



SUPPLEMENTAL PRELIMINARY GEOTECHNICAL EVALUATION REPORT

MARSHALL MEGASITE – SITE 2: GEOTECHNICAL SERVICES
MARSHALL TOWNSHIP, CALHOUN COUNTY, MICHIGAN

SME Projects 088106.00 and 091434.01
December 29, 2022





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December 29, 2022

Ms. Jennifer Bomba
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Via E-mail: jbomba@calhouncountymi.gov

RE: Preliminary Geotechnical Evaluation – Site 2
Marshall Michigan Megasite
Marshall Township, Calhoun County, Michigan
SME Projects 088106.00 and 091434.01

Dear Ms. Bomba:

We have revised our preliminary geotechnical evaluation for a portion of the Marshall Michigan Megasite – Site 2 located in Marshall Township, Calhoun County, Michigan. This report presents the results of our observations and analyses, and our preliminary geotechnical recommendations related to the portion of the Megasite located on the south side of M-96, north of the Kalamazoo River, and generally between 13 Mile Road and 15 Mile Road.

We appreciate the opportunity to be of service. If you have questions or require additional information, please contact me.

Very truly yours,

SME

Joel Rinkel, PE
Principal Consultant

Enclosure: SME Geotechnical Evaluation Report; Dated December 29, 2022

TABLE OF CONTENTS

- 1. INTRODUCTION 1**
 - 1.1 SITE CONDITIONS1
 - 1.2 PROJECT DESCRIPTION.....2
- 2. EVALUATION PROCEDURES.....3**
 - 2.1 FIELD EXPLORATION3
 - 2.2 LABORATORY TESTING4
- 3. SUBSURFACE CONDITIONS5**
 - 3.1 SOIL AND BEDROCK CONDITIONS5
 - 3.2 GROUNDWATER CONDITIONS.....6
- 4. PRELIMINARY ANALYSIS AND RECOMMENDATIONS6**
 - 4.1 SITE PREPARATION AND EARTHWORK7
 - 4.1.1 GENERAL SITE SUBGRADE PREPARATION 7
 - 4.1.2 SUBGRADE MODULUS TEST RESULTS 9
 - 4.1.3 ENGINEERED FILL CONSIDERATIONS 9
 - 4.2 FOUNDATIONS10
 - 4.3 DRAINAGE CONSIDERATIONS11
 - 4.4 OTHER DESIGN AND CONSTRUCTION CONSIDERATIONS11
- 5. SIGNATURES 12**

APPENDIX A

- BORING LOCATION DIAGRAMS (FIGURE NOS. 1 THROUGH 3)
- SUMMARY OF BEDROCK AND GROUNDWATER ELEVATIONS AT BORING LOCATIONS (FIGURE NO. 4)
- BORING LOG TERMINOLOGY
- BORINGS LOGS (B202, B204 THROUGH B217, AND B301 THROUGH B337)
- TABLE A.1: CPT, SPT, AND PRESSUREMETER TEST RESULT SUMMARY
- TABLE A.2: DYNAMIC CONE PENETROMETER AND NUCLEAR DENSITY TEST SUMMARY
- CPT SOUNDING PLOTS (B311, B313, B317, B319, B320, B326, B401 THROUGH B424, B426 THROUGH B438)
- PRESSUREMETER TEST RESULTS (B311, B313, B317, B319, B320, B326)
- TEST PIT PHOTOLOG (2 PAGES)
- TABLE A.3: TOPSOIL ORGANIC CONTENT SUMMARY
- LIQUID LIMIT, PLASTIC LIMIT, & PLASTICITY INDEX REPORTS (2 REPORTS)
- PARTICLE SIZE DISTRIBUTION REPORTS (6 REPORTS)
- PROCTOR ANALYSIS REPORTS (2 REPORTS)

APPENDIX B

IMPORTANT INFORMATION ABOUT THIS GEOTECHNICAL-ENGINEERING REPORT

GENERAL COMMENTS

LABORATORY TESTING PROCEDURES

1. INTRODUCTION

This report presents the results of the preliminary geotechnical evaluation performed by SME for a portion of the overall project site defined as the [Marshall Megasite](#). This evaluation was conducted in two phases. The first phase was conducted in general accordance with the scope of services outlined in SME Proposal No. P02993.21 dated December 5, 2022. Burns & McDonnell (B&M) authorized SME's services for the first phase of this preliminary evaluation. The second phase was conducted in general accordance with the scope of services outlined in SME Change Order for Consulting Services dated December 5, 2022 (refer to SME Projects 091434.00 and 091434.01). Calhoun County authorized SME's services for this supplemental (aka second phase) preliminary evaluation.

Some of the findings from the previous (first phase) preliminary geotechnical evaluation are included within this supplemental preliminary report. For additional information, refer to the previous preliminary geotechnical report titled *Marshall Michigan Megasite – Site 2*, dated February 1, 2022 (SME Project 088106.00), which was submitted under separate cover.

Regarding this supplemental (second phase) evaluation, the additional geotechnical sampling included site seismic assessments, cone penetration testing, pressuremeter testing, dynamic cone penetrometer testing, subgrade modulus tests, test pits, and topsoil sampling. Infiltration testing was also planned. However, the conditions encountered at the test locations were not suitable for manual excavation due to the presence of excessive cobbles and boulders at the proposed test locations. Therefore, the results of the infiltration tests will be finished when a drill rig can be re-mobilized to the project site.

We submitted the seismic site assessments under separate cover. Refer to the SME letter titled *Geodynamic Services*, dated December 22, 2022.

1.1 SITE CONDITIONS

The Marshall Megasite is located in Marshall Township, Calhoun County, Michigan. In general terms, the Marshall Megasite is located south of M-96 (Michigan Avenue), north of the Kalamazoo River, east of 12 Mile Road, and west of 15 Mile Road. The approximate limits of the Marshall Megasite are depicted by the highlighted areas in Image 1 (below). The Marshall Megasite is being marketed as two separate sites.

This supplemental geotechnical evaluation was focused on the area that is generally represented in red (aka Site 2) in Image 1 (below). Previously, SME submitted two preliminary geotechnical evaluations for the two sites (under separate cover) that are highlighted in blue (Site 1) and red (Site 2) as depicted in Image 1.

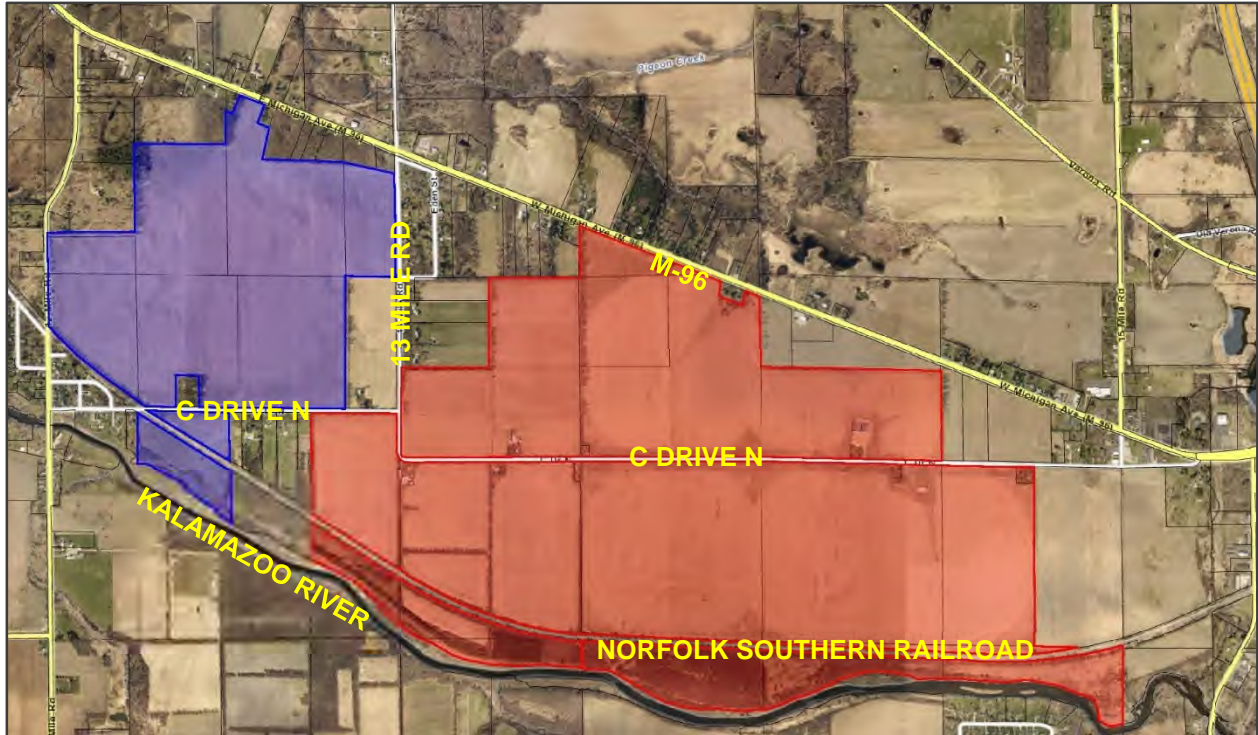


IMAGE NO. 1: Overall Marshall Michigan Megasite Limits

Both sites are mostly cultivated farm fields with some scattered residential and agricultural buildings located along both sides C Drive N. Based on our understanding, a total of six center-pivot irrigation systems occupy portions of the Sites and are located on the north and south sides of C Drive N. Based on the topographic information contained on the referenced drawings, site grades within the area range from about elevation 928 on the north side of C Drive North, sloping downward to about elevation 870 feet near the Kalamazoo River.

1.2 PROJECT DESCRIPTION

The Marshall Megasite is being marketed by Calhoun County for potential purchase by companies for industrial or manufacturing purposes. This supplemental report summarizes the additional subsurface information that we obtained across Site 2. The supplemental subsurface information was obtained with the intent to provide potential purchasers with additional preliminary information about the geotechnical conditions that could impact site development. Limited information regarding the future development(s) at this site is known at the time this supplemental report was prepared. The information here should be considered preliminary. Further refinement and supplemental geotechnical explorations and laboratory testing will be necessary to provide design and construction recommendations for the future development(s).

Based on our experience, industrial and manufacturing structures typically consist of high-bay, steel-framed structures with metal siding. Buildings are typically supported by perimeter spread-type foundations (where practical), interior columns, and grade slabs. Based on limited information provided to us regarding the proposed development(s) for this site, basements or below-grade pits up to 40 feet deep could be required. Exterior below-grade truck docks are also common for these types of developments. Column loads for buildings vary depending on bay spacing. Based on our experience with other buildings of similar use, maximum column loads often range from about 100 to 1,500 kips. In addition, there may also be some relatively large column loads (or relatively special structural designs) in isolated areas of the site that could require a deep foundation (or mat foundation) system for structural support. Overall, there was no specific information regarding foundation design details that were provided to us at this time (e.g., such as building column/wall loads, building heights, column spacing, overhead cranes, mezzanine levels, structures with strict settlement/vibration thresholds, etc.). More

information regarding building type, size, purpose, etc. will be required, along with additional geotechnical evaluations, to refine the geotechnical recommendations for the specific project(s) that will be constructed at these sites.

In addition, it is likely that the proposed development(s) will utilize the nearby existing railroad tracks. Special grading considerations will be required if new railroad spur(s) are added to facilitate rail transport.

Based on the relief at the site, both earth cuts and fills will be required to facilitate site grading, and to permit surface drainage and on-site detention. In general, for the purpose of developing a relatively flat area in most of Site 2, preliminary grading information indicates that a final grade at about elevation 917 to 918 feet would likely be needed to achieve a balanced site. Preliminarily, cuts of up to about 10 feet and fills of up to about 20 feet are anticipated to balance the site.

2. EVALUATION PROCEDURES

2.1 FIELD EXPLORATION

For this supplemental evaluation, we performed 12 test pits, three subgrade modulus tests, 23 pressuremeter tests, 18 Dynamic Cone Penetrometer (DCP) tests, 26 topsoil borings, and 50 Cone Penetrometer Tests (CPT) in December 2022. We determined the planned number, locations, and depths of the test pits, the subgrade modulus testing, topsoil borings, and the CPTs.

For consistency, we used the coordinates and ground surface elevations obtained from the previous borings to locate the test pits, DCP tests, subgrade modulus tests, pressuremeter tests, and some of the topsoil borings. We then offset those supplemental field test locations about 10 to 20 feet away from the previous boring locations. The coordinates at these supplement test locations, and at the CPT (and the corresponding topsoil boring) test locations, were collected using a GPS unit that referenced the World Geodetic System of 1984 (WGS84). The ground surface elevations at the staked test locations were collected using the GPS unit and referenced NAVD88.

For the test pits, we mobilized a subcontractor (with a backhoe and an operator) to the site. The backhoe used to excavate the test pits, and to compact the subgrade at some locations using a hoe-pac, was a John Deere 350G-LC. We also used the backhoe as a reaction to perform the subgrade modulus tests. For the pressuremeter testing, we mobilized a drill rig mounted to an all-terrain vehicle (ATV) to the site. For the CPT testing, we mobilized a CPT drill rig mounted to an all-terrain vehicle (ATV) to the site. For the topsoil borings, we mobilized a two-person crew with shovels and a 3-1/4-inch diameter hand auger bucket attached to a steel rod and handle assembly.

Two test pits were performed near previous boring locations B311, B313, B317, B319, B320, and B326. Each test pit extended approximately five to six feet below the ground surface and exposed an area of about seven feet by seven feet. Dynamic cone penetrometer (DCP) testing was performed at the base of the excavation. The exposed bottom of the test pit was then compacted with an NPK C-10C hoepac using a consistent “two-pass” pattern. Additional DCP tests were performed on the improved subgrade prior to the subcontractor backfilling the test pits with excavated spoils. The DCP consists of a 10-pound weight, falling 24 inches and driving a 1½-inch diameter conical-tipped metal rod. The rod is divided into 6-inch increments, and the number of blow counts required to advance the DCP 6 inches is recorded on the boring log and used to evaluate the relative density and consistency of granular and fill soils.

Pressuremeter (PM) testing was performed before (in-situ) and after (improved) the excavation of each test pit location, excluding the post-improvement tests at locations B311 and B313 due to restrictions on drill rig availability. The PM testing was performed on December 6, 2022 through December 8, 2022 and December 12, 2022. SPT N-values were obtained with a 2-inch split-spoon at each test depth prior to advancing the 3-inch split-spoon for borehole preparation.

Cone penetration test (CPT) soundings were also performed at each test pit location on the in-situ and improved conditions. Additional soundings were performed at locations B401 through B438, except B425. The CPT soundings were performed using an ATV mounted drill rig and the Vertek CPT system on December 12, 2022 through December 16, 2022. The soundings extending between 5.8 and 32.8 feet below the ground surface. However, it was necessary to terminate several soundings at relatively shallow depths due to excessive tip pressure caused by the likely presence of cobbles, boulders, and/or ledge rock. Updated approximate as-drilled boring locations are depicted on the Boring Location Diagrams (Figure Nos. 1 through 3) in Appendix A.

Surficial topsoil and measurements samples were collected using shovels and hand augers at locations B317 through B321, B324 through B328, B401, B403, B405, B406, B407, B415, B417, B419, B421, B423, B431, B433, B435, and B437. Two bulk samples of topsoil at locations B313 and B24 were obtained for additional laboratory analysis.

Soil samples recovered from the field exploration were delivered to the SME laboratory for further observation and testing.

Regarding the previous preliminary subsurface evaluation at this site, we previously completed 52 borings (B202, B204 through B217, and B301 through B337) between December 13, 2021 and January 19, 2022. Those borings extended between 16 and 91 feet below the existing ground surface. Refer to the previous preliminary report for more information.

2.2 LABORATORY TESTING

The laboratory testing program consisted of performing visual engineering classification on recovered soil samples in general accordance with ASTM D2488. Moisture content and hand penetrometer tests were performed on portions of the recovered cohesive samples. Atterberg limit tests were performed on near-surface cohesive soil samples from borings B206 and B312. Loss-by-wash and sieve gradation tests were performed on representative sand samples from borings B205, B211, B216, B306, B314, and B317. Similarly, loss-by-wash and sieve gradation analyzes were performed on topsoil samples from test pits B313 and B324, with the addition of proctor tests and loss-on-ignition testing. Loss-on-ignition (LOI) testing was also performed on topsoil samples from locations B317 through B321, B324 through B328, B401, B403, B405, B406, B407, B415, B417, B419, B421, B423, B431, B433, B435, and B437. The loss-on-ignition test results are summarized in Table A.3 in Appendix A.

The results of the Atterberg limit determinations, the gradation analyzes, and proctor analyzes are included in Appendix A. The Laboratory Testing Procedures in Appendix B provides descriptions of the laboratory tests. Based on the laboratory testing, we assigned a Unified Soil Classification System (USCS) group symbol to the respective soil strata encountered.

Upon completion of the laboratory testing, boring logs were prepared that include information on materials encountered, the soil descriptions, penetration resistances, pertinent field observations made during the drilling operations, and the results of the laboratory testing. The boring logs also include the existing ground surface elevations, rounded to the nearest foot, and latitude/longitude coordinates as measured by SME using hand-held GPS equipment. The boring logs are included in Appendix A. Explanations of symbols and terms used on the boring logs are provided on the Boring Log Terminology sheet included in Appendix A.

Soil samples retained over a long time, even sealed in jars, are subject to moisture loss and are no longer representative of the conditions initially encountered in the field. Therefore, soil samples are normally retained in our laboratory for 60 days and are then disposed of, unless instructed otherwise.

3. SUBSURFACE CONDITIONS

3.1 SOIL AND BEDROCK CONDITIONS

The soil conditions encountered at the boring locations generally consisted of surface topsoil overlying natural sands, with strata of natural clays encountered just below the surficial topsoil at some of the boring locations, extending to either the explored depths of the borings, or until bedrock in the form of weathered sandstone was encountered. The natural soils below the topsoil appeared to contain a significant number of cobbles and relatively small boulders, which were particularly notable in the test pits. For additional information, refer to the subsurface descriptions provided on the relevant attachments in the Appendices of this report.

During the previous field exploration at this site, we encountered about six inches to two feet of surficial topsoil at the boring locations. Additional topsoil samples were obtained during the December 2022 mobilization. We obtain topsoil samples from locations B317 through B321, B324 through B328, B401, B403, B405, B406, B407, B415, B417, B419, B421, B423, B431, B433, B435, and B437. Topsoil depths ranged from seven to 20 inches. Loss-on-ignition (LOI) testing was performed on the topsoil samples with resulting organic contents range from 2.3 to 5.9 percent. Refer to Table A.3 in Appendix A for information regarding organic content and measured topsoil depth at each location. Agricultural fields can sometimes have relatively deep deposits of darker-colored soils below the surface topsoil. These darker-colored soils, sometimes referred to as the “B” Horizon, do not necessarily contain enough organic matter to be considered as topsoil. However, due to past farming practices (i.e., tilling), the depth or soils containing organic matter can vary over relatively short distances.

The underlying natural granular soils varied in relative density, with minimum Standard Penetration Test (SPT) resistances (N-values) ranging from 3 to 18 blows per foot of penetration (bpf), and maximum N-values at each boring location ranging from 8 to 50 blows over 3-inches. N-values at the boring locations generally increased with depth. It should be noted that the relatively wide range in N-values appears to be partially due to disturbances experienced during sampling. Specifically, the cobbles/boulders in the subgrade can create a condition that increases the potential for subgrade disturbance during sampling.

The granular soils were described as sand, sand with silt, silty sand, and clayey sand (USCS symbols SP or SW, SP-SM or SW-SM, SM, and SC, respectively). The granular soils having higher percentages of fine soil particles (i.e., silty sand and clayey sand) were typically observed within about 5 to 6 feet of the existing ground surface. During the excavation of the test pits, we observed the presence of gravel, cobbles, and small boulders at many of the locations. Along the edges of the agricultural fields, we observed the presence of relatively large boulders (about 3 feet in height) at grade, which may indicate the presence of larger buried boulders. We obtained Dynamic Cone Penetrometer (DCP) resistances of 2 to greater than 50 blows per six-inch increment in the native sand at the base of test pits prior to improvement, indicating a very loose to very dense condition. We also obtained DCP resistances of 4 to greater than 81 blows per six-inch increment in the native sand at the base of test pits after improvement to improvement, indicating a very loose to very dense condition. Cone penetration testing (CPT) was also performed at soundings B401 through B438 as well as at each test pit location. Refer to Table in Appendix A for a summary the additional test data.

Natural clays were encountered at borings B204 to B207, B209, B213, B215, B305, B306, B312, B314, B320, B322, B323, B326, B328, B330, and B334 to B336 beginning just below the surficial topsoil, extending to depths ranging from about 1.5 to 4 feet below the existing ground surface. Undrained shear strength estimates in the clays ranged from 1.0 to greater than 4.5 kips per square-foot (ksf), and moisture contents ranged from about 14 to 27 percent. Results of Atterberg limit determinations indicated the clays are of moderate plasticity based on plasticity indices (PI) of 20 to 22, and liquid limits (LL) in the range of 41 to 45 percent.

Bedrock, in the form of completely to highly weathered sandstone, was encountered at borings B204 to B206, B208 to B217, B305, B308, B310 to B313, B316, B317, B323, B324, B326 to B333, and B335 to B337 beginning at depths ranging from 2 to 48 feet below the existing ground surface, or between elevations 904.5 feet and 872 feet. Bedrock was not encountered above the termination depth of the remaining boring locations. The sandstone was described as either completely or highly weathered, and generally becomes more competent with depth. The depths and transitions should be considered approximate as classifications were based on disturbed split-barrel samples and not cored samples. The top of bedrock elevations are depicted on the Summary of Bedrock and Groundwater Elevations at Boring Locations drawing (Figure No. 4) included in Appendix A.

Clay fill extending to a depth of about 3 feet, overlying sand fill extending to a depth of about 8 feet, was encountered at boring B304. Loss-on-ignition (LOI) tests performed on samples of the recovered fill showed organic contents ranging from 1.7 to 4.2 percent. Topsoil seams and brick and concrete fragments were observed within the fill. Boring B304 was performed near existing residential properties on the south side of M-96. Ruins and debris are noted on the plans (previously provided by Burns and McDonnell) in the vicinity of B304, and historical aerial imagery with image dates from 1999 indicates the presence of a relatively large building east of boring B304.

The soil and bedrock conditions described above and on the boring logs is a generalized description of the conditions encountered. The stratification depths described above and shown on the boring logs are intended to indicate a zone of transition from one soil type to another. They are not intended to show exact depths of change from one soil type to another. The soil and bedrock conditions descriptions are based on visual classification of the soils and bedrock encountered. Soil and bedrock conditions may vary between or away from the boring locations from those conditions noted on the logs. Refer to the boring logs for the soil and bedrock conditions at the specific boring locations.

3.2 GROUNDWATER CONDITIONS

Groundwater was observed during drilling at borings B202, B205, B207, B217, B301 to B316, B318 to B322, B325 to B330, B333, and B335 to B337 at depths ranging from 11 to 28 feet below the existing ground surface, or between about elevations 908 feet and 877 feet. Groundwater elevations observed during drilling are depicted on Figure No. 4. Groundwater was not observed at the remaining boring locations.

Hydrostatic groundwater levels, perched groundwater conditions, and the potential rate of groundwater seepage into excavations should be expected to fluctuate throughout the year, based on variations in precipitation, evaporation, run-off, bedrock depths, and other factors. The groundwater levels indicated by the borings represent conditions at the time the readings were taken. Groundwater levels at the time of construction and at times in the future may vary from those conditions recorded on the boring logs.

4. PRELIMINARY ANALYSIS AND RECOMMENDATIONS

The recommendations provided in the following sections of this report are preliminary and are not intended for final design. The information in this report may be used to prepare preliminary site development plans and to perform preliminary design for the planned building(s), pavements, utilities, and other site features. Once the site layout is developed, including the location of the building(s), pavements, and other site features, and the design structural loading information are finalized, supplemental geotechnical evaluation(s) should be performed. The supplemental geotechnical evaluation(s) should include additional geotechnical borings and field and laboratory tests, as needed, to prepare a report intended to provide design and construction recommendations for the intended use. The final geotechnical evaluation report should be prepared by a qualified geotechnical engineer to provide specific design recommendations related to foundations, earthwork, construction considerations, pavements, and other issues related to the development.

Based on the soil and groundwater conditions observed at the boring locations, and on our geotechnical experience in southern Michigan, this site does *not* pose a risk of significant geotechnical or geologic hazards, such as liquefaction, lateral spreading, earthquake faults, landslides, sinkholes, or expansive soils. Although these hazards can be present in other areas of the country, these specific hazards are generally not a significant risk in the project area.

4.1 SITE PREPARATION AND EARTHWORK

4.1.1 GENERAL SITE SUBGRADE PREPARATION

For typical site development projects, an initial first step for earthwork is to clear and strip the surface topsoil, surface vegetation, brush, trees, roots, and other unsuitable materials from proposed building and pavement areas, and areas to receive engineered fill. After clearing and stripping, and after cutting to design subgrade levels, we anticipate the exposed subgrade will consist primarily of natural sandy or clayey soils with varying amounts silt, and with occasional to frequent cobbles/boulders.

Regarding organic content, remove only soils containing an organic content greater than 4 percent. The onsite surface soils with relatively low organic content (less than 4 percent), but are otherwise discolored (e.g. dark brown, black), may be considered adequate for reuse as a general engineered fill.

We obtained topsoil samples and performed loss-on-ignition (LOI) testing on the sample to determine the organic content of the subgrade in the upper 12 to 24 inches of the existing ground surface. Refer to Table A.1 in Appendix A for a summary of the organic contents of the soil samples in this upper subgrade. Based on the LOI testing, only two of the 26 samples indicated organic content greater than 4 percent. Therefore, do not use color alone to determine the suitability of the subgrade for structural support, as some soils that may be labeled as 'topsoil' may also be adequate for reuse as a general structural fill or for reuse in non-structural areas onsite where fill is required (e.g. soil berms). Specifically, based on our observations and laboratory testing, most of the onsite 'topsoil' (with limited organic content) at this site is considered adequate for reuse onsite as general engineered fill material. If it is intended to reuse the onsite discolored, low-organic, soils as an engineered fill, we recommend performing additional coordination and planning with the project team to identify and agree upon the selected placement location(s).

Demolition of any existing residential or agricultural structures should include complete removal of all below-grade portions of the structures, including floor slabs, foundations, foundation walls, and septic systems and wells. Site preparation should include removing abandoned utilities from past developments and backfilling the resulting excavations with granular engineered fill to the design subgrade level. Fill soil may be encountered in the vicinity of existing or former structures, as was encountered at boring B304. Buried deposits of dead trees and garbage are also commonly encountered in older agricultural fields. Recommendations related to existing fill soils and proposed site developments should be addressed in supplemental geotechnical evaluations.

We generally anticipate the site will be graded by cutting site grades within higher areas and using the cut material to raise grades in lower areas of the project site. The presence of numerous cobbles and boulders at some of the test locations indicates that earth-moving and excavations at this site will be difficult. Specifically, the cobbles and boulders could be disruptive to the removal of the below-grade materials, the handling and transport of the onsite soils/materials, and the mass grading/site leveling operations. Relatively large construction equipment will be required to perform the earth-moving and excavations at this site. Also, some separation and special handling of cobbles/boulders will likely be required. We recommend assigning the excavations at this site as unclassified excavations.

In addition, where relatively large deposits of cobbles and boulders are encountered, it may be necessary to remove (undercut) these materials and/or cap these materials to limit potential concerns with non-uniform subgrade conditions. For example, placing a layer of granular soils over a zone of nested cobbles/boulders may result in the granular soils migrating into the voids between the cobbles/boulders over time, which could potentially result in localized settlement and/or cracks in the overlying structures due to hard spots in the subgrade. Areas of nested cobbles/boulders will need to be further evaluated in the field to make further judgments as to if additional subgrade improvement is necessary.

Prior to fill placement, subgrade preparation activities typically include proof-rolling the subgrade with heavy, rubber-tire equipment. The intent of a proof-roll observation is to provide a first-order approximation of how the subgrade will react to construction equipment and judge the effectiveness of compaction efforts, or to identify where subgrade improvement will be required.

As with most construction sites, the onsite soils, particularly the cohesive subgrade soils (identified by USCS group symbols "CL") and sands with an appreciable amount of fines (identified by USCS group symbols "SM", "SC", and "SC/SM"), are sensitive to disturbance when exposed to water and construction traffic. The silty and clayey soils are especially sensitive to moisture and would be difficult to place and compact if they are moved to other areas of the site, particularly during relatively colder/wetter periods of the year. In some cases, it may be necessary to aerate and dry overly wet soils to achieve suitable compaction. Similarly, prior to fill placement, it may be necessary to reduce the moisture content of the surficial soils. The success of moisture conditioning (aerating and drying) existing soils will be dependent on the weather conditions at the time of construction.

In general, the in-situ moisture content of the near-surface clays observed at the boring locations appears to be more near its plastic limit (PL) (as compared to its corresponding liquid limit) as identified in the Atterberg limit determinations. This correlation is typically indicative of cohesive soils being near the optimum moisture content, which provides an indication of workability during construction.

For this relatively large site development, and where moisture-sensitive soils are present, utilizing chemical stabilization (with lime and/or cement additives) can be an effective means for ground improvement in the overall site development. The quantity of additives, and the thickness of the stabilized subgrade, will depend on a number of factors and will need to be further evaluated with laboratory tests to develop site-specific mix design(s). Chemical stabilization, in addition to haul roads with imported crushed stone and possibly in conjunction with high-strength geotextiles, can also be an effective measure to reduce site-wide disturbance.

The upper site soils consisting of clays and clayey or silty sands are relatively poor-draining materials with low infiltration rates. We believe the long-term performance of site pavements and exterior slabs will be enhanced by providing suitable drainage layers below these features where silty or clayey soils are exposed at or near the final subgrade level. Drainage layers could consist of sand subbases below pavements and slabs, and subsurface drains to carry water trapped within the subbase away from these features. We anticipate suitable sand subbase material with higher infiltration rates may potentially be mined from borrow areas on the site where cleaner site soils (e.g., soils with USCS group symbols "SP", "SW", and possibly "SP-SM" or "SW-SM" on the boring logs) were encountered.

In general, the bedrock observed at the boring locations was encountered about 8 to 48 feet below the existing ground surface, with exception of boring B331 where bedrock was encountered at a depth of 2.5 feet. In areas where grading activities require earth cuts to those depths, completely to highly weathered sandstone may be exposed. Although described as completely weathered on the boring logs, larger slabs or 'floaters' are not uncommon to be encountered within the strata. Based on our experience in the area, the completely weathered sandstone and sometimes highly weathered sandstone can be excavated or 'ripped' using conventional earthwork equipment, possibly outfitted with 'ripper' teeth. No specific study regarding the rippability (or blasting) of the bedrock was included in our scope of services.

4.1.2 SUBGRADE MODULUS TEST RESULTS

We performed subgrade modulus tests at three locations. Each location consisted of an area of subgrade that had been excavated to about one foot below the existing ground surface. Test elevations were not recorded. The reaction mass available for our tests was the relatively large excavator that we had mobilized to the site.

We performed the plate load tests on December 12, 2022, and in general accordance with ASTM D1196, *Standard Test Method for Nonrepetitive Static Plate Load Tests of Soil and Flexible Pavement Components, for Use in Evaluation and Design of Airport and Highway Pavements*. This test method uses a reaction mass and calibrated hydraulic jack to place increasing pressures on the subgrade through thick stacked concentric steel bearing plates and measures the resulting deflection of the soil under the plates due to the imposed load. That data is then plotted, and the Modulus of Subgrade Reaction is obtained. The value “k” is reported in pounds per square inch per inch of deflection (denoted as “pci”).

The soil at the test areas appeared wet, and some locations exhibited standing water which may have saturated the soil at the test locations and affected the test results. The results of our tests are:

TABLE 1: PLATE LOAD TEST RESULTS (“k”)

TEST NUMBER	LOCATION	MODULUS OF SUBGRADE REACTION, “K” (IN POUNDS PER SQUARE INCH PER INCH), OR PCI
1	Test pad 1 – Near B320	k = 205
2	Test pad 2 – Near B326	k = 148
3	Test pad 3 – Near B317	k = 192

In addition, we attempted to perform additional subgrade modulus tests on portions of the subgrade that had been previously compacted by the excavator (the week prior, with the hoe-pac). However, those attempts appeared to result in disturbed results, possibly due to the presence of near surface ‘perched’ groundwater at the test locations.

4.1.3 ENGINEERED FILL CONSIDERATIONS

We anticipate material cut from higher grades will likely be used to raise grades in lower areas of the project site during site earthwork operations. Based on our observations at the boring locations, the soils encountered onsite consist of relatively “clean” natural sands (i.e., containing few fines such as silt and/or clay), sands containing relatively high amounts of silt and clay, and lean clays. We expect these soils will be encountered in excavations or cut areas performed near the borings. These soils are considered suitable for re-use as engineered fill.

Any fill placed within the construction area, including utility trench backfill, will need to be an approved material, non-expansive, chemically inactive, and free of frozen soil or other unsuitable materials. Engineered fill must meet these general requirements. In addition, if the proposed fill contains more than 4 percent organics or debris larger than 6 inches in nominal diameter, we recommend not using such soils for engineered fill. Also, if debris material is significantly variable in nature, suspect in origin, or greater than about 5 percent of the soil (by weight), we recommend not using such soils for engineered fill.

In addition, some of the on-site soils will likely contain a significant quantity of boulders and cobbles. Boulders and frequent cobbles should be separated from the onsite soils that are to be reused as structural fill. It may be necessary to screen some of the onsite soils prior to reuse.

Based on the conditions encountered in the borings, the natural sands classified as “SP” and “SW” will likely meet MDOT Class II gradational requirements. Granular soils with the USCS group symbol “SP” or “SW” could also be mined from borrow areas. On-site sands excavated from below the groundwater level will likely need to be stockpiled and allowed to drain before being reused as engineered fill. Where silty/clayey soils are reused for fill, it will likely be necessary to condition these soils, via aeration, if these soils are above the optimum moisture content.

If soils will be imported to the site for use as engineered fill to raise site grades, we generally recommend the imported material meet the requirements of MDOT Class II sand since this material should be relatively easy to compact with vibratory equipment, will facilitate drainage below floor slabs and pavements, and should be readily available from local commercial sources. Sands containing greater amounts of fines can potentially be imported to the site for use as engineered fill to raise site grades. However, sands containing greater amounts of fines may be more difficult to place and compact to a suitable dry density, depending on the weather conditions during earthwork operations. Also, sands containing greater amounts of fines and not meeting MDOT Class II requirements, are not typically recommended in areas where drainage is required. Clays could also be considered for import to the site for use as engineered fill. However, clays should not be used as fill where drainage is required or within 5 feet of final subgrade levels. We would recommend clays only be used in the lower portions of deeper fills.

Earthwork requirements for the project will be specific to the intended use. Any fill placed within structural areas, including utility trench backfill, should be an approved material, free of frozen soil, organic matter, over-sized materials, or other deleterious materials. For fills placed using sands observed at the boring locations, smooth drum vibratory roller or vibratory plate compactors are typically suitable to achieve minimum compactive efforts. Where native or imported clays are used to establish site grades in broader fill areas, a sheepsfoot roller or pneumatic-type compactors are typically required to achieve compaction requirements. Based on our observations at the boring and test pit locations, the near-surface silty/clayey soils will likely require some conditioning via aeration and drying prior to re-use as fill.

4.2 FOUNDATIONS

As previously stated, we anticipate earthwork consisting of fills and cuts will be required to establish final subgrade levels in proposed building areas. Primarily loose to medium dense sands were encountered at the boring locations beginning below the surficial topsoil and extending to depths of about 5 to 10 feet below the existing ground surface. Depending on the structural loads, the location of the proposed building(s), and the proposed grading plan, the existing soil conditions could affect the type of foundation system selected for support of new building(s).

Shallow spread and/or continuous footing type foundations are feasible for support of buildings with relatively light structural loads. Based on the conditions observed at the boring locations completed to date, net allowable soil bearing pressures in the range of 2,000 to 3,000 pounds per square-foot (psf) are anticipated to be feasible for shallow footing design on an unimproved subgrade.

It is also practical to achieve a significantly higher design soil bearing pressure at this site with some form of ground improvement at the proposed footing locations. Specifically, our field and laboratory testing indicates that design net allowable soil bearing pressures in the range of 6,000 to 8,000 psf are feasible for the design of shallow foundations on an improved subgrade. The type of ground improvement to achieve these soil bearing pressures could vary from deep compaction to undercutting and replacement with select (and thoroughly compacted) granular materials. For example, we were able to significantly improve (compact) some of the in-situ granular subgrade using a hoe-pac attached to a relatively large excavator. Refer to Table A.1 and Table A.2 in Appendix A for summaries of our field test results. Overall, the type(s) of ground improvement program(s) will need to be further developed with the project team, to limit foundation settlements within a tolerable level, as part of a performance-based specification.

For structures with relatively heavy loads where shallow foundation design is not practical, we recommend supporting those structures on deep foundations bearing on the relatively shallow bedrock. A variety of deep foundations may be considered for use on this project. Auger-cast-in-place (ACIP) piles bearing in/on the weathered sandstone are typically utilized for the subsurface conditions encountered at this site. Based on our experience in the area and the conditions observed at the boring locations, working capacities of 300 to 600 kips per ACIP pile are feasible for piles with diameters in the range of 18 to 24 inches. Concrete filled drilled-piers could also be considered, but this approach would likely be limited in its effectiveness due to the presence of granular soils, cobbles, boulders, and groundwater above the bedrock. Driven piles (with drivable tips) can also be practical in this soil profile and may also be considered. The most suitable type of deep foundation would depend on multiple factors, including the final building location(s), the final building FFE, the design foundation bearing levels, and the associated vertical and horizontal structural loads. Once more information on the building structural loads is available, the final site plans are developed, and additional borings have been performed, more specific recommendations related to the cost-effectiveness of ground improvement or deep foundation alternatives can be evaluated.

We estimate total footing settlements of about 1-inch, or less, when using the above recommendations for preliminary foundation design, using the design bearing pressures presented above for relatively light to moderate structural loads. Specific recommendations regarding the final design net allowable soil bearing pressure at this site will depend on the building location(s), foundation bearing levels, and the associated structural loads. As design progresses and site and grading plans are developed, additional test borings will be required to provide specific recommendations for design and construction.

4.3 DRAINAGE CONSIDERATIONS

On-site stormwater management in the form of infiltration basins are anticipated as part of the site development. The natural sands identified by USCS group symbols “SP” or “SW” should provide favorable infiltration rates for design, assuming the groundwater table is well below the design bottom of the infiltration basins. However, it should be noted that portions of the natural sands at this site contained horizontal layers and seams of clay, silt, and clayey and silty sand, which will reduce infiltration. In-situ infiltration testing should be performed during future supplemental geotechnical evaluations to determine specific recommendations at the appropriate test depth(s) and location(s) based on the site design.

As previously indicated, some preliminary infiltration testing is planned as part of our field exploration services for this project, and will be conducted in the near future. The infiltration test results will be submitted under separate cover.

4.4 OTHER DESIGN AND CONSTRUCTION CONSIDERATIONS

Groundwater was encountered at the boring locations at elevations ranging from about 908 feet to 877, and at no depth shallower than 11 feet below the existing ground surface. In addition, it is possible that some ‘perched’ groundwater could be encountered above these levels. For perched groundwater conditions (where encountered), we anticipate the perched groundwater can be controlled using typical construction sump pit and pumping procedures. For deeper excavations that extend into the wet sand, more aggressive temporary dewatering techniques, such as well points or pumps in slotted casings will likely be required to control seepage. In addition, where groundwater accumulates in excavations, a working surface of crushed aggregate or crushed concrete may be required to protect the exposed subgrade and to facilitate dewatering with sump pits.

Additional subgrade improvement may be necessary if construction is performed during seasonally wet and/or cold times of the year when it is more difficult to perform earthwork. The potential effects of soil moisture conditions during the anticipated construction season should be considered when developing the project earthwork schedule and budget. To protect areas of exposed subgrade from disturbance, placement of a layer of crushed aggregate or crushed concrete, possibly with a geotextile for separation, could be required. Establishing positive surface drainage at the onset of construction is critical to protecting prepared subgrades.

The subgrade soils at this site may be easily disturbed and are susceptible to rutting when trafficked with heavy, rubber-tire construction equipment, especially in areas of clays and silty and clayey sands areas. Haul roads and material staging areas may require subgrade stabilization, as discussed above, to mitigate the potential for subgrade disturbance and to provide dependable access routes for construction equipment. If prepared subgrade areas become disturbed, the disturbed areas will need to be re-compacted or the disturbed soils removed and replaced with engineered fill. Preliminary budget estimates for development should include a contingency for as-needed subgrade improvement.

As indicated in Section 1.1, the site is mostly existing agricultural fields. Therefore, there may be farm drainage tiles across the site. Farm drain tile systems can contain significant amounts of collected water. If these tile systems are present and encountered in excavations, significant amounts of water can be discharged. If portions of these drain tiles are interrupted, significant back-ups of stormwater can occur that can have an adverse effect on site drainage and on the construction process. It may be necessary to entirely remove any drain tile in conjunction with establishing an overall site drainage program. We recommend the project team verify whether existing farm drainage tiles are present at the site. If present, the location and elevations of the existing drain tile systems should be further evaluated, and measures to decommission and abandon the tile system should be incorporated into site development plans. In addition, we anticipate wells used to supply water to the existing irrigation systems described in Section 1.1, and possible septic fields located adjacent to existing residential structures, will need to be properly abandoned during site development in accordance with applicable Michigan Department of Environment, Great Lakes, and Energy (EGLE) requirements.

Handling, transportation, and disposal of excavated materials and groundwater should be performed in accordance with applicable regulations.

5. SIGNATURES

Prepared By:

Reviewed By:

Kyle P. Areaux, PE
Senior Staff Engineer

Joel Rinkel, PE
Principal Consultant

APPENDIX A

BORING LOCATION DIAGRAMS (FIGURE NOS. 1 THROUGH 3)

SUMMARY OF BEDROCK AND GROUNDWATER ELEVATIONS AT BORING LOCATIONS (FIGURE NO. 4)

BORING LOG TERMINOLOGY

BORINGS LOGS (B202, B204 THROUGH B217, AND B301 THROUGH B337)

TABLE A.1: CPT, SPT, AND PRESSUREMETER TEST RESULT SUMMARY

TABLE A.2: DYNAMIC CONE PENETROMETER AND NUCLEAR DENSITY TEST SUMMARY

CPT SOUNDING PLOTS (B311, B313, B317, B319, B320, B326, B401 THROUGH B424, B426 THROUGH B438)

PRESSUREMETER TEST RESULTS (B311, B313, B317, B319, B320, B326)

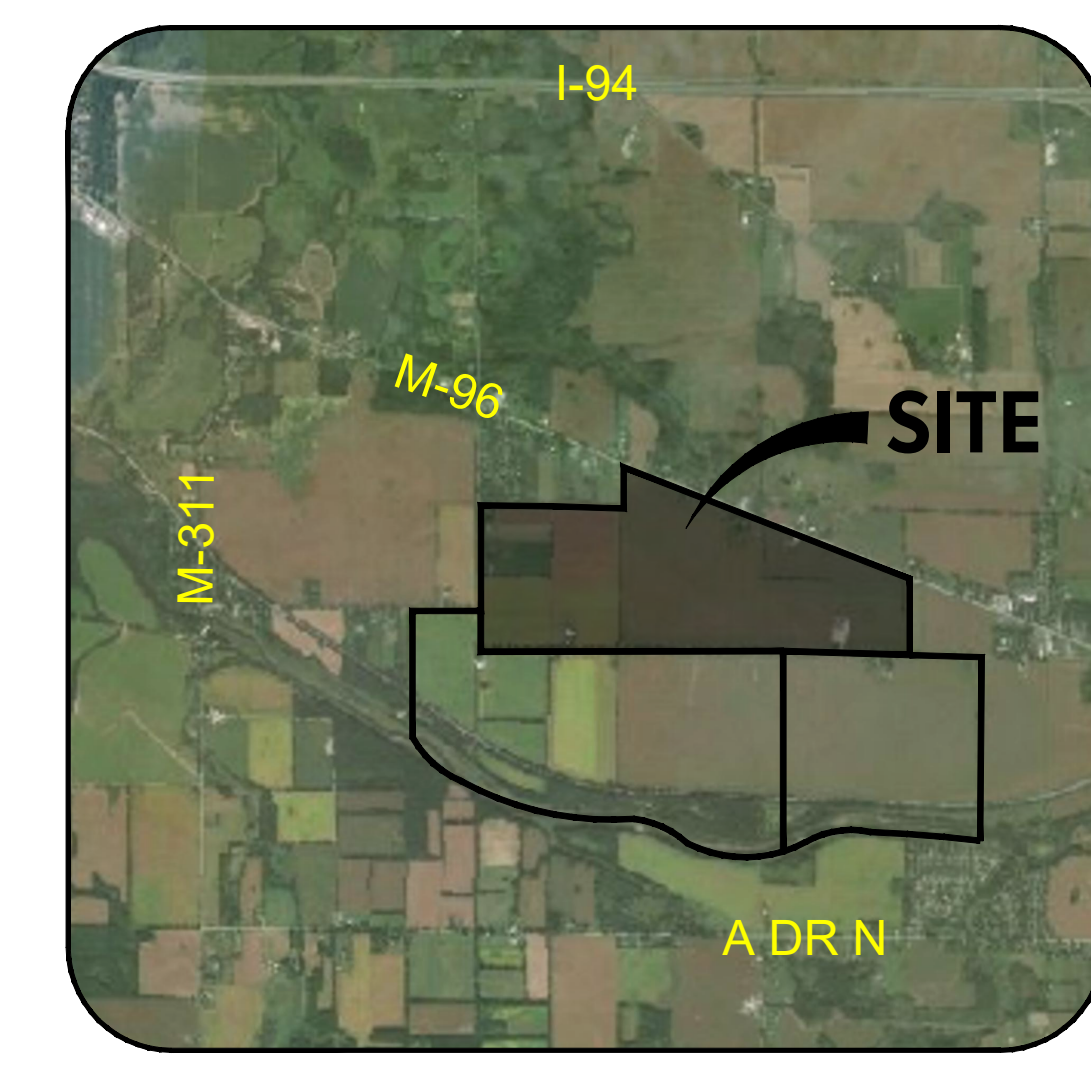
TEST PIT PHOTOLOG (2 PAGES)

TABLE A.3: TOPSOIL ORGANIC CONTENT SUMMARY

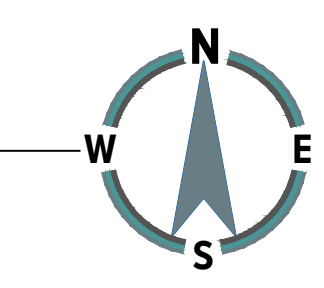
LIQUID LIMIT, PLASTIC LIMIT, & PLASTICITY INDEX REPORTS (2 REPORTS)

PARTICLE SIZE DISTRIBUTION REPORTS (6 REPORTS)

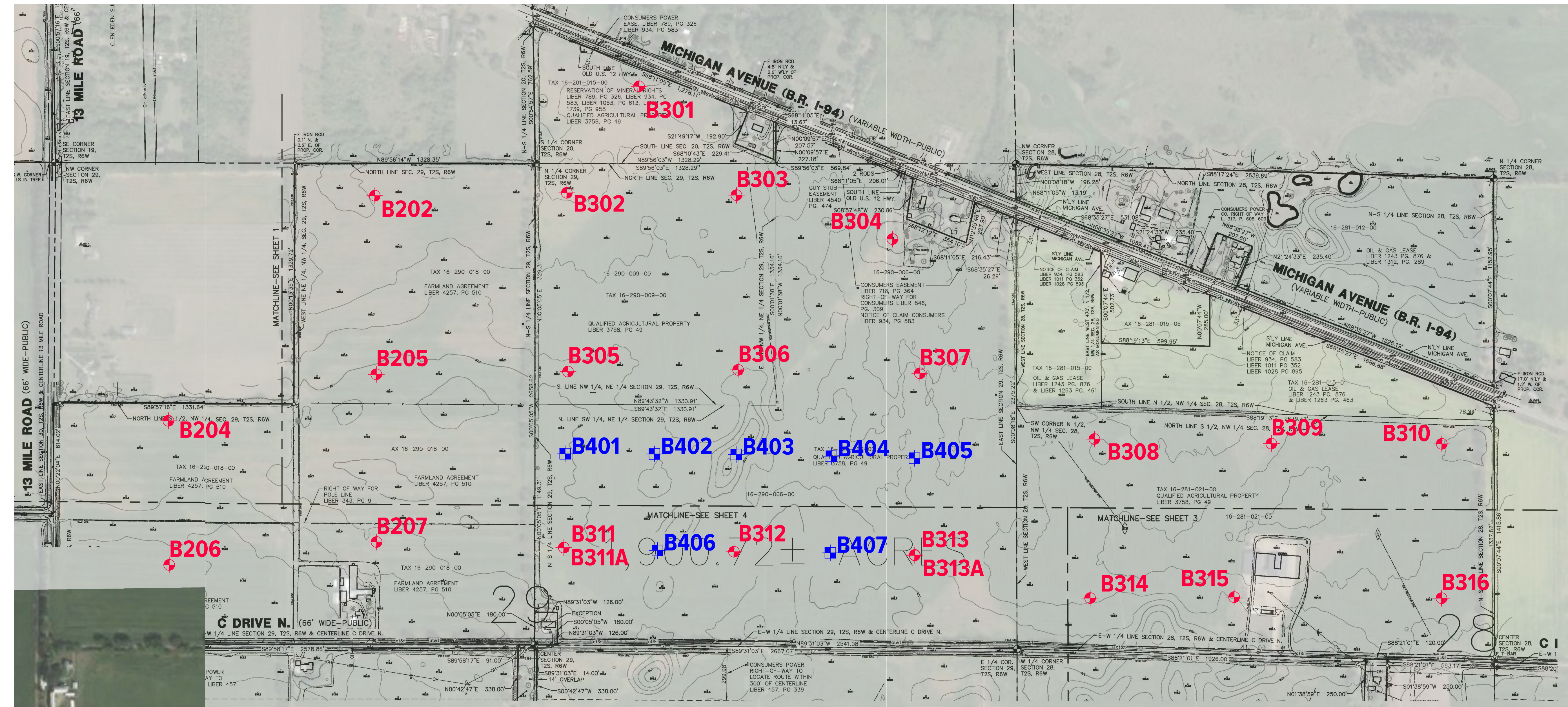
PROCTOR ANALYSIS REPORTS (2 REPORTS)



LOCATION MAP
NOT TO SCALE

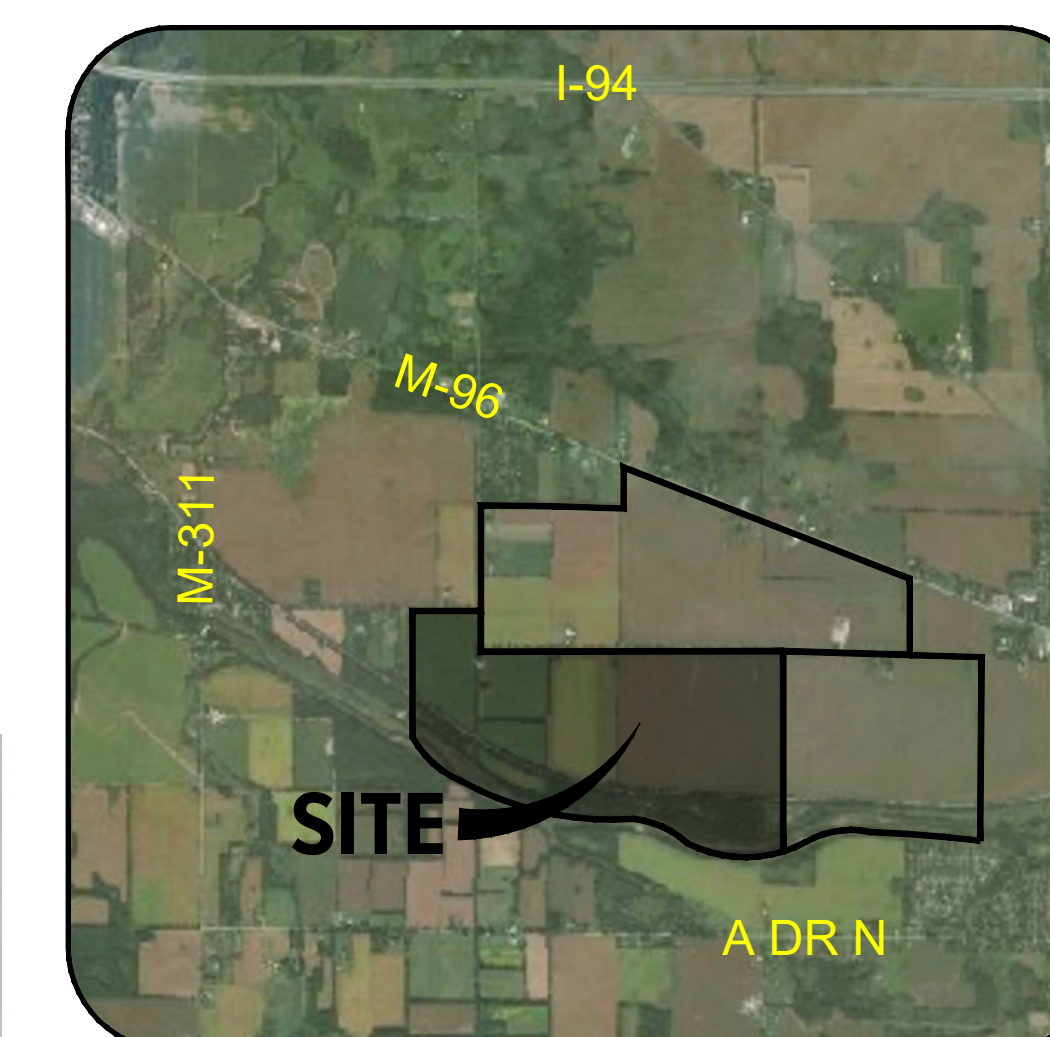


- LEGEND**
- APPROXIMATE BORING LOCATION
 - APPROXIMATE CPT SOUNDING LOCATION

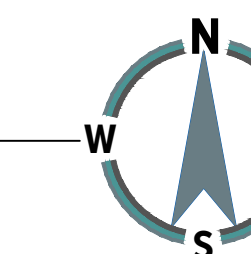


NOTES:
1. BASE DRAWING INFORMATION TAKEN FROM A PDF FILE OF A DRAWING TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEET 1 AND 2 OF 7, DATED NOVEMBER 4, 2021, AND PREPARED BY MIDWESTERN CONSULTING FOR THE "MEGA SITE" PROJECT.
2. UNDERLYING AERIAL WITH AN IMAGE DATE OF 09/10/2017 TAKEN FROM GOOGLE EARTH PRO.

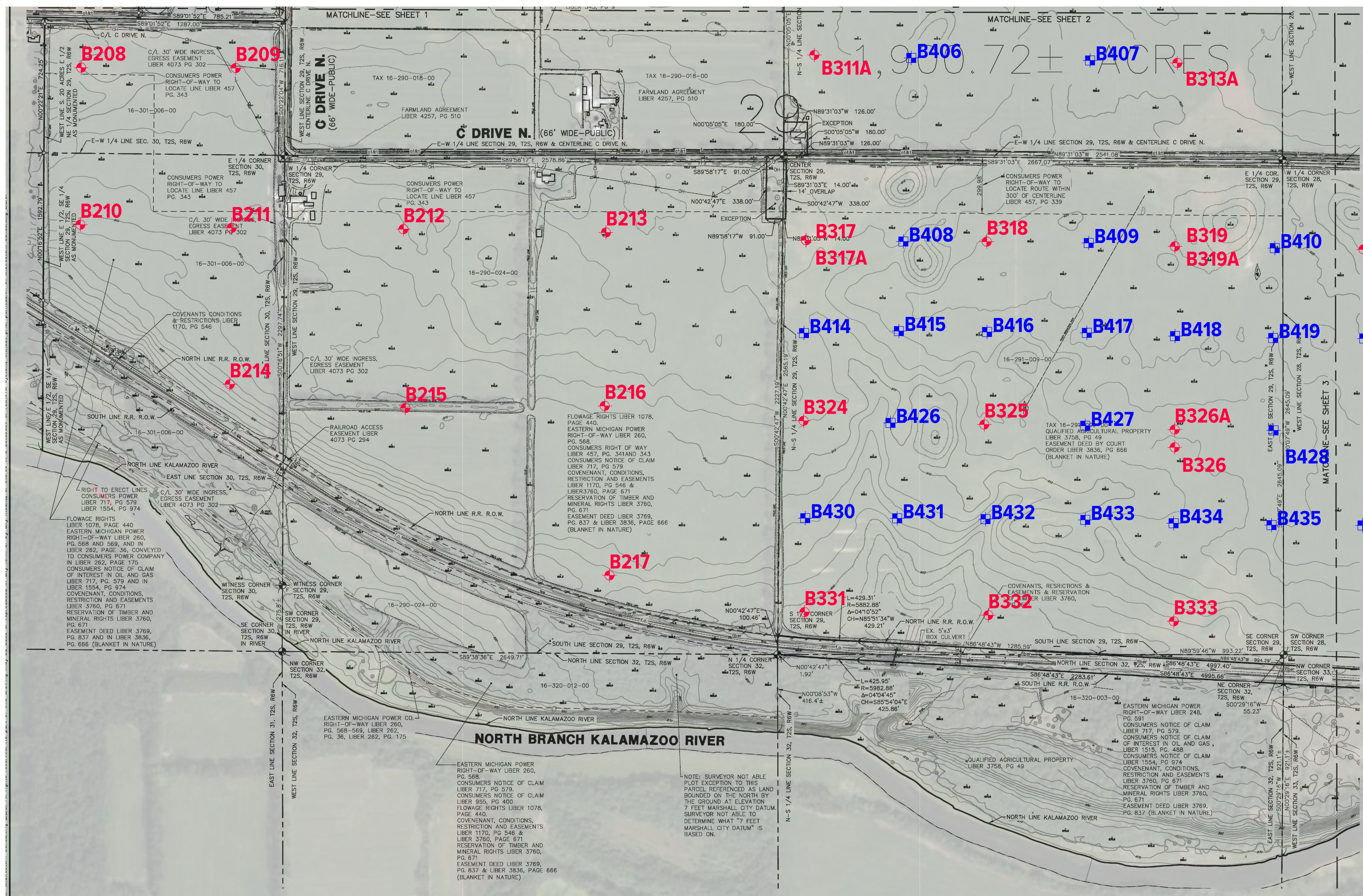
FILE LOCATION: \\sme-usa.com\proj\088106\088106.dwg



LOCATION MAP
NOT TO SCALE



LEGEND
 APPROXIMATE BORING LOCATION
 APPROXIMATE CPT SOUNDING LOCATION



Date **12-22-2022**

SME Project No. **088106.00**

Project Manager: **AJR**

Designer: **AJR**

CADD: **CRC/TPM**

Checked By: **AJR**

Figure No. **2**

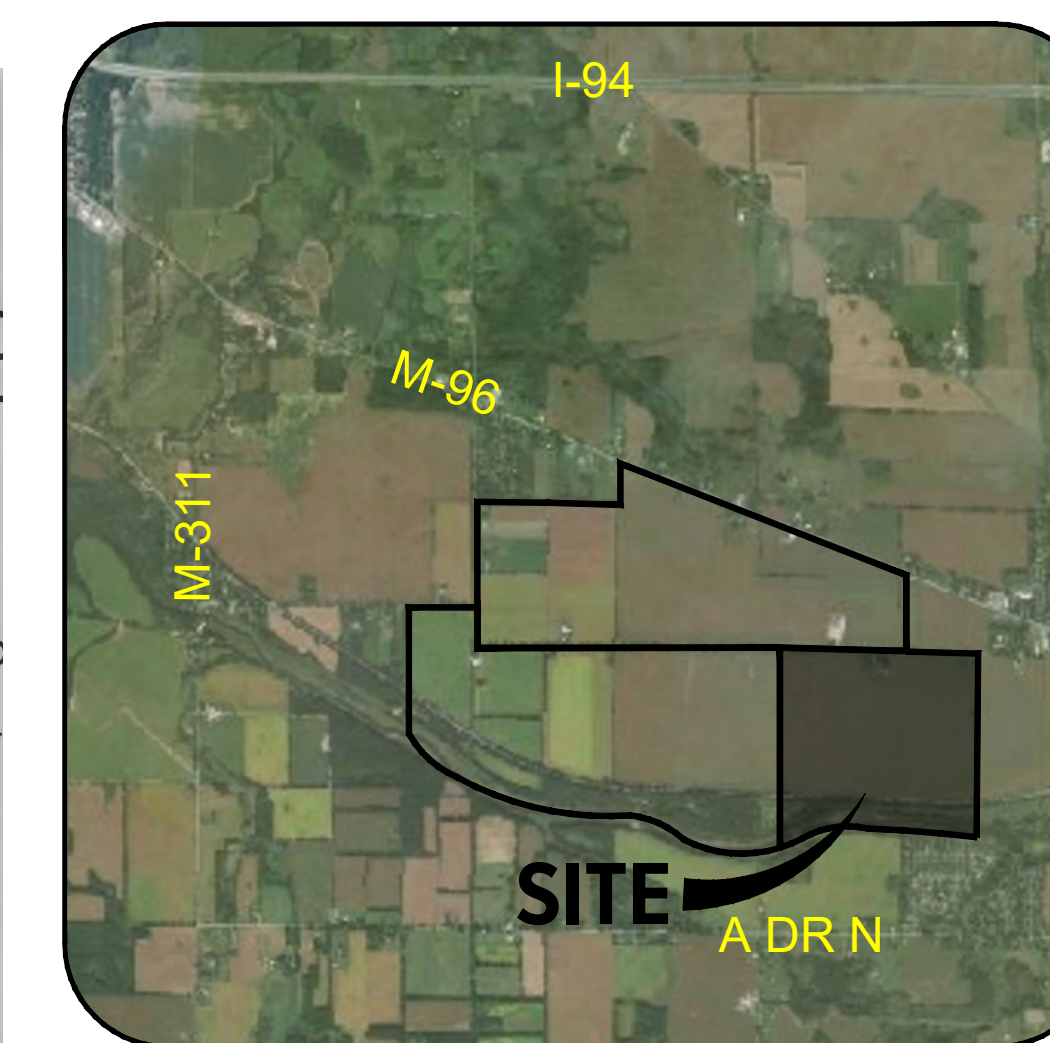
- NOTES:
- BASE DRAWING INFORMATION TAKEN FROM A PDF FILE OF A DRAWING TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEET 4 OF 7, DATED NOVEMBER 4, 2021, AND PREPARED BY MIDWESTERN CONSULTING FOR THE "MEGA SITE" PROJECT.
 - UNDERLYING AERIAL WITH AN IMAGE DATE OF 09/10/2017 TAKEN FROM GOOGLE EARTH PRO.



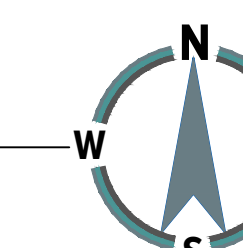
Project
MARSHALL MICHIGAN MEGASITE

Project Location
MARSHALL TOWNSHIP, CALHOUN COUNTY, MICHIGAN

Sheet Name
BORING LOCATION DIAGRAM

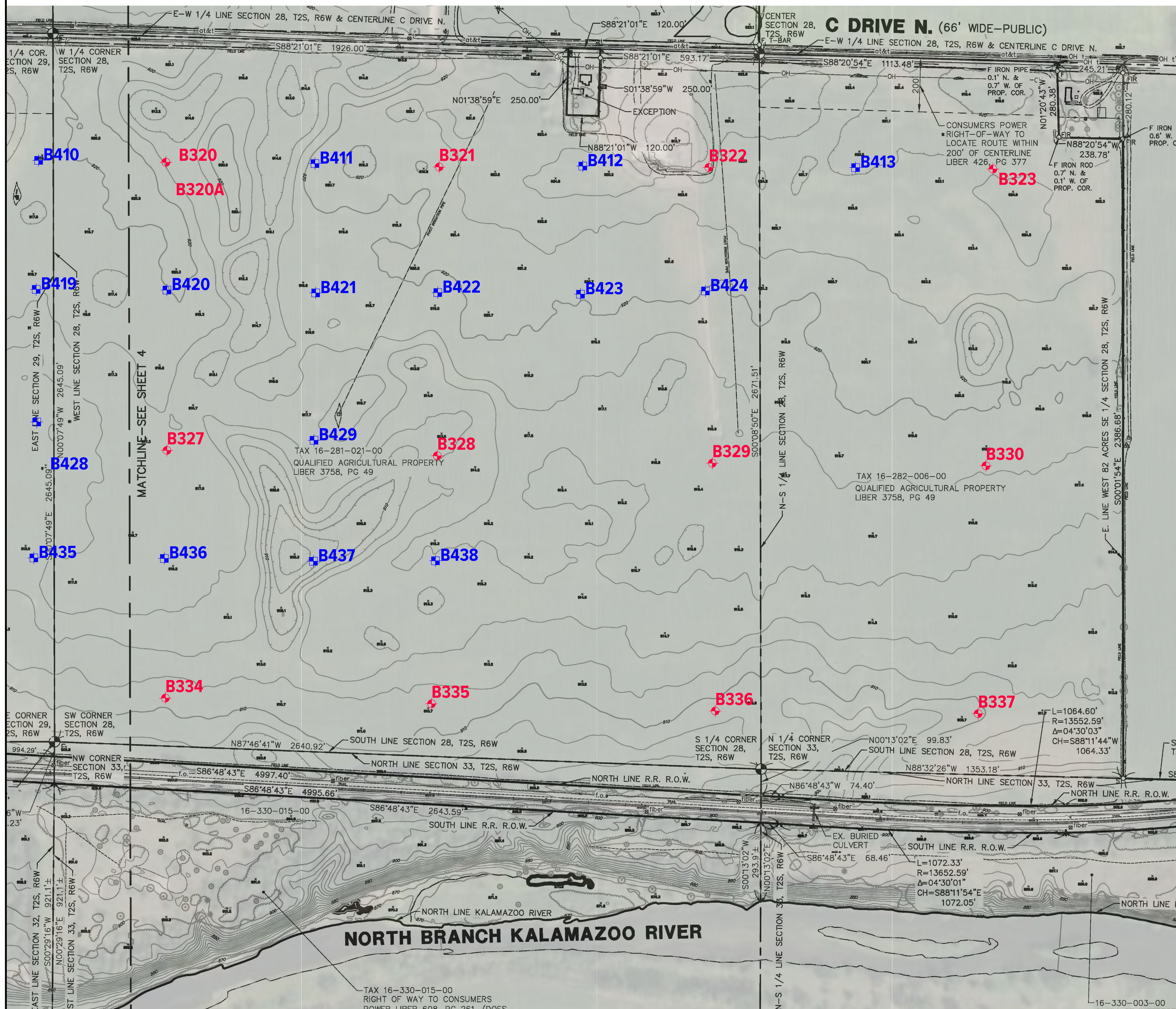


LOCATION MAP
NOT TO SCALE



LEGEND

- APPROXIMATE BORING LOCATION
- APPROXIMATE CPT SOUNDING LOCATION



- NOTES:
1. BASE DRAWING INFORMATION TAKEN FROM A PDF FILE OF A DRAWING TITLED "BOUNDARY & TOPOGRAPHIC SURVEY", SHEET 3 OF 7, DATED NOVEMBER 4, 2021, AND PREPARED BY MIDWESTERN CONSULTING FOR THE "MEGA SITE" PROJECT.
 2. UNDERLYING AERIAL WITH AN IMAGE DATE OF 09/10/2017 TAKEN FROM GOOGLE EARTH PRO.

Date
12-22-2022

SME Project No.
088106.00

Project Manager:
AJR

Designer:
AJR

CADD:
CRC/TPM

Checked By:
AJR

Figure No.
3

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART		
COARSE-GRAINED SOIL (more than 50% of material is larger than No. 200 sieve size.)		
Clean Gravel (Less than 5% fines)		
GRAVEL More than 50% of coarse fraction larger than No. 4 sieve size		Well-graded gravel; gravel-sand mixtures, little or no fines
		Poorly-graded gravel; gravel-sand mixtures, little or no fines
	Gravel with fines (More than 12% fines)	
		Silty gravel; gravel-sand-silt mixtures
		Clayey gravel; gravel-sand-clay mixtures
Clean Sand (Less than 5% fines)		
SAND 50% or more of coarse fraction smaller than No. 4 sieve size		Well-graded sand; sand-gravel mixtures, little or no fines
		Poorly graded sand; sand-gravel mixtures, little or no fines
	Sand with fines (More than 12% fines)	
		Silty sand; sand-silt-gravel mixtures
		Clayey sand; sand-clay-gravel mixtures
FINE-GRAINED SOIL (50% or more of material is smaller than No. 200 sieve size)		
SILT AND CLAY Liquid limit less than 50%		Inorganic silt; sandy silt or gravelly silt with slight plasticity
		Inorganic clay of low plasticity; lean clay, sandy clay, gravelly clay
		Organic silt and organic clay of low plasticity
SILT AND CLAY Liquid limit 50% or greater		Inorganic silt of high plasticity, elastic silt
		Inorganic clay of high plasticity, fat clay
		Organic silt and organic clay of high plasticity
HIGHLY ORGANIC SOIL		Peat and other highly organic soil

OTHER MATERIAL SYMBOLS		

LABORATORY CLASSIFICATION CRITERIA	
GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}^2}{D_{10} \times D_{60}}$ between 1 and 3
GP	Not meeting all gradation requirements for GW
GM	Atterberg limits below "A" line or PI less than 4
GC	Atterberg limits above "A" line with PI greater than 7
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 6; $C_c = \frac{D_{30}^2}{D_{10} \times D_{60}}$ between 1 and 3
SP	Not meeting all gradation requirements for SW
SM	Atterberg limits below "A" line or PI less than 4
SC	Atterberg limits above "A" line with PI greater than 7

Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:

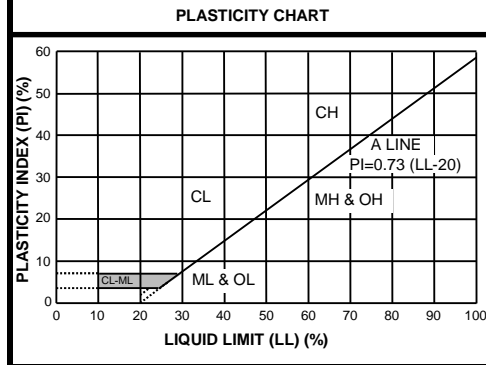
Less than 5 percent.....GW, GP, SW, SP
 More than 12 percent.....GM, GC, SM, SC
 5 to 12 percent.....Cases requiring dual symbols

- SP-SM or SW-SM (SAND with Silt or SAND with Silt and Gravel)
- SP-SC or SW-SC (SAND with Clay or SAND with Clay and Gravel)
- GP-GM or GW-GM (GRAVEL with Silt or GRAVEL with Silt and Sand)
- GP-GC or GW-GC (GRAVEL with Clay or GRAVEL with Clay and Sand)

If the fines are CL-ML:

- SC-SM (SILTY CLAYEY SAND or SILTY CLAYEY SAND with Gravel)
- SM-SC (CLAYEY SILTY SAND or CLAYEY SILTY SAND with Gravel)
- GC-GM (SILTY CLAYEY GRAVEL or SILTY CLAYEY GRAVEL with Sand)

PARTICLE SIZES	
Boulders	- Greater than 12 inches
Cobbles	- 3 inches to 12 inches
Gravel- Coarse	- 3/4 inches to 3 inches
Gravel- Fine	- No. 4 to 3/4 inches
Sand- Coarse	- No. 10 to No. 4
Sand- Medium	- No. 40 to No. 10
Sand- Fine	- No. 200 to No. 40
Silt and Clay	- Less than (0.074 mm)



VISUAL MANUAL PROCEDURE
When laboratory tests are not performed to confirm the classification of soils exhibiting borderline classifications, the two possible classifications would be separated with a slash, as follows:
For soils where it is difficult to distinguish if it is a coarse or fine-grained soil:
<ul style="list-style-type: none"> • SC/CL (CLAYEY SAND to Sandy LEAN CLAY) • SM/ML (SILTY SAND to SANDY SILT) • GC/CL (CLAYEY GRAVEL to Gravelly LEAN CLAY) • GM/ML (SILTY GRAVEL to Gravelly SILT)
For soils where it is difficult to distinguish if it is sand or gravel, poorly or well-graded sand or gravel; silt or clay; or plastic or non-plastic silt or clay:
<ul style="list-style-type: none"> • SP/GP or SW/GW (SAND with Gravel to GRAVEL with Sand) • SC/GC (CLAYEY SAND with Gravel to CLAYEY GRAVEL with Sand) • SM/GM (SILTY SAND with Gravel to SILTY GRAVEL with Sand) • SW/SP (SAND or SAND with Gravel) • GP/GW (GRAVEL or GRAVEL with Sand) • SC/SM (CLAYEY to SILTY SAND) • GM/GC (SILTY to CLAYEY GRAVEL) • CL/ML (SILTY CLAY) • ML/CL (CLAYEY SILT) • CH/MH (FAT CLAY to ELASTIC SILT) • CL/CH (LEAN to FAT CLAY) • MH/ML (ELASTIC SILT to SILT)

DRILLING AND SAMPLING ABBREVIATIONS	
2ST	- Shelby Tube - 2" O.D.
3ST	- Shelby Tube - 3" O.D.
AS	- Auger Sample
GS	- Grab Sample
LS	- Liner Sample
NR	- No Recovery
PM	- Pressuremeter
RC	- Rock Core diamond bit. NX size, except where noted
SB	- Split Barrel Sample 1-3/8" I.D., 2" O.D., except where noted
VS	- Vane Shear
WS	- Wash Sample

OTHER ABBREVIATIONS	
WOH	- Weight of Hammer
WOR	- Weight of Rods
SP	- Soil Probe
PID	- Photo Ionization Device
FID	- Flame Ionization Device

DEPOSITIONAL FEATURES	
Parting	- as much as 1/16 inch thick
Seam	- 1/16 inch to 1/2 inch thick
Layer	- 1/2 inch to 12 inches thick
Stratum	- greater than 12 inches thick
Pocket	- deposit of limited lateral extent
Lens	- lenticular deposit
Hardpan/Till	- an unstratified, consolidated or cemented mixture of clay, silt, sand and/or gravel, the size/shape of the constituents vary widely
Lacustrine	- soil deposited by lake water
Mottled	- soil irregularly marked with spots of different colors that vary in number and size
Varved	- alternating partings or seams of silt and/or clay
Occasional	- one or less per foot of thickness
Frequent	- more than one per foot of thickness
Interbedded	- strata of soil or beds of rock lying between or alternating with other strata of a different nature

DESCRIPTION OF RELATIVE QUANTITIES	
The visual-manual procedure uses the following terms to describe the relative quantities of notable foreign materials, gravel, sand or fines:	
Trace	- particles are present but estimated to be less than 5%
Few	- 5 to 10%
Little	- 15 to 25%
Some	- 30 to 45%
Mostly	- 50 to 100%

CLASSIFICATION TERMINOLOGY AND CORRELATIONS			
Cohesionless Soils		Cohesive Soils	
Relative Density	N₆₀ (N-Value) (Blows per foot)	Consistency	N₆₀ (N-Value) (Blows per foot)
Very Loose	0 to 4	Very Soft	<2
Loose	5 to 10	Soft	2 - 4
Medium Dense	11 to 30	Medium	5 - 8
Dense	31 to 50	Stiff	9 - 15
Very Dense	51 to 80	Very Stiff	16 - 30
Extremely Dense	Over 81	Hard	> 30
		Undrained Shear Strength (kips/ft²)	
		< 0.25	< 0.25 or less
		> 0.25	> 0.25 to 0.50
		> 0.50	> 0.50 to 1.0
		> 1.0	> 1.0 to 2.0
		> 2.0	> 2.0 to 4.0
		> 4.0	> 4.0 or greater

Standard Penetration 'N-Value' = Blows per foot of a 140-pound hammer falling 30 inches on a 2-inch O.D. split barrel sampler, except where noted. N₆₀ values as reported on boring logs represent raw N-values corrected for hammer efficiency only.

2/1/22 9:21:57 AM



BORING B202

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 1/18/22

COMPLETED: 1/18/22

BORING METHOD: Hollow-stem Augers

DRILLER: RM

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27554 LONGITUDE: -85.03571 ELEVATION: 926± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■	MOISTURE & ATTERBERG LIMITS (%) PL MC LL	<ul style="list-style-type: none"> ▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) ◇ SHEAR STRENGTH (KSF) 	REMARKS
									90 100 110 120			
	0			10 inches of TOPSOIL								
925	0.8			Fine to Medium SAND with Silt-Occasional Sandy Clay Layers-Dark Brown- Moist- Very Loose (SP-SM)	SB1	18	1	4				
	3.0			Fine to Medium SILTY SAND with Gravel- Dark Brown- Moist- Loose (SM)	SB2	18	2 2 3	7				
920	6.0			Fine to Coarse SAND with Silt and Gravel- Grayish Brown- Moist- Loose (SP-SM)	SB3	18	3 3 4	10				
	7.5			Fine to Medium SILTY SAND- Dark Brown- Moist- Loose (SM)	SB4	18	2 2 2	6				
915	11.5			Fine to Medium SAND with Silt- Grayish Brown- Moist- Medium Dense to Dense (SP-SM)	SB5	18	4 6 8	19				
910				Fine to Medium SAND with Silt- Grayish Brown- Moist- Medium Dense to Dense (SP-SM)	SB6	18	11 12 13	35				
905	23.5			Fine to Medium SILTY SAND with Gravel- Frequent Sandstone Fragments- Grayish Brown- Moist to Wet- Very Dense to Medium Dense (SM)	SB7	18	13 17 23	55				
900				Fine to Medium SILTY SAND with Gravel- Frequent Sandstone Fragments- Grayish Brown- Moist to Wet- Very Dense to Medium Dense (SM)	SB8	18	6 8 11	26				
	30.0			END OF BORING AT 30.0 FEET.								
895												

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	28.0	898.0
▽ AT END OF BORING:	28.0	898.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:21:58 AM



BORING B204

PAGE 1 OF 1

BORING DEPTH: 25 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 1/18/22

COMPLETED: 1/18/22

BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27210 LONGITUDE: -85.03991 ELEVATION: 918± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			REMARKS
									90	100	110	120	PL	MC	
	0.7	8 inches of TOPSOIL													
	2.0	Sandy LEAN CLAY- Dark Brown (CL)			SB1	18	2 2 3	7				21			The clay portion of Sample SB1 was too disturbed to perform a shear strength test.
915	3.5	Fine to Medium SILTY SAND- Frequent Sandy Clay Seams- Dark Brown- Moist- Loose (SM)			SB2	18	2 2 2	6							
	6.0	Fine to Medium SAND with Silt- Dark Brown- Moist- Loose (SP-SM)			SB3	18	2 2 2	6							
910	8.5	Fine to Medium SILTY SAND- Dark Brown- Moist- Loose (SM)			SB4	18	2 2 3	7							
	16.0	Fine to Coarse SAND with Gravel- Grayish Brown- Moist- Loose to Medium Dense (SP)			SB5	18	6 7 12	26							
900	19.5	Completely Weathered SANDSTONE- Greenish Brown to Brownish Gray (WC)			SB6	0	33 50/1"	69+							Driller submitted a sample of auger cuttings for classification purposes.
895	25.0	Highly Weathered SANDSTONE- Brown (WH)			SB7	1	50/1"	69+							
	25.0	END OF BORING AT 25.0 FEET.													Boring terminated due to auger refusal.

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:21:59 AM



BORING B205

PAGE 1 OF 2

BORING DEPTH: 50 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 1/18/22

COMPLETED: 1/18/22

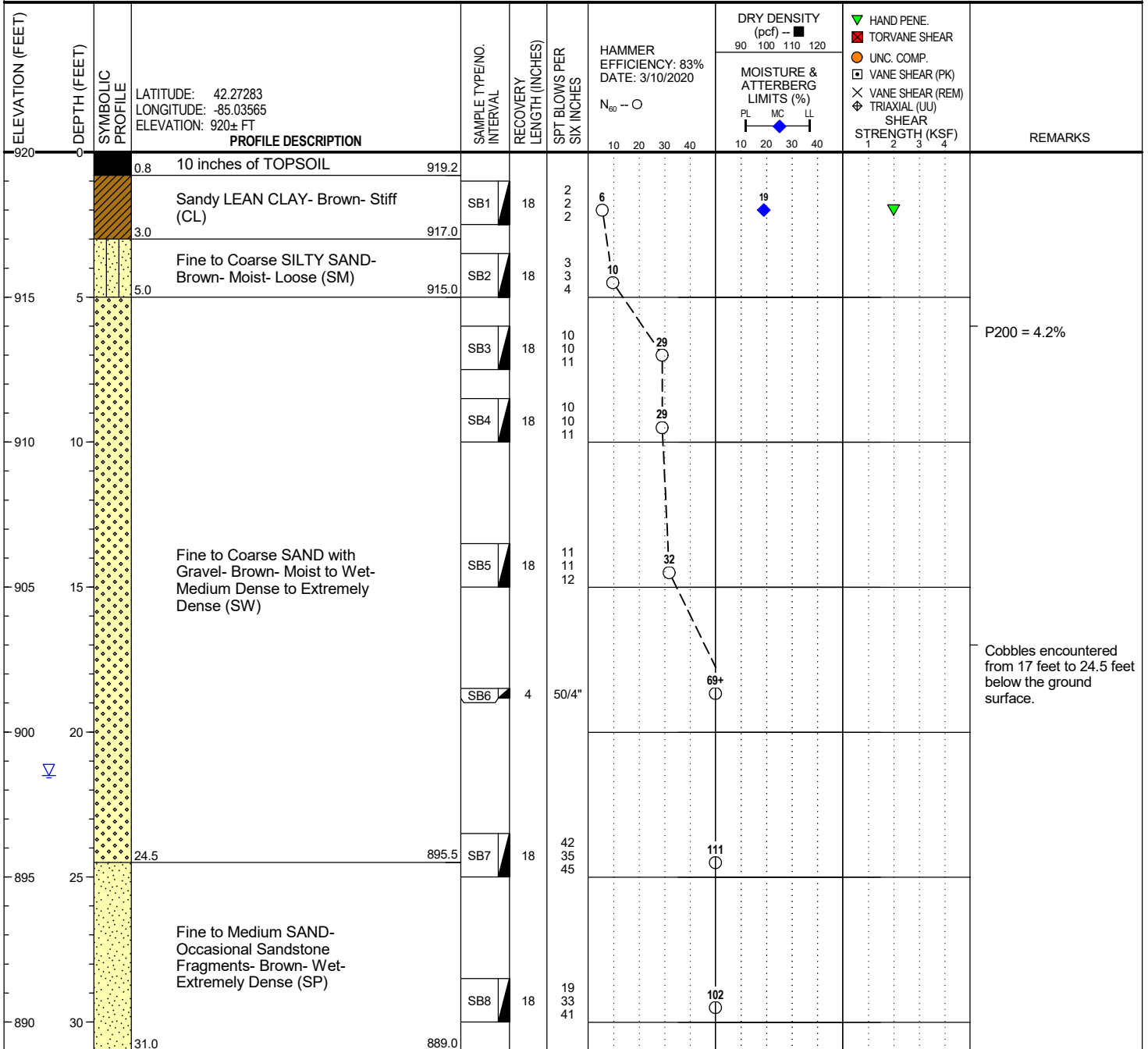
BORING METHOD: Note 3

DRILLER: RM

RIG NO.: 531-CME55-ATV

LOGGED BY: AJR

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.5	898.5
▽ AT END OF BORING:	Note 3	
BACKFILL METHOD: Auger Cuttings		

- NOTES:
- The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 - The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 - Hollow-stem augers were used to advance the borehole to 45 feet below the ground surface. Wash rotary drilling was then used to the explored depth of the boring, therefore, an accurate groundwater level measurement was not obtained after the completion of drilling activities.

(Continued Next Page)

2/1/22 9:22:00 AM



BORING B206

PAGE 1 OF 1

BORING DEPTH: 29 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 1/18/22

COMPLETED: 1/18/22

BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: AJR

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26990 LONGITUDE: -85.03987 ELEVATION: 912± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■	MOISTURE & ATTERBERG LIMITS (%) PL MC LL	HAND PENE. TORVANE SHEAR UNC. COMP. VANE SHEAR (PK) VANE SHEAR (REM) TRIAXIAL (UU) SHEAR STRENGTH (KSF)	REMARKS
									90 100 110 120			
	0			11 inches of TOPSOIL								
	0.9											
	3.0			Sandy LEAN CLAY- Brown- Very Stiff (CL)	SB1	18	3	10		23	45	
	910						3					
	5				SB2	18	3	8				
	905			Fine to Medium SAND- Brown- Moist- Loose (SP)	SB3	18	3	8				
	10				SB4	18	2	7				
	12.5						3					
	15				SB5	18	16	72				
	16						22					
	20				SB6	18	22	72				
	21						25					
	25				SB7	6	50	69+				
	26											
	29.0			END OF BORING AT 29.0 FEET.	SB8	6	69	95+				
	30											

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:01 AM



BORING B207

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 1/19/22

COMPLETED: 1/19/22

BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: AJR

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27028 LONGITUDE: -85.03562 ELEVATION: 918± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■	MOISTURE & ATTERBERG LIMITS (%) PL MC LL	<ul style="list-style-type: none"> ▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) ◇ SHEAR STRENGTH (KSF) 	REMARKS
									90 100 110 120			
	0.8			10 inches of TOPSOIL								
	2.0			Fine to Medium CLAYEY SAND- Brown- Moist- Loose (SC)	SB1	18	2	7				
	3.5			Fine to Medium SILTY SAND- Brown- Moist- Loose (SM)			3					
915												
	5.0			Fine SAND- Brown- Moist- Loose (SP)	SB2	18	2	8				
	8.0				SB3	18	3					
910												
	10.0			Fine to Medium SAND- Light Brown- Moist- Loose (SP)	SB4	18	3	10				
	12.5											
905												
	15.0				SB5	18	15		84			
	20.0			Fine SILTY SAND- Frequent Sandstone Fragments- Brown- Moist to Wet- Extremely Dense to Dense (SM)	SB6	18	22		35			
900							10					
	24.0				SB7	18	8		25			
895							8					
	25.0						10					
890				Fine to Coarse SAND with Gravel- Brown- Wet- Medium Dense to Dense (SP)	SB8	18	6		33			
	30.0			END OF BORING AT 30.0 FEET.			14					

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.5	896.5
▽ AT END OF BORING:	21.5	896.5
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:02 AM



BORING B208

PAGE 1 OF 1

BORING DEPTH: 29 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/13/21

COMPLETED: 12/13/21

BORING METHOD: Solid-stem Augers

DRILLER: JN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: EFG

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)				REMARKS
								90	100	110	120	PL	MC	LL	
	0		LATITUDE: 42.26994 LONGITUDE: -85.04630 ELEVATION: 911± FT												
	0.8		10 inches of TOPSOIL												
	1.5		LEAN CLAY with Sand- Brown- Stiff (CL)	SB1	18	4	11			18					
	5		Fine SAND with Silt- Brown- Moist- Medium Dense to Very Loose (SP-SM)	SB2	18	2	4								
	6.0			SB3	18	5	7								
	9.05			SB4	18	6	6								
	10		Fine SILTY SAND- Brown- Moist- Medium Dense (SM)			7	7								
	15			SB5	18	3	5								
	18.5			SB6	18	8	12								
	20		Completely Weathered SANDSTONE- Brown (WC)			12	25								
	25			SB7	4	39	50/4"			68+					
	29.0		END OF BORING AT 29.0 FEET.	SB8	6	50				68+					
	30														
	880														

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:03 AM



BORING B209

PAGE 1 OF 1

BORING DEPTH: 16 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/13/21

COMPLETED: 12/13/21

BORING METHOD: Solid-stem Augers

DRILLER: JN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: EFG

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) SHEAR STRENGTH (KSF)	REMARKS
								90	100	110	120	PL	MC		
	0		12 inches of TOPSOIL												
910	1.0		LEAN CLAY with Sand- Brown-Medium (CL)	SB1	18	4	15								
	3.5		Fine to Medium SAND with Silt- Brown- Moist- Loose (SP-SM)	SB2	18	3	8								
905	4.5		Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Loose (SP-SM)	SB3	0	4	8								Driller reported driving a stone at Sample SB6.
	9.0		Completely Weathered SANDSTONE- Brown (WC)	SB4	14	5	85+								
900				SB5	18	12	113								
	16.0		END OF BORING AT 16.0 FEET.												Boring terminated due to auger refusal.
895															
	20														
890															
	25														
885															
	30														

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:04 AM



BORING B210

PAGE 1 OF 1

BORING DEPTH: 29 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/13/21

COMPLETED: 12/13/21

BORING METHOD: Solid-stem Augers

DRILLER: JN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: EFG

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			REMARKS
								90	100	110	120	PL	MC	
910	0		11 inches of TOPSOIL											
	0.9													
	3.5		Fine to Medium CLAYEY SAND- Brown- Moist- Medium Dense (SC)	SB1	0	6 7 4	15						No Sample recovery at Sample SB1. Driller submitted an auger sample for classification purposes.	
	5		Fine to Coarse SAND- Occasional Silty Sand Layers- Brown- Moist- Medium Dense to Dense (SP)	SB2	14	6 7 8	21							
	8.5			SB3	16	8 12 16	38							
	10			SB4	18	9 13 18	42							
	15			SB5	14	18 26 38	87							
	20		Completely Weathered SANDSTONE- Brown (WC)	SB6	4	65	89+							
	25			SB7	3	75/5"	100+							
	29.0		END OF BORING AT 29.0 FEET.	SB8	0	64	87+							

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:05 AM



BORING B211

PAGE 1 OF 1

BORING DEPTH: 28.8 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/13/21

COMPLETED: 12/13/21

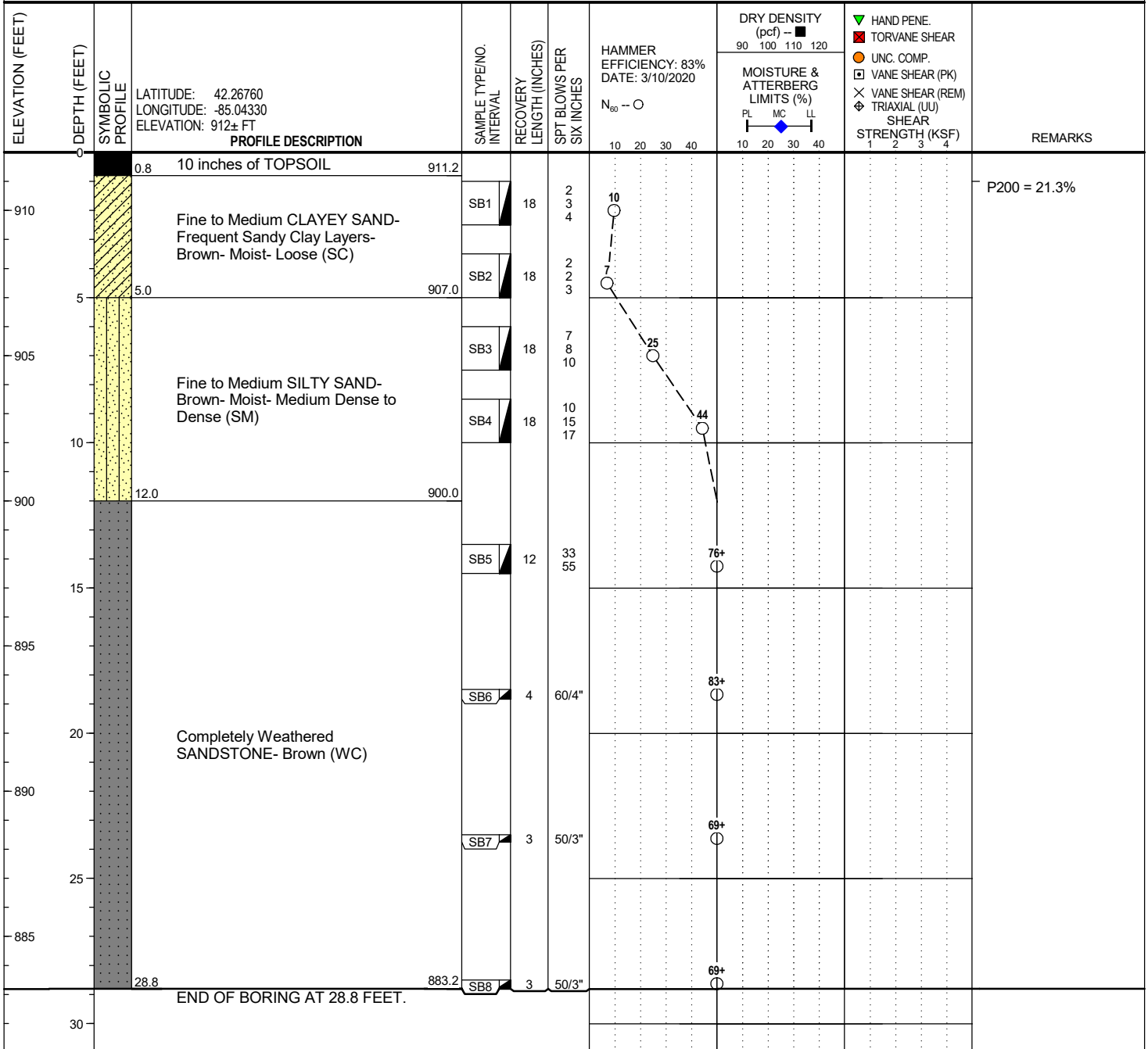
BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: EFG

CHECKED BY: AJR



GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:06 AM



BORING B212

PAGE 1 OF 1

BORING DEPTH: 21 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/14/21

COMPLETED: 12/14/21

BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: EFG

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			REMARKS
								90	100	110	120	PL	MC	
	0		LATITUDE: 42.26761 LONGITUDE: -85.03989 ELEVATION: 916± FT											
	0.8		10 inches of TOPSOIL											
915	2.0		Fine to Medium CLAYEY SAND- Brown- Moist- Loose (SC)	SB1	18	3	8							
	5		Fine to Medium SILTY SAND- Brown- Moist- Loose to Medium Dense (SM)	SB2	18	5	12							
910	8.0		Fine to Medium CLAYEY SAND- Brown- Moist- Medium Dense (SC)	SB3	18	4	12							
	10		Fine to Medium CLAYEY SAND- Brown- Moist- Medium Dense (SC)	SB4	18	2	11							
905	12.0		Completely Weathered SANDSTONE- Brown (WC)	SB5	12	46	80+							
900	15		Completely Weathered SANDSTONE- Brown (WC)			58								
	20		Completely Weathered SANDSTONE- Brown (WC)	SB6	2	50/2"	69+							
895	21.0		END OF BORING AT 21.0 FEET.											Boring terminated due to auger refusal.
890	25													
885	30													

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:07 AM



BORING B213

PAGE 1 OF 1

BORING DEPTH: 26 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/14/21

COMPLETED: 12/14/21

BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: EFG

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			REMARKS
								90	100	110	120	PL	MC	
915	0		11 inches of TOPSOIL											
	0.9			914.1										
	4.0		LEAN CLAY with Sand- Brown- Stiff (CL)	SB1	18	3	11		20					
	5.0			911.0										
910	5		Fine to Medium SILTY SAND- Occasional Sandstone Pieces from 8 to 11.5 feet- Brown- Moist- Loose to Dense (SM)	SB2	18	2	8							
	11.5			903.5										
	15		Fine to Coarse SAND- Light Brown- Moist- Extremely Dense (SP)	SB3	18	3	11							
	18													
	19.5			895.5										
905	10													
	20		Completely Weathered SANDSTONE- Brown (WC)	SB4	18	8	32							
	25													
900	15			895										
	26.0			889.0										
	26.0		END OF BORING AT 26.0 FEET.	SB5	18	18	91							
	28													
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	371													

2/1/22 9:22:08 AM



BORING B214

PAGE 1 OF 1

BORING DEPTH: 29 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/14/21

COMPLETED: 12/14/21

BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26530 LONGITUDE: -85.04331 ELEVATION: 906± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ✖ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◆ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120	PL	MC		
905	0.5			6 inches of TOPSOIL												
905				Fine to Coarse SAND with Gravel- Frequent Sandstone Pieces- Brown to Grayish Brown- Moist- Loose to Dense (SM)	SB1	18	2 2 2	6								
900	5		SB2		18	7 8 10	25									
900			SB3		18	10 15 17	44									
895	8.5		SB4		18	25 16 20	50									
895				Completely Weathered SANDSTONE- Brown (WC)	SB5	12	31 58	80+								
890	15		SB6		3	50/3"	69+									
885	20		SB7		6	65	90+									
880	25		SB8		2	67	93+									
	29.0			END OF BORING AT 29.0 FEET.												
875	30															

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:09 AM



BORING B215

PAGE 1 OF 2

BORING DEPTH: 67 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/14/21

COMPLETED: 12/14/21

BORING METHOD: Note 3

DRILLER: JN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ✖ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ⬠ TRIAXIAL (UU) ⬠ SHEAR STRENGTH (KSF)	REMARKS
								90	100	110	120	PL	MC		
910	0		0.7 8 inches of TOPSOIL												
			LATITUDE: 42.26497 LONGITUDE: -85.03983 ELEVATION: 910± FT												
			LEAN CLAY with Sand- Brown- Very Stiff (CL)	SB1	14	6 9 14	31								
			3.5												
			Fine to Coarse SILTY SAND with Gravel- Frequent Sandstone Pieces- Brown- Moist- Medium Dense (SM)	SB2	18	4 5 6	15								
905	5			SB3	18	5 5 7	16								
			8.5												
			Completely Weathered SANDSTONE- Occasional Clay Layers- Brown and Gray (WC)	SB4	16	12 24 50		101							
				SB5	4	10 50/4"		68+							
895	15			SB6	2	38 50/2"		68+							
890	20			SB7	3	50/4"		68+							
885	25			SB8	4	50/5"		68+							
880	30														

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Note 4

- NOTES:
- The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 - The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 - Hollow-stem augers were used to advance the borehole to 20 feet below the ground surface. Wash rotary drilling was then used to the explored depth of the boring.
 - Driller reported total loss of drilling fluid returns from 65 to 67 feet below the ground surface, losing about 125 gallons of drilling fluid. Due to the loss of drilling fluids, the borehole was terminated at 67 feet below the ground surface. Borehole was plugged with bentonite chips from 67 to 20 feet below the ground surface and auger cuttings from 20 feet to the ground surface.

(Continued Next Page)

2/1/22 9:22:09 AM



BORING B215

PAGE 2 OF 2

BORING DEPTH: 67 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26497 LONGITUDE: -85.03983 ELEVATION: 910± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■		MOISTURE & ATTERBERG LIMITS (%)		▼ HAND PENE. ✖ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ⊕ TRIAXIAL (UU) SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120		
875	35			Completely Weathered SANDSTONE- Occasional Clay Layers- Brown and Gray (WC) (continued)	SB9	4	50/4"	68+						
870	40				SB10	3	50/4"	68+						
865	45				SB11	3	50/3"	68+						
860	50				SB12	2	50/3"	68+						
855	55				SB13	6	58	79+						
850	60		57.0		853.0	SB14	2	50/2"	68+					
845	65			Highly Weathered SANDSTONE- Gray (WH)	SB15	1	50/1"	68+						"See" Note 4
840	70		67.0		843.0	END OF BORING AT 67.0 FEET.								

2/1/22 9:22:10 AM



BORING B216

PAGE 1 OF 1

BORING DEPTH: 29 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/14/21

COMPLETED: 12/14/21

BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26503 LONGITUDE: -85.03588 ELEVATION: 911± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			REMARKS
									90	100	110	120	PL	MC	
	0			10 inches of TOPSOIL											
910	0.8														
	3.0			Fine to Medium CLAYEY SAND- Brown- Moist- Loose (SC)	SB1	18	2 3 3	8							
	5				SB2	18	11 15 18	46						P200 = 18.8%	
905	5				SB3	18	18 20 24	61							
	10			Fine to Coarse SILTY SAND with Gravel- Frequent Sandstone Pieces- Brown- Moist- Loose to Extremely Dense (SM)	SB4	18	14 16 23	54							
900	10														
	15				SB5	18	36 31 40	98							
895	15														
	17.0				SB4	4	90/4"	100+							
890	17.0														
	20			Completely Weathered SANDSTONE- Brown (WC)	SB6	6	51	71+							
885	20														
	25														
880	25														
	29.0			END OF BORING AT 29.0 FEET.	SB6	6	67	93+							
	30														

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:11 AM



BORING B217

PAGE 1 OF 1

BORING DEPTH: 28.8 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/14/21

COMPLETED: 12/14/21

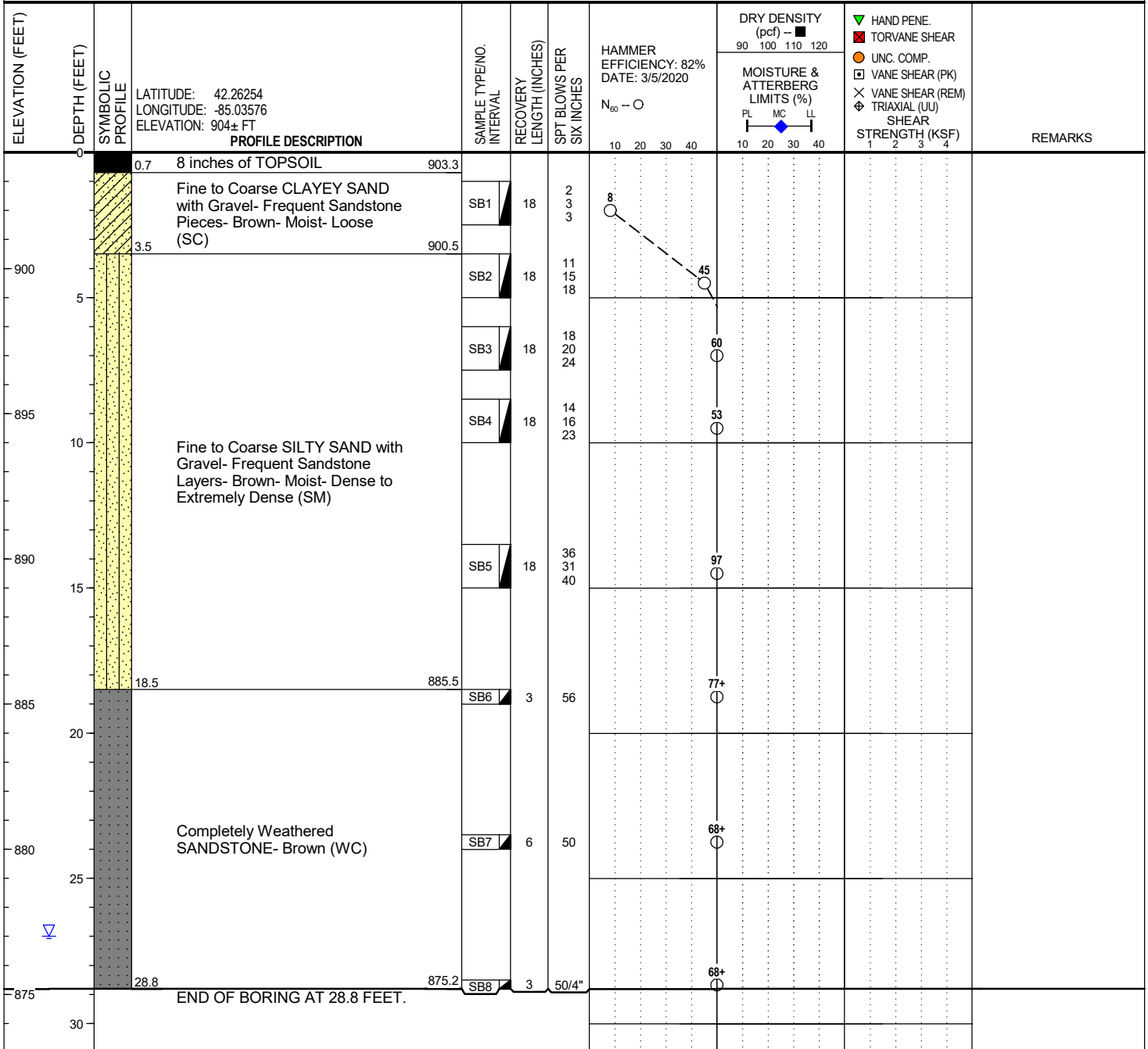
BORING METHOD: Hollow-stem Augers

DRILLER: JN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: AJR



GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	27.0	877.0
▽ AT END OF BORING:	Note 3	

BACKFILL METHOD: Auger Cuttings

- NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 3. Groundwater was not encountered upon completion of drilling.

2/1/22 9:22:12 AM



BORING B301

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27724 LONGITUDE: -85.03032 ELEVATION: 923± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◆ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120	PL	MC		
	0.7			8 inches of TOPSOIL												
920				Fine to Medium SAND with Silt-Brown- Moist- Loose to Medium Dense (SP-SM)	SB1	18	2	6								
	5.0			Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Dense (SP-SM)	SB2	18	6	25								
915				Fine to Medium SAND- Light Brown- Moist- Medium Dense (SP)	SB3	5	8	36								
	8.0			Fine to Medium SAND- Light Brown- Moist- Medium Dense (SP)	SB4	18	7	26								
910				Fine to Coarse SAND with Gravel- Brown- Moist to Wet- Dense to Medium Dense (SP)	SB5	18	9	36								
	12.0			Fine to Coarse SAND with Gravel- Brown- Moist to Wet- Dense to Medium Dense (SP)	SB6	18	6	18								
905				Fine to Coarse SILTY SAND with Gravel- Frequent Sandstone Pieces- Grayish Brown- Wet- Medium Dense (SM)	SB7	18	10	35								
	25.0			Fine to Coarse SILTY SAND with Gravel- Frequent Sandstone Pieces- Grayish Brown- Wet- Medium Dense (SM)	SB8	18	6	26								
895							8									
	30.0			END OF BORING AT 30.0 FEET.			11									

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	17.0	906.0
▽ AT END OF BORING:	15.0	908.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:13 AM



BORING B302

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

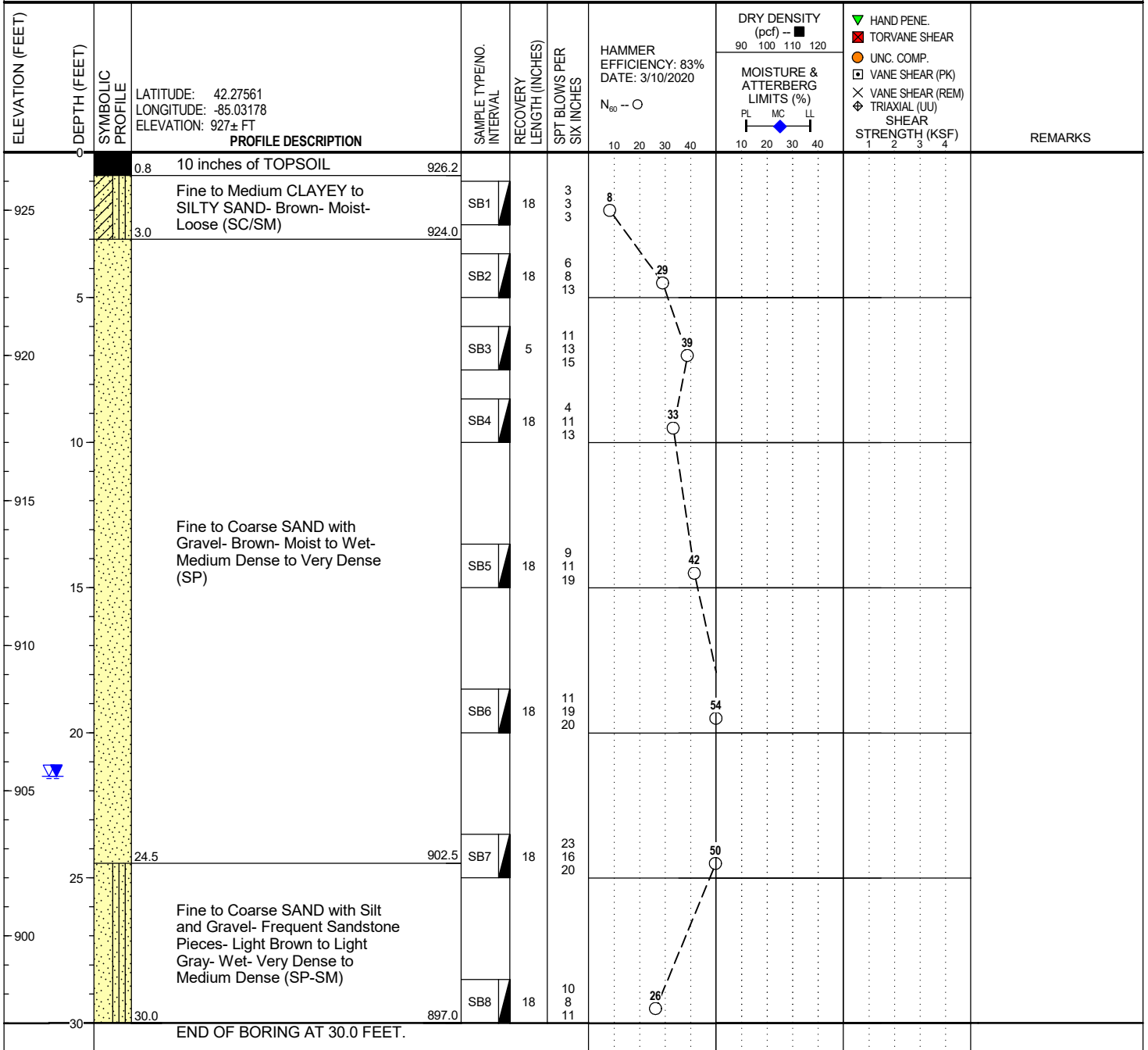
BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: AJR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.5	905.5
▽ AT END OF BORING:	21.5	905.5
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:14 AM



BORING B303

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%) PL MC LL	<ul style="list-style-type: none"> ▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) ◇ SHEAR STRENGTH (KSF) 	REMARKS
								90	100	110			
	0		LATITUDE: 42.27560 LONGITUDE: -85.02830 ELEVATION: 926± FT										
	0.7		8 inches of TOPSOIL										
925													
	3.0		Fine to Medium CLAYEY SAND- Brown- Moist- Loose (SC)	SB1	18	2	7						
923													
	5.5		Fine to Medium SAND- Brown- Moist- Medium Dense (SP)	SB2	18	3	11						
920													
	8.0		Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Dense (SP-SM)	SB3	18	4	33						
918													
	18.0		Fine to Coarse SAND with Gravel- Light Brown- Moist- Medium Dense (SP)	SB4	18	8	24						
915													
	18.0		Fine SAND- Occasional Clay Seams- Light Brown- Moist to Wet- Medium Dense (SP)	SB5	18	9	28						
910													
	23.0		Fine SAND- Occasional Clay Seams- Light Brown- Moist to Wet- Medium Dense (SP)	SB6	18	5	18						
905													
	27.5		Fine to Coarse SAND with Gravel- Brown- Wet- Medium Dense (SP)	SB7	18	6	29						
900													
	30.0		Fine to Coarse SAND with Silt and Gravel- Frequent Sandstone Pieces- Brown and Gray- Wet- Extremely Dense (SP-SM)	SB8	18	20	86						
895			END OF BORING AT 30.0 FEET.										

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	18.5	907.5
▽ AT END OF BORING:	19.0	907.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:16 AM



BORING B304

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

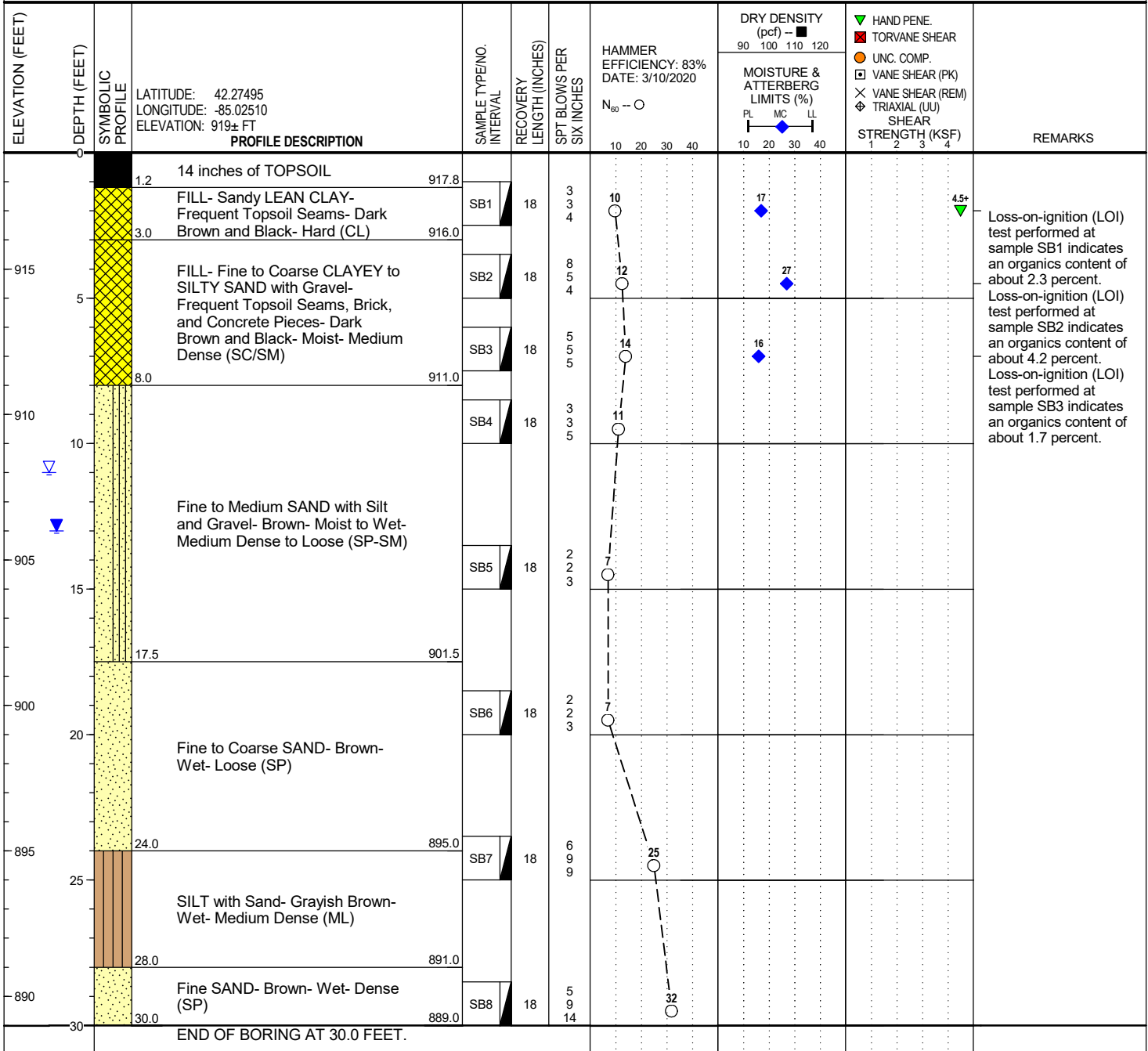
BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: AJR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	11.0	908.0
▽ AT END OF BORING:	13.0	906.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:17 AM



BORING B305

PAGE 1 OF 1

BORING DEPTH: 29 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/23/21

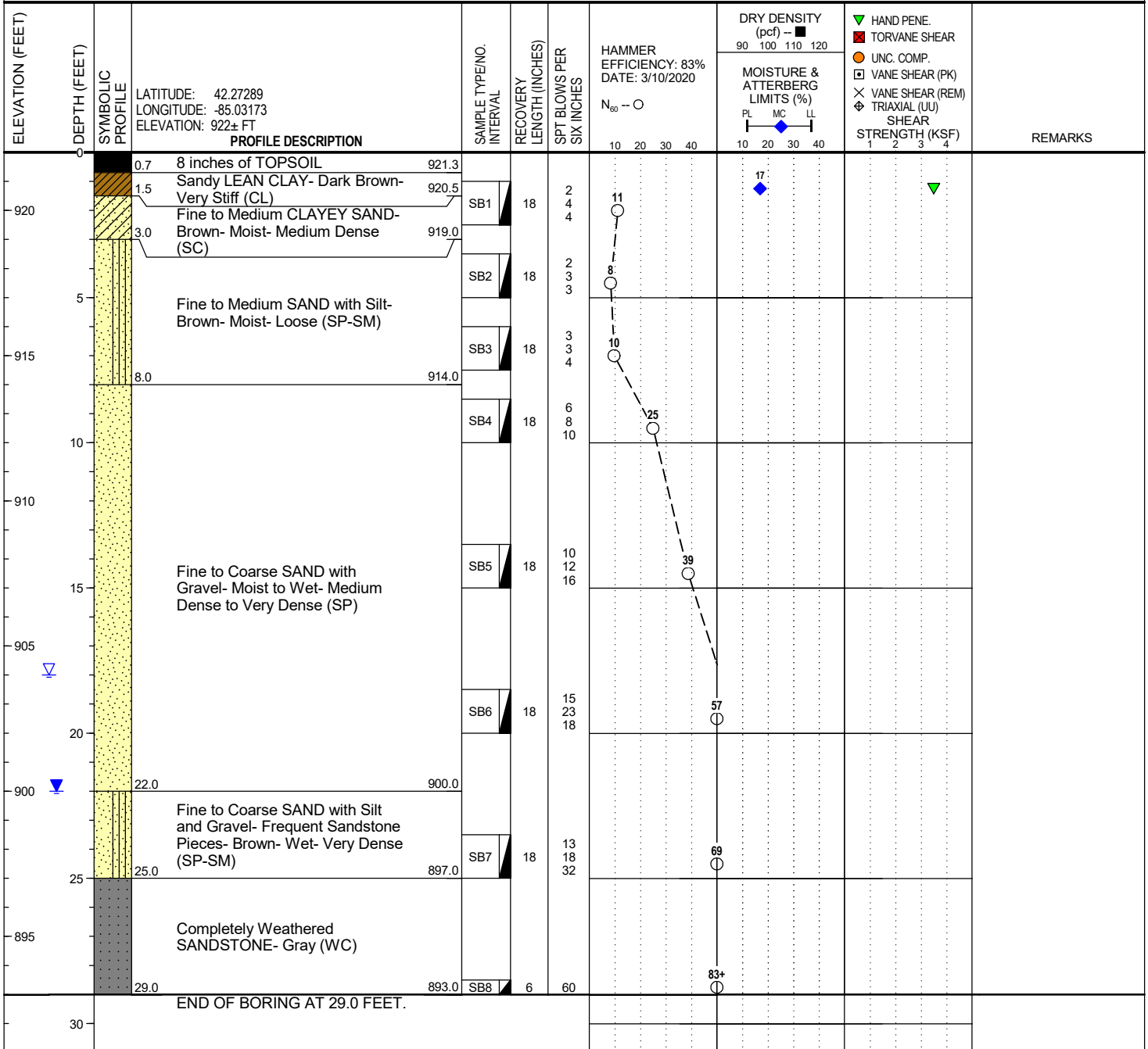
BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: AJR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	18.0	904.0
▽ AT END OF BORING:	22.0	900.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:18 AM



BORING B306

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/23/21

COMPLETED: 12/23/21

BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: AJR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27294 LONGITUDE: -85.02824 ELEVATION: 922± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◆ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120	PL	MC		
	0.9			11 inches of TOPSOIL												
	2.0			Sandy LEAN CLAY- Brown- Very Stiff (CL)	SB1	18	3									
	3.0			Fine to Coarse CLAYEY SAND- Dark Brown- Moist- Loose (SC)			3									
	5.0			Fine to Coarse SAND with Silt- Occasional Coal Seams- Brown- Moist- Loose to Medium Dense (SW-SM)	SB2	18	4									
	7.0				SB3	18	4									
	9.0			Fine to Medium SAND- Light Brown- Moist- Medium Dense (SP)	SB4	18	6									
	12.0				SB5	18	9									
	15.0				SB6	18	4									
	20.0			Fine SAND- Light Brown- Moist to Wet- Medium Dense (SP)	SB7	18	4									
	24.5				SB8	18	5									
	25.0			Fine to Coarse SAND with Gravel- Brown- Wet- Medium Dense (SP)			5									
	30.0			END OF BORING AT 30.0 FEET.			6									

P200 = 7.9%

GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	17.0	905.0
▽ AT END OF BORING:	20.0	902.0

BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:19 AM



BORING B307

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/21/21

COMPLETED: 12/21/21

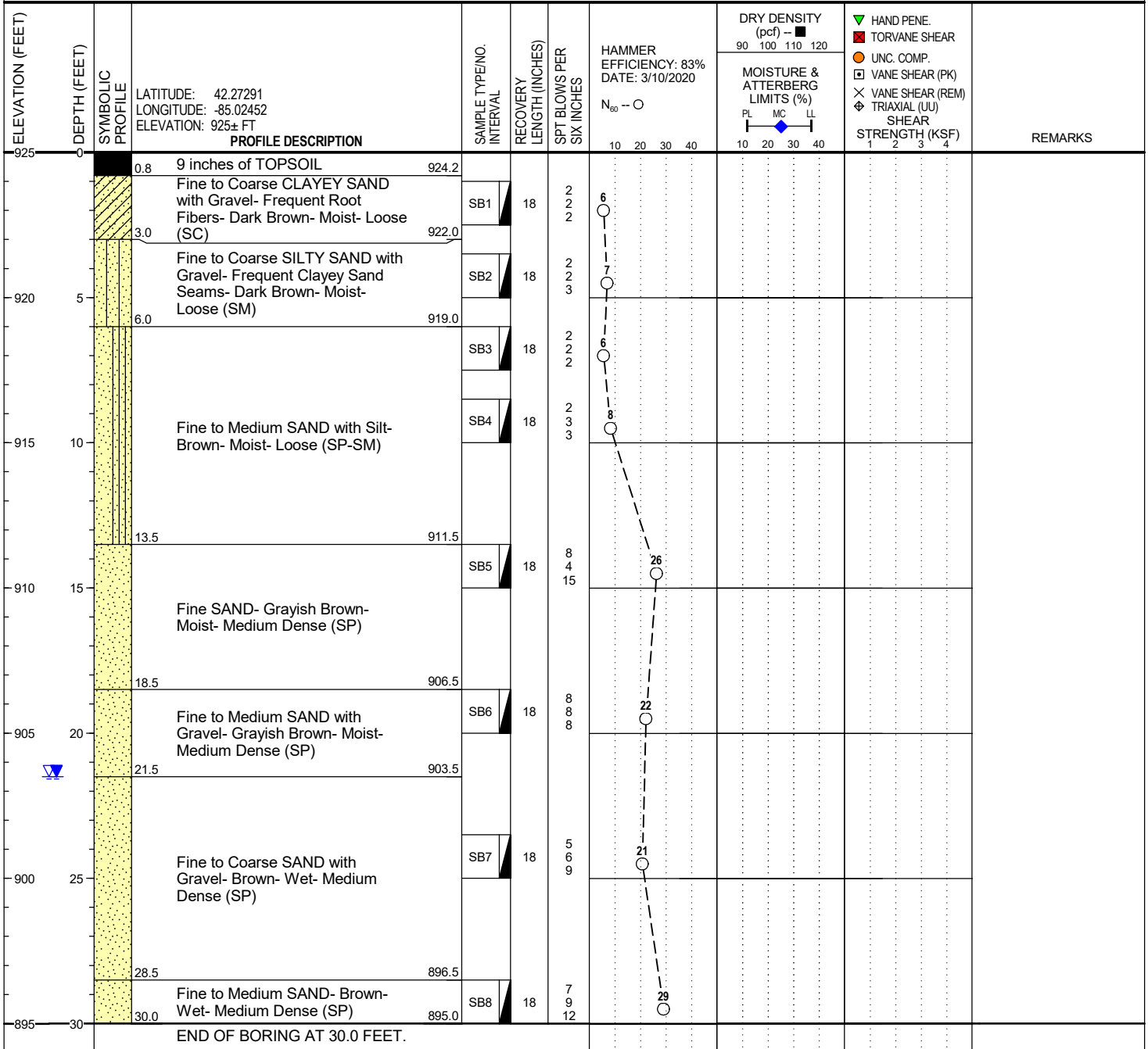
BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.5	903.5
▽ AT END OF BORING:	21.5	903.5
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:20 AM



BORING B308

PAGE 1 OF 3

BORING DEPTH: 91 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/20/21

COMPLETED: 12/20/21

BORING METHOD: Note 3

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27193 LONGITUDE: -85.02093 ELEVATION: 925± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ⊕ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120	PL	MC		
925	0			14 inches of TOPSOIL												
	1.2															
	3.0			Fine to Coarse SILTY SAND with Gravel- Dark Brown- Moist-Medium Dense (SM)	SB1	18	3	12								
	5.0			Fine to Medium SAND with Silt and Gravel- Brown- Moist-Medium Dense (SP-SM)	SB2	18	4	14								
920	5															
	8.0			Fine SAND- Grayish Brown- Moist- Medium Dense (SP)	SB3	18	3	14								
	12.0			Fine to Medium SAND with Gravel- Brown- Moist- Medium Dense (SP)	SB4	18	9	18								
915	10															
	16.0			Fine to Medium SAND- Grayish Brown- Moist- Medium Dense (SP)	SB5	18	7	17								
910	15															
	20			Fine to Coarse SAND with Silt and Gravel- Brown to Grayish Brown- Moist to Wet- Dense (SP-SM)	SB6	18	11	42								
905	20															
	25				SB7	18	10	36								
900	25															
	28.5			Completely Weathered SANDSTONE- Brown to Gray (WC)	SB8	3	50	69+								
895	30															

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	23.5	901.5
▽ AT END OF BORING:	Note 3	
BACKFILL METHOD:	Note 4	

- NOTES:
- The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 - The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 - Hollow-stem augers were used to advance the borehole to 50 feet below the ground surface at which point the driller reported an obstruction due to possible gravel cave-in. Borehole was offset 10 feet west, blind drilled to 50 feet, and then wash rotary drilled to explored depth of the boring. An accurate groundwater level measurement was obtained after the completion of drilling activities.
 - The borehole that terminated 50 feet below the ground surface was backfilled with auger cuttings. The borehole that terminated 91 feet below the ground surface was backfilled by tremie method with bentonite-cement grout to 15 feet below the ground surface and auger cuttings above 15 feet to the ground surface.

(Continued Next Page)

2/1/22 9:22:20 AM



BORING B308

PAGE 2 OF 3

BORING DEPTH: 91 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27193 LONGITUDE: -85.02093 ELEVATION: 925± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020		DRY DENSITY (pcf) - ■ 90 100 110 120		MOISTURE & ATTERBERG LIMITS (%) PL MC LL		REMARKS	
								N ₆₀ - ○	MOISTURE (%)	PL	MC	LL	STRENGTH (KSF) 1 2 3 4		
890	35			Completely Weathered SANDSTONE- Brown to Gray (WC) (continued)	SB9	3	52								
					SB10	2	50/3"								
885	40				SB11	3	13 13 13	36							
880	45				SB12	6	15 15 21	50							
875	50				SB13	18	20 26 17	59							
870	55	55.0	870.0		SB14	12	20 50	69+							
865	60			Highly Weathered SANDSTONE- Gray (WH)	SB15	3	50/3"	69+							
860	65				SB16	2	50/2"	69+							
855	70														

(Continued Next Page)

2/1/22 9:22:22 AM



BORING B309

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27188 LONGITUDE: -85.01730 ELEVATION: 926± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◆ TRIAXIAL (UU) SHEAR STRENGTH (KSF) 1 2 3 4	REMARKS	
									90	100	110	120	PL	MC			LL
	0.8			10 inches of TOPSOIL													
925	1.5			Fine to Medium CLAYEY SAND- Dark Brown- Moist (SC)	SB1	18	3	8									
	3.0			Fine to Medium SILTY SAND- Dark Brown- Moist- Loose (SM)			3										
	5.0			Fine to Coarse SILTY SAND with Gravel- Brown- Moist- Loose (SM)	SB2	10	2	8									
920	6.0				SB3	10	4	14									Cobbles encountered from 6 feet to 18.5 feet below the ground surface.
	10.0			Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Medium Dense (SP-SM)	SB4	12	5	21									
	13.5				SB5	18	6	21									
	15.0						7										
910	18.0				SB6	18	13	45									
	20.0			Fine to Coarse SAND with Gravel- Occasional Sandy Silt Seams at 28.5 feet- Grayish Brown- Moist to Wet- Medium Dense to Dense (SP)			15										
905	25.0				SB7	16	7	29									
	28.0						9										
900	30.0				SB8	14	10	41									
	30.0			END OF BORING AT 30.0 FEET.			13										
895							17										

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	20.0	906.0
▽ AT END OF BORING:	Note 3	
CAVE-IN OF BOREHOLE AT:	16.0	910.0
BACKFILL METHOD:	Auger Cuttings	

- NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 3. Groundwater was not encountered above the borehole cave-in depth upon auger removal.

2/1/22 9:22:23 AM



BORING B310

PAGE 1 OF 1

BORING DEPTH: 29 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27190 LONGITUDE: -85.01381 ELEVATION: 926± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◆ TRIAXIAL (UU) SHEAR STRENGTH (KSF) 1 2 3 4	REMARKS
									90	100	110	120	PL	MC		
925	0			12 inches of TOPSOIL												
925	1.0			Fine to Medium CLAYEY SAND with Gravel- Dark Brown- Moist-Medium Dense (SC)	SB1	18	3	11								
923	3.0			Fine to Medium SILTY SAND- Dark Brown- Moist- Loose (SM)	SB2	18	2	5								
920	5.5			Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Loose (SP-SM)	SB3	18	2	8								
917.5	8.5			Fine SAND- Grayish Brown- Moist- Medium Dense (SP)	SB4	18	4	15								
915	16.0			Fine to Coarse SAND with Silt and Gravel- Occasional Sandy Silt Seams- Brown- Moist to Wet-Dense (SP-SM)	SB6	6	17	42								Cobbles encountered from 6 feet to 23 feet below the ground surface. Driller reported driving a rock at Samples SB6 and SB7.
910	24.0			Highly Weathered SANDSTONE- Greenish Brown (WH)	SB7	8	12	68+								
902.0	29.0			END OF BORING AT 29.0 FEET.	SB8	4	50	68+								
895																

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	22.0	904.0
▽ AT END OF BORING:	Note 3	
CAVE-IN OF BOREHOLE AT:	20.0	906.0
BACKFILL METHOD:	Auger Cuttings	

- NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 3. Groundwater was not encountered above the borehole cave-in depth upon auger removal.

2/1/22 9:22:24 AM



BORING B311

PAGE 1 OF 1

BORING DEPTH: 28.8 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/23/21

COMPLETED: 12/23/21

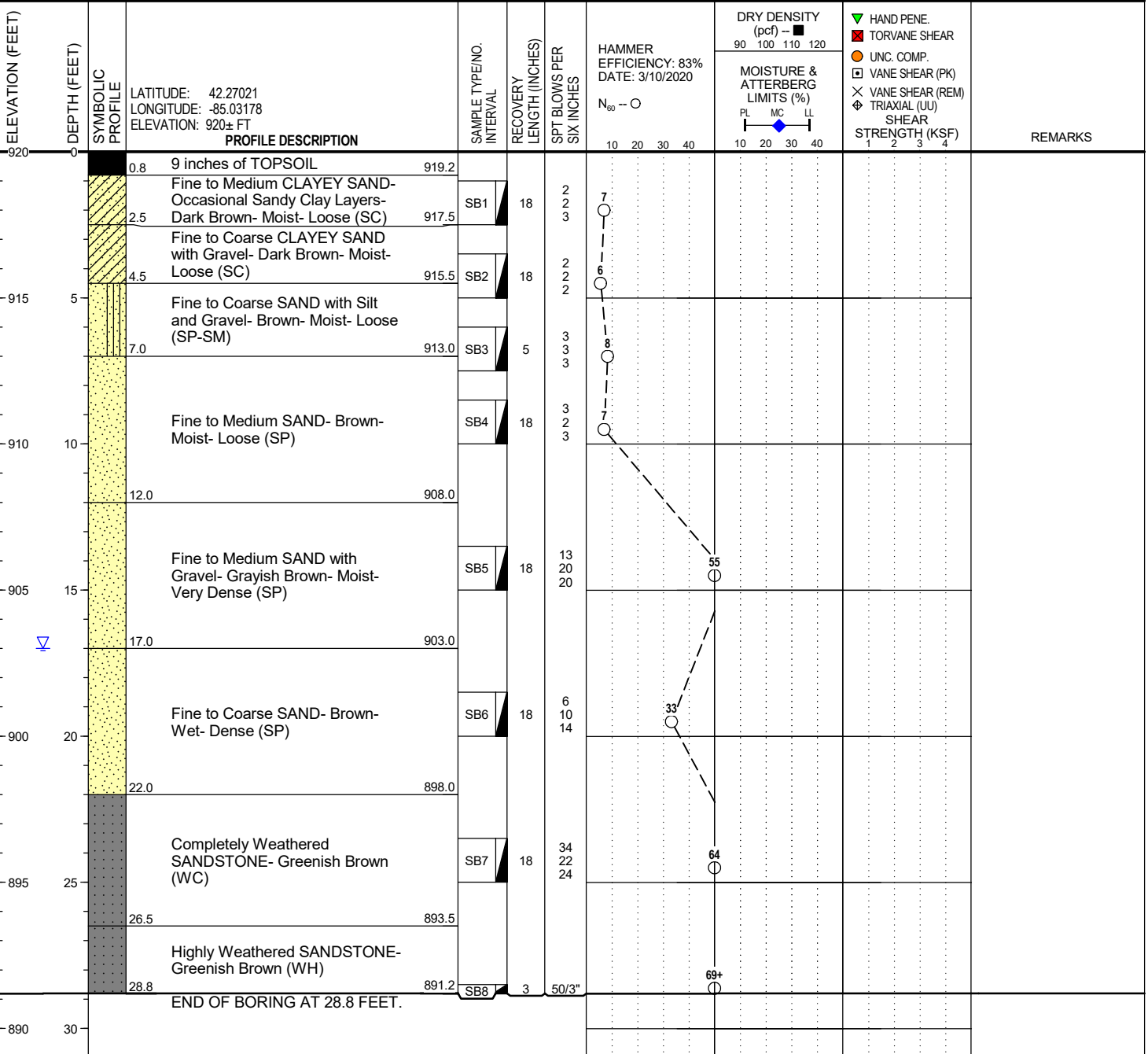
BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	17.0	903.0
▽ AT END OF BORING:	Note 3	
BACKFILL METHOD: Auger Cuttings		

- NOTES:
- The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 - The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 - Groundwater was not encountered upon completion of drilling.

2/1/22 9:22:25 AM



BORING B312

PAGE 1 OF 1

BORING DEPTH: 29.3 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/23/21

COMPLETED: 12/23/21

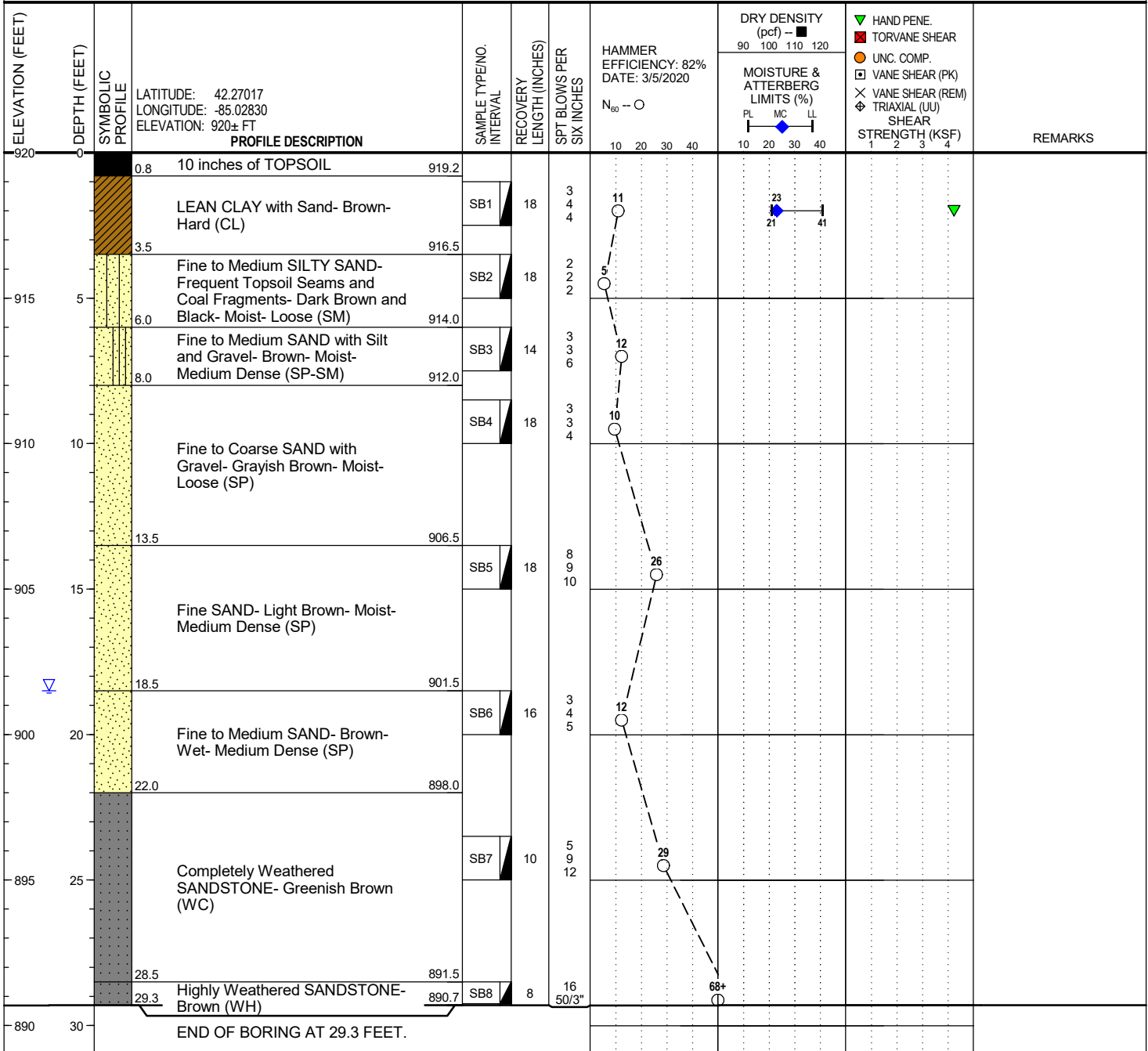
BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	18.5	901.5
▽ AT END OF BORING:	Note 3	
BACKFILL METHOD: Auger Cuttings		

- NOTES:
- The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 - The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 - Groundwater was not encountered upon completion of drilling.

2/1/22 9:22:26 AM



BORING B313

PAGE 1 OF 1

BORING DEPTH: 28.6 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/23/21

COMPLETED: 12/23/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.27015 LONGITUDE: -85.02459 ELEVATION: 921± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			REMARKS
									90	100	110	120	PL	MC	
920	0.0			12 inches of TOPSOIL											
918.0	3.0			Fine to Medium CLAYEY SAND- Dark Brown- Moist- Medium Dense (SC)	SB1	18	4	12							
915.0	6.0			Fine to Medium SILTY SAND with Gravel- Frequent Clayey Sand Seams- Dark Brown- Moist- Loose (SM)	SB2	18	2	5							
910	10.0			Fine to Medium SAND- Brown- Moist- Loose to Very Loose (SP)	SB3	18	2	7							
907.5	13.5				SB4	0	2	3						Driller reported driving a rock at Sample SB4.	
905	15.0			Fine to Coarse SAND with Gravel- Frequent Weathered Sandstone Fragments between 16 feet and 18 feet- Brownish Gray- Moist to Wet- Dense to Medium Dense (SP)	SB5	18	7	15							
900	20.0				SB6	0	11	22						Driller reported driving a rock at Sample SB6.	
897.5	23.5			Fine to Medium SILTY SAND with Gravel- Brown- Wet- Very Dense (SM)	SB7	16	17	28							
893.0	28.0			Highly Weathered SANDSTONE- Brown (WH)	SB8	0	50/1"	68+							
890	30.0			END OF BORING AT 28.6 FEET.											

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	18.0	903.0
▽ AT END OF BORING:	17.0	904.0
CAVE-IN OF BOREHOLE AT:	20.0	901.0
BACKFILL METHOD:	Auger Cuttings	

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:27 AM



BORING B314

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/23/21

COMPLETED: 12/23/21

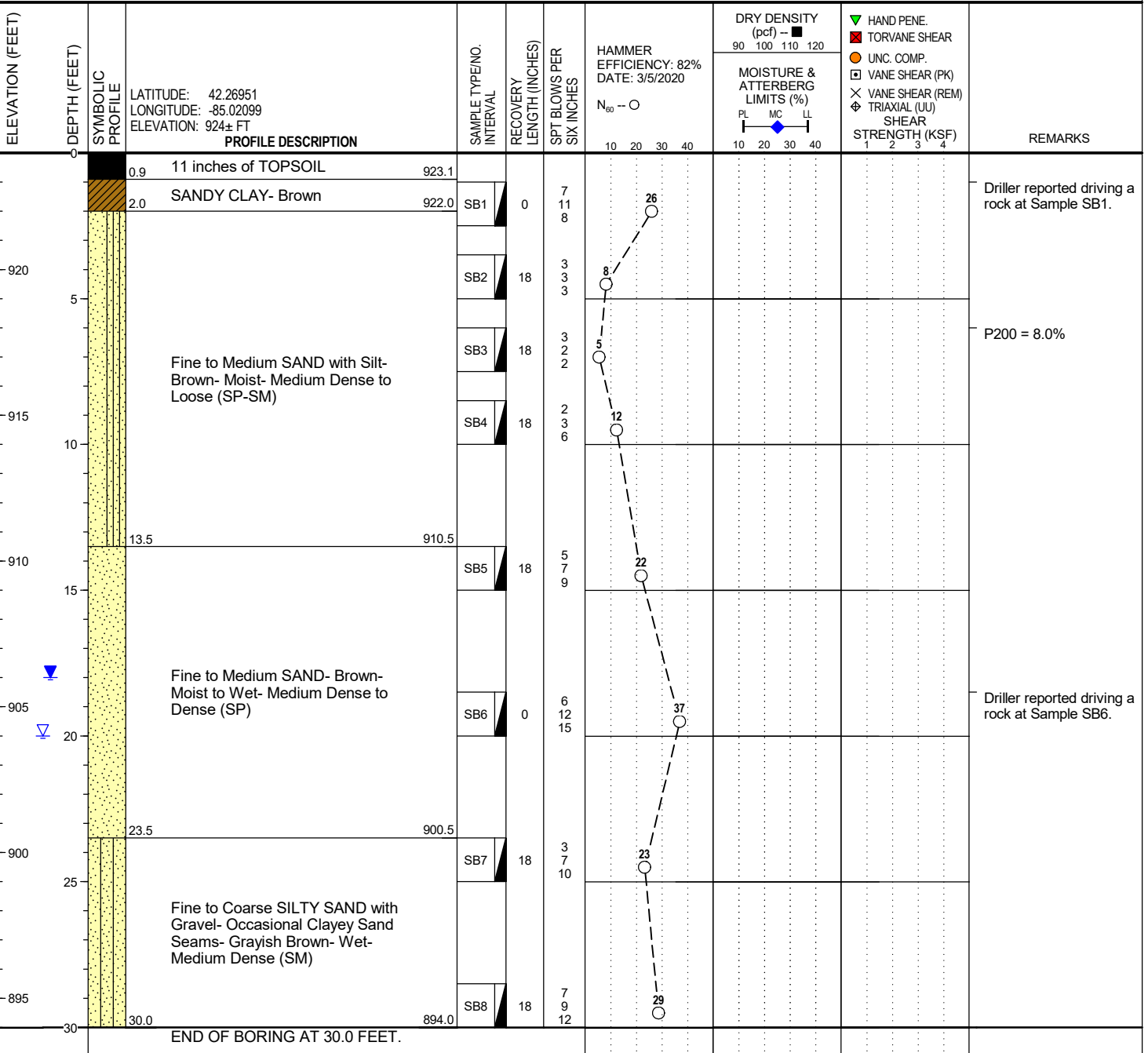
BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	20.0	904.0
▽ AT END OF BORING:	18.0	906.0
CAVE-IN OF BOREHOLE AT:	18.0	906.0
BACKFILL METHOD:	Auger Cuttings	

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:28 AM



BORING B315

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

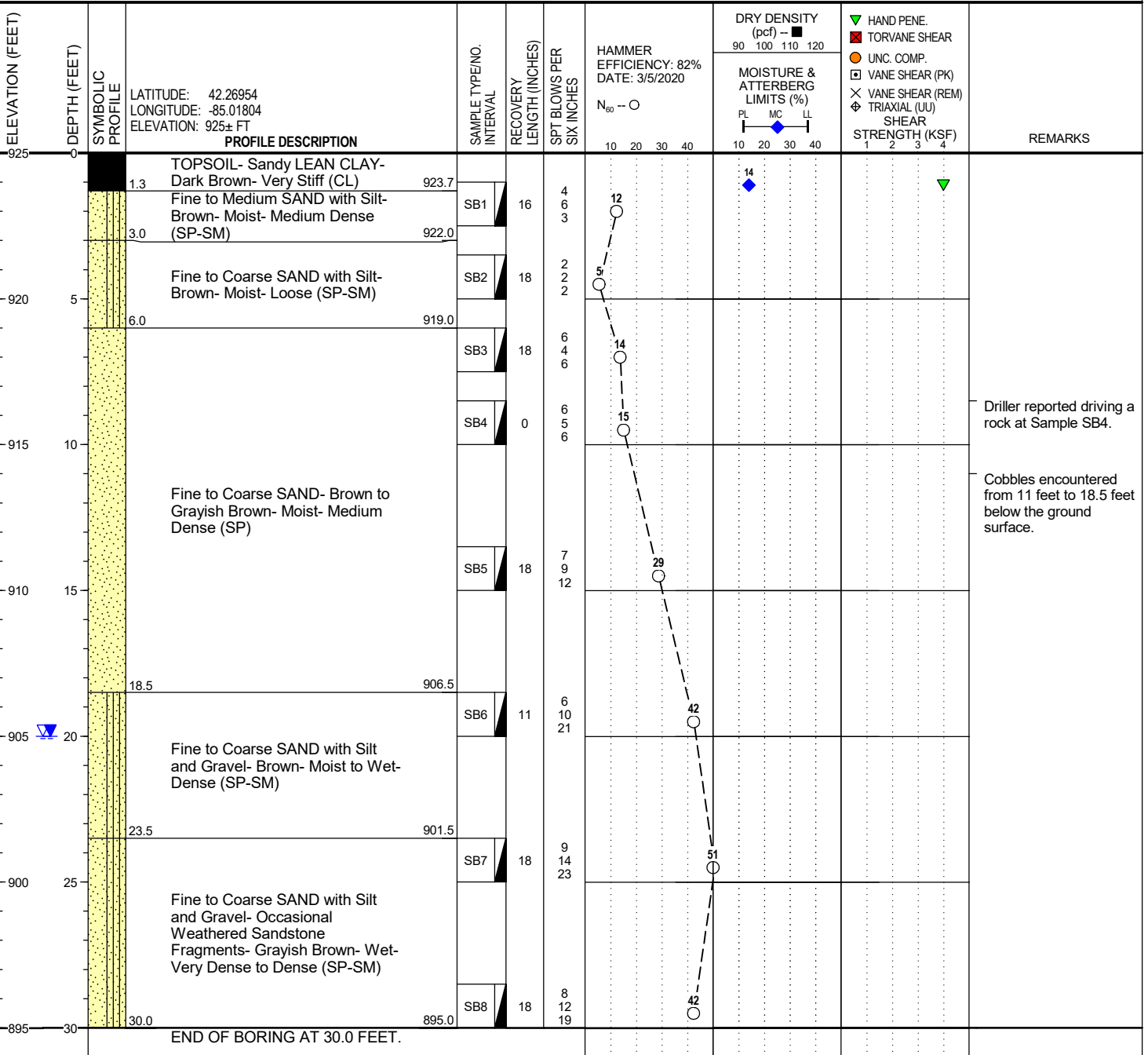
BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	20.0	905.0
▽ AT END OF BORING:	20.0	905.0
CAVE-IN OF BOREHOLE AT:	20.0	905.0
BACKFILL METHOD:	Auger Cuttings	

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:29 AM



BORING B316

PAGE 1 OF 1

BORING DEPTH: 29.2 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

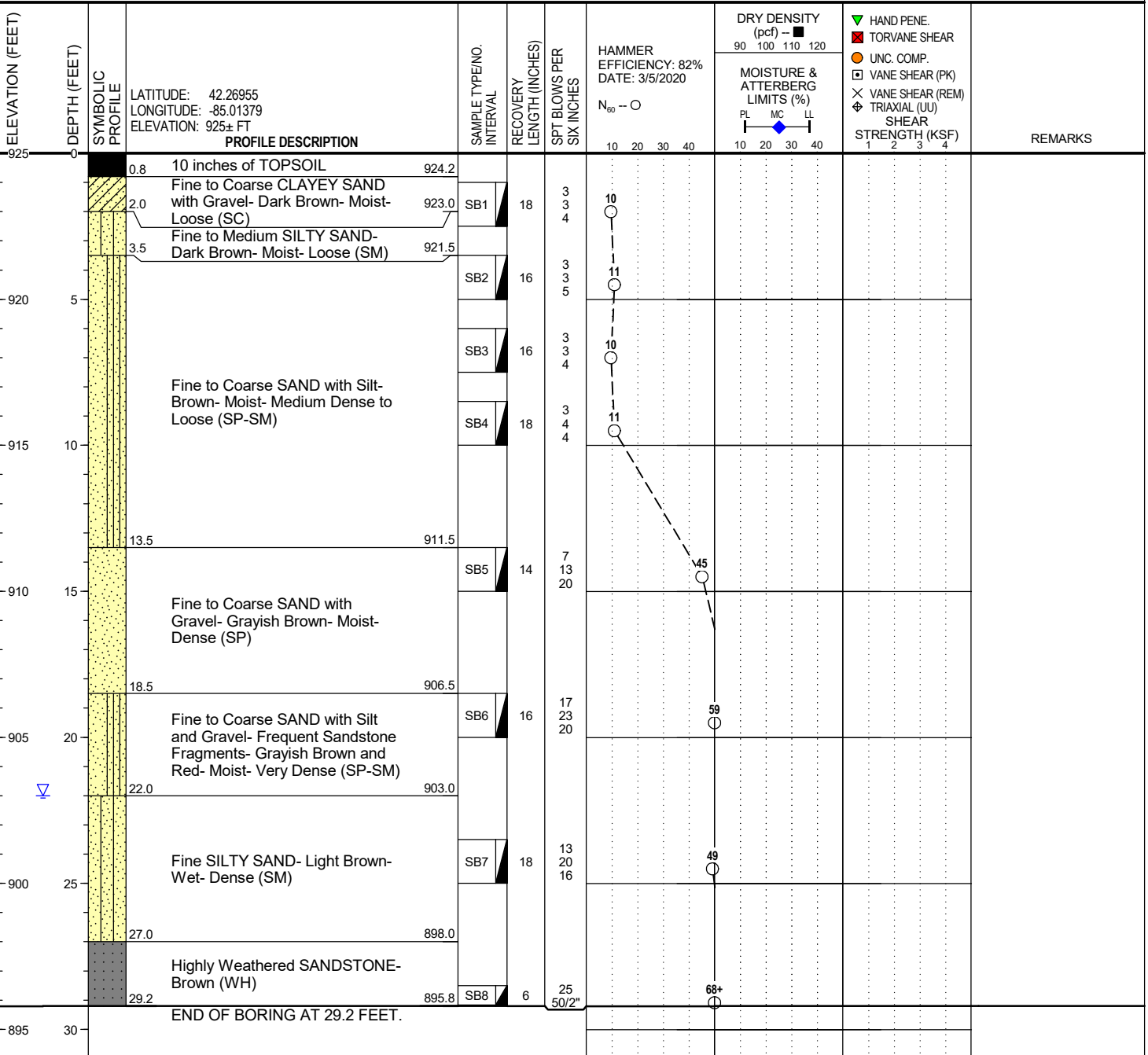
BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	22.0	903.0
▽ AT END OF BORING:	Note 3	
BACKFILL METHOD: Auger Cuttings		

- NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 3. Groundwater was not encountered upon completion of drilling.

2/1/22 9:22:30 AM



BORING B317

PAGE 1 OF 1

BORING DEPTH: 28.7 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

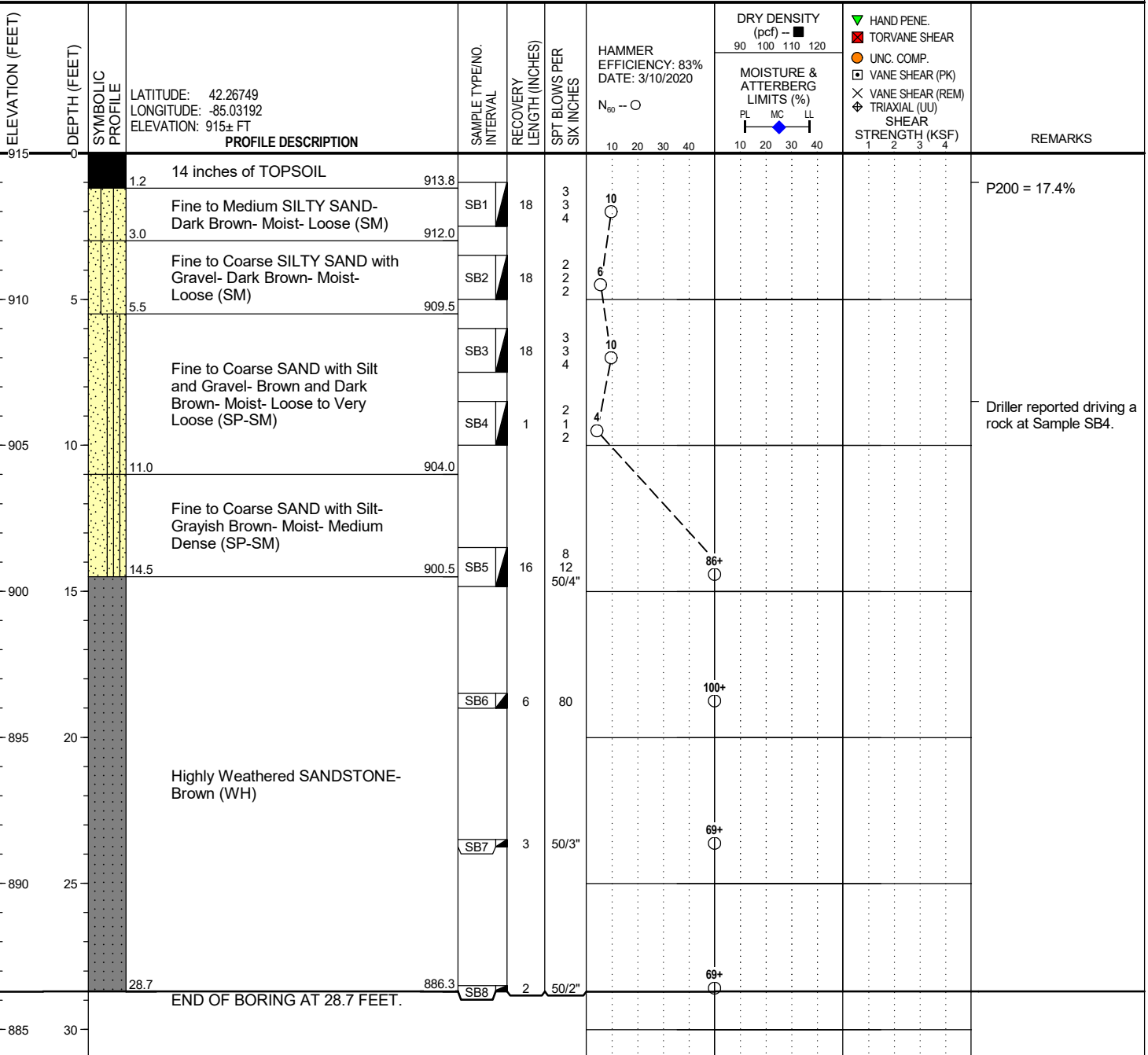
BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:31 AM



BORING B318

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/16/21

COMPLETED: 12/16/21

BORING METHOD: Hollow-stem Augers

DRILLER: RM

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26749 LONGITUDE: -85.02834 ELEVATION: 919± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120	PL	MC		
	0.8			10 inches of TOPSOIL												
	2.5			Fine to Coarse CLAYEY SAND with Gravel- Dark Brown- Moist- Loose (SC)	SB1	18		8								
915	5				SB2	18		24								
	10				SB3	18		17								
910	10				SB4	18		18								
	15			Fine to Coarse SAND with Silt and Gravel- Occasional Coal Fragments from 13.5 feet to 15 feet- Brown to Grayish Brown- Moist to Wet- Medium Dense to Dense (SP-SM)	SB5	18		33								
905	20				SB6	18		39								
900	22.5															
895	25			Fine to Medium SILTY SAND with Gravel- Grayish Brown- Wet- Medium Dense (SM)	SB7	18		19								
890	30.0			END OF BORING AT 30.0 FEET.	SB8	6		25								

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.0	898.0
▽ AT END OF BORING:	21.0	898.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:32 AM



BORING B319

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/16/21

COMPLETED: 12/16/21

BORING METHOD: Hollow-stem Augers

DRILLER: RM

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26744 LONGITUDE: -85.02461 ELEVATION: 918± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) ◆ SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120	PL	MC		
	0			13 inches of TOPSOIL												
	1.1															
	3.0			Fine to Coarse CLAYEY to SILTY SAND- Dark Brown- Moist- Loose (SC/SM)	SB1	10	2	8								
	5.5			Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Medium Dense (SP-SM)	SB2	18	3	11								
	10			Fine to Coarse SAND with Gravel- Grayish Brown- Moist- Medium Dense (SP)	SB3	18	3	11								
	14.5			Fine to Coarse SILTY SAND with Gravel- Occasional Sandstone Fragments- Brown- Moist- Loose (SM)	SB5	6	3	8								
	20			Fine to Coarse SAND with Gravel- Grayish Brown- Wet- Loose to Medium Dense (SP)	SB6	18	3	14								
	25				SB7	18	5	19								
	28.0			Fine to Coarse SILTY SAND with Gravel- Grayish Brown- Wet- Medium Dense (SM)	SB8	18	6	28								
	30.0			END OF BORING AT 30.0 FEET.												

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	14.5	903.5
▽ AT END OF BORING:	15.0	903.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:33 AM



BORING B320

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/16/21

COMPLETED: 12/16/21

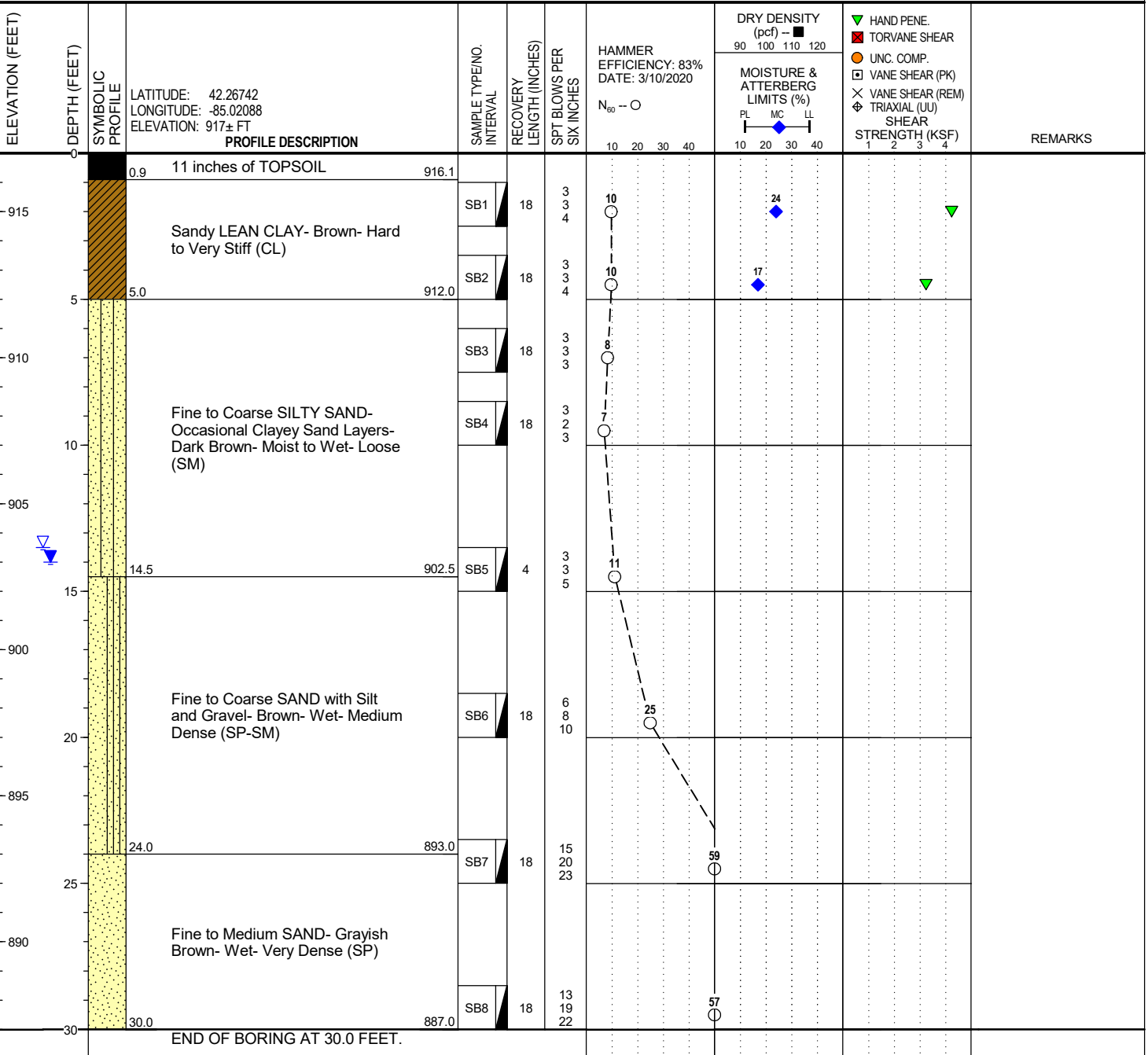
BORING METHOD: Hollow-stem Augers

DRILLER: RM

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	13.5	903.5
▽ AT END OF BORING:	14.0	903.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:34 AM



BORING B321

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/21/21

COMPLETED: 12/21/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26739 LONGITUDE: -85.01711 ELEVATION: 922± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			REMARKS
									90	100	110	120	PL	MC	
	0			15 inches of TOPSOIL											
920	1.3			Fine to Coarse CLAYEY SAND with Gravel- Dark Brown- Moist-Medium Dense (SC)	SB1	18	5	14							
	2.3			Fine to Coarse SILTY SAND- Occasional Clayey Sand Seams- Dark Brown- Moist- Loose (SM)	SB2	18	3	8							
915	5.5			Fine to Medium SILTY SAND- Dark Brown- Moist- Loose (SM)	SB3	18	3	7							
	8.5			Fine to Coarse SAND with Silt and Gravel- Brown- Moist-Medium Dense (SP-SM)	SB4	12	7	26						Cobbles encountered from 8.5 feet to 23.5 feet below the ground surface.	
910	13.5			Fine to Medium SAND with Silt and Gravel- Brown- Moist to Wet- Extremely Dense to Medium Dense (SP-SM)	SB5	0	23	86						Driller reported driving a rock at Samples SB4 and SB5.	
905	20			Fine to Coarse SAND with Silt- Light Brown- Wet- Medium Dense (SP-SM)	SB6	0	5	25							
900	23.5				SB7	18	8	29							
895	30.0				SB8	18	3	15							
	30.0			END OF BORING AT 30.0 FEET.											

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.0	901.0
▽ AT END OF BORING:	Note 3	
BACKFILL METHOD: Auger Cuttings		

- NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 3. Groundwater was not encountered upon completion of drilling.

2/1/22 9:22:36 AM



BORING B322

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/22/21

COMPLETED: 12/22/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26741 LONGITUDE: -85.01339 ELEVATION: 924± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%) PL MC LL	▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◆ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
									90	100	110 120			
	0.8			10 inches of TOPSOIL										
	3.0			LEAN CLAY with Sand- Frequent Topsoil Seams and Root Fibers- Dark Brown- Very Stiff (CL)	SB1	6	6	12		21				Driller reported driving a rock at Sample SB1.
920	5			Fine to Medium SAND- Brown to Grayish Brown- Moist- Loose to Medium Dense (SP)	SB2	18	3	8						Cobbles encountered from 0.8 feet to 3 feet below the ground surface.
					SB3	10	4	5	15					
915	10				SB4	18	4	4	14					
910	15			Fine SILTY SAND- Brown- Moist to Wet- Medium Dense (SM)	SB5	18	6	7	21					
905	20				SB6	18	5	6	9	21				
900	25			Fine to Coarse SILTY SAND with Gravel- Brown- Wet- Dense (SM)	SB7	6	8	13	40					
895	28.5			Fine to Coarse SAND with Gravel- Brown- Wet- Medium Dense (SP)	SB8	18	5	7	18					
	30.0													
END OF BORING AT 30.0 FEET.														

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	19.0	905.0
▽ AT END OF BORING:	19.0	905.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:37 AM



BORING B323

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/21/21

COMPLETED: 12/21/21

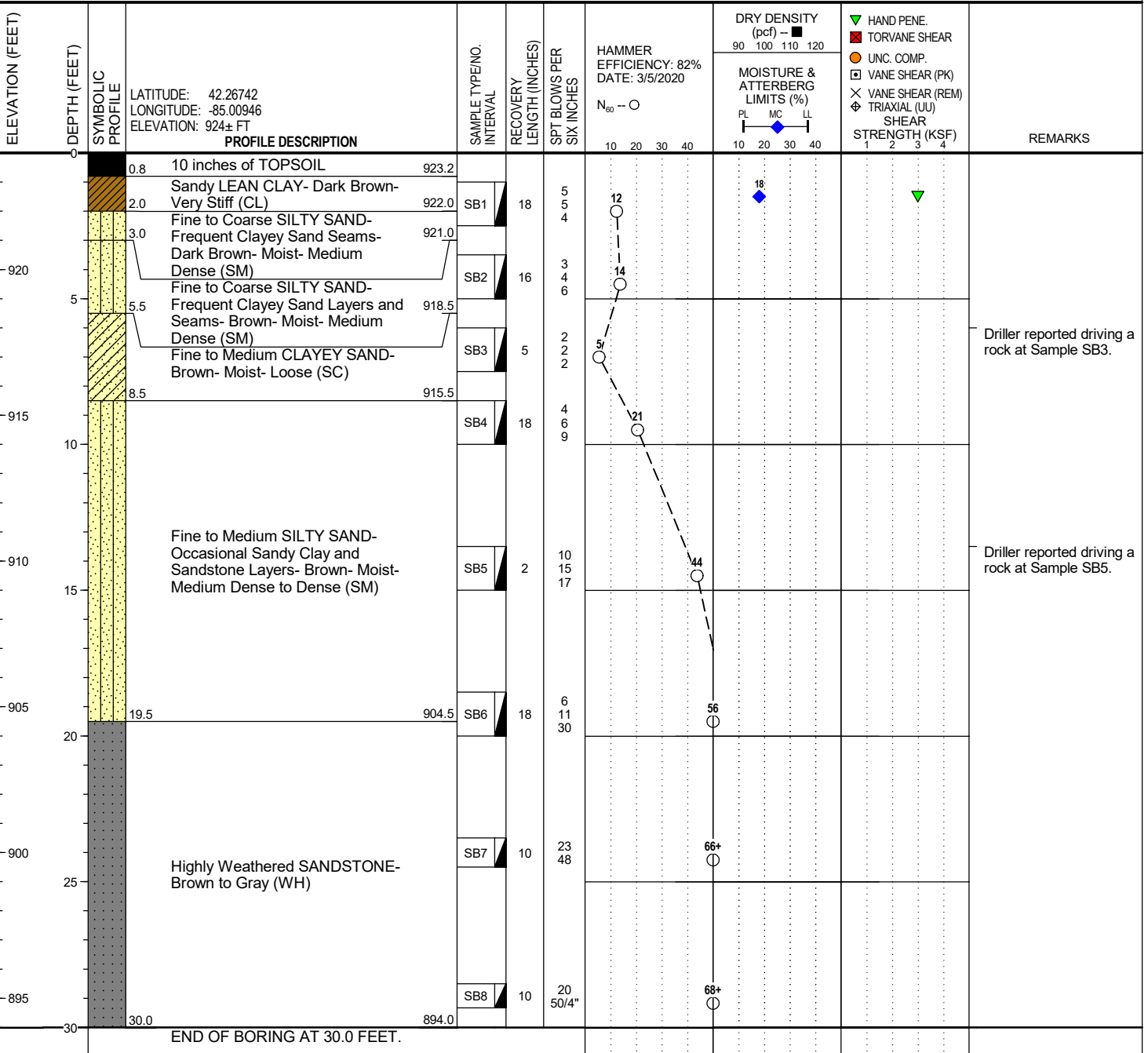
BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:38 AM



BORING B324

PAGE 1 OF 1

BORING DEPTH: 28.9 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

BORING METHOD: Hollow-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26483 LONGITUDE: -85.03194 ELEVATION: 912± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■	MOISTURE & ATTERBERG LIMITS (%)	▼ HAND PENE. ✖ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) ✕ VANE SHEAR (REM) ⬠ TRIAXIAL (UU) ⬠ SHEAR STRENGTH (KSF)	REMARKS
									90 100 110 120	PL MC LL		
	0			0.7 8 inches of TOPSOIL								
910				Fine to Coarse CLAYEY SAND- Occasional Root Fibers- Dark Brown- Moist- Loose (SC)	SB1	18	3 3 3	8				
	5			Fine to Medium SILTY SAND- Occasional Sandy Clay Partings- Brown- Moist- Medium Dense (SM)	SB2	18	2 4 5	12				
905				Fine to Medium SILTY SAND with Gravel- Frequent Highly Weathered Sandstone Fragments- Greenish Brown- Moist- Medium Dense to Dense (SM)	SB3	18	7 11 6	24				
900					SB4	18	9 11 12	32				
	15				SB5	0	50/2"	69+				
895					SB6	6	60	83+				
890					SB7	3	50/3"	69+				
885					SB8	4	50/4"	69+				
	30			END OF BORING AT 28.9 FEET.								

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:39 AM



BORING B325

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

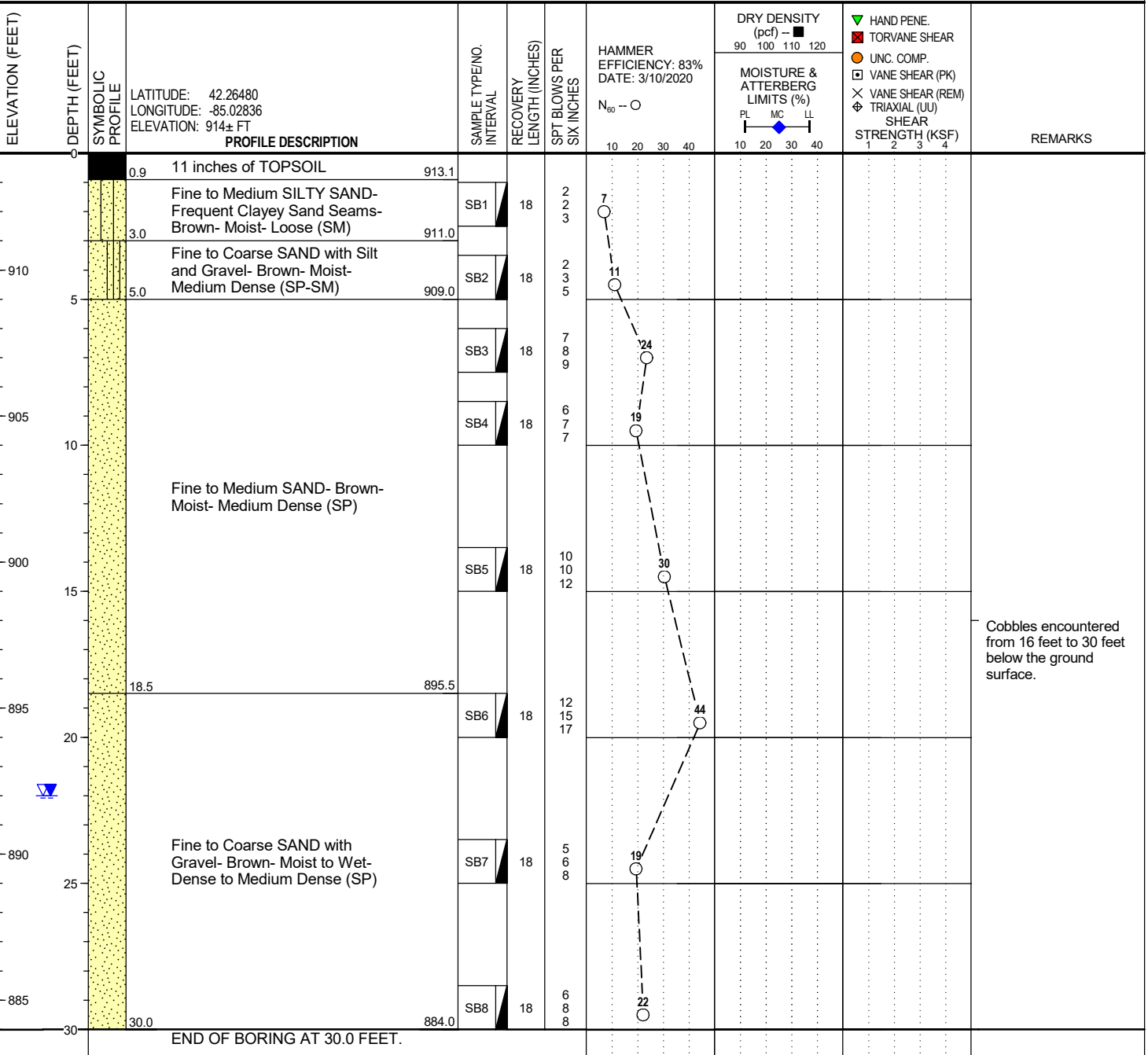
BORING METHOD: Hollow-stem Augers

DRILLER: RM

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR



Cobbles encountered from 16 feet to 30 feet below the ground surface.

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	22.0	892.0
▽ AT END OF BORING:	22.0	892.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:40 AM



BORING B326

PAGE 1 OF 2

BORING DEPTH: 49.5 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

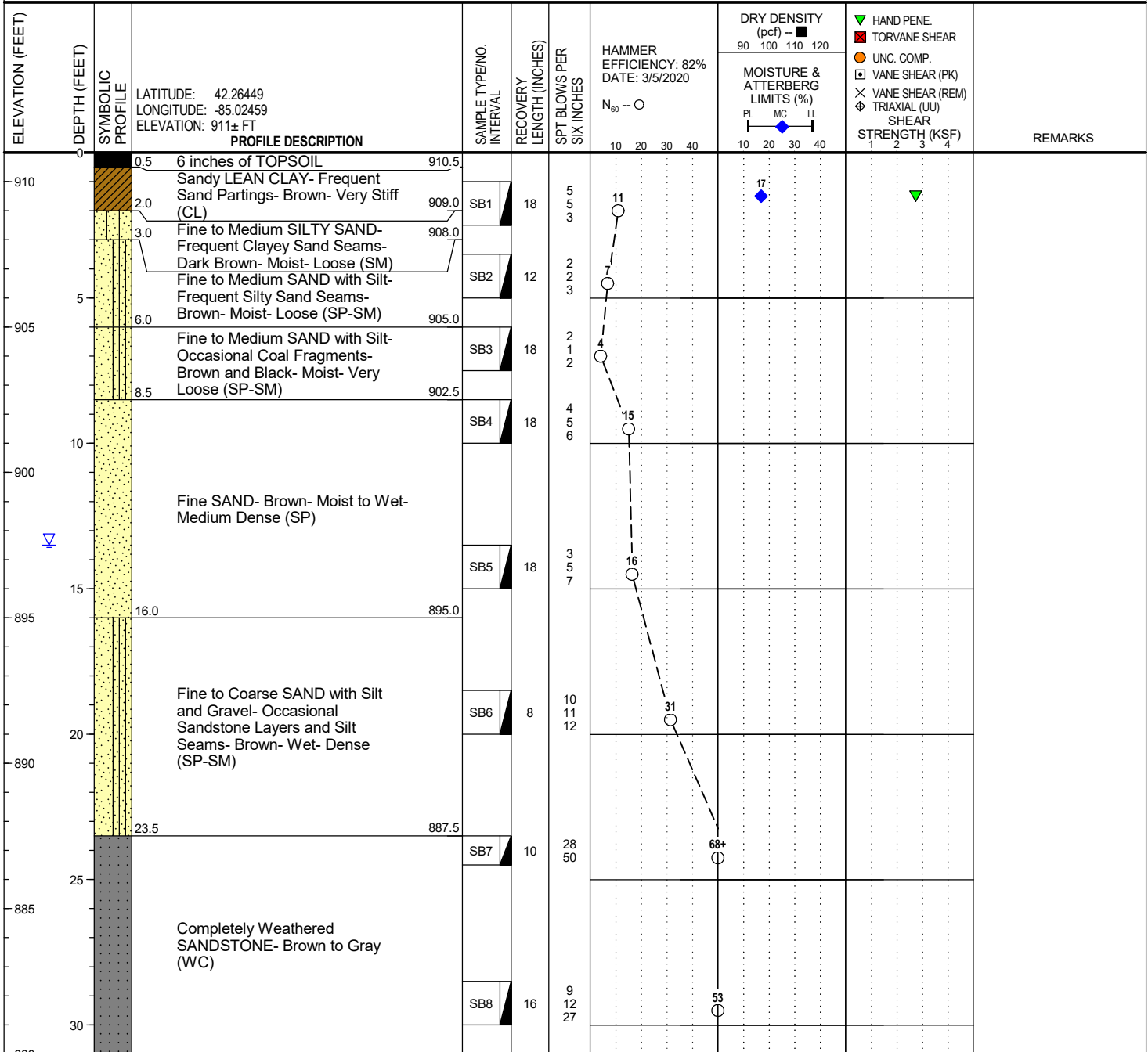
BORING METHOD: Note 3

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	13.5	897.5
▽ AT END OF BORING:	Note 3	
BACKFILL METHOD:	Note 5	

- NOTES:
- The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 - The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 - Hollow-stem augers were used to advance the borehole to 30 feet below the ground surface. Wash rotary drilling was then used to the explored depth of the boring, therefore, an accurate groundwater level measurement was not obtained after the completion of drilling activities.
 - Driller reported losing drilling fluids from 41 feet to 48.5 feet below the ground surface, losing about 135 gallons of drilling fluid. Due to the loss of the drilling fluids, the borehole was terminated at 49.5 feet below the ground surface.
 - The borehole was backfilled by tremie method with bentonite-cement grout to 30 feet below the ground surface and auger cuttings above 30 feet to the ground surface.

(Continued Next Page)

2/1/22 9:22:41 AM



BORING B327

PAGE 1 OF 1

BORING DEPTH: 28.8 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/16/21

COMPLETED: 12/16/21

BORING METHOD: Hollow-stem Augers

DRILLER: RM

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 83% DATE: 3/10/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%) PL MC LL	<ul style="list-style-type: none"> ▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) ◇ SHEAR STRENGTH (KSF) 	REMARKS
								90	100	110			
	0		6 inches of TOPSOIL										
915	2.0		Fine to Medium CLAYEY SAND- Frequent Clayey Sand Layers- Dark Brown- Moist- Loose (SC)	SB1	18	2 2 3	7						
	5		Fine to Medium SILTY SAND- Frequent Clayey Sand Seams- Dark Brown- Moist- Loose (SM)	SB2	18	2 2 3	7						
910	6.0		Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Loose (SP-SM)	SB3	18	2 3 3	8						
	10		Fine to Coarse SAND- Brown- Moist- Medium Dense (SP)	SB4	18	4 6 7	18						
905	13.0		Fine to Medium SILTY SAND with Gravel- Frequent Sandstone Fragments- Greenish Brown to Brown- Moist to Wet- Dense to Very Dense (SM)	SB5	18	12 15 19	47						
900	20		Completely Weathered SANDSTONE- Greenish Brown (WC)	SB6	18	14 15 31	64						
895	23.5			SB7	7	30 50/3"	69+						
890	28.8		END OF BORING AT 28.8 FEET.	SB8	3	50/4"	69+						
885													

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	22.5	893.5
▽ AT END OF BORING:	26.0	890.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:42 AM



BORING B328

PAGE 1 OF 1

BORING DEPTH: 29.5 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

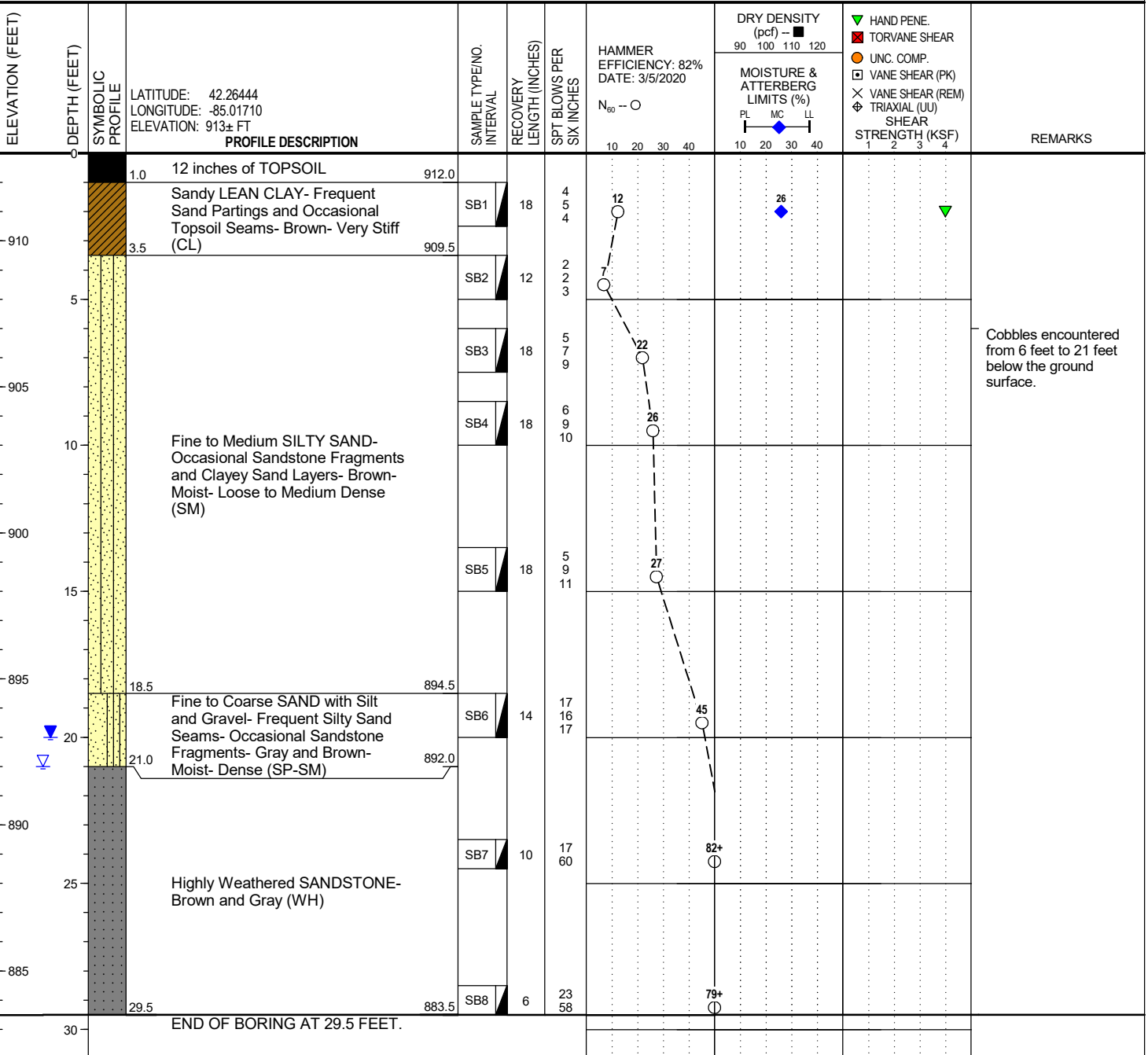
BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



Cobbles encountered from 6 feet to 21 feet below the ground surface.

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.0	892.0
▽ AT END OF BORING:	20.0	893.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:43 AM



BORING B329

PAGE 1 OF 1

BORING DEPTH: 29.5 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

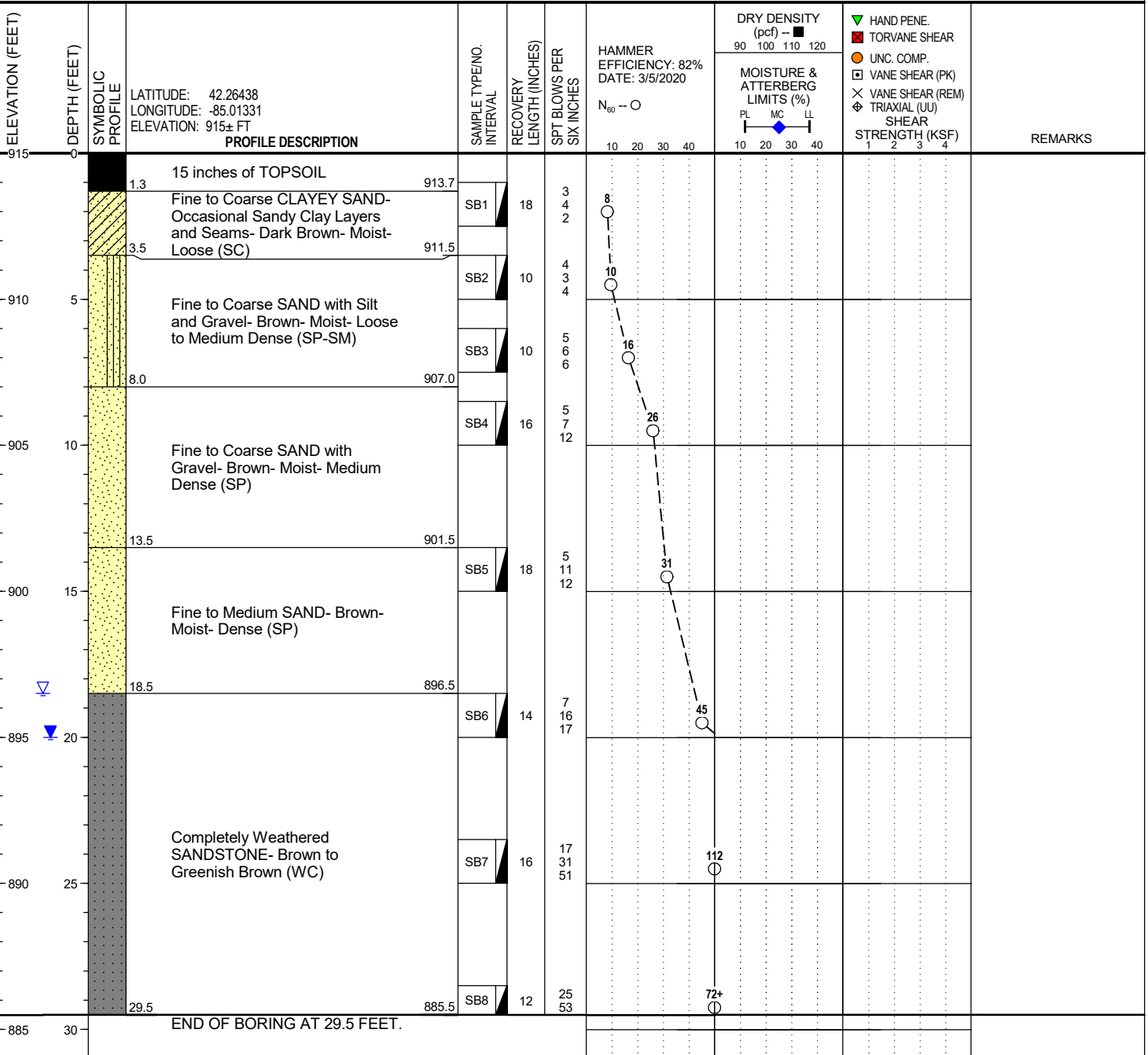
BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	18.5	896.5
▽ AT END OF BORING:	20.0	895.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:44 AM



BORING B330

PAGE 1 OF 1

BORING DEPTH: 29.3 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/16/21

COMPLETED: 12/16/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26437 LONGITUDE: -85.00953 ELEVATION: 917± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120	PL	MC		
916.0	0.0	1.0		12 inches of TOPSOIL												
913.5	3.5			Sandy LEAN CLAY- Frequent Root Fibers and Topsoil and Sand Seams- Dark Brown- Very Stiff (CL)	SB1	18	4	11								
909.0	8.0			Fine to Coarse SILTY SAND- Frequent Clayey Sand Seams- Dark Brown- Moist- Loose to Very Loose (SM)	SB2	16	3	7								
909.0	8.0			Fine to Coarse SILTY SAND- Frequent Clayey Sand Seams- Dark Brown- Moist- Loose to Very Loose (SM)	SB3	14	3	4								
909.0	8.0			Fine to Coarse SILTY SAND- Frequent Clayey Sand Seams- Dark Brown- Moist- Loose to Very Loose (SM)	SB4	8	3	1								
903.5	13.5			Fine to Medium SAND- Brown- Moist- Medium Dense (SP)	SB5	12	7	12								
903.5	13.5			Fine to Medium SAND- Brown- Moist- Medium Dense (SP)	SB5	12	8	14								
898.5	18.5			Fine to Coarse SAND with Gravel- Brownish Gray- Moist- Medium Dense (SP)	SB6	16	12	30								
898.5	18.5			Fine to Coarse SAND with Gravel- Brownish Gray- Moist- Medium Dense (SP)	SB6	16	24	70								
893.5	23.5			Fine to Medium SILTY SAND with Gravel- Brown- Moist to Wet- Very Dense (SM)	SB7	10	20	67								
893.5	23.5			Fine to Medium SILTY SAND with Gravel- Brown- Moist to Wet- Very Dense (SM)	SB7	10	29									
887.7	29.3			Completely Weathered SANDSTONE- Greenish Brown (WC)	SB8	3	18	68+								
887.7	29.3			Completely Weathered SANDSTONE- Greenish Brown (WC)	SB8	3	50/3"									
				END OF BORING AT 29.3 FEET.												

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.0	896.0
▽ AT END OF BORING:	Note 3	
BACKFILL METHOD: Auger Cuttings		

- NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 3. Groundwater was not encountered upon completion of drilling.

2/1/22 9:22:45 AM



BORING B331

PAGE 1 OF 1

BORING DEPTH: 28.7 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

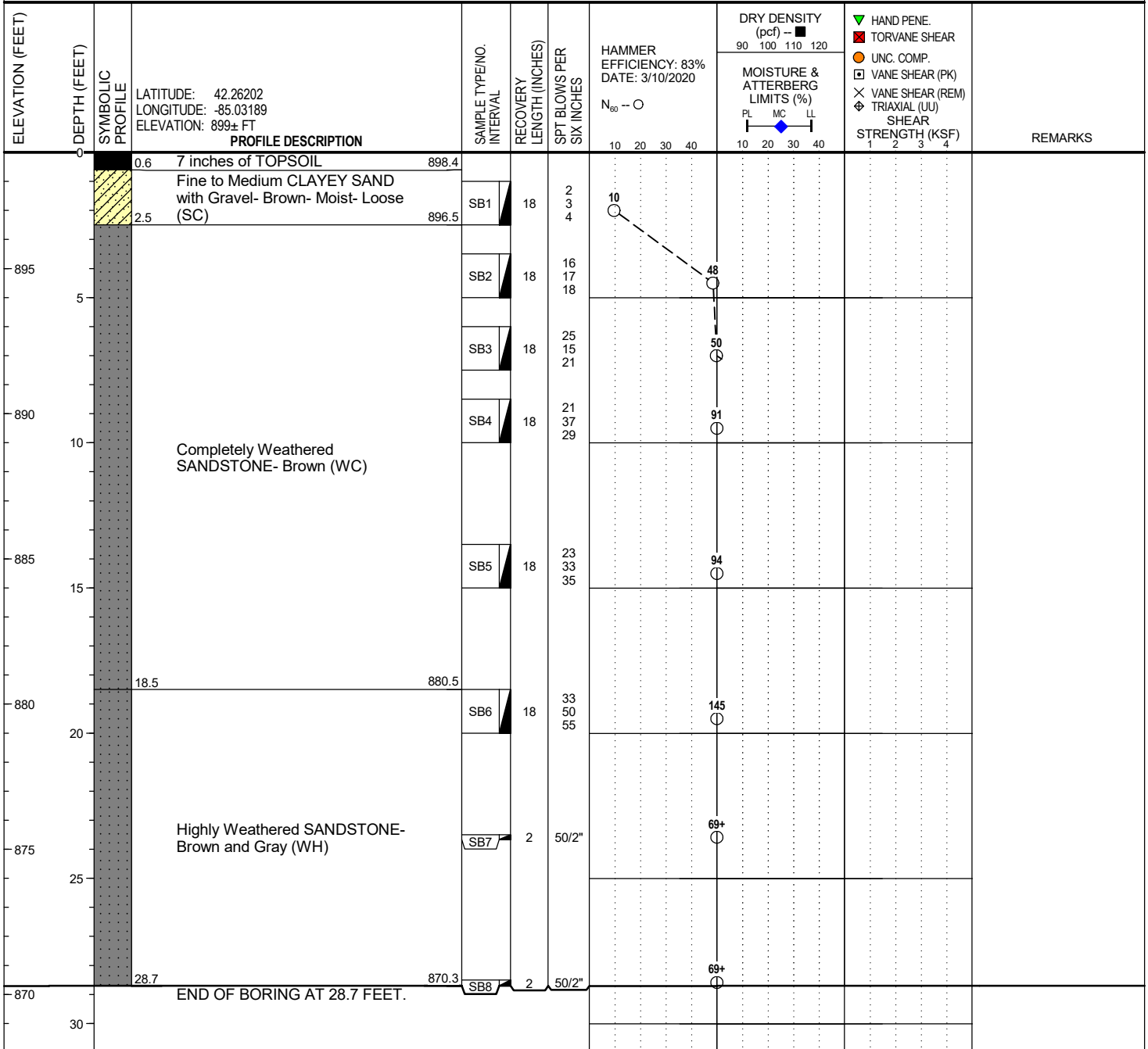
BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:46 AM



BORING B332

PAGE 1 OF 1

BORING DEPTH: 28.7 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

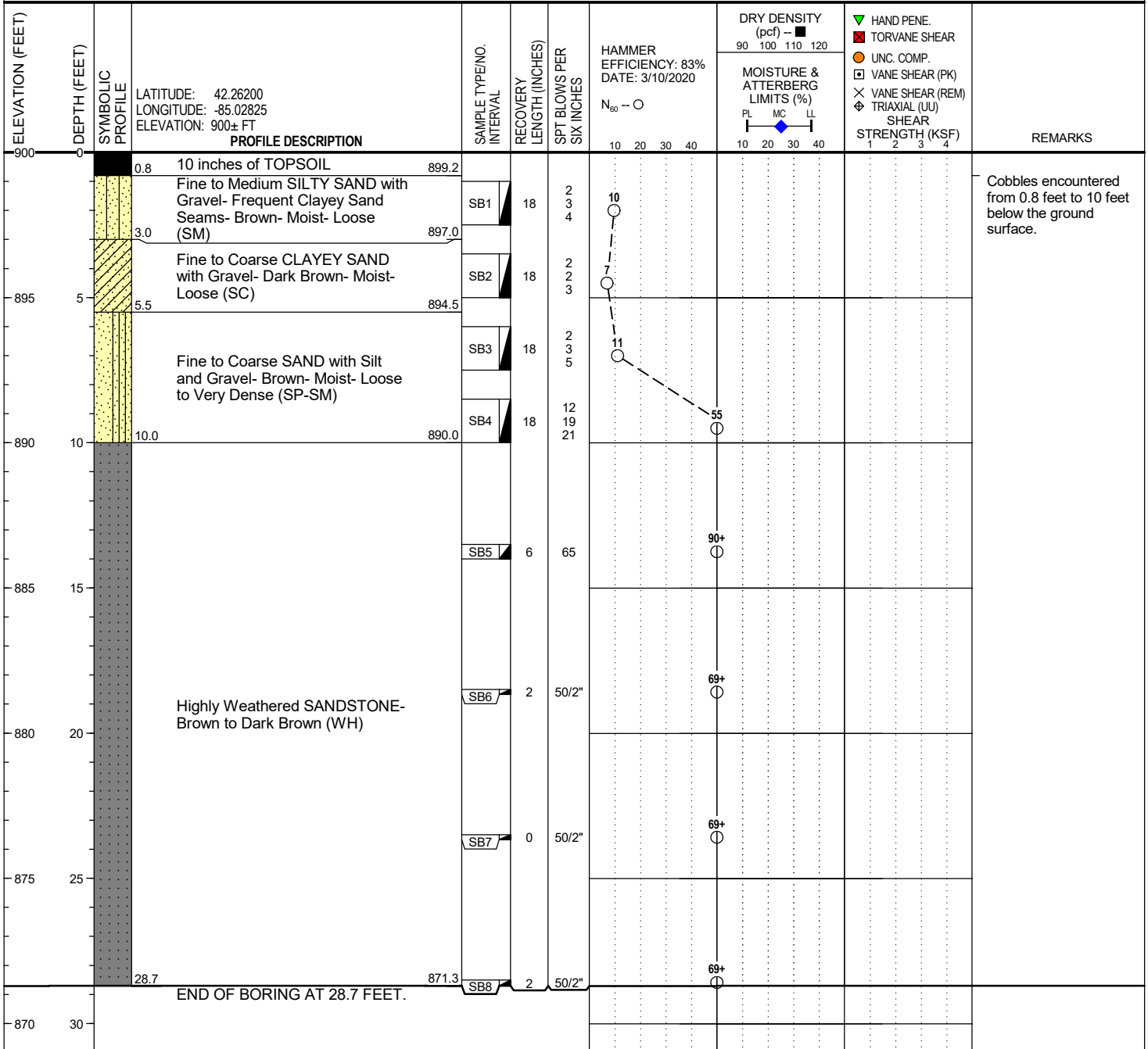
BORING METHOD: Solid-stem Augers

DRILLER: CR

RIG NO.: 531-CME55-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:47 AM



BORING B333

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26193 LONGITUDE: -85.02458 ELEVATION: 906± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- ○	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◆ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
									90	100	110	120	PL	MC		
905	0			1.0 12 inches of TOPSOIL												
	3.5			Fine to Coarse SILTY SAND with Gravel- Occasional Sandy Lean Clay Layers- Dark Brown- Moist- Loose (SM)	SB1	18	4	10								Cobbles encountered from 0 feet to 3.5 feet below the ground surface.
	5			Fine to Medium SAND with Silt- Brown- Moist- Medium Dense (SP-SM)	SB2	18	2	11								
900	6.0				SB3	18	6	21								
	10				SB4	18	3	21								
	15			Fine to Coarse SILTY SAND with Gravel- Occasional Sandstone Fragments- Brown- Moist- Medium Dense to Very Dense (SM)	SB5	18	7	22								
890	20				SB6	16	13	68								
	25				SB7	18	12	68								
885	30.0			Completely Weathered SANDSTONE- Light Gray to Dark Brown (WC)	SB8	18	18	79								
	30.0			END OF BORING AT 30.0 FEET.												

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	21.0	885.0
▽ AT END OF BORING:	16.0	890.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:48 AM



BORING B334

PAGE 1 OF 1

BORING DEPTH: 16 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/15/21

COMPLETED: 12/15/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■			MOISTURE & ATTERBERG LIMITS (%)			▲ HAND PENE. ■ TORVANE SHEAR ● UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◆ TRIAXIAL (UU) S SHEAR STRENGTH (KSF)	REMARKS
								90	100	110	120	PL	MC		
910	0.7		8 inches of TOPSOIL												
910	3.5		Sandy LEAN CLAY- Frequent Root Fibers and Sand Partings- Brown- Very Stiff (CL)	SB1	18	2 4 4	11			15					Cobbles encountered from 0 feet to 0.7 feet below the ground surface.
905	6.0		Fine to Coarse SILTY SAND with Gravel- Brown and Dark Brown- Moist- Medium Dense (SM)	SB2	12	5 7 9	22								
905	8.5		Fine SAND- Brown- Moist- Medium Dense (SP)	SB3	18	5 6 7	18								
900	10		Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Extremely Dense (SP-SM)	SB4	3	21 56	77+								Cobbles encountered from 8.5 feet to 16 feet below the ground surface.
895	16.0		END OF BORING AT 16.0 FEET.	SB5	0	50/3"	68+								"Note 3"

GROUNDWATER & BACKFILL INFORMATION
GROUNDWATER WAS NOT ENCOUNTERED
BACKFILL METHOD: Auger Cuttings

- NOTES:
- The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 - The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 - Driller reported encountering obstructions from 10 feet to 16 feet below the ground surface. Driller made four attempts to advance the borehole, but the borehole was ultimately terminated at 16 feet below the ground surface.

2/1/22 9:22:49 AM



BORING B335

PAGE 1 OF 1

BORING DEPTH: 29.5 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/16/21

COMPLETED: 12/16/21

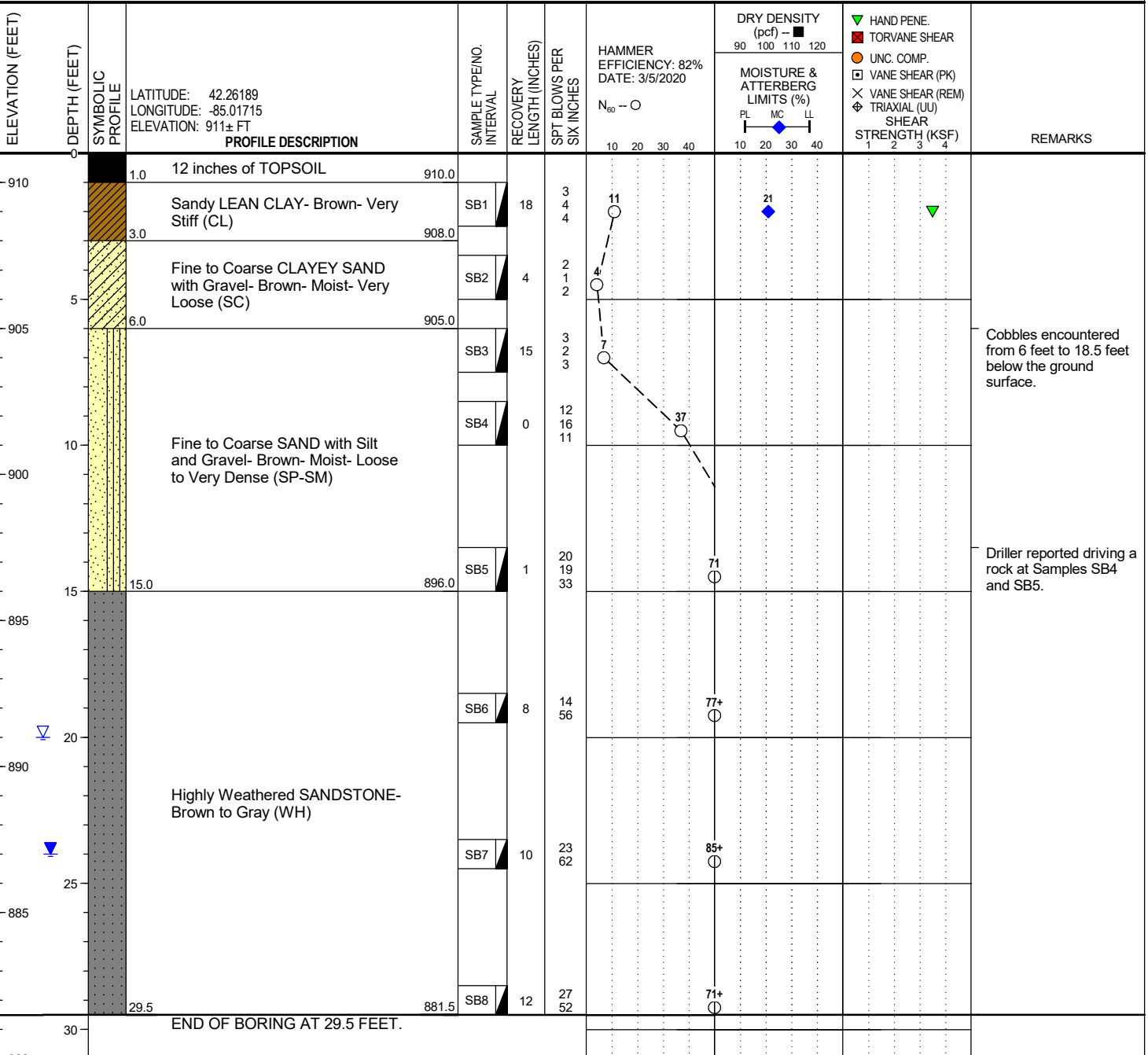
BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR



GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	20.0	891.0
▽ AT END OF BORING:	24.0	887.0
BACKFILL METHOD: Auger Cuttings		

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:51 AM



BORING B336

PAGE 1 OF 1

BORING DEPTH: 29.3 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/16/21

COMPLETED: 12/16/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26184 LONGITUDE: -85.01324 ELEVATION: 909± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■	MOISTURE & ATTERBERG LIMITS (%) PL MC LL	<ul style="list-style-type: none"> ▼ HAND PENE. ■ TORVANE SHEAR ○ UNC. COMP. □ VANE SHEAR (PK) × VANE SHEAR (REM) ◇ TRIAXIAL (UU) ◇ SHEAR STRENGTH (KSF) 	REMARKS
									90 100 110 120			
907.0	2.0	[Symbolic Profile]		TOPSOIL- Sandy LEAN CLAY- Frequent Root Fibers- Dark Brown- Very Stiff (CL)	SB1	18	3		20		▼	Cobbles encountered from 0 feet to 6 feet below the ground surface.
905.5	3.5	[Symbolic Profile]		Sandy LEAN CLAY- Brown- Very Stiff (CL)			3		21		▼	
903.0	6.0	[Symbolic Profile]		Fine to Coarse SAND with Silt and Gravel- Occasional Clayey Sand Layers- Brown- Moist-Dense (SP-SM)	SB2	4	6	12				Driller reported driving a rock at Samples SB2, SB4, and SB5.
		[Symbolic Profile]					17		31			
894.5	14.5	[Symbolic Profile]		Fine to Medium SILTY SAND with Gravel- Brown- Moist- Medium Dense to Extremely Dense (SM)	SB3	18	4					
		[Symbolic Profile]					5					
		[Symbolic Profile]					7					
		[Symbolic Profile]					8					
889.5	23.0	[Symbolic Profile]		Completely Weathered SANDSTONE- Brown to Gray (WC)	SB4	6	5					
		[Symbolic Profile]					7					
		[Symbolic Profile]					8					
886.0	23.0	[Symbolic Profile]		Highly Weathered SANDSTONE- Gray (WH)	SB5	2	23					
		[Symbolic Profile]					50/3"		68+			
879.7	29.3	[Symbolic Profile]		END OF BORING AT 29.3 FEET.	SB6	10	23					
		[Symbolic Profile]					52		71+			
		[Symbolic Profile]					70					
		[Symbolic Profile]					18					
		[Symbolic Profile]					70		96+			
		[Symbolic Profile]					30					
		[Symbolic Profile]					50/3"		68+			

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▼ AT END OF BORING:	16.0	893.0
BACKFILL METHOD:	Auger Cuttings	

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.

2/1/22 9:22:52 AM



BORING B337

PAGE 1 OF 1

BORING DEPTH: 30 FEET

PROJECT NAME: Marshall Michigan Megasite

PROJECT NUMBER: 088106.00

CLIENT: Burns & McDonnell

PROJECT LOCATION: Marshall Township, Calhoun County, Michigan

DATE STARTED: 12/16/21

COMPLETED: 12/16/21

BORING METHOD: Hollow-stem Augers

DRILLER: JRN

RIG NO.: 524-CME550-RT-ATV

LOGGED BY: MWB

CHECKED BY: STR

ELEVATION (FEET)	DEPTH (FEET)	SYMBOLIC PROFILE	LATITUDE: 42.26183 LONGITUDE: -85.00961 ELEVATION: 911± FT	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY LENGTH (INCHES)	SPT BLOWS PER SIX INCHES	HAMMER EFFICIENCY: 82% DATE: 3/5/2020 N ₆₀ -- O	DRY DENSITY (pcf) -- ■				MOISTURE & ATTERBERG LIMITS (%)				REMARKS
									90	100	110	120	PL	MC	LL	SH	
910	0			18 inches of TOPSOIL													
	1.5			Fine to Coarse CLAYEY SAND with Gravel- Frequent Root Fibers- Dark Brown- Moist- Loose (SC)	SB1	14	3	10									Cobbles encountered from 0 feet to 1.5 feet below the ground surface.
	3.5			Fine to Coarse SILTY SAND with Gravel- Dark Brown- Moist- Very Loose (SM)	SB2	4	1	3									
	6.0			Fine to Coarse CLAYEY SAND with Gravel- Dark Brown- Moist- Very Loose (SC)	SB3	6	0	3									
	8.5			Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Loose to Medium Dense (SP-SM)	SB4	18	4	8									Cobbles encountered from 8.5 feet to 18.5 feet below the ground surface.
	15				SB5	0	5	21									
	18.5				SB6	18	12	36									
	24.5			Fine to Coarse SILTY SAND with Gravel- Occasional Clayey Sand Layers- Brown- Moist to Wet-Dense to Medium Dense (SM)	SB7	18	6	89									
	30.0			Completely Weathered SANDSTONE- Brown (WC)	SB8	12	12	103									
	30.0			END OF BORING AT 30.0 FEET.													

GROUNDWATER & BACKFILL INFORMATION		
	DEPTH (FT)	ELEV (FT)
▽ DURING BORING:	23.5	887.5
▽ AT END OF BORING:	Note 3	
CAVE-IN OF BOREHOLE AT:	25.0	886.0
BACKFILL METHOD:	Auger Cuttings	

NOTES: 1. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
 2. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
 3. Groundwater was not encountered above borehole cave-in depth upon auger removal.

TABLE A.1: CPT, SPT, AND PRESSUREMETER TEST RESULT SUMMARY

Test Location ID	Test Interval (Feet)	USCS Classification	Standard Penetration Test (SPT)					Pressuremeter Test		Cone Penetration Test			
			N(60)	N	N(60)	N	N(60)	Pressuremeter Modulus (Ed)		Tip Resistance		SPT N-Value Estimate	
			Original Boring (bpf)	In-situ (bpf)	In-situ (bpf)	Improved (bpf)	Improved (bpf)	In-situ (tsf)	Improved (tsf)	In-situ (tsf)	Improved (tsf)	In-situ (bpf)	Improved (bpf)
B311	5-7	SP-SM	8	26	36	N/A	N/A	127	N/A	2.72	59-399	1	19-64
B311	10-12	SP	7	11	15	N/A	N/A	90	N/A	4-257	109-179	2-40	30-34
B313	6-8	SP	7	3	4	N/A	N/A	N/A	N/A	78-105	165-255	19-25	39-61
B313	11-13	SP	3	24	33	N/A	N/A	221	N/A	172-261	21-98	37-46	8-22
B317	5-7	SP-SM	10	4	5	29	40	29	336	11-72	200-442	4-16	48-56
B317	10-12	SP-SM	4	10	14	18	25	142	473	7-18	N/A	3-7	N/A
B319	4-6 & 5-7	SP-SM	11	17	23	25	34	154	158	13-77	100-395	5-21	29-61
B319	10-12	SP	22	26	36	12	16	412	57*	170-211	N/A	33-54	N/A
B320	6-8	SM	8	5	7	18	25	N/A	145	10-17	20-110	4-6	10-26
B320	11-13	SM	7	4	5	8	11	N/A	33*	11-14	14-31	4-5	6-12
B326	5-7	SP-SM	4	5	7	19	26	75	150	49-79	105-144	12-19	23-28
B326	10-12	SP	15	9	12	16	22	165	94*	84-106	30-82	20-25	10-20

*Borehole disturbed during preparation.

TABLE A.2: DYNAMIC CONE PENETROMETER AND NUCLEAR DENSITY TEST SUMMARY

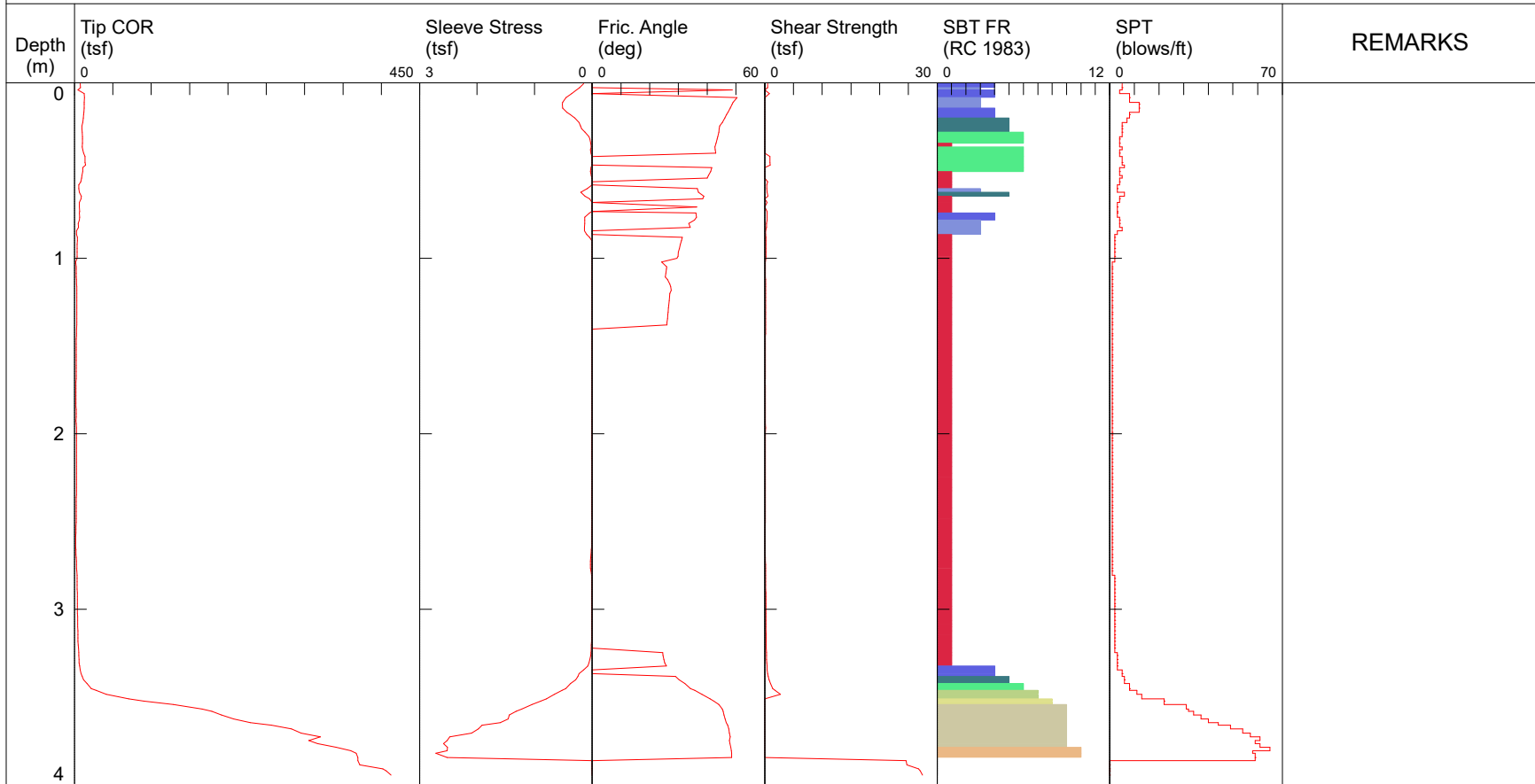
LOCATION ID	Exposed Subgrade Condition	Dynamic Cone Penetrometer Test Results							Nuclear Density Testing of Exposed Subgrade			
		Test ID	Test Interval						Sample ID	Wet Density (pcf)	Moisture Content	Dry Density (pcf)
			0"-6"	6"-12"	12"-18"	18"-24"	24"-30"	30"-36"				
B311	PRE-COMPACTION	DCP311-1	14	34	50/4"*	-----	-----	-----	N311-1	122.9	7.2%	114.6
		DCP311-2	11	28	34	53	33	19				
	1ST ROUND OF COMPACTION	DCP311-3	21	32	43	24	26	30	N311-2	126.8	6.9%	118.6
	2nd ROUND OF COMPACTION	DCP311-4	24	29	24	32	43	31	-----	-----	-----	-----
B313	PRE-COMPACTION	DCP313-1	14	24	24	25	25	27	N313-1	124.8	9.4%	114.1
	1ST ROUND OF COMPACTION	DCP313-2	15	23	29	31	33	37	N313-2	120.9	11.1%	108.8
	2nd ROUND OF COMPACTION	DCP313-3	12	26	32	41	44	56	-----	-----	-----	-----
B317	PRE-COMPACTION	DCP317-1	6	15	21	33	42	15	-----	-----	-----	-----
	1ST ROUND OF COMPACTION	DCP317-2	25	44	49	44	26	27	-----	-----	-----	-----
B319	PRE-COMPACTION	DCP319-1	3	2	2	2	5	9	-----	-----	-----	-----
	1ST ROUND OF COMPACTION	DCP319-2	8	40	50/4"*	-----	-----	-----	-----	-----	-----	-----
		DCP319-3	15	44	81	50/2"*	-----	-----	-----	-----	-----	-----
B320	PRE-COMPACTION	DCP320-1	4	11	11	9	5	6	-----	-----	-----	-----
	1ST ROUND OF COMPACTION	DCP320-2	18	20	28	28	27	35	-----	-----	-----	-----
B326	PRE-COMPACTION	DCP326-1	4	12	18	17	16	16	N326-1	98.6	5.2%	93.8
	1ST ROUND OF COMPACTION	DCP326-2	4	9	14	17	23	24	N326-2	107.2	4.8%	102.2
	2nd ROUND OF COMPACTION	DCP326-3	8	18	20	24	30	39	N326-3	107.2	5.2%	101.8
	3rd ROUND OF COMPACTION	DCP326-4	12	21	25	33	33	40	N326-4	110.1	5.4%	104.5

* Refusal encountered after 50 blows.

SOUNDING

TOTAL DEPTH: 3.944 m
 SITE: B-311
 SOUNDING
 COMPANY: SME
 FILENAME: B311.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-311
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 1.81 (tsf)

FINAL BASELINE: 0.0149 (tsf)

NOTES:: Example of notes

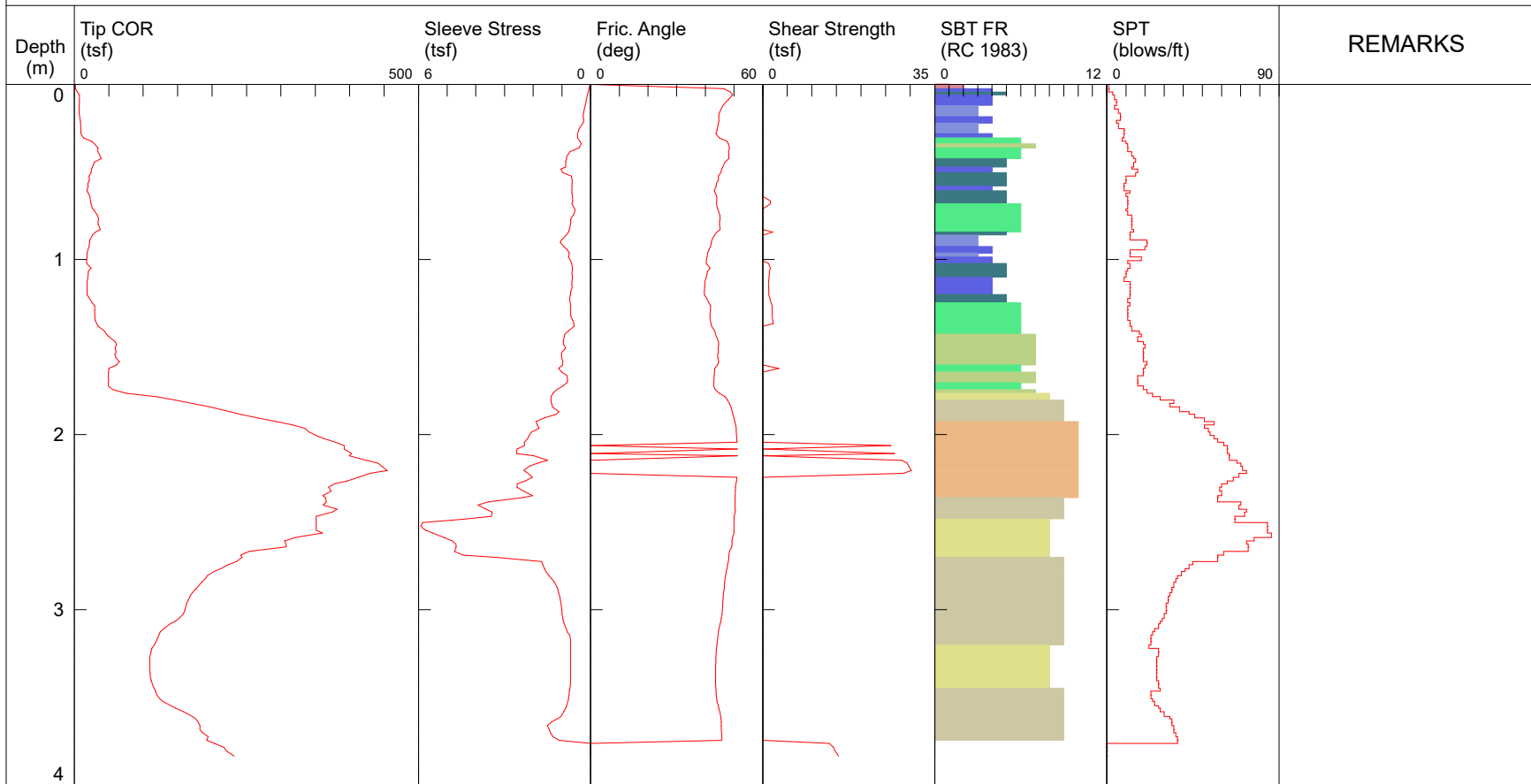
- 1 sensitive fine grained
- 4 silty clay to clay
- 7 silty sand to sandy silt
- 10 gravelly sand to sand
- 2 organic material
- 5 clayey silt to silty clay
- 8 sand to silty sand
- 11 very stiff fine grained (*)
- 3 clay
- 6 sandy silt to clayey silt
- 9 sand
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 3.836 m
 SITE: B-311 Test Pit
 SOUNDING
 COMPANY: SME
 FILENAME: B311 tp.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-311 Test Pit
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -1.13 (tsf)

FINAL BASELINE: -0.0165 (tsf)

NOTES:: Example of notes

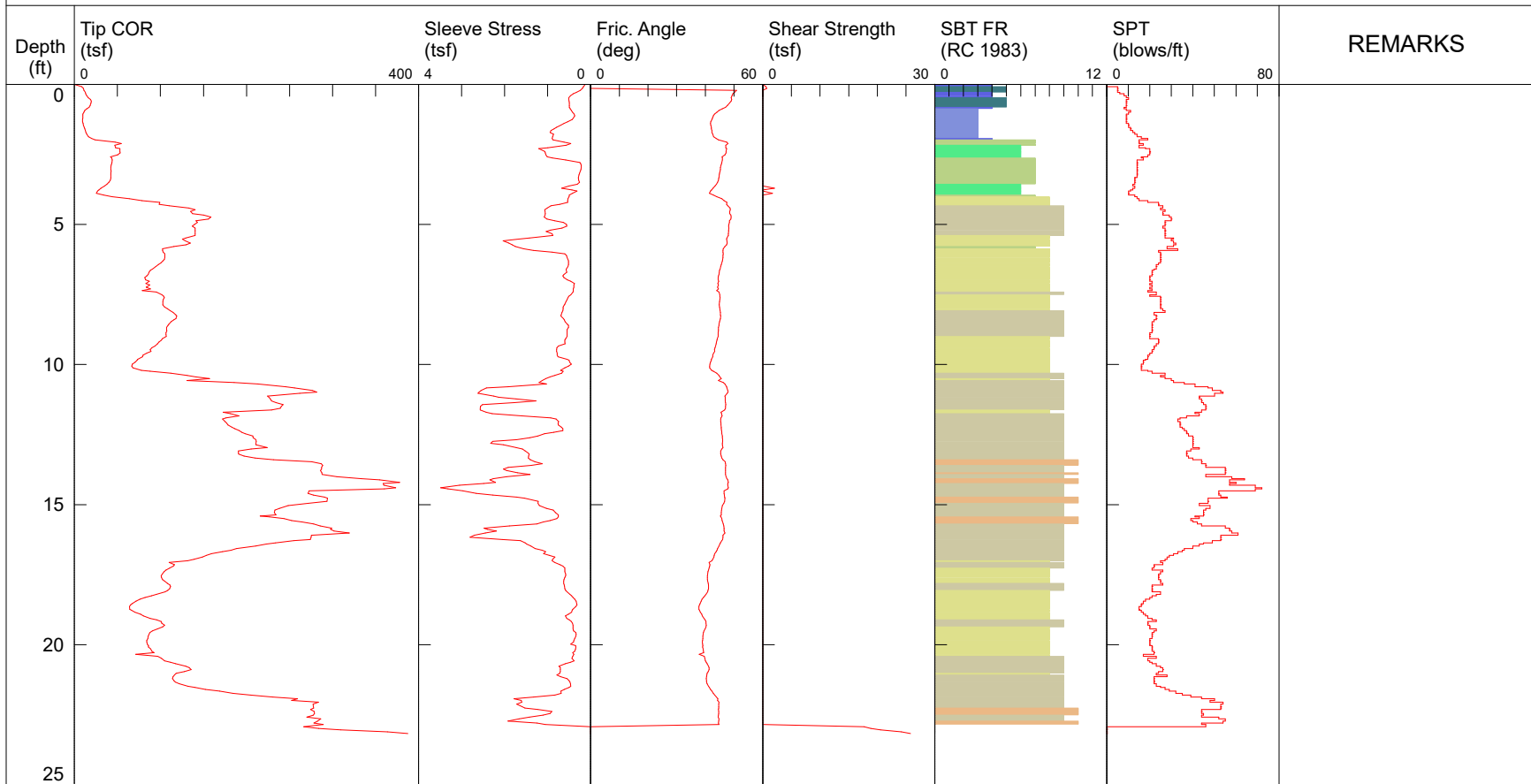
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 23.167 ft
 SITE: B-313
 SOUNDING
 COMPANY: SME
 FILENAME: B313.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-313
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.34 (tsf)

FINAL BASELINE: 0.0033 (tsf)

NOTES:: Example of notes

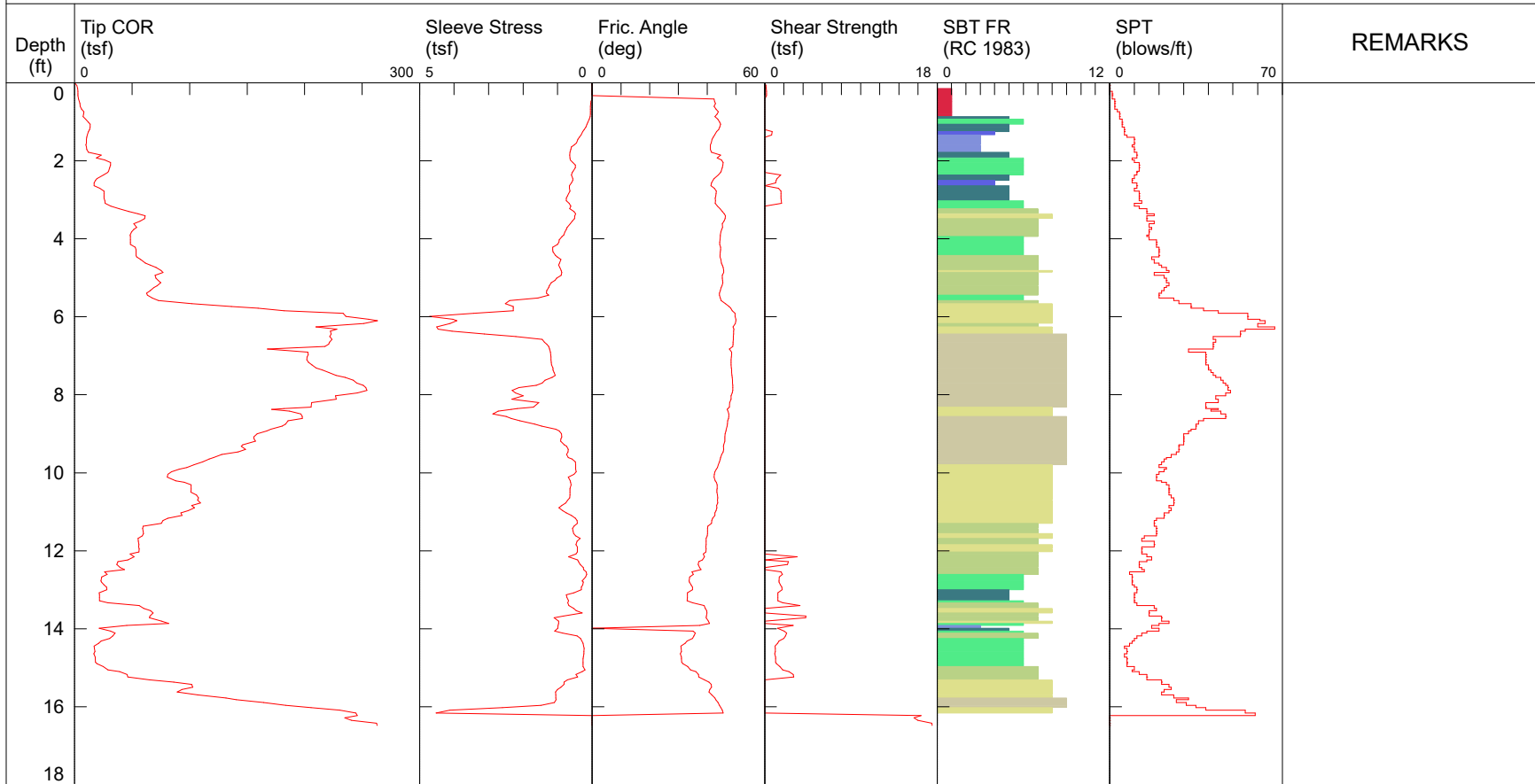
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|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 16.477 ft
 SITE: B-313 Test Pit
 SOUNDING
 COMPANY: SME
 FILENAME: B313 tp.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-313 Test Pit
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.23 (tsf)

FINAL BASELINE: -0.0116 (tsf)

NOTES:: Example of notes

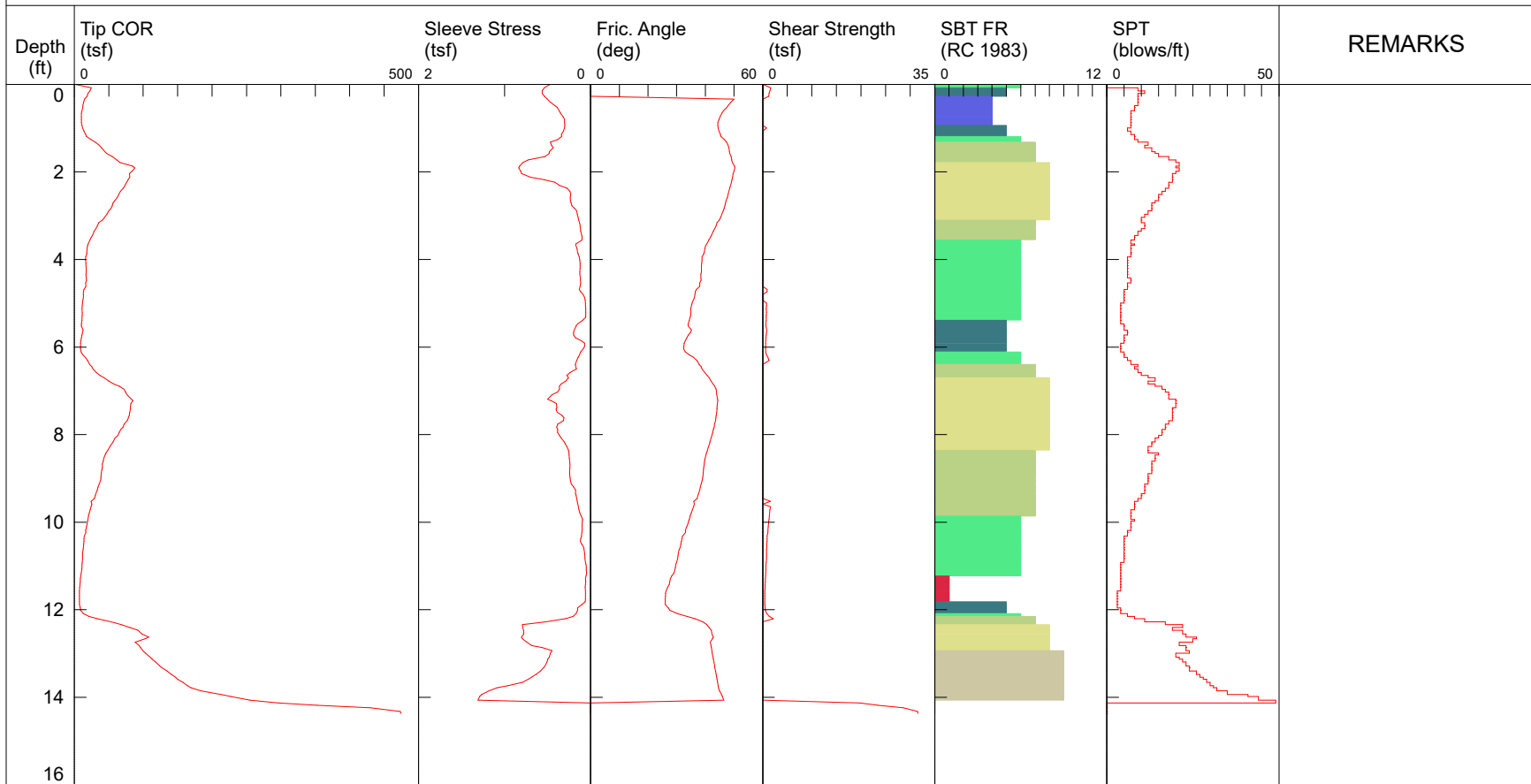
- 1 sensitive fine grained
- 4 silty clay to clay
- 7 silty sand to sandy silt
- 10 gravelly sand to sand
- 2 organic material
- 5 clayey silt to silty clay
- 8 sand to silty sand
- 11 very stiff fine grained (*)
- 3 clay
- 6 sandy silt to clayey silt
- 9 sand
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 14.372 ft
 SITE: B-317
 SOUNDING
 COMPANY: SME
 FILENAME: B317.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-317
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 0.79 (tsf)

FINAL BASELINE: -0.0431 (tsf)

NOTES:: Example of notes

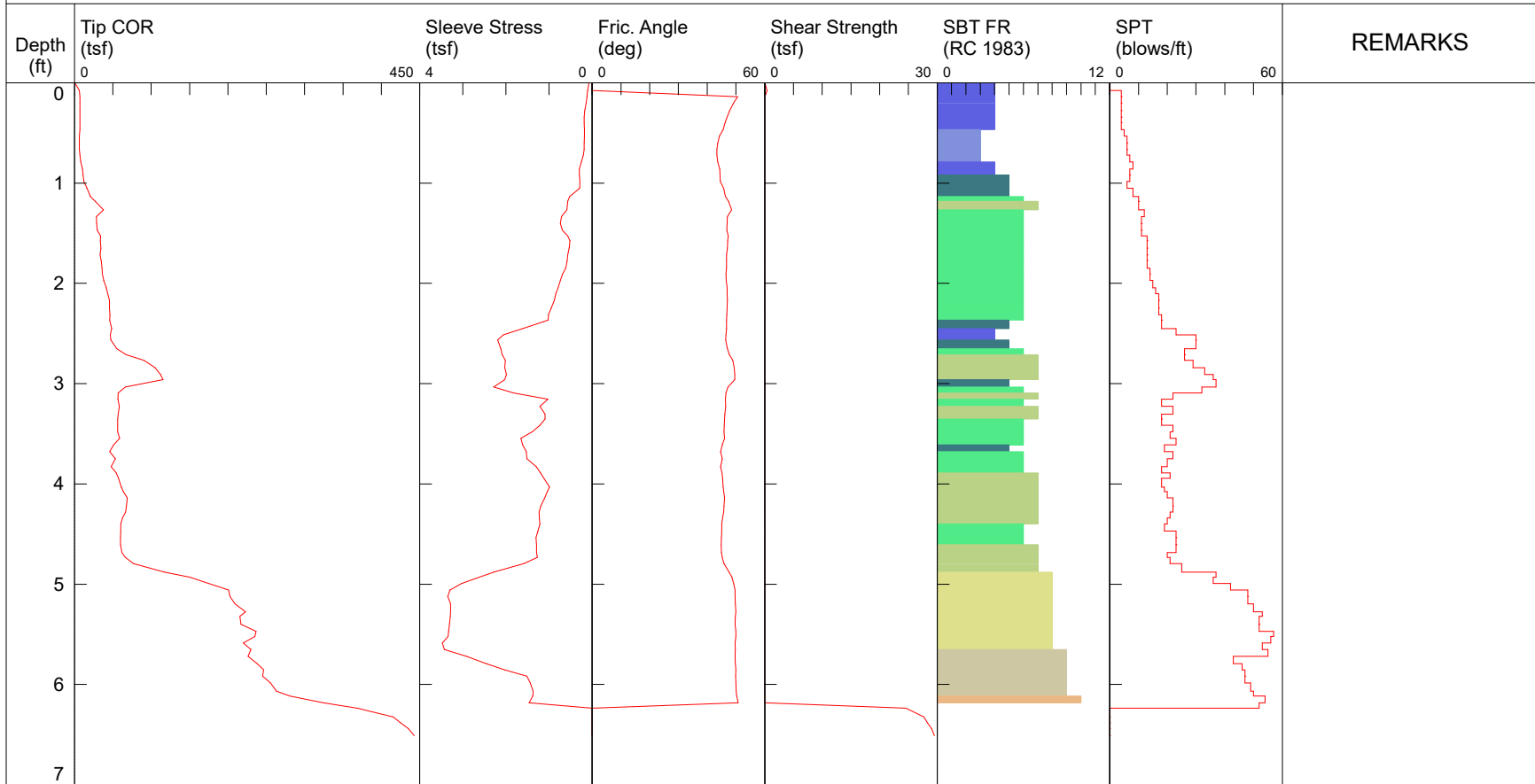
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|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 6.509 ft
 SITE: B-317 Test Pit
 SOUNDING
 COMPANY: SME
 FILENAME: B317 tp.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-317 Test Pit
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

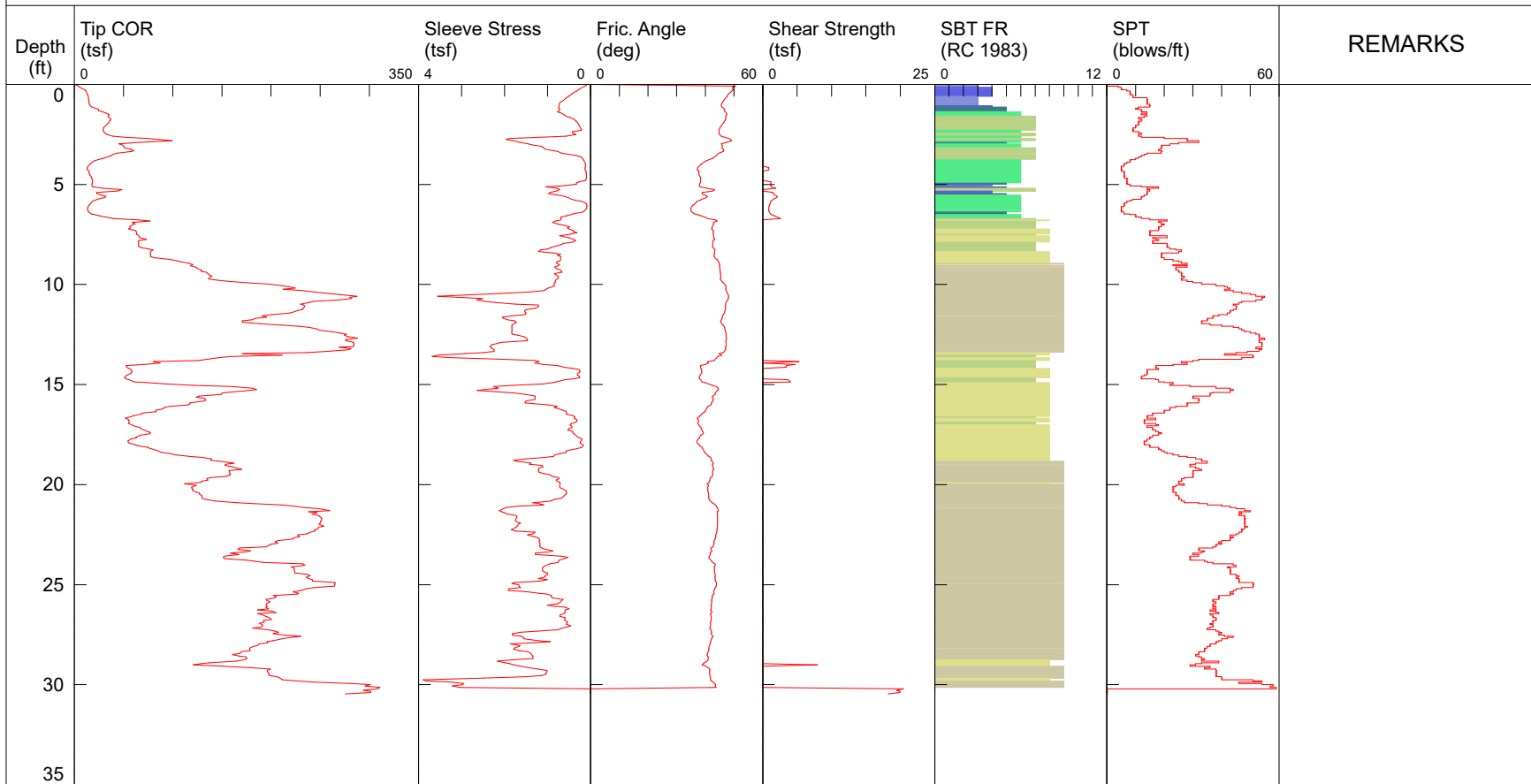
- 1 sensitive fine grained
- 2 organic material
- 3 clay
- 4 silty clay to clay
- 5 clayey silt to silty clay
- 6 sandy silt to clayey silt
- 7 silty sand to sandy silt
- 8 sand to silty sand
- 9 sand
- 10 gravelly sand to sand
- 11 very stiff fine grained (*)
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 9.282 m
 SITE: B-319
 SOUNDING
 COMPANY: SME
 FILENAME: B319A.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-319
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -2.36 (tsf)

FINAL BASELINE: -0.0246 (tsf)

NOTES:: Example of notes

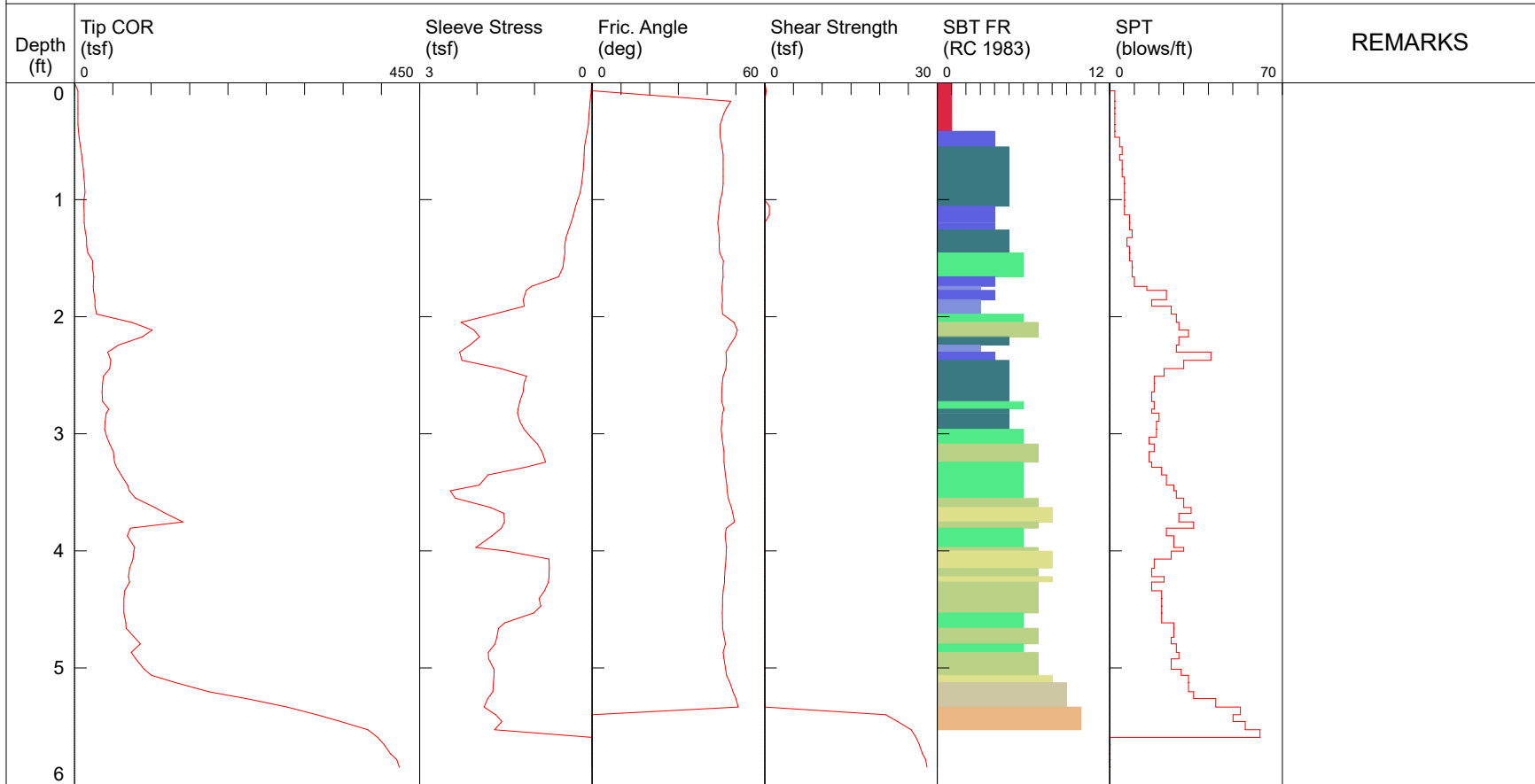
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 5.848 ft
 SITE: B-319 Test Pit
 SOUNDING
 COMPANY: SME
 FILENAME: B319 tp.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-319 Test Pit
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 0.90 (tsf)

FINAL BASELINE: -0.0033 (tsf)

NOTES:: Example of notes

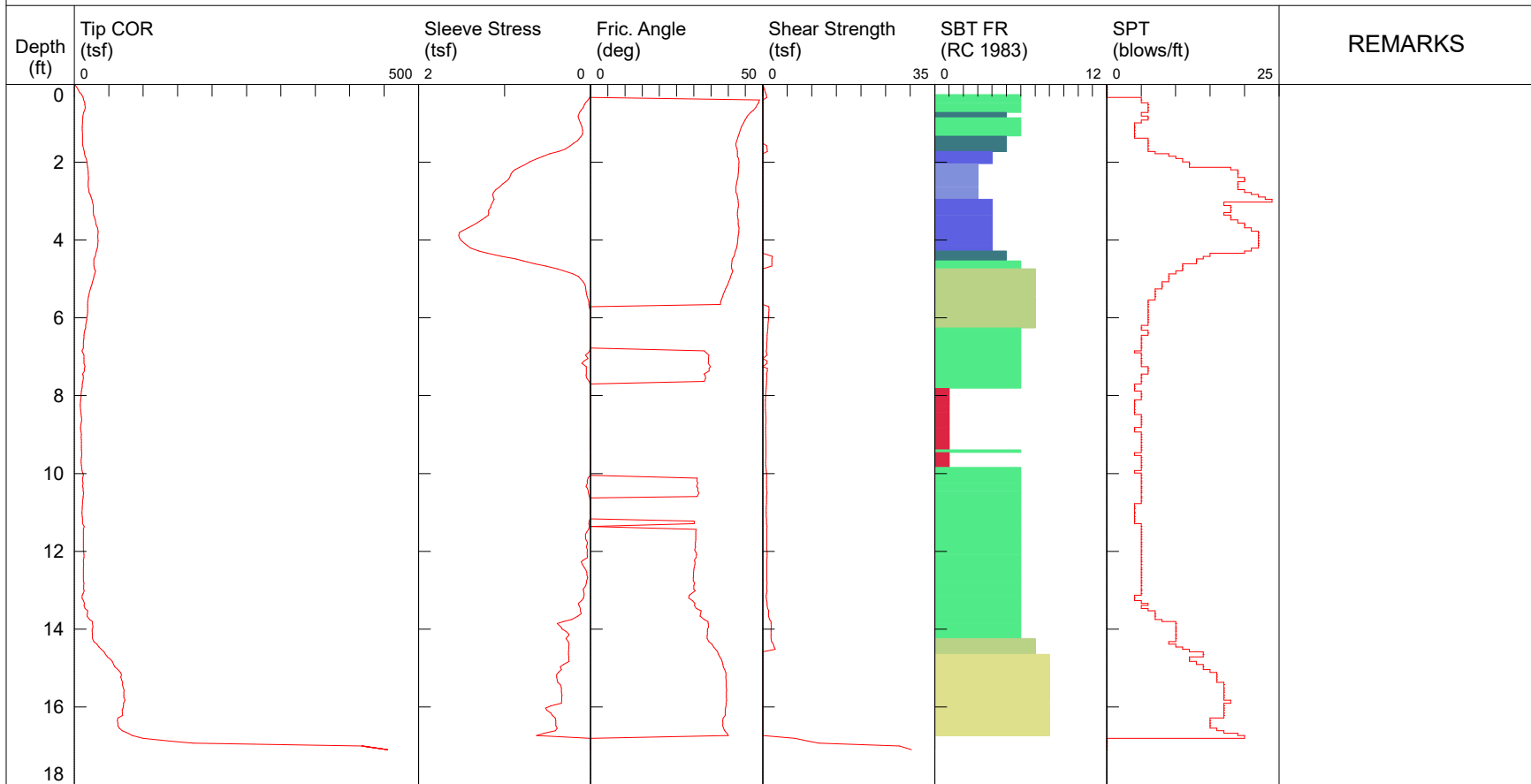
- 1 sensitive fine grained
- 2 organic material
- 3 clay
- 4 silty clay to clay
- 5 clayey silt to silty clay
- 6 sandy silt to clayey silt
- 7 silty sand to sandy silt
- 8 sand to silty sand
- 9 sand
- 10 gravelly sand to sand
- 11 very stiff fine grained (*)
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 17.090 ft
 SITE: B-320
 SOUNDING
 COMPANY: SME
 FILENAME: B320.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-320
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

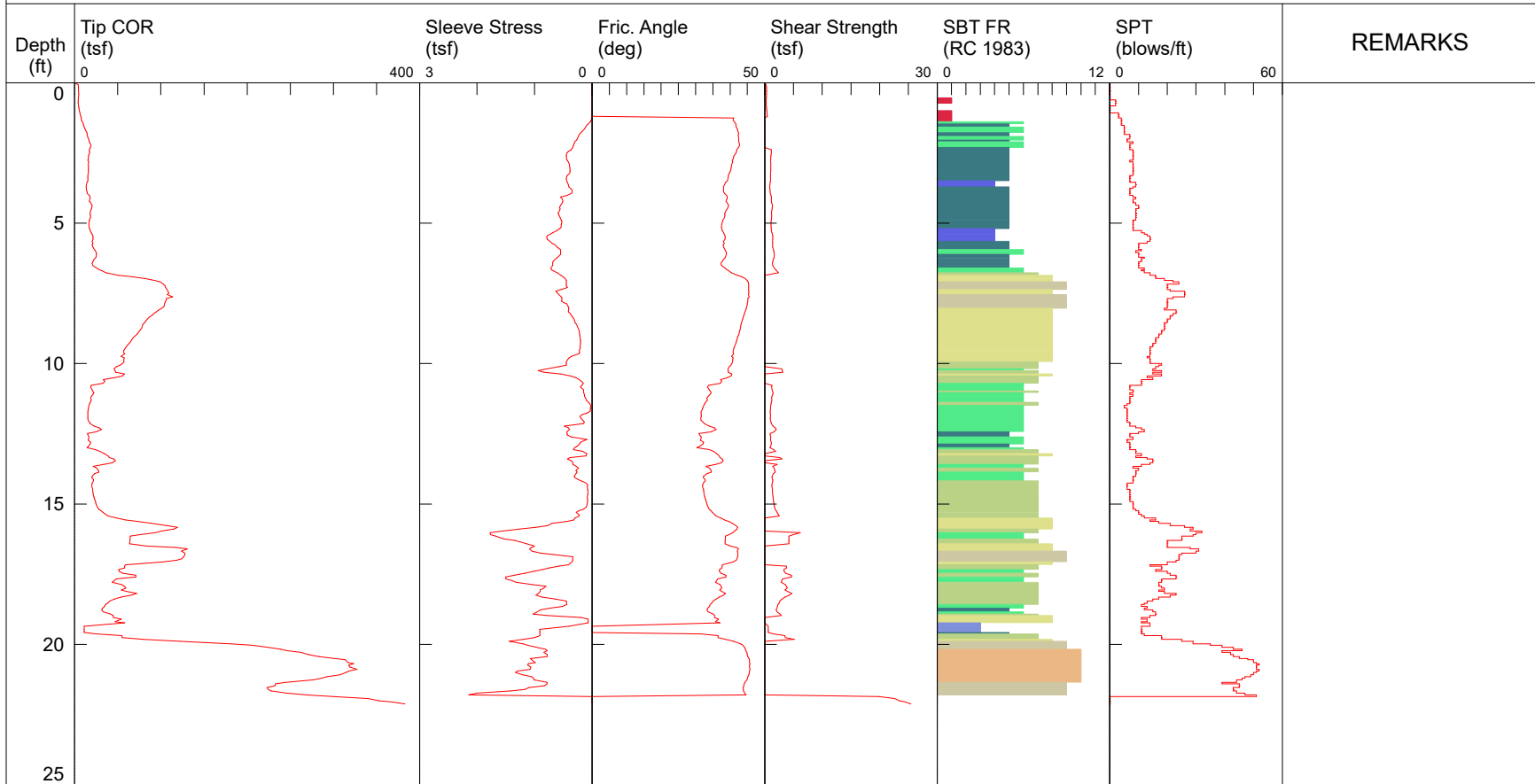
- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|---|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 22.115 ft
 SITE: B-320 Test Pit
 SOUNDING
 COMPANY: SME
 FILENAME: B320tp.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-320 Test Pit
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

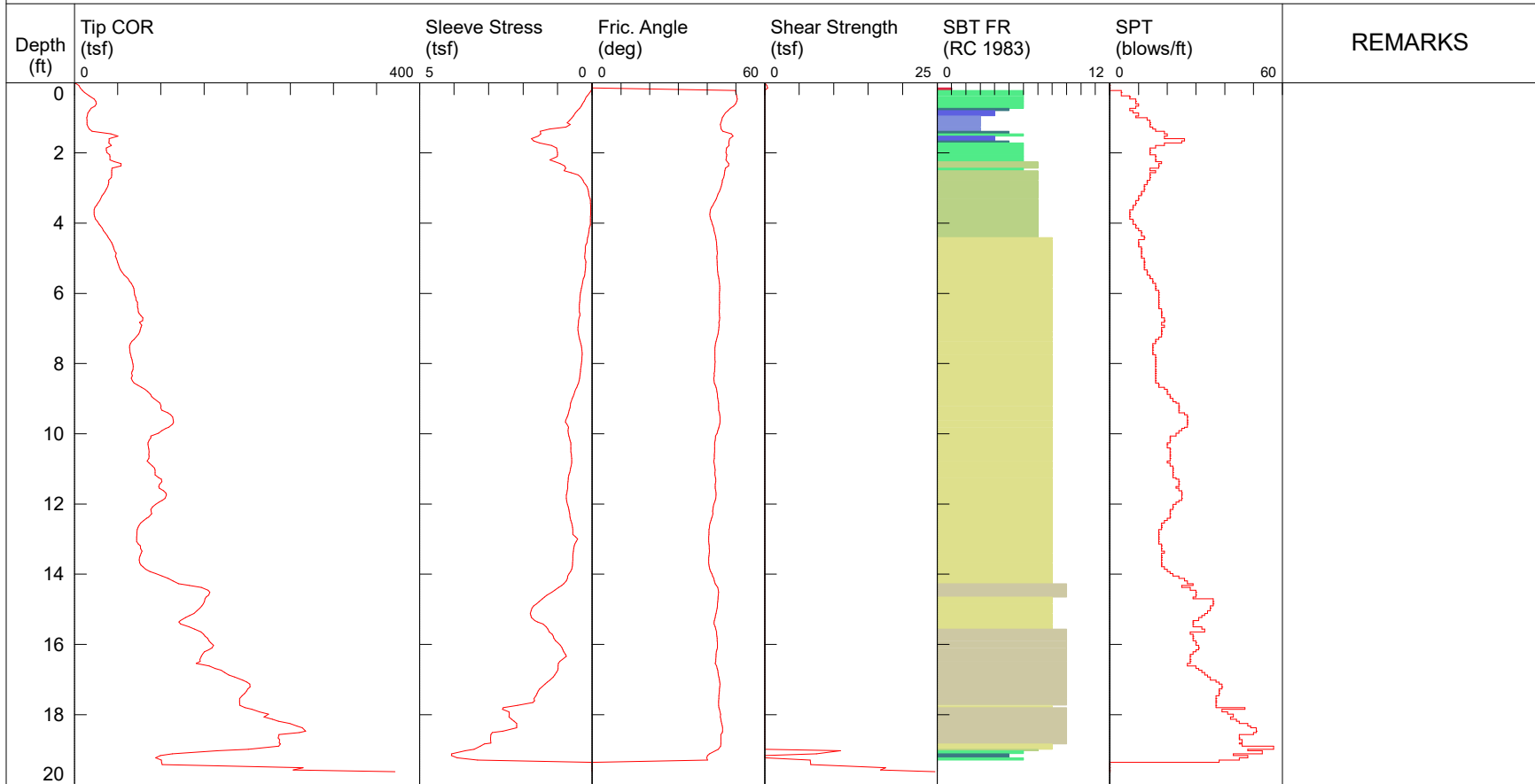
- 1 sensitive fine grained
- 2 organic material
- 3 clay
- 4 silty clay to clay
- 5 clayey silt to silty clay
- 6 sandy silt to clayey silt
- 7 silty sand to sandy silt
- 8 sand to silty sand
- 9 sand
- 10 gravelly sand to sand
- 11 very stiff fine grained (*)
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 19.622 ft
 SITE: B-326
 SOUNDING
 COMPANY: SME
 FILENAME: B326.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-326
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -2.27 (tsf)

FINAL BASELINE: -0.0133 (tsf)

NOTES:: Example of notes

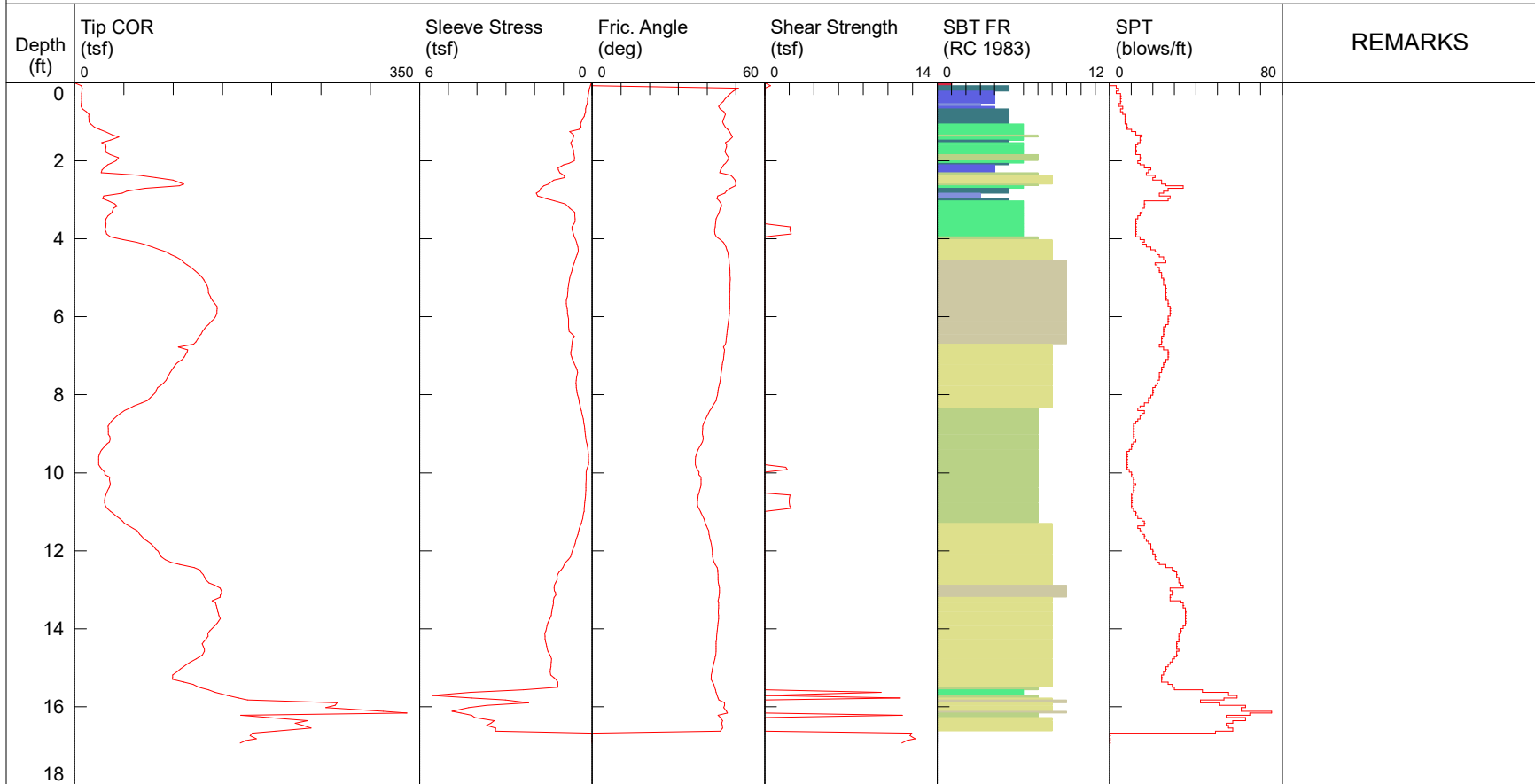
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|---|---|--|---|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|---|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 16.930 ft
 SITE: B-326 Test Pit
 SOUNDING
 COMPANY: SME
 FILENAME: B326 tp.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-326 Test Pit
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

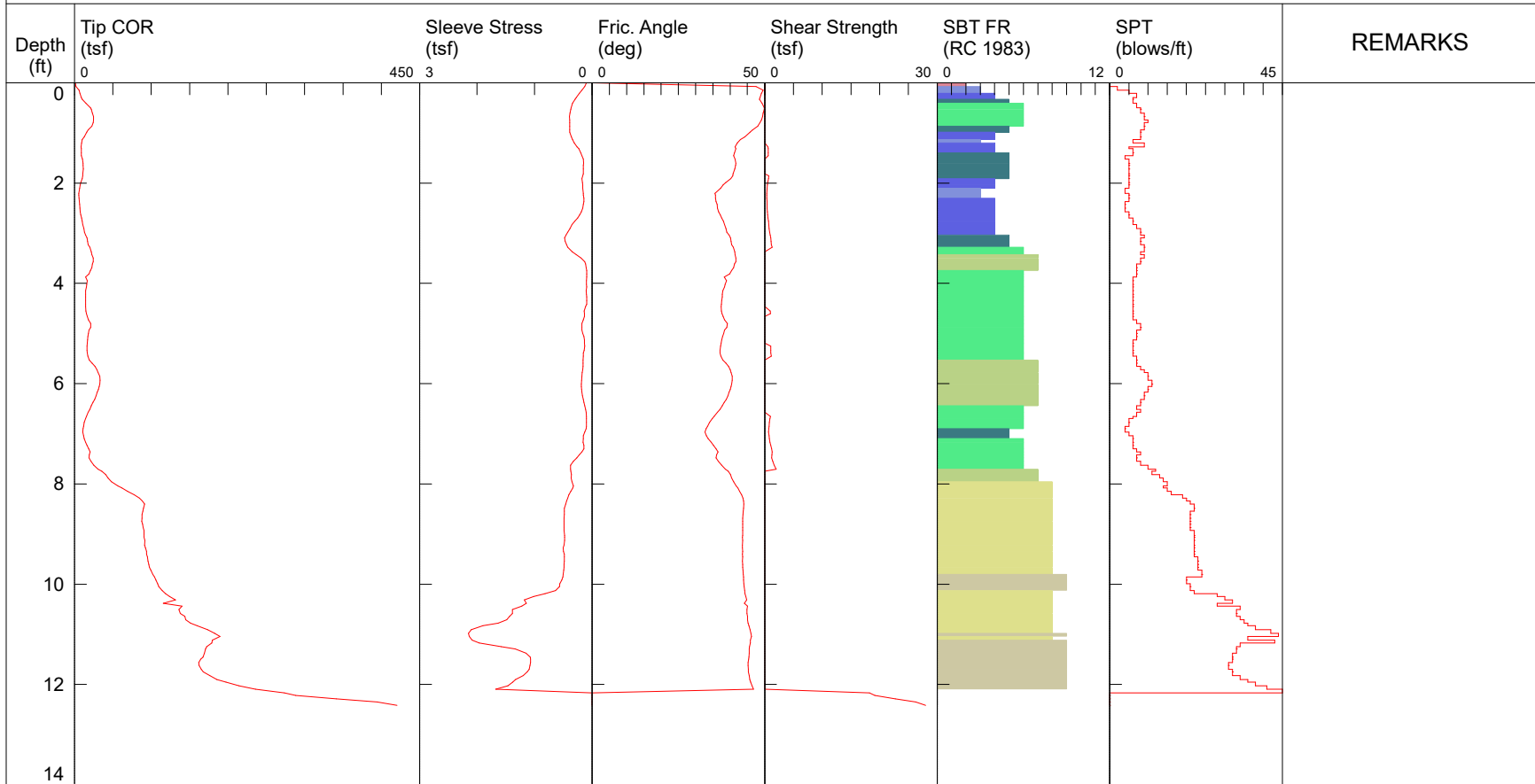
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|---|---|---|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|---|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.413 ft
 SITE: B-401
 SOUNDING
 COMPANY: SME
 FILENAME: B401.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-401
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 0 or N/A FINAL BASELINE: -0.0297 (tsf)

NOTES:: Example of notes

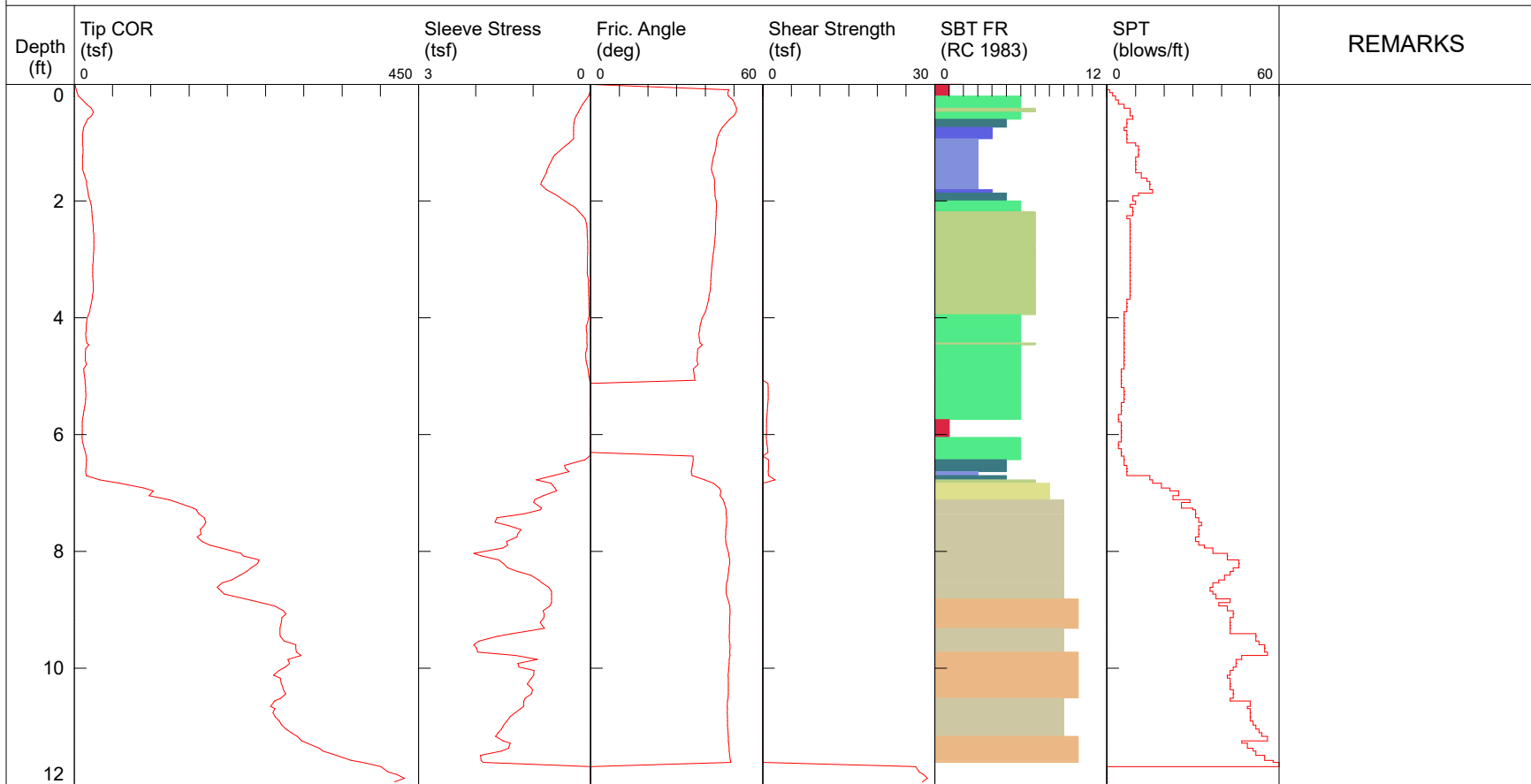
- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|---|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 11.949 ft
 SITE: B-402
 SOUNDING
 COMPANY: SME
 FILENAME: B402.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-402
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.68 (tsf) FINAL BASELINE: -0.0017 (tsf)

NOTES:: Example of notes

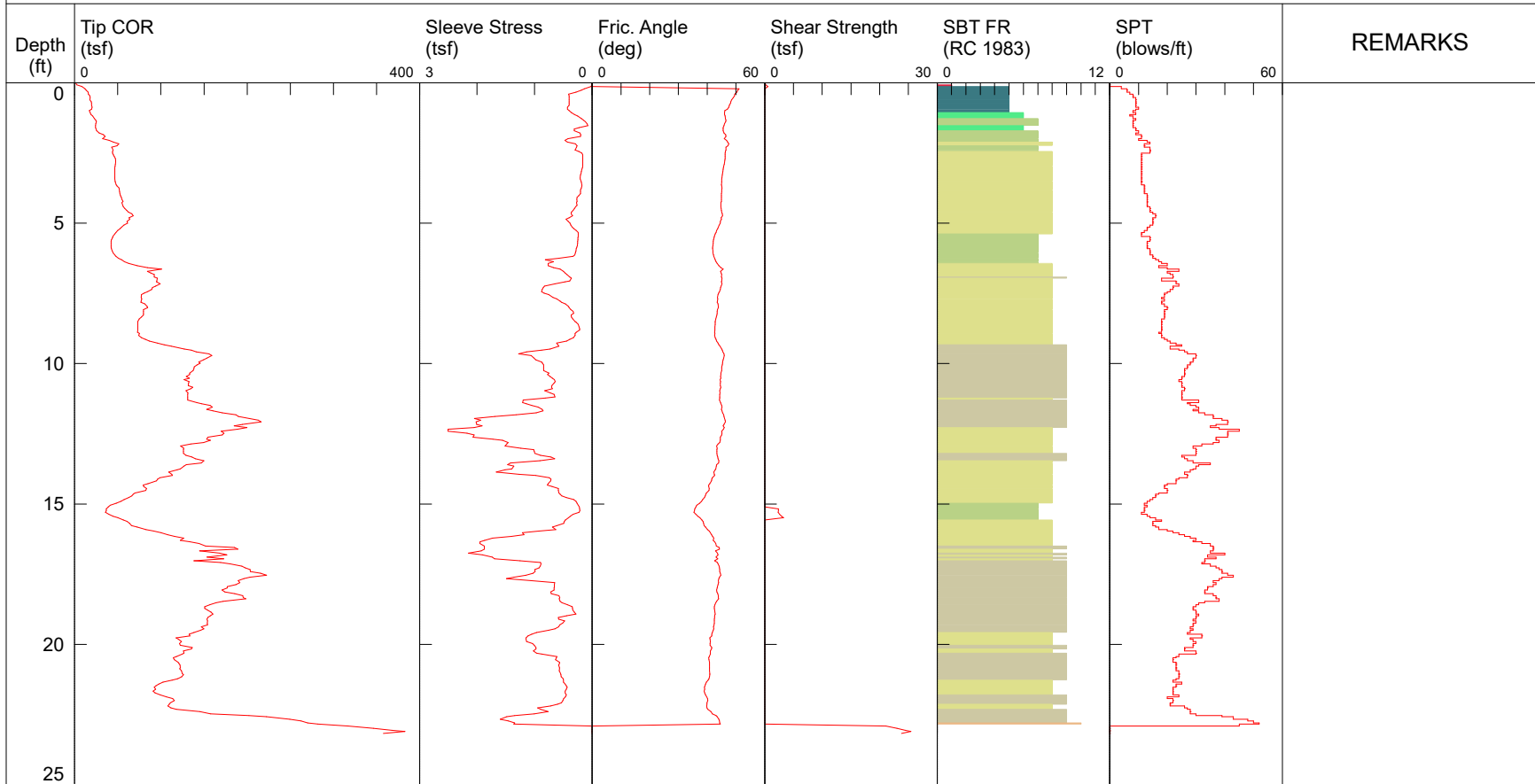
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 23.168 ft
 SITE: B-403
 SOUNDING
 COMPANY: SME
 FILENAME: B403.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-403
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.45 (tsf)

FINAL BASELINE: -0.0033 (tsf)

NOTES:: Example of notes

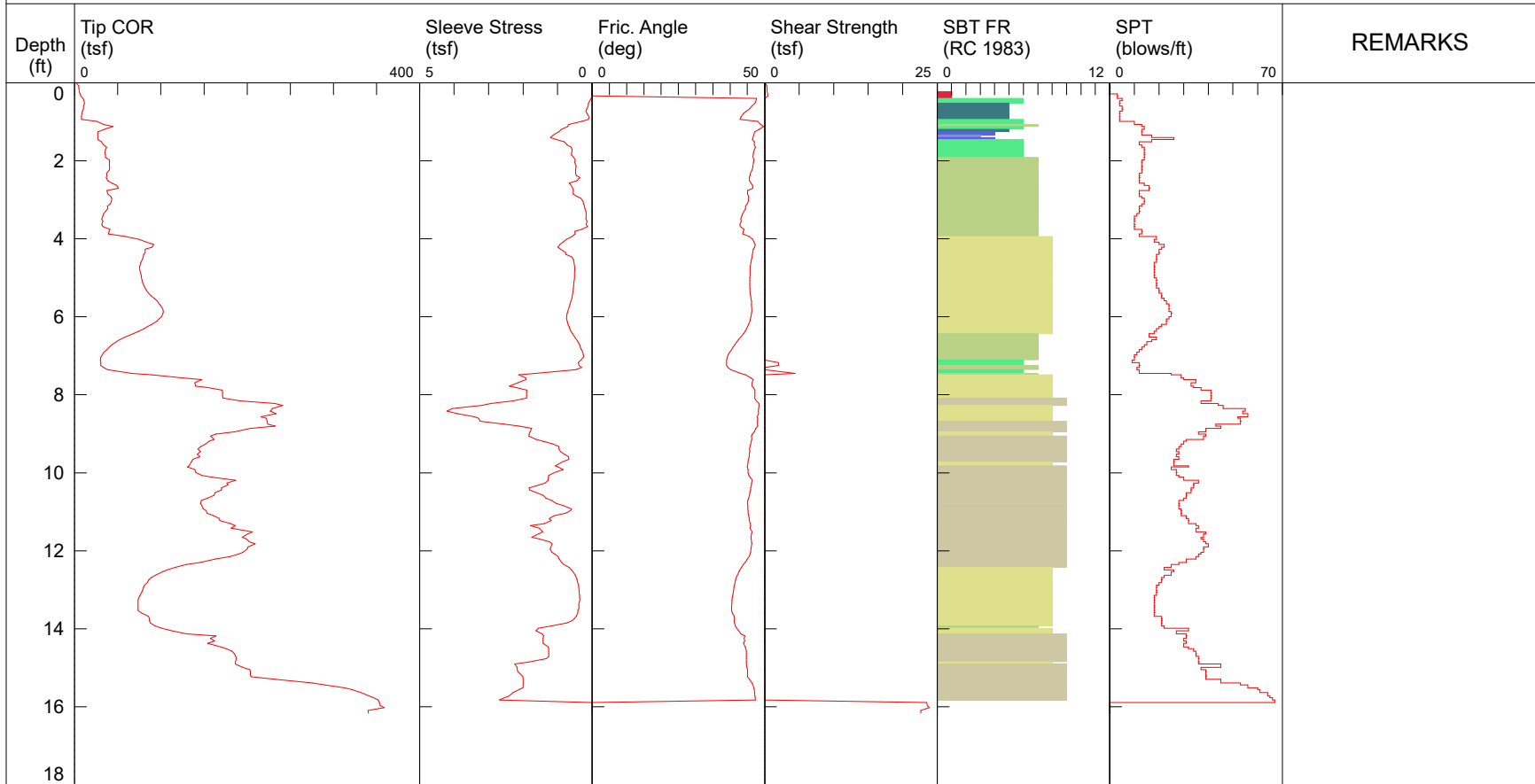
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 16.156 ft
 SITE: B-404
 SOUNDING
 COMPANY: SME
 FILENAME: B404.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-404
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -1.13 (tsf)

FINAL BASELINE: -0.0297 (tsf)

NOTES:: Example of notes

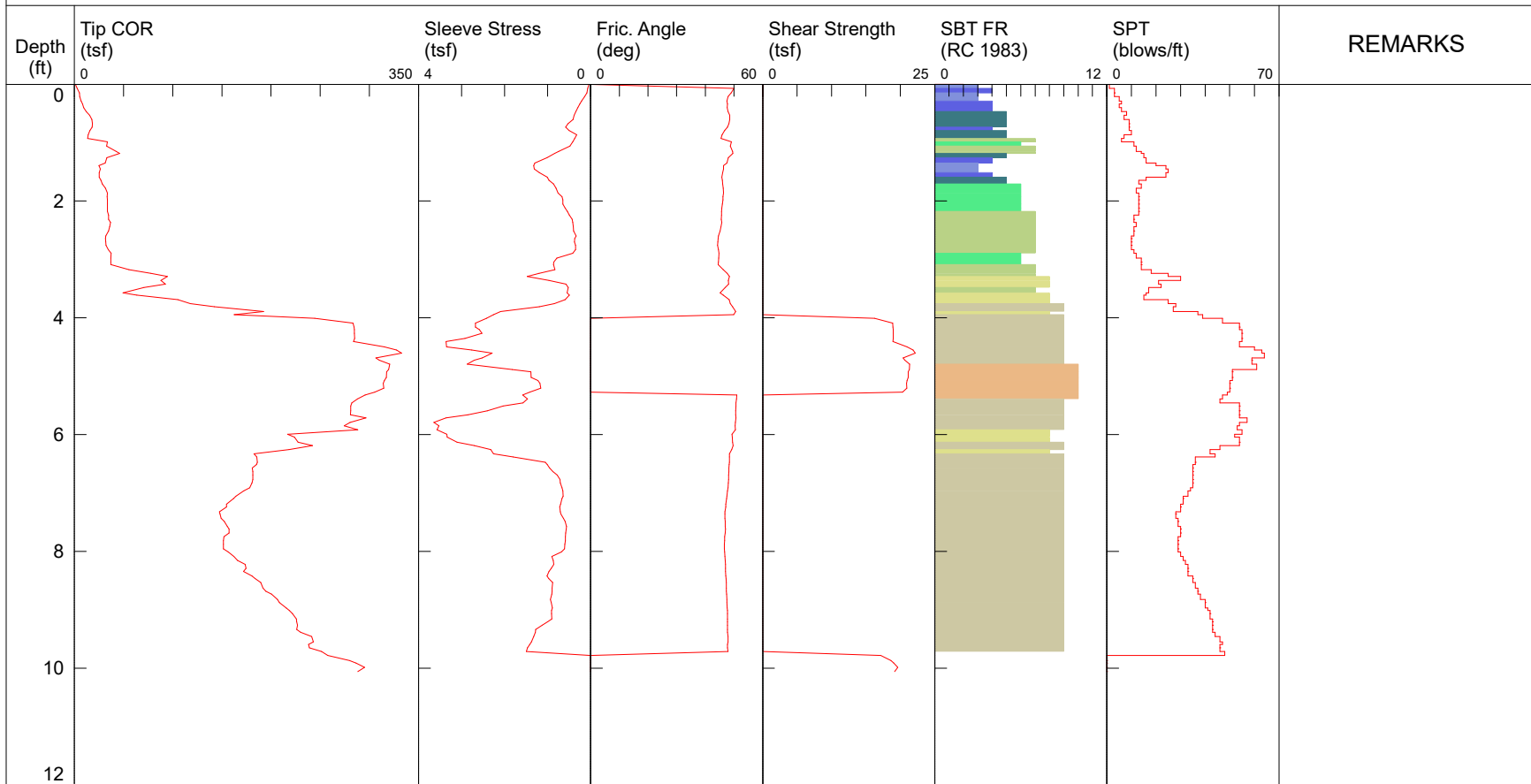
- 1 sensitive fine grained
- 4 silty clay to clay
- 7 silty sand to sandy silt
- 10 gravelly sand to sand
- 2 organic material
- 5 clayey silt to silty clay
- 8 sand to silty sand
- 11 very stiff fine grained (*)
- 3 clay
- 6 sandy silt to clayey silt
- 9 sand
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 10.057 ft
 SITE: B-405
 SOUNDING
 COMPANY: SME
 FILENAME: B405.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-405
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.23 (tsf)

FINAL BASELINE: -0.0116 (tsf)

NOTES:: Example of notes

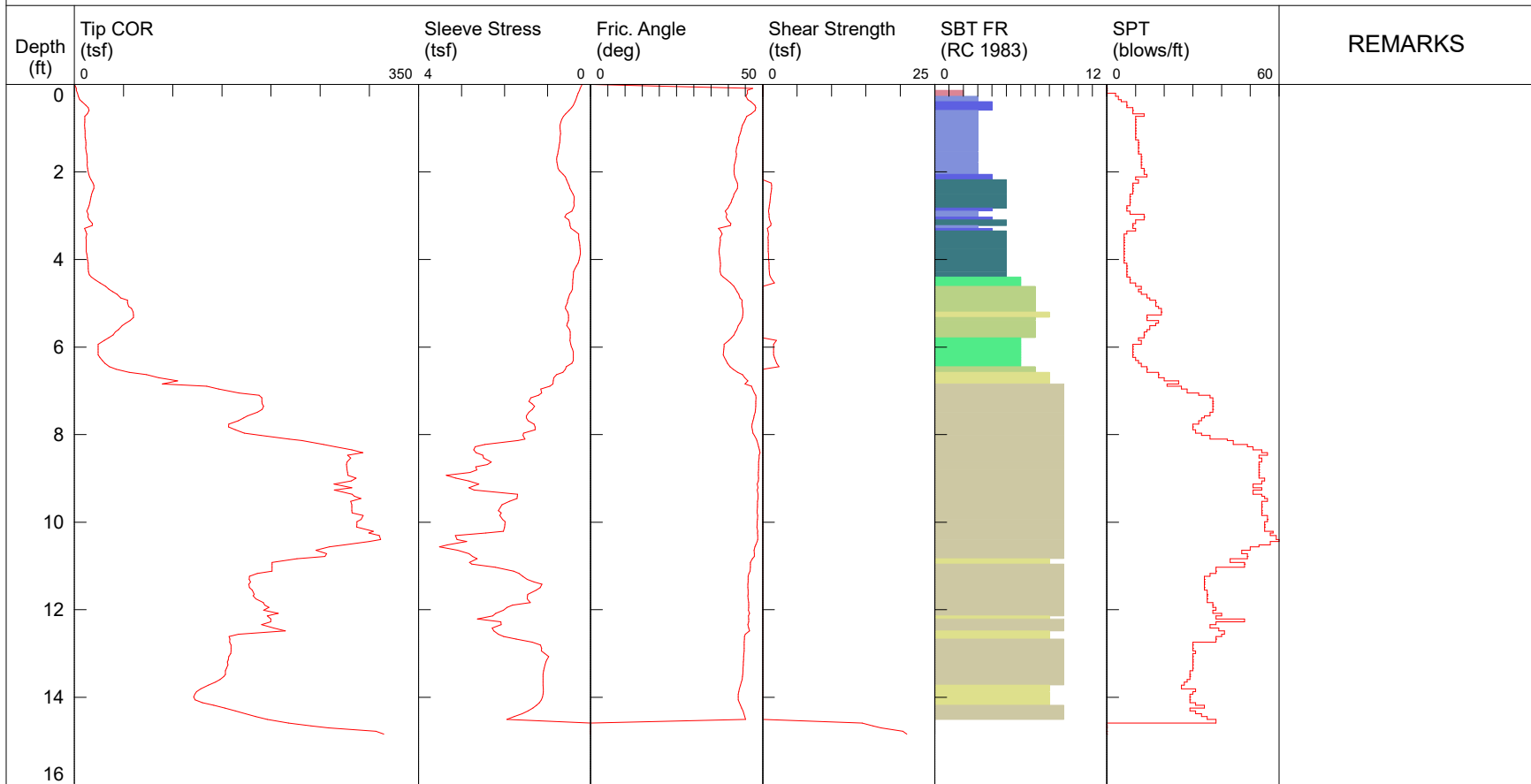
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 14.842 ft
 SITE: B-406
 SOUNDING
 COMPANY: SME
 FILENAME: B406.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-406
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

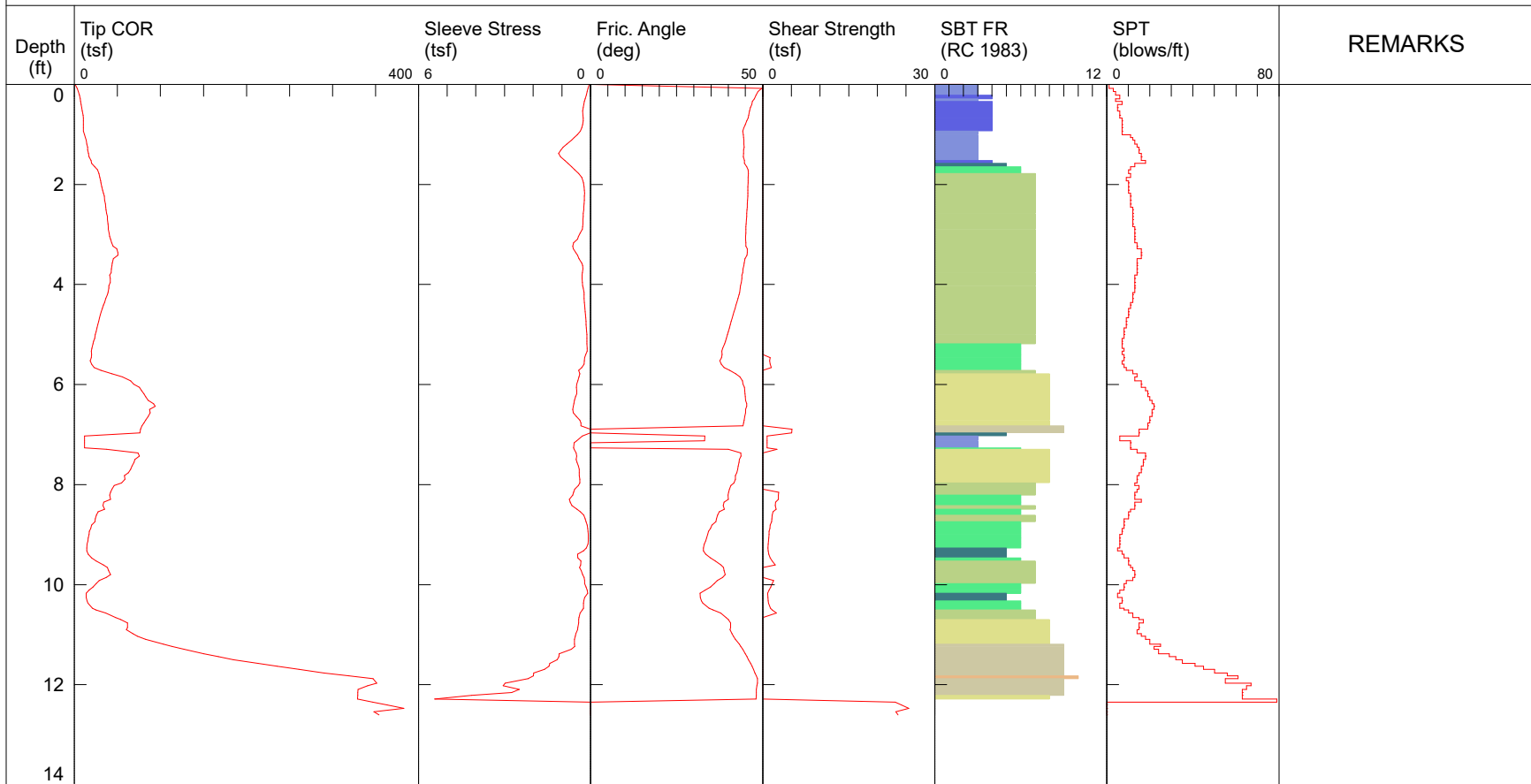
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.602 ft
 SITE: B-407
 SOUNDING
 COMPANY: SME
 FILENAME: B407.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-407
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.34 (tsf)

FINAL BASELINE: 0.0182 (tsf)

NOTES:: Example of notes

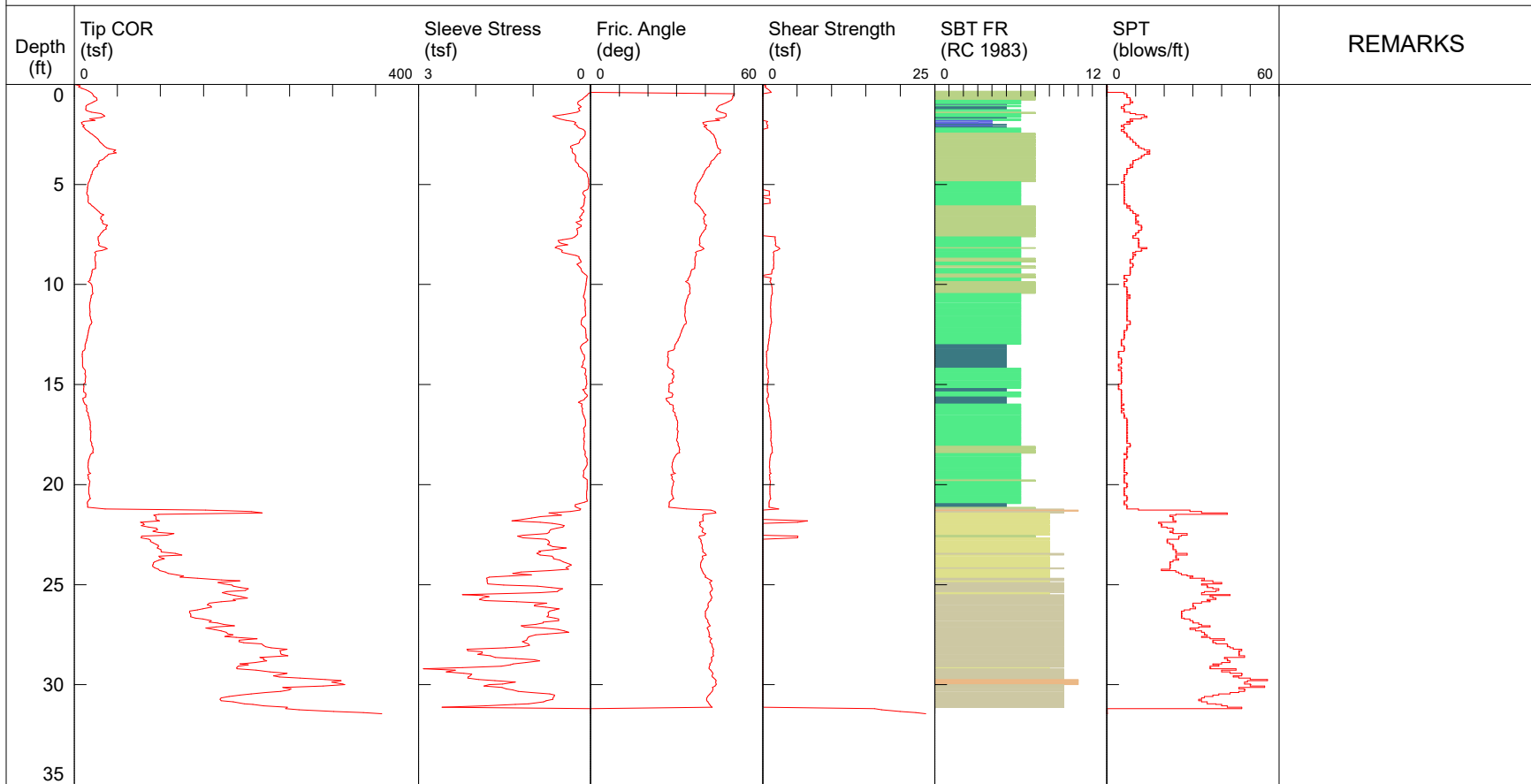
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 31.445 ft
 SITE: B-408
 SOUNDING
 COMPANY: SME
 FILENAME: B408.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-408
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.45 (tsf)

FINAL BASELINE: -0.0165 (tsf)

NOTES:: Example of notes

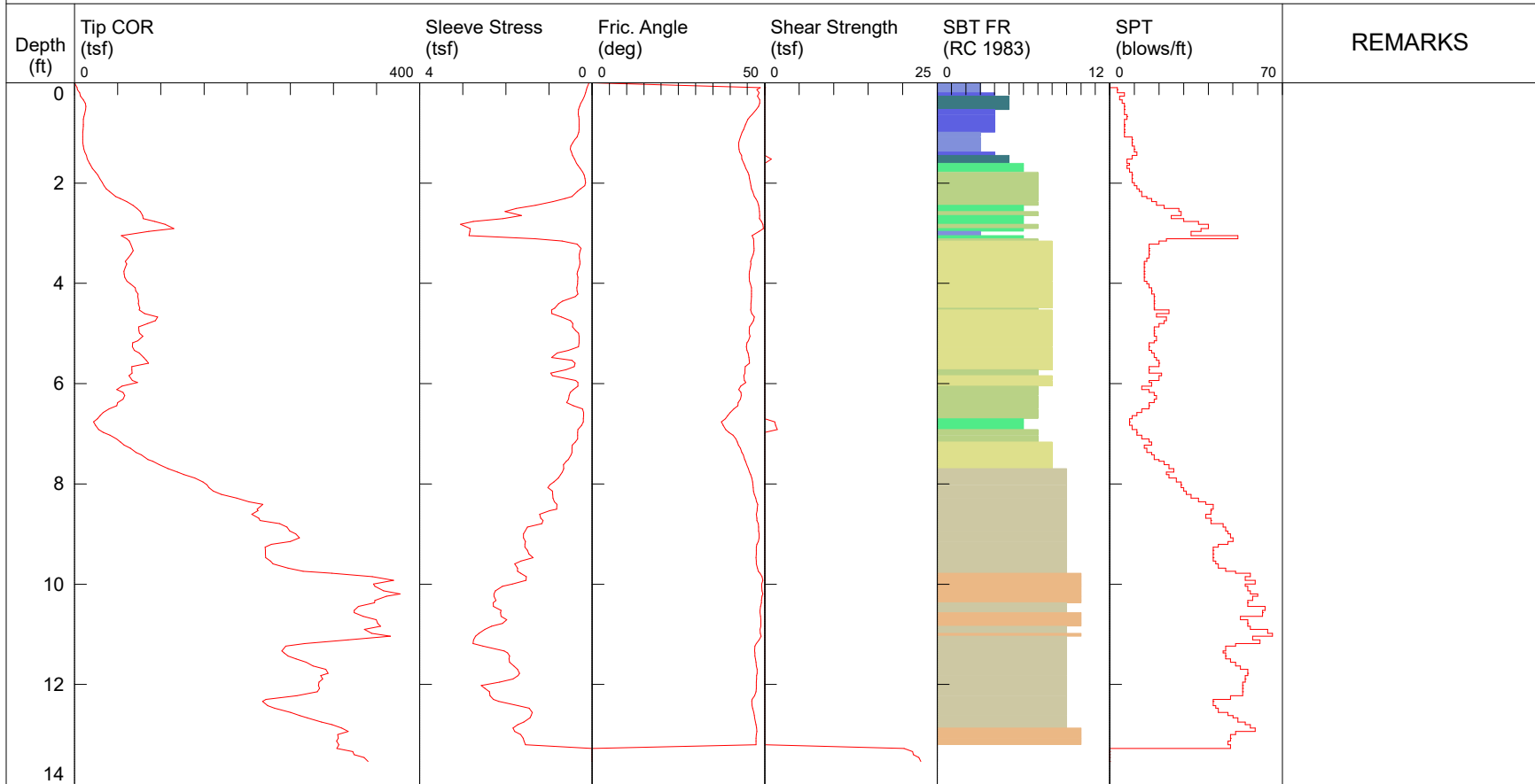
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 13.531 ft
 SITE: B-409
 SOUNDING
 COMPANY: SME
 FILENAME: B409.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-409
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.34 (tsf)

FINAL BASELINE: -0.0165 (tsf)

NOTES:: Example of notes

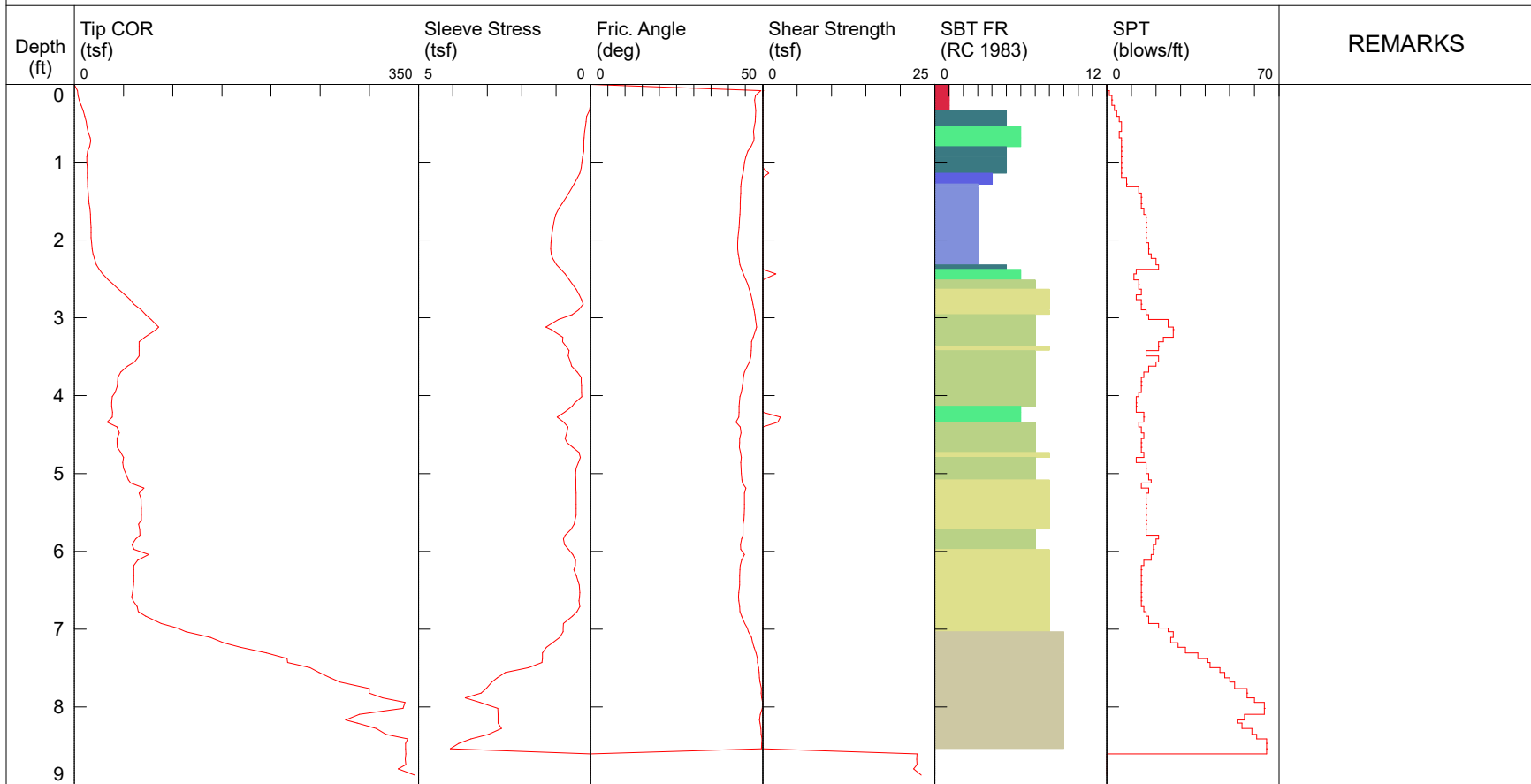
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 8.874 ft
 SITE: B-410
 SOUNDING
 COMPANY: SME
 FILENAME: B410.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-410
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 0.45 (tsf)

FINAL BASELINE: 0 or N/A

NOTES:: Example of notes

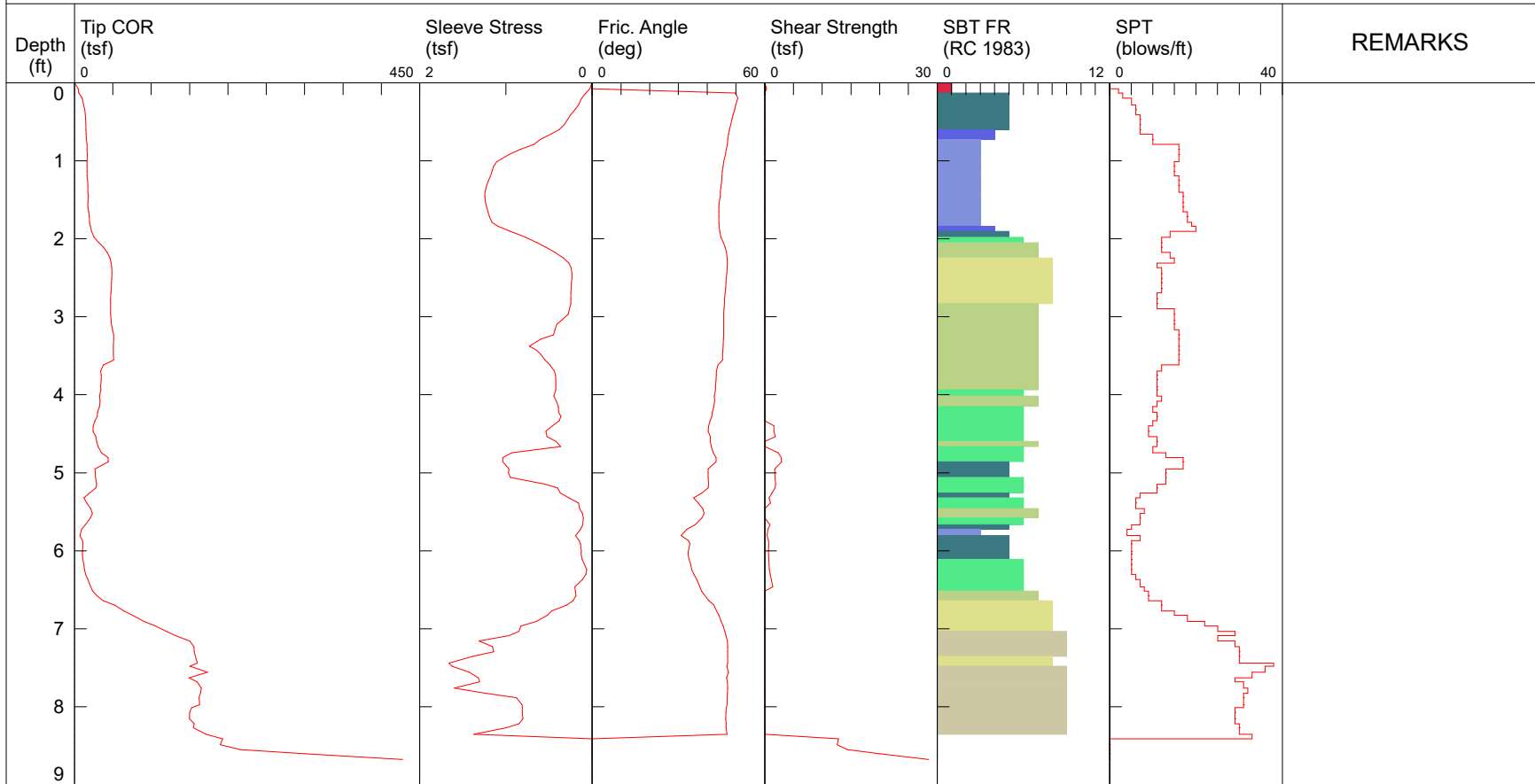
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 8.673 ft
 SITE: B-411
 SOUNDING
 COMPANY: SME
 FILENAME: B411.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-411
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 0.56 (tsf)

FINAL BASELINE: 0.0033 (tsf)

NOTES:: Example of notes

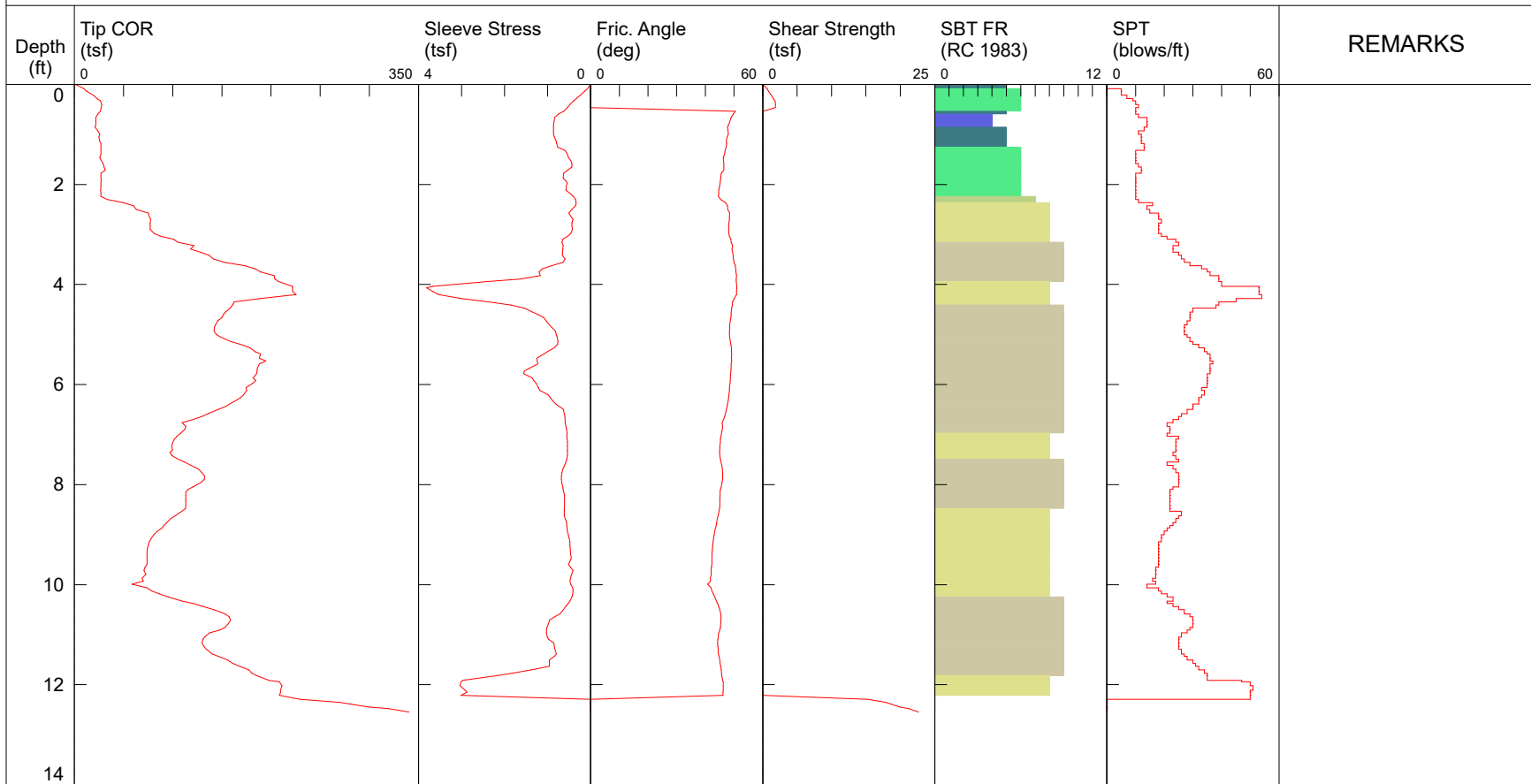
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.545 ft
 SITE: B-412
 SOUNDING
 COMPANY: SME
 FILENAME: B412.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-412
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.56 (tsf) FINAL BASELINE: -0.0165 (tsf)

NOTES:: Example of notes

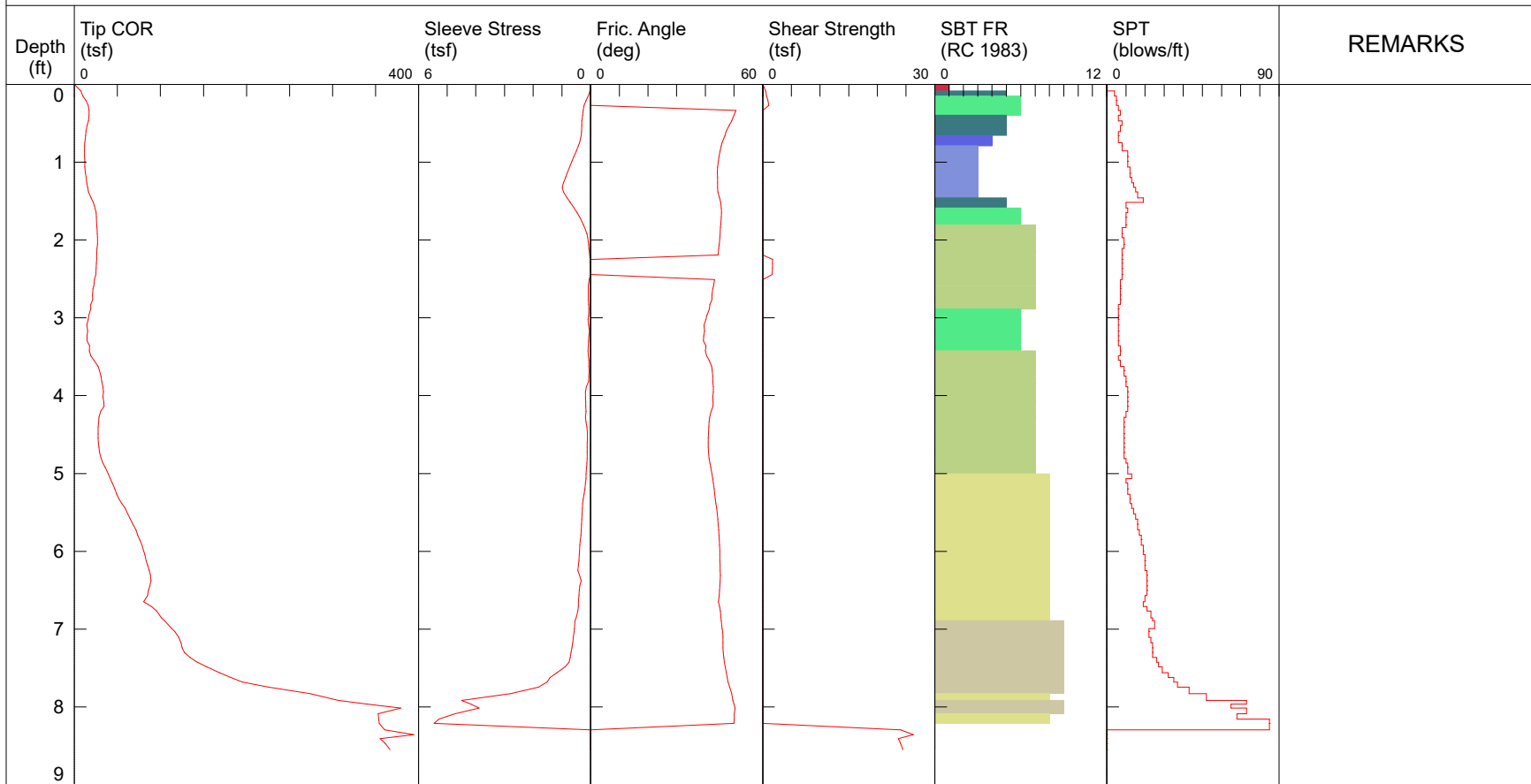
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 8.545 ft
 SITE: B-413
 SOUNDING
 COMPANY: SME
 FILENAME: B413.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-413
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

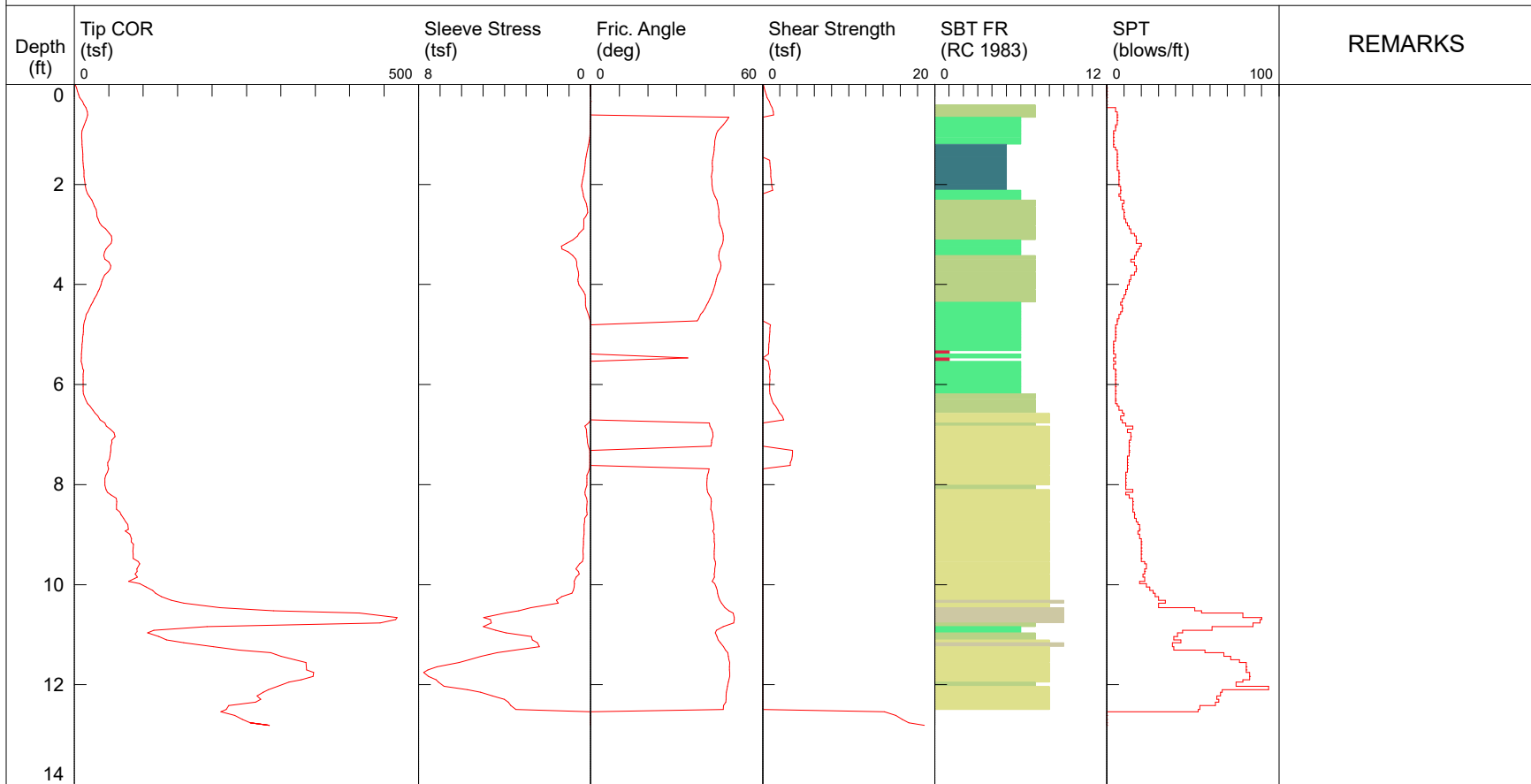
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.809 ft
 SITE: B-414
 SOUNDING
 COMPANY: SME
 FILENAME: B414.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-414
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 0.34 (tsf)

FINAL BASELINE: -0.0149 (tsf)

NOTES:: Example of notes

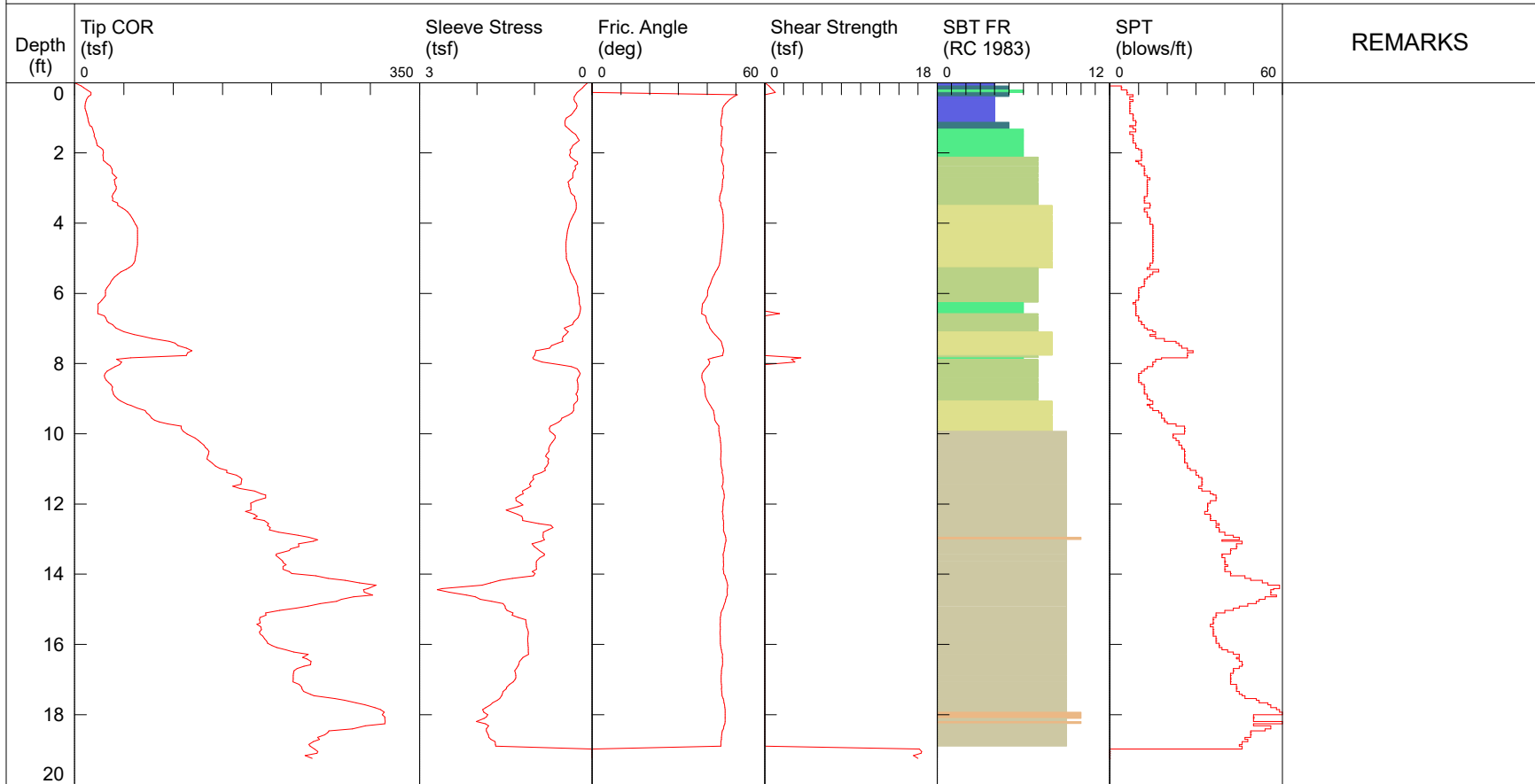
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 19.244 ft
 SITE: B-415
 SOUNDING
 COMPANY: SME
 FILENAME: B415.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-415
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -1.69 (tsf)

FINAL BASELINE: 0.0148 (tsf)

NOTES:: Example of notes

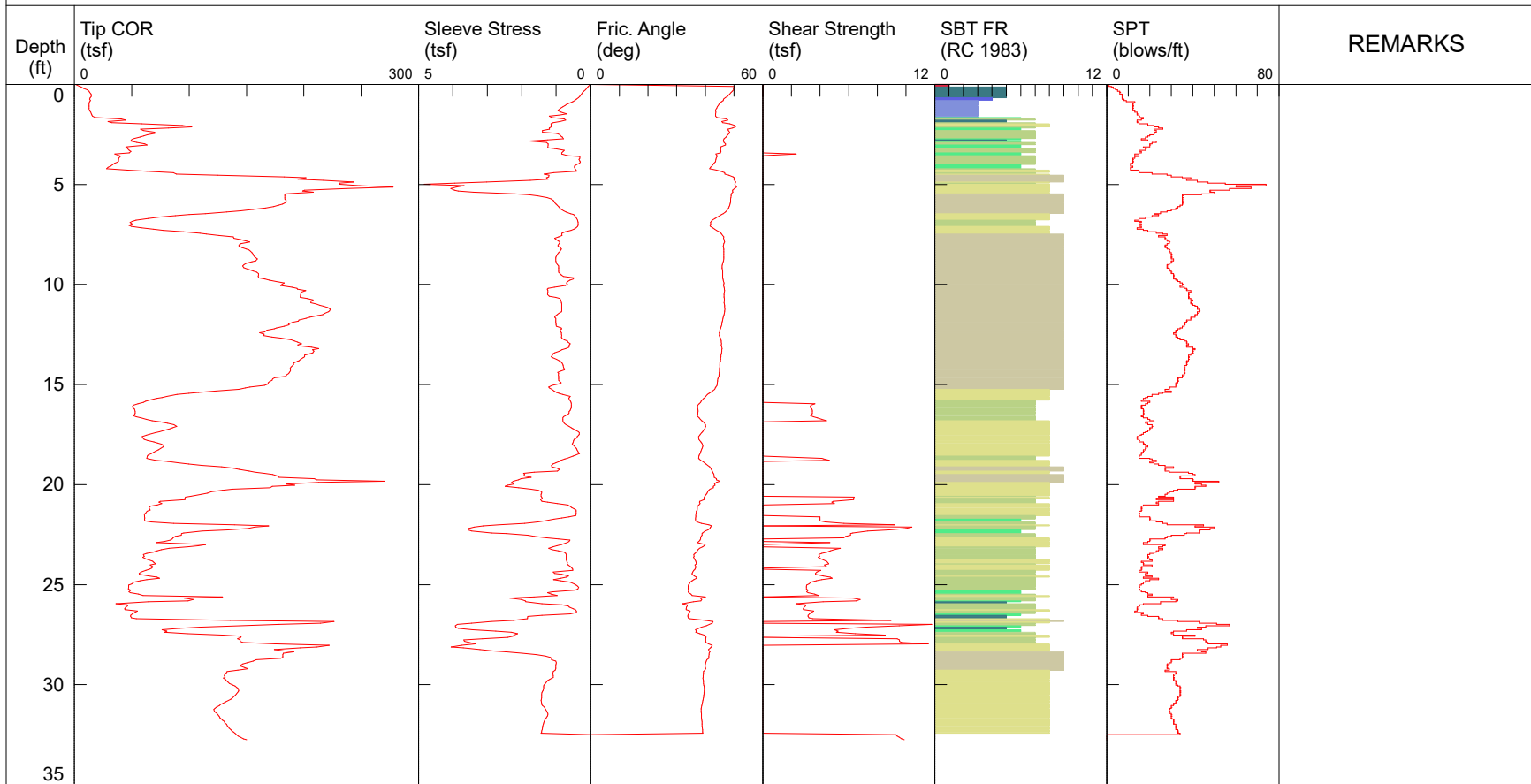
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 32.753 ft
 SITE: B-416
 SOUNDING
 COMPANY: SME
 FILENAME: B416.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-416
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 0.68 (tsf)

FINAL BASELINE: -0.0017 (tsf)

NOTES:: Example of notes

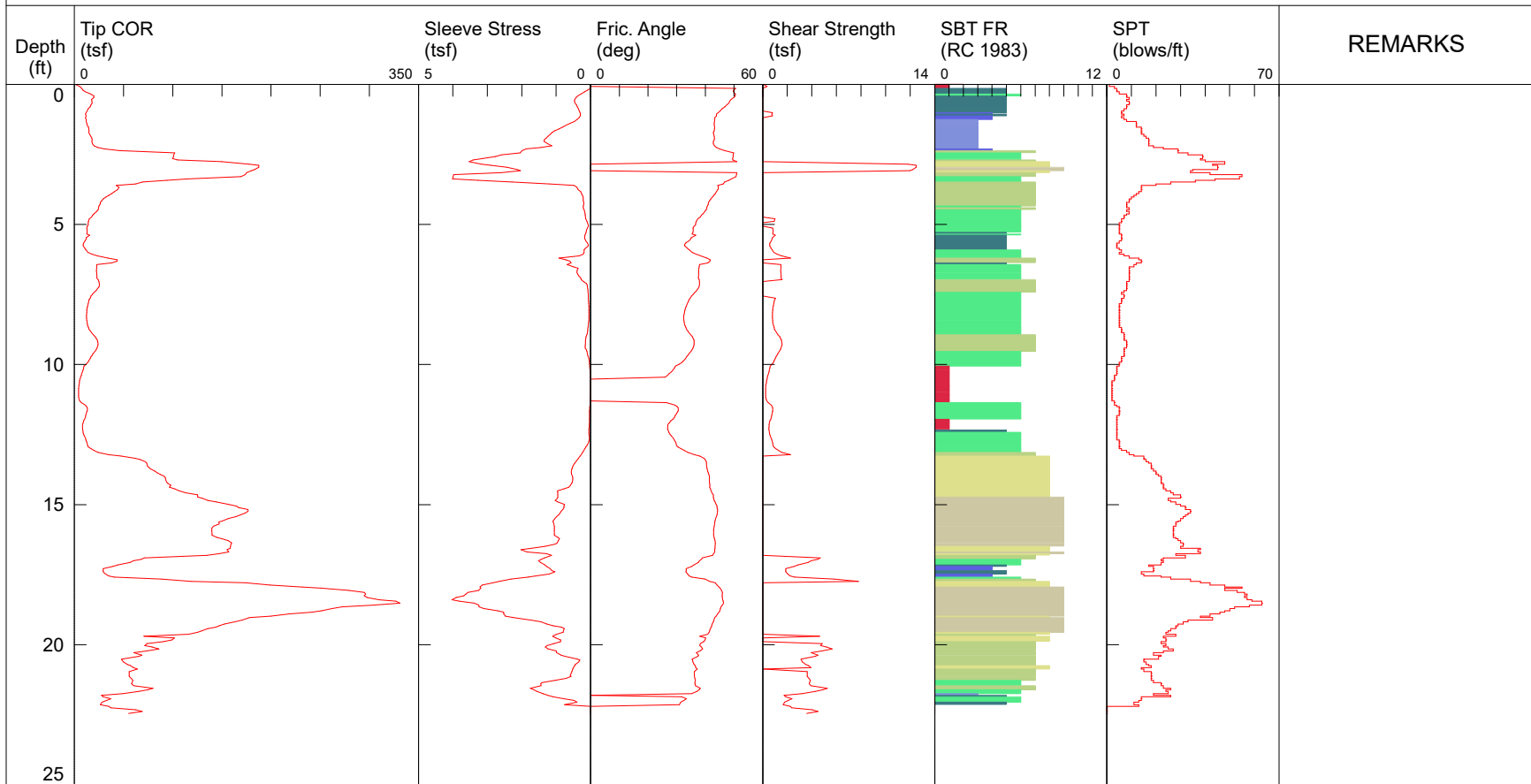
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 22.446 ft
 SITE: B-417
 SOUNDING
 COMPANY: SME
 FILENAME: B417.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-417
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

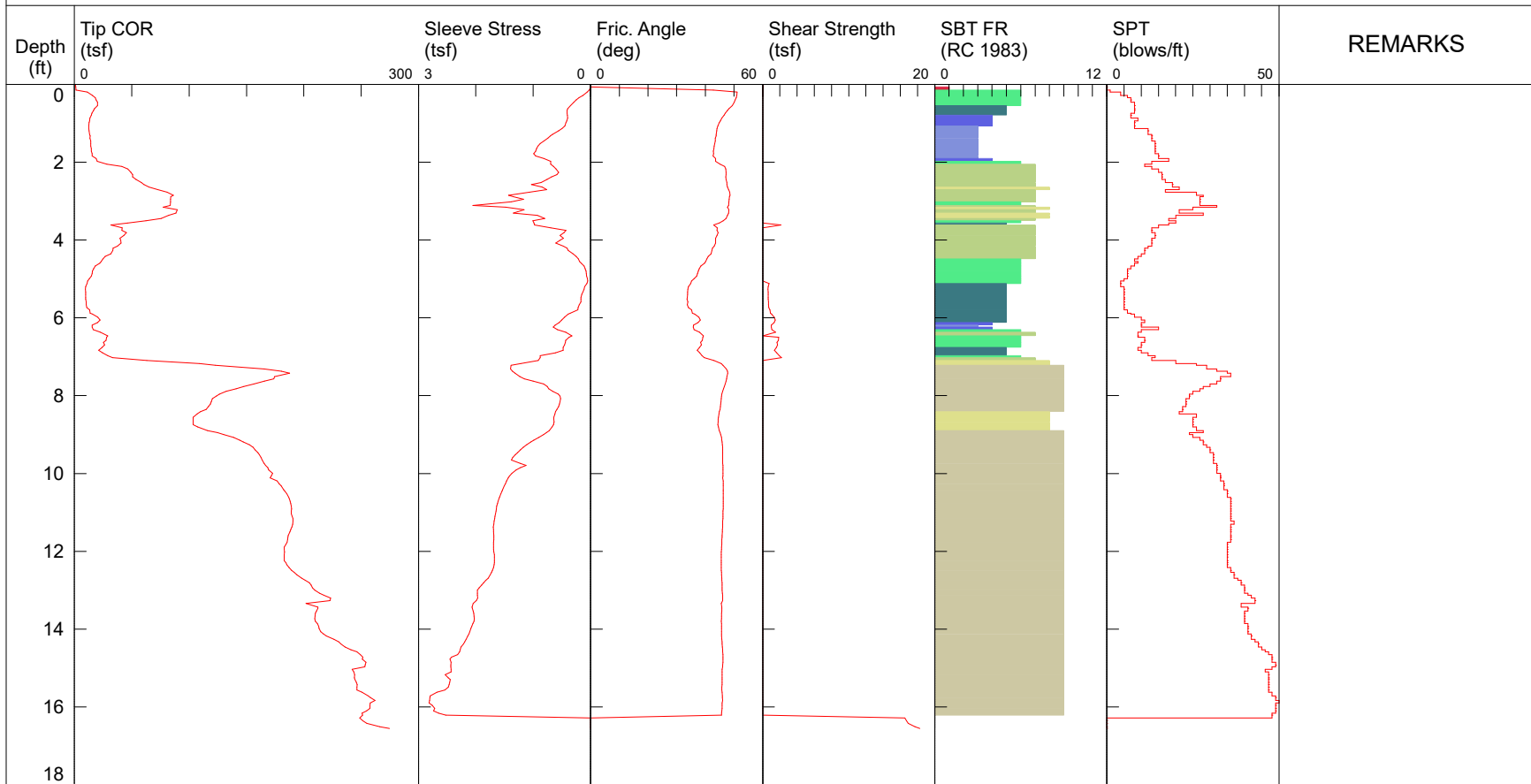
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 16.549 ft
 SITE: B-418
 SOUNDING
 COMPANY: SME
 FILENAME: B418.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-418
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.57 (tsf)

FINAL BASELINE: -0.0133 (tsf)

NOTES:: Example of notes

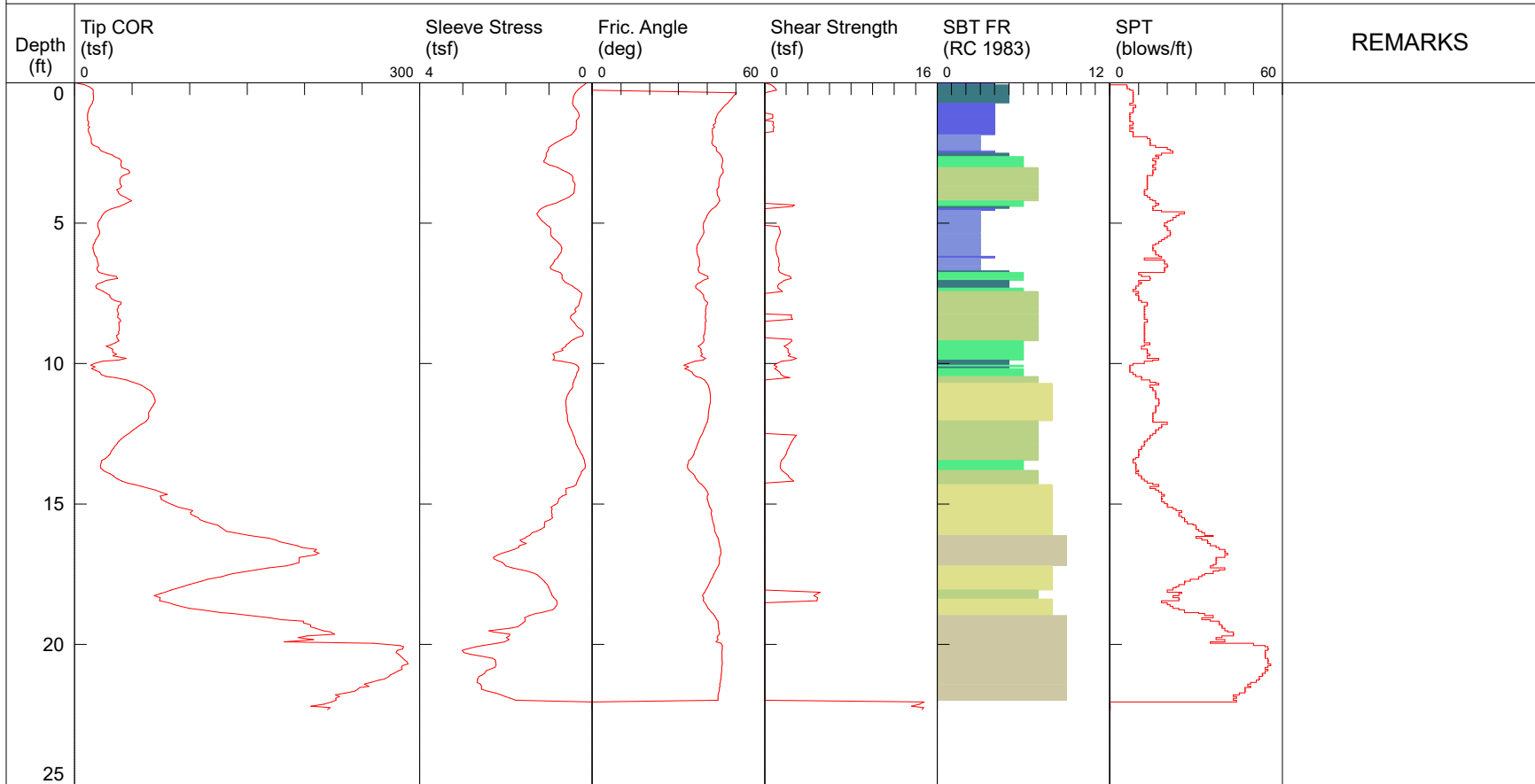
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 22.316 ft
 SITE: B-419
 SOUNDING
 COMPANY: SME
 FILENAME: B419.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-419
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.68 (tsf) FINAL BASELINE: -0.0099 (tsf)

NOTES:: Example of notes

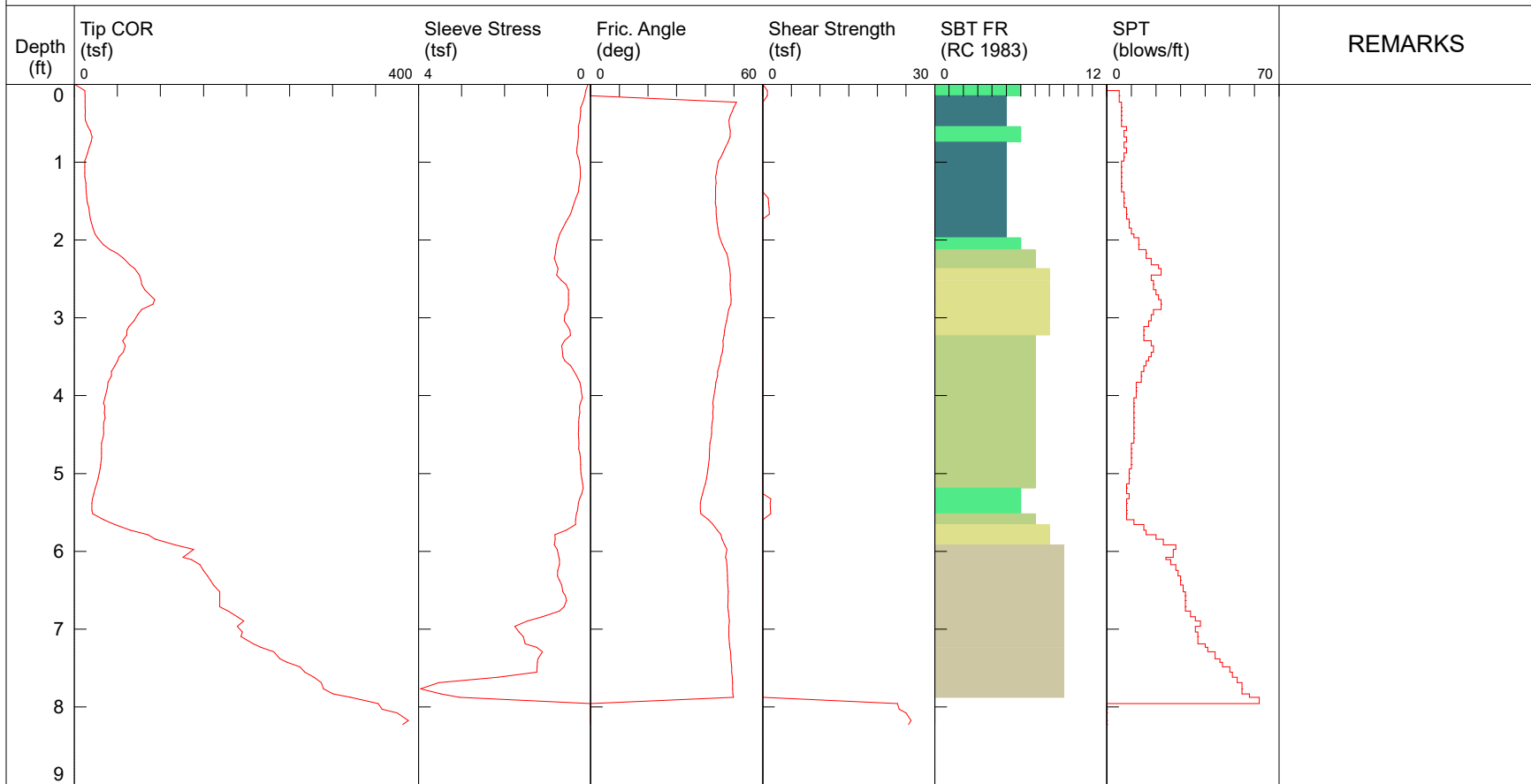
- 1 sensitive fine grained
- 4 silty clay to clay
- 7 silty sand to sandy silt
- 10 gravelly sand to sand
- 2 organic material
- 5 clayey silt to silty clay
- 8 sand to silty sand
- 11 very stiff fine grained (*)
- 3 clay
- 6 sandy silt to clayey silt
- 9 sand
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 8.224 ft
 SITE: B-420
 SOUNDING
 COMPANY: SME
 FILENAME: B420.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-420
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 48.29 (tsf) FINAL BASELINE: 1.7752 (tsf)

NOTES:: Example of notes

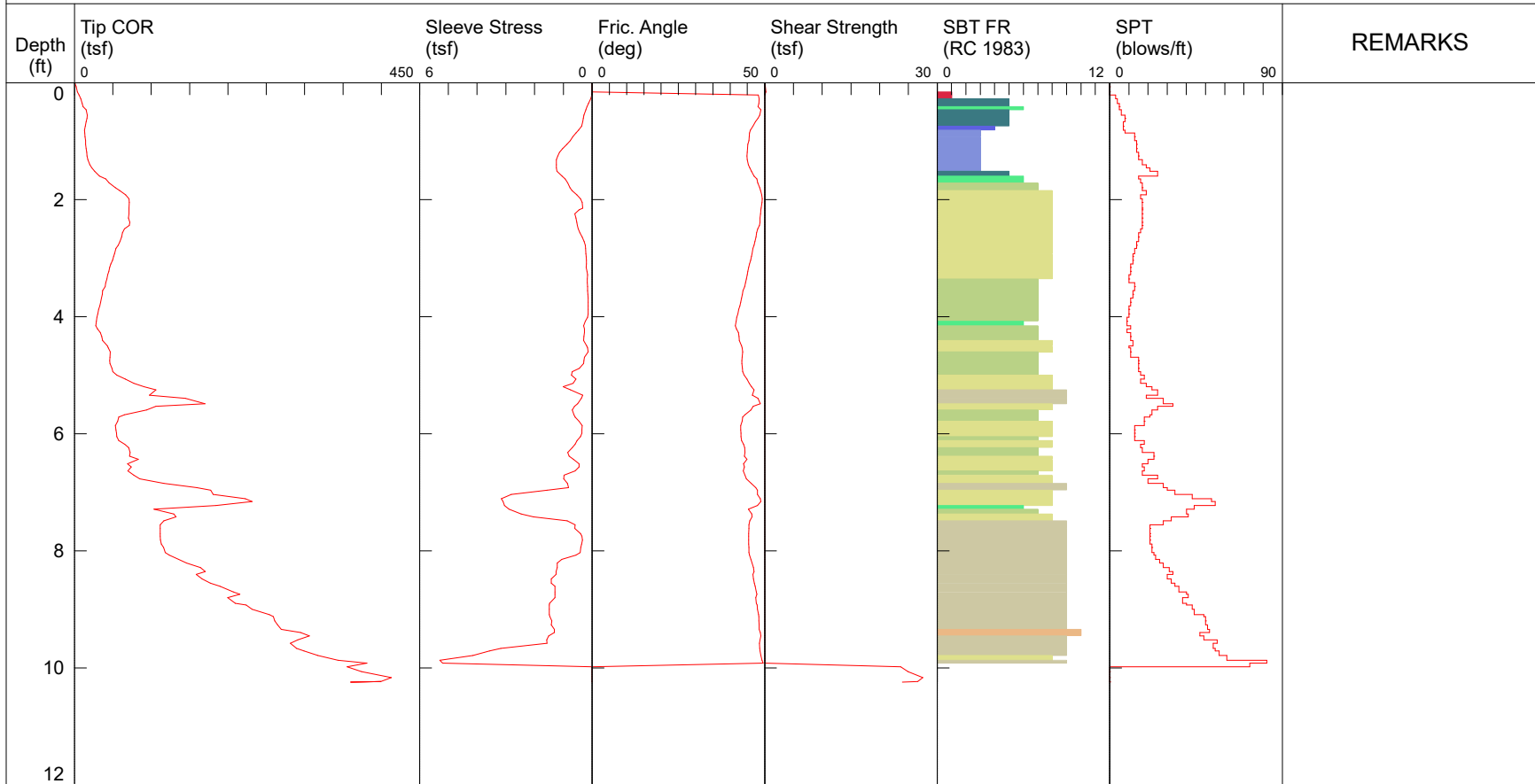
- 1 sensitive fine grained
 - 2 organic material
 - 3 clay
- 4 silty clay to clay
 - 5 clayey silt to silty clay
 - 6 sandy silt to clayey silt
- 7 silty sand to sandy silt
 - 8 sand to silty sand
 - 9 sand
- 10 gravelly sand to sand
 - 11 very stiff fine grained (*)
 - 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 10.245 ft
 SITE: B-421
 SOUNDING
 COMPANY: SME
 FILENAME: B421.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-421
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.11 (tsf)

FINAL BASELINE: 0 or N/A

NOTES:: Example of notes

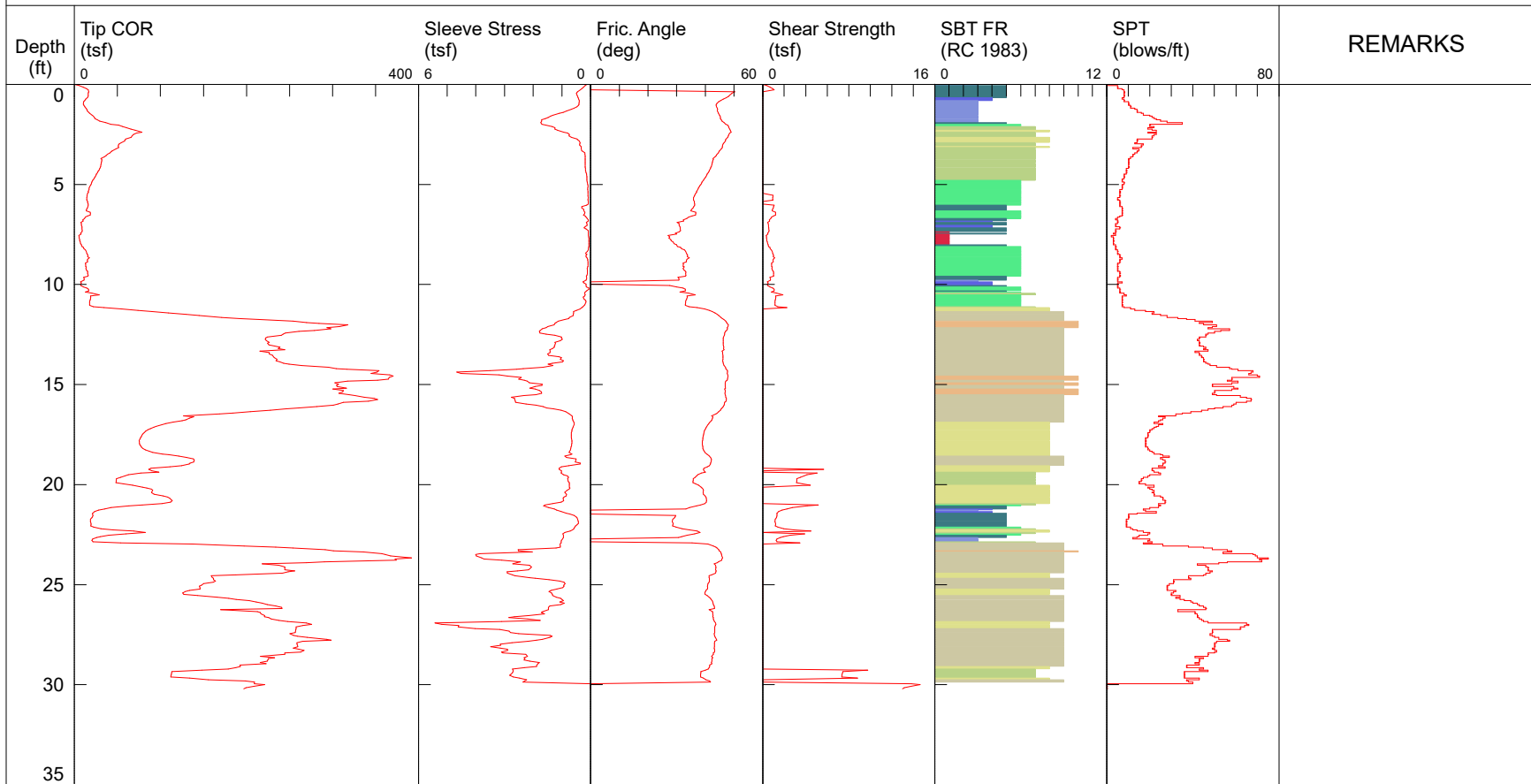
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 30.195 ft
 SITE: B-422
 SOUNDING
 COMPANY: SME
 FILENAME: B422.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-422
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.56 (tsf)

FINAL BASELINE: -0.0016 (tsf)

NOTES:: Example of notes

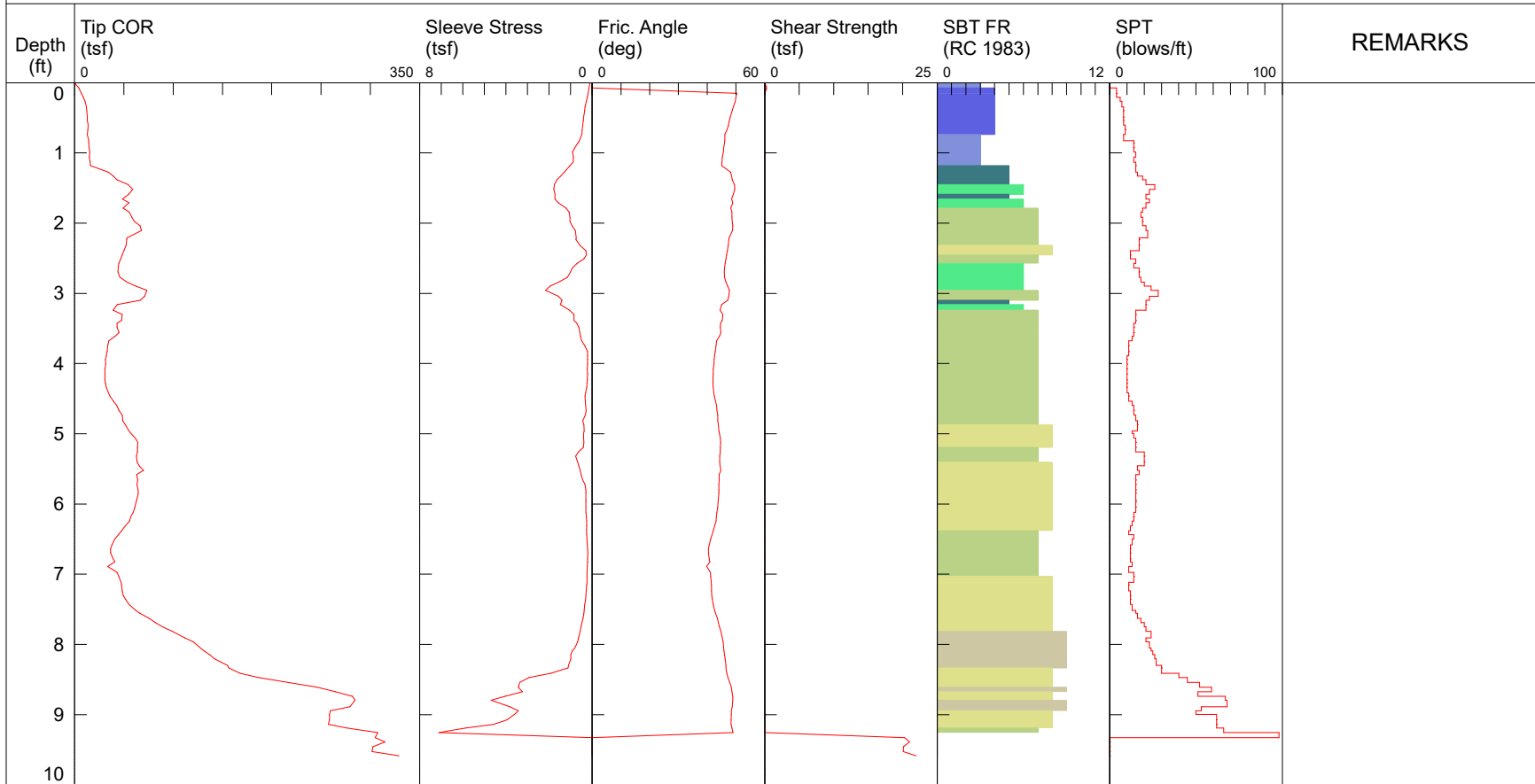
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 9.584 ft
 SITE: B-423
 SOUNDING
 COMPANY: SME
 FILENAME: B423.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-423
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.23 (tsf)

FINAL BASELINE: -0.0165 (tsf)

NOTES:: Example of notes

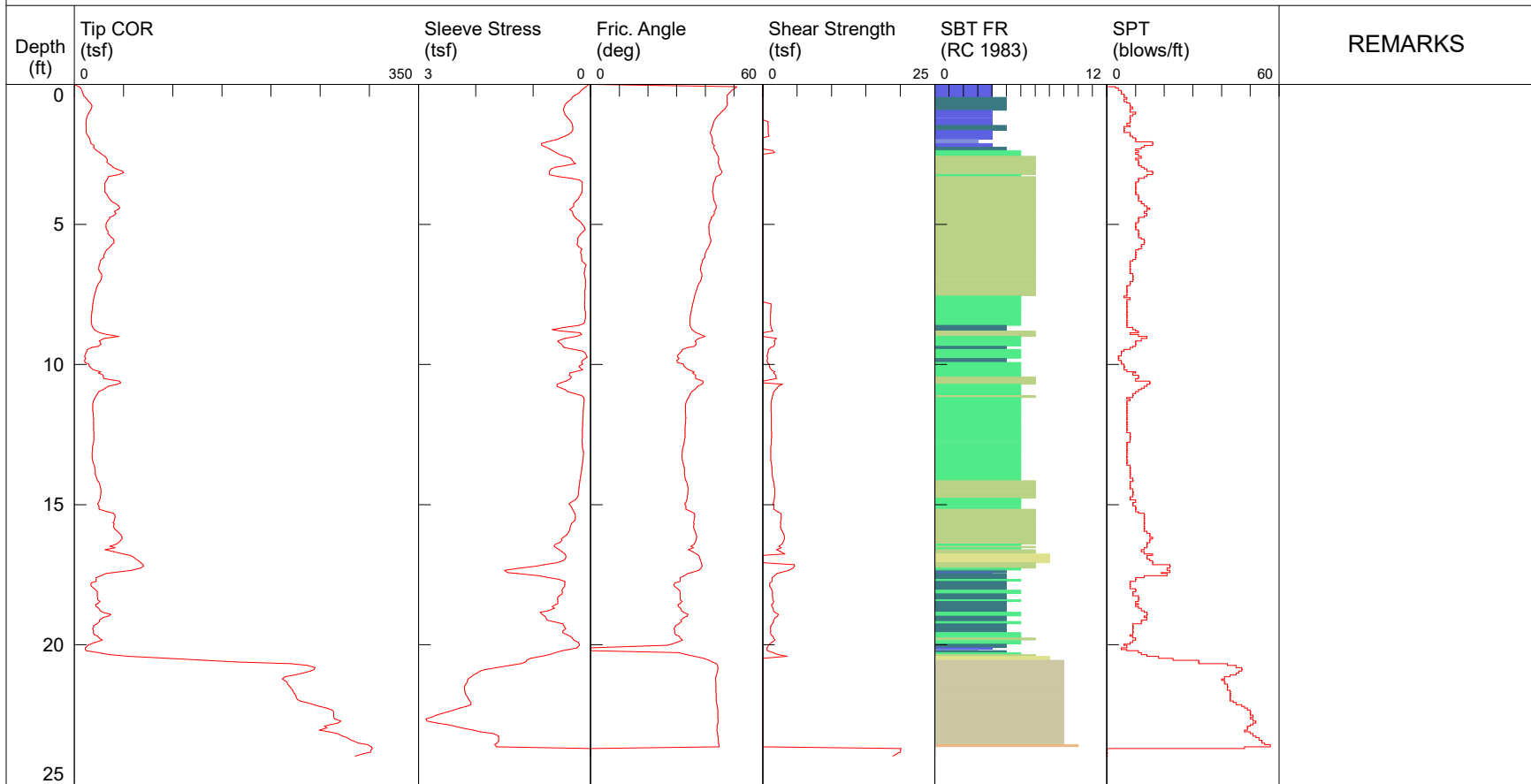
- 1 sensitive fine grained
- 4 silty clay to clay
- 7 silty sand to sandy silt
- 10 gravelly sand to sand
- 2 organic material
- 5 clayey silt to silty clay
- 8 sand to silty sand
- 11 very stiff fine grained (*)
- 3 clay
- 6 sandy silt to clayey silt
- 9 sand
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 23.977 ft
 SITE: B-424
 SOUNDING
 COMPANY: SME
 FILENAME: B424.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-424
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

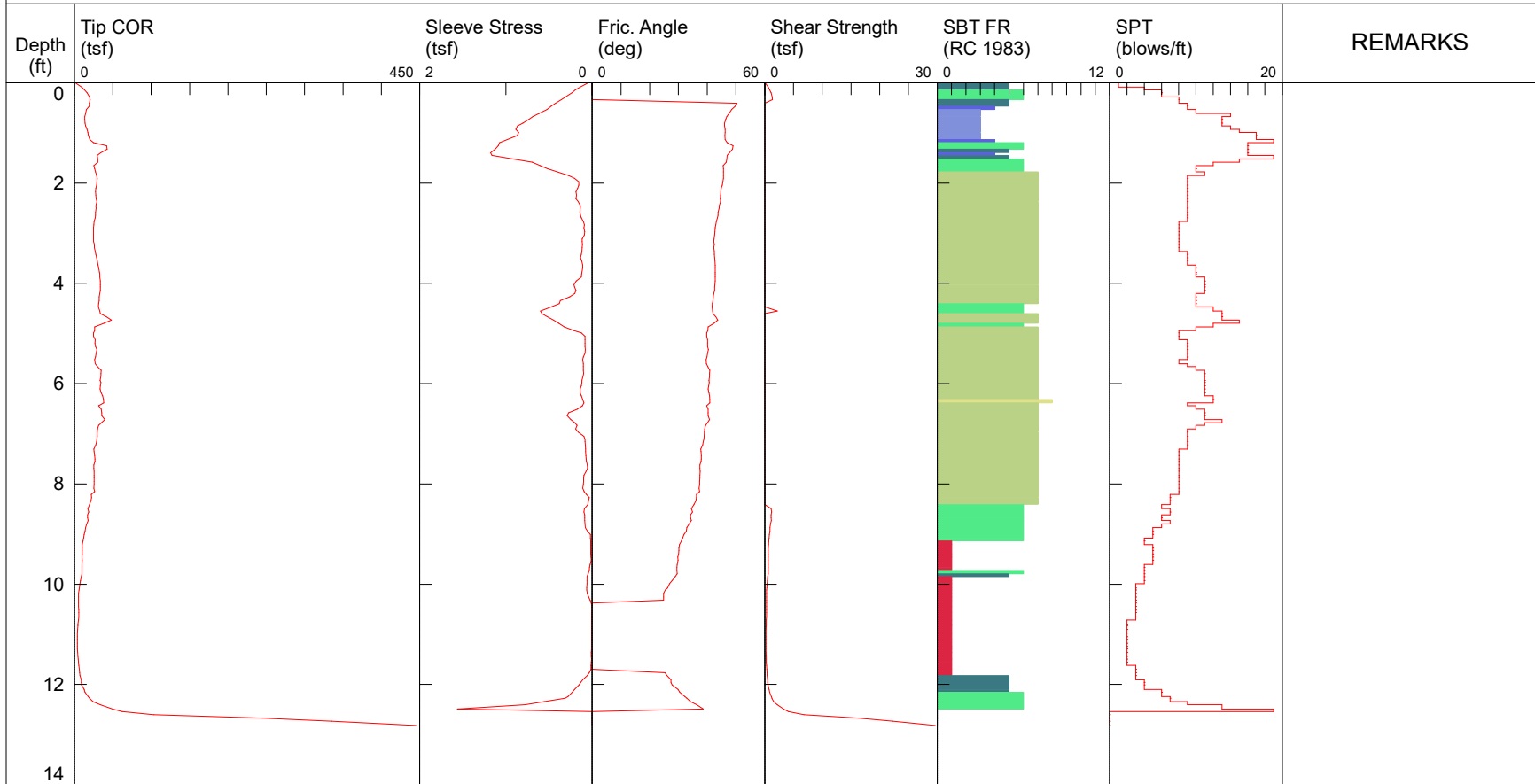
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.819 ft
 SITE: B-426
 SOUNDING
 COMPANY: SME
 FILENAME: B426.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-426
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.11 (tsf)

FINAL BASELINE: 0.0017 (tsf)

NOTES:: Example of notes

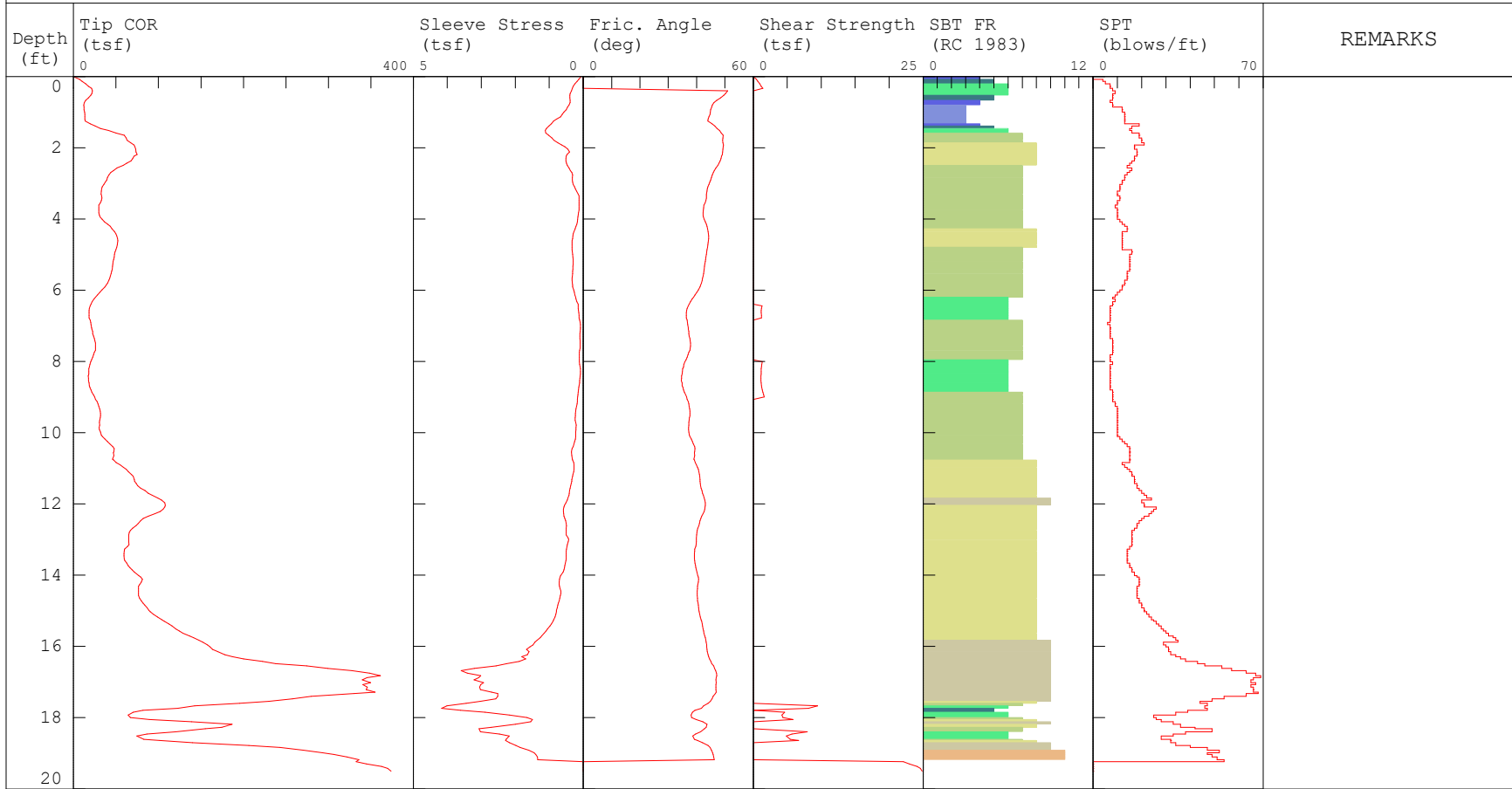
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 19.497 ft
 SITE: B-427
 SOUNDING
 COMPANY: SME
 FILENAME: B427.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-427
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.90 (tsf)

FINAL BASELINE: -0.0033 (tsf)

NOTES:: Example of notes

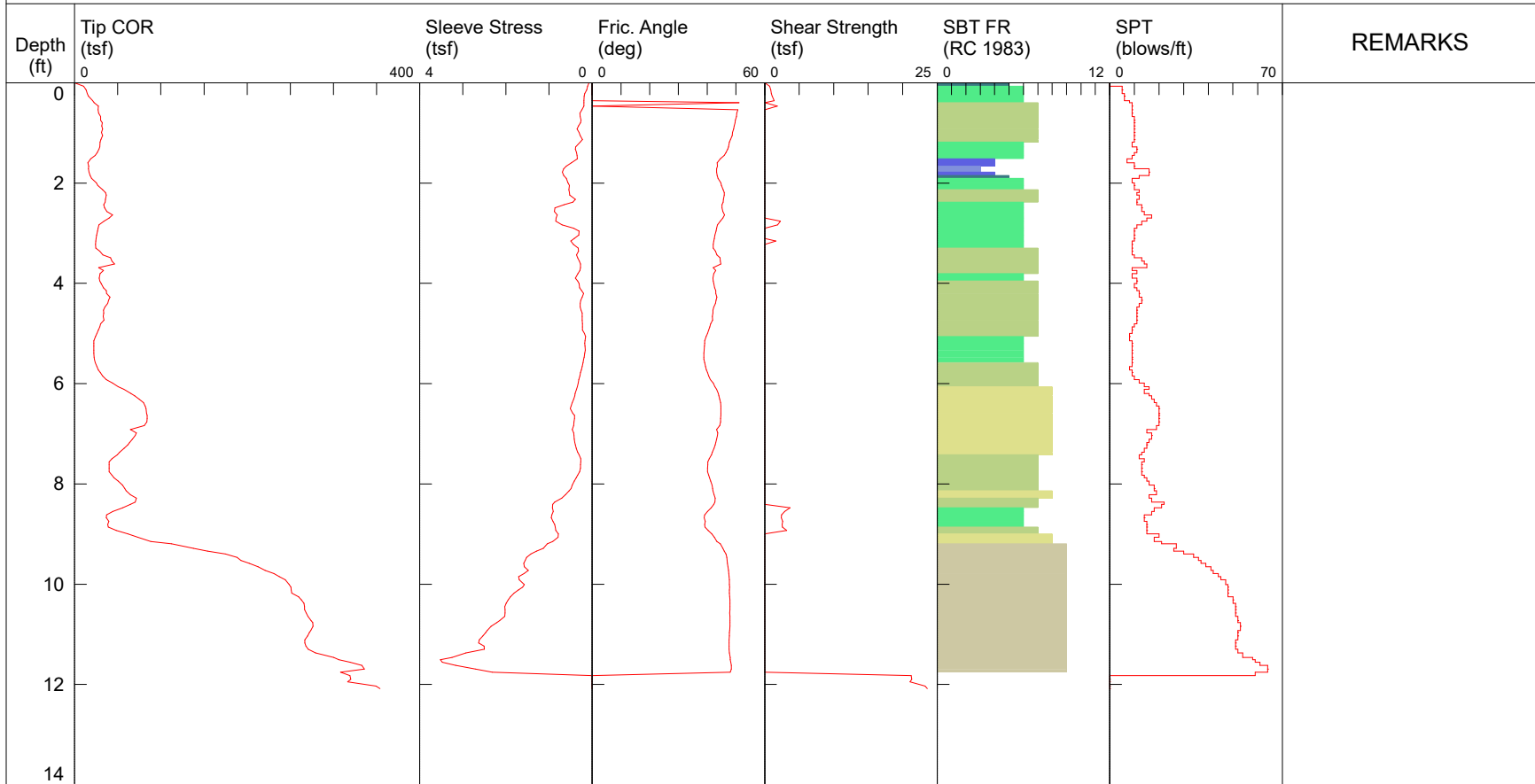
- | | | | |
|---|---|--|---|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|---|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.083 ft
 SITE: B-428
 SOUNDING
 COMPANY: SME
 FILENAME: B428.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-428
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.91 (tsf)

FINAL BASELINE: -0.0398 (tsf)

NOTES:: Example of notes

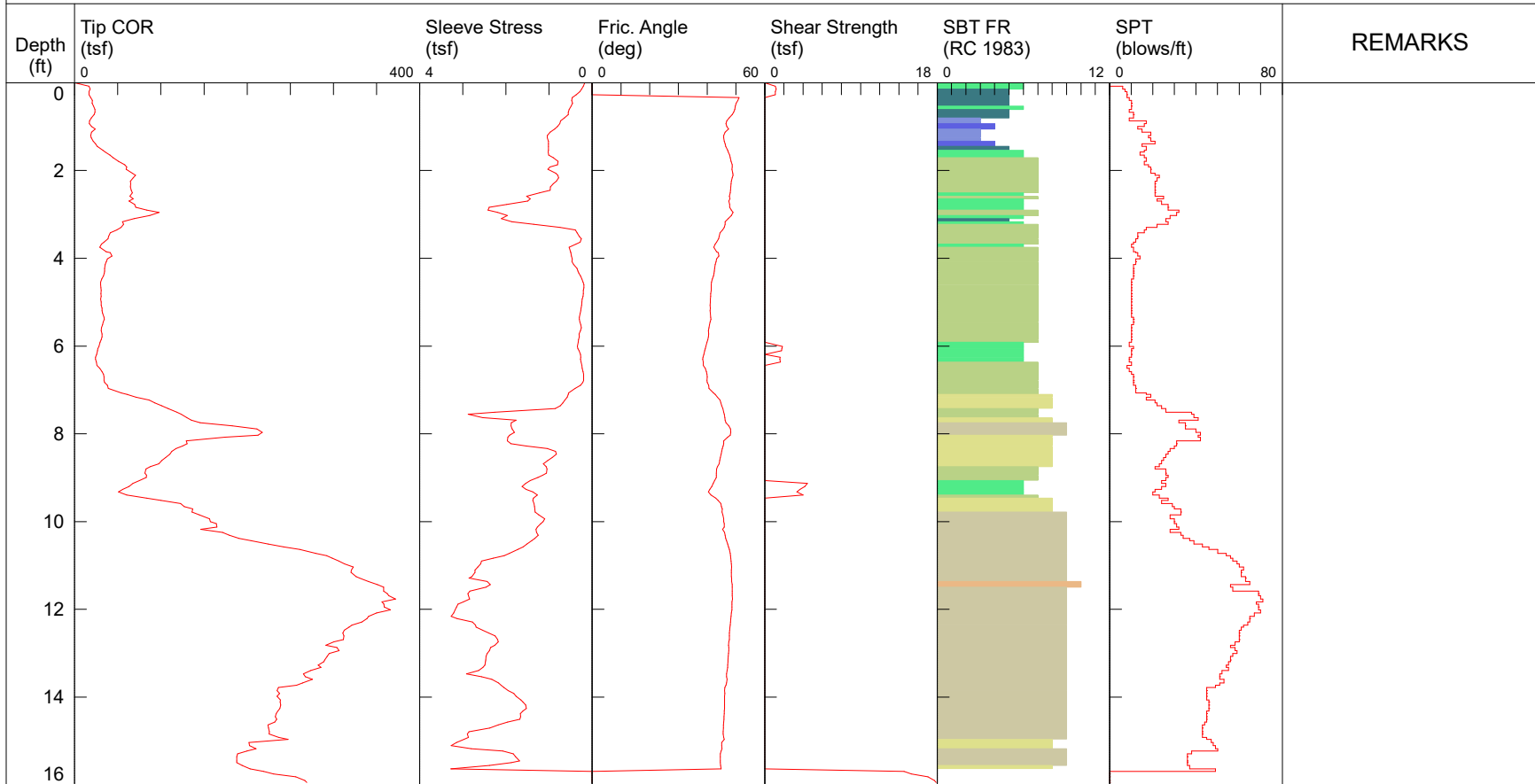
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 15.948 ft
 SITE: B-429
 SOUNDING
 COMPANY: SME
 FILENAME: B429.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-429
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -1.13 (tsf)

FINAL BASELINE: -0.0166 (tsf)

NOTES:: Example of notes

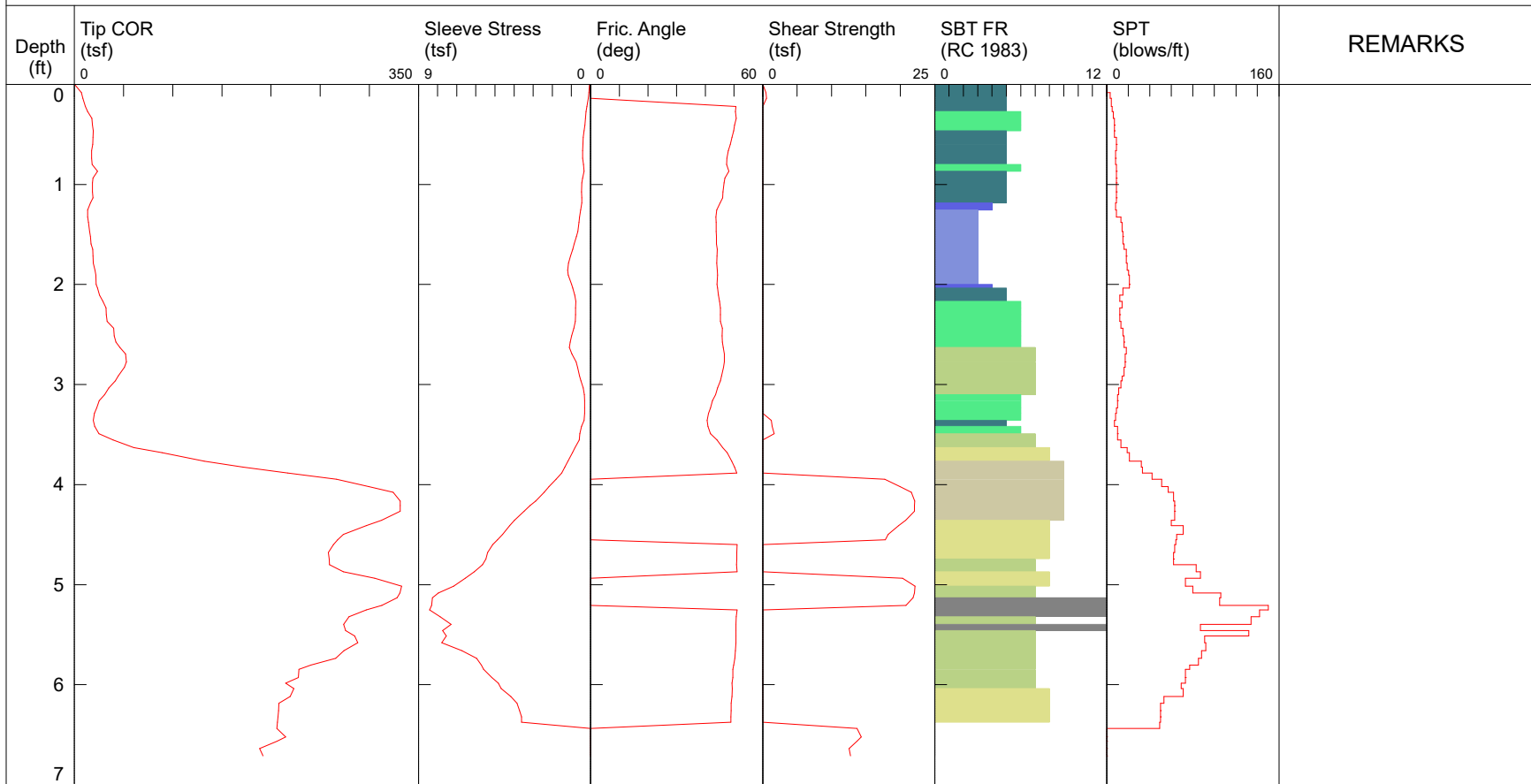
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 6.710 ft
 SITE: B-430
 SOUNDING
 COMPANY: SME
 FILENAME: B430.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-430
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.45 (tsf)

FINAL BASELINE: 0.0149 (tsf)

NOTES:: Example of notes

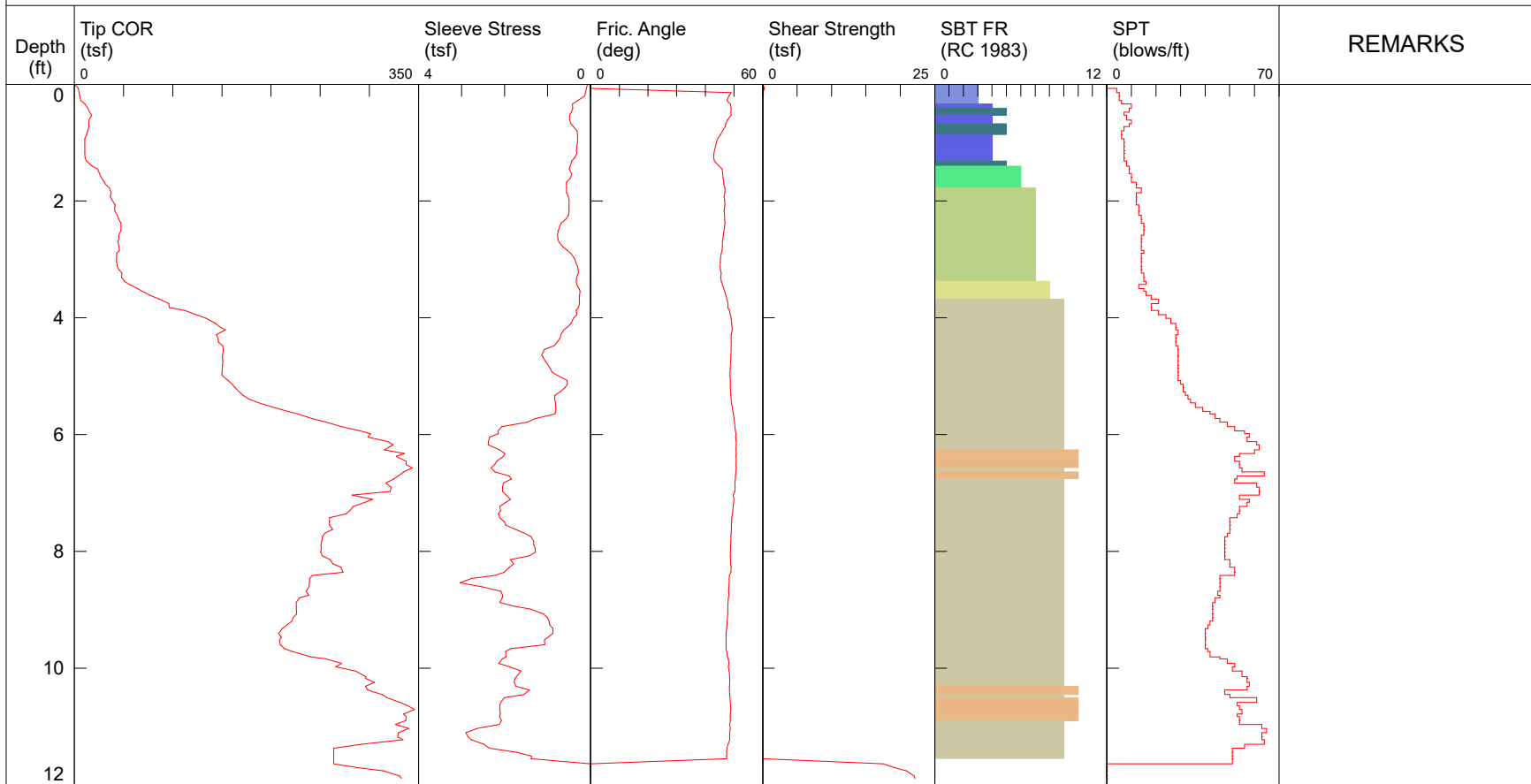
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 11.889 ft
 SITE: B-431
 SOUNDING
 COMPANY: SME
 FILENAME: B431.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-431
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.34 (tsf) FINAL BASELINE: -0.0063 (tsf)

NOTES:: Example of notes

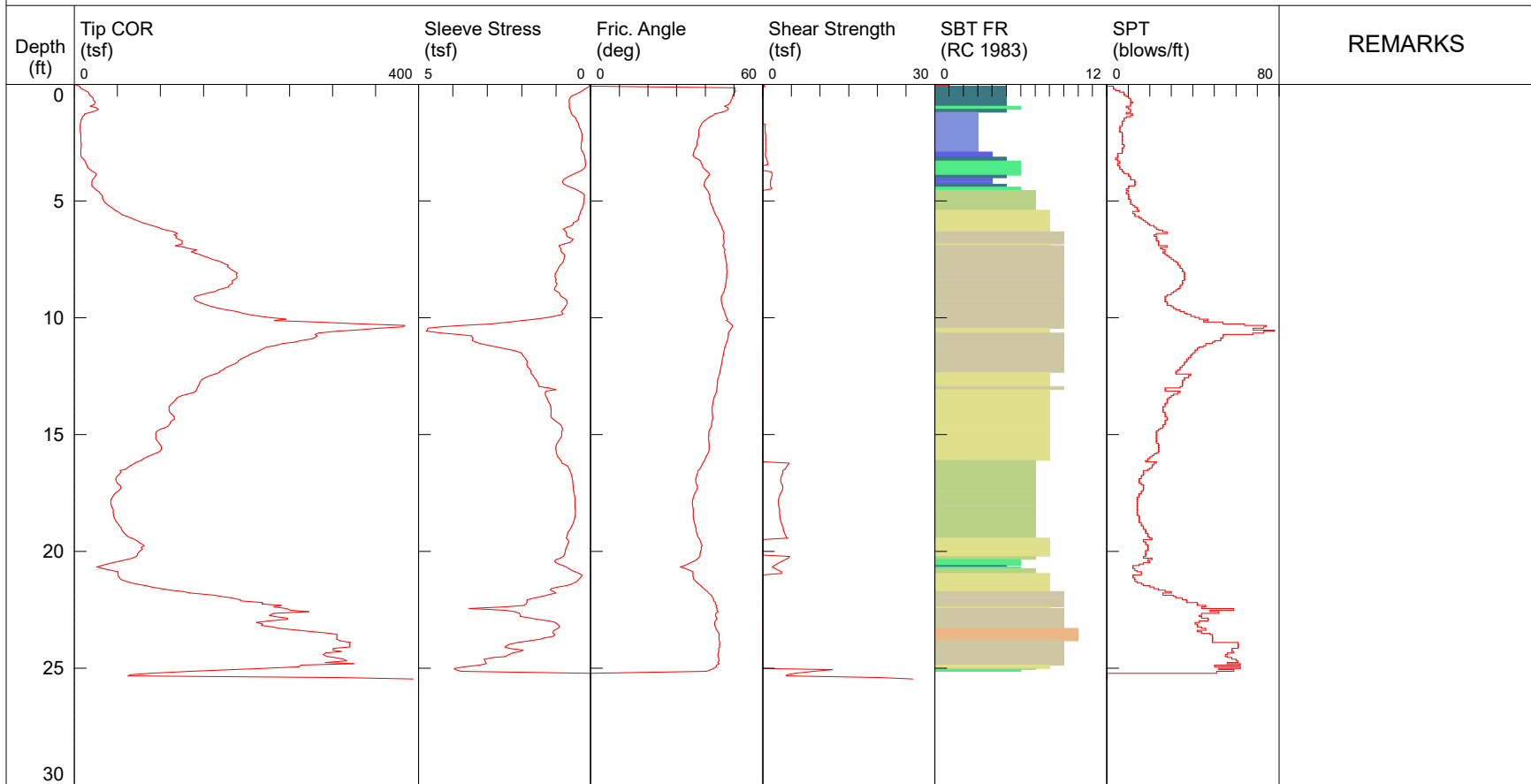
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 25.466 ft
 SITE: B-432
 SOUNDING
 COMPANY: SME
 FILENAME: B432.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-432
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 1.13 (tsf)

FINAL BASELINE: 0.0033 (tsf)

NOTES:: Example of notes

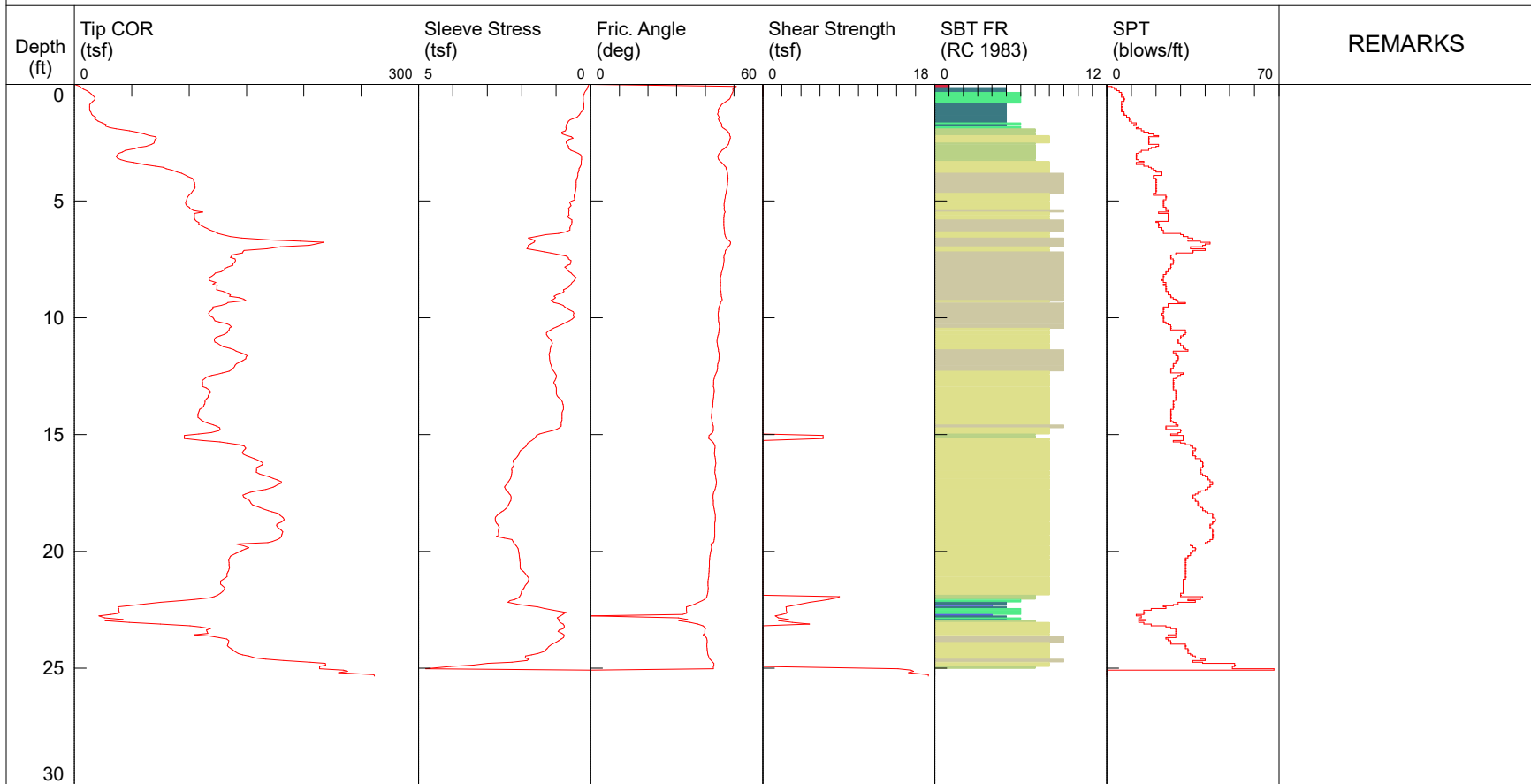
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 25.343 ft
 SITE: B-433
 SOUNDING
 COMPANY: SME
 FILENAME: B433.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-433
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -1.35 (tsf) FINAL BASELINE: -0.0062 (tsf)

NOTES:: Example of notes

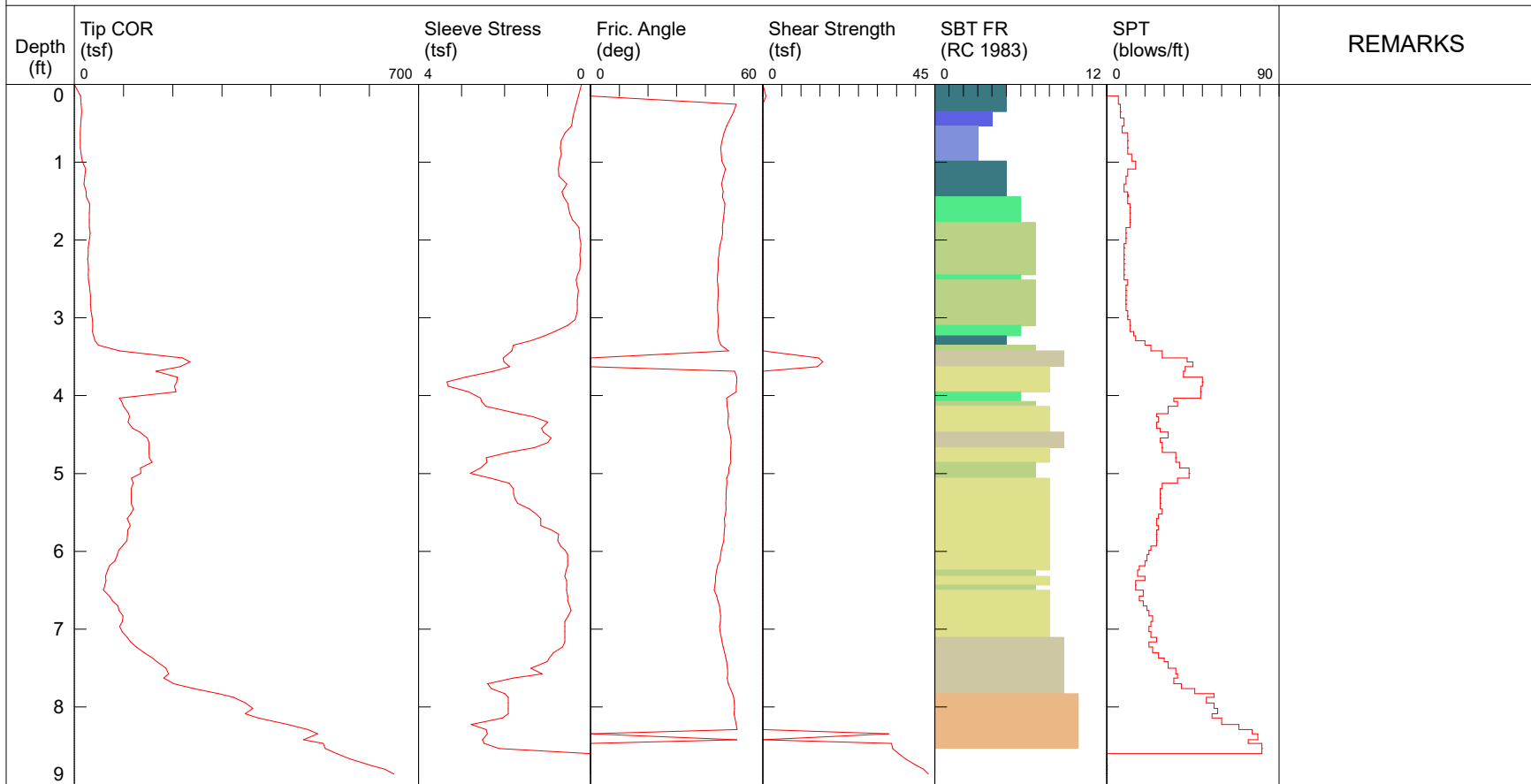
- 1 sensitive fine grained
- 4 silty clay to clay
- 7 silty sand to sandy silt
- 10 gravelly sand to sand
- 2 organic material
- 5 clayey silt to silty clay
- 8 sand to silty sand
- 11 very stiff fine grained (*)
- 3 clay
- 6 sandy silt to clayey silt
- 9 sand
- 12 sand to clayey sand (*)

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 8.860 ft
 SITE: B-434
 SOUNDING
 COMPANY: SME
 FILENAME: B434.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-434
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 0.11 (tsf)

FINAL BASELINE: 0 or N/A

NOTES:: Example of notes

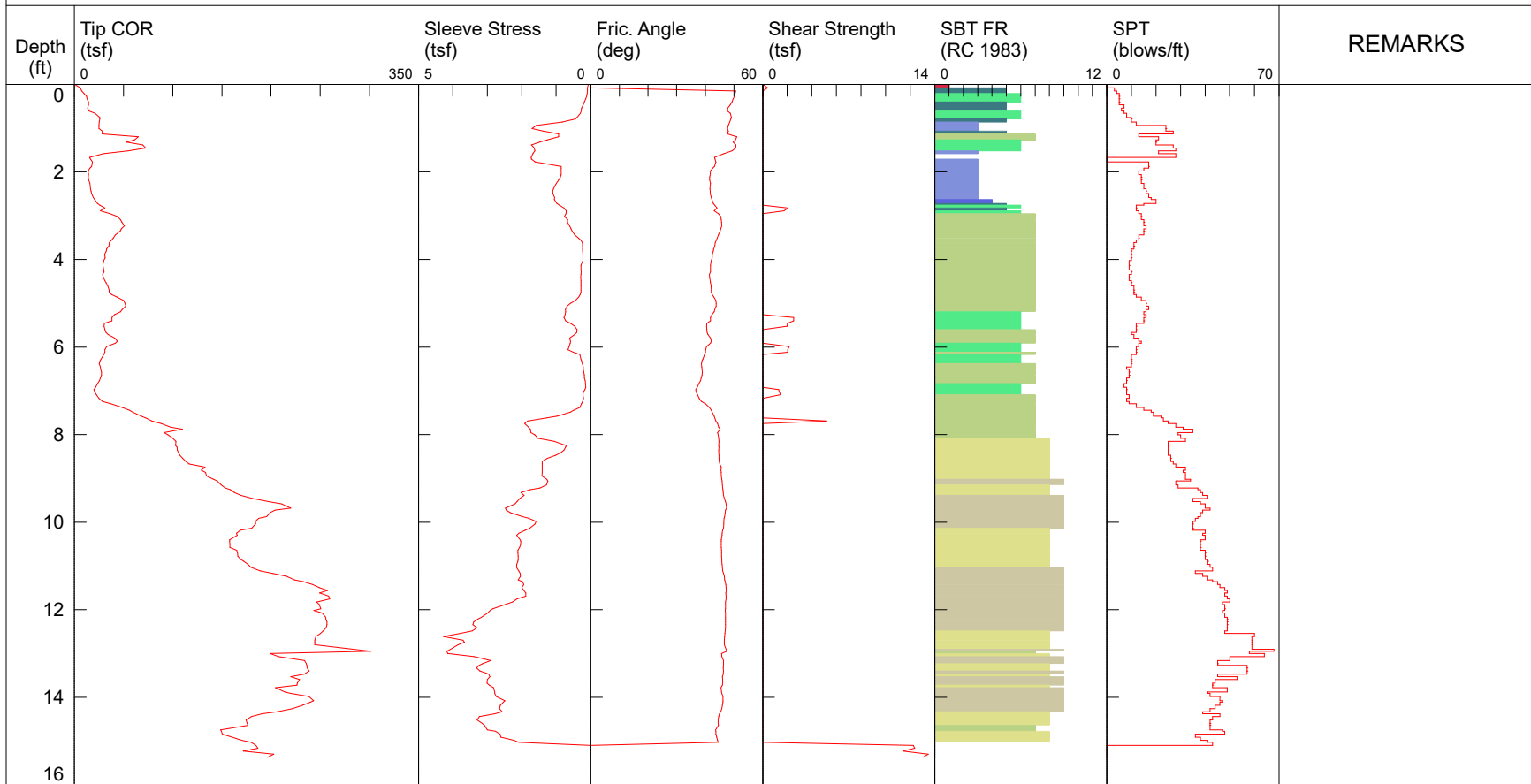
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 15.370 ft
 SITE: B-435
 SOUNDING
 COMPANY: SME
 FILENAME: B435.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-435
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.56 (tsf) FINAL BASELINE: 0.0099 (tsf)

NOTES:: Example of notes

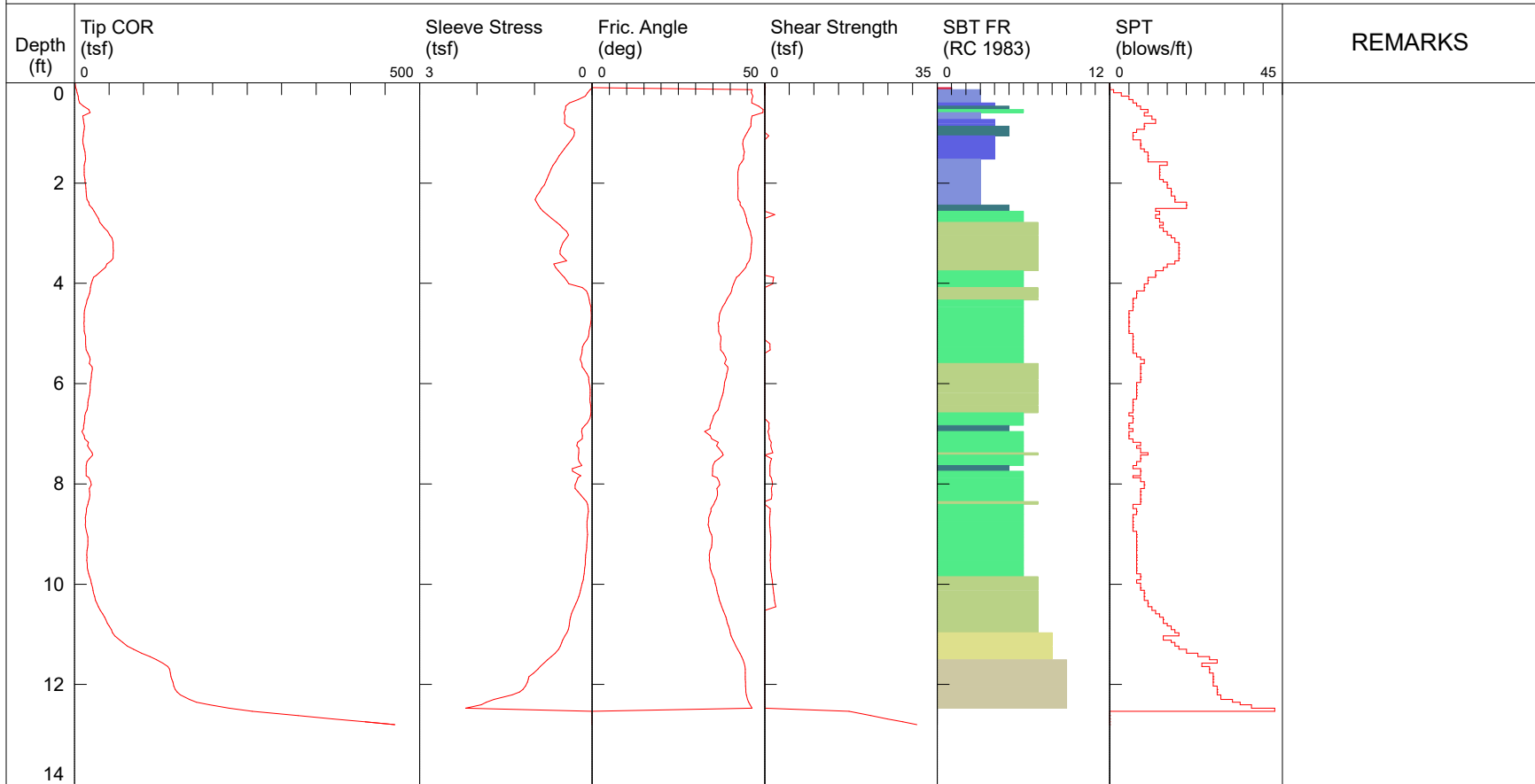
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.802 ft
 SITE: B-436
 SOUNDING
 COMPANY: SME
 FILENAME: B436.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-436
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



NOTES:: Example of notes

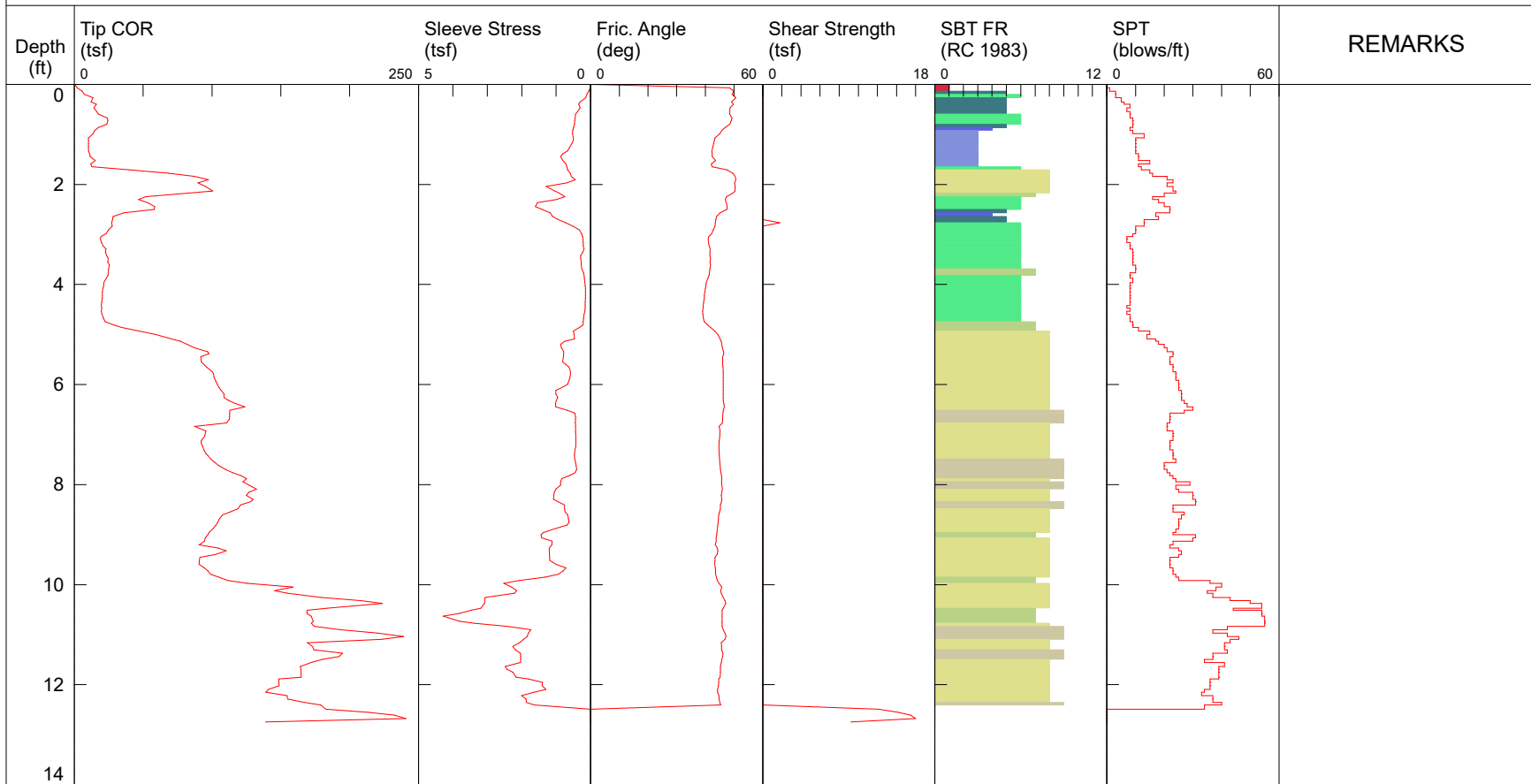
- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|--|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.741 ft
 SITE: B-437
 SOUNDING
 COMPANY: SME
 FILENAME: B437.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-437
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: 114.59 (tsf)

FINAL BASELINE: 1.1533 (tsf)

NOTES:: Example of notes

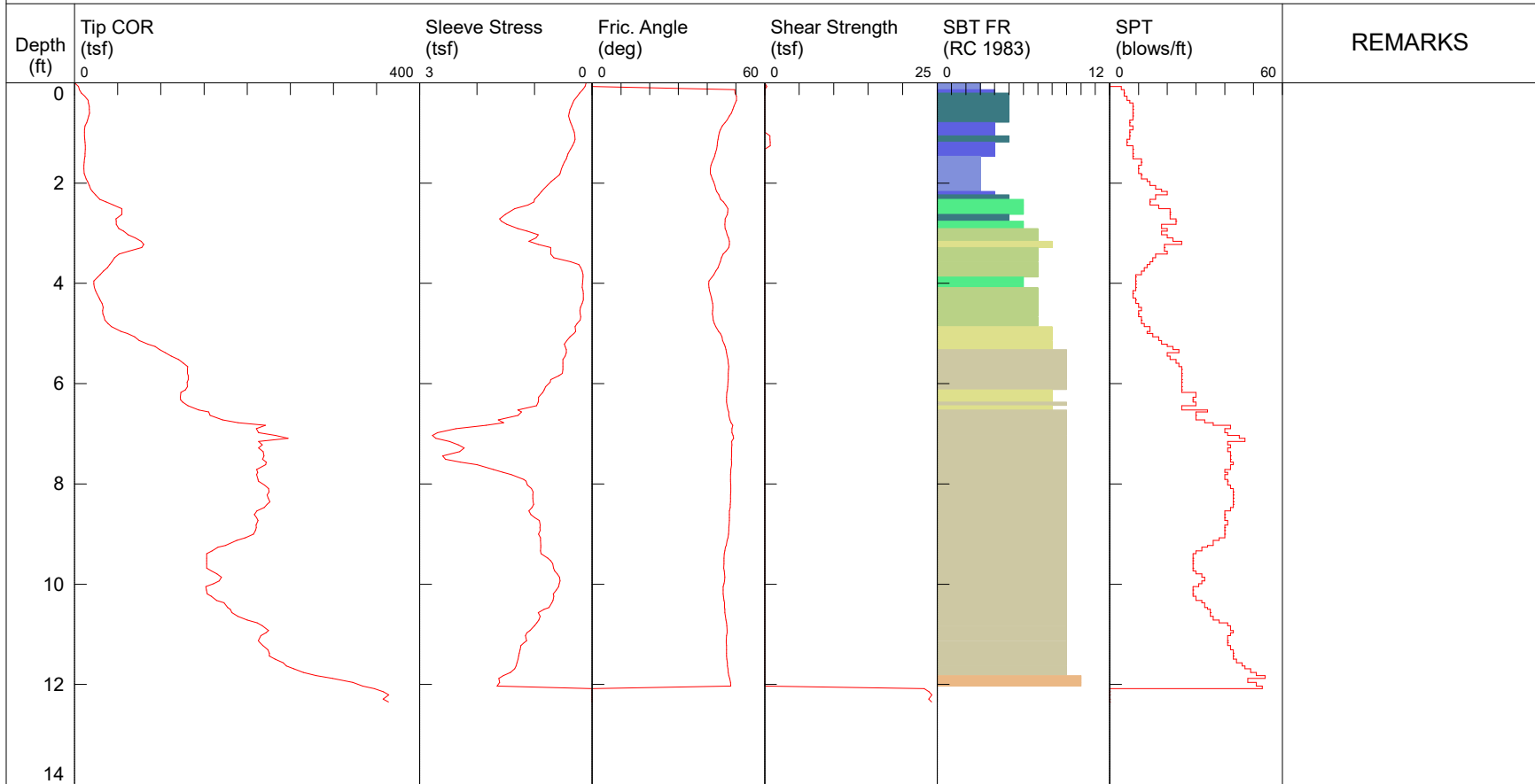
- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|---|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 12.345 ft
 SITE: B-438
 SOUNDING
 COMPANY: SME
 FILENAME: B438.dat

PROBE ID: 4644.171XX
 TEST ID: Marshall B-438
 PROJECT: MEDC MARSHALL MEGASITE
 LOCATION: MARSHALL, MI



FINAL BASELINE: -0.34 (tsf) FINAL BASELINE: -0.0062 (tsf)

NOTES:: Example of notes

- | | | | |
|---|---|---|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy silt ■ 8 sand to silty sand ■ 9 sand | <ul style="list-style-type: none"> ■ 10 gravelly sand to sand ■ 11 very stiff fine grained (*) ■ 12 sand to clayey sand (*) |
|---|---|---|--|

*SBT/SPT CORRELATION: UBC-1983

SOUNDING

TOTAL DEPTH: 3.944 m
SITE: B-311

Depth m	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.005	7.26	0.1480	5	4	silty clay to clay
0.027	7.60	0.2202	5	4	silty clay to clay
0.040	4.09	0.2734	4	3	clay
0.062	12.47	0.3583	8	4	silty clay to clay
0.083	12.80	0.4541	8	4	silty clay to clay
0.112	12.46	0.5142	12	3	clay
0.121	12.35	0.5191	12	3	clay
0.144	12.35	0.5136	12	3	clay
0.168	12.23	0.4395	8	4	silty clay to clay
0.181	11.77	0.3815	8	4	silty clay to clay
0.202	11.32	0.2999	7	4	silty clay to clay
0.226	10.53	0.2267	5	5	clayey silt to silty clay
0.246	9.50	0.2010	5	5	clayey silt to silty clay
0.261	9.62	0.1859	5	5	clayey silt to silty clay
0.282	10.07	0.1249	5	5	clayey silt to silty clay
0.308	10.30	0.0526	4	6	sandy silt to clayey silt
0.320	10.30	0.0413	4	6	sandy silt to clayey silt
0.345	10.30	0.0242	4	6	sandy silt to clayey silt
0.365	10.07	0.0174	5	1	sensitive fine grained
0.381	10.63	0.0279	4	6	sandy silt to clayey silt
0.400	11.54	0.0215	4	6	sandy silt to clayey silt
0.421	13.46	0.0079	5	6	sandy silt to clayey silt
0.453	13.69	0.0033	5	6	sandy silt to clayey silt
0.468	14.49	0.0033	6	6	sandy silt to clayey silt
0.483	10.86	0.0220	4	6	sandy silt to clayey silt
0.506	10.52	0.0322	4	6	sandy silt to clayey silt
0.528	9.51	0.0185	5	1	sensitive fine grained
0.543	9.06	0.0092	4	1	sensitive fine grained
0.564	8.15	0.0024	4	1	sensitive fine grained
0.582	5.32	0.0024	3	1	sensitive fine grained
0.602	5.55	0.0843	3	1	sensitive fine grained
0.623	6.11	0.1976	6	3	clay
0.646	8.72	0.1231	4	5	clayey silt to silty clay
0.662	8.38	0.0445	4	1	sensitive fine grained
0.681	6.11	0.0022	3	1	sensitive fine grained
0.708	6.26	0.0110	3	1	sensitive fine grained
0.733	6.40	0.0043	3	1	sensitive fine grained
0.741	6.26	0.0445	3	1	sensitive fine grained
0.765	6.68	0.1318	4	4	silty clay to clay
0.782	6.12	0.1300	4	4	silty clay to clay
0.802	4.64	0.1297	4	3	clay
0.825	5.10	0.1348	5	3	clay
0.843	2.61	0.1343	3	3	clay
0.864	2.61	0.0959	2	3	clay
0.881	3.63	0.0442	2	1	sensitive fine grained
0.900	3.54	0.0036	2	1	sensitive fine grained
0.922	3.46	0.0050	2	1	sensitive fine grained
0.944	3.38	0.0050	2	1	sensitive fine grained
0.965	3.29	0.0065	2	1	sensitive fine grained
0.988	3.29	0.0083	2	1	sensitive fine grained
1.001	3.17	0.0083	2	1	sensitive fine grained
1.021	1.59	0.0083	1	1	sensitive fine grained
1.048	2.04	0.0083	1	1	sensitive fine grained
1.062	2.04	0.0083	1	1	sensitive fine grained
1.086	2.04	0.0094	1	1	sensitive fine grained
1.107	2.04	0.0086	1	1	sensitive fine grained
1.121	2.27	0.0099	1	1	sensitive fine grained
1.147	2.61	0.0090	1	1	sensitive fine grained
1.162	2.72	0.0083	1	1	sensitive fine grained
1.182	2.83	0.0083	1	1	sensitive fine grained
1.201	2.72	0.0083	1	1	sensitive fine grained
1.221	2.72	0.0077	1	1	sensitive fine grained
1.241	2.72	0.0066	1	1	sensitive fine grained

SOUNDING

TOTAL DEPTH: 3.944 m
SITE: B-311

Depth m	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
1.269	2.72	0.0066	1	1	sensitive fine grained
1.283	2.73	0.0066	1	1	sensitive fine grained
1.306	2.73	0.0061	1	1	sensitive fine grained
1.320	2.73	0.0056	1	1	sensitive fine grained
1.343	2.73	0.0050	1	1	sensitive fine grained
1.366	2.73	0.0050	1	1	sensitive fine grained
1.381	2.73	0.0050	1	1	sensitive fine grained
1.403	2.50	0.0050	1	1	sensitive fine grained
1.430	2.39	0.0050	1	1	sensitive fine grained
1.441	2.27	0.0050	1	1	sensitive fine grained
1.460	2.16	0.0052	1	1	sensitive fine grained
1.488	2.16	0.0066	1	1	sensitive fine grained
1.507	2.16	0.0066	1	1	sensitive fine grained
1.521	2.16	0.0066	1	1	sensitive fine grained
1.548	2.05	0.0066	1	1	sensitive fine grained
1.562	2.05	0.0066	1	1	sensitive fine grained
1.581	2.05	0.0066	1	1	sensitive fine grained
1.610	1.93	0.0066	1	1	sensitive fine grained
1.623	1.93	0.0066	1	1	sensitive fine grained
1.645	1.93	0.0066	1	1	sensitive fine grained
1.669	1.93	0.0066	1	1	sensitive fine grained
1.685	2.05	0.0066	1	1	sensitive fine grained
1.704	1.71	0.0066	1	1	sensitive fine grained
1.725	1.82	0.0066	1	1	sensitive fine grained
1.744	1.82	0.0066	1	1	sensitive fine grained
1.765	1.82	0.0066	1	1	sensitive fine grained
1.783	1.82	0.0066	1	1	sensitive fine grained
1.802	1.82	0.0066	1	1	sensitive fine grained
1.825	1.82	0.0066	1	1	sensitive fine grained
1.847	1.82	0.0078	1	1	sensitive fine grained
1.860	1.93	0.0083	1	1	sensitive fine grained
1.885	2.04	0.0083	1	1	sensitive fine grained
1.904	2.05	0.0086	1	1	sensitive fine grained
1.925	1.82	0.0099	1	1	sensitive fine grained
1.942	2.16	0.0092	1	1	sensitive fine grained
1.965	2.38	0.0083	1	1	sensitive fine grained
1.991	2.38	0.0083	1	1	sensitive fine grained
2.006	2.38	0.0083	1	1	sensitive fine grained
2.024	2.38	0.0091	1	1	sensitive fine grained
2.041	2.38	0.0099	1	1	sensitive fine grained
2.066	2.38	0.0099	1	1	sensitive fine grained
2.083	2.38	0.0099	1	1	sensitive fine grained
2.105	2.38	0.0099	1	1	sensitive fine grained
2.125	2.39	0.0099	1	1	sensitive fine grained
2.143	2.39	0.0099	1	1	sensitive fine grained
2.164	2.39	0.0091	1	1	sensitive fine grained
2.186	2.39	0.0083	1	1	sensitive fine grained
2.201	2.27	0.0083	1	1	sensitive fine grained
2.225	2.27	0.0083	1	1	sensitive fine grained
2.246	2.27	0.0083	1	1	sensitive fine grained
2.261	2.27	0.0083	1	1	sensitive fine grained
2.286	2.27	0.0083	1	1	sensitive fine grained
2.305	2.27	0.0091	1	1	sensitive fine grained
2.325	2.27	0.0099	1	1	sensitive fine grained
2.348	2.27	0.0099	1	1	sensitive fine grained
2.361	2.16	0.0099	1	1	sensitive fine grained
2.385	2.16	0.0099	1	1	sensitive fine grained
2.407	2.16	0.0099	1	1	sensitive fine grained
2.422	2.16	0.0099	1	1	sensitive fine grained
2.441	2.04	0.0105	1	1	sensitive fine grained
2.467	2.05	0.0095	1	1	sensitive fine grained
2.483	1.93	0.0083	1	1	sensitive fine grained
2.504	1.93	0.0083	1	1	sensitive fine grained

SOUNDING

TOTAL DEPTH: 3.944 m
SITE: B-311

Depth m	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
2.526	1.71	0.0094	1	1	sensitive fine grained
2.542	1.82	0.0106	1	1	sensitive fine grained
2.565	1.70	0.0116	1	1	sensitive fine grained
2.585	1.59	0.0116	1	1	sensitive fine grained
2.603	1.59	0.0112	1	1	sensitive fine grained
2.622	1.59	0.0099	1	1	sensitive fine grained
2.645	1.59	0.0123	1	1	sensitive fine grained
2.660	1.70	0.0149	1	1	sensitive fine grained
2.688	1.82	0.0203	1	1	sensitive fine grained
2.705	1.93	0.0251	1	1	sensitive fine grained
2.726	2.27	0.0282	1	1	sensitive fine grained
2.746	2.61	0.0282	1	1	sensitive fine grained
2.765	2.62	0.0282	1	1	sensitive fine grained
2.781	2.84	0.0197	1	1	sensitive fine grained
2.806	3.18	0.0100	2	1	sensitive fine grained
2.823	3.30	0.0116	2	1	sensitive fine grained
2.843	3.30	0.0116	2	1	sensitive fine grained
2.861	3.30	0.0116	2	1	sensitive fine grained
2.885	3.41	0.0116	2	1	sensitive fine grained
2.906	3.53	0.0116	2	1	sensitive fine grained
2.926	3.64	0.0116	2	1	sensitive fine grained
2.945	3.64	0.0116	2	1	sensitive fine grained
2.966	3.64	0.0116	2	1	sensitive fine grained
2.982	3.64	0.0116	2	1	sensitive fine grained
3.000	3.64	0.0116	2	1	sensitive fine grained
3.023	3.75	0.0116	2	1	sensitive fine grained
3.041	3.86	0.0116	2	1	sensitive fine grained
3.063	3.86	0.0116	2	1	sensitive fine grained
3.084	3.98	0.0116	2	1	sensitive fine grained
3.101	3.98	0.0116	2	1	sensitive fine grained
3.123	4.09	0.0116	2	1	sensitive fine grained
3.144	4.21	0.0116	2	1	sensitive fine grained
3.162	4.21	0.0116	2	1	sensitive fine grained
3.182	4.54	0.0116	2	1	sensitive fine grained
3.203	4.77	0.0135	2	1	sensitive fine grained
3.221	5.00	0.0166	2	1	sensitive fine grained
3.247	5.34	0.0209	3	1	sensitive fine grained
3.263	5.45	0.0271	3	1	sensitive fine grained
3.285	5.68	0.0392	3	1	sensitive fine grained
3.305	5.91	0.0540	3	1	sensitive fine grained
3.322	6.48	0.0751	3	1	sensitive fine grained
3.345	7.27	0.1496	5	4	silty clay to clay
3.366	8.51	0.2305	5	4	silty clay to clay
3.383	9.98	0.2471	6	4	silty clay to clay
3.402	11.91	0.2904	6	5	clayey silt to silty clay
3.423	16.10	0.3730	8	5	clayey silt to silty clay
3.451	21.66	0.4596	8	6	sandy silt to clayey silt
3.462	27.90	0.5240	11	6	sandy silt to clayey silt
3.483	41.48	0.6557	13	7	silty sand to sandy silt
3.510	70.47	0.7928	22	7	silty sand to sandy silt
3.522	90.17	0.8968	22	8	sand to silty sand
3.542	129.00	1.0481	31	8	sand to silty sand
3.567	166.36	1.2272	32	9	sand
3.581	178.92	1.3221	34	9	sand
3.601	191.38	1.4421	37	9	sand
3.625	207.34	1.4605	40	9	sand
3.645	229.18	1.5984	44	9	sand
3.660	257.03	1.9148	49	9	sand
3.682	282.72	1.9772	54	9	sand
3.706	295.40	2.0988	57	9	sand
3.726	320.54	2.4773	61	9	sand
3.747	305.49	2.5221	59	9	sand
3.765	317.03	2.5867	61	9	sand

SOUNDING

TOTAL DEPTH: 3.944 m
SITE: B-311

Depth m	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
3.786	341.15	2.5157	65	9	sand
3.805	360.29	2.5230	58	10	gravelly sand to sand
3.820	367.32	2.7166	59	10	gravelly sand to sand
3.844	369.63	2.5195	59	10	gravelly sand to sand
3.862	369.63	0.0000	0	0	<out of range>
3.887	371.95	0.0000	0	0	<out of range>
3.909	401.94	0.0000	0	0	<out of range>
3.921	406.25	0.0000	0	0	<out of range>
3.944	412.68	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 3.836 m
SITE: B-311 Test Pit

Depth m	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	1.58	0.0245	1	1	sensitive fine grained
0.024	1.47	0.0617	1	2	organic material
0.043	4.40	0.0857	3	4	silty clay to clay
0.061	7.44	0.1090	4	5	clayey silt to silty clay
0.087	7.44	0.1477	5	4	silty clay to clay
0.101	7.22	0.1638	5	4	silty clay to clay
0.121	6.88	0.1890	4	4	silty clay to clay
0.141	6.76	0.2211	6	3	clay
0.166	7.10	0.2457	7	3	clay
0.185	7.55	0.2559	7	3	clay
0.206	8.56	0.2442	5	4	silty clay to clay
0.222	8.89	0.2702	6	4	silty clay to clay
0.251	9.23	0.4001	9	3	clay
0.261	9.34	0.4201	9	3	clay
0.281	9.35	0.4611	9	3	clay
0.305	12.95	0.4557	8	4	silty clay to clay
0.325	24.90	0.3801	10	6	sandy silt to clayey silt
0.340	29.08	0.3338	11	6	sandy silt to clayey silt
0.362	33.94	0.4063	11	7	silty sand to sandy silt
0.385	34.05	0.7266	13	6	sandy silt to clayey silt
0.410	37.43	0.8308	14	6	sandy silt to clayey silt
0.424	38.79	0.8430	15	6	sandy silt to clayey silt
0.445	29.09	0.8695	14	5	clayey silt to silty clay
0.472	26.27	0.8657	13	5	clayey silt to silty clay
0.483	24.80	1.0383	16	4	silty clay to clay
0.504	24.01	0.9654	15	4	silty clay to clay
0.524	21.20	0.6797	10	5	clayey silt to silty clay
0.547	21.76	0.6401	10	5	clayey silt to silty clay
0.563	19.51	0.6465	9	5	clayey silt to silty clay
0.581	19.79	0.6502	9	5	clayey silt to silty clay
0.607	18.16	0.6486	12	4	silty clay to clay
0.621	20.07	0.6526	10	5	clayey silt to silty clay
0.640	22.55	0.6360	11	5	clayey silt to silty clay
0.665	23.46	0.6289	11	5	clayey silt to silty clay
0.681	23.91	0.6492	11	5	clayey silt to silty clay
0.711	26.72	0.5579	10	6	sandy silt to clayey silt
0.722	29.09	0.5464	11	6	sandy silt to clayey silt
0.745	33.26	0.5996	13	6	sandy silt to clayey silt
0.769	35.07	0.6931	13	6	sandy silt to clayey silt
0.781	34.17	0.6960	13	6	sandy silt to clayey silt
0.800	34.62	0.7033	13	6	sandy silt to clayey silt
0.828	37.44	0.7404	14	6	sandy silt to clayey silt
0.844	30.90	0.7758	12	6	sandy silt to clayey silt
0.861	26.05	0.8449	12	5	clayey silt to silty clay
0.888	22.45	1.0162	21	3	clay
0.903	21.88	1.0554	21	3	clay
0.926	21.32	0.9373	20	3	clay
0.945	19.51	0.8114	12	4	silty clay to clay
0.963	18.50	0.7448	12	4	silty clay to clay
0.985	18.38	0.7701	18	3	clay
1.007	17.71	0.7032	11	4	silty clay to clay
1.023	18.04	0.6600	12	4	silty clay to clay
1.050	23.91	0.6378	11	5	clayey silt to silty clay
1.066	20.53	0.6445	10	5	clayey silt to silty clay
1.081	19.96	0.6532	10	5	clayey silt to silty clay
1.101	19.51	0.6359	9	5	clayey silt to silty clay
1.126	18.27	0.6536	12	4	silty clay to clay
1.143	18.33	0.6539	12	4	silty clay to clay
1.162	18.39	0.6392	12	4	silty clay to clay
1.183	18.44	0.6928	12	4	silty clay to clay
1.200	18.50	0.7065	12	4	silty clay to clay
1.223	22.22	0.7342	11	5	clayey silt to silty clay
1.247	25.82	0.7096	12	5	clayey silt to silty clay

SOUNDING

TOTAL DEPTH: 3.836 m
SITE: B-311 Test Pit

Depth m	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
1.265	29.55	0.6974	11	6	sandy silt to clayey silt
1.286	29.49	0.6984	11	6	sandy silt to clayey silt
1.308	29.49	0.6995	11	6	sandy silt to clayey silt
1.323	29.43	0.6940	11	6	sandy silt to clayey silt
1.347	30.45	0.6261	12	6	sandy silt to clayey silt
1.367	32.59	0.5865	12	6	sandy silt to clayey silt
1.381	34.40	0.5813	13	6	sandy silt to clayey silt
1.408	43.30	0.7841	17	6	sandy silt to clayey silt
1.427	46.69	0.8991	18	6	sandy silt to clayey silt
1.441	49.84	0.9149	16	7	silty sand to sandy silt
1.468	59.09	0.9559	19	7	silty sand to sandy silt
1.484	61.23	0.9370	20	7	silty sand to sandy silt
1.507	58.92	0.8672	19	7	silty sand to sandy silt
1.530	60.84	1.0083	19	7	silty sand to sandy silt
1.541	58.75	1.0231	19	7	silty sand to sandy silt
1.561	60.44	1.0071	19	7	silty sand to sandy silt
1.583	65.06	0.9729	21	7	silty sand to sandy silt
1.603	61.23	0.9838	20	7	silty sand to sandy silt
1.621	50.07	1.1136	19	6	sandy silt to clayey silt
1.642	49.50	1.0088	19	6	sandy silt to clayey silt
1.663	49.16	0.8243	16	7	silty sand to sandy silt
1.690	49.44	0.7968	16	7	silty sand to sandy silt
1.704	49.28	0.8337	16	7	silty sand to sandy silt
1.722	49.39	0.9645	19	6	sandy silt to clayey silt
1.743	55.59	1.1798	21	6	sandy silt to clayey silt
1.764	75.10	1.3142	24	7	silty sand to sandy silt
1.783	118.85	1.3793	28	8	sand to silty sand
1.802	146.80	1.3823	35	8	sand to silty sand
1.822	171.16	1.3674	33	9	sand
1.841	196.75	1.3318	38	9	sand
1.869	225.73	1.1104	43	9	sand
1.883	240.83	1.1941	46	9	sand
1.904	265.87	1.6125	51	9	sand
1.926	293.16	1.9063	56	9	sand
1.945	317.29	1.8624	51	10	gravelly sand to sand
1.964	334.88	1.7959	53	10	gravelly sand to sand
1.985	340.85	2.0613	54	10	gravelly sand to sand
2.004	350.89	2.1460	56	10	gravelly sand to sand
2.023	363.64	2.1988	58	10	gravelly sand to sand
2.043	379.20	2.3124	61	10	gravelly sand to sand
2.062	391.94	2.3067	63	10	gravelly sand to sand
2.081	392.05	2.5696	63	10	gravelly sand to sand
2.108	402.65	2.5871	64	10	gravelly sand to sand
2.121	399.27	1.9782	64	10	gravelly sand to sand
2.146	424.20	1.5027	68	10	gravelly sand to sand
2.163	441.00	1.8449	70	10	gravelly sand to sand
2.181	446.41	2.1457	71	10	gravelly sand to sand
2.204	454.30	2.3275	73	10	gravelly sand to sand
2.222	429.49	2.1818	69	10	gravelly sand to sand
2.243	412.57	2.0290	66	10	gravelly sand to sand
2.265	396.56	2.2826	63	10	gravelly sand to sand
2.280	377.84	2.5602	60	10	gravelly sand to sand
2.301	369.49	2.5634	59	10	gravelly sand to sand
2.322	373.10	2.3381	60	10	gravelly sand to sand
2.349	360.70	2.0233	58	10	gravelly sand to sand
2.360	364.64	2.3824	58	10	gravelly sand to sand
2.384	366.11	3.5750	70	9	sand
2.402	361.15	3.9311	69	9	sand
2.426	381.56	3.6420	73	9	sand
2.443	374.68	3.4359	72	9	sand
2.467	351.34	3.4610	67	9	sand
2.482	351.34	4.4012	67	9	sand
2.502	351.34	5.8661	84	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 3.836 m
SITE: B-311 Test Pit

Depth m	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
2.523	351.34	5.9195	84	8	sand to silty	sand
2.546	351.34	5.7625	84	8	sand to silty	sand
2.562	360.25	5.5024	86	8	sand to silty	sand
2.587	320.67	5.1103	77	8	sand to silty	sand
2.606	305.23	4.8297	73	8	sand to silty	sand
2.626	307.15	4.6919	74	8	sand to silty	sand
2.641	307.59	4.6873	74	8	sand to silty	sand
2.667	253.93	4.7508	61	8	sand to silty	sand
2.687	241.41	4.4486	58	8	sand to silty	sand
2.701	243.43	3.3047	58	8	sand to silty	sand
2.725	235.43	1.7117	45	9	sand	
2.743	223.25	1.6674	43	9	sand	
2.765	212.88	1.6081	41	9	sand	
2.781	202.73	1.5583	39	9	sand	
2.805	192.93	1.4534	37	9	sand	
2.821	189.99	1.3675	36	9	sand	
2.842	184.92	1.2661	35	9	sand	
2.871	178.72	1.1711	34	9	sand	
2.885	175.90	1.1441	34	9	sand	
2.903	171.39	1.1131	33	9	sand	
2.923	168.01	1.0812	32	9	sand	
2.944	165.53	1.0544	32	9	sand	
2.963	163.16	1.0355	31	9	sand	
2.982	161.81	1.0205	31	9	sand	
3.004	160.57	1.0040	31	9	sand	
3.022	158.54	0.9944	30	9	sand	
3.049	151.88	0.9751	29	9	sand	
3.065	146.81	0.9490	28	9	sand	
3.080	139.37	0.9230	27	9	sand	
3.109	130.01	0.8473	25	9	sand	
3.125	124.71	0.8169	24	9	sand	
3.145	122.57	0.7372	23	9	sand	
3.166	120.42	0.7048	23	9	sand	
3.182	118.62	0.7045	23	9	sand	
3.201	116.14	0.7041	22	9	sand	
3.221	112.75	0.7036	27	8	sand to silty	sand
3.241	111.12	0.7042	27	8	sand to silty	sand
3.267	109.59	0.6993	26	8	sand to silty	sand
3.288	109.48	0.6968	26	8	sand to silty	sand
3.301	109.70	0.6977	26	8	sand to silty	sand
3.320	109.14	0.7001	26	8	sand to silty	sand
3.343	109.59	0.7024	26	8	sand to silty	sand
3.363	110.04	0.7049	26	8	sand to silty	sand
3.385	110.49	0.7001	26	8	sand to silty	sand
3.405	111.39	0.7001	27	8	sand to silty	sand
3.425	113.20	0.7071	27	8	sand to silty	sand
3.448	115.68	0.7290	28	8	sand to silty	sand
3.464	117.60	0.7411	23	9	sand	
3.487	119.96	0.7500	23	9	sand	
3.509	124.13	0.7700	24	9	sand	
3.523	128.08	0.7872	25	9	sand	
3.548	140.48	0.8365	27	9	sand	
3.561	147.02	0.8708	28	9	sand	
3.582	158.64	0.9410	30	9	sand	
3.610	171.72	1.0358	33	9	sand	
3.623	176.00	1.1698	34	9	sand	
3.642	179.95	1.3723	34	9	sand	
3.662	182.20	1.5077	35	9	sand	
3.685	182.31	1.4486	35	9	sand	
3.702	186.15	1.4042	36	9	sand	
3.724	194.15	1.3126	37	9	sand	
3.745	192.35	1.0995	37	9	sand	
3.763	203.63	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 3.836 m
SITE: B-311 Test Pit

Depth m	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
3.785	217.27	0.0000	0	0	<out of range>
3.805	220.76	0.0000	0	0	<out of range>
3.836	232.26	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 23.167 ft
SITE: B-313

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.1260	0	0	<out of range>
0.085	8.35	0.1646	5	4	silty clay to clay
0.141	10.50	0.1936	5	5	clayey silt to silty clay
0.210	11.29	0.2406	5	5	clayey silt to silty clay
0.282	12.75	0.3307	6	5	clayey silt to silty clay
0.336	13.09	0.4000	8	4	silty clay to clay
0.406	14.45	0.4712	9	4	silty clay to clay
0.481	16.03	0.5092	10	4	silty clay to clay
0.532	18.62	0.5080	9	5	clayey silt to silty clay
0.599	19.75	0.4998	9	5	clayey silt to silty clay
0.661	19.41	0.4926	9	5	clayey silt to silty clay
0.743	18.15	0.4971	9	5	clayey silt to silty clay
0.814	16.91	0.4966	8	5	clayey silt to silty clay
0.868	14.20	0.4773	9	4	silty clay to clay
0.934	11.95	0.4501	11	3	clay
0.990	10.94	0.4233	10	3	clay
1.060	9.70	0.3868	9	3	clay
1.121	9.69	0.3704	9	3	clay
1.206	9.68	0.4020	9	3	clay
1.249	9.65	0.4285	9	3	clay
1.332	9.62	0.5319	9	3	clay
1.397	9.95	0.6211	10	3	clay
1.449	10.40	0.6936	10	3	clay
1.539	11.42	0.7935	11	3	clay
1.589	11.98	0.8482	11	3	clay
1.646	12.78	0.9240	12	3	clay
1.715	13.45	0.9415	13	3	clay
1.780	14.47	0.8664	14	3	clay
1.869	16.27	0.8833	16	3	clay
1.931	19.88	0.8943	19	3	clay
1.975	23.95	0.8762	15	4	silty clay to clay
2.060	47.32	0.6194	15	7	silty sand to sandy silt
2.105	54.43	0.4637	17	7	silty sand to sandy silt
2.173	46.87	0.5658	15	7	silty sand to sandy silt
2.263	47.99	0.9977	18	6	sandy silt to clayey silt
2.297	52.84	1.2028	20	6	sandy silt to clayey silt
2.398	52.90	1.0686	20	6	sandy silt to clayey silt
2.447	52.97	1.0532	20	6	sandy silt to clayey silt
2.510	50.25	1.0373	19	6	sandy silt to clayey silt
2.587	42.01	1.0061	16	6	sandy silt to clayey silt
2.627	43.25	0.8915	17	6	sandy silt to clayey silt
2.699	43.93	0.5831	14	7	silty sand to sandy silt
2.786	43.70	0.2508	14	7	silty sand to sandy silt
2.827	43.36	0.2332	14	7	silty sand to sandy silt
2.890	42.80	0.2197	14	7	silty sand to sandy silt
2.973	42.46	0.2207	14	7	silty sand to sandy silt
3.037	42.46	0.2271	14	7	silty sand to sandy silt
3.088	42.58	0.2383	14	7	silty sand to sandy silt
3.177	42.46	0.2595	14	7	silty sand to sandy silt
3.234	42.35	0.2715	14	7	silty sand to sandy silt
3.322	42.24	0.2823	13	7	silty sand to sandy silt
3.358	42.13	0.2808	13	7	silty sand to sandy silt
3.420	41.67	0.2758	13	7	silty sand to sandy silt
3.492	39.98	0.2607	13	7	silty sand to sandy silt
3.561	37.61	0.3109	12	7	silty sand to sandy silt
3.620	34.90	0.5053	13	6	sandy silt to clayey silt
3.705	30.95	0.6706	12	6	sandy silt to clayey silt
3.764	28.47	0.4388	11	6	sandy silt to clayey silt
3.811	26.99	0.3171	10	6	sandy silt to clayey silt
3.887	25.53	0.4214	10	6	sandy silt to clayey silt
3.951	33.66	0.4945	13	6	sandy silt to clayey silt
4.013	43.59	0.5034	14	7	silty sand to sandy silt
4.079	63.68	0.5294	15	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 23.167 ft
SITE: B-313

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.146	78.36	0.5331	19	8	sand to silty	sand
4.204	99.02	0.5365	24	8	sand to silty	sand
4.277	98.46	0.7172	24	8	sand to silty	sand
4.338	110.08	0.9209	26	8	sand to silty	sand
4.409	132.89	1.0067	25	9	sand	
4.471	140.45	1.0678	27	9	sand	
4.533	134.93	1.0622	26	9	sand	
4.617	137.42	1.0544	26	9	sand	
4.662	150.18	1.0606	29	9	sand	
4.732	158.63	1.0792	30	9	sand	
4.802	155.57	1.0162	30	9	sand	
4.868	141.35	0.8363	27	9	sand	
4.928	143.05	0.6367	27	9	sand	
4.996	139.54	0.5588	27	9	sand	
5.053	136.95	0.5561	26	9	sand	
5.126	140.34	0.6623	27	9	sand	
5.197	140.31	0.9275	27	9	sand	
5.251	140.27	1.0332	27	9	sand	
5.330	140.24	0.8972	27	9	sand	
5.390	140.21	0.8807	27	9	sand	
5.484	129.49	1.4210	31	8	sand to silty	sand
5.519	125.31	1.6787	30	8	sand to silty	sand
5.581	128.70	2.0342	31	8	sand to silty	sand
5.667	134.80	1.9040	32	8	sand to silty	sand
5.724	129.73	1.8230	31	8	sand to silty	sand
5.782	115.73	1.7502	28	8	sand to silty	sand
5.864	102.30	1.5597	33	7	silty sand to sandy silt	
5.920	102.30	1.3287	24	8	sand to silty	sand
5.986	102.98	0.8950	25	8	sand to silty	sand
6.054	105.01	0.5985	25	8	sand to silty	sand
6.111	105.12	0.5596	25	8	sand to silty	sand
6.176	105.23	0.5455	25	8	sand to silty	sand
6.252	104.44	0.5274	25	8	sand to silty	sand
6.305	102.75	0.5174	25	8	sand to silty	sand
6.368	100.61	0.5168	24	8	sand to silty	sand
6.432	97.56	0.5175	23	8	sand to silty	sand
6.496	94.51	0.5247	23	8	sand to silty	sand
6.591	90.56	0.5631	22	8	sand to silty	sand
6.633	88.41	0.5652	21	8	sand to silty	sand
6.705	86.83	0.5534	21	8	sand to silty	sand
6.787	85.82	0.6215	21	8	sand to silty	sand
6.836	84.12	0.6505	20	8	sand to silty	sand
6.899	81.98	0.6197	20	8	sand to silty	sand
6.975	82.88	0.5423	20	8	sand to silty	sand
7.023	86.95	0.4634	21	8	sand to silty	sand
7.102	83.17	0.3791	20	8	sand to silty	sand
7.159	87.68	0.3927	21	8	sand to silty	sand
7.239	83.45	0.3927	20	8	sand to silty	sand
7.297	88.42	0.3989	21	8	sand to silty	sand
7.365	78.93	0.3998	19	8	sand to silty	sand
7.417	95.41	0.4078	23	8	sand to silty	sand
7.507	101.96	0.4634	20	9	sand	
7.558	103.65	0.5061	25	8	sand to silty	sand
7.614	104.55	0.5290	25	8	sand to silty	sand
7.679	103.08	0.5512	25	8	sand to silty	sand
7.754	102.75	0.5736	25	8	sand to silty	sand
7.841	102.75	0.6020	25	8	sand to silty	sand
7.879	102.75	0.6154	25	8	sand to silty	sand
7.948	104.67	0.6383	25	8	sand to silty	sand
8.008	108.17	0.6419	26	8	sand to silty	sand
8.080	111.21	0.6459	27	8	sand to silty	sand
8.140	114.49	0.6698	22	9	sand	
8.232	117.77	0.6883	23	9	sand	

SOUNDING

TOTAL DEPTH: 23.167 ft
SITE: B-313

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.269	119.01	0.6893	23	9	sand	
8.361	118.10	0.6292	23	9	sand	
8.405	115.73	0.6176	22	9	sand	
8.477	112.23	0.5911	21	9	sand	
8.562	109.52	0.5404	21	9	sand	
8.597	108.62	0.5182	21	9	sand	
8.667	107.15	0.5170	21	9	sand	
8.754	107.15	0.5453	21	9	sand	
8.794	107.27	0.5472	21	9	sand	
8.863	106.48	0.5472	20	9	sand	
8.930	106.48	0.5472	20	9	sand	
8.994	106.81	0.5472	20	9	sand	
9.081	102.07	0.5788	24	8	sand to silty sand	
9.121	101.28	0.6031	24	8	sand to silty sand	
9.194	98.35	0.6001	24	8	sand to silty sand	
9.254	96.54	0.5906	23	8	sand to silty sand	
9.343	93.61	0.7524	22	8	sand to silty sand	
9.397	90.00	0.7864	22	8	sand to silty sand	
9.469	87.97	0.7917	21	8	sand to silty sand	
9.536	89.09	0.7927	21	8	sand to silty sand	
9.593	84.13	0.7793	20	8	sand to silty sand	
9.655	79.84	0.7803	19	8	sand to silty sand	
9.719	79.04	0.7565	19	8	sand to silty sand	
9.809	73.74	0.5452	18	8	sand to silty sand	
9.847	72.84	0.5026	17	8	sand to silty sand	
9.917	70.58	0.4881	17	8	sand to silty sand	
9.990	67.42	0.4503	16	8	sand to silty sand	
10.056	66.52	0.5174	16	8	sand to silty sand	
10.115	67.87	0.5967	16	8	sand to silty sand	
10.209	77.69	0.7011	19	8	sand to silty sand	
10.239	87.96	0.6408	21	8	sand to silty sand	
10.310	112.02	0.6703	27	8	sand to silty sand	
10.389	130.99	0.8366	25	9	sand	
10.444	141.04	0.9414	27	9	sand	
10.502	157.07	1.0401	30	9	sand	
10.567	130.75	1.1221	31	8	sand to silty sand	
10.639	185.73	1.1986	36	9	sand	
10.696	212.95	1.0274	41	9	sand	
10.789	245.35	1.9238	47	9	sand	
10.832	255.62	2.4250	49	9	sand	
10.917	276.62	2.5474	53	9	sand	
10.983	281.82	2.5936	54	9	sand	
11.026	261.84	2.6168	50	9	sand	
11.124	224.49	2.2525	43	9	sand	
11.164	226.06	2.1388	43	9	sand	
11.225	227.86	1.7335	44	9	sand	
11.292	228.98	1.2723	44	9	sand	
11.361	234.40	1.7780	45	9	sand	
11.423	242.64	2.5142	46	9	sand	
11.486	240.38	2.5611	46	9	sand	
11.558	239.14	2.5641	46	9	sand	
11.617	228.88	2.5656	44	9	sand	
11.703	172.79	2.4279	41	8	sand to silty sand	
11.748	181.25	2.2909	43	8	sand to silty sand	
11.830	191.06	1.5908	37	9	sand	
11.897	176.03	0.9318	34	9	sand	
11.946	172.20	0.8056	33	9	sand	
12.031	175.02	0.7424	34	9	sand	
12.095	177.17	0.7549	34	9	sand	
12.159	178.41	0.7527	34	9	sand	
12.229	183.15	0.6808	35	9	sand	
12.287	186.20	0.6427	36	9	sand	
12.357	191.51	0.6490	37	9	sand	

SOUNDING

TOTAL DEPTH: 23.167 ft
SITE: B-313

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.417	194.56	0.8544	37	9	sand	
12.472	198.29	1.0716	38	9	sand	
12.545	207.43	1.2278	40	9	sand	
12.615	207.65	1.4109	40	9	sand	
12.677	211.16	1.7185	40	9	sand	
12.735	211.17	2.2778	40	9	sand	
12.817	211.16	2.3271	40	9	sand	
12.864	211.16	2.0265	40	9	sand	
12.961	224.14	1.7278	43	9	sand	
13.009	205.41	1.5897	39	9	sand	
13.080	190.64	1.5216	37	9	sand	
13.154	190.64	1.4565	37	9	sand	
13.193	190.86	1.4289	37	9	sand	
13.263	197.17	1.4424	38	9	sand	
13.331	210.04	1.4504	40	9	sand	
13.394	231.49	1.4023	44	9	sand	
13.473	275.86	1.2991	44	10	gravelly sand	to sand
13.538	286.82	1.1220	46	10	gravelly sand	to sand
13.592	288.52	1.3840	46	10	gravelly sand	to sand
13.665	287.22	1.9179	55	9	sand	
13.728	287.21	2.0250	55	9	sand	
13.782	285.91	1.9528	55	9	sand	
13.858	287.52	1.6972	55	9	sand	
13.924	287.83	1.4109	46	10	gravelly sand	to sand
14.006	304.99	1.9570	58	9	sand	
14.069	333.56	2.2660	64	9	sand	
14.116	354.66	2.3463	57	10	gravelly sand	to sand
14.208	378.03	2.2115	60	10	gravelly sand	to sand
14.244	359.04	2.4874	57	10	gravelly sand	to sand
14.310	359.73	3.0494	69	9	sand	
14.398	373.39	3.4846	72	9	sand	
14.438	360.30	3.3154	69	9	sand	
14.504	272.81	2.9677	52	9	sand	
14.595	271.34	2.6579	52	9	sand	
14.652	277.78	2.2699	53	9	sand	
14.730	290.54	1.7235	56	9	sand	
14.766	294.15	1.5365	47	10	gravelly sand	to sand
14.886	293.36	1.2155	47	10	gravelly sand	to sand
14.949	271.80	1.2272	43	10	gravelly sand	to sand
15.032	248.55	1.1888	48	9	sand	
15.130	238.16	1.0289	46	9	sand	
15.198	233.09	0.8710	45	9	sand	
15.285	232.41	0.8161	45	9	sand	
15.370	234.33	0.7505	45	9	sand	
15.408	215.82	0.7520	41	9	sand	
15.429	226.77	0.7528	43	9	sand	
15.495	243.36	0.7849	39	10	gravelly sand	to sand
15.561	252.51	0.9395	40	10	gravelly sand	to sand
15.621	264.70	1.0977	42	10	gravelly sand	to sand
15.685	277.91	1.2484	44	10	gravelly sand	to sand
15.754	285.58	1.8914	55	9	sand	
15.837	299.24	2.4832	57	9	sand	
15.883	297.78	2.3990	57	9	sand	
15.947	301.61	2.1888	58	9	sand	
16.012	319.44	2.4471	61	9	sand	
16.095	275.41	2.7044	53	9	sand	
16.162	275.07	2.8040	53	9	sand	
16.239	274.28	2.0548	53	9	sand	
16.285	255.09	1.6335	49	9	sand	
16.362	233.75	1.5170	45	9	sand	
16.404	223.14	1.4863	43	9	sand	
16.474	210.50	1.3880	40	9	sand	
16.563	188.38	1.2934	36	9	sand	

SOUNDING

TOTAL DEPTH: 23.167 ft
SITE: B-313

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
16.624	181.95	1.1299	35	9	sand	
16.670	172.35	1.0505	33	9	sand	
16.750	159.36	1.0944	31	9	sand	
16.810	153.27	0.9590	29	9	sand	
16.866	148.75	0.8309	28	9	sand	
16.944	138.94	0.8860	27	9	sand	
17.002	131.71	0.8944	25	9	sand	
17.061	110.15	0.8347	26	8	sand to silty	sand
17.144	116.22	0.7105	22	9	sand	
17.196	115.09	0.6496	22	9	sand	
17.265	110.80	0.5973	21	9	sand	
17.336	106.62	0.6009	26	8	sand to silty	sand
17.391	104.25	0.5982	25	8	sand to silty	sand
17.472	102.11	0.5835	24	8	sand to silty	sand
17.532	100.86	0.5836	24	8	sand to silty	sand
17.595	101.20	0.5973	24	8	sand to silty	sand
17.673	102.44	0.6179	25	8	sand to silty	sand
17.727	104.82	0.6262	25	8	sand to silty	sand
17.804	107.98	0.6245	26	8	sand to silty	sand
17.868	110.91	0.6154	21	9	sand	
17.919	111.81	0.6084	21	9	sand	
17.997	110.80	0.6026	21	9	sand	
18.061	108.54	0.5845	21	9	sand	
18.113	105.38	0.5505	25	8	sand to silty	sand
18.198	95.33	0.4802	23	8	sand to silty	sand
18.248	89.57	0.4427	21	8	sand to silty	sand
18.308	82.01	0.4121	20	8	sand to silty	sand
18.376	76.02	0.3735	18	8	sand to silty	sand
18.447	71.62	0.3383	17	8	sand to silty	sand
18.533	67.10	0.3231	16	8	sand to silty	sand
18.577	65.52	0.3206	16	8	sand to silty	sand
18.638	64.05	0.3459	15	8	sand to silty	sand
18.733	64.39	0.4130	15	8	sand to silty	sand
18.770	66.20	0.4308	16	8	sand to silty	sand
18.834	70.37	0.4424	17	8	sand to silty	sand
18.904	76.92	0.5136	18	8	sand to silty	sand
18.969	80.20	0.5854	19	8	sand to silty	sand
19.056	88.10	0.5524	21	8	sand to silty	sand
19.113	95.67	0.4928	23	8	sand to silty	sand
19.176	100.75	0.4455	19	9	sand	
19.229	101.66	0.4227	19	9	sand	
19.303	104.71	0.4095	20	9	sand	
19.364	102.56	0.4092	20	9	sand	
19.431	96.68	0.4088	23	8	sand to silty	sand
19.497	90.70	0.3937	22	8	sand to silty	sand
19.563	87.76	0.3464	21	8	sand to silty	sand
19.624	86.63	0.3406	21	8	sand to silty	sand
19.695	85.73	0.3430	21	8	sand to silty	sand
19.776	85.50	0.3731	20	8	sand to silty	sand
19.842	84.15	0.3890	20	8	sand to silty	sand
19.895	84.03	0.3974	20	8	sand to silty	sand
19.983	84.71	0.4624	20	8	sand to silty	sand
20.034	86.18	0.3521	21	8	sand to silty	sand
20.084	86.06	0.3439	21	8	sand to silty	sand
20.151	88.66	0.3503	21	8	sand to silty	sand
20.229	90.01	0.3705	22	8	sand to silty	sand
20.278	92.72	0.4127	22	8	sand to silty	sand
20.343	71.13	0.3914	17	8	sand to silty	sand
20.414	96.98	0.4172	23	8	sand to silty	sand
20.480	101.28	0.4343	19	9	sand	
20.573	104.66	0.3819	20	9	sand	
20.626	111.66	0.4658	21	9	sand	
20.673	117.53	0.5902	23	9	sand	

SOUNDING

TOTAL DEPTH: 23.167 ft
SITE: B-313

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
20.763	129.62	0.7380	25	9	sand
20.821	133.45	0.7071	26	9	sand
20.881	135.71	0.7067	26	9	sand
20.956	127.92	0.7063	24	9	sand
21.012	118.33	0.7217	23	9	sand
21.082	116.30	0.7859	28	8	sand to silty sand
21.141	114.83	0.6953	22	9	sand
21.206	114.15	0.5506	22	9	sand
21.284	115.62	0.5007	22	9	sand
21.329	117.43	0.4840	22	9	sand
21.397	121.72	0.4709	23	9	sand
21.485	131.99	0.4620	25	9	sand
21.524	140.34	0.4974	27	9	sand
21.589	152.20	0.6109	29	9	sand
21.655	168.80	0.6945	32	9	sand
21.736	184.37	0.6876	35	9	sand
21.791	204.81	0.8307	39	9	sand
21.864	230.77	1.3267	44	9	sand
21.927	259.23	1.7797	50	9	sand
21.986	252.35	1.6122	48	9	sand
22.053	283.51	1.6040	54	9	sand
22.118	277.41	1.7213	53	9	sand
22.209	277.72	1.5914	53	9	sand
22.261	278.03	1.5266	53	9	sand
22.314	274.37	1.2217	44	10	gravelly sand to sand
22.378	278.66	0.9003	44	10	gravelly sand to sand
22.454	279.11	0.9393	45	10	gravelly sand to sand
22.512	277.75	1.1080	44	10	gravelly sand to sand
22.578	270.31	1.4259	52	9	sand
22.642	286.34	1.6599	55	9	sand
22.725	282.61	1.9230	54	9	sand
22.798	278.55	1.2463	44	10	gravelly sand to sand
22.841	289.27	1.0518	46	10	gravelly sand to sand
22.925	266.59	0.0000	0	0	<out of range>
22.982	284.08	0.0000	0	0	<out of range>
23.033	309.60	0.0000	0	0	<out of range>
23.110	363.79	0.0000	0	0	<out of range>
23.167	387.61	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 16.477 ft
SITE: B-313 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0000	0	0	<out of range>
0.069	1.97	-0.0007	0	0	<out of range>
0.146	2.55	-0.0004	0	0	<out of range>
0.219	2.79	0.0017	1	1	sensitive fine grained
0.287	2.79	0.0005	1	1	sensitive fine grained
0.330	3.02	0.0010	1	1	sensitive fine grained
0.414	3.36	0.0143	2	1	sensitive fine grained
0.482	4.04	0.0342	2	1	sensitive fine grained
0.529	4.72	0.0426	2	1	sensitive fine grained
0.602	4.83	0.0484	2	1	sensitive fine grained
0.676	6.18	0.0470	3	1	sensitive fine grained
0.745	7.99	0.0474	4	1	sensitive fine grained
0.801	7.88	0.0513	4	1	sensitive fine grained
0.866	7.32	0.0599	4	1	sensitive fine grained
0.934	9.58	0.0847	5	5	clayey silt to silty clay
1.012	12.07	0.1225	5	6	sandy silt to clayey silt
1.063	13.43	0.1461	5	6	sandy silt to clayey silt
1.131	13.43	0.1811	6	5	clayey silt to silty clay
1.202	12.97	0.2313	6	5	clayey silt to silty clay
1.252	11.95	0.2695	6	5	clayey silt to silty clay
1.337	11.05	0.3221	7	4	silty clay to clay
1.397	10.48	0.3687	10	3	clay
1.449	10.14	0.4112	10	3	clay
1.537	10.20	0.4556	10	3	clay
1.591	9.91	0.5227	9	3	clay
1.642	10.25	0.6053	10	3	clay
1.709	10.59	0.6185	10	3	clay
1.784	11.95	0.6408	11	3	clay
1.854	23.05	0.6535	11	5	clayey silt to silty clay
1.926	18.86	0.6387	9	5	clayey silt to silty clay
1.976	26.10	0.6359	10	6	sandy silt to clayey silt
2.042	31.20	0.5661	12	6	sandy silt to clayey silt
2.112	31.19	0.4896	12	6	sandy silt to clayey silt
2.171	30.40	0.4881	12	6	sandy silt to clayey silt
2.267	29.50	0.5522	11	6	sandy silt to clayey silt
2.298	28.82	0.5766	11	6	sandy silt to clayey silt
2.366	25.19	0.6065	10	6	sandy silt to clayey silt
2.459	19.42	0.5639	9	5	clayey silt to silty clay
2.503	18.29	0.5612	9	5	clayey silt to silty clay
2.567	17.05	0.6022	11	4	silty clay to clay
2.639	16.94	0.6605	11	4	silty clay to clay
2.700	21.92	0.6589	10	5	clayey silt to silty clay
2.773	25.53	0.6477	12	5	clayey silt to silty clay
2.843	25.59	0.6860	12	5	clayey silt to silty clay
2.897	25.60	0.7190	12	5	clayey silt to silty clay
2.959	25.65	0.7464	12	5	clayey silt to silty clay
3.022	26.22	0.7467	13	5	clayey silt to silty clay
3.088	26.56	0.6634	10	6	sandy silt to clayey silt
3.164	31.55	0.6174	12	6	sandy silt to clayey silt
3.233	38.57	0.6555	15	6	sandy silt to clayey silt
3.299	47.17	0.5274	15	7	silty sand to sandy silt
3.355	55.09	0.4816	18	7	silty sand to sandy silt
3.414	61.20	0.5066	15	8	sand to silty sand
3.478	60.86	0.5110	15	8	sand to silty sand
3.548	56.79	0.5746	18	7	silty sand to sandy silt
3.612	51.33	0.6353	16	7	silty sand to sandy silt
3.710	53.93	0.7218	17	7	silty sand to sandy silt
3.759	51.55	0.7515	16	7	silty sand to sandy silt
3.825	49.41	0.7939	16	7	silty sand to sandy silt
3.900	48.16	0.8249	15	7	silty sand to sandy silt
3.941	48.62	0.8700	16	7	silty sand to sandy silt
4.026	48.51	0.9602	19	6	sandy silt to clayey silt
4.088	48.51	0.9609	19	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 16.477 ft
SITE: B-313 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.142	48.39	1.0079	19	6	sandy silt to clayey silt
4.214	52.69	1.1468	20	6	sandy silt to clayey silt
4.285	53.37	1.1433	20	6	sandy silt to clayey silt
4.334	53.37	1.1362	20	6	sandy silt to clayey silt
4.427	53.37	1.0635	20	6	sandy silt to clayey silt
4.463	53.82	1.0094	17	7	silty sand to sandy silt
4.529	57.33	0.9085	18	7	silty sand to sandy silt
4.621	61.64	0.9477	20	7	silty sand to sandy silt
4.677	65.60	0.9742	21	7	silty sand to sandy silt
4.735	70.58	0.9431	23	7	silty sand to sandy silt
4.809	75.22	0.9009	24	7	silty sand to sandy silt
4.859	76.91	0.8819	18	8	sand to silty sand
4.937	69.89	0.9001	22	7	silty sand to sandy silt
5.010	70.80	1.0266	23	7	silty sand to sandy silt
5.064	72.73	1.0768	23	7	silty sand to sandy silt
5.128	75.00	1.1850	24	7	silty sand to sandy silt
5.203	71.60	1.2453	23	7	silty sand to sandy silt
5.252	69.00	1.2581	22	7	silty sand to sandy silt
5.327	65.60	1.3198	21	7	silty sand to sandy silt
5.392	62.66	1.3274	20	7	silty sand to sandy silt
5.448	63.34	1.2573	20	7	silty sand to sandy silt
5.517	67.42	1.5732	26	6	sandy silt to clayey silt
5.585	72.85	2.3926	28	6	sandy silt to clayey silt
5.664	101.83	2.5175	33	7	silty sand to sandy silt
5.737	136.23	2.2893	33	8	sand to silty sand
5.781	159.55	2.2897	38	8	sand to silty sand
5.847	182.20	2.2902	44	8	sand to silty sand
5.911	233.48	3.4331	56	8	sand to silty sand
5.993	235.97	4.7081	56	8	sand to silty sand
6.058	255.55	4.0328	61	8	sand to silty sand
6.103	263.27	3.9262	63	8	sand to silty sand
6.169	251.49	4.1180	60	8	sand to silty sand
6.255	209.73	4.5028	67	7	silty sand to sandy silt
6.313	227.95	4.4698	55	8	sand to silty sand
6.366	222.18	4.0637	53	8	sand to silty sand
6.437	223.03	3.1250	53	8	sand to silty sand
6.503	221.83	2.2144	42	9	sand
6.577	223.87	1.4530	43	9	sand
6.652	221.48	1.3875	42	9	sand
6.704	220.80	1.3186	42	9	sand
6.763	217.74	1.2609	42	9	sand
6.829	167.70	1.2312	32	9	sand
6.905	202.79	1.2133	39	9	sand
6.971	203.12	1.2035	39	9	sand
7.028	202.10	1.1966	39	9	sand
7.102	201.99	1.1917	39	9	sand
7.166	203.35	1.1853	39	9	sand
7.235	206.29	1.1758	40	9	sand
7.311	209.91	1.1361	40	9	sand
7.364	215.35	1.1336	41	9	sand
7.430	221.01	1.1075	42	9	sand
7.503	227.12	1.0733	43	9	sand
7.549	235.04	1.1613	45	9	sand
7.623	242.28	1.3650	46	9	sand
7.694	245.34	1.4459	47	9	sand
7.752	250.89	1.6244	48	9	sand
7.817	253.04	2.1246	48	9	sand
7.888	254.05	2.3214	49	9	sand
7.951	245.80	2.2236	47	9	sand
8.027	226.78	1.9952	43	9	sand
8.109	227.47	2.3294	44	9	sand
8.198	205.96	1.5501	39	9	sand
8.317	205.63	1.7055	39	9	sand

SOUNDING

TOTAL DEPTH: 16.477 ft
SITE: B-313 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.356	181.86	2.1745	44	8	sand to silty	sand
8.370	171.33	2.3450	41	8	sand to silty	sand
8.415	186.73	2.7262	45	8	sand to silty	sand
8.488	196.69	2.8771	47	8	sand to silty	sand
8.554	197.84	2.4973	47	8	sand to silty	sand
8.607	197.95	2.3422	38	9	sand	
8.663	185.51	2.1002	36	9	sand	
8.755	183.25	1.6597	35	9	sand	
8.804	180.53	1.4613	35	9	sand	
8.882	170.57	1.0555	33	9	sand	
8.924	167.06	0.9548	32	9	sand	
8.998	158.68	0.8885	30	9	sand	
9.075	155.63	0.8846	30	9	sand	
9.130	156.08	0.9071	30	9	sand	
9.192	157.21	0.9106	30	9	sand	
9.285	146.12	0.8042	28	9	sand	
9.322	144.88	0.7436	28	9	sand	
9.399	148.61	0.6907	28	9	sand	
9.468	142.05	0.6994	27	9	sand	
9.529	128.01	0.7413	25	9	sand	
9.604	120.77	0.6903	23	9	sand	
9.649	117.15	0.5827	22	9	sand	
9.718	111.49	0.4874	21	9	sand	
9.792	104.02	0.4768	20	9	sand	
9.862	97.57	0.4765	23	8	sand to silty	sand
9.909	90.89	0.4765	22	8	sand to silty	sand
9.976	84.33	0.4630	20	8	sand to silty	sand
10.040	80.93	0.5258	19	8	sand to silty	sand
10.111	80.69	0.6952	19	8	sand to silty	sand
10.202	87.93	0.6357	21	8	sand to silty	sand
10.242	95.40	0.6243	23	8	sand to silty	sand
10.305	101.29	0.6143	24	8	sand to silty	sand
10.398	101.17	0.6394	24	8	sand to silty	sand
10.438	101.17	0.6426	24	8	sand to silty	sand
10.500	101.06	0.6448	24	8	sand to silty	sand
10.569	106.04	0.6475	25	8	sand to silty	sand
10.637	107.74	0.6500	26	8	sand to silty	sand
10.697	107.06	0.7118	26	8	sand to silty	sand
10.770	109.32	0.7665	26	8	sand to silty	sand
10.838	101.74	0.8819	24	8	sand to silty	sand
10.897	104.23	0.9631	25	8	sand to silty	sand
10.972	98.68	0.8605	24	8	sand to silty	sand
11.029	92.35	0.7549	22	8	sand to silty	sand
11.091	93.25	0.6012	22	8	sand to silty	sand
11.166	81.03	0.4897	19	8	sand to silty	sand
11.225	76.96	0.4383	18	8	sand to silty	sand
11.295	75.26	0.4311	18	8	sand to silty	sand
11.368	59.64	0.5316	19	7	silty sand to sandy silt	
11.423	59.18	0.5696	19	7	silty sand to sandy silt	
11.494	59.52	0.5549	19	7	silty sand to sandy silt	
11.559	59.75	0.5360	19	7	silty sand to sandy silt	
11.615	58.73	0.4774	14	8	sand to silty	sand
11.684	55.22	0.3502	13	8	sand to silty	sand
11.754	55.44	0.4364	18	7	silty sand to sandy silt	
11.841	55.85	0.4711	18	7	silty sand to sandy silt	
11.898	55.68	0.4297	13	8	sand to silty	sand
11.947	56.24	0.4301	13	8	sand to silty	sand
12.030	55.91	0.4307	13	8	sand to silty	sand
12.080	48.32	0.4709	15	7	silty sand to sandy silt	
12.153	51.72	0.6836	17	7	silty sand to sandy silt	
12.236	46.28	0.4208	15	7	silty sand to sandy silt	
12.272	37.57	0.3981	12	7	silty sand to sandy silt	
12.348	36.78	0.3491	12	7	silty sand to sandy silt	

SOUNDING

TOTAL DEPTH: 16.477 ft
SITE: B-313 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.427	39.60	0.2575	13	7	silty sand to sandy silt
12.477	43.22	0.2500	14	7	silty sand to sandy silt
12.540	26.13	0.1718	8	7	silty sand to sandy silt
12.607	28.39	0.1575	9	7	silty sand to sandy silt
12.668	23.52	0.1908	9	6	sandy silt to clayey silt
12.766	22.96	0.2874	9	6	sandy silt to clayey silt
12.800	23.41	0.2578	9	6	sandy silt to clayey silt
12.874	25.45	0.2708	10	6	sandy silt to clayey silt
12.934	27.82	0.3146	11	6	sandy silt to clayey silt
12.997	27.94	0.3200	11	6	sandy silt to clayey silt
13.073	21.49	0.5296	10	5	clayey silt to silty clay
13.129	21.53	0.7471	10	5	clayey silt to silty clay
13.191	21.54	0.7317	10	5	clayey silt to silty clay
13.276	21.59	0.6888	10	5	clayey silt to silty clay
13.332	28.83	0.7054	11	6	sandy silt to clayey silt
13.405	56.09	0.6792	18	7	silty sand to sandy silt
13.474	60.06	0.5393	19	7	silty sand to sandy silt
13.535	65.94	0.4627	16	8	sand to silty sand
13.593	68.21	0.2877	16	8	sand to silty sand
13.669	65.49	0.8294	21	7	silty sand to sandy silt
13.719	65.04	1.1034	21	7	silty sand to sandy silt
13.807	75.71	0.9678	24	7	silty sand to sandy silt
13.864	81.69	0.9715	20	8	sand to silty sand
13.914	45.38	0.9861	17	6	sandy silt to clayey silt
13.981	21.27	0.9932	20	3	clay
14.056	31.12	1.0875	15	5	clayey silt to silty clay
14.110	35.19	0.8547	13	6	sandy silt to clayey silt
14.179	33.26	0.4397	11	7	silty sand to sandy silt
14.244	30.65	0.3412	10	7	silty sand to sandy silt
14.312	23.18	0.2996	9	6	sandy silt to clayey silt
14.373	20.91	0.2678	8	6	sandy silt to clayey silt
14.440	16.95	0.2455	6	6	sandy silt to clayey silt
14.502	17.29	0.2366	7	6	sandy silt to clayey silt
14.577	17.63	0.2395	7	6	sandy silt to clayey silt
14.637	16.61	0.2416	6	6	sandy silt to clayey silt
14.723	17.86	0.2566	7	6	sandy silt to clayey silt
14.773	17.97	0.2661	7	6	sandy silt to clayey silt
14.853	18.08	0.2677	7	6	sandy silt to clayey silt
14.896	19.43	0.2685	7	6	sandy silt to clayey silt
14.964	24.86	0.2643	10	6	sandy silt to clayey silt
15.054	28.94	0.2074	9	7	silty sand to sandy silt
15.093	39.12	0.2870	12	7	silty sand to sandy silt
15.169	45.58	0.4702	15	7	silty sand to sandy silt
15.236	46.37	0.4215	15	7	silty sand to sandy silt
15.308	65.16	0.7203	21	7	silty sand to sandy silt
15.364	86.32	0.8163	21	8	sand to silty sand
15.427	101.83	0.8184	24	8	sand to silty sand
15.497	102.63	0.9090	25	8	sand to silty sand
15.553	93.35	1.0083	22	8	sand to silty sand
15.621	89.16	1.0653	21	8	sand to silty sand
15.689	107.04	1.0591	26	8	sand to silty sand
15.772	131.59	1.0513	32	8	sand to silty sand
15.815	140.54	1.0478	27	9	sand
15.891	164.42	1.0940	31	9	sand
15.961	183.55	1.4806	35	9	sand
16.016	205.50	2.6016	39	9	sand
16.082	230.63	4.1269	55	8	sand to silty sand
16.157	244.55	4.5212	59	8	sand to silty sand
16.226	245.79	0.0000	0	0	<out of range>
16.279	234.83	0.0000	0	0	<out of range>
16.350	240.95	0.0000	0	0	<out of range>
16.419	262.48	0.0000	0	0	<out of range>
16.477	263.14	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 16.477 ft
SITE: B-313 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
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SOUNDING

TOTAL DEPTH: 14.372 ft
SITE: B-317

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	1.25	0.4731	0	0	<out of range>
0.078	24.65	0.5416	9	6	sandy silt to clayey silt
0.148	22.36	0.5627	11	5	clayey silt to silty clay
0.208	19.50	0.5635	9	5	clayey silt to silty clay
0.275	18.48	0.5371	9	5	clayey silt to silty clay
0.339	14.48	0.5049	9	4	silty clay to clay
0.408	13.45	0.4667	9	4	silty clay to clay
0.486	12.41	0.4138	8	4	silty clay to clay
0.526	12.29	0.3903	8	4	silty clay to clay
0.604	10.81	0.3654	7	4	silty clay to clay
0.656	10.23	0.3497	7	4	silty clay to clay
0.749	10.28	0.3155	7	4	silty clay to clay
0.802	10.28	0.3040	7	4	silty clay to clay
0.876	10.34	0.3041	7	4	silty clay to clay
0.938	11.13	0.2995	7	4	silty clay to clay
0.997	12.05	0.3032	6	5	clayey silt to silty clay
1.066	13.63	0.3183	7	5	clayey silt to silty clay
1.147	16.24	0.3406	8	5	clayey silt to silty clay
1.192	17.59	0.3365	8	5	clayey silt to silty clay
1.260	24.05	0.3836	9	6	sandy silt to clayey silt
1.321	30.17	0.4685	12	6	sandy silt to clayey silt
1.389	35.95	0.4533	11	7	silty sand to sandy silt
1.445	39.46	0.4363	13	7	silty sand to sandy silt
1.539	44.11	0.4802	14	7	silty sand to sandy silt
1.578	46.83	0.4818	15	7	silty sand to sandy silt
1.651	55.21	0.5319	18	7	silty sand to sandy silt
1.729	61.44	0.7269	20	7	silty sand to sandy silt
1.783	66.09	0.7881	21	7	silty sand to sandy silt
1.867	84.43	0.8270	20	8	sand to silty sand
1.905	87.84	0.8352	21	8	sand to silty sand
1.985	83.58	0.8134	20	8	sand to silty sand
2.037	80.06	0.8042	19	8	sand to silty sand
2.122	80.53	0.7014	19	8	sand to silty sand
2.180	77.92	0.5413	19	8	sand to silty sand
2.238	76.09	0.4155	18	8	sand to silty sand
2.308	73.69	0.3615	18	8	sand to silty sand
2.372	70.85	0.2751	17	8	sand to silty sand
2.441	66.88	0.2391	16	8	sand to silty sand
2.513	64.38	0.2298	15	8	sand to silty sand
2.575	62.57	0.2382	15	8	sand to silty sand
2.656	58.71	0.2342	14	8	sand to silty sand
2.712	56.11	0.2267	13	8	sand to silty sand
2.775	55.20	0.2164	13	8	sand to silty sand
2.835	52.81	0.1863	13	8	sand to silty sand
2.888	50.21	0.1613	12	8	sand to silty sand
2.967	47.26	0.1542	11	8	sand to silty sand
3.039	43.75	0.1470	10	8	sand to silty sand
3.100	40.35	0.1387	10	8	sand to silty sand
3.158	35.12	0.1293	11	7	silty sand to sandy silt
3.227	33.43	0.1236	11	7	silty sand to sandy silt
3.295	31.16	0.1181	10	7	silty sand to sandy silt
3.352	28.67	0.1161	9	7	silty sand to sandy silt
3.450	26.06	0.1014	8	7	silty sand to sandy silt
3.491	24.70	0.0998	8	7	silty sand to sandy silt
3.552	22.55	0.0998	7	7	silty sand to sandy silt
3.647	20.17	0.1716	8	6	sandy silt to clayey silt
3.680	19.15	0.1706	7	6	sandy silt to clayey silt
3.750	18.36	0.1585	7	6	sandy silt to clayey silt
3.838	18.02	0.1504	7	6	sandy silt to clayey silt
3.874	17.79	0.1450	7	6	sandy silt to clayey silt
3.945	16.44	0.1331	6	6	sandy silt to clayey silt
4.017	16.43	0.1242	6	6	sandy silt to clayey silt
4.086	16.55	0.1215	6	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 14.372 ft
SITE: B-317

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.142	16.66	0.1222	6	6	sandy silt to clayey silt
4.201	16.89	0.1231	6	6	sandy silt to clayey silt
4.284	16.89	0.1240	6	6	sandy silt to clayey silt
4.337	16.66	0.1248	6	6	sandy silt to clayey silt
4.421	17.11	0.1199	7	6	sandy silt to clayey silt
4.468	17.45	0.1175	7	6	sandy silt to clayey silt
4.535	16.20	0.1162	6	6	sandy silt to clayey silt
4.613	16.55	0.1223	6	6	sandy silt to clayey silt
4.686	13.73	0.1333	5	6	sandy silt to clayey silt
4.734	13.16	0.1157	5	6	sandy silt to clayey silt
4.802	13.16	0.0845	5	6	sandy silt to clayey silt
4.872	12.82	0.0687	5	6	sandy silt to clayey silt
4.929	12.25	0.0628	5	6	sandy silt to clayey silt
4.994	11.69	0.0586	4	6	sandy silt to clayey silt
5.055	11.46	0.0589	4	6	sandy silt to clayey silt
5.126	11.11	0.0580	4	6	sandy silt to clayey silt
5.205	11.34	0.0580	4	6	sandy silt to clayey silt
5.274	11.22	0.0572	4	6	sandy silt to clayey silt
5.317	11.12	0.0564	4	6	sandy silt to clayey silt
5.386	10.77	0.0940	4	6	sandy silt to clayey silt
5.470	10.21	0.1500	5	5	clayey silt to silty clay
5.518	10.31	0.1698	5	5	clayey silt to silty clay
5.612	12.58	0.1920	6	5	clayey silt to silty clay
5.667	12.01	0.1976	6	5	clayey silt to silty clay
5.723	10.88	0.1990	5	5	clayey silt to silty clay
5.787	10.10	0.1743	5	5	clayey silt to silty clay
5.855	9.42	0.1102	5	5	clayey silt to silty clay
5.911	8.96	0.0704	4	5	clayey silt to silty clay
5.981	8.96	0.0691	4	5	clayey silt to silty clay
6.044	8.96	0.0882	4	5	clayey silt to silty clay
6.114	9.87	0.1144	5	5	clayey silt to silty clay
6.175	12.25	0.1307	5	6	sandy silt to clayey silt
6.236	15.75	0.1464	6	6	sandy silt to clayey silt
6.304	19.27	0.1631	7	6	sandy silt to clayey silt
6.397	22.33	0.1796	9	6	sandy silt to clayey silt
6.450	25.27	0.1719	8	7	silty sand to sandy silt
6.497	26.97	0.1662	9	7	silty sand to sandy silt
6.587	32.06	0.2395	10	7	silty sand to sandy silt
6.649	37.27	0.2766	12	7	silty sand to sandy silt
6.698	43.05	0.2571	14	7	silty sand to sandy silt
6.777	49.96	0.2925	12	8	sand to silty sand
6.841	56.87	0.3440	14	8	sand to silty sand
6.891	65.37	0.3637	16	8	sand to silty sand
6.966	72.28	0.3629	17	8	sand to silty sand
7.030	74.09	0.3861	18	8	sand to silty sand
7.091	76.25	0.4474	18	8	sand to silty sand
7.189	82.81	0.4996	20	8	sand to silty sand
7.225	84.74	0.4604	20	8	sand to silty sand
7.288	82.25	0.4001	20	8	sand to silty sand
7.385	81.12	0.3928	19	8	sand to silty sand
7.419	81.12	0.4018	19	8	sand to silty sand
7.488	80.55	0.3911	19	8	sand to silty sand
7.563	79.53	0.3287	19	8	sand to silty sand
7.620	78.17	0.3113	19	8	sand to silty sand
7.683	76.70	0.3166	18	8	sand to silty sand
7.759	72.17	0.3803	17	8	sand to silty sand
7.829	70.70	0.3948	17	8	sand to silty sand
7.885	67.29	0.3834	16	8	sand to silty sand
7.949	65.15	0.3868	16	8	sand to silty sand
8.016	63.00	0.3625	15	8	sand to silty sand
8.078	59.15	0.3437	14	8	sand to silty sand
8.169	56.09	0.3078	13	8	sand to silty sand
8.208	54.39	0.2954	13	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 14.372 ft
SITE: B-317

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.273	51.68	0.2773	12	8	sand to silty sand
8.359	48.38	0.2582	12	8	sand to silty sand
8.416	46.01	0.2521	15	7	silty sand to sandy silt
8.465	44.65	0.2489	14	7	silty sand to sandy silt
8.543	42.83	0.2485	14	7	silty sand to sandy silt
8.609	41.70	0.2435	13	7	silty sand to sandy silt
8.668	40.79	0.2421	13	7	silty sand to sandy silt
8.754	40.34	0.2421	13	7	silty sand to sandy silt
8.816	39.78	0.2447	13	7	silty sand to sandy silt
8.890	39.10	0.2441	12	7	silty sand to sandy silt
8.963	38.64	0.2407	12	7	silty sand to sandy silt
9.004	38.42	0.2375	12	7	silty sand to sandy silt
9.056	37.62	0.2329	12	7	silty sand to sandy silt
9.127	35.92	0.2236	11	7	silty sand to sandy silt
9.196	34.45	0.1980	11	7	silty sand to sandy silt
9.262	33.09	0.1749	11	7	silty sand to sandy silt
9.345	31.17	0.1744	10	7	silty sand to sandy silt
9.398	30.15	0.1699	10	7	silty sand to sandy silt
9.457	29.13	0.1635	9	7	silty sand to sandy silt
9.527	24.37	0.1545	8	7	silty sand to sandy silt
9.592	25.27	0.1475	8	7	silty sand to sandy silt
9.649	24.25	0.1437	8	7	silty sand to sandy silt
9.719	23.01	0.1354	7	7	silty sand to sandy silt
9.786	21.76	0.1240	7	7	silty sand to sandy silt
9.861	20.40	0.1077	7	7	silty sand to sandy silt
9.936	19.61	0.0937	8	6	sandy silt to clayey silt
9.979	19.27	0.0964	7	6	sandy silt to clayey silt
10.041	18.36	0.1002	7	6	sandy silt to clayey silt
10.107	17.46	0.1003	7	6	sandy silt to clayey silt
10.189	16.43	0.1001	6	6	sandy silt to clayey silt
10.237	16.78	0.1012	6	6	sandy silt to clayey silt
10.316	14.28	0.1075	5	6	sandy silt to clayey silt
10.385	14.05	0.1162	5	6	sandy silt to clayey silt
10.438	13.72	0.1211	5	6	sandy silt to clayey silt
10.506	13.37	0.1017	5	6	sandy silt to clayey silt
10.580	13.03	0.0804	5	6	sandy silt to clayey silt
10.631	12.47	0.0775	5	6	sandy silt to clayey silt
10.714	12.02	0.0691	5	6	sandy silt to clayey silt
10.773	11.90	0.0672	5	6	sandy silt to clayey silt
10.827	11.79	0.0662	5	6	sandy silt to clayey silt
10.921	11.34	0.0590	4	6	sandy silt to clayey silt
10.972	10.88	0.0550	4	6	sandy silt to clayey silt
11.035	10.77	0.0501	4	6	sandy silt to clayey silt
11.095	10.54	0.0490	4	6	sandy silt to clayey silt
11.171	9.98	0.0486	4	6	sandy silt to clayey silt
11.226	9.18	0.0531	4	6	sandy silt to clayey silt
11.293	8.61	0.0586	4	1	sensitive fine grained
11.356	8.50	0.0571	4	1	sensitive fine grained
11.421	8.28	0.0600	4	1	sensitive fine grained
11.484	7.82	0.0630	4	1	sensitive fine grained
11.570	7.26	0.0604	3	1	sensitive fine grained
11.623	7.14	0.0597	3	1	sensitive fine grained
11.690	7.14	0.0588	3	1	sensitive fine grained
11.755	7.14	0.0598	3	1	sensitive fine grained
11.814	7.14	0.0643	3	1	sensitive fine grained
11.879	7.14	0.1015	3	5	clayey silt to silty clay
11.959	8.39	0.1508	4	5	clayey silt to silty clay
12.009	8.95	0.1512	4	5	clayey silt to silty clay
12.086	13.03	0.1688	6	5	clayey silt to silty clay
12.150	21.30	0.2039	8	6	sandy silt to clayey silt
12.208	32.97	0.2947	11	7	silty sand to sandy silt
12.278	53.36	0.5219	17	7	silty sand to sandy silt
12.339	68.19	0.7919	22	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 14.372 ft
SITE: B-317

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.405	80.54	0.7885	19	8	sand to silty	sand
12.468	92.32	0.7810	22	8	sand to silty	sand
12.551	97.89	0.7751	23	8	sand to silty	sand
12.622	108.08	0.8027	26	8	sand to silty	sand
12.665	102.65	0.7924	25	8	sand to silty	sand
12.740	88.35	0.7393	21	8	sand to silty	sand
12.820	94.24	0.6831	23	8	sand to silty	sand
12.864	96.05	0.5612	23	8	sand to silty	sand
12.933	99.33	0.4490	24	8	sand to silty	sand
12.994	103.53	0.4668	20	9	sand	
13.084	110.10	0.4820	21	9	sand	
13.126	113.04	0.4958	22	9	sand	
13.193	117.80	0.5063	23	9	sand	
13.282	123.80	0.5295	24	9	sand	
13.323	126.63	0.5465	24	9	sand	
13.399	134.56	0.5825	26	9	sand	
13.476	140.91	0.6363	27	9	sand	
13.538	147.02	0.6882	28	9	sand	
13.584	149.96	0.7253	29	9	sand	
13.662	157.55	0.7947	30	9	sand	
13.734	164.23	0.9637	31	9	sand	
13.780	169.33	1.0853	32	9	sand	
13.853	183.38	1.1803	35	9	sand	
13.936	212.94	1.2665	41	9	sand	
13.981	227.21	1.2906	44	9	sand	
14.064	255.08	1.3106	49	9	sand	
14.129	296.76	0.0000	0	0	<out of range>	
14.181	352.15	0.0000	0	0	<out of range>	
14.239	430.30	0.0000	0	0	<out of range>	
14.326	473.24	0.0000	0	0	<out of range>	
14.372	474.48	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 6.509 ft
SITE: B-317 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.11	0.0752	0	0	<out of range>
0.077	6.34	0.1047	4	4	silty clay to clay
0.140	6.89	0.1207	4	4	silty clay to clay
0.200	6.88	0.1408	4	4	silty clay to clay
0.277	6.89	0.1724	4	4	silty clay to clay
0.341	6.90	0.1823	4	4	silty clay to clay
0.396	6.90	0.1830	4	4	silty clay to clay
0.468	7.13	0.1810	5	4	silty clay to clay
0.531	6.11	0.1790	6	3	clay
0.601	6.11	0.1829	6	3	clay
0.664	6.33	0.1876	6	3	clay
0.722	6.90	0.2035	7	3	clay
0.791	8.03	0.2528	8	3	clay
0.860	10.18	0.2992	7	4	silty clay to clay
0.920	11.09	0.2958	7	4	silty clay to clay
0.984	11.99	0.2836	6	5	clayey silt to silty clay
1.051	16.41	0.2893	8	5	clayey silt to silty clay
1.133	20.48	0.5237	10	5	clayey silt to silty clay
1.183	26.82	0.5669	10	6	sandy silt to clayey silt
1.268	37.80	0.5895	12	7	silty sand to sandy silt
1.334	28.18	0.7106	11	6	sandy silt to clayey silt
1.401	28.75	0.7368	11	6	sandy silt to clayey silt
1.470	29.65	0.6908	11	6	sandy silt to clayey silt
1.528	33.95	0.5709	13	6	sandy silt to clayey silt
1.576	33.61	0.5157	13	6	sandy silt to clayey silt
1.648	34.23	0.5335	13	6	sandy silt to clayey silt
1.715	33.28	0.5701	13	6	sandy silt to clayey silt
1.773	34.52	0.5772	13	6	sandy silt to clayey silt
1.847	35.76	0.6116	14	6	sandy silt to clayey silt
1.907	35.99	0.6838	14	6	sandy silt to clayey silt
1.971	37.91	0.7382	15	6	sandy silt to clayey silt
2.043	41.31	0.7903	16	6	sandy silt to clayey silt
2.105	43.34	0.8425	17	6	sandy silt to clayey silt
2.167	45.50	0.8744	17	6	sandy silt to clayey silt
2.244	45.50	0.9511	17	6	sandy silt to clayey silt
2.313	46.06	1.0171	18	6	sandy silt to clayey silt
2.367	45.72	1.0219	18	6	sandy silt to clayey silt
2.450	48.33	1.6147	23	5	clayey silt to silty clay
2.511	46.52	2.0605	30	4	silty clay to clay
2.565	47.08	2.1890	30	4	silty clay to clay
2.652	55.23	2.1175	26	5	clayey silt to silty clay
2.710	67.34	2.0850	26	6	sandy silt to clayey silt
2.766	90.54	2.0138	29	7	silty sand to sandy silt
2.842	104.92	2.0286	33	7	silty sand to sandy silt
2.910	111.82	1.9855	36	7	silty sand to sandy silt
2.959	115.33	2.0298	37	7	silty sand to sandy silt
3.034	66.21	2.2859	32	5	clayey silt to silty clay
3.091	57.05	1.8234	22	6	sandy silt to clayey silt
3.154	56.36	1.0249	18	7	silty sand to sandy silt
3.225	58.40	1.2146	22	6	sandy silt to clayey silt
3.303	56.69	1.0942	18	7	silty sand to sandy silt
3.353	56.29	1.0935	18	7	silty sand to sandy silt
3.414	56.30	1.2146	22	6	sandy silt to clayey silt
3.479	55.90	1.3929	21	6	sandy silt to clayey silt
3.546	58.85	1.6480	23	6	sandy silt to clayey silt
3.611	50.81	1.6143	19	6	sandy silt to clayey silt
3.677	45.60	1.5267	22	5	clayey silt to silty clay
3.747	52.96	1.5126	20	6	sandy silt to clayey silt
3.826	47.54	1.2975	18	6	sandy silt to clayey silt
3.890	54.21	1.2003	21	6	sandy silt to clayey silt
3.944	57.27	1.1207	18	7	silty sand to sandy silt
4.031	60.89	0.9856	19	7	silty sand to sandy silt
4.075	63.72	1.0390	20	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 6.509 ft
SITE: B-317 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.137	68.69	1.1009	22	7	silty sand to sandy silt
4.220	67.56	1.1898	22	7	silty sand to sandy silt
4.281	66.55	1.2297	21	7	silty sand to sandy silt
4.339	62.47	1.2256	20	7	silty sand to sandy silt
4.399	60.10	1.2141	19	7	silty sand to sandy silt
4.469	60.10	1.2548	23	6	sandy silt to clayey silt
4.533	59.64	1.3069	23	6	sandy silt to clayey silt
4.606	59.65	1.2915	23	6	sandy silt to clayey silt
4.683	61.80	1.2875	20	7	silty sand to sandy silt
4.732	66.21	1.2710	21	7	silty sand to sandy silt
4.793	76.85	1.5900	25	7	silty sand to sandy silt
4.878	117.26	2.2821	37	7	silty sand to sandy silt
4.930	150.19	2.6213	36	8	sand to silty sand
4.992	174.96	3.0285	42	8	sand to silty sand
5.056	200.66	3.2921	48	8	sand to silty sand
5.120	202.46	3.3498	48	8	sand to silty sand
5.196	209.15	3.2835	50	8	sand to silty sand
5.275	222.85	3.2844	53	8	sand to silty sand
5.321	215.38	3.2878	52	8	sand to silty sand
5.399	216.97	3.3077	52	8	sand to silty sand
5.470	236.54	3.3312	57	8	sand to silty sand
5.520	235.08	3.3390	56	8	sand to silty sand
5.586	220.05	3.4711	53	8	sand to silty sand
5.652	229.90	3.4263	55	8	sand to silty sand
5.719	226.27	2.9125	43	9	sand
5.790	237.93	2.4576	46	9	sand
5.853	246.76	2.0296	47	9	sand
5.917	245.17	1.5164	47	9	sand
5.984	255.46	1.4380	49	9	sand
6.065	263.38	1.3731	50	9	sand
6.114	280.47	1.3790	54	9	sand
6.181	324.15	1.4608	52	10	gravelly sand to sand
6.235	368.63	0.0000	0	0	<out of range>
6.324	415.61	0.0000	0	0	<out of range>
6.379	424.87	0.0000	0	0	<out of range>
6.440	435.16	0.0000	0	0	<out of range>
6.509	442.99	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 30.453 ft
SITE: B-319

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0702	0	0	<out of range>
0.081	4.04	0.1313	4	3	clay
0.147	5.50	0.1826	5	3	clay
0.215	8.09	0.2431	5	4	silty clay to clay
0.273	10.67	0.2876	7	4	silty clay to clay
0.329	11.77	0.3266	8	4	silty clay to clay
0.401	12.33	0.3820	8	4	silty clay to clay
0.462	12.77	0.4289	8	4	silty clay to clay
0.529	13.34	0.4683	9	4	silty clay to clay
0.594	14.11	0.5191	9	4	silty clay to clay
0.659	14.22	0.5592	14	3	clay
0.746	14.33	0.6085	14	3	clay
0.799	14.55	0.6356	14	3	clay
0.879	14.66	0.6943	14	3	clay
0.922	14.77	0.7091	14	3	clay
0.993	15.22	0.7302	15	3	clay
1.059	15.89	0.7411	15	3	clay
1.133	17.91	0.7331	11	4	silty clay to clay
1.189	21.17	0.7429	10	5	clayey silt to silty clay
1.250	24.30	0.7173	12	5	clayey silt to silty clay
1.315	24.63	0.7248	12	5	clayey silt to silty clay
1.380	28.67	0.7696	14	5	clayey silt to silty clay
1.448	32.40	0.6745	12	6	sandy silt to clayey silt
1.517	35.67	0.6214	14	6	sandy silt to clayey silt
1.575	33.99	0.5756	13	6	sandy silt to clayey silt
1.658	35.23	0.4777	11	7	silty sand to sandy silt
1.719	36.91	0.4082	12	7	silty sand to sandy silt
1.777	36.91	0.3631	12	7	silty sand to sandy silt
1.840	35.34	0.3344	11	7	silty sand to sandy silt
1.911	35.11	0.3043	11	7	silty sand to sandy silt
1.977	33.54	0.2861	11	7	silty sand to sandy silt
2.044	32.53	0.2676	10	7	silty sand to sandy silt
2.107	30.74	0.2526	10	7	silty sand to sandy silt
2.179	29.62	0.2385	9	7	silty sand to sandy silt
2.246	29.28	0.2134	9	7	silty sand to sandy silt
2.298	29.28	0.2161	9	7	silty sand to sandy silt
2.366	29.84	0.4148	11	6	sandy silt to clayey silt
2.440	30.97	0.4250	12	6	sandy silt to clayey silt
2.501	32.99	0.3451	11	7	silty sand to sandy silt
2.586	38.93	0.5705	12	7	silty sand to sandy silt
2.637	52.17	1.1969	20	6	sandy silt to clayey silt
2.698	74.28	1.8798	28	6	sandy silt to clayey silt
2.757	86.96	1.9581	28	7	silty sand to sandy silt
2.823	99.52	1.8013	32	7	silty sand to sandy silt
2.901	66.09	1.6454	25	6	sandy silt to clayey silt
2.968	45.11	1.4573	22	5	clayey silt to silty clay
3.046	49.71	1.3170	19	6	sandy silt to clayey silt
3.101	49.60	1.1360	19	6	sandy silt to clayey silt
3.165	50.72	1.0967	19	6	sandy silt to clayey silt
3.241	57.34	1.0521	18	7	silty sand to sandy silt
3.302	60.25	0.8824	19	7	silty sand to sandy silt
3.358	58.34	0.7671	19	7	silty sand to sandy silt
3.430	43.31	0.6776	14	7	silty sand to sandy silt
3.492	39.27	0.5221	13	7	silty sand to sandy silt
3.550	37.48	0.3335	12	7	silty sand to sandy silt
3.619	34.00	0.2253	11	7	silty sand to sandy silt
3.687	29.96	0.1928	10	7	silty sand to sandy silt
3.756	24.01	0.1691	8	7	silty sand to sandy silt
3.819	20.31	0.1537	8	6	sandy silt to clayey silt
3.893	18.07	0.1359	7	6	sandy silt to clayey silt
3.959	16.50	0.1213	6	6	sandy silt to clayey silt
4.004	15.38	0.1219	6	6	sandy silt to clayey silt
4.080	13.92	0.1185	5	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 30.453 ft
SITE: B-319

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.156	13.24	0.1275	5	6	sandy silt to clayey silt
4.233	13.24	0.1355	5	6	sandy silt to clayey silt
4.269	13.24	0.1286	5	6	sandy silt to clayey silt
4.344	15.04	0.1109	6	6	sandy silt to clayey silt
4.399	14.81	0.1031	6	6	sandy silt to clayey silt
4.465	15.26	0.1019	6	6	sandy silt to clayey silt
4.541	15.71	0.1019	6	6	sandy silt to clayey silt
4.594	16.95	0.1027	6	6	sandy silt to clayey silt
4.682	17.84	0.1026	7	6	sandy silt to clayey silt
4.725	17.73	0.0989	7	6	sandy silt to clayey silt
4.801	18.18	0.1246	7	6	sandy silt to clayey silt
4.877	18.29	0.2760	7	6	sandy silt to clayey silt
4.928	17.96	0.3287	7	6	sandy silt to clayey silt
4.991	17.62	0.3319	8	5	clayey silt to silty clay
5.070	18.07	0.6926	12	4	silty clay to clay
5.122	18.97	1.0472	18	3	clay
5.185	28.95	0.7861	14	5	clayey silt to silty clay
5.250	48.13	0.7172	15	7	silty sand to sandy silt
5.328	43.98	0.7939	14	7	silty sand to sandy silt
5.405	22.66	0.9422	14	4	silty clay to clay
5.460	22.66	0.9727	14	4	silty clay to clay
5.524	27.04	0.7700	13	5	clayey silt to silty clay
5.595	32.20	0.5977	12	6	sandy silt to clayey silt
5.651	30.74	0.5284	12	6	sandy silt to clayey silt
5.734	23.22	0.4410	9	6	sandy silt to clayey silt
5.776	21.43	0.3680	8	6	sandy silt to clayey silt
5.841	18.18	0.2232	7	6	sandy silt to clayey silt
5.925	16.95	0.1188	6	6	sandy silt to clayey silt
5.988	15.82	0.0970	6	6	sandy silt to clayey silt
6.044	14.81	0.0904	6	6	sandy silt to clayey silt
6.109	14.03	0.0909	5	6	sandy silt to clayey silt
6.169	13.47	0.0919	5	6	sandy silt to clayey silt
6.258	13.35	0.1209	5	6	sandy silt to clayey silt
6.316	13.69	0.1470	5	6	sandy silt to clayey silt
6.374	14.48	0.1751	6	6	sandy silt to clayey silt
6.469	17.28	0.4222	8	5	clayey silt to silty clay
6.498	19.97	0.4476	10	5	clayey silt to silty clay
6.566	24.91	0.5503	10	6	sandy silt to clayey silt
6.636	31.87	0.6993	12	6	sandy silt to clayey silt
6.694	39.38	0.6848	15	6	sandy silt to clayey silt
6.770	64.63	0.6895	21	7	silty sand to sandy silt
6.826	77.08	0.8229	18	8	sand to silty sand
6.900	58.46	0.8827	19	7	silty sand to sandy silt
6.969	61.82	0.7794	20	7	silty sand to sandy silt
7.024	58.45	0.6602	19	7	silty sand to sandy silt
7.106	56.32	0.4795	18	7	silty sand to sandy silt
7.171	57.11	0.5406	18	7	silty sand to sandy silt
7.220	55.20	0.5101	18	7	silty sand to sandy silt
7.314	62.27	0.3943	15	8	sand to silty sand
7.366	62.94	0.3942	15	8	sand to silty sand
7.415	63.11	0.3177	15	8	sand to silty sand
7.489	63.28	0.4883	15	8	sand to silty sand
7.559	65.52	0.7176	21	7	silty sand to sandy silt
7.658	66.31	0.5124	16	8	sand to silty sand
7.692	69.00	0.4678	17	8	sand to silty sand
7.750	73.37	0.3965	18	8	sand to silty sand
7.809	65.18	0.3481	16	8	sand to silty sand
7.884	65.18	0.4235	16	8	sand to silty sand
7.946	65.18	0.6339	21	7	silty sand to sandy silt
8.008	65.24	0.6901	21	7	silty sand to sandy silt
8.080	65.30	0.8220	21	7	silty sand to sandy silt
8.156	68.21	0.9236	22	7	silty sand to sandy silt
8.229	75.51	1.0018	24	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 30.453 ft
SITE: B-319

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.268	79.99	1.1649	26	7	silty sand to sandy silt
8.352	77.41	1.2147	25	7	silty sand to sandy silt
8.420	77.42	0.8629	19	8	sand to silty sand
8.477	77.42	0.6992	19	8	sand to silty sand
8.540	77.47	0.7693	19	8	sand to silty sand
8.602	77.53	0.6937	19	8	sand to silty sand
8.669	81.79	0.6966	20	8	sand to silty sand
8.751	97.50	0.7002	23	8	sand to silty sand
8.814	104.68	0.7094	25	8	sand to silty sand
8.869	108.04	0.7831	26	8	sand to silty sand
8.938	115.78	0.7900	28	8	sand to silty sand
8.999	120.38	0.7265	23	9	sand
9.065	117.91	0.7602	28	8	sand to silty sand
9.129	123.19	0.8350	24	9	sand
9.196	125.21	0.7887	24	9	sand
9.278	129.47	0.6977	25	9	sand
9.342	128.91	0.6778	25	9	sand
9.384	134.30	0.6692	26	9	sand
9.460	135.53	0.8417	26	9	sand
9.531	137.33	0.8039	26	9	sand
9.584	140.13	0.7583	27	9	sand
9.675	136.94	0.7482	26	9	sand
9.729	136.54	0.7748	26	9	sand
9.788	144.85	0.8070	28	9	sand
9.844	158.99	0.8206	30	9	sand
9.908	174.47	0.8222	33	9	sand
9.983	198.04	0.8582	38	9	sand
10.061	211.72	0.8466	41	9	sand
10.110	217.67	0.8751	42	9	sand
10.175	224.51	0.9870	43	9	sand
10.240	212.17	1.0356	41	9	sand
10.308	231.58	1.0814	44	9	sand
10.380	244.25	1.4318	47	9	sand
10.448	258.61	2.0941	50	9	sand
10.507	270.17	2.6998	52	9	sand
10.581	287.34	3.5597	55	9	sand
10.643	280.28	3.0613	54	9	sand
10.703	281.73	2.5153	54	9	sand
10.773	269.74	2.6469	52	9	sand
10.836	243.04	2.4584	47	9	sand
10.895	238.44	2.2095	46	9	sand
10.976	230.14	1.7422	44	9	sand
11.031	233.28	1.2175	45	9	sand
11.096	234.40	1.2101	45	9	sand
11.173	232.61	1.2707	45	9	sand
11.255	231.93	1.4901	44	9	sand
11.296	227.11	1.5296	43	9	sand
11.365	223.29	1.5362	43	9	sand
11.425	219.36	1.5004	42	9	sand
11.503	201.08	1.5265	39	9	sand
11.557	190.75	1.8196	37	9	sand
11.627	195.58	2.0539	37	9	sand
11.695	184.02	2.0281	35	9	sand
11.751	181.10	1.9375	35	9	sand
11.814	170.91	1.7713	33	9	sand
11.885	170.91	1.7221	33	9	sand
11.955	188.51	1.7806	36	9	sand
12.029	211.06	1.8275	40	9	sand
12.086	228.00	1.8279	44	9	sand
12.141	238.77	1.8281	46	9	sand
12.208	245.96	1.8288	47	9	sand
12.281	249.44	1.8293	48	9	sand
12.359	261.67	1.8295	50	9	sand

SOUNDING

TOTAL DEPTH: 30.453 ft
SITE: B-319

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.424	270.08	1.8389	52	9	sand	
12.481	276.81	1.8162	53	9	sand	
12.543	274.23	1.6880	53	9	sand	
12.615	278.83	1.5550	53	9	sand	
12.674	287.80	1.4932	55	9	sand	
12.757	275.71	1.4647	53	9	sand	
12.800	276.05	1.4700	53	9	sand	
12.883	283.91	2.0831	54	9	sand	
12.943	283.74	2.1722	54	9	sand	
13.006	284.35	2.2910	54	9	sand	
13.099	283.57	2.3464	54	9	sand	
13.125	269.22	2.3289	52	9	sand	
13.195	281.35	2.2847	54	9	sand	
13.259	279.10	2.2476	53	9	sand	
13.337	256.21	2.2433	49	9	sand	
13.395	237.37	2.4803	45	9	sand	
13.457	170.69	2.9262	41	8	sand to silty sand	
13.529	211.31	3.5439	51	8	sand to silty sand	
13.604	158.91	3.6860	51	7	silty sand to sandy silt	
13.656	146.90	3.2514	47	7	silty sand to sandy silt	
13.729	134.48	2.0199	32	8	sand to silty sand	
13.797	126.27	1.2876	30	8	sand to silty sand	
13.855	80.03	1.1970	26	7	silty sand to sandy silt	
13.927	86.97	1.2993	28	7	silty sand to sandy silt	
13.991	71.15	1.1102	23	7	silty sand to sandy silt	
14.056	52.53	0.7722	17	7	silty sand to sandy silt	
14.136	53.08	0.6135	17	7	silty sand to sandy silt	
14.185	54.99	0.4251	18	7	silty sand to sandy silt	
14.248	57.46	0.2623	14	8	sand to silty sand	
14.330	58.24	0.2472	14	8	sand to silty sand	
14.379	58.58	0.2508	14	8	sand to silty sand	
14.445	57.12	0.3051	14	8	sand to silty sand	
14.510	54.09	0.3120	13	8	sand to silty sand	
14.573	51.96	0.2743	12	8	sand to silty sand	
14.665	51.06	0.2543	12	8	sand to silty sand	
14.706	52.52	0.3984	17	7	silty sand to sandy silt	
14.764	55.44	0.6039	18	7	silty sand to sandy silt	
14.859	61.16	0.8106	20	7	silty sand to sandy silt	
14.897	72.38	0.8723	23	7	silty sand to sandy silt	
14.962	93.59	1.1118	22	8	sand to silty sand	
15.041	121.75	1.8264	29	8	sand to silty sand	
15.100	159.01	2.2612	38	8	sand to silty sand	
15.179	181.10	2.1417	43	8	sand to silty sand	
15.243	185.37	2.4680	44	8	sand to silty sand	
15.294	177.75	2.6417	43	8	sand to silty sand	
15.385	154.85	1.9401	37	8	sand to silty sand	
15.421	150.36	1.7752	36	8	sand to silty sand	
15.486	149.35	1.5073	36	8	sand to silty sand	
15.576	127.14	1.2879	30	8	sand to silty sand	
15.632	123.77	1.2900	30	8	sand to silty sand	
15.687	132.28	1.2935	32	8	sand to silty sand	
15.754	133.52	1.2966	32	8	sand to silty sand	
15.823	132.39	1.4996	32	8	sand to silty sand	
15.919	117.60	1.5284	28	8	sand to silty sand	
15.955	117.72	1.3212	28	8	sand to silty sand	
16.016	115.70	0.9814	28	8	sand to silty sand	
16.078	98.31	0.7752	24	8	sand to silty sand	
16.144	91.47	0.8458	22	8	sand to silty sand	
16.209	90.10	0.7482	22	8	sand to silty sand	
16.283	82.81	0.6395	20	8	sand to silty sand	
16.357	82.92	0.5702	20	8	sand to silty sand	
16.422	68.90	0.5578	16	8	sand to silty sand	
16.480	67.77	0.5593	16	8	sand to silty sand	

SOUNDING

TOTAL DEPTH: 30.453 ft
SITE: B-319

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
16.554	60.48	0.4198	14	8	sand to silty sand	
16.605	57.34	0.3648	14	8	sand to silty sand	
16.674	51.95	0.3797	17	7	silty sand to sandy silt	
16.756	55.32	0.3217	13	8	sand to silty sand	
16.805	55.54	0.3214	13	8	sand to silty sand	
16.875	55.65	0.3362	13	8	sand to silty sand	
16.949	54.75	0.4468	17	7	silty sand to sandy silt	
16.999	57.89	0.4852	18	7	silty sand to sandy silt	
17.066	59.91	0.4519	14	8	sand to silty sand	
17.139	66.76	0.4278	16	8	sand to silty sand	
17.193	67.54	0.5054	16	8	sand to silty sand	
17.266	70.67	0.5336	17	8	sand to silty sand	
17.338	74.16	0.4102	18	8	sand to silty sand	
17.398	77.64	0.4191	19	8	sand to silty sand	
17.458	76.74	0.4047	18	8	sand to silty sand	
17.530	67.65	0.3457	16	8	sand to silty sand	
17.619	62.72	0.3054	15	8	sand to silty sand	
17.659	63.28	0.2654	15	8	sand to silty sand	
17.724	57.55	0.1996	14	8	sand to silty sand	
17.817	54.30	0.2170	13	8	sand to silty sand	
17.852	54.64	0.2355	13	8	sand to silty sand	
17.918	55.65	0.2452	13	8	sand to silty sand	
18.012	62.04	0.1750	15	8	sand to silty sand	
18.046	63.72	0.1740	15	8	sand to silty sand	
18.127	74.27	0.2073	18	8	sand to silty sand	
18.197	76.96	0.2948	18	8	sand to silty sand	
18.246	80.77	0.4213	19	8	sand to silty sand	
18.321	85.49	0.5725	20	8	sand to silty sand	
18.390	88.07	0.5707	21	8	sand to silty sand	
18.446	96.93	0.7118	23	8	sand to silty sand	
18.517	103.55	0.8277	25	8	sand to silty sand	
18.583	117.01	0.8660	28	8	sand to silty sand	
18.640	130.49	1.0784	31	8	sand to silty sand	
18.707	139.34	1.5290	33	8	sand to silty sand	
18.788	138.67	1.7897	33	8	sand to silty sand	
18.832	147.09	1.7149	35	8	sand to silty sand	
18.920	162.47	1.3925	31	9	sand	
18.978	153.94	1.4206	29	9	sand	
19.044	152.81	1.1412	29	9	sand	
19.115	160.10	1.1106	31	9	sand	
19.172	165.26	1.2083	32	9	sand	
19.235	170.31	1.2103	33	9	sand	
19.298	157.40	1.2121	30	9	sand	
19.362	158.03	1.2143	30	9	sand	
19.446	158.02	1.0912	30	9	sand	
19.507	158.65	0.9466	30	9	sand	
19.582	154.26	0.8887	30	9	sand	
19.643	138.45	0.7473	27	9	sand	
19.697	134.64	0.7385	26	9	sand	
19.778	135.66	0.8066	26	9	sand	
19.828	129.49	0.7757	25	9	sand	
19.886	128.81	0.7163	25	9	sand	
19.955	111.75	0.7107	27	8	sand to silty sand	
20.018	123.87	0.7184	24	9	sand	
20.097	120.50	0.7188	23	9	sand	
20.149	118.93	0.7104	23	9	sand	
20.223	120.34	0.6298	23	9	sand	
20.289	120.18	0.5752	23	9	sand	
20.383	124.55	0.5613	24	9	sand	
20.410	127.01	0.5578	24	9	sand	
20.478	127.23	0.5748	24	9	sand	
20.544	129.59	0.6121	25	9	sand	
20.630	129.59	0.6503	25	9	sand	

SOUNDING

TOTAL DEPTH: 30.453 ft
SITE: B-319

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
20.673	129.59	0.6743	25	9	sand	
20.737	133.41	0.8448	26	9	sand	
20.821	143.52	0.9253	27	9	sand	
20.904	165.96	1.3453	32	9	sand	
20.948	182.12	1.1993	35	9	sand	
21.008	211.06	1.0868	40	9	sand	
21.075	223.41	1.6842	43	9	sand	
21.136	233.16	1.9682	45	9	sand	
21.203	249.42	2.0276	48	9	sand	
21.292	259.74	2.1258	50	9	sand	
21.350	238.11	2.0631	46	9	sand	
21.401	246.75	2.0119	47	9	sand	
21.463	241.59	1.9343	46	9	sand	
21.542	248.54	1.7402	48	9	sand	
21.592	249.67	1.7125	48	9	sand	
21.681	251.68	1.7318	48	9	sand	
21.728	251.25	1.7399	48	9	sand	
21.789	250.82	1.7513	48	9	sand	
21.853	250.40	1.7215	48	9	sand	
21.921	249.98	1.6309	48	9	sand	
21.983	248.67	1.6756	48	9	sand	
22.069	253.48	1.7035	49	9	sand	
22.121	248.10	1.7323	48	9	sand	
22.212	247.55	1.8109	47	9	sand	
22.252	244.51	1.8447	47	9	sand	
22.318	244.73	1.7520	47	9	sand	
22.376	240.25	1.2870	46	9	sand	
22.451	236.32	1.3489	45	9	sand	
22.511	227.00	1.4655	43	9	sand	
22.599	228.79	1.3072	44	9	sand	
22.655	222.96	1.2271	43	9	sand	
22.704	222.62	1.1972	43	9	sand	
22.796	206.69	1.1793	40	9	sand	
22.849	203.99	1.1960	39	9	sand	
22.916	207.02	1.1770	40	9	sand	
22.979	199.62	1.1736	38	9	sand	
23.036	197.39	1.1836	38	9	sand	
23.103	195.04	1.1773	37	9	sand	
23.166	167.77	1.1425	32	9	sand	
23.236	166.29	1.0341	32	9	sand	
23.301	179.09	0.8744	34	9	sand	
23.363	173.48	0.9731	33	9	sand	
23.426	158.56	1.2850	30	9	sand	
23.494	166.98	1.2824	32	9	sand	
23.575	152.39	0.6840	29	9	sand	
23.624	151.15	0.5291	29	9	sand	
23.703	153.31	0.6208	29	9	sand	
23.768	175.28	0.7354	34	9	sand	
23.830	183.84	0.7413	35	9	sand	
23.887	192.37	0.7529	37	9	sand	
23.953	232.27	0.9514	44	9	sand	
24.024	234.50	1.0268	45	9	sand	
24.111	220.14	1.1067	42	9	sand	
24.155	223.42	1.1161	43	9	sand	
24.218	223.59	1.1164	43	9	sand	
24.288	223.78	1.1168	43	9	sand	
24.349	223.98	1.0879	43	9	sand	
24.411	224.20	1.0085	43	9	sand	
24.477	236.54	0.9969	45	9	sand	
24.543	239.89	1.0523	46	9	sand	
24.624	235.85	1.0670	45	9	sand	
24.693	238.02	1.2128	46	9	sand	
24.750	241.80	1.0087	46	9	sand	

SOUNDING

TOTAL DEPTH: 30.453 ft
SITE: B-319

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
24.819	242.25	1.1639	46	9	sand	
24.884	265.28	1.7671	51	9	sand	
24.943	264.74	1.8266	51	9	sand	
25.004	264.74	1.6749	51	9	sand	
25.073	264.18	1.6666	51	9	sand	
25.136	243.98	1.6290	47	9	sand	
25.200	235.89	1.8961	45	9	sand	
25.277	230.47	1.9181	44	9	sand	
25.352	222.19	1.4683	43	9	sand	
25.418	228.14	1.2116	44	9	sand	
25.465	226.45	1.0231	43	9	sand	
25.541	202.55	0.9079	39	9	sand	
25.602	205.36	0.9164	39	9	sand	
25.658	203.23	0.8741	39	9	sand	
25.735	194.92	0.6375	37	9	sand	
25.792	195.70	0.6803	37	9	sand	
25.858	199.07	0.6943	38	9	sand	
25.943	195.48	0.7677	37	9	sand	
26.017	194.93	1.0094	37	9	sand	
26.074	195.94	0.8297	38	9	sand	
26.119	194.59	0.6009	37	9	sand	
26.196	197.28	0.5014	38	9	sand	
26.262	186.17	0.5918	36	9	sand	
26.322	200.31	0.5943	38	9	sand	
26.387	204.92	0.5920	39	9	sand	
26.447	186.41	0.6259	36	9	sand	
26.515	191.92	0.7104	37	9	sand	
26.583	194.49	0.7145	37	9	sand	
26.642	197.96	0.5921	38	9	sand	
26.734	200.53	0.6050	38	9	sand	
26.787	192.46	0.5984	37	9	sand	
26.861	193.04	0.5355	37	9	sand	
26.932	187.96	0.5571	36	9	sand	
26.971	190.99	0.5606	37	9	sand	
27.058	191.44	0.4621	37	9	sand	
27.123	189.42	0.5630	36	9	sand	
27.170	181.13	0.6590	35	9	sand	
27.246	196.86	0.7496	38	9	sand	
27.315	203.80	1.2330	39	9	sand	
27.375	207.49	1.6367	40	9	sand	
27.446	202.22	1.8203	39	9	sand	
27.508	214.22	1.8227	41	9	sand	
27.567	230.36	1.6170	44	9	sand	
27.631	220.07	1.5610	42	9	sand	
27.698	211.43	1.5551	40	9	sand	
27.792	201.67	1.2078	39	9	sand	
27.846	196.17	0.9334	38	9	sand	
27.891	196.84	1.3113	38	9	sand	
27.957	187.87	1.8716	36	9	sand	
28.032	186.19	1.6391	36	9	sand	
28.085	181.92	1.6686	35	9	sand	
28.161	177.89	1.7745	34	9	sand	
28.223	178.28	1.7930	34	9	sand	
28.291	178.67	1.6506	34	9	sand	
28.348	169.44	1.4583	32	9	sand	
28.421	168.45	1.3939	32	9	sand	
28.492	160.60	1.3747	31	9	sand	
28.562	167.47	1.3465	32	9	sand	
28.612	174.56	1.3456	33	9	sand	
28.686	175.34	1.3446	34	9	sand	
28.748	173.21	1.7901	33	9	sand	
28.814	164.46	2.1713	39	8	sand to silty sand	
28.900	136.85	1.9771	33	8	sand to silty sand	

SOUNDING

TOTAL DEPTH: 30.453 ft
SITE: B-319

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
28.941	128.87	1.8759	31	8	sand to silty sand
29.005	120.68	1.7973	29	8	sand to silty sand
29.077	151.62	1.6239	36	8	sand to silty sand
29.148	178.39	1.4543	34	9	sand
29.215	199.20	1.2285	38	9	sand
29.282	196.12	1.0142	38	9	sand
29.343	196.21	1.0151	38	9	sand
29.412	197.44	1.0381	38	9	sand
29.470	197.67	1.0340	38	9	sand
29.538	198.49	1.1365	38	9	sand
29.602	206.34	1.4907	40	9	sand
29.667	208.99	2.4846	40	9	sand
29.750	211.70	3.8922	51	8	sand to silty sand
29.801	226.86	3.8302	54	8	sand to silty sand
29.864	242.55	3.2346	46	9	sand
29.937	281.11	2.9450	54	9	sand
29.992	300.74	2.9804	58	9	sand
30.066	295.69	3.2201	57	9	sand
30.137	310.61	3.0237	59	9	sand
30.197	308.37	0.0000	0	0	<out of range>
30.275	293.73	0.0000	0	0	<out of range>
30.332	301.29	0.0000	0	0	<out of range>
30.386	300.92	0.0000	0	0	<out of range>
30.453	275.44	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 5.848 ft
SITE: B-319 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0126	0	0	<out of range>
0.069	4.19	0.0192	2	1	sensitive fine grained
0.157	4.30	0.0355	2	1	sensitive fine grained
0.215	4.19	0.0461	2	1	sensitive fine grained
0.265	4.19	0.0549	2	1	sensitive fine grained
0.357	4.42	0.0669	2	1	sensitive fine grained
0.414	4.98	0.0868	2	1	sensitive fine grained
0.464	5.77	0.1065	4	4	silty clay to clay
0.547	7.58	0.1365	5	4	silty clay to clay
0.614	9.27	0.1424	4	5	clayey silt to silty clay
0.662	9.95	0.1450	5	5	clayey silt to silty clay
0.739	11.30	0.1542	5	5	clayey silt to silty clay
0.803	12.21	0.1711	6	5	clayey silt to silty clay
0.862	13.00	0.1849	6	5	clayey silt to silty clay
0.938	13.34	0.2106	6	5	clayey silt to silty clay
1.003	12.21	0.2551	6	5	clayey silt to silty clay
1.055	12.10	0.2894	6	5	clayey silt to silty clay
1.130	12.26	0.3285	8	4	silty clay to clay
1.195	12.32	0.3681	8	4	silty clay to clay
1.258	13.45	0.4108	9	4	silty clay to clay
1.323	15.25	0.4549	7	5	clayey silt to silty clay
1.397	15.71	0.4791	8	5	clayey silt to silty clay
1.453	17.17	0.4736	8	5	clayey silt to silty clay
1.522	23.59	0.4936	9	6	sandy silt to clayey silt
1.578	23.25	0.5093	9	6	sandy silt to clayey silt
1.657	24.93	0.5834	10	6	sandy silt to clayey silt
1.740	24.15	1.0568	15	4	silty clay to clay
1.772	24.48	1.1446	23	3	clay
1.854	26.74	1.1998	17	4	silty clay to clay
1.909	26.28	1.1785	25	3	clay
1.977	28.65	1.7131	27	3	clay
2.047	74.36	2.2796	28	6	sandy silt to clayey silt
2.113	101.27	2.0560	32	7	silty sand to sandy silt
2.171	88.43	1.9580	28	7	silty sand to sandy silt
2.242	57.25	2.1246	27	5	clayey silt to silty clay
2.302	43.18	2.3046	41	3	clay
2.371	47.12	2.2662	30	4	silty clay to clay
2.442	45.88	1.5882	22	5	clayey silt to silty clay
2.509	37.69	1.1429	18	5	clayey silt to silty clay
2.565	36.57	1.1838	18	5	clayey silt to silty clay
2.641	35.78	1.2014	17	5	clayey silt to silty clay
2.725	36.69	1.2578	18	5	clayey silt to silty clay
2.788	44.69	1.2909	17	6	sandy silt to clayey silt
2.823	41.33	1.2981	20	5	clayey silt to silty clay
2.893	39.96	1.2596	19	5	clayey silt to silty clay
2.959	38.95	1.1826	19	5	clayey silt to silty clay
3.028	42.10	1.0665	16	6	sandy silt to clayey silt
3.088	45.70	0.9533	18	6	sandy silt to clayey silt
3.152	50.64	0.8727	16	7	silty sand to sandy silt
3.242	51.99	0.8110	17	7	silty sand to sandy silt
3.285	54.69	1.1615	21	6	sandy silt to clayey silt
3.351	60.42	1.8127	23	6	sandy silt to clayey silt
3.437	69.08	1.9622	26	6	sandy silt to clayey silt
3.487	71.33	2.4656	27	6	sandy silt to clayey silt
3.550	79.54	2.3842	30	6	sandy silt to clayey silt
3.629	104.50	1.7697	33	7	silty sand to sandy silt
3.680	118.54	1.5347	28	8	sand to silty sand
3.754	140.97	1.5256	34	8	sand to silty sand
3.806	72.89	1.5809	23	7	silty sand to sandy silt
3.872	68.69	1.7421	26	6	sandy silt to clayey silt
3.972	78.14	2.0229	30	6	sandy silt to clayey silt
4.003	77.14	1.4857	25	7	silty sand to sandy silt
4.071	76.12	0.7495	18	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 5.848 ft
SITE: B-319 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.149	71.86	0.7447	17	8	sand to silty sand
4.219	70.17	0.7530	22	7	silty sand to sandy silt
4.266	71.52	0.7614	17	8	sand to silty sand
4.341	65.33	0.8317	21	7	silty sand to sandy silt
4.408	64.32	0.9246	21	7	silty sand to sandy silt
4.472	64.31	0.8954	21	7	silty sand to sandy silt
4.531	64.32	1.0195	21	7	silty sand to sandy silt
4.616	66.91	1.5218	26	6	sandy silt to clayey silt
4.662	67.14	1.6276	26	6	sandy silt to clayey silt
4.739	77.83	1.6587	25	7	silty sand to sandy silt
4.796	85.70	1.6891	27	7	silty sand to sandy silt
4.867	74.00	1.8085	28	6	sandy silt to clayey silt
4.922	79.75	1.7990	25	7	silty sand to sandy silt
5.013	90.89	1.7052	29	7	silty sand to sandy silt
5.064	100.23	1.7104	32	7	silty sand to sandy silt
5.127	131.98	1.7174	32	8	sand to silty sand
5.203	175.09	1.7256	34	9	sand
5.261	223.69	1.8192	43	9	sand
5.334	277.26	1.8775	53	9	sand
5.399	315.75	1.6782	50	10	gravelly sand to sand
5.458	346.70	1.5676	55	10	gravelly sand to sand
5.530	382.13	1.7003	61	10	gravelly sand to sand
5.595	395.21	0.0000	0	0	<out of range>
5.657	403.54	0.0000	0	0	<out of range>
5.736	411.75	0.0000	0	0	<out of range>
5.783	420.08	0.0000	0	0	<out of range>
5.848	423.56	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 17.090 ft
SITE: B-320

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.12	-0.0016	0	0	<out of range>
0.068	3.16	-0.0016	0	0	<out of range>
0.141	5.87	-0.0016	0	0	<out of range>
0.209	7.79	-0.0016	0	0	<out of range>
0.264	10.50	0.0000	0	0	<out of range>
0.337	12.53	0.0105	5	6	sandy silt to clayey silt
0.400	13.42	0.0307	5	6	sandy silt to clayey silt
0.472	14.88	0.0590	6	6	sandy silt to clayey silt
0.525	15.22	0.0744	6	6	sandy silt to clayey silt
0.593	15.67	0.0877	6	6	sandy silt to clayey silt
0.672	14.77	0.1141	6	6	sandy silt to clayey silt
0.725	13.41	0.1284	5	6	sandy silt to clayey silt
0.811	12.17	0.1471	6	5	clayey silt to silty clay
0.856	12.17	0.1438	6	5	clayey silt to silty clay
0.919	11.95	0.1335	5	6	sandy silt to clayey silt
0.989	11.72	0.1206	4	6	sandy silt to clayey silt
1.078	11.50	0.1036	4	6	sandy silt to clayey silt
1.119	11.49	0.0983	4	6	sandy silt to clayey silt
1.182	11.49	0.0927	4	6	sandy silt to clayey silt
1.271	11.60	0.0950	4	6	sandy silt to clayey silt
1.329	11.60	0.1115	4	6	sandy silt to clayey silt
1.382	11.60	0.1284	6	5	clayey silt to silty clay
1.446	11.60	0.1530	6	5	clayey silt to silty clay
1.515	11.59	0.1984	6	5	clayey silt to silty clay
1.575	12.16	0.2371	6	5	clayey silt to silty clay
1.662	13.51	0.2979	6	5	clayey silt to silty clay
1.722	14.30	0.3742	7	5	clayey silt to silty clay
1.785	14.75	0.4740	9	4	silty clay to clay
1.845	15.43	0.5505	10	4	silty clay to clay
1.907	16.90	0.6207	11	4	silty clay to clay
1.995	18.37	0.7095	12	4	silty clay to clay
2.042	18.48	0.7485	12	4	silty clay to clay
2.130	19.04	0.8256	18	3	clay
2.195	19.49	0.8805	19	3	clay
2.242	19.83	0.9051	19	3	clay
2.299	20.17	0.9256	19	3	clay
2.393	20.40	0.9431	20	3	clay
2.440	20.40	0.9584	20	3	clay
2.500	20.17	0.9873	19	3	clay
2.563	20.17	1.0218	19	3	clay
2.628	20.17	1.0579	19	3	clay
2.704	20.73	1.1010	20	3	clay
2.779	21.41	1.1285	21	3	clay
2.831	22.99	1.1385	22	3	clay
2.896	24.12	1.1309	23	3	clay
2.953	25.13	1.1217	24	3	clay
3.027	26.37	1.1395	17	4	silty clay to clay
3.110	27.50	1.1587	18	4	silty clay to clay
3.153	27.62	1.1633	18	4	silty clay to clay
3.242	27.50	1.1861	18	4	silty clay to clay
3.294	27.39	1.1843	17	4	silty clay to clay
3.355	27.73	1.1883	18	4	silty clay to clay
3.417	28.98	1.2240	18	4	silty clay to clay
3.479	30.11	1.2673	19	4	silty clay to clay
3.565	31.04	1.3213	20	4	silty clay to clay
3.613	31.72	1.3633	20	4	silty clay to clay
3.681	33.54	1.4240	21	4	silty clay to clay
3.773	34.34	1.5013	22	4	silty clay to clay
3.807	34.35	1.5255	22	4	silty clay to clay
3.883	34.02	1.5348	22	4	silty clay to clay
3.941	34.02	1.5262	22	4	silty clay to clay
4.022	34.25	1.4990	22	4	silty clay to clay
4.086	34.14	1.4663	22	4	silty clay to clay

SOUNDING

TOTAL DEPTH: 17.090 ft
SITE: B-320

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.135	33.92	1.4389	22	4	silty clay to clay
4.209	33.12	1.3937	21	4	silty clay to clay
4.283	31.98	1.2981	20	4	silty clay to clay
4.336	31.18	1.1991	15	5	clayey silt to silty clay
4.421	30.28	1.0332	14	5	clayey silt to silty clay
4.487	28.13	0.8684	13	5	clayey silt to silty clay
4.532	28.07	0.7830	13	5	clayey silt to silty clay
4.606	28.01	0.6539	11	6	sandy silt to clayey silt
4.666	28.01	0.5253	11	6	sandy silt to clayey silt
4.742	29.02	0.3898	11	6	sandy silt to clayey silt
4.794	30.82	0.3131	10	7	silty sand to sandy silt
4.871	29.46	0.2055	9	7	silty sand to sandy silt
4.933	28.34	0.1444	9	7	silty sand to sandy silt
4.991	27.66	0.1179	9	7	silty sand to sandy silt
5.077	26.19	0.0847	8	7	silty sand to sandy silt
5.144	25.29	0.0656	8	7	silty sand to sandy silt
5.200	24.05	0.0603	8	7	silty sand to sandy silt
5.258	23.14	0.0575	7	7	silty sand to sandy silt
5.316	22.13	0.0548	7	7	silty sand to sandy silt
5.390	21.23	0.0462	7	7	silty sand to sandy silt
5.450	20.55	0.0391	7	7	silty sand to sandy silt
5.538	19.65	0.0262	6	7	silty sand to sandy silt
5.599	19.20	0.0212	6	7	silty sand to sandy silt
5.653	19.31	0.0193	6	7	silty sand to sandy silt
5.715	19.19	0.0160	6	7	silty sand to sandy silt
5.803	19.42	0.0075	6	7	silty sand to sandy silt
5.851	19.08	0.0066	6	7	silty sand to sandy silt
5.925	18.86	0.0066	6	7	silty sand to sandy silt
5.991	18.07	0.0066	6	7	silty sand to sandy silt
6.046	17.73	0.0066	6	7	silty sand to sandy silt
6.109	17.28	0.0066	6	7	silty sand to sandy silt
6.194	16.37	0.0075	5	7	silty sand to sandy silt
6.259	16.26	0.0083	5	7	silty sand to sandy silt
6.315	15.13	0.0083	6	6	sandy silt to clayey silt
6.389	14.46	0.0083	6	6	sandy silt to clayey silt
6.451	14.01	0.0073	5	6	sandy silt to clayey silt
6.517	13.67	0.0066	5	6	sandy silt to clayey silt
6.565	13.33	0.0066	5	6	sandy silt to clayey silt
6.647	12.88	0.0066	5	6	sandy silt to clayey silt
6.715	12.88	0.0066	5	6	sandy silt to clayey silt
6.770	12.77	0.0066	5	6	sandy silt to clayey silt
6.849	11.07	0.0109	4	6	sandy silt to clayey silt
6.898	12.20	0.0294	5	6	sandy silt to clayey silt
6.956	13.67	0.0610	5	6	sandy silt to clayey silt
7.044	13.72	0.0319	5	6	sandy silt to clayey silt
7.107	13.72	0.0781	5	6	sandy silt to clayey silt
7.163	13.78	0.1022	5	6	sandy silt to clayey silt
7.257	15.47	0.0496	6	6	sandy silt to clayey silt
7.298	14.46	0.0500	6	6	sandy silt to clayey silt
7.361	14.57	0.0507	6	6	sandy silt to clayey silt
7.446	11.86	0.0512	5	6	sandy silt to clayey silt
7.482	12.54	0.0517	5	6	sandy silt to clayey silt
7.548	12.99	0.0465	5	6	sandy silt to clayey silt
7.635	12.20	0.0183	5	6	sandy silt to clayey silt
7.694	11.52	0.0066	4	6	sandy silt to clayey silt
7.764	11.30	0.0066	4	6	sandy silt to clayey silt
7.813	10.96	0.0066	4	6	sandy silt to clayey silt
7.882	10.17	0.0074	5	1	sensitive fine grained
7.957	9.72	0.0072	5	1	sensitive fine grained
8.022	9.72	0.0066	5	1	sensitive fine grained
8.107	8.93	0.0066	4	1	sensitive fine grained
8.144	8.93	0.0061	4	1	sensitive fine grained
8.212	8.48	0.0050	4	1	sensitive fine grained

SOUNDING

TOTAL DEPTH: 17.090 ft
SITE: B-320

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.272	8.59	0.0050	4	1	sensitive fine grained
8.357	8.70	0.0050	4	1	sensitive fine grained
8.422	9.38	0.0061	4	1	sensitive fine grained
8.479	9.60	0.0066	5	1	sensitive fine grained
8.549	10.05	0.0055	5	1	sensitive fine grained
8.613	10.51	0.0050	5	1	sensitive fine grained
8.673	10.17	0.0050	5	1	sensitive fine grained
8.734	9.49	0.0050	5	1	sensitive fine grained
8.814	9.15	0.0061	4	1	sensitive fine grained
8.859	9.15	0.0066	4	1	sensitive fine grained
8.930	9.61	0.0066	5	1	sensitive fine grained
8.996	10.06	0.0066	5	1	sensitive fine grained
9.066	9.61	0.0066	5	1	sensitive fine grained
9.129	10.17	0.0066	5	1	sensitive fine grained
9.203	10.17	0.0066	5	1	sensitive fine grained
9.281	10.17	0.0066	5	1	sensitive fine grained
9.337	10.17	0.0077	5	1	sensitive fine grained
9.391	10.17	0.0075	5	1	sensitive fine grained
9.459	10.51	0.0058	4	6	sandy silt to clayey silt
9.539	10.40	0.0050	5	1	sensitive fine grained
9.584	10.28	0.0050	5	1	sensitive fine grained
9.655	9.60	0.0050	5	1	sensitive fine grained
9.719	9.94	0.0050	5	1	sensitive fine grained
9.789	10.05	0.0050	5	1	sensitive fine grained
9.844	10.50	0.0055	5	1	sensitive fine grained
9.920	11.07	0.0066	4	6	sandy silt to clayey silt
9.990	12.09	0.0066	5	6	sandy silt to clayey silt
10.047	12.76	0.0066	5	6	sandy silt to clayey silt
10.117	12.03	0.0297	5	6	sandy silt to clayey silt
10.186	11.97	0.0395	5	6	sandy silt to clayey silt
10.240	12.42	0.0364	5	6	sandy silt to clayey silt
10.334	11.97	0.0539	5	6	sandy silt to clayey silt
10.370	12.64	0.0417	5	6	sandy silt to clayey silt
10.441	12.76	0.0287	5	6	sandy silt to clayey silt
10.499	13.43	0.0293	5	6	sandy silt to clayey silt
10.588	12.64	0.0150	5	6	sandy silt to clayey silt
10.630	12.65	0.0091	5	6	sandy silt to clayey silt
10.705	11.85	0.0066	5	6	sandy silt to clayey silt
10.774	11.63	0.0066	4	6	sandy silt to clayey silt
10.852	11.29	0.0066	4	6	sandy silt to clayey silt
10.902	11.40	0.0066	4	6	sandy silt to clayey silt
10.991	11.18	0.0066	4	6	sandy silt to clayey silt
11.028	11.18	0.0066	4	6	sandy silt to clayey silt
11.104	11.51	0.0058	4	6	sandy silt to clayey silt
11.162	11.74	0.0085	4	6	sandy silt to clayey silt
11.224	11.75	0.0177	4	6	sandy silt to clayey silt
11.287	11.97	0.0195	5	6	sandy silt to clayey silt
11.359	14.34	0.0132	5	6	sandy silt to clayey silt
11.436	12.99	0.0227	5	6	sandy silt to clayey silt
11.504	12.87	0.0465	5	6	sandy silt to clayey silt
11.566	13.01	0.0587	5	6	sandy silt to clayey silt
11.618	13.10	0.0592	5	6	sandy silt to clayey silt
11.688	13.04	0.0557	5	6	sandy silt to clayey silt
11.764	12.99	0.0382	5	6	sandy silt to clayey silt
11.817	12.99	0.0399	5	6	sandy silt to clayey silt
11.887	13.21	0.0494	5	6	sandy silt to clayey silt
11.965	12.76	0.0387	5	6	sandy silt to clayey silt
12.012	13.55	0.0399	5	6	sandy silt to clayey silt
12.076	14.00	0.0392	5	6	sandy silt to clayey silt
12.158	13.78	0.0368	5	6	sandy silt to clayey silt
12.222	12.99	0.0850	5	6	sandy silt to clayey silt
12.271	13.21	0.1095	5	6	sandy silt to clayey silt
12.337	13.32	0.0974	5	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 17.090 ft
SITE: B-320

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.427	12.99	0.0709	5	6	sandy silt to clayey silt
12.472	12.93	0.0579	5	6	sandy silt to clayey silt
12.544	12.87	0.0453	5	6	sandy silt to clayey silt
12.609	12.87	0.0428	5	6	sandy silt to clayey silt
12.676	12.87	0.0340	5	6	sandy silt to clayey silt
12.755	12.87	0.0484	5	6	sandy silt to clayey silt
12.814	13.77	0.0493	5	6	sandy silt to clayey silt
12.877	13.32	0.0556	5	6	sandy silt to clayey silt
12.977	13.44	0.0853	5	6	sandy silt to clayey silt
13.008	14.23	0.0833	5	6	sandy silt to clayey silt
13.082	12.42	0.0760	5	6	sandy silt to clayey silt
13.125	11.29	0.0777	4	6	sandy silt to clayey silt
13.201	11.18	0.0826	4	6	sandy silt to clayey silt
13.262	12.99	0.1058	5	6	sandy silt to clayey silt
13.338	14.57	0.1409	6	6	sandy silt to clayey silt
13.389	14.11	0.1376	5	6	sandy silt to clayey silt
13.466	15.57	0.1185	6	6	sandy silt to clayey silt
13.527	19.07	0.1191	7	6	sandy silt to clayey silt
13.596	18.62	0.1100	7	6	sandy silt to clayey silt
13.663	18.40	0.1477	7	6	sandy silt to clayey silt
13.749	22.01	0.2207	8	6	sandy silt to clayey silt
13.799	26.30	0.3116	10	6	sandy silt to clayey silt
13.850	26.41	0.3883	10	6	sandy silt to clayey silt
13.949	26.97	0.3439	10	6	sandy silt to clayey silt
14.000	25.84	0.3282	10	6	sandy silt to clayey silt
14.052	25.90	0.2910	10	6	sandy silt to clayey silt
14.129	25.96	0.2496	10	6	sandy silt to clayey silt
14.174	26.01	0.2598	10	6	sandy silt to clayey silt
14.240	26.08	0.2857	10	6	sandy silt to clayey silt
14.319	28.22	0.2604	9	7	silty sand to sandy silt
14.387	32.84	0.2521	10	7	silty sand to sandy silt
14.457	35.44	0.2545	11	7	silty sand to sandy silt
14.513	38.94	0.2545	12	7	silty sand to sandy silt
14.580	43.00	0.2582	14	7	silty sand to sandy silt
14.648	45.26	0.2570	14	7	silty sand to sandy silt
14.712	48.19	0.2549	12	8	sand to silty sand
14.765	51.80	0.2542	12	8	sand to silty sand
14.830	55.08	0.2525	13	8	sand to silty sand
14.909	57.22	0.3154	14	8	sand to silty sand
14.964	58.80	0.3515	14	8	sand to silty sand
15.042	63.32	0.3409	15	8	sand to silty sand
15.109	67.03	0.3774	16	8	sand to silty sand
15.170	68.28	0.3961	16	8	sand to silty sand
15.226	67.26	0.3959	16	8	sand to silty sand
15.298	68.39	0.3904	16	8	sand to silty sand
15.361	70.19	0.3807	17	8	sand to silty sand
15.422	69.86	0.3533	17	8	sand to silty sand
15.515	71.10	0.3414	17	8	sand to silty sand
15.571	72.11	0.3408	17	8	sand to silty sand
15.622	71.77	0.3388	17	8	sand to silty sand
15.689	72.00	0.3341	17	8	sand to silty sand
15.752	71.78	0.3355	17	8	sand to silty sand
15.825	73.36	0.3369	18	8	sand to silty sand
15.901	71.32	0.3383	17	8	sand to silty sand
15.965	71.66	0.4609	17	8	sand to silty sand
16.026	70.75	0.5227	17	8	sand to silty sand
16.078	69.18	0.5112	17	8	sand to silty sand
16.157	69.63	0.4620	17	8	sand to silty sand
16.218	70.19	0.4453	17	8	sand to silty sand
16.280	63.20	0.4129	15	8	sand to silty sand
16.349	62.41	0.4071	15	8	sand to silty sand
16.409	63.08	0.4065	15	8	sand to silty sand
16.481	62.98	0.4066	15	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 17.090 ft
SITE: B-320

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.544	65.45	0.3888	16	8	sand to silty sand
16.610	69.18	0.4099	17	8	sand to silty sand
16.678	78.09	0.5407	19	8	sand to silty sand
16.736	84.07	0.6273	20	8	sand to silty sand
16.804	99.86	0.0000	0	0	<out of range>
16.872	140.14	0.0000	0	0	<out of range>
16.932	172.87	0.0000	0	0	<out of range>
17.002	417.84	0.0000	0	0	<out of range>
17.090	454.75	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 22.115 ft
SITE: B-320 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.70	0.0000	0	0	<out of range>
0.066	4.26	0.0000	0	0	<out of range>
0.157	4.72	0.0000	0	0	<out of range>
0.219	4.70	0.0000	0	0	<out of range>
0.281	4.71	0.0000	0	0	<out of range>
0.330	4.69	0.0000	0	0	<out of range>
0.403	4.79	0.0000	0	0	<out of range>
0.488	4.56	0.0000	0	0	<out of range>
0.536	4.43	0.0000	0	0	<out of range>
0.604	4.09	0.0007	2	1	sensitive fine grained
0.662	4.09	0.0016	2	1	sensitive fine grained
0.729	4.19	0.0010	2	1	sensitive fine grained
0.819	4.53	0.0000	0	0	<out of range>
0.870	4.75	0.0000	0	0	<out of range>
0.933	5.08	0.0000	0	0	<out of range>
0.989	5.65	0.0000	0	0	<out of range>
1.073	6.10	0.0014	3	1	sensitive fine grained
1.133	6.43	0.0035	3	1	sensitive fine grained
1.190	7.00	0.0061	3	1	sensitive fine grained
1.258	7.67	0.0111	4	1	sensitive fine grained
1.321	7.80	0.0187	4	1	sensitive fine grained
1.378	8.69	0.0331	4	1	sensitive fine grained
1.465	10.04	0.0725	4	6	sandy silt to clayey silt
1.519	10.49	0.0962	5	5	clayey silt to silty clay
1.577	11.05	0.1145	5	5	clayey silt to silty clay
1.645	12.17	0.1360	5	6	sandy silt to clayey silt
1.728	13.31	0.1737	5	6	sandy silt to clayey silt
1.776	14.22	0.1989	5	6	sandy silt to clayey silt
1.839	14.33	0.2225	7	5	clayey silt to silty clay
1.905	15.11	0.2418	7	5	clayey silt to silty clay
1.997	16.23	0.2585	6	6	sandy silt to clayey silt
2.039	16.56	0.2742	6	6	sandy silt to clayey silt
2.100	16.90	0.3013	8	5	clayey silt to silty clay
2.166	17.91	0.3118	7	6	sandy silt to clayey silt
2.235	18.93	0.3245	7	6	sandy silt to clayey silt
2.306	18.38	0.3359	7	6	sandy silt to clayey silt
2.383	17.15	0.3678	8	5	clayey silt to silty clay
2.445	17.26	0.4141	8	5	clayey silt to silty clay
2.505	17.25	0.4410	8	5	clayey silt to silty clay
2.578	16.46	0.4492	8	5	clayey silt to silty clay
2.630	16.12	0.4500	8	5	clayey silt to silty clay
2.708	16.22	0.4430	8	5	clayey silt to silty clay
2.757	15.53	0.4355	7	5	clayey silt to silty clay
2.824	16.32	0.4143	8	5	clayey silt to silty clay
2.907	15.76	0.3951	8	5	clayey silt to silty clay
2.990	15.98	0.3896	8	5	clayey silt to silty clay
3.049	16.09	0.3843	8	5	clayey silt to silty clay
3.111	16.20	0.3838	8	5	clayey silt to silty clay
3.150	16.09	0.3838	8	5	clayey silt to silty clay
3.218	15.75	0.3931	8	5	clayey silt to silty clay
3.308	15.18	0.4333	7	5	clayey silt to silty clay
3.347	15.29	0.4440	7	5	clayey silt to silty clay
3.415	15.29	0.4513	7	5	clayey silt to silty clay
3.490	15.29	0.4443	7	5	clayey silt to silty clay
3.546	14.27	0.4320	9	4	silty clay to clay
3.620	13.71	0.4171	9	4	silty clay to clay
3.705	13.26	0.4061	8	4	silty clay to clay
3.750	13.65	0.3804	7	5	clayey silt to silty clay
3.807	13.60	0.3533	7	5	clayey silt to silty clay
3.892	14.28	0.3468	7	5	clayey silt to silty clay
3.943	14.84	0.3611	7	5	clayey silt to silty clay
4.007	16.87	0.4383	8	5	clayey silt to silty clay
4.072	17.88	0.5529	9	5	clayey silt to silty clay

SOUNDING

TOTAL DEPTH: 22.115 ft
SITE: B-320 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.143	17.54	0.5178	8	5	clayey silt to silty clay
4.217	17.10	0.5080	8	5	clayey silt to silty clay
4.272	18.45	0.5188	9	5	clayey silt to silty clay
4.359	20.25	0.5475	10	5	clayey silt to silty clay
4.432	20.03	0.5697	10	5	clayey silt to silty clay
4.483	19.58	0.5600	9	5	clayey silt to silty clay
4.530	18.79	0.5621	9	5	clayey silt to silty clay
4.632	17.89	0.5925	9	5	clayey silt to silty clay
4.663	18.00	0.5890	9	5	clayey silt to silty clay
4.739	18.22	0.5737	9	5	clayey silt to silty clay
4.797	18.22	0.5575	9	5	clayey silt to silty clay
4.884	17.10	0.5390	8	5	clayey silt to silty clay
4.928	16.98	0.5311	8	5	clayey silt to silty clay
5.001	16.65	0.5304	8	5	clayey silt to silty clay
5.058	16.76	0.5388	8	5	clayey silt to silty clay
5.143	16.76	0.5401	8	5	clayey silt to silty clay
5.195	17.21	0.5630	8	5	clayey silt to silty clay
5.258	17.89	0.6137	11	4	silty clay to clay
5.344	19.46	0.6870	12	4	silty clay to clay
5.386	20.25	0.7341	13	4	silty clay to clay
5.456	21.37	0.7844	14	4	silty clay to clay
5.517	21.37	0.7909	14	4	silty clay to clay
5.580	21.37	0.7754	14	4	silty clay to clay
5.650	20.24	0.7367	13	4	silty clay to clay
5.710	21.31	0.6963	10	5	clayey silt to silty clay
5.776	20.24	0.6416	10	5	clayey silt to silty clay
5.854	21.25	0.6052	10	5	clayey silt to silty clay
5.935	22.94	0.5549	11	5	clayey silt to silty clay
5.981	23.84	0.5469	9	6	sandy silt to clayey silt
6.052	25.31	0.5469	10	6	sandy silt to clayey silt
6.113	25.31	0.5469	10	6	sandy silt to clayey silt
6.208	24.73	0.5967	12	5	clayey silt to silty clay
6.239	23.94	0.6167	11	5	clayey silt to silty clay
6.312	22.12	0.6594	11	5	clayey silt to silty clay
6.369	21.22	0.6798	10	5	clayey silt to silty clay
6.430	20.43	0.6872	10	5	clayey silt to silty clay
6.499	20.99	0.6880	10	5	clayey silt to silty clay
6.592	25.26	0.7179	12	5	clayey silt to silty clay
6.658	28.31	0.7118	11	6	sandy silt to clayey silt
6.696	31.68	0.6786	12	6	sandy silt to clayey silt
6.761	36.31	0.6098	14	6	sandy silt to clayey silt
6.852	50.38	0.5442	16	7	silty sand to sandy silt
6.907	66.70	0.5073	16	8	sand to silty sand
6.965	80.98	0.4714	19	8	sand to silty sand
7.039	92.68	0.4519	22	8	sand to silty sand
7.092	98.98	0.4484	24	8	sand to silty sand
7.165	102.93	0.4489	20	9	sand
7.230	104.95	0.4494	20	9	sand
7.284	105.29	0.4318	20	9	sand
7.359	107.09	0.5408	21	9	sand
7.421	108.21	0.6343	26	8	sand to silty sand
7.481	109.46	0.6093	26	8	sand to silty sand
7.547	107.55	0.5783	26	8	sand to silty sand
7.619	113.62	0.5414	22	9	sand
7.681	106.43	0.5251	20	9	sand
7.771	105.76	0.5334	20	9	sand
7.826	104.86	0.4948	20	9	sand
7.878	103.96	0.4424	20	9	sand
7.951	103.85	0.4198	20	9	sand
8.029	101.03	0.4074	19	9	sand
8.085	97.53	0.4104	23	8	sand to silty sand
8.158	94.50	0.4154	23	8	sand to silty sand
8.222	91.68	0.3818	22	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 22.115 ft
SITE: B-320 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.287	89.77	0.3616	21	8	sand to silty sand	
8.342	86.73	0.3429	21	8	sand to silty sand	
8.407	84.37	0.3181	20	8	sand to silty sand	
8.470	82.68	0.3064	20	8	sand to silty sand	
8.536	81.00	0.2958	19	8	sand to silty sand	
8.602	79.08	0.2743	19	8	sand to silty sand	
8.672	78.40	0.2599	19	8	sand to silty sand	
8.740	77.51	0.2423	19	8	sand to silty sand	
8.814	75.71	0.2284	18	8	sand to silty sand	
8.871	74.24	0.2247	18	8	sand to silty sand	
8.942	72.67	0.2204	17	8	sand to silty sand	
8.993	70.87	0.2166	17	8	sand to silty sand	
9.077	67.94	0.2156	16	8	sand to silty sand	
9.144	66.37	0.2051	16	8	sand to silty sand	
9.197	65.24	0.2046	16	8	sand to silty sand	
9.272	63.23	0.2059	15	8	sand to silty sand	
9.338	61.54	0.2079	15	8	sand to silty sand	
9.401	59.96	0.2076	14	8	sand to silty sand	
9.452	58.72	0.2079	14	8	sand to silty sand	
9.518	56.92	0.2228	14	8	sand to silty sand	
9.600	56.81	0.2192	14	8	sand to silty sand	
9.654	58.27	0.2323	14	8	sand to silty sand	
9.739	53.66	0.3682	13	8	sand to silty sand	
9.794	57.60	0.3990	14	8	sand to silty sand	
9.853	57.26	0.4234	14	8	sand to silty sand	
9.929	56.92	0.4502	14	8	sand to silty sand	
9.996	55.59	0.4505	18	7	silty sand to sandy silt	
10.052	52.89	0.4510	17	7	silty sand to sandy silt	
10.106	48.62	0.5720	16	7	silty sand to sandy silt	
10.184	45.68	0.7850	15	7	silty sand to sandy silt	
10.248	46.92	0.9365	18	6	sandy silt to clayey silt	
10.305	47.48	0.8411	15	7	silty sand to sandy silt	
10.369	57.60	0.5524	18	7	silty sand to sandy silt	
10.439	55.57	0.3760	13	8	sand to silty sand	
10.504	46.12	0.2835	15	7	silty sand to sandy silt	
10.570	33.07	0.2231	11	7	silty sand to sandy silt	
10.630	35.13	0.1918	11	7	silty sand to sandy silt	
10.700	32.92	0.1530	11	7	silty sand to sandy silt	
10.777	19.46	0.1816	7	6	sandy silt to clayey silt	
10.831	18.56	0.2061	7	6	sandy silt to clayey silt	
10.929	20.24	0.1494	8	6	sandy silt to clayey silt	
10.979	20.92	0.1478	8	6	sandy silt to clayey silt	
11.032	22.27	0.1473	7	7	silty sand to sandy silt	
11.100	21.37	0.1348	8	6	sandy silt to clayey silt	
11.163	19.46	0.1331	7	6	sandy silt to clayey silt	
11.230	18.78	0.1174	7	6	sandy silt to clayey silt	
11.304	19.12	0.0978	7	6	sandy silt to clayey silt	
11.380	17.88	0.0644	7	6	sandy silt to clayey silt	
11.433	17.32	0.0411	6	7	silty sand to sandy silt	
11.487	16.65	0.0276	5	7	silty sand to sandy silt	
11.585	16.08	0.0297	6	6	sandy silt to clayey silt	
11.633	16.08	0.0300	6	6	sandy silt to clayey silt	
11.690	15.29	0.0347	6	6	sandy silt to clayey silt	
11.752	15.18	0.0803	6	6	sandy silt to clayey silt	
11.818	15.52	0.1803	6	6	sandy silt to clayey silt	
11.887	15.52	0.2158	6	6	sandy silt to clayey silt	
11.954	15.29	0.1936	6	6	sandy silt to clayey silt	
12.024	15.63	0.1593	6	6	sandy silt to clayey silt	
12.083	17.32	0.1358	7	6	sandy silt to clayey silt	
12.140	18.00	0.1532	7	6	sandy silt to clayey silt	
12.224	22.50	0.4879	9	6	sandy silt to clayey silt	
12.290	28.62	0.4117	11	6	sandy silt to clayey silt	
12.344	31.06	0.3945	12	6	sandy silt to clayey silt	

SOUNDING

TOTAL DEPTH: 22.115 ft
SITE: B-320 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.425	24.98	0.4387	10	6	sandy silt to clayey silt
12.491	14.97	0.4381	7	5	clayey silt to silty clay
12.536	15.20	0.4373	7	5	clayey silt to silty clay
12.608	16.55	0.3653	8	5	clayey silt to silty clay
12.696	16.21	0.0914	6	6	sandy silt to clayey silt
12.732	16.00	0.1265	6	6	sandy silt to clayey silt
12.800	18.47	0.2017	7	6	sandy silt to clayey silt
12.863	18.02	0.2194	7	6	sandy silt to clayey silt
12.952	15.65	0.2684	7	5	clayey silt to silty clay
12.996	14.19	0.3069	7	5	clayey silt to silty clay
13.060	24.24	0.3245	9	6	sandy silt to clayey silt
13.124	29.23	0.1675	9	7	silty sand to sandy silt
13.207	34.42	0.0938	11	7	silty sand to sandy silt
13.286	38.70	0.1053	9	8	sand to silty sand
13.345	40.39	0.3841	13	7	silty sand to sandy silt
13.400	45.56	0.4315	15	7	silty sand to sandy silt
13.454	47.42	0.3687	15	7	silty sand to sandy silt
13.524	44.01	0.3338	14	7	silty sand to sandy silt
13.585	33.75	0.3385	11	7	silty sand to sandy silt
13.657	21.61	0.2797	8	6	sandy silt to clayey silt
13.716	25.66	0.2384	10	6	sandy silt to clayey silt
13.795	27.45	0.2829	9	7	silty sand to sandy silt
13.857	28.25	0.2647	9	7	silty sand to sandy silt
13.917	23.07	0.2821	9	6	sandy silt to clayey silt
14.012	20.29	0.3146	8	6	sandy silt to clayey silt
14.055	20.05	0.2991	8	6	sandy silt to clayey silt
14.120	21.73	0.2459	8	6	sandy silt to clayey silt
14.175	21.95	0.1930	8	6	sandy silt to clayey silt
14.259	20.25	0.1052	6	7	silty sand to sandy silt
14.321	19.91	0.0809	6	7	silty sand to sandy silt
14.373	19.80	0.0873	6	7	silty sand to sandy silt
14.471	20.92	0.0774	7	7	silty sand to sandy silt
14.505	20.92	0.0768	7	7	silty sand to sandy silt
14.586	21.25	0.0758	7	7	silty sand to sandy silt
14.668	21.59	0.0758	7	7	silty sand to sandy silt
14.728	22.38	0.0840	7	7	silty sand to sandy silt
14.782	22.72	0.0848	7	7	silty sand to sandy silt
14.831	23.28	0.0827	7	7	silty sand to sandy silt
14.909	24.07	0.0777	8	7	silty sand to sandy silt
14.971	24.63	0.0858	8	7	silty sand to sandy silt
15.033	25.30	0.0931	8	7	silty sand to sandy silt
15.115	26.43	0.1020	8	7	silty sand to sandy silt
15.182	28.00	0.1485	9	7	silty sand to sandy silt
15.237	30.37	0.2239	10	7	silty sand to sandy silt
15.294	32.72	0.2763	10	7	silty sand to sandy silt
15.362	35.76	0.2368	11	7	silty sand to sandy silt
15.423	38.80	0.2225	12	7	silty sand to sandy silt
15.499	48.58	0.2983	16	7	silty sand to sandy silt
15.566	59.04	0.3230	14	8	sand to silty sand
15.621	72.54	0.4289	17	8	sand to silty sand
15.689	89.42	0.7018	21	8	sand to silty sand
15.763	107.19	0.7732	26	8	sand to silty sand
15.826	119.35	0.9847	29	8	sand to silty sand
15.893	115.40	1.2599	28	8	sand to silty sand
15.962	101.00	1.5575	32	7	silty sand to sandy silt
16.025	93.25	1.7771	30	7	silty sand to sandy silt
16.089	75.37	1.7662	29	6	sandy silt to clayey silt
16.148	64.34	1.6757	25	6	sandy silt to clayey silt
16.238	64.22	1.5337	25	6	sandy silt to clayey silt
16.288	64.08	1.3498	20	7	silty sand to sandy silt
16.347	63.96	1.2598	20	7	silty sand to sandy silt
16.415	63.89	1.1423	20	7	silty sand to sandy silt
16.493	83.24	1.0006	20	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 22.115 ft
SITE: B-320 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.547	117.50	1.0530	28	8	sand to silty sand
16.602	130.75	1.0881	31	8	sand to silty sand
16.671	123.83	1.0455	30	8	sand to silty sand
16.750	127.97	0.8963	25	9	sand
16.800	127.85	0.6726	24	9	sand
16.874	126.49	0.3342	24	9	sand
16.954	124.26	0.3361	24	9	sand
17.001	118.30	0.3355	23	9	sand
17.061	102.34	0.3503	20	9	sand
17.158	59.38	0.4097	14	8	sand to silty sand
17.216	57.81	0.5796	18	7	silty sand to sandy silt
17.269	57.93	0.7395	18	7	silty sand to sandy silt
17.329	51.09	0.8634	16	7	silty sand to sandy silt
17.391	51.31	1.0113	20	6	sandy silt to clayey silt
17.468	55.37	1.1682	21	6	sandy silt to clayey silt
17.537	71.00	1.3551	23	7	silty sand to sandy silt
17.596	71.08	1.5057	23	7	silty sand to sandy silt
17.668	48.12	1.5006	18	6	sandy silt to clayey silt
17.727	46.08	1.3915	18	6	sandy silt to clayey silt
17.784	43.71	1.3256	17	6	sandy silt to clayey silt
17.867	54.39	1.0353	17	7	silty sand to sandy silt
17.928	57.65	0.8043	18	7	silty sand to sandy silt
17.987	59.44	0.8398	19	7	silty sand to sandy silt
18.057	54.04	0.9017	17	7	silty sand to sandy silt
18.114	60.11	0.9070	19	7	silty sand to sandy silt
18.183	71.82	0.9358	23	7	silty sand to sandy silt
18.243	65.86	0.9785	21	7	silty sand to sandy silt
18.309	53.72	0.8731	17	7	silty sand to sandy silt
18.379	46.31	0.6435	15	7	silty sand to sandy silt
18.450	40.56	0.4530	13	7	silty sand to sandy silt
18.532	37.97	0.4464	12	7	silty sand to sandy silt
18.579	35.60	0.4398	11	7	silty sand to sandy silt
18.647	34.71	0.5145	13	6	sandy silt to clayey silt
18.709	32.47	0.7323	12	6	sandy silt to clayey silt
18.769	31.36	0.8989	15	5	clayey silt to silty clay
18.840	33.18	0.9556	16	5	clayey silt to silty clay
18.923	41.64	1.0249	16	6	sandy silt to clayey silt
18.969	44.67	0.7878	14	7	silty sand to sandy silt
19.040	44.77	0.1915	11	8	sand to silty sand
19.102	54.12	0.0692	13	8	sand to silty sand
19.191	46.92	0.0697	11	8	sand to silty sand
19.228	58.20	0.0706	14	8	sand to silty sand
19.349	11.08	0.4067	11	3	clay
19.465	11.19	0.9123	11	3	clay
19.533	11.19	0.9101	11	3	clay
19.545	11.19	0.9101	11	3	clay
19.576	11.07	0.9101	11	3	clay
19.627	25.37	0.9092	12	5	clayey silt to silty clay
19.689	54.89	0.9076	18	7	silty sand to sandy silt
19.754	55.11	1.0025	18	7	silty sand to sandy silt
19.820	79.05	1.1949	25	7	silty sand to sandy silt
19.886	121.98	1.4427	29	8	sand to silty sand
19.984	181.22	1.1977	35	9	sand
20.023	205.93	1.1206	39	9	sand
20.097	223.50	0.9668	43	9	sand
20.166	239.10	0.8130	46	9	sand
20.220	246.07	0.7802	39	10	gravelly sand to sand
20.284	262.27	0.8386	42	10	gravelly sand to sand
20.366	271.04	0.7795	43	10	gravelly sand to sand
20.438	283.09	0.7856	45	10	gravelly sand to sand
20.498	301.98	1.0759	48	10	gravelly sand to sand
20.541	314.01	1.0494	50	10	gravelly sand to sand
20.647	316.92	0.9886	51	10	gravelly sand to sand

SOUNDING

TOTAL DEPTH: 22.115 ft
SITE: B-320 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
20.684	323.34	1.1104	52	10	gravelly sand to sand
20.740	317.96	1.1213	51	10	gravelly sand to sand
20.802	319.08	1.0641	51	10	gravelly sand to sand
20.887	327.20	1.0822	52	10	gravelly sand to sand
20.950	317.95	1.3025	51	10	gravelly sand to sand
20.998	314.36	1.3330	50	10	gravelly sand to sand
21.074	307.83	1.2164	49	10	gravelly sand to sand
21.148	292.20	1.0528	47	10	gravelly sand to sand
21.203	286.46	1.0231	46	10	gravelly sand to sand
21.260	276.68	1.0103	44	10	gravelly sand to sand
21.347	244.64	0.7834	39	10	gravelly sand to sand
21.403	233.15	0.7855	45	9	sand
21.471	232.48	0.8311	45	9	sand
21.533	223.27	1.0947	43	9	sand
21.606	224.49	1.1750	43	9	sand
21.657	227.87	1.4172	44	9	sand
21.731	246.20	2.0068	47	9	sand
21.798	268.58	2.1455	51	9	sand
21.860	300.00	0.0000	0	0	<out of range>
21.919	340.26	0.0000	0	0	<out of range>
22.008	352.95	0.0000	0	0	<out of range>
22.052	368.13	0.0000	0	0	<out of range>
22.115	382.86	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 19.622 ft
 SITE: B-326

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0000	0	0	<out of range>
0.077	4.76	0.0000	0	0	<out of range>
0.146	6.46	0.0000	0	0	<out of range>
0.219	9.06	0.0240	4	1	sensitive fine grained
0.272	11.55	0.0634	4	6	sandy silt to clayey silt
0.369	17.10	0.1406	7	6	sandy silt to clayey silt
0.409	18.91	0.1701	7	6	sandy silt to clayey silt
0.463	22.76	0.1984	9	6	sandy silt to clayey silt
0.529	24.56	0.2375	9	6	sandy silt to clayey silt
0.597	25.01	0.2829	10	6	sandy silt to clayey silt
0.667	23.43	0.3126	9	6	sandy silt to clayey silt
0.729	19.01	0.3629	7	6	sandy silt to clayey silt
0.795	17.31	0.4326	8	5	clayey silt to silty clay
0.858	15.28	0.4887	10	4	silty clay to clay
0.941	14.60	0.5495	9	4	silty clay to clay
0.994	14.03	0.5895	13	3	clay
1.065	14.53	0.6553	14	3	clay
1.136	14.49	0.7210	14	3	clay
1.185	14.46	0.6374	14	3	clay
1.258	15.80	0.7603	15	3	clay
1.317	17.04	1.2314	16	3	clay
1.378	20.32	1.5031	19	3	clay
1.452	42.01	1.4947	20	5	clayey silt to silty clay
1.522	50.28	1.5657	19	6	sandy silt to clayey silt
1.595	40.09	1.7616	26	4	silty clay to clay
1.659	39.92	1.6985	25	4	silty clay to clay
1.715	39.75	1.5358	19	5	clayey silt to silty clay
1.786	42.69	1.1782	16	6	sandy silt to clayey silt
1.858	36.80	1.0325	14	6	sandy silt to clayey silt
1.910	36.58	1.0196	14	6	sandy silt to clayey silt
1.984	37.48	1.0027	14	6	sandy silt to clayey silt
2.051	40.77	1.0075	16	6	sandy silt to clayey silt
2.103	40.94	1.0125	16	6	sandy silt to clayey silt
2.196	41.11	1.2272	16	6	sandy silt to clayey silt
2.246	46.09	1.0873	18	6	sandy silt to clayey silt
2.304	53.91	0.9305	17	7	silty sand to sandy silt
2.368	53.80	0.7987	17	7	silty sand to sandy silt
2.431	43.38	0.7713	14	7	silty sand to sandy silt
2.503	42.92	0.8142	16	6	sandy silt to clayey silt
2.565	42.87	0.6093	14	7	silty sand to sandy silt
2.627	42.87	0.4040	14	7	silty sand to sandy silt
2.695	42.81	0.3232	14	7	silty sand to sandy silt
2.776	39.42	0.2656	13	7	silty sand to sandy silt
2.828	39.52	0.2475	13	7	silty sand to sandy silt
2.902	38.85	0.1891	12	7	silty sand to sandy silt
2.958	38.28	0.1478	12	7	silty sand to sandy silt
3.028	36.70	0.1223	12	7	silty sand to sandy silt
3.094	35.34	0.1145	11	7	silty sand to sandy silt
3.161	33.30	0.1031	11	7	silty sand to sandy silt
3.216	31.94	0.0930	10	7	silty sand to sandy silt
3.299	30.24	0.0595	10	7	silty sand to sandy silt
3.355	29.11	0.0486	9	7	silty sand to sandy silt
3.434	26.85	0.0492	9	7	silty sand to sandy silt
3.489	25.48	0.0437	8	7	silty sand to sandy silt
3.547	23.67	0.0398	8	7	silty sand to sandy silt
3.615	22.54	0.0398	7	7	silty sand to sandy silt
3.694	22.54	0.0398	7	7	silty sand to sandy silt
3.745	22.54	0.0418	7	7	silty sand to sandy silt
3.816	23.22	0.0482	7	7	silty sand to sandy silt
3.885	24.35	0.0513	8	7	silty sand to sandy silt
3.940	26.17	0.0531	8	7	silty sand to sandy silt
4.026	28.55	0.0565	9	7	silty sand to sandy silt
4.073	29.68	0.0608	9	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 19.622 ft
SITE: B-326

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.146	32.05	0.0871	10	7	silty sand to sandy silt	
4.220	33.53	0.0944	11	7	silty sand to sandy silt	
4.274	35.34	0.1022	11	7	silty sand to sandy silt	
4.365	37.94	0.1178	12	7	silty sand to sandy silt	
4.411	38.85	0.1294	12	7	silty sand to sandy silt	
4.467	40.89	0.1444	10	8	sand to silty sand	
4.553	42.81	0.1512	10	8	sand to silty sand	
4.609	43.83	0.1817	10	8	sand to silty sand	
4.679	44.74	0.2010	11	8	sand to silty sand	
4.731	45.42	0.1990	11	8	sand to silty sand	
4.800	46.55	0.2020	11	8	sand to silty sand	
4.856	48.02	0.2071	11	8	sand to silty sand	
4.943	47.46	0.2175	11	8	sand to silty sand	
4.992	48.36	0.2158	12	8	sand to silty sand	
5.088	49.49	0.1840	12	8	sand to silty sand	
5.119	49.95	0.1850	12	8	sand to silty sand	
5.184	50.85	0.1907	12	8	sand to silty sand	
5.260	51.98	0.1924	12	8	sand to silty sand	
5.332	53.23	0.1992	13	8	sand to silty sand	
5.386	54.70	0.2050	13	8	sand to silty sand	
5.475	57.42	0.2194	14	8	sand to silty sand	
5.530	60.02	0.2355	14	8	sand to silty sand	
5.578	62.18	0.2521	15	8	sand to silty sand	
5.656	63.87	0.2701	15	8	sand to silty sand	
5.715	65.80	0.2832	16	8	sand to silty sand	
5.801	67.72	0.3029	16	8	sand to silty sand	
5.856	68.52	0.3125	16	8	sand to silty sand	
5.911	69.08	0.3229	17	8	sand to silty sand	
5.979	69.20	0.3375	17	8	sand to silty sand	
6.044	69.42	0.3444	17	8	sand to silty sand	
6.112	70.78	0.3534	17	8	sand to silty sand	
6.191	71.12	0.3593	17	8	sand to silty sand	
6.247	72.82	0.3647	17	8	sand to silty sand	
6.319	72.82	0.3692	17	8	sand to silty sand	
6.388	72.82	0.3694	17	8	sand to silty sand	
6.437	73.50	0.3691	18	8	sand to silty sand	
6.524	73.95	0.3717	18	8	sand to silty sand	
6.579	74.97	0.3604	18	8	sand to silty sand	
6.629	76.67	0.3577	18	8	sand to silty sand	
6.700	79.05	0.3816	19	8	sand to silty sand	
6.772	78.83	0.3954	19	8	sand to silty sand	
6.826	75.32	0.3980	18	8	sand to silty sand	
6.908	77.69	0.4063	19	8	sand to silty sand	
6.970	76.79	0.4117	18	8	sand to silty sand	
7.049	75.88	0.4096	18	8	sand to silty sand	
7.088	75.43	0.4066	18	8	sand to silty sand	
7.154	74.29	0.3960	18	8	sand to silty sand	
7.241	71.24	0.3790	17	8	sand to silty sand	
7.307	68.86	0.3633	16	8	sand to silty sand	
7.362	66.48	0.3469	16	8	sand to silty sand	
7.430	64.67	0.3288	15	8	sand to silty sand	
7.496	63.76	0.3169	15	8	sand to silty sand	
7.550	63.65	0.3078	15	8	sand to silty sand	
7.615	63.99	0.2971	15	8	sand to silty sand	
7.695	64.33	0.2907	15	8	sand to silty sand	
7.743	64.90	0.2922	16	8	sand to silty sand	
7.831	65.80	0.2960	16	8	sand to silty sand	
7.889	66.59	0.2991	16	8	sand to silty sand	
7.946	67.16	0.3085	16	8	sand to silty sand	
8.010	67.61	0.3171	16	8	sand to silty sand	
8.079	68.07	0.3234	16	8	sand to silty sand	
8.170	67.61	0.3349	16	8	sand to silty sand	
8.222	66.71	0.3418	16	8	sand to silty sand	

SOUNDING

TOTAL DEPTH: 19.622 ft
SITE: B-326

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.276	66.03	0.3495	16	8	sand to silty	sand
8.345	66.82	0.3607	16	8	sand to silty	sand
8.415	65.69	0.3680	16	8	sand to silty	sand
8.490	66.94	0.3799	16	8	sand to silty	sand
8.555	68.98	0.4014	17	8	sand to silty	sand
8.610	73.05	0.4226	17	8	sand to silty	sand
8.671	77.58	0.4498	19	8	sand to silty	sand
8.733	81.55	0.4760	20	8	sand to silty	sand
8.800	84.83	0.5008	20	8	sand to silty	sand
8.876	88.01	0.5286	21	8	sand to silty	sand
8.942	89.14	0.5547	21	8	sand to silty	sand
8.990	91.52	0.5774	22	8	sand to silty	sand
9.086	96.84	0.6145	23	8	sand to silty	sand
9.124	98.88	0.6229	24	8	sand to silty	sand
9.206	100.24	0.6340	24	8	sand to silty	sand
9.267	99.79	0.6484	24	8	sand to silty	sand
9.331	101.26	0.6646	24	8	sand to silty	sand
9.405	108.05	0.6813	26	8	sand to silty	sand
9.453	111.22	0.6977	27	8	sand to silty	sand
9.524	113.72	0.7266	27	8	sand to silty	sand
9.611	114.29	0.7682	27	8	sand to silty	sand
9.667	114.85	0.7781	27	8	sand to silty	sand
9.720	113.72	0.7348	27	8	sand to silty	sand
9.812	108.85	0.6845	26	8	sand to silty	sand
9.844	105.79	0.6918	25	8	sand to silty	sand
9.908	101.03	0.6977	24	8	sand to silty	sand
9.980	97.07	0.6944	23	8	sand to silty	sand
10.065	88.35	0.6756	21	8	sand to silty	sand
10.115	88.46	0.6610	21	8	sand to silty	sand
10.181	86.31	0.6389	21	8	sand to silty	sand
10.260	84.95	0.6213	20	8	sand to silty	sand
10.307	85.06	0.6154	20	8	sand to silty	sand
10.404	85.74	0.6150	21	8	sand to silty	sand
10.433	85.97	0.6164	21	8	sand to silty	sand
10.516	86.43	0.6153	21	8	sand to silty	sand
10.585	85.86	0.6062	21	8	sand to silty	sand
10.640	86.25	0.5981	21	8	sand to silty	sand
10.704	86.08	0.5920	21	8	sand to silty	sand
10.771	84.05	0.5913	20	8	sand to silty	sand
10.831	86.31	0.5944	21	8	sand to silty	sand
10.919	90.39	0.6133	22	8	sand to silty	sand
10.979	92.43	0.6270	22	8	sand to silty	sand
11.028	93.22	0.6349	22	8	sand to silty	sand
11.107	93.11	0.6552	22	8	sand to silty	sand
11.169	93.45	0.6744	22	8	sand to silty	sand
11.252	97.64	0.6924	23	8	sand to silty	sand
11.287	100.36	0.6962	24	8	sand to silty	sand
11.362	101.16	0.7017	24	8	sand to silty	sand
11.436	98.55	0.7068	24	8	sand to silty	sand
11.504	97.42	0.7109	23	8	sand to silty	sand
11.551	98.32	0.7137	24	8	sand to silty	sand
11.619	103.08	0.7230	25	8	sand to silty	sand
11.687	105.69	0.7365	25	8	sand to silty	sand
11.747	106.48	0.7466	25	8	sand to silty	sand
11.840	104.66	0.7501	25	8	sand to silty	sand
11.894	101.60	0.7442	24	8	sand to silty	sand
11.944	97.98	0.7340	23	8	sand to silty	sand
12.011	93.90	0.7154	22	8	sand to silty	sand
12.080	90.39	0.6915	22	8	sand to silty	sand
12.157	88.47	0.6758	21	8	sand to silty	sand
12.205	88.58	0.6661	21	8	sand to silty	sand
12.274	89.26	0.6544	21	8	sand to silty	sand
12.375	85.75	0.6425	21	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 19.622 ft
SITE: B-326

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.405	83.26	0.6357	20	8	sand to silty	sand
12.473	79.98	0.6179	19	8	sand to silty	sand
12.544	76.58	0.5950	18	8	sand to silty	sand
12.615	74.66	0.5784	18	8	sand to silty	sand
12.665	73.64	0.5712	18	8	sand to silty	sand
12.730	72.62	0.5641	17	8	sand to silty	sand
12.806	72.17	0.5629	17	8	sand to silty	sand
12.865	72.13	0.5638	17	8	sand to silty	sand
12.939	72.11	0.4779	17	8	sand to silty	sand
12.992	72.08	0.4202	17	8	sand to silty	sand
13.064	72.05	0.4659	17	8	sand to silty	sand
13.144	73.97	0.5012	18	8	sand to silty	sand
13.191	76.13	0.5187	18	8	sand to silty	sand
13.269	76.63	0.5385	18	8	sand to silty	sand
13.339	78.04	0.5489	19	8	sand to silty	sand
13.398	77.14	0.5554	18	8	sand to silty	sand
13.481	75.78	0.5602	18	8	sand to silty	sand
13.527	75.21	0.5613	18	8	sand to silty	sand
13.590	74.87	0.5641	18	8	sand to silty	sand
13.676	75.55	0.5686	18	8	sand to silty	sand
13.733	76.91	0.5700	18	8	sand to silty	sand
13.785	79.07	0.5740	19	8	sand to silty	sand
13.859	82.35	0.5944	20	8	sand to silty	sand
13.925	87.34	0.6296	21	8	sand to silty	sand
13.979	93.91	0.6637	22	8	sand to silty	sand
14.050	101.61	0.7042	24	8	sand to silty	sand
14.120	108.40	0.7170	26	8	sand to silty	sand
14.191	113.95	0.7481	27	8	sand to silty	sand
14.267	120.74	0.8255	29	8	sand to silty	sand
14.316	133.10	0.8834	25	9	sand	
14.379	146.68	0.9682	28	9	sand	
14.454	154.61	1.0844	30	9	sand	
14.509	156.88	1.1728	30	9	sand	
14.594	155.30	1.3114	30	9	sand	
14.653	152.58	1.3849	29	9	sand	
14.699	151.11	1.4432	36	8	sand to silty	sand
14.777	150.43	1.5392	36	8	sand to silty	sand
14.843	149.30	1.6175	36	8	sand to silty	sand
14.900	147.48	1.6941	35	8	sand to silty	sand
14.967	145.33	1.7455	35	8	sand to silty	sand
15.039	141.82	1.7717	34	8	sand to silty	sand
15.114	138.19	1.7907	33	8	sand to silty	sand
15.178	133.44	1.7768	32	8	sand to silty	sand
15.230	128.79	1.7592	31	8	sand to silty	sand
15.321	122.57	1.6605	29	8	sand to silty	sand
15.360	120.76	1.5822	29	8	sand to silty	sand
15.421	122.80	1.4298	29	8	sand to silty	sand
15.496	132.54	1.3330	32	8	sand to silty	sand
15.566	139.00	1.2835	33	8	sand to silty	sand
15.642	146.58	1.2483	28	9	sand	
15.711	149.64	1.1640	29	9	sand	
15.759	151.11	1.1272	29	9	sand	
15.818	153.94	1.1098	29	9	sand	
15.892	155.75	1.0628	30	9	sand	
15.951	157.79	1.0004	30	9	sand	
16.026	160.95	0.9201	31	9	sand	
16.095	159.48	0.8768	31	9	sand	
16.153	155.29	0.8475	30	9	sand	
16.212	150.42	0.8231	29	9	sand	
16.282	148.28	0.7750	28	9	sand	
16.340	146.92	0.7489	28	9	sand	
16.422	145.23	0.8618	28	9	sand	
16.481	145.58	0.9418	28	9	sand	

SOUNDING

TOTAL DEPTH: 19.622 ft
SITE: B-326

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
16.542	140.90	0.9821	27	9	sand	
16.615	156.08	0.9871	30	9	sand	
16.683	162.99	0.9879	31	9	sand	
16.738	169.67	0.9973	32	9	sand	
16.800	173.87	1.0336	33	9	sand	
16.867	178.74	1.0858	34	9	sand	
16.929	185.31	1.1301	35	9	sand	
17.014	194.82	1.2282	37	9	sand	
17.073	199.81	1.3042	38	9	sand	
17.129	203.21	1.3682	39	9	sand	
17.209	203.32	1.4572	39	9	sand	
17.268	200.72	1.5200	38	9	sand	
17.324	199.48	1.5642	38	9	sand	
17.392	197.21	1.5975	38	9	sand	
17.459	194.16	1.6278	37	9	sand	
17.538	191.21	1.6837	37	9	sand	
17.604	191.38	1.6761	37	9	sand	
17.651	191.38	1.7178	37	9	sand	
17.732	191.55	2.1695	37	9	sand	
17.796	197.55	2.5751	47	8	sand to silty sand	
17.848	205.60	2.5973	39	9	sand	
17.922	214.08	2.4150	41	9	sand	
17.986	224.85	2.4046	43	9	sand	
18.067	219.41	2.4139	42	9	sand	
18.132	229.26	2.3407	44	9	sand	
18.182	236.17	2.2608	45	9	sand	
18.253	249.54	2.1911	48	9	sand	
18.321	257.58	2.1924	49	9	sand	
18.373	263.92	2.1928	51	9	sand	
18.469	267.74	2.5837	51	9	sand	
18.511	260.74	2.8971	50	9	sand	
18.571	236.78	2.9344	45	9	sand	
18.661	236.02	2.9476	45	9	sand	
18.710	237.66	2.9453	46	9	sand	
18.806	237.32	2.9395	45	9	sand	
18.836	238.60	3.1250	46	9	sand	
18.899	236.62	3.2421	57	8	sand to silty sand	
18.987	201.49	3.4243	48	8	sand to silty sand	
19.029	165.93	3.6778	53	7	silty sand to sandy silt	
19.112	113.38	4.0680	43	6	sandy silt to clayey silt	
19.162	99.61	4.0739	48	5	clayey silt to silty clay	
19.228	93.99	3.9122	45	5	clayey silt to silty clay	
19.297	100.48	3.3255	38	6	sandy silt to clayey silt	
19.361	100.93	0.0000	0	0	<out of range>	
19.424	101.42	0.0000	0	0	<out of range>	
19.511	264.73	0.0000	0	0	<out of range>	
19.576	253.25	0.0000	0	0	<out of range>	
19.622	371.50	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 16.930 ft
SITE: B-326 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0338	0	0	<out of range>
0.071	6.94	0.0604	3	1	sensitive fine grained
0.140	7.50	0.0896	4	5	clayey silt to silty clay
0.211	7.26	0.1140	3	5	clayey silt to silty clay
0.277	7.25	0.1318	5	4	silty clay to clay
0.334	7.25	0.1451	5	4	silty clay to clay
0.409	7.24	0.1550	5	4	silty clay to clay
0.478	7.12	0.1614	5	4	silty clay to clay
0.530	6.79	0.1744	4	4	silty clay to clay
0.607	6.56	0.2097	6	3	clay
0.668	7.94	0.2256	5	4	silty clay to clay
0.740	11.88	0.2357	6	5	clayey silt to silty clay
0.808	14.60	0.2583	7	5	clayey silt to silty clay
0.865	14.38	0.2818	7	5	clayey silt to silty clay
0.938	14.55	0.3441	7	5	clayey silt to silty clay
1.004	14.49	0.3837	7	5	clayey silt to silty clay
1.054	16.19	0.4037	8	5	clayey silt to silty clay
1.139	20.26	0.3915	8	6	sandy silt to clayey silt
1.190	25.24	0.4555	10	6	sandy silt to clayey silt
1.248	31.03	0.7794	12	6	sandy silt to clayey silt
1.334	38.61	0.6446	15	6	sandy silt to clayey silt
1.391	44.73	0.6513	14	7	silty sand to sandy silt
1.471	36.40	0.6877	14	6	sandy silt to clayey silt
1.535	27.54	0.7456	13	5	clayey silt to silty clay
1.588	31.15	0.7292	12	6	sandy silt to clayey silt
1.642	31.82	0.6956	12	6	sandy silt to clayey silt
1.726	31.20	0.6562	12	6	sandy silt to clayey silt
1.778	31.25	0.6535	12	6	sandy silt to clayey silt
1.839	36.24	0.6322	14	6	sandy silt to clayey silt
1.922	44.63	0.6135	14	7	silty sand to sandy silt
1.997	41.90	0.6241	13	7	silty sand to sandy silt
2.061	36.80	0.8156	14	6	sandy silt to clayey silt
2.102	33.52	0.9905	16	5	clayey silt to silty clay
2.180	29.90	1.1822	19	4	silty clay to clay
2.234	27.74	1.1768	18	4	silty clay to clay
2.304	26.95	1.1244	17	4	silty clay to clay
2.369	65.56	0.9922	21	7	silty sand to sandy silt
2.428	81.83	0.9554	20	8	sand to silty sand
2.494	99.71	1.3316	24	8	sand to silty sand
2.594	110.69	1.5202	26	8	sand to silty sand
2.639	106.28	1.6778	34	7	silty sand to sandy silt
2.706	71.43	1.7852	27	6	sandy silt to clayey silt
2.773	52.76	1.8405	25	5	clayey silt to silty clay
2.830	48.23	1.9499	23	5	clayey silt to silty clay
2.906	29.58	1.8929	28	3	clay
2.967	28.56	1.6116	27	3	clay
3.027	34.34	1.3203	16	5	clayey silt to silty clay
3.102	40.79	0.9403	16	6	sandy silt to clayey silt
3.161	43.05	0.8471	16	6	sandy silt to clayey silt
3.217	39.43	0.7847	15	6	sandy silt to clayey silt
3.318	37.73	0.6017	14	6	sandy silt to clayey silt
3.361	36.35	0.6008	14	6	sandy silt to clayey silt
3.413	33.86	0.5997	13	6	sandy silt to clayey silt
3.490	31.93	0.5976	12	6	sandy silt to clayey silt
3.553	31.37	0.5958	12	6	sandy silt to clayey silt
3.612	31.73	0.6322	12	6	sandy silt to clayey silt
3.696	31.55	0.6978	12	6	sandy silt to clayey silt
3.757	30.69	0.6993	12	6	sandy silt to clayey silt
3.818	31.71	0.6735	12	6	sandy silt to clayey silt
3.872	32.39	0.6544	12	6	sandy silt to clayey silt
3.946	36.25	0.6201	14	6	sandy silt to clayey silt
4.022	49.05	0.5743	16	7	silty sand to sandy silt
4.089	62.28	0.5427	15	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 16.930 ft
SITE: B-326 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.141	70.08	0.5217	17	8	sand to silty	sand
4.208	78.91	0.4989	19	8	sand to silty	sand
4.286	86.37	0.4856	21	8	sand to silty	sand
4.334	92.60	0.4886	22	8	sand to silty	sand
4.404	97.82	0.5201	23	8	sand to silty	sand
4.465	102.80	0.5537	25	8	sand to silty	sand
4.545	108.45	0.5936	26	8	sand to silty	sand
4.615	111.17	0.6279	21	9	sand	
4.669	114.23	0.6550	22	9	sand	
4.733	118.20	0.6839	23	9	sand	
4.817	122.27	0.7068	23	9	sand	
4.859	124.08	0.7234	24	9	sand	
4.944	127.60	0.7609	24	9	sand	
5.005	129.86	0.7800	25	9	sand	
5.053	130.99	0.7910	25	9	sand	
5.130	132.69	0.8100	25	9	sand	
5.194	134.16	0.8243	26	9	sand	
5.273	135.29	0.8368	26	9	sand	
5.340	135.86	0.8433	26	9	sand	
5.383	135.86	0.8462	26	9	sand	
5.485	137.79	0.8580	26	9	sand	
5.519	138.24	0.8781	26	9	sand	
5.579	139.72	0.9020	27	9	sand	
5.660	142.32	0.9029	27	9	sand	
5.726	144.24	0.8882	28	9	sand	
5.783	144.59	0.8746	28	9	sand	
5.841	144.26	0.8648	28	9	sand	
5.912	144.26	0.8569	28	9	sand	
5.982	143.24	0.8396	27	9	sand	
6.052	141.42	0.8235	27	9	sand	
6.113	138.93	0.8205	27	9	sand	
6.199	135.76	0.8207	26	9	sand	
6.256	133.05	0.8192	25	9	sand	
6.308	131.69	0.8106	25	9	sand	
6.372	129.54	0.7977	25	9	sand	
6.444	128.18	0.6935	25	9	sand	
6.502	126.25	0.6236	24	9	sand	
6.566	125.01	0.6707	24	9	sand	
6.640	123.09	0.6914	24	9	sand	
6.698	120.82	0.6985	23	9	sand	
6.774	105.07	0.7150	25	8	sand to silty	sand
6.844	114.81	0.7283	27	8	sand to silty	sand
6.899	114.01	0.7401	27	8	sand to silty	sand
6.963	112.77	0.7385	27	8	sand to silty	sand
7.032	111.40	0.7159	27	8	sand to silty	sand
7.093	109.26	0.6876	26	8	sand to silty	sand
7.178	104.28	0.6381	25	8	sand to silty	sand
7.219	102.71	0.6163	25	8	sand to silty	sand
7.292	100.55	0.5669	24	8	sand to silty	sand
7.366	98.61	0.5234	24	8	sand to silty	sand
7.426	96.91	0.4995	23	8	sand to silty	sand
7.525	94.88	0.5363	23	8	sand to silty	sand
7.555	94.20	0.5483	23	8	sand to silty	sand
7.623	92.72	0.5603	22	8	sand to silty	sand
7.699	90.12	0.5634	22	8	sand to silty	sand
7.762	87.18	0.5582	21	8	sand to silty	sand
7.817	84.13	0.5495	20	8	sand to silty	sand
7.885	82.88	0.5401	20	8	sand to silty	sand
7.954	81.64	0.5210	20	8	sand to silty	sand
8.010	79.26	0.4996	19	8	sand to silty	sand
8.077	76.65	0.4754	18	8	sand to silty	sand
8.147	73.48	0.4578	18	8	sand to silty	sand
8.207	68.16	0.4435	16	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 16.930 ft
SITE: B-326 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.290	60.12	0.4200	14	8	sand to silty sand
8.334	56.39	0.4073	13	8	sand to silty sand
8.402	50.61	0.3811	16	7	silty sand to sandy silt
8.476	46.54	0.3518	15	7	silty sand to sandy silt
8.533	43.25	0.3354	14	7	silty sand to sandy silt
8.622	39.52	0.3126	13	7	silty sand to sandy silt
8.679	37.25	0.2994	12	7	silty sand to sandy silt
8.735	35.44	0.2862	11	7	silty sand to sandy silt
8.804	33.97	0.2708	11	7	silty sand to sandy silt
8.870	34.03	0.2624	11	7	silty sand to sandy silt
8.946	34.03	0.2493	11	7	silty sand to sandy silt
9.013	34.08	0.2401	11	7	silty sand to sandy silt
9.066	35.44	0.2338	11	7	silty sand to sandy silt
9.126	36.23	0.2212	12	7	silty sand to sandy silt
9.209	35.21	0.1953	11	7	silty sand to sandy silt
9.261	32.83	0.1809	10	7	silty sand to sandy silt
9.335	30.11	0.1604	10	7	silty sand to sandy silt
9.401	27.97	0.1474	9	7	silty sand to sandy silt
9.452	26.38	0.1387	8	7	silty sand to sandy silt
9.547	25.02	0.1319	8	7	silty sand to sandy silt
9.592	24.34	0.1318	8	7	silty sand to sandy silt
9.657	24.34	0.1313	8	7	silty sand to sandy silt
9.732	24.34	0.1220	8	7	silty sand to sandy silt
9.789	24.34	0.1308	8	7	silty sand to sandy silt
9.854	26.16	0.1660	8	7	silty sand to sandy silt
9.916	27.97	0.1934	9	7	silty sand to sandy silt
9.980	30.80	0.2055	10	7	silty sand to sandy silt
10.041	30.68	0.2094	10	7	silty sand to sandy silt
10.109	35.44	0.2145	11	7	silty sand to sandy silt
10.178	35.21	0.2111	11	7	silty sand to sandy silt
10.275	36.12	0.2216	12	7	silty sand to sandy silt
10.323	36.00	0.2227	11	7	silty sand to sandy silt
10.377	35.09	0.2198	11	7	silty sand to sandy silt
10.445	33.73	0.2213	11	7	silty sand to sandy silt
10.520	32.48	0.2276	10	7	silty sand to sandy silt
10.572	31.47	0.2320	10	7	silty sand to sandy silt
10.637	30.67	0.2409	10	7	silty sand to sandy silt
10.701	30.33	0.2513	10	7	silty sand to sandy silt
10.762	30.33	0.2592	10	7	silty sand to sandy silt
10.853	31.24	0.2721	10	7	silty sand to sandy silt
10.908	33.05	0.2792	11	7	silty sand to sandy silt
10.990	36.56	0.2847	12	7	silty sand to sandy silt
11.025	38.60	0.2946	12	7	silty sand to sandy silt
11.095	41.66	0.3153	13	7	silty sand to sandy silt
11.172	45.62	0.3337	15	7	silty sand to sandy silt
11.236	48.68	0.3523	16	7	silty sand to sandy silt
11.291	50.49	0.3725	16	7	silty sand to sandy silt
11.361	55.01	0.4134	13	8	sand to silty sand
11.428	59.31	0.4421	14	8	sand to silty sand
11.486	63.50	0.4633	15	8	sand to silty sand
11.579	66.11	0.4936	16	8	sand to silty sand
11.625	67.81	0.5139	16	8	sand to silty sand
11.695	70.42	0.5505	17	8	sand to silty sand
11.754	73.93	0.5734	18	8	sand to silty sand
11.820	77.32	0.5975	19	8	sand to silty sand
11.898	80.38	0.6361	19	8	sand to silty sand
11.961	82.64	0.6703	20	8	sand to silty sand
12.011	84.68	0.6936	20	8	sand to silty sand
12.081	86.27	0.7201	21	8	sand to silty sand
12.152	87.96	0.7529	21	8	sand to silty sand
12.226	91.93	0.8298	22	8	sand to silty sand
12.289	97.59	0.9145	23	8	sand to silty sand
12.347	106.65	0.9641	26	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 16.930 ft
SITE: B-326 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.431	121.37	1.0244	29	8	sand to silty	sand
12.491	127.38	1.0880	30	8	sand to silty	sand
12.540	127.96	1.1421	31	8	sand to silty	sand
12.610	130.68	1.2088	31	8	sand to silty	sand
12.684	131.91	1.2305	32	8	sand to silty	sand
12.733	132.93	1.2199	32	8	sand to silty	sand
12.820	136.33	1.2737	33	8	sand to silty	sand
12.878	141.87	1.3141	34	8	sand to silty	sand
12.951	147.42	1.3229	28	9	sand	
13.022	148.90	1.3173	29	9	sand	
13.066	149.35	1.2755	29	9	sand	
13.136	147.65	1.2616	28	9	sand	
13.193	147.42	1.3217	28	9	sand	
13.277	139.49	1.3523	33	8	sand to silty	sand
13.329	142.99	1.3418	34	8	sand to silty	sand
13.402	143.79	1.3611	34	8	sand to silty	sand
13.464	144.35	1.3814	35	8	sand to silty	sand
13.553	145.15	1.4060	35	8	sand to silty	sand
13.592	145.61	1.4121	35	8	sand to silty	sand
13.655	146.51	1.4256	35	8	sand to silty	sand
13.738	147.64	1.4730	35	8	sand to silty	sand
13.804	146.06	1.5160	35	8	sand to silty	sand
13.846	144.81	1.5384	35	8	sand to silty	sand
13.918	142.32	1.5685	34	8	sand to silty	sand
13.992	139.49	1.5914	33	8	sand to silty	sand
14.048	137.12	1.6171	33	8	sand to silty	sand
14.118	135.19	1.6534	32	8	sand to silty	sand
14.184	135.30	1.6411	32	8	sand to silty	sand
14.256	133.28	1.6336	32	8	sand to silty	sand
14.334	130.90	1.6180	31	8	sand to silty	sand
14.386	129.31	1.6003	31	8	sand to silty	sand
14.449	130.44	1.5763	31	8	sand to silty	sand
14.525	131.68	1.5573	32	8	sand to silty	sand
14.575	131.57	1.5400	31	8	sand to silty	sand
14.669	129.52	1.4727	31	8	sand to silty	sand
14.709	126.92	1.4396	30	8	sand to silty	sand
14.765	123.18	1.4178	29	8	sand to silty	sand
14.849	117.64	1.4256	28	8	sand to silty	sand
14.909	113.79	1.4297	27	8	sand to silty	sand
14.971	110.28	1.4348	26	8	sand to silty	sand
15.034	107.23	1.4496	26	8	sand to silty	sand
15.099	104.06	1.4660	25	8	sand to silty	sand
15.184	99.41	1.4461	24	8	sand to silty	sand
15.249	99.36	1.3346	24	8	sand to silty	sand
15.289	99.30	1.2609	24	8	sand to silty	sand
15.363	110.86	1.1934	27	8	sand to silty	sand
15.427	120.25	1.1934	29	8	sand to silty	sand
15.491	126.01	1.1934	30	8	sand to silty	sand
15.563	135.75	2.3917	43	7	silty sand to sandy silt	
15.626	142.54	4.2233	55	6	sandy silt to clayey silt	
15.709	154.88	5.5534	59	6	sandy silt to clayey silt	
15.775	166.09	4.1959	53	7	silty sand to sandy silt	
15.819	175.37	3.0147	42	8	sand to silty	sand
15.896	266.32	2.2099	51	9	sand	
15.962	264.30	3.6650	63	8	sand to silty	sand
16.017	254.80	4.2933	61	8	sand to silty	sand
16.113	313.23	4.8741	75	8	sand to silty	sand
16.158	336.98	4.5718	65	9	sand	
16.213	168.44	4.1932	54	7	silty sand to sandy silt	
16.273	196.54	4.0893	63	7	silty sand to sandy silt	
16.353	236.47	3.4008	57	8	sand to silty	sand
16.422	223.61	3.5213	54	8	sand to silty	sand
16.476	231.72	3.6709	55	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 16.930 ft
SITE: B-326 Test Pit

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.544	239.87	3.3514	57	8	sand to silty sand
16.620	203.87	3.3618	49	8	sand to silty sand
16.674	180.10	0.0000	0	0	<out of range>
16.738	177.85	0.0000	0	0	<out of range>
16.818	184.28	0.0000	0	0	<out of range>
16.865	173.98	0.0000	0	0	<out of range>
16.930	167.98	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 12.413 ft
SITE: B-401

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.90	0.0998	0	0	<out of range>
0.072	1.69	0.1284	2	2	organic material
0.148	5.65	0.1765	5	3	clay
0.209	7.01	0.2242	7	3	clay
0.291	8.93	0.2763	6	4	silty clay to clay
0.329	9.72	0.2982	6	4	silty clay to clay
0.408	14.57	0.3425	7	5	clayey silt to silty clay
0.498	20.66	0.3675	8	6	sandy silt to clayey silt
0.525	21.78	0.3725	8	6	sandy silt to clayey silt
0.602	23.14	0.3876	9	6	sandy silt to clayey silt
0.671	24.49	0.3946	9	6	sandy silt to clayey silt
0.741	24.84	0.3923	10	6	sandy silt to clayey silt
0.793	24.28	0.3923	9	6	sandy silt to clayey silt
0.866	22.47	0.3923	9	6	sandy silt to clayey silt
0.941	17.62	0.3930	8	5	clayey silt to silty clay
0.988	15.71	0.3927	8	5	clayey silt to silty clay
1.082	12.34	0.3611	8	4	silty clay to clay
1.132	10.08	0.3402	6	4	silty clay to clay
1.202	9.07	0.3132	9	3	clay
1.277	8.51	0.2637	5	4	silty clay to clay
1.313	9.01	0.2336	6	4	silty clay to clay
1.394	8.99	0.1977	6	4	silty clay to clay
1.451	8.97	0.1798	4	5	clayey silt to silty clay
1.524	10.10	0.1512	5	5	clayey silt to silty clay
1.605	11.11	0.1507	5	5	clayey silt to silty clay
1.643	11.11	0.1550	5	5	clayey silt to silty clay
1.718	11.22	0.1564	5	5	clayey silt to silty clay
1.816	10.77	0.1543	5	5	clayey silt to silty clay
1.854	10.76	0.1641	5	5	clayey silt to silty clay
1.913	10.09	0.1774	5	5	clayey silt to silty clay
1.987	8.06	0.1688	5	4	silty clay to clay
2.034	7.26	0.1658	5	4	silty clay to clay
2.100	6.59	0.1648	4	4	silty clay to clay
2.204	5.35	0.1550	5	3	clay
2.238	5.58	0.1527	5	3	clay
2.304	5.70	0.1466	5	3	clay
2.367	6.05	0.1446	4	4	silty clay to clay
2.428	6.51	0.1540	4	4	silty clay to clay
2.499	6.86	0.1672	4	4	silty clay to clay
2.573	7.43	0.1887	5	4	silty clay to clay
2.636	8.22	0.2186	5	4	silty clay to clay
2.696	9.02	0.2550	6	4	silty clay to clay
2.759	10.04	0.3011	6	4	silty clay to clay
2.830	10.83	0.3490	7	4	silty clay to clay
2.906	11.95	0.3848	8	4	silty clay to clay
2.977	12.85	0.4238	8	4	silty clay to clay
3.032	14.54	0.4554	9	4	silty clay to clay
3.094	16.12	0.4792	8	5	clayey silt to silty clay
3.159	16.90	0.4684	8	5	clayey silt to silty clay
3.230	17.79	0.4431	9	5	clayey silt to silty clay
3.281	19.70	0.4238	9	5	clayey silt to silty clay
3.368	21.72	0.3447	8	6	sandy silt to clayey silt
3.425	22.51	0.2792	9	6	sandy silt to clayey silt
3.494	24.31	0.1926	8	7	silty sand to sandy silt
3.567	24.42	0.1292	8	7	silty sand to sandy silt
3.616	23.06	0.1162	7	7	silty sand to sandy silt
3.687	22.39	0.1050	7	7	silty sand to sandy silt
3.746	20.47	0.0973	7	7	silty sand to sandy silt
3.813	18.78	0.0973	7	6	sandy silt to clayey silt
3.874	14.46	0.0973	6	6	sandy silt to clayey silt
3.948	16.49	0.0990	6	6	sandy silt to clayey silt
4.019	15.81	0.0986	6	6	sandy silt to clayey silt
4.073	15.59	0.0970	6	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 12.413 ft
SITE: B-401

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.146	14.46	0.1021	6	6	sandy silt to clayey silt
4.216	14.46	0.1010	6	6	sandy silt to clayey silt
4.267	14.46	0.0956	6	6	sandy silt to clayey silt
4.344	14.46	0.0956	6	6	sandy silt to clayey silt
4.414	14.46	0.0956	6	6	sandy silt to clayey silt
4.464	14.46	0.1152	6	6	sandy silt to clayey silt
4.551	14.80	0.1372	6	6	sandy silt to clayey silt
4.600	15.36	0.1354	6	6	sandy silt to clayey silt
4.660	16.49	0.1363	6	6	sandy silt to clayey silt
4.727	17.84	0.1543	7	6	sandy silt to clayey silt
4.800	20.99	0.1813	8	6	sandy silt to clayey silt
4.877	20.88	0.1813	8	6	sandy silt to clayey silt
4.930	18.74	0.1768	7	6	sandy silt to clayey silt
4.995	18.17	0.1646	7	6	sandy silt to clayey silt
5.062	17.39	0.1463	7	6	sandy silt to clayey silt
5.129	16.94	0.1330	6	6	sandy silt to clayey silt
5.192	16.71	0.1327	6	6	sandy silt to clayey silt
5.251	16.37	0.1325	6	6	sandy silt to clayey silt
5.334	16.26	0.1427	6	6	sandy silt to clayey silt
5.390	16.49	0.1529	6	6	sandy silt to clayey silt
5.449	17.27	0.1566	7	6	sandy silt to clayey silt
5.528	19.30	0.1576	7	6	sandy silt to clayey silt
5.588	22.90	0.1589	7	7	silty sand to sandy silt
5.656	26.39	0.1608	8	7	silty sand to sandy silt
5.721	29.09	0.1649	9	7	silty sand to sandy silt
5.776	30.67	0.1727	10	7	silty sand to sandy silt
5.850	32.81	0.1758	10	7	silty sand to sandy silt
5.927	33.26	0.1857	11	7	silty sand to sandy silt
6.008	33.04	0.1907	11	7	silty sand to sandy silt
6.054	32.13	0.1893	10	7	silty sand to sandy silt
6.119	30.89	0.1841	10	7	silty sand to sandy silt
6.168	29.53	0.1793	9	7	silty sand to sandy silt
6.242	27.96	0.1695	9	7	silty sand to sandy silt
6.313	26.16	0.1564	8	7	silty sand to sandy silt
6.373	23.91	0.1454	8	7	silty sand to sandy silt
6.442	21.88	0.1287	7	7	silty sand to sandy silt
6.510	19.74	0.1160	8	6	sandy silt to clayey silt
6.568	17.60	0.1073	7	6	sandy silt to clayey silt
6.655	15.35	0.0989	6	6	sandy silt to clayey silt
6.697	14.22	0.0989	5	6	sandy silt to clayey silt
6.771	12.65	0.0989	5	6	sandy silt to clayey silt
6.849	11.75	0.0989	4	6	sandy silt to clayey silt
6.900	11.07	0.1023	4	6	sandy silt to clayey silt
6.968	10.73	0.1298	5	5	clayey silt to silty clay
7.037	11.52	0.1558	6	5	clayey silt to silty clay
7.094	12.53	0.1566	6	5	clayey silt to silty clay
7.169	14.44	0.1578	6	6	sandy silt to clayey silt
7.229	16.13	0.1469	6	6	sandy silt to clayey silt
7.299	18.27	0.1467	7	6	sandy silt to clayey silt
7.364	20.30	0.1783	8	6	sandy silt to clayey silt
7.416	19.17	0.2242	7	6	sandy silt to clayey silt
7.481	18.73	0.2691	7	6	sandy silt to clayey silt
7.549	21.32	0.3270	8	6	sandy silt to clayey silt
7.627	25.14	0.3749	10	6	sandy silt to clayey silt
7.707	30.55	0.3732	12	6	sandy silt to clayey silt
7.747	35.39	0.3717	11	7	silty sand to sandy silt
7.810	40.46	0.3604	13	7	silty sand to sandy silt
7.881	43.39	0.3671	14	7	silty sand to sandy silt
7.951	48.01	0.3494	15	7	silty sand to sandy silt
8.040	56.44	0.3286	14	8	sand to silty sand
8.076	61.51	0.3345	15	8	sand to silty sand
8.148	68.83	0.3700	16	8	sand to silty sand
8.213	77.73	0.4057	19	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 12.413 ft
SITE: B-401

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.282	84.82	0.4269	20	8	sand to silty	sand
8.341	88.31	0.4433	21	8	sand to silty	sand
8.402	91.23	0.4592	22	8	sand to silty	sand
8.485	89.88	0.4846	22	8	sand to silty	sand
8.542	88.86	0.4846	21	8	sand to silty	sand
8.608	87.85	0.4874	21	8	sand to silty	sand
8.682	87.85	0.4896	21	8	sand to silty	sand
8.743	87.62	0.4896	21	8	sand to silty	sand
8.805	88.64	0.4896	21	8	sand to silty	sand
8.867	89.32	0.4896	21	8	sand to silty	sand
8.929	90.55	0.4881	22	8	sand to silty	sand
9.025	90.56	0.4786	22	8	sand to silty	sand
9.061	90.44	0.4797	22	8	sand to silty	sand
9.121	91.56	0.4797	22	8	sand to silty	sand
9.218	91.23	0.4893	22	8	sand to silty	sand
9.272	92.47	0.5038	22	8	sand to silty	sand
9.344	93.82	0.4982	22	8	sand to silty	sand
9.403	93.93	0.4848	22	8	sand to silty	sand
9.451	94.94	0.4850	23	8	sand to silty	sand
9.535	95.51	0.4878	23	8	sand to silty	sand
9.602	96.86	0.4891	23	8	sand to silty	sand
9.659	97.42	0.4908	23	8	sand to silty	sand
9.720	99.23	0.4959	24	8	sand to silty	sand
9.801	101.81	0.5032	24	8	sand to silty	sand
9.854	104.18	0.5121	20	9	sand	
9.916	106.20	0.5296	20	9	sand	
9.988	108.34	0.5651	21	9	sand	
10.046	109.58	0.5693	21	9	sand	
10.123	114.20	0.6370	22	9	sand	
10.190	118.70	0.8206	28	8	sand to silty	sand
10.240	123.88	1.0146	30	8	sand to silty	sand
10.315	131.65	1.1801	32	8	sand to silty	sand
10.377	115.78	1.1468	28	8	sand to silty	sand
10.436	140.20	1.2273	34	8	sand to silty	sand
10.502	136.04	1.3853	33	8	sand to silty	sand
10.581	137.95	1.3873	33	8	sand to silty	sand
10.639	143.81	1.4371	34	8	sand to silty	sand
10.709	144.93	1.4885	35	8	sand to silty	sand
10.775	151.35	1.6317	36	8	sand to silty	sand
10.827	159.80	1.9007	38	8	sand to silty	sand
10.906	173.53	2.1014	42	8	sand to silty	sand
10.975	182.54	2.1491	44	8	sand to silty	sand
11.040	189.76	2.1392	36	9	sand	
11.113	179.63	2.0867	43	8	sand to silty	sand
11.172	178.95	1.9626	34	9	sand	
11.244	172.21	1.5775	33	9	sand	
11.288	170.85	1.3383	33	9	sand	
11.373	169.27	1.1498	32	9	sand	
11.450	167.47	1.0791	32	9	sand	
11.491	164.55	1.0701	32	9	sand	
11.559	161.84	1.0724	31	9	sand	
11.619	162.29	1.0807	31	9	sand	
11.694	165.33	1.0946	32	9	sand	
11.746	167.81	1.1293	32	9	sand	
11.821	176.25	1.1997	34	9	sand	
11.899	185.37	1.3306	36	9	sand	
11.949	197.64	1.3837	38	9	sand	
12.022	214.30	1.4681	41	9	sand	
12.090	235.92	1.6761	45	9	sand	
12.167	273.74	0.0000	0	0	<out of range>	
12.214	288.49	0.0000	0	0	<out of range>	
12.282	341.40	0.0000	0	0	<out of range>	
12.350	394.41	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 12.413 ft
SITE: B-401

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.413	420.64	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 11.949 ft
 SITE: B-402

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.48	0.0033	0	2	organic material
0.093	2.64	0.0044	1	1	sensitive fine grained
0.144	3.65	0.0144	2	1	sensitive fine grained
0.197	5.23	0.0357	3	1	sensitive fine grained
0.267	10.43	0.0839	4	6	sandy silt to clayey silt
0.342	15.74	0.1408	6	6	sandy silt to clayey silt
0.410	22.06	0.1765	8	6	sandy silt to clayey silt
0.475	24.88	0.2146	8	7	silty sand to sandy silt
0.539	22.41	0.2511	9	6	sandy silt to clayey silt
0.597	17.44	0.2757	7	6	sandy silt to clayey silt
0.662	14.72	0.2912	7	5	clayey silt to silty clay
0.734	12.12	0.2975	6	5	clayey silt to silty clay
0.791	11.22	0.2971	7	4	silty clay to clay
0.862	10.66	0.2967	7	4	silty clay to clay
0.930	10.43	0.2963	7	4	silty clay to clay
1.006	10.77	0.3776	10	3	clay
1.052	11.00	0.4401	11	3	clay
1.121	11.23	0.5196	11	3	clay
1.207	11.00	0.6199	11	3	clay
1.247	10.77	0.6509	10	3	clay
1.323	10.77	0.6909	10	3	clay
1.380	10.77	0.7191	10	3	clay
1.453	10.77	0.7540	10	3	clay
1.515	12.13	0.7718	12	3	clay
1.604	14.50	0.8198	14	3	clay
1.661	15.75	0.8528	15	3	clay
1.710	15.86	0.8713	15	3	clay
1.800	17.10	0.7762	16	3	clay
1.861	18.00	0.6610	11	4	silty clay to clay
1.907	18.34	0.5785	9	5	clayey silt to silty clay
1.995	20.71	0.4495	10	5	clayey silt to silty clay
2.052	21.95	0.3594	8	6	sandy silt to clayey silt
2.101	22.52	0.2792	9	6	sandy silt to clayey silt
2.182	22.97	0.2005	9	6	sandy silt to clayey silt
2.246	23.31	0.1385	7	7	silty sand to sandy silt
2.304	23.53	0.0940	8	7	silty sand to sandy silt
2.396	24.21	0.0701	8	7	silty sand to sandy silt
2.440	24.55	0.0658	8	7	silty sand to sandy silt
2.508	24.89	0.0612	8	7	silty sand to sandy silt
2.568	25.23	0.0592	8	7	silty sand to sandy silt
2.632	25.34	0.0538	8	7	silty sand to sandy silt
2.694	25.34	0.0503	8	7	silty sand to sandy silt
2.785	25.46	0.0513	8	7	silty sand to sandy silt
2.825	25.23	0.0513	8	7	silty sand to sandy silt
2.889	24.89	0.0513	8	7	silty sand to sandy silt
2.966	24.44	0.0533	8	7	silty sand to sandy silt
3.020	24.43	0.0552	8	7	silty sand to sandy silt
3.094	24.09	0.0570	8	7	silty sand to sandy silt
3.153	24.10	0.0579	8	7	silty sand to sandy silt
3.227	24.10	0.0599	8	7	silty sand to sandy silt
3.282	24.10	0.0506	8	7	silty sand to sandy silt
3.364	24.32	0.0369	8	7	silty sand to sandy silt
3.419	24.55	0.0380	8	7	silty sand to sandy silt
3.489	24.77	0.0379	8	7	silty sand to sandy silt
3.543	24.55	0.0359	8	7	silty sand to sandy silt
3.616	23.52	0.0347	8	7	silty sand to sandy silt
3.677	23.18	0.0327	7	7	silty sand to sandy silt
3.750	22.16	0.0298	7	7	silty sand to sandy silt
3.813	21.03	0.0284	7	7	silty sand to sandy silt
3.896	19.68	0.0241	6	7	silty sand to sandy silt
3.946	18.32	0.0258	6	7	silty sand to sandy silt
4.010	16.63	0.0363	6	6	sandy silt to clayey silt
4.087	15.72	0.0585	6	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 11.949 ft
SITE: B-402

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.137	15.27	0.0756	6	6	sandy silt to clayey silt
4.212	15.22	0.0759	6	6	sandy silt to clayey silt
4.266	14.71	0.0671	6	6	sandy silt to clayey silt
4.337	15.16	0.0662	6	6	sandy silt to clayey silt
4.428	16.17	0.0646	6	6	sandy silt to clayey silt
4.464	18.66	0.0608	6	7	silty sand to sandy silt
4.532	14.59	0.0670	6	6	sandy silt to clayey silt
4.594	14.48	0.0871	6	6	sandy silt to clayey silt
4.670	14.48	0.0864	6	6	sandy silt to clayey silt
4.728	14.37	0.0788	6	6	sandy silt to clayey silt
4.797	15.72	0.0673	6	6	sandy silt to clayey silt
4.874	12.11	0.0462	5	6	sandy silt to clayey silt
4.927	12.56	0.0387	5	6	sandy silt to clayey silt
4.998	13.13	0.0328	5	6	sandy silt to clayey silt
5.067	13.80	0.0152	5	6	sandy silt to clayey silt
5.122	14.03	0.0056	5	6	sandy silt to clayey silt
5.195	14.59	0.0066	6	6	sandy silt to clayey silt
5.260	14.82	0.0066	6	6	sandy silt to clayey silt
5.316	14.93	0.0072	6	6	sandy silt to clayey silt
5.391	14.71	0.0083	6	6	sandy silt to clayey silt
5.453	14.14	0.0085	5	6	sandy silt to clayey silt
5.515	13.35	0.0099	5	6	sandy silt to clayey silt
5.586	12.56	0.0099	5	6	sandy silt to clayey silt
5.657	11.54	0.0093	4	6	sandy silt to clayey silt
5.741	10.52	0.0055	4	6	sandy silt to clayey silt
5.783	10.19	0.0050	5	1	sensitive fine grained
5.851	10.19	0.0050	5	1	sensitive fine grained
5.938	10.19	0.0050	5	1	sensitive fine grained
5.976	10.19	0.0050	5	1	sensitive fine grained
6.047	9.73	0.0059	5	1	sensitive fine grained
6.124	10.75	0.0066	4	6	sandy silt to clayey silt
6.179	11.54	0.0066	4	6	sandy silt to clayey silt
6.243	12.90	0.0066	5	6	sandy silt to clayey silt
6.305	14.14	0.0084	5	6	sandy silt to clayey silt
6.369	15.38	0.0167	6	6	sandy silt to clayey silt
6.432	15.95	0.0997	6	6	sandy silt to clayey silt
6.526	15.38	0.4547	7	5	clayey silt to silty clay
6.587	15.04	0.4358	7	5	clayey silt to silty clay
6.635	14.71	0.3764	7	5	clayey silt to silty clay
6.703	15.61	0.6499	15	3	clay
6.774	32.90	0.9494	16	5	clayey silt to silty clay
6.831	59.09	0.6933	19	7	silty sand to sandy silt
6.912	90.71	0.6219	22	8	sand to silty sand
6.963	103.26	0.5923	25	8	sand to silty sand
7.045	97.60	0.8236	23	8	sand to silty sand
7.114	123.01	0.9755	29	8	sand to silty sand
7.163	134.42	0.9906	26	9	sand
7.258	155.43	0.8520	30	9	sand
7.286	159.28	0.8779	31	9	sand
7.356	162.55	1.1571	31	9	sand
7.422	169.55	1.6341	32	9	sand
7.501	172.04	1.6684	33	9	sand
7.558	169.33	1.4316	32	9	sand
7.624	164.59	1.2152	32	9	sand
7.704	165.67	1.2765	32	9	sand
7.753	160.42	1.2818	31	9	sand
7.831	166.75	1.4678	32	9	sand
7.896	176.91	1.4490	34	9	sand
7.942	191.71	1.5287	37	9	sand
8.032	217.68	2.0353	42	9	sand
8.079	220.85	1.9046	42	9	sand
8.146	241.41	1.6041	46	9	sand
8.206	239.60	1.5215	46	9	sand

SOUNDING

TOTAL DEPTH: 11.949 ft
SITE: B-402

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.280	231.13	1.4444	44	9	sand	
8.341	225.37	1.2758	43	9	sand	
8.407	216.56	1.0469	41	9	sand	
8.487	205.61	0.9073	39	9	sand	
8.535	193.41	0.8490	37	9	sand	
8.617	186.74	0.7287	36	9	sand	
8.680	192.17	0.6831	37	9	sand	
8.730	195.89	0.6831	38	9	sand	
8.813	223.33	0.6831	43	9	sand	
8.875	243.55	0.6831	39	10	gravelly sand	to sand
8.935	261.62	0.7138	42	10	gravelly sand	to sand
9.017	273.27	0.8301	44	10	gravelly sand	to sand
9.072	276.54	0.8107	44	10	gravelly sand	to sand
9.135	271.46	0.8136	43	10	gravelly sand	to sand
9.218	270.68	0.8798	43	10	gravelly sand	to sand
9.269	269.44	0.8470	43	10	gravelly sand	to sand
9.319	268.76	0.8050	43	10	gravelly sand	to sand
9.410	268.93	1.3734	52	9	sand	
9.453	269.09	1.6163	52	9	sand	
9.534	274.40	1.9435	53	9	sand	
9.599	289.65	2.0388	55	9	sand	
9.658	289.54	1.9864	55	9	sand	
9.725	290.33	1.9703	56	9	sand	
9.786	296.54	1.3093	47	10	gravelly sand	to sand
9.851	279.04	0.9299	45	10	gravelly sand	to sand
9.916	281.18	1.2675	45	10	gravelly sand	to sand
9.984	275.64	1.2509	44	10	gravelly sand	to sand
10.040	267.86	0.9885	43	10	gravelly sand	to sand
10.121	260.45	0.9903	42	10	gravelly sand	to sand
10.174	269.25	1.0342	43	10	gravelly sand	to sand
10.273	270.66	1.1049	43	10	gravelly sand	to sand
10.311	272.13	1.0630	43	10	gravelly sand	to sand
10.368	273.38	1.0106	44	10	gravelly sand	to sand
10.443	275.97	1.0333	44	10	gravelly sand	to sand
10.515	269.77	1.1431	43	10	gravelly sand	to sand
10.565	261.64	1.1671	50	9	sand	
10.653	256.56	1.1687	49	9	sand	
10.696	262.15	1.2182	50	9	sand	
10.762	259.72	1.3143	50	9	sand	
10.832	262.66	1.4085	50	9	sand	
10.907	268.20	1.4612	51	9	sand	
10.976	271.02	1.5147	52	9	sand	
11.042	276.67	1.5557	53	9	sand	
11.105	283.45	1.6108	54	9	sand	
11.168	291.24	1.6583	56	9	sand	
11.246	297.34	1.5254	47	10	gravelly sand	to sand
11.287	304.35	1.4013	49	10	gravelly sand	to sand
11.372	320.27	1.4312	51	10	gravelly sand	to sand
11.418	324.90	1.5557	52	10	gravelly sand	to sand
11.495	342.41	1.9212	55	10	gravelly sand	to sand
11.581	362.18	1.9080	58	10	gravelly sand	to sand
11.616	376.97	1.8745	60	10	gravelly sand	to sand
11.687	400.80	0.0000	0	0	<out of range>	
11.780	410.29	0.0000	0	0	<out of range>	
11.821	420.68	0.0000	0	0	<out of range>	
11.887	431.53	0.0000	0	0	<out of range>	
11.949	418.43	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 23.168 ft
SITE: B-403

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	1.03	0.0000	0	0	<out of range>
0.074	2.41	-0.0014	0	0	<out of range>
0.133	8.52	0.0206	4	1	sensitive fine grained
0.208	11.91	0.1344	6	5	clayey silt to silty clay
0.265	13.49	0.1879	6	5	clayey silt to silty clay
0.338	15.64	0.2844	7	5	clayey silt to silty clay
0.408	15.98	0.4123	8	5	clayey silt to silty clay
0.465	17.67	0.4019	8	5	clayey silt to silty clay
0.525	18.00	0.4023	9	5	clayey silt to silty clay
0.604	17.78	0.4027	9	5	clayey silt to silty clay
0.683	19.12	0.4033	9	5	clayey silt to silty clay
0.722	19.57	0.4034	9	5	clayey silt to silty clay
0.799	19.56	0.4034	9	5	clayey silt to silty clay
0.867	20.35	0.4292	10	5	clayey silt to silty clay
0.937	19.57	0.4287	9	5	clayey silt to silty clay
0.990	17.08	0.4027	8	5	clayey silt to silty clay
1.058	17.98	0.3624	9	5	clayey silt to silty clay
1.131	19.00	0.3073	7	6	sandy silt to clayey silt
1.186	20.81	0.2553	8	6	sandy silt to clayey silt
1.270	22.95	0.1905	9	6	sandy silt to clayey silt
1.331	24.65	0.1484	8	7	silty sand to sandy silt
1.385	25.32	0.1207	8	7	silty sand to sandy silt
1.461	24.53	0.0911	8	7	silty sand to sandy silt
1.522	24.42	0.0750	8	7	silty sand to sandy silt
1.594	24.19	0.2302	9	6	sandy silt to clayey silt
1.645	24.76	0.3108	9	6	sandy silt to clayey silt
1.710	25.66	0.3093	10	6	sandy silt to clayey silt
1.781	28.59	0.2145	9	7	silty sand to sandy silt
1.849	33.56	0.1991	11	7	silty sand to sandy silt
1.903	35.37	0.2051	11	7	silty sand to sandy silt
1.987	32.33	0.4198	10	7	silty sand to sandy silt
2.052	40.00	0.4774	13	7	silty sand to sandy silt
2.106	44.97	0.4297	14	7	silty sand to sandy silt
2.169	51.17	0.2930	12	8	sand to silty sand
2.238	49.25	0.2643	12	8	sand to silty sand
2.297	43.04	0.2721	14	7	silty sand to sandy silt
2.388	44.51	0.2951	14	7	silty sand to sandy silt
2.440	43.95	0.2327	14	7	silty sand to sandy silt
2.504	44.06	0.1782	11	8	sand to silty sand
2.571	44.85	0.1653	11	8	sand to silty sand
2.627	46.08	0.1653	11	8	sand to silty sand
2.694	47.10	0.1653	11	8	sand to silty sand
2.760	47.55	0.1653	11	8	sand to silty sand
2.834	47.55	0.1653	11	8	sand to silty sand
2.894	47.10	0.1653	11	8	sand to silty sand
2.964	46.88	0.1664	11	8	sand to silty sand
3.019	46.76	0.1696	11	8	sand to silty sand
3.084	46.42	0.1760	11	8	sand to silty sand
3.161	46.43	0.1872	11	8	sand to silty sand
3.219	46.43	0.1952	11	8	sand to silty sand
3.281	46.43	0.2018	11	8	sand to silty sand
3.362	46.43	0.2068	11	8	sand to silty sand
3.419	46.54	0.2077	11	8	sand to silty sand
3.497	46.99	0.1962	11	8	sand to silty sand
3.544	47.44	0.1893	11	8	sand to silty sand
3.637	48.35	0.1779	12	8	sand to silty sand
3.679	49.36	0.1792	12	8	sand to silty sand
3.742	51.62	0.1891	12	8	sand to silty sand
3.814	51.85	0.2013	12	8	sand to silty sand
3.890	52.07	0.2017	12	8	sand to silty sand
3.943	52.53	0.2047	13	8	sand to silty sand
4.019	53.20	0.2345	13	8	sand to silty sand
4.083	54.10	0.2649	13	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 23.168 ft
SITE: B-403

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.150	54.78	0.2685	13	8	sand to silty sand	
4.218	56.02	0.2622	13	8	sand to silty sand	
4.275	54.78	0.2721	13	8	sand to silty sand	
4.365	55.69	0.2657	13	8	sand to silty sand	
4.415	56.58	0.2862	14	8	sand to silty sand	
4.470	57.94	0.3089	14	8	sand to silty sand	
4.540	60.31	0.3299	14	8	sand to silty sand	
4.602	62.46	0.3596	15	8	sand to silty sand	
4.663	66.18	0.3656	16	8	sand to silty sand	
4.737	67.99	0.3424	16	8	sand to silty sand	
4.804	63.14	0.3990	15	8	sand to silty sand	
4.858	64.04	0.4539	15	8	sand to silty sand	
4.935	60.77	0.4157	15	8	sand to silty sand	
4.998	61.56	0.3836	15	8	sand to silty sand	
5.064	57.26	0.3719	14	8	sand to silty sand	
5.135	54.33	0.3453	13	8	sand to silty sand	
5.193	52.87	0.3216	13	8	sand to silty sand	
5.256	49.93	0.2803	12	8	sand to silty sand	
5.330	48.01	0.2453	11	8	sand to silty sand	
5.382	46.43	0.2447	11	8	sand to silty sand	
5.476	44.40	0.2447	14	7	silty sand to sandy silt	
5.514	43.84	0.2458	14	7	silty sand to sandy silt	
5.596	42.60	0.2486	14	7	silty sand to sandy silt	
5.645	42.14	0.2500	13	7	silty sand to sandy silt	
5.709	42.15	0.2534	13	7	silty sand to sandy silt	
5.794	42.14	0.2597	13	7	silty sand to sandy silt	
5.860	42.14	0.2699	13	7	silty sand to sandy silt	
5.909	42.60	0.2756	14	7	silty sand to sandy silt	
5.984	43.61	0.2823	14	7	silty sand to sandy silt	
6.055	44.51	0.2929	14	7	silty sand to sandy silt	
6.131	46.43	0.3047	15	7	silty sand to sandy silt	
6.173	47.90	0.3317	15	7	silty sand to sandy silt	
6.247	50.95	0.5854	16	7	silty sand to sandy silt	
6.301	54.45	0.8135	17	7	silty sand to sandy silt	
6.367	57.72	0.6693	18	7	silty sand to sandy silt	
6.433	62.58	0.7636	20	7	silty sand to sandy silt	
6.513	72.51	0.7636	17	8	sand to silty sand	
6.581	84.49	0.6738	20	8	sand to silty sand	
6.635	100.96	0.5594	24	8	sand to silty sand	
6.719	84.36	0.4998	20	8	sand to silty sand	
6.770	88.30	0.4716	21	8	sand to silty sand	
6.824	92.26	0.4421	22	8	sand to silty sand	
6.916	92.26	0.3920	22	8	sand to silty sand	
6.959	95.76	0.3624	18	9	sand	
7.054	95.30	0.3897	23	8	sand to silty sand	
7.093	94.84	0.4715	23	8	sand to silty sand	
7.159	99.13	0.6472	24	8	sand to silty sand	
7.244	93.94	0.8297	22	8	sand to silty sand	
7.287	90.33	0.8497	22	8	sand to silty sand	
7.358	89.20	0.8668	21	8	sand to silty sand	
7.441	84.57	0.8797	20	8	sand to silty sand	
7.497	80.40	0.8347	19	8	sand to silty sand	
7.547	77.58	0.7575	19	8	sand to silty sand	
7.642	77.13	0.6793	18	8	sand to silty sand	
7.686	77.81	0.6193	19	8	sand to silty sand	
7.772	77.08	0.5620	18	8	sand to silty sand	
7.815	77.02	0.5347	18	8	sand to silty sand	
7.879	81.31	0.4671	19	8	sand to silty sand	
7.971	84.02	0.4101	20	8	sand to silty sand	
8.009	84.81	0.4001	20	8	sand to silty sand	
8.077	79.84	0.3689	19	8	sand to silty sand	
8.140	79.84	0.3324	19	8	sand to silty sand	
8.211	79.85	0.3218	19	8	sand to silty sand	

SOUNDING

TOTAL DEPTH: 23.168 ft
SITE: B-403

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.271	79.84	0.3676	19	8	sand to silty	sand
8.337	77.36	0.3604	19	8	sand to silty	sand
8.412	74.88	0.3345	18	8	sand to silty	sand
8.495	73.18	0.2962	18	8	sand to silty	sand
8.533	73.18	0.2751	18	8	sand to silty	sand
8.604	73.18	0.2425	18	8	sand to silty	sand
8.692	73.18	0.2261	18	8	sand to silty	sand
8.750	73.18	0.2196	18	8	sand to silty	sand
8.799	73.29	0.2170	18	8	sand to silty	sand
8.887	73.07	0.2759	17	8	sand to silty	sand
8.926	75.10	0.2978	18	8	sand to silty	sand
8.992	74.20	0.2961	18	8	sand to silty	sand
9.075	77.59	0.3280	19	8	sand to silty	sand
9.137	81.99	0.3913	20	8	sand to silty	sand
9.199	86.73	0.4430	21	8	sand to silty	sand
9.272	95.98	0.6185	23	8	sand to silty	sand
9.327	103.89	0.5998	25	8	sand to silty	sand
9.385	112.02	0.5775	21	9	sand	
9.475	127.04	0.7286	24	9	sand	
9.523	135.39	0.8780	26	9	sand	
9.585	140.92	1.1397	27	9	sand	
9.648	155.93	1.2790	30	9	sand	
9.715	159.20	1.0633	30	9	sand	
9.801	153.33	1.0122	29	9	sand	
9.857	149.51	0.9838	29	9	sand	
9.946	143.98	0.8809	28	9	sand	
9.980	145.67	0.8660	28	9	sand	
10.049	141.95	0.8437	27	9	sand	
10.115	138.45	0.8436	27	9	sand	
10.174	138.22	0.8434	26	9	sand	
10.244	137.20	0.8433	26	9	sand	
10.340	133.36	0.7509	26	9	sand	
10.386	133.35	0.7739	26	9	sand	
10.458	129.51	0.7290	25	9	sand	
10.523	133.12	0.6899	25	9	sand	
10.567	126.69	0.6588	24	9	sand	
10.641	132.90	0.6435	25	9	sand	
10.696	131.89	0.6624	25	9	sand	
10.780	131.66	0.7036	25	9	sand	
10.847	137.19	0.7045	26	9	sand	
10.893	134.71	0.6909	26	9	sand	
10.959	129.18	0.8261	25	9	sand	
11.049	131.32	0.7277	25	9	sand	
11.100	131.24	0.6614	25	9	sand	
11.182	131.16	0.6493	25	9	sand	
11.227	131.07	0.8136	25	9	sand	
11.293	130.98	1.1987	31	8	sand to silty	sand
11.386	141.60	1.2085	27	9	sand	
11.423	147.13	1.1471	28	9	sand	
11.488	157.07	1.0502	30	9	sand	
11.554	159.67	0.9364	31	9	sand	
11.630	153.00	0.8699	29	9	sand	
11.683	160.45	0.8539	31	9	sand	
11.752	171.17	0.9713	33	9	sand	
11.823	187.10	1.3203	36	9	sand	
11.878	190.04	1.6910	36	9	sand	
11.947	202.34	2.0467	39	9	sand	
12.013	212.85	1.9411	41	9	sand	
12.075	216.13	2.0207	41	9	sand	
12.163	194.45	2.0086	37	9	sand	
12.213	185.06	1.9161	35	9	sand	
12.272	199.85	2.0540	38	9	sand	
12.342	188.44	2.5078	45	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 23.168 ft
SITE: B-403

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.405	169.94	2.5079	41	8	sand to silty	sand
12.476	173.33	2.1778	41	8	sand to silty	sand
12.541	171.19	2.0510	41	8	sand to silty	sand
12.622	154.48	2.0721	37	8	sand to silty	sand
12.690	153.11	1.7283	37	8	sand to silty	sand
12.730	157.51	1.5583	38	8	sand to silty	sand
12.817	149.61	1.4598	36	8	sand to silty	sand
12.863	134.82	1.4876	32	8	sand to silty	sand
12.928	122.96	1.5143	29	8	sand to silty	sand
13.008	126.46	1.2375	30	8	sand to silty	sand
13.068	126.01	1.0179	30	8	sand to silty	sand
13.125	126.07	1.0068	30	8	sand to silty	sand
13.190	126.13	0.9974	30	8	sand to silty	sand
13.269	129.18	0.9000	25	9	sand	
13.328	135.84	0.7177	26	9	sand	
13.386	139.90	0.6544	27	9	sand	
13.460	149.72	0.9105	29	9	sand	
13.534	147.01	1.4222	35	8	sand to silty	sand
13.599	129.30	1.4690	31	8	sand to silty	sand
13.650	126.80	1.3607	30	8	sand to silty	sand
13.743	122.50	1.3993	29	8	sand to silty	sand
13.780	119.01	1.5169	28	8	sand to silty	sand
13.865	108.86	1.6698	26	8	sand to silty	sand
13.939	112.70	1.2696	27	8	sand to silty	sand
13.980	113.49	0.9824	27	8	sand to silty	sand
14.065	98.81	0.7489	24	8	sand to silty	sand
14.110	96.22	0.7170	23	8	sand to silty	sand
14.179	94.86	0.7225	23	8	sand to silty	sand
14.277	85.15	0.7658	20	8	sand to silty	sand
14.320	79.28	0.7798	19	8	sand to silty	sand
14.370	80.18	0.6952	19	8	sand to silty	sand
14.441	83.23	0.5899	20	8	sand to silty	sand
14.514	82.44	0.5869	20	8	sand to silty	sand
14.607	70.02	0.5801	17	8	sand to silty	sand
14.645	68.10	0.5606	16	8	sand to silty	sand
14.713	66.41	0.5298	16	8	sand to silty	sand
14.771	62.57	0.4514	15	8	sand to silty	sand
14.844	57.49	0.3223	14	8	sand to silty	sand
14.898	53.77	0.2812	13	8	sand to silty	sand
14.969	48.23	0.2641	12	8	sand to silty	sand
15.042	41.34	0.2420	13	7	silty sand to sandy silt	
15.100	38.86	0.2237	12	7	silty sand to sandy silt	
15.177	36.72	0.2176	12	7	silty sand to sandy silt	
15.237	36.60	0.2145	12	7	silty sand to sandy silt	
15.295	35.59	0.2299	11	7	silty sand to sandy silt	
15.369	39.77	0.3336	13	7	silty sand to sandy silt	
15.434	44.62	0.3813	14	7	silty sand to sandy silt	
15.490	50.26	0.4099	16	7	silty sand to sandy silt	
15.564	56.47	0.4672	18	7	silty sand to sandy silt	
15.622	60.76	0.4841	15	8	sand to silty	sand
15.687	63.69	0.4926	15	8	sand to silty	sand
15.765	65.84	0.6132	16	8	sand to silty	sand
15.817	72.50	0.6899	17	8	sand to silty	sand
15.908	82.55	0.6327	20	8	sand to silty	sand
15.962	91.47	0.9193	22	8	sand to silty	sand
16.026	100.28	1.2146	24	8	sand to silty	sand
16.096	107.62	1.1843	26	8	sand to silty	sand
16.156	115.86	1.4071	28	8	sand to silty	sand
16.215	126.47	1.7333	30	8	sand to silty	sand
16.289	122.40	1.8711	29	8	sand to silty	sand
16.346	133.79	1.9486	32	8	sand to silty	sand
16.409	144.30	1.9566	35	8	sand to silty	sand
16.496	151.87	1.8764	36	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 23.168 ft
SITE: B-403

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
16.549	185.39	1.8745	36	9	sand	
16.606	189.13	1.8730	36	9	sand	
16.669	144.87	1.9272	35	8	sand to silty sand	
16.752	168.12	2.1521	40	8	sand to silty sand	
16.813	176.58	1.9090	34	9	sand	
16.886	153.26	1.7375	37	8	sand to silty sand	
16.955	172.83	1.7002	33	9	sand	
17.016	138.41	1.2563	33	8	sand to silty sand	
17.074	169.12	0.9002	32	9	sand	
17.135	180.41	0.8894	35	9	sand	
17.214	193.95	0.9057	37	9	sand	
17.269	197.90	0.9226	38	9	sand	
17.335	203.32	0.9995	39	9	sand	
17.408	203.89	0.9934	39	9	sand	
17.464	215.63	1.0298	41	9	sand	
17.531	222.63	1.1499	43	9	sand	
17.604	202.99	1.3651	39	9	sand	
17.657	196.33	1.4905	38	9	sand	
17.729	189.55	1.0687	36	9	sand	
17.798	191.70	0.6516	37	9	sand	
17.865	187.08	0.6559	36	9	sand	
17.941	177.25	0.6605	34	9	sand	
17.983	176.69	0.6629	34	9	sand	
18.057	170.82	0.6645	33	9	sand	
18.133	174.31	0.7214	33	9	sand	
18.185	185.60	0.7125	36	9	sand	
18.266	194.86	0.5789	37	9	sand	
18.327	195.65	0.5622	37	9	sand	
18.374	198.69	0.5734	38	9	sand	
18.460	172.16	0.5615	33	9	sand	
18.520	164.04	0.5246	31	9	sand	
18.583	156.70	0.4317	30	9	sand	
18.659	150.72	0.3478	29	9	sand	
18.713	150.94	0.3422	29	9	sand	
18.774	154.22	0.3372	30	9	sand	
18.841	158.06	0.3135	30	9	sand	
18.913	160.31	0.2834	31	9	sand	
18.981	157.49	0.4468	30	9	sand	
19.034	154.56	0.5898	30	9	sand	
19.102	153.32	0.5836	29	9	sand	
19.164	154.28	0.4806	30	9	sand	
19.240	153.65	0.5149	29	9	sand	
19.298	153.99	0.5645	29	9	sand	
19.371	146.88	0.5838	28	9	sand	
19.439	149.81	0.6490	29	9	sand	
19.491	146.31	0.7582	28	9	sand	
19.570	138.41	0.9671	27	9	sand	
19.635	132.88	1.0513	32	8	sand to silty sand	
19.695	133.56	1.1180	32	8	sand to silty sand	
19.769	117.64	1.1531	28	8	sand to silty sand	
19.817	120.58	1.1481	29	8	sand to silty sand	
19.900	123.97	1.1434	30	8	sand to silty sand	
19.971	121.48	1.0379	29	8	sand to silty sand	
20.030	122.51	1.0063	29	8	sand to silty sand	
20.104	136.39	0.9757	26	9	sand	
20.162	135.15	0.9763	26	9	sand	
20.224	126.00	1.0243	30	8	sand to silty sand	
20.306	126.90	0.9698	30	8	sand to silty sand	
20.345	124.75	0.8773	24	9	sand	
20.431	117.75	0.6122	23	9	sand	
20.473	114.37	0.6209	22	9	sand	
20.544	115.61	0.6399	22	9	sand	
20.631	120.02	0.5684	23	9	sand	

SOUNDING

TOTAL DEPTH: 23.168 ft
SITE: B-403

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
20.673	120.92	0.5685	23	9	sand	
20.738	122.17	0.5836	23	9	sand	
20.828	122.51	0.5683	23	9	sand	
20.869	121.94	0.5674	23	9	sand	
20.933	123.86	0.5710	24	9	sand	
21.033	124.99	0.5479	24	9	sand	
21.078	126.12	0.5422	24	9	sand	
21.151	124.09	0.5384	24	9	sand	
21.214	119.46	0.5061	23	9	sand	
21.263	113.02	0.5021	22	9	sand	
21.336	102.64	0.4967	25	8	sand to silty sand	
21.406	97.44	0.4675	23	8	sand to silty sand	
21.465	94.28	0.4476	23	8	sand to silty sand	
21.528	92.25	0.4364	22	8	sand to silty sand	
21.596	93.89	0.4484	22	8	sand to silty sand	
21.659	91.01	0.4688	22	8	sand to silty sand	
21.727	93.49	0.4699	22	8	sand to silty sand	
21.801	99.25	0.4513	24	8	sand to silty sand	
21.868	106.36	0.4673	20	9	sand	
21.928	113.70	0.4944	22	9	sand	
21.991	115.62	0.5092	22	9	sand	
22.081	110.99	0.5337	21	9	sand	
22.132	109.86	0.6018	21	9	sand	
22.187	108.28	0.7189	26	8	sand to silty sand	
22.257	111.67	0.9465	27	8	sand to silty sand	
22.314	118.10	0.8946	28	8	sand to silty sand	
22.387	145.31	0.7647	28	9	sand	
22.474	157.83	1.0094	30	9	sand	
22.525	202.20	1.3457	39	9	sand	
22.573	222.30	1.4834	43	9	sand	
22.665	249.50	1.5993	48	9	sand	
22.722	262.49	1.4574	50	9	sand	
22.791	270.16	1.3492	52	9	sand	
22.836	281.91	1.3628	45	10	gravelly sand to sand	
22.901	317.25	0.0000	0	0	<out of range>	
22.988	346.62	0.0000	0	0	<out of range>	
23.056	367.73	0.0000	0	0	<out of range>	
23.097	383.08	0.0000	0	0	<out of range>	
23.168	357.90	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 16.156 ft
SITE: B-404

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	1.58	0.0000	0	0	<out of range>
0.081	4.73	0.0000	0	0	<out of range>
0.143	4.96	0.0000	0	0	<out of range>
0.223	5.41	0.0000	0	0	<out of range>
0.288	6.20	0.0012	3	1	sensitive fine grained
0.336	7.21	0.0059	3	1	sensitive fine grained
0.402	9.80	0.0248	5	1	sensitive fine grained
0.462	10.81	0.0703	4	6	sandy silt to clayey silt
0.527	11.49	0.1064	4	6	sandy silt to clayey silt
0.601	10.58	0.1216	5	5	clayey silt to silty clay
0.679	10.13	0.1609	5	5	clayey silt to silty clay
0.728	9.23	0.1864	4	5	clayey silt to silty clay
0.788	8.33	0.1506	4	5	clayey silt to silty clay
0.874	7.99	0.0948	4	5	clayey silt to silty clay
0.935	8.10	0.1062	4	5	clayey silt to silty clay
0.990	25.90	0.3095	10	6	sandy silt to clayey silt
1.065	33.90	0.6854	13	6	sandy silt to clayey silt
1.120	44.59	0.7043	14	7	silty sand to sandy silt
1.192	34.46	0.8856	13	6	sandy silt to clayey silt
1.256	26.68	0.9693	13	5	clayey silt to silty clay
1.337	26.70	1.1259	17	4	silty clay to clay
1.404	26.67	1.2139	26	3	clay
1.454	26.68	1.0353	17	4	silty clay to clay
1.511	31.30	0.8053	12	6	sandy silt to clayey silt
1.596	33.31	0.7257	13	6	sandy silt to clayey silt
1.652	37.16	0.6102	14	6	sandy silt to clayey silt
1.716	35.70	0.5752	14	6	sandy silt to clayey silt
1.791	35.25	0.5970	14	6	sandy silt to clayey silt
1.847	35.76	0.6057	14	6	sandy silt to clayey silt
1.910	35.81	0.5355	14	6	sandy silt to clayey silt
1.978	40.31	0.4907	13	7	silty sand to sandy silt
2.036	40.29	0.5091	13	7	silty sand to sandy silt
2.135	40.26	0.4660	13	7	silty sand to sandy silt
2.166	40.88	0.4720	13	7	silty sand to sandy silt
2.231	40.21	0.4816	13	7	silty sand to sandy silt
2.320	37.05	0.4810	12	7	silty sand to sandy silt
2.378	37.28	0.4611	12	7	silty sand to sandy silt
2.432	36.83	0.3552	12	7	silty sand to sandy silt
2.511	38.18	0.4421	12	7	silty sand to sandy silt
2.571	43.13	0.6659	14	7	silty sand to sandy silt
2.628	49.10	0.6114	16	7	silty sand to sandy silt
2.702	50.90	0.5583	16	7	silty sand to sandy silt
2.765	37.39	0.5496	12	7	silty sand to sandy silt
2.847	38.52	0.5560	12	7	silty sand to sandy silt
2.913	41.90	0.4357	13	7	silty sand to sandy silt
2.956	43.03	0.3311	14	7	silty sand to sandy silt
3.037	42.80	0.2687	14	7	silty sand to sandy silt
3.102	41.23	0.2482	13	7	silty sand to sandy silt
3.165	37.96	0.2266	12	7	silty sand to sandy silt
3.228	38.30	0.2054	12	7	silty sand to sandy silt
3.294	36.05	0.1854	12	7	silty sand to sandy silt
3.348	33.68	0.1770	11	7	silty sand to sandy silt
3.415	32.78	0.1797	10	7	silty sand to sandy silt
3.492	31.32	0.1804	10	7	silty sand to sandy silt
3.548	32.78	0.1490	10	7	silty sand to sandy silt
3.637	31.32	0.1776	10	7	silty sand to sandy silt
3.686	32.78	0.1374	10	7	silty sand to sandy silt
3.755	41.11	0.3076	13	7	silty sand to sandy silt
3.808	39.99	0.5013	13	7	silty sand to sandy silt
3.872	38.86	0.4916	12	7	silty sand to sandy silt
3.944	58.90	0.5878	19	7	silty sand to sandy silt
4.015	74.67	0.7409	18	8	sand to silty sand
4.081	83.34	0.8511	20	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 16.156 ft
SITE: B-404

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.146	91.56	0.9319	22	8	sand to silty	sand
4.214	89.53	1.0000	21	8	sand to silty	sand
4.269	81.99	0.9113	20	8	sand to silty	sand
4.354	81.65	0.7712	20	8	sand to silty	sand
4.399	80.18	0.7660	19	8	sand to silty	sand
4.463	79.39	0.5949	19	8	sand to silty	sand
4.531	78.49	0.5444	19	8	sand to silty	sand
4.602	77.03	0.5261	18	8	sand to silty	sand
4.699	75.45	0.5104	18	8	sand to silty	sand
4.733	75.34	0.5072	18	8	sand to silty	sand
4.797	75.68	0.5072	18	8	sand to silty	sand
4.859	76.36	0.5092	18	8	sand to silty	sand
4.936	77.15	0.5088	18	8	sand to silty	sand
4.999	77.48	0.5154	19	8	sand to silty	sand
5.057	78.05	0.5240	19	8	sand to silty	sand
5.136	79.06	0.5332	19	8	sand to silty	sand
5.192	80.19	0.5381	19	8	sand to silty	sand
5.267	81.65	0.5446	20	8	sand to silty	sand
5.331	83.34	0.5503	20	8	sand to silty	sand
5.391	85.82	0.5577	21	8	sand to silty	sand
5.460	88.64	0.5751	21	8	sand to silty	sand
5.523	92.24	0.5903	22	8	sand to silty	sand
5.592	95.62	0.6093	23	8	sand to silty	sand
5.672	98.21	0.6404	24	8	sand to silty	sand
5.710	99.67	0.6551	24	8	sand to silty	sand
5.795	102.04	0.6856	24	8	sand to silty	sand
5.864	102.71	0.7072	25	8	sand to silty	sand
5.909	102.49	0.7212	25	8	sand to silty	sand
5.995	100.69	0.7407	24	8	sand to silty	sand
6.054	97.98	0.7396	23	8	sand to silty	sand
6.107	95.62	0.7303	23	8	sand to silty	sand
6.196	89.54	0.6991	21	8	sand to silty	sand
6.253	84.24	0.6724	20	8	sand to silty	sand
6.300	80.75	0.6501	19	8	sand to silty	sand
6.365	74.67	0.6179	18	8	sand to silty	sand
6.435	67.92	0.5682	16	8	sand to silty	sand
6.521	58.46	0.5068	19	7	silty sand to sandy silt	
6.586	52.15	0.4509	17	7	silty sand to sandy silt	
6.635	48.55	0.4115	15	7	silty sand to sandy silt	
6.713	43.37	0.3661	14	7	silty sand to sandy silt	
6.779	40.21	0.3482	13	7	silty sand to sandy silt	
6.837	37.40	0.3185	12	7	silty sand to sandy silt	
6.907	34.02	0.2736	11	7	silty sand to sandy silt	
6.971	32.11	0.2581	10	7	silty sand to sandy silt	
7.029	30.53	0.2452	10	7	silty sand to sandy silt	
7.107	29.68	0.3222	9	7	silty sand to sandy silt	
7.170	30.35	0.4085	12	6	sandy silt to clayey silt	
7.247	30.19	0.3823	12	6	sandy silt to clayey silt	
7.302	33.23	0.3031	11	7	silty sand to sandy silt	
7.351	38.41	0.4796	12	7	silty sand to sandy silt	
7.448	66.46	1.6427	25	6	sandy silt to clayey silt	
7.485	89.43	2.1350	29	7	silty sand to sandy silt	
7.568	125.91	1.9272	30	8	sand to silty	sand
7.614	147.53	1.9225	35	8	sand to silty	sand
7.688	139.31	2.1586	33	8	sand to silty	sand
7.775	140.10	2.4051	34	8	sand to silty	sand
7.812	154.51	2.2019	37	8	sand to silty	sand
7.883	171.18	1.8954	41	8	sand to silty	sand
7.949	171.58	1.8967	41	8	sand to silty	sand
8.023	171.57	1.8980	41	8	sand to silty	sand
8.079	171.97	1.8989	41	8	sand to silty	sand
8.151	192.01	2.2941	37	9	sand	
8.218	232.11	2.9292	44	9	sand	

SOUNDING

TOTAL DEPTH: 16.156 ft
SITE: B-404

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.274	241.23	3.2050	46	9	sand	
8.356	229.29	4.0498	55	8	sand to silty	sand
8.418	226.70	4.2107	54	8	sand to silty	sand
8.480	233.69	3.9051	56	8	sand to silty	sand
8.561	215.77	3.4138	52	8	sand to silty	sand
8.598	222.19	3.3002	53	8	sand to silty	sand
8.682	222.95	3.2438	53	8	sand to silty	sand
8.754	223.65	2.5525	43	9	sand	
8.802	232.55	2.1169	45	9	sand	
8.862	203.85	1.7538	39	9	sand	
8.948	185.60	1.8039	36	9	sand	
9.005	163.75	1.8240	39	8	sand to silty	sand
9.056	157.68	1.8336	38	8	sand to silty	sand
9.144	161.51	1.6206	31	9	sand	
9.191	155.99	1.4310	30	9	sand	
9.257	151.72	1.1404	29	9	sand	
9.326	146.20	0.9607	28	9	sand	
9.386	142.93	0.9650	27	9	sand	
9.454	145.69	0.9191	28	9	sand	
9.525	142.25	0.8069	27	9	sand	
9.588	145.18	0.6814	28	9	sand	
9.652	136.96	0.6736	26	9	sand	
9.721	135.27	0.8604	26	9	sand	
9.822	132.68	1.0723	32	8	sand to silty	sand
9.847	130.88	0.9913	25	9	sand	
9.917	139.21	0.8385	27	9	sand	
9.994	140.67	1.1010	27	9	sand	
10.065	147.54	1.2597	28	9	sand	
10.111	159.03	1.2657	30	9	sand	
10.191	186.73	1.2774	36	9	sand	
10.260	176.60	1.3670	34	9	sand	
10.307	177.62	1.5314	34	9	sand	
10.387	170.12	1.8244	33	9	sand	
10.439	170.11	1.8166	33	9	sand	
10.509	162.63	1.6032	31	9	sand	
10.577	161.50	1.4197	31	9	sand	
10.647	154.29	1.3402	30	9	sand	
10.709	146.85	1.1754	28	9	sand	
10.785	145.72	1.0387	28	9	sand	
10.834	147.53	0.8413	28	9	sand	
10.925	149.22	0.5982	29	9	sand	
10.966	152.60	0.6312	29	9	sand	
11.032	153.50	0.7690	29	9	sand	
11.097	161.05	1.1041	31	9	sand	
11.173	167.80	1.2385	32	9	sand	
11.226	168.03	1.1880	32	9	sand	
11.303	180.76	1.3821	35	9	sand	
11.357	186.27	1.7988	36	9	sand	
11.420	181.21	1.5285	35	9	sand	
11.513	206.09	1.4347	39	9	sand	
11.564	200.69	1.5560	38	9	sand	
11.653	194.27	1.7486	37	9	sand	
11.697	199.11	1.5335	38	9	sand	
11.764	202.27	1.2328	39	9	sand	
11.820	209.25	1.1567	40	9	sand	
11.896	200.92	1.1948	38	9	sand	
11.946	200.02	1.2144	38	9	sand	
12.033	195.06	1.1675	37	9	sand	
12.078	190.45	1.0886	36	9	sand	
12.146	180.42	0.9901	35	9	sand	
12.210	162.87	0.9566	31	9	sand	
12.298	145.63	0.8852	28	9	sand	
12.346	129.64	0.8234	25	9	sand	

SOUNDING

TOTAL DEPTH: 16.156 ft
SITE: B-404

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.423	117.03	0.6786	22	9	sand	
12.484	107.57	0.6054	26	8	sand to silty sand	
12.534	102.39	0.5576	25	8	sand to silty sand	
12.626	93.72	0.4904	22	8	sand to silty sand	
12.681	88.87	0.4606	21	8	sand to silty sand	
12.740	86.17	0.4390	21	8	sand to silty sand	
12.817	84.37	0.4163	20	8	sand to silty sand	
12.876	81.22	0.4021	19	8	sand to silty sand	
12.940	79.75	0.3918	19	8	sand to silty sand	
13.013	78.74	0.3793	19	8	sand to silty sand	
13.058	77.61	0.3755	19	8	sand to silty sand	
13.142	75.92	0.3678	18	8	sand to silty sand	
13.205	74.23	0.3638	18	8	sand to silty sand	
13.266	73.66	0.3607	18	8	sand to silty sand	
13.325	73.66	0.3752	18	8	sand to silty sand	
13.408	73.67	0.3896	18	8	sand to silty sand	
13.458	73.67	0.3780	18	8	sand to silty sand	
13.528	73.67	0.4093	18	8	sand to silty sand	
13.584	76.93	0.4110	18	8	sand to silty sand	
13.678	85.72	0.4629	21	8	sand to silty sand	
13.740	86.67	0.5201	21	8	sand to silty sand	
13.788	86.67	0.5774	21	8	sand to silty sand	
13.847	87.62	0.7227	21	8	sand to silty sand	
13.927	93.36	1.1956	22	8	sand to silty sand	
13.983	101.14	1.5642	32	7	silty sand to sandy silt	
14.047	112.63	1.6296	27	8	sand to silty sand	
14.127	129.98	1.4440	31	8	sand to silty sand	
14.182	163.86	1.4041	31	9	sand	
14.249	157.22	1.4284	30	9	sand	
14.308	162.40	1.4215	31	9	sand	
14.370	154.18	1.4196	30	9	sand	
14.465	169.50	1.2748	32	9	sand	
14.510	175.35	1.2591	34	9	sand	
14.573	182.45	1.2606	35	9	sand	
14.643	185.26	1.2624	35	9	sand	
14.707	186.61	1.2637	36	9	sand	
14.764	187.63	1.3230	36	9	sand	
14.847	186.51	1.8385	36	9	sand	
14.900	186.39	2.2455	45	8	sand to silty sand	
14.984	194.84	2.1746	37	9	sand	
15.045	203.06	2.1740	39	9	sand	
15.100	203.85	2.1590	39	9	sand	
15.192	203.85	2.0431	39	9	sand	
15.228	204.64	2.0089	39	9	sand	
15.291	232.68	1.9956	45	9	sand	
15.382	274.92	2.0006	53	9	sand	
15.434	290.23	2.0036	56	9	sand	
15.509	312.53	2.0105	60	9	sand	
15.557	320.98	2.1136	61	9	sand	
15.631	331.91	2.2994	64	9	sand	
15.723	341.71	2.4095	65	9	sand	
15.763	346.55	2.5404	66	9	sand	
15.823	351.96	2.6894	67	9	sand	
15.889	353.31	0.0000	0	0	<out of range>	
15.966	354.44	0.0000	0	0	<out of range>	
16.023	358.83	0.0000	0	0	<out of range>	
16.091	340.25	0.0000	0	0	<out of range>	
16.156	340.47	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 10.057 ft
SITE: B-405

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.93	0.0443	1	2	organic material
0.067	2.83	0.0672	3	3	clay
0.148	4.98	0.0878	3	4	silty clay to clay
0.211	5.43	0.1375	5	3	clay
0.285	6.67	0.2098	6	3	clay
0.336	8.36	0.2513	5	4	silty clay to clay
0.397	9.49	0.2949	6	4	silty clay to clay
0.465	11.97	0.3447	8	4	silty clay to clay
0.529	15.58	0.3811	7	5	clayey silt to silty clay
0.601	17.83	0.4088	9	5	clayey silt to silty clay
0.676	18.39	0.5253	9	5	clayey silt to silty clay
0.730	18.16	0.5785	9	5	clayey silt to silty clay
0.792	15.67	0.5053	10	4	silty clay to clay
0.864	13.97	0.3269	7	5	clayey silt to silty clay
0.924	13.52	0.3708	6	5	clayey silt to silty clay
0.986	33.60	0.4171	11	7	silty sand to sandy silt
1.057	32.60	0.4799	12	6	sandy silt to clayey silt
1.146	42.57	0.7492	14	7	silty sand to sandy silt
1.184	45.85	0.8348	15	7	silty sand to sandy silt
1.255	33.10	1.0153	16	5	clayey silt to silty clay
1.348	31.29	1.2990	20	4	silty clay to clay
1.388	25.08	1.3193	24	3	clay
1.448	26.21	1.3105	25	3	clay
1.513	25.31	1.1899	24	3	clay
1.591	25.31	1.0065	16	4	silty clay to clay
1.643	26.89	0.9677	13	5	clayey silt to silty clay
1.709	28.46	0.8629	14	5	clayey silt to silty clay
1.778	31.51	0.8042	12	6	sandy silt to clayey silt
1.860	33.54	0.7589	13	6	sandy silt to clayey silt
1.927	33.21	0.6639	13	6	sandy silt to clayey silt
1.977	33.66	0.6427	13	6	sandy silt to clayey silt
2.051	33.66	0.6500	13	6	sandy silt to clayey silt
2.120	33.67	0.5951	13	6	sandy silt to clayey silt
2.177	33.67	0.5415	13	6	sandy silt to clayey silt
2.237	34.68	0.4920	11	7	silty sand to sandy silt
2.310	34.79	0.4289	11	7	silty sand to sandy silt
2.366	36.82	0.4177	12	7	silty sand to sandy silt
2.437	35.92	0.4016	11	7	silty sand to sandy silt
2.510	34.68	0.3984	11	7	silty sand to sandy silt
2.597	31.75	0.3409	10	7	silty sand to sandy silt
2.641	31.63	0.3680	10	7	silty sand to sandy silt
2.699	31.92	0.3782	10	7	silty sand to sandy silt
2.756	32.08	0.3479	10	7	silty sand to sandy silt
2.828	34.45	0.3488	11	7	silty sand to sandy silt
2.891	37.28	0.4191	12	7	silty sand to sandy silt
2.975	37.16	0.7834	14	6	sandy silt to clayey silt
3.042	37.16	0.8557	14	6	sandy silt to clayey silt
3.084	37.05	0.8617	14	6	sandy silt to clayey silt
3.173	55.33	0.8269	18	7	silty sand to sandy silt
3.236	77.90	1.1990	25	7	silty sand to sandy silt
3.288	94.72	1.4739	30	7	silty sand to sandy silt
3.357	87.84	0.9672	21	8	sand to silty sand
3.422	92.57	0.5740	22	8	sand to silty sand
3.479	70.56	0.5238	17	8	sand to silty sand
3.573	49.24	0.5472	16	7	silty sand to sandy silt
3.610	63.47	0.4954	15	8	sand to silty sand
3.686	105.12	0.5923	25	8	sand to silty sand
3.754	117.88	0.8449	28	8	sand to silty sand
3.810	142.26	1.1958	27	9	sand
3.890	192.37	2.0903	37	9	sand
3.946	162.56	2.2589	39	8	sand to silty sand
4.006	244.37	2.4214	47	9	sand
4.088	283.20	2.6803	54	9	sand

SOUNDING

TOTAL DEPTH: 10.057 ft
SITE: B-405

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.158	284.45	2.6791	54	9	sand	
4.203	284.67	2.5862	55	9	sand	
4.266	284.69	2.5278	55	9	sand	
4.352	284.93	2.9239	55	9	sand	
4.403	284.00	3.3613	54	9	sand	
4.496	315.26	3.3502	60	9	sand	
4.548	327.68	2.7654	63	9	sand	
4.604	332.87	2.2897	64	9	sand	
4.688	306.48	2.5206	59	9	sand	
4.726	309.98	2.7005	59	9	sand	
4.792	320.58	2.8656	61	9	sand	
4.883	319.57	1.8253	51	10	gravelly sand	to sand
4.925	317.65	1.3915	51	10	gravelly sand	to sand
5.020	317.32	1.3817	51	10	gravelly sand	to sand
5.072	315.17	1.2213	50	10	gravelly sand	to sand
5.120	314.05	1.1777	50	10	gravelly sand	to sand
5.202	314.50	1.1606	50	10	gravelly sand	to sand
5.272	305.35	1.4145	49	10	gravelly sand	to sand
5.320	295.76	1.5769	47	10	gravelly sand	to sand
5.386	287.74	1.4708	46	10	gravelly sand	to sand
5.455	282.21	1.5752	54	9	sand	
5.512	281.09	2.0358	54	9	sand	
5.591	280.94	2.4037	54	9	sand	
5.658	280.76	2.8468	54	9	sand	
5.711	296.44	3.3611	57	9	sand	
5.789	280.41	3.6462	54	9	sand	
5.851	274.32	3.5241	53	9	sand	
5.916	288.31	3.5737	55	9	sand	
5.995	216.66	3.3447	52	8	sand to silty	sand
6.041	223.77	3.3361	54	8	sand to silty	sand
6.131	227.49	3.1075	54	8	sand to silty	sand
6.190	242.16	2.7079	46	9	sand	
6.256	218.25	2.3244	42	9	sand	
6.328	182.71	2.2575	44	8	sand to silty	sand
6.380	185.52	1.8020	36	9	sand	
6.474	186.09	1.0553	36	9	sand	
6.510	185.29	1.0066	35	9	sand	
6.569	180.89	0.9549	35	9	sand	
6.633	181.45	0.8749	35	9	sand	
6.693	181.34	0.7786	35	9	sand	
6.771	181.34	0.7135	35	9	sand	
6.828	180.55	0.7062	35	9	sand	
6.908	178.29	0.6620	34	9	sand	
6.961	172.42	0.6449	33	9	sand	
7.056	164.18	0.6405	31	9	sand	
7.096	161.92	0.6668	31	9	sand	
7.194	154.67	0.6973	30	9	sand	
7.237	154.67	0.7184	30	9	sand	
7.321	147.44	0.7046	28	9	sand	
7.358	148.01	0.6904	28	9	sand	
7.430	149.25	0.6340	29	9	sand	
7.489	152.52	0.5911	29	9	sand	
7.573	155.57	0.5605	30	9	sand	
7.616	157.15	0.5666	30	9	sand	
7.683	157.26	0.5815	30	9	sand	
7.751	151.95	0.5850	29	9	sand	
7.817	151.61	0.5899	29	9	sand	
7.879	151.56	0.5964	29	9	sand	
7.955	151.51	0.6060	29	9	sand	
8.008	156.47	0.6779	30	9	sand	
8.085	162.22	0.9012	31	9	sand	
8.155	165.95	0.8696	32	9	sand	
8.220	173.51	0.8570	33	9	sand	

SOUNDING

TOTAL DEPTH: 10.057 ft
SITE: B-405

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.292	174.64	0.9139	33	9	sand
8.343	172.04	0.9681	33	9	sand
8.423	180.51	1.0151	35	9	sand
8.468	183.68	0.9713	35	9	sand
8.532	189.55	0.8845	36	9	sand
8.631	191.69	0.8925	37	9	sand
8.680	194.63	0.8962	37	9	sand
8.730	200.49	0.9046	38	9	sand
8.822	206.36	0.9357	40	9	sand
8.875	208.62	0.9152	40	9	sand
8.968	215.51	0.8872	41	9	sand
9.013	218.67	0.9071	42	9	sand
9.066	221.71	0.9060	42	9	sand
9.158	225.67	0.9018	43	9	sand
9.206	225.89	1.0026	43	9	sand
9.265	227.02	1.1275	43	9	sand
9.339	226.01	1.2764	43	9	sand
9.386	229.96	1.2848	44	9	sand
9.455	241.13	1.3256	46	9	sand
9.551	243.05	1.3790	47	9	sand
9.596	238.08	1.4149	46	9	sand
9.649	238.87	1.4703	46	9	sand
9.715	251.29	1.4957	48	9	sand
9.785	257.63	0.0000	0	0	<out of range>
9.871	279.86	0.0000	0	0	<out of range>
9.915	286.41	0.0000	0	0	<out of range>
9.988	294.98	0.0000	0	0	<out of range>
10.057	287.98	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 14.842 ft
 SITE: B-406

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.23	0.1975	0	0	<out of range>
0.090	1.92	0.2428	0	0	<out of range>
0.135	2.03	0.2616	0	0	<out of range>
0.198	3.05	0.2897	3	2	organic material
0.271	3.80	0.3210	4	2	organic material
0.347	5.45	0.3447	5	3	clay
0.395	7.56	0.3631	7	3	clay
0.479	11.74	0.4031	7	4	silty clay to clay
0.532	13.97	0.4406	9	4	silty clay to clay
0.592	14.76	0.5017	9	4	silty clay to clay
0.677	13.07	0.5846	13	3	clay
0.732	10.59	0.6324	10	3	clay
0.802	10.62	0.6702	10	3	clay
0.858	10.65	0.6921	10	3	clay
0.933	10.36	0.7137	10	3	clay
1.001	10.70	0.7110	10	3	clay
1.059	10.81	0.7050	10	3	clay
1.123	10.93	0.7011	10	3	clay
1.207	10.96	0.7108	10	3	clay
1.266	11.44	0.7159	11	3	clay
1.328	11.69	0.7213	11	3	clay
1.387	11.71	0.7303	11	3	clay
1.446	11.50	0.7389	11	3	clay
1.536	11.95	0.7583	11	3	clay
1.589	12.62	0.7683	12	3	clay
1.652	12.95	0.7851	12	3	clay
1.707	12.94	0.7927	12	3	clay
1.775	13.05	0.7838	12	3	clay
1.845	12.94	0.7717	12	3	clay
1.916	13.51	0.7592	13	3	clay
1.973	13.73	0.7274	13	3	clay
2.054	14.54	0.6406	14	3	clay
2.115	15.32	0.5851	10	4	silty clay to clay
2.177	16.88	0.5608	11	4	silty clay to clay
2.258	18.88	0.5285	9	5	clayey silt to silty clay
2.309	19.66	0.5038	9	5	clayey silt to silty clay
2.380	19.66	0.4807	9	5	clayey silt to silty clay
2.437	18.75	0.4491	9	5	clayey silt to silty clay
2.505	17.39	0.4108	8	5	clayey silt to silty clay
2.566	17.05	0.3866	8	5	clayey silt to silty clay
2.633	16.26	0.3818	8	5	clayey silt to silty clay
2.697	15.81	0.3913	8	5	clayey silt to silty clay
2.776	14.79	0.3861	7	5	clayey silt to silty clay
2.825	14.12	0.4022	7	5	clayey silt to silty clay
2.894	12.53	0.4331	8	4	silty clay to clay
2.967	13.94	0.5640	13	3	clay
3.034	13.77	0.6017	13	3	clay
3.096	15.12	0.5063	10	4	silty clay to clay
3.179	18.50	0.4810	9	5	clayey silt to silty clay
3.224	18.05	0.4819	9	5	clayey silt to silty clay
3.291	10.17	0.4560	10	3	clay
3.349	11.52	0.3708	7	4	silty clay to clay
3.419	12.65	0.2772	6	5	clayey silt to silty clay
3.501	11.74	0.2789	6	5	clayey silt to silty clay
3.558	12.08	0.2709	6	5	clayey silt to silty clay
3.612	12.07	0.2600	6	5	clayey silt to silty clay
3.680	12.06	0.2511	6	5	clayey silt to silty clay
3.751	12.06	0.2442	6	5	clayey silt to silty clay
3.816	12.06	0.2356	6	5	clayey silt to silty clay
3.873	12.51	0.2424	6	5	clayey silt to silty clay
3.963	13.19	0.2568	6	5	clayey silt to silty clay
4.017	13.52	0.2682	6	5	clayey silt to silty clay
4.087	13.86	0.2913	7	5	clayey silt to silty clay

SOUNDING

TOTAL DEPTH: 14.842 ft
SITE: B-406

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.151	14.09	0.3290	7	5	clayey silt to silty clay
4.204	14.09	0.3620	7	5	clayey silt to silty clay
4.276	14.31	0.3936	7	5	clayey silt to silty clay
4.346	15.21	0.4037	7	5	clayey silt to silty clay
4.401	17.24	0.4039	8	5	clayey silt to silty clay
4.465	21.18	0.4141	8	6	sandy silt to clayey silt
4.532	26.03	0.4167	10	6	sandy silt to clayey silt
4.613	31.89	0.4221	12	6	sandy silt to clayey silt
4.680	35.15	0.4234	11	7	silty sand to sandy silt
4.739	38.98	0.4532	12	7	silty sand to sandy silt
4.797	43.26	0.4881	14	7	silty sand to sandy silt
4.877	46.98	0.5171	15	7	silty sand to sandy silt
4.932	54.08	0.5307	17	7	silty sand to sandy silt
4.988	54.08	0.5396	17	7	silty sand to sandy silt
5.073	55.31	0.5829	18	7	silty sand to sandy silt
5.121	58.02	0.5903	19	7	silty sand to sandy silt
5.201	59.71	0.5313	19	7	silty sand to sandy silt
5.267	60.16	0.5163	14	8	sand to silty sand
5.321	59.93	0.5163	14	8	sand to silty sand
5.393	56.67	0.5163	18	7	silty sand to sandy silt
5.456	52.27	0.5438	17	7	silty sand to sandy silt
5.512	48.44	0.5567	15	7	silty sand to sandy silt
5.603	44.73	0.4905	14	7	silty sand to sandy silt
5.654	41.69	0.4751	13	7	silty sand to sandy silt
5.721	39.21	0.4751	13	7	silty sand to sandy silt
5.788	34.82	0.4751	11	7	silty sand to sandy silt
5.847	30.31	0.4846	12	6	sandy silt to clayey silt
5.938	24.23	0.4627	9	6	sandy silt to clayey silt
5.989	24.23	0.4504	9	6	sandy silt to clayey silt
6.049	24.23	0.4218	9	6	sandy silt to clayey silt
6.113	24.23	0.4050	9	6	sandy silt to clayey silt
6.178	24.23	0.4056	9	6	sandy silt to clayey silt
6.236	25.92	0.4044	10	6	sandy silt to clayey silt
6.307	28.51	0.3992	11	6	sandy silt to clayey silt
6.368	30.99	0.4345	12	6	sandy silt to clayey silt
6.447	35.61	0.5644	14	6	sandy silt to clayey silt
6.504	42.48	0.5893	14	7	silty sand to sandy silt
6.577	55.66	0.6449	18	7	silty sand to sandy silt
6.629	73.23	0.7897	18	8	sand to silty sand
6.701	85.62	0.8578	20	8	sand to silty sand
6.772	104.88	0.8724	25	8	sand to silty sand
6.839	89.44	0.8796	21	8	sand to silty sand
6.892	134.61	0.9517	26	9	sand
6.956	146.66	1.1577	28	9	sand
7.049	167.50	1.1414	32	9	sand
7.104	187.78	1.2128	36	9	sand
7.161	190.60	1.3921	37	9	sand
7.241	190.71	1.4395	37	9	sand
7.293	190.83	1.3616	37	9	sand
7.354	192.41	1.3029	37	9	sand
7.425	191.06	1.3559	37	9	sand
7.485	185.88	1.4385	36	9	sand
7.575	175.86	1.4926	34	9	sand
7.618	172.25	1.4938	33	9	sand
7.679	166.84	1.4575	32	9	sand
7.761	156.94	1.3170	30	9	sand
7.825	156.83	1.2911	30	9	sand
7.888	163.59	1.2870	31	9	sand
7.966	172.71	1.5606	33	9	sand
8.015	189.72	1.5755	36	9	sand
8.105	218.11	1.5282	42	9	sand
8.138	231.18	1.6938	44	9	sand
8.223	253.26	2.4620	49	9	sand

SOUNDING

TOTAL DEPTH: 14.842 ft
SITE: B-406

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.278	264.97	2.6873	51	9	sand	
8.349	282.21	2.7184	54	9	sand	
8.409	293.36	2.6622	56	9	sand	
8.472	277.72	2.5036	53	9	sand	
8.536	280.99	2.4859	54	9	sand	
8.625	277.16	2.3086	53	9	sand	
8.684	276.60	2.3998	53	9	sand	
8.732	276.96	2.6738	53	9	sand	
8.806	277.31	2.6474	53	9	sand	
8.866	277.67	2.8014	53	9	sand	
8.929	278.04	3.3562	53	9	sand	
8.994	286.48	3.1292	55	9	sand	
9.060	281.64	2.8338	54	9	sand	
9.130	264.07	2.6005	51	9	sand	
9.213	282.01	2.8280	54	9	sand	
9.267	264.20	2.7110	51	9	sand	
9.358	282.33	1.6962	54	9	sand	
9.409	284.69	1.7077	55	9	sand	
9.458	291.34	1.7103	56	9	sand	
9.522	281.09	1.8899	54	9	sand	
9.598	282.11	2.0636	54	9	sand	
9.653	282.16	2.0914	54	9	sand	
9.737	282.17	2.1416	54	9	sand	
9.790	282.22	2.0808	54	9	sand	
9.844	293.59	2.1107	56	9	sand	
9.936	291.47	2.0493	56	9	sand	
9.987	287.43	1.9896	55	9	sand	
10.056	287.21	1.9977	55	9	sand	
10.111	287.04	2.0038	55	9	sand	
10.208	303.94	2.0270	58	9	sand	
10.245	299.33	2.4347	57	9	sand	
10.307	310.02	3.1476	59	9	sand	
10.394	311.37	3.1040	60	9	sand	
10.439	300.00	2.8862	57	9	sand	
10.518	274.65	3.3270	53	9	sand	
10.565	259.00	3.5110	50	9	sand	
10.638	245.70	3.0912	47	9	sand	
10.716	256.40	2.8293	49	9	sand	
10.780	254.72	2.7428	49	9	sand	
10.831	226.23	2.6389	43	9	sand	
10.922	201.11	2.8198	48	8	sand to silty sand	
10.959	201.01	2.7604	48	8	sand to silty sand	
11.024	201.00	2.2196	38	9	sand	
11.118	200.87	1.7892	38	9	sand	
11.168	186.01	1.6656	36	9	sand	
11.233	178.13	1.5771	34	9	sand	
11.309	177.79	1.4743	34	9	sand	
11.363	179.03	1.3174	34	9	sand	
11.418	177.44	1.1334	34	9	sand	
11.495	177.90	1.1746	34	9	sand	
11.553	180.71	1.2666	35	9	sand	
11.648	182.74	1.4620	35	9	sand	
11.682	181.73	1.4666	35	9	sand	
11.754	184.66	1.4739	35	9	sand	
11.837	192.09	1.3998	37	9	sand	
11.892	193.44	1.8180	37	9	sand	
11.944	197.73	1.9390	38	9	sand	
12.014	192.32	2.0246	37	9	sand	
12.083	207.19	2.2067	40	9	sand	
12.139	196.14	2.2734	38	9	sand	
12.212	199.89	2.6311	48	8	sand to silty sand	
12.277	199.65	2.0858	38	9	sand	
12.342	190.16	2.0835	36	9	sand	

SOUNDING

TOTAL DEPTH: 14.842 ft
SITE: B-406

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.421	202.78	2.2929	39	9	sand	
12.484	214.61	2.2518	41	9	sand	
12.562	166.86	2.1427	40	8	sand to silty	sand
12.610	157.18	2.0190	38	8	sand to silty	sand
12.671	158.07	1.7296	38	8	sand to silty	sand
12.744	157.84	1.3566	30	9	sand	
12.803	159.19	1.1637	30	9	sand	
12.884	159.14	1.1435	30	9	sand	
12.940	159.30	1.1448	31	9	sand	
12.995	159.08	1.0683	30	9	sand	
13.070	157.05	0.9733	30	9	sand	
13.149	156.38	1.0217	30	9	sand	
13.189	155.59	1.0431	30	9	sand	
13.257	156.04	1.0563	30	9	sand	
13.337	154.61	1.0785	30	9	sand	
13.395	153.66	1.0939	29	9	sand	
13.476	153.44	1.1036	29	9	sand	
13.523	152.09	1.1051	29	9	sand	
13.595	148.14	1.1078	28	9	sand	
13.653	143.30	1.1034	27	9	sand	
13.719	136.21	1.1030	26	9	sand	
13.802	128.43	1.1025	31	8	sand to silty	sand
13.867	124.27	1.1021	30	8	sand to silty	sand
13.931	122.35	1.1042	29	8	sand to silty	sand
13.993	121.22	1.1205	29	8	sand to silty	sand
14.056	122.80	1.1449	29	8	sand to silty	sand
14.123	130.35	1.1916	31	8	sand to silty	sand
14.183	141.73	1.2577	34	8	sand to silty	sand
14.244	152.87	1.3455	29	9	sand	
14.310	163.69	1.4588	31	9	sand	
14.375	174.05	1.5906	33	9	sand	
14.442	184.20	1.7756	35	9	sand	
14.505	196.14	1.9485	38	9	sand	
14.589	217.65	0.0000	0	0	<out of range>	
14.652	240.75	0.0000	0	0	<out of range>	
14.701	258.43	0.0000	0	0	<out of range>	
14.772	306.54	0.0000	0	0	<out of range>	
14.842	314.75	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 12.602 ft
SITE: B-407

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	1.02	0.0515	1	2	organic material
0.079	3.16	0.0931	3	3	clay
0.143	4.40	0.1211	4	3	clay
0.216	5.76	0.1527	6	3	clay
0.290	6.89	0.1910	4	4	silty clay to clay
0.340	7.11	0.2158	7	3	clay
0.401	8.01	0.2399	5	4	silty clay to clay
0.465	8.46	0.2578	5	4	silty clay to clay
0.530	9.14	0.2738	6	4	silty clay to clay
0.615	10.03	0.2687	6	4	silty clay to clay
0.671	10.48	0.2625	7	4	silty clay to clay
0.730	10.50	0.2617	7	4	silty clay to clay
0.801	10.52	0.2778	7	4	silty clay to clay
0.865	10.55	0.3060	7	4	silty clay to clay
0.932	10.58	0.3531	7	4	silty clay to clay
1.005	11.82	0.4653	11	3	clay
1.064	12.61	0.5788	12	3	clay
1.117	13.51	0.6647	13	3	clay
1.192	14.41	0.8360	14	3	clay
1.257	15.42	0.9591	15	3	clay
1.313	15.52	1.0374	15	3	clay
1.381	16.42	1.1189	16	3	clay
1.449	16.98	1.0460	16	3	clay
1.518	19.13	0.9040	18	3	clay
1.580	19.81	0.7879	13	4	silty clay to clay
1.647	23.53	0.6671	11	5	clayey silt to silty clay
1.709	26.84	0.5533	10	6	sandy silt to clayey silt
1.782	28.44	0.4207	11	6	sandy silt to clayey silt
1.864	29.57	0.3103	9	7	silty sand to sandy silt
1.926	30.36	0.2698	10	7	silty sand to sandy silt
1.970	30.82	0.2507	10	7	silty sand to sandy silt
2.047	31.95	0.2257	10	7	silty sand to sandy silt
2.115	32.74	0.2161	10	7	silty sand to sandy silt
2.178	33.87	0.2149	11	7	silty sand to sandy silt
2.236	34.66	0.2161	11	7	silty sand to sandy silt
2.310	35.22	0.2211	11	7	silty sand to sandy silt
2.393	36.01	0.2299	11	7	silty sand to sandy silt
2.455	36.46	0.2368	12	7	silty sand to sandy silt
2.505	36.69	0.2429	12	7	silty sand to sandy silt
2.578	37.48	0.2544	12	7	silty sand to sandy silt
2.638	38.16	0.2612	12	7	silty sand to sandy silt
2.703	38.49	0.2663	12	7	silty sand to sandy silt
2.789	38.95	0.2720	12	7	silty sand to sandy silt
2.845	39.28	0.2778	13	7	silty sand to sandy silt
2.892	39.51	0.2877	13	7	silty sand to sandy silt
2.973	40.41	0.3709	13	7	silty sand to sandy silt
3.042	40.98	0.4240	13	7	silty sand to sandy silt
3.096	41.99	0.4530	13	7	silty sand to sandy silt
3.167	43.23	0.5899	14	7	silty sand to sandy silt
3.231	44.81	0.6219	14	7	silty sand to sandy silt
3.285	49.33	0.5998	16	7	silty sand to sandy silt
3.364	50.35	0.5178	16	7	silty sand to sandy silt
3.412	50.35	0.4579	16	7	silty sand to sandy silt
3.482	45.38	0.4027	14	7	silty sand to sandy silt
3.570	44.03	0.3034	14	7	silty sand to sandy silt
3.617	43.69	0.2740	14	7	silty sand to sandy silt
3.683	43.01	0.2729	14	7	silty sand to sandy silt
3.764	42.67	0.2935	14	7	silty sand to sandy silt
3.813	40.98	0.2970	13	7	silty sand to sandy silt
3.879	41.77	0.2992	13	7	silty sand to sandy silt
3.956	41.55	0.2909	13	7	silty sand to sandy silt
4.023	40.19	0.2784	13	7	silty sand to sandy silt
4.071	39.97	0.2650	13	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 12.602 ft
SITE: B-407

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.159	38.95	0.2336	12	7	silty sand to sandy silt
4.202	38.27	0.2283	12	7	silty sand to sandy silt
4.281	36.47	0.2248	12	7	silty sand to sandy silt
4.360	35.12	0.2182	11	7	silty sand to sandy silt
4.411	33.87	0.2093	11	7	silty sand to sandy silt
4.475	32.52	0.1991	10	7	silty sand to sandy silt
4.549	31.28	0.1898	10	7	silty sand to sandy silt
4.604	30.03	0.1819	10	7	silty sand to sandy silt
4.666	29.13	0.1702	9	7	silty sand to sandy silt
4.738	28.12	0.1597	9	7	silty sand to sandy silt
4.800	27.21	0.1544	9	7	silty sand to sandy silt
4.869	26.31	0.1478	8	7	silty sand to sandy silt
4.939	25.18	0.1435	8	7	silty sand to sandy silt
4.996	24.39	0.1377	8	7	silty sand to sandy silt
5.075	23.38	0.1306	7	7	silty sand to sandy silt
5.135	22.36	0.1282	7	7	silty sand to sandy silt
5.184	21.57	0.1256	7	7	silty sand to sandy silt
5.275	20.10	0.1212	8	6	sandy silt to clayey silt
5.329	19.54	0.1239	7	6	sandy silt to clayey silt
5.401	19.90	0.1719	8	6	sandy silt to clayey silt
5.461	19.71	0.2131	8	6	sandy silt to clayey silt
5.522	18.30	0.2162	7	6	sandy silt to clayey silt
5.593	19.88	0.2260	8	6	sandy silt to clayey silt
5.656	23.04	0.3128	9	6	sandy silt to clayey silt
5.718	30.94	0.4152	12	6	sandy silt to clayey silt
5.782	43.70	0.3795	14	7	silty sand to sandy silt
5.849	55.89	0.4016	13	8	sand to silty sand
5.925	65.49	0.4464	16	8	sand to silty sand
5.995	68.88	0.4904	16	8	sand to silty sand
6.056	75.53	0.4954	18	8	sand to silty sand
6.120	78.02	0.4883	19	8	sand to silty sand
6.186	80.84	0.4865	19	8	sand to silty sand
6.240	82.76	0.5219	20	8	sand to silty sand
6.311	85.69	0.5626	21	8	sand to silty sand
6.384	91.90	0.5862	22	8	sand to silty sand
6.436	93.82	0.6045	22	8	sand to silty sand
6.496	87.27	0.6273	21	8	sand to silty sand
6.562	87.95	0.6006	21	8	sand to silty sand
6.637	85.58	0.4984	20	8	sand to silty sand
6.707	82.76	0.3779	20	8	sand to silty sand
6.768	80.84	0.3356	19	8	sand to silty sand
6.824	78.35	0.3356	19	8	sand to silty sand
6.892	77.00	0.0083	15	9	sand
6.963	76.09	0.0083	15	9	sand
7.025	11.65	0.2872	6	5	clayey silt to silty clay
7.123	11.65	0.4865	11	3	clay
7.166	11.65	0.5730	11	3	clay
7.263	11.76	0.5953	11	3	clay
7.293	37.27	0.5798	14	6	sandy silt to clayey silt
7.364	73.83	0.5068	18	8	sand to silty sand
7.431	75.53	0.4866	18	8	sand to silty sand
7.497	70.11	0.5099	17	8	sand to silty sand
7.554	69.21	0.4772	17	8	sand to silty sand
7.628	67.07	0.4269	16	8	sand to silty sand
7.693	65.37	0.3935	16	8	sand to silty sand
7.761	62.55	0.3935	15	8	sand to silty sand
7.819	58.26	0.3935	14	8	sand to silty sand
7.891	58.60	0.3825	14	8	sand to silty sand
7.963	54.65	0.3772	13	8	sand to silty sand
8.017	46.29	0.4286	15	7	silty sand to sandy silt
8.087	43.69	0.5580	14	7	silty sand to sandy silt
8.154	42.12	0.5954	13	7	silty sand to sandy silt
8.207	41.10	0.6205	13	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 12.602 ft
SITE: B-407

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.291	41.89	0.7412	16	6	sandy silt to clayey silt
8.351	33.99	0.7104	13	6	sandy silt to clayey silt
8.417	33.08	0.6539	13	6	sandy silt to clayey silt
8.494	35.23	0.4735	11	7	silty sand to sandy silt
8.541	27.33	0.3540	10	6	sandy silt to clayey silt
8.612	25.52	0.2412	10	6	sandy silt to clayey silt
8.682	24.39	0.1925	8	7	silty sand to sandy silt
8.740	23.83	0.1556	8	7	silty sand to sandy silt
8.805	19.99	0.1191	8	6	sandy silt to clayey silt
8.877	18.97	0.1015	7	6	sandy silt to clayey silt
8.932	17.28	0.0928	7	6	sandy silt to clayey silt
8.993	16.95	0.0829	6	6	sandy silt to clayey silt
9.071	16.16	0.0766	6	6	sandy silt to clayey silt
9.122	15.59	0.0780	6	6	sandy silt to clayey silt
9.187	14.80	0.0887	6	6	sandy silt to clayey silt
9.268	14.35	0.1474	5	6	sandy silt to clayey silt
9.320	14.57	0.2465	7	5	clayey silt to silty clay
9.387	16.15	0.4585	8	5	clayey silt to silty clay
9.462	19.99	0.4482	10	5	clayey silt to silty clay
9.526	25.18	0.3392	10	6	sandy silt to clayey silt
9.605	33.65	0.3482	11	7	silty sand to sandy silt
9.655	38.39	0.3861	12	7	silty sand to sandy silt
9.715	39.63	0.3272	13	7	silty sand to sandy silt
9.799	42.11	0.2735	13	7	silty sand to sandy silt
9.852	37.14	0.2258	12	7	silty sand to sandy silt
9.919	28.91	0.2064	9	7	silty sand to sandy silt
9.978	25.19	0.2086	8	7	silty sand to sandy silt
10.046	21.46	0.1628	8	6	sandy silt to clayey silt
10.106	16.94	0.1216	6	6	sandy silt to clayey silt
10.173	13.66	0.1046	5	6	sandy silt to clayey silt
10.257	13.89	0.2049	7	5	clayey silt to silty clay
10.322	14.68	0.2383	7	5	clayey silt to silty clay
10.371	15.81	0.2513	6	6	sandy silt to clayey silt
10.469	20.89	0.2461	8	6	sandy silt to clayey silt
10.503	24.95	0.2915	10	6	sandy silt to clayey silt
10.567	36.47	0.3663	12	7	silty sand to sandy silt
10.658	47.87	0.4026	15	7	silty sand to sandy silt
10.698	53.85	0.4180	17	7	silty sand to sandy silt
10.762	61.75	0.4175	15	8	sand to silty sand
10.854	61.75	0.4484	15	8	sand to silty sand
10.901	60.51	0.4614	14	8	sand to silty sand
10.976	68.08	0.5125	16	8	sand to silty sand
11.030	73.16	0.5397	18	8	sand to silty sand
11.094	82.75	0.5689	20	8	sand to silty sand
11.188	103.52	0.5621	25	8	sand to silty sand
11.230	113.35	0.5592	22	9	sand
11.291	127.57	0.6690	24	9	sand
11.378	150.60	1.0962	29	9	sand
11.437	167.09	1.1099	32	9	sand
11.500	184.80	1.1711	35	9	sand
11.571	213.58	1.4215	41	9	sand
11.630	235.48	1.4528	45	9	sand
11.692	260.88	1.6149	50	9	sand
11.764	290.01	1.9844	56	9	sand
11.822	319.14	1.9988	61	9	sand
11.879	347.13	2.1877	55	10	gravelly sand to sand
11.969	351.31	2.9826	67	9	sand
12.016	340.72	3.0544	65	9	sand
12.092	329.55	2.4874	63	9	sand
12.157	329.20	2.7522	63	9	sand
12.213	329.20	4.1461	63	9	sand
12.286	328.86	5.4338	79	8	sand to silty sand
12.347	346.81	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 12.602 ft
SITE: B-407

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.407	363.50	0.0000	0	0	<out of range>
12.472	382.81	0.0000	0	0	<out of range>
12.538	348.28	0.0000	0	0	<out of range>
12.602	354.14	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 31.445 ft
SITE: B-408

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0010	0	0	<out of range>
0.076	6.91	0.0000	0	0	<out of range>
0.138	4.75	0.0000	0	0	<out of range>
0.199	8.70	0.0000	0	0	<out of range>
0.269	13.31	0.0000	0	0	<out of range>
0.337	16.58	-0.0008	0	0	<out of range>
0.400	18.95	0.0073	6	7	silty sand to sandy silt
0.469	21.09	0.0410	7	7	silty sand to sandy silt
0.548	22.10	0.0667	7	7	silty sand to sandy silt
0.593	22.44	0.0839	7	7	silty sand to sandy silt
0.669	25.59	0.1184	8	7	silty sand to sandy silt
0.729	26.27	0.1398	8	7	silty sand to sandy silt
0.797	26.26	0.1802	8	7	silty sand to sandy silt
0.864	22.66	0.2150	9	6	sandy silt to clayey silt
0.919	20.07	0.2292	8	6	sandy silt to clayey silt
1.001	16.13	0.2177	6	6	sandy silt to clayey silt
1.063	13.54	0.1870	6	5	clayey silt to silty clay
1.117	13.37	0.1662	5	6	sandy silt to clayey silt
1.207	13.37	0.2142	6	5	clayey silt to silty clay
1.264	13.20	0.1987	6	5	clayey silt to silty clay
1.313	14.55	0.1866	6	6	sandy silt to clayey silt
1.381	19.63	0.2326	8	6	sandy silt to clayey silt
1.461	31.00	0.3613	10	7	silty sand to sandy silt
1.516	33.03	0.4813	13	6	sandy silt to clayey silt
1.585	35.28	0.6583	14	6	sandy silt to clayey silt
1.658	30.89	0.6078	12	6	sandy silt to clayey silt
1.733	17.47	0.5382	8	5	clayey silt to silty clay
1.795	23.79	0.4312	9	6	sandy silt to clayey silt
1.857	10.70	0.2975	7	4	silty clay to clay
1.905	8.23	0.2573	8	3	clay
1.988	9.12	0.2811	6	4	silty clay to clay
2.052	11.39	0.2390	5	5	clayey silt to silty clay
2.107	9.81	0.2344	6	4	silty clay to clay
2.181	11.62	0.2007	6	5	clayey silt to silty clay
2.250	12.74	0.1278	5	6	sandy silt to clayey silt
2.329	15.67	0.0977	6	6	sandy silt to clayey silt
2.369	16.69	0.0974	6	6	sandy silt to clayey silt
2.430	18.27	0.0974	6	6	sandy silt to clayey silt
2.494	21.09	0.0974	7	7	silty sand to sandy silt
2.567	23.00	0.1051	7	7	silty sand to sandy silt
2.628	24.47	0.1257	8	7	silty sand to sandy silt
2.696	26.49	0.1452	8	7	silty sand to sandy silt
2.757	27.96	0.1800	9	7	silty sand to sandy silt
2.847	29.08	0.1947	9	7	silty sand to sandy silt
2.896	30.21	0.1947	10	7	silty sand to sandy silt
2.962	31.67	0.2189	10	7	silty sand to sandy silt
3.047	33.70	0.3131	11	7	silty sand to sandy silt
3.094	35.16	0.3513	11	7	silty sand to sandy silt
3.160	37.42	0.3449	12	7	silty sand to sandy silt
3.218	40.01	0.3217	13	7	silty sand to sandy silt
3.284	47.79	0.3217	15	7	silty sand to sandy silt
3.361	45.31	0.3217	14	7	silty sand to sandy silt
3.422	48.47	0.3135	15	7	silty sand to sandy silt
3.493	39.34	0.2787	13	7	silty sand to sandy silt
3.565	38.55	0.2620	12	7	silty sand to sandy silt
3.617	36.18	0.2618	12	7	silty sand to sandy silt
3.686	34.72	0.2615	11	7	silty sand to sandy silt
3.759	32.69	0.2671	10	7	silty sand to sandy silt
3.809	29.42	0.2673	9	7	silty sand to sandy silt
3.873	28.07	0.2569	9	7	silty sand to sandy silt
3.958	28.41	0.2236	9	7	silty sand to sandy silt
4.003	26.60	0.2155	8	7	silty sand to sandy silt
4.085	26.72	0.2101	9	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 31.445 ft
SITE: B-408

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.157	24.13	0.1726	8	7	silty sand to sandy silt
4.200	22.89	0.1491	7	7	silty sand to sandy silt
4.276	22.21	0.1315	7	7	silty sand to sandy silt
4.341	20.97	0.0979	7	7	silty sand to sandy silt
4.402	20.75	0.0698	7	7	silty sand to sandy silt
4.502	20.07	0.0579	6	7	silty sand to sandy silt
4.531	19.51	0.0585	6	7	silty sand to sandy silt
4.599	19.51	0.0546	6	7	silty sand to sandy silt
4.674	18.49	0.0401	6	7	silty sand to sandy silt
4.745	17.93	0.0347	6	7	silty sand to sandy silt
4.792	17.59	0.0347	6	7	silty sand to sandy silt
4.862	16.91	0.0347	5	7	silty sand to sandy silt
4.927	15.90	0.0347	6	6	sandy silt to clayey silt
4.992	15.56	0.0332	6	6	sandy silt to clayey silt
5.073	15.56	0.0365	6	6	sandy silt to clayey silt
5.143	15.00	0.0405	6	6	sandy silt to clayey silt
5.196	15.34	0.0421	6	6	sandy silt to clayey silt
5.253	15.00	0.0544	6	6	sandy silt to clayey silt
5.329	15.00	0.1175	6	6	sandy silt to clayey silt
5.391	14.44	0.1339	6	6	sandy silt to clayey silt
5.473	14.44	0.1338	6	6	sandy silt to clayey silt
5.538	15.34	0.1130	6	6	sandy silt to clayey silt
5.578	16.01	0.0985	6	6	sandy silt to clayey silt
5.653	15.96	0.0945	6	6	sandy silt to clayey silt
5.722	15.90	0.1079	6	6	sandy silt to clayey silt
5.786	15.84	0.1096	6	6	sandy silt to clayey silt
5.859	15.79	0.1117	6	6	sandy silt to clayey silt
5.933	16.69	0.1131	6	6	sandy silt to clayey silt
5.983	18.49	0.1129	7	6	sandy silt to clayey silt
6.065	20.41	0.1240	8	6	sandy silt to clayey silt
6.104	21.87	0.1363	7	7	silty sand to sandy silt
6.174	23.56	0.1734	8	7	silty sand to sandy silt
6.267	26.04	0.1389	8	7	silty sand to sandy silt
6.302	26.72	0.1195	9	7	silty sand to sandy silt
6.380	28.75	0.1219	9	7	silty sand to sandy silt
6.447	29.98	0.1470	10	7	silty sand to sandy silt
6.520	34.16	0.1522	11	7	silty sand to sandy silt
6.575	31.79	0.1733	10	7	silty sand to sandy silt
6.628	30.89	0.1927	10	7	silty sand to sandy silt
6.714	30.44	0.1773	10	7	silty sand to sandy silt
6.776	31.34	0.1523	10	7	silty sand to sandy silt
6.825	33.03	0.1873	11	7	silty sand to sandy silt
6.891	32.13	0.2531	10	7	silty sand to sandy silt
6.969	33.48	0.2179	11	7	silty sand to sandy silt
7.042	38.55	0.1658	12	7	silty sand to sandy silt
7.088	37.54	0.1631	12	7	silty sand to sandy silt
7.156	36.29	0.1981	12	7	silty sand to sandy silt
7.219	36.97	0.2447	12	7	silty sand to sandy silt
7.298	33.81	0.2316	11	7	silty sand to sandy silt
7.366	32.91	0.2288	11	7	silty sand to sandy silt
7.427	31.11	0.2285	10	7	silty sand to sandy silt
7.494	29.99	0.2280	10	7	silty sand to sandy silt
7.561	29.31	0.2541	9	7	silty sand to sandy silt
7.619	27.73	0.2758	9	7	silty sand to sandy silt
7.682	27.51	0.3293	11	6	sandy silt to clayey silt
7.752	27.62	0.4819	11	6	sandy silt to clayey silt
7.809	27.96	0.5680	11	6	sandy silt to clayey silt
7.899	28.41	0.5438	11	6	sandy silt to clayey silt
7.940	28.86	0.5088	11	6	sandy silt to clayey silt
8.011	27.85	0.3983	11	6	sandy silt to clayey silt
8.084	29.88	0.5857	11	6	sandy silt to clayey silt
8.155	35.74	0.6192	14	6	sandy silt to clayey silt
8.208	38.00	0.5530	12	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 31.445 ft
SITE: B-408

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.304	32.02	0.4951	12	6	sandy silt to clayey silt
8.342	25.60	0.5059	10	6	sandy silt to clayey silt
8.404	23.68	0.4940	9	6	sandy silt to clayey silt
8.486	24.92	0.3663	10	6	sandy silt to clayey silt
8.552	24.80	0.2551	9	6	sandy silt to clayey silt
8.613	23.79	0.2017	9	6	sandy silt to clayey silt
8.677	23.79	0.2026	9	6	sandy silt to clayey silt
8.737	23.79	0.1890	8	7	silty sand to sandy silt
8.800	23.79	0.1749	8	7	silty sand to sandy silt
8.881	24.57	0.1669	8	7	silty sand to sandy silt
8.942	24.54	0.2163	9	6	sandy silt to clayey silt
8.990	24.51	0.2405	9	6	sandy silt to clayey silt
9.063	24.48	0.2135	9	6	sandy silt to clayey silt
9.127	24.46	0.1916	8	7	silty sand to sandy silt
9.195	24.68	0.1679	8	7	silty sand to sandy silt
9.263	21.08	0.1613	8	6	sandy silt to clayey silt
9.343	20.40	0.1516	8	6	sandy silt to clayey silt
9.389	20.51	0.1369	8	6	sandy silt to clayey silt
9.477	19.95	0.1024	8	6	sandy silt to clayey silt
9.537	19.72	0.0690	6	7	silty sand to sandy silt
9.590	19.27	0.0591	6	7	silty sand to sandy silt
9.676	18.48	0.0682	6	7	silty sand to sandy silt
9.728	18.03	0.0699	7	6	sandy silt to clayey silt
9.787	18.26	0.0726	7	6	sandy silt to clayey silt
9.854	16.00	0.0758	6	6	sandy silt to clayey silt
9.934	18.94	0.0776	6	7	silty sand to sandy silt
9.987	19.73	0.0786	6	7	silty sand to sandy silt
10.040	20.18	0.0809	6	7	silty sand to sandy silt
10.123	20.51	0.0892	7	7	silty sand to sandy silt
10.179	20.96	0.0924	7	7	silty sand to sandy silt
10.257	20.97	0.0968	7	7	silty sand to sandy silt
10.333	20.85	0.1006	7	7	silty sand to sandy silt
10.368	21.08	0.1046	7	7	silty sand to sandy silt
10.450	21.64	0.1105	7	7	silty sand to sandy silt
10.522	20.40	0.1144	8	6	sandy silt to clayey silt
10.578	19.50	0.1234	7	6	sandy silt to clayey silt
10.636	19.61	0.1261	8	6	sandy silt to clayey silt
10.703	18.94	0.1094	7	6	sandy silt to clayey silt
10.771	18.49	0.0941	7	6	sandy silt to clayey silt
10.830	18.83	0.0941	7	6	sandy silt to clayey silt
10.892	18.04	0.0946	7	6	sandy silt to clayey silt
10.962	18.04	0.0987	7	6	sandy silt to clayey silt
11.031	17.81	0.1004	7	6	sandy silt to clayey silt
11.109	17.70	0.0938	7	6	sandy silt to clayey silt
11.170	17.70	0.0932	7	6	sandy silt to clayey silt
11.221	17.92	0.0942	7	6	sandy silt to clayey silt
11.300	18.03	0.0947	7	6	sandy silt to clayey silt
11.368	18.37	0.0920	7	6	sandy silt to clayey silt
11.418	18.03	0.0888	7	6	sandy silt to clayey silt
11.510	18.03	0.0842	7	6	sandy silt to clayey silt
11.564	18.15	0.0932	7	6	sandy silt to clayey silt
11.615	18.49	0.1171	7	6	sandy silt to clayey silt
11.694	18.83	0.1492	7	6	sandy silt to clayey silt
11.757	19.28	0.1562	7	6	sandy silt to clayey silt
11.815	19.73	0.1617	8	6	sandy silt to clayey silt
11.878	20.29	0.1617	8	6	sandy silt to clayey silt
11.963	19.72	0.1626	8	6	sandy silt to clayey silt
12.008	18.48	0.1624	7	6	sandy silt to clayey silt
12.082	17.81	0.1355	7	6	sandy silt to clayey silt
12.154	17.25	0.1074	7	6	sandy silt to clayey silt
12.209	17.02	0.0923	7	6	sandy silt to clayey silt
12.294	16.46	0.0866	6	6	sandy silt to clayey silt
12.336	16.35	0.0851	6	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 31.445 ft
SITE: B-408

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.407	16.12	0.0835	6	6	sandy silt to clayey silt
12.503	15.55	0.0825	6	6	sandy silt to clayey silt
12.544	15.44	0.0808	6	6	sandy silt to clayey silt
12.604	15.10	0.0792	6	6	sandy silt to clayey silt
12.665	14.88	0.0784	6	6	sandy silt to clayey silt
12.753	14.09	0.0505	5	6	sandy silt to clayey silt
12.797	14.32	0.0500	5	6	sandy silt to clayey silt
12.880	13.41	0.0817	5	6	sandy silt to clayey silt
12.946	12.97	0.1230	5	6	sandy silt to clayey silt
13.003	12.51	0.1479	5	6	sandy silt to clayey silt
13.058	12.40	0.1644	6	5	clayey silt to silty clay
13.128	12.29	0.1773	6	5	clayey silt to silty clay
13.194	12.29	0.1746	6	5	clayey silt to silty clay
13.265	11.72	0.1655	6	5	clayey silt to silty clay
13.345	9.36	0.1540	4	5	clayey silt to silty clay
13.388	9.25	0.1498	4	5	clayey silt to silty clay
13.465	9.24	0.1339	4	5	clayey silt to silty clay
13.519	9.24	0.1118	4	5	clayey silt to silty clay
13.609	9.13	0.1092	4	5	clayey silt to silty clay
13.667	9.59	0.1034	5	5	clayey silt to silty clay
13.725	9.59	0.1032	5	5	clayey silt to silty clay
13.798	9.59	0.1199	5	5	clayey silt to silty clay
13.862	9.58	0.1348	5	5	clayey silt to silty clay
13.914	9.58	0.1330	5	5	clayey silt to silty clay
13.986	9.30	0.1271	4	5	clayey silt to silty clay
14.052	9.36	0.1466	4	5	clayey silt to silty clay
14.113	9.81	0.1589	5	5	clayey silt to silty clay
14.179	10.49	0.1033	5	5	clayey silt to silty clay
14.240	11.62	0.0864	4	6	sandy silt to clayey silt
14.309	12.63	0.0840	5	6	sandy silt to clayey silt
14.394	12.74	0.0897	5	6	sandy silt to clayey silt
14.456	11.95	0.0993	5	6	sandy silt to clayey silt
14.508	12.85	0.0973	5	6	sandy silt to clayey silt
14.573	13.19	0.0743	5	6	sandy silt to clayey silt
14.638	13.08	0.0772	5	6	sandy silt to clayey silt
14.703	12.74	0.0791	5	6	sandy silt to clayey silt
14.785	12.29	0.0728	5	6	sandy silt to clayey silt
14.849	12.85	0.0702	5	6	sandy silt to clayey silt
14.899	12.85	0.0692	5	6	sandy silt to clayey silt
14.974	10.83	0.0652	4	6	sandy silt to clayey silt
15.041	10.83	0.0754	4	6	sandy silt to clayey silt
15.103	10.94	0.0865	4	6	sandy silt to clayey silt
15.193	10.86	0.0827	4	6	sandy silt to clayey silt
15.243	10.88	0.1392	5	5	clayey silt to silty clay
15.298	10.86	0.1184	5	5	clayey silt to silty clay
15.361	10.83	0.1071	5	5	clayey silt to silty clay
15.436	12.97	0.0960	5	6	sandy silt to clayey silt
15.499	13.42	0.0644	5	6	sandy silt to clayey silt
15.554	12.96	0.0559	5	6	sandy silt to clayey silt
15.619	12.97	0.0721	5	6	sandy silt to clayey silt
15.692	9.81	0.0982	5	5	clayey silt to silty clay
15.758	10.04	0.1142	5	5	clayey silt to silty clay
15.836	10.49	0.1802	5	5	clayey silt to silty clay
15.880	11.28	0.2111	5	5	clayey silt to silty clay
15.972	11.95	0.1484	6	5	clayey silt to silty clay
16.029	13.98	0.1528	5	6	sandy silt to clayey silt
16.083	14.09	0.1577	5	6	sandy silt to clayey silt
16.158	14.03	0.1510	5	6	sandy silt to clayey silt
16.217	14.65	0.1425	6	6	sandy silt to clayey silt
16.275	13.98	0.1493	5	6	sandy silt to clayey silt
16.339	14.32	0.1430	5	6	sandy silt to clayey silt
16.408	15.90	0.1392	6	6	sandy silt to clayey silt
16.507	15.89	0.1279	6	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 31.445 ft
SITE: B-408

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.565	15.89	0.1175	6	6	sandy silt to clayey silt
16.603	16.79	0.1122	6	6	sandy silt to clayey silt
16.684	17.02	0.1041	7	6	sandy silt to clayey silt
16.765	17.58	0.0880	7	6	sandy silt to clayey silt
16.813	18.14	0.0875	7	6	sandy silt to clayey silt
16.881	18.37	0.0875	7	6	sandy silt to clayey silt
16.931	18.38	0.0875	7	6	sandy silt to clayey silt
17.008	18.38	0.0875	7	6	sandy silt to clayey silt
17.062	18.60	0.0886	7	6	sandy silt to clayey silt
17.127	18.26	0.1095	7	6	sandy silt to clayey silt
17.204	18.26	0.1231	7	6	sandy silt to clayey silt
17.259	18.26	0.1163	7	6	sandy silt to clayey silt
17.344	19.50	0.1212	7	6	sandy silt to clayey silt
17.397	18.94	0.1167	7	6	sandy silt to clayey silt
17.454	19.05	0.1116	7	6	sandy silt to clayey silt
17.536	18.93	0.1108	7	6	sandy silt to clayey silt
17.605	18.94	0.1112	7	6	sandy silt to clayey silt
17.651	18.94	0.1138	7	6	sandy silt to clayey silt
17.725	18.49	0.1245	7	6	sandy silt to clayey silt
17.787	18.48	0.1122	7	6	sandy silt to clayey silt
17.849	19.28	0.1095	7	6	sandy silt to clayey silt
17.937	20.18	0.1133	8	6	sandy silt to clayey silt
17.999	19.95	0.1173	8	6	sandy silt to clayey silt
18.081	20.63	0.1188	8	6	sandy silt to clayey silt
18.120	21.30	0.1195	7	7	silty sand to sandy silt
18.197	21.65	0.1217	7	7	silty sand to sandy silt
18.245	21.87	0.1150	7	7	silty sand to sandy silt
18.333	21.41	0.0968	7	7	silty sand to sandy silt
18.394	22.09	0.0941	7	7	silty sand to sandy silt
18.444	19.95	0.0951	6	7	silty sand to sandy silt
18.507	18.71	0.0983	7	6	sandy silt to clayey silt
18.582	18.04	0.0927	7	6	sandy silt to clayey silt
18.641	17.59	0.0746	7	6	sandy silt to clayey silt
18.717	16.91	0.0611	6	6	sandy silt to clayey silt
18.787	16.45	0.0668	6	6	sandy silt to clayey silt
18.837	16.34	0.0650	6	6	sandy silt to clayey silt
18.902	15.89	0.0611	6	6	sandy silt to clayey silt
18.972	15.89	0.0619	6	6	sandy silt to clayey silt
19.037	15.89	0.0676	6	6	sandy silt to clayey silt
19.101	15.67	0.0783	6	6	sandy silt to clayey silt
19.161	16.01	0.0880	6	6	sandy silt to clayey silt
19.233	16.46	0.1072	6	6	sandy silt to clayey silt
19.300	16.69	0.1262	6	6	sandy silt to clayey silt
19.384	17.13	0.1204	7	6	sandy silt to clayey silt
19.430	19.05	0.1214	7	6	sandy silt to clayey silt
19.507	15.33	0.1258	6	6	sandy silt to clayey silt
19.564	16.00	0.1282	6	6	sandy silt to clayey silt
19.626	16.45	0.1239	6	6	sandy silt to clayey silt
19.689	16.00	0.0914	6	6	sandy silt to clayey silt
19.755	16.79	0.0594	6	6	sandy silt to clayey silt
19.838	18.03	0.0594	6	7	silty sand to sandy silt
19.909	17.47	0.0621	7	6	sandy silt to clayey silt
19.948	17.36	0.0615	7	6	sandy silt to clayey silt
20.030	17.36	0.0619	7	6	sandy silt to clayey silt
20.098	17.02	0.0624	7	6	sandy silt to clayey silt
20.155	16.68	0.0605	6	6	sandy silt to clayey silt
20.214	16.68	0.0617	6	6	sandy silt to clayey silt
20.292	16.57	0.0663	6	6	sandy silt to clayey silt
20.354	16.57	0.0705	6	6	sandy silt to clayey silt
20.435	16.57	0.0723	6	6	sandy silt to clayey silt
20.483	16.80	0.0720	6	6	sandy silt to clayey silt
20.547	17.59	0.0716	7	6	sandy silt to clayey silt
20.621	17.70	0.0711	7	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 31.445 ft
SITE: B-408

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
20.697	18.49	0.0723	7	6	sandy silt to clayey silt
20.736	17.36	0.0661	7	6	sandy silt to clayey silt
20.812	15.89	0.0549	6	6	sandy silt to clayey silt
20.875	15.10	0.1035	6	6	sandy silt to clayey silt
20.943	15.13	0.1993	6	6	sandy silt to clayey silt
21.003	15.16	0.2668	7	5	clayey silt to silty clay
21.088	15.19	0.2727	7	5	clayey silt to silty clay
21.132	15.22	0.2479	7	5	clayey silt to silty clay
21.209	35.95	0.1736	11	7	silty sand to sandy silt
21.268	152.44	0.1872	29	9	sand
21.341	205.63	0.3531	33	10	gravelly sand to sand
21.415	218.13	0.7254	42	9	sand
21.487	98.25	0.5859	24	8	sand to silty sand
21.528	92.16	0.5077	22	8	sand to silty sand
21.596	94.89	0.8676	23	8	sand to silty sand
21.667	94.78	1.0297	23	8	sand to silty sand
21.733	94.66	1.1899	23	8	sand to silty sand
21.808	98.71	1.3702	24	8	sand to silty sand
21.883	76.97	0.8798	18	8	sand to silty sand
21.931	80.34	0.6651	19	8	sand to silty sand
21.984	81.24	0.5349	19	8	sand to silty sand
22.052	77.96	0.4578	19	8	sand to silty sand
22.120	86.07	0.4843	21	8	sand to silty sand
22.179	95.18	0.5919	23	8	sand to silty sand
22.247	96.48	0.6979	23	8	sand to silty sand
22.327	91.36	0.7238	22	8	sand to silty sand
22.380	97.79	0.7258	23	8	sand to silty sand
22.443	115.60	0.7596	28	8	sand to silty sand
22.525	107.03	1.1723	26	8	sand to silty sand
22.574	78.19	1.2762	25	7	silty sand to sandy silt
22.650	77.44	1.1820	25	7	silty sand to sandy silt
22.727	86.79	0.7855	21	8	sand to silty sand
22.778	88.60	0.7419	21	8	sand to silty sand
22.843	88.16	0.7275	21	8	sand to silty sand
22.913	91.52	0.7150	22	8	sand to silty sand
22.973	94.91	0.7526	23	8	sand to silty sand
23.038	97.38	0.7063	23	8	sand to silty sand
23.100	97.38	0.6623	23	8	sand to silty sand
23.173	96.14	0.4240	23	8	sand to silty sand
23.251	100.42	0.6602	24	8	sand to silty sand
23.319	100.74	0.9041	24	8	sand to silty sand
23.361	100.74	0.8723	24	8	sand to silty sand
23.433	117.08	0.9376	28	8	sand to silty sand
23.516	124.74	0.8780	24	9	sand
23.568	98.37	0.6733	24	8	sand to silty sand
23.634	99.18	0.6541	24	8	sand to silty sand
23.704	104.57	0.6482	25	8	sand to silty sand
23.770	98.06	0.5371	23	8	sand to silty sand
23.856	93.21	0.4800	22	8	sand to silty sand
23.894	91.97	0.4375	22	8	sand to silty sand
23.966	91.63	0.3663	22	8	sand to silty sand
24.016	90.84	0.3387	22	8	sand to silty sand
24.084	90.84	0.3880	22	8	sand to silty sand
24.149	93.32	0.4291	22	8	sand to silty sand
24.221	97.49	0.3854	19	9	sand
24.301	99.18	0.7259	24	8	sand to silty sand
24.358	105.60	1.2126	25	8	sand to silty sand
24.437	109.20	1.3562	26	8	sand to silty sand
24.507	119.00	1.0333	28	8	sand to silty sand
24.559	126.68	1.4102	30	8	sand to silty sand
24.625	123.06	1.7663	29	8	sand to silty sand
24.679	142.90	1.8153	34	8	sand to silty sand
24.755	171.29	1.8012	33	9	sand

SOUNDING

TOTAL DEPTH: 31.445 ft
SITE: B-408

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
24.806	192.25	1.8064	37	9	sand	
24.893	166.90	1.8013	40	8	sand to silty	sand
24.953	173.76	1.7939	33	9	sand	
25.012	183.12	1.5152	35	9	sand	
25.077	184.82	0.9274	35	9	sand	
25.135	193.71	0.6852	37	9	sand	
25.202	202.05	0.4919	39	9	sand	
25.284	198.43	0.5582	38	9	sand	
25.343	177.59	0.5796	34	9	sand	
25.399	171.96	0.8940	33	9	sand	
25.489	181.53	2.2356	43	8	sand to silty	sand
25.538	186.61	1.8896	36	9	sand	
25.595	193.93	1.7708	37	9	sand	
25.669	200.91	1.8911	38	9	sand	
25.740	184.70	1.9421	35	9	sand	
25.791	186.84	1.8402	36	9	sand	
25.853	170.55	1.2858	33	9	sand	
25.920	156.79	0.7656	30	9	sand	
26.004	154.54	0.9729	30	9	sand	
26.068	158.26	0.9835	30	9	sand	
26.120	159.27	0.7859	31	9	sand	
26.199	149.13	0.5477	29	9	sand	
26.264	142.91	0.6293	27	9	sand	
26.319	133.91	0.7130	26	9	sand	
26.380	133.68	0.7392	26	9	sand	
26.464	135.04	0.7387	26	9	sand	
26.519	135.38	0.7381	26	9	sand	
26.601	135.04	0.7608	26	9	sand	
26.664	140.67	0.6251	27	9	sand	
26.707	149.00	0.5574	29	9	sand	
26.789	159.13	0.5564	30	9	sand	
26.860	156.65	0.8254	30	9	sand	
26.912	166.12	0.8331	32	9	sand	
26.979	173.10	0.9541	33	9	sand	
27.044	186.06	1.2105	36	9	sand	
27.111	164.67	1.1553	32	9	sand	
27.168	152.94	0.8012	29	9	sand	
27.231	162.17	0.5668	31	9	sand	
27.308	170.40	0.4619	33	9	sand	
27.374	176.25	0.3810	34	9	sand	
27.455	178.30	0.7568	34	9	sand	
27.502	184.26	0.9588	35	9	sand	
27.594	174.80	1.0646	33	9	sand	
27.631	188.10	1.0932	36	9	sand	
27.697	212.21	1.1068	41	9	sand	
27.774	191.48	1.1165	37	9	sand	
27.846	191.14	1.1876	37	9	sand	
27.900	196.90	1.1438	38	9	sand	
27.958	217.63	1.0849	42	9	sand	
28.027	219.55	1.0670	42	9	sand	
28.091	222.03	1.1803	43	9	sand	
28.150	228.78	1.4809	44	9	sand	
28.228	247.04	2.1561	47	9	sand	
28.299	238.93	2.1422	46	9	sand	
28.355	239.72	1.8894	46	9	sand	
28.421	239.70	1.8947	46	9	sand	
28.480	240.40	1.9686	46	9	sand	
28.544	248.07	1.7493	48	9	sand	
28.629	215.61	1.6618	41	9	sand	
28.692	220.12	1.3045	42	9	sand	
28.742	219.90	0.9814	42	9	sand	
28.807	223.47	0.8867	43	9	sand	
28.883	209.85	1.1319	40	9	sand	

SOUNDING

TOTAL DEPTH: 31.445 ft
SITE: B-408

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
28.959	192.16	1.3532	37	9	sand
29.007	202.19	1.3994	39	9	sand
29.076	190.42	1.5621	36	9	sand
29.135	188.69	2.2364	36	9	sand
29.203	188.91	2.9145	45	8	sand to silty sand
29.268	211.22	2.3573	40	9	sand
29.355	226.99	2.5161	43	9	sand
29.419	247.27	2.2135	47	9	sand
29.466	243.21	2.0718	47	9	sand
29.549	231.51	2.1045	44	9	sand
29.612	238.23	2.1372	46	9	sand
29.665	262.17	2.1414	50	9	sand
29.733	291.46	1.9567	56	9	sand
29.793	309.94	1.6668	49	10	gravelly sand to sand
29.860	299.20	1.3122	48	10	gravelly sand to sand
29.962	312.01	1.5377	50	10	gravelly sand to sand
29.990	314.16	1.7652	50	10	gravelly sand to sand
30.060	289.20	1.8596	55	9	sand
30.124	242.33	1.5453	46	9	sand
30.197	251.65	1.4780	48	9	sand
30.261	249.41	1.3517	48	9	sand
30.324	239.98	1.2635	46	9	sand
30.389	222.06	1.0342	43	9	sand
30.458	205.53	0.7102	39	9	sand
30.512	192.66	0.6259	37	9	sand
30.584	179.58	0.6399	34	9	sand
30.646	170.69	0.6564	33	9	sand
30.733	169.23	0.6556	32	9	sand
30.803	170.36	0.7741	33	9	sand
30.854	184.55	0.8225	35	9	sand
30.948	197.41	1.0838	38	9	sand
30.985	207.31	1.3144	40	9	sand
31.045	219.93	1.8395	42	9	sand
31.123	247.43	2.5916	47	9	sand
31.197	245.51	0.0000	0	0	<out of range>
31.245	260.80	0.0000	0	0	<out of range>
31.324	301.37	0.0000	0	0	<out of range>
31.393	335.93	0.0000	0	0	<out of range>
31.445	357.26	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 13.531 ft
 SITE: B-409

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	-0.11	0.0767	0	0	<out of range>
0.094	2.95	0.1177	3	3	clay
0.134	3.28	0.1342	3	3	clay
0.200	5.77	0.1575	6	3	clay
0.264	6.79	0.1810	4	4	silty clay to clay
0.341	10.17	0.2181	5	5	clayey silt to silty clay
0.410	12.32	0.2627	6	5	clayey silt to silty clay
0.470	13.00	0.2940	6	5	clayey silt to silty clay
0.532	12.77	0.3180	6	5	clayey silt to silty clay
0.632	11.43	0.3270	7	4	silty clay to clay
0.673	10.64	0.3136	7	4	silty clay to clay
0.731	10.08	0.3053	6	4	silty clay to clay
0.834	9.97	0.3041	6	4	silty clay to clay
0.863	9.96	0.3037	6	4	silty clay to clay
0.933	9.85	0.3028	6	4	silty clay to clay
0.987	9.63	0.3122	6	4	silty clay to clay
1.078	9.63	0.3528	9	3	clay
1.132	9.64	0.4021	9	3	clay
1.193	9.64	0.4490	9	3	clay
1.261	10.09	0.4925	10	3	clay
1.326	10.88	0.5065	10	3	clay
1.379	11.67	0.4812	11	3	clay
1.448	13.70	0.4573	9	4	silty clay to clay
1.524	14.60	0.4086	7	5	clayey silt to silty clay
1.604	17.42	0.3635	8	5	clayey silt to silty clay
1.645	18.67	0.3319	7	6	sandy silt to clayey silt
1.709	20.70	0.2774	8	6	sandy silt to clayey silt
1.781	24.41	0.2209	9	6	sandy silt to clayey silt
1.839	27.01	0.1870	9	7	silty sand to sandy silt
1.911	29.38	0.1649	9	7	silty sand to sandy silt
1.989	32.08	0.1514	10	7	silty sand to sandy silt
2.054	34.22	0.1688	11	7	silty sand to sandy silt
2.115	36.71	0.2699	12	7	silty sand to sandy silt
2.168	40.43	0.3452	13	7	silty sand to sandy silt
2.266	47.54	0.4645	15	7	silty sand to sandy silt
2.305	52.84	0.6233	17	7	silty sand to sandy silt
2.366	60.30	0.9061	19	7	silty sand to sandy silt
2.443	67.52	1.3143	22	7	silty sand to sandy silt
2.506	72.14	1.7551	28	6	sandy silt to clayey silt
2.565	76.10	2.0207	29	6	sandy silt to clayey silt
2.648	78.93	1.6419	25	7	silty sand to sandy silt
2.711	79.38	2.0663	30	6	sandy silt to clayey silt
2.763	93.03	2.7602	36	6	sandy silt to clayey silt
2.824	104.66	3.0557	40	6	sandy silt to clayey silt
2.910	114.91	2.8290	37	7	silty sand to sandy silt
2.960	86.01	2.8374	33	6	sandy silt to clayey silt
3.047	54.31	2.8552	52	3	clay
3.109	60.51	1.3259	23	6	sandy silt to clayey silt
3.154	63.33	0.7008	20	7	silty sand to sandy silt
3.218	64.92	0.3500	16	8	sand to silty sand
3.300	66.95	0.2590	16	8	sand to silty sand
3.350	67.86	0.2772	16	8	sand to silty sand
3.419	65.49	0.2974	16	8	sand to silty sand
3.496	61.88	0.2968	15	8	sand to silty sand
3.563	58.93	0.2866	14	8	sand to silty sand
3.610	60.51	0.2876	14	8	sand to silty sand
3.681	58.94	0.3007	14	8	sand to silty sand
3.758	57.24	0.3386	14	8	sand to silty sand
3.810	57.47	0.3527	14	8	sand to silty sand
3.877	58.26	0.3291	14	8	sand to silty sand
3.956	60.74	0.3376	15	8	sand to silty sand
4.009	64.80	0.3407	16	8	sand to silty sand
4.086	70.10	0.3575	17	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 13.531 ft
SITE: B-409

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.154	71.01	0.3510	17	8	sand to silty sand	
4.210	73.49	0.3320	18	8	sand to silty sand	
4.266	73.16	0.3898	18	8	sand to silty sand	
4.355	74.18	0.6887	18	8	sand to silty sand	
4.404	73.95	0.7804	18	8	sand to silty sand	
4.495	75.64	0.8690	18	8	sand to silty sand	
4.530	74.97	0.9453	24	7	silty sand to sandy silt	
4.600	80.95	0.9373	19	8	sand to silty sand	
4.672	96.30	0.7129	23	8	sand to silty sand	
4.745	93.71	0.4984	22	8	sand to silty sand	
4.797	84.69	0.4528	20	8	sand to silty sand	
4.865	74.31	0.4546	18	8	sand to silty sand	
4.939	74.65	0.3823	18	8	sand to silty sand	
4.994	75.21	0.3171	18	8	sand to silty sand	
5.054	79.16	0.3027	19	8	sand to silty sand	
5.144	73.31	0.3036	18	8	sand to silty sand	
5.187	67.23	0.3054	16	8	sand to silty sand	
5.262	66.84	0.3211	16	8	sand to silty sand	
5.337	69.22	0.5534	17	8	sand to silty sand	
5.389	74.88	0.8145	18	8	sand to silty sand	
5.477	80.18	0.9384	19	8	sand to silty sand	
5.537	83.11	0.4691	20	8	sand to silty sand	
5.594	85.60	0.3955	20	8	sand to silty sand	
5.658	66.18	0.4132	16	8	sand to silty sand	
5.722	66.35	0.6073	16	8	sand to silty sand	
5.790	66.55	0.9579	21	7	silty sand to sandy silt	
5.842	62.88	0.9244	20	7	silty sand to sandy silt	
5.935	66.94	0.3798	16	8	sand to silty sand	
5.973	72.93	0.3293	17	8	sand to silty sand	
6.049	54.75	0.3319	13	8	sand to silty sand	
6.115	48.76	0.4368	16	7	silty sand to sandy silt	
6.175	56.22	0.5079	18	7	silty sand to sandy silt	
6.234	58.01	0.5307	19	7	silty sand to sandy silt	
6.308	56.09	0.5500	18	7	silty sand to sandy silt	
6.378	49.66	0.5954	16	7	silty sand to sandy silt	
6.436	48.99	0.4325	16	7	silty sand to sandy silt	
6.500	40.20	0.2258	13	7	silty sand to sandy silt	
6.576	33.20	0.1995	11	7	silty sand to sandy silt	
6.640	29.48	0.2012	9	7	silty sand to sandy silt	
6.698	26.43	0.2025	8	7	silty sand to sandy silt	
6.762	21.92	0.2032	8	6	sandy silt to clayey silt	
6.827	24.28	0.2461	9	6	sandy silt to clayey silt	
6.914	27.78	0.3327	11	6	sandy silt to clayey silt	
6.972	33.09	0.3330	11	7	silty sand to sandy silt	
7.026	40.99	0.3333	13	7	silty sand to sandy silt	
7.100	48.65	0.3363	16	7	silty sand to sandy silt	
7.165	53.18	0.3901	17	7	silty sand to sandy silt	
7.224	57.46	0.4603	14	8	sand to silty sand	
7.289	64.47	0.4659	15	8	sand to silty sand	
7.369	71.12	0.4694	17	8	sand to silty sand	
7.419	77.10	0.4894	18	8	sand to silty sand	
7.513	85.11	0.5521	20	8	sand to silty sand	
7.548	90.64	0.5991	22	8	sand to silty sand	
7.617	98.20	0.6638	24	8	sand to silty sand	
7.696	108.47	0.6615	26	8	sand to silty sand	
7.762	119.19	0.6936	23	9	sand	
7.815	126.87	0.7316	24	9	sand	
7.883	139.39	0.7860	27	9	sand	
7.959	148.87	0.8863	29	9	sand	
8.014	153.39	0.9809	29	9	sand	
8.074	155.76	1.0310	30	9	sand	
8.143	160.50	0.9196	31	9	sand	
8.207	170.09	0.9148	33	9	sand	

SOUNDING

TOTAL DEPTH: 13.531 ft
SITE: B-409

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.284	188.03	0.9096	36	9	sand	
8.356	202.05	0.8797	39	9	sand	
8.406	218.40	0.8157	42	9	sand	
8.505	211.52	0.8247	41	9	sand	
8.531	212.43	0.9827	41	9	sand	
8.603	205.47	1.2182	39	9	sand	
8.683	213.63	1.1919	41	9	sand	
8.727	214.81	1.1376	41	9	sand	
8.793	237.60	1.1664	46	9	sand	
8.860	246.24	1.5032	47	9	sand	
8.936	249.29	1.5554	48	9	sand	
8.996	256.49	1.5952	49	9	sand	
9.072	260.56	1.5941	50	9	sand	
9.148	249.98	1.5475	48	9	sand	
9.203	228.18	1.5591	44	9	sand	
9.262	220.73	1.5602	42	9	sand	
9.323	221.22	1.4977	42	9	sand	
9.394	221.16	1.4694	42	9	sand	
9.469	221.63	1.3693	42	9	sand	
9.536	227.12	1.6544	43	9	sand	
9.595	229.94	1.7994	44	9	sand	
9.680	247.43	1.7351	47	9	sand	
9.739	264.81	1.7339	51	9	sand	
9.782	298.33	1.6562	57	9	sand	
9.850	345.06	1.5280	55	10	gravelly sand	to sand
9.921	369.80	1.5317	59	10	gravelly sand	to sand
9.996	346.57	1.8482	55	10	gravelly sand	to sand
10.041	348.27	2.0768	56	10	gravelly sand	to sand
10.129	358.30	2.2439	57	10	gravelly sand	to sand
10.193	377.26	2.2745	60	10	gravelly sand	to sand
10.239	361.50	2.2780	58	10	gravelly sand	to sand
10.323	348.04	2.2339	56	10	gravelly sand	to sand
10.371	347.82	2.2978	56	10	gravelly sand	to sand
10.438	329.10	2.2877	63	9	sand	
10.520	324.11	2.1149	62	9	sand	
10.565	324.03	2.1231	62	9	sand	
10.636	334.64	2.1164	53	10	gravelly sand	to sand
10.706	349.53	1.9828	56	10	gravelly sand	to sand
10.782	351.34	2.0777	56	10	gravelly sand	to sand
10.835	354.61	2.3349	57	10	gravelly sand	to sand
10.901	335.88	2.4838	64	9	sand	
10.978	344.45	2.6271	66	9	sand	
11.036	366.09	2.7048	58	10	gravelly sand	to sand
11.107	317.06	2.7512	61	9	sand	
11.181	266.79	2.7645	51	9	sand	
11.232	244.80	2.5319	47	9	sand	
11.327	240.17	2.0402	46	9	sand	
11.370	242.99	1.9656	47	9	sand	
11.430	247.51	1.9185	47	9	sand	
11.487	256.64	1.9315	49	9	sand	
11.556	268.50	1.9137	51	9	sand	
11.625	276.39	1.8173	53	9	sand	
11.698	291.29	1.7353	56	9	sand	
11.777	293.66	1.6868	56	9	sand	
11.820	285.25	1.7203	55	9	sand	
11.888	287.70	1.8390	55	9	sand	
11.951	283.20	2.1485	54	9	sand	
12.019	282.63	2.5707	54	9	sand	
12.074	284.09	2.4884	54	9	sand	
12.145	281.39	2.3802	54	9	sand	
12.220	257.66	2.3705	49	9	sand	
12.297	221.78	2.2863	42	9	sand	
12.338	217.83	2.1651	42	9	sand	

SOUNDING

TOTAL DEPTH: 13.531 ft
 SITE: B-409

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.419	223.70	1.7160	43	9	sand	
12.468	231.72	1.4633	44	9	sand	
12.554	250.45	1.3916	48	9	sand	
12.615	260.95	1.4158	50	9	sand	
12.666	269.65	1.4448	52	9	sand	
12.746	286.36	1.5839	55	9	sand	
12.801	298.32	1.7240	57	9	sand	
12.865	309.50	1.8359	59	9	sand	
12.933	317.28	1.7976	51	10	gravelly sand to sand	
12.994	304.98	1.6578	49	10	gravelly sand to sand	
13.073	305.66	1.6035	49	10	gravelly sand to sand	
13.130	303.88	1.5768	48	10	gravelly sand to sand	
13.200	306.33	1.5460	49	10	gravelly sand to sand	
13.275	304.02	0.0000	0	0	<out of range>	
13.339	322.53	0.0000	0	0	<out of range>	
13.396	324.11	0.0000	0	0	<out of range>	
13.456	335.50	0.0000	0	0	<out of range>	
13.531	340.24	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 8.874 ft
SITE: B-410

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	-0.11	0.0062	0	0	<out of range>
0.078	2.98	0.0091	1	1	sensitive fine grained
0.141	3.66	0.0111	2	1	sensitive fine grained
0.201	4.90	0.0128	2	1	sensitive fine grained
0.272	6.94	0.0100	3	1	sensitive fine grained
0.335	8.76	0.0390	4	1	sensitive fine grained
0.410	10.57	0.1172	5	5	clayey silt to silty clay
0.481	12.04	0.1374	6	5	clayey silt to silty clay
0.534	12.60	0.1545	6	5	clayey silt to silty clay
0.603	13.62	0.1780	5	6	sandy silt to clayey silt
0.687	15.99	0.1961	6	6	sandy silt to clayey silt
0.724	16.56	0.1996	6	6	sandy silt to clayey silt
0.801	15.32	0.1976	6	6	sandy silt to clayey silt
0.858	13.28	0.2029	6	5	clayey silt to silty clay
0.930	12.72	0.2372	6	5	clayey silt to silty clay
1.002	12.72	0.2616	6	5	clayey silt to silty clay
1.073	13.17	0.2752	6	5	clayey silt to silty clay
1.144	13.17	0.3193	6	5	clayey silt to silty clay
1.198	13.05	0.3765	8	4	silty clay to clay
1.279	13.28	0.4800	8	4	silty clay to clay
1.318	13.39	0.5324	13	3	clay
1.397	14.18	0.6340	14	3	clay
1.450	14.41	0.7055	14	3	clay
1.534	14.97	0.8280	14	3	clay
1.593	15.76	0.9252	15	3	clay
1.672	16.22	1.0146	16	3	clay
1.709	16.21	1.0368	16	3	clay
1.774	16.55	1.0710	16	3	clay
1.838	16.89	1.0998	16	3	clay
1.906	17.01	1.1221	16	3	clay
1.970	16.89	1.1376	16	3	clay
2.035	17.34	1.1529	17	3	clay
2.114	18.02	1.1607	17	3	clay
2.179	18.93	1.1456	18	3	clay
2.236	20.40	1.1067	20	3	clay
2.318	22.43	0.9878	21	3	clay
2.376	25.15	0.8674	12	5	clayey silt to silty clay
2.434	28.65	0.7440	11	6	sandy silt to clayey silt
2.512	34.42	0.6151	13	6	sandy silt to clayey silt
2.573	39.85	0.5158	13	7	silty sand to sandy silt
2.630	44.71	0.4252	14	7	silty sand to sandy silt
2.703	51.50	0.3326	12	8	sand to silty sand
2.766	56.59	0.2660	14	8	sand to silty sand
2.824	60.43	0.2111	14	8	sand to silty sand
2.895	67.67	0.3471	16	8	sand to silty sand
2.956	72.42	0.5392	17	8	sand to silty sand
3.021	77.84	0.9322	25	7	silty sand to sandy silt
3.118	85.76	1.3020	27	7	silty sand to sandy silt
3.152	83.05	1.1442	27	7	silty sand to sandy silt
3.249	71.63	0.8042	23	7	silty sand to sandy silt
3.307	65.63	0.8170	21	7	silty sand to sandy silt
3.369	65.69	0.7124	21	7	silty sand to sandy silt
3.419	65.69	0.6272	16	8	sand to silty sand
3.490	65.75	0.6506	21	7	silty sand to sandy silt
3.564	61.11	0.5859	20	7	silty sand to sandy silt
3.621	53.99	0.5536	17	7	silty sand to sandy silt
3.697	46.98	0.3892	15	7	silty sand to sandy silt
3.763	44.15	0.2753	14	7	silty sand to sandy silt
3.819	43.81	0.2691	14	7	silty sand to sandy silt
3.874	43.47	0.2652	14	7	silty sand to sandy silt
3.959	41.21	0.2633	13	7	silty sand to sandy silt
4.014	38.38	0.2616	12	7	silty sand to sandy silt
4.093	37.93	0.4659	12	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 8.874 ft
SITE: B-410

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.135	37.93	0.5351	12	7	silty sand to sandy silt
4.213	38.72	0.7581	15	6	sandy silt to clayey silt
4.273	38.49	0.9706	15	6	sandy silt to clayey silt
4.342	33.29	0.7842	13	6	sandy silt to clayey silt
4.400	43.24	0.6618	14	7	silty sand to sandy silt
4.475	45.61	0.6930	15	7	silty sand to sandy silt
4.548	43.35	0.7441	14	7	silty sand to sandy silt
4.605	43.41	0.6799	14	7	silty sand to sandy silt
4.664	43.47	0.5241	14	7	silty sand to sandy silt
4.728	47.09	0.3400	15	7	silty sand to sandy silt
4.792	49.92	0.2942	12	8	sand to silty sand
4.857	49.01	0.3536	16	7	silty sand to sandy silt
4.933	50.14	0.4188	16	7	silty sand to sandy silt
5.001	52.41	0.4358	17	7	silty sand to sandy silt
5.081	54.90	0.4300	18	7	silty sand to sandy silt
5.123	57.27	0.4286	14	8	sand to silty sand
5.184	70.61	0.4284	17	8	sand to silty sand
5.251	65.75	0.4239	16	8	sand to silty sand
5.325	67.67	0.4239	16	8	sand to silty sand
5.395	67.81	0.4239	16	8	sand to silty sand
5.450	67.95	0.4239	16	8	sand to silty sand
5.536	68.10	0.4239	16	8	sand to silty sand
5.598	68.24	0.4511	16	8	sand to silty sand
5.653	65.30	0.4746	16	8	sand to silty sand
5.715	66.32	0.5720	16	8	sand to silty sand
5.794	66.77	0.7397	21	7	silty sand to sandy silt
5.842	62.25	0.7894	20	7	silty sand to sandy silt
5.914	58.51	0.7555	19	7	silty sand to sandy silt
5.975	60.66	0.6418	19	7	silty sand to sandy silt
6.042	75.59	0.5202	18	8	sand to silty sand
6.111	64.39	0.4347	15	8	sand to silty sand
6.181	60.43	0.4451	14	8	sand to silty sand
6.237	60.38	0.4847	14	8	sand to silty sand
6.317	60.32	0.4137	14	8	sand to silty sand
6.385	60.26	0.3623	14	8	sand to silty sand
6.433	60.21	0.3281	14	8	sand to silty sand
6.532	59.19	0.3181	14	8	sand to silty sand
6.581	58.40	0.3258	14	8	sand to silty sand
6.635	59.75	0.3347	14	8	sand to silty sand
6.709	63.60	0.3164	15	8	sand to silty sand
6.776	64.84	0.3942	16	8	sand to silty sand
6.833	72.42	0.5323	17	8	sand to silty sand
6.926	88.37	0.7876	21	8	sand to silty sand
6.984	104.54	0.7977	25	8	sand to silty sand
7.032	113.13	0.7999	27	8	sand to silty sand
7.104	138.24	0.9005	26	9	sand
7.172	151.58	1.1071	29	9	sand
7.232	168.88	1.2884	32	9	sand
7.306	195.11	1.3993	37	9	sand
7.378	216.26	1.4023	41	9	sand
7.427	216.83	1.4153	42	9	sand
7.495	239.44	1.8032	46	9	sand
7.556	248.83	2.4800	48	9	sand
7.623	260.25	2.7156	50	9	sand
7.679	269.97	2.8747	52	9	sand
7.762	299.94	3.0361	57	9	sand
7.821	299.73	3.1822	57	9	sand
7.884	313.42	3.6407	60	9	sand
7.942	336.25	3.2200	64	9	sand
8.015	334.33	2.6952	64	9	sand
8.094	289.81	2.6933	56	9	sand
8.164	275.68	2.6912	53	9	sand
8.207	287.55	2.6901	55	9	sand

SOUNDING

TOTAL DEPTH: 8.874 ft
SITE: B-410

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.276	306.89	2.5888	59	9	sand
8.352	317.08	2.9678	61	9	sand
8.412	339.13	3.4745	65	9	sand
8.468	336.86	3.8329	65	9	sand
8.536	336.86	4.0737	65	9	sand
8.603	336.91	0.0000	0	0	<out of range>
8.670	336.40	0.0000	0	0	<out of range>
8.742	336.96	0.0000	0	0	<out of range>
8.795	329.38	0.0000	0	0	<out of range>
8.874	346.01	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 8.673 ft
 SITE: B-411

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0036	0	0	<out of range>
0.076	4.73	0.0267	2	1	sensitive fine grained
0.131	5.40	0.0725	3	1	sensitive fine grained
0.198	10.01	0.1214	5	5	clayey silt to silty clay
0.283	11.81	0.1606	6	5	clayey silt to silty clay
0.344	13.26	0.1992	6	5	clayey silt to silty clay
0.411	13.82	0.2496	7	5	clayey silt to silty clay
0.469	14.27	0.2854	7	5	clayey silt to silty clay
0.534	14.61	0.3214	7	5	clayey silt to silty clay
0.601	14.60	0.3831	7	5	clayey silt to silty clay
0.659	14.93	0.4795	10	4	silty clay to clay
0.729	15.60	0.6027	10	4	silty clay to clay
0.791	16.27	0.6758	16	3	clay
0.855	16.27	0.8369	16	3	clay
0.920	16.49	0.9656	16	3	clay
1.010	16.04	1.1063	15	3	clay
1.068	16.04	1.1413	15	3	clay
1.134	16.03	1.1599	15	3	clay
1.192	16.37	1.1771	16	3	clay
1.250	16.93	1.2018	16	3	clay
1.317	17.16	1.2250	16	3	clay
1.402	17.27	1.2442	17	3	clay
1.454	17.84	1.2450	17	3	clay
1.534	17.27	1.2383	17	3	clay
1.592	17.39	1.2252	17	3	clay
1.653	18.40	1.2070	18	3	clay
1.716	18.96	1.1922	18	3	clay
1.789	19.64	1.1619	19	3	clay
1.838	20.54	1.0927	20	3	clay
1.904	22.23	0.9488	14	4	silty clay to clay
1.983	25.50	0.7704	12	5	clayey silt to silty clay
2.052	31.80	0.6384	12	6	sandy silt to clayey silt
2.108	37.42	0.5383	12	7	silty sand to sandy silt
2.173	42.49	0.4325	14	7	silty sand to sandy silt
2.247	46.22	0.3320	15	7	silty sand to sandy silt
2.312	47.69	0.2711	11	8	sand to silty sand
2.369	48.37	0.2438	12	8	sand to silty sand
2.446	48.60	0.2348	12	8	sand to silty sand
2.510	48.38	0.2351	12	8	sand to silty sand
2.562	48.15	0.2392	12	8	sand to silty sand
2.634	48.04	0.2445	12	8	sand to silty sand
2.693	47.25	0.2476	11	8	sand to silty sand
2.769	47.03	0.2475	11	8	sand to silty sand
2.831	47.03	0.2478	11	8	sand to silty sand
2.897	47.03	0.2646	15	7	silty sand to sandy silt
2.965	47.03	0.2772	15	7	silty sand to sandy silt
3.045	47.48	0.3563	15	7	silty sand to sandy silt
3.093	48.04	0.4099	15	7	silty sand to sandy silt
3.164	49.50	0.4319	16	7	silty sand to sandy silt
3.233	50.85	0.4467	16	7	silty sand to sandy silt
3.284	50.80	0.5959	16	7	silty sand to sandy silt
3.375	50.74	0.7290	16	7	silty sand to sandy silt
3.428	50.69	0.6447	16	7	silty sand to sandy silt
3.482	50.63	0.5952	16	7	silty sand to sandy silt
3.553	51.08	0.5447	16	7	silty sand to sandy silt
3.617	37.47	0.4917	12	7	silty sand to sandy silt
3.695	33.98	0.4393	11	7	silty sand to sandy silt
3.748	34.66	0.4244	11	7	silty sand to sandy silt
3.807	34.54	0.4234	11	7	silty sand to sandy silt
3.894	34.09	0.4225	11	7	silty sand to sandy silt
3.937	34.32	0.4215	11	7	silty sand to sandy silt
4.015	32.52	0.4434	12	6	sandy silt to clayey silt
4.081	33.31	0.4159	11	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 8.673 ft
SITE: B-411

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.148	32.52	0.3927	10	7	silty sand to sandy silt
4.221	29.93	0.3875	11	6	sandy silt to clayey silt
4.278	29.37	0.3611	11	6	sandy silt to clayey silt
4.332	26.33	0.3801	10	6	sandy silt to clayey silt
4.397	24.31	0.4610	9	6	sandy silt to clayey silt
4.468	24.08	0.5389	9	6	sandy silt to clayey silt
4.537	27.80	0.5245	11	6	sandy silt to clayey silt
4.597	28.70	0.4182	11	6	sandy silt to clayey silt
4.663	30.61	0.3677	10	7	silty sand to sandy silt
4.744	35.11	0.9315	13	6	sandy silt to clayey silt
4.803	43.55	1.0372	17	6	sandy silt to clayey silt
4.858	44.00	1.0361	17	6	sandy silt to clayey silt
4.948	26.56	0.9656	13	5	clayey silt to silty clay
5.002	26.81	0.9711	13	5	clayey silt to silty clay
5.058	27.07	0.9479	13	5	clayey silt to silty clay
5.146	28.70	0.5437	11	6	sandy silt to clayey silt
5.192	27.57	0.4026	11	6	sandy silt to clayey silt
5.257	19.37	0.3679	7	6	sandy silt to clayey silt
5.320	12.17	0.2714	6	5	clayey silt to silty clay
5.386	15.88	0.1571	6	6	sandy silt to clayey silt
5.459	20.95	0.1468	8	6	sandy silt to clayey silt
5.522	23.20	0.1143	7	7	silty sand to sandy silt
5.579	20.50	0.1030	7	7	silty sand to sandy silt
5.665	13.97	0.1102	5	6	sandy silt to clayey silt
5.725	9.02	0.1338	4	5	clayey silt to silty clay
5.805	6.88	0.1916	7	3	clay
5.871	10.25	0.1506	5	5	clayey silt to silty clay
5.908	11.04	0.1369	5	5	clayey silt to silty clay
6.006	10.37	0.1252	5	5	clayey silt to silty clay
6.041	10.14	0.1286	5	5	clayey silt to silty clay
6.109	10.82	0.1170	5	5	clayey silt to silty clay
6.175	12.06	0.0889	5	6	sandy silt to clayey silt
6.239	12.84	0.0640	5	6	sandy silt to clayey silt
6.301	14.53	0.0723	6	6	sandy silt to clayey silt
6.368	17.23	0.1136	7	6	sandy silt to clayey silt
6.463	21.17	0.2025	8	6	sandy silt to clayey silt
6.517	23.53	0.1962	9	6	sandy silt to clayey silt
6.576	29.16	0.1892	9	7	silty sand to sandy silt
6.638	37.37	0.2204	12	7	silty sand to sandy silt
6.694	52.00	0.2935	12	8	sand to silty sand
6.770	64.03	0.4714	15	8	sand to silty sand
6.825	75.17	0.5167	18	8	sand to silty sand
6.905	90.47	0.6494	22	8	sand to silty sand
6.962	105.32	0.8264	25	8	sand to silty sand
7.031	119.83	0.8490	29	8	sand to silty sand
7.087	131.65	0.9629	25	9	sand
7.157	149.99	1.3131	29	9	sand
7.228	155.50	1.1566	30	9	sand
7.296	156.18	1.1423	30	9	sand
7.353	157.52	1.3827	30	9	sand
7.441	160.00	1.6603	38	8	sand to silty sand
7.480	150.55	1.6261	36	8	sand to silty sand
7.554	173.50	1.4240	33	9	sand
7.629	149.43	1.3192	29	9	sand
7.678	159.78	1.3058	31	9	sand
7.759	165.30	1.5972	32	9	sand
7.823	164.06	1.2422	31	9	sand
7.883	162.38	0.8779	31	9	sand
7.972	162.82	0.8124	31	9	sand
8.009	152.58	0.8109	29	9	sand
8.072	150.11	0.8081	29	9	sand
8.152	149.66	0.8041	29	9	sand
8.216	156.07	0.8490	30	9	sand

SOUNDING

TOTAL DEPTH: 8.673 ft
SITE: B-411

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.269	154.95	0.9987	30	9	sand
8.352	171.38	1.3729	33	9	sand
8.409	192.76	0.0000	0	0	<out of range>
8.486	189.85	0.0000	0	0	<out of range>
8.550	216.07	0.0000	0	0	<out of range>
8.603	301.57	0.0000	0	0	<out of range>
8.673	428.01	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 12.545 ft
SITE: B-412

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	1.01	-0.0006	0	0	<out of range>
0.088	9.56	0.0767	5	5	clayey silt to silty clay
0.135	12.37	0.1385	5	6	sandy silt to clayey silt
0.216	19.00	0.2399	7	6	sandy silt to clayey silt
0.285	23.05	0.3305	9	6	sandy silt to clayey silt
0.330	26.42	0.3935	10	6	sandy silt to clayey silt
0.404	27.88	0.4815	11	6	sandy silt to clayey silt
0.468	27.21	0.5417	10	6	sandy silt to clayey silt
0.537	26.19	0.6283	10	6	sandy silt to clayey silt
0.594	23.83	0.7540	11	5	clayey silt to silty clay
0.658	21.69	0.8377	14	4	silty clay to clay
0.747	21.75	0.8509	14	4	silty clay to clay
0.811	21.80	0.8603	14	4	silty clay to clay
0.854	20.90	0.8611	13	4	silty clay to clay
0.931	23.81	0.8626	11	5	clayey silt to silty clay
0.996	25.84	0.8638	12	5	clayey silt to silty clay
1.051	24.94	0.8466	12	5	clayey silt to silty clay
1.124	25.39	0.8050	12	5	clayey silt to silty clay
1.185	26.96	0.7918	13	5	clayey silt to silty clay
1.252	27.02	0.7611	13	5	clayey silt to silty clay
1.318	27.02	0.6028	10	6	sandy silt to clayey silt
1.389	27.08	0.5410	10	6	sandy silt to clayey silt
1.463	25.74	0.5129	10	6	sandy silt to clayey silt
1.524	27.31	0.4620	10	6	sandy silt to clayey silt
1.583	29.11	0.4330	11	6	sandy silt to clayey silt
1.652	30.24	0.4382	12	6	sandy silt to clayey silt
1.711	31.48	0.5362	12	6	sandy silt to clayey silt
1.774	26.87	0.6280	10	6	sandy silt to clayey silt
1.870	27.10	0.6384	10	6	sandy silt to clayey silt
1.922	27.32	0.5848	10	6	sandy silt to clayey silt
1.969	27.04	0.5498	10	6	sandy silt to clayey silt
2.041	26.99	0.5653	10	6	sandy silt to clayey silt
2.118	26.65	0.5741	10	6	sandy silt to clayey silt
2.180	27.04	0.4834	10	6	sandy silt to clayey silt
2.237	27.10	0.4019	10	6	sandy silt to clayey silt
2.303	33.51	0.3534	11	7	silty sand to sandy silt
2.364	49.58	0.3403	16	7	silty sand to sandy silt
2.428	60.04	0.3494	14	8	sand to silty sand
2.499	63.07	0.4366	15	8	sand to silty sand
2.573	75.10	0.5077	18	8	sand to silty sand
2.636	75.78	0.4615	18	8	sand to silty sand
2.694	77.69	0.4073	19	8	sand to silty sand
2.769	77.01	0.4371	18	8	sand to silty sand
2.827	77.07	0.4366	18	8	sand to silty sand
2.893	77.13	0.4238	18	8	sand to silty sand
2.979	80.95	0.4640	19	8	sand to silty sand
3.033	87.58	0.5326	21	8	sand to silty sand
3.095	100.74	0.6444	24	8	sand to silty sand
3.153	105.23	0.6672	25	8	sand to silty sand
3.222	121.65	0.6396	23	9	sand
3.293	118.16	0.6475	23	9	sand
3.355	128.05	0.6533	25	9	sand
3.413	136.93	0.6566	26	9	sand
3.491	141.32	0.5955	27	9	sand
3.556	152.34	0.6403	29	9	sand
3.624	173.36	0.9112	33	9	sand
3.686	183.82	1.1250	35	9	sand
3.749	189.67	1.1992	36	9	sand
3.820	203.05	1.1760	39	9	sand
3.888	203.95	1.6277	39	9	sand
3.944	207.66	2.4017	40	9	sand
4.039	221.71	3.6776	53	8	sand to silty sand
4.069	221.76	3.8157	53	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 12.545 ft
SITE: B-412

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.141	221.82	3.6745	53	8	sand to silty	sand
4.200	225.42	3.5313	54	8	sand to silty	sand
4.279	188.77	3.0046	45	8	sand to silty	sand
4.349	162.46	2.3678	39	8	sand to silty	sand
4.412	160.67	1.8586	38	8	sand to silty	sand
4.474	158.42	1.5413	30	9	sand	
4.551	153.59	1.3488	29	9	sand	
4.602	151.57	1.2167	29	9	sand	
4.660	150.11	1.0948	29	9	sand	
4.726	145.62	1.0364	28	9	sand	
4.807	143.48	0.9598	27	9	sand	
4.858	142.25	0.9051	27	9	sand	
4.935	141.91	0.8200	27	9	sand	
5.002	144.61	0.7970	28	9	sand	
5.053	149.22	0.7779	29	9	sand	
5.137	159.11	0.7590	30	9	sand	
5.196	168.78	0.7739	32	9	sand	
5.263	178.56	0.8421	34	9	sand	
5.344	183.85	1.0076	35	9	sand	
5.390	189.13	1.0839	36	9	sand	
5.473	187.89	1.2482	36	9	sand	
5.531	194.63	1.2446	37	9	sand	
5.584	188.22	1.2256	36	9	sand	
5.676	186.20	1.4312	36	9	sand	
5.726	185.77	1.5431	36	9	sand	
5.782	185.31	1.5564	35	9	sand	
5.870	181.60	1.3562	35	9	sand	
5.919	184.42	1.3201	35	9	sand	
5.976	181.15	1.2655	35	9	sand	
6.060	174.52	1.2195	33	9	sand	
6.114	174.97	1.1788	34	9	sand	
6.206	172.05	0.9797	33	9	sand	
6.259	169.01	0.9450	32	9	sand	
6.309	165.08	0.8942	32	9	sand	
6.388	157.99	0.8107	30	9	sand	
6.432	154.17	0.7301	30	9	sand	
6.498	146.30	0.6317	28	9	sand	
6.584	136.07	0.6144	26	9	sand	
6.640	129.66	0.5997	25	9	sand	
6.699	120.55	0.5918	23	9	sand	
6.761	109.52	0.5931	21	9	sand	
6.834	113.23	0.5758	22	9	sand	
6.893	112.44	0.5595	22	9	sand	
6.969	107.94	0.5494	21	9	sand	
7.036	104.23	0.5521	25	8	sand to silty	sand
7.091	101.64	0.5484	24	8	sand to silty	sand
7.153	99.96	0.5431	24	8	sand to silty	sand
7.233	98.72	0.5426	24	8	sand to silty	sand
7.319	99.68	0.5421	24	8	sand to silty	sand
7.351	97.03	0.5419	23	8	sand to silty	sand
7.422	99.40	0.5436	24	8	sand to silty	sand
7.490	105.58	0.5550	25	8	sand to silty	sand
7.549	111.99	0.5764	21	9	sand	
7.616	118.73	0.6046	23	9	sand	
7.688	126.04	0.6493	24	9	sand	
7.762	129.75	0.6678	25	9	sand	
7.833	132.45	0.6788	25	9	sand	
7.897	132.11	0.6799	25	9	sand	
7.954	128.85	0.6740	25	9	sand	
8.046	120.53	0.6499	23	9	sand	
8.092	115.47	0.6422	22	9	sand	
8.145	113.34	0.6263	22	9	sand	
8.214	113.31	0.6077	22	9	sand	

SOUNDING

TOTAL DEPTH: 12.545 ft
SITE: B-412

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.281	113.28	0.6081	22	9	sand	
8.338	113.25	0.6084	22	9	sand	
8.417	113.23	0.6089	22	9	sand	
8.480	112.89	0.6108	22	9	sand	
8.531	109.18	0.6129	26	8	sand to silty sand	
8.621	102.77	0.6141	25	8	sand to silty sand	
8.676	98.39	0.5910	24	8	sand to silty sand	
8.754	94.11	0.5615	23	8	sand to silty sand	
8.819	90.85	0.5560	22	8	sand to silty sand	
8.863	89.28	0.5518	21	8	sand to silty sand	
8.926	84.56	0.5390	20	8	sand to silty sand	
9.002	80.73	0.5213	19	8	sand to silty sand	
9.062	78.49	0.5001	19	8	sand to silty sand	
9.143	76.13	0.4829	18	8	sand to silty sand	
9.206	75.34	0.4790	18	8	sand to silty sand	
9.278	74.10	0.4752	18	8	sand to silty sand	
9.335	73.76	0.4667	18	8	sand to silty sand	
9.400	73.76	0.4615	18	8	sand to silty sand	
9.466	73.76	0.4527	18	8	sand to silty sand	
9.532	73.88	0.4842	18	8	sand to silty sand	
9.591	73.76	0.5164	18	8	sand to silty sand	
9.652	71.96	0.4656	17	8	sand to silty sand	
9.713	70.73	0.4079	17	8	sand to silty sand	
9.788	72.75	0.4399	17	8	sand to silty sand	
9.868	68.82	0.4670	16	8	sand to silty sand	
9.925	70.16	0.4856	17	8	sand to silty sand	
9.987	58.69	0.4602	14	8	sand to silty sand	
10.063	73.76	0.4161	18	8	sand to silty sand	
10.125	78.70	0.4088	19	8	sand to silty sand	
10.179	86.23	0.4158	21	8	sand to silty sand	
10.240	95.56	0.4387	23	8	sand to silty sand	
10.326	109.62	0.4859	21	9	sand	
10.376	120.41	0.5239	23	9	sand	
10.437	131.09	0.5772	25	9	sand	
10.501	141.77	0.6328	27	9	sand	
10.581	153.24	0.7107	29	9	sand	
10.636	157.29	0.8364	30	9	sand	
10.708	158.64	0.9550	30	9	sand	
10.782	156.39	0.9823	30	9	sand	
10.855	153.01	1.0171	29	9	sand	
10.904	147.95	1.0248	28	9	sand	
10.964	137.51	1.0285	26	9	sand	
11.047	132.22	1.0042	25	9	sand	
11.092	130.87	0.9718	25	9	sand	
11.166	129.52	0.8583	25	9	sand	
11.230	131.66	0.8404	25	9	sand	
11.291	134.36	0.8319	26	9	sand	
11.384	140.32	0.8003	27	9	sand	
11.430	146.51	0.8472	28	9	sand	
11.507	155.72	0.9579	30	9	sand	
11.572	161.12	0.9549	31	9	sand	
11.625	167.98	0.9613	32	9	sand	
11.703	177.53	1.3843	34	9	sand	
11.772	180.60	1.8334	35	9	sand	
11.818	185.20	2.1654	35	9	sand	
11.914	197.79	2.9753	47	8	sand to silty sand	
11.943	208.47	3.0122	50	8	sand to silty sand	
12.018	210.95	3.0424	51	8	sand to silty sand	
12.109	209.71	2.9117	50	8	sand to silty sand	
12.147	209.71	2.8755	50	8	sand to silty sand	
12.213	208.48	3.0160	50	8	sand to silty sand	
12.291	229.51	0.0000	0	0	<out of range>	
12.350	269.98	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 12.545 ft
SITE: B-412

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.442	298.88	0.0000	0	0	<out of range>
12.477	319.57	0.0000	0	0	<out of range>
12.545	340.24	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 8.545 ft
 SITE: B-413

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0043	0	0	<out of range>
0.085	7.33	0.0201	4	1	sensitive fine grained
0.150	9.82	0.0786	5	5	clayey silt to silty clay
0.209	13.31	0.1639	5	6	sandy silt to clayey silt
0.270	16.11	0.2302	6	6	sandy silt to clayey silt
0.335	16.99	0.2635	7	6	sandy silt to clayey silt
0.396	16.87	0.2815	6	6	sandy silt to clayey silt
0.470	16.41	0.3064	8	5	clayey silt to silty clay
0.527	14.83	0.3106	7	5	clayey silt to silty clay
0.609	13.25	0.3167	6	5	clayey silt to silty clay
0.658	13.03	0.3279	6	5	clayey silt to silty clay
0.747	12.01	0.3897	8	4	silty clay to clay
0.789	11.79	0.4294	8	4	silty clay to clay
0.854	11.79	0.4933	11	3	clay
0.927	11.79	0.5825	11	3	clay
0.989	11.90	0.6513	11	3	clay
1.059	12.24	0.7328	12	3	clay
1.143	12.91	0.8202	12	3	clay
1.195	13.59	0.8719	13	3	clay
1.265	14.49	0.9493	14	3	clay
1.324	15.28	0.9865	15	3	clay
1.382	16.30	0.9512	16	3	clay
1.458	19.34	0.8232	19	3	clay
1.514	21.82	0.7093	10	5	clayey silt to silty clay
1.587	23.97	0.5717	11	5	clayey silt to silty clay
1.646	25.10	0.4751	10	6	sandy silt to clayey silt
1.710	25.46	0.3788	10	6	sandy silt to clayey silt
1.806	25.94	0.2513	10	6	sandy silt to clayey silt
1.839	26.28	0.2116	8	7	silty sand to sandy silt
1.918	26.62	0.1320	8	7	silty sand to sandy silt
1.972	26.85	0.0992	9	7	silty sand to sandy silt
2.054	26.96	0.0696	9	7	silty sand to sandy silt
2.109	26.28	0.0559	8	7	silty sand to sandy silt
2.191	26.06	0.0343	8	7	silty sand to sandy silt
2.249	26.06	0.0258	8	7	silty sand to sandy silt
2.297	25.60	0.0214	8	7	silty sand to sandy silt
2.363	25.26	0.0090	8	7	silty sand to sandy silt
2.443	24.93	0.0041	8	7	silty sand to sandy silt
2.508	23.24	0.0483	7	7	silty sand to sandy silt
2.586	22.56	0.0802	7	7	silty sand to sandy silt
2.625	21.66	0.0798	7	7	silty sand to sandy silt
2.709	20.87	0.0788	7	7	silty sand to sandy silt
2.765	21.43	0.0780	7	7	silty sand to sandy silt
2.829	19.07	0.0749	6	7	silty sand to sandy silt
2.888	18.95	0.0672	6	7	silty sand to sandy silt
2.971	16.58	0.0718	6	6	sandy silt to clayey silt
3.021	16.02	0.0896	6	6	sandy silt to clayey silt
3.093	14.44	0.0690	6	6	sandy silt to clayey silt
3.168	15.23	0.0396	6	6	sandy silt to clayey silt
3.232	14.78	0.0579	6	6	sandy silt to clayey silt
3.297	14.78	0.0690	6	6	sandy silt to clayey silt
3.358	17.71	0.0837	7	6	sandy silt to clayey silt
3.423	17.38	0.0958	7	6	sandy silt to clayey silt
3.486	19.07	0.0802	6	7	silty sand to sandy silt
3.545	22.57	0.0652	7	7	silty sand to sandy silt
3.624	27.53	0.0628	9	7	silty sand to sandy silt
3.679	29.00	0.0527	9	7	silty sand to sandy silt
3.746	30.92	0.0571	10	7	silty sand to sandy silt
3.819	31.70	0.0747	10	7	silty sand to sandy silt
3.887	32.95	0.1484	11	7	silty sand to sandy silt
3.950	33.85	0.1827	11	7	silty sand to sandy silt
4.015	33.06	0.1798	11	7	silty sand to sandy silt
4.073	34.07	0.1703	11	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 8.545 ft
SITE: B-413

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.136	34.52	0.1674	11	7	silty sand to sandy silt
4.199	30.58	0.1652	10	7	silty sand to sandy silt
4.279	28.66	0.1760	9	7	silty sand to sandy silt
4.338	28.09	0.1658	9	7	silty sand to sandy silt
4.400	27.64	0.1363	9	7	silty sand to sandy silt
4.488	27.64	0.1150	9	7	silty sand to sandy silt
4.542	27.64	0.1098	9	7	silty sand to sandy silt
4.609	27.98	0.1173	9	7	silty sand to sandy silt
4.664	28.44	0.1196	9	7	silty sand to sandy silt
4.726	29.34	0.1202	9	7	silty sand to sandy silt
4.808	31.03	0.1232	10	7	silty sand to sandy silt
4.865	33.06	0.1338	11	7	silty sand to sandy silt
4.923	35.66	0.1452	11	7	silty sand to sandy silt
5.006	39.27	0.1554	13	7	silty sand to sandy silt
5.067	41.52	0.1646	10	8	sand to silty sand
5.122	43.89	0.1766	11	8	sand to silty sand
5.198	46.83	0.1980	11	8	sand to silty sand
5.266	49.31	0.2331	12	8	sand to silty sand
5.328	51.90	0.2583	12	8	sand to silty sand
5.386	55.17	0.2742	13	8	sand to silty sand
5.448	59.01	0.2867	14	8	sand to silty sand
5.519	62.17	0.2951	15	8	sand to silty sand
5.584	65.10	0.3095	16	8	sand to silty sand
5.651	67.81	0.3188	16	8	sand to silty sand
5.723	71.53	0.3269	17	8	sand to silty sand
5.791	73.56	0.3401	18	8	sand to silty sand
5.847	75.93	0.3533	18	8	sand to silty sand
5.922	78.53	0.3733	19	8	sand to silty sand
5.991	80.56	0.3868	19	8	sand to silty sand
6.038	81.69	0.3929	20	8	sand to silty sand
6.119	83.61	0.4070	20	8	sand to silty sand
6.178	84.96	0.4220	20	8	sand to silty sand
6.249	87.10	0.4458	21	8	sand to silty sand
6.307	88.46	0.3908	21	8	sand to silty sand
6.377	89.02	0.3320	21	8	sand to silty sand
6.445	87.56	0.3727	21	8	sand to silty sand
6.502	86.09	0.3925	21	8	sand to silty sand
6.565	85.08	0.4112	20	8	sand to silty sand
6.646	80.34	0.4244	19	8	sand to silty sand
6.708	89.59	0.4332	21	8	sand to silty sand
6.766	95.45	0.4429	23	8	sand to silty sand
6.853	101.21	0.5067	24	8	sand to silty sand
6.890	104.70	0.5472	25	8	sand to silty sand
6.994	112.82	0.5656	22	9	sand
7.029	116.54	0.5797	22	9	sand
7.105	121.17	0.6066	23	9	sand
7.176	123.99	0.6269	24	9	sand
7.238	125.12	0.6562	24	9	sand
7.298	127.83	0.6821	24	9	sand
7.362	134.26	0.7089	26	9	sand
7.424	143.05	0.7505	27	9	sand
7.483	153.88	0.8881	29	9	sand
7.561	168.66	1.1737	32	9	sand
7.620	182.09	1.4175	35	9	sand
7.678	195.28	1.5264	37	9	sand
7.743	225.86	1.8148	43	9	sand
7.827	274.03	2.7973	52	9	sand
7.915	306.87	4.5028	73	8	sand to silty sand
7.962	340.47	4.1725	65	9	sand
8.014	379.17	3.8888	73	9	sand
8.087	352.98	4.7258	68	9	sand
8.156	353.68	5.2912	85	8	sand to silty sand
8.209	354.36	5.4518	85	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 8.545 ft
SITE: B-413

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.295	360.68	0.0000	0	0	<out of range>
8.353	394.50	0.0000	0	0	<out of range>
8.407	355.26	0.0000	0	0	<out of range>
8.469	361.12	0.0000	0	0	<out of range>
8.545	366.78	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 12.809 ft
SITE: B-414

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	1.25	-0.0017	0	0	<out of range>
0.074	3.01	-0.0017	0	0	<out of range>
0.134	4.47	-0.0017	0	0	<out of range>
0.206	5.93	-0.0017	0	0	<out of range>
0.264	7.85	-0.0014	0	0	<out of range>
0.341	11.59	0.0000	0	0	<out of range>
0.410	13.62	0.0000	0	0	<out of range>
0.465	16.68	0.0007	5	7	silty sand to sandy silt
0.548	18.60	0.0029	6	7	silty sand to sandy silt
0.610	19.16	0.0119	6	7	silty sand to sandy silt
0.657	18.25	0.0222	6	7	silty sand to sandy silt
0.724	16.55	0.0346	6	6	sandy silt to clayey silt
0.809	14.16	0.0339	5	6	sandy silt to clayey silt
0.855	12.80	0.0324	5	6	sandy silt to clayey silt
0.931	10.99	0.0308	4	6	sandy silt to clayey silt
0.987	10.53	0.0265	4	6	sandy silt to clayey silt
1.054	10.52	0.0360	4	6	sandy silt to clayey silt
1.133	10.75	0.0640	4	6	sandy silt to clayey silt
1.198	11.20	0.0944	4	6	sandy silt to clayey silt
1.255	11.43	0.1233	5	5	clayey silt to silty clay
1.313	11.88	0.1532	6	5	clayey silt to silty clay
1.389	12.10	0.1874	6	5	clayey silt to silty clay
1.450	12.21	0.2207	6	5	clayey silt to silty clay
1.517	12.21	0.2480	6	5	clayey silt to silty clay
1.577	12.43	0.2533	6	5	clayey silt to silty clay
1.645	13.23	0.2665	6	5	clayey silt to silty clay
1.722	13.91	0.2898	7	5	clayey silt to silty clay
1.776	13.91	0.3130	7	5	clayey silt to silty clay
1.845	13.91	0.3425	7	5	clayey silt to silty clay
1.906	14.81	0.3671	7	5	clayey silt to silty clay
1.995	15.49	0.4171	7	5	clayey silt to silty clay
2.035	16.06	0.4218	8	5	clayey silt to silty clay
2.114	17.30	0.3819	8	5	clayey silt to silty clay
2.189	19.23	0.3521	7	6	sandy silt to clayey silt
2.238	21.60	0.3261	8	6	sandy silt to clayey silt
2.315	25.34	0.2614	10	6	sandy silt to clayey silt
2.381	27.49	0.2001	9	7	silty sand to sandy silt
2.437	29.08	0.1673	9	7	silty sand to sandy silt
2.496	31.34	0.1423	10	7	silty sand to sandy silt
2.561	32.36	0.1325	10	7	silty sand to sandy silt
2.639	32.70	0.2274	10	7	silty sand to sandy silt
2.692	34.40	0.3218	11	7	silty sand to sandy silt
2.768	36.67	0.3225	12	7	silty sand to sandy silt
2.825	39.72	0.3227	13	7	silty sand to sandy silt
2.889	45.39	0.3357	14	7	silty sand to sandy silt
2.981	50.82	0.5393	16	7	silty sand to sandy silt
3.031	53.77	0.6136	17	7	silty sand to sandy silt
3.109	54.45	0.8378	17	7	silty sand to sandy silt
3.175	53.32	1.1165	20	6	sandy silt to clayey silt
3.231	49.35	1.3645	19	6	sandy silt to clayey silt
3.288	45.85	1.3278	18	6	sandy silt to clayey silt
3.350	43.81	1.0452	17	6	sandy silt to clayey silt
3.421	42.79	0.8284	16	6	sandy silt to clayey silt
3.495	44.15	0.6887	14	7	silty sand to sandy silt
3.552	49.82	0.6530	16	7	silty sand to sandy silt
3.621	53.00	0.6450	17	7	silty sand to sandy silt
3.684	52.09	0.6150	17	7	silty sand to sandy silt
3.748	48.58	0.5729	16	7	silty sand to sandy silt
3.812	44.05	0.5582	14	7	silty sand to sandy silt
3.908	40.54	0.5936	13	7	silty sand to sandy silt
3.942	39.86	0.5864	13	7	silty sand to sandy silt
4.011	38.73	0.5370	12	7	silty sand to sandy silt
4.097	36.01	0.3960	11	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 12.809 ft
SITE: B-414

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.138	34.43	0.3284	11	7	silty sand to sandy silt
4.207	32.28	0.2558	10	7	silty sand to sandy silt
4.278	29.11	0.2392	9	7	silty sand to sandy silt
4.354	26.62	0.2445	8	7	silty sand to sandy silt
4.410	24.01	0.2427	9	6	sandy silt to clayey silt
4.473	22.20	0.2136	9	6	sandy silt to clayey silt
4.546	19.59	0.1464	8	6	sandy silt to clayey silt
4.598	17.33	0.1035	7	6	sandy silt to clayey silt
4.689	15.86	0.0465	6	6	sandy silt to clayey silt
4.727	14.61	0.0271	6	6	sandy silt to clayey silt
4.805	13.60	0.0048	5	6	sandy silt to clayey silt
4.866	12.92	0.0033	5	6	sandy silt to clayey silt
4.942	13.03	0.0044	5	6	sandy silt to clayey silt
4.999	12.46	0.0040	5	6	sandy silt to clayey silt
5.063	11.79	0.0033	5	6	sandy silt to clayey silt
5.132	11.56	0.0033	4	6	sandy silt to clayey silt
5.196	10.88	0.0056	4	6	sandy silt to clayey silt
5.259	10.77	0.0084	4	6	sandy silt to clayey silt
5.322	10.54	0.0050	4	6	sandy silt to clayey silt
5.386	10.31	0.0050	5	1	sensitive fine grained
5.466	10.09	0.0196	4	6	sandy silt to clayey silt
5.536	9.98	0.0090	5	1	sensitive fine grained
5.589	10.77	0.0050	4	6	sandy silt to clayey silt
5.688	12.35	0.0050	5	6	sandy silt to clayey silt
5.716	13.49	0.0050	5	6	sandy silt to clayey silt
5.786	12.69	0.0050	5	6	sandy silt to clayey silt
5.840	12.47	0.0046	5	6	sandy silt to clayey silt
5.906	12.58	0.0033	5	6	sandy silt to clayey silt
5.984	12.53	0.0033	5	6	sandy silt to clayey silt
6.038	12.53	0.0033	5	6	sandy silt to clayey silt
6.121	12.47	0.0033	5	6	sandy silt to clayey silt
6.187	13.03	0.0033	5	6	sandy silt to clayey silt
6.283	16.09	0.0047	5	7	silty sand to sandy silt
6.327	17.00	0.0035	5	7	silty sand to sandy silt
6.381	19.04	0.0033	6	7	silty sand to sandy silt
6.431	22.66	0.0044	7	7	silty sand to sandy silt
6.510	27.07	0.0066	9	7	silty sand to sandy silt
6.567	29.79	0.0058	10	7	silty sand to sandy silt
6.628	33.98	0.0050	8	8	sand to silty sand
6.704	37.15	0.0050	9	8	sand to silty sand
6.769	44.40	0.0958	11	8	sand to silty sand
6.827	46.45	0.2658	15	7	silty sand to sandy silt
6.895	52.11	0.2016	12	8	sand to silty sand
6.958	57.32	0.1857	14	8	sand to silty sand
7.040	58.90	0.1713	14	8	sand to silty sand
7.111	53.92	0.1531	13	8	sand to silty sand
7.158	54.37	0.1537	13	8	sand to silty sand
7.232	52.79	0.1029	13	8	sand to silty sand
7.315	52.68	0.0499	13	8	sand to silty sand
7.349	52.34	0.0494	13	8	sand to silty sand
7.430	51.77	0.0489	12	8	sand to silty sand
7.496	50.98	0.0484	12	8	sand to silty sand
7.556	48.49	0.0388	12	8	sand to silty sand
7.612	48.26	0.0412	12	8	sand to silty sand
7.685	49.62	0.0563	12	8	sand to silty sand
7.748	48.03	0.1039	11	8	sand to silty sand
7.811	45.32	0.1678	11	8	sand to silty sand
7.875	44.18	0.1681	11	8	sand to silty sand
7.953	44.18	0.1777	11	8	sand to silty sand
8.007	44.18	0.1753	11	8	sand to silty sand
8.094	45.77	0.2493	15	7	silty sand to sandy silt
8.155	47.92	0.2651	11	8	sand to silty sand
8.202	52.67	0.2567	13	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 12.809 ft
SITE: B-414

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.273	60.83	0.1917	15	8	sand to silty	sand
8.339	61.62	0.1594	15	8	sand to silty	sand
8.401	61.28	0.1753	15	8	sand to silty	sand
8.494	60.94	0.1909	15	8	sand to silty	sand
8.550	66.15	0.1803	16	8	sand to silty	sand
8.598	67.62	0.1663	16	8	sand to silty	sand
8.675	71.25	0.2735	17	8	sand to silty	sand
8.743	74.53	0.2812	18	8	sand to silty	sand
8.797	77.58	0.3064	19	8	sand to silty	sand
8.895	78.49	0.2989	19	8	sand to silty	sand
8.927	73.73	0.2998	18	8	sand to silty	sand
8.990	80.41	0.3118	19	8	sand to silty	sand
9.081	82.68	0.3350	20	8	sand to silty	sand
9.142	82.57	0.3350	20	8	sand to silty	sand
9.190	85.62	0.3350	20	8	sand to silty	sand
9.264	85.40	0.3491	20	8	sand to silty	sand
9.327	85.05	0.3535	20	8	sand to silty	sand
9.389	85.34	0.3420	20	8	sand to silty	sand
9.475	85.28	0.3521	20	8	sand to silty	sand
9.534	92.76	0.3815	22	8	sand to silty	sand
9.581	94.69	0.5216	23	8	sand to silty	sand
9.682	90.73	0.6918	22	8	sand to silty	sand
9.733	91.12	0.5738	22	8	sand to silty	sand
9.783	88.23	0.5331	21	8	sand to silty	sand
9.845	91.51	0.6766	22	8	sand to silty	sand
9.930	78.60	0.7641	19	8	sand to silty	sand
9.978	94.91	0.7490	23	8	sand to silty	sand
10.049	104.07	0.7628	25	8	sand to silty	sand
10.110	113.59	0.8002	27	8	sand to silty	sand
10.171	117.78	0.8690	28	8	sand to silty	sand
10.238	126.38	1.3399	30	8	sand to silty	sand
10.314	140.99	1.6021	34	8	sand to silty	sand
10.370	158.66	1.5044	30	9	sand	
10.459	211.43	2.7709	51	8	sand to silty	sand
10.520	289.67	3.3439	55	9	sand	
10.567	414.23	3.9740	79	9	sand	
10.655	468.71	4.9672	90	9	sand	
10.697	466.57	4.6555	89	9	sand	
10.761	444.04	4.6174	85	9	sand	
10.836	192.40	4.9862	61	7	silty sand to sandy silt	
10.910	115.30	4.4081	44	6	sandy silt to clayey silt	
10.959	106.35	3.9329	41	6	sandy silt to clayey silt	
11.032	122.99	2.7509	39	7	silty sand to sandy silt	
11.101	133.86	2.7089	43	7	silty sand to sandy silt	
11.161	159.11	2.4759	38	8	sand to silty	sand
11.237	202.05	2.3873	39	9	sand	
11.309	239.53	3.5205	57	8	sand to silty	sand
11.360	285.04	4.3452	68	8	sand to silty	sand
11.433	300.36	5.0956	72	8	sand to silty	sand
11.500	320.17	5.6495	77	8	sand to silty	sand
11.553	336.71	6.1200	81	8	sand to silty	sand
11.640	337.00	7.1398	81	8	sand to silty	sand
11.703	337.24	7.5637	81	8	sand to silty	sand
11.753	347.57	7.7647	83	8	sand to silty	sand
11.830	346.57	7.5321	83	8	sand to silty	sand
11.902	329.48	7.1793	79	8	sand to silty	sand
11.946	311.71	7.0782	75	8	sand to silty	sand
12.028	295.23	6.8125	94	7	silty sand to sandy silt	
12.099	281.92	5.7262	67	8	sand to silty	sand
12.150	274.52	5.1259	66	8	sand to silty	sand
12.219	265.48	4.5707	64	8	sand to silty	sand
12.288	270.92	4.0119	65	8	sand to silty	sand
12.345	263.11	3.8249	63	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 12.809 ft
SITE: B-414

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.414	224.28	3.7152	54	8	sand to silty sand
12.494	220.42	3.4761	53	8	sand to silty sand
12.537	212.90	0.0000	0	0	<out of range>
12.609	233.05	0.0000	0	0	<out of range>
12.692	243.92	0.0000	0	0	<out of range>
12.759	255.71	0.0000	0	0	<out of range>
12.809	282.86	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 19.244 ft
SITE: B-415

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0792	0	0	<out of range>
0.086	6.88	0.1428	4	4	silty clay to clay
0.134	9.14	0.1671	4	5	clayey silt to silty clay
0.205	12.52	0.2071	6	5	clayey silt to silty clay
0.280	16.71	0.2624	6	6	sandy silt to clayey silt
0.336	16.52	0.2880	8	5	clayey silt to silty clay
0.395	13.84	0.3104	7	5	clayey silt to silty clay
0.478	12.04	0.3176	8	4	silty clay to clay
0.531	11.36	0.3031	7	4	silty clay to clay
0.593	10.90	0.2740	7	4	silty clay to clay
0.659	10.44	0.2651	7	4	silty clay to clay
0.728	10.66	0.2776	7	4	silty clay to clay
0.804	11.55	0.3128	7	4	silty clay to clay
0.877	12.32	0.3449	8	4	silty clay to clay
0.927	12.76	0.3713	8	4	silty clay to clay
1.007	13.31	0.4526	8	4	silty clay to clay
1.072	13.74	0.4703	9	4	silty clay to clay
1.121	14.41	0.4770	9	4	silty clay to clay
1.218	15.53	0.4688	7	5	clayey silt to silty clay
1.257	17.55	0.4507	8	5	clayey silt to silty clay
1.320	18.44	0.4063	9	5	clayey silt to silty clay
1.400	19.01	0.3522	7	6	sandy silt to clayey silt
1.471	20.03	0.2897	8	6	sandy silt to clayey silt
1.515	19.92	0.2715	8	6	sandy silt to clayey silt
1.582	20.94	0.2476	8	6	sandy silt to clayey silt
1.643	21.85	0.2212	8	6	sandy silt to clayey silt
1.708	22.30	0.2745	9	6	sandy silt to clayey silt
1.783	22.87	0.3382	9	6	sandy silt to clayey silt
1.864	27.26	0.3642	10	6	sandy silt to clayey silt
1.909	28.73	0.3841	11	6	sandy silt to clayey silt
1.988	29.29	0.3774	11	6	sandy silt to clayey silt
2.060	28.79	0.3944	11	6	sandy silt to clayey silt
2.114	28.85	0.3743	11	6	sandy silt to clayey silt
2.212	29.41	0.2990	9	7	silty sand to sandy silt
2.246	30.65	0.2595	10	7	silty sand to sandy silt
2.308	33.36	0.2543	11	7	silty sand to sandy silt
2.364	36.18	0.2979	12	7	silty sand to sandy silt
2.452	37.98	0.2900	12	7	silty sand to sandy silt
2.496	38.09	0.3106	12	7	silty sand to sandy silt
2.575	38.20	0.3349	12	7	silty sand to sandy silt
2.640	40.46	0.3349	13	7	silty sand to sandy silt
2.704	42.71	0.3349	14	7	silty sand to sandy silt
2.760	40.12	0.3810	13	7	silty sand to sandy silt
2.826	40.69	0.4187	13	7	silty sand to sandy silt
2.902	41.03	0.4041	13	7	silty sand to sandy silt
2.956	42.16	0.4061	13	7	silty sand to sandy silt
3.023	42.16	0.3874	13	7	silty sand to sandy silt
3.090	41.14	0.3809	13	7	silty sand to sandy silt
3.154	39.34	0.3649	13	7	silty sand to sandy silt
3.239	37.99	0.3015	12	7	silty sand to sandy silt
3.291	38.78	0.3057	12	7	silty sand to sandy silt
3.357	38.56	0.2858	12	7	silty sand to sandy silt
3.421	43.63	0.2770	14	7	silty sand to sandy silt
3.489	43.61	0.2791	14	7	silty sand to sandy silt
3.568	48.68	0.2802	12	8	sand to silty sand
3.610	50.82	0.2833	12	8	sand to silty sand
3.678	53.64	0.2984	13	8	sand to silty sand
3.761	56.23	0.3239	13	8	sand to silty sand
3.830	57.69	0.3475	14	8	sand to silty sand
3.880	58.82	0.3627	14	8	sand to silty sand
3.939	60.06	0.3801	14	8	sand to silty sand
4.028	61.75	0.3979	15	8	sand to silty sand
4.079	62.88	0.4042	15	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 19.244 ft
SITE: B-415

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.135	63.78	0.4168	15	8	sand to silty sand	
4.227	63.89	0.4298	15	8	sand to silty sand	
4.281	63.89	0.4380	15	8	sand to silty sand	
4.354	63.89	0.4422	15	8	sand to silty sand	
4.420	63.89	0.4465	15	8	sand to silty sand	
4.479	63.67	0.4521	15	8	sand to silty sand	
4.536	63.67	0.4537	15	8	sand to silty sand	
4.605	63.67	0.4549	15	8	sand to silty sand	
4.672	63.44	0.4565	15	8	sand to silty sand	
4.754	63.11	0.4543	15	8	sand to silty sand	
4.794	62.77	0.4533	15	8	sand to silty sand	
4.873	62.20	0.4521	15	8	sand to silty sand	
4.948	61.86	0.4492	15	8	sand to silty sand	
5.009	61.53	0.4471	15	8	sand to silty sand	
5.071	61.08	0.4360	15	8	sand to silty sand	
5.135	60.18	0.4221	14	8	sand to silty sand	
5.205	58.26	0.4069	14	8	sand to silty sand	
5.268	55.22	0.3965	13	8	sand to silty sand	
5.316	52.18	0.3889	17	7	silty sand to sandy silt	
5.389	46.88	0.3731	15	7	silty sand to sandy silt	
5.460	43.73	0.3529	14	7	silty sand to sandy silt	
5.533	40.35	0.3271	13	7	silty sand to sandy silt	
5.584	38.77	0.3102	12	7	silty sand to sandy silt	
5.655	37.19	0.2903	12	7	silty sand to sandy silt	
5.714	36.06	0.2756	12	7	silty sand to sandy silt	
5.810	33.58	0.2534	11	7	silty sand to sandy silt	
5.841	32.57	0.2525	10	7	silty sand to sandy silt	
5.912	31.33	0.2514	10	7	silty sand to sandy silt	
5.985	31.11	0.2492	10	7	silty sand to sandy silt	
6.063	31.45	0.2393	10	7	silty sand to sandy silt	
6.108	30.09	0.2307	10	7	silty sand to sandy silt	
6.192	27.39	0.2228	9	7	silty sand to sandy silt	
6.258	25.36	0.2228	8	7	silty sand to sandy silt	
6.301	23.90	0.2228	9	6	sandy silt to clayey silt	
6.391	23.81	0.2048	9	6	sandy silt to clayey silt	
6.448	23.73	0.2045	9	6	sandy silt to clayey silt	
6.501	23.64	0.2080	9	6	sandy silt to clayey silt	
6.572	23.56	0.2192	9	6	sandy silt to clayey silt	
6.637	30.21	0.2331	10	7	silty sand to sandy silt	
6.695	31.56	0.2457	10	7	silty sand to sandy silt	
6.794	33.02	0.3096	11	7	silty sand to sandy silt	
6.831	34.49	0.3249	11	7	silty sand to sandy silt	
6.891	38.32	0.3403	12	7	silty sand to sandy silt	
6.986	41.92	0.4869	13	7	silty sand to sandy silt	
7.039	46.09	0.4610	15	7	silty sand to sandy silt	
7.089	50.15	0.4165	16	7	silty sand to sandy silt	
7.175	60.40	0.4612	14	8	sand to silty sand	
7.218	68.85	0.4986	16	8	sand to silty sand	
7.288	78.65	0.5183	19	8	sand to silty sand	
7.370	96.00	0.5082	23	8	sand to silty sand	
7.415	101.74	0.5923	24	8	sand to silty sand	
7.484	105.01	0.7059	25	8	sand to silty sand	
7.562	113.46	0.7391	27	8	sand to silty sand	
7.631	119.10	0.9751	29	8	sand to silty sand	
7.684	114.82	0.9887	27	8	sand to silty sand	
7.767	113.14	1.0035	27	8	sand to silty sand	
7.832	56.92	1.0318	18	7	silty sand to sandy silt	
7.876	42.50	1.0172	16	6	sandy silt to clayey silt	
7.959	47.57	0.8662	15	7	silty sand to sandy silt	
8.029	45.53	0.5718	15	7	silty sand to sandy silt	
8.083	41.13	0.3623	13	7	silty sand to sandy silt	
8.151	36.96	0.2572	12	7	silty sand to sandy silt	
8.216	33.13	0.2315	11	7	silty sand to sandy silt	

SOUNDING

TOTAL DEPTH: 19.244 ft
SITE: B-415

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.279	30.99	0.2090	10	7	silty sand to sandy silt
8.345	30.20	0.2214	10	7	silty sand to sandy silt
8.406	30.65	0.2486	10	7	silty sand to sandy silt
8.472	32.23	0.2601	10	7	silty sand to sandy silt
8.532	34.37	0.2533	11	7	silty sand to sandy silt
8.598	36.62	0.2494	12	7	silty sand to sandy silt
8.665	38.43	0.2478	12	7	silty sand to sandy silt
8.736	37.98	0.2486	12	7	silty sand to sandy silt
8.815	39.11	0.2652	12	7	silty sand to sandy silt
8.865	39.45	0.2816	13	7	silty sand to sandy silt
8.928	40.91	0.2583	13	7	silty sand to sandy silt
9.011	43.95	0.2537	14	7	silty sand to sandy silt
9.063	46.66	0.2599	15	7	silty sand to sandy silt
9.159	53.42	0.3166	13	8	sand to silty sand
9.193	57.14	0.3224	14	8	sand to silty sand
9.262	63.22	0.3205	15	8	sand to silty sand
9.336	71.44	0.3229	17	8	sand to silty sand
9.405	73.14	0.3539	18	8	sand to silty sand
9.460	75.73	0.4113	18	8	sand to silty sand
9.552	77.98	0.5296	19	8	sand to silty sand
9.609	81.13	0.5436	19	8	sand to silty sand
9.660	85.53	0.5766	20	8	sand to silty sand
9.717	94.32	0.6424	23	8	sand to silty sand
9.780	107.96	0.7269	26	8	sand to silty sand
9.846	108.07	0.7466	26	8	sand to silty sand
9.928	109.98	0.7347	26	8	sand to silty sand
10.004	114.25	0.6728	22	9	sand
10.049	117.07	0.6470	22	9	sand
10.122	122.14	0.6428	23	9	sand
10.196	125.63	0.6734	24	9	sand
10.239	127.78	0.6948	24	9	sand
10.321	131.16	0.7314	25	9	sand
10.393	132.96	0.7522	25	9	sand
10.433	134.54	0.7575	26	9	sand
10.500	136.45	0.7524	26	9	sand
10.585	135.55	0.7957	26	9	sand
10.634	134.99	0.8105	26	9	sand
10.713	134.42	0.7531	26	9	sand
10.782	137.13	0.7706	26	9	sand
10.831	139.38	0.7600	27	9	sand
10.914	142.88	0.7894	27	9	sand
10.988	147.15	0.8251	28	9	sand
11.036	154.26	0.8167	30	9	sand
11.105	154.49	0.8836	30	9	sand
11.178	164.18	1.0161	31	9	sand
11.238	167.90	1.0322	32	9	sand
11.293	169.60	1.0186	32	9	sand
11.369	169.10	1.0685	32	9	sand
11.433	168.59	1.0901	32	9	sand
11.495	160.37	1.0649	31	9	sand
11.555	167.58	1.1300	32	9	sand
11.629	182.67	1.2129	35	9	sand
11.710	189.34	1.2001	36	9	sand
11.747	193.76	1.2506	37	9	sand
11.826	193.89	1.3265	37	9	sand
11.903	184.06	1.3226	35	9	sand
11.975	178.65	1.2424	34	9	sand
12.021	178.70	1.2042	34	9	sand
12.073	178.69	1.2856	34	9	sand
12.165	178.73	1.4984	34	9	sand
12.211	173.34	1.4295	33	9	sand
12.287	182.34	1.2990	35	9	sand
12.352	185.28	1.2240	35	9	sand

SOUNDING

TOTAL DEPTH: 19.244 ft
SITE: B-415

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.413	181.44	1.2094	35	9	sand	
12.474	192.50	1.2094	37	9	sand	
12.556	196.77	0.9277	38	9	sand	
12.606	195.54	0.7158	37	9	sand	
12.670	198.47	0.6841	38	9	sand	
12.736	197.57	0.7649	38	9	sand	
12.799	206.91	0.8514	40	9	sand	
12.887	226.65	0.8530	43	9	sand	
12.948	237.46	0.8546	45	9	sand	
13.015	246.35	0.8312	39	10	gravelly sand	to sand
13.059	242.18	0.8885	46	9	sand	
13.130	227.30	1.0489	44	9	sand	
13.212	227.40	1.0062	44	9	sand	
13.279	219.17	0.9536	42	9	sand	
13.325	217.82	0.9184	42	9	sand	
13.418	204.64	0.8291	39	9	sand	
13.460	204.07	0.8337	39	9	sand	
13.525	207.12	0.9112	40	9	sand	
13.621	211.17	0.9650	40	9	sand	
13.662	211.28	0.9713	40	9	sand	
13.727	214.44	0.9726	41	9	sand	
13.780	211.41	0.9710	40	9	sand	
13.855	211.32	0.9688	40	9	sand	
13.923	217.74	1.0442	42	9	sand	
13.979	220.22	0.9949	42	9	sand	
14.049	244.66	1.0208	47	9	sand	
14.118	257.09	1.3866	49	9	sand	
14.176	274.21	1.6043	53	9	sand	
14.242	289.01	1.7676	55	9	sand	
14.315	305.65	1.9124	59	9	sand	
14.404	297.75	2.6068	57	9	sand	
14.440	293.05	2.6916	56	9	sand	
14.514	294.06	2.4793	56	9	sand	
14.592	302.25	2.1820	58	9	sand	
14.639	282.97	2.0316	54	9	sand	
14.711	270.58	1.9450	52	9	sand	
14.773	265.63	1.7482	51	9	sand	
14.839	249.28	1.5510	48	9	sand	
14.907	236.91	1.5163	45	9	sand	
14.968	224.72	1.5128	43	9	sand	
15.031	207.81	1.4813	40	9	sand	
15.103	193.83	1.3778	37	9	sand	
15.164	194.06	1.3926	37	9	sand	
15.231	188.00	1.2847	36	9	sand	
15.300	187.43	1.1548	36	9	sand	
15.385	188.41	1.1479	36	9	sand	
15.423	184.97	1.1457	35	9	sand	
15.499	188.79	1.1403	36	9	sand	
15.574	189.58	1.1192	36	9	sand	
15.648	187.55	1.1090	36	9	sand	
15.698	188.00	1.1121	36	9	sand	
15.766	190.93	1.1136	37	9	sand	
15.838	192.62	1.1219	37	9	sand	
15.898	194.54	1.1189	37	9	sand	
15.969	195.90	1.1154	38	9	sand	
16.034	200.18	1.1143	38	9	sand	
16.092	205.02	1.1126	39	9	sand	
16.153	214.15	1.1102	41	9	sand	
16.215	222.38	1.1086	43	9	sand	
16.279	237.02	1.1072	45	9	sand	
16.374	231.35	1.2058	44	9	sand	
16.409	235.52	1.2276	45	9	sand	
16.484	239.80	1.2614	46	9	sand	

SOUNDING

TOTAL DEPTH: 19.244 ft
SITE: B-415

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
16.577	239.24	1.2771	46	9	sand	
16.623	232.48	1.2926	45	9	sand	
16.684	225.72	1.3200	43	9	sand	
16.753	222.68	1.3449	43	9	sand	
16.824	221.89	1.3335	42	9	sand	
16.883	221.80	1.3270	42	9	sand	
16.948	221.72	1.3294	42	9	sand	
16.997	221.63	1.3430	42	9	sand	
17.062	221.55	1.3701	42	9	sand	
17.139	227.63	1.4366	44	9	sand	
17.215	230.34	1.4883	44	9	sand	
17.265	230.56	1.4935	44	9	sand	
17.343	232.36	1.5497	45	9	sand	
17.418	239.12	1.5643	46	9	sand	
17.462	242.85	1.5759	47	9	sand	
17.538	264.03	1.6084	51	9	sand	
17.586	273.72	1.6495	52	9	sand	
17.661	285.44	1.7298	55	9	sand	
17.719	294.46	1.7665	56	9	sand	
17.803	304.71	1.8494	58	9	sand	
17.852	310.34	1.9040	59	9	sand	
17.930	314.18	1.8856	60	9	sand	
17.998	312.15	1.8184	50	10	gravelly sand	to sand
18.062	314.51	1.8402	50	10	gravelly sand	to sand
18.110	314.62	1.8804	50	10	gravelly sand	to sand
18.197	314.85	2.0165	60	9	sand	
18.256	314.74	1.8554	50	10	gravelly sand	to sand
18.313	295.00	1.8023	56	9	sand	
18.406	281.93	1.8422	54	9	sand	
18.458	257.94	1.8407	49	9	sand	
18.509	256.81	1.8242	49	9	sand	
18.574	253.66	1.8058	49	9	sand	
18.649	246.45	1.7987	47	9	sand	
18.703	248.59	1.7637	48	9	sand	
18.773	242.05	1.6873	46	9	sand	
18.852	237.55	1.6803	45	9	sand	
18.901	238.90	1.6781	46	9	sand	
18.976	243.18	0.0000	0	0	<out of range>	
19.047	246.67	0.0000	0	0	<out of range>	
19.097	246.00	0.0000	0	0	<out of range>	
19.161	233.72	0.0000	0	0	<out of range>	
19.244	241.03	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 32.753 ft
SITE: B-416

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.91	0.0126	1	2	organic material
0.107	4.64	0.0671	2	1	sensitive fine grained
0.137	5.88	0.0830	3	1	sensitive fine grained
0.201	8.15	0.1160	4	5	clayey silt to silty clay
0.275	11.32	0.1539	5	5	clayey silt to silty clay
0.343	12.68	0.2001	6	5	clayey silt to silty clay
0.400	13.24	0.2304	6	5	clayey silt to silty clay
0.488	14.37	0.2677	7	5	clayey silt to silty clay
0.529	14.60	0.2858	7	5	clayey silt to silty clay
0.596	14.71	0.3178	7	5	clayey silt to silty clay
0.669	13.69	0.3601	7	5	clayey silt to silty clay
0.743	13.24	0.4118	8	4	silty clay to clay
0.799	13.92	0.4582	9	4	silty clay to clay
0.858	13.24	0.5190	13	3	clay
0.919	12.78	0.5975	12	3	clay
0.991	12.78	0.6931	12	3	clay
1.061	12.78	0.7491	12	3	clay
1.127	12.78	0.8066	12	3	clay
1.190	12.78	0.8708	12	3	clay
1.274	12.78	0.9300	12	3	clay
1.313	13.12	0.9451	13	3	clay
1.392	14.14	0.8573	14	3	clay
1.467	14.70	0.6972	14	3	clay
1.529	15.27	0.8908	15	3	clay
1.581	15.72	1.2052	15	3	clay
1.648	18.10	1.1276	17	3	clay
1.725	40.83	0.7663	16	6	sandy silt to clayey silt
1.786	44.56	0.7212	14	7	silty sand to sandy silt
1.848	29.29	0.8940	14	5	clayey silt to silty clay
1.906	32.34	1.0871	15	5	clayey silt to silty clay
1.972	58.58	1.1550	19	7	silty sand to sandy silt
2.051	93.76	1.1476	22	8	sand to silty sand
2.127	102.24	1.1487	24	8	sand to silty sand
2.177	82.00	1.1987	26	7	silty sand to sandy silt
2.231	57.57	1.1902	22	6	sandy silt to clayey silt
2.301	60.17	1.3979	23	6	sandy silt to clayey silt
2.384	69.90	1.4011	22	7	silty sand to sandy silt
2.452	69.90	0.9849	22	7	silty sand to sandy silt
2.521	63.45	0.8888	20	7	silty sand to sandy silt
2.569	60.29	0.8727	19	7	silty sand to sandy silt
2.625	57.01	0.8216	18	7	silty sand to sandy silt
2.710	51.26	0.7863	16	7	silty sand to sandy silt
2.772	49.78	1.2548	19	6	sandy silt to clayey silt
2.825	48.87	1.7798	23	5	clayey silt to silty clay
2.904	54.41	1.2836	21	6	sandy silt to clayey silt
2.969	61.42	1.2336	20	7	silty sand to sandy silt
3.021	63.23	1.2372	20	7	silty sand to sandy silt
3.118	44.80	1.2442	17	6	sandy silt to clayey silt
3.160	46.49	1.2472	18	6	sandy silt to clayey silt
3.217	46.38	1.0407	18	6	sandy silt to clayey silt
3.289	47.74	0.7663	15	7	silty sand to sandy silt
3.350	49.32	0.8024	16	7	silty sand to sandy silt
3.415	47.85	0.8421	15	7	silty sand to sandy silt
3.479	35.19	0.8393	13	6	sandy silt to clayey silt
3.554	39.14	0.6707	15	6	sandy silt to clayey silt
3.611	39.94	0.3149	13	7	silty sand to sandy silt
3.687	38.58	0.3179	12	7	silty sand to sandy silt
3.744	38.35	0.3413	12	7	silty sand to sandy silt
3.833	38.35	0.3167	12	7	silty sand to sandy silt
3.883	37.79	0.2973	12	7	silty sand to sandy silt
3.944	35.07	0.3244	11	7	silty sand to sandy silt
4.003	33.38	0.4078	11	7	silty sand to sandy silt
4.079	31.45	0.4726	12	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 32.753 ft
SITE: B-416

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.141	29.19	0.4720	11	6	sandy silt to clayey silt
4.213	28.17	0.4558	11	6	sandy silt to clayey silt
4.287	45.93	0.4251	15	7	silty sand to sandy silt
4.345	63.01	0.4159	15	8	sand to silty sand
4.407	86.20	1.0677	21	8	sand to silty sand
4.484	89.02	1.3540	28	7	silty sand to sandy silt
4.534	125.22	1.2102	30	8	sand to silty sand
4.620	183.01	1.2224	35	9	sand
4.661	201.90	1.2817	39	9	sand
4.734	194.67	1.2363	37	9	sand
4.800	217.06	1.7487	42	9	sand
4.881	243.20	3.0205	47	9	sand
4.936	231.21	3.9439	55	8	sand to silty sand
4.992	230.97	4.8391	74	7	silty sand to sandy silt
5.062	248.61	3.6747	60	8	sand to silty sand
5.132	277.92	3.9035	67	8	sand to silty sand
5.203	237.43	4.0646	57	8	sand to silty sand
5.283	200.55	3.9576	48	8	sand to silty sand
5.324	198.84	3.8527	48	8	sand to silty sand
5.383	208.34	3.4057	50	8	sand to silty sand
5.475	184.15	2.1945	44	8	sand to silty sand
5.518	183.35	1.7897	35	9	sand
5.578	183.35	1.5426	35	9	sand
5.656	183.35	1.2721	35	9	sand
5.721	183.35	1.1423	35	9	sand
5.810	184.59	1.0833	35	9	sand
5.851	184.37	1.0656	35	9	sand
5.920	183.35	1.0346	35	9	sand
5.978	181.43	1.0081	35	9	sand
6.037	178.03	0.9776	34	9	sand
6.105	173.39	0.9362	33	9	sand
6.170	166.61	0.8980	32	9	sand
6.250	155.41	0.8465	30	9	sand
6.314	144.55	0.7824	28	9	sand
6.372	132.68	0.7190	25	9	sand
6.451	114.13	0.5883	22	9	sand
6.509	100.10	0.4957	24	8	sand to silty sand
6.566	88.00	0.4663	21	8	sand to silty sand
6.631	74.20	0.4377	18	8	sand to silty sand
6.700	64.25	0.4065	15	8	sand to silty sand
6.784	53.73	0.3811	13	8	sand to silty sand
6.845	50.56	0.3700	16	7	silty sand to sandy silt
6.898	48.41	0.3643	15	7	silty sand to sandy silt
6.973	50.16	0.3635	16	7	silty sand to sandy silt
7.044	47.62	0.3647	15	7	silty sand to sandy silt
7.089	49.77	0.3820	16	7	silty sand to sandy silt
7.166	58.48	0.4174	14	8	sand to silty sand
7.240	69.00	0.4911	17	8	sand to silty sand
7.288	77.48	0.5685	19	8	sand to silty sand
7.360	94.90	0.7354	23	8	sand to silty sand
7.431	109.26	0.8350	26	8	sand to silty sand
7.486	114.92	0.8412	28	8	sand to silty sand
7.552	125.89	0.8336	24	9	sand
7.619	138.45	0.9276	27	9	sand
7.684	138.90	1.0475	27	9	sand
7.760	145.12	0.9984	28	9	sand
7.835	150.21	0.9274	29	9	sand
7.875	152.93	0.8944	29	9	sand
7.963	145.12	0.9100	28	9	sand
8.031	143.54	0.9485	27	9	sand
8.078	143.31	0.9479	27	9	sand
8.157	146.14	0.8803	28	9	sand
8.220	149.87	0.8494	29	9	sand

SOUNDING

TOTAL DEPTH: 32.753 ft
SITE: B-416

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.276	152.14	0.8623	29	9	sand	
8.345	153.61	0.8932	29	9	sand	
8.415	154.75	0.9366	30	9	sand	
8.476	155.76	0.9620	30	9	sand	
8.540	156.10	0.9820	30	9	sand	
8.609	157.01	1.0053	30	9	sand	
8.670	158.14	1.0160	30	9	sand	
8.728	159.50	1.0158	31	9	sand	
8.822	157.91	1.0093	30	9	sand	
8.863	154.86	1.0067	30	9	sand	
8.935	150.22	0.9955	29	9	sand	
9.007	147.96	0.9669	28	9	sand	
9.069	146.71	0.9352	28	9	sand	
9.154	147.50	0.9316	28	9	sand	
9.190	148.97	0.9337	29	9	sand	
9.261	152.26	0.9331	29	9	sand	
9.335	156.10	0.9338	30	9	sand	
9.392	158.93	0.9337	30	9	sand	
9.462	160.51	0.8934	31	9	sand	
9.535	160.40	0.8541	31	9	sand	
9.598	160.18	0.7868	31	9	sand	
9.660	160.63	0.4894	31	9	sand	
9.729	166.16	0.4983	32	9	sand	
9.781	169.78	0.6009	33	9	sand	
9.853	176.12	0.6718	34	9	sand	
9.915	182.79	0.7028	35	9	sand	
9.975	181.21	0.6795	35	9	sand	
10.045	179.62	0.7330	34	9	sand	
10.125	189.47	1.0512	36	9	sand	
10.195	194.10	1.2375	37	9	sand	
10.237	194.55	1.2649	37	9	sand	
10.309	201.56	1.2425	39	9	sand	
10.387	197.49	1.2436	38	9	sand	
10.445	197.36	1.2495	38	9	sand	
10.508	197.22	1.2509	38	9	sand	
10.584	197.08	1.1974	38	9	sand	
10.648	196.94	1.0148	38	9	sand	
10.706	203.16	0.8942	39	9	sand	
10.776	207.91	0.8742	40	9	sand	
10.831	206.21	0.8579	39	9	sand	
10.904	206.10	0.8486	39	9	sand	
10.973	210.62	0.8418	40	9	sand	
11.038	213.90	0.8398	41	9	sand	
11.090	216.96	0.8398	42	9	sand	
11.160	220.80	0.8402	42	9	sand	
11.234	223.06	0.8414	43	9	sand	
11.319	222.27	0.8427	43	9	sand	
11.361	221.37	0.8489	42	9	sand	
11.435	218.43	0.9256	42	9	sand	
11.514	216.39	0.9741	41	9	sand	
11.552	212.44	1.0038	41	9	sand	
11.634	205.08	1.0436	39	9	sand	
11.682	201.80	1.0187	39	9	sand	
11.770	195.58	1.0159	37	9	sand	
11.828	195.24	1.0131	37	9	sand	
11.881	190.27	1.0107	36	9	sand	
11.971	186.65	1.0046	36	9	sand	
12.015	186.99	1.0027	36	9	sand	
12.080	183.03	0.9984	35	9	sand	
12.169	176.24	0.8550	34	9	sand	
12.214	174.21	0.8421	33	9	sand	
12.280	167.76	0.8883	32	9	sand	
12.372	165.94	0.8619	32	9	sand	

SOUNDING

TOTAL DEPTH: 32.753 ft
SITE: B-416

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.407	161.44	0.8540	31	9	sand	
12.480	165.40	0.8454	32	9	sand	
12.554	164.82	0.8421	32	9	sand	
12.619	171.96	0.8454	33	9	sand	
12.672	179.98	0.8433	34	9	sand	
12.757	189.03	0.7703	36	9	sand	
12.823	191.86	0.6753	37	9	sand	
12.871	194.45	0.6560	37	9	sand	
12.952	197.86	0.5921	38	9	sand	
13.013	194.80	0.6176	37	9	sand	
13.064	195.48	0.6318	37	9	sand	
13.131	206.57	0.6228	40	9	sand	
13.201	213.01	0.7278	41	9	sand	
13.259	207.63	0.8304	40	9	sand	
13.332	208.70	0.9028	40	9	sand	
13.414	207.80	1.0430	40	9	sand	
13.454	205.65	1.0903	39	9	sand	
13.534	200.79	1.1141	38	9	sand	
13.612	200.67	1.1451	38	9	sand	
13.657	199.32	1.1033	38	9	sand	
13.731	197.28	0.9851	38	9	sand	
13.803	195.58	0.9145	37	9	sand	
13.846	194.45	0.8792	37	9	sand	
13.926	191.06	0.8272	37	9	sand	
13.996	190.95	0.8066	37	9	sand	
14.053	190.15	0.8025	36	9	sand	
14.117	188.80	0.7907	36	9	sand	
14.191	188.12	0.7761	36	9	sand	
14.256	188.35	0.7616	36	9	sand	
14.322	188.35	0.8546	36	9	sand	
14.392	187.33	0.9531	36	9	sand	
14.449	186.76	0.9352	36	9	sand	
14.513	184.84	0.9369	35	9	sand	
14.590	184.28	0.9335	35	9	sand	
14.650	174.55	0.9295	33	9	sand	
14.713	172.73	0.9290	33	9	sand	
14.786	172.28	0.9294	33	9	sand	
14.844	170.36	0.9021	33	9	sand	
14.912	168.90	0.8601	32	9	sand	
14.971	168.90	0.9328	32	9	sand	
15.042	165.73	1.1213	32	9	sand	
15.127	153.06	1.2215	29	9	sand	
15.166	149.22	1.1978	29	9	sand	
15.240	143.56	1.1288	27	9	sand	
15.322	123.30	1.0622	30	8	sand to silty sand	
15.393	108.27	0.9895	26	8	sand to silty sand	
15.433	99.89	0.9234	24	8	sand to silty sand	
15.486	89.48	0.8176	21	8	sand to silty sand	
15.586	80.43	0.5913	19	8	sand to silty sand	
15.636	76.36	0.6204	18	8	sand to silty sand	
15.685	71.72	0.6380	17	8	sand to silty sand	
15.774	65.51	0.6142	16	8	sand to silty sand	
15.830	62.11	0.5859	20	7	silty sand to sandy silt	
15.885	60.19	0.5670	19	7	silty sand to sandy silt	
15.954	55.46	0.5599	18	7	silty sand to sandy silt	
16.019	51.50	0.5634	16	7	silty sand to sandy silt	
16.083	50.70	0.5617	16	7	silty sand to sandy silt	
16.152	51.03	0.5607	16	7	silty sand to sandy silt	
16.212	52.27	0.5768	17	7	silty sand to sandy silt	
16.275	52.84	0.5956	17	7	silty sand to sandy silt	
16.348	52.96	0.6287	17	7	silty sand to sandy silt	
16.429	52.96	0.6291	17	7	silty sand to sandy silt	
16.474	52.62	0.6509	17	7	silty sand to sandy silt	

SOUNDING

TOTAL DEPTH: 32.753 ft
SITE: B-416

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.548	51.15	0.7371	16	7	silty sand to sandy silt
16.609	53.97	0.7918	17	7	silty sand to sandy silt
16.667	58.04	0.8057	19	7	silty sand to sandy silt
16.738	62.68	0.8042	20	7	silty sand to sandy silt
16.806	67.66	0.8038	22	7	silty sand to sandy silt
16.865	74.79	0.8000	18	8	sand to silty sand
16.935	81.35	0.7686	19	8	sand to silty sand
17.005	86.66	0.7187	21	8	sand to silty sand
17.092	89.15	0.6309	21	8	sand to silty sand
17.154	85.52	0.5652	20	8	sand to silty sand
17.200	83.83	0.5184	20	8	sand to silty sand
17.288	78.40	0.4283	19	8	sand to silty sand
17.351	74.10	0.3521	18	8	sand to silty sand
17.395	70.59	0.3285	17	8	sand to silty sand
17.477	65.39	0.3288	16	8	sand to silty sand
17.523	62.79	0.3495	15	8	sand to silty sand
17.596	59.17	0.3856	14	8	sand to silty sand
17.668	59.51	0.4056	14	8	sand to silty sand
17.743	60.98	0.4778	15	8	sand to silty sand
17.790	63.69	0.4937	15	8	sand to silty sand
17.861	69.13	0.5051	17	8	sand to silty sand
17.916	72.41	0.5234	17	8	sand to silty sand
17.981	75.91	0.5334	18	8	sand to silty sand
18.053	77.96	0.4913	19	8	sand to silty sand
18.122	77.16	0.4545	18	8	sand to silty sand
18.185	75.23	0.4158	18	8	sand to silty sand
18.268	73.09	0.3946	17	8	sand to silty sand
18.337	70.71	0.3725	17	8	sand to silty sand
18.387	68.90	0.3533	16	8	sand to silty sand
18.440	66.97	0.3203	16	8	sand to silty sand
18.529	64.14	0.4457	15	8	sand to silty sand
18.571	63.46	0.5135	15	8	sand to silty sand
18.683	63.12	0.6820	20	7	silty sand to sandy silt
18.708	64.71	0.7467	21	7	silty sand to sandy silt
18.782	70.93	0.8667	23	7	silty sand to sandy silt
18.836	81.57	0.9191	20	8	sand to silty sand
18.912	91.07	1.0140	22	8	sand to silty sand
18.971	99.67	1.0934	24	8	sand to silty sand
19.030	111.10	1.1373	27	8	sand to silty sand
19.107	128.29	1.1276	31	8	sand to silty sand
19.179	138.69	0.9680	27	9	sand
19.235	143.56	0.9052	27	9	sand
19.320	152.27	0.9626	29	9	sand
19.375	157.47	1.6389	38	8	sand to silty sand
19.430	165.60	1.9527	40	8	sand to silty sand
19.493	172.73	1.9163	41	8	sand to silty sand
19.565	176.80	1.9399	34	9	sand
19.626	178.50	1.7310	34	9	sand
19.703	209.15	2.0275	40	9	sand
19.758	211.02	2.0975	40	9	sand
19.833	270.12	2.2448	52	9	sand
19.885	212.87	2.2945	41	9	sand
19.973	184.49	2.2354	44	8	sand to silty sand
20.021	191.95	2.4117	46	8	sand to silty sand
20.082	172.51	2.4877	41	8	sand to silty sand
20.154	170.47	2.0926	41	8	sand to silty sand
20.227	137.89	1.7320	33	8	sand to silty sand
20.287	128.95	1.5217	31	8	sand to silty sand
20.352	119.22	1.4231	29	8	sand to silty sand
20.429	115.95	1.4250	28	8	sand to silty sand
20.482	110.87	1.4383	27	8	sand to silty sand
20.572	101.49	1.4382	24	8	sand to silty sand
20.615	96.86	1.4295	31	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 32.753 ft
SITE: B-416

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
20.680	96.29	1.4056	23	8	sand to silty sand
20.748	96.29	1.4580	31	7	silty sand to sandy silt
20.825	74.91	1.4139	24	7	silty sand to sandy silt
20.882	73.56	1.2496	23	7	silty sand to sandy silt
20.943	76.05	0.9665	24	7	silty sand to sandy silt
21.022	72.09	0.6631	17	8	sand to silty sand
21.071	66.44	0.6005	16	8	sand to silty sand
21.138	65.08	0.5548	16	8	sand to silty sand
21.204	65.20	0.4899	16	8	sand to silty sand
21.268	66.00	0.4162	16	8	sand to silty sand
21.330	63.28	0.4174	15	8	sand to silty sand
21.420	62.14	0.4188	15	8	sand to silty sand
21.463	60.90	0.4226	15	8	sand to silty sand
21.545	61.04	0.4303	15	8	sand to silty sand
21.614	61.13	0.6284	20	7	silty sand to sandy silt
21.663	61.18	0.8392	20	7	silty sand to sandy silt
21.724	61.18	1.0641	20	7	silty sand to sandy silt
21.802	61.25	1.3217	23	6	sandy silt to clayey silt
21.864	67.01	1.5362	26	6	sandy silt to clayey silt
21.931	86.36	1.9140	28	7	silty sand to sandy silt
22.000	139.42	2.6695	45	7	silty sand to sandy silt
22.063	169.39	3.1271	41	8	sand to silty sand
22.118	157.29	3.3843	50	7	silty sand to sandy silt
22.190	151.29	3.5445	48	7	silty sand to sandy silt
22.256	133.53	3.5574	43	7	silty sand to sandy silt
22.313	111.34	3.4569	43	6	sandy silt to clayey silt
22.408	95.37	2.8767	37	6	sandy silt to clayey silt
22.443	93.33	2.4490	36	6	sandy silt to clayey silt
22.522	93.10	1.8160	30	7	silty sand to sandy silt
22.584	88.01	1.6345	28	7	silty sand to sandy silt
22.651	86.08	1.2866	27	7	silty sand to sandy silt
22.703	85.18	0.9321	20	8	sand to silty sand
22.771	83.71	0.5994	20	8	sand to silty sand
22.836	78.39	0.6272	19	8	sand to silty sand
22.901	71.49	0.6832	17	8	sand to silty sand
22.986	114.48	0.8449	27	8	sand to silty sand
23.050	108.14	0.9778	26	8	sand to silty sand
23.111	98.30	1.0986	24	8	sand to silty sand
23.177	82.57	1.2152	26	7	silty sand to sandy silt
23.244	75.90	1.1216	24	7	silty sand to sandy silt
23.301	72.17	0.9415	23	7	silty sand to sandy silt
23.371	68.43	0.7697	22	7	silty sand to sandy silt
23.438	63.12	0.7308	20	7	silty sand to sandy silt
23.495	60.06	0.7124	19	7	silty sand to sandy silt
23.588	60.97	0.7130	19	7	silty sand to sandy silt
23.631	59.61	0.7133	19	7	silty sand to sandy silt
23.692	61.88	0.7137	20	7	silty sand to sandy silt
23.754	64.82	0.7101	21	7	silty sand to sandy silt
23.827	68.10	0.6950	16	8	sand to silty sand
23.887	69.23	0.6780	17	8	sand to silty sand
23.951	70.59	0.6867	17	8	sand to silty sand
24.017	65.95	0.6537	21	7	silty sand to sandy silt
24.097	68.09	0.5891	16	8	sand to silty sand
24.174	67.41	0.5467	16	8	sand to silty sand
24.218	65.27	0.5249	16	8	sand to silty sand
24.282	62.21	0.5163	15	8	sand to silty sand
24.368	58.03	1.0866	19	7	silty sand to sandy silt
24.432	56.56	1.0467	18	7	silty sand to sandy silt
24.481	56.67	0.8419	18	7	silty sand to sandy silt
24.558	64.93	0.6468	21	7	silty sand to sandy silt
24.622	72.05	0.7055	17	8	sand to silty sand
24.678	74.20	0.8677	24	7	silty sand to sandy silt
24.749	63.00	1.0828	20	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 32.753 ft
SITE: B-416

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
24.809	57.35	0.8781	18	7	silty sand to sandy silt
24.873	51.80	0.5967	17	7	silty sand to sandy silt
24.956	49.89	0.4764	16	7	silty sand to sandy silt
25.018	47.29	0.4230	15	7	silty sand to sandy silt
25.071	47.18	0.3793	15	7	silty sand to sandy silt
25.134	47.19	0.3471	15	7	silty sand to sandy silt
25.217	47.08	0.3727	15	7	silty sand to sandy silt
25.268	49.01	0.4565	16	7	silty sand to sandy silt
25.358	47.43	1.1125	18	6	sandy silt to clayey silt
25.399	48.79	1.2536	19	6	sandy silt to clayey silt
25.469	55.81	1.1438	21	6	sandy silt to clayey silt
25.540	59.77	0.9767	19	7	silty sand to sandy silt
25.605	129.20	1.6479	31	8	sand to silty sand
25.669	95.54	2.3485	30	7	silty sand to sandy silt
25.739	103.46	2.0153	33	7	silty sand to sandy silt
25.807	99.04	1.8997	32	7	silty sand to sandy silt
25.857	64.66	1.8843	25	6	sandy silt to clayey silt
25.943	36.05	1.4169	17	5	clayey silt to silty clay
26.004	45.91	0.8364	15	7	silty sand to sandy silt
26.060	46.27	0.6511	15	7	silty sand to sandy silt
26.119	44.81	0.6200	14	7	silty sand to sandy silt
26.209	43.91	0.4984	14	7	silty sand to sandy silt
26.250	44.15	0.4498	14	7	silty sand to sandy silt
26.323	55.01	0.4111	13	8	sand to silty sand
26.382	52.62	0.4101	17	7	silty sand to sandy silt
26.448	50.59	0.5954	16	7	silty sand to sandy silt
26.526	49.12	1.4177	19	6	sandy silt to clayey silt
26.581	49.14	1.8290	24	5	clayey silt to silty clay
26.649	49.82	1.8374	24	5	clayey silt to silty clay
26.706	54.03	1.8314	26	5	clayey silt to silty clay
26.777	135.84	2.2506	33	8	sand to silty sand
26.845	226.26	2.8905	43	9	sand
26.922	214.50	3.4632	51	8	sand to silty sand
26.977	178.31	3.8700	57	7	silty sand to sandy silt
27.045	144.26	3.9365	46	7	silty sand to sandy silt
27.119	108.84	3.9261	42	6	sandy silt to clayey silt
27.178	91.65	3.8449	44	5	clayey silt to silty clay
27.248	76.37	3.4375	37	5	clayey silt to silty clay
27.316	80.54	2.7532	31	6	sandy silt to clayey silt
27.367	78.73	2.3018	30	6	sandy silt to clayey silt
27.440	98.42	2.1268	31	7	silty sand to sandy silt
27.510	129.74	2.2292	41	7	silty sand to sandy silt
27.567	145.34	2.2631	35	8	sand to silty sand
27.634	144.87	2.4101	35	8	sand to silty sand
27.698	142.27	3.1402	45	7	silty sand to sandy silt
27.765	144.42	3.6895	46	7	silty sand to sandy silt
27.824	144.42	3.6693	46	7	silty sand to sandy silt
27.888	146.57	3.5316	47	7	silty sand to sandy silt
27.955	174.73	3.3462	56	7	silty sand to sandy silt
28.025	222.11	3.7472	53	8	sand to silty sand
28.106	211.48	4.0584	51	8	sand to silty sand
28.159	196.89	3.7011	47	8	sand to silty sand
28.234	174.27	3.2139	42	8	sand to silty sand
28.303	182.86	2.8488	44	8	sand to silty sand
28.347	191.23	2.4738	46	8	sand to silty sand
28.419	182.18	1.9906	35	9	sand
28.493	181.50	1.5707	35	9	sand
28.561	181.50	1.3196	35	9	sand
28.632	181.51	1.1683	35	9	sand
28.676	179.59	1.1355	34	9	sand
28.746	158.44	1.1404	30	9	sand
28.823	155.72	1.0127	30	9	sand
28.900	150.41	0.9934	29	9	sand

SOUNDING

TOTAL DEPTH: 32.753 ft
SITE: B-416

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
28.953	146.79	1.0044	28	9	sand	
29.010	145.10	1.0087	28	9	sand	
29.075	145.10	1.0087	28	9	sand	
29.140	148.49	1.0087	28	9	sand	
29.200	151.20	1.0087	29	9	sand	
29.269	142.38	1.0270	27	9	sand	
29.343	133.11	1.0883	32	8	sand to silty	sand
29.412	132.44	1.0926	32	8	sand to silty	sand
29.463	131.21	1.0926	31	8	sand to silty	sand
29.542	130.61	1.0899	31	8	sand to silty	sand
29.635	131.40	1.0851	31	8	sand to silty	sand
29.670	129.99	1.1234	31	8	sand to silty	sand
29.730	131.57	1.1939	31	8	sand to silty	sand
29.792	132.48	1.2499	32	8	sand to silty	sand
29.860	133.73	1.2842	32	8	sand to silty	sand
29.932	134.97	1.3154	32	8	sand to silty	sand
30.020	138.14	1.3563	33	8	sand to silty	sand
30.057	139.95	1.3664	34	8	sand to silty	sand
30.128	141.53	1.3681	34	8	sand to silty	sand
30.191	142.66	1.3646	34	8	sand to silty	sand
30.283	143.11	1.3810	34	8	sand to silty	sand
30.326	143.00	1.3961	34	8	sand to silty	sand
30.386	142.10	1.4162	34	8	sand to silty	sand
30.458	141.20	1.4232	34	8	sand to silty	sand
30.525	140.29	1.4225	34	8	sand to silty	sand
30.585	139.16	1.4213	33	8	sand to silty	sand
30.658	137.91	1.4206	33	8	sand to silty	sand
30.725	136.22	1.4307	33	8	sand to silty	sand
30.782	134.41	1.4385	32	8	sand to silty	sand
30.850	131.81	1.4345	32	8	sand to silty	sand
30.918	129.55	1.4230	31	8	sand to silty	sand
30.977	127.51	1.4212	31	8	sand to silty	sand
31.039	126.50	1.4013	30	8	sand to silty	sand
31.127	123.55	1.3383	30	8	sand to silty	sand
31.175	122.42	1.3229	29	8	sand to silty	sand
31.234	121.52	1.3081	29	8	sand to silty	sand
31.320	122.09	1.2786	29	8	sand to silty	sand
31.374	122.88	1.2612	29	8	sand to silty	sand
31.437	124.24	1.2386	30	8	sand to silty	sand
31.506	125.14	1.2437	30	8	sand to silty	sand
31.569	126.05	1.2631	30	8	sand to silty	sand
31.654	126.95	1.2928	30	8	sand to silty	sand
31.717	128.08	1.3197	31	8	sand to silty	sand
31.764	129.22	1.3372	31	8	sand to silty	sand
31.829	130.57	1.3499	31	8	sand to silty	sand
31.915	131.14	1.3652	31	8	sand to silty	sand
31.964	132.50	1.3748	32	8	sand to silty	sand
32.049	133.40	1.3918	32	8	sand to silty	sand
32.112	134.31	1.3974	32	8	sand to silty	sand
32.162	134.88	1.3987	32	8	sand to silty	sand
32.231	136.35	1.4097	33	8	sand to silty	sand
32.304	137.37	1.4227	33	8	sand to silty	sand
32.364	138.72	1.4275	33	8	sand to silty	sand
32.429	139.97	1.4411	34	8	sand to silty	sand
32.493	141.21	0.0000	0	0	<out of range>	
32.557	142.57	0.0000	0	0	<out of range>	
32.622	144.72	0.0000	0	0	<out of range>	
32.702	147.32	0.0000	0	0	<out of range>	
32.753	150.04	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 22.446 ft
SITE: B-417

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.68	0.0006	1	2	organic material
0.066	5.31	0.0021	3	1	sensitive fine grained
0.148	7.35	0.0134	4	1	sensitive fine grained
0.213	8.71	0.0984	4	5	clayey silt to silty clay
0.267	10.97	0.1720	5	5	clayey silt to silty clay
0.341	16.51	0.2823	8	5	clayey silt to silty clay
0.414	19.68	0.3831	8	6	sandy silt to clayey silt
0.461	19.68	0.4243	9	5	clayey silt to silty clay
0.532	17.53	0.4614	8	5	clayey silt to silty clay
0.597	17.76	0.4682	9	5	clayey silt to silty clay
0.664	18.09	0.4533	9	5	clayey silt to silty clay
0.728	17.07	0.4134	8	5	clayey silt to silty clay
0.794	15.94	0.3876	8	5	clayey silt to silty clay
0.865	14.01	0.3595	7	5	clayey silt to silty clay
0.948	12.99	0.3316	6	5	clayey silt to silty clay
1.010	11.97	0.3091	6	5	clayey silt to silty clay
1.061	11.30	0.2996	7	4	silty clay to clay
1.122	11.92	0.2988	6	5	clayey silt to silty clay
1.190	11.30	0.3363	7	4	silty clay to clay
1.257	11.86	0.3976	8	4	silty clay to clay
1.321	12.09	0.4716	12	3	clay
1.387	12.54	0.5810	12	3	clay
1.450	13.00	0.7040	12	3	clay
1.525	14.24	0.8173	14	3	clay
1.585	14.58	0.9176	14	3	clay
1.652	14.80	1.0443	14	3	clay
1.716	14.58	1.1196	14	3	clay
1.775	15.48	1.1697	15	3	clay
1.846	16.61	1.2324	16	3	clay
1.917	17.63	1.2906	17	3	clay
1.980	17.97	1.3502	17	3	clay
2.045	17.63	1.3515	17	3	clay
2.125	18.20	1.2444	17	3	clay
2.195	20.12	1.1259	19	3	clay
2.254	23.85	1.4484	23	3	clay
2.303	30.30	1.8795	29	3	clay
2.365	46.02	1.9896	29	4	silty clay to clay
2.440	102.00	2.0505	33	7	silty sand to sandy silt
2.514	100.87	2.5877	39	6	sandy silt to clayey silt
2.578	100.88	2.7588	39	6	sandy silt to clayey silt
2.640	99.76	3.1302	38	6	sandy silt to clayey silt
2.691	104.84	3.4151	40	6	sandy silt to clayey silt
2.757	149.74	3.5264	48	7	silty sand to sandy silt
2.843	177.56	3.1767	43	8	sand to silty sand
2.889	187.29	2.8989	45	8	sand to silty sand
2.958	187.29	2.4234	45	8	sand to silty sand
3.038	183.22	2.1324	35	9	sand
3.085	179.93	2.0415	34	9	sand
3.155	174.96	2.5980	42	8	sand to silty sand
3.224	173.84	3.9816	55	7	silty sand to sandy silt
3.288	169.32	3.9930	54	7	silty sand to sandy silt
3.367	115.15	4.0108	44	6	sandy silt to clayey silt
3.428	94.11	3.2711	36	6	sandy silt to clayey silt
3.485	69.12	2.2923	26	6	sandy silt to clayey silt
3.552	62.21	1.1837	20	7	silty sand to sandy silt
3.609	42.53	0.4768	14	7	silty sand to sandy silt
3.678	45.36	0.4000	14	7	silty sand to sandy silt
3.756	43.89	0.3619	14	7	silty sand to sandy silt
3.832	40.72	0.2895	13	7	silty sand to sandy silt
3.894	37.79	0.2647	12	7	silty sand to sandy silt
3.957	34.95	0.2417	11	7	silty sand to sandy silt
4.022	32.13	0.2142	10	7	silty sand to sandy silt
4.089	29.41	0.2146	9	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 22.446 ft
SITE: B-417

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.153	27.83	0.2141	9	7	silty sand to sandy silt
4.215	26.36	0.2005	8	7	silty sand to sandy silt
4.281	26.03	0.1979	8	7	silty sand to sandy silt
4.343	24.89	0.2144	8	7	silty sand to sandy silt
4.399	24.56	0.2177	9	6	sandy silt to clayey silt
4.470	24.11	0.1923	8	7	silty sand to sandy silt
4.539	22.52	0.1708	9	6	sandy silt to clayey silt
4.623	19.92	0.1605	8	6	sandy silt to clayey silt
4.660	18.57	0.1600	7	6	sandy silt to clayey silt
4.731	17.54	0.1535	7	6	sandy silt to clayey silt
4.796	15.28	0.1404	6	6	sandy silt to clayey silt
4.885	14.37	0.1071	6	6	sandy silt to clayey silt
4.936	14.04	0.0882	5	6	sandy silt to clayey silt
5.018	14.15	0.0705	5	6	sandy silt to clayey silt
5.059	13.14	0.0699	5	6	sandy silt to clayey silt
5.129	12.46	0.0916	5	6	sandy silt to clayey silt
5.185	12.80	0.1209	5	6	sandy silt to clayey silt
5.278	12.80	0.1338	5	6	sandy silt to clayey silt
5.337	12.46	0.1501	6	5	clayey silt to silty clay
5.381	15.51	0.1634	6	6	sandy silt to clayey silt
5.474	12.12	0.1733	6	5	clayey silt to silty clay
5.514	11.89	0.1660	6	5	clayey silt to silty clay
5.580	10.87	0.1402	5	5	clayey silt to silty clay
5.660	9.29	0.0901	4	5	clayey silt to silty clay
5.730	8.84	0.0640	4	5	clayey silt to silty clay
5.776	9.17	0.0743	4	5	clayey silt to silty clay
5.847	10.41	0.1460	5	5	clayey silt to silty clay
5.910	11.77	0.1885	6	5	clayey silt to silty clay
5.996	13.81	0.1897	5	6	sandy silt to clayey silt
6.059	17.65	0.2141	7	6	sandy silt to clayey silt
6.120	23.31	0.3246	9	6	sandy silt to clayey silt
6.200	34.17	0.9204	13	6	sandy silt to clayey silt
6.264	43.44	0.7222	14	7	silty sand to sandy silt
6.309	43.33	0.6015	14	7	silty sand to sandy silt
6.367	38.01	0.5708	12	7	silty sand to sandy silt
6.437	22.74	0.6856	11	5	clayey silt to silty clay
6.515	22.51	0.4916	9	6	sandy silt to clayey silt
6.567	22.52	0.3622	9	6	sandy silt to clayey silt
6.652	22.30	0.3973	9	6	sandy silt to clayey silt
6.712	22.58	0.3991	9	6	sandy silt to clayey silt
6.762	22.58	0.3810	9	6	sandy silt to clayey silt
6.842	22.86	0.3357	9	6	sandy silt to clayey silt
6.909	22.74	0.2885	9	6	sandy silt to clayey silt
6.964	24.10	0.2747	9	6	sandy silt to clayey silt
7.041	25.00	0.2100	8	7	silty sand to sandy silt
7.104	25.24	0.1277	8	7	silty sand to sandy silt
7.158	25.46	0.0987	8	7	silty sand to sandy silt
7.225	24.79	0.0895	8	7	silty sand to sandy silt
7.295	23.65	0.0833	8	7	silty sand to sandy silt
7.357	21.96	0.0783	7	7	silty sand to sandy silt
7.420	20.03	0.0744	6	7	silty sand to sandy silt
7.488	18.45	0.0721	7	6	sandy silt to clayey silt
7.555	16.98	0.0712	7	6	sandy silt to clayey silt
7.635	15.96	0.0676	6	6	sandy silt to clayey silt
7.681	14.94	0.0636	6	6	sandy silt to clayey silt
7.743	14.60	0.0613	6	6	sandy silt to clayey silt
7.824	14.04	0.0591	5	6	sandy silt to clayey silt
7.903	13.47	0.0558	5	6	sandy silt to clayey silt
7.951	13.13	0.0537	5	6	sandy silt to clayey silt
8.039	12.68	0.0513	5	6	sandy silt to clayey silt
8.073	12.57	0.0513	5	6	sandy silt to clayey silt
8.143	12.46	0.0518	5	6	sandy silt to clayey silt
8.225	12.34	0.0530	5	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 22.446 ft
SITE: B-417

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.295	12.34	0.0530	5	6	sandy silt to clayey silt
8.344	12.34	0.0537	5	6	sandy silt to clayey silt
8.416	12.57	0.0563	5	6	sandy silt to clayey silt
8.487	12.80	0.0601	5	6	sandy silt to clayey silt
8.547	13.13	0.0663	5	6	sandy silt to clayey silt
8.609	13.59	0.0722	5	6	sandy silt to clayey silt
8.678	14.38	0.0772	6	6	sandy silt to clayey silt
8.743	14.94	0.0811	6	6	sandy silt to clayey silt
8.802	16.30	0.0856	6	6	sandy silt to clayey silt
8.867	17.43	0.0951	7	6	sandy silt to clayey silt
8.936	19.12	0.1111	7	6	sandy silt to clayey silt
9.004	21.27	0.1296	7	7	silty sand to sandy silt
9.074	22.29	0.1405	7	7	silty sand to sandy silt
9.138	23.53	0.1467	8	7	silty sand to sandy silt
9.196	23.76	0.1510	8	7	silty sand to sandy silt
9.270	23.99	0.1509	8	7	silty sand to sandy silt
9.330	23.88	0.1590	8	7	silty sand to sandy silt
9.414	22.86	0.1567	7	7	silty sand to sandy silt
9.474	21.96	0.1250	7	7	silty sand to sandy silt
9.536	20.83	0.1095	7	7	silty sand to sandy silt
9.616	18.90	0.0935	7	6	sandy silt to clayey silt
9.683	17.66	0.0868	7	6	sandy silt to clayey silt
9.716	16.86	0.0722	6	6	sandy silt to clayey silt
9.779	15.96	0.0472	6	6	sandy silt to clayey silt
9.857	14.60	0.0430	6	6	sandy silt to clayey silt
9.915	13.70	0.0388	5	6	sandy silt to clayey silt
9.984	11.89	0.0328	5	6	sandy silt to clayey silt
10.057	9.85	0.0278	4	6	sandy silt to clayey silt
10.120	9.39	0.0228	4	1	sensitive fine grained
10.181	8.83	0.0185	4	1	sensitive fine grained
10.253	8.27	0.0166	4	1	sensitive fine grained
10.317	7.48	0.0146	4	1	sensitive fine grained
10.375	7.02	0.0132	3	1	sensitive fine grained
10.447	6.34	0.0123	3	1	sensitive fine grained
10.515	5.78	0.0116	3	1	sensitive fine grained
10.577	5.10	0.0111	2	1	sensitive fine grained
10.636	5.10	0.0099	2	1	sensitive fine grained
10.709	4.65	0.0099	2	1	sensitive fine grained
10.764	4.42	0.0099	2	1	sensitive fine grained
10.854	4.31	0.0099	2	1	sensitive fine grained
10.910	4.20	0.0099	2	1	sensitive fine grained
10.969	4.19	0.0099	2	1	sensitive fine grained
11.043	4.20	0.0099	2	1	sensitive fine grained
11.107	4.20	0.0130	2	1	sensitive fine grained
11.163	4.20	0.0168	2	1	sensitive fine grained
11.238	4.76	0.0171	2	1	sensitive fine grained
11.303	5.55	0.0166	3	1	sensitive fine grained
11.359	7.25	0.0171	3	1	sensitive fine grained
11.451	10.98	0.0216	4	6	sandy silt to clayey silt
11.494	12.22	0.0260	5	6	sandy silt to clayey silt
11.553	13.01	0.0304	5	6	sandy silt to clayey silt
11.651	13.02	0.0330	5	6	sandy silt to clayey silt
11.683	12.68	0.0331	5	6	sandy silt to clayey silt
11.750	12.11	0.0331	5	6	sandy silt to clayey silt
11.822	11.44	0.0331	4	6	sandy silt to clayey silt
11.894	10.98	0.0331	4	6	sandy silt to clayey silt
11.950	10.31	0.0331	4	6	sandy silt to clayey silt
12.009	9.40	0.0339	4	1	sensitive fine grained
12.083	8.72	0.0373	4	1	sensitive fine grained
12.143	8.27	0.0396	4	1	sensitive fine grained
12.227	8.27	0.0454	4	1	sensitive fine grained
12.294	8.27	0.0504	4	1	sensitive fine grained
12.336	8.50	0.0538	4	1	sensitive fine grained

SOUNDING

TOTAL DEPTH: 22.446 ft
SITE: B-417

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.420	8.83	0.0554	4	5	clayey silt to silty clay
12.477	9.29	0.0511	4	6	sandy silt to clayey silt
12.541	9.96	0.0453	4	6	sandy silt to clayey silt
12.620	10.98	0.0388	4	6	sandy silt to clayey silt
12.691	11.77	0.0429	5	6	sandy silt to clayey silt
12.736	12.23	0.0512	5	6	sandy silt to clayey silt
12.797	12.79	0.0681	5	6	sandy silt to clayey silt
12.885	13.36	0.1120	5	6	sandy silt to clayey silt
12.936	14.26	0.1402	5	6	sandy silt to clayey silt
13.004	16.75	0.1694	6	6	sandy silt to clayey silt
13.065	19.69	0.2001	8	6	sandy silt to clayey silt
13.133	24.10	0.2349	9	6	sandy silt to clayey silt
13.213	34.73	0.2775	11	7	silty sand to sandy silt
13.271	47.73	0.3075	15	7	silty sand to sandy silt
13.342	61.87	0.3527	15	8	sand to silty sand
13.387	66.51	0.3832	16	8	sand to silty sand
13.470	72.05	0.4330	17	8	sand to silty sand
13.519	73.52	0.4619	18	8	sand to silty sand
13.604	74.20	0.5105	18	8	sand to silty sand
13.665	75.67	0.5297	18	8	sand to silty sand
13.717	77.48	0.5409	19	8	sand to silty sand
13.794	81.67	0.5611	20	8	sand to silty sand
13.865	84.15	0.5581	20	8	sand to silty sand
13.918	87.21	0.5498	21	8	sand to silty sand
13.983	91.05	0.5315	22	8	sand to silty sand
14.045	92.41	0.5225	22	8	sand to silty sand
14.110	92.75	0.5211	22	8	sand to silty sand
14.208	93.88	0.5359	22	8	sand to silty sand
14.242	95.13	0.5557	23	8	sand to silty sand
14.310	98.07	0.5863	23	8	sand to silty sand
14.375	96.49	0.6335	23	8	sand to silty sand
14.440	102.03	0.7723	24	8	sand to silty sand
14.504	106.55	0.9614	26	8	sand to silty sand
14.583	113.11	0.9597	27	8	sand to silty sand
14.648	125.32	0.9586	30	8	sand to silty sand
14.730	125.32	0.9594	30	8	sand to silty sand
14.771	129.85	0.9614	25	9	sand
14.850	135.62	1.0287	26	9	sand
14.900	143.99	0.9563	28	9	sand
14.990	156.99	0.7599	30	9	sand
15.051	165.14	0.7771	32	9	sand
15.099	166.72	0.7727	32	9	sand
15.173	176.56	0.8117	34	9	sand
15.238	176.67	0.8598	34	9	sand
15.300	173.28	0.8875	33	9	sand
15.360	168.87	0.9282	32	9	sand
15.427	164.46	0.9904	31	9	sand
15.494	156.54	1.0426	30	9	sand
15.588	150.10	1.0957	29	9	sand
15.622	146.93	1.0862	28	9	sand
15.687	147.05	1.0679	28	9	sand
15.765	141.61	1.0596	27	9	sand
15.842	139.59	1.0533	27	9	sand
15.890	139.70	1.0533	27	9	sand
15.946	139.81	1.0533	27	9	sand
16.035	139.93	1.0558	27	9	sand
16.088	140.04	1.0595	27	9	sand
16.167	145.13	0.9446	28	9	sand
16.212	149.65	0.9075	29	9	sand
16.286	156.44	0.9427	30	9	sand
16.360	159.72	0.9750	31	9	sand
16.406	159.26	1.0250	31	9	sand
16.485	158.81	1.3156	30	9	sand

SOUNDING

TOTAL DEPTH: 22.446 ft
SITE: B-417

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.554	158.36	1.7241	38	8	sand to silty sand
16.611	155.30	2.0280	37	8	sand to silty sand
16.684	156.99	1.8503	38	8	sand to silty sand
16.748	147.16	1.2822	28	9	sand
16.807	134.72	1.1329	32	8	sand to silty sand
16.899	71.05	1.3387	23	7	silty sand to sandy silt
16.944	67.99	1.4365	22	7	silty sand to sandy silt
17.002	60.07	1.5172	23	6	sandy silt to clayey silt
17.061	56.45	1.4596	22	6	sandy silt to clayey silt
17.157	44.02	1.3278	17	6	sandy silt to clayey silt
17.200	39.39	1.2865	19	5	clayey silt to silty clay
17.286	29.11	1.1803	19	4	silty clay to clay
17.348	29.12	1.1271	19	4	silty clay to clay
17.396	29.13	1.0422	14	5	clayey silt to silty clay
17.476	31.63	1.1998	15	5	clayey silt to silty clay
17.549	34.82	1.6026	22	4	silty clay to clay
17.588	40.42	1.8182	26	4	silty clay to clay
17.655	88.77	2.3210	34	6	sandy silt to clayey silt
17.741	118.33	2.6538	38	7	silty sand to sandy silt
17.790	174.20	2.8397	42	8	sand to silty sand
17.871	199.05	3.1530	48	8	sand to silty sand
17.936	231.68	3.2202	55	8	sand to silty sand
17.980	250.98	3.1959	48	9	sand
18.056	279.31	3.2594	53	9	sand
18.127	294.91	3.5579	56	9	sand
18.191	296.27	3.6248	57	9	sand
18.253	294.79	3.6812	56	9	sand
18.316	297.73	3.9026	57	9	sand
18.388	309.72	4.0294	59	9	sand
18.440	327.13	3.8188	63	9	sand
18.512	330.97	3.3823	63	9	sand
18.583	304.07	3.2473	58	9	sand
18.640	272.27	3.2402	52	9	sand
18.707	262.44	3.1131	50	9	sand
18.785	251.36	2.6959	48	9	sand
18.832	241.18	2.5225	46	9	sand
18.901	218.69	2.5243	42	9	sand
18.980	199.68	2.4726	38	9	sand
19.030	177.96	2.2506	43	8	sand to silty sand
19.122	170.49	1.7332	33	9	sand
19.182	162.91	1.4428	31	9	sand
19.262	152.39	1.2671	29	9	sand
19.322	147.19	1.0883	28	9	sand
19.375	143.68	0.8441	28	9	sand
19.424	135.55	0.7644	26	9	sand
19.507	129.32	0.7906	25	9	sand
19.555	125.25	0.7990	24	9	sand
19.627	116.08	0.9870	28	8	sand to silty sand
19.693	70.72	1.1022	23	7	silty sand to sandy silt
19.753	101.93	1.0123	24	8	sand to silty sand
19.825	99.11	0.8776	24	8	sand to silty sand
19.885	90.51	0.8722	22	8	sand to silty sand
19.953	73.88	1.0660	24	7	silty sand to sandy silt
20.025	71.61	1.2720	23	7	silty sand to sandy silt
20.085	79.07	1.3197	25	7	silty sand to sandy silt
20.151	85.85	1.2367	27	7	silty sand to sandy silt
20.218	73.54	0.9962	23	7	silty sand to sandy silt
20.281	60.32	0.9897	19	7	silty sand to sandy silt
20.368	68.69	0.8579	22	7	silty sand to sandy silt
20.417	65.42	0.7419	21	7	silty sand to sandy silt
20.508	47.80	0.3797	15	7	silty sand to sandy silt
20.541	48.29	0.3189	15	7	silty sand to sandy silt
20.615	49.91	0.3480	16	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 22.446 ft
SITE: B-417

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
20.707	54.03	0.4483	17	7	silty sand to sandy silt
20.742	57.32	0.4662	18	7	silty sand to sandy silt
20.812	60.03	0.5013	14	8	sand to silty sand
20.870	64.08	0.5231	15	8	sand to silty sand
20.960	55.81	0.5440	18	7	silty sand to sandy silt
21.009	55.81	0.5666	18	7	silty sand to sandy silt
21.088	55.81	0.5946	18	7	silty sand to sandy silt
21.130	55.80	0.5670	18	7	silty sand to sandy silt
21.202	57.71	0.7154	18	7	silty sand to sandy silt
21.275	59.28	1.0395	19	7	silty sand to sandy silt
21.354	58.47	1.4155	22	6	sandy silt to clayey silt
21.393	58.02	1.4474	22	6	sandy silt to clayey silt
21.458	60.27	1.4387	23	6	sandy silt to clayey silt
21.552	79.95	1.7499	26	7	silty sand to sandy silt
21.605	75.04	1.6522	24	7	silty sand to sandy silt
21.660	65.61	1.5612	25	6	sandy silt to clayey silt
21.743	49.01	1.3876	19	6	sandy silt to clayey silt
21.802	27.55	1.2470	26	3	clay
21.857	29.40	1.0995	14	5	clayey silt to silty clay
21.925	37.21	0.7772	14	6	sandy silt to clayey silt
21.986	32.81	0.4762	13	6	sandy silt to clayey silt
22.050	28.19	0.3960	11	6	sandy silt to clayey silt
22.136	26.53	0.7616	13	5	clayey silt to silty clay
22.201	34.93	0.0000	0	0	<out of range>
22.248	36.88	0.0000	0	0	<out of range>
22.320	62.18	0.0000	0	0	<out of range>
22.376	68.89	0.0000	0	0	<out of range>
22.446	55.19	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 16.549 ft
 SITE: B-418

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.90	0.0000	0	0	<out of range>
0.070	1.19	-0.0005	0	0	<out of range>
0.144	1.30	0.0238	1	1	sensitive fine grained
0.199	11.24	0.0596	4	6	sandy silt to clayey silt
0.284	15.76	0.1330	6	6	sandy silt to clayey silt
0.345	18.13	0.2060	7	6	sandy silt to clayey silt
0.403	19.03	0.2556	7	6	sandy silt to clayey silt
0.461	20.04	0.2937	8	6	sandy silt to clayey silt
0.547	20.15	0.3505	8	6	sandy silt to clayey silt
0.625	17.43	0.3980	8	5	clayey silt to silty clay
0.669	16.64	0.4104	8	5	clayey silt to silty clay
0.742	15.27	0.4091	7	5	clayey silt to silty clay
0.790	14.82	0.4057	7	5	clayey silt to silty clay
0.867	13.57	0.4033	9	4	silty clay to clay
0.937	13.12	0.4146	8	4	silty clay to clay
0.985	12.89	0.4308	8	4	silty clay to clay
1.072	12.55	0.4504	8	4	silty clay to clay
1.136	12.44	0.4980	12	3	clay
1.191	12.77	0.5564	12	3	clay
1.283	13.34	0.6668	13	3	clay
1.324	13.79	0.7021	13	3	clay
1.380	13.57	0.7461	13	3	clay
1.455	14.24	0.8159	14	3	clay
1.524	14.24	0.8788	14	3	clay
1.582	14.24	0.9210	14	3	clay
1.650	14.69	0.9422	14	3	clay
1.717	14.80	0.9591	14	3	clay
1.782	15.48	0.9952	15	3	clay
1.838	15.48	0.9600	15	3	clay
1.908	18.88	0.8144	18	3	clay
1.979	19.90	0.6944	13	4	silty clay to clay
2.050	28.38	0.6980	11	6	sandy silt to clayey silt
2.107	41.38	0.6485	13	7	silty sand to sandy silt
2.178	46.48	0.6034	15	7	silty sand to sandy silt
2.261	49.31	0.5605	16	7	silty sand to sandy silt
2.321	50.78	0.5867	16	7	silty sand to sandy silt
2.377	50.67	0.6837	16	7	silty sand to sandy silt
2.440	53.61	0.7630	17	7	silty sand to sandy silt
2.521	58.36	0.8635	19	7	silty sand to sandy silt
2.572	60.62	1.0308	19	7	silty sand to sandy silt
2.641	64.92	0.8439	21	7	silty sand to sandy silt
2.706	72.72	0.7636	17	8	sand to silty sand
2.771	80.86	1.0644	26	7	silty sand to sandy silt
2.847	86.29	1.4300	28	7	silty sand to sandy silt
2.889	84.03	1.3469	27	7	silty sand to sandy silt
2.954	83.76	1.1720	27	7	silty sand to sandy silt
3.019	83.77	1.3821	27	7	silty sand to sandy silt
3.109	83.48	2.0556	32	6	sandy silt to clayey silt
3.159	77.26	1.4810	25	7	silty sand to sandy silt
3.220	89.58	1.1591	21	8	sand to silty sand
3.307	88.45	1.3471	28	7	silty sand to sandy silt
3.363	82.12	0.9306	20	8	sand to silty sand
3.443	75.70	0.7987	18	8	sand to silty sand
3.500	62.24	1.0078	20	7	silty sand to sandy silt
3.560	46.52	0.9871	18	6	sandy silt to clayey silt
3.615	31.80	0.9754	15	5	clayey silt to silty clay
3.690	41.75	0.6953	13	7	silty sand to sandy silt
3.753	41.30	0.4325	13	7	silty sand to sandy silt
3.809	45.26	0.4675	14	7	silty sand to sandy silt
3.880	43.10	0.5352	14	7	silty sand to sandy silt
3.956	39.60	0.4771	13	7	silty sand to sandy silt
4.007	40.39	0.5348	13	7	silty sand to sandy silt
4.078	40.62	0.6072	13	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 16.549 ft
SITE: B-418

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.155	37.46	0.4763	12	7	silty sand to sandy silt
4.206	33.83	0.4100	11	7	silty sand to sandy silt
4.265	33.38	0.3904	11	7	silty sand to sandy silt
4.354	31.80	0.3084	10	7	silty sand to sandy silt
4.419	26.94	0.2499	9	7	silty sand to sandy silt
4.482	24.79	0.2120	8	7	silty sand to sandy silt
4.549	23.43	0.1955	9	6	sandy silt to clayey silt
4.597	22.07	0.1624	8	6	sandy silt to clayey silt
4.668	18.11	0.1141	7	6	sandy silt to clayey silt
4.737	16.64	0.0937	6	6	sandy silt to clayey silt
4.797	15.85	0.0807	6	6	sandy silt to clayey silt
4.861	15.40	0.0769	6	6	sandy silt to clayey silt
4.930	14.83	0.0693	6	6	sandy silt to clayey silt
4.994	12.91	0.0537	5	6	sandy silt to clayey silt
5.055	11.44	0.0491	4	6	sandy silt to clayey silt
5.122	11.10	0.0679	4	6	sandy silt to clayey silt
5.196	9.85	0.1056	5	5	clayey silt to silty clay
5.263	9.63	0.1146	5	5	clayey silt to silty clay
5.332	9.74	0.1337	5	5	clayey silt to silty clay
5.395	9.75	0.1563	5	5	clayey silt to silty clay
5.484	9.74	0.1679	5	5	clayey silt to silty clay
5.519	9.74	0.1681	5	5	clayey silt to silty clay
5.589	10.31	0.1681	5	5	clayey silt to silty clay
5.667	10.20	0.1994	5	5	clayey silt to silty clay
5.734	10.87	0.2193	5	5	clayey silt to silty clay
5.789	13.14	0.2228	6	5	clayey silt to silty clay
5.882	13.81	0.3548	7	5	clayey silt to silty clay
5.906	15.74	0.3930	8	5	clayey silt to silty clay
5.985	20.37	0.4564	10	5	clayey silt to silty clay
6.054	22.41	0.5034	11	5	clayey silt to silty clay
6.116	20.04	0.5465	10	5	clayey silt to silty clay
6.183	15.51	0.6189	10	4	silty clay to clay
6.239	15.40	0.6520	15	3	clay
6.303	16.42	0.5803	10	4	silty clay to clay
6.369	22.64	0.4358	9	6	sandy silt to clayey silt
6.458	29.08	0.3271	9	7	silty sand to sandy silt
6.498	28.18	0.3745	11	6	sandy silt to clayey silt
6.576	27.60	0.4347	11	6	sandy silt to clayey silt
6.631	25.35	0.4402	10	6	sandy silt to clayey silt
6.695	26.36	0.4550	10	6	sandy silt to clayey silt
6.759	24.11	0.4790	9	6	sandy silt to clayey silt
6.830	21.05	0.4782	10	5	clayey silt to silty clay
6.898	24.67	0.6132	12	5	clayey silt to silty clay
6.974	28.97	0.8808	14	5	clayey silt to silty clay
7.022	33.27	0.8790	13	6	sandy silt to clayey silt
7.092	63.13	0.9150	20	7	silty sand to sandy silt
7.176	109.16	1.2181	26	8	sand to silty sand
7.220	122.84	1.3856	29	8	sand to silty sand
7.310	165.36	1.3945	32	9	sand
7.370	180.40	1.3622	35	9	sand
7.418	187.52	1.3186	36	9	sand
7.507	174.52	1.2359	33	9	sand
7.564	173.84	1.1572	33	9	sand
7.623	165.70	0.9999	32	9	sand
7.694	156.54	0.8191	30	9	sand
7.762	147.71	0.7544	28	9	sand
7.823	140.93	0.7308	27	9	sand
7.887	132.34	0.6628	25	9	sand
7.961	126.34	0.5645	24	9	sand
8.011	123.75	0.5367	24	9	sand
8.076	120.35	0.5258	23	9	sand
8.153	119.22	0.5343	23	9	sand
8.213	118.43	0.5455	23	9	sand

SOUNDING

TOTAL DEPTH: 16.549 ft
SITE: B-418

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.277	116.85	0.5600	22	9	sand	
8.351	114.81	0.5894	22	9	sand	
8.407	109.95	0.6122	21	9	sand	
8.467	107.01	0.6249	26	8	sand to silty sand	
8.556	103.50	0.6409	25	8	sand to silty sand	
8.607	103.50	0.6408	25	8	sand to silty sand	
8.674	103.51	0.6382	25	8	sand to silty sand	
8.746	103.51	0.6503	25	8	sand to silty sand	
8.803	107.35	0.6690	26	8	sand to silty sand	
8.901	115.94	0.7200	28	8	sand to silty sand	
8.949	124.65	0.7696	24	9	sand	
8.999	130.08	0.8216	25	9	sand	
9.074	138.79	0.9011	27	9	sand	
9.146	144.11	0.9935	28	9	sand	
9.192	147.16	1.0438	28	9	sand	
9.265	152.48	1.1147	29	9	sand	
9.327	155.64	1.1750	30	9	sand	
9.392	157.45	1.2258	30	9	sand	
9.461	159.83	1.2751	31	9	sand	
9.515	161.19	1.3134	31	9	sand	
9.592	162.66	1.3569	31	9	sand	
9.651	163.67	1.3799	31	9	sand	
9.740	165.37	1.2266	32	9	sand	
9.789	166.50	1.1278	32	9	sand	
9.850	168.53	1.2246	32	9	sand	
9.909	169.33	1.2977	32	9	sand	
9.993	172.73	1.3700	33	9	sand	
10.067	171.59	1.4152	33	9	sand	
10.110	170.46	1.4372	33	9	sand	
10.188	176.68	1.4652	34	9	sand	
10.259	178.60	1.4866	34	9	sand	
10.314	180.07	1.5054	34	9	sand	
10.415	182.33	1.5360	35	9	sand	
10.452	183.46	1.5458	35	9	sand	
10.516	185.15	1.5643	35	9	sand	
10.613	186.74	1.5907	36	9	sand	
10.650	187.30	1.6016	36	9	sand	
10.712	188.10	1.6157	36	9	sand	
10.768	188.55	1.6263	36	9	sand	
10.840	189.01	1.6368	36	9	sand	
10.910	189.23	1.6441	36	9	sand	
10.960	188.89	1.6498	36	9	sand	
11.033	188.89	1.6587	36	9	sand	
11.101	189.80	1.6667	36	9	sand	
11.157	190.47	1.6737	36	9	sand	
11.224	190.59	1.6822	37	9	sand	
11.304	190.25	1.6899	36	9	sand	
11.375	189.58	1.6990	36	9	sand	
11.443	188.56	1.6951	36	9	sand	
11.503	187.88	1.6904	36	9	sand	
11.596	186.30	1.6891	36	9	sand	
11.636	186.07	1.6891	36	9	sand	
11.699	185.73	1.6891	36	9	sand	
11.763	185.28	1.6911	35	9	sand	
11.820	184.37	1.6932	35	9	sand	
11.892	183.02	1.6941	35	9	sand	
11.948	183.02	1.6938	35	9	sand	
12.015	183.13	1.6882	35	9	sand	
12.087	182.90	1.6794	35	9	sand	
12.144	182.96	1.6758	35	9	sand	
12.239	182.79	1.6758	35	9	sand	
12.289	184.37	1.6793	35	9	sand	
12.341	185.17	1.6820	35	9	sand	

SOUNDING

TOTAL DEPTH: 16.549 ft
SITE: B-418

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.412	187.20	1.6905	36	9	sand
12.488	189.24	1.7113	36	9	sand
12.541	191.39	1.7278	37	9	sand
12.604	193.99	1.7523	37	9	sand
12.690	198.06	1.7887	38	9	sand
12.741	201.11	1.8245	39	9	sand
12.806	204.73	1.8686	39	9	sand
12.865	206.43	1.8978	40	9	sand
12.939	207.67	1.9466	40	9	sand
12.994	209.48	1.9749	40	9	sand
13.078	213.55	1.9727	41	9	sand
13.125	217.28	1.9717	42	9	sand
13.198	223.39	1.9685	43	9	sand
13.267	222.94	1.9940	43	9	sand
13.338	201.90	2.0457	39	9	sand
13.432	212.30	2.0693	41	9	sand
13.463	212.30	2.0627	41	9	sand
13.534	210.95	2.0470	40	9	sand
13.595	209.93	2.0387	40	9	sand
13.667	209.70	2.0324	40	9	sand
13.733	209.59	2.0300	40	9	sand
13.793	210.04	2.0332	40	9	sand
13.855	211.62	2.0507	41	9	sand
13.927	213.09	2.0715	41	9	sand
13.979	213.32	2.0846	41	9	sand
14.065	214.67	2.1061	41	9	sand
14.122	217.05	2.1231	42	9	sand
14.175	219.54	2.1407	42	9	sand
14.261	226.21	2.1721	43	9	sand
14.325	230.40	2.1961	44	9	sand
14.376	232.32	2.2153	44	9	sand
14.456	235.94	2.2630	45	9	sand
14.526	241.03	2.2719	46	9	sand
14.581	246.12	2.2871	47	9	sand
14.652	249.28	2.3203	48	9	sand
14.722	251.54	2.4277	48	9	sand
14.764	250.87	2.4517	48	9	sand
14.847	254.03	2.4341	49	9	sand
14.920	253.47	2.4369	49	9	sand
14.970	253.13	2.4390	48	9	sand
15.034	241.93	2.4325	46	9	sand
15.096	243.63	2.4330	47	9	sand
15.168	244.19	2.5346	47	9	sand
15.247	244.08	2.4834	47	9	sand
15.289	244.64	2.4454	47	9	sand
15.366	245.66	2.4545	47	9	sand
15.423	246.45	2.4657	47	9	sand
15.490	246.34	2.4793	47	9	sand
15.558	246.22	2.5392	47	9	sand
15.617	250.63	2.6802	48	9	sand
15.709	256.17	2.7990	49	9	sand
15.759	258.21	2.8030	49	9	sand
15.831	261.94	2.8094	50	9	sand
15.894	257.87	2.8159	49	9	sand
15.956	257.70	2.7632	49	9	sand
16.030	257.52	2.7203	49	9	sand
16.100	254.59	2.7385	49	9	sand
16.160	250.74	2.6511	48	9	sand
16.211	251.14	2.5254	48	9	sand
16.284	248.71	0.0000	0	0	<out of range>
16.355	251.53	0.0000	0	0	<out of range>
16.416	254.81	0.0000	0	0	<out of range>
16.505	266.34	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 16.549 ft
SITE: B-418

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.549	274.71	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 22.316 ft
SITE: B-419

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.11	0.1254	0	0	<out of range>
0.072	8.80	0.1845	6	4	silty clay to clay
0.140	12.63	0.2555	6	5	clayey silt to silty clay
0.211	15.23	0.3064	7	5	clayey silt to silty clay
0.263	16.23	0.3382	8	5	clayey silt to silty clay
0.359	16.25	0.3916	8	5	clayey silt to silty clay
0.411	16.28	0.4116	8	5	clayey silt to silty clay
0.474	16.31	0.4265	8	5	clayey silt to silty clay
0.533	16.34	0.4344	8	5	clayey silt to silty clay
0.607	16.34	0.4432	8	5	clayey silt to silty clay
0.657	15.78	0.4512	8	5	clayey silt to silty clay
0.722	15.44	0.4553	7	5	clayey silt to silty clay
0.801	14.20	0.4413	9	4	silty clay to clay
0.874	13.07	0.4052	8	4	silty clay to clay
0.930	12.51	0.3760	8	4	silty clay to clay
0.999	12.06	0.3437	8	4	silty clay to clay
1.070	11.38	0.3193	7	4	silty clay to clay
1.127	11.35	0.3041	7	4	silty clay to clay
1.197	11.32	0.3053	7	4	silty clay to clay
1.250	11.29	0.3201	7	4	silty clay to clay
1.334	11.26	0.3634	7	4	silty clay to clay
1.380	12.17	0.3699	8	4	silty clay to clay
1.448	12.28	0.3638	8	4	silty clay to clay
1.510	11.37	0.3676	7	4	silty clay to clay
1.586	13.06	0.3666	8	4	silty clay to clay
1.642	11.71	0.3662	7	4	silty clay to clay
1.738	12.16	0.4190	8	4	silty clay to clay
1.777	12.50	0.4400	8	4	silty clay to clay
1.849	13.29	0.4854	8	4	silty clay to clay
1.922	14.07	0.5810	13	3	clay
1.985	14.41	0.6733	14	3	clay
2.036	14.41	0.7353	14	3	clay
2.127	14.41	0.8467	14	3	clay
2.168	14.97	0.8858	14	3	clay
2.232	16.78	0.9423	16	3	clay
2.306	21.17	1.0079	20	3	clay
2.375	21.96	1.0133	21	3	clay
2.429	23.09	1.0259	22	3	clay
2.501	28.16	1.0664	18	4	silty clay to clay
2.578	33.12	1.0658	16	5	clayey silt to silty clay
2.625	34.48	1.0658	17	5	clayey silt to silty clay
2.696	38.76	1.0876	15	6	sandy silt to clayey silt
2.779	40.57	1.1215	16	6	sandy silt to clayey silt
2.823	40.57	1.1187	16	6	sandy silt to clayey silt
2.919	40.12	1.0019	15	6	sandy silt to clayey silt
2.960	40.34	0.9105	15	6	sandy silt to clayey silt
3.020	41.02	0.7883	16	6	sandy silt to clayey silt
3.102	46.43	0.7039	15	7	silty sand to sandy silt
3.168	47.68	0.5982	15	7	silty sand to sandy silt
3.220	47.57	0.5341	15	7	silty sand to sandy silt
3.304	42.15	0.4663	13	7	silty sand to sandy silt
3.365	40.35	0.4508	13	7	silty sand to sandy silt
3.419	39.45	0.4508	13	7	silty sand to sandy silt
3.489	39.45	0.4508	13	7	silty sand to sandy silt
3.551	39.45	0.4188	13	7	silty sand to sandy silt
3.618	39.80	0.3943	13	7	silty sand to sandy silt
3.683	40.81	0.4028	13	7	silty sand to sandy silt
3.760	39.35	0.4117	13	7	silty sand to sandy silt
3.811	36.64	0.4163	12	7	silty sand to sandy silt
3.874	37.77	0.4157	12	7	silty sand to sandy silt
3.940	38.44	0.4313	12	7	silty sand to sandy silt
4.007	40.36	0.4901	13	7	silty sand to sandy silt
4.069	43.97	0.5358	14	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 22.316 ft
SITE: B-419

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.156	47.47	0.6696	15	7	silty sand to sandy silt
4.202	49.50	0.7260	16	7	silty sand to sandy silt
4.291	44.76	0.8513	17	6	sandy silt to clayey silt
4.351	41.83	0.9965	16	6	sandy silt to clayey silt
4.403	39.12	1.0874	15	6	sandy silt to clayey silt
4.479	32.13	1.1852	15	5	clayey silt to silty clay
4.548	28.64	1.2314	18	4	silty clay to clay
4.594	26.95	1.2463	26	3	clay
4.667	24.92	1.2846	24	3	clay
4.738	23.79	1.2597	23	3	clay
4.797	23.23	1.2278	22	3	clay
4.894	21.65	1.1796	21	3	clay
4.931	20.86	1.1524	20	3	clay
4.992	20.30	1.1107	19	3	clay
5.076	20.19	1.0384	19	3	clay
5.123	20.42	0.9927	20	3	clay
5.188	20.64	0.9595	20	3	clay
5.263	21.66	0.9635	21	3	clay
5.339	22.00	0.9623	21	3	clay
5.388	21.44	0.9618	21	3	clay
5.455	20.65	0.9506	20	3	clay
5.519	19.52	0.9100	19	3	clay
5.585	18.39	0.8602	18	3	clay
5.647	17.94	0.8205	17	3	clay
5.719	16.81	0.7670	16	3	clay
5.781	16.14	0.7335	15	3	clay
5.869	15.91	0.7040	15	3	clay
5.910	16.03	0.7058	15	3	clay
5.974	16.36	0.7120	16	3	clay
6.052	16.81	0.7240	16	3	clay
6.125	17.38	0.7640	17	3	clay
6.176	18.40	0.7826	18	3	clay
6.243	19.53	0.8059	12	4	silty clay to clay
6.311	19.75	0.8686	19	3	clay
6.369	19.97	0.8821	19	3	clay
6.453	20.54	0.9140	20	3	clay
6.521	20.77	0.9569	20	3	clay
6.569	19.64	0.9770	19	3	clay
6.629	19.53	0.9540	19	3	clay
6.695	20.09	0.8654	19	3	clay
6.760	21.33	0.7480	10	5	clayey silt to silty clay
6.840	28.55	0.7026	11	6	sandy silt to clayey silt
6.893	36.22	0.6999	14	6	sandy silt to clayey silt
6.966	37.34	0.6996	14	6	sandy silt to clayey silt
7.040	27.41	0.6647	10	6	sandy silt to clayey silt
7.105	23.92	0.6187	11	5	clayey silt to silty clay
7.164	20.08	0.5526	10	5	clayey silt to silty clay
7.239	18.40	0.4569	9	5	clayey silt to silty clay
7.304	18.96	0.3965	9	5	clayey silt to silty clay
7.360	21.33	0.3460	8	6	sandy silt to clayey silt
7.426	25.05	0.2891	10	6	sandy silt to clayey silt
7.498	27.87	0.2395	9	7	silty sand to sandy silt
7.558	30.46	0.2446	10	7	silty sand to sandy silt
7.625	30.80	0.2525	10	7	silty sand to sandy silt
7.688	32.15	0.2715	10	7	silty sand to sandy silt
7.751	34.97	0.2840	11	7	silty sand to sandy silt
7.817	40.38	0.2896	13	7	silty sand to sandy silt
7.876	40.38	0.3027	13	7	silty sand to sandy silt
7.948	37.90	0.3175	12	7	silty sand to sandy silt
8.013	37.79	0.3764	12	7	silty sand to sandy silt
8.079	37.00	0.4019	12	7	silty sand to sandy silt
8.145	37.45	0.3754	12	7	silty sand to sandy silt
8.227	38.12	0.4378	12	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 22.316 ft
SITE: B-419

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.268	37.67	0.4815	12	7	silty sand to sandy silt
8.350	37.45	0.5102	12	7	silty sand to sandy silt
8.421	39.36	0.4915	13	7	silty sand to sandy silt
8.490	40.04	0.4405	13	7	silty sand to sandy silt
8.535	38.46	0.4156	12	7	silty sand to sandy silt
8.610	38.69	0.3817	12	7	silty sand to sandy silt
8.679	38.74	0.3441	12	7	silty sand to sandy silt
8.740	38.92	0.2991	12	7	silty sand to sandy silt
8.804	38.80	0.2405	12	7	silty sand to sandy silt
8.881	38.24	0.2128	12	7	silty sand to sandy silt
8.940	38.35	0.2016	12	7	silty sand to sandy silt
9.003	36.43	0.2223	12	7	silty sand to sandy silt
9.081	37.00	0.3561	12	7	silty sand to sandy silt
9.135	37.56	0.4299	12	7	silty sand to sandy silt
9.191	38.69	0.4863	12	7	silty sand to sandy silt
9.257	35.42	0.5321	14	6	sandy silt to clayey silt
9.327	31.58	0.6040	12	6	sandy silt to clayey silt
9.385	27.52	0.6046	11	6	sandy silt to clayey silt
9.476	33.05	0.7066	13	6	sandy silt to clayey silt
9.532	33.10	0.6778	13	6	sandy silt to clayey silt
9.603	33.17	0.8409	13	6	sandy silt to clayey silt
9.664	36.43	0.9106	14	6	sandy silt to clayey silt
9.722	33.17	0.8852	13	6	sandy silt to clayey silt
9.812	44.78	0.8781	17	6	sandy silt to clayey silt
9.871	38.35	0.9128	15	6	sandy silt to clayey silt
9.916	24.49	0.7093	12	5	clayey silt to silty clay
9.996	17.27	0.4337	8	5	clayey silt to silty clay
10.053	13.90	0.3558	7	5	clayey silt to silty clay
10.115	17.68	0.3171	7	6	sandy silt to clayey silt
10.179	14.69	0.3130	7	5	clayey silt to silty clay
10.238	18.07	0.3149	7	6	sandy silt to clayey silt
10.309	21.90	0.3470	8	6	sandy silt to clayey silt
10.383	23.26	0.3630	9	6	sandy silt to clayey silt
10.458	27.54	0.3763	11	6	sandy silt to clayey silt
10.503	35.43	0.3922	11	7	silty sand to sandy silt
10.583	45.13	0.4202	14	7	silty sand to sandy silt
10.657	50.43	0.4365	16	7	silty sand to sandy silt
10.702	53.70	0.4440	17	7	silty sand to sandy silt
10.762	57.87	0.4521	14	8	sand to silty sand
10.852	61.25	0.4570	15	8	sand to silty sand
10.902	62.95	0.4764	15	8	sand to silty sand
10.964	65.76	0.5133	16	8	sand to silty sand
11.053	67.34	0.5508	16	8	sand to silty sand
11.108	68.24	0.5697	16	8	sand to silty sand
11.176	68.92	0.5880	16	8	sand to silty sand
11.243	69.48	0.5990	17	8	sand to silty sand
11.301	69.94	0.6054	17	8	sand to silty sand
11.372	69.82	0.6097	17	8	sand to silty sand
11.429	69.03	0.6091	17	8	sand to silty sand
11.499	68.13	0.6053	16	8	sand to silty sand
11.561	67.11	0.6033	16	8	sand to silty sand
11.624	65.99	0.6003	16	8	sand to silty sand
11.693	64.97	0.5965	16	8	sand to silty sand
11.748	64.18	0.5935	15	8	sand to silty sand
11.813	64.18	0.5841	15	8	sand to silty sand
11.882	64.40	0.5739	15	8	sand to silty sand
11.959	64.07	0.5713	15	8	sand to silty sand
12.036	62.60	0.5672	15	8	sand to silty sand
12.087	61.25	0.5576	20	7	silty sand to sandy silt
12.162	57.86	0.5388	18	7	silty sand to sandy silt
12.234	55.27	0.5212	18	7	silty sand to sandy silt
12.287	53.69	0.5062	17	7	silty sand to sandy silt
12.356	50.99	0.4862	16	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 22.316 ft
SITE: B-419

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.420	49.19	0.4693	16	7	silty sand to sandy silt
12.483	47.16	0.4512	15	7	silty sand to sandy silt
12.545	44.90	0.4341	14	7	silty sand to sandy silt
12.613	42.76	0.4170	14	7	silty sand to sandy silt
12.677	40.73	0.4017	13	7	silty sand to sandy silt
12.762	38.70	0.3867	12	7	silty sand to sandy silt
12.800	37.68	0.3826	12	7	silty sand to sandy silt
12.869	36.56	0.3692	12	7	silty sand to sandy silt
12.947	34.97	0.3457	11	7	silty sand to sandy silt
13.010	33.96	0.3234	11	7	silty sand to sandy silt
13.069	32.72	0.2991	10	7	silty sand to sandy silt
13.129	31.59	0.2794	10	7	silty sand to sandy silt
13.221	30.69	0.2442	10	7	silty sand to sandy silt
13.271	29.78	0.2269	10	7	silty sand to sandy silt
13.344	27.76	0.2077	9	7	silty sand to sandy silt
13.399	26.07	0.1914	8	7	silty sand to sandy silt
13.452	23.58	0.1795	8	7	silty sand to sandy silt
13.533	23.02	0.1709	9	6	sandy silt to clayey silt
13.602	22.45	0.1620	9	6	sandy silt to clayey silt
13.652	22.34	0.1596	9	6	sandy silt to clayey silt
13.724	22.79	0.1665	9	6	sandy silt to clayey silt
13.795	24.82	0.2186	10	6	sandy silt to clayey silt
13.849	26.97	0.2493	9	7	silty sand to sandy silt
13.923	30.80	0.2607	10	7	silty sand to sandy silt
13.994	33.73	0.2833	11	7	silty sand to sandy silt
14.045	34.75	0.3006	11	7	silty sand to sandy silt
14.115	37.67	0.3241	12	7	silty sand to sandy silt
14.185	41.06	0.3425	13	7	silty sand to sandy silt
14.251	46.02	0.3644	15	7	silty sand to sandy silt
14.310	51.88	0.3718	17	7	silty sand to sandy silt
14.380	58.64	0.4393	14	8	sand to silty sand
14.445	65.08	0.6091	16	8	sand to silty sand
14.502	70.37	0.6084	17	8	sand to silty sand
14.572	75.00	0.6045	18	8	sand to silty sand
14.654	80.52	0.6024	19	8	sand to silty sand
14.722	74.43	0.6978	18	8	sand to silty sand
14.795	75.34	0.7644	18	8	sand to silty sand
14.836	75.22	0.7815	18	8	sand to silty sand
14.918	79.28	0.7904	19	8	sand to silty sand
14.985	82.55	0.8087	20	8	sand to silty sand
15.028	85.60	0.8677	20	8	sand to silty sand
15.109	90.56	0.9536	22	8	sand to silty sand
15.173	96.87	0.9286	23	8	sand to silty sand
15.232	102.85	0.9448	25	8	sand to silty sand
15.301	100.93	0.9417	24	8	sand to silty sand
15.360	101.04	0.9264	24	8	sand to silty sand
15.431	104.76	0.9360	25	8	sand to silty sand
15.492	107.35	0.9160	26	8	sand to silty sand
15.556	109.05	0.9751	26	8	sand to silty sand
15.626	113.44	1.0902	27	8	sand to silty sand
15.710	120.33	1.1030	29	8	sand to silty sand
15.749	124.27	1.1030	30	8	sand to silty sand
15.822	126.75	1.1030	30	8	sand to silty sand
15.897	129.57	1.1942	31	8	sand to silty sand
15.964	131.83	1.2923	32	8	sand to silty sand
16.023	138.82	1.3851	33	8	sand to silty sand
16.119	152.35	1.4557	36	8	sand to silty sand
16.156	157.65	1.5060	30	9	sand
16.215	168.59	1.5625	32	9	sand
16.285	175.13	1.6744	34	9	sand
16.349	178.28	1.6317	34	9	sand
16.406	185.16	1.5255	35	9	sand
16.482	193.62	1.6898	37	9	sand

SOUNDING

TOTAL DEPTH: 22.316 ft
SITE: B-419

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
16.542	197.34	1.7070	38	9	sand	
16.612	210.19	1.8110	40	9	sand	
16.684	207.93	1.9491	40	9	sand	
16.752	212.44	2.0884	41	9	sand	
16.806	209.17	2.1872	40	9	sand	
16.899	195.41	2.2896	37	9	sand	
16.949	195.31	2.2732	37	9	sand	
17.001	195.31	2.2090	37	9	sand	
17.076	195.20	2.0756	37	9	sand	
17.150	189.21	2.0322	36	9	sand	
17.198	184.15	2.0090	35	9	sand	
17.271	168.47	1.8541	40	8	sand to silty sand	
17.344	157.99	1.6401	38	8	sand to silty sand	
17.389	151.78	1.5189	36	8	sand to silty sand	
17.477	137.91	1.3307	33	8	sand to silty sand	
17.520	132.95	1.2749	32	8	sand to silty sand	
17.586	128.22	1.2212	31	8	sand to silty sand	
17.677	115.82	1.1587	28	8	sand to silty sand	
17.743	110.40	1.1162	26	8	sand to silty sand	
17.786	106.80	1.0911	26	8	sand to silty sand	
17.867	99.58	1.0395	24	8	sand to silty sand	
17.936	94.17	1.0163	23	8	sand to silty sand	
17.981	90.90	1.0071	22	8	sand to silty sand	
18.065	84.02	0.9834	20	8	sand to silty sand	
18.135	78.72	0.9615	25	7	silty sand to sandy silt	
18.183	75.11	0.9408	24	7	silty sand to sandy silt	
18.260	69.25	0.9322	22	7	silty sand to sandy silt	
18.328	74.49	0.8897	24	7	silty sand to sandy silt	
18.379	74.18	0.8545	24	7	silty sand to sandy silt	
18.449	73.87	0.8211	18	8	sand to silty sand	
18.518	81.76	0.8077	20	8	sand to silty sand	
18.580	87.06	0.8192	21	8	sand to silty sand	
18.641	92.69	0.8431	22	8	sand to silty sand	
18.716	100.03	0.8781	24	8	sand to silty sand	
18.773	110.40	0.9220	26	8	sand to silty sand	
18.862	127.42	1.1855	31	8	sand to silty sand	
18.899	137.57	1.3097	33	8	sand to silty sand	
18.967	152.23	1.4559	36	8	sand to silty sand	
19.051	169.37	1.5649	32	9	sand	
19.119	180.42	1.5509	35	9	sand	
19.174	198.91	1.5569	38	9	sand	
19.229	199.02	1.6008	38	9	sand	
19.305	205.23	1.6629	39	9	sand	
19.367	205.11	1.7252	39	9	sand	
19.423	209.63	1.9065	40	9	sand	
19.515	216.39	2.3971	41	9	sand	
19.556	222.36	2.2940	43	9	sand	
19.633	225.97	1.9102	43	9	sand	
19.693	201.85	1.9217	39	9	sand	
19.752	194.52	1.9868	37	9	sand	
19.821	207.83	1.9281	40	9	sand	
19.910	182.00	2.0328	35	9	sand	
19.955	259.69	2.2015	50	9	sand	
20.042	282.70	2.5357	54	9	sand	
20.082	285.96	2.6825	55	9	sand	
20.154	285.17	2.8976	55	9	sand	
20.214	280.54	3.0116	54	9	sand	
20.290	279.64	2.9740	54	9	sand	
20.351	281.67	2.8158	54	9	sand	
20.411	283.13	2.5844	54	9	sand	
20.491	285.50	2.3092	55	9	sand	
20.550	286.97	2.2413	55	9	sand	
20.618	288.88	2.2430	55	9	sand	

SOUNDING

TOTAL DEPTH: 22.316 ft
SITE: B-419

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
20.693	289.79	2.2315	56	9	sand
20.752	284.94	2.2306	55	9	sand
20.814	284.26	2.2608	54	9	sand
20.891	284.71	2.3747	55	9	sand
20.939	281.67	2.4636	54	9	sand
21.024	277.61	2.4927	53	9	sand
21.093	274.46	2.5556	53	9	sand
21.134	273.33	2.6271	52	9	sand
21.226	269.38	2.6586	52	9	sand
21.263	264.53	2.6609	51	9	sand
21.353	257.54	2.6684	49	9	sand
21.412	252.02	2.5956	48	9	sand
21.489	255.97	2.5676	49	9	sand
21.531	247.96	2.5676	47	9	sand
21.594	246.38	2.5676	47	9	sand
21.659	243.45	2.4255	47	9	sand
21.725	236.12	2.2502	45	9	sand
21.796	226.87	2.1150	43	9	sand
21.853	230.15	2.0104	44	9	sand
21.918	227.04	1.8984	43	9	sand
21.988	227.21	1.7716	44	9	sand
22.051	223.27	0.0000	0	0	<out of range>
22.124	216.61	0.0000	0	0	<out of range>
22.195	205.34	0.0000	0	0	<out of range>
22.249	222.13	0.0000	0	0	<out of range>
22.316	219.88	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 8.224 ft
 SITE: B-420

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.45	0.0626	0	0	<out of range>
0.081	11.99	0.1133	5	6	sandy silt to clayey silt
0.146	12.33	0.1330	5	6	sandy silt to clayey silt
0.231	12.36	0.1775	6	5	clayey silt to silty clay
0.297	12.39	0.2293	6	5	clayey silt to silty clay
0.346	12.70	0.2321	6	5	clayey silt to silty clay
0.402	12.49	0.2351	6	5	clayey silt to silty clay
0.464	12.83	0.2493	6	5	clayey silt to silty clay
0.541	15.67	0.2837	8	5	clayey silt to silty clay
0.592	18.38	0.2836	7	6	sandy silt to clayey silt
0.675	20.50	0.2847	8	6	sandy silt to clayey silt
0.741	19.26	0.2992	7	6	sandy silt to clayey silt
0.813	16.87	0.3182	8	5	clayey silt to silty clay
0.878	15.27	0.3238	7	5	clayey silt to silty clay
0.935	13.79	0.2930	7	5	clayey silt to silty clay
0.984	12.08	0.2627	6	5	clayey silt to silty clay
1.061	12.07	0.2466	6	5	clayey silt to silty clay
1.135	12.07	0.2387	6	5	clayey silt to silty clay
1.187	12.08	0.2401	6	5	clayey silt to silty clay
1.269	13.23	0.2581	6	5	clayey silt to silty clay
1.312	13.22	0.2694	6	5	clayey silt to silty clay
1.381	13.78	0.2889	7	5	clayey silt to silty clay
1.461	14.56	0.3439	7	5	clayey silt to silty clay
1.523	15.01	0.3872	7	5	clayey silt to silty clay
1.582	16.70	0.4174	8	5	clayey silt to silty clay
1.670	17.48	0.4661	8	5	clayey silt to silty clay
1.730	18.83	0.5347	9	5	clayey silt to silty clay
1.775	19.62	0.5835	9	5	clayey silt to silty clay
1.846	21.65	0.6464	10	5	clayey silt to silty clay
1.921	23.90	0.7185	11	5	clayey silt to silty clay
1.971	26.69	0.7484	13	5	clayey silt to silty clay
2.056	33.59	0.7915	13	6	sandy silt to clayey silt
2.122	41.39	0.8074	16	6	sandy silt to clayey silt
2.171	49.42	0.8174	16	7	silty sand to sandy silt
2.236	57.23	0.8413	18	7	silty sand to sandy silt
2.320	64.35	0.7886	21	7	silty sand to sandy silt
2.367	70.00	0.7582	22	7	silty sand to sandy silt
2.451	75.66	0.7896	18	8	sand to silty sand
2.517	77.58	0.6803	19	8	sand to silty sand
2.568	78.03	0.5758	19	8	sand to silty sand
2.637	81.88	0.5183	20	8	sand to silty sand
2.703	87.77	0.5183	21	8	sand to silty sand
2.767	93.42	0.5183	22	8	sand to silty sand
2.823	91.27	0.5183	22	8	sand to silty sand
2.893	78.16	0.5358	19	8	sand to silty sand
2.958	73.75	0.6030	18	8	sand to silty sand
3.037	69.22	0.6119	17	8	sand to silty sand
3.110	63.34	0.5299	15	8	sand to silty sand
3.158	61.08	0.4854	15	8	sand to silty sand
3.222	60.63	0.4645	15	8	sand to silty sand
3.293	56.22	0.6056	18	7	silty sand to sandy silt
3.358	59.16	0.6739	19	7	silty sand to sandy silt
3.441	56.67	0.6555	18	7	silty sand to sandy silt
3.499	51.82	0.6502	17	7	silty sand to sandy silt
3.552	50.12	0.5965	16	7	silty sand to sandy silt
3.616	46.84	0.4600	15	7	silty sand to sandy silt
3.690	42.99	0.3860	14	7	silty sand to sandy silt
3.748	42.86	0.3257	14	7	silty sand to sandy silt
3.826	39.13	0.2483	12	7	silty sand to sandy silt
3.895	38.23	0.2252	12	7	silty sand to sandy silt
3.941	37.44	0.2178	12	7	silty sand to sandy silt
4.028	35.29	0.1916	11	7	silty sand to sandy silt
4.096	33.82	0.2407	11	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 8.224 ft
SITE: B-420

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.142	35.46	0.2590	11	7	silty sand to sandy silt
4.219	34.61	0.2488	11	7	silty sand to sandy silt
4.284	35.63	0.2681	11	7	silty sand to sandy silt
4.342	34.16	0.2780	11	7	silty sand to sandy silt
4.414	33.71	0.2791	11	7	silty sand to sandy silt
4.488	34.28	0.2836	11	7	silty sand to sandy silt
4.544	33.15	0.2761	11	7	silty sand to sandy silt
4.607	31.56	0.2715	10	7	silty sand to sandy silt
4.686	31.34	0.2770	10	7	silty sand to sandy silt
4.740	31.34	0.2560	10	7	silty sand to sandy silt
4.798	31.45	0.2382	10	7	silty sand to sandy silt
4.884	30.43	0.2321	10	7	silty sand to sandy silt
4.938	29.75	0.2298	9	7	silty sand to sandy silt
4.994	28.85	0.2240	9	7	silty sand to sandy silt
5.063	27.60	0.2088	9	7	silty sand to sandy silt
5.132	25.91	0.1894	8	7	silty sand to sandy silt
5.186	24.21	0.1765	8	7	silty sand to sandy silt
5.260	22.40	0.2075	9	6	sandy silt to clayey silt
5.323	20.93	0.2566	8	6	sandy silt to clayey silt
5.381	20.13	0.2838	8	6	sandy silt to clayey silt
5.471	20.36	0.3062	8	6	sandy silt to clayey silt
5.517	21.26	0.3289	8	6	sandy silt to clayey silt
5.594	34.27	0.3541	11	7	silty sand to sandy silt
5.653	47.05	0.3515	15	7	silty sand to sandy silt
5.726	65.03	0.5696	16	8	sand to silty sand
5.787	85.49	0.8263	20	8	sand to silty sand
5.844	94.20	0.8209	23	8	sand to silty sand
5.915	116.93	0.8407	28	8	sand to silty sand
5.974	138.64	0.7784	27	9	sand
6.075	126.10	0.7400	24	9	sand
6.105	136.17	0.7261	26	9	sand
6.170	145.89	0.7254	28	9	sand
6.242	149.73	0.7612	29	9	sand
6.316	154.59	0.7695	30	9	sand
6.371	157.98	0.7237	30	9	sand
6.432	161.60	0.6738	31	9	sand
6.520	169.07	0.6456	32	9	sand
6.570	168.96	0.5877	32	9	sand
6.631	168.96	0.5622	32	9	sand
6.711	168.85	0.6213	32	9	sand
6.764	178.57	0.7251	34	9	sand
6.840	189.31	1.1172	36	9	sand
6.893	196.90	1.4687	38	9	sand
6.964	189.32	1.7606	36	9	sand
7.037	195.20	1.6687	37	9	sand
7.092	193.50	1.5661	37	9	sand
7.189	207.98	1.5186	40	9	sand
7.232	216.57	1.2609	41	9	sand
7.290	231.61	1.1200	44	9	sand
7.382	238.85	1.2237	46	9	sand
7.424	247.22	1.2411	47	9	sand
7.484	262.03	1.2469	50	9	sand
7.552	267.80	1.2500	51	9	sand
7.615	278.21	2.1504	53	9	sand
7.685	286.92	3.5233	55	9	sand
7.766	289.52	3.9564	55	9	sand
7.833	300.71	3.4823	58	9	sand
7.877	321.29	3.0466	62	9	sand
7.953	353.07	0.0000	0	0	<out of range>
8.026	357.47	0.0000	0	0	<out of range>
8.076	374.90	0.0000	0	0	<out of range>
8.176	388.12	0.0000	0	0	<out of range>
8.224	381.56	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 8.224 ft
SITE: B-420

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
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SOUNDING

TOTAL DEPTH: 10.245 ft
 SITE: B-421

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.11	-0.0021	0	0	<out of range>
0.067	1.94	-0.0033	0	0	<out of range>
0.153	3.52	-0.0033	0	0	<out of range>
0.210	5.67	0.0179	3	1	sensitive fine grained
0.270	7.81	0.0512	4	1	sensitive fine grained
0.356	10.08	0.1331	5	5	clayey silt to silty clay
0.409	10.99	0.1777	5	5	clayey silt to silty clay
0.463	14.95	0.2162	6	6	sandy silt to clayey silt
0.555	16.53	0.2912	8	5	clayey silt to silty clay
0.607	16.31	0.3129	8	5	clayey silt to silty clay
0.663	14.95	0.3333	7	5	clayey silt to silty clay
0.740	14.04	0.3645	7	5	clayey silt to silty clay
0.807	12.89	0.4801	8	4	silty clay to clay
0.856	13.12	0.5677	13	3	clay
0.923	13.68	0.6703	13	3	clay
0.986	14.47	0.7625	14	3	clay
1.051	14.47	0.8785	14	3	clay
1.122	15.03	1.0304	14	3	clay
1.190	15.71	1.1379	15	3	clay
1.252	16.16	1.2001	15	3	clay
1.312	17.30	1.2445	17	3	clay
1.399	19.79	1.2437	19	3	clay
1.456	22.39	1.2427	21	3	clay
1.511	26.24	1.2290	25	3	clay
1.597	32.34	1.0457	15	5	clayey silt to silty clay
1.644	40.60	0.9418	16	6	sandy silt to clayey silt
1.712	45.01	0.8469	17	6	sandy silt to clayey silt
1.793	53.38	0.7712	17	7	silty sand to sandy silt
1.840	58.58	0.6986	19	7	silty sand to sandy silt
1.913	66.39	0.5341	16	8	sand to silty sand
1.984	70.80	0.4124	17	8	sand to silty sand
2.043	71.15	0.3501	17	8	sand to silty sand
2.142	71.09	0.3344	17	8	sand to silty sand
2.170	70.70	0.4588	17	8	sand to silty sand
2.238	71.04	0.5995	17	8	sand to silty sand
2.311	70.25	0.5626	17	8	sand to silty sand
2.386	72.17	0.5349	17	8	sand to silty sand
2.439	71.38	0.5165	17	8	sand to silty sand
2.498	64.82	0.4861	16	8	sand to silty sand
2.561	62.44	0.4329	15	8	sand to silty sand
2.637	61.31	0.3500	15	8	sand to silty sand
2.713	59.05	0.2759	14	8	sand to silty sand
2.779	56.79	0.2442	14	8	sand to silty sand
2.832	53.96	0.2260	13	8	sand to silty sand
2.921	51.93	0.2193	12	8	sand to silty sand
2.965	51.02	0.2063	12	8	sand to silty sand
3.031	49.55	0.1977	12	8	sand to silty sand
3.098	47.29	0.2003	11	8	sand to silty sand
3.153	45.82	0.2052	11	8	sand to silty sand
3.225	44.58	0.1853	11	8	sand to silty sand
3.281	43.11	0.1651	10	8	sand to silty sand
3.351	41.97	0.1689	10	8	sand to silty sand
3.417	40.73	0.1691	13	7	silty sand to sandy silt
3.482	39.83	0.1651	13	7	silty sand to sandy silt
3.554	36.44	0.1575	12	7	silty sand to sandy silt
3.616	36.09	0.1469	12	7	silty sand to sandy silt
3.678	34.96	0.1391	11	7	silty sand to sandy silt
3.750	33.72	0.1391	11	7	silty sand to sandy silt
3.812	32.81	0.1391	10	7	silty sand to sandy silt
3.875	31.24	0.1382	10	7	silty sand to sandy silt
3.950	30.10	0.1449	10	7	silty sand to sandy silt
4.010	28.97	0.1549	9	7	silty sand to sandy silt
4.073	28.40	0.2390	9	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 10.245 ft
SITE: B-421

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.155	27.72	0.2996	11	6	sandy silt to clayey silt
4.207	29.76	0.2652	9	7	silty sand to sandy silt
4.269	33.61	0.2690	11	7	silty sand to sandy silt
4.338	35.30	0.2909	11	7	silty sand to sandy silt
4.404	36.66	0.2982	12	7	silty sand to sandy silt
4.495	42.88	0.1888	10	8	sand to silty sand
4.531	44.01	0.1640	11	8	sand to silty sand
4.598	46.39	0.1406	11	8	sand to silty sand
4.691	46.28	0.2667	15	7	silty sand to sandy silt
4.749	45.60	0.2917	15	7	silty sand to sandy silt
4.797	46.16	0.2967	15	7	silty sand to sandy silt
4.881	48.54	0.4448	15	7	silty sand to sandy silt
4.939	49.78	0.6961	16	7	silty sand to sandy silt
4.996	55.10	0.7198	18	7	silty sand to sandy silt
5.066	66.29	0.5623	16	8	sand to silty sand
5.136	77.38	0.6617	19	8	sand to silty sand
5.193	90.62	1.0053	22	8	sand to silty sand
5.249	106.21	0.7487	25	8	sand to silty sand
5.339	97.39	0.3317	19	9	sand
5.393	144.33	0.3729	28	9	sand
5.484	170.12	0.5108	33	9	sand
5.530	106.21	0.6166	25	8	sand to silty sand
5.591	93.65	0.6900	22	8	sand to silty sand
5.672	64.93	0.6376	21	7	silty sand to sandy silt
5.716	57.46	0.5940	18	7	silty sand to sandy silt
5.788	56.11	0.4505	18	7	silty sand to sandy silt
5.856	53.28	0.3513	13	8	sand to silty sand
5.932	53.73	0.3528	13	8	sand to silty sand
5.988	54.64	0.3546	13	8	sand to silty sand
6.048	55.09	0.4094	13	8	sand to silty sand
6.116	57.47	0.5233	18	7	silty sand to sandy silt
6.178	65.27	0.5927	16	8	sand to silty sand
6.234	70.36	0.6885	17	8	sand to silty sand
6.322	72.51	0.8509	23	7	silty sand to sandy silt
6.381	71.61	0.8051	23	7	silty sand to sandy silt
6.434	83.14	0.6488	20	8	sand to silty sand
6.512	69.01	0.4564	17	8	sand to silty sand
6.567	73.87	0.4504	18	8	sand to silty sand
6.635	69.46	0.5934	17	8	sand to silty sand
6.704	77.15	0.9840	25	7	silty sand to sandy silt
6.769	84.95	0.9916	20	8	sand to silty sand
6.847	116.39	0.8644	28	8	sand to silty sand
6.920	159.14	0.8233	30	9	sand
6.960	177.46	1.5608	34	9	sand
7.037	180.97	2.8098	43	8	sand to silty sand
7.111	222.71	3.1546	53	8	sand to silty sand
7.155	231.31	3.0985	55	8	sand to silty sand
7.225	184.26	3.0481	44	8	sand to silty sand
7.290	103.39	2.8993	40	6	sandy silt to clayey silt
7.369	129.40	2.4663	41	7	silty sand to sandy silt
7.420	132.35	2.0417	32	8	sand to silty sand
7.488	116.29	0.8689	28	8	sand to silty sand
7.552	111.76	0.5901	21	9	sand
7.615	111.76	0.6065	21	9	sand
7.707	111.76	0.4087	21	9	sand
7.750	111.65	0.3535	21	9	sand
7.816	111.98	0.3431	21	9	sand
7.885	113.01	0.3657	22	9	sand
7.944	116.06	0.3997	22	9	sand
8.026	118.43	0.4195	23	9	sand
8.074	123.65	0.5665	24	9	sand
8.146	135.64	1.0580	26	9	sand
8.207	145.93	1.2223	28	9	sand

SOUNDING

TOTAL DEPTH: 10.245 ft
SITE: B-421

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.285	163.92	1.2156	31	9	sand	
8.357	170.48	1.2546	33	9	sand	
8.400	158.49	1.2583	30	9	sand	
8.481	166.29	1.4270	32	9	sand	
8.552	177.14	1.4259	34	9	sand	
8.603	189.70	1.2952	36	9	sand	
8.701	207.13	1.2928	40	9	sand	
8.740	215.49	1.2923	41	9	sand	
8.799	199.77	1.2914	38	9	sand	
8.897	209.38	1.4820	40	9	sand	
8.925	223.63	1.4876	43	9	sand	
8.997	231.55	1.4868	44	9	sand	
9.089	254.06	1.4915	49	9	sand	
9.124	259.26	1.4698	50	9	sand	
9.195	260.85	1.4031	50	9	sand	
9.264	264.69	1.4248	51	9	sand	
9.343	269.33	1.3140	52	9	sand	
9.394	294.44	1.3117	47	10	gravelly sand to sand	
9.452	306.23	1.5074	49	10	gravelly sand to sand	
9.523	291.18	1.5806	56	9	sand	
9.581	281.34	1.5702	54	9	sand	
9.669	289.59	3.1778	55	9	sand	
9.712	299.32	3.5709	57	9	sand	
9.790	317.18	4.1473	61	9	sand	
9.872	343.56	5.2996	82	8	sand to silty sand	
9.919	381.12	5.1981	73	9	sand	
9.982	355.40	0.0000	0	0	<out of range>	
10.063	374.06	0.0000	0	0	<out of range>	
10.164	413.08	0.0000	0	0	<out of range>	
10.232	399.40	0.0000	0	0	<out of range>	
10.245	359.92	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 30.195 ft
SITE: B-422

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.1368	0	0	<out of range>
0.067	5.53	0.1903	5	3	clay
0.146	10.61	0.2506	5	5	clayey silt to silty clay
0.216	14.11	0.3056	7	5	clayey silt to silty clay
0.270	16.15	0.3584	8	5	clayey silt to silty clay
0.363	16.61	0.4565	8	5	clayey silt to silty clay
0.401	16.38	0.4767	8	5	clayey silt to silty clay
0.460	16.05	0.4936	8	5	clayey silt to silty clay
0.541	16.05	0.4790	8	5	clayey silt to silty clay
0.595	16.05	0.4620	8	5	clayey silt to silty clay
0.663	15.03	0.4400	7	5	clayey silt to silty clay
0.740	13.12	0.4174	8	4	silty clay to clay
0.812	11.87	0.3934	8	4	silty clay to clay
0.858	10.74	0.3972	10	3	clay
0.943	10.52	0.4080	10	3	clay
0.999	10.41	0.4071	10	3	clay
1.054	10.98	0.4215	11	3	clay
1.121	11.88	0.4759	11	3	clay
1.194	13.46	0.5756	13	3	clay
1.249	14.36	0.6790	14	3	clay
1.331	15.04	0.8384	14	3	clay
1.396	16.73	0.9607	16	3	clay
1.447	17.74	1.0847	17	3	clay
1.548	20.57	1.3172	20	3	clay
1.591	21.93	1.3959	21	3	clay
1.651	23.17	1.4845	22	3	clay
1.711	23.96	1.5842	23	3	clay
1.774	26.44	1.7059	25	3	clay
1.840	29.49	1.7056	28	3	clay
1.916	36.25	1.7398	35	3	clay
1.991	42.46	1.6986	20	5	clayey silt to silty clay
2.042	51.37	1.5607	20	6	sandy silt to clayey silt
2.109	56.22	1.3438	22	6	sandy silt to clayey silt
2.168	60.28	1.2433	19	7	silty sand to sandy silt
2.237	65.59	1.2427	21	7	silty sand to sandy silt
2.299	70.67	1.1544	23	7	silty sand to sandy silt
2.386	78.34	0.9413	19	8	sand to silty sand
2.440	72.36	0.8046	23	7	silty sand to sandy silt
2.510	68.64	0.7429	22	7	silty sand to sandy silt
2.581	67.06	0.7575	21	7	silty sand to sandy silt
2.636	65.94	0.6706	21	7	silty sand to sandy silt
2.730	59.74	0.4792	14	8	sand to silty sand
2.765	58.60	0.4490	14	8	sand to silty sand
2.826	58.37	0.3997	14	8	sand to silty sand
2.907	54.43	0.3690	13	8	sand to silty sand
2.976	52.06	0.3799	17	7	silty sand to sandy silt
3.023	51.15	0.3914	16	7	silty sand to sandy silt
3.090	50.81	0.3361	16	7	silty sand to sandy silt
3.154	51.49	0.3287	12	8	sand to silty sand
3.218	48.33	0.3323	15	7	silty sand to sandy silt
3.318	44.04	0.3137	14	7	silty sand to sandy silt
3.355	42.91	0.2682	14	7	silty sand to sandy silt
3.417	41.33	0.2006	13	7	silty sand to sandy silt
3.498	38.18	0.1971	12	7	silty sand to sandy silt
3.560	36.70	0.1935	12	7	silty sand to sandy silt
3.618	34.79	0.1908	11	7	silty sand to sandy silt
3.698	30.84	0.1887	10	7	silty sand to sandy silt
3.742	31.74	0.1884	10	7	silty sand to sandy silt
3.816	31.62	0.1884	10	7	silty sand to sandy silt
3.878	31.40	0.1884	10	7	silty sand to sandy silt
3.940	31.28	0.1899	10	7	silty sand to sandy silt
4.005	30.94	0.1933	10	7	silty sand to sandy silt
4.098	30.38	0.1947	10	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 30.195 ft
SITE: B-422

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.139	30.04	0.1921	10	7	silty sand to sandy silt
4.207	29.48	0.1856	9	7	silty sand to sandy silt
4.299	28.35	0.1752	9	7	silty sand to sandy silt
4.339	27.67	0.1693	9	7	silty sand to sandy silt
4.405	26.77	0.1595	9	7	silty sand to sandy silt
4.488	25.64	0.1450	8	7	silty sand to sandy silt
4.530	25.08	0.1398	8	7	silty sand to sandy silt
4.606	24.29	0.1337	8	7	silty sand to sandy silt
4.660	23.61	0.1301	8	7	silty sand to sandy silt
4.729	22.48	0.1280	7	7	silty sand to sandy silt
4.797	21.35	0.1299	7	7	silty sand to sandy silt
4.873	20.11	0.1194	8	6	sandy silt to clayey silt
4.923	20.00	0.1089	8	6	sandy silt to clayey silt
4.997	19.21	0.0988	7	6	sandy silt to clayey silt
5.053	18.65	0.0937	7	6	sandy silt to clayey silt
5.118	17.74	0.0965	7	6	sandy silt to clayey silt
5.191	17.18	0.1046	7	6	sandy silt to clayey silt
5.250	16.95	0.0979	6	6	sandy silt to clayey silt
5.344	16.16	0.0948	6	6	sandy silt to clayey silt
5.389	16.28	0.0947	6	6	sandy silt to clayey silt
5.447	15.49	0.0945	6	6	sandy silt to clayey silt
5.533	14.81	0.0947	6	6	sandy silt to clayey silt
5.580	14.69	0.0914	6	6	sandy silt to clayey silt
5.657	14.36	0.0866	5	6	sandy silt to clayey silt
5.733	14.36	0.0900	5	6	sandy silt to clayey silt
5.789	14.58	0.0898	6	6	sandy silt to clayey silt
5.847	15.26	0.0875	6	6	sandy silt to clayey silt
5.912	15.48	0.0838	6	6	sandy silt to clayey silt
5.979	16.05	0.0880	6	6	sandy silt to clayey silt
6.037	16.16	0.1432	6	6	sandy silt to clayey silt
6.107	15.60	0.3089	7	5	clayey silt to silty clay
6.175	15.03	0.3043	7	5	clayey silt to silty clay
6.251	14.02	0.2445	7	5	clayey silt to silty clay
6.320	13.68	0.2392	7	5	clayey silt to silty clay
6.380	18.18	0.2007	7	6	sandy silt to clayey silt
6.457	18.51	0.2126	7	6	sandy silt to clayey silt
6.522	18.29	0.2493	7	6	sandy silt to clayey silt
6.578	15.36	0.1946	6	6	sandy silt to clayey silt
6.630	12.89	0.1580	5	6	sandy silt to clayey silt
6.706	11.65	0.1173	4	6	sandy silt to clayey silt
6.773	9.84	0.0831	5	5	clayey silt to silty clay
6.824	10.06	0.0880	5	5	clayey silt to silty clay
6.895	7.35	0.1484	5	4	silty clay to clay
6.960	8.14	0.1356	4	5	clayey silt to silty clay
7.038	8.26	0.1224	4	5	clayey silt to silty clay
7.107	8.71	0.1871	6	4	silty clay to clay
7.166	8.93	0.2321	6	4	silty clay to clay
7.220	8.88	0.1633	4	5	clayey silt to silty clay
7.308	9.16	0.0866	4	5	clayey silt to silty clay
7.363	8.82	0.0873	4	5	clayey silt to silty clay
7.438	7.24	0.0861	3	1	sensitive fine grained
7.482	7.69	0.0850	4	5	clayey silt to silty clay
7.556	5.21	0.0834	2	1	sensitive fine grained
7.614	5.66	0.0730	3	1	sensitive fine grained
7.681	5.55	0.0562	3	1	sensitive fine grained
7.753	6.11	0.0562	3	1	sensitive fine grained
7.814	6.22	0.0562	3	1	sensitive fine grained
7.881	6.90	0.0562	3	1	sensitive fine grained
7.958	7.24	0.0586	3	1	sensitive fine grained
8.010	8.26	0.0572	4	1	sensitive fine grained
8.101	8.71	0.0605	4	5	clayey silt to silty clay
8.146	10.29	0.0683	4	6	sandy silt to clayey silt
8.206	10.96	0.0871	4	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 30.195 ft
SITE: B-422

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.269	12.66	0.0810	5	6	sandy silt to clayey silt
8.346	13.67	0.1109	5	6	sandy silt to clayey silt
8.429	14.34	0.1818	5	6	sandy silt to clayey silt
8.499	14.91	0.1364	6	6	sandy silt to clayey silt
8.542	15.59	0.1547	6	6	sandy silt to clayey silt
8.600	15.36	0.1600	6	6	sandy silt to clayey silt
8.665	17.28	0.1309	7	6	sandy silt to clayey silt
8.737	15.30	0.1022	6	6	sandy silt to clayey silt
8.799	14.92	0.0966	6	6	sandy silt to clayey silt
8.860	15.25	0.0942	6	6	sandy silt to clayey silt
8.939	12.88	0.0910	5	6	sandy silt to clayey silt
8.991	12.99	0.0894	5	6	sandy silt to clayey silt
9.084	13.00	0.0942	5	6	sandy silt to clayey silt
9.121	13.78	0.0991	5	6	sandy silt to clayey silt
9.205	13.22	0.1217	5	6	sandy silt to clayey silt
9.277	14.12	0.1167	5	6	sandy silt to clayey silt
9.340	15.25	0.1118	6	6	sandy silt to clayey silt
9.394	15.47	0.1134	6	6	sandy silt to clayey silt
9.464	15.53	0.1055	6	6	sandy silt to clayey silt
9.539	15.92	0.1364	6	6	sandy silt to clayey silt
9.583	15.58	0.1532	6	6	sandy silt to clayey silt
9.646	10.62	0.1389	5	5	clayey silt to silty clay
9.724	11.41	0.1382	5	5	clayey silt to silty clay
9.781	11.18	0.1662	5	5	clayey silt to silty clay
9.864	7.12	0.2726	7	3	clay
9.920	8.14	0.2360	5	4	silty clay to clay
9.974	7.12	0.1594	5	4	silty clay to clay
10.043	7.46	0.1611	5	4	silty clay to clay
10.114	10.39	0.1466	5	5	clayey silt to silty clay
10.177	14.45	0.0643	6	6	sandy silt to clayey silt
10.242	16.48	0.0635	6	6	sandy silt to clayey silt
10.318	16.71	0.1445	6	6	sandy silt to clayey silt
10.374	12.66	0.1946	6	5	clayey silt to silty clay
10.434	20.10	0.2071	8	6	sandy silt to clayey silt
10.513	28.90	0.1951	9	7	silty sand to sandy silt
10.568	18.64	0.2107	7	6	sandy silt to clayey silt
10.632	18.97	0.2574	7	6	sandy silt to clayey silt
10.709	18.64	0.2420	7	6	sandy silt to clayey silt
10.767	18.18	0.1907	7	6	sandy silt to clayey silt
10.842	17.73	0.1565	7	6	sandy silt to clayey silt
10.905	17.74	0.1742	7	6	sandy silt to clayey silt
10.991	17.73	0.1976	7	6	sandy silt to clayey silt
11.033	17.74	0.2224	7	6	sandy silt to clayey silt
11.105	21.80	0.2664	8	6	sandy silt to clayey silt
11.161	34.32	0.3085	11	7	silty sand to sandy silt
11.227	55.09	0.3713	13	8	sand to silty sand
11.301	74.04	0.4953	18	8	sand to silty sand
11.354	90.07	0.5906	22	8	sand to silty sand
11.418	109.36	0.5970	21	9	sand
11.486	129.67	0.6055	25	9	sand
11.551	144.79	0.5988	28	9	sand
11.640	171.20	0.7413	33	9	sand
11.702	192.31	0.7648	37	9	sand
11.750	213.97	0.9001	41	9	sand
11.824	254.25	1.1302	49	9	sand
11.897	269.72	1.2080	43	10	gravelly sand to sand
11.943	284.28	1.2403	45	10	gravelly sand to sand
12.016	317.78	1.2727	51	10	gravelly sand to sand
12.094	308.31	1.4962	49	10	gravelly sand to sand
12.158	293.42	1.5492	47	10	gravelly sand to sand
12.219	297.93	1.6893	57	9	sand
12.292	278.86	1.7553	53	9	sand
12.338	261.03	1.7837	50	9	sand

SOUNDING

TOTAL DEPTH: 30.195 ft
SITE: B-422

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.430	245.12	1.7671	47	9	sand	
12.477	242.64	1.5538	46	9	sand	
12.536	240.49	1.2419	46	9	sand	
12.626	224.58	1.0145	43	9	sand	
12.667	222.44	1.0192	43	9	sand	
12.735	221.88	0.9865	42	9	sand	
12.807	223.00	1.0552	43	9	sand	
12.885	226.29	1.2469	43	9	sand	
12.933	224.59	1.2253	43	9	sand	
13.013	226.06	1.2401	43	9	sand	
13.071	232.71	1.2630	45	9	sand	
13.136	238.73	1.2678	46	9	sand	
13.202	236.93	1.3309	45	9	sand	
13.255	244.70	1.4210	47	9	sand	
13.333	215.56	1.4170	41	9	sand	
13.404	226.51	1.4149	43	9	sand	
13.468	226.51	1.5023	43	9	sand	
13.535	230.35	1.4583	44	9	sand	
13.605	231.47	1.0913	44	9	sand	
13.651	232.49	1.0185	45	9	sand	
13.739	235.77	1.0553	45	9	sand	
13.810	234.41	0.9500	45	9	sand	
13.866	238.92	0.9796	46	9	sand	
13.937	243.10	1.3324	47	9	sand	
13.978	249.64	1.4808	48	9	sand	
14.048	264.09	1.3108	51	9	sand	
14.130	295.46	1.6546	57	9	sand	
14.203	304.37	2.3528	58	9	sand	
14.240	316.55	2.5808	61	9	sand	
14.305	354.01	3.5149	68	9	sand	
14.371	351.65	4.6704	67	9	sand	
14.444	344.89	4.5228	66	9	sand	
14.510	366.44	3.1829	70	9	sand	
14.572	370.51	2.9114	71	9	sand	
14.640	365.72	2.4157	58	10	gravelly sand	to sand
14.729	364.99	2.5051	58	10	gravelly sand	to sand
14.786	352.34	2.3134	56	10	gravelly sand	to sand
14.830	317.36	2.2097	61	9	sand	
14.915	302.66	2.1276	58	9	sand	
14.985	306.85	1.6897	49	10	gravelly sand	to sand
15.044	304.49	1.7015	49	10	gravelly sand	to sand
15.092	305.50	1.9297	59	9	sand	
15.178	316.11	2.1220	61	9	sand	
15.230	300.33	1.9329	58	9	sand	
15.290	312.62	1.7826	50	10	gravelly sand	to sand
15.358	311.95	1.7232	50	10	gravelly sand	to sand
15.436	307.33	1.7141	49	10	gravelly sand	to sand
15.508	319.18	1.9010	51	10	gravelly sand	to sand
15.553	326.18	2.3340	62	9	sand	
15.628	336.90	2.7620	65	9	sand	
15.686	348.52	2.6531	67	9	sand	
15.751	352.14	2.6411	67	9	sand	
15.827	341.75	2.6282	65	9	sand	
15.879	312.40	2.6193	60	9	sand	
15.969	306.10	2.2497	59	9	sand	
16.027	301.13	1.9101	58	9	sand	
16.092	281.71	1.6568	54	9	sand	
16.161	260.16	1.5341	50	9	sand	
16.217	245.94	1.2945	47	9	sand	
16.276	227.78	1.0261	44	9	sand	
16.360	204.31	0.8717	39	9	sand	
16.420	184.22	0.7951	35	9	sand	
16.471	168.65	0.7404	32	9	sand	

SOUNDING

TOTAL DEPTH: 30.195 ft
SITE: B-422

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
16.556	126.89	0.6590	24	9	sand	
16.602	138.51	0.6365	27	9	sand	
16.684	133.67	0.6445	26	9	sand	
16.761	129.26	0.6226	25	9	sand	
16.799	125.20	0.6132	24	9	sand	
16.884	114.48	0.5887	22	9	sand	
16.955	106.58	0.5779	26	8	sand to silty sand	
17.007	101.95	0.5800	24	8	sand to silty sand	
17.094	94.85	0.6012	23	8	sand to silty sand	
17.132	92.14	0.6131	22	8	sand to silty sand	
17.205	88.53	0.6357	21	8	sand to silty sand	
17.259	85.37	0.6484	20	8	sand to silty sand	
17.323	82.88	0.6589	20	8	sand to silty sand	
17.401	80.96	0.6696	19	8	sand to silty sand	
17.462	79.50	0.6750	19	8	sand to silty sand	
17.529	78.37	0.6757	19	8	sand to silty sand	
17.600	77.69	0.6752	19	8	sand to silty sand	
17.660	77.01	0.6727	18	8	sand to silty sand	
17.724	76.33	0.6645	18	8	sand to silty sand	
17.789	75.32	0.6593	18	8	sand to silty sand	
17.854	75.43	0.6593	18	8	sand to silty sand	
17.921	75.43	0.6593	18	8	sand to silty sand	
17.993	75.77	0.6613	18	8	sand to silty sand	
18.048	76.90	0.6670	18	8	sand to silty sand	
18.121	77.91	0.6813	19	8	sand to silty sand	
18.188	79.38	0.6929	19	8	sand to silty sand	
18.266	82.42	0.6982	20	8	sand to silty sand	
18.337	86.94	0.7347	21	8	sand to silty sand	
18.386	91.11	0.7487	22	8	sand to silty sand	
18.465	102.51	0.6552	25	8	sand to silty sand	
18.506	109.73	0.7076	26	8	sand to silty sand	
18.576	121.23	0.8992	29	8	sand to silty sand	
18.640	130.37	0.8421	25	9	sand	
18.720	138.27	0.5046	26	9	sand	
18.771	139.17	0.5191	27	9	sand	
18.873	138.71	0.5378	27	9	sand	
18.931	134.42	0.3523	26	9	sand	
18.966	133.40	0.3662	26	9	sand	
19.048	124.49	0.7623	24	9	sand	
19.115	110.95	1.0223	27	8	sand to silty sand	
19.179	88.94	1.0997	21	8	sand to silty sand	
19.232	86.34	1.0990	21	8	sand to silty sand	
19.305	89.96	1.0210	22	8	sand to silty sand	
19.371	98.42	1.0245	24	8	sand to silty sand	
19.426	77.10	1.0272	25	7	silty sand to sandy silt	
19.506	62.78	0.9453	20	7	silty sand to sandy silt	
19.561	58.94	0.8100	19	7	silty sand to sandy silt	
19.628	53.99	0.7757	17	7	silty sand to sandy silt	
19.696	48.91	0.7975	16	7	silty sand to sandy silt	
19.771	48.57	0.7888	16	7	silty sand to sandy silt	
19.835	48.56	0.7867	15	7	silty sand to sandy silt	
19.896	48.22	0.7437	15	7	silty sand to sandy silt	
19.955	56.24	0.7442	18	7	silty sand to sandy silt	
20.029	67.52	0.7446	22	7	silty sand to sandy silt	
20.127	79.03	0.7391	19	8	sand to silty sand	
20.165	83.99	0.7184	20	8	sand to silty sand	
20.229	89.75	0.7578	21	8	sand to silty sand	
20.280	90.76	0.8162	22	8	sand to silty sand	
20.371	89.52	0.8949	21	8	sand to silty sand	
20.411	89.86	0.8870	22	8	sand to silty sand	
20.480	92.79	0.8398	22	8	sand to silty sand	
20.566	102.95	0.8468	25	8	sand to silty sand	
20.627	108.36	0.9325	26	8	sand to silty sand	

SOUNDING

TOTAL DEPTH: 30.195 ft
SITE: B-422

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
20.679	110.62	0.9636	26	8	sand to silty sand
20.772	113.10	0.9465	27	8	sand to silty sand
20.810	113.55	0.9357	27	8	sand to silty sand
20.876	111.75	1.0331	27	8	sand to silty sand
20.943	101.82	1.3247	24	8	sand to silty sand
21.014	78.80	1.5897	25	7	silty sand to sandy silt
21.065	63.34	1.6367	24	6	sandy silt to clayey silt
21.141	42.69	1.4729	20	5	clayey silt to silty clay
21.217	35.14	1.2678	17	5	clayey silt to silty clay
21.267	28.04	1.1880	18	4	silty clay to clay
21.341	23.55	1.0333	23	3	clay
21.419	21.22	0.8557	14	4	silty clay to clay
21.470	21.13	0.7230	10	5	clayey silt to silty clay
21.538	21.49	0.5775	10	5	clayey silt to silty clay
21.611	20.94	0.5091	10	5	clayey silt to silty clay
21.654	20.27	0.4791	10	5	clayey silt to silty clay
21.728	18.82	0.4523	9	5	clayey silt to silty clay
21.810	18.61	0.4402	9	5	clayey silt to silty clay
21.861	18.74	0.4285	9	5	clayey silt to silty clay
21.929	19.31	0.4224	9	5	clayey silt to silty clay
22.002	19.20	0.4778	9	5	clayey silt to silty clay
22.057	19.09	0.5249	9	5	clayey silt to silty clay
22.123	22.39	0.5561	11	5	clayey silt to silty clay
22.196	30.92	0.5867	12	6	sandy silt to clayey silt
22.257	45.05	0.6327	14	7	silty sand to sandy silt
22.312	68.97	0.7158	17	8	sand to silty sand
22.383	82.46	0.9036	20	8	sand to silty sand
22.452	59.99	0.9700	19	7	silty sand to sandy silt
22.532	39.64	0.9512	15	6	sandy silt to clayey silt
22.595	30.06	0.9537	14	5	clayey silt to silty clay
22.642	25.88	0.9529	12	5	clayey silt to silty clay
22.708	21.18	0.9789	20	3	clay
22.789	20.11	1.0251	19	3	clay
22.845	21.53	1.0261	21	3	clay
22.912	53.67	1.0269	17	7	silty sand to sandy silt
22.967	137.64	1.0652	26	9	sand
23.060	197.24	1.0617	38	9	sand
23.123	234.14	1.0602	45	9	sand
23.165	254.11	1.2040	49	9	sand
23.251	291.56	2.5283	56	9	sand
23.298	301.03	2.5133	58	9	sand
23.364	335.99	2.0294	54	10	gravelly sand to sand
23.449	357.09	3.8609	68	9	sand
23.493	361.27	4.0083	69	9	sand
23.559	367.48	3.9877	70	9	sand
23.665	391.82	3.7963	75	9	sand
23.718	372.62	3.7194	71	9	sand
23.766	373.97	3.1038	72	9	sand
23.861	290.37	2.4534	56	9	sand
23.903	269.50	2.5721	52	9	sand
23.954	218.28	2.7158	42	9	sand
24.023	237.69	2.1361	46	9	sand
24.107	244.60	2.0677	47	9	sand
24.156	244.49	2.0891	47	9	sand
24.256	244.37	2.1613	47	9	sand
24.305	255.99	2.5443	49	9	sand
24.354	248.32	2.9143	48	9	sand
24.422	241.88	2.9010	46	9	sand
24.502	187.72	2.7210	45	8	sand to silty sand
24.548	159.17	2.6482	38	8	sand to silty sand
24.646	160.38	2.1298	38	8	sand to silty sand
24.676	161.66	1.9372	39	8	sand to silty sand
24.749	161.47	1.4556	31	9	sand

SOUNDING

TOTAL DEPTH: 30.195 ft
SITE: B-422

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
24.819	164.05	1.0825	31	9	sand	
24.871	161.23	0.9291	31	9	sand	
24.947	150.04	0.8898	29	9	sand	
25.025	147.67	0.9371	28	9	sand	
25.066	145.19	0.9289	28	9	sand	
25.134	145.98	0.9660	28	9	sand	
25.214	146.31	1.1790	28	9	sand	
25.284	133.71	1.3834	32	8	sand to silty sand	
25.341	128.74	1.4561	31	8	sand to silty sand	
25.416	125.69	1.3607	30	8	sand to silty sand	
25.477	127.17	1.3372	30	8	sand to silty sand	
25.540	143.19	1.3260	34	8	sand to silty sand	
25.624	165.99	1.1949	32	9	sand	
25.686	179.52	1.0472	34	9	sand	
25.734	188.08	0.9967	36	9	sand	
25.800	203.09	0.9498	39	9	sand	
25.862	211.33	1.0790	40	9	sand	
25.928	218.21	0.9252	42	9	sand	
25.998	224.18	1.0415	43	9	sand	
26.053	233.88	1.4211	45	9	sand	
26.130	240.98	1.4742	46	9	sand	
26.183	241.42	1.4714	46	9	sand	
26.249	169.86	1.4704	33	9	sand	
26.342	212.40	1.6704	41	9	sand	
26.386	215.90	1.7193	41	9	sand	
26.448	216.80	1.6171	42	9	sand	
26.536	221.09	2.1618	42	9	sand	
26.593	220.99	2.6554	42	9	sand	
26.647	225.83	2.8519	43	9	sand	
26.714	228.65	2.1952	44	9	sand	
26.783	237.57	1.7610	45	9	sand	
26.842	247.72	3.1124	47	9	sand	
26.912	269.60	5.4227	65	8	sand to silty sand	
26.977	275.91	5.1894	66	8	sand to silty sand	
27.039	265.45	4.5944	64	8	sand to silty sand	
27.110	257.77	4.6197	62	8	sand to silty sand	
27.185	257.49	4.0273	62	8	sand to silty sand	
27.233	257.23	3.1641	49	9	sand	
27.320	256.98	2.8482	49	9	sand	
27.385	256.72	2.7899	49	9	sand	
27.448	250.29	2.5056	48	9	sand	
27.526	254.72	1.4107	49	9	sand	
27.577	259.34	1.3467	50	9	sand	
27.630	270.42	1.4268	52	9	sand	
27.725	292.97	1.6751	56	9	sand	
27.769	298.50	1.8847	57	9	sand	
27.823	265.10	2.1922	51	9	sand	
27.893	258.78	2.7505	50	9	sand	
27.965	258.67	3.1469	50	9	sand	
28.026	259.23	3.1415	50	9	sand	
28.095	259.79	3.4838	50	9	sand	
28.168	254.38	3.1535	49	9	sand	
28.222	260.92	2.9071	50	9	sand	
28.282	266.90	2.8946	51	9	sand	
28.369	262.84	3.1051	50	9	sand	
28.413	244.45	3.0563	47	9	sand	
28.480	244.35	2.2610	47	9	sand	
28.568	216.36	2.1995	41	9	sand	
28.640	232.61	2.3162	45	9	sand	
28.687	225.39	2.2926	43	9	sand	
28.758	224.73	2.3236	43	9	sand	
28.813	224.09	2.1256	43	9	sand	
28.889	215.90	1.7915	41	9	sand	

SOUNDING

TOTAL DEPTH: 30.195 ft
SITE: B-422

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
28.949	222.79	1.8423	43	9	sand
29.010	192.23	1.8729	37	9	sand
29.082	192.79	1.8861	37	9	sand
29.145	187.60	2.3070	45	8	sand to silty sand
29.205	178.57	2.7272	43	8	sand to silty sand
29.267	148.22	2.7064	47	7	silty sand to sandy silt
29.344	113.35	2.7095	36	7	silty sand to sandy silt
29.400	113.00	2.7205	36	7	silty sand to sandy silt
29.481	112.78	2.7882	36	7	silty sand to sandy silt
29.530	112.35	2.8228	36	7	silty sand to sandy silt
29.605	112.01	2.6971	36	7	silty sand to sandy silt
29.660	134.02	2.4772	43	7	silty sand to sandy silt
29.753	155.69	2.2325	37	8	sand to silty sand
29.799	198.64	2.2994	38	9	sand
29.865	209.11	2.3639	40	9	sand
29.943	208.90	0.0000	0	0	<out of range>
29.990	221.24	0.0000	0	0	<out of range>
30.070	208.71	0.0000	0	0	<out of range>
30.146	199.46	0.0000	0	0	<out of range>
30.195	196.75	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 9.584 ft
 SITE: B-423

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.1130	0	0	<out of range>
0.072	4.29	0.1459	4	3	clay
0.148	6.88	0.1908	4	4	silty clay to clay
0.206	8.91	0.2250	6	4	silty clay to clay
0.264	10.72	0.2706	7	4	silty clay to clay
0.345	11.86	0.3299	8	4	silty clay to clay
0.397	12.20	0.3510	8	4	silty clay to clay
0.487	12.77	0.3939	8	4	silty clay to clay
0.532	13.00	0.4155	8	4	silty clay to clay
0.602	13.69	0.4450	9	4	silty clay to clay
0.667	13.57	0.4634	9	4	silty clay to clay
0.737	12.78	0.4783	8	4	silty clay to clay
0.826	14.24	0.5951	14	3	clay
0.858	14.35	0.6549	14	3	clay
0.925	14.68	0.8040	14	3	clay
0.988	15.35	0.9170	15	3	clay
1.056	15.01	0.8739	14	3	clay
1.131	15.68	0.8847	15	3	clay
1.181	16.12	1.0314	15	3	clay
1.271	34.13	1.3012	16	5	clayey silt to silty clay
1.329	39.42	1.4688	19	5	clayey silt to silty clay
1.382	43.14	1.6361	21	5	clayey silt to silty clay
1.450	54.17	1.7591	26	5	clayey silt to silty clay
1.517	59.01	1.7812	23	6	sandy silt to clayey silt
1.589	54.74	1.7284	21	6	sandy silt to clayey silt
1.656	48.66	1.7282	23	5	clayey silt to silty clay
1.709	55.13	1.5660	21	6	sandy silt to clayey silt
1.783	49.01	1.2103	19	6	sandy silt to clayey silt
1.842	55.54	1.0753	18	7	silty sand to sandy silt
1.916	58.01	1.0257	19	7	silty sand to sandy silt
1.975	60.60	1.0353	19	7	silty sand to sandy silt
2.036	66.44	0.9371	21	7	silty sand to sandy silt
2.105	67.68	0.7840	22	7	silty sand to sandy silt
2.208	53.18	0.7451	17	7	silty sand to sandy silt
2.234	52.84	0.7494	17	7	silty sand to sandy silt
2.313	52.16	0.5652	17	7	silty sand to sandy silt
2.388	49.91	0.2980	12	8	sand to silty sand
2.452	48.22	0.2687	12	8	sand to silty sand
2.508	46.76	0.3912	15	7	silty sand to sandy silt
2.571	44.84	0.7049	14	7	silty sand to sandy silt
2.638	44.06	0.9237	17	6	sandy silt to clayey silt
2.695	43.83	0.9980	17	6	sandy silt to clayey silt
2.771	45.97	1.1490	18	6	sandy silt to clayey silt
2.841	53.05	1.5491	20	6	sandy silt to clayey silt
2.894	62.04	1.9569	24	6	sandy silt to clayey silt
2.958	73.41	2.1593	28	6	sandy silt to clayey silt
3.042	71.04	1.5734	23	7	silty sand to sandy silt
3.096	66.66	1.3982	21	7	silty sand to sandy silt
3.158	43.25	1.4739	21	5	clayey silt to silty clay
3.237	38.97	1.0561	15	6	sandy silt to clayey silt
3.297	48.20	0.8495	15	7	silty sand to sandy silt
3.385	47.64	0.8491	15	7	silty sand to sandy silt
3.425	43.14	0.7185	14	7	silty sand to sandy silt
3.478	43.03	0.6244	14	7	silty sand to sandy silt
3.556	45.06	0.5721	14	7	silty sand to sandy silt
3.609	41.12	0.5384	13	7	silty sand to sandy silt
3.675	34.59	0.4850	11	7	silty sand to sandy silt
3.742	33.58	0.3518	11	7	silty sand to sandy silt
3.827	33.12	0.2093	11	7	silty sand to sandy silt
3.889	32.11	0.2106	10	7	silty sand to sandy silt
3.942	31.32	0.2148	10	7	silty sand to sandy silt
4.004	31.66	0.2214	10	7	silty sand to sandy silt
4.075	30.76	0.2222	10	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 9.584 ft
SITE: B-423

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.145	30.76	0.2152	10	7	silty sand to sandy silt
4.232	30.76	0.2272	10	7	silty sand to sandy silt
4.279	31.21	0.2354	10	7	silty sand to sandy silt
4.340	32.22	0.2529	10	7	silty sand to sandy silt
4.420	34.47	0.3117	11	7	silty sand to sandy silt
4.463	35.93	0.3277	11	7	silty sand to sandy silt
4.536	39.31	0.3196	13	7	silty sand to sandy silt
4.596	42.80	0.3037	14	7	silty sand to sandy silt
4.664	44.83	0.2821	14	7	silty sand to sandy silt
4.734	48.21	0.3178	15	7	silty sand to sandy silt
4.816	48.77	0.4368	16	7	silty sand to sandy silt
4.871	51.58	0.3828	16	7	silty sand to sandy silt
4.959	55.07	0.3806	13	8	sand to silty sand
4.993	57.09	0.3957	14	8	sand to silty sand
5.059	61.48	0.3990	15	8	sand to silty sand
5.121	63.96	0.3857	15	8	sand to silty sand
5.194	63.82	0.4178	15	8	sand to silty sand
5.256	63.68	0.6382	20	7	silty sand to sandy silt
5.319	62.61	0.7597	20	7	silty sand to sandy silt
5.402	63.40	0.6741	20	7	silty sand to sandy silt
5.455	65.42	0.6199	16	8	sand to silty sand
5.518	69.82	0.5568	17	8	sand to silty sand
5.578	62.83	0.5188	15	8	sand to silty sand
5.656	63.95	0.4333	15	8	sand to silty sand
5.720	63.28	0.3335	15	8	sand to silty sand
5.800	64.40	0.2984	15	8	sand to silty sand
5.842	64.63	0.2984	15	8	sand to silty sand
5.943	62.83	0.2953	15	8	sand to silty sand
5.974	62.27	0.2938	15	8	sand to silty sand
6.047	61.25	0.2903	15	8	sand to silty sand
6.118	59.34	0.2885	14	8	sand to silty sand
6.183	56.98	0.2606	14	8	sand to silty sand
6.243	55.85	0.2525	13	8	sand to silty sand
6.312	51.46	0.2550	12	8	sand to silty sand
6.379	47.74	0.2690	11	8	sand to silty sand
6.437	44.48	0.2575	14	7	silty sand to sandy silt
6.499	40.88	0.2392	13	7	silty sand to sandy silt
6.582	37.73	0.2232	12	7	silty sand to sandy silt
6.635	36.38	0.2072	12	7	silty sand to sandy silt
6.696	36.38	0.2026	12	7	silty sand to sandy silt
6.780	39.08	0.2069	12	7	silty sand to sandy silt
6.825	40.88	0.2096	13	7	silty sand to sandy silt
6.890	33.56	0.2268	11	7	silty sand to sandy silt
6.974	43.02	0.2369	14	7	silty sand to sandy silt
7.029	44.71	0.2362	14	7	silty sand to sandy silt
7.114	46.96	0.2453	11	8	sand to silty sand
7.156	47.64	0.2554	11	8	sand to silty sand
7.235	48.31	0.2769	12	8	sand to silty sand
7.302	49.32	0.2916	12	8	sand to silty sand
7.355	51.69	0.3104	12	8	sand to silty sand
7.429	55.18	0.3484	13	8	sand to silty sand
7.514	61.93	0.3685	15	8	sand to silty sand
7.553	66.10	0.3826	16	8	sand to silty sand
7.628	75.55	0.4260	18	8	sand to silty sand
7.687	81.97	0.4834	20	8	sand to silty sand
7.750	89.07	0.5202	21	8	sand to silty sand
7.814	99.08	0.5532	24	8	sand to silty sand
7.905	111.81	0.6330	21	9	sand
7.962	120.36	0.6776	23	9	sand
8.054	127.79	0.8064	24	9	sand
8.092	131.28	0.9277	25	9	sand
8.144	136.80	0.9908	26	9	sand
8.205	142.08	0.9898	27	9	sand

SOUNDING

TOTAL DEPTH: 9.584 ft
SITE: B-423

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.299	155.03	1.0896	30	9	sand
8.337	156.38	1.1199	30	9	sand
8.410	167.99	1.9187	40	8	sand to silty sand
8.471	186.89	2.9362	45	8	sand to silty sand
8.540	216.39	3.3527	52	8	sand to silty sand
8.608	246.21	3.4237	59	8	sand to silty sand
8.673	264.67	3.2395	51	9	sand
8.737	281.88	4.0459	67	8	sand to silty sand
8.796	284.59	4.6781	68	8	sand to silty sand
8.886	279.29	3.8136	53	9	sand
8.943	259.51	3.4264	50	9	sand
8.997	258.46	3.6043	62	8	sand to silty sand
9.073	258.47	3.9527	62	8	sand to silty sand
9.136	257.39	4.5721	62	8	sand to silty sand
9.189	276.39	5.8653	66	8	sand to silty sand
9.253	307.34	7.1084	98	7	silty sand to sandy silt
9.327	304.92	0.0000	0	0	<out of range>
9.388	315.00	0.0000	0	0	<out of range>
9.459	302.49	0.0000	0	0	<out of range>
9.527	301.77	0.0000	0	0	<out of range>
9.584	329.02	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 23.977 ft
SITE: B-424

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0307	0	0	<out of range>
0.081	4.52	0.0824	3	4	silty clay to clay
0.134	6.43	0.1158	4	4	silty clay to clay
0.215	7.44	0.1673	5	4	silty clay to clay
0.270	8.34	0.1876	5	4	silty clay to clay
0.341	8.88	0.2296	6	4	silty clay to clay
0.401	9.22	0.2826	6	4	silty clay to clay
0.469	11.15	0.3198	7	4	silty clay to clay
0.526	12.65	0.3392	6	5	clayey silt to silty clay
0.616	14.58	0.3953	7	5	clayey silt to silty clay
0.664	16.14	0.4283	8	5	clayey silt to silty clay
0.742	17.72	0.4527	8	5	clayey silt to silty clay
0.806	17.84	0.4604	9	5	clayey silt to silty clay
0.870	17.28	0.4705	8	5	clayey silt to silty clay
0.926	16.38	0.4717	8	5	clayey silt to silty clay
0.988	14.90	0.4633	10	4	silty clay to clay
1.063	14.21	0.4473	9	4	silty clay to clay
1.119	12.98	0.4295	8	4	silty clay to clay
1.192	12.42	0.4026	8	4	silty clay to clay
1.267	11.96	0.3710	8	4	silty clay to clay
1.329	11.85	0.3403	8	4	silty clay to clay
1.384	11.73	0.3277	7	4	silty clay to clay
1.465	12.05	0.3182	8	4	silty clay to clay
1.511	12.05	0.3129	6	5	clayey silt to silty clay
1.576	12.05	0.3121	6	5	clayey silt to silty clay
1.646	11.94	0.3118	6	5	clayey silt to silty clay
1.716	11.94	0.3411	8	4	silty clay to clay
1.791	12.85	0.3883	8	4	silty clay to clay
1.847	13.95	0.4528	9	4	silty clay to clay
1.914	15.20	0.5269	10	4	silty clay to clay
1.969	15.76	0.5939	10	4	silty clay to clay
2.052	16.20	0.7576	16	3	clay
2.110	16.87	0.8592	16	3	clay
2.180	20.15	0.8488	13	4	silty clay to clay
2.238	19.36	0.7769	12	4	silty clay to clay
2.304	20.72	0.7149	10	5	clayey silt to silty clay
2.368	22.75	0.6607	11	5	clayey silt to silty clay
2.433	25.92	0.6009	10	6	sandy silt to clayey silt
2.494	27.74	0.5520	11	6	sandy silt to clayey silt
2.569	30.95	0.4516	12	6	sandy silt to clayey silt
2.639	32.87	0.3472	10	7	silty sand to sandy silt
2.700	33.44	0.3218	11	7	silty sand to sandy silt
2.767	33.10	0.3047	11	7	silty sand to sandy silt
2.830	34.46	0.2654	11	7	silty sand to sandy silt
2.898	37.62	0.4451	12	7	silty sand to sandy silt
2.959	39.43	0.6242	13	7	silty sand to sandy silt
3.019	42.93	0.6893	14	7	silty sand to sandy silt
3.094	49.03	0.7230	16	7	silty sand to sandy silt
3.151	49.82	0.7141	16	7	silty sand to sandy silt
3.223	44.85	0.7188	14	7	silty sand to sandy silt
3.291	34.34	0.5592	13	6	sandy silt to clayey silt
3.356	33.89	0.3361	11	7	silty sand to sandy silt
3.414	32.99	0.1956	11	7	silty sand to sandy silt
3.486	31.52	0.1452	10	7	silty sand to sandy silt
3.546	30.84	0.1472	10	7	silty sand to sandy silt
3.614	30.87	0.1489	10	7	silty sand to sandy silt
3.684	30.90	0.1480	10	7	silty sand to sandy silt
3.743	30.93	0.1489	10	7	silty sand to sandy silt
3.842	30.95	0.1520	10	7	silty sand to sandy silt
3.873	31.74	0.1537	10	7	silty sand to sandy silt
3.943	33.33	0.1749	11	7	silty sand to sandy silt
4.018	34.45	0.1966	11	7	silty sand to sandy silt
4.078	35.58	0.2159	11	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 23.977 ft
SITE: B-424

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.170	37.50	0.2509	12	7	silty sand to sandy silt
4.200	39.09	0.2728	12	7	silty sand to sandy silt
4.267	42.25	0.2978	13	7	silty sand to sandy silt
4.342	45.07	0.2931	14	7	silty sand to sandy silt
4.417	46.09	0.3335	15	7	silty sand to sandy silt
4.466	44.17	0.3653	14	7	silty sand to sandy silt
4.528	40.66	0.3160	13	7	silty sand to sandy silt
4.607	42.36	0.3126	14	7	silty sand to sandy silt
4.681	39.88	0.2986	13	7	silty sand to sandy silt
4.744	35.81	0.2724	11	7	silty sand to sandy silt
4.801	35.59	0.2484	11	7	silty sand to sandy silt
4.867	33.78	0.2063	11	7	silty sand to sandy silt
4.934	32.88	0.1647	10	7	silty sand to sandy silt
4.998	32.09	0.1446	10	7	silty sand to sandy silt
5.081	32.08	0.1156	10	7	silty sand to sandy silt
5.120	32.08	0.1059	10	7	silty sand to sandy silt
5.191	33.10	0.0965	11	7	silty sand to sandy silt
5.254	34.12	0.1302	11	7	silty sand to sandy silt
5.330	34.23	0.1692	11	7	silty sand to sandy silt
5.382	35.70	0.1915	11	7	silty sand to sandy silt
5.471	37.84	0.2233	12	7	silty sand to sandy silt
5.525	39.88	0.2233	13	7	silty sand to sandy silt
5.581	40.10	0.2233	13	7	silty sand to sandy silt
5.652	40.33	0.2303	13	7	silty sand to sandy silt
5.715	38.19	0.2362	12	7	silty sand to sandy silt
5.787	36.38	0.2114	12	7	silty sand to sandy silt
5.869	34.35	0.1531	11	7	silty sand to sandy silt
5.911	32.88	0.1610	10	7	silty sand to sandy silt
5.995	31.18	0.1798	10	7	silty sand to sandy silt
6.059	30.28	0.1646	10	7	silty sand to sandy silt
6.106	29.83	0.1584	10	7	silty sand to sandy silt
6.179	30.05	0.1575	10	7	silty sand to sandy silt
6.245	27.34	0.1564	9	7	silty sand to sandy silt
6.300	26.55	0.1513	8	7	silty sand to sandy silt
6.372	26.10	0.1140	8	7	silty sand to sandy silt
6.441	25.19	0.0832	8	7	silty sand to sandy silt
6.496	25.08	0.0898	8	7	silty sand to sandy silt
6.587	24.63	0.0976	8	7	silty sand to sandy silt
6.635	24.86	0.0976	8	7	silty sand to sandy silt
6.706	26.10	0.1104	8	7	silty sand to sandy silt
6.759	27.46	0.1163	9	7	silty sand to sandy silt
6.830	27.91	0.0979	9	7	silty sand to sandy silt
6.898	27.46	0.0980	9	7	silty sand to sandy silt
6.964	27.34	0.0929	9	7	silty sand to sandy silt
7.034	25.98	0.0910	8	7	silty sand to sandy silt
7.111	24.29	0.0910	8	7	silty sand to sandy silt
7.179	23.39	0.0901	7	7	silty sand to sandy silt
7.232	22.71	0.0906	7	7	silty sand to sandy silt
7.298	22.15	0.0959	7	7	silty sand to sandy silt
7.359	21.70	0.1016	7	7	silty sand to sandy silt
7.423	21.25	0.1026	7	7	silty sand to sandy silt
7.513	20.57	0.1009	7	7	silty sand to sandy silt
7.548	20.11	0.1009	6	7	silty sand to sandy silt
7.616	19.89	0.1009	8	6	sandy silt to clayey silt
7.678	19.55	0.1014	7	6	sandy silt to clayey silt
7.759	19.10	0.1033	7	6	sandy silt to clayey silt
7.837	18.76	0.1042	7	6	sandy silt to clayey silt
7.906	18.53	0.1042	7	6	sandy silt to clayey silt
7.948	18.42	0.1026	7	6	sandy silt to clayey silt
8.025	18.19	0.0984	7	6	sandy silt to clayey silt
8.091	17.86	0.0958	7	6	sandy silt to clayey silt
8.144	17.85	0.0933	7	6	sandy silt to clayey silt
8.214	17.52	0.0901	7	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 23.977 ft
SITE: B-424

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.274	17.18	0.0910	7	6	sandy silt to clayey silt
8.335	17.29	0.0917	7	6	sandy silt to clayey silt
8.426	17.29	0.0977	7	6	sandy silt to clayey silt
8.486	17.29	0.1069	7	6	sandy silt to clayey silt
8.537	17.52	0.1248	7	6	sandy silt to clayey silt
8.603	17.74	0.2043	7	6	sandy silt to clayey silt
8.668	18.53	0.4576	9	5	clayey silt to silty clay
8.753	20.23	0.6664	10	5	clayey silt to silty clay
8.799	22.37	0.5158	11	5	clayey silt to silty clay
8.865	25.88	0.1829	8	7	silty sand to sandy silt
8.930	33.00	0.1592	11	7	silty sand to sandy silt
8.990	44.96	0.2521	14	7	silty sand to sandy silt
9.062	30.17	0.4495	12	6	sandy silt to clayey silt
9.156	25.19	0.5739	10	6	sandy silt to clayey silt
9.198	26.44	0.5567	10	6	sandy silt to clayey silt
9.276	26.80	0.5034	10	6	sandy silt to clayey silt
9.347	24.41	0.4783	9	6	sandy silt to clayey silt
9.389	17.64	0.4649	8	5	clayey silt to silty clay
9.458	13.12	0.2876	6	5	clayey silt to silty clay
9.522	12.66	0.1328	5	6	sandy silt to clayey silt
9.586	11.76	0.0998	5	6	sandy silt to clayey silt
9.689	10.40	0.0702	4	6	sandy silt to clayey silt
9.732	10.63	0.0603	4	6	sandy silt to clayey silt
9.781	11.42	0.0879	4	6	sandy silt to clayey silt
9.850	10.29	0.1468	5	5	clayey silt to silty clay
9.924	10.74	0.1610	5	5	clayey silt to silty clay
9.980	14.47	0.1386	6	6	sandy silt to clayey silt
10.051	15.26	0.2006	6	6	sandy silt to clayey silt
10.108	16.50	0.1894	6	6	sandy silt to clayey silt
10.190	19.22	0.1379	7	6	sandy silt to clayey silt
10.257	26.66	0.2773	10	6	sandy silt to clayey silt
10.302	24.51	0.3601	9	6	sandy silt to clayey silt
10.376	29.26	0.3710	11	6	sandy silt to clayey silt
10.442	29.37	0.3368	11	6	sandy silt to clayey silt
10.504	30.05	0.3489	10	7	silty sand to sandy silt
10.585	45.87	0.4321	15	7	silty sand to sandy silt
10.651	47.23	0.5248	15	7	silty sand to sandy silt
10.704	43.51	0.5857	14	7	silty sand to sandy silt
10.774	34.80	0.5878	13	6	sandy silt to clayey silt
10.841	31.41	0.5104	12	6	sandy silt to clayey silt
10.895	29.15	0.4453	11	6	sandy silt to clayey silt
10.962	25.08	0.4020	10	6	sandy silt to clayey silt
11.037	23.39	0.2834	9	6	sandy silt to clayey silt
11.105	22.37	0.1589	9	6	sandy silt to clayey silt
11.177	21.35	0.1202	7	7	silty sand to sandy silt
11.231	20.34	0.1125	8	6	sandy silt to clayey silt
11.293	19.55	0.1148	7	6	sandy silt to clayey silt
11.370	18.87	0.1210	7	6	sandy silt to clayey silt
11.421	18.53	0.1218	7	6	sandy silt to clayey silt
11.510	18.53	0.1240	7	6	sandy silt to clayey silt
11.566	18.75	0.1257	7	6	sandy silt to clayey silt
11.629	18.76	0.1265	7	6	sandy silt to clayey silt
11.691	18.87	0.1286	7	6	sandy silt to clayey silt
11.756	19.21	0.1307	7	6	sandy silt to clayey silt
11.830	19.32	0.1334	7	6	sandy silt to clayey silt
11.898	19.55	0.1340	7	6	sandy silt to clayey silt
11.950	19.55	0.1354	7	6	sandy silt to clayey silt
12.049	19.55	0.1390	7	6	sandy silt to clayey silt
12.095	19.55	0.1390	7	6	sandy silt to clayey silt
12.142	19.55	0.1392	7	6	sandy silt to clayey silt
12.217	19.55	0.1418	7	6	sandy silt to clayey silt
12.286	19.55	0.1439	7	6	sandy silt to clayey silt
12.342	19.55	0.1439	7	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 23.977 ft
SITE: B-424

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.430	19.89	0.1448	8	6	sandy silt to clayey silt
12.480	19.89	0.1458	8	6	sandy silt to clayey silt
12.564	19.89	0.1459	8	6	sandy silt to clayey silt
12.600	19.89	0.1467	8	6	sandy silt to clayey silt
12.670	19.66	0.1489	8	6	sandy silt to clayey silt
12.769	19.43	0.1472	7	6	sandy silt to clayey silt
12.813	19.32	0.1461	7	6	sandy silt to clayey silt
12.870	18.87	0.1446	7	6	sandy silt to clayey silt
12.941	18.42	0.1430	7	6	sandy silt to clayey silt
13.011	18.19	0.1375	7	6	sandy silt to clayey silt
13.063	18.19	0.1304	7	6	sandy silt to clayey silt
13.128	18.08	0.1245	7	6	sandy silt to clayey silt
13.190	17.97	0.1262	7	6	sandy silt to clayey silt
13.273	17.96	0.1298	7	6	sandy silt to clayey silt
13.330	18.13	0.1315	7	6	sandy silt to clayey silt
13.406	18.30	0.1347	7	6	sandy silt to clayey silt
13.471	18.87	0.1386	7	6	sandy silt to clayey silt
13.519	19.21	0.1419	7	6	sandy silt to clayey silt
13.587	20.00	0.1479	8	6	sandy silt to clayey silt
13.664	20.56	0.1531	8	6	sandy silt to clayey silt
13.714	20.90	0.1561	8	6	sandy silt to clayey silt
13.802	21.24	0.1604	8	6	sandy silt to clayey silt
13.863	21.36	0.1653	8	6	sandy silt to clayey silt
13.911	21.36	0.1684	8	6	sandy silt to clayey silt
13.987	21.81	0.1736	8	6	sandy silt to clayey silt
14.053	22.49	0.1797	9	6	sandy silt to clayey silt
14.141	23.62	0.1885	9	6	sandy silt to clayey silt
14.178	24.29	0.1904	8	7	silty sand to sandy silt
14.246	25.42	0.1936	8	7	silty sand to sandy silt
14.319	26.10	0.1967	8	7	silty sand to sandy silt
14.390	26.44	0.2019	8	7	silty sand to sandy silt
14.436	26.89	0.2048	9	7	silty sand to sandy silt
14.535	27.01	0.2130	9	7	silty sand to sandy silt
14.583	26.89	0.2134	9	7	silty sand to sandy silt
14.649	26.67	0.2157	9	7	silty sand to sandy silt
14.716	26.33	0.2276	8	7	silty sand to sandy silt
14.773	26.21	0.2444	8	7	silty sand to sandy silt
14.834	25.65	0.2736	10	6	sandy silt to clayey silt
14.922	24.63	0.3460	9	6	sandy silt to clayey silt
14.970	23.39	0.3748	9	6	sandy silt to clayey silt
15.042	24.91	0.3500	10	6	sandy silt to clayey silt
15.117	25.05	0.3259	10	6	sandy silt to clayey silt
15.162	25.20	0.3190	10	6	sandy silt to clayey silt
15.255	33.58	0.2942	11	7	silty sand to sandy silt
15.305	39.67	0.2794	13	7	silty sand to sandy silt
15.362	41.13	0.2680	13	7	silty sand to sandy silt
15.433	41.47	0.2680	13	7	silty sand to sandy silt
15.493	41.13	0.2680	13	7	silty sand to sandy silt
15.566	40.35	0.2787	13	7	silty sand to sandy silt
15.644	39.43	0.3202	13	7	silty sand to sandy silt
15.693	40.45	0.3365	13	7	silty sand to sandy silt
15.775	39.55	0.3510	13	7	silty sand to sandy silt
15.838	40.57	0.3586	13	7	silty sand to sandy silt
15.883	41.47	0.3643	13	7	silty sand to sandy silt
15.952	43.61	0.3774	14	7	silty sand to sandy silt
16.018	45.65	0.3970	15	7	silty sand to sandy silt
16.080	47.45	0.4202	15	7	silty sand to sandy silt
16.165	48.70	0.4732	16	7	silty sand to sandy silt
16.219	48.25	0.5085	15	7	silty sand to sandy silt
16.273	47.01	0.5012	15	7	silty sand to sandy silt
16.352	44.75	0.5381	14	7	silty sand to sandy silt
16.408	42.94	0.6114	14	7	silty sand to sandy silt
16.488	36.16	0.6371	14	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 23.977 ft
SITE: B-424

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.537	41.47	0.6018	13	7	silty sand to sandy silt
16.608	31.30	0.5479	12	6	sandy silt to clayey silt
16.683	40.02	0.5002	13	7	silty sand to sandy silt
16.756	49.31	0.4488	16	7	silty sand to sandy silt
16.810	56.74	0.4336	14	8	sand to silty sand
16.864	60.02	0.4309	14	8	sand to silty sand
16.936	62.50	0.4433	15	8	sand to silty sand
16.999	64.99	0.4808	16	8	sand to silty sand
17.071	67.58	0.5898	16	8	sand to silty sand
17.145	69.72	0.8112	22	7	silty sand to sandy silt
17.192	70.40	0.9461	22	7	silty sand to sandy silt
17.266	67.35	1.2293	21	7	silty sand to sandy silt
17.340	58.09	1.5001	22	6	sandy silt to clayey silt
17.419	39.34	1.4482	19	5	clayey silt to silty clay
17.455	32.44	1.2881	21	4	silty clay to clay
17.532	26.92	0.9105	13	5	clayey silt to silty clay
17.601	21.93	0.7223	10	5	clayey silt to silty clay
17.667	21.93	0.5551	10	5	clayey silt to silty clay
17.731	21.92	0.4470	8	6	sandy silt to clayey silt
17.789	17.24	0.4515	8	5	clayey silt to silty clay
17.862	16.53	0.4491	8	5	clayey silt to silty clay
17.920	17.40	0.4539	8	5	clayey silt to silty clay
17.999	20.39	0.4884	10	5	clayey silt to silty clay
18.046	21.78	0.5015	10	5	clayey silt to silty clay
18.113	23.10	0.4935	9	6	sandy silt to clayey silt
18.179	23.20	0.4927	9	6	sandy silt to clayey silt
18.251	23.26	0.5420	11	5	clayey silt to silty clay
18.321	23.32	0.5769	11	5	clayey silt to silty clay
18.388	23.47	0.5724	11	5	clayey silt to silty clay
18.453	25.99	0.5724	10	6	sandy silt to clayey silt
18.534	23.50	0.5724	11	5	clayey silt to silty clay
18.571	21.58	0.6119	10	5	clayey silt to silty clay
18.638	22.03	0.6656	11	5	clayey silt to silty clay
18.701	24.67	0.6345	12	5	clayey silt to silty clay
18.784	26.39	0.7407	13	5	clayey silt to silty clay
18.833	28.65	0.8772	14	5	clayey silt to silty clay
18.914	36.97	0.8421	14	6	sandy silt to clayey silt
18.979	34.38	0.7992	13	6	sandy silt to clayey silt
19.032	28.92	0.7793	14	5	clayey silt to silty clay
19.122	25.37	0.7616	12	5	clayey silt to silty clay
19.176	25.61	0.6599	12	5	clayey silt to silty clay
19.255	22.90	0.4861	9	6	sandy silt to clayey silt
19.322	19.48	0.4656	9	5	clayey silt to silty clay
19.368	19.43	0.4571	9	5	clayey silt to silty clay
19.427	18.57	0.4372	9	5	clayey silt to silty clay
19.513	19.36	0.4843	9	5	clayey silt to silty clay
19.561	19.02	0.4904	9	5	clayey silt to silty clay
19.641	20.32	0.4052	8	6	sandy silt to clayey silt
19.695	23.71	0.3584	9	6	sandy silt to clayey silt
19.756	25.12	0.3234	10	6	sandy silt to clayey silt
19.836	28.30	0.2944	9	7	silty sand to sandy silt
19.913	20.70	0.2126	8	6	sandy silt to clayey silt
19.976	16.37	0.1993	6	6	sandy silt to clayey silt
20.018	13.83	0.2000	7	5	clayey silt to silty clay
20.103	11.22	0.2390	5	5	clayey silt to silty clay
20.166	11.09	0.3765	7	4	silty clay to clay
20.213	11.85	0.4924	11	3	clay
20.281	24.30	0.6149	12	5	clayey silt to silty clay
20.353	35.92	0.7206	14	6	sandy silt to clayey silt
20.412	55.08	0.8600	18	7	silty sand to sandy silt
20.488	94.85	1.0475	23	8	sand to silty sand
20.552	132.89	1.1188	32	8	sand to silty sand
20.609	164.63	1.1303	32	9	sand

SOUNDING

TOTAL DEPTH: 23.977 ft
SITE: B-424

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
20.673	220.35	1.2175	42	9	sand	
20.738	237.15	1.4005	45	9	sand	
20.811	244.70	1.6400	47	9	sand	
20.889	243.68	1.8404	47	9	sand	
20.943	240.06	1.9259	46	9	sand	
21.004	232.50	1.9774	45	9	sand	
21.076	223.68	2.0423	43	9	sand	
21.138	214.41	2.0819	41	9	sand	
21.223	211.35	2.1364	40	9	sand	
21.263	213.62	2.1447	41	9	sand	
21.333	216.32	2.1492	41	9	sand	
21.401	216.89	2.1741	42	9	sand	
21.475	218.47	2.1968	42	9	sand	
21.525	219.60	2.2026	42	9	sand	
21.616	222.09	2.1974	43	9	sand	
21.667	222.66	2.1932	43	9	sand	
21.731	223.56	2.1893	43	9	sand	
21.795	225.14	2.1709	43	9	sand	
21.861	225.37	2.1449	43	9	sand	
21.941	226.50	2.1241	43	9	sand	
22.005	229.43	2.1079	44	9	sand	
22.055	235.64	2.0896	45	9	sand	
22.140	243.44	2.0880	47	9	sand	
22.201	249.42	2.1671	48	9	sand	
22.263	256.66	2.2798	49	9	sand	
22.325	261.97	2.3848	50	9	sand	
22.389	263.67	2.4892	50	9	sand	
22.447	263.68	2.5889	50	9	sand	
22.511	263.68	2.6895	51	9	sand	
22.583	263.68	2.7657	50	9	sand	
22.645	264.81	2.8709	51	9	sand	
22.725	271.02	2.8495	52	9	sand	
22.792	267.86	2.6806	51	9	sand	
22.857	259.95	2.4803	50	9	sand	
22.909	254.18	2.3680	49	9	sand	
22.969	256.76	2.2517	49	9	sand	
23.050	248.97	2.0426	48	9	sand	
23.104	259.13	1.9233	50	9	sand	
23.165	267.14	1.6912	51	9	sand	
23.254	272.68	1.6044	52	9	sand	
23.312	276.86	1.6041	53	9	sand	
23.409	281.84	1.6035	54	9	sand	
23.435	284.55	1.6033	54	9	sand	
23.506	289.07	1.6362	55	9	sand	
23.561	297.88	1.6717	57	9	sand	
23.636	301.95	1.6373	48	10	gravelly sand to sand	
23.699	302.85	0.0000	0	0	<out of range>	
23.756	301.62	0.0000	0	0	<out of range>	
23.830	301.27	0.0000	0	0	<out of range>	
23.886	294.07	0.0000	0	0	<out of range>	
23.977	285.47	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 12.819 ft
 SITE: B-426

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	1.02	0.0480	1	2	organic material
0.084	9.26	0.1401	4	5	clayey silt to silty clay
0.141	12.88	0.1948	6	5	clayey silt to silty clay
0.198	16.38	0.2353	6	6	sandy silt to clayey silt
0.285	19.64	0.3098	8	6	sandy silt to clayey silt
0.337	20.32	0.3560	8	6	sandy silt to clayey silt
0.404	19.19	0.4265	9	5	clayey silt to silty clay
0.465	18.96	0.4746	9	5	clayey silt to silty clay
0.534	15.57	0.5250	10	4	silty clay to clay
0.610	14.56	0.6147	14	3	clay
0.671	13.31	0.6870	13	3	clay
0.727	13.20	0.7340	13	3	clay
0.805	13.54	0.8038	13	3	clay
0.858	14.22	0.8642	14	3	clay
0.925	16.02	0.8862	15	3	clay
0.988	17.24	0.8521	17	3	clay
1.051	17.90	0.8695	17	3	clay
1.131	20.04	0.9840	19	3	clay
1.192	24.45	1.0735	16	4	silty clay to clay
1.254	41.60	1.0874	16	6	sandy silt to clayey silt
1.324	42.41	1.1248	16	6	sandy silt to clayey silt
1.395	33.98	1.1789	16	5	clayey silt to silty clay
1.447	29.58	1.1636	19	4	silty clay to clay
1.522	30.38	0.9106	15	5	clayey silt to silty clay
1.584	30.27	0.6945	12	6	sandy silt to clayey silt
1.652	24.96	0.6024	10	6	sandy silt to clayey silt
1.715	26.20	0.5164	10	6	sandy silt to clayey silt
1.776	27.44	0.4057	11	6	sandy silt to clayey silt
1.849	28.68	0.2719	9	7	silty sand to sandy silt
1.903	29.47	0.2040	9	7	silty sand to sandy silt
1.974	29.13	0.1554	9	7	silty sand to sandy silt
2.040	28.68	0.1554	9	7	silty sand to sandy silt
2.105	27.55	0.1696	9	7	silty sand to sandy silt
2.169	27.33	0.1894	9	7	silty sand to sandy silt
2.239	27.78	0.1824	9	7	silty sand to sandy silt
2.312	28.12	0.1886	9	7	silty sand to sandy silt
2.366	29.36	0.1616	9	7	silty sand to sandy silt
2.455	27.78	0.1372	9	7	silty sand to sandy silt
2.502	28.00	0.1393	9	7	silty sand to sandy silt
2.582	27.10	0.1413	9	7	silty sand to sandy silt
2.638	27.21	0.1352	9	7	silty sand to sandy silt
2.693	26.88	0.1254	9	7	silty sand to sandy silt
2.768	25.41	0.1032	8	7	silty sand to sandy silt
2.832	25.07	0.0898	8	7	silty sand to sandy silt
2.890	24.84	0.0973	8	7	silty sand to sandy silt
2.970	24.84	0.0882	8	7	silty sand to sandy silt
3.031	24.84	0.0902	8	7	silty sand to sandy silt
3.117	24.84	0.1155	8	7	silty sand to sandy silt
3.168	24.73	0.1160	8	7	silty sand to sandy silt
3.225	25.75	0.1141	8	7	silty sand to sandy silt
3.285	25.75	0.1147	8	7	silty sand to sandy silt
3.364	26.99	0.1194	9	7	silty sand to sandy silt
3.419	27.55	0.1272	9	7	silty sand to sandy silt
3.490	28.80	0.1356	9	7	silty sand to sandy silt
3.544	29.59	0.1225	9	7	silty sand to sandy silt
3.635	30.72	0.1099	10	7	silty sand to sandy silt
3.687	31.51	0.1101	10	7	silty sand to sandy silt
3.783	32.52	0.1197	10	7	silty sand to sandy silt
3.808	32.86	0.1216	10	7	silty sand to sandy silt
3.874	32.97	0.1265	11	7	silty sand to sandy silt
3.949	33.65	0.1831	11	7	silty sand to sandy silt
4.023	33.65	0.2105	11	7	silty sand to sandy silt
4.069	33.66	0.2044	11	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 12.819 ft
SITE: B-426

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.135	33.66	0.1890	11	7	silty sand to sandy silt
4.200	32.64	0.2000	10	7	silty sand to sandy silt
4.267	32.08	0.2601	10	7	silty sand to sandy silt
4.342	31.96	0.3700	10	7	silty sand to sandy silt
4.406	31.29	0.3808	10	7	silty sand to sandy silt
4.468	31.17	0.4710	12	6	sandy silt to clayey silt
4.550	32.98	0.5981	13	6	sandy silt to clayey silt
4.600	33.42	0.5827	13	6	sandy silt to clayey silt
4.665	41.45	0.5197	13	7	silty sand to sandy silt
4.734	48.00	0.4461	15	7	silty sand to sandy silt
4.795	38.18	0.3906	12	7	silty sand to sandy silt
4.869	25.98	0.3237	10	6	sandy silt to clayey silt
4.939	25.98	0.2104	8	7	silty sand to sandy silt
4.989	24.74	0.1257	8	7	silty sand to sandy silt
5.054	24.86	0.0827	8	7	silty sand to sandy silt
5.122	26.78	0.0827	9	7	silty sand to sandy silt
5.193	26.66	0.0827	9	7	silty sand to sandy silt
5.260	27.22	0.0827	9	7	silty sand to sandy silt
5.321	28.92	0.0807	9	7	silty sand to sandy silt
5.394	28.01	0.0836	9	7	silty sand to sandy silt
5.466	27.22	0.1009	9	7	silty sand to sandy silt
5.517	25.98	0.1081	8	7	silty sand to sandy silt
5.602	27.00	0.1047	9	7	silty sand to sandy silt
5.658	29.94	0.1012	10	7	silty sand to sandy silt
5.730	34.45	0.1007	11	7	silty sand to sandy silt
5.802	34.40	0.0992	11	7	silty sand to sandy silt
5.852	34.34	0.1058	11	7	silty sand to sandy silt
5.937	33.21	0.1179	11	7	silty sand to sandy silt
5.976	34.23	0.1211	11	7	silty sand to sandy silt
6.046	33.66	0.1247	11	7	silty sand to sandy silt
6.106	33.10	0.1393	11	7	silty sand to sandy silt
6.188	34.79	0.1400	11	7	silty sand to sandy silt
6.241	36.60	0.1245	12	7	silty sand to sandy silt
6.311	37.61	0.1113	12	7	silty sand to sandy silt
6.382	38.06	0.0976	9	8	sand to silty sand
6.441	31.29	0.1144	10	7	silty sand to sandy silt
6.505	34.68	0.1712	11	7	silty sand to sandy silt
6.584	35.35	0.2722	11	7	silty sand to sandy silt
6.635	35.24	0.2894	11	7	silty sand to sandy silt
6.717	39.53	0.2475	13	7	silty sand to sandy silt
6.781	35.12	0.1995	11	7	silty sand to sandy silt
6.829	31.29	0.1756	10	7	silty sand to sandy silt
6.902	29.70	0.1917	9	7	silty sand to sandy silt
6.963	29.49	0.1637	9	7	silty sand to sandy silt
7.047	29.37	0.0957	9	7	silty sand to sandy silt
7.108	29.25	0.0834	9	7	silty sand to sandy silt
7.153	28.69	0.0824	9	7	silty sand to sandy silt
7.220	27.79	0.0796	9	7	silty sand to sandy silt
7.304	24.96	0.0783	8	7	silty sand to sandy silt
7.356	25.41	0.0787	8	7	silty sand to sandy silt
7.434	26.21	0.0741	8	7	silty sand to sandy silt
7.501	26.54	0.0688	8	7	silty sand to sandy silt
7.549	26.32	0.0654	8	7	silty sand to sandy silt
7.622	24.96	0.0568	8	7	silty sand to sandy silt
7.688	25.19	0.0549	8	7	silty sand to sandy silt
7.743	25.64	0.0710	8	7	silty sand to sandy silt
7.831	25.58	0.0959	8	7	silty sand to sandy silt
7.883	25.58	0.0999	8	7	silty sand to sandy silt
7.947	25.53	0.0998	8	7	silty sand to sandy silt
8.013	25.41	0.1021	8	7	silty sand to sandy silt
8.084	24.96	0.1081	8	7	silty sand to sandy silt
8.149	25.98	0.0948	8	7	silty sand to sandy silt
8.208	21.91	0.0676	7	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 12.819 ft
SITE: B-426

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.270	22.03	0.0343	7	7	silty sand to sandy silt
8.335	21.46	0.0430	7	7	silty sand to sandy silt
8.411	19.43	0.0489	6	7	silty sand to sandy silt
8.494	17.17	0.0893	7	6	sandy silt to clayey silt
8.556	18.30	0.0955	7	6	sandy silt to clayey silt
8.614	16.72	0.0874	6	6	sandy silt to clayey silt
8.675	16.83	0.0849	6	6	sandy silt to clayey silt
8.730	17.62	0.0874	7	6	sandy silt to clayey silt
8.796	15.70	0.0835	6	6	sandy silt to clayey silt
8.867	14.12	0.0804	5	6	sandy silt to clayey silt
8.940	13.78	0.0514	5	6	sandy silt to clayey silt
9.003	12.43	0.0193	5	6	sandy silt to clayey silt
9.077	11.64	0.0186	4	6	sandy silt to clayey silt
9.134	10.96	0.0182	4	6	sandy silt to clayey silt
9.208	10.06	0.0165	5	1	sensitive fine grained
9.275	9.83	0.0165	5	1	sensitive fine grained
9.326	9.83	0.0165	5	1	sensitive fine grained
9.398	9.83	0.0161	5	1	sensitive fine grained
9.458	9.49	0.0139	5	1	sensitive fine grained
9.517	9.72	0.0127	5	1	sensitive fine grained
9.604	9.38	0.0233	4	1	sensitive fine grained
9.659	9.38	0.0295	4	1	sensitive fine grained
9.722	9.38	0.0348	4	1	sensitive fine grained
9.794	9.60	0.0481	4	6	sandy silt to clayey silt
9.848	8.70	0.0602	4	5	clayey silt to silty clay
9.927	7.57	0.0620	4	1	sensitive fine grained
9.992	6.78	0.0597	3	1	sensitive fine grained
10.075	6.22	0.0639	3	1	sensitive fine grained
10.117	5.65	0.0645	3	1	sensitive fine grained
10.181	5.31	0.0578	3	1	sensitive fine grained
10.258	5.31	0.0415	3	1	sensitive fine grained
10.319	5.31	0.0240	3	1	sensitive fine grained
10.374	5.31	0.0108	3	1	sensitive fine grained
10.444	5.31	0.0050	3	1	sensitive fine grained
10.515	5.54	0.0058	3	1	sensitive fine grained
10.568	5.54	0.0066	3	1	sensitive fine grained
10.649	5.43	0.0066	3	1	sensitive fine grained
10.715	5.09	0.0066	2	1	sensitive fine grained
10.791	4.52	0.0066	2	1	sensitive fine grained
10.827	4.30	0.0066	2	1	sensitive fine grained
10.898	4.07	0.0066	2	1	sensitive fine grained
10.974	3.73	0.0075	2	1	sensitive fine grained
11.043	3.73	0.0071	2	1	sensitive fine grained
11.098	3.73	0.0066	2	1	sensitive fine grained
11.175	3.73	0.0066	2	1	sensitive fine grained
11.240	3.73	0.0066	2	1	sensitive fine grained
11.291	3.73	0.0083	2	1	sensitive fine grained
11.357	3.96	0.0099	2	1	sensitive fine grained
11.435	4.41	0.0091	2	1	sensitive fine grained
11.493	4.64	0.0083	2	1	sensitive fine grained
11.554	4.97	0.0112	2	1	sensitive fine grained
11.617	5.43	0.0153	3	1	sensitive fine grained
11.699	6.11	0.0153	3	1	sensitive fine grained
11.763	6.44	0.0343	3	1	sensitive fine grained
11.818	7.12	0.0575	3	1	sensitive fine grained
11.905	8.59	0.1082	4	5	clayey silt to silty clay
11.956	8.70	0.1312	4	5	clayey silt to silty clay
12.009	9.15	0.1535	4	5	clayey silt to silty clay
12.100	12.32	0.2046	6	5	clayey silt to silty clay
12.156	13.56	0.2315	6	5	clayey silt to silty clay
12.239	17.62	0.2811	7	6	sandy silt to clayey silt
12.274	19.54	0.3121	7	6	sandy silt to clayey silt
12.339	23.94	0.5558	9	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 12.819 ft
SITE: B-426

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.405	33.43	0.7789	13	6	sandy silt to clayey silt
12.489	49.58	1.5628	19	6	sandy silt to clayey silt
12.540	62.00	0.0000	0	0	<out of range>
12.600	103.33	0.0000	0	0	<out of range>
12.666	244.93	0.0000	0	0	<out of range>
12.733	335.14	0.0000	0	0	<out of range>
12.819	445.35	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 19.497 ft
SITE: B-427

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	-0.11	0.0700	0	0	<out of range>
0.083	7.00	0.1317	4	4	silty clay to clay
0.141	10.05	0.1832	5	5	clayey silt to silty clay
0.206	14.57	0.2470	7	5	clayey silt to silty clay
0.275	17.50	0.2954	7	6	sandy silt to clayey silt
0.334	21.23	0.3205	8	6	sandy silt to clayey silt
0.406	22.24	0.3496	9	6	sandy silt to clayey silt
0.482	21.45	0.3869	8	6	sandy silt to clayey silt
0.527	20.21	0.3969	8	6	sandy silt to clayey silt
0.599	17.62	0.3954	8	5	clayey silt to silty clay
0.667	14.23	0.3901	7	5	clayey silt to silty clay
0.735	12.54	0.3901	8	4	silty clay to clay
0.800	12.21	0.4200	8	4	silty clay to clay
0.857	12.32	0.4614	12	3	clay
0.939	12.44	0.5084	12	3	clay
1.001	13.11	0.5693	13	3	clay
1.057	13.33	0.6186	13	3	clay
1.131	13.33	0.6697	13	3	clay
1.199	13.32	0.7825	13	3	clay
1.249	13.54	0.8697	13	3	clay
1.330	19.63	0.9428	19	3	clay
1.391	25.50	1.0103	16	4	silty clay to clay
1.460	31.82	1.0870	15	5	clayey silt to silty clay
1.518	41.19	1.1161	16	6	sandy silt to clayey silt
1.586	49.88	1.1032	19	6	sandy silt to clayey silt
1.647	59.81	1.0246	19	7	silty sand to sandy silt
1.731	61.96	0.9257	20	7	silty sand to sandy silt
1.788	63.21	0.8633	20	7	silty sand to sandy silt
1.863	67.28	0.7520	21	7	silty sand to sandy silt
1.921	71.23	0.6362	17	8	sand to silty sand
1.974	72.13	0.5435	17	8	sand to silty sand
2.040	73.14	0.4555	18	8	sand to silty sand
2.118	73.59	0.4074	18	8	sand to silty sand
2.188	74.83	0.4784	18	8	sand to silty sand
2.240	71.22	0.4985	17	8	sand to silty sand
2.308	69.41	0.5087	17	8	sand to silty sand
2.375	67.61	0.5104	16	8	sand to silty sand
2.434	62.64	0.4944	15	8	sand to silty sand
2.494	58.35	0.4710	14	8	sand to silty sand
2.570	51.25	0.4251	16	7	silty sand to sandy silt
2.646	46.96	0.3793	15	7	silty sand to sandy silt
2.696	43.79	0.3411	14	7	silty sand to sandy silt
2.763	41.54	0.3100	13	7	silty sand to sandy silt
2.835	39.96	0.3208	13	7	silty sand to sandy silt
2.915	38.94	0.3258	12	7	silty sand to sandy silt
2.969	37.25	0.3120	12	7	silty sand to sandy silt
3.029	35.56	0.2934	11	7	silty sand to sandy silt
3.102	33.75	0.2612	11	7	silty sand to sandy silt
3.157	33.08	0.2277	11	7	silty sand to sandy silt
3.218	32.85	0.2006	10	7	silty sand to sandy silt
3.301	32.51	0.1470	10	7	silty sand to sandy silt
3.351	32.96	0.1273	11	7	silty sand to sandy silt
3.412	33.30	0.1262	11	7	silty sand to sandy silt
3.484	32.84	0.1245	10	7	silty sand to sandy silt
3.555	31.49	0.1256	10	7	silty sand to sandy silt
3.614	29.68	0.1256	9	7	silty sand to sandy silt
3.688	29.80	0.1256	10	7	silty sand to sandy silt
3.749	29.80	0.1281	10	7	silty sand to sandy silt
3.833	29.80	0.1441	10	7	silty sand to sandy silt
3.892	30.36	0.1547	10	7	silty sand to sandy silt
3.939	31.15	0.1602	10	7	silty sand to sandy silt
4.009	33.64	0.1682	11	7	silty sand to sandy silt
4.077	36.46	0.1771	12	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 19.497 ft
SITE: B-427

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.151	40.41	0.1951	13	7	silty sand to sandy silt
4.206	43.12	0.2151	14	7	silty sand to sandy silt
4.277	45.26	0.2417	14	7	silty sand to sandy silt
4.352	48.08	0.2746	12	8	sand to silty sand
4.417	49.66	0.2950	12	8	sand to silty sand
4.469	50.91	0.3043	12	8	sand to silty sand
4.554	51.81	0.3181	12	8	sand to silty sand
4.615	52.03	0.3288	12	8	sand to silty sand
4.666	51.81	0.3322	12	8	sand to silty sand
4.729	51.47	0.3322	12	8	sand to silty sand
4.795	50.79	0.3318	12	8	sand to silty sand
4.864	49.89	0.3291	16	7	silty sand to sandy silt
4.928	49.10	0.3239	16	7	silty sand to sandy silt
4.990	48.42	0.3182	15	7	silty sand to sandy silt
5.074	47.75	0.3083	15	7	silty sand to sandy silt
5.134	47.29	0.3008	15	7	silty sand to sandy silt
5.189	46.73	0.3008	15	7	silty sand to sandy silt
5.273	46.28	0.3025	15	7	silty sand to sandy silt
5.329	45.83	0.3045	15	7	silty sand to sandy silt
5.409	45.60	0.3081	15	7	silty sand to sandy silt
5.472	45.04	0.3126	14	7	silty sand to sandy silt
5.526	44.36	0.3173	14	7	silty sand to sandy silt
5.608	43.35	0.3238	14	7	silty sand to sandy silt
5.666	42.67	0.3290	14	7	silty sand to sandy silt
5.718	41.65	0.3312	13	7	silty sand to sandy silt
5.808	39.96	0.3250	13	7	silty sand to sandy silt
5.861	38.38	0.3191	12	7	silty sand to sandy silt
5.906	37.14	0.3114	12	7	silty sand to sandy silt
5.994	33.53	0.2853	11	7	silty sand to sandy silt
6.054	31.16	0.2686	10	7	silty sand to sandy silt
6.135	28.11	0.2459	9	7	silty sand to sandy silt
6.198	26.08	0.2245	8	7	silty sand to sandy silt
6.244	24.16	0.2116	9	6	sandy silt to clayey silt
6.322	22.02	0.1894	8	6	sandy silt to clayey silt
6.394	20.66	0.1534	8	6	sandy silt to clayey silt
6.440	19.53	0.1507	7	6	sandy silt to clayey silt
6.511	18.74	0.1536	7	6	sandy silt to clayey silt
6.575	18.18	0.1408	7	6	sandy silt to clayey silt
6.630	18.18	0.1330	7	6	sandy silt to clayey silt
6.706	18.28	0.1274	7	6	sandy silt to clayey silt
6.775	18.40	0.1248	7	6	sandy silt to clayey silt
6.843	19.53	0.1069	7	6	sandy silt to clayey silt
6.900	20.09	0.0915	6	7	silty sand to sandy silt
6.963	20.54	0.0833	7	7	silty sand to sandy silt
7.047	21.33	0.0836	7	7	silty sand to sandy silt
7.090	21.67	0.0863	7	7	silty sand to sandy silt
7.158	22.58	0.0940	7	7	silty sand to sandy silt
7.221	22.81	0.0999	7	7	silty sand to sandy silt
7.289	23.48	0.1003	7	7	silty sand to sandy silt
7.356	24.61	0.0977	8	7	silty sand to sandy silt
7.428	25.40	0.0959	8	7	silty sand to sandy silt
7.481	25.97	0.0951	8	7	silty sand to sandy silt
7.563	26.08	0.0932	8	7	silty sand to sandy silt
7.626	26.08	0.0961	8	7	silty sand to sandy silt
7.681	25.74	0.1072	8	7	silty sand to sandy silt
7.744	24.50	0.1173	8	7	silty sand to sandy silt
7.812	23.49	0.1173	7	7	silty sand to sandy silt
7.885	22.69	0.1182	7	7	silty sand to sandy silt
7.951	21.34	0.1182	7	7	silty sand to sandy silt
8.008	20.21	0.1173	8	6	sandy silt to clayey silt
8.088	19.19	0.1134	7	6	sandy silt to clayey silt
8.153	18.74	0.0913	7	6	sandy silt to clayey silt
8.203	18.06	0.0826	7	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 19.497 ft
SITE: B-427

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.294	18.06	0.0826	7	6	sandy silt to clayey silt
8.348	18.06	0.0861	7	6	sandy silt to clayey silt
8.406	17.38	0.0913	7	6	sandy silt to clayey silt
8.467	17.50	0.0980	7	6	sandy silt to clayey silt
8.539	17.50	0.1070	7	6	sandy silt to clayey silt
8.599	18.29	0.1143	7	6	sandy silt to clayey silt
8.681	18.74	0.1231	7	6	sandy silt to clayey silt
8.727	19.42	0.1298	7	6	sandy silt to clayey silt
8.801	20.55	0.1412	8	6	sandy silt to clayey silt
8.861	21.68	0.1485	8	6	sandy silt to clayey silt
8.938	23.60	0.1571	8	7	silty sand to sandy silt
8.998	24.84	0.1638	8	7	silty sand to sandy silt
9.063	26.08	0.1717	8	7	silty sand to sandy silt
9.129	27.77	0.1788	9	7	silty sand to sandy silt
9.187	28.90	0.1843	9	7	silty sand to sandy silt
9.262	29.80	0.1974	10	7	silty sand to sandy silt
9.335	30.82	0.2108	10	7	silty sand to sandy silt
9.396	31.38	0.2223	10	7	silty sand to sandy silt
9.466	31.84	0.2315	10	7	silty sand to sandy silt
9.527	31.83	0.2361	10	7	silty sand to sandy silt
9.587	31.38	0.2387	10	7	silty sand to sandy silt
9.652	30.70	0.2388	10	7	silty sand to sandy silt
9.712	30.36	0.2272	10	7	silty sand to sandy silt
9.790	30.65	0.2045	10	7	silty sand to sandy silt
9.862	30.26	0.2137	10	7	silty sand to sandy silt
9.910	30.59	0.2188	10	7	silty sand to sandy silt
9.981	31.61	0.2224	10	7	silty sand to sandy silt
10.066	32.85	0.2236	10	7	silty sand to sandy silt
10.111	34.20	0.2267	11	7	silty sand to sandy silt
10.181	37.02	0.2365	12	7	silty sand to sandy silt
10.249	39.85	0.2520	13	7	silty sand to sandy silt
10.308	42.78	0.2703	14	7	silty sand to sandy silt
10.387	46.28	0.3024	15	7	silty sand to sandy silt
10.448	47.75	0.3317	15	7	silty sand to sandy silt
10.520	47.64	0.3454	15	7	silty sand to sandy silt
10.568	46.96	0.3447	15	7	silty sand to sandy silt
10.637	47.47	0.3414	15	7	silty sand to sandy silt
10.740	45.95	0.3234	15	7	silty sand to sandy silt
10.768	47.30	0.3115	15	7	silty sand to sandy silt
10.835	50.12	0.2852	12	8	sand to silty sand
10.900	54.86	0.2698	13	8	sand to silty sand
10.968	58.70	0.2702	14	8	sand to silty sand
11.025	62.08	0.2703	15	8	sand to silty sand
11.093	64.79	0.2798	16	8	sand to silty sand
11.171	68.29	0.3031	16	8	sand to silty sand
11.223	70.10	0.3144	17	8	sand to silty sand
11.316	71.68	0.3339	17	8	sand to silty sand
11.362	72.02	0.3419	17	8	sand to silty sand
11.429	73.94	0.3558	18	8	sand to silty sand
11.490	75.63	0.3730	18	8	sand to silty sand
11.558	79.13	0.3900	19	8	sand to silty sand
11.625	83.99	0.4033	20	8	sand to silty sand
11.702	87.94	0.4143	21	8	sand to silty sand
11.752	92.45	0.4253	22	8	sand to silty sand
11.836	99.22	0.4545	24	8	sand to silty sand
11.888	103.62	0.4678	20	9	sand
11.965	107.35	0.5113	21	9	sand
12.034	108.25	0.5525	21	9	sand
12.087	107.35	0.5713	26	8	sand to silty sand
12.148	105.31	0.5844	25	8	sand to silty sand
12.209	102.16	0.5829	24	8	sand to silty sand
12.277	95.95	0.5740	23	8	sand to silty sand
12.340	87.94	0.5678	21	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 19.497 ft
SITE: B-427

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.405	82.07	0.5489	20	8	sand to silty	sand
12.468	79.02	0.5218	19	8	sand to silty	sand
12.543	76.08	0.5037	18	8	sand to silty	sand
12.610	73.71	0.4969	18	8	sand to silty	sand
12.677	69.66	0.5023	17	8	sand to silty	sand
12.738	67.17	0.5018	16	8	sand to silty	sand
12.797	65.59	0.5015	16	8	sand to silty	sand
12.868	65.03	0.5010	16	8	sand to silty	sand
12.952	65.03	0.4439	16	8	sand to silty	sand
13.000	65.03	0.4305	16	8	sand to silty	sand
13.062	65.03	0.4455	16	8	sand to silty	sand
13.143	65.14	0.4683	16	8	sand to silty	sand
13.191	63.56	0.4782	15	8	sand to silty	sand
13.265	60.17	0.4932	14	8	sand to silty	sand
13.324	59.83	0.5011	14	8	sand to silty	sand
13.395	59.27	0.5019	14	8	sand to silty	sand
13.453	59.27	0.4993	14	8	sand to silty	sand
13.539	59.60	0.5013	14	8	sand to silty	sand
13.587	60.51	0.5101	14	8	sand to silty	sand
13.665	62.54	0.5281	15	8	sand to silty	sand
13.730	64.35	0.5445	15	8	sand to silty	sand
13.785	66.38	0.5539	16	8	sand to silty	sand
13.849	68.86	0.5695	16	8	sand to silty	sand
13.912	71.57	0.5973	17	8	sand to silty	sand
14.012	76.76	0.6655	18	8	sand to silty	sand
14.055	79.14	0.6830	19	8	sand to silty	sand
14.114	81.16	0.6989	19	8	sand to silty	sand
14.195	79.92	0.7124	19	8	sand to silty	sand
14.260	78.01	0.7109	19	8	sand to silty	sand
14.314	76.54	0.7034	18	8	sand to silty	sand
14.370	76.54	0.6886	18	8	sand to silty	sand
14.441	76.54	0.6599	18	8	sand to silty	sand
14.513	76.54	0.6613	18	8	sand to silty	sand
14.571	76.54	0.6743	18	8	sand to silty	sand
14.647	77.90	0.6933	19	8	sand to silty	sand
14.720	79.81	0.7121	19	8	sand to silty	sand
14.782	81.62	0.7342	20	8	sand to silty	sand
14.840	83.65	0.7520	20	8	sand to silty	sand
14.918	86.58	0.7720	21	8	sand to silty	sand
14.986	88.73	0.7866	21	8	sand to silty	sand
15.027	90.31	0.7930	22	8	sand to silty	sand
15.094	94.04	0.8035	23	8	sand to silty	sand
15.176	98.78	0.8292	24	8	sand to silty	sand
15.256	103.97	0.8698	25	8	sand to silty	sand
15.290	106.79	0.8897	26	8	sand to silty	sand
15.369	112.44	0.9410	27	8	sand to silty	sand
15.423	116.05	0.9822	28	8	sand to silty	sand
15.512	120.68	1.0516	29	8	sand to silty	sand
15.568	124.40	1.0942	30	8	sand to silty	sand
15.627	128.80	1.1495	31	8	sand to silty	sand
15.705	136.70	1.2268	33	8	sand to silty	sand
15.750	141.22	1.2691	34	8	sand to silty	sand
15.822	147.54	1.3607	35	8	sand to silty	sand
15.881	152.17	1.4271	29	9	sand	
15.952	157.70	1.4829	30	9	sand	
16.013	160.64	1.5670	31	9	sand	
16.084	163.57	1.6687	31	9	sand	
16.142	169.67	1.5946	32	9	sand	
16.233	178.25	1.6478	34	9	sand	
16.282	186.95	1.8072	36	9	sand	
16.347	200.05	1.6977	38	9	sand	
16.417	222.61	1.8840	43	9	sand	
16.483	238.07	2.2584	46	9	sand	

SOUNDING

TOTAL DEPTH: 19.497 ft
SITE: B-427

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.548	274.40	2.5683	53	9	sand
16.613	299.02	3.2090	57	9	sand
16.677	327.77	3.5970	63	9	sand
16.747	348.51	3.4115	67	9	sand
16.814	361.27	3.0182	69	9	sand
16.871	345.35	3.0797	66	9	sand
16.935	339.83	3.2186	65	9	sand
17.016	349.57	2.9337	67	9	sand
17.068	340.42	3.0158	65	9	sand
17.141	345.83	3.0469	66	9	sand
17.208	344.58	3.0284	66	9	sand
17.279	354.97	2.7028	68	9	sand
17.323	329.92	2.5212	63	9	sand
17.399	279.69	2.5162	54	9	sand
17.468	257.79	2.5724	49	9	sand
17.539	229.81	3.0380	44	9	sand
17.594	195.50	3.4442	47	8	sand to silty sand
17.664	142.80	4.0159	46	7	silty sand to sandy silt
17.736	122.49	4.1721	47	6	sandy silt to clayey silt
17.789	81.65	3.6110	39	5	clayey silt to silty clay
17.849	70.17	2.8916	34	5	clayey silt to silty clay
17.925	64.40	2.1733	25	6	sandy silt to clayey silt
17.992	67.13	1.6578	26	6	sandy silt to clayey silt
18.049	89.27	1.5016	28	7	silty sand to sandy silt
18.111	138.98	1.5503	33	8	sand to silty sand
18.180	186.54	2.0029	36	9	sand
18.269	174.45	2.7038	42	8	sand to silty sand
18.311	154.91	3.0673	49	7	silty sand to sandy silt
18.391	120.58	3.0227	38	7	silty sand to sandy silt
18.460	86.50	2.4699	33	6	sandy silt to clayey silt
18.513	74.32	2.1765	28	6	sandy silt to clayey silt
18.604	82.89	2.2730	32	6	sandy silt to clayey silt
18.637	101.42	2.2884	32	7	silty sand to sandy silt
18.703	140.03	2.1753	34	8	sand to silty sand
18.777	206.50	1.9845	40	9	sand
18.836	243.21	1.8621	47	9	sand
18.914	270.71	1.6077	52	9	sand
18.985	292.71	1.4468	47	10	gravelly sand to sand
19.035	306.25	1.4014	49	10	gravelly sand to sand
19.103	321.82	1.3497	51	10	gravelly sand to sand
19.176	336.04	1.3385	54	10	gravelly sand to sand
19.232	332.53	0.0000	0	0	<out of range>
19.297	344.94	0.0000	0	0	<out of range>
19.366	362.66	0.0000	0	0	<out of range>
19.424	369.88	0.0000	0	0	<out of range>
19.497	373.83	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 12.083 ft
SITE: B-428

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0779	0	0	<out of range>
0.066	10.44	0.1046	5	5	clayey silt to silty clay
0.142	13.26	0.1256	5	6	sandy silt to clayey silt
0.218	14.74	0.1687	6	6	sandy silt to clayey silt
0.266	16.20	0.1904	6	6	sandy silt to clayey silt
0.356	20.85	0.1956	8	6	sandy silt to clayey silt
0.396	22.55	0.1956	9	6	sandy silt to clayey silt
0.465	27.64	0.1956	9	7	silty sand to sandy silt
0.536	27.30	0.2361	9	7	silty sand to sandy silt
0.603	27.98	0.2872	9	7	silty sand to sandy silt
0.670	30.23	0.2763	10	7	silty sand to sandy silt
0.744	30.14	0.2587	10	7	silty sand to sandy silt
0.800	32.17	0.2696	10	7	silty sand to sandy silt
0.857	31.38	0.3175	10	7	silty sand to sandy silt
0.920	32.28	0.3521	10	7	silty sand to sandy silt
0.989	31.25	0.3036	10	7	silty sand to sandy silt
1.052	32.38	0.2796	10	7	silty sand to sandy silt
1.130	30.35	0.2277	10	7	silty sand to sandy silt
1.185	29.44	0.2757	9	7	silty sand to sandy silt
1.279	29.22	0.3801	11	6	sandy silt to clayey silt
1.321	28.08	0.3877	11	6	sandy silt to clayey silt
1.390	26.27	0.3619	10	6	sandy silt to clayey silt
1.449	23.89	0.3467	9	6	sandy silt to clayey silt
1.515	18.46	0.3456	7	6	sandy silt to clayey silt
1.594	15.53	0.4833	10	4	silty clay to clay
1.660	16.42	0.5965	10	4	silty clay to clay
1.714	16.19	0.6608	16	3	clay
1.781	16.65	0.6894	16	3	clay
1.848	18.12	0.6603	12	4	silty clay to clay
1.903	19.71	0.5991	9	5	clayey silt to silty clay
1.995	25.14	0.5593	10	6	sandy silt to clayey silt
2.048	26.96	0.5261	10	6	sandy silt to clayey silt
2.132	32.27	0.5414	12	6	sandy silt to clayey silt
2.189	35.78	0.5249	11	7	silty sand to sandy silt
2.240	36.80	0.5232	12	7	silty sand to sandy silt
2.323	35.56	0.3887	11	7	silty sand to sandy silt
2.380	35.44	0.4532	11	7	silty sand to sandy silt
2.431	33.86	0.6512	13	6	sandy silt to clayey silt
2.494	34.65	0.8670	13	6	sandy silt to clayey silt
2.564	37.59	0.8798	14	6	sandy silt to clayey silt
2.632	43.82	0.8076	17	6	sandy silt to clayey silt
2.697	39.93	0.8356	15	6	sandy silt to clayey silt
2.761	33.99	0.8418	13	6	sandy silt to clayey silt
2.832	28.09	0.7003	11	6	sandy silt to clayey silt
2.902	27.18	0.4308	10	6	sandy silt to clayey silt
2.957	26.50	0.3048	10	6	sandy silt to clayey silt
3.038	25.48	0.3087	10	6	sandy silt to clayey silt
3.101	24.91	0.4150	10	6	sandy silt to clayey silt
3.156	24.46	0.4920	9	6	sandy silt to clayey silt
3.221	24.12	0.4318	9	6	sandy silt to clayey silt
3.295	24.57	0.3255	9	6	sandy silt to clayey silt
3.359	29.32	0.3212	9	7	silty sand to sandy silt
3.432	32.83	0.3621	10	7	silty sand to sandy silt
3.486	41.55	0.3343	13	7	silty sand to sandy silt
3.559	43.48	0.2976	14	7	silty sand to sandy silt
3.615	46.19	0.2746	15	7	silty sand to sandy silt
3.689	27.75	0.2689	9	7	silty sand to sandy silt
3.743	33.30	0.2830	11	7	silty sand to sandy silt
3.807	29.44	0.3292	9	7	silty sand to sandy silt
3.898	28.43	0.3877	11	6	sandy silt to clayey silt
3.952	29.34	0.3411	11	6	sandy silt to clayey silt
4.005	30.81	0.3001	10	7	silty sand to sandy silt
4.087	33.52	0.2939	11	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 12.083 ft
SITE: B-428

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.145	36.81	0.2428	12	7	silty sand to sandy silt
4.201	37.03	0.1965	12	7	silty sand to sandy silt
4.276	41.11	0.2293	13	7	silty sand to sandy silt
4.336	39.42	0.2657	13	7	silty sand to sandy silt
4.399	38.16	0.2769	12	7	silty sand to sandy silt
4.472	35.10	0.2769	11	7	silty sand to sandy silt
4.533	33.41	0.2602	11	7	silty sand to sandy silt
4.594	33.86	0.2313	11	7	silty sand to sandy silt
4.660	32.96	0.2329	11	7	silty sand to sandy silt
4.733	34.31	0.2341	11	7	silty sand to sandy silt
4.807	30.24	0.2256	10	7	silty sand to sandy silt
4.865	28.99	0.2235	9	7	silty sand to sandy silt
4.931	27.40	0.2267	9	7	silty sand to sandy silt
4.998	25.82	0.1802	8	7	silty sand to sandy silt
5.060	24.12	0.1522	8	7	silty sand to sandy silt
5.143	22.31	0.1647	9	6	sandy silt to clayey silt
5.198	22.32	0.1700	9	6	sandy silt to clayey silt
5.251	22.31	0.1642	9	6	sandy silt to clayey silt
5.330	22.31	0.1628	9	6	sandy silt to clayey silt
5.391	22.31	0.1703	9	6	sandy silt to clayey silt
5.472	22.67	0.1898	9	6	sandy silt to clayey silt
5.514	22.88	0.1978	9	6	sandy silt to clayey silt
5.578	24.01	0.2111	9	6	sandy silt to clayey silt
5.656	25.71	0.2331	8	7	silty sand to sandy silt
5.728	27.52	0.2537	9	7	silty sand to sandy silt
5.776	29.67	0.2675	9	7	silty sand to sandy silt
5.845	32.62	0.2878	10	7	silty sand to sandy silt
5.921	36.69	0.3085	12	7	silty sand to sandy silt
5.986	44.17	0.3243	14	7	silty sand to sandy silt
6.058	50.74	0.3457	16	7	silty sand to sandy silt
6.112	56.97	0.3639	14	8	sand to silty sand
6.197	65.35	0.3943	16	8	sand to silty sand
6.239	69.53	0.4061	17	8	sand to silty sand
6.306	74.74	0.4273	18	8	sand to silty sand
6.375	79.83	0.4590	19	8	sand to silty sand
6.444	81.87	0.4895	20	8	sand to silty sand
6.497	82.89	0.5071	20	8	sand to silty sand
6.589	83.57	0.4502	20	8	sand to silty sand
6.634	83.91	0.4073	20	8	sand to silty sand
6.694	84.02	0.4081	20	8	sand to silty sand
6.759	83.81	0.4258	20	8	sand to silty sand
6.832	80.75	0.4267	19	8	sand to silty sand
6.916	64.67	0.4602	15	8	sand to silty sand
6.981	71.57	0.4262	17	8	sand to silty sand
7.030	70.10	0.4215	17	8	sand to silty sand
7.109	66.93	0.4190	16	8	sand to silty sand
7.172	63.65	0.4049	15	8	sand to silty sand
7.222	61.73	0.3926	15	8	sand to silty sand
7.289	57.42	0.3716	14	8	sand to silty sand
7.366	52.21	0.3357	13	8	sand to silty sand
7.416	49.38	0.3059	12	8	sand to silty sand
7.498	43.27	0.2617	14	7	silty sand to sandy silt
7.557	39.98	0.2632	13	7	silty sand to sandy silt
7.612	39.93	0.2734	13	7	silty sand to sandy silt
7.681	39.93	0.2714	13	7	silty sand to sandy silt
7.753	39.87	0.2900	13	7	silty sand to sandy silt
7.823	43.15	0.3356	14	7	silty sand to sandy silt
7.874	45.76	0.3698	15	7	silty sand to sandy silt
7.941	50.40	0.4176	16	7	silty sand to sandy silt
8.021	55.39	0.4592	18	7	silty sand to sandy silt
8.088	57.89	0.4891	18	7	silty sand to sandy silt
8.138	59.81	0.5329	19	7	silty sand to sandy silt
8.216	64.80	0.6198	16	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 12.083 ft
SITE: B-428

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.282	71.60	0.7037	17	8	sand to silty sand
8.364	70.24	0.8723	22	7	silty sand to sandy silt
8.406	64.80	0.9148	21	7	silty sand to sandy silt
8.473	55.84	0.9234	18	7	silty sand to sandy silt
8.547	44.18	0.9048	17	6	sandy silt to clayey silt
8.615	37.17	0.9336	14	6	sandy silt to clayey silt
8.669	36.65	0.9486	14	6	sandy silt to clayey silt
8.743	39.74	0.9087	15	6	sandy silt to clayey silt
8.806	38.49	0.8708	15	6	sandy silt to clayey silt
8.860	38.94	0.8581	15	6	sandy silt to clayey silt
8.928	48.34	0.8398	15	7	silty sand to sandy silt
8.995	61.83	0.7862	20	7	silty sand to sandy silt
9.063	73.32	0.7881	18	8	sand to silty sand
9.145	88.49	0.9178	21	8	sand to silty sand
9.192	112.38	1.0412	27	8	sand to silty sand
9.279	137.82	1.1317	26	9	sand
9.337	154.10	1.2896	30	9	sand
9.395	174.93	1.4246	34	9	sand
9.465	188.41	1.5211	36	9	sand
9.527	192.82	1.5497	37	9	sand
9.585	202.46	1.5882	39	9	sand
9.647	212.41	1.5729	41	9	sand
9.722	220.92	1.4783	42	9	sand
9.783	231.01	1.5805	44	9	sand
9.846	237.47	1.7037	45	9	sand
9.911	244.14	1.6913	47	9	sand
10.005	248.80	1.5742	48	9	sand
10.055	250.73	1.6142	48	9	sand
10.113	251.20	1.7103	48	9	sand
10.176	251.63	1.8113	48	9	sand
10.250	259.57	1.8921	50	9	sand
10.310	262.99	1.9464	50	9	sand
10.377	265.94	1.9973	51	9	sand
10.447	266.39	2.0240	51	9	sand
10.501	266.62	2.0194	51	9	sand
10.573	268.32	2.0194	51	9	sand
10.640	270.36	2.0255	52	9	sand
10.725	274.09	2.1413	52	9	sand
10.763	276.02	2.2124	53	9	sand
10.836	276.47	2.3396	53	9	sand
10.925	273.87	2.4337	52	9	sand
10.965	272.17	2.4677	52	9	sand
11.027	270.14	2.5346	52	9	sand
11.111	266.95	2.6155	51	9	sand
11.170	266.83	2.6306	51	9	sand
11.234	268.28	2.5080	51	9	sand
11.297	270.77	2.5003	52	9	sand
11.367	279.48	2.9287	54	9	sand
11.459	300.54	3.2533	58	9	sand
11.506	306.10	3.5170	59	9	sand
11.557	319.31	3.4743	61	9	sand
11.618	333.01	3.1665	64	9	sand
11.689	335.79	2.7066	64	9	sand
11.750	308.30	2.3152	59	9	sand
11.819	319.02	0.0000	0	0	<out of range>
11.892	320.34	0.0000	0	0	<out of range>
11.945	316.63	0.0000	0	0	<out of range>
12.031	349.35	0.0000	0	0	<out of range>
12.083	353.85	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 15.948 ft
 SITE: B-429

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.11	0.1692	0	0	<out of range>
0.082	16.52	0.2077	6	6	sandy silt to clayey silt
0.145	17.88	0.2442	7	6	sandy silt to clayey silt
0.201	16.53	0.2863	8	5	clayey silt to silty clay
0.268	16.52	0.3658	8	5	clayey silt to silty clay
0.335	18.78	0.4614	9	5	clayey silt to silty clay
0.399	20.59	0.4777	10	5	clayey silt to silty clay
0.462	20.37	0.4585	10	5	clayey silt to silty clay
0.533	21.72	0.4908	10	5	clayey silt to silty clay
0.610	23.64	0.5328	9	6	sandy silt to clayey silt
0.671	23.63	0.5564	11	5	clayey silt to silty clay
0.724	22.61	0.5567	11	5	clayey silt to silty clay
0.801	19.33	0.6444	9	5	clayey silt to silty clay
0.867	17.40	0.7280	17	3	clay
0.932	17.19	0.7525	16	3	clay
0.995	19.79	0.8036	13	4	silty clay to clay
1.054	23.87	0.8725	15	4	silty clay to clay
1.124	19.67	0.9780	19	3	clay
1.200	18.83	1.0422	18	3	clay
1.253	19.47	1.0437	19	3	clay
1.332	21.64	1.0130	21	3	clay
1.391	24.13	1.0146	15	4	silty clay to clay
1.447	26.29	1.0158	17	4	silty clay to clay
1.538	32.70	1.0177	16	5	clayey silt to silty clay
1.576	35.53	1.0206	14	6	sandy silt to clayey silt
1.648	41.08	1.0070	16	6	sandy silt to clayey silt
1.708	44.47	0.9017	17	6	sandy silt to clayey silt
1.786	50.81	0.7911	16	7	silty sand to sandy silt
1.867	57.95	0.8051	18	7	silty sand to sandy silt
1.922	60.32	0.9826	19	7	silty sand to sandy silt
1.973	59.75	1.0277	19	7	silty sand to sandy silt
2.064	66.88	0.8430	21	7	silty sand to sandy silt
2.104	70.72	0.7990	23	7	silty sand to sandy silt
2.166	68.12	0.7745	22	7	silty sand to sandy silt
2.242	64.49	0.8332	21	7	silty sand to sandy silt
2.298	64.95	0.9026	21	7	silty sand to sandy silt
2.371	64.85	0.9694	21	7	silty sand to sandy silt
2.449	65.64	0.9745	21	7	silty sand to sandy silt
2.507	66.79	1.2154	21	7	silty sand to sandy silt
2.584	64.11	1.5212	25	6	sandy silt to clayey silt
2.645	68.03	1.4354	22	7	silty sand to sandy silt
2.698	62.93	1.4937	24	6	sandy silt to clayey silt
2.771	69.60	1.9792	27	6	sandy silt to clayey silt
2.836	70.97	2.3929	27	6	sandy silt to clayey silt
2.899	83.89	2.4150	32	6	sandy silt to clayey silt
2.955	97.80	2.1888	31	7	silty sand to sandy silt
3.026	87.02	1.9675	28	7	silty sand to sandy silt
3.095	68.92	2.1052	26	6	sandy silt to clayey silt
3.164	55.45	1.8622	27	5	clayey silt to silty clay
3.221	56.81	1.3584	22	6	sandy silt to clayey silt
3.297	53.87	0.7461	17	7	silty sand to sandy silt
3.352	48.89	0.3926	16	7	silty sand to sandy silt
3.421	41.20	0.3524	13	7	silty sand to sandy silt
3.501	39.28	0.2994	13	7	silty sand to sandy silt
3.553	38.71	0.2555	12	7	silty sand to sandy silt
3.634	34.07	0.2790	11	7	silty sand to sandy silt
3.678	31.24	0.3785	10	7	silty sand to sandy silt
3.750	29.09	0.5306	11	6	sandy silt to clayey silt
3.848	36.68	0.4987	12	7	silty sand to sandy silt
3.875	41.20	0.4963	13	7	silty sand to sandy silt
3.949	43.13	0.4845	14	7	silty sand to sandy silt
4.013	37.94	0.4609	12	7	silty sand to sandy silt
4.076	36.68	0.4717	12	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 15.948 ft
SITE: B-429

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.142	35.33	0.4282	11	7	silty sand to sandy silt
4.232	34.76	0.3501	11	7	silty sand to sandy silt
4.289	34.75	0.3288	11	7	silty sand to sandy silt
4.334	34.53	0.3101	11	7	silty sand to sandy silt
4.402	33.28	0.2723	11	7	silty sand to sandy silt
4.474	31.47	0.2393	10	7	silty sand to sandy silt
4.545	30.33	0.2124	10	7	silty sand to sandy silt
4.598	29.99	0.1914	10	7	silty sand to sandy silt
4.671	30.45	0.1932	10	7	silty sand to sandy silt
4.726	30.90	0.2022	10	7	silty sand to sandy silt
4.811	30.56	0.2021	10	7	silty sand to sandy silt
4.863	30.84	0.2115	10	7	silty sand to sandy silt
4.930	30.33	0.2328	10	7	silty sand to sandy silt
4.992	30.78	0.2396	10	7	silty sand to sandy silt
5.074	30.68	0.2450	10	7	silty sand to sandy silt
5.136	31.69	0.2609	10	7	silty sand to sandy silt
5.199	31.69	0.2640	10	7	silty sand to sandy silt
5.251	32.37	0.2788	10	7	silty sand to sandy silt
5.341	33.95	0.2948	11	7	silty sand to sandy silt
5.393	34.52	0.2949	11	7	silty sand to sandy silt
5.452	33.16	0.2868	11	7	silty sand to sandy silt
5.514	32.48	0.2623	10	7	silty sand to sandy silt
5.582	31.24	0.2544	10	7	silty sand to sandy silt
5.650	31.02	0.2740	10	7	silty sand to sandy silt
5.726	31.58	0.3038	10	7	silty sand to sandy silt
5.788	31.70	0.2973	10	7	silty sand to sandy silt
5.854	30.90	0.3143	10	7	silty sand to sandy silt
5.913	29.65	0.3248	9	7	silty sand to sandy silt
6.011	28.07	0.3429	11	6	sandy silt to clayey silt
6.060	27.05	0.3284	10	6	sandy silt to clayey silt
6.107	26.60	0.3055	10	6	sandy silt to clayey silt
6.188	25.46	0.2696	10	6	sandy silt to clayey silt
6.255	24.45	0.2647	9	6	sandy silt to clayey silt
6.300	24.11	0.2672	9	6	sandy silt to clayey silt
6.366	25.12	0.2605	10	6	sandy silt to clayey silt
6.445	25.81	0.2399	8	7	silty sand to sandy silt
6.508	29.08	0.2324	9	7	silty sand to sandy silt
6.581	31.80	0.2097	10	7	silty sand to sandy silt
6.640	33.39	0.2005	11	7	silty sand to sandy silt
6.701	34.06	0.2005	11	7	silty sand to sandy silt
6.783	33.95	0.2005	11	7	silty sand to sandy silt
6.833	34.63	0.2172	11	7	silty sand to sandy silt
6.894	38.03	0.2720	12	7	silty sand to sandy silt
6.965	38.93	0.3938	12	7	silty sand to sandy silt
7.067	54.21	0.5520	17	7	silty sand to sandy silt
7.099	60.77	0.5555	19	7	silty sand to sandy silt
7.163	71.07	0.5816	17	8	sand to silty sand
7.233	86.46	0.6289	21	8	sand to silty sand
7.294	92.81	0.6781	22	8	sand to silty sand
7.360	100.63	0.7399	24	8	sand to silty sand
7.420	108.32	0.8553	26	8	sand to silty sand
7.507	118.62	2.2538	38	7	silty sand to sandy silt
7.549	123.38	2.8746	39	7	silty sand to sandy silt
7.631	129.94	2.5396	41	7	silty sand to sandy silt
7.692	135.36	1.7638	32	8	sand to silty sand
7.744	145.66	1.8763	35	8	sand to silty sand
7.818	182.55	1.8795	35	9	sand
7.888	211.41	1.8547	40	9	sand
7.966	217.52	1.8023	42	9	sand
8.031	212.42	1.9170	41	9	sand
8.075	174.07	1.9533	42	8	sand to silty sand
8.161	129.28	1.9683	31	8	sand to silty sand
8.224	130.52	1.8804	31	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 15.948 ft
SITE: B-429

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.274	125.06	1.5346	30	8	sand to silty sand
8.337	117.48	1.0381	28	8	sand to silty sand
8.401	112.62	0.8521	27	8	sand to silty sand
8.465	110.36	0.8273	26	8	sand to silty sand
8.541	105.39	0.9299	25	8	sand to silty sand
8.606	101.20	1.0239	24	8	sand to silty sand
8.680	97.69	1.1313	23	8	sand to silty sand
8.751	87.51	1.0694	21	8	sand to silty sand
8.802	82.65	1.0498	26	7	silty sand to sandy silt
8.896	81.54	1.0612	26	7	silty sand to sandy silt
8.945	83.26	1.1489	27	7	silty sand to sandy silt
8.990	83.01	1.2573	26	7	silty sand to sandy silt
9.063	75.05	1.4385	24	7	silty sand to sandy silt
9.128	67.50	1.5391	26	6	sandy silt to clayey silt
9.197	63.18	1.6279	24	6	sandy silt to clayey silt
9.269	55.77	1.5379	21	6	sandy silt to clayey silt
9.325	51.02	1.3770	20	6	sandy silt to clayey silt
9.393	60.52	1.2678	23	6	sandy silt to clayey silt
9.466	83.33	1.3649	27	7	silty sand to sandy silt
9.518	100.16	1.3785	24	8	sand to silty sand
9.591	122.69	1.3466	29	8	sand to silty sand
9.661	127.21	1.3388	30	8	sand to silty sand
9.713	137.17	1.3310	33	8	sand to silty sand
9.781	136.15	1.3200	33	8	sand to silty sand
9.846	144.52	1.2377	28	9	sand
9.937	156.41	1.1026	30	9	sand
10.000	157.54	1.1437	30	9	sand
10.048	164.33	1.1944	31	9	sand
10.126	164.91	1.2694	32	9	sand
10.175	146.12	1.3065	28	9	sand
10.247	171.59	1.2930	33	9	sand
10.313	179.28	1.2510	34	9	sand
10.381	190.70	1.3280	37	9	sand
10.434	204.29	1.4054	39	9	sand
10.513	224.43	1.5142	43	9	sand
10.576	242.20	1.5984	46	9	sand
10.634	260.76	1.7267	50	9	sand
10.723	279.54	1.9242	54	9	sand
10.775	292.32	2.0379	56	9	sand
10.833	298.89	2.2968	57	9	sand
10.896	306.37	2.5678	59	9	sand
10.961	312.71	2.5836	60	9	sand
11.035	323.12	2.6487	62	9	sand
11.107	320.63	2.7193	61	9	sand
11.159	320.41	2.7177	61	9	sand
11.255	326.41	2.7884	63	9	sand
11.288	330.47	2.8556	63	9	sand
11.365	340.53	2.4367	65	9	sand
11.437	350.95	2.3611	56	10	gravelly sand to sand
11.493	358.20	2.4626	57	10	gravelly sand to sand
11.585	358.40	2.8361	69	9	sand
11.640	362.64	2.8843	69	9	sand
11.684	364.11	2.8702	70	9	sand
11.764	371.90	2.8445	71	9	sand
11.829	356.50	2.9860	68	9	sand
11.885	358.54	3.1130	69	9	sand
11.946	359.00	3.1466	69	9	sand
12.015	366.33	3.1781	70	9	sand
12.081	350.15	3.2094	67	9	sand
12.156	341.00	3.2683	65	9	sand
12.214	338.96	3.1312	65	9	sand
12.288	332.85	2.7752	64	9	sand
12.359	321.41	2.7063	62	9	sand

SOUNDING

TOTAL DEPTH: 15.948 ft
SITE: B-429

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.404	318.24	2.6902	61	9	sand	
12.477	312.57	2.5398	60	9	sand	
12.541	310.76	2.3936	60	9	sand	
12.603	312.35	2.2534	60	9	sand	
12.689	311.67	2.1932	60	9	sand	
12.742	300.42	2.1821	58	9	sand	
12.814	291.26	2.2593	56	9	sand	
12.870	304.16	2.3575	58	9	sand	
12.941	306.65	2.3802	59	9	sand	
13.003	295.08	2.4338	57	9	sand	
13.068	292.80	2.4642	56	9	sand	
13.155	290.05	2.4692	56	9	sand	
13.194	288.82	2.4721	55	9	sand	
13.270	282.26	2.4903	54	9	sand	
13.324	285.70	2.5308	55	9	sand	
13.392	273.82	2.6313	52	9	sand	
13.472	265.40	2.9155	51	9	sand	
13.537	267.44	2.5680	51	9	sand	
13.594	275.93	2.3304	53	9	sand	
13.680	264.16	2.1723	51	9	sand	
13.728	257.36	2.1091	49	9	sand	
13.782	236.31	2.0466	45	9	sand	
13.848	234.61	1.9512	45	9	sand	
13.920	237.55	1.8138	45	9	sand	
13.977	234.49	1.7605	45	9	sand	
14.066	238.68	1.6510	46	9	sand	
14.112	238.23	1.6084	46	9	sand	
14.184	238.91	1.5392	46	9	sand	
14.260	238.01	1.5262	46	9	sand	
14.315	235.52	1.6051	45	9	sand	
14.374	233.71	1.6658	45	9	sand	
14.448	232.58	1.6582	45	9	sand	
14.505	234.39	1.6781	45	9	sand	
14.571	231.90	1.9605	44	9	sand	
14.635	223.98	2.1808	43	9	sand	
14.704	224.60	2.3785	43	9	sand	
14.788	225.55	2.8583	43	9	sand	
14.841	225.34	2.8972	43	9	sand	
14.921	236.69	2.8671	45	9	sand	
14.961	247.33	2.9738	47	9	sand	
15.031	202.03	3.1452	48	8	sand to silty sand	
15.106	202.62	3.2721	49	8	sand to silty sand	
15.179	210.32	2.8009	50	8	sand to silty sand	
15.231	199.75	2.0742	38	9	sand	
15.296	189.00	1.8278	36	9	sand	
15.356	188.10	1.7781	36	9	sand	
15.451	188.05	1.6821	36	9	sand	
15.493	188.00	1.8748	36	9	sand	
15.558	194.23	2.3848	37	9	sand	
15.633	203.51	3.2774	49	8	sand to silty sand	
15.693	219.14	0.0000	0	0	<out of range>	
15.752	230.58	0.0000	0	0	<out of range>	
15.817	256.30	0.0000	0	0	<out of range>	
15.898	266.82	0.0000	0	0	<out of range>	
15.948	269.13	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 6.710 ft
SITE: B-430

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.11	0.0622	0	0	<out of range>
0.081	7.25	0.1005	3	5	clayey silt to silty clay
0.139	8.49	0.1243	4	5	clayey silt to silty clay
0.221	11.21	0.2032	5	5	clayey silt to silty clay
0.272	13.36	0.2417	6	5	clayey silt to silty clay
0.339	17.76	0.2716	7	6	sandy silt to clayey silt
0.407	18.32	0.3012	7	6	sandy silt to clayey silt
0.465	19.10	0.3449	7	6	sandy silt to clayey silt
0.530	18.99	0.3920	9	5	clayey silt to silty clay
0.600	18.65	0.4058	9	5	clayey silt to silty clay
0.662	17.52	0.4191	8	5	clayey silt to silty clay
0.737	17.41	0.4111	8	5	clayey silt to silty clay
0.800	18.09	0.3756	9	5	clayey silt to silty clay
0.868	23.62	0.3405	9	6	sandy silt to clayey silt
0.936	18.88	0.4163	9	5	clayey silt to silty clay
0.985	18.44	0.4663	9	5	clayey silt to silty clay
1.075	18.44	0.4743	9	5	clayey silt to silty clay
1.135	18.78	0.4686	9	5	clayey silt to silty clay
1.186	16.40	0.4711	8	5	clayey silt to silty clay
1.255	13.46	0.5201	9	4	silty clay to clay
1.327	13.58	0.5832	13	3	clay
1.380	14.26	0.6147	14	3	clay
1.471	15.51	0.6743	15	3	clay
1.522	16.18	0.7450	15	3	clay
1.594	16.96	0.8610	16	3	clay
1.649	18.55	0.9407	18	3	clay
1.716	18.77	1.0488	18	3	clay
1.787	19.33	1.1599	19	3	clay
1.856	20.92	1.2064	20	3	clay
1.905	21.83	1.1762	21	3	clay
2.000	22.17	0.9934	21	3	clay
2.035	23.53	0.9358	15	4	silty clay to clay
2.107	25.67	0.8296	12	5	clayey silt to silty clay
2.169	28.84	0.7792	14	5	clayey silt to silty clay
2.234	32.00	0.7865	12	6	sandy silt to clayey silt
2.302	32.34	0.7958	12	6	sandy silt to clayey silt
2.370	33.36	0.8029	13	6	sandy silt to clayey silt
2.435	39.81	0.8756	15	6	sandy silt to clayey silt
2.513	40.49	0.9937	16	6	sandy silt to clayey silt
2.574	42.20	1.0705	16	6	sandy silt to clayey silt
2.629	46.16	1.1144	18	6	sandy silt to clayey silt
2.693	51.93	0.9854	17	7	silty sand to sandy silt
2.772	52.95	0.7667	17	7	silty sand to sandy silt
2.827	50.69	0.6887	16	7	silty sand to sandy silt
2.915	44.60	0.5872	14	7	silty sand to sandy silt
2.962	41.76	0.5109	13	7	silty sand to sandy silt
3.034	35.08	0.3950	11	7	silty sand to sandy silt
3.101	30.66	0.3310	10	7	silty sand to sandy silt
3.159	25.34	0.3156	10	6	sandy silt to clayey silt
3.235	22.74	0.3127	9	6	sandy silt to clayey silt
3.288	20.25	0.3095	8	6	sandy silt to clayey silt
3.357	19.00	0.3523	7	6	sandy silt to clayey silt
3.417	20.47	0.4772	10	5	clayey silt to silty clay
3.491	24.89	0.5654	10	6	sandy silt to clayey silt
3.553	39.48	0.5890	13	7	silty sand to sandy silt
3.630	60.42	0.8143	19	7	silty sand to sandy silt
3.681	89.03	0.9536	21	8	sand to silty sand
3.764	132.02	1.1907	32	8	sand to silty sand
3.825	171.40	1.3450	33	9	sand
3.883	217.24	1.5085	42	9	sand
3.945	266.46	1.8151	51	9	sand
4.020	299.27	2.1840	57	9	sand
4.075	324.28	2.4341	62	9	sand

SOUNDING

TOTAL DEPTH: 6.710 ft
SITE: B-430

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.165	331.32	2.8807	63	9	sand	
4.210	331.27	3.1692	63	9	sand	
4.267	331.20	3.4818	63	9	sand	
4.356	312.21	3.9835	60	9	sand	
4.410	296.83	4.2306	71	8	sand to silty sand	
4.496	273.59	4.5966	65	8	sand to silty sand	
4.550	267.70	4.8786	64	8	sand to silty sand	
4.597	263.28	5.1263	63	8	sand to silty sand	
4.677	258.20	5.3869	62	8	sand to silty sand	
4.742	259.08	5.4738	62	8	sand to silty sand	
4.799	259.51	5.6523	83	7	silty sand to sandy silt	
4.870	273.49	6.0860	87	7	silty sand to sandy silt	
4.936	305.58	6.5583	73	8	sand to silty sand	
5.015	332.77	7.1713	80	8	sand to silty sand	
5.082	331.07	7.9691	106	7	silty sand to sandy silt	
5.131	328.24	8.2719	105	7	silty sand to sandy silt	
5.206	312.70	8.3134	150	12	sand to clayey sand (*)	
5.252	296.67	8.4279	142	12	sand to clayey sand (*)	
5.318	279.11	7.8751	134	12	sand to clayey sand (*)	
5.395	273.68	7.2990	87	7	silty sand to sandy silt	
5.458	275.95	7.7411	132	12	sand to clayey sand (*)	
5.512	284.90	7.5498	91	7	silty sand to sandy silt	
5.580	288.14	7.7850	92	7	silty sand to sandy silt	
5.658	274.16	6.7352	88	7	silty sand to sandy silt	
5.737	265.58	5.9729	85	7	silty sand to sandy silt	
5.802	240.37	5.7194	77	7	silty sand to sandy silt	
5.844	228.17	5.5964	73	7	silty sand to sandy silt	
5.927	227.75	5.1638	73	7	silty sand to sandy silt	
5.984	214.82	4.8196	69	7	silty sand to sandy silt	
6.037	223.04	4.6756	71	7	silty sand to sandy silt	
6.118	219.42	4.1718	53	8	sand to silty sand	
6.184	208.00	3.8553	50	8	sand to silty sand	
6.258	207.49	3.7218	50	8	sand to silty sand	
6.321	206.98	3.6179	50	8	sand to silty sand	
6.375	206.47	3.6129	49	8	sand to silty sand	
6.436	205.93	0.0000	0	0	<out of range>	
6.520	214.85	0.0000	0	0	<out of range>	
6.563	206.14	0.0000	0	0	<out of range>	
6.636	188.36	0.0000	0	0	<out of range>	
6.710	191.75	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 11.889 ft
SITE: B-431

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.11	0.0728	0	0	<out of range>
0.070	4.07	0.1017	4	3	clay
0.144	4.75	0.1221	5	3	clay
0.197	5.42	0.1408	5	3	clay
0.278	6.55	0.2958	6	3	clay
0.337	10.39	0.4211	10	3	clay
0.411	13.78	0.4158	9	4	silty clay to clay
0.474	15.47	0.4483	7	5	clayey silt to silty clay
0.530	17.43	0.4880	8	5	clayey silt to silty clay
0.613	14.95	0.4870	10	4	silty clay to clay
0.672	14.49	0.4574	9	4	silty clay to clay
0.724	14.72	0.4044	7	5	clayey silt to silty clay
0.795	13.34	0.3193	6	5	clayey silt to silty clay
0.863	12.33	0.3045	6	5	clayey silt to silty clay
0.931	10.61	0.3040	7	4	silty clay to clay
0.995	10.59	0.3049	7	4	silty clay to clay
1.064	10.56	0.3235	7	4	silty clay to clay
1.137	10.52	0.3291	7	4	silty clay to clay
1.181	10.49	0.3252	7	4	silty clay to clay
1.255	10.94	0.3661	7	4	silty clay to clay
1.313	12.20	0.4402	8	4	silty clay to clay
1.399	17.96	0.4768	9	5	clayey silt to silty clay
1.450	23.49	0.4981	9	6	sandy silt to clayey silt
1.528	25.41	0.4414	10	6	sandy silt to clayey silt
1.592	27.22	0.4643	10	6	sandy silt to clayey silt
1.676	30.49	0.5580	12	6	sandy silt to clayey silt
1.712	31.51	0.5584	12	6	sandy silt to clayey silt
1.774	35.69	0.5590	14	6	sandy silt to clayey silt
1.857	37.39	0.5603	12	7	silty sand to sandy silt
1.927	36.27	0.5217	12	7	silty sand to sandy silt
1.976	38.19	0.5026	12	7	silty sand to sandy silt
2.063	41.24	0.5002	13	7	silty sand to sandy silt
2.100	41.12	0.4991	13	7	silty sand to sandy silt
2.171	41.00	0.4976	13	7	silty sand to sandy silt
2.243	43.48	0.5184	14	7	silty sand to sandy silt
2.309	44.95	0.5826	14	7	silty sand to sandy silt
2.380	47.32	0.6879	15	7	silty sand to sandy silt
2.436	47.32	0.7178	15	7	silty sand to sandy silt
2.502	47.32	0.7536	15	7	silty sand to sandy silt
2.584	45.07	0.7735	14	7	silty sand to sandy silt
2.646	45.18	0.7588	14	7	silty sand to sandy silt
2.700	44.27	0.7381	14	7	silty sand to sandy silt
2.780	45.30	0.6439	14	7	silty sand to sandy silt
2.843	45.64	0.5401	15	7	silty sand to sandy silt
2.892	43.15	0.4608	14	7	silty sand to sandy silt
2.979	42.70	0.3787	14	7	silty sand to sandy silt
3.039	42.70	0.3508	14	7	silty sand to sandy silt
3.121	43.48	0.3077	14	7	silty sand to sandy silt
3.176	45.40	0.2908	14	7	silty sand to sandy silt
3.230	48.34	0.2885	15	7	silty sand to sandy silt
3.305	47.89	0.3242	15	7	silty sand to sandy silt
3.372	50.93	0.3392	16	7	silty sand to sandy silt
3.425	55.67	0.3225	13	8	sand to silty sand
3.498	64.47	0.2695	15	8	sand to silty sand
3.544	68.88	0.2436	16	8	sand to silty sand
3.614	77.01	0.2582	18	8	sand to silty sand
3.678	86.39	0.2653	21	8	sand to silty sand
3.758	95.87	0.2604	18	9	sand
3.822	96.55	0.2849	18	9	sand
3.872	112.13	0.3366	21	9	sand
3.942	123.65	0.3190	24	9	sand
4.010	133.93	0.3989	26	9	sand
4.094	143.64	0.4580	28	9	sand

SOUNDING

TOTAL DEPTH: 11.889 ft
SITE: B-431

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.160	148.50	0.5461	28	9	sand	
4.206	153.58	0.6261	29	9	sand	
4.290	144.44	0.6906	28	9	sand	
4.349	146.13	0.7155	28	9	sand	
4.410	146.25	0.7690	28	9	sand	
4.475	150.54	0.8491	29	9	sand	
4.542	151.55	1.0721	29	9	sand	
4.635	150.71	1.1377	29	9	sand	
4.666	150.80	1.1152	29	9	sand	
4.736	150.88	1.0628	29	9	sand	
4.817	150.66	0.9846	29	9	sand	
4.864	150.44	0.9435	29	9	sand	
4.927	150.21	0.8936	29	9	sand	
4.987	149.98	0.7722	29	9	sand	
5.074	156.41	0.5513	30	9	sand	
5.135	160.36	0.5394	31	9	sand	
5.197	163.30	0.5930	31	9	sand	
5.265	167.71	0.7146	32	9	sand	
5.325	171.32	0.8341	33	9	sand	
5.392	177.65	0.8350	34	9	sand	
5.456	187.81	0.8160	36	9	sand	
5.536	202.72	0.8112	39	9	sand	
5.602	216.83	0.8126	42	9	sand	
5.645	227.22	0.8277	44	9	sand	
5.723	241.12	1.2789	46	9	sand	
5.788	256.03	1.4678	49	9	sand	
5.863	271.38	2.0696	52	9	sand	
5.938	290.79	2.1508	56	9	sand	
5.986	301.19	2.1465	58	9	sand	
6.042	298.53	2.3501	57	9	sand	
6.121	319.06	2.3750	61	9	sand	
6.176	324.05	2.3815	62	9	sand	
6.263	315.12	2.1181	60	9	sand	
6.326	335.56	1.9948	54	10	gravelly sand	to sand
6.372	327.21	2.0279	52	10	gravelly sand	to sand
6.451	337.26	2.1861	54	10	gravelly sand	to sand
6.513	337.26	2.2314	54	10	gravelly sand	to sand
6.569	343.81	2.3186	55	10	gravelly sand	to sand
6.637	334.78	2.2231	64	9	sand	
6.707	329.35	1.8953	53	10	gravelly sand	to sand
6.759	324.77	1.8451	52	10	gravelly sand	to sand
6.825	316.71	2.0290	61	9	sand	
6.901	322.12	2.0498	62	9	sand	
6.973	321.32	2.0495	62	9	sand	
7.035	282.27	1.9616	54	9	sand	
7.108	303.16	1.8604	58	9	sand	
7.156	295.89	1.9658	57	9	sand	
7.229	283.53	2.1112	54	9	sand	
7.302	280.21	2.0904	54	9	sand	
7.357	276.23	2.1475	53	9	sand	
7.422	259.30	2.1127	50	9	sand	
7.492	259.31	2.0064	50	9	sand	
7.549	259.31	1.9747	50	9	sand	
7.622	262.47	1.7493	50	9	sand	
7.688	254.60	1.5318	49	9	sand	
7.749	252.20	1.3859	48	9	sand	
7.822	251.57	1.3264	48	9	sand	
7.883	250.61	1.3221	48	9	sand	
7.945	251.07	1.2942	48	9	sand	
8.014	250.39	1.2847	48	9	sand	
8.075	252.31	1.4334	48	9	sand	
8.142	260.10	1.8705	50	9	sand	
8.214	263.00	1.7909	50	9	sand	

SOUNDING

TOTAL DEPTH: 11.889 ft
SITE: B-431

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.269	271.27	1.8872	52	9	sand	
8.359	273.33	2.0159	52	9	sand	
8.411	241.94	2.2268	46	9	sand	
8.466	239.08	2.7783	46	9	sand	
8.535	238.93	3.0381	46	9	sand	
8.606	238.71	2.5320	46	9	sand	
8.681	235.47	2.0864	45	9	sand	
8.751	238.32	2.0483	46	9	sand	
8.794	228.95	2.0522	44	9	sand	
8.877	225.56	2.1090	43	9	sand	
8.940	225.71	1.7696	43	9	sand	
8.991	225.73	1.3994	43	9	sand	
9.072	225.89	1.0987	43	9	sand	
9.135	222.39	1.0059	43	9	sand	
9.194	221.38	0.9658	42	9	sand	
9.258	216.41	0.9472	41	9	sand	
9.326	211.32	0.8752	40	9	sand	
9.404	207.47	0.8795	40	9	sand	
9.473	210.35	0.9923	40	9	sand	
9.518	208.43	1.0772	40	9	sand	
9.600	209.37	1.0682	40	9	sand	
9.667	213.69	1.8647	41	9	sand	
9.718	221.71	1.9724	42	9	sand	
9.807	240.44	1.9666	46	9	sand	
9.843	255.56	2.0508	49	9	sand	
9.917	271.84	2.1392	52	9	sand	
9.976	265.77	1.8848	51	9	sand	
10.048	285.83	1.6208	55	9	sand	
10.146	296.45	1.7268	57	9	sand	
10.175	296.25	1.7568	57	9	sand	
10.242	305.18	1.7745	58	9	sand	
10.311	296.06	1.7369	57	9	sand	
10.372	298.24	1.4199	48	10	gravelly sand to sand	
10.454	312.94	1.5539	50	10	gravelly sand to sand	
10.505	317.80	2.0016	61	9	sand	
10.589	331.12	2.0924	53	10	gravelly sand to sand	
10.645	339.36	2.1094	54	10	gravelly sand to sand	
10.711	345.70	2.1093	55	10	gravelly sand to sand	
10.784	334.64	2.1012	53	10	gravelly sand to sand	
10.831	337.45	2.1205	54	10	gravelly sand to sand	
10.897	336.89	2.0709	54	10	gravelly sand to sand	
10.965	326.51	2.1277	63	9	sand	
11.032	340.09	2.6379	65	9	sand	
11.104	329.67	2.9034	63	9	sand	
11.177	328.75	2.8459	63	9	sand	
11.225	334.32	2.7702	64	9	sand	
11.305	291.73	2.4797	56	9	sand	
11.370	263.73	2.3474	51	9	sand	
11.441	263.74	1.7287	51	9	sand	
11.510	263.79	1.3658	51	9	sand	
11.550	263.80	1.3821	51	9	sand	
11.636	263.81	0.0000	0	0	<out of range>	
11.702	286.83	0.0000	0	0	<out of range>	
11.761	314.38	0.0000	0	0	<out of range>	
11.849	330.67	0.0000	0	0	<out of range>	
11.889	332.56	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 25.466 ft
 SITE: B-432

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0236	0	0	<out of range>
0.070	5.88	0.0451	3	1	sensitive fine grained
0.143	6.91	0.1021	3	5	clayey silt to silty clay
0.210	9.29	0.1846	4	5	clayey silt to silty clay
0.263	12.91	0.2354	6	5	clayey silt to silty clay
0.333	15.86	0.3052	8	5	clayey silt to silty clay
0.409	16.99	0.4239	8	5	clayey silt to silty clay
0.476	18.23	0.5222	9	5	clayey silt to silty clay
0.527	20.04	0.5678	10	5	clayey silt to silty clay
0.599	22.07	0.6000	11	5	clayey silt to silty clay
0.667	21.96	0.6282	11	5	clayey silt to silty clay
0.756	24.12	0.6287	12	5	clayey silt to silty clay
0.789	23.89	0.6194	11	5	clayey silt to silty clay
0.860	22.99	0.6188	11	5	clayey silt to silty clay
0.929	18.23	0.6185	9	5	clayey silt to silty clay
0.991	25.26	0.6160	10	6	sandy silt to clayey silt
1.069	27.98	0.6041	11	6	sandy silt to clayey silt
1.135	24.01	0.5796	11	5	clayey silt to silty clay
1.195	18.23	0.5706	9	5	clayey silt to silty clay
1.264	12.01	0.5654	12	3	clay
1.337	11.21	0.5163	11	3	clay
1.385	9.63	0.4703	9	3	clay
1.445	8.62	0.4273	8	3	clay
1.530	7.94	0.4154	8	3	clay
1.579	7.37	0.3927	7	3	clay
1.666	6.92	0.3536	7	3	clay
1.718	6.81	0.3496	7	3	clay
1.796	6.70	0.3397	6	3	clay
1.855	6.70	0.3230	6	3	clay
1.916	6.70	0.3011	6	3	clay
2.003	6.70	0.2757	6	3	clay
2.056	7.04	0.2623	7	3	clay
2.102	7.15	0.2523	7	3	clay
2.179	7.49	0.2485	7	3	clay
2.233	7.49	0.2485	7	3	clay
2.307	7.50	0.2479	7	3	clay
2.385	7.50	0.2537	7	3	clay
2.433	7.50	0.2607	7	3	clay
2.518	7.72	0.2707	7	3	clay
2.580	8.06	0.2743	8	3	clay
2.635	7.94	0.2780	8	3	clay
2.723	7.83	0.2805	7	3	clay
2.764	7.49	0.2764	7	3	clay
2.835	7.46	0.2581	7	3	clay
2.904	7.44	0.2312	7	3	clay
2.960	7.41	0.2106	5	4	silty clay to clay
3.045	7.38	0.1821	5	4	silty clay to clay
3.110	8.17	0.1708	5	4	silty clay to clay
3.152	9.08	0.1668	4	5	clayey silt to silty clay
3.226	11.11	0.1567	5	5	clayey silt to silty clay
3.284	12.36	0.1595	6	5	clayey silt to silty clay
3.376	13.26	0.1541	5	6	sandy silt to clayey silt
3.428	14.05	0.1519	5	6	sandy silt to clayey silt
3.490	14.96	0.1472	6	6	sandy silt to clayey silt
3.567	15.53	0.1693	6	6	sandy silt to clayey silt
3.634	17.89	0.2258	7	6	sandy silt to clayey silt
3.678	19.49	0.2642	7	6	sandy silt to clayey silt
3.745	21.85	0.3500	8	6	sandy silt to clayey silt
3.820	25.14	0.4521	10	6	sandy silt to clayey silt
3.891	25.02	0.5586	10	6	sandy silt to clayey silt
3.937	24.00	0.6374	11	5	clayey silt to silty clay
4.008	22.87	0.7151	11	5	clayey silt to silty clay
4.082	21.07	0.7904	13	4	silty clay to clay

SOUNDING

TOTAL DEPTH: 25.466 ft
SITE: B-432

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.154	20.27	0.8172	13	4	silty clay to clay
4.206	20.27	0.8200	13	4	silty clay to clay
4.275	20.27	0.7730	13	4	silty clay to clay
4.345	20.27	0.6657	10	5	clayey silt to silty clay
4.398	21.63	0.5935	10	5	clayey silt to silty clay
4.466	23.89	0.4668	9	6	sandy silt to clayey silt
4.542	26.16	0.3693	10	6	sandy silt to clayey silt
4.608	28.87	0.2910	9	7	silty sand to sandy silt
4.682	30.11	0.2043	10	7	silty sand to sandy silt
4.732	31.70	0.1816	10	7	silty sand to sandy silt
4.802	32.72	0.1806	10	7	silty sand to sandy silt
4.868	32.26	0.1903	10	7	silty sand to sandy silt
4.923	33.28	0.1893	11	7	silty sand to sandy silt
4.987	34.30	0.1917	11	7	silty sand to sandy silt
5.062	35.77	0.2006	11	7	silty sand to sandy silt
5.133	37.92	0.2108	12	7	silty sand to sandy silt
5.201	40.07	0.2193	13	7	silty sand to sandy silt
5.259	42.79	0.2287	14	7	silty sand to sandy silt
5.325	44.94	0.2488	14	7	silty sand to sandy silt
5.395	47.09	0.2735	15	7	silty sand to sandy silt
5.448	49.69	0.2876	12	8	sand to silty sand
5.536	53.65	0.3084	13	8	sand to silty sand
5.587	55.80	0.3219	13	8	sand to silty sand
5.658	61.34	0.3425	15	8	sand to silty sand
5.725	65.53	0.3521	16	8	sand to silty sand
5.784	69.37	0.3522	17	8	sand to silty sand
5.845	73.45	0.3863	18	8	sand to silty sand
5.908	78.20	0.4921	19	8	sand to silty sand
5.983	84.64	0.5113	20	8	sand to silty sand
6.052	90.30	0.5495	22	8	sand to silty sand
6.119	96.86	0.6941	23	8	sand to silty sand
6.207	102.29	0.7991	24	8	sand to silty sand
6.243	106.70	0.7607	26	8	sand to silty sand
6.308	115.41	0.7149	28	8	sand to silty sand
6.381	119.49	0.6998	23	9	sand
6.448	115.98	0.6981	22	9	sand
6.499	118.70	0.6804	23	9	sand
6.562	118.02	0.6088	23	9	sand
6.633	120.51	0.5114	23	9	sand
6.704	125.03	0.5477	24	9	sand
6.762	125.03	0.5908	24	9	sand
6.835	125.03	0.7633	24	9	sand
6.906	117.22	0.9241	28	8	sand to silty sand
6.974	128.54	0.8888	25	9	sand
7.035	133.75	0.8629	26	9	sand
7.090	142.00	0.8710	27	9	sand
7.170	136.01	0.8462	26	9	sand
7.218	139.85	0.8147	27	9	sand
7.294	146.19	0.7610	28	9	sand
7.360	150.15	0.7479	29	9	sand
7.421	155.35	0.7645	30	9	sand
7.496	160.67	0.7748	31	9	sand
7.553	167.12	0.7929	32	9	sand
7.617	171.42	0.8128	33	9	sand
7.683	174.37	0.8411	33	9	sand
7.747	178.66	0.8824	34	9	sand
7.810	177.87	0.9115	34	9	sand
7.879	180.25	0.9412	35	9	sand
7.959	183.88	0.9674	35	9	sand
8.026	186.59	0.9868	36	9	sand
8.074	189.30	1.0247	36	9	sand
8.148	187.83	1.0313	36	9	sand
8.215	188.96	1.0352	36	9	sand

SOUNDING

TOTAL DEPTH: 25.466 ft
SITE: B-432

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.301	188.51	1.0257	36	9	sand	
8.360	186.02	0.9998	36	9	sand	
8.407	183.31	1.0190	35	9	sand	
8.491	183.88	1.0056	35	9	sand	
8.535	183.42	0.9778	35	9	sand	
8.600	179.92	0.9911	34	9	sand	
8.676	179.12	1.0289	34	9	sand	
8.742	172.58	1.0440	33	9	sand	
8.796	167.15	1.0577	32	9	sand	
8.865	163.64	0.9778	31	9	sand	
8.934	155.61	0.9076	30	9	sand	
9.009	146.90	0.8935	28	9	sand	
9.080	140.55	0.8588	27	9	sand	
9.125	138.86	0.8107	27	9	sand	
9.198	139.31	0.7295	27	9	sand	
9.268	141.23	0.6931	27	9	sand	
9.322	144.17	0.6818	28	9	sand	
9.385	148.25	0.6781	28	9	sand	
9.462	155.15	0.7096	30	9	sand	
9.517	160.35	0.7416	31	9	sand	
9.593	168.61	0.7669	32	9	sand	
9.660	176.87	0.8061	34	9	sand	
9.728	188.85	0.8542	36	9	sand	
9.796	195.64	0.8170	37	9	sand	
9.845	201.52	0.8186	39	9	sand	
9.939	216.35	1.0828	41	9	sand	
9.988	226.98	1.2459	43	9	sand	
10.057	246.33	1.6136	47	9	sand	
10.118	232.75	1.9952	45	9	sand	
10.181	281.28	2.3455	54	9	sand	
10.258	334.91	2.9027	64	9	sand	
10.324	383.90	3.7303	74	9	sand	
10.376	381.64	4.3507	73	9	sand	
10.448	353.56	4.7249	68	9	sand	
10.523	325.51	4.7458	78	8	sand to silty sand	
10.570	306.72	4.7737	73	8	sand to silty sand	
10.652	283.50	4.3314	68	8	sand to silty sand	
10.713	279.64	3.8414	54	9	sand	
10.778	282.45	3.4673	54	9	sand	
10.858	279.17	3.4183	53	9	sand	
10.894	276.34	3.4195	53	9	sand	
10.977	262.53	3.4424	50	9	sand	
11.038	256.30	3.3311	49	9	sand	
11.093	242.15	3.2157	46	9	sand	
11.191	232.76	2.9153	45	9	sand	
11.240	223.71	2.7431	43	9	sand	
11.287	220.77	2.5828	42	9	sand	
11.382	216.36	2.2983	41	9	sand	
11.419	214.55	2.1852	41	9	sand	
11.503	208.33	2.0177	40	9	sand	
11.567	203.81	1.9789	39	9	sand	
11.616	202.00	1.9655	39	9	sand	
11.694	197.13	1.9218	38	9	sand	
11.761	193.52	1.8851	37	9	sand	
11.841	190.69	1.8495	37	9	sand	
11.880	190.01	1.8445	36	9	sand	
11.949	187.07	1.8513	36	9	sand	
12.029	182.32	1.8523	35	9	sand	
12.095	178.13	1.8295	34	9	sand	
12.149	174.96	1.7918	34	9	sand	
12.218	172.81	1.7489	33	9	sand	
12.284	169.31	1.7269	32	9	sand	
12.338	168.06	1.7335	32	9	sand	

SOUNDING

TOTAL DEPTH: 25.466 ft
SITE: B-432

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.406	163.31	1.7125	39	8	sand to silty	sand
12.470	158.56	1.6742	38	8	sand to silty	sand
12.562	151.77	1.6383	36	8	sand to silty	sand
12.625	148.94	1.5991	36	8	sand to silty	sand
12.669	147.70	1.5744	35	8	sand to silty	sand
12.746	145.88	1.5440	35	8	sand to silty	sand
12.798	145.55	1.5330	35	8	sand to silty	sand
12.873	144.53	1.5177	35	8	sand to silty	sand
12.935	143.51	1.5000	34	8	sand to silty	sand
12.997	143.06	1.2155	27	9	sand	
13.068	142.04	1.0087	27	9	sand	
13.139	141.36	1.2890	34	8	sand to silty	sand
13.200	138.76	1.3149	33	8	sand to silty	sand
13.266	131.52	1.3191	31	8	sand to silty	sand
13.330	125.00	1.3079	30	8	sand to silty	sand
13.400	120.08	1.2799	29	8	sand to silty	sand
13.458	118.49	1.2597	28	8	sand to silty	sand
13.525	116.79	1.2400	28	8	sand to silty	sand
13.615	114.87	1.2150	28	8	sand to silty	sand
13.655	113.74	1.2020	27	8	sand to silty	sand
13.717	112.04	1.1824	27	8	sand to silty	sand
13.802	110.01	1.1650	26	8	sand to silty	sand
13.850	110.01	1.1566	26	8	sand to silty	sand
13.934	110.00	1.1485	26	8	sand to silty	sand
13.977	110.00	1.1487	26	8	sand to silty	sand
14.048	111.14	1.1491	27	8	sand to silty	sand
14.128	113.17	1.1496	27	8	sand to silty	sand
14.191	114.87	1.1545	27	8	sand to silty	sand
14.241	116.00	1.1537	28	8	sand to silty	sand
14.327	116.68	1.0928	28	8	sand to silty	sand
14.386	114.42	1.0463	27	8	sand to silty	sand
14.449	111.81	0.9847	27	8	sand to silty	sand
14.527	111.02	0.9138	27	8	sand to silty	sand
14.578	110.46	0.8791	26	8	sand to silty	sand
14.646	108.53	0.8441	26	8	sand to silty	sand
14.716	104.46	0.8222	25	8	sand to silty	sand
14.768	100.05	0.8187	24	8	sand to silty	sand
14.846	96.65	0.8281	23	8	sand to silty	sand
14.912	94.61	0.8390	23	8	sand to silty	sand
14.973	94.61	0.8417	23	8	sand to silty	sand
15.037	94.61	0.8426	23	8	sand to silty	sand
15.104	94.61	0.8588	23	8	sand to silty	sand
15.180	94.61	0.8924	23	8	sand to silty	sand
15.245	96.08	0.9204	23	8	sand to silty	sand
15.291	96.99	0.9369	23	8	sand to silty	sand
15.371	98.46	0.9699	24	8	sand to silty	sand
15.431	99.82	0.9945	24	8	sand to silty	sand
15.491	100.83	1.0047	24	8	sand to silty	sand
15.557	101.29	1.0119	24	8	sand to silty	sand
15.628	101.17	1.0111	24	8	sand to silty	sand
15.706	99.59	0.9998	24	8	sand to silty	sand
15.767	96.65	0.9924	23	8	sand to silty	sand
15.820	92.69	0.9871	22	8	sand to silty	sand
15.892	88.39	0.9736	21	8	sand to silty	sand
15.949	84.31	0.9506	20	8	sand to silty	sand
16.029	80.35	0.9076	19	8	sand to silty	sand
16.110	77.18	0.8630	18	8	sand to silty	sand
16.154	73.56	0.8413	23	7	silty sand to sandy silt	
16.220	70.40	0.8371	22	7	silty sand to sandy silt	
16.295	67.12	0.7378	21	7	silty sand to sandy silt	
16.345	64.62	0.6694	21	7	silty sand to sandy silt	
16.423	61.34	0.6369	20	7	silty sand to sandy silt	
16.487	59.19	0.6190	19	7	silty sand to sandy silt	

SOUNDING

TOTAL DEPTH: 25.466 ft
SITE: B-432

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
16.540	53.20	0.6045	17	7	silty sand to sandy silt
16.615	53.64	0.5848	17	7	silty sand to sandy silt
16.691	52.06	0.5628	17	7	silty sand to sandy silt
16.734	50.81	0.5545	16	7	silty sand to sandy silt
16.805	49.23	0.5457	16	7	silty sand to sandy silt
16.886	48.32	0.5339	15	7	silty sand to sandy silt
16.932	48.10	0.5261	15	7	silty sand to sandy silt
17.000	48.44	0.5180	15	7	silty sand to sandy silt
17.087	49.79	0.5158	16	7	silty sand to sandy silt
17.147	51.94	0.5148	17	7	silty sand to sandy silt
17.196	53.53	0.5108	17	7	silty sand to sandy silt
17.272	54.10	0.5059	17	7	silty sand to sandy silt
17.339	53.08	0.5016	17	7	silty sand to sandy silt
17.403	51.15	0.4949	16	7	silty sand to sandy silt
17.463	49.00	0.4864	16	7	silty sand to sandy silt
17.527	46.96	0.4795	15	7	silty sand to sandy silt
17.589	45.49	0.4736	15	7	silty sand to sandy silt
17.669	44.25	0.4635	14	7	silty sand to sandy silt
17.744	43.00	0.4536	14	7	silty sand to sandy silt
17.784	42.67	0.4523	14	7	silty sand to sandy silt
17.857	42.33	0.4521	14	7	silty sand to sandy silt
17.933	42.33	0.4515	14	7	silty sand to sandy silt
18.001	42.55	0.4509	14	7	silty sand to sandy silt
18.048	43.00	0.4518	14	7	silty sand to sandy silt
18.133	44.14	0.4511	14	7	silty sand to sandy silt
18.195	45.04	0.4461	14	7	silty sand to sandy silt
18.244	45.15	0.4424	14	7	silty sand to sandy silt
18.317	45.04	0.4463	14	7	silty sand to sandy silt
18.387	45.26	0.4466	14	7	silty sand to sandy silt
18.459	45.49	0.4471	15	7	silty sand to sandy silt
18.530	45.83	0.4549	15	7	silty sand to sandy silt
18.574	46.17	0.4600	15	7	silty sand to sandy silt
18.652	47.52	0.4747	15	7	silty sand to sandy silt
18.712	48.21	0.4883	15	7	silty sand to sandy silt
18.770	49.45	0.5019	16	7	silty sand to sandy silt
18.863	51.60	0.5281	16	7	silty sand to sandy silt
18.912	52.62	0.5459	17	7	silty sand to sandy silt
18.980	54.31	0.5681	17	7	silty sand to sandy silt
19.052	54.88	0.5950	18	7	silty sand to sandy silt
19.105	55.67	0.6173	18	7	silty sand to sandy silt
19.169	56.80	0.6500	18	7	silty sand to sandy silt
19.226	58.27	0.6682	19	7	silty sand to sandy silt
19.291	59.86	0.6765	19	7	silty sand to sandy silt
19.379	62.80	0.6923	20	7	silty sand to sandy silt
19.437	66.31	0.7047	21	7	silty sand to sandy silt
19.489	70.15	0.6700	17	8	sand to silty sand
19.584	74.34	0.6289	18	8	sand to silty sand
19.623	75.36	0.6414	18	8	sand to silty sand
19.702	79.66	0.6698	19	8	sand to silty sand
19.752	80.90	0.6809	19	8	sand to silty sand
19.826	77.51	0.6987	19	8	sand to silty sand
19.906	78.87	0.7231	19	8	sand to silty sand
19.968	77.17	0.7324	18	8	sand to silty sand
20.015	75.13	0.7388	18	8	sand to silty sand
20.095	73.43	0.7538	18	8	sand to silty sand
20.159	73.21	0.7649	18	8	sand to silty sand
20.214	72.07	0.7880	17	8	sand to silty sand
20.293	67.32	0.8833	21	7	silty sand to sandy silt
20.352	60.65	1.0068	19	7	silty sand to sandy silt
20.419	52.16	1.0437	20	6	sandy silt to clayey silt
20.484	44.24	1.0034	17	6	sandy silt to clayey silt
20.543	37.91	0.9352	15	6	sandy silt to clayey silt
20.609	31.81	0.8012	12	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 25.466 ft
SITE: B-432

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
20.670	25.71	0.7119	12	5	clayey silt to silty clay
20.743	33.86	0.6378	13	6	sandy silt to clayey silt
20.822	44.16	0.5355	14	7	silty sand to sandy silt
20.877	50.38	0.4523	16	7	silty sand to sandy silt
20.948	50.60	0.3337	16	7	silty sand to sandy silt
21.013	50.60	0.2585	12	8	sand to silty sand
21.070	51.27	0.2651	12	8	sand to silty sand
21.138	52.63	0.3051	13	8	sand to silty sand
21.203	53.99	0.3496	13	8	sand to silty sand
21.284	60.43	0.4004	14	8	sand to silty sand
21.351	65.63	0.4778	16	8	sand to silty sand
21.408	72.99	0.5633	17	8	sand to silty sand
21.465	82.71	0.6998	20	8	sand to silty sand
21.533	90.19	0.9535	22	8	sand to silty sand
21.595	100.93	1.1549	24	8	sand to silty sand
21.657	111.80	1.1715	27	8	sand to silty sand
21.724	126.61	1.0689	30	8	sand to silty sand
21.785	134.76	1.0116	26	9	sand
21.872	162.70	1.2741	31	9	sand
21.928	169.49	1.4043	32	9	sand
21.984	181.93	1.6066	35	9	sand
22.074	193.02	1.8425	37	9	sand
22.117	193.47	1.8519	37	9	sand
22.190	218.81	1.8513	42	9	sand
22.260	217.80	1.8744	42	9	sand
22.310	240.42	1.9327	46	9	sand
22.379	231.72	2.4744	44	9	sand
22.449	246.08	3.5319	59	8	sand to silty sand
22.527	251.41	2.5027	48	9	sand
22.586	272.33	2.2078	52	9	sand
22.650	231.49	2.0707	44	9	sand
22.740	226.85	2.0372	43	9	sand
22.790	232.29	2.0418	44	9	sand
22.865	247.46	1.7341	47	9	sand
22.902	247.79	1.5533	47	9	sand
22.977	225.72	1.2033	43	9	sand
23.042	211.80	1.0263	41	9	sand
23.109	218.82	0.9770	42	9	sand
23.179	217.23	0.9133	42	9	sand
23.234	230.47	0.9047	44	9	sand
23.298	237.95	0.9502	46	9	sand
23.383	261.15	1.0601	42	10	gravelly sand to sand
23.444	276.99	1.0938	44	10	gravelly sand to sand
23.510	297.69	1.0880	48	10	gravelly sand to sand
23.565	305.27	1.0399	49	10	gravelly sand to sand
23.638	305.04	1.0782	49	10	gravelly sand to sand
23.714	305.03	1.3489	49	10	gravelly sand to sand
23.758	304.81	1.4497	49	10	gravelly sand to sand
23.829	308.66	1.7613	49	10	gravelly sand to sand
23.900	320.68	2.1148	61	9	sand
23.983	319.41	2.3770	61	9	sand
24.023	320.49	2.4213	61	9	sand
24.090	320.31	2.4902	61	9	sand
24.156	301.10	2.3740	58	9	sand
24.228	300.53	1.9545	58	9	sand
24.287	310.15	2.0588	59	9	sand
24.348	292.38	2.2629	56	9	sand
24.425	288.87	2.3667	55	9	sand
24.508	294.53	2.4980	56	9	sand
24.547	302.34	2.8029	58	9	sand
24.611	312.87	3.0964	60	9	sand
24.692	316.60	3.0785	61	9	sand
24.758	291.59	3.0448	56	9	sand

SOUNDING

TOTAL DEPTH: 25.466 ft
SITE: B-432

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
24.809	324.86	3.0357	62	9	sand
24.872	263.18	3.2217	50	9	sand
24.936	261.02	3.6667	62	8	sand to silty sand
25.021	216.79	3.9640	52	8	sand to silty sand
25.066	183.52	3.9285	59	7	silty sand to sandy silt
25.139	134.20	3.7631	51	6	sandy silt to clayey silt
25.221	87.86	0.0000	0	0	<out of range>
25.286	65.48	0.0000	0	0	<out of range>
25.333	62.39	0.0000	0	0	<out of range>
25.407	307.08	0.0000	0	0	<out of range>
25.466	393.86	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 25.343 ft
SITE: B-433

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.0496	0	0	<out of range>
0.092	4.84	0.0785	2	1	sensitive fine grained
0.134	5.52	0.0875	3	1	sensitive fine grained
0.210	8.11	0.1132	4	5	clayey silt to silty clay
0.269	10.81	0.1444	5	5	clayey silt to silty clay
0.345	12.95	0.1697	6	5	clayey silt to silty clay
0.418	14.65	0.1958	6	6	sandy silt to clayey silt
0.473	15.88	0.2061	6	6	sandy silt to clayey silt
0.552	17.57	0.2155	7	6	sandy silt to clayey silt
0.615	18.02	0.2166	7	6	sandy silt to clayey silt
0.659	17.57	0.2159	7	6	sandy silt to clayey silt
0.731	16.00	0.2107	6	6	sandy silt to clayey silt
0.804	14.53	0.2027	6	6	sandy silt to clayey silt
0.860	13.29	0.2027	6	5	clayey silt to silty clay
0.942	13.18	0.2027	6	5	clayey silt to silty clay
0.995	13.18	0.2027	6	5	clayey silt to silty clay
1.072	13.19	0.2105	6	5	clayey silt to silty clay
1.136	13.53	0.2373	6	5	clayey silt to silty clay
1.182	14.32	0.2699	7	5	clayey silt to silty clay
1.277	14.88	0.3120	7	5	clayey silt to silty clay
1.328	15.78	0.3434	8	5	clayey silt to silty clay
1.410	18.37	0.4015	9	5	clayey silt to silty clay
1.468	17.81	0.5125	9	5	clayey silt to silty clay
1.516	18.83	0.5922	9	5	clayey silt to silty clay
1.575	20.63	0.6468	10	5	clayey silt to silty clay
1.644	24.11	0.6726	12	5	clayey silt to silty clay
1.723	27.47	0.7026	11	6	sandy silt to clayey silt
1.782	26.91	0.7154	13	5	clayey silt to silty clay
1.850	31.07	0.7154	12	6	sandy silt to clayey silt
1.905	36.36	0.7088	14	6	sandy silt to clayey silt
1.989	47.96	0.7342	15	7	silty sand to sandy silt
2.042	54.37	0.8409	17	7	silty sand to sandy silt
2.124	60.90	0.8252	19	7	silty sand to sandy silt
2.188	65.41	0.6865	21	7	silty sand to sandy silt
2.240	70.47	0.5583	17	8	sand to silty sand
2.300	71.49	0.5107	17	8	sand to silty sand
2.369	70.13	0.6377	17	8	sand to silty sand
2.451	69.80	0.7120	17	8	sand to silty sand
2.516	69.47	0.7107	17	8	sand to silty sand
2.566	67.22	0.6842	21	7	silty sand to sandy silt
2.657	62.72	0.6448	20	7	silty sand to sandy silt
2.698	55.96	0.6402	18	7	silty sand to sandy silt
2.756	52.82	0.6348	17	7	silty sand to sandy silt
2.827	44.59	0.5715	14	7	silty sand to sandy silt
2.897	41.78	0.4496	13	7	silty sand to sandy silt
2.963	38.63	0.3536	12	7	silty sand to sandy silt
3.019	37.28	0.2878	12	7	silty sand to sandy silt
3.090	36.49	0.2650	12	7	silty sand to sandy silt
3.162	37.62	0.2646	12	7	silty sand to sandy silt
3.220	40.44	0.2643	13	7	silty sand to sandy silt
3.292	45.50	0.2742	15	7	silty sand to sandy silt
3.348	51.69	0.2735	12	8	sand to silty sand
3.425	60.92	0.2775	15	8	sand to silty sand
3.502	70.60	0.3029	17	8	sand to silty sand
3.549	77.25	0.3188	18	8	sand to silty sand
3.615	80.07	0.3379	19	8	sand to silty sand
3.676	85.12	0.3429	20	8	sand to silty sand
3.755	89.84	0.3597	22	8	sand to silty sand
3.811	93.33	0.3700	22	8	sand to silty sand
3.901	97.39	0.3739	19	9	sand
3.947	99.19	0.3792	19	9	sand
4.016	102.79	0.3926	20	9	sand
4.095	103.92	0.4118	20	9	sand

SOUNDING

TOTAL DEPTH: 25.343 ft
SITE: B-433

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.141	103.92	0.4168	20	9	sand	
4.210	104.71	0.4238	20	9	sand	
4.283	104.93	0.4239	20	9	sand	
4.337	104.82	0.4212	20	9	sand	
4.405	105.15	0.4231	20	9	sand	
4.476	104.69	0.4327	20	9	sand	
4.530	103.79	0.4429	20	9	sand	
4.597	102.77	0.4490	20	9	sand	
4.665	101.76	0.4558	19	9	sand	
4.747	99.74	0.4823	24	8	sand to silty	sand
4.808	98.84	0.4805	24	8	sand to silty	sand
4.856	98.28	0.4708	24	8	sand to silty	sand
4.945	97.71	0.4575	23	8	sand to silty	sand
5.001	97.49	0.5612	23	8	sand to silty	sand
5.059	96.93	0.6115	23	8	sand to silty	sand
5.129	97.04	0.5884	23	8	sand to silty	sand
5.192	97.95	0.5688	23	8	sand to silty	sand
5.253	100.08	0.6097	24	8	sand to silty	sand
5.318	100.65	0.6420	24	8	sand to silty	sand
5.401	103.91	0.6221	25	8	sand to silty	sand
5.467	112.02	0.6347	21	9	sand	
5.524	104.70	0.6352	25	8	sand to silty	sand
5.590	104.63	0.6303	25	8	sand to silty	sand
5.652	104.58	0.6731	25	8	sand to silty	sand
5.715	104.36	0.6368	25	8	sand to silty	sand
5.798	105.26	0.5435	25	8	sand to silty	sand
5.858	106.50	0.5431	20	9	sand	
5.911	108.53	0.5427	21	9	sand	
5.988	108.53	0.5506	21	9	sand	
6.049	110.66	0.5759	21	9	sand	
6.135	113.70	0.6015	22	9	sand	
6.174	115.62	0.6017	22	9	sand	
6.240	118.32	0.6021	23	9	sand	
6.316	122.16	0.7054	23	9	sand	
6.378	125.20	0.9320	30	8	sand to silty	sand
6.433	128.91	1.3054	31	8	sand to silty	sand
6.517	136.12	1.5875	33	8	sand to silty	sand
6.576	145.69	1.8115	35	8	sand to silty	sand
6.662	171.46	1.6519	33	9	sand	
6.714	197.01	1.6202	38	9	sand	
6.763	217.05	1.6447	42	9	sand	
6.831	210.85	1.7400	40	9	sand	
6.891	204.68	1.8100	39	9	sand	
6.961	179.83	1.8102	34	9	sand	
7.034	167.78	1.8509	40	8	sand to silty	sand
7.118	147.95	1.5657	35	8	sand to silty	sand
7.169	146.82	1.3392	35	8	sand to silty	sand
7.222	146.49	1.1631	28	9	sand	
7.308	137.60	0.8679	26	9	sand	
7.356	137.04	0.7127	26	9	sand	
7.415	135.91	0.6511	26	9	sand	
7.480	139.97	0.6486	27	9	sand	
7.551	140.53	0.5707	27	9	sand	
7.638	139.39	0.5777	27	9	sand	
7.699	137.48	0.5917	26	9	sand	
7.744	138.28	0.6600	26	9	sand	
7.826	133.45	0.7462	26	9	sand	
7.889	130.85	0.6943	25	9	sand	
7.949	130.62	0.6742	25	9	sand	
8.018	127.80	0.6269	24	9	sand	
8.082	122.73	0.5582	24	9	sand	
8.139	121.72	0.5311	23	9	sand	
8.218	119.69	0.4730	23	9	sand	

SOUNDING

TOTAL DEPTH: 25.343 ft
SITE: B-433

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.270	117.56	0.4169	23	9	sand	
8.362	117.45	0.4587	22	9	sand	
8.401	117.89	0.4694	23	9	sand	
8.480	123.19	0.5344	24	9	sand	
8.554	120.70	0.5733	23	9	sand	
8.608	124.42	0.5940	24	9	sand	
8.675	124.30	0.6380	24	9	sand	
8.741	124.19	0.7172	24	9	sand	
8.794	123.97	0.7921	24	9	sand	
8.865	129.82	0.7754	25	9	sand	
8.931	132.41	0.8234	25	9	sand	
9.009	136.05	0.9986	26	9	sand	
9.080	135.25	1.0663	26	9	sand	
9.128	143.58	1.0249	27	9	sand	
9.197	147.63	1.0714	28	9	sand	
9.262	149.33	1.1527	29	9	sand	
9.341	133.75	1.0704	32	8	sand to silty	sand
9.392	132.52	0.9342	25	9	sand	
9.460	128.13	0.7980	25	9	sand	
9.530	120.70	0.7465	23	9	sand	
9.608	120.81	0.6735	23	9	sand	
9.652	119.68	0.6182	23	9	sand	
9.736	117.77	0.5040	23	9	sand	
9.801	116.98	0.4907	22	9	sand	
9.874	117.54	0.5033	23	9	sand	
9.938	118.89	0.4894	23	9	sand	
9.986	120.80	0.4877	23	9	sand	
10.041	121.59	0.5319	23	9	sand	
10.129	122.38	0.6169	23	9	sand	
10.181	126.09	0.6812	24	9	sand	
10.252	132.51	0.7925	25	9	sand	
10.302	134.99	0.8611	26	9	sand	
10.382	136.89	0.9805	26	9	sand	
10.446	134.99	1.0738	26	9	sand	
10.513	134.89	1.1592	32	8	sand to silty	sand
10.566	133.76	1.2253	32	8	sand to silty	sand
10.638	133.20	1.2791	32	8	sand to silty	sand
10.704	130.38	1.2791	31	8	sand to silty	sand
10.763	126.89	1.2653	30	8	sand to silty	sand
10.837	123.40	1.2252	30	8	sand to silty	sand
10.906	122.06	1.1864	29	8	sand to silty	sand
10.961	121.95	1.1529	29	8	sand to silty	sand
11.032	122.51	1.1166	29	8	sand to silty	sand
11.090	124.64	1.1079	30	8	sand to silty	sand
11.177	127.68	1.1348	31	8	sand to silty	sand
11.227	129.70	1.1524	31	8	sand to silty	sand
11.299	135.55	1.1688	32	8	sand to silty	sand
11.365	138.94	1.1772	33	8	sand to silty	sand
11.422	141.07	1.1802	27	9	sand	
11.490	145.13	1.1913	28	9	sand	
11.558	148.39	1.2086	28	9	sand	
11.615	150.53	1.2071	29	9	sand	
11.684	149.63	1.1967	29	9	sand	
11.754	149.29	1.1967	29	9	sand	
11.826	146.93	1.1888	28	9	sand	
11.893	144.23	1.1785	28	9	sand	
11.950	141.52	1.1720	27	9	sand	
12.030	139.95	1.1461	27	9	sand	
12.082	139.84	1.1324	27	9	sand	
12.163	138.26	1.1299	26	9	sand	
12.209	137.14	1.1111	26	9	sand	
12.281	134.77	1.0726	26	9	sand	
12.353	129.26	1.0367	31	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 25.343 ft
SITE: B-433

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.415	124.08	1.0119	30	8	sand to silty	sand
12.471	119.58	0.9969	29	8	sand to silty	sand
12.537	115.07	0.9994	28	8	sand to silty	sand
12.605	113.50	1.0181	27	8	sand to silty	sand
12.686	111.48	1.0421	27	8	sand to silty	sand
12.754	111.53	1.0707	27	8	sand to silty	sand
12.802	111.59	1.0651	27	8	sand to silty	sand
12.870	111.66	1.0264	27	8	sand to silty	sand
12.933	111.72	1.0175	27	8	sand to silty	sand
12.995	114.86	1.0007	27	8	sand to silty	sand
13.080	117.34	0.9969	28	8	sand to silty	sand
13.134	118.34	0.9964	28	8	sand to silty	sand
13.193	118.45	0.9923	28	8	sand to silty	sand
13.256	117.49	0.9923	28	8	sand to silty	sand
13.340	116.53	0.9769	28	8	sand to silty	sand
13.401	116.64	0.9430	28	8	sand to silty	sand
13.454	115.40	0.8890	28	8	sand to silty	sand
13.525	113.82	0.8435	27	8	sand to silty	sand
13.594	113.82	0.8231	27	8	sand to silty	sand
13.686	113.60	0.8075	27	8	sand to silty	sand
13.718	113.15	0.8013	27	8	sand to silty	sand
13.784	112.59	0.7929	27	8	sand to silty	sand
13.845	111.35	0.7929	27	8	sand to silty	sand
13.927	109.21	0.7929	26	8	sand to silty	sand
13.995	108.65	0.8192	26	8	sand to silty	sand
14.060	108.08	0.8345	26	8	sand to silty	sand
14.117	107.52	0.8358	26	8	sand to silty	sand
14.186	107.53	0.8345	26	8	sand to silty	sand
14.259	107.53	0.8315	26	8	sand to silty	sand
14.309	108.88	0.8296	26	8	sand to silty	sand
14.372	110.57	0.8309	26	8	sand to silty	sand
14.447	112.48	0.8456	27	8	sand to silty	sand
14.504	115.86	0.8564	28	8	sand to silty	sand
14.593	121.26	0.8548	29	8	sand to silty	sand
14.638	123.73	0.8581	24	9	sand	
14.712	126.55	0.9026	24	9	sand	
14.779	126.89	0.9952	30	8	sand to silty	sand
14.830	125.99	1.1101	30	8	sand to silty	sand
14.914	119.35	1.3399	29	8	sand to silty	sand
14.976	108.43	1.4856	26	8	sand to silty	sand
15.029	95.72	1.5733	31	7	silty sand to sandy silt	
15.104	95.78	1.6062	31	7	silty sand to sandy silt	
15.164	95.86	1.6361	31	7	silty sand to sandy silt	
15.251	111.70	1.7084	27	8	sand to silty	sand
15.305	126.95	1.7789	30	8	sand to silty	sand
15.358	133.68	1.8294	32	8	sand to silty	sand
15.436	143.58	1.8482	34	8	sand to silty	sand
15.500	148.08	1.8719	35	8	sand to silty	sand
15.574	149.32	1.9386	36	8	sand to silty	sand
15.619	148.86	1.9865	36	8	sand to silty	sand
15.687	147.40	2.0450	35	8	sand to silty	sand
15.761	146.38	2.0741	35	8	sand to silty	sand
15.831	147.06	2.0844	35	8	sand to silty	sand
15.907	150.10	2.1132	36	8	sand to silty	sand
15.946	152.24	2.1312	36	8	sand to silty	sand
16.028	156.74	2.1765	38	8	sand to silty	sand
16.092	159.78	2.2469	38	8	sand to silty	sand
16.158	162.60	2.2539	39	8	sand to silty	sand
16.214	164.51	2.2330	39	8	sand to silty	sand
16.308	163.50	2.2247	39	8	sand to silty	sand
16.355	161.25	2.2467	39	8	sand to silty	sand
16.419	158.77	2.2851	38	8	sand to silty	sand
16.495	158.67	2.2970	38	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 25.343 ft
SITE: B-433

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
16.545	158.58	2.2919	38	8	sand to silty	sand
16.606	158.42	2.2886	38	8	sand to silty	sand
16.688	161.12	2.2991	39	8	sand to silty	sand
16.738	165.06	2.3057	40	8	sand to silty	sand
16.800	169.56	2.3081	41	8	sand to silty	sand
16.877	173.28	2.3302	41	8	sand to silty	sand
16.931	176.65	2.3550	42	8	sand to silty	sand
17.020	180.48	2.3972	43	8	sand to silty	sand
17.077	180.25	2.4146	43	8	sand to silty	sand
17.146	177.33	2.4565	42	8	sand to silty	sand
17.211	174.74	2.4944	42	8	sand to silty	sand
17.258	173.27	2.5051	41	8	sand to silty	sand
17.343	166.75	2.4707	40	8	sand to silty	sand
17.403	159.54	2.4348	38	8	sand to silty	sand
17.463	153.24	2.3973	37	8	sand to silty	sand
17.541	149.08	2.3586	36	8	sand to silty	sand
17.595	146.94	2.3311	35	8	sand to silty	sand
17.665	147.39	2.3134	35	8	sand to silty	sand
17.735	149.64	2.3116	36	8	sand to silty	sand
17.823	152.45	2.3218	36	8	sand to silty	sand
17.860	153.02	2.3369	37	8	sand to silty	sand
17.928	153.69	2.3631	37	8	sand to silty	sand
17.996	155.16	2.3871	37	8	sand to silty	sand
18.057	158.20	2.4104	38	8	sand to silty	sand
18.121	161.57	2.4321	39	8	sand to silty	sand
18.187	164.61	2.4733	39	8	sand to silty	sand
18.253	169.00	2.5340	40	8	sand to silty	sand
18.308	172.27	2.5877	41	8	sand to silty	sand
18.376	177.78	2.6537	43	8	sand to silty	sand
18.446	179.25	2.7172	43	8	sand to silty	sand
18.533	181.39	2.7671	43	8	sand to silty	sand
18.574	182.29	2.7709	44	8	sand to silty	sand
18.636	182.85	2.7689	44	8	sand to silty	sand
18.734	180.71	2.7520	43	8	sand to silty	sand
18.784	178.12	2.7354	43	8	sand to silty	sand
18.841	176.55	2.7078	42	8	sand to silty	sand
18.903	176.32	2.6790	42	8	sand to silty	sand
18.974	177.11	2.6606	42	8	sand to silty	sand
19.032	178.80	2.6760	43	8	sand to silty	sand
19.105	180.60	2.6828	43	8	sand to silty	sand
19.167	181.61	2.6829	43	8	sand to silty	sand
19.263	180.94	2.6736	43	8	sand to silty	sand
19.307	180.71	2.6671	43	8	sand to silty	sand
19.363	180.37	2.7408	43	8	sand to silty	sand
19.434	179.25	2.5072	43	8	sand to silty	sand
19.493	176.88	2.2927	42	8	sand to silty	sand
19.573	172.60	2.2532	41	8	sand to silty	sand
19.631	168.66	2.2361	40	8	sand to silty	sand
19.689	141.09	2.2082	34	8	sand to silty	sand
19.752	147.46	2.1691	35	8	sand to silty	sand
19.844	151.97	2.1228	36	8	sand to silty	sand
19.890	149.38	2.1032	36	8	sand to silty	sand
19.964	145.78	2.0971	35	8	sand to silty	sand
20.032	142.96	2.0878	34	8	sand to silty	sand
20.081	140.72	2.0809	34	8	sand to silty	sand
20.176	136.77	2.0746	33	8	sand to silty	sand
20.210	135.87	2.0715	33	8	sand to silty	sand
20.276	135.20	2.0651	32	8	sand to silty	sand
20.361	134.64	2.0583	32	8	sand to silty	sand
20.410	134.64	2.0543	32	8	sand to silty	sand
20.485	134.64	2.0522	32	8	sand to silty	sand
20.561	134.64	2.0522	32	8	sand to silty	sand
20.608	134.87	2.0529	32	8	sand to silty	sand

SOUNDING

TOTAL DEPTH: 25.343 ft
SITE: B-433

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
20.680	135.32	2.0522	32	8	sand to silty sand	
20.747	134.87	2.0413	32	8	sand to silty sand	
20.837	134.31	1.9771	32	8	sand to silty sand	
20.874	133.74	1.9423	32	8	sand to silty sand	
20.942	133.07	1.8956	32	8	sand to silty sand	
21.008	132.95	1.8655	32	8	sand to silty sand	
21.075	133.18	1.8378	32	8	sand to silty sand	
21.132	131.83	1.8037	32	8	sand to silty sand	
21.196	129.58	1.7915	31	8	sand to silty sand	
21.271	127.44	1.8186	31	8	sand to silty sand	
21.361	127.44	1.8355	31	8	sand to silty sand	
21.399	127.44	1.8690	31	8	sand to silty sand	
21.466	128.91	1.9013	31	8	sand to silty sand	
21.560	131.05	1.9310	31	8	sand to silty sand	
21.597	130.94	1.9480	31	8	sand to silty sand	
21.654	130.26	1.9789	31	8	sand to silty sand	
21.722	129.25	2.0076	31	8	sand to silty sand	
21.792	127.33	2.0184	30	8	sand to silty sand	
21.874	124.63	2.0370	30	8	sand to silty sand	
21.938	121.71	2.0645	39	7	silty sand to sandy silt	
21.989	118.33	2.0963	38	7	silty sand to sandy silt	
22.057	104.37	2.2104	33	7	silty sand to sandy silt	
22.113	93.34	2.3454	36	6	sandy silt to clayey silt	
22.179	75.22	2.4029	29	6	sandy silt to clayey silt	
22.271	56.98	2.0820	27	5	clayey silt to silty clay	
22.323	47.42	1.8229	23	5	clayey silt to silty clay	
22.381	37.97	1.5518	24	4	silty clay to clay	
22.448	38.57	1.3415	18	5	clayey silt to silty clay	
22.514	38.65	1.0828	15	6	sandy silt to clayey silt	
22.611	39.23	0.7169	15	6	sandy silt to clayey silt	
22.651	38.19	0.7693	15	6	sandy silt to clayey silt	
22.706	31.89	0.8093	12	6	sandy silt to clayey silt	
22.770	21.49	0.8688	14	4	silty clay to clay	
22.848	26.29	0.9753	13	5	clayey silt to silty clay	
22.916	42.36	0.9207	16	6	sandy silt to clayey silt	
22.967	26.69	0.9215	13	5	clayey silt to silty clay	
23.038	47.86	0.8892	15	7	silty sand to sandy silt	
23.115	74.92	0.8016	18	8	sand to silty sand	
23.186	100.68	0.7709	24	8	sand to silty sand	
23.235	109.75	0.7709	26	8	sand to silty sand	
23.304	118.59	0.7967	28	8	sand to silty sand	
23.374	114.97	0.9093	28	8	sand to silty sand	
23.428	115.62	0.9436	28	8	sand to silty sand	
23.509	116.26	0.8285	28	8	sand to silty sand	
23.568	104.51	0.7770	25	8	sand to silty sand	
23.627	117.57	0.7642	28	8	sand to silty sand	
23.698	126.22	0.7902	24	9	sand	
23.759	132.83	0.8555	25	9	sand	
23.822	134.51	0.9335	26	9	sand	
23.897	134.40	1.0137	26	9	sand	
23.975	133.73	1.1248	32	8	sand to silty sand	
24.042	133.27	1.1812	32	8	sand to silty sand	
24.086	133.94	1.2144	32	8	sand to silty sand	
24.171	136.53	1.2706	33	8	sand to silty sand	
24.216	138.10	1.2963	33	8	sand to silty sand	
24.280	139.45	1.3372	33	8	sand to silty sand	
24.374	142.82	1.5321	34	8	sand to silty sand	
24.427	146.76	1.7238	35	8	sand to silty sand	
24.485	151.71	1.8903	36	8	sand to silty sand	
24.564	158.01	1.9010	38	8	sand to silty sand	
24.615	166.79	1.7888	40	8	sand to silty sand	
24.675	182.32	1.8493	35	9	sand	
24.746	205.51	2.2838	39	9	sand	

SOUNDING

TOTAL DEPTH: 25.343 ft
SITE: B-433

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
24.803	218.68	2.9959	52	8	sand to silty sand
24.871	219.24	3.3977	52	8	sand to silty sand
24.935	213.76	4.0719	51	8	sand to silty sand
25.024	213.66	4.7938	68	7	silty sand to sandy silt
25.086	234.48	0.0000	0	0	<out of range>
25.140	238.09	0.0000	0	0	<out of range>
25.202	230.21	0.0000	0	0	<out of range>
25.281	261.12	0.0000	0	0	<out of range>
25.343	261.60	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 8.860 ft
SITE: B-434

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.2134	0	0	<out of range>
0.148	12.34	0.2826	6	5	clayey silt to silty clay
0.255	13.59	0.3366	7	5	clayey silt to silty clay
0.352	14.60	0.3827	7	5	clayey silt to silty clay
0.431	13.69	0.4136	9	4	silty clay to clay
0.535	12.34	0.4418	8	4	silty clay to clay
0.621	11.78	0.5944	11	3	clay
0.724	11.77	0.6866	11	3	clay
0.816	11.77	0.7064	11	3	clay
0.894	13.46	0.6774	13	3	clay
0.985	15.71	0.7248	15	3	clay
1.086	23.04	0.7542	11	5	clayey silt to silty clay
1.178	21.32	0.7397	10	5	clayey silt to silty clay
1.280	19.74	0.5566	9	5	clayey silt to silty clay
1.382	24.02	0.6688	11	5	clayey silt to silty clay
1.416	23.98	0.6467	11	5	clayey silt to silty clay
1.425	23.95	0.6412	11	5	clayey silt to silty clay
1.436	23.93	0.6342	11	5	clayey silt to silty clay
1.445	23.89	0.6280	11	5	clayey silt to silty clay
1.533	30.89	0.5282	12	6	sandy silt to clayey silt
1.582	30.70	0.5155	12	6	sandy silt to clayey silt
1.654	30.55	0.4886	12	6	sandy silt to clayey silt
1.740	30.35	0.4227	12	6	sandy silt to clayey silt
1.773	30.18	0.3611	12	6	sandy silt to clayey silt
1.839	30.41	0.2707	10	7	silty sand to sandy silt
1.911	32.22	0.2578	10	7	silty sand to sandy silt
1.977	31.09	0.2505	10	7	silty sand to sandy silt
2.045	28.95	0.2268	9	7	silty sand to sandy silt
2.101	27.94	0.2340	9	7	silty sand to sandy silt
2.187	27.84	0.2521	9	7	silty sand to sandy silt
2.251	26.94	0.2388	9	7	silty sand to sandy silt
2.305	27.73	0.2440	9	7	silty sand to sandy silt
2.382	28.62	0.2542	9	7	silty sand to sandy silt
2.447	28.40	0.3004	9	7	silty sand to sandy silt
2.510	28.51	0.3350	11	6	sandy silt to clayey silt
2.582	30.20	0.3148	10	7	silty sand to sandy silt
2.646	31.54	0.2886	10	7	silty sand to sandy silt
2.712	32.57	0.2952	10	7	silty sand to sandy silt
2.768	32.57	0.3095	10	7	silty sand to sandy silt
2.823	32.57	0.3113	10	7	silty sand to sandy silt
2.909	33.80	0.3131	11	7	silty sand to sandy silt
2.976	35.83	0.3393	11	7	silty sand to sandy silt
3.023	36.96	0.3655	12	7	silty sand to sandy silt
3.097	37.08	0.5326	12	7	silty sand to sandy silt
3.175	36.51	0.8405	14	6	sandy silt to clayey silt
3.232	38.76	1.0759	15	6	sandy silt to clayey silt
3.291	41.91	1.3891	20	5	clayey silt to silty clay
3.349	49.00	1.8008	23	5	clayey silt to silty clay
3.423	91.84	1.8313	29	7	silty sand to sandy silt
3.516	219.44	2.0339	42	9	sand
3.564	235.50	2.0103	45	9	sand
3.626	214.70	1.8835	41	9	sand
3.686	165.60	2.2558	40	8	sand to silty sand
3.762	209.26	2.9183	50	8	sand to silty sand
3.825	207.76	3.3461	50	8	sand to silty sand
3.880	203.88	3.3100	49	8	sand to silty sand
3.950	206.27	2.8341	49	8	sand to silty sand
4.032	91.37	2.5617	35	6	sandy silt to clayey silt
4.074	95.63	2.5329	37	6	sandy silt to clayey silt
4.135	99.92	2.4364	32	7	silty sand to sandy silt
4.229	110.16	1.6866	26	8	sand to silty sand
4.270	112.18	1.3330	27	8	sand to silty sand
4.339	109.03	0.9945	26	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 8.860 ft
SITE: B-434

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
4.420	118.15	1.1369	28	8	sand to silty sand	
4.468	132.66	1.0975	32	8	sand to silty sand	
4.542	148.34	0.9230	28	9	sand	
4.599	151.47	0.9967	29	9	sand	
4.665	151.87	1.3066	29	9	sand	
4.727	151.87	1.9127	36	8	sand to silty sand	
4.798	152.24	2.4305	36	8	sand to silty sand	
4.856	158.22	2.4122	38	8	sand to silty sand	
4.927	134.57	2.5616	43	7	silty sand to sandy silt	
4.997	134.91	2.7957	43	7	silty sand to sandy silt	
5.059	115.78	2.3319	37	7	silty sand to sandy silt	
5.124	119.61	1.8925	29	8	sand to silty sand	
5.195	115.55	1.8005	28	8	sand to silty sand	
5.262	115.33	1.7922	28	8	sand to silty sand	
5.318	115.40	1.7670	28	8	sand to silty sand	
5.382	115.46	1.7012	28	8	sand to silty sand	
5.455	120.43	1.4225	29	8	sand to silty sand	
5.520	114.56	1.2659	27	8	sand to silty sand	
5.578	107.14	1.1584	26	8	sand to silty sand	
5.670	113.67	1.1622	27	8	sand to silty sand	
5.723	108.94	0.9190	26	8	sand to silty sand	
5.777	107.98	0.7483	26	8	sand to silty sand	
5.863	106.82	0.7605	26	8	sand to silty sand	
5.929	97.48	0.6953	23	8	sand to silty sand	
5.986	90.28	0.5947	22	8	sand to silty sand	
6.041	87.47	0.5349	21	8	sand to silty sand	
6.118	82.85	0.5331	20	8	sand to silty sand	
6.183	71.49	0.5314	17	8	sand to silty sand	
6.239	67.55	0.5705	16	8	sand to silty sand	
6.321	63.39	0.6014	20	7	silty sand to sandy silt	
6.376	64.18	0.5620	15	8	sand to silty sand	
6.434	62.02	0.5544	15	8	sand to silty sand	
6.499	59.10	0.5583	19	7	silty sand to sandy silt	
6.573	71.16	0.5352	17	8	sand to silty sand	
6.637	77.55	0.5331	19	8	sand to silty sand	
6.703	88.58	0.4872	21	8	sand to silty sand	
6.761	90.57	0.4571	22	8	sand to silty sand	
6.831	98.70	0.5226	24	8	sand to silty sand	
6.899	97.84	0.6040	23	8	sand to silty sand	
6.964	92.17	0.6015	22	8	sand to silty sand	
7.033	96.90	0.6015	23	8	sand to silty sand	
7.104	107.13	0.6015	26	8	sand to silty sand	
7.164	114.34	0.6015	22	9	sand	
7.227	126.15	0.6510	24	9	sand	
7.299	142.24	0.8640	27	9	sand	
7.370	158.45	0.9620	30	9	sand	
7.418	168.02	1.0131	32	9	sand	
7.502	186.58	1.3906	36	9	sand	
7.572	191.63	1.1220	37	9	sand	
7.630	181.45	1.8051	35	9	sand	
7.700	202.59	2.3937	39	9	sand	
7.763	242.64	2.3130	46	9	sand	
7.829	293.16	1.9917	56	9	sand	
7.875	323.87	1.9152	52	10	gravelly sand to sand	
7.948	347.83	1.9164	56	10	gravelly sand to sand	
8.018	362.91	1.9178	58	10	gravelly sand to sand	
8.086	347.12	1.9191	55	10	gravelly sand to sand	
8.140	373.79	2.0502	60	10	gravelly sand to sand	
8.223	434.21	2.7740	69	10	gravelly sand to sand	
8.288	474.84	2.4283	76	10	gravelly sand to sand	
8.344	494.75	2.4028	79	10	gravelly sand to sand	
8.420	465.94	2.5160	74	10	gravelly sand to sand	
8.468	506.23	2.4772	81	10	gravelly sand to sand	

SOUNDING

TOTAL DEPTH: 8.860 ft
SITE: B-434

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.532	510.30	2.1265	81	10	gravelly sand to sand
8.599	533.90	0.0000	0	0	<out of range>
8.668	560.94	0.0000	0	0	<out of range>
8.753	605.49	0.0000	0	0	<out of range>
8.799	630.81	0.0000	0	0	<out of range>
8.860	649.83	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 15.370 ft
SITE: B-435

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.11	0.0647	0	0	<out of range>
0.080	6.00	0.0899	3	1	sensitive fine grained
0.148	7.37	0.0975	4	5	clayey silt to silty clay
0.204	9.73	0.1028	5	5	clayey silt to silty clay
0.272	12.22	0.1151	5	6	sandy silt to clayey silt
0.330	12.88	0.1399	5	6	sandy silt to clayey silt
0.403	14.35	0.1866	5	6	sandy silt to clayey silt
0.463	14.24	0.2190	7	5	clayey silt to silty clay
0.540	13.56	0.2629	6	5	clayey silt to silty clay
0.605	15.03	0.2726	7	5	clayey silt to silty clay
0.661	20.80	0.3018	8	6	sandy silt to clayey silt
0.753	25.87	0.3926	10	6	sandy silt to clayey silt
0.789	25.87	0.4348	10	6	sandy silt to clayey silt
0.862	25.19	0.8209	12	5	clayey silt to silty clay
0.938	24.96	1.5825	24	3	clay
1.009	25.09	1.7031	24	3	clay
1.068	28.27	1.3744	27	3	clay
1.134	28.04	0.9342	13	5	clayey silt to silty clay
1.195	64.93	0.9281	21	7	silty sand to sandy silt
1.267	61.17	1.2590	20	7	silty sand to sandy silt
1.320	53.04	1.4840	20	6	sandy silt to clayey silt
1.385	69.63	1.7238	27	6	sandy silt to clayey silt
1.456	72.38	1.6415	28	6	sandy silt to clayey silt
1.521	54.66	1.6220	21	6	sandy silt to clayey silt
1.586	29.15	1.6776	28	3	clay
1.668	15.53	1.7285	0	0	<out of range>
1.706	16.44	1.7179	0	0	<out of range>
1.773	18.27	1.6096	17	3	clay
1.874	17.45	0.8588	17	3	clay
1.911	15.64	0.8584	15	3	clay
1.978	14.06	0.8576	13	3	clay
2.058	14.40	0.8565	14	3	clay
2.120	14.19	0.8805	14	3	clay
2.186	14.65	0.9356	14	3	clay
2.263	15.87	0.9976	15	3	clay
2.320	16.09	1.0391	15	3	clay
2.386	16.32	1.0776	16	3	clay
2.436	16.88	1.1016	16	3	clay
2.494	17.44	1.0988	17	3	clay
2.586	19.24	1.0449	18	3	clay
2.627	20.60	1.0567	20	3	clay
2.719	23.52	0.9806	15	4	silty clay to clay
2.757	25.78	0.9053	12	5	clayey silt to silty clay
2.825	30.97	0.7754	12	6	sandy silt to clayey silt
2.891	26.34	0.7072	13	5	clayey silt to silty clay
2.955	36.15	0.7147	14	6	sandy silt to clayey silt
3.018	43.52	0.7608	14	7	silty sand to sandy silt
3.087	46.87	0.6702	15	7	silty sand to sandy silt
3.150	48.35	0.6763	15	7	silty sand to sandy silt
3.229	50.71	0.6127	16	7	silty sand to sandy silt
3.303	47.66	0.5684	15	7	silty sand to sandy silt
3.354	46.53	0.5329	15	7	silty sand to sandy silt
3.441	41.69	0.4650	13	7	silty sand to sandy silt
3.507	39.63	0.3608	13	7	silty sand to sandy silt
3.557	37.95	0.2897	12	7	silty sand to sandy silt
3.610	35.46	0.2432	11	7	silty sand to sandy silt
3.696	35.02	0.2310	11	7	silty sand to sandy silt
3.760	32.87	0.2301	10	7	silty sand to sandy silt
3.807	32.30	0.2324	10	7	silty sand to sandy silt
3.884	30.72	0.2268	10	7	silty sand to sandy silt
3.963	31.29	0.2231	10	7	silty sand to sandy silt
4.024	29.72	0.2260	9	7	silty sand to sandy silt
4.078	29.25	0.2519	9	7	silty sand to sandy silt

SOUNDING

TOTAL DEPTH: 15.370 ft
SITE: B-435

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.138	29.02	0.2835	9	7	silty sand to sandy silt
4.240	29.92	0.2820	10	7	silty sand to sandy silt
4.283	30.15	0.2755	10	7	silty sand to sandy silt
4.341	28.69	0.2792	9	7	silty sand to sandy silt
4.412	29.47	0.2870	9	7	silty sand to sandy silt
4.484	30.94	0.2814	10	7	silty sand to sandy silt
4.531	32.18	0.2828	10	7	silty sand to sandy silt
4.596	33.89	0.2832	11	7	silty sand to sandy silt
4.696	35.35	0.2838	11	7	silty sand to sandy silt
4.742	35.23	0.2841	11	7	silty sand to sandy silt
4.801	38.06	0.3095	12	7	silty sand to sandy silt
4.858	43.36	0.3497	14	7	silty sand to sandy silt
4.935	49.91	0.4468	16	7	silty sand to sandy silt
5.003	51.59	0.5865	16	7	silty sand to sandy silt
5.070	52.39	0.6811	17	7	silty sand to sandy silt
5.141	48.67	0.7319	16	7	silty sand to sandy silt
5.193	46.77	0.7292	15	7	silty sand to sandy silt
5.259	40.76	0.7445	16	6	sandy silt to clayey silt
5.323	38.07	0.7729	15	6	sandy silt to clayey silt
5.400	38.22	0.7270	15	6	sandy silt to clayey silt
5.461	30.39	0.5861	12	6	sandy silt to clayey silt
5.527	30.03	0.4605	12	6	sandy silt to clayey silt
5.602	30.95	0.4020	12	6	sandy silt to clayey silt
5.667	32.29	0.4030	10	7	silty sand to sandy silt
5.713	33.99	0.4604	11	7	silty sand to sandy silt
5.797	41.11	0.6103	13	7	silty sand to sandy silt
5.866	43.55	0.5892	14	7	silty sand to sandy silt
5.915	41.70	0.5956	13	7	silty sand to sandy silt
5.991	32.57	0.6216	12	6	sandy silt to clayey silt
6.063	31.06	0.6584	12	6	sandy silt to clayey silt
6.120	31.05	0.5057	12	6	sandy silt to clayey silt
6.171	29.92	0.3189	10	7	silty sand to sandy silt
6.276	27.10	0.2812	10	6	sandy silt to clayey silt
6.313	25.97	0.2666	10	6	sandy silt to clayey silt
6.376	25.19	0.2418	10	6	sandy silt to clayey silt
6.458	26.32	0.2181	8	7	silty sand to sandy silt
6.502	26.66	0.2130	9	7	silty sand to sandy silt
6.573	27.44	0.1984	9	7	silty sand to sandy silt
6.640	27.44	0.1859	9	7	silty sand to sandy silt
6.708	26.31	0.1834	8	7	silty sand to sandy silt
6.767	25.64	0.1590	8	7	silty sand to sandy silt
6.835	23.49	0.1496	7	7	silty sand to sandy silt
6.921	21.57	0.1427	8	6	sandy silt to clayey silt
6.974	19.77	0.1684	8	6	sandy silt to clayey silt
7.027	20.49	0.2039	8	6	sandy silt to clayey silt
7.089	22.28	0.2273	9	6	sandy silt to clayey silt
7.170	24.77	0.2063	8	7	silty sand to sandy silt
7.241	28.71	0.2362	9	7	silty sand to sandy silt
7.292	36.96	0.2630	12	7	silty sand to sandy silt
7.377	48.48	0.3195	15	7	silty sand to sandy silt
7.444	56.05	0.4948	18	7	silty sand to sandy silt
7.490	59.55	0.5940	19	7	silty sand to sandy silt
7.579	68.02	0.9792	22	7	silty sand to sandy silt
7.616	72.30	1.2723	23	7	silty sand to sandy silt
7.692	78.73	1.8283	25	7	silty sand to sandy silt
7.751	88.32	1.9156	28	7	silty sand to sandy silt
7.831	97.90	1.8028	31	7	silty sand to sandy silt
7.878	109.76	1.7541	35	7	silty sand to sandy silt
7.953	91.25	1.7372	29	7	silty sand to sandy silt
8.006	95.20	1.6193	30	7	silty sand to sandy silt
8.081	100.06	1.5351	32	7	silty sand to sandy silt
8.153	103.22	1.0570	25	8	sand to silty sand
8.249	102.88	0.7045	25	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 15.370 ft
SITE: B-435

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.284	104.34	0.7219	25	8	sand to silty	sand
8.356	104.57	0.7776	25	8	sand to silty	sand
8.408	105.81	0.8632	25	8	sand to silty	sand
8.472	107.17	1.0126	26	8	sand to silty	sand
8.539	110.10	1.2572	26	8	sand to silty	sand
8.614	113.14	1.4072	27	8	sand to silty	sand
8.667	116.66	1.4080	28	8	sand to silty	sand
8.740	132.90	1.4095	32	8	sand to silty	sand
8.812	129.24	1.4109	31	8	sand to silty	sand
8.864	133.56	1.4095	32	8	sand to silty	sand
8.944	134.17	1.4136	32	8	sand to silty	sand
9.018	141.27	1.2757	34	8	sand to silty	sand
9.057	145.33	1.2404	28	9	sand	
9.146	149.40	1.2811	29	9	sand	
9.219	153.57	1.4723	37	8	sand to silty	sand
9.257	158.88	1.7603	38	8	sand to silty	sand
9.324	162.72	2.0279	39	8	sand to silty	sand
9.389	169.39	1.9335	41	8	sand to silty	sand
9.458	181.25	2.0591	35	9	sand	
9.528	197.48	2.1420	38	9	sand	
9.583	210.81	2.1955	40	9	sand	
9.679	219.96	2.4786	42	9	sand	
9.722	204.27	2.4549	39	9	sand	
9.782	198.99	2.3399	38	9	sand	
9.873	195.47	1.9836	37	9	sand	
9.913	187.56	1.7894	36	9	sand	
9.985	184.06	1.5853	35	9	sand	
10.041	184.40	1.6122	35	9	sand	
10.138	180.34	1.7710	35	9	sand	
10.179	168.71	1.9038	40	8	sand to silty	sand
10.251	164.85	2.0895	39	8	sand to silty	sand
10.303	165.53	2.1480	40	8	sand to silty	sand
10.402	157.85	2.0527	38	8	sand to silty	sand
10.433	158.02	2.0329	38	8	sand to silty	sand
10.507	158.12	2.0329	38	8	sand to silty	sand
10.574	158.27	2.0631	38	8	sand to silty	sand
10.638	165.20	2.1132	40	8	sand to silty	sand
10.709	165.73	2.1113	40	8	sand to silty	sand
10.775	166.28	2.1085	40	8	sand to silty	sand
10.854	169.45	2.1030	41	8	sand to silty	sand
10.893	172.29	2.1117	41	8	sand to silty	sand
10.965	176.49	2.1454	42	8	sand to silty	sand
11.027	179.55	2.1550	43	8	sand to silty	sand
11.111	188.82	2.0913	36	9	sand	
11.170	202.02	2.0502	39	9	sand	
11.237	215.68	2.0399	41	9	sand	
11.323	224.04	2.1049	43	9	sand	
11.359	232.65	1.9880	45	9	sand	
11.423	242.24	1.9426	46	9	sand	
11.491	248.93	2.0025	48	9	sand	
11.558	257.30	1.9432	49	9	sand	
11.618	249.24	1.8858	48	9	sand	
11.685	258.44	1.8858	49	9	sand	
11.752	259.59	2.1386	50	9	sand	
11.823	246.54	2.2737	47	9	sand	
11.883	249.06	2.4831	48	9	sand	
11.981	250.42	2.8484	48	9	sand	
12.018	243.42	2.9211	47	9	sand	
12.075	251.77	2.9945	48	9	sand	
12.176	255.84	3.1780	49	9	sand	
12.214	255.82	3.2750	49	9	sand	
12.277	256.72	3.4010	49	9	sand	
12.340	256.84	3.4204	49	9	sand	

SOUNDING

TOTAL DEPTH: 15.370 ft
SITE: B-435

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
12.411	255.93	3.3038	49	9	sand	
12.485	253.00	3.4355	48	9	sand	
12.540	250.28	3.7861	60	8	sand to silty sand	
12.613	245.75	4.2761	59	8	sand to silty sand	
12.693	244.39	3.7073	59	8	sand to silty sand	
12.741	244.41	3.6705	59	8	sand to silty sand	
12.796	244.49	3.8532	59	8	sand to silty sand	
12.900	283.67	4.0698	68	8	sand to silty sand	
12.944	301.38	4.1814	58	9	sand	
13.002	199.10	4.1515	64	7	silty sand to sandy silt	
13.069	207.71	3.3758	50	8	sand to silty sand	
13.161	234.05	2.9049	45	9	sand	
13.231	235.89	3.1410	45	9	sand	
13.269	236.25	3.2445	57	8	sand to silty sand	
13.329	236.65	3.3121	57	8	sand to silty sand	
13.402	238.68	3.2197	57	8	sand to silty sand	
13.470	233.78	2.9640	45	9	sand	
13.529	220.01	2.9305	53	8	sand to silty sand	
13.597	228.93	2.9992	44	9	sand	
13.677	226.67	3.0146	43	9	sand	
13.722	226.22	2.9414	43	9	sand	
13.782	204.53	2.8168	49	8	sand to silty sand	
13.878	214.01	2.7899	41	9	sand	
13.912	219.99	2.7899	42	9	sand	
13.981	238.49	2.7386	46	9	sand	
14.077	243.36	2.4944	47	9	sand	
14.111	240.07	2.5325	46	9	sand	
14.184	232.06	2.6277	44	9	sand	
14.255	221.68	2.6514	42	9	sand	
14.331	206.22	2.5785	39	9	sand	
14.374	190.86	2.7780	46	8	sand to silty sand	
14.439	180.03	3.2330	43	8	sand to silty sand	
14.519	174.62	3.2940	42	8	sand to silty sand	
14.591	175.64	3.1461	42	8	sand to silty sand	
14.638	176.73	3.0819	42	8	sand to silty sand	
14.742	148.70	3.0028	47	7	silty sand to sandy silt	
14.775	149.61	2.7659	48	7	silty sand to sandy silt	
14.843	150.42	2.6342	36	8	sand to silty sand	
14.909	160.56	2.6074	38	8	sand to silty sand	
14.981	170.35	2.2257	41	8	sand to silty sand	
15.027	179.84	2.0910	43	8	sand to silty sand	
15.101	184.68	0.0000	0	0	<out of range>	
15.165	186.47	0.0000	0	0	<out of range>	
15.231	171.79	0.0000	0	0	<out of range>	
15.300	202.82	0.0000	0	0	<out of range>	
15.370	196.50	0.0000	0	0	<out of range>	

SOUNDING

TOTAL DEPTH: 12.802 ft
 SITE: B-436

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.57	-0.0003	0	0	<out of range>
0.099	1.70	-0.0016	0	0	<out of range>
0.139	2.49	0.0368	1	1	sensitive fine grained
0.199	3.39	0.0778	3	3	clay
0.267	5.08	0.1205	5	3	clay
0.335	5.87	0.2450	6	3	clay
0.401	7.11	0.3966	7	3	clay
0.461	12.64	0.4596	8	4	silty clay to clay
0.533	20.32	0.4636	10	5	clayey silt to silty clay
0.596	22.35	0.4890	9	6	sandy silt to clayey silt
0.658	11.86	0.4757	11	3	clay
0.729	12.42	0.4803	12	3	clay
0.809	13.54	0.4794	9	4	silty clay to clay
0.866	14.44	0.4308	9	4	silty clay to clay
0.929	13.64	0.3236	7	5	clayey silt to silty clay
0.992	13.19	0.3059	6	5	clayey silt to silty clay
1.058	12.51	0.3181	6	5	clayey silt to silty clay
1.138	11.84	0.3628	8	4	silty clay to clay
1.214	12.17	0.4145	8	4	silty clay to clay
1.249	12.85	0.4407	8	4	silty clay to clay
1.318	13.97	0.4864	9	4	silty clay to clay
1.382	15.32	0.5243	10	4	silty clay to clay
1.454	15.55	0.5730	10	4	silty clay to clay
1.523	16.00	0.6103	10	4	silty clay to clay
1.579	15.21	0.6386	15	3	clay
1.647	13.63	0.6834	13	3	clay
1.724	13.64	0.7167	13	3	clay
1.782	13.64	0.7387	13	3	clay
1.845	14.10	0.7610	13	3	clay
1.928	14.89	0.7920	14	3	clay
1.977	15.23	0.8100	15	3	clay
2.036	15.68	0.8291	15	3	clay
2.105	16.36	0.8772	16	3	clay
2.179	16.70	0.9137	16	3	clay
2.256	17.37	0.9623	17	3	clay
2.332	18.16	0.9907	17	3	clay
2.378	20.53	0.9680	20	3	clay
2.438	21.21	0.9370	20	3	clay
2.507	25.84	0.8989	12	5	clayey silt to silty clay
2.561	28.09	0.8554	13	5	clayey silt to silty clay
2.629	31.02	0.7782	12	6	sandy silt to clayey silt
2.702	34.30	0.7040	13	6	sandy silt to clayey silt
2.780	36.33	0.6183	14	6	sandy silt to clayey silt
2.841	39.71	0.5581	13	7	silty sand to sandy silt
2.887	42.54	0.5206	14	7	silty sand to sandy silt
2.963	47.95	0.4451	15	7	silty sand to sandy silt
3.037	51.00	0.4134	16	7	silty sand to sandy silt
3.092	54.16	0.4465	17	7	silty sand to sandy silt
3.182	55.85	0.5060	18	7	silty sand to sandy silt
3.220	55.85	0.5201	18	7	silty sand to sandy silt
3.289	55.63	0.5434	18	7	silty sand to sandy silt
3.349	56.42	0.5590	18	7	silty sand to sandy silt
3.416	55.75	0.5598	18	7	silty sand to sandy silt
3.501	55.75	0.4885	18	7	silty sand to sandy silt
3.551	52.70	0.4463	17	7	silty sand to sandy silt
3.615	46.83	0.6671	15	7	silty sand to sandy silt
3.681	44.46	0.6383	14	7	silty sand to sandy silt
3.746	38.82	0.5896	12	7	silty sand to sandy silt
3.842	31.27	0.5171	12	6	sandy silt to clayey silt
3.878	27.31	0.4855	10	6	sandy silt to clayey silt
3.944	25.84	0.4456	10	6	sandy silt to clayey silt
4.007	24.15	0.4052	9	6	sandy silt to clayey silt
4.080	23.02	0.1717	9	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 12.802 ft
SITE: B-436

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.150	22.57	0.0986	7	7	silty sand to sandy silt
4.200	21.67	0.0802	7	7	silty sand to sandy silt
4.297	18.96	0.0553	6	7	silty sand to sandy silt
4.332	18.17	0.0508	6	7	silty sand to sandy silt
4.401	16.93	0.0401	6	6	sandy silt to clayey silt
4.466	15.46	0.0226	6	6	sandy silt to clayey silt
4.544	14.33	0.0198	5	6	sandy silt to clayey silt
4.604	13.88	0.0169	5	6	sandy silt to clayey silt
4.673	13.66	0.0138	5	6	sandy silt to clayey silt
4.755	13.82	0.0217	5	6	sandy silt to clayey silt
4.790	13.32	0.0263	5	6	sandy silt to clayey silt
4.858	13.77	0.0355	5	6	sandy silt to clayey silt
4.951	14.11	0.0539	5	6	sandy silt to clayey silt
4.996	14.56	0.0582	6	6	sandy silt to clayey silt
5.061	15.91	0.0685	6	6	sandy silt to clayey silt
5.123	16.14	0.0934	6	6	sandy silt to clayey silt
5.206	16.03	0.1438	6	6	sandy silt to clayey silt
5.267	16.48	0.1679	6	6	sandy silt to clayey silt
5.329	16.70	0.1754	6	6	sandy silt to clayey silt
5.395	19.30	0.1758	7	6	sandy silt to clayey silt
5.466	21.78	0.1998	8	6	sandy silt to clayey silt
5.515	22.68	0.2093	9	6	sandy silt to clayey silt
5.598	21.33	0.1768	8	6	sandy silt to clayey silt
5.666	25.28	0.1720	8	7	silty sand to sandy silt
5.711	25.62	0.1455	8	7	silty sand to sandy silt
5.796	24.71	0.0962	8	7	silty sand to sandy silt
5.873	24.26	0.0587	8	7	silty sand to sandy silt
5.917	23.58	0.0610	8	7	silty sand to sandy silt
5.976	22.79	0.0565	7	7	silty sand to sandy silt
6.040	22.68	0.0403	7	7	silty sand to sandy silt
6.117	22.46	0.0364	7	7	silty sand to sandy silt
6.178	22.01	0.0364	7	7	silty sand to sandy silt
6.239	21.21	0.0364	7	7	silty sand to sandy silt
6.309	20.20	0.0394	6	7	silty sand to sandy silt
6.374	19.41	0.0371	6	7	silty sand to sandy silt
6.432	18.96	0.0237	6	7	silty sand to sandy silt
6.525	17.95	0.0203	6	7	silty sand to sandy silt
6.582	16.14	0.0220	5	7	silty sand to sandy silt
6.642	14.79	0.0304	6	6	sandy silt to clayey silt
6.694	14.56	0.0407	6	6	sandy silt to clayey silt
6.785	13.77	0.0870	5	6	sandy silt to clayey silt
6.833	13.09	0.1313	5	6	sandy silt to clayey silt
6.896	13.21	0.1749	6	5	clayey silt to silty clay
6.956	10.50	0.1835	5	5	clayey silt to silty clay
7.037	13.66	0.1698	5	6	sandy silt to clayey silt
7.099	14.79	0.1718	6	6	sandy silt to clayey silt
7.168	20.21	0.2550	8	6	sandy silt to clayey silt
7.238	18.86	0.2672	7	6	sandy silt to clayey silt
7.285	20.89	0.2346	8	6	sandy silt to clayey silt
7.380	25.19	0.2323	10	6	sandy silt to clayey silt
7.424	26.31	0.2364	8	7	silty sand to sandy silt
7.494	21.45	0.2455	8	6	sandy silt to clayey silt
7.552	18.07	0.2284	7	6	sandy silt to clayey silt
7.634	16.60	0.1773	6	6	sandy silt to clayey silt
7.696	16.66	0.3455	8	5	clayey silt to silty clay
7.744	16.66	0.3430	8	5	clayey silt to silty clay
7.833	16.71	0.1987	6	6	sandy silt to clayey silt
7.877	20.89	0.2471	8	6	sandy silt to clayey silt
7.951	23.26	0.2743	9	6	sandy silt to clayey silt
8.014	24.05	0.2959	9	6	sandy silt to clayey silt
8.088	21.12	0.2959	8	6	sandy silt to clayey silt
8.155	21.79	0.2485	8	6	sandy silt to clayey silt
8.220	22.02	0.1975	8	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 12.802 ft
SITE: B-436

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.297	21.11	0.1417	8	6	sandy silt to clayey silt
8.352	19.87	0.0995	8	6	sandy silt to clayey silt
8.406	18.97	0.0787	6	7	silty sand to sandy silt
8.492	17.05	0.0701	7	6	sandy silt to clayey silt
8.546	17.16	0.0685	7	6	sandy silt to clayey silt
8.611	16.26	0.0746	6	6	sandy silt to clayey silt
8.670	15.58	0.0824	6	6	sandy silt to clayey silt
8.744	15.69	0.0888	6	6	sandy silt to clayey silt
8.816	15.47	0.0898	6	6	sandy silt to clayey silt
8.862	16.15	0.0888	6	6	sandy silt to clayey silt
8.945	17.05	0.0861	7	6	sandy silt to clayey silt
9.011	18.40	0.0818	7	6	sandy silt to clayey silt
9.059	18.97	0.0844	7	6	sandy silt to clayey silt
9.137	19.08	0.0924	7	6	sandy silt to clayey silt
9.216	19.08	0.0959	7	6	sandy silt to clayey silt
9.267	18.86	0.0976	7	6	sandy silt to clayey silt
9.320	17.95	0.1011	7	6	sandy silt to clayey silt
9.419	17.39	0.1127	7	6	sandy silt to clayey silt
9.462	17.73	0.1165	7	6	sandy silt to clayey silt
9.523	17.61	0.1197	7	6	sandy silt to clayey silt
9.597	18.40	0.1218	7	6	sandy silt to clayey silt
9.672	18.52	0.1265	7	6	sandy silt to clayey silt
9.724	19.42	0.1327	7	6	sandy silt to clayey silt
9.791	20.55	0.1422	8	6	sandy silt to clayey silt
9.850	21.68	0.1487	8	6	sandy silt to clayey silt
9.908	23.26	0.1559	7	7	silty sand to sandy silt
9.978	24.27	0.1725	8	7	silty sand to sandy silt
10.077	25.97	0.1922	8	7	silty sand to sandy silt
10.118	26.64	0.2029	9	7	silty sand to sandy silt
10.177	27.43	0.2167	9	7	silty sand to sandy silt
10.244	29.13	0.2327	9	7	silty sand to sandy silt
10.320	30.48	0.2592	10	7	silty sand to sandy silt
10.377	32.29	0.2806	10	7	silty sand to sandy silt
10.445	34.66	0.3067	11	7	silty sand to sandy silt
10.520	37.36	0.3364	12	7	silty sand to sandy silt
10.587	40.42	0.3611	13	7	silty sand to sandy silt
10.658	43.24	0.3777	14	7	silty sand to sandy silt
10.701	45.15	0.3847	14	7	silty sand to sandy silt
10.783	47.52	0.3947	15	7	silty sand to sandy silt
10.833	50.23	0.4011	16	7	silty sand to sandy silt
10.905	53.50	0.4170	17	7	silty sand to sandy silt
10.966	55.09	0.4394	18	7	silty sand to sandy silt
11.030	58.47	0.4745	14	8	sand to silty sand
11.115	65.81	0.5138	16	8	sand to silty sand
11.159	69.87	0.5292	17	8	sand to silty sand
11.235	76.42	0.5556	18	8	sand to silty sand
11.293	85.22	0.5863	20	8	sand to silty sand
11.371	96.96	0.6432	23	8	sand to silty sand
11.442	109.15	0.7126	26	8	sand to silty sand
11.502	118.86	0.7763	28	8	sand to silty sand
11.571	127.55	0.8408	24	9	sand
11.639	134.89	0.9040	26	9	sand
11.691	137.60	0.9416	26	9	sand
11.768	138.72	1.0159	27	9	sand
11.845	139.62	1.1008	27	9	sand
11.895	140.75	1.1126	27	9	sand
11.951	142.22	1.1269	27	9	sand
12.029	143.91	1.1590	28	9	sand
12.099	145.95	1.2048	28	9	sand
12.149	148.55	1.2663	28	9	sand
12.206	153.29	1.3925	29	9	sand
12.297	166.38	1.7078	32	9	sand
12.352	176.77	1.8423	34	9	sand

SOUNDING

TOTAL DEPTH: 12.802 ft
SITE: B-436

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.405	195.51	1.9281	37	9	sand
12.470	223.84	2.1995	43	9	sand
12.534	257.47	0.0000	0	0	<out of range>
12.616	323.84	0.0000	0	0	<out of range>
12.683	374.11	0.0000	0	0	<out of range>
12.744	421.17	0.0000	0	0	<out of range>
12.802	463.82	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 12.741 ft
SITE: B-437

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.46	0.0001	0	2	organic material
0.070	2.04	0.0076	1	1	sensitive fine grained
0.134	5.76	0.0579	3	1	sensitive fine grained
0.201	7.22	0.1139	3	5	clayey silt to silty clay
0.263	13.42	0.1387	5	6	sandy silt to clayey silt
0.354	12.17	0.3063	6	5	clayey silt to silty clay
0.396	16.01	0.3475	8	5	clayey silt to silty clay
0.471	14.20	0.3099	7	5	clayey silt to silty clay
0.544	16.23	0.3814	8	5	clayey silt to silty clay
0.593	17.47	0.4398	8	5	clayey silt to silty clay
0.671	24.10	0.4570	9	6	sandy silt to clayey silt
0.731	24.22	0.4592	9	6	sandy silt to clayey silt
0.798	23.54	0.4736	9	6	sandy silt to clayey silt
0.861	17.58	0.4945	8	5	clayey silt to silty clay
0.922	14.64	0.5192	9	4	silty clay to clay
0.986	13.52	0.5315	13	3	clay
1.072	10.25	0.5022	10	3	clay
1.116	10.25	0.5019	10	3	clay
1.185	10.25	0.5418	10	3	clay
1.253	10.25	0.6104	10	3	clay
1.328	10.25	0.6690	10	3	clay
1.387	11.04	0.8125	11	3	clay
1.445	11.38	0.8702	11	3	clay
1.521	15.21	0.8087	15	3	clay
1.587	11.83	0.7169	11	3	clay
1.645	12.72	0.6929	12	3	clay
1.708	39.87	0.6654	15	6	sandy silt to clayey silt
1.774	68.38	0.5938	16	8	sand to silty sand
1.840	86.97	0.5650	21	8	sand to silty sand
1.907	97.22	0.4497	23	8	sand to silty sand
1.969	89.78	0.6966	21	8	sand to silty sand
2.041	95.31	1.2906	23	8	sand to silty sand
2.133	100.51	1.0404	24	8	sand to silty sand
2.174	83.39	0.9186	20	8	sand to silty sand
2.244	51.60	0.7531	16	7	silty sand to sandy silt
2.301	46.65	0.9949	18	6	sandy silt to clayey silt
2.365	53.09	1.5475	20	6	sandy silt to clayey silt
2.446	58.39	1.6033	22	6	sandy silt to clayey silt
2.500	57.82	1.4070	22	6	sandy silt to clayey silt
2.569	35.85	1.1795	17	5	clayey silt to silty clay
2.644	27.96	1.1072	18	4	silty clay to clay
2.703	27.68	0.9432	13	5	clayey silt to silty clay
2.765	27.17	0.7263	13	5	clayey silt to silty clay
2.831	27.40	0.5191	10	6	sandy silt to clayey silt
2.905	24.80	0.3275	10	6	sandy silt to clayey silt
2.983	22.89	0.2641	9	6	sandy silt to clayey silt
3.043	19.17	0.2338	7	6	sandy silt to clayey silt
3.085	18.83	0.2248	7	6	sandy silt to clayey silt
3.159	19.73	0.2166	8	6	sandy silt to clayey silt
3.222	20.75	0.2153	8	6	sandy silt to clayey silt
3.294	22.89	0.1929	9	6	sandy silt to clayey silt
3.356	22.55	0.2323	9	6	sandy silt to clayey silt
3.421	23.45	0.2872	9	6	sandy silt to clayey silt
3.482	24.69	0.2881	9	6	sandy silt to clayey silt
3.551	24.24	0.2770	9	6	sandy silt to clayey silt
3.611	25.48	0.2697	10	6	sandy silt to clayey silt
3.688	24.81	0.2552	10	6	sandy silt to clayey silt
3.765	24.58	0.2084	8	7	silty sand to sandy silt
3.815	24.46	0.1924	8	7	silty sand to sandy silt
3.873	23.11	0.1850	9	6	sandy silt to clayey silt
3.963	21.42	0.1672	8	6	sandy silt to clayey silt
4.017	21.31	0.1616	8	6	sandy silt to clayey silt
4.077	20.75	0.1548	8	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 12.741 ft
SITE: B-437

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.147	20.41	0.1468	8	6	sandy silt to clayey silt
4.219	20.18	0.1468	8	6	sandy silt to clayey silt
4.271	20.19	0.1503	8	6	sandy silt to clayey silt
4.349	19.85	0.1565	8	6	sandy silt to clayey silt
4.420	19.51	0.1604	7	6	sandy silt to clayey silt
4.472	19.73	0.1617	8	6	sandy silt to clayey silt
4.533	19.40	0.1690	7	6	sandy silt to clayey silt
4.596	20.07	0.1909	8	6	sandy silt to clayey silt
4.673	21.09	0.2067	8	6	sandy silt to clayey silt
4.740	22.32	0.2151	9	6	sandy silt to clayey silt
4.809	28.97	0.2273	9	7	silty sand to sandy silt
4.860	34.04	0.3243	11	7	silty sand to sandy silt
4.931	46.89	0.5001	15	7	silty sand to sandy silt
4.995	58.94	0.4827	14	8	sand to silty sand
5.090	70.55	0.4710	17	8	sand to silty sand
5.133	76.98	0.7466	18	8	sand to silty sand
5.197	81.92	0.8721	20	8	sand to silty sand
5.264	87.00	0.8521	21	8	sand to silty sand
5.341	96.69	0.7810	23	8	sand to silty sand
5.384	97.70	0.7794	23	8	sand to silty sand
5.447	91.73	0.7883	22	8	sand to silty sand
5.546	92.29	0.8188	22	8	sand to silty sand
5.597	94.10	0.7261	23	8	sand to silty sand
5.651	96.01	0.6256	23	8	sand to silty sand
5.744	100.29	0.5826	24	8	sand to silty sand
5.781	100.97	0.5897	24	8	sand to silty sand
5.856	101.54	0.6022	24	8	sand to silty sand
5.915	102.55	0.6262	25	8	sand to silty sand
5.992	103.79	0.6710	25	8	sand to silty sand
6.058	105.15	0.8429	25	8	sand to silty sand
6.120	106.62	1.0185	26	8	sand to silty sand
6.182	108.53	1.0109	26	8	sand to silty sand
6.259	108.54	0.9511	26	8	sand to silty sand
6.314	111.91	0.9916	27	8	sand to silty sand
6.376	116.64	1.0189	28	8	sand to silty sand
6.444	123.85	1.0156	30	8	sand to silty sand
6.515	113.04	0.6812	27	8	sand to silty sand
6.567	112.81	0.4653	22	9	sand
6.645	112.81	0.4389	22	9	sand
6.694	112.48	0.4425	22	9	sand
6.766	110.45	0.4470	21	9	sand
6.837	87.22	0.4389	21	8	sand to silty sand
6.926	95.56	0.4416	23	8	sand to silty sand
6.975	95.00	0.4365	23	8	sand to silty sand
7.026	94.66	0.4294	23	8	sand to silty sand
7.115	92.30	0.4277	22	8	sand to silty sand
7.164	92.07	0.4290	22	8	sand to silty sand
7.233	93.09	0.4290	22	8	sand to silty sand
7.307	93.99	0.4557	23	8	sand to silty sand
7.380	95.45	0.4732	23	8	sand to silty sand
7.420	96.81	0.4697	23	8	sand to silty sand
7.488	99.06	0.4575	24	8	sand to silty sand
7.556	102.10	0.4406	20	9	sand
7.621	104.92	0.4208	20	9	sand
7.692	109.65	0.4083	21	9	sand
7.760	114.95	0.4538	22	9	sand
7.819	121.03	0.6174	23	9	sand
7.880	125.08	0.8422	24	9	sand
7.942	122.38	0.8749	29	8	sand to silty sand
8.011	127.00	0.8736	24	9	sand
8.089	132.18	1.0162	25	9	sand
8.153	126.66	1.0574	30	8	sand to silty sand
8.216	124.86	1.0695	30	8	sand to silty sand

SOUNDING

TOTAL DEPTH: 12.741 ft
SITE: B-437

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior UBC-1983	Type
8.294	129.82	1.0815	31	8	sand to silty sand	
8.340	128.13	0.9562	31	8	sand to silty sand	
8.404	120.47	0.7566	23	9	sand	
8.481	119.01	0.7616	23	9	sand	
8.546	112.93	0.7394	27	8	sand to silty sand	
8.606	107.74	0.6632	26	8	sand to silty sand	
8.684	105.37	0.6441	25	8	sand to silty sand	
8.751	104.02	0.6263	25	8	sand to silty sand	
8.806	102.90	0.6806	25	8	sand to silty sand	
8.884	100.53	1.0707	24	8	sand to silty sand	
8.956	97.72	1.3712	23	8	sand to silty sand	
9.002	96.93	1.4419	31	7	silty sand to sandy silt	
9.064	95.13	1.4218	30	7	silty sand to sandy silt	
9.132	94.45	1.1244	23	8	sand to silty sand	
9.204	90.62	1.1261	22	8	sand to silty sand	
9.265	104.36	1.2000	25	8	sand to silty sand	
9.323	110.37	1.2037	26	8	sand to silty sand	
9.396	102.59	1.1968	25	8	sand to silty sand	
9.450	91.09	1.1918	22	8	sand to silty sand	
9.515	90.84	1.1857	22	8	sand to silty sand	
9.592	90.60	1.0041	22	8	sand to silty sand	
9.659	94.32	0.7146	23	8	sand to silty sand	
9.722	97.02	0.7986	23	8	sand to silty sand	
9.792	98.94	0.9438	24	8	sand to silty sand	
9.851	104.69	1.3149	25	8	sand to silty sand	
9.915	111.45	2.0750	36	7	silty sand to sandy silt	
9.975	125.75	2.5269	40	7	silty sand to sandy silt	
10.046	158.82	2.2978	38	8	sand to silty sand	
10.118	145.47	2.1512	35	8	sand to silty sand	
10.171	154.82	2.2159	37	8	sand to silty sand	
10.252	179.59	3.0724	43	8	sand to silty sand	
10.318	207.75	3.0772	50	8	sand to silty sand	
10.375	223.68	3.0818	54	8	sand to silty sand	
10.467	183.46	3.1916	44	8	sand to silty sand	
10.507	169.03	3.4735	54	7	silty sand to sandy silt	
10.574	168.81	3.8119	54	7	silty sand to sandy silt	
10.630	171.85	4.2878	55	7	silty sand to sandy silt	
10.729	173.65	3.8133	55	7	silty sand to sandy silt	
10.770	172.07	3.3874	55	7	silty sand to sandy silt	
10.831	174.22	2.4262	42	8	sand to silty sand	
10.898	193.36	1.7400	37	9	sand	
10.969	220.40	1.8070	42	9	sand	
11.037	239.22	1.8440	46	9	sand	
11.090	222.99	1.9487	43	9	sand	
11.157	169.25	2.0633	41	8	sand to silty sand	
11.235	172.97	2.2648	41	8	sand to silty sand	
11.302	173.98	2.1920	42	8	sand to silty sand	
11.367	194.82	2.0361	37	9	sand	
11.438	192.13	2.0344	37	9	sand	
11.491	179.97	2.0332	34	9	sand	
11.554	171.97	2.0374	41	8	sand to silty sand	
11.633	164.19	2.4848	39	8	sand to silty sand	
11.693	164.47	2.4247	39	8	sand to silty sand	
11.749	164.47	2.2610	39	8	sand to silty sand	
11.847	164.75	2.1626	39	8	sand to silty sand	
11.886	148.51	1.8132	36	8	sand to silty sand	
11.950	148.56	1.4004	36	8	sand to silty sand	
12.017	148.63	1.4068	36	8	sand to silty sand	
12.090	140.90	1.2978	34	8	sand to silty sand	
12.152	138.95	1.6471	33	8	sand to silty sand	
12.216	154.37	2.0062	37	8	sand to silty sand	
12.282	154.84	1.8757	37	8	sand to silty sand	
12.354	167.01	1.8666	40	8	sand to silty sand	

SOUNDING

TOTAL DEPTH: 12.741 ft
SITE: B-437

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
12.405	178.82	1.6365	34	9	sand
12.488	182.65	0.0000	0	0	<out of range>
12.552	213.41	0.0000	0	0	<out of range>
12.609	232.57	0.0000	0	0	<out of range>
12.671	240.81	0.0000	0	0	<out of range>
12.741	138.83	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 12.345 ft
SITE: B-438

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
0.000	0.00	0.1070	0	0	<out of range>
0.075	4.39	0.1264	4	3	clay
0.139	5.41	0.1626	5	3	clay
0.204	8.00	0.2178	5	4	silty clay to clay
0.263	11.85	0.2595	6	5	clayey silt to silty clay
0.349	15.57	0.3160	7	5	clayey silt to silty clay
0.399	16.13	0.3386	8	5	clayey silt to silty clay
0.469	16.88	0.3638	8	5	clayey silt to silty clay
0.532	17.08	0.3845	8	5	clayey silt to silty clay
0.605	17.30	0.4023	8	5	clayey silt to silty clay
0.665	16.40	0.4101	8	5	clayey silt to silty clay
0.739	15.05	0.3920	7	5	clayey silt to silty clay
0.792	13.92	0.3749	7	5	clayey silt to silty clay
0.863	12.23	0.3505	8	4	silty clay to clay
0.940	11.45	0.3245	7	4	silty clay to clay
0.986	11.45	0.3116	7	4	silty clay to clay
1.056	11.46	0.2994	7	4	silty clay to clay
1.127	11.69	0.2966	6	5	clayey silt to silty clay
1.185	11.92	0.3115	6	5	clayey silt to silty clay
1.254	12.28	0.3419	8	4	silty clay to clay
1.322	12.39	0.3791	8	4	silty clay to clay
1.414	12.04	0.4217	8	4	silty clay to clay
1.467	11.92	0.4360	8	4	silty clay to clay
1.517	11.47	0.4503	11	3	clay
1.584	11.00	0.4872	11	3	clay
1.646	10.66	0.5081	10	3	clay
1.713	10.65	0.5312	10	3	clay
1.809	11.09	0.5571	11	3	clay
1.839	11.76	0.5720	11	3	clay
1.916	13.33	0.6582	13	3	clay
1.969	14.90	0.7134	14	3	clay
2.047	17.15	0.7833	16	3	clay
2.122	18.72	0.8462	18	3	clay
2.167	20.53	0.8815	20	3	clay
2.235	24.35	0.9290	16	4	silty clay to clay
2.325	29.08	1.0038	14	5	clayey silt to silty clay
2.375	36.28	1.0124	14	6	sandy silt to clayey silt
2.439	44.73	1.1164	17	6	sandy silt to clayey silt
2.509	54.74	1.3478	21	6	sandy silt to clayey silt
2.578	54.81	1.4443	21	6	sandy silt to clayey silt
2.627	54.87	1.5122	21	6	sandy silt to clayey silt
2.713	48.01	1.6061	23	5	clayey silt to silty clay
2.761	48.13	1.5794	23	5	clayey silt to silty clay
2.824	48.25	1.4836	18	6	sandy silt to clayey silt
2.904	51.18	1.2938	20	6	sandy silt to clayey silt
2.958	56.69	1.1329	18	7	silty sand to sandy silt
3.030	62.10	0.9367	20	7	silty sand to sandy silt
3.089	70.20	0.9760	22	7	silty sand to sandy silt
3.158	77.18	1.1002	25	7	silty sand to sandy silt
3.225	80.10	0.9393	19	8	sand to silty sand
3.285	77.86	0.7224	19	8	sand to silty sand
3.356	62.56	0.7200	20	7	silty sand to sandy silt
3.415	51.31	0.7189	16	7	silty sand to sandy silt
3.490	46.36	0.6680	15	7	silty sand to sandy silt
3.565	43.43	0.3741	14	7	silty sand to sandy silt
3.623	40.73	0.2349	13	7	silty sand to sandy silt
3.687	38.14	0.1969	12	7	silty sand to sandy silt
3.754	33.42	0.1740	11	7	silty sand to sandy silt
3.827	29.48	0.1582	9	7	silty sand to sandy silt
3.874	26.90	0.1595	9	7	silty sand to sandy silt
3.951	22.28	0.1629	9	6	sandy silt to clayey silt
4.013	22.39	0.1712	9	6	sandy silt to clayey silt
4.081	22.96	0.1734	9	6	sandy silt to clayey silt

SOUNDING

TOTAL DEPTH: 12.345 ft
SITE: B-438

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
4.143	24.08	0.1603	8	7	silty sand to sandy silt
4.206	25.77	0.1519	8	7	silty sand to sandy silt
4.295	28.47	0.1524	9	7	silty sand to sandy silt
4.331	29.60	0.1527	9	7	silty sand to sandy silt
4.401	31.62	0.1752	10	7	silty sand to sandy silt
4.479	32.97	0.2051	11	7	silty sand to sandy silt
4.543	32.63	0.2126	10	7	silty sand to sandy silt
4.606	32.75	0.2094	10	7	silty sand to sandy silt
4.662	34.21	0.2000	11	7	silty sand to sandy silt
4.734	35.11	0.2079	11	7	silty sand to sandy silt
4.799	38.60	0.2642	12	7	silty sand to sandy silt
4.863	42.76	0.2974	14	7	silty sand to sandy silt
4.961	53.79	0.2899	13	8	sand to silty sand
4.996	60.99	0.3179	15	8	sand to silty sand
5.063	69.77	0.3837	17	8	sand to silty sand
5.138	74.83	0.4412	18	8	sand to silty sand
5.214	85.19	0.4838	20	8	sand to silty sand
5.260	93.29	0.4675	22	8	sand to silty sand
5.321	98.58	0.4495	24	8	sand to silty sand
5.385	105.11	0.4486	20	9	sand
5.448	111.97	0.4696	21	9	sand
5.515	120.74	0.5109	23	9	sand
5.589	126.14	0.5114	24	9	sand
5.657	131.10	0.5118	25	9	sand
5.715	130.76	0.5122	25	9	sand
5.797	130.76	0.5206	25	9	sand
5.841	131.66	0.5776	25	9	sand
5.918	131.77	0.7204	25	9	sand
5.971	130.32	0.7326	25	9	sand
6.061	130.77	0.8115	25	9	sand
6.122	128.53	0.8356	25	9	sand
6.175	123.24	0.8589	30	8	sand to silty sand
6.268	122.45	0.9325	29	8	sand to silty sand
6.323	122.90	0.9357	29	8	sand to silty sand
6.367	125.04	0.9379	30	8	sand to silty sand
6.437	131.45	0.9665	25	9	sand
6.524	143.94	1.2943	34	8	sand to silty sand
6.563	155.41	1.2287	30	9	sand
6.632	157.12	1.2872	30	9	sand
6.724	171.63	1.6365	33	9	sand
6.778	189.75	1.5399	36	9	sand
6.831	221.25	1.8457	42	9	sand
6.896	210.68	2.3696	40	9	sand
6.980	213.15	2.6898	41	9	sand
7.030	232.85	2.7751	45	9	sand
7.089	247.60	2.7161	47	9	sand
7.153	213.36	2.4831	41	9	sand
7.221	217.64	2.3284	42	9	sand
7.283	213.14	2.2264	41	9	sand
7.355	218.54	2.3060	42	9	sand
7.440	219.44	2.5990	42	9	sand
7.506	217.88	2.5518	42	9	sand
7.563	222.06	2.2942	43	9	sand
7.616	221.71	2.0012	42	9	sand
7.713	210.89	1.7208	40	9	sand
7.767	212.24	1.5487	41	9	sand
7.816	210.78	1.4064	40	9	sand
7.908	212.55	1.1917	41	9	sand
7.943	212.84	1.1509	41	9	sand
8.019	220.15	1.1283	42	9	sand
8.092	224.87	1.0565	43	9	sand
8.158	225.31	1.0247	43	9	sand
8.222	223.06	1.0334	43	9	sand

SOUNDING

TOTAL DEPTH: 12.345 ft
SITE: B-438

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
8.284	224.40	1.0335	43	9	sand
8.358	226.54	1.0281	43	9	sand
8.407	223.17	1.0175	43	9	sand
8.469	220.01	1.0480	42	9	sand
8.537	211.23	1.1005	40	9	sand
8.608	208.41	1.0647	40	9	sand
8.675	210.89	0.9985	40	9	sand
8.730	212.69	0.9185	41	9	sand
8.819	210.24	0.9052	40	9	sand
8.873	210.57	0.9107	40	9	sand
8.929	209.56	0.9034	40	9	sand
9.002	207.41	0.9356	40	9	sand
9.074	197.96	0.8992	38	9	sand
9.126	187.94	0.8971	36	9	sand
9.228	175.00	0.8922	34	9	sand
9.260	166.21	0.8941	32	9	sand
9.331	159.25	0.8988	30	9	sand
9.389	153.18	0.8897	29	9	sand
9.479	153.12	0.7702	29	9	sand
9.531	153.07	0.7235	29	9	sand
9.589	153.02	0.6854	29	9	sand
9.679	152.97	0.6713	29	9	sand
9.733	158.81	0.6532	30	9	sand
9.788	164.99	0.6058	32	9	sand
9.862	170.17	0.5667	33	9	sand
9.936	167.69	0.5610	32	9	sand
9.989	161.05	0.5717	31	9	sand
10.046	152.05	0.5809	29	9	sand
10.115	152.87	0.6212	29	9	sand
10.194	153.72	0.6773	29	9	sand
10.238	158.41	0.6678	30	9	sand
10.323	164.72	0.6802	32	9	sand
10.368	173.05	0.6997	33	9	sand
10.463	177.44	0.7507	34	9	sand
10.499	180.25	0.8359	35	9	sand
10.569	182.39	0.9363	35	9	sand
10.640	189.15	0.9052	36	9	sand
10.715	200.18	0.9261	38	9	sand
10.772	211.65	0.9646	41	9	sand
10.828	217.51	1.0002	42	9	sand
10.919	224.82	1.0809	43	9	sand
10.968	221.79	1.1339	42	9	sand
11.026	216.05	1.1605	41	9	sand
11.125	212.89	1.1403	41	9	sand
11.166	215.03	1.1837	41	9	sand
11.223	218.18	1.2390	42	9	sand
11.305	224.26	1.2556	43	9	sand
11.371	225.62	1.2706	43	9	sand
11.427	225.95	1.2778	43	9	sand
11.494	232.26	1.2894	44	9	sand
11.566	241.82	1.3072	46	9	sand
11.626	245.54	1.3241	47	9	sand
11.688	254.09	1.3492	49	9	sand
11.758	265.23	1.4198	51	9	sand
11.819	280.19	1.5447	54	9	sand
11.878	298.98	1.6260	48	10	gravelly sand to sand
11.958	322.40	1.6099	51	10	gravelly sand to sand
12.031	333.99	1.6543	53	10	gravelly sand to sand
12.082	347.50	0.0000	0	0	<out of range>
12.142	357.74	0.0000	0	0	<out of range>
12.205	364.27	0.0000	0	0	<out of range>
12.292	357.60	0.0000	0	0	<out of range>
12.345	363.67	0.0000	0	0	<out of range>

SOUNDING

TOTAL DEPTH: 12.345 ft
SITE: B-438

Depth ft	Tip COR (tsf)	Sleeve Stress (tsf)	SPT (blows/ft)	Zone	Soil Behavior Type UBC-1983
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Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 6, 2022

Boring No.: Adjacent to boring B311

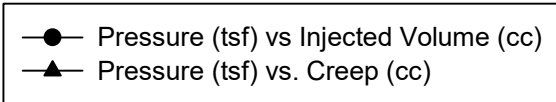
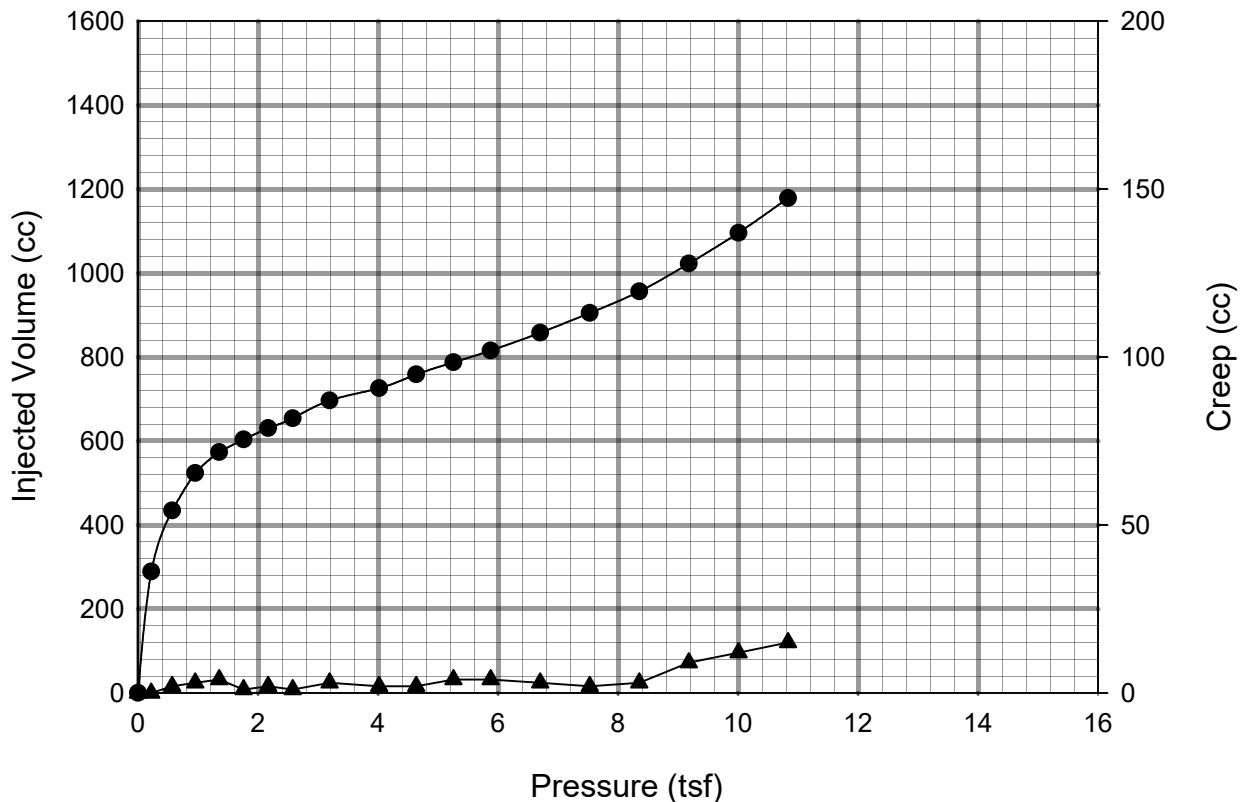
Test Depth: 5 to 7 feet

Soil Description: Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Medium Dense

USCS Symbol: SP-SM

Standard Penetration Test Blow Counts: 12-13-13-14

DCP Blow Counts:



Initial Pressure (Pi): 1.8 tsf

Yield Pressure (Pf): 8.4 tsf

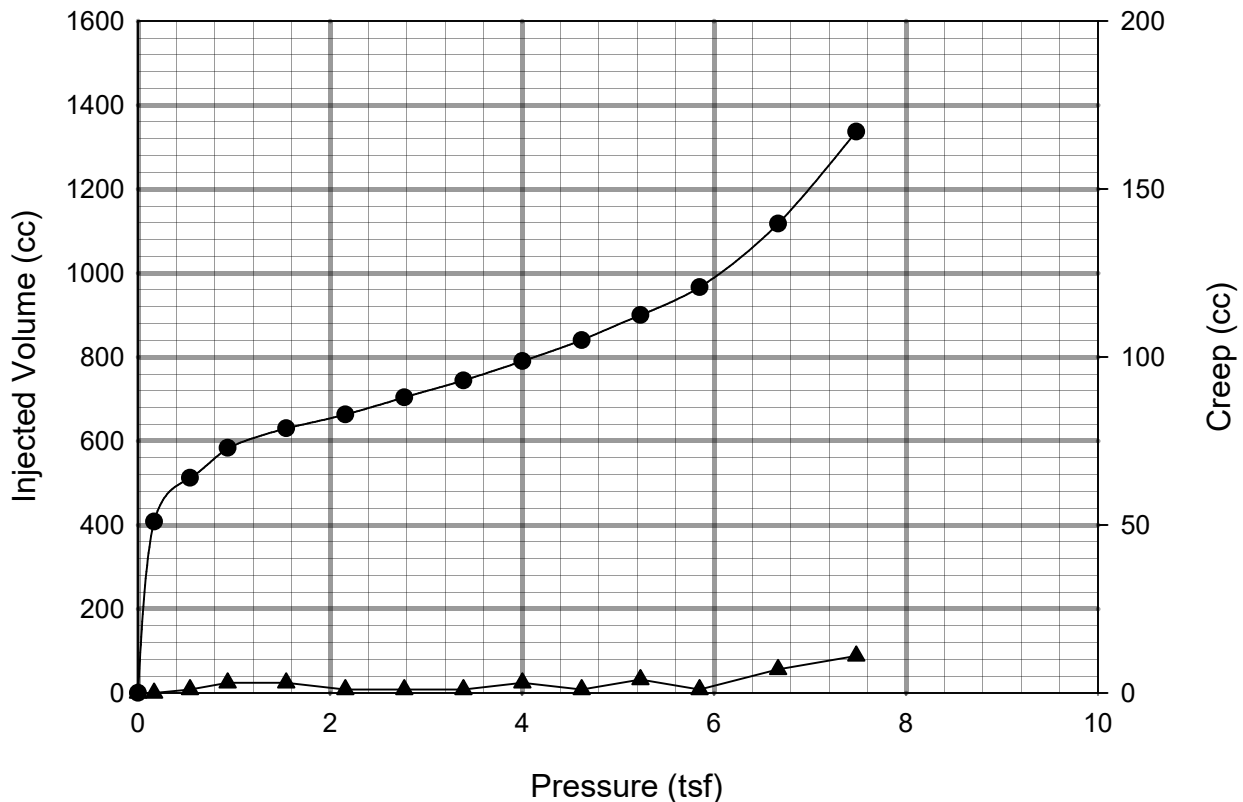
Limit Pressure (Pl): 16 tsf

Pressuremeter Modulus (Ed): 127 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 6, 2022

Boring No.: Adjacent to boring B311
Test Depth: 10 to 12 feet
Soil Description: Fine to Medium SAND- Brown- Moist- Medium Dense
USCS Symbol: SP
Standard Penetration Test Blow Counts: 7-6-5-8
DCP Blow Counts:



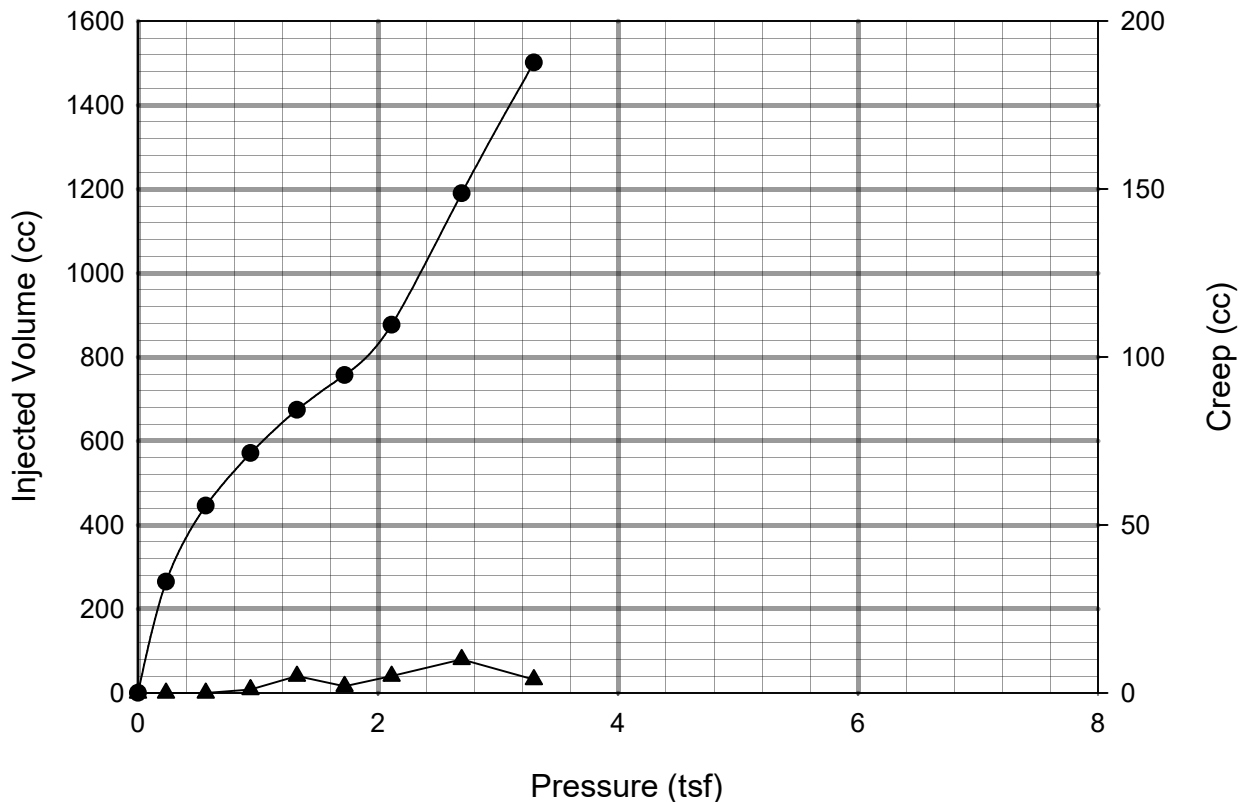
● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): 0.9 tsf
Yield Pressure (Pf): 5.2 tsf
Limit Pressure (Pl): 10 tsf
Pressuremeter Modulus (Ed): 90 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 6, 2022

Boring No.: Adjacent to boring B313
Test Depth: 6 to 8 feet
Soil Description: Fine to Medium SAND- Brown- Moist- Loose
USCS Symbol: SP
Standard Penetration Test Blow Counts: 2-1-2-2
DCP Blow Counts:



● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): Could not be determined

Yield Pressure (Pf): Could not be determined

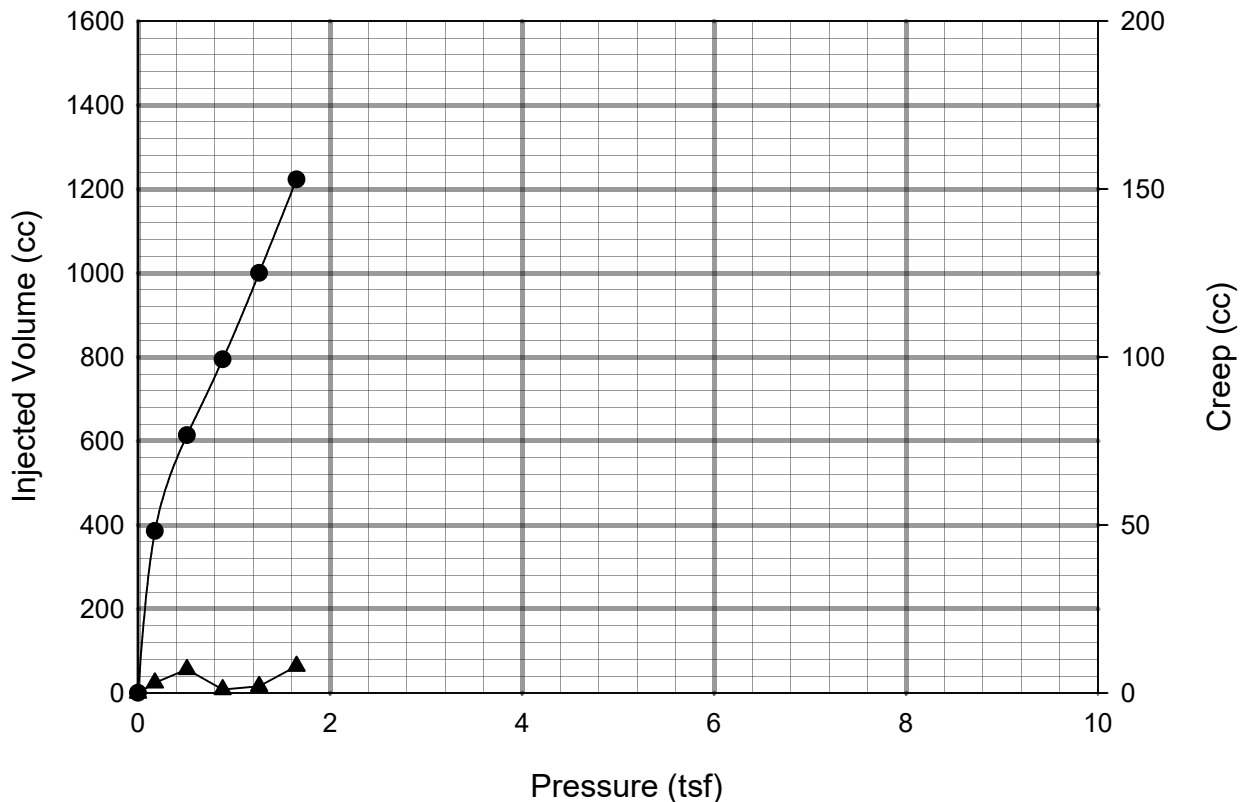
Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): Could not be determined

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 6, 2022

Boring No.: Adjacent to boring B313
Test Depth: 6 to 8 feet
Soil Description: Fine to Medium SAND- Brown- Moist- Loose
USCS Symbol: SP
Standard Penetration Test Blow Counts: 2-2-2-1
DCP Blow Counts:



● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): Could not be determined

Yield Pressure (Pf): Could not be determined

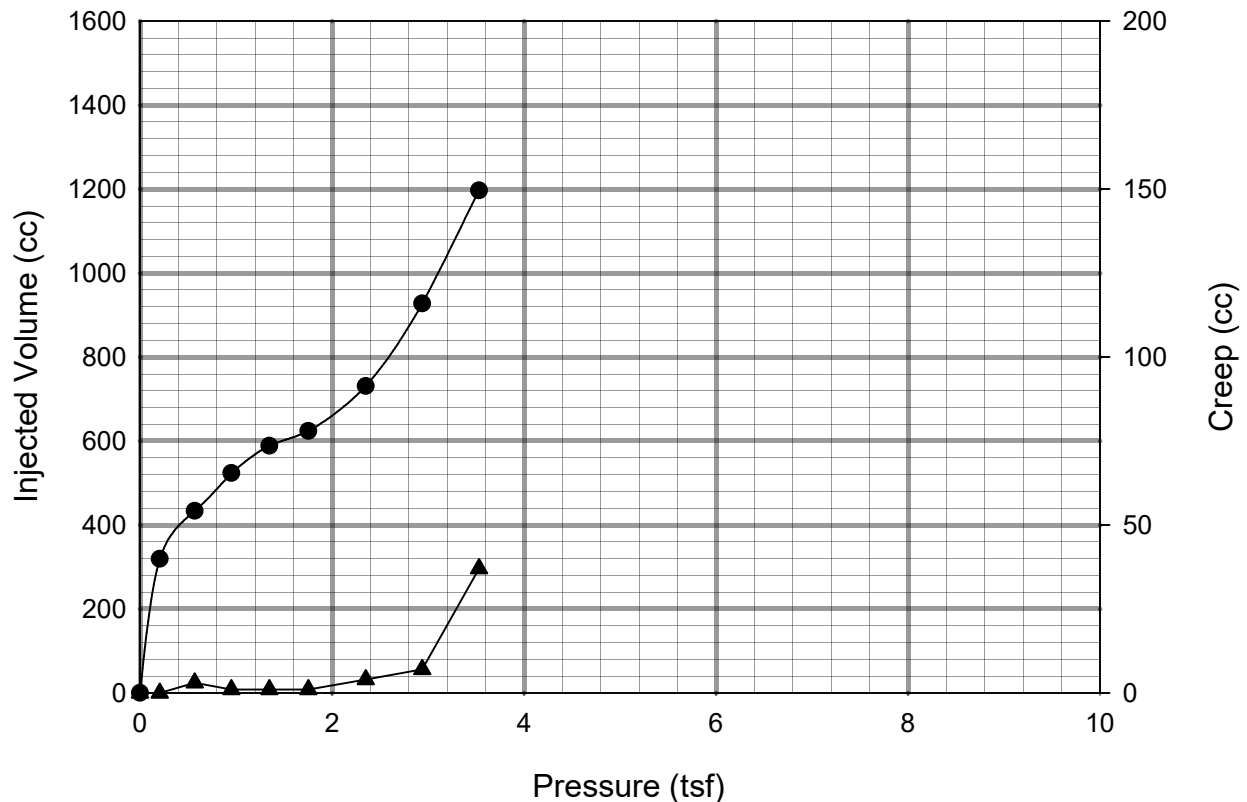
Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): Could not be determined

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 7, 2022

Boring No.: Adjacent to boring B313
Test Depth: 6 to 8 feet
Soil Description: Fine to Medium SAND- Brown- Moist- Very Loose
USCS Symbol: SP
Standard Penetration Test Blow Counts: 2-1-2-3
DCP Blow Counts:



● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): Could not be determined

Yield Pressure (Pf): Could not be determined

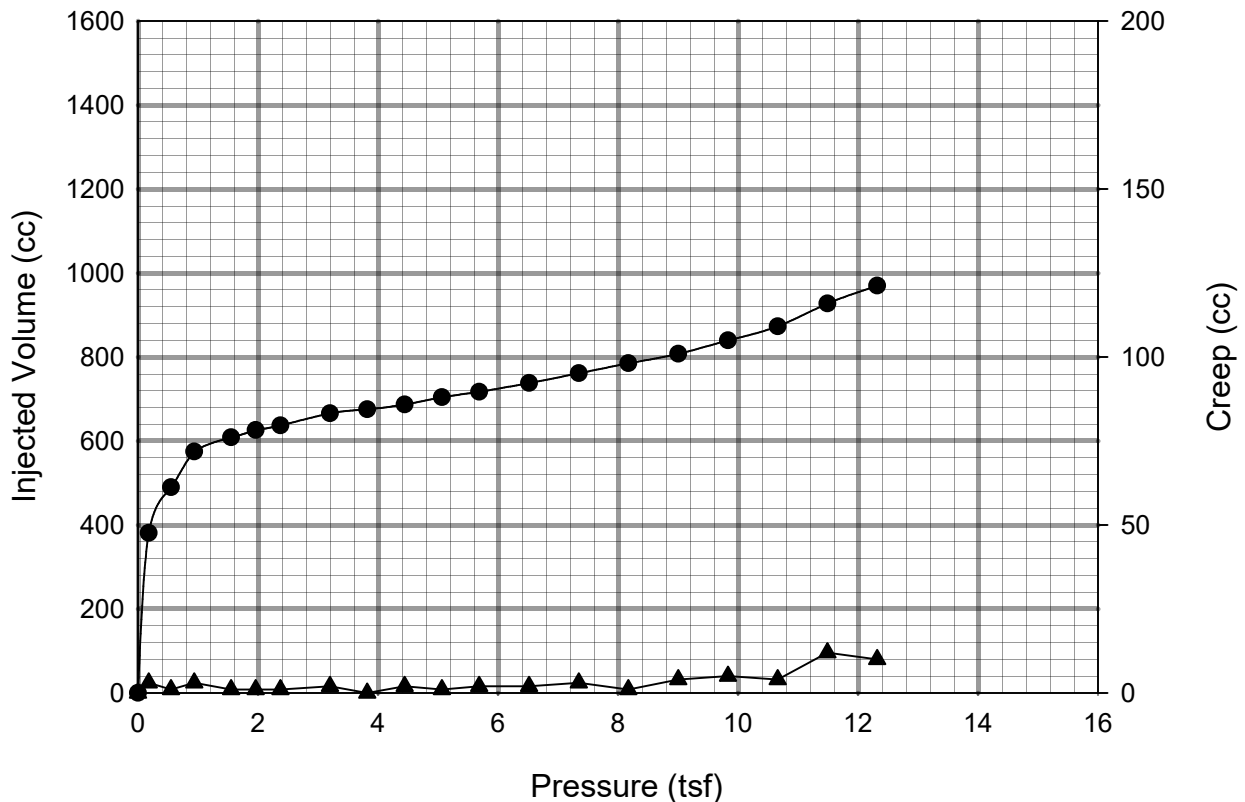
Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): Could not be determined

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 6, 2022

Boring No.: Adjacent to boring B313
Test Depth: 11-13 Feet
Soil Description: Fine to Medium SAND- Brown- Moist- Loose
USCS Symbol: SP
Standard Penetration Test Blow Counts: 5-12-12-18
DCP Blow Counts:



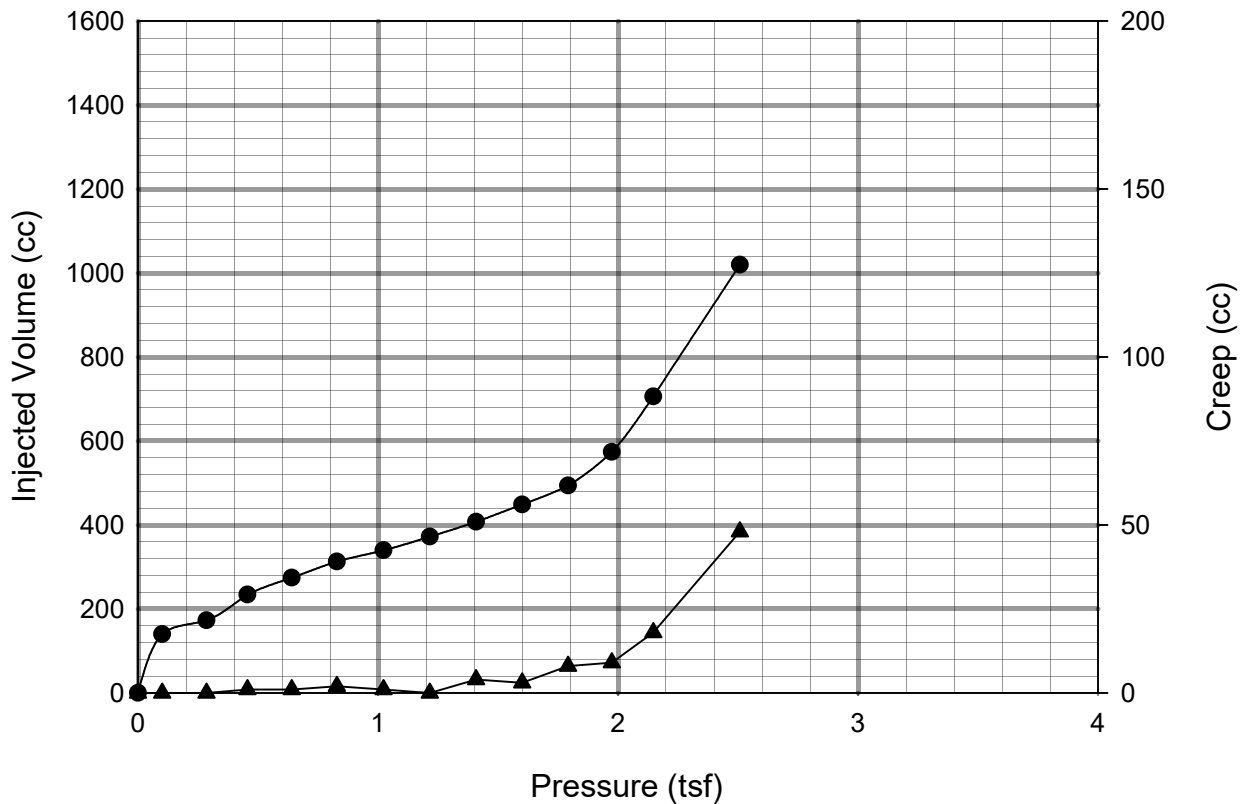
● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): 0.9 tsf
Yield Pressure (Pf): 9.8 tsf
Limit Pressure (Pl): Could not be determined
Pressuremeter Modulus (Ed): 221 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 7, 2022

Boring No.: Adjacent to boring B317
Test Depth: 5 to 7 feet
Soil Description: Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Loose
USCS Symbol: SP-SM
Standard Penetration Test Blow Counts: 2-2-2-2
DCP Blow Counts:



● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): 0.5 tsf

Yield Pressure (Pf): 1.8 tsf

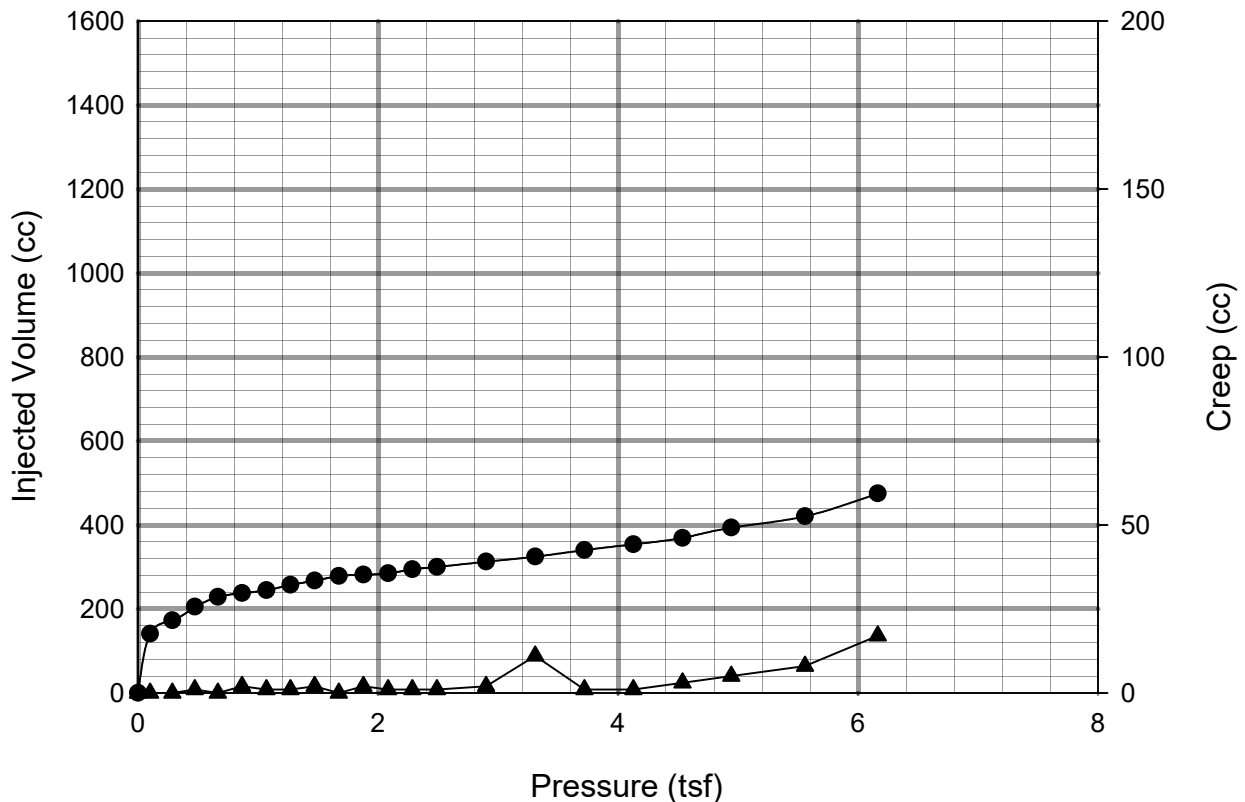
Limit Pressure (Pl): 3 tsf

Pressuremeter Modulus (Ed): 29 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 7, 2022

Boring No.: Adjacent to boring B317
Test Depth: 10 to 12 feet
Soil Description: Fine to Coarse SAND with Silt- Brown- Moist- Loose
USCS Symbol: SP-SM
Standard Penetration Test Blow Counts: 2-4-6-9
DCP Blow Counts:



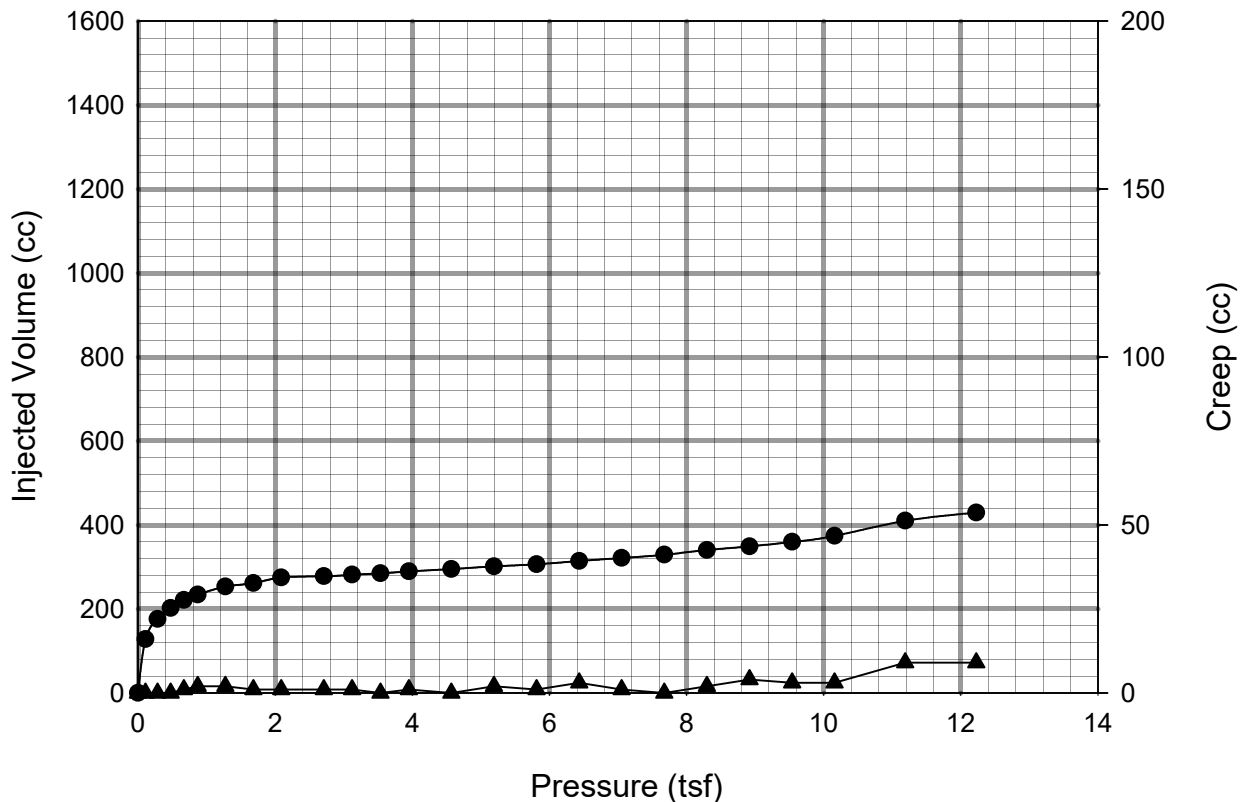
● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): 0.7 tsf
Yield Pressure (Pf): 5.6 tsf
Limit Pressure (Pl): Could not be determined
Pressuremeter Modulus (Ed): 142 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 8, 2022

Boring No.: Adjacent to boring B317
Test Depth: 5 to 7 feet
Soil Description: Fine to Coarse SAND with Silt and Gravel- Brown- Moist- Loose
USCS Symbol: SP-SM
Standard Penetration Test Blow Counts: 7-12-17-17
DCP Blow Counts:



● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): 0.9 tsf
Yield Pressure (Pf): 10.2 tsf
Limit Pressure (Pl): Could not be determined
Pressuremeter Modulus (Ed): 366 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite

Project Location: Marshall Township, Michigan

SME Project No.: 088106.00

Test Date: December 8, 2022

Boring No.: Adjacent to boring B317

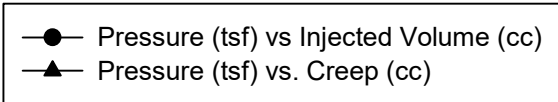
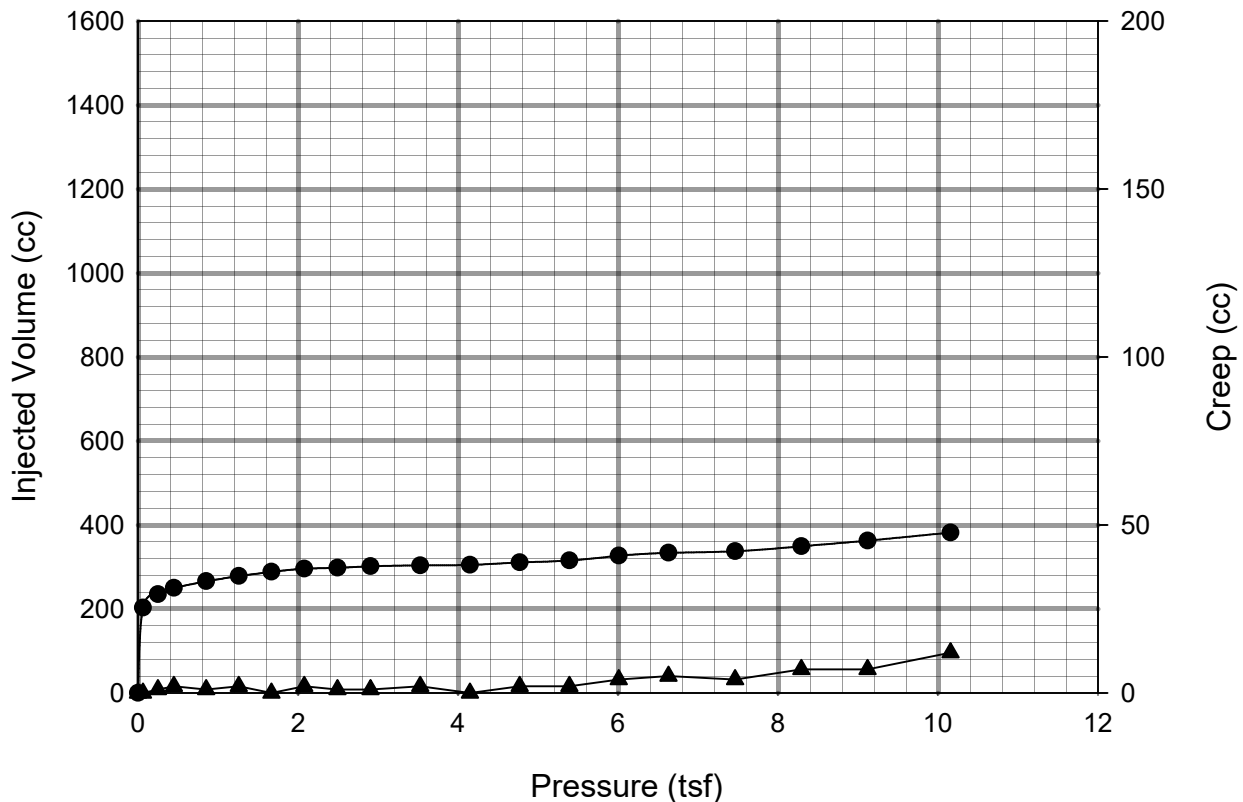
Test Depth: 10 to 12 feet

Soil Description: Fine to Coarse SAND with Silt- Brown- Moist- Medium Dense

USCS Symbol: SP-SM

Standard Penetration Test Blow Counts: 6-9-9-12

DCP Blow Counts:



Initial Pressure (Pi): 0.9 tsf

Yield Pressure (Pf): 9.1 tsf

Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): 473 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite

Project Location: Marshall Township, Michigan

SME Project No.: 088106.00

Test Date: December 8, 2022

Boring No.: Adjacent to boring B319

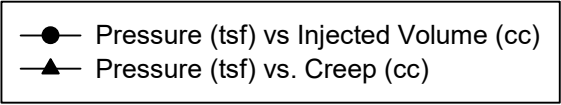
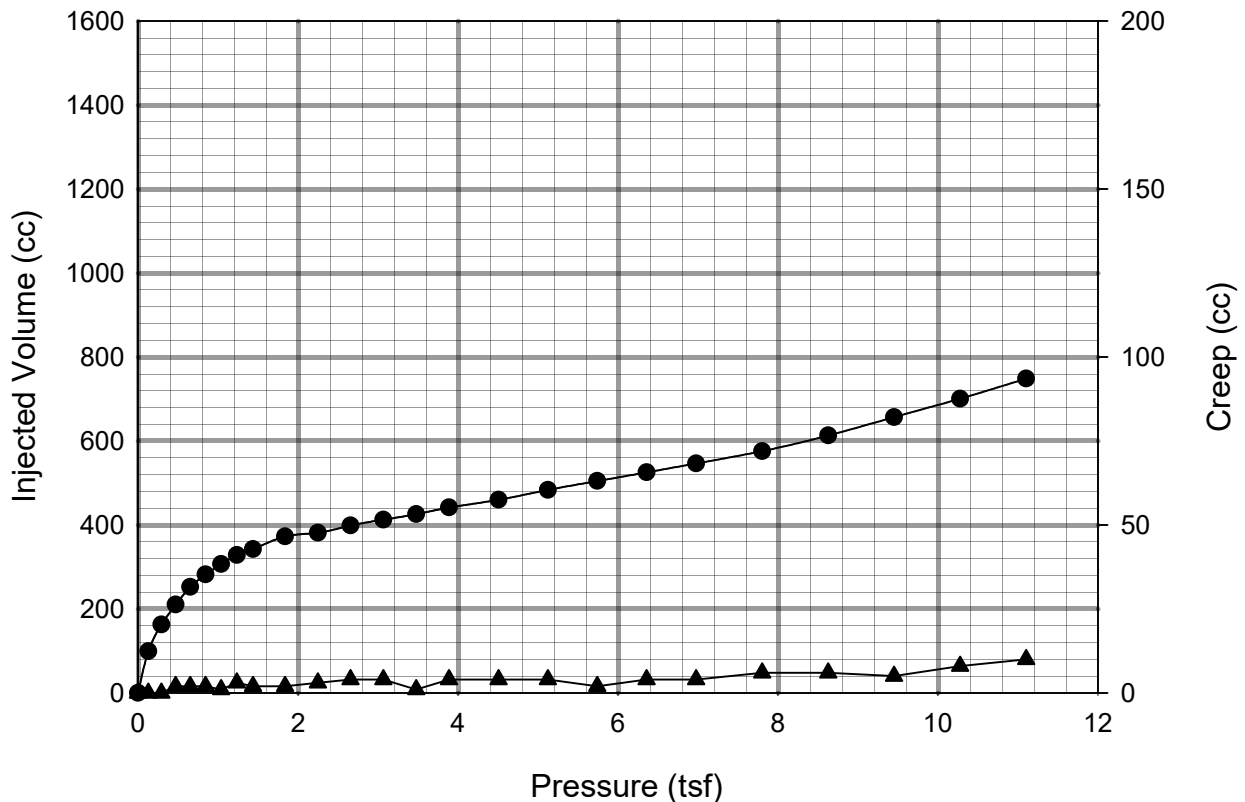
Test Depth: 4 to 6 feet

Soil Description: Fine to Coarse SAND with Silt- Brown- Moist- Medium Dense

USCS Symbol: SP-SM

Standard Penetration Test Blow Counts: 9-9-8-11

DCP Blow Counts:



Initial Pressure (Pi): 1.2 tsf

Yield Pressure (Pf): 8.6 tsf

Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): 154 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite

Project Location: Marshall Township, Michigan

SME Project No.: 088106.00

Test Date: December 8, 2022

Boring No.: Adjacent to boring B319

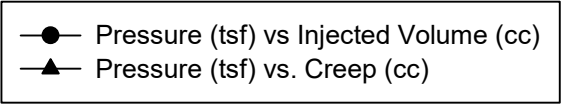
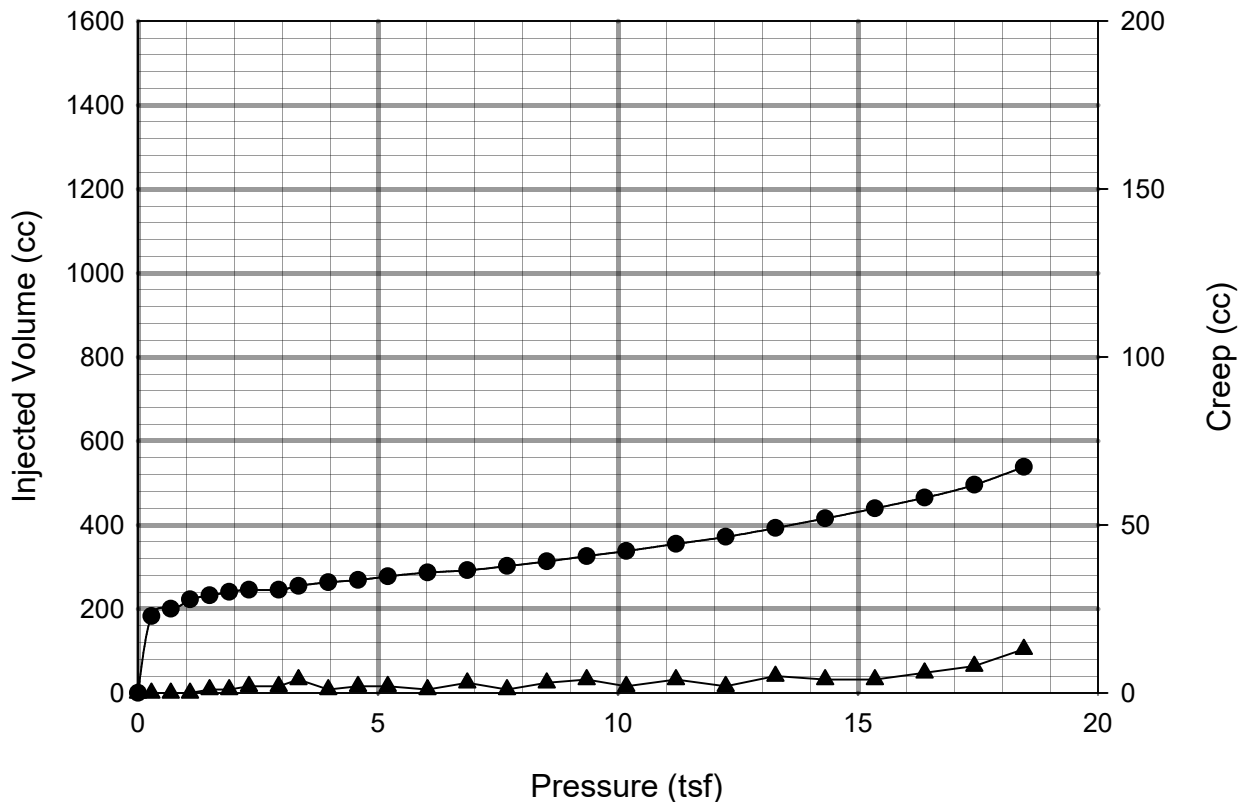
Test Depth: 10 to 12 feet

Soil Description: Fine to Coarse SAND with Gravel- Brown- Moist- Medium Dense

USCS Symbol: SP

Standard Penetration Test Blow Counts: 9-13-13-14

DCP Blow Counts:



Initial Pressure (Pi): 1.1 tsf

Yield Pressure (Pf): 12.2 tsf

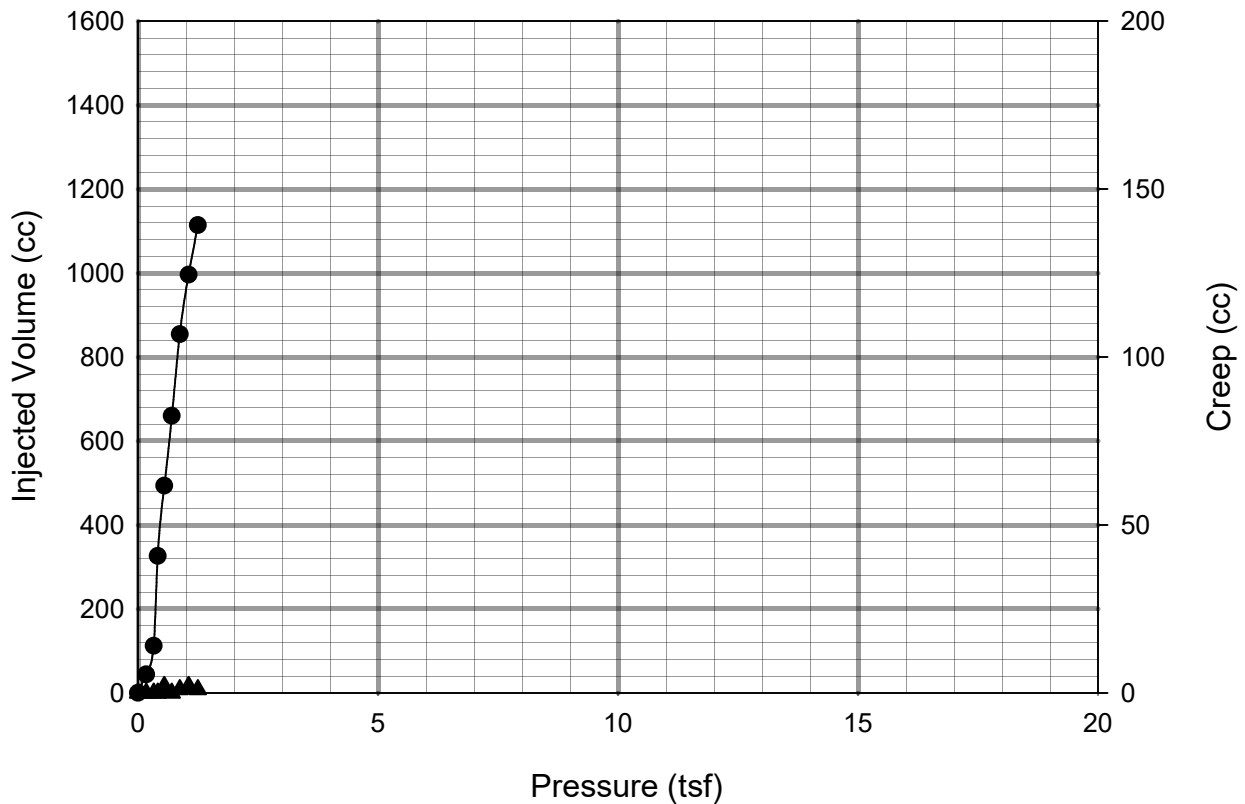
Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): 412 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 8, 2022

Boring No.: Adjacent to boring B319
Test Depth: 15 to 17 feet
Soil Description: Fine to Coarse SAND with Gravel- Brown- Wet- Loose
USCS Symbol: SP
Standard Penetration Test Blow Counts: 2-2-4-6
DCP Blow Counts:



- Pressure (tsf) vs Injected Volume (cc)
- ▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): Could not be determined

Yield Pressure (Pf): Could not be determined

Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): Could not be determined

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite

Project Location: Marshall Township, Michigan

SME Project No.: 088106.00

Test Date: December 13, 2022

Boring No.: Adjacent to boring B319A

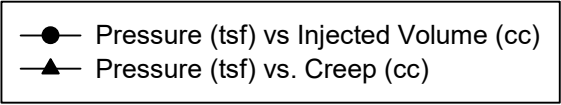
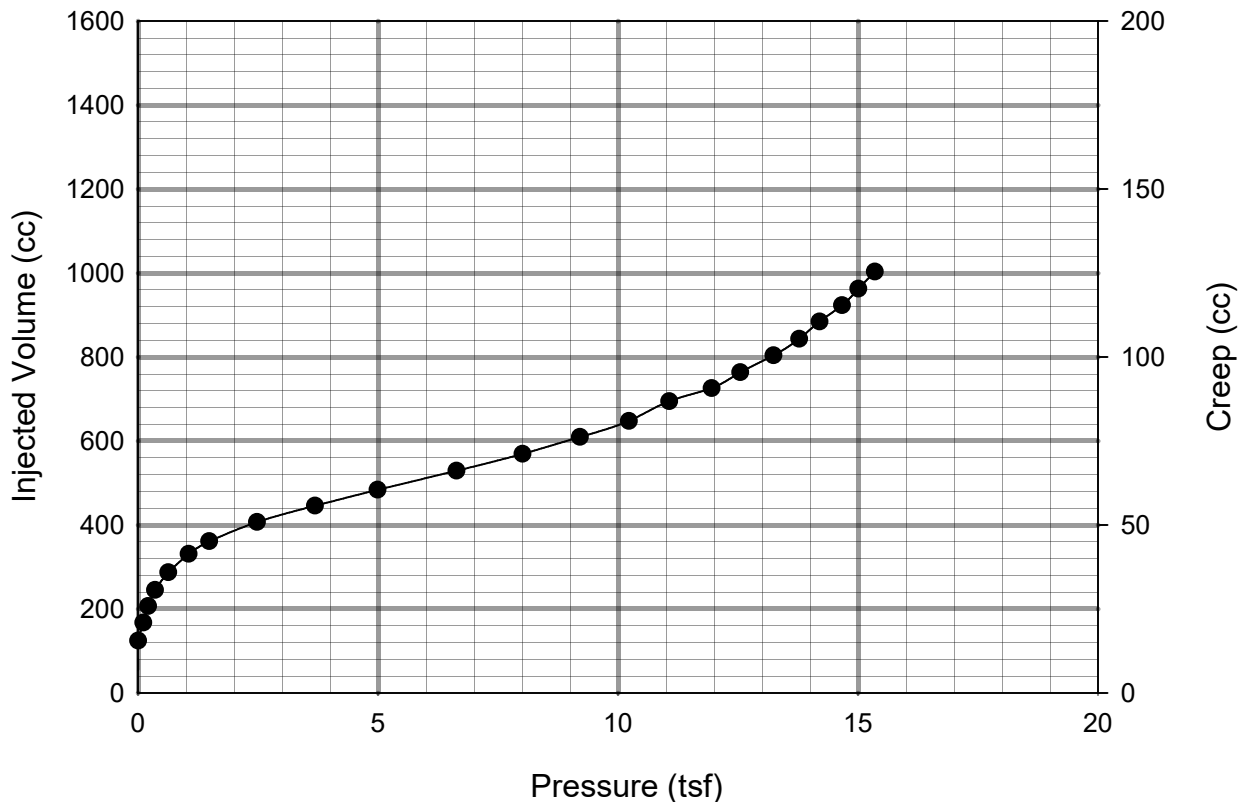
Test Depth: 5 to 7 feet

Soil Description: Fine to Coarse SAND with Silt- Brown- Moist- Medium Dense

USCS Symbol: SP-SM

Standard Penetration Test Blow Counts: 4-10-15-21

DCP Blow Counts:



Initial Pressure (Pi): 1.1 tsf
Yield Pressure (Pf): 12.0 tsf
Limit Pressure (Pl): 19 tsf
Pressuremeter Modulus (Ed): 158 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite

Project Location: Marshall Township, Michigan

SME Project No.: 088106.00

Test Date: December 13, 2022

Boring No.: Adjacent to boring B319A

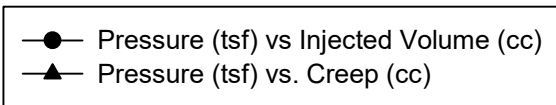
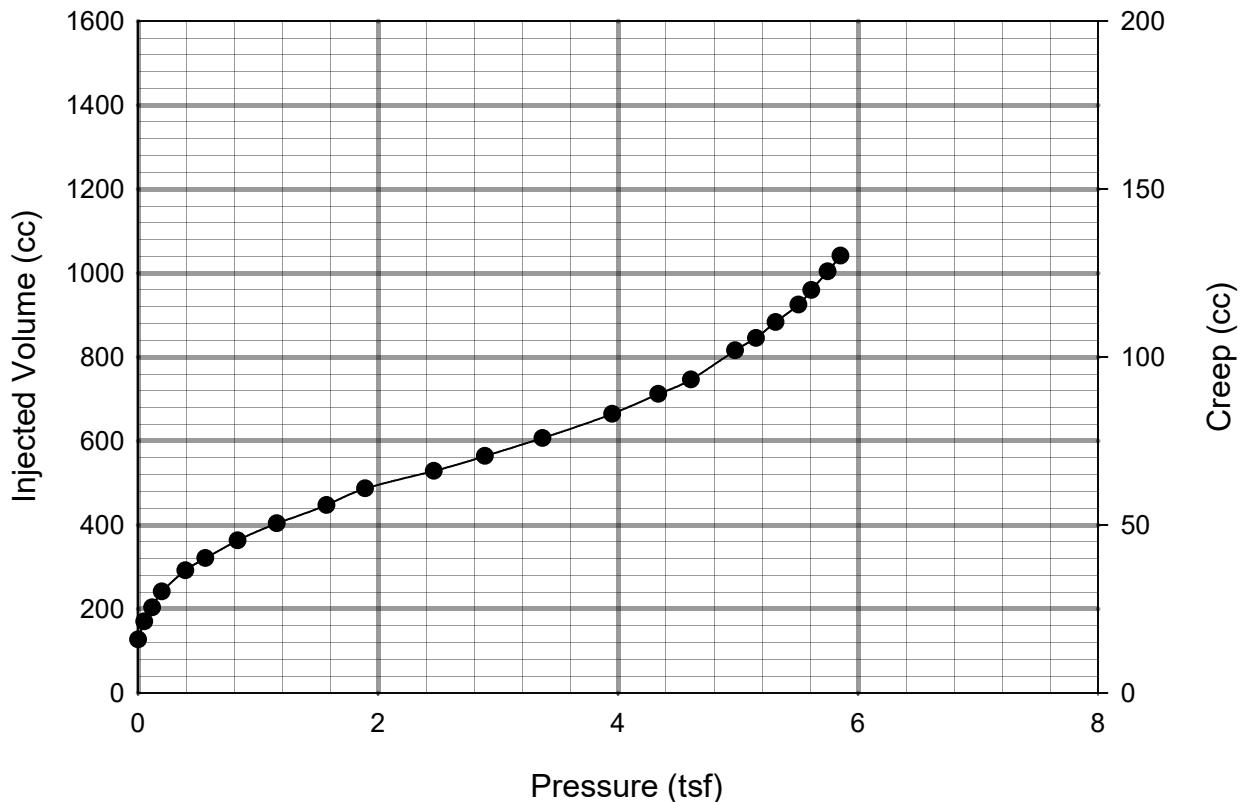
Test Depth: 10 to 12 feet

Soil Description: Fine to Coarse SAND with Gravel- Brown- Moist- Medium Dense

USCS Symbol: SP

Standard Penetration Test Blow Counts: 9-7-5-6

DCP Blow Counts:



Initial Pressure (Pi): 0.8 tsf

Yield Pressure (Pf): 4.6 tsf

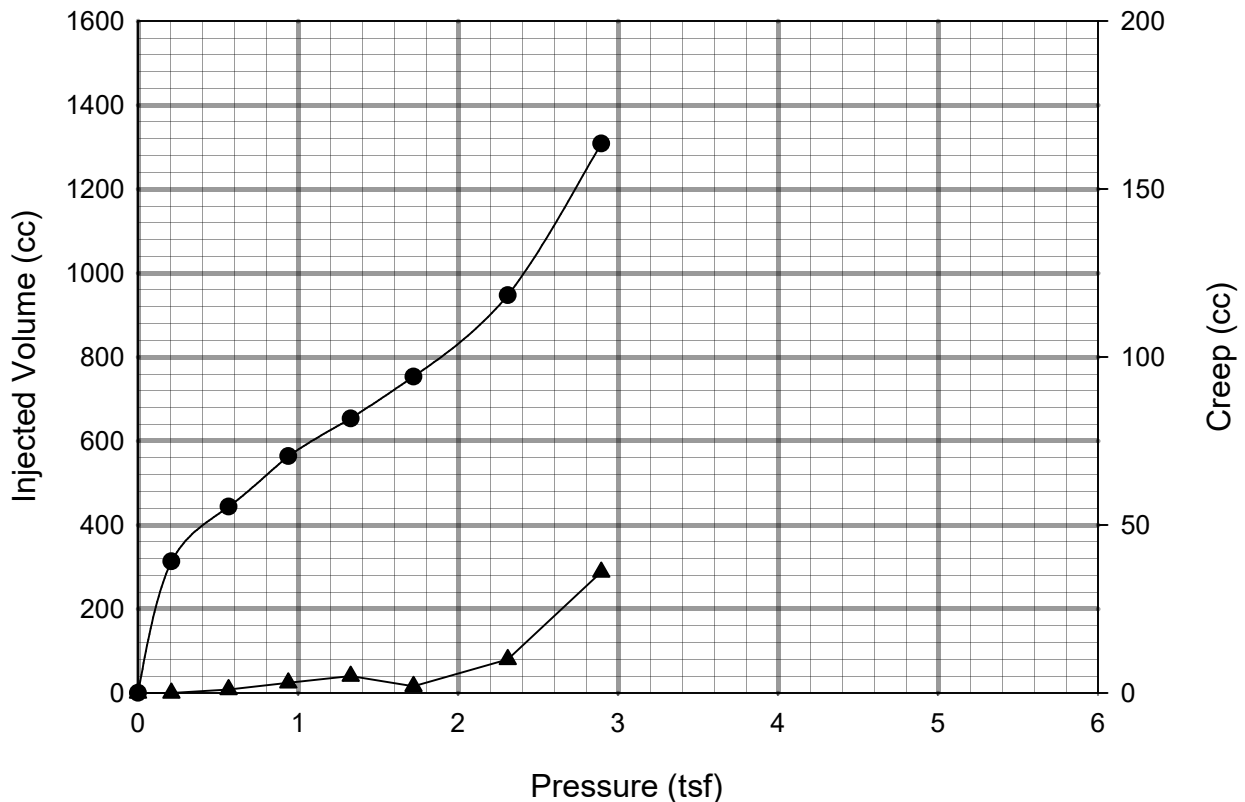
Limit Pressure (Pl): 8 tsf

Pressuremeter Modulus (Ed): 57 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 7, 2022

Boring No.: Adjacent to boring B320
Test Depth: 6 to 8 feet
Soil Description: Fine to Coarse SILTY SAND- Dark Brown- Moist- Loose
USCS Symbol: SM
Standard Penetration Test Blow Counts: 2-3-2-3
DCP Blow Counts:



● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): Could not be determined

Yield Pressure (Pf): Could not be determined

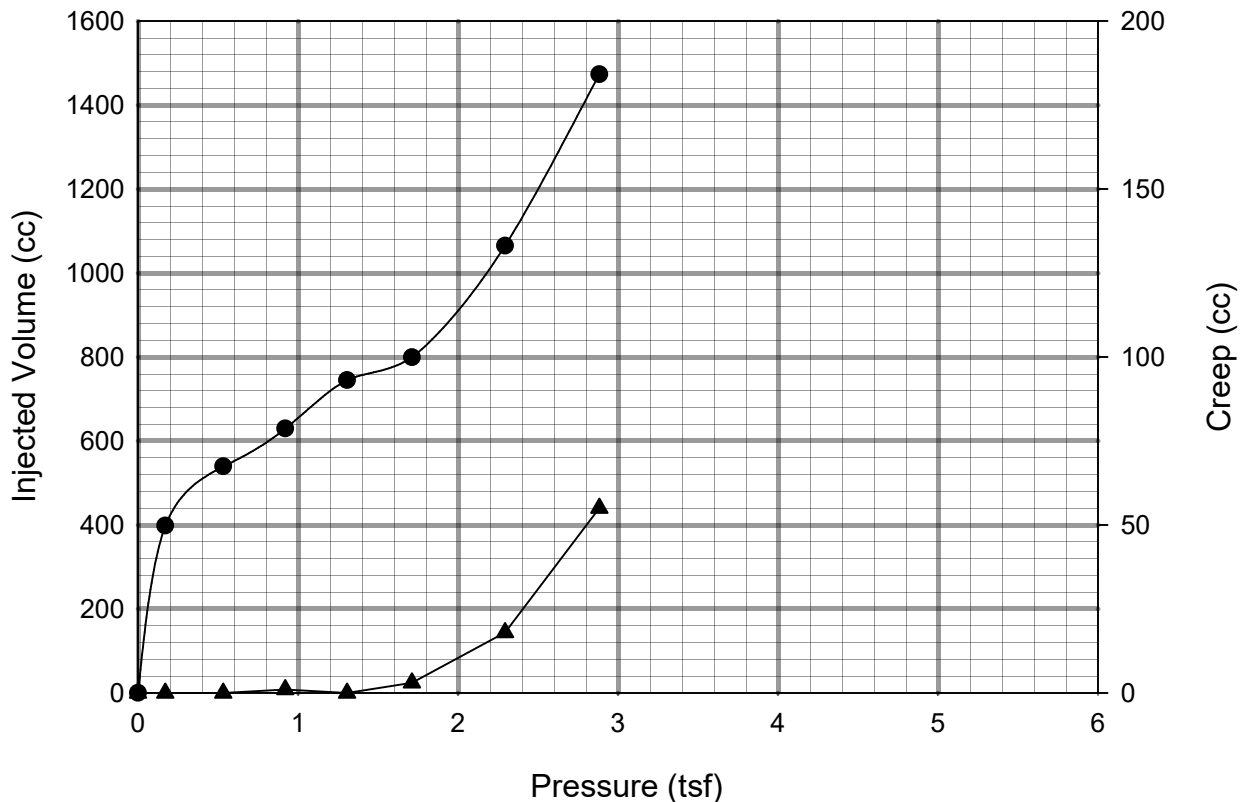
Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): Could not be determined

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 7, 2022

Boring No.: Adjacent to boring B320
Test Depth: 11 to 13 feet
Soil Description: Fine to Coarse SILTY SAND- Dark Brown- Moist- Loose
USCS Symbol: SM
Standard Penetration Test Blow Counts: 3-2-2-2
DCP Blow Counts:



● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): Could not be determined

Yield Pressure (Pf): Could not be determined

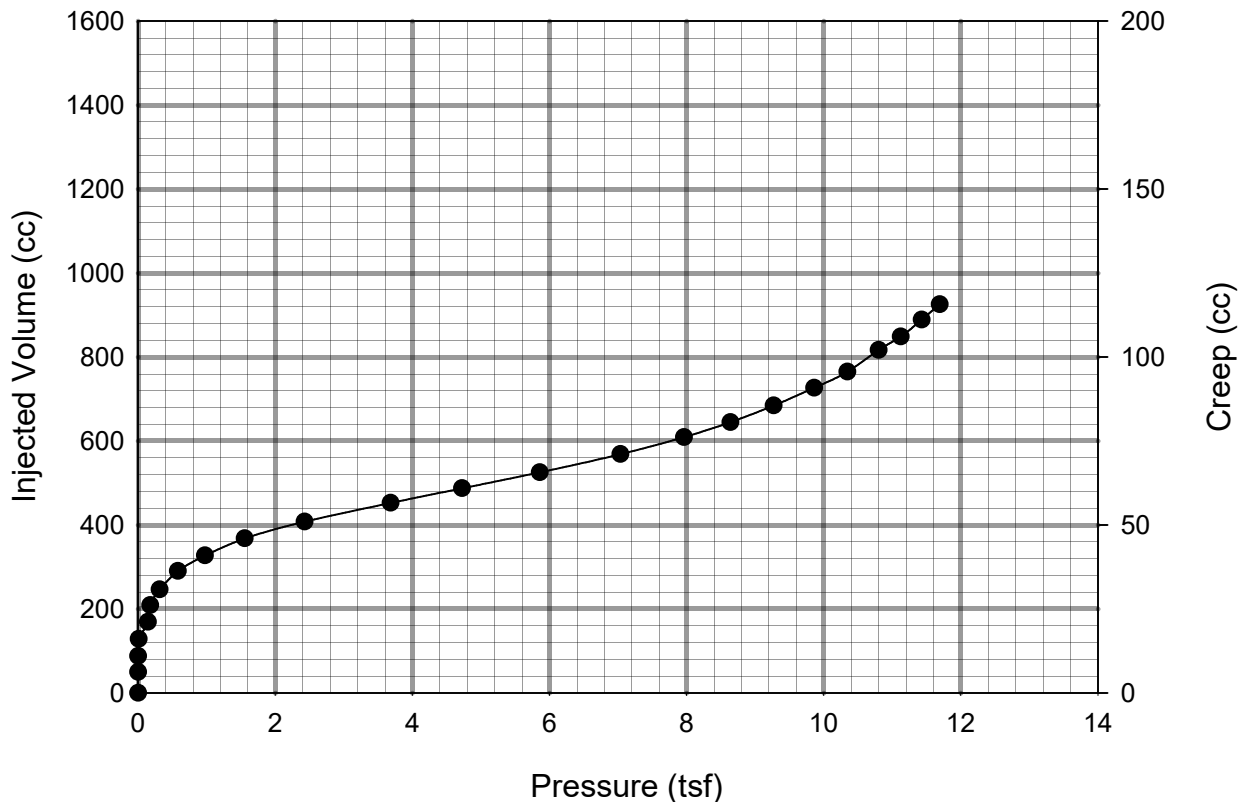
Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): Could not be determined

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 13, 2022

Boring No.: Adjacent to boring B320
Test Depth: 6 to 8 feet
Soil Description: Fine to Coarse SILTY SAND- Dark Brown- Moist- Loose
USCS Symbol: SM
Standard Penetration Test Blow Counts: 6-9-9-12
DCP Blow Counts:



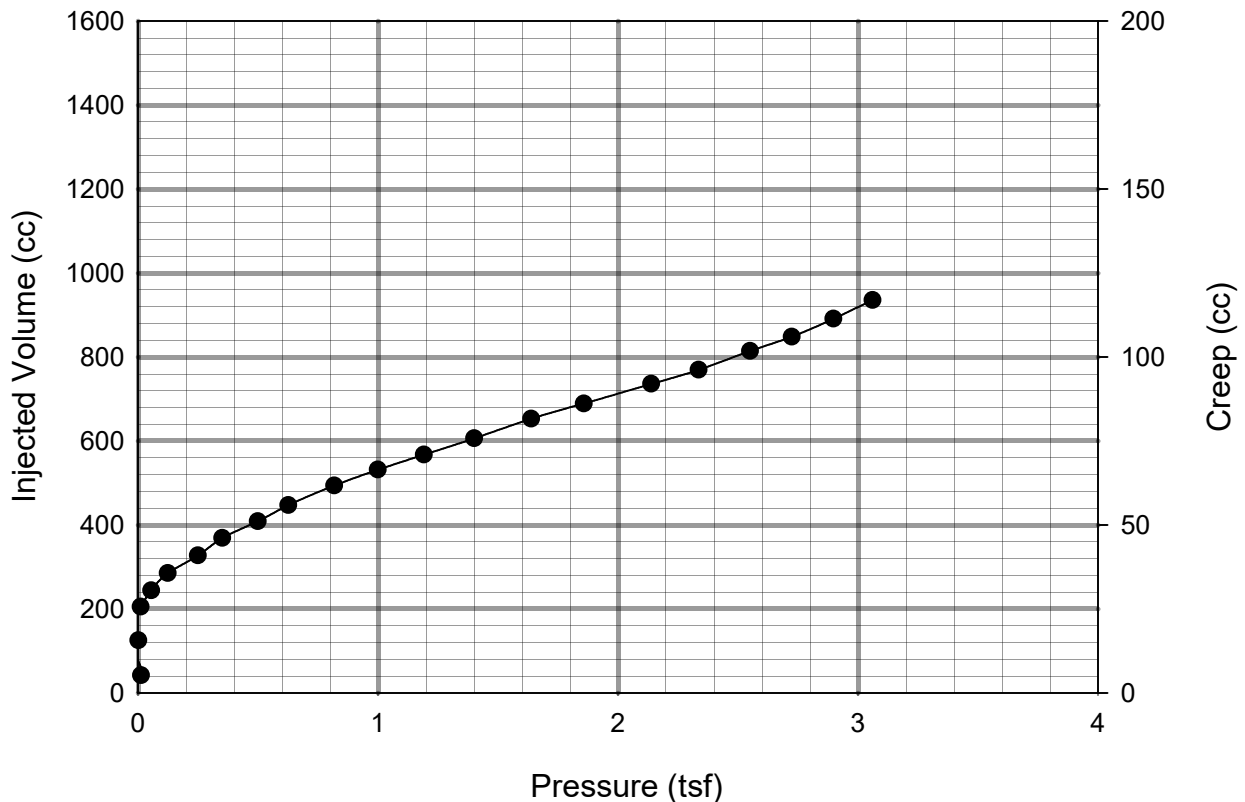
● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): 1.6 tsf
Yield Pressure (Pf): 8.6 tsf
Limit Pressure (Pl): 14 tsf
Pressuremeter Modulus (Ed): 145 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 13, 2022

Boring No.: Adjacent to boring B320
Test Depth: 11 to 13 feet
Soil Description: Fine to Coarse SILTY SAND- Dark Brown- Moist- Loose
USCS Symbol: SM
Standard Penetration Test Blow Counts: 5-5-3-4
DCP Blow Counts:



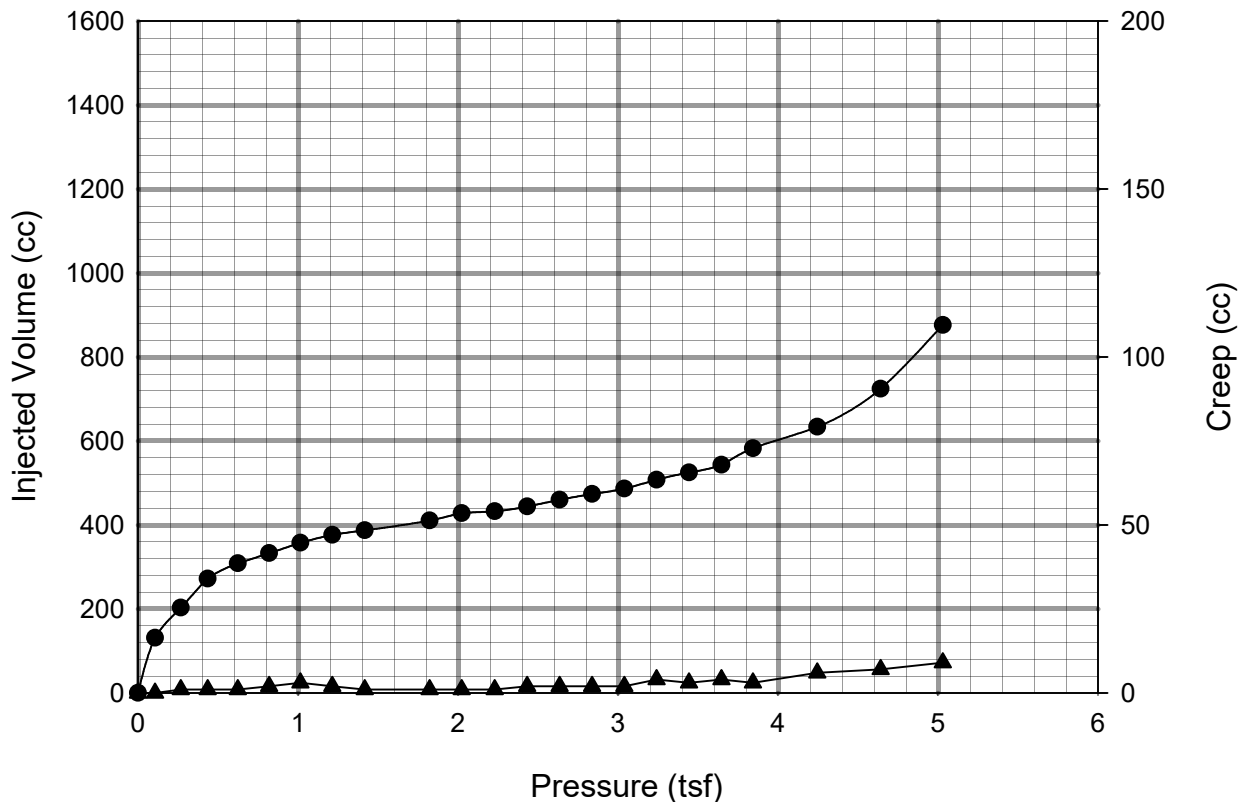
● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): 0.8 tsf
Yield Pressure (Pf): 2.7 tsf
Limit Pressure (Pl): Could not be determined
Pressuremeter Modulus (Ed): 33 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 7, 2022

Boring No.: Adjacent to boring B326
Test Depth: 5 to 7 feet
Soil Description: Fine to Medium SAND with Silt- Brown- Moist- Loose
USCS Symbol: SP-SM
Standard Penetration Test Blow Counts: 3-2-3-4
DCP Blow Counts:



● Pressure (tsf) vs Injected Volume (cc)
▲ Pressure (tsf) vs. Creep (cc)

Initial Pressure (Pi): 0.6 tsf

Yield Pressure (Pf): 3.6 tsf

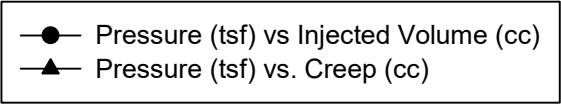
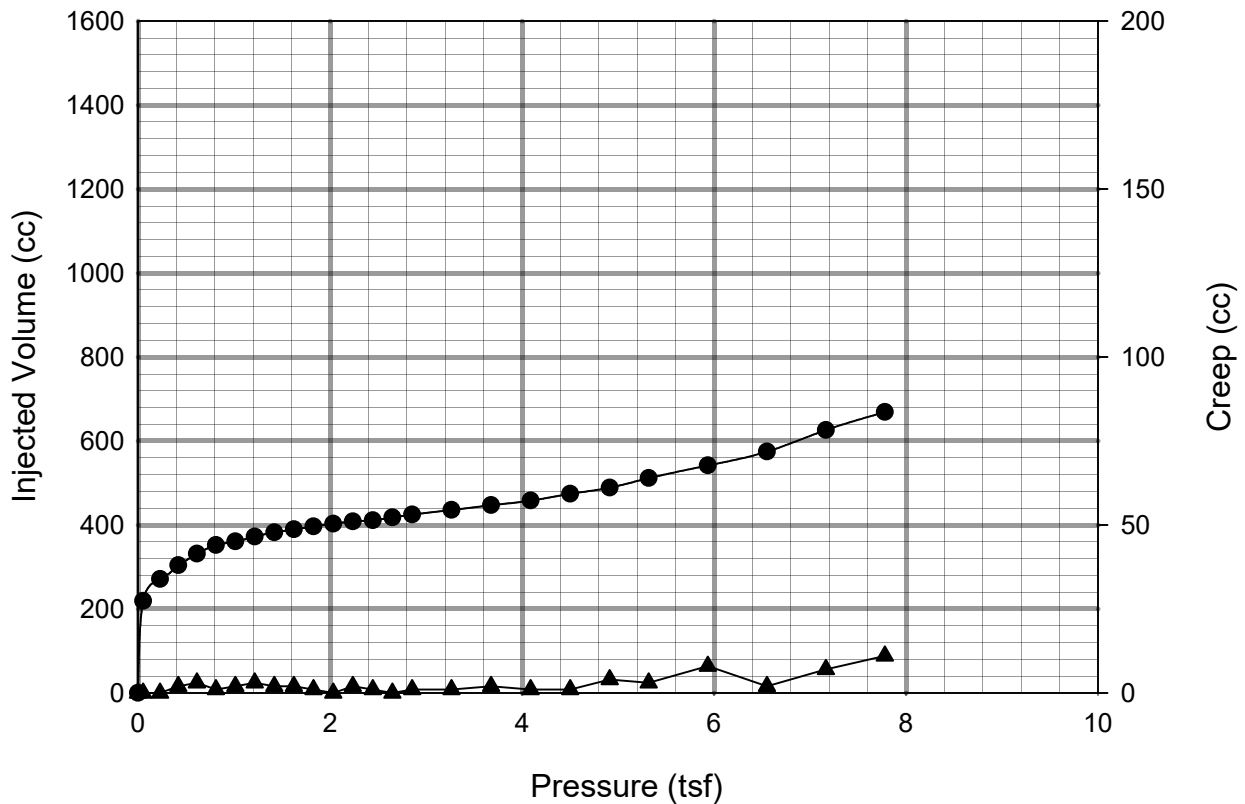
Limit Pressure (Pl): 6 tsf

Pressuremeter Modulus (Ed): 75 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 7, 2022

Boring No.: Adjacent to boring B326
Test Depth: 10 to 12 feet
Soil Description: Fine SAND- Brown- Moist- Loose
USCS Symbol: SP
Standard Penetration Test Blow Counts: 5-4-5-6
DCP Blow Counts:



Initial Pressure (Pi): 0.8 tsf

Yield Pressure (Pf): 5.3 tsf

Limit Pressure (Pl): Could not be determined

Pressuremeter Modulus (Ed): 165 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite

Project Location: Marshall Township, Michigan

SME Project No.: 088106.00

Test Date: December 13, 2022

Boring No.: Adjacent to boring B326

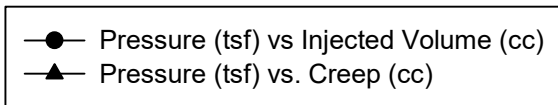
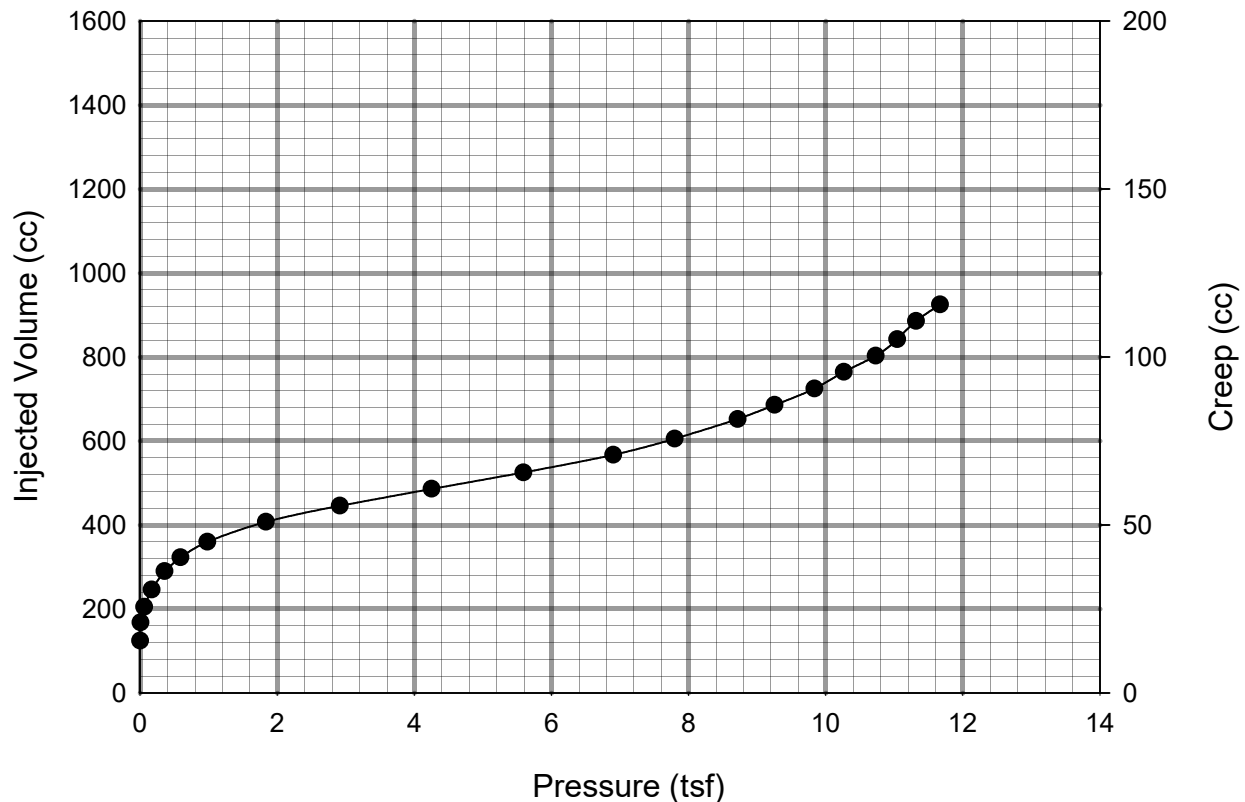
Test Depth: 5 to 7 feet

Soil Description: Fine to Medium SAND with Silt- Brown- Moist- Medium Dense

USCS Symbol: SP-SM

Standard Penetration Test Blow Counts: 5-8-11-14

DCP Blow Counts:



Initial Pressure (Pi): 1.0 tsf

Yield Pressure (Pf): 8.7 tsf

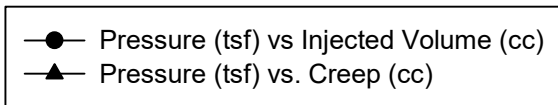
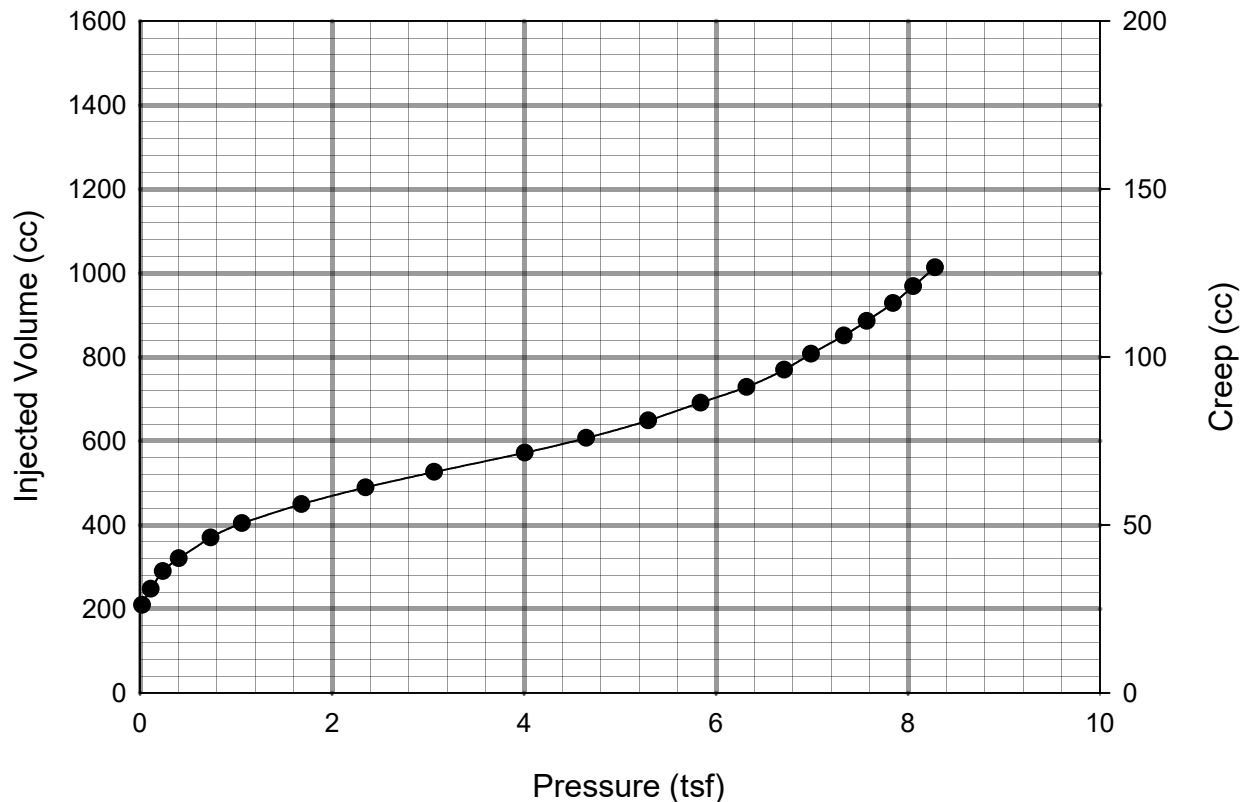
Limit Pressure (Pl): 14 tsf

Pressuremeter Modulus (Ed): 150 tsf

Pressuremeter Test Results

Project Name: Marshall Michigan Megasite
Project Location: Marshall Township, Michigan
SME Project No.: 088106.00
Test Date: December 13, 2022

Boring No.: Adjacent to boring B326
Test Depth: 10 to 12 feet
Soil Description: Fine SAND- Brown- Moist- Medium Dense
USCS Symbol: SP
Standard Penetration Test Blow Counts: 5-9-7-7
DCP Blow Counts:



Initial Pressure (Pi): 1.1 tsf

Yield Pressure (Pf): 6.3 tsf

Limit Pressure (Pl): 10 tsf

Pressuremeter Modulus (Ed): 94 tsf



PHOTO NO. 1: Test Pit TP326 facing west.



PHOTO NO. 2: Test Pit TP319 facing north. Re-excavated later to improve 7' by 7' area.

SME Project No.	088106.00
Photographs by:	Kyle Areaux
Date:	12/29/22
Project:	Marshall Megasite – Site 2: Geotechnical Services
Location:	Marshall Township, Michigan



PHOTO NO. 3: Test Pit TP317 facing south.

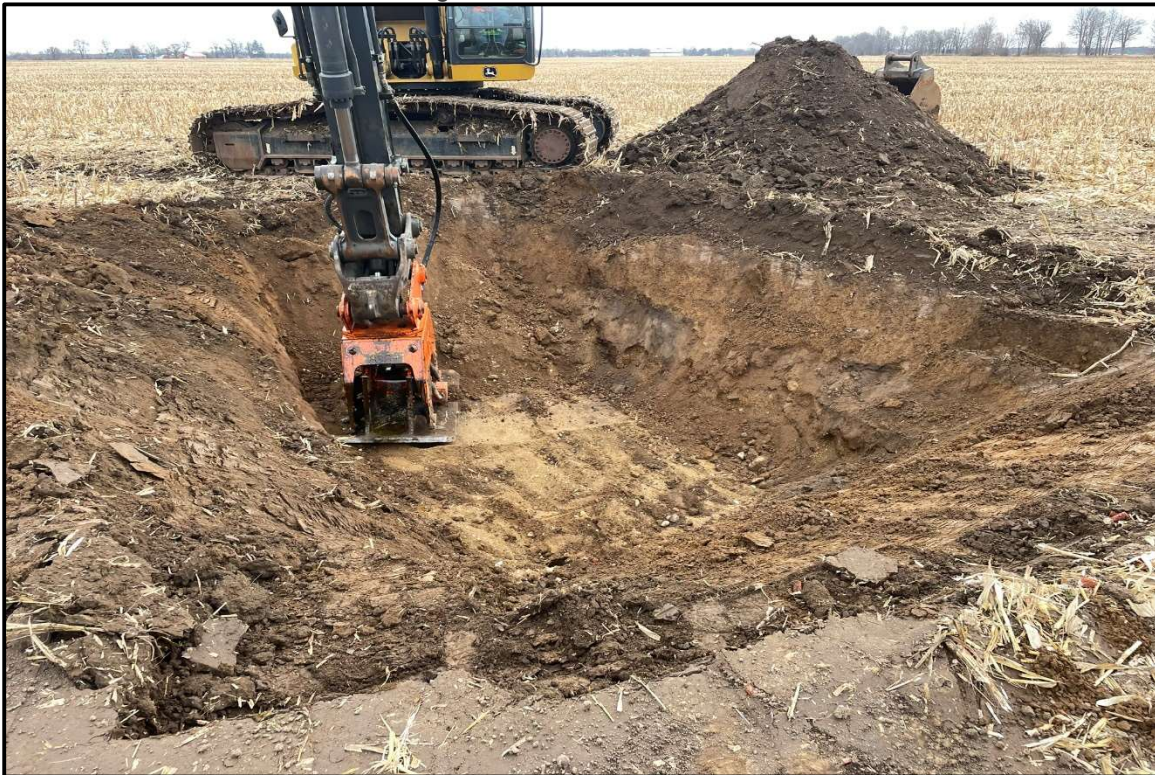


PHOTO NO. 4: Test Pit TP313 facing northeast.

SME Project No.	088106.00
Photographs by:	Kyle Areaux
Date:	12/29/22
Project:	Marshall Megasite – Site 2: Geotechnical Services
Location:	Marshall Township, Michigan

TABLE A.3: TOPSOIL ORGANIC CONTENT SUMMARY

SAMPLE NO.	TOPSOIL THICKNESS (IN)	WATER CONTENT	ORGANIC CONTENT
B311	12	17%	2.6%
B313	10	17%	3.0%
B317	20	18%	3.3%
B318	10	16%	2.9%
B319	11	20%	3.4%
B320	20	18%	3.5%
B321	12	22%	3.4%
B324	11	18%	2.9%
B325	11	18%	2.9%
B326	10	20%	3.4%
B327	9	23%	5.9%
B328	16	14%	2.3%
B401	12	15%	2.6%
B403	7	19%	3.0%
B405	8	20%	3.5%
B406	8	20%	3.2%
B407	10	16%	2.6%
B415	9	20%	3.2%
B417	9	20%	3.5%
B419	18	18%	3.5%
B421	9	21%	4.1%
B423	12	17%	3.1%
B431	10	19%	3.8%
B433	8	14%	2.4%
B435	7	15%	3.0%
B437	10	19%	3.4%



**LIQUID LIMIT, PLASTIC LIMIT
& PLASTICITY INDEX
ASTM D4318 - A**

PROJECT: Marshall Michigan Megasite
LOCATION: Marshall, MI
PROJECT#: 088106.00
DATE: January 31, 2022

DATE OBTAINED: January 18, 2022
SAMPLE NUMBER: SB1: 1' - 2.5' (911.0' - 909.5')
SAMPLE LOCATION: B206
SAMPLE DESCRIPTION: Sandy LEAN CLAY - Brown
TECHNICIAN: Errol Gilbert, CET

TEST METHOD: ASTM D4318
 METHOD - A

TEST DATA:

LIQUID LIMIT

Point #:	1	2	3
Wet Wt + Tare, g:	29.42	29.38	35.33
Dry Wt + Tare, g:	26.42	26.34	30.37
Tare Wt.:	19.55	19.79	20.30
Water Content:	43.67	46.41	49.26
Number of Blows:	30	20	11

PLASTICITY INDEX

LIQUID LIMIT:	45
PLASTIC LIMIT:	23
PLASTICITY INDEX:	22

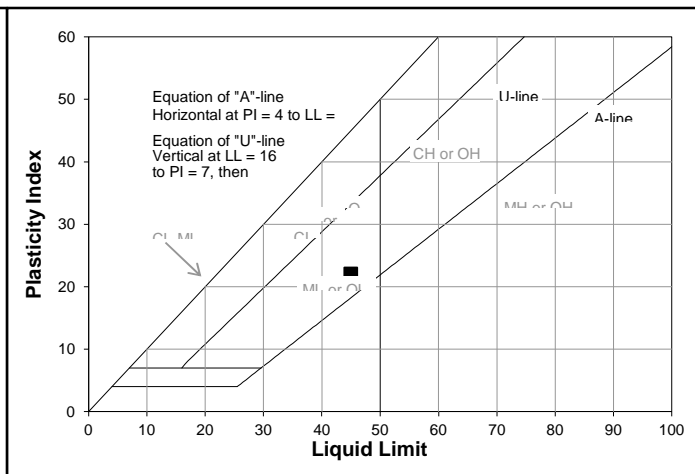
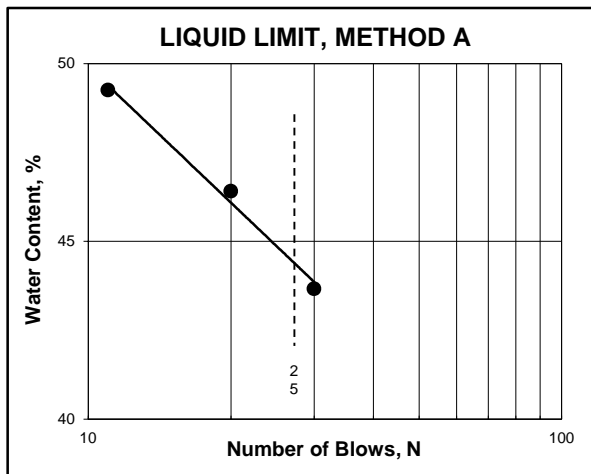
CLASSIFICATION: CL

Water Content corrected for method B:	
---------------------------------------	--

REMARKS: Sample air dried prior to testing

PLASTIC LIMIT TEST

Wet Wt + Tare, g:	27.03	26.91
Dry Wt + Tare, g:	25.71	25.53
Tare Wt, g:	20.14	19.47
Water Content:	23.70	22.77





**LIQUID LIMIT, PLASTIC LIMIT
& PLASTICITY INDEX
ASTM D4318 - A**

PROJECT: Marshall Michigan Megasite
LOCATION: Marshall, MI
PROJECT#: 088106.00
DATE: January 31, 2022

DATE OBTAINED: December 23, 2021
SAMPLE NUMBER: SB1: 1' - 2.5' (919.0' - 917.5')
SAMPLE LOCATION: B312
SAMPLE DESCRIPTION: LEAN CLAY with SAND - Brown
TECHNICIAN: Errol Gilbert, CET

TEST METHOD: ASTM D4318
 METHOD - A

TEST DATA:

LIQUID LIMIT

Point #:	1	2	3
Wet Wt + Tare, g:	30.11	32.70	33.62
Dry Wt + Tare, g:	27.37	29.09	29.16
Tare Wt.:	19.90	20.15	19.37
Water Content:	36.68	40.38	45.56
Number of Blows:	35	30	13

PLASTICITY INDEX

LIQUID LIMIT:	41
PLASTIC LIMIT:	21
PLASTICITY INDEX:	20

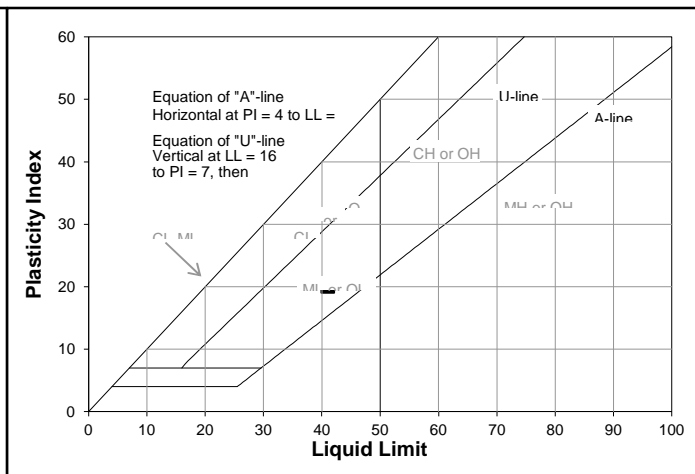
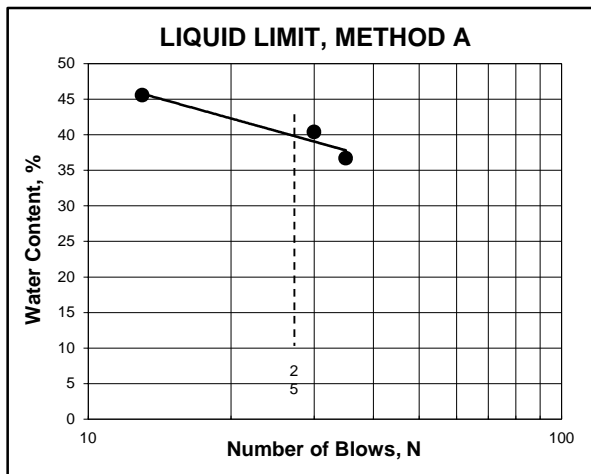
CLASSIFICATION: CL

Water Content corrected for method B:	
---------------------------------------	--

REMARKS: Sample air dried prior to testing

PLASTIC LIMIT TEST

Wet Wt + Tare, g:	25.94	25.89
Dry Wt + Tare, g:	24.77	24.82
Tare Wt, g:	19.21	19.51
Water Content:	21.04	20.15



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	10.4	19.7	7.7	30.2	27.8	4.2	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1	100.0		
3/4	89.6		
1/2	81.9		
3/8	77.5		
#4	69.9		
#8	63.4		
#16	57.7		
#30	43.8		
#50	20.1		
#100	6.3		
#200	4.2		

Material Description

Fine to Coarse SAND with Gravel- Brown

Atterberg Limits

PL= Non-Plastic LL= Non-Plastic PI= Non-Plastic

Coefficients

D₉₀= 19.3025 D₈₅= 15.4720 D₆₀= 1.4764
D₅₀= 0.7576 D₃₀= 0.4018 D₁₅= 0.2496
D₁₀= 0.1971 C_u= 7.49 C_c= 0.56

Classification

USCS= SW AASHTO=

Remarks

* (no specification provided)

Location: B205
Sample Number: SB3

Depth: 6-7.5 (914.0-912.5)

Date: 1/18/2022



Client: Burns & McDonnell
Project: Marshall Michigan Megasite

Project No: 088106.00

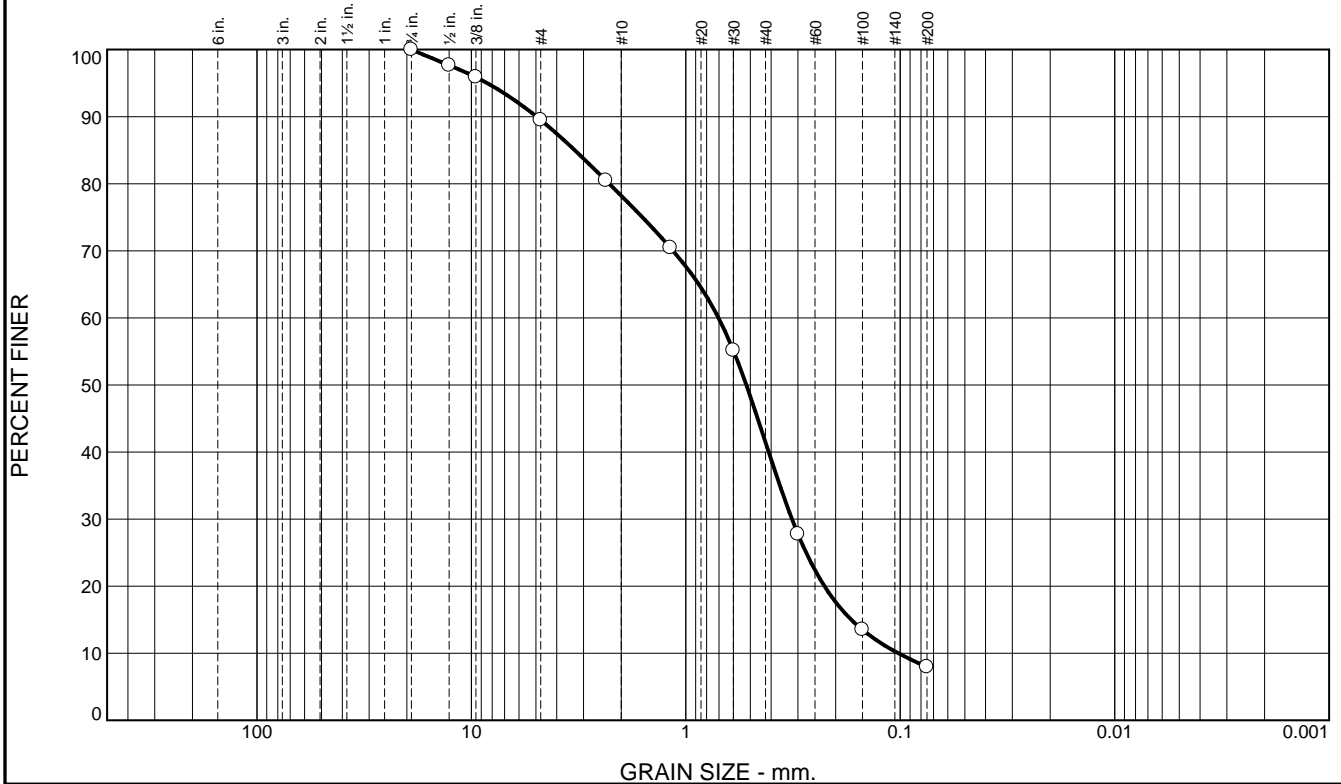
Figure

Tested By: Errol F. Gilbert, CET Checked By: Aaron J. Reed, PE

Particle Size Distribution Report



Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	10.5	11.3	36.7	33.6	7.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4	100.0		
1/2	97.7		
3/8	95.9		
#4	89.5		
#8	80.5		
#16	70.4		
#30	55.1		
#50	27.7		
#100	13.5		
#200	7.9		

Material Description

Fine to Coarse SAND with Silt- Brown

Atterberg Limits

PL= Non-Plastic LL= Non-Plastic PI= Non-Plastic

Coefficients

D₉₀= 4.9646 D₈₅= 3.2986 D₆₀= 0.7038
D₅₀= 0.5224 D₃₀= 0.3199 D₁₅= 0.1692
D₁₀= 0.1022 C_u= 6.89 C_c= 1.42

Classification

USCS= SW-SM AASHTO=

Remarks

* (no specification provided)

Location: B306
Sample Number: SB2

Depth: 3.5-5 (918.5-917.0)

Date: 12/23/2021



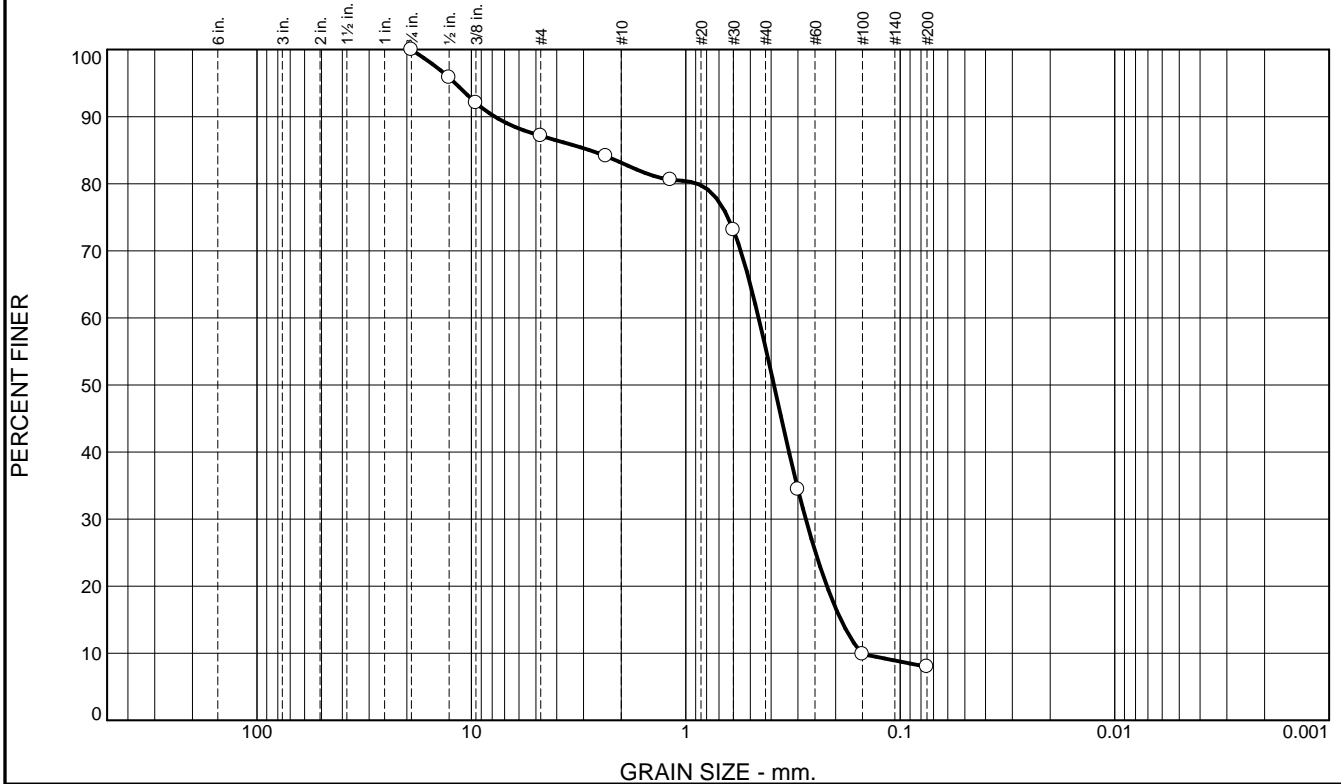
Client: Burns & McDonnell
Project: Marshall Michigan Megasite

Project No: 088106.00

Figure

Tested By: Errol F. Gilbert, CET Checked By: Aaron J. Reed, PE

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	12.9	4.0	27.5	47.6	8.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4	100.0		
1/2	95.8		
3/8	92.1		
#4	87.1		
#8	84.1		
#16	80.6		
#30	73.1		
#50	34.4		
#100	9.9		
#200	8.0		

Material Description

Fine to Medium SAND with Silt- Brown

Atterberg Limits

PL= Non-Plastic LL= Non-Plastic PI= Non-Plastic

Coefficients

D₉₀= 7.7763 D₈₅= 2.8115 D₆₀= 0.4574
D₅₀= 0.3881 D₃₀= 0.2760 D₁₅= 0.1891
D₁₀= 0.1513 C_u= 3.02 C_c= 1.10

Classification

USCS= SP-SM AASHTO=

Remarks

* (no specification provided)

Location: B314
Sample Number: SB3

Depth: 6-7.5 (918.0-916.5)

Date: 12/23/2021



Client: Burns & McDonnell
Project: Marshall Michigan Megasite

Project No: 088106.00

Figure

Tested By: Errol F. Gilbert, CET Checked By: Aaron J. Reed, PE



Material Test Report

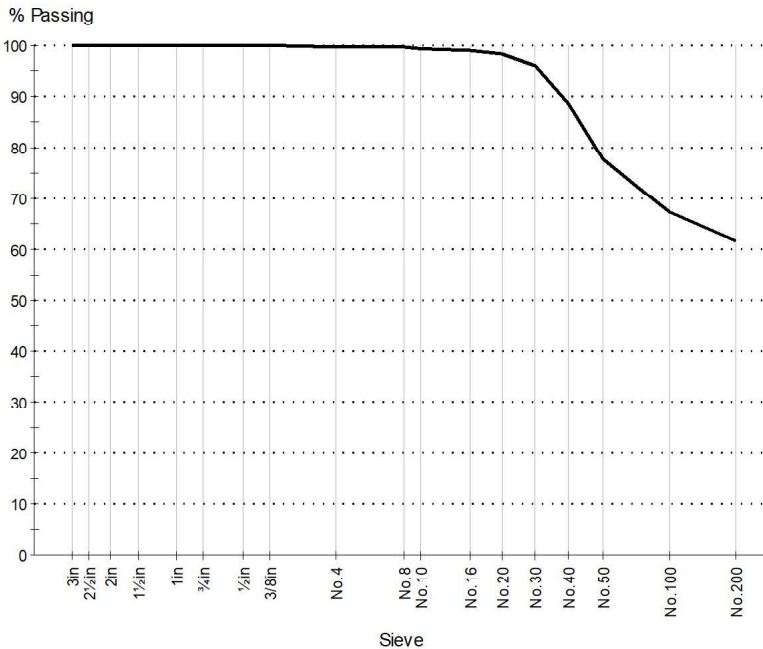
Project No.: 091434.01
Report No.: MAT:22-33320-S1-

Client: Calhoun County
Project: Marshall Megasite: Geotechnical
 C Drive North
 Marshall Township MI 49033
Contractor:

CC:
Reviewed By:

Sample Details		Other Test Results			
Specification	No Gradation Specification	Description	Method	Result	Limits
Sample ID	22-33320-S1	Maximum Dry Unit Weight (lb/ft ³)	ASTM D 1557	119.3	
Sampled By	Michael W. Bay, PE	Corrected Maximum Dry Unit Weight (lb/ft ³)		119.3	
Date Sampled	Dec 14, 2022	Optimum Water Content (%)		11.2	
Material	CLAYEY TOPSOIL	Corrected Optimum Water Content (%)		11.2	
Date Tested	Dec 14, 2022	Method		B	
Sampling Location	B313	Preparation Method		Moist	
		Visual Description		CLAYEY TOPSOIL	
		Ash Content (%)	ASTM D 2974	96.9	
		Organic Content (%)		3.1	
		Furnace Temperature (°C)		440	
		Moisture Content (%)		14	

Particle Size Distribution



Method: ASTM C 136, ASTM C 117

Tested By: Errol F Gilbert Jr.

Sieve Size	% Passing	Limits
3in	100.0	
2 1/2in	100.0	
2in	100.0	
1 1/2in	100.0	
1in	100.0	
3/4in	100.0	
1/2in	100.0	
3/8in	100.0	
No. 4	99.8	
No. 8	99.6	
No. 10	99.5	
No. 16	99.1	
No. 20	98.3	
No. 30	96.1	
No. 40	88.6	
No. 50	77.7	
No. 100	67.4	
No. 200	61.6	
Finer No.200 (75µm)	58.4	

Comments

N/A



Proctor Report

Project No.: 091434.01
Report No.: PTR:22-33320-S1-

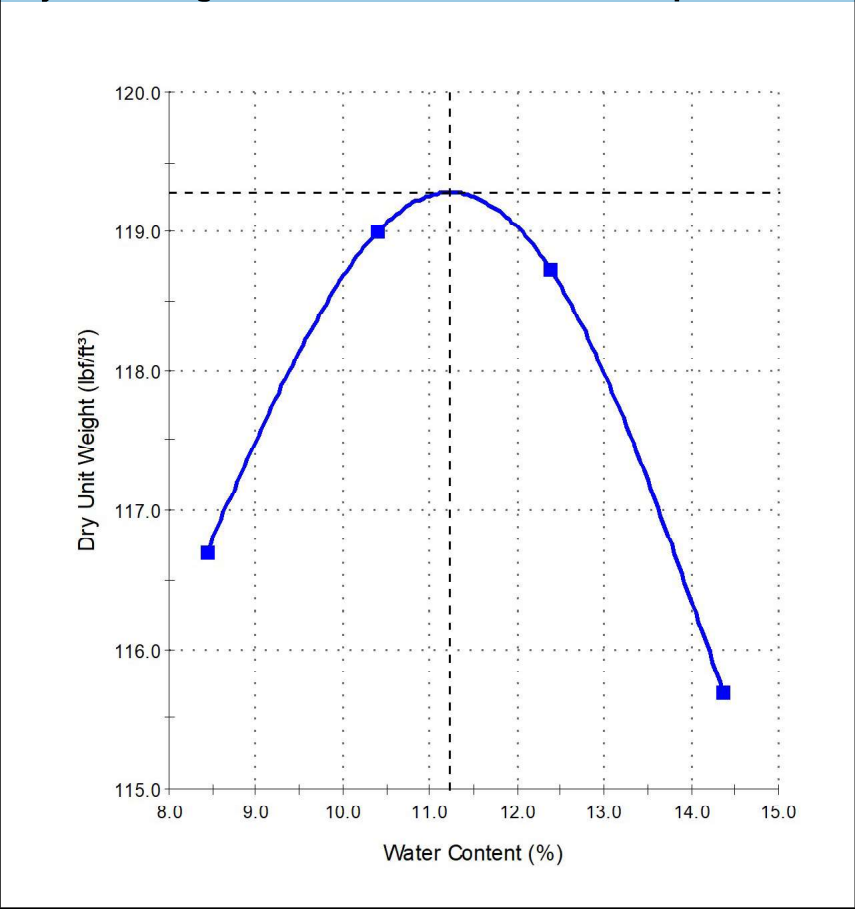
Client: Calhoun County
Project: Marshall Megasite: Geotechnical
 C Drive North
 Marshall Township MI 49033
Contractor:

CC:
Reviewed By:

Sample Details

Specification: No Gradation Specification
Sample ID: 22-33320-S1
Sampled By: Michael W. Bay, PE
Date Sampled: Dec 14, 2022
Material: CLAYEY TOPSOIL
Date Tested: Dec 14, 2022
Location: B313

Dry Unit Weight - Water Content Relationship



Test Results

ASTM D 1557
Maximum Dry Unit Weight (lb/ft³): 119.3
Optimum Water Content (%): 11.2
 Method: B
 Preparation Method: Moist
 Tested By: Errol F Gilbert Jr.
 Date Tested: 12/14/2022
 Visual Description: CLAYEY TOPSOIL

Comments



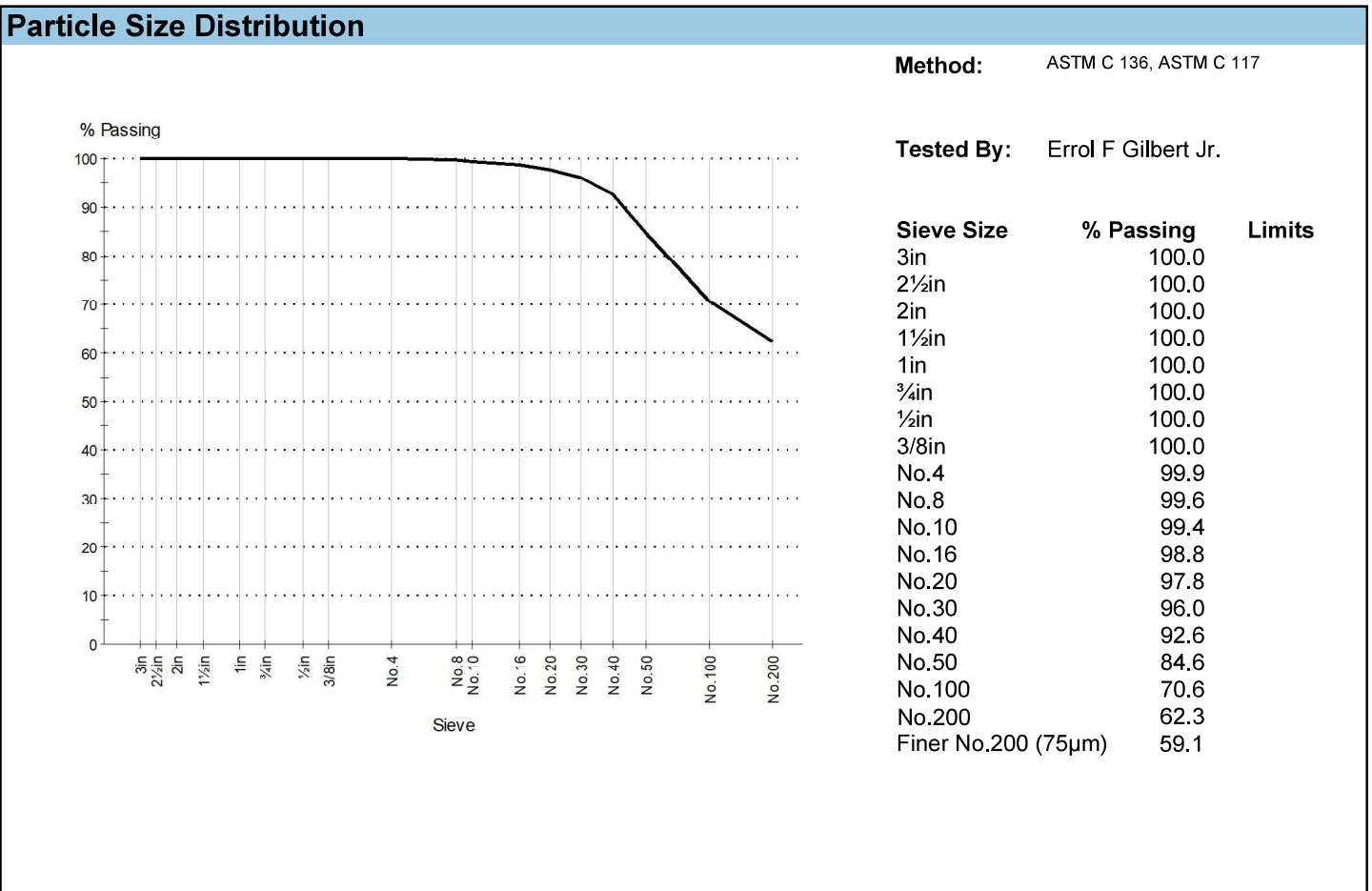
Material Test Report

Project No.: 091434.01
Report No.: MAT:22-33446-S1-

Client: Calhoun County
Project: Marshall Megasite: Geotechnical
 C Drive North
 Marshall Township MI 49033
Contractor:

CC:
Reviewed By:

Sample Details		Other Test Results			
Specification	No Gradation Specification	Description	Method	Result	Limits
Sample ID	22-33446-S1	Maximum Dry Unit Weight (lb/ft ³)	ASTM D 1557	119.1	
Sampled By	Michael W. Bay, PE	Corrected Maximum Dry Unit Weight (lb/ft ³)		119.1	
Date Sampled	Dec 9, 2022	Optimum Water Content (%)		11.3	
Material	CLAYEY TOPSOIL	Corrected Optimum Water Content (%)		11.3	
Date Tested	Dec 15, 2022	Method		B	
Sampling Location	B324	Preparation Method		Moist	
		Visual Description		CLAYEY TOPSOIL	
		Ash Content (%)	ASTM D 2974	97.0	
		Organic Content (%)		3.0	
		Furnace Temperature (°C)		440	
		Moisture Content (%)		7	



Comments
 N/A



Proctor Report

Project No.: 091434.01
Report No.: PTR:22-33446-S1-

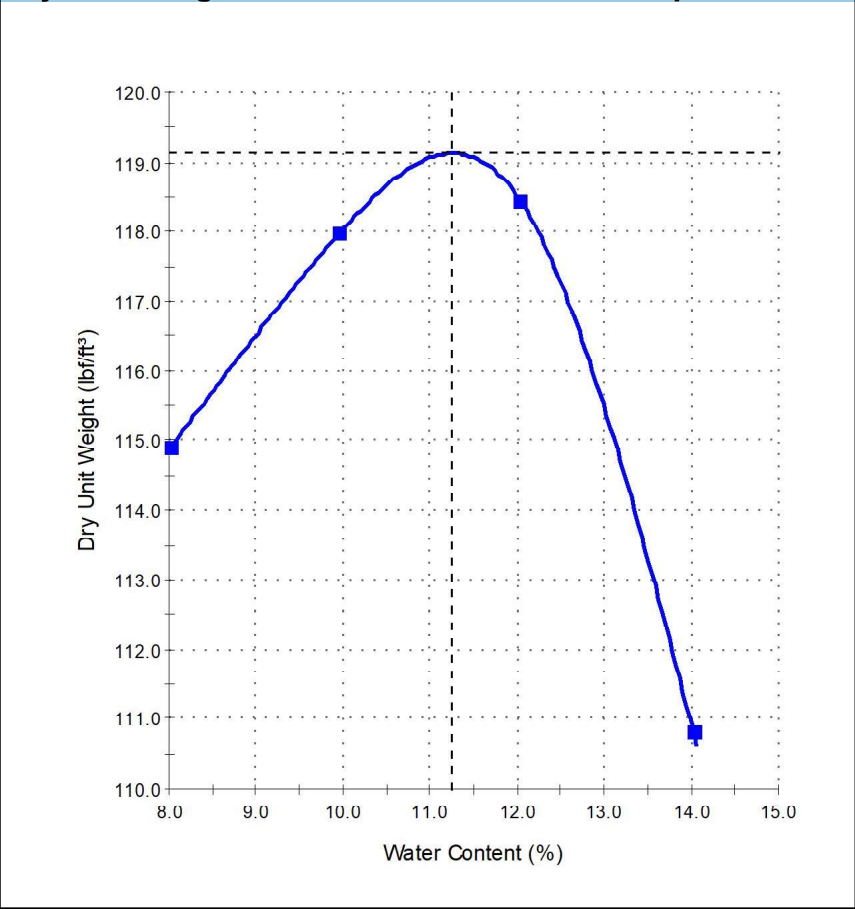
Client: Calhoun County
Project: Marshall Megasite: Geotechnical
 C Drive North
 Marshall Township MI 49033
Contractor:

CC:
Reviewed By:

Sample Details

Specification: No Gradation Specification
Sample ID: 22-33446-S1
Sampled By: Michael W. Bay, PE
Date Sampled: Dec 9, 2022
Material: CLAYEY TOPSOIL
Date Tested: Dec 15, 2022
Location: B324

Dry Unit Weight - Water Content Relationship



Test Results

ASTM D 1557

Maximum Dry Unit Weight (lb/ft³): 119.1
Optimum Water Content (%): 11.3
Method: B
Preparation Method: Moist
Tested By: Errol F Gilbert Jr.
Date Tested: 12/15/2022
Visual Description: CLAYEY TOPSOIL

Comments

APPENDIX B

IMPORTANT INFORMATION ABOUT THIS GEOTECHNICAL-ENGINEERING REPORT

GENERAL COMMENTS

LABORATORY TESTING PROCEDURES

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer

will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the “Findings” Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site’s subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report’s Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals’ misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals’ plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note*

conspicuously that you’ve included the material for information purposes only. To avoid misunderstanding, you may also want to note that “informational purposes” means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled “limitations,” many of these provisions indicate where geotechnical engineers’ responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a “phase-one” or “phase-two” environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer’s services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer’s recommendations will not of itself be sufficient to prevent moisture infiltration.* **Confront the risk of moisture infiltration** by including building-envelope or mold specialists on the design team. **Geotechnical engineers are not building-envelope or mold specialists.**



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GENERAL COMMENTS

BASIS OF GEOTECHNICAL REPORT

This report has been prepared in accordance with generally accepted geotechnical engineering practices to assist in the design and/or evaluation of this project. If the project plans, design criteria, and other project information referenced in this report and utilized by SME to prepare our recommendations are changed, the conclusions and recommendations contained in this report are not considered valid unless the changes are reviewed, and the conclusions and recommendations of this report are modified or approved in writing by our office.

The discussions and recommendations submitted in this report are based on the available project information, described in this report, and the geotechnical data obtained from the field exploration at the locations indicated in the report. Variations in the soil and groundwater conditions commonly occur between or away from sampling locations. The nature and extent of the variations may not become evident until the time of construction. If significant variations are observed during construction, SME should be contacted to reevaluate the recommendations of this report. SME should be retained to continue our services through construction to observe and evaluate the actual subsurface conditions relative to the recommendations made in this report.

In the process of obtaining and testing samples and preparing this report, procedures are followed that represent reasonable and accepted practice in the field of soil and foundation engineering. Specifically, field logs are prepared during the field exploration that describe field occurrences, sampling locations, and other information. Samples obtained in the field are frequently subjected to additional testing and reclassification in the laboratory and differences may exist between the field logs and the report logs. The engineer preparing the report reviews the field logs, laboratory classifications, and test data and then prepares the report logs. Our recommendations are based on the contents of the report logs and the information contained therein.

REVIEW OF DESIGN DETAILS, PLANS, AND SPECIFICATIONS

SME should be retained to review the design details, project plans, and specifications to verify those documents are consistent with the recommendations contained in this report.

REVIEW OF REPORT INFORMATION WITH PROJECT TEAM

Implementation of our recommendations may affect the design, construction, and performance of the proposed improvements, along with the potential inherent risks involved with the proposed construction. The client and key members of the design team, including SME, should discuss the issues covered in this report so that the issues are understood and applied in a manner consistent with the owner's budget, tolerance of risk, and expectations for performance and maintenance.

FIELD VERIFICATION OF GEOTECHNICAL CONDITIONS

SME should be retained to verify the recommendations of this report are properly implemented during construction. This may avoid misinterpretation of our recommendations by other parties and will allow us to review and modify our recommendations if variations in the site subsurface conditions are encountered.

PROJECT INFORMATION FOR CONTRACTOR

This report and any future addenda or other reports regarding this site should be made available to prospective contractors prior to submitting their proposals for their information only and to supply them with facts relative to the subsurface evaluation and laboratory test results. If the selected contractor encounters subsurface conditions during construction, which differ from those presented in this report, the contractor should promptly describe the nature and extent of the differing conditions in writing and SME should be notified so that we can verify those conditions. The construction contract should include provisions for dealing with differing conditions and contingency funds should be reserved for potential problems during earthwork and foundation construction. We would be pleased to assist you in developing the contract provisions based on our experience.

The contractor should be prepared to handle environmental conditions encountered at this site, which may affect the excavation, removal, or disposal of soil; dewatering of excavations; and health and safety of workers. Any Environmental Assessment reports prepared for this site should be made available for review by bidders and the successful contractor.

THIRD PARTY RELIANCE/REUSE OF THIS REPORT

This report has been prepared solely for the use of our Client for the project specifically described in this report. This report cannot be relied upon by other parties not involved in the project, unless specifically allowed by SME in writing. SME also is not responsible for the interpretation by other parties of the geotechnical data and the recommendations provided herein.

LABORATORY TESTING PROCEDURES

VISUAL ENGINEERING CLASSIFICATION

Visual classification was performed on recovered samples. The appended General Notes and Unified Soil Classification System (USCS) sheets include a brief summary of the general method used visually classify the soil and assign an appropriate USCS group symbol. The estimated group symbol, according to the USCS, is shown in parentheses following the textural description of the various strata on the boring logs appended to this report. The soil descriptions developed from visual classifications are sometimes modified to reflect the results of laboratory testing.

MOISTURE CONTENT

Moisture content tests were performed by weighing samples from the field at their in-situ moisture condition. These samples were then dried at a constant temperature (approximately 110° C) overnight in an oven. After drying, the samples were weighed to determine the dry weight of the sample and the weight of the water that was expelled during drying. The moisture content of the specimen is expressed as a percent and is the weight of the water compared to the dry weight of the specimen.

HAND PENETROMETER TESTS

In the hand penetrometer test, the unconfined compressive strength of a cohesive soil sample is estimated by measuring the resistance of the sample to the penetration of a small calibrated, spring-loaded cylinder. The maximum capacity of the penetrometer is 4.5 tons per square-foot (tsf). Theoretically, the undrained shear strength of the cohesive sample is one-half the unconfined compressive strength. The undrained shear strength (based on the hand penetrometer test) presented on the boring logs is reported in units of kips per square-foot (ksf).

TORVANE SHEAR TESTS

In the Torvane test, the shear strength of a low strength, cohesive soil sample is estimated by measuring the resistance of the sample to a torque applied through vanes inserted into the sample. The undrained shear strength of the samples is measured from the maximum torque required to shear the sample and is reported in units of kips per square-foot (ksf).

LOSS-ON-IGNITION (ORGANIC CONTENT) TESTS

Loss-on-ignition (LOI) tests are conducted by first weighing the sample and then heating the sample to dry the moisture from the sample (in the same manner as determining the moisture content of the soil). The sample is then re-weighed to determine the dry weight and then heated for 4 hours in a muffle furnace at a high temperature (approximately 440° C). After cooling, the sample is re-weighed to calculate the amount of ash remaining, which in turn is used to determine the amount of organic matter burned from the original dry sample. The organic matter content of the specimen is expressed as a percent compared to the dry weight of the sample.

ATTERBERG LIMITS TESTS

Atterberg limits tests consist of two components. The plastic limit of a cohesive sample is determined by rolling the sample into a thread and the plastic limit is the moisture content where a 1/8-inch thread begins to crumble. The liquid limit is determined by placing a 1/2-inch thick soil pat into the liquid limits cup and using a grooving tool to divide the soil pat in half. The cup is then tapped on the base of the liquid limits device using a crank handle. The number of drops of the cup to close the gap formed by the grooving tool 1/2 inch is recorded along with the corresponding moisture content of the sample. This procedure is repeated several times at different moisture contents and a graph of moisture content and the corresponding number of blows is plotted. The liquid limit is defined as the moisture content at a nominal 25 drops of the cup. From this test, the plasticity index can be determined by subtracting the plastic limit from the liquid limit.



*Passionate People Building
and Revitalizing our World*

