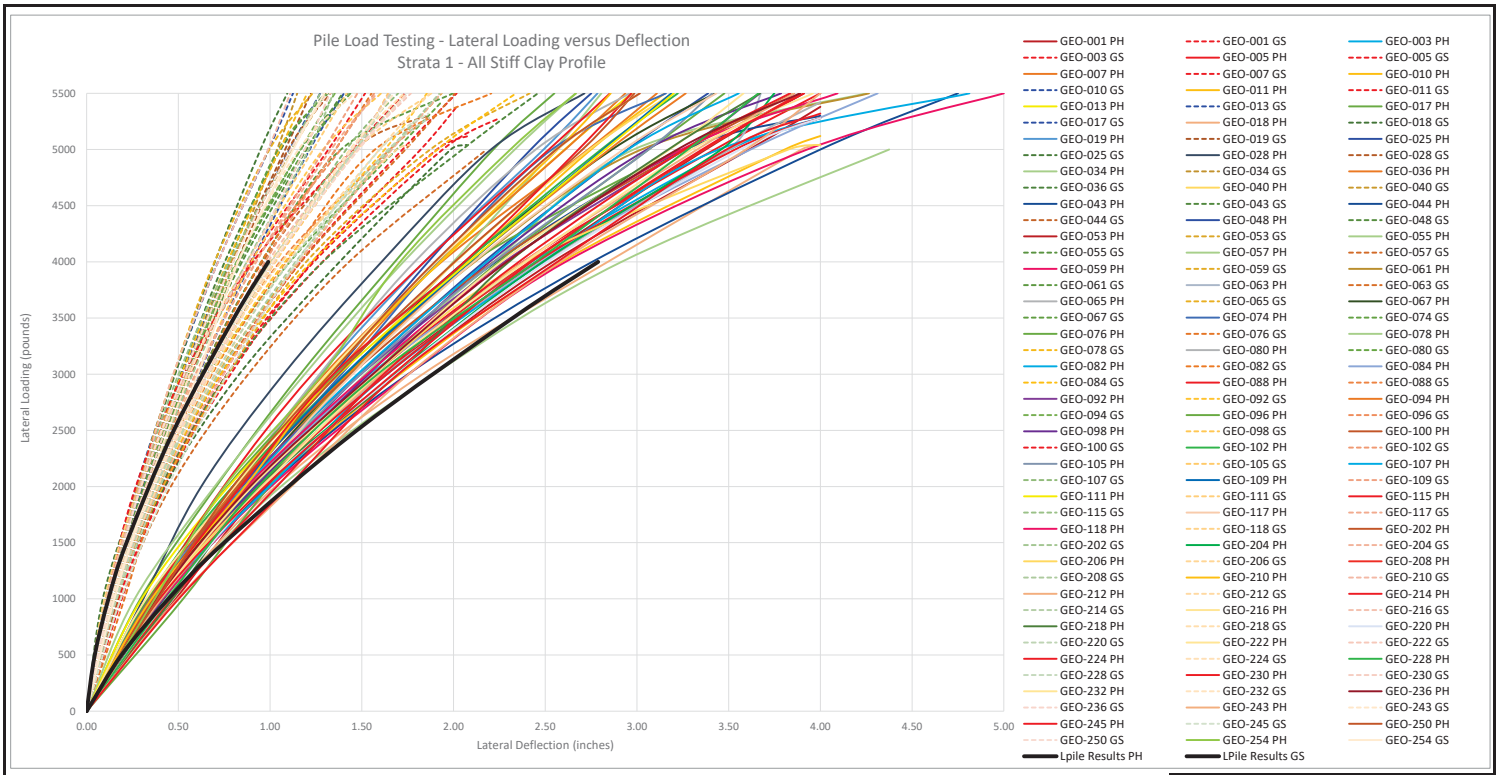
Lateral Pile Load Testing Results



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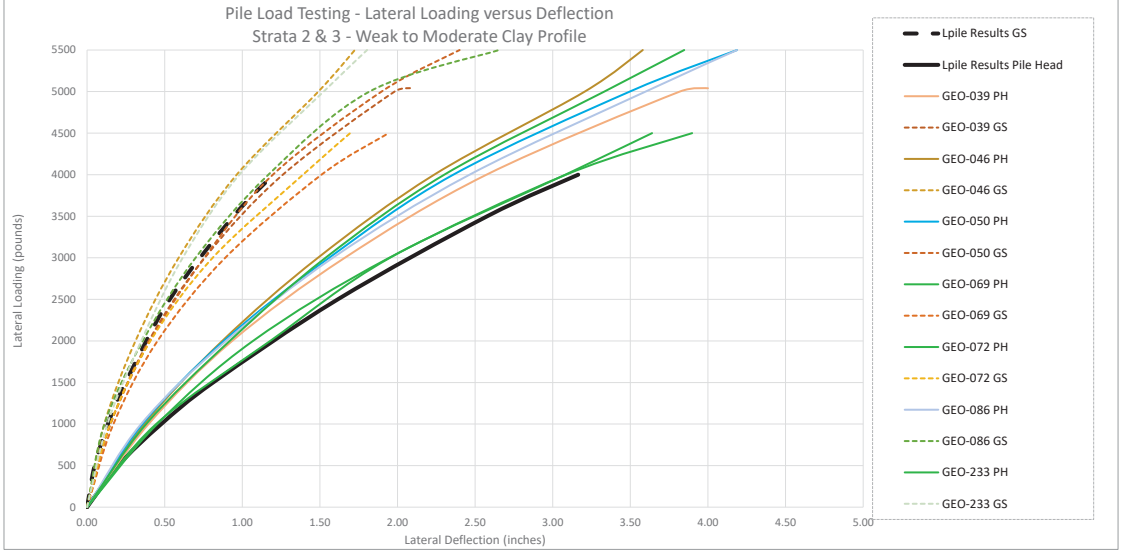
Field Pile Testing Results

Tested: 12/2020	**Fox Squirrel Solar Project**
Project: 020-3275	
Prepared by: WCG	



olsson

	Field Pile Testing Results
Tested: 12/2020 Project: 020-3275 Prepared by: WCG	**Fox Squirrel Solar Project**



olsson

	Field Pile Testing Results
Tested: 12/2020 Project: 020-3275 Prepared by: WCG	**Fox Squirrel Solar Project**

APPENDIX M

Lateral Pile Deflection Charts Based on Anticipated Design Loading and Recommended Pile Embedment Depth

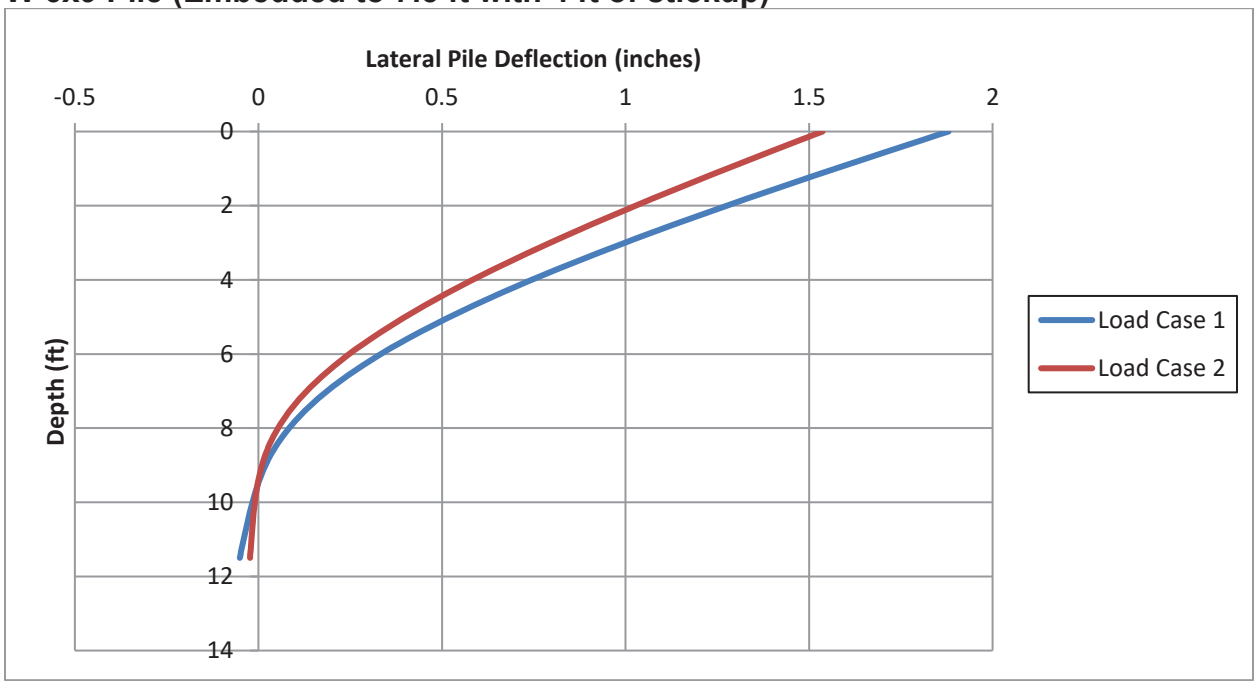
Strata 1

W 6x9 Pile (Embedded to 6.5 ft with 4 ft of stickup)



Strata 2

W 6x9 Pile (Embedded to 7.5 ft with 4 ft of stickup)



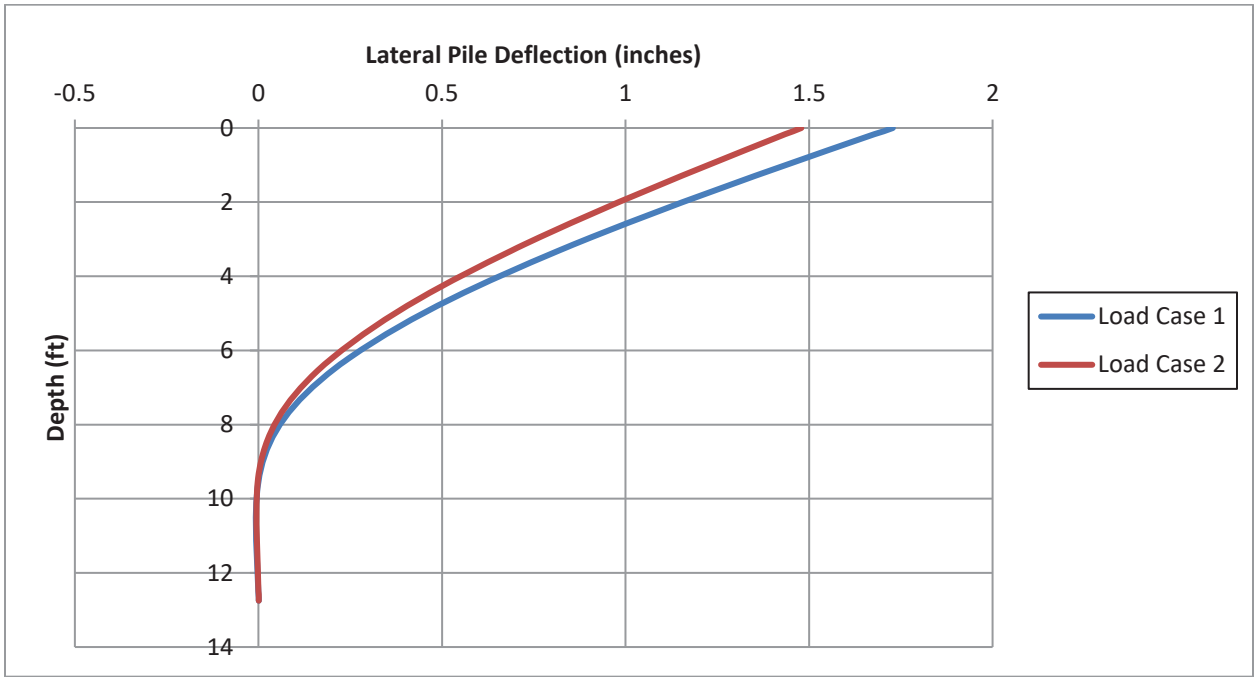
Appendix M – Lateral Pile Deflection Charts Based on Anticipated Design Loading and Recommended Pile Embedment Depth

Load Case 1 – Internal Pile

Load Case 2 – External Pile

Strata 3

W 6x9 Pile (Embedded to 8.75 ft with 4 ft of stickup)



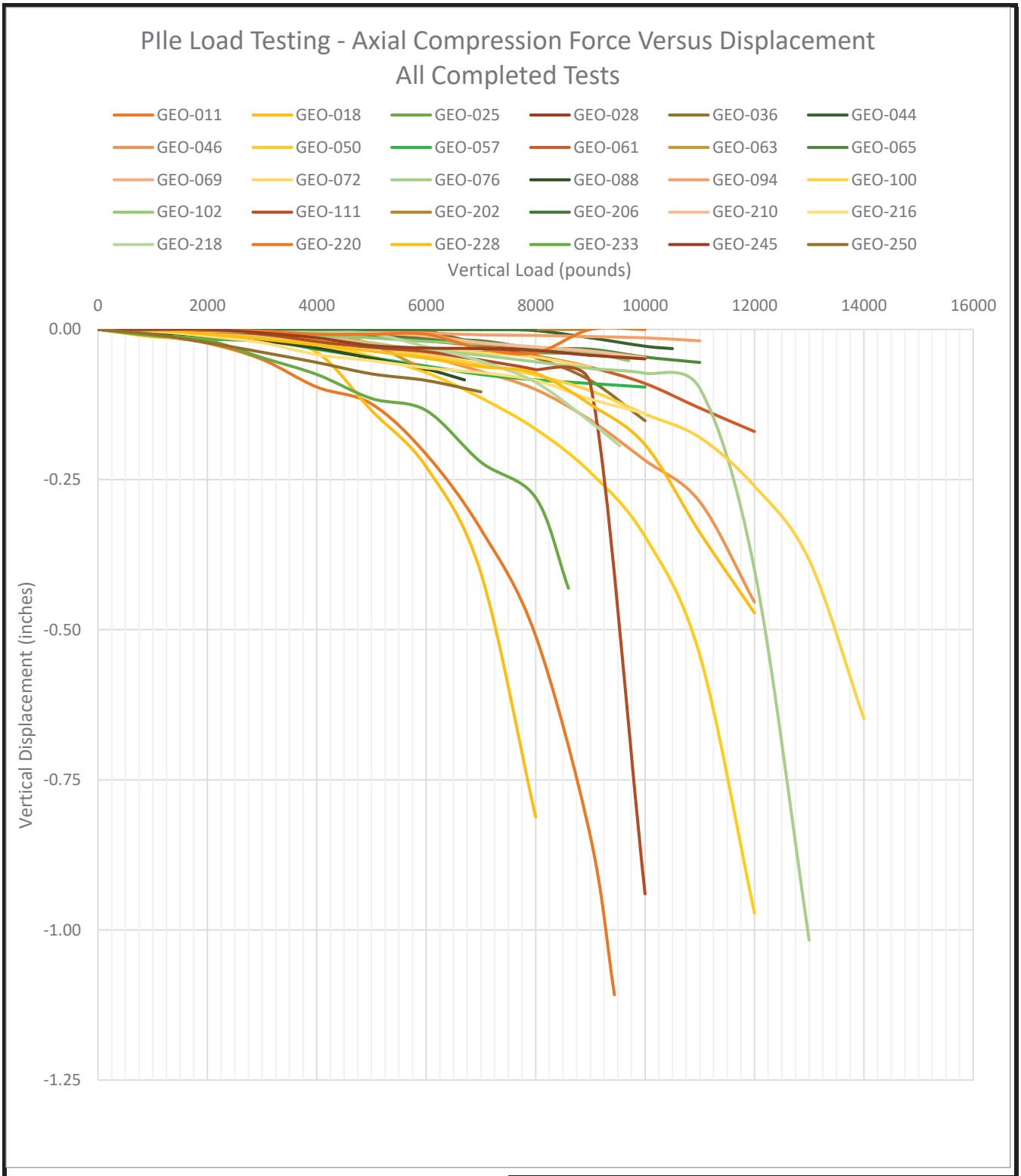
Appendix M – Lateral Pile Deflection Charts Based on Anticipated Design Loading and Recommended Pile Embedment Depth

Load Case 1 – Internal Pile

Load Case 2 – External Pile

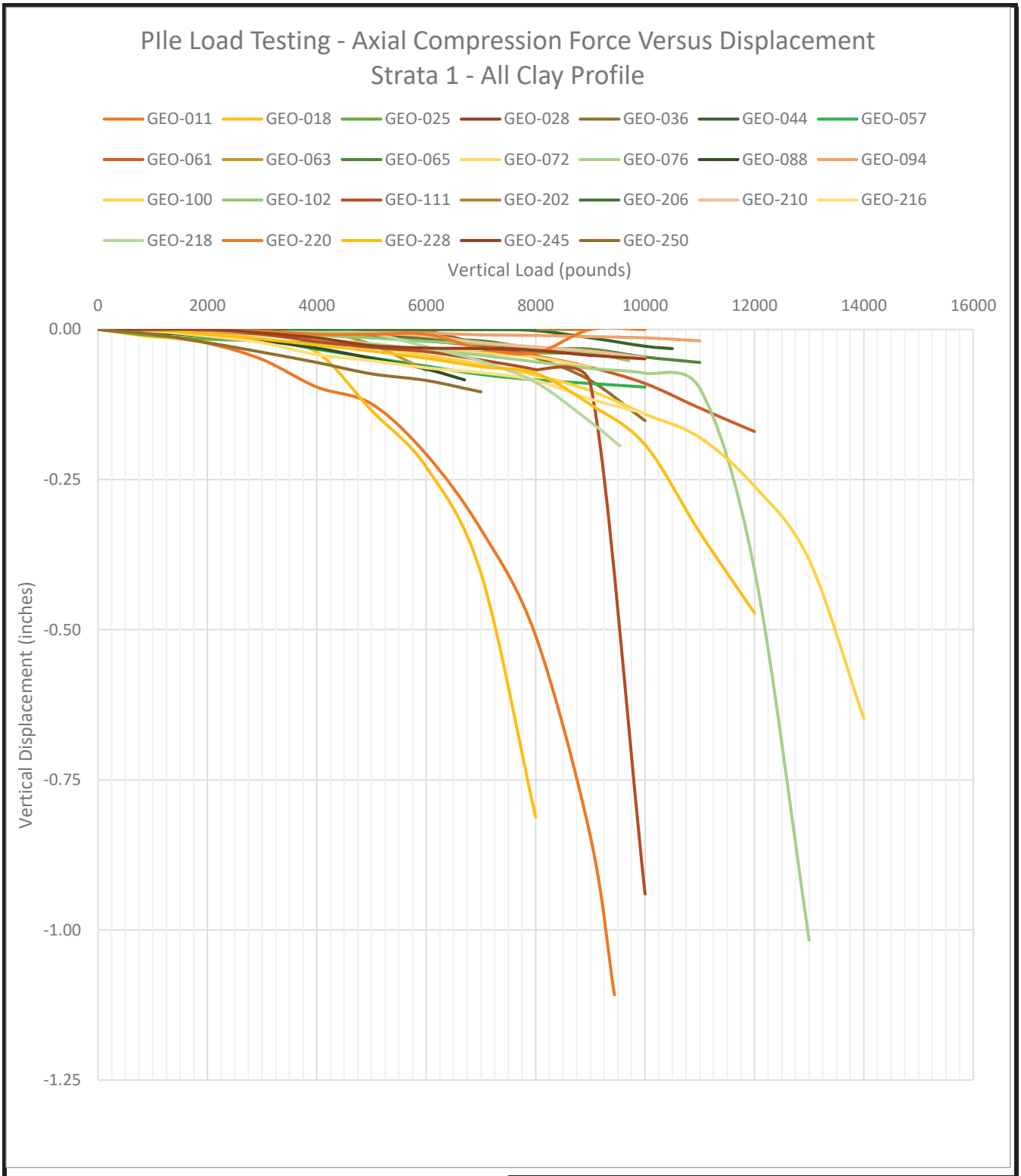
APPENDIX N

Axial Compression Pile Load Test Results



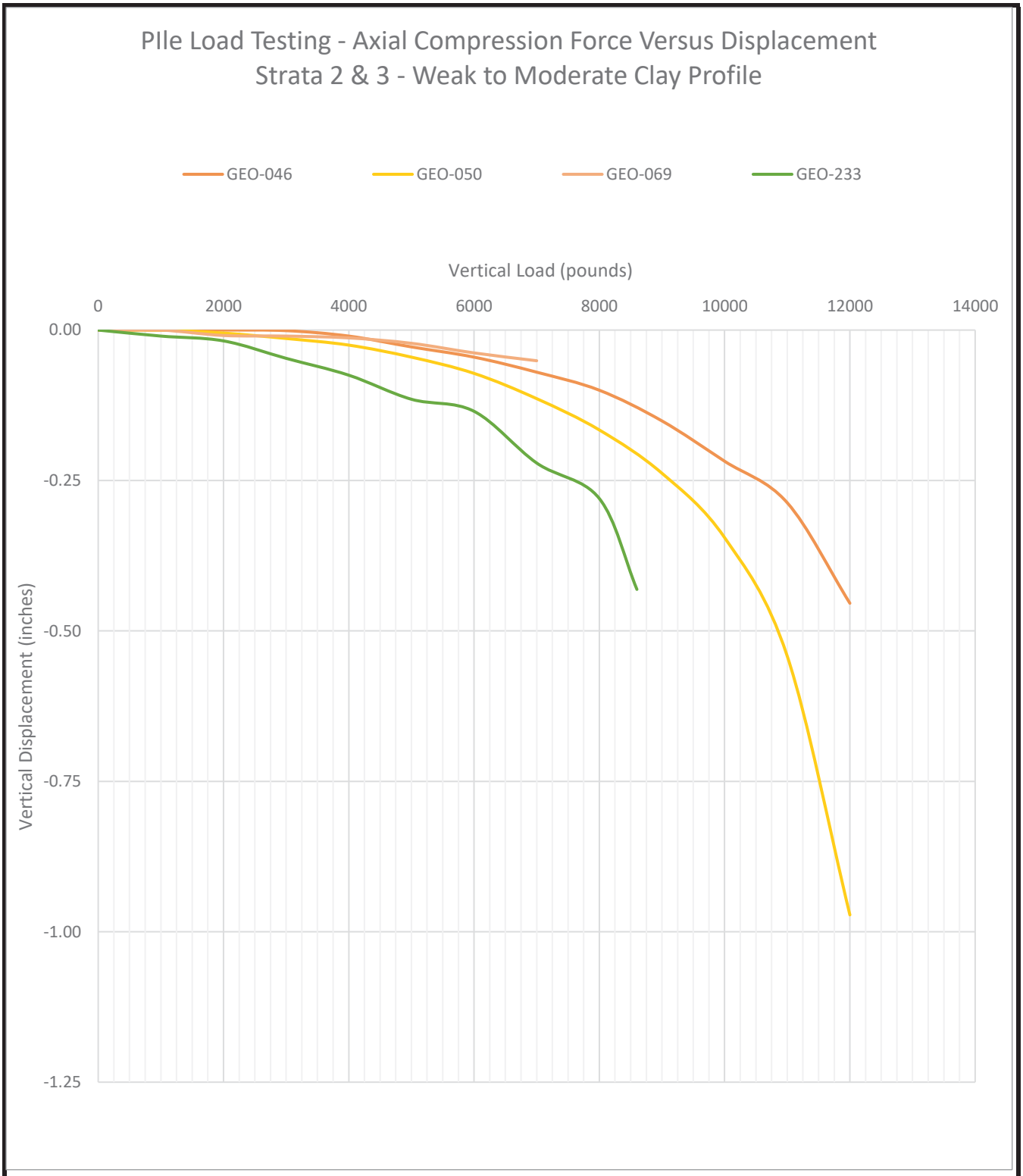
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Tested: 12/2020	**Field Pile Testing Results**
Project: 020-3275	**Fox Squirrel Solar Project**
Prepared by: WCG	



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Tested: 12/2020	**Field Pile Testing Results**
Project: 020-3275	**Fox Squirrel Solar Project**
Prepared by: WCG	



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Tested: 12/2020	**Field Pile Testing Results**
Project: 020-3275	**Fox Squirrel Solar Project**
Prepared by: WCG	

APPENDIX O
Corrosion Report

January 29, 2021

Olsson
601 P Street, Suite 200
Lincoln, NE 68508

Attention: Bill Kussman P.E.
Senior Engineer/Geotechnical

Subject: Corrosion Engineering Services
Review of Soil Corrosivity for Steel Support Piles
Fox Squirrel Solar Project
Madison County, Ohio

Dear Bill,

Pursuant to your request, JDH Corrosion Consultants, Inc. has conducted a review of the soil data for the above referenced project site and we have provided herein our analysis and long-term corrosion control recommendations for the subject steel support piles for the photovoltaic solar project at this site.

PURPOSE

The purpose of this evaluation is to review the materials being proposed for use at the above referenced solar project for Olsson in order to determine their requirements for a 35-year expected life. This analysis will include below grade recommendations as follows:

Below Grade

- Determine the rate of corrosion for bare steel support piles (i.e. H-pile configuration)
- Determine the rate of corrosion for hot dipped galvanizing
- Provide recommendations for hot dipped galvanized piles as appropriate
- Provide recommendations for epoxy coated piles as appropriate

PROJECT BACKGROUND

The proposed Fox Squirrel Solar Project is to be located in Madison County, Ohio.

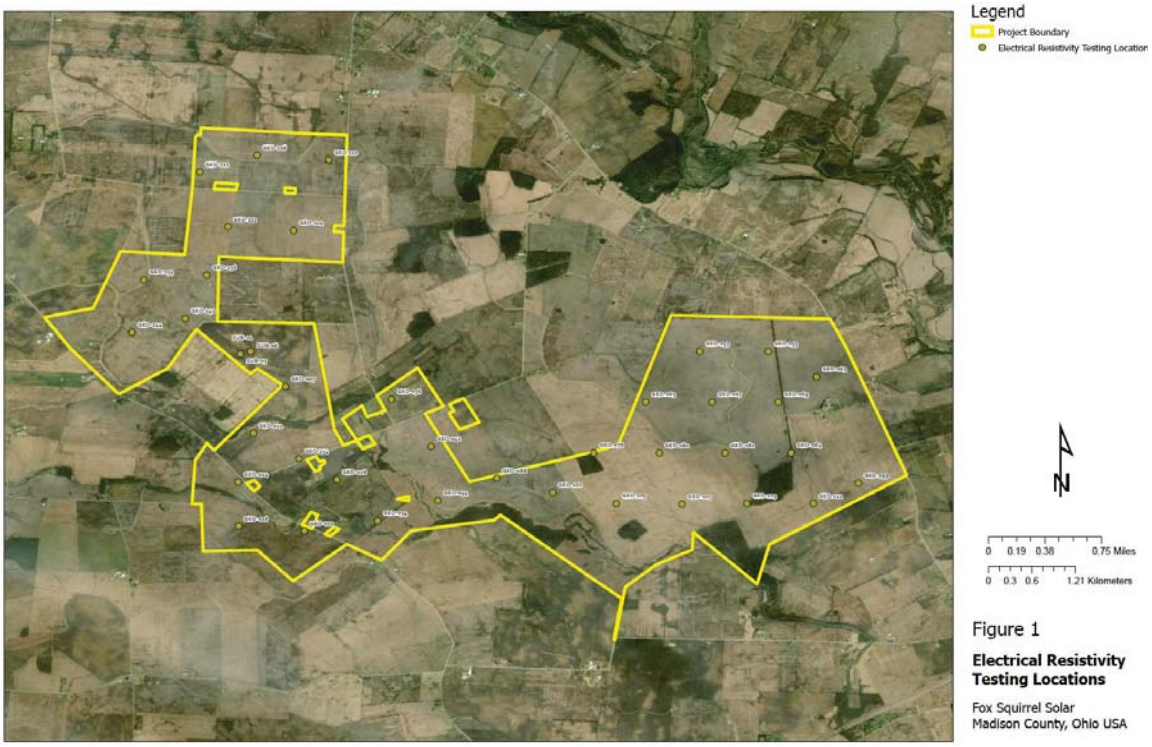


Figure 1 – Boring and Test Pit Location Map, Fox Squirrel Solar Project, Madison County, Ohio.

Soil chemical data was extracted from the following report: Geotechnical Engineering Report, Fox Squirrel Solar, Olsson Project No. 020-3275. This site has soils which have been reported in the geotechnical report as having the following electrical characteristics:

TABLE 1: Soil Chemical Analysis

Chemical Analysis	Range of Results	Corrosion Classification
Resistivity (In-Situ)	2,366 – 9,137 ohm-cm	Mildly Corrosive
pH	7.2 – 7.5	Non-Corrosive
Chloride	<20 mg/kg	Non-corrosive
Sulfate	<50 - 181 mg/kg	Non-Corrosive to

In-Situ Soil Resistivity Analysis

Corrosion of a metal is an electro-chemical process and is accompanied by the flow of electric current. Resistivity is a measure of the ability of a soil to conduct an electric current and is, therefore, an important parameter in consideration of corrosion data. Soil resistivity is primarily dependent upon the chemical content and moisture content of the soil mass.

The greater the amount of chemical constituents present in the soil, the lower the resistivity will be. As moisture content increases, resistivity decreases until maximum solubility of dissolved chemicals is attained. Beyond this point, an increase in moisture content results in dilution of the chemical concentration and resistivity increases. The corrosion rate of steel in soil normally increases as resistivity decreases. Therefore, in any particular group of soils, maximum corrosion will generally occur in the lowest resistivity areas. The following classification of soil corrosivity, developed by William J. Ellis[1], is used for the analysis of the soil data for the project site.

Resistivity (Ohm-cm)	Corrosivity Classification
0 – 500	Severely Corrosive
501 – 2,000	Corrosive
2,001 – 8,000	Moderately Corrosive
8,001 – 32,000	Mildly Corrosive
> 32,000	Progressively Less Corrosive

DISCUSSION

Corrosion is defined by the National Association of Corrosion Engineers (NACE) as the degradation of a material or its properties due to a reaction with its environment. Corrosion of a metal is an electro-chemical process which is accompanied by the flow of electric current. When steel is buried in soil, the soil is the electrolyte for this electro-chemical process. Resistivity of the soil is a measure of the ability of that soil to conduct an electric current and is, therefore, an important parameter in consideration of corrosion data. Soil resistivity is primarily dependent upon the chemical content and moisture content of the soil mass. The greater the amount of chemical constituents present in the soil, the lower the resistivity will be. Also, the moisture content in the soil is critical to the resistivity due to the fact that as moisture content increases, resistivity will decrease until maximum solubility of dissolved chemicals is attained.

Corrosion is usually not caused by a single factor, but is typically the result of numerous factors influencing the metal in question and oftentimes the factors affecting the rate of corrosion may not remain constant with time. It is, therefore, difficult to accurately predict the corrosion rate in soil.

The rates of corrosion for both the galvanizing and the bare carbon steel were determined based on the following:

- "Corrosion of Galvanized Steel in Soils" by Irving A Denison and Melvin Romanoff, Journal of Research of the National Bureau of Standards, Vo. 49, No. 5, November 1952.
- "Corrosion Resistance of Zinc & Zinc Alloys" by Frank C. Porter – ISBN 0-8247-9213-0 – 1994
- "Corrosion Guidelines", Version 2.0, November 2012, by California Department of Transportation.
- "Hot-Dip Galvanizing, In Soil", by American Galvanizers Association, 2011

Service Life of Galvanized Steel

There are countless soil types in the world, which makes predicting the performance of galvanized steel in soil difficult. A number of soil characteristics affect the corrosion rate of galvanized steel, and soil content conditions can vary significantly. These variances can lead to vastly different corrosion rates for zinc, ranging from 0.2 microns per year in very favorable conditions to 20 microns annually in very aggressive soils. Therefore, the key to understanding how long galvanized steel will last in buried applications is through classification of the soil.

As a general rule of thumb, galvanizing tends to perform well in brown, sandy soils, and not very well in gray, clay-like soils. The reason for this difference is sandy soils with larger particles wick moisture more rapidly, limiting the galvanized piece's exposure to wet conditions, while clay-like soils hold moisture for longer periods. Similar to atmospheric exposure, galvanized steel performs best when it is relatively dry.

The four variables with the most profound impact on the corrosion rate of hot-dip galvanized steel in soil include chloride concentration, moisture content, pH, and resistivity. The presence of chloride ions causes resistivity to be lower, making the zinc coating more susceptible to corrosion. Along with high moisture levels in the soil, high chlorides will increase

the rate of the corrosion of the zinc coating. For hot-dip galvanized steel, the soil moisture content primarily affects the activity of the chloride ions. If the moisture content of the soil is below 17.5%, the chloride ion concentration does not significantly affect the corrosion rate of the zinc. For soils with moisture content above 17.5%, the chloride ion concentration has a significant effect on the corrosion rate of zinc. Soils with pH values less than 7.0 have a higher corrosion rate on zinc coatings. If the pH of the soil is above 7.0, then the corrosion rate of the soil yields a longer service life of the zinc coating. The resistivity parameter follows the chloride ion concentration in that higher resistivity often means lower chloride ion content and a lower corrosion rate of the zinc coating.

Corrosion Rate for Zinc

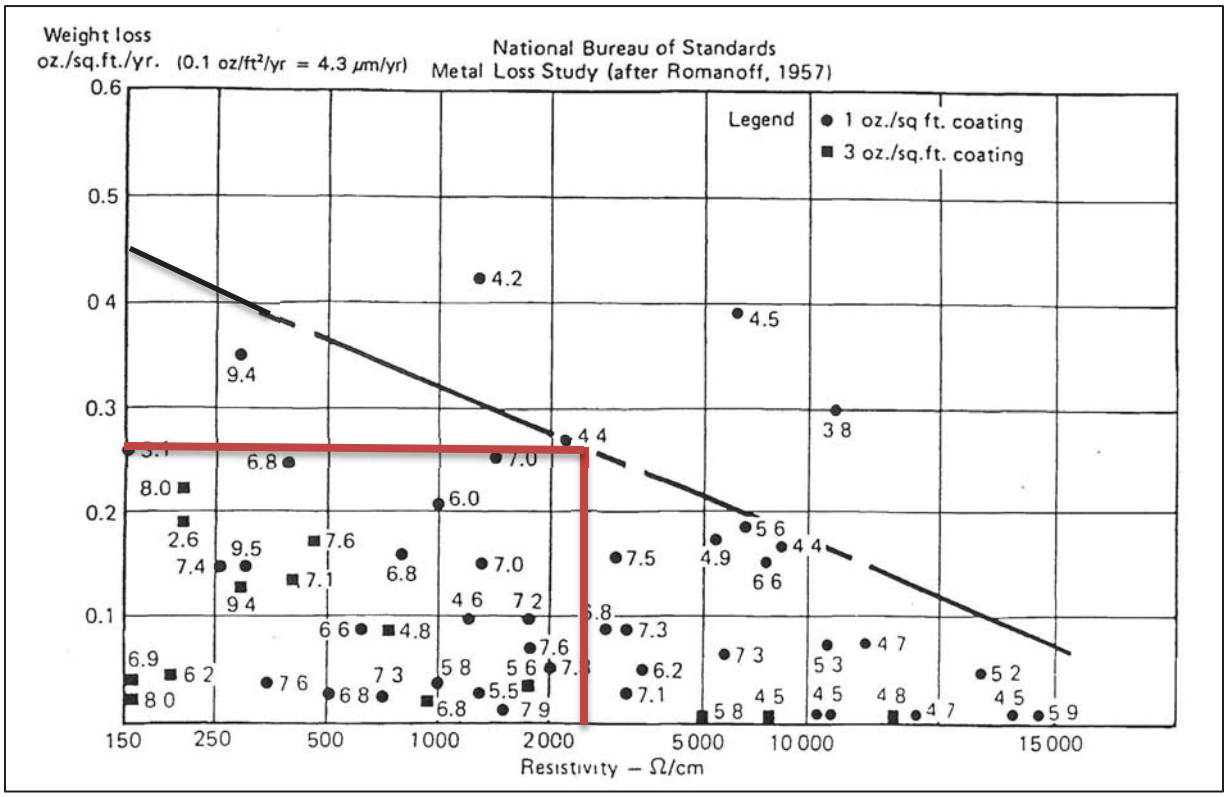


Figure 2 - Zinc loss vs. Resistivity (Romanoff, 1957)

The plot above indicates that for a soil of resistivity value of 2,366 ohm-cm (the lowest in-situ resistivity encountered) the corrosion rate will be roughly 0.27 oz/sq.ft./yr (or 0.46 mpy) for the soil conditions. This translates to a life of the hot dipped galvanized coating that meets ASTM A123 of approximately 3.5 mils, of approximately 7.6 years for the soil conditions. We feel that this chart provides a relatively accurate representation of the site at Fox Squirrel, due to the mild resistivity values.

Corrosion Rate for Steel

Table 4-1: Recommended value for the loss of thickness [mm] due to corrosion for piles and sheet piles in soils, with or without groundwater

Required design working life	5 years	25 years	50 years	75 years	100 years
Undisturbed natural soils (sand, silt, clay, schist, ...)	0,00	0,30	0,60	0,90	1,20
Polluted natural soils and industrial sites	0,15	0,75	1,50	2,25	3,00
Aggressive natural soils (swamp, marsh, peat, ...)	0,20	1,00	1,75	2,50	3,25
Non-compacted and non-aggressive fills (clay, schist, sand, silt, ...)	0,18	0,70	1,20	1,70	2,20
Non-compacted and aggressive fills (ashes, slag, ...)	0,50	2,00	3,25	4,50	5,75

Notes:

1) Corrosion rates in compacted fills are lower than those in non-compacted ones. In compacted fills the figures in the table should be divided by two.

2) The values given for 5 and 25 years are based on measurements, whereas the other values are extrapolated.

Figure 3 – Carbon Steel loss as a function of resistivity (Romanoff, 1957)

The lean clay soil, at the Fox Squirrel site, can be categorized as an undisturbed natural soil due to the mild resistivity values. As such, the anticipated loss of thickness due to corrosion is roughly 0.30 mm over 25 years (0.012 mm/year), thus providing us with a corrosion rate of roughly 0.47 mils per year. At the Fox Squirrel site the corrosion rate will likely be higher during the rainy season, and lower during the dry season, however, because the site receives roughly 39 inches of rainfall a year, we feel the corrosion rate of 0.50 mpy is a more accurate annual corrosion rate for the site.

Summary of Corrosion Rates

Therefore, based on the afore-mentioned references, our review of the geotechnical reports for this site and our experience in studying piles in similar situations, the corrosion rates for these soils are determined to be as follows:

Summary of Corrosion Rates:

Steel: 0.50 mpy (mils per year)
Zinc: 0.46 mpy (or 0.27 oz/sq.ft./yr)

STRATEGIES FOR 35-YEAR DESIGN LIFE

Option 1: Hot Dipped Galvanized Piles with Corrosion Allowance.

Utilize a hot-dipped galvanized steel pile with hot dipped galvanized coating, of 3.5 mils, that meets ASTM A123. The zinc coating will provide an approximate 7.6-year life based on a corrosion rate of 0.46 mpy. This means that for a 35-year design life, 27.4 years of corrosion allowance must be accounted for. The corrosion allowance must consist of 0.5 mpy per face for a total thickness allowance of 1.0 mpy for both the flanges and the web of the H-pile, for these soil conditions. Therefore, because a corrosion allowance for 27.4 years is needed for the piles: 27.4 yrs x 0.5 mpy = 13.7 mils per side. Thus, the piles will need a total of 27.4 mils of corrosion allowance, along with the 3.5 mils of HDG.

Option 2: Epoxy Coating

Coat the entire piles with a tough, durable and scratch resistant epoxy system such as 3M Scotchkote Abrasion Resistant Epoxy Costing 328 or a similarly tough polyurethane system such as Polyclad 777 by Carboline or other similar type of system. The coating shall be applied in a thickness of approximately 25-mils and extended at least 6" above grade to the bottom of the pile.

Abrasion Resistance

The epoxy coating system is an abrasion resistant coating and as such will tend to minimize the amount of damage to the coating during the pile driving operations. The Hot Dip Galvanizing, however, is not an abrasion resistant coating and some degree of scraping was anticipated and will penetrate these coatings during the pile driving operations based on the geotechnical reports and this has been taken into account in our analysis and recommendations.

It should be understood that isolated scrapes and penetrations through both the, epoxy and HDG, coatings is anticipated and is not considered to be detrimental to the overall structural integrity of the piles during the desired 35-year design life. It is the overall section modulus of the piles that give them the strength to resist the design loads on the system and as such it is the overall loss of cross sectional area that is of concern.

CONCLUSION

1. The corrosion rate for zinc in soil is determined to be 0.46 mils per year at this site.
2. The corrosion rate for steel in soil is determined to be 0.50 mil per year at this site.
3. The utilization of hot dipped galvanized piles with a coating thickness of 3.5mils, that meets ASTM A123, along with a total corrosion allowance of 27.4 mpy is suitable to meet the desired 35-year design life for this site.

LIMITATIONS

The conclusions and recommendations contained in this report reflect the opinion of the author of this report and are based on the information and assumptions referenced herein, this report does not take grounding of the piles into consideration. All services provided herein were performed by persons who are experienced

and skilled in providing these types of services and in accordance with the standards of workmanship in this profession. No other warrantees or guarantees either expressed or implied are provided.

We thank you for the opportunity to be of assistance on this important project. If you have any questions concerning this report or the analysis provided herein, please feel free to contact us at (925) 927-6630.

Respectfully submitted,

J. Darby Howard, Jr.



J. Darby Howard, Jr., P.E.
JDH CORROSION CONSULTANTS, INC.
Principal

J.D. Howard III

J.D. Howard III
JDH CORROSION CONSULTANTS, INC.
Corrosion Control Specialist

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in

Case No(s). 21-1031-EL-BGA

Summary: Application - 12 of 24 (Exhibit I – Geotechnical Engineering Report) electronically filed by Christine M.T. Pirik on behalf of Fox Squirrel Solar, LLC