

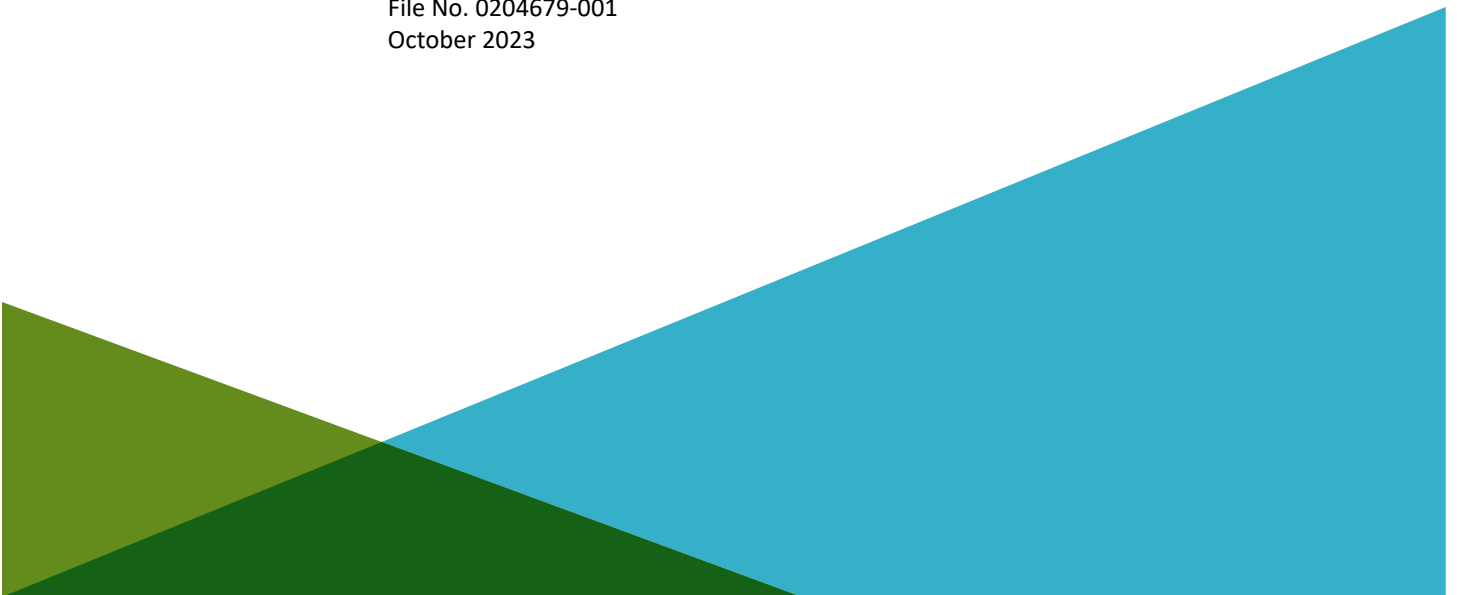


**GEOTECHNICAL DATA REPORT ON
PDX FUEL PROJECT TANK DESIGN
PORTLAND INTERNATIONAL AIRPORT
PORTLAND, OREGON**

by
Haley & Aldrich, Inc.
Portland, Oregon

for
JH Kelly, LLC
Longview, Washington

File No. 0204679-001
October 2023





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30 October 2023
File No. 0204679-001

JH Kelly, LLC
821 Third Avenue
Longview, Washington 98632

Attention: Derek Koistinen Project Manager

Subject: Geotechnical Data Report
PDX Fuel Project Tank Design
Portland International Airport
Portland, Oregon

Dear Derek Koistinen:

Haley & Aldrich, Inc. (Haley & Aldrich) is pleased to present the enclosed geotechnical data report for the PDX Fuel Project Tank Design (Project) in Portland, Oregon. The Project site is located within the Portland International Airport (PDX) facility boundaries in Portland, Oregon along the Columbia River.

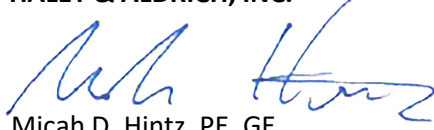
We understand the Project includes the design and construction of a new fuel truck offload facility, two new large fuel storage tanks, an operations and fire protection building, associated pipelines and utilities, and ancillary light poles, plus the demolition of two existing smaller fuel storage tanks.

This report presents the results of our background research and data generated from our subsurface explorations and laboratory testing.

We appreciate the opportunity to provide our services to you on this Project. If you have any questions, please contact us.

JH Kelly, LLC
30 October 2023
Page 2

Sincerely yours,
HALEY & ALDRICH, INC.



Micah D. Hintz, PE, GE
Geotechnical Engineer



RENEWAL DATE: 12/31/24

Allison M. Pyrch, PE, GE
Principal Geotechnical Engineer

Enclosures

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1. Introduction

1.1 GENERAL

Haley & Aldrich, Inc. (Haley & Aldrich) is pleased to submit this geotechnical data report to JH Kelly, LLC (JH Kelly) summarizing geotechnical data collected in support of the PDX Fuel Project Tank Design (Project) at 4300 NE Marine Drive, located within the boundaries of Portland International Airport (PDX) in Portland, Oregon. The location of the project site is shown on *Figure 1 Vicinity Map*.

1.2 SCOPE OF SERVICES

The purpose of our services summarized in this report was to collect geotechnical data to support evaluation, design, and construction of the subject project elements. We completed the following tasks in general accordance with our proposal for Geotechnical Services dated 22 February 2023 and includes the following:

- Prepared a site-specific health and safety plan (HASP) for our on-site exploration activities.
- Reviewed previous work at or near the site completed by Haley & Aldrich and others.
- Coordinated clearance of existing site utilities via the “One-Call” Service for public utility locates, engaged the services of a private utility locator to help find on-site utilities, and employed vacuum truck “soft-dig” techniques to clear explorations to a minimum of 6 feet below ground surface (bgs).
- Advanced four cone penetration test (CPT) soundings to depths ranging from 42 to 150 feet bgs. The CPT soundings included the additional items:
 - Collecting pore pressure dissipation test readings in two of the three soundings.
 - Collecting seismic shear wave velocity readings at 3- to 6-foot increments in each sounding.
- Drilled two mud rotary borings to depths of approximately 150 feet bgs.
 - Collected standard penetration test (SPT) and Shelby Tube samples at 2- to 10-foot intervals for characterization and laboratory testing.
 - Maintained logs of the soils encountered in the borings.
- Performed laboratory testing on select soil samples collected during our exploration including *in situ* moisture content, Atterberg limits, grain size distribution, constant rate of strain consolidation testing, direct simple shear testing, and cyclic direct simple shear testing.
- Installed a vibrating wire piezometer with data logger into an existing groundwater monitoring well.
- Prepared this geotechnical data report outlining our findings regarding subsurface conditions.
- Provided project management and support services, including coordinating staff and subcontractors, and conducting telephone consultations and email communications with you and the design team.

2. Site Description

2.1 SURFACE CONDITIONS

The project site is located within PDX boundaries, west of the Port of Portland Fire Department building, and north of the taxiway for the South Runway, as shown on Figure 1. The site is an approximately 1.4-acre parcel of a Port of Portland (Port) property (tax lot R316873). The site currently includes three large (up to 41,000 BBL volume), above-grade storage tanks, a small substation, and several outbuildings, as well as asphalt surfacing to support traffic around the tanks. The site is relatively flat, with a slight gradient of less than 2 feet across the project area. Elevations range from approximately 20 to 22 feet above mean sea level (MSL). The Columbia River is about 1,200 feet north of the site. The gradient increases gradually toward the Columbia River at a slope ranging from approximately 0.5 to 1.0 percent, before encountering an approximately 20-foot-tall dike about 850 feet north of the site. The slope descends from the dike towards the Columbia River at an average grade of 7 percent.

3. Subsurface Explorations

3.1 CURRENT EXPLORATION

We explored subsurface soil and groundwater conditions at the site between February and April 2023 by drilling two borings using mud-rotary drilling method, advancing four CPTs, excavating two test pits, and performing three infiltration tests. Details surrounding these explorations are provided in the following sections.

3.1.1 Borings

Two borings were advanced to depths of approximately 151 feet bgs between 28 February and 3 March 2023 using mud-rotary drilling methods. Drilling was performed with a track mounted CME-75 drill rig operated by Western States Soil Conservation of Hubbard, Oregon. The borings used a 4.875-inch-diameter drill bit. After completion, the boreholes were backfilled with a cement-bentonite grout in accordance with the Oregon Water Resources Department regulations.

Vacuum-excavation was performed within the upper 6 feet of each boring to reduce potential for a utility encounter during drilling.

The borings were coordinated by our staff, who classified the various soil units encountered, obtained representative soil samples for geotechnical testing, observed and recorded groundwater conditions, and maintained detailed logs of the borings.

The exploration logs presented in Appendix A show our interpretation of the drilling, sampling, and testing data. They indicate the depth where the soils change. Note that the changes may be gradual. In the field, we classified the samples taken from the explorations according to the methods presented on Figure A-1 *Key to Exploration Logs* in Appendix A. The key also provides a legend explaining the symbols and abbreviations used in the log.

Materials encountered in the exploration were classified in the field in general accordance with ASTM Standard Practice D2488 "Standard Practice for the Classification of Soils (Visual Manual Procedure)." Soil classifications and sampling intervals are shown in the exploration logs in this appendix.

Soil samples were obtained from each boring using the following methods.

- Sampling using a Standard Penetration Test (SPT) sampler was completed in general conformance with ASTM Test Method D1586 "Standard Method for Penetration Test and Split-Barrel Sampling of Soils." The sampler was driven with a 140-pound auto-trip hammer falling 30 inches. The N value, or number of blows required to drive the sampler 1 foot or as otherwise indicated into the soils, is shown adjacent to the sample symbols on the boring logs. Disturbed samples were obtained from the sampler for subsequent classification and testing.
- Relatively undisturbed samples were obtained using a thin-walled Shelby tube sampler in general conformance with ASTM Test Method D1587 "Standard Practice for Thin-Walled Tube Sampling of Soils for Geotechnical Purposes." The sampler is driven using the hydraulic down-pressure of the drill rig mast.

3.1.2 CPT

A total of four CPT soundings were advanced by Oregon Geotechnical Explorations to evaluate subsurface conditions at the site. Three CPT soundings designated SCPT-4 through SCPT-6 were advanced to depths of 42 to 137 feet bgs on 28 February 2023. A fourth CPT sounding designated SCPT-5a was advanced to a depth of 150 feet bgs on 18 April 2023, to compensate for the early refusal condition encountered at SCPT-5.

The soundings were completed in general conformance with ASTM D5778 using a seismic electronic cone penetrometer. The CPT soundings are *in situ* tests that aid in characterizing subsurface stratigraphy and groundwater levels. The tests include advancing a 35.6-mm-diameter cone equipped with a load cell, friction sleeve, strain gages, porous stone, and geophone through the soil profile. The cone is advanced at a rate of approximately 2 centimeters per second. Tip resistance, sleeve friction, and pore pressure are typically recorded at 0.1-meter intervals.

The logs of the CPT soundings are presented in Appendix A.

3.1.3 Test Pits

Five test pits designated TP-1 and TP-2 and IT-1 through IT-3 were excavated by JH Kelly on 9 March 2023. The excavations were advanced to depths of 2.3 feet and 10 feet bgs to evaluate the conditions of near-surface soils, and in the cases of locations IT-1 through IT-3, to prepare subgrade for *in situ* infiltration testing. Materials exposed along the sides and bottoms of the test pits were documented, and test pit logs are presented in Appendix A.

3.1.4 Infiltration Testing

Three infiltration tests designated IT-1, IT-2, and IT-3 were conducted at the locations shown on Figure 2. Testing was performed in general accordance with the City of Portland's 2020 Stormwater Management Manual (SWMM) Section 2.3.2. Tests at IT-1 and IT-3 were encased falling head tests, while the test at IT-2 was a double-ring infiltrometer test.

3.2 HISTORICAL EXPLORATIONS

Two sets of historical subsurface explorations relevant to the subject project were reviewed in preparation of this geotechnical data report, namely:

- GRI, 2017. Preliminary Seismic Considerations, PDX Runway Seismic Evaluation, Portland International Airport (PDX), Portland, Oregon, dated 28 August 2017; and
- Hart Crowser, 2020. Revised Report of Geotechnical Engineering Services, PDX Fuel Facility Improvements, Portland, Oregon, dated 17 August 2020.

Details pertaining to these historical explorations are presented in the following sections and logs are included in Appendix C.

3.2.1 2017 GRI Explorations

GRI explored subsurface conditions throughout the Airport property between 11 and 27 April 2017 by advancing 31 CPT probes at the site. Six of these CPT locations, designated CPT-18 through CPT-23, are

in the vicinity of the subject improvements and were utilized during the course of this study. The locations of these explorations are presented on Figure 2. CPT logs for these explorations are included in Appendix C.

3.2.2 2019 Hart Crowser Explorations

Hart Crowser (incorporated into Haley & Aldrich in 2021) previously evaluated subsurface conditions at the fuel tank site by completing one boring and three CPT explorations in 2019. The locations of these explorations are presented on Figure 2. Laboratory testing was completed on select samples from the borings. Boring and CPT logs and results of the laboratory testing are included in Appendix C. Details surrounding the 2019 exploration are presented in the following sections.

3.2.2.1 Borings

Hart Crowser completed one drilled boring at the site on 27 June 2019, using hollow stem auger methods in the top 16.5 feet bgs to observe groundwater levels and then advanced the boring to 86.5 feet bgs using mud rotary drilling methods. The boring was advanced using a truck-mounted drill rig operated by Western States Soil Conservation of Hubbard, Oregon. The mud-rotary boring created a hole approximately 5 inches in diameter. Upon completion, the hole was backfilled with hydrated bentonite chips topped with site soils, which had been reserved during drilling.

Materials encountered in the boring were classified in the field in general accordance with ASTM Test Method D2488 "Standard Practice for the Classification of Soils (Visual Manual Procedure)." Soil classifications and sampling intervals are shown on the exploration logs included in this appendix.

Soil samples were obtained from the boring using the following methods.

- Samples were obtained from the boring using 1-1/2-inch inner-diameter split-spoon sampler (SPT sampler) in general accordance with guidelines presented in ASTM D1586. The split-barrel sampler was driven into the soil with a 140-pound hammer free falling 30 inches. The sampler was driven a total distance of 18 inches or until refusal criteria was met (greater than 50 blows per 6 inches). The number of blows required to drive the samplers the final 12 inches (the N-value) is recorded on the exploration log, unless otherwise noted. All soil samples were placed into watertight bags and delivered to Hart Crowser's laboratory.
- Relatively undisturbed samples were collected at selected depths using thin-walled sampling methods, such as Shelby tubes.

3.2.2.2 CPT Soundings

Hart Crowser completed three CPT soundings on 9 July 2019, in general accordance with ASTM D5778 and using a seismic electronic cone penetrometer. The CPT services were provided by Conetec Investigations of Auburn, Washington. A CPT sounding is an *in situ* test that provides assistance in characterizing subsurface stratigraphy. The test includes advancing a 35.6-mm-diameter cone equipped with a load cell, friction sleeve, strain gages, porous stone, and geophone through the soil profile. The cone is advanced at a rate of approximately 2 centimeters per second. Tip resistance, sleeve friction, and pore pressure are typically recorded at 0.1-meter intervals. For seismic shear wave testing, the cone penetration is stopped at prescribed depth intervals (typically every 1 to 2 meters), and seismic profile readings are obtained at intervals of 5 seconds.

3.2.2.3 *Laboratory Testing*

Hart Crowser completed geotechnical laboratory testing on select samples retrieved from boring B-1. Laboratory testing included *in situ* density and moisture contents, Atterberg Limits, grain size distribution, one-dimensional consolidation, organic content, and corrosion testing. The results of these tests and descriptions of methods used to perform the testing are presented in Appendix C.

4. Geotechnical Laboratory Testing

Soil samples obtained from the borings and test pits completed as part of the current study were transported to our in-house laboratory and evaluated to confirm or modify field classifications, as well as to evaluate engineering properties of the soils encountered. Representative samples were selected for laboratory testing. The specific tests conducted are outlined below. The test results are included in Appendix B, and where noted, included on the exploration logs in Appendix A.

4.1 VISUAL CLASSIFICATIONS

Soil samples obtained from the explorations were visually classified in the field and in our geotechnical laboratory based on the Unified Soil Classification System (USCS) and ASTM classification methods. ASTM Test Method D2488 “Standard Practice for the Classification of Soils (Visual-Manual Procedure)” was used to classify soils using visual and manual methods. ASTM Test Method D2487 “Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)” was used to classify soils based on laboratory test results.

4.2 MOISTURE CONTENT

Moisture contents of samples were obtained in general accordance with ASTM Test Method D2216. The results of the moisture content tests are presented on the exploration logs included in Appendix A and on Figure B-1 in Appendix B.

4.3 ATTERBERG LIMITS TESTING

Atterberg limits (liquid limit, plastic limit and plasticity index) of fine-grained soil samples were obtained in general accordance with ASTM Test Method D4318-02. The results of the Atterberg limits tests completed on samples from the explorations are presented on the exploration logs included in Appendix A and Appendix B.

4.4 GRAIN SIZE DISTRIBUTION

Sieve analysis tests were performed to determine the quantitative distribution of particle sizes in the sample. The tests were performed in general accordance with ASTM D6913. The fines contents determined from this test are presented on the exploration logs included in Appendix A and the full test results are presented in Appendix B.

4.5 CONSTANT RATE OF STRAIN CONSOLIDATION TESTING

One-dimensional constant rate of strain (CRS) consolidation tests were performed to determine the compressibility and apparent stress history of the tested sample. The CRS testing was done in general accordance with ASTM D4186. After the sample was extracted, a relatively undisturbed, fine-grained sample was carefully trimmed and fit into a rigid steel ring with porous stones placed on the top and bottom of the sample to allow drainage. Vertical strain was then applied continuously to the sample in a way that allowed the sample to partially consolidate under the given strain rate. Measurements were made of the compression of the sample over time, the total load placed on the sample, and the excess pore pressure at the base of the sample throughout the test. Rebound was measured during the unloading phase. In general, an excess pore pressure ratio of 3 percent is targeted during loading, with

an allowance of up to 15 percent without significant concerns about strain rate effects. The test results are plotted in Appendix B in terms of axial strain and coefficient of consolidation versus applied load (stress). The specific gravity of the samples was also determined by ASTM D854.

Sample quality was estimated using methods by both Lunne et al. (2006) and Terzaghi et al. (1996) as described in Tables 1 and 2. As needed for sample quality designation (SQD), the preconsolidation stress was estimated using the Casagrande and strain energy methods. *In situ* vertical effective stress as estimated based on the provided soil profile information.

Though we make every effort to refine our estimates, the user of these data should apply their own interpretation and engineering judgment to the consolidation test results. Our interpretations are intended solely for the purpose of SQD. SQD approaches are most applicable to low to medium plasticity clays with overconsolidation ratios (OCR) ranging between about 1 and 4.

| Table 1. Sample Quality by Lunne et al. (2006) | | | | |
|--|----------------------------------|-------------|-------------|--------|
| OCR | $\Delta e/e_0$ at σ'_{v0} | | | |
| 1 to 2 | < 0.04 | 0.04 – 0.07 | 0.07 – 0.14 | > 0.14 |
| 2 to 4 | < 0.03 | 0.03 – 0.05 | 0.05 – 0.10 | > 0.10 |
| Quality | 1 | 2 | 3 | 4 |

Note:
1 = very good to excellent, 2 = fair to good, 3 = poor, 4 = very poor

| Table 2. Sample Quality by Terzaghi et al. (1996) | | | | | |
|---|----|-------|-------|-------|-----|
| ϵ_v at σ'_{v0} | <1 | 1 – 2 | 2 – 4 | 4 - 8 | < 8 |
| Quality | A | B | C | D | E |

Note:
A (best) to E (worst)

4.6 DIRECT SIMPLE SHEAR TESTING

A direct simple shear test (DSS) was completed to estimate the static strength of the soil. The test was completed in general accordance with ASTM D6528. A relatively undisturbed fine-grained sample was trimmed to a length of about 6 inches, encased in a rubber membrane, and placed in the triaxial cell. With the sample in the test cell, an all-around pressure was applied hydraulically. The sample was allowed to consolidate under the applied pressure with drainage occurring through porous stones through slotted filter paper placed around the sample. When consolidation was completed, the sample was sheared at a constant strain rate under constant volume conditions. The test results are shown in Appendix B.

4.7 STRESS-CONTROLLED CYCLIC DIRECT SIMPLE SHEAR TESTING

Stress-controlled cyclic direct simple shear (CDSS) tests with pore pressure measurements were completed on multiple samples to provide data for evaluating the liquefaction susceptibility of the soils and their post cyclic soil strength. The CDSS testing was done in general accordance with ASTM D8296-19. After the sample was extracted from the Shelby tube, a relatively undisturbed fine-grained sample was carefully trimmed to a height of about 1 inch and a diameter of 2.5 inches, encased in a rubber membrane, and placed in the test cell. With the sample in the test cell, an all-around pressure was applied hydraulically. The sample was allowed to consolidate under the applied pressure with

drainage occurring through porous stones through slotted filter paper placed around the sample. After the consolidation process completed, cyclic horizontal shear stresses (τ_{cyc}) were applied sinusoidally at an amplitude of the prescribed stress ratio. The τ_{cyc} was applied under constant volume conditions in one or two steps with specified frequency: (1) first step (if any) was to run two 0.2-Hz cycles to allow the machine to adjust; (2) second step was to run at a specified period as shown in Table C-3 until the maximum number of cycles or the maximum peak-to-peak strain, or the maximum excess pore water pressure ratio (R_u) is reached, whichever occurs first. The input parameters for each CDSS test are summarized in Table 3.

Once the cyclic loading process completed without allowing any dissipation of the final excess pore pressure, the sample was even statically sheared at a constant strain rate in accordance with the general procedure described in ASTM D6528. The sample information and results for each test are in Appendix B.

| Table 3. CDSS Test Input Parameters | | | | | | | |
|---|------------|---|---------------------|---------------|--------------------------|---------------------|---------------------------------------|
| Boring | Sample No. | Effective Vertical Stress ^a , σ'_{vc} , psf | Cyclic Stress Ratio | Frequency, Hz | Maximum Number of Cycles | Maximum R_u Ratio | Maximum Peak-to-Peak Strain (percent) |
| BH-2 | U-8.1 | 2,000 | 0.25 | 0.1 | 100 | 0.921 | 20 |
| BH-2 | U-9.2 | 2,300 | 0.30 | 0.1 | 100 | 0.887 | 20 |
| BH-2 | U-9.3 | 2,300 | 0.35 | 0.1 | 100 | 0.875 | 20 |
| Note: | | | | | | | |
| <i>a. The effective vertical stress refers to end of consolidation.</i> | | | | | | | |

5. Subsurface Conditions

5.1 GEOLOGIC AND SOIL MAPPING

The geology of the site is mapped as Quaternary Alluvium of Holocene age in Ma et al. 2002 at the 1:63,360 scale by the Oregon Department of Geology and Mineral Industries. The alluvium generally consists of unconsolidated deposits of silt, clay, and sand accumulated by overbank deposition during inundation of the historic floodplain before construction of dams and floodplain dikes on the Columbia River (O'Connor and Everts 2008). The thickness of this unit is greatest at the river and thins to zero at the edges of the historic floodplain. This unit overlies the Columbia River Sand Aquifer, a filled paleochannel of the Columbia River, which extends as deep as 300 feet and is thickest near the Columbia River (Hartford and McFarland 1989).

Soils at the site are mapped by the U.S. Department of Agriculture (USDA) as found on the Web Soil Survey website (USDA 2023). The near-surface soils at the site consist of Pilchuck-Urban Land Complex, 0 to 3 percent slopes. Pilchuck soils are described as alluvium derived from flood plains and consist of sandy materials to a depth greater than 60 inches bgs. This soil type is considered somewhat excessively drained with a generally high hydraulic conductivity of approximately 6 to 20 inches per hour. Urban land refers to existing fill on the site.

5.2 GEOLOGIC HAZARD MAPPING

Geologic hazards mapped at the site include a low landslide hazard, very strong severe earthquake shaking, and high liquefaction hazard (Oregon HazVu 2023). The site is located at an approximate elevation of 22 feet above mean sea level (MSL) and is not in a mapped tsunami inundation zone (Oregon HazVu 2023). The project site is not located within any previously mapped historic or prehistoric landslide deposits (SLIDO 2021).

5.3 SOIL AND GROUNDWATER CONDITIONS

Subsurface soil and groundwater conditions interpreted from historical explorations and explorations advanced at the site as part of our current study, in conjunction with soil properties inferred from field and laboratory tests, formed the basis for interpretations presented in this report.

Generally, explorations encountered up to 7 feet of dredge sand fill overlying overbank deposits of Columbia River Sand Alluvium up to 50 feet bgs, which then overlies sand of the Columbia River Sand Aquifer to the bases of the explorations. All boring and CPT explorations performed as part of the current study terminated in the latter unit. We interpret that the encountered soils can be distinctly divided into three units, namely Fill Sand, Columbia River Overbank Deposits, and sands of the Columbia River Aquifer. General descriptions of these materials are provided in the following sections.

5.3.1 Fill Sand

Our explorations encountered fill sand to depths of approximately 5 to 7 feet bgs. The sand consists of dredged fill that was placed starting in 1936 as part of a Works Progress Administration grant in order to make the land usable for construction of the Airport (Oregon Encyclopedia 2018).

Fill sand encountered in our explorations generally appeared to be brown, fine to medium grained, and poorly graded with a variable amount of silt. Fill materials were observed primarily during test pit excavations and soft-digging (vacuum clearing) of boring and CPT locations at shallow depths; therefore, SPT blow counts and CPT resistance data from this unit are not available. However, based on observations taken during test pit excavation, fill sand generally appeared to have a loose to medium dense relative density and appeared saturated at depths greater than approximately 4 to 5 feet bgs.

5.3.2 Columbia River Overbank Deposits

Underneath the fill lies an approximately 25- to 40-foot-thick layer of very soft, fine-grained silt alluvium, interpreted to be Columbia River Overbank Deposits. The materials attributed to this unit were derived from slow moving waters during periodic flooding of the adjacent Columbia River. The overbank deposits were observed as extending to a depth of approximately 30 feet bgs at boring B-1, 41 feet bgs at boring B-2, 27 feet bgs at SCPT-4 and SCPT-6, and 42 feet bgs at SCPT-5 during the current investigation; during the 2019 subsurface exploration, overbank deposits were observed to depths as great as 45 feet bgs at boring B-1 (2019).

SPT blow counts (N-values) in these deposits were consistently recorded as zero blows per foot (bpf), as the SPT sampler was driven using only weight of rods and hammer at each sampling location. Field-collected pocket penetrometer (PP) data on SPT samples from this unit ranged from 0 to 0.75 tons per square foot (tsf).

Moisture contents ranged from 41 to 83 percent, and a minor amount of organic material was observed in these deposits, with organic content measured by loss on ignition ranging from 2 to 6 percent of the soil unit by mass. The alluvium was moderately to highly plastic with plasticity indexes ranging from 14 to 52 percent and liquid limits ranging from 48 to 103 percent.

This unit is considered to be relatively weak and compressible, and susceptible to cyclic strength loss where saturated below the groundwater table.

5.3.3 Columbia River Aquifer

Explorations encountered medium dense to dense, poorly graded sand with varying amounts of silt and silty sand below the Overbank Deposits; these soils appear similar to those described as the Columbia River Sand Aquifer, which fills a paleochannel of the Columbia River to approximately 330 feet bgs (Hartford and McFarland 1989). Explorations performed during the current and 2019 exploration programs Boring B-1 (2019) encountered this unit beginning at roughly 45 feet bgs, B-1 (2023) at approximately 30 feet bgs, and B-2 (2023) at approximately 41 feet bgs until each of their ultimate depths ranging from 86 to 151 feet bgs. CPT-1 through CPT-3 and SCPT-4 through SCPT-6 encountered this unit from approximately 30 to 50 feet bgs until their termination.

SPT blow counts (N-values) in this material covered a wide range from 10 to 95 bpf, with one reported zero blow count soft silt interbed. Moisture contents ranged from 26 to 39 percent, and fines contents of this material ranged from 6 to 23 percent.

5.4 GROUNDWATER

Groundwater was encountered at depths ranging from approximately 5 to 14 feet bgs during our current and previous site explorations. Shallower measurements on the order of 5 to 7 feet bgs appear to represent a perched groundwater table within fill materials overlying the more fine-grained overbank deposits. Deeper groundwater level readings appear to be more indicative of the regional groundwater table. CPT pore pressure dissipation data collected during our current and previous site explorations indicates a regional groundwater level between approximately 10½ to 14½ feet bgs, as measured in June 2019 and February 2023.

We anticipate that groundwater elevations will likely fluctuate over time based on the water level of the adjacent Columbia River. Fluctuations in groundwater levels may also occur due to variations in rainfall, temperature, seasons, and other factors. It is important that the contractor provide contingencies for addressing groundwater during construction on this project.

5.5 INFILTRATION CHARACTERISTICS

The test in IT-1 was conducted in the near-surface sand soils at approximately 3.5 feet bgs and showed an infiltration rate of approximately 10 inches/hour. The test in IT-3 was conducted in sandy silt at approximately 4 feet bgs and showed nearly no drop in water head over time, indicating no practical infiltration capacity. A double-ring infiltrometer test was run at IT-2 in sand at approximately 2.25 feet bgs and showed an infiltration rate of approximately 20 inches/hour.

6. Limitations

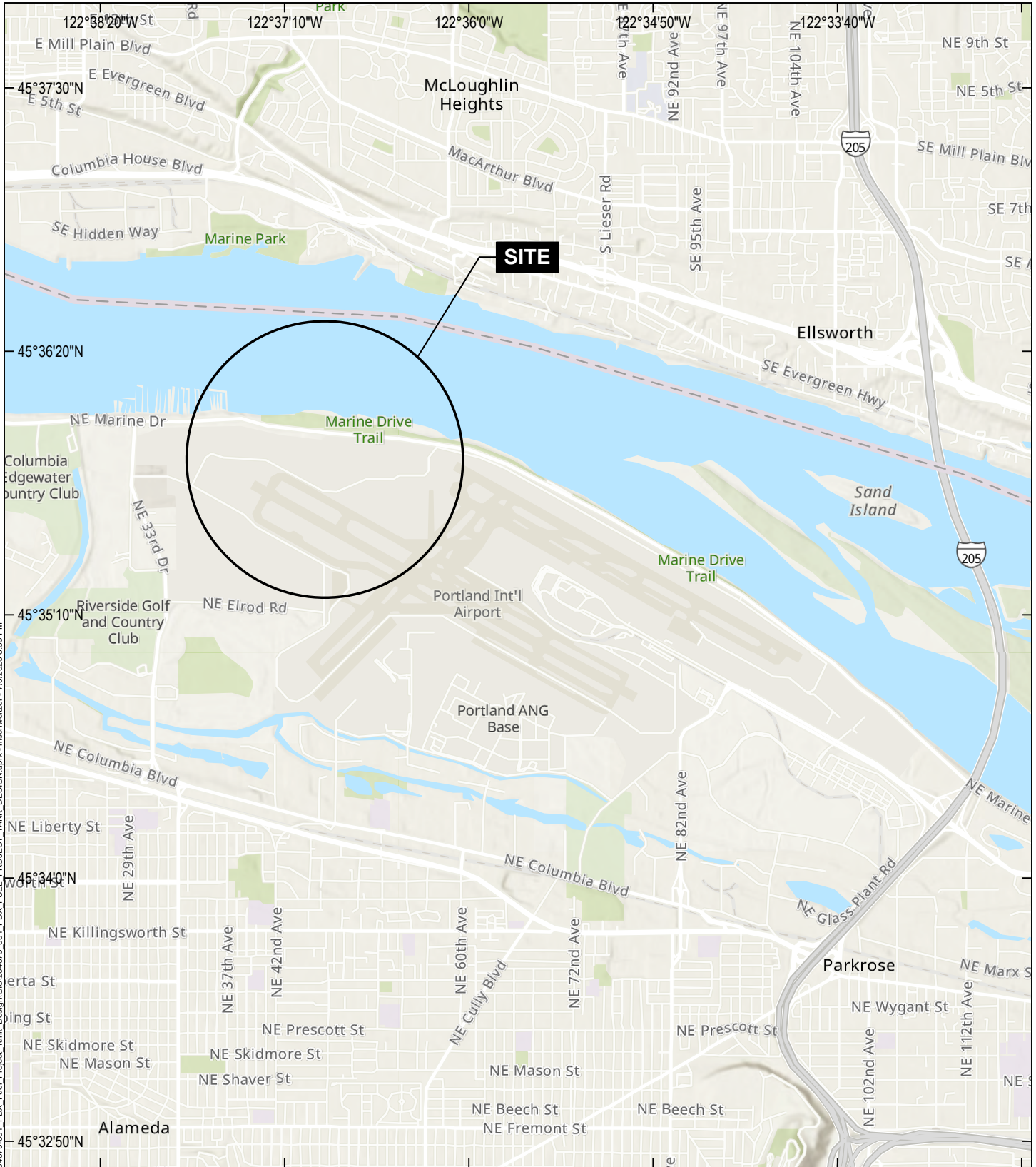
The data provided in this report represents conditions at discrete locations across the project site and actual conditions in other areas could vary. Furthermore, the nature and extent of any variations may not become evident until additional explorations are performed or until construction begins. If significant variations are observed at that time, the data presented in this report may require augmentation to reflect actual site conditions.

References

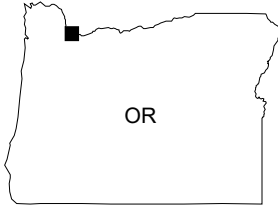
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9. U.S. Geologic Survey (USGS) 2023. Earthquake Hazards Program – Unified Hazard Tool website: <https://earthquake.usgs.gov/hazards/interactive/>

\\haleyaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Deliverables\Reports\Geotechnical_Data_Report\Final\2023_1030_PDX_GDR_F.docx

FIGURES



GIS: \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\GIS\0204679-001_PDX_Fuel_Project_Tank_Design.aprx - mschweitzer - 7/6/2023 8:59 PM



MAP SOURCE: ESRI
 SITE COORDINATES: 45°35'06"N, 122°35'39"W

**HALEY
ALDRICH**

PDX FUEL PROJECT TANK DESIGN
 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DRIVE
 PORTLAND, OREGON

VICINITY MAP

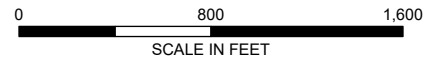
APPROXIMATE SCALE: 1 IN = 1 MILE
 JULY 2023

FIGURE 1



- LEGEND**
- ◆ BORING OR CPT EXPLORATION (CURRENT STUDY)
 - ◆ PREVIOUS EXPLORATION (GRI, 2017)
 - ◆ PREVIOUS EXPLORATION (H&A, 2019)
 - TEST PITS (CURRENT STUDY)
 - BATHYMETRIC ELEVATION CONTOUR, 5-FT INTERVAL (NAVD 88)
 - TOPOGRAPHIC ELEVATION CONTOUR, 5-FT INTERVAL (NAVD 88)

- NOTES**
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
 2. TOPOGRAPHY/BATHYMETRY SOURCE: US ARMY CORPS OF ENGINEERS, 2010.
 3. AERIAL IMAGERY SOURCE: NEARMAP, 14 AUGUST 2022.
 4. NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)



HALEY ALDRICH
 PDX FUEL PROJECT TANK DESIGN
 PORTLAND INTERNATIONAL AIRPORT
 5000 NE MARINE DRIVE
 PORTLAND, OREGON

SITE PLAN

JULY 2023

FIGURE 2

GIS FILE PATH: \\haleyaldrich\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\GIS\0204679_001_PDX_Fuel_Project_Tank_Design.aprx - USER: mmjones - LAST SAVED: 7/7/2023 1:38 AM

APPENDIX A
Exploration Logs

Sample Description

Identification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field nor laboratory testing unless presented herein. ASTM D 2488 visual-manual identification methods were used as a guide. Where laboratory testing confirmed visual-manual identifications, then ASTM D 2487 was used to classify the soils.

Relative Density/Consistency

Soil density/consistency in borings is related primarily to the standard penetration resistance (N). Soil density/consistency in test pits and probes is estimated based on visual observation and is presented parenthetically on the logs.

| SAND or GRAVEL Relative Density | N (Blows/Foot) | SILT or CLAY Consistency | N (Blows/Foot) |
|------------------------------------|-------------------|-----------------------------|-------------------|
| Very loose | 0 to 4 | Very soft | 0 to 1 |
| Loose | 5 to 10 | Soft | 2 to 4 |
| Medium dense | 11 to 30 | Medium stiff | 5 to 8 |
| Dense | 31 to 50 | Stiff | 9 to 15 |
| Very dense | >50 | Very stiff | 16 to 30 |
| | | Hard | >30 |

Moisture

| | |
|-------|---|
| Dry | Absence of moisture, dusty, dry to the touch |
| Moist | Damp but no visible water |
| Wet | Visible free water, usually soil is below water table |

Minor Constituents

| Minor Constituents | Estimated Percentage |
|--------------------------|----------------------|
| Sand, Gravel | |
| Trace | <5 |
| Few | 5 - 15 |
| Cobbles, Boulders | |
| Trace | <5 |
| Few | 5 - 10 |
| Little | 15 - 25 |
| Some | 30 - 45 |

Soil Test Symbols

| | |
|--------|---|
| %F | Percent Passing No. 200 Sieve |
| AL | Atterberg Limits (%) |
| | |
| CA | Chemical Analysis |
| CAUC | Consolidated Anisotropic Undrained Compression |
| CAUE | Consolidated Anisotropic Undrained Extension |
| CBR | California Bearing Ratio |
| CIDC | Consolidated Drained Isotropic Triaxial Compression |
| CIUC | Consolidated Isotropic Undrained Compression |
| CK0DC | Consolidated Drained k0 Triaxial Compression |
| CK0DSS | Consolidated k0 Undrained Direct Simple Shear |
| CK0UC | Consolidated k0 Undrained Compression |
| CK0UE | Consolidated k0 Undrained Extension |
| CRSCN | Constant Rate of Strain Consolidation |
| DS | Direct Shear |
| DSS | Direct Simple Shear |
| DT | In Situ Density |
| GS | Grain Size Classification |
| HYD | Hydrometer |
| ILCN | Incremental Load Consolidation |
| K0CN | k0 Consolidation |
| kc | Constant Head Permeability |
| kf | Falling Head Permeability |
| MD | Moisture Density Relationship |
| OC | Organic Content |
| OT | Tests by Others |
| P | Pressuremeter |
| PID | Photoionization Detector Reading |
| PP | Pocket Penetrometer |
| SG | Specific Gravity |
| TRS | Torsional Ring Shear |
| TV | Torvane |
| UC | Unconfined Compression |
| UUC | Unconsolidated Undrained Triaxial Compression |
| VS | Vane Shear |
| WC | Water Content (%) |

USCS Soil Classification Chart (ASTM D 2487)

| Major Divisions | | Symbols | | Typical Descriptions |
|--|--|--|--|---|
| | | Graph | USCS | |
| Coarse Grained Soils | Gravel and Gravelly Soils | Clean Gravels (<5% fines) | GW | Well-Graded Gravel; Well-Graded Gravel with Sand |
| | | | GP | Poorly Graded Gravel; Poorly Graded Gravel with Sand |
| | | Gravels (5-12% fines) | GW-GM | Well-Graded Gravel with Silt; Well-Graded Gravel with Silt and Sand |
| | | | GW-GC | Well-Graded Gravel with Clay; Well-Graded Gravel with Clay and Sand |
| | | | GP-GM | Poorly Graded Gravel with Silt; Poorly Graded Gravel with Silt and Sand |
| | | | GP-GC | Poorly Graded Gravel with Clay; Poorly Graded Gravel with Clay and Sand |
| | Sands with few Fines (<5% fines) | GM | Silty Gravel; Silty Gravel with Sand | |
| | | GC | Clayey Gravel; Clayey Gravel with Sand | |
| | | SW | Well-Graded Sand; Well-Graded Sand with Gravel | |
| | | SP | Poorly Graded Sand; Poorly Graded Sand with Gravel | |
| Sand and Sandy Soils | Sands (5-12% fines) | SW-SM | Well-Graded Sand with Silt; Well-Graded Sand with Silt and Gravel | |
| | | SW-SC | Well-Graded Sand with Clay; Well-Graded Sand with Clay and Gravel | |
| | Sands with Fines (>12% fines) | SP-SM | Poorly Graded Sand with Silt; Poorly Graded Sand with Silt and Gravel | |
| | | SP-SC | Poorly Graded Sand with Clay; Poorly Graded Sand with Clay and Gravel | |
| | | SM | Silty Sand; Silty Sand with Gravel | |
| | | SC | Clayey Sand; Clayey Sand with Gravel | |
| Fine Grained Soils | Silt | ML | Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt | |
| | | MH | Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt | |
| | Silty Clay (based on Atterberg Limits) | CL-ML | Silty Clay; Silty Clay with Sand or Gravel; Gravelly or Sandy Silty Clay | |
| | | CL | Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay | |
| | Clays | CH | Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay | |
| Organics | OL/OH | Organic Soil; Organic Soil with Sand or Gravel; Sandy or Gravelly Organic Soil | | |
| Highly Organic (>50% organic material) | | PT | Peat - Decomposing Vegetation - Fibrous to Amorphous Texture | |

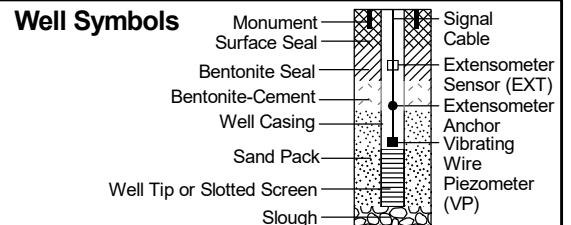
Groundwater Indicators

| | |
|--|--|
| | Groundwater Level on Date or At Time of Drilling (ATD) |
| | Groundwater Level on Date Measured in Piezometer |
| | Groundwater Seepage (Test Pits) |

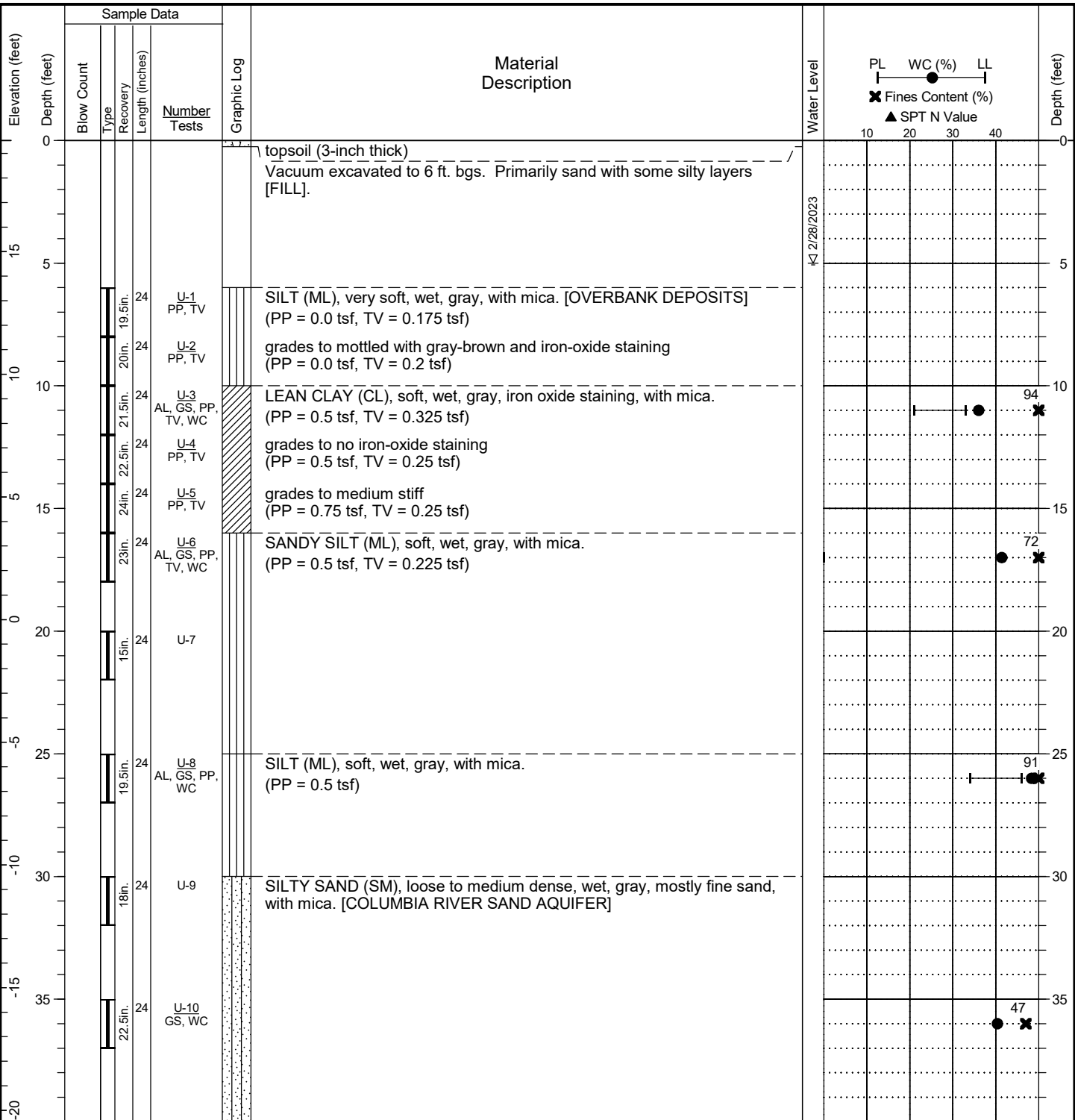
Sample Symbols

| | | |
|--|--|--|
| | | |
| | | |
| | | |

Well Symbols



| | | |
|--|-----------------------------------|--|
| Date Started: <u>03/02/2023</u> | Date Completed: <u>03/03/2023</u> | Drilling Contractor/Crew: <u>Western States Soil Conservation, Inc. / Shane, Alfredo, Chaz</u> |
| Logged by: <u>DCH</u> | Checked by: <u>KLA</u> | Drilling Method: <u>Mud Rotary</u> |
| Location: <u>Lat: 45.597583 Long: -122.613906 (WGS 84)</u> | | Rig Model/Type: <u>CME-55 / Track-mounted drill rig</u> |
| Ground Surface Elevation: <u>19.53 feet (NAVD 88)</u> | | Hammer Type: <u>Auto-hammer</u> |
| Comments: _____ | | Hammer Weight (pounds): <u>140</u> Hammer Drop Height (inches): <u>30</u> |
| | | Measured Hammer Efficiency (%): <u>75.1</u> |
| | | Hole Diameter: <u>4.875 inches</u> Well Casing Diameter: <u>NA</u> |
| | | Total Depth: <u>151.5 feet</u> Depth to Groundwater: <u>5 feet</u> |

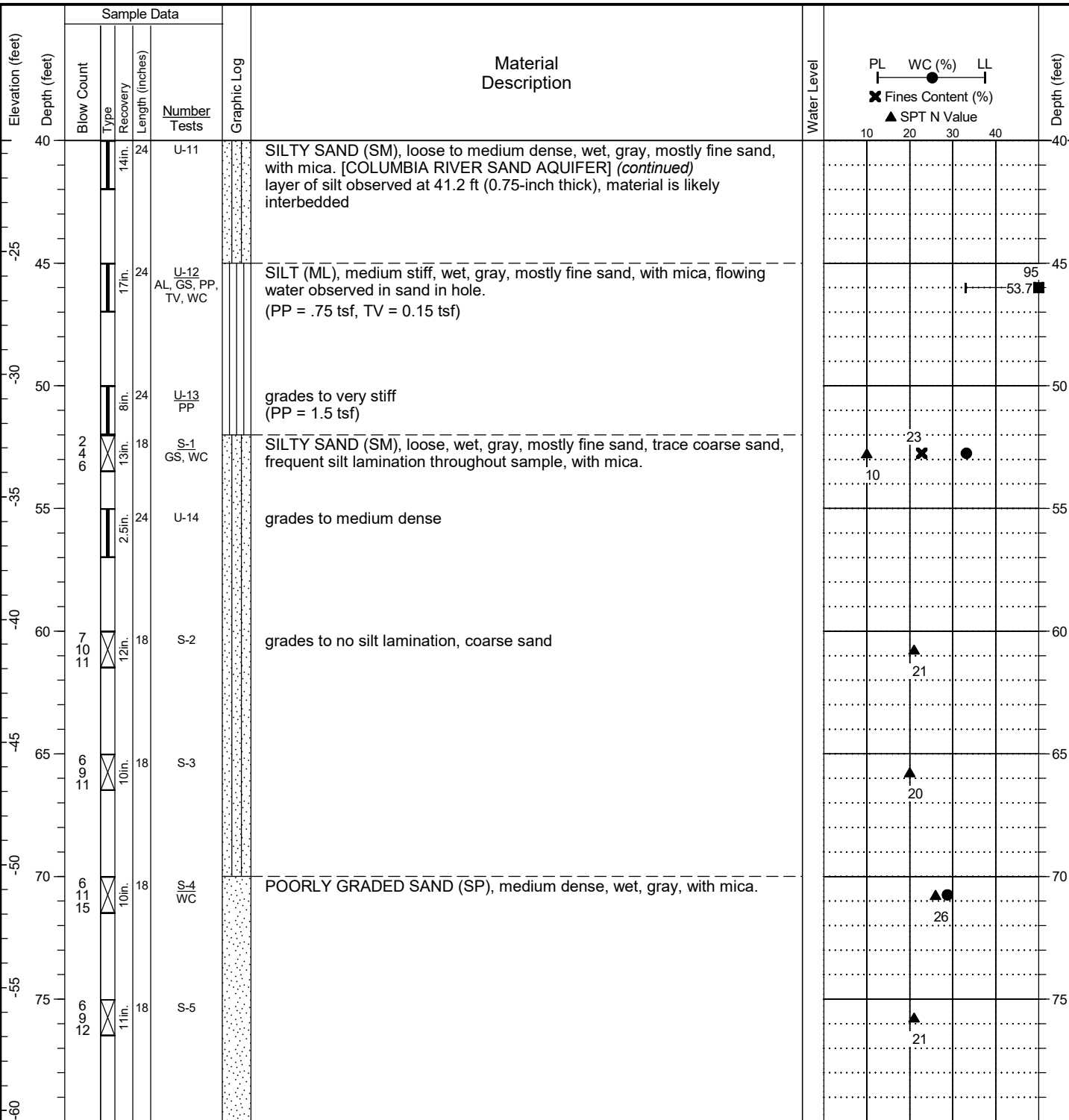


General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

H:\BORING LOGS - HALEY\ALDRICH\COMSHARE\SEA DATA\GRINTIC.LIBRARY\GUB - 217023 10-23 - HALEY\ALDRICH\COMSHARE\POX DATA\NOTEBOOKS\0204679\01 POX FUEL PROJECT TANK DESIGN\FIELD DATA\PERM GINT FILES\0204679\01 POX FUEL PROJECT TANK DESIGN.GINT.GPJ - 100001

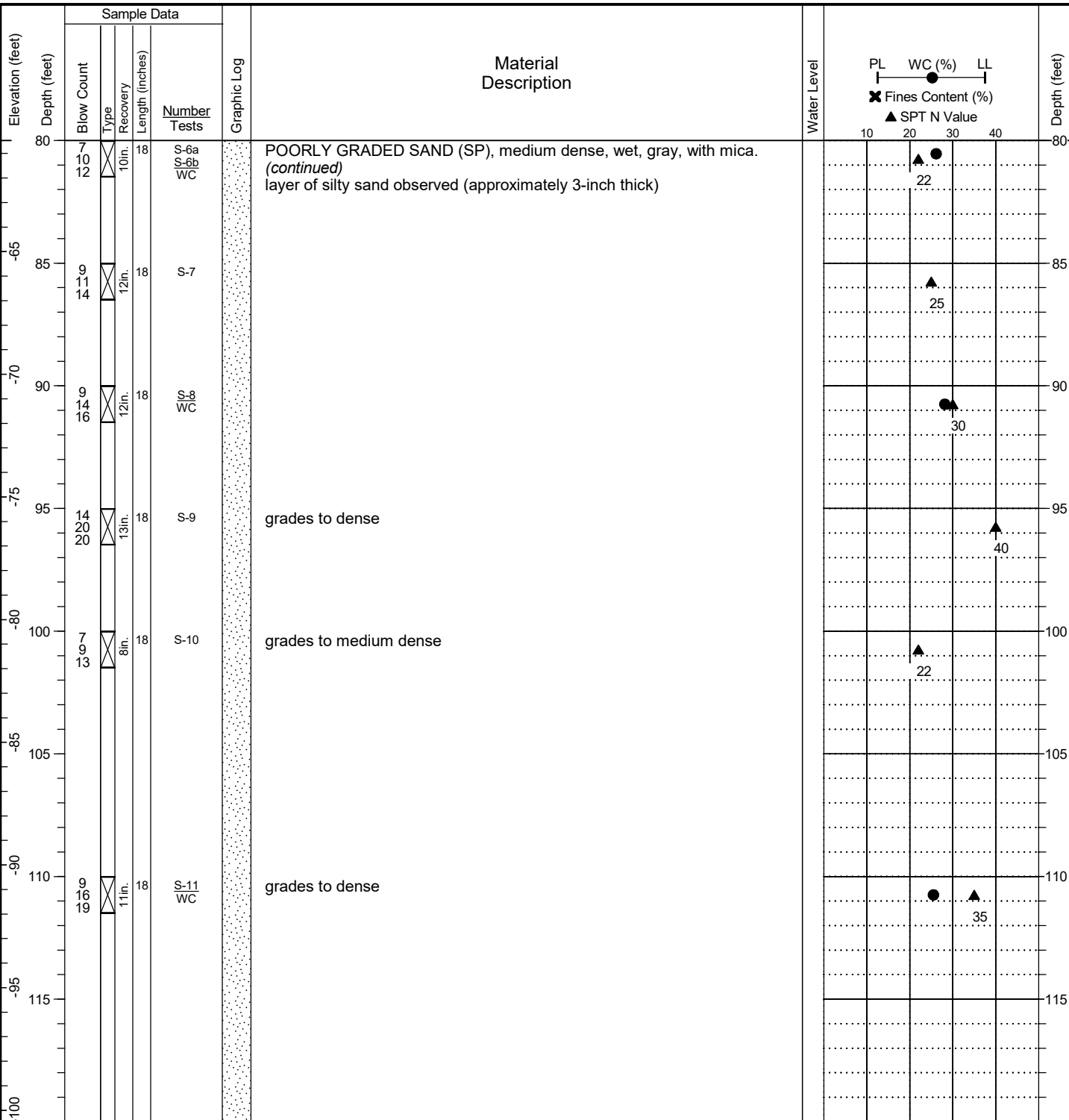
Date Started: 03/02/2023 Date Completed: 03/03/2023 Drilling Contractor/Crew: Western States Soil Conservation, Inc. / Shane, Alfredo, Chaz
 Logged by: DCH Checked by: KLA Drilling Method: Mud Rotary
 Location: Lat: 45.597583 Long: -122.613906 (WGS 84) Rig Model/Type: CME-55 / Track-mounted drill rig
 Ground Surface Elevation: 19.53 feet (NAVD 88) Hammer Type: Auto-hammer
 Comments: _____ Hammer Weight (pounds): 140 Hammer Drop Height (inches): 30
 _____ Measured Hammer Efficiency (%): 75.1
 _____ Hole Diameter: 4.875 inches Well Casing Diameter: NA
 _____ Total Depth: 151.5 feet Depth to Groundwater: 5 feet



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
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 5. Location and ground surface elevations are approximate.

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| | | |
|--|-----------------------------------|--|
| Date Started: <u>03/02/2023</u> | Date Completed: <u>03/03/2023</u> | Drilling Contractor/Crew: <u>Western States Soil Conservation, Inc. / Shane, Alfredo, Chaz</u> |
| Logged by: <u>DCH</u> | Checked by: <u>KLA</u> | Drilling Method: <u>Mud Rotary</u> |
| Location: <u>Lat: 45.597583 Long: -122.613906 (WGS 84)</u> | | Rig Model/Type: <u>CME-55 / Track-mounted drill rig</u> |
| Ground Surface Elevation: <u>19.53 feet (NAVD 88)</u> | | Hammer Type: <u>Auto-hammer</u> |
| Comments: _____ | | Hammer Weight (pounds): <u>140</u> Hammer Drop Height (inches): <u>30</u> |
| | | Measured Hammer Efficiency (%): <u>75.1</u> |
| | | Hole Diameter: <u>4.875 inches</u> Well Casing Diameter: <u>NA</u> |
| | | Total Depth: <u>151.5 feet</u> Depth to Groundwater: <u>5 feet</u> |

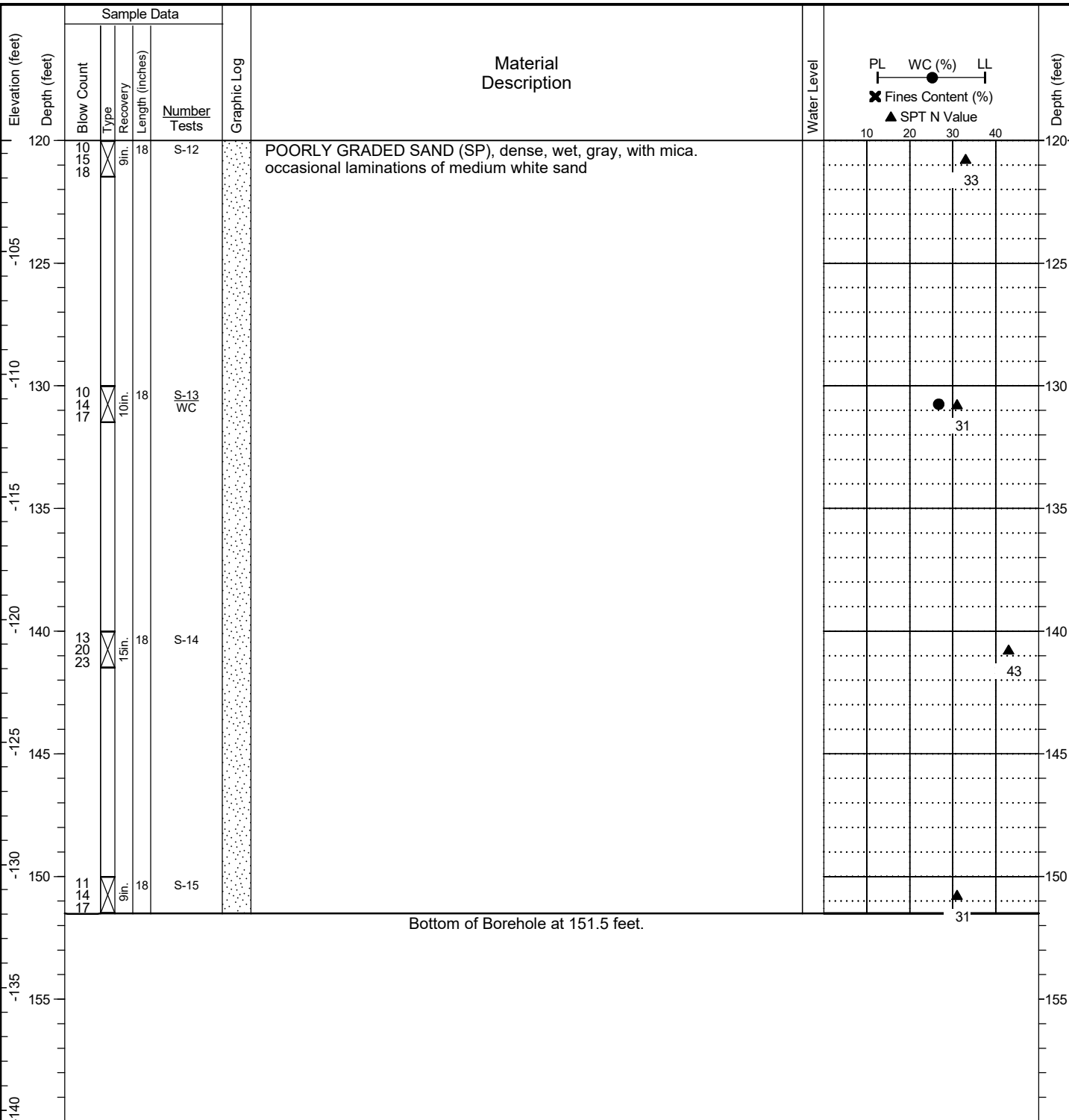


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4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HA BSRING LOG - HALEY ALDRICH COM SHARE POX DATA NOTED BOOKS 0204679-001 PDX FUEL PROJECT TANK DESIGN FIELD DATA PERM GINT FILE 0204679-001 PDX FUEL PROJECT TANK DESIGN GINT.GPJ - 04041

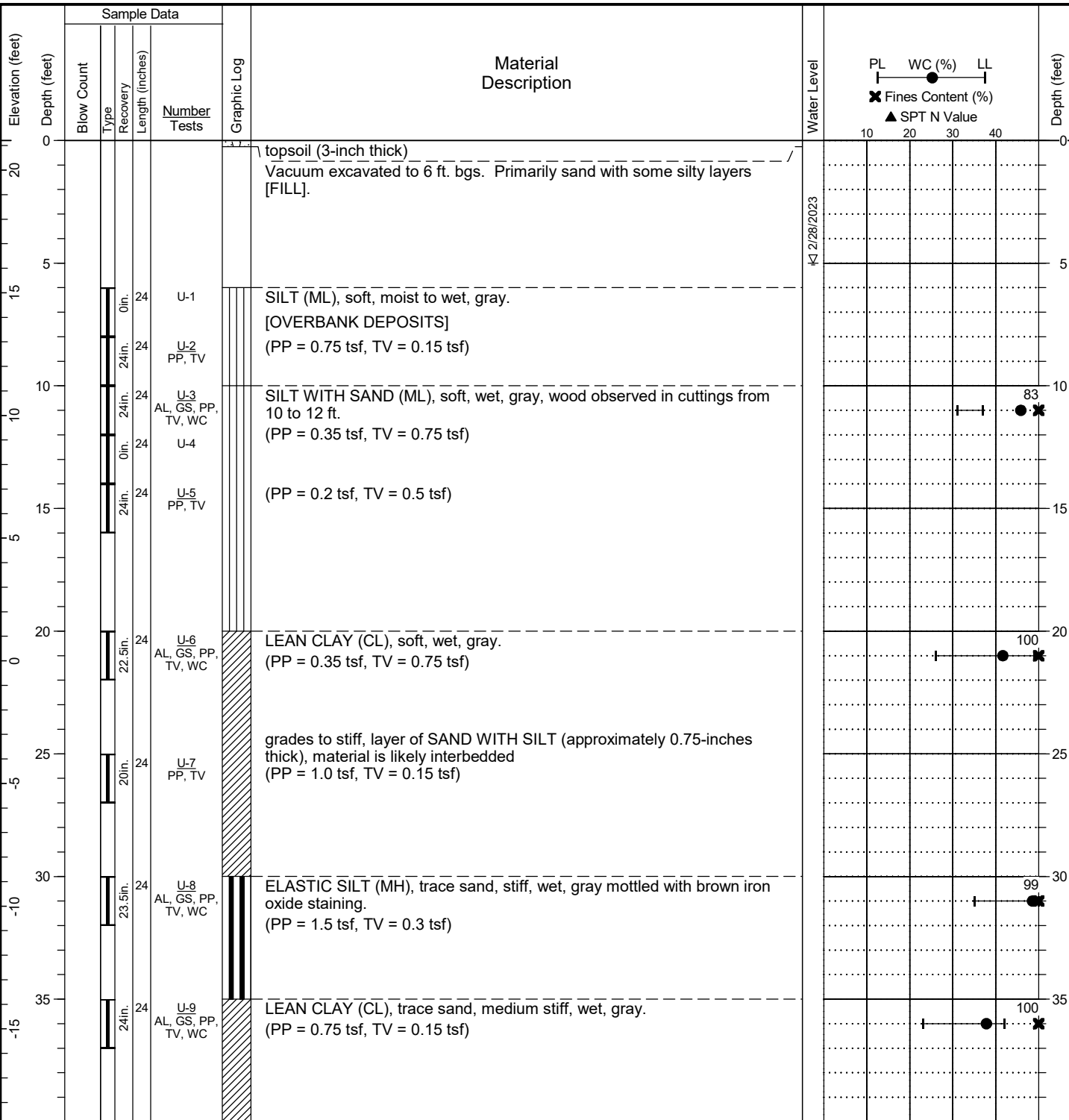
Date Started: 03/02/2023 Date Completed: 03/03/2023 Drilling Contractor/Crew: Western States Soil Conservation, Inc. / Shane, Alfredo, Chaz
 Logged by: DCH Checked by: KLA Drilling Method: Mud Rotary
 Location: Lat: 45.597583 Long: -122.613906 (WGS 84) Rig Model/Type: CME-55 / Track-mounted drill rig
 Ground Surface Elevation: 19.53 feet (NAVD 88) Hammer Type: Auto-hammer
 Comments: _____ Hammer Weight (pounds): 140 Hammer Drop Height (inches): 30
 _____ Measured Hammer Efficiency (%): 75.1
 _____ Hole Diameter: 4.875 inches Well Casing Diameter: NA
 _____ Total Depth: 151.5 feet Depth to Groundwater: 5 feet



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
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 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA BSRING LOG - HALEY ALDRICH COM SHARE PDX DATA NOTED BOOKS 0204679-001 PDX FUEL PROJECT TANK DESIGN FIELD DATA PERM GINT FILES 0204679-001 PDX FUEL PROJECT TANK DESIGN GINT.GPJ - 04/04/2023

| | | |
|--|-----------------------------------|--|
| Date Started: <u>02/28/2023</u> | Date Completed: <u>03/02/2023</u> | Drilling Contractor/Crew: <u>Western States Soil Conservation, Inc. / Shane, Alfredo, Chaz</u> |
| Logged by: <u>DCH</u> | Checked by: <u>KLA</u> | Drilling Method: <u>Mud Rotary</u> |
| Location: <u>Lat: 45.596374 Long: -122.613728 (WGS 84)</u> | | Rig Model/Type: <u>CME-55 / Track-mounted drill rig</u> |
| Ground Surface Elevation: <u>21.21 feet (NAVD 88)</u> | | Hammer Type: <u>Auto-hammer</u> |
| Comments: | | Hammer Weight (pounds): <u>140</u> Hammer Drop Height (inches): <u>30</u> |
| | | Measured Hammer Efficiency (%): <u>75.1</u> |
| | | Hole Diameter: <u>4.875 inches</u> Well Casing Diameter: <u>NA</u> |
| | | Total Depth: <u>151.5 feet</u> Depth to Groundwater: <u>5 feet</u> |

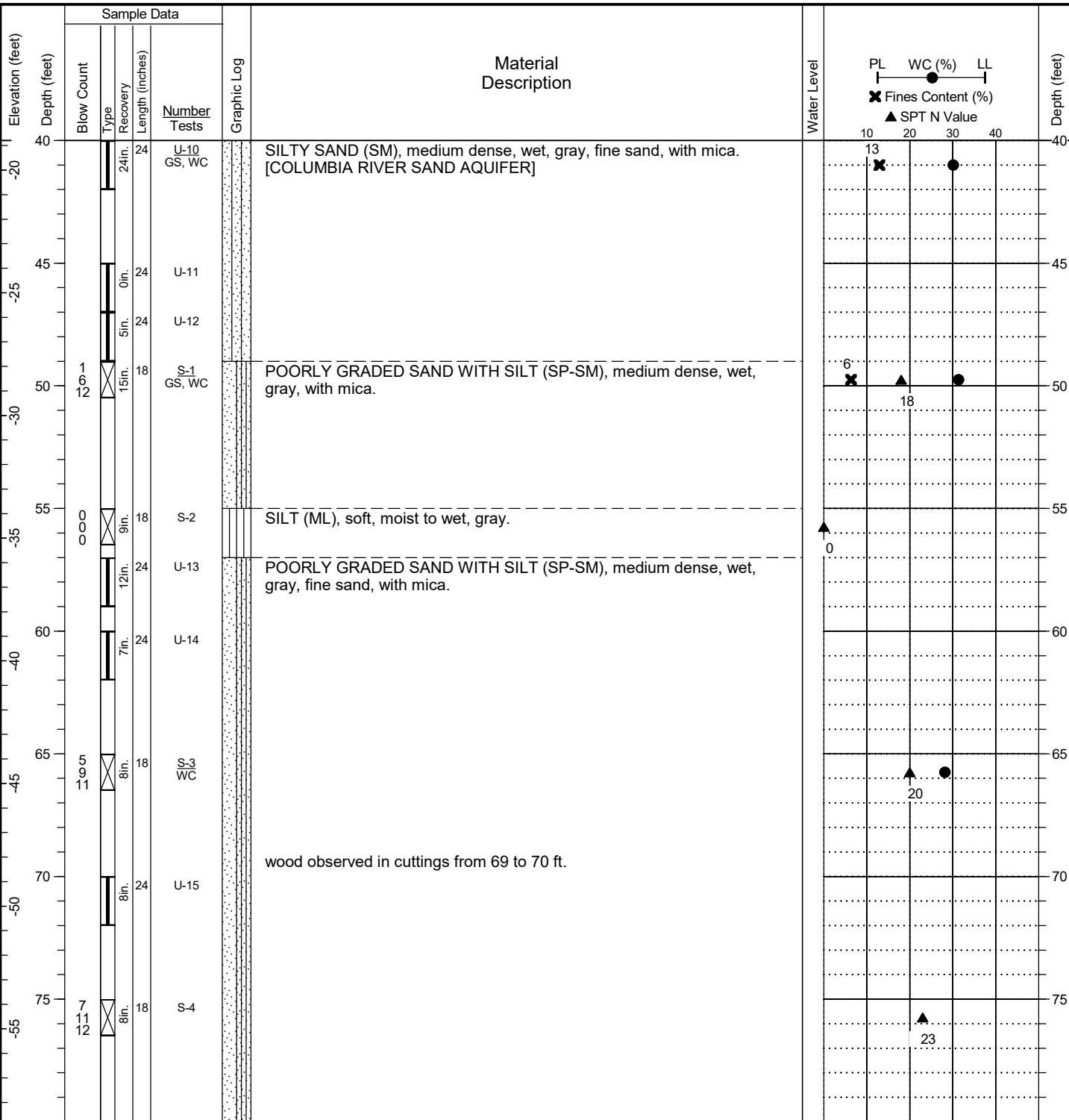


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4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

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| | | |
|--|-----------------------------------|--|
| Date Started: <u>02/28/2023</u> | Date Completed: <u>03/02/2023</u> | Drilling Contractor/Crew: <u>Western States Soil Conservation, Inc. / Shane, Alfredo, Chaz</u> |
| Logged by: <u>DCH</u> | Checked by: <u>KLA</u> | Drilling Method: <u>Mud Rotary</u> |
| Location: <u>Lat: 45.596374 Long: -122.613728 (WGS 84)</u> | | Rig Model/Type: <u>CME-55 / Track-mounted drill rig</u> |
| Ground Surface Elevation: <u>21.21 feet (NAVD 88)</u> | | Hammer Type: <u>Auto-hammer</u> |
| Comments: _____ | | Hammer Weight (pounds): <u>140</u> Hammer Drop Height (inches): <u>30</u> |
| | | Measured Hammer Efficiency (%): <u>75.1</u> |
| | | Hole Diameter: <u>4.875 inches</u> Well Casing Diameter: <u>NA</u> |
| | | Total Depth: <u>151.5 feet</u> Depth to Groundwater: <u>5 feet</u> |

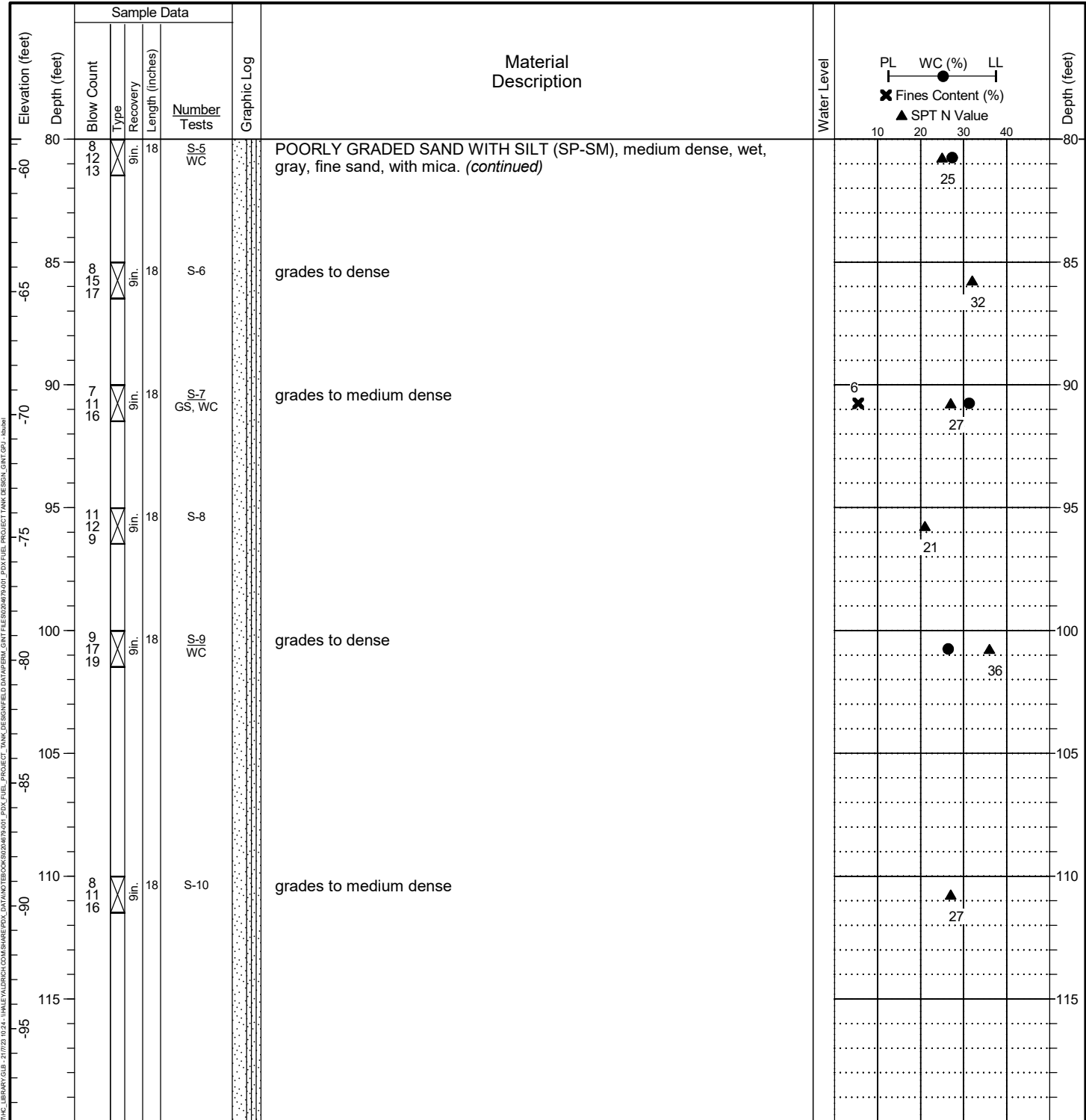


General Notes:

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4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

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| | | |
|---|----------------------------|---|
| Date Started: 02/28/2023 | Date Completed: 03/02/2023 | Drilling Contractor/Crew: Western States Soil Conservation, Inc. / Shane, Alfredo, Chaz |
| Logged by: DCH | Checked by: KLA | Drilling Method: Mud Rotary |
| Location: Lat: 45.596374 Long: -122.613728 (WGS 84) | | Rig Model/Type: CME-55 / Track-mounted drill rig |
| Ground Surface Elevation: 21.21 feet (NAVD 88) | | Hammer Type: Auto-hammer |
| Comments: | | Hammer Weight (pounds): 140 Hammer Drop Height (inches): 30 |
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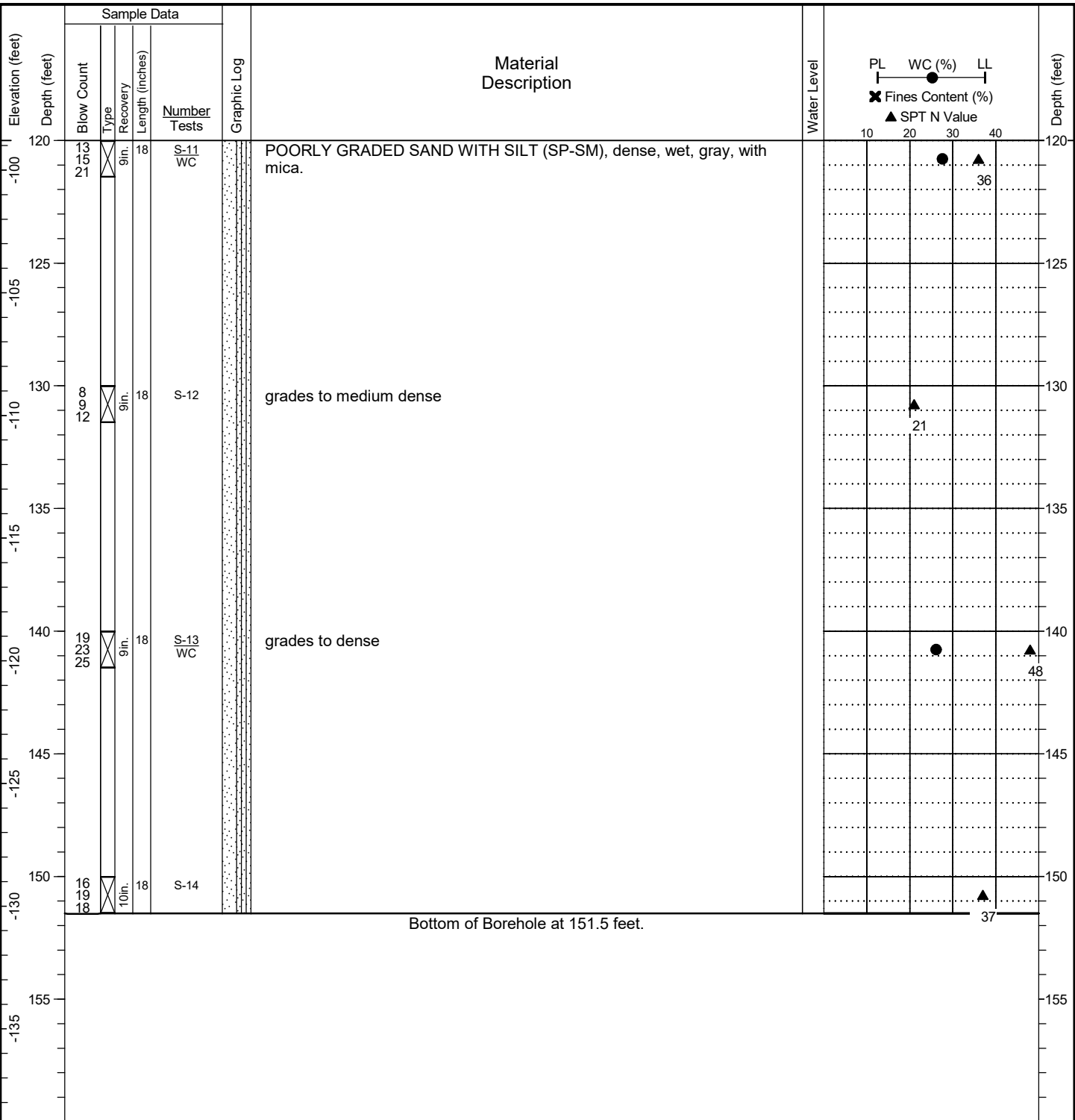


Project: PDX Fuel Project Tank Design
 Location: Portland, Oregon
 Project No.: 0204679-001

Boring Log
B-2

Figure
A-3
 Sheet
3 of 4

| | | |
|--|-----------------------------------|--|
| Date Started: <u>02/28/2023</u> | Date Completed: <u>03/02/2023</u> | Drilling Contractor/Crew: <u>Western States Soil Conservation, Inc. / Shane, Alfredo, Chaz</u> |
| Logged by: <u>DCH</u> | Checked by: <u>KLA</u> | Drilling Method: <u>Mud Rotary</u> |
| Location: <u>Lat: 45.596374 Long: -122.613728 (WGS 84)</u> | | Rig Model/Type: <u>CME-55 / Track-mounted drill rig</u> |
| Ground Surface Elevation: <u>21.21 feet (NAVD 88)</u> | | Hammer Type: <u>Auto-hammer</u> |
| Comments: _____ | | Hammer Weight (pounds): <u>140</u> Hammer Drop Height (inches): <u>30</u> |
| | | Measured Hammer Efficiency (%): <u>75.1</u> |
| | | Hole Diameter: <u>4.875 inches</u> Well Casing Diameter: <u>NA</u> |
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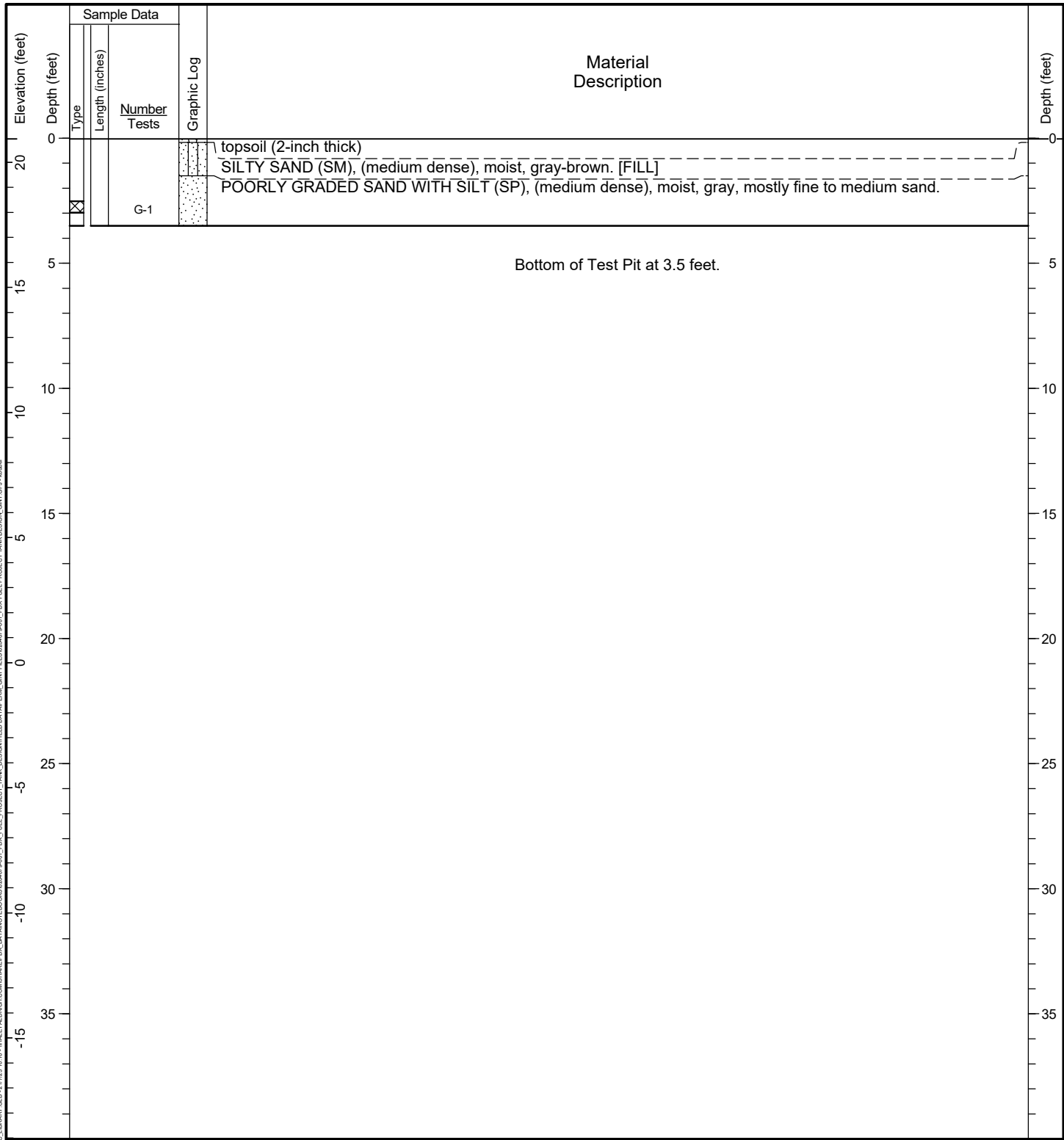


General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HA BSRING LOG - HALEY ALDRICH COM SHARE PDX DATA NOTERBOOKS 0204679-001 PDX FUEL PROJECT TANK DESIGN FIELD DATA PERM GINT FILES 0204679-001 PDX FUEL PROJECT TANK DESIGN GINT GINT.GPJ - 10000

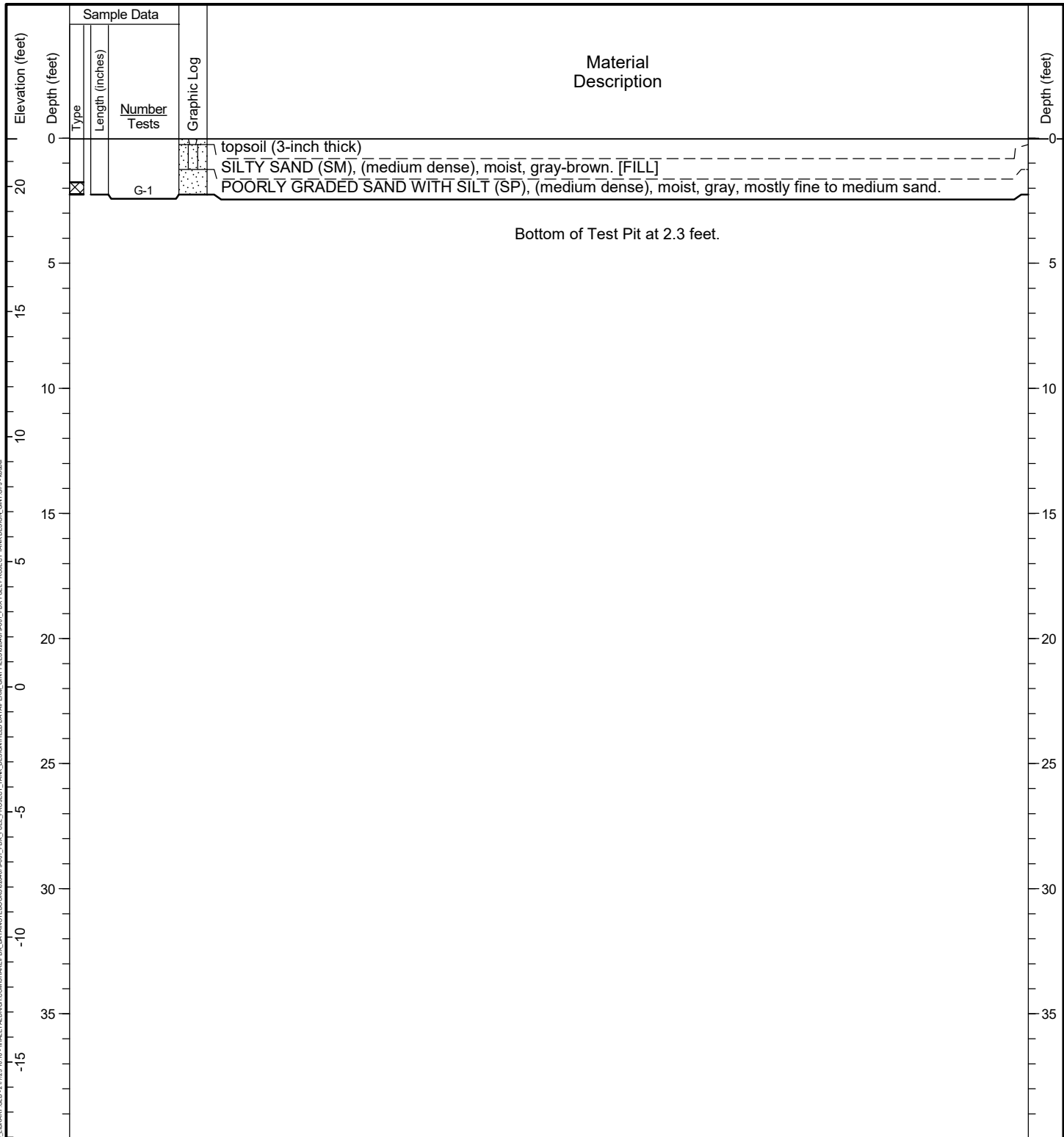
Date Started: 03/09/2023 Date Completed: 03/09/2023 Contractor/Crew: Bella Terra / DM
 Logged by: KLA Checked by: DLK Rig Model/Type: Backhoe
 Location: Lat: 45.596585 Long: -122.612579 (WGS 84) Total Depth: 3.5 feet Depth to Seepage: Not Encountered
 Ground Surface Elevation: 20.97 feet (NAVD 88)
 Comments: Single ring falling head infiltration test conducted at bottom of test pit from 1050 to 1200



HA TEST PIT - HALEY/ALDRICH/CONSHA/REPOX.DAT\ANOTERODS\0204679\001.PDX_FUEL_PROJECT_TANK_DESIGN\FIELD\DATA\FIELD.DAT\FPDM.GNT\FILES\0204679\001.PDX_FUEL_PROJECT_TANK_DESIGN.GNT\GRA - Hard

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 03/09/2023 Date Completed: 03/09/2023 Contractor/Crew: Bella Terra / DM
 Logged by: KLA Checked by: DLK Rig Model/Type: Backhoe
 Location: Lat: 45.597209 Long: -122.612269 (WGS 84) Total Depth: 2.25 feet Depth to Seepage: Not Encountered
 Ground Surface Elevation: 21.93 feet (NAVD 88)
 Comments: Double ring falling head infiltration test conducted at bottom of test pit from 1050 to 1200

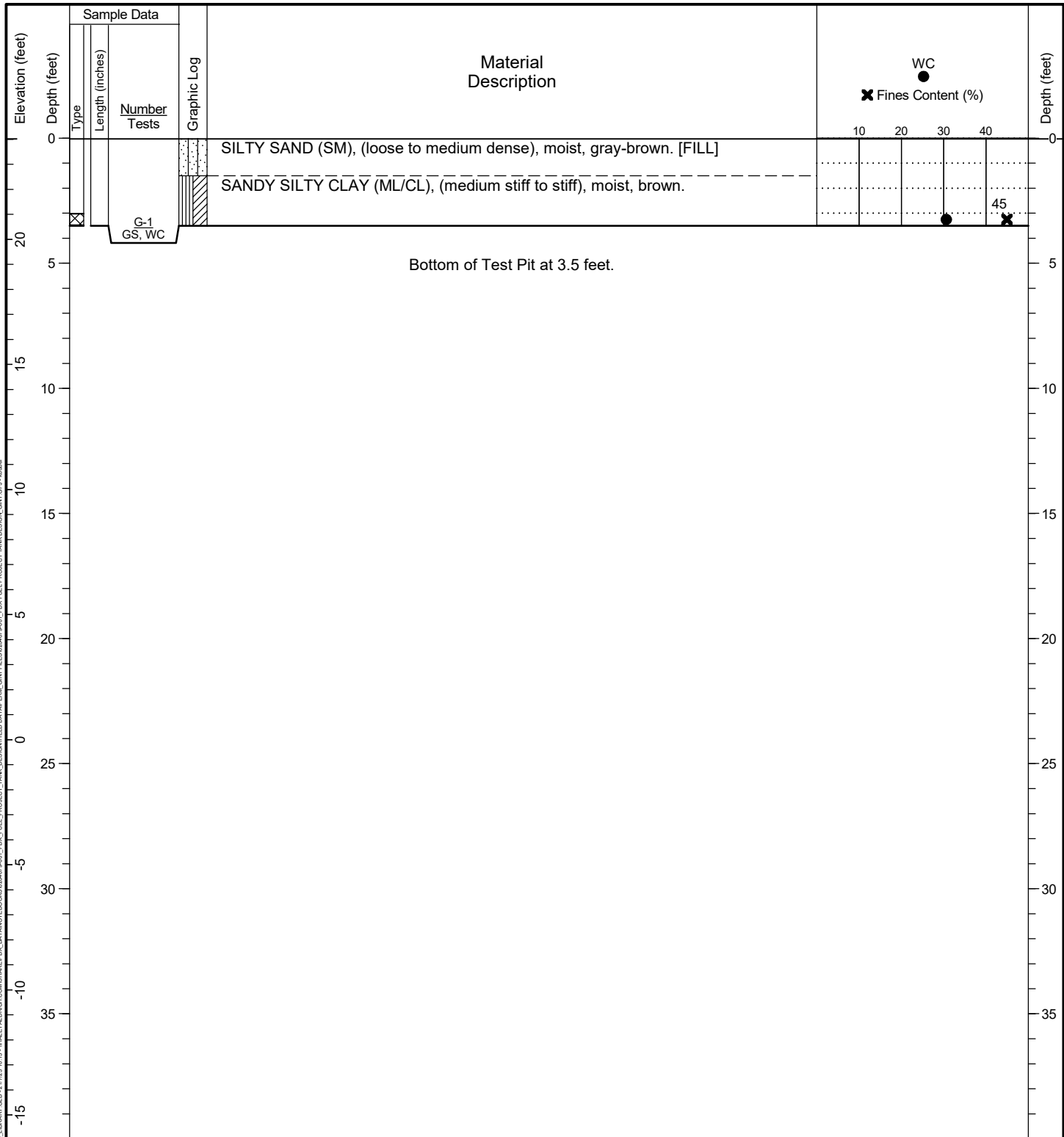


General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA TEST PIT - HALEY/ALDRICH/CONSHAH/REPOX.DAT\ANOTERODS\020679\01_PDX_FUEL_PROJECT_TANK_DESIGN\BIDD\DATA\FPM.GMT FILES\020679\01_PDX_FUEL_PROJECT_TANK_DESIGN.GNT.GRAPH - 10444

| | | | |
|---|---------------------------------------|------------------------------------|---------------------|
|  | Project: PDX Fuel Project Tank Design | Test Pit Log IT-2 | Figure A-5 |
| | Location: Portland, Oregon | | Sheet 1 of 1 |
| | Project No.: 0204679-001 | | |

Date Started: 03/09/2023 Date Completed: 03/09/2023 Contractor/Crew: Bella Terra / DM
 Logged by: KLA Checked by: DLK Rig Model/Type: Backhoe
 Location: Lat: 45.597973 Long: -122.612933 (WGS 84) Total Depth: 3.5 feet Depth to Seepage: Not Encountered
 Ground Surface Elevation: 24.05 feet (NAVD 88)
 Comments: Single ring falling head infiltration test conducted at bottom of test pit from 1215 to 1430



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.



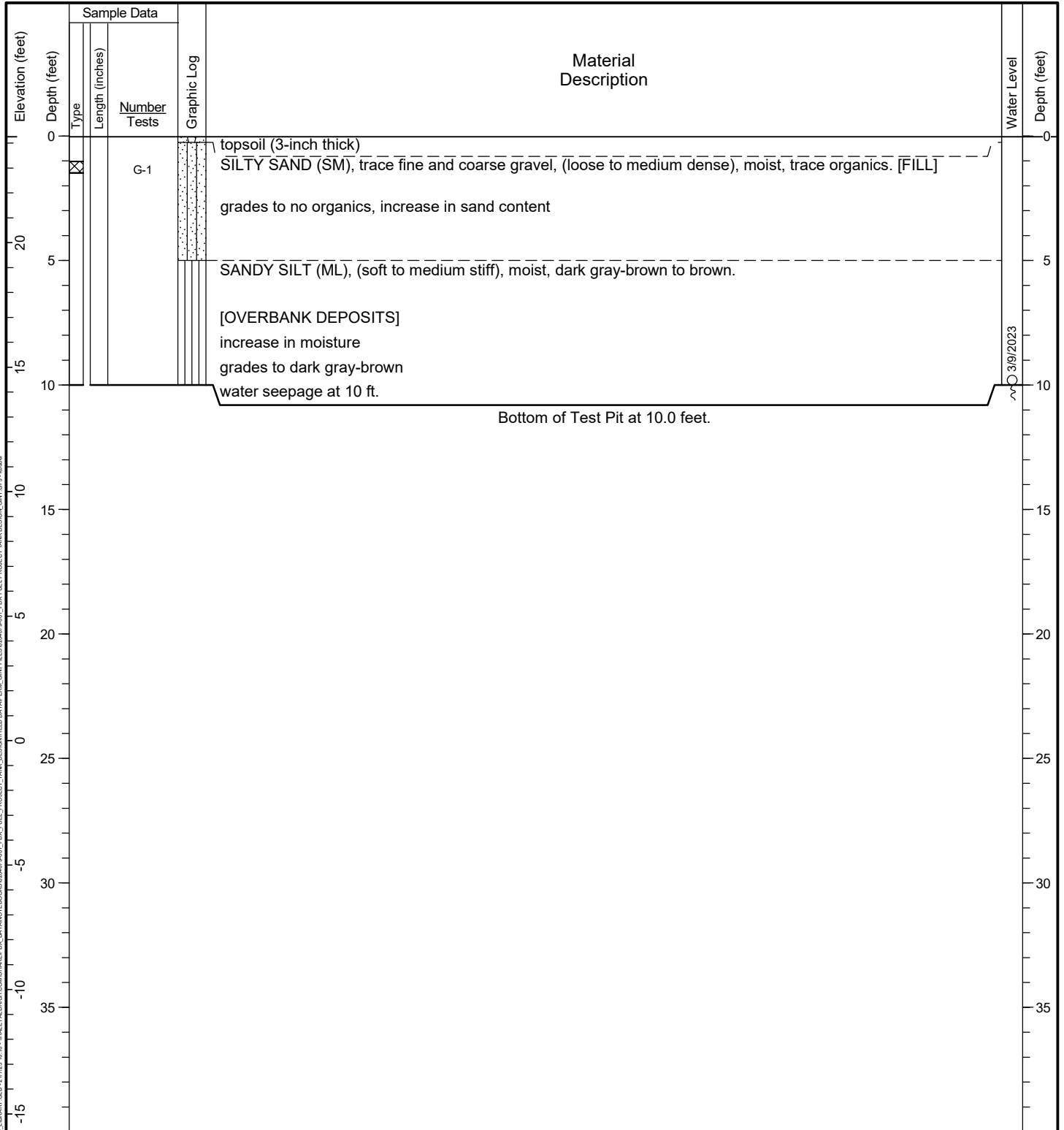
Project: PDX Fuel Project Tank Design
 Location: Portland, Oregon
 Project No.: 0204679-001

Test Pit Log
IT-3

Figure **A-6**
 Sheet **1 of 1**

HA TEST PIT - HALEY\ALDRICH\CONSHA\REPOX_DATA\NOTEDR005\0204679\001_PDX_FUEL_PROJECT_TANK_DESIGN\BIDD\DATA\FPM_GINT\FILES\0204679\001_PDX_FUEL_PROJECT_TANK_DESIGN_GINT\GRA - Head

| | | |
|--|--|--|
| Date Started: <u>03/09/2023</u> | Date Completed: <u>03/09/2023</u> | Contractor/Crew: <u>Bella Terra / DM</u> |
| Logged by: <u>KLA</u> | Checked by: <u>DLK</u> | Rig Model/Type: <u>Backhoe</u> |
| Location: <u>Lat: 45.598133 Long: -122.614312 (WGS 84)</u> | Total Depth: <u>10 feet</u> Depth to Seepage: <u>10 feet</u> | |
| Ground Surface Elevation: <u>24.28 feet (NAVD 88)</u> | | |
| Comments: _____ | | |

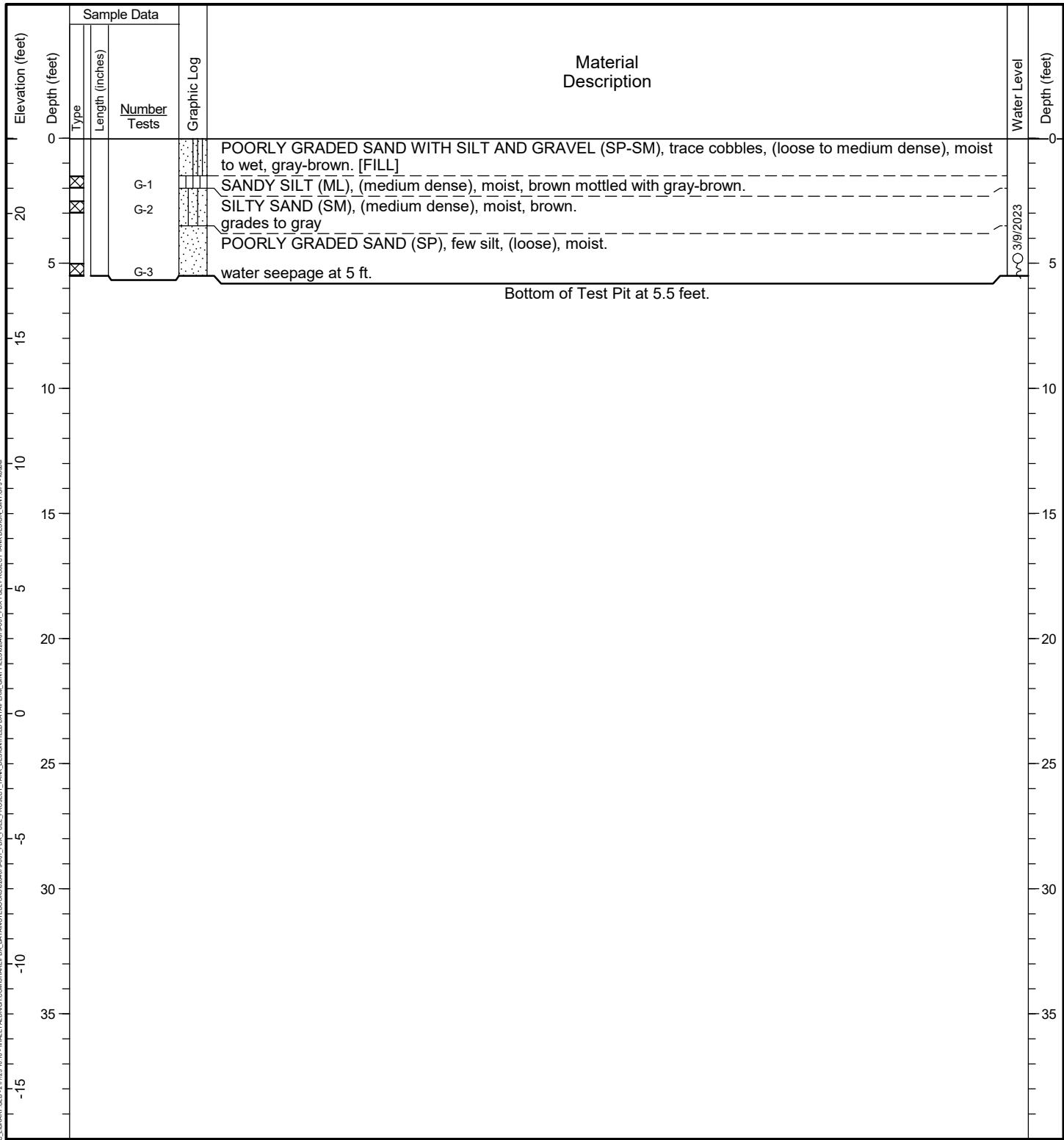


General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HA TEST PIT - HALEY ALDRICH CONSTRUCTION DATA\GINTING.LIBRARY\G.E.L.-21/23 10-10 - HALEY ALDRICH CONSTRUCTION DATA\NOTES\2023\03\09\01_PDX_FUEL_PROJECT_TANK_DESIGN\FIELD DATA\PERM.GINT FILES\0204679\01_PDX_FUEL_PROJECT_TANK_DESIGN.GINT.GRA - 10.dwg

Date Started: 03/09/2023 Date Completed: 03/09/2023 Contractor/Crew: Bella Terra / DM
 Logged by: KLA Checked by: DLK Rig Model/Type: Backhoe
 Location: Lat: 45.597348 Long: -122.611951 (WGS 84) Total Depth: 5.5 feet Depth to Seepage: 5 feet
 Ground Surface Elevation: 23.00 feet (NAVD 88)
 Comments: _____

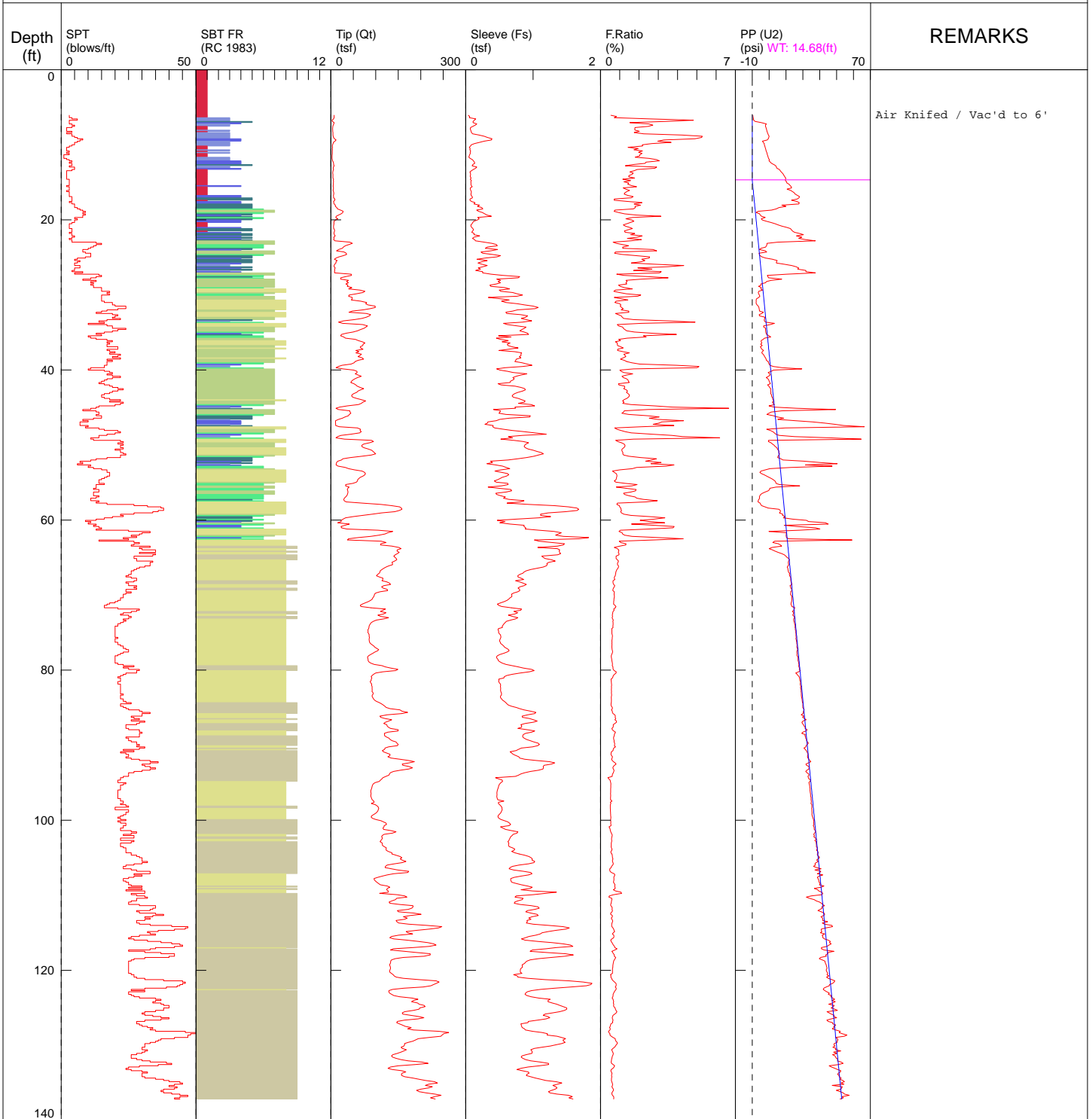


General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA TEST PIT - HALEY\ALDRICH\CONSHA\REPO\DATA\NOTED\030923\01_PDX_FUEL_PROJECT_TANK_DESIGN\FIELD\DATA\FIELD\DATA\TP2M.GINT\FILES\0204679001_PDX_FUEL_PROJECT_TANK_DESIGN.GINT\GRA - 1044.dwg

Haley & Aldrich / SCPT-4 / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 12:58:45 PM
 TOTAL DEPTH: 137.139 ft

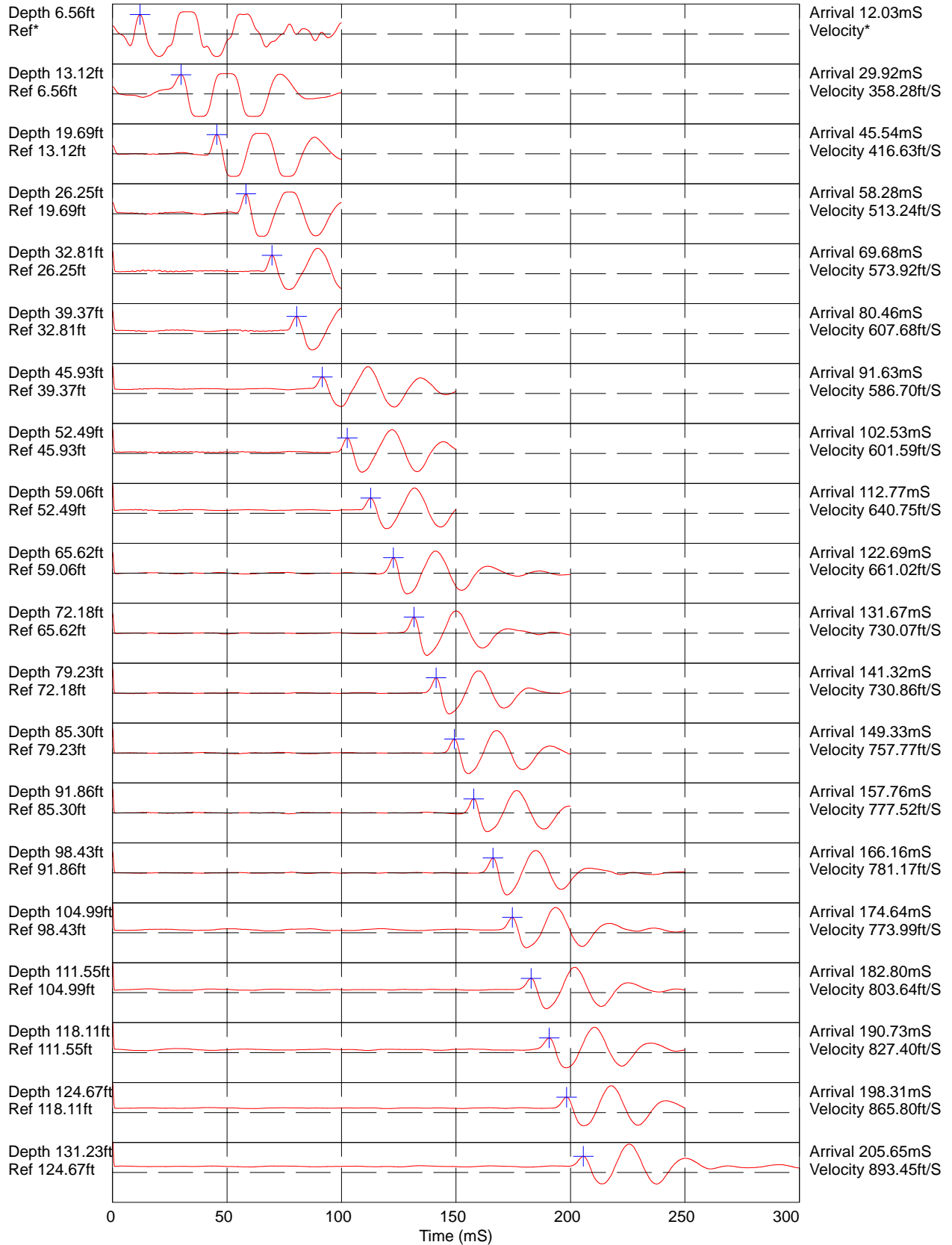


Air Knifed / Vac'd to 6'

- | | | | |
|---|---|---|--|
| ■ 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 (*) |

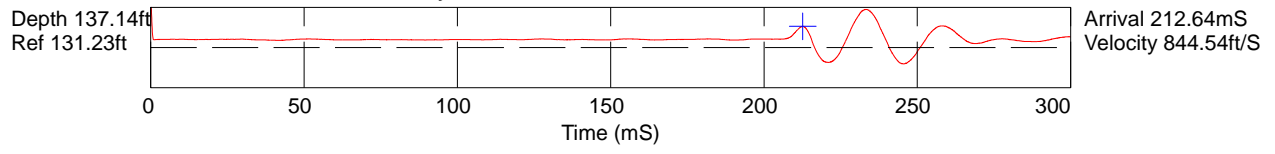
*SBT/SPT CORRELATION: UBC-1983

COMMENT: Haley & Aldrich / SCPT-4 / 4580 NE Marine Dr Portland



Hammer to Rod String Distance (ft): 2.04
 * = Not Determined

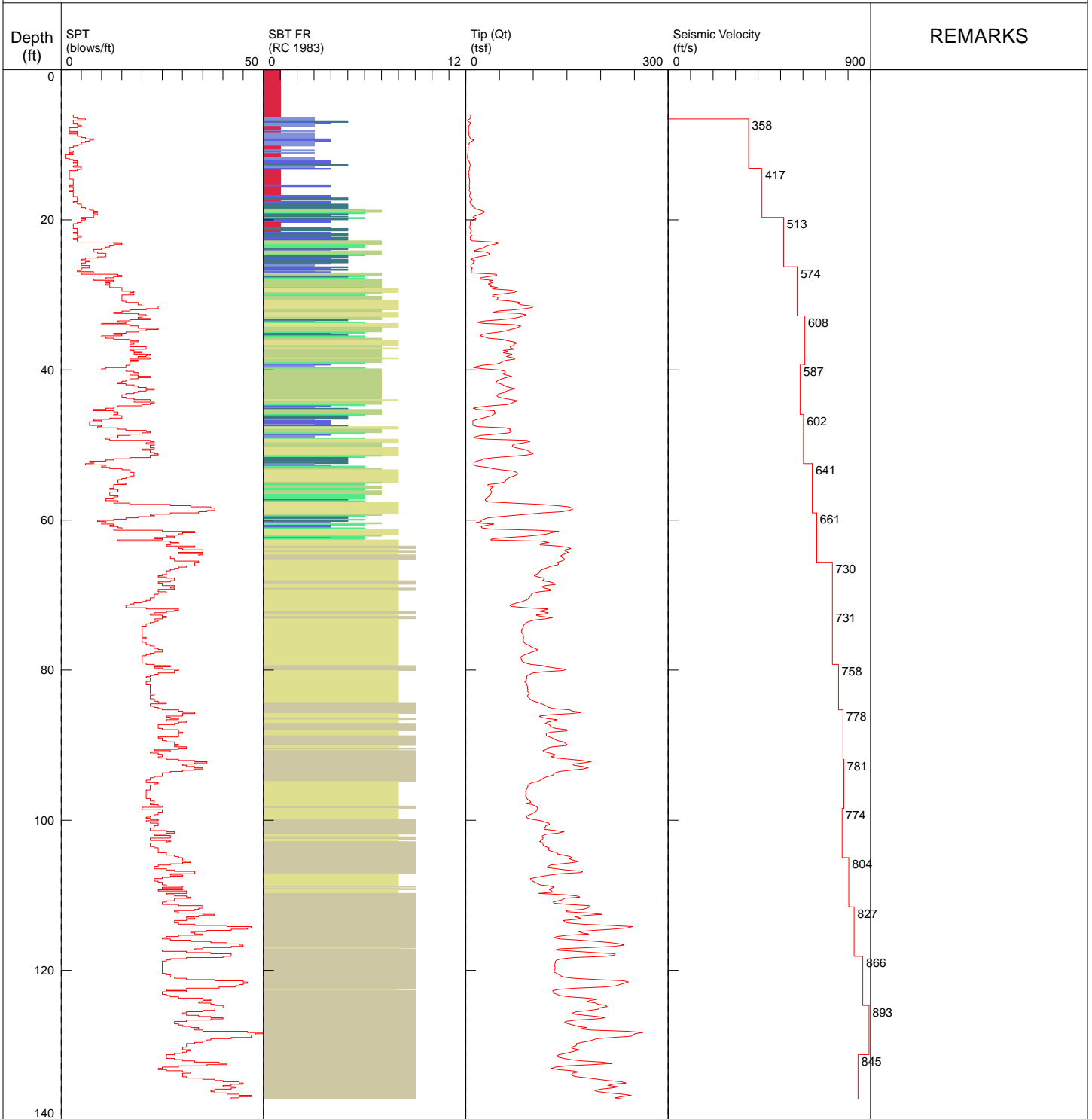
COMMENT: Haley & Aldrich / SCPT-4 / 4580 NE Marine Dr Portland



Hammer to Rod String Distance (ft): 2.04
* = Not Determined

Haley & Aldrich / SCPT-4 / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 12:58:45 PM
 TOTAL DEPTH: 137.139 ft

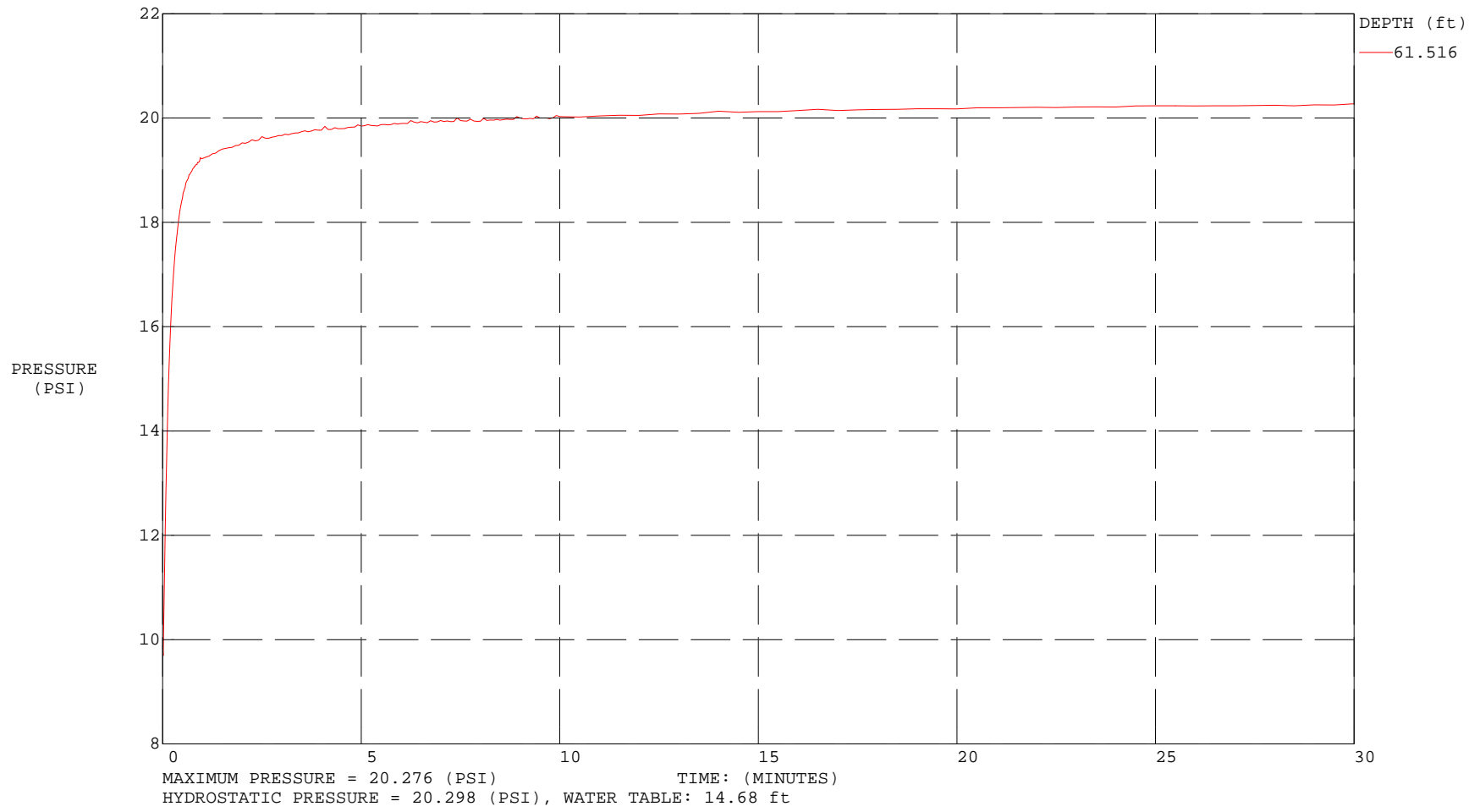


- | | | | |
|---|--|--|--|
| ■ 1 sensitive fine grained | ■ 4 silty clay to clay | ■ 7 silty sand to sandy silt | ■ 10 gravelly sand to sand |
| ■ 2 organic material | ■ 5 clayey silt to silty clay | ■ 8 sand to silty sand | ■ 11 very stiff fine grained (*) |
| ■ 3 clay | ■ 6 sandy silt to clayey silt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

*SBT/SPT CORRELATION: UBC-1983

COMMENT: Haley & Aldrich / SCPT-4 / 4580 NE Marine Dr Portland

CONE ID: DDG1296
TEST DATE: 2/28/2023 12:58:45 PM



Haley & Aldrich / SCPT-4 / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 12:58:45 PM
 TOTAL DEPTH: 137.139 ft

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 6.070 | 7.06 | 0.0379 | 0.537 | 0.323 | 3 | 1 | sensitive fine grained |
| 6.234 | 7.18 | 0.0596 | 0.831 | 0.401 | 3 | 1 | sensitive fine grained |
| 6.398 | 7.41 | 0.0530 | 0.715 | 0.568 | 4 | 1 | sensitive fine grained |
| 6.562 | 5.76 | 0.1480 | 2.571 | 0.677 | 6 | 3 | clay |
| 6.726 | 2.65 | 0.1275 | 4.820 | 0.864 | 3 | 3 | clay |
| 6.890 | 3.20 | 0.1082 | 3.386 | 1.655 | 3 | 3 | clay |
| 7.054 | 7.18 | 0.1090 | 1.519 | 5.352 | 3 | 5 | clayey silt to silty clay |
| 7.218 | 6.57 | 0.1644 | 2.502 | 8.336 | 4 | 4 | silty clay to clay |
| 7.382 | 5.22 | 0.1416 | 2.712 | 7.815 | 5 | 3 | clay |
| 7.546 | 4.27 | 0.1059 | 2.478 | 7.826 | 4 | 3 | clay |
| 7.710 | 3.97 | 0.0711 | 1.790 | 8.080 | 2 | 1 | sensitive fine grained |
| 7.874 | 3.90 | 0.0692 | 1.775 | 8.361 | 2 | 1 | sensitive fine grained |
| 8.038 | 4.12 | 0.0735 | 1.783 | 8.592 | 2 | 1 | sensitive fine grained |
| 8.202 | 3.98 | 0.0802 | 2.014 | 8.701 | 4 | 3 | clay |
| 8.366 | 4.78 | 0.0833 | 1.743 | 8.991 | 2 | 1 | sensitive fine grained |
| 8.530 | 4.58 | 0.1025 | 2.239 | 9.253 | 4 | 3 | clay |
| 8.694 | 4.66 | 0.1968 | 4.219 | 9.565 | 4 | 3 | clay |
| 8.858 | 5.17 | 0.2727 | 5.275 | 10.024 | 5 | 3 | clay |
| 9.022 | 6.13 | 0.3216 | 5.246 | 9.804 | 6 | 3 | clay |
| 9.186 | 7.93 | 0.3884 | 4.896 | 9.470 | 8 | 3 | clay |
| 9.350 | 11.59 | 0.3796 | 3.275 | 8.815 | 7 | 4 | silty clay to clay |
| 9.514 | 9.14 | 0.2720 | 2.975 | 6.088 | 6 | 4 | silty clay to clay |
| 9.678 | 5.56 | 0.2036 | 3.663 | 6.475 | 5 | 3 | clay |
| 9.843 | 4.93 | 0.1313 | 2.661 | 7.096 | 5 | 3 | clay |
| 10.007 | 3.87 | 0.0839 | 2.168 | 7.127 | 4 | 3 | clay |
| 10.171 | 3.29 | 0.0717 | 2.178 | 7.386 | 3 | 3 | clay |
| 10.335 | 3.79 | 0.0540 | 1.425 | 7.634 | 2 | 1 | sensitive fine grained |
| 10.499 | 3.37 | 0.0658 | 1.951 | 7.807 | 2 | 1 | sensitive fine grained |
| 10.663 | 3.55 | 0.0614 | 1.730 | 8.038 | 2 | 1 | sensitive fine grained |
| 10.827 | 3.37 | 0.0732 | 2.172 | 8.250 | 3 | 3 | clay |
| 10.991 | 3.32 | 0.0655 | 1.969 | 8.517 | 2 | 1 | sensitive fine grained |
| 11.155 | 3.18 | 0.0684 | 2.149 | 8.776 | 3 | 3 | clay |
| 11.319 | 2.89 | 0.0589 | 2.036 | 8.879 | 1 | 1 | sensitive fine grained |
| 11.483 | 2.60 | 0.0528 | 2.034 | 9.163 | 1 | 1 | sensitive fine grained |
| 11.647 | 2.60 | 0.0467 | 1.800 | 9.423 | 1 | 1 | sensitive fine grained |
| 11.811 | 2.59 | 0.0656 | 2.528 | 9.670 | 2 | 3 | clay |
| 11.975 | 3.37 | 0.0976 | 2.899 | 10.133 | 3 | 3 | clay |
| 12.139 | 3.75 | 0.1142 | 3.047 | 9.921 | 4 | 3 | clay |
| 12.303 | 5.44 | 0.1281 | 2.354 | 10.690 | 3 | 4 | silty clay to clay |
| 12.467 | 5.77 | 0.1337 | 2.316 | 11.473 | 4 | 4 | silty clay to clay |
| 12.631 | 6.28 | 0.1062 | 1.692 | 12.735 | 4 | 4 | silty clay to clay |
| 12.795 | 7.25 | 0.0934 | 1.289 | 13.925 | 3 | 5 | clayey silt to silty clay |
| 12.959 | 5.61 | 0.1634 | 2.914 | 14.279 | 5 | 3 | clay |
| 13.123 | 5.21 | 0.1466 | 2.813 | 14.599 | 5 | 3 | clay |
| 13.287 | 5.92 | 0.1128 | 1.905 | 16.076 | 4 | 4 | silty clay to clay |
| 13.451 | 4.96 | 0.0866 | 1.744 | 16.580 | 2 | 1 | sensitive fine grained |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 13.615 | 4.13 | 0.0632 | 1.528 | 17.104 | 2 | 1 | sensitive fine grained |
| 13.780 | 3.96 | 0.0670 | 1.691 | 17.906 | 2 | 1 | sensitive fine grained |
| 13.944 | 4.43 | 0.0724 | 1.635 | 18.419 | 2 | 1 | sensitive fine grained |
| 14.108 | 4.70 | 0.0692 | 1.472 | 18.803 | 2 | 1 | sensitive fine grained |
| 14.272 | 4.60 | 0.0671 | 1.460 | 19.285 | 2 | 1 | sensitive fine grained |
| 14.436 | 4.57 | 0.0807 | 1.765 | 19.868 | 2 | 1 | sensitive fine grained |
| 14.600 | 5.86 | 0.0675 | 1.152 | 19.709 | 3 | 1 | sensitive fine grained |
| 14.764 | 5.33 | 0.0828 | 1.553 | 19.592 | 3 | 1 | sensitive fine grained |
| 14.928 | 6.06 | 0.0739 | 1.220 | 20.324 | 3 | 1 | sensitive fine grained |
| 15.092 | 5.37 | 0.0785 | 1.461 | 20.497 | 3 | 1 | sensitive fine grained |
| 15.256 | 5.49 | 0.0775 | 1.412 | 21.835 | 3 | 1 | sensitive fine grained |
| 15.420 | 5.14 | 0.0821 | 1.595 | 22.397 | 2 | 1 | sensitive fine grained |
| 15.584 | 5.16 | 0.0965 | 1.872 | 23.144 | 3 | 4 | silty clay to clay |
| 15.748 | 5.89 | 0.0689 | 1.171 | 23.269 | 3 | 1 | sensitive fine grained |
| 15.912 | 5.29 | 0.0690 | 1.304 | 20.648 | 3 | 1 | sensitive fine grained |
| 16.076 | 4.98 | 0.0748 | 1.501 | 22.746 | 2 | 1 | sensitive fine grained |
| 16.240 | 6.12 | 0.0829 | 1.355 | 23.966 | 3 | 1 | sensitive fine grained |
| 16.404 | 6.51 | 0.0817 | 1.256 | 24.930 | 3 | 1 | sensitive fine grained |
| 16.568 | 6.38 | 0.0780 | 1.223 | 25.445 | 3 | 1 | sensitive fine grained |
| 16.732 | 5.67 | 0.0798 | 1.408 | 26.758 | 3 | 1 | sensitive fine grained |
| 16.896 | 5.72 | 0.0966 | 1.689 | 28.034 | 4 | 4 | silty clay to clay |
| 17.060 | 6.35 | 0.1005 | 1.583 | 27.710 | 4 | 4 | silty clay to clay |
| 17.224 | 8.97 | 0.0640 | 0.714 | 26.632 | 4 | 5 | clayey silt to silty clay |
| 17.388 | 8.90 | 0.0628 | 0.705 | 23.275 | 4 | 5 | clayey silt to silty clay |
| 17.552 | 6.05 | 0.0836 | 1.382 | 26.315 | 3 | 1 | sensitive fine grained |
| 17.717 | 6.37 | 0.1373 | 2.155 | 27.889 | 4 | 4 | silty clay to clay |
| 17.881 | 7.08 | 0.1229 | 1.737 | 27.618 | 5 | 4 | silty clay to clay |
| 18.045 | 9.82 | 0.2033 | 2.070 | 17.497 | 5 | 5 | clayey silt to silty clay |
| 18.209 | 9.80 | 0.1755 | 1.790 | 19.923 | 5 | 5 | clayey silt to silty clay |
| 18.373 | 13.12 | 0.2364 | 1.802 | 15.856 | 6 | 5 | clayey silt to silty clay |
| 18.537 | 14.85 | 0.2529 | 1.703 | 14.181 | 7 | 5 | clayey silt to silty clay |
| 18.701 | 21.52 | 0.1620 | 0.753 | 11.429 | 8 | 6 | sandy silt to clayey silt |
| 18.865 | 27.16 | 0.1899 | 0.699 | 3.444 | 9 | 7 | silty sand to sandy silt |
| 19.029 | 26.62 | 0.2476 | 0.930 | 2.285 | 8 | 7 | silty sand to sandy silt |
| 19.193 | 22.78 | 0.2827 | 1.241 | 4.380 | 9 | 6 | sandy silt to clayey silt |
| 19.357 | 17.14 | 0.3142 | 1.833 | 4.689 | 8 | 5 | clayey silt to silty clay |
| 19.521 | 12.16 | 0.3807 | 3.131 | 5.480 | 8 | 4 | silty clay to clay |
| 19.685 | 10.74 | 0.1793 | 1.670 | 7.665 | 5 | 5 | clayey silt to silty clay |
| 19.849 | 15.21 | 0.1997 | 1.313 | 5.355 | 6 | 6 | sandy silt to clayey silt |
| 20.013 | 10.64 | 0.1722 | 1.618 | 5.890 | 5 | 5 | clayey silt to silty clay |
| 20.177 | 7.09 | 0.1226 | 1.730 | 8.163 | 5 | 4 | silty clay to clay |
| 20.341 | 6.69 | 0.1031 | 1.542 | 11.122 | 4 | 4 | silty clay to clay |
| 20.505 | 6.88 | 0.0942 | 1.369 | 13.476 | 3 | 1 | sensitive fine grained |
| 20.669 | 6.57 | 0.0778 | 1.185 | 15.365 | 3 | 1 | sensitive fine grained |
| 20.833 | 6.06 | 0.0779 | 1.285 | 17.502 | 3 | 1 | sensitive fine grained |
| 20.997 | 5.88 | 0.0877 | 1.491 | 20.249 | 3 | 1 | sensitive fine grained |
| 21.161 | 6.41 | 0.1063 | 1.658 | 22.603 | 4 | 4 | silty clay to clay |
| 21.325 | 8.02 | 0.1155 | 1.440 | 23.194 | 4 | 5 | clayey silt to silty clay |
| 21.490 | 8.32 | 0.1027 | 1.234 | 23.751 | 4 | 5 | clayey silt to silty clay |
| 21.654 | 7.04 | 0.0896 | 1.273 | 24.938 | 3 | 1 | sensitive fine grained |
| 21.818 | 7.00 | 0.1245 | 1.778 | 28.028 | 4 | 4 | silty clay to clay |
| 21.982 | 7.82 | 0.1226 | 1.567 | 30.326 | 4 | 5 | clayey silt to silty clay |
| 22.146 | 9.59 | 0.2071 | 2.159 | 26.237 | 5 | 5 | clayey silt to silty clay |
| 22.310 | 6.37 | 0.1211 | 1.900 | 29.396 | 4 | 4 | silty clay to clay |
| 22.474 | 7.17 | 0.0995 | 1.387 | 27.563 | 3 | 5 | clayey silt to silty clay |
| 22.638 | 6.28 | 0.1328 | 2.116 | 31.644 | 4 | 4 | silty clay to clay |
| 22.802 | 9.21 | 0.1451 | 1.575 | 37.353 | 4 | 5 | clayey silt to silty clay |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 22.966 | 42.07 | 0.2723 | 0.647 | 15.195 | 13 | 7 | silty sand to sandy silt |
| 23.130 | 47.78 | 0.3900 | 0.816 | 8.704 | 15 | 7 | silty sand to sandy silt |
| 23.294 | 40.15 | 0.4559 | 1.135 | 8.701 | 13 | 7 | silty sand to sandy silt |
| 23.458 | 32.12 | 0.4673 | 1.455 | 8.411 | 12 | 6 | sandy silt to clayey silt |
| 23.622 | 27.90 | 0.3202 | 1.147 | 7.929 | 11 | 6 | sandy silt to clayey silt |
| 23.786 | 25.36 | 0.2915 | 1.150 | 5.213 | 10 | 6 | sandy silt to clayey silt |
| 23.950 | 17.32 | 0.4714 | 2.722 | 4.274 | 8 | 5 | clayey silt to silty clay |
| 24.114 | 12.79 | 0.3724 | 2.912 | 7.701 | 8 | 4 | silty clay to clay |
| 24.278 | 29.55 | 0.2269 | 0.768 | 8.609 | 9 | 7 | silty sand to sandy silt |
| 24.442 | 34.23 | 0.2505 | 0.732 | 4.015 | 11 | 7 | silty sand to sandy silt |
| 24.606 | 35.07 | 0.3938 | 1.123 | 4.151 | 11 | 7 | silty sand to sandy silt |
| 24.770 | 27.93 | 0.5148 | 1.843 | 4.672 | 11 | 6 | sandy silt to clayey silt |
| 24.934 | 18.26 | 0.4648 | 2.546 | 5.720 | 9 | 5 | clayey silt to silty clay |
| 25.098 | 11.54 | 0.2909 | 2.522 | 7.782 | 6 | 5 | clayey silt to silty clay |
| 25.262 | 7.74 | 0.1656 | 2.139 | 11.952 | 5 | 4 | silty clay to clay |
| 25.427 | 13.86 | 0.3187 | 2.300 | 14.802 | 7 | 5 | clayey silt to silty clay |
| 25.591 | 11.50 | 0.2396 | 2.084 | 14.334 | 6 | 5 | clayey silt to silty clay |
| 25.755 | 11.41 | 0.1818 | 1.594 | 14.301 | 5 | 5 | clayey silt to silty clay |
| 25.919 | 8.54 | 0.2372 | 2.779 | 18.798 | 5 | 4 | silty clay to clay |
| 26.083 | 7.40 | 0.3197 | 4.321 | 23.375 | 7 | 3 | clay |
| 26.247 | 7.34 | 0.2556 | 3.485 | 25.916 | 7 | 3 | clay |
| 26.411 | 9.65 | 0.1867 | 1.936 | 27.504 | 5 | 5 | clayey silt to silty clay |
| 26.575 | 8.19 | 0.2182 | 2.663 | 26.955 | 5 | 4 | silty clay to clay |
| 26.739 | 8.64 | 0.1480 | 1.713 | 31.842 | 4 | 5 | clayey silt to silty clay |
| 26.903 | 7.98 | 0.2519 | 3.156 | 31.778 | 8 | 3 | clay |
| 27.067 | 8.18 | 0.2496 | 3.052 | 37.417 | 5 | 4 | silty clay to clay |
| 27.231 | 45.33 | 0.3770 | 0.832 | 20.511 | 14 | 7 | silty sand to sandy silt |
| 27.395 | 45.75 | 0.5526 | 1.208 | 8.904 | 15 | 7 | silty sand to sandy silt |
| 27.559 | 32.64 | 0.8017 | 2.457 | 9.317 | 13 | 6 | sandy silt to clayey silt |
| 27.723 | 22.21 | 0.7791 | 3.509 | 9.673 | 11 | 5 | clayey silt to silty clay |
| 27.887 | 21.64 | 0.4608 | 2.129 | 17.460 | 8 | 6 | sandy silt to clayey silt |
| 28.051 | 39.17 | 0.5163 | 1.318 | 11.289 | 13 | 7 | silty sand to sandy silt |
| 28.215 | 34.80 | 0.4808 | 1.382 | 8.403 | 11 | 7 | silty sand to sandy silt |
| 28.379 | 39.16 | 0.5151 | 1.316 | 7.782 | 12 | 7 | silty sand to sandy silt |
| 28.543 | 33.54 | 0.4561 | 1.360 | 5.048 | 11 | 7 | silty sand to sandy silt |
| 28.707 | 38.21 | 0.3586 | 0.938 | 5.235 | 12 | 7 | silty sand to sandy silt |
| 28.871 | 36.48 | 0.3715 | 1.018 | 3.728 | 12 | 7 | silty sand to sandy silt |
| 29.035 | 46.67 | 0.5748 | 1.231 | 5.280 | 15 | 7 | silty sand to sandy silt |
| 29.199 | 39.41 | 0.6502 | 1.650 | 5.090 | 15 | 6 | sandy silt to clayey silt |
| 29.364 | 64.48 | 0.4971 | 0.771 | 6.051 | 15 | 8 | sand to silty sand |
| 29.528 | 75.78 | 0.5195 | 0.686 | 3.792 | 18 | 8 | sand to silty sand |
| 29.692 | 71.52 | 0.6949 | 0.972 | 3.558 | 17 | 8 | sand to silty sand |
| 29.856 | 56.19 | 0.7618 | 1.356 | 3.739 | 18 | 7 | silty sand to sandy silt |
| 30.020 | 40.39 | 0.8411 | 2.082 | 4.168 | 15 | 6 | sandy silt to clayey silt |
| 30.184 | 39.42 | 0.7593 | 1.926 | 4.461 | 15 | 6 | sandy silt to clayey silt |
| 30.348 | 47.28 | 0.3354 | 0.709 | 3.811 | 15 | 7 | silty sand to sandy silt |
| 30.512 | 47.42 | 0.5170 | 1.090 | 2.541 | 15 | 7 | silty sand to sandy silt |
| 30.676 | 45.54 | 0.6446 | 1.415 | 2.290 | 15 | 7 | silty sand to sandy silt |
| 30.840 | 66.46 | 0.5326 | 0.801 | 2.351 | 16 | 8 | sand to silty sand |
| 31.004 | 79.80 | 0.5953 | 0.746 | 2.262 | 19 | 8 | sand to silty sand |
| 31.168 | 77.49 | 0.7660 | 0.989 | 2.351 | 19 | 8 | sand to silty sand |
| 31.332 | 82.64 | 0.8744 | 1.058 | 2.859 | 20 | 8 | sand to silty sand |
| 31.496 | 98.54 | 1.0004 | 1.015 | 3.583 | 24 | 8 | sand to silty sand |
| 31.660 | 98.91 | 1.0734 | 1.085 | 3.875 | 24 | 8 | sand to silty sand |
| 31.824 | 87.88 | 1.0289 | 1.171 | 4.040 | 21 | 8 | sand to silty sand |
| 31.988 | 71.68 | 0.7666 | 1.069 | 4.148 | 17 | 8 | sand to silty sand |
| 32.152 | 47.72 | 0.6990 | 1.465 | 4.291 | 15 | 7 | silty sand to sandy silt |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 32.316 | 40.48 | 0.5940 | 1.468 | 6.547 | 13 | 7 | silty sand to sandy silt |
| 32.480 | 79.04 | 0.6079 | 0.769 | 5.578 | 19 | 8 | sand to silty sand |
| 32.644 | 88.50 | 0.8171 | 0.923 | 4.034 | 21 | 8 | sand to silty sand |
| 32.808 | 85.63 | 0.9194 | 1.074 | 4.346 | 20 | 8 | sand to silty sand |
| 32.972 | 78.79 | 0.8873 | 1.126 | 7.464 | 19 | 8 | sand to silty sand |
| 33.136 | 69.25 | 0.8250 | 1.191 | 7.333 | 22 | 7 | silty sand to sandy silt |
| 33.301 | 52.30 | 0.9002 | 1.721 | 7.141 | 17 | 7 | silty sand to sandy silt |
| 33.465 | 28.55 | 0.9777 | 3.424 | 7.110 | 14 | 5 | clayey silt to silty clay |
| 33.629 | 17.14 | 0.8414 | 4.909 | 7.929 | 16 | 3 | clay |
| 33.793 | 26.46 | 0.5621 | 2.124 | 13.111 | 10 | 6 | sandy silt to clayey silt |
| 33.957 | 70.76 | 0.6168 | 0.872 | 10.746 | 17 | 8 | sand to silty sand |
| 34.121 | 81.22 | 0.7619 | 0.938 | 6.695 | 19 | 8 | sand to silty sand |
| 34.285 | 77.86 | 0.8932 | 1.147 | 6.756 | 19 | 8 | sand to silty sand |
| 34.449 | 73.74 | 0.8690 | 1.179 | 7.979 | 24 | 7 | silty sand to sandy silt |
| 34.613 | 66.16 | 0.8318 | 1.257 | 7.843 | 21 | 7 | silty sand to sandy silt |
| 34.777 | 59.17 | 0.8022 | 1.356 | 7.938 | 19 | 7 | silty sand to sandy silt |
| 34.941 | 49.30 | 0.8671 | 1.759 | 7.974 | 16 | 7 | silty sand to sandy silt |
| 35.105 | 34.25 | 0.9157 | 2.674 | 8.208 | 13 | 6 | sandy silt to clayey silt |
| 35.269 | 23.64 | 0.9312 | 3.940 | 8.495 | 15 | 4 | silty clay to clay |
| 35.433 | 21.76 | 0.4849 | 2.228 | 9.866 | 10 | 5 | clayey silt to silty clay |
| 35.597 | 28.29 | 0.6699 | 2.368 | 10.896 | 11 | 6 | sandy silt to clayey silt |
| 35.761 | 32.93 | 0.4549 | 1.382 | 7.258 | 13 | 6 | sandy silt to clayey silt |
| 35.925 | 54.67 | 0.5161 | 0.944 | 6.453 | 17 | 7 | silty sand to sandy silt |
| 36.089 | 60.95 | 0.6322 | 1.037 | 5.241 | 19 | 7 | silty sand to sandy silt |
| 36.253 | 69.83 | 0.5389 | 0.772 | 5.229 | 17 | 8 | sand to silty sand |
| 36.417 | 75.90 | 0.6574 | 0.866 | 5.750 | 18 | 8 | sand to silty sand |
| 36.581 | 71.37 | 0.6163 | 0.863 | 4.926 | 17 | 8 | sand to silty sand |
| 36.745 | 70.96 | 0.6249 | 0.881 | 5.929 | 17 | 8 | sand to silty sand |
| 36.909 | 65.54 | 0.6848 | 1.045 | 4.786 | 21 | 7 | silty sand to sandy silt |
| 37.073 | 66.34 | 0.7777 | 1.172 | 5.202 | 21 | 7 | silty sand to sandy silt |
| 37.238 | 71.46 | 0.6350 | 0.889 | 5.750 | 17 | 8 | sand to silty sand |
| 37.402 | 55.95 | 0.4933 | 0.882 | 6.650 | 18 | 7 | silty sand to sandy silt |
| 37.566 | 62.41 | 0.7254 | 1.162 | 5.920 | 20 | 7 | silty sand to sandy silt |
| 37.730 | 55.74 | 0.8292 | 1.488 | 5.633 | 18 | 7 | silty sand to sandy silt |
| 37.894 | 68.03 | 0.8176 | 1.202 | 6.427 | 22 | 7 | silty sand to sandy silt |
| 38.058 | 64.99 | 0.8221 | 1.265 | 6.957 | 21 | 7 | silty sand to sandy silt |
| 38.222 | 60.41 | 0.7947 | 1.315 | 7.249 | 19 | 7 | silty sand to sandy silt |
| 38.386 | 69.50 | 0.8177 | 1.176 | 7.893 | 22 | 7 | silty sand to sandy silt |
| 38.550 | 72.58 | 0.7502 | 1.034 | 8.188 | 17 | 8 | sand to silty sand |
| 38.714 | 60.25 | 0.7409 | 1.230 | 8.361 | 19 | 7 | silty sand to sandy silt |
| 38.878 | 54.04 | 0.7319 | 1.354 | 9.403 | 17 | 7 | silty sand to sandy silt |
| 39.042 | 51.74 | 0.8335 | 1.611 | 9.643 | 17 | 7 | silty sand to sandy silt |
| 39.206 | 45.06 | 0.9118 | 2.023 | 9.985 | 17 | 6 | sandy silt to clayey silt |
| 39.370 | 24.94 | 0.9830 | 3.942 | 10.403 | 16 | 4 | silty clay to clay |
| 39.534 | 16.59 | 0.8479 | 5.110 | 12.515 | 16 | 3 | clay |
| 39.698 | 11.69 | 0.5855 | 5.010 | 17.641 | 11 | 3 | clay |
| 39.862 | 26.91 | 0.4594 | 1.707 | 29.360 | 10 | 6 | sandy silt to clayey silt |
| 40.026 | 50.83 | 0.5082 | 1.000 | 12.429 | 16 | 7 | silty sand to sandy silt |
| 40.190 | 57.92 | 0.6192 | 1.069 | 11.253 | 18 | 7 | silty sand to sandy silt |
| 40.354 | 58.60 | 0.7018 | 1.198 | 9.428 | 19 | 7 | silty sand to sandy silt |
| 40.518 | 54.24 | 0.9052 | 1.669 | 10.317 | 17 | 7 | silty sand to sandy silt |
| 40.682 | 60.45 | 0.8154 | 1.349 | 10.568 | 19 | 7 | silty sand to sandy silt |
| 40.846 | 67.68 | 0.7510 | 1.110 | 9.684 | 22 | 7 | silty sand to sandy silt |
| 41.011 | 59.25 | 0.6986 | 1.179 | 8.300 | 19 | 7 | silty sand to sandy silt |
| 41.175 | 53.60 | 0.7197 | 1.343 | 9.283 | 17 | 7 | silty sand to sandy silt |
| 41.339 | 49.18 | 0.7001 | 1.424 | 9.793 | 16 | 7 | silty sand to sandy silt |
| 41.503 | 45.94 | 0.6641 | 1.446 | 9.949 | 15 | 7 | silty sand to sandy silt |

FOR REFERENCE ONLY

| Depth ft | Tip (QT) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 41.667 | 44.33 | 0.6584 | 1.485 | 10.361 | 14 | 7 | silty sand to sandy silt |
| 41.831 | 51.17 | 0.4783 | 0.935 | 10.726 | 16 | 7 | silty sand to sandy silt |
| 41.995 | 55.39 | 0.5249 | 0.948 | 9.060 | 18 | 7 | silty sand to sandy silt |
| 42.159 | 58.53 | 0.7296 | 1.246 | 9.843 | 19 | 7 | silty sand to sandy silt |
| 42.323 | 65.32 | 0.8200 | 1.255 | 10.258 | 21 | 7 | silty sand to sandy silt |
| 42.487 | 72.93 | 0.8751 | 1.200 | 10.899 | 23 | 7 | silty sand to sandy silt |
| 42.651 | 66.05 | 0.8839 | 1.338 | 10.894 | 21 | 7 | silty sand to sandy silt |
| 42.815 | 60.42 | 0.8431 | 1.395 | 10.835 | 19 | 7 | silty sand to sandy silt |
| 42.979 | 57.46 | 0.7740 | 1.347 | 11.072 | 18 | 7 | silty sand to sandy silt |
| 43.143 | 51.03 | 0.7274 | 1.425 | 10.919 | 16 | 7 | silty sand to sandy silt |
| 43.307 | 46.87 | 0.7000 | 1.494 | 11.356 | 15 | 7 | silty sand to sandy silt |
| 43.471 | 46.14 | 0.6880 | 1.491 | 11.415 | 15 | 7 | silty sand to sandy silt |
| 43.635 | 48.86 | 0.7058 | 1.445 | 11.715 | 16 | 7 | silty sand to sandy silt |
| 43.799 | 57.22 | 0.7788 | 1.361 | 12.170 | 18 | 7 | silty sand to sandy silt |
| 43.963 | 67.59 | 0.8264 | 1.223 | 12.223 | 22 | 7 | silty sand to sandy silt |
| 44.127 | 77.19 | 0.8807 | 1.141 | 12.900 | 18 | 8 | sand to silty sand |
| 44.291 | 71.15 | 0.8689 | 1.221 | 11.919 | 23 | 7 | silty sand to sandy silt |
| 44.455 | 67.82 | 0.7816 | 1.153 | 12.373 | 22 | 7 | silty sand to sandy silt |
| 44.619 | 61.50 | 0.9690 | 1.576 | 13.139 | 20 | 7 | silty sand to sandy silt |
| 44.783 | 36.54 | 1.0221 | 2.797 | 9.924 | 14 | 6 | sandy silt to clayey silt |
| 44.948 | 19.67 | 0.7314 | 3.718 | 12.874 | 13 | 4 | silty clay to clay |
| 45.112 | 11.10 | 0.7382 | 6.649 | 26.443 | 11 | 3 | clay |
| 45.276 | 16.80 | 0.4127 | 2.456 | 49.419 | 8 | 5 | clayey silt to silty clay |
| 45.440 | 42.10 | 0.5168 | 1.228 | 17.441 | 13 | 7 | silty sand to sandy silt |
| 45.604 | 42.64 | 0.5082 | 1.192 | 11.275 | 14 | 7 | silty sand to sandy silt |
| 45.768 | 44.53 | 0.4926 | 1.106 | 9.849 | 14 | 7 | silty sand to sandy silt |
| 45.932 | 41.04 | 0.5965 | 1.454 | 8.620 | 13 | 7 | silty sand to sandy silt |
| 46.096 | 38.87 | 0.9578 | 2.464 | 12.549 | 15 | 6 | sandy silt to clayey silt |
| 46.260 | 31.29 | 0.9501 | 3.037 | 14.844 | 15 | 5 | clayey silt to silty clay |
| 46.424 | 25.61 | 0.6473 | 2.527 | 18.614 | 12 | 5 | clayey silt to silty clay |
| 46.588 | 17.15 | 0.5051 | 2.946 | 15.148 | 8 | 5 | clayey silt to silty clay |
| 46.752 | 10.51 | 0.4527 | 4.309 | 25.501 | 10 | 3 | clay |
| 46.916 | 10.39 | 0.3295 | 3.172 | 35.687 | 7 | 4 | silty clay to clay |
| 47.080 | 10.60 | 0.3209 | 3.029 | 43.011 | 7 | 4 | silty clay to clay |
| 47.244 | 10.44 | 0.2844 | 2.726 | 49.049 | 7 | 4 | silty clay to clay |
| 47.408 | 10.72 | 0.4084 | 3.809 | 54.198 | 10 | 3 | clay |
| 47.572 | 18.58 | 0.4000 | 2.153 | 66.465 | 9 | 5 | clayey silt to silty clay |
| 47.736 | 58.95 | 0.4293 | 0.728 | 19.486 | 14 | 8 | sand to silty sand |
| 47.900 | 65.90 | 0.5587 | 0.848 | 8.595 | 16 | 8 | sand to silty sand |
| 48.064 | 64.93 | 0.6880 | 1.060 | 10.746 | 21 | 7 | silty sand to sandy silt |
| 48.228 | 67.69 | 0.8650 | 1.278 | 12.209 | 22 | 7 | silty sand to sandy silt |
| 48.392 | 64.07 | 1.0219 | 1.595 | 13.078 | 20 | 7 | silty sand to sandy silt |
| 48.556 | 44.84 | 1.1926 | 2.660 | 14.028 | 17 | 6 | sandy silt to clayey silt |
| 48.720 | 22.67 | 0.8390 | 3.701 | 15.981 | 14 | 4 | silty clay to clay |
| 48.885 | 14.88 | 0.6329 | 4.253 | 25.086 | 14 | 3 | clay |
| 49.049 | 11.22 | 0.6944 | 6.188 | 45.745 | 11 | 3 | clay |
| 49.213 | 30.37 | 0.5193 | 1.710 | 64.579 | 12 | 6 | sandy silt to clayey silt |
| 49.377 | 90.42 | 0.7110 | 0.786 | 9.604 | 22 | 8 | sand to silty sand |
| 49.541 | 94.93 | 0.8566 | 0.902 | 9.540 | 23 | 8 | sand to silty sand |
| 49.705 | 86.30 | 0.9314 | 1.079 | 11.066 | 21 | 8 | sand to silty sand |
| 49.869 | 72.91 | 0.8931 | 1.225 | 11.958 | 23 | 7 | silty sand to sandy silt |
| 50.033 | 69.09 | 0.8744 | 1.266 | 13.003 | 22 | 7 | silty sand to sandy silt |
| 50.197 | 68.74 | 0.8665 | 1.261 | 13.563 | 22 | 7 | silty sand to sandy silt |
| 50.361 | 73.42 | 0.8846 | 1.205 | 14.535 | 23 | 7 | silty sand to sandy silt |
| 50.525 | 83.02 | 0.9247 | 1.114 | 14.906 | 20 | 8 | sand to silty sand |
| 50.689 | 90.79 | 1.0004 | 1.102 | 15.410 | 22 | 8 | sand to silty sand |
| 50.853 | 93.73 | 1.0565 | 1.127 | 15.831 | 22 | 8 | sand to silty sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 51.017 | 96.66 | 1.1220 | 1.161 | 15.780 | 23 | 8 | sand to silty sand |
| 51.181 | 99.81 | 1.1516 | 1.154 | 16.198 | 24 | 8 | sand to silty sand |
| 51.345 | 90.05 | 1.0779 | 1.197 | 15.828 | 22 | 8 | sand to silty sand |
| 51.509 | 68.88 | 1.0107 | 1.467 | 15.271 | 22 | 7 | silty sand to sandy silt |
| 51.673 | 43.45 | 0.9027 | 2.078 | 15.059 | 17 | 6 | sandy silt to clayey silt |
| 51.837 | 26.71 | 0.7721 | 2.891 | 16.928 | 13 | 5 | clayey silt to silty clay |
| 52.001 | 23.76 | 0.6283 | 2.644 | 18.221 | 11 | 5 | clayey silt to silty clay |
| 52.165 | 15.64 | 0.3660 | 2.340 | 30.792 | 7 | 5 | clayey silt to silty clay |
| 52.329 | 12.61 | 0.3966 | 3.144 | 40.108 | 8 | 4 | silty clay to clay |
| 52.493 | 12.03 | 0.3149 | 2.619 | 50.378 | 6 | 5 | clayey silt to silty clay |
| 52.657 | 11.60 | 0.4426 | 3.815 | 31.499 | 11 | 3 | clay |
| 52.822 | 16.06 | 0.5468 | 3.404 | 47.391 | 10 | 4 | silty clay to clay |
| 52.986 | 32.14 | 0.5996 | 1.866 | 22.812 | 12 | 6 | sandy silt to clayey silt |
| 53.150 | 39.52 | 0.6536 | 1.654 | 10.423 | 15 | 6 | sandy silt to clayey silt |
| 53.314 | 52.45 | 0.5242 | 0.999 | 7.729 | 17 | 7 | silty sand to sandy silt |
| 53.478 | 69.55 | 0.4322 | 0.621 | 5.185 | 17 | 8 | sand to silty sand |
| 53.642 | 74.97 | 0.5312 | 0.708 | 4.469 | 18 | 8 | sand to silty sand |
| 53.806 | 76.78 | 0.6232 | 0.812 | 5.413 | 18 | 8 | sand to silty sand |
| 53.970 | 75.62 | 0.6371 | 0.842 | 7.007 | 18 | 8 | sand to silty sand |
| 54.134 | 71.20 | 0.6043 | 0.849 | 8.511 | 17 | 8 | sand to silty sand |
| 54.298 | 65.51 | 0.5416 | 0.827 | 9.907 | 16 | 8 | sand to silty sand |
| 54.462 | 62.23 | 0.5090 | 0.818 | 11.306 | 15 | 8 | sand to silty sand |
| 54.626 | 59.39 | 0.4721 | 0.795 | 12.443 | 14 | 8 | sand to silty sand |
| 54.790 | 59.22 | 0.4239 | 0.716 | 13.390 | 14 | 8 | sand to silty sand |
| 54.954 | 57.04 | 0.4491 | 0.787 | 13.961 | 14 | 8 | sand to silty sand |
| 55.118 | 49.15 | 0.6244 | 1.270 | 14.072 | 16 | 7 | silty sand to sandy silt |
| 55.282 | 32.97 | 0.6278 | 1.904 | 16.003 | 13 | 6 | sandy silt to clayey silt |
| 55.446 | 32.80 | 0.5299 | 1.616 | 28.151 | 13 | 6 | sandy silt to clayey silt |
| 55.610 | 40.51 | 0.3321 | 0.820 | 14.042 | 13 | 7 | silty sand to sandy silt |
| 55.774 | 37.65 | 0.4939 | 1.312 | 10.311 | 12 | 7 | silty sand to sandy silt |
| 55.938 | 36.32 | 0.6704 | 1.846 | 10.233 | 14 | 6 | sandy silt to clayey silt |
| 56.102 | 37.42 | 0.6812 | 1.820 | 9.403 | 14 | 6 | sandy silt to clayey silt |
| 56.266 | 38.16 | 0.6000 | 1.572 | 7.662 | 12 | 7 | silty sand to sandy silt |
| 56.430 | 37.45 | 0.4466 | 1.193 | 6.007 | 12 | 7 | silty sand to sandy silt |
| 56.594 | 36.71 | 0.4575 | 1.246 | 4.931 | 12 | 7 | silty sand to sandy silt |
| 56.759 | 35.30 | 0.5217 | 1.478 | 4.472 | 14 | 6 | sandy silt to clayey silt |
| 56.923 | 32.88 | 0.5887 | 1.791 | 4.190 | 13 | 6 | sandy silt to clayey silt |
| 57.087 | 29.87 | 0.5612 | 1.879 | 4.360 | 11 | 6 | sandy silt to clayey silt |
| 57.251 | 28.77 | 0.6392 | 2.222 | 3.875 | 11 | 6 | sandy silt to clayey silt |
| 57.415 | 29.38 | 0.8656 | 2.946 | 3.491 | 14 | 5 | clayey silt to silty clay |
| 57.579 | 34.15 | 0.8064 | 2.361 | 3.380 | 13 | 6 | sandy silt to clayey silt |
| 57.743 | 70.00 | 0.6124 | 0.875 | 4.647 | 17 | 8 | sand to silty sand |
| 57.907 | 111.58 | 0.9406 | 0.843 | 5.040 | 27 | 8 | sand to silty sand |
| 58.071 | 135.10 | 1.3145 | 0.973 | 5.522 | 32 | 8 | sand to silty sand |
| 58.235 | 152.89 | 1.5226 | 0.996 | 7.433 | 37 | 8 | sand to silty sand |
| 58.399 | 156.89 | 1.6471 | 1.050 | 9.431 | 38 | 8 | sand to silty sand |
| 58.563 | 158.26 | 1.6747 | 1.058 | 15.817 | 38 | 8 | sand to silty sand |
| 58.727 | 152.36 | 1.6528 | 1.085 | 16.599 | 36 | 8 | sand to silty sand |
| 58.891 | 142.28 | 1.4838 | 1.043 | 16.711 | 34 | 8 | sand to silty sand |
| 59.055 | 113.49 | 1.2258 | 1.080 | 16.009 | 27 | 8 | sand to silty sand |
| 59.219 | 91.58 | 1.1098 | 1.212 | 18.059 | 22 | 8 | sand to silty sand |
| 59.383 | 70.53 | 1.1117 | 1.576 | 17.953 | 23 | 7 | silty sand to sandy silt |
| 59.547 | 49.54 | 1.2601 | 2.543 | 19.553 | 19 | 6 | sandy silt to clayey silt |
| 59.711 | 32.52 | 1.0862 | 3.340 | 18.430 | 16 | 5 | clayey silt to silty clay |
| 59.875 | 26.94 | 0.7471 | 2.774 | 23.957 | 13 | 5 | clayey silt to silty clay |
| 60.039 | 22.82 | 0.4679 | 2.050 | 32.174 | 9 | 6 | sandy silt to clayey silt |
| 60.203 | 22.92 | 0.5803 | 2.532 | 33.394 | 11 | 5 | clayey silt to silty clay |

FOR REFERENCE ONLY

| Depth ft | Tip (QT) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 60.367 | 15.25 | 0.5070 | 3.326 | 43.432 | 10 | 4 | silty clay to clay |
| 60.532 | 41.11 | 0.6598 | 1.605 | 44.956 | 13 | 7 | silty sand to sandy silt |
| 60.696 | 31.42 | 0.8661 | 2.757 | 18.881 | 12 | 6 | sandy silt to clayey silt |
| 60.860 | 22.60 | 0.8640 | 3.823 | 26.465 | 14 | 4 | silty clay to clay |
| 61.024 | 23.72 | 0.8925 | 3.762 | 37.509 | 15 | 4 | silty clay to clay |
| 61.188 | 35.01 | 0.8828 | 2.521 | 40.128 | 13 | 6 | sandy silt to clayey silt |
| 61.352 | 105.19 | 1.0878 | 1.034 | 28.006 | 25 | 8 | sand to silty sand |
| 61.516 | 137.64 | 1.3096 | 0.951 | 9.813 | 33 | 8 | sand to silty sand |
| 61.680 | 126.60 | 1.4168 | 1.119 | 20.294 | 30 | 8 | sand to silty sand |
| 61.844 | 120.56 | 1.3767 | 1.142 | 20.216 | 29 | 8 | sand to silty sand |
| 62.008 | 107.30 | 1.3334 | 1.243 | 20.110 | 26 | 8 | sand to silty sand |
| 62.172 | 88.78 | 1.4479 | 1.631 | 20.113 | 28 | 7 | silty sand to sandy silt |
| 62.336 | 60.98 | 1.8234 | 2.990 | 20.280 | 23 | 6 | sandy silt to clayey silt |
| 62.500 | 39.15 | 1.6798 | 4.291 | 21.481 | 25 | 4 | silty clay to clay |
| 62.664 | 37.07 | 1.0188 | 2.748 | 59.140 | 14 | 6 | sandy silt to clayey silt |
| 62.828 | 111.89 | 1.0872 | 0.972 | 13.312 | 27 | 8 | sand to silty sand |
| 62.992 | 122.81 | 1.2796 | 1.042 | 12.122 | 29 | 8 | sand to silty sand |
| 63.156 | 111.20 | 1.4641 | 1.317 | 15.340 | 27 | 8 | sand to silty sand |
| 63.320 | 110.09 | 1.4477 | 1.315 | 16.666 | 26 | 8 | sand to silty sand |
| 63.484 | 136.06 | 1.3618 | 1.001 | 17.410 | 33 | 8 | sand to silty sand |
| 63.648 | 151.21 | 1.0698 | 0.707 | 11.696 | 29 | 9 | sand |
| 63.812 | 155.91 | 1.3576 | 0.871 | 10.019 | 30 | 9 | sand |
| 63.976 | 147.61 | 1.3945 | 0.945 | 11.897 | 35 | 8 | sand to silty sand |
| 64.140 | 147.15 | 1.3857 | 0.942 | 13.432 | 35 | 8 | sand to silty sand |
| 64.304 | 152.18 | 1.3926 | 0.915 | 15.368 | 29 | 9 | sand |
| 64.469 | 147.81 | 1.4095 | 0.954 | 17.382 | 35 | 8 | sand to silty sand |
| 64.633 | 143.08 | 1.3625 | 0.952 | 19.015 | 34 | 8 | sand to silty sand |
| 64.797 | 139.93 | 1.1266 | 0.805 | 19.932 | 27 | 9 | sand |
| 64.961 | 142.73 | 1.1480 | 0.804 | 20.578 | 27 | 9 | sand |
| 65.125 | 145.64 | 1.1781 | 0.809 | 21.637 | 28 | 9 | sand |
| 65.289 | 146.50 | 1.2711 | 0.868 | 22.071 | 28 | 9 | sand |
| 65.453 | 141.90 | 1.3275 | 0.936 | 21.553 | 34 | 8 | sand to silty sand |
| 65.617 | 135.91 | 1.2356 | 0.909 | 21.350 | 33 | 8 | sand to silty sand |
| 65.781 | 137.00 | 1.2018 | 0.877 | 21.400 | 33 | 8 | sand to silty sand |
| 65.945 | 137.28 | 1.2094 | 0.881 | 21.600 | 33 | 8 | sand to silty sand |
| 66.109 | 128.67 | 1.1923 | 0.927 | 21.227 | 31 | 8 | sand to silty sand |
| 66.273 | 122.64 | 1.1460 | 0.934 | 20.692 | 29 | 8 | sand to silty sand |
| 66.437 | 117.72 | 1.0559 | 0.897 | 21.043 | 28 | 8 | sand to silty sand |
| 66.601 | 113.70 | 0.9648 | 0.849 | 21.138 | 27 | 8 | sand to silty sand |
| 66.765 | 109.63 | 0.8970 | 0.818 | 21.311 | 26 | 8 | sand to silty sand |
| 66.929 | 109.51 | 0.8655 | 0.790 | 21.380 | 26 | 8 | sand to silty sand |
| 67.093 | 107.51 | 0.8469 | 0.788 | 22.082 | 26 | 8 | sand to silty sand |
| 67.257 | 104.07 | 0.8003 | 0.769 | 21.974 | 25 | 8 | sand to silty sand |
| 67.421 | 101.36 | 0.7715 | 0.761 | 22.166 | 24 | 8 | sand to silty sand |
| 67.585 | 107.68 | 0.7757 | 0.720 | 22.642 | 26 | 8 | sand to silty sand |
| 67.749 | 115.96 | 0.8200 | 0.707 | 22.877 | 28 | 8 | sand to silty sand |
| 67.913 | 115.49 | 0.8590 | 0.744 | 22.740 | 28 | 8 | sand to silty sand |
| 68.077 | 113.65 | 0.7403 | 0.651 | 22.798 | 27 | 8 | sand to silty sand |
| 68.241 | 124.61 | 0.8002 | 0.642 | 23.005 | 24 | 9 | sand |
| 68.406 | 130.13 | 0.8506 | 0.654 | 23.292 | 25 | 9 | sand |
| 68.570 | 132.69 | 0.8999 | 0.678 | 23.551 | 25 | 9 | sand |
| 68.734 | 118.03 | 0.8663 | 0.734 | 22.339 | 28 | 8 | sand to silty sand |
| 68.898 | 112.76 | 0.8036 | 0.713 | 22.684 | 27 | 8 | sand to silty sand |
| 69.062 | 116.22 | 0.7752 | 0.667 | 22.893 | 28 | 8 | sand to silty sand |
| 69.226 | 125.01 | 0.7988 | 0.639 | 23.392 | 24 | 9 | sand |
| 69.390 | 126.11 | 0.8032 | 0.637 | 23.395 | 24 | 9 | sand |
| 69.554 | 108.96 | 0.7714 | 0.708 | 22.757 | 26 | 8 | sand to silty sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|---------------------------|------|
| 69.718 | 100.15 | 0.7113 | 0.710 | 22.796 | 24 | 8 | sand to silty | sand |
| 69.882 | 97.10 | 0.6787 | 0.699 | 22.662 | 23 | 8 | sand to silty | sand |
| 70.046 | 96.54 | 0.6834 | 0.708 | 23.141 | 23 | 8 | sand to silty | sand |
| 70.210 | 95.31 | 0.6841 | 0.718 | 23.487 | 23 | 8 | sand to silty | sand |
| 70.374 | 93.26 | 0.6577 | 0.705 | 23.425 | 22 | 8 | sand to silty | sand |
| 70.538 | 92.09 | 0.6374 | 0.692 | 23.498 | 22 | 8 | sand to silty | sand |
| 70.702 | 88.51 | 0.6126 | 0.692 | 23.423 | 21 | 8 | sand to silty | sand |
| 70.866 | 83.74 | 0.5734 | 0.685 | 23.292 | 20 | 8 | sand to silty | sand |
| 71.030 | 76.34 | 0.5166 | 0.677 | 23.055 | 18 | 8 | sand to silty | sand |
| 71.194 | 69.88 | 0.4693 | 0.672 | 22.932 | 17 | 8 | sand to silty | sand |
| 71.358 | 65.39 | 0.4887 | 0.747 | 23.172 | 16 | 8 | sand to silty | sand |
| 71.522 | 66.75 | 0.5326 | 0.798 | 23.478 | 16 | 8 | sand to silty | sand |
| 71.686 | 89.55 | 0.6798 | 0.759 | 25.200 | 21 | 8 | sand to silty | sand |
| 71.850 | 121.60 | 0.8259 | 0.679 | 24.816 | 29 | 8 | sand to silty | sand |
| 72.014 | 115.90 | 0.8166 | 0.705 | 24.713 | 28 | 8 | sand to silty | sand |
| 72.178 | 110.28 | 0.7155 | 0.649 | 23.776 | 26 | 8 | sand to silty | sand |
| 72.343 | 122.38 | 0.7696 | 0.629 | 24.749 | 23 | 9 | sand | |
| 72.507 | 117.16 | 0.7298 | 0.623 | 24.247 | 22 | 9 | sand | |
| 72.671 | 104.55 | 0.6324 | 0.605 | 23.991 | 25 | 8 | sand to silty | sand |
| 72.835 | 110.52 | 0.6897 | 0.624 | 24.774 | 26 | 8 | sand to silty | sand |
| 72.999 | 128.40 | 0.7717 | 0.601 | 25.172 | 25 | 9 | sand | |
| 73.163 | 117.54 | 0.7375 | 0.627 | 24.565 | 23 | 9 | sand | |
| 73.327 | 101.14 | 0.6672 | 0.660 | 24.551 | 24 | 8 | sand to silty | sand |
| 73.491 | 94.75 | 0.6028 | 0.636 | 24.740 | 23 | 8 | sand to silty | sand |
| 73.655 | 90.02 | 0.5859 | 0.651 | 24.969 | 22 | 8 | sand to silty | sand |
| 73.819 | 88.05 | 0.5683 | 0.645 | 25.105 | 21 | 8 | sand to silty | sand |
| 73.983 | 86.27 | 0.5559 | 0.644 | 25.298 | 21 | 8 | sand to silty | sand |
| 74.147 | 85.13 | 0.5428 | 0.638 | 25.445 | 20 | 8 | sand to silty | sand |
| 74.311 | 84.69 | 0.5457 | 0.644 | 25.406 | 20 | 8 | sand to silty | sand |
| 74.475 | 83.90 | 0.4838 | 0.577 | 25.554 | 20 | 8 | sand to silty | sand |
| 74.639 | 82.24 | 0.4790 | 0.582 | 25.498 | 20 | 8 | sand to silty | sand |
| 74.803 | 82.97 | 0.4897 | 0.590 | 25.855 | 20 | 8 | sand to silty | sand |
| 74.967 | 82.27 | 0.4850 | 0.590 | 25.810 | 20 | 8 | sand to silty | sand |
| 75.131 | 84.00 | 0.4960 | 0.591 | 25.899 | 20 | 8 | sand to silty | sand |
| 75.295 | 85.24 | 0.5134 | 0.602 | 25.924 | 20 | 8 | sand to silty | sand |
| 75.459 | 84.86 | 0.5203 | 0.613 | 25.930 | 20 | 8 | sand to silty | sand |
| 75.623 | 85.83 | 0.5211 | 0.607 | 26.097 | 21 | 8 | sand to silty | sand |
| 75.787 | 85.38 | 0.5159 | 0.604 | 25.872 | 20 | 8 | sand to silty | sand |
| 75.951 | 85.06 | 0.5065 | 0.595 | 26.075 | 20 | 8 | sand to silty | sand |
| 76.115 | 85.46 | 0.5014 | 0.587 | 26.223 | 20 | 8 | sand to silty | sand |
| 76.280 | 86.01 | 0.5124 | 0.596 | 26.326 | 21 | 8 | sand to silty | sand |
| 76.444 | 88.06 | 0.5185 | 0.589 | 26.345 | 21 | 8 | sand to silty | sand |
| 76.608 | 91.31 | 0.5417 | 0.593 | 26.604 | 22 | 8 | sand to silty | sand |
| 76.772 | 95.29 | 0.5631 | 0.591 | 26.518 | 23 | 8 | sand to silty | sand |
| 76.936 | 97.90 | 0.5784 | 0.591 | 26.476 | 23 | 8 | sand to silty | sand |
| 77.100 | 102.06 | 0.6072 | 0.595 | 26.799 | 24 | 8 | sand to silty | sand |
| 77.264 | 106.48 | 0.6364 | 0.598 | 26.888 | 25 | 8 | sand to silty | sand |
| 77.428 | 103.66 | 0.6431 | 0.620 | 26.601 | 25 | 8 | sand to silty | sand |
| 77.592 | 97.87 | 0.6119 | 0.625 | 26.432 | 23 | 8 | sand to silty | sand |
| 77.756 | 93.61 | 0.5653 | 0.604 | 26.585 | 22 | 8 | sand to silty | sand |
| 77.920 | 88.23 | 0.5041 | 0.571 | 26.515 | 21 | 8 | sand to silty | sand |
| 78.084 | 84.04 | 0.4703 | 0.560 | 26.585 | 20 | 8 | sand to silty | sand |
| 78.248 | 81.56 | 0.4558 | 0.559 | 27.100 | 20 | 8 | sand to silty | sand |
| 78.412 | 81.89 | 0.4636 | 0.566 | 27.086 | 20 | 8 | sand to silty | sand |
| 78.576 | 82.79 | 0.4777 | 0.577 | 27.103 | 20 | 8 | sand to silty | sand |
| 78.740 | 82.78 | 0.4845 | 0.585 | 27.164 | 20 | 8 | sand to silty | sand |
| 78.904 | 84.73 | 0.5095 | 0.601 | 27.382 | 20 | 8 | sand to silty | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|---------------------------|------|
| 79.068 | 88.65 | 0.5411 | 0.610 | 27.546 | 21 | 8 | sand to silty | sand |
| 79.232 | 96.40 | 0.5993 | 0.622 | 27.719 | 23 | 8 | sand to silty | sand |
| 79.396 | 113.61 | 0.6875 | 0.605 | 27.577 | 27 | 8 | sand to silty | sand |
| 79.560 | 120.81 | 0.7776 | 0.644 | 27.635 | 23 | 9 | sand | |
| 79.724 | 132.99 | 0.8541 | 0.642 | 27.981 | 25 | 9 | sand | |
| 79.888 | 148.93 | 0.9775 | 0.656 | 27.858 | 29 | 9 | sand | |
| 80.052 | 144.37 | 1.0155 | 0.703 | 28.463 | 28 | 9 | sand | |
| 80.217 | 115.95 | 0.9449 | 0.815 | 27.557 | 28 | 8 | sand to silty | sand |
| 80.381 | 99.86 | 0.8092 | 0.810 | 25.805 | 24 | 8 | sand to silty | sand |
| 80.545 | 94.92 | 0.6877 | 0.724 | 26.568 | 23 | 8 | sand to silty | sand |
| 80.709 | 91.73 | 0.6069 | 0.662 | 27.153 | 22 | 8 | sand to silty | sand |
| 80.873 | 89.49 | 0.5716 | 0.639 | 27.738 | 21 | 8 | sand to silty | sand |
| 81.037 | 91.09 | 0.5656 | 0.621 | 27.986 | 22 | 8 | sand to silty | sand |
| 81.201 | 89.91 | 0.4897 | 0.545 | 28.123 | 22 | 8 | sand to silty | sand |
| 81.365 | 89.83 | 0.4928 | 0.549 | 28.184 | 22 | 8 | sand to silty | sand |
| 81.529 | 87.29 | 0.4884 | 0.559 | 28.577 | 21 | 8 | sand to silty | sand |
| 81.693 | 88.67 | 0.5002 | 0.564 | 28.521 | 21 | 8 | sand to silty | sand |
| 81.857 | 90.84 | 0.5159 | 0.568 | 28.432 | 22 | 8 | sand to silty | sand |
| 82.021 | 90.31 | 0.5180 | 0.574 | 28.546 | 22 | 8 | sand to silty | sand |
| 82.185 | 91.48 | 0.5137 | 0.562 | 28.811 | 22 | 8 | sand to silty | sand |
| 82.349 | 91.50 | 0.5178 | 0.566 | 28.624 | 22 | 8 | sand to silty | sand |
| 82.513 | 91.78 | 0.5188 | 0.565 | 28.825 | 22 | 8 | sand to silty | sand |
| 82.677 | 92.08 | 0.5166 | 0.561 | 28.992 | 22 | 8 | sand to silty | sand |
| 82.841 | 91.43 | 0.5198 | 0.569 | 28.931 | 22 | 8 | sand to silty | sand |
| 83.005 | 93.79 | 0.5277 | 0.563 | 29.048 | 22 | 8 | sand to silty | sand |
| 83.169 | 94.06 | 0.5327 | 0.566 | 29.089 | 23 | 8 | sand to silty | sand |
| 83.333 | 91.93 | 0.5271 | 0.573 | 29.062 | 22 | 8 | sand to silty | sand |
| 83.497 | 91.52 | 0.5142 | 0.562 | 29.154 | 22 | 8 | sand to silty | sand |
| 83.661 | 93.39 | 0.5171 | 0.554 | 29.293 | 22 | 8 | sand to silty | sand |
| 83.825 | 94.93 | 0.5330 | 0.561 | 29.482 | 23 | 8 | sand to silty | sand |
| 83.990 | 96.89 | 0.5454 | 0.563 | 29.535 | 23 | 8 | sand to silty | sand |
| 84.154 | 101.22 | 0.5721 | 0.565 | 29.661 | 24 | 8 | sand to silty | sand |
| 84.318 | 107.79 | 0.5937 | 0.551 | 29.805 | 26 | 8 | sand to silty | sand |
| 84.482 | 112.59 | 0.6105 | 0.542 | 30.062 | 22 | 9 | sand | |
| 84.646 | 116.63 | 0.6325 | 0.542 | 29.939 | 22 | 9 | sand | |
| 84.810 | 120.08 | 0.6786 | 0.565 | 30.042 | 23 | 9 | sand | |
| 84.974 | 123.11 | 0.7491 | 0.608 | 29.903 | 24 | 9 | sand | |
| 85.138 | 131.48 | 0.8006 | 0.609 | 30.432 | 25 | 9 | sand | |
| 85.302 | 153.80 | 0.8620 | 0.560 | 30.786 | 29 | 9 | sand | |
| 85.466 | 158.26 | 0.9632 | 0.609 | 30.340 | 30 | 9 | sand | |
| 85.630 | 170.78 | 1.0395 | 0.609 | 30.287 | 33 | 9 | sand | |
| 85.794 | 157.71 | 1.0217 | 0.648 | 30.118 | 30 | 9 | sand | |
| 85.958 | 125.21 | 0.9202 | 0.735 | 29.006 | 30 | 8 | sand to silty | sand |
| 86.122 | 109.34 | 0.8376 | 0.766 | 30.605 | 26 | 8 | sand to silty | sand |
| 86.286 | 111.06 | 0.8421 | 0.758 | 29.842 | 27 | 8 | sand to silty | sand |
| 86.450 | 120.53 | 0.9469 | 0.786 | 31.121 | 29 | 8 | sand to silty | sand |
| 86.614 | 135.43 | 1.0043 | 0.742 | 31.937 | 26 | 9 | sand | |
| 86.778 | 128.49 | 1.0593 | 0.824 | 30.076 | 31 | 8 | sand to silty | sand |
| 86.942 | 121.11 | 0.9988 | 0.825 | 29.410 | 29 | 8 | sand to silty | sand |
| 87.106 | 117.70 | 0.8798 | 0.748 | 29.722 | 28 | 8 | sand to silty | sand |
| 87.270 | 124.35 | 0.8185 | 0.658 | 30.360 | 24 | 9 | sand | |
| 87.434 | 125.08 | 0.8312 | 0.665 | 30.761 | 24 | 9 | sand | |
| 87.598 | 127.77 | 0.8278 | 0.648 | 31.371 | 24 | 9 | sand | |
| 87.762 | 132.76 | 0.7738 | 0.583 | 31.304 | 25 | 9 | sand | |
| 87.927 | 149.79 | 0.9173 | 0.612 | 32.514 | 29 | 9 | sand | |
| 88.091 | 149.77 | 1.0233 | 0.683 | 31.906 | 29 | 9 | sand | |
| 88.255 | 126.98 | 0.9798 | 0.772 | 30.037 | 30 | 8 | sand to silty | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|---------------------------|------|
| 88.419 | 119.12 | 0.8878 | 0.745 | 29.399 | 29 | 8 | sand to silty sand | |
| 88.583 | 119.40 | 0.8555 | 0.717 | 31.441 | 29 | 8 | sand to silty sand | |
| 88.747 | 119.41 | 0.8457 | 0.708 | 31.238 | 29 | 8 | sand to silty sand | |
| 88.911 | 123.57 | 0.8452 | 0.684 | 31.694 | 24 | 9 | sand | |
| 89.075 | 129.07 | 0.8661 | 0.671 | 31.616 | 25 | 9 | sand | |
| 89.239 | 131.90 | 0.9040 | 0.685 | 32.218 | 25 | 9 | sand | |
| 89.403 | 136.26 | 0.9577 | 0.703 | 32.098 | 26 | 9 | sand | |
| 89.567 | 144.67 | 1.0099 | 0.698 | 32.728 | 28 | 9 | sand | |
| 89.731 | 147.05 | 1.0725 | 0.729 | 33.308 | 28 | 9 | sand | |
| 89.895 | 149.87 | 1.0926 | 0.729 | 32.580 | 29 | 9 | sand | |
| 90.059 | 148.11 | 1.0676 | 0.721 | 31.934 | 28 | 9 | sand | |
| 90.223 | 128.39 | 0.9912 | 0.772 | 31.809 | 31 | 8 | sand to silty sand | |
| 90.387 | 120.37 | 0.8257 | 0.686 | 30.608 | 29 | 8 | sand to silty sand | |
| 90.551 | 119.55 | 0.7823 | 0.654 | 31.374 | 23 | 9 | sand | |
| 90.715 | 114.36 | 0.7475 | 0.654 | 32.018 | 27 | 8 | sand to silty sand | |
| 90.879 | 116.89 | 0.6568 | 0.562 | 32.385 | 22 | 9 | sand | |
| 91.043 | 123.93 | 0.6806 | 0.549 | 32.770 | 24 | 9 | sand | |
| 91.207 | 131.46 | 0.7039 | 0.535 | 33.043 | 25 | 9 | sand | |
| 91.371 | 131.29 | 0.7433 | 0.566 | 32.826 | 25 | 9 | sand | |
| 91.535 | 126.90 | 0.7862 | 0.620 | 32.709 | 24 | 9 | sand | |
| 91.699 | 133.84 | 0.8012 | 0.599 | 33.029 | 26 | 9 | sand | |
| 91.864 | 153.90 | 0.8754 | 0.569 | 33.664 | 29 | 9 | sand | |
| 92.028 | 172.37 | 1.0430 | 0.605 | 34.085 | 33 | 9 | sand | |
| 92.192 | 185.81 | 1.2422 | 0.669 | 34.748 | 36 | 9 | sand | |
| 92.356 | 174.00 | 1.3185 | 0.758 | 33.361 | 33 | 9 | sand | |
| 92.520 | 158.50 | 1.2723 | 0.803 | 31.845 | 30 | 9 | sand | |
| 92.684 | 160.26 | 1.1625 | 0.725 | 32.098 | 31 | 9 | sand | |
| 92.848 | 173.54 | 1.1486 | 0.662 | 33.689 | 33 | 9 | sand | |
| 93.012 | 181.40 | 1.1531 | 0.636 | 33.517 | 35 | 9 | sand | |
| 93.176 | 173.06 | 1.1445 | 0.661 | 33.678 | 33 | 9 | sand | |
| 93.340 | 154.42 | 1.0796 | 0.699 | 32.383 | 30 | 9 | sand | |
| 93.504 | 139.30 | 0.9603 | 0.689 | 31.681 | 27 | 9 | sand | |
| 93.668 | 132.34 | 0.8738 | 0.660 | 32.422 | 25 | 9 | sand | |
| 93.832 | 130.38 | 0.8156 | 0.626 | 33.475 | 25 | 9 | sand | |
| 93.996 | 128.95 | 0.7826 | 0.607 | 33.530 | 25 | 9 | sand | |
| 94.160 | 122.52 | 0.7392 | 0.603 | 33.018 | 23 | 9 | sand | |
| 94.324 | 115.92 | 0.4408 | 0.380 | 33.283 | 22 | 9 | sand | |
| 94.488 | 113.43 | 0.4872 | 0.430 | 33.575 | 22 | 9 | sand | |
| 94.652 | 110.59 | 0.5411 | 0.489 | 34.773 | 21 | 9 | sand | |
| 94.816 | 107.42 | 0.5460 | 0.508 | 34.152 | 21 | 9 | sand | |
| 94.980 | 98.52 | 0.5210 | 0.529 | 33.583 | 24 | 8 | sand to silty sand | |
| 95.144 | 94.57 | 0.5063 | 0.535 | 33.787 | 23 | 8 | sand to silty sand | |
| 95.308 | 92.62 | 0.4926 | 0.532 | 33.926 | 22 | 8 | sand to silty sand | |
| 95.472 | 91.88 | 0.4886 | 0.532 | 34.068 | 22 | 8 | sand to silty sand | |
| 95.636 | 91.22 | 0.4830 | 0.529 | 34.063 | 22 | 8 | sand to silty sand | |
| 95.801 | 90.53 | 0.4770 | 0.527 | 34.241 | 22 | 8 | sand to silty sand | |
| 95.965 | 89.42 | 0.4709 | 0.527 | 34.194 | 21 | 8 | sand to silty sand | |
| 96.129 | 88.76 | 0.4655 | 0.524 | 34.341 | 21 | 8 | sand to silty sand | |
| 96.293 | 88.88 | 0.4631 | 0.521 | 34.397 | 21 | 8 | sand to silty sand | |
| 96.457 | 89.52 | 0.4632 | 0.517 | 34.492 | 21 | 8 | sand to silty sand | |
| 96.621 | 88.99 | 0.4644 | 0.522 | 34.536 | 21 | 8 | sand to silty sand | |
| 96.785 | 88.64 | 0.4604 | 0.519 | 34.578 | 21 | 8 | sand to silty sand | |
| 96.949 | 89.70 | 0.4629 | 0.516 | 34.834 | 21 | 8 | sand to silty sand | |
| 97.113 | 90.77 | 0.4680 | 0.516 | 34.862 | 22 | 8 | sand to silty sand | |
| 97.277 | 91.93 | 0.4746 | 0.516 | 34.854 | 22 | 8 | sand to silty sand | |
| 97.441 | 95.46 | 0.5660 | 0.593 | 35.057 | 23 | 8 | sand to silty sand | |
| 97.605 | 96.29 | 0.4848 | 0.503 | 34.996 | 23 | 8 | sand to silty sand | |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|---------------------------|------|
| 97.769 | 90.00 | 0.4833 | 0.537 | 34.806 | 22 | 8 | sand to silty sand | |
| 97.933 | 99.03 | 0.5031 | 0.508 | 35.400 | 24 | 8 | sand to silty sand | |
| 98.097 | 103.30 | 0.5220 | 0.505 | 35.255 | 25 | 8 | sand to silty sand | |
| 98.261 | 105.61 | 0.5364 | 0.508 | 35.344 | 20 | 9 | sand | |
| 98.425 | 106.40 | 0.5372 | 0.505 | 35.216 | 20 | 9 | sand | |
| 98.589 | 105.52 | 0.5399 | 0.512 | 35.392 | 25 | 8 | sand to silty sand | |
| 98.753 | 104.45 | 0.5337 | 0.511 | 35.322 | 25 | 8 | sand to silty sand | |
| 98.917 | 102.32 | 0.5256 | 0.514 | 35.472 | 24 | 8 | sand to silty sand | |
| 99.081 | 99.49 | 0.5123 | 0.515 | 35.431 | 24 | 8 | sand to silty sand | |
| 99.245 | 94.63 | 0.4930 | 0.521 | 35.369 | 23 | 8 | sand to silty sand | |
| 99.409 | 90.77 | 0.4794 | 0.528 | 35.550 | 22 | 8 | sand to silty sand | |
| 99.573 | 89.65 | 0.4792 | 0.535 | 35.818 | 21 | 8 | sand to silty sand | |
| 99.738 | 92.42 | 0.4928 | 0.533 | 36.044 | 22 | 8 | sand to silty sand | |
| 99.902 | 100.06 | 0.5233 | 0.523 | 36.303 | 24 | 8 | sand to silty sand | |
| 100.066 | 111.32 | 0.5746 | 0.516 | 36.498 | 21 | 9 | sand | |
| 100.230 | 117.02 | 0.6258 | 0.535 | 36.528 | 22 | 9 | sand | |
| 100.394 | 122.76 | 0.6493 | 0.529 | 36.422 | 24 | 9 | sand | |
| 100.558 | 123.96 | 0.6671 | 0.538 | 36.562 | 24 | 9 | sand | |
| 100.722 | 118.66 | 0.6433 | 0.542 | 36.161 | 23 | 9 | sand | |
| 100.886 | 118.13 | 0.5171 | 0.438 | 36.562 | 23 | 9 | sand | |
| 101.050 | 115.71 | 0.5506 | 0.476 | 36.690 | 22 | 9 | sand | |
| 101.214 | 117.38 | 0.5900 | 0.503 | 36.729 | 22 | 9 | sand | |
| 101.378 | 133.24 | 0.6750 | 0.507 | 37.431 | 26 | 9 | sand | |
| 101.542 | 145.07 | 0.7738 | 0.533 | 37.615 | 28 | 9 | sand | |
| 101.706 | 136.86 | 0.7604 | 0.556 | 36.921 | 26 | 9 | sand | |
| 101.870 | 118.61 | 0.7045 | 0.594 | 36.481 | 23 | 9 | sand | |
| 102.034 | 114.18 | 0.6886 | 0.603 | 36.899 | 27 | 8 | sand to silty sand | |
| 102.198 | 112.90 | 0.6670 | 0.591 | 36.545 | 27 | 8 | sand to silty sand | |
| 102.362 | 114.84 | 0.6584 | 0.573 | 37.428 | 22 | 9 | sand | |
| 102.526 | 113.45 | 0.6456 | 0.569 | 37.960 | 22 | 9 | sand | |
| 102.690 | 111.31 | 0.6415 | 0.576 | 37.083 | 27 | 8 | sand to silty sand | |
| 102.854 | 109.54 | 0.6252 | 0.571 | 37.868 | 26 | 8 | sand to silty sand | |
| 103.018 | 114.22 | 0.6388 | 0.559 | 37.941 | 22 | 9 | sand | |
| 103.182 | 114.50 | 0.6362 | 0.556 | 38.033 | 22 | 9 | sand | |
| 103.347 | 114.73 | 0.6349 | 0.553 | 38.077 | 22 | 9 | sand | |
| 103.511 | 118.39 | 0.6449 | 0.545 | 38.036 | 23 | 9 | sand | |
| 103.675 | 123.35 | 0.6924 | 0.561 | 38.509 | 24 | 9 | sand | |
| 103.839 | 122.80 | 0.7269 | 0.592 | 38.465 | 24 | 9 | sand | |
| 104.003 | 123.00 | 0.7185 | 0.584 | 38.066 | 24 | 9 | sand | |
| 104.167 | 127.64 | 0.6820 | 0.534 | 38.866 | 24 | 9 | sand | |
| 104.331 | 135.55 | 0.7265 | 0.536 | 39.064 | 26 | 9 | sand | |
| 104.495 | 135.92 | 0.7910 | 0.582 | 38.562 | 26 | 9 | sand | |
| 104.659 | 144.59 | 0.8725 | 0.603 | 38.674 | 28 | 9 | sand | |
| 104.823 | 153.94 | 0.9373 | 0.609 | 39.526 | 29 | 9 | sand | |
| 104.987 | 157.83 | 0.9680 | 0.613 | 39.838 | 30 | 9 | sand | |
| 105.151 | 154.05 | 0.9892 | 0.642 | 38.894 | 30 | 9 | sand | |
| 105.315 | 158.77 | 0.9826 | 0.619 | 38.206 | 30 | 9 | sand | |
| 105.479 | 166.98 | 1.0240 | 0.613 | 39.197 | 32 | 9 | sand | |
| 105.643 | 158.34 | 1.0118 | 0.639 | 37.790 | 30 | 9 | sand | |
| 105.807 | 140.97 | 0.9306 | 0.660 | 37.133 | 27 | 9 | sand | |
| 105.971 | 125.37 | 0.7911 | 0.631 | 37.434 | 24 | 9 | sand | |
| 106.135 | 121.57 | 0.6918 | 0.569 | 36.266 | 23 | 9 | sand | |
| 106.299 | 120.71 | 0.6589 | 0.546 | 38.153 | 23 | 9 | sand | |
| 106.463 | 134.73 | 0.6433 | 0.477 | 40.808 | 26 | 9 | sand | |
| 106.627 | 148.69 | 0.7089 | 0.477 | 37.097 | 28 | 9 | sand | |
| 106.791 | 173.03 | 0.8580 | 0.496 | 40.624 | 33 | 9 | sand | |
| 106.955 | 171.19 | 0.9657 | 0.564 | 40.125 | 33 | 9 | sand | |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 107.119 | 139.69 | 0.9831 | 0.704 | 38.604 | 27 | 9 | sand |
| 107.284 | 125.36 | 0.9314 | 0.743 | 41.741 | 30 | 8 | sand to silty sand |
| 107.448 | 114.14 | 0.8178 | 0.717 | 39.560 | 27 | 8 | sand to silty sand |
| 107.612 | 104.34 | 0.7202 | 0.690 | 38.621 | 25 | 8 | sand to silty sand |
| 107.776 | 96.08 | 0.6684 | 0.696 | 39.000 | 23 | 8 | sand to silty sand |
| 107.940 | 96.57 | 0.6675 | 0.691 | 39.331 | 23 | 8 | sand to silty sand |
| 108.104 | 99.12 | 0.6714 | 0.677 | 39.523 | 24 | 8 | sand to silty sand |
| 108.268 | 102.50 | 0.6834 | 0.667 | 39.621 | 25 | 8 | sand to silty sand |
| 108.432 | 105.95 | 0.7489 | 0.707 | 40.390 | 25 | 8 | sand to silty sand |
| 108.596 | 110.22 | 0.8266 | 0.750 | 39.813 | 26 | 8 | sand to silty sand |
| 108.760 | 125.63 | 0.9175 | 0.730 | 42.530 | 30 | 8 | sand to silty sand |
| 108.924 | 131.13 | 0.9854 | 0.751 | 40.830 | 25 | 9 | sand |
| 109.088 | 125.69 | 0.9545 | 0.759 | 36.804 | 30 | 8 | sand to silty sand |
| 109.252 | 123.96 | 0.8210 | 0.662 | 38.771 | 24 | 9 | sand |
| 109.416 | 127.62 | 0.9898 | 0.776 | 39.417 | 31 | 8 | sand to silty sand |
| 109.580 | 127.94 | 1.3449 | 1.051 | 41.209 | 31 | 8 | sand to silty sand |
| 109.744 | 108.32 | 1.1828 | 1.092 | 41.763 | 26 | 8 | sand to silty sand |
| 109.908 | 147.26 | 0.9999 | 0.679 | 41.357 | 28 | 9 | sand |
| 110.072 | 164.44 | 0.7490 | 0.455 | 35.007 | 31 | 9 | sand |
| 110.236 | 169.03 | 0.7316 | 0.433 | 32.034 | 32 | 9 | sand |
| 110.400 | 146.40 | 0.8506 | 0.581 | 33.834 | 28 | 9 | sand |
| 110.564 | 143.71 | 0.8382 | 0.583 | 36.704 | 28 | 9 | sand |
| 110.728 | 136.37 | 0.7745 | 0.568 | 37.821 | 26 | 9 | sand |
| 110.892 | 129.48 | 0.7260 | 0.561 | 39.866 | 25 | 9 | sand |
| 111.056 | 131.11 | 0.7206 | 0.550 | 40.997 | 25 | 9 | sand |
| 111.221 | 152.55 | 0.8047 | 0.528 | 41.713 | 29 | 9 | sand |
| 111.385 | 182.54 | 0.9708 | 0.532 | 42.900 | 35 | 9 | sand |
| 111.549 | 182.95 | 1.0720 | 0.586 | 41.228 | 35 | 9 | sand |
| 111.713 | 179.87 | 1.0905 | 0.606 | 41.474 | 34 | 9 | sand |
| 111.877 | 172.23 | 1.0252 | 0.595 | 40.217 | 33 | 9 | sand |
| 112.041 | 148.16 | 0.9138 | 0.617 | 38.986 | 28 | 9 | sand |
| 112.205 | 150.24 | 0.8896 | 0.592 | 40.905 | 29 | 9 | sand |
| 112.369 | 185.12 | 0.9667 | 0.522 | 42.613 | 35 | 9 | sand |
| 112.533 | 200.93 | 1.0578 | 0.526 | 42.939 | 38 | 9 | sand |
| 112.697 | 176.16 | 1.0754 | 0.610 | 42.365 | 34 | 9 | sand |
| 112.861 | 161.60 | 0.9828 | 0.608 | 40.674 | 31 | 9 | sand |
| 113.025 | 169.79 | 0.9345 | 0.550 | 41.671 | 33 | 9 | sand |
| 113.189 | 164.46 | 0.9681 | 0.589 | 41.774 | 31 | 9 | sand |
| 113.353 | 144.95 | 0.9087 | 0.627 | 41.763 | 28 | 9 | sand |
| 113.517 | 146.60 | 0.9140 | 0.623 | 44.736 | 28 | 9 | sand |
| 113.681 | 150.93 | 0.8976 | 0.595 | 41.513 | 29 | 9 | sand |
| 113.845 | 173.25 | 1.0005 | 0.577 | 42.956 | 33 | 9 | sand |
| 114.009 | 214.33 | 1.2329 | 0.575 | 47.274 | 41 | 9 | sand |
| 114.173 | 246.90 | 1.4411 | 0.584 | 47.606 | 47 | 9 | sand |
| 114.337 | 239.46 | 1.5364 | 0.642 | 43.611 | 46 | 9 | sand |
| 114.501 | 218.02 | 1.4798 | 0.679 | 40.872 | 42 | 9 | sand |
| 114.665 | 190.51 | 1.3355 | 0.701 | 40.919 | 36 | 9 | sand |
| 114.829 | 167.52 | 1.2239 | 0.731 | 41.301 | 32 | 9 | sand |
| 114.993 | 171.51 | 1.1335 | 0.661 | 40.429 | 33 | 9 | sand |
| 115.158 | 181.95 | 1.1052 | 0.607 | 43.039 | 35 | 9 | sand |
| 115.322 | 150.64 | 1.0389 | 0.690 | 41.471 | 29 | 9 | sand |
| 115.486 | 134.58 | 0.9362 | 0.696 | 41.805 | 26 | 9 | sand |
| 115.650 | 131.07 | 0.8883 | 0.678 | 41.891 | 25 | 9 | sand |
| 115.814 | 139.75 | 0.8258 | 0.591 | 42.758 | 27 | 9 | sand |
| 115.978 | 168.69 | 0.8767 | 0.520 | 44.956 | 32 | 9 | sand |
| 116.142 | 195.01 | 1.0691 | 0.548 | 46.263 | 37 | 9 | sand |
| 116.306 | 215.73 | 1.2837 | 0.595 | 45.814 | 41 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|-----------------------------------|
| 116.470 | 228.71 | 1.4457 | 0.632 | 46.798 | 44 | 9 | sand |
| 116.634 | 234.14 | 1.5537 | 0.664 | 45.536 | 45 | 9 | sand |
| 116.798 | 219.26 | 1.5894 | 0.725 | 44.349 | 42 | 9 | sand |
| 116.962 | 182.08 | 1.3396 | 0.736 | 40.992 | 35 | 9 | sand |
| 117.126 | 139.23 | 1.1884 | 0.854 | 41.014 | 33 | 8 | sand to silty sand |
| 117.290 | 132.50 | 0.9880 | 0.746 | 42.613 | 25 | 9 | sand |
| 117.454 | 163.43 | 0.9550 | 0.584 | 48.442 | 31 | 9 | sand |
| 117.618 | 190.96 | 1.2001 | 0.628 | 44.705 | 37 | 9 | sand |
| 117.782 | 221.03 | 1.4751 | 0.667 | 44.842 | 42 | 9 | sand |
| 117.946 | 221.24 | 1.5950 | 0.721 | 43.630 | 42 | 9 | sand |
| 118.110 | 206.84 | 1.4639 | 0.708 | 43.878 | 40 | 9 | sand |
| 118.274 | 161.11 | 1.2688 | 0.788 | 40.512 | 31 | 9 | sand |
| 118.438 | 143.27 | 1.0796 | 0.754 | 39.763 | 27 | 9 | sand |
| 118.602 | 135.24 | 0.9557 | 0.707 | 41.462 | 26 | 9 | sand |
| 118.766 | 132.92 | 0.9097 | 0.684 | 43.101 | 25 | 9 | sand |
| 118.931 | 132.86 | 0.8856 | 0.667 | 43.282 | 25 | 9 | sand |
| 119.095 | 132.19 | 0.8710 | 0.659 | 43.449 | 25 | 9 | sand |
| 119.259 | 130.44 | 0.8357 | 0.641 | 43.867 | 25 | 9 | sand |
| 119.423 | 131.59 | 0.8396 | 0.638 | 43.956 | 25 | 9 | sand |
| 119.587 | 132.39 | 0.8412 | 0.635 | 44.182 | 25 | 9 | sand |
| 119.751 | 132.61 | 0.8193 | 0.618 | 44.249 | 25 | 9 | sand |
| 119.915 | 131.47 | 0.8095 | 0.616 | 43.828 | 25 | 9 | sand |
| 120.079 | 130.69 | 0.8091 | 0.619 | 43.995 | 25 | 9 | sand |
| 120.243 | 131.02 | 0.8089 | 0.617 | 44.396 | 25 | 9 | sand |
| 120.407 | 134.65 | 0.8346 | 0.620 | 44.792 | 26 | 9 | sand |
| 120.571 | 138.68 | 0.7088 | 0.511 | 44.352 | 27 | 9 | sand |
| 120.735 | 140.81 | 0.7635 | 0.542 | 45.335 | 27 | 9 | sand |
| 120.899 | 145.39 | 0.7740 | 0.532 | 44.098 | 28 | 9 | sand |
| 121.063 | 160.85 | 0.9187 | 0.571 | 44.995 | 31 | 9 | sand |
| 121.227 | 196.65 | 1.1778 | 0.599 | 47.255 | 38 | 9 | sand |
| 121.391 | 234.07 | 1.5336 | 0.655 | 48.887 | 45 | 9 | sand |
| 121.555 | 240.87 | 1.7420 | 0.723 | 48.567 | 46 | 9 | sand |
| 121.719 | 234.46 | 1.8739 | 0.799 | 47.689 | 45 | 9 | sand |
| 121.883 | 228.55 | 1.8558 | 0.812 | 45.789 | 44 | 9 | sand |
| 122.047 | 222.53 | 1.7884 | 0.804 | 45.636 | 43 | 9 | sand |
| 122.211 | 205.49 | 1.5606 | 0.759 | 43.872 | 39 | 9 | sand |
| 122.375 | 162.85 | 1.3218 | 0.812 | 42.449 | 31 | 9 | sand |
| 122.539 | 137.40 | 1.1117 | 0.809 | 42.053 | 26 | 9 | sand |
| 122.703 | 129.10 | 0.9768 | 0.757 | 42.995 | 31 | 8 | sand to silty sand |
| 122.868 | 128.95 | 0.9136 | 0.708 | 44.229 | 25 | 9 | sand |
| 123.032 | 130.45 | 0.8871 | 0.680 | 45.678 | 25 | 9 | sand |
| 123.196 | 135.21 | 0.8786 | 0.650 | 45.121 | 26 | 9 | sand |
| 123.360 | 139.82 | 0.9077 | 0.649 | 46.773 | 27 | 9 | sand |
| 123.524 | 152.75 | 0.9684 | 0.634 | 46.569 | 29 | 9 | sand |
| 123.688 | 180.74 | 1.0816 | 0.598 | 47.737 | 35 | 9 | sand |
| 123.852 | 193.97 | 1.2524 | 0.646 | 48.865 | 37 | 9 | sand |
| 124.016 | 183.84 | 1.2197 | 0.663 | 47.249 | 35 | 9 | sand |
| 124.180 | 179.68 | 1.2202 | 0.679 | 49.227 | 34 | 9 | sand |
| 124.344 | 192.92 | 1.2820 | 0.665 | 47.706 | 37 | 9 | sand |
| 124.508 | 196.29 | 1.3511 | 0.688 | 45.366 | 38 | 9 | sand |
| 124.672 | 207.62 | 1.3961 | 0.672 | 48.561 | 40 | 9 | sand |
| 124.836 | 209.56 | 1.4467 | 0.690 | 48.099 | 40 | 9 | sand |
| 125.000 | 198.00 | 1.4976 | 0.756 | 46.820 | 38 | 9 | sand |
| 125.164 | 196.11 | 1.4997 | 0.765 | 48.876 | 38 | 9 | sand |
| 125.328 | 184.18 | 1.4663 | 0.796 | 50.498 | 35 | 9 | sand |
| 125.492 | 164.39 | 1.3943 | 0.848 | 44.240 | 31 | 9 | sand |
| 125.656 | 158.57 | 1.2886 | 0.813 | 45.566 | 30 | 9 | sand |

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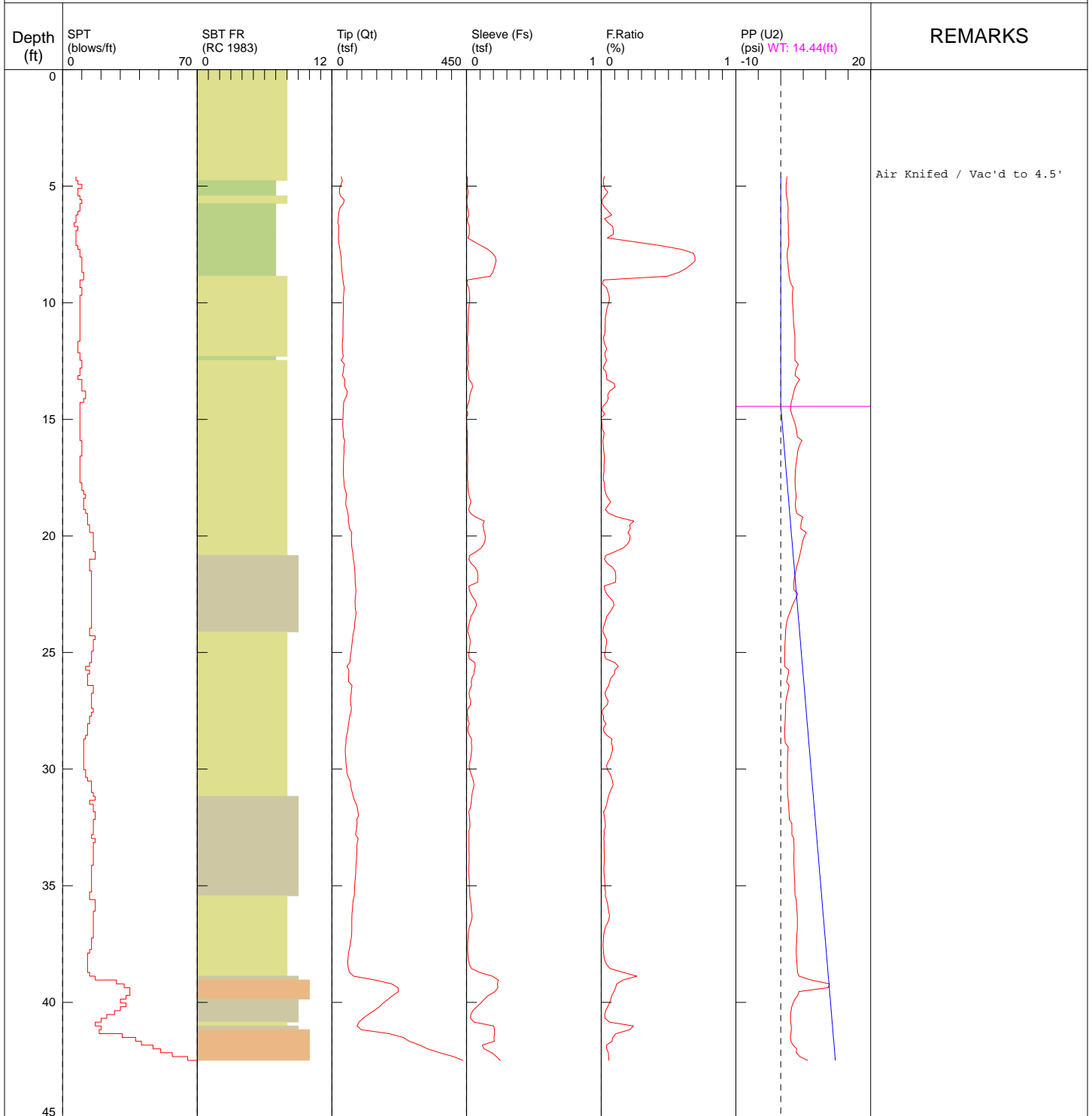
| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|-----------------------------------|
| 125.820 | 160.19 | 1.1764 | 0.734 | 46.884 | 31 | 9 | sand |
| 125.984 | 176.94 | 1.1479 | 0.649 | 48.539 | 34 | 9 | sand |
| 126.148 | 194.71 | 1.2160 | 0.625 | 48.355 | 37 | 9 | sand |
| 126.312 | 206.81 | 1.2464 | 0.603 | 50.096 | 40 | 9 | sand |
| 126.476 | 193.72 | 1.1902 | 0.614 | 46.742 | 37 | 9 | sand |
| 126.640 | 163.63 | 1.0688 | 0.653 | 44.229 | 31 | 9 | sand |
| 126.805 | 147.96 | 0.9280 | 0.627 | 45.045 | 28 | 9 | sand |
| 126.969 | 146.34 | 0.9226 | 0.630 | 47.664 | 28 | 9 | sand |
| 127.133 | 152.37 | 0.8180 | 0.537 | 47.706 | 29 | 9 | sand |
| 127.297 | 159.11 | 0.8242 | 0.518 | 49.517 | 30 | 9 | sand |
| 127.461 | 165.79 | 0.8295 | 0.500 | 48.341 | 32 | 9 | sand |
| 127.625 | 179.02 | 0.8379 | 0.468 | 48.372 | 34 | 9 | sand |
| 127.789 | 171.17 | 0.8690 | 0.508 | 47.525 | 33 | 9 | sand |
| 127.953 | 183.74 | 0.8864 | 0.482 | 49.489 | 35 | 9 | sand |
| 128.117 | 240.37 | 0.9913 | 0.412 | 52.272 | 46 | 9 | sand |
| 128.281 | 262.17 | 1.1327 | 0.432 | 51.515 | 50 | 9 | sand |
| 128.445 | 250.76 | 1.2141 | 0.484 | 53.398 | 48 | 9 | sand |
| 128.609 | 247.50 | 1.2059 | 0.487 | 56.181 | 47 | 9 | sand |
| 128.773 | 244.92 | 1.3551 | 0.553 | 54.510 | 47 | 9 | sand |
| 128.937 | 218.57 | 1.4205 | 0.650 | 49.431 | 42 | 9 | sand |
| 129.101 | 194.41 | 1.4822 | 0.762 | 50.498 | 37 | 9 | sand |
| 129.265 | 188.23 | 1.4411 | 0.766 | 50.793 | 36 | 9 | sand |
| 129.429 | 182.19 | 1.4539 | 0.798 | 50.283 | 35 | 9 | sand |
| 129.593 | 171.74 | 1.4743 | 0.858 | 50.303 | 33 | 9 | sand |
| 129.757 | 163.79 | 1.4222 | 0.868 | 48.631 | 31 | 9 | sand |
| 129.921 | 164.16 | 1.3378 | 0.815 | 48.458 | 31 | 9 | sand |
| 130.085 | 162.39 | 1.2557 | 0.773 | 49.032 | 31 | 9 | sand |
| 130.249 | 156.30 | 1.1309 | 0.724 | 47.781 | 30 | 9 | sand |
| 130.413 | 158.52 | 1.0174 | 0.642 | 49.631 | 30 | 9 | sand |
| 130.577 | 167.72 | 0.9651 | 0.575 | 49.372 | 32 | 9 | sand |
| 130.742 | 162.23 | 0.9810 | 0.605 | 52.448 | 31 | 9 | sand |
| 130.906 | 155.70 | 0.9851 | 0.633 | 48.238 | 30 | 9 | sand |
| 131.070 | 148.04 | 0.9809 | 0.663 | 50.219 | 28 | 9 | sand |
| 131.234 | 137.90 | 0.8949 | 0.649 | 47.670 | 26 | 9 | sand |
| 131.398 | 134.86 | 0.8342 | 0.619 | 49.010 | 26 | 9 | sand |
| 131.562 | 137.28 | 0.8221 | 0.599 | 49.439 | 26 | 9 | sand |
| 131.726 | 144.82 | 0.8468 | 0.585 | 49.849 | 28 | 9 | sand |
| 131.890 | 155.88 | 0.8887 | 0.570 | 50.863 | 30 | 9 | sand |
| 132.054 | 171.79 | 0.9648 | 0.562 | 50.442 | 33 | 9 | sand |
| 132.218 | 202.38 | 1.1034 | 0.545 | 52.693 | 39 | 9 | sand |
| 132.382 | 216.42 | 1.2275 | 0.567 | 53.841 | 41 | 9 | sand |
| 132.546 | 187.59 | 1.2296 | 0.655 | 51.138 | 36 | 9 | sand |
| 132.710 | 149.84 | 1.0953 | 0.731 | 45.572 | 29 | 9 | sand |
| 132.874 | 132.93 | 0.9279 | 0.698 | 46.968 | 25 | 9 | sand |
| 133.038 | 127.12 | 0.8181 | 0.644 | 48.893 | 24 | 9 | sand |
| 133.202 | 136.50 | 0.7590 | 0.556 | 50.562 | 26 | 9 | sand |
| 133.366 | 157.76 | 0.8366 | 0.530 | 52.509 | 30 | 9 | sand |
| 133.530 | 166.68 | 0.9275 | 0.556 | 52.270 | 32 | 9 | sand |
| 133.694 | 158.71 | 0.9400 | 0.592 | 51.099 | 30 | 9 | sand |
| 133.858 | 156.75 | 0.9067 | 0.578 | 50.562 | 30 | 9 | sand |
| 134.022 | 157.64 | 0.8988 | 0.570 | 51.526 | 30 | 9 | sand |
| 134.186 | 164.40 | 0.9634 | 0.586 | 51.523 | 31 | 9 | sand |
| 134.350 | 182.46 | 1.0345 | 0.567 | 52.743 | 35 | 9 | sand |
| 134.514 | 196.12 | 1.1127 | 0.567 | 51.944 | 38 | 9 | sand |
| 134.679 | 210.38 | 1.1876 | 0.564 | 53.749 | 40 | 9 | sand |
| 134.843 | 230.66 | 1.3392 | 0.581 | 54.691 | 44 | 9 | sand |
| 135.007 | 236.96 | 1.4273 | 0.602 | 52.671 | 45 | 9 | sand |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 135.171 | 217.72 | 1.3597 | 0.625 | 54.329 | 42 | 9 | sand |
| 135.335 | 210.24 | 1.2916 | 0.614 | 47.361 | 40 | 9 | sand |
| 135.499 | 225.82 | 1.3356 | 0.591 | 53.353 | 43 | 9 | sand |
| 135.663 | 216.84 | 1.3542 | 0.625 | 53.014 | 42 | 9 | sand |
| 135.827 | 200.21 | 1.3286 | 0.664 | 52.635 | 38 | 9 | sand |
| 135.991 | 191.07 | 1.2741 | 0.667 | 49.860 | 37 | 9 | sand |
| 136.155 | 196.27 | 1.2278 | 0.626 | 52.247 | 38 | 9 | sand |
| 136.319 | 211.75 | 1.2491 | 0.590 | 53.888 | 41 | 9 | sand |
| 136.483 | 231.45 | 1.3532 | 0.585 | 54.629 | 44 | 9 | sand |
| 136.647 | 245.21 | 1.5234 | 0.621 | 57.510 | 47 | 9 | sand |
| 136.811 | 230.86 | 1.5812 | 0.685 | 53.337 | 44 | 9 | sand |
| 136.975 | 221.85 | 1.5304 | 0.690 | 54.039 | 42 | 9 | sand |
| 137.139 | 232.16 | 1.5904 | 0.685 | 52.041 | 44 | 9 | sand |

Haley & Aldrich / SCPT-5 / 4580 NE Marine Dr Portland

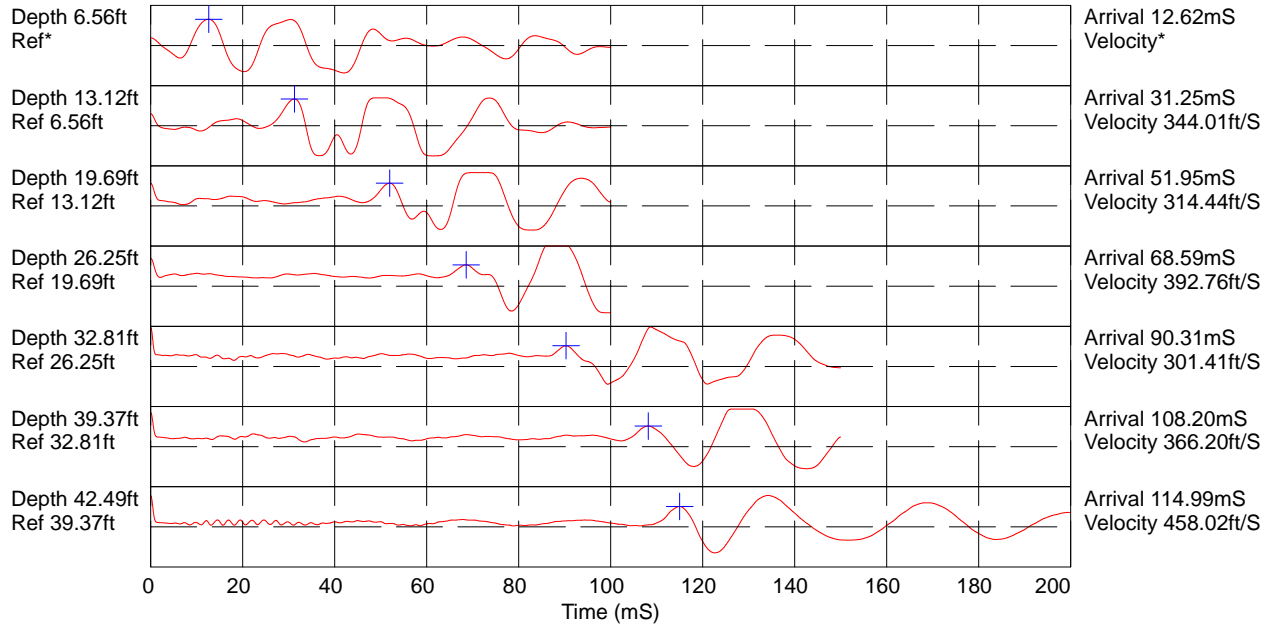
OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 4:25:00 PM
 TOTAL DEPTH: 42.487 ft



- | | | | |
|--------------------------|-----------------------------|----------------------------|--------------------------------|
| 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

COMMENT: Haley & Aldrich / SCPT-5 / 4580 NE Marine Dr Portland

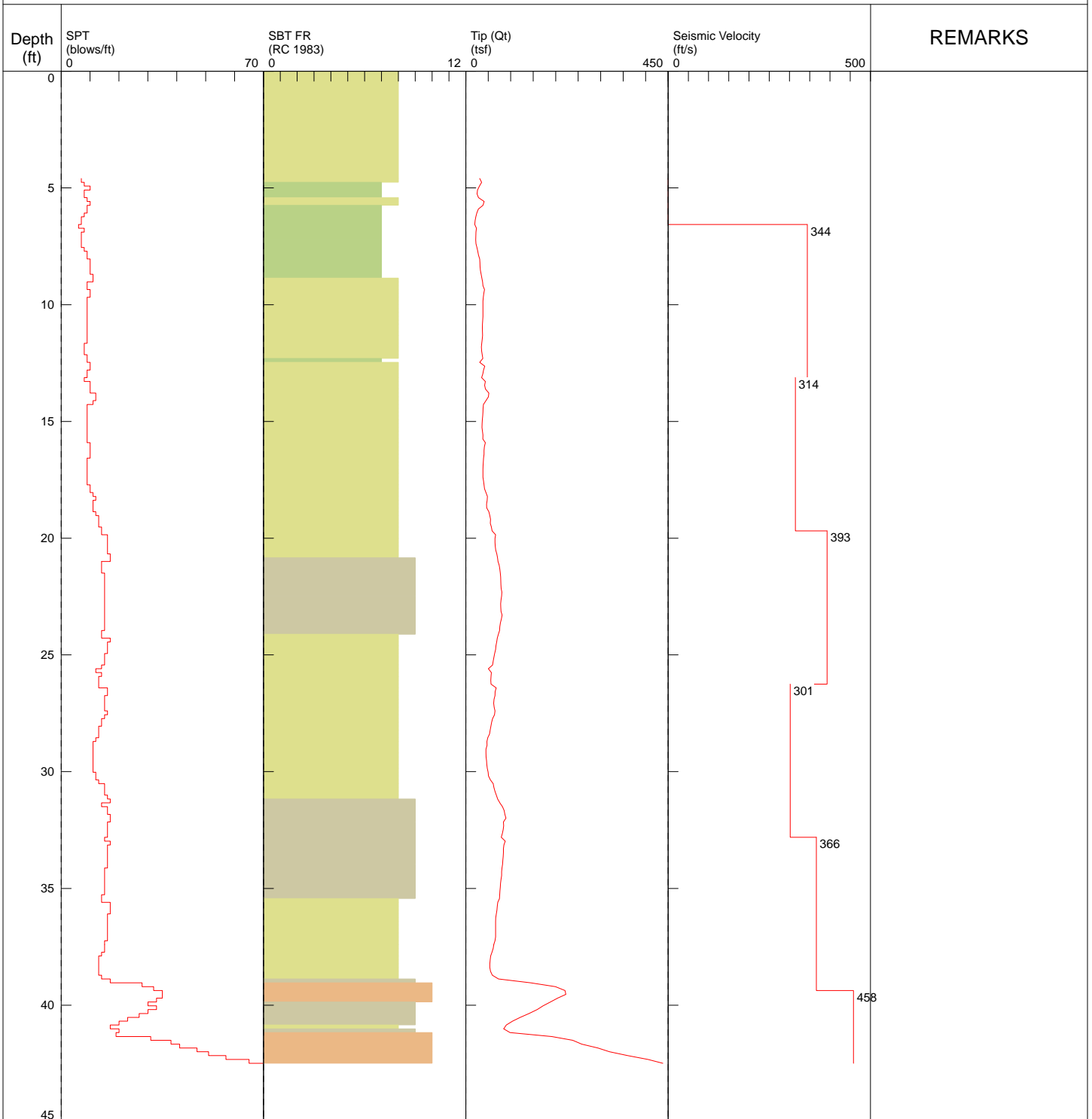


Hammer to Rod String Distance (ft): 2.04

* = Not Determined

Haley & Aldrich / SCPT-5 / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 4:25:00 PM
 TOTAL DEPTH: 42.487 ft



- | | | | |
|---|---|--|--|
| <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

Haley & Aldrich / SCPT-5 / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 4:25:00 PM
 TOTAL DEPTH: 42.487 ft

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 4.593 | 30.76 | 0.0072 | 0.023 | 1.337 | 7 | 8 | sand to silty sand |
| 4.757 | 35.14 | 0.0054 | 0.015 | 1.284 | 8 | 8 | sand to silty sand |
| 4.921 | 30.42 | 0.0055 | 0.018 | 1.184 | 10 | 7 | silty sand to sandy silt |
| 5.085 | 25.93 | 0.0064 | 0.025 | 1.167 | 8 | 7 | silty sand to sandy silt |
| 5.249 | 25.07 | 0.0123 | 0.049 | 1.201 | 8 | 7 | silty sand to sandy silt |
| 5.413 | 28.18 | 0.0080 | 0.028 | 1.245 | 9 | 7 | silty sand to sandy silt |
| 5.577 | 40.97 | 0.0031 | 0.008 | 1.438 | 10 | 8 | sand to silty sand |
| 5.741 | 38.26 | 0.0023 | 0.006 | 1.541 | 9 | 8 | sand to silty sand |
| 5.906 | 27.92 | 0.0069 | 0.025 | 1.608 | 9 | 7 | silty sand to sandy silt |
| 6.070 | 24.23 | 0.0127 | 0.052 | 1.608 | 8 | 7 | silty sand to sandy silt |
| 6.234 | 22.24 | 0.0172 | 0.077 | 1.596 | 7 | 7 | silty sand to sandy silt |
| 6.398 | 20.65 | 0.0049 | 0.024 | 1.599 | 7 | 7 | silty sand to sandy silt |
| 6.562 | 19.85 | 0.0100 | 0.050 | 1.627 | 6 | 7 | silty sand to sandy silt |
| 6.726 | 23.58 | 0.0200 | 0.085 | 1.694 | 8 | 7 | silty sand to sandy silt |
| 6.890 | 22.50 | 0.0200 | 0.089 | 1.691 | 7 | 7 | silty sand to sandy silt |
| 7.054 | 22.28 | 0.0200 | 0.090 | 1.669 | 7 | 7 | silty sand to sandy silt |
| 7.218 | 21.87 | 0.0100 | 0.046 | 1.741 | 7 | 7 | silty sand to sandy silt |
| 7.382 | 22.56 | 0.0558 | 0.247 | 1.778 | 7 | 7 | silty sand to sandy silt |
| 7.546 | 24.54 | 0.1091 | 0.444 | 1.716 | 8 | 7 | silty sand to sandy silt |
| 7.710 | 26.67 | 0.1589 | 0.596 | 1.543 | 9 | 7 | silty sand to sandy silt |
| 7.874 | 28.12 | 0.1925 | 0.685 | 1.418 | 9 | 7 | silty sand to sandy silt |
| 8.038 | 30.76 | 0.2142 | 0.696 | 1.404 | 10 | 7 | silty sand to sandy silt |
| 8.202 | 31.44 | 0.2191 | 0.697 | 1.518 | 10 | 7 | silty sand to sandy silt |
| 8.366 | 31.74 | 0.2112 | 0.665 | 1.605 | 10 | 7 | silty sand to sandy silt |
| 8.530 | 32.45 | 0.2041 | 0.629 | 1.666 | 10 | 7 | silty sand to sandy silt |
| 8.694 | 33.91 | 0.1954 | 0.576 | 1.764 | 11 | 7 | silty sand to sandy silt |
| 8.858 | 35.65 | 0.1752 | 0.492 | 1.842 | 11 | 7 | silty sand to sandy silt |
| 9.022 | 37.19 | 0.0063 | 0.017 | 2.023 | 9 | 8 | sand to silty sand |
| 9.186 | 38.17 | 0.0029 | 0.008 | 2.248 | 9 | 8 | sand to silty sand |
| 9.350 | 41.59 | 0.0162 | 0.039 | 2.747 | 10 | 8 | sand to silty sand |
| 9.514 | 40.01 | 0.0197 | 0.049 | 2.616 | 10 | 8 | sand to silty sand |
| 9.678 | 38.78 | 0.0222 | 0.057 | 2.597 | 9 | 8 | sand to silty sand |
| 9.843 | 37.98 | 0.0230 | 0.061 | 2.591 | 9 | 8 | sand to silty sand |
| 10.007 | 38.10 | 0.0214 | 0.056 | 2.591 | 9 | 8 | sand to silty sand |
| 10.171 | 38.07 | 0.0173 | 0.046 | 2.675 | 9 | 8 | sand to silty sand |
| 10.335 | 38.05 | 0.0151 | 0.040 | 2.733 | 9 | 8 | sand to silty sand |
| 10.499 | 37.88 | 0.0131 | 0.034 | 2.783 | 9 | 8 | sand to silty sand |
| 10.663 | 37.55 | 0.0116 | 0.031 | 2.797 | 9 | 8 | sand to silty sand |
| 10.827 | 37.12 | 0.0113 | 0.030 | 2.814 | 9 | 8 | sand to silty sand |
| 10.991 | 36.91 | 0.0104 | 0.028 | 2.900 | 9 | 8 | sand to silty sand |
| 11.155 | 37.12 | 0.0104 | 0.028 | 2.998 | 9 | 8 | sand to silty sand |
| 11.319 | 37.21 | 0.0100 | 0.027 | 3.073 | 9 | 8 | sand to silty sand |
| 11.483 | 36.39 | 0.0059 | 0.016 | 3.165 | 9 | 8 | sand to silty sand |
| 11.647 | 35.41 | 0.0072 | 0.020 | 3.137 | 8 | 8 | sand to silty sand |
| 11.811 | 34.60 | 0.0097 | 0.028 | 3.115 | 8 | 8 | sand to silty sand |
| 11.975 | 35.02 | 0.0140 | 0.040 | 3.134 | 8 | 8 | sand to silty sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 12.139 | 36.35 | 0.0100 | 0.028 | 3.151 | 9 | 8 | sand to silty sand |
| 12.303 | 37.74 | 0.0109 | 0.029 | 3.165 | 9 | 8 | sand to silty sand |
| 12.467 | 30.80 | 0.0119 | 0.038 | 3.165 | 10 | 7 | silty sand to sandy silt |
| 12.631 | 41.96 | 0.0113 | 0.027 | 3.903 | 10 | 8 | sand to silty sand |
| 12.795 | 39.31 | 0.0054 | 0.014 | 3.471 | 9 | 8 | sand to silty sand |
| 12.959 | 37.73 | 0.0133 | 0.035 | 3.243 | 9 | 8 | sand to silty sand |
| 13.123 | 35.14 | 0.0141 | 0.040 | 3.176 | 8 | 8 | sand to silty sand |
| 13.287 | 43.51 | 0.0180 | 0.041 | 4.154 | 10 | 8 | sand to silty sand |
| 13.451 | 41.79 | 0.0402 | 0.096 | 3.636 | 10 | 8 | sand to silty sand |
| 13.615 | 43.82 | 0.0449 | 0.103 | 3.193 | 10 | 8 | sand to silty sand |
| 13.780 | 51.23 | 0.0326 | 0.064 | 2.942 | 12 | 8 | sand to silty sand |
| 13.944 | 50.07 | 0.0238 | 0.048 | 2.764 | 12 | 8 | sand to silty sand |
| 14.108 | 44.58 | 0.0230 | 0.052 | 2.521 | 11 | 8 | sand to silty sand |
| 14.272 | 39.19 | 0.0151 | 0.039 | 2.301 | 9 | 8 | sand to silty sand |
| 14.436 | 38.45 | 0.0052 | 0.013 | 2.226 | 9 | 8 | sand to silty sand |
| 14.600 | 37.98 | 0.0010 | 0.003 | 2.204 | 9 | 8 | sand to silty sand |
| 14.764 | 37.47 | 0.0100 | 0.027 | 2.388 | 9 | 8 | sand to silty sand |
| 14.928 | 36.93 | 0.0001 | 0.000 | 2.728 | 9 | 8 | sand to silty sand |
| 15.092 | 36.23 | 0.0012 | 0.003 | 3.034 | 9 | 8 | sand to silty sand |
| 15.256 | 35.98 | 0.0024 | 0.007 | 3.279 | 9 | 8 | sand to silty sand |
| 15.420 | 37.06 | 0.0031 | 0.008 | 3.446 | 9 | 8 | sand to silty sand |
| 15.584 | 38.22 | 0.0082 | 0.021 | 3.591 | 9 | 8 | sand to silty sand |
| 15.748 | 37.76 | 0.0069 | 0.018 | 3.694 | 9 | 8 | sand to silty sand |
| 15.912 | 43.29 | 0.0050 | 0.012 | 4.692 | 10 | 8 | sand to silty sand |
| 16.076 | 41.34 | 0.0060 | 0.014 | 4.226 | 10 | 8 | sand to silty sand |
| 16.240 | 40.33 | 0.0069 | 0.017 | 3.920 | 10 | 8 | sand to silty sand |
| 16.404 | 40.44 | 0.0078 | 0.019 | 3.733 | 10 | 8 | sand to silty sand |
| 16.568 | 39.60 | 0.0090 | 0.023 | 3.639 | 9 | 8 | sand to silty sand |
| 16.732 | 38.78 | 0.0090 | 0.023 | 3.527 | 9 | 8 | sand to silty sand |
| 16.896 | 38.51 | 0.0084 | 0.022 | 3.385 | 9 | 8 | sand to silty sand |
| 17.060 | 38.16 | 0.0076 | 0.020 | 3.293 | 9 | 8 | sand to silty sand |
| 17.224 | 38.09 | 0.0080 | 0.021 | 3.215 | 9 | 8 | sand to silty sand |
| 17.388 | 38.21 | 0.0067 | 0.017 | 3.193 | 9 | 8 | sand to silty sand |
| 17.552 | 39.37 | 0.0056 | 0.014 | 3.187 | 9 | 8 | sand to silty sand |
| 17.717 | 40.51 | 0.0097 | 0.024 | 3.187 | 10 | 8 | sand to silty sand |
| 17.881 | 41.44 | 0.0100 | 0.024 | 3.207 | 10 | 8 | sand to silty sand |
| 18.045 | 44.85 | 0.0124 | 0.028 | 3.293 | 11 | 8 | sand to silty sand |
| 18.209 | 48.11 | 0.0164 | 0.034 | 3.410 | 12 | 8 | sand to silty sand |
| 18.373 | 47.62 | 0.0240 | 0.050 | 3.391 | 11 | 8 | sand to silty sand |
| 18.537 | 46.34 | 0.0322 | 0.069 | 3.276 | 11 | 8 | sand to silty sand |
| 18.701 | 46.45 | 0.0227 | 0.049 | 3.232 | 11 | 8 | sand to silty sand |
| 18.865 | 51.06 | 0.0154 | 0.030 | 3.327 | 12 | 8 | sand to silty sand |
| 19.029 | 53.39 | 0.0296 | 0.055 | 3.561 | 13 | 8 | sand to silty sand |
| 19.193 | 54.99 | 0.0677 | 0.123 | 4.892 | 13 | 8 | sand to silty sand |
| 19.357 | 54.52 | 0.1319 | 0.242 | 4.578 | 13 | 8 | sand to silty sand |
| 19.521 | 56.83 | 0.1204 | 0.212 | 4.486 | 14 | 8 | sand to silty sand |
| 19.685 | 58.50 | 0.1258 | 0.215 | 4.447 | 14 | 8 | sand to silty sand |
| 19.849 | 66.36 | 0.1317 | 0.198 | 5.661 | 16 | 8 | sand to silty sand |
| 20.013 | 64.95 | 0.1393 | 0.215 | 5.235 | 16 | 8 | sand to silty sand |
| 20.177 | 65.03 | 0.1374 | 0.211 | 4.934 | 16 | 8 | sand to silty sand |
| 20.341 | 65.51 | 0.1282 | 0.196 | 4.745 | 16 | 8 | sand to silty sand |
| 20.505 | 66.63 | 0.1093 | 0.164 | 4.591 | 16 | 8 | sand to silty sand |
| 20.669 | 68.98 | 0.0707 | 0.102 | 4.394 | 17 | 8 | sand to silty sand |
| 20.833 | 70.55 | 0.0234 | 0.033 | 4.238 | 17 | 8 | sand to silty sand |
| 20.997 | 71.79 | 0.0173 | 0.024 | 3.995 | 14 | 9 | sand |
| 21.161 | 74.21 | 0.0311 | 0.042 | 3.761 | 14 | 9 | sand |
| 21.325 | 75.54 | 0.0603 | 0.080 | 3.508 | 14 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|---------------------------|------|
| 21.490 | 76.53 | 0.0787 | 0.103 | 3.335 | 15 | 9 | sand | |
| 21.654 | 77.54 | 0.0834 | 0.108 | 3.196 | 15 | 9 | sand | |
| 21.818 | 77.69 | 0.0836 | 0.108 | 3.012 | 15 | 9 | sand | |
| 21.982 | 77.90 | 0.0820 | 0.105 | 2.914 | 15 | 9 | sand | |
| 22.146 | 78.72 | 0.0175 | 0.022 | 2.903 | 15 | 9 | sand | |
| 22.310 | 80.08 | 0.0205 | 0.026 | 2.920 | 15 | 9 | sand | |
| 22.474 | 79.64 | 0.0314 | 0.039 | 3.767 | 15 | 9 | sand | |
| 22.638 | 78.05 | 0.0495 | 0.063 | 3.430 | 15 | 9 | sand | |
| 22.802 | 77.52 | 0.0678 | 0.087 | 2.984 | 15 | 9 | sand | |
| 22.966 | 77.66 | 0.0743 | 0.096 | 2.619 | 15 | 9 | sand | |
| 23.130 | 78.47 | 0.0613 | 0.078 | 2.287 | 15 | 9 | sand | |
| 23.294 | 80.71 | 0.0484 | 0.060 | 1.998 | 15 | 9 | sand | |
| 23.458 | 79.00 | 0.0317 | 0.040 | 1.655 | 15 | 9 | sand | |
| 23.622 | 77.02 | 0.0256 | 0.033 | 1.421 | 15 | 9 | sand | |
| 23.786 | 75.81 | 0.0178 | 0.023 | 1.218 | 15 | 9 | sand | |
| 23.950 | 74.97 | 0.0108 | 0.014 | 1.103 | 14 | 9 | sand | |
| 24.114 | 72.32 | 0.0090 | 0.012 | 1.050 | 14 | 9 | sand | |
| 24.278 | 69.93 | 0.0185 | 0.027 | 1.042 | 17 | 8 | sand to silty sand | |
| 24.442 | 68.54 | 0.0266 | 0.039 | 0.958 | 16 | 8 | sand to silty sand | |
| 24.606 | 66.94 | 0.0271 | 0.041 | 0.914 | 16 | 8 | sand to silty sand | |
| 24.770 | 66.01 | 0.0216 | 0.033 | 0.911 | 16 | 8 | sand to silty sand | |
| 24.934 | 64.21 | 0.0191 | 0.030 | 0.905 | 15 | 8 | sand to silty sand | |
| 25.098 | 62.47 | 0.0151 | 0.024 | 0.886 | 15 | 8 | sand to silty sand | |
| 25.262 | 60.92 | 0.0200 | 0.033 | 0.866 | 15 | 8 | sand to silty sand | |
| 25.427 | 59.59 | 0.0609 | 0.102 | 0.866 | 14 | 8 | sand to silty sand | |
| 25.591 | 50.35 | 0.0637 | 0.127 | 0.853 | 12 | 8 | sand to silty sand | |
| 25.755 | 56.73 | 0.0569 | 0.100 | 1.772 | 14 | 8 | sand to silty sand | |
| 25.919 | 56.16 | 0.0545 | 0.097 | 1.674 | 13 | 8 | sand to silty sand | |
| 26.083 | 55.46 | 0.0400 | 0.072 | 1.488 | 13 | 8 | sand to silty sand | |
| 26.247 | 56.02 | 0.0351 | 0.063 | 1.282 | 13 | 8 | sand to silty sand | |
| 26.411 | 67.48 | 0.0372 | 0.055 | 1.842 | 16 | 8 | sand to silty sand | |
| 26.575 | 65.31 | 0.0251 | 0.038 | 1.694 | 16 | 8 | sand to silty sand | |
| 26.739 | 64.72 | 0.0180 | 0.028 | 1.493 | 15 | 8 | sand to silty sand | |
| 26.903 | 62.75 | 0.0224 | 0.036 | 1.307 | 15 | 8 | sand to silty sand | |
| 27.067 | 61.91 | 0.0312 | 0.050 | 1.156 | 15 | 8 | sand to silty sand | |
| 27.231 | 62.93 | 0.0283 | 0.045 | 1.075 | 15 | 8 | sand to silty sand | |
| 27.395 | 64.86 | 0.0115 | 0.018 | 1.064 | 16 | 8 | sand to silty sand | |
| 27.559 | 63.78 | 0.0024 | 0.004 | 1.039 | 15 | 8 | sand to silty sand | |
| 27.723 | 59.53 | 0.0100 | 0.017 | 1.006 | 14 | 8 | sand to silty sand | |
| 27.887 | 57.50 | 0.0100 | 0.017 | 0.964 | 14 | 8 | sand to silty sand | |
| 28.051 | 55.91 | 0.0200 | 0.036 | 0.928 | 13 | 8 | sand to silty sand | |
| 28.215 | 54.04 | 0.0100 | 0.019 | 0.892 | 13 | 8 | sand to silty sand | |
| 28.379 | 52.74 | 0.0100 | 0.019 | 0.844 | 13 | 8 | sand to silty sand | |
| 28.543 | 48.81 | 0.0200 | 0.041 | 0.858 | 12 | 8 | sand to silty sand | |
| 28.707 | 46.83 | 0.0370 | 0.079 | 0.917 | 11 | 8 | sand to silty sand | |
| 28.871 | 47.09 | 0.0356 | 0.076 | 0.961 | 11 | 8 | sand to silty sand | |
| 29.035 | 44.97 | 0.0378 | 0.084 | 1.621 | 11 | 8 | sand to silty sand | |
| 29.199 | 44.56 | 0.0371 | 0.083 | 1.602 | 11 | 8 | sand to silty sand | |
| 29.364 | 45.15 | 0.0332 | 0.074 | 1.557 | 11 | 8 | sand to silty sand | |
| 29.528 | 46.23 | 0.0310 | 0.067 | 1.502 | 11 | 8 | sand to silty sand | |
| 29.692 | 46.68 | 0.0237 | 0.051 | 1.477 | 11 | 8 | sand to silty sand | |
| 29.856 | 47.78 | 0.0190 | 0.040 | 1.491 | 11 | 8 | sand to silty sand | |
| 30.020 | 49.50 | 0.0230 | 0.046 | 1.485 | 12 | 8 | sand to silty sand | |
| 30.184 | 50.37 | 0.0324 | 0.064 | 1.465 | 12 | 8 | sand to silty sand | |
| 30.348 | 54.79 | 0.0415 | 0.076 | 1.468 | 13 | 8 | sand to silty sand | |
| 30.512 | 60.90 | 0.0509 | 0.084 | 1.471 | 15 | 8 | sand to silty sand | |
| 30.676 | 62.50 | 0.0548 | 0.088 | 1.488 | 15 | 8 | sand to silty sand | |

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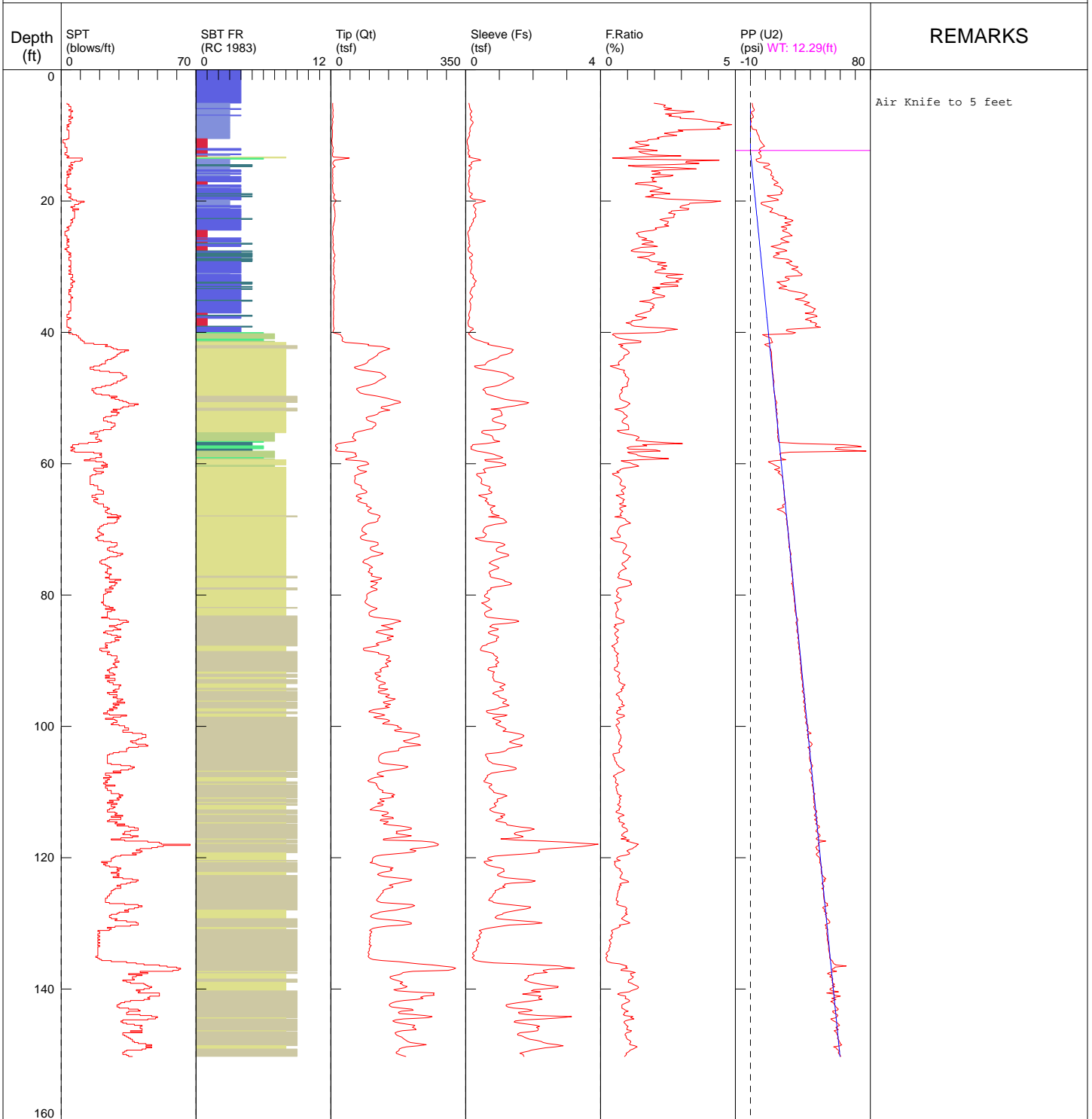
| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|-----------------------------------|
| 30.840 | 64.70 | 0.0488 | 0.075 | 1.491 | 15 | 8 | sand to silty sand |
| 31.004 | 67.96 | 0.0431 | 0.063 | 1.499 | 16 | 8 | sand to silty sand |
| 31.168 | 70.80 | 0.0377 | 0.053 | 1.569 | 17 | 8 | sand to silty sand |
| 31.332 | 75.39 | 0.0354 | 0.047 | 1.649 | 14 | 9 | sand |
| 31.496 | 81.43 | 0.0330 | 0.041 | 1.719 | 16 | 9 | sand |
| 31.660 | 85.31 | 0.0279 | 0.033 | 1.786 | 16 | 9 | sand |
| 31.824 | 86.81 | 0.0154 | 0.018 | 1.817 | 17 | 9 | sand |
| 31.988 | 89.41 | 0.0200 | 0.022 | 1.858 | 17 | 9 | sand |
| 32.152 | 83.48 | 0.0220 | 0.026 | 1.895 | 16 | 9 | sand |
| 32.316 | 84.15 | 0.0256 | 0.030 | 2.441 | 16 | 9 | sand |
| 32.480 | 83.18 | 0.0249 | 0.030 | 2.463 | 16 | 9 | sand |
| 32.644 | 81.35 | 0.0173 | 0.021 | 2.480 | 16 | 9 | sand |
| 32.808 | 78.83 | 0.0178 | 0.023 | 2.463 | 15 | 9 | sand |
| 32.972 | 87.74 | 0.0171 | 0.020 | 2.881 | 17 | 9 | sand |
| 33.136 | 84.74 | 0.0182 | 0.021 | 2.909 | 16 | 9 | sand |
| 33.301 | 83.58 | 0.0182 | 0.022 | 2.942 | 16 | 9 | sand |
| 33.465 | 83.62 | 0.0173 | 0.021 | 2.950 | 16 | 9 | sand |
| 33.629 | 83.08 | 0.0189 | 0.023 | 2.914 | 16 | 9 | sand |
| 33.793 | 82.21 | 0.0192 | 0.023 | 2.917 | 16 | 9 | sand |
| 33.957 | 81.82 | 0.0185 | 0.023 | 2.909 | 16 | 9 | sand |
| 34.121 | 80.44 | 0.0171 | 0.021 | 2.920 | 15 | 9 | sand |
| 34.285 | 79.83 | 0.0153 | 0.019 | 2.962 | 15 | 9 | sand |
| 34.449 | 79.64 | 0.0158 | 0.020 | 2.998 | 15 | 9 | sand |
| 34.613 | 78.32 | 0.0179 | 0.023 | 3.017 | 15 | 9 | sand |
| 34.777 | 77.37 | 0.0200 | 0.026 | 3.059 | 15 | 9 | sand |
| 34.941 | 76.56 | 0.0212 | 0.028 | 3.104 | 15 | 9 | sand |
| 35.105 | 75.85 | 0.0210 | 0.028 | 3.120 | 15 | 9 | sand |
| 35.269 | 75.18 | 0.0240 | 0.032 | 3.151 | 14 | 9 | sand |
| 35.433 | 74.89 | 0.0236 | 0.032 | 3.187 | 14 | 9 | sand |
| 35.597 | 71.11 | 0.0273 | 0.038 | 3.455 | 17 | 8 | sand to silty sand |
| 35.761 | 69.99 | 0.0323 | 0.046 | 3.480 | 17 | 8 | sand to silty sand |
| 35.925 | 69.14 | 0.0349 | 0.051 | 3.533 | 17 | 8 | sand to silty sand |
| 36.089 | 67.87 | 0.0366 | 0.054 | 3.602 | 16 | 8 | sand to silty sand |
| 36.253 | 66.66 | 0.0408 | 0.061 | 3.650 | 16 | 8 | sand to silty sand |
| 36.417 | 66.26 | 0.0387 | 0.058 | 3.689 | 16 | 8 | sand to silty sand |
| 36.581 | 66.18 | 0.0315 | 0.048 | 3.697 | 16 | 8 | sand to silty sand |
| 36.745 | 66.24 | 0.0219 | 0.033 | 3.697 | 16 | 8 | sand to silty sand |
| 36.909 | 66.28 | 0.0165 | 0.025 | 3.647 | 16 | 8 | sand to silty sand |
| 37.073 | 66.03 | 0.0126 | 0.019 | 3.586 | 16 | 8 | sand to silty sand |
| 37.238 | 64.66 | 0.0109 | 0.017 | 3.547 | 15 | 8 | sand to silty sand |
| 37.402 | 62.40 | 0.0089 | 0.014 | 3.510 | 15 | 8 | sand to silty sand |
| 37.566 | 60.68 | 0.0083 | 0.014 | 3.474 | 15 | 8 | sand to silty sand |
| 37.730 | 57.96 | 0.0085 | 0.015 | 3.430 | 14 | 8 | sand to silty sand |
| 37.894 | 55.17 | 0.0097 | 0.018 | 3.444 | 13 | 8 | sand to silty sand |
| 38.058 | 54.12 | 0.0111 | 0.020 | 3.485 | 13 | 8 | sand to silty sand |
| 38.222 | 53.38 | 0.0151 | 0.028 | 3.552 | 13 | 8 | sand to silty sand |
| 38.386 | 53.44 | 0.0218 | 0.041 | 3.600 | 13 | 8 | sand to silty sand |
| 38.550 | 55.01 | 0.0363 | 0.066 | 3.639 | 13 | 8 | sand to silty sand |
| 38.714 | 59.01 | 0.0969 | 0.164 | 3.725 | 14 | 8 | sand to silty sand |
| 38.878 | 72.57 | 0.1913 | 0.264 | 4.054 | 17 | 8 | sand to silty sand |
| 39.042 | 144.28 | 0.2346 | 0.163 | 6.753 | 28 | 9 | sand |
| 39.206 | 199.46 | 0.2294 | 0.115 | 10.855 | 32 | 10 | gravelly sand to sand |
| 39.370 | 220.69 | 0.2328 | 0.105 | 10.534 | 35 | 10 | gravelly sand to sand |
| 39.534 | 222.40 | 0.2105 | 0.095 | 4.076 | 35 | 10 | gravelly sand to sand |
| 39.698 | 204.38 | 0.1635 | 0.080 | 3.770 | 33 | 10 | gravelly sand to sand |
| 39.862 | 188.24 | 0.1324 | 0.070 | 3.162 | 30 | 10 | gravelly sand to sand |
| 40.026 | 171.70 | 0.1064 | 0.062 | 2.700 | 33 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 40.190 | 158.80 | 0.0764 | 0.048 | 2.457 | 30 | 9 | sand |
| 40.354 | 140.45 | 0.0458 | 0.033 | 2.279 | 27 | 9 | sand |
| 40.518 | 120.71 | 0.0310 | 0.026 | 2.193 | 23 | 9 | sand |
| 40.682 | 104.11 | 0.0291 | 0.028 | 2.154 | 20 | 9 | sand |
| 40.846 | 89.98 | 0.0552 | 0.061 | 2.179 | 17 | 9 | sand |
| 41.011 | 84.22 | 0.2009 | 0.239 | 2.329 | 20 | 8 | sand to silty sand |
| 41.175 | 98.24 | 0.2078 | 0.212 | 2.349 | 19 | 9 | sand |
| 41.339 | 191.38 | 0.2085 | 0.109 | 2.248 | 31 | 10 | gravelly sand to sand |
| 41.503 | 237.89 | 0.2039 | 0.086 | 2.126 | 38 | 10 | gravelly sand to sand |
| 41.667 | 257.92 | 0.2066 | 0.080 | 2.251 | 41 | 10 | gravelly sand to sand |
| 41.831 | 293.57 | 0.1162 | 0.040 | 2.719 | 47 | 10 | gravelly sand to sand |
| 41.995 | 319.40 | 0.1292 | 0.040 | 3.519 | 51 | 10 | gravelly sand to sand |
| 42.159 | 359.89 | 0.1868 | 0.052 | 3.446 | 57 | 10 | gravelly sand to sand |
| 42.323 | 405.29 | 0.2200 | 0.054 | 4.224 | 65 | 10 | gravelly sand to sand |
| 42.487 | 438.07 | 0.2501 | 0.057 | 5.959 | 70 | 10 | gravelly sand to sand |

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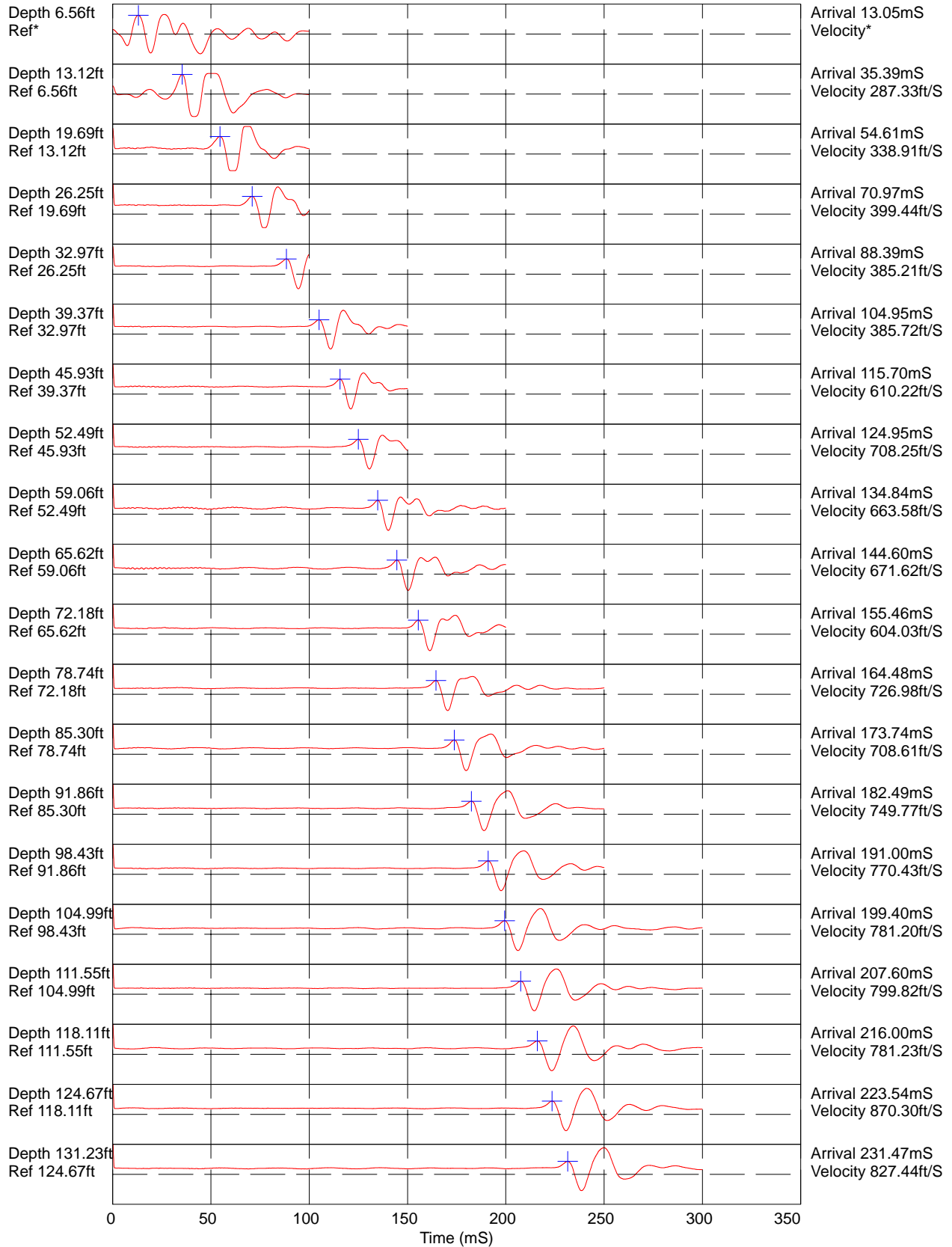
OPERATOR: OGE BAK
 CONE ID: DDG1615
 TEST DATE: 4/18/2023 10:38:43 AM
 TOTAL DEPTH: 150.263 ft



- | | | | |
|---|---|---|--|
| ■ 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 (*) |

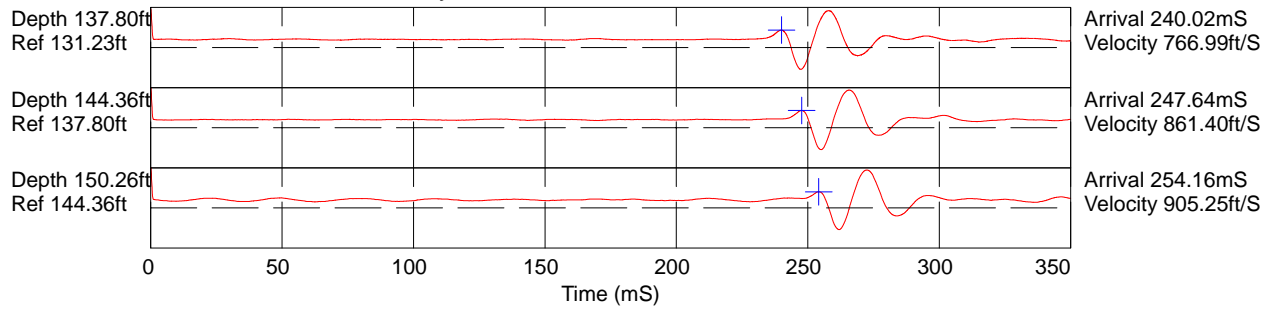
*SBT/SPT CORRELATION: UBC-1983

COMMENT: Haley & Aldrich / CPT-5a / 4580 NE Marine Dr Portland



Hammer to Rod String Distance (ft): 1.97
 * = Not Determined

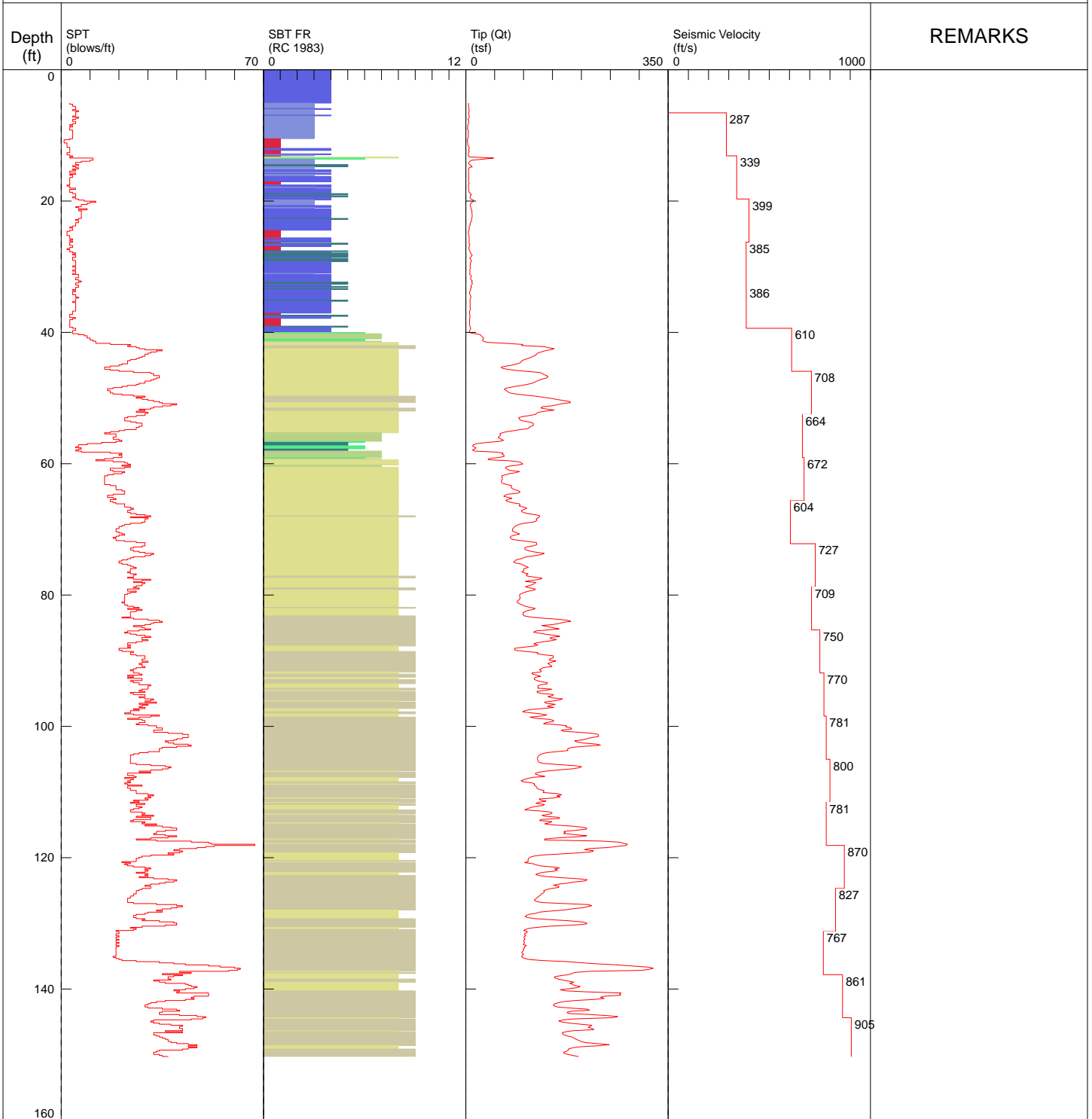
COMMENT: Haley & Aldrich / CPT-5a / 4580 NE Marine Dr Portland



Hammer to Rod String Distance (ft): 1.97
* = Not Determined

Haley & Aldrich / SCPT-5a / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1615
 TEST DATE: 4/18/2023 10:38:43 AM
 TOTAL DEPTH: 150.263 ft

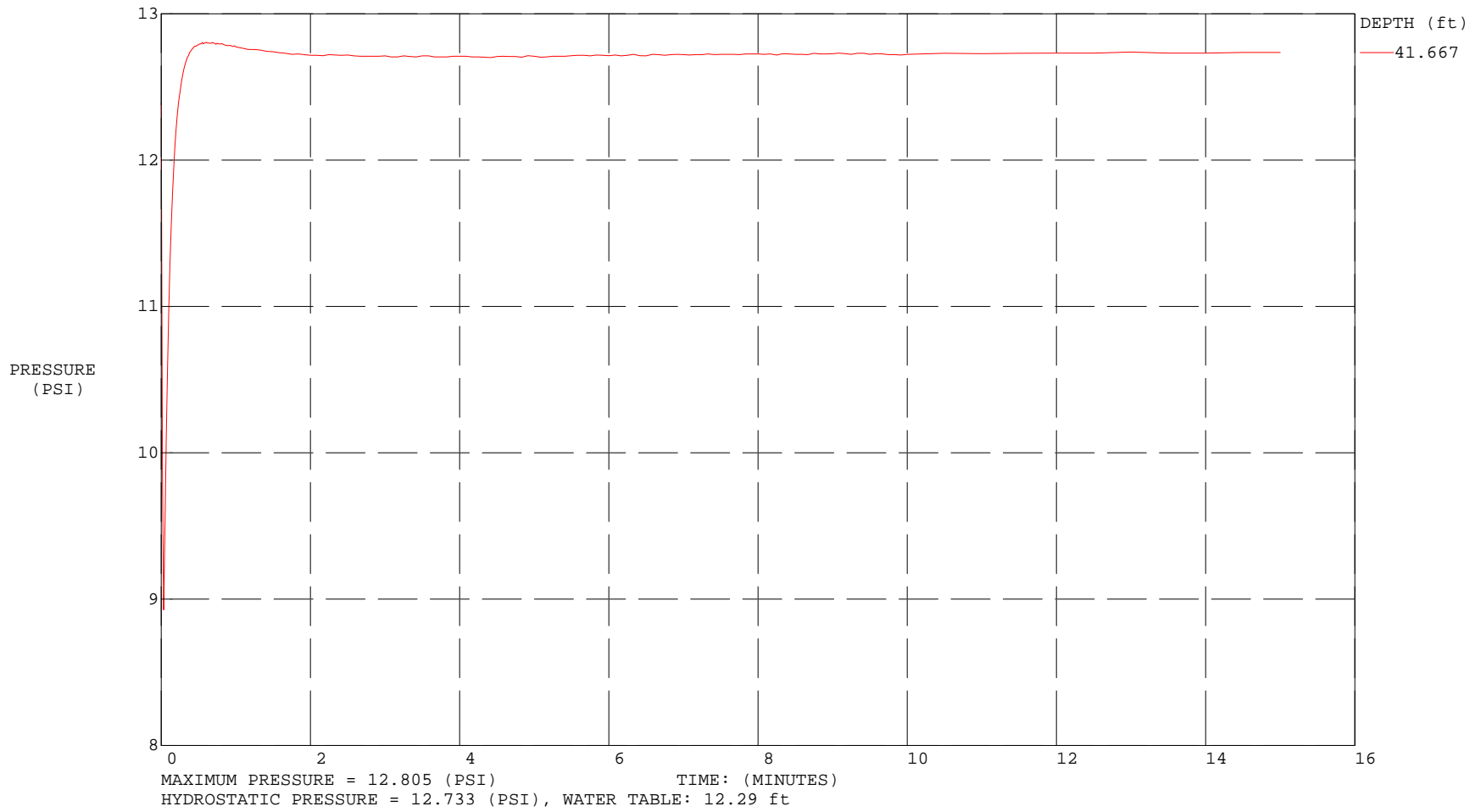


- | | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> ■ 1 sensitive fine grained ■ 2 organic material ■ 3 clay | <ul style="list-style-type: none"> ■ 4 silty clay to clay ■ 5 clayey silt to silty clay ■ 6 sandy silt to clayey silt | <ul style="list-style-type: none"> ■ 7 silty sand to sandy 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

COMMENT: Haley & Aldrich / SCPT-5a / 4580 NE Marine Dr Portland

CONE ID: DDG1615
TEST DATE: 4/18/2023 10:38:43 AM



Haley & Aldrich / SCPT-5a / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1615
 TEST DATE: 4/18/2023 10:38:43 AM
 TOTAL DEPTH: 150.263 ft

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 5.085 | 4.83 | 0.0958 | 1.984 | 1.126 | 3 | 4 | silty clay to clay |
| 5.249 | 4.58 | 0.1023 | 2.233 | 1.215 | 4 | 3 | clay |
| 5.413 | 4.59 | 0.1104 | 2.403 | 1.377 | 4 | 3 | clay |
| 5.577 | 4.78 | 0.1121 | 2.345 | 1.542 | 5 | 3 | clay |
| 5.741 | 4.96 | 0.1173 | 2.366 | 1.696 | 5 | 3 | clay |
| 5.906 | 4.98 | 0.1314 | 2.636 | 2.185 | 5 | 3 | clay |
| 6.070 | 5.63 | 0.1332 | 2.365 | 2.626 | 4 | 4 | silty clay to clay |
| 6.234 | 5.96 | 0.1701 | 2.852 | 2.423 | 6 | 3 | clay |
| 6.398 | 5.26 | 0.1823 | 3.467 | 1.130 | 5 | 3 | clay |
| 6.562 | 4.97 | 0.1485 | 2.988 | -0.058 | 5 | 3 | clay |
| 6.726 | 5.40 | 0.1299 | 2.403 | 1.210 | 5 | 3 | clay |
| 6.890 | 5.10 | 0.1341 | 2.632 | 1.297 | 5 | 3 | clay |
| 7.054 | 5.91 | 0.1497 | 2.532 | 1.840 | 4 | 4 | silty clay to clay |
| 7.218 | 6.11 | 0.1814 | 2.971 | 2.027 | 6 | 3 | clay |
| 7.382 | 5.03 | 0.1483 | 2.947 | 1.004 | 5 | 3 | clay |
| 7.546 | 3.73 | 0.1390 | 3.723 | 0.062 | 4 | 3 | clay |
| 7.710 | 4.26 | 0.1635 | 3.835 | 0.329 | 4 | 3 | clay |
| 7.874 | 5.19 | 0.2077 | 4.006 | 0.663 | 5 | 3 | clay |
| 8.038 | 4.85 | 0.2218 | 4.574 | 0.347 | 5 | 3 | clay |
| 8.202 | 4.69 | 0.2093 | 4.458 | 0.113 | 4 | 3 | clay |
| 8.366 | 3.62 | 0.1760 | 4.860 | 0.169 | 3 | 3 | clay |
| 8.530 | 3.69 | 0.1652 | 4.480 | 0.336 | 4 | 3 | clay |
| 8.694 | 3.19 | 0.1402 | 4.401 | 0.886 | 3 | 3 | clay |
| 8.858 | 2.87 | 0.1242 | 4.331 | 1.032 | 3 | 3 | clay |
| 9.022 | 2.81 | 0.1245 | 4.433 | 1.351 | 3 | 3 | clay |
| 9.186 | 4.37 | 0.1255 | 2.873 | 4.230 | 4 | 3 | clay |
| 9.350 | 4.38 | 0.1336 | 3.052 | 4.019 | 4 | 3 | clay |
| 9.514 | 4.43 | 0.1198 | 2.704 | 4.361 | 4 | 3 | clay |
| 9.678 | 4.20 | 0.0995 | 2.368 | 4.613 | 4 | 3 | clay |
| 9.843 | 4.15 | 0.1068 | 2.572 | 4.938 | 4 | 3 | clay |
| 10.007 | 4.13 | 0.1167 | 2.826 | 5.394 | 4 | 3 | clay |
| 10.171 | 4.26 | 0.0994 | 2.333 | 5.732 | 4 | 3 | clay |
| 10.335 | 3.99 | 0.0840 | 2.104 | 5.872 | 4 | 3 | clay |
| 10.499 | 3.19 | 0.0693 | 2.170 | 5.870 | 3 | 3 | clay |
| 10.663 | 2.79 | 0.0489 | 1.752 | 6.230 | 1 | 1 | sensitive fine grained |
| 10.827 | 2.39 | 0.0419 | 1.755 | 6.633 | 1 | 1 | sensitive fine grained |
| 10.991 | 3.06 | 0.0394 | 1.289 | 7.114 | 1 | 1 | sensitive fine grained |
| 11.155 | 3.18 | 0.0437 | 1.375 | 7.612 | 2 | 1 | sensitive fine grained |
| 11.319 | 3.19 | 0.0467 | 1.465 | 8.244 | 2 | 1 | sensitive fine grained |
| 11.483 | 3.55 | 0.0640 | 1.804 | 8.905 | 2 | 1 | sensitive fine grained |
| 11.647 | 4.41 | 0.0709 | 1.608 | 9.461 | 2 | 1 | sensitive fine grained |
| 11.811 | 5.97 | 0.0731 | 1.225 | 7.728 | 3 | 1 | sensitive fine grained |
| 11.975 | 5.99 | 0.0639 | 1.067 | 6.531 | 3 | 1 | sensitive fine grained |
| 12.139 | 4.91 | 0.0877 | 1.786 | 5.810 | 3 | 4 | silty clay to clay |
| 12.303 | 5.00 | 0.1052 | 2.105 | 6.455 | 3 | 4 | silty clay to clay |
| 12.467 | 6.00 | 0.0847 | 1.412 | 6.936 | 3 | 1 | sensitive fine grained |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 12.631 | 4.77 | 0.0710 | 1.488 | 5.478 | 2 | 1 | sensitive fine grained |
| 12.795 | 4.34 | 0.0741 | 1.707 | 6.037 | 2 | 1 | sensitive fine grained |
| 12.959 | 4.46 | 0.0855 | 1.918 | 6.740 | 3 | 4 | silty clay to clay |
| 13.123 | 4.25 | 0.1268 | 2.982 | 7.138 | 4 | 3 | clay |
| 13.287 | 6.62 | 0.0899 | 1.359 | 7.012 | 3 | 1 | sensitive fine grained |
| 13.451 | 47.86 | 0.2109 | 0.441 | 6.909 | 11 | 8 | sand to silty sand |
| 13.615 | 28.45 | 0.3908 | 1.374 | 3.812 | 11 | 6 | sandy silt to clayey silt |
| 13.780 | 10.13 | 0.4458 | 4.400 | 3.898 | 10 | 3 | clay |
| 13.944 | 7.30 | 0.2330 | 3.189 | 4.315 | 7 | 3 | clay |
| 14.108 | 5.20 | 0.1641 | 3.158 | 6.032 | 5 | 3 | clay |
| 14.272 | 4.89 | 0.1786 | 3.653 | 12.072 | 5 | 3 | clay |
| 14.436 | 6.01 | 0.1617 | 2.692 | 12.897 | 6 | 3 | clay |
| 14.600 | 8.64 | 0.0887 | 1.026 | 11.724 | 4 | 5 | clayey silt to silty clay |
| 14.764 | 11.21 | 0.1481 | 1.321 | 8.747 | 5 | 5 | clayey silt to silty clay |
| 14.928 | 6.11 | 0.1713 | 2.803 | 9.108 | 6 | 3 | clay |
| 15.092 | 4.63 | 0.1641 | 3.544 | 11.542 | 4 | 3 | clay |
| 15.256 | 4.71 | 0.1100 | 2.337 | 13.404 | 5 | 3 | clay |
| 15.420 | 4.92 | 0.0928 | 1.887 | 13.847 | 3 | 4 | silty clay to clay |
| 15.584 | 4.76 | 0.1028 | 2.161 | 14.090 | 3 | 4 | silty clay to clay |
| 15.748 | 4.75 | 0.1054 | 2.218 | 14.339 | 5 | 3 | clay |
| 15.912 | 5.13 | 0.0981 | 1.914 | 13.614 | 3 | 4 | silty clay to clay |
| 16.076 | 4.60 | 0.1237 | 2.689 | 13.580 | 4 | 3 | clay |
| 16.240 | 4.53 | 0.1170 | 2.586 | 15.187 | 4 | 3 | clay |
| 16.404 | 5.45 | 0.1021 | 1.874 | 15.438 | 3 | 4 | silty clay to clay |
| 16.568 | 4.97 | 0.0985 | 1.982 | 14.464 | 3 | 4 | silty clay to clay |
| 16.732 | 4.85 | 0.0928 | 1.914 | 15.365 | 3 | 4 | silty clay to clay |
| 16.896 | 4.76 | 0.0916 | 1.926 | 16.589 | 3 | 4 | silty clay to clay |
| 17.060 | 4.87 | 0.1013 | 2.079 | 17.750 | 3 | 4 | silty clay to clay |
| 17.224 | 5.71 | 0.0778 | 1.362 | 18.562 | 3 | 1 | sensitive fine grained |
| 17.388 | 5.44 | 0.0699 | 1.286 | 15.995 | 3 | 1 | sensitive fine grained |
| 17.552 | 4.27 | 0.0745 | 1.745 | 15.647 | 2 | 1 | sensitive fine grained |
| 17.717 | 4.43 | 0.0891 | 2.012 | 18.278 | 3 | 4 | silty clay to clay |
| 17.881 | 4.79 | 0.1023 | 2.135 | 20.089 | 3 | 4 | silty clay to clay |
| 18.045 | 4.74 | 0.1085 | 2.291 | 20.256 | 5 | 3 | clay |
| 18.209 | 4.98 | 0.1071 | 2.151 | 21.275 | 3 | 4 | silty clay to clay |
| 18.373 | 5.39 | 0.1036 | 1.923 | 21.740 | 3 | 4 | silty clay to clay |
| 18.537 | 5.44 | 0.0993 | 1.825 | 21.104 | 3 | 4 | silty clay to clay |
| 18.701 | 5.50 | 0.1286 | 2.338 | 20.233 | 4 | 4 | silty clay to clay |
| 18.865 | 7.66 | 0.1975 | 2.578 | 21.075 | 5 | 4 | silty clay to clay |
| 19.029 | 9.87 | 0.1855 | 1.879 | 19.457 | 5 | 5 | clayey silt to silty clay |
| 19.193 | 7.77 | 0.1525 | 1.964 | 11.188 | 5 | 4 | silty clay to clay |
| 19.357 | 7.46 | 0.1238 | 1.659 | 12.804 | 4 | 5 | clayey silt to silty clay |
| 19.521 | 7.31 | 0.1573 | 2.151 | 14.697 | 5 | 4 | silty clay to clay |
| 19.685 | 8.65 | 0.2116 | 2.447 | 17.668 | 6 | 4 | silty clay to clay |
| 19.849 | 13.12 | 0.4571 | 3.483 | 18.787 | 8 | 4 | silty clay to clay |
| 20.013 | 13.03 | 0.5804 | 4.456 | 13.947 | 12 | 3 | clay |
| 20.177 | 10.83 | 0.4444 | 4.102 | 7.770 | 10 | 3 | clay |
| 20.341 | 9.10 | 0.3012 | 3.311 | 7.012 | 9 | 3 | clay |
| 20.505 | 7.61 | 0.2493 | 3.276 | 7.717 | 7 | 3 | clay |
| 20.669 | 7.30 | 0.2221 | 3.043 | 9.777 | 7 | 3 | clay |
| 20.833 | 8.25 | 0.2441 | 2.957 | 11.500 | 5 | 4 | silty clay to clay |
| 20.997 | 8.93 | 0.2629 | 2.944 | 13.511 | 6 | 4 | silty clay to clay |
| 21.161 | 9.19 | 0.3007 | 3.273 | 14.880 | 9 | 3 | clay |
| 21.325 | 9.32 | 0.3021 | 3.241 | 14.299 | 6 | 4 | silty clay to clay |
| 21.490 | 10.79 | 0.2835 | 2.629 | 13.916 | 7 | 4 | silty clay to clay |
| 21.654 | 10.31 | 0.2708 | 2.626 | 12.839 | 7 | 4 | silty clay to clay |
| 21.818 | 10.68 | 0.2691 | 2.520 | 15.999 | 7 | 4 | silty clay to clay |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 21.982 | 10.83 | 0.2999 | 2.769 | 18.151 | 7 | 4 | silty clay to clay |
| 22.146 | 10.69 | 0.2907 | 2.718 | 18.914 | 7 | 4 | silty clay to clay |
| 22.310 | 11.18 | 0.3045 | 2.723 | 22.612 | 7 | 4 | silty clay to clay |
| 22.474 | 10.52 | 0.2863 | 2.722 | 24.194 | 7 | 4 | silty clay to clay |
| 22.638 | 10.04 | 0.2423 | 2.415 | 22.857 | 6 | 4 | silty clay to clay |
| 22.802 | 9.75 | 0.2142 | 2.197 | 26.996 | 5 | 5 | clayey silt to silty clay |
| 22.966 | 9.98 | 0.2332 | 2.336 | 28.415 | 6 | 4 | silty clay to clay |
| 23.130 | 8.98 | 0.2258 | 2.513 | 27.071 | 6 | 4 | silty clay to clay |
| 23.294 | 8.06 | 0.2011 | 2.496 | 22.897 | 5 | 4 | silty clay to clay |
| 23.458 | 7.20 | 0.1792 | 2.487 | 24.439 | 5 | 4 | silty clay to clay |
| 23.622 | 7.57 | 0.1792 | 2.368 | 26.996 | 5 | 4 | silty clay to clay |
| 23.786 | 6.36 | 0.1607 | 2.528 | 22.881 | 4 | 4 | silty clay to clay |
| 23.950 | 5.48 | 0.1251 | 2.284 | 20.565 | 3 | 4 | silty clay to clay |
| 24.114 | 5.63 | 0.1142 | 2.028 | 24.096 | 4 | 4 | silty clay to clay |
| 24.278 | 6.16 | 0.1279 | 2.076 | 24.143 | 4 | 4 | silty clay to clay |
| 24.442 | 5.34 | 0.1038 | 1.944 | 21.497 | 3 | 4 | silty clay to clay |
| 24.606 | 4.65 | 0.0765 | 1.644 | 21.675 | 2 | 1 | sensitive fine grained |
| 24.770 | 4.56 | 0.0644 | 1.410 | 24.553 | 2 | 1 | sensitive fine grained |
| 24.934 | 4.52 | 0.0599 | 1.324 | 25.997 | 2 | 1 | sensitive fine grained |
| 25.098 | 4.47 | 0.0622 | 1.390 | 26.591 | 2 | 1 | sensitive fine grained |
| 25.262 | 5.46 | 0.0774 | 1.416 | 27.921 | 3 | 1 | sensitive fine grained |
| 25.427 | 5.85 | 0.0827 | 1.414 | 23.504 | 3 | 1 | sensitive fine grained |
| 25.591 | 5.66 | 0.0916 | 1.619 | 21.655 | 3 | 1 | sensitive fine grained |
| 25.755 | 5.60 | 0.0959 | 1.714 | 20.242 | 4 | 4 | silty clay to clay |
| 25.919 | 6.03 | 0.0923 | 1.532 | 21.871 | 3 | 1 | sensitive fine grained |
| 26.083 | 5.68 | 0.1066 | 1.879 | 23.369 | 4 | 4 | silty clay to clay |
| 26.247 | 5.38 | 0.1053 | 1.957 | 25.897 | 3 | 4 | silty clay to clay |
| 26.411 | 5.62 | 0.0936 | 1.665 | 20.407 | 3 | 1 | sensitive fine grained |
| 26.575 | 6.88 | 0.1057 | 1.535 | 20.173 | 3 | 5 | clayey silt to silty clay |
| 26.739 | 6.47 | 0.1254 | 1.937 | 17.407 | 4 | 4 | silty clay to clay |
| 26.903 | 5.54 | 0.1168 | 2.110 | 13.765 | 4 | 4 | silty clay to clay |
| 27.067 | 5.50 | 0.0821 | 1.491 | 16.437 | 3 | 1 | sensitive fine grained |
| 27.231 | 5.14 | 0.0702 | 1.368 | 18.718 | 2 | 1 | sensitive fine grained |
| 27.395 | 5.70 | 0.0684 | 1.198 | 22.766 | 3 | 1 | sensitive fine grained |
| 27.559 | 6.77 | 0.0764 | 1.127 | 24.328 | 3 | 1 | sensitive fine grained |
| 27.723 | 7.56 | 0.0959 | 1.269 | 21.175 | 4 | 5 | clayey silt to silty clay |
| 27.887 | 7.60 | 0.1508 | 1.984 | 16.962 | 5 | 4 | silty clay to clay |
| 28.051 | 9.35 | 0.1881 | 2.011 | 19.441 | 4 | 5 | clayey silt to silty clay |
| 28.215 | 11.05 | 0.2068 | 1.872 | 17.452 | 5 | 5 | clayey silt to silty clay |
| 28.379 | 9.86 | 0.1774 | 1.799 | 15.503 | 5 | 5 | clayey silt to silty clay |
| 28.543 | 8.53 | 0.1169 | 1.371 | 15.412 | 4 | 5 | clayey silt to silty clay |
| 28.707 | 6.98 | 0.1143 | 1.638 | 18.436 | 4 | 4 | silty clay to clay |
| 28.871 | 7.85 | 0.1413 | 1.798 | 25.142 | 4 | 5 | clayey silt to silty clay |
| 29.035 | 9.56 | 0.1730 | 1.811 | 26.459 | 5 | 5 | clayey silt to silty clay |
| 29.199 | 9.71 | 0.1859 | 1.913 | 27.694 | 5 | 5 | clayey silt to silty clay |
| 29.364 | 7.67 | 0.1857 | 2.422 | 23.936 | 5 | 4 | silty clay to clay |
| 29.528 | 7.78 | 0.1660 | 2.133 | 25.905 | 5 | 4 | silty clay to clay |
| 29.692 | 7.56 | 0.1602 | 2.119 | 26.584 | 5 | 4 | silty clay to clay |
| 29.856 | 7.05 | 0.1733 | 2.460 | 28.516 | 4 | 4 | silty clay to clay |
| 30.020 | 7.76 | 0.1799 | 2.318 | 31.822 | 5 | 4 | silty clay to clay |
| 30.184 | 8.04 | 0.1817 | 2.259 | 30.701 | 5 | 4 | silty clay to clay |
| 30.348 | 7.07 | 0.1709 | 2.417 | 27.610 | 5 | 4 | silty clay to clay |
| 30.512 | 6.96 | 0.1478 | 2.122 | 29.937 | 4 | 4 | silty clay to clay |
| 30.676 | 7.14 | 0.1448 | 2.028 | 31.904 | 5 | 4 | silty clay to clay |
| 30.840 | 7.16 | 0.1442 | 2.013 | 31.951 | 5 | 4 | silty clay to clay |
| 31.004 | 6.53 | 0.1490 | 2.282 | 33.487 | 4 | 4 | silty clay to clay |
| 31.168 | 6.61 | 0.2026 | 3.066 | 34.588 | 6 | 3 | clay |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 31.332 | 9.06 | 0.2232 | 2.465 | 33.954 | 6 | 4 | silty clay to clay |
| 31.496 | 9.38 | 0.2276 | 2.426 | 23.496 | 6 | 4 | silty clay to clay |
| 31.660 | 8.32 | 0.2097 | 2.520 | 23.200 | 5 | 4 | silty clay to clay |
| 31.824 | 8.15 | 0.2461 | 3.019 | 25.821 | 5 | 4 | silty clay to clay |
| 31.988 | 9.07 | 0.2657 | 2.928 | 25.843 | 6 | 4 | silty clay to clay |
| 32.152 | 11.24 | 0.3142 | 2.794 | 23.854 | 7 | 4 | silty clay to clay |
| 32.316 | 9.85 | 0.2860 | 2.905 | 17.708 | 6 | 4 | silty clay to clay |
| 32.480 | 11.28 | 0.2665 | 2.362 | 19.406 | 5 | 5 | clayey silt to silty clay |
| 32.644 | 11.03 | 0.2443 | 2.214 | 19.949 | 5 | 5 | clayey silt to silty clay |
| 32.808 | 9.36 | 0.2667 | 2.849 | 21.115 | 6 | 4 | silty clay to clay |
| 32.972 | 8.81 | 0.2523 | 2.866 | 24.092 | 6 | 4 | silty clay to clay |
| 33.136 | 10.15 | 0.1966 | 1.937 | 20.002 | 5 | 5 | clayey silt to silty clay |
| 33.301 | 7.97 | 0.1754 | 2.202 | 19.108 | 5 | 4 | silty clay to clay |
| 33.465 | 8.50 | 0.1634 | 1.922 | 24.141 | 4 | 5 | clayey silt to silty clay |
| 33.629 | 7.91 | 0.1528 | 1.931 | 25.825 | 5 | 4 | silty clay to clay |
| 33.793 | 6.80 | 0.1364 | 2.006 | 29.828 | 4 | 4 | silty clay to clay |
| 33.957 | 6.50 | 0.1246 | 1.917 | 34.054 | 4 | 4 | silty clay to clay |
| 34.121 | 6.71 | 0.1374 | 2.049 | 36.319 | 4 | 4 | silty clay to clay |
| 34.285 | 7.55 | 0.1656 | 2.194 | 37.973 | 5 | 4 | silty clay to clay |
| 34.449 | 8.27 | 0.1973 | 2.387 | 36.493 | 5 | 4 | silty clay to clay |
| 34.613 | 8.62 | 0.2011 | 2.334 | 36.028 | 6 | 4 | silty clay to clay |
| 34.777 | 8.41 | 0.1684 | 2.002 | 34.755 | 5 | 4 | silty clay to clay |
| 34.941 | 7.36 | 0.1403 | 1.905 | 29.926 | 5 | 4 | silty clay to clay |
| 35.105 | 7.11 | 0.1298 | 1.825 | 33.440 | 5 | 4 | silty clay to clay |
| 35.269 | 7.67 | 0.1115 | 1.453 | 36.484 | 4 | 5 | clayey silt to silty clay |
| 35.433 | 7.13 | 0.1295 | 1.817 | 39.401 | 5 | 4 | silty clay to clay |
| 35.597 | 7.42 | 0.1417 | 1.910 | 37.990 | 5 | 4 | silty clay to clay |
| 35.761 | 7.40 | 0.1475 | 1.993 | 35.919 | 5 | 4 | silty clay to clay |
| 35.925 | 7.36 | 0.1456 | 1.978 | 38.475 | 5 | 4 | silty clay to clay |
| 36.089 | 7.44 | 0.1427 | 1.918 | 40.287 | 5 | 4 | silty clay to clay |
| 36.253 | 7.34 | 0.1448 | 1.972 | 41.546 | 5 | 4 | silty clay to clay |
| 36.417 | 7.81 | 0.1438 | 1.841 | 43.444 | 5 | 4 | silty clay to clay |
| 36.581 | 7.49 | 0.1405 | 1.875 | 42.432 | 5 | 4 | silty clay to clay |
| 36.745 | 6.74 | 0.1235 | 1.832 | 42.260 | 4 | 4 | silty clay to clay |
| 36.909 | 6.53 | 0.1097 | 1.680 | 41.940 | 4 | 4 | silty clay to clay |
| 37.073 | 6.43 | 0.1000 | 1.555 | 36.522 | 4 | 4 | silty clay to clay |
| 37.238 | 6.54 | 0.0916 | 1.399 | 41.088 | 3 | 1 | sensitive fine grained |
| 37.402 | 6.91 | 0.0892 | 1.292 | 43.745 | 3 | 1 | sensitive fine grained |
| 37.566 | 7.29 | 0.0984 | 1.350 | 44.459 | 3 | 5 | clayey silt to silty clay |
| 37.730 | 7.16 | 0.1221 | 1.705 | 40.434 | 5 | 4 | silty clay to clay |
| 37.894 | 6.88 | 0.1074 | 1.560 | 38.264 | 4 | 4 | silty clay to clay |
| 38.058 | 6.42 | 0.0973 | 1.515 | 36.651 | 3 | 1 | sensitive fine grained |
| 38.222 | 6.48 | 0.0754 | 1.163 | 40.638 | 3 | 1 | sensitive fine grained |
| 38.386 | 6.42 | 0.0747 | 1.163 | 40.002 | 3 | 1 | sensitive fine grained |
| 38.550 | 6.45 | 0.0611 | 0.947 | 43.442 | 3 | 1 | sensitive fine grained |
| 38.714 | 6.27 | 0.0705 | 1.124 | 44.274 | 3 | 1 | sensitive fine grained |
| 38.878 | 6.74 | 0.0768 | 1.140 | 43.260 | 3 | 1 | sensitive fine grained |
| 39.042 | 6.84 | 0.0854 | 1.248 | 43.389 | 3 | 1 | sensitive fine grained |
| 39.206 | 7.60 | 0.1308 | 1.721 | 46.771 | 4 | 5 | clayey silt to silty clay |
| 39.370 | 8.43 | 0.2151 | 2.551 | 36.913 | 5 | 4 | silty clay to clay |
| 39.534 | 7.89 | 0.2249 | 2.851 | 24.481 | 5 | 4 | silty clay to clay |
| 39.698 | 6.63 | 0.1611 | 2.431 | 23.905 | 4 | 4 | silty clay to clay |
| 39.862 | 5.83 | 0.1382 | 2.370 | 25.892 | 4 | 4 | silty clay to clay |
| 40.026 | 5.86 | 0.1210 | 2.066 | 30.080 | 4 | 4 | silty clay to clay |
| 40.190 | 16.53 | 0.0809 | 0.489 | 28.030 | 6 | 6 | sandy silt to clayey silt |
| 40.354 | 25.00 | 0.1086 | 0.434 | 8.193 | 8 | 7 | silty sand to sandy silt |
| 40.518 | 26.69 | 0.1420 | 0.532 | 9.626 | 9 | 7 | silty sand to sandy silt |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 40.682 | 28.82 | 0.1627 | 0.565 | 11.762 | 9 | 7 | silty sand to sandy silt |
| 40.846 | 30.71 | 0.2078 | 0.677 | 13.554 | 10 | 7 | silty sand to sandy silt |
| 41.011 | 30.40 | 0.2610 | 0.859 | 13.836 | 10 | 7 | silty sand to sandy silt |
| 41.175 | 28.89 | 0.3402 | 1.178 | 13.927 | 11 | 6 | sandy silt to clayey silt |
| 41.339 | 30.10 | 0.4518 | 1.501 | 14.306 | 12 | 6 | sandy silt to clayey silt |
| 41.503 | 37.40 | 0.5555 | 1.485 | 14.773 | 12 | 7 | silty sand to sandy silt |
| 41.667 | 69.75 | 0.6841 | 0.981 | 12.370 | 17 | 8 | sand to silty sand |
| 41.831 | 98.32 | 0.6560 | 0.667 | 9.455 | 24 | 8 | sand to silty sand |
| 41.995 | 96.59 | 0.8007 | 0.829 | 10.647 | 23 | 8 | sand to silty sand |
| 42.159 | 134.66 | 0.9908 | 0.736 | 12.492 | 26 | 9 | sand |
| 42.323 | 143.25 | 1.1532 | 0.805 | 13.006 | 27 | 9 | sand |
| 42.487 | 152.83 | 1.3366 | 0.875 | 13.224 | 29 | 9 | sand |
| 42.651 | 145.34 | 1.4153 | 0.974 | 13.574 | 35 | 8 | sand to silty sand |
| 42.815 | 136.40 | 1.3730 | 1.007 | 13.729 | 33 | 8 | sand to silty sand |
| 42.979 | 130.04 | 1.3726 | 1.056 | 14.130 | 31 | 8 | sand to silty sand |
| 43.143 | 124.65 | 1.3179 | 1.057 | 14.108 | 30 | 8 | sand to silty sand |
| 43.307 | 121.71 | 1.2256 | 1.007 | 14.116 | 29 | 8 | sand to silty sand |
| 43.471 | 121.22 | 1.0909 | 0.900 | 14.157 | 29 | 8 | sand to silty sand |
| 43.635 | 116.75 | 1.0043 | 0.860 | 14.217 | 28 | 8 | sand to silty sand |
| 43.799 | 111.88 | 0.9748 | 0.871 | 14.214 | 27 | 8 | sand to silty sand |
| 43.963 | 108.13 | 0.9186 | 0.850 | 14.203 | 26 | 8 | sand to silty sand |
| 44.127 | 102.03 | 0.8076 | 0.792 | 14.286 | 24 | 8 | sand to silty sand |
| 44.291 | 97.44 | 0.7159 | 0.735 | 14.254 | 23 | 8 | sand to silty sand |
| 44.455 | 96.12 | 0.6537 | 0.680 | 14.406 | 23 | 8 | sand to silty sand |
| 44.619 | 94.20 | 0.6205 | 0.659 | 14.510 | 23 | 8 | sand to silty sand |
| 44.783 | 89.12 | 0.5925 | 0.665 | 14.437 | 21 | 8 | sand to silty sand |
| 44.948 | 81.47 | 0.5717 | 0.702 | 14.450 | 20 | 8 | sand to silty sand |
| 45.112 | 71.82 | 0.2595 | 0.361 | 14.508 | 17 | 8 | sand to silty sand |
| 45.276 | 61.36 | 0.2803 | 0.457 | 14.651 | 15 | 8 | sand to silty sand |
| 45.440 | 62.36 | 0.3643 | 0.584 | 14.566 | 15 | 8 | sand to silty sand |
| 45.604 | 71.40 | 0.5092 | 0.713 | 14.675 | 17 | 8 | sand to silty sand |
| 45.768 | 84.30 | 0.7458 | 0.885 | 14.684 | 20 | 8 | sand to silty sand |
| 45.932 | 104.17 | 0.9055 | 0.869 | 14.780 | 25 | 8 | sand to silty sand |
| 46.096 | 128.07 | 1.0957 | 0.856 | 14.826 | 31 | 8 | sand to silty sand |
| 46.260 | 132.76 | 1.1922 | 0.898 | 14.851 | 32 | 8 | sand to silty sand |
| 46.424 | 134.94 | 1.2545 | 0.930 | 15.145 | 32 | 8 | sand to silty sand |
| 46.588 | 140.12 | 1.2677 | 0.905 | 15.165 | 34 | 8 | sand to silty sand |
| 46.752 | 142.47 | 1.3812 | 0.970 | 15.147 | 34 | 8 | sand to silty sand |
| 46.916 | 139.84 | 1.4309 | 1.023 | 15.262 | 33 | 8 | sand to silty sand |
| 47.080 | 133.08 | 1.4037 | 1.055 | 15.325 | 32 | 8 | sand to silty sand |
| 47.244 | 127.59 | 1.3139 | 1.030 | 15.474 | 31 | 8 | sand to silty sand |
| 47.408 | 122.82 | 1.2566 | 1.023 | 15.774 | 29 | 8 | sand to silty sand |
| 47.572 | 119.14 | 1.2035 | 1.010 | 15.788 | 29 | 8 | sand to silty sand |
| 47.736 | 114.76 | 1.1211 | 0.977 | 15.601 | 27 | 8 | sand to silty sand |
| 47.900 | 107.08 | 1.0649 | 0.995 | 15.463 | 26 | 8 | sand to silty sand |
| 48.064 | 96.90 | 0.9713 | 1.002 | 15.485 | 23 | 8 | sand to silty sand |
| 48.228 | 85.93 | 0.8500 | 0.989 | 15.440 | 21 | 8 | sand to silty sand |
| 48.392 | 74.39 | 0.5983 | 0.804 | 15.585 | 18 | 8 | sand to silty sand |
| 48.556 | 67.02 | 0.5480 | 0.818 | 15.670 | 16 | 8 | sand to silty sand |
| 48.720 | 67.11 | 0.5066 | 0.755 | 15.590 | 16 | 8 | sand to silty sand |
| 48.885 | 70.42 | 0.5627 | 0.799 | 15.792 | 17 | 8 | sand to silty sand |
| 49.049 | 72.59 | 0.5838 | 0.804 | 15.863 | 17 | 8 | sand to silty sand |
| 49.213 | 76.35 | 0.5886 | 0.771 | 15.839 | 18 | 8 | sand to silty sand |
| 49.377 | 87.03 | 0.6261 | 0.719 | 16.048 | 21 | 8 | sand to silty sand |
| 49.541 | 102.69 | 0.7266 | 0.708 | 16.253 | 25 | 8 | sand to silty sand |
| 49.705 | 120.04 | 0.8356 | 0.696 | 16.431 | 29 | 8 | sand to silty sand |
| 49.869 | 133.54 | 0.9588 | 0.718 | 16.504 | 26 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 50.033 | 146.56 | 1.0469 | 0.714 | 16.629 | 28 | 9 | sand |
| 50.197 | 157.18 | 1.1699 | 0.744 | 16.680 | 30 | 9 | sand |
| 50.361 | 167.83 | 1.3836 | 0.824 | 16.934 | 32 | 9 | sand |
| 50.525 | 179.68 | 1.6871 | 0.939 | 17.403 | 34 | 9 | sand |
| 50.689 | 180.97 | 1.8702 | 1.033 | 17.657 | 35 | 9 | sand |
| 50.853 | 165.92 | 1.8063 | 1.089 | 17.392 | 40 | 8 | sand to silty sand |
| 51.017 | 158.09 | 1.6137 | 1.021 | 16.847 | 38 | 8 | sand to silty sand |
| 51.181 | 147.24 | 1.4593 | 0.991 | 17.216 | 35 | 8 | sand to silty sand |
| 51.345 | 131.96 | 1.2321 | 0.934 | 17.056 | 32 | 8 | sand to silty sand |
| 51.509 | 130.06 | 1.0550 | 0.811 | 17.152 | 31 | 8 | sand to silty sand |
| 51.673 | 140.53 | 0.7507 | 0.534 | 17.565 | 27 | 9 | sand |
| 51.837 | 153.03 | 1.0056 | 0.657 | 17.599 | 29 | 9 | sand |
| 52.001 | 136.79 | 1.0387 | 0.759 | 16.891 | 26 | 9 | sand |
| 52.165 | 125.94 | 1.0590 | 0.841 | 17.552 | 30 | 8 | sand to silty sand |
| 52.329 | 122.39 | 1.0576 | 0.864 | 17.942 | 29 | 8 | sand to silty sand |
| 52.493 | 120.04 | 1.0824 | 0.902 | 17.821 | 29 | 8 | sand to silty sand |
| 52.657 | 110.51 | 1.0762 | 0.974 | 17.508 | 26 | 8 | sand to silty sand |
| 52.822 | 98.08 | 0.9730 | 0.992 | 17.534 | 23 | 8 | sand to silty sand |
| 52.986 | 91.56 | 0.8667 | 0.947 | 17.559 | 22 | 8 | sand to silty sand |
| 53.150 | 92.66 | 0.7998 | 0.863 | 17.897 | 22 | 8 | sand to silty sand |
| 53.314 | 93.61 | 0.7902 | 0.844 | 18.035 | 22 | 8 | sand to silty sand |
| 53.478 | 99.60 | 0.7984 | 0.802 | 18.222 | 24 | 8 | sand to silty sand |
| 53.642 | 109.44 | 0.8740 | 0.799 | 18.304 | 26 | 8 | sand to silty sand |
| 53.806 | 116.27 | 0.9912 | 0.852 | 18.258 | 28 | 8 | sand to silty sand |
| 53.970 | 116.84 | 1.1344 | 0.971 | 18.191 | 28 | 8 | sand to silty sand |
| 54.134 | 116.71 | 1.1976 | 1.026 | 18.108 | 28 | 8 | sand to silty sand |
| 54.298 | 113.35 | 1.1722 | 1.034 | 18.002 | 27 | 8 | sand to silty sand |
| 54.462 | 109.30 | 1.1430 | 1.046 | 18.120 | 26 | 8 | sand to silty sand |
| 54.626 | 108.18 | 1.1234 | 1.038 | 18.177 | 26 | 8 | sand to silty sand |
| 54.790 | 93.88 | 0.9797 | 1.044 | 18.066 | 22 | 8 | sand to silty sand |
| 54.954 | 84.11 | 0.5229 | 0.622 | 17.999 | 20 | 8 | sand to silty sand |
| 55.118 | 71.07 | 0.4767 | 0.671 | 18.204 | 17 | 8 | sand to silty sand |
| 55.282 | 63.15 | 0.4767 | 0.755 | 17.950 | 15 | 8 | sand to silty sand |
| 55.446 | 58.86 | 0.5706 | 0.969 | 18.404 | 19 | 7 | silty sand to sandy silt |
| 55.610 | 60.13 | 0.6996 | 1.164 | 18.609 | 19 | 7 | silty sand to sandy silt |
| 55.774 | 58.93 | 0.7844 | 1.331 | 18.153 | 19 | 7 | silty sand to sandy silt |
| 55.938 | 56.16 | 0.8002 | 1.425 | 18.229 | 18 | 7 | silty sand to sandy silt |
| 56.102 | 57.28 | 0.8109 | 1.415 | 18.349 | 18 | 7 | silty sand to sandy silt |
| 56.266 | 61.50 | 0.8198 | 1.333 | 18.496 | 20 | 7 | silty sand to sandy silt |
| 56.430 | 65.06 | 0.8519 | 1.310 | 18.638 | 21 | 7 | silty sand to sandy silt |
| 56.594 | 58.26 | 1.0068 | 1.728 | 18.731 | 19 | 7 | silty sand to sandy silt |
| 56.759 | 37.11 | 0.8419 | 2.268 | 19.179 | 14 | 6 | sandy silt to clayey silt |
| 56.923 | 19.66 | 0.5969 | 3.036 | 33.393 | 9 | 5 | clayey silt to silty clay |
| 57.087 | 13.32 | 0.2080 | 1.562 | 62.031 | 6 | 5 | clayey silt to silty clay |
| 57.251 | 11.62 | 0.1994 | 1.717 | 70.994 | 6 | 5 | clayey silt to silty clay |
| 57.415 | 13.56 | 0.1504 | 1.109 | 74.058 | 5 | 6 | sandy silt to clayey silt |
| 57.579 | 17.61 | 0.1733 | 0.984 | 57.100 | 7 | 6 | sandy silt to clayey silt |
| 57.743 | 15.06 | 0.1562 | 1.037 | 56.459 | 6 | 6 | sandy silt to clayey silt |
| 57.907 | 11.39 | 0.2331 | 2.046 | 62.127 | 5 | 5 | clayey silt to silty clay |
| 58.071 | 15.07 | 0.3335 | 2.213 | 77.180 | 7 | 5 | clayey silt to silty clay |
| 58.235 | 53.43 | 0.5353 | 1.002 | 26.466 | 17 | 7 | silty sand to sandy silt |
| 58.399 | 64.60 | 0.6941 | 1.074 | 19.871 | 21 | 7 | silty sand to sandy silt |
| 58.563 | 63.13 | 0.8397 | 1.330 | 19.539 | 20 | 7 | silty sand to sandy silt |
| 58.727 | 66.41 | 0.9150 | 1.378 | 20.093 | 21 | 7 | silty sand to sandy silt |
| 58.891 | 66.08 | 1.0212 | 1.545 | 20.167 | 21 | 7 | silty sand to sandy silt |
| 59.055 | 55.83 | 1.1009 | 1.972 | 20.380 | 18 | 7 | silty sand to sandy silt |
| 59.219 | 39.27 | 0.9909 | 2.524 | 21.030 | 15 | 6 | sandy silt to clayey silt |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 59.383 | 38.61 | 0.5621 | 1.456 | 23.656 | 12 | 7 | silty sand to sandy silt |
| 59.547 | 76.99 | 0.5878 | 0.764 | 15.567 | 18 | 8 | sand to silty sand |
| 59.711 | 91.62 | 0.8145 | 0.889 | 11.911 | 22 | 8 | sand to silty sand |
| 59.875 | 96.29 | 1.0566 | 1.097 | 13.302 | 23 | 8 | sand to silty sand |
| 60.039 | 98.24 | 1.1825 | 1.204 | 15.104 | 24 | 8 | sand to silty sand |
| 60.203 | 88.64 | 1.1881 | 1.340 | 16.348 | 21 | 8 | sand to silty sand |
| 60.367 | 75.37 | 1.0653 | 1.413 | 17.617 | 24 | 7 | silty sand to sandy silt |
| 60.532 | 68.54 | 0.7946 | 1.159 | 19.261 | 22 | 7 | silty sand to sandy silt |
| 60.696 | 69.55 | 0.6012 | 0.864 | 19.308 | 17 | 8 | sand to silty sand |
| 60.860 | 72.20 | 0.5204 | 0.721 | 16.095 | 17 | 8 | sand to silty sand |
| 61.024 | 76.87 | 0.5548 | 0.722 | 18.006 | 18 | 8 | sand to silty sand |
| 61.188 | 92.73 | 0.5562 | 0.600 | 19.708 | 22 | 8 | sand to silty sand |
| 61.352 | 86.42 | 0.5950 | 0.688 | 18.395 | 21 | 8 | sand to silty sand |
| 61.516 | 75.40 | 0.3292 | 0.437 | 19.386 | 18 | 8 | sand to silty sand |
| 61.680 | 68.46 | 0.3215 | 0.470 | 20.302 | 16 | 8 | sand to silty sand |
| 61.844 | 61.78 | 0.3521 | 0.570 | 21.086 | 15 | 8 | sand to silty sand |
| 62.008 | 62.54 | 0.4115 | 0.658 | 21.399 | 15 | 8 | sand to silty sand |
| 62.172 | 63.24 | 0.4442 | 0.702 | 21.524 | 15 | 8 | sand to silty sand |
| 62.336 | 63.36 | 0.4715 | 0.744 | 21.658 | 15 | 8 | sand to silty sand |
| 62.500 | 61.88 | 0.4778 | 0.772 | 21.760 | 15 | 8 | sand to silty sand |
| 62.664 | 61.62 | 0.4773 | 0.775 | 21.822 | 15 | 8 | sand to silty sand |
| 62.828 | 61.73 | 0.4598 | 0.745 | 21.905 | 15 | 8 | sand to silty sand |
| 62.992 | 63.33 | 0.4540 | 0.717 | 21.929 | 15 | 8 | sand to silty sand |
| 63.156 | 71.06 | 0.5131 | 0.722 | 22.091 | 17 | 8 | sand to silty sand |
| 63.320 | 79.15 | 0.6174 | 0.780 | 22.310 | 19 | 8 | sand to silty sand |
| 63.484 | 79.07 | 0.7192 | 0.910 | 22.160 | 19 | 8 | sand to silty sand |
| 63.648 | 78.54 | 0.7264 | 0.925 | 22.129 | 19 | 8 | sand to silty sand |
| 63.812 | 80.71 | 0.7004 | 0.868 | 22.118 | 19 | 8 | sand to silty sand |
| 63.976 | 85.88 | 0.6758 | 0.787 | 22.314 | 21 | 8 | sand to silty sand |
| 64.140 | 91.84 | 0.7058 | 0.768 | 22.496 | 22 | 8 | sand to silty sand |
| 64.304 | 93.82 | 0.7762 | 0.827 | 22.601 | 22 | 8 | sand to silty sand |
| 64.469 | 90.14 | 0.7642 | 0.848 | 22.577 | 22 | 8 | sand to silty sand |
| 64.633 | 73.45 | 0.6333 | 0.862 | 22.505 | 18 | 8 | sand to silty sand |
| 64.797 | 67.31 | 0.3871 | 0.575 | 22.550 | 16 | 8 | sand to silty sand |
| 64.961 | 65.69 | 0.4358 | 0.664 | 22.788 | 16 | 8 | sand to silty sand |
| 65.125 | 73.92 | 0.5416 | 0.733 | 22.463 | 18 | 8 | sand to silty sand |
| 65.289 | 79.79 | 0.6322 | 0.792 | 22.879 | 19 | 8 | sand to silty sand |
| 65.453 | 70.79 | 0.6290 | 0.889 | 22.766 | 17 | 8 | sand to silty sand |
| 65.617 | 69.31 | 0.5757 | 0.831 | 22.846 | 17 | 8 | sand to silty sand |
| 65.781 | 73.59 | 0.6128 | 0.833 | 23.231 | 18 | 8 | sand to silty sand |
| 65.945 | 80.63 | 0.6726 | 0.834 | 23.369 | 19 | 8 | sand to silty sand |
| 66.109 | 92.93 | 0.6494 | 0.699 | 23.057 | 22 | 8 | sand to silty sand |
| 66.273 | 93.83 | 0.7219 | 0.769 | 21.477 | 22 | 8 | sand to silty sand |
| 66.437 | 92.15 | 0.8722 | 0.946 | 21.411 | 22 | 8 | sand to silty sand |
| 66.601 | 100.03 | 0.7906 | 0.790 | 22.385 | 24 | 8 | sand to silty sand |
| 66.765 | 105.20 | 0.7455 | 0.709 | 20.634 | 25 | 8 | sand to silty sand |
| 66.929 | 101.50 | 0.7287 | 0.718 | 17.833 | 24 | 8 | sand to silty sand |
| 67.093 | 96.40 | 0.7434 | 0.771 | 19.713 | 23 | 8 | sand to silty sand |
| 67.257 | 96.54 | 0.7988 | 0.827 | 21.362 | 23 | 8 | sand to silty sand |
| 67.421 | 99.80 | 0.7626 | 0.764 | 22.474 | 24 | 8 | sand to silty sand |
| 67.585 | 107.09 | 0.8004 | 0.747 | 23.180 | 26 | 8 | sand to silty sand |
| 67.749 | 119.95 | 0.8709 | 0.726 | 23.856 | 29 | 8 | sand to silty sand |
| 67.913 | 127.41 | 0.9923 | 0.779 | 24.056 | 31 | 8 | sand to silty sand |
| 68.077 | 127.39 | 0.6796 | 0.534 | 24.092 | 24 | 9 | sand |
| 68.241 | 125.07 | 0.9926 | 0.794 | 24.285 | 30 | 8 | sand to silty sand |
| 68.406 | 121.75 | 1.1153 | 0.916 | 23.818 | 29 | 8 | sand to silty sand |
| 68.570 | 122.86 | 1.1533 | 0.939 | 24.143 | 29 | 8 | sand to silty sand |

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| Depth ft | Tip (QT) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|---------------------------|------|
| 68.734 | 121.33 | 1.1847 | 0.976 | 24.481 | 29 | 8 | sand to silty sand | |
| 68.898 | 115.85 | 1.2179 | 1.051 | 24.330 | 28 | 8 | sand to silty sand | |
| 69.062 | 101.15 | 1.1258 | 1.113 | 24.350 | 24 | 8 | sand to silty sand | |
| 69.226 | 92.40 | 0.8731 | 0.945 | 24.288 | 22 | 8 | sand to silty sand | |
| 69.390 | 88.11 | 0.7190 | 0.816 | 24.608 | 21 | 8 | sand to silty sand | |
| 69.554 | 84.97 | 0.6170 | 0.726 | 24.871 | 20 | 8 | sand to silty sand | |
| 69.718 | 82.68 | 0.5689 | 0.688 | 24.962 | 20 | 8 | sand to silty sand | |
| 69.882 | 81.05 | 0.5471 | 0.675 | 25.031 | 19 | 8 | sand to silty sand | |
| 70.046 | 80.96 | 0.5275 | 0.652 | 25.080 | 19 | 8 | sand to silty sand | |
| 70.210 | 80.23 | 0.5082 | 0.633 | 25.107 | 19 | 8 | sand to silty sand | |
| 70.374 | 83.88 | 0.5110 | 0.609 | 25.180 | 20 | 8 | sand to silty sand | |
| 70.538 | 89.13 | 0.5658 | 0.635 | 25.269 | 21 | 8 | sand to silty sand | |
| 70.702 | 92.81 | 0.6073 | 0.654 | 25.340 | 22 | 8 | sand to silty sand | |
| 70.866 | 84.28 | 0.6043 | 0.717 | 25.160 | 20 | 8 | sand to silty sand | |
| 71.030 | 78.15 | 0.5726 | 0.733 | 25.267 | 19 | 8 | sand to silty sand | |
| 71.194 | 76.41 | 0.5473 | 0.716 | 25.396 | 18 | 8 | sand to silty sand | |
| 71.358 | 77.56 | 0.2854 | 0.368 | 25.447 | 19 | 8 | sand to silty sand | |
| 71.522 | 80.63 | 0.3457 | 0.429 | 25.569 | 19 | 8 | sand to silty sand | |
| 71.686 | 93.81 | 0.4628 | 0.493 | 25.523 | 22 | 8 | sand to silty sand | |
| 71.850 | 110.02 | 0.6288 | 0.571 | 25.725 | 26 | 8 | sand to silty sand | |
| 72.014 | 122.05 | 1.0093 | 0.827 | 25.794 | 29 | 8 | sand to silty sand | |
| 72.178 | 122.55 | 1.1174 | 0.912 | 25.819 | 29 | 8 | sand to silty sand | |
| 72.343 | 122.41 | 1.1646 | 0.951 | 26.150 | 29 | 8 | sand to silty sand | |
| 72.507 | 116.21 | 1.1149 | 0.959 | 25.832 | 28 | 8 | sand to silty sand | |
| 72.671 | 104.69 | 0.9881 | 0.944 | 25.643 | 25 | 8 | sand to silty sand | |
| 72.835 | 102.04 | 0.9400 | 0.921 | 26.014 | 24 | 8 | sand to silty sand | |
| 72.999 | 102.13 | 0.9052 | 0.886 | 26.255 | 24 | 8 | sand to silty sand | |
| 73.163 | 105.83 | 0.9112 | 0.861 | 26.379 | 25 | 8 | sand to silty sand | |
| 73.327 | 112.31 | 0.9244 | 0.823 | 26.520 | 27 | 8 | sand to silty sand | |
| 73.491 | 122.92 | 1.0228 | 0.832 | 26.809 | 29 | 8 | sand to silty sand | |
| 73.655 | 135.51 | 1.1365 | 0.839 | 27.029 | 32 | 8 | sand to silty sand | |
| 73.819 | 131.56 | 1.2657 | 0.962 | 27.120 | 31 | 8 | sand to silty sand | |
| 73.983 | 120.26 | 1.2711 | 1.057 | 26.778 | 29 | 8 | sand to silty sand | |
| 74.147 | 105.27 | 1.1689 | 1.110 | 26.515 | 25 | 8 | sand to silty sand | |
| 74.311 | 100.18 | 1.0471 | 1.045 | 26.575 | 24 | 8 | sand to silty sand | |
| 74.475 | 95.52 | 0.9770 | 1.023 | 27.018 | 23 | 8 | sand to silty sand | |
| 74.639 | 87.00 | 0.8744 | 1.005 | 26.531 | 21 | 8 | sand to silty sand | |
| 74.803 | 84.58 | 0.7864 | 0.930 | 26.738 | 20 | 8 | sand to silty sand | |
| 74.967 | 82.56 | 0.7362 | 0.892 | 26.727 | 20 | 8 | sand to silty sand | |
| 75.131 | 87.09 | 0.6981 | 0.802 | 27.051 | 21 | 8 | sand to silty sand | |
| 75.295 | 96.15 | 0.7611 | 0.792 | 27.247 | 23 | 8 | sand to silty sand | |
| 75.459 | 99.79 | 0.8301 | 0.832 | 27.189 | 24 | 8 | sand to silty sand | |
| 75.623 | 104.72 | 0.9234 | 0.882 | 27.330 | 25 | 8 | sand to silty sand | |
| 75.787 | 108.03 | 0.9821 | 0.909 | 27.648 | 26 | 8 | sand to silty sand | |
| 75.951 | 100.75 | 0.9663 | 0.959 | 27.189 | 24 | 8 | sand to silty sand | |
| 76.115 | 100.04 | 0.8559 | 0.856 | 27.180 | 24 | 8 | sand to silty sand | |
| 76.280 | 100.61 | 0.7681 | 0.763 | 27.456 | 24 | 8 | sand to silty sand | |
| 76.444 | 96.79 | 0.7042 | 0.728 | 27.601 | 23 | 8 | sand to silty sand | |
| 76.608 | 100.96 | 0.6879 | 0.681 | 27.792 | 24 | 8 | sand to silty sand | |
| 76.772 | 107.76 | 0.7101 | 0.659 | 27.910 | 26 | 8 | sand to silty sand | |
| 76.936 | 104.43 | 0.7361 | 0.705 | 27.779 | 25 | 8 | sand to silty sand | |
| 77.100 | 106.41 | 0.7217 | 0.678 | 27.886 | 25 | 8 | sand to silty sand | |
| 77.264 | 119.41 | 0.7540 | 0.631 | 28.053 | 23 | 9 | sand | |
| 77.428 | 131.55 | 0.8785 | 0.668 | 28.251 | 25 | 9 | sand | |
| 77.592 | 128.87 | 1.0423 | 0.809 | 28.431 | 31 | 8 | sand to silty sand | |
| 77.756 | 115.51 | 1.1473 | 0.993 | 28.244 | 28 | 8 | sand to silty sand | |
| 77.920 | 103.20 | 1.1581 | 1.122 | 27.928 | 25 | 8 | sand to silty sand | |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|---------------------------|------|
| 78.084 | 120.91 | 1.3084 | 1.082 | 28.309 | 29 | 8 | sand to silty | sand |
| 78.248 | 118.42 | 1.3623 | 1.150 | 27.305 | 28 | 8 | sand to silty | sand |
| 78.412 | 115.34 | 1.3206 | 1.145 | 28.164 | 28 | 8 | sand to silty | sand |
| 78.576 | 108.57 | 1.1280 | 1.039 | 28.022 | 26 | 8 | sand to silty | sand |
| 78.740 | 103.23 | 0.8954 | 0.867 | 28.104 | 25 | 8 | sand to silty | sand |
| 78.904 | 110.89 | 0.7383 | 0.666 | 28.596 | 27 | 8 | sand to silty | sand |
| 79.068 | 120.18 | 0.7542 | 0.628 | 28.211 | 23 | 9 | sand | |
| 79.232 | 119.04 | 0.7125 | 0.599 | 28.589 | 23 | 9 | sand | |
| 79.396 | 108.49 | 0.6352 | 0.586 | 28.638 | 26 | 8 | sand to silty | sand |
| 79.560 | 101.79 | 0.6466 | 0.635 | 28.832 | 24 | 8 | sand to silty | sand |
| 79.724 | 97.83 | 0.6475 | 0.662 | 28.860 | 23 | 8 | sand to silty | sand |
| 79.888 | 93.56 | 0.5934 | 0.634 | 28.818 | 22 | 8 | sand to silty | sand |
| 80.052 | 92.72 | 0.5570 | 0.601 | 28.976 | 22 | 8 | sand to silty | sand |
| 80.217 | 93.54 | 0.5603 | 0.599 | 29.250 | 22 | 8 | sand to silty | sand |
| 80.381 | 93.54 | 0.6145 | 0.657 | 29.272 | 22 | 8 | sand to silty | sand |
| 80.545 | 93.83 | 0.7003 | 0.746 | 29.183 | 22 | 8 | sand to silty | sand |
| 80.709 | 91.90 | 0.7047 | 0.767 | 29.317 | 22 | 8 | sand to silty | sand |
| 80.873 | 90.00 | 0.6662 | 0.740 | 29.174 | 22 | 8 | sand to silty | sand |
| 81.037 | 88.66 | 0.6026 | 0.680 | 29.399 | 21 | 8 | sand to silty | sand |
| 81.201 | 89.88 | 0.4715 | 0.525 | 29.628 | 22 | 8 | sand to silty | sand |
| 81.365 | 93.89 | 0.5386 | 0.574 | 29.779 | 22 | 8 | sand to silty | sand |
| 81.529 | 98.01 | 0.5854 | 0.597 | 29.617 | 23 | 8 | sand to silty | sand |
| 81.693 | 103.12 | 0.6232 | 0.604 | 29.670 | 25 | 8 | sand to silty | sand |
| 81.857 | 110.97 | 0.6851 | 0.617 | 29.835 | 27 | 8 | sand to silty | sand |
| 82.021 | 119.92 | 0.7476 | 0.623 | 29.966 | 23 | 9 | sand | |
| 82.185 | 117.01 | 0.7738 | 0.661 | 29.819 | 28 | 8 | sand to silty | sand |
| 82.349 | 107.30 | 0.6898 | 0.643 | 29.657 | 26 | 8 | sand to silty | sand |
| 82.513 | 102.15 | 0.6073 | 0.595 | 29.906 | 24 | 8 | sand to silty | sand |
| 82.677 | 98.90 | 0.5641 | 0.570 | 30.115 | 24 | 8 | sand to silty | sand |
| 82.841 | 99.14 | 0.5595 | 0.564 | 30.354 | 24 | 8 | sand to silty | sand |
| 83.005 | 98.91 | 0.5690 | 0.575 | 30.318 | 24 | 8 | sand to silty | sand |
| 83.169 | 101.20 | 0.5857 | 0.579 | 30.456 | 24 | 8 | sand to silty | sand |
| 83.333 | 111.99 | 0.6399 | 0.571 | 30.852 | 21 | 9 | sand | |
| 83.497 | 130.87 | 0.8559 | 0.654 | 31.095 | 25 | 9 | sand | |
| 83.661 | 156.66 | 1.1649 | 0.744 | 31.555 | 30 | 9 | sand | |
| 83.825 | 174.95 | 1.5004 | 0.858 | 31.546 | 34 | 9 | sand | |
| 83.990 | 181.34 | 1.5745 | 0.868 | 31.413 | 35 | 9 | sand | |
| 84.154 | 168.70 | 1.4607 | 0.866 | 30.342 | 32 | 9 | sand | |
| 84.318 | 161.31 | 1.1940 | 0.740 | 30.554 | 31 | 9 | sand | |
| 84.482 | 150.21 | 0.8015 | 0.534 | 30.734 | 29 | 9 | sand | |
| 84.646 | 131.32 | 0.7637 | 0.582 | 30.972 | 25 | 9 | sand | |
| 84.810 | 143.70 | 0.7136 | 0.497 | 31.299 | 28 | 9 | sand | |
| 84.974 | 150.99 | 0.8171 | 0.541 | 31.437 | 29 | 9 | sand | |
| 85.138 | 161.35 | 0.9683 | 0.600 | 31.553 | 31 | 9 | sand | |
| 85.302 | 142.61 | 0.9485 | 0.665 | 31.019 | 27 | 9 | sand | |
| 85.466 | 121.78 | 0.7804 | 0.641 | 30.948 | 23 | 9 | sand | |
| 85.630 | 117.15 | 0.6752 | 0.576 | 31.141 | 22 | 9 | sand | |
| 85.794 | 126.82 | 0.6757 | 0.533 | 31.626 | 24 | 9 | sand | |
| 85.958 | 137.77 | 0.7355 | 0.534 | 31.791 | 26 | 9 | sand | |
| 86.122 | 152.11 | 0.8505 | 0.559 | 32.169 | 29 | 9 | sand | |
| 86.286 | 162.44 | 0.9621 | 0.592 | 32.154 | 31 | 9 | sand | |
| 86.450 | 147.06 | 0.9726 | 0.661 | 31.464 | 28 | 9 | sand | |
| 86.614 | 145.94 | 0.9102 | 0.624 | 31.675 | 28 | 9 | sand | |
| 86.778 | 156.61 | 0.9172 | 0.586 | 32.256 | 30 | 9 | sand | |
| 86.942 | 147.68 | 0.9197 | 0.623 | 32.060 | 28 | 9 | sand | |
| 87.106 | 134.16 | 0.8555 | 0.638 | 31.922 | 26 | 9 | sand | |
| 87.270 | 121.56 | 0.7422 | 0.611 | 31.795 | 23 | 9 | sand | |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 87.434 | 117.65 | 0.6334 | 0.538 | 32.040 | 23 | 9 | sand |
| 87.598 | 124.78 | 0.6277 | 0.503 | 32.474 | 24 | 9 | sand |
| 87.762 | 118.41 | 0.4915 | 0.415 | 32.418 | 23 | 9 | sand |
| 87.927 | 99.84 | 0.4721 | 0.473 | 32.118 | 24 | 8 | sand to silty sand |
| 88.091 | 84.82 | 0.4490 | 0.529 | 32.314 | 20 | 8 | sand to silty sand |
| 88.255 | 84.07 | 0.4354 | 0.518 | 32.425 | 20 | 8 | sand to silty sand |
| 88.419 | 85.93 | 0.4430 | 0.516 | 32.554 | 21 | 8 | sand to silty sand |
| 88.583 | 103.35 | 0.5706 | 0.552 | 33.008 | 25 | 8 | sand to silty sand |
| 88.747 | 124.42 | 0.7456 | 0.599 | 33.019 | 24 | 9 | sand |
| 88.911 | 123.35 | 0.8224 | 0.667 | 32.539 | 24 | 9 | sand |
| 89.075 | 133.41 | 0.8348 | 0.626 | 32.904 | 26 | 9 | sand |
| 89.239 | 150.99 | 0.8672 | 0.574 | 33.215 | 29 | 9 | sand |
| 89.403 | 151.41 | 0.9307 | 0.615 | 33.255 | 29 | 9 | sand |
| 89.567 | 151.11 | 0.9513 | 0.630 | 33.186 | 29 | 9 | sand |
| 89.731 | 145.17 | 0.8934 | 0.615 | 33.084 | 28 | 9 | sand |
| 89.895 | 144.16 | 0.8849 | 0.614 | 33.184 | 28 | 9 | sand |
| 90.059 | 155.75 | 0.9439 | 0.606 | 33.598 | 30 | 9 | sand |
| 90.223 | 147.74 | 0.9796 | 0.663 | 33.480 | 28 | 9 | sand |
| 90.387 | 141.90 | 0.9404 | 0.663 | 33.251 | 27 | 9 | sand |
| 90.551 | 144.09 | 0.8904 | 0.618 | 33.533 | 28 | 9 | sand |
| 90.715 | 146.66 | 0.9085 | 0.619 | 33.820 | 28 | 9 | sand |
| 90.879 | 148.85 | 0.9285 | 0.624 | 33.856 | 29 | 9 | sand |
| 91.043 | 133.49 | 0.6924 | 0.519 | 33.651 | 26 | 9 | sand |
| 91.207 | 130.29 | 0.6740 | 0.517 | 33.562 | 25 | 9 | sand |
| 91.371 | 127.36 | 0.6537 | 0.513 | 33.567 | 24 | 9 | sand |
| 91.535 | 130.84 | 0.7318 | 0.559 | 33.912 | 25 | 9 | sand |
| 91.699 | 129.80 | 0.8537 | 0.658 | 33.916 | 25 | 9 | sand |
| 91.864 | 114.50 | 0.8242 | 0.720 | 33.604 | 27 | 8 | sand to silty sand |
| 92.028 | 115.46 | 0.8077 | 0.700 | 34.134 | 28 | 8 | sand to silty sand |
| 92.192 | 122.55 | 0.8185 | 0.668 | 34.143 | 23 | 9 | sand |
| 92.356 | 129.05 | 0.8118 | 0.629 | 34.230 | 25 | 9 | sand |
| 92.520 | 120.16 | 0.7953 | 0.662 | 33.969 | 23 | 9 | sand |
| 92.684 | 118.14 | 0.8153 | 0.690 | 34.181 | 28 | 8 | sand to silty sand |
| 92.848 | 118.56 | 0.8355 | 0.705 | 34.292 | 28 | 8 | sand to silty sand |
| 93.012 | 122.92 | 0.8335 | 0.678 | 34.644 | 24 | 9 | sand |
| 93.176 | 129.90 | 0.8857 | 0.682 | 34.839 | 25 | 9 | sand |
| 93.340 | 140.92 | 1.0355 | 0.735 | 35.022 | 27 | 9 | sand |
| 93.504 | 140.69 | 1.1316 | 0.804 | 34.853 | 27 | 9 | sand |
| 93.668 | 129.12 | 1.1737 | 0.909 | 34.646 | 31 | 8 | sand to silty sand |
| 93.832 | 124.69 | 1.0812 | 0.867 | 34.757 | 30 | 8 | sand to silty sand |
| 93.996 | 125.19 | 1.0076 | 0.805 | 34.753 | 30 | 8 | sand to silty sand |
| 94.160 | 124.23 | 1.0613 | 0.854 | 35.300 | 30 | 8 | sand to silty sand |
| 94.324 | 148.12 | 1.1175 | 0.754 | 35.863 | 28 | 9 | sand |
| 94.488 | 139.50 | 1.1152 | 0.799 | 35.142 | 27 | 9 | sand |
| 94.652 | 123.14 | 0.9538 | 0.775 | 34.423 | 29 | 8 | sand to silty sand |
| 94.816 | 123.24 | 0.8443 | 0.685 | 35.049 | 24 | 9 | sand |
| 94.980 | 131.32 | 0.8021 | 0.611 | 35.487 | 25 | 9 | sand |
| 95.144 | 151.58 | 0.8663 | 0.571 | 36.008 | 29 | 9 | sand |
| 95.308 | 149.97 | 0.9737 | 0.649 | 35.654 | 29 | 9 | sand |
| 95.472 | 142.00 | 0.9735 | 0.686 | 35.442 | 27 | 9 | sand |
| 95.636 | 148.93 | 1.0295 | 0.691 | 35.965 | 29 | 9 | sand |
| 95.801 | 167.07 | 1.1504 | 0.689 | 36.582 | 32 | 9 | sand |
| 95.965 | 161.10 | 1.2146 | 0.754 | 35.712 | 31 | 9 | sand |
| 96.129 | 151.10 | 1.1855 | 0.785 | 35.676 | 29 | 9 | sand |
| 96.293 | 136.13 | 1.1076 | 0.814 | 35.269 | 33 | 8 | sand to silty sand |
| 96.457 | 138.52 | 1.1018 | 0.795 | 35.990 | 27 | 9 | sand |
| 96.621 | 154.71 | 1.2163 | 0.786 | 36.829 | 30 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 96.785 | 145.94 | 1.2870 | 0.882 | 36.586 | 28 | 9 | sand |
| 96.949 | 141.60 | 1.1875 | 0.839 | 35.716 | 27 | 9 | sand |
| 97.113 | 151.99 | 1.0072 | 0.663 | 36.181 | 29 | 9 | sand |
| 97.277 | 130.05 | 0.9534 | 0.733 | 36.328 | 25 | 9 | sand |
| 97.441 | 111.18 | 0.8279 | 0.745 | 36.077 | 27 | 8 | sand to silty sand |
| 97.605 | 101.39 | 0.6189 | 0.610 | 36.008 | 24 | 8 | sand to silty sand |
| 97.769 | 98.47 | 0.6163 | 0.626 | 36.346 | 24 | 8 | sand to silty sand |
| 97.933 | 113.00 | 0.6623 | 0.586 | 36.740 | 22 | 9 | sand |
| 98.097 | 130.51 | 0.8334 | 0.639 | 37.016 | 25 | 9 | sand |
| 98.261 | 140.20 | 1.2226 | 0.872 | 36.969 | 34 | 8 | sand to silty sand |
| 98.425 | 129.11 | 1.1495 | 0.890 | 36.562 | 31 | 8 | sand to silty sand |
| 98.589 | 111.20 | 0.8965 | 0.806 | 36.366 | 27 | 8 | sand to silty sand |
| 98.753 | 120.61 | 0.7997 | 0.663 | 36.907 | 23 | 9 | sand |
| 98.917 | 145.03 | 0.8604 | 0.593 | 37.699 | 28 | 9 | sand |
| 99.081 | 152.04 | 0.9746 | 0.641 | 37.534 | 29 | 9 | sand |
| 99.245 | 151.27 | 1.0438 | 0.690 | 37.358 | 29 | 9 | sand |
| 99.409 | 139.45 | 0.9813 | 0.704 | 36.844 | 27 | 9 | sand |
| 99.573 | 134.44 | 0.8969 | 0.667 | 37.120 | 26 | 9 | sand |
| 99.738 | 158.50 | 0.9172 | 0.579 | 38.240 | 30 | 9 | sand |
| 99.902 | 174.06 | 1.0013 | 0.575 | 38.373 | 33 | 9 | sand |
| 100.066 | 173.21 | 1.0784 | 0.623 | 38.404 | 33 | 9 | sand |
| 100.230 | 181.77 | 1.1581 | 0.637 | 38.498 | 35 | 9 | sand |
| 100.394 | 183.13 | 1.1973 | 0.654 | 38.535 | 35 | 9 | sand |
| 100.558 | 165.31 | 1.1675 | 0.706 | 37.554 | 32 | 9 | sand |
| 100.722 | 167.70 | 1.1059 | 0.659 | 38.095 | 32 | 9 | sand |
| 100.886 | 194.62 | 1.3451 | 0.691 | 39.510 | 37 | 9 | sand |
| 101.050 | 219.67 | 1.5031 | 0.684 | 40.549 | 42 | 9 | sand |
| 101.214 | 228.98 | 1.6609 | 0.725 | 37.928 | 44 | 9 | sand |
| 101.378 | 229.52 | 1.7265 | 0.752 | 38.322 | 44 | 9 | sand |
| 101.542 | 229.48 | 1.7170 | 0.748 | 38.564 | 44 | 9 | sand |
| 101.706 | 218.01 | 1.6609 | 0.762 | 38.144 | 42 | 9 | sand |
| 101.870 | 209.54 | 1.5636 | 0.746 | 38.705 | 40 | 9 | sand |
| 102.034 | 202.24 | 1.4439 | 0.714 | 38.847 | 39 | 9 | sand |
| 102.198 | 188.51 | 1.3779 | 0.731 | 38.796 | 36 | 9 | sand |
| 102.362 | 191.90 | 1.2971 | 0.676 | 39.728 | 37 | 9 | sand |
| 102.526 | 202.92 | 1.3730 | 0.677 | 40.707 | 39 | 9 | sand |
| 102.690 | 227.13 | 1.5152 | 0.667 | 41.264 | 44 | 9 | sand |
| 102.854 | 232.90 | 1.6793 | 0.721 | 40.796 | 45 | 9 | sand |
| 103.018 | 206.32 | 1.6343 | 0.792 | 40.280 | 40 | 9 | sand |
| 103.182 | 184.62 | 1.4245 | 0.772 | 38.295 | 35 | 9 | sand |
| 103.347 | 176.85 | 1.2780 | 0.723 | 39.061 | 34 | 9 | sand |
| 103.511 | 176.17 | 1.2230 | 0.694 | 39.650 | 34 | 9 | sand |
| 103.675 | 176.29 | 1.1983 | 0.680 | 39.477 | 34 | 9 | sand |
| 103.839 | 156.63 | 1.1106 | 0.709 | 40.066 | 30 | 9 | sand |
| 104.003 | 140.03 | 0.9699 | 0.693 | 39.430 | 27 | 9 | sand |
| 104.167 | 131.49 | 0.6187 | 0.471 | 39.501 | 25 | 9 | sand |
| 104.331 | 127.85 | 0.5806 | 0.454 | 39.657 | 24 | 9 | sand |
| 104.495 | 125.37 | 0.6055 | 0.483 | 39.564 | 24 | 9 | sand |
| 104.659 | 124.61 | 0.6135 | 0.492 | 39.537 | 24 | 9 | sand |
| 104.823 | 123.80 | 0.6589 | 0.532 | 39.292 | 24 | 9 | sand |
| 104.987 | 124.03 | 0.6391 | 0.515 | 39.523 | 24 | 9 | sand |
| 105.151 | 124.42 | 0.6662 | 0.535 | 39.710 | 24 | 9 | sand |
| 105.315 | 125.08 | 0.6868 | 0.549 | 39.746 | 24 | 9 | sand |
| 105.479 | 127.02 | 0.7571 | 0.596 | 40.703 | 24 | 9 | sand |
| 105.643 | 134.74 | 0.7949 | 0.590 | 40.349 | 26 | 9 | sand |
| 105.807 | 160.37 | 0.9779 | 0.610 | 41.097 | 31 | 9 | sand |
| 105.971 | 187.25 | 1.2382 | 0.661 | 41.562 | 36 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 106.135 | 200.24 | 1.3551 | 0.677 | 41.364 | 38 | 9 | sand |
| 106.299 | 195.17 | 1.4871 | 0.762 | 40.531 | 37 | 9 | sand |
| 106.463 | 182.42 | 1.5009 | 0.823 | 40.126 | 35 | 9 | sand |
| 106.627 | 159.54 | 1.4132 | 0.886 | 39.443 | 31 | 9 | sand |
| 106.791 | 139.47 | 1.1637 | 0.834 | 39.639 | 27 | 9 | sand |
| 106.955 | 127.75 | 0.9442 | 0.739 | 40.017 | 31 | 8 | sand to silty sand |
| 107.119 | 120.77 | 0.7640 | 0.633 | 40.520 | 23 | 9 | sand |
| 107.284 | 120.73 | 0.7099 | 0.588 | 41.074 | 23 | 9 | sand |
| 107.448 | 128.05 | 0.6374 | 0.498 | 41.299 | 25 | 9 | sand |
| 107.612 | 136.54 | 0.6474 | 0.474 | 41.459 | 26 | 9 | sand |
| 107.776 | 114.59 | 0.6275 | 0.548 | 40.558 | 22 | 9 | sand |
| 107.940 | 106.29 | 0.5867 | 0.552 | 40.636 | 25 | 8 | sand to silty sand |
| 108.104 | 100.74 | 0.5898 | 0.585 | 40.845 | 24 | 8 | sand to silty sand |
| 108.268 | 95.56 | 0.5404 | 0.566 | 40.961 | 23 | 8 | sand to silty sand |
| 108.432 | 99.59 | 0.5454 | 0.548 | 41.439 | 24 | 8 | sand to silty sand |
| 108.596 | 114.80 | 0.6428 | 0.560 | 41.717 | 22 | 9 | sand |
| 108.760 | 119.08 | 0.7650 | 0.642 | 41.531 | 23 | 9 | sand |
| 108.924 | 117.98 | 0.7743 | 0.656 | 41.143 | 28 | 8 | sand to silty sand |
| 109.088 | 121.36 | 0.7040 | 0.580 | 41.470 | 23 | 9 | sand |
| 109.252 | 122.04 | 0.6900 | 0.565 | 41.635 | 23 | 9 | sand |
| 109.416 | 123.31 | 0.7162 | 0.581 | 41.875 | 24 | 9 | sand |
| 109.580 | 126.81 | 0.7613 | 0.600 | 41.851 | 24 | 9 | sand |
| 109.744 | 135.37 | 0.7982 | 0.590 | 42.140 | 26 | 9 | sand |
| 109.908 | 134.39 | 0.8287 | 0.617 | 41.976 | 26 | 9 | sand |
| 110.072 | 133.67 | 0.8337 | 0.624 | 42.025 | 26 | 9 | sand |
| 110.236 | 158.14 | 0.9855 | 0.623 | 43.128 | 30 | 9 | sand |
| 110.400 | 165.72 | 1.1497 | 0.694 | 42.797 | 32 | 9 | sand |
| 110.564 | 157.55 | 1.2272 | 0.779 | 41.987 | 30 | 9 | sand |
| 110.728 | 162.91 | 1.1246 | 0.690 | 42.323 | 31 | 9 | sand |
| 110.892 | 152.59 | 1.0714 | 0.702 | 42.162 | 29 | 9 | sand |
| 111.056 | 126.81 | 0.9394 | 0.741 | 42.147 | 30 | 8 | sand to silty sand |
| 111.221 | 130.35 | 0.9284 | 0.712 | 42.361 | 25 | 9 | sand |
| 111.385 | 138.69 | 0.9588 | 0.691 | 42.601 | 27 | 9 | sand |
| 111.549 | 126.87 | 0.9183 | 0.724 | 42.263 | 24 | 9 | sand |
| 111.713 | 121.46 | 0.8417 | 0.693 | 42.737 | 29 | 8 | sand to silty sand |
| 111.877 | 135.86 | 0.8550 | 0.629 | 43.153 | 26 | 9 | sand |
| 112.041 | 133.31 | 0.8983 | 0.674 | 42.863 | 26 | 9 | sand |
| 112.205 | 117.95 | 0.8825 | 0.748 | 42.247 | 28 | 8 | sand to silty sand |
| 112.369 | 111.61 | 0.8010 | 0.718 | 42.443 | 27 | 8 | sand to silty sand |
| 112.533 | 106.38 | 0.7249 | 0.681 | 42.656 | 25 | 8 | sand to silty sand |
| 112.697 | 101.94 | 0.7150 | 0.701 | 42.990 | 24 | 8 | sand to silty sand |
| 112.861 | 127.61 | 0.7664 | 0.601 | 44.350 | 24 | 9 | sand |
| 113.025 | 146.48 | 0.8299 | 0.567 | 44.201 | 28 | 9 | sand |
| 113.189 | 149.58 | 0.9651 | 0.645 | 43.660 | 29 | 9 | sand |
| 113.353 | 145.51 | 1.1506 | 0.791 | 43.297 | 28 | 9 | sand |
| 113.517 | 132.07 | 1.1555 | 0.875 | 42.547 | 32 | 8 | sand to silty sand |
| 113.681 | 136.75 | 1.0342 | 0.756 | 43.502 | 26 | 9 | sand |
| 113.845 | 160.42 | 1.1040 | 0.688 | 44.568 | 31 | 9 | sand |
| 114.009 | 162.46 | 1.0495 | 0.646 | 44.490 | 31 | 9 | sand |
| 114.173 | 129.70 | 0.9288 | 0.716 | 42.832 | 25 | 9 | sand |
| 114.337 | 127.90 | 0.8907 | 0.696 | 43.629 | 24 | 9 | sand |
| 114.501 | 148.88 | 1.0130 | 0.680 | 44.719 | 29 | 9 | sand |
| 114.665 | 144.03 | 1.1839 | 0.822 | 44.314 | 28 | 9 | sand |
| 114.829 | 136.71 | 1.2143 | 0.888 | 43.609 | 33 | 8 | sand to silty sand |
| 114.993 | 152.14 | 1.2223 | 0.803 | 44.461 | 29 | 9 | sand |
| 115.158 | 181.15 | 1.4289 | 0.789 | 45.807 | 35 | 9 | sand |
| 115.322 | 199.32 | 1.6438 | 0.825 | 46.112 | 38 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 115.486 | 208.97 | 1.9261 | 0.922 | 45.387 | 40 | 9 | sand |
| 115.650 | 208.64 | 2.0346 | 0.975 | 44.697 | 40 | 9 | sand |
| 115.814 | 189.21 | 1.8937 | 1.001 | 43.925 | 36 | 9 | sand |
| 115.978 | 169.77 | 1.6811 | 0.990 | 43.731 | 33 | 9 | sand |
| 116.142 | 172.10 | 1.4983 | 0.871 | 44.804 | 33 | 9 | sand |
| 116.306 | 169.04 | 1.4424 | 0.853 | 45.084 | 32 | 9 | sand |
| 116.470 | 186.70 | 1.4661 | 0.785 | 46.295 | 36 | 9 | sand |
| 116.634 | 209.10 | 1.6448 | 0.787 | 46.586 | 40 | 9 | sand |
| 116.798 | 193.62 | 1.7018 | 0.879 | 45.972 | 37 | 9 | sand |
| 116.962 | 161.07 | 1.5420 | 0.957 | 44.368 | 31 | 9 | sand |
| 117.126 | 136.98 | 1.0388 | 0.758 | 43.854 | 26 | 9 | sand |
| 117.290 | 135.98 | 1.4508 | 1.067 | 44.975 | 33 | 8 | sand to silty sand |
| 117.454 | 235.07 | 2.2611 | 0.962 | 50.249 | 45 | 9 | sand |
| 117.618 | 265.97 | 2.9678 | 1.116 | 46.154 | 51 | 9 | sand |
| 117.782 | 272.40 | 3.4365 | 1.262 | 45.318 | 52 | 9 | sand |
| 117.946 | 279.48 | 3.9272 | 1.405 | 45.389 | 67 | 8 | sand to silty sand |
| 118.110 | 277.41 | 3.6923 | 1.331 | 45.687 | 53 | 9 | sand |
| 118.274 | 260.93 | 3.4275 | 1.314 | 44.087 | 50 | 9 | sand |
| 118.438 | 244.82 | 2.9898 | 1.221 | 43.631 | 47 | 9 | sand |
| 118.602 | 213.73 | 2.5557 | 1.196 | 44.372 | 41 | 9 | sand |
| 118.766 | 205.47 | 2.1734 | 1.058 | 44.236 | 39 | 9 | sand |
| 118.931 | 220.73 | 2.1547 | 0.976 | 46.188 | 42 | 9 | sand |
| 119.095 | 215.70 | 2.1973 | 1.019 | 45.554 | 41 | 9 | sand |
| 119.259 | 195.12 | 2.0994 | 1.076 | 44.911 | 37 | 9 | sand |
| 119.423 | 163.73 | 1.7565 | 1.073 | 43.936 | 39 | 8 | sand to silty sand |
| 119.587 | 131.50 | 1.2588 | 0.957 | 44.125 | 31 | 8 | sand to silty sand |
| 119.751 | 117.02 | 0.8604 | 0.735 | 44.922 | 28 | 8 | sand to silty sand |
| 119.915 | 111.30 | 0.7060 | 0.634 | 45.845 | 27 | 8 | sand to silty sand |
| 120.079 | 108.80 | 0.6541 | 0.601 | 46.375 | 26 | 8 | sand to silty sand |
| 120.243 | 108.03 | 0.6592 | 0.610 | 46.250 | 26 | 8 | sand to silty sand |
| 120.407 | 107.41 | 0.7841 | 0.730 | 46.368 | 26 | 8 | sand to silty sand |
| 120.571 | 107.95 | 0.5465 | 0.506 | 46.424 | 21 | 9 | sand |
| 120.735 | 101.73 | 0.5539 | 0.544 | 46.117 | 24 | 8 | sand to silty sand |
| 120.899 | 116.02 | 0.6064 | 0.523 | 46.780 | 22 | 9 | sand |
| 121.063 | 120.35 | 0.6285 | 0.522 | 46.929 | 23 | 9 | sand |
| 121.227 | 129.57 | 0.7240 | 0.559 | 47.049 | 25 | 9 | sand |
| 121.391 | 150.85 | 0.8705 | 0.577 | 47.648 | 29 | 9 | sand |
| 121.555 | 161.94 | 1.0269 | 0.634 | 47.514 | 31 | 9 | sand |
| 121.719 | 153.68 | 1.1301 | 0.735 | 47.038 | 29 | 9 | sand |
| 121.883 | 158.75 | 1.1247 | 0.708 | 47.294 | 30 | 9 | sand |
| 122.047 | 151.28 | 1.1446 | 0.757 | 47.198 | 29 | 9 | sand |
| 122.211 | 134.28 | 1.0658 | 0.794 | 47.429 | 26 | 9 | sand |
| 122.375 | 125.37 | 1.0111 | 0.806 | 47.378 | 30 | 8 | sand to silty sand |
| 122.539 | 121.05 | 0.9444 | 0.780 | 47.701 | 29 | 8 | sand to silty sand |
| 122.703 | 126.44 | 0.9458 | 0.748 | 48.101 | 30 | 8 | sand to silty sand |
| 122.868 | 139.83 | 1.0392 | 0.743 | 48.771 | 27 | 9 | sand |
| 123.032 | 165.69 | 1.1820 | 0.713 | 49.595 | 32 | 9 | sand |
| 123.196 | 194.88 | 1.5139 | 0.777 | 50.367 | 37 | 9 | sand |
| 123.360 | 210.01 | 1.8436 | 0.878 | 48.956 | 40 | 9 | sand |
| 123.524 | 205.40 | 2.0617 | 1.004 | 49.770 | 39 | 9 | sand |
| 123.688 | 186.26 | 1.9516 | 1.048 | 48.547 | 36 | 9 | sand |
| 123.852 | 175.70 | 1.3607 | 0.774 | 47.781 | 34 | 9 | sand |
| 124.016 | 161.58 | 1.1528 | 0.713 | 47.897 | 31 | 9 | sand |
| 124.180 | 151.52 | 1.1659 | 0.769 | 48.604 | 29 | 9 | sand |
| 124.344 | 160.97 | 1.0952 | 0.680 | 49.058 | 31 | 9 | sand |
| 124.508 | 160.47 | 1.1613 | 0.724 | 48.845 | 31 | 9 | sand |
| 124.672 | 148.57 | 1.0132 | 0.682 | 47.703 | 28 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 124.836 | 140.37 | 0.9770 | 0.696 | 48.736 | 27 | 9 | sand |
| 125.000 | 134.70 | 0.8729 | 0.648 | 48.544 | 26 | 9 | sand |
| 125.164 | 135.97 | 0.8791 | 0.646 | 48.911 | 26 | 9 | sand |
| 125.328 | 134.48 | 0.8714 | 0.648 | 48.762 | 26 | 9 | sand |
| 125.492 | 130.93 | 0.8211 | 0.627 | 48.704 | 25 | 9 | sand |
| 125.656 | 129.26 | 0.8151 | 0.631 | 48.798 | 25 | 9 | sand |
| 125.820 | 127.04 | 0.7896 | 0.622 | 48.865 | 24 | 9 | sand |
| 125.984 | 124.20 | 0.7743 | 0.623 | 48.929 | 24 | 9 | sand |
| 126.148 | 122.40 | 0.7151 | 0.584 | 48.945 | 23 | 9 | sand |
| 126.312 | 119.69 | 0.7011 | 0.586 | 49.105 | 23 | 9 | sand |
| 126.476 | 118.51 | 0.6803 | 0.574 | 49.232 | 23 | 9 | sand |
| 126.640 | 122.14 | 0.8038 | 0.658 | 49.563 | 23 | 9 | sand |
| 126.805 | 130.53 | 0.8229 | 0.630 | 49.875 | 25 | 9 | sand |
| 126.969 | 172.21 | 1.0312 | 0.599 | 51.473 | 33 | 9 | sand |
| 127.133 | 210.82 | 1.2789 | 0.607 | 51.214 | 40 | 9 | sand |
| 127.297 | 217.69 | 1.5830 | 0.727 | 51.666 | 42 | 9 | sand |
| 127.461 | 209.25 | 1.9200 | 0.918 | 48.834 | 40 | 9 | sand |
| 127.625 | 200.98 | 1.9162 | 0.953 | 48.157 | 38 | 9 | sand |
| 127.789 | 182.40 | 1.7856 | 0.979 | 49.183 | 35 | 9 | sand |
| 127.953 | 169.98 | 1.5706 | 0.924 | 49.677 | 33 | 9 | sand |
| 128.117 | 146.43 | 1.4023 | 0.958 | 49.170 | 35 | 8 | sand to silty sand |
| 128.281 | 127.02 | 1.2289 | 0.967 | 49.902 | 30 | 8 | sand to silty sand |
| 128.445 | 121.36 | 1.1113 | 0.916 | 51.194 | 29 | 8 | sand to silty sand |
| 128.609 | 109.43 | 1.0858 | 0.992 | 49.911 | 26 | 8 | sand to silty sand |
| 128.773 | 105.09 | 0.9449 | 0.899 | 50.703 | 25 | 8 | sand to silty sand |
| 128.937 | 102.87 | 0.9005 | 0.875 | 50.393 | 25 | 8 | sand to silty sand |
| 129.101 | 106.86 | 0.8700 | 0.814 | 50.692 | 26 | 8 | sand to silty sand |
| 129.265 | 120.02 | 0.9336 | 0.778 | 51.150 | 29 | 8 | sand to silty sand |
| 129.429 | 146.18 | 1.2204 | 0.835 | 51.869 | 28 | 9 | sand |
| 129.593 | 177.05 | 1.6097 | 0.909 | 52.438 | 34 | 9 | sand |
| 129.757 | 201.19 | 2.0635 | 1.026 | 53.157 | 39 | 9 | sand |
| 129.921 | 209.29 | 2.2677 | 1.084 | 52.799 | 40 | 9 | sand |
| 130.085 | 208.74 | 2.0079 | 0.962 | 50.883 | 40 | 9 | sand |
| 130.249 | 187.32 | 1.2988 | 0.693 | 49.846 | 36 | 9 | sand |
| 130.413 | 146.58 | 1.0723 | 0.732 | 50.498 | 28 | 9 | sand |
| 130.577 | 122.74 | 0.8342 | 0.680 | 50.743 | 24 | 9 | sand |
| 130.742 | 109.66 | 0.6560 | 0.598 | 50.231 | 26 | 8 | sand to silty sand |
| 130.906 | 104.24 | 0.5149 | 0.494 | 51.671 | 25 | 8 | sand to silty sand |
| 131.070 | 100.23 | 0.4050 | 0.404 | 51.090 | 19 | 9 | sand |
| 131.234 | 106.32 | 0.4444 | 0.418 | 51.157 | 20 | 9 | sand |
| 131.398 | 105.58 | 0.4746 | 0.450 | 51.090 | 20 | 9 | sand |
| 131.562 | 101.64 | 0.4417 | 0.435 | 50.872 | 19 | 9 | sand |
| 131.726 | 101.73 | 0.4036 | 0.397 | 51.092 | 19 | 9 | sand |
| 131.890 | 103.79 | 0.3900 | 0.376 | 51.214 | 20 | 9 | sand |
| 132.054 | 100.40 | 0.4318 | 0.430 | 51.466 | 19 | 9 | sand |
| 132.218 | 100.89 | 0.4243 | 0.421 | 51.361 | 19 | 9 | sand |
| 132.382 | 102.40 | 0.3892 | 0.380 | 51.350 | 20 | 9 | sand |
| 132.546 | 100.75 | 0.3205 | 0.318 | 51.232 | 19 | 9 | sand |
| 132.710 | 99.93 | 0.3382 | 0.338 | 51.615 | 19 | 9 | sand |
| 132.874 | 101.82 | 0.3789 | 0.372 | 51.762 | 20 | 9 | sand |
| 133.038 | 100.61 | 0.3900 | 0.388 | 51.940 | 19 | 9 | sand |
| 133.202 | 99.40 | 0.3482 | 0.350 | 51.955 | 19 | 9 | sand |
| 133.366 | 104.92 | 0.3519 | 0.335 | 52.169 | 20 | 9 | sand |
| 133.530 | 101.54 | 0.3684 | 0.363 | 52.200 | 19 | 9 | sand |
| 133.694 | 101.35 | 0.3223 | 0.318 | 52.160 | 19 | 9 | sand |
| 133.858 | 99.24 | 0.3067 | 0.309 | 52.042 | 19 | 9 | sand |
| 134.022 | 100.19 | 0.3248 | 0.324 | 52.194 | 19 | 9 | sand |

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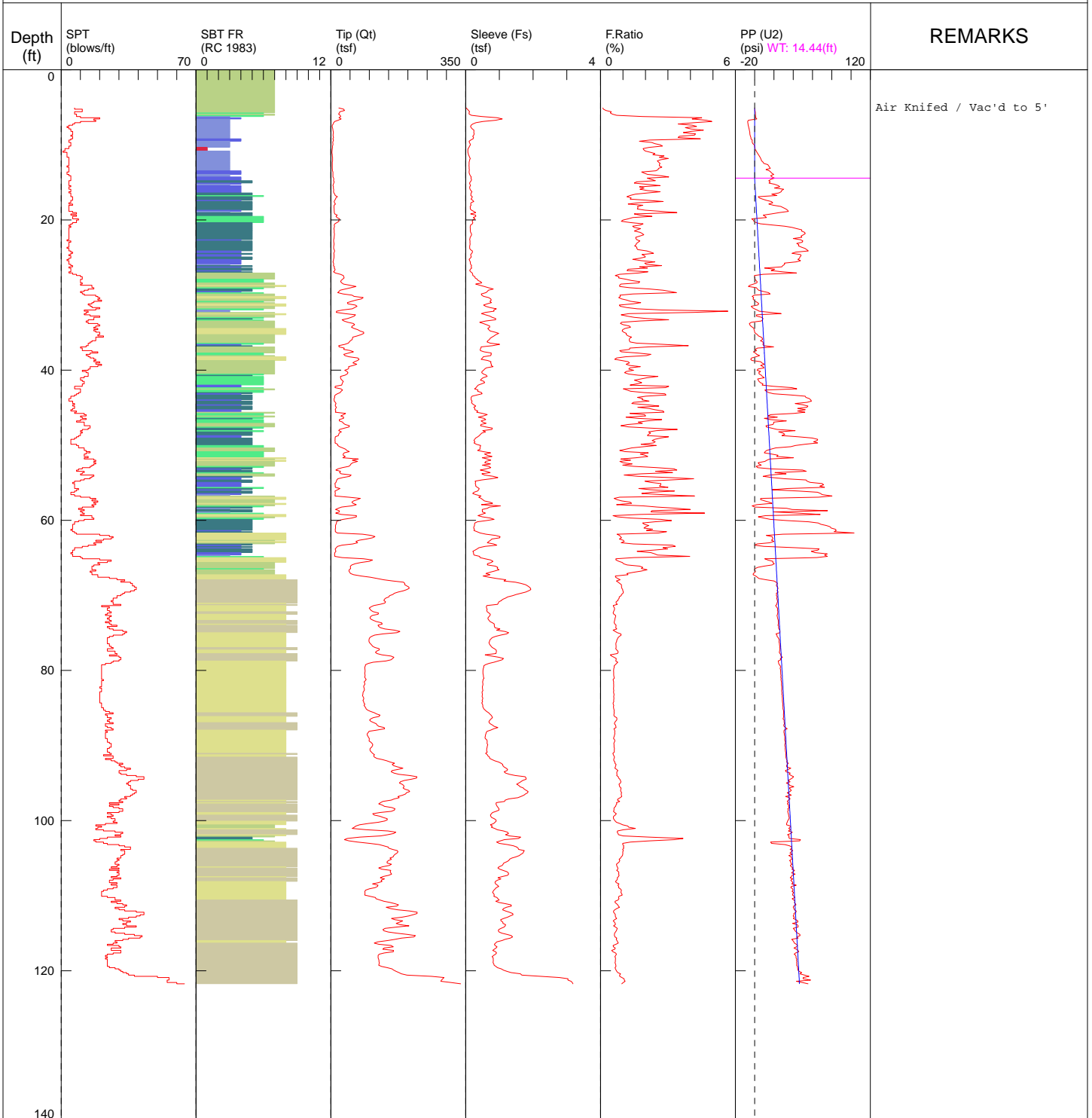
| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 134.186 | 99.22 | 0.2955 | 0.298 | 52.360 | 19 | 9 | sand |
| 134.350 | 97.07 | 0.2462 | 0.254 | 52.494 | 19 | 9 | sand |
| 134.514 | 96.98 | 0.2058 | 0.212 | 52.659 | 19 | 9 | sand |
| 134.679 | 99.90 | 0.2063 | 0.207 | 52.868 | 19 | 9 | sand |
| 134.843 | 97.92 | 0.2508 | 0.256 | 52.926 | 19 | 9 | sand |
| 135.007 | 96.59 | 0.2441 | 0.253 | 52.906 | 18 | 9 | sand |
| 135.171 | 98.44 | 0.1904 | 0.193 | 52.854 | 19 | 9 | sand |
| 135.335 | 102.59 | 0.2193 | 0.214 | 52.992 | 20 | 9 | sand |
| 135.499 | 109.55 | 0.2450 | 0.224 | 53.604 | 21 | 9 | sand |
| 135.663 | 133.76 | 0.3049 | 0.228 | 54.434 | 26 | 9 | sand |
| 135.827 | 176.44 | 0.4804 | 0.272 | 54.973 | 34 | 9 | sand |
| 135.991 | 203.31 | 0.8228 | 0.405 | 55.178 | 39 | 9 | sand |
| 136.155 | 226.80 | 1.6130 | 0.711 | 55.812 | 43 | 9 | sand |
| 136.319 | 263.80 | 2.2009 | 0.834 | 57.122 | 51 | 9 | sand |
| 136.483 | 287.65 | 2.7969 | 0.972 | 63.891 | 55 | 9 | sand |
| 136.647 | 315.11 | 2.9266 | 0.929 | 56.577 | 60 | 9 | sand |
| 136.811 | 324.04 | 3.2298 | 0.997 | 55.874 | 62 | 9 | sand |
| 136.975 | 317.66 | 2.4841 | 0.782 | 54.414 | 61 | 9 | sand |
| 137.139 | 304.54 | 2.3003 | 0.755 | 54.639 | 58 | 9 | sand |
| 137.303 | 212.86 | 2.3125 | 1.086 | 57.567 | 41 | 9 | sand |
| 137.467 | 187.42 | 2.4187 | 1.291 | 52.757 | 45 | 8 | sand to silty sand |
| 137.631 | 183.80 | 2.0315 | 1.105 | 51.388 | 35 | 9 | sand |
| 137.795 | 176.95 | 2.0086 | 1.135 | 53.444 | 42 | 8 | sand to silty sand |
| 137.959 | 163.93 | 1.8470 | 1.127 | 54.165 | 39 | 8 | sand to silty sand |
| 138.123 | 153.45 | 1.8623 | 1.214 | 52.899 | 37 | 8 | sand to silty sand |
| 138.287 | 154.04 | 1.8294 | 1.188 | 54.421 | 37 | 8 | sand to silty sand |
| 138.451 | 159.29 | 1.8016 | 1.131 | 55.040 | 38 | 8 | sand to silty sand |
| 138.616 | 167.70 | 1.7446 | 1.040 | 54.132 | 32 | 9 | sand |
| 138.780 | 177.23 | 1.8259 | 1.030 | 54.946 | 34 | 9 | sand |
| 138.944 | 186.54 | 1.9048 | 1.021 | 54.481 | 36 | 9 | sand |
| 139.108 | 179.94 | 2.0812 | 1.157 | 55.264 | 43 | 8 | sand to silty sand |
| 139.272 | 184.68 | 2.2339 | 1.210 | 56.114 | 44 | 8 | sand to silty sand |
| 139.436 | 187.61 | 2.4412 | 1.301 | 54.510 | 45 | 8 | sand to silty sand |
| 139.600 | 197.67 | 2.7471 | 1.390 | 56.201 | 47 | 8 | sand to silty sand |
| 139.764 | 193.72 | 2.7277 | 1.408 | 55.113 | 46 | 8 | sand to silty sand |
| 139.928 | 178.87 | 2.4264 | 1.357 | 53.199 | 43 | 8 | sand to silty sand |
| 140.092 | 163.20 | 2.0151 | 1.235 | 53.153 | 39 | 8 | sand to silty sand |
| 140.256 | 172.87 | 1.9466 | 1.126 | 54.944 | 41 | 8 | sand to silty sand |
| 140.420 | 206.49 | 2.2131 | 1.072 | 58.813 | 40 | 9 | sand |
| 140.584 | 268.25 | 1.9421 | 0.724 | 50.890 | 51 | 9 | sand |
| 140.748 | 266.04 | 1.6850 | 0.633 | 55.805 | 51 | 9 | sand |
| 140.912 | 267.85 | 1.9837 | 0.741 | 55.981 | 51 | 9 | sand |
| 141.076 | 241.27 | 2.2340 | 0.926 | 60.062 | 46 | 9 | sand |
| 141.240 | 232.92 | 2.1655 | 0.930 | 56.677 | 45 | 9 | sand |
| 141.404 | 239.10 | 2.1676 | 0.907 | 54.272 | 46 | 9 | sand |
| 141.568 | 223.55 | 2.2681 | 1.015 | 57.053 | 43 | 9 | sand |
| 141.732 | 190.07 | 2.0482 | 1.078 | 55.545 | 36 | 9 | sand |
| 141.896 | 170.42 | 1.8168 | 1.066 | 53.647 | 33 | 9 | sand |
| 142.060 | 160.79 | 1.5612 | 0.971 | 55.175 | 31 | 9 | sand |
| 142.224 | 154.30 | 1.3492 | 0.874 | 55.712 | 30 | 9 | sand |
| 142.389 | 151.30 | 1.2010 | 0.794 | 56.125 | 29 | 9 | sand |
| 142.553 | 152.75 | 1.1976 | 0.784 | 56.757 | 29 | 9 | sand |
| 142.717 | 158.02 | 1.2509 | 0.792 | 57.067 | 30 | 9 | sand |
| 142.881 | 180.67 | 1.4190 | 0.785 | 57.963 | 35 | 9 | sand |
| 143.045 | 210.34 | 1.8204 | 0.865 | 58.749 | 40 | 9 | sand |
| 143.209 | 213.94 | 1.9767 | 0.924 | 58.028 | 41 | 9 | sand |
| 143.373 | 183.16 | 1.8795 | 1.026 | 54.882 | 35 | 9 | sand |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|-----------------------------------|
| 143.537 | 175.08 | 1.5600 | 0.891 | 55.077 | 34 | 9 | sand |
| 143.701 | 177.42 | 1.5803 | 0.891 | 56.390 | 34 | 9 | sand |
| 143.865 | 215.80 | 1.8250 | 0.846 | 57.921 | 41 | 9 | sand |
| 144.029 | 243.53 | 2.1756 | 0.893 | 58.400 | 47 | 9 | sand |
| 144.193 | 262.71 | 3.1428 | 1.196 | 57.759 | 50 | 9 | sand |
| 144.357 | 253.35 | 2.8253 | 1.115 | 57.133 | 49 | 9 | sand |
| 144.521 | 188.37 | 2.3309 | 1.237 | 53.655 | 45 | 8 | sand to silty sand |
| 144.685 | 168.46 | 1.7646 | 1.047 | 54.526 | 32 | 9 | sand |
| 144.849 | 160.68 | 1.4668 | 0.913 | 55.596 | 31 | 9 | sand |
| 145.013 | 166.35 | 1.4342 | 0.862 | 57.002 | 32 | 9 | sand |
| 145.177 | 179.73 | 1.6012 | 0.891 | 58.124 | 34 | 9 | sand |
| 145.341 | 198.68 | 1.8554 | 0.934 | 58.813 | 38 | 9 | sand |
| 145.505 | 218.05 | 2.0865 | 0.957 | 59.588 | 42 | 9 | sand |
| 145.669 | 215.22 | 2.1936 | 1.019 | 58.148 | 41 | 9 | sand |
| 145.833 | 211.55 | 2.0974 | 0.991 | 56.995 | 41 | 9 | sand |
| 145.997 | 218.80 | 2.1535 | 0.984 | 57.472 | 42 | 9 | sand |
| 146.161 | 221.29 | 2.1512 | 0.972 | 58.691 | 42 | 9 | sand |
| 146.326 | 185.67 | 2.1297 | 1.147 | 55.927 | 36 | 9 | sand |
| 146.490 | 173.56 | 1.9269 | 1.110 | 56.666 | 42 | 8 | sand to silty sand |
| 146.654 | 166.67 | 1.6118 | 0.967 | 57.483 | 32 | 9 | sand |
| 146.818 | 167.76 | 1.5374 | 0.916 | 57.592 | 32 | 9 | sand |
| 146.982 | 170.70 | 1.5415 | 0.903 | 58.110 | 33 | 9 | sand |
| 147.146 | 176.26 | 1.6733 | 0.949 | 58.257 | 34 | 9 | sand |
| 147.310 | 184.00 | 1.7348 | 0.943 | 58.602 | 35 | 9 | sand |
| 147.474 | 187.23 | 1.8089 | 0.966 | 58.015 | 36 | 9 | sand |
| 147.638 | 190.68 | 1.8973 | 0.995 | 58.553 | 37 | 9 | sand |
| 147.802 | 195.24 | 2.0998 | 1.076 | 59.080 | 37 | 9 | sand |
| 147.966 | 199.24 | 2.2354 | 1.122 | 59.109 | 38 | 9 | sand |
| 148.130 | 206.28 | 2.2955 | 1.113 | 59.817 | 40 | 9 | sand |
| 148.294 | 227.41 | 2.4448 | 1.075 | 59.677 | 44 | 9 | sand |
| 148.458 | 247.96 | 2.7075 | 1.092 | 60.972 | 47 | 9 | sand |
| 148.622 | 227.27 | 2.8928 | 1.273 | 59.982 | 44 | 9 | sand |
| 148.786 | 196.37 | 2.6668 | 1.358 | 55.554 | 47 | 8 | sand to silty sand |
| 148.950 | 184.42 | 2.3662 | 1.283 | 57.207 | 44 | 8 | sand to silty sand |
| 149.114 | 177.39 | 2.1413 | 1.207 | 57.614 | 42 | 8 | sand to silty sand |
| 149.278 | 177.28 | 1.9477 | 1.099 | 58.591 | 34 | 9 | sand |
| 149.442 | 174.68 | 1.8728 | 1.072 | 59.468 | 33 | 9 | sand |
| 149.606 | 169.44 | 1.7214 | 1.016 | 58.771 | 32 | 9 | sand |
| 149.770 | 169.49 | 1.6049 | 0.947 | 58.742 | 32 | 9 | sand |
| 149.934 | 177.05 | 1.6994 | 0.960 | 59.570 | 34 | 9 | sand |
| 150.098 | 184.44 | 1.7105 | 0.927 | 59.991 | 35 | 9 | sand |
| 150.263 | 194.65 | 1.7305 | 0.889 | 60.349 | 37 | 9 | sand |

Haley & Aldrich / SCPT-6 / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 10:09:48 AM
 TOTAL DEPTH: 121.719 ft

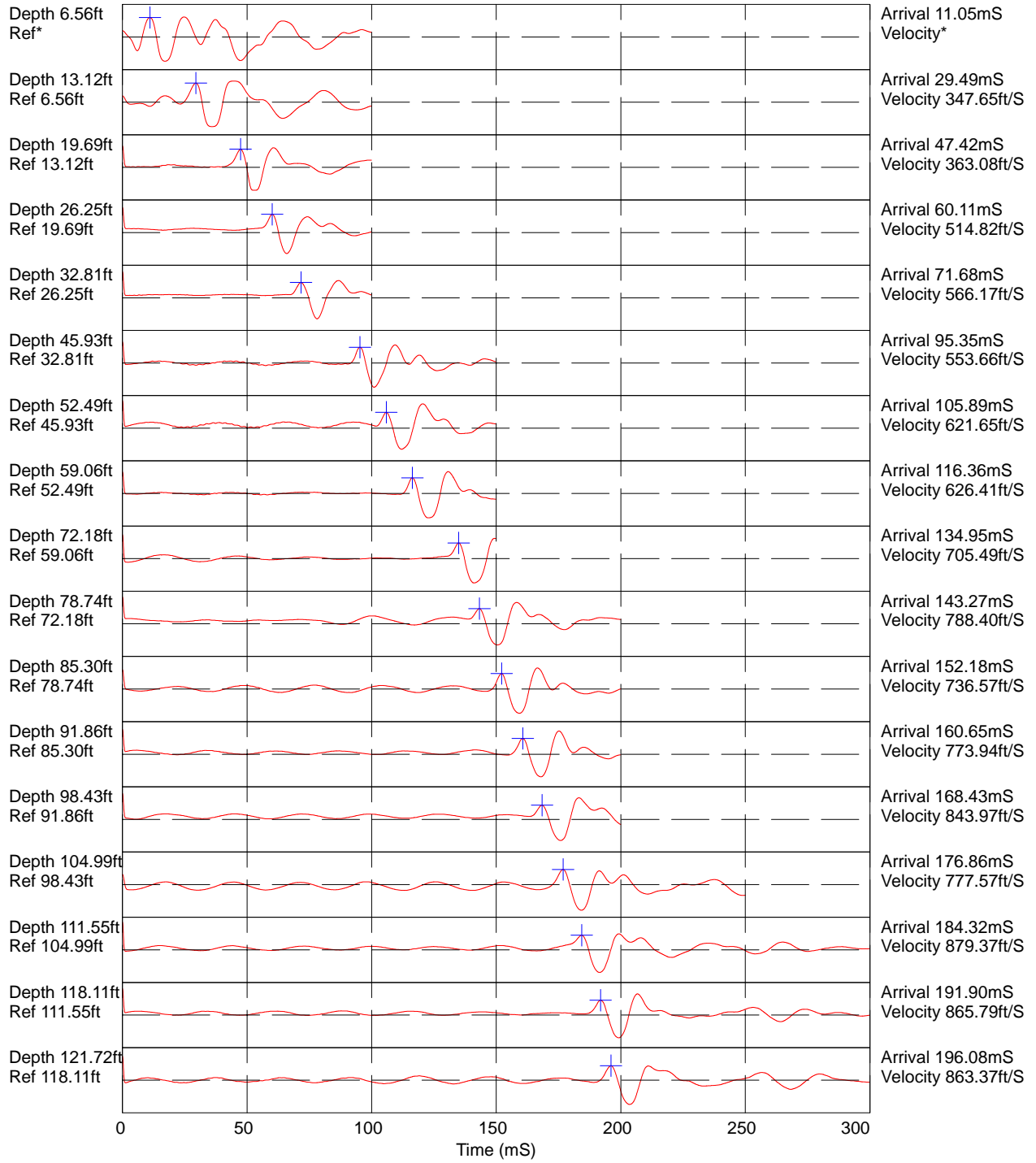


Air Knifed / Vac'd to 5'

- | | | | |
|---|---|--|--|
| ■ 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

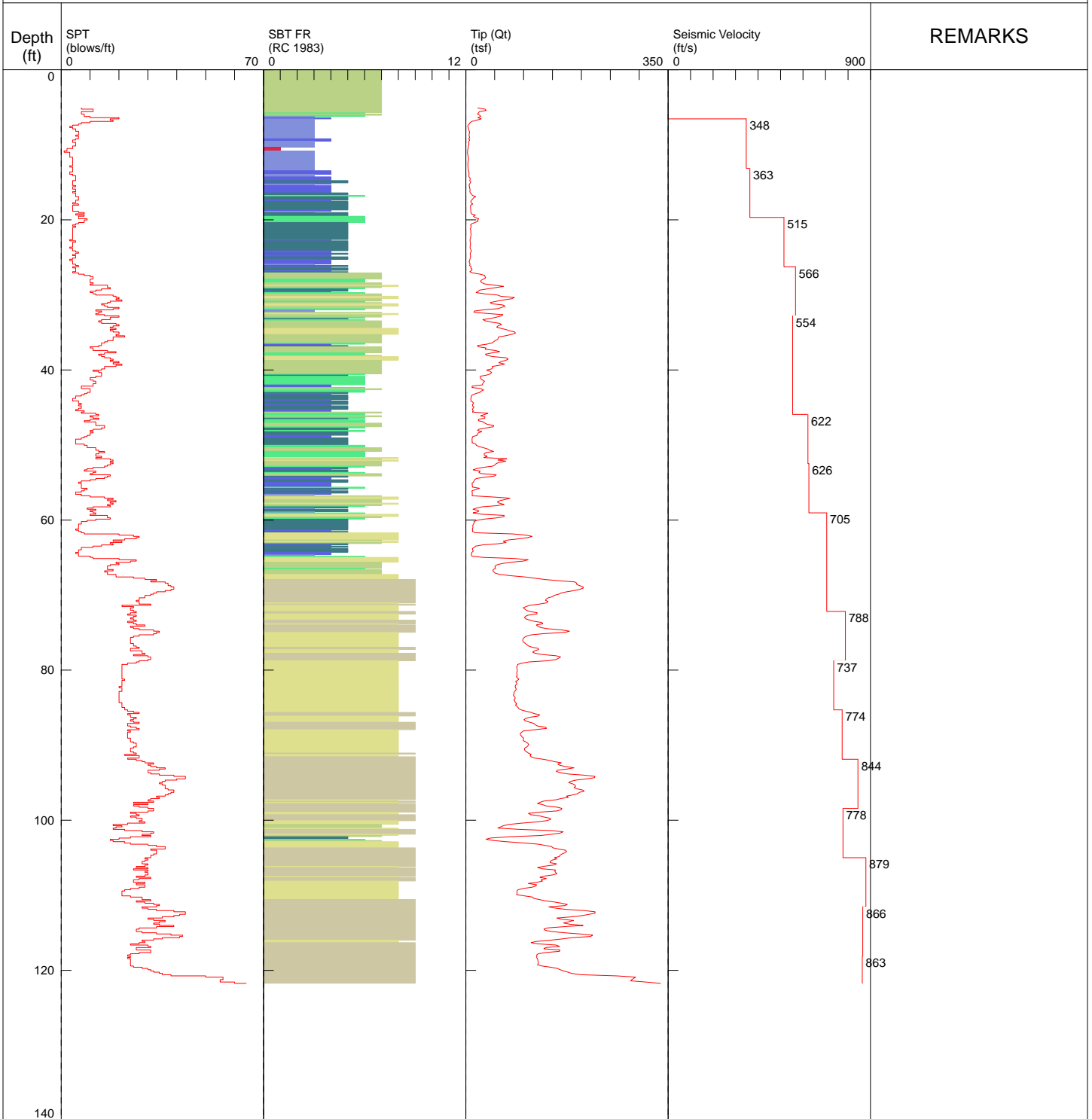
COMMENT: Haley & Aldrich / SCPT-6 / 4580 NE Marine Dr Portland



Hammer to Rod String Distance (ft): 2.04
 * = Not Determined

Haley & Aldrich / SCPT-6 / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 10:09:48 AM
 TOTAL DEPTH: 121.719 ft



| | | | |
|---|---|---|--|
| <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

Haley & Aldrich / SCPT-6 / 4580 NE Marine Dr Portland

OPERATOR: OGE BAK
 CONE ID: DDG1296
 TEST DATE: 2/28/2023 10:09:48 AM
 TOTAL DEPTH: 121.719 ft

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 5.085 | 20.63 | 0.0200 | 0.097 | 0.100 | 7 | 7 | silty sand to sandy silt |
| 5.249 | 33.05 | 0.0433 | 0.131 | 0.128 | 11 | 7 | silty sand to sandy silt |
| 5.413 | 35.34 | 0.0858 | 0.243 | 0.251 | 11 | 7 | silty sand to sandy silt |
| 5.577 | 23.39 | 0.1123 | 0.480 | 0.671 | 7 | 7 | silty sand to sandy silt |
| 5.741 | 21.85 | 0.0950 | 0.435 | 0.719 | 7 | 7 | silty sand to sandy silt |
| 5.906 | 20.10 | 0.1054 | 0.524 | 0.733 | 8 | 6 | sandy silt to clayey silt |
| 6.070 | 24.23 | 0.1739 | 0.718 | 0.808 | 8 | 7 | silty sand to sandy silt |
| 6.234 | 25.73 | 0.4797 | 1.864 | 0.908 | 10 | 6 | sandy silt to clayey silt |
| 6.398 | 20.76 | 0.9344 | 4.502 | 1.087 | 20 | 3 | clay |
| 6.562 | 26.59 | 1.0833 | 4.074 | 2.173 | 17 | 4 | silty clay to clay |
| 6.726 | 18.82 | 0.8864 | 4.710 | -6.553 | 18 | 3 | clay |
| 6.890 | 10.29 | 0.5099 | 4.954 | -7.241 | 10 | 3 | clay |
| 7.054 | 7.28 | 0.3026 | 4.158 | -7.202 | 7 | 3 | clay |
| 7.218 | 5.92 | 0.2047 | 3.457 | -6.990 | 6 | 3 | clay |
| 7.382 | 3.93 | 0.1603 | 4.078 | -6.728 | 4 | 3 | clay |
| 7.546 | 3.33 | 0.1422 | 4.269 | -6.439 | 3 | 3 | clay |
| 7.710 | 4.25 | 0.1602 | 3.765 | -6.132 | 4 | 3 | clay |
| 7.874 | 4.89 | 0.1968 | 4.022 | -5.798 | 5 | 3 | clay |
| 8.038 | 5.28 | 0.2417 | 4.581 | -5.522 | 5 | 3 | clay |
| 8.202 | 6.01 | 0.2421 | 4.028 | -5.310 | 6 | 3 | clay |
| 8.366 | 6.46 | 0.2379 | 3.683 | -5.132 | 6 | 3 | clay |
| 8.530 | 5.96 | 0.2515 | 4.223 | -5.001 | 6 | 3 | clay |
| 8.694 | 5.71 | 0.2388 | 4.181 | -4.806 | 5 | 3 | clay |
| 8.858 | 5.92 | 0.2077 | 3.509 | -4.438 | 6 | 3 | clay |
| 9.022 | 6.72 | 0.2313 | 3.444 | -3.976 | 6 | 3 | clay |
| 9.186 | 4.88 | 0.2169 | 4.439 | -3.909 | 5 | 3 | clay |
| 9.350 | 6.79 | 0.1489 | 2.193 | -2.619 | 4 | 4 | silty clay to clay |
| 9.514 | 5.63 | 0.0970 | 1.723 | -2.719 | 4 | 4 | silty clay to clay |
| 9.678 | 4.73 | 0.1074 | 2.272 | -2.460 | 5 | 3 | clay |
| 9.843 | 5.32 | 0.1285 | 2.416 | -1.892 | 5 | 3 | clay |
| 10.007 | 5.26 | 0.1397 | 2.658 | -0.365 | 5 | 3 | clay |
| 10.171 | 4.12 | 0.1133 | 2.747 | -0.184 | 4 | 3 | clay |
| 10.335 | 4.39 | 0.0949 | 2.159 | 0.109 | 4 | 3 | clay |
| 10.499 | 3.86 | 0.0729 | 1.890 | 0.371 | 2 | 1 | sensitive fine grained |
| 10.663 | 3.37 | 0.0650 | 1.927 | 0.853 | 2 | 1 | sensitive fine grained |
| 10.827 | 3.09 | 0.0614 | 1.987 | 1.552 | 1 | 1 | sensitive fine grained |
| 10.991 | 2.99 | 0.0666 | 2.226 | 2.290 | 3 | 3 | clay |
| 11.155 | 3.02 | 0.0730 | 2.418 | 3.065 | 3 | 3 | clay |
| 11.319 | 3.57 | 0.0829 | 2.323 | 3.931 | 3 | 3 | clay |
| 11.483 | 3.60 | 0.1015 | 2.824 | 4.667 | 3 | 3 | clay |
| 11.647 | 4.35 | 0.1137 | 2.614 | 5.581 | 4 | 3 | clay |
| 11.811 | 4.44 | 0.1337 | 3.013 | 6.249 | 4 | 3 | clay |
| 11.975 | 4.39 | 0.1181 | 2.687 | 6.664 | 4 | 3 | clay |
| 12.139 | 4.36 | 0.1101 | 2.524 | 7.219 | 4 | 3 | clay |
| 12.303 | 3.81 | 0.0983 | 2.584 | 8.656 | 4 | 3 | clay |
| 12.467 | 3.68 | 0.0975 | 2.650 | 9.467 | 4 | 3 | clay |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 12.631 | 3.82 | 0.0999 | 2.614 | 13.521 | 4 | 3 | clay |
| 12.795 | 3.61 | 0.0944 | 2.613 | 14.549 | 3 | 3 | clay |
| 12.959 | 3.78 | 0.1030 | 2.726 | 15.374 | 4 | 3 | clay |
| 13.123 | 3.98 | 0.1025 | 2.577 | 16.173 | 4 | 3 | clay |
| 13.287 | 4.23 | 0.1082 | 2.561 | 11.738 | 4 | 3 | clay |
| 13.451 | 4.26 | 0.1046 | 2.456 | 15.078 | 4 | 3 | clay |
| 13.615 | 5.37 | 0.0983 | 1.829 | 16.638 | 3 | 4 | silty clay to clay |
| 13.780 | 5.37 | 0.1043 | 1.943 | 17.692 | 3 | 4 | silty clay to clay |
| 13.944 | 5.58 | 0.1168 | 2.093 | 19.745 | 4 | 4 | silty clay to clay |
| 14.108 | 5.15 | 0.1382 | 2.682 | 16.569 | 5 | 3 | clay |
| 14.272 | 5.36 | 0.1626 | 3.032 | 17.965 | 5 | 3 | clay |
| 14.436 | 7.29 | 0.1512 | 2.076 | 20.511 | 5 | 4 | silty clay to clay |
| 14.600 | 7.52 | 0.1686 | 2.243 | 17.026 | 5 | 4 | silty clay to clay |
| 14.764 | 6.76 | 0.1649 | 2.439 | 14.582 | 4 | 4 | silty clay to clay |
| 14.928 | 8.44 | 0.1351 | 1.599 | 16.109 | 4 | 5 | clayey silt to silty clay |
| 15.092 | 7.59 | 0.1140 | 1.503 | 14.828 | 4 | 5 | clayey silt to silty clay |
| 15.256 | 6.18 | 0.1260 | 2.039 | 20.617 | 4 | 4 | silty clay to clay |
| 15.420 | 5.44 | 0.1441 | 2.647 | 24.487 | 5 | 3 | clay |
| 15.584 | 6.71 | 0.1161 | 1.731 | 25.924 | 4 | 4 | silty clay to clay |
| 15.748 | 6.20 | 0.1198 | 1.932 | 20.439 | 4 | 4 | silty clay to clay |
| 15.912 | 7.37 | 0.1292 | 1.752 | 29.939 | 5 | 4 | silty clay to clay |
| 16.076 | 7.26 | 0.1507 | 2.075 | 27.958 | 5 | 4 | silty clay to clay |
| 16.240 | 6.92 | 0.1833 | 2.649 | 27.568 | 4 | 4 | silty clay to clay |
| 16.404 | 7.74 | 0.1617 | 2.089 | 24.896 | 5 | 4 | silty clay to clay |
| 16.568 | 10.07 | 0.1562 | 1.552 | 17.739 | 5 | 5 | clayey silt to silty clay |
| 16.732 | 11.33 | 0.1487 | 1.312 | 23.007 | 5 | 5 | clayey silt to silty clay |
| 16.896 | 16.86 | 0.1973 | 1.170 | 3.761 | 6 | 6 | sandy silt to clayey silt |
| 17.060 | 13.33 | 0.1818 | 1.364 | 4.736 | 6 | 5 | clayey silt to silty clay |
| 17.224 | 11.94 | 0.1576 | 1.320 | 8.247 | 6 | 5 | clayey silt to silty clay |
| 17.388 | 9.98 | 0.2089 | 2.093 | 11.977 | 5 | 5 | clayey silt to silty clay |
| 17.552 | 8.58 | 0.2386 | 2.782 | 17.229 | 5 | 4 | silty clay to clay |
| 17.717 | 9.29 | 0.1577 | 1.698 | 18.633 | 4 | 5 | clayey silt to silty clay |
| 17.881 | 11.99 | 0.1473 | 1.228 | 14.557 | 6 | 5 | clayey silt to silty clay |
| 18.045 | 8.50 | 0.1598 | 1.881 | 19.352 | 4 | 5 | clayey silt to silty clay |
| 18.209 | 7.99 | 0.1312 | 1.642 | 27.134 | 4 | 5 | clayey silt to silty clay |
| 18.373 | 8.18 | 0.1363 | 1.665 | 29.624 | 4 | 5 | clayey silt to silty clay |
| 18.537 | 8.27 | 0.1351 | 1.633 | 32.380 | 4 | 5 | clayey silt to silty clay |
| 18.701 | 8.52 | 0.1685 | 1.977 | 34.057 | 4 | 5 | clayey silt to silty clay |
| 18.865 | 8.79 | 0.2383 | 2.712 | 35.080 | 6 | 4 | silty clay to clay |
| 19.029 | 8.74 | 0.2973 | 3.400 | 25.579 | 8 | 3 | clay |
| 19.193 | 9.79 | 0.1468 | 1.499 | 17.263 | 5 | 5 | clayey silt to silty clay |
| 19.357 | 16.56 | 0.2907 | 1.756 | 8.885 | 8 | 5 | clayey silt to silty clay |
| 19.521 | 13.16 | 0.3008 | 2.285 | 10.827 | 6 | 5 | clayey silt to silty clay |
| 19.685 | 15.86 | 0.2264 | 1.428 | 12.217 | 6 | 6 | sandy silt to clayey silt |
| 19.849 | 22.34 | 0.2727 | 1.221 | -3.081 | 9 | 6 | sandy silt to clayey silt |
| 20.013 | 20.33 | 0.2030 | 0.998 | -1.410 | 8 | 6 | sandy silt to clayey silt |
| 20.177 | 21.15 | 0.1948 | 0.921 | -0.919 | 8 | 6 | sandy silt to clayey silt |
| 20.341 | 15.76 | 0.2122 | 1.347 | 1.463 | 6 | 6 | sandy silt to clayey silt |
| 20.505 | 10.38 | 0.1962 | 1.890 | 5.971 | 5 | 5 | clayey silt to silty clay |
| 20.669 | 8.25 | 0.1459 | 1.769 | 18.477 | 4 | 5 | clayey silt to silty clay |
| 20.833 | 9.40 | 0.1342 | 1.427 | 31.329 | 5 | 5 | clayey silt to silty clay |
| 20.997 | 8.77 | 0.1318 | 1.502 | 38.916 | 4 | 5 | clayey silt to silty clay |
| 21.161 | 7.72 | 0.1373 | 1.779 | 43.571 | 4 | 5 | clayey silt to silty clay |
| 21.325 | 8.22 | 0.1333 | 1.622 | 48.857 | 4 | 5 | clayey silt to silty clay |
| 21.490 | 8.81 | 0.1327 | 1.507 | 48.589 | 4 | 5 | clayey silt to silty clay |
| 21.654 | 8.38 | 0.1473 | 1.758 | 51.860 | 4 | 5 | clayey silt to silty clay |
| 21.818 | 9.01 | 0.1673 | 1.856 | 52.456 | 4 | 5 | clayey silt to silty clay |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 21.982 | 9.11 | 0.1756 | 1.927 | 50.548 | 4 | 5 | clayey silt to silty clay |
| 22.146 | 8.91 | 0.1564 | 1.755 | 48.038 | 4 | 5 | clayey silt to silty clay |
| 22.310 | 8.34 | 0.1304 | 1.563 | 48.901 | 4 | 5 | clayey silt to silty clay |
| 22.474 | 7.96 | 0.1248 | 1.569 | 39.911 | 4 | 5 | clayey silt to silty clay |
| 22.638 | 7.22 | 0.1166 | 1.614 | 47.614 | 3 | 5 | clayey silt to silty clay |
| 22.802 | 7.24 | 0.1267 | 1.749 | 50.074 | 5 | 4 | silty clay to clay |
| 22.966 | 7.56 | 0.1265 | 1.672 | 49.194 | 4 | 5 | clayey silt to silty clay |
| 23.130 | 8.12 | 0.1294 | 1.593 | 43.633 | 4 | 5 | clayey silt to silty clay |
| 23.294 | 8.01 | 0.1266 | 1.581 | 45.873 | 4 | 5 | clayey silt to silty clay |
| 23.458 | 7.68 | 0.1164 | 1.516 | 45.410 | 4 | 5 | clayey silt to silty clay |
| 23.622 | 7.26 | 0.1172 | 1.614 | 48.642 | 3 | 5 | clayey silt to silty clay |
| 23.786 | 7.39 | 0.1193 | 1.614 | 52.102 | 4 | 5 | clayey silt to silty clay |
| 23.950 | 8.54 | 0.1412 | 1.654 | 54.033 | 4 | 5 | clayey silt to silty clay |
| 24.114 | 9.54 | 0.1962 | 2.057 | 55.599 | 5 | 5 | clayey silt to silty clay |
| 24.278 | 8.97 | 0.2000 | 2.230 | 42.471 | 6 | 4 | silty clay to clay |
| 24.442 | 7.54 | 0.1777 | 2.358 | 38.838 | 5 | 4 | silty clay to clay |
| 24.606 | 7.96 | 0.1469 | 1.846 | 47.659 | 4 | 5 | clayey silt to silty clay |
| 24.770 | 7.98 | 0.1560 | 1.955 | 48.079 | 5 | 4 | silty clay to clay |
| 24.934 | 8.20 | 0.1633 | 1.991 | 46.775 | 5 | 4 | silty clay to clay |
| 25.098 | 7.77 | 0.1370 | 1.764 | 46.561 | 4 | 5 | clayey silt to silty clay |
| 25.262 | 7.15 | 0.1023 | 1.431 | 44.836 | 3 | 5 | clayey silt to silty clay |
| 25.427 | 6.49 | 0.1188 | 1.829 | 47.480 | 4 | 4 | silty clay to clay |
| 25.591 | 5.52 | 0.1330 | 2.410 | 42.780 | 4 | 4 | silty clay to clay |
| 25.755 | 6.81 | 0.1337 | 1.962 | 30.900 | 4 | 4 | silty clay to clay |
| 25.919 | 7.22 | 0.1471 | 2.037 | 31.040 | 5 | 4 | silty clay to clay |
| 26.083 | 6.51 | 0.1763 | 2.710 | 29.067 | 6 | 3 | clay |
| 26.247 | 9.25 | 0.1609 | 1.739 | 28.167 | 4 | 5 | clayey silt to silty clay |
| 26.411 | 8.58 | 0.1790 | 2.086 | 10.225 | 5 | 4 | silty clay to clay |
| 26.575 | 10.88 | 0.1332 | 1.224 | 20.887 | 5 | 5 | clayey silt to silty clay |
| 26.739 | 9.83 | 0.1162 | 1.182 | 17.081 | 5 | 5 | clayey silt to silty clay |
| 26.903 | 6.91 | 0.1453 | 2.102 | 28.591 | 4 | 4 | silty clay to clay |
| 27.067 | 11.49 | 0.1949 | 1.696 | 43.335 | 6 | 5 | clayey silt to silty clay |
| 27.231 | 24.87 | 0.2090 | 0.840 | 8.798 | 8 | 7 | silty sand to sandy silt |
| 27.395 | 32.44 | 0.2112 | 0.651 | -0.293 | 10 | 7 | silty sand to sandy silt |
| 27.559 | 33.25 | 0.2718 | 0.817 | -0.348 | 11 | 7 | silty sand to sandy silt |
| 27.723 | 34.42 | 0.2768 | 0.804 | 0.120 | 11 | 7 | silty sand to sandy silt |
| 27.887 | 30.22 | 0.3413 | 1.129 | 0.669 | 10 | 7 | silty sand to sandy silt |
| 28.051 | 26.52 | 0.3626 | 1.367 | 1.301 | 10 | 6 | sandy silt to clayey silt |
| 28.215 | 25.40 | 0.4427 | 1.743 | 2.599 | 10 | 6 | sandy silt to clayey silt |
| 28.379 | 28.03 | 0.4755 | 1.696 | 2.154 | 11 | 6 | sandy silt to clayey silt |
| 28.543 | 32.88 | 0.2960 | 0.900 | -1.337 | 10 | 7 | silty sand to sandy silt |
| 28.707 | 49.70 | 0.4186 | 0.842 | -5.121 | 16 | 7 | silty sand to sandy silt |
| 28.871 | 65.08 | 0.5516 | 0.848 | -6.542 | 16 | 8 | sand to silty sand |
| 29.035 | 52.27 | 0.6733 | 1.288 | 1.727 | 17 | 7 | silty sand to sandy silt |
| 29.199 | 37.37 | 0.8195 | 2.193 | 2.792 | 14 | 6 | sandy silt to clayey silt |
| 29.364 | 24.16 | 0.6724 | 2.783 | 4.087 | 12 | 5 | clayey silt to silty clay |
| 29.528 | 20.76 | 0.6432 | 3.098 | 8.776 | 10 | 5 | clayey silt to silty clay |
| 29.692 | 17.76 | 0.5994 | 3.376 | 14.387 | 11 | 4 | silty clay to clay |
| 29.856 | 31.97 | 0.4613 | 1.443 | 15.992 | 12 | 6 | sandy silt to clayey silt |
| 30.020 | 55.04 | 0.4734 | 0.860 | -0.265 | 18 | 7 | silty sand to sandy silt |
| 30.184 | 60.26 | 0.5320 | 0.883 | -2.644 | 19 | 7 | silty sand to sandy silt |
| 30.348 | 83.84 | 0.6781 | 0.809 | -1.017 | 20 | 8 | sand to silty sand |
| 30.512 | 79.30 | 0.7451 | 0.940 | -1.713 | 19 | 8 | sand to silty sand |
| 30.676 | 64.88 | 0.7576 | 1.168 | -0.708 | 21 | 7 | silty sand to sandy silt |
| 30.840 | 53.86 | 0.7167 | 1.331 | 0.552 | 17 | 7 | silty sand to sandy silt |
| 31.004 | 42.63 | 0.7635 | 1.791 | 3.143 | 16 | 6 | sandy silt to clayey silt |
| 31.168 | 44.10 | 0.6373 | 1.445 | 4.190 | 14 | 7 | silty sand to sandy silt |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 31.332 | 63.60 | 0.5320 | 0.837 | 2.914 | 15 | 8 | sand to silty sand |
| 31.496 | 67.80 | 0.5893 | 0.869 | -3.499 | 16 | 8 | sand to silty sand |
| 31.660 | 61.65 | 0.7220 | 1.171 | -2.438 | 20 | 7 | silty sand to sandy silt |
| 31.824 | 55.74 | 0.9071 | 1.627 | -0.254 | 18 | 7 | silty sand to sandy silt |
| 31.988 | 30.42 | 0.8323 | 2.736 | 2.505 | 12 | 6 | sandy silt to clayey silt |
| 32.152 | 14.81 | 0.8385 | 5.663 | 4.747 | 14 | 3 | clay |
| 32.316 | 14.05 | 0.5828 | 4.149 | 16.226 | 13 | 3 | clay |
| 32.480 | 36.79 | 0.4674 | 1.270 | 27.504 | 12 | 7 | silty sand to sandy silt |
| 32.644 | 63.95 | 0.5864 | 0.917 | 1.764 | 15 | 8 | sand to silty sand |
| 32.808 | 61.11 | 0.7073 | 1.157 | 1.936 | 20 | 7 | silty sand to sandy silt |
| 32.972 | 52.76 | 0.7871 | 1.492 | 7.205 | 17 | 7 | silty sand to sandy silt |
| 33.136 | 43.23 | 0.8909 | 2.061 | 8.704 | 17 | 6 | sandy silt to clayey silt |
| 33.301 | 29.28 | 0.8884 | 3.034 | 8.041 | 14 | 5 | clayey silt to silty clay |
| 33.465 | 33.98 | 0.6025 | 1.773 | 7.046 | 13 | 6 | sandy silt to clayey silt |
| 33.629 | 44.08 | 0.4125 | 0.936 | -3.413 | 14 | 7 | silty sand to sandy silt |
| 33.793 | 58.48 | 0.5173 | 0.885 | -5.539 | 19 | 7 | silty sand to sandy silt |
| 33.957 | 61.45 | 0.6171 | 1.004 | -5.216 | 20 | 7 | silty sand to sandy silt |
| 34.121 | 55.82 | 0.7123 | 1.276 | -4.087 | 18 | 7 | silty sand to sandy silt |
| 34.285 | 53.40 | 0.7133 | 1.336 | -2.404 | 17 | 7 | silty sand to sandy silt |
| 34.449 | 60.04 | 0.6555 | 1.092 | -0.641 | 19 | 7 | silty sand to sandy silt |
| 34.613 | 69.36 | 0.6819 | 0.983 | -0.864 | 17 | 8 | sand to silty sand |
| 34.777 | 75.72 | 0.7264 | 0.959 | -0.220 | 18 | 8 | sand to silty sand |
| 34.941 | 84.86 | 0.8710 | 1.026 | -0.167 | 20 | 8 | sand to silty sand |
| 35.105 | 85.58 | 0.9797 | 1.145 | 0.981 | 20 | 8 | sand to silty sand |
| 35.269 | 78.63 | 0.8954 | 1.139 | 2.736 | 19 | 8 | sand to silty sand |
| 35.433 | 68.62 | 0.8389 | 1.223 | 3.845 | 22 | 7 | silty sand to sandy silt |
| 35.597 | 56.80 | 0.7811 | 1.375 | 6.714 | 18 | 7 | silty sand to sandy silt |
| 35.761 | 55.93 | 0.7257 | 1.298 | 7.921 | 18 | 7 | silty sand to sandy silt |
| 35.925 | 55.27 | 0.7036 | 1.273 | 8.119 | 18 | 7 | silty sand to sandy silt |
| 36.089 | 50.95 | 0.6520 | 1.280 | 5.943 | 16 | 7 | silty sand to sandy silt |
| 36.253 | 48.07 | 0.6315 | 1.314 | 8.411 | 15 | 7 | silty sand to sandy silt |
| 36.417 | 45.29 | 0.7264 | 1.604 | 8.963 | 14 | 7 | silty sand to sandy silt |
| 36.581 | 36.10 | 1.0039 | 2.781 | 8.489 | 14 | 6 | sandy silt to clayey silt |
| 36.745 | 20.38 | 0.7955 | 3.903 | 9.325 | 13 | 4 | silty clay to clay |
| 36.909 | 21.30 | 0.4578 | 2.150 | 19.656 | 10 | 5 | clayey silt to silty clay |
| 37.073 | 34.67 | 0.4505 | 1.299 | 2.909 | 11 | 7 | silty sand to sandy silt |
| 37.238 | 33.45 | 0.4299 | 1.285 | 0.337 | 11 | 7 | silty sand to sandy silt |
| 37.402 | 51.00 | 0.4341 | 0.851 | 1.936 | 16 | 7 | silty sand to sandy silt |
| 37.566 | 58.44 | 0.5413 | 0.926 | -1.220 | 19 | 7 | silty sand to sandy silt |
| 37.730 | 45.93 | 0.7565 | 1.647 | 0.532 | 15 | 7 | silty sand to sandy silt |
| 37.894 | 33.70 | 0.7528 | 2.234 | 2.201 | 13 | 6 | sandy silt to clayey silt |
| 38.058 | 36.22 | 0.7412 | 2.046 | 5.040 | 14 | 6 | sandy silt to clayey silt |
| 38.222 | 46.85 | 0.5215 | 1.113 | 1.343 | 15 | 7 | silty sand to sandy silt |
| 38.386 | 69.86 | 0.4979 | 0.713 | -3.190 | 17 | 8 | sand to silty sand |
| 38.550 | 73.20 | 0.4601 | 0.629 | -4.107 | 18 | 8 | sand to silty sand |
| 38.714 | 69.32 | 0.6504 | 0.938 | -2.867 | 17 | 8 | sand to silty sand |
| 38.878 | 61.18 | 0.7515 | 1.228 | 6.193 | 20 | 7 | silty sand to sandy silt |
| 39.042 | 57.31 | 0.7381 | 1.288 | 7.447 | 18 | 7 | silty sand to sandy silt |
| 39.206 | 67.24 | 0.7637 | 1.136 | 9.888 | 21 | 7 | silty sand to sandy silt |
| 39.370 | 58.08 | 0.7529 | 1.296 | 6.227 | 19 | 7 | silty sand to sandy silt |
| 39.534 | 45.76 | 0.8088 | 1.767 | 8.559 | 15 | 7 | silty sand to sandy silt |
| 39.698 | 46.78 | 0.6117 | 1.308 | 9.553 | 15 | 7 | silty sand to sandy silt |
| 39.862 | 44.67 | 0.5610 | 1.256 | 3.329 | 14 | 7 | silty sand to sandy silt |
| 40.026 | 35.97 | 0.5279 | 1.468 | 2.443 | 11 | 7 | silty sand to sandy silt |
| 40.190 | 41.91 | 0.4814 | 1.149 | 6.012 | 13 | 7 | silty sand to sandy silt |
| 40.354 | 44.63 | 0.4762 | 1.067 | 4.171 | 14 | 7 | silty sand to sandy silt |
| 40.518 | 42.32 | 0.5252 | 1.241 | 4.689 | 14 | 7 | silty sand to sandy silt |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 40.682 | 36.46 | 0.6092 | 1.671 | 6.868 | 14 | 6 | sandy silt to clayey silt |
| 40.846 | 24.93 | 0.6355 | 2.549 | 7.971 | 12 | 5 | clayey silt to silty clay |
| 41.011 | 24.96 | 0.5160 | 2.067 | 9.963 | 10 | 6 | sandy silt to clayey silt |
| 41.175 | 26.05 | 0.4674 | 1.794 | 3.134 | 10 | 6 | sandy silt to clayey silt |
| 41.339 | 28.83 | 0.4341 | 1.506 | 3.747 | 11 | 6 | sandy silt to clayey silt |
| 41.503 | 32.25 | 0.5401 | 1.675 | 4.455 | 12 | 6 | sandy silt to clayey silt |
| 41.667 | 30.59 | 0.5607 | 1.833 | 5.957 | 12 | 6 | sandy silt to clayey silt |
| 41.831 | 29.18 | 0.4663 | 1.598 | 8.592 | 11 | 6 | sandy silt to clayey silt |
| 41.995 | 28.25 | 0.3711 | 1.314 | 7.690 | 11 | 6 | sandy silt to clayey silt |
| 42.159 | 11.13 | 0.3377 | 3.035 | 19.216 | 7 | 4 | silty clay to clay |
| 42.323 | 10.65 | 0.3082 | 2.895 | 38.328 | 7 | 4 | silty clay to clay |
| 42.487 | 25.98 | 0.2636 | 1.015 | 43.722 | 10 | 6 | sandy silt to clayey silt |
| 42.651 | 30.61 | 0.3621 | 1.183 | 10.573 | 10 | 7 | silty sand to sandy silt |
| 42.815 | 26.58 | 0.3547 | 1.334 | 12.000 | 10 | 6 | sandy silt to clayey silt |
| 42.979 | 24.29 | 0.4672 | 1.923 | 14.463 | 9 | 6 | sandy silt to clayey silt |
| 43.143 | 16.99 | 0.4860 | 2.861 | 19.567 | 8 | 5 | clayey silt to silty clay |
| 43.307 | 11.57 | 0.3364 | 2.908 | 37.584 | 7 | 4 | silty clay to clay |
| 43.471 | 9.43 | 0.1901 | 2.016 | 52.311 | 5 | 5 | clayey silt to silty clay |
| 43.635 | 9.83 | 0.1611 | 1.639 | 53.119 | 5 | 5 | clayey silt to silty clay |
| 43.799 | 8.53 | 0.1596 | 1.871 | 56.602 | 4 | 5 | clayey silt to silty clay |
| 43.963 | 8.63 | 0.1594 | 1.848 | 58.037 | 4 | 5 | clayey silt to silty clay |
| 44.127 | 8.75 | 0.1889 | 2.158 | 58.892 | 6 | 4 | silty clay to clay |
| 44.291 | 11.77 | 0.1726 | 1.467 | 54.345 | 6 | 5 | clayey silt to silty clay |
| 44.455 | 13.62 | 0.1886 | 1.384 | 42.011 | 7 | 5 | clayey silt to silty clay |
| 44.619 | 11.65 | 0.2394 | 2.054 | 49.812 | 6 | 5 | clayey silt to silty clay |
| 44.783 | 11.50 | 0.2982 | 2.594 | 55.248 | 7 | 4 | silty clay to clay |
| 44.948 | 14.31 | 0.2369 | 1.656 | 54.184 | 7 | 5 | clayey silt to silty clay |
| 45.112 | 12.51 | 0.2706 | 2.163 | 44.650 | 6 | 5 | clayey silt to silty clay |
| 45.276 | 11.10 | 0.2672 | 2.407 | 52.490 | 5 | 5 | clayey silt to silty clay |
| 45.440 | 12.82 | 0.3562 | 2.779 | 44.535 | 8 | 4 | silty clay to clay |
| 45.604 | 11.54 | 0.3252 | 2.818 | 52.141 | 7 | 4 | silty clay to clay |
| 45.768 | 38.38 | 0.5009 | 1.305 | 40.546 | 12 | 7 | silty sand to sandy silt |
| 45.932 | 32.72 | 0.6399 | 1.956 | 16.574 | 13 | 6 | sandy silt to clayey silt |
| 46.096 | 25.96 | 0.5201 | 2.004 | 13.655 | 10 | 6 | sandy silt to clayey silt |
| 46.260 | 33.13 | 0.3740 | 1.129 | 23.453 | 11 | 7 | silty sand to sandy silt |
| 46.424 | 32.91 | 0.5435 | 1.652 | 9.918 | 13 | 6 | sandy silt to clayey silt |
| 46.588 | 21.79 | 0.5930 | 2.722 | 16.143 | 10 | 5 | clayey silt to silty clay |
| 46.752 | 21.92 | 0.4573 | 2.086 | 32.848 | 8 | 6 | sandy silt to clayey silt |
| 46.916 | 30.24 | 0.5059 | 1.673 | 19.709 | 12 | 6 | sandy silt to clayey silt |
| 47.080 | 32.58 | 0.6048 | 1.856 | 19.673 | 12 | 6 | sandy silt to clayey silt |
| 47.244 | 37.22 | 0.4524 | 1.216 | 18.895 | 12 | 7 | silty sand to sandy silt |
| 47.408 | 48.29 | 0.4380 | 0.907 | 11.671 | 15 | 7 | silty sand to sandy silt |
| 47.572 | 47.29 | 0.5893 | 1.246 | 12.058 | 15 | 7 | silty sand to sandy silt |
| 47.736 | 35.42 | 0.7895 | 2.229 | 17.497 | 14 | 6 | sandy silt to clayey silt |
| 47.900 | 22.71 | 0.7756 | 3.415 | 23.214 | 11 | 5 | clayey silt to silty clay |
| 48.064 | 20.26 | 0.5039 | 2.486 | 41.975 | 10 | 5 | clayey silt to silty clay |
| 48.228 | 27.48 | 0.5867 | 2.135 | 24.857 | 11 | 6 | sandy silt to clayey silt |
| 48.392 | 21.57 | 0.4803 | 2.227 | 29.385 | 10 | 5 | clayey silt to silty clay |
| 48.556 | 20.43 | 0.4343 | 2.126 | 31.137 | 10 | 5 | clayey silt to silty clay |
| 48.720 | 19.35 | 0.4025 | 2.080 | 28.307 | 9 | 5 | clayey silt to silty clay |
| 48.885 | 11.80 | 0.3568 | 3.024 | 45.254 | 8 | 4 | silty clay to clay |
| 49.049 | 11.06 | 0.2957 | 2.673 | 59.611 | 7 | 4 | silty clay to clay |
| 49.213 | 10.95 | 0.2644 | 2.414 | 65.356 | 5 | 5 | clayey silt to silty clay |
| 49.377 | 10.56 | 0.2422 | 2.294 | 64.865 | 5 | 5 | clayey silt to silty clay |
| 49.541 | 11.22 | 0.2727 | 2.429 | 61.349 | 5 | 5 | clayey silt to silty clay |
| 49.705 | 10.60 | 0.2485 | 2.345 | 65.278 | 5 | 5 | clayey silt to silty clay |
| 49.869 | 17.43 | 0.3136 | 1.799 | 52.033 | 8 | 5 | clayey silt to silty clay |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 50.033 | 17.92 | 0.4436 | 2.476 | 42.293 | 9 | 5 | clayey silt to silty clay |
| 50.197 | 22.53 | 0.4333 | 1.923 | 37.464 | 9 | 6 | sandy silt to clayey silt |
| 50.361 | 30.29 | 0.4201 | 1.387 | 21.784 | 12 | 6 | sandy silt to clayey silt |
| 50.525 | 38.09 | 0.4254 | 1.117 | 16.661 | 12 | 7 | silty sand to sandy silt |
| 50.689 | 41.34 | 0.3534 | 0.855 | 12.476 | 13 | 7 | silty sand to sandy silt |
| 50.853 | 47.97 | 0.5205 | 1.085 | 10.855 | 15 | 7 | silty sand to sandy silt |
| 51.017 | 34.62 | 0.7343 | 2.121 | 9.879 | 13 | 6 | sandy silt to clayey silt |
| 51.181 | 31.86 | 0.5613 | 1.762 | 17.391 | 12 | 6 | sandy silt to clayey silt |
| 51.345 | 31.96 | 0.6302 | 1.972 | 24.222 | 12 | 6 | sandy silt to clayey silt |
| 51.509 | 37.14 | 0.7803 | 2.101 | 22.812 | 14 | 6 | sandy silt to clayey silt |
| 51.673 | 31.01 | 0.4875 | 1.572 | 40.142 | 12 | 6 | sandy silt to clayey silt |
| 51.837 | 70.86 | 0.6427 | 0.907 | 15.613 | 17 | 8 | sand to silty sand |
| 52.001 | 55.72 | 0.7436 | 1.335 | 12.752 | 18 | 7 | silty sand to sandy silt |
| 52.165 | 69.34 | 0.5949 | 0.858 | 10.556 | 17 | 8 | sand to silty sand |
| 52.329 | 57.00 | 0.5668 | 0.994 | 3.555 | 18 | 7 | silty sand to sandy silt |
| 52.493 | 52.28 | 0.7336 | 1.403 | 4.332 | 17 | 7 | silty sand to sandy silt |
| 52.657 | 50.40 | 0.4974 | 0.987 | 6.801 | 16 | 7 | silty sand to sandy silt |
| 52.822 | 46.76 | 0.6843 | 1.463 | 1.613 | 15 | 7 | silty sand to sandy silt |
| 52.986 | 29.67 | 0.7434 | 2.505 | 3.020 | 11 | 6 | sandy silt to clayey silt |
| 53.150 | 18.47 | 0.6042 | 3.272 | 16.995 | 9 | 5 | clayey silt to silty clay |
| 53.314 | 12.73 | 0.4315 | 3.389 | 49.743 | 8 | 4 | silty clay to clay |
| 53.478 | 24.89 | 0.6080 | 2.443 | 53.431 | 12 | 5 | clayey silt to silty clay |
| 53.642 | 22.65 | 0.7251 | 3.201 | 20.923 | 11 | 5 | clayey silt to silty clay |
| 53.806 | 26.50 | 0.4808 | 1.814 | 32.667 | 10 | 6 | sandy silt to clayey silt |
| 53.970 | 52.72 | 0.5526 | 1.048 | 15.950 | 17 | 7 | silty sand to sandy silt |
| 54.134 | 48.75 | 0.8134 | 1.669 | 8.815 | 16 | 7 | silty sand to sandy silt |
| 54.298 | 31.27 | 0.9540 | 3.051 | 18.199 | 15 | 5 | clayey silt to silty clay |
| 54.462 | 18.24 | 0.7556 | 4.142 | 31.143 | 12 | 4 | silty clay to clay |
| 54.626 | 15.27 | 0.4757 | 3.115 | 53.284 | 10 | 4 | silty clay to clay |
| 54.790 | 14.23 | 0.2807 | 1.972 | 54.334 | 7 | 5 | clayey silt to silty clay |
| 54.954 | 13.15 | 0.2906 | 2.211 | 57.505 | 6 | 5 | clayey silt to silty clay |
| 55.118 | 10.55 | 0.2832 | 2.685 | 70.070 | 7 | 4 | silty clay to clay |
| 55.282 | 11.16 | 0.2982 | 2.671 | 71.535 | 7 | 4 | silty clay to clay |
| 55.446 | 11.28 | 0.2951 | 2.617 | 67.624 | 7 | 4 | silty clay to clay |
| 55.610 | 11.44 | 0.3435 | 3.003 | 72.594 | 7 | 4 | silty clay to clay |
| 55.774 | 23.54 | 0.3992 | 1.696 | 34.336 | 9 | 6 | sandy silt to clayey silt |
| 55.938 | 17.54 | 0.3868 | 2.205 | 17.820 | 8 | 5 | clayey silt to silty clay |
| 56.102 | 10.59 | 0.3476 | 3.282 | 45.449 | 7 | 4 | silty clay to clay |
| 56.266 | 10.97 | 0.2485 | 2.265 | 65.261 | 5 | 5 | clayey silt to silty clay |
| 56.430 | 11.34 | 0.2076 | 1.830 | 68.267 | 5 | 5 | clayey silt to silty clay |
| 56.594 | 11.06 | 0.3028 | 2.738 | 70.134 | 7 | 4 | silty clay to clay |
| 56.759 | 10.79 | 0.4513 | 4.182 | 80.261 | 10 | 3 | clay |
| 56.923 | 46.04 | 0.3879 | 0.843 | 66.278 | 15 | 7 | silty sand to sandy silt |
| 57.087 | 76.32 | 0.4588 | 0.601 | 6.244 | 18 | 8 | sand to silty sand |
| 57.251 | 68.74 | 0.5019 | 0.730 | 6.065 | 16 | 8 | sand to silty sand |
| 57.415 | 58.88 | 0.5553 | 0.943 | 10.453 | 19 | 7 | silty sand to sandy silt |
| 57.579 | 54.34 | 0.7135 | 1.313 | 14.903 | 17 | 7 | silty sand to sandy silt |
| 57.743 | 57.72 | 0.7947 | 1.377 | 17.951 | 18 | 7 | silty sand to sandy silt |
| 57.907 | 66.01 | 0.4689 | 0.710 | 2.193 | 16 | 8 | sand to silty sand |
| 58.071 | 53.91 | 1.0255 | 1.902 | -2.666 | 17 | 7 | silty sand to sandy silt |
| 58.235 | 27.85 | 0.7019 | 2.520 | 0.301 | 11 | 6 | sandy silt to clayey silt |
| 58.399 | 18.91 | 0.6431 | 3.401 | 33.113 | 9 | 5 | clayey silt to silty clay |
| 58.563 | 12.25 | 0.4892 | 3.993 | 38.671 | 12 | 3 | clay |
| 58.727 | 21.73 | 0.4959 | 2.282 | 75.642 | 10 | 5 | clayey silt to silty clay |
| 58.891 | 21.94 | 0.4907 | 2.237 | 19.269 | 11 | 5 | clayey silt to silty clay |
| 59.055 | 12.58 | 0.5827 | 4.634 | 44.388 | 12 | 3 | clay |
| 59.219 | 26.91 | 0.4714 | 1.751 | 68.022 | 10 | 6 | sandy silt to clayey silt |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 59.383 | 66.30 | 0.3634 | 0.548 | 11.395 | 16 | 8 | sand to silty sand |
| 59.547 | 66.10 | 0.4924 | 0.745 | 3.686 | 16 | 8 | sand to silty sand |
| 59.711 | 54.18 | 0.7267 | 1.341 | 9.325 | 17 | 7 | silty sand to sandy silt |
| 59.875 | 31.44 | 0.8442 | 2.685 | 16.151 | 12 | 6 | sandy silt to clayey silt |
| 60.039 | 19.28 | 0.6095 | 3.161 | 33.536 | 9 | 5 | clayey silt to silty clay |
| 60.203 | 14.32 | 0.3459 | 2.416 | 55.841 | 7 | 5 | clayey silt to silty clay |
| 60.367 | 14.56 | 0.2721 | 1.869 | 65.852 | 7 | 5 | clayey silt to silty clay |
| 60.532 | 13.21 | 0.2577 | 1.950 | 68.799 | 6 | 5 | clayey silt to silty clay |
| 60.696 | 12.10 | 0.2596 | 2.145 | 74.377 | 6 | 5 | clayey silt to silty clay |
| 60.860 | 12.09 | 0.2433 | 2.012 | 78.208 | 6 | 5 | clayey silt to silty clay |
| 61.024 | 12.26 | 0.2364 | 1.929 | 79.392 | 6 | 5 | clayey silt to silty clay |
| 61.188 | 11.23 | 0.2606 | 2.320 | 83.825 | 5 | 5 | clayey silt to silty clay |
| 61.352 | 11.82 | 0.2414 | 2.042 | 84.636 | 6 | 5 | clayey silt to silty clay |
| 61.516 | 11.34 | 0.3329 | 2.936 | 82.499 | 7 | 4 | silty clay to clay |
| 61.680 | 16.71 | 0.4302 | 2.575 | 103.068 | 8 | 5 | clayey silt to silty clay |
| 61.844 | 81.91 | 0.6011 | 0.734 | 29.524 | 20 | 8 | sand to silty sand |
| 62.008 | 104.63 | 0.8790 | 0.840 | 12.083 | 25 | 8 | sand to silty sand |
| 62.172 | 114.51 | 1.0199 | 0.891 | 17.984 | 27 | 8 | sand to silty sand |
| 62.336 | 107.97 | 1.0076 | 0.933 | 18.792 | 26 | 8 | sand to silty sand |
| 62.500 | 92.40 | 0.7731 | 0.837 | 18.931 | 22 | 8 | sand to silty sand |
| 62.664 | 73.45 | 0.7347 | 1.000 | 17.427 | 18 | 8 | sand to silty sand |
| 62.828 | 65.16 | 0.6863 | 1.053 | 19.773 | 21 | 7 | silty sand to sandy silt |
| 62.992 | 69.70 | 0.6398 | 0.918 | 15.591 | 17 | 8 | sand to silty sand |
| 63.156 | 56.62 | 0.8247 | 1.457 | 2.449 | 18 | 7 | silty sand to sandy silt |
| 63.320 | 28.76 | 0.9200 | 3.199 | -0.440 | 14 | 5 | clayey silt to silty clay |
| 63.484 | 17.24 | 0.5739 | 3.329 | 9.531 | 11 | 4 | silty clay to clay |
| 63.648 | 14.14 | 0.3921 | 2.773 | 42.251 | 7 | 5 | clayey silt to silty clay |
| 63.812 | 11.33 | 0.3381 | 2.986 | 66.972 | 7 | 4 | silty clay to clay |
| 63.976 | 11.87 | 0.2802 | 2.359 | 65.662 | 6 | 5 | clayey silt to silty clay |
| 64.140 | 13.10 | 0.2124 | 1.621 | 58.753 | 6 | 5 | clayey silt to silty clay |
| 64.304 | 10.41 | 0.2328 | 2.236 | 62.684 | 5 | 5 | clayey silt to silty clay |
| 64.469 | 9.60 | 0.2308 | 2.404 | 75.313 | 6 | 4 | silty clay to clay |
| 64.633 | 9.70 | 0.2457 | 2.534 | 72.605 | 6 | 4 | silty clay to clay |
| 64.797 | 10.40 | 0.4127 | 3.969 | 75.531 | 10 | 3 | clay |
| 64.961 | 28.63 | 0.4234 | 1.479 | 64.425 | 11 | 6 | sandy silt to clayey silt |
| 65.125 | 84.70 | 0.5744 | 0.678 | 10.398 | 20 | 8 | sand to silty sand |
| 65.289 | 107.82 | 0.7384 | 0.685 | 13.524 | 26 | 8 | sand to silty sand |
| 65.453 | 99.63 | 0.8081 | 0.811 | 18.917 | 24 | 8 | sand to silty sand |
| 65.617 | 77.74 | 0.7539 | 0.970 | 18.920 | 19 | 8 | sand to silty sand |
| 65.781 | 62.89 | 0.6425 | 1.022 | 20.363 | 20 | 7 | silty sand to sandy silt |
| 65.945 | 54.53 | 0.6420 | 1.177 | 18.057 | 17 | 7 | silty sand to sandy silt |
| 66.109 | 50.67 | 0.8776 | 1.732 | 9.696 | 16 | 7 | silty sand to sandy silt |
| 66.273 | 50.62 | 0.9501 | 1.877 | 3.201 | 16 | 7 | silty sand to sandy silt |
| 66.437 | 51.37 | 0.9331 | 1.816 | 0.410 | 16 | 7 | silty sand to sandy silt |
| 66.601 | 47.66 | 0.9856 | 2.068 | -0.694 | 18 | 6 | sandy silt to clayey silt |
| 66.765 | 46.89 | 0.8475 | 1.808 | 0.855 | 15 | 7 | silty sand to sandy silt |
| 66.929 | 48.70 | 0.7152 | 1.469 | 0.323 | 16 | 7 | silty sand to sandy silt |
| 67.093 | 51.17 | 0.5984 | 1.169 | -1.404 | 16 | 7 | silty sand to sandy silt |
| 67.257 | 58.89 | 0.7181 | 1.219 | -1.613 | 19 | 7 | silty sand to sandy silt |
| 67.421 | 78.62 | 0.5171 | 0.658 | 1.075 | 19 | 8 | sand to silty sand |
| 67.585 | 102.62 | 0.6875 | 0.670 | 2.764 | 25 | 8 | sand to silty sand |
| 67.749 | 119.19 | 0.9052 | 0.760 | 4.207 | 29 | 8 | sand to silty sand |
| 67.913 | 137.07 | 1.1859 | 0.865 | 11.891 | 33 | 8 | sand to silty sand |
| 68.077 | 160.55 | 1.1366 | 0.708 | 20.001 | 31 | 9 | sand |
| 68.241 | 188.47 | 1.4706 | 0.780 | 22.208 | 36 | 9 | sand |
| 68.406 | 191.74 | 1.6365 | 0.853 | 23.584 | 37 | 9 | sand |
| 68.570 | 191.84 | 1.7761 | 0.926 | 22.654 | 37 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|-----------------------------------|
| 68.734 | 196.90 | 1.8370 | 0.933 | 22.668 | 38 | 9 | sand |
| 68.898 | 202.54 | 1.8854 | 0.931 | 23.785 | 39 | 9 | sand |
| 69.062 | 203.23 | 1.9235 | 0.946 | 24.150 | 39 | 9 | sand |
| 69.226 | 196.71 | 1.9305 | 0.981 | 23.545 | 38 | 9 | sand |
| 69.390 | 187.56 | 1.8628 | 0.993 | 23.258 | 36 | 9 | sand |
| 69.554 | 174.61 | 1.7792 | 1.019 | 24.348 | 33 | 9 | sand |
| 69.718 | 164.77 | 1.6403 | 0.996 | 22.378 | 32 | 9 | sand |
| 69.882 | 160.69 | 1.4989 | 0.933 | 22.726 | 31 | 9 | sand |
| 70.046 | 152.28 | 1.3926 | 0.914 | 22.556 | 29 | 9 | sand |
| 70.210 | 150.24 | 1.2485 | 0.831 | 23.526 | 29 | 9 | sand |
| 70.374 | 142.55 | 1.1822 | 0.829 | 22.754 | 27 | 9 | sand |
| 70.538 | 138.75 | 1.0938 | 0.788 | 23.306 | 27 | 9 | sand |
| 70.702 | 137.78 | 1.0540 | 0.765 | 23.612 | 26 | 9 | sand |
| 70.866 | 142.15 | 0.9836 | 0.692 | 23.774 | 27 | 9 | sand |
| 71.030 | 139.59 | 0.9642 | 0.691 | 23.194 | 27 | 9 | sand |
| 71.194 | 127.43 | 0.9435 | 0.740 | 22.941 | 31 | 8 | sand to silty sand |
| 71.358 | 111.20 | 0.6240 | 0.561 | 21.667 | 21 | 9 | sand |
| 71.522 | 104.53 | 0.6108 | 0.584 | 22.576 | 25 | 8 | sand to silty sand |
| 71.686 | 99.44 | 0.6166 | 0.620 | 23.565 | 24 | 8 | sand to silty sand |
| 71.850 | 102.03 | 0.6349 | 0.622 | 23.743 | 24 | 8 | sand to silty sand |
| 72.014 | 104.52 | 0.6253 | 0.598 | 23.612 | 25 | 8 | sand to silty sand |
| 72.178 | 110.24 | 0.6344 | 0.575 | 24.141 | 26 | 8 | sand to silty sand |
| 72.343 | 123.51 | 0.6905 | 0.559 | 23.918 | 24 | 9 | sand |
| 72.507 | 122.56 | 0.7286 | 0.594 | 23.645 | 23 | 9 | sand |
| 72.671 | 107.62 | 0.7222 | 0.671 | 23.172 | 26 | 8 | sand to silty sand |
| 72.835 | 103.00 | 0.6891 | 0.669 | 23.448 | 25 | 8 | sand to silty sand |
| 72.999 | 101.54 | 0.6584 | 0.648 | 23.640 | 24 | 8 | sand to silty sand |
| 73.163 | 104.04 | 0.6656 | 0.640 | 24.130 | 25 | 8 | sand to silty sand |
| 73.327 | 110.43 | 0.6925 | 0.627 | 24.495 | 26 | 8 | sand to silty sand |
| 73.491 | 118.33 | 0.7204 | 0.609 | 24.481 | 23 | 9 | sand |
| 73.655 | 131.49 | 0.7928 | 0.603 | 24.607 | 25 | 9 | sand |
| 73.819 | 133.23 | 0.8463 | 0.635 | 24.632 | 26 | 9 | sand |
| 73.983 | 122.13 | 0.8459 | 0.693 | 24.111 | 29 | 8 | sand to silty sand |
| 74.147 | 124.35 | 0.8501 | 0.684 | 24.958 | 24 | 9 | sand |
| 74.311 | 129.07 | 0.8690 | 0.673 | 24.699 | 25 | 9 | sand |
| 74.475 | 140.33 | 1.0154 | 0.724 | 25.114 | 27 | 9 | sand |
| 74.639 | 165.01 | 0.9150 | 0.555 | 26.061 | 32 | 9 | sand |
| 74.803 | 179.20 | 1.1649 | 0.650 | 26.331 | 34 | 9 | sand |
| 74.967 | 171.53 | 1.2727 | 0.742 | 26.036 | 33 | 9 | sand |
| 75.131 | 135.58 | 1.2164 | 0.897 | 22.135 | 32 | 8 | sand to silty sand |
| 75.295 | 113.68 | 1.0386 | 0.914 | 23.069 | 27 | 8 | sand to silty sand |
| 75.459 | 105.31 | 0.8805 | 0.836 | 23.211 | 25 | 8 | sand to silty sand |
| 75.623 | 101.19 | 0.7857 | 0.776 | 24.320 | 24 | 8 | sand to silty sand |
| 75.787 | 99.44 | 0.7492 | 0.753 | 24.974 | 24 | 8 | sand to silty sand |
| 75.951 | 98.67 | 0.7161 | 0.726 | 25.468 | 24 | 8 | sand to silty sand |
| 76.115 | 98.65 | 0.7061 | 0.716 | 25.206 | 24 | 8 | sand to silty sand |
| 76.280 | 99.97 | 0.6914 | 0.692 | 25.312 | 24 | 8 | sand to silty sand |
| 76.444 | 102.97 | 0.7010 | 0.681 | 25.774 | 25 | 8 | sand to silty sand |
| 76.608 | 105.68 | 0.7207 | 0.682 | 25.810 | 25 | 8 | sand to silty sand |
| 76.772 | 108.52 | 0.7532 | 0.694 | 26.039 | 26 | 8 | sand to silty sand |
| 76.936 | 114.54 | 0.7856 | 0.686 | 25.844 | 27 | 8 | sand to silty sand |
| 77.100 | 125.26 | 0.8477 | 0.677 | 26.150 | 24 | 9 | sand |
| 77.264 | 125.87 | 0.8988 | 0.714 | 25.944 | 24 | 9 | sand |
| 77.428 | 118.77 | 0.9101 | 0.766 | 25.866 | 28 | 8 | sand to silty sand |
| 77.592 | 115.62 | 0.9016 | 0.780 | 25.417 | 28 | 8 | sand to silty sand |
| 77.756 | 119.57 | 0.8952 | 0.749 | 26.270 | 29 | 8 | sand to silty sand |
| 77.920 | 132.66 | 0.5749 | 0.433 | 27.178 | 25 | 9 | sand |

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| Depth ft | Tip (QT) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type | Soil UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|-----------------------|------------------|
| 78.084 | 156.14 | 0.7680 | 0.492 | 27.259 | 30 | 9 | sand | |
| 78.248 | 163.72 | 0.9834 | 0.601 | 28.922 | 31 | 9 | sand | |
| 78.412 | 160.47 | 1.1208 | 0.698 | 26.582 | 31 | 9 | sand | |
| 78.576 | 156.14 | 1.0781 | 0.690 | 27.005 | 30 | 9 | sand | |
| 78.740 | 142.56 | 0.9619 | 0.675 | 24.451 | 27 | 9 | sand | |
| 78.904 | 109.80 | 0.8408 | 0.766 | 24.685 | 26 | 8 | sand to silty sand | |
| 79.068 | 97.19 | 0.6889 | 0.709 | 24.785 | 23 | 8 | sand to silty sand | |
| 79.232 | 89.66 | 0.5849 | 0.652 | 25.704 | 21 | 8 | sand to silty sand | |
| 79.396 | 89.31 | 0.5335 | 0.597 | 26.551 | 21 | 8 | sand to silty sand | |
| 79.560 | 87.93 | 0.5352 | 0.609 | 26.808 | 21 | 8 | sand to silty sand | |
| 79.724 | 88.38 | 0.5218 | 0.590 | 26.401 | 21 | 8 | sand to silty sand | |
| 79.888 | 88.57 | 0.5146 | 0.581 | 26.771 | 21 | 8 | sand to silty sand | |
| 80.052 | 88.97 | 0.5109 | 0.574 | 26.827 | 21 | 8 | sand to silty sand | |
| 80.217 | 88.52 | 0.5134 | 0.580 | 27.000 | 21 | 8 | sand to silty sand | |
| 80.381 | 87.94 | 0.5114 | 0.581 | 27.033 | 21 | 8 | sand to silty sand | |
| 80.545 | 88.48 | 0.5180 | 0.585 | 27.148 | 21 | 8 | sand to silty sand | |
| 80.709 | 88.85 | 0.5257 | 0.592 | 27.343 | 21 | 8 | sand to silty sand | |
| 80.873 | 87.44 | 0.5252 | 0.601 | 27.036 | 21 | 8 | sand to silty sand | |
| 81.037 | 89.26 | 0.5433 | 0.609 | 27.487 | 21 | 8 | sand to silty sand | |
| 81.201 | 91.73 | 0.5142 | 0.561 | 27.253 | 22 | 8 | sand to silty sand | |
| 81.365 | 89.41 | 0.5092 | 0.569 | 27.384 | 21 | 8 | sand to silty sand | |
| 81.529 | 86.15 | 0.5017 | 0.582 | 27.772 | 21 | 8 | sand to silty sand | |
| 81.693 | 87.94 | 0.5053 | 0.575 | 27.802 | 21 | 8 | sand to silty sand | |
| 81.857 | 88.01 | 0.5102 | 0.580 | 27.774 | 21 | 8 | sand to silty sand | |
| 82.021 | 85.74 | 0.5029 | 0.587 | 27.839 | 21 | 8 | sand to silty sand | |
| 82.185 | 85.27 | 0.4947 | 0.580 | 28.206 | 20 | 8 | sand to silty sand | |
| 82.349 | 86.16 | 0.4973 | 0.577 | 28.170 | 21 | 8 | sand to silty sand | |
| 82.513 | 87.16 | 0.5015 | 0.575 | 28.050 | 21 | 8 | sand to silty sand | |
| 82.677 | 86.40 | 0.5105 | 0.591 | 27.925 | 21 | 8 | sand to silty sand | |
| 82.841 | 84.17 | 0.4860 | 0.577 | 28.078 | 20 | 8 | sand to silty sand | |
| 83.005 | 83.25 | 0.4855 | 0.583 | 28.332 | 20 | 8 | sand to silty sand | |
| 83.169 | 83.24 | 0.4977 | 0.598 | 28.173 | 20 | 8 | sand to silty sand | |
| 83.333 | 82.17 | 0.4875 | 0.593 | 28.727 | 20 | 8 | sand to silty sand | |
| 83.497 | 83.47 | 0.4841 | 0.580 | 28.432 | 20 | 8 | sand to silty sand | |
| 83.661 | 85.51 | 0.5071 | 0.593 | 28.736 | 20 | 8 | sand to silty sand | |
| 83.825 | 84.85 | 0.4999 | 0.589 | 28.800 | 20 | 8 | sand to silty sand | |
| 83.990 | 83.23 | 0.4843 | 0.582 | 28.775 | 20 | 8 | sand to silty sand | |
| 84.154 | 84.91 | 0.5012 | 0.590 | 28.864 | 20 | 8 | sand to silty sand | |
| 84.318 | 85.77 | 0.4742 | 0.553 | 29.042 | 21 | 8 | sand to silty sand | |
| 84.482 | 88.26 | 0.4968 | 0.563 | 29.388 | 21 | 8 | sand to silty sand | |
| 84.646 | 86.01 | 0.5077 | 0.590 | 29.087 | 21 | 8 | sand to silty sand | |
| 84.810 | 88.09 | 0.5042 | 0.572 | 29.435 | 21 | 8 | sand to silty sand | |
| 84.974 | 90.31 | 0.5203 | 0.576 | 29.446 | 22 | 8 | sand to silty sand | |
| 85.138 | 91.68 | 0.5399 | 0.589 | 29.265 | 22 | 8 | sand to silty sand | |
| 85.302 | 95.77 | 0.5771 | 0.603 | 29.803 | 23 | 8 | sand to silty sand | |
| 85.466 | 103.53 | 0.6211 | 0.600 | 29.883 | 25 | 8 | sand to silty sand | |
| 85.630 | 112.66 | 0.6785 | 0.602 | 30.148 | 27 | 8 | sand to silty sand | |
| 85.794 | 118.48 | 0.7112 | 0.600 | 29.817 | 23 | 9 | sand | |
| 85.958 | 127.69 | 0.7510 | 0.588 | 29.831 | 24 | 9 | sand | |
| 86.122 | 124.92 | 0.7783 | 0.623 | 29.936 | 24 | 9 | sand | |
| 86.286 | 110.20 | 0.7933 | 0.720 | 29.805 | 26 | 8 | sand to silty sand | |
| 86.450 | 103.35 | 0.7530 | 0.729 | 29.329 | 25 | 8 | sand to silty sand | |
| 86.614 | 100.43 | 0.7172 | 0.714 | 30.541 | 24 | 8 | sand to silty sand | |
| 86.778 | 104.03 | 0.6877 | 0.661 | 30.460 | 25 | 8 | sand to silty sand | |
| 86.942 | 110.90 | 0.6952 | 0.627 | 30.664 | 27 | 8 | sand to silty sand | |
| 87.106 | 117.89 | 0.7294 | 0.619 | 30.820 | 23 | 9 | sand | |
| 87.270 | 119.84 | 0.7898 | 0.659 | 30.126 | 23 | 9 | sand | |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|---------------------------|------|
| 87.434 | 123.92 | 0.8429 | 0.680 | 30.413 | 24 | 9 | sand | |
| 87.598 | 138.26 | 0.9520 | 0.689 | 31.837 | 26 | 9 | sand | |
| 87.762 | 139.54 | 0.8318 | 0.596 | 33.751 | 27 | 9 | sand | |
| 87.927 | 119.24 | 0.7417 | 0.622 | 30.561 | 23 | 9 | sand | |
| 88.091 | 99.39 | 0.6370 | 0.641 | 30.326 | 24 | 8 | sand to silty | sand |
| 88.255 | 96.97 | 0.6086 | 0.628 | 30.299 | 23 | 8 | sand to silty | sand |
| 88.419 | 94.52 | 0.5987 | 0.633 | 30.758 | 23 | 8 | sand to silty | sand |
| 88.583 | 94.08 | 0.5857 | 0.622 | 30.806 | 23 | 8 | sand to silty | sand |
| 88.747 | 95.86 | 0.5805 | 0.606 | 31.168 | 23 | 8 | sand to silty | sand |
| 88.911 | 97.35 | 0.5722 | 0.588 | 31.143 | 23 | 8 | sand to silty | sand |
| 89.075 | 99.86 | 0.5771 | 0.578 | 31.140 | 24 | 8 | sand to silty | sand |
| 89.239 | 99.65 | 0.6246 | 0.627 | 31.068 | 24 | 8 | sand to silty | sand |
| 89.403 | 99.25 | 0.6341 | 0.639 | 31.460 | 24 | 8 | sand to silty | sand |
| 89.567 | 103.91 | 0.6341 | 0.610 | 31.784 | 25 | 8 | sand to silty | sand |
| 89.731 | 107.04 | 0.6322 | 0.591 | 31.566 | 26 | 8 | sand to silty | sand |
| 89.895 | 108.88 | 0.6516 | 0.598 | 31.307 | 26 | 8 | sand to silty | sand |
| 90.059 | 107.54 | 0.6415 | 0.597 | 31.341 | 26 | 8 | sand to silty | sand |
| 90.223 | 105.81 | 0.6358 | 0.601 | 31.831 | 25 | 8 | sand to silty | sand |
| 90.387 | 101.92 | 0.6269 | 0.615 | 31.622 | 24 | 8 | sand to silty | sand |
| 90.551 | 101.45 | 0.6229 | 0.614 | 31.686 | 24 | 8 | sand to silty | sand |
| 90.715 | 102.12 | 0.6238 | 0.611 | 31.828 | 24 | 8 | sand to silty | sand |
| 90.879 | 105.20 | 0.6415 | 0.610 | 32.151 | 25 | 8 | sand to silty | sand |
| 91.043 | 108.07 | 0.5893 | 0.545 | 32.408 | 26 | 8 | sand to silty | sand |
| 91.207 | 113.09 | 0.6398 | 0.566 | 32.179 | 22 | 9 | sand | |
| 91.371 | 111.04 | 0.6585 | 0.593 | 32.388 | 27 | 8 | sand to silty | sand |
| 91.535 | 112.91 | 0.7036 | 0.623 | 32.327 | 27 | 8 | sand to silty | sand |
| 91.699 | 119.03 | 0.7113 | 0.598 | 32.706 | 23 | 9 | sand | |
| 91.864 | 133.95 | 0.7840 | 0.585 | 33.157 | 26 | 9 | sand | |
| 92.028 | 145.04 | 0.8612 | 0.594 | 33.698 | 28 | 9 | sand | |
| 92.192 | 153.75 | 0.9746 | 0.634 | 33.065 | 29 | 9 | sand | |
| 92.356 | 165.22 | 1.0445 | 0.632 | 34.815 | 32 | 9 | sand | |
| 92.520 | 159.20 | 1.0974 | 0.689 | 33.898 | 30 | 9 | sand | |
| 92.684 | 162.57 | 1.0982 | 0.676 | 33.051 | 31 | 9 | sand | |
| 92.848 | 172.14 | 1.1325 | 0.658 | 33.235 | 33 | 9 | sand | |
| 93.012 | 187.06 | 1.1976 | 0.640 | 37.540 | 36 | 9 | sand | |
| 93.176 | 175.17 | 1.2450 | 0.711 | 34.968 | 34 | 9 | sand | |
| 93.340 | 158.40 | 1.2257 | 0.774 | 31.842 | 30 | 9 | sand | |
| 93.504 | 156.53 | 1.1406 | 0.729 | 32.614 | 30 | 9 | sand | |
| 93.668 | 163.99 | 1.1814 | 0.720 | 36.773 | 31 | 9 | sand | |
| 93.832 | 176.51 | 1.2955 | 0.734 | 35.846 | 34 | 9 | sand | |
| 93.996 | 204.58 | 1.4680 | 0.718 | 37.893 | 39 | 9 | sand | |
| 94.160 | 223.43 | 1.7602 | 0.788 | 40.342 | 43 | 9 | sand | |
| 94.324 | 222.33 | 1.7900 | 0.805 | 38.952 | 43 | 9 | sand | |
| 94.488 | 208.72 | 1.7915 | 0.858 | 37.041 | 40 | 9 | sand | |
| 94.652 | 190.56 | 1.6897 | 0.887 | 34.623 | 36 | 9 | sand | |
| 94.816 | 180.62 | 1.6335 | 0.904 | 36.729 | 35 | 9 | sand | |
| 94.980 | 178.04 | 1.5769 | 0.886 | 32.823 | 34 | 9 | sand | |
| 95.144 | 184.58 | 1.5130 | 0.820 | 35.528 | 35 | 9 | sand | |
| 95.308 | 188.81 | 1.5733 | 0.833 | 36.403 | 36 | 9 | sand | |
| 95.472 | 189.82 | 1.6111 | 0.849 | 40.666 | 36 | 9 | sand | |
| 95.636 | 187.26 | 1.7035 | 0.910 | 36.005 | 36 | 9 | sand | |
| 95.801 | 191.85 | 1.7374 | 0.906 | 36.960 | 37 | 9 | sand | |
| 95.965 | 201.91 | 1.7924 | 0.888 | 37.927 | 39 | 9 | sand | |
| 96.129 | 204.66 | 1.8500 | 0.904 | 36.556 | 39 | 9 | sand | |
| 96.293 | 196.07 | 1.8368 | 0.937 | 33.723 | 38 | 9 | sand | |
| 96.457 | 193.83 | 1.7729 | 0.915 | 35.715 | 37 | 9 | sand | |
| 96.621 | 186.25 | 1.7255 | 0.926 | 37.991 | 36 | 9 | sand | |

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| Depth ft | Tip (QT) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 96.785 | 174.08 | 1.6395 | 0.942 | 32.162 | 33 | 9 | sand |
| 96.949 | 177.20 | 1.5454 | 0.872 | 35.993 | 34 | 9 | sand |
| 97.113 | 164.47 | 1.2758 | 0.776 | 36.754 | 31 | 9 | sand |
| 97.277 | 156.59 | 1.1741 | 0.750 | 35.074 | 30 | 9 | sand |
| 97.441 | 134.78 | 1.1504 | 0.854 | 33.751 | 32 | 8 | sand to silty sand |
| 97.605 | 128.61 | 0.9077 | 0.706 | 34.901 | 25 | 9 | sand |
| 97.769 | 123.94 | 0.8966 | 0.723 | 33.912 | 30 | 8 | sand to silty sand |
| 97.933 | 133.11 | 0.9123 | 0.685 | 35.305 | 25 | 9 | sand |
| 98.097 | 139.26 | 0.9310 | 0.669 | 34.982 | 27 | 9 | sand |
| 98.261 | 158.43 | 0.9610 | 0.607 | 36.002 | 30 | 9 | sand |
| 98.425 | 166.26 | 0.9873 | 0.594 | 34.324 | 32 | 9 | sand |
| 98.589 | 164.80 | 0.9866 | 0.599 | 34.968 | 32 | 9 | sand |
| 98.753 | 157.16 | 0.8981 | 0.571 | 34.166 | 30 | 9 | sand |
| 98.917 | 127.27 | 0.7988 | 0.628 | 34.472 | 24 | 9 | sand |
| 99.081 | 108.39 | 0.7622 | 0.703 | 34.837 | 26 | 8 | sand to silty sand |
| 99.245 | 112.46 | 0.7316 | 0.651 | 35.266 | 27 | 8 | sand to silty sand |
| 99.409 | 127.56 | 0.7411 | 0.581 | 35.366 | 24 | 9 | sand |
| 99.573 | 135.74 | 0.7679 | 0.566 | 35.871 | 26 | 9 | sand |
| 99.738 | 146.08 | 0.8421 | 0.576 | 35.553 | 28 | 9 | sand |
| 99.902 | 146.57 | 0.8969 | 0.612 | 34.834 | 28 | 9 | sand |
| 100.066 | 138.94 | 0.9048 | 0.651 | 34.079 | 27 | 9 | sand |
| 100.230 | 123.06 | 0.8711 | 0.708 | 33.809 | 29 | 8 | sand to silty sand |
| 100.394 | 96.84 | 0.8288 | 0.856 | 33.093 | 23 | 8 | sand to silty sand |
| 100.558 | 74.32 | 0.7324 | 0.985 | 33.076 | 18 | 8 | sand to silty sand |
| 100.722 | 65.22 | 0.7897 | 1.211 | 37.177 | 21 | 7 | silty sand to sandy silt |
| 100.886 | 60.64 | 0.7598 | 1.253 | 36.659 | 19 | 7 | silty sand to sandy silt |
| 101.050 | 55.24 | 0.8573 | 1.552 | 35.333 | 18 | 7 | silty sand to sandy silt |
| 101.214 | 92.80 | 0.9373 | 1.010 | 37.191 | 22 | 8 | sand to silty sand |
| 101.378 | 147.99 | 1.1175 | 0.755 | 34.993 | 28 | 9 | sand |
| 101.542 | 168.51 | 1.2403 | 0.736 | 38.991 | 32 | 9 | sand |
| 101.706 | 162.96 | 1.2696 | 0.779 | 37.556 | 31 | 9 | sand |
| 101.870 | 147.85 | 1.1838 | 0.801 | 34.074 | 28 | 9 | sand |
| 102.034 | 129.33 | 1.2970 | 1.003 | 35.765 | 31 | 8 | sand to silty sand |
| 102.198 | 75.33 | 1.6287 | 2.162 | 35.366 | 24 | 7 | silty sand to sandy silt |
| 102.362 | 42.61 | 1.5649 | 3.673 | 35.999 | 20 | 5 | clayey silt to silty clay |
| 102.526 | 34.89 | 1.1470 | 3.287 | 47.536 | 17 | 5 | clayey silt to silty clay |
| 102.690 | 46.99 | 1.0278 | 2.187 | 46.670 | 18 | 6 | sandy silt to clayey silt |
| 102.854 | 69.08 | 0.9166 | 1.327 | 16.613 | 22 | 7 | silty sand to sandy silt |
| 103.018 | 100.90 | 0.9929 | 0.984 | 17.550 | 24 | 8 | sand to silty sand |
| 103.182 | 125.38 | 1.2371 | 0.987 | 31.433 | 30 | 8 | sand to silty sand |
| 103.347 | 137.17 | 1.4161 | 1.032 | 36.113 | 33 | 8 | sand to silty sand |
| 103.511 | 148.35 | 1.5091 | 1.017 | 38.348 | 36 | 8 | sand to silty sand |
| 103.675 | 150.46 | 1.5535 | 1.032 | 38.626 | 36 | 8 | sand to silty sand |
| 103.839 | 160.38 | 1.5691 | 0.978 | 36.743 | 31 | 9 | sand |
| 104.003 | 172.27 | 1.7359 | 1.008 | 39.537 | 33 | 9 | sand |
| 104.167 | 174.24 | 1.7166 | 0.985 | 37.877 | 33 | 9 | sand |
| 104.331 | 171.41 | 1.6980 | 0.991 | 36.651 | 33 | 9 | sand |
| 104.495 | 166.37 | 1.6340 | 0.982 | 39.044 | 32 | 9 | sand |
| 104.659 | 163.05 | 1.5900 | 0.975 | 35.428 | 31 | 9 | sand |
| 104.823 | 161.69 | 1.4874 | 0.920 | 37.829 | 31 | 9 | sand |
| 104.987 | 153.32 | 1.3629 | 0.889 | 38.055 | 29 | 9 | sand |
| 105.151 | 157.34 | 1.2952 | 0.823 | 38.476 | 30 | 9 | sand |
| 105.315 | 149.63 | 1.2804 | 0.856 | 36.294 | 29 | 9 | sand |
| 105.479 | 145.69 | 1.2124 | 0.832 | 37.545 | 28 | 9 | sand |
| 105.643 | 145.96 | 1.1279 | 0.773 | 37.498 | 28 | 9 | sand |
| 105.807 | 157.04 | 1.1084 | 0.706 | 38.596 | 30 | 9 | sand |
| 105.971 | 151.58 | 1.0853 | 0.716 | 37.035 | 29 | 9 | sand |

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| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 106.135 | 134.23 | 0.9877 | 0.736 | 37.835 | 26 | 9 | sand |
| 106.299 | 124.11 | 0.9544 | 0.769 | 39.860 | 30 | 8 | sand to silty sand |
| 106.463 | 132.20 | 1.0079 | 0.762 | 38.598 | 25 | 9 | sand |
| 106.627 | 155.30 | 1.1068 | 0.713 | 41.437 | 30 | 9 | sand |
| 106.791 | 153.97 | 1.2212 | 0.793 | 39.883 | 29 | 9 | sand |
| 106.955 | 155.44 | 1.2657 | 0.814 | 38.267 | 30 | 9 | sand |
| 107.119 | 157.60 | 1.2705 | 0.806 | 42.039 | 30 | 9 | sand |
| 107.284 | 149.98 | 1.2386 | 0.826 | 38.771 | 29 | 9 | sand |
| 107.448 | 135.45 | 1.0857 | 0.802 | 38.245 | 26 | 9 | sand |
| 107.612 | 128.24 | 0.9567 | 0.746 | 36.807 | 31 | 8 | sand to silty sand |
| 107.776 | 138.90 | 1.0412 | 0.750 | 39.417 | 27 | 9 | sand |
| 107.940 | 130.27 | 0.9446 | 0.725 | 37.581 | 25 | 9 | sand |
| 108.104 | 132.61 | 0.8793 | 0.663 | 38.615 | 25 | 9 | sand |
| 108.268 | 123.19 | 0.8668 | 0.704 | 39.752 | 29 | 8 | sand to silty sand |
| 108.432 | 108.13 | 0.8843 | 0.818 | 38.501 | 26 | 8 | sand to silty sand |
| 108.596 | 122.23 | 0.9422 | 0.771 | 43.156 | 29 | 8 | sand to silty sand |
| 108.760 | 120.97 | 0.9794 | 0.810 | 38.203 | 29 | 8 | sand to silty sand |
| 108.924 | 114.62 | 0.9091 | 0.793 | 37.503 | 27 | 8 | sand to silty sand |
| 109.088 | 99.89 | 0.8763 | 0.877 | 39.337 | 24 | 8 | sand to silty sand |
| 109.252 | 90.30 | 0.8359 | 0.926 | 39.821 | 22 | 8 | sand to silty sand |
| 109.416 | 88.37 | 0.8104 | 0.917 | 38.818 | 21 | 8 | sand to silty sand |
| 109.580 | 88.59 | 0.7990 | 0.902 | 40.468 | 21 | 8 | sand to silty sand |
| 109.744 | 88.59 | 0.8333 | 0.941 | 39.476 | 21 | 8 | sand to silty sand |
| 109.908 | 87.89 | 0.8470 | 0.964 | 39.367 | 21 | 8 | sand to silty sand |
| 110.072 | 101.68 | 0.8309 | 0.817 | 40.738 | 24 | 8 | sand to silty sand |
| 110.236 | 115.70 | 0.9274 | 0.802 | 41.666 | 28 | 8 | sand to silty sand |
| 110.400 | 116.96 | 0.9542 | 0.816 | 38.857 | 28 | 8 | sand to silty sand |
| 110.564 | 127.74 | 0.9939 | 0.778 | 40.685 | 31 | 8 | sand to silty sand |
| 110.728 | 137.43 | 0.8930 | 0.650 | 41.769 | 26 | 9 | sand |
| 110.892 | 153.53 | 0.9861 | 0.642 | 41.089 | 29 | 9 | sand |
| 111.056 | 165.88 | 1.1708 | 0.706 | 42.273 | 32 | 9 | sand |
| 111.221 | 175.41 | 1.3433 | 0.766 | 42.903 | 34 | 9 | sand |
| 111.385 | 171.11 | 1.3556 | 0.792 | 40.512 | 33 | 9 | sand |
| 111.549 | 143.70 | 1.2087 | 0.841 | 40.094 | 28 | 9 | sand |
| 111.713 | 155.18 | 1.1159 | 0.719 | 40.766 | 30 | 9 | sand |
| 111.877 | 173.42 | 1.0936 | 0.631 | 41.136 | 33 | 9 | sand |
| 112.041 | 204.74 | 1.1836 | 0.578 | 43.140 | 39 | 9 | sand |
| 112.205 | 223.76 | 1.2914 | 0.577 | 42.911 | 43 | 9 | sand |
| 112.369 | 223.52 | 1.3950 | 0.624 | 40.671 | 43 | 9 | sand |
| 112.533 | 213.31 | 1.4039 | 0.658 | 40.877 | 41 | 9 | sand |
| 112.697 | 201.99 | 1.3202 | 0.654 | 39.835 | 39 | 9 | sand |
| 112.861 | 185.04 | 1.2416 | 0.671 | 41.287 | 35 | 9 | sand |
| 113.025 | 157.49 | 1.1260 | 0.715 | 40.142 | 30 | 9 | sand |
| 113.189 | 165.99 | 1.0356 | 0.624 | 42.766 | 32 | 9 | sand |
| 113.353 | 186.27 | 1.0483 | 0.563 | 44.753 | 36 | 9 | sand |
| 113.517 | 178.50 | 1.1028 | 0.618 | 44.697 | 34 | 9 | sand |
| 113.681 | 169.41 | 1.1049 | 0.652 | 39.370 | 32 | 9 | sand |
| 113.845 | 179.40 | 1.1812 | 0.658 | 44.137 | 34 | 9 | sand |
| 114.009 | 202.82 | 1.1712 | 0.577 | 45.193 | 39 | 9 | sand |
| 114.173 | 171.49 | 1.1412 | 0.665 | 45.017 | 33 | 9 | sand |
| 114.337 | 140.76 | 1.0492 | 0.745 | 39.977 | 27 | 9 | sand |
| 114.501 | 135.07 | 0.9797 | 0.725 | 41.153 | 26 | 9 | sand |
| 114.665 | 137.61 | 0.9656 | 0.702 | 41.883 | 26 | 9 | sand |
| 114.829 | 148.43 | 0.9901 | 0.667 | 43.162 | 28 | 9 | sand |
| 114.993 | 170.69 | 1.0711 | 0.628 | 44.675 | 33 | 9 | sand |
| 115.158 | 197.95 | 1.2204 | 0.616 | 46.951 | 38 | 9 | sand |
| 115.322 | 219.24 | 1.3495 | 0.616 | 47.115 | 42 | 9 | sand |

FOR REFERENCE ONLY

| Depth ft | Tip (Qt) (tsf) | Sleeve (Fs) (tsf) | F.Ratio (%) | PP (U2) (psi) | SPT (blows/ft) | Zone | Soil Behavior Type UBC-1983 |
|-------------|-------------------|----------------------|----------------|------------------|-------------------|------|--------------------------------|
| 115.486 | 215.48 | 1.3901 | 0.645 | 43.730 | 41 | 9 | sand |
| 115.650 | 183.15 | 1.3225 | 0.722 | 45.006 | 35 | 9 | sand |
| 115.814 | 166.88 | 1.1656 | 0.698 | 38.462 | 32 | 9 | sand |
| 115.978 | 147.67 | 1.0773 | 0.730 | 39.665 | 28 | 9 | sand |
| 116.142 | 121.75 | 0.9241 | 0.759 | 40.696 | 29 | 8 | sand to silty sand |
| 116.306 | 112.66 | 0.8842 | 0.785 | 41.045 | 27 | 8 | sand to silty sand |
| 116.470 | 124.33 | 0.8504 | 0.684 | 43.279 | 24 | 9 | sand |
| 116.634 | 155.99 | 0.8702 | 0.558 | 44.541 | 30 | 9 | sand |
| 116.798 | 162.22 | 0.9290 | 0.573 | 43.354 | 31 | 9 | sand |
| 116.962 | 138.16 | 0.8984 | 0.650 | 40.771 | 26 | 9 | sand |
| 117.126 | 134.83 | 0.8465 | 0.628 | 43.259 | 26 | 9 | sand |
| 117.290 | 162.67 | 0.8017 | 0.493 | 44.970 | 31 | 9 | sand |
| 117.454 | 161.99 | 0.8867 | 0.547 | 45.770 | 31 | 9 | sand |
| 117.618 | 138.59 | 0.9151 | 0.660 | 42.569 | 27 | 9 | sand |
| 117.782 | 125.54 | 0.8846 | 0.705 | 40.955 | 24 | 9 | sand |
| 117.946 | 122.68 | 0.8278 | 0.675 | 42.485 | 23 | 9 | sand |
| 118.110 | 122.77 | 0.7847 | 0.639 | 43.014 | 24 | 9 | sand |
| 118.274 | 122.63 | 0.8158 | 0.665 | 42.875 | 23 | 9 | sand |
| 118.438 | 123.68 | 0.8163 | 0.660 | 43.767 | 24 | 9 | sand |
| 118.602 | 124.78 | 0.8183 | 0.656 | 43.371 | 24 | 9 | sand |
| 118.766 | 124.77 | 0.8173 | 0.655 | 43.800 | 24 | 9 | sand |
| 118.931 | 125.79 | 0.8111 | 0.645 | 43.527 | 24 | 9 | sand |
| 119.095 | 125.02 | 0.8298 | 0.664 | 43.806 | 24 | 9 | sand |
| 119.259 | 124.06 | 0.8438 | 0.680 | 43.449 | 24 | 9 | sand |
| 119.423 | 131.61 | 0.8974 | 0.682 | 44.299 | 25 | 9 | sand |
| 119.587 | 146.53 | 0.9416 | 0.643 | 44.549 | 28 | 9 | sand |
| 119.751 | 158.41 | 1.0546 | 0.666 | 44.756 | 30 | 9 | sand |
| 119.915 | 163.39 | 1.1237 | 0.688 | 44.859 | 31 | 9 | sand |
| 120.079 | 169.36 | 1.2257 | 0.724 | 46.143 | 32 | 9 | sand |
| 120.243 | 176.72 | 1.3468 | 0.762 | 48.776 | 34 | 9 | sand |
| 120.407 | 182.91 | 1.6232 | 0.887 | 46.976 | 35 | 9 | sand |
| 120.571 | 197.58 | 1.6659 | 0.843 | 51.855 | 38 | 9 | sand |
| 120.735 | 261.12 | 2.2297 | 0.854 | 56.407 | 50 | 9 | sand |
| 120.899 | 293.65 | 2.7789 | 0.946 | 50.328 | 56 | 9 | sand |
| 121.063 | 290.57 | 3.0338 | 1.044 | 50.227 | 56 | 9 | sand |
| 121.227 | 287.30 | 3.0300 | 1.055 | 57.978 | 55 | 9 | sand |
| 121.391 | 285.12 | 3.1254 | 1.096 | 43.388 | 55 | 9 | sand |
| 121.555 | 311.20 | 3.1608 | 1.016 | 49.467 | 60 | 9 | sand |
| 121.719 | 336.66 | 3.1808 | 0.945 | 55.407 | 64 | 9 | sand |

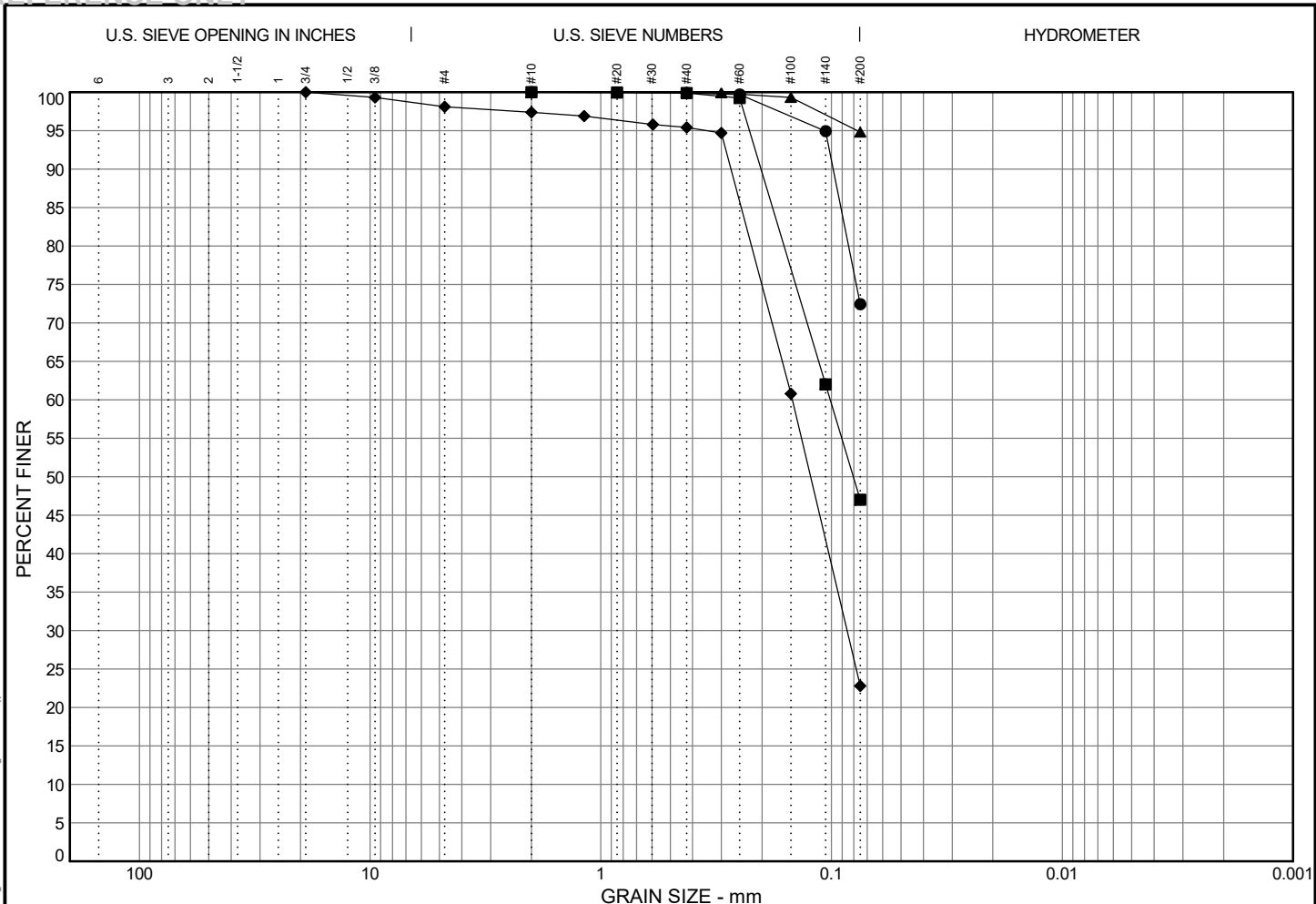
APPENDIX B
Laboratory Test Results

| Exploration | Sample ID | Depth | Gravel (%) | Sand (%) | Fines (%) | Liquid Limit | Plastic Limit | Water Content (%) | USCS Group Symbol | Soil Description |
|-------------|-----------|-------|------------|----------|-----------|--------------|---------------|-------------------|-------------------|------------------------------|
| B-1 | U-1 | 6.0 | | | | | | | | |
| B-1 | U-2 | 8.0 | | | | | | | | |
| B-1 | U-3 | 10.0 | 0.0 | 6.2 | 93.8 | 33 | 21 | 36.0 | CL | LEAN CLAY |
| B-1 | U-4 | 12.0 | | | | | | | | |
| B-1 | U-5 | 14.0 | | | | | | | | |
| B-1 | U-6 | 16.0 | 0.0 | 27.6 | 72.4 | NP | NP | 41.4 | ML | SANDY SILT |
| B-1 | U-7 | 20.0 | | | | | | | | |
| B-1 | U-8 | 25.0 | 0.0 | 9.4 | 90.6 | 46 | 34 | 48.3 | ML | SILT |
| B-1 | U-9 | 30.0 | | | | | | | | |
| B-1 | U-10 | 35.0 | 0.0 | 53.0 | 47.0 | | | 40.4 | SM | SILTY SAND |
| B-1 | U-11 | 40.0 | | | | | | | | |
| B-1 | U-12 | 45.0 | 0.0 | 5.2 | 94.8 | 49 | 33 | 53.7 | ML | SILT |
| B-1 | U-13 | 50.0 | | | | | | | | |
| B-1 | S-1 | 52.0 | 1.9 | 75.3 | 22.8 | | | 33.2 | SM | SILTY SAND |
| B-1 | U-14 | 55.0 | | | | | | | | |
| B-1 | S-2 | 60.0 | | | | | | | | |
| B-1 | S-3 | 65.0 | | | | | | | | |
| B-1 | S-4 | 70.0 | | | | | | 28.7 | | |
| B-1 | S-5 | 75.0 | | | | | | | | |
| B-1 | S-6a | 80.0 | | | | | | | | |
| B-1 | S-6b | 80.3 | | | | | | 26.1 | | |
| B-1 | S-7 | 85.0 | | | | | | | | |
| B-1 | S-8 | 90.0 | | | | | | 28.2 | | |
| B-1 | S-9 | 95.0 | | | | | | | | |
| B-1 | S-10 | 100.0 | | | | | | | | |
| B-1 | S-11 | 110.0 | | | | | | 25.5 | | |
| B-1 | S-12 | 120.0 | | | | | | | | |
| B-1 | S-13 | 130.0 | | | | | | 26.7 | | |
| B-1 | S-14 | 140.0 | | | | | | | | |
| B-1 | S-15 | 150.0 | | | | | | | | |
| B-2 | U-1 | 6.0 | | | | | | | | |
| B-2 | U-2 | 8.0 | | | | | | | | |
| B-2 | U-3 | 10.0 | 0.0 | 16.8 | 83.2 | 37 | 31 | 45.8 | ML | SILT WITH SAND |
| B-2 | U-4 | 12.0 | | | | | | | | |
| B-2 | U-5 | 14.0 | | | | | | | | |
| B-2 | U-6 | 20.0 | 0.0 | 0.4 | 99.6 | 49 | 26 | 41.7 | CL | LEAN CLAY |
| B-2 | U-7 | 25.0 | | | | | | | | |
| B-2 | U-8 | 30.0 | 0.0 | 1.2 | 98.8 | 51 | 35 | 48.5 | MH | ELASTIC SILT |
| B-2 | U-9 | 35.0 | 0.0 | 0.3 | 99.7 | 42 | 23 | 37.8 | CL | LEAN CLAY |
| B-2 | U-10 | 40.0 | 0.0 | 87.0 | 13.0 | | | 30.1 | SM | SILTY SAND |
| B-2 | U-11 | 45.0 | | | | | | | | |
| B-2 | U-12 | 47.0 | | | | | | | | |
| B-2 | S-1 | 49.0 | 0.0 | 93.7 | 6.3 | | | 31.3 | SP-SM | POORLY GRADED SAND WITH SILT |
| B-2 | S-2 | 55.0 | | | | | | | | |
| B-2 | U-13 | 57.0 | | | | | | | | |
| B-2 | U-14 | 60.0 | | | | | | | | |
| B-2 | S-3 | 65.0 | | | | | | 28.2 | | |

SEATTLE - HALAL SUMMARY (FOR REPORTS); -HALEYALDRICH COMSHARE\PROX_DATA\GEO\WATER\GEO\LIBRARY\GLB - 71720 P.D.T. - HALEYALDRICH COMSHARE\PROX_DATA\NOTES\BOOKS\BOOKS\SUB\7501_PDX_FUEL_PROJECT_TANK_DESIGN\FIELD_DATA\PERM_GWT_FILES\0204679-001_PDX_FUEL_PROJECT_TANK_DESIGN\GWT_GWT_OPF - 060619

| Exploration | Sample ID | Depth | Gravel (%) | Sand (%) | Fines (%) | Liquid Limit | Plastic Limit | Water Content (%) | USCS Group Symbol | Soil Description |
|-------------|-----------|-------|------------|----------|-----------|--------------|---------------|-------------------|-------------------|------------------------------|
| B-2 | U-15 | 70.0 | | | | | | | | |
| B-2 | S-4 | 75.0 | | | | | | | | |
| B-2 | S-5 | 80.0 | | | | | | 27.3 | | |
| B-2 | S-6 | 85.0 | | | | | | | | |
| B-2 | S-7 | 90.0 | 0.0 | 94.5 | 5.5 | | | 31.3 | SP-SM | POORLY GRADED SAND WITH SILT |
| B-2 | S-8 | 95.0 | | | | | | | | |
| B-2 | S-9 | 100.0 | | | | | | 26.4 | | |
| B-2 | S-10 | 110.0 | | | | | | | | |
| B-2 | S-11 | 120.0 | | | | | | 27.6 | | |
| B-2 | S-12 | 130.0 | | | | | | | | |
| B-2 | S-13 | 140.0 | | | | | | 26.1 | | |
| B-2 | S-14 | 150.0 | | | | | | | | |
| IT-1 | G-1 | 2.5 | | | | | | | | |
| IT-2 | G-1 | 1.8 | | | | | | | | |
| IT-3 | G-1 | 3.0 | 0.0 | 55.0 | 45.0 | | | 30.6 | ML/CL | SANDY SILT/CLAY |
| TP-1 | G-1 | 1.0 | | | | | | | | |
| TP-2 | G-1 | 1.5 | | | | | | | | |
| TP-2 | G-2 | 2.5 | | | | | | | | |
| TP-2 | G-3 | 5.0 | | | | | | | | |

SEATTLE - HAL LAB SUMMARY (FOR REPORTS); HALEYALDRICH COMSHARE/PDX_DATA/GEOWATTESSGENTHC_LIBRARY/GLB - 7/17/20 9:17 AM; HALEYALDRICH COMSHARE/PDX_DATA/NOTBOOKS/2020/7/20/01_PDX_FUEL_PROJECT_TANK_DESIGNFIELD_DATA/PERM_GINT FILE/2020/7/20/01_PDX_FUEL_PROJECT_TANK_DESIGNFIELD_DATA/PERM_GINT FILE/2020/7/20/01_PDX_FUEL_PROJECT_TANK_DESIGNFIELD_DATA/PERM_GINT FILE/2020/7/20/01_PDX_FUEL_PROJECT_TANK_DESIGN_GINT.GPJ - 26mwp



| | | | | | | |
|---------|--------|------|--------|--------|------|--------------|
| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
| | coarse | fine | coarse | medium | fine | |

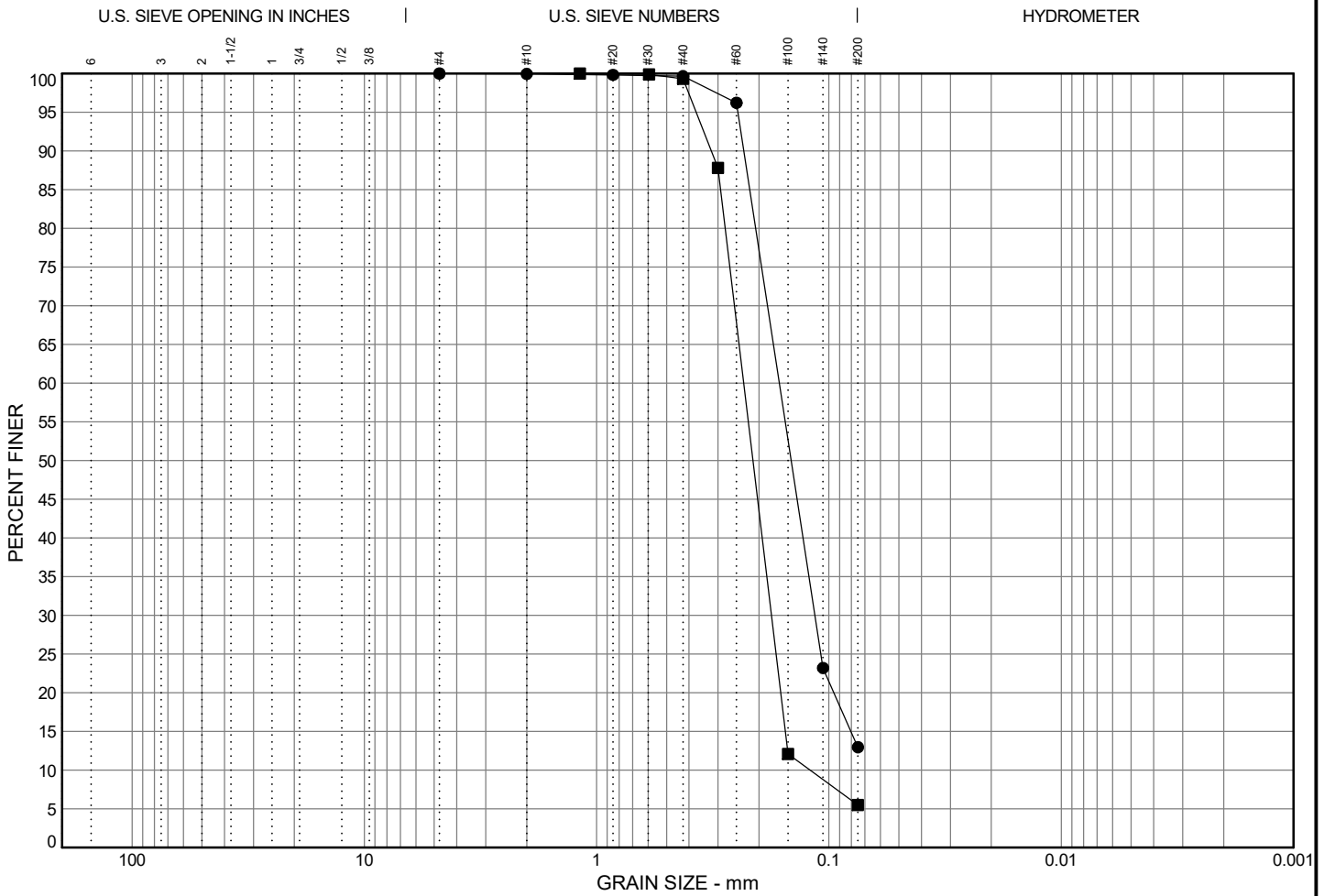
| Location and Description | | | % Cobbles | % Gravel | % Sand | % Silt | % Clay | MC% | USCS |
|--------------------------|------------------|---------------------|-----------|----------|--------|--------|--------|-----|------|
| ● Source: B-1 | Sample No.: U-6 | Depth: 16.0 to 18.0 | 0.0 | 0.0 | 27.6 | 72.4 | 41 | ML | |
| ■ Source: B-1 | Sample No.: U-10 | Depth: 35.0 to 37.0 | 0.0 | 0.0 | 53.0 | 47.0 | 40 | SM | |
| ▲ Source: B-1 | Sample No.: U-12 | Depth: 45.0 to 47.0 | 0.0 | 0.0 | 5.2 | 94.8 | 54 | ML | |
| ◆ Source: B-1 | Sample No.: S-1 | Depth: 52.0 to 53.5 | 0.0 | 1.9 | 75.3 | 22.8 | 33 | SM | |

| | LL | PI | D ₈₅ | D ₆₀ | D ₅₀ | D ₃₀ | D ₁₅ | D ₁₀ | C _c | C _u |
|---|----|----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|
| ● | NP | NP | 0.091 | | | | | | | |
| ■ | | | 0.180 | 0.101 | 0.080 | | | | | |
| ▲ | 49 | 16 | | | | | | | | |
| ◆ | | | 0.246 | 0.148 | 0.123 | 0.086 | | | | |

Remarks:

- non-plastic
-
- ▲
- ◆

H:\GRAIN SIZE - \HALEY\ALDRICH\CONSUMER\POD_DATA\GENERIC\GENERIC_LIBRARY\G.S.B. 7/17/23 12:14 - \HALEY\ALDRICH\CONSUMER\POD_DATA\NOTEBOOKS\204679-001_PDX_FUEL_PROJECT_TANK_DESIGN\FIELD DATA\PERM_GINT_FILES\204679-001_PDX_FUEL_PROJECT_TANK_DESIGN\PROJECT TANK DESIGN\GINT.GPJ - 49098



| | | | | | | |
|---------|--------|------|--------|--------|------|--------------|
| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
| | coarse | fine | coarse | medium | fine | |

| Location and Description | % Cobbles | % Gravel | % Sand | % Silt | % Clay | MC% | USCS |
|---|-----------|----------|--------|--------|--------|-------|------|
| ● Source: B-2 Sample No.: U-10 Depth: 40.0 to 42.0 SILTY SAND | 0.0 | 0.0 | 87.0 | 13.0 | 30 | SM | |
| ■ Source: B-2 Sample No.: S-7 Depth: 90.0 to 91.5 POORLY GRADED SAND WITH SILT | 0.0 | 0.0 | 94.5 | 5.5 | 31 | SP-SM | |
| | | | | | | | |

| LL | PI | D ₈₅ | D ₆₀ | D ₅₀ | D ₃₀ | D ₁₅ | D ₁₀ | C _c | C _u |
|----|----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|
| ● | | 0.219 | 0.163 | 0.145 | 0.115 | 0.080 | | | |
| ■ | | 0.292 | 0.233 | 0.212 | 0.177 | 0.154 | 0.120 | 1.12 | 1.93 |

Remarks:

-
-



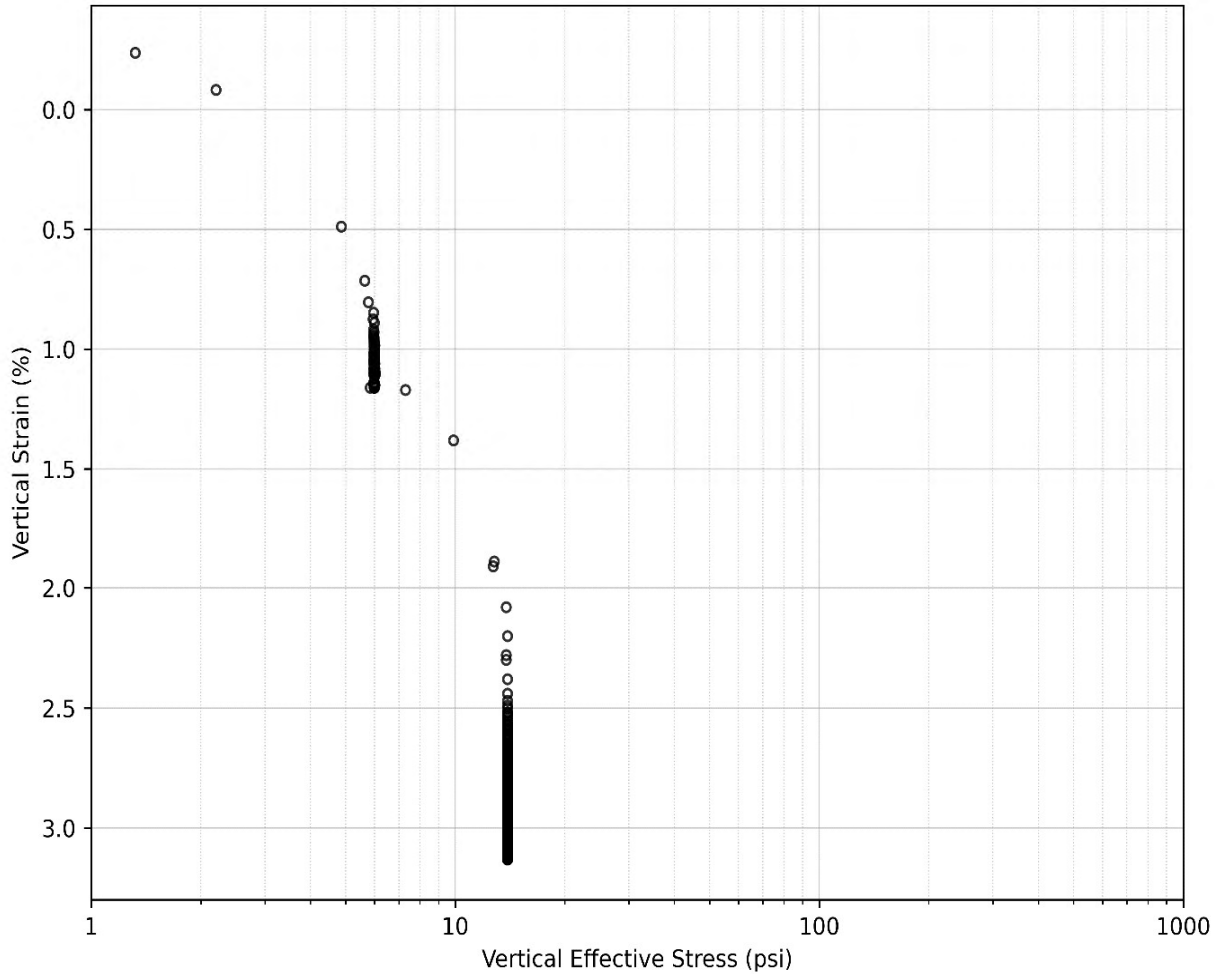
Project: PDX Fuel Project Tank Design
 Location: Portland, Oregon
 Project No.: 0204679-001

Particle-Size Analysis

Figure **B-3**
 Sheet **2 of 2**

HA GRANK SIZE - HALEY\ALDRICH\COMSHARE\POX_DATA\GEOMATICS\GINT\G.LIBRARY\SLB - 7/17/23 12:14 - HALEY\ALDRICH\COMSHARE\POX_DATA\NOTEBOOKS\0204679-001_PDX_FUEL_PROJECT_TANK_DESIGN\FIELD DATA\FIELD GINT FILES\0204679-001_PDX_FUEL_PROJECT_TANK_DESIGN\FIELD DATA\FIELD GINT.GPJ - 0909

06/02/2023 \\haleyaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U8 CDSS-1 processed 060623 REVISED.xlsx



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|--------------|------|
| | Before | After | LL | PL | PI | | |
| 31.6 | 48 | 47 | 51 | 35 | 16 | ELASTIC SILT | MH |

| Partical-size Distribution | | |
|----------------------------|--------|---------|
| % Gravel | % Sand | % Fines |
| 0 | 1.2 | 98.8 |

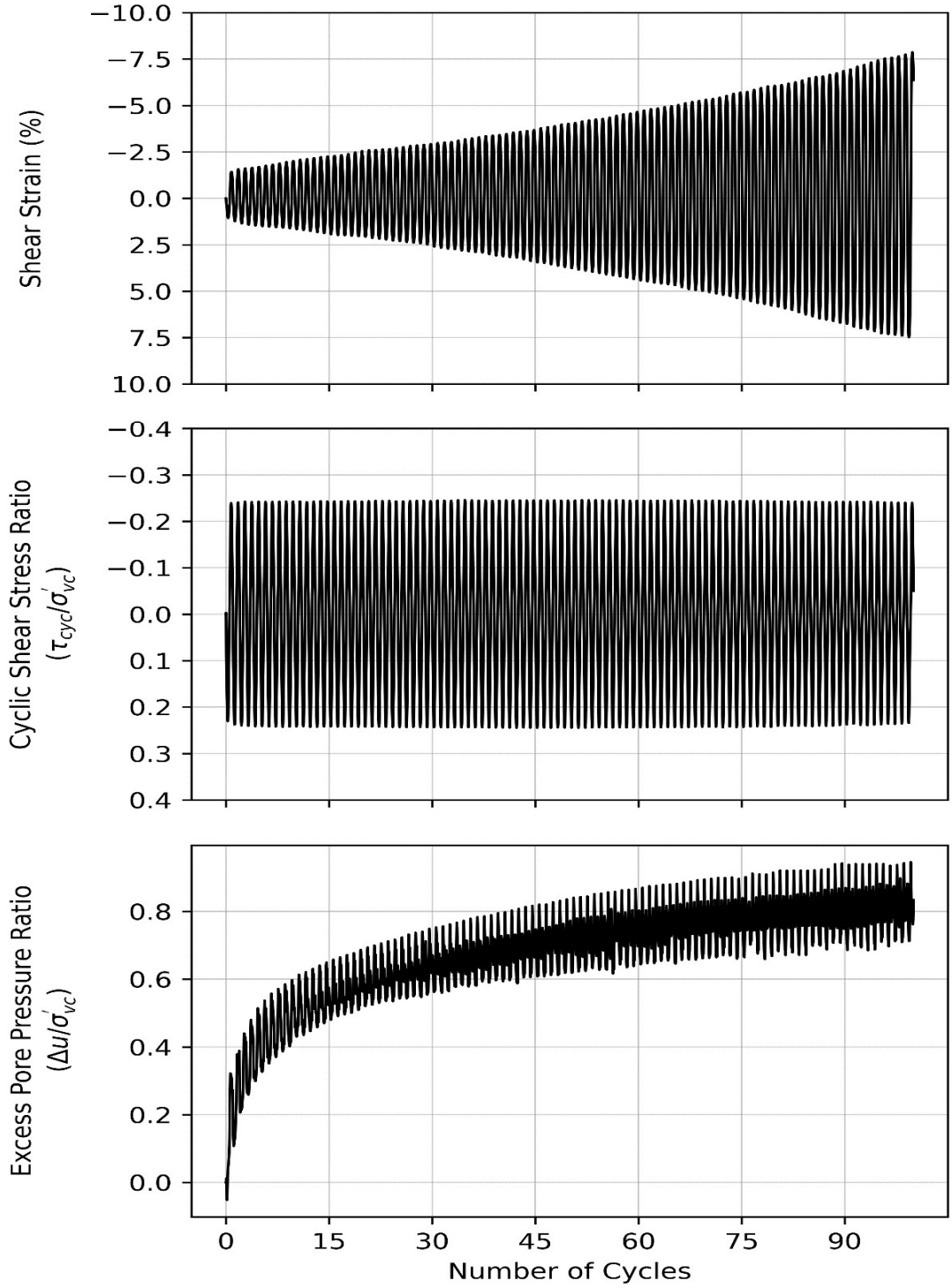
| Initial Specimen Properties | |
|------------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.78 |
| Total Unit Weight (pcf) | 105.57 |
| Degree of Saturation (%) | 96.31 |
| Void Ratio (e ₀) | 1.315 |

Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|--|-------|
| PDX Fuel Project Tank Design Portland, OR | |
| Axial Strain Versus Logarithm of Vertical Effective Stress for B-2 U-8 Specimen #1 stress-controlled CDSS Consolidation Phase | |
| Job Number: 0204679-001 | 06/23 |

| | |
|--|----------------------|
|  | Figure B-4 |
|--|----------------------|

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Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

PDX Fuel Project Tank Design
Portland, OR

Cyclic shear phase data for B-2 U-8 Specimen #1 stress-controlled CDSS Cyclic Phase

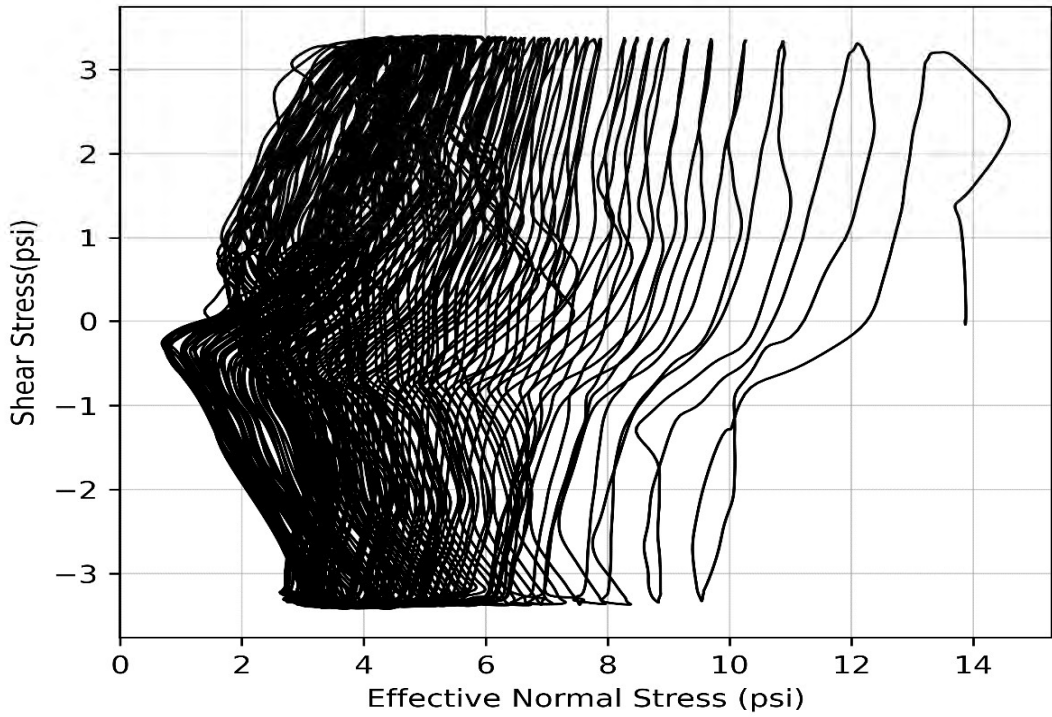
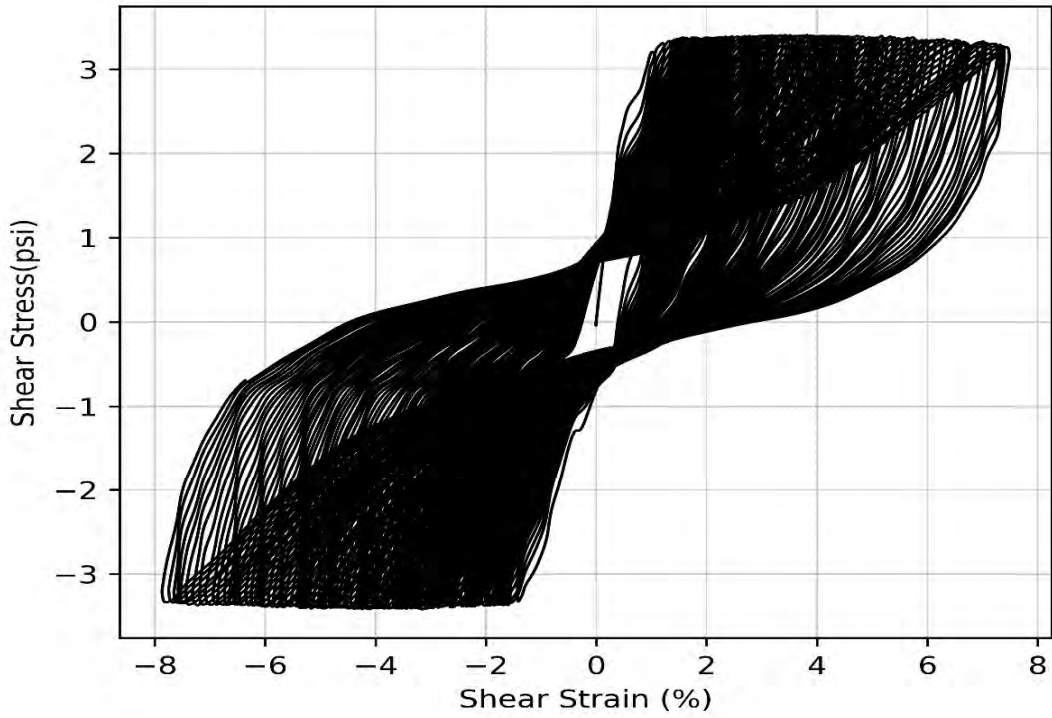
Job Number: 0204679-001 06/23

σ'_{vc} = Vertical effective stress at the end of consolidation



Figure
B-4

0_06/02/2023 \\haleyvaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U8 CDSS-1 processed 060623 REVISED.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

PDX Fuel Project Tank Design
Portland, OR

Cyclic Loop for B-2 U-8 Specimen #1 stress-controlled CDSS
Cyclic Phase

Job Number: 0204679-001

06/23

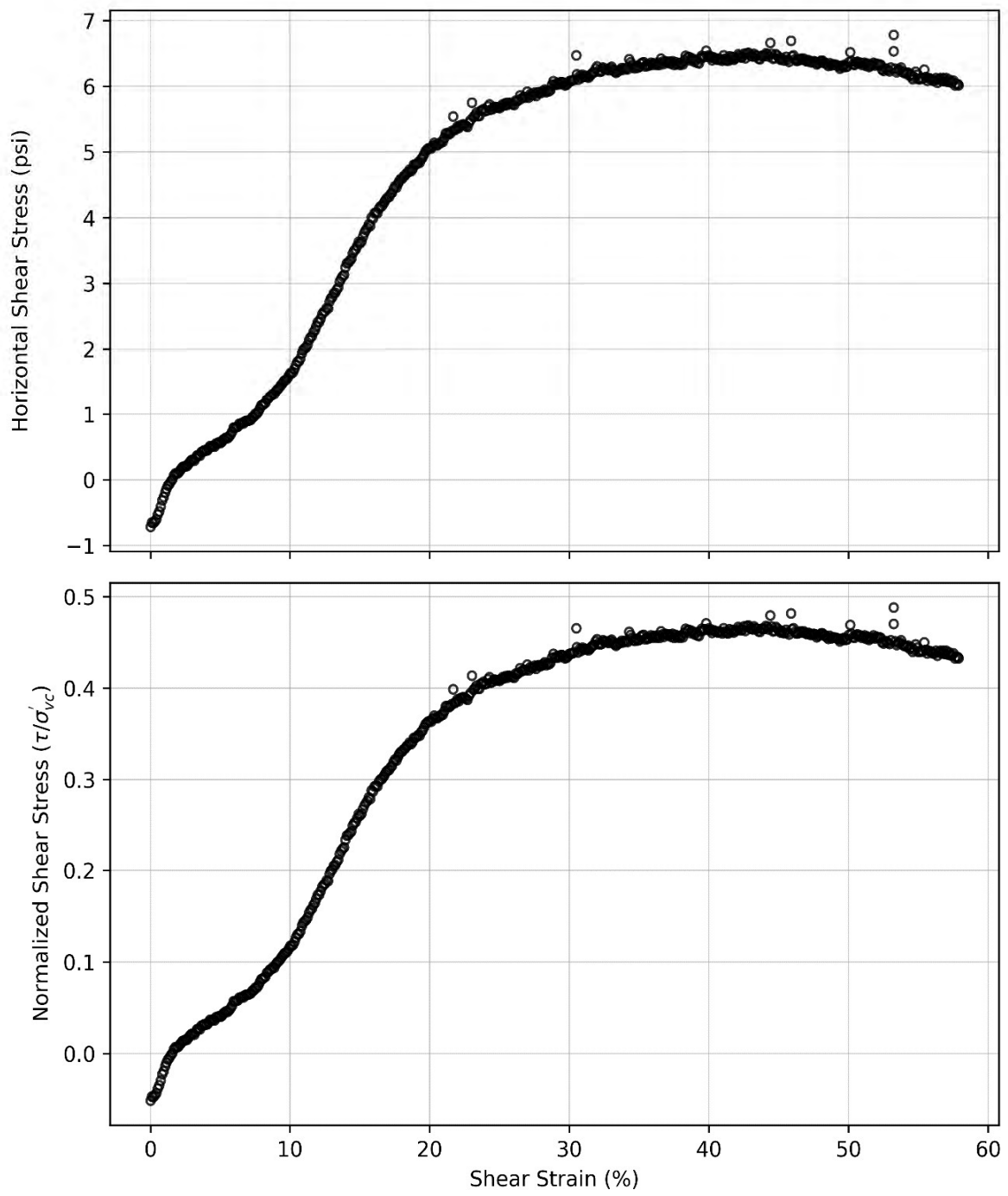
σ'_{vc} = Vertical effective stress at the end of consolidation



Figure

B-4

0 06/02/2023 \\halley\aldrich.com\share\pdx_data\Notes\0204679-001_PDX_Fuel_Project_Tank_Design\Appendix\B\CDSS\0204679-001 B2 U8 CDSS-1 processed 060623 REVISED.xlsx

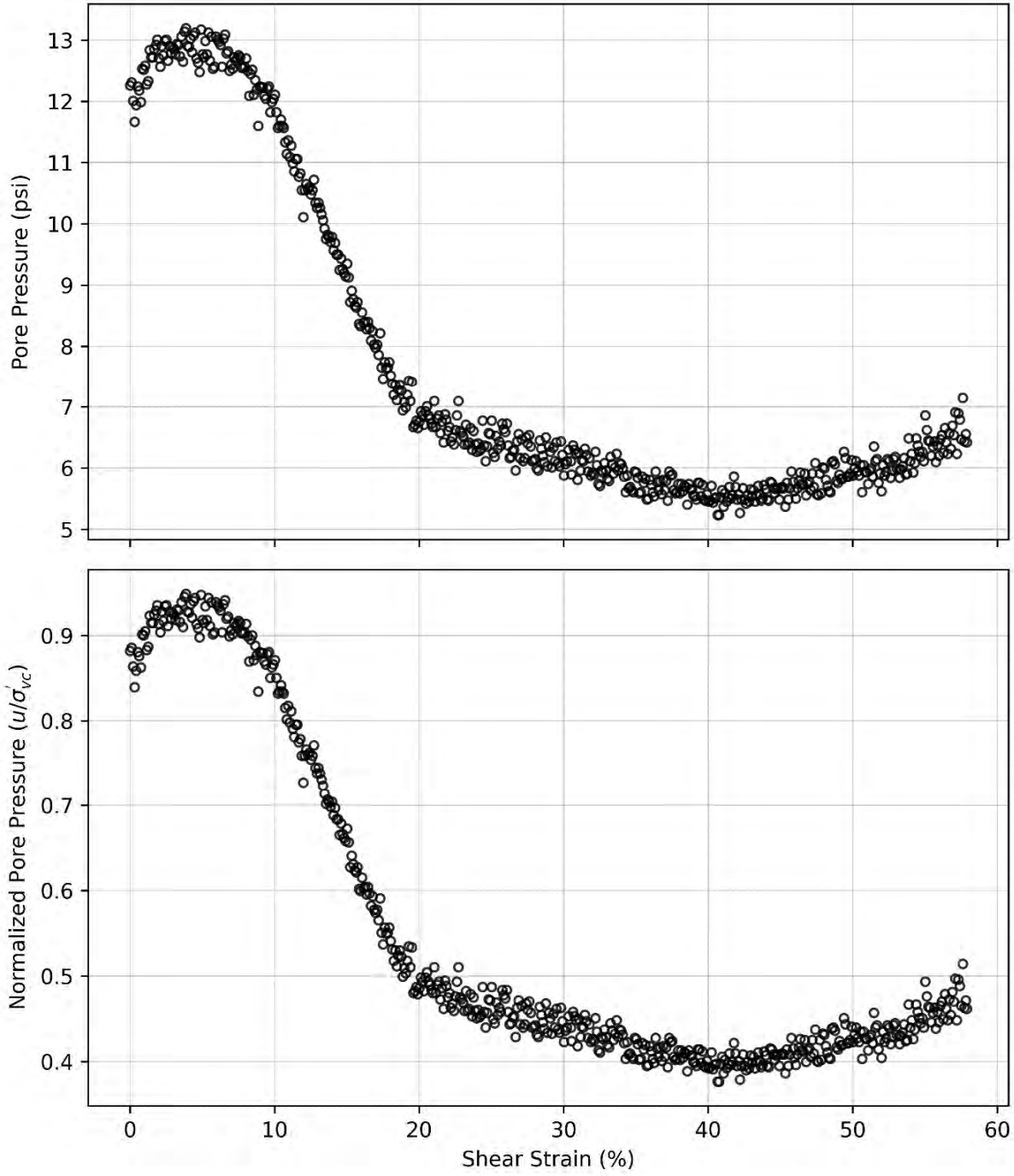


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section. Post-cyclic direct simple shear test stress and strain are measured relative to the state of stress of the soil specimen at the end of the cyclic phase

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|---|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Horizontal Shear Stress and Normalized Shear Stress for B-2 U-8 Specimen #1 stress-controlled CDSS Post-Cyclic Shear Phase | |
| Job Number: 0204679-001 | 06/23 |
| | Figure B-4 |

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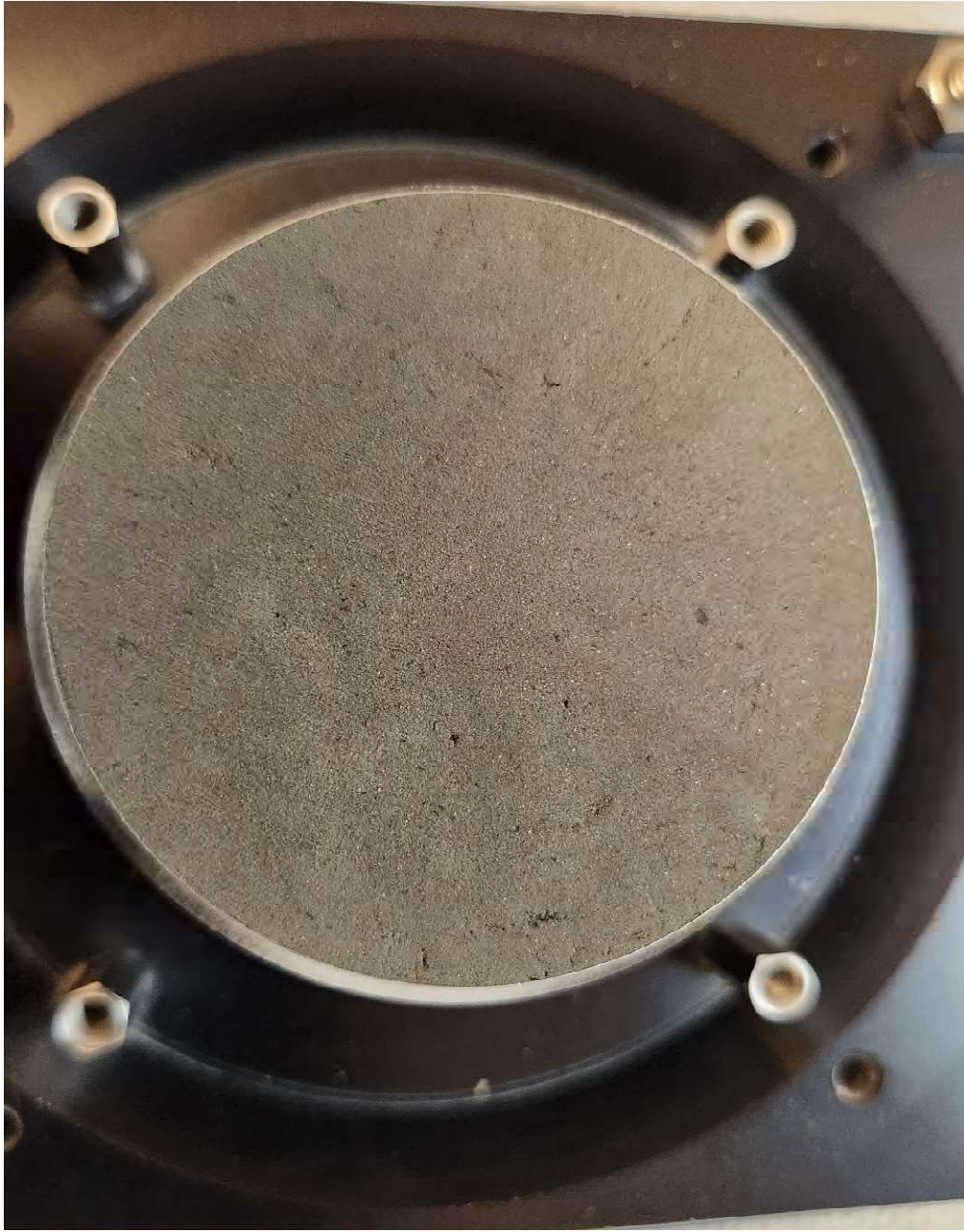


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.


σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pore Pressure and Normalized Pore Pressure Versus Shear Strain for B-2 U-8 Specimen #1 stress-controlled CDSS Post-Cyclic Shear Phase | |
| Job Number: 0204679-001 | 06/23 |
| HALEY ALDRICH | Figure B-4 |

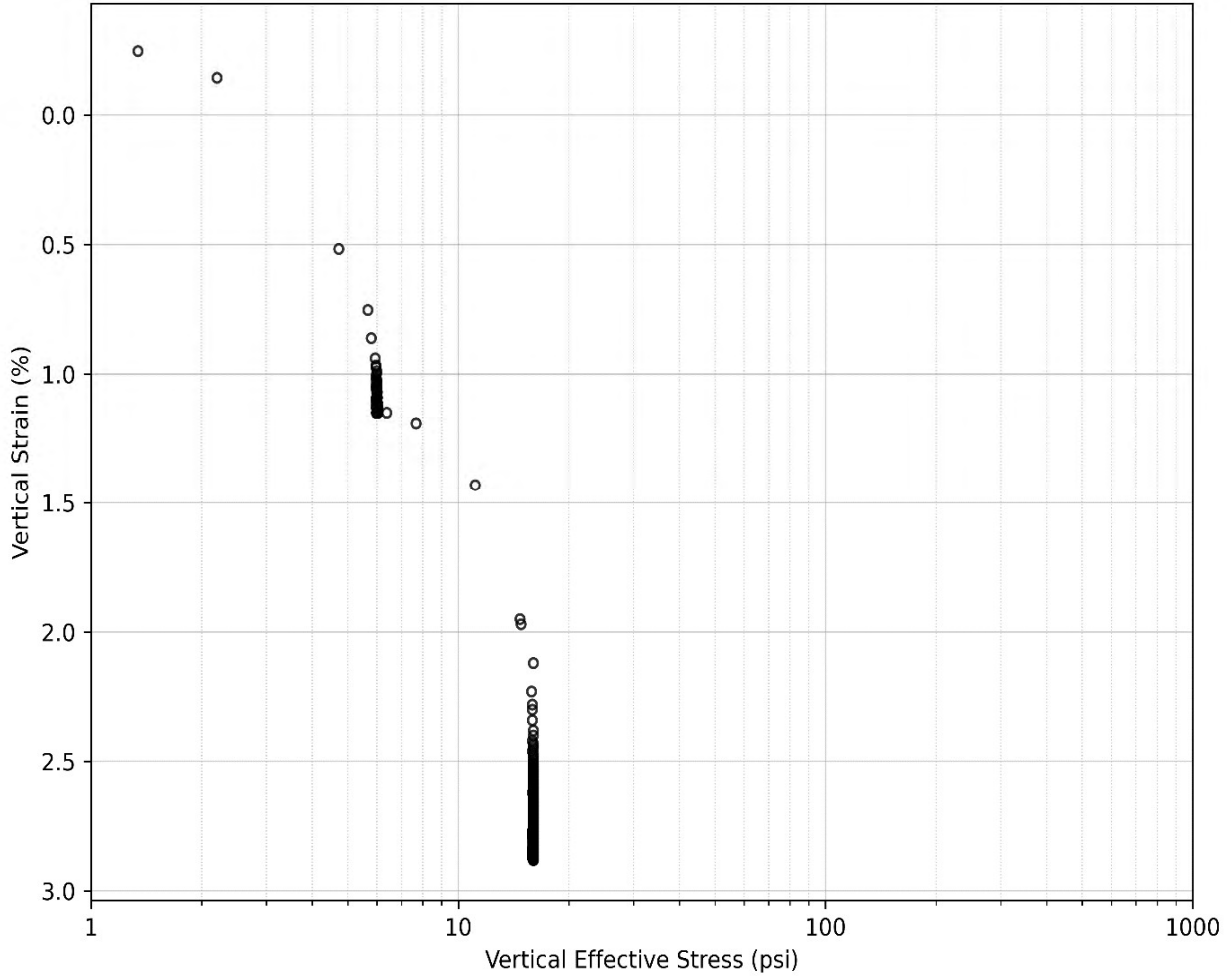
0 09/15/2022 \\haleyaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U8 CDSS-1 processed 060623 REVISED.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|---|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pre-Test Photograph of B-2 U-8 Specimen #1 CDSS | |
| Job Number 0204679-001 | 06/23 |
|  | Figure B-4 |

05/23/2023 \\haleyaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U9 CDSS-2 processed 052623 REVISED.xlsx



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 36.1 | 49 | 51 | 42 | 23 | 19 | LEAN CLAY | CL |

| Partical-size Distribution | | |
|----------------------------|--------|---------|
| % Gravel | % Sand | % Fines |
| 0 | 0.25 | 99.75 |

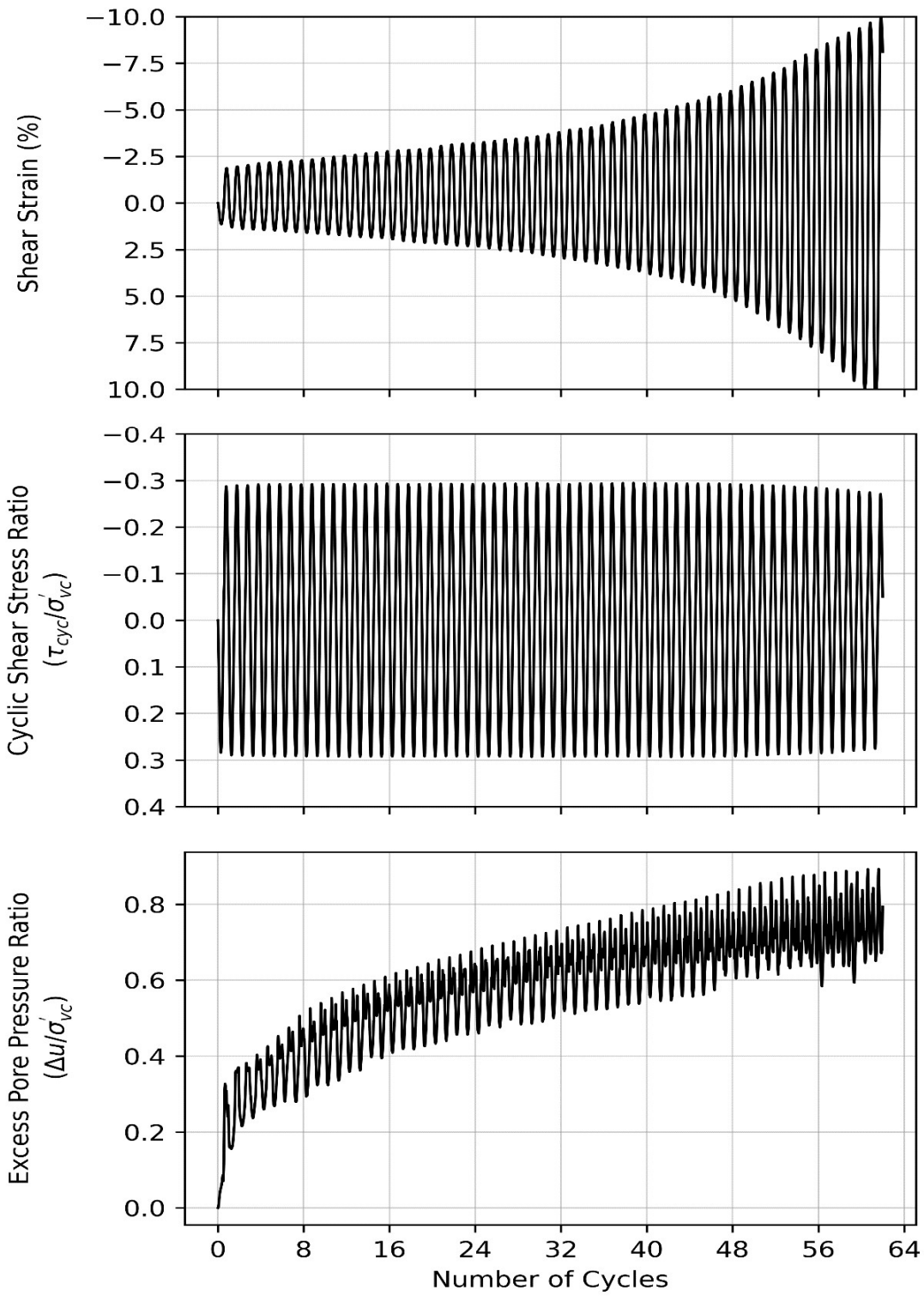
| Initial Specimen Properties | |
|------------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.84 |
| Total Unit Weight (pcf) | 106.72 |
| Degree of Saturation (%) | 99.24 |
| Void Ratio (e ₀) | 1.309 |

Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|--|-------|
| PDX Fuel Project Tank Design Portland, OR | |
| Axial Strain Versus Logarithm of Vertical Effective Stress for B-2 U-9 Specimen #2 stress-controlled CDSS Consolidation Phase | |
| Job Number: 0204679-001 | 05/23 |

| | |
|--|----------------------|
|  | Figure B-5 |
|--|----------------------|

0 05/23/2023 \\haleyvaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U9 CDSS-2 processed 052623 REVISED.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

PDX Fuel Project Tank Design
Portland, OR

Cyclic shear phase data for B-2 U-9 Specimen #2 stress-controlled CDSS Cyclic Phase

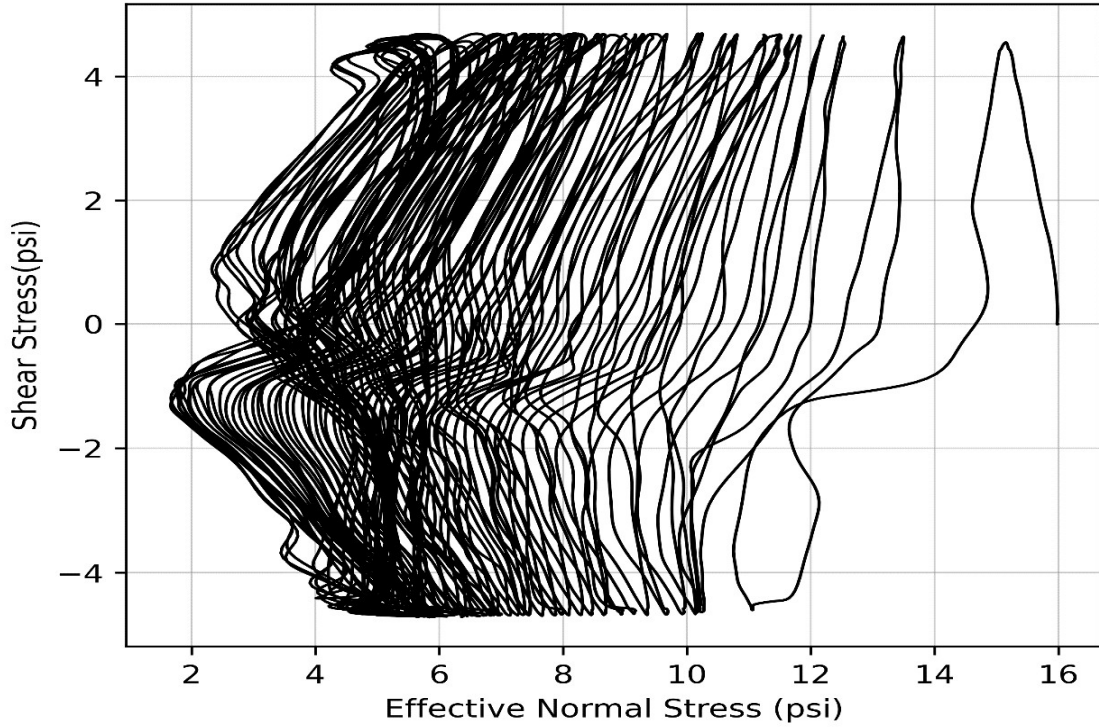
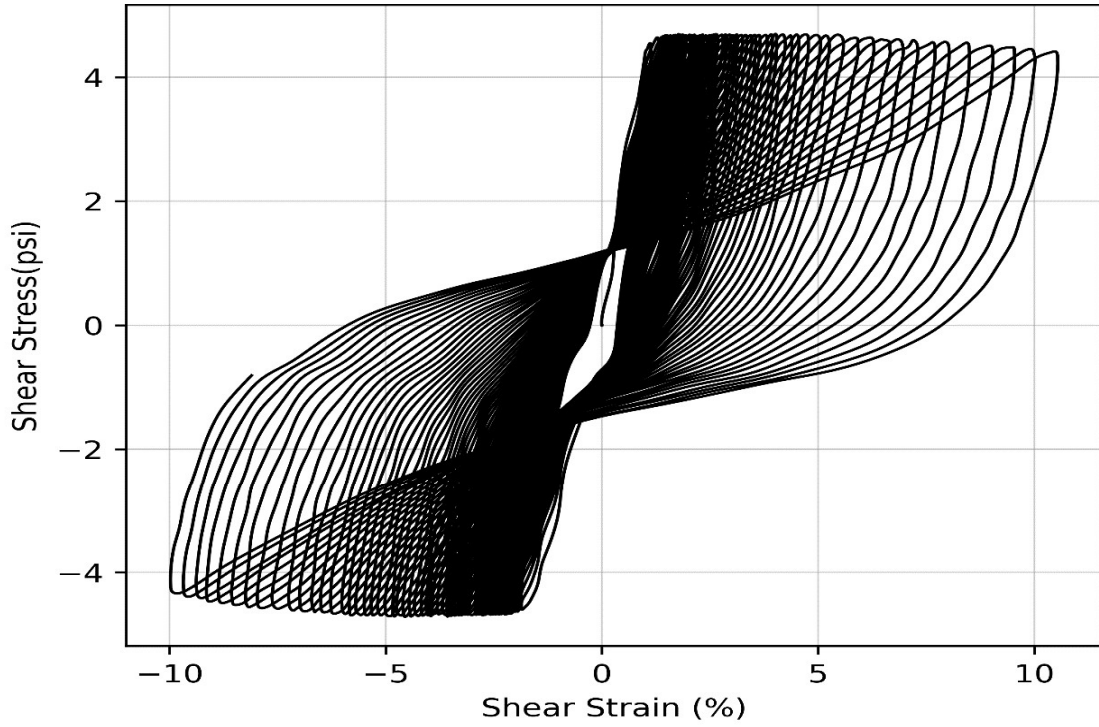
Job Number: 0204679-001 05/23

σ'_{vc} = Vertical effective stress at the end of consolidation



Figure
B-5

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Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

PDX Fuel Project Tank Design
Portland, OR

Cyclic Loop for B-2 U-9 Specimen #2 stress-controlled CDSS
Cyclic Phase

Job Number: 0204679-001

05/23

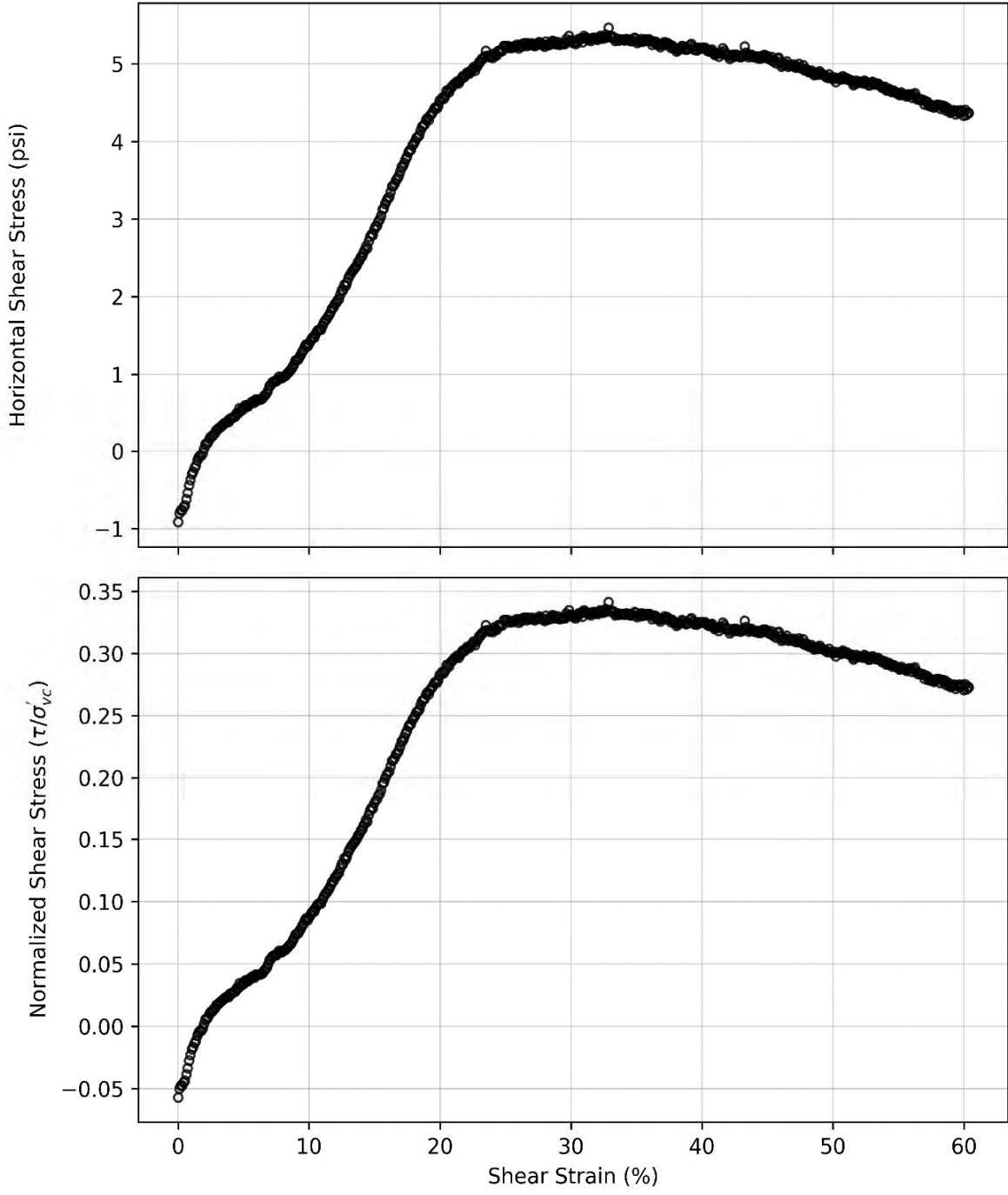
σ'_{vc} = Vertical effective stress at the end of consolidation



Figure


B-5

0 05/23/2023 \\haley\aldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Appendix B\CDSS\0204679-001 B2 U9 CDSS-2 processed 052623 REVISED.xlsx

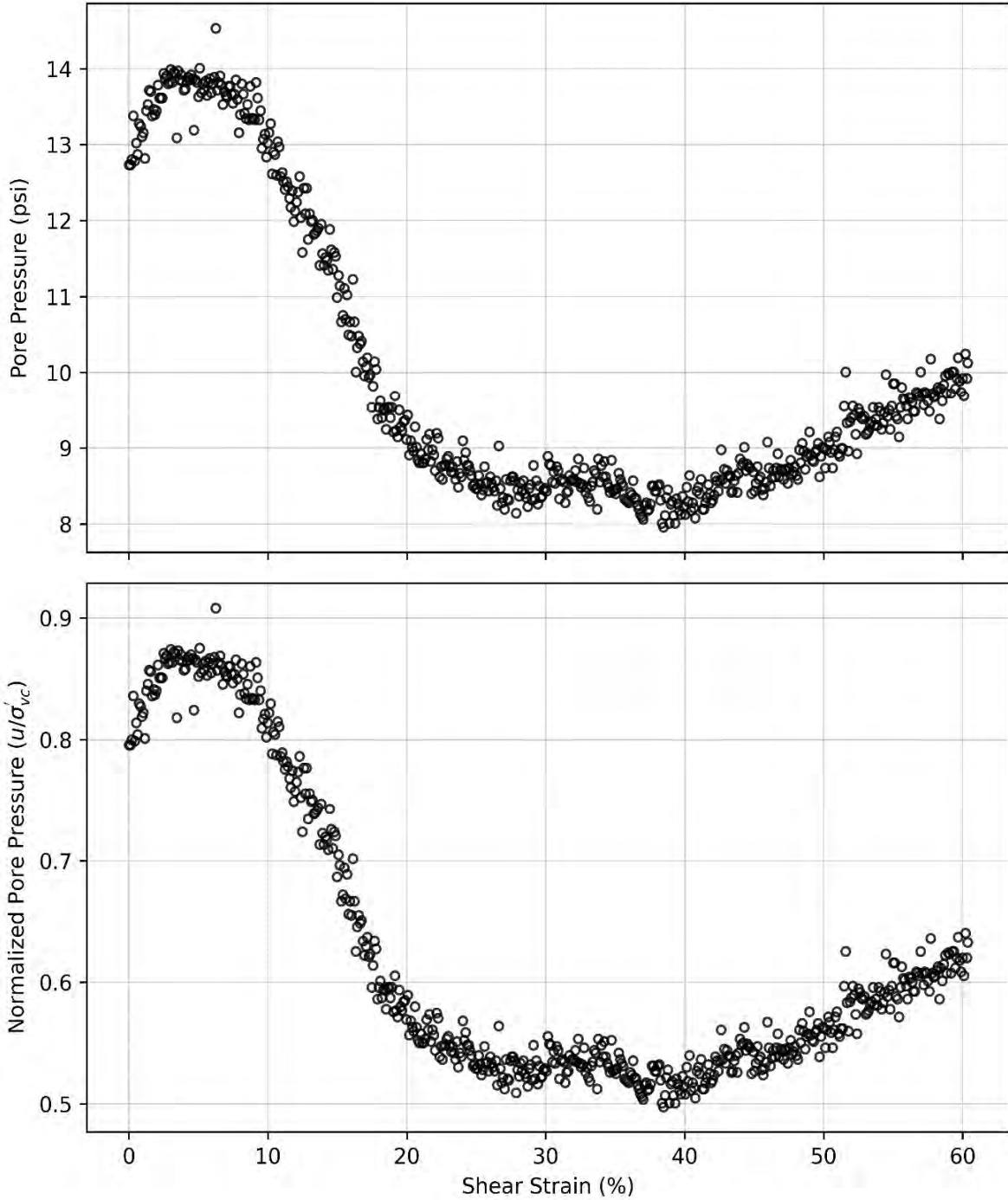


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section. Post-cyclic direct simple shear test stress and strain are measured relative to the state of stress of the soil specimen at the end of the cyclic phase

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|---|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Horizontal Shear Stress and Normalized Shear Stress for B-2 U-9 Specimen #2 stress-controlled CDSS Post-Cyclic Shear Phase | |
| Job Number: 0204679-001 | 05/23 |
|  | Figure B-5 |

0 05/23/2023 \\haley\aldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U9 CDSS-2 processed 052623 REVISED.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.


σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pore Pressure and Normalized Pore Pressure Versus Shear Strain for B-2 U-9 Specimen #2 stress-controlled CDSS Post-Cyclic Shear Phase | |
| Job Number: 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-5 |

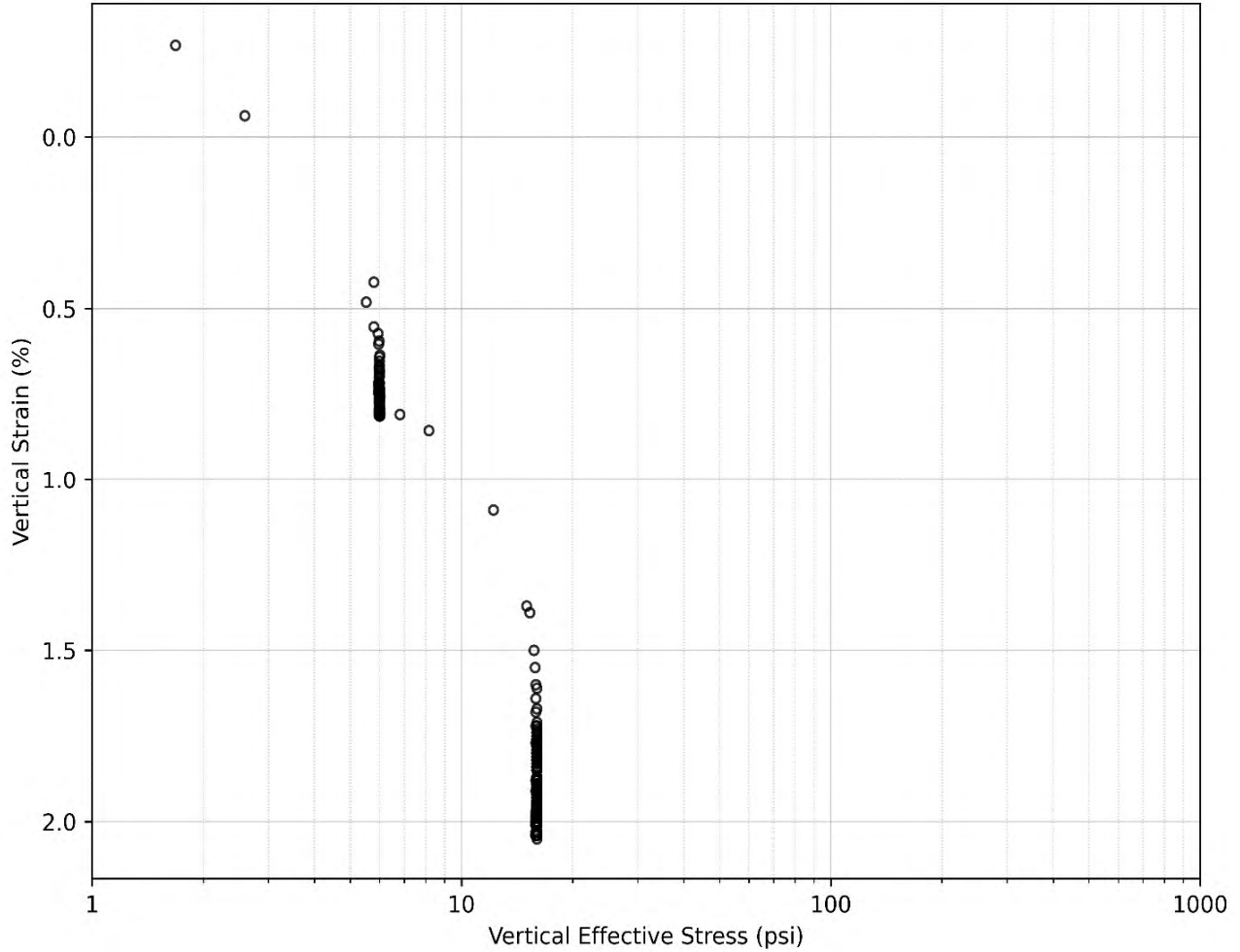
0 09/15/2022 \\haleyaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U9 CDSS-2 processed 052623 REVISED.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|---|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pre-Test Photograph of B-2 U-9 Specimen #2 CDSS | |
| Job Number 0204679-001 | 05/23 |
|  | Figure B-5 |

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| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 36.5 | 41 | 42 | 42 | 23 | 19 | LEAN CLAY | CL |

| Partical-size Distribution | | |
|----------------------------|--------|---------|
| % Gravel | % Sand | % Fines |
| 0 | 0.25 | 99.75 |

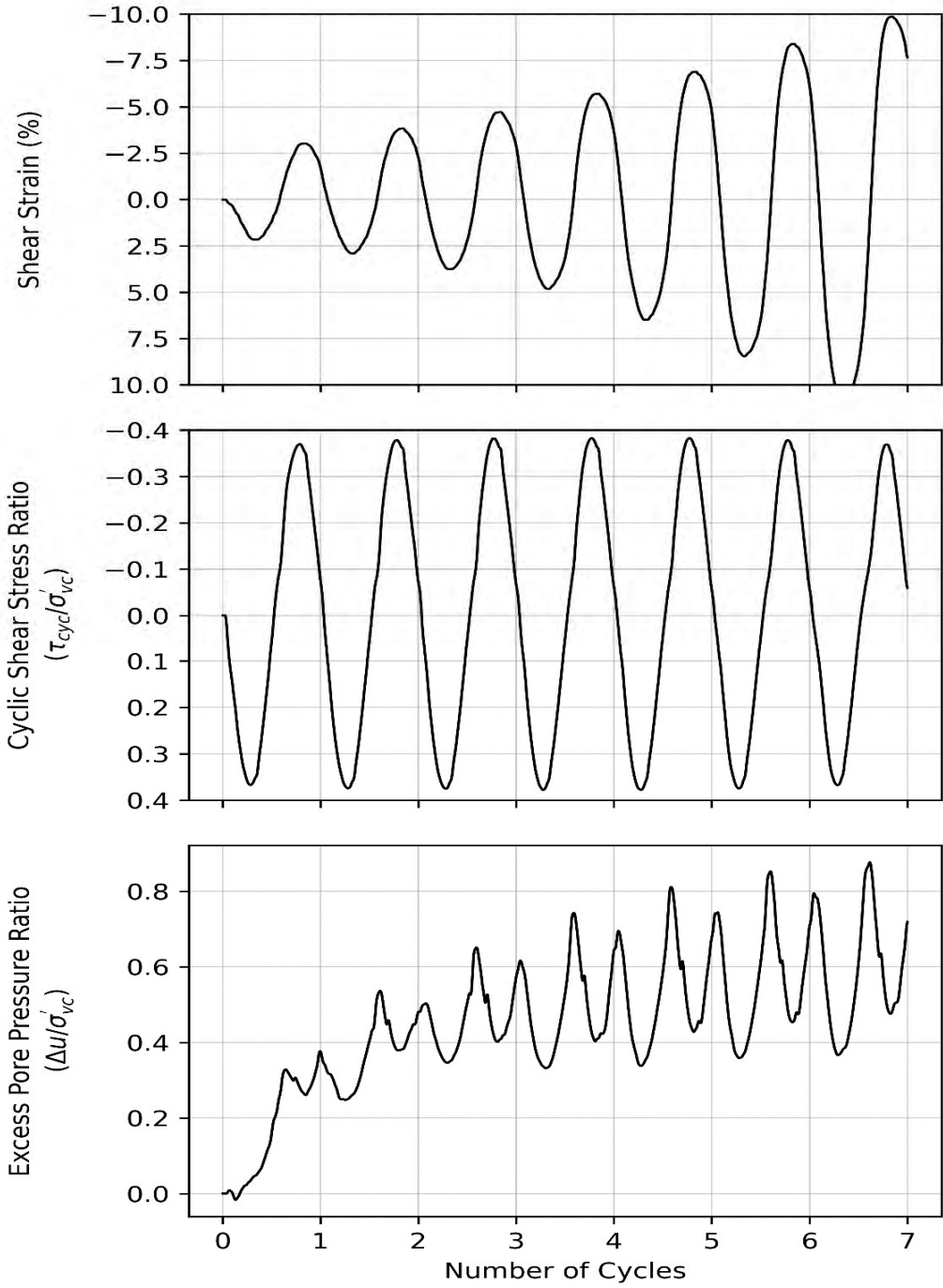
| Initial Specimen Properties | |
|------------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.96 |
| Total Unit Weight (pcf) | 109.37 |
| Degree of Saturation (%) | 95.45 |
| Void Ratio (e ₀) | 1.124 |

Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|--|-------|
| PDX Fuel Project Tank Design Portland, OR | |
| Axial Strain Versus Logarithm of Vertical Effective Stress for B-2 U-9 Specimen #3 stress-controlled CDSS Consolidation Phase | |
| Job Number: 0204679-001 | 05/23 |

| | |
|--|----------------------|
|  | Figure B-6 |
|--|----------------------|

0 05/30/2023 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U9 CDSS-3 processed 053023 REVISED.xlsx

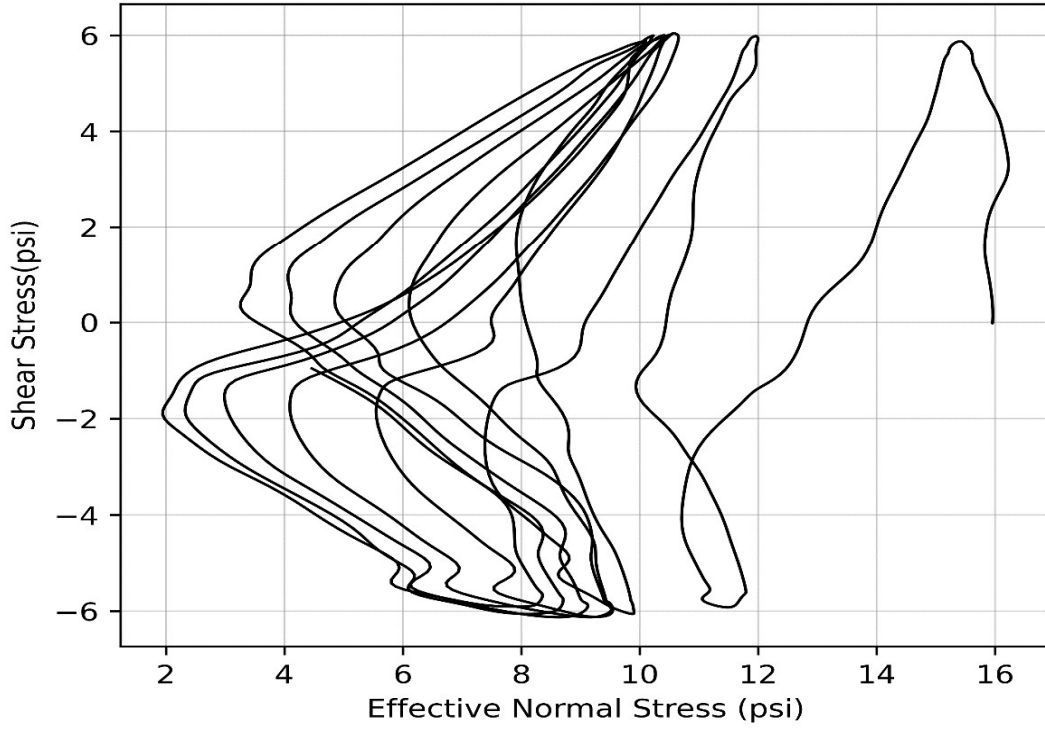
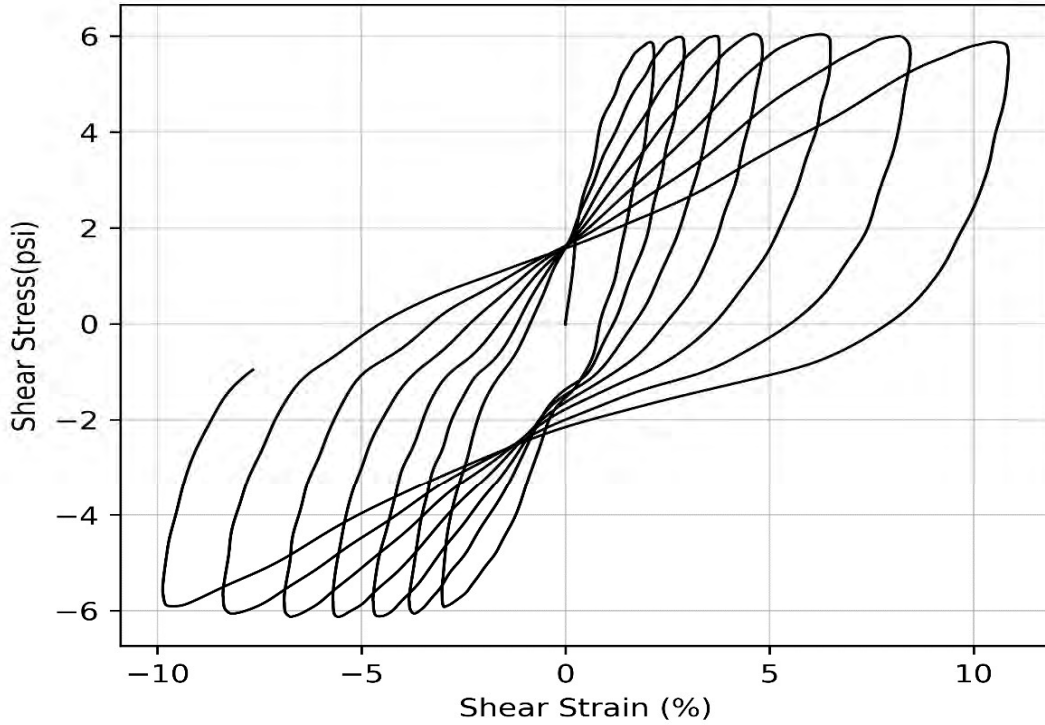


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Cyclic shear phase data for B-2 U-9 Specimen #3 stress-controlled CDSS Cyclic Phase | |
| Job Number: 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-6 |

σ'_{vc} = Vertical effective stress at the end of consolidation

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Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

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Portland, OR

**Cyclic Loop for B-2 U-9 Specimen #3 stress-controlled CDSS
Cyclic Phase**

Job Number: 0204679-001 05/23

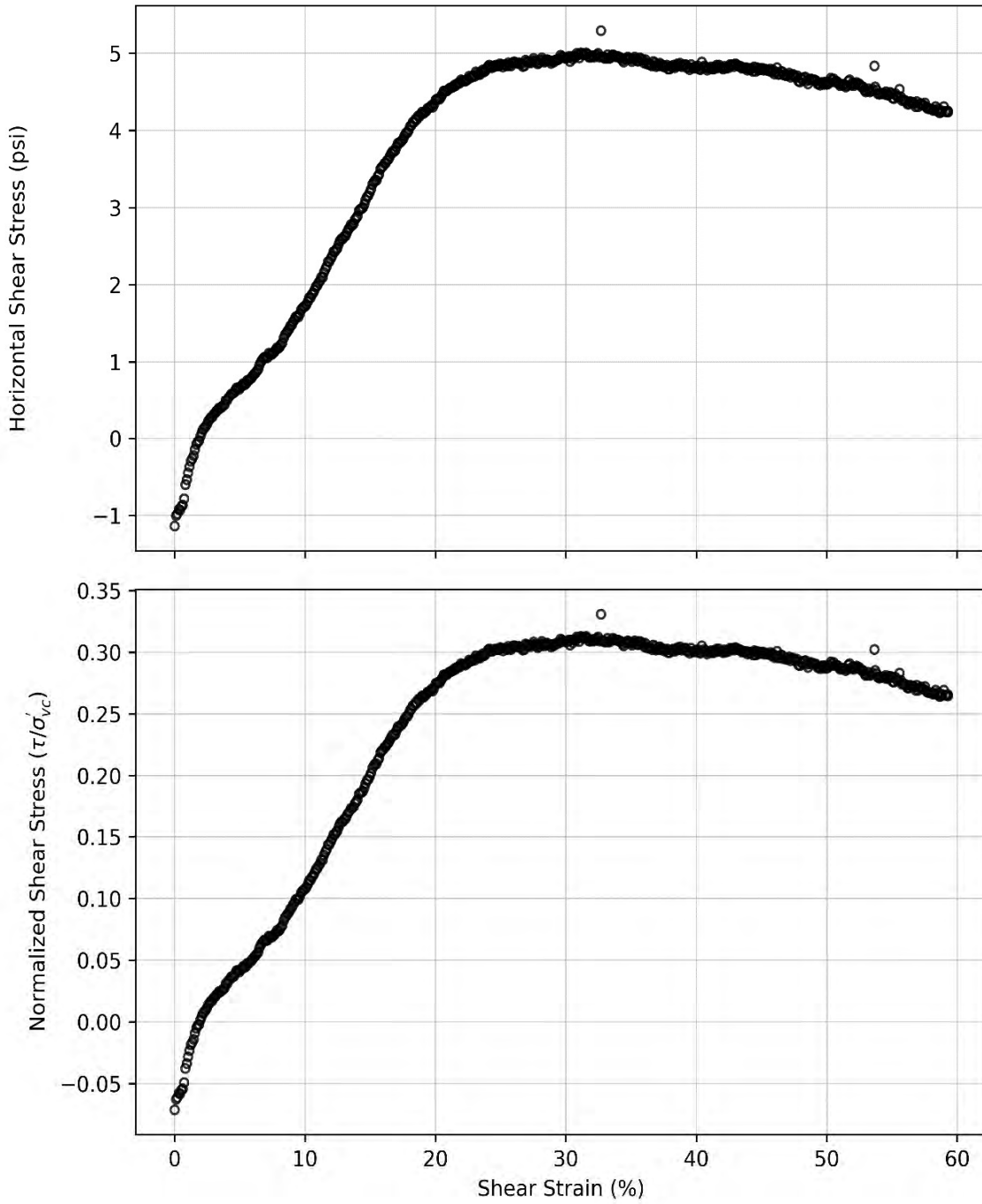
σ'_{vc} = Vertical effective stress at the end of consolidation



Figure

B-6

0 05/30/2023 \\haley\aldrich.com\share\pdx_data\Notes\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U9 CDSS-3 processed 053023 REVISED.xlsx

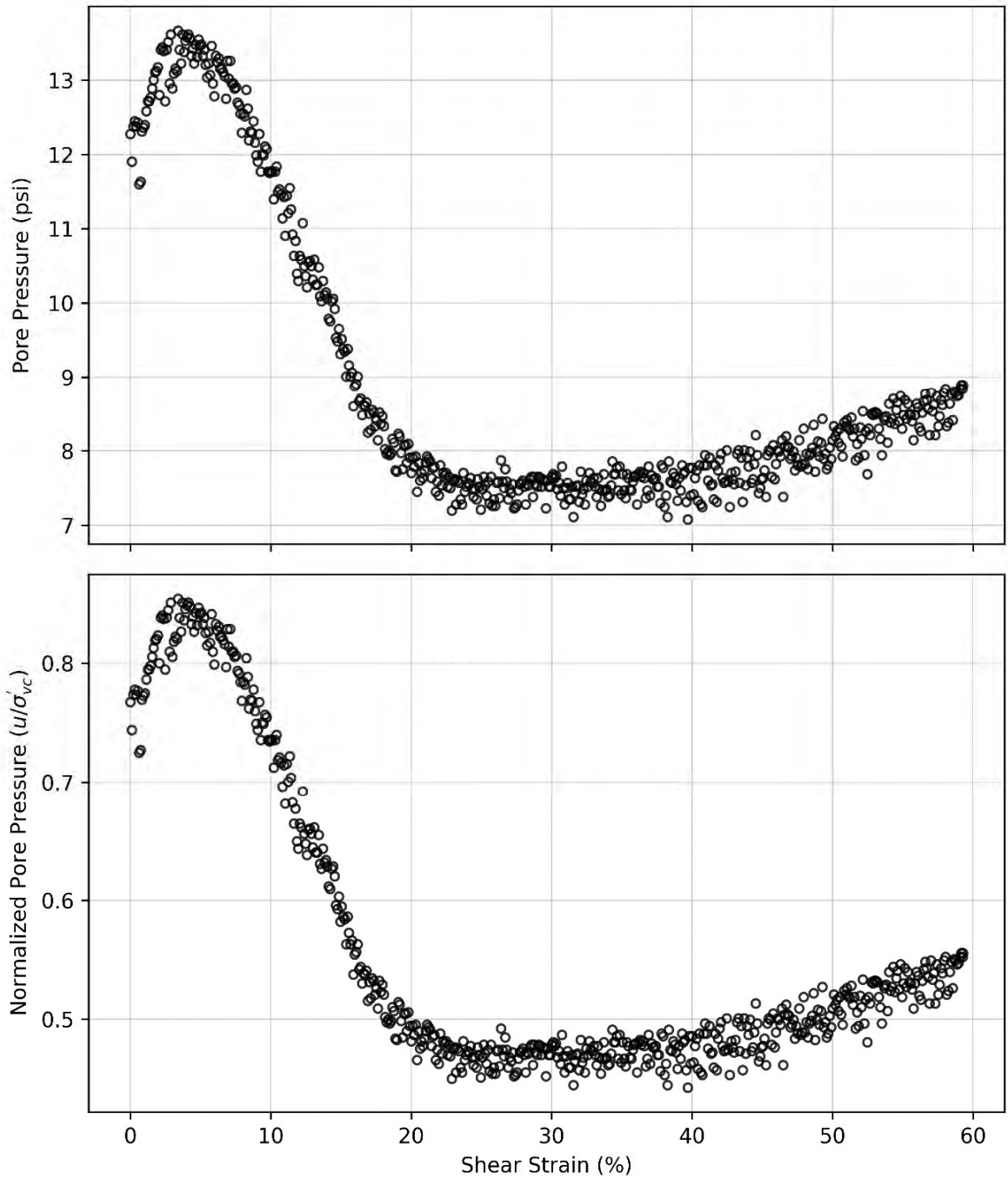


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section. Post-cyclic direct simple shear test stress and strain are measured relative to the state of stress of the soil specimen at the end of the cyclic phase

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|---|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Horizontal Shear Stress and Normalized Shear Stress for B-2 U-9 Specimen #3 stress-controlled CDSS Post-Cyclic Shear Phase | |
| Job Number: 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-6 |

0 05/30/2023 \\haley\aldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U9 CDSS-3 processed_053023 REVISED.xlsx

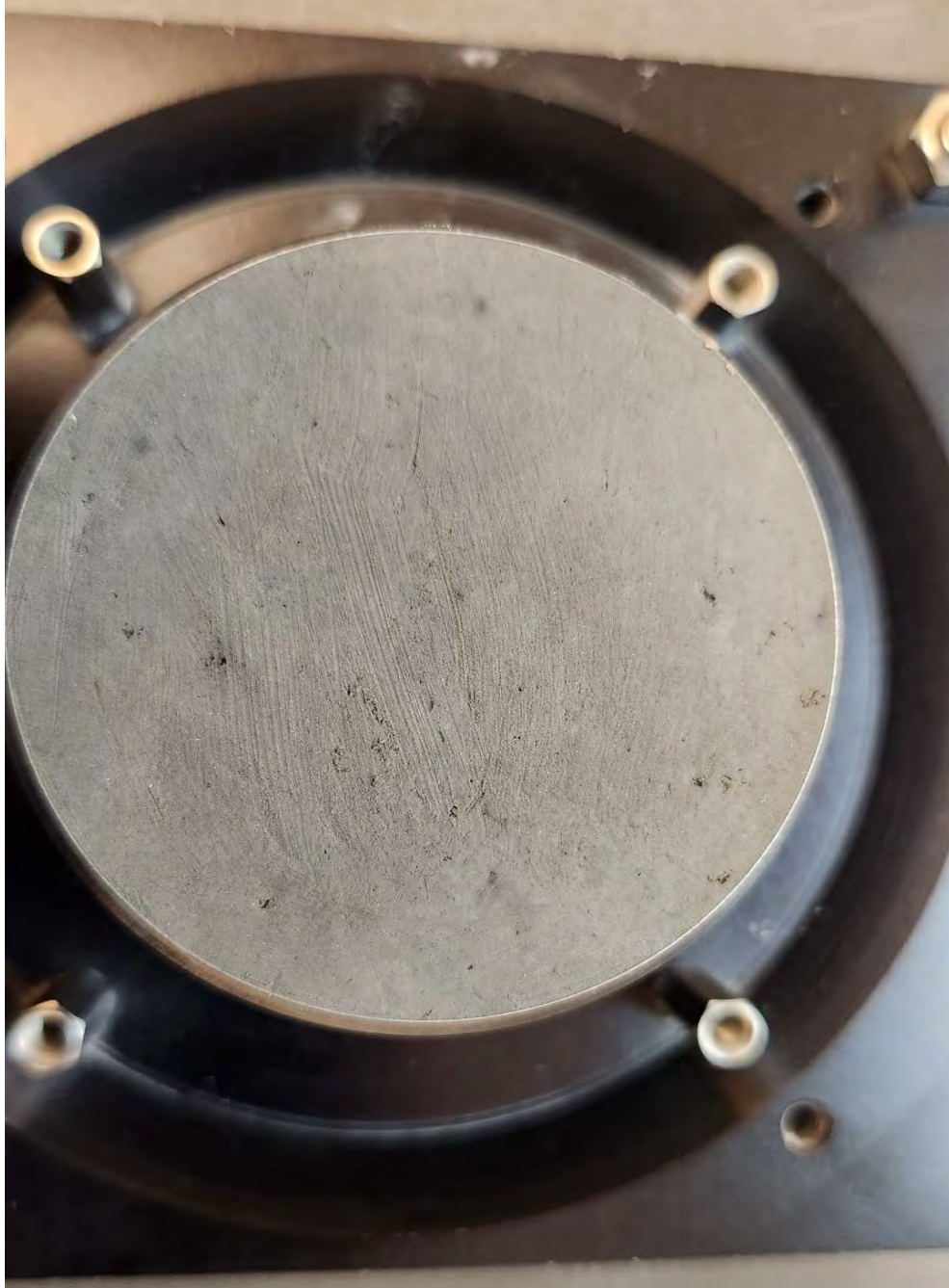


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.


σ'_{vc} = Vertical effective stress at the end of consolidation

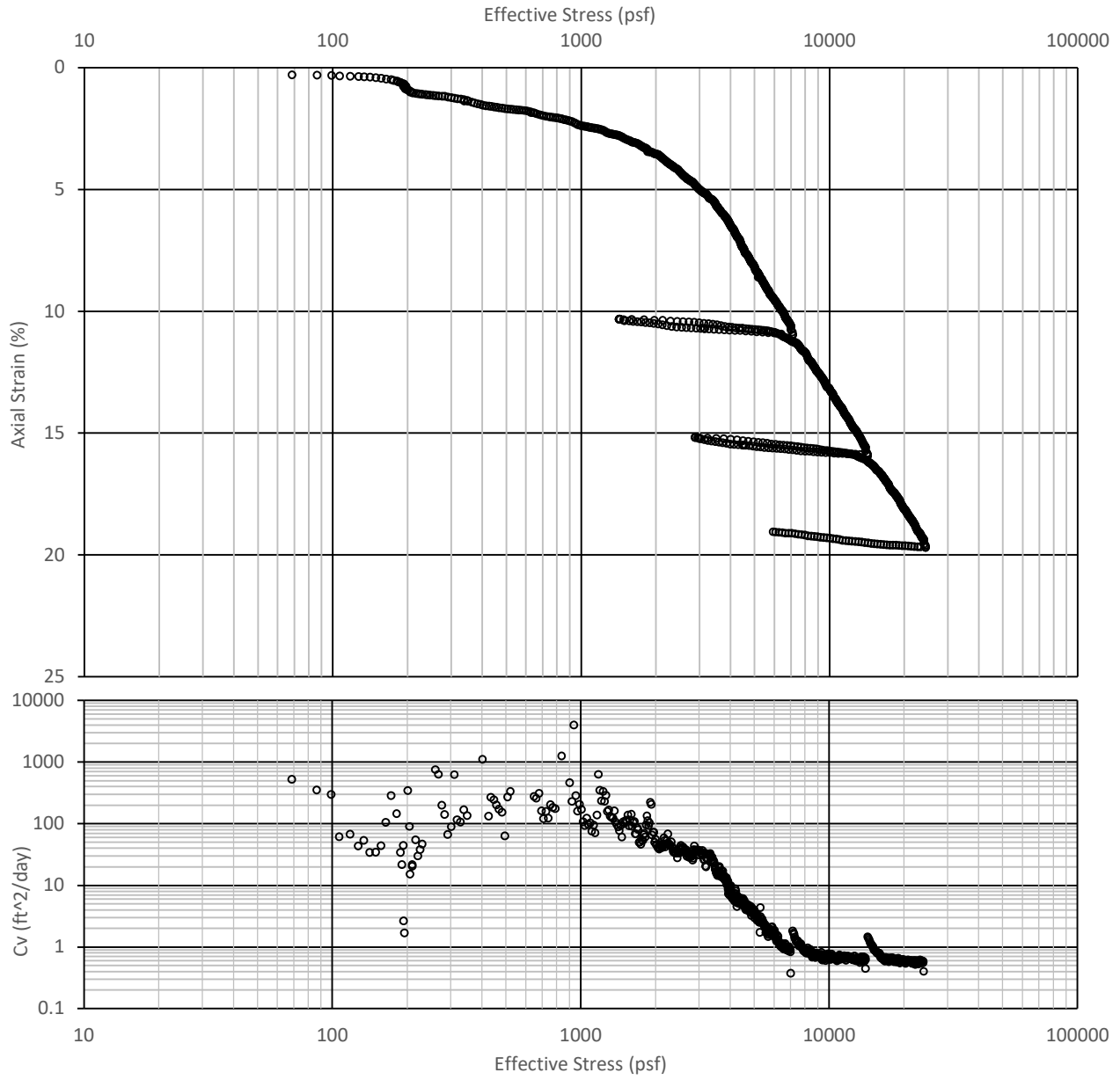
| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pore Pressure and Normalized Pore Pressure Versus Shear Strain for B-2 U-9 Specimen #3 stress-controlled CDSS Post-Cyclic Shear Phase | |
| Job Number: 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-6 |

0 09/15/2022 \\haleyaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\CDSS\0204679-001 B2 U9 CDSS-3 processed 053023 REVISED.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|---|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pre-Test Photograph of B-2 U-9 Specimen #3 CDSS | |
| Job Number 0204679-001 | 05/23 |
|  | Figure B-6 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 11 | 39 | 29 | 33 | 21 | 12 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 960 | Strain Energy | Casagrande |
| | 3000 | 2700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| C | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.01 |
| Total Unit Weight (pcf) | 110.88 |
| Degree of Saturation (%) | 95.92 |
| Void Ratio (e0) | 1.068 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

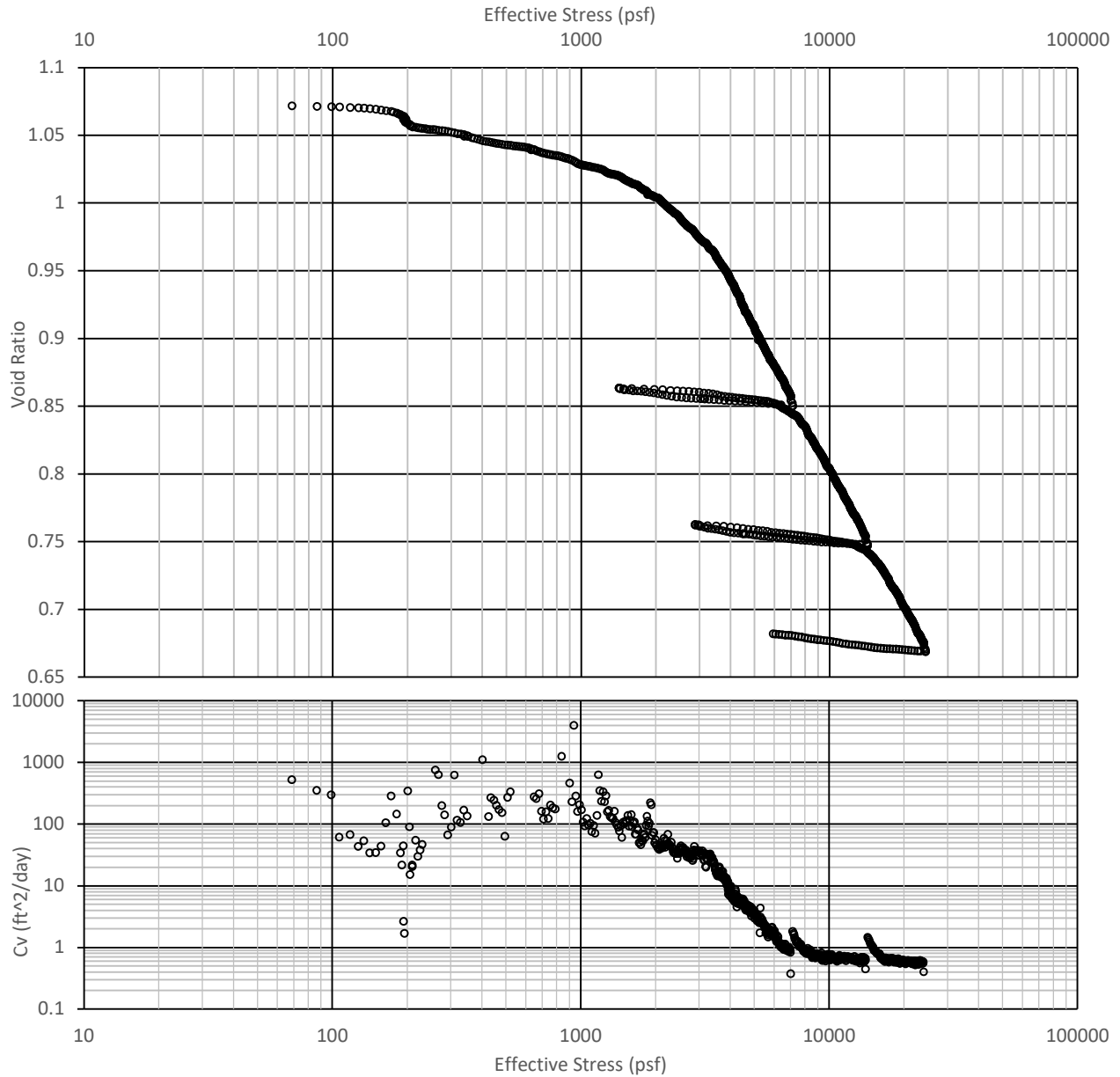
PDX Fuel Project Tank Design
 Portland, OR

Axial strain and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-3 CRS Consolidation

Job Number: 0204679-001 4/26/2023



Figure
B-7



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 11 | 39 | 29 | 33 | 21 | 12 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_v_o (psf) | Preconsolidation Pressure (psf) | |
| 960 | Strain Energy | Casagrande |
| | 3000 | 2700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| C | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.01 |
| Total Unit Weight (pcf) | 110.88 |
| Degree of Saturation (%) | 95.92 |
| Void Ratio (e0) | 1.068 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

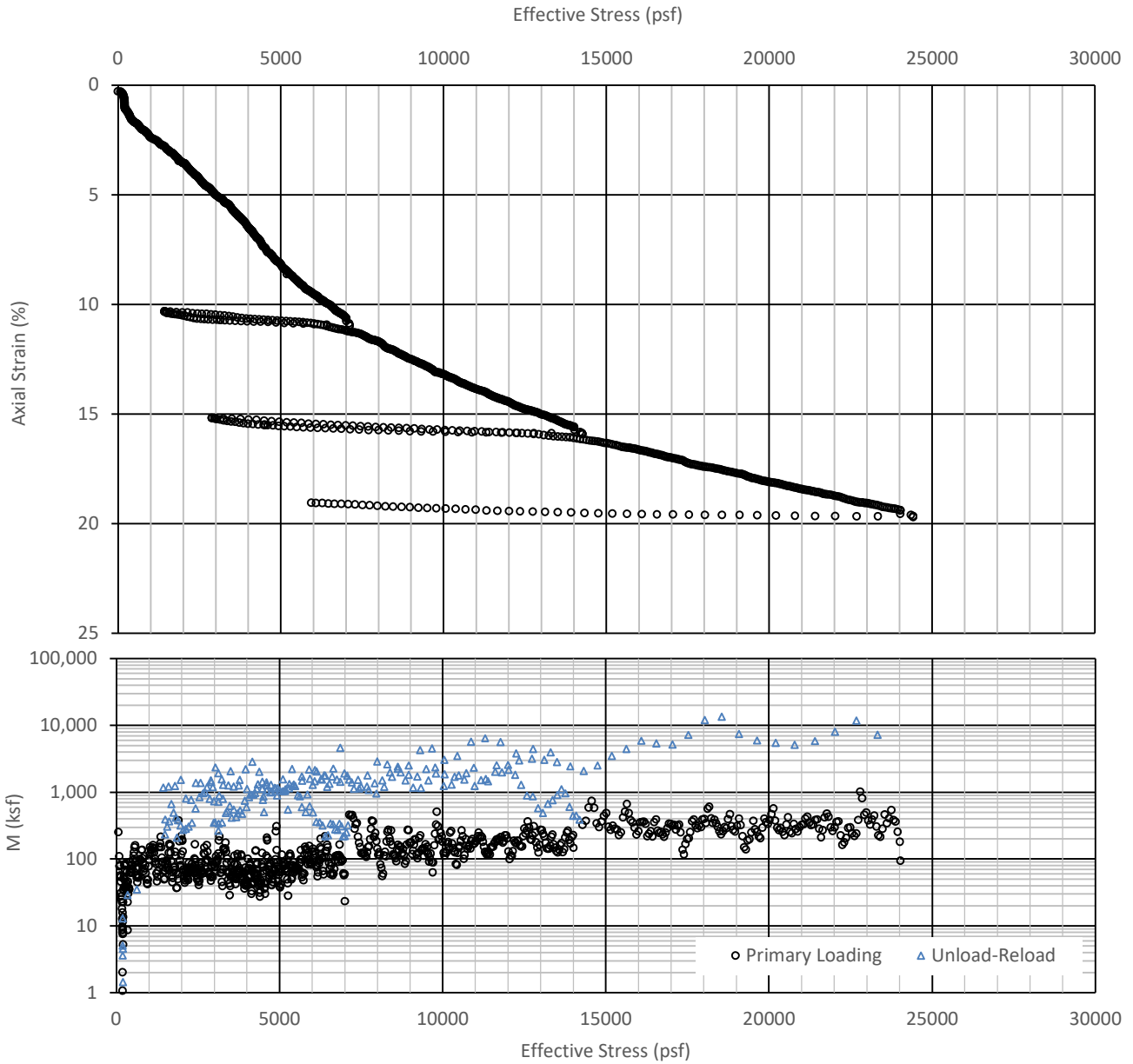
PDX Fuel Project Tank Design
 Portland, OR

Void ratio and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-3 CRS Consolidation

Job Number: 0204679-001 4/26/2023

| | |
|--|----------------------|
| | Figure B-7 |
|--|----------------------|

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| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 11 | 39 | 29 | 33 | 21 | 12 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 960 | 3000 | 2700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| C | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.01 |
| Total Unit Weight (pcf) | 110.88 |
| Degree of Saturation (%) | 95.92 |
| Void Ratio (e0) | 1.068 |

Sample Preparation and Comments:

The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

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Portland, OR

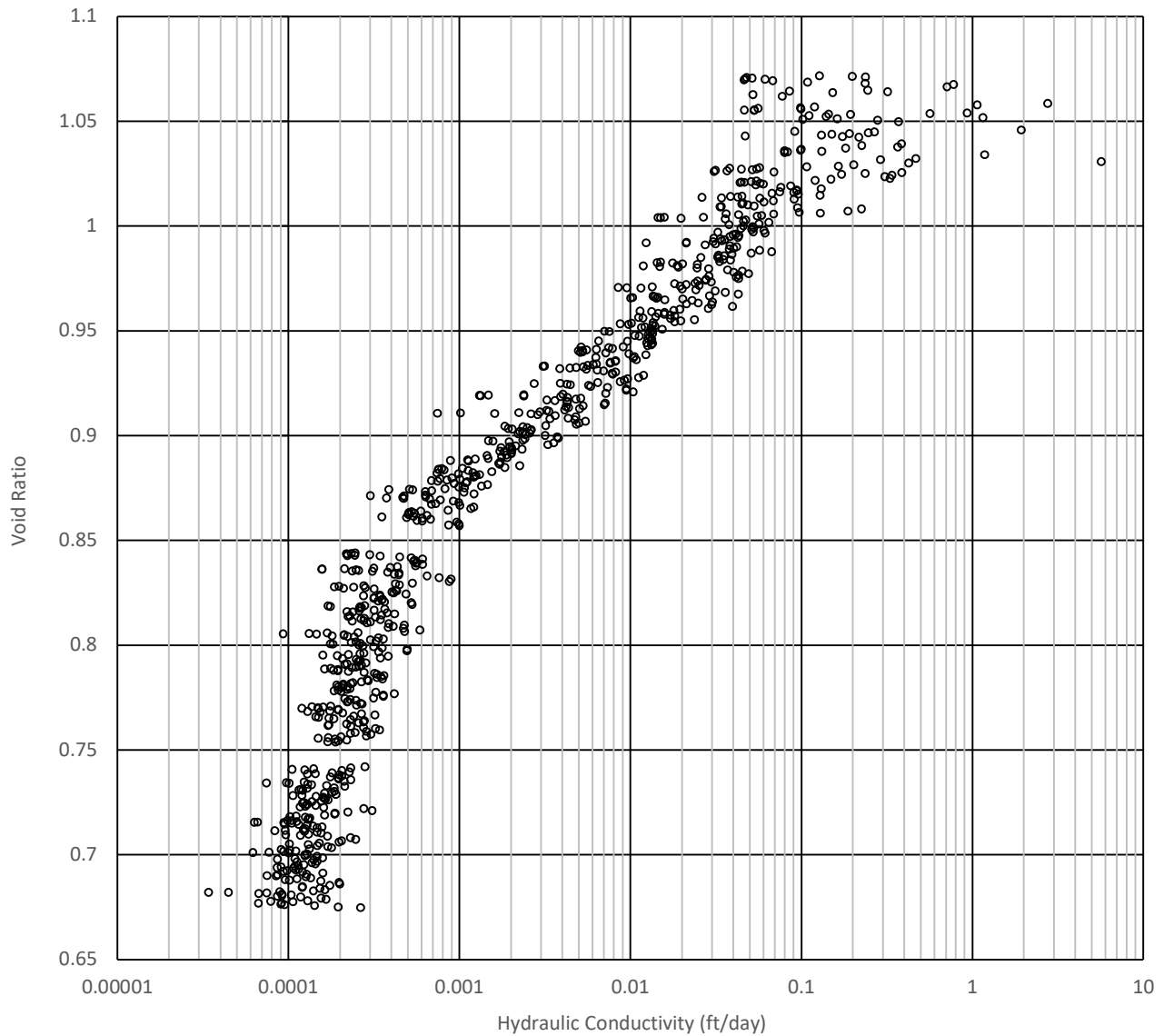
Axial strain versus vertical effective stress for B-1 U-3 CRS Consolidation

Job Number: 0204679-001

4/26/2023



Figure
B-7



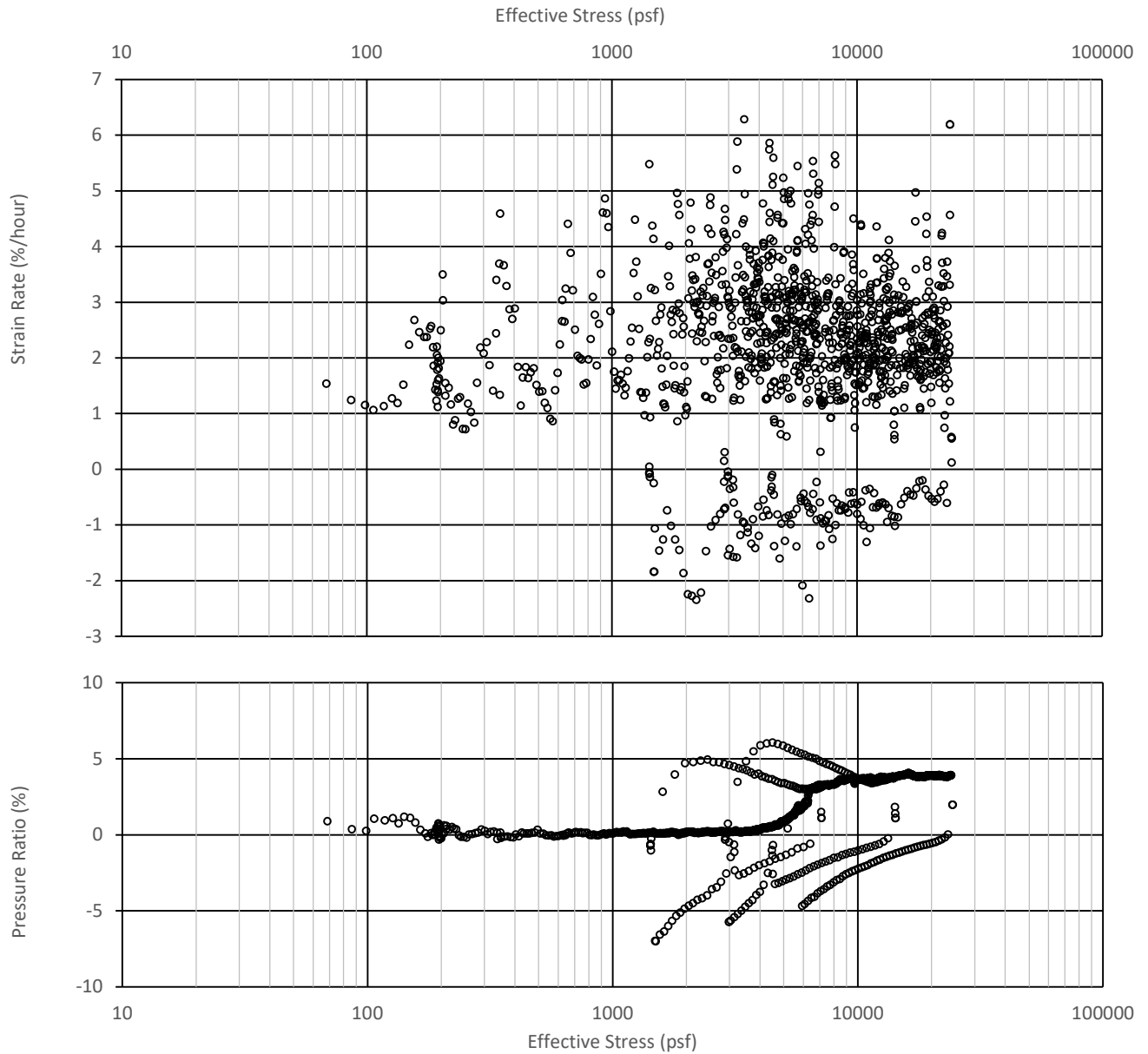
| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 11 | 39 | 29 | 33 | 21 | 12 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 960 | Strain Energy | Casagrande |
| | 3000 | 2700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| C | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.01 |
| Total Unit Weight (pcf) | 110.88 |
| Degree of Saturation (%) | 95.92 |
| Void Ratio (e0) | 1.068 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Void ratio versus logarithm of hydraulic conductivity B-1 U-3 CRS Consolidation | |
| Job Number: 0204679-001 | 4/26/2023 |
| | Figure B-7 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 11 | 39 | 29 | 33 | 21 | 12 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ'_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 960 | Strain Energy | Casagrande |
| | 3000 | 2700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| C | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.01 |
| Total Unit Weight (pcf) | 110.88 |
| Degree of Saturation (%) | 95.92 |
| Void Ratio (e0) | 1.068 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

PDX Fuel Project Tank Design
Portland, OR

Axial strain, void ratio, and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-3 CRS Consolidation

Job Number: 0204679-001 4/26/2023


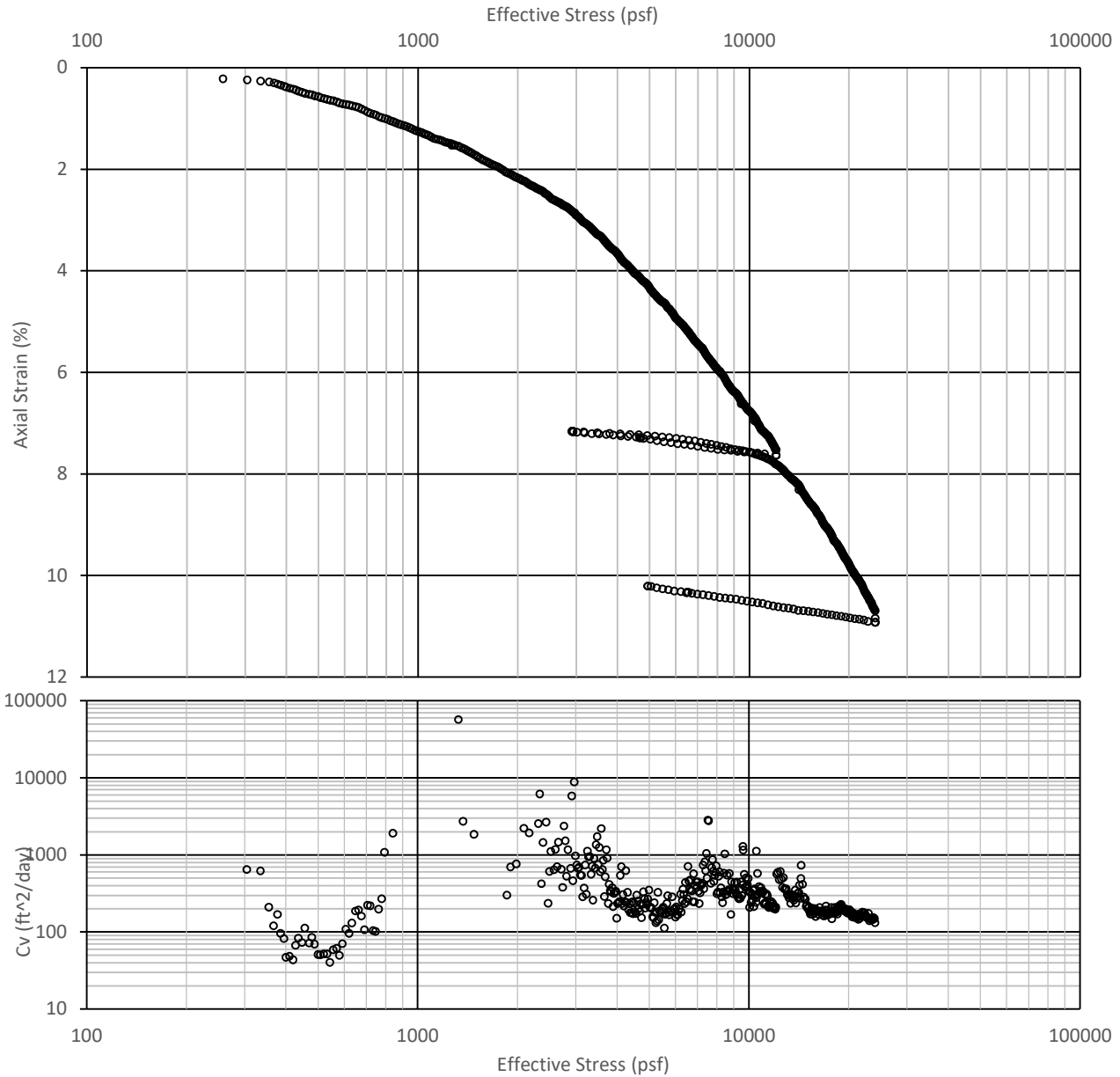


Figure
B-7



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| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pre-Test Photograph | |
| 0204679-001 | 4/26/2023 |
| HALEY ALDRICH | Figure B-7 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|-----|-----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 17 | 40 | 34 | GNP | GNP | GNP | SANDY SILT | ML |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 1440 | Strain Energy | Casagrande |
| | 6500 | 5700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.04 |
| Total Unit Weight (pcf) | 111.93 |
| Degree of Saturation (%) | 99.67 |
| Void Ratio (e0) | 1.074 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

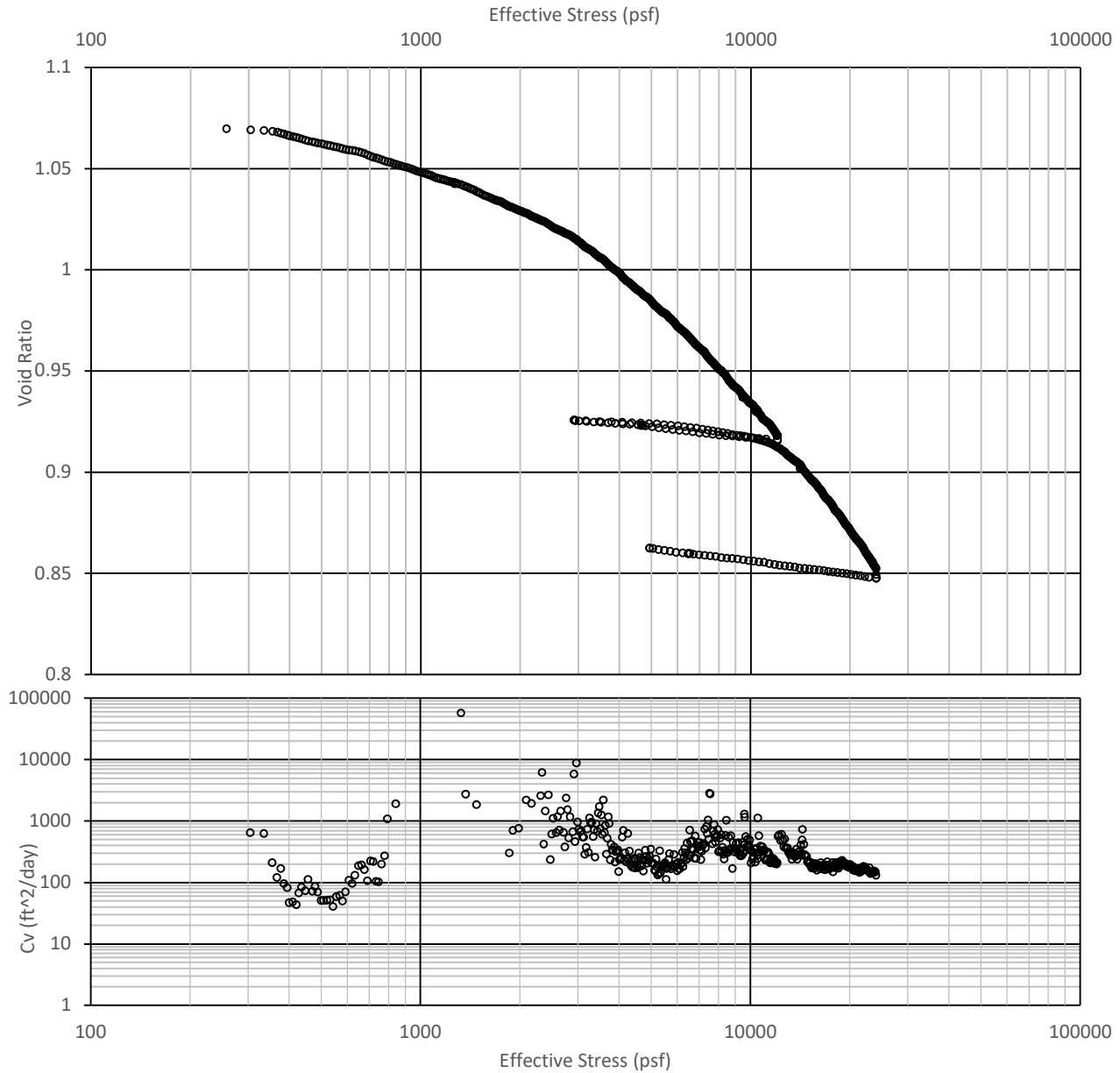
PDX Fuel Project Tank Design
 Portland, OR

Axial strain and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-6 CRS Consolidation

Job Number: 0204679-001 5/10/2023



Figure
B-8



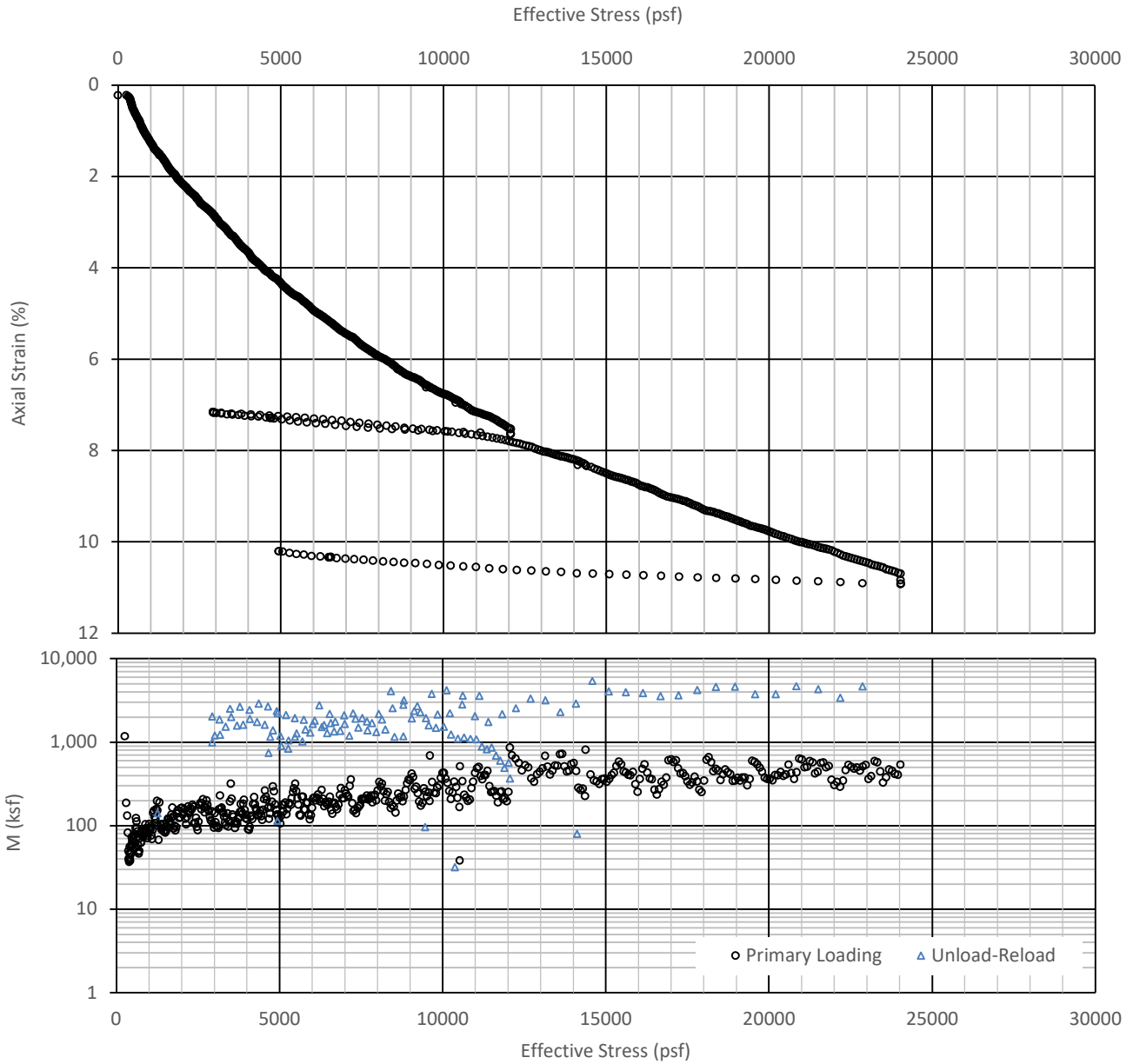
| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|-----|-----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 17 | 40 | 34 | GNP | GNP | GNP | SANDY SILT | ML |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 1440 | Strain Energy | Casagrande |
| | 6500 | 5700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.04 |
| Total Unit Weight (pcf) | 111.93 |
| Degree of Saturation (%) | 99.67 |
| Void Ratio (e0) | 1.074 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Void ratio and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-6 CRS Consolidation | |
| Job Number: 0204679-001 | 5/10/2023 |
| | Figure B-8 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|-----|-----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 17 | 40 | 34 | GNP | GNP | GNP | SANDY SILT | ML |

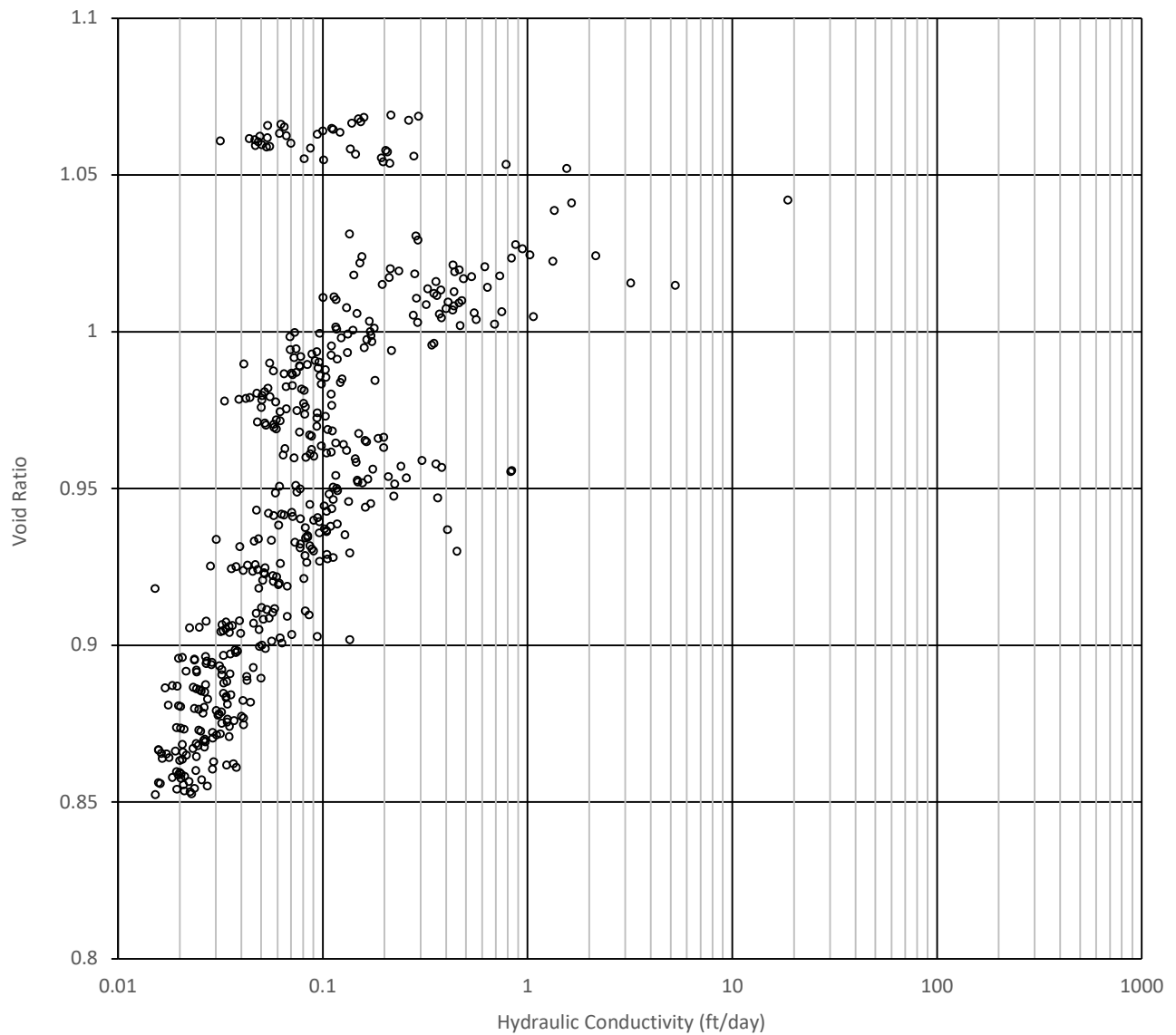
| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1440 | 6500 | 5700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.04 |
| Total Unit Weight (pcf) | 111.93 |
| Degree of Saturation (%) | 99.67 |
| Void Ratio (e0) | 1.074 |

Sample Preparation and Comments:

The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Axial strain versus vertical effective stress for B-1 U-6 CRS Consolidation | |
| Job Number: 0204679-001 | 5/10/2023 |
| | Figure B-8 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|-----|-----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 17 | 40 | 34 | GNP | GNP | GNP | SANDY SILT | ML |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1440 | 6500 | 5700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.04 |
| Total Unit Weight (pcf) | 111.93 |
| Degree of Saturation (%) | 99.67 |
| Void Ratio (e0) | 1.074 |

Sample Preparation and Comments:

The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

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Portland, OR

Void ratio versus logarithm of hydraulic conductivity B-1 U-6 CRS Consolidation

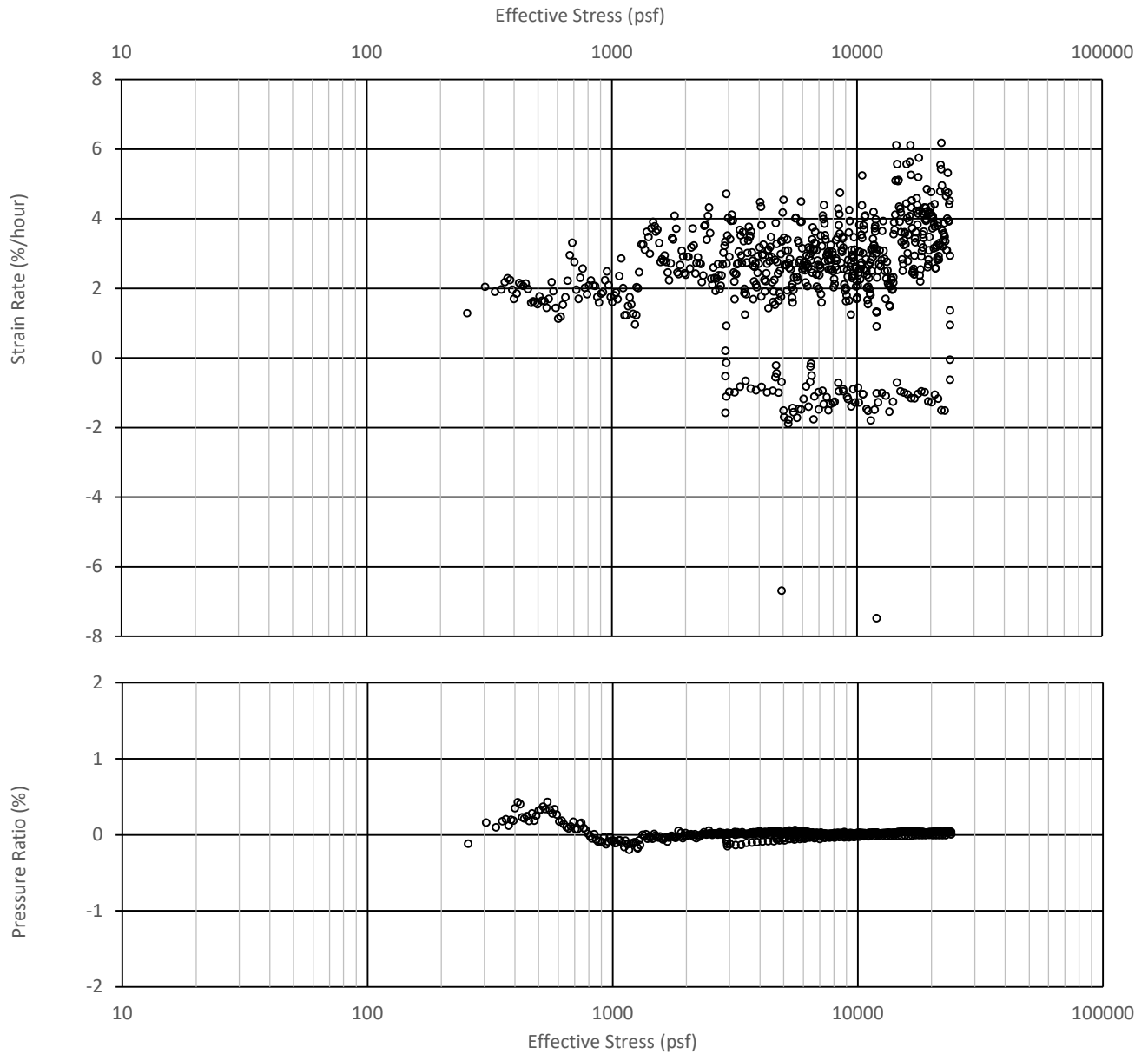
Job Number: 0204679-001

5/10/2023



Figure

B-8



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|---------------|----------|-------|------------------|-----|-----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 17 | 40 | 34 | GNP | GNP | GNP | SANDY SILT | ML |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1440 | 6500 | 5700 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 5.04 |
| Total Unit Weight (pcf) | 111.93 |
| Degree of Saturation (%) | 99.67 |
| Void Ratio (e0) | 1.074 |

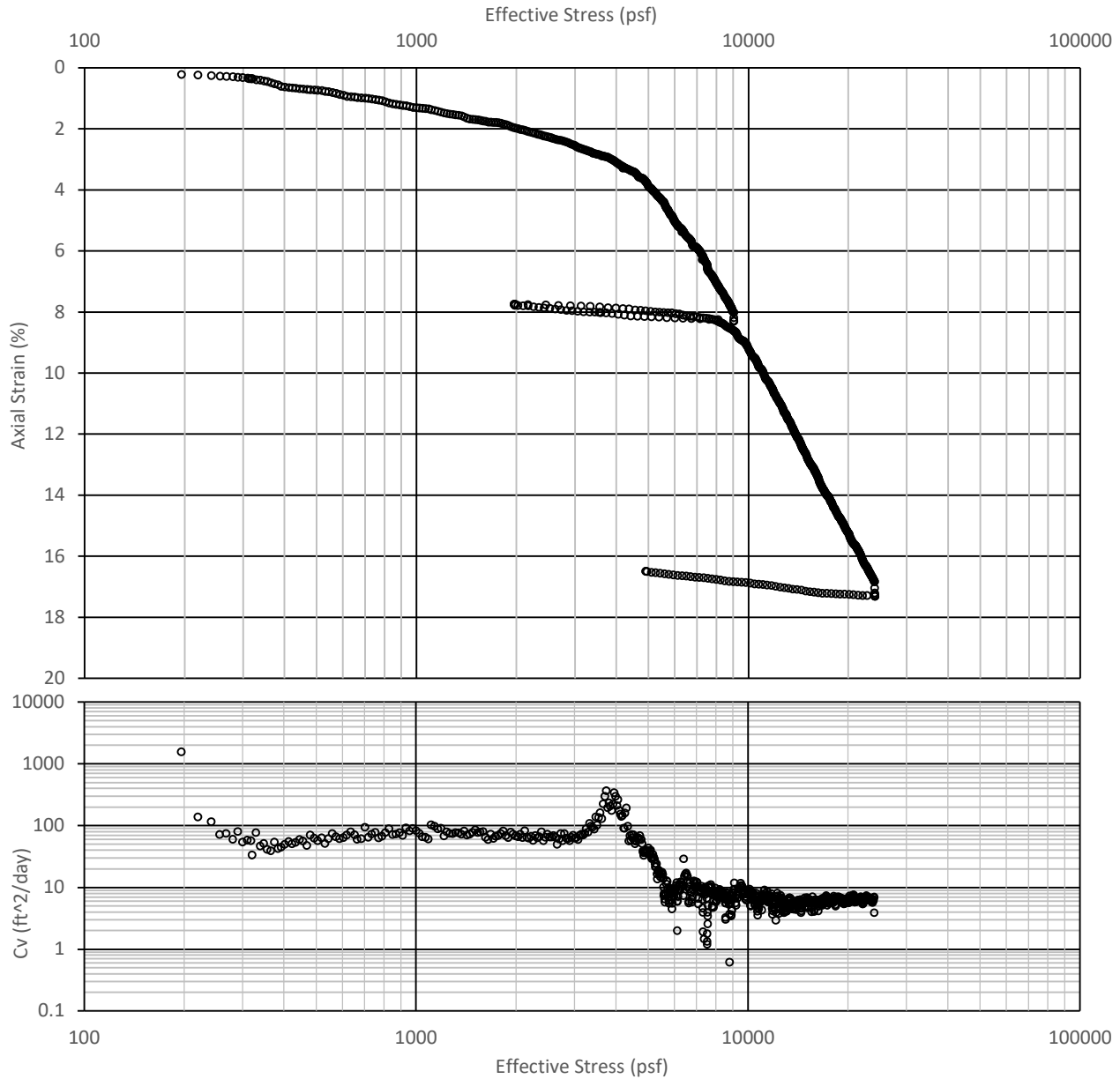
Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|---|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Axial strain, void ratio, and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-6 CRS Consolidation | |
| Job Number: 0204679-001 | 5/10/2023 |
| | Figure B-8 |



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| | |
|---|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Post-Test Photograph | |
| 0204679-001 | 5/10/2023 |
|  | Figure B-8 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 25.9 | 46 | 37 | 46 | 34 | 12 | SILT | ML |

| | | |
|----------------------------|---------------------------------|------------|
| σ'_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 1820 | Strain Energy | Casagrande |
| | 5600 | 5900 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | Lunne et al. (1997) | |
| B | #N/A | |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.83 |
| Total Unit Weight (pcf) | 106.37 |
| Degree of Saturation (%) | 96.41 |
| Void Ratio (e0) | 1.277 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

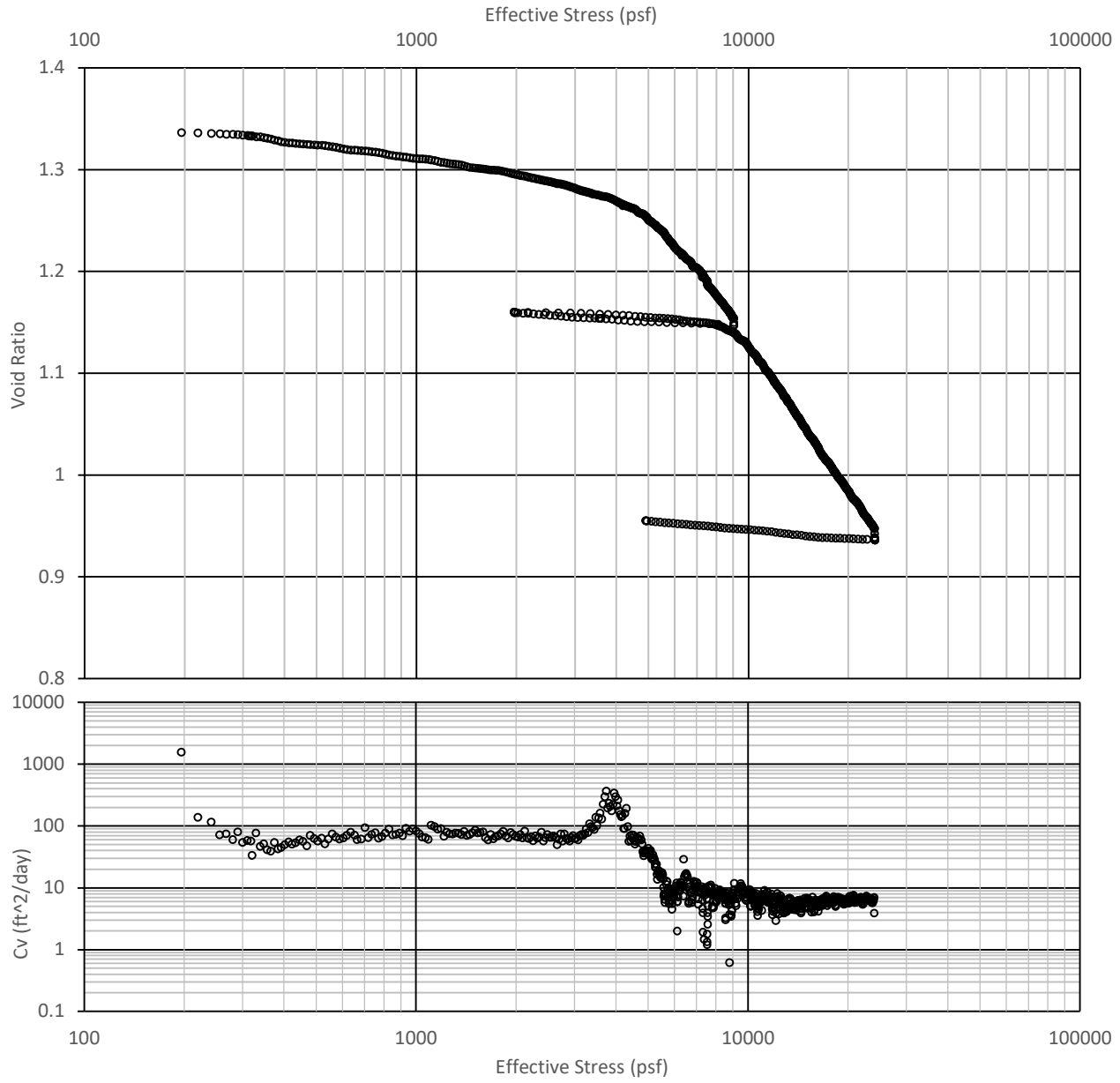
PDX Fuel Project Tank Design
 Portland, OR

Axial strain and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-8 CRS Consolidation

Job Number: 0204679-001 5/11/2023



Figure
B-9



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|---------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 25.9 | 46 | 37 | 46 | 34 | 12 | SILT | ML |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1820 | 5600 | 5900 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | #N/A |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.83 |
| Total Unit Weight (pcf) | 106.37 |
| Degree of Saturation (%) | 96.41 |
| Void Ratio (e0) | 1.277 |

Sample Preparation and Comments:

The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

PDX Fuel Project Tank Design
Portland, OR

Void ratio and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-8 CRS Consolidation

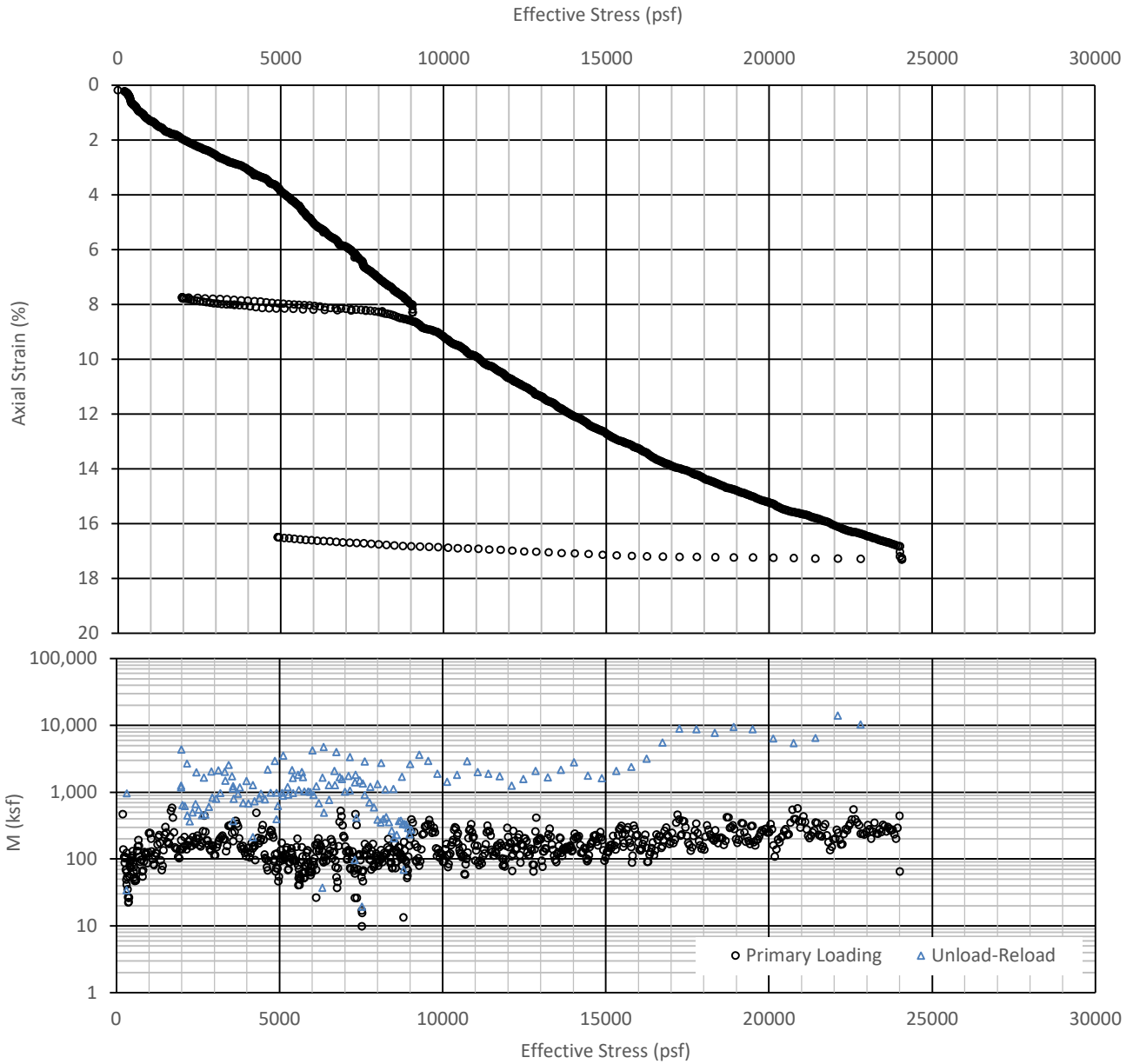
Job Number: 0204679-001

5/11/2023



Figure

B-9



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 25.9 | 46 | 37 | 46 | 34 | 12 | SILT | ML |

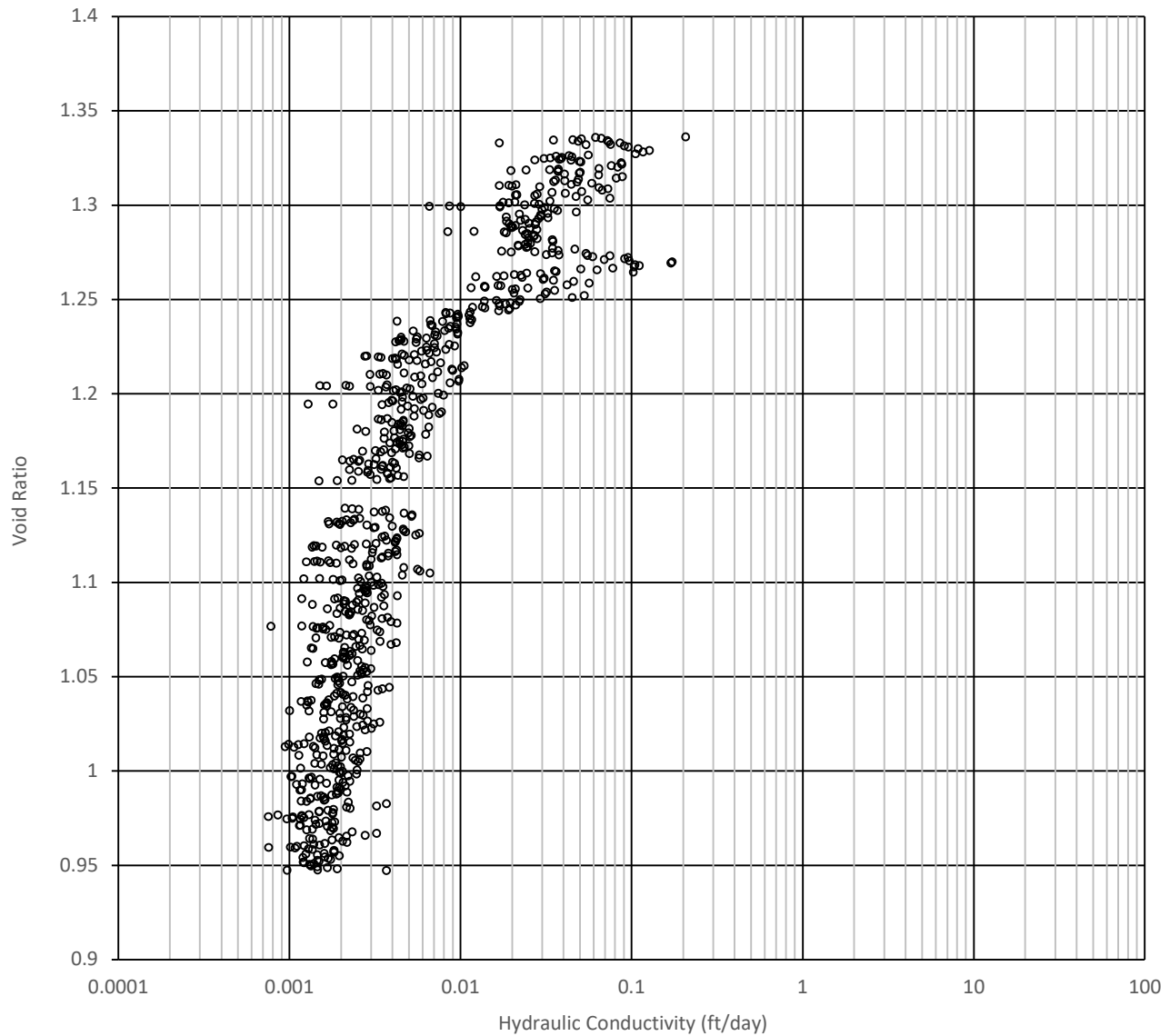
| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 1820 | Strain Energy | Casagrande |
| | 5600 | 5900 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | #N/A |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.83 |
| Total Unit Weight (pcf) | 106.37 |
| Degree of Saturation (%) | 96.41 |
| Void Ratio (e0) | 1.277 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Axial strain versus vertical effective stress for B-1 U-8 CRS Consolidation | |
| Job Number: 0204679-001 | 5/11/2023 |
| | Figure B-9 |

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| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 25.9 | 46 | 37 | 46 | 34 | 12 | SILT | ML |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| | Strain Energy | Casagrande |
| 1820 | 5600 | 5900 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | #N/A |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.83 |
| Total Unit Weight (pcf) | 106.37 |
| Degree of Saturation (%) | 96.41 |
| Void Ratio (e0) | 1.277 |

Sample Preparation and Comments:

The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Farenheit.

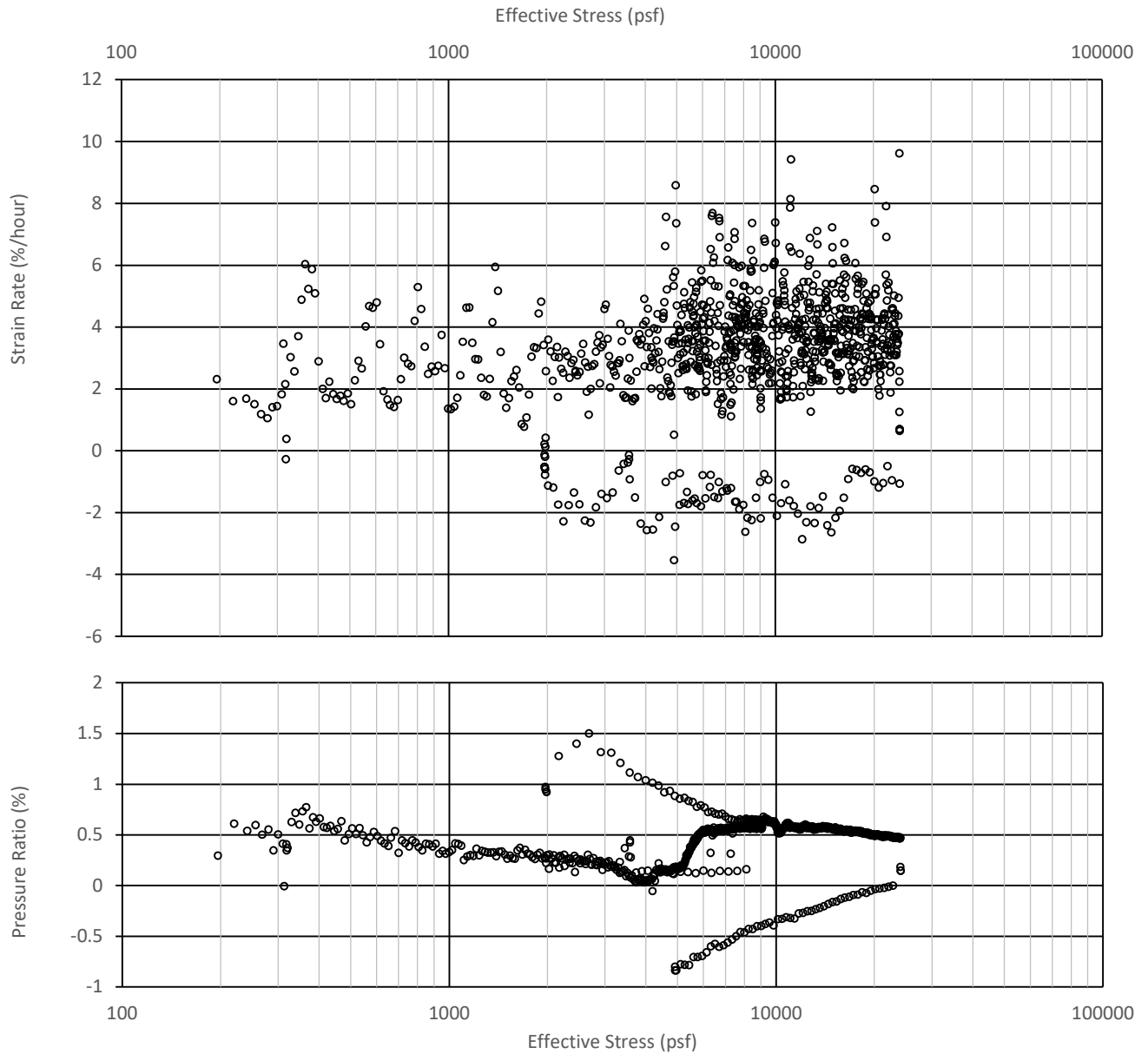
PDX Fuel Project Tank Design
Portland, OR

Void ratio versus logarithm of hydraulic conductivity B-1 U-8 CRS Consolidation

Job Number: 0204679-001 5/11/2023



Figure
B-9



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 25.9 | 46 | 37 | 46 | 34 | 12 | SILT | ML |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1820 | 5600 | 5900 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| B | | #N/A |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.83 |
| Total Unit Weight (pcf) | 106.37 |
| Degree of Saturation (%) | 96.41 |
| Void Ratio (e0) | 1.277 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

PDX Fuel Project Tank Design
 Portland, OR
Axial strain, void ratio, and coefficient of consolidation versus logarithm of vertical effective stress for B-1 U-8 CRS Consolidation
 Job Number: 0204679-001 5/11/2023



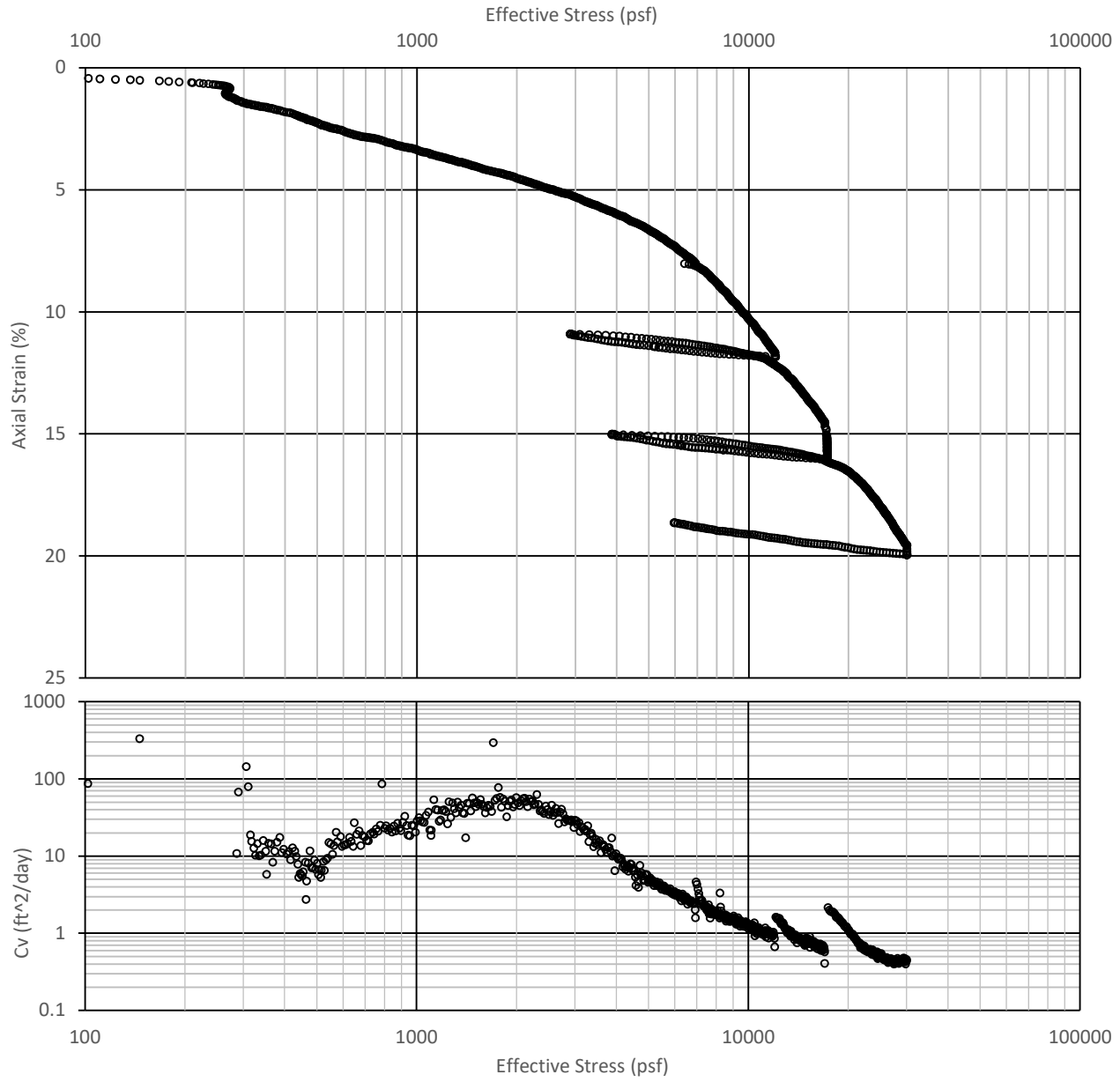
Figure
B-9

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| | |
|--|----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pre-Test Photograph | |
| 0204679-001 | 5/11/2023 |
| HALEY ALDRICH | Figure B-9 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 21 | 47 | 39 | 49 | 26 | 23 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 1500 | Strain Energy | Casagrande |
| | 7500 | 7200 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | Lunne et al. (1997) | |
| D | Very poor | |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.74 |
| Total Unit Weight (pcf) | 105.24 |
| Degree of Saturation (%) | 95.13 |
| Void Ratio (e0) | 1.310 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

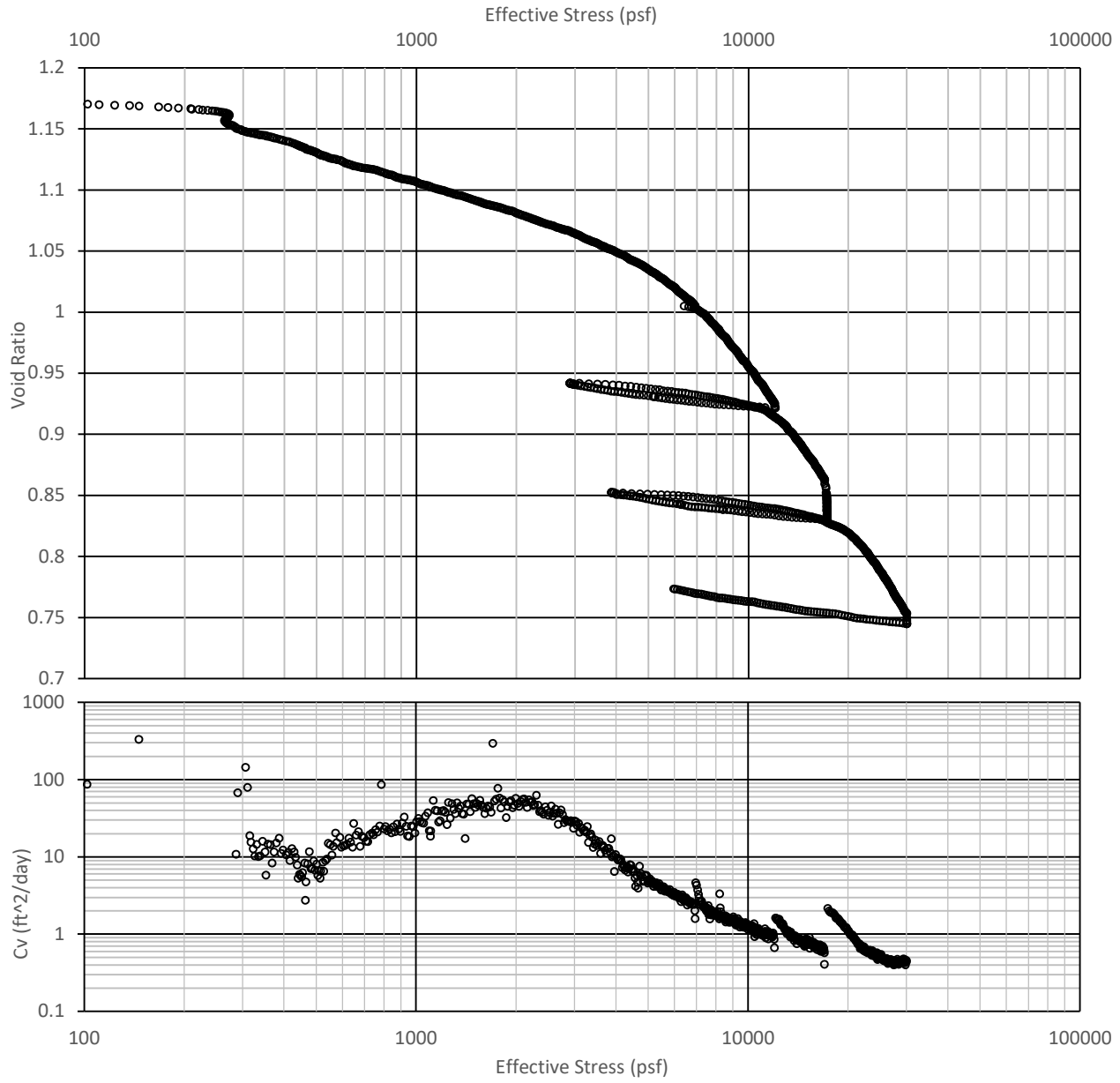
PDX Fuel Project Tank Design
 Portland, WA

Axial strain and coefficient of consolidation versus logarithm of vertical effective stress for B-2 U-6 CRS Consolidation

Job Number: 0204679-001 4/14/2023



Figure
B-10



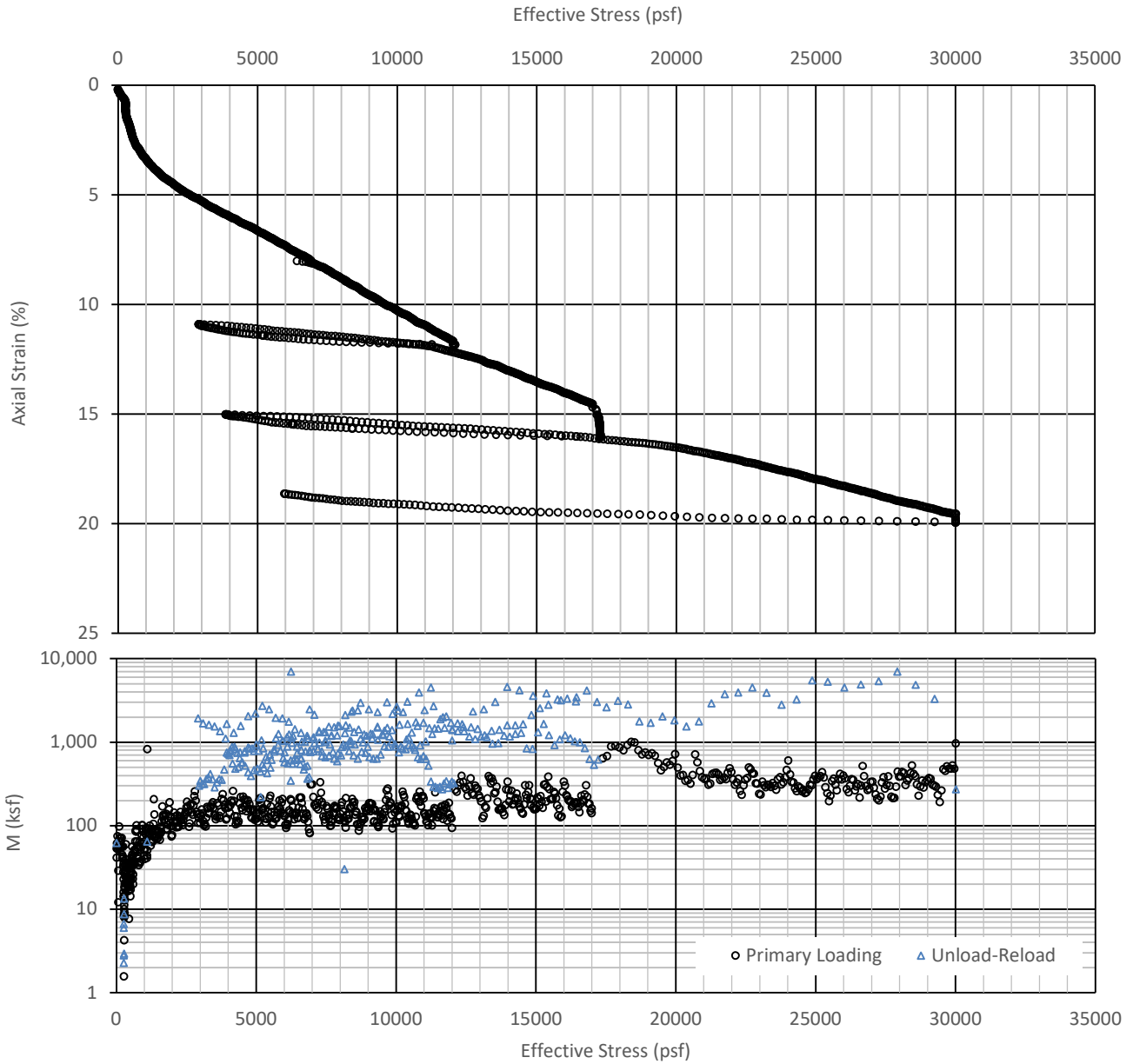
| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 21 | 47 | 39 | 49 | 26 | 23 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1500 | 5000 | 7200 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| D | | Very poor |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.74 |
| Total Unit Weight (pcf) | 105.24 |
| Degree of Saturation (%) | 95.13 |
| Void Ratio (e0) | 1.310 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, WA | |
| Void ratio and coefficient of consolidation versus logarithm of vertical effective stress for B-2 U-6 CRS Consolidation | |
| Job Number: 0204679-001 | 4/14/2023 |
| | Figure B-10 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 21 | 47 | 39 | 49 | 26 | 23 | LEAN CLAY | CL |

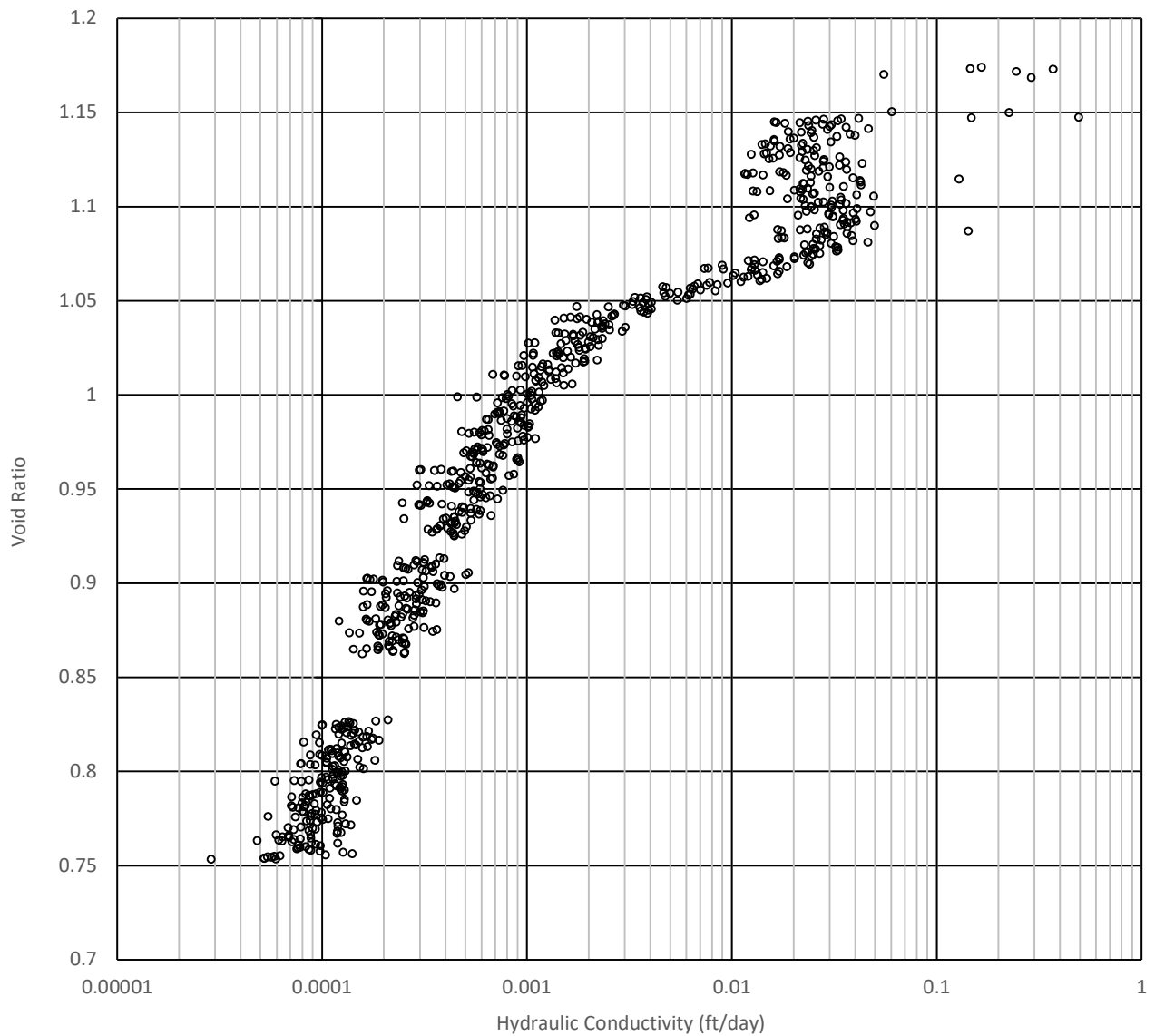
| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1500 | 5000 | 7200 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| D | | Very poor |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.74 |
| Total Unit Weight (pcf) | 105.24 |
| Degree of Saturation (%) | 95.13 |
| Void Ratio (e0) | 1.310 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, WA | |
| Axial strain versus vertical effective stress for B-2 U-6 CRS Consolidation | |
| Job Number: 0204679-001 | 4/14/2023 |
| | Figure B-10 |

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| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 21 | 47 | 39 | 49 | 26 | 23 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1500 | 5000 | 7200 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| D | | Very poor |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.74 |
| Total Unit Weight (pcf) | 105.24 |
| Degree of Saturation (%) | 95.13 |
| Void Ratio (e0) | 1.310 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

PDX Fuel Project Tank Design
 Portland, WA

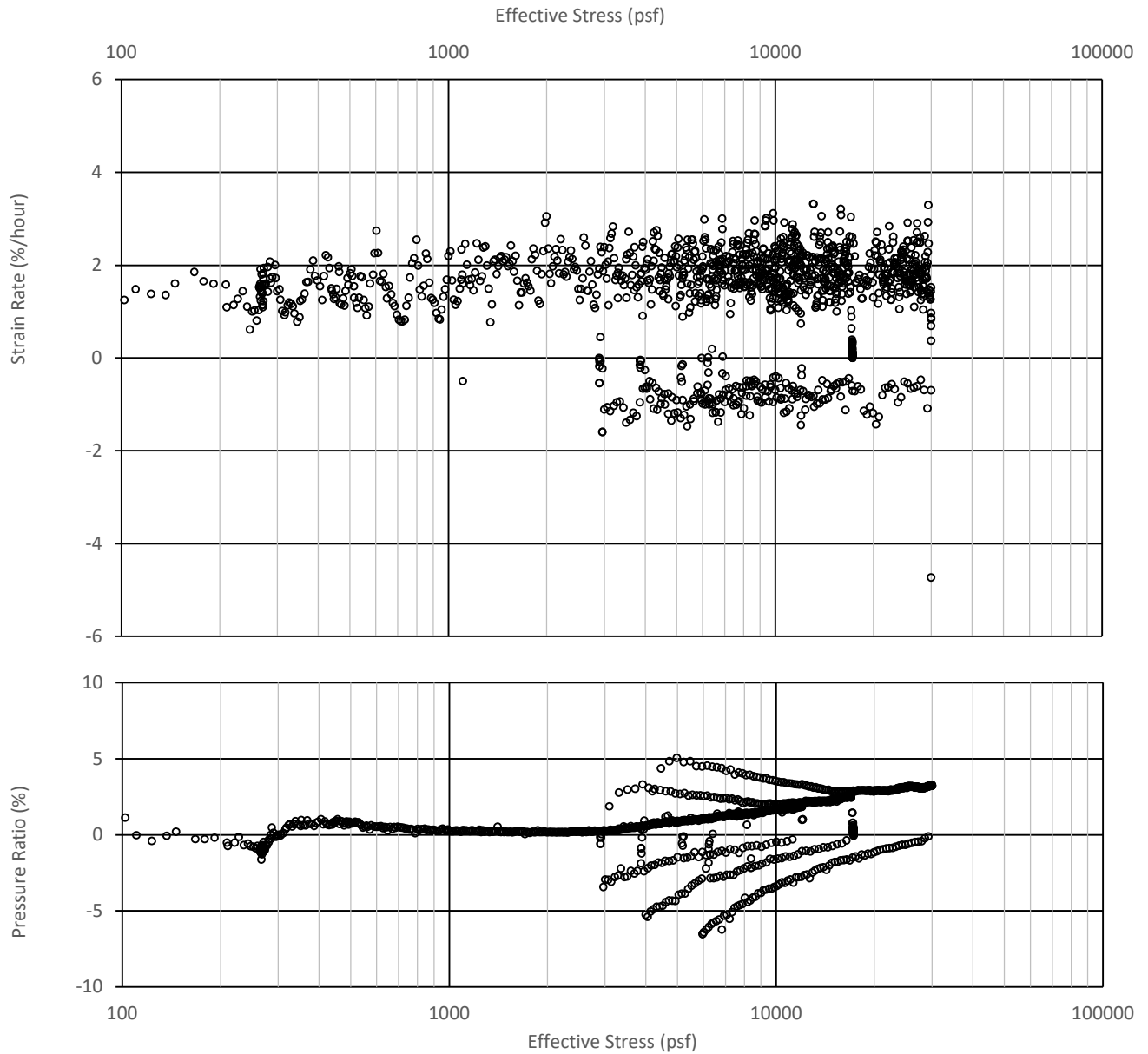
Void ratio versus logarithm of hydraulic conductivity B-2 U-6 CRS Consolidation

Job Number: 0204679-001 4/14/2023



Figure
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| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 21 | 47 | 39 | 49 | 26 | 23 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 1500 | 5000 | 7200 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| D | | Very poor |

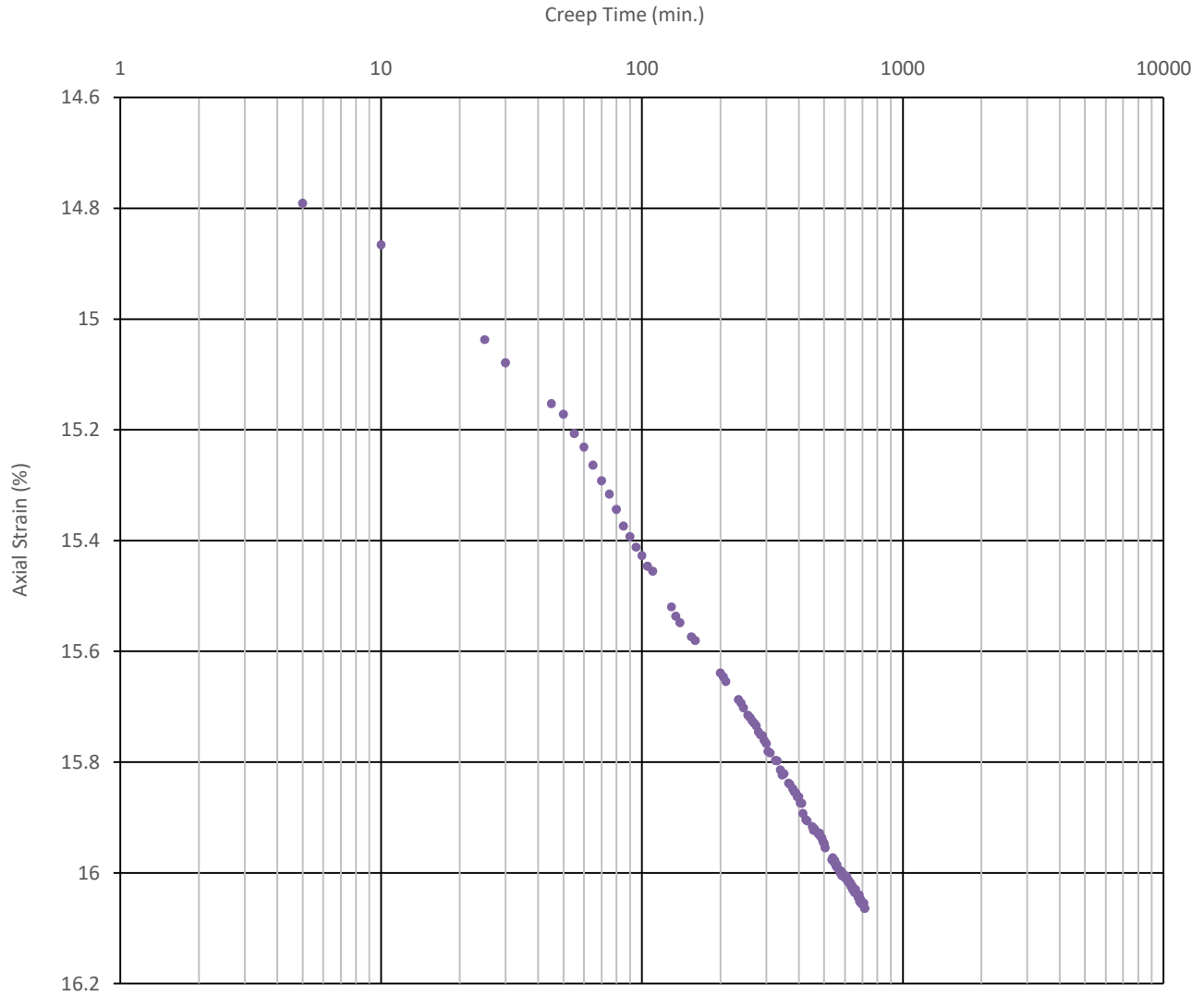
| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.74 |
| Total Unit Weight (pcf) | 105.24 |
| Degree of Saturation (%) | 95.13 |
| Void Ratio (e0) | 1.310 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

PDX Fuel Project Tank Design
 Portland, WA
Axial strain, void ratio, and coefficient of consolidation versus logarithm of vertical effective stress for B-2 U-6 CRS Consolidation
 Job Number: 0204679-001 4/14/2023



Figure
B-10



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 21 | 47.04 | 38.51 | 49 | 26 | 23 | LEAN CLAY | CL |

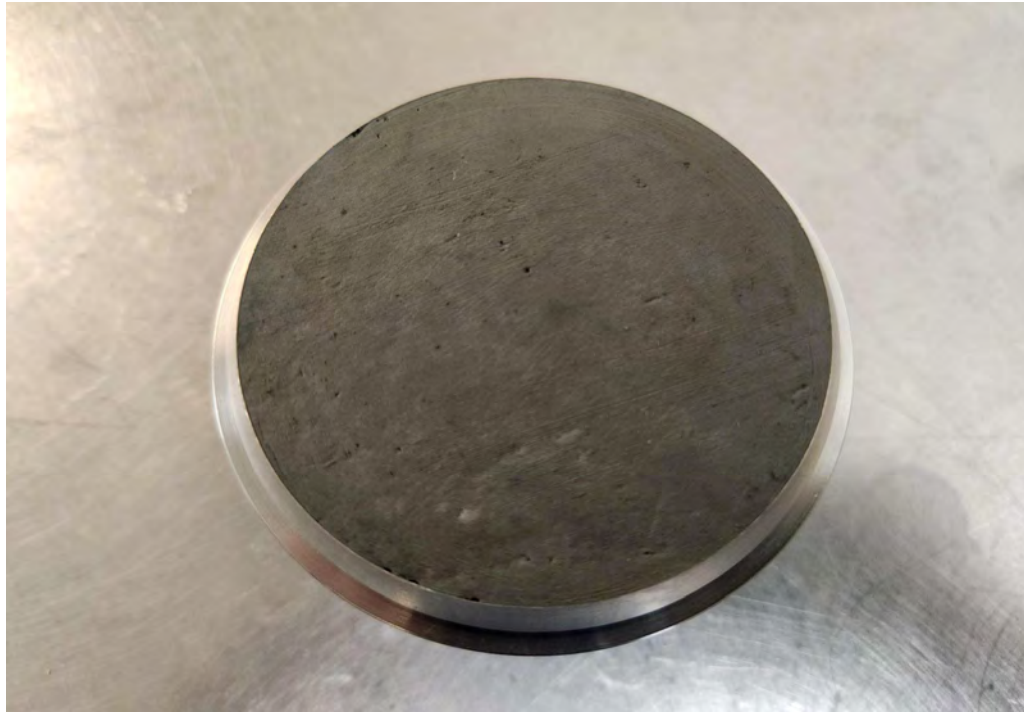
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
|----------------------------|---------------------------------|-------------------|
| | Strain Energy | Casagrande |
| 1500 | 5000 | 7200 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. 1997 |
| D | | Very poor |

| Initial Specimen Properties | |
|-----------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.74 |
| Total Unit Weight (pcf) | 105.24 |
| Degree of Saturation (%) | 95.13 |
| Void Ratio (e0) | 1.310 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

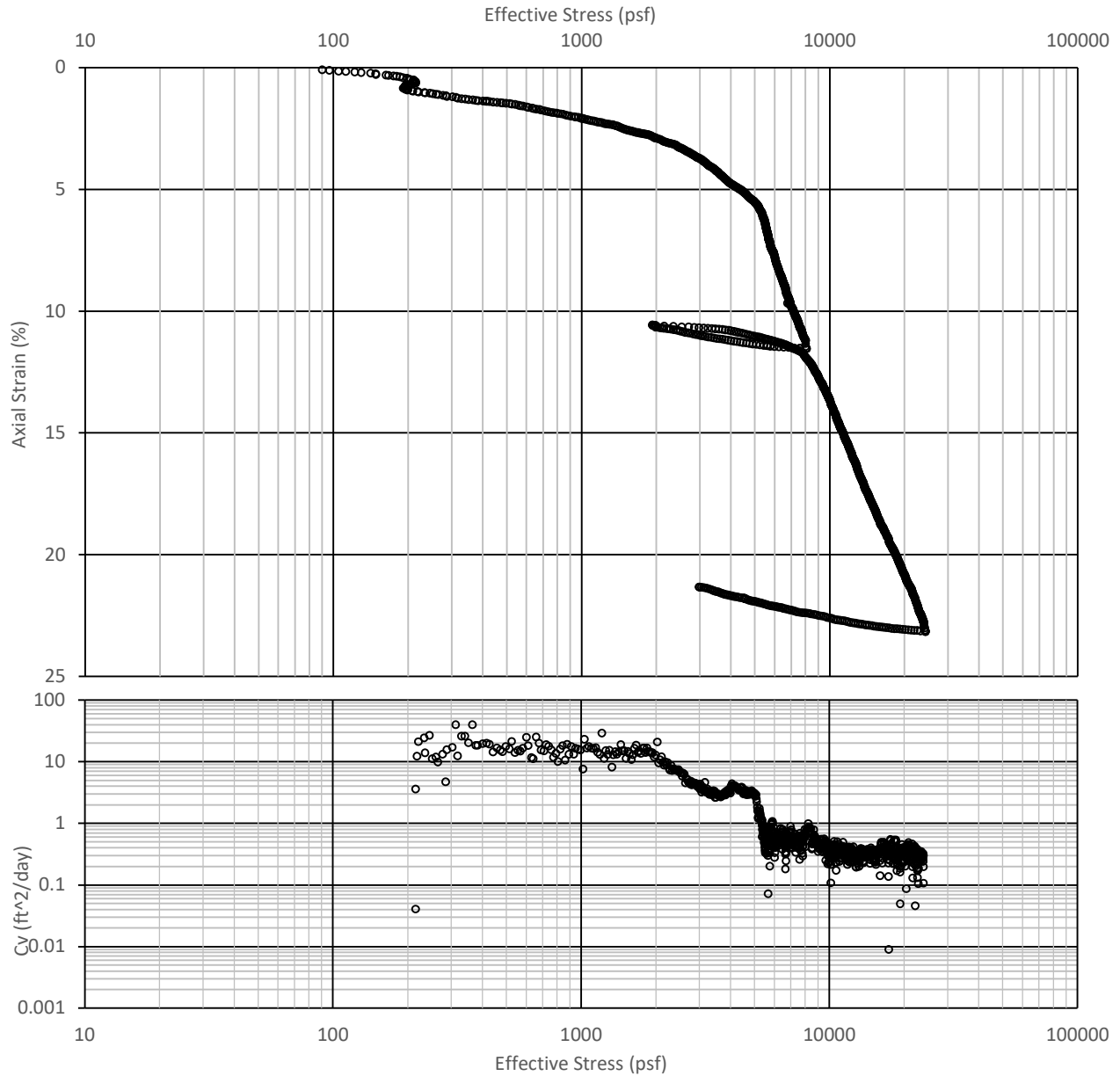
| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, WA | |
| Axial strain versus creep test logarithm of time for B-2 U-6 CRS Consolidation | |
| Job Number: 0204679-001 | 4/14/2023 |
| HALEY ALDRICH | Figure B-10 |

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| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, WA | |
| Pre-Test Photograph | |
| 0204679-001 | 4/14/2023 |
| HALEY ALDRICH | Figure B-10 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 35.7 | 63 | 48 | 42 | 23 | 19 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 2100 | Strain Energy | Casagrande |
| | 5200 | 4500 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | Lunne et al. (1997) | |
| C | Good to fair | |

| Initial Specimen Properties | |
|-----------------------------|-------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.48 |
| Total Unit Weight (pcf) | 98.90 |
| Degree of Saturation (%) | 96.87 |
| Void Ratio (e0) | 1.729 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

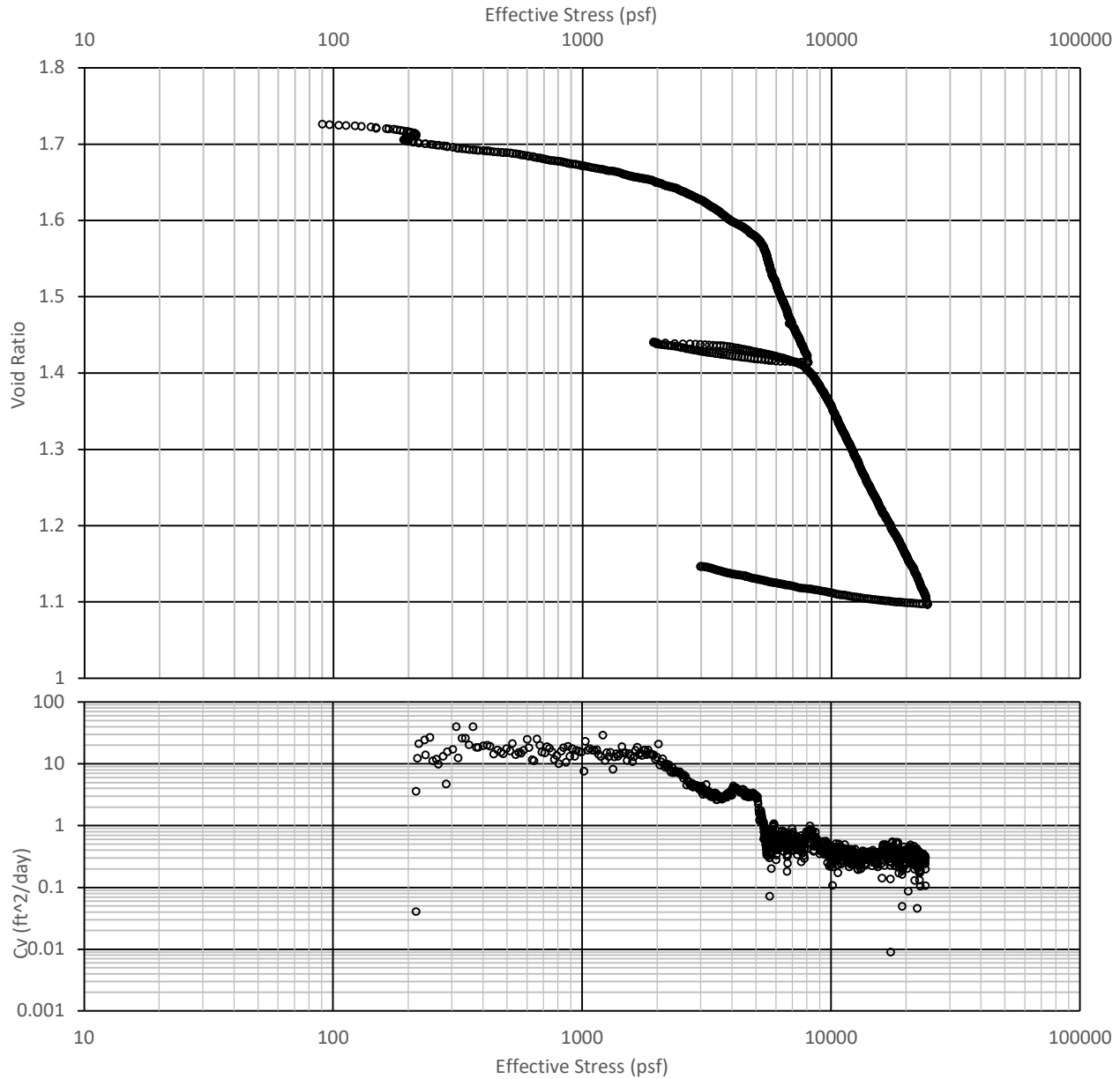
PDX Fuel Project Tank Design
 Portland, OR

Axial strain and coefficient of consolidation versus logarithm of vertical effective stress for B-2 U-9 CRS Consolidation

Job Number: 0204679-001 4/7/2023



Figure
B-11



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 35.7 | 63 | 48 | 42 | 23 | 19 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 2100 | Strain Energy | Casagrande |
| | 5200 | 4500 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | Lunne et al. (1997) | |
| C | Good to fair | |

| Initial Specimen Properties | |
|-----------------------------|-------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.48 |
| Total Unit Weight (pcf) | 98.90 |
| Degree of Saturation (%) | 96.87 |
| Void Ratio (e0) | 1.729 |

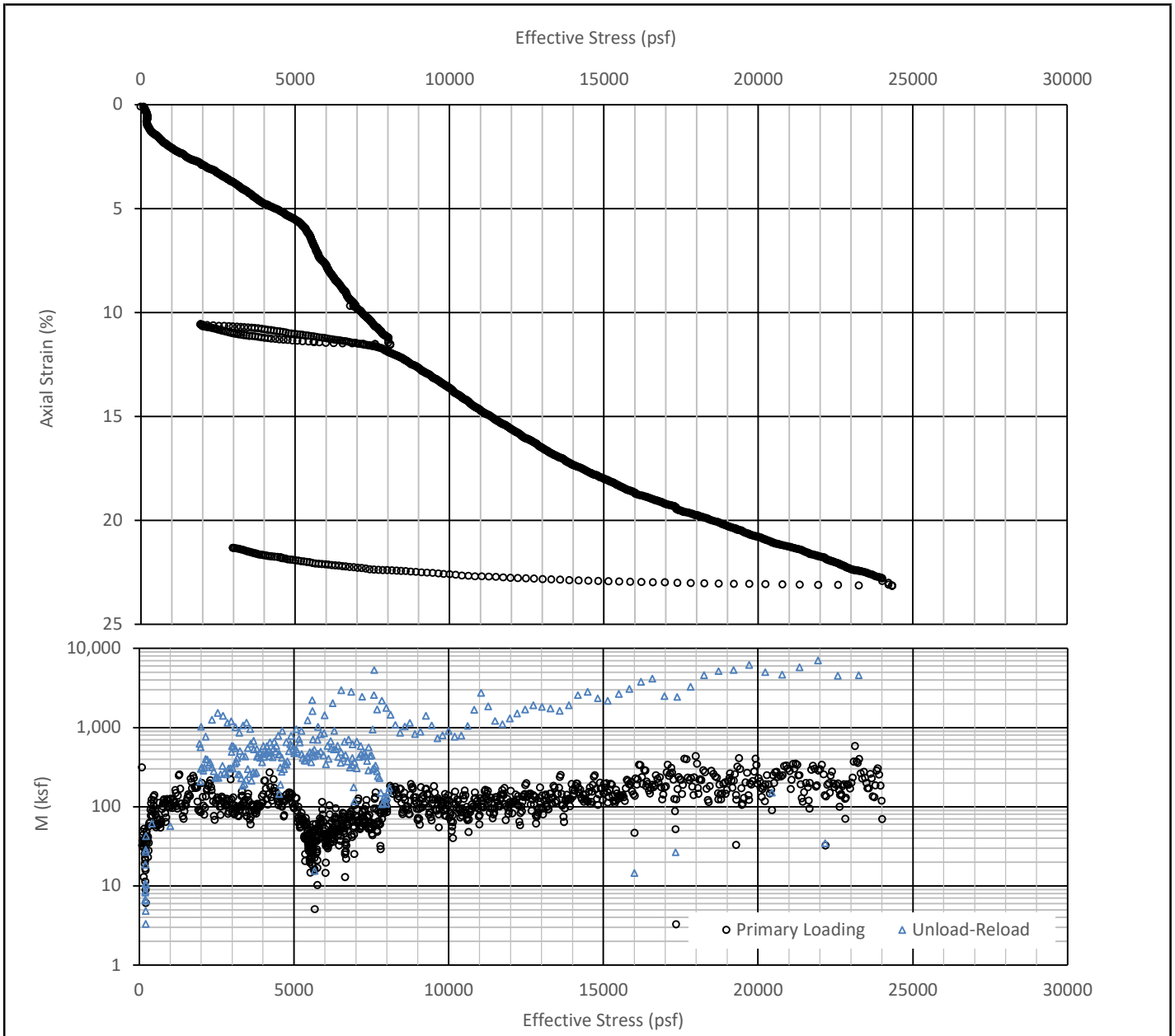
Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|---|----------|
| PDX Fuel Project Tank Design Portland, OR | |
| Void ratio and coefficient of consolidation versus logarithm of vertical effective stress for B-2 U-9 CRS Consolidation | |
| Job Number: 0204679-001 | 4/7/2023 |



Figure
B-11

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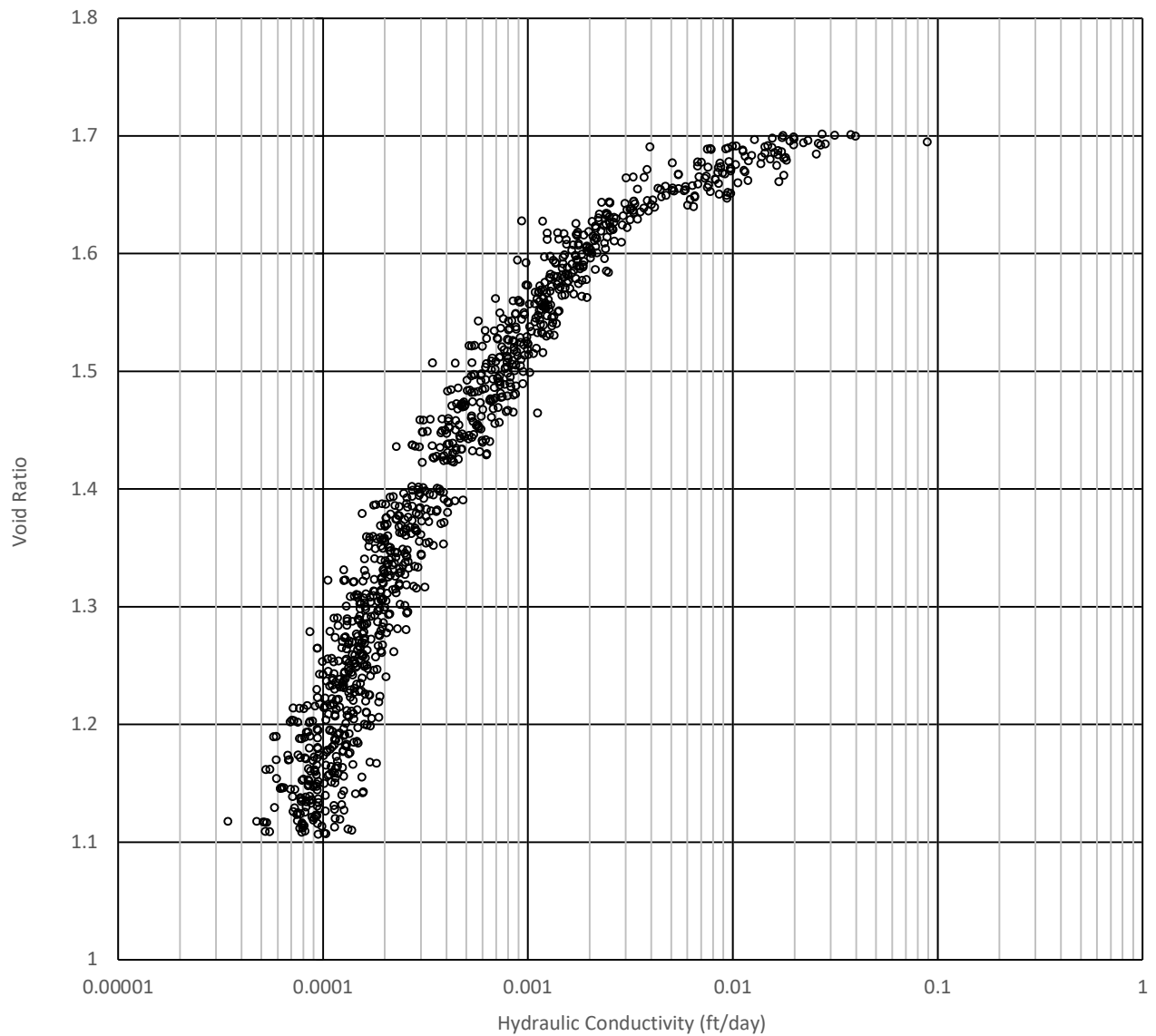
| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 35.7 | 63 | 48 | 42 | 23 | 19 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 2100 | Strain Energy | Casagrande |
| | 5200 | 4500 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| C | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|-------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.48 |
| Total Unit Weight (pcf) | 98.90 |
| Degree of Saturation (%) | 96.87 |
| Void Ratio (e0) | 1.729 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Axial strain versus vertical effective stress for B-2 U-9 CRS Consolidation | |
| Job Number: 0204679-001 | 4/7/2023 |
| HALEY ALDRICH | Figure B-11 |



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 35.7 | 63 | 48 | 42 | 23 | 19 | LEAN CLAY | CL |

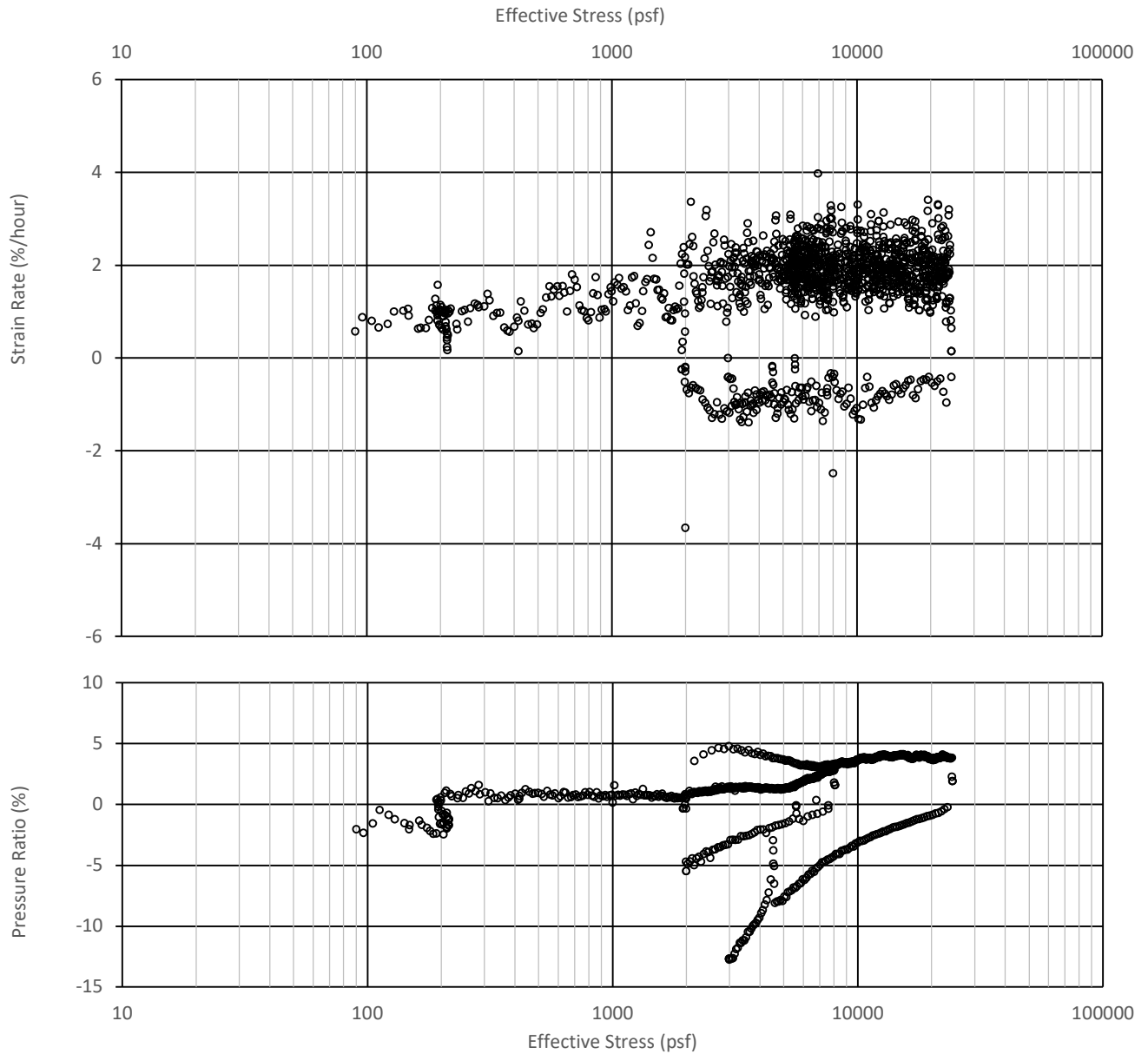
| | | |
|----------------------------|---------------------------------|------------|
| σ'_{v_0} (psf) | Preconsolidation Pressure (psf) | |
| 2100 | Strain Energy | Casagrande |
| | 5200 | 4500 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | Lunne et al. (1997) | |
| C | Good to fair | |

| Initial Specimen Properties | |
|-----------------------------|-------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.48 |
| Total Unit Weight (pcf) | 98.90 |
| Degree of Saturation (%) | 96.87 |
| Void Ratio (e0) | 1.729 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Void ratio versus logarithm of hydraulic conductivity B-2 U-9 CRS Consolidation | |
| Job Number: 0204679-001 | 4/7/2023 |
| | Figure B-11 |

initials MM/DD/YY location filename.xls



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|---------------|----------|-------|------------------|----|----|-------------|------|
| | Before | After | LL | PL | PI | | |
| 35.7 | 63 | 48 | 42 | 23 | 19 | LEAN CLAY | CL |

| | | |
|----------------------------|---------------------------------|---------------------|
| σ_{v_0} | Preconsolidation Pressure (psf) | |
| (psf) | Strain Energy | Casagrande |
| 2100 | 5200 | 4500 |
| Sample Quality Designation | | |
| Terzaghi et al. (1996) | | Lunne et al. (1997) |
| C | | Good to fair |

| Initial Specimen Properties | |
|-----------------------------|-------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.48 |
| Total Unit Weight (pcf) | 98.90 |
| Degree of Saturation (%) | 96.87 |
| Void Ratio (e0) | 1.729 |

Sample Preparation and Comments:
 The specimen test was an intact soil sample which was extracted from the sampling tube by cutting and delaminating a section of the sample tube. The test was run with a room temperature between 71 and 73 degrees Fahrenheit.

PDX Fuel Project Tank Design
 Portland, OR

Axial strain, void ratio, and coefficient of consolidation versus logarithm of vertical effective stress for B-2 U-9 CRS Consolidation

Job Number: 0204679-001 4/7/2023



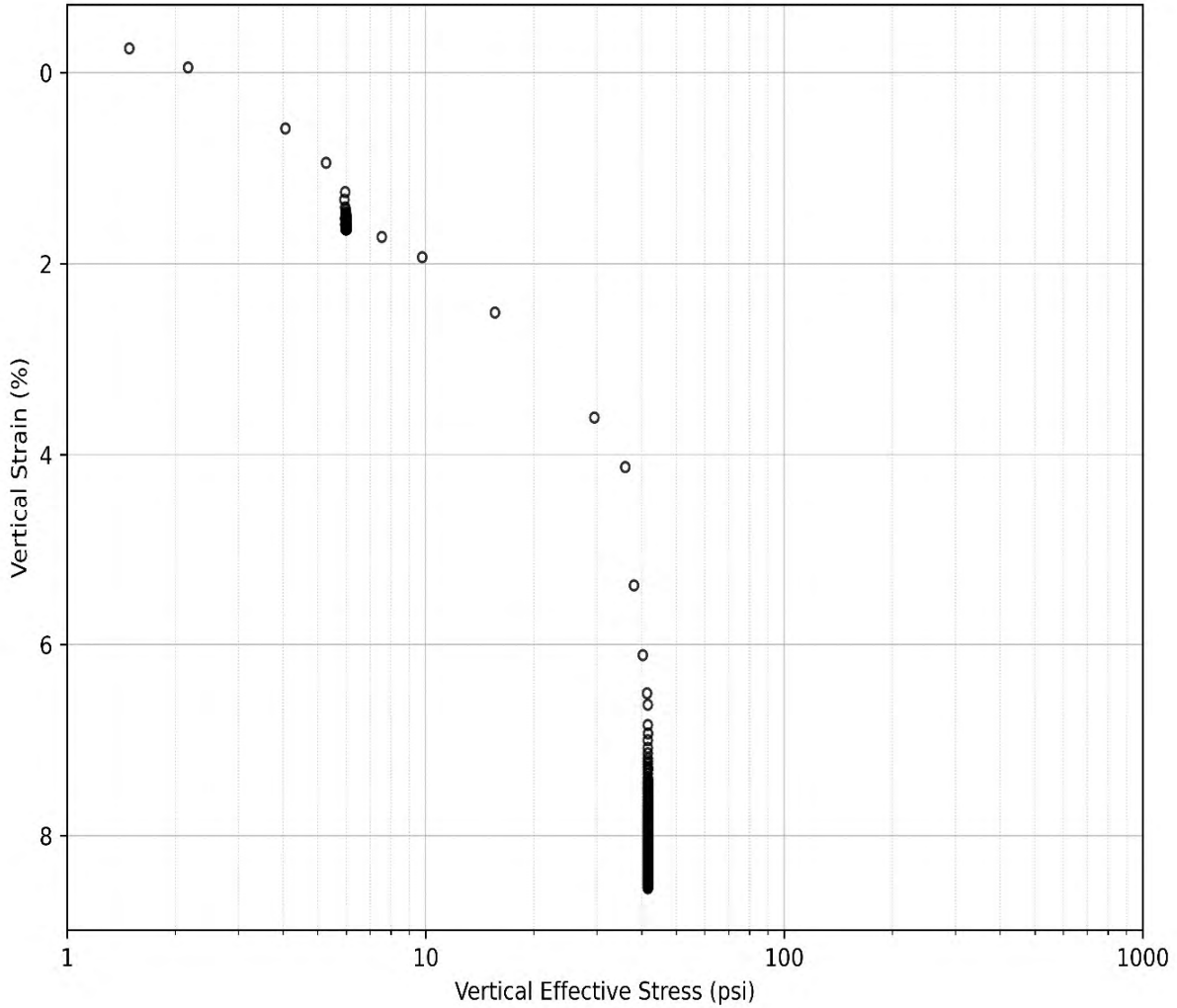
Figure
B-11



initials MM/DD/YY location/filename.xls

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Post-Test Photograph | |
| 0204679-001 | 4/7/2023 |
| HALEY ALDRICH | Figure B-11 |

09/15/2022 \\haleyaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\DSS\0204679-001 B2 U8 #1 DSS processed 042723.xlsx



| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|--------------|------|
| | Before | After | LL | PL | PI | | |
| 31 | 49 | 45 | 51 | 35 | 16 | ELASTIC SILT | MH |

| Partical-size Distribution | | |
|----------------------------|--------|---------|
| % Gravel | % Sand | % Fines |
| 0 | 1.2 | 98.8 |

| Initial Specimen Properties | |
|------------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.71 |
| Total Unit Weight (pcf) | 104.16 |
| Degree of Saturation (%) | 95.32 |
| Void Ratio (e ₀) | 1.370 |

Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

PDX Fuel Project Tank Design
Portland, OR

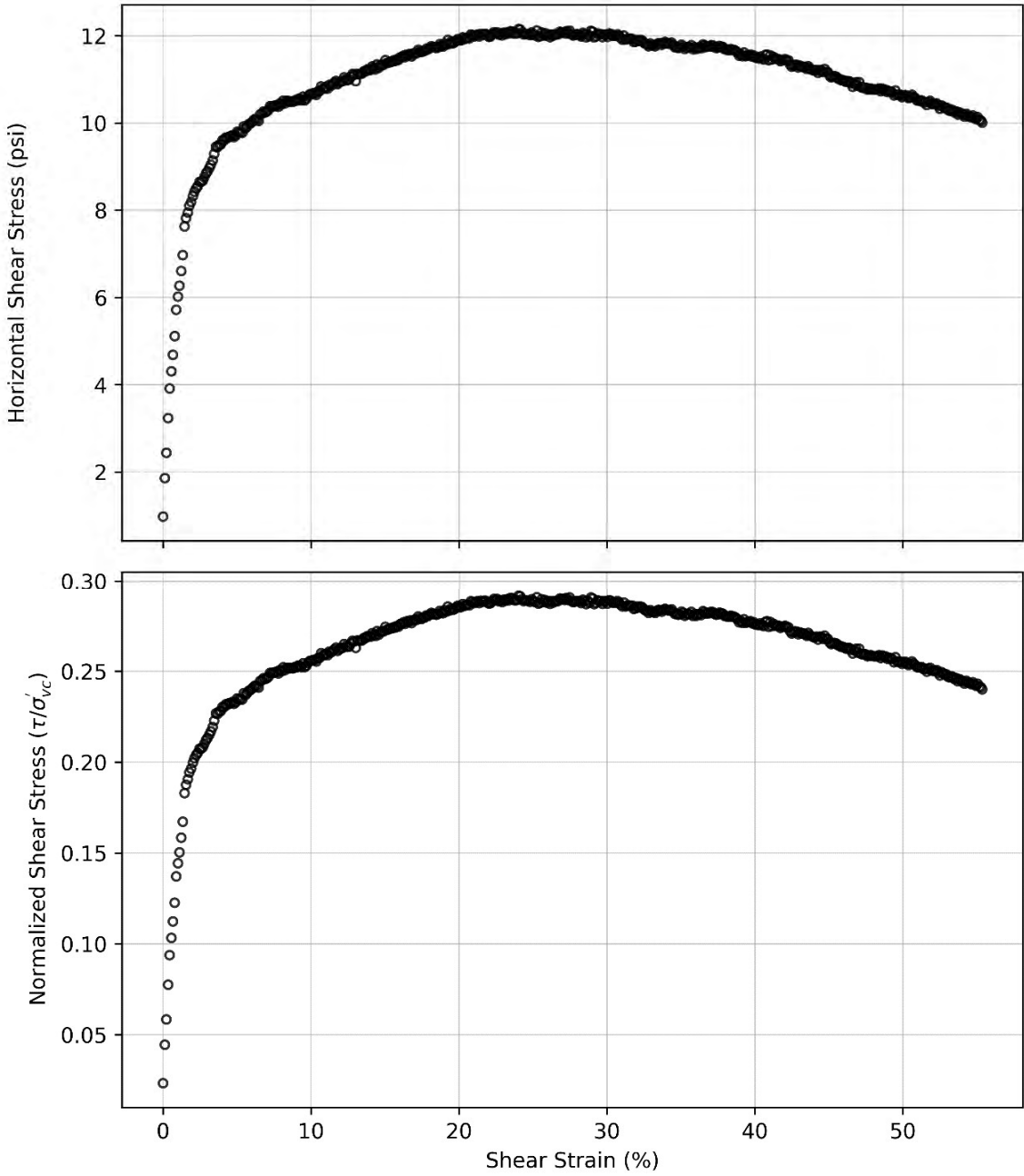
Axial Strain Versus Logarithm of Vertical Effective Stress for B-2 U-8 DSS Specimen #1

Job Number 0204679-001 04/23



Figure
B-12

0 09/15/2022 \\haley\aldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #1 DSS processed 042723.xlsx

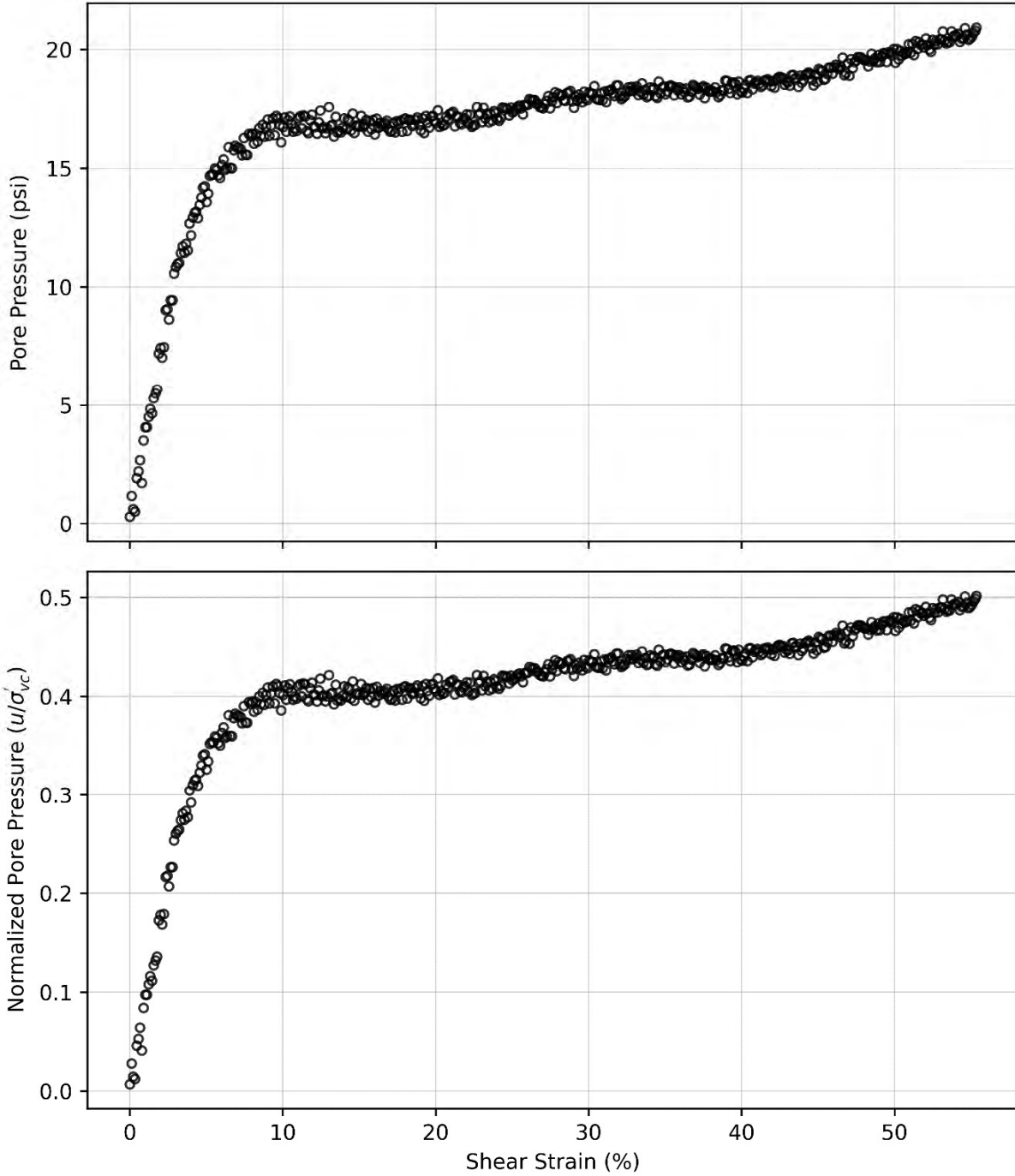


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Horizontal Shear Stress and Normalized Shear Stress for B-2 U-8 1 DSS Specimen #1 | |
| Job Number 0204679-001 | 04/23 |
| HALEY ALDRICH | Figure B-12 |

0_09/15/2022 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #1 DSS processed 042723.xlsx

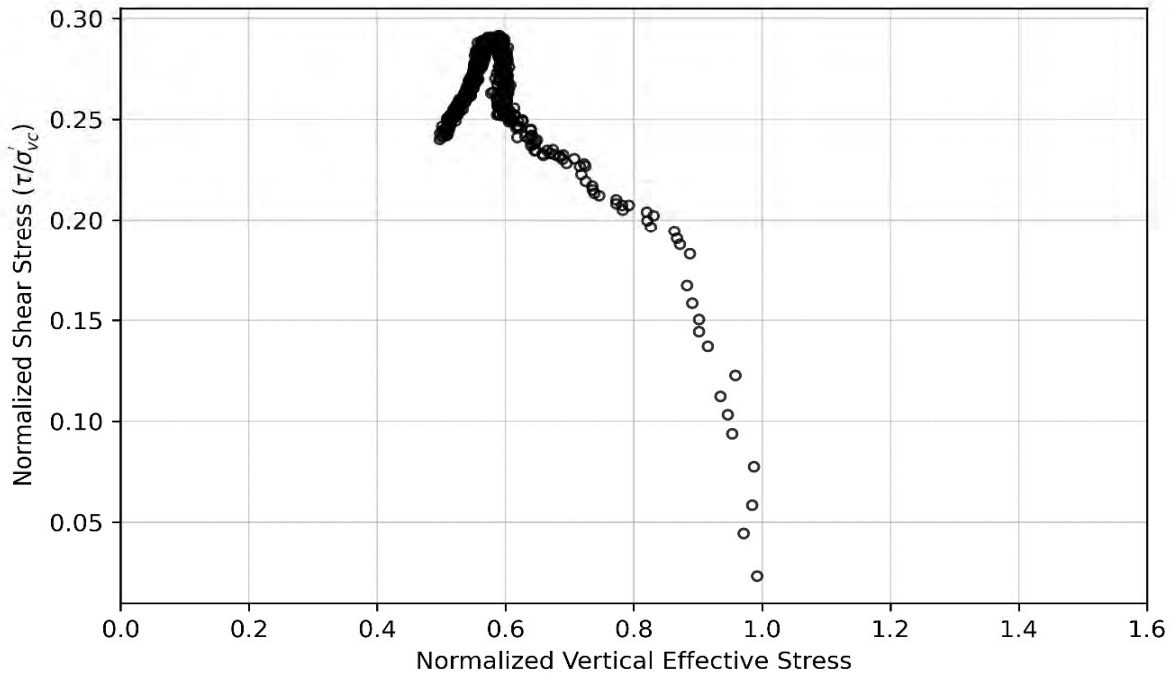
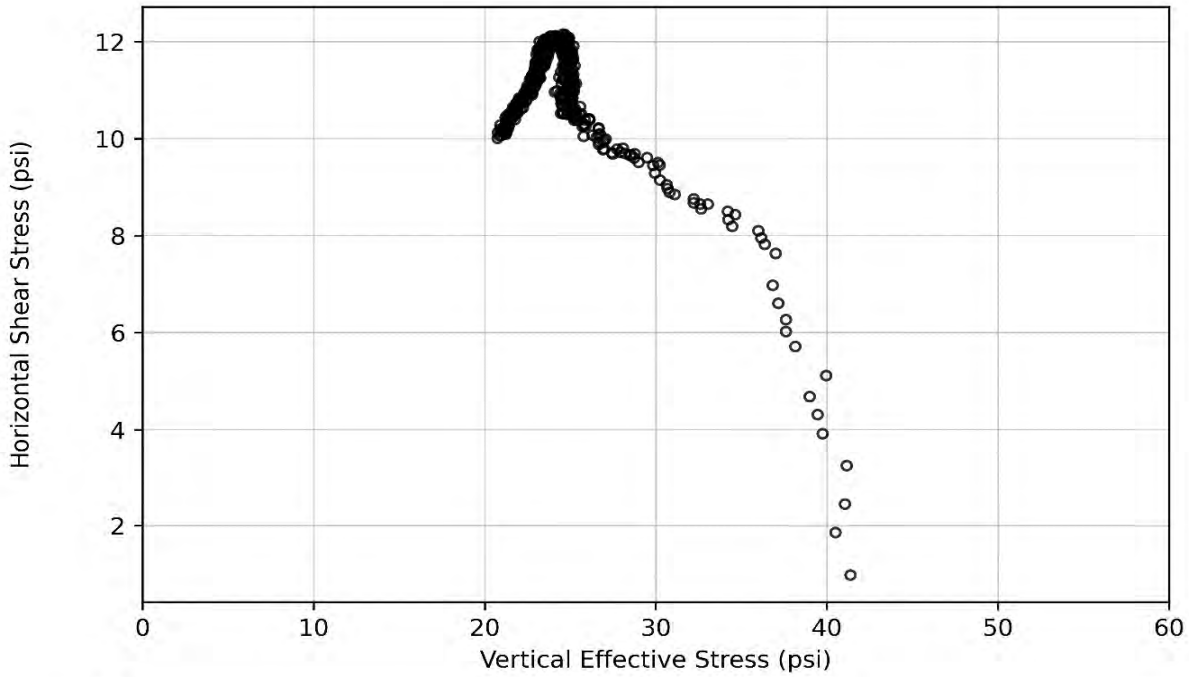


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pore Pressure and Normalized Pore Pressure Versus Shear Strain for B-2 U-8 1 DSS Specimen #1 | |
| Job Number 0204679-001 | 04/23 |
| HALEY ALDRICH | Figure B-12 |

0_09/15/2022 \\haley\aldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #1 DSS processed 042723.xlsx

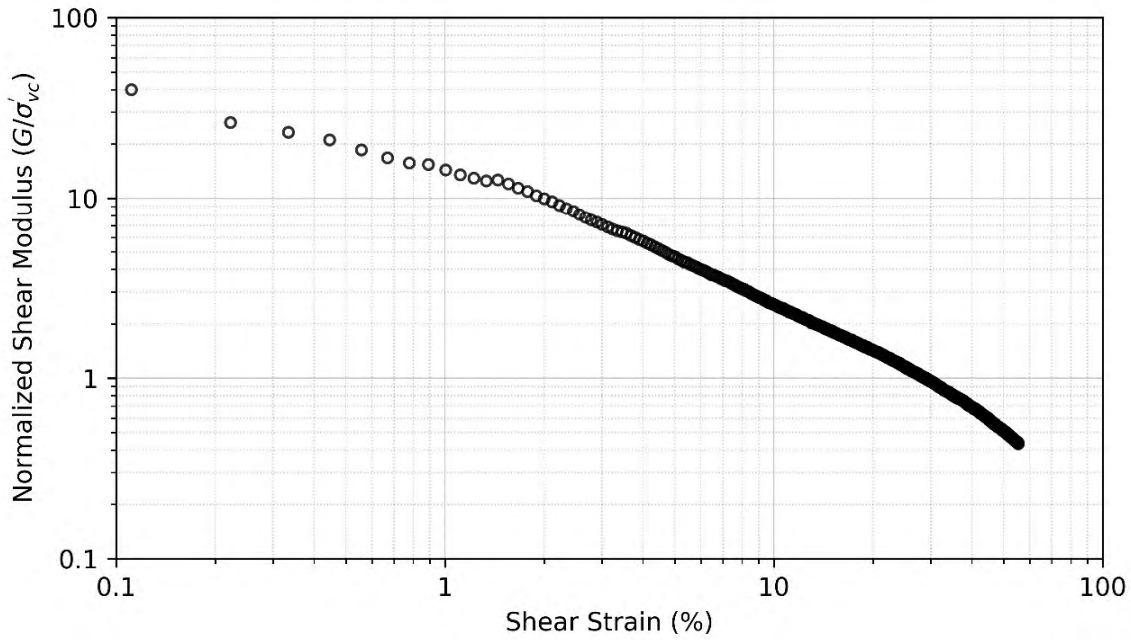
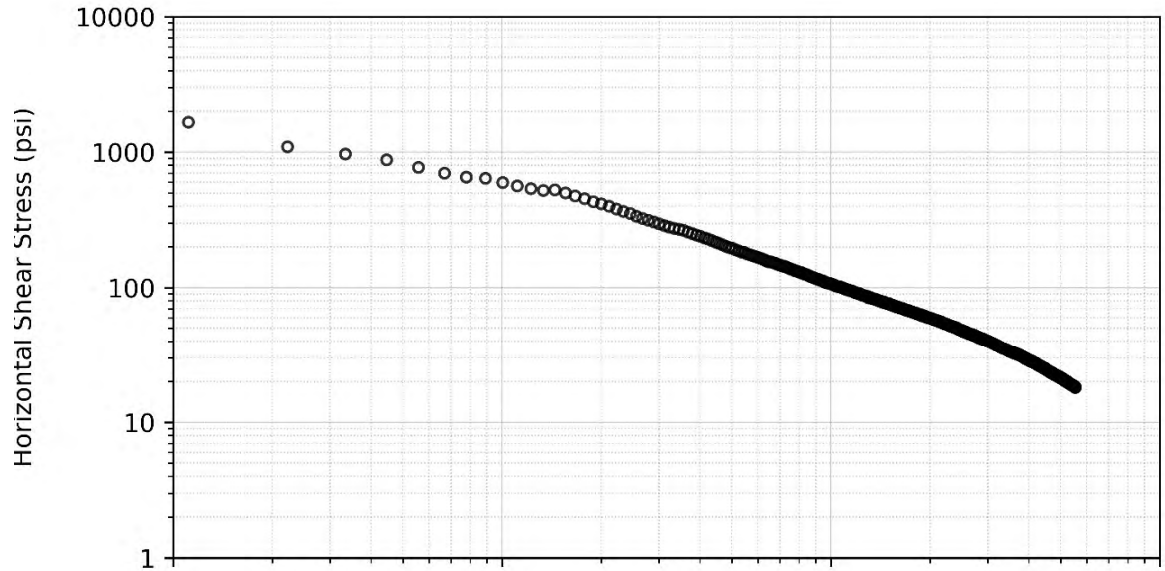


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation


| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Horizontal and Normalized Shear Stress Versus Vertical and Normalized Vertical Effective Stress for B-2 U-8 1 DSS Specimen #1 | |
| Job Number 0204679-001 | 04/23 |
| | Figure B-12 |

0 09/15/2022 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #1 DSS processed 042723.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.


σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Shear Modulus and Normalized Shear Modulus Versus Shear Strain for B-2 U-8 1 DSS Specimen #1 | |
| Job Number 0204679-001 | 04/23 |
|  | Figure B-12 |

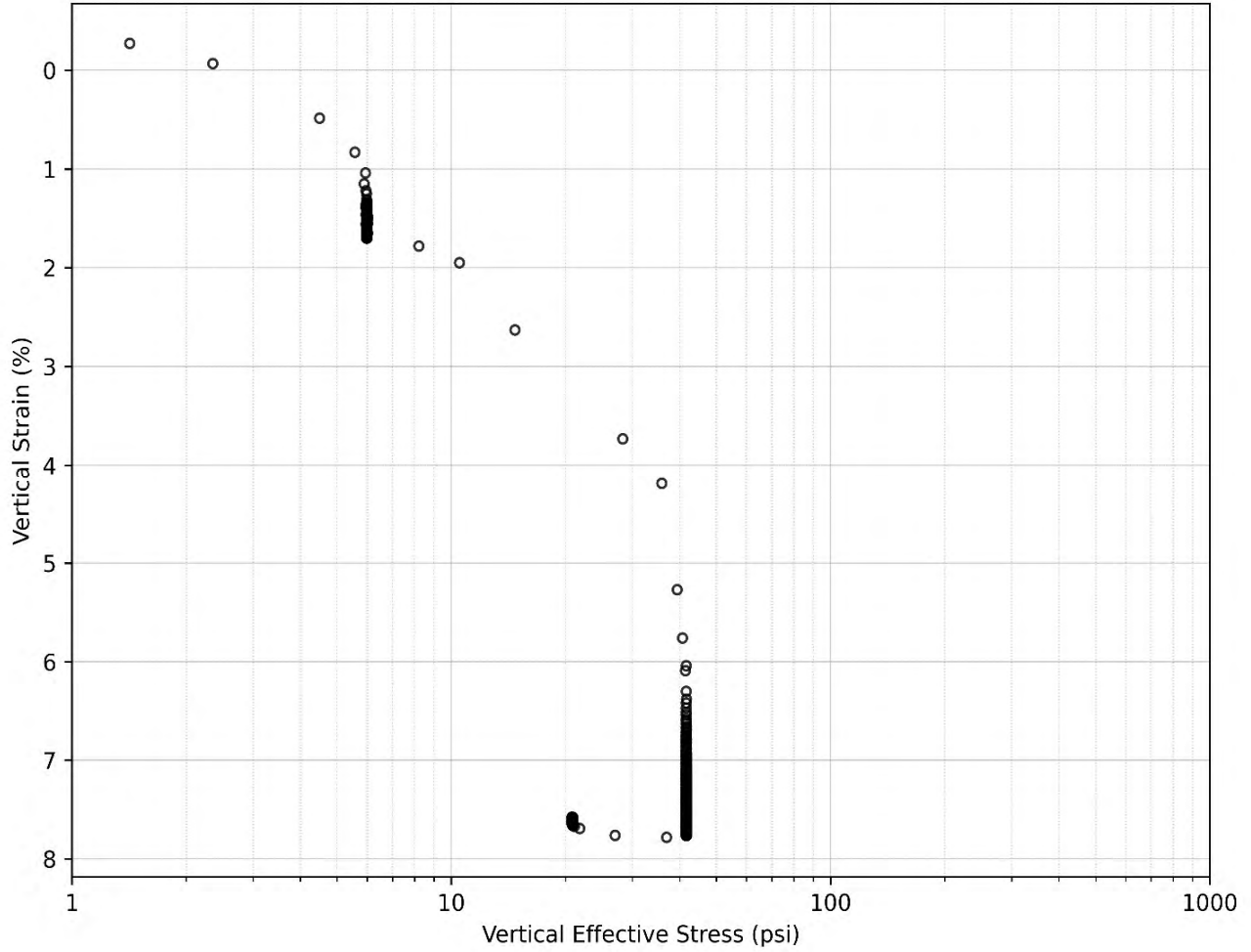
0 09/15/2022 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\DSS\0204679-001 B2 U8 #1 DSS processed 042723.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Post-Test Photographs of B-2 U-8 DSS Specimen #1 | |
| Job Number 0204679-001 | 04/23 |
|  | Figure B-12 |

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| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|--------------|------|
| | Before | After | LL | PL | PI | | |
| 31.2 | 49 | 45 | 51 | 35 | 16 | ELASTIC SILT | MH |

| Partical-size Distribution | | |
|----------------------------|--------|---------|
| % Gravel | % Sand | % Fines |
| 0 | 1.2 | 98.8 |

| Initial Specimen Properties | |
|------------------------------|--------|
| Height (inches) | 0.99 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.79 |
| Total Unit Weight (pcf) | 105.98 |
| Degree of Saturation (%) | 97.73 |
| Void Ratio (e ₀) | 1.320 |

Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

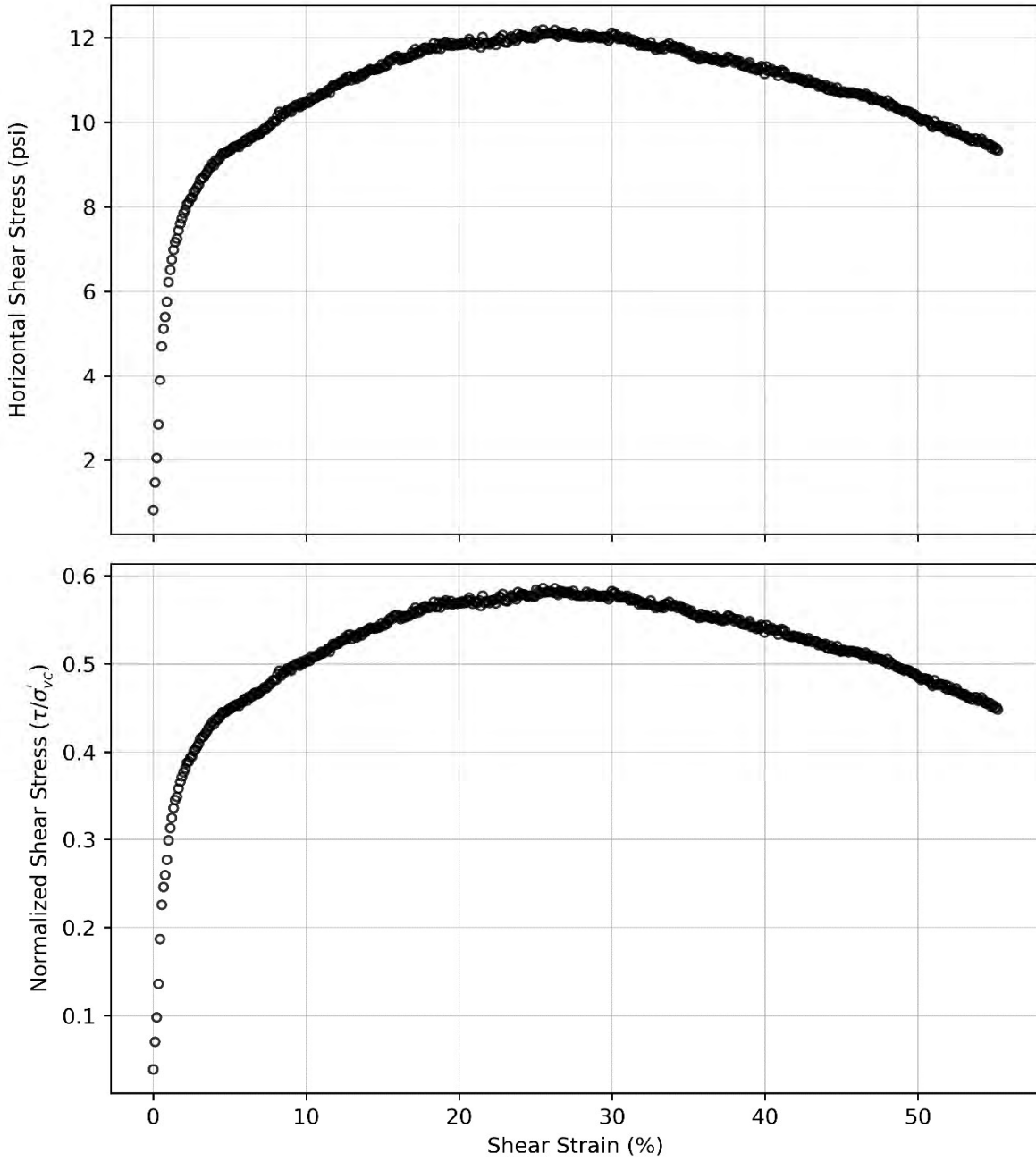
PDX Fuel Project Tank Design
Portland, OR

Axial Strain Versus Logarithm of Vertical Effective Stress for B-2 U-8 DSS Specimen #2

Job Number 0204679-001 05/23

| | |
|--|-----------------------|
| | Figure B-13 |
|--|-----------------------|

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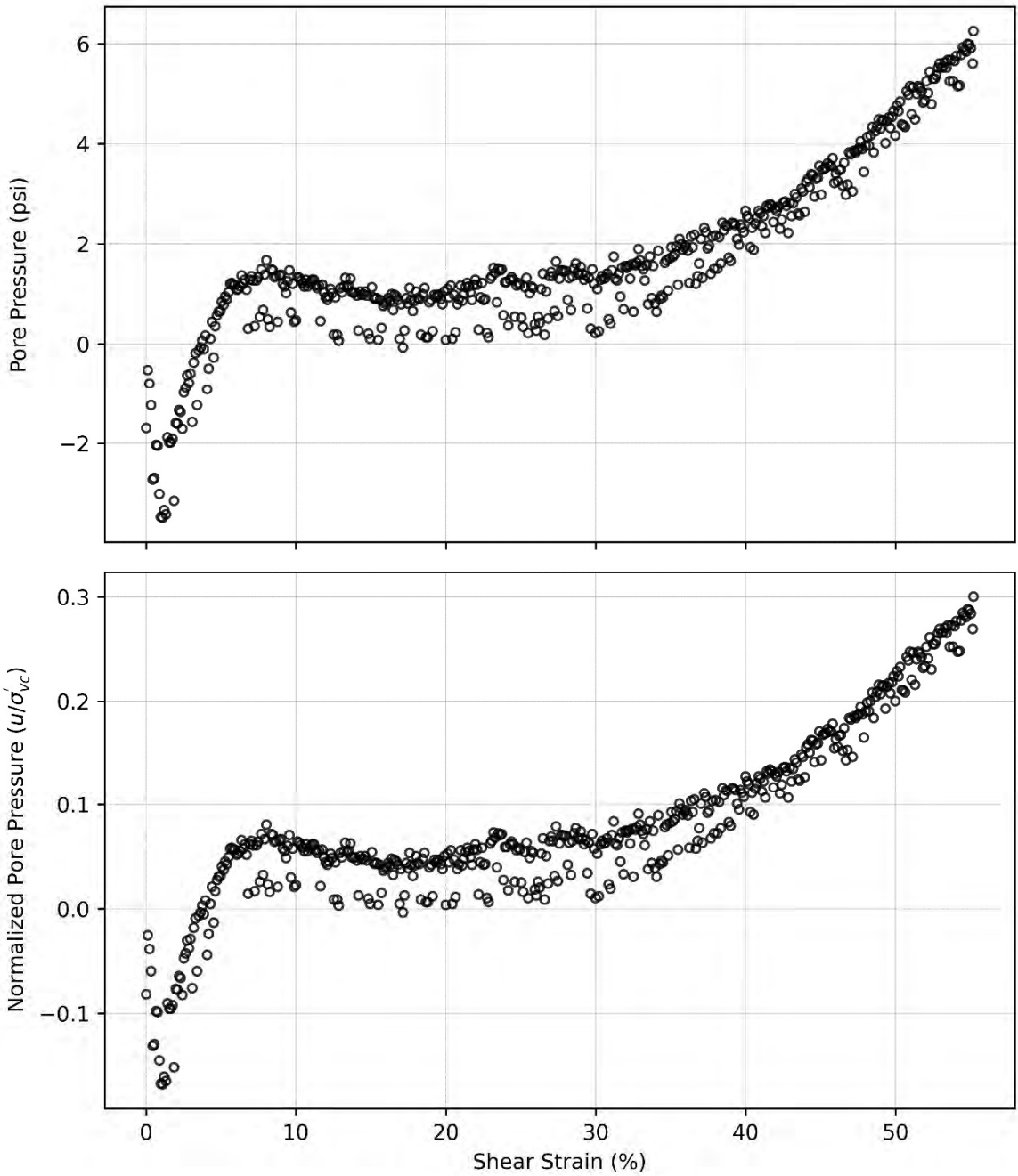


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Horizontal Shear Stress and Normalized Shear Stress for B-2 U-8 DSS Specimen #2 | |
| Job Number 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-13 |

0 09/15/2022 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #2 DSS processed 051223.xlsx

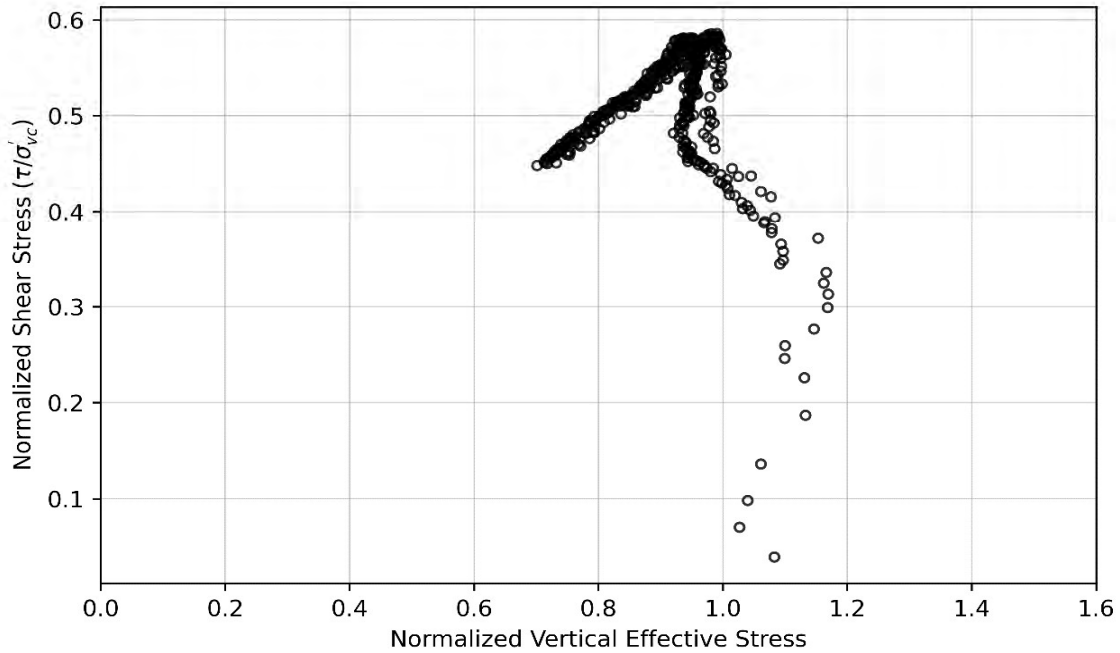
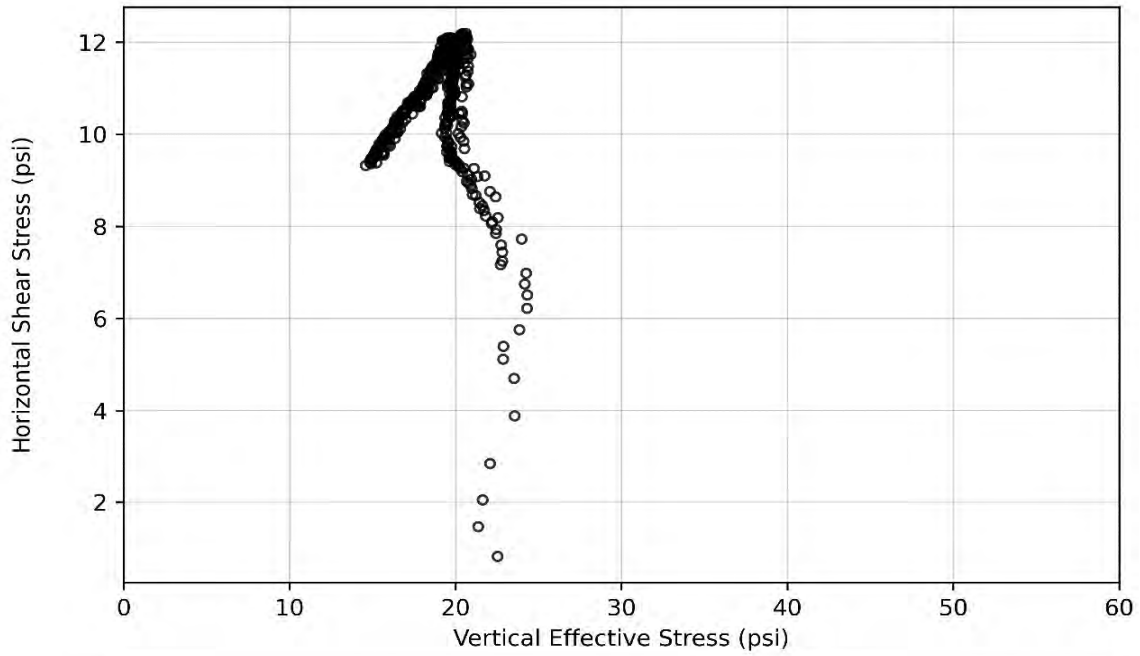


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pore Pressure and Normalized Pore Pressure Versus Shear Strain for B-2 U-8 DSS Specimen #2 | |
| Job Number 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-13 |

0_09/15/2022 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #2 DSS processed 051223.xlsx

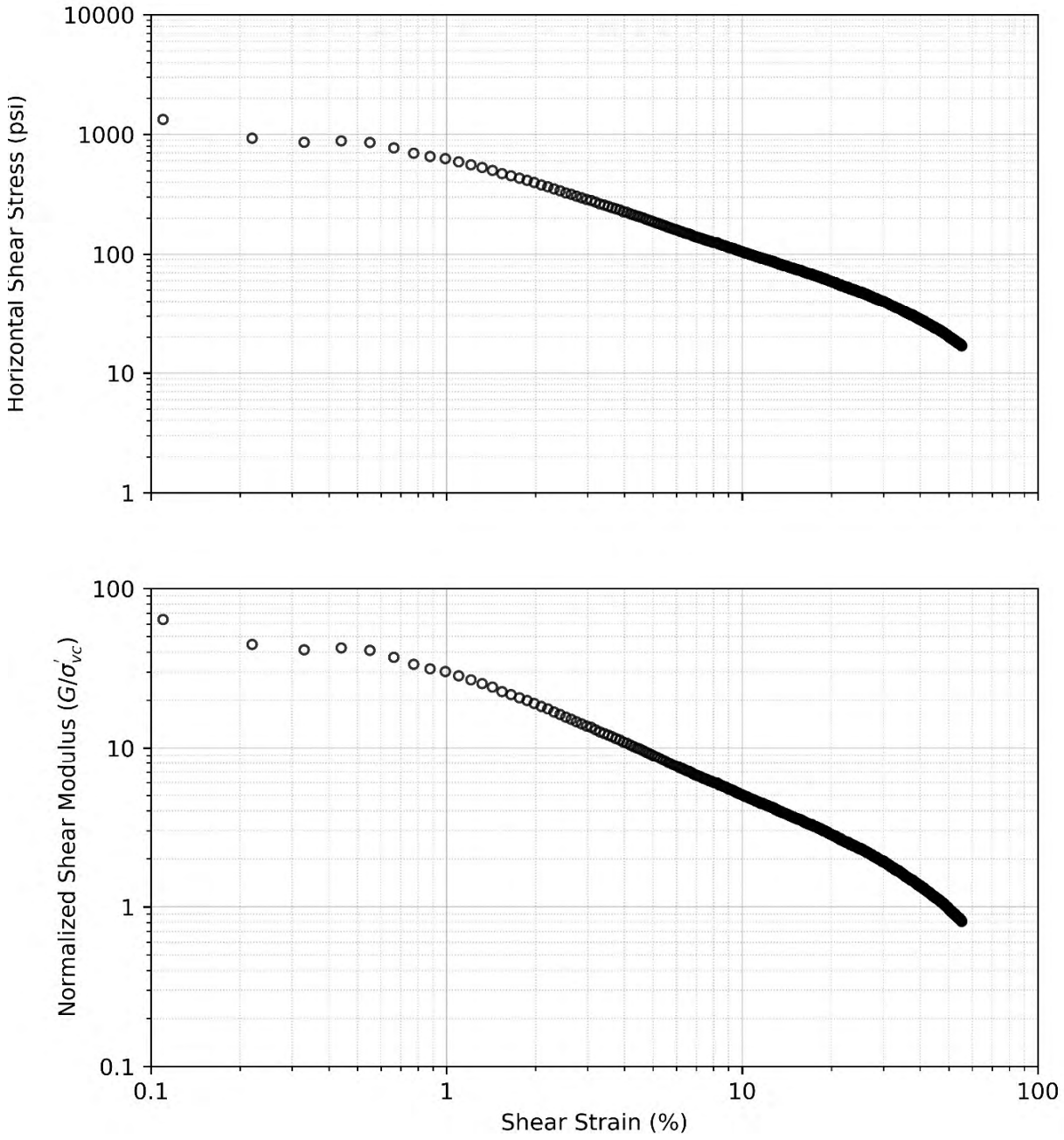


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Horizontal and Normalized Shear Stress Versus Vertical and Normalized Vertical Effective Stress for B-2 U-8 DSS Specimen #2 | |
| Job Number 0204679-001 | 05/23 |
| | Figure B-13 |

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Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.


σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Shear Modulus and Normalized Shear Modulus Versus Shear Strain for B-2 U-8 DSS Specimen #2 | |
| Job Number 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-13 |

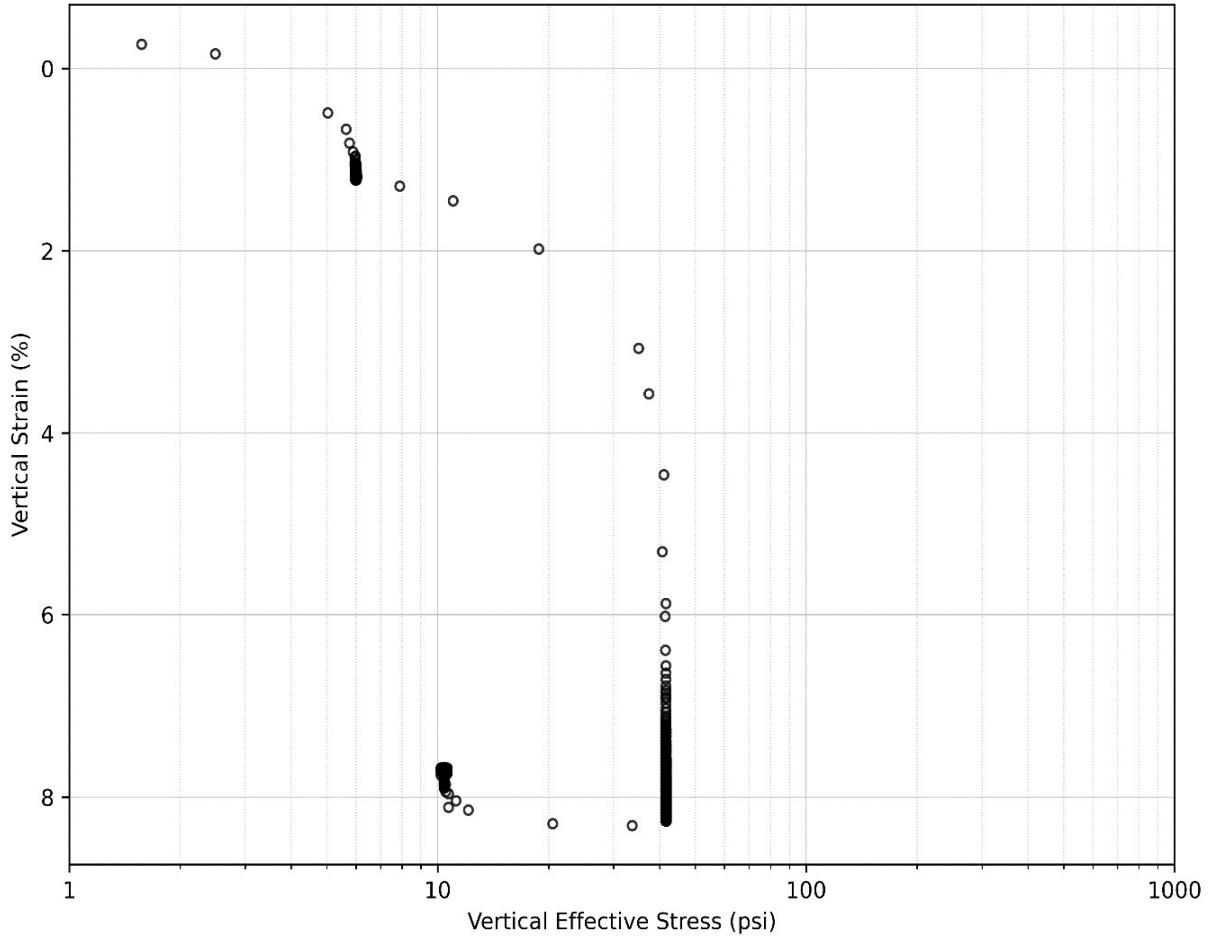
0 09/15/2022 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\DSS\0204679-001 B2 U8 #2 DSS processed 051223.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Post-Test Photographs of B-2 U-8 DSS Specimen #2 | |
| Job Number 0204679-001 | 05/23 |
|  | Figure B-13 |

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| Depth (ft) | W.C. (%) | | Atterberg Limits | | | Description | USCS |
|------------|----------|-------|------------------|----|----|--------------|------|
| | Before | After | LL | PL | PI | | |
| 31 | 52 | 49 | 51 | 35 | 16 | ELASTIC SILT | MH |

| Partical-size Distribution | | |
|----------------------------|--------|---------|
| % Gravel | % Sand | % Fines |
| 0 | 1.2 | 98.8 |

| Initial Specimen Properties | |
|------------------------------|--------|
| Height (inches) | 1.00 |
| Diameter (inches) | 2.50 |
| Weight (ounces) | 4.68 |
| Total Unit Weight (pcf) | 103.19 |
| Degree of Saturation (%) | 95.62 |
| Void Ratio (e ₀) | 1.428 |

Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

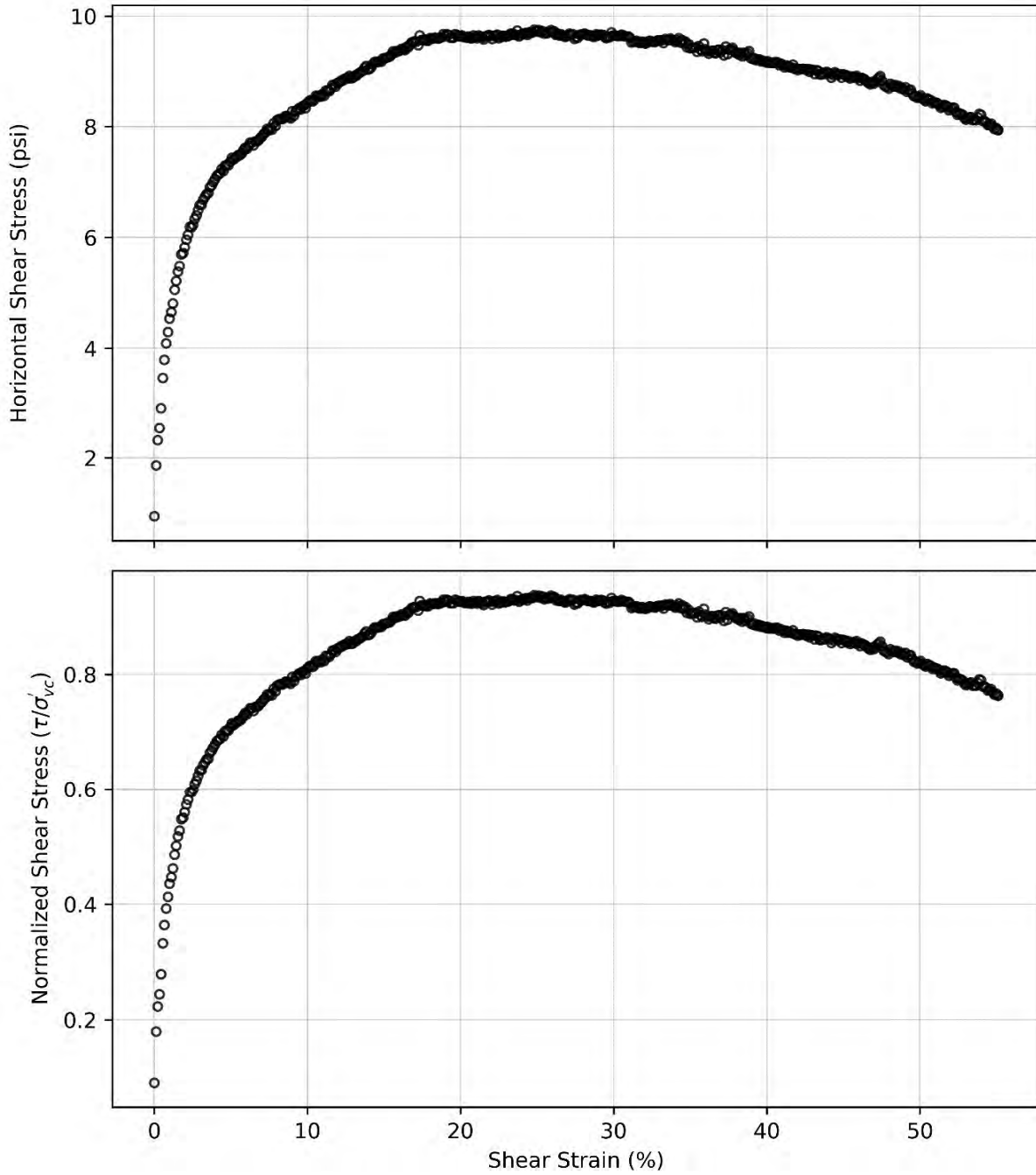
PDX Fuel Project Tank Design
Portland, OR

Axial Strain Versus Logarithm of Vertical Effective Stress for B-2 U-8 DSS Specimen #3

Job Number 0204679-001 05/23

| | |
|--|-----------------------|
|  | Figure B-14 |
|--|-----------------------|

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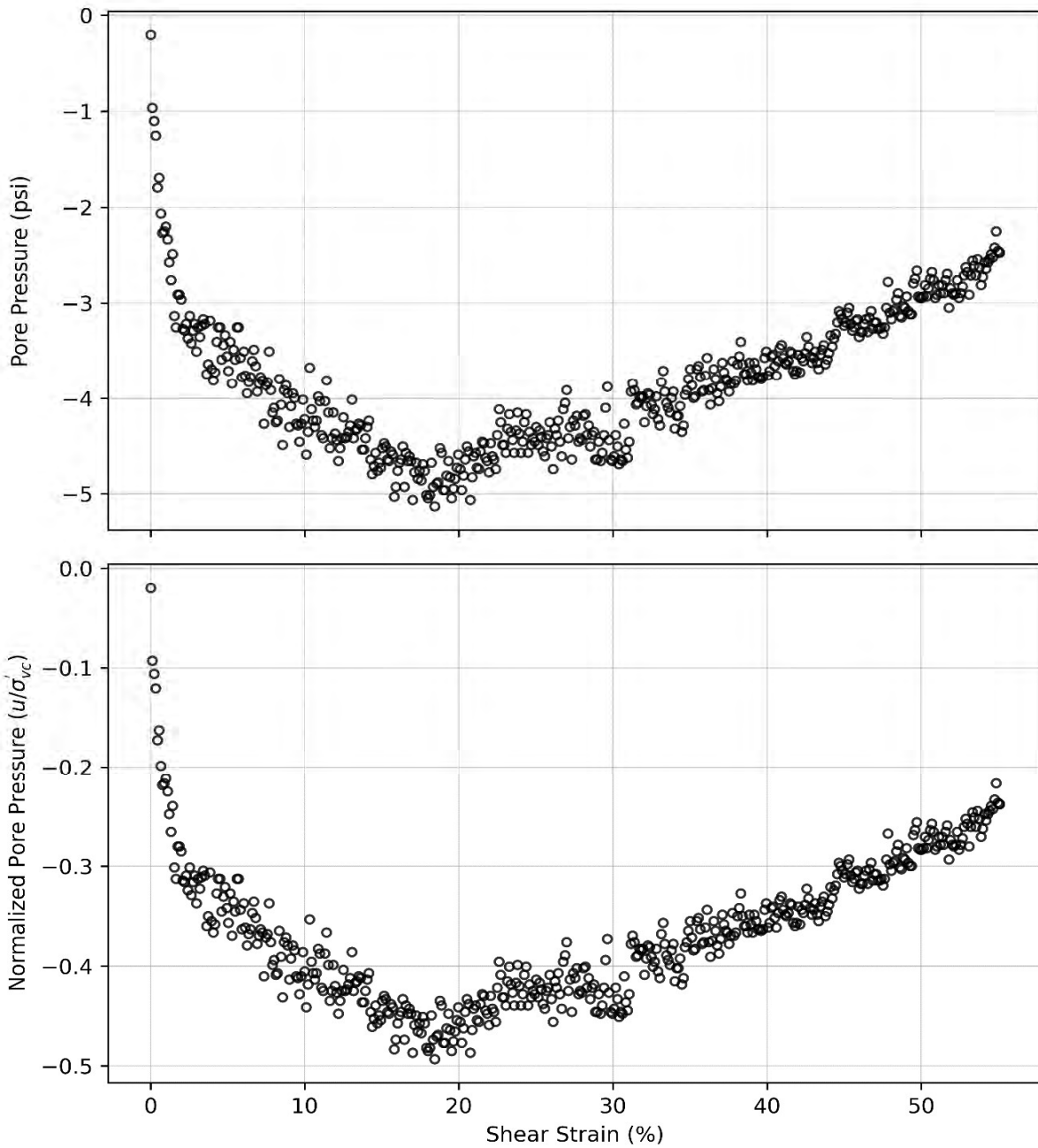


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Horizontal Shear Stress and Normalized Shear Stress for B-2 U-8 1 DSS Specimen #3 | |
| Job Number 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-14 |

0 09/15/2022 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #3 DSS processed 051623.xlsx

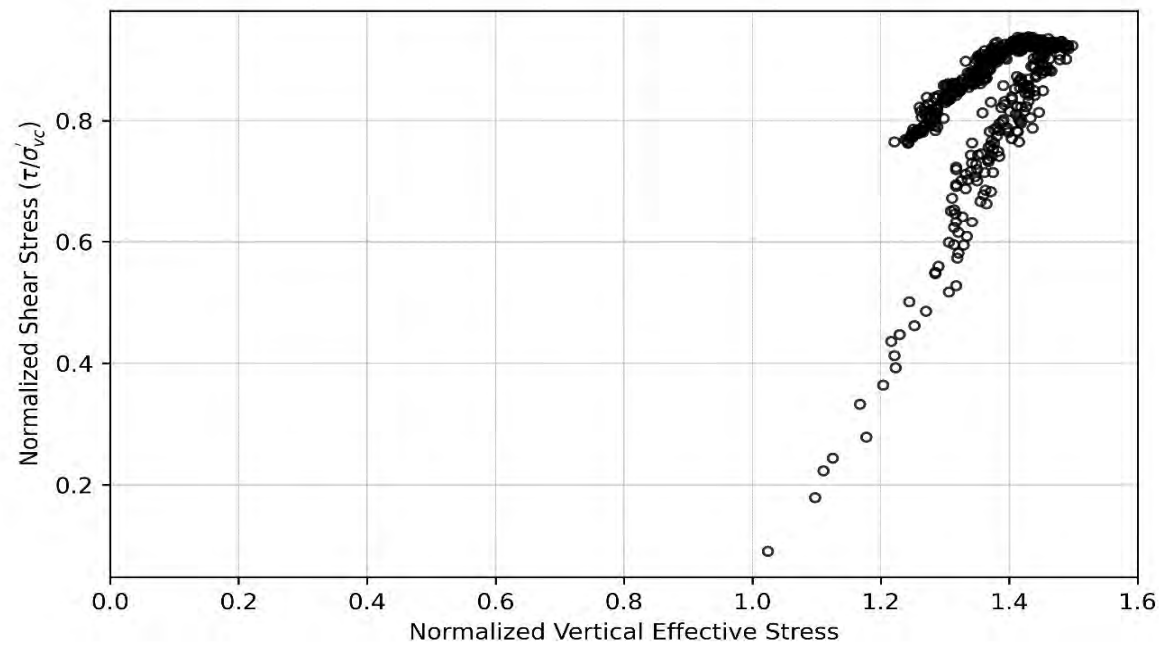
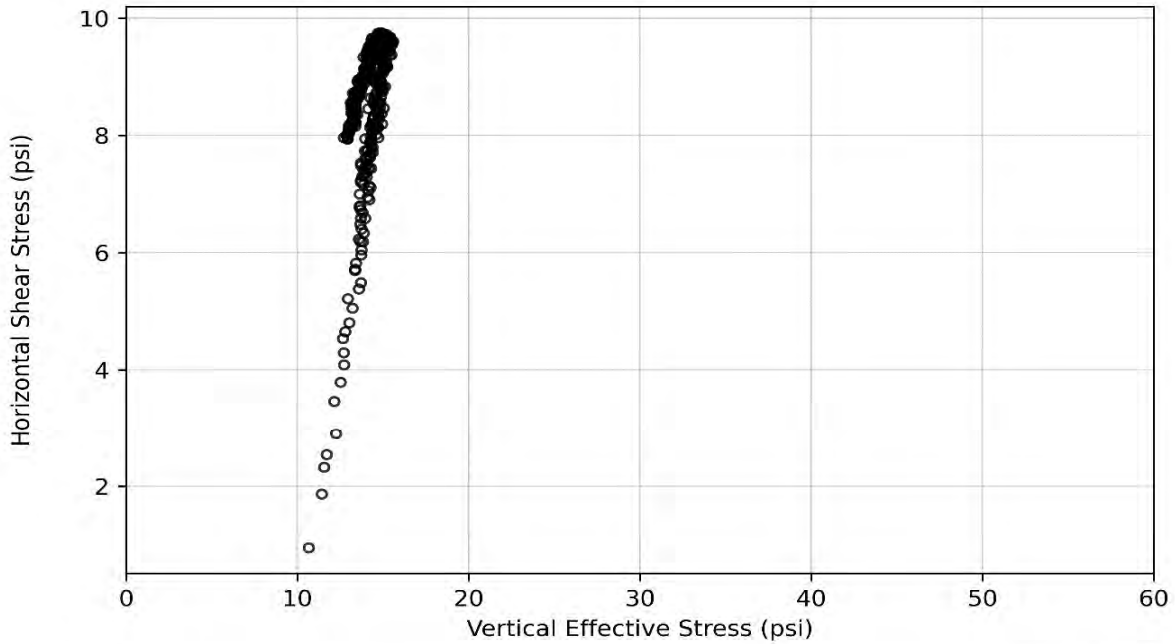


Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pore Pressure and Normalized Pore Pressure Versus Shear Strain for B-2 U-8 1 DSS Specimen #3 | |
| Job Number 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-14 |

0_09/15/2022 \\haleyaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #3 DSS processed_051623.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

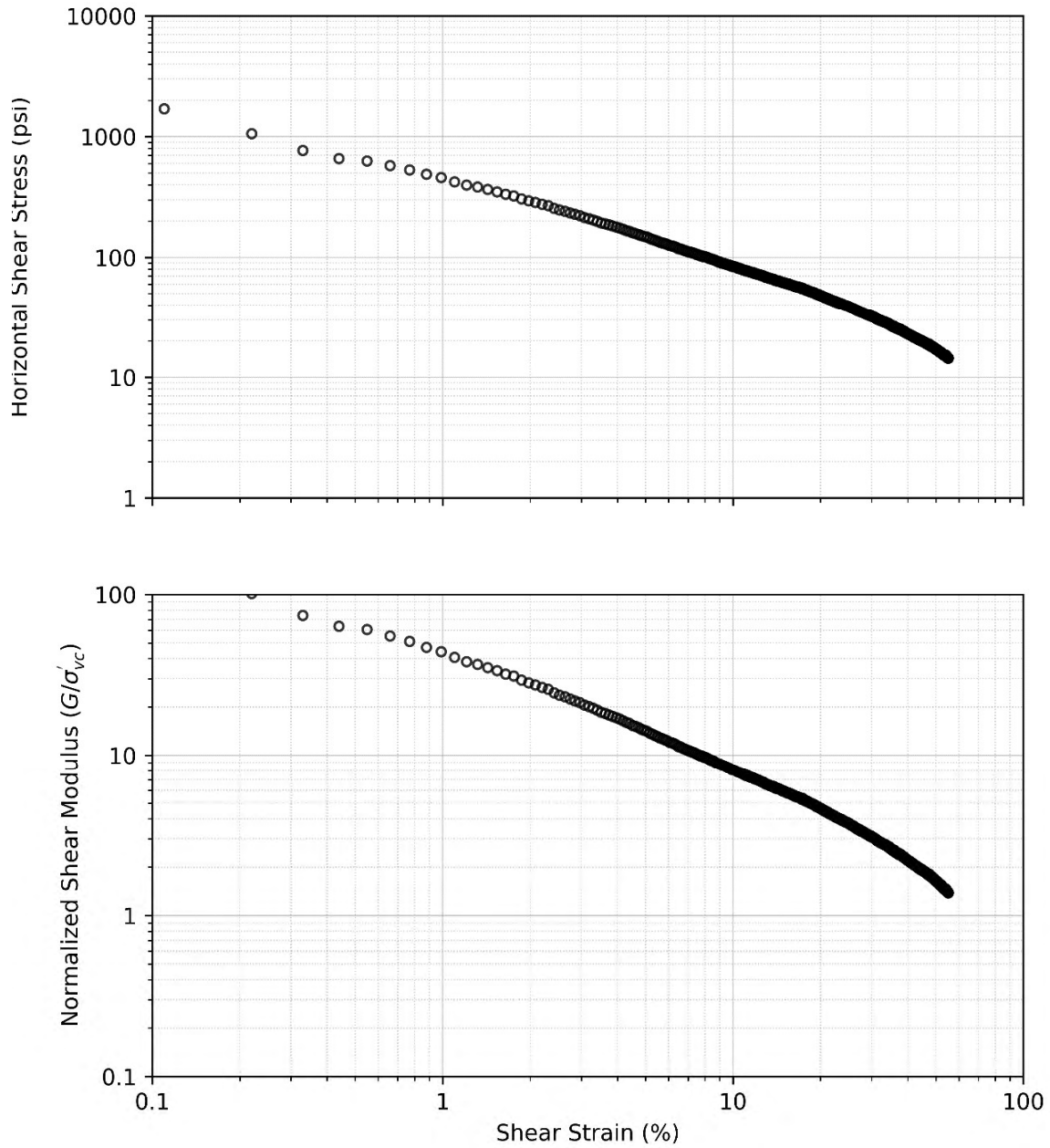
PDX Fuel Project Tank Design
Portland, OR
Horizontal and Normalized Shear Stress Versus Vertical and Normalized Vertical Effective Stress for B-2 U-8 1 DSS Specimen #3
Job Number 0204679-001 05/23



Figure

B-14

0 09/15/2022 \\haleyvaldrich.com\share\pdx_data\Notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix BIDSS\0204679-001 B2 U8 #3 DSS processed 051623.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

σ'_{vc} = Vertical effective stress at the end of consolidation

| | |
|--|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Shear Modulus and Normalized Shear Modulus Versus Shear Strain for B-2 U-8 1 DSS Specimen #3 | |
| Job Number 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-14 |

0 09/15/2022 \\haleyaldrich.com\share\pdx_data\notebooks\0204679-001_PDX_Fuel_Project_Tank_Design\Workspace\Geotechnical_Data_Report\Appendix B\DSS\0204679-001 B2 U8 #3 DSS processed 051623.xlsx



Sample preparation and comments: Thin-walled tube specimen cut from section of tube sample; delaminated and pushed to extrude from tube section.

| | |
|---|-----------------------|
| PDX Fuel Project Tank Design Portland, OR | |
| Pre-Test Photograph of B-2 U-8 DSS Specimen #3 | |
| Job Number 0204679-001 | 05/23 |
| HALEY ALDRICH | Figure B-14 |

APPENDIX C
Historical Explorations

APPENDIX C

Historical Explorations

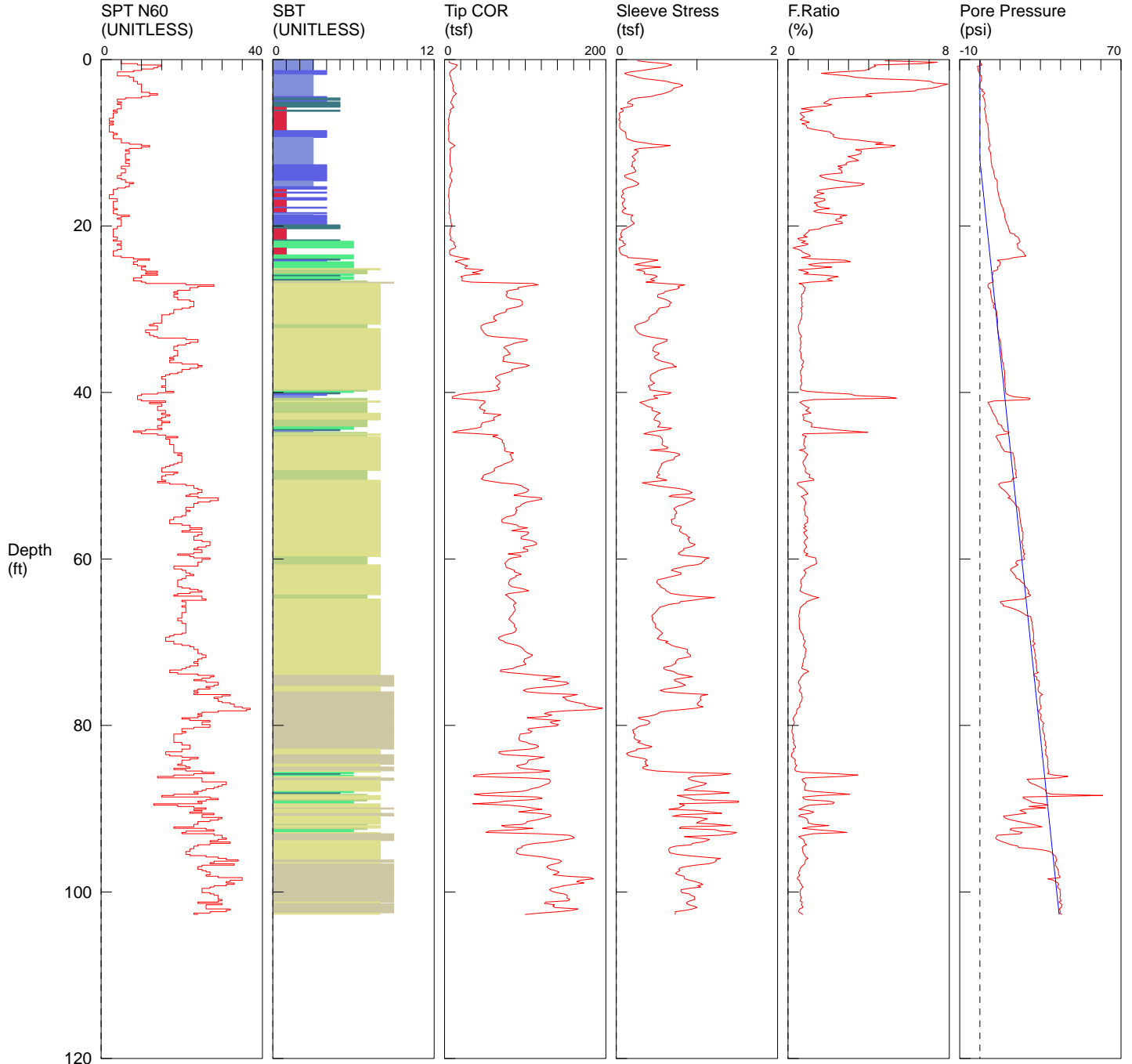
This appendix includes historical exploration data related to the subject project. Six CPT logs (designated CPT-18 through CPT-23) are presented, produced as part of a 2017 GRI exploration program pertaining to a runway evaluation. This appendix also includes a site plan, exploration logs, and laboratory test data from the 2020 Hart Crowser geotechnical report titled, "Revised Report of Geotechnical Engineering Services, PDX Fuel Facility Improvements, Portland Oregon," dated 17 August 2020.

GRI / CPT-18 / PDX Runway Evaluation

TEST DATE: 4/26/2017 12:35:55 PM
 HOLE NUMBER: CPT-18

CONE ID: DPG1386
 LOCATION: 17058/ GRI/ CPT-18/ PDX
 JOB NUMBER: 17058/ GRI/ CPT-18/ PDX
 TEST DATE: 4/26/2017 12:35:55 PM
 TOTAL DEPTH: 102.690 ft

CUSTOMER: 17058/ GRI / CPT-18/ PDX
 OPERATOR: OGE BJB



TOTAL DEPTH: 102.690 ft

- | | | | |
|---|---|--|--|
| <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

GRI / CPT-18 / PDX Runway Evaluation

OPERATOR: OGE BJB
 TEST DATE: 4/26/2017 12:35:55 PM
 COMMENT: GRI / CPT-18 / PDX Runway Evaluation
 FILENAME: 17058 CPT-18.cpt
 TOTAL DEPTH: 102.690 ft

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 0.164 | 5.48 | 0.2638 | 4.817 | 0.264 | 5 | 3 | clay |
| 0.328 | 5.55 | 0.4104 | 7.397 | 0.273 | 5 | 3 | clay |
| 0.492 | 9.46 | 0.6302 | 6.660 | 0.501 | 9 | 3 | clay |
| 0.656 | 15.98 | 0.6820 | 4.267 | 0.973 | 15 | 3 | clay |
| 0.820 | 14.29 | 0.6198 | 4.336 | -1.237 | 14 | 3 | clay |
| 0.984 | 13.30 | 0.5470 | 4.111 | -0.995 | 13 | 3 | clay |
| 1.148 | 10.79 | 0.4357 | 4.037 | -0.947 | 10 | 3 | clay |
| 1.312 | 8.31 | 0.3144 | 3.784 | -0.921 | 8 | 3 | clay |
| 1.476 | 6.69 | 0.1739 | 2.597 | -0.539 | 4 | 4 | silty clay to clay |
| 1.640 | 6.21 | 0.1024 | 1.647 | -0.316 | 4 | 4 | silty clay to clay |
| 1.804 | 6.03 | 0.1365 | 2.262 | 0.259 | 4 | 4 | silty clay to clay |
| 1.969 | 7.05 | 0.2112 | 2.994 | 0.674 | 7 | 3 | clay |
| 2.133 | 7.98 | 0.2653 | 3.326 | 0.865 | 8 | 3 | clay |
| 2.297 | 8.09 | 0.3448 | 4.264 | 0.791 | 8 | 3 | clay |
| 2.461 | 7.86 | 0.4946 | 6.296 | 0.705 | 8 | 3 | clay |
| 2.625 | 8.88 | 0.6292 | 7.089 | 0.530 | 9 | 3 | clay |
| 2.789 | 9.56 | 0.6860 | 7.175 | -0.082 | 9 | 3 | clay |
| 2.953 | 9.95 | 0.7878 | 7.921 | -0.259 | 10 | 3 | clay |
| 3.117 | 10.79 | 0.8256 | 7.649 | -0.297 | 10 | 3 | clay |
| 3.281 | 10.52 | 0.7841 | 7.451 | -0.290 | 10 | 3 | clay |
| 3.445 | 9.98 | 0.7098 | 7.116 | -0.257 | 10 | 3 | clay |
| 3.609 | 10.92 | 0.6995 | 6.406 | 1.395 | 10 | 3 | clay |
| 3.773 | 10.73 | 0.6768 | 6.309 | 0.928 | 10 | 3 | clay |
| 3.937 | 12.25 | 0.6285 | 5.130 | 2.045 | 12 | 3 | clay |
| 4.101 | 14.49 | 0.5845 | 4.035 | 2.342 | 14 | 3 | clay |
| 4.265 | 12.81 | 0.4927 | 3.847 | 1.534 | 12 | 3 | clay |
| 4.429 | 10.48 | 0.4342 | 4.144 | 1.395 | 10 | 3 | clay |
| 4.593 | 10.17 | 0.2697 | 2.652 | 1.956 | 6 | 4 | silty clay to clay |
| 4.757 | 9.37 | 0.1937 | 2.066 | 2.129 | 4 | 5 | clayey silt to silty clay |
| 4.921 | 8.86 | 0.1783 | 2.013 | 2.352 | 4 | 5 | clayey silt to silty clay |
| 5.085 | 7.79 | 0.1445 | 1.855 | 2.467 | 5 | 4 | silty clay to clay |
| 5.249 | 7.90 | 0.1396 | 1.766 | 2.555 | 4 | 5 | clayey silt to silty clay |
| 5.413 | 9.44 | 0.2054 | 2.175 | 2.671 | 5 | 5 | clayey silt to silty clay |
| 5.577 | 10.53 | 0.2023 | 1.922 | 2.745 | 5 | 5 | clayey silt to silty clay |
| 5.741 | 11.25 | 0.1286 | 1.143 | 2.647 | 5 | 5 | clayey silt to silty clay |
| 5.906 | 8.28 | 0.0548 | 0.661 | 2.186 | 4 | 1 | sensitive fine grained |
| 6.070 | 6.75 | 0.0846 | 1.253 | 2.419 | 3 | 1 | sensitive fine grained |
| 6.234 | 7.97 | 0.0821 | 1.031 | 2.591 | 4 | 5 | clayey silt to silty clay |
| 6.398 | 6.64 | 0.0398 | 0.599 | 2.668 | 3 | 1 | sensitive fine grained |
| 6.562 | 6.15 | 0.0386 | 0.629 | 2.786 | 3 | 1 | sensitive fine grained |
| 6.726 | 5.80 | 0.0405 | 0.698 | 2.934 | 3 | 1 | sensitive fine grained |
| 6.890 | 5.80 | 0.0468 | 0.807 | 2.939 | 3 | 1 | sensitive fine grained |
| 7.054 | 5.22 | 0.0375 | 0.719 | 3.085 | 2 | 1 | sensitive fine grained |
| 7.218 | 4.67 | 0.0280 | 0.598 | 3.112 | 2 | 1 | sensitive fine grained |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 7.382 | 5.26 | 0.0467 | 0.887 | 3.152 | 3 | 1 | sensitive fine grained |
| 7.546 | 5.09 | 0.0530 | 1.042 | 3.246 | 2 | 1 | sensitive fine grained |
| 7.710 | 5.80 | 0.0401 | 0.690 | 3.831 | 3 | 1 | sensitive fine grained |
| 7.874 | 4.84 | 0.0433 | 0.894 | 3.912 | 2 | 1 | sensitive fine grained |
| 8.038 | 4.47 | 0.0412 | 0.922 | 3.975 | 2 | 1 | sensitive fine grained |
| 8.202 | 4.38 | 0.0422 | 0.965 | 4.061 | 2 | 1 | sensitive fine grained |
| 8.366 | 4.59 | 0.0561 | 1.221 | 4.135 | 2 | 1 | sensitive fine grained |
| 8.530 | 4.81 | 0.0783 | 1.629 | 4.188 | 2 | 1 | sensitive fine grained |
| 8.694 | 5.30 | 0.1110 | 2.095 | 4.234 | 3 | 4 | silty clay to clay |
| 8.858 | 5.53 | 0.1175 | 2.126 | 4.260 | 4 | 4 | silty clay to clay |
| 9.022 | 5.24 | 0.1192 | 2.276 | 4.289 | 3 | 4 | silty clay to clay |
| 9.186 | 5.41 | 0.1204 | 2.227 | 4.293 | 3 | 4 | silty clay to clay |
| 9.350 | 5.36 | 0.1230 | 2.293 | 4.310 | 3 | 4 | silty clay to clay |
| 9.514 | 4.93 | 0.1316 | 2.667 | 4.399 | 5 | 3 | clay |
| 9.678 | 5.01 | 0.1745 | 3.481 | 4.449 | 5 | 3 | clay |
| 9.843 | 5.63 | 0.2251 | 3.999 | 4.574 | 5 | 3 | clay |
| 10.007 | 7.45 | 0.3507 | 4.710 | 4.893 | 7 | 3 | clay |
| 10.171 | 10.31 | 0.4478 | 4.343 | 4.993 | 10 | 3 | clay |
| 10.335 | 12.66 | 0.6716 | 5.307 | 5.130 | 12 | 3 | clay |
| 10.499 | 10.60 | 0.5416 | 5.109 | 4.497 | 10 | 3 | clay |
| 10.663 | 7.26 | 0.2995 | 4.124 | 4.210 | 7 | 3 | clay |
| 10.827 | 6.68 | 0.2234 | 3.344 | 4.569 | 6 | 3 | clay |
| 10.991 | 7.35 | 0.2675 | 3.640 | 4.783 | 7 | 3 | clay |
| 11.155 | 7.32 | 0.2650 | 3.622 | 5.296 | 7 | 3 | clay |
| 11.319 | 6.71 | 0.2415 | 3.601 | 5.346 | 6 | 3 | clay |
| 11.483 | 6.61 | 0.2229 | 3.372 | 5.367 | 6 | 3 | clay |
| 11.647 | 6.59 | 0.1961 | 2.975 | 5.425 | 6 | 3 | clay |
| 11.811 | 6.67 | 0.2122 | 3.184 | 5.502 | 6 | 3 | clay |
| 11.975 | 6.79 | 0.2275 | 3.350 | 5.528 | 7 | 3 | clay |
| 12.139 | 6.64 | 0.2327 | 3.503 | 5.559 | 6 | 3 | clay |
| 12.303 | 6.72 | 0.2016 | 3.002 | 5.610 | 6 | 3 | clay |
| 12.467 | 6.87 | 0.1971 | 2.868 | 5.737 | 7 | 3 | clay |
| 12.631 | 7.00 | 0.2026 | 2.895 | 5.799 | 7 | 3 | clay |
| 12.795 | 7.52 | 0.1857 | 2.470 | 5.924 | 5 | 4 | silty clay to clay |
| 12.959 | 8.32 | 0.2231 | 2.682 | 6.223 | 5 | 4 | silty clay to clay |
| 13.123 | 8.81 | 0.2206 | 2.505 | 6.441 | 6 | 4 | silty clay to clay |
| 13.287 | 8.98 | 0.2375 | 2.645 | 6.698 | 6 | 4 | silty clay to clay |
| 13.451 | 9.13 | 0.2427 | 2.659 | 6.835 | 6 | 4 | silty clay to clay |
| 13.615 | 7.47 | 0.2003 | 2.681 | 6.933 | 5 | 4 | silty clay to clay |
| 13.780 | 7.13 | 0.1387 | 1.944 | 7.081 | 5 | 4 | silty clay to clay |
| 13.944 | 6.38 | 0.1002 | 1.571 | 7.177 | 4 | 4 | silty clay to clay |
| 14.108 | 6.48 | 0.1073 | 1.656 | 7.297 | 4 | 4 | silty clay to clay |
| 14.272 | 7.36 | 0.1377 | 1.871 | 7.537 | 5 | 4 | silty clay to clay |
| 14.436 | 8.79 | 0.1918 | 2.183 | 8.321 | 6 | 4 | silty clay to clay |
| 14.600 | 8.84 | 0.2249 | 2.544 | 8.520 | 6 | 4 | silty clay to clay |
| 14.764 | 8.20 | 0.2603 | 3.173 | 8.616 | 8 | 3 | clay |
| 14.928 | 7.38 | 0.2784 | 3.770 | 8.676 | 7 | 3 | clay |
| 15.092 | 6.95 | 0.2521 | 3.628 | 8.589 | 7 | 3 | clay |
| 15.256 | 6.59 | 0.2015 | 3.056 | 8.585 | 6 | 3 | clay |
| 15.420 | 5.67 | 0.1307 | 2.303 | 8.628 | 4 | 4 | silty clay to clay |
| 15.584 | 5.48 | 0.0966 | 1.764 | 8.762 | 3 | 4 | silty clay to clay |
| 15.748 | 5.27 | 0.0766 | 1.453 | 8.875 | 3 | 1 | sensitive fine grained |
| 15.912 | 5.33 | 0.0772 | 1.450 | 8.999 | 3 | 1 | sensitive fine grained |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 16.076 | 5.27 | 0.0935 | 1.775 | 9.136 | 3 | 4 | silty clay to clay |
| 16.240 | 5.02 | 0.0757 | 1.508 | 9.253 | 2 | 1 | sensitive fine grained |
| 16.404 | 4.56 | 0.0611 | 1.342 | 9.426 | 2 | 1 | sensitive fine grained |
| 16.568 | 5.20 | 0.0668 | 1.284 | 9.570 | 2 | 1 | sensitive fine grained |
| 16.732 | 5.54 | 0.0994 | 1.795 | 9.735 | 4 | 4 | silty clay to clay |
| 16.896 | 5.68 | 0.1046 | 1.842 | 9.997 | 4 | 4 | silty clay to clay |
| 17.060 | 5.89 | 0.0960 | 1.629 | 10.169 | 3 | 1 | sensitive fine grained |
| 17.224 | 5.65 | 0.0739 | 1.307 | 10.282 | 3 | 1 | sensitive fine grained |
| 17.388 | 5.32 | 0.0769 | 1.446 | 10.565 | 3 | 1 | sensitive fine grained |
| 17.552 | 5.79 | 0.0820 | 1.416 | 10.785 | 3 | 1 | sensitive fine grained |
| 17.717 | 5.65 | 0.0890 | 1.576 | 11.236 | 3 | 1 | sensitive fine grained |
| 17.881 | 5.74 | 0.1175 | 2.047 | 11.392 | 4 | 4 | silty clay to clay |
| 18.045 | 5.81 | 0.0872 | 1.501 | 11.524 | 3 | 1 | sensitive fine grained |
| 18.209 | 5.68 | 0.0724 | 1.274 | 11.857 | 3 | 1 | sensitive fine grained |
| 18.373 | 5.49 | 0.0797 | 1.453 | 12.044 | 3 | 1 | sensitive fine grained |
| 18.537 | 5.60 | 0.1169 | 2.086 | 12.250 | 4 | 4 | silty clay to clay |
| 18.701 | 7.07 | 0.2068 | 2.924 | 12.454 | 7 | 3 | clay |
| 18.865 | 7.26 | 0.1864 | 2.569 | 12.269 | 5 | 4 | silty clay to clay |
| 19.029 | 6.89 | 0.1831 | 2.658 | 12.458 | 4 | 4 | silty clay to clay |
| 19.193 | 7.74 | 0.1836 | 2.372 | 12.679 | 5 | 4 | silty clay to clay |
| 19.357 | 7.78 | 0.1846 | 2.371 | 12.818 | 5 | 4 | silty clay to clay |
| 19.521 | 7.74 | 0.2062 | 2.663 | 13.065 | 5 | 4 | silty clay to clay |
| 19.685 | 8.26 | 0.2226 | 2.695 | 13.341 | 5 | 4 | silty clay to clay |
| 19.849 | 8.60 | 0.1917 | 2.228 | 13.621 | 5 | 4 | silty clay to clay |
| 20.013 | 8.95 | 0.1699 | 1.899 | 13.983 | 4 | 5 | clayey silt to silty clay |
| 20.177 | 8.04 | 0.1332 | 1.656 | 14.069 | 4 | 5 | clayey silt to silty clay |
| 20.341 | 7.14 | 0.1125 | 1.575 | 14.278 | 3 | 5 | clayey silt to silty clay |
| 20.505 | 6.87 | 0.0707 | 1.028 | 14.513 | 3 | 1 | sensitive fine grained |
| 20.669 | 6.83 | 0.0700 | 1.025 | 14.666 | 3 | 1 | sensitive fine grained |
| 20.833 | 6.55 | 0.0600 | 0.916 | 14.952 | 3 | 1 | sensitive fine grained |
| 20.997 | 6.25 | 0.0539 | 0.862 | 17.385 | 3 | 1 | sensitive fine grained |
| 21.161 | 7.25 | 0.0555 | 0.765 | 17.428 | 3 | 1 | sensitive fine grained |
| 21.325 | 7.73 | 0.0735 | 0.951 | 18.775 | 4 | 1 | sensitive fine grained |
| 21.490 | 8.25 | 0.0400 | 0.485 | 19.226 | 4 | 1 | sensitive fine grained |
| 21.654 | 6.74 | 0.0368 | 0.547 | 19.444 | 3 | 1 | sensitive fine grained |
| 21.818 | 10.14 | 0.0873 | 0.861 | 19.947 | 5 | 5 | clayey silt to silty clay |
| 21.982 | 12.28 | 0.0819 | 0.667 | 19.538 | 5 | 6 | sandy silt to clayey silt |
| 22.146 | 11.47 | 0.1132 | 0.988 | 18.401 | 4 | 6 | sandy silt to clayey silt |
| 22.310 | 12.63 | 0.1064 | 0.842 | 18.756 | 5 | 6 | sandy silt to clayey silt |
| 22.474 | 13.81 | 0.0613 | 0.444 | 18.725 | 5 | 6 | sandy silt to clayey silt |
| 22.638 | 12.85 | 0.0323 | 0.252 | 18.754 | 5 | 6 | sandy silt to clayey silt |
| 22.802 | 7.63 | 0.0391 | 0.512 | 19.547 | 4 | 1 | sensitive fine grained |
| 22.966 | 6.17 | 0.0409 | 0.663 | 20.789 | 3 | 1 | sensitive fine grained |
| 23.130 | 6.19 | 0.0441 | 0.713 | 21.376 | 3 | 1 | sensitive fine grained |
| 23.294 | 6.23 | 0.0536 | 0.860 | 21.851 | 3 | 1 | sensitive fine grained |
| 23.458 | 6.94 | 0.0727 | 1.047 | 22.237 | 3 | 1 | sensitive fine grained |
| 23.622 | 12.11 | 0.1336 | 1.103 | 22.786 | 5 | 6 | sandy silt to clayey silt |
| 23.786 | 21.12 | 0.1413 | 0.669 | 16.757 | 8 | 6 | sandy silt to clayey silt |
| 23.950 | 30.55 | 0.3763 | 1.232 | 14.412 | 12 | 6 | sandy silt to clayey silt |
| 24.114 | 18.25 | 0.5164 | 2.829 | 8.606 | 9 | 5 | clayey silt to silty clay |
| 24.278 | 13.08 | 0.4036 | 3.086 | 9.877 | 8 | 4 | silty clay to clay |
| 24.442 | 19.62 | 0.3172 | 1.617 | 10.184 | 8 | 6 | sandy silt to clayey silt |
| 24.606 | 22.37 | 0.2259 | 1.010 | 9.913 | 9 | 6 | sandy silt to clayey silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 24.770 | 28.44 | 0.3545 | 1.247 | 9.762 | 11 | 6 | sandy silt to clayey silt |
| 24.934 | 25.29 | 0.5475 | 2.165 | 8.546 | 10 | 6 | sandy silt to clayey silt |
| 25.098 | 25.44 | 0.3646 | 1.433 | 9.035 | 10 | 6 | sandy silt to clayey silt |
| 25.262 | 47.98 | 0.2519 | 0.525 | 8.620 | 11 | 8 | sand to silty sand |
| 25.427 | 42.52 | 0.3397 | 0.799 | 6.851 | 14 | 7 | silty sand to sandy silt |
| 25.591 | 34.41 | 0.3485 | 1.013 | 6.357 | 11 | 7 | silty sand to sandy silt |
| 25.755 | 44.00 | 0.3471 | 0.789 | 6.504 | 14 | 7 | silty sand to sandy silt |
| 25.919 | 26.69 | 0.4788 | 1.794 | 6.118 | 10 | 6 | sandy silt to clayey silt |
| 26.083 | 20.25 | 0.5037 | 2.487 | 6.012 | 10 | 5 | clayey silt to silty clay |
| 26.247 | 22.05 | 0.4692 | 2.127 | 6.266 | 8 | 6 | sandy silt to clayey silt |
| 26.411 | 21.80 | 0.4222 | 1.937 | 6.290 | 8 | 6 | sandy silt to clayey silt |
| 26.575 | 21.57 | 0.4773 | 2.213 | 6.667 | 10 | 5 | clayey silt to silty clay |
| 26.739 | 32.95 | 0.3686 | 1.118 | 6.259 | 11 | 7 | silty sand to sandy silt |
| 26.903 | 109.37 | 0.5978 | 0.547 | 4.433 | 21 | 9 | sand |
| 27.067 | 115.87 | 0.8492 | 0.733 | 3.965 | 28 | 8 | sand to silty sand |
| 27.231 | 100.44 | 0.7624 | 0.759 | 4.020 | 24 | 8 | sand to silty sand |
| 27.395 | 90.99 | 0.7814 | 0.859 | 4.166 | 22 | 8 | sand to silty sand |
| 27.559 | 91.57 | 0.7498 | 0.819 | 5.080 | 22 | 8 | sand to silty sand |
| 27.723 | 80.74 | 0.6723 | 0.833 | 5.202 | 19 | 8 | sand to silty sand |
| 27.887 | 76.51 | 0.5972 | 0.781 | 5.274 | 18 | 8 | sand to silty sand |
| 28.051 | 77.96 | 0.5925 | 0.760 | 5.343 | 19 | 8 | sand to silty sand |
| 28.215 | 76.60 | 0.5174 | 0.676 | 5.471 | 18 | 8 | sand to silty sand |
| 28.379 | 76.28 | 0.5125 | 0.672 | 5.492 | 18 | 8 | sand to silty sand |
| 28.543 | 77.99 | 0.5138 | 0.659 | 5.669 | 19 | 8 | sand to silty sand |
| 28.707 | 81.36 | 0.5688 | 0.699 | 5.809 | 19 | 8 | sand to silty sand |
| 28.871 | 93.65 | 0.6242 | 0.666 | 5.943 | 22 | 8 | sand to silty sand |
| 29.035 | 96.01 | 0.6568 | 0.684 | 6.137 | 23 | 8 | sand to silty sand |
| 29.199 | 96.62 | 0.6813 | 0.705 | 6.377 | 23 | 8 | sand to silty sand |
| 29.364 | 96.61 | 0.6622 | 0.685 | 7.443 | 23 | 8 | sand to silty sand |
| 29.528 | 95.57 | 0.6614 | 0.692 | 6.590 | 23 | 8 | sand to silty sand |
| 29.692 | 91.67 | 0.6490 | 0.708 | 6.729 | 22 | 8 | sand to silty sand |
| 29.856 | 82.74 | 0.5288 | 0.639 | 6.878 | 20 | 8 | sand to silty sand |
| 30.020 | 76.44 | 0.5266 | 0.689 | 8.033 | 18 | 8 | sand to silty sand |
| 30.184 | 76.51 | 0.5022 | 0.656 | 8.179 | 18 | 8 | sand to silty sand |
| 30.348 | 75.33 | 0.5033 | 0.668 | 8.287 | 18 | 8 | sand to silty sand |
| 30.512 | 69.06 | 0.4814 | 0.697 | 8.311 | 17 | 8 | sand to silty sand |
| 30.676 | 64.59 | 0.4445 | 0.688 | 8.338 | 15 | 8 | sand to silty sand |
| 30.840 | 61.26 | 0.4203 | 0.686 | 8.575 | 15 | 8 | sand to silty sand |
| 31.004 | 60.98 | 0.4034 | 0.662 | 8.635 | 15 | 8 | sand to silty sand |
| 31.168 | 61.01 | 0.4045 | 0.663 | 8.685 | 15 | 8 | sand to silty sand |
| 31.332 | 64.20 | 0.3889 | 0.606 | 8.743 | 15 | 8 | sand to silty sand |
| 31.496 | 61.46 | 0.3641 | 0.592 | 8.795 | 15 | 8 | sand to silty sand |
| 31.660 | 52.90 | 0.3114 | 0.589 | 8.752 | 13 | 8 | sand to silty sand |
| 31.824 | 48.19 | 0.2574 | 0.534 | 8.700 | 12 | 8 | sand to silty sand |
| 31.988 | 45.23 | 0.2323 | 0.514 | 8.685 | 14 | 7 | silty sand to sandy silt |
| 32.152 | 44.90 | 0.2286 | 0.509 | 8.748 | 14 | 7 | silty sand to sandy silt |
| 32.316 | 45.15 | 0.2339 | 0.518 | 8.779 | 14 | 7 | silty sand to sandy silt |
| 32.480 | 46.33 | 0.2418 | 0.522 | 8.853 | 11 | 8 | sand to silty sand |
| 32.644 | 47.70 | 0.2577 | 0.540 | 8.932 | 11 | 8 | sand to silty sand |
| 32.808 | 48.44 | 0.2681 | 0.553 | 9.035 | 12 | 8 | sand to silty sand |
| 32.972 | 50.42 | 0.2947 | 0.584 | 9.136 | 12 | 8 | sand to silty sand |
| 33.136 | 52.46 | 0.3333 | 0.635 | 9.217 | 13 | 8 | sand to silty sand |
| 33.301 | 60.01 | 0.4002 | 0.667 | 9.349 | 14 | 8 | sand to silty sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 33.465 | 85.65 | 0.5085 | 0.594 | 9.606 | 21 | 8 | sand to silty sand | |
| 33.629 | 102.32 | 0.6323 | 0.618 | 9.881 | 24 | 8 | sand to silty sand | |
| 33.793 | 101.52 | 0.6275 | 0.618 | 10.059 | 24 | 8 | sand to silty sand | |
| 33.957 | 91.76 | 0.5816 | 0.634 | 10.378 | 22 | 8 | sand to silty sand | |
| 34.121 | 85.64 | 0.5440 | 0.635 | 10.351 | 21 | 8 | sand to silty sand | |
| 34.285 | 81.04 | 0.4903 | 0.605 | 10.421 | 19 | 8 | sand to silty sand | |
| 34.449 | 75.40 | 0.4726 | 0.627 | 10.440 | 18 | 8 | sand to silty sand | |
| 34.613 | 73.28 | 0.4595 | 0.627 | 10.474 | 18 | 8 | sand to silty sand | |
| 34.777 | 75.95 | 0.4592 | 0.605 | 10.510 | 18 | 8 | sand to silty sand | |
| 34.941 | 78.08 | 0.4510 | 0.578 | 10.605 | 19 | 8 | sand to silty sand | |
| 35.105 | 78.37 | 0.4751 | 0.606 | 10.622 | 19 | 8 | sand to silty sand | |
| 35.269 | 81.26 | 0.5267 | 0.648 | 10.737 | 19 | 8 | sand to silty sand | |
| 35.433 | 80.74 | 0.5199 | 0.644 | 10.836 | 19 | 8 | sand to silty sand | |
| 35.597 | 74.68 | 0.4804 | 0.643 | 10.821 | 18 | 8 | sand to silty sand | |
| 35.761 | 72.61 | 0.4688 | 0.646 | 10.915 | 17 | 8 | sand to silty sand | |
| 35.925 | 73.55 | 0.4815 | 0.655 | 10.979 | 18 | 8 | sand to silty sand | |
| 36.089 | 72.85 | 0.5181 | 0.711 | 11.018 | 17 | 8 | sand to silty sand | |
| 36.253 | 72.18 | 0.5626 | 0.779 | 11.092 | 17 | 8 | sand to silty sand | |
| 36.417 | 84.31 | 0.6373 | 0.756 | 11.406 | 20 | 8 | sand to silty sand | |
| 36.581 | 98.79 | 0.7002 | 0.709 | 11.593 | 24 | 8 | sand to silty sand | |
| 36.745 | 104.76 | 0.7073 | 0.675 | 11.747 | 25 | 8 | sand to silty sand | |
| 36.909 | 100.58 | 0.7463 | 0.742 | 11.826 | 24 | 8 | sand to silty sand | |
| 37.073 | 91.32 | 0.6284 | 0.688 | 11.898 | 22 | 8 | sand to silty sand | |
| 37.238 | 83.21 | 0.5602 | 0.673 | 11.929 | 20 | 8 | sand to silty sand | |
| 37.402 | 84.12 | 0.5121 | 0.609 | 12.204 | 20 | 8 | sand to silty sand | |
| 37.566 | 79.14 | 0.4913 | 0.621 | 12.248 | 19 | 8 | sand to silty sand | |
| 37.730 | 73.07 | 0.4475 | 0.613 | 12.267 | 17 | 8 | sand to silty sand | |
| 37.894 | 67.89 | 0.4286 | 0.631 | 12.228 | 16 | 8 | sand to silty sand | |
| 38.058 | 64.10 | 0.4205 | 0.656 | 12.233 | 15 | 8 | sand to silty sand | |
| 38.222 | 62.87 | 0.4196 | 0.667 | 12.269 | 15 | 8 | sand to silty sand | |
| 38.386 | 65.14 | 0.4212 | 0.647 | 12.293 | 16 | 8 | sand to silty sand | |
| 38.550 | 67.07 | 0.4301 | 0.641 | 12.341 | 16 | 8 | sand to silty sand | |
| 38.714 | 68.59 | 0.4510 | 0.658 | 12.384 | 16 | 8 | sand to silty sand | |
| 38.878 | 68.26 | 0.4746 | 0.695 | 12.499 | 16 | 8 | sand to silty sand | |
| 39.042 | 66.42 | 0.4422 | 0.666 | 12.499 | 16 | 8 | sand to silty sand | |
| 39.206 | 64.35 | 0.3954 | 0.614 | 12.485 | 15 | 8 | sand to silty sand | |
| 39.370 | 66.40 | 0.4077 | 0.614 | 12.550 | 16 | 8 | sand to silty sand | |
| 39.534 | 68.02 | 0.4192 | 0.616 | 12.645 | 16 | 8 | sand to silty sand | |
| 39.698 | 66.57 | 0.4157 | 0.625 | 12.761 | 16 | 8 | sand to silty sand | |
| 39.862 | 57.11 | 0.5360 | 0.939 | 12.729 | 18 | 7 | silty sand to sandy silt | |
| 40.026 | 36.55 | 0.6776 | 1.854 | 12.813 | 14 | 6 | sandy silt to clayey silt | |
| 40.190 | 20.91 | 0.6445 | 3.082 | 13.233 | 10 | 5 | clayey silt to silty clay | |
| 40.354 | 13.90 | 0.4650 | 3.347 | 14.834 | 9 | 4 | silty clay to clay | |
| 40.518 | 9.64 | 0.4691 | 4.866 | 17.174 | 9 | 3 | clay | |
| 40.682 | 9.50 | 0.5108 | 5.378 | 24.812 | 9 | 3 | clay | |
| 40.846 | 32.25 | 0.4134 | 1.282 | 24.574 | 10 | 7 | silty sand to sandy silt | |
| 41.011 | 49.76 | 0.3638 | 0.731 | 6.926 | 16 | 7 | silty sand to sandy silt | |
| 41.175 | 50.15 | 0.2909 | 0.580 | 3.987 | 12 | 8 | sand to silty sand | |
| 41.339 | 47.98 | 0.3274 | 0.682 | 4.361 | 15 | 7 | silty sand to sandy silt | |
| 41.503 | 45.92 | 0.3565 | 0.776 | 4.732 | 15 | 7 | silty sand to sandy silt | |
| 41.667 | 44.70 | 0.3838 | 0.858 | 5.053 | 14 | 7 | silty sand to sandy silt | |
| 41.831 | 43.13 | 0.4498 | 1.043 | 5.370 | 14 | 7 | silty sand to sandy silt | |
| 41.995 | 45.02 | 0.4408 | 0.979 | 5.684 | 14 | 7 | silty sand to sandy silt | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 42.159 | 50.24 | 0.4431 | 0.882 | 6.029 | 16 | 7 | silty sand to sandy silt |
| 42.323 | 48.69 | 0.5022 | 1.031 | 6.254 | 16 | 7 | silty sand to sandy silt |
| 42.487 | 48.22 | 0.5442 | 1.129 | 6.513 | 15 | 7 | silty sand to sandy silt |
| 42.651 | 69.89 | 0.5071 | 0.726 | 7.074 | 17 | 8 | sand to silty sand |
| 42.815 | 65.51 | 0.4901 | 0.748 | 7.575 | 16 | 8 | sand to silty sand |
| 42.979 | 61.15 | 0.4803 | 0.786 | 7.944 | 15 | 8 | sand to silty sand |
| 43.143 | 60.53 | 0.4673 | 0.772 | 8.110 | 14 | 8 | sand to silty sand |
| 43.307 | 61.60 | 0.4698 | 0.763 | 8.362 | 15 | 8 | sand to silty sand |
| 43.471 | 54.50 | 0.5270 | 0.967 | 8.666 | 17 | 7 | silty sand to sandy silt |
| 43.635 | 46.75 | 0.5414 | 1.158 | 8.860 | 15 | 7 | silty sand to sandy silt |
| 43.799 | 45.76 | 0.5408 | 1.182 | 9.251 | 15 | 7 | silty sand to sandy silt |
| 43.963 | 45.03 | 0.5271 | 1.171 | 10.711 | 14 | 7 | silty sand to sandy silt |
| 44.127 | 45.36 | 0.5136 | 1.132 | 10.888 | 14 | 7 | silty sand to sandy silt |
| 44.291 | 39.63 | 0.6854 | 1.730 | 11.169 | 15 | 6 | sandy silt to clayey silt |
| 44.455 | 28.66 | 0.6453 | 2.252 | 11.687 | 11 | 6 | sandy silt to clayey silt |
| 44.619 | 16.32 | 0.4931 | 3.021 | 11.900 | 8 | 5 | clayey silt to silty clay |
| 44.783 | 10.13 | 0.4010 | 3.957 | 14.506 | 10 | 3 | clay |
| 44.948 | 43.31 | 0.3389 | 0.782 | 13.597 | 14 | 7 | silty sand to sandy silt |
| 45.112 | 66.23 | 0.4673 | 0.706 | 8.822 | 16 | 8 | sand to silty sand |
| 45.276 | 59.83 | 0.5429 | 0.907 | 7.930 | 19 | 7 | silty sand to sandy silt |
| 45.440 | 66.05 | 0.5575 | 0.844 | 8.340 | 16 | 8 | sand to silty sand |
| 45.604 | 70.09 | 0.5700 | 0.813 | 8.688 | 17 | 8 | sand to silty sand |
| 45.768 | 71.98 | 0.5725 | 0.795 | 9.045 | 17 | 8 | sand to silty sand |
| 45.932 | 71.23 | 0.5767 | 0.810 | 9.766 | 17 | 8 | sand to silty sand |
| 46.096 | 73.08 | 0.5664 | 0.775 | 10.020 | 17 | 8 | sand to silty sand |
| 46.260 | 73.69 | 0.5671 | 0.770 | 10.186 | 18 | 8 | sand to silty sand |
| 46.424 | 73.72 | 0.5933 | 0.805 | 10.495 | 18 | 8 | sand to silty sand |
| 46.588 | 74.24 | 0.6391 | 0.861 | 10.819 | 18 | 8 | sand to silty sand |
| 46.752 | 74.87 | 0.6282 | 0.839 | 11.293 | 18 | 8 | sand to silty sand |
| 46.916 | 74.08 | 0.4197 | 0.567 | 11.811 | 18 | 8 | sand to silty sand |
| 47.080 | 75.33 | 0.6066 | 0.805 | 11.998 | 18 | 8 | sand to silty sand |
| 47.244 | 85.49 | 0.7345 | 0.859 | 16.385 | 20 | 8 | sand to silty sand |
| 47.408 | 80.84 | 0.7882 | 0.975 | 16.498 | 19 | 8 | sand to silty sand |
| 47.572 | 82.36 | 0.7720 | 0.937 | 16.704 | 20 | 8 | sand to silty sand |
| 47.736 | 83.10 | 0.7245 | 0.872 | 16.838 | 20 | 8 | sand to silty sand |
| 47.900 | 83.28 | 0.7186 | 0.863 | 16.953 | 20 | 8 | sand to silty sand |
| 48.064 | 85.00 | 0.7092 | 0.834 | 17.071 | 20 | 8 | sand to silty sand |
| 48.228 | 83.17 | 0.6287 | 0.756 | 17.224 | 20 | 8 | sand to silty sand |
| 48.392 | 79.54 | 0.5862 | 0.737 | 17.145 | 19 | 8 | sand to silty sand |
| 48.556 | 74.25 | 0.5614 | 0.756 | 17.315 | 18 | 8 | sand to silty sand |
| 48.720 | 71.36 | 0.5591 | 0.784 | 17.308 | 17 | 8 | sand to silty sand |
| 48.885 | 67.09 | 0.5533 | 0.825 | 17.457 | 16 | 8 | sand to silty sand |
| 49.049 | 63.07 | 0.5419 | 0.859 | 17.416 | 15 | 8 | sand to silty sand |
| 49.213 | 61.29 | 0.5301 | 0.865 | 17.471 | 15 | 8 | sand to silty sand |
| 49.377 | 62.09 | 0.5271 | 0.849 | 17.936 | 15 | 8 | sand to silty sand |
| 49.541 | 59.02 | 0.5130 | 0.869 | 17.953 | 19 | 7 | silty sand to sandy silt |
| 49.705 | 55.34 | 0.5151 | 0.931 | 17.553 | 18 | 7 | silty sand to sandy silt |
| 49.869 | 49.74 | 0.5384 | 1.082 | 17.840 | 16 | 7 | silty sand to sandy silt |
| 50.033 | 47.39 | 0.5071 | 1.070 | 18.011 | 15 | 7 | silty sand to sandy silt |
| 50.197 | 47.72 | 0.4981 | 1.044 | 18.200 | 15 | 7 | silty sand to sandy silt |
| 50.361 | 45.48 | 0.5625 | 1.237 | 16.026 | 15 | 7 | silty sand to sandy silt |
| 50.525 | 48.67 | 0.6242 | 1.283 | 16.009 | 16 | 7 | silty sand to sandy silt |
| 50.689 | 58.26 | 0.4815 | 0.826 | 15.510 | 14 | 8 | sand to silty sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 50.853 | 69.72 | 0.3227 | 0.463 | 10.541 | 17 | 8 | sand to silty sand | |
| 51.017 | 87.49 | 0.3988 | 0.456 | 9.246 | 21 | 8 | sand to silty sand | |
| 51.181 | 95.10 | 0.4889 | 0.514 | 9.668 | 23 | 8 | sand to silty sand | |
| 51.345 | 97.11 | 0.6095 | 0.628 | 9.961 | 23 | 8 | sand to silty sand | |
| 51.509 | 100.58 | 0.7588 | 0.754 | 10.807 | 24 | 8 | sand to silty sand | |
| 51.673 | 104.09 | 0.8469 | 0.814 | 11.610 | 25 | 8 | sand to silty sand | |
| 51.837 | 103.26 | 0.9004 | 0.872 | 12.502 | 25 | 8 | sand to silty sand | |
| 52.001 | 100.19 | 0.9419 | 0.940 | 13.230 | 24 | 8 | sand to silty sand | |
| 52.165 | 92.64 | 0.9098 | 0.982 | 13.736 | 22 | 8 | sand to silty sand | |
| 52.329 | 85.84 | 0.6900 | 0.804 | 14.302 | 21 | 8 | sand to silty sand | |
| 52.493 | 99.40 | 0.6523 | 0.656 | 15.098 | 24 | 8 | sand to silty sand | |
| 52.657 | 119.82 | 0.8973 | 0.749 | 13.954 | 29 | 8 | sand to silty sand | |
| 52.822 | 120.77 | 0.9757 | 0.808 | 15.378 | 29 | 8 | sand to silty sand | |
| 52.986 | 111.88 | 0.9468 | 0.846 | 15.927 | 27 | 8 | sand to silty sand | |
| 53.150 | 102.24 | 0.8960 | 0.876 | 16.762 | 24 | 8 | sand to silty sand | |
| 53.314 | 97.95 | 0.8637 | 0.882 | 17.253 | 23 | 8 | sand to silty sand | |
| 53.478 | 95.03 | 0.8294 | 0.873 | 17.519 | 23 | 8 | sand to silty sand | |
| 53.642 | 94.03 | 0.7659 | 0.815 | 18.037 | 23 | 8 | sand to silty sand | |
| 53.806 | 88.93 | 0.7350 | 0.826 | 19.032 | 21 | 8 | sand to silty sand | |
| 53.970 | 88.03 | 0.7117 | 0.808 | 19.166 | 21 | 8 | sand to silty sand | |
| 54.134 | 90.12 | 0.7298 | 0.810 | 19.418 | 22 | 8 | sand to silty sand | |
| 54.298 | 88.32 | 0.7425 | 0.841 | 19.480 | 21 | 8 | sand to silty sand | |
| 54.462 | 88.40 | 0.7512 | 0.850 | 19.657 | 21 | 8 | sand to silty sand | |
| 54.626 | 87.31 | 0.7291 | 0.835 | 19.749 | 21 | 8 | sand to silty sand | |
| 54.790 | 83.79 | 0.7264 | 0.867 | 19.756 | 20 | 8 | sand to silty sand | |
| 54.954 | 76.21 | 0.7307 | 0.959 | 19.761 | 18 | 8 | sand to silty sand | |
| 55.118 | 73.62 | 0.7216 | 0.980 | 19.928 | 18 | 8 | sand to silty sand | |
| 55.282 | 70.90 | 0.6786 | 0.957 | 19.938 | 17 | 8 | sand to silty sand | |
| 55.446 | 70.78 | 0.6874 | 0.971 | 20.067 | 17 | 8 | sand to silty sand | |
| 55.610 | 71.65 | 0.6865 | 0.958 | 19.971 | 17 | 8 | sand to silty sand | |
| 55.774 | 82.45 | 0.6960 | 0.844 | 20.386 | 20 | 8 | sand to silty sand | |
| 55.938 | 90.28 | 0.7259 | 0.804 | 20.398 | 22 | 8 | sand to silty sand | |
| 56.102 | 91.50 | 0.8046 | 0.879 | 20.415 | 22 | 8 | sand to silty sand | |
| 56.266 | 102.81 | 0.7994 | 0.778 | 20.810 | 25 | 8 | sand to silty sand | |
| 56.430 | 91.65 | 0.7856 | 0.857 | 20.846 | 22 | 8 | sand to silty sand | |
| 56.594 | 83.33 | 0.7815 | 0.938 | 20.719 | 20 | 8 | sand to silty sand | |
| 56.759 | 103.86 | 0.8009 | 0.771 | 21.431 | 25 | 8 | sand to silty sand | |
| 56.923 | 103.75 | 0.8265 | 0.797 | 21.386 | 25 | 8 | sand to silty sand | |
| 57.087 | 101.91 | 0.8691 | 0.853 | 21.388 | 24 | 8 | sand to silty sand | |
| 57.251 | 96.93 | 0.8767 | 0.904 | 21.175 | 23 | 8 | sand to silty sand | |
| 57.415 | 94.65 | 0.9108 | 0.962 | 21.434 | 23 | 8 | sand to silty sand | |
| 57.579 | 94.70 | 0.8843 | 0.934 | 21.247 | 23 | 8 | sand to silty sand | |
| 57.743 | 106.20 | 0.9003 | 0.848 | 21.319 | 25 | 8 | sand to silty sand | |
| 57.907 | 110.89 | 0.9024 | 0.814 | 20.542 | 27 | 8 | sand to silty sand | |
| 58.071 | 113.81 | 0.9171 | 0.806 | 20.916 | 27 | 8 | sand to silty sand | |
| 58.235 | 114.02 | 0.9760 | 0.856 | 21.021 | 27 | 8 | sand to silty sand | |
| 58.399 | 108.76 | 0.9615 | 0.884 | 21.467 | 26 | 8 | sand to silty sand | |
| 58.563 | 98.35 | 0.9122 | 0.928 | 21.067 | 24 | 8 | sand to silty sand | |
| 58.727 | 97.57 | 0.8360 | 0.857 | 21.139 | 23 | 8 | sand to silty sand | |
| 58.891 | 103.07 | 0.8390 | 0.814 | 21.671 | 25 | 8 | sand to silty sand | |
| 59.055 | 103.29 | 0.8123 | 0.786 | 21.602 | 25 | 8 | sand to silty sand | |
| 59.219 | 94.21 | 0.7773 | 0.825 | 21.463 | 23 | 8 | sand to silty sand | |
| 59.383 | 78.84 | 0.7712 | 0.978 | 22.371 | 19 | 8 | sand to silty sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 59.547 | 93.72 | 0.8065 | 0.861 | 21.736 | 22 | 8 | sand to silty sand |
| 59.711 | 94.33 | 1.0111 | 1.072 | 21.690 | 23 | 8 | sand to silty sand |
| 59.875 | 83.90 | 1.1461 | 1.366 | 21.980 | 27 | 7 | silty sand to sandy silt |
| 60.039 | 79.49 | 1.0977 | 1.381 | 22.187 | 25 | 7 | silty sand to sandy silt |
| 60.203 | 77.92 | 1.0928 | 1.402 | 18.521 | 25 | 7 | silty sand to sandy silt |
| 60.367 | 76.02 | 1.0665 | 1.403 | 17.934 | 24 | 7 | silty sand to sandy silt |
| 60.532 | 74.47 | 1.0563 | 1.418 | 17.756 | 24 | 7 | silty sand to sandy silt |
| 60.696 | 75.90 | 0.9924 | 1.307 | 18.842 | 24 | 7 | silty sand to sandy silt |
| 60.860 | 75.97 | 0.8543 | 1.125 | 17.850 | 18 | 8 | sand to silty sand |
| 61.024 | 76.76 | 0.7925 | 1.032 | 16.493 | 18 | 8 | sand to silty sand |
| 61.188 | 82.10 | 0.7106 | 0.866 | 15.273 | 20 | 8 | sand to silty sand |
| 61.352 | 86.56 | 0.6809 | 0.787 | 15.304 | 21 | 8 | sand to silty sand |
| 61.516 | 86.09 | 0.7451 | 0.865 | 15.865 | 21 | 8 | sand to silty sand |
| 61.680 | 90.87 | 0.8026 | 0.883 | 16.519 | 22 | 8 | sand to silty sand |
| 61.844 | 94.99 | 0.8025 | 0.845 | 16.922 | 23 | 8 | sand to silty sand |
| 62.008 | 88.39 | 0.7300 | 0.826 | 17.687 | 21 | 8 | sand to silty sand |
| 62.172 | 88.02 | 0.6538 | 0.743 | 17.677 | 21 | 8 | sand to silty sand |
| 62.336 | 83.54 | 0.5880 | 0.704 | 18.188 | 20 | 8 | sand to silty sand |
| 62.500 | 80.77 | 0.5136 | 0.636 | 19.854 | 19 | 8 | sand to silty sand |
| 62.664 | 80.38 | 0.5039 | 0.627 | 20.175 | 19 | 8 | sand to silty sand |
| 62.828 | 79.46 | 0.5029 | 0.633 | 20.894 | 19 | 8 | sand to silty sand |
| 62.992 | 79.46 | 0.5138 | 0.647 | 22.047 | 19 | 8 | sand to silty sand |
| 63.156 | 80.67 | 0.5416 | 0.671 | 22.047 | 19 | 8 | sand to silty sand |
| 63.320 | 83.27 | 0.5459 | 0.656 | 22.522 | 20 | 8 | sand to silty sand |
| 63.484 | 92.64 | 0.5729 | 0.618 | 23.244 | 22 | 8 | sand to silty sand |
| 63.648 | 99.80 | 0.6080 | 0.609 | 23.716 | 24 | 8 | sand to silty sand |
| 63.812 | 104.06 | 0.6162 | 0.592 | 23.970 | 25 | 8 | sand to silty sand |
| 63.976 | 93.34 | 0.6486 | 0.695 | 24.404 | 22 | 8 | sand to silty sand |
| 64.140 | 79.71 | 0.6750 | 0.847 | 23.793 | 19 | 8 | sand to silty sand |
| 64.304 | 75.36 | 0.7922 | 1.051 | 25.118 | 18 | 8 | sand to silty sand |
| 64.469 | 78.44 | 0.9469 | 1.207 | 24.603 | 25 | 7 | silty sand to sandy silt |
| 64.633 | 79.69 | 1.2190 | 1.530 | 22.347 | 25 | 7 | silty sand to sandy silt |
| 64.797 | 82.38 | 1.0579 | 1.284 | 21.937 | 26 | 7 | silty sand to sandy silt |
| 64.961 | 85.56 | 0.9483 | 1.108 | 15.249 | 20 | 8 | sand to silty sand |
| 65.125 | 86.41 | 0.7911 | 0.916 | 10.104 | 21 | 8 | sand to silty sand |
| 65.289 | 88.78 | 0.7849 | 0.884 | 10.370 | 21 | 8 | sand to silty sand |
| 65.453 | 85.86 | 0.6623 | 0.771 | 11.408 | 21 | 8 | sand to silty sand |
| 65.617 | 85.55 | 0.6029 | 0.705 | 11.478 | 20 | 8 | sand to silty sand |
| 65.781 | 86.58 | 0.5414 | 0.625 | 14.194 | 21 | 8 | sand to silty sand |
| 65.945 | 87.02 | 0.5240 | 0.602 | 16.349 | 21 | 8 | sand to silty sand |
| 66.109 | 87.84 | 0.5101 | 0.581 | 18.109 | 21 | 8 | sand to silty sand |
| 66.273 | 87.08 | 0.4977 | 0.571 | 19.597 | 21 | 8 | sand to silty sand |
| 66.437 | 85.21 | 0.4818 | 0.565 | 20.832 | 20 | 8 | sand to silty sand |
| 66.601 | 84.78 | 0.4647 | 0.548 | 21.911 | 20 | 8 | sand to silty sand |
| 66.765 | 83.07 | 0.4418 | 0.532 | 22.973 | 20 | 8 | sand to silty sand |
| 66.929 | 81.73 | 0.4391 | 0.537 | 25.231 | 20 | 8 | sand to silty sand |
| 67.093 | 80.45 | 0.4545 | 0.565 | 25.344 | 19 | 8 | sand to silty sand |
| 67.257 | 79.57 | 0.4430 | 0.557 | 25.435 | 19 | 8 | sand to silty sand |
| 67.421 | 81.94 | 0.4549 | 0.555 | 25.488 | 20 | 8 | sand to silty sand |
| 67.585 | 83.37 | 0.4573 | 0.549 | 25.993 | 20 | 8 | sand to silty sand |
| 67.749 | 85.66 | 0.4804 | 0.561 | 25.821 | 21 | 8 | sand to silty sand |
| 67.913 | 86.97 | 0.4851 | 0.558 | 26.084 | 21 | 8 | sand to silty sand |
| 68.077 | 86.45 | 0.4868 | 0.563 | 25.996 | 21 | 8 | sand to silty sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 68.241 | 87.26 | 0.4849 | 0.556 | 26.116 | 21 | 8 | sand to silty sand | |
| 68.406 | 89.39 | 0.5116 | 0.572 | 26.116 | 21 | 8 | sand to silty sand | |
| 68.570 | 88.22 | 0.5379 | 0.610 | 26.329 | 21 | 8 | sand to silty sand | |
| 68.734 | 87.82 | 0.5530 | 0.630 | 26.410 | 21 | 8 | sand to silty sand | |
| 68.898 | 84.03 | 0.5720 | 0.681 | 26.638 | 20 | 8 | sand to silty sand | |
| 69.062 | 77.10 | 0.5587 | 0.725 | 26.590 | 18 | 8 | sand to silty sand | |
| 69.226 | 71.71 | 0.5351 | 0.746 | 26.559 | 17 | 8 | sand to silty sand | |
| 69.390 | 67.55 | 0.5255 | 0.778 | 26.667 | 16 | 8 | sand to silty sand | |
| 69.554 | 66.83 | 0.5061 | 0.757 | 26.530 | 16 | 8 | sand to silty sand | |
| 69.718 | 68.55 | 0.5451 | 0.795 | 26.772 | 16 | 8 | sand to silty sand | |
| 69.882 | 74.12 | 0.6389 | 0.862 | 26.152 | 18 | 8 | sand to silty sand | |
| 70.046 | 74.74 | 0.6118 | 0.819 | 26.876 | 18 | 8 | sand to silty sand | |
| 70.210 | 82.47 | 0.6589 | 0.799 | 27.372 | 20 | 8 | sand to silty sand | |
| 70.374 | 90.15 | 0.6864 | 0.761 | 26.111 | 22 | 8 | sand to silty sand | |
| 70.538 | 93.99 | 0.7440 | 0.792 | 26.741 | 23 | 8 | sand to silty sand | |
| 70.702 | 96.31 | 0.8229 | 0.854 | 26.775 | 23 | 8 | sand to silty sand | |
| 70.866 | 98.22 | 0.8827 | 0.899 | 26.928 | 24 | 8 | sand to silty sand | |
| 71.030 | 98.94 | 0.8831 | 0.893 | 27.130 | 24 | 8 | sand to silty sand | |
| 71.194 | 101.78 | 0.8750 | 0.860 | 27.317 | 24 | 8 | sand to silty sand | |
| 71.358 | 103.94 | 0.8921 | 0.858 | 27.326 | 25 | 8 | sand to silty sand | |
| 71.522 | 109.13 | 0.9170 | 0.840 | 27.499 | 26 | 8 | sand to silty sand | |
| 71.686 | 107.22 | 0.9230 | 0.861 | 27.573 | 26 | 8 | sand to silty sand | |
| 71.850 | 104.11 | 0.8653 | 0.831 | 27.137 | 25 | 8 | sand to silty sand | |
| 72.014 | 99.15 | 0.7636 | 0.770 | 27.367 | 24 | 8 | sand to silty sand | |
| 72.178 | 98.96 | 0.7517 | 0.760 | 27.878 | 24 | 8 | sand to silty sand | |
| 72.343 | 97.78 | 0.7348 | 0.752 | 27.674 | 23 | 8 | sand to silty sand | |
| 72.507 | 100.02 | 0.7392 | 0.739 | 27.949 | 24 | 8 | sand to silty sand | |
| 72.671 | 100.64 | 0.7086 | 0.704 | 28.031 | 24 | 8 | sand to silty sand | |
| 72.835 | 93.91 | 0.6829 | 0.727 | 28.124 | 22 | 8 | sand to silty sand | |
| 72.999 | 87.63 | 0.5899 | 0.673 | 27.933 | 21 | 8 | sand to silty sand | |
| 73.163 | 84.53 | 0.5865 | 0.694 | 28.208 | 20 | 8 | sand to silty sand | |
| 73.327 | 69.56 | 0.6224 | 0.895 | 28.165 | 17 | 8 | sand to silty sand | |
| 73.491 | 69.01 | 0.7093 | 1.028 | 28.252 | 17 | 8 | sand to silty sand | |
| 73.655 | 79.64 | 0.7317 | 0.919 | 29.009 | 19 | 8 | sand to silty sand | |
| 73.819 | 99.73 | 0.7633 | 0.765 | 26.947 | 24 | 8 | sand to silty sand | |
| 73.983 | 116.91 | 0.8600 | 0.736 | 26.669 | 28 | 8 | sand to silty sand | |
| 74.147 | 142.94 | 0.9438 | 0.660 | 28.103 | 27 | 9 | sand | |
| 74.311 | 129.96 | 0.8155 | 0.628 | 28.304 | 25 | 9 | sand | |
| 74.475 | 122.01 | 0.7202 | 0.590 | 28.141 | 23 | 9 | sand | |
| 74.639 | 134.60 | 0.7230 | 0.537 | 29.304 | 26 | 9 | sand | |
| 74.803 | 151.91 | 0.7817 | 0.515 | 29.275 | 29 | 9 | sand | |
| 74.967 | 153.32 | 0.8156 | 0.532 | 29.266 | 29 | 9 | sand | |
| 75.131 | 145.99 | 0.8573 | 0.587 | 29.326 | 28 | 9 | sand | |
| 75.295 | 134.33 | 0.8072 | 0.601 | 29.282 | 26 | 9 | sand | |
| 75.459 | 114.53 | 0.7272 | 0.635 | 28.779 | 27 | 8 | sand to silty sand | |
| 75.623 | 102.00 | 0.6076 | 0.596 | 28.913 | 24 | 8 | sand to silty sand | |
| 75.787 | 97.59 | 0.5429 | 0.556 | 28.803 | 23 | 8 | sand to silty sand | |
| 75.951 | 101.67 | 0.5946 | 0.585 | 29.174 | 24 | 8 | sand to silty sand | |
| 76.115 | 121.48 | 0.8132 | 0.669 | 29.990 | 23 | 9 | sand | |
| 76.280 | 164.48 | 1.1328 | 0.689 | 31.066 | 32 | 9 | sand | |
| 76.444 | 157.33 | 1.0518 | 0.669 | 29.939 | 30 | 9 | sand | |
| 76.608 | 146.67 | 1.0437 | 0.712 | 29.819 | 28 | 9 | sand | |
| 76.772 | 149.77 | 1.0382 | 0.693 | 29.601 | 29 | 9 | sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|-----------------------------------|
| 76.936 | 150.89 | 1.0511 | 0.697 | 29.774 | 29 | 9 | sand |
| 77.100 | 157.08 | 1.0316 | 0.657 | 29.704 | 30 | 9 | sand |
| 77.264 | 165.46 | 1.0128 | 0.612 | 29.827 | 32 | 9 | sand |
| 77.428 | 173.89 | 1.0015 | 0.576 | 29.853 | 33 | 9 | sand |
| 77.592 | 174.27 | 1.0150 | 0.582 | 30.160 | 33 | 9 | sand |
| 77.756 | 183.62 | 1.0750 | 0.585 | 30.239 | 35 | 9 | sand |
| 77.920 | 195.50 | 0.9833 | 0.503 | 30.316 | 37 | 9 | sand |
| 78.084 | 185.51 | 0.8134 | 0.438 | 29.903 | 36 | 9 | sand |
| 78.248 | 148.95 | 0.6371 | 0.428 | 28.949 | 29 | 9 | sand |
| 78.412 | 128.14 | 0.5381 | 0.420 | 29.443 | 25 | 9 | sand |
| 78.576 | 123.92 | 0.5151 | 0.416 | 29.901 | 24 | 9 | sand |
| 78.740 | 132.90 | 0.4712 | 0.355 | 30.455 | 25 | 9 | sand |
| 78.904 | 127.00 | 0.3929 | 0.309 | 30.268 | 24 | 9 | sand |
| 79.068 | 102.33 | 0.2722 | 0.266 | 29.963 | 20 | 9 | sand |
| 79.232 | 115.18 | 0.2956 | 0.257 | 29.999 | 22 | 9 | sand |
| 79.396 | 143.24 | 0.3860 | 0.269 | 30.483 | 27 | 9 | sand |
| 79.560 | 130.97 | 0.4157 | 0.317 | 31.090 | 25 | 9 | sand |
| 79.724 | 133.11 | 0.4092 | 0.307 | 31.711 | 25 | 9 | sand |
| 79.888 | 140.99 | 0.3797 | 0.269 | 31.227 | 27 | 9 | sand |
| 80.052 | 138.69 | 0.3032 | 0.219 | 31.440 | 27 | 9 | sand |
| 80.217 | 118.89 | 0.2601 | 0.219 | 31.222 | 23 | 9 | sand |
| 80.381 | 104.06 | 0.2386 | 0.229 | 30.963 | 20 | 9 | sand |
| 80.545 | 103.52 | 0.2008 | 0.194 | 31.270 | 20 | 9 | sand |
| 80.709 | 108.32 | 0.2120 | 0.196 | 31.366 | 21 | 9 | sand |
| 80.873 | 105.94 | 0.2099 | 0.198 | 31.507 | 20 | 9 | sand |
| 81.037 | 93.84 | 0.2289 | 0.244 | 31.811 | 18 | 9 | sand |
| 81.201 | 93.25 | 0.2289 | 0.245 | 32.164 | 18 | 9 | sand |
| 81.365 | 92.70 | 0.2211 | 0.238 | 32.061 | 18 | 9 | sand |
| 81.529 | 92.03 | 0.2202 | 0.239 | 31.948 | 18 | 9 | sand |
| 81.693 | 92.19 | 0.2450 | 0.266 | 32.015 | 18 | 9 | sand |
| 81.857 | 93.99 | 0.2993 | 0.318 | 32.358 | 18 | 9 | sand |
| 82.021 | 102.12 | 0.2625 | 0.257 | 32.588 | 20 | 9 | sand |
| 82.185 | 104.48 | 0.3165 | 0.303 | 32.634 | 20 | 9 | sand |
| 82.349 | 114.23 | 0.3574 | 0.313 | 32.166 | 22 | 9 | sand |
| 82.513 | 116.52 | 0.4399 | 0.378 | 33.029 | 22 | 9 | sand |
| 82.677 | 113.26 | 0.4092 | 0.361 | 32.864 | 22 | 9 | sand |
| 82.841 | 106.08 | 0.2522 | 0.238 | 32.696 | 20 | 9 | sand |
| 83.005 | 83.88 | 0.2484 | 0.296 | 32.425 | 20 | 8 | sand to silty sand |
| 83.169 | 67.37 | 0.1801 | 0.267 | 32.737 | 16 | 8 | sand to silty sand |
| 83.333 | 67.51 | 0.1270 | 0.188 | 32.766 | 16 | 8 | sand to silty sand |
| 83.497 | 73.09 | 0.1350 | 0.185 | 32.545 | 17 | 8 | sand to silty sand |
| 83.661 | 103.32 | 0.1672 | 0.162 | 33.173 | 20 | 9 | sand |
| 83.825 | 123.20 | 0.2519 | 0.205 | 33.382 | 24 | 9 | sand |
| 83.990 | 114.41 | 0.3517 | 0.307 | 33.636 | 22 | 9 | sand |
| 84.154 | 104.06 | 0.3830 | 0.368 | 33.569 | 20 | 9 | sand |
| 84.318 | 103.17 | 0.3535 | 0.343 | 33.856 | 20 | 9 | sand |
| 84.482 | 102.60 | 0.3683 | 0.359 | 33.487 | 20 | 9 | sand |
| 84.646 | 99.55 | 0.3584 | 0.360 | 33.782 | 19 | 9 | sand |
| 84.810 | 89.42 | 0.3914 | 0.438 | 33.641 | 21 | 8 | sand to silty sand |
| 84.974 | 90.70 | 0.3327 | 0.367 | 33.540 | 22 | 8 | sand to silty sand |
| 85.138 | 95.25 | 0.3281 | 0.344 | 33.806 | 18 | 9 | sand |
| 85.302 | 111.89 | 0.3754 | 0.335 | 33.878 | 21 | 9 | sand |
| 85.466 | 130.15 | 0.4997 | 0.384 | 34.053 | 25 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 85.630 | 115.78 | 0.8150 | 0.704 | 34.312 | 28 | 8 | sand to silty sand |
| 85.794 | 60.49 | 1.4176 | 2.343 | 33.528 | 23 | 6 | sandy silt to clayey silt |
| 85.958 | 37.50 | 1.2989 | 3.464 | 36.481 | 18 | 5 | clayey silt to silty clay |
| 86.122 | 35.31 | 0.9603 | 2.720 | 43.584 | 14 | 6 | sandy silt to clayey silt |
| 86.286 | 102.96 | 0.8942 | 0.869 | 38.629 | 25 | 8 | sand to silty sand |
| 86.450 | 129.26 | 0.8983 | 0.695 | 23.385 | 25 | 9 | sand |
| 86.614 | 130.91 | 0.9431 | 0.720 | 24.114 | 25 | 9 | sand |
| 86.778 | 130.78 | 1.0244 | 0.783 | 24.284 | 31 | 8 | sand to silty sand |
| 86.942 | 129.48 | 1.1153 | 0.861 | 25.389 | 31 | 8 | sand to silty sand |
| 87.106 | 124.44 | 1.0944 | 0.879 | 27.360 | 30 | 8 | sand to silty sand |
| 87.270 | 120.29 | 1.0187 | 0.847 | 28.928 | 29 | 8 | sand to silty sand |
| 87.434 | 116.64 | 0.9599 | 0.823 | 30.093 | 28 | 8 | sand to silty sand |
| 87.598 | 107.67 | 0.8912 | 0.828 | 31.385 | 26 | 8 | sand to silty sand |
| 87.762 | 103.63 | 0.8413 | 0.812 | 32.432 | 25 | 8 | sand to silty sand |
| 87.927 | 94.57 | 1.2045 | 1.274 | 32.722 | 23 | 8 | sand to silty sand |
| 88.091 | 62.23 | 1.3988 | 2.248 | 32.895 | 24 | 6 | sandy silt to clayey silt |
| 88.255 | 36.65 | 1.1196 | 3.055 | 35.604 | 18 | 5 | clayey silt to silty clay |
| 88.419 | 46.27 | 0.7533 | 1.628 | 60.986 | 15 | 7 | silty sand to sandy silt |
| 88.583 | 114.72 | 0.8367 | 0.729 | 21.357 | 27 | 8 | sand to silty sand |
| 88.747 | 121.02 | 0.9132 | 0.755 | 21.765 | 29 | 8 | sand to silty sand |
| 88.911 | 106.99 | 0.9615 | 0.899 | 23.483 | 26 | 8 | sand to silty sand |
| 89.075 | 75.13 | 1.5134 | 2.014 | 25.130 | 24 | 7 | silty sand to sandy silt |
| 89.239 | 66.24 | 1.5113 | 2.281 | 25.665 | 25 | 6 | sandy silt to clayey silt |
| 89.403 | 34.96 | 0.7816 | 2.235 | 31.008 | 13 | 6 | sandy silt to clayey silt |
| 89.567 | 78.74 | 0.8446 | 1.073 | 33.911 | 19 | 8 | sand to silty sand |
| 89.731 | 97.00 | 0.8056 | 0.831 | 24.404 | 23 | 8 | sand to silty sand |
| 89.895 | 107.37 | 0.7786 | 0.725 | 32.538 | 26 | 8 | sand to silty sand |
| 90.059 | 120.77 | 0.6525 | 0.540 | 22.112 | 23 | 9 | sand |
| 90.223 | 105.22 | 1.0379 | 0.986 | 19.842 | 25 | 8 | sand to silty sand |
| 90.387 | 91.82 | 1.1619 | 1.265 | 21.786 | 22 | 8 | sand to silty sand |
| 90.551 | 115.86 | 1.3059 | 1.127 | 22.834 | 28 | 8 | sand to silty sand |
| 90.715 | 131.09 | 0.8021 | 0.612 | 17.349 | 25 | 9 | sand |
| 90.879 | 132.19 | 0.6991 | 0.529 | 11.665 | 25 | 9 | sand |
| 91.043 | 127.00 | 1.0176 | 0.801 | 12.034 | 30 | 8 | sand to silty sand |
| 91.207 | 119.86 | 1.1253 | 0.939 | 13.432 | 29 | 8 | sand to silty sand |
| 91.371 | 112.42 | 1.0853 | 0.965 | 15.884 | 27 | 8 | sand to silty sand |
| 91.535 | 102.11 | 1.0245 | 1.003 | 19.149 | 24 | 8 | sand to silty sand |
| 91.699 | 101.35 | 0.9961 | 0.983 | 22.592 | 24 | 8 | sand to silty sand |
| 91.864 | 96.64 | 1.2328 | 1.276 | 25.818 | 23 | 8 | sand to silty sand |
| 92.028 | 70.51 | 1.4228 | 2.018 | 28.654 | 23 | 7 | silty sand to sandy silt |
| 92.192 | 75.24 | 0.8016 | 1.065 | 30.833 | 18 | 8 | sand to silty sand |
| 92.356 | 109.44 | 0.7829 | 0.715 | 15.421 | 26 | 8 | sand to silty sand |
| 92.520 | 88.59 | 1.2283 | 1.387 | 14.916 | 28 | 7 | silty sand to sandy silt |
| 92.684 | 55.49 | 1.2879 | 2.321 | 17.450 | 21 | 6 | sandy silt to clayey silt |
| 92.848 | 51.08 | 1.4907 | 2.918 | 20.923 | 20 | 6 | sandy silt to clayey silt |
| 93.012 | 116.40 | 1.4431 | 1.240 | 20.161 | 28 | 8 | sand to silty sand |
| 93.176 | 154.08 | 1.2874 | 0.836 | 8.712 | 30 | 9 | sand |
| 93.340 | 158.95 | 0.8446 | 0.531 | 8.177 | 30 | 9 | sand |
| 93.504 | 160.74 | 1.0071 | 0.627 | 7.805 | 31 | 9 | sand |
| 93.668 | 152.96 | 1.1549 | 0.755 | 8.304 | 29 | 9 | sand |
| 93.832 | 142.35 | 1.1262 | 0.791 | 9.687 | 27 | 9 | sand |
| 93.996 | 132.27 | 1.0663 | 0.806 | 11.377 | 32 | 8 | sand to silty sand |
| 94.160 | 112.36 | 0.9405 | 0.837 | 13.477 | 27 | 8 | sand to silty sand |

FOR REFERENCE ONLY

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 94.324 | 101.81 | 0.9313 | 0.915 | 15.563 | 24 | 8 | sand to silty sand | |
| 94.488 | 96.04 | 0.7375 | 0.768 | 18.799 | 23 | 8 | sand to silty sand | |
| 94.652 | 95.78 | 0.6714 | 0.701 | 19.108 | 23 | 8 | sand to silty sand | |
| 94.816 | 90.39 | 0.6517 | 0.721 | 26.708 | 22 | 8 | sand to silty sand | |
| 94.980 | 89.88 | 0.6506 | 0.724 | 31.713 | 22 | 8 | sand to silty sand | |
| 95.144 | 89.25 | 0.6556 | 0.735 | 34.590 | 21 | 8 | sand to silty sand | |
| 95.308 | 88.78 | 0.6664 | 0.751 | 35.966 | 21 | 8 | sand to silty sand | |
| 95.472 | 92.81 | 0.7569 | 0.816 | 36.232 | 22 | 8 | sand to silty sand | |
| 95.636 | 107.10 | 0.8914 | 0.832 | 37.208 | 26 | 8 | sand to silty sand | |
| 95.801 | 121.52 | 1.0761 | 0.886 | 37.737 | 29 | 8 | sand to silty sand | |
| 95.965 | 130.47 | 1.2938 | 0.992 | 37.771 | 31 | 8 | sand to silty sand | |
| 96.129 | 141.86 | 1.2322 | 0.869 | 38.150 | 34 | 8 | sand to silty sand | |
| 96.293 | 144.81 | 1.2380 | 0.855 | 37.896 | 28 | 9 | sand | |
| 96.457 | 143.18 | 1.2069 | 0.843 | 37.320 | 27 | 9 | sand | |
| 96.621 | 137.15 | 1.1405 | 0.832 | 37.577 | 33 | 8 | sand to silty sand | |
| 96.785 | 130.03 | 0.9776 | 0.752 | 37.395 | 25 | 9 | sand | |
| 96.949 | 126.81 | 0.8640 | 0.681 | 37.819 | 24 | 9 | sand | |
| 97.113 | 127.67 | 0.7903 | 0.619 | 38.325 | 24 | 9 | sand | |
| 97.277 | 130.99 | 0.7739 | 0.591 | 38.660 | 25 | 9 | sand | |
| 97.441 | 137.56 | 0.7888 | 0.573 | 38.852 | 26 | 9 | sand | |
| 97.605 | 141.81 | 0.7570 | 0.534 | 38.996 | 27 | 9 | sand | |
| 97.769 | 139.65 | 0.7340 | 0.526 | 38.974 | 27 | 9 | sand | |
| 97.933 | 134.75 | 0.7659 | 0.568 | 38.974 | 26 | 9 | sand | |
| 98.097 | 151.76 | 0.8367 | 0.551 | 39.643 | 29 | 9 | sand | |
| 98.261 | 180.33 | 0.8432 | 0.468 | 39.758 | 35 | 9 | sand | |
| 98.425 | 184.69 | 0.8455 | 0.458 | 33.679 | 35 | 9 | sand | |
| 98.589 | 167.55 | 0.9086 | 0.542 | 36.371 | 32 | 9 | sand | |
| 98.753 | 163.85 | 0.9795 | 0.598 | 37.632 | 31 | 9 | sand | |
| 98.917 | 172.83 | 1.0325 | 0.597 | 38.670 | 33 | 9 | sand | |
| 99.081 | 159.49 | 1.0736 | 0.673 | 39.164 | 31 | 9 | sand | |
| 99.245 | 148.11 | 1.0103 | 0.682 | 38.569 | 28 | 9 | sand | |
| 99.409 | 141.48 | 1.0451 | 0.739 | 38.437 | 27 | 9 | sand | |
| 99.573 | 132.38 | 0.9028 | 0.682 | 39.001 | 25 | 9 | sand | |
| 99.738 | 130.22 | 0.8023 | 0.616 | 39.828 | 25 | 9 | sand | |
| 99.902 | 132.69 | 0.8023 | 0.605 | 39.696 | 25 | 9 | sand | |
| 100.066 | 138.45 | 0.8129 | 0.587 | 39.816 | 27 | 9 | sand | |
| 100.230 | 147.89 | 0.9059 | 0.613 | 39.981 | 28 | 9 | sand | |
| 100.394 | 152.12 | 0.9215 | 0.606 | 39.941 | 29 | 9 | sand | |
| 100.558 | 152.01 | 0.9694 | 0.638 | 39.816 | 29 | 9 | sand | |
| 100.722 | 151.66 | 0.9719 | 0.641 | 39.634 | 29 | 9 | sand | |
| 100.886 | 155.12 | 0.9752 | 0.629 | 39.909 | 30 | 9 | sand | |
| 101.050 | 153.22 | 0.9167 | 0.598 | 40.362 | 29 | 9 | sand | |
| 101.214 | 125.38 | 0.8786 | 0.701 | 39.221 | 24 | 9 | sand | |
| 101.378 | 123.87 | 0.8690 | 0.702 | 39.929 | 30 | 8 | sand to silty sand | |
| 101.542 | 136.25 | 0.8995 | 0.660 | 40.820 | 26 | 9 | sand | |
| 101.706 | 134.14 | 0.9644 | 0.719 | 40.470 | 26 | 9 | sand | |
| 101.870 | 136.82 | 1.0019 | 0.732 | 40.384 | 26 | 9 | sand | |
| 102.034 | 165.57 | 0.9432 | 0.570 | 39.420 | 32 | 9 | sand | |
| 102.198 | 159.49 | 0.8717 | 0.547 | 39.758 | 31 | 9 | sand | |
| 102.362 | 141.95 | 0.7332 | 0.517 | 39.883 | 27 | 9 | sand | |
| 102.526 | 118.53 | 0.7302 | 0.616 | 39.523 | 23 | 9 | sand | |
| 102.690 | 99.96 | 0.7302 | 0.730 | 40.655 | 24 | 8 | sand to silty sand | |

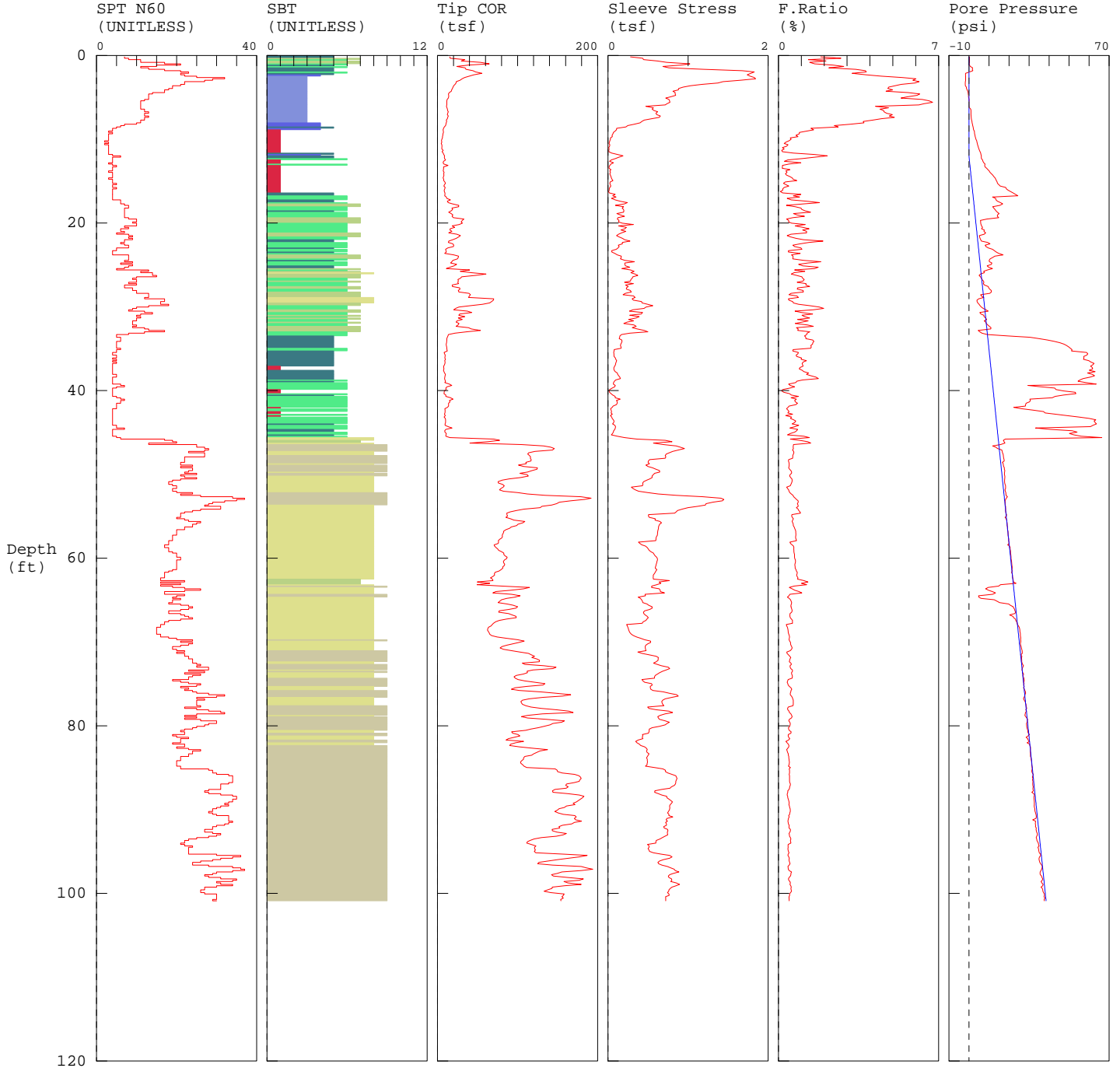
GRI / CPT-19 / PDX Runway Evaluation

TEST DATE: 4/26/2017 12:14:09 PM
 HOLE NUMBER: CPT-19

CONE ID: DPG1323
 LOCATION: 17058/ GRI / CPT-19 / PDX Runway Evaluation
 JOB NUMBER: 17058 / GRI / CPT-19 / PDX Runway Evaluation

CUSTOMER: 17058 GRI CPT-19 PDX Runway Evaluation
 OPERATOR: OGE TAJ

TEST DATE: 4/26/2017 12:14:09 PM
 TOTAL DEPTH: 100.886 ft



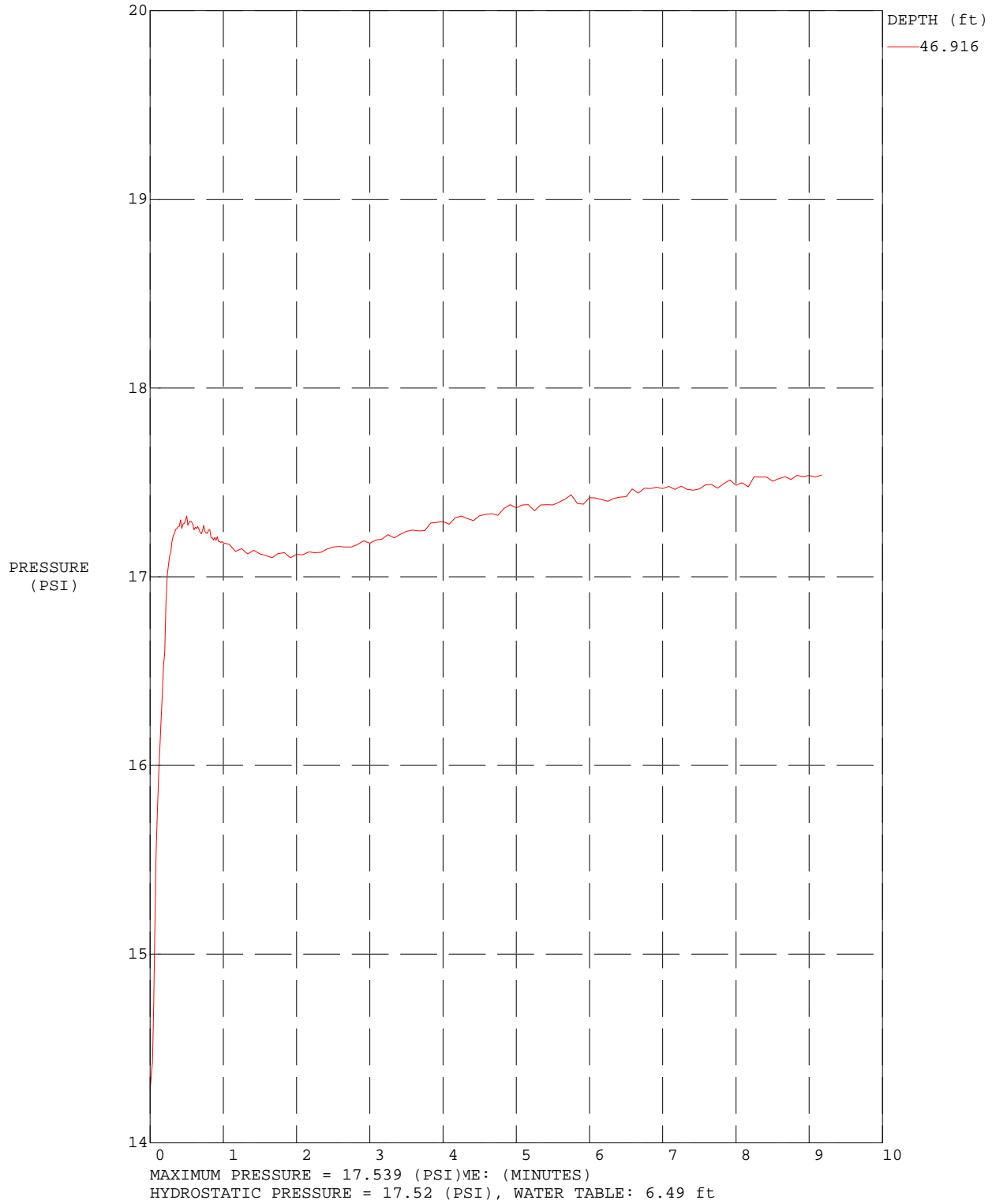
TOTAL DEPTH: 100.886 ft

- | | | | |
|---|---|--|--|
| <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

COMMENT: GRI / CPT-19 / PDX Runway Evaluation

TEST DATE: 4/26/2017 12:14:09 PM
OPERATOR: OGE TAJ



GRI / CPT-19 / PDX Runway Evaluation

OPERATOR: OGE TAJ
 TEST DATE: 4/26/2017 12:14:09 PM
 COMMENT: GRI / CPT-19 / PDX Runway Evaluation
 FILENAME: 17058 CPT-19.cpt
 TOTAL DEPTH: 100.886 ft

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 0.164 | 15.27 | 0.2808 | 1.839 | 0.255 | 7 | 5 | clayey silt to silty clay |
| 0.328 | 15.84 | 0.4326 | 2.730 | 0.238 | 8 | 5 | clayey silt to silty clay |
| 0.492 | 34.06 | 0.4442 | 1.304 | 0.275 | 11 | 7 | silty sand to sandy silt |
| 0.656 | 29.71 | 0.6171 | 2.077 | 0.264 | 11 | 6 | sandy silt to clayey silt |
| 0.820 | 53.78 | 0.7336 | 1.364 | 0.277 | 17 | 7 | silty sand to sandy silt |
| 0.984 | 64.58 | 1.0225 | 1.583 | 0.028 | 21 | 7 | silty sand to sandy silt |
| 1.148 | 38.31 | 0.9118 | 2.380 | 0.137 | 15 | 6 | sandy silt to clayey silt |
| 1.312 | 23.99 | 0.6849 | 2.855 | 0.667 | 11 | 5 | clayey silt to silty clay |
| 1.476 | 34.50 | 0.7590 | 2.200 | 1.801 | 13 | 6 | sandy silt to clayey silt |
| 1.640 | 35.48 | 1.1961 | 3.371 | 1.681 | 17 | 5 | clayey silt to silty clay |
| 1.804 | 44.13 | 1.6755 | 3.797 | 1.918 | 21 | 5 | clayey silt to silty clay |
| 1.969 | 47.57 | 1.8276 | 3.842 | 0.288 | 23 | 5 | clayey silt to silty clay |
| 2.133 | 55.39 | 1.7837 | 3.220 | -1.703 | 21 | 6 | sandy silt to clayey silt |
| 2.297 | 45.47 | 1.7388 | 3.824 | -1.761 | 22 | 5 | clayey silt to silty clay |
| 2.461 | 39.45 | 1.7744 | 4.498 | -1.724 | 25 | 4 | silty clay to clay |
| 2.625 | 33.77 | 1.8277 | 5.412 | -1.698 | 32 | 3 | clay |
| 2.789 | 30.71 | 1.8430 | 6.002 | -1.720 | 29 | 3 | clay |
| 2.953 | 28.14 | 1.6520 | 5.870 | -1.729 | 27 | 3 | clay |
| 3.117 | 23.38 | 1.4378 | 6.149 | -1.792 | 22 | 3 | clay |
| 3.281 | 23.03 | 1.3724 | 5.960 | -1.873 | 22 | 3 | clay |
| 3.445 | 21.88 | 1.1741 | 5.366 | -1.851 | 21 | 3 | clay |
| 3.609 | 20.21 | 1.0289 | 5.090 | -1.836 | 19 | 3 | clay |
| 3.773 | 19.46 | 0.9375 | 4.818 | -1.323 | 19 | 3 | clay |
| 3.937 | 18.46 | 0.8824 | 4.780 | -1.236 | 18 | 3 | clay |
| 4.101 | 17.64 | 0.8800 | 4.989 | -0.955 | 17 | 3 | clay |
| 4.265 | 17.25 | 0.8105 | 4.699 | -0.626 | 17 | 3 | clay |
| 4.429 | 14.80 | 0.8390 | 5.671 | -0.490 | 14 | 3 | clay |
| 4.593 | 13.60 | 0.8397 | 6.175 | -0.364 | 13 | 3 | clay |
| 4.757 | 13.94 | 0.8443 | 6.057 | -0.279 | 13 | 3 | clay |
| 4.921 | 13.89 | 0.7816 | 5.627 | -0.266 | 13 | 3 | clay |
| 5.085 | 13.44 | 0.7200 | 5.358 | -0.177 | 13 | 3 | clay |
| 5.249 | 12.09 | 0.7600 | 6.284 | 0.026 | 12 | 3 | clay |
| 5.413 | 11.67 | 0.7678 | 6.580 | 0.031 | 11 | 3 | clay |
| 5.577 | 11.48 | 0.7733 | 6.735 | 0.013 | 11 | 3 | clay |
| 5.741 | 11.58 | 0.7373 | 6.368 | 0.004 | 11 | 3 | clay |
| 5.906 | 11.63 | 0.7134 | 6.134 | 0.009 | 11 | 3 | clay |
| 6.070 | 11.13 | 0.4717 | 4.239 | 0.076 | 11 | 3 | clay |
| 6.234 | 11.81 | 0.5677 | 4.805 | 0.194 | 11 | 3 | clay |
| 6.398 | 12.43 | 0.5515 | 4.438 | 0.872 | 12 | 3 | clay |
| 6.562 | 12.51 | 0.5750 | 4.597 | 0.961 | 12 | 3 | clay |
| 6.726 | 13.45 | 0.6198 | 4.610 | 0.966 | 13 | 3 | clay |
| 6.890 | 12.65 | 0.5976 | 4.723 | 1.005 | 12 | 3 | clay |
| 7.054 | 12.23 | 0.6088 | 4.979 | 0.970 | 12 | 3 | clay |
| 7.218 | 13.49 | 0.6537 | 4.845 | 1.059 | 13 | 3 | clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 7.382 | 12.65 | 0.6405 | 5.064 | 1.112 | 12 | 3 | clay |
| 7.546 | 12.14 | 0.5453 | 4.491 | 1.127 | 12 | 3 | clay |
| 7.710 | 10.98 | 0.4526 | 4.121 | 1.315 | 11 | 3 | clay |
| 7.874 | 11.38 | 0.4218 | 3.705 | 1.450 | 11 | 3 | clay |
| 8.038 | 10.72 | 0.4003 | 3.734 | 1.567 | 10 | 3 | clay |
| 8.202 | 10.45 | 0.3294 | 3.152 | 1.711 | 7 | 4 | silty clay to clay |
| 8.366 | 10.08 | 0.2459 | 2.439 | 1.857 | 6 | 4 | silty clay to clay |
| 8.530 | 8.55 | 0.2233 | 2.611 | 2.030 | 5 | 4 | silty clay to clay |
| 8.694 | 7.56 | 0.1073 | 1.420 | 2.160 | 4 | 5 | clayey silt to silty clay |
| 8.858 | 6.85 | 0.1051 | 1.535 | 2.285 | 4 | 4 | silty clay to clay |
| 9.022 | 7.22 | 0.0896 | 1.240 | 2.649 | 3 | 1 | sensitive fine grained |
| 9.186 | 7.42 | 0.0676 | 0.911 | 2.729 | 4 | 1 | sensitive fine grained |
| 9.350 | 6.69 | 0.0609 | 0.910 | 2.821 | 3 | 1 | sensitive fine grained |
| 9.514 | 6.65 | 0.0511 | 0.768 | 2.965 | 3 | 1 | sensitive fine grained |
| 9.678 | 6.27 | 0.0535 | 0.853 | 3.128 | 3 | 1 | sensitive fine grained |
| 9.843 | 6.11 | 0.0316 | 0.518 | 3.283 | 3 | 1 | sensitive fine grained |
| 10.007 | 5.27 | 0.0292 | 0.554 | 3.453 | 3 | 1 | sensitive fine grained |
| 10.171 | 4.89 | 0.0226 | 0.461 | 3.815 | 2 | 1 | sensitive fine grained |
| 10.335 | 5.39 | 0.0177 | 0.328 | 3.968 | 3 | 1 | sensitive fine grained |
| 10.499 | 4.72 | 0.0119 | 0.252 | 4.127 | 2 | 1 | sensitive fine grained |
| 10.663 | 5.47 | 0.0228 | 0.418 | 4.271 | 3 | 1 | sensitive fine grained |
| 10.827 | 5.59 | 0.0197 | 0.352 | 4.497 | 3 | 1 | sensitive fine grained |
| 10.991 | 5.31 | 0.0092 | 0.173 | 4.735 | 3 | 1 | sensitive fine grained |
| 11.155 | 5.32 | 0.0133 | 0.250 | 4.996 | 3 | 1 | sensitive fine grained |
| 11.319 | 7.09 | 0.0100 | 0.141 | 5.201 | 3 | 1 | sensitive fine grained |
| 11.483 | 5.64 | 0.0098 | 0.173 | 5.485 | 3 | 1 | sensitive fine grained |
| 11.647 | 7.06 | 0.0457 | 0.647 | 5.803 | 3 | 1 | sensitive fine grained |
| 11.811 | 7.60 | 0.1174 | 1.544 | 5.969 | 4 | 5 | clayey silt to silty clay |
| 11.975 | 8.83 | 0.1882 | 2.131 | 6.108 | 6 | 4 | silty clay to clay |
| 12.139 | 8.55 | 0.1358 | 1.589 | 6.110 | 4 | 5 | clayey silt to silty clay |
| 12.303 | 8.81 | 0.0920 | 1.044 | 6.224 | 4 | 5 | clayey silt to silty clay |
| 12.467 | 10.07 | 0.0410 | 0.407 | 6.747 | 4 | 6 | sandy silt to clayey silt |
| 12.631 | 7.52 | 0.0194 | 0.259 | 6.926 | 4 | 1 | sensitive fine grained |
| 12.795 | 6.88 | 0.0670 | 0.975 | 7.414 | 3 | 1 | sensitive fine grained |
| 12.959 | 7.96 | 0.0362 | 0.455 | 7.979 | 4 | 1 | sensitive fine grained |
| 13.123 | 13.09 | 0.0225 | 0.172 | 7.839 | 5 | 6 | sandy silt to clayey silt |
| 13.287 | 7.53 | 0.0131 | 0.174 | 8.035 | 4 | 1 | sensitive fine grained |
| 13.451 | 7.47 | 0.0121 | 0.162 | 8.831 | 4 | 1 | sensitive fine grained |
| 13.615 | 7.37 | 0.0366 | 0.497 | 9.404 | 4 | 1 | sensitive fine grained |
| 13.780 | 7.14 | 0.0229 | 0.321 | 10.061 | 3 | 1 | sensitive fine grained |
| 13.944 | 8.10 | 0.0301 | 0.371 | 10.455 | 4 | 1 | sensitive fine grained |
| 14.108 | 7.80 | 0.0238 | 0.305 | 11.181 | 4 | 1 | sensitive fine grained |
| 14.272 | 8.03 | 0.0281 | 0.350 | 11.848 | 4 | 1 | sensitive fine grained |
| 14.436 | 7.47 | 0.0363 | 0.486 | 12.393 | 4 | 1 | sensitive fine grained |
| 14.600 | 6.93 | 0.0416 | 0.600 | 12.973 | 3 | 1 | sensitive fine grained |
| 14.764 | 7.75 | 0.0496 | 0.641 | 13.372 | 4 | 1 | sensitive fine grained |
| 14.928 | 7.69 | 0.0614 | 0.799 | 13.666 | 4 | 1 | sensitive fine grained |
| 15.092 | 9.07 | 0.0269 | 0.296 | 14.032 | 4 | 1 | sensitive fine grained |
| 15.256 | 9.83 | 0.0216 | 0.219 | 14.244 | 5 | 1 | sensitive fine grained |
| 15.420 | 8.74 | 0.0288 | 0.329 | 14.907 | 4 | 1 | sensitive fine grained |
| 15.584 | 7.86 | 0.0351 | 0.447 | 15.615 | 4 | 1 | sensitive fine grained |
| 15.748 | 9.60 | 0.0239 | 0.249 | 18.347 | 5 | 1 | sensitive fine grained |
| 15.912 | 8.92 | 0.0160 | 0.179 | 18.715 | 4 | 1 | sensitive fine grained |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 16.076 | 8.27 | 0.0158 | 0.191 | 19.539 | 4 | 1 | sensitive fine grained |
| 16.240 | 8.55 | 0.0065 | 0.076 | 20.751 | 4 | 1 | sensitive fine grained |
| 16.404 | 9.38 | 0.0170 | 0.181 | 22.018 | 4 | 1 | sensitive fine grained |
| 16.568 | 9.16 | 0.0891 | 0.973 | 23.278 | 4 | 5 | clayey silt to silty clay |
| 16.732 | 8.95 | 0.0577 | 0.645 | 24.422 | 4 | 5 | clayey silt to silty clay |
| 16.896 | 10.97 | 0.1009 | 0.920 | 11.761 | 4 | 6 | sandy silt to clayey silt |
| 17.060 | 11.54 | 0.0436 | 0.378 | 13.274 | 4 | 6 | sandy silt to clayey silt |
| 17.224 | 16.09 | 0.0900 | 0.559 | 13.461 | 6 | 6 | sandy silt to clayey silt |
| 17.388 | 12.24 | 0.1520 | 1.242 | 14.198 | 6 | 5 | clayey silt to silty clay |
| 17.552 | 13.31 | 0.2392 | 1.796 | 15.694 | 6 | 5 | clayey silt to silty clay |
| 17.717 | 18.48 | 0.2057 | 1.113 | 16.816 | 7 | 6 | sandy silt to clayey silt |
| 17.881 | 26.58 | 0.0914 | 0.344 | 15.384 | 8 | 7 | silty sand to sandy silt |
| 18.045 | 26.35 | 0.1925 | 0.730 | 11.839 | 8 | 7 | silty sand to sandy silt |
| 18.209 | 17.94 | 0.1764 | 0.983 | 12.360 | 7 | 6 | sandy silt to clayey silt |
| 18.373 | 18.89 | 0.1930 | 1.021 | 13.030 | 7 | 6 | sandy silt to clayey silt |
| 18.537 | 17.08 | 0.1986 | 1.162 | 13.463 | 7 | 6 | sandy silt to clayey silt |
| 18.701 | 13.87 | 0.1941 | 1.399 | 14.144 | 7 | 5 | clayey silt to silty clay |
| 18.865 | 17.07 | 0.1107 | 0.649 | 15.022 | 7 | 6 | sandy silt to clayey silt |
| 19.029 | 19.11 | 0.1547 | 0.810 | 14.246 | 7 | 6 | sandy silt to clayey silt |
| 19.193 | 18.11 | 0.2050 | 1.132 | 14.146 | 7 | 6 | sandy silt to clayey silt |
| 19.357 | 19.79 | 0.1225 | 0.619 | 14.822 | 8 | 6 | sandy silt to clayey silt |
| 19.521 | 32.86 | 0.1156 | 0.352 | 8.966 | 10 | 7 | silty sand to sandy silt |
| 19.685 | 31.05 | 0.1377 | 0.444 | 5.707 | 10 | 7 | silty sand to sandy silt |
| 19.849 | 29.35 | 0.1305 | 0.445 | 5.820 | 9 | 7 | silty sand to sandy silt |
| 20.013 | 30.97 | 0.1758 | 0.568 | 5.818 | 10 | 7 | silty sand to sandy silt |
| 20.177 | 27.09 | 0.3159 | 1.166 | 5.999 | 10 | 6 | sandy silt to clayey silt |
| 20.341 | 18.29 | 0.1327 | 0.725 | 6.254 | 7 | 6 | sandy silt to clayey silt |
| 20.505 | 21.37 | 0.2290 | 1.071 | 6.812 | 8 | 6 | sandy silt to clayey silt |
| 20.669 | 15.80 | 0.2111 | 1.337 | 6.289 | 6 | 6 | sandy silt to clayey silt |
| 20.833 | 15.42 | 0.1620 | 1.050 | 7.628 | 6 | 6 | sandy silt to clayey silt |
| 20.997 | 18.03 | 0.2217 | 1.230 | 7.464 | 7 | 6 | sandy silt to clayey silt |
| 21.161 | 13.95 | 0.1714 | 1.229 | 8.271 | 5 | 6 | sandy silt to clayey silt |
| 21.325 | 24.24 | 0.1322 | 0.545 | 7.545 | 8 | 7 | silty sand to sandy silt |
| 21.490 | 28.51 | 0.1067 | 0.374 | 5.127 | 9 | 7 | silty sand to sandy silt |
| 21.654 | 26.54 | 0.1365 | 0.514 | 5.262 | 8 | 7 | silty sand to sandy silt |
| 21.818 | 23.39 | 0.1796 | 0.768 | 5.507 | 9 | 6 | sandy silt to clayey silt |
| 21.982 | 19.04 | 0.2078 | 1.091 | 5.851 | 7 | 6 | sandy silt to clayey silt |
| 22.146 | 14.10 | 0.2745 | 1.946 | 6.230 | 7 | 5 | clayey silt to silty clay |
| 22.310 | 13.45 | 0.1793 | 1.334 | 9.324 | 6 | 5 | clayey silt to silty clay |
| 22.474 | 19.11 | 0.1802 | 0.943 | 10.477 | 7 | 6 | sandy silt to clayey silt |
| 22.638 | 20.37 | 0.1283 | 0.630 | 8.088 | 8 | 6 | sandy silt to clayey silt |
| 22.802 | 19.76 | 0.1391 | 0.704 | 8.439 | 8 | 6 | sandy silt to clayey silt |
| 22.966 | 12.83 | 0.1251 | 0.975 | 9.622 | 5 | 6 | sandy silt to clayey silt |
| 23.130 | 10.11 | 0.1034 | 1.023 | 11.733 | 5 | 5 | clayey silt to silty clay |
| 23.294 | 10.51 | 0.0453 | 0.430 | 12.663 | 4 | 6 | sandy silt to clayey silt |
| 23.458 | 11.06 | 0.0480 | 0.434 | 13.640 | 4 | 6 | sandy silt to clayey silt |
| 23.622 | 8.98 | 0.0854 | 0.952 | 14.856 | 4 | 5 | clayey silt to silty clay |
| 23.786 | 20.33 | 0.1158 | 0.569 | 17.039 | 8 | 6 | sandy silt to clayey silt |
| 23.950 | 26.19 | 0.1663 | 0.635 | 12.923 | 8 | 7 | silty sand to sandy silt |
| 24.114 | 25.91 | 0.1645 | 0.635 | 11.837 | 8 | 7 | silty sand to sandy silt |
| 24.278 | 24.84 | 0.1540 | 0.620 | 10.577 | 8 | 7 | silty sand to sandy silt |
| 24.442 | 19.14 | 0.2102 | 1.098 | 10.047 | 7 | 6 | sandy silt to clayey silt |
| 24.606 | 17.90 | 0.3309 | 1.849 | 10.167 | 9 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 24.770 | 16.42 | 0.2115 | 1.288 | 11.427 | 6 | 6 | sandy silt to clayey silt |
| 24.934 | 23.82 | 0.2099 | 0.881 | 11.212 | 9 | 6 | sandy silt to clayey silt |
| 25.098 | 20.60 | 0.2189 | 1.063 | 9.073 | 8 | 6 | sandy silt to clayey silt |
| 25.262 | 15.63 | 0.2720 | 1.741 | 9.788 | 7 | 5 | clayey silt to silty clay |
| 25.427 | 11.03 | 0.1741 | 1.579 | 11.691 | 5 | 5 | clayey silt to silty clay |
| 25.591 | 40.03 | 0.2809 | 0.702 | 9.230 | 13 | 7 | silty sand to sandy silt |
| 25.755 | 28.31 | 0.3256 | 1.150 | 7.301 | 11 | 6 | sandy silt to clayey silt |
| 25.919 | 42.36 | 0.2856 | 0.674 | 7.678 | 14 | 7 | silty sand to sandy silt |
| 26.083 | 60.54 | 0.3386 | 0.559 | 5.709 | 14 | 8 | sand to silty sand |
| 26.247 | 47.19 | 0.3735 | 0.791 | 5.034 | 15 | 7 | silty sand to sandy silt |
| 26.411 | 30.35 | 0.3093 | 1.019 | 5.690 | 10 | 7 | silty sand to sandy silt |
| 26.575 | 28.78 | 0.3030 | 1.053 | 6.154 | 9 | 7 | silty sand to sandy silt |
| 26.739 | 25.39 | 0.2853 | 1.123 | 6.529 | 10 | 6 | sandy silt to clayey silt |
| 26.903 | 26.10 | 0.2805 | 1.075 | 7.211 | 10 | 6 | sandy silt to clayey silt |
| 27.067 | 25.30 | 0.2063 | 0.815 | 7.471 | 8 | 7 | silty sand to sandy silt |
| 27.231 | 26.21 | 0.3162 | 1.207 | 7.172 | 10 | 6 | sandy silt to clayey silt |
| 27.395 | 18.27 | 0.2186 | 1.197 | 7.717 | 7 | 6 | sandy silt to clayey silt |
| 27.559 | 18.49 | 0.2520 | 1.363 | 9.533 | 7 | 6 | sandy silt to clayey silt |
| 27.723 | 27.62 | 0.2299 | 0.832 | 9.897 | 9 | 7 | silty sand to sandy silt |
| 27.887 | 28.05 | 0.2299 | 0.819 | 10.329 | 9 | 7 | silty sand to sandy silt |
| 28.051 | 25.91 | 0.2784 | 1.075 | 11.094 | 10 | 6 | sandy silt to clayey silt |
| 28.215 | 26.64 | 0.2897 | 1.088 | 11.185 | 10 | 6 | sandy silt to clayey silt |
| 28.379 | 39.24 | 0.2161 | 0.551 | 10.342 | 13 | 7 | silty sand to sandy silt |
| 28.543 | 41.13 | 0.1884 | 0.458 | 5.827 | 13 | 7 | silty sand to sandy silt |
| 28.707 | 39.81 | 0.3205 | 0.805 | 6.152 | 13 | 7 | silty sand to sandy silt |
| 28.871 | 38.85 | 0.3387 | 0.872 | 7.421 | 12 | 7 | silty sand to sandy silt |
| 29.035 | 70.19 | 0.3008 | 0.429 | 4.844 | 17 | 8 | sand to silty sand |
| 29.199 | 69.74 | 0.3170 | 0.455 | 3.946 | 17 | 8 | sand to silty sand |
| 29.364 | 67.65 | 0.4180 | 0.618 | 4.055 | 16 | 8 | sand to silty sand |
| 29.528 | 65.07 | 0.4249 | 0.653 | 4.393 | 16 | 8 | sand to silty sand |
| 29.692 | 56.21 | 0.4944 | 0.880 | 5.042 | 18 | 7 | silty sand to sandy silt |
| 29.856 | 41.03 | 0.5591 | 1.363 | 5.557 | 13 | 7 | silty sand to sandy silt |
| 30.020 | 26.74 | 0.4759 | 1.780 | 6.139 | 10 | 6 | sandy silt to clayey silt |
| 30.184 | 22.72 | 0.4495 | 1.979 | 7.046 | 9 | 6 | sandy silt to clayey silt |
| 30.348 | 20.33 | 0.3097 | 1.524 | 8.443 | 8 | 6 | sandy silt to clayey silt |
| 30.512 | 37.30 | 0.2682 | 0.719 | 9.601 | 12 | 7 | silty sand to sandy silt |
| 30.676 | 42.68 | 0.4307 | 1.009 | 5.404 | 14 | 7 | silty sand to sandy silt |
| 30.840 | 27.77 | 0.4140 | 1.491 | 5.973 | 11 | 6 | sandy silt to clayey silt |
| 31.004 | 26.55 | 0.2723 | 1.026 | 7.373 | 10 | 6 | sandy silt to clayey silt |
| 31.168 | 33.95 | 0.3882 | 1.143 | 7.534 | 11 | 7 | silty sand to sandy silt |
| 31.332 | 25.86 | 0.3514 | 1.359 | 8.269 | 10 | 6 | sandy silt to clayey silt |
| 31.496 | 30.89 | 0.2583 | 0.836 | 8.816 | 10 | 7 | silty sand to sandy silt |
| 31.660 | 24.40 | 0.3169 | 1.299 | 7.547 | 9 | 6 | sandy silt to clayey silt |
| 31.824 | 23.36 | 0.2411 | 1.032 | 8.334 | 9 | 6 | sandy silt to clayey silt |
| 31.988 | 26.86 | 0.1974 | 0.735 | 8.650 | 9 | 7 | silty sand to sandy silt |
| 32.152 | 25.60 | 0.3237 | 1.264 | 9.376 | 10 | 6 | sandy silt to clayey silt |
| 32.316 | 23.09 | 0.3529 | 1.529 | 10.172 | 9 | 6 | sandy silt to clayey silt |
| 32.480 | 38.73 | 0.3022 | 0.780 | 10.994 | 12 | 7 | silty sand to sandy silt |
| 32.644 | 42.10 | 0.3636 | 0.864 | 10.856 | 13 | 7 | silty sand to sandy silt |
| 32.808 | 53.65 | 0.4529 | 0.844 | 4.602 | 17 | 7 | silty sand to sandy silt |
| 32.972 | 36.37 | 0.4962 | 1.364 | 5.406 | 12 | 7 | silty sand to sandy silt |
| 33.136 | 21.69 | 0.2703 | 1.246 | 6.481 | 8 | 6 | sandy silt to clayey silt |
| 33.301 | 13.65 | 0.1687 | 1.235 | 9.143 | 5 | 6 | sandy silt to clayey silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 33.465 | 13.01 | 0.1486 | 1.142 | 19.151 | 5 | 6 | sandy silt to clayey silt |
| 33.629 | 12.12 | 0.1445 | 1.192 | 30.533 | 6 | 5 | clayey silt to silty clay |
| 33.793 | 11.71 | 0.1398 | 1.194 | 35.008 | 6 | 5 | clayey silt to silty clay |
| 33.957 | 11.53 | 0.1717 | 1.490 | 39.220 | 6 | 5 | clayey silt to silty clay |
| 34.121 | 11.35 | 0.1752 | 1.544 | 42.653 | 5 | 5 | clayey silt to silty clay |
| 34.285 | 11.23 | 0.1684 | 1.499 | 45.415 | 5 | 5 | clayey silt to silty clay |
| 34.449 | 10.75 | 0.1598 | 1.487 | 47.392 | 5 | 5 | clayey silt to silty clay |
| 34.613 | 11.01 | 0.1554 | 1.411 | 48.757 | 5 | 5 | clayey silt to silty clay |
| 34.777 | 11.43 | 0.1635 | 1.431 | 49.851 | 5 | 5 | clayey silt to silty clay |
| 34.941 | 11.70 | 0.1643 | 1.405 | 50.571 | 6 | 5 | clayey silt to silty clay |
| 35.105 | 11.85 | 0.0758 | 0.640 | 51.456 | 5 | 6 | sandy silt to clayey silt |
| 35.269 | 12.14 | 0.0752 | 0.619 | 51.260 | 5 | 6 | sandy silt to clayey silt |
| 35.433 | 8.19 | 0.0713 | 0.871 | 58.741 | 4 | 5 | clayey silt to silty clay |
| 35.597 | 8.74 | 0.0741 | 0.848 | 59.400 | 4 | 5 | clayey silt to silty clay |
| 35.761 | 9.64 | 0.0743 | 0.771 | 58.865 | 5 | 5 | clayey silt to silty clay |
| 35.925 | 9.48 | 0.0752 | 0.793 | 57.298 | 5 | 5 | clayey silt to silty clay |
| 36.089 | 9.03 | 0.0904 | 1.002 | 57.433 | 4 | 5 | clayey silt to silty clay |
| 36.253 | 9.87 | 0.0974 | 0.987 | 57.200 | 5 | 5 | clayey silt to silty clay |
| 36.417 | 8.90 | 0.1086 | 1.221 | 59.836 | 4 | 5 | clayey silt to silty clay |
| 36.581 | 9.42 | 0.1022 | 1.084 | 60.762 | 5 | 5 | clayey silt to silty clay |
| 36.745 | 9.24 | 0.0957 | 1.036 | 62.497 | 4 | 5 | clayey silt to silty clay |
| 36.909 | 8.70 | 0.0914 | 1.050 | 61.852 | 4 | 5 | clayey silt to silty clay |
| 37.073 | 7.78 | 0.0835 | 1.074 | 60.716 | 4 | 5 | clayey silt to silty clay |
| 37.238 | 7.80 | 0.0733 | 0.940 | 61.593 | 4 | 1 | sensitive fine grained |
| 37.402 | 8.05 | 0.0730 | 0.907 | 61.769 | 4 | 1 | sensitive fine grained |
| 37.566 | 7.40 | 0.0764 | 1.033 | 60.121 | 4 | 1 | sensitive fine grained |
| 37.730 | 8.06 | 0.0892 | 1.107 | 63.060 | 4 | 5 | clayey silt to silty clay |
| 37.894 | 8.83 | 0.1162 | 1.316 | 59.175 | 4 | 5 | clayey silt to silty clay |
| 38.058 | 9.82 | 0.1203 | 1.225 | 61.669 | 5 | 5 | clayey silt to silty clay |
| 38.222 | 9.47 | 0.1334 | 1.409 | 62.765 | 5 | 5 | clayey silt to silty clay |
| 38.386 | 9.06 | 0.1481 | 1.635 | 60.494 | 4 | 5 | clayey silt to silty clay |
| 38.550 | 8.85 | 0.1544 | 1.745 | 56.989 | 4 | 5 | clayey silt to silty clay |
| 38.714 | 9.19 | 0.0965 | 1.049 | 55.449 | 4 | 5 | clayey silt to silty clay |
| 38.878 | 10.08 | 0.0807 | 0.801 | 54.449 | 4 | 6 | sandy silt to clayey silt |
| 39.042 | 9.13 | 0.0687 | 0.752 | 58.379 | 4 | 5 | clayey silt to silty clay |
| 39.206 | 14.81 | 0.0660 | 0.446 | 63.542 | 6 | 6 | sandy silt to clayey silt |
| 39.370 | 17.76 | 0.0902 | 0.508 | 29.412 | 7 | 6 | sandy silt to clayey silt |
| 39.534 | 11.78 | 0.0833 | 0.707 | 35.893 | 5 | 6 | sandy silt to clayey silt |
| 39.698 | 10.34 | 0.0523 | 0.505 | 42.788 | 4 | 6 | sandy silt to clayey silt |
| 39.862 | 10.92 | 0.0210 | 0.192 | 43.464 | 4 | 6 | sandy silt to clayey silt |
| 40.026 | 8.41 | 0.0117 | 0.140 | 47.209 | 4 | 1 | sensitive fine grained |
| 40.190 | 8.32 | 0.0193 | 0.232 | 53.047 | 4 | 1 | sensitive fine grained |
| 40.354 | 8.04 | 0.0387 | 0.481 | 53.389 | 4 | 1 | sensitive fine grained |
| 40.518 | 10.33 | 0.0577 | 0.559 | 47.327 | 4 | 6 | sandy silt to clayey silt |
| 40.682 | 10.31 | 0.0892 | 0.865 | 42.991 | 5 | 5 | clayey silt to silty clay |
| 40.846 | 16.39 | 0.0897 | 0.547 | 41.572 | 6 | 6 | sandy silt to clayey silt |
| 41.011 | 19.36 | 0.1510 | 0.780 | 30.434 | 7 | 6 | sandy silt to clayey silt |
| 41.175 | 14.96 | 0.1054 | 0.705 | 30.685 | 6 | 6 | sandy silt to clayey silt |
| 41.339 | 15.68 | 0.1157 | 0.738 | 30.203 | 6 | 6 | sandy silt to clayey silt |
| 41.503 | 13.79 | 0.1142 | 0.828 | 28.483 | 5 | 6 | sandy silt to clayey silt |
| 41.667 | 13.73 | 0.1046 | 0.762 | 28.285 | 5 | 6 | sandy silt to clayey silt |
| 41.831 | 13.74 | 0.0629 | 0.458 | 28.117 | 5 | 6 | sandy silt to clayey silt |
| 41.995 | 12.37 | 0.0513 | 0.415 | 22.395 | 5 | 6 | sandy silt to clayey silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 42.159 | 9.03 | 0.0320 | 0.354 | 26.295 | 4 | 1 | sensitive fine grained |
| 42.323 | 9.39 | 0.0389 | 0.414 | 31.823 | 4 | 6 | sandy silt to clayey silt |
| 42.487 | 9.49 | 0.0439 | 0.463 | 37.181 | 4 | 6 | sandy silt to clayey silt |
| 42.651 | 9.18 | 0.0372 | 0.405 | 38.043 | 4 | 1 | sensitive fine grained |
| 42.815 | 8.64 | 0.0532 | 0.616 | 43.109 | 4 | 1 | sensitive fine grained |
| 42.979 | 9.71 | 0.0308 | 0.318 | 48.692 | 4 | 6 | sandy silt to clayey silt |
| 43.143 | 8.10 | 0.0465 | 0.573 | 54.963 | 4 | 1 | sensitive fine grained |
| 43.307 | 9.73 | 0.0512 | 0.526 | 60.069 | 4 | 6 | sandy silt to clayey silt |
| 43.471 | 10.07 | 0.0665 | 0.661 | 63.361 | 4 | 6 | sandy silt to clayey silt |
| 43.635 | 10.03 | 0.0755 | 0.753 | 62.478 | 4 | 6 | sandy silt to clayey silt |
| 43.799 | 10.10 | 0.0712 | 0.705 | 63.044 | 4 | 6 | sandy silt to clayey silt |
| 43.963 | 9.50 | 0.0569 | 0.598 | 63.611 | 4 | 6 | sandy silt to clayey silt |
| 44.127 | 9.51 | 0.0842 | 0.886 | 61.954 | 5 | 5 | clayey silt to silty clay |
| 44.291 | 13.03 | 0.0942 | 0.723 | 60.662 | 5 | 6 | sandy silt to clayey silt |
| 44.455 | 18.18 | 0.0906 | 0.498 | 33.264 | 7 | 6 | sandy silt to clayey silt |
| 44.619 | 10.32 | 0.0861 | 0.835 | 40.696 | 4 | 6 | sandy silt to clayey silt |
| 44.783 | 8.96 | 0.0709 | 0.792 | 51.534 | 4 | 5 | clayey silt to silty clay |
| 44.948 | 9.27 | 0.0660 | 0.713 | 53.971 | 4 | 5 | clayey silt to silty clay |
| 45.112 | 11.02 | 0.0573 | 0.520 | 50.137 | 4 | 6 | sandy silt to clayey silt |
| 45.276 | 10.43 | 0.0411 | 0.394 | 52.358 | 4 | 6 | sandy silt to clayey silt |
| 45.440 | 10.39 | 0.1149 | 1.106 | 56.032 | 5 | 5 | clayey silt to silty clay |
| 45.604 | 15.33 | 0.2064 | 1.347 | 66.245 | 6 | 6 | sandy silt to clayey silt |
| 45.768 | 70.34 | 0.3596 | 0.511 | 18.118 | 17 | 8 | sand to silty sand |
| 45.932 | 77.46 | 0.7152 | 0.923 | 17.132 | 19 | 8 | sand to silty sand |
| 46.096 | 62.98 | 0.8011 | 1.272 | 17.494 | 20 | 7 | silty sand to sandy silt |
| 46.260 | 40.29 | 0.5664 | 1.406 | 17.948 | 13 | 7 | silty sand to sandy silt |
| 46.424 | 104.91 | 0.6902 | 0.658 | 15.735 | 25 | 8 | sand to silty sand |
| 46.588 | 132.46 | 0.8511 | 0.643 | 11.811 | 25 | 9 | sand |
| 46.752 | 141.44 | 0.9026 | 0.638 | 13.352 | 27 | 9 | sand |
| 46.916 | 145.82 | 0.9552 | 0.655 | 14.303 | 28 | 9 | sand |
| 47.080 | 143.52 | 0.8788 | 0.612 | 16.433 | 27 | 9 | sand |
| 47.244 | 121.67 | 0.8073 | 0.664 | 16.561 | 23 | 9 | sand |
| 47.408 | 113.81 | 0.7660 | 0.673 | 16.696 | 27 | 8 | sand to silty sand |
| 47.572 | 112.58 | 0.7275 | 0.646 | 17.021 | 27 | 8 | sand to silty sand |
| 47.736 | 114.81 | 0.7141 | 0.622 | 17.132 | 27 | 8 | sand to silty sand |
| 47.900 | 116.17 | 0.7220 | 0.621 | 17.196 | 22 | 9 | sand |
| 48.064 | 115.98 | 0.7135 | 0.615 | 17.315 | 22 | 9 | sand |
| 48.228 | 116.97 | 0.5193 | 0.444 | 17.507 | 22 | 9 | sand |
| 48.392 | 116.77 | 0.5035 | 0.431 | 17.590 | 22 | 9 | sand |
| 48.556 | 110.21 | 0.5002 | 0.454 | 16.616 | 21 | 9 | sand |
| 48.720 | 110.74 | 0.5166 | 0.467 | 17.124 | 21 | 9 | sand |
| 48.885 | 101.14 | 0.4727 | 0.467 | 17.128 | 24 | 8 | sand to silty sand |
| 49.049 | 107.37 | 0.4986 | 0.464 | 17.339 | 21 | 9 | sand |
| 49.213 | 124.75 | 0.5565 | 0.446 | 17.682 | 24 | 9 | sand |
| 49.377 | 124.42 | 0.5972 | 0.480 | 17.690 | 24 | 9 | sand |
| 49.541 | 117.96 | 0.6419 | 0.544 | 17.874 | 23 | 9 | sand |
| 49.705 | 112.36 | 0.6467 | 0.576 | 17.758 | 22 | 9 | sand |
| 49.869 | 102.80 | 0.5821 | 0.566 | 17.730 | 25 | 8 | sand to silty sand |
| 50.033 | 112.01 | 0.5651 | 0.504 | 17.701 | 21 | 9 | sand |
| 50.197 | 113.51 | 0.5494 | 0.484 | 17.880 | 22 | 9 | sand |
| 50.361 | 103.85 | 0.5524 | 0.532 | 17.865 | 25 | 8 | sand to silty sand |
| 50.525 | 89.29 | 0.5223 | 0.585 | 17.850 | 21 | 8 | sand to silty sand |
| 50.689 | 80.76 | 0.4845 | 0.600 | 17.780 | 19 | 8 | sand to silty sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 50.853 | 75.70 | 0.4454 | 0.588 | 17.749 | 18 | 8 | sand to silty sand | |
| 51.017 | 75.88 | 0.4331 | 0.571 | 17.847 | 18 | 8 | sand to silty sand | |
| 51.181 | 81.15 | 0.4364 | 0.538 | 18.024 | 19 | 8 | sand to silty sand | |
| 51.345 | 83.47 | 0.4303 | 0.515 | 18.224 | 20 | 8 | sand to silty sand | |
| 51.509 | 81.93 | 0.2920 | 0.356 | 18.307 | 20 | 8 | sand to silty sand | |
| 51.673 | 79.18 | 0.3119 | 0.394 | 18.307 | 19 | 8 | sand to silty sand | |
| 51.837 | 77.39 | 0.3425 | 0.443 | 17.974 | 19 | 8 | sand to silty sand | |
| 52.001 | 82.30 | 0.3824 | 0.465 | 18.142 | 20 | 8 | sand to silty sand | |
| 52.165 | 100.15 | 0.4969 | 0.496 | 18.379 | 24 | 8 | sand to silty sand | |
| 52.329 | 112.21 | 0.6254 | 0.557 | 18.458 | 21 | 9 | sand | |
| 52.493 | 134.61 | 0.8529 | 0.634 | 18.514 | 26 | 9 | sand | |
| 52.657 | 178.82 | 1.1813 | 0.661 | 19.175 | 34 | 9 | sand | |
| 52.822 | 191.79 | 1.4106 | 0.735 | 18.676 | 37 | 9 | sand | |
| 52.986 | 183.44 | 1.4471 | 0.789 | 18.299 | 35 | 9 | sand | |
| 53.150 | 166.34 | 1.4274 | 0.858 | 18.030 | 32 | 9 | sand | |
| 53.314 | 152.19 | 1.3095 | 0.860 | 18.076 | 29 | 9 | sand | |
| 53.478 | 148.67 | 1.2237 | 0.823 | 18.061 | 28 | 9 | sand | |
| 53.642 | 142.67 | 1.2157 | 0.852 | 18.078 | 27 | 9 | sand | |
| 53.806 | 130.63 | 1.1235 | 0.860 | 18.255 | 31 | 8 | sand to silty sand | |
| 53.970 | 128.06 | 0.9988 | 0.780 | 18.222 | 31 | 8 | sand to silty sand | |
| 54.134 | 107.82 | 0.9260 | 0.859 | 18.288 | 26 | 8 | sand to silty sand | |
| 54.298 | 98.43 | 0.8682 | 0.882 | 18.294 | 24 | 8 | sand to silty sand | |
| 54.462 | 90.68 | 0.8505 | 0.938 | 18.357 | 22 | 8 | sand to silty sand | |
| 54.626 | 86.49 | 0.8326 | 0.963 | 18.425 | 21 | 8 | sand to silty sand | |
| 54.790 | 86.60 | 0.5060 | 0.584 | 18.732 | 21 | 8 | sand to silty sand | |
| 54.954 | 87.49 | 0.5048 | 0.577 | 18.726 | 21 | 8 | sand to silty sand | |
| 55.118 | 85.54 | 0.5160 | 0.603 | 18.026 | 20 | 8 | sand to silty sand | |
| 55.282 | 91.10 | 0.5905 | 0.648 | 18.615 | 22 | 8 | sand to silty sand | |
| 55.446 | 95.37 | 0.5873 | 0.616 | 18.820 | 23 | 8 | sand to silty sand | |
| 55.610 | 109.08 | 0.6486 | 0.595 | 18.924 | 26 | 8 | sand to silty sand | |
| 55.774 | 106.34 | 0.6670 | 0.627 | 19.016 | 25 | 8 | sand to silty sand | |
| 55.938 | 100.50 | 0.6456 | 0.642 | 19.062 | 24 | 8 | sand to silty sand | |
| 56.102 | 98.78 | 0.6378 | 0.646 | 19.070 | 24 | 8 | sand to silty sand | |
| 56.266 | 92.11 | 0.6302 | 0.684 | 19.149 | 22 | 8 | sand to silty sand | |
| 56.430 | 89.85 | 0.6306 | 0.702 | 19.297 | 22 | 8 | sand to silty sand | |
| 56.594 | 85.31 | 0.6253 | 0.733 | 19.253 | 20 | 8 | sand to silty sand | |
| 56.759 | 82.59 | 0.6208 | 0.752 | 19.415 | 20 | 8 | sand to silty sand | |
| 56.923 | 82.52 | 0.6196 | 0.751 | 19.456 | 20 | 8 | sand to silty sand | |
| 57.087 | 81.76 | 0.6178 | 0.756 | 19.550 | 20 | 8 | sand to silty sand | |
| 57.251 | 80.79 | 0.6170 | 0.764 | 19.546 | 19 | 8 | sand to silty sand | |
| 57.415 | 81.07 | 0.6056 | 0.747 | 19.637 | 19 | 8 | sand to silty sand | |
| 57.579 | 80.19 | 0.5995 | 0.748 | 19.702 | 19 | 8 | sand to silty sand | |
| 57.743 | 77.62 | 0.5999 | 0.773 | 19.785 | 19 | 8 | sand to silty sand | |
| 57.907 | 75.90 | 0.5962 | 0.785 | 19.803 | 18 | 8 | sand to silty sand | |
| 58.071 | 76.35 | 0.3804 | 0.498 | 19.936 | 18 | 8 | sand to silty sand | |
| 58.235 | 75.65 | 0.3988 | 0.527 | 19.964 | 18 | 8 | sand to silty sand | |
| 58.399 | 70.63 | 0.4235 | 0.600 | 19.352 | 17 | 8 | sand to silty sand | |
| 58.563 | 71.24 | 0.4686 | 0.658 | 20.256 | 17 | 8 | sand to silty sand | |
| 58.727 | 73.15 | 0.4905 | 0.671 | 20.574 | 18 | 8 | sand to silty sand | |
| 58.891 | 75.19 | 0.5028 | 0.669 | 20.540 | 18 | 8 | sand to silty sand | |
| 59.055 | 76.46 | 0.5143 | 0.673 | 20.679 | 18 | 8 | sand to silty sand | |
| 59.219 | 80.06 | 0.5357 | 0.669 | 20.701 | 19 | 8 | sand to silty sand | |
| 59.383 | 82.78 | 0.5675 | 0.686 | 20.777 | 20 | 8 | sand to silty sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 59.547 | 82.76 | 0.5761 | 0.696 | 20.856 | 20 | 8 | sand to silty sand | |
| 59.711 | 84.30 | 0.5884 | 0.698 | 20.952 | 20 | 8 | sand to silty sand | |
| 59.875 | 87.08 | 0.6077 | 0.698 | 20.963 | 21 | 8 | sand to silty sand | |
| 60.039 | 86.41 | 0.6168 | 0.714 | 20.978 | 21 | 8 | sand to silty sand | |
| 60.203 | 83.74 | 0.6179 | 0.738 | 21.130 | 20 | 8 | sand to silty sand | |
| 60.367 | 82.27 | 0.6117 | 0.743 | 21.248 | 20 | 8 | sand to silty sand | |
| 60.532 | 82.51 | 0.6083 | 0.737 | 21.305 | 20 | 8 | sand to silty sand | |
| 60.696 | 83.82 | 0.6023 | 0.719 | 21.335 | 20 | 8 | sand to silty sand | |
| 60.860 | 83.61 | 0.6004 | 0.718 | 21.429 | 20 | 8 | sand to silty sand | |
| 61.024 | 81.64 | 0.5930 | 0.726 | 21.531 | 20 | 8 | sand to silty sand | |
| 61.188 | 81.51 | 0.5905 | 0.724 | 21.534 | 20 | 8 | sand to silty sand | |
| 61.352 | 79.44 | 0.6100 | 0.768 | 21.468 | 19 | 8 | sand to silty sand | |
| 61.516 | 76.87 | 0.5989 | 0.779 | 21.610 | 18 | 8 | sand to silty sand | |
| 61.680 | 72.05 | 0.5902 | 0.819 | 21.224 | 17 | 8 | sand to silty sand | |
| 61.844 | 70.99 | 0.5784 | 0.815 | 21.549 | 17 | 8 | sand to silty sand | |
| 62.008 | 71.21 | 0.5652 | 0.794 | 21.658 | 17 | 8 | sand to silty sand | |
| 62.172 | 69.02 | 0.5644 | 0.818 | 21.749 | 17 | 8 | sand to silty sand | |
| 62.336 | 66.21 | 0.5638 | 0.852 | 21.845 | 16 | 8 | sand to silty sand | |
| 62.500 | 68.56 | 0.5675 | 0.828 | 22.009 | 16 | 8 | sand to silty sand | |
| 62.664 | 69.36 | 0.7658 | 1.104 | 22.146 | 22 | 7 | silty sand to sandy silt | |
| 62.828 | 49.60 | 0.6385 | 1.287 | 22.190 | 16 | 7 | silty sand to sandy silt | |
| 62.992 | 65.35 | 0.6589 | 1.008 | 23.489 | 21 | 7 | silty sand to sandy silt | |
| 63.156 | 49.39 | 0.6091 | 1.233 | 15.724 | 16 | 7 | silty sand to sandy silt | |
| 63.320 | 80.02 | 0.5463 | 0.683 | 14.878 | 19 | 8 | sand to silty sand | |
| 63.484 | 114.73 | 0.5428 | 0.473 | 9.598 | 22 | 9 | sand | |
| 63.648 | 107.46 | 0.6404 | 0.596 | 8.275 | 26 | 8 | sand to silty sand | |
| 63.812 | 90.63 | 0.6512 | 0.719 | 9.797 | 22 | 8 | sand to silty sand | |
| 63.976 | 72.74 | 0.6540 | 0.899 | 11.600 | 17 | 8 | sand to silty sand | |
| 64.140 | 69.01 | 0.7048 | 1.021 | 13.189 | 17 | 8 | sand to silty sand | |
| 64.304 | 92.53 | 0.4630 | 0.500 | 11.789 | 22 | 8 | sand to silty sand | |
| 64.469 | 103.09 | 0.4678 | 0.454 | 4.785 | 20 | 9 | sand | |
| 64.633 | 96.65 | 0.3771 | 0.390 | 4.933 | 19 | 9 | sand | |
| 64.797 | 86.44 | 0.4052 | 0.469 | 6.021 | 21 | 8 | sand to silty sand | |
| 64.961 | 80.05 | 0.4195 | 0.524 | 12.615 | 19 | 8 | sand to silty sand | |
| 65.125 | 77.71 | 0.4302 | 0.554 | 14.041 | 19 | 8 | sand to silty sand | |
| 65.289 | 75.60 | 0.4341 | 0.574 | 15.268 | 18 | 8 | sand to silty sand | |
| 65.453 | 86.75 | 0.4870 | 0.561 | 19.870 | 21 | 8 | sand to silty sand | |
| 65.617 | 94.38 | 0.5074 | 0.538 | 20.622 | 23 | 8 | sand to silty sand | |
| 65.781 | 99.81 | 0.5485 | 0.550 | 21.965 | 24 | 8 | sand to silty sand | |
| 65.945 | 98.08 | 0.5528 | 0.564 | 22.397 | 23 | 8 | sand to silty sand | |
| 66.109 | 88.87 | 0.5211 | 0.586 | 22.783 | 21 | 8 | sand to silty sand | |
| 66.273 | 77.13 | 0.4581 | 0.594 | 22.970 | 18 | 8 | sand to silty sand | |
| 66.437 | 76.42 | 0.4414 | 0.578 | 23.443 | 18 | 8 | sand to silty sand | |
| 66.601 | 88.73 | 0.4464 | 0.503 | 22.794 | 21 | 8 | sand to silty sand | |
| 66.765 | 93.15 | 0.4635 | 0.498 | 20.265 | 22 | 8 | sand to silty sand | |
| 66.929 | 98.03 | 0.4902 | 0.500 | 21.922 | 23 | 8 | sand to silty sand | |
| 67.093 | 98.31 | 0.5031 | 0.512 | 22.334 | 24 | 8 | sand to silty sand | |
| 67.257 | 86.26 | 0.4864 | 0.564 | 23.184 | 21 | 8 | sand to silty sand | |
| 67.421 | 77.26 | 0.4733 | 0.613 | 23.380 | 18 | 8 | sand to silty sand | |
| 67.585 | 72.53 | 0.4394 | 0.606 | 23.757 | 17 | 8 | sand to silty sand | |
| 67.749 | 69.82 | 0.4259 | 0.610 | 24.012 | 17 | 8 | sand to silty sand | |
| 67.913 | 68.31 | 0.2329 | 0.341 | 24.304 | 16 | 8 | sand to silty sand | |
| 68.077 | 66.99 | 0.2406 | 0.359 | 24.668 | 16 | 8 | sand to silty sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 68.241 | 63.60 | 0.2476 | 0.389 | 25.067 | 15 | 8 | sand to silty sand | |
| 68.406 | 62.75 | 0.2535 | 0.404 | 25.277 | 15 | 8 | sand to silty sand | |
| 68.570 | 62.41 | 0.2597 | 0.416 | 25.383 | 15 | 8 | sand to silty sand | |
| 68.734 | 63.28 | 0.2657 | 0.420 | 25.455 | 15 | 8 | sand to silty sand | |
| 68.898 | 64.37 | 0.2744 | 0.426 | 25.601 | 15 | 8 | sand to silty sand | |
| 69.062 | 65.29 | 0.2918 | 0.447 | 25.632 | 16 | 8 | sand to silty sand | |
| 69.226 | 67.60 | 0.3174 | 0.469 | 25.673 | 16 | 8 | sand to silty sand | |
| 69.390 | 74.39 | 0.3563 | 0.479 | 25.824 | 18 | 8 | sand to silty sand | |
| 69.554 | 85.51 | 0.4050 | 0.474 | 25.881 | 20 | 8 | sand to silty sand | |
| 69.718 | 100.04 | 0.4561 | 0.456 | 25.815 | 24 | 8 | sand to silty sand | |
| 69.882 | 108.24 | 0.5313 | 0.491 | 25.902 | 21 | 9 | sand | |
| 70.046 | 101.58 | 0.5324 | 0.524 | 25.804 | 24 | 8 | sand to silty sand | |
| 70.210 | 94.16 | 0.4962 | 0.527 | 25.628 | 23 | 8 | sand to silty sand | |
| 70.374 | 86.56 | 0.4712 | 0.544 | 25.817 | 21 | 8 | sand to silty sand | |
| 70.538 | 80.63 | 0.4633 | 0.575 | 25.998 | 19 | 8 | sand to silty sand | |
| 70.702 | 78.15 | 0.4648 | 0.595 | 26.175 | 19 | 8 | sand to silty sand | |
| 70.866 | 82.28 | 0.4685 | 0.569 | 26.362 | 20 | 8 | sand to silty sand | |
| 71.030 | 92.32 | 0.4759 | 0.515 | 26.515 | 22 | 8 | sand to silty sand | |
| 71.194 | 102.86 | 0.3725 | 0.362 | 26.561 | 20 | 9 | sand | |
| 71.358 | 113.73 | 0.4253 | 0.374 | 26.567 | 22 | 9 | sand | |
| 71.522 | 117.02 | 0.5100 | 0.436 | 25.889 | 22 | 9 | sand | |
| 71.686 | 121.31 | 0.6013 | 0.496 | 26.406 | 23 | 9 | sand | |
| 71.850 | 117.70 | 0.6277 | 0.533 | 26.277 | 23 | 9 | sand | |
| 72.014 | 123.77 | 0.6252 | 0.505 | 26.293 | 24 | 9 | sand | |
| 72.178 | 127.40 | 0.6259 | 0.491 | 26.386 | 24 | 9 | sand | |
| 72.343 | 127.11 | 0.6018 | 0.473 | 26.371 | 24 | 9 | sand | |
| 72.507 | 105.92 | 0.5691 | 0.537 | 26.519 | 25 | 8 | sand to silty sand | |
| 72.671 | 109.13 | 0.6123 | 0.561 | 26.768 | 26 | 8 | sand to silty sand | |
| 72.835 | 132.92 | 0.6664 | 0.501 | 27.197 | 25 | 9 | sand | |
| 72.999 | 148.10 | 0.7525 | 0.508 | 26.818 | 28 | 9 | sand | |
| 73.163 | 144.13 | 0.7706 | 0.535 | 26.672 | 28 | 9 | sand | |
| 73.327 | 119.28 | 0.7262 | 0.609 | 26.491 | 23 | 9 | sand | |
| 73.491 | 111.92 | 0.6834 | 0.611 | 26.606 | 27 | 8 | sand to silty sand | |
| 73.655 | 112.27 | 0.6433 | 0.573 | 26.820 | 22 | 9 | sand | |
| 73.819 | 107.30 | 0.6183 | 0.576 | 27.289 | 26 | 8 | sand to silty sand | |
| 73.983 | 98.27 | 0.5911 | 0.602 | 27.021 | 24 | 8 | sand to silty sand | |
| 74.147 | 95.45 | 0.5807 | 0.608 | 27.103 | 23 | 8 | sand to silty sand | |
| 74.311 | 97.06 | 0.5803 | 0.598 | 27.389 | 23 | 8 | sand to silty sand | |
| 74.475 | 100.47 | 0.4238 | 0.422 | 27.524 | 19 | 9 | sand | |
| 74.639 | 108.97 | 0.4361 | 0.400 | 27.642 | 21 | 9 | sand | |
| 74.803 | 121.67 | 0.4586 | 0.377 | 27.326 | 23 | 9 | sand | |
| 74.967 | 134.13 | 0.5429 | 0.405 | 27.502 | 26 | 9 | sand | |
| 75.131 | 131.69 | 0.5535 | 0.420 | 27.319 | 25 | 9 | sand | |
| 75.295 | 111.62 | 0.5288 | 0.474 | 27.614 | 21 | 9 | sand | |
| 75.459 | 96.87 | 0.5289 | 0.546 | 27.221 | 23 | 8 | sand to silty sand | |
| 75.623 | 92.20 | 0.5337 | 0.579 | 27.555 | 22 | 8 | sand to silty sand | |
| 75.787 | 102.24 | 0.5608 | 0.548 | 27.858 | 24 | 8 | sand to silty sand | |
| 75.951 | 128.49 | 0.6899 | 0.537 | 28.259 | 25 | 9 | sand | |
| 76.115 | 147.59 | 0.7647 | 0.518 | 28.296 | 28 | 9 | sand | |
| 76.280 | 166.44 | 0.8571 | 0.515 | 27.956 | 32 | 9 | sand | |
| 76.444 | 156.06 | 0.8785 | 0.563 | 27.847 | 30 | 9 | sand | |
| 76.608 | 132.18 | 0.7988 | 0.604 | 27.481 | 25 | 9 | sand | |
| 76.772 | 114.39 | 0.7144 | 0.625 | 27.197 | 27 | 8 | sand to silty sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 76.936 | 106.02 | 0.6822 | 0.643 | 27.583 | 25 | 8 | sand to silty sand | |
| 77.100 | 104.06 | 0.6711 | 0.645 | 28.017 | 25 | 8 | sand to silty sand | |
| 77.264 | 104.93 | 0.6750 | 0.643 | 28.239 | 25 | 8 | sand to silty sand | |
| 77.428 | 106.07 | 0.6843 | 0.645 | 28.425 | 25 | 8 | sand to silty sand | |
| 77.592 | 110.09 | 0.6975 | 0.634 | 28.564 | 26 | 8 | sand to silty sand | |
| 77.756 | 116.67 | 0.4950 | 0.424 | 28.645 | 22 | 9 | sand | |
| 77.920 | 129.70 | 0.5101 | 0.393 | 28.791 | 25 | 9 | sand | |
| 78.084 | 148.71 | 0.6066 | 0.408 | 28.368 | 28 | 9 | sand | |
| 78.248 | 163.87 | 0.7595 | 0.463 | 28.695 | 31 | 9 | sand | |
| 78.412 | 169.26 | 0.8062 | 0.476 | 28.163 | 32 | 9 | sand | |
| 78.576 | 130.87 | 0.7119 | 0.544 | 28.071 | 25 | 9 | sand | |
| 78.740 | 112.65 | 0.6508 | 0.578 | 27.890 | 22 | 9 | sand | |
| 78.904 | 104.98 | 0.6221 | 0.593 | 28.324 | 25 | 8 | sand to silty sand | |
| 79.068 | 112.39 | 0.6294 | 0.560 | 28.826 | 22 | 9 | sand | |
| 79.232 | 136.55 | 0.6430 | 0.471 | 29.255 | 26 | 9 | sand | |
| 79.396 | 158.40 | 0.7139 | 0.451 | 29.194 | 30 | 9 | sand | |
| 79.560 | 155.03 | 0.7649 | 0.493 | 29.004 | 30 | 9 | sand | |
| 79.724 | 144.03 | 0.7388 | 0.513 | 28.680 | 28 | 9 | sand | |
| 79.888 | 140.69 | 0.7144 | 0.508 | 28.773 | 27 | 9 | sand | |
| 80.052 | 133.00 | 0.6424 | 0.483 | 28.819 | 25 | 9 | sand | |
| 80.217 | 125.90 | 0.5503 | 0.437 | 28.950 | 24 | 9 | sand | |
| 80.381 | 116.42 | 0.5159 | 0.443 | 29.116 | 22 | 9 | sand | |
| 80.545 | 110.17 | 0.5137 | 0.466 | 29.360 | 21 | 9 | sand | |
| 80.709 | 92.61 | 0.5134 | 0.554 | 29.316 | 22 | 8 | sand to silty sand | |
| 80.873 | 93.72 | 0.5050 | 0.539 | 29.647 | 22 | 8 | sand to silty sand | |
| 81.037 | 100.46 | 0.4303 | 0.428 | 30.223 | 19 | 9 | sand | |
| 81.201 | 102.82 | 0.4350 | 0.423 | 29.543 | 20 | 9 | sand | |
| 81.365 | 95.81 | 0.4270 | 0.446 | 28.516 | 23 | 8 | sand to silty sand | |
| 81.529 | 88.53 | 0.4370 | 0.494 | 29.305 | 21 | 8 | sand to silty sand | |
| 81.693 | 85.63 | 0.3768 | 0.440 | 29.547 | 21 | 8 | sand to silty sand | |
| 81.857 | 107.50 | 0.3454 | 0.321 | 30.232 | 21 | 9 | sand | |
| 82.021 | 97.58 | 0.3615 | 0.370 | 29.026 | 19 | 9 | sand | |
| 82.185 | 91.39 | 0.3908 | 0.428 | 30.234 | 22 | 8 | sand to silty sand | |
| 82.349 | 90.20 | 0.4082 | 0.452 | 30.352 | 22 | 8 | sand to silty sand | |
| 82.513 | 102.18 | 0.4579 | 0.448 | 30.692 | 20 | 9 | sand | |
| 82.677 | 120.58 | 0.4817 | 0.399 | 30.670 | 23 | 9 | sand | |
| 82.841 | 137.38 | 0.4915 | 0.358 | 30.618 | 26 | 9 | sand | |
| 83.005 | 127.88 | 0.4816 | 0.377 | 30.642 | 24 | 9 | sand | |
| 83.169 | 124.14 | 0.4876 | 0.393 | 30.639 | 24 | 9 | sand | |
| 83.333 | 120.11 | 0.5115 | 0.426 | 30.652 | 23 | 9 | sand | |
| 83.497 | 117.60 | 0.5009 | 0.426 | 30.650 | 23 | 9 | sand | |
| 83.661 | 109.07 | 0.4917 | 0.451 | 30.742 | 21 | 9 | sand | |
| 83.825 | 107.46 | 0.4825 | 0.449 | 30.993 | 21 | 9 | sand | |
| 83.990 | 107.40 | 0.4906 | 0.457 | 31.049 | 21 | 9 | sand | |
| 84.154 | 105.24 | 0.4909 | 0.466 | 31.184 | 20 | 9 | sand | |
| 84.318 | 103.62 | 0.4932 | 0.476 | 31.219 | 20 | 9 | sand | |
| 84.482 | 104.08 | 0.4902 | 0.471 | 31.282 | 20 | 9 | sand | |
| 84.646 | 106.49 | 0.4873 | 0.458 | 31.357 | 20 | 9 | sand | |
| 84.810 | 107.91 | 0.4673 | 0.433 | 31.459 | 21 | 9 | sand | |
| 84.974 | 111.42 | 0.5794 | 0.520 | 31.494 | 21 | 9 | sand | |
| 85.138 | 147.06 | 0.6862 | 0.467 | 31.636 | 28 | 9 | sand | |
| 85.302 | 149.47 | 0.7175 | 0.480 | 31.374 | 29 | 9 | sand | |
| 85.466 | 149.91 | 0.7179 | 0.479 | 31.400 | 29 | 9 | sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|-----------------------------------|
| 85.630 | 155.87 | 0.7490 | 0.481 | 31.599 | 30 | 9 | sand |
| 85.794 | 171.27 | 0.7981 | 0.466 | 32.120 | 33 | 9 | sand |
| 85.958 | 176.70 | 0.8478 | 0.480 | 31.952 | 34 | 9 | sand |
| 86.122 | 178.48 | 0.8555 | 0.479 | 31.677 | 34 | 9 | sand |
| 86.286 | 179.43 | 0.8631 | 0.481 | 31.960 | 34 | 9 | sand |
| 86.450 | 177.76 | 0.8547 | 0.481 | 31.721 | 34 | 9 | sand |
| 86.614 | 176.98 | 0.8474 | 0.479 | 31.915 | 34 | 9 | sand |
| 86.778 | 170.70 | 0.8471 | 0.496 | 31.871 | 33 | 9 | sand |
| 86.942 | 161.23 | 0.8421 | 0.522 | 31.801 | 31 | 9 | sand |
| 87.106 | 160.13 | 0.8290 | 0.518 | 31.873 | 31 | 9 | sand |
| 87.270 | 163.24 | 0.7932 | 0.486 | 32.069 | 31 | 9 | sand |
| 87.434 | 160.75 | 0.7745 | 0.482 | 31.958 | 31 | 9 | sand |
| 87.598 | 146.65 | 0.6706 | 0.457 | 31.943 | 28 | 9 | sand |
| 87.762 | 143.47 | 0.5850 | 0.408 | 32.159 | 27 | 9 | sand |
| 87.927 | 144.20 | 0.5819 | 0.404 | 31.396 | 28 | 9 | sand |
| 88.091 | 162.85 | 0.6289 | 0.386 | 32.329 | 31 | 9 | sand |
| 88.255 | 177.24 | 0.6712 | 0.379 | 32.728 | 34 | 9 | sand |
| 88.419 | 182.85 | 0.7328 | 0.401 | 32.477 | 35 | 9 | sand |
| 88.583 | 180.97 | 0.7362 | 0.407 | 32.444 | 35 | 9 | sand |
| 88.747 | 178.49 | 0.7614 | 0.427 | 32.503 | 34 | 9 | sand |
| 88.911 | 176.08 | 0.7834 | 0.445 | 32.542 | 34 | 9 | sand |
| 89.075 | 173.53 | 0.8046 | 0.464 | 32.619 | 33 | 9 | sand |
| 89.239 | 169.27 | 0.7935 | 0.469 | 32.632 | 32 | 9 | sand |
| 89.403 | 171.74 | 0.7776 | 0.453 | 32.621 | 33 | 9 | sand |
| 89.567 | 161.14 | 0.7696 | 0.478 | 32.590 | 31 | 9 | sand |
| 89.731 | 158.28 | 0.7716 | 0.487 | 32.708 | 30 | 9 | sand |
| 89.895 | 151.87 | 0.7707 | 0.507 | 32.878 | 29 | 9 | sand |
| 90.059 | 149.80 | 0.7659 | 0.511 | 32.917 | 29 | 9 | sand |
| 90.223 | 146.48 | 0.7546 | 0.515 | 33.018 | 28 | 9 | sand |
| 90.387 | 150.61 | 0.7437 | 0.494 | 33.286 | 29 | 9 | sand |
| 90.551 | 156.96 | 0.7622 | 0.486 | 33.414 | 30 | 9 | sand |
| 90.715 | 171.49 | 0.7593 | 0.443 | 33.576 | 33 | 9 | sand |
| 90.879 | 173.15 | 0.8091 | 0.467 | 33.628 | 33 | 9 | sand |
| 91.043 | 170.92 | 0.7354 | 0.430 | 33.436 | 33 | 9 | sand |
| 91.207 | 172.60 | 0.7250 | 0.420 | 31.810 | 33 | 9 | sand |
| 91.371 | 179.85 | 0.7418 | 0.412 | 33.275 | 34 | 9 | sand |
| 91.535 | 170.88 | 0.7184 | 0.420 | 33.135 | 33 | 9 | sand |
| 91.699 | 167.56 | 0.7297 | 0.435 | 33.096 | 32 | 9 | sand |
| 91.864 | 155.95 | 0.7298 | 0.468 | 33.292 | 30 | 9 | sand |
| 92.028 | 151.62 | 0.6958 | 0.459 | 33.220 | 29 | 9 | sand |
| 92.192 | 152.77 | 0.7019 | 0.459 | 33.650 | 29 | 9 | sand |
| 92.356 | 143.07 | 0.7429 | 0.519 | 33.473 | 27 | 9 | sand |
| 92.520 | 143.45 | 0.7490 | 0.522 | 33.608 | 27 | 9 | sand |
| 92.684 | 149.19 | 0.7414 | 0.497 | 33.813 | 29 | 9 | sand |
| 92.848 | 161.05 | 0.7417 | 0.461 | 34.153 | 31 | 9 | sand |
| 93.012 | 156.88 | 0.7443 | 0.474 | 34.197 | 30 | 9 | sand |
| 93.176 | 148.29 | 0.7112 | 0.480 | 33.844 | 28 | 9 | sand |
| 93.340 | 129.74 | 0.6791 | 0.523 | 33.558 | 25 | 9 | sand |
| 93.504 | 120.65 | 0.6484 | 0.537 | 33.783 | 23 | 9 | sand |
| 93.668 | 115.51 | 0.6018 | 0.521 | 33.957 | 22 | 9 | sand |
| 93.832 | 112.28 | 0.5970 | 0.532 | 34.254 | 22 | 9 | sand |
| 93.996 | 111.39 | 0.5991 | 0.538 | 34.618 | 21 | 9 | sand |
| 94.160 | 116.95 | 0.4934 | 0.422 | 34.716 | 22 | 9 | sand |

FOR REFERENCE ONLY

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 94.324 | 122.87 | 0.5115 | 0.416 | 34.964 | 24 | 9 | sand |
| 94.488 | 121.17 | 0.5130 | 0.423 | 34.417 | 23 | 9 | sand |
| 94.652 | 121.09 | 0.5002 | 0.413 | 34.666 | 23 | 9 | sand |
| 94.816 | 122.30 | 0.5098 | 0.417 | 34.797 | 23 | 9 | sand |
| 94.980 | 120.83 | 0.5185 | 0.429 | 34.901 | 23 | 9 | sand |
| 95.144 | 122.63 | 0.5656 | 0.461 | 35.139 | 23 | 9 | sand |
| 95.308 | 157.59 | 0.6644 | 0.422 | 35.701 | 30 | 9 | sand |
| 95.472 | 186.98 | 0.7698 | 0.412 | 35.832 | 36 | 9 | sand |
| 95.636 | 177.25 | 0.7992 | 0.451 | 35.243 | 34 | 9 | sand |
| 95.801 | 163.42 | 0.7678 | 0.470 | 34.962 | 31 | 9 | sand |
| 95.965 | 150.19 | 0.6925 | 0.461 | 34.953 | 29 | 9 | sand |
| 96.129 | 138.20 | 0.6441 | 0.466 | 35.167 | 26 | 9 | sand |
| 96.293 | 126.70 | 0.6232 | 0.492 | 35.398 | 24 | 9 | sand |
| 96.457 | 125.01 | 0.6318 | 0.505 | 35.793 | 24 | 9 | sand |
| 96.621 | 143.77 | 0.6723 | 0.468 | 36.268 | 28 | 9 | sand |
| 96.785 | 179.57 | 0.7414 | 0.413 | 36.612 | 34 | 9 | sand |
| 96.949 | 185.78 | 0.7822 | 0.421 | 36.501 | 36 | 9 | sand |
| 97.113 | 193.87 | 0.8265 | 0.426 | 36.255 | 37 | 9 | sand |
| 97.277 | 179.32 | 0.8380 | 0.467 | 35.915 | 34 | 9 | sand |
| 97.441 | 155.46 | 0.8847 | 0.569 | 35.522 | 30 | 9 | sand |
| 97.605 | 149.49 | 0.8134 | 0.544 | 35.505 | 29 | 9 | sand |
| 97.769 | 142.30 | 0.7708 | 0.542 | 35.590 | 27 | 9 | sand |
| 97.933 | 144.74 | 0.7537 | 0.521 | 36.209 | 28 | 9 | sand |
| 98.097 | 161.94 | 0.7597 | 0.469 | 36.425 | 31 | 9 | sand |
| 98.261 | 182.13 | 0.7934 | 0.436 | 36.830 | 35 | 9 | sand |
| 98.425 | 176.99 | 0.7962 | 0.450 | 36.532 | 34 | 9 | sand |
| 98.589 | 157.97 | 0.7844 | 0.497 | 36.043 | 30 | 9 | sand |
| 98.753 | 162.69 | 0.8511 | 0.523 | 36.386 | 31 | 9 | sand |
| 98.917 | 179.35 | 0.8941 | 0.499 | 37.070 | 34 | 9 | sand |
| 99.081 | 158.41 | 0.8503 | 0.537 | 36.778 | 30 | 9 | sand |
| 99.245 | 143.20 | 0.7980 | 0.557 | 35.976 | 27 | 9 | sand |
| 99.409 | 143.15 | 0.7780 | 0.543 | 36.619 | 27 | 9 | sand |
| 99.573 | 137.60 | 0.7608 | 0.553 | 36.817 | 26 | 9 | sand |
| 99.738 | 133.21 | 0.7582 | 0.569 | 36.887 | 26 | 9 | sand |
| 99.902 | 141.43 | 0.7424 | 0.525 | 37.236 | 27 | 9 | sand |
| 100.066 | 158.17 | 0.7617 | 0.482 | 37.689 | 30 | 9 | sand |
| 100.230 | 157.28 | 0.7645 | 0.486 | 37.672 | 30 | 9 | sand |
| 100.394 | 155.26 | 0.7189 | 0.463 | 37.452 | 30 | 9 | sand |
| 100.558 | 157.14 | 0.7197 | 0.458 | 37.914 | 30 | 9 | sand |
| 100.722 | 153.85 | 0.7202 | 0.468 | 37.559 | 29 | 9 | sand |
| 100.886 | 154.16 | 0.7202 | 0.467 | 37.602 | 30 | 9 | sand |

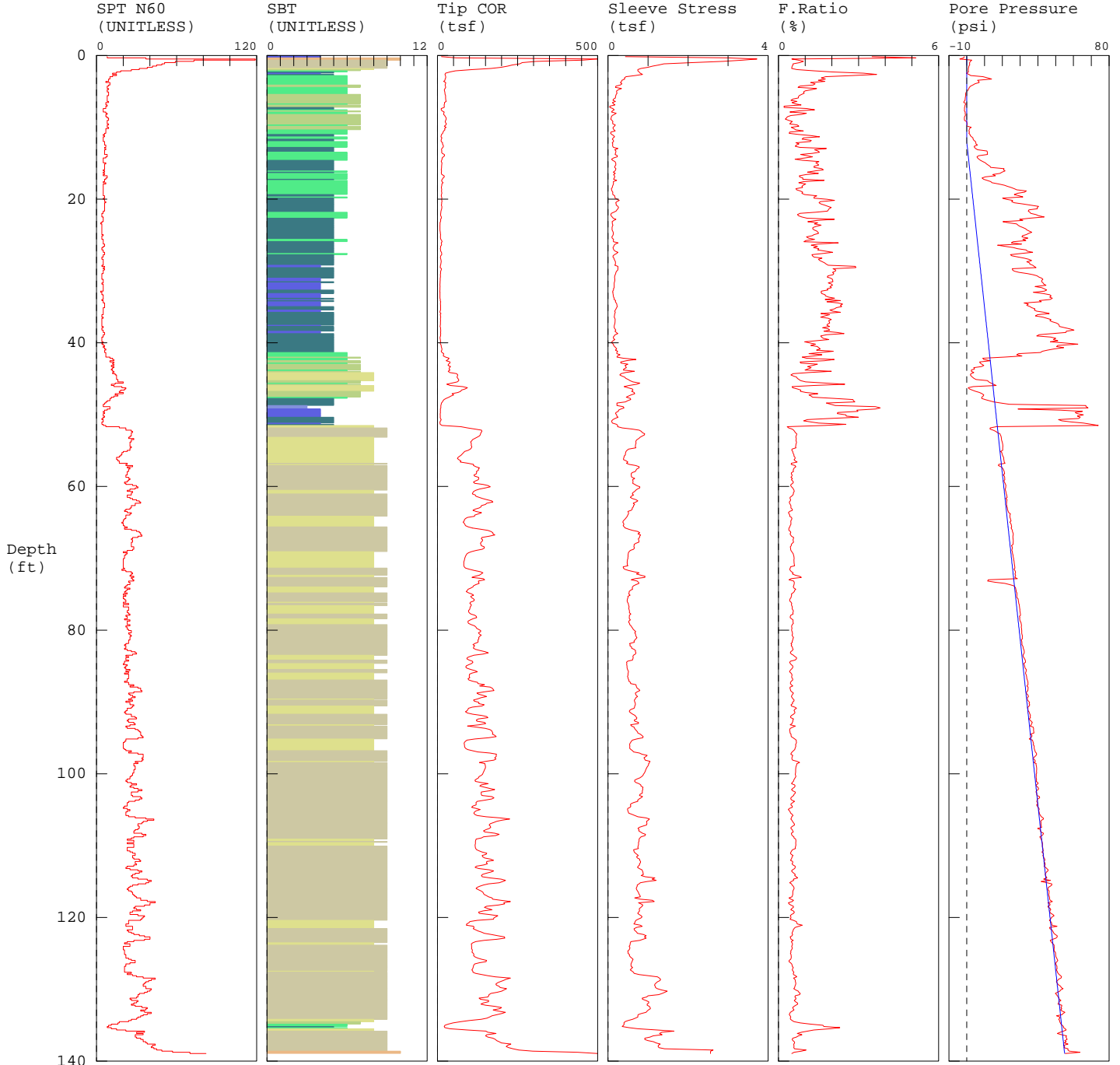
GRI / CPT-20 / PDX Runway Evaluation

TEST DATE: 4/26/2017 8:25:42 AM
 HOLE NUMBER: CPT-20

CONE ID: DPG1323
 LOCATION: 17058/ GRI / CPT-20 / PDX Runway Evaluation
 JOB NUMBER: 17058 / GRI / CPT-20 / PDX Runway Evaluation

CUSTOMER: 17058 GRI CPT-20 PDX Runway Evaluation
 OPERATOR: OGE TAJ

TEST DATE: 4/26/2017 8:25:42 AM
 TOTAL DEPTH: 138.944 ft

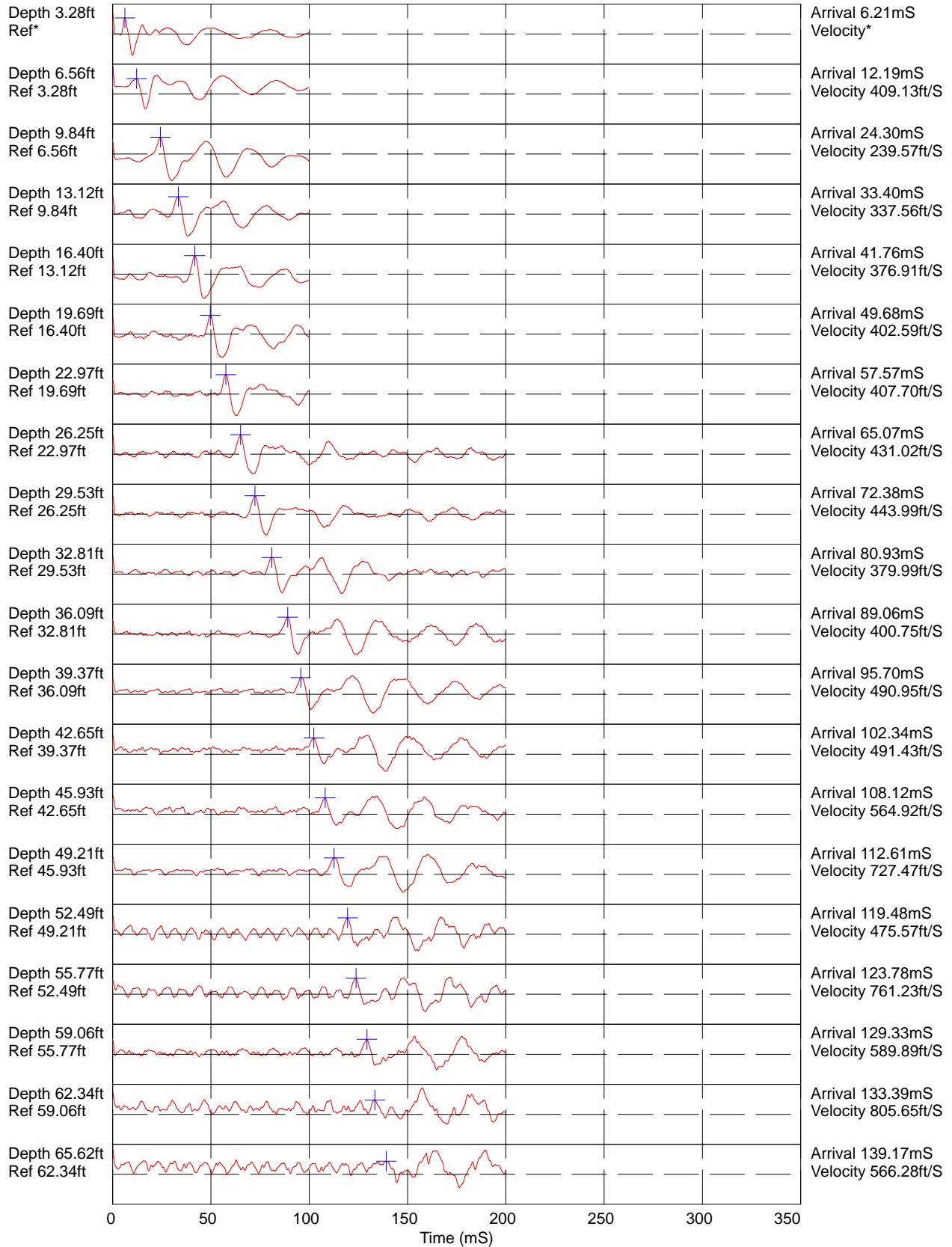


TOTAL DEPTH: 138.944 ft

- | | | | |
|---|---|--|--|
| <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 (*) |
|---|---|--|--|

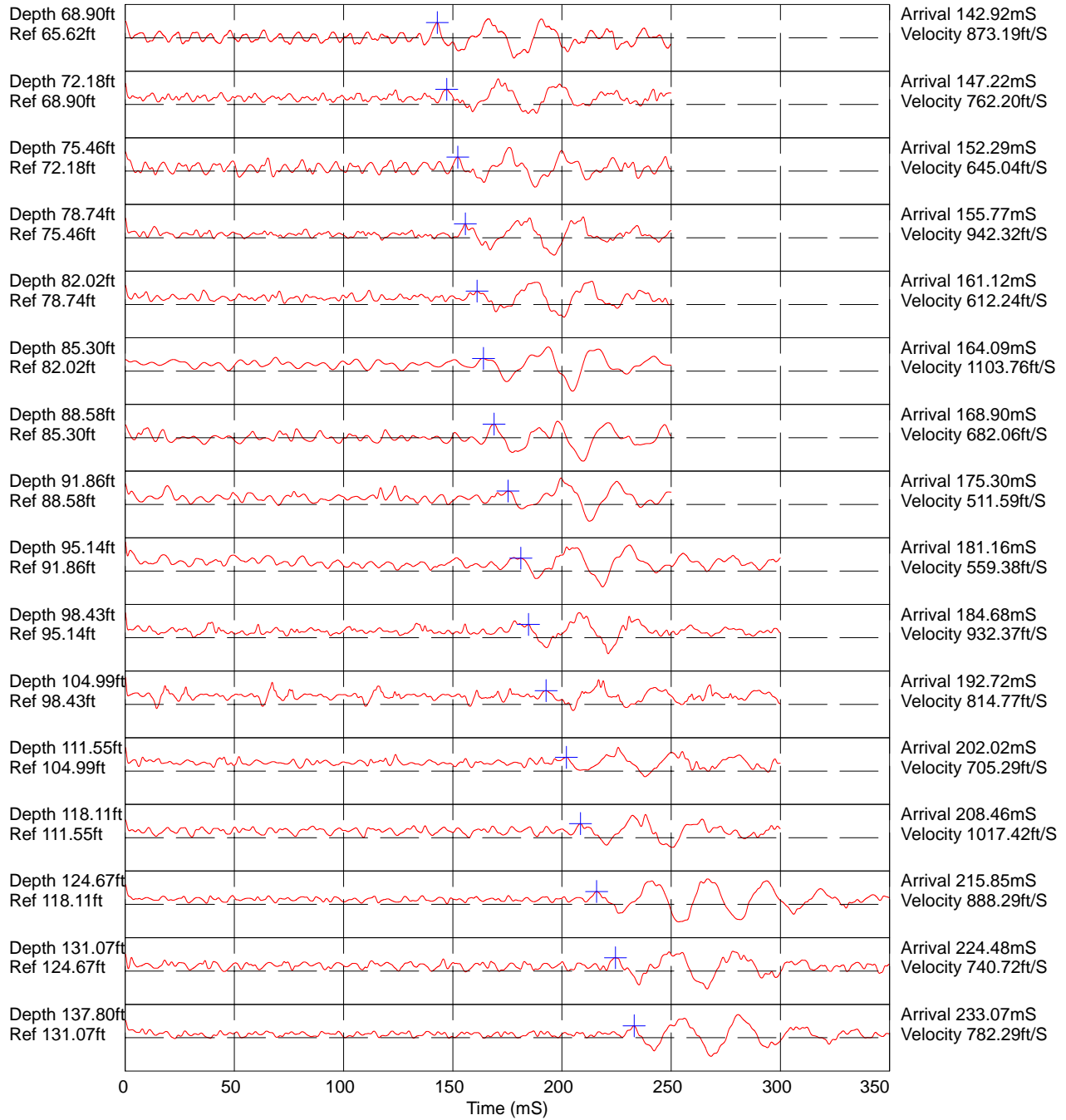
*SBT/SPT CORRELATION: UBC-1983

COMMENT: GRI / CPT-20 / PDX Runway Evaluation



Hammer to Rod String Distance (ft): 4.27
 * = Not Determined

COMMENT: GRI / CPT-20 / PDX Runway Evaluation



Hammer to Rod String Distance (ft): 4.27

* = Not Determined

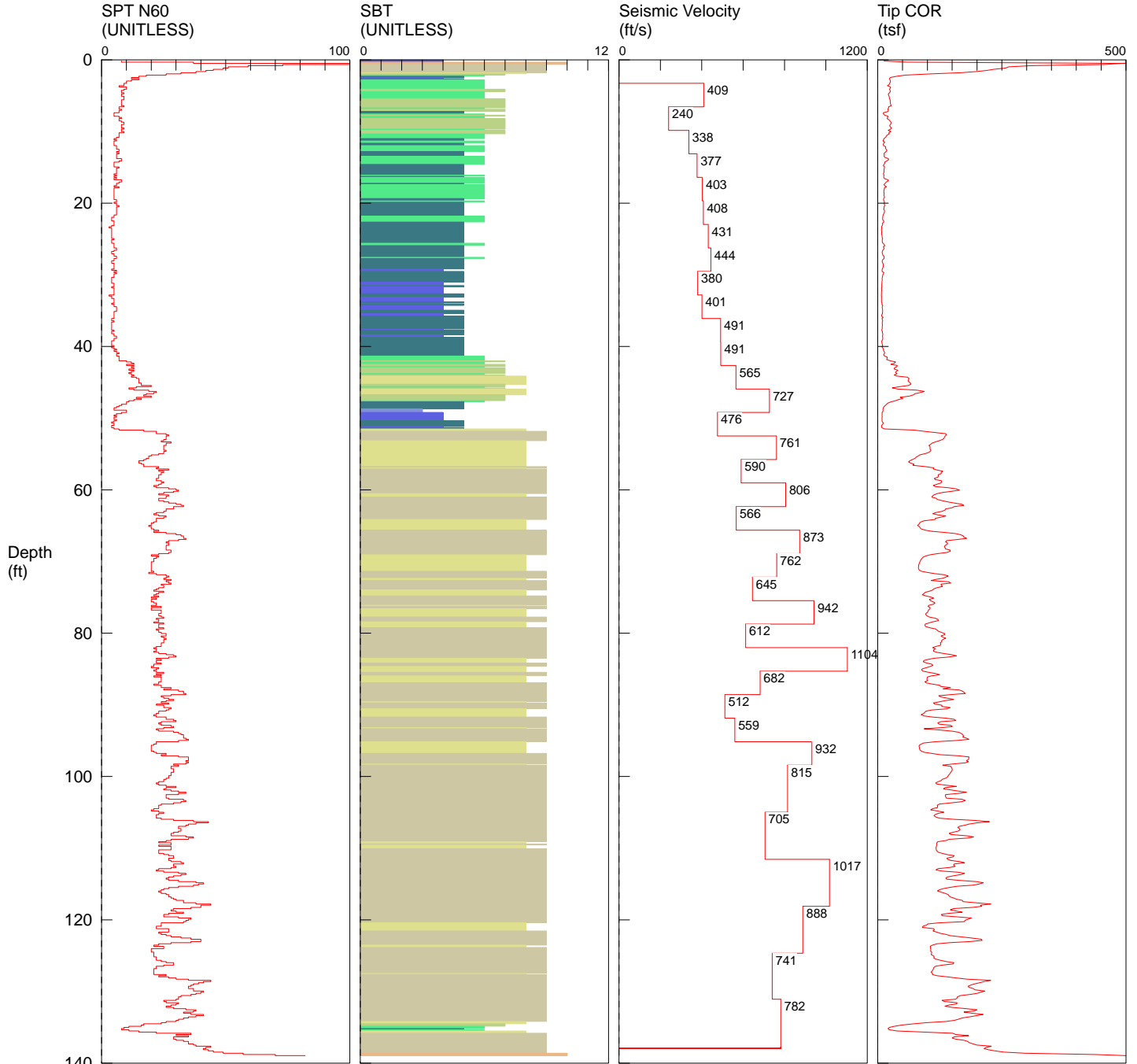
GRI / CPT-20 / PDX Runway Evaluation

TEST DATE: 4/26/2017 8:25:42 AM
 HOLE NUMBER: CPT-20

CONE ID: DPG1323
 LOCATION: 17058/ GRI / CPT-20 / PDX Runway Evaluation
 JOB NUMBER: 17058 / GRI / CPT-20 / PDX Runway Evaluation

CUSTOMER: 17058 GRI CPT-20 PDX Runway Evaluation
 OPERATOR: OGE TAJ

TEST DATE: 4/26/2017 8:25:42 AM
 TOTAL DEPTH: 138.944 ft



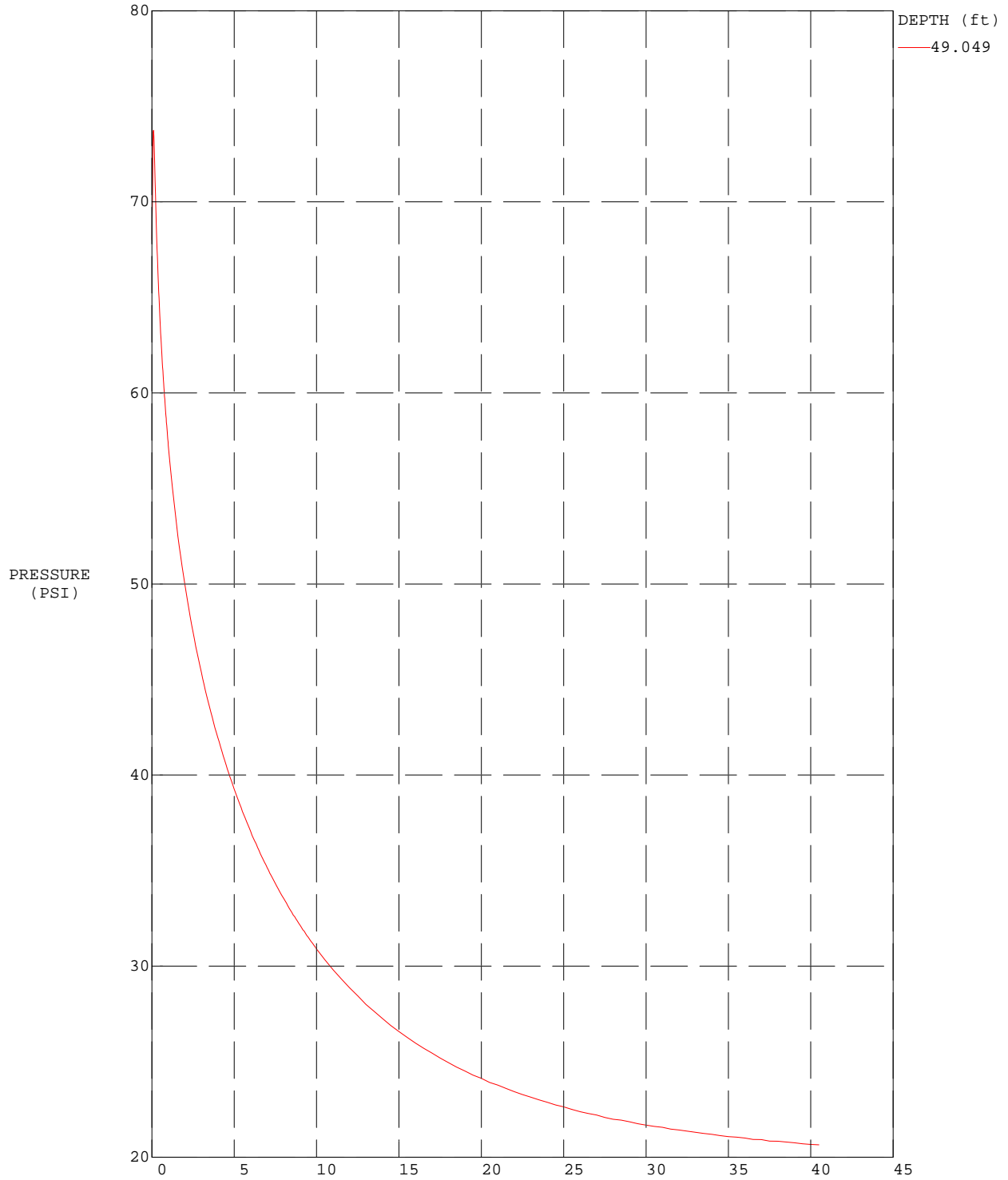
TOTAL DEPTH: 138.944 ft

- | | | | |
|---|--|--|--|
| ■ 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

COMMENT: GRI / CPT-20 / PDX Runway Evaluation

TEST DATE: 4/26/2017 8:25:42 AM
OPERATOR: OGE TAJ



MAXIMUM PRESSURE = 73.748 (PSI) ME: (MINUTES)
HYDROSTATIC PRESSURE = 16.053 (PSI), WATER TABLE: 12.01 ft

GRI / CPT-20 / PDX Runway Evaluation

OPERATOR: OGE TAJ
 TEST DATE: 4/26/2017 8:25:42 AM
 COMMENT: GRI / CPT-20 / PDX Runway Evaluation
 FILENAME: 17058 CPT-20.cpt
 TOTAL DEPTH: 138.944 ft

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 0.164 | 12.43 | 0.4355 | 3.505 | -1.445 | 8 | 4 | silty clay to clay |
| 0.328 | 58.16 | 2.9910 | 5.143 | -1.700 | 37 | 4 | silty clay to clay |
| 0.492 | 746.42 | 3.7213 | 0.499 | -3.933 | 119 | 10 | gravelly sand to sand |
| 0.656 | 454.49 | 3.3698 | 0.741 | 2.740 | 73 | 10 | gravelly sand to sand |
| 0.820 | 308.85 | 2.8700 | 0.929 | 2.032 | 59 | 9 | sand |
| 0.984 | 264.42 | 2.1036 | 0.796 | 1.604 | 51 | 9 | sand |
| 1.148 | 256.91 | 1.3931 | 0.542 | 1.583 | 49 | 9 | sand |
| 1.312 | 233.58 | 1.2697 | 0.544 | 1.646 | 45 | 9 | sand |
| 1.476 | 219.66 | 1.1194 | 0.510 | 1.171 | 42 | 9 | sand |
| 1.640 | 198.11 | 0.9945 | 0.502 | 1.059 | 38 | 9 | sand |
| 1.804 | 167.23 | 0.8238 | 0.493 | 0.872 | 32 | 9 | sand |
| 1.969 | 108.29 | 0.7464 | 0.689 | 0.889 | 26 | 8 | sand to silty sand |
| 2.133 | 55.88 | 0.7445 | 1.332 | 0.913 | 18 | 7 | silty sand to sandy silt |
| 2.297 | 38.44 | 0.7749 | 2.016 | 0.944 | 15 | 6 | sandy silt to clayey silt |
| 2.461 | 25.23 | 0.8035 | 3.185 | -0.179 | 12 | 5 | clayey silt to silty clay |
| 2.625 | 23.47 | 0.8628 | 3.676 | 1.206 | 15 | 4 | silty clay to clay |
| 2.789 | 24.49 | 0.6756 | 2.759 | 2.230 | 12 | 5 | clayey silt to silty clay |
| 2.953 | 25.52 | 0.4516 | 1.770 | 9.104 | 10 | 6 | sandy silt to clayey silt |
| 3.117 | 25.61 | 0.4101 | 1.601 | 11.724 | 10 | 6 | sandy silt to clayey silt |
| 3.281 | 23.75 | 0.4171 | 1.756 | 13.954 | 9 | 6 | sandy silt to clayey silt |
| 3.445 | 23.29 | 0.3477 | 1.493 | 6.030 | 9 | 6 | sandy silt to clayey silt |
| 3.609 | 19.40 | 0.3365 | 1.734 | 6.760 | 7 | 6 | sandy silt to clayey silt |
| 3.773 | 25.69 | 0.3093 | 1.204 | 6.961 | 10 | 6 | sandy silt to clayey silt |
| 3.937 | 25.36 | 0.3474 | 1.370 | 4.569 | 10 | 6 | sandy silt to clayey silt |
| 4.101 | 23.59 | 0.3062 | 1.298 | 3.401 | 9 | 6 | sandy silt to clayey silt |
| 4.265 | 24.66 | 0.1976 | 0.801 | 2.117 | 8 | 7 | silty sand to sandy silt |
| 4.429 | 25.43 | 0.1858 | 0.730 | 1.397 | 8 | 7 | silty sand to sandy silt |
| 4.593 | 23.61 | 0.3377 | 1.430 | 1.138 | 9 | 6 | sandy silt to clayey silt |
| 4.757 | 21.07 | 0.2633 | 1.250 | 0.844 | 8 | 6 | sandy silt to clayey silt |
| 4.921 | 21.66 | 0.2162 | 0.998 | 0.497 | 8 | 6 | sandy silt to clayey silt |
| 5.085 | 22.79 | 0.2135 | 0.937 | -0.338 | 9 | 6 | sandy silt to clayey silt |
| 5.249 | 23.40 | 0.2256 | 0.964 | -0.582 | 9 | 6 | sandy silt to clayey silt |
| 5.413 | 23.50 | 0.2046 | 0.871 | -0.750 | 9 | 6 | sandy silt to clayey silt |
| 5.577 | 24.83 | 0.1935 | 0.779 | -0.628 | 8 | 7 | silty sand to sandy silt |
| 5.741 | 24.98 | 0.1858 | 0.744 | -0.796 | 8 | 7 | silty sand to sandy silt |
| 5.906 | 25.04 | 0.1853 | 0.740 | -0.826 | 8 | 7 | silty sand to sandy silt |
| 6.070 | 25.48 | 0.1372 | 0.538 | -0.983 | 8 | 7 | silty sand to sandy silt |
| 6.234 | 26.05 | 0.1213 | 0.466 | -1.044 | 8 | 7 | silty sand to sandy silt |
| 6.398 | 27.07 | 0.1870 | 0.691 | -1.526 | 9 | 7 | silty sand to sandy silt |
| 6.562 | 21.83 | 0.1107 | 0.507 | -1.724 | 7 | 7 | silty sand to sandy silt |
| 6.726 | 21.89 | 0.1360 | 0.621 | -0.013 | 7 | 7 | silty sand to sandy silt |
| 6.890 | 20.34 | 0.1725 | 0.848 | -1.046 | 8 | 6 | sandy silt to clayey silt |
| 7.054 | 21.27 | 0.0440 | 0.207 | -1.007 | 7 | 7 | silty sand to sandy silt |
| 7.218 | 20.67 | 0.0431 | 0.208 | -1.328 | 7 | 7 | silty sand to sandy silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 7.382 | 11.27 | 0.1197 | 1.063 | -1.304 | 5 | 5 | clayey silt to silty clay |
| 7.546 | 11.28 | 0.1527 | 1.354 | -1.297 | 5 | 5 | clayey silt to silty clay |
| 7.710 | 14.10 | 0.1064 | 0.754 | -1.360 | 5 | 6 | sandy silt to clayey silt |
| 7.874 | 20.81 | 0.0892 | 0.429 | -0.833 | 7 | 7 | silty sand to sandy silt |
| 8.038 | 19.70 | 0.2058 | 1.045 | -0.903 | 8 | 6 | sandy silt to clayey silt |
| 8.202 | 18.70 | 0.1607 | 0.860 | -0.772 | 7 | 6 | sandy silt to clayey silt |
| 8.366 | 22.35 | 0.1036 | 0.464 | -0.807 | 7 | 7 | silty sand to sandy silt |
| 8.530 | 24.58 | 0.0822 | 0.335 | -1.247 | 8 | 7 | silty sand to sandy silt |
| 8.694 | 26.88 | 0.0793 | 0.295 | -1.376 | 9 | 7 | silty sand to sandy silt |
| 8.858 | 26.77 | 0.0676 | 0.253 | -1.349 | 9 | 7 | silty sand to sandy silt |
| 9.022 | 25.67 | 0.0977 | 0.381 | -1.291 | 8 | 7 | silty sand to sandy silt |
| 9.186 | 24.06 | 0.1248 | 0.519 | -0.083 | 8 | 7 | silty sand to sandy silt |
| 9.350 | 25.07 | 0.1151 | 0.459 | 0.126 | 8 | 7 | silty sand to sandy silt |
| 9.514 | 27.77 | 0.1179 | 0.424 | 0.233 | 9 | 7 | silty sand to sandy silt |
| 9.678 | 25.75 | 0.1812 | 0.704 | 0.057 | 8 | 7 | silty sand to sandy silt |
| 9.843 | 21.02 | 0.1598 | 0.760 | 0.320 | 8 | 6 | sandy silt to clayey silt |
| 10.007 | 26.67 | 0.1277 | 0.479 | 2.479 | 9 | 7 | silty sand to sandy silt |
| 10.171 | 22.13 | 0.1264 | 0.571 | 1.526 | 7 | 7 | silty sand to sandy silt |
| 10.335 | 23.16 | 0.1515 | 0.654 | 1.380 | 7 | 7 | silty sand to sandy silt |
| 10.499 | 19.12 | 0.1775 | 0.928 | 1.151 | 7 | 6 | sandy silt to clayey silt |
| 10.663 | 17.14 | 0.0719 | 0.420 | 1.511 | 7 | 6 | sandy silt to clayey silt |
| 10.827 | 16.10 | 0.0647 | 0.402 | 1.216 | 6 | 6 | sandy silt to clayey silt |
| 10.991 | 12.61 | 0.0929 | 0.737 | 1.751 | 5 | 6 | sandy silt to clayey silt |
| 11.155 | 11.63 | 0.1396 | 1.200 | 1.975 | 6 | 5 | clayey silt to silty clay |
| 11.319 | 10.62 | 0.1629 | 1.534 | 2.699 | 5 | 5 | clayey silt to silty clay |
| 11.483 | 13.81 | 0.1284 | 0.930 | 3.479 | 5 | 6 | sandy silt to clayey silt |
| 11.647 | 12.07 | 0.1066 | 0.884 | 3.542 | 5 | 6 | sandy silt to clayey silt |
| 11.811 | 10.93 | 0.1344 | 1.229 | 4.059 | 5 | 5 | clayey silt to silty clay |
| 11.975 | 11.77 | 0.1400 | 1.190 | 4.885 | 6 | 5 | clayey silt to silty clay |
| 12.139 | 15.96 | 0.1033 | 0.647 | 5.123 | 6 | 6 | sandy silt to clayey silt |
| 12.303 | 15.49 | 0.1189 | 0.768 | 5.132 | 6 | 6 | sandy silt to clayey silt |
| 12.467 | 17.01 | 0.1145 | 0.673 | 5.967 | 7 | 6 | sandy silt to clayey silt |
| 12.631 | 18.61 | 0.1172 | 0.630 | 4.153 | 7 | 6 | sandy silt to clayey silt |
| 12.795 | 16.96 | 0.1348 | 0.795 | 4.336 | 6 | 6 | sandy silt to clayey silt |
| 12.959 | 13.67 | 0.2452 | 1.793 | 4.929 | 7 | 5 | clayey silt to silty clay |
| 13.123 | 12.42 | 0.1681 | 1.354 | 6.082 | 6 | 5 | clayey silt to silty clay |
| 13.287 | 13.28 | 0.1959 | 1.475 | 11.255 | 6 | 5 | clayey silt to silty clay |
| 13.451 | 12.64 | 0.1935 | 1.531 | 11.547 | 6 | 5 | clayey silt to silty clay |
| 13.615 | 14.68 | 0.1868 | 1.272 | 11.504 | 6 | 6 | sandy silt to clayey silt |
| 13.780 | 21.18 | 0.1754 | 0.828 | 11.608 | 8 | 6 | sandy silt to clayey silt |
| 13.944 | 21.99 | 0.2349 | 1.068 | 6.651 | 8 | 6 | sandy silt to clayey silt |
| 14.108 | 17.99 | 0.2285 | 1.270 | 5.742 | 7 | 6 | sandy silt to clayey silt |
| 14.272 | 14.14 | 0.1406 | 0.994 | 6.073 | 5 | 6 | sandy silt to clayey silt |
| 14.436 | 14.13 | 0.0870 | 0.616 | 6.830 | 5 | 6 | sandy silt to clayey silt |
| 14.600 | 12.51 | 0.1136 | 0.908 | 7.645 | 5 | 6 | sandy silt to clayey silt |
| 14.764 | 11.43 | 0.1732 | 1.516 | 8.975 | 5 | 5 | clayey silt to silty clay |
| 14.928 | 13.78 | 0.1928 | 1.399 | 10.420 | 7 | 5 | clayey silt to silty clay |
| 15.092 | 13.20 | 0.1936 | 1.466 | 11.098 | 6 | 5 | clayey silt to silty clay |
| 15.256 | 12.84 | 0.1932 | 1.505 | 12.055 | 6 | 5 | clayey silt to silty clay |
| 15.420 | 12.59 | 0.1677 | 1.333 | 13.017 | 6 | 5 | clayey silt to silty clay |
| 15.584 | 12.52 | 0.1668 | 1.332 | 13.455 | 6 | 5 | clayey silt to silty clay |
| 15.748 | 12.16 | 0.1973 | 1.622 | 20.930 | 6 | 5 | clayey silt to silty clay |
| 15.912 | 11.36 | 0.1901 | 1.673 | 20.603 | 5 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 16.076 | 12.77 | 0.1750 | 1.371 | 21.514 | 6 | 5 | clayey silt to silty clay |
| 16.240 | 12.13 | 0.1313 | 1.083 | 19.820 | 5 | 6 | sandy silt to clayey silt |
| 16.404 | 12.07 | 0.1804 | 1.495 | 18.652 | 6 | 5 | clayey silt to silty clay |
| 16.568 | 13.36 | 0.1403 | 1.050 | 14.632 | 5 | 6 | sandy silt to clayey silt |
| 16.732 | 20.44 | 0.1600 | 0.783 | 16.036 | 8 | 6 | sandy silt to clayey silt |
| 16.896 | 21.44 | 0.1703 | 0.794 | 10.422 | 8 | 6 | sandy silt to clayey silt |
| 17.060 | 17.15 | 0.1565 | 0.913 | 8.591 | 7 | 6 | sandy silt to clayey silt |
| 17.224 | 14.94 | 0.1361 | 0.910 | 9.433 | 6 | 6 | sandy silt to clayey silt |
| 17.388 | 12.74 | 0.2179 | 1.711 | 11.421 | 6 | 5 | clayey silt to silty clay |
| 17.552 | 13.96 | 0.1323 | 0.948 | 13.485 | 5 | 6 | sandy silt to clayey silt |
| 17.717 | 17.64 | 0.1338 | 0.758 | 14.196 | 7 | 6 | sandy silt to clayey silt |
| 17.881 | 13.31 | 0.1356 | 1.018 | 17.876 | 5 | 6 | sandy silt to clayey silt |
| 18.045 | 13.15 | 0.1214 | 0.923 | 21.048 | 5 | 6 | sandy silt to clayey silt |
| 18.209 | 12.69 | 0.1110 | 0.875 | 22.839 | 5 | 6 | sandy silt to clayey silt |
| 18.373 | 12.12 | 0.1092 | 0.901 | 24.869 | 5 | 6 | sandy silt to clayey silt |
| 18.537 | 12.61 | 0.0818 | 0.649 | 26.722 | 5 | 6 | sandy silt to clayey silt |
| 18.701 | 12.79 | 0.0870 | 0.680 | 28.137 | 5 | 6 | sandy silt to clayey silt |
| 18.865 | 12.23 | 0.0996 | 0.815 | 33.417 | 5 | 6 | sandy silt to clayey silt |
| 19.029 | 13.11 | 0.1185 | 0.904 | 32.431 | 5 | 6 | sandy silt to clayey silt |
| 19.193 | 13.42 | 0.1172 | 0.873 | 28.396 | 5 | 6 | sandy silt to clayey silt |
| 19.357 | 12.15 | 0.1187 | 0.977 | 26.641 | 5 | 6 | sandy silt to clayey silt |
| 19.521 | 11.63 | 0.1666 | 1.432 | 29.419 | 6 | 5 | clayey silt to silty clay |
| 19.685 | 12.73 | 0.1703 | 1.338 | 31.507 | 6 | 5 | clayey silt to silty clay |
| 19.849 | 13.46 | 0.1784 | 1.325 | 20.121 | 5 | 6 | sandy silt to clayey silt |
| 20.013 | 12.67 | 0.2300 | 1.816 | 22.177 | 6 | 5 | clayey silt to silty clay |
| 20.177 | 13.39 | 0.2813 | 2.101 | 25.780 | 6 | 5 | clayey silt to silty clay |
| 20.341 | 14.07 | 0.2203 | 1.566 | 25.227 | 7 | 5 | clayey silt to silty clay |
| 20.505 | 12.56 | 0.1907 | 1.518 | 26.746 | 6 | 5 | clayey silt to silty clay |
| 20.669 | 12.88 | 0.2037 | 1.582 | 31.280 | 6 | 5 | clayey silt to silty clay |
| 20.833 | 11.84 | 0.2046 | 1.728 | 35.780 | 6 | 5 | clayey silt to silty clay |
| 20.997 | 13.27 | 0.2457 | 1.852 | 40.279 | 6 | 5 | clayey silt to silty clay |
| 21.161 | 13.43 | 0.2650 | 1.972 | 39.684 | 6 | 5 | clayey silt to silty clay |
| 21.325 | 13.07 | 0.2480 | 1.898 | 39.734 | 6 | 5 | clayey silt to silty clay |
| 21.490 | 11.97 | 0.2236 | 1.869 | 34.925 | 6 | 5 | clayey silt to silty clay |
| 21.654 | 10.82 | 0.1984 | 1.833 | 34.509 | 5 | 5 | clayey silt to silty clay |
| 21.818 | 10.36 | 0.1443 | 1.393 | 35.398 | 5 | 5 | clayey silt to silty clay |
| 21.982 | 10.16 | 0.0818 | 0.805 | 35.919 | 4 | 6 | sandy silt to clayey silt |
| 22.146 | 9.81 | 0.0698 | 0.711 | 38.860 | 4 | 6 | sandy silt to clayey silt |
| 22.310 | 10.15 | 0.0760 | 0.749 | 40.351 | 4 | 6 | sandy silt to clayey silt |
| 22.474 | 12.04 | 0.1048 | 0.870 | 43.477 | 5 | 6 | sandy silt to clayey silt |
| 22.638 | 12.14 | 0.1290 | 1.063 | 35.427 | 5 | 6 | sandy silt to clayey silt |
| 22.802 | 9.44 | 0.1974 | 2.091 | 29.700 | 5 | 5 | clayey silt to silty clay |
| 22.966 | 10.18 | 0.1461 | 1.436 | 31.487 | 5 | 5 | clayey silt to silty clay |
| 23.130 | 9.10 | 0.1001 | 1.100 | 20.291 | 4 | 5 | clayey silt to silty clay |
| 23.294 | 7.30 | 0.1068 | 1.464 | 23.502 | 3 | 5 | clayey silt to silty clay |
| 23.458 | 8.17 | 0.1100 | 1.346 | 28.021 | 4 | 5 | clayey silt to silty clay |
| 23.622 | 7.61 | 0.1216 | 1.599 | 28.830 | 4 | 5 | clayey silt to silty clay |
| 23.786 | 7.67 | 0.1093 | 1.425 | 29.741 | 4 | 5 | clayey silt to silty clay |
| 23.950 | 7.91 | 0.1020 | 1.290 | 31.483 | 4 | 5 | clayey silt to silty clay |
| 24.114 | 7.93 | 0.1016 | 1.282 | 33.055 | 4 | 5 | clayey silt to silty clay |
| 24.278 | 7.53 | 0.1005 | 1.335 | 33.776 | 4 | 5 | clayey silt to silty clay |
| 24.442 | 8.14 | 0.1172 | 1.439 | 35.165 | 4 | 5 | clayey silt to silty clay |
| 24.606 | 8.77 | 0.1299 | 1.481 | 36.543 | 4 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 24.770 | 8.81 | 0.1322 | 1.502 | 34.842 | 4 | 5 | clayey silt to silty clay |
| 24.934 | 9.76 | 0.1299 | 1.332 | 33.406 | 5 | 5 | clayey silt to silty clay |
| 25.098 | 9.16 | 0.1155 | 1.261 | 31.265 | 4 | 5 | clayey silt to silty clay |
| 25.262 | 9.12 | 0.0953 | 1.045 | 31.008 | 4 | 5 | clayey silt to silty clay |
| 25.427 | 9.22 | 0.1034 | 1.121 | 34.313 | 4 | 5 | clayey silt to silty clay |
| 25.591 | 10.34 | 0.1399 | 1.353 | 31.431 | 5 | 5 | clayey silt to silty clay |
| 25.755 | 12.92 | 0.1317 | 1.019 | 33.218 | 5 | 6 | sandy silt to clayey silt |
| 25.919 | 14.20 | 0.1350 | 0.951 | 25.961 | 5 | 6 | sandy silt to clayey silt |
| 26.083 | 11.26 | 0.2524 | 2.242 | 25.070 | 5 | 5 | clayey silt to silty clay |
| 26.247 | 12.47 | 0.1822 | 1.461 | 30.737 | 6 | 5 | clayey silt to silty clay |
| 26.411 | 12.20 | 0.1492 | 1.223 | 17.346 | 6 | 5 | clayey silt to silty clay |
| 26.575 | 9.85 | 0.1438 | 1.461 | 21.429 | 5 | 5 | clayey silt to silty clay |
| 26.739 | 9.28 | 0.1219 | 1.313 | 26.216 | 4 | 5 | clayey silt to silty clay |
| 26.903 | 8.70 | 0.1311 | 1.507 | 28.555 | 4 | 5 | clayey silt to silty clay |
| 27.067 | 9.79 | 0.1444 | 1.475 | 33.329 | 5 | 5 | clayey silt to silty clay |
| 27.231 | 10.17 | 0.1793 | 1.763 | 34.051 | 5 | 5 | clayey silt to silty clay |
| 27.395 | 12.18 | 0.2464 | 2.024 | 37.018 | 6 | 5 | clayey silt to silty clay |
| 27.559 | 12.92 | 0.2169 | 1.680 | 30.879 | 6 | 5 | clayey silt to silty clay |
| 27.723 | 12.90 | 0.1617 | 1.253 | 24.492 | 5 | 6 | sandy silt to clayey silt |
| 27.887 | 9.97 | 0.1266 | 1.271 | 25.270 | 5 | 5 | clayey silt to silty clay |
| 28.051 | 9.10 | 0.1209 | 1.329 | 28.856 | 4 | 5 | clayey silt to silty clay |
| 28.215 | 9.11 | 0.1484 | 1.629 | 32.311 | 4 | 5 | clayey silt to silty clay |
| 28.379 | 10.28 | 0.1537 | 1.496 | 34.812 | 5 | 5 | clayey silt to silty clay |
| 28.543 | 10.95 | 0.1692 | 1.546 | 36.410 | 5 | 5 | clayey silt to silty clay |
| 28.707 | 11.28 | 0.1854 | 1.644 | 33.717 | 5 | 5 | clayey silt to silty clay |
| 28.871 | 10.81 | 0.1868 | 1.728 | 35.294 | 5 | 5 | clayey silt to silty clay |
| 29.035 | 10.28 | 0.1837 | 1.788 | 35.479 | 5 | 5 | clayey silt to silty clay |
| 29.199 | 9.17 | 0.1706 | 1.860 | 37.059 | 4 | 5 | clayey silt to silty clay |
| 29.364 | 8.63 | 0.2485 | 2.879 | 37.853 | 6 | 4 | silty clay to clay |
| 29.528 | 8.58 | 0.2487 | 2.899 | 38.965 | 5 | 4 | silty clay to clay |
| 29.692 | 12.17 | 0.2482 | 2.040 | 25.536 | 6 | 5 | clayey silt to silty clay |
| 29.856 | 11.39 | 0.2438 | 2.140 | 25.728 | 5 | 5 | clayey silt to silty clay |
| 30.020 | 10.14 | 0.2165 | 2.135 | 26.615 | 5 | 5 | clayey silt to silty clay |
| 30.184 | 9.77 | 0.1981 | 2.027 | 29.283 | 5 | 5 | clayey silt to silty clay |
| 30.348 | 9.28 | 0.1921 | 2.071 | 34.016 | 4 | 5 | clayey silt to silty clay |
| 30.512 | 8.81 | 0.1797 | 2.040 | 37.290 | 4 | 5 | clayey silt to silty clay |
| 30.676 | 9.06 | 0.1679 | 1.853 | 39.486 | 4 | 5 | clayey silt to silty clay |
| 30.840 | 8.95 | 0.1633 | 1.825 | 40.549 | 4 | 5 | clayey silt to silty clay |
| 31.004 | 8.45 | 0.1654 | 1.958 | 42.065 | 4 | 5 | clayey silt to silty clay |
| 31.168 | 8.30 | 0.1678 | 2.021 | 42.758 | 5 | 4 | silty clay to clay |
| 31.332 | 8.27 | 0.1681 | 2.033 | 42.139 | 5 | 4 | silty clay to clay |
| 31.496 | 7.94 | 0.1619 | 2.040 | 42.112 | 5 | 4 | silty clay to clay |
| 31.660 | 8.17 | 0.1525 | 1.867 | 42.849 | 4 | 5 | clayey silt to silty clay |
| 31.824 | 7.73 | 0.1542 | 1.995 | 43.316 | 5 | 4 | silty clay to clay |
| 31.988 | 7.57 | 0.1530 | 2.021 | 44.558 | 5 | 4 | silty clay to clay |
| 32.152 | 7.94 | 0.1530 | 1.928 | 38.402 | 5 | 4 | silty clay to clay |
| 32.316 | 7.65 | 0.1519 | 1.984 | 42.102 | 5 | 4 | silty clay to clay |
| 32.480 | 7.44 | 0.1358 | 1.825 | 43.584 | 5 | 4 | silty clay to clay |
| 32.644 | 7.56 | 0.1398 | 1.849 | 44.929 | 5 | 4 | silty clay to clay |
| 32.808 | 7.21 | 0.1160 | 1.608 | 43.641 | 3 | 5 | clayey silt to silty clay |
| 32.972 | 7.53 | 0.1202 | 1.595 | 37.469 | 4 | 5 | clayey silt to silty clay |
| 33.136 | 7.54 | 0.1218 | 1.617 | 42.897 | 4 | 5 | clayey silt to silty clay |
| 33.301 | 7.37 | 0.1287 | 1.746 | 46.590 | 5 | 4 | silty clay to clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 33.465 | 7.52 | 0.1322 | 1.758 | 47.429 | 5 | 4 | silty clay to clay |
| 33.629 | 7.52 | 0.1410 | 1.876 | 46.577 | 5 | 4 | silty clay to clay |
| 33.793 | 7.49 | 0.1575 | 2.103 | 48.120 | 5 | 4 | silty clay to clay |
| 33.957 | 8.66 | 0.1510 | 1.744 | 46.852 | 4 | 5 | clayey silt to silty clay |
| 34.121 | 8.28 | 0.1919 | 2.319 | 40.783 | 5 | 4 | silty clay to clay |
| 34.285 | 10.03 | 0.1815 | 1.810 | 41.868 | 5 | 5 | clayey silt to silty clay |
| 34.449 | 9.18 | 0.2057 | 2.240 | 32.196 | 6 | 4 | silty clay to clay |
| 34.613 | 9.16 | 0.2198 | 2.401 | 34.596 | 6 | 4 | silty clay to clay |
| 34.777 | 9.59 | 0.2226 | 2.321 | 33.728 | 6 | 4 | silty clay to clay |
| 34.941 | 9.76 | 0.2309 | 2.365 | 35.525 | 6 | 4 | silty clay to clay |
| 35.105 | 9.78 | 0.2121 | 2.170 | 36.503 | 5 | 5 | clayey silt to silty clay |
| 35.269 | 9.61 | 0.2020 | 2.103 | 38.306 | 5 | 5 | clayey silt to silty clay |
| 35.433 | 9.45 | 0.1818 | 1.924 | 37.957 | 5 | 5 | clayey silt to silty clay |
| 35.597 | 8.09 | 0.1648 | 2.038 | 39.303 | 5 | 4 | silty clay to clay |
| 35.761 | 7.87 | 0.1826 | 2.320 | 43.505 | 5 | 4 | silty clay to clay |
| 35.925 | 10.72 | 0.1702 | 1.588 | 46.379 | 5 | 5 | clayey silt to silty clay |
| 36.089 | 8.56 | 0.1636 | 1.911 | 39.806 | 4 | 5 | clayey silt to silty clay |
| 36.253 | 9.30 | 0.1615 | 1.736 | 38.550 | 4 | 5 | clayey silt to silty clay |
| 36.417 | 9.90 | 0.1563 | 1.578 | 42.823 | 5 | 5 | clayey silt to silty clay |
| 36.581 | 8.99 | 0.1673 | 1.861 | 44.973 | 4 | 5 | clayey silt to silty clay |
| 36.745 | 9.08 | 0.1799 | 1.981 | 47.283 | 4 | 5 | clayey silt to silty clay |
| 36.909 | 9.34 | 0.1755 | 1.880 | 46.699 | 4 | 5 | clayey silt to silty clay |
| 37.073 | 9.22 | 0.1751 | 1.900 | 48.009 | 4 | 5 | clayey silt to silty clay |
| 37.238 | 9.10 | 0.1747 | 1.920 | 50.320 | 4 | 5 | clayey silt to silty clay |
| 37.402 | 9.06 | 0.1668 | 1.841 | 51.502 | 4 | 5 | clayey silt to silty clay |
| 37.566 | 8.70 | 0.1575 | 1.810 | 51.829 | 4 | 5 | clayey silt to silty clay |
| 37.730 | 8.03 | 0.1536 | 1.913 | 52.075 | 5 | 4 | silty clay to clay |
| 37.894 | 9.34 | 0.1545 | 1.654 | 55.107 | 4 | 5 | clayey silt to silty clay |
| 38.058 | 9.34 | 0.1740 | 1.863 | 57.915 | 4 | 5 | clayey silt to silty clay |
| 38.222 | 10.19 | 0.1955 | 1.918 | 60.239 | 5 | 5 | clayey silt to silty clay |
| 38.386 | 10.18 | 0.1735 | 1.705 | 55.931 | 5 | 5 | clayey silt to silty clay |
| 38.550 | 9.41 | 0.2069 | 2.198 | 55.724 | 6 | 4 | silty clay to clay |
| 38.714 | 9.93 | 0.2440 | 2.457 | 48.214 | 6 | 4 | silty clay to clay |
| 38.878 | 9.84 | 0.1776 | 1.805 | 40.735 | 5 | 5 | clayey silt to silty clay |
| 39.042 | 9.63 | 0.1523 | 1.582 | 39.318 | 5 | 5 | clayey silt to silty clay |
| 39.206 | 8.15 | 0.1316 | 1.614 | 47.203 | 4 | 5 | clayey silt to silty clay |
| 39.370 | 7.99 | 0.1337 | 1.674 | 49.952 | 4 | 5 | clayey silt to silty clay |
| 39.534 | 8.88 | 0.1677 | 1.889 | 48.652 | 4 | 5 | clayey silt to silty clay |
| 39.698 | 9.09 | 0.1303 | 1.432 | 51.194 | 4 | 5 | clayey silt to silty clay |
| 39.862 | 9.84 | 0.0965 | 0.981 | 47.017 | 5 | 5 | clayey silt to silty clay |
| 40.026 | 8.16 | 0.0975 | 1.195 | 55.471 | 4 | 5 | clayey silt to silty clay |
| 40.190 | 9.78 | 0.1354 | 1.385 | 62.460 | 5 | 5 | clayey silt to silty clay |
| 40.354 | 11.59 | 0.1401 | 1.209 | 51.140 | 6 | 5 | clayey silt to silty clay |
| 40.518 | 11.30 | 0.1643 | 1.454 | 50.418 | 5 | 5 | clayey silt to silty clay |
| 40.682 | 12.68 | 0.1913 | 1.509 | 54.482 | 6 | 5 | clayey silt to silty clay |
| 40.846 | 13.83 | 0.2155 | 1.558 | 49.239 | 7 | 5 | clayey silt to silty clay |
| 41.011 | 13.15 | 0.1874 | 1.425 | 45.396 | 6 | 5 | clayey silt to silty clay |
| 41.175 | 11.74 | 0.2407 | 2.051 | 42.496 | 6 | 5 | clayey silt to silty clay |
| 41.339 | 13.92 | 0.2196 | 1.577 | 41.339 | 7 | 5 | clayey silt to silty clay |
| 41.503 | 19.41 | 0.2210 | 1.139 | 29.183 | 7 | 6 | sandy silt to clayey silt |
| 41.667 | 18.51 | 0.3005 | 1.624 | 28.100 | 7 | 6 | sandy silt to clayey silt |
| 41.831 | 18.00 | 0.2370 | 1.317 | 31.049 | 7 | 6 | sandy silt to clayey silt |
| 41.995 | 25.09 | 0.2237 | 0.891 | 21.078 | 10 | 6 | sandy silt to clayey silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 42.159 | 36.03 | 0.3784 | 1.050 | 8.988 | 12 | 7 | silty sand to sandy silt |
| 42.323 | 33.31 | 0.6957 | 2.089 | 9.529 | 13 | 6 | sandy silt to clayey silt |
| 42.487 | 26.72 | 0.4594 | 1.719 | 13.180 | 10 | 6 | sandy silt to clayey silt |
| 42.651 | 39.25 | 0.3166 | 0.807 | 7.227 | 13 | 7 | silty sand to sandy silt |
| 42.815 | 38.64 | 0.3220 | 0.834 | 7.536 | 12 | 7 | silty sand to sandy silt |
| 42.979 | 33.86 | 0.4939 | 1.459 | 8.445 | 13 | 6 | sandy silt to clayey silt |
| 43.143 | 33.14 | 0.4246 | 1.281 | 9.592 | 11 | 7 | silty sand to sandy silt |
| 43.307 | 40.48 | 0.4420 | 1.092 | 8.232 | 13 | 7 | silty sand to sandy silt |
| 43.471 | 37.38 | 0.4579 | 1.225 | 3.889 | 12 | 7 | silty sand to sandy silt |
| 43.635 | 35.82 | 0.3959 | 1.105 | 4.425 | 11 | 7 | silty sand to sandy silt |
| 43.799 | 38.78 | 0.3841 | 0.990 | 2.566 | 12 | 7 | silty sand to sandy silt |
| 43.963 | 33.44 | 0.6617 | 1.979 | 2.546 | 13 | 6 | sandy silt to clayey silt |
| 44.127 | 38.29 | 0.4330 | 1.131 | 3.928 | 12 | 7 | silty sand to sandy silt |
| 44.291 | 59.60 | 0.3269 | 0.548 | 2.343 | 14 | 8 | sand to silty sand |
| 44.455 | 63.01 | 0.2943 | 0.467 | 2.027 | 15 | 8 | sand to silty sand |
| 44.619 | 62.23 | 0.3459 | 0.556 | 2.452 | 15 | 8 | sand to silty sand |
| 44.783 | 60.99 | 0.4146 | 0.680 | 3.200 | 15 | 8 | sand to silty sand |
| 44.948 | 63.00 | 0.4449 | 0.706 | 4.063 | 15 | 8 | sand to silty sand |
| 45.112 | 66.00 | 0.5050 | 0.765 | 5.193 | 16 | 8 | sand to silty sand |
| 45.276 | 66.49 | 0.5498 | 0.827 | 11.637 | 16 | 8 | sand to silty sand |
| 45.440 | 61.45 | 0.6223 | 1.013 | 12.406 | 20 | 7 | silty sand to sandy silt |
| 45.604 | 44.69 | 0.7962 | 1.782 | 13.596 | 14 | 7 | silty sand to sandy silt |
| 45.768 | 28.86 | 0.7167 | 2.484 | 14.987 | 11 | 6 | sandy silt to clayey silt |
| 45.932 | 39.73 | 0.5233 | 1.317 | 16.515 | 13 | 7 | silty sand to sandy silt |
| 46.096 | 78.34 | 0.4032 | 0.515 | 3.597 | 19 | 8 | sand to silty sand |
| 46.260 | 93.43 | 0.4944 | 0.529 | 0.802 | 22 | 8 | sand to silty sand |
| 46.424 | 86.24 | 0.6085 | 0.706 | 1.524 | 21 | 8 | sand to silty sand |
| 46.588 | 74.73 | 0.6243 | 0.835 | 3.063 | 18 | 8 | sand to silty sand |
| 46.752 | 72.25 | 0.5936 | 0.822 | 4.916 | 17 | 8 | sand to silty sand |
| 46.916 | 63.77 | 0.6501 | 1.019 | 7.072 | 20 | 7 | silty sand to sandy silt |
| 47.080 | 45.19 | 0.6656 | 1.473 | 8.611 | 14 | 7 | silty sand to sandy silt |
| 47.244 | 50.37 | 0.5733 | 1.138 | 9.611 | 16 | 7 | silty sand to sandy silt |
| 47.408 | 41.76 | 0.5091 | 1.219 | 9.241 | 13 | 7 | silty sand to sandy silt |
| 47.572 | 35.75 | 0.4556 | 1.275 | 8.426 | 11 | 7 | silty sand to sandy silt |
| 47.736 | 26.45 | 0.5563 | 2.103 | 8.369 | 10 | 6 | sandy silt to clayey silt |
| 47.900 | 20.39 | 0.5679 | 2.785 | 10.250 | 10 | 5 | clayey silt to silty clay |
| 48.064 | 17.56 | 0.4934 | 2.810 | 12.539 | 8 | 5 | clayey silt to silty clay |
| 48.228 | 15.07 | 0.4314 | 2.862 | 15.179 | 7 | 5 | clayey silt to silty clay |
| 48.392 | 12.44 | 0.2229 | 1.792 | 19.129 | 6 | 5 | clayey silt to silty clay |
| 48.556 | 11.42 | 0.2241 | 1.962 | 23.932 | 5 | 5 | clayey silt to silty clay |
| 48.720 | 10.50 | 0.2232 | 2.125 | 66.914 | 5 | 5 | clayey silt to silty clay |
| 48.885 | 10.46 | 0.3794 | 3.625 | 67.053 | 10 | 3 | clay |
| 49.049 | 10.50 | 0.4000 | 3.808 | 68.141 | 10 | 3 | clay |
| 49.213 | 8.82 | 0.3204 | 3.635 | 28.845 | 8 | 3 | clay |
| 49.377 | 8.94 | 0.2622 | 2.934 | 52.596 | 6 | 4 | silty clay to clay |
| 49.541 | 8.59 | 0.2555 | 2.976 | 64.965 | 5 | 4 | silty clay to clay |
| 49.705 | 8.91 | 0.1976 | 2.217 | 60.950 | 6 | 4 | silty clay to clay |
| 49.869 | 8.56 | 0.1885 | 2.202 | 62.133 | 5 | 4 | silty clay to clay |
| 50.033 | 8.54 | 0.2160 | 2.527 | 65.469 | 5 | 4 | silty clay to clay |
| 50.197 | 8.66 | 0.2197 | 2.537 | 62.181 | 6 | 4 | silty clay to clay |
| 50.361 | 8.39 | 0.2510 | 2.991 | 63.786 | 5 | 4 | silty clay to clay |
| 50.525 | 9.20 | 0.1761 | 1.915 | 62.949 | 4 | 5 | clayey silt to silty clay |
| 50.689 | 11.22 | 0.1213 | 1.080 | 51.473 | 5 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 50.853 | 9.78 | 0.0924 | 0.945 | 53.424 | 5 | 5 | clayey silt to silty clay |
| 51.017 | 7.82 | 0.0952 | 1.217 | 58.763 | 4 | 5 | clayey silt to silty clay |
| 51.181 | 7.49 | 0.1125 | 1.503 | 65.643 | 4 | 5 | clayey silt to silty clay |
| 51.345 | 8.45 | 0.2134 | 2.526 | 70.097 | 5 | 4 | silty clay to clay |
| 51.509 | 13.92 | 0.2413 | 1.734 | 73.892 | 7 | 5 | clayey silt to silty clay |
| 51.673 | 72.90 | 0.2384 | 0.327 | 16.507 | 17 | 8 | sand to silty sand |
| 51.837 | 93.79 | 0.3556 | 0.379 | 13.141 | 22 | 8 | sand to silty sand |
| 52.001 | 116.38 | 0.5975 | 0.513 | 13.099 | 22 | 9 | sand |
| 52.165 | 137.22 | 0.7806 | 0.569 | 14.787 | 26 | 9 | sand |
| 52.329 | 138.51 | 0.8337 | 0.602 | 16.332 | 27 | 9 | sand |
| 52.493 | 135.80 | 0.8515 | 0.627 | 17.108 | 26 | 9 | sand |
| 52.657 | 134.33 | 0.9163 | 0.682 | 18.660 | 26 | 9 | sand |
| 52.822 | 133.43 | 0.9091 | 0.681 | 18.870 | 26 | 9 | sand |
| 52.986 | 130.46 | 0.8565 | 0.657 | 19.179 | 25 | 9 | sand |
| 53.150 | 123.39 | 0.7998 | 0.648 | 19.306 | 24 | 9 | sand |
| 53.314 | 115.97 | 0.7689 | 0.663 | 19.498 | 28 | 8 | sand to silty sand |
| 53.478 | 109.33 | 0.7238 | 0.662 | 19.511 | 26 | 8 | sand to silty sand |
| 53.642 | 106.78 | 0.7002 | 0.656 | 19.722 | 26 | 8 | sand to silty sand |
| 53.806 | 103.15 | 0.6936 | 0.672 | 19.883 | 25 | 8 | sand to silty sand |
| 53.970 | 105.13 | 0.7020 | 0.668 | 20.001 | 25 | 8 | sand to silty sand |
| 54.134 | 105.54 | 0.6902 | 0.654 | 20.176 | 25 | 8 | sand to silty sand |
| 54.298 | 105.17 | 0.6868 | 0.653 | 20.232 | 25 | 8 | sand to silty sand |
| 54.462 | 107.11 | 0.6839 | 0.639 | 20.250 | 26 | 8 | sand to silty sand |
| 54.626 | 105.77 | 0.6935 | 0.656 | 20.195 | 25 | 8 | sand to silty sand |
| 54.790 | 102.34 | 0.5152 | 0.503 | 20.184 | 25 | 8 | sand to silty sand |
| 54.954 | 95.51 | 0.4746 | 0.497 | 20.167 | 23 | 8 | sand to silty sand |
| 55.118 | 84.63 | 0.4507 | 0.533 | 18.977 | 20 | 8 | sand to silty sand |
| 55.282 | 81.26 | 0.4404 | 0.542 | 19.652 | 19 | 8 | sand to silty sand |
| 55.446 | 77.54 | 0.4334 | 0.559 | 19.855 | 19 | 8 | sand to silty sand |
| 55.610 | 74.53 | 0.4346 | 0.583 | 20.049 | 18 | 8 | sand to silty sand |
| 55.774 | 70.03 | 0.4036 | 0.576 | 20.247 | 17 | 8 | sand to silty sand |
| 55.938 | 64.41 | 0.3985 | 0.619 | 20.651 | 15 | 8 | sand to silty sand |
| 56.102 | 62.20 | 0.3870 | 0.622 | 20.753 | 15 | 8 | sand to silty sand |
| 56.266 | 66.24 | 0.3864 | 0.583 | 20.860 | 16 | 8 | sand to silty sand |
| 56.430 | 72.88 | 0.4559 | 0.626 | 20.947 | 17 | 8 | sand to silty sand |
| 56.594 | 70.99 | 0.4941 | 0.696 | 21.004 | 17 | 8 | sand to silty sand |
| 56.759 | 95.53 | 0.4598 | 0.481 | 21.553 | 23 | 8 | sand to silty sand |
| 56.923 | 112.67 | 0.5323 | 0.472 | 17.948 | 22 | 9 | sand |
| 57.087 | 111.96 | 0.6910 | 0.617 | 17.738 | 27 | 8 | sand to silty sand |
| 57.251 | 120.23 | 0.7804 | 0.649 | 19.229 | 23 | 9 | sand |
| 57.415 | 130.99 | 0.7725 | 0.590 | 19.968 | 25 | 9 | sand |
| 57.579 | 127.58 | 0.7215 | 0.565 | 20.396 | 24 | 9 | sand |
| 57.743 | 127.64 | 0.7000 | 0.548 | 20.777 | 24 | 9 | sand |
| 57.907 | 121.55 | 0.6846 | 0.563 | 20.989 | 23 | 9 | sand |
| 58.071 | 122.18 | 0.6003 | 0.491 | 21.194 | 23 | 9 | sand |
| 58.235 | 121.09 | 0.5782 | 0.477 | 21.246 | 23 | 9 | sand |
| 58.399 | 113.80 | 0.5829 | 0.512 | 20.420 | 22 | 9 | sand |
| 58.563 | 115.67 | 0.5796 | 0.501 | 21.048 | 22 | 9 | sand |
| 58.727 | 127.86 | 0.5982 | 0.468 | 21.305 | 24 | 9 | sand |
| 58.891 | 128.79 | 0.6694 | 0.520 | 21.296 | 25 | 9 | sand |
| 59.055 | 127.28 | 0.6144 | 0.483 | 21.359 | 24 | 9 | sand |
| 59.219 | 119.26 | 0.6243 | 0.524 | 20.843 | 23 | 9 | sand |
| 59.383 | 111.99 | 0.6242 | 0.557 | 21.213 | 21 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 59.547 | 115.94 | 0.6177 | 0.533 | 21.521 | 22 | 9 | sand | |
| 59.711 | 142.47 | 0.6705 | 0.471 | 21.845 | 27 | 9 | sand | |
| 59.875 | 157.71 | 0.7149 | 0.453 | 21.996 | 30 | 9 | sand | |
| 60.039 | 164.40 | 0.7960 | 0.484 | 21.909 | 31 | 9 | sand | |
| 60.203 | 149.67 | 0.7935 | 0.530 | 21.889 | 29 | 9 | sand | |
| 60.367 | 131.18 | 0.7341 | 0.560 | 21.549 | 25 | 9 | sand | |
| 60.532 | 119.38 | 0.6915 | 0.579 | 21.691 | 23 | 9 | sand | |
| 60.696 | 112.97 | 0.6669 | 0.590 | 21.917 | 27 | 8 | sand to silty sand | |
| 60.860 | 110.13 | 0.6182 | 0.561 | 22.061 | 26 | 8 | sand to silty sand | |
| 61.024 | 108.90 | 0.6059 | 0.556 | 22.225 | 26 | 8 | sand to silty sand | |
| 61.188 | 117.98 | 0.6358 | 0.539 | 22.421 | 23 | 9 | sand | |
| 61.352 | 119.86 | 0.5806 | 0.484 | 22.591 | 23 | 9 | sand | |
| 61.516 | 130.10 | 0.5605 | 0.431 | 22.680 | 25 | 9 | sand | |
| 61.680 | 140.42 | 0.6039 | 0.430 | 21.950 | 27 | 9 | sand | |
| 61.844 | 154.95 | 0.7027 | 0.454 | 22.628 | 30 | 9 | sand | |
| 62.008 | 169.36 | 0.7472 | 0.441 | 22.467 | 32 | 9 | sand | |
| 62.172 | 173.08 | 0.6990 | 0.404 | 22.386 | 33 | 9 | sand | |
| 62.336 | 153.84 | 0.6308 | 0.410 | 22.340 | 29 | 9 | sand | |
| 62.500 | 149.75 | 0.6630 | 0.443 | 22.268 | 29 | 9 | sand | |
| 62.664 | 136.93 | 0.6361 | 0.465 | 22.465 | 26 | 9 | sand | |
| 62.828 | 135.60 | 0.6330 | 0.467 | 22.569 | 26 | 9 | sand | |
| 62.992 | 129.78 | 0.6025 | 0.464 | 22.870 | 25 | 9 | sand | |
| 63.156 | 116.91 | 0.6027 | 0.516 | 22.863 | 22 | 9 | sand | |
| 63.320 | 110.87 | 0.5789 | 0.522 | 23.027 | 21 | 9 | sand | |
| 63.484 | 120.30 | 0.4968 | 0.413 | 23.269 | 23 | 9 | sand | |
| 63.648 | 137.23 | 0.5119 | 0.373 | 23.626 | 26 | 9 | sand | |
| 63.812 | 128.15 | 0.5103 | 0.398 | 24.494 | 25 | 9 | sand | |
| 63.976 | 116.32 | 0.4934 | 0.424 | 24.254 | 22 | 9 | sand | |
| 64.140 | 115.27 | 0.4792 | 0.416 | 24.291 | 22 | 9 | sand | |
| 64.304 | 93.63 | 0.4584 | 0.490 | 24.270 | 22 | 8 | sand to silty sand | |
| 64.469 | 87.05 | 0.4379 | 0.503 | 24.507 | 21 | 8 | sand to silty sand | |
| 64.633 | 84.01 | 0.4087 | 0.486 | 24.703 | 20 | 8 | sand to silty sand | |
| 64.797 | 83.13 | 0.3809 | 0.458 | 24.832 | 20 | 8 | sand to silty sand | |
| 64.961 | 80.01 | 0.3686 | 0.461 | 24.178 | 19 | 8 | sand to silty sand | |
| 65.125 | 83.44 | 0.3859 | 0.462 | 24.664 | 20 | 8 | sand to silty sand | |
| 65.289 | 85.21 | 0.3971 | 0.466 | 24.919 | 20 | 8 | sand to silty sand | |
| 65.453 | 87.47 | 0.3791 | 0.433 | 25.083 | 21 | 8 | sand to silty sand | |
| 65.617 | 95.73 | 0.4054 | 0.423 | 25.213 | 23 | 8 | sand to silty sand | |
| 65.781 | 108.80 | 0.4297 | 0.395 | 24.941 | 21 | 9 | sand | |
| 65.945 | 135.10 | 0.5188 | 0.384 | 25.240 | 26 | 9 | sand | |
| 66.109 | 156.62 | 0.6106 | 0.390 | 25.639 | 30 | 9 | sand | |
| 66.273 | 166.68 | 0.7428 | 0.446 | 25.660 | 32 | 9 | sand | |
| 66.437 | 172.47 | 0.7893 | 0.458 | 25.926 | 33 | 9 | sand | |
| 66.601 | 173.33 | 0.7498 | 0.433 | 26.168 | 33 | 9 | sand | |
| 66.765 | 178.93 | 0.8125 | 0.454 | 26.053 | 34 | 9 | sand | |
| 66.929 | 161.07 | 0.7907 | 0.491 | 25.928 | 31 | 9 | sand | |
| 67.093 | 138.61 | 0.7883 | 0.569 | 25.911 | 27 | 9 | sand | |
| 67.257 | 136.59 | 0.7570 | 0.554 | 25.948 | 26 | 9 | sand | |
| 67.421 | 140.80 | 0.7649 | 0.543 | 26.057 | 27 | 9 | sand | |
| 67.585 | 140.17 | 0.7713 | 0.550 | 26.160 | 27 | 9 | sand | |
| 67.749 | 136.21 | 0.7694 | 0.565 | 26.092 | 26 | 9 | sand | |
| 67.913 | 133.95 | 0.6944 | 0.518 | 26.090 | 26 | 9 | sand | |
| 68.077 | 135.50 | 0.6492 | 0.479 | 26.040 | 26 | 9 | sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 68.241 | 136.53 | 0.6530 | 0.478 | 25.083 | 26 | 9 | sand | |
| 68.406 | 145.80 | 0.6452 | 0.443 | 25.501 | 28 | 9 | sand | |
| 68.570 | 146.33 | 0.6619 | 0.452 | 25.634 | 28 | 9 | sand | |
| 68.734 | 139.12 | 0.6349 | 0.456 | 25.460 | 27 | 9 | sand | |
| 68.898 | 120.90 | 0.5608 | 0.464 | 25.248 | 23 | 9 | sand | |
| 69.062 | 105.88 | 0.5265 | 0.497 | 25.593 | 20 | 9 | sand | |
| 69.226 | 96.50 | 0.5074 | 0.526 | 25.621 | 23 | 8 | sand to silty | sand |
| 69.390 | 91.61 | 0.5057 | 0.552 | 25.793 | 22 | 8 | sand to silty | sand |
| 69.554 | 89.19 | 0.5010 | 0.562 | 25.944 | 21 | 8 | sand to silty | sand |
| 69.718 | 87.17 | 0.5017 | 0.576 | 26.090 | 21 | 8 | sand to silty | sand |
| 69.882 | 86.02 | 0.4967 | 0.577 | 26.164 | 21 | 8 | sand to silty | sand |
| 70.046 | 84.68 | 0.4965 | 0.586 | 26.295 | 20 | 8 | sand to silty | sand |
| 70.210 | 84.06 | 0.4839 | 0.576 | 26.367 | 20 | 8 | sand to silty | sand |
| 70.374 | 83.05 | 0.4848 | 0.584 | 26.539 | 20 | 8 | sand to silty | sand |
| 70.538 | 82.09 | 0.4766 | 0.581 | 26.604 | 20 | 8 | sand to silty | sand |
| 70.702 | 82.33 | 0.4831 | 0.587 | 26.698 | 20 | 8 | sand to silty | sand |
| 70.866 | 81.84 | 0.4829 | 0.590 | 26.772 | 20 | 8 | sand to silty | sand |
| 71.030 | 82.28 | 0.4976 | 0.605 | 26.925 | 20 | 8 | sand to silty | sand |
| 71.194 | 83.60 | 0.3770 | 0.451 | 26.949 | 20 | 8 | sand to silty | sand |
| 71.358 | 87.56 | 0.3829 | 0.437 | 27.088 | 21 | 8 | sand to silty | sand |
| 71.522 | 99.15 | 0.4148 | 0.418 | 26.463 | 19 | 9 | sand | |
| 71.686 | 114.59 | 0.5069 | 0.442 | 27.051 | 22 | 9 | sand | |
| 71.850 | 133.56 | 0.6425 | 0.481 | 27.326 | 26 | 9 | sand | |
| 72.014 | 142.00 | 0.7765 | 0.547 | 27.420 | 27 | 9 | sand | |
| 72.178 | 136.64 | 0.7097 | 0.519 | 27.090 | 26 | 9 | sand | |
| 72.343 | 130.94 | 0.8171 | 0.624 | 27.465 | 25 | 9 | sand | |
| 72.507 | 116.76 | 0.9256 | 0.793 | 27.228 | 28 | 8 | sand to silty | sand |
| 72.671 | 107.42 | 0.9198 | 0.856 | 27.064 | 26 | 8 | sand to silty | sand |
| 72.835 | 142.91 | 0.6755 | 0.473 | 28.488 | 27 | 9 | sand | |
| 72.999 | 146.89 | 0.5802 | 0.395 | 12.070 | 28 | 9 | sand | |
| 73.163 | 127.48 | 0.7243 | 0.568 | 11.741 | 24 | 9 | sand | |
| 73.327 | 128.01 | 0.7578 | 0.592 | 15.986 | 25 | 9 | sand | |
| 73.491 | 130.28 | 0.7720 | 0.593 | 21.494 | 25 | 9 | sand | |
| 73.655 | 119.49 | 0.6960 | 0.582 | 24.147 | 23 | 9 | sand | |
| 73.819 | 112.82 | 0.6402 | 0.567 | 26.327 | 22 | 9 | sand | |
| 73.983 | 110.65 | 0.6110 | 0.552 | 27.084 | 21 | 9 | sand | |
| 74.147 | 103.66 | 0.6049 | 0.584 | 27.457 | 25 | 8 | sand to silty | sand |
| 74.311 | 95.40 | 0.6145 | 0.644 | 27.561 | 23 | 8 | sand to silty | sand |
| 74.475 | 92.96 | 0.5596 | 0.602 | 27.753 | 22 | 8 | sand to silty | sand |
| 74.639 | 89.55 | 0.5284 | 0.590 | 27.768 | 21 | 8 | sand to silty | sand |
| 74.803 | 96.71 | 0.5263 | 0.544 | 28.165 | 23 | 8 | sand to silty | sand |
| 74.967 | 107.02 | 0.5175 | 0.484 | 28.196 | 20 | 9 | sand | |
| 75.131 | 112.33 | 0.5529 | 0.492 | 28.161 | 22 | 9 | sand | |
| 75.295 | 103.68 | 0.4951 | 0.477 | 28.102 | 20 | 9 | sand | |
| 75.459 | 106.01 | 0.4989 | 0.471 | 28.198 | 20 | 9 | sand | |
| 75.623 | 111.61 | 0.4875 | 0.437 | 28.828 | 21 | 9 | sand | |
| 75.787 | 115.16 | 0.4780 | 0.415 | 28.952 | 22 | 9 | sand | |
| 75.951 | 112.36 | 0.4778 | 0.425 | 28.983 | 22 | 9 | sand | |
| 76.115 | 102.92 | 0.4859 | 0.472 | 29.129 | 20 | 9 | sand | |
| 76.280 | 101.14 | 0.5049 | 0.499 | 29.251 | 24 | 8 | sand to silty | sand |
| 76.444 | 105.59 | 0.5103 | 0.483 | 29.467 | 20 | 9 | sand | |
| 76.608 | 104.77 | 0.5192 | 0.496 | 29.554 | 20 | 9 | sand | |
| 76.772 | 102.00 | 0.5296 | 0.519 | 29.643 | 24 | 8 | sand to silty | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 76.936 | 101.28 | 0.5192 | 0.513 | 29.711 | 24 | 8 | sand to silty sand | |
| 77.100 | 100.25 | 0.5234 | 0.522 | 29.813 | 24 | 8 | sand to silty sand | |
| 77.264 | 96.75 | 0.5348 | 0.553 | 29.857 | 23 | 8 | sand to silty sand | |
| 77.428 | 96.86 | 0.5362 | 0.554 | 29.909 | 23 | 8 | sand to silty sand | |
| 77.592 | 99.23 | 0.5339 | 0.538 | 30.022 | 24 | 8 | sand to silty sand | |
| 77.756 | 103.81 | 0.5704 | 0.550 | 30.127 | 25 | 8 | sand to silty sand | |
| 77.920 | 116.43 | 0.5326 | 0.457 | 30.210 | 22 | 9 | sand | |
| 78.084 | 121.20 | 0.5331 | 0.440 | 29.606 | 23 | 9 | sand | |
| 78.248 | 122.14 | 0.5301 | 0.434 | 29.818 | 23 | 9 | sand | |
| 78.412 | 110.77 | 0.5325 | 0.481 | 29.693 | 21 | 9 | sand | |
| 78.576 | 102.95 | 0.5599 | 0.544 | 29.868 | 25 | 8 | sand to silty sand | |
| 78.740 | 95.56 | 0.5210 | 0.545 | 30.016 | 23 | 8 | sand to silty sand | |
| 78.904 | 95.00 | 0.5156 | 0.543 | 30.380 | 23 | 8 | sand to silty sand | |
| 79.068 | 96.34 | 0.5370 | 0.557 | 30.493 | 23 | 8 | sand to silty sand | |
| 79.232 | 104.58 | 0.5407 | 0.517 | 30.661 | 25 | 8 | sand to silty sand | |
| 79.396 | 115.74 | 0.5726 | 0.495 | 30.764 | 22 | 9 | sand | |
| 79.560 | 119.69 | 0.5924 | 0.495 | 30.646 | 23 | 9 | sand | |
| 79.724 | 121.83 | 0.6144 | 0.504 | 30.733 | 23 | 9 | sand | |
| 79.888 | 127.56 | 0.6306 | 0.494 | 30.816 | 24 | 9 | sand | |
| 80.052 | 134.86 | 0.6631 | 0.492 | 30.918 | 26 | 9 | sand | |
| 80.217 | 134.70 | 0.6911 | 0.513 | 30.857 | 26 | 9 | sand | |
| 80.381 | 127.52 | 0.6649 | 0.521 | 30.833 | 24 | 9 | sand | |
| 80.545 | 130.93 | 0.6885 | 0.526 | 30.958 | 25 | 9 | sand | |
| 80.709 | 136.76 | 0.6892 | 0.504 | 31.163 | 26 | 9 | sand | |
| 80.873 | 131.15 | 0.7030 | 0.536 | 31.269 | 25 | 9 | sand | |
| 81.037 | 128.47 | 0.7229 | 0.563 | 31.173 | 25 | 9 | sand | |
| 81.201 | 129.29 | 0.6980 | 0.540 | 31.265 | 25 | 9 | sand | |
| 81.365 | 125.96 | 0.6708 | 0.533 | 30.589 | 24 | 9 | sand | |
| 81.529 | 126.99 | 0.6477 | 0.510 | 30.912 | 24 | 9 | sand | |
| 81.693 | 126.01 | 0.6577 | 0.522 | 30.966 | 24 | 9 | sand | |
| 81.857 | 116.57 | 0.5388 | 0.462 | 31.008 | 22 | 9 | sand | |
| 82.021 | 110.69 | 0.5527 | 0.499 | 31.001 | 21 | 9 | sand | |
| 82.185 | 115.82 | 0.5478 | 0.473 | 31.378 | 22 | 9 | sand | |
| 82.349 | 112.52 | 0.5880 | 0.523 | 31.649 | 22 | 9 | sand | |
| 82.513 | 112.13 | 0.5885 | 0.525 | 31.736 | 21 | 9 | sand | |
| 82.677 | 118.75 | 0.6496 | 0.547 | 32.039 | 23 | 9 | sand | |
| 82.841 | 133.47 | 0.6885 | 0.516 | 32.215 | 26 | 9 | sand | |
| 83.005 | 148.96 | 0.6803 | 0.457 | 32.300 | 29 | 9 | sand | |
| 83.169 | 158.23 | 0.6995 | 0.442 | 32.327 | 30 | 9 | sand | |
| 83.333 | 141.67 | 0.6852 | 0.484 | 31.971 | 27 | 9 | sand | |
| 83.497 | 113.77 | 0.6356 | 0.559 | 31.566 | 22 | 9 | sand | |
| 83.661 | 101.73 | 0.6217 | 0.611 | 31.718 | 24 | 8 | sand to silty sand | |
| 83.825 | 93.07 | 0.6292 | 0.676 | 32.109 | 22 | 8 | sand to silty sand | |
| 83.990 | 91.64 | 0.6184 | 0.675 | 32.490 | 22 | 8 | sand to silty sand | |
| 84.154 | 98.31 | 0.6123 | 0.623 | 32.817 | 24 | 8 | sand to silty sand | |
| 84.318 | 108.61 | 0.4901 | 0.451 | 32.954 | 21 | 9 | sand | |
| 84.482 | 110.91 | 0.4613 | 0.416 | 32.961 | 21 | 9 | sand | |
| 84.646 | 106.06 | 0.4717 | 0.445 | 32.028 | 20 | 9 | sand | |
| 84.810 | 97.82 | 0.4666 | 0.477 | 32.281 | 23 | 8 | sand to silty sand | |
| 84.974 | 89.96 | 0.4743 | 0.527 | 32.425 | 22 | 8 | sand to silty sand | |
| 85.138 | 88.11 | 0.4744 | 0.538 | 32.584 | 21 | 8 | sand to silty sand | |
| 85.302 | 91.54 | 0.4762 | 0.520 | 32.808 | 22 | 8 | sand to silty sand | |
| 85.466 | 102.54 | 0.4866 | 0.475 | 33.404 | 25 | 8 | sand to silty sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 85.630 | 117.04 | 0.5035 | 0.430 | 33.425 | 22 | 9 | sand |
| 85.794 | 124.58 | 0.5117 | 0.411 | 33.273 | 24 | 9 | sand |
| 85.958 | 108.22 | 0.5038 | 0.465 | 33.033 | 21 | 9 | sand |
| 86.122 | 100.03 | 0.4989 | 0.499 | 33.186 | 24 | 8 | sand to silty sand |
| 86.286 | 99.54 | 0.5010 | 0.503 | 33.480 | 24 | 8 | sand to silty sand |
| 86.450 | 98.94 | 0.4879 | 0.493 | 33.598 | 24 | 8 | sand to silty sand |
| 86.614 | 100.56 | 0.5013 | 0.498 | 33.702 | 24 | 8 | sand to silty sand |
| 86.778 | 94.89 | 0.5021 | 0.529 | 33.757 | 23 | 8 | sand to silty sand |
| 86.942 | 97.86 | 0.5202 | 0.532 | 33.983 | 23 | 8 | sand to silty sand |
| 87.106 | 109.44 | 0.5211 | 0.476 | 34.262 | 21 | 9 | sand |
| 87.270 | 125.13 | 0.5620 | 0.449 | 34.382 | 24 | 9 | sand |
| 87.434 | 126.36 | 0.5661 | 0.448 | 34.393 | 24 | 9 | sand |
| 87.598 | 146.67 | 0.6983 | 0.476 | 34.437 | 28 | 9 | sand |
| 87.762 | 131.55 | 0.7059 | 0.537 | 33.796 | 25 | 9 | sand |
| 87.927 | 164.27 | 0.7151 | 0.435 | 34.504 | 31 | 9 | sand |
| 88.091 | 170.86 | 0.7288 | 0.427 | 34.467 | 33 | 9 | sand |
| 88.255 | 173.78 | 0.7769 | 0.447 | 34.343 | 33 | 9 | sand |
| 88.419 | 176.04 | 0.7950 | 0.452 | 34.284 | 34 | 9 | sand |
| 88.583 | 146.66 | 0.7276 | 0.496 | 33.789 | 28 | 9 | sand |
| 88.747 | 123.04 | 0.6848 | 0.557 | 33.399 | 24 | 9 | sand |
| 88.911 | 128.03 | 0.6882 | 0.538 | 33.903 | 25 | 9 | sand |
| 89.075 | 141.12 | 0.7059 | 0.500 | 34.494 | 27 | 9 | sand |
| 89.239 | 153.03 | 0.7384 | 0.483 | 34.622 | 29 | 9 | sand |
| 89.403 | 136.42 | 0.6941 | 0.509 | 34.051 | 26 | 9 | sand |
| 89.567 | 125.37 | 0.6816 | 0.544 | 33.996 | 24 | 9 | sand |
| 89.731 | 112.28 | 0.6579 | 0.586 | 34.108 | 27 | 8 | sand to silty sand |
| 89.895 | 114.84 | 0.6594 | 0.574 | 34.635 | 22 | 9 | sand |
| 90.059 | 129.22 | 0.6725 | 0.520 | 35.283 | 25 | 9 | sand |
| 90.223 | 128.89 | 0.6825 | 0.529 | 35.023 | 25 | 9 | sand |
| 90.387 | 145.59 | 0.6828 | 0.469 | 35.361 | 28 | 9 | sand |
| 90.551 | 138.54 | 0.6695 | 0.483 | 35.067 | 27 | 9 | sand |
| 90.715 | 108.60 | 0.6621 | 0.610 | 34.328 | 26 | 8 | sand to silty sand |
| 90.879 | 97.18 | 0.6537 | 0.673 | 34.424 | 23 | 8 | sand to silty sand |
| 91.043 | 94.60 | 0.5701 | 0.603 | 34.422 | 23 | 8 | sand to silty sand |
| 91.207 | 92.70 | 0.5364 | 0.579 | 34.498 | 22 | 8 | sand to silty sand |
| 91.371 | 87.55 | 0.5340 | 0.610 | 34.923 | 21 | 8 | sand to silty sand |
| 91.535 | 93.01 | 0.5712 | 0.614 | 35.228 | 22 | 8 | sand to silty sand |
| 91.699 | 109.73 | 0.6178 | 0.563 | 35.527 | 26 | 8 | sand to silty sand |
| 91.864 | 137.81 | 0.6757 | 0.490 | 35.841 | 26 | 9 | sand |
| 92.028 | 153.83 | 0.6914 | 0.449 | 35.566 | 29 | 9 | sand |
| 92.192 | 157.42 | 0.7212 | 0.458 | 35.799 | 30 | 9 | sand |
| 92.356 | 127.23 | 0.7151 | 0.562 | 35.082 | 24 | 9 | sand |
| 92.520 | 120.97 | 0.6546 | 0.541 | 35.551 | 23 | 9 | sand |
| 92.684 | 123.12 | 0.6660 | 0.541 | 36.233 | 24 | 9 | sand |
| 92.848 | 146.65 | 0.7617 | 0.519 | 36.809 | 28 | 9 | sand |
| 93.012 | 150.35 | 0.7606 | 0.506 | 36.503 | 29 | 9 | sand |
| 93.176 | 129.90 | 0.5644 | 0.435 | 36.248 | 25 | 9 | sand |
| 93.340 | 93.43 | 0.5888 | 0.630 | 35.616 | 22 | 8 | sand to silty sand |
| 93.504 | 122.23 | 0.6530 | 0.534 | 37.312 | 23 | 9 | sand |
| 93.668 | 149.14 | 0.6624 | 0.444 | 37.563 | 29 | 9 | sand |
| 93.832 | 162.98 | 0.6839 | 0.420 | 37.559 | 31 | 9 | sand |
| 93.996 | 168.66 | 0.7111 | 0.422 | 37.508 | 32 | 9 | sand |
| 94.160 | 170.80 | 0.7366 | 0.431 | 37.692 | 33 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 94.324 | 172.83 | 0.7443 | 0.431 | 37.729 | 33 | 9 | sand |
| 94.488 | 171.33 | 0.8034 | 0.469 | 35.716 | 33 | 9 | sand |
| 94.652 | 179.02 | 0.8434 | 0.471 | 36.628 | 34 | 9 | sand |
| 94.816 | 183.43 | 0.8773 | 0.478 | 36.562 | 35 | 9 | sand |
| 94.980 | 159.58 | 0.8712 | 0.546 | 35.956 | 31 | 9 | sand |
| 95.144 | 116.72 | 0.7126 | 0.611 | 35.089 | 22 | 9 | sand |
| 95.308 | 92.40 | 0.6122 | 0.663 | 36.920 | 22 | 8 | sand to silty sand |
| 95.472 | 87.46 | 0.5823 | 0.666 | 37.103 | 21 | 8 | sand to silty sand |
| 95.636 | 83.90 | 0.5658 | 0.674 | 37.330 | 20 | 8 | sand to silty sand |
| 95.801 | 83.00 | 0.5469 | 0.659 | 37.517 | 20 | 8 | sand to silty sand |
| 95.965 | 84.21 | 0.5383 | 0.639 | 37.382 | 20 | 8 | sand to silty sand |
| 96.129 | 84.04 | 0.5458 | 0.649 | 37.903 | 20 | 8 | sand to silty sand |
| 96.293 | 84.84 | 0.5404 | 0.637 | 37.870 | 20 | 8 | sand to silty sand |
| 96.457 | 87.99 | 0.5446 | 0.619 | 37.829 | 21 | 8 | sand to silty sand |
| 96.621 | 93.83 | 0.5714 | 0.609 | 38.073 | 22 | 8 | sand to silty sand |
| 96.785 | 108.91 | 0.6120 | 0.562 | 38.298 | 26 | 8 | sand to silty sand |
| 96.949 | 125.79 | 0.6390 | 0.508 | 38.485 | 24 | 9 | sand |
| 97.113 | 163.82 | 0.7848 | 0.479 | 39.076 | 31 | 9 | sand |
| 97.277 | 183.90 | 0.8445 | 0.459 | 39.255 | 35 | 9 | sand |
| 97.441 | 183.29 | 0.9773 | 0.533 | 38.978 | 35 | 9 | sand |
| 97.605 | 183.32 | 0.9485 | 0.517 | 38.313 | 35 | 9 | sand |
| 97.769 | 178.57 | 0.8966 | 0.502 | 37.478 | 34 | 9 | sand |
| 97.933 | 182.40 | 0.9169 | 0.503 | 37.465 | 35 | 9 | sand |
| 98.097 | 175.82 | 0.9284 | 0.528 | 38.308 | 34 | 9 | sand |
| 98.261 | 150.39 | 1.0483 | 0.697 | 38.472 | 29 | 9 | sand |
| 98.425 | 130.79 | 1.0328 | 0.790 | 37.811 | 31 | 8 | sand to silty sand |
| 98.589 | 147.24 | 1.0185 | 0.692 | 38.962 | 28 | 9 | sand |
| 98.753 | 148.58 | 1.0097 | 0.680 | 38.980 | 28 | 9 | sand |
| 98.917 | 149.76 | 0.9964 | 0.665 | 39.130 | 29 | 9 | sand |
| 99.081 | 149.95 | 0.9749 | 0.650 | 39.189 | 29 | 9 | sand |
| 99.245 | 148.89 | 0.9596 | 0.644 | 39.248 | 29 | 9 | sand |
| 99.409 | 146.85 | 0.9432 | 0.642 | 39.287 | 28 | 9 | sand |
| 99.573 | 145.57 | 0.9354 | 0.643 | 39.202 | 28 | 9 | sand |
| 99.738 | 143.68 | 0.9222 | 0.642 | 39.194 | 28 | 9 | sand |
| 99.902 | 142.07 | 0.9065 | 0.638 | 39.326 | 27 | 9 | sand |
| 100.066 | 140.54 | 0.8841 | 0.629 | 39.030 | 27 | 9 | sand |
| 100.230 | 136.43 | 0.8726 | 0.640 | 39.106 | 26 | 9 | sand |
| 100.394 | 129.67 | 0.8425 | 0.650 | 38.993 | 25 | 9 | sand |
| 100.558 | 127.97 | 0.7970 | 0.623 | 39.050 | 25 | 9 | sand |
| 100.722 | 122.11 | 0.7259 | 0.594 | 39.163 | 23 | 9 | sand |
| 100.886 | 116.77 | 0.6668 | 0.571 | 39.215 | 22 | 9 | sand |
| 101.050 | 118.55 | 0.6637 | 0.560 | 39.030 | 23 | 9 | sand |
| 101.214 | 136.76 | 0.7006 | 0.512 | 39.871 | 26 | 9 | sand |
| 101.378 | 158.18 | 0.7709 | 0.487 | 40.079 | 30 | 9 | sand |
| 101.542 | 136.36 | 0.8191 | 0.601 | 39.002 | 26 | 9 | sand |
| 101.706 | 132.22 | 0.8228 | 0.622 | 39.098 | 25 | 9 | sand |
| 101.870 | 147.41 | 0.8760 | 0.594 | 39.933 | 28 | 9 | sand |
| 102.034 | 162.26 | 0.8638 | 0.532 | 40.323 | 31 | 9 | sand |
| 102.198 | 178.58 | 0.8669 | 0.485 | 40.179 | 34 | 9 | sand |
| 102.362 | 162.63 | 0.8564 | 0.527 | 39.115 | 31 | 9 | sand |
| 102.526 | 136.59 | 0.8564 | 0.627 | 38.823 | 26 | 9 | sand |
| 102.690 | 136.23 | 0.8578 | 0.630 | 39.316 | 26 | 9 | sand |
| 102.854 | 136.66 | 0.7986 | 0.584 | 39.322 | 26 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 103.018 | 138.49 | 0.7845 | 0.566 | 39.512 | 27 | 9 | sand |
| 103.182 | 169.79 | 0.8616 | 0.507 | 40.857 | 33 | 9 | sand |
| 103.347 | 176.27 | 0.8219 | 0.466 | 40.924 | 34 | 9 | sand |
| 103.511 | 169.41 | 0.7784 | 0.459 | 39.782 | 32 | 9 | sand |
| 103.675 | 149.01 | 0.7411 | 0.497 | 39.630 | 29 | 9 | sand |
| 103.839 | 124.11 | 0.7435 | 0.599 | 39.331 | 24 | 9 | sand |
| 104.003 | 119.76 | 0.6412 | 0.535 | 39.695 | 23 | 9 | sand |
| 104.167 | 120.75 | 0.5694 | 0.472 | 39.871 | 23 | 9 | sand |
| 104.331 | 120.27 | 0.5599 | 0.466 | 39.220 | 23 | 9 | sand |
| 104.495 | 110.18 | 0.5702 | 0.518 | 39.623 | 21 | 9 | sand |
| 104.659 | 106.82 | 0.5506 | 0.515 | 39.985 | 20 | 9 | sand |
| 104.823 | 120.19 | 0.4919 | 0.409 | 40.580 | 23 | 9 | sand |
| 104.987 | 133.06 | 0.4862 | 0.365 | 40.741 | 25 | 9 | sand |
| 105.151 | 120.89 | 0.4952 | 0.410 | 40.318 | 23 | 9 | sand |
| 105.315 | 115.51 | 0.5046 | 0.437 | 40.687 | 22 | 9 | sand |
| 105.479 | 113.35 | 0.5175 | 0.457 | 40.796 | 22 | 9 | sand |
| 105.643 | 116.43 | 0.6011 | 0.516 | 41.090 | 22 | 9 | sand |
| 105.807 | 123.59 | 0.6704 | 0.542 | 41.443 | 24 | 9 | sand |
| 105.971 | 152.07 | 0.7478 | 0.492 | 41.918 | 29 | 9 | sand |
| 106.135 | 195.32 | 0.9501 | 0.486 | 42.910 | 37 | 9 | sand |
| 106.299 | 224.92 | 1.0338 | 0.460 | 43.172 | 43 | 9 | sand |
| 106.463 | 200.12 | 1.0015 | 0.500 | 41.969 | 38 | 9 | sand |
| 106.627 | 184.11 | 0.9645 | 0.524 | 41.515 | 35 | 9 | sand |
| 106.791 | 175.47 | 0.9687 | 0.552 | 41.753 | 34 | 9 | sand |
| 106.955 | 164.47 | 0.9710 | 0.590 | 41.620 | 31 | 9 | sand |
| 107.119 | 161.33 | 0.9647 | 0.598 | 41.814 | 31 | 9 | sand |
| 107.284 | 164.48 | 0.8739 | 0.531 | 41.877 | 32 | 9 | sand |
| 107.448 | 166.11 | 0.7807 | 0.470 | 42.102 | 32 | 9 | sand |
| 107.612 | 161.62 | 0.7494 | 0.464 | 39.841 | 31 | 9 | sand |
| 107.776 | 151.80 | 0.7733 | 0.509 | 41.343 | 29 | 9 | sand |
| 107.940 | 143.89 | 0.7670 | 0.533 | 41.297 | 28 | 9 | sand |
| 108.104 | 147.29 | 0.8110 | 0.551 | 41.648 | 28 | 9 | sand |
| 108.268 | 178.89 | 0.8596 | 0.481 | 43.019 | 34 | 9 | sand |
| 108.432 | 192.84 | 0.9383 | 0.487 | 42.904 | 37 | 9 | sand |
| 108.596 | 181.29 | 0.9252 | 0.510 | 42.280 | 35 | 9 | sand |
| 108.760 | 143.93 | 0.8275 | 0.575 | 41.007 | 28 | 9 | sand |
| 108.924 | 137.20 | 0.7973 | 0.581 | 41.419 | 26 | 9 | sand |
| 109.088 | 120.88 | 0.7752 | 0.641 | 41.685 | 23 | 9 | sand |
| 109.252 | 119.02 | 0.7764 | 0.652 | 42.065 | 28 | 8 | sand to silty sand |
| 109.416 | 118.60 | 0.7725 | 0.651 | 42.300 | 28 | 8 | sand to silty sand |
| 109.580 | 118.48 | 0.7629 | 0.644 | 42.442 | 23 | 9 | sand |
| 109.744 | 118.06 | 0.7633 | 0.647 | 42.581 | 28 | 8 | sand to silty sand |
| 109.908 | 117.38 | 0.7599 | 0.647 | 42.570 | 28 | 8 | sand to silty sand |
| 110.072 | 117.48 | 0.7520 | 0.640 | 42.542 | 28 | 8 | sand to silty sand |
| 110.236 | 117.96 | 0.7428 | 0.630 | 42.638 | 23 | 9 | sand |
| 110.400 | 119.24 | 0.7584 | 0.636 | 42.769 | 23 | 9 | sand |
| 110.564 | 121.98 | 0.6411 | 0.526 | 42.854 | 23 | 9 | sand |
| 110.728 | 130.12 | 0.6446 | 0.495 | 43.004 | 25 | 9 | sand |
| 110.892 | 139.07 | 0.6555 | 0.471 | 42.217 | 27 | 9 | sand |
| 111.056 | 153.84 | 0.6853 | 0.445 | 42.923 | 29 | 9 | sand |
| 111.221 | 151.57 | 0.7235 | 0.477 | 43.124 | 29 | 9 | sand |
| 111.385 | 139.12 | 0.7578 | 0.545 | 42.666 | 27 | 9 | sand |
| 111.549 | 140.76 | 0.7143 | 0.507 | 43.050 | 27 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 111.713 | 147.14 | 0.7344 | 0.499 | 43.414 | 28 | 9 | sand |
| 111.877 | 165.22 | 0.7866 | 0.476 | 43.885 | 32 | 9 | sand |
| 112.041 | 174.70 | 0.7899 | 0.452 | 43.789 | 33 | 9 | sand |
| 112.205 | 154.02 | 0.8131 | 0.528 | 43.388 | 29 | 9 | sand |
| 112.369 | 152.61 | 0.8097 | 0.531 | 43.798 | 29 | 9 | sand |
| 112.533 | 155.82 | 0.7859 | 0.504 | 44.011 | 30 | 9 | sand |
| 112.697 | 144.45 | 0.7863 | 0.544 | 44.064 | 28 | 9 | sand |
| 112.861 | 121.33 | 0.7532 | 0.621 | 43.373 | 23 | 9 | sand |
| 113.025 | 117.29 | 0.7348 | 0.626 | 44.266 | 22 | 9 | sand |
| 113.189 | 128.59 | 0.7809 | 0.607 | 44.981 | 25 | 9 | sand |
| 113.353 | 161.00 | 0.8463 | 0.526 | 45.740 | 31 | 9 | sand |
| 113.517 | 175.18 | 0.8593 | 0.491 | 45.542 | 34 | 9 | sand |
| 113.681 | 167.10 | 0.8726 | 0.522 | 44.781 | 32 | 9 | sand |
| 113.845 | 151.97 | 0.8749 | 0.576 | 44.345 | 29 | 9 | sand |
| 114.009 | 140.65 | 0.8858 | 0.630 | 44.016 | 27 | 9 | sand |
| 114.173 | 137.08 | 0.8285 | 0.604 | 44.247 | 26 | 9 | sand |
| 114.337 | 139.52 | 0.9305 | 0.667 | 44.657 | 27 | 9 | sand |
| 114.501 | 163.51 | 1.1701 | 0.716 | 45.031 | 31 | 9 | sand |
| 114.665 | 198.65 | 1.1035 | 0.555 | 43.194 | 38 | 9 | sand |
| 114.829 | 212.51 | 1.2018 | 0.566 | 46.961 | 41 | 9 | sand |
| 114.993 | 204.02 | 0.9804 | 0.481 | 41.812 | 39 | 9 | sand |
| 115.158 | 192.67 | 0.8045 | 0.418 | 45.084 | 37 | 9 | sand |
| 115.322 | 159.62 | 0.7759 | 0.486 | 47.772 | 31 | 9 | sand |
| 115.486 | 143.50 | 0.7273 | 0.507 | 47.848 | 27 | 9 | sand |
| 115.650 | 131.85 | 0.7291 | 0.553 | 46.887 | 25 | 9 | sand |
| 115.814 | 123.81 | 0.7112 | 0.574 | 45.840 | 24 | 9 | sand |
| 115.978 | 120.20 | 0.7037 | 0.585 | 45.661 | 23 | 9 | sand |
| 116.142 | 127.68 | 0.7171 | 0.562 | 45.522 | 24 | 9 | sand |
| 116.306 | 136.11 | 0.7351 | 0.540 | 46.239 | 26 | 9 | sand |
| 116.470 | 141.95 | 0.7572 | 0.533 | 46.163 | 27 | 9 | sand |
| 116.634 | 143.20 | 0.7662 | 0.535 | 46.215 | 27 | 9 | sand |
| 116.798 | 145.61 | 0.7786 | 0.535 | 46.030 | 28 | 9 | sand |
| 116.962 | 153.18 | 0.8001 | 0.522 | 46.213 | 29 | 9 | sand |
| 117.126 | 158.95 | 0.8056 | 0.507 | 46.411 | 30 | 9 | sand |
| 117.290 | 170.27 | 0.6694 | 0.393 | 46.518 | 33 | 9 | sand |
| 117.454 | 171.89 | 0.8030 | 0.467 | 46.571 | 33 | 9 | sand |
| 117.618 | 197.43 | 1.1101 | 0.562 | 46.880 | 38 | 9 | sand |
| 117.782 | 227.63 | 1.1555 | 0.508 | 48.136 | 44 | 9 | sand |
| 117.946 | 206.86 | 0.7610 | 0.368 | 45.609 | 40 | 9 | sand |
| 118.110 | 209.32 | 0.8204 | 0.392 | 46.804 | 40 | 9 | sand |
| 118.274 | 190.37 | 0.8699 | 0.457 | 46.749 | 36 | 9 | sand |
| 118.438 | 152.82 | 0.8529 | 0.558 | 45.598 | 29 | 9 | sand |
| 118.602 | 146.27 | 0.8182 | 0.559 | 45.825 | 28 | 9 | sand |
| 118.766 | 158.74 | 0.7828 | 0.493 | 46.980 | 30 | 9 | sand |
| 118.931 | 170.05 | 0.7825 | 0.460 | 47.172 | 33 | 9 | sand |
| 119.095 | 142.78 | 0.7870 | 0.551 | 46.612 | 27 | 9 | sand |
| 119.259 | 128.28 | 0.7633 | 0.595 | 46.723 | 25 | 9 | sand |
| 119.423 | 130.47 | 0.7407 | 0.568 | 47.246 | 25 | 9 | sand |
| 119.587 | 160.37 | 0.7780 | 0.485 | 48.428 | 31 | 9 | sand |
| 119.751 | 188.20 | 0.8300 | 0.441 | 49.047 | 36 | 9 | sand |
| 119.915 | 181.69 | 0.8496 | 0.468 | 48.059 | 35 | 9 | sand |
| 120.079 | 175.70 | 0.8222 | 0.468 | 47.484 | 34 | 9 | sand |
| 120.243 | 174.51 | 0.7506 | 0.430 | 47.094 | 33 | 9 | sand |

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| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 120.407 | 124.40 | 0.6972 | 0.560 | 46.448 | 24 | 9 | sand |
| 120.571 | 100.88 | 0.6750 | 0.669 | 47.187 | 24 | 8 | sand to silty sand |
| 120.735 | 98.27 | 0.6714 | 0.683 | 47.569 | 24 | 8 | sand to silty sand |
| 120.899 | 91.34 | 0.6440 | 0.705 | 47.754 | 22 | 8 | sand to silty sand |
| 121.063 | 89.97 | 0.8019 | 0.891 | 47.811 | 22 | 8 | sand to silty sand |
| 121.227 | 112.73 | 0.8555 | 0.759 | 50.763 | 27 | 8 | sand to silty sand |
| 121.391 | 114.08 | 0.7114 | 0.624 | 46.564 | 27 | 8 | sand to silty sand |
| 121.555 | 111.24 | 0.6491 | 0.583 | 46.736 | 27 | 8 | sand to silty sand |
| 121.719 | 118.79 | 0.6549 | 0.551 | 47.839 | 23 | 9 | sand |
| 121.883 | 126.19 | 0.6843 | 0.542 | 48.205 | 24 | 9 | sand |
| 122.047 | 138.08 | 0.7167 | 0.519 | 48.635 | 26 | 9 | sand |
| 122.211 | 145.33 | 0.7324 | 0.504 | 48.923 | 28 | 9 | sand |
| 122.375 | 168.53 | 0.8881 | 0.527 | 49.821 | 32 | 9 | sand |
| 122.539 | 188.82 | 0.9546 | 0.506 | 50.819 | 36 | 9 | sand |
| 122.703 | 208.76 | 0.9104 | 0.436 | 50.843 | 40 | 9 | sand |
| 122.868 | 210.08 | 0.9531 | 0.454 | 50.176 | 40 | 9 | sand |
| 123.032 | 185.95 | 0.8744 | 0.470 | 48.347 | 36 | 9 | sand |
| 123.196 | 144.65 | 0.7962 | 0.550 | 46.917 | 28 | 9 | sand |
| 123.360 | 119.05 | 0.5701 | 0.479 | 47.310 | 23 | 9 | sand |
| 123.524 | 110.60 | 0.5606 | 0.507 | 47.813 | 21 | 9 | sand |
| 123.688 | 105.57 | 0.5529 | 0.524 | 48.487 | 25 | 8 | sand to silty sand |
| 123.852 | 106.14 | 0.5485 | 0.517 | 49.071 | 25 | 8 | sand to silty sand |
| 124.016 | 106.19 | 0.5253 | 0.495 | 49.097 | 20 | 9 | sand |
| 124.180 | 106.85 | 0.5470 | 0.512 | 49.152 | 20 | 9 | sand |
| 124.344 | 106.29 | 0.5443 | 0.512 | 49.053 | 20 | 9 | sand |
| 124.508 | 108.63 | 0.5258 | 0.484 | 49.067 | 21 | 9 | sand |
| 124.672 | 108.51 | 0.4915 | 0.453 | 49.093 | 21 | 9 | sand |
| 124.836 | 107.44 | 0.5036 | 0.469 | 49.736 | 21 | 9 | sand |
| 125.000 | 111.79 | 0.4987 | 0.446 | 49.923 | 21 | 9 | sand |
| 125.164 | 113.59 | 0.5352 | 0.471 | 49.945 | 22 | 9 | sand |
| 125.328 | 112.60 | 0.5347 | 0.475 | 49.989 | 22 | 9 | sand |
| 125.492 | 117.30 | 0.5605 | 0.478 | 50.174 | 22 | 9 | sand |
| 125.656 | 126.35 | 0.5970 | 0.472 | 50.577 | 24 | 9 | sand |
| 125.820 | 138.12 | 0.6259 | 0.453 | 50.852 | 26 | 9 | sand |
| 125.984 | 153.25 | 0.6115 | 0.399 | 51.175 | 29 | 9 | sand |
| 126.148 | 151.27 | 0.5991 | 0.396 | 50.678 | 29 | 9 | sand |
| 126.312 | 130.60 | 0.5865 | 0.449 | 50.063 | 25 | 9 | sand |
| 126.476 | 116.44 | 0.5755 | 0.494 | 50.013 | 22 | 9 | sand |
| 126.640 | 112.99 | 0.5731 | 0.507 | 50.333 | 22 | 9 | sand |
| 126.805 | 112.13 | 0.5779 | 0.515 | 50.662 | 21 | 9 | sand |
| 126.969 | 111.11 | 0.6137 | 0.552 | 50.688 | 21 | 9 | sand |
| 127.133 | 109.92 | 0.5809 | 0.528 | 50.749 | 21 | 9 | sand |
| 127.297 | 107.09 | 0.5550 | 0.518 | 50.154 | 21 | 9 | sand |
| 127.461 | 110.09 | 0.5972 | 0.543 | 50.824 | 21 | 9 | sand |
| 127.625 | 110.38 | 0.6342 | 0.575 | 50.917 | 26 | 8 | sand to silty sand |
| 127.789 | 118.79 | 0.6538 | 0.550 | 51.380 | 23 | 9 | sand |
| 127.953 | 139.02 | 0.7819 | 0.562 | 51.975 | 27 | 9 | sand |
| 128.117 | 157.80 | 1.0133 | 0.642 | 52.792 | 30 | 9 | sand |
| 128.281 | 180.72 | 1.2348 | 0.683 | 53.235 | 35 | 9 | sand |
| 128.445 | 227.62 | 1.2817 | 0.563 | 52.936 | 44 | 9 | sand |
| 128.609 | 213.78 | 1.3145 | 0.615 | 51.567 | 41 | 9 | sand |
| 128.773 | 205.11 | 1.2967 | 0.632 | 50.981 | 39 | 9 | sand |
| 128.937 | 195.25 | 1.2393 | 0.635 | 50.329 | 37 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 129.101 | 187.12 | 1.2059 | 0.644 | 50.669 | 36 | 9 | sand |
| 129.265 | 181.95 | 1.1726 | 0.644 | 51.162 | 35 | 9 | sand |
| 129.429 | 183.79 | 1.1615 | 0.632 | 51.783 | 35 | 9 | sand |
| 129.593 | 192.10 | 1.1815 | 0.615 | 52.796 | 37 | 9 | sand |
| 129.757 | 195.47 | 1.1859 | 0.607 | 53.062 | 37 | 9 | sand |
| 129.921 | 215.62 | 1.2303 | 0.571 | 54.142 | 41 | 9 | sand |
| 130.085 | 207.99 | 1.3326 | 0.641 | 52.786 | 40 | 9 | sand |
| 130.249 | 200.51 | 1.4783 | 0.737 | 52.304 | 38 | 9 | sand |
| 130.413 | 186.09 | 1.4201 | 0.763 | 50.991 | 36 | 9 | sand |
| 130.577 | 166.97 | 1.3559 | 0.812 | 49.742 | 32 | 9 | sand |
| 130.742 | 160.50 | 1.2663 | 0.789 | 50.418 | 31 | 9 | sand |
| 130.906 | 159.97 | 1.0027 | 0.627 | 50.806 | 31 | 9 | sand |
| 131.070 | 156.78 | 0.9629 | 0.614 | 51.502 | 30 | 9 | sand |
| 131.234 | 129.44 | 0.8516 | 0.658 | 51.715 | 25 | 9 | sand |
| 131.398 | 134.45 | 0.8624 | 0.641 | 52.014 | 26 | 9 | sand |
| 131.562 | 159.57 | 0.9450 | 0.592 | 52.901 | 31 | 9 | sand |
| 131.726 | 159.07 | 1.0143 | 0.638 | 51.648 | 30 | 9 | sand |
| 131.890 | 143.98 | 1.0187 | 0.708 | 51.698 | 28 | 9 | sand |
| 132.054 | 135.22 | 0.9759 | 0.722 | 51.277 | 26 | 9 | sand |
| 132.218 | 150.00 | 0.9761 | 0.651 | 53.420 | 29 | 9 | sand |
| 132.382 | 178.29 | 1.0306 | 0.578 | 53.357 | 34 | 9 | sand |
| 132.546 | 199.76 | 1.0519 | 0.527 | 52.973 | 38 | 9 | sand |
| 132.710 | 193.76 | 1.0589 | 0.546 | 53.433 | 37 | 9 | sand |
| 132.874 | 173.66 | 1.0089 | 0.581 | 52.727 | 33 | 9 | sand |
| 133.038 | 189.59 | 0.9801 | 0.517 | 53.590 | 36 | 9 | sand |
| 133.202 | 212.10 | 0.9504 | 0.448 | 55.190 | 41 | 9 | sand |
| 133.366 | 199.72 | 0.8297 | 0.415 | 54.033 | 38 | 9 | sand |
| 133.530 | 185.18 | 0.7506 | 0.405 | 53.509 | 35 | 9 | sand |
| 133.694 | 170.01 | 0.7431 | 0.437 | 50.420 | 33 | 9 | sand |
| 133.858 | 162.24 | 0.7464 | 0.460 | 52.334 | 31 | 9 | sand |
| 134.022 | 154.10 | 0.6813 | 0.442 | 52.249 | 30 | 9 | sand |
| 134.186 | 136.62 | 0.6141 | 0.450 | 51.643 | 26 | 9 | sand |
| 134.350 | 98.98 | 0.5030 | 0.508 | 52.149 | 24 | 8 | sand to silty sand |
| 134.514 | 72.83 | 0.4246 | 0.583 | 52.210 | 17 | 8 | sand to silty sand |
| 134.679 | 48.65 | 0.3954 | 0.813 | 52.524 | 16 | 7 | silty sand to sandy silt |
| 134.843 | 33.37 | 0.4022 | 1.205 | 52.895 | 11 | 7 | silty sand to sandy silt |
| 135.007 | 23.39 | 0.3891 | 1.664 | 53.649 | 9 | 6 | sandy silt to clayey silt |
| 135.171 | 20.69 | 0.3513 | 1.698 | 54.381 | 8 | 6 | sandy silt to clayey silt |
| 135.335 | 22.57 | 0.5186 | 2.298 | 54.338 | 11 | 5 | clayey silt to silty clay |
| 135.499 | 38.51 | 0.7455 | 1.936 | 55.373 | 15 | 6 | sandy silt to clayey silt |
| 135.663 | 93.28 | 1.2307 | 1.319 | 55.857 | 22 | 8 | sand to silty sand |
| 135.827 | 150.78 | 1.6449 | 1.091 | 54.436 | 36 | 8 | sand to silty sand |
| 135.991 | 156.72 | 1.3446 | 0.858 | 52.581 | 30 | 9 | sand |
| 136.155 | 183.07 | 1.2861 | 0.703 | 50.889 | 35 | 9 | sand |
| 136.319 | 153.74 | 1.3512 | 0.879 | 53.311 | 29 | 9 | sand |
| 136.483 | 149.98 | 1.1264 | 0.751 | 56.051 | 29 | 9 | sand |
| 136.647 | 157.19 | 1.0480 | 0.667 | 55.687 | 30 | 9 | sand |
| 136.811 | 173.32 | 0.9201 | 0.531 | 56.086 | 33 | 9 | sand |
| 136.975 | 180.95 | 0.9208 | 0.509 | 56.374 | 35 | 9 | sand |
| 137.139 | 184.32 | 0.9935 | 0.539 | 55.092 | 35 | 9 | sand |
| 137.303 | 191.99 | 1.1349 | 0.591 | 55.875 | 37 | 9 | sand |
| 137.467 | 199.56 | 1.2018 | 0.602 | 54.798 | 38 | 9 | sand |
| 137.631 | 228.81 | 1.3063 | 0.571 | 56.914 | 44 | 9 | sand |

FOR REFERENCE ONLY

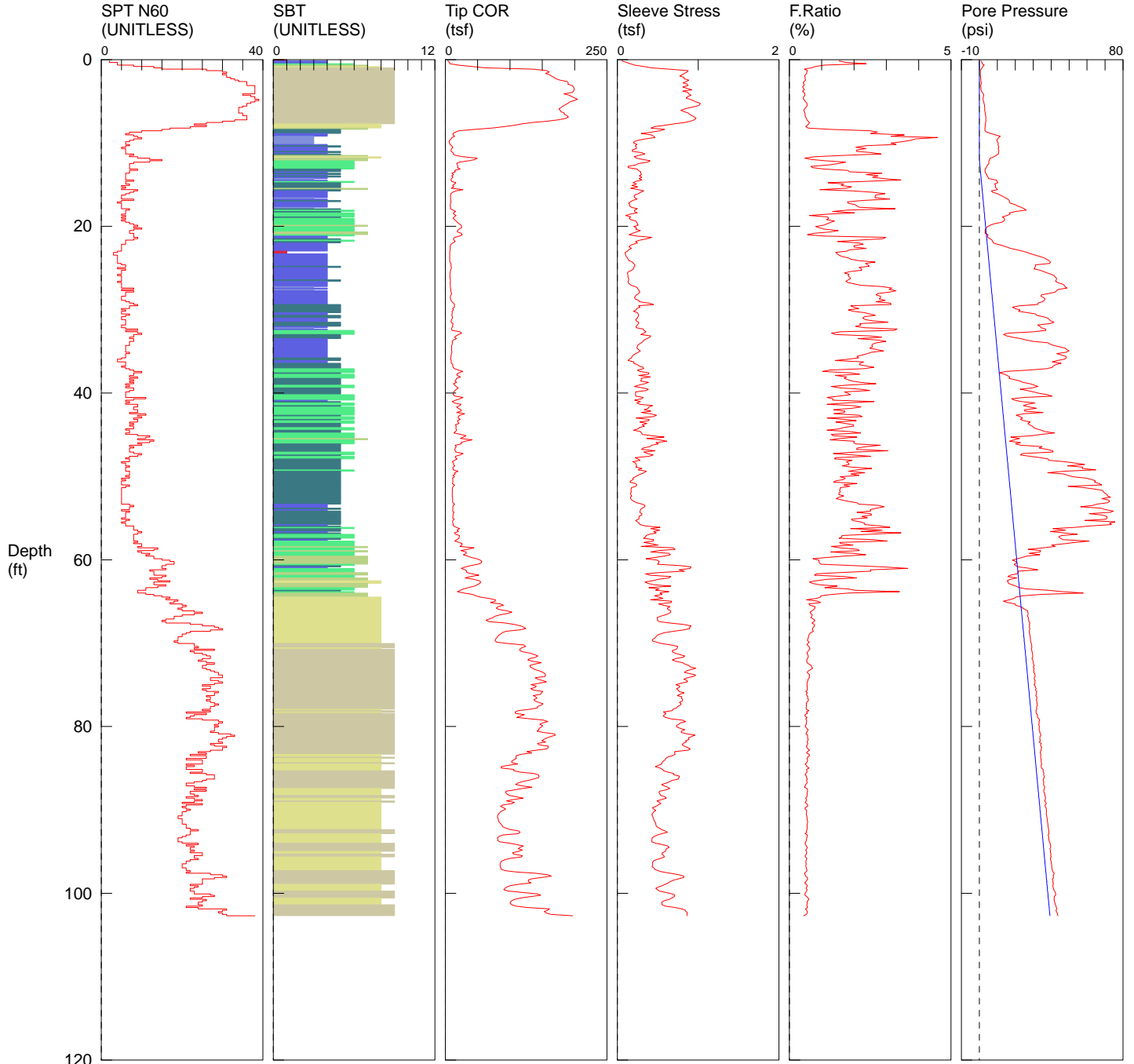
| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 137.795 | 218.99 | 1.2563 | 0.574 | 54.399 | 42 | 9 | sand |
| 137.959 | 214.30 | 1.2525 | 0.584 | 54.966 | 41 | 9 | sand |
| 138.123 | 222.54 | 1.2743 | 0.573 | 54.580 | 43 | 9 | sand |
| 138.287 | 235.72 | 1.4119 | 0.599 | 56.904 | 45 | 9 | sand |
| 138.451 | 253.96 | 2.6233 | 1.033 | 56.860 | 49 | 9 | sand |
| 138.616 | 297.12 | 2.5641 | 0.863 | 57.599 | 57 | 9 | sand |
| 138.780 | 437.53 | 2.5607 | 0.585 | 63.624 | 70 | 10 | gravelly sand to sand |
| 138.944 | 513.99 | 2.5607 | 0.498 | 55.421 | 82 | 10 | gravelly sand to sand |

GRI / CPT-21 / PDX Runway Evaluation

TEST DATE: 4/26/2017 8:44:07 AM
 HOLE NUMBER: CPT-21

CONE ID: DPG1386
 LOCATION: 17058/ GRI/ CPT-21/ PDX
 JOB NUMBER: 17058/ GRI/ CPT-21/ PDX
 TEST DATE: 4/26/2017 8:44:07 AM
 TOTAL DEPTH: 102.690 ft

CUSTOMER: 17058/ GRI / CPT-21/ PDX
 OPERATOR: OGE BJB



TOTAL DEPTH: 102.690 ft

- | | | | |
|---|---|--|--|
| <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

GRI / CPT-21 / PDX Runway Evaluation

OPERATOR: OGE BJB
 TEST DATE: 4/26/2017 8:44:07 AM
 COMMENT: GRI / CPT-21 / PDX Runway Evaluation
 FILENAME: 17058 CPT-21.cpt
 TOTAL DEPTH: 102.690 ft

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 0.164 | 3.65 | 0.0558 | 1.531 | 0.899 | 2 | 1 | sensitive fine grained |
| 0.328 | 6.34 | 0.1101 | 1.738 | 1.446 | 4 | 4 | silty clay to clay |
| 0.492 | 6.72 | 0.1596 | 2.374 | 1.501 | 4 | 4 | silty clay to clay |
| 0.656 | 19.59 | 0.2130 | 1.087 | 2.687 | 8 | 6 | sandy silt to clayey silt |
| 0.820 | 40.79 | 0.3256 | 0.798 | 1.877 | 13 | 7 | silty sand to sandy silt |
| 0.984 | 61.96 | 0.4230 | 0.683 | 1.505 | 15 | 8 | sand to silty sand |
| 1.148 | 134.97 | 0.6290 | 0.466 | 0.976 | 26 | 9 | sand |
| 1.312 | 157.08 | 0.8751 | 0.557 | 0.635 | 30 | 9 | sand |
| 1.476 | 160.68 | 0.8611 | 0.536 | 0.511 | 31 | 9 | sand |
| 1.640 | 154.91 | 0.8274 | 0.534 | 0.554 | 30 | 9 | sand |
| 1.804 | 161.51 | 0.8001 | 0.495 | 0.439 | 31 | 9 | sand |
| 1.969 | 163.87 | 0.7727 | 0.472 | 0.678 | 31 | 9 | sand |
| 2.133 | 168.25 | 0.8249 | 0.490 | 0.657 | 32 | 9 | sand |
| 2.297 | 171.12 | 0.8259 | 0.483 | 0.707 | 33 | 9 | sand |
| 2.461 | 177.23 | 0.8828 | 0.498 | 0.772 | 34 | 9 | sand |
| 2.625 | 188.71 | 0.8519 | 0.451 | 0.858 | 36 | 9 | sand |
| 2.789 | 190.07 | 0.8135 | 0.428 | 1.050 | 36 | 9 | sand |
| 2.953 | 189.59 | 0.8652 | 0.456 | 0.933 | 36 | 9 | sand |
| 3.117 | 196.14 | 0.8743 | 0.446 | 0.686 | 38 | 9 | sand |
| 3.281 | 198.31 | 0.8089 | 0.408 | 0.798 | 38 | 9 | sand |
| 3.445 | 198.95 | 0.8607 | 0.433 | 0.918 | 38 | 9 | sand |
| 3.609 | 199.39 | 0.9206 | 0.462 | 0.822 | 38 | 9 | sand |
| 3.773 | 198.37 | 0.8106 | 0.409 | 1.259 | 38 | 9 | sand |
| 3.937 | 196.12 | 0.8732 | 0.445 | 1.467 | 38 | 9 | sand |
| 4.101 | 183.44 | 0.8818 | 0.481 | 2.165 | 35 | 9 | sand |
| 4.265 | 191.59 | 0.9109 | 0.475 | 2.419 | 37 | 9 | sand |
| 4.429 | 195.83 | 0.8724 | 0.445 | 2.265 | 38 | 9 | sand |
| 4.593 | 200.03 | 0.8509 | 0.425 | 2.057 | 38 | 9 | sand |
| 4.757 | 204.40 | 0.8978 | 0.439 | 2.076 | 39 | 9 | sand |
| 4.921 | 198.76 | 0.9382 | 0.472 | 2.074 | 38 | 9 | sand |
| 5.085 | 192.29 | 0.9772 | 0.508 | 2.431 | 37 | 9 | sand |
| 5.249 | 189.23 | 1.0258 | 0.542 | 2.531 | 36 | 9 | sand |
| 5.413 | 185.56 | 1.0171 | 0.548 | 2.745 | 36 | 9 | sand |
| 5.577 | 181.94 | 0.9818 | 0.540 | 2.850 | 35 | 9 | sand |
| 5.741 | 179.17 | 0.9079 | 0.507 | 2.920 | 34 | 9 | sand |
| 5.906 | 175.91 | 0.8333 | 0.474 | 2.970 | 34 | 9 | sand |
| 6.070 | 177.87 | 0.7861 | 0.442 | 2.963 | 34 | 9 | sand |
| 6.234 | 178.55 | 0.8271 | 0.463 | 3.097 | 34 | 9 | sand |
| 6.398 | 184.12 | 0.8782 | 0.477 | 3.272 | 35 | 9 | sand |
| 6.562 | 183.89 | 0.8930 | 0.486 | 3.231 | 35 | 9 | sand |
| 6.726 | 188.29 | 0.9225 | 0.490 | 3.438 | 36 | 9 | sand |
| 6.890 | 190.35 | 0.9541 | 0.501 | 3.579 | 36 | 9 | sand |
| 7.054 | 185.96 | 0.9736 | 0.524 | 3.529 | 36 | 9 | sand |
| 7.218 | 174.71 | 0.9504 | 0.544 | 3.553 | 33 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 7.382 | 157.85 | 0.9031 | 0.572 | 3.581 | 30 | 9 | sand |
| 7.546 | 134.63 | 0.8354 | 0.620 | 3.469 | 26 | 9 | sand |
| 7.710 | 118.63 | 0.7072 | 0.596 | 3.212 | 23 | 9 | sand |
| 7.874 | 107.39 | 0.5918 | 0.551 | 3.222 | 26 | 8 | sand to silty sand |
| 8.038 | 90.97 | 0.4571 | 0.502 | 3.188 | 22 | 8 | sand to silty sand |
| 8.202 | 71.32 | 0.4166 | 0.584 | 3.136 | 17 | 8 | sand to silty sand |
| 8.366 | 45.64 | 0.5814 | 1.274 | 3.009 | 15 | 7 | silty sand to sandy silt |
| 8.530 | 21.16 | 0.5269 | 2.490 | 3.174 | 10 | 5 | clayey silt to silty clay |
| 8.694 | 15.42 | 0.4207 | 2.728 | 4.150 | 7 | 5 | clayey silt to silty clay |
| 8.858 | 11.76 | 0.2955 | 2.513 | 6.353 | 6 | 5 | clayey silt to silty clay |
| 9.022 | 11.75 | 0.4176 | 3.554 | 8.961 | 8 | 4 | silty clay to clay |
| 9.186 | 14.26 | 0.4496 | 3.152 | 11.550 | 9 | 4 | silty clay to clay |
| 9.350 | 10.12 | 0.4639 | 4.584 | 10.783 | 10 | 3 | clay |
| 9.514 | 8.86 | 0.3450 | 3.892 | 10.114 | 8 | 3 | clay |
| 9.678 | 6.81 | 0.2563 | 3.765 | 9.663 | 7 | 3 | clay |
| 9.843 | 5.86 | 0.2046 | 3.493 | 10.049 | 6 | 3 | clay |
| 10.007 | 6.39 | 0.2006 | 3.140 | 10.502 | 6 | 3 | clay |
| 10.171 | 7.32 | 0.2418 | 3.304 | 10.349 | 7 | 3 | clay |
| 10.335 | 9.31 | 0.2217 | 2.382 | 10.500 | 6 | 4 | silty clay to clay |
| 10.499 | 11.42 | 0.2352 | 2.060 | 10.816 | 5 | 5 | clayey silt to silty clay |
| 10.663 | 9.90 | 0.2341 | 2.364 | 10.442 | 6 | 4 | silty clay to clay |
| 10.827 | 8.82 | 0.1836 | 2.082 | 10.778 | 6 | 4 | silty clay to clay |
| 10.991 | 8.86 | 0.1841 | 2.078 | 10.814 | 6 | 4 | silty clay to clay |
| 11.155 | 11.77 | 0.2982 | 2.535 | 10.663 | 6 | 5 | clayey silt to silty clay |
| 11.319 | 12.00 | 0.3399 | 2.833 | 10.641 | 8 | 4 | silty clay to clay |
| 11.483 | 15.58 | 0.2669 | 1.713 | 9.402 | 7 | 5 | clayey silt to silty clay |
| 11.647 | 27.10 | 0.2089 | 0.771 | 8.151 | 9 | 7 | silty sand to sandy silt |
| 11.811 | 49.29 | 0.2352 | 0.477 | 6.082 | 12 | 8 | sand to silty sand |
| 11.975 | 46.06 | 0.3165 | 0.687 | 5.610 | 15 | 7 | silty sand to sandy silt |
| 12.139 | 36.21 | 0.4022 | 1.111 | 5.365 | 12 | 7 | silty sand to sandy silt |
| 12.303 | 21.52 | 0.3742 | 1.739 | 5.178 | 8 | 6 | sandy silt to clayey silt |
| 12.467 | 17.29 | 0.2613 | 1.511 | 5.394 | 7 | 6 | sandy silt to clayey silt |
| 12.631 | 18.64 | 0.2285 | 1.226 | 4.718 | 7 | 6 | sandy silt to clayey silt |
| 12.795 | 19.47 | 0.1298 | 0.667 | 4.018 | 7 | 6 | sandy silt to clayey silt |
| 12.959 | 18.79 | 0.1355 | 0.721 | 3.838 | 7 | 6 | sandy silt to clayey silt |
| 13.123 | 22.82 | 0.2451 | 1.074 | 3.217 | 9 | 6 | sandy silt to clayey silt |
| 13.287 | 14.27 | 0.2574 | 1.803 | 3.068 | 7 | 5 | clayey silt to silty clay |
| 13.451 | 15.48 | 0.2884 | 1.863 | 3.255 | 7 | 5 | clayey silt to silty clay |
| 13.615 | 9.98 | 0.2856 | 2.862 | 3.514 | 6 | 4 | silty clay to clay |
| 13.780 | 12.56 | 0.2985 | 2.378 | 3.946 | 6 | 5 | clayey silt to silty clay |
| 13.944 | 9.93 | 0.2720 | 2.740 | 4.255 | 6 | 4 | silty clay to clay |
| 14.108 | 11.78 | 0.3035 | 2.575 | 4.893 | 6 | 5 | clayey silt to silty clay |
| 14.272 | 9.27 | 0.2695 | 2.909 | 4.972 | 6 | 4 | silty clay to clay |
| 14.436 | 8.78 | 0.3028 | 3.450 | 9.292 | 8 | 3 | clay |
| 14.600 | 9.57 | 0.2275 | 2.376 | 9.917 | 6 | 4 | silty clay to clay |
| 14.764 | 16.12 | 0.1925 | 1.194 | 10.299 | 6 | 6 | sandy silt to clayey silt |
| 14.928 | 14.15 | 0.2372 | 1.676 | 8.479 | 7 | 5 | clayey silt to silty clay |
| 15.092 | 11.25 | 0.1804 | 1.604 | 8.999 | 5 | 5 | clayey silt to silty clay |
| 15.256 | 13.03 | 0.2502 | 1.920 | 8.760 | 6 | 5 | clayey silt to silty clay |
| 15.420 | 9.46 | 0.1657 | 1.752 | 9.395 | 5 | 5 | clayey silt to silty clay |
| 15.584 | 27.26 | 0.2571 | 0.943 | 10.037 | 9 | 7 | silty sand to sandy silt |
| 15.748 | 16.52 | 0.3246 | 1.965 | 6.686 | 8 | 5 | clayey silt to silty clay |
| 15.912 | 11.13 | 0.2875 | 2.583 | 7.367 | 7 | 4 | silty clay to clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 16.076 | 8.81 | 0.2609 | 2.960 | 10.013 | 6 | 4 | silty clay to clay |
| 16.240 | 8.10 | 0.2165 | 2.672 | 11.591 | 5 | 4 | silty clay to clay |
| 16.404 | 7.73 | 0.2051 | 2.653 | 12.998 | 5 | 4 | silty clay to clay |
| 16.568 | 8.24 | 0.2183 | 2.649 | 14.431 | 5 | 4 | silty clay to clay |
| 16.732 | 7.91 | 0.2453 | 3.100 | 15.700 | 8 | 3 | clay |
| 16.896 | 8.28 | 0.1902 | 2.298 | 16.627 | 5 | 4 | silty clay to clay |
| 17.060 | 8.96 | 0.1609 | 1.797 | 16.740 | 4 | 5 | clayey silt to silty clay |
| 17.224 | 7.61 | 0.1380 | 1.814 | 17.035 | 5 | 4 | silty clay to clay |
| 17.388 | 7.57 | 0.1545 | 2.040 | 20.137 | 5 | 4 | silty clay to clay |
| 17.552 | 7.23 | 0.1507 | 2.085 | 21.096 | 5 | 4 | silty clay to clay |
| 17.717 | 8.03 | 0.1742 | 2.169 | 23.318 | 5 | 4 | silty clay to clay |
| 17.881 | 7.54 | 0.2467 | 3.270 | 24.831 | 7 | 3 | clay |
| 18.045 | 11.75 | 0.2118 | 1.803 | 25.955 | 6 | 5 | clayey silt to silty clay |
| 18.209 | 15.91 | 0.2121 | 1.333 | 20.204 | 6 | 6 | sandy silt to clayey silt |
| 18.373 | 12.25 | 0.2464 | 2.012 | 16.699 | 6 | 5 | clayey silt to silty clay |
| 18.537 | 12.95 | 0.1561 | 1.206 | 17.131 | 5 | 6 | sandy silt to clayey silt |
| 18.701 | 16.59 | 0.1033 | 0.623 | 15.424 | 6 | 6 | sandy silt to clayey silt |
| 18.865 | 13.85 | 0.1613 | 1.165 | 12.775 | 5 | 6 | sandy silt to clayey silt |
| 19.029 | 11.99 | 0.1458 | 1.216 | 13.863 | 6 | 5 | clayey silt to silty clay |
| 19.193 | 14.27 | 0.1644 | 1.153 | 14.017 | 5 | 6 | sandy silt to clayey silt |
| 19.357 | 16.41 | 0.2282 | 1.391 | 13.573 | 6 | 6 | sandy silt to clayey silt |
| 19.521 | 18.67 | 0.2390 | 1.280 | 12.408 | 7 | 6 | sandy silt to clayey silt |
| 19.685 | 21.20 | 0.2471 | 1.165 | 8.131 | 8 | 6 | sandy silt to clayey silt |
| 19.849 | 24.31 | 0.2580 | 1.061 | 6.171 | 9 | 6 | sandy silt to clayey silt |
| 20.013 | 25.11 | 0.2040 | 0.812 | 4.641 | 8 | 7 | silty sand to sandy silt |
| 20.177 | 24.90 | 0.2369 | 0.951 | 3.778 | 10 | 6 | sandy silt to clayey silt |
| 20.341 | 20.91 | 0.2262 | 1.082 | 3.397 | 8 | 6 | sandy silt to clayey silt |
| 20.505 | 18.83 | 0.2842 | 1.509 | 3.109 | 7 | 6 | sandy silt to clayey silt |
| 20.669 | 18.61 | 0.2355 | 1.265 | 3.291 | 7 | 6 | sandy silt to clayey silt |
| 20.833 | 24.83 | 0.1847 | 0.744 | 3.133 | 8 | 7 | silty sand to sandy silt |
| 20.997 | 26.06 | 0.1449 | 0.556 | 4.869 | 8 | 7 | silty sand to sandy silt |
| 21.161 | 22.04 | 0.2405 | 1.091 | 4.483 | 8 | 6 | sandy silt to clayey silt |
| 21.325 | 14.21 | 0.4240 | 2.984 | 4.667 | 9 | 4 | silty clay to clay |
| 21.490 | 12.71 | 0.3669 | 2.888 | 5.907 | 8 | 4 | silty clay to clay |
| 21.654 | 13.15 | 0.2828 | 2.150 | 7.014 | 6 | 5 | clayey silt to silty clay |
| 21.818 | 15.16 | 0.2256 | 1.488 | 7.355 | 6 | 6 | sandy silt to clayey silt |
| 21.982 | 11.53 | 0.2489 | 2.160 | 7.813 | 6 | 5 | clayey silt to silty clay |
| 22.146 | 8.56 | 0.1955 | 2.283 | 9.937 | 5 | 4 | silty clay to clay |
| 22.310 | 7.74 | 0.1552 | 2.004 | 12.912 | 5 | 4 | silty clay to clay |
| 22.474 | 7.29 | 0.1454 | 1.995 | 15.242 | 5 | 4 | silty clay to clay |
| 22.638 | 7.33 | 0.1739 | 2.372 | 17.330 | 5 | 4 | silty clay to clay |
| 22.802 | 7.57 | 0.1415 | 1.869 | 20.827 | 5 | 4 | silty clay to clay |
| 22.966 | 7.01 | 0.1246 | 1.777 | 24.008 | 4 | 4 | silty clay to clay |
| 23.130 | 6.67 | 0.0955 | 1.433 | 26.648 | 3 | 1 | sensitive fine grained |
| 23.294 | 6.59 | 0.0975 | 1.478 | 28.467 | 3 | 1 | sensitive fine grained |
| 23.458 | 6.64 | 0.1017 | 1.531 | 31.152 | 4 | 4 | silty clay to clay |
| 23.622 | 6.70 | 0.1095 | 1.634 | 33.878 | 4 | 4 | silty clay to clay |
| 23.786 | 6.75 | 0.1231 | 1.824 | 36.023 | 4 | 4 | silty clay to clay |
| 23.950 | 6.82 | 0.1303 | 1.912 | 37.495 | 4 | 4 | silty clay to clay |
| 24.114 | 6.67 | 0.1428 | 2.141 | 38.660 | 4 | 4 | silty clay to clay |
| 24.278 | 7.03 | 0.1863 | 2.652 | 39.559 | 4 | 4 | silty clay to clay |
| 24.442 | 8.46 | 0.1991 | 2.354 | 39.161 | 5 | 4 | silty clay to clay |
| 24.606 | 8.85 | 0.2155 | 2.433 | 31.286 | 6 | 4 | silty clay to clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 24.770 | 8.73 | 0.2150 | 2.463 | 31.241 | 6 | 4 | silty clay to clay |
| 24.934 | 9.37 | 0.2017 | 2.153 | 30.838 | 4 | 5 | clayey silt to silty clay |
| 25.098 | 8.89 | 0.1979 | 2.227 | 30.464 | 6 | 4 | silty clay to clay |
| 25.262 | 7.95 | 0.1774 | 2.231 | 33.854 | 5 | 4 | silty clay to clay |
| 25.427 | 7.48 | 0.1392 | 1.862 | 35.868 | 5 | 4 | silty clay to clay |
| 25.591 | 7.24 | 0.1236 | 1.707 | 37.805 | 5 | 4 | silty clay to clay |
| 25.755 | 6.94 | 0.1280 | 1.844 | 40.168 | 4 | 4 | silty clay to clay |
| 25.919 | 7.12 | 0.1292 | 1.813 | 41.595 | 5 | 4 | silty clay to clay |
| 26.083 | 7.12 | 0.1321 | 1.855 | 42.295 | 5 | 4 | silty clay to clay |
| 26.247 | 7.21 | 0.1367 | 1.896 | 42.971 | 5 | 4 | silty clay to clay |
| 26.411 | 7.57 | 0.1385 | 1.829 | 42.884 | 5 | 4 | silty clay to clay |
| 26.575 | 7.58 | 0.1325 | 1.748 | 42.484 | 4 | 5 | clayey silt to silty clay |
| 26.739 | 7.34 | 0.1332 | 1.815 | 43.505 | 5 | 4 | silty clay to clay |
| 26.903 | 7.43 | 0.1492 | 2.008 | 46.032 | 5 | 4 | silty clay to clay |
| 27.067 | 7.72 | 0.1712 | 2.219 | 47.293 | 5 | 4 | silty clay to clay |
| 27.231 | 7.79 | 0.2260 | 2.901 | 47.674 | 5 | 4 | silty clay to clay |
| 27.395 | 7.88 | 0.2496 | 3.168 | 48.801 | 8 | 3 | clay |
| 27.559 | 8.36 | 0.2578 | 3.084 | 43.819 | 5 | 4 | silty clay to clay |
| 27.723 | 8.15 | 0.2693 | 3.304 | 43.014 | 8 | 3 | clay |
| 27.887 | 8.95 | 0.2775 | 3.101 | 42.311 | 6 | 4 | silty clay to clay |
| 28.051 | 9.55 | 0.2613 | 2.736 | 38.742 | 6 | 4 | silty clay to clay |
| 28.215 | 8.86 | 0.2375 | 2.680 | 34.554 | 6 | 4 | silty clay to clay |
| 28.379 | 7.91 | 0.2225 | 2.813 | 34.257 | 5 | 4 | silty clay to clay |
| 28.543 | 7.52 | 0.2124 | 2.824 | 35.683 | 5 | 4 | silty clay to clay |
| 28.707 | 7.87 | 0.2185 | 2.777 | 36.553 | 5 | 4 | silty clay to clay |
| 28.871 | 8.87 | 0.2628 | 2.962 | 36.230 | 6 | 4 | silty clay to clay |
| 29.035 | 10.22 | 0.2735 | 2.677 | 35.084 | 7 | 4 | silty clay to clay |
| 29.199 | 12.48 | 0.3901 | 3.125 | 32.552 | 8 | 4 | silty clay to clay |
| 29.364 | 14.20 | 0.4470 | 3.149 | 32.490 | 9 | 4 | silty clay to clay |
| 29.528 | 13.82 | 0.2618 | 1.894 | 22.604 | 7 | 5 | clayey silt to silty clay |
| 29.692 | 14.06 | 0.2789 | 1.984 | 18.387 | 7 | 5 | clayey silt to silty clay |
| 29.856 | 11.15 | 0.2394 | 2.147 | 19.758 | 5 | 5 | clayey silt to silty clay |
| 30.020 | 12.61 | 0.2299 | 1.824 | 22.656 | 6 | 5 | clayey silt to silty clay |
| 30.184 | 10.28 | 0.2026 | 1.971 | 21.791 | 5 | 5 | clayey silt to silty clay |
| 30.348 | 10.61 | 0.2475 | 2.332 | 26.837 | 5 | 5 | clayey silt to silty clay |
| 30.512 | 10.34 | 0.2566 | 2.482 | 31.325 | 7 | 4 | silty clay to clay |
| 30.676 | 9.88 | 0.2622 | 2.655 | 31.838 | 6 | 4 | silty clay to clay |
| 30.840 | 10.99 | 0.2553 | 2.323 | 35.510 | 5 | 5 | clayey silt to silty clay |
| 31.004 | 10.81 | 0.2458 | 2.273 | 37.982 | 5 | 5 | clayey silt to silty clay |
| 31.168 | 9.66 | 0.2265 | 2.345 | 38.984 | 6 | 4 | silty clay to clay |
| 31.332 | 9.07 | 0.2332 | 2.571 | 39.674 | 6 | 4 | silty clay to clay |
| 31.496 | 8.65 | 0.2638 | 3.048 | 41.511 | 6 | 4 | silty clay to clay |
| 31.660 | 11.98 | 0.2604 | 2.173 | 39.305 | 6 | 5 | clayey silt to silty clay |
| 31.824 | 11.14 | 0.2461 | 2.210 | 32.562 | 5 | 5 | clayey silt to silty clay |
| 31.988 | 11.27 | 0.2312 | 2.050 | 33.796 | 5 | 5 | clayey silt to silty clay |
| 32.152 | 10.01 | 0.2329 | 2.325 | 34.429 | 6 | 4 | silty clay to clay |
| 32.316 | 9.61 | 0.3201 | 3.332 | 36.755 | 9 | 3 | clay |
| 32.480 | 10.14 | 0.3290 | 3.243 | 37.066 | 6 | 4 | silty clay to clay |
| 32.644 | 22.26 | 0.3537 | 1.589 | 30.354 | 9 | 6 | sandy silt to clayey silt |
| 32.808 | 25.06 | 0.3269 | 1.305 | 16.021 | 10 | 6 | sandy silt to clayey silt |
| 32.972 | 20.26 | 0.2899 | 1.430 | 13.518 | 8 | 6 | sandy silt to clayey silt |
| 33.136 | 16.67 | 0.4114 | 2.467 | 15.131 | 8 | 5 | clayey silt to silty clay |
| 33.301 | 14.14 | 0.4030 | 2.851 | 18.370 | 7 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 33.465 | 17.13 | 0.3640 | 2.125 | 23.145 | 8 | 5 | clayey silt to silty clay |
| 33.629 | 11.97 | 0.3281 | 2.741 | 26.118 | 8 | 4 | silty clay to clay |
| 33.793 | 10.70 | 0.3194 | 2.985 | 30.244 | 7 | 4 | silty clay to clay |
| 33.957 | 10.90 | 0.2940 | 2.697 | 38.291 | 7 | 4 | silty clay to clay |
| 34.121 | 10.45 | 0.2694 | 2.577 | 39.238 | 7 | 4 | silty clay to clay |
| 34.285 | 9.82 | 0.2504 | 2.550 | 41.290 | 6 | 4 | silty clay to clay |
| 34.449 | 9.53 | 0.2450 | 2.571 | 44.697 | 6 | 4 | silty clay to clay |
| 34.613 | 9.79 | 0.2428 | 2.481 | 47.746 | 6 | 4 | silty clay to clay |
| 34.777 | 9.60 | 0.2603 | 2.711 | 48.702 | 6 | 4 | silty clay to clay |
| 34.941 | 9.75 | 0.2838 | 2.912 | 49.947 | 6 | 4 | silty clay to clay |
| 35.105 | 10.20 | 0.2595 | 2.543 | 48.319 | 7 | 4 | silty clay to clay |
| 35.269 | 9.36 | 0.2260 | 2.415 | 43.124 | 6 | 4 | silty clay to clay |
| 35.433 | 8.87 | 0.2003 | 2.259 | 45.627 | 6 | 4 | silty clay to clay |
| 35.597 | 8.62 | 0.1801 | 2.090 | 48.223 | 6 | 4 | silty clay to clay |
| 35.761 | 8.23 | 0.1762 | 2.141 | 48.333 | 5 | 4 | silty clay to clay |
| 35.925 | 8.06 | 0.1482 | 1.840 | 47.533 | 4 | 5 | clayey silt to silty clay |
| 36.089 | 9.30 | 0.1317 | 1.416 | 43.481 | 4 | 5 | clayey silt to silty clay |
| 36.253 | 8.94 | 0.2047 | 2.290 | 40.516 | 6 | 4 | silty clay to clay |
| 36.417 | 9.21 | 0.2015 | 2.188 | 45.514 | 6 | 4 | silty clay to clay |
| 36.581 | 11.50 | 0.2490 | 2.165 | 42.575 | 6 | 5 | clayey silt to silty clay |
| 36.745 | 11.33 | 0.2700 | 2.384 | 40.998 | 5 | 5 | clayey silt to silty clay |
| 36.909 | 12.18 | 0.3184 | 2.613 | 40.724 | 6 | 5 | clayey silt to silty clay |
| 37.073 | 14.06 | 0.3236 | 2.302 | 37.620 | 7 | 5 | clayey silt to silty clay |
| 37.238 | 19.99 | 0.2491 | 1.246 | 27.717 | 8 | 6 | sandy silt to clayey silt |
| 37.402 | 26.96 | 0.2760 | 1.024 | 14.753 | 10 | 6 | sandy silt to clayey silt |
| 37.566 | 20.96 | 0.3893 | 1.857 | 11.181 | 8 | 6 | sandy silt to clayey silt |
| 37.730 | 17.71 | 0.3845 | 2.171 | 13.815 | 8 | 5 | clayey silt to silty clay |
| 37.894 | 18.46 | 0.2633 | 1.426 | 15.426 | 7 | 6 | sandy silt to clayey silt |
| 38.058 | 23.18 | 0.4096 | 1.767 | 16.865 | 9 | 6 | sandy silt to clayey silt |
| 38.222 | 17.39 | 0.2952 | 1.697 | 16.587 | 7 | 6 | sandy silt to clayey silt |
| 38.386 | 16.32 | 0.2965 | 1.817 | 19.631 | 8 | 5 | clayey silt to silty clay |
| 38.550 | 14.91 | 0.2886 | 1.936 | 22.695 | 7 | 5 | clayey silt to silty clay |
| 38.714 | 17.51 | 0.3853 | 2.201 | 24.255 | 8 | 5 | clayey silt to silty clay |
| 38.878 | 12.61 | 0.3375 | 2.676 | 28.177 | 6 | 5 | clayey silt to silty clay |
| 39.042 | 14.82 | 0.2651 | 1.789 | 30.503 | 7 | 5 | clayey silt to silty clay |
| 39.206 | 16.31 | 0.2107 | 1.292 | 32.555 | 6 | 6 | sandy silt to clayey silt |
| 39.370 | 19.90 | 0.3134 | 1.575 | 29.364 | 8 | 6 | sandy silt to clayey silt |
| 39.534 | 17.30 | 0.3840 | 2.219 | 22.676 | 8 | 5 | clayey silt to silty clay |
| 39.698 | 14.49 | 0.3599 | 2.484 | 26.526 | 7 | 5 | clayey silt to silty clay |
| 39.862 | 13.19 | 0.2246 | 1.702 | 30.095 | 6 | 5 | clayey silt to silty clay |
| 40.026 | 12.44 | 0.2241 | 1.801 | 33.168 | 6 | 5 | clayey silt to silty clay |
| 40.190 | 11.93 | 0.2246 | 1.883 | 37.730 | 6 | 5 | clayey silt to silty clay |
| 40.354 | 15.10 | 0.2297 | 1.521 | 40.449 | 6 | 6 | sandy silt to clayey silt |
| 40.518 | 27.42 | 0.3188 | 1.163 | 25.173 | 11 | 6 | sandy silt to clayey silt |
| 40.682 | 22.16 | 0.2987 | 1.348 | 17.970 | 8 | 6 | sandy silt to clayey silt |
| 40.846 | 15.88 | 0.2134 | 1.344 | 19.583 | 6 | 6 | sandy silt to clayey silt |
| 41.011 | 10.80 | 0.2833 | 2.624 | 23.246 | 7 | 4 | silty clay to clay |
| 41.175 | 13.50 | 0.2378 | 1.762 | 30.848 | 6 | 5 | clayey silt to silty clay |
| 41.339 | 23.98 | 0.2791 | 1.164 | 26.569 | 9 | 6 | sandy silt to clayey silt |
| 41.503 | 22.27 | 0.4339 | 1.948 | 24.591 | 9 | 6 | sandy silt to clayey silt |
| 41.667 | 17.56 | 0.3885 | 2.212 | 27.846 | 8 | 5 | clayey silt to silty clay |
| 41.831 | 19.92 | 0.3820 | 1.918 | 31.835 | 8 | 6 | sandy silt to clayey silt |
| 41.995 | 24.23 | 0.3315 | 1.368 | 25.226 | 9 | 6 | sandy silt to clayey silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 42.159 | 24.08 | 0.4131 | 1.716 | 25.126 | 9 | 6 | sandy silt to clayey silt |
| 42.323 | 17.53 | 0.2977 | 1.698 | 35.453 | 7 | 6 | sandy silt to clayey silt |
| 42.487 | 29.87 | 0.4110 | 1.376 | 24.689 | 11 | 6 | sandy silt to clayey silt |
| 42.651 | 22.31 | 0.4829 | 2.165 | 20.508 | 9 | 6 | sandy silt to clayey silt |
| 42.815 | 19.86 | 0.4461 | 2.247 | 22.628 | 10 | 5 | clayey silt to silty clay |
| 42.979 | 19.82 | 0.2319 | 1.170 | 24.023 | 8 | 6 | sandy silt to clayey silt |
| 43.143 | 22.88 | 0.3906 | 1.707 | 22.824 | 9 | 6 | sandy silt to clayey silt |
| 43.307 | 18.86 | 0.3901 | 2.068 | 24.706 | 9 | 5 | clayey silt to silty clay |
| 43.471 | 19.33 | 0.2775 | 1.436 | 28.295 | 7 | 6 | sandy silt to clayey silt |
| 43.635 | 21.10 | 0.3636 | 1.723 | 27.070 | 8 | 6 | sandy silt to clayey silt |
| 43.799 | 15.61 | 0.3089 | 1.979 | 27.890 | 7 | 5 | clayey silt to silty clay |
| 43.963 | 16.83 | 0.3344 | 1.987 | 29.443 | 8 | 5 | clayey silt to silty clay |
| 44.127 | 16.14 | 0.2691 | 1.667 | 30.143 | 8 | 5 | clayey silt to silty clay |
| 44.291 | 16.56 | 0.2573 | 1.554 | 31.773 | 6 | 6 | sandy silt to clayey silt |
| 44.455 | 17.34 | 0.2022 | 1.166 | 34.477 | 7 | 6 | sandy silt to clayey silt |
| 44.619 | 15.38 | 0.2865 | 1.863 | 36.424 | 7 | 5 | clayey silt to silty clay |
| 44.783 | 13.35 | 0.2945 | 2.206 | 41.717 | 6 | 5 | clayey silt to silty clay |
| 44.948 | 23.95 | 0.3112 | 1.300 | 34.178 | 9 | 6 | sandy silt to clayey silt |
| 45.112 | 31.67 | 0.4264 | 1.346 | 29.261 | 12 | 6 | sandy silt to clayey silt |
| 45.276 | 27.68 | 0.5774 | 2.086 | 17.500 | 11 | 6 | sandy silt to clayey silt |
| 45.440 | 23.36 | 0.3639 | 1.558 | 22.326 | 9 | 6 | sandy silt to clayey silt |
| 45.604 | 41.33 | 0.5196 | 1.257 | 19.363 | 13 | 7 | silty sand to sandy silt |
| 45.768 | 30.36 | 0.6108 | 2.012 | 16.771 | 12 | 6 | sandy silt to clayey silt |
| 45.932 | 23.99 | 0.4771 | 1.988 | 22.887 | 9 | 6 | sandy silt to clayey silt |
| 46.096 | 24.85 | 0.5076 | 2.043 | 20.149 | 10 | 6 | sandy silt to clayey silt |
| 46.260 | 15.01 | 0.4232 | 2.820 | 23.093 | 7 | 5 | clayey silt to silty clay |
| 46.424 | 16.85 | 0.4007 | 2.379 | 34.947 | 8 | 5 | clayey silt to silty clay |
| 46.588 | 15.23 | 0.3188 | 2.094 | 33.307 | 7 | 5 | clayey silt to silty clay |
| 46.752 | 14.48 | 0.2998 | 2.071 | 37.670 | 7 | 5 | clayey silt to silty clay |
| 46.916 | 15.25 | 0.4655 | 3.052 | 40.820 | 7 | 5 | clayey silt to silty clay |
| 47.080 | 16.03 | 0.3296 | 2.056 | 41.062 | 8 | 5 | clayey silt to silty clay |
| 47.244 | 27.36 | 0.3729 | 1.363 | 23.970 | 10 | 6 | sandy silt to clayey silt |
| 47.408 | 22.88 | 0.4430 | 1.936 | 22.834 | 9 | 6 | sandy silt to clayey silt |
| 47.572 | 15.52 | 0.3901 | 2.513 | 28.192 | 7 | 5 | clayey silt to silty clay |
| 47.736 | 15.56 | 0.2214 | 1.423 | 34.144 | 6 | 6 | sandy silt to clayey silt |
| 47.900 | 17.96 | 0.2509 | 1.397 | 38.349 | 7 | 6 | sandy silt to clayey silt |
| 48.064 | 14.39 | 0.2796 | 1.943 | 38.680 | 7 | 5 | clayey silt to silty clay |
| 48.228 | 10.76 | 0.1903 | 1.769 | 47.403 | 5 | 5 | clayey silt to silty clay |
| 48.392 | 12.44 | 0.2273 | 1.827 | 53.377 | 6 | 5 | clayey silt to silty clay |
| 48.556 | 12.45 | 0.2303 | 1.850 | 58.574 | 6 | 5 | clayey silt to silty clay |
| 48.720 | 14.56 | 0.2387 | 1.639 | 49.191 | 7 | 5 | clayey silt to silty clay |
| 48.885 | 11.87 | 0.2280 | 1.921 | 57.443 | 6 | 5 | clayey silt to silty clay |
| 49.049 | 11.79 | 0.3007 | 2.550 | 57.265 | 6 | 5 | clayey silt to silty clay |
| 49.213 | 12.14 | 0.2547 | 2.098 | 64.817 | 6 | 5 | clayey silt to silty clay |
| 49.377 | 19.54 | 0.3578 | 1.831 | 47.370 | 7 | 6 | sandy silt to clayey silt |
| 49.541 | 14.17 | 0.3308 | 2.334 | 38.028 | 7 | 5 | clayey silt to silty clay |
| 49.705 | 15.24 | 0.2904 | 1.906 | 47.063 | 7 | 5 | clayey silt to silty clay |
| 49.869 | 11.69 | 0.2512 | 2.149 | 49.237 | 6 | 5 | clayey silt to silty clay |
| 50.033 | 14.13 | 0.2226 | 1.575 | 52.255 | 7 | 5 | clayey silt to silty clay |
| 50.197 | 11.09 | 0.1915 | 1.727 | 59.495 | 5 | 5 | clayey silt to silty clay |
| 50.361 | 11.71 | 0.1962 | 1.676 | 62.563 | 6 | 5 | clayey silt to silty clay |
| 50.525 | 11.41 | 0.1628 | 1.427 | 64.630 | 5 | 5 | clayey silt to silty clay |
| 50.689 | 11.46 | 0.1563 | 1.363 | 64.112 | 5 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 50.853 | 10.67 | 0.2233 | 2.093 | 66.679 | 5 | 5 | clayey silt to silty clay |
| 51.017 | 14.20 | 0.2396 | 1.687 | 68.178 | 7 | 5 | clayey silt to silty clay |
| 51.181 | 12.29 | 0.2286 | 1.860 | 49.525 | 6 | 5 | clayey silt to silty clay |
| 51.345 | 11.07 | 0.1738 | 1.571 | 58.361 | 5 | 5 | clayey silt to silty clay |
| 51.509 | 10.75 | 0.1688 | 1.570 | 64.088 | 5 | 5 | clayey silt to silty clay |
| 51.673 | 10.85 | 0.1681 | 1.549 | 68.372 | 5 | 5 | clayey silt to silty clay |
| 51.837 | 10.92 | 0.1722 | 1.576 | 69.129 | 5 | 5 | clayey silt to silty clay |
| 52.001 | 10.57 | 0.1621 | 1.533 | 69.885 | 5 | 5 | clayey silt to silty clay |
| 52.165 | 10.76 | 0.1645 | 1.529 | 71.189 | 5 | 5 | clayey silt to silty clay |
| 52.329 | 10.60 | 0.1781 | 1.680 | 71.342 | 5 | 5 | clayey silt to silty clay |
| 52.493 | 10.48 | 0.1606 | 1.532 | 73.087 | 5 | 5 | clayey silt to silty clay |
| 52.657 | 11.35 | 0.1645 | 1.449 | 68.252 | 5 | 5 | clayey silt to silty clay |
| 52.822 | 10.93 | 0.1774 | 1.623 | 71.857 | 5 | 5 | clayey silt to silty clay |
| 52.986 | 11.25 | 0.2053 | 1.825 | 72.459 | 5 | 5 | clayey silt to silty clay |
| 53.150 | 11.46 | 0.2394 | 2.090 | 71.344 | 5 | 5 | clayey silt to silty clay |
| 53.314 | 14.25 | 0.3060 | 2.148 | 65.531 | 7 | 5 | clayey silt to silty clay |
| 53.478 | 12.38 | 0.3413 | 2.757 | 63.213 | 8 | 4 | silty clay to clay |
| 53.642 | 11.53 | 0.3375 | 2.928 | 56.354 | 7 | 4 | silty clay to clay |
| 53.806 | 11.40 | 0.3081 | 2.704 | 67.720 | 7 | 4 | silty clay to clay |
| 53.970 | 11.46 | 0.2868 | 2.502 | 69.899 | 5 | 5 | clayey silt to silty clay |
| 54.134 | 11.25 | 0.2825 | 2.511 | 74.526 | 7 | 4 | silty clay to clay |
| 54.298 | 13.23 | 0.2764 | 2.089 | 72.991 | 6 | 5 | clayey silt to silty clay |
| 54.462 | 12.06 | 0.3031 | 2.514 | 61.269 | 6 | 5 | clayey silt to silty clay |
| 54.626 | 11.87 | 0.3020 | 2.545 | 68.489 | 6 | 5 | clayey silt to silty clay |
| 54.790 | 11.83 | 0.2653 | 2.244 | 71.030 | 6 | 5 | clayey silt to silty clay |
| 54.954 | 11.12 | 0.2683 | 2.412 | 71.074 | 5 | 5 | clayey silt to silty clay |
| 55.118 | 13.70 | 0.2636 | 1.925 | 70.640 | 7 | 5 | clayey silt to silty clay |
| 55.282 | 11.52 | 0.2248 | 1.952 | 58.735 | 6 | 5 | clayey silt to silty clay |
| 55.446 | 11.25 | 0.2461 | 2.187 | 75.508 | 5 | 5 | clayey silt to silty clay |
| 55.610 | 11.58 | 0.2697 | 2.328 | 72.452 | 6 | 5 | clayey silt to silty clay |
| 55.774 | 12.04 | 0.2803 | 2.329 | 73.538 | 6 | 5 | clayey silt to silty clay |
| 55.938 | 12.48 | 0.3516 | 2.819 | 61.271 | 8 | 4 | silty clay to clay |
| 56.102 | 16.98 | 0.5285 | 3.112 | 53.559 | 8 | 5 | clayey silt to silty clay |
| 56.266 | 21.84 | 0.4128 | 1.890 | 40.955 | 8 | 6 | sandy silt to clayey silt |
| 56.430 | 18.21 | 0.5217 | 2.866 | 48.038 | 9 | 5 | clayey silt to silty clay |
| 56.594 | 20.26 | 0.4483 | 2.213 | 39.535 | 10 | 5 | clayey silt to silty clay |
| 56.759 | 13.91 | 0.4802 | 3.453 | 46.986 | 9 | 4 | silty clay to clay |
| 56.923 | 16.08 | 0.3975 | 2.472 | 54.513 | 8 | 5 | clayey silt to silty clay |
| 57.087 | 21.86 | 0.3563 | 1.630 | 45.704 | 8 | 6 | sandy silt to clayey silt |
| 57.251 | 21.44 | 0.3469 | 1.618 | 44.229 | 8 | 6 | sandy silt to clayey silt |
| 57.415 | 21.00 | 0.3231 | 1.539 | 45.222 | 8 | 6 | sandy silt to clayey silt |
| 57.579 | 17.42 | 0.4475 | 2.569 | 46.593 | 8 | 5 | clayey silt to silty clay |
| 57.743 | 14.67 | 0.4433 | 3.022 | 61.173 | 9 | 4 | silty clay to clay |
| 57.907 | 21.15 | 0.3286 | 1.554 | 53.236 | 8 | 6 | sandy silt to clayey silt |
| 58.071 | 26.24 | 0.4172 | 1.590 | 47.525 | 10 | 6 | sandy silt to clayey silt |
| 58.235 | 25.47 | 0.5014 | 1.969 | 40.262 | 10 | 6 | sandy silt to clayey silt |
| 58.399 | 22.73 | 0.2944 | 1.295 | 42.182 | 9 | 6 | sandy silt to clayey silt |
| 58.563 | 43.98 | 0.6890 | 1.567 | 35.594 | 14 | 7 | silty sand to sandy silt |
| 58.727 | 33.77 | 0.7136 | 2.113 | 27.276 | 13 | 6 | sandy silt to clayey silt |
| 58.891 | 23.75 | 0.5149 | 2.167 | 34.079 | 9 | 6 | sandy silt to clayey silt |
| 59.055 | 32.24 | 0.4114 | 1.276 | 33.825 | 10 | 7 | silty sand to sandy silt |
| 59.219 | 32.15 | 0.6381 | 1.985 | 27.854 | 12 | 6 | sandy silt to clayey silt |
| 59.383 | 27.77 | 0.6553 | 2.359 | 33.602 | 11 | 6 | sandy silt to clayey silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 59.547 | 34.30 | 0.5812 | 1.695 | 26.396 | 13 | 6 | sandy silt to clayey silt |
| 59.711 | 40.33 | 0.4623 | 1.146 | 23.809 | 13 | 7 | silty sand to sandy silt |
| 59.875 | 48.46 | 0.3538 | 0.730 | 21.091 | 15 | 7 | silty sand to sandy silt |
| 60.039 | 53.98 | 0.4922 | 0.912 | 18.416 | 17 | 7 | silty sand to sandy silt |
| 60.203 | 56.45 | 0.5174 | 0.917 | 20.300 | 18 | 7 | silty sand to sandy silt |
| 60.367 | 55.23 | 0.5106 | 0.925 | 20.916 | 18 | 7 | silty sand to sandy silt |
| 60.532 | 50.32 | 0.4969 | 0.987 | 19.298 | 16 | 7 | silty sand to sandy silt |
| 60.696 | 38.64 | 0.7841 | 2.029 | 20.187 | 15 | 6 | sandy silt to clayey silt |
| 60.860 | 31.41 | 0.9116 | 2.902 | 21.863 | 15 | 5 | clayey silt to silty clay |
| 61.024 | 24.66 | 0.9031 | 3.662 | 28.225 | 16 | 4 | silty clay to clay |
| 61.188 | 30.65 | 0.7659 | 2.499 | 32.471 | 12 | 6 | sandy silt to clayey silt |
| 61.352 | 32.84 | 0.8271 | 2.518 | 21.424 | 13 | 6 | sandy silt to clayey silt |
| 61.516 | 32.79 | 0.5200 | 1.586 | 21.738 | 13 | 6 | sandy silt to clayey silt |
| 61.680 | 41.35 | 0.3480 | 0.842 | 20.899 | 13 | 7 | silty sand to sandy silt |
| 61.844 | 51.65 | 0.4022 | 0.779 | 17.282 | 16 | 7 | silty sand to sandy silt |
| 62.008 | 38.92 | 0.6598 | 1.695 | 15.946 | 15 | 6 | sandy silt to clayey silt |
| 62.172 | 30.56 | 0.6356 | 2.080 | 20.719 | 12 | 6 | sandy silt to clayey silt |
| 62.336 | 43.98 | 0.5025 | 1.142 | 17.279 | 14 | 7 | silty sand to sandy silt |
| 62.500 | 52.06 | 0.4388 | 0.843 | 15.551 | 17 | 7 | silty sand to sandy silt |
| 62.664 | 54.79 | 0.3401 | 0.621 | 16.002 | 13 | 8 | sand to silty sand |
| 62.828 | 53.44 | 0.3775 | 0.706 | 16.088 | 13 | 8 | sand to silty sand |
| 62.992 | 49.15 | 0.4518 | 0.919 | 18.157 | 16 | 7 | silty sand to sandy silt |
| 63.156 | 44.73 | 0.6588 | 1.473 | 20.274 | 14 | 7 | silty sand to sandy silt |
| 63.320 | 35.57 | 0.3897 | 1.096 | 22.246 | 11 | 7 | silty sand to sandy silt |
| 63.484 | 28.50 | 0.5123 | 1.797 | 26.072 | 11 | 6 | sandy silt to clayey silt |
| 63.648 | 23.31 | 0.4728 | 2.029 | 38.229 | 9 | 6 | sandy silt to clayey silt |
| 63.812 | 18.68 | 0.6367 | 3.408 | 45.946 | 9 | 5 | clayey silt to silty clay |
| 63.976 | 28.48 | 0.5263 | 1.848 | 57.812 | 11 | 6 | sandy silt to clayey silt |
| 64.140 | 42.18 | 0.5549 | 1.316 | 34.305 | 13 | 7 | silty sand to sandy silt |
| 64.304 | 47.15 | 0.4592 | 0.974 | 24.344 | 15 | 7 | silty sand to sandy silt |
| 64.469 | 53.10 | 0.5125 | 0.965 | 20.353 | 17 | 7 | silty sand to sandy silt |
| 64.633 | 67.55 | 0.5632 | 0.834 | 19.238 | 16 | 8 | sand to silty sand |
| 64.797 | 77.44 | 0.4091 | 0.528 | 16.702 | 19 | 8 | sand to silty sand |
| 64.961 | 77.12 | 0.6715 | 0.871 | 13.432 | 18 | 8 | sand to silty sand |
| 65.125 | 69.76 | 0.6678 | 0.957 | 15.714 | 17 | 8 | sand to silty sand |
| 65.289 | 84.93 | 0.5102 | 0.601 | 19.957 | 20 | 8 | sand to silty sand |
| 65.453 | 89.65 | 0.5688 | 0.635 | 20.113 | 21 | 8 | sand to silty sand |
| 65.617 | 81.57 | 0.6508 | 0.798 | 22.812 | 20 | 8 | sand to silty sand |
| 65.781 | 79.05 | 0.6184 | 0.782 | 24.186 | 19 | 8 | sand to silty sand |
| 65.945 | 82.72 | 0.6252 | 0.756 | 25.368 | 20 | 8 | sand to silty sand |
| 66.109 | 95.33 | 0.6609 | 0.693 | 26.818 | 23 | 8 | sand to silty sand |
| 66.273 | 102.85 | 0.6610 | 0.643 | 26.969 | 25 | 8 | sand to silty sand |
| 66.437 | 96.43 | 0.6358 | 0.659 | 27.122 | 23 | 8 | sand to silty sand |
| 66.601 | 84.36 | 0.5944 | 0.705 | 26.998 | 20 | 8 | sand to silty sand |
| 66.765 | 76.78 | 0.5327 | 0.694 | 26.844 | 18 | 8 | sand to silty sand |
| 66.929 | 73.73 | 0.4906 | 0.665 | 27.331 | 18 | 8 | sand to silty sand |
| 67.093 | 67.74 | 0.4982 | 0.735 | 27.238 | 16 | 8 | sand to silty sand |
| 67.257 | 62.84 | 0.4952 | 0.788 | 27.480 | 15 | 8 | sand to silty sand |
| 67.421 | 68.02 | 0.5165 | 0.759 | 27.578 | 16 | 8 | sand to silty sand |
| 67.585 | 92.72 | 0.6485 | 0.699 | 28.194 | 22 | 8 | sand to silty sand |
| 67.749 | 106.49 | 0.8160 | 0.766 | 27.772 | 25 | 8 | sand to silty sand |
| 67.913 | 116.43 | 0.9119 | 0.783 | 28.026 | 28 | 8 | sand to silty sand |
| 68.077 | 121.07 | 0.8929 | 0.738 | 27.751 | 29 | 8 | sand to silty sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 68.241 | 124.50 | 0.8964 | 0.720 | 28.096 | 30 | 8 | sand to silty sand | |
| 68.406 | 114.35 | 0.8188 | 0.716 | 27.921 | 27 | 8 | sand to silty sand | |
| 68.570 | 93.58 | 0.6936 | 0.741 | 27.686 | 22 | 8 | sand to silty sand | |
| 68.734 | 88.07 | 0.5815 | 0.660 | 27.825 | 21 | 8 | sand to silty sand | |
| 68.898 | 85.28 | 0.5287 | 0.620 | 27.988 | 20 | 8 | sand to silty sand | |
| 69.062 | 81.98 | 0.4928 | 0.601 | 28.194 | 20 | 8 | sand to silty sand | |
| 69.226 | 81.06 | 0.4774 | 0.589 | 28.290 | 19 | 8 | sand to silty sand | |
| 69.390 | 79.08 | 0.4620 | 0.584 | 28.347 | 19 | 8 | sand to silty sand | |
| 69.554 | 77.37 | 0.4372 | 0.565 | 28.364 | 19 | 8 | sand to silty sand | |
| 69.718 | 76.83 | 0.4314 | 0.561 | 28.474 | 18 | 8 | sand to silty sand | |
| 69.882 | 79.46 | 0.4858 | 0.611 | 28.630 | 19 | 8 | sand to silty sand | |
| 70.046 | 96.66 | 0.5450 | 0.564 | 28.966 | 23 | 8 | sand to silty sand | |
| 70.210 | 121.60 | 0.6649 | 0.547 | 29.035 | 23 | 9 | sand | |
| 70.374 | 124.40 | 0.7464 | 0.600 | 29.232 | 24 | 9 | sand | |
| 70.538 | 118.58 | 0.7427 | 0.626 | 29.160 | 23 | 9 | sand | |
| 70.702 | 115.05 | 0.7287 | 0.633 | 29.064 | 28 | 8 | sand to silty sand | |
| 70.866 | 115.14 | 0.6821 | 0.592 | 29.146 | 22 | 9 | sand | |
| 71.030 | 119.60 | 0.6793 | 0.568 | 29.364 | 23 | 9 | sand | |
| 71.194 | 131.27 | 0.7118 | 0.542 | 29.515 | 25 | 9 | sand | |
| 71.358 | 137.27 | 0.7705 | 0.561 | 29.690 | 26 | 9 | sand | |
| 71.522 | 143.02 | 0.8334 | 0.583 | 29.640 | 27 | 9 | sand | |
| 71.686 | 139.71 | 0.8152 | 0.584 | 29.680 | 27 | 9 | sand | |
| 71.850 | 130.41 | 0.7228 | 0.554 | 29.254 | 25 | 9 | sand | |
| 72.014 | 127.57 | 0.6796 | 0.533 | 29.714 | 24 | 9 | sand | |
| 72.178 | 135.36 | 0.7259 | 0.536 | 29.848 | 26 | 9 | sand | |
| 72.343 | 148.44 | 0.8076 | 0.544 | 30.033 | 28 | 9 | sand | |
| 72.507 | 137.45 | 0.8370 | 0.609 | 30.229 | 26 | 9 | sand | |
| 72.671 | 130.68 | 0.8859 | 0.678 | 30.594 | 25 | 9 | sand | |
| 72.835 | 131.34 | 0.8993 | 0.685 | 29.997 | 25 | 9 | sand | |
| 72.999 | 135.05 | 0.9721 | 0.720 | 30.469 | 26 | 9 | sand | |
| 73.163 | 138.61 | 0.9103 | 0.657 | 30.299 | 27 | 9 | sand | |
| 73.327 | 145.91 | 0.8514 | 0.583 | 30.383 | 28 | 9 | sand | |
| 73.491 | 151.14 | 0.8308 | 0.550 | 30.272 | 29 | 9 | sand | |
| 73.655 | 153.82 | 0.8921 | 0.580 | 30.783 | 29 | 9 | sand | |
| 73.819 | 154.89 | 0.9676 | 0.625 | 30.963 | 30 | 9 | sand | |
| 73.983 | 154.28 | 0.9436 | 0.612 | 31.037 | 30 | 9 | sand | |
| 74.147 | 139.06 | 0.8662 | 0.623 | 30.546 | 27 | 9 | sand | |
| 74.311 | 142.95 | 0.8236 | 0.576 | 30.553 | 27 | 9 | sand | |
| 74.475 | 150.29 | 0.8610 | 0.573 | 31.119 | 29 | 9 | sand | |
| 74.639 | 156.23 | 0.8681 | 0.556 | 30.872 | 30 | 9 | sand | |
| 74.803 | 144.60 | 0.7857 | 0.543 | 30.953 | 28 | 9 | sand | |
| 74.967 | 132.64 | 0.7234 | 0.545 | 30.419 | 25 | 9 | sand | |
| 75.131 | 140.58 | 0.7732 | 0.550 | 31.102 | 27 | 9 | sand | |
| 75.295 | 138.97 | 0.7670 | 0.552 | 31.289 | 27 | 9 | sand | |
| 75.459 | 131.97 | 0.7325 | 0.555 | 31.589 | 25 | 9 | sand | |
| 75.623 | 136.33 | 0.7550 | 0.554 | 31.234 | 26 | 9 | sand | |
| 75.787 | 150.72 | 0.7600 | 0.504 | 31.850 | 29 | 9 | sand | |
| 75.951 | 148.77 | 0.8250 | 0.555 | 31.790 | 28 | 9 | sand | |
| 76.115 | 147.73 | 0.7757 | 0.525 | 31.692 | 28 | 9 | sand | |
| 76.280 | 136.02 | 0.7408 | 0.545 | 31.366 | 26 | 9 | sand | |
| 76.444 | 139.90 | 0.7973 | 0.570 | 31.962 | 27 | 9 | sand | |
| 76.608 | 141.53 | 0.7920 | 0.560 | 32.037 | 27 | 9 | sand | |
| 76.772 | 136.90 | 0.8069 | 0.589 | 31.725 | 26 | 9 | sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 76.936 | 138.64 | 0.8034 | 0.579 | 31.905 | 27 | 9 | sand | |
| 77.100 | 144.58 | 0.7666 | 0.530 | 32.030 | 28 | 9 | sand | |
| 77.264 | 150.85 | 0.7903 | 0.524 | 32.137 | 29 | 9 | sand | |
| 77.428 | 148.40 | 0.7785 | 0.525 | 32.291 | 28 | 9 | sand | |
| 77.592 | 142.56 | 0.7459 | 0.523 | 32.006 | 27 | 9 | sand | |
| 77.756 | 142.37 | 0.7319 | 0.514 | 31.790 | 27 | 9 | sand | |
| 77.920 | 130.86 | 0.6869 | 0.525 | 32.020 | 25 | 9 | sand | |
| 78.084 | 113.00 | 0.6796 | 0.601 | 31.416 | 27 | 8 | sand to silty sand | |
| 78.248 | 108.04 | 0.5698 | 0.527 | 31.581 | 21 | 9 | sand | |
| 78.412 | 108.13 | 0.6016 | 0.556 | 31.632 | 26 | 8 | sand to silty sand | |
| 78.576 | 122.04 | 0.5845 | 0.479 | 32.392 | 23 | 9 | sand | |
| 78.740 | 116.34 | 0.5663 | 0.487 | 32.289 | 22 | 9 | sand | |
| 78.904 | 110.47 | 0.5991 | 0.542 | 32.514 | 21 | 9 | sand | |
| 79.068 | 130.78 | 0.6591 | 0.504 | 33.087 | 25 | 9 | sand | |
| 79.232 | 151.32 | 0.7999 | 0.529 | 33.602 | 29 | 9 | sand | |
| 79.396 | 158.72 | 0.8457 | 0.533 | 33.111 | 30 | 9 | sand | |
| 79.560 | 150.33 | 0.7779 | 0.517 | 33.319 | 29 | 9 | sand | |
| 79.724 | 145.98 | 0.7592 | 0.520 | 32.998 | 28 | 9 | sand | |
| 79.888 | 150.48 | 0.7307 | 0.486 | 33.367 | 29 | 9 | sand | |
| 80.052 | 148.44 | 0.7388 | 0.498 | 33.341 | 28 | 9 | sand | |
| 80.217 | 144.90 | 0.7775 | 0.537 | 33.288 | 28 | 9 | sand | |
| 80.381 | 144.79 | 0.8329 | 0.575 | 33.199 | 28 | 9 | sand | |
| 80.545 | 141.87 | 0.7947 | 0.560 | 33.626 | 27 | 9 | sand | |
| 80.709 | 151.65 | 0.7899 | 0.521 | 33.588 | 29 | 9 | sand | |
| 80.873 | 168.57 | 0.8633 | 0.512 | 34.110 | 32 | 9 | sand | |
| 81.037 | 170.20 | 0.9599 | 0.564 | 34.264 | 33 | 9 | sand | |
| 81.201 | 163.07 | 0.9180 | 0.563 | 33.753 | 31 | 9 | sand | |
| 81.365 | 157.01 | 0.8779 | 0.559 | 33.720 | 30 | 9 | sand | |
| 81.529 | 152.74 | 0.8875 | 0.581 | 33.700 | 29 | 9 | sand | |
| 81.693 | 149.27 | 0.8441 | 0.565 | 33.926 | 29 | 9 | sand | |
| 81.857 | 155.19 | 0.8517 | 0.549 | 33.233 | 30 | 9 | sand | |
| 82.021 | 142.45 | 0.8135 | 0.571 | 34.470 | 27 | 9 | sand | |
| 82.185 | 144.94 | 0.8026 | 0.554 | 34.024 | 28 | 9 | sand | |
| 82.349 | 159.38 | 0.8292 | 0.520 | 34.245 | 31 | 9 | sand | |
| 82.513 | 158.96 | 0.8674 | 0.546 | 34.681 | 30 | 9 | sand | |
| 82.677 | 156.56 | 0.8998 | 0.575 | 34.389 | 30 | 9 | sand | |
| 82.841 | 140.94 | 0.8745 | 0.620 | 34.360 | 27 | 9 | sand | |
| 83.005 | 126.25 | 0.7087 | 0.561 | 33.962 | 24 | 9 | sand | |
| 83.169 | 133.64 | 0.7102 | 0.531 | 33.868 | 26 | 9 | sand | |
| 83.333 | 116.59 | 0.7143 | 0.613 | 34.249 | 22 | 9 | sand | |
| 83.497 | 109.66 | 0.6783 | 0.619 | 34.106 | 26 | 8 | sand to silty sand | |
| 83.661 | 109.20 | 0.6230 | 0.571 | 34.120 | 26 | 8 | sand to silty sand | |
| 83.825 | 109.97 | 0.5982 | 0.544 | 34.245 | 21 | 9 | sand | |
| 83.990 | 105.88 | 0.5888 | 0.556 | 34.386 | 25 | 8 | sand to silty sand | |
| 84.154 | 102.53 | 0.5665 | 0.552 | 34.353 | 25 | 8 | sand to silty sand | |
| 84.318 | 102.84 | 0.5513 | 0.536 | 34.525 | 25 | 8 | sand to silty sand | |
| 84.482 | 111.94 | 0.5477 | 0.489 | 34.794 | 21 | 9 | sand | |
| 84.646 | 97.57 | 0.5062 | 0.519 | 34.285 | 23 | 8 | sand to silty sand | |
| 84.810 | 86.44 | 0.4696 | 0.543 | 34.518 | 21 | 8 | sand to silty sand | |
| 84.974 | 86.53 | 0.5259 | 0.608 | 34.559 | 21 | 8 | sand to silty sand | |
| 85.138 | 105.88 | 0.5609 | 0.530 | 35.393 | 25 | 8 | sand to silty sand | |
| 85.302 | 106.06 | 0.5714 | 0.539 | 35.501 | 25 | 8 | sand to silty sand | |
| 85.466 | 116.47 | 0.6300 | 0.541 | 35.659 | 22 | 9 | sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 85.630 | 135.86 | 0.6941 | 0.511 | 35.906 | 26 | 9 | sand | |
| 85.794 | 144.17 | 0.6991 | 0.485 | 35.827 | 28 | 9 | sand | |
| 85.958 | 144.92 | 0.7688 | 0.531 | 36.035 | 28 | 9 | sand | |
| 86.122 | 144.48 | 0.7601 | 0.526 | 36.095 | 28 | 9 | sand | |
| 86.286 | 136.15 | 0.7546 | 0.554 | 35.609 | 26 | 9 | sand | |
| 86.450 | 128.54 | 0.6776 | 0.527 | 35.609 | 25 | 9 | sand | |
| 86.614 | 118.54 | 0.6437 | 0.543 | 35.798 | 23 | 9 | sand | |
| 86.778 | 112.17 | 0.6055 | 0.540 | 35.791 | 21 | 9 | sand | |
| 86.942 | 108.77 | 0.5467 | 0.503 | 35.709 | 21 | 9 | sand | |
| 87.106 | 118.36 | 0.5785 | 0.489 | 36.059 | 23 | 9 | sand | |
| 87.270 | 134.02 | 0.6231 | 0.465 | 36.405 | 26 | 9 | sand | |
| 87.434 | 119.07 | 0.6478 | 0.544 | 36.136 | 23 | 9 | sand | |
| 87.598 | 106.97 | 0.6005 | 0.561 | 35.940 | 26 | 8 | sand to silty sand | |
| 87.762 | 93.82 | 0.5218 | 0.556 | 35.875 | 22 | 8 | sand to silty sand | |
| 87.927 | 93.48 | 0.5157 | 0.552 | 36.004 | 22 | 8 | sand to silty sand | |
| 88.091 | 95.13 | 0.5254 | 0.552 | 36.465 | 23 | 8 | sand to silty sand | |
| 88.255 | 98.85 | 0.5356 | 0.542 | 36.412 | 24 | 8 | sand to silty sand | |
| 88.419 | 108.49 | 0.5858 | 0.540 | 36.752 | 21 | 9 | sand | |
| 88.583 | 120.54 | 0.6052 | 0.502 | 36.843 | 23 | 9 | sand | |
| 88.747 | 104.70 | 0.5472 | 0.523 | 36.716 | 25 | 8 | sand to silty sand | |
| 88.911 | 94.73 | 0.4906 | 0.518 | 36.313 | 23 | 8 | sand to silty sand | |
| 89.075 | 106.48 | 0.5211 | 0.489 | 36.970 | 20 | 9 | sand | |
| 89.239 | 103.31 | 0.5375 | 0.520 | 37.246 | 25 | 8 | sand to silty sand | |
| 89.403 | 89.32 | 0.5050 | 0.565 | 36.644 | 21 | 8 | sand to silty sand | |
| 89.567 | 85.11 | 0.4782 | 0.562 | 36.604 | 20 | 8 | sand to silty sand | |
| 89.731 | 89.71 | 0.4349 | 0.485 | 37.114 | 21 | 8 | sand to silty sand | |
| 89.895 | 93.30 | 0.4506 | 0.483 | 37.289 | 22 | 8 | sand to silty sand | |
| 90.059 | 89.06 | 0.4749 | 0.533 | 37.337 | 21 | 8 | sand to silty sand | |
| 90.223 | 85.32 | 0.4519 | 0.530 | 37.328 | 20 | 8 | sand to silty sand | |
| 90.551 | 81.73 | 0.4250 | 0.520 | 37.246 | 20 | 8 | sand to silty sand | |
| 90.715 | 80.78 | 0.4336 | 0.537 | 37.431 | 19 | 8 | sand to silty sand | |
| 90.879 | 80.82 | 0.4407 | 0.545 | 37.613 | 19 | 8 | sand to silty sand | |
| 91.043 | 81.66 | 0.4468 | 0.547 | 37.752 | 20 | 8 | sand to silty sand | |
| 91.207 | 82.02 | 0.4526 | 0.552 | 37.776 | 20 | 8 | sand to silty sand | |
| 91.371 | 82.47 | 0.4616 | 0.560 | 37.936 | 20 | 8 | sand to silty sand | |
| 91.535 | 83.99 | 0.4723 | 0.562 | 38.023 | 20 | 8 | sand to silty sand | |
| 91.699 | 86.14 | 0.4754 | 0.552 | 38.126 | 21 | 8 | sand to silty sand | |
| 91.864 | 87.74 | 0.4783 | 0.545 | 38.159 | 21 | 8 | sand to silty sand | |
| 92.028 | 88.81 | 0.4893 | 0.551 | 38.222 | 21 | 8 | sand to silty sand | |
| 92.192 | 93.73 | 0.5202 | 0.555 | 38.454 | 22 | 8 | sand to silty sand | |
| 92.356 | 100.39 | 0.5431 | 0.541 | 38.500 | 24 | 8 | sand to silty sand | |
| 92.520 | 113.12 | 0.5920 | 0.523 | 38.687 | 22 | 9 | sand | |
| 92.684 | 115.78 | 0.6181 | 0.534 | 38.675 | 22 | 9 | sand | |
| 92.848 | 112.63 | 0.5461 | 0.485 | 38.708 | 22 | 9 | sand | |
| 93.012 | 89.31 | 0.4977 | 0.557 | 38.282 | 21 | 8 | sand to silty sand | |
| 93.176 | 82.97 | 0.4556 | 0.549 | 38.598 | 20 | 8 | sand to silty sand | |
| 93.340 | 80.66 | 0.4299 | 0.533 | 38.553 | 19 | 8 | sand to silty sand | |
| 93.504 | 81.06 | 0.4286 | 0.529 | 38.684 | 19 | 8 | sand to silty sand | |
| 93.668 | 80.91 | 0.4273 | 0.528 | 38.768 | 19 | 8 | sand to silty sand | |
| 93.832 | 84.58 | 0.4250 | 0.502 | 39.020 | 20 | 8 | sand to silty sand | |
| 93.996 | 99.61 | 0.4766 | 0.479 | 39.416 | 24 | 8 | sand to silty sand | |
| 94.160 | 110.93 | 0.5562 | 0.501 | 39.444 | 21 | 9 | sand | |
| 94.324 | 120.44 | 0.6247 | 0.519 | 39.715 | 23 | 9 | sand | |

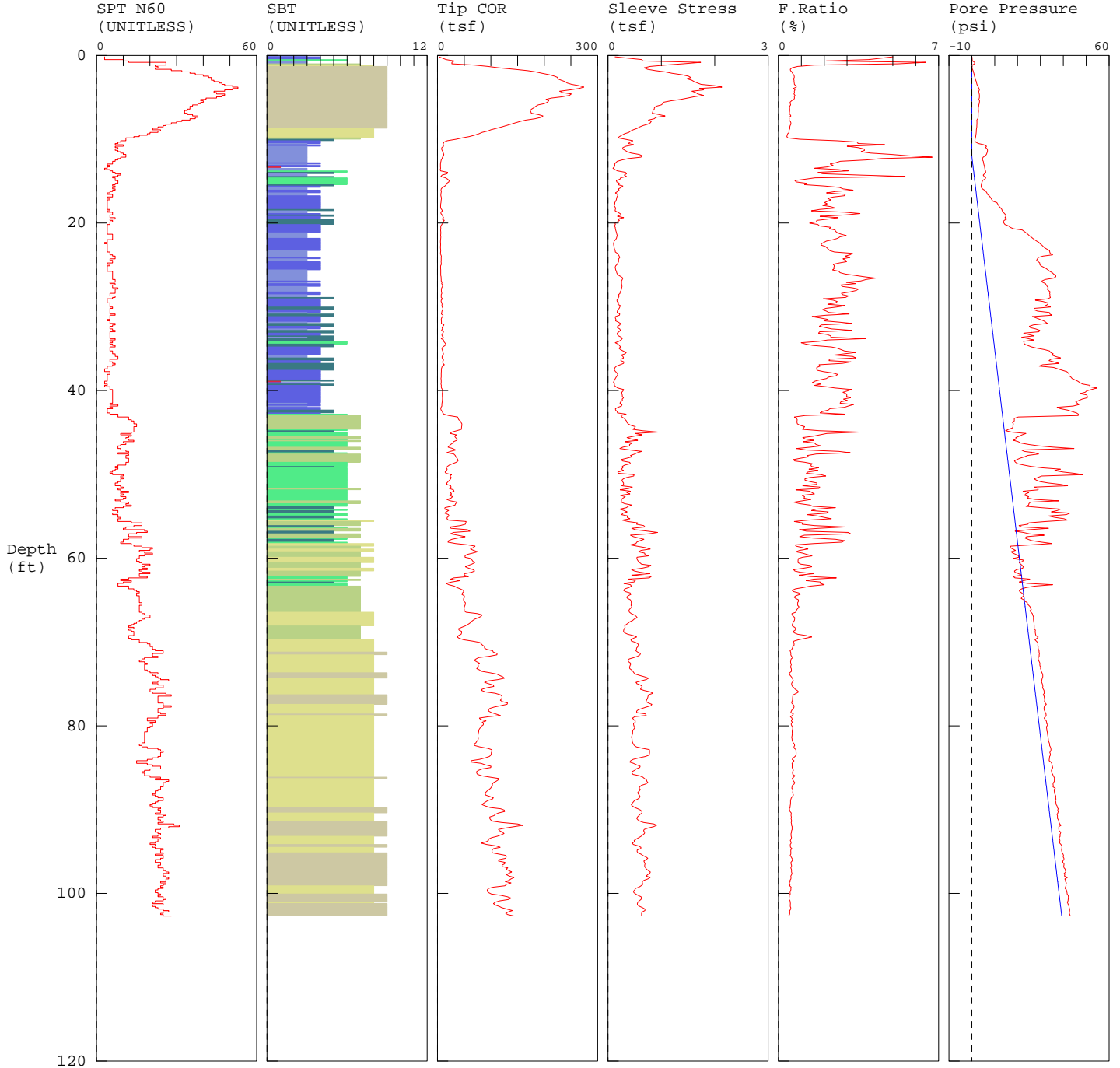
| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 94.488 | 115.63 | 0.6405 | 0.554 | 39.619 | 22 | 9 | sand | |
| 94.652 | 112.93 | 0.6046 | 0.535 | 39.267 | 22 | 9 | sand | |
| 94.816 | 118.94 | 0.6014 | 0.506 | 39.502 | 23 | 9 | sand | |
| 94.980 | 112.78 | 0.5943 | 0.527 | 39.521 | 22 | 9 | sand | |
| 95.144 | 104.19 | 0.5559 | 0.533 | 39.533 | 25 | 8 | sand to silty sand | |
| 95.308 | 105.85 | 0.5517 | 0.521 | 39.878 | 25 | 8 | sand to silty sand | |
| 95.472 | 119.08 | 0.5736 | 0.482 | 39.694 | 23 | 9 | sand | |
| 95.636 | 117.88 | 0.5799 | 0.492 | 40.012 | 23 | 9 | sand | |
| 95.801 | 100.86 | 0.5416 | 0.537 | 39.533 | 24 | 8 | sand to silty sand | |
| 95.965 | 92.07 | 0.4814 | 0.523 | 39.543 | 22 | 8 | sand to silty sand | |
| 96.129 | 87.08 | 0.4443 | 0.510 | 39.811 | 21 | 8 | sand to silty sand | |
| 96.293 | 85.68 | 0.4359 | 0.509 | 40.041 | 21 | 8 | sand to silty sand | |
| 96.457 | 84.64 | 0.4383 | 0.518 | 40.144 | 20 | 8 | sand to silty sand | |
| 96.621 | 84.70 | 0.4322 | 0.510 | 40.245 | 20 | 8 | sand to silty sand | |
| 96.785 | 84.87 | 0.4305 | 0.507 | 40.307 | 20 | 8 | sand to silty sand | |
| 96.949 | 85.76 | 0.4506 | 0.525 | 40.370 | 21 | 8 | sand to silty sand | |
| 97.113 | 86.23 | 0.4617 | 0.536 | 40.497 | 21 | 8 | sand to silty sand | |
| 97.277 | 92.04 | 0.4971 | 0.540 | 40.705 | 22 | 8 | sand to silty sand | |
| 97.441 | 109.72 | 0.5609 | 0.511 | 41.031 | 21 | 9 | sand | |
| 97.605 | 139.32 | 0.6518 | 0.468 | 41.669 | 27 | 9 | sand | |
| 97.769 | 158.13 | 0.7617 | 0.482 | 41.388 | 30 | 9 | sand | |
| 97.933 | 163.77 | 0.8216 | 0.502 | 41.127 | 31 | 9 | sand | |
| 98.097 | 148.42 | 0.8213 | 0.553 | 41.209 | 28 | 9 | sand | |
| 98.261 | 132.92 | 0.7525 | 0.566 | 40.842 | 25 | 9 | sand | |
| 98.425 | 128.23 | 0.6962 | 0.543 | 40.902 | 25 | 9 | sand | |
| 98.589 | 128.59 | 0.6552 | 0.510 | 41.065 | 25 | 9 | sand | |
| 98.753 | 132.52 | 0.6280 | 0.474 | 41.060 | 25 | 9 | sand | |
| 98.917 | 113.76 | 0.5927 | 0.521 | 41.158 | 22 | 9 | sand | |
| 99.081 | 100.34 | 0.5553 | 0.553 | 40.859 | 24 | 8 | sand to silty sand | |
| 99.245 | 94.82 | 0.5061 | 0.534 | 41.019 | 23 | 8 | sand to silty sand | |
| 99.409 | 92.39 | 0.4756 | 0.515 | 41.252 | 22 | 8 | sand to silty sand | |
| 99.573 | 90.39 | 0.4943 | 0.547 | 41.386 | 22 | 8 | sand to silty sand | |
| 99.738 | 97.66 | 0.5188 | 0.531 | 41.901 | 23 | 8 | sand to silty sand | |
| 99.902 | 119.24 | 0.6004 | 0.504 | 42.314 | 23 | 9 | sand | |
| 100.066 | 142.72 | 0.6807 | 0.477 | 42.491 | 27 | 9 | sand | |
| 100.230 | 147.10 | 0.7113 | 0.484 | 42.508 | 28 | 9 | sand | |
| 100.394 | 132.21 | 0.7061 | 0.534 | 41.652 | 25 | 9 | sand | |
| 100.558 | 116.64 | 0.6730 | 0.577 | 41.717 | 22 | 9 | sand | |
| 100.722 | 107.30 | 0.6427 | 0.599 | 41.523 | 26 | 8 | sand to silty sand | |
| 100.886 | 102.48 | 0.5792 | 0.565 | 41.753 | 25 | 8 | sand to silty sand | |
| 101.050 | 100.59 | 0.5518 | 0.549 | 41.964 | 24 | 8 | sand to silty sand | |
| 101.214 | 99.89 | 0.5488 | 0.549 | 42.144 | 24 | 8 | sand to silty sand | |
| 101.378 | 102.89 | 0.5526 | 0.537 | 42.309 | 25 | 8 | sand to silty sand | |
| 101.542 | 109.13 | 0.5963 | 0.546 | 42.671 | 21 | 9 | sand | |
| 101.706 | 126.59 | 0.7119 | 0.562 | 42.877 | 24 | 9 | sand | |
| 101.870 | 160.94 | 0.7981 | 0.496 | 43.186 | 31 | 9 | sand | |
| 102.034 | 158.20 | 0.8413 | 0.532 | 42.633 | 30 | 9 | sand | |
| 102.198 | 153.09 | 0.8481 | 0.554 | 42.841 | 29 | 9 | sand | |
| 102.362 | 156.42 | 0.8679 | 0.555 | 43.409 | 30 | 9 | sand | |
| 102.526 | 163.49 | 0.8602 | 0.526 | 43.476 | 31 | 9 | sand | |
| 102.690 | 196.96 | 0.8602 | 0.437 | 43.731 | 38 | 9 | sand | |

GRI / CPT-22 / PDX Runway Evaluation

TEST DATE: 4/26/2017 10:19:28 AM
 HOLE NUMBER: CPT-22

CONE ID: DPG1386
 LOCATION: 17058/ GRI/ CPT-22/ PDX
 JOB NUMBER: 17058/ GRI/ CPT-22/ PDX
 TEST DATE: 4/26/2017 10:19:28 AM
 TOTAL DEPTH: 102.690 ft

CUSTOMER: 17058/ GRI/ CPT-22/ PDX
 OPERATOR: OGE BJB



TOTAL DEPTH: 102.690 ft

- | | | | |
|---|---|--|--|
| <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

GRI / CPT-22 / PDX Runway Evaluation

OPERATOR: OGE BJB
 TEST DATE: 4/26/2017 10:19:28 AM
 COMMENT: GRI / CPT-22 / PDX Runway Evaluation
 FILENAME: 17058 CPT-22.cpt
 TOTAL DEPTH: 102.690 ft

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 0.164 | 2.63 | 0.1313 | 4.999 | 0.014 | 3 | 3 | clay |
| 0.492 | 16.04 | 0.6327 | 3.944 | 0.137 | 10 | 4 | silty clay to clay |
| 0.656 | 31.18 | 0.6503 | 2.086 | 0.189 | 12 | 6 | sandy silt to clayey silt |
| 0.820 | 26.98 | 1.7344 | 6.427 | 1.230 | 26 | 3 | clay |
| 0.984 | 26.80 | 1.3995 | 5.222 | 1.189 | 26 | 3 | clay |
| 1.148 | 69.01 | 1.0769 | 1.561 | 0.127 | 22 | 7 | silty sand to sandy silt |
| 1.312 | 94.82 | 0.7867 | 0.830 | 0.153 | 23 | 8 | sand to silty sand |
| 1.476 | 114.79 | 0.6788 | 0.591 | 0.062 | 22 | 9 | sand |
| 1.640 | 144.76 | 0.7408 | 0.512 | 0.254 | 28 | 9 | sand |
| 1.804 | 168.99 | 0.8916 | 0.528 | 0.506 | 32 | 9 | sand |
| 1.969 | 184.15 | 1.0737 | 0.583 | 0.702 | 35 | 9 | sand |
| 2.133 | 195.61 | 1.1972 | 0.612 | 0.841 | 37 | 9 | sand |
| 2.297 | 209.83 | 1.3919 | 0.663 | 1.024 | 40 | 9 | sand |
| 2.461 | 219.08 | 1.5056 | 0.687 | 1.120 | 42 | 9 | sand |
| 2.625 | 225.68 | 1.5534 | 0.688 | 1.318 | 43 | 9 | sand |
| 2.789 | 224.84 | 1.4773 | 0.657 | 1.505 | 43 | 9 | sand |
| 2.953 | 231.80 | 1.5704 | 0.677 | 1.700 | 44 | 9 | sand |
| 3.117 | 238.93 | 1.6149 | 0.676 | 1.901 | 46 | 9 | sand |
| 3.281 | 242.84 | 1.6755 | 0.690 | 2.078 | 47 | 9 | sand |
| 3.445 | 251.33 | 1.7425 | 0.693 | 2.205 | 48 | 9 | sand |
| 3.609 | 265.53 | 2.0023 | 0.754 | 2.508 | 51 | 9 | sand |
| 3.773 | 274.18 | 2.1336 | 0.778 | 2.817 | 53 | 9 | sand |
| 3.937 | 265.10 | 1.7159 | 0.647 | 3.085 | 51 | 9 | sand |
| 4.101 | 248.69 | 1.7906 | 0.720 | 3.311 | 48 | 9 | sand |
| 4.265 | 228.81 | 1.5727 | 0.687 | 3.045 | 44 | 9 | sand |
| 4.429 | 234.48 | 1.6415 | 0.700 | 2.970 | 45 | 9 | sand |
| 4.593 | 250.50 | 1.6834 | 0.672 | 3.260 | 48 | 9 | sand |
| 4.757 | 247.44 | 1.7878 | 0.723 | 3.308 | 47 | 9 | sand |
| 4.921 | 233.22 | 1.6045 | 0.688 | 3.299 | 45 | 9 | sand |
| 5.085 | 213.06 | 1.4917 | 0.700 | 3.239 | 41 | 9 | sand |
| 5.249 | 203.16 | 1.3601 | 0.669 | 3.025 | 39 | 9 | sand |
| 5.413 | 208.31 | 1.1781 | 0.566 | 3.361 | 40 | 9 | sand |
| 5.577 | 205.53 | 1.0333 | 0.503 | 3.311 | 39 | 9 | sand |
| 5.741 | 199.67 | 1.0284 | 0.515 | 3.203 | 38 | 9 | sand |
| 5.906 | 188.39 | 0.9972 | 0.529 | 2.989 | 36 | 9 | sand |
| 6.070 | 184.23 | 0.9015 | 0.489 | 2.963 | 35 | 9 | sand |
| 6.234 | 180.24 | 0.8676 | 0.481 | 2.841 | 35 | 9 | sand |
| 6.398 | 176.33 | 0.8665 | 0.491 | 2.822 | 34 | 9 | sand |
| 6.562 | 173.76 | 0.8426 | 0.485 | 2.867 | 33 | 9 | sand |
| 6.726 | 174.88 | 0.8383 | 0.479 | 2.877 | 33 | 9 | sand |
| 6.890 | 175.72 | 0.8298 | 0.472 | 2.776 | 34 | 9 | sand |
| 7.054 | 189.14 | 0.9573 | 0.506 | 2.752 | 36 | 9 | sand |
| 7.218 | 197.68 | 1.0677 | 0.540 | 2.798 | 38 | 9 | sand |
| 7.382 | 193.90 | 0.8953 | 0.462 | 2.757 | 37 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 7.546 | 183.11 | 0.8665 | 0.473 | 2.594 | 35 | 9 | sand |
| 7.710 | 165.37 | 0.7552 | 0.457 | 2.170 | 32 | 9 | sand |
| 7.874 | 154.72 | 0.8095 | 0.523 | 2.225 | 30 | 9 | sand |
| 8.038 | 146.00 | 0.7915 | 0.542 | 2.203 | 28 | 9 | sand |
| 8.202 | 137.37 | 0.7457 | 0.543 | 2.193 | 26 | 9 | sand |
| 8.366 | 128.81 | 0.6566 | 0.510 | 2.167 | 25 | 9 | sand |
| 8.530 | 120.29 | 0.5921 | 0.492 | 2.158 | 23 | 9 | sand |
| 8.694 | 110.59 | 0.5505 | 0.498 | 2.040 | 21 | 9 | sand |
| 8.858 | 99.93 | 0.4713 | 0.472 | 1.978 | 24 | 8 | sand to silty sand |
| 9.022 | 94.10 | 0.4233 | 0.450 | 1.971 | 23 | 8 | sand to silty sand |
| 9.186 | 83.28 | 0.3883 | 0.466 | 1.896 | 20 | 8 | sand to silty sand |
| 9.350 | 77.49 | 0.3081 | 0.398 | 1.843 | 19 | 8 | sand to silty sand |
| 9.514 | 68.88 | 0.2580 | 0.374 | 1.745 | 16 | 8 | sand to silty sand |
| 9.678 | 59.10 | 0.2136 | 0.361 | 1.642 | 14 | 8 | sand to silty sand |
| 9.843 | 46.30 | 0.1866 | 0.403 | 1.522 | 11 | 8 | sand to silty sand |
| 10.007 | 34.75 | 0.3227 | 0.929 | 1.422 | 11 | 7 | silty sand to sandy silt |
| 10.171 | 18.13 | 0.4632 | 2.556 | 1.297 | 9 | 5 | clayey silt to silty clay |
| 10.335 | 12.12 | 0.4193 | 3.461 | 1.664 | 8 | 4 | silty clay to clay |
| 10.499 | 10.95 | 0.3797 | 3.469 | 2.841 | 7 | 4 | silty clay to clay |
| 10.663 | 10.32 | 0.4793 | 4.644 | 5.185 | 10 | 3 | clay |
| 10.827 | 11.21 | 0.3362 | 3.001 | 6.432 | 7 | 4 | silty clay to clay |
| 10.991 | 8.05 | 0.2801 | 3.480 | 6.070 | 8 | 3 | clay |
| 11.155 | 7.29 | 0.2724 | 3.738 | 6.712 | 7 | 3 | clay |
| 11.319 | 8.48 | 0.3193 | 3.764 | 6.878 | 8 | 3 | clay |
| 11.483 | 9.89 | 0.3569 | 3.608 | 6.765 | 9 | 3 | clay |
| 11.647 | 10.81 | 0.4348 | 4.022 | 6.612 | 10 | 3 | clay |
| 11.811 | 11.81 | 0.5838 | 4.943 | 6.381 | 11 | 3 | clay |
| 11.975 | 11.33 | 0.6427 | 5.671 | 5.859 | 11 | 3 | clay |
| 12.139 | 9.15 | 0.6151 | 6.720 | 4.965 | 9 | 3 | clay |
| 12.303 | 8.47 | 0.3829 | 4.521 | 4.598 | 8 | 3 | clay |
| 12.467 | 6.89 | 0.2648 | 3.846 | 4.629 | 7 | 3 | clay |
| 12.631 | 6.40 | 0.1730 | 2.703 | 5.017 | 6 | 3 | clay |
| 12.795 | 5.76 | 0.1437 | 2.494 | 5.099 | 6 | 3 | clay |
| 12.959 | 5.53 | 0.1253 | 2.265 | 5.252 | 4 | 4 | silty clay to clay |
| 13.123 | 5.37 | 0.1280 | 2.386 | 5.391 | 5 | 3 | clay |
| 13.287 | 5.53 | 0.1184 | 2.142 | 5.528 | 4 | 4 | silty clay to clay |
| 13.451 | 5.93 | 0.0938 | 1.582 | 5.626 | 3 | 1 | sensitive fine grained |
| 13.615 | 5.08 | 0.1329 | 2.616 | 5.751 | 5 | 3 | clay |
| 13.780 | 5.81 | 0.1770 | 3.044 | 5.972 | 6 | 3 | clay |
| 13.944 | 19.03 | 0.3283 | 1.725 | 6.077 | 7 | 6 | sandy silt to clayey silt |
| 14.108 | 17.90 | 0.3449 | 1.927 | 5.542 | 9 | 5 | clayey silt to silty clay |
| 14.272 | 8.52 | 0.3052 | 3.583 | 4.936 | 8 | 3 | clay |
| 14.436 | 6.20 | 0.3433 | 5.534 | 5.348 | 6 | 3 | clay |
| 14.600 | 14.84 | 0.2365 | 1.594 | 6.106 | 7 | 5 | clayey silt to silty clay |
| 14.764 | 18.98 | 0.2232 | 1.176 | 5.619 | 7 | 6 | sandy silt to clayey silt |
| 14.928 | 21.73 | 0.1552 | 0.714 | 4.596 | 8 | 6 | sandy silt to clayey silt |
| 15.092 | 21.24 | 0.1647 | 0.776 | 4.509 | 8 | 6 | sandy silt to clayey silt |
| 15.256 | 17.25 | 0.2114 | 1.226 | 4.238 | 7 | 6 | sandy silt to clayey silt |
| 15.420 | 16.36 | 0.1865 | 1.140 | 4.111 | 6 | 6 | sandy silt to clayey silt |
| 15.584 | 13.83 | 0.2791 | 2.019 | 4.037 | 7 | 5 | clayey silt to silty clay |
| 15.748 | 9.25 | 0.2463 | 2.662 | 4.138 | 6 | 4 | silty clay to clay |
| 15.912 | 6.92 | 0.1956 | 2.827 | 4.677 | 7 | 3 | clay |
| 16.076 | 6.33 | 0.2067 | 3.265 | 5.485 | 6 | 3 | clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 16.240 | 7.18 | 0.1787 | 2.487 | 6.178 | 5 | 4 | silty clay to clay |
| 16.404 | 6.66 | 0.1400 | 2.101 | 6.609 | 4 | 4 | silty clay to clay |
| 16.568 | 6.13 | 0.1790 | 2.919 | 6.880 | 6 | 3 | clay |
| 16.732 | 6.26 | 0.1799 | 2.872 | 7.563 | 6 | 3 | clay |
| 16.896 | 6.96 | 0.1669 | 2.399 | 7.992 | 4 | 4 | silty clay to clay |
| 17.060 | 7.40 | 0.1593 | 2.152 | 8.429 | 5 | 4 | silty clay to clay |
| 17.224 | 6.81 | 0.1555 | 2.282 | 8.745 | 4 | 4 | silty clay to clay |
| 17.388 | 6.63 | 0.1421 | 2.143 | 9.217 | 4 | 4 | silty clay to clay |
| 17.552 | 6.37 | 0.1278 | 2.006 | 10.888 | 4 | 4 | silty clay to clay |
| 17.717 | 6.04 | 0.1284 | 2.127 | 11.243 | 4 | 4 | silty clay to clay |
| 17.881 | 5.76 | 0.1111 | 1.927 | 11.617 | 4 | 4 | silty clay to clay |
| 18.045 | 5.61 | 0.1277 | 2.279 | 11.986 | 4 | 4 | silty clay to clay |
| 18.209 | 5.76 | 0.1433 | 2.485 | 12.624 | 4 | 4 | silty clay to clay |
| 18.373 | 7.59 | 0.1355 | 1.786 | 13.096 | 5 | 4 | silty clay to clay |
| 18.537 | 9.22 | 0.1325 | 1.437 | 13.271 | 4 | 5 | clayey silt to silty clay |
| 18.701 | 6.25 | 0.1808 | 2.890 | 13.640 | 6 | 3 | clay |
| 18.865 | 6.33 | 0.2251 | 3.558 | 14.319 | 6 | 3 | clay |
| 19.029 | 8.46 | 0.2481 | 2.934 | 14.748 | 5 | 4 | silty clay to clay |
| 19.193 | 9.80 | 0.1778 | 1.815 | 14.887 | 5 | 5 | clayey silt to silty clay |
| 19.357 | 11.32 | 0.2942 | 2.599 | 14.487 | 7 | 4 | silty clay to clay |
| 19.521 | 8.57 | 0.1875 | 2.189 | 15.318 | 5 | 4 | silty clay to clay |
| 19.685 | 12.74 | 0.2132 | 1.673 | 14.134 | 6 | 5 | clayey silt to silty clay |
| 19.849 | 10.59 | 0.1756 | 1.659 | 13.609 | 5 | 5 | clayey silt to silty clay |
| 20.013 | 9.64 | 0.1305 | 1.354 | 14.012 | 5 | 5 | clayey silt to silty clay |
| 20.177 | 8.08 | 0.1393 | 1.724 | 14.503 | 4 | 5 | clayey silt to silty clay |
| 20.341 | 6.22 | 0.1108 | 1.783 | 15.968 | 4 | 4 | silty clay to clay |
| 20.505 | 5.93 | 0.1356 | 2.288 | 16.805 | 4 | 4 | silty clay to clay |
| 20.669 | 6.14 | 0.1365 | 2.223 | 18.154 | 4 | 4 | silty clay to clay |
| 20.833 | 5.86 | 0.1446 | 2.470 | 22.028 | 4 | 4 | silty clay to clay |
| 20.997 | 6.00 | 0.1497 | 2.493 | 22.843 | 4 | 4 | silty clay to clay |
| 21.161 | 6.19 | 0.1599 | 2.585 | 23.690 | 4 | 4 | silty clay to clay |
| 21.325 | 6.05 | 0.1655 | 2.737 | 24.469 | 6 | 3 | clay |
| 21.490 | 5.86 | 0.1737 | 2.966 | 25.027 | 6 | 3 | clay |
| 21.654 | 6.13 | 0.1648 | 2.686 | 25.821 | 6 | 3 | clay |
| 21.818 | 6.05 | 0.1565 | 2.586 | 26.593 | 6 | 3 | clay |
| 21.982 | 5.91 | 0.1411 | 2.386 | 27.348 | 4 | 4 | silty clay to clay |
| 22.146 | 5.53 | 0.1163 | 2.101 | 28.268 | 4 | 4 | silty clay to clay |
| 22.310 | 5.47 | 0.1082 | 1.978 | 29.302 | 3 | 4 | silty clay to clay |
| 22.474 | 5.61 | 0.1052 | 1.875 | 29.843 | 4 | 4 | silty clay to clay |
| 22.638 | 5.76 | 0.1073 | 1.864 | 30.620 | 4 | 4 | silty clay to clay |
| 22.802 | 5.51 | 0.1128 | 2.048 | 31.229 | 4 | 4 | silty clay to clay |
| 22.966 | 5.51 | 0.1168 | 2.120 | 31.859 | 4 | 4 | silty clay to clay |
| 23.130 | 5.64 | 0.1230 | 2.181 | 32.907 | 4 | 4 | silty clay to clay |
| 23.294 | 5.99 | 0.1345 | 2.245 | 33.935 | 4 | 4 | silty clay to clay |
| 23.458 | 5.57 | 0.1360 | 2.443 | 34.039 | 5 | 3 | clay |
| 23.622 | 5.40 | 0.1748 | 3.236 | 34.257 | 5 | 3 | clay |
| 23.786 | 6.20 | 0.1940 | 3.129 | 35.309 | 6 | 3 | clay |
| 23.950 | 7.20 | 0.2097 | 2.913 | 31.104 | 7 | 3 | clay |
| 24.114 | 7.04 | 0.2196 | 3.120 | 29.067 | 7 | 3 | clay |
| 24.278 | 7.08 | 0.1993 | 2.815 | 28.659 | 5 | 4 | silty clay to clay |
| 24.442 | 6.72 | 0.1972 | 2.933 | 28.273 | 6 | 3 | clay |
| 24.606 | 6.65 | 0.1977 | 2.974 | 29.045 | 6 | 3 | clay |
| 24.770 | 7.02 | 0.1865 | 2.657 | 29.721 | 4 | 4 | silty clay to clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 24.934 | 7.17 | 0.1712 | 2.389 | 29.620 | 5 | 4 | silty clay to clay |
| 25.098 | 5.90 | 0.1441 | 2.443 | 30.148 | 4 | 4 | silty clay to clay |
| 25.262 | 5.57 | 0.1348 | 2.419 | 31.282 | 4 | 4 | silty clay to clay |
| 25.427 | 5.72 | 0.1391 | 2.430 | 32.492 | 4 | 4 | silty clay to clay |
| 25.591 | 6.11 | 0.1444 | 2.363 | 33.281 | 4 | 4 | silty clay to clay |
| 25.755 | 6.01 | 0.1582 | 2.632 | 34.007 | 6 | 3 | clay |
| 25.919 | 6.01 | 0.1617 | 2.692 | 35.124 | 6 | 3 | clay |
| 26.083 | 5.98 | 0.1742 | 2.914 | 35.748 | 6 | 3 | clay |
| 26.247 | 6.06 | 0.2026 | 3.342 | 36.652 | 6 | 3 | clay |
| 26.411 | 6.61 | 0.2475 | 3.744 | 36.680 | 6 | 3 | clay |
| 26.575 | 6.53 | 0.2773 | 4.244 | 35.748 | 6 | 3 | clay |
| 26.739 | 6.95 | 0.2657 | 3.825 | 32.073 | 7 | 3 | clay |
| 26.903 | 7.03 | 0.2527 | 3.595 | 30.642 | 7 | 3 | clay |
| 27.067 | 8.49 | 0.2517 | 2.965 | 30.884 | 5 | 4 | silty clay to clay |
| 27.231 | 7.48 | 0.2529 | 3.380 | 32.214 | 7 | 3 | clay |
| 27.395 | 9.52 | 0.2590 | 2.721 | 32.526 | 6 | 4 | silty clay to clay |
| 27.559 | 9.34 | 0.2620 | 2.805 | 32.955 | 6 | 4 | silty clay to clay |
| 27.723 | 7.84 | 0.2542 | 3.242 | 33.396 | 8 | 3 | clay |
| 27.887 | 7.17 | 0.2502 | 3.491 | 32.905 | 7 | 3 | clay |
| 28.051 | 7.19 | 0.2440 | 3.396 | 33.497 | 7 | 3 | clay |
| 28.215 | 7.29 | 0.2275 | 3.120 | 34.247 | 7 | 3 | clay |
| 28.379 | 8.20 | 0.2255 | 2.750 | 33.983 | 5 | 4 | silty clay to clay |
| 28.543 | 7.09 | 0.1991 | 2.809 | 34.146 | 5 | 4 | silty clay to clay |
| 28.707 | 6.88 | 0.2102 | 3.056 | 33.976 | 7 | 3 | clay |
| 28.871 | 6.78 | 0.1988 | 2.931 | 34.403 | 6 | 3 | clay |
| 29.035 | 9.32 | 0.1820 | 1.953 | 33.360 | 4 | 5 | clayey silt to silty clay |
| 29.199 | 7.00 | 0.1678 | 2.395 | 27.700 | 4 | 4 | silty clay to clay |
| 29.364 | 6.68 | 0.1714 | 2.565 | 31.135 | 4 | 4 | silty clay to clay |
| 29.528 | 8.14 | 0.2031 | 2.494 | 33.147 | 5 | 4 | silty clay to clay |
| 29.692 | 8.47 | 0.1823 | 2.153 | 33.295 | 5 | 4 | silty clay to clay |
| 29.856 | 8.05 | 0.2341 | 2.906 | 32.277 | 5 | 4 | silty clay to clay |
| 30.020 | 8.71 | 0.2215 | 2.541 | 34.384 | 6 | 4 | silty clay to clay |
| 30.184 | 10.17 | 0.2102 | 2.066 | 27.264 | 5 | 5 | clayey silt to silty clay |
| 30.348 | 9.71 | 0.1865 | 1.920 | 27.180 | 5 | 5 | clayey silt to silty clay |
| 30.512 | 8.37 | 0.1753 | 2.095 | 28.733 | 5 | 4 | silty clay to clay |
| 30.676 | 7.81 | 0.1715 | 2.196 | 33.907 | 5 | 4 | silty clay to clay |
| 30.840 | 7.18 | 0.2219 | 3.089 | 34.096 | 7 | 3 | clay |
| 31.004 | 10.34 | 0.2146 | 2.076 | 34.949 | 5 | 5 | clayey silt to silty clay |
| 31.168 | 9.51 | 0.1399 | 1.471 | 26.415 | 5 | 5 | clayey silt to silty clay |
| 31.332 | 7.50 | 0.1362 | 1.816 | 28.184 | 5 | 4 | silty clay to clay |
| 31.496 | 6.78 | 0.1469 | 2.165 | 29.812 | 4 | 4 | silty clay to clay |
| 31.660 | 7.10 | 0.1411 | 1.988 | 31.409 | 5 | 4 | silty clay to clay |
| 31.824 | 7.33 | 0.1914 | 2.610 | 32.236 | 5 | 4 | silty clay to clay |
| 31.988 | 7.18 | 0.2309 | 3.215 | 32.921 | 7 | 3 | clay |
| 32.152 | 11.96 | 0.2228 | 1.863 | 26.876 | 6 | 5 | clayey silt to silty clay |
| 32.316 | 10.04 | 0.1794 | 1.786 | 25.118 | 5 | 5 | clayey silt to silty clay |
| 32.480 | 8.51 | 0.1758 | 2.066 | 25.646 | 5 | 4 | silty clay to clay |
| 32.644 | 9.33 | 0.2167 | 2.322 | 27.921 | 6 | 4 | silty clay to clay |
| 32.808 | 7.31 | 0.2350 | 3.215 | 29.661 | 7 | 3 | clay |
| 32.972 | 11.34 | 0.2043 | 1.802 | 29.282 | 5 | 5 | clayey silt to silty clay |
| 33.136 | 9.86 | 0.1726 | 1.751 | 22.697 | 5 | 5 | clayey silt to silty clay |
| 33.301 | 8.10 | 0.1724 | 2.128 | 24.728 | 5 | 4 | silty clay to clay |
| 33.465 | 8.56 | 0.1955 | 2.284 | 27.230 | 5 | 4 | silty clay to clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 33.629 | 10.82 | 0.2478 | 2.290 | 21.827 | 5 | 5 | clayey silt to silty clay |
| 33.793 | 7.04 | 0.2670 | 3.794 | 24.608 | 7 | 3 | clay |
| 33.957 | 11.28 | 0.2421 | 2.146 | 26.988 | 5 | 5 | clayey silt to silty clay |
| 34.121 | 11.57 | 0.2046 | 1.769 | 22.616 | 6 | 5 | clayey silt to silty clay |
| 34.285 | 13.53 | 0.1339 | 0.990 | 22.800 | 5 | 6 | sandy silt to clayey silt |
| 34.449 | 15.46 | 0.1839 | 1.190 | 22.975 | 6 | 6 | sandy silt to clayey silt |
| 34.613 | 14.16 | 0.2130 | 1.504 | 24.426 | 7 | 5 | clayey silt to silty clay |
| 34.777 | 10.18 | 0.2353 | 2.310 | 26.084 | 5 | 5 | clayey silt to silty clay |
| 34.941 | 7.90 | 0.2033 | 2.572 | 28.427 | 5 | 4 | silty clay to clay |
| 35.105 | 8.45 | 0.2308 | 2.730 | 31.701 | 5 | 4 | silty clay to clay |
| 35.269 | 9.79 | 0.2821 | 2.882 | 33.914 | 6 | 4 | silty clay to clay |
| 35.433 | 10.10 | 0.3413 | 3.378 | 34.424 | 6 | 4 | silty clay to clay |
| 35.597 | 11.06 | 0.3194 | 2.887 | 35.551 | 7 | 4 | silty clay to clay |
| 35.761 | 10.25 | 0.2496 | 2.435 | 35.079 | 7 | 4 | silty clay to clay |
| 35.925 | 8.53 | 0.2770 | 3.246 | 36.529 | 8 | 3 | clay |
| 36.089 | 8.60 | 0.2904 | 3.378 | 38.773 | 8 | 3 | clay |
| 36.253 | 11.04 | 0.2452 | 2.222 | 34.465 | 5 | 5 | clayey silt to silty clay |
| 36.417 | 10.81 | 0.2389 | 2.209 | 33.693 | 5 | 5 | clayey silt to silty clay |
| 36.581 | 9.40 | 0.2977 | 3.168 | 35.820 | 6 | 4 | silty clay to clay |
| 36.745 | 10.41 | 0.2896 | 2.782 | 38.092 | 7 | 4 | silty clay to clay |
| 36.909 | 12.77 | 0.2264 | 1.772 | 30.922 | 6 | 5 | clayey silt to silty clay |
| 37.073 | 8.80 | 0.1601 | 1.818 | 29.347 | 4 | 5 | clayey silt to silty clay |
| 37.238 | 7.91 | 0.1323 | 1.673 | 35.788 | 4 | 5 | clayey silt to silty clay |
| 37.402 | 7.20 | 0.1201 | 1.668 | 37.534 | 3 | 5 | clayey silt to silty clay |
| 37.566 | 7.23 | 0.1214 | 1.680 | 39.437 | 3 | 5 | clayey silt to silty clay |
| 37.730 | 7.25 | 0.1423 | 1.964 | 41.475 | 5 | 4 | silty clay to clay |
| 37.894 | 7.09 | 0.1680 | 2.369 | 42.156 | 5 | 4 | silty clay to clay |
| 38.058 | 7.04 | 0.1821 | 2.586 | 42.566 | 4 | 4 | silty clay to clay |
| 38.222 | 6.81 | 0.1715 | 2.519 | 42.465 | 4 | 4 | silty clay to clay |
| 38.386 | 6.99 | 0.1530 | 2.190 | 43.289 | 4 | 4 | silty clay to clay |
| 38.550 | 6.49 | 0.1358 | 2.090 | 43.795 | 4 | 4 | silty clay to clay |
| 38.714 | 6.74 | 0.1216 | 1.803 | 45.140 | 4 | 4 | silty clay to clay |
| 38.878 | 6.95 | 0.1105 | 1.590 | 46.245 | 3 | 5 | clayey silt to silty clay |
| 39.042 | 6.75 | 0.1001 | 1.484 | 47.154 | 3 | 1 | sensitive fine grained |
| 39.206 | 6.49 | 0.1206 | 1.858 | 48.345 | 4 | 4 | silty clay to clay |
| 39.370 | 7.28 | 0.1150 | 1.579 | 51.749 | 3 | 5 | clayey silt to silty clay |
| 39.534 | 7.07 | 0.1478 | 2.090 | 51.526 | 5 | 4 | silty clay to clay |
| 39.698 | 7.39 | 0.1828 | 2.472 | 54.624 | 5 | 4 | silty clay to clay |
| 39.862 | 9.23 | 0.2942 | 3.188 | 52.334 | 6 | 4 | silty clay to clay |
| 40.026 | 9.32 | 0.2811 | 3.018 | 50.210 | 6 | 4 | silty clay to clay |
| 40.190 | 9.16 | 0.2580 | 2.816 | 49.518 | 6 | 4 | silty clay to clay |
| 40.354 | 8.73 | 0.2577 | 2.951 | 47.410 | 6 | 4 | silty clay to clay |
| 40.518 | 8.90 | 0.2663 | 2.992 | 50.265 | 6 | 4 | silty clay to clay |
| 40.682 | 8.93 | 0.2656 | 2.976 | 50.472 | 6 | 4 | silty clay to clay |
| 40.846 | 9.24 | 0.2907 | 3.147 | 50.460 | 6 | 4 | silty clay to clay |
| 41.011 | 9.31 | 0.2646 | 2.844 | 48.175 | 6 | 4 | silty clay to clay |
| 41.175 | 8.97 | 0.2697 | 3.006 | 46.866 | 6 | 4 | silty clay to clay |
| 41.339 | 8.71 | 0.2373 | 2.725 | 45.382 | 6 | 4 | silty clay to clay |
| 41.503 | 8.31 | 0.2236 | 2.691 | 46.073 | 5 | 4 | silty clay to clay |
| 41.667 | 8.01 | 0.2624 | 3.277 | 46.852 | 8 | 3 | clay |
| 41.831 | 8.24 | 0.2509 | 3.046 | 44.272 | 5 | 4 | silty clay to clay |
| 41.995 | 6.55 | 0.1884 | 2.879 | 37.256 | 6 | 3 | clay |
| 42.159 | 6.11 | 0.1371 | 2.246 | 38.624 | 4 | 4 | silty clay to clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 42.323 | 6.52 | 0.1420 | 2.176 | 41.774 | 4 | 4 | silty clay to clay |
| 42.487 | 8.95 | 0.1712 | 1.913 | 43.793 | 4 | 5 | clayey silt to silty clay |
| 42.651 | 9.74 | 0.1773 | 1.821 | 45.708 | 5 | 5 | clayey silt to silty clay |
| 42.815 | 11.80 | 0.3401 | 2.881 | 46.593 | 8 | 4 | silty clay to clay |
| 42.979 | 20.86 | 0.2416 | 1.159 | 46.509 | 8 | 6 | sandy silt to clayey silt |
| 43.143 | 37.61 | 0.2610 | 0.694 | 20.300 | 12 | 7 | silty sand to sandy silt |
| 43.307 | 38.70 | 0.3052 | 0.789 | 18.550 | 12 | 7 | silty sand to sandy silt |
| 43.471 | 39.75 | 0.3271 | 0.823 | 18.507 | 13 | 7 | silty sand to sandy silt |
| 43.635 | 42.71 | 0.3451 | 0.808 | 18.555 | 14 | 7 | silty sand to sandy silt |
| 43.799 | 44.13 | 0.3556 | 0.806 | 17.761 | 14 | 7 | silty sand to sandy silt |
| 43.963 | 45.71 | 0.3776 | 0.826 | 18.169 | 15 | 7 | silty sand to sandy silt |
| 44.127 | 45.66 | 0.4257 | 0.932 | 17.948 | 15 | 7 | silty sand to sandy silt |
| 44.291 | 44.99 | 0.5133 | 1.141 | 17.955 | 14 | 7 | silty sand to sandy silt |
| 44.455 | 44.92 | 0.4946 | 1.101 | 17.689 | 14 | 7 | silty sand to sandy silt |
| 44.619 | 44.69 | 0.4673 | 1.046 | 16.002 | 14 | 7 | silty sand to sandy silt |
| 44.783 | 36.17 | 0.6496 | 1.796 | 14.743 | 14 | 6 | sandy silt to clayey silt |
| 44.948 | 26.62 | 0.9359 | 3.516 | 17.404 | 13 | 5 | clayey silt to silty clay |
| 45.112 | 24.10 | 0.5095 | 2.115 | 23.627 | 9 | 6 | sandy silt to clayey silt |
| 45.276 | 35.21 | 0.6373 | 1.810 | 21.978 | 13 | 6 | sandy silt to clayey silt |
| 45.440 | 32.12 | 0.4899 | 1.525 | 20.679 | 12 | 6 | sandy silt to clayey silt |
| 45.604 | 33.67 | 0.3559 | 1.057 | 19.188 | 11 | 7 | silty sand to sandy silt |
| 45.768 | 37.28 | 0.4399 | 1.180 | 19.288 | 12 | 7 | silty sand to sandy silt |
| 45.932 | 36.18 | 0.5556 | 1.536 | 18.209 | 14 | 6 | sandy silt to clayey silt |
| 46.096 | 29.93 | 0.3232 | 1.080 | 20.278 | 10 | 7 | silty sand to sandy silt |
| 46.260 | 28.80 | 0.4529 | 1.573 | 21.388 | 11 | 6 | sandy silt to clayey silt |
| 46.424 | 24.53 | 0.4026 | 1.641 | 25.010 | 9 | 6 | sandy silt to clayey silt |
| 46.588 | 21.88 | 0.4050 | 1.851 | 29.388 | 8 | 6 | sandy silt to clayey silt |
| 46.752 | 19.86 | 0.2782 | 1.401 | 35.625 | 8 | 6 | sandy silt to clayey silt |
| 46.916 | 28.35 | 0.2224 | 0.784 | 44.627 | 9 | 7 | silty sand to sandy silt |
| 47.080 | 34.12 | 0.4147 | 1.216 | 21.717 | 11 | 7 | silty sand to sandy silt |
| 47.244 | 24.05 | 0.6324 | 2.630 | 22.822 | 12 | 5 | clayey silt to silty clay |
| 47.408 | 17.47 | 0.5485 | 3.139 | 27.448 | 8 | 5 | clayey silt to silty clay |
| 47.572 | 30.51 | 0.5040 | 1.652 | 29.115 | 12 | 6 | sandy silt to clayey silt |
| 47.736 | 33.26 | 0.4207 | 1.265 | 24.344 | 11 | 7 | silty sand to sandy silt |
| 47.900 | 34.30 | 0.4495 | 1.311 | 23.016 | 11 | 7 | silty sand to sandy silt |
| 48.064 | 36.47 | 0.3524 | 0.966 | 21.055 | 12 | 7 | silty sand to sandy silt |
| 48.228 | 37.88 | 0.2474 | 0.653 | 19.708 | 12 | 7 | silty sand to sandy silt |
| 48.392 | 38.26 | 0.2724 | 0.712 | 18.622 | 12 | 7 | silty sand to sandy silt |
| 48.556 | 35.04 | 0.4074 | 1.163 | 19.077 | 11 | 7 | silty sand to sandy silt |
| 48.720 | 28.44 | 0.4194 | 1.475 | 19.986 | 11 | 6 | sandy silt to clayey silt |
| 48.885 | 22.18 | 0.3135 | 1.413 | 22.731 | 8 | 6 | sandy silt to clayey silt |
| 49.049 | 18.63 | 0.2681 | 1.439 | 25.869 | 7 | 6 | sandy silt to clayey silt |
| 49.213 | 15.99 | 0.2797 | 1.749 | 30.759 | 8 | 5 | clayey silt to silty clay |
| 49.377 | 18.08 | 0.2401 | 1.328 | 38.728 | 7 | 6 | sandy silt to clayey silt |
| 49.541 | 16.84 | 0.2910 | 1.728 | 36.237 | 6 | 6 | sandy silt to clayey silt |
| 49.705 | 14.26 | 0.1833 | 1.286 | 39.926 | 5 | 6 | sandy silt to clayey silt |
| 49.869 | 15.81 | 0.1923 | 1.216 | 44.701 | 6 | 6 | sandy silt to clayey silt |
| 50.033 | 26.30 | 0.4905 | 1.865 | 48.436 | 10 | 6 | sandy silt to clayey silt |
| 50.197 | 23.39 | 0.4827 | 2.064 | 30.505 | 9 | 6 | sandy silt to clayey silt |
| 50.361 | 25.46 | 0.3487 | 1.370 | 28.904 | 10 | 6 | sandy silt to clayey silt |
| 50.525 | 24.77 | 0.2856 | 1.153 | 27.245 | 9 | 6 | sandy silt to clayey silt |
| 50.689 | 22.54 | 0.2605 | 1.156 | 28.163 | 9 | 6 | sandy silt to clayey silt |
| 50.853 | 19.77 | 0.2725 | 1.378 | 29.865 | 8 | 6 | sandy silt to clayey silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 51.017 | 17.29 | 0.2909 | 1.682 | 33.461 | 7 | 6 | sandy silt to clayey silt |
| 51.181 | 17.46 | 0.2917 | 1.671 | 38.730 | 7 | 6 | sandy silt to clayey silt |
| 51.345 | 24.58 | 0.2610 | 1.062 | 41.849 | 9 | 6 | sandy silt to clayey silt |
| 51.509 | 25.28 | 0.4563 | 1.805 | 27.273 | 10 | 6 | sandy silt to clayey silt |
| 51.673 | 22.03 | 0.3898 | 1.770 | 28.860 | 8 | 6 | sandy silt to clayey silt |
| 51.837 | 29.73 | 0.2268 | 0.763 | 29.007 | 9 | 7 | silty sand to sandy silt |
| 52.001 | 30.82 | 0.4188 | 1.359 | 22.330 | 12 | 6 | sandy silt to clayey silt |
| 52.165 | 23.90 | 0.3511 | 1.469 | 24.847 | 9 | 6 | sandy silt to clayey silt |
| 52.329 | 26.21 | 0.4109 | 1.568 | 23.474 | 10 | 6 | sandy silt to clayey silt |
| 52.493 | 22.56 | 0.2337 | 1.036 | 23.083 | 9 | 6 | sandy silt to clayey silt |
| 52.657 | 28.26 | 0.3216 | 1.138 | 24.831 | 11 | 6 | sandy silt to clayey silt |
| 52.822 | 25.05 | 0.2777 | 1.109 | 24.368 | 10 | 6 | sandy silt to clayey silt |
| 52.986 | 17.70 | 0.2497 | 1.411 | 27.765 | 7 | 6 | sandy silt to clayey silt |
| 53.150 | 23.82 | 0.2497 | 1.048 | 37.936 | 9 | 6 | sandy silt to clayey silt |
| 53.314 | 37.03 | 0.2483 | 0.671 | 25.617 | 12 | 7 | silty sand to sandy silt |
| 53.478 | 33.52 | 0.3134 | 0.935 | 24.893 | 11 | 7 | silty sand to sandy silt |
| 53.642 | 32.76 | 0.4473 | 1.365 | 24.869 | 13 | 6 | sandy silt to clayey silt |
| 53.806 | 25.29 | 0.3797 | 1.501 | 23.584 | 10 | 6 | sandy silt to clayey silt |
| 53.970 | 13.82 | 0.3437 | 2.487 | 30.292 | 7 | 5 | clayey silt to silty clay |
| 54.134 | 13.40 | 0.2205 | 1.646 | 38.754 | 6 | 5 | clayey silt to silty clay |
| 54.298 | 20.78 | 0.3000 | 1.444 | 37.395 | 8 | 6 | sandy silt to clayey silt |
| 54.462 | 16.46 | 0.3575 | 2.171 | 34.760 | 8 | 5 | clayey silt to silty clay |
| 54.626 | 13.48 | 0.2833 | 2.101 | 42.705 | 6 | 5 | clayey silt to silty clay |
| 54.790 | 20.38 | 0.2529 | 1.241 | 41.273 | 8 | 6 | sandy silt to clayey silt |
| 54.954 | 21.53 | 0.3691 | 1.715 | 33.585 | 8 | 6 | sandy silt to clayey silt |
| 55.118 | 18.01 | 0.3582 | 1.989 | 36.227 | 9 | 5 | clayey silt to silty clay |
| 55.282 | 17.75 | 0.4098 | 2.309 | 40.317 | 8 | 5 | clayey silt to silty clay |
| 55.446 | 20.49 | 0.2666 | 1.301 | 41.741 | 8 | 6 | sandy silt to clayey silt |
| 55.610 | 53.49 | 0.3693 | 0.690 | 32.341 | 13 | 8 | sand to silty sand |
| 55.774 | 53.06 | 0.5536 | 1.043 | 24.917 | 17 | 7 | silty sand to sandy silt |
| 55.938 | 52.16 | 0.5361 | 1.028 | 24.476 | 17 | 7 | silty sand to sandy silt |
| 56.102 | 42.56 | 0.6689 | 1.572 | 20.602 | 14 | 7 | silty sand to sandy silt |
| 56.266 | 23.96 | 0.6924 | 2.890 | 21.832 | 11 | 5 | clayey silt to silty clay |
| 56.430 | 25.01 | 0.4450 | 1.779 | 33.456 | 10 | 6 | sandy silt to clayey silt |
| 56.594 | 55.77 | 0.5082 | 0.911 | 25.224 | 18 | 7 | silty sand to sandy silt |
| 56.759 | 60.78 | 0.7436 | 1.223 | 18.890 | 19 | 7 | silty sand to sandy silt |
| 56.923 | 30.40 | 0.9274 | 3.051 | 22.489 | 15 | 5 | clayey silt to silty clay |
| 57.087 | 24.38 | 0.7668 | 3.145 | 25.183 | 12 | 5 | clayey silt to silty clay |
| 57.251 | 37.40 | 0.4217 | 1.128 | 31.612 | 12 | 7 | silty sand to sandy silt |
| 57.415 | 51.78 | 0.4770 | 0.921 | 23.999 | 17 | 7 | silty sand to sandy silt |
| 57.579 | 38.45 | 0.5790 | 1.506 | 23.251 | 12 | 7 | silty sand to sandy silt |
| 57.743 | 27.04 | 0.6729 | 2.488 | 24.497 | 10 | 6 | sandy silt to clayey silt |
| 57.907 | 20.81 | 0.5999 | 2.883 | 26.226 | 10 | 5 | clayey silt to silty clay |
| 58.071 | 19.39 | 0.5376 | 2.772 | 30.467 | 9 | 5 | clayey silt to silty clay |
| 58.235 | 33.59 | 0.5220 | 1.554 | 35.005 | 13 | 6 | sandy silt to clayey silt |
| 58.399 | 57.17 | 0.4185 | 0.732 | 25.737 | 14 | 8 | sand to silty sand |
| 58.563 | 70.27 | 0.5383 | 0.766 | 17.001 | 17 | 8 | sand to silty sand |
| 58.727 | 66.81 | 0.7023 | 1.051 | 16.723 | 21 | 7 | silty sand to sandy silt |
| 58.891 | 61.53 | 0.7924 | 1.288 | 17.931 | 20 | 7 | silty sand to sandy silt |
| 59.055 | 67.48 | 0.6217 | 0.921 | 19.041 | 16 | 8 | sand to silty sand |
| 59.219 | 74.98 | 0.5728 | 0.764 | 17.138 | 18 | 8 | sand to silty sand |
| 59.383 | 65.70 | 0.6875 | 1.047 | 17.934 | 21 | 7 | silty sand to sandy silt |
| 59.547 | 55.19 | 0.6908 | 1.252 | 19.322 | 18 | 7 | silty sand to sandy silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 59.711 | 51.54 | 0.7541 | 1.463 | 20.446 | 16 | 7 | silty sand to sandy silt |
| 59.875 | 51.51 | 0.5414 | 1.051 | 20.484 | 16 | 7 | silty sand to sandy silt |
| 60.039 | 62.83 | 0.5405 | 0.860 | 18.042 | 15 | 8 | sand to silty sand |
| 60.203 | 64.51 | 0.5521 | 0.856 | 22.414 | 15 | 8 | sand to silty sand |
| 60.367 | 66.52 | 0.5670 | 0.852 | 22.297 | 16 | 8 | sand to silty sand |
| 60.532 | 69.50 | 0.5956 | 0.857 | 20.739 | 17 | 8 | sand to silty sand |
| 60.696 | 64.01 | 0.6283 | 0.982 | 21.352 | 20 | 7 | silty sand to sandy silt |
| 60.860 | 57.63 | 0.8016 | 1.391 | 21.995 | 18 | 7 | silty sand to sandy silt |
| 61.024 | 52.04 | 0.7549 | 1.451 | 22.467 | 17 | 7 | silty sand to sandy silt |
| 61.188 | 58.07 | 0.6437 | 1.108 | 22.239 | 19 | 7 | silty sand to sandy silt |
| 61.352 | 66.84 | 0.4417 | 0.661 | 19.497 | 16 | 8 | sand to silty sand |
| 61.516 | 69.29 | 0.4964 | 0.716 | 18.624 | 17 | 8 | sand to silty sand |
| 61.680 | 63.46 | 0.6070 | 0.957 | 18.866 | 20 | 7 | silty sand to sandy silt |
| 61.844 | 51.12 | 0.7839 | 1.534 | 20.384 | 16 | 7 | silty sand to sandy silt |
| 62.008 | 49.42 | 0.4453 | 0.901 | 21.745 | 16 | 7 | silty sand to sandy silt |
| 62.172 | 57.98 | 0.8084 | 1.394 | 18.104 | 19 | 7 | silty sand to sandy silt |
| 62.336 | 30.59 | 0.7725 | 2.526 | 18.871 | 12 | 6 | sandy silt to clayey silt |
| 62.500 | 24.61 | 0.3793 | 1.541 | 25.303 | 9 | 6 | sandy silt to clayey silt |
| 62.664 | 42.28 | 0.5126 | 1.213 | 22.721 | 13 | 7 | silty sand to sandy silt |
| 62.828 | 26.67 | 0.4850 | 1.819 | 20.717 | 10 | 6 | sandy silt to clayey silt |
| 62.992 | 16.15 | 0.2955 | 1.830 | 24.332 | 8 | 5 | clayey silt to silty clay |
| 63.156 | 21.12 | 0.4225 | 2.001 | 35.295 | 8 | 6 | sandy silt to clayey silt |
| 63.320 | 31.15 | 0.4369 | 1.403 | 27.595 | 12 | 6 | sandy silt to clayey silt |
| 63.484 | 36.19 | 0.3955 | 1.093 | 23.881 | 12 | 7 | silty sand to sandy silt |
| 63.648 | 42.39 | 0.3161 | 0.746 | 21.822 | 14 | 7 | silty sand to sandy silt |
| 63.812 | 48.42 | 0.2906 | 0.600 | 20.760 | 15 | 7 | silty sand to sandy silt |
| 63.976 | 49.09 | 0.3252 | 0.663 | 20.899 | 16 | 7 | silty sand to sandy silt |
| 64.140 | 46.83 | 0.4139 | 0.884 | 21.765 | 15 | 7 | silty sand to sandy silt |
| 64.304 | 45.54 | 0.4309 | 0.946 | 22.493 | 15 | 7 | silty sand to sandy silt |
| 64.469 | 50.19 | 0.3769 | 0.751 | 22.743 | 16 | 7 | silty sand to sandy silt |
| 64.633 | 50.69 | 0.3475 | 0.686 | 21.918 | 16 | 7 | silty sand to sandy silt |
| 64.797 | 48.76 | 0.3653 | 0.749 | 21.549 | 16 | 7 | silty sand to sandy silt |
| 64.961 | 48.66 | 0.4204 | 0.864 | 22.688 | 16 | 7 | silty sand to sandy silt |
| 65.125 | 49.61 | 0.4346 | 0.876 | 23.244 | 16 | 7 | silty sand to sandy silt |
| 65.289 | 52.09 | 0.4346 | 0.834 | 24.272 | 17 | 7 | silty sand to sandy silt |
| 65.453 | 52.12 | 0.4374 | 0.839 | 24.210 | 17 | 7 | silty sand to sandy silt |
| 65.617 | 51.52 | 0.4303 | 0.835 | 24.886 | 16 | 7 | silty sand to sandy silt |
| 65.781 | 50.28 | 0.4479 | 0.891 | 25.466 | 16 | 7 | silty sand to sandy silt |
| 65.945 | 49.57 | 0.4245 | 0.856 | 25.619 | 16 | 7 | silty sand to sandy silt |
| 66.109 | 49.91 | 0.3995 | 0.801 | 26.010 | 16 | 7 | silty sand to sandy silt |
| 66.273 | 50.13 | 0.3877 | 0.773 | 25.358 | 16 | 7 | silty sand to sandy silt |
| 66.437 | 53.41 | 0.4025 | 0.754 | 25.900 | 17 | 7 | silty sand to sandy silt |
| 66.601 | 74.54 | 0.4345 | 0.583 | 26.401 | 18 | 8 | sand to silty sand |
| 66.765 | 83.52 | 0.4933 | 0.591 | 26.595 | 20 | 8 | sand to silty sand |
| 66.929 | 81.67 | 0.5290 | 0.648 | 26.842 | 20 | 8 | sand to silty sand |
| 67.093 | 76.62 | 0.5463 | 0.713 | 27.003 | 18 | 8 | sand to silty sand |
| 67.257 | 69.74 | 0.4911 | 0.704 | 26.916 | 17 | 8 | sand to silty sand |
| 67.421 | 66.10 | 0.4596 | 0.695 | 27.017 | 16 | 8 | sand to silty sand |
| 67.585 | 63.01 | 0.4077 | 0.647 | 27.091 | 15 | 8 | sand to silty sand |
| 67.749 | 59.98 | 0.3712 | 0.619 | 27.187 | 14 | 8 | sand to silty sand |
| 67.913 | 56.31 | 0.3402 | 0.604 | 27.180 | 13 | 8 | sand to silty sand |
| 68.077 | 51.61 | 0.3107 | 0.602 | 27.214 | 12 | 8 | sand to silty sand |
| 68.241 | 45.34 | 0.3203 | 0.706 | 27.204 | 14 | 7 | silty sand to sandy silt |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 68.406 | 39.13 | 0.3015 | 0.770 | 27.206 | 12 | 7 | silty sand to sandy silt |
| 68.570 | 40.38 | 0.2927 | 0.725 | 27.765 | 13 | 7 | silty sand to sandy silt |
| 68.734 | 45.03 | 0.2889 | 0.642 | 27.683 | 14 | 7 | silty sand to sandy silt |
| 68.898 | 45.11 | 0.3086 | 0.684 | 27.715 | 14 | 7 | silty sand to sandy silt |
| 69.062 | 44.20 | 0.3732 | 0.844 | 27.878 | 14 | 7 | silty sand to sandy silt |
| 69.226 | 38.97 | 0.4785 | 1.228 | 27.990 | 12 | 7 | silty sand to sandy silt |
| 69.390 | 37.00 | 0.5364 | 1.450 | 28.988 | 12 | 7 | silty sand to sandy silt |
| 69.554 | 40.26 | 0.4774 | 1.186 | 28.479 | 13 | 7 | silty sand to sandy silt |
| 69.718 | 48.72 | 0.4273 | 0.877 | 27.580 | 16 | 7 | silty sand to sandy silt |
| 69.882 | 65.52 | 0.4399 | 0.671 | 28.160 | 16 | 8 | sand to silty sand |
| 70.046 | 79.10 | 0.5194 | 0.657 | 28.765 | 19 | 8 | sand to silty sand |
| 70.210 | 82.04 | 0.5617 | 0.685 | 28.858 | 20 | 8 | sand to silty sand |
| 70.374 | 84.30 | 0.5688 | 0.675 | 28.803 | 20 | 8 | sand to silty sand |
| 70.538 | 88.44 | 0.5583 | 0.631 | 29.004 | 21 | 8 | sand to silty sand |
| 70.702 | 87.91 | 0.5352 | 0.609 | 28.947 | 21 | 8 | sand to silty sand |
| 70.866 | 91.82 | 0.5315 | 0.579 | 29.100 | 22 | 8 | sand to silty sand |
| 71.030 | 103.14 | 0.5205 | 0.505 | 29.335 | 25 | 8 | sand to silty sand |
| 71.194 | 104.38 | 0.5537 | 0.530 | 29.364 | 25 | 8 | sand to silty sand |
| 71.358 | 111.49 | 0.6077 | 0.545 | 29.534 | 21 | 9 | sand |
| 71.522 | 111.40 | 0.5976 | 0.536 | 29.393 | 21 | 9 | sand |
| 71.686 | 96.82 | 0.5541 | 0.572 | 29.395 | 23 | 8 | sand to silty sand |
| 71.850 | 77.24 | 0.4852 | 0.628 | 29.031 | 18 | 8 | sand to silty sand |
| 72.014 | 72.01 | 0.3983 | 0.553 | 29.009 | 17 | 8 | sand to silty sand |
| 72.178 | 68.68 | 0.3744 | 0.545 | 29.163 | 16 | 8 | sand to silty sand |
| 72.343 | 73.34 | 0.3868 | 0.527 | 29.477 | 18 | 8 | sand to silty sand |
| 72.507 | 78.41 | 0.4207 | 0.537 | 29.738 | 19 | 8 | sand to silty sand |
| 72.671 | 75.74 | 0.4243 | 0.560 | 29.733 | 18 | 8 | sand to silty sand |
| 72.835 | 76.41 | 0.4118 | 0.539 | 29.743 | 18 | 8 | sand to silty sand |
| 72.999 | 76.28 | 0.4020 | 0.527 | 30.085 | 18 | 8 | sand to silty sand |
| 73.163 | 73.23 | 0.4073 | 0.556 | 30.016 | 18 | 8 | sand to silty sand |
| 73.327 | 78.84 | 0.4422 | 0.561 | 30.258 | 19 | 8 | sand to silty sand |
| 73.491 | 81.89 | 0.4650 | 0.568 | 30.347 | 20 | 8 | sand to silty sand |
| 73.655 | 98.06 | 0.4840 | 0.494 | 30.637 | 23 | 8 | sand to silty sand |
| 73.819 | 111.06 | 0.5101 | 0.459 | 30.932 | 21 | 9 | sand |
| 73.983 | 116.33 | 0.5956 | 0.512 | 30.984 | 22 | 9 | sand |
| 74.147 | 122.21 | 0.6851 | 0.561 | 30.989 | 23 | 9 | sand |
| 74.311 | 125.35 | 0.7580 | 0.605 | 30.766 | 24 | 9 | sand |
| 74.475 | 113.32 | 0.7156 | 0.632 | 30.642 | 27 | 8 | sand to silty sand |
| 74.639 | 94.47 | 0.6176 | 0.654 | 30.553 | 23 | 8 | sand to silty sand |
| 74.803 | 88.07 | 0.5220 | 0.593 | 30.493 | 21 | 8 | sand to silty sand |
| 74.967 | 95.37 | 0.5400 | 0.566 | 30.809 | 23 | 8 | sand to silty sand |
| 75.131 | 104.31 | 0.6047 | 0.580 | 30.946 | 25 | 8 | sand to silty sand |
| 75.295 | 105.46 | 0.6400 | 0.607 | 31.028 | 25 | 8 | sand to silty sand |
| 75.459 | 92.35 | 0.6254 | 0.677 | 30.896 | 22 | 8 | sand to silty sand |
| 75.623 | 83.14 | 0.6080 | 0.731 | 31.239 | 20 | 8 | sand to silty sand |
| 75.787 | 82.98 | 0.6809 | 0.821 | 31.512 | 20 | 8 | sand to silty sand |
| 75.951 | 89.80 | 0.7915 | 0.881 | 31.598 | 21 | 8 | sand to silty sand |
| 76.115 | 107.98 | 0.8408 | 0.779 | 31.684 | 26 | 8 | sand to silty sand |
| 76.280 | 117.29 | 0.7616 | 0.649 | 31.159 | 28 | 8 | sand to silty sand |
| 76.444 | 120.73 | 0.7508 | 0.622 | 31.634 | 23 | 9 | sand |
| 76.608 | 120.78 | 0.7447 | 0.617 | 31.665 | 23 | 9 | sand |
| 76.772 | 119.94 | 0.7346 | 0.612 | 31.785 | 23 | 9 | sand |
| 76.936 | 117.65 | 0.7223 | 0.614 | 31.795 | 23 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 77.100 | 121.53 | 0.7112 | 0.585 | 31.692 | 23 | 9 | sand | |
| 77.264 | 131.14 | 0.7567 | 0.577 | 32.085 | 25 | 9 | sand | |
| 77.428 | 130.26 | 0.8211 | 0.630 | 32.583 | 25 | 9 | sand | |
| 77.592 | 118.06 | 0.8022 | 0.679 | 31.867 | 28 | 8 | sand to silty sand | |
| 77.756 | 106.04 | 0.7143 | 0.674 | 31.569 | 25 | 8 | sand to silty sand | |
| 77.920 | 97.81 | 0.6378 | 0.652 | 31.517 | 23 | 8 | sand to silty sand | |
| 78.084 | 95.49 | 0.5642 | 0.591 | 31.617 | 23 | 8 | sand to silty sand | |
| 78.248 | 95.99 | 0.5372 | 0.560 | 31.847 | 23 | 8 | sand to silty sand | |
| 78.412 | 100.75 | 0.5389 | 0.535 | 32.171 | 24 | 8 | sand to silty sand | |
| 78.576 | 108.97 | 0.7062 | 0.648 | 32.430 | 26 | 8 | sand to silty sand | |
| 78.740 | 117.75 | 0.7148 | 0.607 | 32.459 | 23 | 9 | sand | |
| 78.904 | 95.98 | 0.5022 | 0.523 | 32.126 | 23 | 8 | sand to silty sand | |
| 79.068 | 78.47 | 0.4604 | 0.587 | 31.610 | 19 | 8 | sand to silty sand | |
| 79.232 | 80.51 | 0.4766 | 0.592 | 31.994 | 19 | 8 | sand to silty sand | |
| 79.396 | 90.84 | 0.5085 | 0.560 | 32.523 | 22 | 8 | sand to silty sand | |
| 79.560 | 83.53 | 0.5093 | 0.610 | 32.727 | 20 | 8 | sand to silty sand | |
| 79.724 | 85.89 | 0.4787 | 0.557 | 32.674 | 21 | 8 | sand to silty sand | |
| 79.888 | 85.76 | 0.4790 | 0.559 | 33.221 | 21 | 8 | sand to silty sand | |
| 80.052 | 81.78 | 0.4885 | 0.597 | 32.701 | 20 | 8 | sand to silty sand | |
| 80.217 | 80.07 | 0.5005 | 0.625 | 32.619 | 19 | 8 | sand to silty sand | |
| 80.381 | 78.29 | 0.4830 | 0.617 | 32.758 | 19 | 8 | sand to silty sand | |
| 80.545 | 77.40 | 0.4658 | 0.602 | 32.761 | 19 | 8 | sand to silty sand | |
| 80.709 | 77.15 | 0.4604 | 0.597 | 33.000 | 18 | 8 | sand to silty sand | |
| 80.873 | 76.27 | 0.4599 | 0.603 | 33.092 | 18 | 8 | sand to silty sand | |
| 81.037 | 76.01 | 0.4554 | 0.599 | 33.135 | 18 | 8 | sand to silty sand | |
| 81.201 | 75.87 | 0.4468 | 0.589 | 33.245 | 18 | 8 | sand to silty sand | |
| 81.365 | 76.03 | 0.4394 | 0.578 | 33.295 | 18 | 8 | sand to silty sand | |
| 81.529 | 76.38 | 0.4487 | 0.587 | 33.401 | 18 | 8 | sand to silty sand | |
| 81.693 | 75.81 | 0.4506 | 0.594 | 33.451 | 18 | 8 | sand to silty sand | |
| 81.857 | 73.45 | 0.4526 | 0.616 | 33.559 | 18 | 8 | sand to silty sand | |
| 82.021 | 71.98 | 0.4626 | 0.643 | 33.859 | 17 | 8 | sand to silty sand | |
| 82.185 | 68.13 | 0.4734 | 0.695 | 33.964 | 16 | 8 | sand to silty sand | |
| 82.349 | 69.71 | 0.4943 | 0.709 | 33.988 | 17 | 8 | sand to silty sand | |
| 82.513 | 79.06 | 0.5298 | 0.670 | 34.290 | 19 | 8 | sand to silty sand | |
| 82.677 | 94.60 | 0.6548 | 0.692 | 34.518 | 23 | 8 | sand to silty sand | |
| 82.841 | 101.06 | 0.7748 | 0.767 | 34.573 | 24 | 8 | sand to silty sand | |
| 83.005 | 102.40 | 0.7767 | 0.758 | 34.494 | 25 | 8 | sand to silty sand | |
| 83.169 | 100.81 | 0.7773 | 0.771 | 34.074 | 24 | 8 | sand to silty sand | |
| 83.333 | 100.68 | 0.7748 | 0.770 | 34.319 | 24 | 8 | sand to silty sand | |
| 83.497 | 99.72 | 0.7627 | 0.765 | 34.329 | 24 | 8 | sand to silty sand | |
| 83.661 | 97.07 | 0.7016 | 0.723 | 33.962 | 23 | 8 | sand to silty sand | |
| 83.825 | 89.47 | 0.5822 | 0.651 | 33.943 | 21 | 8 | sand to silty sand | |
| 83.990 | 78.78 | 0.4731 | 0.601 | 33.847 | 19 | 8 | sand to silty sand | |
| 84.154 | 62.59 | 0.4248 | 0.679 | 33.782 | 15 | 8 | sand to silty sand | |
| 84.318 | 63.63 | 0.4065 | 0.639 | 34.564 | 15 | 8 | sand to silty sand | |
| 84.482 | 81.38 | 0.4778 | 0.587 | 34.940 | 19 | 8 | sand to silty sand | |
| 84.646 | 89.36 | 0.5369 | 0.601 | 35.031 | 21 | 8 | sand to silty sand | |
| 84.810 | 100.35 | 0.6023 | 0.600 | 35.180 | 24 | 8 | sand to silty sand | |
| 84.974 | 99.73 | 0.5933 | 0.595 | 35.340 | 24 | 8 | sand to silty sand | |
| 85.138 | 83.95 | 0.5260 | 0.627 | 35.100 | 20 | 8 | sand to silty sand | |
| 85.302 | 76.82 | 0.5020 | 0.653 | 34.750 | 18 | 8 | sand to silty sand | |
| 85.466 | 73.03 | 0.4493 | 0.615 | 34.837 | 17 | 8 | sand to silty sand | |
| 85.630 | 73.44 | 0.4484 | 0.611 | 34.957 | 18 | 8 | sand to silty sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 85.794 | 74.95 | 0.4680 | 0.624 | 35.357 | 18 | 8 | sand to silty sand | |
| 85.958 | 82.55 | 0.5895 | 0.714 | 35.544 | 20 | 8 | sand to silty sand | |
| 86.122 | 98.26 | 0.6523 | 0.664 | 35.968 | 24 | 8 | sand to silty sand | |
| 86.286 | 114.83 | 0.6821 | 0.594 | 36.117 | 22 | 9 | sand | |
| 86.450 | 113.67 | 0.7181 | 0.632 | 36.059 | 27 | 8 | sand to silty sand | |
| 86.614 | 109.57 | 0.7292 | 0.665 | 36.079 | 26 | 8 | sand to silty sand | |
| 86.778 | 104.89 | 0.7486 | 0.714 | 35.671 | 25 | 8 | sand to silty sand | |
| 86.942 | 102.81 | 0.7057 | 0.686 | 35.489 | 25 | 8 | sand to silty sand | |
| 87.106 | 102.84 | 0.6236 | 0.606 | 35.549 | 25 | 8 | sand to silty sand | |
| 87.270 | 100.95 | 0.5957 | 0.590 | 35.482 | 24 | 8 | sand to silty sand | |
| 87.434 | 99.39 | 0.5786 | 0.582 | 36.512 | 24 | 8 | sand to silty sand | |
| 87.598 | 96.51 | 0.6063 | 0.628 | 36.035 | 23 | 8 | sand to silty sand | |
| 87.762 | 93.19 | 0.5893 | 0.632 | 36.016 | 22 | 8 | sand to silty sand | |
| 87.927 | 90.37 | 0.5567 | 0.616 | 36.105 | 22 | 8 | sand to silty sand | |
| 88.091 | 89.47 | 0.5632 | 0.629 | 36.256 | 21 | 8 | sand to silty sand | |
| 88.255 | 89.91 | 0.5841 | 0.650 | 36.524 | 22 | 8 | sand to silty sand | |
| 88.419 | 96.90 | 0.5994 | 0.619 | 36.699 | 23 | 8 | sand to silty sand | |
| 88.583 | 104.47 | 0.5891 | 0.564 | 36.656 | 25 | 8 | sand to silty sand | |
| 88.747 | 102.56 | 0.5535 | 0.540 | 36.803 | 25 | 8 | sand to silty sand | |
| 88.911 | 94.12 | 0.4956 | 0.527 | 36.534 | 23 | 8 | sand to silty sand | |
| 89.075 | 90.14 | 0.4742 | 0.526 | 36.711 | 22 | 8 | sand to silty sand | |
| 89.239 | 86.13 | 0.4544 | 0.528 | 36.762 | 21 | 8 | sand to silty sand | |
| 89.403 | 83.27 | 0.4355 | 0.523 | 36.872 | 20 | 8 | sand to silty sand | |
| 89.567 | 89.76 | 0.4561 | 0.508 | 37.220 | 21 | 8 | sand to silty sand | |
| 89.731 | 98.57 | 0.5027 | 0.510 | 37.383 | 24 | 8 | sand to silty sand | |
| 89.895 | 118.28 | 0.5571 | 0.471 | 37.728 | 23 | 9 | sand | |
| 90.059 | 125.21 | 0.6108 | 0.488 | 37.529 | 24 | 9 | sand | |
| 90.223 | 125.66 | 0.6342 | 0.505 | 37.730 | 24 | 9 | sand | |
| 90.387 | 113.98 | 0.6375 | 0.559 | 37.553 | 22 | 9 | sand | |
| 90.551 | 108.41 | 0.5994 | 0.553 | 37.184 | 26 | 8 | sand to silty sand | |
| 90.715 | 105.68 | 0.5795 | 0.548 | 37.409 | 25 | 8 | sand to silty sand | |
| 90.879 | 97.95 | 0.5517 | 0.563 | 37.404 | 23 | 8 | sand to silty sand | |
| 91.043 | 98.00 | 0.5385 | 0.550 | 37.426 | 23 | 8 | sand to silty sand | |
| 91.207 | 99.46 | 0.5589 | 0.562 | 37.814 | 24 | 8 | sand to silty sand | |
| 91.371 | 103.78 | 0.5984 | 0.577 | 37.960 | 25 | 8 | sand to silty sand | |
| 91.535 | 119.66 | 0.6637 | 0.555 | 38.140 | 23 | 9 | sand | |
| 91.699 | 150.04 | 0.8562 | 0.571 | 38.370 | 29 | 9 | sand | |
| 91.864 | 159.72 | 0.9121 | 0.571 | 39.022 | 31 | 9 | sand | |
| 92.028 | 143.17 | 0.8543 | 0.597 | 38.032 | 27 | 9 | sand | |
| 92.192 | 126.90 | 0.7507 | 0.592 | 37.975 | 24 | 9 | sand | |
| 92.356 | 114.01 | 0.6787 | 0.595 | 37.992 | 22 | 9 | sand | |
| 92.520 | 116.55 | 0.6672 | 0.572 | 38.135 | 22 | 9 | sand | |
| 92.684 | 121.73 | 0.6880 | 0.565 | 38.859 | 23 | 9 | sand | |
| 92.848 | 124.58 | 0.6821 | 0.548 | 38.747 | 24 | 9 | sand | |
| 93.012 | 118.99 | 0.6528 | 0.549 | 38.457 | 23 | 9 | sand | |
| 93.176 | 111.77 | 0.6195 | 0.554 | 38.610 | 21 | 9 | sand | |
| 93.340 | 101.59 | 0.5761 | 0.567 | 38.203 | 24 | 8 | sand to silty sand | |
| 93.504 | 95.99 | 0.5305 | 0.553 | 38.306 | 23 | 8 | sand to silty sand | |
| 93.668 | 95.24 | 0.4870 | 0.511 | 38.526 | 23 | 8 | sand to silty sand | |
| 93.832 | 91.35 | 0.4969 | 0.544 | 38.368 | 22 | 8 | sand to silty sand | |
| 93.996 | 81.82 | 0.4513 | 0.552 | 38.416 | 20 | 8 | sand to silty sand | |
| 94.160 | 92.00 | 0.4744 | 0.516 | 38.986 | 22 | 8 | sand to silty sand | |
| 94.324 | 109.94 | 0.5666 | 0.515 | 39.351 | 21 | 9 | sand | |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 94.488 | 117.35 | 0.6166 | 0.525 | 39.377 | 22 | 9 | sand | |
| 94.652 | 105.37 | 0.6141 | 0.583 | 39.320 | 25 | 8 | sand to silty sand | |
| 94.816 | 102.23 | 0.5468 | 0.535 | 39.212 | 24 | 8 | sand to silty sand | |
| 94.980 | 102.00 | 0.5442 | 0.534 | 39.341 | 24 | 8 | sand to silty sand | |
| 95.144 | 102.84 | 0.5589 | 0.543 | 39.555 | 25 | 8 | sand to silty sand | |
| 95.308 | 115.91 | 0.6206 | 0.535 | 39.888 | 22 | 9 | sand | |
| 95.472 | 128.04 | 0.6482 | 0.506 | 40.118 | 25 | 9 | sand | |
| 95.636 | 128.62 | 0.7106 | 0.552 | 39.931 | 25 | 9 | sand | |
| 95.801 | 127.67 | 0.7471 | 0.585 | 40.240 | 24 | 9 | sand | |
| 95.965 | 115.87 | 0.7136 | 0.616 | 40.219 | 22 | 9 | sand | |
| 96.129 | 113.98 | 0.6710 | 0.589 | 39.746 | 22 | 9 | sand | |
| 96.293 | 126.40 | 0.6824 | 0.540 | 39.792 | 24 | 9 | sand | |
| 96.457 | 125.90 | 0.6930 | 0.550 | 40.288 | 24 | 9 | sand | |
| 96.621 | 120.90 | 0.6869 | 0.568 | 40.226 | 23 | 9 | sand | |
| 96.785 | 120.87 | 0.6876 | 0.569 | 40.154 | 23 | 9 | sand | |
| 96.949 | 131.74 | 0.7029 | 0.534 | 40.331 | 25 | 9 | sand | |
| 97.113 | 128.30 | 0.7236 | 0.564 | 40.835 | 25 | 9 | sand | |
| 97.277 | 133.66 | 0.7560 | 0.566 | 40.813 | 26 | 9 | sand | |
| 97.441 | 139.02 | 0.7943 | 0.571 | 41.130 | 27 | 9 | sand | |
| 97.605 | 133.11 | 0.7817 | 0.587 | 40.322 | 25 | 9 | sand | |
| 97.769 | 129.49 | 0.7411 | 0.572 | 40.662 | 25 | 9 | sand | |
| 97.933 | 134.34 | 0.7169 | 0.534 | 40.442 | 26 | 9 | sand | |
| 98.097 | 143.29 | 0.7891 | 0.551 | 41.777 | 27 | 9 | sand | |
| 98.261 | 137.47 | 0.7457 | 0.542 | 40.631 | 26 | 9 | sand | |
| 98.425 | 133.92 | 0.6740 | 0.503 | 40.967 | 26 | 9 | sand | |
| 98.589 | 126.80 | 0.6439 | 0.508 | 40.969 | 24 | 9 | sand | |
| 98.753 | 137.37 | 0.6430 | 0.468 | 41.271 | 26 | 9 | sand | |
| 98.917 | 129.01 | 0.6509 | 0.505 | 41.161 | 25 | 9 | sand | |
| 99.081 | 126.18 | 0.6201 | 0.491 | 41.175 | 24 | 9 | sand | |
| 99.245 | 104.57 | 0.5783 | 0.553 | 40.923 | 25 | 8 | sand to silty sand | |
| 99.409 | 95.66 | 0.5174 | 0.541 | 40.746 | 23 | 8 | sand to silty sand | |
| 99.573 | 93.04 | 0.5009 | 0.538 | 41.305 | 22 | 8 | sand to silty sand | |
| 99.738 | 93.04 | 0.4789 | 0.515 | 41.472 | 22 | 8 | sand to silty sand | |
| 99.902 | 95.80 | 0.4842 | 0.505 | 41.578 | 23 | 8 | sand to silty sand | |
| 100.066 | 100.84 | 0.5192 | 0.515 | 41.659 | 24 | 8 | sand to silty sand | |
| 100.230 | 119.11 | 0.5632 | 0.473 | 42.096 | 23 | 9 | sand | |
| 100.394 | 131.00 | 0.6206 | 0.474 | 42.223 | 25 | 9 | sand | |
| 100.558 | 137.84 | 0.6315 | 0.458 | 42.163 | 26 | 9 | sand | |
| 100.722 | 132.64 | 0.6171 | 0.465 | 42.072 | 25 | 9 | sand | |
| 100.886 | 116.35 | 0.5847 | 0.503 | 42.038 | 22 | 9 | sand | |
| 101.050 | 108.10 | 0.5572 | 0.515 | 41.748 | 21 | 9 | sand | |
| 101.214 | 104.95 | 0.5493 | 0.523 | 42.000 | 25 | 8 | sand to silty sand | |
| 101.378 | 107.92 | 0.5511 | 0.511 | 42.216 | 21 | 9 | sand | |
| 101.542 | 115.76 | 0.5973 | 0.516 | 42.446 | 22 | 9 | sand | |
| 101.706 | 120.56 | 0.6468 | 0.536 | 42.534 | 23 | 9 | sand | |
| 101.870 | 129.88 | 0.6925 | 0.533 | 42.705 | 25 | 9 | sand | |
| 102.034 | 140.32 | 0.6920 | 0.493 | 42.748 | 27 | 9 | sand | |
| 102.198 | 132.43 | 0.6436 | 0.486 | 42.628 | 25 | 9 | sand | |
| 102.362 | 127.59 | 0.6302 | 0.494 | 42.601 | 24 | 9 | sand | |
| 102.526 | 131.39 | 0.6302 | 0.480 | 42.808 | 25 | 9 | sand | |
| 102.690 | 143.75 | 0.6302 | 0.438 | 43.052 | 28 | 9 | sand | |

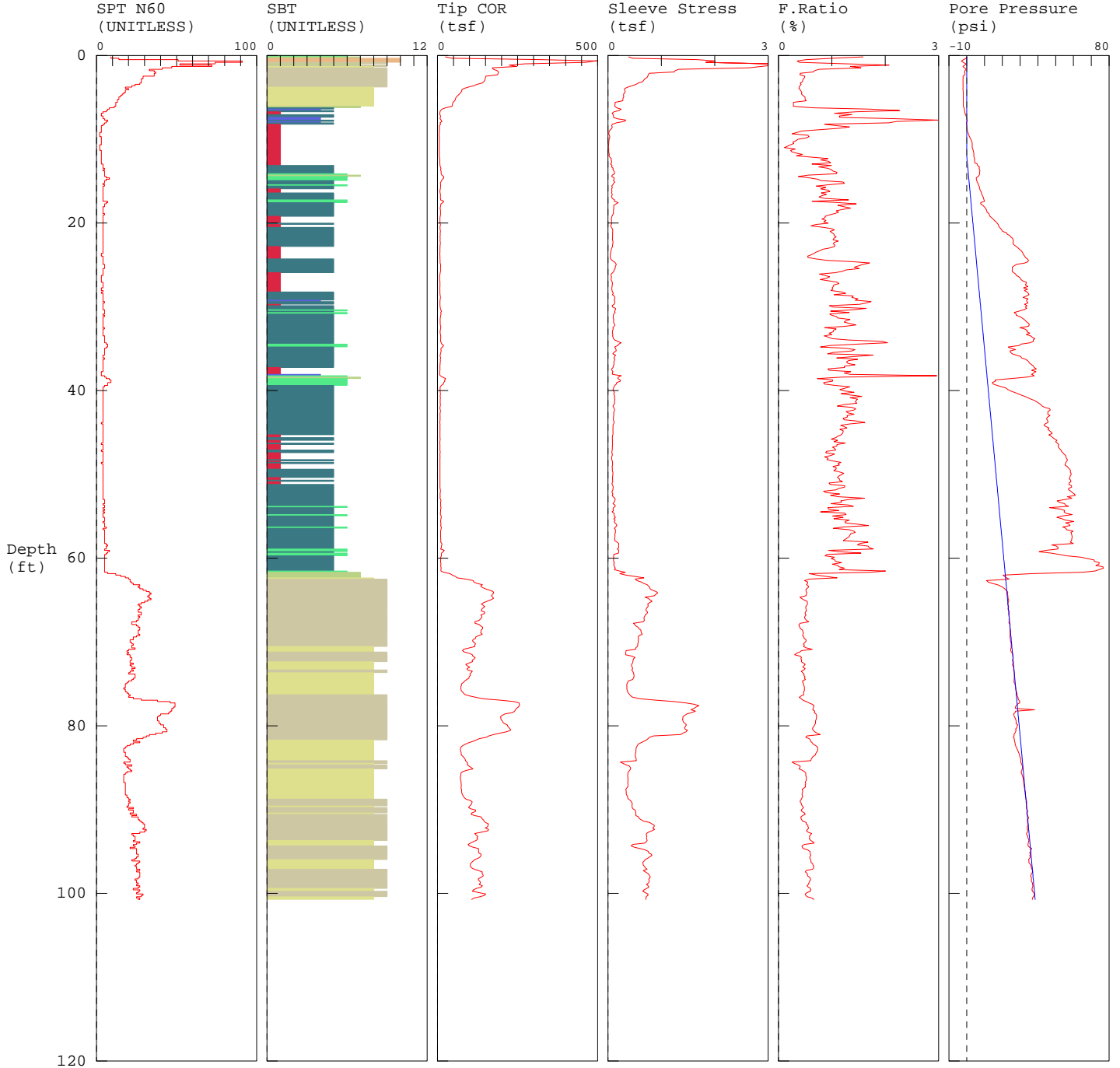
GRI / CPT-23 / PDX Runway Evaluation

TEST DATE: 4/25/2017 1:35:42 PM
 HOLE NUMBER: CPT-23

CONE ID: DPG1323
 LOCATION: 17058/ GRI / CPT-23/ PDX Runway Evaluation
 JOB NUMBER: 17058 / GRI / CPT-23 / PDX Runway Evaluation

CUSTOMER: 17058 GRI CPT-23 PDX Runway Evaluation
 OPERATOR: OGE TAJ

TEST DATE: 4/25/2017 1:35:42 PM
 TOTAL DEPTH: 100.722 ft



TOTAL DEPTH: 100.722 ft

- | | | | | | | | |
|--|--|---|--|--|--|--|--|
| <ul style="list-style-type: none"> ■ 1 ■ 2 ■ 3 | <ul style="list-style-type: none"> 1 sensitive fine grained 2 organic material 3 clay | <ul style="list-style-type: none"> ■ 4 ■ 5 ■ 6 | <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 ■ 8 ■ 9 | <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 ■ 11 ■ 12 | <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

GRI / CPT-23 / PDX Runway Evaluation

OPERATOR: OGE TAJ
 TEST DATE: 4/25/2017 1:35:42 PM
 COMMENT: GRI / CPT-23 / PDX Runway Evaluation
 FILENAME: 17058 CPT-23.cpt
 TOTAL DEPTH: 100.722 ft

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 0.164 | 24.36 | 0.3859 | 1.584 | -0.037 | 9 | 6 | sandy silt to clayey silt |
| 0.328 | 44.75 | 0.4579 | 1.023 | -0.371 | 14 | 7 | silty sand to sandy silt |
| 0.492 | 322.39 | 1.6702 | 0.518 | -1.866 | 51 | 10 | gravelly sand to sand |
| 0.656 | 573.25 | 2.0089 | 0.350 | -3.050 | 91 | 10 | gravelly sand to sand |
| 0.820 | 463.03 | 1.8338 | 0.396 | -1.936 | 74 | 10 | gravelly sand to sand |
| 0.984 | 272.38 | 3.5079 | 1.288 | -0.497 | 52 | 9 | sand |
| 1.148 | 224.26 | 4.6449 | 2.071 | -0.998 | 72 | 7 | silty sand to sandy silt |
| 1.312 | 247.51 | 3.3342 | 1.347 | -2.208 | 47 | 9 | sand |
| 1.476 | 170.70 | 2.6366 | 1.545 | -1.445 | 41 | 8 | sand to silty sand |
| 1.640 | 174.74 | 1.3206 | 0.756 | -0.190 | 33 | 9 | sand |
| 1.804 | 186.15 | 1.2593 | 0.677 | -1.105 | 36 | 9 | sand |
| 1.969 | 190.73 | 1.2412 | 0.651 | -1.236 | 37 | 9 | sand |
| 2.133 | 189.23 | 0.7716 | 0.408 | -1.018 | 36 | 9 | sand |
| 2.297 | 187.46 | 0.7536 | 0.402 | -1.103 | 36 | 9 | sand |
| 2.461 | 150.82 | 0.7440 | 0.493 | -2.136 | 29 | 9 | sand |
| 2.625 | 149.89 | 0.7303 | 0.487 | -2.095 | 29 | 9 | sand |
| 2.789 | 148.75 | 0.6912 | 0.465 | -2.130 | 28 | 9 | sand |
| 2.953 | 147.63 | 0.6692 | 0.453 | -2.132 | 28 | 9 | sand |
| 3.117 | 144.69 | 0.6491 | 0.449 | -2.119 | 28 | 9 | sand |
| 3.281 | 139.85 | 0.5704 | 0.408 | -2.112 | 27 | 9 | sand |
| 3.445 | 123.15 | 0.5243 | 0.426 | -2.132 | 24 | 9 | sand |
| 3.609 | 112.77 | 0.4503 | 0.399 | -2.119 | 22 | 9 | sand |
| 3.773 | 96.04 | 0.3727 | 0.388 | -2.091 | 18 | 9 | sand |
| 3.937 | 82.28 | 0.3130 | 0.380 | -2.169 | 20 | 8 | sand to silty sand |
| 4.101 | 75.84 | 0.3089 | 0.407 | -2.069 | 18 | 8 | sand to silty sand |
| 4.265 | 75.58 | 0.3208 | 0.424 | -2.045 | 18 | 8 | sand to silty sand |
| 4.429 | 72.29 | 0.3167 | 0.438 | -2.040 | 17 | 8 | sand to silty sand |
| 4.593 | 68.53 | 0.2940 | 0.429 | -2.027 | 16 | 8 | sand to silty sand |
| 4.757 | 63.87 | 0.2906 | 0.455 | -2.008 | 15 | 8 | sand to silty sand |
| 4.921 | 59.57 | 0.2945 | 0.494 | -1.999 | 14 | 8 | sand to silty sand |
| 5.085 | 56.82 | 0.2824 | 0.497 | -1.975 | 14 | 8 | sand to silty sand |
| 5.249 | 55.75 | 0.2796 | 0.502 | -1.955 | 13 | 8 | sand to silty sand |
| 5.413 | 53.28 | 0.2761 | 0.518 | -2.006 | 13 | 8 | sand to silty sand |
| 5.577 | 48.07 | 0.1333 | 0.277 | -1.955 | 12 | 8 | sand to silty sand |
| 6.070 | 45.41 | 0.1257 | 0.277 | -1.945 | 11 | 8 | sand to silty sand |
| 6.234 | 25.33 | 0.1606 | 0.634 | -1.546 | 8 | 7 | silty sand to sandy silt |
| 6.398 | 14.16 | 0.2445 | 1.727 | -1.456 | 7 | 5 | clayey silt to silty clay |
| 6.562 | 9.36 | 0.2122 | 2.268 | -1.267 | 6 | 4 | silty clay to clay |
| 6.726 | 7.78 | 0.1132 | 1.456 | -1.155 | 4 | 5 | clayey silt to silty clay |
| 6.890 | 7.20 | 0.0753 | 1.047 | -1.016 | 3 | 1 | sensitive fine grained |
| 7.054 | 7.03 | 0.0965 | 1.372 | -0.748 | 3 | 1 | sensitive fine grained |
| 7.218 | 9.24 | 0.1052 | 1.139 | -0.366 | 4 | 5 | clayey silt to silty clay |
| 7.382 | 8.76 | 0.1003 | 1.146 | -0.063 | 4 | 5 | clayey silt to silty clay |
| 7.546 | 7.72 | 0.1706 | 2.209 | 0.070 | 5 | 4 | silty clay to clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 7.710 | 11.22 | 0.3345 | 2.980 | 0.296 | 7 | 4 | silty clay to clay |
| 7.874 | 13.47 | 0.2978 | 2.211 | 0.172 | 6 | 5 | clayey silt to silty clay |
| 8.038 | 7.62 | 0.1575 | 2.067 | -0.216 | 5 | 4 | silty clay to clay |
| 8.202 | 9.28 | 0.0800 | 0.862 | -0.129 | 4 | 5 | clayey silt to silty clay |
| 8.366 | 6.56 | 0.0706 | 1.076 | -0.037 | 3 | 1 | sensitive fine grained |
| 8.530 | 5.78 | 0.0769 | 1.330 | 0.157 | 3 | 1 | sensitive fine grained |
| 8.694 | 6.37 | 0.0720 | 1.130 | 0.268 | 3 | 1 | sensitive fine grained |
| 8.858 | 6.15 | 0.0455 | 0.740 | 0.292 | 3 | 1 | sensitive fine grained |
| 9.022 | 5.54 | 0.0240 | 0.434 | 0.303 | 3 | 1 | sensitive fine grained |
| 9.186 | 5.09 | 0.0176 | 0.346 | 0.617 | 2 | 1 | sensitive fine grained |
| 9.350 | 5.09 | 0.0131 | 0.257 | 0.885 | 2 | 1 | sensitive fine grained |
| 9.514 | 4.68 | 0.0257 | 0.551 | 1.147 | 2 | 1 | sensitive fine grained |
| 9.678 | 5.27 | 0.0303 | 0.574 | 1.559 | 3 | 1 | sensitive fine grained |
| 9.843 | 6.13 | 0.0318 | 0.519 | 1.818 | 3 | 1 | sensitive fine grained |
| 10.007 | 5.47 | 0.0199 | 0.364 | 2.156 | 3 | 1 | sensitive fine grained |
| 10.171 | 5.40 | 0.0176 | 0.326 | 2.688 | 3 | 1 | sensitive fine grained |
| 10.335 | 5.37 | 0.0145 | 0.270 | 2.965 | 3 | 1 | sensitive fine grained |
| 10.499 | 5.26 | 0.0151 | 0.287 | 3.045 | 3 | 1 | sensitive fine grained |
| 10.663 | 5.18 | 0.0117 | 0.227 | 3.052 | 2 | 1 | sensitive fine grained |
| 10.991 | 5.19 | 0.0057 | 0.110 | 3.048 | 2 | 1 | sensitive fine grained |
| 11.155 | 4.76 | 0.0150 | 0.315 | 3.342 | 2 | 1 | sensitive fine grained |
| 11.319 | 5.58 | 0.0127 | 0.227 | 3.621 | 3 | 1 | sensitive fine grained |
| 11.483 | 5.81 | 0.0144 | 0.247 | 3.745 | 3 | 1 | sensitive fine grained |
| 11.647 | 5.57 | 0.0185 | 0.331 | 3.928 | 3 | 1 | sensitive fine grained |
| 11.811 | 5.46 | 0.0244 | 0.447 | 4.007 | 3 | 1 | sensitive fine grained |
| 11.975 | 5.39 | 0.0180 | 0.334 | 4.011 | 3 | 1 | sensitive fine grained |
| 12.139 | 5.46 | 0.0341 | 0.624 | 4.111 | 3 | 1 | sensitive fine grained |
| 12.303 | 6.74 | 0.0624 | 0.926 | 4.362 | 3 | 1 | sensitive fine grained |
| 12.467 | 7.27 | 0.0573 | 0.788 | 4.373 | 3 | 1 | sensitive fine grained |
| 12.631 | 7.25 | 0.0681 | 0.939 | 4.417 | 3 | 1 | sensitive fine grained |
| 12.795 | 6.85 | 0.0668 | 0.976 | 4.528 | 3 | 1 | sensitive fine grained |
| 12.959 | 7.70 | 0.0481 | 0.625 | 5.875 | 4 | 1 | sensitive fine grained |
| 13.123 | 7.63 | 0.0757 | 0.993 | 5.947 | 4 | 1 | sensitive fine grained |
| 13.287 | 8.77 | 0.0662 | 0.755 | 7.061 | 4 | 5 | clayey silt to silty clay |
| 13.451 | 10.61 | 0.0976 | 0.920 | 6.924 | 5 | 5 | clayey silt to silty clay |
| 13.615 | 9.10 | 0.0903 | 0.993 | 7.190 | 4 | 5 | clayey silt to silty clay |
| 13.780 | 10.97 | 0.1109 | 1.012 | 7.357 | 5 | 5 | clayey silt to silty clay |
| 13.944 | 10.94 | 0.1201 | 1.098 | 7.207 | 5 | 5 | clayey silt to silty clay |
| 14.108 | 11.21 | 0.1216 | 1.084 | 7.233 | 5 | 5 | clayey silt to silty clay |
| 14.272 | 13.72 | 0.0769 | 0.560 | 6.950 | 5 | 6 | sandy silt to clayey silt |
| 14.436 | 18.64 | 0.0690 | 0.370 | 6.368 | 6 | 7 | silty sand to sandy silt |
| 14.600 | 19.77 | 0.1138 | 0.576 | 5.265 | 8 | 6 | sandy silt to clayey silt |
| 14.764 | 15.07 | 0.1108 | 0.735 | 5.358 | 6 | 6 | sandy silt to clayey silt |
| 14.928 | 12.71 | 0.1006 | 0.791 | 5.605 | 5 | 6 | sandy silt to clayey silt |
| 15.092 | 10.49 | 0.1266 | 1.207 | 5.805 | 5 | 5 | clayey silt to silty clay |
| 15.256 | 8.65 | 0.1070 | 1.237 | 6.322 | 4 | 5 | clayey silt to silty clay |
| 15.420 | 9.48 | 0.0901 | 0.950 | 6.501 | 5 | 5 | clayey silt to silty clay |
| 15.584 | 9.74 | 0.0689 | 0.708 | 6.897 | 4 | 6 | sandy silt to clayey silt |
| 15.748 | 9.15 | 0.0810 | 0.886 | 7.074 | 4 | 5 | clayey silt to silty clay |
| 15.912 | 8.74 | 0.0692 | 0.791 | 7.299 | 4 | 5 | clayey silt to silty clay |
| 16.076 | 7.78 | 0.0723 | 0.929 | 7.508 | 4 | 1 | sensitive fine grained |
| 16.240 | 7.76 | 0.0746 | 0.961 | 7.990 | 4 | 1 | sensitive fine grained |
| 16.404 | 8.13 | 0.0654 | 0.805 | 8.225 | 4 | 1 | sensitive fine grained |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 16.568 | 9.05 | 0.0810 | 0.895 | 8.515 | 4 | 5 | clayey silt to silty clay |
| 16.732 | 8.99 | 0.0728 | 0.809 | 8.796 | 4 | 5 | clayey silt to silty clay |
| 16.896 | 8.80 | 0.0668 | 0.759 | 9.151 | 4 | 5 | clayey silt to silty clay |
| 17.060 | 9.23 | 0.0798 | 0.865 | 9.385 | 4 | 5 | clayey silt to silty clay |
| 17.224 | 9.28 | 0.1217 | 1.311 | 9.720 | 4 | 5 | clayey silt to silty clay |
| 17.388 | 19.00 | 0.1193 | 0.628 | 9.989 | 7 | 6 | sandy silt to clayey silt |
| 17.552 | 16.89 | 0.1904 | 1.127 | 7.863 | 6 | 6 | sandy silt to clayey silt |
| 17.717 | 10.56 | 0.1538 | 1.456 | 7.863 | 5 | 5 | clayey silt to silty clay |
| 17.881 | 9.56 | 0.1062 | 1.111 | 9.084 | 5 | 5 | clayey silt to silty clay |
| 18.045 | 8.93 | 0.1092 | 1.223 | 9.764 | 4 | 5 | clayey silt to silty clay |
| 18.209 | 8.04 | 0.1083 | 1.348 | 10.457 | 4 | 5 | clayey silt to silty clay |
| 18.373 | 8.75 | 0.1047 | 1.196 | 10.909 | 4 | 5 | clayey silt to silty clay |
| 18.537 | 9.39 | 0.1016 | 1.082 | 11.212 | 4 | 5 | clayey silt to silty clay |
| 18.701 | 8.98 | 0.1011 | 1.126 | 11.375 | 4 | 5 | clayey silt to silty clay |
| 18.865 | 9.64 | 0.1015 | 1.053 | 12.434 | 5 | 5 | clayey silt to silty clay |
| 19.029 | 9.09 | 0.0863 | 0.949 | 12.650 | 4 | 5 | clayey silt to silty clay |
| 19.193 | 8.45 | 0.0738 | 0.873 | 13.080 | 4 | 5 | clayey silt to silty clay |
| 19.357 | 7.68 | 0.0670 | 0.873 | 13.884 | 4 | 1 | sensitive fine grained |
| 19.521 | 7.50 | 0.0608 | 0.811 | 14.850 | 4 | 1 | sensitive fine grained |
| 19.685 | 7.32 | 0.0651 | 0.889 | 15.556 | 4 | 1 | sensitive fine grained |
| 19.849 | 7.53 | 0.0638 | 0.847 | 16.467 | 4 | 1 | sensitive fine grained |
| 20.013 | 7.80 | 0.0725 | 0.929 | 17.056 | 4 | 1 | sensitive fine grained |
| 20.177 | 8.98 | 0.0626 | 0.697 | 17.693 | 4 | 5 | clayey silt to silty clay |
| 20.341 | 8.40 | 0.0511 | 0.608 | 17.878 | 4 | 1 | sensitive fine grained |
| 20.505 | 7.57 | 0.0640 | 0.846 | 18.456 | 4 | 1 | sensitive fine grained |
| 20.669 | 7.97 | 0.0799 | 1.003 | 19.147 | 4 | 5 | clayey silt to silty clay |
| 20.833 | 8.54 | 0.0891 | 1.043 | 19.687 | 4 | 5 | clayey silt to silty clay |
| 20.997 | 9.13 | 0.0884 | 0.968 | 20.162 | 4 | 5 | clayey silt to silty clay |
| 21.161 | 8.51 | 0.0856 | 1.006 | 22.395 | 4 | 5 | clayey silt to silty clay |
| 21.325 | 8.39 | 0.0874 | 1.042 | 22.680 | 4 | 5 | clayey silt to silty clay |
| 21.490 | 8.27 | 0.0861 | 1.041 | 24.167 | 4 | 5 | clayey silt to silty clay |
| 21.654 | 7.92 | 0.0856 | 1.081 | 24.699 | 4 | 5 | clayey silt to silty clay |
| 21.818 | 8.29 | 0.0861 | 1.038 | 25.710 | 4 | 5 | clayey silt to silty clay |
| 21.982 | 8.04 | 0.0821 | 1.022 | 26.096 | 4 | 5 | clayey silt to silty clay |
| 22.146 | 8.11 | 0.0907 | 1.118 | 26.199 | 4 | 5 | clayey silt to silty clay |
| 22.310 | 8.85 | 0.0923 | 1.043 | 25.998 | 4 | 5 | clayey silt to silty clay |
| 22.474 | 8.72 | 0.0896 | 1.027 | 26.007 | 4 | 5 | clayey silt to silty clay |
| 22.638 | 8.01 | 0.0846 | 1.056 | 26.807 | 4 | 5 | clayey silt to silty clay |
| 22.802 | 7.98 | 0.0836 | 1.048 | 27.893 | 4 | 5 | clayey silt to silty clay |
| 22.966 | 7.55 | 0.0727 | 0.962 | 28.830 | 4 | 1 | sensitive fine grained |
| 23.130 | 7.55 | 0.0623 | 0.826 | 29.617 | 4 | 1 | sensitive fine grained |
| 23.294 | 7.52 | 0.0583 | 0.776 | 30.522 | 4 | 1 | sensitive fine grained |
| 23.458 | 7.52 | 0.0531 | 0.707 | 31.132 | 4 | 1 | sensitive fine grained |
| 23.622 | 7.02 | 0.0468 | 0.667 | 31.570 | 3 | 1 | sensitive fine grained |
| 23.786 | 7.12 | 0.0433 | 0.609 | 31.987 | 3 | 1 | sensitive fine grained |
| 23.950 | 7.40 | 0.0404 | 0.546 | 32.575 | 4 | 1 | sensitive fine grained |
| 24.114 | 7.71 | 0.0425 | 0.551 | 33.024 | 4 | 1 | sensitive fine grained |
| 24.278 | 7.38 | 0.0513 | 0.696 | 34.003 | 4 | 1 | sensitive fine grained |
| 24.442 | 8.25 | 0.0745 | 0.903 | 34.655 | 4 | 5 | clayey silt to silty clay |
| 24.606 | 8.11 | 0.1140 | 1.405 | 34.282 | 4 | 5 | clayey silt to silty clay |
| 24.770 | 8.19 | 0.1398 | 1.707 | 32.599 | 4 | 5 | clayey silt to silty clay |
| 24.934 | 9.76 | 0.1546 | 1.585 | 28.063 | 5 | 5 | clayey silt to silty clay |
| 25.098 | 9.58 | 0.1435 | 1.499 | 26.550 | 5 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 25.262 | 9.47 | 0.1344 | 1.420 | 25.519 | 5 | 5 | clayey silt to silty clay |
| 25.427 | 8.92 | 0.1349 | 1.512 | 25.639 | 4 | 5 | clayey silt to silty clay |
| 25.591 | 9.26 | 0.1170 | 1.264 | 25.639 | 4 | 5 | clayey silt to silty clay |
| 25.755 | 9.09 | 0.1088 | 1.198 | 25.455 | 4 | 5 | clayey silt to silty clay |
| 25.919 | 8.27 | 0.0875 | 1.059 | 26.323 | 4 | 5 | clayey silt to silty clay |
| 26.083 | 7.84 | 0.0602 | 0.768 | 27.559 | 4 | 1 | sensitive fine grained |
| 26.247 | 6.67 | 0.0580 | 0.869 | 27.703 | 3 | 1 | sensitive fine grained |
| 26.411 | 6.63 | 0.0635 | 0.957 | 29.264 | 3 | 1 | sensitive fine grained |
| 26.575 | 6.95 | 0.0630 | 0.906 | 30.020 | 3 | 1 | sensitive fine grained |
| 26.739 | 6.83 | 0.0535 | 0.783 | 30.382 | 3 | 1 | sensitive fine grained |
| 26.903 | 7.00 | 0.0675 | 0.964 | 31.540 | 3 | 1 | sensitive fine grained |
| 27.067 | 7.39 | 0.0816 | 1.105 | 33.458 | 4 | 1 | sensitive fine grained |
| 27.231 | 7.32 | 0.0827 | 1.130 | 33.312 | 4 | 1 | sensitive fine grained |
| 27.395 | 7.43 | 0.0768 | 1.034 | 32.926 | 4 | 1 | sensitive fine grained |
| 27.559 | 7.36 | 0.0756 | 1.028 | 34.284 | 4 | 1 | sensitive fine grained |
| 27.723 | 7.15 | 0.0719 | 1.005 | 31.930 | 3 | 1 | sensitive fine grained |
| 27.887 | 7.15 | 0.0728 | 1.018 | 34.210 | 3 | 1 | sensitive fine grained |
| 28.051 | 7.74 | 0.0759 | 0.981 | 32.379 | 4 | 1 | sensitive fine grained |
| 28.215 | 7.12 | 0.0845 | 1.186 | 33.853 | 3 | 1 | sensitive fine grained |
| 28.379 | 7.81 | 0.0983 | 1.259 | 34.583 | 4 | 5 | clayey silt to silty clay |
| 28.543 | 7.97 | 0.0832 | 1.044 | 34.969 | 4 | 5 | clayey silt to silty clay |
| 28.707 | 8.36 | 0.1172 | 1.401 | 33.580 | 4 | 5 | clayey silt to silty clay |
| 28.871 | 9.14 | 0.1256 | 1.375 | 31.585 | 4 | 5 | clayey silt to silty clay |
| 29.035 | 8.53 | 0.1267 | 1.486 | 34.374 | 4 | 5 | clayey silt to silty clay |
| 29.199 | 8.09 | 0.1163 | 1.437 | 33.552 | 4 | 5 | clayey silt to silty clay |
| 29.364 | 7.43 | 0.1291 | 1.738 | 33.846 | 5 | 4 | silty clay to clay |
| 29.528 | 7.59 | 0.1251 | 1.648 | 34.395 | 4 | 5 | clayey silt to silty clay |
| 29.692 | 7.39 | 0.1125 | 1.522 | 32.510 | 4 | 5 | clayey silt to silty clay |
| 29.856 | 7.85 | 0.0750 | 0.955 | 33.807 | 4 | 1 | sensitive fine grained |
| 30.020 | 8.43 | 0.0861 | 1.020 | 32.922 | 4 | 5 | clayey silt to silty clay |
| 30.184 | 8.64 | 0.1415 | 1.637 | 33.735 | 4 | 5 | clayey silt to silty clay |
| 30.348 | 9.90 | 0.1384 | 1.398 | 31.993 | 5 | 5 | clayey silt to silty clay |
| 30.512 | 12.64 | 0.1233 | 0.975 | 29.366 | 5 | 6 | sandy silt to clayey silt |
| 30.676 | 10.14 | 0.1344 | 1.326 | 26.585 | 5 | 5 | clayey silt to silty clay |
| 30.840 | 11.13 | 0.1068 | 0.960 | 27.856 | 4 | 6 | sandy silt to clayey silt |
| 31.004 | 10.18 | 0.1014 | 0.997 | 27.738 | 5 | 5 | clayey silt to silty clay |
| 31.168 | 9.16 | 0.0998 | 1.089 | 29.831 | 4 | 5 | clayey silt to silty clay |
| 31.332 | 8.63 | 0.0955 | 1.107 | 31.093 | 4 | 5 | clayey silt to silty clay |
| 31.496 | 8.18 | 0.1095 | 1.339 | 32.314 | 4 | 5 | clayey silt to silty clay |
| 31.660 | 8.35 | 0.1052 | 1.259 | 33.105 | 4 | 5 | clayey silt to silty clay |
| 31.824 | 8.36 | 0.1029 | 1.231 | 33.757 | 4 | 5 | clayey silt to silty clay |
| 31.988 | 8.50 | 0.1134 | 1.334 | 34.814 | 4 | 5 | clayey silt to silty clay |
| 32.152 | 8.76 | 0.1270 | 1.449 | 35.169 | 4 | 5 | clayey silt to silty clay |
| 32.316 | 9.25 | 0.1151 | 1.244 | 34.509 | 4 | 5 | clayey silt to silty clay |
| 32.480 | 10.31 | 0.0892 | 0.865 | 29.955 | 5 | 5 | clayey silt to silty clay |
| 32.644 | 8.95 | 0.0967 | 1.080 | 32.468 | 4 | 5 | clayey silt to silty clay |
| 32.808 | 8.59 | 0.0883 | 1.028 | 33.962 | 4 | 5 | clayey silt to silty clay |
| 32.972 | 8.09 | 0.0829 | 1.025 | 33.805 | 4 | 5 | clayey silt to silty clay |
| 33.136 | 8.51 | 0.0808 | 0.948 | 35.494 | 4 | 5 | clayey silt to silty clay |
| 33.301 | 9.22 | 0.0919 | 0.997 | 33.510 | 4 | 5 | clayey silt to silty clay |
| 33.465 | 10.00 | 0.0858 | 0.859 | 35.858 | 5 | 5 | clayey silt to silty clay |
| 33.629 | 10.19 | 0.0955 | 0.938 | 36.804 | 5 | 5 | clayey silt to silty clay |
| 33.793 | 10.04 | 0.1010 | 1.006 | 38.215 | 5 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 33.957 | 9.63 | 0.1266 | 1.315 | 37.354 | 5 | 5 | clayey silt to silty clay |
| 34.121 | 9.46 | 0.1835 | 1.940 | 37.419 | 5 | 5 | clayey silt to silty clay |
| 34.285 | 12.09 | 0.2471 | 2.045 | 35.655 | 6 | 5 | clayey silt to silty clay |
| 34.449 | 13.73 | 0.2030 | 1.479 | 30.376 | 7 | 5 | clayey silt to silty clay |
| 34.613 | 18.66 | 0.1812 | 0.971 | 29.497 | 7 | 6 | sandy silt to clayey silt |
| 34.777 | 15.83 | 0.1247 | 0.788 | 23.363 | 6 | 6 | sandy silt to clayey silt |
| 34.941 | 10.97 | 0.1371 | 1.250 | 24.655 | 5 | 5 | clayey silt to silty clay |
| 35.105 | 10.39 | 0.1491 | 1.434 | 27.372 | 5 | 5 | clayey silt to silty clay |
| 35.269 | 11.24 | 0.1544 | 1.374 | 24.337 | 5 | 5 | clayey silt to silty clay |
| 35.433 | 10.52 | 0.1082 | 1.029 | 24.559 | 5 | 5 | clayey silt to silty clay |
| 35.597 | 9.70 | 0.0892 | 0.920 | 25.647 | 5 | 5 | clayey silt to silty clay |
| 35.761 | 7.97 | 0.1414 | 1.776 | 27.544 | 4 | 5 | clayey silt to silty clay |
| 35.925 | 8.39 | 0.1215 | 1.448 | 30.275 | 4 | 5 | clayey silt to silty clay |
| 36.089 | 10.19 | 0.1109 | 1.089 | 30.792 | 5 | 5 | clayey silt to silty clay |
| 36.253 | 8.53 | 0.1264 | 1.482 | 33.103 | 4 | 5 | clayey silt to silty clay |
| 36.417 | 9.09 | 0.1189 | 1.309 | 34.210 | 4 | 5 | clayey silt to silty clay |
| 36.581 | 8.50 | 0.1083 | 1.274 | 34.851 | 4 | 5 | clayey silt to silty clay |
| 36.745 | 8.57 | 0.1115 | 1.302 | 35.483 | 4 | 5 | clayey silt to silty clay |
| 36.909 | 7.74 | 0.1109 | 1.433 | 36.508 | 4 | 5 | clayey silt to silty clay |
| 37.073 | 7.89 | 0.0972 | 1.232 | 37.567 | 4 | 5 | clayey silt to silty clay |
| 37.238 | 7.67 | 0.0949 | 1.237 | 37.903 | 4 | 5 | clayey silt to silty clay |
| 37.402 | 7.45 | 0.0689 | 0.925 | 39.082 | 4 | 1 | sensitive fine grained |
| 37.566 | 7.85 | 0.0743 | 0.947 | 36.451 | 4 | 1 | sensitive fine grained |
| 37.730 | 6.77 | 0.0914 | 1.350 | 38.849 | 3 | 1 | sensitive fine grained |
| 37.894 | 6.51 | 0.0800 | 1.229 | 37.515 | 3 | 1 | sensitive fine grained |
| 38.058 | 6.43 | 0.0863 | 1.344 | 36.466 | 3 | 1 | sensitive fine grained |
| 38.222 | 8.30 | 0.2462 | 2.964 | 37.805 | 5 | 4 | silty clay to clay |
| 38.386 | 16.00 | 0.1901 | 1.188 | 33.774 | 6 | 6 | sandy silt to clayey silt |
| 38.550 | 25.56 | 0.1856 | 0.726 | 24.638 | 8 | 7 | silty sand to sandy silt |
| 38.714 | 22.42 | 0.2280 | 1.017 | 15.966 | 9 | 6 | sandy silt to clayey silt |
| 38.878 | 22.78 | 0.2302 | 1.010 | 16.079 | 9 | 6 | sandy silt to clayey silt |
| 39.042 | 19.05 | 0.1610 | 0.845 | 14.301 | 7 | 6 | sandy silt to clayey silt |
| 39.206 | 18.06 | 0.1554 | 0.860 | 14.952 | 7 | 6 | sandy silt to clayey silt |
| 39.370 | 12.03 | 0.1284 | 1.068 | 17.032 | 5 | 6 | sandy silt to clayey silt |
| 39.534 | 8.51 | 0.1135 | 1.333 | 19.755 | 4 | 5 | clayey silt to silty clay |
| 39.698 | 8.25 | 0.1035 | 1.255 | 22.068 | 4 | 5 | clayey silt to silty clay |
| 39.862 | 8.16 | 0.0937 | 1.148 | 23.031 | 4 | 5 | clayey silt to silty clay |
| 40.026 | 8.43 | 0.1040 | 1.234 | 24.557 | 4 | 5 | clayey silt to silty clay |
| 40.190 | 8.55 | 0.1211 | 1.417 | 26.739 | 4 | 5 | clayey silt to silty clay |
| 40.354 | 9.13 | 0.1071 | 1.174 | 28.643 | 4 | 5 | clayey silt to silty clay |
| 40.518 | 8.64 | 0.1164 | 1.347 | 30.500 | 4 | 5 | clayey silt to silty clay |
| 40.682 | 7.97 | 0.1245 | 1.562 | 32.523 | 4 | 5 | clayey silt to silty clay |
| 40.846 | 9.03 | 0.1211 | 1.340 | 34.415 | 4 | 5 | clayey silt to silty clay |
| 41.011 | 8.51 | 0.1259 | 1.479 | 36.070 | 4 | 5 | clayey silt to silty clay |
| 41.175 | 8.48 | 0.1234 | 1.455 | 38.093 | 4 | 5 | clayey silt to silty clay |
| 41.339 | 8.38 | 0.1205 | 1.437 | 39.392 | 4 | 5 | clayey silt to silty clay |
| 41.503 | 8.43 | 0.1240 | 1.470 | 40.523 | 4 | 5 | clayey silt to silty clay |
| 41.667 | 9.04 | 0.1107 | 1.225 | 41.585 | 4 | 5 | clayey silt to silty clay |
| 41.831 | 8.48 | 0.0935 | 1.102 | 42.361 | 4 | 5 | clayey silt to silty clay |
| 41.995 | 7.86 | 0.1077 | 1.370 | 43.743 | 4 | 5 | clayey silt to silty clay |
| 42.159 | 7.93 | 0.1148 | 1.447 | 46.588 | 4 | 5 | clayey silt to silty clay |
| 42.323 | 8.64 | 0.1220 | 1.412 | 46.911 | 4 | 5 | clayey silt to silty clay |
| 42.487 | 9.03 | 0.1144 | 1.267 | 45.598 | 4 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 42.651 | 8.06 | 0.1053 | 1.306 | 45.542 | 4 | 5 | clayey silt to silty clay |
| 42.815 | 7.81 | 0.1107 | 1.417 | 45.489 | 4 | 5 | clayey silt to silty clay |
| 42.979 | 8.11 | 0.1042 | 1.285 | 46.791 | 4 | 5 | clayey silt to silty clay |
| 43.143 | 8.10 | 0.1046 | 1.291 | 45.406 | 4 | 5 | clayey silt to silty clay |
| 43.307 | 8.15 | 0.0985 | 1.208 | 44.866 | 4 | 5 | clayey silt to silty clay |
| 43.471 | 7.95 | 0.0979 | 1.231 | 45.079 | 4 | 5 | clayey silt to silty clay |
| 43.635 | 7.38 | 0.1084 | 1.469 | 45.546 | 4 | 5 | clayey silt to silty clay |
| 43.799 | 7.25 | 0.1175 | 1.621 | 45.572 | 3 | 5 | clayey silt to silty clay |
| 43.963 | 7.83 | 0.1051 | 1.342 | 44.009 | 4 | 5 | clayey silt to silty clay |
| 44.127 | 7.94 | 0.0926 | 1.166 | 43.307 | 4 | 5 | clayey silt to silty clay |
| 44.291 | 7.80 | 0.0960 | 1.230 | 44.561 | 4 | 5 | clayey silt to silty clay |
| 44.455 | 7.31 | 0.0938 | 1.282 | 46.191 | 4 | 5 | clayey silt to silty clay |
| 44.619 | 8.09 | 0.0928 | 1.148 | 45.574 | 4 | 5 | clayey silt to silty clay |
| 44.783 | 7.74 | 0.0938 | 1.212 | 46.499 | 4 | 5 | clayey silt to silty clay |
| 44.948 | 7.72 | 0.0932 | 1.208 | 47.429 | 4 | 5 | clayey silt to silty clay |
| 45.112 | 7.93 | 0.0950 | 1.197 | 48.029 | 4 | 5 | clayey silt to silty clay |
| 45.276 | 7.62 | 0.0892 | 1.171 | 46.111 | 4 | 5 | clayey silt to silty clay |
| 45.440 | 7.54 | 0.0837 | 1.109 | 47.460 | 4 | 1 | sensitive fine grained |
| 45.604 | 7.61 | 0.0820 | 1.077 | 48.280 | 4 | 1 | sensitive fine grained |
| 45.768 | 8.28 | 0.0818 | 0.988 | 49.376 | 4 | 5 | clayey silt to silty clay |
| 45.932 | 7.81 | 0.0865 | 1.107 | 50.686 | 4 | 5 | clayey silt to silty clay |
| 46.096 | 7.73 | 0.0806 | 1.042 | 49.967 | 4 | 1 | sensitive fine grained |
| 46.260 | 6.87 | 0.0860 | 1.251 | 50.789 | 3 | 1 | sensitive fine grained |
| 46.424 | 7.73 | 0.0848 | 1.096 | 51.667 | 4 | 5 | clayey silt to silty clay |
| 46.588 | 7.34 | 0.0804 | 1.096 | 51.305 | 4 | 1 | sensitive fine grained |
| 46.752 | 7.82 | 0.0793 | 1.015 | 51.563 | 4 | 1 | sensitive fine grained |
| 46.916 | 7.64 | 0.0804 | 1.053 | 52.060 | 4 | 1 | sensitive fine grained |
| 47.080 | 7.18 | 0.0769 | 1.071 | 52.871 | 3 | 1 | sensitive fine grained |
| 47.244 | 8.27 | 0.0741 | 0.896 | 53.224 | 4 | 5 | clayey silt to silty clay |
| 47.408 | 8.16 | 0.0723 | 0.885 | 53.969 | 4 | 5 | clayey silt to silty clay |
| 47.572 | 7.72 | 0.0812 | 1.051 | 54.578 | 4 | 1 | sensitive fine grained |
| 47.736 | 7.91 | 0.0778 | 0.984 | 55.576 | 4 | 1 | sensitive fine grained |
| 47.900 | 8.16 | 0.0702 | 0.860 | 55.763 | 4 | 1 | sensitive fine grained |
| 48.064 | 7.63 | 0.0709 | 0.928 | 55.979 | 4 | 1 | sensitive fine grained |
| 48.228 | 7.72 | 0.0701 | 0.908 | 56.550 | 4 | 1 | sensitive fine grained |
| 48.392 | 7.92 | 0.0812 | 1.026 | 56.265 | 4 | 5 | clayey silt to silty clay |
| 48.556 | 7.31 | 0.0855 | 1.170 | 55.766 | 3 | 1 | sensitive fine grained |
| 48.720 | 7.67 | 0.0853 | 1.113 | 55.489 | 4 | 5 | clayey silt to silty clay |
| 48.885 | 7.51 | 0.0858 | 1.143 | 55.155 | 4 | 1 | sensitive fine grained |
| 49.049 | 7.47 | 0.0762 | 1.019 | 56.385 | 4 | 1 | sensitive fine grained |
| 49.213 | 7.54 | 0.0815 | 1.081 | 57.017 | 4 | 1 | sensitive fine grained |
| 49.377 | 7.65 | 0.0823 | 1.076 | 57.854 | 4 | 1 | sensitive fine grained |
| 49.541 | 7.83 | 0.0810 | 1.034 | 58.303 | 4 | 5 | clayey silt to silty clay |
| 49.705 | 7.81 | 0.0899 | 1.150 | 58.183 | 4 | 5 | clayey silt to silty clay |
| 49.869 | 7.69 | 0.0940 | 1.222 | 58.626 | 4 | 5 | clayey silt to silty clay |
| 50.033 | 7.67 | 0.0902 | 1.175 | 58.656 | 4 | 5 | clayey silt to silty clay |
| 50.197 | 7.75 | 0.0873 | 1.127 | 58.096 | 4 | 5 | clayey silt to silty clay |
| 50.361 | 7.65 | 0.0845 | 1.104 | 57.898 | 4 | 5 | clayey silt to silty clay |
| 50.525 | 7.48 | 0.0854 | 1.142 | 57.629 | 4 | 1 | sensitive fine grained |
| 50.689 | 7.54 | 0.0863 | 1.144 | 58.397 | 4 | 1 | sensitive fine grained |
| 50.853 | 7.53 | 0.0902 | 1.197 | 58.495 | 4 | 5 | clayey silt to silty clay |
| 51.017 | 7.93 | 0.0750 | 0.945 | 57.483 | 4 | 1 | sensitive fine grained |
| 51.181 | 7.78 | 0.0750 | 0.963 | 57.377 | 4 | 1 | sensitive fine grained |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 51.345 | 7.43 | 0.0922 | 1.242 | 58.857 | 4 | 5 | clayey silt to silty clay |
| 51.509 | 7.88 | 0.0976 | 1.238 | 58.955 | 4 | 5 | clayey silt to silty clay |
| 51.673 | 8.21 | 0.0926 | 1.127 | 57.233 | 4 | 5 | clayey silt to silty clay |
| 51.837 | 8.69 | 0.0934 | 1.075 | 57.246 | 4 | 5 | clayey silt to silty clay |
| 52.001 | 8.97 | 0.0756 | 0.843 | 58.547 | 4 | 5 | clayey silt to silty clay |
| 52.165 | 8.54 | 0.0762 | 0.893 | 59.325 | 4 | 5 | clayey silt to silty clay |
| 52.329 | 7.96 | 0.0911 | 1.145 | 60.446 | 4 | 5 | clayey silt to silty clay |
| 52.493 | 7.98 | 0.0777 | 0.973 | 60.982 | 4 | 5 | clayey silt to silty clay |
| 52.657 | 8.48 | 0.0946 | 1.115 | 56.618 | 4 | 5 | clayey silt to silty clay |
| 52.822 | 7.83 | 0.1261 | 1.610 | 59.073 | 4 | 5 | clayey silt to silty clay |
| 52.986 | 10.03 | 0.1333 | 1.328 | 55.445 | 5 | 5 | clayey silt to silty clay |
| 53.150 | 10.66 | 0.1246 | 1.169 | 50.832 | 5 | 5 | clayey silt to silty clay |
| 53.314 | 9.84 | 0.1161 | 1.181 | 51.892 | 5 | 5 | clayey silt to silty clay |
| 53.478 | 9.36 | 0.0921 | 0.983 | 54.939 | 4 | 5 | clayey silt to silty clay |
| 53.642 | 9.89 | 0.1304 | 1.318 | 55.465 | 5 | 5 | clayey silt to silty clay |
| 53.806 | 9.66 | 0.1355 | 1.402 | 57.161 | 5 | 5 | clayey silt to silty clay |
| 53.970 | 11.13 | 0.1030 | 0.925 | 46.490 | 4 | 6 | sandy silt to clayey silt |
| 54.134 | 9.74 | 0.0916 | 0.941 | 52.895 | 5 | 5 | clayey silt to silty clay |
| 54.298 | 9.25 | 0.1046 | 1.130 | 55.005 | 4 | 5 | clayey silt to silty clay |
| 54.462 | 9.70 | 0.0763 | 0.786 | 54.673 | 5 | 5 | clayey silt to silty clay |
| 54.626 | 8.85 | 0.1098 | 1.241 | 55.576 | 4 | 5 | clayey silt to silty clay |
| 54.790 | 8.98 | 0.1138 | 1.268 | 59.197 | 4 | 5 | clayey silt to silty clay |
| 54.954 | 11.33 | 0.1151 | 1.015 | 53.566 | 4 | 6 | sandy silt to clayey silt |
| 55.118 | 11.36 | 0.1375 | 1.211 | 50.614 | 5 | 5 | clayey silt to silty clay |
| 55.282 | 10.59 | 0.1097 | 1.036 | 53.488 | 5 | 5 | clayey silt to silty clay |
| 55.446 | 10.07 | 0.1336 | 1.327 | 55.436 | 5 | 5 | clayey silt to silty clay |
| 55.610 | 9.37 | 0.1170 | 1.249 | 60.204 | 4 | 5 | clayey silt to silty clay |
| 55.774 | 10.27 | 0.1283 | 1.249 | 55.580 | 5 | 5 | clayey silt to silty clay |
| 55.938 | 10.55 | 0.1560 | 1.479 | 57.575 | 5 | 5 | clayey silt to silty clay |
| 56.102 | 9.79 | 0.1651 | 1.686 | 58.009 | 5 | 5 | clayey silt to silty clay |
| 56.266 | 11.86 | 0.1444 | 1.217 | 54.006 | 6 | 5 | clayey silt to silty clay |
| 56.430 | 11.60 | 0.1192 | 1.028 | 55.672 | 4 | 6 | sandy silt to clayey silt |
| 56.594 | 10.56 | 0.1397 | 1.322 | 56.025 | 5 | 5 | clayey silt to silty clay |
| 56.759 | 9.85 | 0.1394 | 1.415 | 59.742 | 5 | 5 | clayey silt to silty clay |
| 56.923 | 9.63 | 0.1385 | 1.438 | 58.501 | 5 | 5 | clayey silt to silty clay |
| 57.087 | 9.60 | 0.1298 | 1.352 | 58.837 | 5 | 5 | clayey silt to silty clay |
| 57.415 | 9.77 | 0.1293 | 1.324 | 59.221 | 5 | 5 | clayey silt to silty clay |
| 57.907 | 10.23 | 0.1242 | 1.215 | 58.861 | 5 | 5 | clayey silt to silty clay |
| 58.071 | 10.20 | 0.1711 | 1.677 | 58.207 | 5 | 5 | clayey silt to silty clay |
| 58.235 | 13.20 | 0.2010 | 1.523 | 59.916 | 6 | 5 | clayey silt to silty clay |
| 58.399 | 13.64 | 0.2016 | 1.478 | 47.756 | 7 | 5 | clayey silt to silty clay |
| 58.563 | 11.89 | 0.1997 | 1.680 | 50.385 | 6 | 5 | clayey silt to silty clay |
| 58.727 | 11.95 | 0.2029 | 1.698 | 51.358 | 6 | 5 | clayey silt to silty clay |
| 58.891 | 9.78 | 0.1740 | 1.778 | 51.124 | 5 | 5 | clayey silt to silty clay |
| 59.055 | 21.48 | 0.2011 | 0.936 | 44.465 | 8 | 6 | sandy silt to clayey silt |
| 59.219 | 17.71 | 0.2010 | 1.135 | 40.624 | 7 | 6 | sandy silt to clayey silt |
| 59.383 | 12.64 | 0.1952 | 1.544 | 47.290 | 6 | 5 | clayey silt to silty clay |
| 59.547 | 12.01 | 0.1086 | 0.905 | 51.957 | 5 | 6 | sandy silt to clayey silt |
| 59.711 | 12.20 | 0.1062 | 0.871 | 56.143 | 5 | 6 | sandy silt to clayey silt |
| 59.875 | 9.89 | 0.1035 | 1.046 | 64.226 | 5 | 5 | clayey silt to silty clay |
| 60.039 | 10.48 | 0.1038 | 0.990 | 67.692 | 5 | 5 | clayey silt to silty clay |
| 60.203 | 9.77 | 0.1032 | 1.056 | 71.531 | 5 | 5 | clayey silt to silty clay |
| 60.367 | 9.84 | 0.1047 | 1.065 | 71.649 | 5 | 5 | clayey silt to silty clay |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 60.532 | 10.14 | 0.1200 | 1.184 | 74.463 | 5 | 5 | clayey silt to silty clay |
| 60.696 | 10.53 | 0.1062 | 1.008 | 74.212 | 5 | 5 | clayey silt to silty clay |
| 60.860 | 10.16 | 0.1127 | 1.110 | 72.567 | 5 | 5 | clayey silt to silty clay |
| 61.024 | 10.46 | 0.1186 | 1.134 | 76.482 | 5 | 5 | clayey silt to silty clay |
| 61.188 | 11.39 | 0.1405 | 1.234 | 76.796 | 5 | 5 | clayey silt to silty clay |
| 61.352 | 10.47 | 0.1190 | 1.136 | 74.365 | 5 | 5 | clayey silt to silty clay |
| 61.516 | 10.56 | 0.2115 | 2.004 | 72.076 | 5 | 5 | clayey silt to silty clay |
| 61.680 | 18.77 | 0.3244 | 1.728 | 65.100 | 7 | 6 | sandy silt to clayey silt |
| 61.844 | 38.41 | 0.2210 | 0.575 | 36.673 | 12 | 7 | silty sand to sandy silt |
| 62.008 | 46.77 | 0.3374 | 0.721 | 20.380 | 15 | 7 | silty sand to sandy silt |
| 62.172 | 56.40 | 0.5084 | 0.901 | 21.268 | 18 | 7 | silty sand to sandy silt |
| 62.336 | 61.24 | 0.6728 | 1.099 | 22.332 | 20 | 7 | silty sand to sandy silt |
| 62.500 | 88.46 | 0.5083 | 0.575 | 23.777 | 21 | 8 | sand to silty sand |
| 62.664 | 111.26 | 0.5415 | 0.487 | 11.035 | 21 | 9 | sand |
| 62.828 | 113.32 | 0.6195 | 0.547 | 11.992 | 22 | 9 | sand |
| 62.992 | 122.56 | 0.6668 | 0.544 | 14.200 | 23 | 9 | sand |
| 63.156 | 140.19 | 0.7339 | 0.523 | 17.257 | 27 | 9 | sand |
| 63.320 | 134.85 | 0.7559 | 0.561 | 18.850 | 26 | 9 | sand |
| 63.484 | 139.89 | 0.7822 | 0.559 | 20.356 | 27 | 9 | sand |
| 63.648 | 149.67 | 0.7863 | 0.525 | 21.303 | 29 | 9 | sand |
| 63.812 | 162.77 | 0.8328 | 0.512 | 22.109 | 31 | 9 | sand |
| 63.976 | 173.64 | 0.9007 | 0.519 | 22.809 | 33 | 9 | sand |
| 64.140 | 175.37 | 0.9297 | 0.530 | 23.044 | 34 | 9 | sand |
| 64.304 | 171.45 | 0.8937 | 0.521 | 22.791 | 33 | 9 | sand |
| 64.469 | 168.35 | 0.8682 | 0.516 | 23.097 | 32 | 9 | sand |
| 64.633 | 172.42 | 0.6941 | 0.403 | 23.105 | 33 | 9 | sand |
| 64.797 | 174.95 | 0.7541 | 0.431 | 23.254 | 34 | 9 | sand |
| 64.961 | 166.67 | 0.7841 | 0.470 | 23.520 | 32 | 9 | sand |
| 65.125 | 154.68 | 0.8246 | 0.533 | 23.452 | 30 | 9 | sand |
| 65.289 | 144.40 | 0.7817 | 0.541 | 23.145 | 28 | 9 | sand |
| 65.453 | 137.03 | 0.7417 | 0.541 | 22.979 | 26 | 9 | sand |
| 65.617 | 142.11 | 0.7521 | 0.529 | 23.308 | 27 | 9 | sand |
| 65.781 | 147.25 | 0.7482 | 0.508 | 23.539 | 28 | 9 | sand |
| 65.945 | 141.10 | 0.7212 | 0.511 | 23.245 | 27 | 9 | sand |
| 66.109 | 137.80 | 0.7117 | 0.517 | 23.234 | 26 | 9 | sand |
| 66.273 | 136.78 | 0.7175 | 0.525 | 23.709 | 26 | 9 | sand |
| 66.437 | 147.59 | 0.7425 | 0.503 | 23.803 | 28 | 9 | sand |
| 66.601 | 146.39 | 0.7279 | 0.497 | 23.740 | 28 | 9 | sand |
| 66.765 | 135.26 | 0.6996 | 0.517 | 23.698 | 26 | 9 | sand |
| 66.929 | 138.54 | 0.6867 | 0.496 | 23.731 | 27 | 9 | sand |
| 67.093 | 138.08 | 0.6716 | 0.486 | 23.786 | 26 | 9 | sand |
| 67.257 | 133.98 | 0.6755 | 0.504 | 23.768 | 26 | 9 | sand |
| 67.421 | 129.46 | 0.6821 | 0.527 | 23.792 | 25 | 9 | sand |
| 67.585 | 116.29 | 0.6575 | 0.565 | 23.683 | 22 | 9 | sand |
| 67.749 | 117.25 | 0.4770 | 0.407 | 23.748 | 22 | 9 | sand |
| 67.913 | 130.33 | 0.5013 | 0.385 | 24.464 | 25 | 9 | sand |
| 68.077 | 134.74 | 0.5187 | 0.385 | 24.089 | 26 | 9 | sand |
| 68.241 | 140.83 | 0.5627 | 0.400 | 24.352 | 27 | 9 | sand |
| 68.406 | 140.61 | 0.5820 | 0.414 | 24.311 | 27 | 9 | sand |
| 68.570 | 136.44 | 0.6156 | 0.451 | 24.339 | 26 | 9 | sand |
| 68.734 | 136.04 | 0.6164 | 0.453 | 24.213 | 26 | 9 | sand |
| 68.898 | 134.64 | 0.6246 | 0.464 | 24.383 | 26 | 9 | sand |
| 69.062 | 139.83 | 0.6423 | 0.459 | 24.346 | 27 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|-----------------------------------|
| 69.226 | 128.28 | 0.5787 | 0.451 | 24.392 | 25 | 9 | sand |
| 69.390 | 119.12 | 0.5663 | 0.475 | 24.217 | 23 | 9 | sand |
| 69.554 | 119.07 | 0.5683 | 0.477 | 24.422 | 23 | 9 | sand |
| 69.718 | 110.91 | 0.5712 | 0.515 | 24.535 | 21 | 9 | sand |
| 69.882 | 109.37 | 0.5654 | 0.517 | 24.568 | 21 | 9 | sand |
| 70.046 | 114.15 | 0.5659 | 0.496 | 24.834 | 22 | 9 | sand |
| 70.210 | 118.74 | 0.5549 | 0.467 | 24.950 | 23 | 9 | sand |
| 70.374 | 115.49 | 0.5593 | 0.484 | 24.987 | 22 | 9 | sand |
| 70.538 | 116.27 | 0.5460 | 0.470 | 24.904 | 22 | 9 | sand |
| 70.702 | 99.14 | 0.5180 | 0.523 | 24.950 | 24 | 8 | sand to silty sand |
| 70.866 | 81.73 | 0.5160 | 0.631 | 24.664 | 20 | 8 | sand to silty sand |
| 71.030 | 78.16 | 0.3358 | 0.430 | 24.745 | 19 | 8 | sand to silty sand |
| 71.194 | 83.84 | 0.3337 | 0.398 | 25.009 | 20 | 8 | sand to silty sand |
| 71.358 | 100.30 | 0.3332 | 0.332 | 25.787 | 19 | 9 | sand |
| 71.522 | 108.60 | 0.3299 | 0.304 | 25.909 | 21 | 9 | sand |
| 71.686 | 110.88 | 0.4570 | 0.412 | 25.939 | 21 | 9 | sand |
| 71.850 | 117.43 | 0.5047 | 0.430 | 26.077 | 22 | 9 | sand |
| 72.014 | 114.37 | 0.4772 | 0.417 | 25.880 | 22 | 9 | sand |
| 72.178 | 108.11 | 0.4703 | 0.435 | 25.610 | 21 | 9 | sand |
| 72.343 | 109.02 | 0.4661 | 0.427 | 25.846 | 21 | 9 | sand |
| 72.507 | 97.93 | 0.4585 | 0.468 | 25.966 | 23 | 8 | sand to silty sand |
| 72.671 | 88.09 | 0.4402 | 0.500 | 25.702 | 21 | 8 | sand to silty sand |
| 72.835 | 92.17 | 0.4383 | 0.476 | 25.867 | 22 | 8 | sand to silty sand |
| 72.999 | 100.36 | 0.4548 | 0.453 | 26.288 | 24 | 8 | sand to silty sand |
| 73.163 | 92.21 | 0.4625 | 0.502 | 26.288 | 22 | 8 | sand to silty sand |
| 73.327 | 94.10 | 0.4457 | 0.474 | 26.262 | 23 | 8 | sand to silty sand |
| 73.491 | 108.52 | 0.4632 | 0.427 | 26.628 | 21 | 9 | sand |
| 73.655 | 105.23 | 0.4748 | 0.451 | 26.805 | 20 | 9 | sand |
| 73.819 | 100.83 | 0.4833 | 0.479 | 26.676 | 24 | 8 | sand to silty sand |
| 73.983 | 102.24 | 0.4848 | 0.474 | 26.639 | 24 | 8 | sand to silty sand |
| 74.147 | 98.30 | 0.4891 | 0.498 | 26.646 | 24 | 8 | sand to silty sand |
| 74.311 | 98.00 | 0.4749 | 0.485 | 26.652 | 23 | 8 | sand to silty sand |
| 74.475 | 90.91 | 0.4601 | 0.506 | 26.633 | 22 | 8 | sand to silty sand |
| 74.639 | 84.88 | 0.3818 | 0.450 | 26.548 | 20 | 8 | sand to silty sand |
| 74.803 | 81.42 | 0.3688 | 0.453 | 26.567 | 19 | 8 | sand to silty sand |
| 74.967 | 75.81 | 0.3553 | 0.469 | 27.021 | 18 | 8 | sand to silty sand |
| 75.131 | 74.91 | 0.3524 | 0.470 | 27.167 | 18 | 8 | sand to silty sand |
| 75.295 | 73.34 | 0.3527 | 0.481 | 27.284 | 18 | 8 | sand to silty sand |
| 75.459 | 72.80 | 0.3535 | 0.486 | 27.529 | 17 | 8 | sand to silty sand |
| 75.623 | 73.29 | 0.3541 | 0.483 | 27.568 | 18 | 8 | sand to silty sand |
| 75.787 | 73.94 | 0.3589 | 0.485 | 27.703 | 18 | 8 | sand to silty sand |
| 75.951 | 77.87 | 0.3669 | 0.471 | 27.949 | 19 | 8 | sand to silty sand |
| 76.115 | 81.47 | 0.3835 | 0.471 | 28.159 | 20 | 8 | sand to silty sand |
| 76.280 | 86.35 | 0.4072 | 0.472 | 28.252 | 21 | 8 | sand to silty sand |
| 76.444 | 102.44 | 0.4301 | 0.420 | 28.547 | 20 | 9 | sand |
| 76.608 | 119.50 | 0.4640 | 0.388 | 28.762 | 23 | 9 | sand |
| 76.772 | 143.71 | 0.6132 | 0.427 | 28.858 | 28 | 9 | sand |
| 76.936 | 197.24 | 0.9025 | 0.458 | 29.288 | 38 | 9 | sand |
| 77.100 | 238.92 | 1.2396 | 0.519 | 29.794 | 46 | 9 | sand |
| 77.264 | 254.20 | 1.4595 | 0.574 | 29.702 | 49 | 9 | sand |
| 77.428 | 255.96 | 1.6202 | 0.633 | 28.289 | 49 | 9 | sand |
| 77.592 | 255.38 | 1.7016 | 0.666 | 27.840 | 49 | 9 | sand |
| 77.756 | 252.32 | 1.6504 | 0.654 | 27.252 | 48 | 9 | sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type | Soil Behavior Type | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|-----------------------|-----------------------|--------------------|
| 77.920 | 246.12 | 1.6089 | 0.654 | 27.317 | 47 | 9 | | | sand |
| 78.084 | 243.61 | 1.5564 | 0.639 | 38.071 | 47 | 9 | | | sand |
| 78.248 | 240.65 | 1.6377 | 0.681 | 27.337 | 46 | 9 | | | sand |
| 78.412 | 234.90 | 1.5747 | 0.670 | 27.184 | 45 | 9 | | | sand |
| 78.576 | 210.76 | 1.4766 | 0.701 | 26.391 | 40 | 9 | | | sand |
| 78.740 | 201.60 | 1.4379 | 0.713 | 26.532 | 39 | 9 | | | sand |
| 78.904 | 196.93 | 1.4037 | 0.713 | 26.696 | 38 | 9 | | | sand |
| 79.068 | 197.50 | 1.4054 | 0.712 | 27.162 | 38 | 9 | | | sand |
| 79.232 | 198.00 | 1.3952 | 0.705 | 27.494 | 38 | 9 | | | sand |
| 79.396 | 202.44 | 1.4045 | 0.694 | 27.705 | 39 | 9 | | | sand |
| 79.560 | 203.74 | 1.4144 | 0.694 | 27.686 | 39 | 9 | | | sand |
| 79.724 | 208.22 | 1.4428 | 0.693 | 27.648 | 40 | 9 | | | sand |
| 79.888 | 218.08 | 1.4695 | 0.674 | 28.623 | 42 | 9 | | | sand |
| 80.052 | 219.38 | 1.4523 | 0.662 | 28.224 | 42 | 9 | | | sand |
| 80.217 | 222.83 | 1.4343 | 0.644 | 28.174 | 43 | 9 | | | sand |
| 80.381 | 227.31 | 1.4463 | 0.636 | 27.413 | 44 | 9 | | | sand |
| 80.545 | 227.92 | 1.4856 | 0.652 | 27.801 | 44 | 9 | | | sand |
| 80.709 | 214.86 | 1.4614 | 0.680 | 27.352 | 41 | 9 | | | sand |
| 80.873 | 194.31 | 1.4023 | 0.722 | 27.097 | 37 | 9 | | | sand |
| 81.037 | 174.44 | 1.3592 | 0.779 | 26.465 | 33 | 9 | | | sand |
| 81.201 | 160.18 | 0.8523 | 0.532 | 26.591 | 31 | 9 | | | sand |
| 81.365 | 152.11 | 0.7745 | 0.509 | 26.155 | 29 | 9 | | | sand |
| 81.529 | 130.58 | 0.7503 | 0.575 | 26.674 | 25 | 9 | | | sand |
| 81.693 | 120.46 | 0.7188 | 0.597 | 26.718 | 23 | 9 | | | sand |
| 81.857 | 110.73 | 0.6683 | 0.604 | 26.912 | 27 | 8 | | | sand to silty sand |
| 82.021 | 97.12 | 0.6133 | 0.631 | 27.108 | 23 | 8 | | | sand to silty sand |
| 82.185 | 87.35 | 0.5661 | 0.648 | 27.171 | 21 | 8 | | | sand to silty sand |
| 82.349 | 79.63 | 0.5516 | 0.693 | 27.446 | 19 | 8 | | | sand to silty sand |
| 82.513 | 73.67 | 0.5369 | 0.729 | 27.686 | 18 | 8 | | | sand to silty sand |
| 82.677 | 71.77 | 0.5274 | 0.735 | 28.052 | 17 | 8 | | | sand to silty sand |
| 82.841 | 71.33 | 0.5254 | 0.737 | 28.427 | 17 | 8 | | | sand to silty sand |
| 83.005 | 71.68 | 0.5237 | 0.731 | 28.791 | 17 | 8 | | | sand to silty sand |
| 83.169 | 73.55 | 0.5209 | 0.708 | 29.079 | 18 | 8 | | | sand to silty sand |
| 83.333 | 73.69 | 0.5130 | 0.696 | 29.438 | 18 | 8 | | | sand to silty sand |
| 83.497 | 74.67 | 0.5134 | 0.688 | 29.615 | 18 | 8 | | | sand to silty sand |
| 83.661 | 79.29 | 0.5118 | 0.645 | 29.774 | 19 | 8 | | | sand to silty sand |
| 83.825 | 82.98 | 0.5202 | 0.627 | 30.216 | 20 | 8 | | | sand to silty sand |
| 83.990 | 86.27 | 0.5277 | 0.612 | 30.267 | 21 | 8 | | | sand to silty sand |
| 84.154 | 87.65 | 0.5296 | 0.604 | 30.408 | 21 | 8 | | | sand to silty sand |
| 84.318 | 90.93 | 0.2336 | 0.257 | 30.280 | 17 | 9 | | | sand |
| 84.482 | 94.30 | 0.2753 | 0.292 | 30.648 | 18 | 9 | | | sand |
| 84.646 | 93.08 | 0.3338 | 0.359 | 30.982 | 22 | 8 | | | sand to silty sand |
| 84.810 | 98.60 | 0.4020 | 0.408 | 31.324 | 19 | 9 | | | sand |
| 84.974 | 105.12 | 0.4205 | 0.400 | 31.224 | 20 | 9 | | | sand |
| 85.138 | 110.76 | 0.4238 | 0.383 | 31.145 | 21 | 9 | | | sand |
| 85.302 | 91.47 | 0.4088 | 0.447 | 30.975 | 22 | 8 | | | sand to silty sand |
| 85.466 | 78.67 | 0.3821 | 0.486 | 30.668 | 19 | 8 | | | sand to silty sand |
| 85.630 | 73.15 | 0.3723 | 0.509 | 30.657 | 18 | 8 | | | sand to silty sand |
| 85.794 | 72.83 | 0.3722 | 0.511 | 31.034 | 17 | 8 | | | sand to silty sand |
| 85.958 | 72.42 | 0.3681 | 0.508 | 31.272 | 17 | 8 | | | sand to silty sand |
| 86.122 | 70.90 | 0.3704 | 0.522 | 31.529 | 17 | 8 | | | sand to silty sand |
| 86.286 | 71.61 | 0.3710 | 0.518 | 31.751 | 17 | 8 | | | sand to silty sand |
| 86.450 | 71.99 | 0.3758 | 0.522 | 31.723 | 17 | 8 | | | sand to silty sand |

| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior UBC-1983 | Type |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|---------------------------|------|
| 86.614 | 73.09 | 0.3725 | 0.510 | 31.956 | 17 | 8 | sand to silty sand | |
| 86.778 | 73.76 | 0.3701 | 0.502 | 31.952 | 18 | 8 | sand to silty sand | |
| 86.942 | 73.40 | 0.3746 | 0.510 | 32.113 | 18 | 8 | sand to silty sand | |
| 87.106 | 74.48 | 0.3707 | 0.498 | 32.146 | 18 | 8 | sand to silty sand | |
| 87.270 | 73.82 | 0.3739 | 0.507 | 32.233 | 18 | 8 | sand to silty sand | |
| 87.434 | 73.27 | 0.3456 | 0.472 | 32.412 | 18 | 8 | sand to silty sand | |
| 87.598 | 75.14 | 0.3326 | 0.443 | 32.521 | 18 | 8 | sand to silty sand | |
| 87.762 | 74.91 | 0.3404 | 0.454 | 32.536 | 18 | 8 | sand to silty sand | |
| 87.927 | 75.79 | 0.3412 | 0.450 | 32.808 | 18 | 8 | sand to silty sand | |
| 88.091 | 76.55 | 0.3393 | 0.443 | 32.769 | 18 | 8 | sand to silty sand | |
| 88.255 | 78.37 | 0.3475 | 0.443 | 32.878 | 19 | 8 | sand to silty sand | |
| 88.419 | 80.99 | 0.3663 | 0.452 | 33.140 | 19 | 8 | sand to silty sand | |
| 88.583 | 83.83 | 0.3676 | 0.438 | 33.162 | 20 | 8 | sand to silty sand | |
| 88.747 | 88.71 | 0.3812 | 0.430 | 33.236 | 21 | 8 | sand to silty sand | |
| 88.911 | 102.84 | 0.4214 | 0.410 | 33.539 | 20 | 9 | sand | |
| 89.075 | 108.02 | 0.4373 | 0.405 | 33.709 | 21 | 9 | sand | |
| 89.239 | 106.62 | 0.4530 | 0.425 | 33.632 | 20 | 9 | sand | |
| 89.403 | 104.89 | 0.4500 | 0.429 | 33.484 | 20 | 9 | sand | |
| 89.567 | 100.38 | 0.4484 | 0.447 | 33.460 | 19 | 9 | sand | |
| 89.731 | 96.73 | 0.4526 | 0.468 | 33.521 | 23 | 8 | sand to silty sand | |
| 89.895 | 103.36 | 0.4642 | 0.449 | 33.800 | 20 | 9 | sand | |
| 90.059 | 119.09 | 0.5066 | 0.425 | 33.979 | 23 | 9 | sand | |
| 90.223 | 118.18 | 0.5161 | 0.437 | 34.262 | 23 | 9 | sand | |
| 90.387 | 107.06 | 0.5197 | 0.485 | 33.615 | 21 | 9 | sand | |
| 90.551 | 104.46 | 0.5221 | 0.500 | 33.822 | 25 | 8 | sand to silty sand | |
| 90.715 | 115.79 | 0.5209 | 0.450 | 34.164 | 22 | 9 | sand | |
| 90.879 | 136.26 | 0.5729 | 0.420 | 34.548 | 26 | 9 | sand | |
| 91.043 | 138.18 | 0.5827 | 0.422 | 34.757 | 26 | 9 | sand | |
| 91.207 | 142.83 | 0.6228 | 0.436 | 33.979 | 27 | 9 | sand | |
| 91.371 | 145.30 | 0.6612 | 0.455 | 34.182 | 28 | 9 | sand | |
| 91.535 | 149.77 | 0.7763 | 0.518 | 34.121 | 29 | 9 | sand | |
| 91.699 | 159.02 | 0.8222 | 0.517 | 34.271 | 30 | 9 | sand | |
| 91.864 | 157.16 | 0.8669 | 0.552 | 34.550 | 30 | 9 | sand | |
| 92.028 | 156.75 | 0.8643 | 0.551 | 33.979 | 30 | 9 | sand | |
| 92.192 | 149.10 | 0.8387 | 0.563 | 34.112 | 29 | 9 | sand | |
| 92.356 | 159.42 | 0.8707 | 0.546 | 33.953 | 31 | 9 | sand | |
| 92.520 | 157.64 | 0.8232 | 0.522 | 34.579 | 30 | 9 | sand | |
| 92.684 | 138.42 | 0.7602 | 0.549 | 34.042 | 27 | 9 | sand | |
| 92.848 | 116.40 | 0.7231 | 0.621 | 33.558 | 22 | 9 | sand | |
| 93.012 | 119.55 | 0.7158 | 0.599 | 33.787 | 23 | 9 | sand | |
| 93.176 | 125.64 | 0.7281 | 0.579 | 34.308 | 24 | 9 | sand | |
| 93.340 | 123.12 | 0.7192 | 0.584 | 34.310 | 24 | 9 | sand | |
| 93.504 | 125.53 | 0.7245 | 0.577 | 34.640 | 24 | 9 | sand | |
| 93.668 | 120.76 | 0.7329 | 0.607 | 34.862 | 23 | 9 | sand | |
| 93.832 | 111.60 | 0.7177 | 0.643 | 34.718 | 27 | 8 | sand to silty sand | |
| 93.996 | 103.06 | 0.6879 | 0.668 | 34.509 | 25 | 8 | sand to silty sand | |
| 94.160 | 95.60 | 0.4621 | 0.483 | 34.345 | 23 | 8 | sand to silty sand | |
| 94.324 | 99.08 | 0.4344 | 0.438 | 34.478 | 24 | 8 | sand to silty sand | |
| 94.488 | 111.86 | 0.4976 | 0.445 | 35.289 | 21 | 9 | sand | |
| 94.652 | 128.16 | 0.6013 | 0.469 | 36.558 | 25 | 9 | sand | |
| 94.816 | 128.38 | 0.7003 | 0.545 | 35.963 | 25 | 9 | sand | |
| 94.980 | 128.13 | 0.7538 | 0.588 | 36.054 | 25 | 9 | sand | |
| 95.144 | 128.20 | 0.7607 | 0.593 | 35.267 | 25 | 9 | sand | |

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| Depth ft | Tip COR (tsf) | Sleeve Stress (tsf) | F.Ratio (%) | Pore Pressure (psi) | SPT N60 (UNITLESS) | Zone | Soil Behavior Type UBC-1983 |
|-------------|------------------|------------------------|----------------|------------------------|-----------------------|------|--------------------------------|
| 95.308 | 135.90 | 0.8094 | 0.596 | 35.958 | 26 | 9 | sand |
| 95.472 | 135.89 | 0.8247 | 0.607 | 35.372 | 26 | 9 | sand |
| 95.636 | 133.13 | 0.7810 | 0.587 | 35.688 | 25 | 9 | sand |
| 95.801 | 126.69 | 0.7431 | 0.587 | 35.304 | 24 | 9 | sand |
| 95.965 | 116.12 | 0.6994 | 0.602 | 34.683 | 22 | 9 | sand |
| 96.129 | 111.54 | 0.6776 | 0.607 | 34.962 | 27 | 8 | sand to silty sand |
| 96.293 | 106.62 | 0.6511 | 0.611 | 34.903 | 26 | 8 | sand to silty sand |
| 96.457 | 102.87 | 0.6560 | 0.638 | 35.431 | 25 | 8 | sand to silty sand |
| 96.621 | 102.13 | 0.6608 | 0.647 | 35.930 | 24 | 8 | sand to silty sand |
| 96.785 | 102.51 | 0.6821 | 0.665 | 36.222 | 25 | 8 | sand to silty sand |
| 96.949 | 106.24 | 0.6979 | 0.657 | 36.220 | 25 | 8 | sand to silty sand |
| 97.113 | 114.59 | 0.7336 | 0.640 | 36.735 | 27 | 8 | sand to silty sand |
| 97.277 | 128.06 | 0.6608 | 0.516 | 36.780 | 25 | 9 | sand |
| 97.441 | 139.66 | 0.7016 | 0.502 | 37.194 | 27 | 9 | sand |
| 97.605 | 138.87 | 0.7462 | 0.537 | 36.414 | 27 | 9 | sand |
| 97.769 | 142.01 | 0.7676 | 0.541 | 36.135 | 27 | 9 | sand |
| 97.933 | 142.33 | 0.7821 | 0.549 | 35.945 | 27 | 9 | sand |
| 98.097 | 135.47 | 0.7924 | 0.585 | 36.264 | 26 | 9 | sand |
| 98.261 | 126.85 | 0.7628 | 0.601 | 36.416 | 24 | 9 | sand |
| 98.425 | 128.60 | 0.7678 | 0.597 | 36.305 | 25 | 9 | sand |
| 98.589 | 132.66 | 0.7682 | 0.579 | 36.386 | 25 | 9 | sand |
| 98.753 | 134.05 | 0.7623 | 0.569 | 36.920 | 26 | 9 | sand |
| 98.917 | 129.80 | 0.7227 | 0.557 | 36.933 | 25 | 9 | sand |
| 99.081 | 140.37 | 0.7518 | 0.536 | 37.138 | 27 | 9 | sand |
| 99.245 | 136.60 | 0.7639 | 0.559 | 36.994 | 26 | 9 | sand |
| 99.409 | 121.29 | 0.7265 | 0.599 | 36.702 | 23 | 9 | sand |
| 99.573 | 112.38 | 0.6755 | 0.601 | 36.693 | 27 | 8 | sand to silty sand |
| 99.738 | 108.75 | 0.6516 | 0.599 | 36.835 | 26 | 8 | sand to silty sand |
| 99.902 | 129.69 | 0.6959 | 0.537 | 37.689 | 25 | 9 | sand |
| 100.066 | 150.23 | 0.7508 | 0.500 | 37.840 | 29 | 9 | sand |
| 100.230 | 146.81 | 0.7484 | 0.510 | 38.032 | 28 | 9 | sand |
| 100.394 | 132.91 | 0.7153 | 0.538 | 37.447 | 25 | 9 | sand |
| 100.558 | 113.61 | 0.7102 | 0.625 | 36.913 | 27 | 8 | sand to silty sand |
| 100.722 | 106.95 | 0.7102 | 0.664 | 36.870 | 26 | 8 | sand to silty sand |



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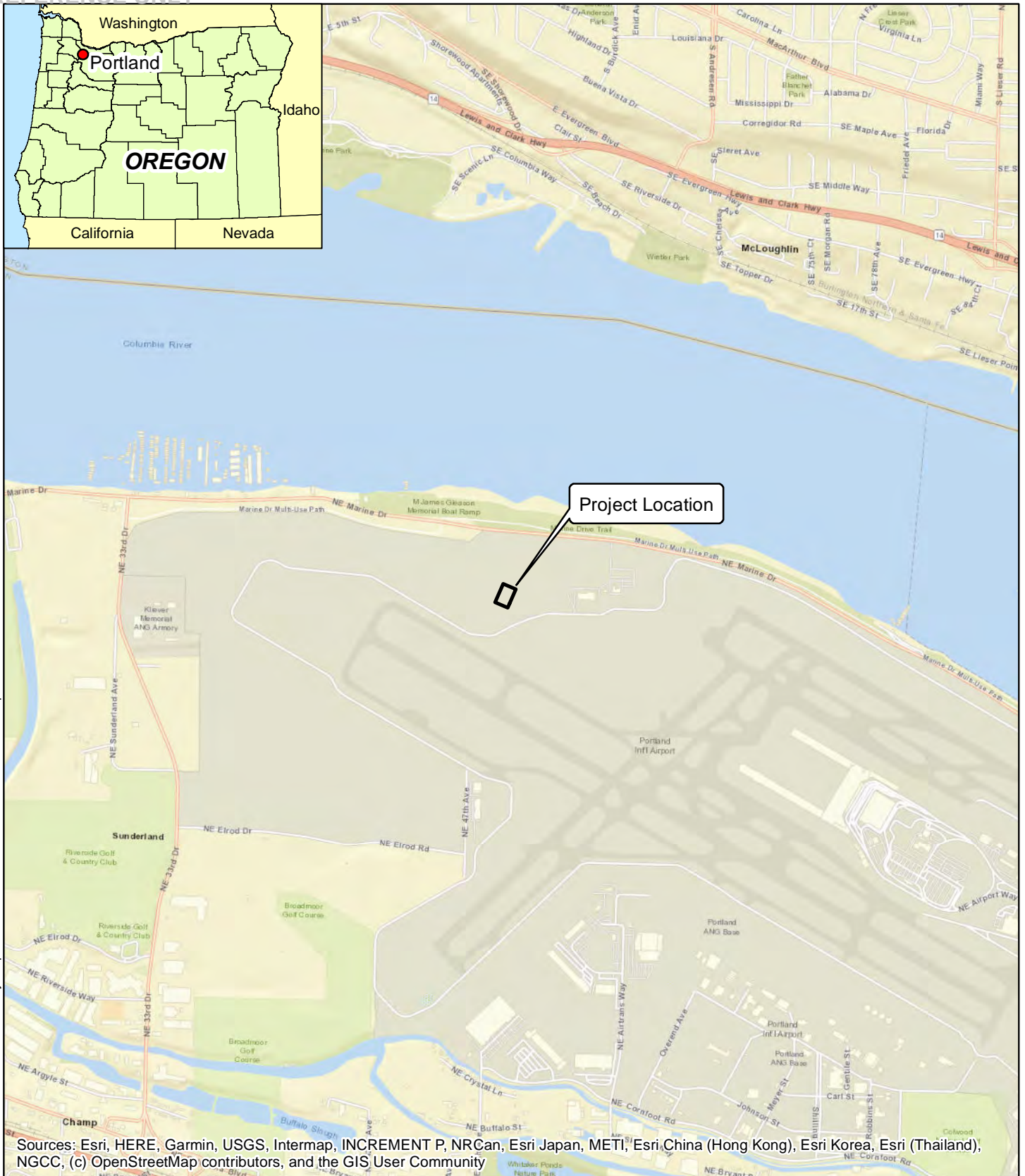
PDX Fuel Facility Improvements Portland, Oregon

Prepared for
Burns & McDonnell

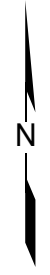
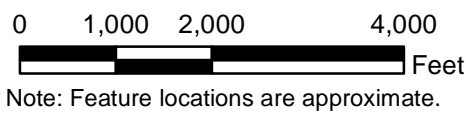
August 17, 2020
154-118-001



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PDX Fueling Facility Improvements
Portland, Oregon

Vicinity Map

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Figure

1

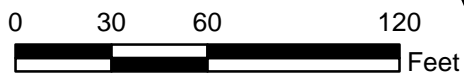
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Source: Aerial photograph provided by Hexagon Imagery Program Data.

Legend

- Boring
- ⊙ Cone Penetrometer Test



Note: Feature locations are approximate.

PDX Fueling Facility Improvements
Portland, Oregon

Site Plan

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Figure

2

APPENDIX A Field Explorations

APPENDIX A

Field Explorations

General

This appendix documents the processes Hart Crowser used to determine the nature and quality of the soil and groundwater underlying the project site. We evaluated subsurface conditions at the site by advancing three CPT soundings and one geotechnical boring. The explorations were coordinated and overseen by geotechnical staff from Hart Crowser. A log of the geotechnical boring is included in this appendix. Data reports for the CPT soundings are included after the boring log.

The field explorations were coordinated by a geologist on our staff, who classified the various soil units encountered, obtained representative soil samples for geotechnical testing, and maintained a detailed log of the boring.

The exploration log within this appendix shows our interpretation of the drilling, sampling, and testing data. It indicates the depth where the soils change. Note that the change may be gradual. In the field, we classified the samples taken from the exploration according to the methods presented on Figure A-1 *Key to Exploration Logs* in this appendix. The key also provides a legend explaining the symbols and abbreviations used in the logs.

The approximate locations of the explorations are shown on Figure 2 of the report. Explorations were located in the field using a hand-held Garmin Trimble GPS unit.

Boring

We evaluated subsurface conditions at the site by completing one drilled boring on June 27, 2019. The boring was advanced using hollow stem auger methods in the top 16.5 feet bgs to observe groundwater levels and then mud rotary to depth using a truck-mounted drill rig operated by Western States Soil Conservation. The mud-rotary boring created a hole approximately 4 inches in diameter. The hole was backfilled with hydrated bentonite chips topped with site soils, which had been reserved during drilling. Figure 2 of the report shows the approximate location of the boring.

Soil Sampling Procedures

Materials encountered in the boring were classified in the field in general accordance with ASTM Test Method D 2488 "Standard Practice for the Classification of Soils (Visual Manual Procedure)." Soil classifications and sampling intervals are shown on the exploration logs included in this appendix.

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Soil samples were obtained from the boring using the following methods.

- Samples were obtained from the boring using 1-1/2-inch inner-diameter split-spoon sampler (SPT sampler) in general accordance with guidelines presented in ASTM D 1586. The split-barrel sampler was driven into the soil with a 140-pound hammer free falling 30 inches. The sampler was driven a total distance of 18 inches or until refusal criteria was met (greater than 50 blows per 6 inches). The number of blows required to drive the samplers the final 12 inches (the N-value) is recorded on the exploration log, unless otherwise noted. All soil samples were placed into watertight bags and delivered to Hart Crowser's laboratory.
- Relatively undisturbed samples were collected at selected depths using thin-walled sampling methods, such as Shelby tubes.

CPT Soundings

Three CPT soundings were advanced on July 9, 2019, by Conetec Investigations of Auburn, Washington. They were completed in general accordance with ASTM D 5778 using a seismic electronic cone penetrometer. The CPT soundings are an *in situ* test that provides assistance in characterizing subsurface stratigraphy. The test includes advancing a 35.6-mm-diameter cone equipped with a load cell, friction sleeve, strain gages, porous stone, and geophone through the soil profile. The cone is advanced at a rate of approximately 2 centimeters per second. Tip resistance, sleeve friction, and pore pressure are typically recorded at 0.1-meter intervals. For seismic shear wave testing, the cone penetration is stopped at prescribed depth intervals (typically every 1 to 2 meters), and seismic profile readings are obtained at intervals of 5 seconds. Figure 2 of the report shows the approximate locations of the soundings. The logs of the CPT soundings are presented in this appendix.

KEY TO EXP LOGS (SOIL ONLY) - F:\GINT\HC_LIBRARY_GLB - 7/11/19 16:47 - F:\NOTEBOOKS\154118001_PDX_FUEL_FACILITY_IMPROVEMENTS\FIELD DATA\PERM_GINT_FILES\154118001_EXPLORATIONS.GPJ - melissaschwitzer

Sample Description

Identification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field nor laboratory testing unless presented herein. ASTM D 2488 visual-manual identification methods were used as a guide. Where laboratory testing confirmed visual-manual identifications, then ASTM D 2487 was used to classify the soils.

Relative Density/Consistency

Soil density/consistency in borings is related primarily to the standard penetration resistance (N). Soil density/consistency in test pits and probes is estimated based on visual observation and is presented parenthetically on the logs.

| SAND or GRAVEL Relative Density | N (Blows/Foot) | SILT or CLAY Consistency | N (Blows/Foot) |
|------------------------------------|-------------------|-----------------------------|-------------------|
| Very loose | 0 to 4 | Very soft | 0 to 1 |
| Loose | 5 to 10 | Soft | 2 to 4 |
| Medium dense | 11 to 30 | Medium stiff | 5 to 8 |
| Dense | 31 to 50 | Stiff | 9 to 15 |
| Very dense | >50 | Very stiff | 16 to 30 |
| | | Hard | >30 |

Moisture

| | |
|-------|---|
| Dry | Absence of moisture, dusty, dry to the touch |
| Moist | Damp but no visible water |
| Wet | Visible free water, usually soil is below water table |

USCS Soil Classification Chart (ASTM D 2487)

| Major Divisions | | Symbols | | Typical Descriptions |
|---|---|---|---|--|
| | | Graph | USCS | |
| Coarse Grained Soils More than 50% of Material Retained on No. 200 Sieve | Gravel and Gravelly Soils More than 50% of Coarse Fraction Retained on No. 4 Sieve | | GW | Well-Graded Gravel; Well-Graded Gravel with Sand |
| | | | GP | Poorly Graded Gravel; Poorly Graded Gravel with Sand |
| | | | GW-GM | Well-Graded Gravel with Silt; Well-Graded Gravel with Silt and Sand |
| | | | GW-GC | Well-Graded Gravel with Clay; Well-Graded Gravel with Clay and Sand |
| | | | GP-GM | Poorly Graded Gravel with Silt; Poorly Graded Gravel with Silt and Sand |
| | | | GP-GC | Poorly Graded Gravel with Clay; Poorly Graded Gravel with Clay and Sand |
| | Sand and Sandy Soils More than 50% of Coarse Fraction Passing No. 4 Sieve | | GM | Silty Gravel; Silty Gravel with Sand |
| | | | GC | Clayey Gravel; Clayey Gravel with Sand |
| | | | SW | Well-Graded Sand; Well-Graded Sand with Gravel |
| | | | SP | Poorly Graded Sand; Poorly Graded Sand with Gravel |
| Silty Sand; Silty Sand with Gravel | | SW-SM | Well-Graded Sand with Silt Well-Graded Sand with Silt and Gravel | |
| | | SW-SC | Well-Graded Sand with Clay; Well-Graded Sand with Clay and Gravel | |
| | | SP-SM | Poorly Graded Sand with Silt; Poorly Graded Sand with Silt and Gravel | |
| | | SP-SC | Poorly Graded Sand with Clay; Poorly Graded Sand with Clay and Gravel | |
| Fine Grained Soils More than 50% of Material Passing No. 200 Sieve | Silt | SM | Silty Sand; Silty Sand with Gravel | |
| | | SC | Clayey Sand; Clayey Sand with Gravel | |
| | Silty Clay (based on Atterberg Limits) | ML | Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt | |
| | | MH | Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt | |
| | Clays | CL-ML | Silty Clay; Silty Clay with Sand or Gravel; Gravelly or Sandy Silty Clay | |
| | | CL | Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay | |
| Organics | CH | Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay | | |
| | OL/OH | Organic Soil; Organic Soil with Sand or Gravel; Sandy or Gravelly Organic Soil | | |
| Highly Organic (>50% organic material) | | PT | Peat - Decomposing Vegetation - Fibrous to Amorphous Texture | |

Minor Constituents

| Minor Constituents | Estimated Percentage |
|--------------------------|----------------------|
| Sand, Gravel | |
| Trace | <5 |
| Few | 5 - 15 |
| Cobbles, Boulders | |
| Trace | <5 |
| Few | 5 - 10 |
| Little | 15 - 25 |
| Some | 30 - 45 |

Soil Test Symbols

| | |
|--------|---|
| %F | Percent Passing No. 200 Sieve |
| AL | Atterberg Limits (%) |
| | Liquid Limit (LL) |
| | Water Content (WC) |
| | Plastic Limit (PL) |
| CA | Chemical Analysis |
| CAUC | Consolidated Anisotropic Undrained Compression |
| CAUE | Consolidated Anisotropic Undrained Extension |
| CBR | California Bearing Ratio |
| CIDC | Consolidated Drained Isotropic Triaxial Compression |
| CIUC | Consolidated Isotropic Undrained Compression |
| CKODC | Consolidated k0 Undrained Triaxial Compression |
| CKODSS | Consolidated k0 Undrained Direct Simple Shear |
| CKOUC | Consolidated k0 Undrained Compression |
| CKOUE | Consolidated k0 Undrained Extension |
| CRSCN | Constant Rate of Strain Consolidation |
| DSS | Direct Simple Shear |
| DT | In Situ Density |
| GS | Grain Size Classification |
| HYD | Hydrometer |
| ILCN | Incremental Load Consolidation |
| K0CN | k0 Consolidation |
| kc | Constant Head Permeability |
| kf | Falling Head Permeability |
| MD | Moisture Density Relationship |
| OC | Organic Content |
| OT | Tests by Others |
| P | Pressuremeter |
| PID | Photionization Detector Reading |
| PP | Pocket Penetrometer |
| SG | Specific Gravity |
| TRS | Torsional Ring Shear |
| TV | Torvane |
| UC | Unconfined Compression |
| UUC | Unconsolidated Undrained Triaxial Compression |
| VS | Vane Shear |
| WC | Water Content (%) |

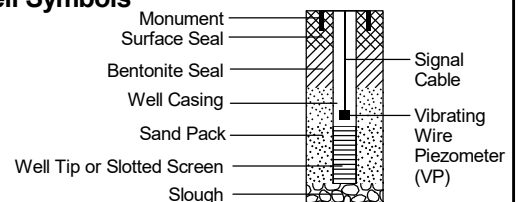
Groundwater Indicators

| | |
|--|--|
| | Groundwater Level on Date or At Time of Drilling (ATD) |
| | Groundwater Level on Date Measured in Piezometer |
| | Groundwater Seepage (Test Pits) |

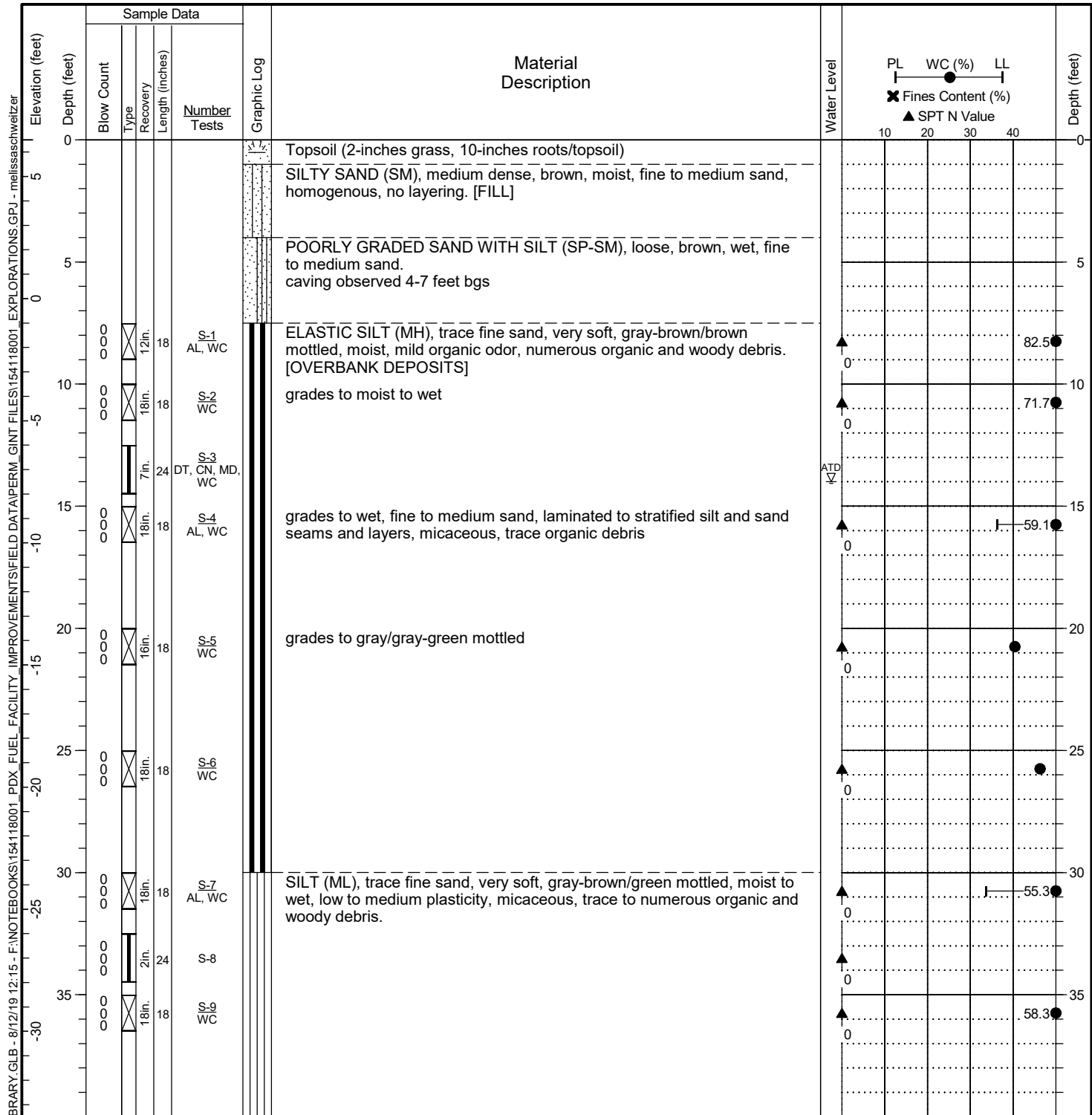
Sample Symbols

| | | |
|--|----------------------------------|--|
| | Rock Core Run | |
| | Sonic Core | |
| | Shelby Tube/Push Probe/GeoProbe® | |

Well Symbols



| | | |
|--|--------------------------------|---|
| Date Started: <u>6/27/19</u> | Date Completed: <u>6/27/19</u> | Drilling Contractor/Crew: <u>Western States Soil Conservation, Inc. / Lucas</u> |
| Logged by: <u>D. Knapp</u> | Checked by: <u>T. Anderson</u> | Drilling Method: <u>Mud Rotary/Hollow Stem Auger</u> |
| Location: <u>Lat: 45.596739 Long: -122.612754</u> | | Rig Model/Type: <u>GeoProbe® 7822DT / Track-mounted push-probe rig</u> |
| Ground Surface Elevation: <u>6.5 feet</u> | | Hammer Type: <u>Auto-hammer</u> |
| Horizontal Datum: <u>WGS 84</u> | | Hammer Weight (pounds): <u>140</u> Hammer Drop Height (inches): <u>30</u> |
| Vertical Datum: <u>NAVD 88</u> | | Measured Hammer Efficiency (%): <u>91</u> |
| Comments: <u>Location and ground surface elevations are approximate.</u> | | Hole Diameter: _____ Casing Diameter: <u>NA</u> |
| | | Total Depth: <u>86.5 feet</u> Depth to Groundwater: <u>14 feet</u> |



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

HC BORING LOG - F:\GINT\HC LIBRARY\GLB - 8/12/19 12:15 - F:\NOTEBOOKS\154118001 - PDX FUEL FACILITY IMPROVEMENTS\FIELD DATA\PERM_GINT FILES\154118001 - EXPLORATIONS.GPJ - melissaschweitzer

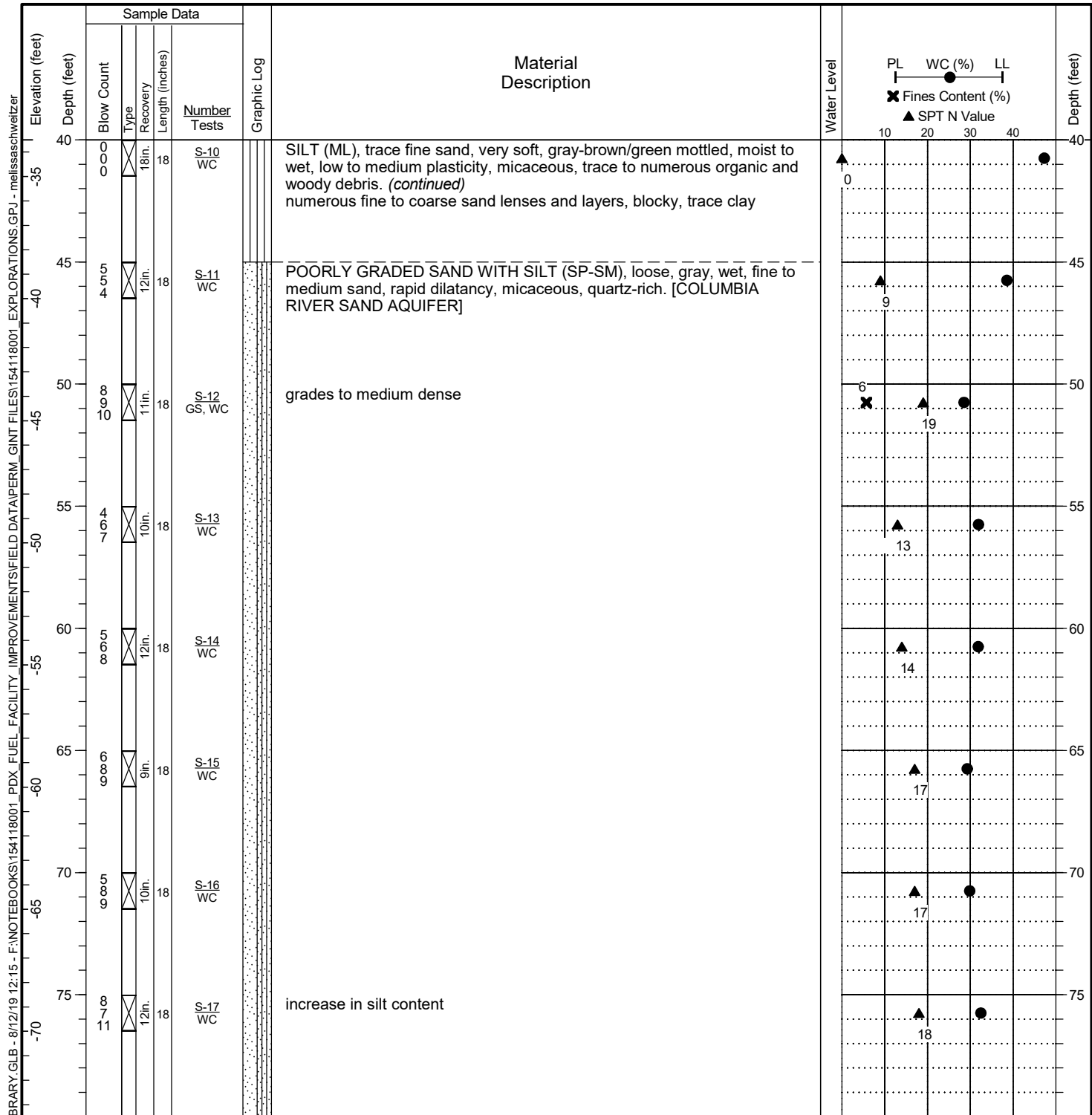


Project: PDX Fueling Facility Improvements
 Location: Portland, Oregon
 Project No.: 154-118-001

Boring Log
B-1

Figure **A-2**
 Sheet **1 of 3**

| | | |
|---|-------------------------|--|
| Date Started: 6/27/19 | Date Completed: 6/27/19 | Drilling Contractor/Crew: Western States Soil Conservation, Inc. / Lucas |
| Logged by: D. Knapp | Checked by: T. Anderson | Drilling Method: Mud Rotary/Hollow Stem Auger |
| Location: Lat: 45.596739 Long: -122.612754 | | Rig Model/Type: GeoProbe® 7822DT / Track-mounted push-probe rig |
| Ground Surface Elevation: 6.5 feet | | Hammer Type: Auto-hammer |
| Horizontal Datum: WGS 84 | | Hammer Weight (pounds): 140 Hammer Drop Height (inches): 30 |
| Vertical Datum: NAVD 88 | | Measured Hammer Efficiency (%): 91 |
| Comments: Location and ground surface elevations are approximate. | | Hole Diameter: Casing Diameter: NA |
| | | Total Depth: 86.5 feet Depth to Groundwater: 14 feet |



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.

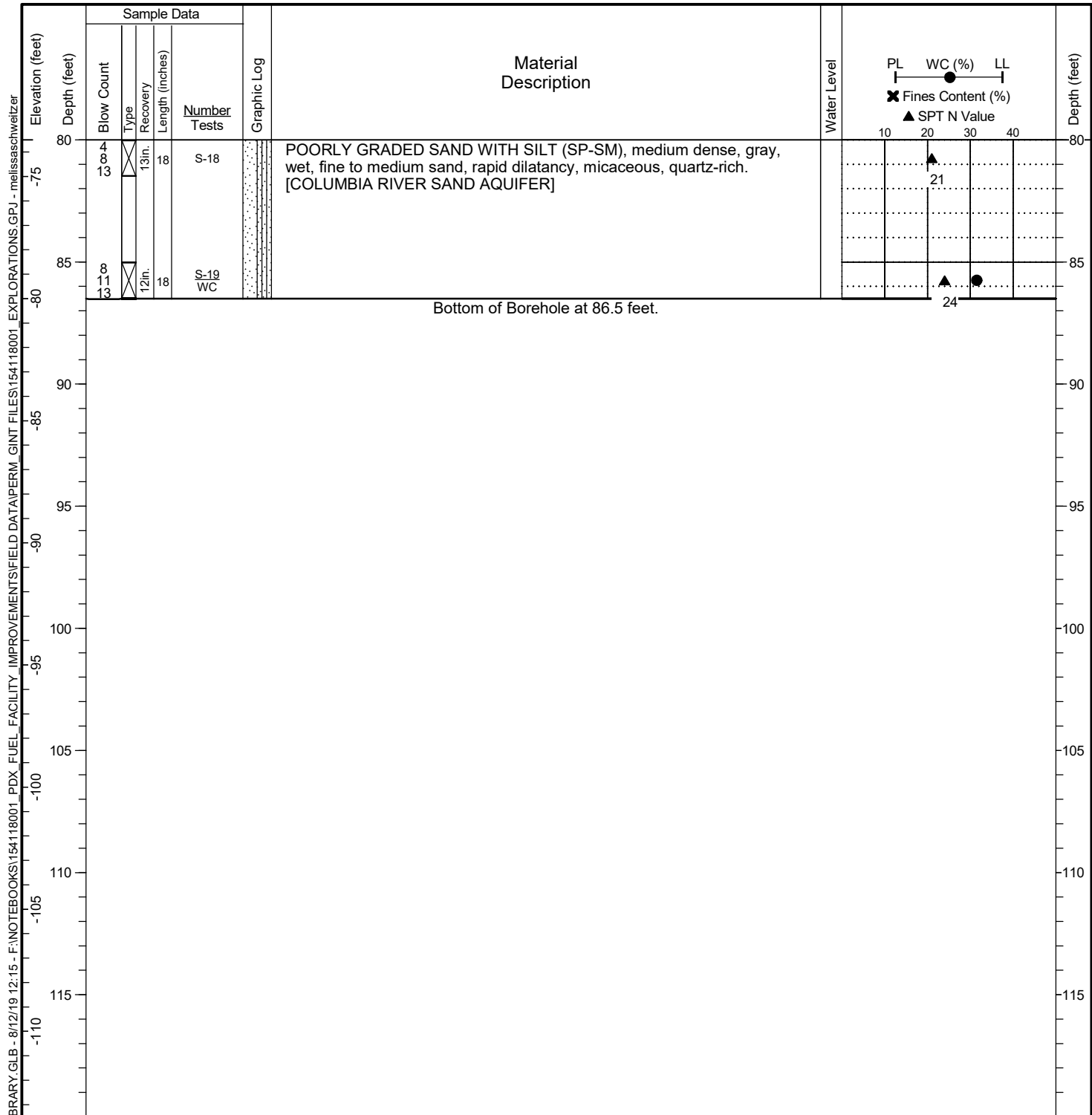


Project: PDX Fueling Facility Improvements
 Location: Portland, Oregon
 Project No.: 154-118-001

Boring Log
B-1

Figure **A-2**
 Sheet **2 of 3**

| | | |
|--|--------------------------------|---|
| Date Started: <u>6/27/19</u> | Date Completed: <u>6/27/19</u> | Drilling Contractor/Crew: <u>Western States Soil Conservation, Inc. / Lucas</u> |
| Logged by: <u>D. Knapp</u> | Checked by: <u>T. Anderson</u> | Drilling Method: <u>Mud Rotary/Hollow Stem Auger</u> |
| Location: <u>Lat: 45.596739 Long: -122.612754</u> | | Rig Model/Type: <u>GeoProbe® 7822DT / Track-mounted push-probe rig</u> |
| Ground Surface Elevation: <u>6.5 feet</u> | | Hammer Type: <u>Auto-hammer</u> |
| Horizontal Datum: <u>WGS 84</u> | | Hammer Weight (pounds): <u>140</u> Hammer Drop Height (inches): <u>30</u> |
| Vertical Datum: <u>NAVD 88</u> | | Measured Hammer Efficiency (%): <u>91</u> |
| Comments: <u>Location and ground surface elevations are approximate.</u> | Hole Diameter: _____ | Casing Diameter: <u>NA</u> |
| | Total Depth: <u>86.5 feet</u> | Depth to Groundwater: <u>14 feet</u> |



General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material descriptions and stratum lines are interpretive and actual changes may be gradual. Solid stratum lines indicate distinct contact between material strata or geologic units. Dashed stratum lines indicate gradual or approximate change between material strata or geologic units.
3. USCS designations are based on visual-manual identification (ASTM D 2488) unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.



Project: PDX Fueling Facility Improvements
 Location: Portland, Oregon
 Project No.: 154-118-001

Boring Log
B-1

Figure **A-2**
 Sheet **3 of 3**

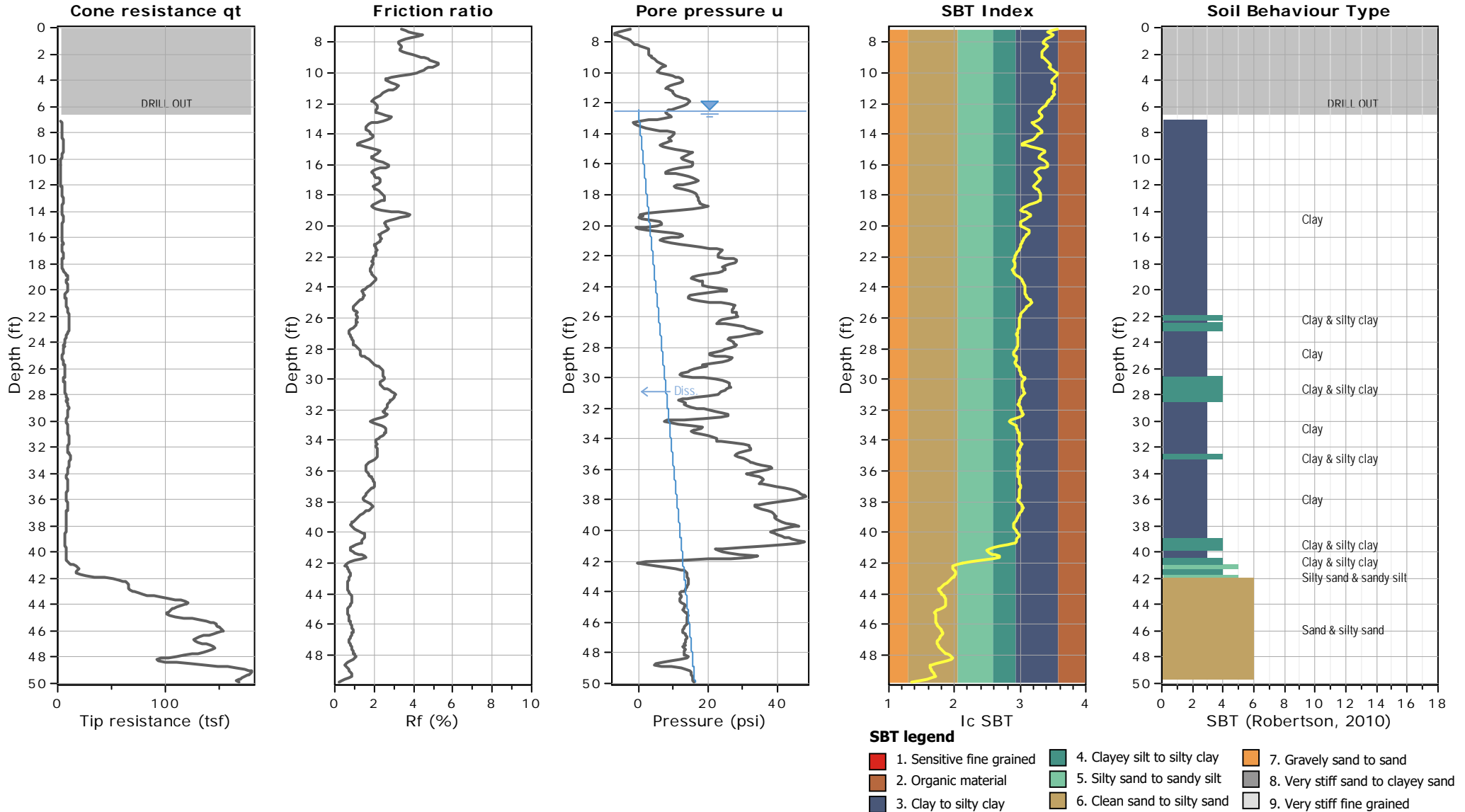


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: SCPT-01

Total depth: 101.11 ft, Date: 7/9/2019
 Surface Elevation: 22.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



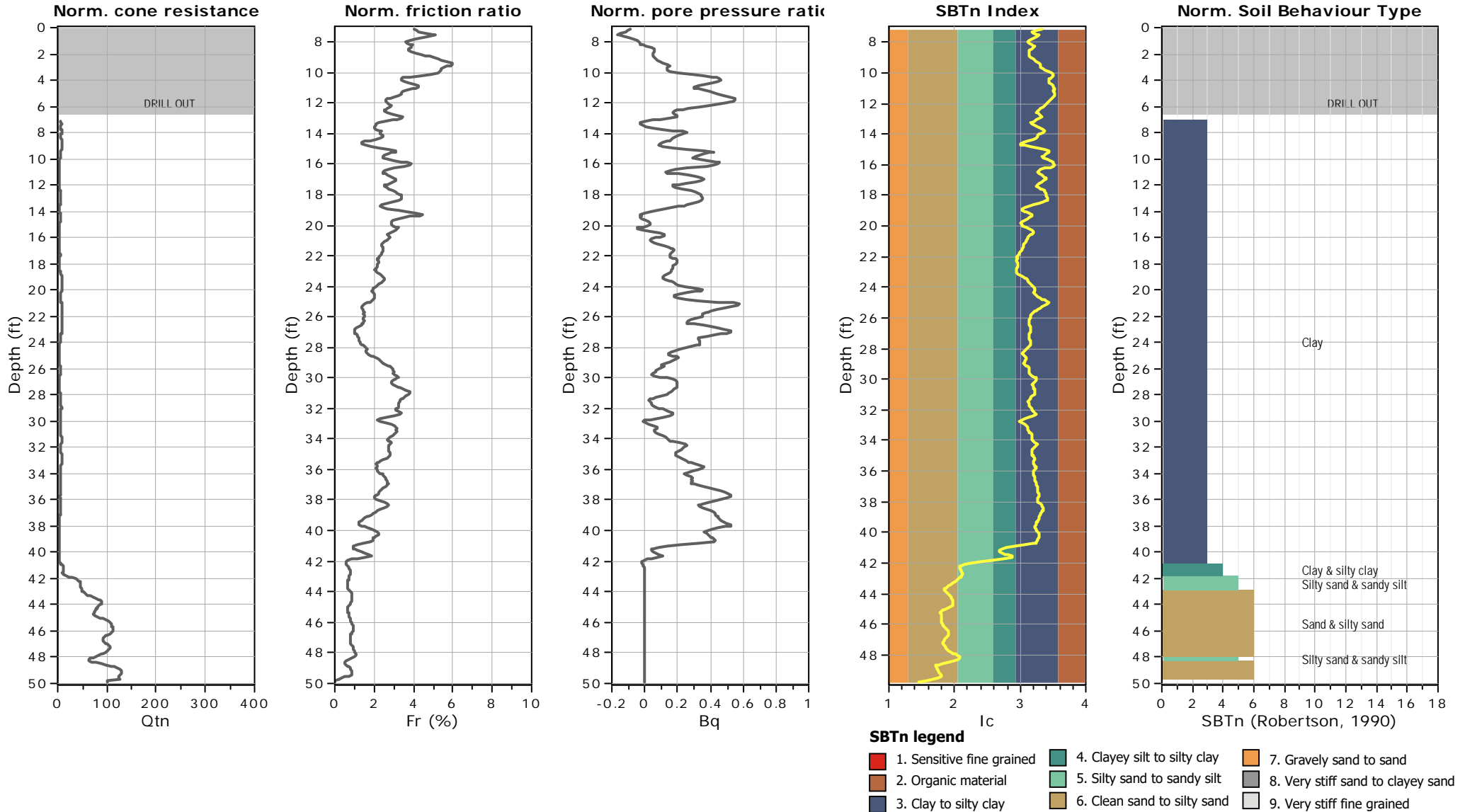


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: SCPT-01

Total depth: 101.11 ft, Date: 7/9/2019
 Surface Elevation: 22.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



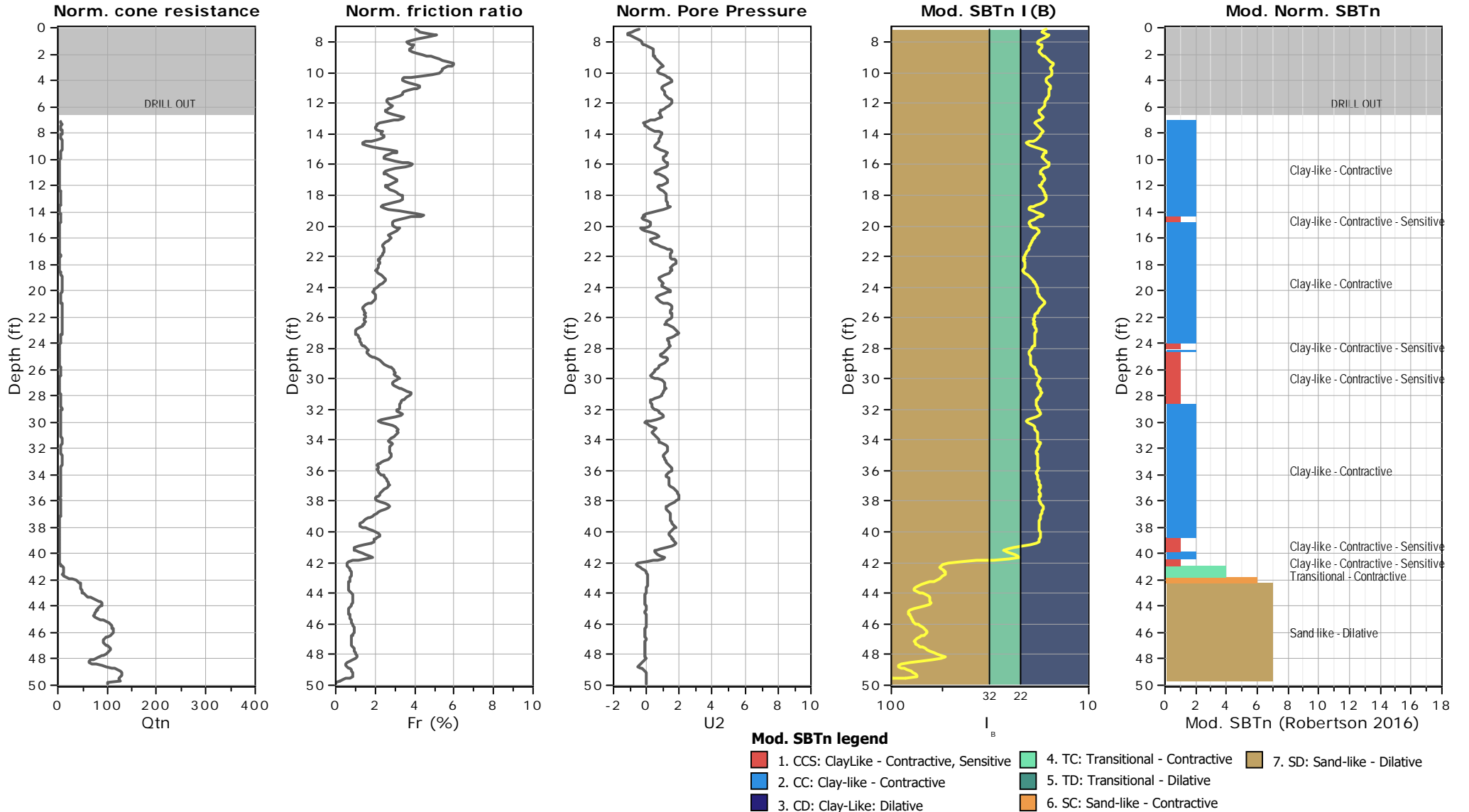


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: SCPT-01

Total depth: 101.11 ft, Date: 7/9/2019
 Surface Elevation: 22.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



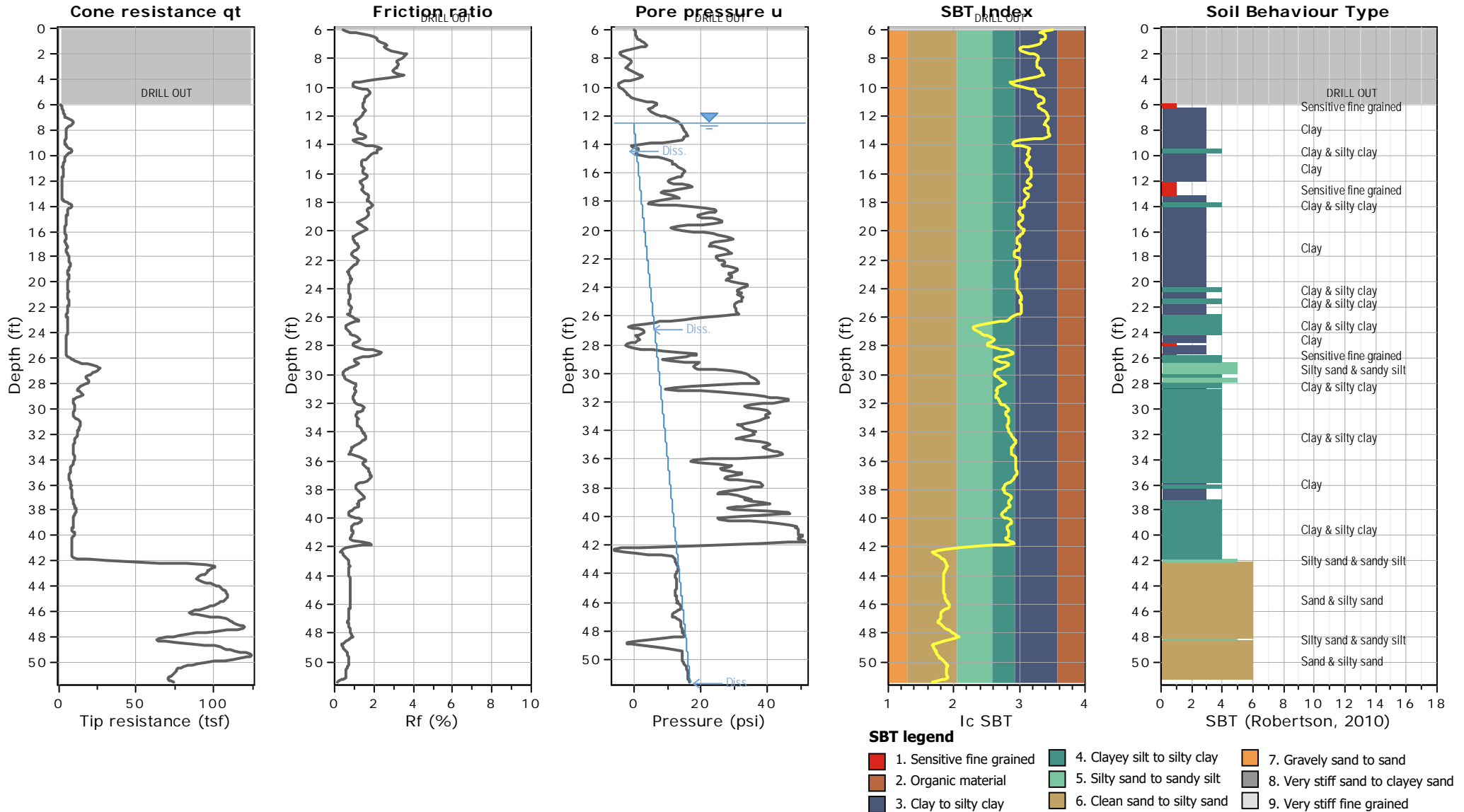


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: CPT-02

Total depth: 51.58 ft, Date: 7/9/2019
 Surface Elevation: 22.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



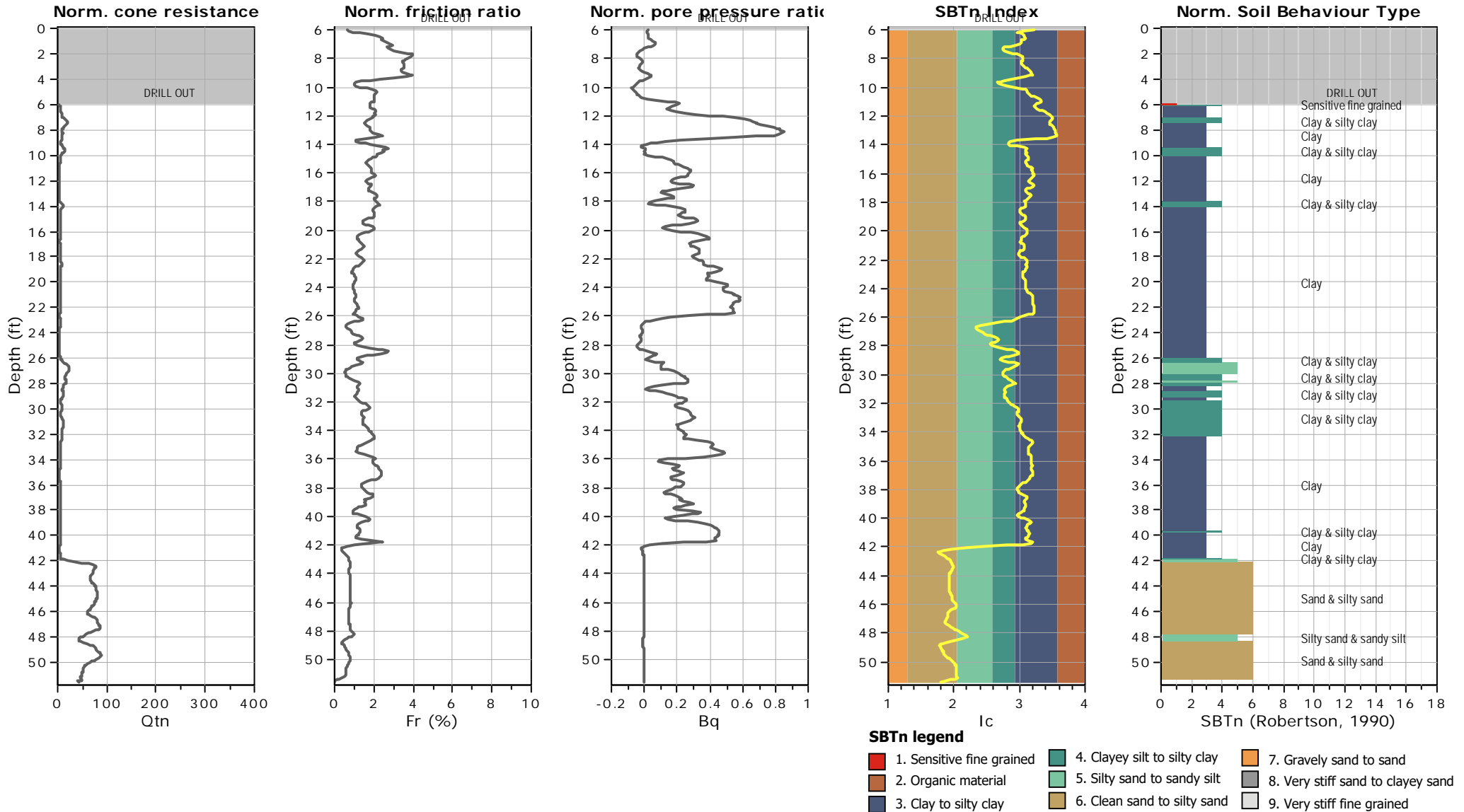


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: CPT-02

Total depth: 51.58 ft, Date: 7/9/2019
 Surface Elevation: 22.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



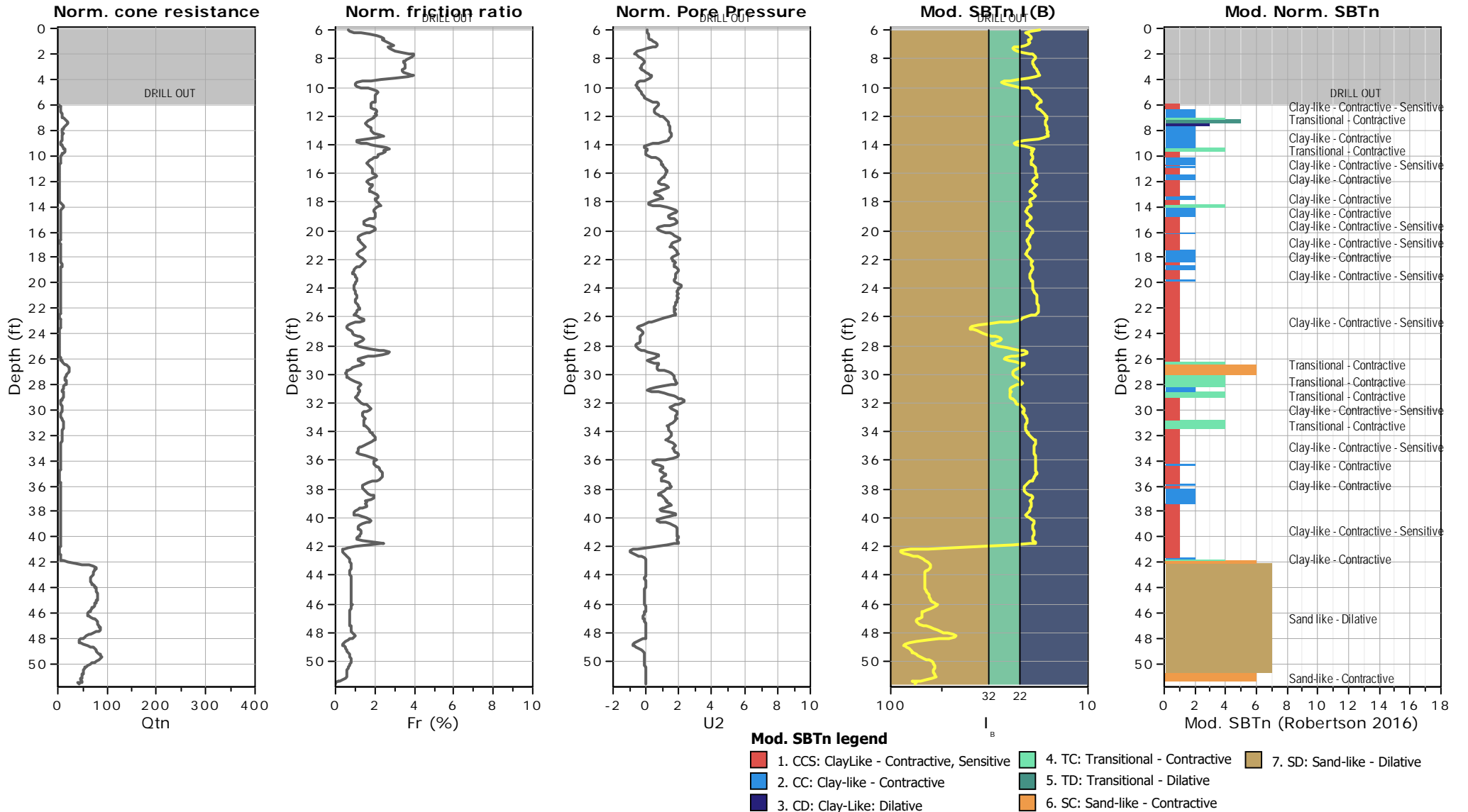


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: CPT-02

Total depth: 51.58 ft, Date: 7/9/2019
 Surface Elevation: 22.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



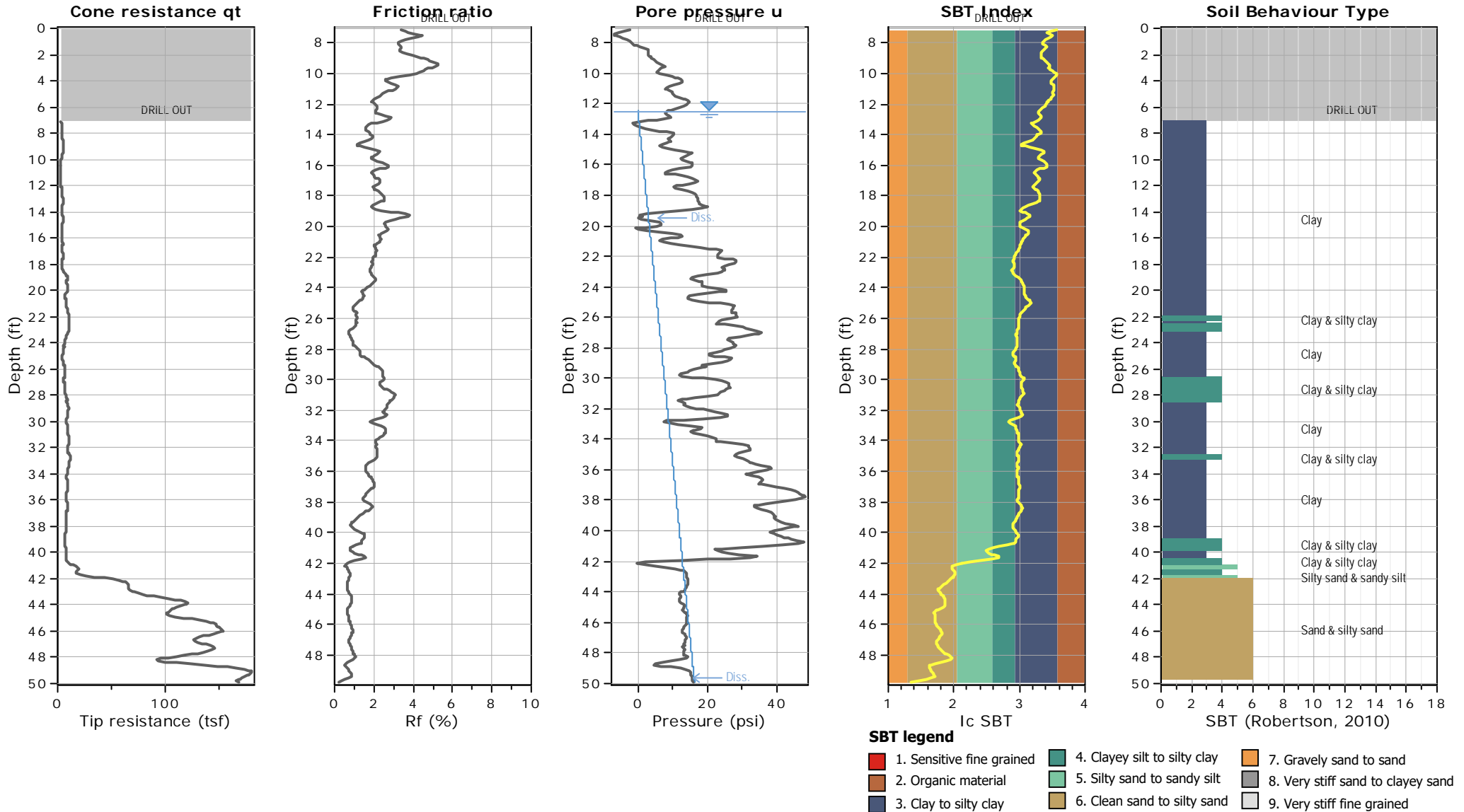


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: CPT-03

Total depth: 49.94 ft, Date: 7/9/2019
 Surface Elevation: 0.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



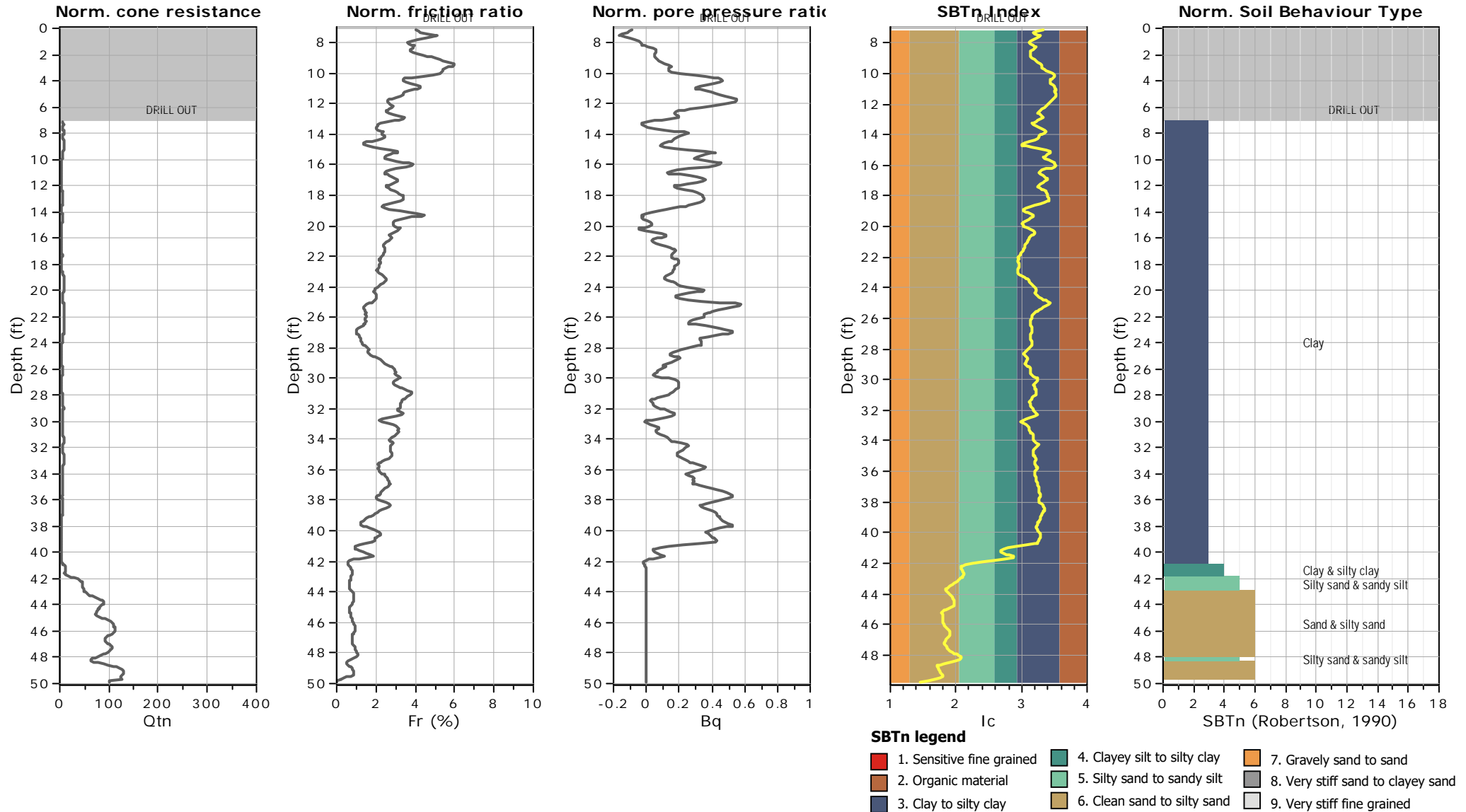


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: CPT-03

Total depth: 49.94 ft, Date: 7/9/2019
 Surface Elevation: 0.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



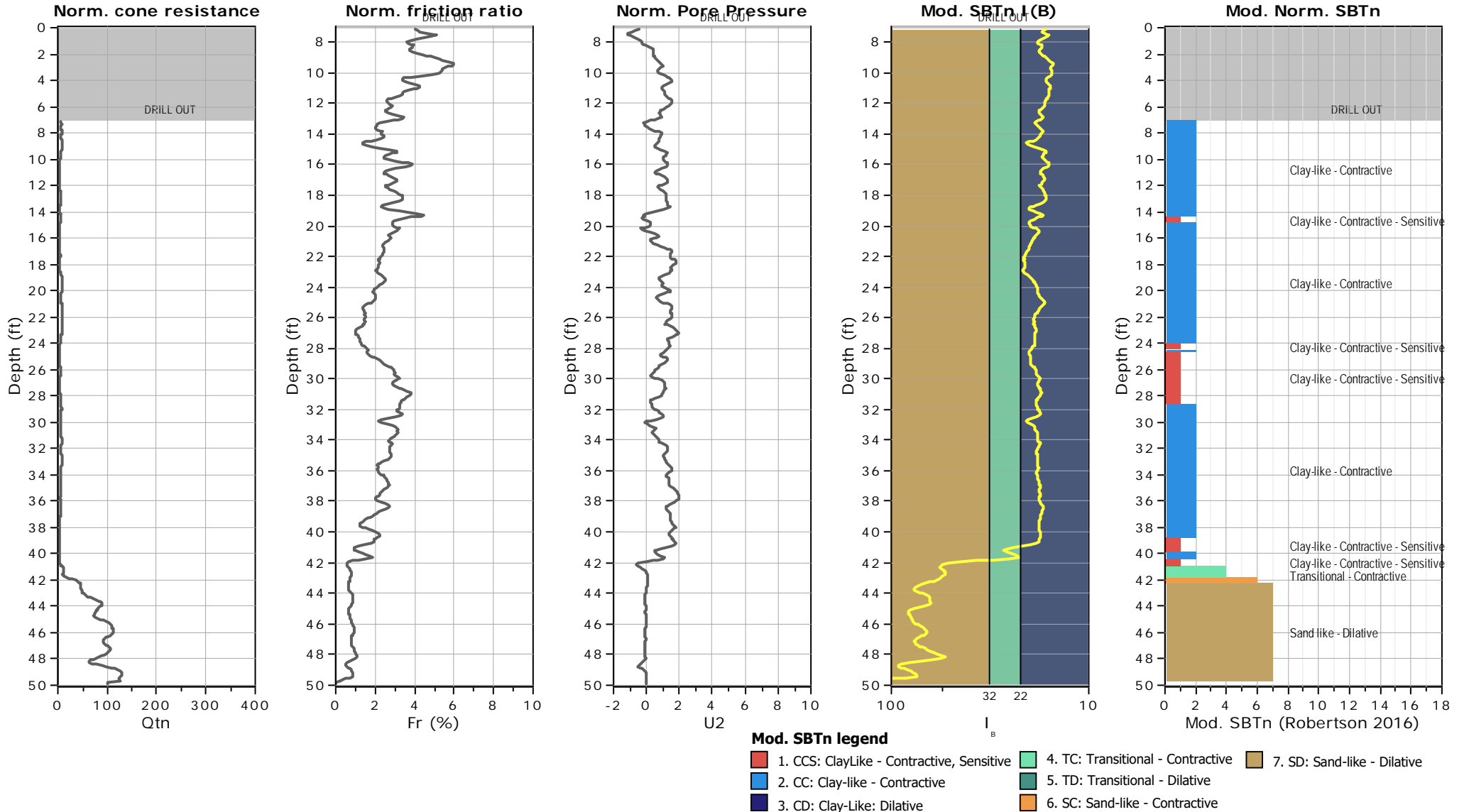


Hart Crowser
 6420 SW Macadam Ave, Suite 100
 Portland, OR 97239
 www.hartcrowser.com

CPT: CPT-03

Total depth: 49.94 ft, Date: 7/9/2019
 Surface Elevation: 0.00 ft
 Coords: X:0.00, Y:0.00
 Cone Type:
 Cone Operator:

Project:
Location:



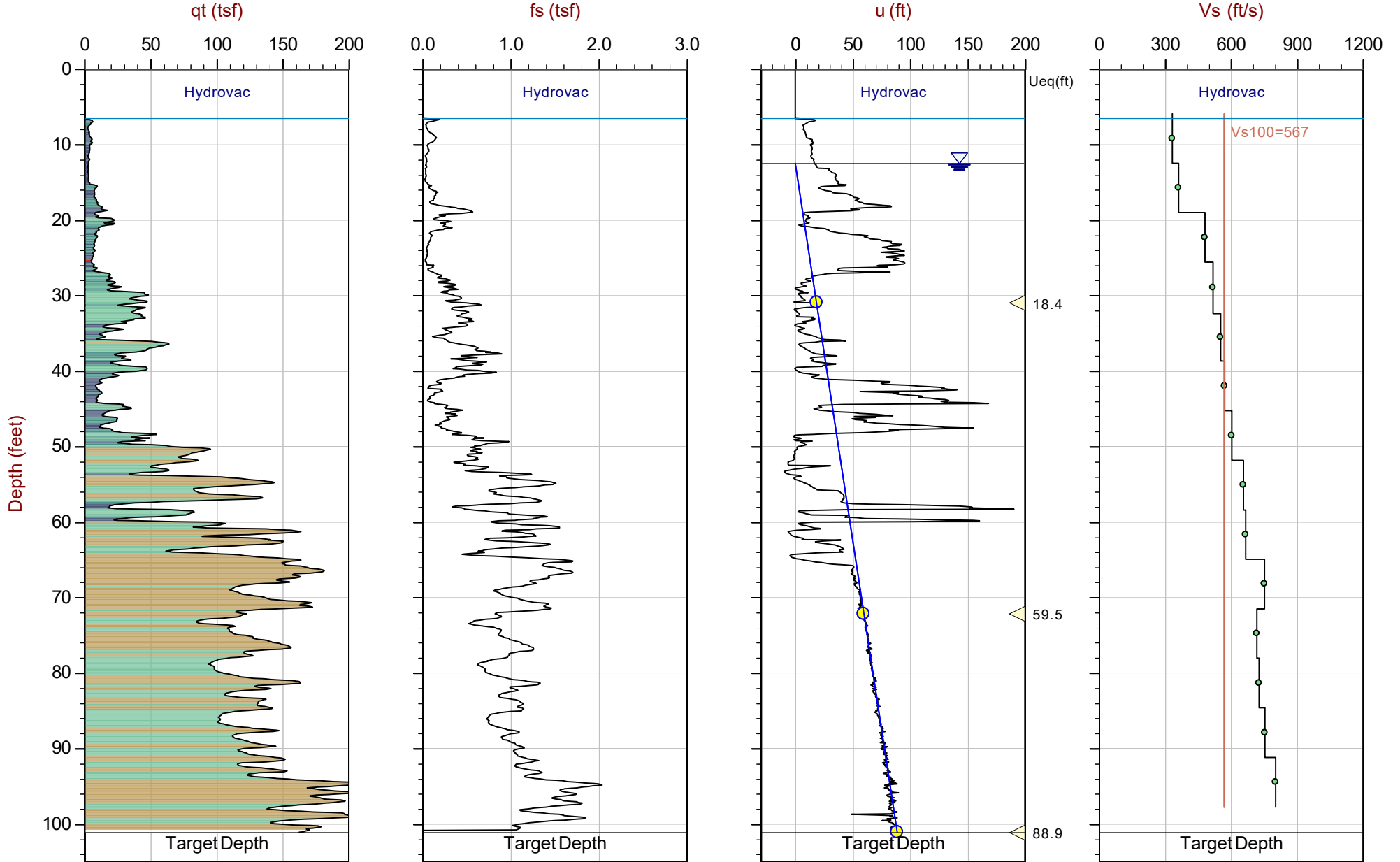
Seismic Cone Penetration Test Plots



Hart Crowser

Job No: 19-59023
 Date: 2019-07-09 12:13
 Site: PDX

Sounding: SCPT01
 Cone: 536:T1500F15U500



Max Depth: 30.825 m / 101.13 ft
 Depth Inc: 0.025 m / 0.082 ft
 Avg Int: Every Point

File: 19-59023_SP01.COR
 Unit Wt: SBTQin(PKR2009)

SBT: Robertson, 2009 and 2010
 Coords: Lat: 45.59739 Long: -122.61306

△ Dissipation with estimated Ueq value △ Dissipation, equilibrium not achieved ● Equilibrium Pore Pressure (Ueq) — Hydrostatic Line

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

Seismic Cone Penetration Test Tabular Results



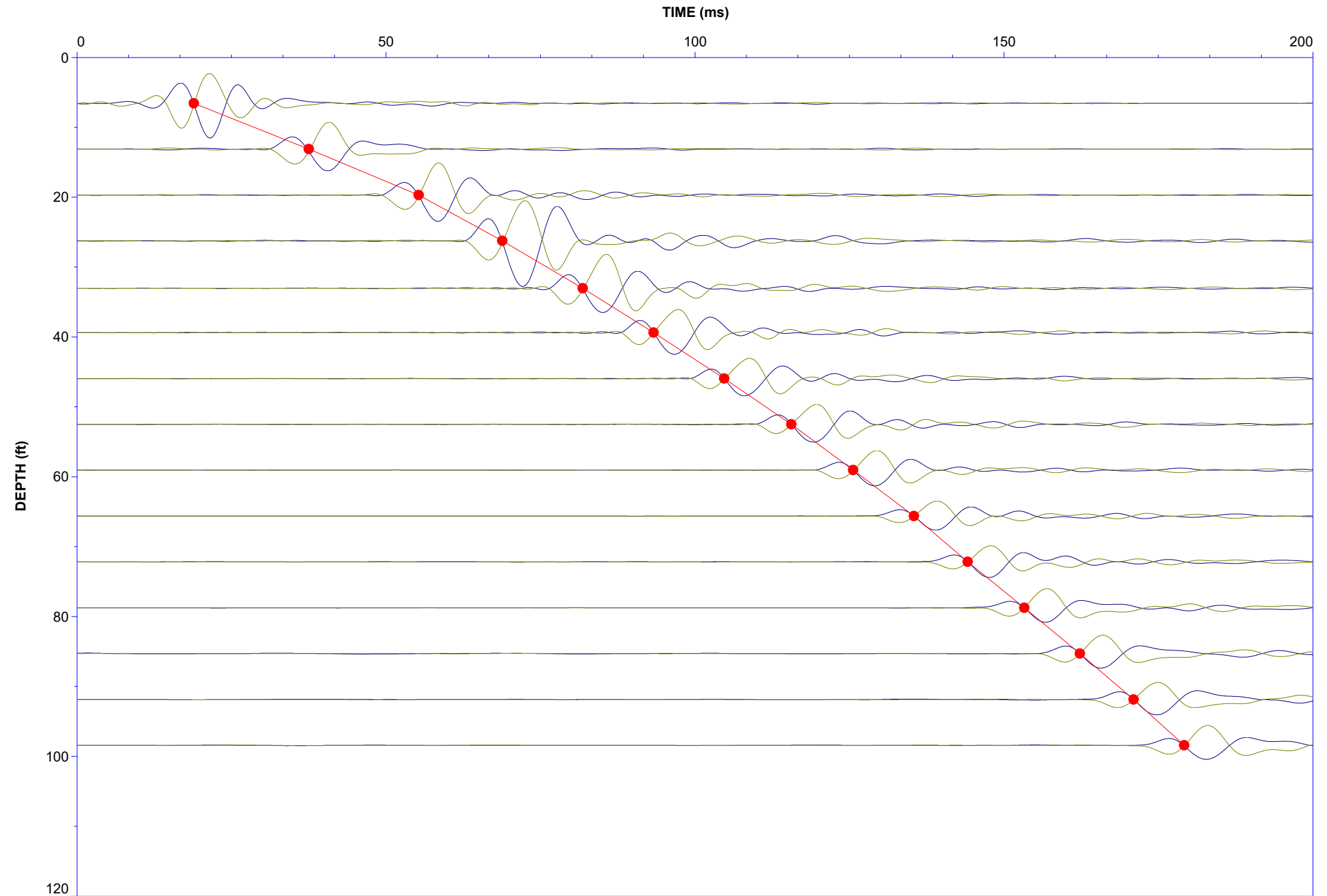
Job No: 19-59023
 Client: Hart Crowser
 Project: PDX
 Sounding ID: SCPT-01
 Date: 09-Jul-2019

Seismic Source: Beam
 Source Offset (ft): 3.00
 Source Depth (ft): 0.00
 Geophone Offset (ft): 0.66

SCPT_u SHEAR WAVE VELOCITY TEST RESULTS - V_s

| Tip Depth (ft) | Geophone Depth (ft) | Ray Path (ft) | Ray Path Difference (ft) | Travel Time Interval (ms) | Interval Velocity (ft/s) |
|----------------|---------------------|---------------|--------------------------|---------------------------|--------------------------|
| 6.56 | 5.91 | 6.62 | | | |
| 13.12 | 12.47 | 12.82 | 6.20 | 18.60 | 333 |
| 19.69 | 19.03 | 19.26 | 6.44 | 17.79 | 362 |
| 26.25 | 25.59 | 25.77 | 6.50 | 13.53 | 481 |
| 33.04 | 32.38 | 32.52 | 6.75 | 13.04 | 518 |
| 39.37 | 38.71 | 38.83 | 6.31 | 11.44 | 552 |
| 45.93 | 45.28 | 45.37 | 6.54 | 11.45 | 571 |
| 52.49 | 51.84 | 51.92 | 6.55 | 10.86 | 603 |
| 59.06 | 58.40 | 58.48 | 6.55 | 10.00 | 655 |
| 65.62 | 64.96 | 65.03 | 6.55 | 9.82 | 667 |
| 72.18 | 71.52 | 71.59 | 6.56 | 8.71 | 752 |
| 78.74 | 78.08 | 78.14 | 6.56 | 9.14 | 717 |
| 85.30 | 84.65 | 84.70 | 6.56 | 9.00 | 728 |
| 91.86 | 91.21 | 91.26 | 6.56 | 8.70 | 753 |
| 98.43 | 97.77 | 97.82 | 6.56 | 8.16 | 803 |

Seismic Cone Penetration Wave Traces



Pore Pressure Dissipation Summary and
Pore Pressure Dissipation Plots



Job No: 19-59023
 Client: Hart Crowser
 Project: PDX
 Start Date: 9-Jul-19
 End Date: 9-Jul-19

CPT_u PORE PRESSURE DISSIPATION SUMMARY

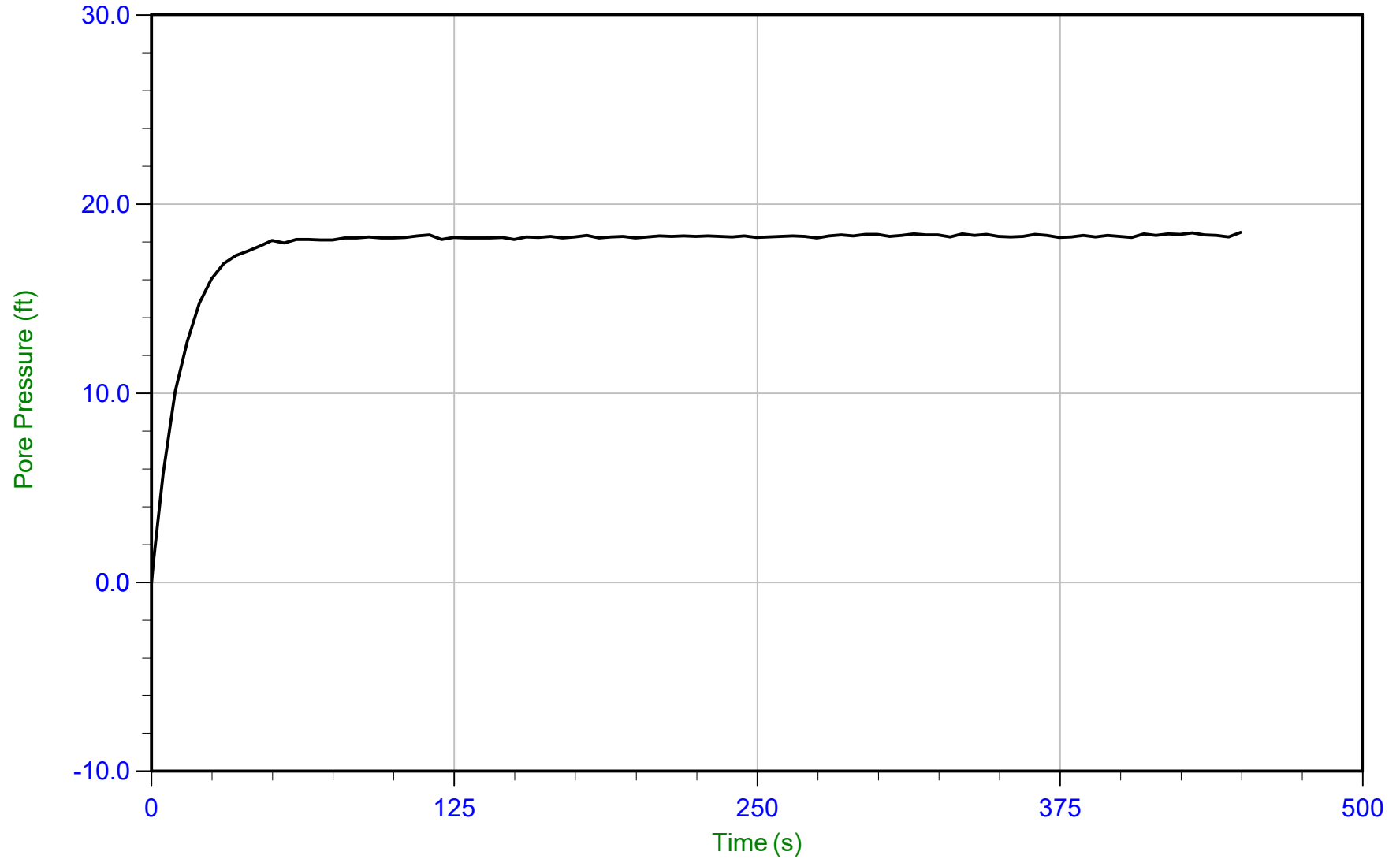
| Sounding ID | File Name | Cone Area (cm ²) | Duration (s) | Test Depth (ft) | Estimated Equilibrium Pore Pressure U _{eq} (ft) | Calculated Phreatic Surface (ft) |
|-------------|-------------------|---------------------------------|-----------------|--------------------|---|---|
| SCPT01 | 19-59023_SP01.PPD | 15.0 | 450 | 30.9 | 18.4 | 12.5 |
| SCPT01 | 19-59023_SP01.PPD | 15.0 | 900 | 72.2 | 59.5 | 12.6 |
| SCPT01 | 19-59023_SP01.PPD | 15.0 | 850 | 101.1 | 89.0 | 12.2 |
| CPT02 | 19-59023_CP02.PPD | 15.0 | 450 | 14.5 | 6.5 | 8.0 |
| CPT02 | 19-59023_CP02.PPD | 15.0 | 250 | 27.0 | 17.0 | 10.0 |
| CPT02 | 19-59023_CP02.PPD | 15.0 | 300 | 51.7 | 38.8 | 12.8 |
| CPT03 | 19-59023_CP03.PPD | 15.0 | 190 | 19.5 | | |
| CPT03 | 19-59023_CP03.PPD | 15.0 | 600 | 49.7 | 38.1 | 11.6 |
| Totals | | | 66.5 | | | |



Hart Crowser

Job No: 19-59023
Date: 07/09/2019 12:43
Site: PDX

Sounding: SCPT01
Cone: 536:T1500F15U500 Area=15 cm²



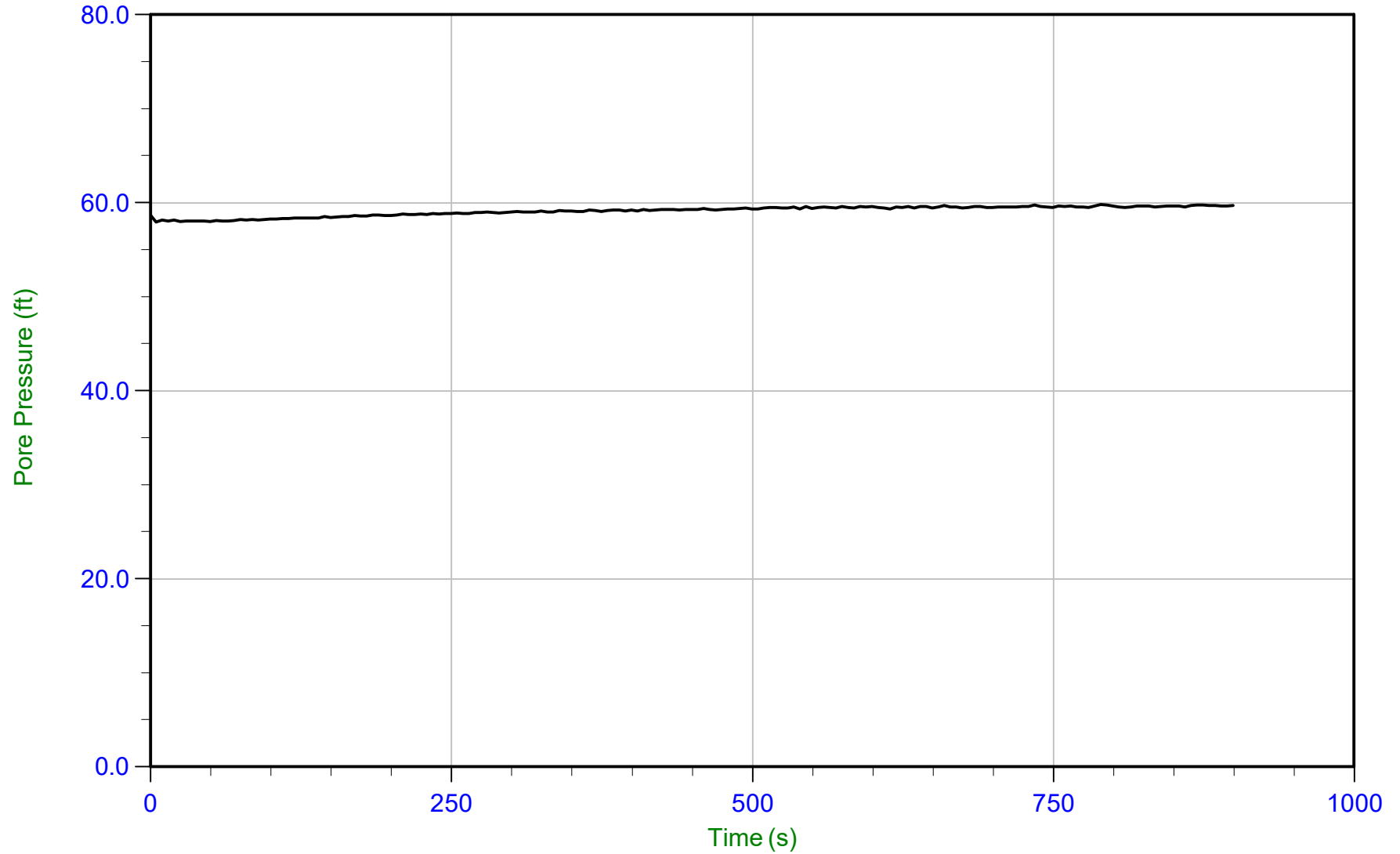
Trace Summary: Filename: 19-59023_SP01.PPD U Min: -0.0 ft WT: 3.816 m / 12.520 ft
 Depth: 9.425 m / 30.922 ft U Max: 18.5 ft Ueq: 18.4 ft
 Duration: 450.0 s



Hart Crowser

Job No: 19-59023
Date: 07/09/2019 12:43
Site: PDX

Sounding: SCPT01
Cone: 536:T1500F15U500 Area=15 cm²



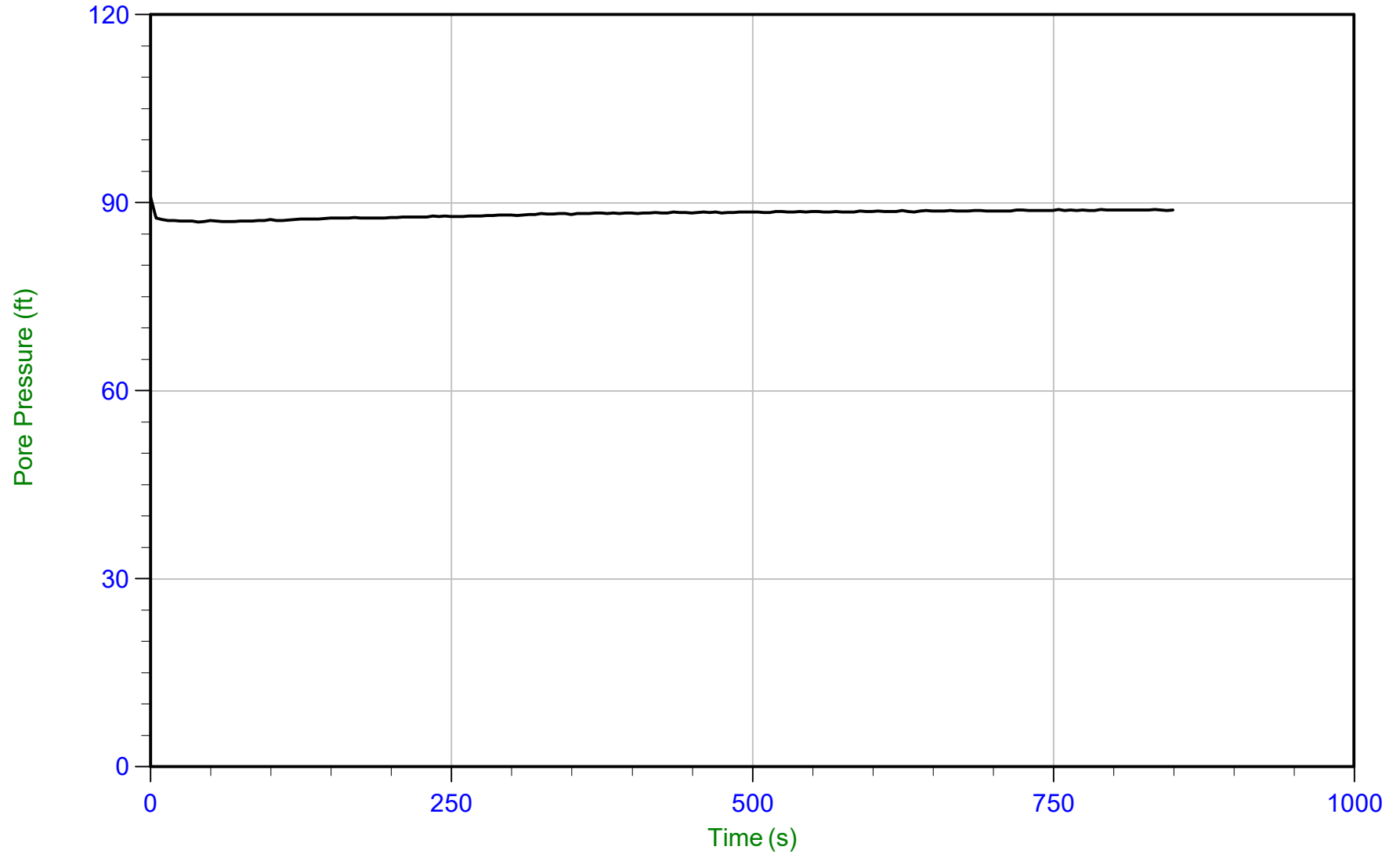
Trace Summary: Filename: 19-59023_SP01.PPD U Min: 57.9 ft WT: 3.854 m / 12.644 ft
 Depth: 22.000 m / 72.178 ft U Max: 59.8 ft Ueq: 59.5 ft
 Duration: 900.0 s



Hart Crowser

Job No: 19-59023
Date: 07/09/2019 12:43
Site: PDX

Sounding: SCPT01
Cone: 536:T1500F15U500 Area=15 cm²



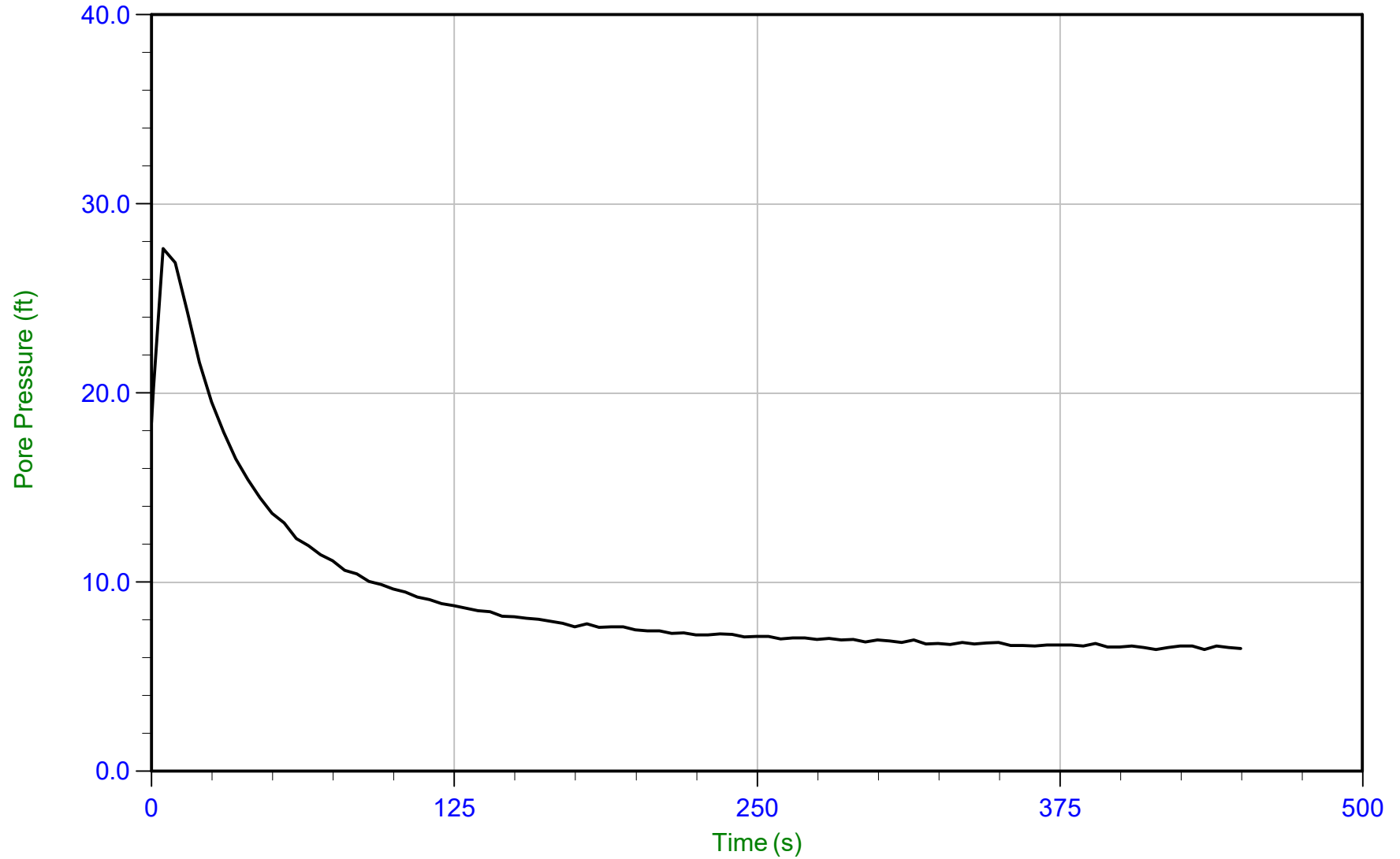
Trace Summary: Filename: 19-59023_SP01.PPD U Min: 87.0 ft WT: 3.712 m / 12.178 ft
Depth: 30.825 m / 101.131 ft U Max: 90.9 ft Ueq: 89.0 ft
Duration: 850.0 s



Hart Crowser

Job No: 19-59023
Date: 07/09/2019 08:43
Site: PDX

Sounding: CPT02
Cone: 536:T1500F15U500 Area=15 cm²



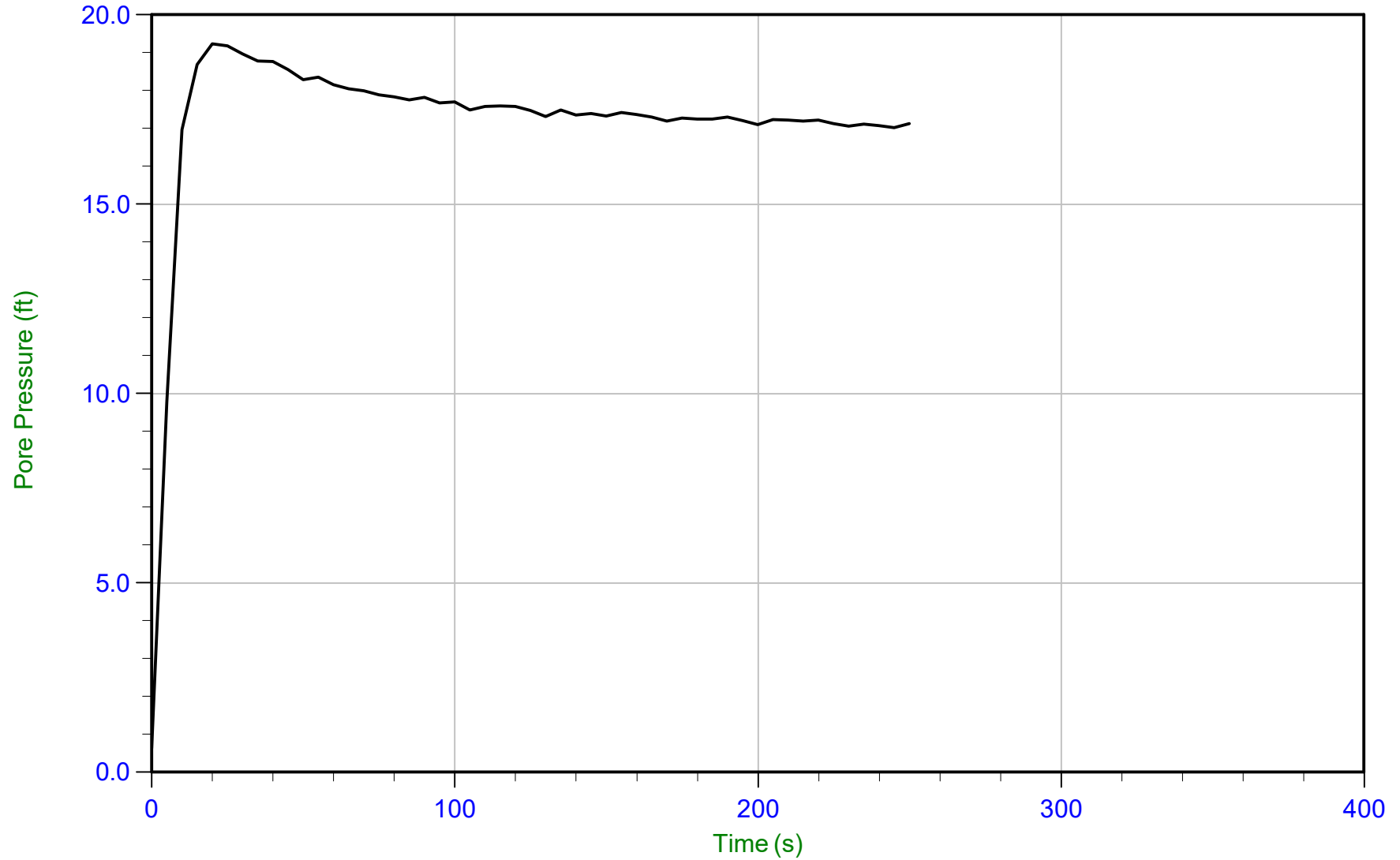
Trace Summary: Filename: 19-59023_CP02.PPD U Min: 6.4 ft WT: 2.440 m / 8.005 ft
 Depth: 4.425 m / 14.518 ft U Max: 27.6 ft Ueq: 6.5 ft
 Duration: 450.0 s



Hart Crowser

Job No: 19-59023
Date: 07/09/2019 08:43
Site: PDX

Sounding: CPT02
Cone: 536:T1500F15U500 Area=15 cm²



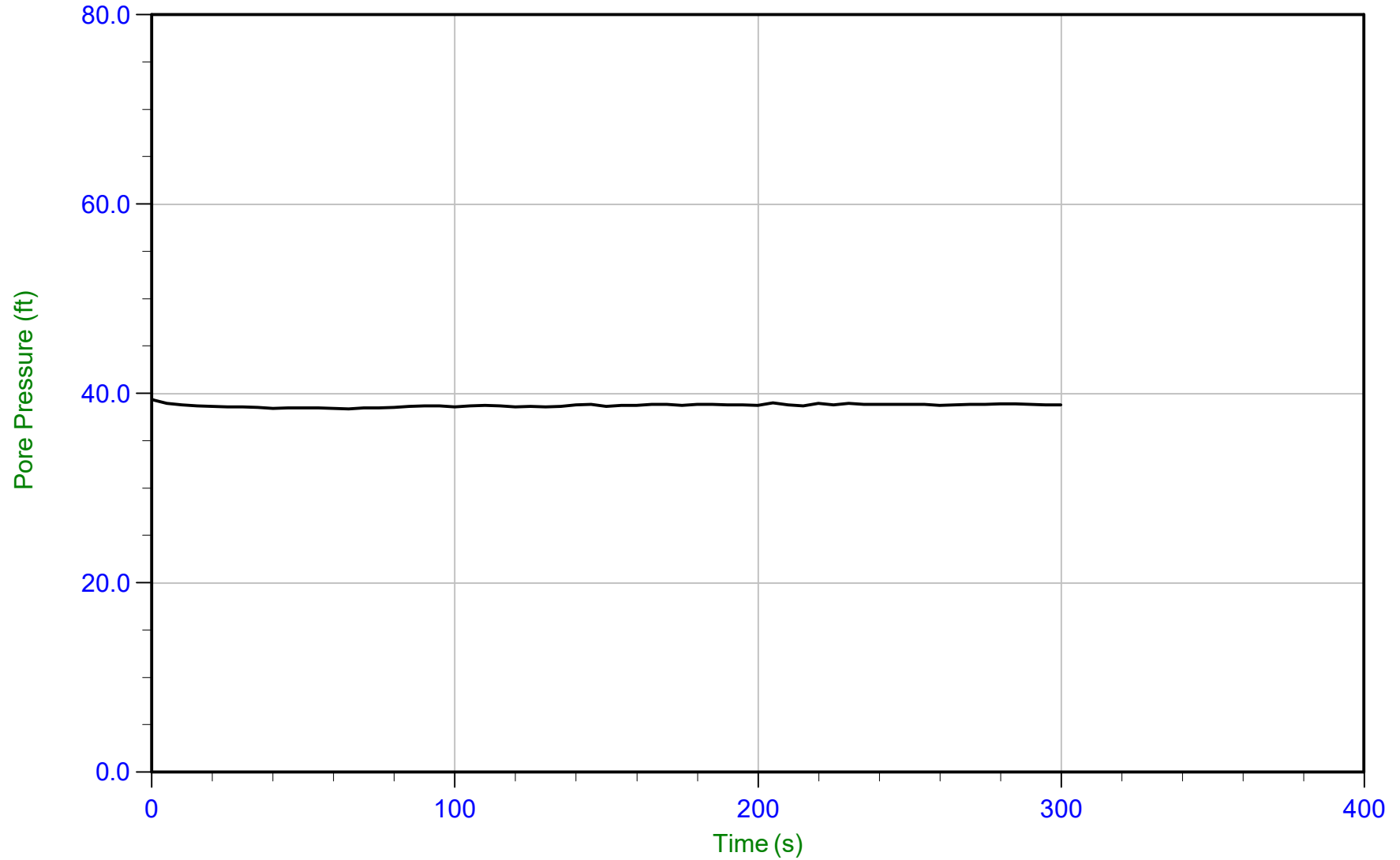
Trace Summary: Filename: 19-59023_CP02.PPD U Min: 0.6 ft WT: 3.050 m / 10.006 ft
 Depth: 8.225 m / 26.985 ft U Max: 19.2 ft Ueq: 17.0 ft
 Duration: 250.0 s



Hart Crowser

Job No: 19-59023
Date: 07/09/2019 08:43
Site: PDX

Sounding: CPT02
Cone: 536:T1500F15U500 Area=15 cm²



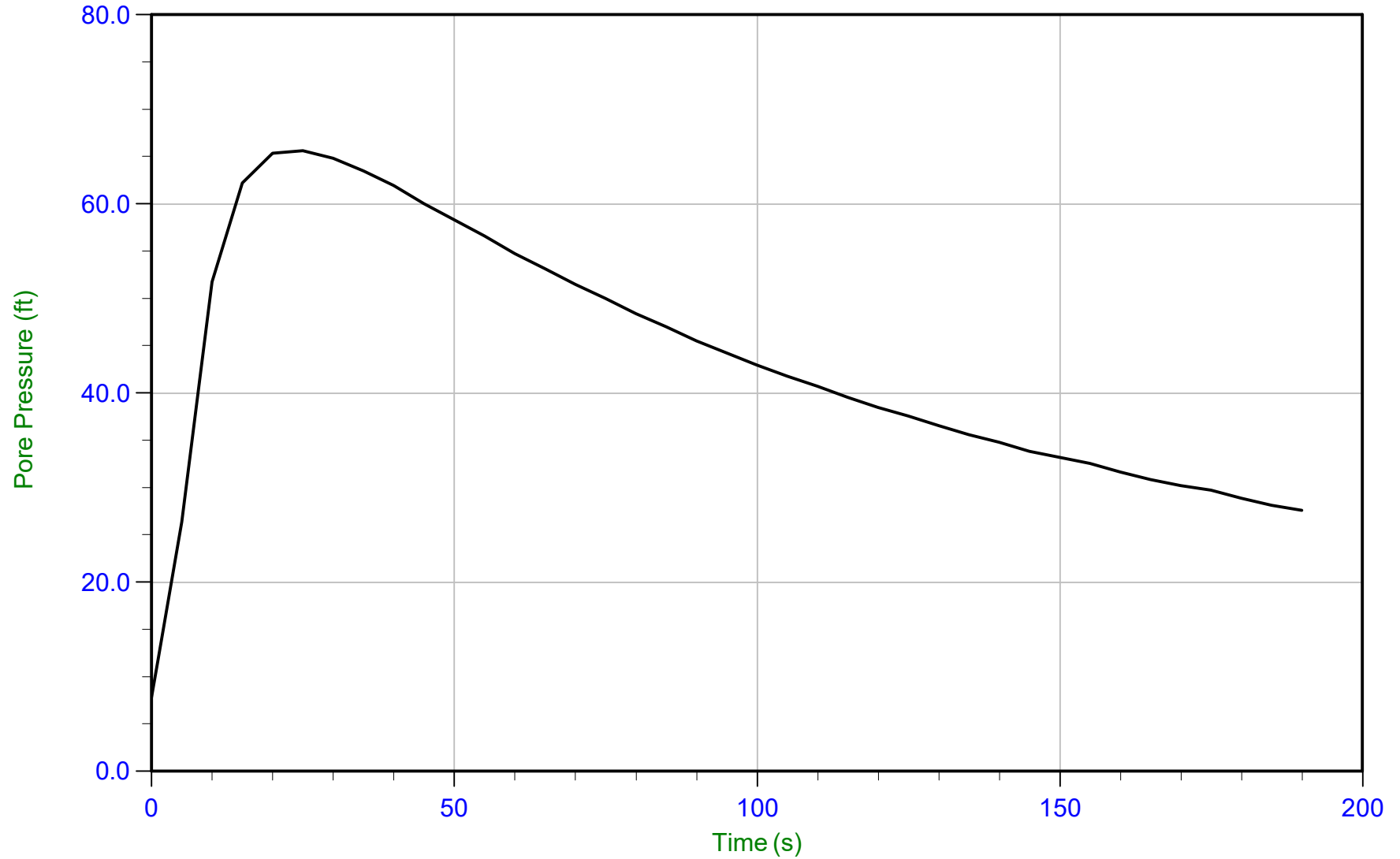
Trace Summary: Filename: 19-59023_CP02.PPD U Min: 38.3 ft WT: 3.912 m / 12.834 ft
 Depth: 15.750 m / 51.673 ft U Max: 39.4 ft Ueq: 38.8 ft
 Duration: 300.0 s



Hart Crowser

Job No: 19-59023
Date: 07/09/2019 10:24
Site: PDX

Sounding: CPT03
Cone: 536:T1500F15U500 Area=15 cm²



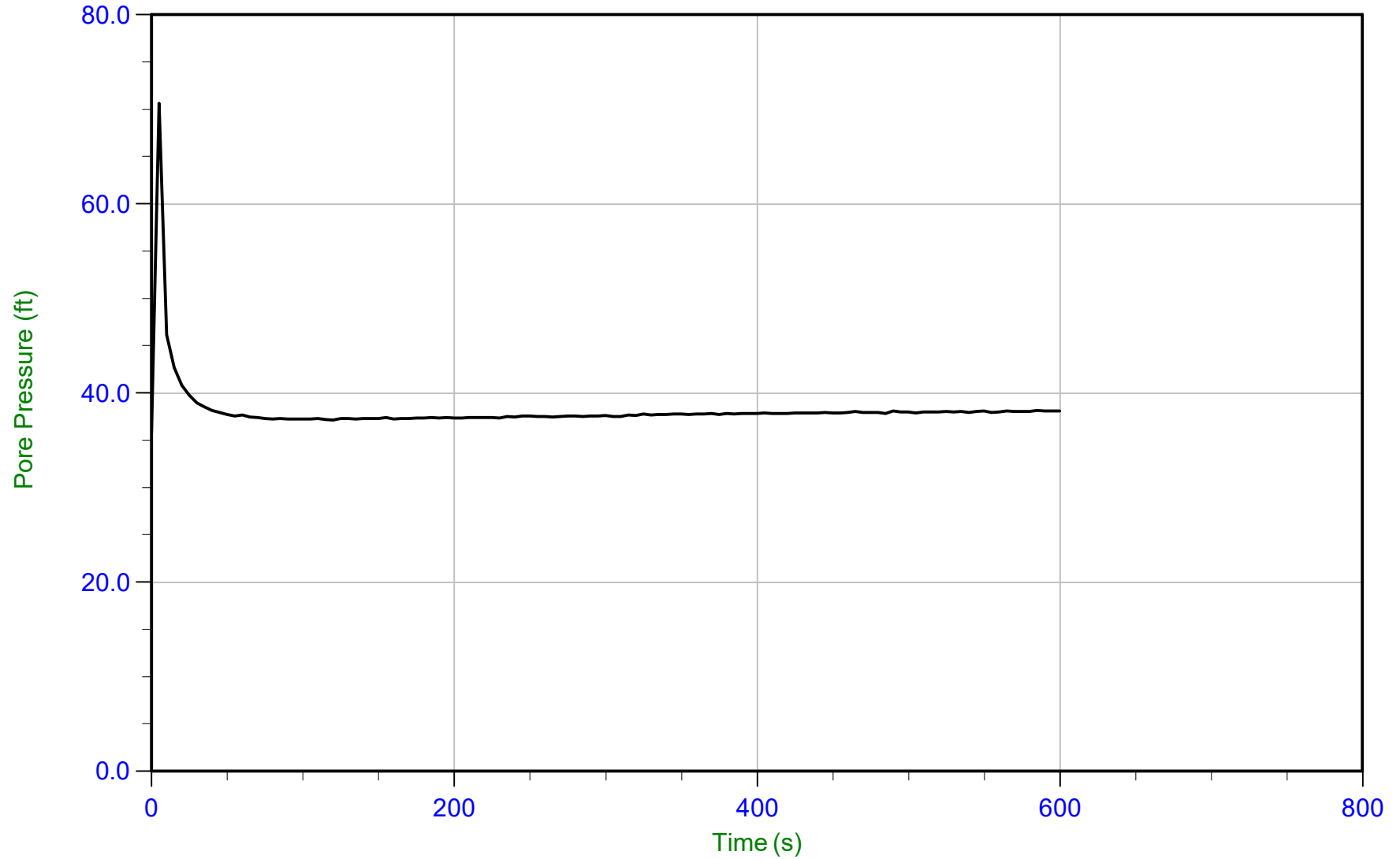
Trace Summary: Filename: 19-59023_CP03.PPD U Min: 7.8 ft
Depth: 5.950 m / 19.521 ft U Max: 65.6 ft
Duration: 190.0 s



Hart Crowser

Job No: 19-59023
Date: 07/09/2019 10:24
Site: PDX

Sounding: CPT03
Cone: 536:T1500F15U500 Area=15 cm²



Trace Summary: Filename: 19-59023_CP03.PPD U Min: 35.7 ft WT: 3.525 m / 11.565 ft
Depth: 15.150 m / 49.704 ft U Max: 70.6 ft Ueq: 38.1 ft
Duration: 600.0 s

APPENDIX B Laboratory Testing

APPENDIX B

Laboratory Testing

General

This appendix documents the laboratory testing that Hart Crowser completed on selected soil samples collected from the explorations. This appendix includes information on the following subjects:

- Laboratories
- Visual Classification
- Hart Crowser Laboratory Testing
- External Laboratory Testing

Laboratories

Soil samples obtained from the explorations were transported to our laboratory and evaluated to confirm or modify field classifications, as well as to evaluate engineering properties of the soils encountered. Representative samples were selected for laboratory testing. Selected samples were sent to Benchmark Geolabs of McMinnville, Oregon to evaluate the one-dimensional consolidation, corrosivity, and organic content properties of the soils encountered. The results of the organic content tests are presented on Figure B-1 in this appendix. While one-dimensional consolidation testing and organic content testing were performed by Benchmark Geolabs, the processing of the laboratory results was performed by Hart Crowser. The results of consolidation testing and corrosion suite testing are presented on Figures B-5 and B-6, respectively.

Visual Classifications

Soil samples obtained from the explorations were visually classified in the field and in our geotechnical laboratory based on the Unified Soil Classification System (USCS) and ASTM classification methods. ASTM Test Method D 2488 “Standard Practice for the Classification of Soils (Visual-Manual Procedure)” was used to classify soils using visual and manual methods. ASTM Test Method D 2487 “Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)” was used to classify soils based on laboratory test results.

Hart Crowser Laboratory Testing

Moisture Content

Moisture contents of samples were obtained in general accordance with ASTM Test Method D 2216. The results of the moisture content tests are presented on the exploration logs included in Appendix A and on Figure B-1 in this appendix.

Atterberg Limits Testing

Atterberg limits (liquid limit, plastic limit and plasticity index) of fine-grained soil samples were obtained from three samples in general accordance with ASTM Test Method D 4318-02. The results of the Atterberg limits tests are presented on the exploration logs included in Appendix A and on Figure B-2 in this appendix.

Grain Size Distribution

One grain size analysis was performed to determine the quantitative distribution of particle sizes in the sample. The test was performed in general accordance with ASTM D 6913. The “percent fines” portion of the test results are presented on the exploration logs included in Appendix A and on Figure B-3 in this appendix.

Moisture Density Relationship

One bulk sample of surface sample was collected for the purposes of moisture density relationship testing. The test was performed in general accordance with ASTM D 1557. The test results are presented on Figure B-4 in the appendix.

External Laboratory Testing

One-Dimensional Consolidation

One-dimensional consolidation testing was performed by Benchmark Geolabs in general accordance with ASTM Test Method D 2435. The results from the laboratory are included on Figure B-5a in this appendix. We processed the data using Taylor’s Root of Time Method to determine the time and deflection at 100 percent of primary consolidation. The processed results of consolidation testing are included on Figure B-5b in this appendix.

Organic Content

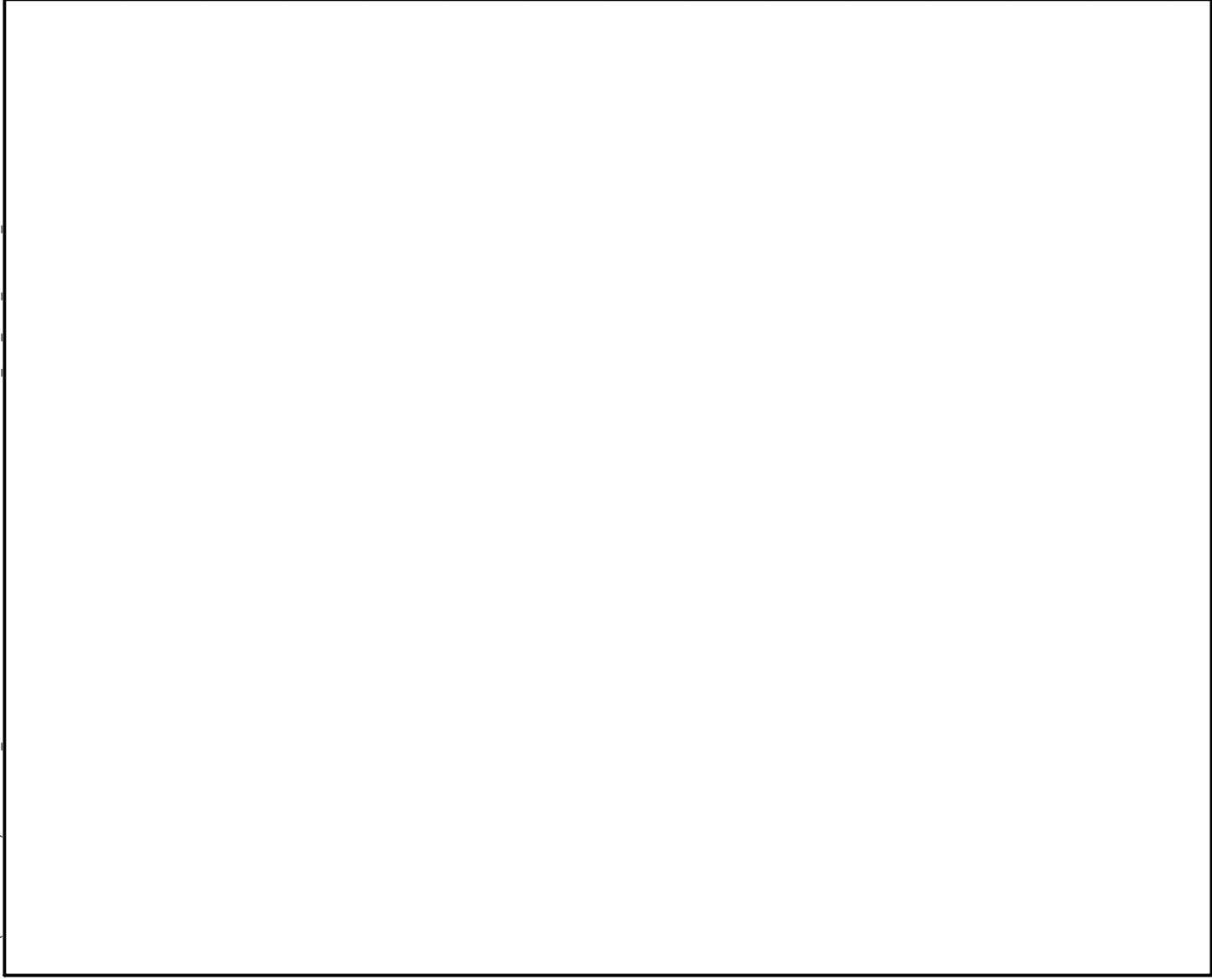
The organic contents of selected soil samples were determined by Benchmark Geolabs in accordance with guidelines presented in ASTM D 2974. The moisture contents of the samples were determined by drying the samples in a standard drying oven and then expressed as a percentage of the total sample weight. The organic content is determined by igniting the oven-dried sample in a muffle furnace. The resulting substance is ash, which is expressed as a percentage of the oven-dried sample. The organic content is included on Figure B-1 of this appendix.

Corrosion Testing

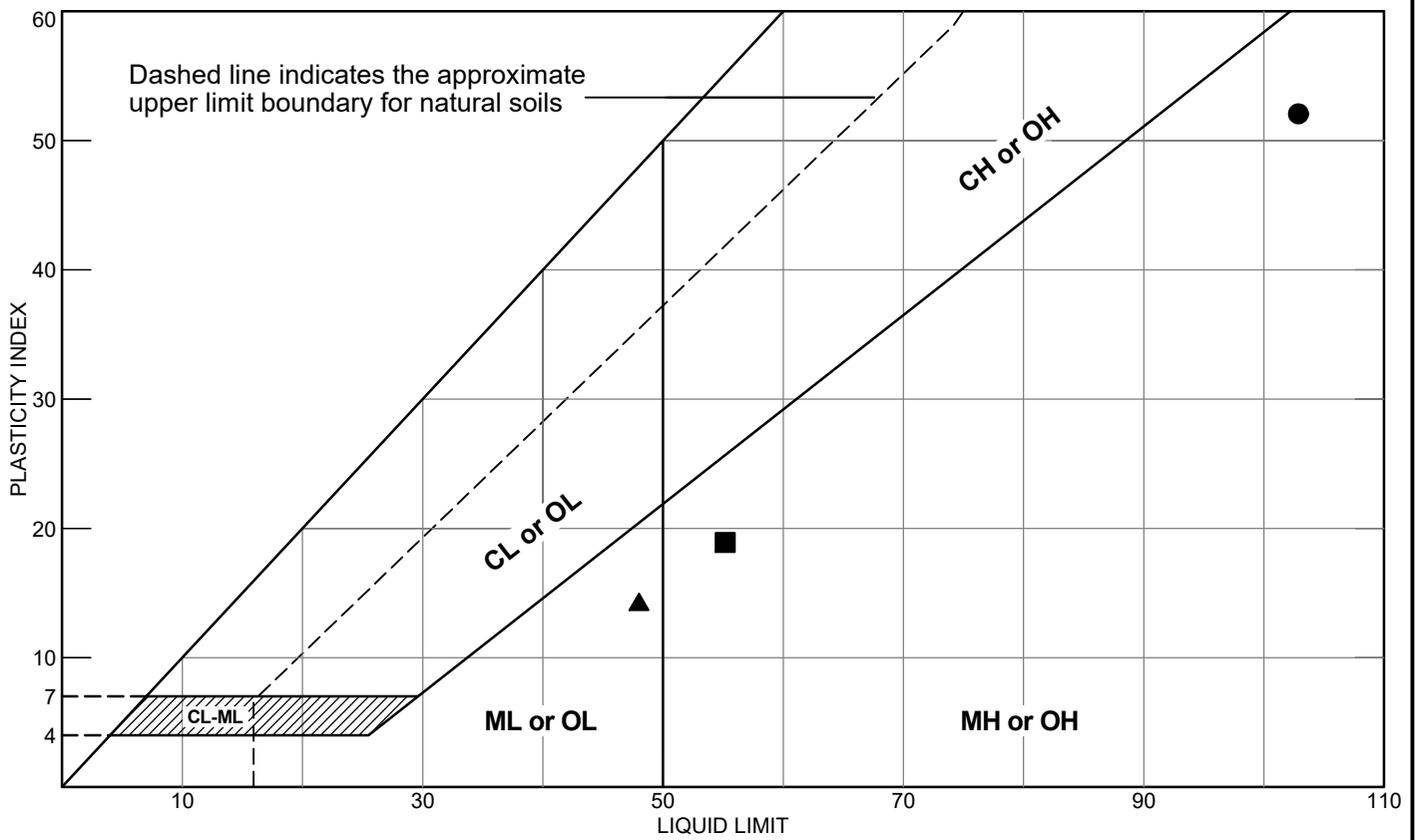
A suite of tests was completed to evaluate corrosion potential, including pH, sulfate and sulfide content, chlorides, conductivity, redox and resistivity. The testing was performed by Benchmark Geolabs in general accordance with ASTM test methods G 200, G 51, and G 57; as well as EPA methods EPA300.0, as noted on Figure B-6 in this appendix.

HC LAB SUMMARY (FOR REPORTS) - F:\GINT\HC_LIBRARY_GLB - 8/12/19 09:31 - F:\NOTEBOOKS\154118001_PDX_FUEL_FACILITY_IMPROVEMENTS\FIELD DATA\PERM_GINT FILES\154118001_EXPLORATIONS.GPJ - tristananderson

| Exploration | Sample ID | Depth | Water Content (%) | Dry Density (pcf) | Fines (%) | Sand (%) | Gravel (%) | Liquid Limit | Plastic Limit | Plasticity Index | Organic Content (%) | Pocket Pen (tsf) | Torvane (tsf) |
|-------------|-----------|-------|-------------------|-------------------|-----------|----------|------------|--------------|---------------|------------------|---------------------|------------------|---------------|
| B-1 | S-1 | 7.5 | 82.5 | | | | | 103 | 51 | 52 | | | |
| B-1 | S-2 | 10.0 | 71.7 | | | | | | | | 5.8 | | |
| B-1 | S-3 | 12.5 | 56.4 | 64.8 | | | | | | | | | |
| B-1 | S-4 | 15.0 | 59.1 | | | | | 55 | 36 | 19 | | | |
| B-1 | S-5 | 20.0 | 40.4 | | | | | | | | 1.7 | | |
| B-1 | S-6 | 25.0 | 46.3 | | | | | | | | | | |
| B-1 | S-7 | 30.0 | 55.3 | | | | | 48 | 34 | 14 | | | |
| B-1 | S-9 | 35.0 | 58.3 | | | | | | | | | | |
| B-1 | S-10 | 40.0 | 47.3 | | | | | | | | | | |
| B-1 | S-11 | 45.0 | 38.5 | | | | | | | | | | |
| B-1 | S-12 | 50.0 | 28.5 | | 6 | 94 | 0 | | | | | | |
| B-1 | S-13 | 55.0 | 31.9 | | | | | | | | | | |
| B-1 | S-14 | 60.0 | 31.8 | | | | | | | | | | |
| B-1 | S-15 | 65.0 | 29.3 | | | | | | | | | | |
| B-1 | S-16 | 70.0 | 29.9 | | | | | | | | | | |
| B-1 | S-17 | 75.0 | 32.5 | | | | | | | | | | |
| B-1 | S-19 | 85.0 | 31.5 | | | | | | | | | | |



HC:ATTERBERG LIMITS - F:\GINT\HC_LIBRARY.GLB - 7/29/19 12:26 - F:\NOTEBOOKS\154118001_PDX_FUEL_FACILITY_IMPROVEMENTS\FIELD DATA\PERM_GINT FILES\154118001_EXPLORATIONS.GPJ - tristananderson



| Location and Description | | | LL | PL | PI | #200 | MC% | USCS |
|--------------------------|--|--|-----|----|----|------|-----|------|
| ● | Source: B-1 Sample No.: S-1 Depth: 7.5 to 9.0 feet ELASTIC SILT | | 103 | 51 | 52 | NT | 83 | MH |
| ■ | Source: B-1 Sample No.: S-4 Depth: 15.0 to 16.5 feet ELASTIC SILT | | 55 | 36 | 19 | NT | 59 | MH |
| ▲ | Source: B-1 Sample No.: S-7 Depth: 30.0 to 31.5 feet SILT | | 48 | 34 | 14 | NT | 55 | ML |
| | | | | | | | | |

Remarks:

-
-
- ▲

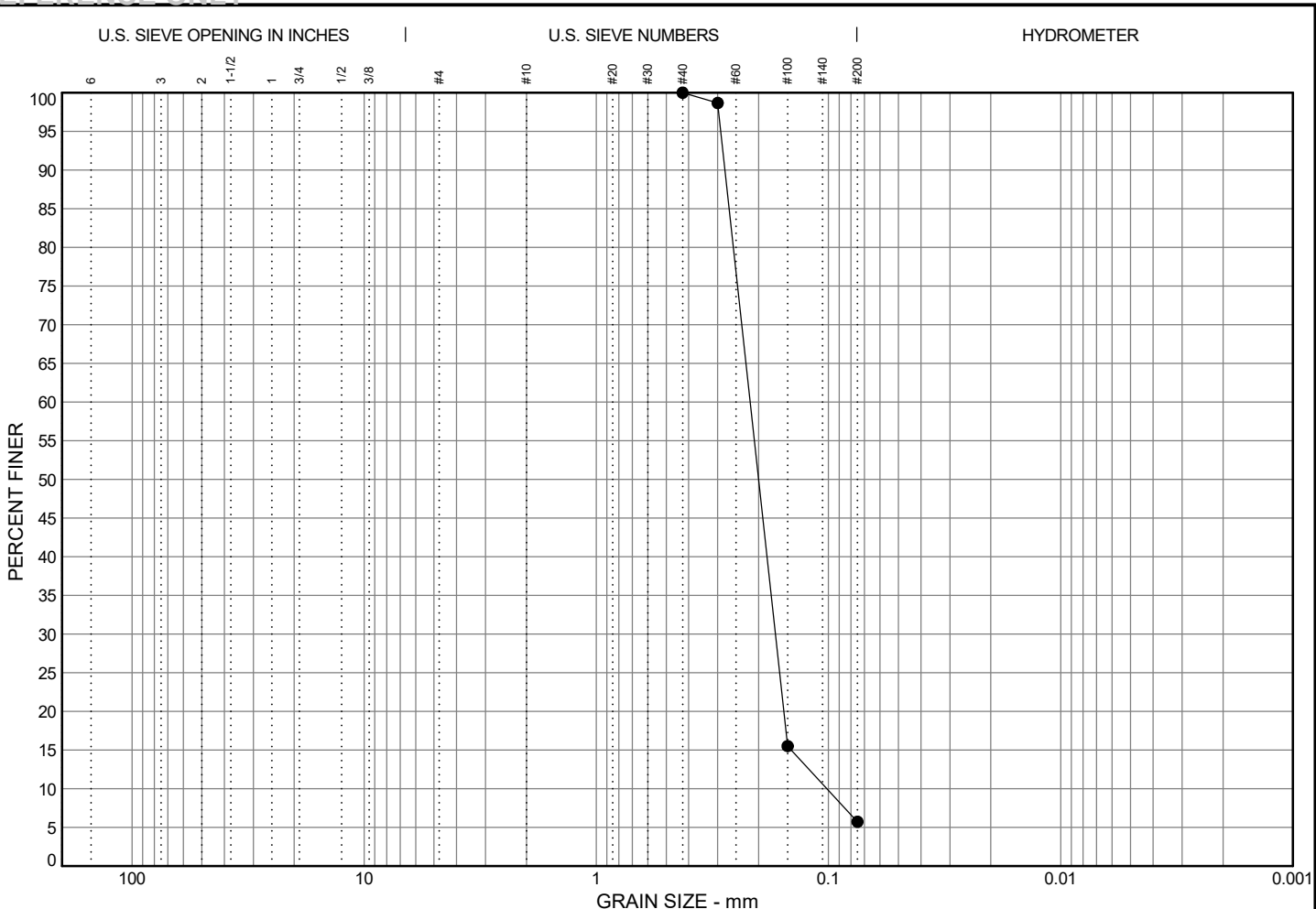


Project: PDX Fueling Facility Improvements
 Location: Portland, Oregon
 Project No.: 154-118-001

**Liquid Limit,
 Plastic Limit, and
 Plasticity Index**

Figure **B-2**
 Sheet **1 of 1**

HC GRAIN SIZE - F:\GINT\HC_LIBRARY.GLB - 7/29/19 12:27 - F:\NOTEBOOKS\154118001_PDX_FUEL_FACILITY_IMPROVEMENTS\FIELD DATA\PERM_GINT FILES\154118001_EXPLORATIONS.GPJ - tristananderson

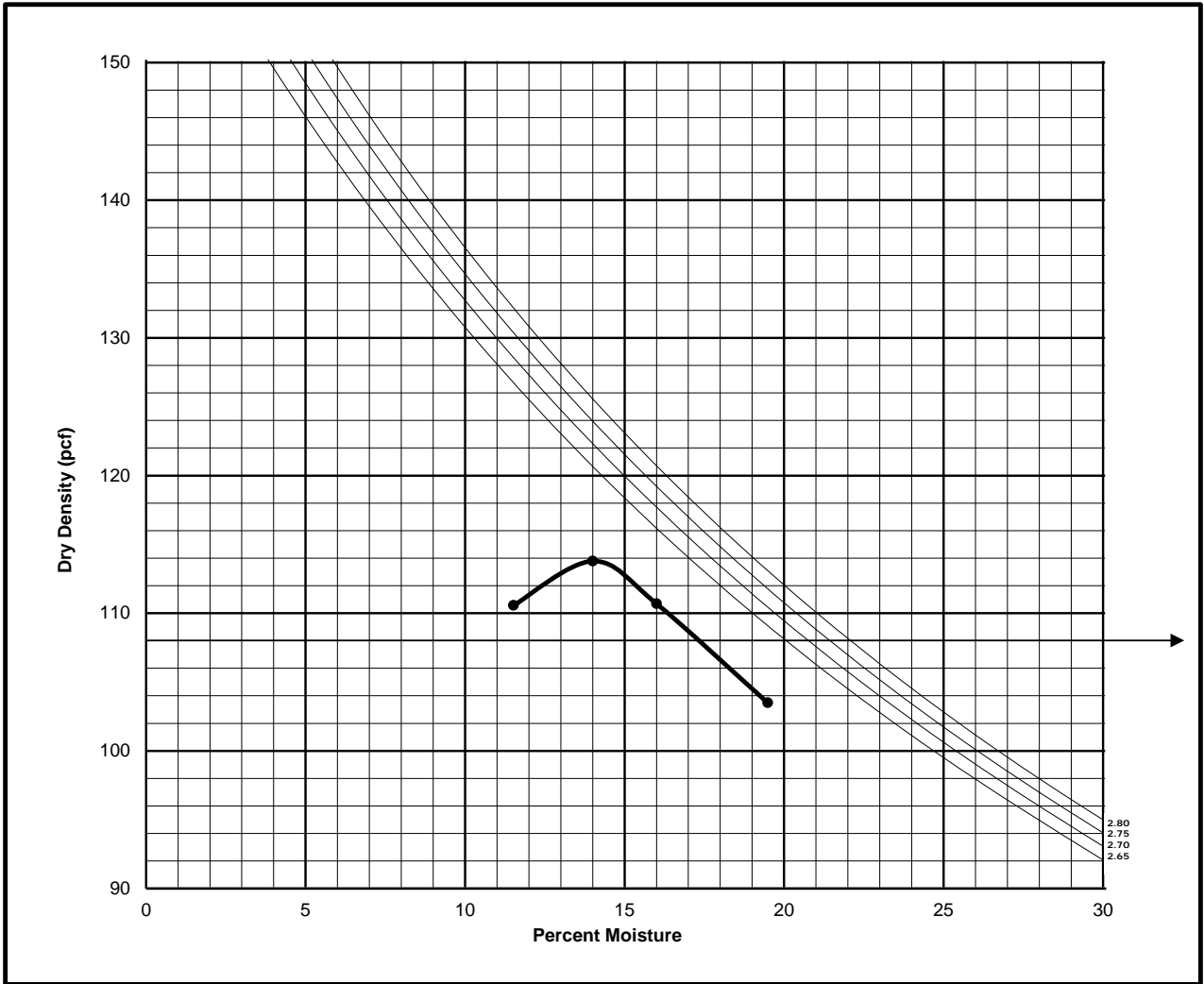


| | | | | | | |
|---------|--------|------|--------|--------|------|--------------|
| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
| | coarse | fine | coarse | medium | fine | |

| Location and Description | % Cobbles | % Gravel | % Sand | % Silt | % Clay | MC% | USCS |
|--|-----------|----------|--------|--------|--------|-----|------|
| ● Source: B-1 Sample No.: S-12 Depth: 50.0 to 51.5 POORLY GRADED SAND WITH SILT | 0.0 | 0.0 | 94.3 | 5.7 | | 29 | SP |
| | | | | | | | |
| | | | | | | | |

| LL | PI | D ₈₅ | D ₆₀ | D ₅₀ | D ₃₀ | D ₁₅ | D ₁₀ | C _c | C _u |
|----|----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|
| ● | | 0.268 | 0.217 | 0.200 | 0.169 | 0.145 | 0.102 | 1.30 | 2.14 |
| | | | | | | | | | |

Remarks:
●



| | | | |
|-----------------------------|---------------|------------------------------------|--------------|
| Maximum Dry Density: | 113.8 | Rock Corr. Maximum: | 113.8 |
| Optimum % Moisture: | 14.0 | Rock Corr. Opt. % Moisture: | 14.0 |
| Test Standard: | D 1557 | Percent +3/4": | 0.0 |
| Method: | A | Correction Method: | D4718 |

| | |
|----------------------------|------------------------|
| Sample I.D. | Existing Surface Fill |
| Sample Description: | Brown, fine silty sand |
| Sample Date | July 9, 2019 |

Project: PDX Fuel Facility
File No.: 154-118-001
Client: Burns & McDonnell
Comments: Slightly Cemented

Date: July 23, 2019
Tested By: DLK
Checked By: TTA

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MOISTURE DENSITY RELATIONSHIP

FIGURE B-4

**BENCHMARK
GEOLABS**

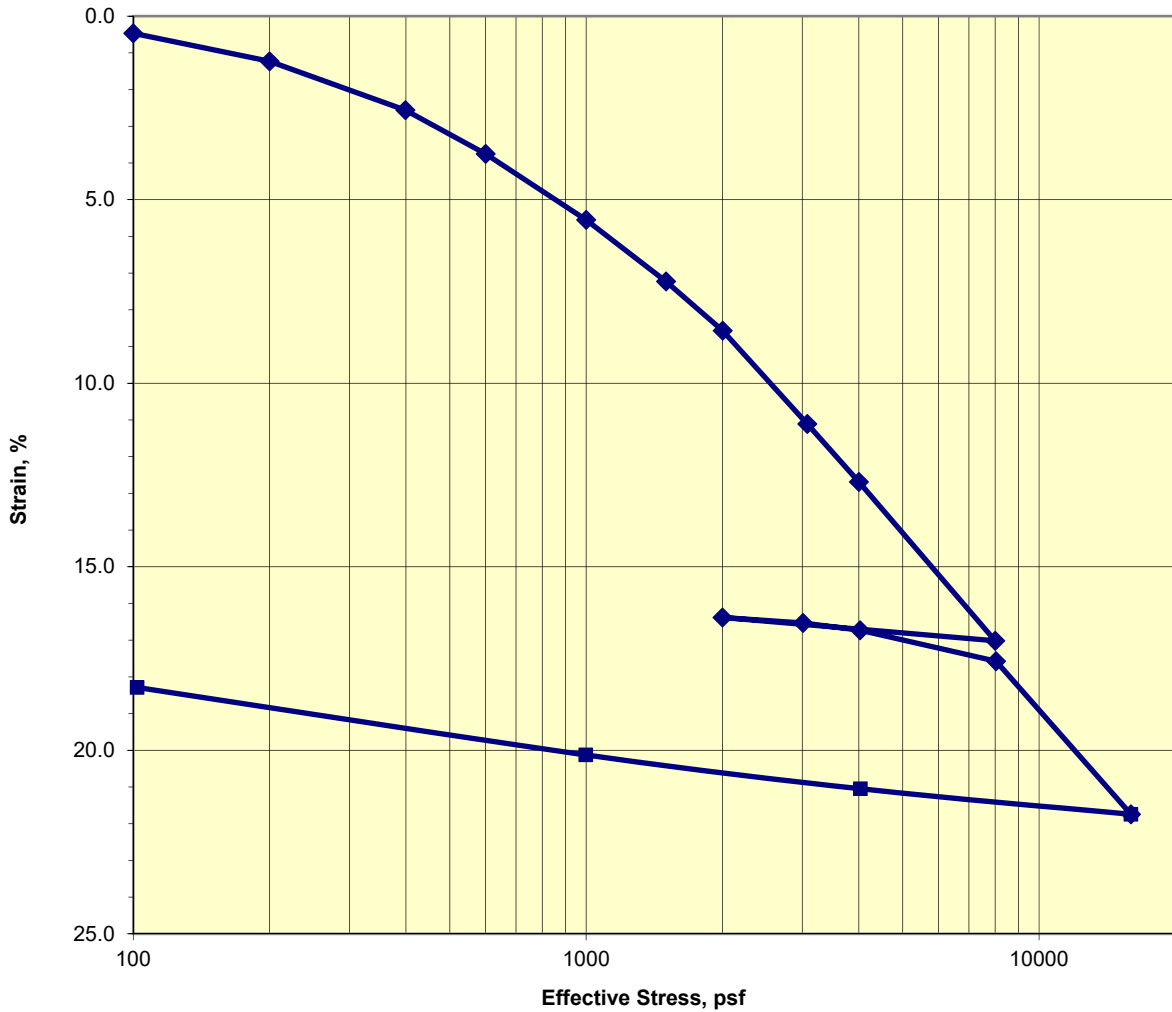


Consolidation Test

ASTM D2435

| | | |
|---|----------------------------------|-----------------------|
| BGL No.: 041-007 | Boring: B-1 | Run By: PJ |
| Client: Hart Crowser | Sample: S-3 | Checked: PJ |
| Project: PDX Fueling Facility Improvements | Depth, ft.: 12.5-14.5 | Date: 8/1/2019 |
| Project No.: 154-118-001 | Soil Type: Dark Gray SILT | |

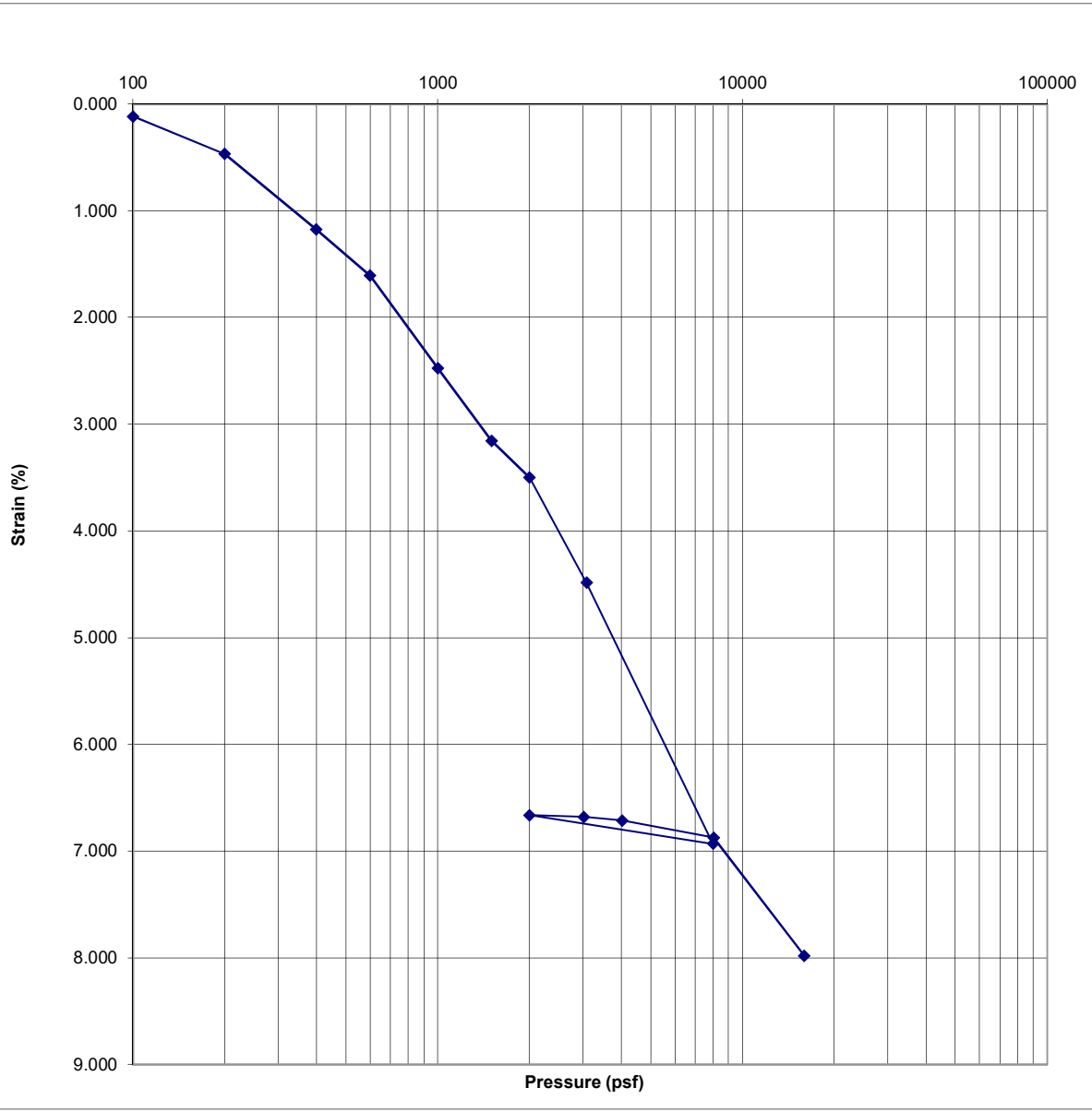
Strain-Log-P Curve



| | | | |
|--------------------------|-----|----------------|--------------|
| Assumed Gs | 2.7 | Initial | Final |
| Moisture %: | | 56.4 | 39.7 |
| Dry Density, pcf: | | 66.3 | 81.2 |
| Void Ratio: | | 1.540 | 1.076 |
| % Saturation: | | 98.8 | 99.7 |

Remarks: This material was soft.

FIGURE B-5a



| | Initial | Final |
|---------------------|---------|-------|
| Moisture (%) | 56.5% | 39.7% |
| Dry Density (pcf) | 66.3 | 81.2 |
| Void Ratio | 1.543 | 1.078 |
| Per Cent Saturation | 98.8 | 99.4 |

| | |
|--------------------|--------|
| Sample Height (in) | 1.0072 |
| Sample Diam (in) | 2.4210 |
| Area (in^2) | 4.603 |

| | | | |
|-----------|-----|-------------------|----------------|
| Boring #: | B-1 | Depth: | 12.5 ft |
| Sample #: | S-3 | Soil Description: | Dark Gray Silt |

| | | | |
|-----------|----------------------|-------------|-------------------|
| Project: | PDX Fueling Facility | Date: | 08/01/19 |
| File No.: | 154-118-001 | Tested By: | Benchmark Geolabs |
| Client: | Burns & McDonnell | Checked By: | TA |
| Comments: | | | |

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Consolidation Test ASTM D2435

FIGURE B-5b

**BENCHMARK
GEOLABS**



Corrosivity Tests Summary

BGL # 041-007 Date: 7/19/2019 Tested By: PJ Checked: PJ
 Client: Hart Crowser Project: PDX Fuleing Facility Improvements Proj. No: 154-118-001
 Remarks: The difference in pH between the two samples was noted and verified.

| Sample Location or ID | | | Resistivity @ 15.5 °C (Ohm-cm) | | | Chloride mg/kg | Sulfate | | pH | ORP (Redox) | | Sulfide Qualitative by Lead Acetate Paper | Moisture At Test % | Soil Visual Description |
|-----------------------|-------------|------------|--------------------------------|---------|----------|----------------------|----------------------|----------------------|----------|----------------|---------------------|--|--------------------------|-------------------------|
| | | | As Rec. | Min | Sat. | | Dry Wt. | Dry Wt. | | % | E _H (mv) | | | |
| Boring | Sample, No. | Depth, ft. | ASTM G57 | Cal 643 | ASTM G57 | EPA 300.0 Dry Wt. | EPA 300.0 Dry Wt. | EPA 300.0 Dry Wt. | ASTM G51 | ASTM G200 | Temp °C | ASTM D2216 | | |
| B-1 | S-6 | 25-26.5 | - | - | 4,411 | 2 | 41 | 0.0041 | 4.8 | 260 | 20 | Negative | 46.3 | Very Dark Gray SILT |
| B-1 | S-14 | 60-61.5 | - | - | 6,111 | 2 | 24 | 0.0024 | 7.0 | 239 | 20 | Negative | 31.8 | Gray SAND |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
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Figure B-6

APPENDIX C Field Resistivity Testing

Report on
Geophysical Explorations at the
Portland International Airport Fuel Depot
Portland, Oregon

Report Date: July 1, 2019

Prepared for:

Hart Crowser, Inc.
6420 SW Macadam Ave.
Portland, OR 97239



Prepared by:

EARTH DYNAMICS LLC
2284 N.W. Thurman St.
Portland, OR 97210
(503) 227-7659
Project No. 19404

1.0 INTRODUCTION

The Portland Fueling Facilities Corporation is planning to perform upgrades at the Portland International Airport (PDX) Facility in Portland Oregon. This report presents the results of electrical resistivity explorations at the proposed fuel facility upgrades. The explorations consist of Wenner four-point method electrical resistivity soundings at one location near the PDX fueling facility. The work was requested and authorized by Ms. Allison Pynch of Hart Crowser, Inc. The field work was conducted on June 25, 2019 by Mr. Daniel Lauer of Earth Dynamics LLC. This report describes the methodology and results of the investigation.

2.0 SCOPE OF WORK

The goals of this study are to determine the site specific electrical properties of the soil. The exploration consists of one Wenner four-point method electrical resistivity soundings. The provided scope of work documents requested that *“The survey shall be conducted along two (2) perpendicular lines (N-S and E-W) centered at the locations noted. For each line, readings shall be taken with “a” spacings of 2.5, 5, 10, 20 and 50 feet. The values reported for each ‘a’-spacing shall include current potential, and apparent resistivity reported in Ohm-cm.”* The locations of the geophysical lines are shown in Figure 1.

3.0 METHOD

3.1 Wenner four-point method

Resistivity measurements are obtained using the Wenner four-point method in accordance with ANSI/IEEE Standard 81-1983 and ASTM G 57–95a, *Standard Test Method for Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method*. An Advanced Geosciences, Inc. SuperSting R8 Earth Resistivity Meter and a Wenner electrode array are used for the electrical resistivity sounding. The SuperSting R8 Meter was factory calibrated in October of 2017, and calibration is field verified before each use. For each measurement, the instrument applies a current (I), reverses polarity and applies the current again and then reverses polarity back to the original and applies current a third time. The reversed polarity technique is used to reduce electrode polarization. The voltage (V) at the potential electrodes is measured for each current injection, and the values are averaged. The average resistance (V/I), resistivity and standard deviation between two full measurement cycles are displayed on a screen and stored in the internal memory. The memory also stores the date and time of the measurement, and the electrode configuration. The system does not require scale multipliers that are common on older analog resistivity meters.

The Wenner soundings were completed on June 25, 2019. During the survey, the air temperature was approximately 55-60 °F. The weather was overcast and calm. Data

were acquired on two perpendicular arrays using “a”-spacings of 2.5, 5, 10, 20, 30 and 50 feet. Care was taken in all electrode placements for all profiles to ensure that the electrodes were installed into soil in a manner to provide adequate electrical contact. No water or electrolyte solution was added to any of the electrode placements. No overhead powerlines or apparent underground utilities are present in the vicinity of the data acquisition location.

3.2 Location Survey

Horizontal and vertical position data were obtained with a Trimble GEOXH 6000 GPS receiver. The position data were post-processed to increase the accuracy of the GPS positions. The reported accuracy of the post-processed position data is better than plus or minus one foot.

4.0 RESULTS

The locations of the geophysical profiles are shown in Figures 1 and 2. Positioning information for the profiles is summarized in Table 1. The acquired Wenner sounding data are summarized in Tables 2 and 3. The data from the north-south and east-west profiles are similar. Therefore, it is expected that the electrical resistivity of the soils in the vicinity of the test is laterally homogeneous.

Table 1. GPS Position Data for Geophysical Profiles.

| Profile Location | Latitude | Longitude |
|-------------------------|-----------------|------------------|
| R1-Center | 45° 35.8386'N | 123° 36.7408'W |
| R1-East | 45° 35.8343'N | 123° 36.7245'W |
| R1-West | 45° 35.8431'N | 123° 36.7572'W |
| R1-North | 45° 35.8502'N | 123° 36.7346'W |
| R1-South | 45° 35.8272'N | 123° 36.7472'W |

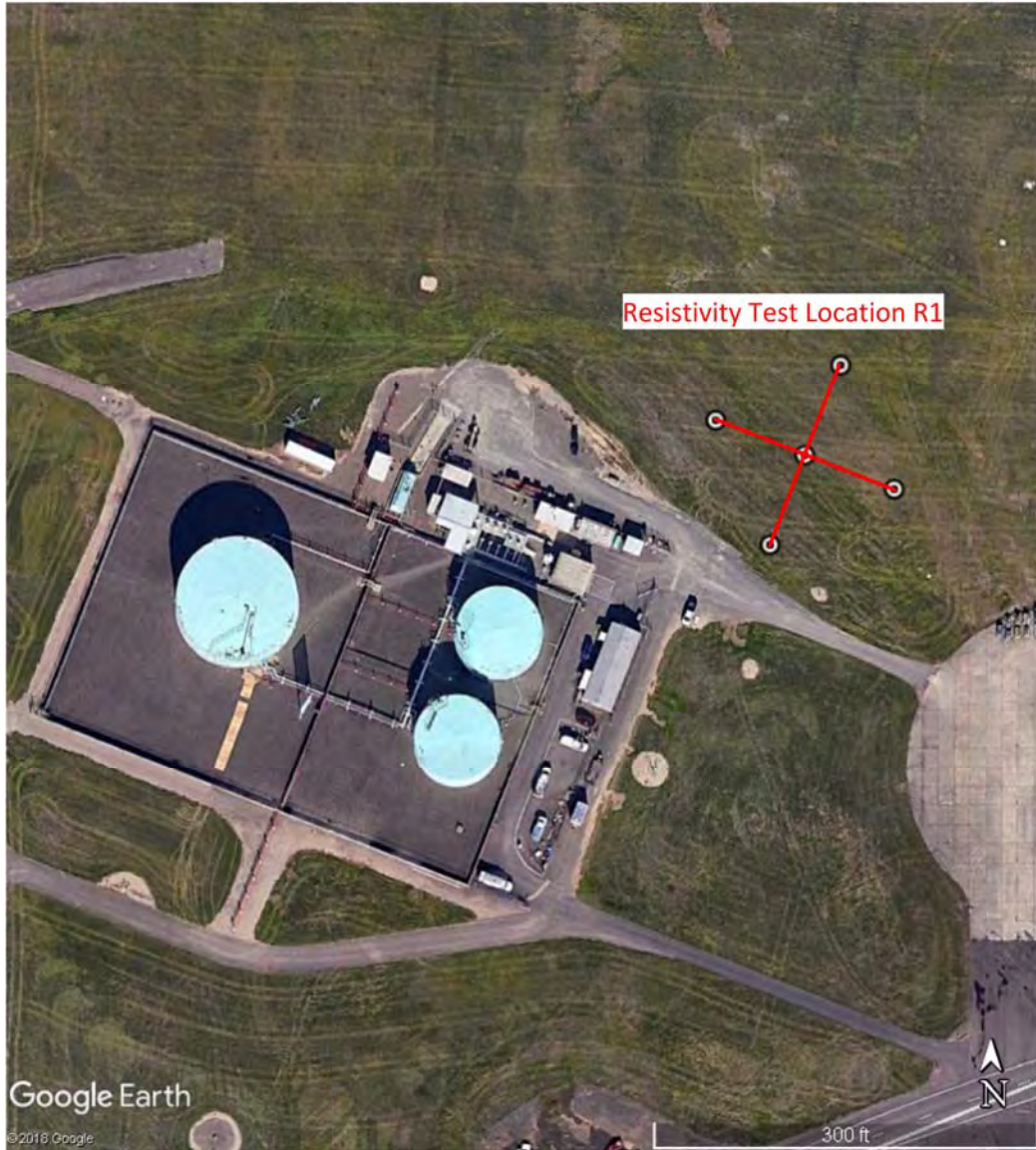


Figure 1. Site image with geophysical profile locations.

Table 2. Summary of measured data for N/S Wenner Sounding.

| Wenner A spacing (ft) | Wenner A spacing (cm) | Approximate Electrode insertion depth (in) | Current (mA) | Measured Resistance (Ω) | Apparent Resistivity (Ω -ft) | Apparent Resistivity (Ω -cm) |
|-----------------------|-----------------------|--|--------------|----------------------------------|--------------------------------------|--------------------------------------|
| 2.5 | 76.2 | 1 | 26.15 | 44.88 | 705.0 | 21488.4 |
| 5 | 152.4 | 1 | 20.52 | 40.41 | 1270.0 | 38709.6 |
| 10 | 304.8 | 2 | 46.34 | 22.39 | 1407.0 | 42885.4 |
| 20 | 609.6 | 3 | 9.576 | 9.523 | 1197.0 | 36484.6 |
| 30 | 914.4 | 4 | 58.8 | 3.917 | 728.4 | 22201.6 |
| 50 | 1524 | 4 | 77.19 | 1.044 | 328.1 | 10000.5 |

Table 3. Summary of measured data for E/W Wenner Sounding.

| Wenner A spacing (ft) | Wenner A spacing (cm) | Approximate Electrode insertion depth (in) | Current (mA) | Measured Resistance (Ω) | Apparent Resistivity (Ω -ft) | Apparent Resistivity (Ω -cm) |
|-----------------------|-----------------------|--|--------------|----------------------------------|--------------------------------------|--------------------------------------|
| 2.5 | 76.2 | 1 | 20.49 | 47.4 | 744.0 | 22677.1 |
| 5 | 152.4 | 1 | 18.46 | 38.34 | 1205.0 | 36728.4 |
| 10 | 304.8 | 2 | 84.98 | 29.14 | 1831.0 | 55808.9 |
| 20 | 609.6 | 3 | 92.2 | 11.74 | 1476.0 | 44988.5 |
| 30 | 914.4 | 4 | 60.43 | 3.373 | 635.8 | 19379.2 |
| 50 | 1524 | 4 | 40.26 | 0.675 | 212.1 | 6464.8 |

5.0 LIMITATIONS

The data presented in this study were collected in accordance with standard procedures by experienced personnel using state of the art equipment. However, no warranty is made or intended by this report or by oral or written presentation of this work. Earth Dynamics accepts no responsibility for damages as a result of decisions made or actions taken based upon this report.

6.0 REFERENCES

ANSI/IEEE Std 81-1983, IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System. The Institute of Electrical and Electronics Engineers, Inc., New York, NY

ASTM G 57-95a (Reapproved 2001), Field Measurement of Soil Resistivity Using the Wenner Four-Electrode Method. ASTM, 100 Bar Harbor Drive, West Conshohocken, PA

RESPECTFULLY SUBMITTED
EARTH DYNAMICS



Daniel Lauer
Senior Geophysicist

