GEOTECHNICAL ENGINEERING REPORT

for

MICRON NEW YORK MANUFACTURING FACILITY
Phases 1 and 2
Clay, New York

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INTRODUCTION

This report presents the results of our geotechnical engineering study for the Phase 1 and 2 portions of the proposed Micron New York Manufacturing Facility in Clay, New York. The objectives of this study were to:

- Review and evaluate prior geotechnical data prepared by others,
- Investigate and characterize the subsurface conditions at the site by conducting a supplemental geotechnical investigation,
- Identify geotechnical and geologic features that will affect the proposed development,
- Evaluate foundation support options for the proposed development,
- Develop seismic design parameters, and
- Provide geotechnical design and construction recommendations.

All services were performed in general accordance with the scope of services outlined in our executed contract, dated 2 January 2025, and related subsequent contract amendments.

REPORT STRUCTURE

This report presents site-wide geotechnical data for the Phase 1 and Phase 2 development areas of the Micron New York Manufacturing Facility campus along with generic recommendations related to design and construction of areas for which detailed information of the proposed buildings and site improvements has not been provided. In addition, building-specific design and construction recommendations are included separately as attachments to this report for those buildings and site improvements where detailed information was provided by the project team. This report assumes that building layouts, materials, structural framing, and loading will be similar for all phases of the project.

PROJECT COORDINATE SYSTEM AND VERTICAL DATUM

Per the project survey prepared by Thew Associates Land Surveyors, dated 20 April 2023, we understand that the project utilizes the New York State Plane Coordinate System and references the North American Vertical Datum of 1988, Geoid18 (NAVD88/18).

APPLICABLE CODES AND STANDARDS

- All recommendations presented herein are in accordance with the pending update of the New York State Building Code (**https://dos.ny.gov/system/files/documents/2024/07/2024-07-25_bcnys_nrd-final-draft-document.pdf**), which is an amended version of the 2024 edition of the International Building Code (IBC).
- Seismic Evaluation was performed in general conformance with ASCE 7-22 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- Drilled pier calculations were performed in general conformance with the guidelines in FHWA-NHI-10-016 – Drilled Shafts: Construction Procedures and LRFD Design Methods.
- All concrete calculations were performed following the provisions of ACI 318-19 – Building Code Requirements for Structural Concrete.

- Concrete calculations were performed assuming a conservative generic load factor of 1.6 applied to the unfactored loads provided by Jacobs.
- Compression load tests to be performed in conformance with ASTM D8169-18 – Standard Test Methods for Deep Foundations Under Bi-Directional Static Axial Compressive Load.
- Lateral load tests to be performed in conformance with ASTM D3966-07 – Standard Test Methods for Deep Foundations Under Lateral Load.

SITE DESCRIPTION

The project site is in the Town of Clay, New York and occupies an area of about 1,019 acres. The site is generally bordered by Caughdenoy Road to the west, NYS Route 31 to the South, Brewerton Road (US Route 11) and undeveloped lands to the east, and undeveloped land to the north. Burnet Road, which runs north-south on the east-central portion of the property, will be de-mapped as part of the proposed development. A site location map is attached as Figure 1.

Existing grade varies within the property from about el 376 to 427, with higher elevations located near the south end of the property along NYS Route 31 and the lowest elevations located near the northwest area of the property. The higher elevations in the area reflect the presence of two drumlins (a glacial landform discussed in a subsequent section) that form spines trending northwest to southeast near the south end of the property.

Much of the property is comprised of fallow agricultural lands, former agricultural lands containing brush and sparse tree cover, and undeveloped wet forest lands with denser tree cover. Several residential parcels were/are located along Caughdenoy Road, Burnet Road, and along NYS Route 31; however, the majority of these properties have been recently demolished or are no longer occupied. The former agricultural lands which had been tilled until more recently are primarily open grass fields whereas fields that have remained dormant to farming operations longer tend to be overgrown with brush and sparse young-growth trees.

The property serves as a headwater to Young’s Creek which ultimately feeds into the Oneida River about 2 miles to the northwest. Accordingly, large areas of the site contain mapped state and federal wetlands subject to the jurisdiction of the New York State Department of Environmental Conservation (NYSDEC) and US Army Corp of Engineers (USACE), respectively.

Electric transmission lines, traverse the north end of the site through an about 300-foot-wide easement corridor. In addition, Onondaga County Water District maintains an about 99-foot-wide utility easement that cuts through the property near its south end and trends roughly east-west.

PROJECT DESCRIPTION

The proposed development involves construction of a semiconductor manufacturing campus, centered around four main fabrication buildings (FABs) with associated support facilities that include central utility buildings (CUBs), administrative buildings and garages, wastewater treatment plants (WWT) and various substations, process facilities, yards, and other site infrastructure and improvements. The proposed development will require significant earthwork operations, largely to infill low-lying wetlands and raise grades across much of the property.

We understand that the development will consist of four phases, referenced herein as Phases 1 through 4. The first phase of the site development generally entails performing mass earthwork activities west of Burnet Road to facilitate creating a pad site for the construction of the Phase 1 Fabrication Building, its associated support facilities, and necessary site improvements such as roadways, utilities, and features related to stormwater management practices (SMPs). In addition, Phase 1 will include construction of roadway infrastructure beyond Burnet Road to the east that extends out to Brewerton Road. Phase 2 will include construction of the Phase 2 Fabrication Building and its associated support facilities and site improvements. The attached Figure 2 illustrates the approximate extents of the two phases (Phase 1 and Phase 2) of the development.

Regional Geology

The site lies within the Ontario Lowlands Physiographic Province. The lowlands, in proximity to the site, are characterized by a subdued surface topography except for elongated hills called drumlins that dot the landscape. The drumlins were deposited beneath the glacier during its advance and are comprised largely of unsorted glacial till soils. The elongated sides of the drumlins align with the direction of glacial advance.

The site falls near the southeast corner of Glacial Lake Iroquois and much of the site's surficial geology is owed to the former lake. The surficial geology is generally characterized by the presence of proglacial lacustrine deposits of silt and clay that were deposited within Glacial Lake Iroquois. In many cases, these soils were deposited atop older glacial till soils that are comprised of heterogeneous mixtures of clay, silt, sand, gravel, cobbles, and boulders. In the case of drumlins, the glacial till extends to the surface and loose or soft drift materials could be found near the margins of the drumlins due to erosion. Holocene-aged soils containing higher concentrations of organic material (e.g., muck, peat, etc.) are present sporadically within the site (normally near the headwaters and outlying wetlands of Young's Creek). The general locations of such soils are indicated on mapping by the United States Department of Agriculture (USDA)[1] and surficial geologic mapping prepared by the New York State Museum[2].

Geologic mapping indicates that bedrock in the area is generally comprised of Upper Silurian age dolostone and shale of the Lockport Group[3]. Dolostone is a fine-grained sedimentary rock comprised primarily of the mineral dolomite. Dolostone is a carbonate rock similar in composition to limestone but is generally harder and more resistant to weathering than limestone. Shale is a sedimentary rock primarily comprised of clay minerals. The Lockport Group is primarily comprised of dolostone with lesser concentrations of interbedded shale. While the dolostone is a carbonate rock, karstic features were not reported in prior investigations performed for the development or encountered in Langan's supplemental investigation.

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[1] United States Department of Agriculture, National Resources Conservation Service, Web Soil Survey, Onondaga County, New York, Version 19, 29 August 2021.

[2] Surficial Geology of the Brewerton 7.5-Minute Quadrangle, Onondaga and Oswego Counties, New York. New York State Museum Map and Chart No. 145, 2021.

[3] Geologic Map of New York, Finger Lakes Sheet, New York State Museum and Science Service, Map and Chart Series No. 15, 1970.

Excerpts of bedrock geology, surficial geology and USDA soil survey maps are attached as Figures 3 through 5, respectively.

REVIEW OF HISTORIC GEOTECHNICAL INFORMATON

Three geotechnical investigations were completed by CME Associates, Inc. (CME) between Spring 2023 and Spring 2024. The CME investigations were primarily focused within the Phase 1 development area south of the NYPA easement (herein Phase 1A); however, some geotechnical testing was also completed within the Phase 2 and Phase 3 areas of the site. No testing was performed north of the NYPA easement or within the Phase 4 areas of the site. The CME investigations included performing conventional geotechnical borings with Standard Penetration Testing (SPT) (both with and without rock coring), cone penetration tests (CPT), test pits, and non-invasive tests such as surface geophysical testing (i.e., MASW), and electrical resistivity testing. Laboratory testing of soil and rock samples were also completed by CME as part of their studies. Using the data from the investigation and laboratory tests, the following geotechnical reports were produced by the project's prior geotechnical consultant[4]:

- Report number 28062B-02-0623-R1 "Memorandum – Revision 1" by CME Associates, Inc., dated 30 June 2023.
- Report number 28124B-01-1023 "Geotechnical Data Report" by CME Associates, Inc., dated 27 October 2023.
- Report number 172E-01-0124 "Soils Investigation and Conceptual Foundation Recommendation Report" by CME Engineering Group, D.P.C., dated 6 February 2024.
    - Report number 28062B-01-0523R1 "Geotechnical Data Report – Revision 1" by CME Associates, Inc., dated 20 June 2023.
    - Report number 28062B-03-1223 "Geotechnical Data Report Second Phase" by CME Associates, Inc., dated 8 December 2023.
- Report number 28062B-04-0724 "Geotechnical Data Report – Third Phase" by CME Associates, Inc., dated 16 July 2024.
- Report number 172E-02-0824 "Geotechnical Engineering and 30% Civil Design Q&A" by CME Engineering Group, D.P.C., dated 8 August 2024.
- Report number 172E-03-0924 "Drilled pier vs. Driven Pile Geotechnical Memorandum" by CME Engineering Group, D.P.C. (CEG), dated 30 September 2024.

Langan's scope of services included reviewing and evaluating the historic geotechnical data, reports and recommendations provided by Ramboll, researching available public records and participating in two conference calls with representatives of Ramboll, CME, & CEG. Langan prepared a Preliminary Geotechnical Review Memorandum, dated 21 February 2025, summarizing our evaluation of the reported data, potential data and analysis gaps, feasibility of

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[4] All geotechnical data and reporting were provided by Ramboll Americas Integrated Solutions (Ramboll). Field investigations and data reports were produced by CME Associates, Inc. (CME) – a subconsultant to Ramboll; and engineering reports and memorandums were produced by CME Engineering Group, D.P.C. (CEG) – a subconsultant to CME.

various foundation options and initial recommendations pertinent to Phase 1 of the project based on the historic data.

LANGAN SUBSURFACE INVESTIGATION

Langan performed a supplemental geotechnical investigation between April and May of 2025, that included conventional geotechnical borings with Standard Penetration Testing (SPT) (both with and without rock coring), cone penetration tests (CPTs), test pits, crosshole seismic logging (CSL), thermal resistivity tests, electrical resistivity tests and seismic refraction surveys. All field work was performed under the supervision of Langan. A summary of the tests performed in each development area is summarized in Table 1. Langan's investigation plan is presented as Figure 6.

Table 1 – Summary of Langan Geotechnical Field Investigation

Test Type	Number of Locations			
	Phase 1A	Phase 1B	Phase 2	Total
Borings (without rock coring)	0	26	20	46
Borings (with rock coring)	32	18	45	95
Groundwater Monitoring Wells	4	15	21	40
CPTs	15	19	37	71
Test Pits	30	0	0	30
Crosshole Seismic Logging	1	0	1	2
Electrical Resistivity Tests	30	0	0	30
Thermal Resistivity Tests	30	0	0	30
Seismic Refraction Survey	13	0	7[1]	20

[1] Note: Additional refraction surveys within the Phase 2 development area are contemplated to be performed during a subsequent phase of investigation.

Geotechnical Borings

All borings were drilled using track-mounted drill rigs by Atlantic Testing Laboratories, Limited (ATL) of Canton, New York. The borings were either terminated on the inferred top of bedrock (as determined by drilling/sampling resistance) or included coring which permitted the boreholes to be advanced into competent bedrock. Drilling through overburden was achieved using either mud-rotary techniques or hollow-stem augers. Bedrock coring was performed using NX/NQ or PQ size core barrels in general accordance with ASTM D2113. SPT sampling was generally performed continuously through fill and soft deposits and at 5-foot intervals through the glacial till deposits and weak rock in general accordance with ASTM D1586. Undisturbed soil samples were obtained from the clay/silt deposits using a thin-walled tube in general accordance with ASTM D1587. The borings varied in depth of about 10 to 69 feet below grade, with the boring termination elevation varying between about el 326 and 392. Copies of the Langan geotechnical borings are included in Appendix A.

Groundwater monitoring wells were installed in 40 of the completed borings but one of the installed wells (LB-R-033) was damaged during the investigation. The wells were generally installed with 10 feet of screen and 5 to 20 feet of solid riser pipe (includes stick-up). Copies of well construction logs are included as Appendix B.

Tests Pits

Test pits were performed at the approximate locations requested by Jacobs. Test pits were excavated by ATL using hand tools and advanced to depths varying from about 0.5 to 5 feet below adjacent grade. The termination elevation of test pits varied between about el 401 to 378. A copy of the test pit logs is included in Appendix C.

Cone Penetration Tests

CPTs were performed by Conetec, Inc. of West Berlin, New Jersey using a track-mounted drill rig. The CPTs were advanced to refusal at depths varying from 6 to 28 feet below grade corresponding to elevations varying from about el 403 to 364, respectively. Shear wave velocity testing was performed in 74 CPT locations. A copy of the Conetec summary CPT testing report is included in Appendix D.

Borehole Geophysical Logging

The orientation, frequency, and aperture of bedrock discontinuities were recorded in select boreholes using the acoustic televiewer (ATV) method and optical televiewer (OTV) method. All televiewer recordings were performed by Hager Richter Geoscience Inc of Fords, New Jersey. A copy of Hager Richter’s summary ATV/OTV report is included in Appendix E1.

Crosshole Seismic Logging (CSL)

CSL was performed on two pairs of borings in an effort to obtain representative measures of shear wave velocity for soil overburden and bedrock within the site. All CSL was completed by Hager Richter Geoscience Inc. under the full-time supervision of Langan. CSL were performed within the Phase 1 FAB and Phase 2 FAB building footprints. CSL extended to a depth of about 65 feet below existing grade, and about 30 feet within competent bedrock. A copy of Hager Richter’s summary CSL report is included in Appendix E2.

Electrical Resistivity Tests

Field electrical resistivity tests were performed within the excavated test pits by Hager Richter Geoscience Inc. using the Wenner Four Electrode Method in accordance with ASTM G57. A copy of Hager Richter’s summary electrical resistivity testing report is included in Appendix E3.

Thermal Resistivity Tests

Field soil thermal resistivity tests were performed within the excavated test pits by Hager Richter Geoscience Inc. in accordance with ASTM D5334 and IEEE 442. Following completion of the field tests, representative samples were taken in five-gallon buckets for use in completing laboratory soil thermal resistivity testing under wet and dry-out conditions. A copy of Hager

Richter's electrical resistivity testing report is included in Appendix E3 and associated laboratory test results are included in Appendix F.

Seismic Refraction Survey

Seismic refraction surveying was performed by Hager Richter Geoscience Inc. to estimate depth to bedrock across the site. The locations were provided by Langan and modified in the field by Hager Richter to accommodate field conditions. A copy of Hager Richter's summary seismic refraction survey report is included in Appendix E4.

Laboratory Tests

Select samples obtained from the investigation were tested in the laboratory to establish representative index and engineering properties of soils and rock. Table 2 below lists the tests performed. All laboratory test results are included as Appendix F.

Table 2 – Summary of Langan Laboratory Tests

Test Type	Number of Tests by Area			
	Phase 1A	Phase 1B	Phase 2	Total
Sieve Analysis (ASTM D6913, ASTM D7928)	44	26	56	126
Atterberg Limits (ASTM D4318)	61	58	95	214
Moisture Content (ASTM D2216)	42	61	109	212
One-Dimensional Consolidation Test (ASTM D2435)	1	9	2	12
Triaxial Test (ASTM D2850, ASTM D4767)	1	8	2	11
Corrosivity Tests (ASTM D4972, ASTM D516, ASTM D512)	15	12	3	27
Uniaxial Compressive Strength (ASTM D7012C)	18	11	30	59
Uniaxial Compressive Strength and Elastic Moduli (ASTM D7012D)	15	7	17	39
Point Load Strength (ASTM D5731)	52	13	42	107
Brazilian Split Tensile Strength (ASTM D3967)	6	-	7	13
Direct Shear on Rocks (ASTM D5607)	9	-	10	19
Modified Proctor (ASTM D1557)	8	1	-	9
California Bearing Ratio (ASTM D1883)	8	1	-	9
Thermal Resistivity (ASTM D5334/ IEEE 442)	29	1	-	30

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others, which indicated a moderately distinct stratigraphy above bedrock within the drumlin deposits from the remainder of the site. Boring logs from the supplemental investigation are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The subsurface stratigraphy provided herein is based on the historic data reported by others as well as the results of Langan's supplemental investigation. The general stratigraphy, observed outside the drumlins, consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

- Topsoil: The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from about 0.3 to 2 feet.
- Silt & Clay: A fine-grained soil layer, composed primarily of silt with some variable clay fraction, was the most extensively encountered unit across the site. This layer varies in thickness from about 2 to 47 feet. Based on the Unified Soil Classification System (USCS), the soils are generally described as non-plastic to slightly plastic silt (ML), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were WOR[5] to 50, with an average value of 13. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (60%) is non-plastic while the remaining soils exhibiting low to medium plasticity.

  One-dimensional (1D) consolidation tests performed on undisturbed samples recovered from this layer indicated a compression index of 0.03 to 0.10, and a recompression index of 0.01 to 0.03. Triaxial testing performed on select undisturbed samples indicates that the drained cohesion (c') and drained angle of internal friction (φ') varied from about 0 to 100 psf and 33.5 to 34.2 deg, respectively. The layer is generally reported as medium stiff to stiff based on standard penetration test (SPT)[6] N-values, with pockets of soft material encountered in some borings at varying depths throughout the layer. The average shear wave velocity in this layer was about 600 feet per second (fps).
- Sand & Gravel (till): A granular soil layer, interpreted as glacial till, was encountered beneath the silt & clay layer in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and varies in thickness from about 2 to 35 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP, GP-GM, GM, or GC. SPT N-values in this layer varied from 2 to refusal, with an average value of 32. The layer is generally reported as medium dense to dense based on N-values, with pockets of loose material encountered in some borings. The average shear wave velocity in this layer was about 2,200 fps**.**

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[5] WOR – Weight of Rod

[6] The Standard Penetration Test is a measure of soil density and consistency. The testing involves driving a 2-inch outer-diameter split-spoon sampler a distance of 2 feet, using a 140-lb hammer free falling from a height of 30 inches

Drumlin Soil Stratigraphy

The subsurface stratigraphy in areas containing drumlins generally comprises of topsoil, underlain by a thick layer of sands and silts (till), followed by bedrock. Detailed descriptions of each of these subsurface layers are provided below, listed in order of increasing depth below ground surface.

- Topsoil: The topsoil layer consists of silt or silty sand with varying amounts of fine to medium sand, clay, fine gravel, and organics (i.e. roots, decomposing materials, etc.). The topsoil layer is typically about 0.5 to 2 feet in thickness.
- Sand & Silt (till): A layer of sand and silt with varying concentrations of gravel and clay was encountered below the topsoil in all borings performed within the drumlins. The layer varied along the drumlins from about 5 to 36 feet in thickness. The layer is generally described as non-plastic silt (ML), clayey silt (ML-CL), clay (CL), silty sands (SM), clayey sands (SC), clayey gravel (GC), and silty gravel (GM) in accordance with the USCS. SPT N-values in this layer were WOH to 100, with an average value of 40. Granular portions of this layer are generally medium dense to very dense based on SPT N-values, with occasional loose zones encountered at shallow depths. The cohesive (silt and clay) components are typically medium stiff to hard, with isolated pockets of soft material observed within the upper 6 feet in some borings.

Weak Rock

Intermediate geomaterials, classified as weak rock, is generally composed of materials that were easily penetrated with a roller bit during drilling but are often observed to have poor recovery when sampling using standard NX or NQ rock core barrels. Split-spoon sampling typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock’s structure, the material readily disintegrated under manual pressure.

Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer varies from about 5 to 30 feet, with thicker accumulations typically occurring where the underlying rock mass contains higher concentrations of shale. Seismic refraction surveys recorded compression wave (P-wave) velocities of about 11,000 to 17,000 feet per second within this stratum. Further, the CSL measurements indicate shear wave (S-wave) velocities in this layer varying from about 2,000 to 5,000 feet per second. While the weak rock layer was readily drilled and often showed poor recovery, we note that CSL data suggests that the higher range of values fall within the expected range for more competent rock. This noted discrepancy may be a result of the thin bedding frequently observed in the shale bedrock this is believed to have allowed the material to be more readily penetrated and resulted in poor core recovery and RQD during coring. For reference, a contour plan illustrating the approximate elevation of the weak rock layer’s upper surface is included as Figure 7.

Competent Bedrock

Competent bedrock was encountered at depths varying from about 10 to 65 feet below existing grade, corresponding to elevations between el 337.5 to 396. Based on coring data from investigations conducted by CME and Langan, the bedrock underlying the site consists of:

dolostone (about 80% of recovered cores), shale (about 15%) and limestone (about 5%). Dolostone is expected to be the most competent of the three rock types, exhibiting higher strength, lower fracture density, and less weathering than shale. However, due to the interbedded nature of the dolostone, shale, and limestone, increased weathering may be present at lithologic contacts. For reference, a contour plan illustrating the approximate elevation of the competent bedrock is included as Figure 8.

Rock Quality Designation (RQD) values ranged from 0% to 100%, with a median value of about 55%. Roughly 55% of the core samples exhibited RQD values exceeding 50%, and about 30% were classified as good to excellent in quality, indicating that rock quality is variable but generally ranges from fair to good. The recovered rock cores as well as geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub-horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Laboratory tests of retrieved rock core samples indicate that the uniaxial compressive strength (UCS) of intact rock specimen is 9,600 pounds per square inch (psi) to 45,000 psi, with a median value of 20,500 psi. Note that almost all the UCS test samples (>90%) were dolostone because of poor recovery and RQD of the shale. Point Load Strength (PLS) was used in determining the strength of shale bedrock. The tensile strength of tested samples ranged between 382 to 2,210 psi, with a median value of 901 psi. The residual cohesion varied from 0 psi to 118 psi with a median of 5.8 psi and the residual friction angle varied from 16.2 deg to 76.8 deg with a median of 37.9 deg.

Crosshole seismic logging indicates that the shear wave velocities in competent bedrock varied from about 8,300 fps to 10,000 fps. Crosshole seismic logging reports are presented as Appendix E2.

Groundwater

Groundwater levels were measured from observation wells installed in completed boreholes and within test pits that were excavated below the groundwater table. Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young’s Creek.

In general, the groundwater surface appears to be influenced by local ground surface, bedrock topography, and surficial geology. The groundwater levels may vary seasonally and with changes in precipitation. In addition, future development may alter groundwater flow and may result in local changes to the normal groundwater table.

Parts of the site were evidenced to be easily inundated during precipitation events because of poor drainage characteristics of near-surface soils and local topography. Groundwater tends to be higher on the south side of the site where bedrock is shallower, and groundwater is perched on top of bedrock. In addition, higher groundwater was observed within drumlins elsewhere an this appears to be influence predominantly by surface topography and poorly drained soils.

Between monitoring wells installed by CME and Langan, groundwater elevation was observed to vary from a high of about el 418 near the south end of the site, to a low of about el 377 in Phase-1B areas on the northwest of property. Table 3 and 4 below summarizes the groundwater readings recorded by Langan and Ramboll respectively. Groundwater monitoring well location plan is attached as Figure 9.

Table 3 – Summary of Langan Groundwater Readings

Well ID	Approximate Site/Building Area	Existing Grade	Groundwater level (el, feet)	
			Average of Spring'25 Readings	Summer'25 Reading
LB-R-001	PHASE-1B	379.1	377.5	-
LB-R-007	PHASE-1B	377.1	377.2	-
LB-R-013	PHASE-1B	380.0	379.0	-
LB-015	PHASE-1B	377.2	376.8	-
LB-020	PHASE-1B	376.9	376.6	-
LB-R-021	PHASE-1B	379.0	379.8	-
LB-023	PHASE-1B	377.9	377.5	-
LB-R-029	PHASE-1B	378.8	378.0	-
LB-R-030	PHASE-1B	378.0	377.4	-
LB-031	PHASE-1B	377.0	377.2	-
LB-R-033	PHASE-1B	381.8	381.8	-
LB-R-035	PHASE-1B	379.1	379.2	-
LB-R-041	PHASE-1B	381.5	380.1	-
LB-R-043	PHASE-1B	380.6	379.0	-
LB-R-044	PHASE-1B	377.3	377.6	-
LB-R-045	WWT2	388.9	388.0	-
LB-R-047	SMS YARD2	390.4	390.4	-
LB-R-051	MECH PUMP HOUSE2	391.3	391.9	383.9
LB-R-053	FAB2	392.0	392.2	388.2
LB-R-055	HPM2-N	393.0	392.3	387.2
LB-R-058	FAB2	392.6	392.5	389.1
LB-R-059	FAB2	391.0	390.4	385.1
LB-R-060	HPM2-S	393.0	391.9	385.7
LB-R-064	FAB2 PIT	391.1	391.0	386.1
LB-R-066	CUB2	389.5	391.3	384.8
LB-R-068	FAB2	393.0	392.9	387.2
LB-R-071	CUB2	392.0	391.8	385.7
LB-R-072	HPM2-S	405.7	403.7	395.5
LB-R-076	HPM2-S	401.6	401.7	395.6
LB-R-077	HPM2-S	401.0	395.9	389.7

Well ID	Approximate Site/Building Area	Existing Grade	Groundwater level (el, feet)	
			Average of Spring'25 Readings	Summer'25 Reading
LB-R-080	FAB2	399.9	399.4	-
LB-R-082	FAB2 PIT	405.0	404.1	399.1
LB-R-083	FAB2 GARAGE	400.1	399.4	394.7
LB-R-086	FAB3 GARAGE	400.4	400.1	394.0
LB-R-093	FAB2 GARAGE	406.0	403.4	-
LB-100	SMP-09	407.7	407.4	-
LB-R-104	FAB2 PIT	403.0	394.9	391.7
LB-R-114	HPM1-N	393.0	393.2	-
LB-R-136	BULK GAS YARD1	392.0	381.8	-
LB-X-003	FAB1	391.6	384.9	376.6

Table 4 – Summary of Ramboll Groundwater Readings

Well ID	Approximate Site/Building Area	Existing Grade	Groundwater level (el, feet)
			Spring'25 Readings[1]
W-1	SMP-09	418.2	418.1
W-2	WWT1	394.4	394.1
W-4	FAB2	401.1	399.0
W-5	FAB2	392.6	392.4
W-6	FAB1	394.0	388.3
W-10	FAB2 PROBE	406.1	405.6
W-11	FAB1 GARAGE	393.7	390.2
W-12	FAB1	395.0	392.4
W-13	BULK GAS YARD1	382.1	381.5
W-14	YARD1	381.0	380.7
W-16	CUB1	391.4	391.1
W-17	WWT1	392.2	392.7
W-18	SMP-15	405.0	401.7
W-33	BACKFLOW	392.5	390.1

[1] Note: The readings were taken by Ramboll and provided to Langan by Micron dt. 24 June 2025.

USDA CLASSIFICATION AND HYDROLOGIC SOIL GROUP

The majority of the site soils generally classify as low plasticity silt (ML) or clayey silt (ML-CL) in accordance with the Unified Soil Classification System (USCS). Areas containing drumlins on the south side of the site tend to show higher concentrations of sand and gravel within the soil matrix, but these soils are still predominantly silt and typically classify as ML.

The United States Department of Agriculture (USDA) Hydrologic Soil Group (HSG) varies within the property from A to D, but over 93 percent of the overall campus includes areas containing HSG = D. As such, for the purposes of site-wide design of stormwater management systems, we recommend assuming HSG = D.

SITE-WIDE HAZARD CONSIDERATIONS

Seismic

The site is in a low seismic activity zone. There are no known active earthquake generating faults near the proposed campus or in the general region. Therefore, in general, we expect any hazards related to seismic activity to be minimal. Seismic considerations such as seismic response spectra and liquefaction potential are addressed within the building-specific recommendations section of the report.

Seiche/Tsunami

Given that the site is far inland and away from major water bodies such as the Oneida lake, we do not consider seiches or tsunamis to be of concern for this site.

Landslide

The site is relatively evenly graded except around the drumlins. Also, the final design grades across the site are relatively flat. Therefore, landslides and lateral spreading are not of concern for this site.

Flood

Based on review of flood mapping prepared by the Federal Emergency Management Agency (FEMA), Plates 36067C0083F, 36067C0084F, 36067C0091F, 36067C0092F, 36067C0111F and dated 4 November 2016, the property is located within the unshaded portion of Zone X, “Other Areas located outside the 0.2% annual chance floodplain”. In addition to being outside of any mapped floodplain, the site grades will generally be raised via fill operations. As such, flood risk is considered low.

GENERAL EARTHWORK RECOMMENDATIONS

Site Preparation

The project entails a mass earthwork operation to grade the site to its final design elevation. Before beginning earthwork operation significant site preparation will be necessary including locating any existing utilities that are to remain or that must be temporarily maintained during construction. Given the expansive nature of the site, the presence of existing wetlands and the known poor drainage conditions, soil erosion and sediment control will be very important, and care must be exercised to avoid disturbance to sensitive surrounding areas such as adjoining wetlands to remain. To that end, we expect that establishing suitable drainage of the site will be needed to prevent ponding of water and to help maintain dry (or drier) conditions, particularly in low-lying areas. This may include installation of drainage ditches; coarse aggregate lined curtain drains and/or drain tiles (not unlike those used to drain agricultural fields) and using temporary grading with cross-slopes to influence drainage within the site. Management of surface and groundwater will be paramount to allow efficient operations and avoid unnecessary delays during periods of wet weather or when working near the natural groundwater table, which may be very shallow. Given the expanse of the site and its variable grading, consideration will need to be made as to how water will be removed from the site. Natural drainage by gravity alone is not expected to be sufficient and, as such, pumping operations are likely necessary. Early establishment of stormwater management practices will likely play a role in overall management of earthwork operations as detention ponds are expected to be necessary during construction.

Clearing, Grubbing, and Stripping

Prior to commencing fill operations, the site will need to be cleared and grubbed of trees, brush and other surficial cover, including all root matter. We anticipate that clearing operations will likely be completed in a single season to avoid protracted schedule impacts resulting from protected endangered species that may seasonally inhabit some areas of the property. Following clearing and grubbing, or coincident with such operations, the site will need to be stripped of surficial topsoil and organic matter, and very soft surficial soils. We recommend removals to a minimum depth of 18-inches across the entire site. Following such removals, we anticipate that much of the site will require placement of a layer of clean crushed stone aggregate to stabilize the subgrade and facilitate placement and compaction of new fill in the dry. The use of crushed stone materials is considered necessary because of the poor draining nature of the near-surface silt soils and the presence of high groundwater.

Excavation and Dewatering Considerations

Based on site topography and available design documents, three excavation scenarios are possible.

1. Soil excavation above groundwater
2. Soil excavation below groundwater
3. Rock excavation

Soil excavations above groundwater can be achieved by using temporary sloped berms. We recommend sloping the soil no steeper than 1.5H:1V slope, which may need to be reduced further when seepage is observed through the slope face or toe of the excavation.

Soil excavations below groundwater can either be achieved using a combination of slopes and a dewatering system appropriate for the specific excavation conditions (e.g., well points, deep wells, shallow sumps and pumps) or by using a perimeter excavation support system that cuts off groundwater in conjunction with a dewatering system. If the former method is used, due to the hydrogeological nature of the site, the dewatering system may have to operate around the clock to maintain excavations in the dry. In general, the contractor’s groundwater control system(s) should be adequate for maintaining a dry excavation, and groundwater level should be maintained at least 2 feet below the excavation level. If a perimeter groundwater cutoff system (e.g., sheet piles, deep soil mix walls, secant walls, etc.) is used, we expect that dewatering volumes will be significantly lower and that there will be less chance for migration of fine soils that is common during dewatering operations.

Rock excavation, which is always below groundwater level in this site, can be accomplished using controlled blasting, pneumatic breakers, or rock splitters. We recommend evaluating any regulatory restrictions that may apply to particular methods with respect to noise and vibration in the general area and noise and vibration tolerances of buildings that may be operational within the campus at the time of rock excavation. The upper exposures of rock may be rippable, particularly where more highly weathered or fractured rock (weak rock) may be present, with a Caterpillar D9R Ripper or equivalent. Based on p-wave velocity measurements, it is likely that the competent dolostone rock is likely to be non-rippable. While acoustic and optical televiewer data do not suggest the present of unfavorable bedrock discontinuity sets, exposed rock faces should be geologically mapped as the excavations proceed and rock should be stabilized where appropriate. We expect this could entail installation of rock dowels, rock bolts, netting, mesh, or casting shotcrete linings.

Reuse of Existing Site Soils

Topsoil

Topsoil can be stripped and reclaimed for reuse where desired. Based on review of the available historic data and Langan's subsurface investigation, we would expect that screening or the addition of amendments may be required to improve the soil. This may include blending the reclaimed topsoil with sand meeting the gradation requirements of ASTM C33 to ensure particle size distributions consistent with those recommended in ASTM D5268.

Site Soils - General

In general, the native site soils are not considered suitable for re-use as structural fill due the presence of high fines content (percent by weight passing a No. 200 sieve). Most of the soil within the site classifies as silt with varying concentrations of clay, sand, and gravel. The in-situ natural moisture contents of these soils tend to be well outside the reported optimum range necessary to achieve proper compaction and would require drying procedures such as discing to aid drying. Silt-rich soils are generally a poor construction material. Such soils are frost susceptible and are prone to degradation and softening when subjected to freeze-thaw cycles. Further, silts are prone to degradation and softening when subjected to construction traffic or vibratory loading while outside of their optimum moisture content. Use of such soils should be precluded within the limits of proposed structures. Their use without significant amendment may lead to construction delays or the need to employ stabilization methods, particularly if they are not dried or become wetted following placement.

Imported Soils

All fill materials should be free of trash, debris, roots, vegetation, peat, or other deleterious materials and should be approved by the Geotechnical Engineer prior to placement. Imported fills shall not have contaminants in excess of the permissible concentrations dictated by all applicable state and federal agencies having jurisdiction. Additionally, imported fills should meet the requirements identified below for the specific applications as identified herein.

Subgrade Stabilization and Drainage Materials

The following coarse aggregate materials shall be used as subgrade stabilization and drainage materials. All such materials shall be comprised of crushed bedrock, crushed gravel, or natural gravel meeting the physical and gradation requirements outlined herein. Coarse aggregate materials shall be free of organics and other deleterious materials and shall be sound, durable, and non-reactive. Coarse aggregate shall be tested for soundness in accordance with NYSDOT Method No.: 703-07P,G and shall demonstrate Magnesium Sulfate Soundness losses less than or equal to 10 percent by weight after 10 cycles.

AASHTO Size No. 1

US Sieve Size	% Passing by Weight
4″	100
3 ½″	90 – 100
2 ½″	25 – 60
1 ½″	0 – 15
¾“	0 – 5

AASHTO Size No. 357

US Sieve Size	% Passing by Weight
2 ½″	100
2″	95 – 100
1″	35 – 70
½″	10 – 30
No. 4	0 – 5

AASHTO Size No. 57

US Sieve Size	% Passing by Weight
1 ½″	100
1″	95 – 100
½″	25 – 60
No. 4	0 – 10
No. 8	0 – 5

Granular Fill

Granular fill shall be used for general site filling operations, and for backfill beneath and behind structures (i.e., Structural Fill). Granular fill be comprised sand, gravel, crushed stone, or other approved recycled materials. Granular fill shall be sound, durable, and non-plastic and, except as modified herein, shall comply with the requirements of NYSDOT Standard Specification 733-04. Placement of granular fill during periods of freezing weather will be subject to the approval of the Geotechnical Engineer. Where not otherwise permitted due to inclement conditions, granular fill shall be replaced with AASHTO No. 57 materials, except that the AASHTO No. 57 gradation shall be modified to permit up to 2 percent by weight passing the No. 200 sieve.

US Sieve Size	% Passing by Weight
4″	100
2″	90 – 100
¼″	30 – 65
No. 40	5 – 40
No. 200	0 – 15

Paving Subbase

Paving subbase materials shall be comprised of sand, stone, gravel, or other approved recycled materials meeting the requirements for NYSDOT Standard Specification 733-04, Type 1.

US Sieve Size	% Passing by Weight
3″	100
2″	90 – 100
¼″	30 – 65
No. 40	5 – 40
No. 200	0 – 10

Utility Bedding Sand

Bedding for utilities shall be comprised of natural sand having the gradation presented herein and a pH value between 5 and 10.

US Sieve Size	% Passing by Weight
½″	100
¼″	90 – 100
No. 200	0 – 5

Thermal Sand

Thermal sand is recommended for use as backfill for utilities requiring improved heat dissipation. Such materials shall be comprised of clean quartz-rich sand, free of cinders, ash, organic matter, and other deleterious matter, meeting the gradation requirements presented herein. Thermal sand shall have a minimum pH of 5.5, a dry unit weight equal to 115 pcf, and a maximum thermal resistivity equal to 90 °C·cm/Watt at dry-out conditions at 95 percent of the maximum dry density determined in accordance with ASTM D1557.

US Sieve Size	% Passing by Weight
$^{3}/_{8}$"	100
No. 4	70 – 90
No. 8	60 – 75
No. 30	35 – 50
No. 50	15 – 30
No. 200	3 – 8

Fill Placement and Compaction Criteria

Fill should be placed in uniform loose lifts not exceeding 12 inches in thickness in open areas and 6 inches in thickness in confined areas. Fill shall not be placed on frozen ground or on subgrades that contain topsoil, organics, snow, ice, rubbish or other deleterious materials. Fill placement in standing water shall only be performed where directed by the Geotechnical Engineer and material selection for such use shall be subject to the review and approval of the Geotechnical Engineer.

All subgrades should be proof-rolled prior to placement of fill and any moisture-sensitive soils that exhibit pumping and heaving during proof-rolling should be excavated to a depth of 12 inches and replaced with free draining crushed stone or gravel meeting the requirements for stabilization materials as described herein.

With the exception of landscaped areas, all fill placed should be compacted to at least 95% of its maximum dry density as determined by ASTM D1557. In landscaped areas, compaction may be reduced to 92% of the maximum dry density as determined per ASTM D1557. Compaction within 5 feet of retaining walls and foundation walls should be performed using hand operated equipment, unless otherwise approved by the Geotechnical Engineer. The water content at the time of compaction should be within 2 percent of the optimum value as determined per ASTM D1557.

Expansive Soils

The existing surficial soils are expected to have a low expansion potential. Generally, the soils are classified as non-plastic to low plasticity, indicating low swell potential. No potential vertical rise (PVR) of the site soils is expected. If localized expansive soils are found, we recommend removal and replacement of such soils with non-expansive fill or perform in-site chemical stabilization using lime, cement or fly ash. As the existing soils are expected to be capped with significant engineered fill, the potential for expansion is considered negligible.

Initial Subgrade Preparation and Stabilization

Differing initial subgrade preparation procedures are expected to facilitate fill placement for the "pad" given the variable conditions found across the site, particularly with respect to the soil materials encountered and the local groundwater or soil moisture conditions.

Subgrade preparation will entail proofrolling the soils upon completion of stripping and removals by making at least 6 passes in two perpendicular directions with an appropriate compactor. The type of compactor will vary depending on soil type and access. Silt and clay soils are likely to require use of a sheepsfoot roller whereas granular soils should utilize a smooth-drum roller. Where possible, rollers having a static weight of at least 20 tons are recommended in open areas. Where soils (especially silts and clays) are outside of their optimum moisture range, it will be important to avoid using vibratory or impact compaction methods as these will degrade the subgrade soils. Soft soils and wet soils may require discing, amendment with dry lime, or inclusion of aggregate to provide necessary stabilization prior to compacting. Use of coarse aggregates are recommended as a general stabilization measure as they will generally mitigate capillary rise and will often permit earthwork to advance under adverse conditions. When placing aggregates for stabilization, we expect that material selection and thickness may vary and that layering of progressively smaller grain size distributions will be required.

Once the subgrade has been suitably stabilized, is free of water and permits traffic of compactor and other heavy equipment without rutting or heaving, the aggregate must be capped with a non-woven geotextile separation fabric (Mirafi 140N or similar) before placing ordinary soil fill materials. The separation fabric will reduce fines migration between the soil layers and stabilized subgrade and facilitate drainage thereby preventing capillary rise.

Within roadway areas, we recommend using a woven geotextile material such as a Mirafi RS580i or equivalent, which can provide subgrade stabilization in localized soft subgrade zones and provide the others benefits of a non-woven fabric.

As the site conditions are so varied, coordination among the engineering team and the earthwork contractor will be imperative to address local conditions and keep earthwork moving in an efficient manner while still maintaining performance. To that end, we expect that qualified geotechnical engineers or technicians should be present during all general earthwork operations.

Footing and Slab Subgrade Preparation and Protection

Foundation subgrades should be level and clear of standing or frozen water, debris, or other deleterious materials. The inclination of all foundation subgrades must not exceed 1V:10H. Soils should be excavated with care to avoid disturbance below the bearing elevation. We recommend that the final 12 inches of excavation of soils be performed with flat bladed buckets in open areas and by hand in confined areas.

Slab and roadway soil subgrades should be proofrolled with a smooth-drum compactor having a static weight of at least 20-tons and footing and utility subgrades should be proofrolled with a minimum 1.5-ton static walk-behind roller. Soft areas identified during proofrolling and those disturbed by construction traffic or precipitation should be excavated and replaced with approved fill. The actual extent of necessary removal and replacement should be determined by a qualified geotechnical engineer. Care should be taken when proofrolling near any existing underground utilities that are to remain or have previously been installed.

All subgrades should be protected from the effects of frost, precipitation, groundwater and surface water run-off, and construction traffic until concrete is cast. As such, we recommend that the Contractor limit the area of exposed footing subgrades to prevent deterioration of the bearing conditions; however, excavations should be made large enough to allow passage of the compaction equipment. Mud slabs or clean crushed stone (AASHTO #57) may also be placed to provide protection of footing subgrades. Slab subgrades should be sloped to drain where possible and should be sealed to mitigate infiltration of water during precipitation events.

All footing and slab subgrades should be approved by the inspecting Engineer prior to placement of any fill or concrete.

Settlement Due to Site Backfill

Backfill operation during Phase 1 construction will involve, in some areas, backfill heights greater than 20 feet. This backfill placement will result in settlement of site soils. The resulting soil settlement will be comprised of two components: immediate elastic settlement that will happen as backfilling proceeds and long-term settlement due to the compressible nature of some silts and clays. Our analysis shows that the maximum settlement due to site backfill will be about 2 inches, but generally will vary between 0.5 and 1 inch. Of the estimated maximum settlement of 2 inches, we estimate that about 1 inch of settlement will be immediate and the remaining 1 inch of settlement will happen over time. Given the modest settlements expected, we do not think preloading of site soils is warranted.

Slopes

Based on a review of the available subsurface data, we believe that unreinforced earthen slopes with inclinations of up to 2H:1V are possible; however, we recommend that slopes not exceed a maximum inclination of 3H:1V. While steeper slopes are permissible from a stability standpoint, our experience is that increasing the slope inclination can lead to issues with establishment of vegetation and reduced access for maintenance such as mowing. Also, we note that the New York State Department of Environmental Conservation (NYSDEC) Stormwater Management Design Manual limits permissible slope inclination for detention ponds to 3H:1V. Slope heights exceeding 25 feet should be broken up with horizontal benches or by terracing with retaining walls. Drainage measures such as swales should be implemented at the tops of slopes to divert surface water runoff away from the slope face. Upon completion of final grading, slopes should be vegetated with a deep-rooted grass or other appropriate plantings as soon as possible to avoid potential erosion and/or raveling. Grass such as red or hard fescue are considered viable for general use, but alternative species are considered warranted for detention pond or drainage ditch areas where wet soils may be expected for extended periods. Use of stabilization measures such as mulch, jute mesh, erosion control blankets, or geosynthetics may be necessary to help establish vegetation, especially for slopes inclined at greater than 3H:1V.

Fill Slopes

Fill slopes should be constructed from the bottom up by creating a level key within firm stable subgrade materials. The key should be cut below any existing topsoil or loose/soft surficial soils to improve basal stability. The existing surface should be benched into competent materials to allow fill to be placed in horizontal lifts. Loose lift thickness should not exceed 12 inches and each lift should be compacted to at least 92 percent of the maximum dry density determined in accordance with ASTM D1557.

Cut Slopes

Cut slopes should be formed with uniform linear inclinations. The inclination of cut slopes may need to be reduced from the maximum value indicated above where excavations extend below the groundwater table or where seepage is observed through the slope face. Where such conditions occur, stabilization and/or permanent erosion control measures of the slope face may also be required.

CORROSION POTENTIAL

Corrosivity testing of existing site soils included pH, chloride content, and soil electrical resistivity. The range of testing results for samples collected from within the site are presented below.

- Sulfate levels are less than 10 ppm.
- pH values for the tested samples are between 5.7 and 7.9.
- Chloride ranges are typically less than 10 ppm.
- Soil electrical resistivity is between 141 to values larger than 6,525 Ohm-ft, but were typically between 200 and 600 ohm-ft.

Based on the testing performed, we generally do not expect a significant potential for corrosion to exist for structures or utilities bedded within the existing site soils, with only some apparent potential resulting from sporadic instances of low electrical resistivity within the soils. The sulfate concentrations were low suggesting that Type I cements are suitable for use. However, we recommend that any sensitive structures or utilities be evaluated by the civil designers and the project corrosion engineer on a case-by-case basis.

FROST DEPTH AND SUSCEPTIBILITY

The minimum frost depth reported by Town of Clay Commissioner of Code Enforcement is equal to 42-inches; however, for the purposes of design, we recommend that a frost depth of 48-inches be utilized for the project based on the presence of high silt content and water table within the area.

Please note that frost protection is required for any slabs abutting outward-swinging exterior exit doors pursuant to Section 1809.5.1 of the pending amendment to the New York State Building Code[7].

Should frost be required for protection of equipment pads and slabs-on-grade, we recommend placing AASHTO #57 stone to a minimum depth of 48 inches below grade instead of extending the concrete pad to the frost line. This method of frost protection is allowed under ASCE 32 and will result in an economical design.

The existing site soils are considered highly frost susceptible and such soils when subject to freeze and thaw cycles are likely to experience frost heave followed by thaw weakening. Such conditions may degrade local bearing and can impair performance of pavements. As the majority of the site is expected undergo controlled filling with engineered backfill to achieve required site grades, we expect that frost susceptibility is unlikely to pose an issue through much of the site. Areas that may continue to experience frost susceptibility would generally be limited to those where existing grades will be cut such as portions of the drumlin zone on the south side of the campus.

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[7] https://dos.ny.gov/system/files/documents/2024/07/2024-07-25_bcnys_nrd-final-draft-document.pdf

PAVEMENT DESIGN

We based our pavement recommendations on the design traffic loads provided in the scope of work document. If the design traffic loads change, the pavement design must be updated. Based on the laboratory test results, the California Bearing Ratio (CBR) value of the existing surficial soils average about 2.5. However, we note that engineered fill will be placed across the majority of the site to achieve design grades. In areas where the existing grades are high and soil excavation is expected, the surficial soils in those areas are generally dense sand or glacial till and minimum requirements for stripping will likely preclude the potential for weak subgrade soils to be present below paving subbases. Therefore, we recommend a minimum CBR value of 10 be used for design of pavements. Pavement design parameters are provided for flexible and rigid pavements in the sections below for the two areas identified in the scope of work document (i.e., Back of House [manufacturing areas] and Front of House [Admin/Probe]).

Flexible (Asphalt) Pavement Design

Flexible pavement sections were analyzed following design guidelines in the AASHTO Guide for Design of Pavement Structures (1993). Table 5 summarizes the design parameters used for flexible pavement design.

Table 5 – Flexible Pavement Design Parameters and Assumptions

Parameters	Assumed/Provided Information	
	Front of House	Back of House
Design Life	20 years	20 years
Cars	3500	100
HS 20 Trucks	40	150
Design ESALs	594,040	2,239,040
Reliability	90%	90%
Initial Serviceability	4.2	4.2
Terminal Serviceability	2.5	2.5
CBR	10	10
Drainage Coefficient	0.9	0.9
Resilient Modulus	11,150 psi	11,150 psi
Direction Distribution Factor	1.0	1.0
Lane Distribution Factor	1.0	1.0

Based on our analyses and the stated assumptions, the flexible pavement sections provided in Table 6 are recommended for this project.

Table 6 – Recommended Minimum Flexible Pavement Design Sections

Material	Pavement Section[1]	
	Front of House	Back of House
HMA Surface Course	1.5 inches	2 inches
HMA Base Course	3 inches	4 inches
Subbase (Item 733-04)	8 inches	12 inches

Pavement lift thickness should be in accordance with NYSDOT standard specifications. Compact all asphalt to between 92% and 96% of the Theoretical Maximum Specific Gravity of the mix determined in accordance with AASHTO T209. A tack coat should be applied between the base and surface courses.

Rigid Pavement Design

Rigid pavement design was performed following the Portland Cement Association's (PCA) design methodology. Assumptions for the analysis are listed below in Table 7.

Table 7 – Rigid Pavement Design Parameters

Parameters	Assumed/Provided Information	
	Front of House	Back of House
Design Life	20 years	20 years
Spectrum Type	D	D
Reliability	90%	90%
HS 20 Trucks per Day	40	150
Concrete Strength	4,500 psi	4,500 psi
% Slabs Cracked at End of Design Life	5%	5%

Table 8 below summarizes the recommended minimum rigid concrete pavement sections for the design parameters provided in Table 7.

Table 8 – Recommended Minimum Rigid Pavement Design Sections

Material	Thickness (in)	
	Front of House	Back of House
Concrete	6	8
Granular Base (#57 stone)	8	8

Concrete should have a minimum compressive strength of 4,500 pounds per square inch (psi) at 28 days, a maximum water-content ratio of 0.45, and 6% air entrainment. Maximum joint spacing for undoweled joints should be 8 feet. The contractor should conform to ACI 306.1 for cold weather concreting and ACI 305.1 when any combination of high temperature, low relative humidity, and wind velocity will impair the quality of the concrete.

PERMANENT SITE RETAINING WALLS

For the purposes of design, we recommend that site retaining walls be designed assuming the following geotechnical parameters. Walls which are free to rotate should be designed assuming active earth pressure conditions whereas walls which are restrained should be design for at-rest conditions. We recommend that passive resistance be ignored above the frost line. The passive earth pressure coefficient provided herein assumes an applied factor of safety (FS) equal to 2.0 to reduce the translation necessary to mobilize resistance. All walls should be designed assuming a minimum factor of safety of 1.5 for sliding and overturning resistance and all walls shall bear at least 4 feet below adjacent grade.

Table 9 – Recommended Soil Parameters for Permanent Site Retaining Walls

Soil Class	Description	Parameter	Estimated Range	Recommended Design Value	Unit
Granular or Aggregate Fill	Moist Unit Weight	γ_d	120 to 130	120	lb/ft^3
	Friction Angle	ϕ	34 to 40	36	degrees
	Cohesion	c	0	0	lb/ft^2
	Active Earth Pressure	K_a	0.28 to 0.22	0.26	-
	Passive Earth Pressure Coefficient	K_p	3.5 to 4.6	1.90 (FS = 2)	-
	At-Rest Earth Pressure Coefficient	K_o	0.45 to 0.35	0.42	-
	Interface Friction Coefficient	μ	0.4 to 0.5	0.45	-
	Allowable Bearing Pressure	q_a	4 to 8	6 (1)	kip/ft^2
Native Site Soils	Moist Unit weight	γ_d	100 to 125	115	lb/ft^3
	Friction angle	ϕ	28 to 32	30	degrees
	Cohesion	c	0 to 200	0	lb/ft^2
	Active Earth Pressure	K_a	0.36 to 0.31	0.33	-
	Passive Earth Pressure Coefficient	K_p	3.0	1.5 (FS = 2)	-
	At-Rest Earth Pressure Coefficient	K_o	0.55 to 0.47	0.50	-
	Interface friction coefficient	μ	0.3 to 0.4	0.3	-
	Allowable Bearing Pressure	q_a	2 to 4	3 (2)	kip/ft^2

(1) The allowable bearing pressure indicated does not consider potential reductions necessary to account for underlying soft or compressible soils of lower strength. The allowable bearing pressure for final design shall be evaluated on a case-by-case basis based on local in-situ soil conditions and proposed wall geometry.

(2) Where the embedment depth of retaining wall footing will be 10 feet or more, the recommended preliminary allowable bearing pressure can be increased to 4ksf.

SUPPORT OF EXCAVATION

OSHA compliant sloped and benched excavations are generally considered feasible throughout the site where excavations are located above the normal groundwater table; however, deeper excavations are likely to require the use of temporary support of excavation (SOE).

We expect that support of excavation (SOE) will be required to facilitate construction of below grade spaces such as the FAB waste pits. In addition, SOE may be required to facilitate construction of site features such as retaining walls where excavations extend well below the static groundwater table. In general, we expect that deeper excavations will require some means of groundwater cut-off to reduce dewatering demands during construction. Considerations should also be made with respect to general working grades for construction as this will impact the volume of excavation, dewatering demands, and general structural demands on the SOE systems (e.g., stresses, stiffness, bracing requirements, etc). Generally, we expect that the use of systems such as interlocking sheet piling, deep soil mixing (DSM), secant pile, and diaphragm walls are viable for supporting deep excavations and providing needed groundwater cutoff.

Any SOE system must be designed by a professional engineer, licensed in the state of New York, and is subject to special inspection during construction, and should not be installed until adequate controls for survey monitoring of the adjacent buildings and structures are in place. Where required, support of excavation should be designed assuming the minimum design parameters detailed below.

Temporary Lateral Earth Pressures

The design of the SOE system should consider the following minimum design parameters included in Table 10, and the following minimum loading conditions:

- Braced Excavations - Free draining or dewatered walls should be designed using a uniform earth pressure distribution of 26H psf, where H is the total height of the wall. Braced walls that are not free draining or are not dewatered should be designed using the uniform pressure above plus a triangular hydrostatic pressure of 62.4 psf per foot below the groundwater level.
- Lateral pressures from surface loads such as roadway vehicular loading should be considered. Lateral pressures resulting from surface loads should be determined using elastic methods and should be added to the above loads. A minimum uniform surface surcharge pressure of 300 psf should be used in all SOE designs, but larger loading may be required to accommodate specific construction loading conditions.

Table 10 – Recommended Soil & Rock Parameters for SOE

Soil Class	Description	Parameter	Estimated Range	Recommended Design Value	Unit
Granular or Aggregate Fill	Moist Unit Weight	γ_d	120 to 130	120	lb/ft^3
	Friction Angle	ϕ	34 to 40	36	degrees
	Cohesion	c	0	0	lb/ft^2
	Active Earth Pressure	K_a	0.28 to 0.22	0.26	-
	Passive Earth Pressure Coefficient	K_p	3.5 to 4.6	4.0	-
	At-Rest Earth Pressure Coefficient	K_o	0.45 to 0.35	0.45	-
	Interface Friction Coefficient	μ	0.4 to 0.5	0.45	-
	Allowable Bearing Pressure	q_a	4 to 8	6	kip/ft^2

Soil Class	Description	Parameter	Estimated Range	Recommended Design Value	Unit
Native Silt & Clay Soils	Moist Unit weight	γ_d	100 to 125	115	lb/ft^3
	Friction angle	ϕ	28 to 32	30	degrees
	Cohesion	c	0 to 200	0	lb/ft^2
	Active Earth Pressure	K_a	0.36 to 0.31	0.33	-
	Passive Earth Pressure Coefficient	K_p	3.0	3.0	-
	At-Rest Earth Pressure Coefficient	K_o	0.55 to 0.47	0.50	-
	Interface friction coefficient	μ	0.3 to 0.4	0.3	-
	Allowable Bearing Pressure	q_a	2 to 4	3	kip/ft^2
Native Till Soils and Weak Rock	Moist Unit weight	γ_d	125 to 135	125	lb/ft^3
	Friction angle	ϕ	32 to 40	36	degrees
	Cohesion	c	0 to 500	0	lb/ft^2
	Active Earth Pressure	K_a	0.36 to 0.31	0.26	-
	Passive Earth Pressure Coefficient	K_p	3.25 to 4.6	3.85	-
	At-Rest Earth Pressure Coefficient	K_o	0.47 to 0.35	0.41	-
	Interface friction coefficient	μ	0.40 to 0.55	0.40	-
	Allowable Bearing Pressure	q_a	4 to 8	4	kip/ft^2

CONSTRUCTION SEQUENCE CONSIDERATIONS

The construction sequencing of this project could have potential downstream effects on various aspects of design and subsequent construction. One such issue is highlighted in this section.

Pile Selection

The selection of piles will have to take into consideration, in addition to structural loading and settlement response, the impacts of pile construction on facilities that may be operational and surrounding structures/utilities. For instance, we understand that FAB buildings will have stringent vibration limits when operational. Therefore, pile driving in the vicinity of any operational FAB may not be feasible. Even certain types of pile drilling may be problematic within a certain distance from highly vibration-sensitive buildings such as FABs. As such, we recommend that consideration be given to implementing a monitoring program during early earthwork and index pile operations to establish vibration attenuation characteristics within the site to gauge potential impacts of various construction activities on operational buildings. Results from these initial studies may preclude certain activities within a certain buffer zone around operational buildings or may require advancing some activities (e.g., early pile installation for future buildings that may be in close proximity to buildings that may be operational at the time of future construction).

GENERIC GEOTECHNICAL RECOMMENDATIONS

Building and loading information were not available for all buildings within the proposed manufacturing campus as of the time of this report. Buildings for which detailed information was provided, building-specific recommendations are provided in the next section of the report as:

- Attachment A – Phase 1 Fabrication Building (FAB1)
- Attachment B – Phase 1 Central Utility Building CUB1)
- Attachment C – Phase 1 Wastewater Treatment Building (WWT1)
- Attachment D – Phase 1 Admin Building (Admin1)
- Attachment E – Phase 1 Probe Building (Probe1)
- Attachment F – Phase 1&2 Hazardous Production Material and Bulk Specialty gas System Building (HPM/BSGS)
- Attachment G – Phase 1 Parking Garage (Garage1)
- Attachment H – Phase 2 Fabrication Building (FAB2)
- Attachment I – Phase 2 Central Utility Building CUB2)
- Attachment J – Phase 2 Wastewater Treatment Building (WWT2)
- Attachment K – Phase 2 Admin Building (Admin2)
- Attachment L – Phase 2 Probe Building (Probe2)
- Attachment M – Phase 2 Parking Garage (Garage2)
- Attachment N – Trestles

Generic recommendations have been presented herein to address buildings in which no information is currently available. These recommendations must be revisited and revised after building layouts are developed and building loads are available.

Seismic Recommendations

In general, the shear wave velocity measurements from SCPT and CSL testing, indicate the Phase 1 and 2 areas of the Micron campus are classified as Site Class C. The associated design spectral acceleration for short period (S_{DS}) and 1-second (S_{D1}) are 0.12g and 0.04g, respectively. In addition, the associated Seismic Design Category (SDC) is **A** for buildings of Risk Categories **I** through **IV**.

Foundation Recommendations

The presence of soft/loose soils throughout much of the Micron property precludes implementation of shallow foundation systems. We expect that most buildings other than the relatively lightly loaded structures will need to be supported on deep foundations either end-bearing on bedrock or socketed in competent bedrock. Depending on required load demand, deep foundations could vary from end-bearing driven piles to drilled piers socketed in bedrock. A ground improvement program may be viable for lightly loaded structures. The selection of a specific foundation system must be predicated on the structure's layout and loading, the construction sequence within the overall project, and the local subsurface conditions.

Lateral Earth Pressure – Permanent Below-Grade Walls and Pits

We recommend that permanent below-grade walls and pits be designed to resist static at-rest earth pressures, hydrostatic pressures resulting from locally determined design groundwater conditions (determined on a building-by-building basis), and foundation and surface surcharge loading. Such walls should be designed assuming an equivalent fluid weight of 60 psf/ft in soil and weak rock above design groundwater level and 90 psf/ft in soil and weak rock below design groundwater level. We recommend assuming a uniform pressure of 250 psf plus any hydrostatic pressure be applied to walls cast below the top of competent bedrock rock. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall within soil and weak rock.

If the permanent below-grade walls are allowed to and are capable of rotating to the extent that an active pressure condition is developed, we recommend lateral earth pressure of 36 psf/ft above design groundwater level and 80 psf/ft below design groundwater level. The earth pressure below the top of rock would be unchanged from that previously recommended. Generally, the rotation necessary to reach active earth pressure conditions would be on the order of 0.002 d/H to 0.004 d/H, where d = lateral movement at the top of the wall and H = the height of the wall. The amounted of required movement at the tops of walls may be significant to achieve these reduced pressures. If the walls cannot tolerate such movements, we recommend using the at-rest earth pressures provided above.

Permanent Groundwater Control

Slabs, pits, and walls located below the groundwater elevation (as locally determined on a building by building basis) should be designed to resist hydrostatic pressures resulting from the requisite groundwater elevation and should be fully waterproofed. In additional, integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

As noted prior, waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures, particularly those subject to higher hydrostatic pressures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

While some manufacturer's may permit lesser substrate conditions, we recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

As a redundant measure, sensitive below grade space can be additionally protected by installing a gravel or composite layer between the pressure slab and a wearing slab to collect seepage which may bypass the primary waterproofing system. Such systems are ordinarily comprised of a gravel layer measuring about 12-inches thick in conjunction with perforated piping to permit collection of accumulated water to ejector pits. Perforated piping should be redundantly connected and should drain to sump/desanding pits with redundant ejector pumps. Composite systems such as those manufactured by Cupolex Engineering Solutions, Inc. may be a suitable alternative to the use of gravel and can in many cases reduce the required system thickness.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete or precast concrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

CONSTRUCTION PHASE INSPECTIONS

Special Inspections

Excavation and foundation work are subject to various Special Inspections as per the requirements outlined in Chapter 17 of the NYS Uniform Code. Construction activities that require geotechnical quality control inspections generally include support of excavation, foundation and slab subgrades, fill placement, and compaction. This work must be performed under the inspection of a qualified geotechnical engineer and should be performed by Langan. The inspecting engineer should be familiar with the subsurface conditions, as well as the proposed and existing construction onsite.

Waterproofing Installation

While not required by code, we recommend that regular inspections of waterproofing be made (as applicable) to mitigate the potential for leaks resulting from damaged or improperly installed materials.

Stormwater Inspections

Stormwater inspections will be required to evaluate temporary stormwater management practice (SMP) measures during construction in accordance with the guidelines established by the New

York State Department of Environmental Conservation (DEC). Such inspections are ordinarily periodic in nature and are tied to both calendar and precipitation criteria. Given the expanse of the site and the anticipation that significant time may be dedicated to this task, full-time personnel may be required to address this responsibility during construction.

CONTRACTOR RESPONSIBILITIES

The contractor is responsible for construction quality control, which includes satisfactorily constructing the foundation system and any associated temporary works to achieve the design intent while not adversely impacting or causing loss of support to neighboring property, structures, utilities, roadways, etc. Construction activities that can alter the existing ground conditions such as excavation, fill placement, foundation construction, ground improvement, pile driving/drilling, dewatering, etc., can also induce stresses, vibrations, and movements in nearby structures and utilities, and disturb occupants. Contractors are solely responsible to ensure that their activities will not adversely affect the structures and utilities and will not disturb operational facilities near the construction area. Contractors must also take all necessary measures to protect the existing structures, utilities, etc. during construction.

LIMITATIONS

The conclusions and recommendations provided in this report result from our interpretation of the geotechnical conditions existing at the site inferred from a limited number of borings and other investigation, and information provided by the client on investigations performed by CME and Ramboll. Actual subsurface conditions may vary. Recommendations provided are dependent upon one another and no recommendation should be followed independent of the others.

Any proposed changes in structures or their locations should be brought to Langan's attention as soon as possible so that we can determine whether such changes affect our recommendations. Information on subsurface strata and groundwater levels shown on the logs represent conditions encountered only at the locations indicated and at the time of investigation. If different conditions are encountered during construction, they should immediately be brought to Langan's attention for evaluation, as they may affect our recommendations.

This report has been prepared to assist the owner and the EOR in the design process and is only applicable to the design of the specific project identified. The information in this report cannot be used or depended on by engineers or contractors who are involved in evaluations or designs of facilities (including underpinning, grouting, stabilization, etc.) on adjacent properties which are beyond the limits of that which is the specific subject of this report.

Environmental issues (such as permitting or potentially contaminated soil and groundwater) are outside the scope of this study and should be addressed in a separate evaluation.

ATTACHMENT A – FAB1

BUILDING DESCRIPTION

The Phase 1 Fabrication building (FAB1) will have a footprint of about 1,200,000 square feet. The finished ground floor elevation (L10) of the building is reported to be el 400.67. The FAB1 building will have two large below-grade areas with a combined footprint of about 126,000 square feet and top of slab at el 375.67. Existing grades in proximity to the subject building varies from about el 383 to 409. Therefore, significant filling and localized cutting will be needed to reach the proposed ground floor level.

Column axial loads for the FAB1 building were provided by Jacobs on 18 April 2025. Due to significant construction equipment loading on the proposed ground floor (L10) slab, two sets of column loads were provided: end-state design loads and temporary construction loads. The end-state design loads comprise dead plus live load reactions at each column and the temporary construction loads comprised of dead load of L10 slab and live loads due to construction crane placement. The reported column loads varied between 2,000 and 5,000 kips with the maximum column loads being experienced by roughly half the columns along column line R. The L10 slab will be about 5.5-feet-thick and be designed to span between building columns. The slab is not expected to rely on support from soil subgrade. The average bearing pressure below the waste pit mat foundation and tank pad outside the building footprint was provided by Jacobs in an email dated May 15,2025. Within the waste pit, the average pressure is about 5.5 kips per square foot (ksf) and under the tank pad, the average pressure is about 1.5 ksf.

For lateral loading, the FAB building is split into three zones (northern, middle and southern) with Seismic Isolation Breaks (SIBs). SIBs are located between column lines 29 and 30, and 51 and 52. The base shears from wind and seismic conditions in the southern and northern section varies between about 3,500 and 7,000 kips and base shears in the middle section varies between 3,300 and 4,200 kips. Per discussions with the Jacobs team, the lateral load at each column is expected to generally be about 25 kips.

SUBSURFACE CONDITIONS

Subsurface Conditions

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others, which indicated a moderately distinct stratigraphy above bedrock within the drumlin deposits from the remainder of the site. Boring logs from the supplemental investigation for FAB1 are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy, observed outside the drumlins, consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

- *Topsoil:* The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.3 to 2 feet.
- *Silt & Clay:* A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 2 to 23 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), and clay (CL). SPT N-values in this layer were 3 to 33, with an average value of 15. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil in this layer (85%) is non-plastic while the remaining soils exhibiting low plasticity.
- *Sand & Gravel (till):* A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from about 1.5 to 17 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, SM-SC, GM, or GC. SPT N-values in this layer were 9 to Refusal (105), with an average value of 34. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Drumlin Soil Stratigraphy

The general subsurface stratigraphy in the drumlins consists of topsoil, underlain by sands and silts, underlain by weak rock, which are in-turn underlain by bedrock. Descriptions of each subsurface stratum below the drumlins are given below in order of increasing depth below grade.

- *Topsoil:* The topsoil within the drumlins comprises silt or clay with varying amounts of fine to medium sand, fine gravel, and organic matter. The thickness of this layer typically ranges from 0.4 to 2 feet.
- *Sand & Silt (till):* a layer of sand and silt with varying amounts of gravel and clay was encountered in all borings within the drumlins. This unit ranged in thickness from about 11 to 21 feet. According to USCS classifications, the soils include non-plastic silt (ML), clay (CL), silty sand (SM), clayey sand (SC), and poorly graded sand (SP) or gravel (GP). SPT N-values in this layer were from 4 to 74, with an average value of 36. Granular portions of this layer are generally medium dense to very dense based on SPT N-values, with occasional loose zones encountered at shallow depths. The cohesive (silt and clay) components are typically medium stiff to hard, with isolated pockets of soft material observed within the upper 4 feet in some borings.

Weak Rock

Intermediate geomaterials, classified as weak rock, were composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock's structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer varies from about 0.5 to 15 feet.

Bedrock

Bedrock was encountered at depths ranging from about 14 to 36 feet below existing grade, corresponding to elevations between el 379 and 357. Rock Quality Designation (RQD) values ranged from 7% to 100%, with a median value of about 64%. Roughly 75% of the core samples exhibited RQD values exceeding 50%, and about 60% were classified as good to excellent in quality, indicating that rock quality is variable but generally ranges from fair to good. The recovered rock cores as well as geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Groundwater levels were measured from observation wells installed in completed boreholes and within test pits that were excavated below the groundwater table. Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young's Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Between monitoring wells installed by CME and Langan, groundwater elevation was observed to vary from a high of about el 392 to a low of about el 376.6.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing, seismic cone penetrometer (SCPT) testing, and seismic refraction testing performed during the Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis shows that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1A – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		IV	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6

***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Measured groundwater levels as well as mottling of soils observed within test pits indicate normal groundwater in the area of the FAB varies from about el 392 to 376.6. This elevation is subject to seasonal variations due to precipitation. Once the site is backfilled to final grade using material that is relatively free-draining compared to existing near-surface site soils, groundwater will begin freely draining towards Young's Creek and towards the various SMPs/detention pods spread throughout the site, and will generally not rise higher than the groundwater levels measured from the monitoring wells. However, due to possible groundwater mounding around below-grade walls that will serve as barriers for groundwater flow, we recommend a design groundwater level that is higher of (i) el 394 and (ii) bottom elevation of L10 slab.

Deep Foundation System (Drilled Piers)

Given the anticipated axial column loads, we recommend supporting the FAB building on drilled piers socketed in bedrock. The drilled piers will derive their load bearing capacity through peripheral side shear and end bearing in rock. For the purpose of design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. The following table presents axial capacities for drilled piers of various sizes along with suggested structural detailing information. Rock socket for drilled piers should be constructed entirely within competent rock.

Table 2A – Drilled Pier Design

Pier Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)	Concrete Strength (f'_c) (ksi)*	Longitudinal Reinf.**	Transverse Reinf.***	Rock Socket Length (ft)
36	2000	50	6	(11)-#8/ (13)-#8	#4 @ 6″	10
42	2800	60	6	(16)-#8/(21)-#8	#4 @ 6″	11
48	3600	90	6	(15)-#9/ (19)-#9	#4 @ 6″	12
54	4700	110	6	(15)-#11/(19)-#11	#4 @ 6″	14
60	5800	120	6	(18)-#11/(24)-#11	#5 @ 6″	15
60	6100	120	6	(23)-#11/(29)-#11	#5 @ 6″	16

*Normal weight, self-consolidating concrete, placed by tremie

**Longitudinal Reinforcement = ASTM A615, Grade 75/ Grade 60

***Transverse Reinforcement = ASTM A615, Grade 60

Two longitudinal reinforcement options are presented in Table 2A for each drilled pier: one assuming Grade 75 rebar will be used and one assuming Grade 60 rebar will be used. Per code, all reinforcement for drilled piers must incorporate a minimum grout/concrete cover of 2.5 inches. Although the provided designs in Table 2A do not include any steel casing, isolation casing may be necessary within rock sockets in the event that an uncased rock socket will shed load onto adjacent building walls.

In areas where bedrock is shallow, drilled piers typically will develop high internal forces (shear and bending moment) at top of rock, resulting in the potential development of a plastic hinge near the top of bedrock. Additional structural detailing near the plastic hinge will generally be needed in such cases. However, at the design loads indicated in Table 2A, the internal forces in the drilled pier are low enough that special structural detailing may not be required.

Lateral Group Pile Analysis

A reduction factor ("p-multiplier") will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. "First row" refers the leading row in the direction of lateral loading. Each subsequent row is a "trailing row" located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

The lateral capacities and point of fixity locations of the drilled piers were determined using the Lpile software by Ensoft, Inc. The geotechnical parameters of soil and bedrock used for the analysis are presented below in Tables 3A and 4A, respectively.

Table 3A – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4A – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Point of Fixity – Drilled Piers

The depth to point of fixity for drilled piers of a particular structural makeup will vary depending on the soil stratigraphy and depth to top of competent bedrock. Typical upper and lower bound values for the estimated point of fixity are provided in Table 5A. These values represent the estimated points of fixity for idealized subsurface conditions representing both shallow bedrock conditions (assumed typical of piers south of column line 24) and deep bedrock conditions (assumed typical elsewhere within FAB1). We note that there can be significant variation in the depth to fixity. As such, the EOR may need to perform a more detailed evaluation to address the local subsurface stratigraphy, loading, and boundary conditions, and pier structural configurations.

Table 5A – Drilled Pier Point of Fixity

Pier Diameter (inches)	Equivalent Lengths for Point of Fixity Below L10 Slab (ft)				
	36-inch	42-inch	48-inch	54-inch	60-inch
Typical of piers south of column line 24	7	7	7.25	7.25	7.25
Typical of piers throughout the remainder of FAB1	7	7.5	11.25	16	17.5

Index Piles and Load Testing

We recommend installing at least 2% of drilled piers as index piles prior to starting production piles. The index piles should be spread across the building footprint to capture the variability in subsurface conditions. If the contractor elects to install the drilled piers without the use of a casing, caliper logging should be performed to measure the diameter and shape of the drilled pier borehole. Regardless, all index piles must be tested using cross-hole sonic logging to evaluate the structural integrity of the pile.

The recommended compression and lateral capacities must be proven using instrumented load tests. Because of the high compression loads, a traditional top-down load test is likely not feasible or economical. We recommend performing the axial load tests using a bi-directional static load testing method using an embedded jack such as an Osterberg Cell. We recommend implementing an early test pile program, preferably before the building design is finalized and issued for construction, to optimize design parameters for side shear and end-bearing. At a minimum, at least one percent of drilled piers should be load tested in axial and lateral. Additional load tests may be warranted if multiple pile diameters are being implemented and pending initial load test results.

Shallow Foundations

Shallow foundations may be utilized for building elements requiring excavation into competent bedrock such as within the deep waste pits of the FAB. In these areas, building columns can be supported on a mat foundation cast directly against competent bedrock or on top of a 1-foot-thick gravel layer placed on top of competent bedrock. The gravel layer can act as collection layer for any groundwater that reaches the underside of the waste pits' foundations. For the purposes of design, we recommend that the mat foundation be designed assuming an allowable bearing pressure of 40 ksf when cast directly on competent bedrock and 12 ksf when cast on a 1-foot-thick gravel bed placed on top of competent bedrock. Based on the building loading provided by Jacobs, we recommend that the FAB1 mat foundation cast directly on bedrock be designed assuming a subgrade modulus equal to 1,500 psi/in and assuming a modulus of 900 psi/in when a 1-foot-thick gravel layer is placed between the mat foundation and clean sound bedrock.

While it's possible that higher bearing pressures for bedrock are possible based on the available subsurface data, the recommended value herein accounts for the potential of weaker rock strata to exist. Should higher values be needed at specific locations, targeted investigation is recommended to verify the local bedrock conditions.

Post-Tensioned Ground Anchors

As noted prior, uplift loads are anticipated within the deep pits as a result of hydrostatic pressure. Uplift loads on shallow foundations can be resisted using post tensioned tie-down anchors drilled into the competent rock mass. We recommend that all anchors be comprised of Class I corrosion protected high-strength fully threaded tendons meeting ASTM A-722.

Anchor bond lengths should be proportioned assuming an allowable peripheral shear resistance of 100 psi along the grout-rock interface. The free stressing length of the tendon should be a minimum of 10 feet. The total lengths of the anchors must consider group effects in addition to satisfying individual anchor loading criteria. The final design of anchors should be predicated on an evaluation of the actual anchor layout. Langan can assist with such analyses once specific horizontal layouts are developed.

Ten percent of the tie-down anchors should be performance (creep) tested to 133% of their design load. The remaining anchors should be proof tested to 133% their design load. Successfully tested anchors should be locked-off at the designated lock-off load that accounts for long term creep.

Subgrade Preparation

Foundation subgrades should be level and clear of standing or frozen water, debris, or other deleterious materials. All bedrock subgrades should be scaled of loose rock and cleaned of debris using compressed air. The top of rock elevation may vary considerably over relatively short distances. Sloping rock and zones of highly weathered or highly fractured rock may require local deepening of the footings or piers to achieve the allowable bearing pressure. A competent person must inspect and approve foundation subgrades prior to placement of concrete to verify that the subgrade material is adequate to provide the recommended allowable bearing pressure. A mud slab may also be cast to provide protection and may be required to provide a suitable substrate for waterproofing.

Tank Pad Subgrade Modulus

The loads are modest enough that the tank pad can be directly supported on compacted material placed in accordance with our specifications provided in this report. For the purposes of design, we recommend an allowable bearing capacity of 2 tons per square foot for tank pad supported on the engineered fill backfilled in accordance with the specifications provided in this report. The tank pad can be designed using a subgrade modulus equal to 40 psi/in. This assumes the slabs will be cast atop at least a 12-inch-thick layer of #57 stone. Total settlements are expected to be less than 1 inch.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or ground anchors and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures, particularly those subject to higher hydrostatic pressures such as the deep pits with the FAB. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer’s recommendation.

As a redundant measure, below grade space can be additionally protected by installing a gravel or composite layer between the pressure slab and a wearing slab to collect seepage which may bypass the primary waterproofing system. Such systems are ordinarily comprised of a gravel layer measuring about 12-inches thick in conjunction with perforated piping to permit collection of accumulated water to ejector pits. Perforated piping should be redundantly connected and should drain to sump/desanding pits with redundant ejector pumps. Composite systems such as those manufactured by Cupolex Engineering Solutions, Inc. may be a suitable alternative to the use of gravel and can in many cases reduce the required system thickness.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft in soil and weak rock above the design groundwater level (see design groundwater elevation section) and 90 psf/ft in soil and weak rock below design groundwater level. We recommend assuming a uniform pressure of 250 psf plus any hydrostatic pressure be applied to walls cast below the top of competent bedrock rock. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall within soil and weak rock. Live loads on top of L10 slab need not be considered as a surcharge load to generate lateral pressures.

If the permanent below-grade walls are allowed to rotate to the extent that an active pressure condition is developed, we recommend lateral earth pressure of 36 psf/ft above design groundwater level and 80 psf/ft below design groundwater level. The earth pressure below the top of rock would be unchanged from that previously recommended. Generally, the rotation necessary to reach active earth pressure conditions would be on the order of 0.002 d/H to 0.004 d/H, where d = lateral movement at the top of the wall and H = the height of the wall. This is expected to require fairly significant movement at the top of the wall. If the walls cannot tolerate such movements, we recommend using the at-rest earth pressures provided in the previous paragraph.

Utility Support

We recommend that the utilities within the building footprint be located in utility chases cast within the L10 slab. For utilities that run outside the building footprint, we recommend placing the utilities within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

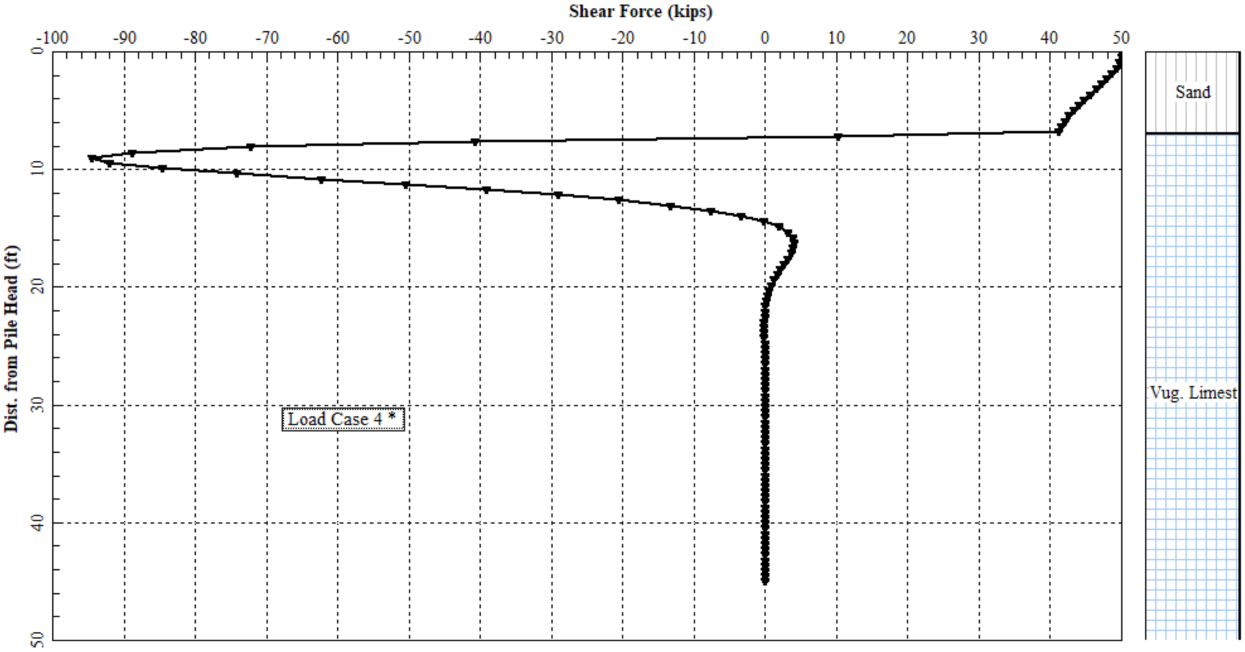
All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least 1/2-inch.

LATERAL PILE ANALYSIS PLOTS

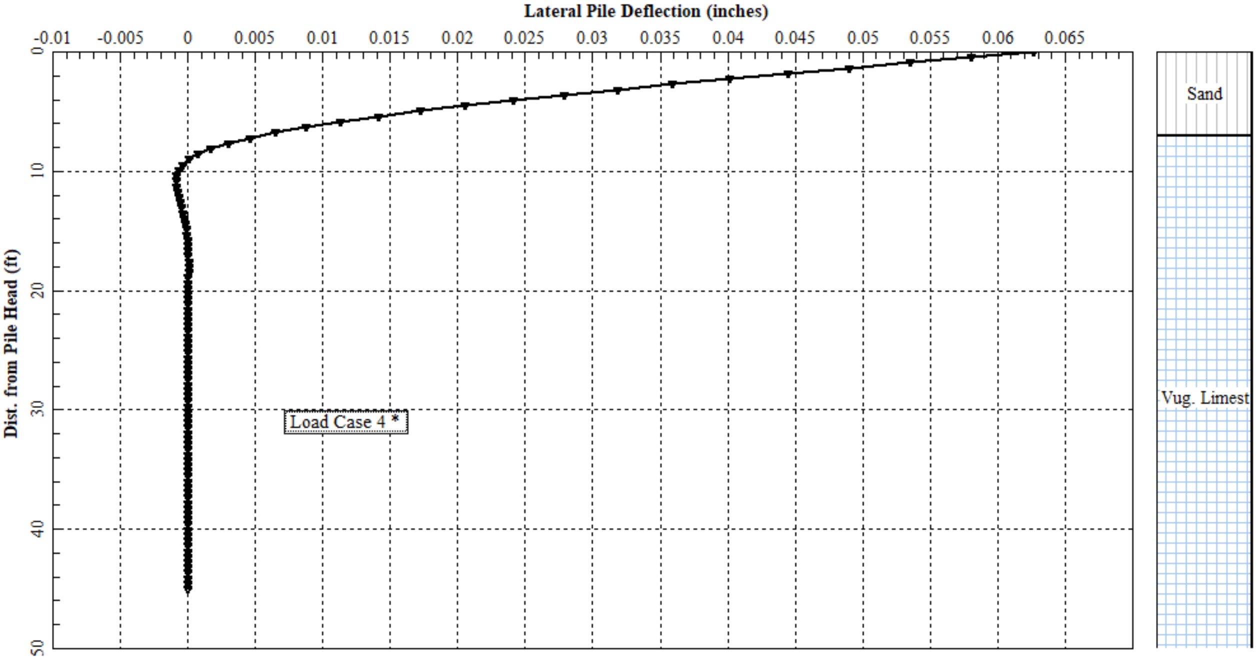
The following plots show output from our pile lateral analysis performed using Lpile for idealized subsurface conditions representing both shallow bedrock conditions (assumed typical of piers south of column line 24) and deep bedrock conditions (assumed typical elsewhere within FAB1). We note that the outputs are for idealized conditions and that there can be significant variation to the outputs shown here. As such, the EOR may need to perform a more detailed evaluation to address the local subsurface stratigraphy, loading, and boundary conditions, and pier structural configurations.

36-Inch Pier South of Column line 24

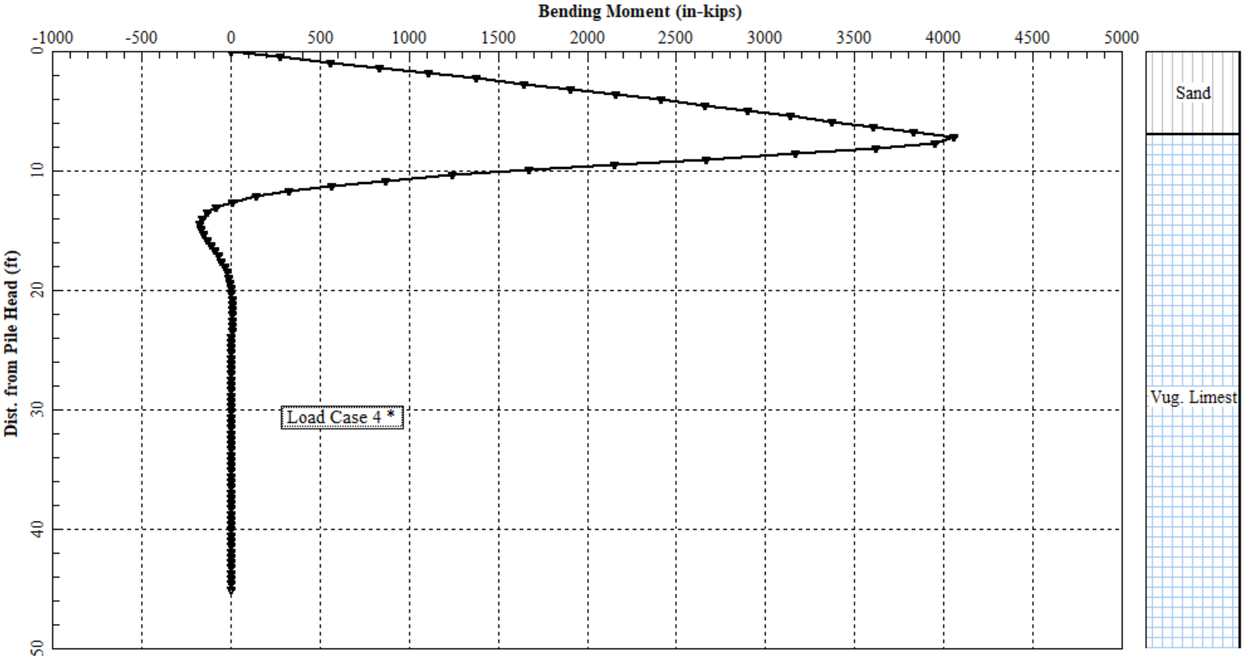
Shear Force Plot



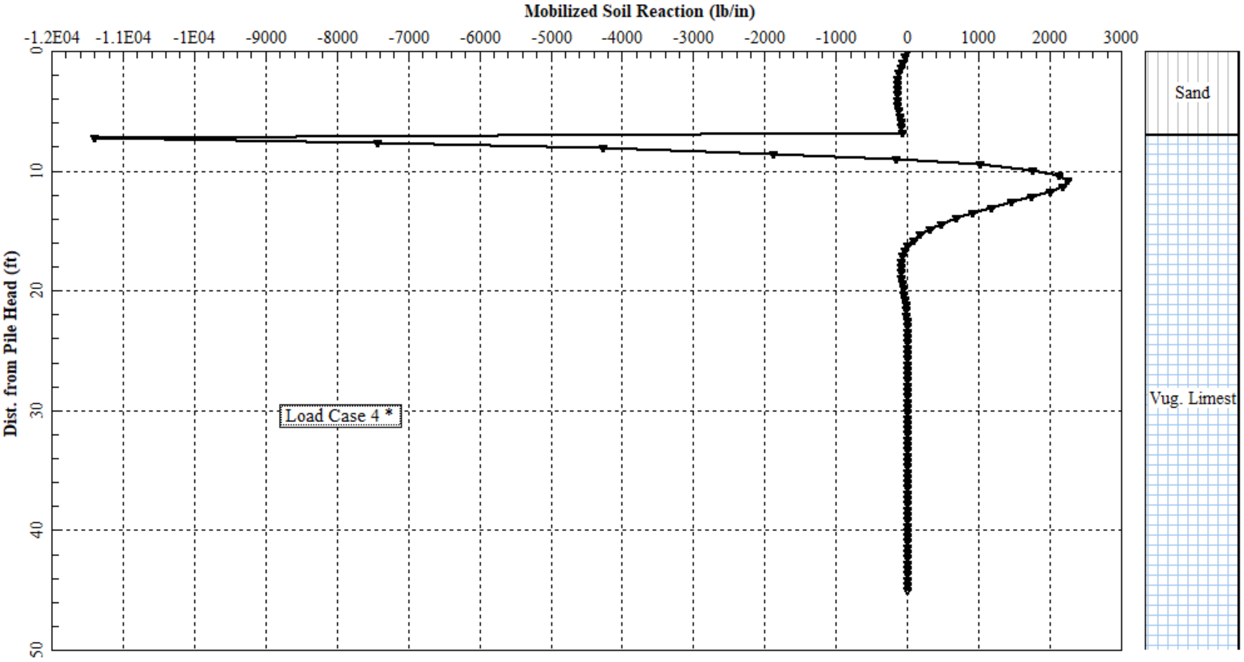
Lateral Deflection Plot



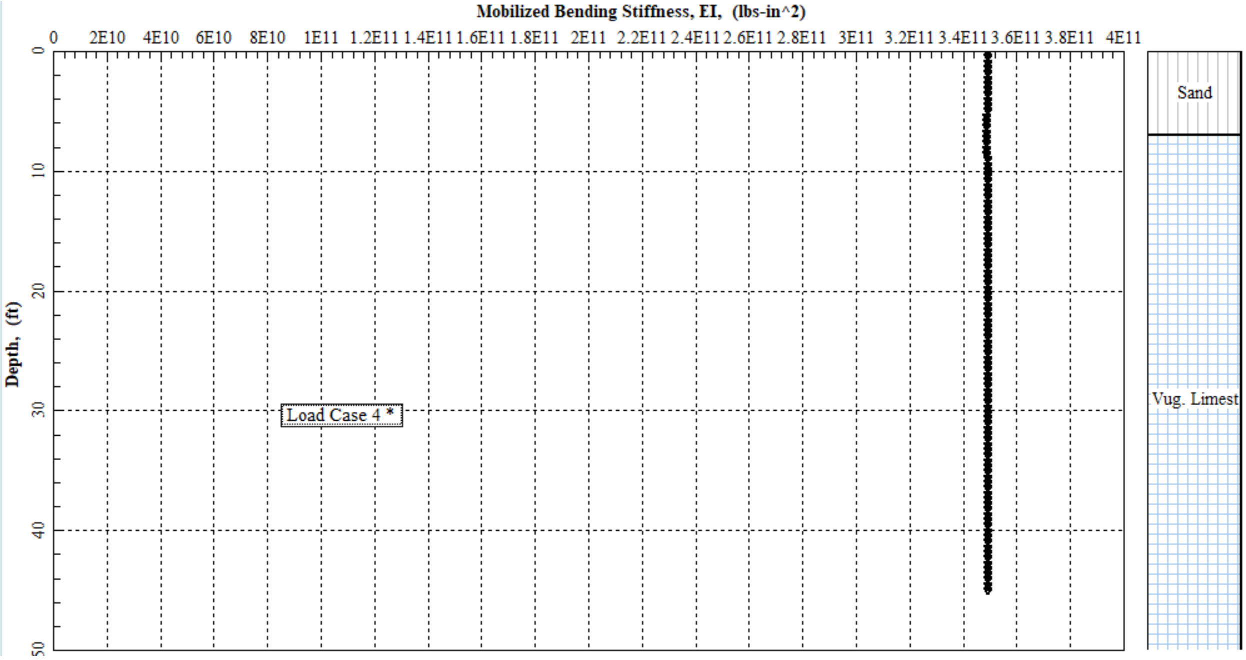
Bending Moment Plot



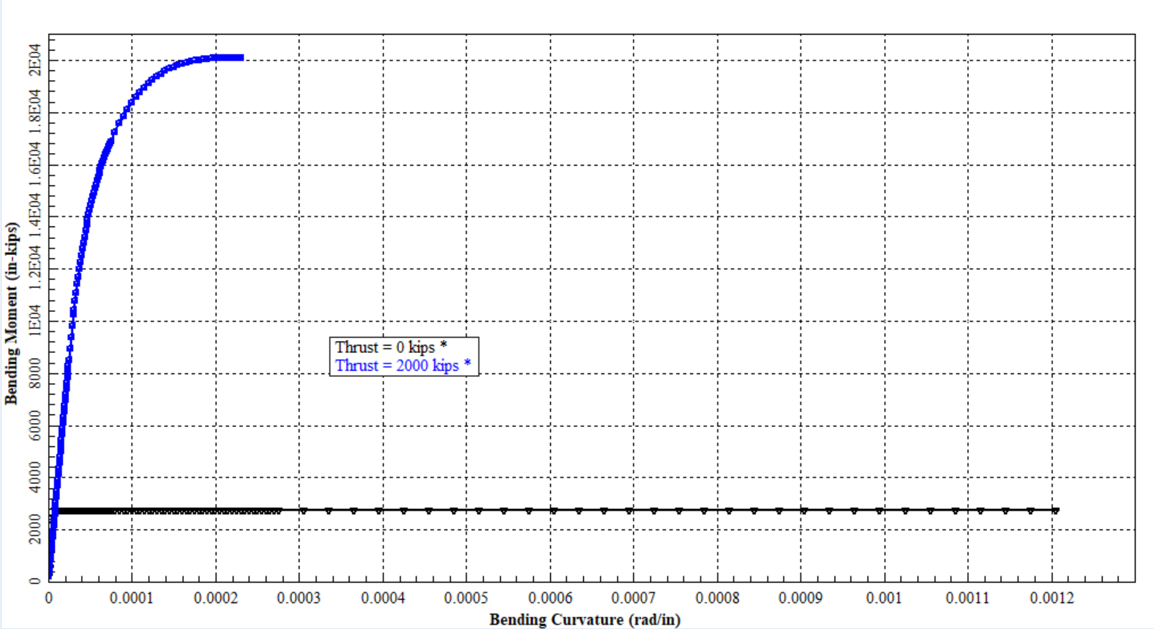
Mobilized Soil Reaction Plot



Mobilized EI Plot

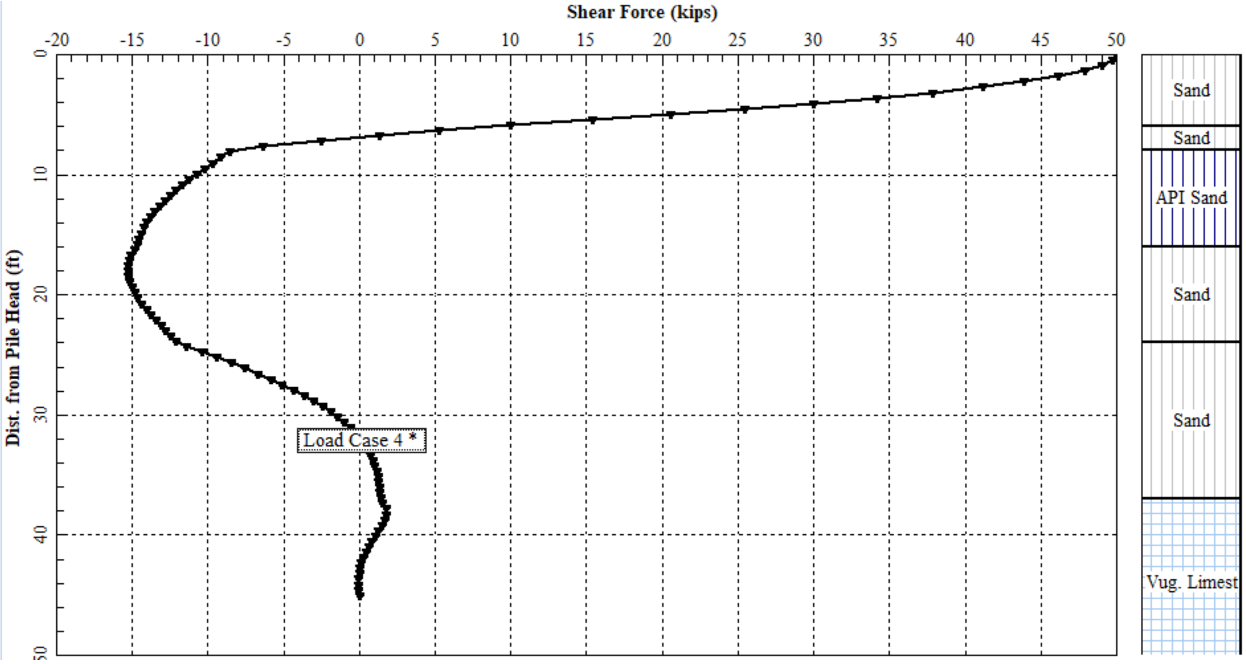


Moment vs Curvature Plot

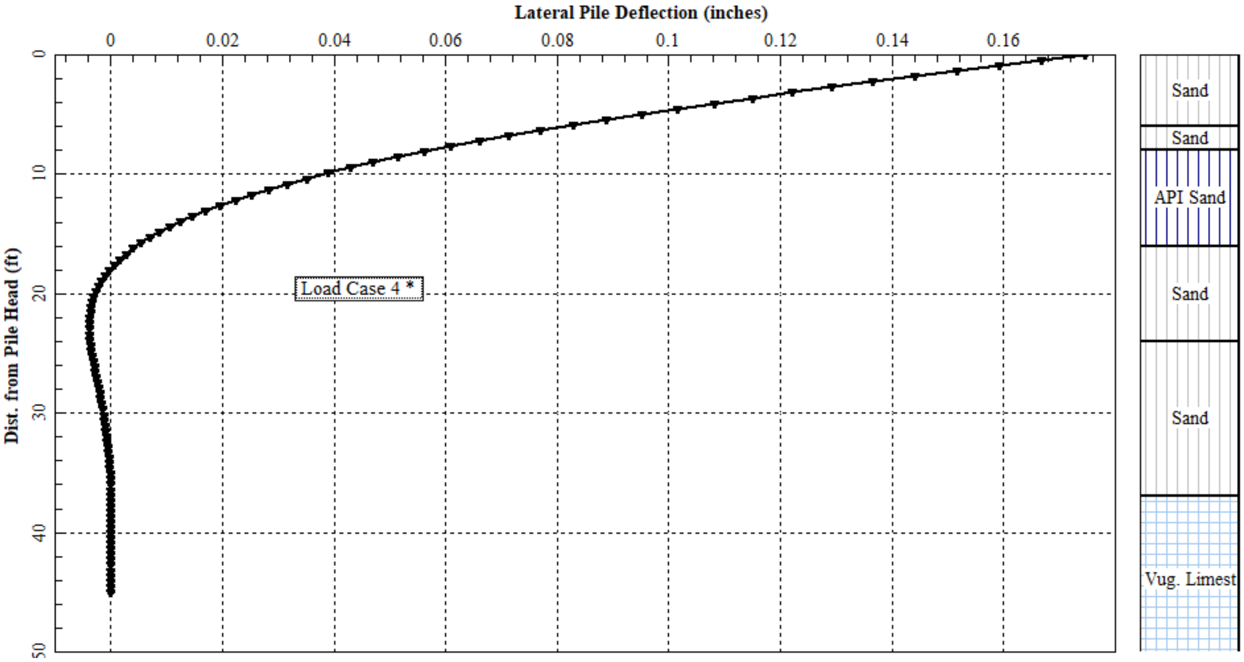


36-Inch Pier North of Column line 24

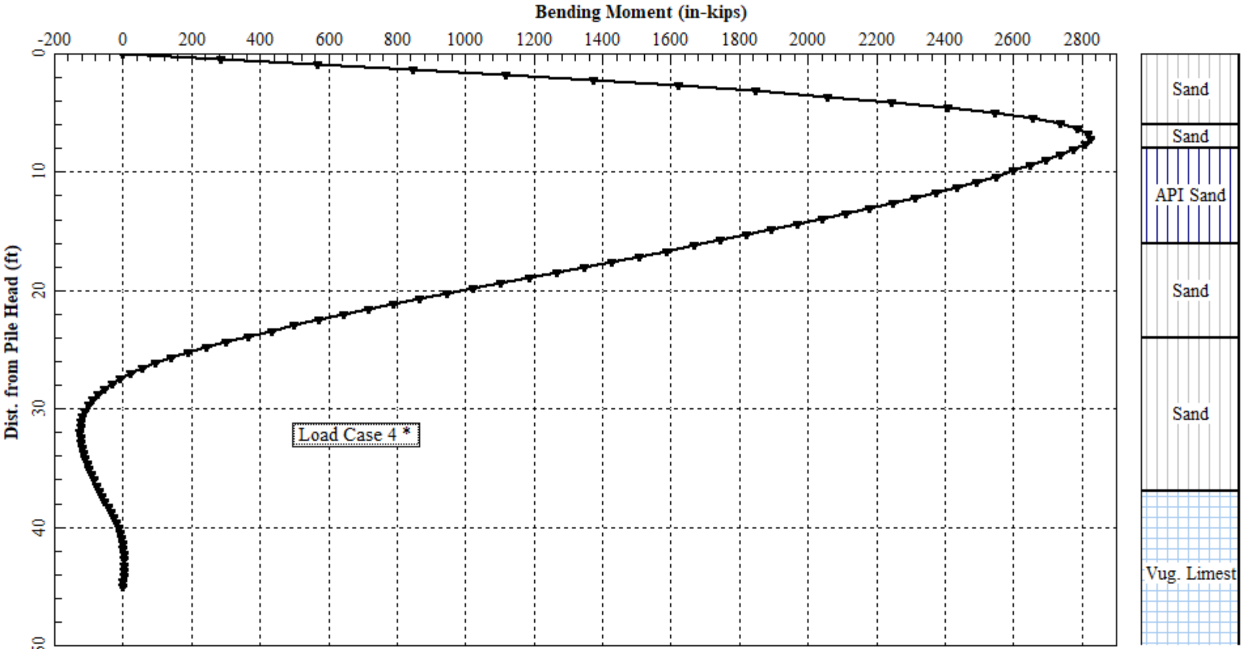
Shear Force Plot



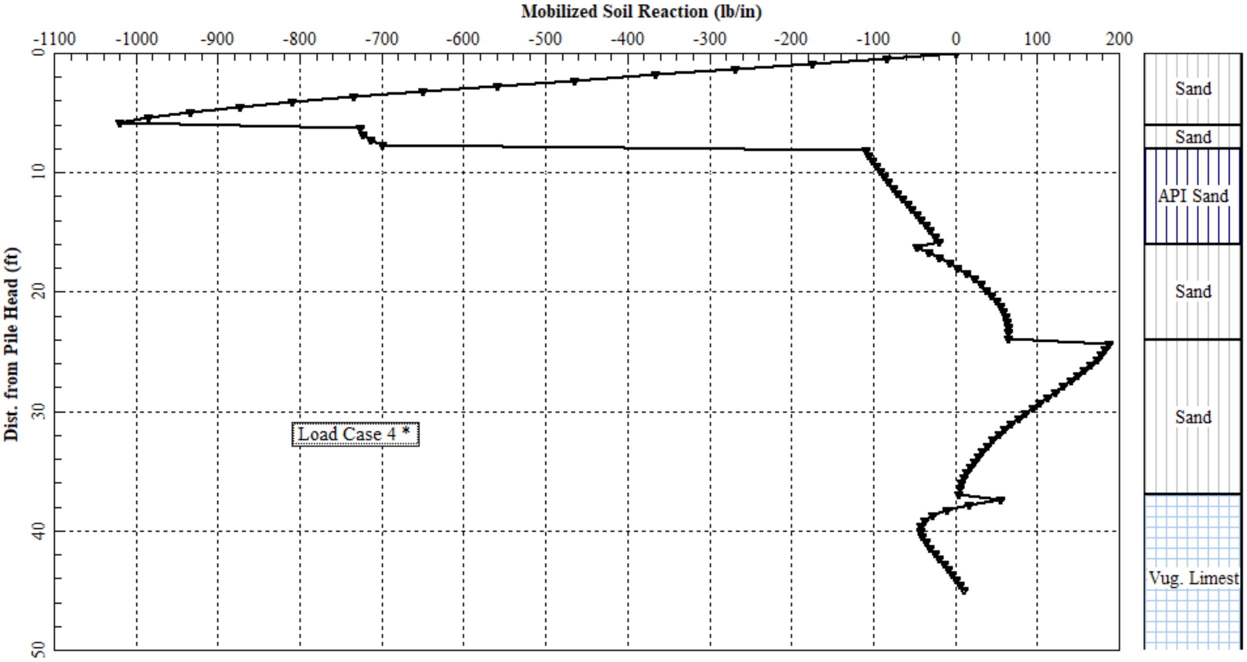
Lateral Deflection Plot



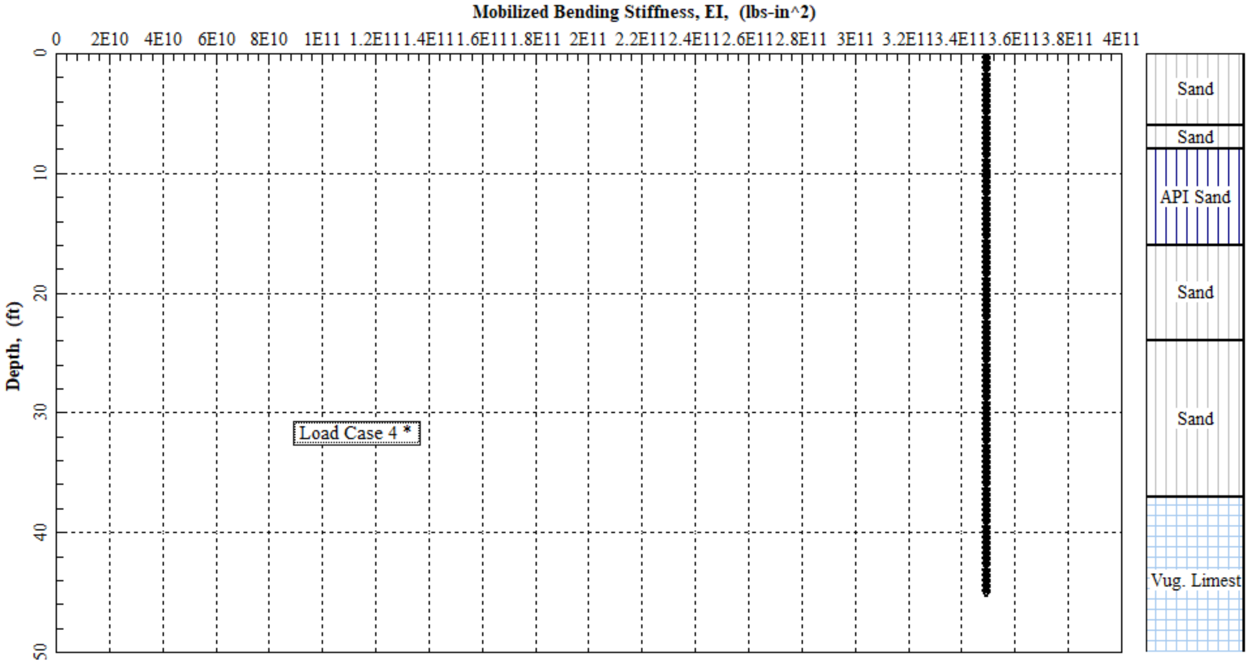
Bending Moment Plot



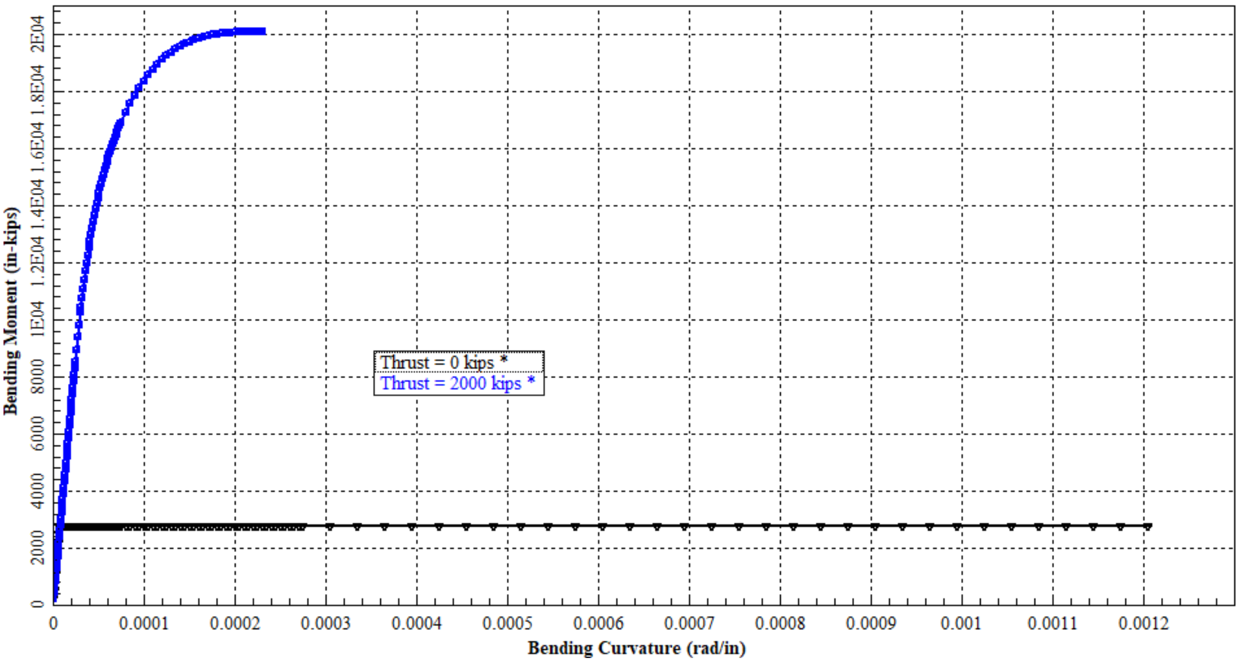
Mobilized Soil Reaction Plot



Mobilized EI Plot

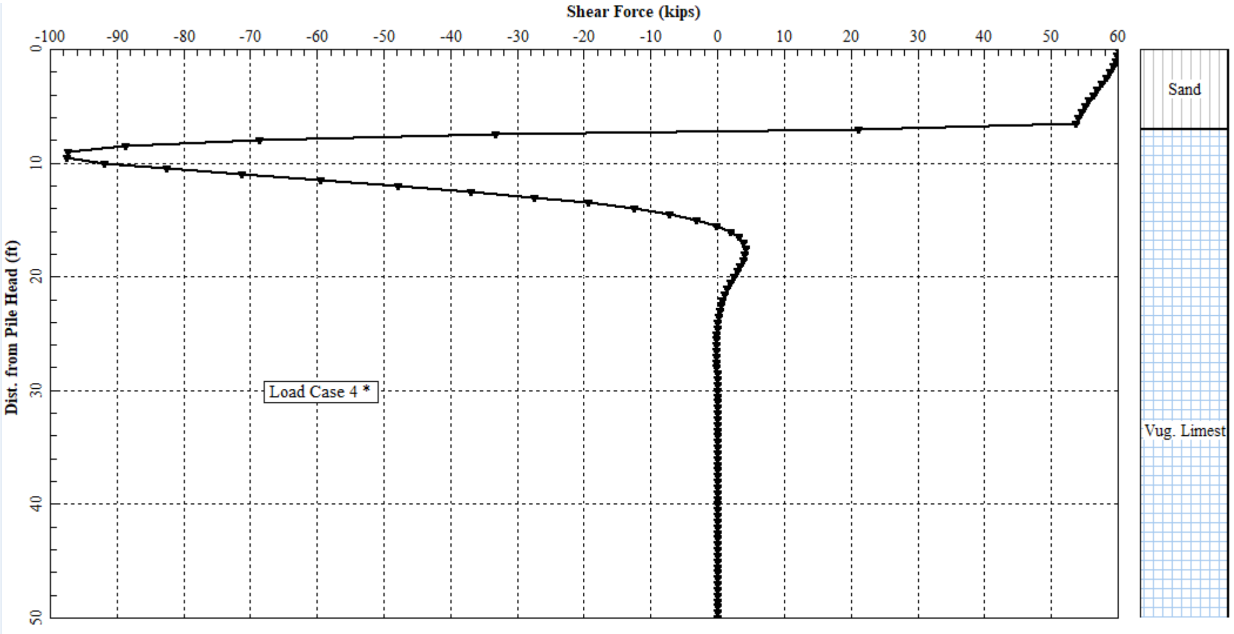


Moment vs Curvature Plot

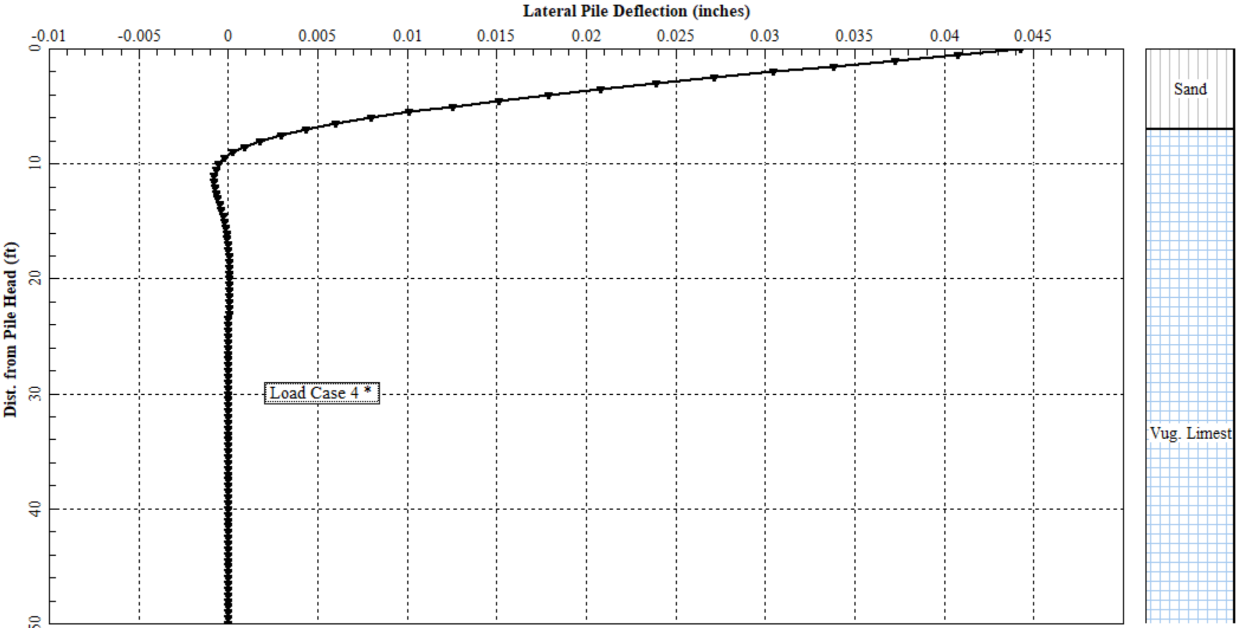


42-Inch Pier South of Column line 24

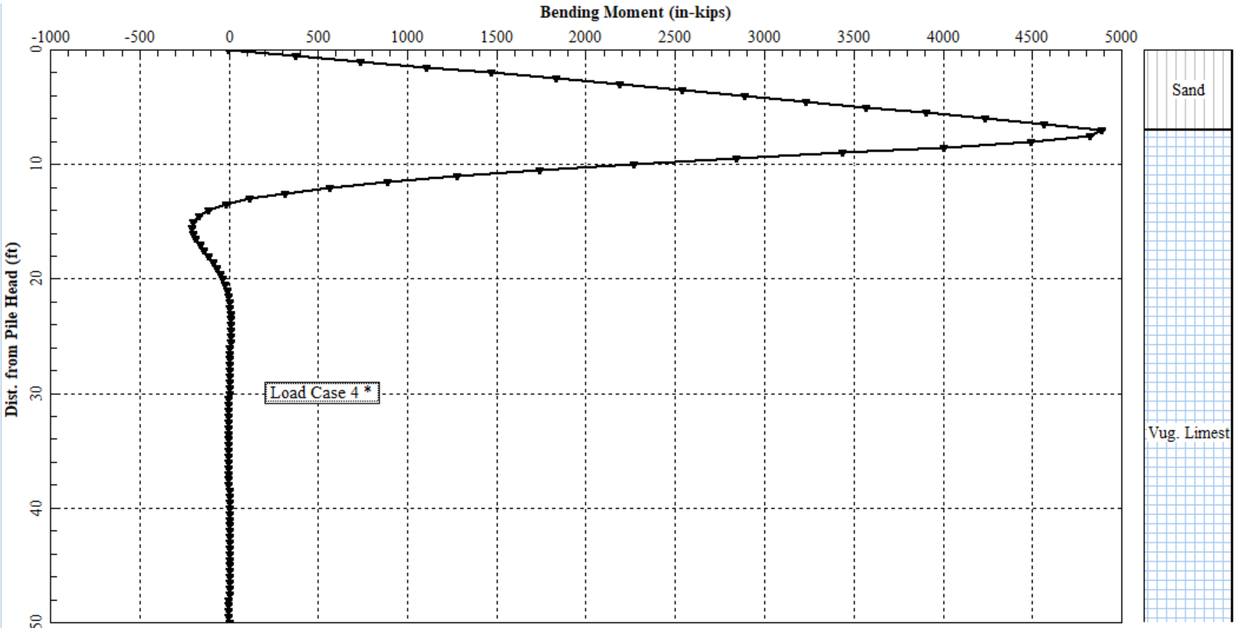
Shear Force Plot



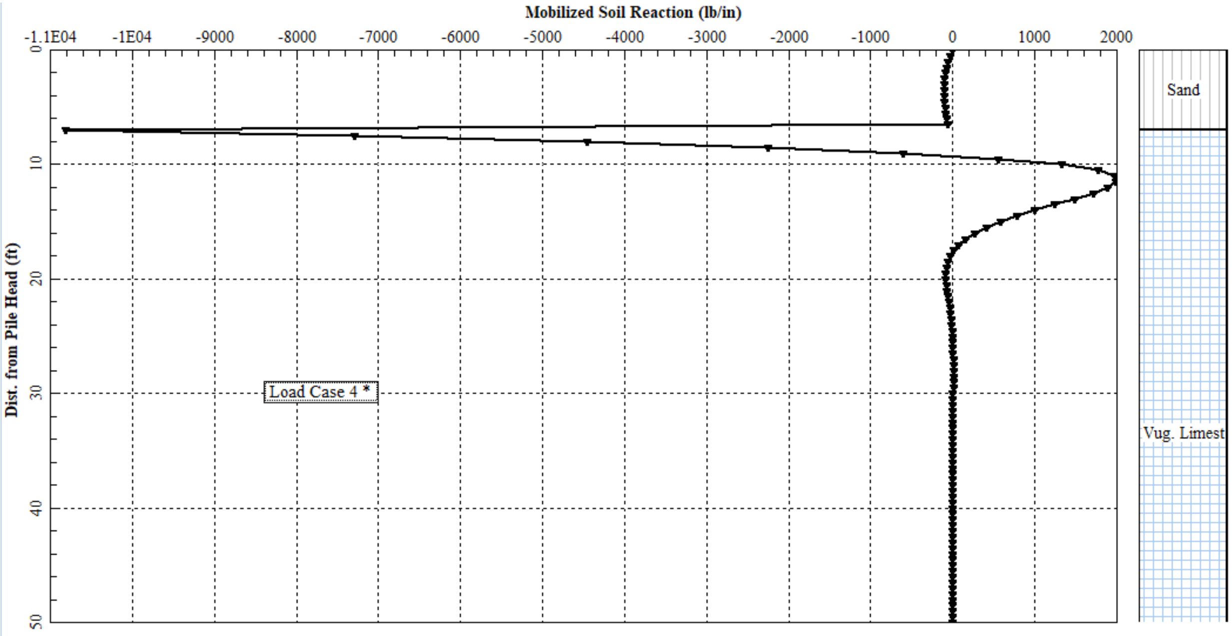
Lateral Deflection Plot



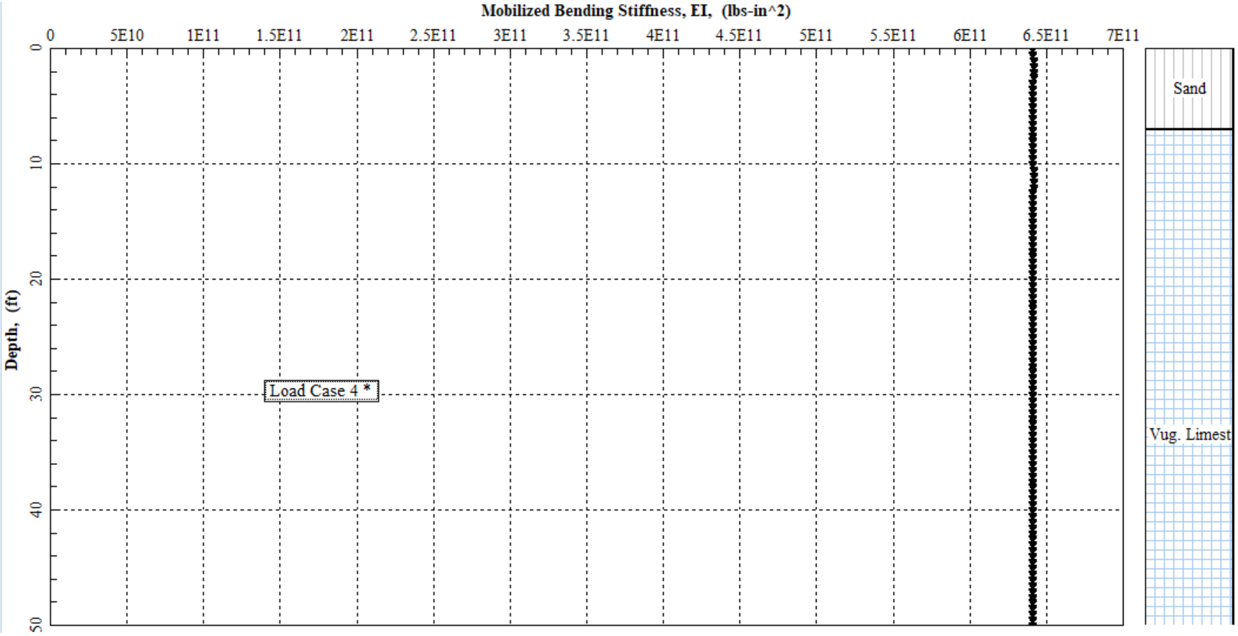
Bending Moment Plot



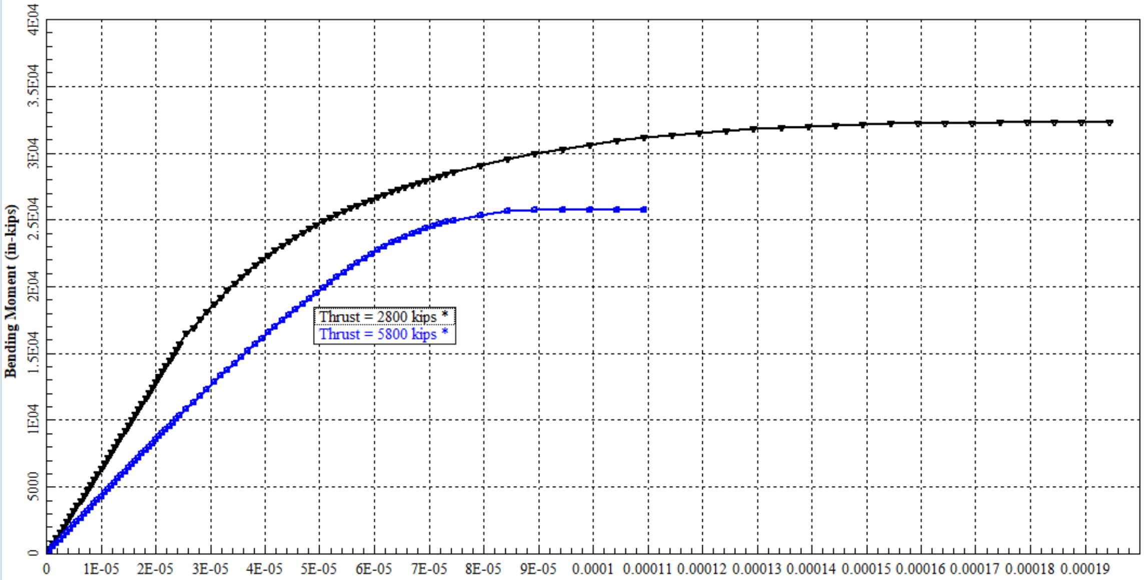
Mobilized Soil Reaction Plot



Mobilized EI Plot

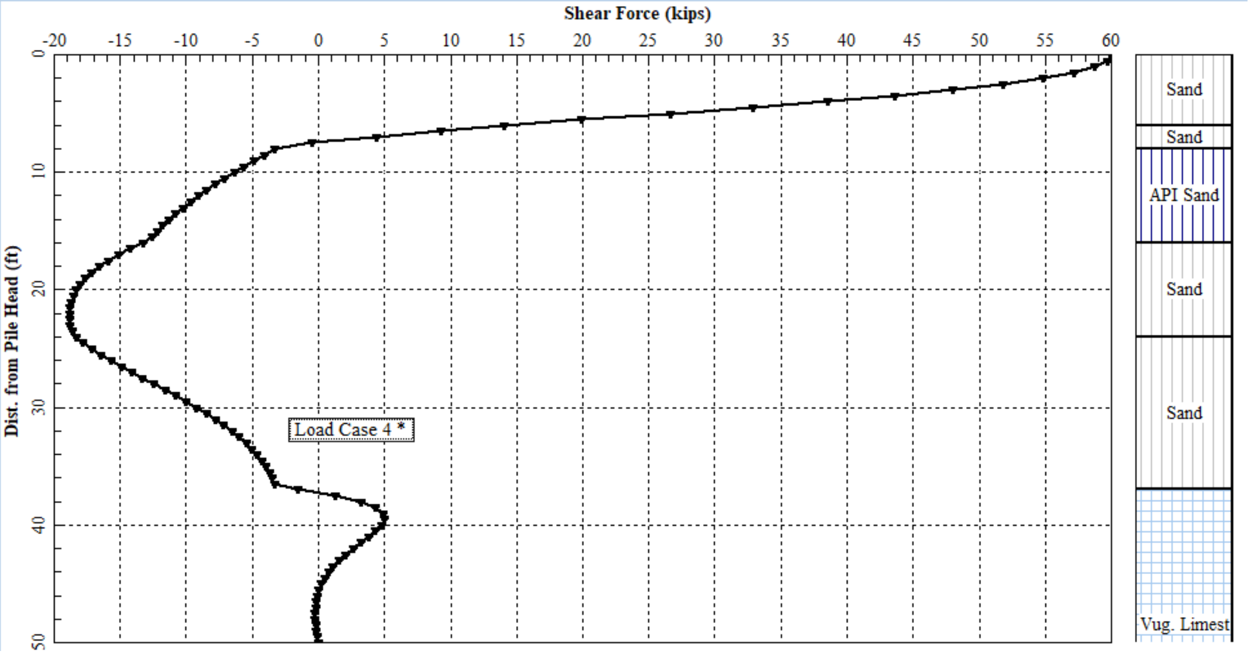


Moment vs Curvature Plot

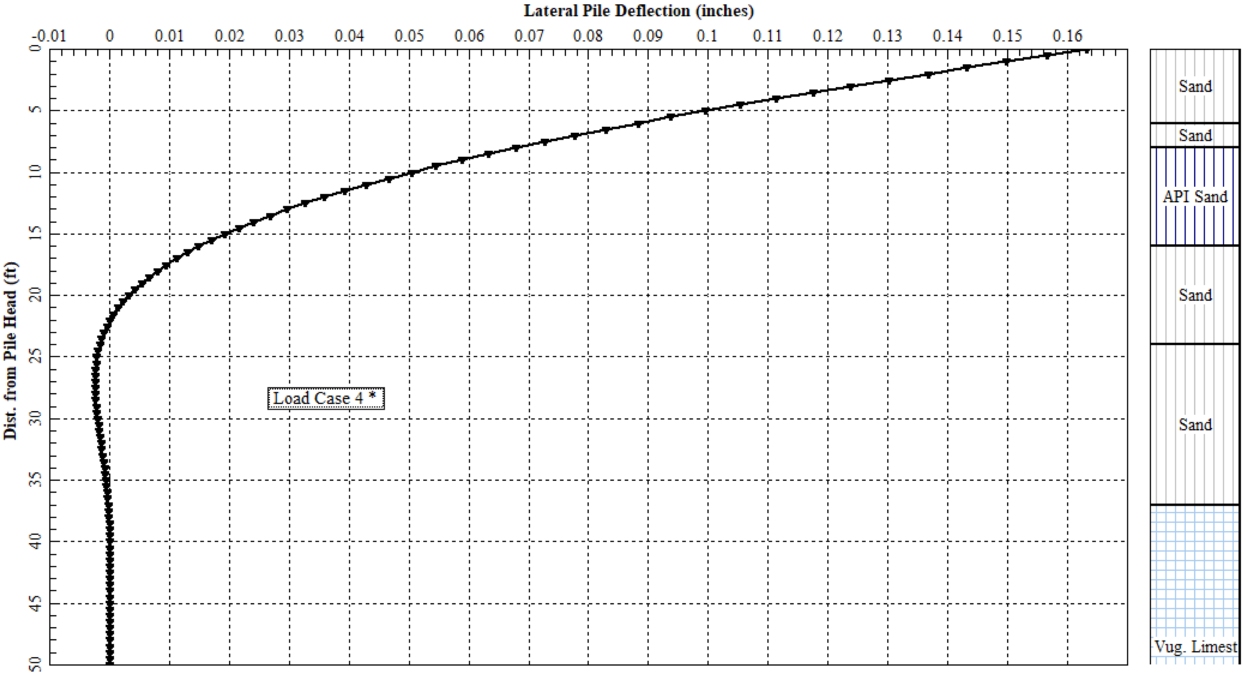


42-Inch Pier North of Column line 24

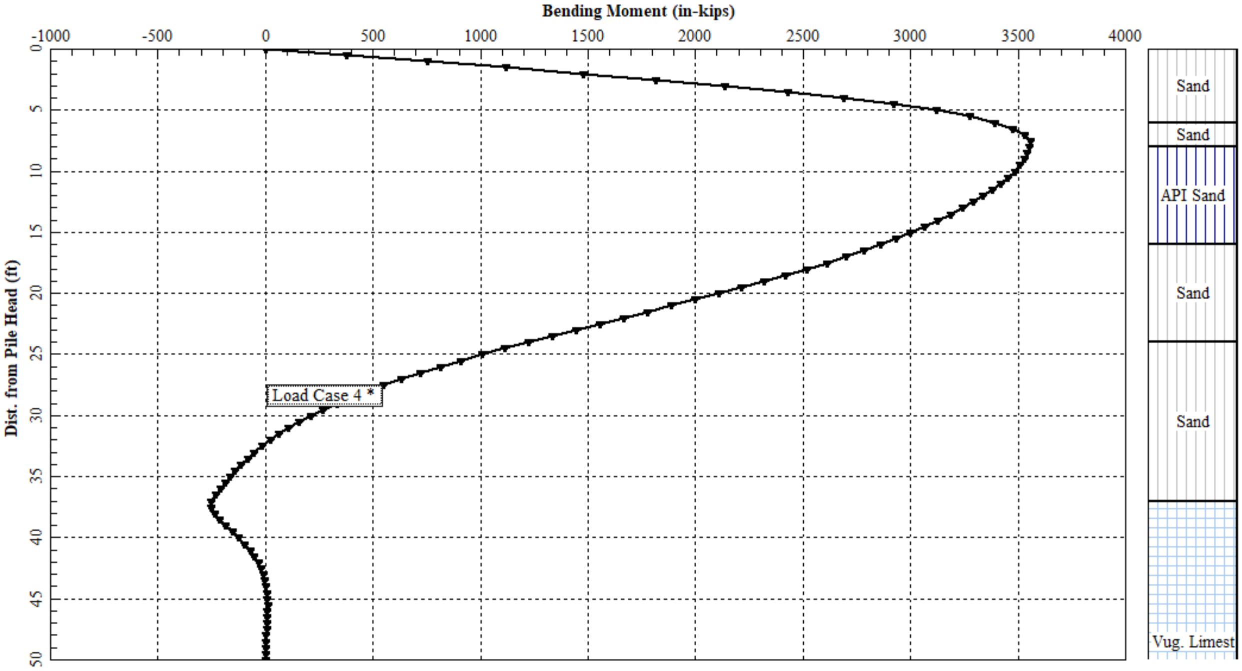
Shear Force Plot



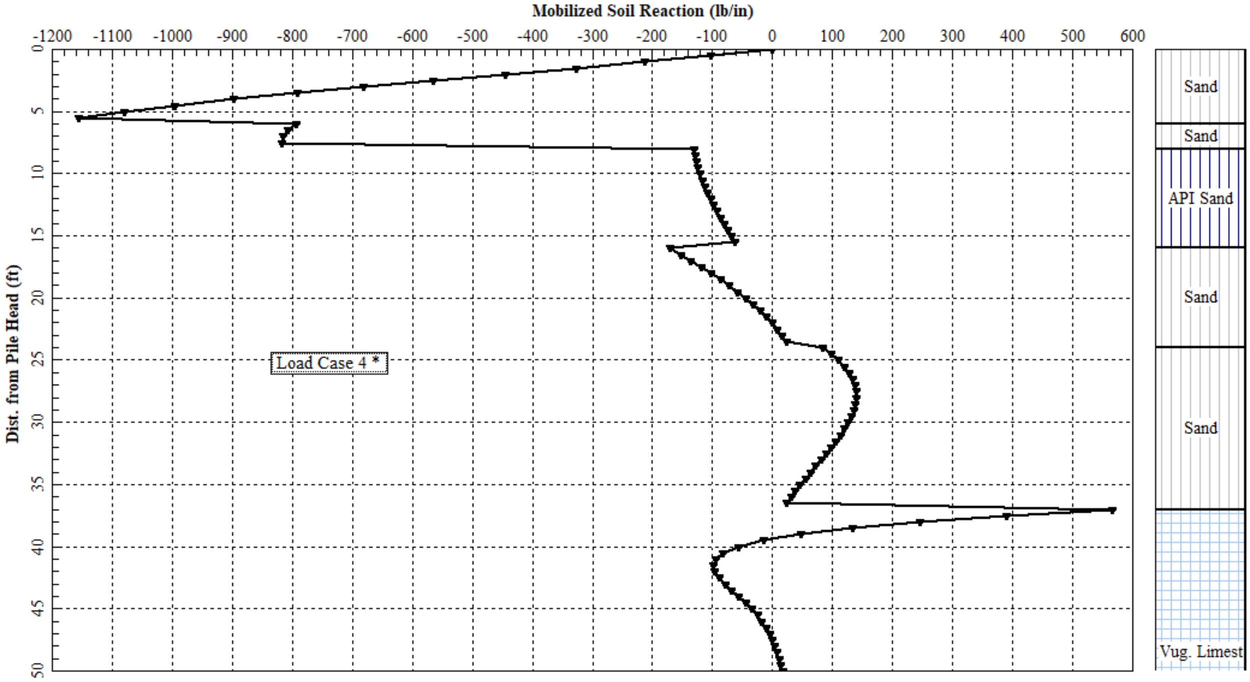
Lateral Deflection Plot



Bending Moment Plot



Mobilized Soil Reaction Plot



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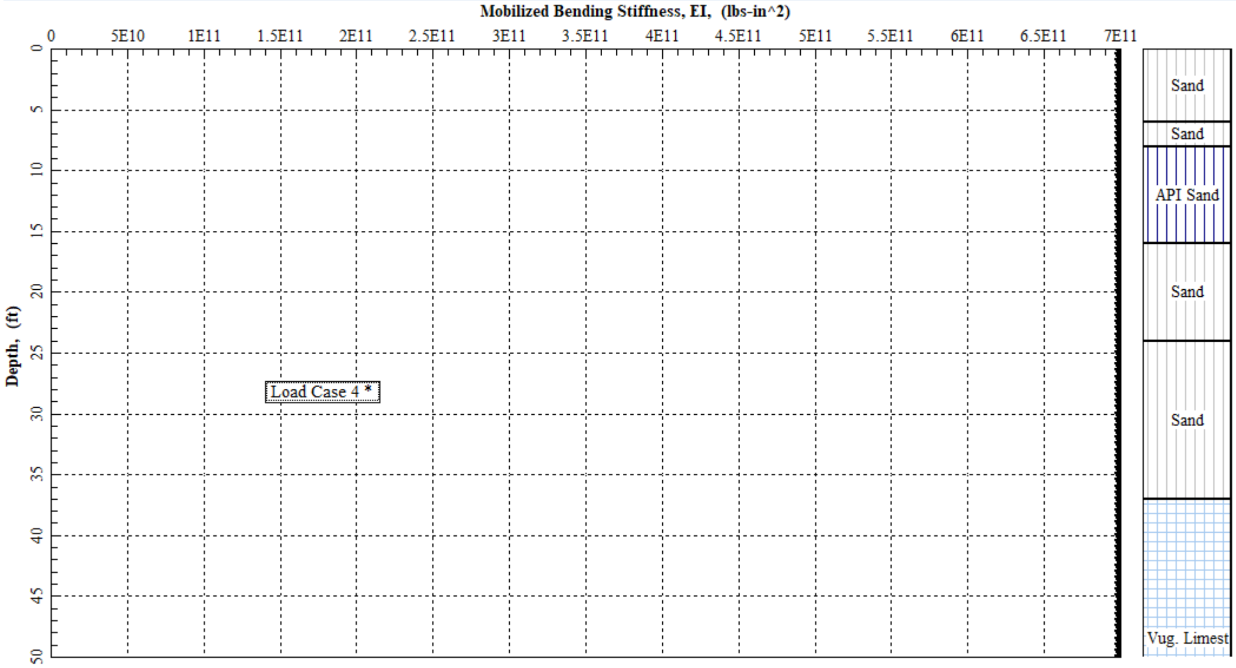
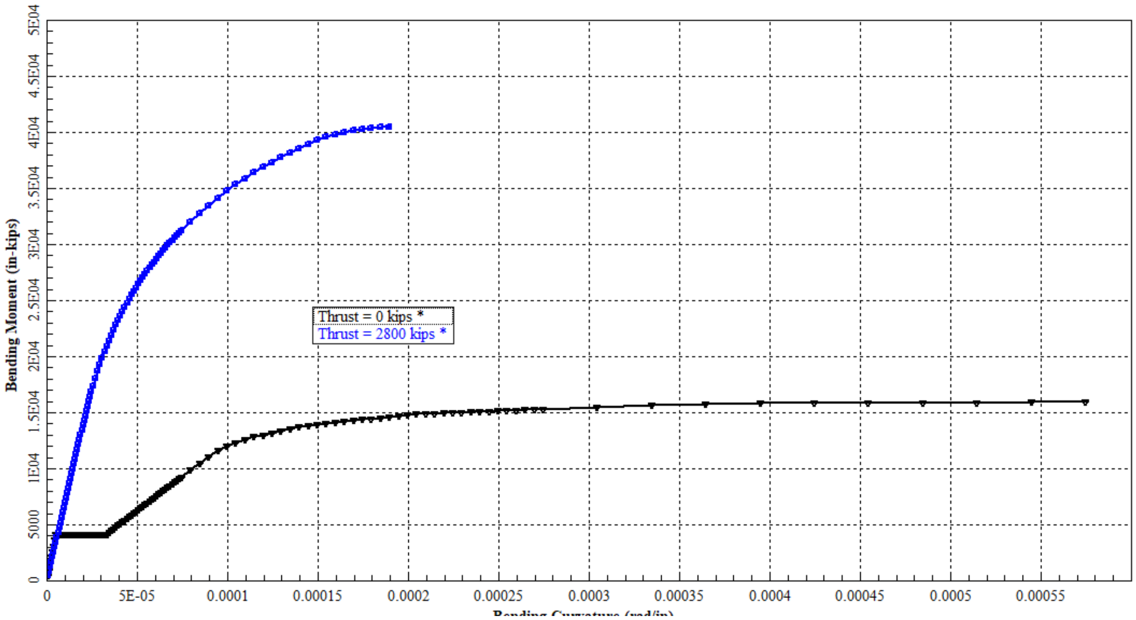
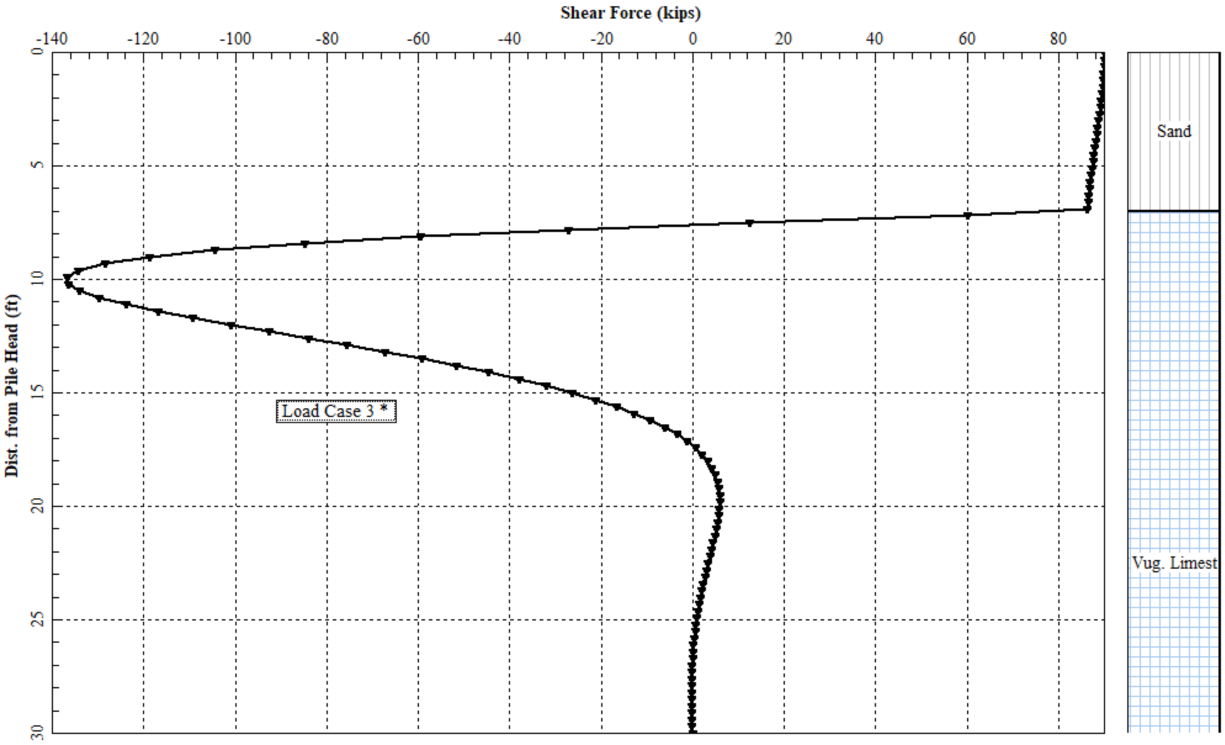


Moment vs Curvature Plot

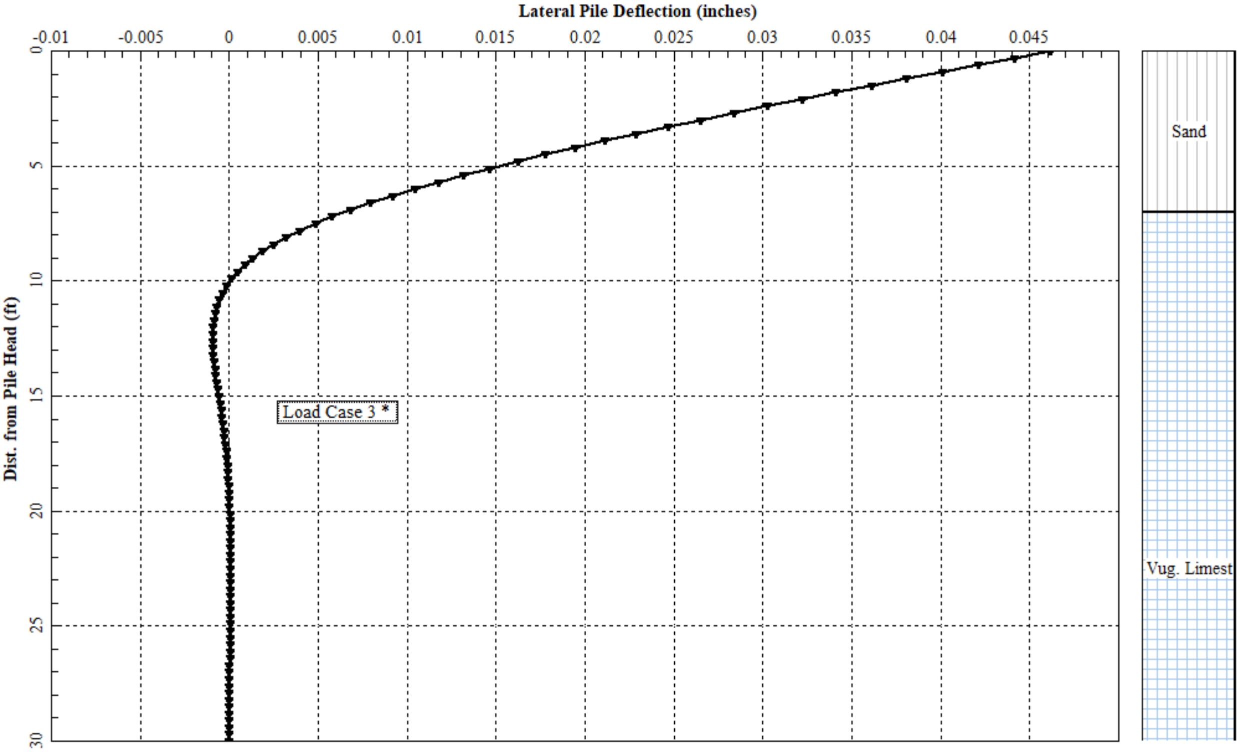


48-Inch Pier South of Column line 24

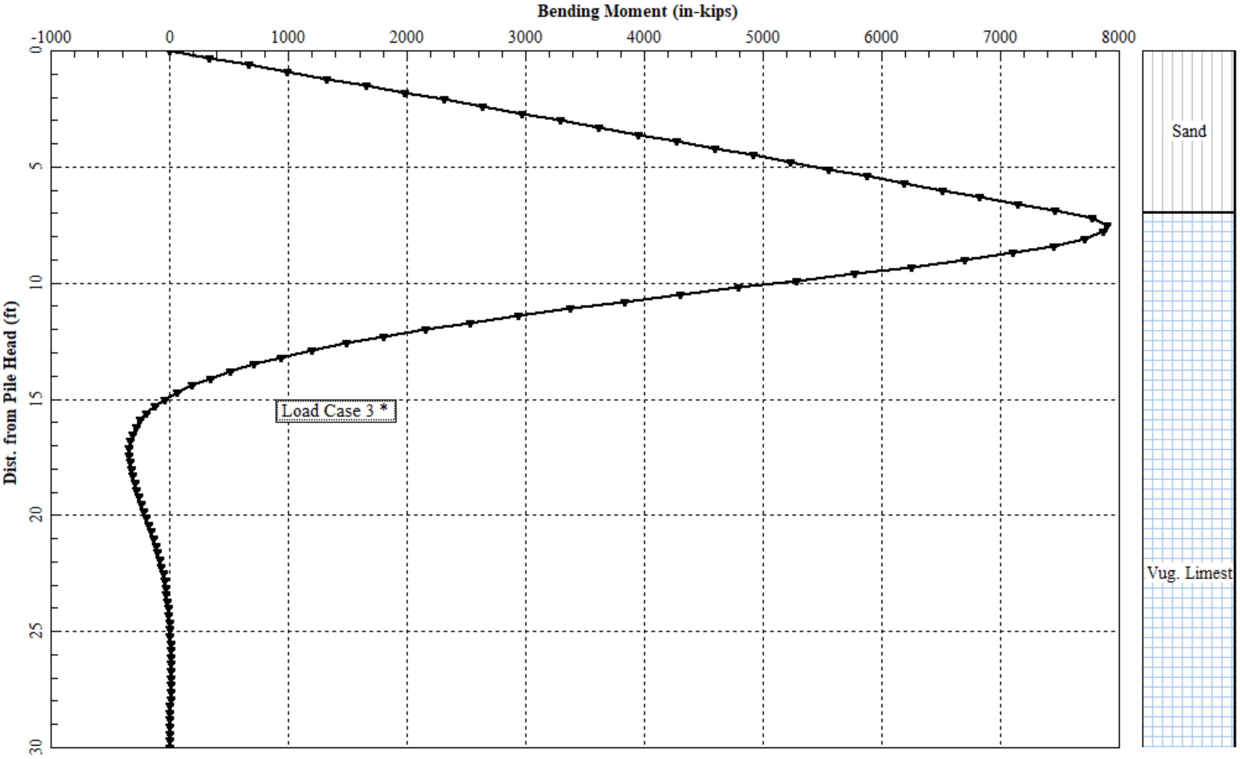
Shear Force Plot



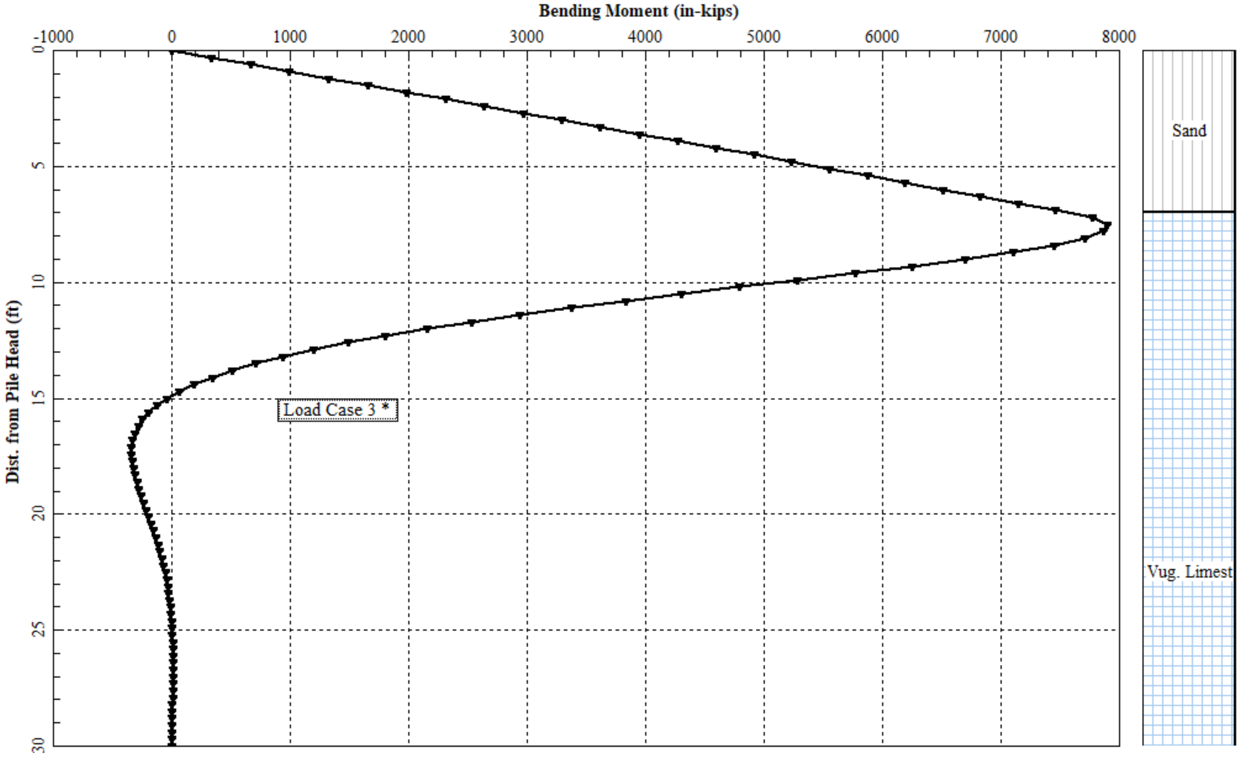
Lateral Deflection Plot



Bending Moment Plot



Mobilized Soil Reaction Plot



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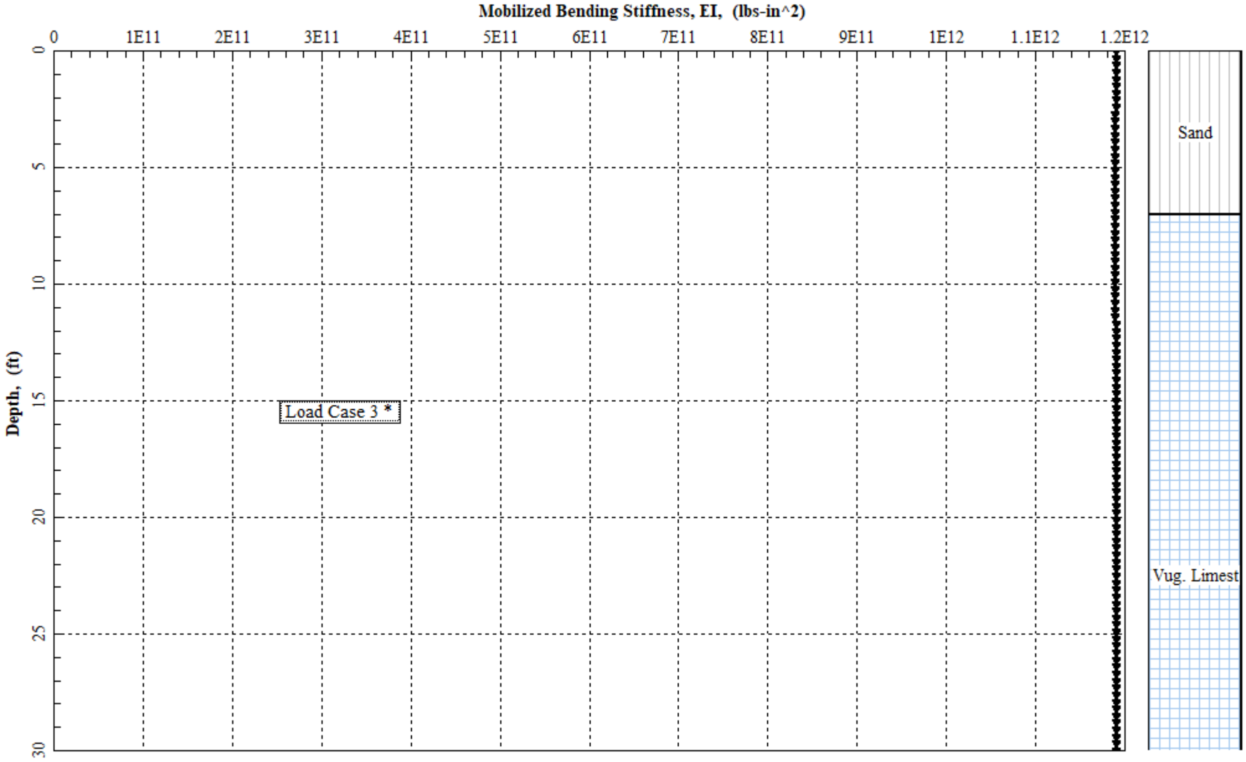
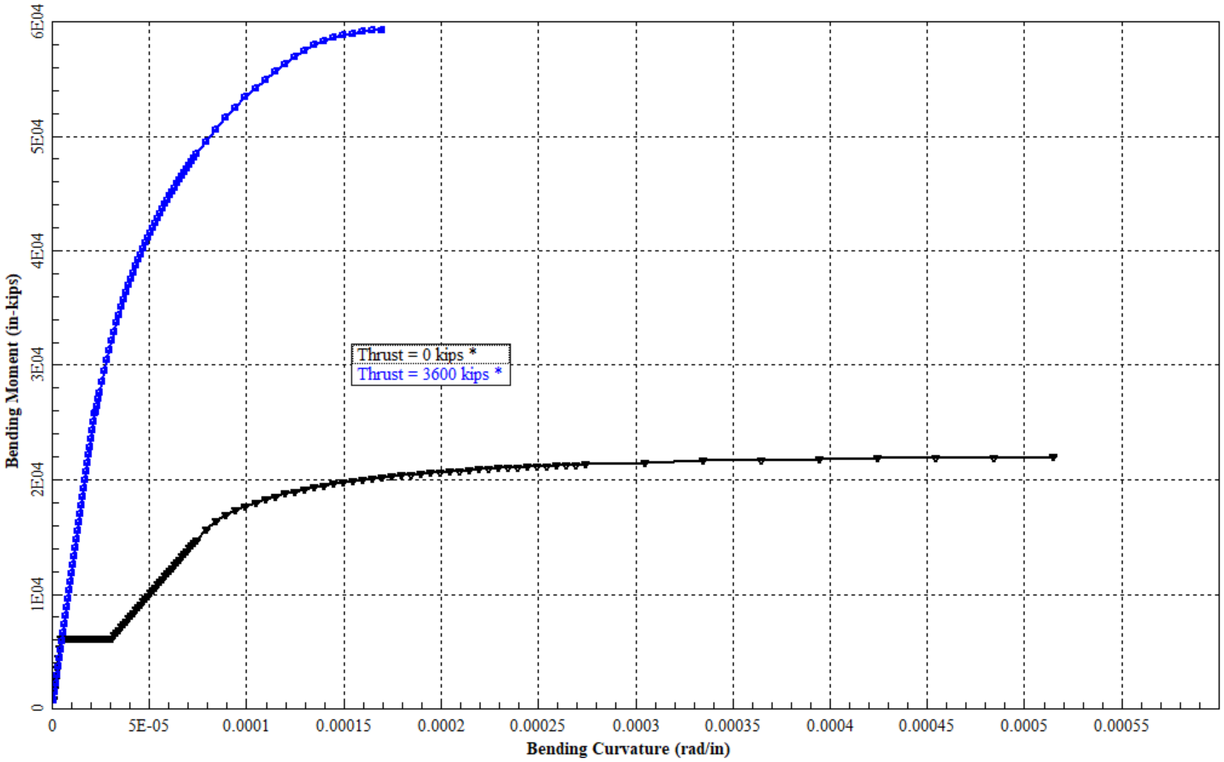
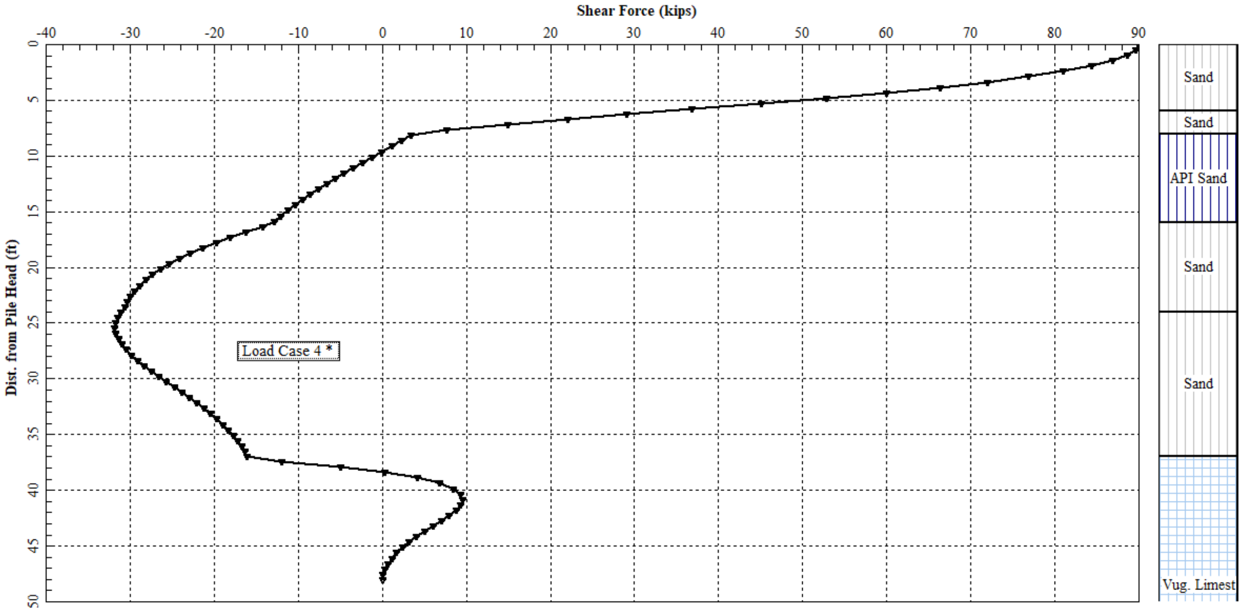


Moment vs Curvature Plot

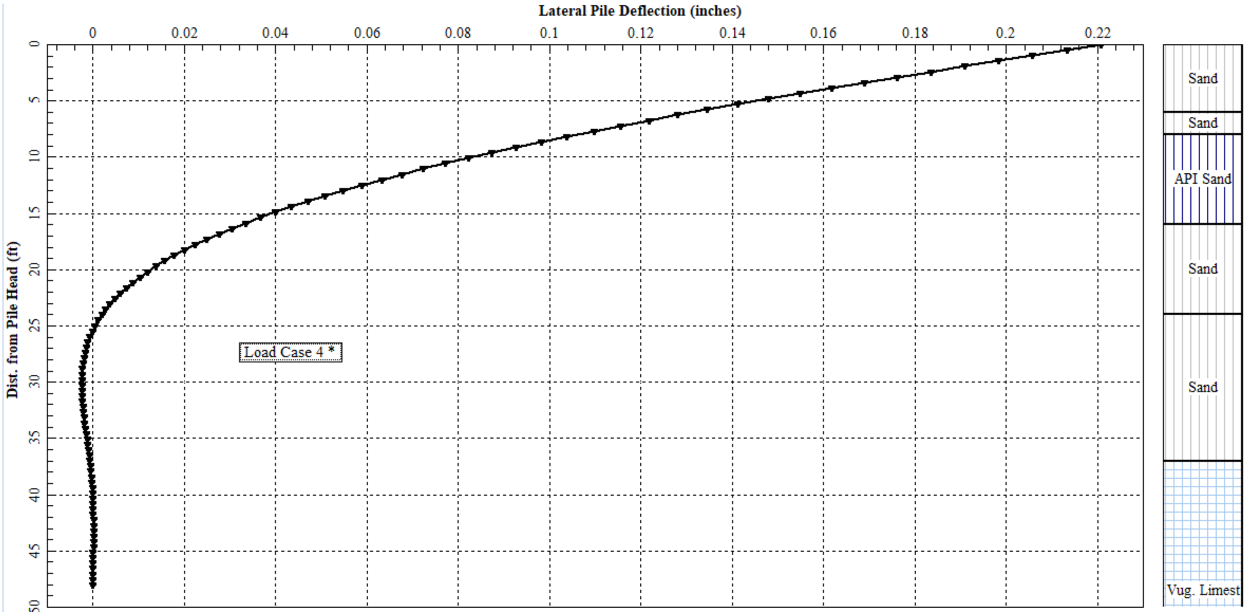


48-Inch Pier North of Column line 24

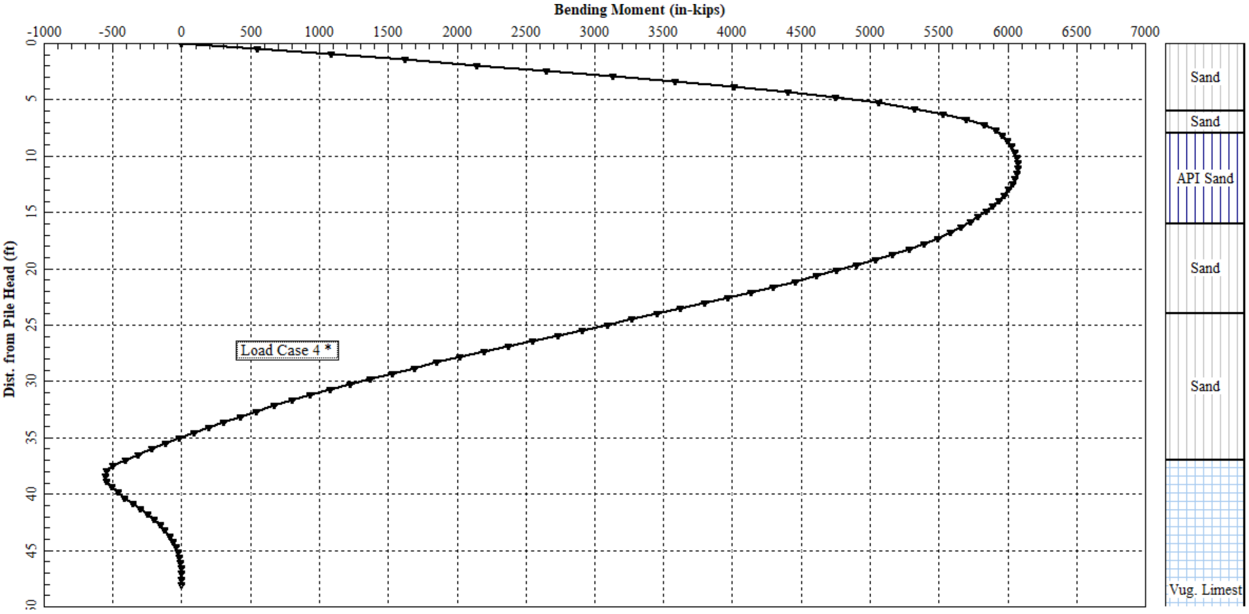
Shear Force Plot



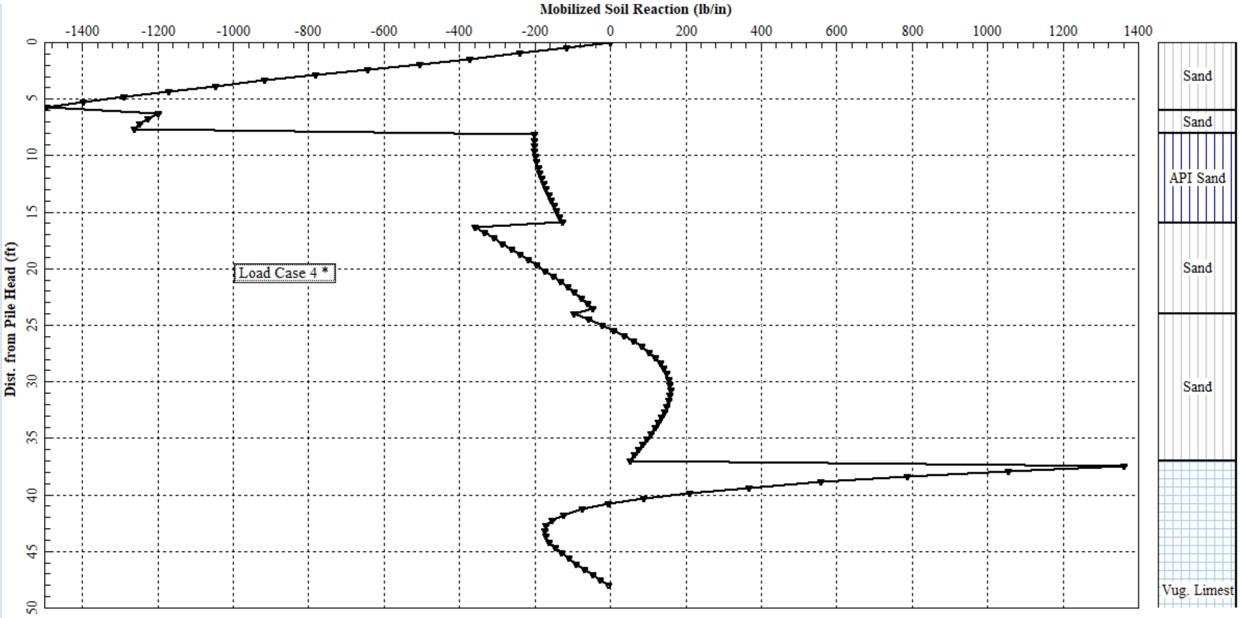
Lateral Deflection Plot



Bending Moment Plot



Mobilized Soil Reaction Plot



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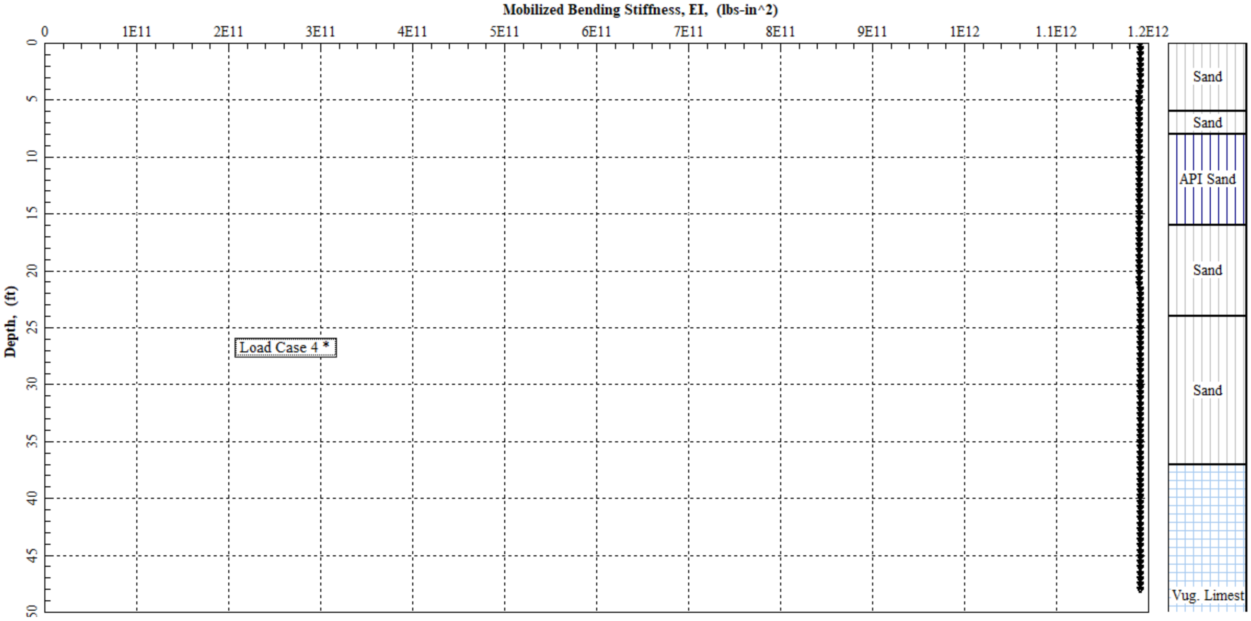
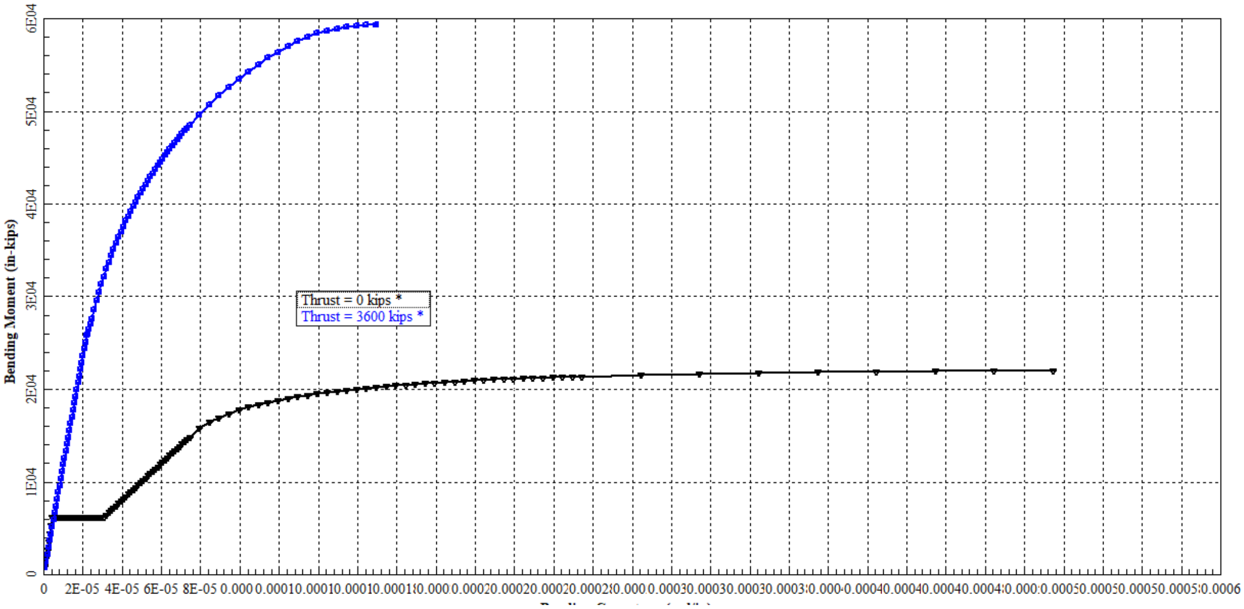
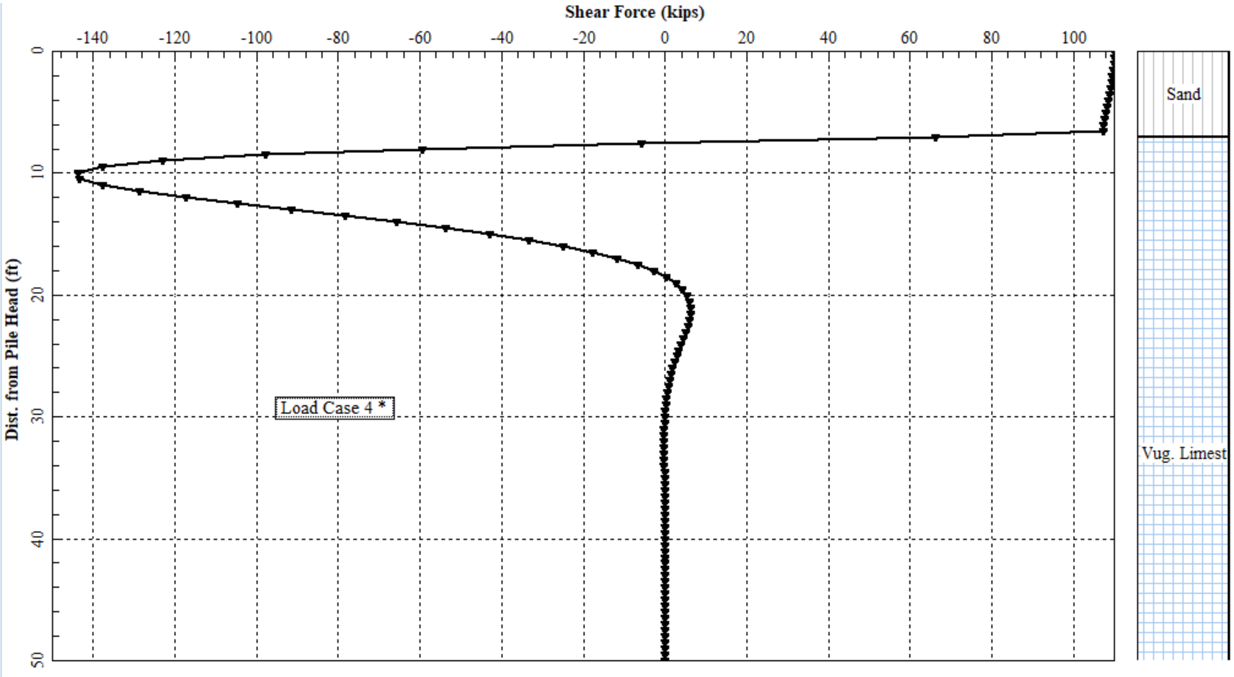


Moment vs Curvature Plot

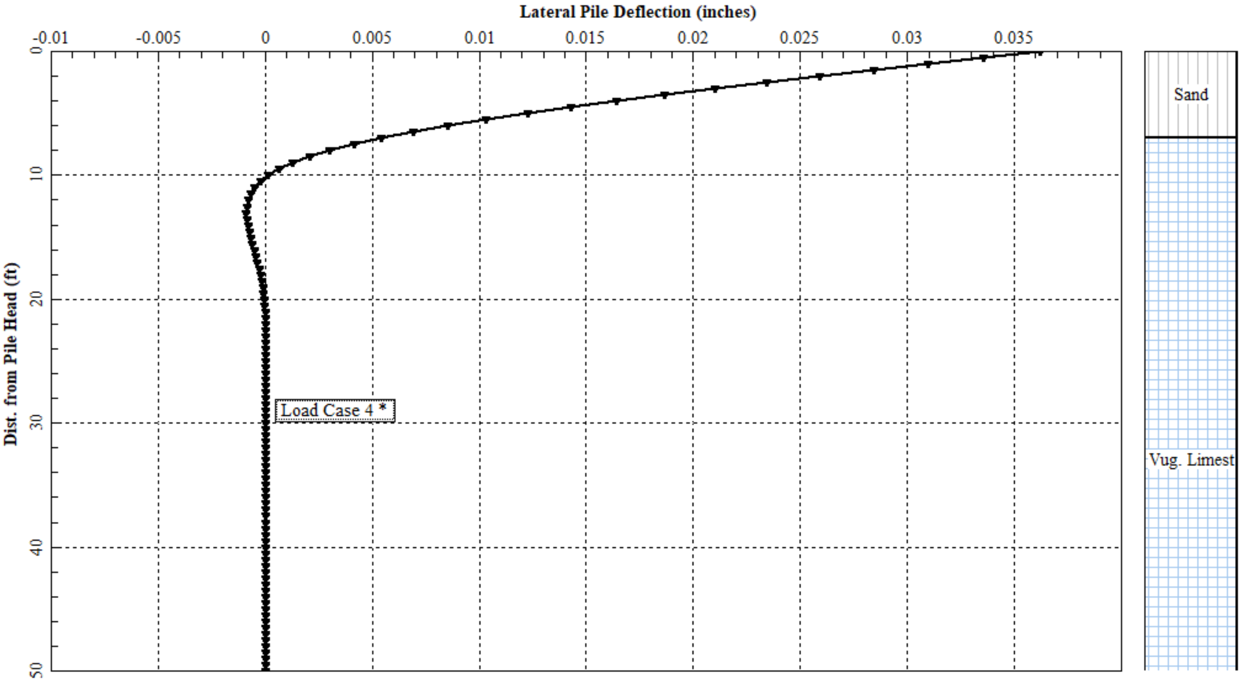


54-Inch Pier South of Column line 24

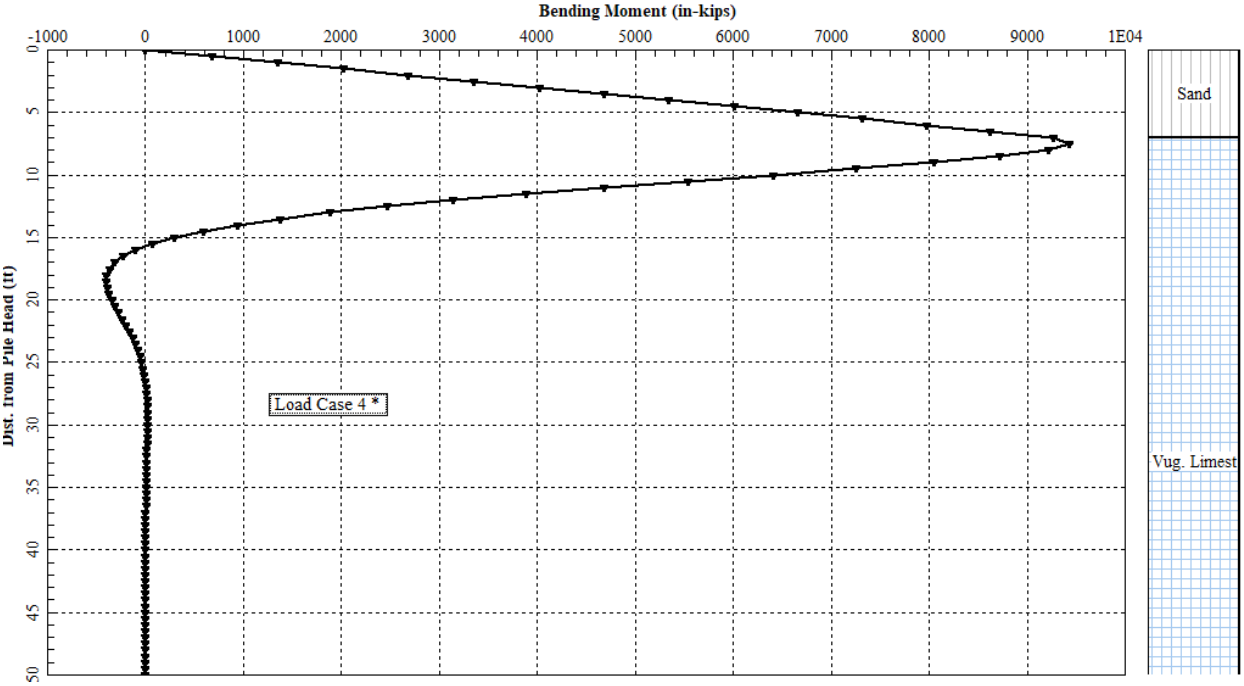
Shear Force Plot



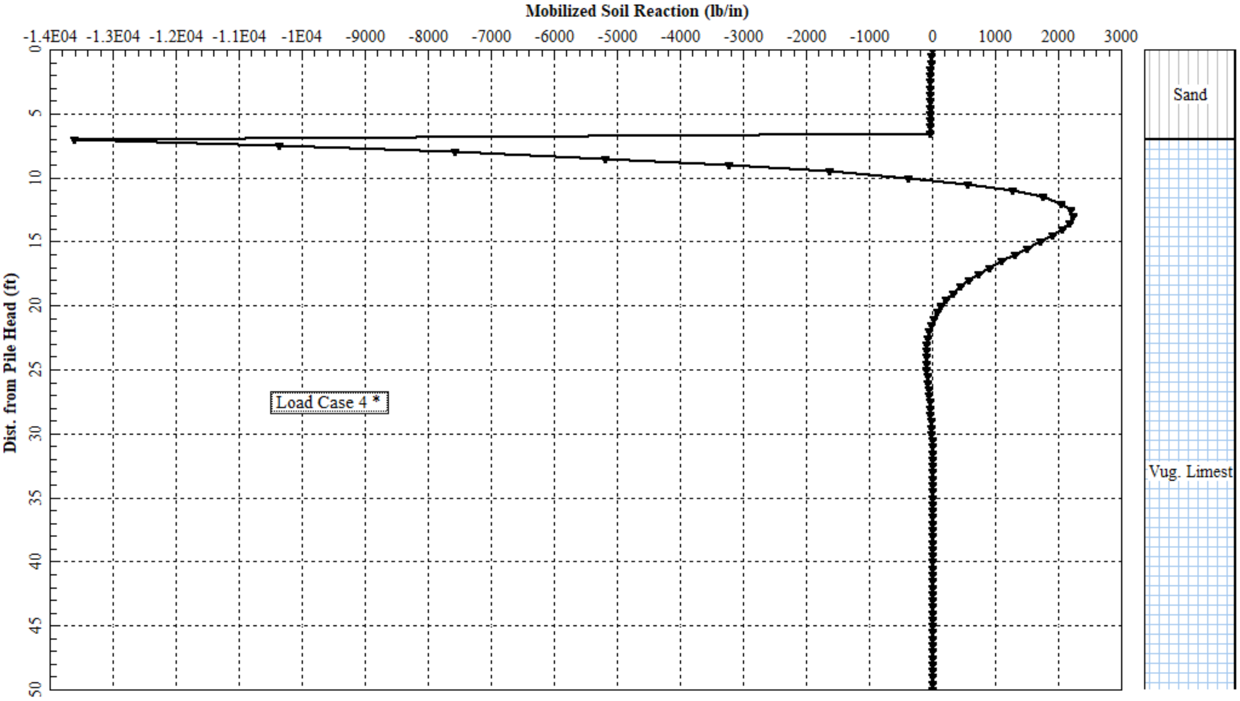
Lateral Deflection Plot



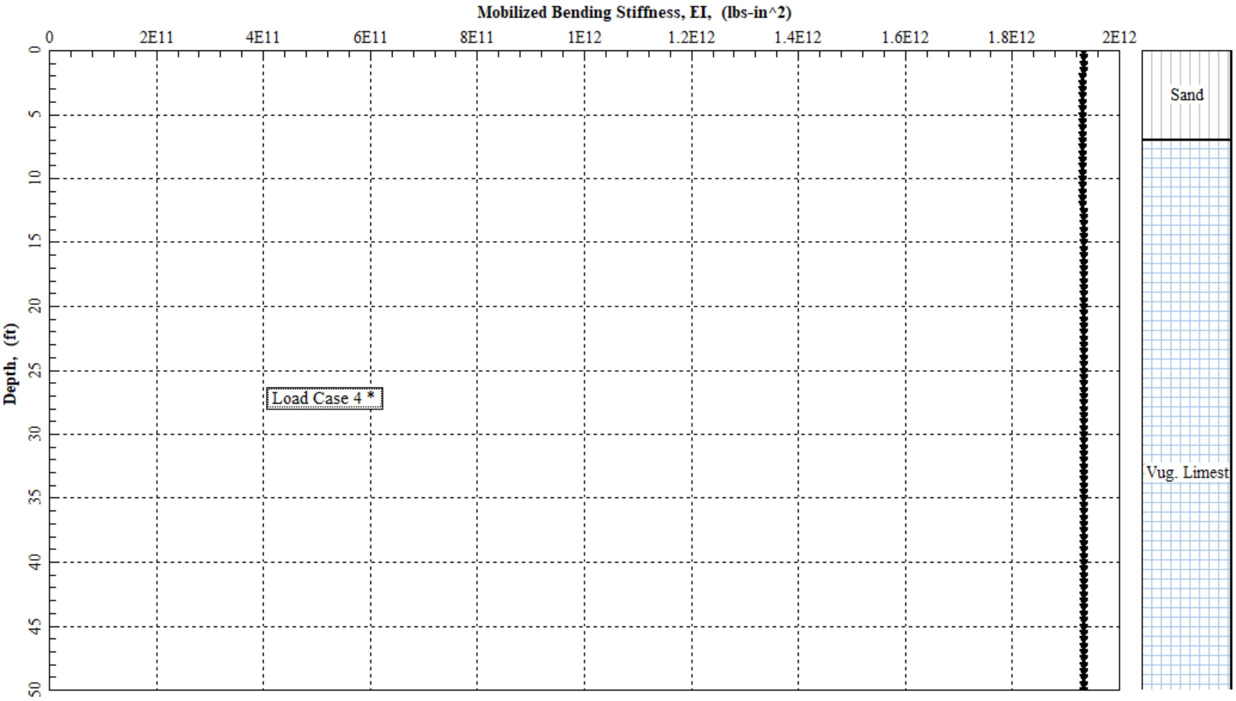
Bending Moment Plot



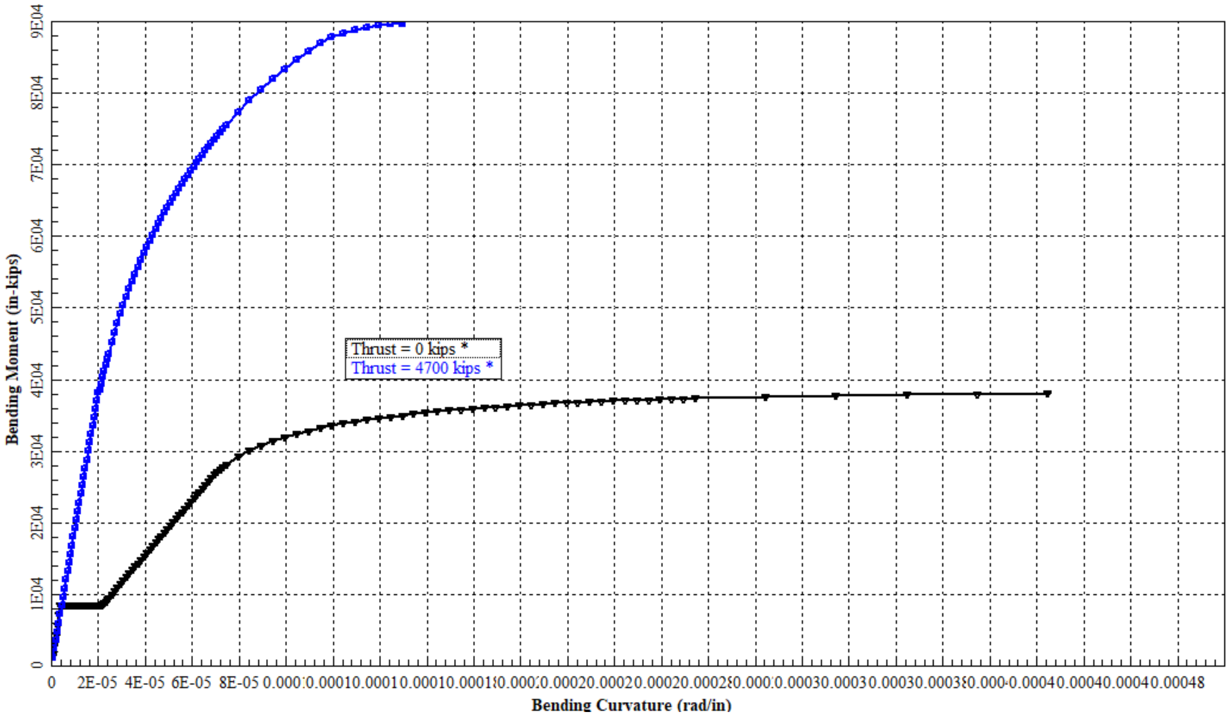
Mobilized Soil Reaction Plot



Mobilized EI Plot

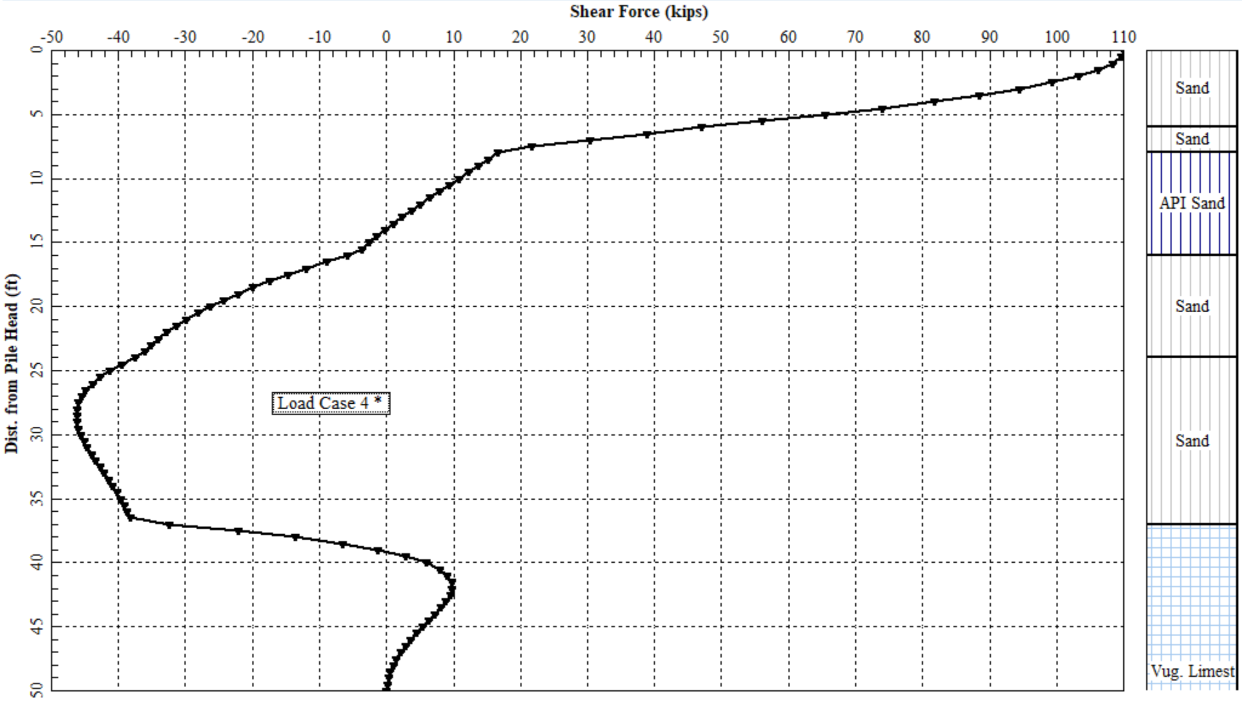


Moment vs Curvature Plot

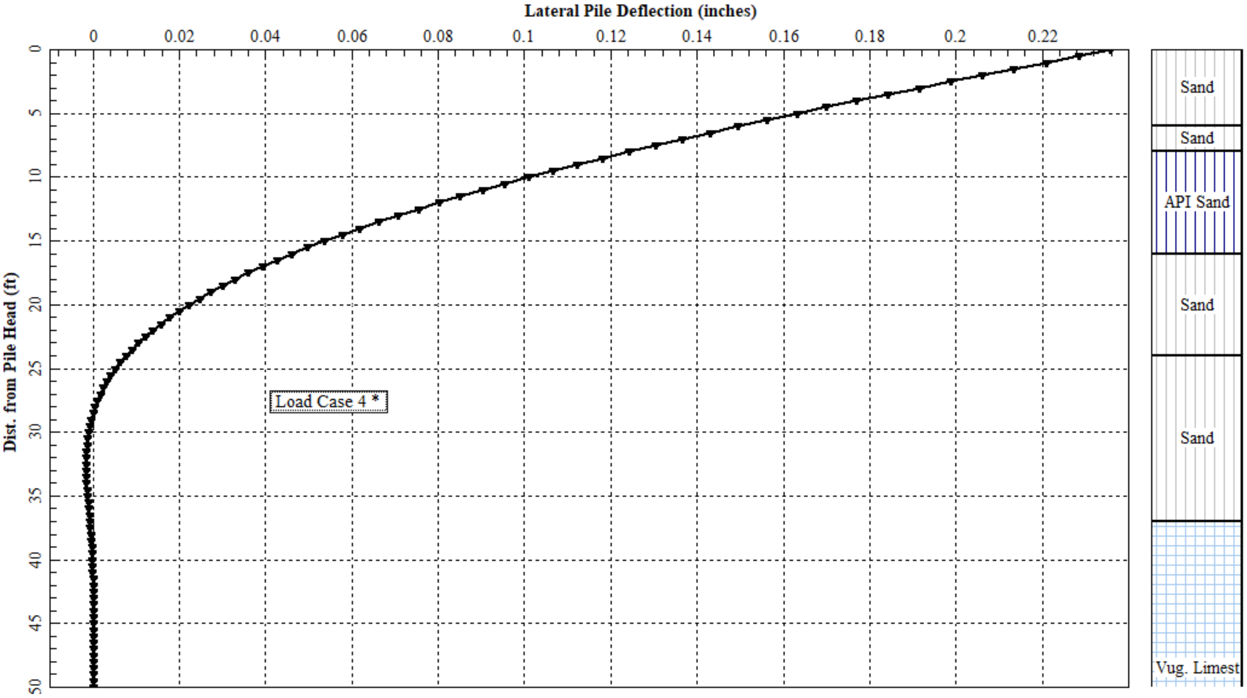


54-Inch Pier North of Column line 24

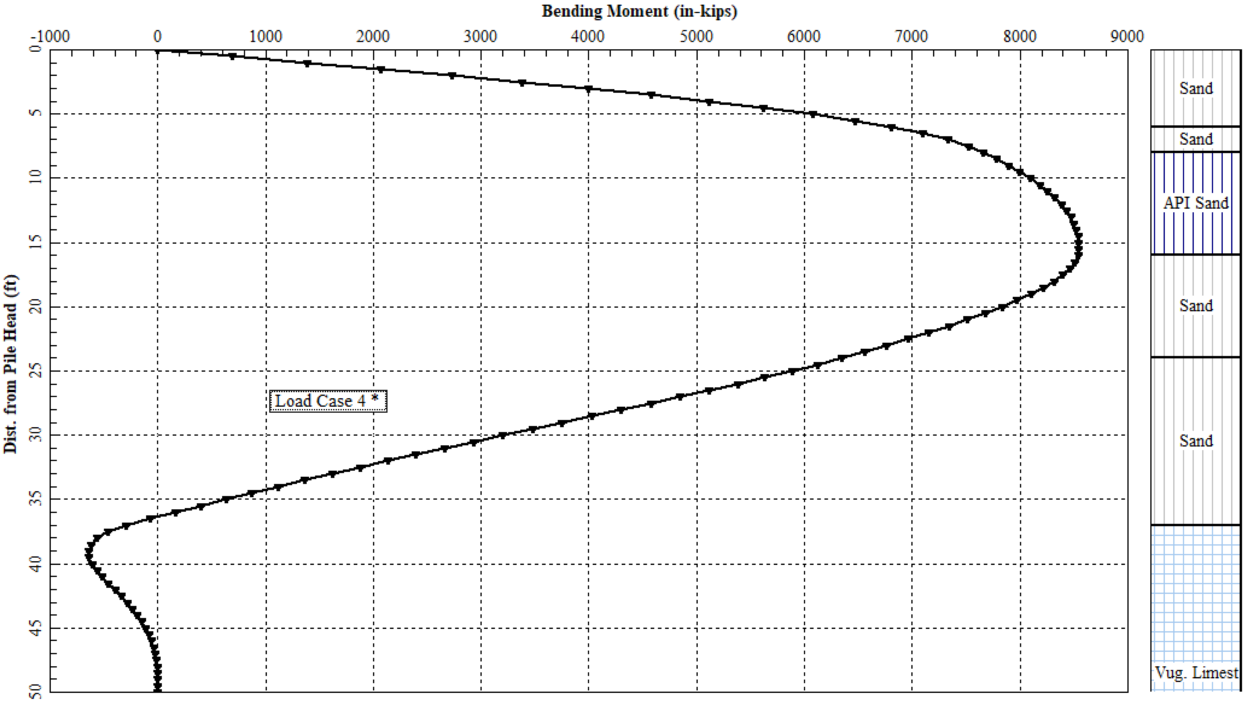
Shear Force Plot



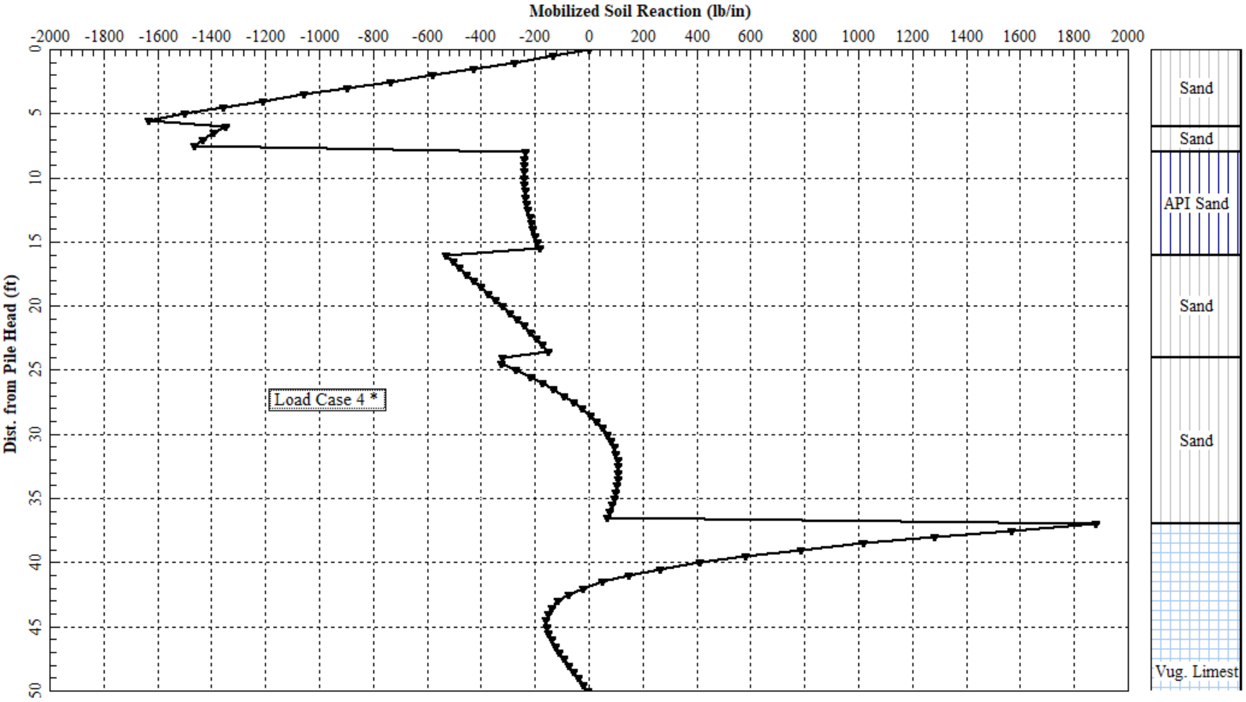
Lateral Deflection Plot



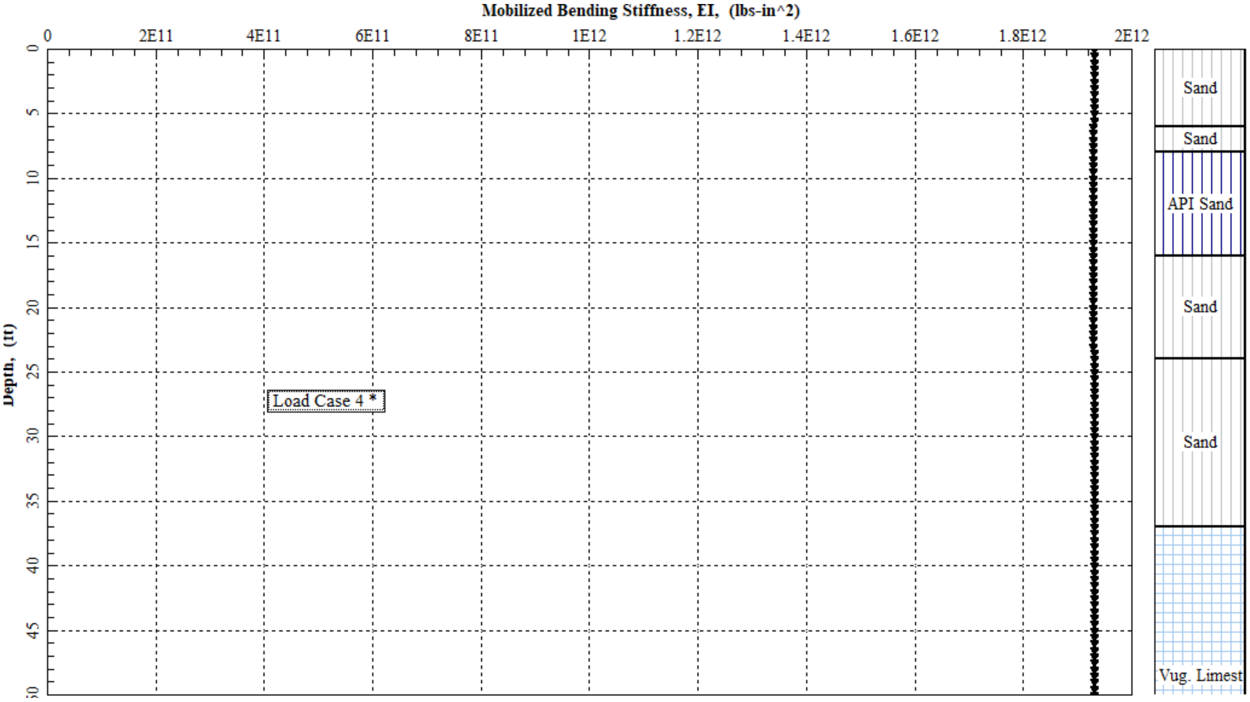
Bending Moment Plot



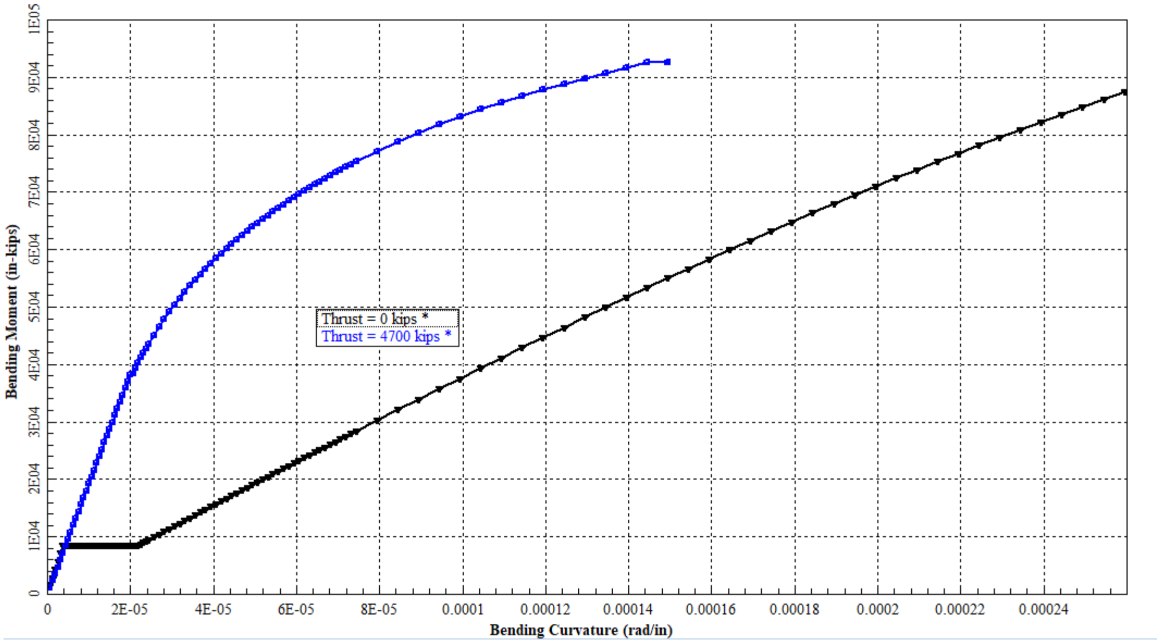
Mobilized Soil Reaction Plot



Mobilized EI Plot

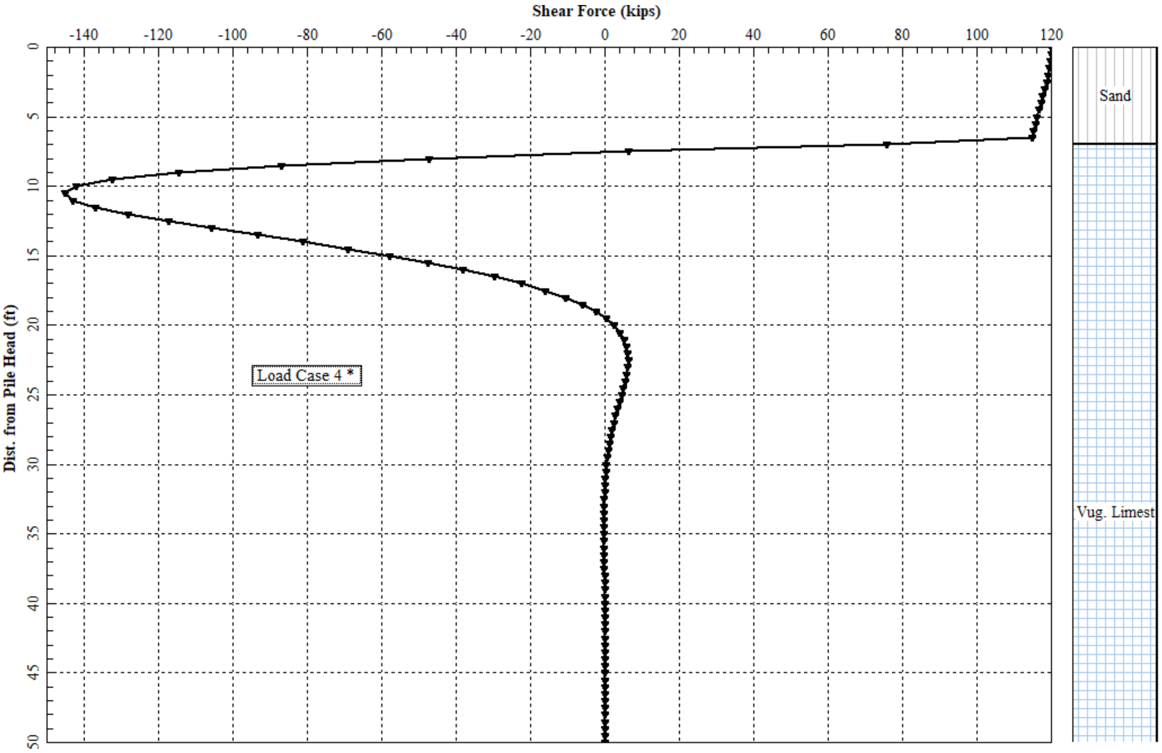


Moment vs Curvature Plot

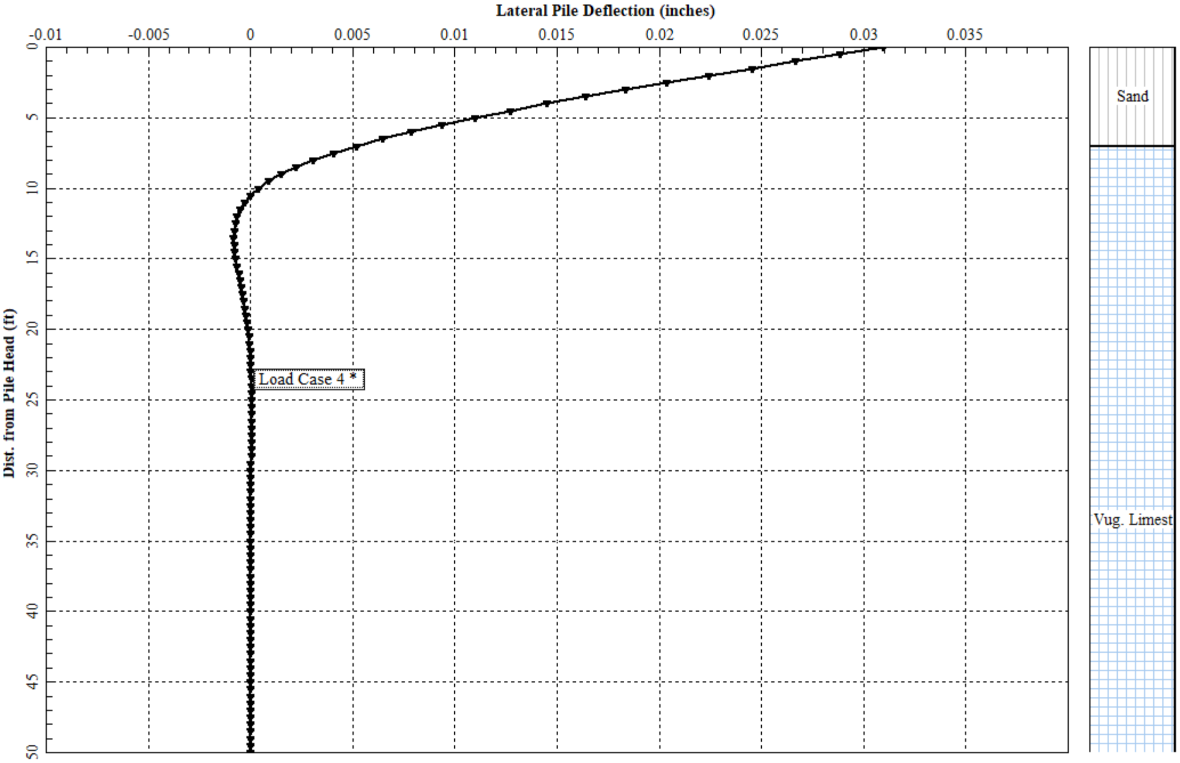


60-Inch Pier South of Column line 24

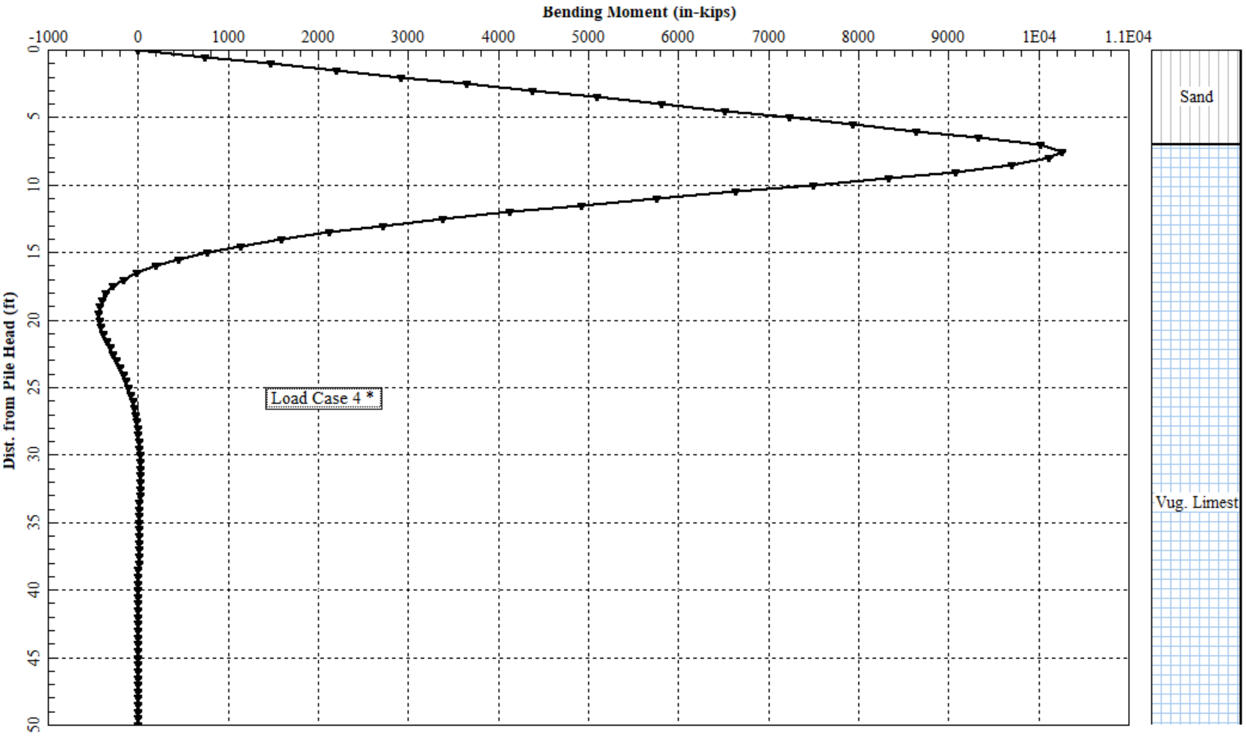
Shear Force Plot



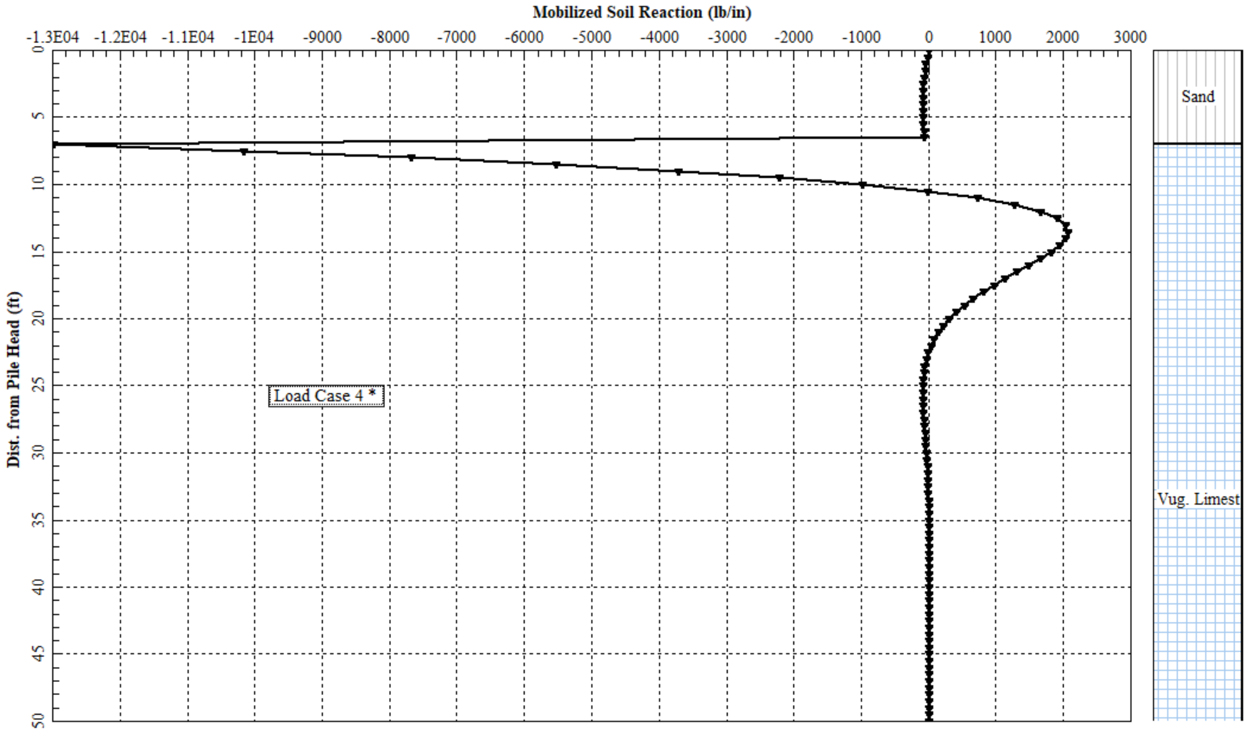
Lateral Deflection Plot



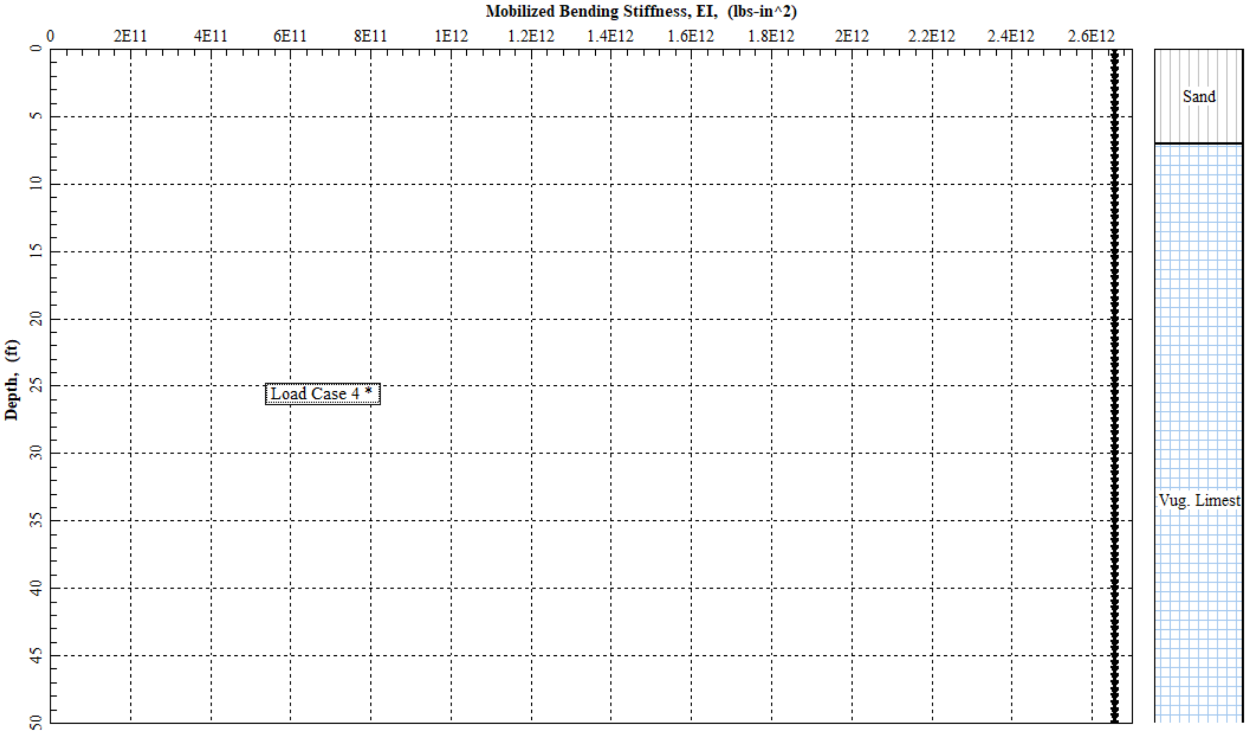
Bending Moment Plot



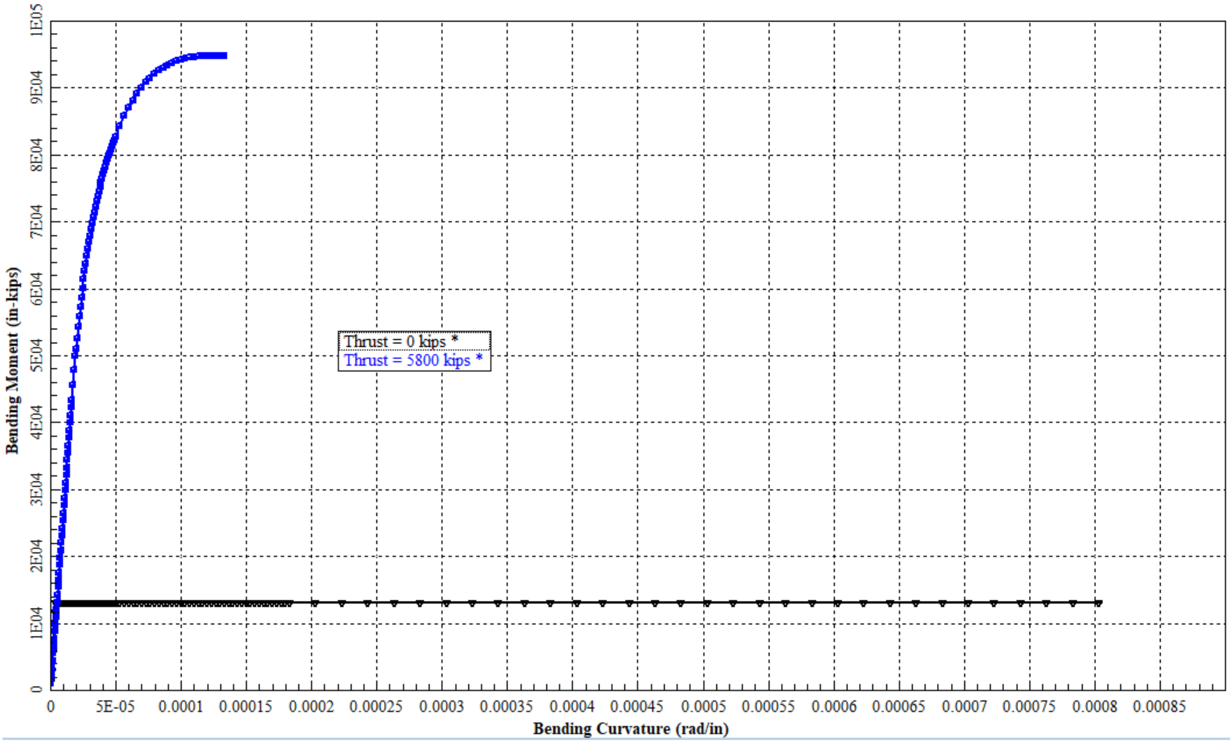
Mobilized Soil Reaction Plot



Mobilized EI Plot

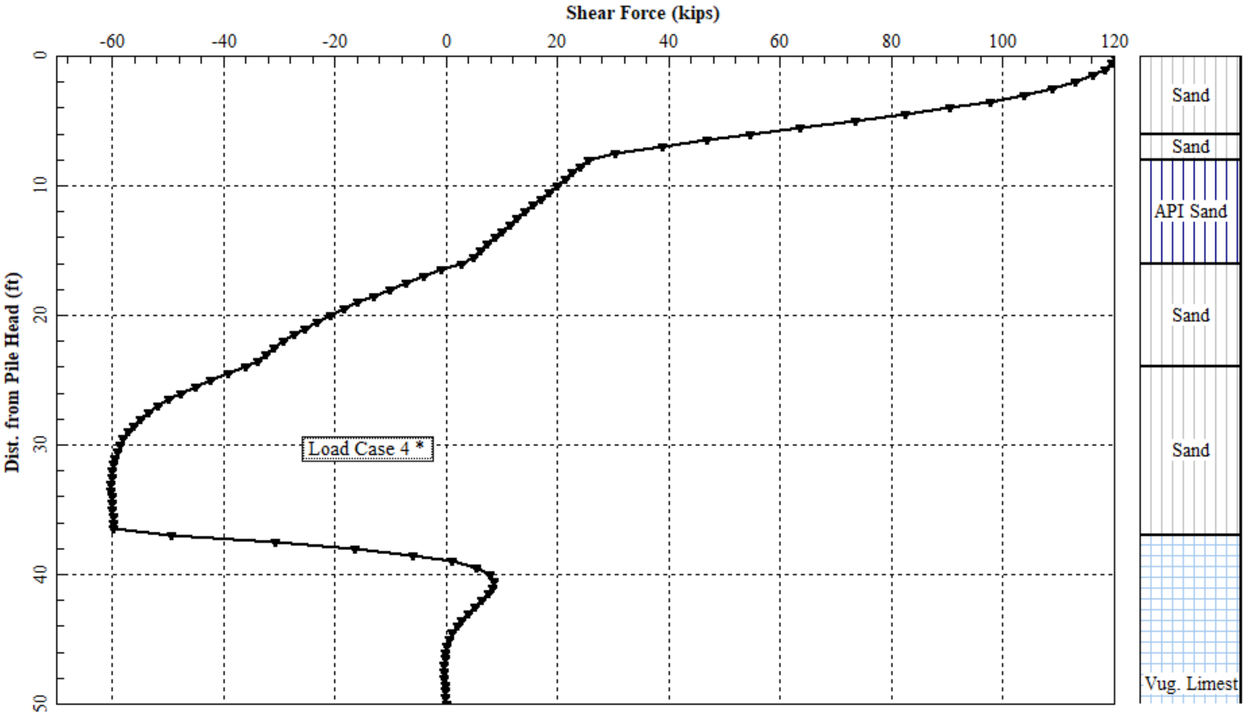


Moment vs Curvature Plot

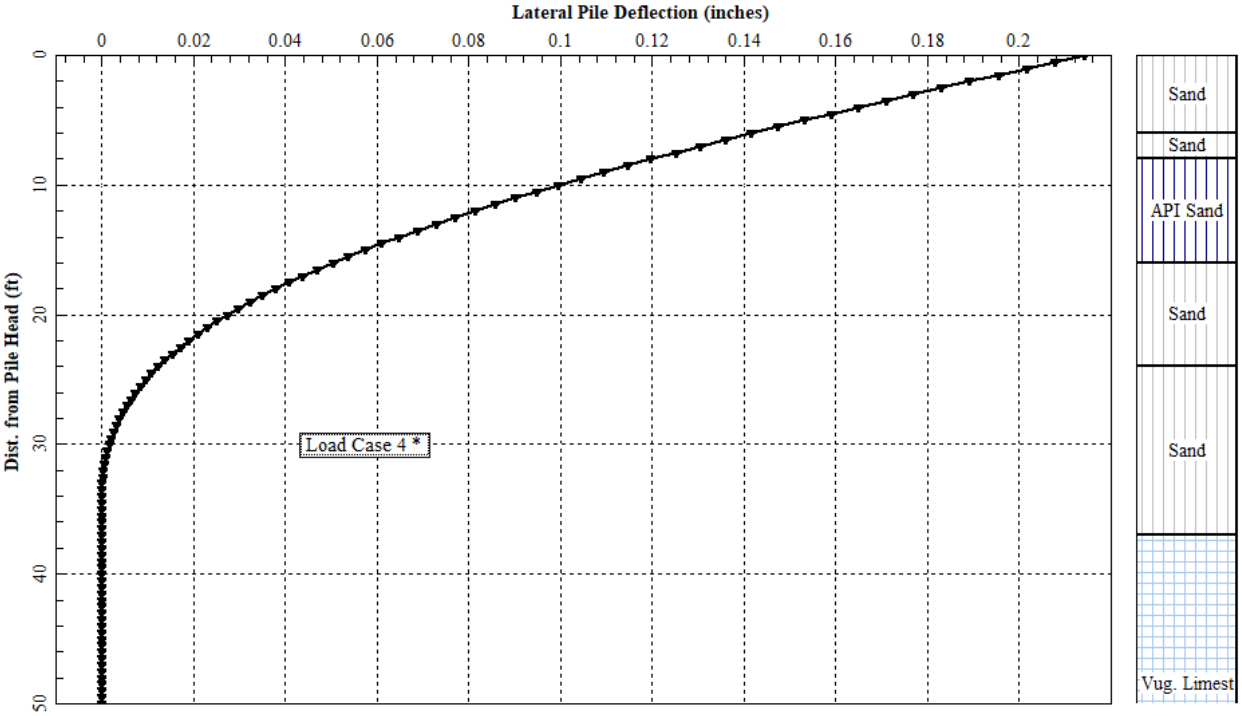


60-Inch Pier North of Column line 24

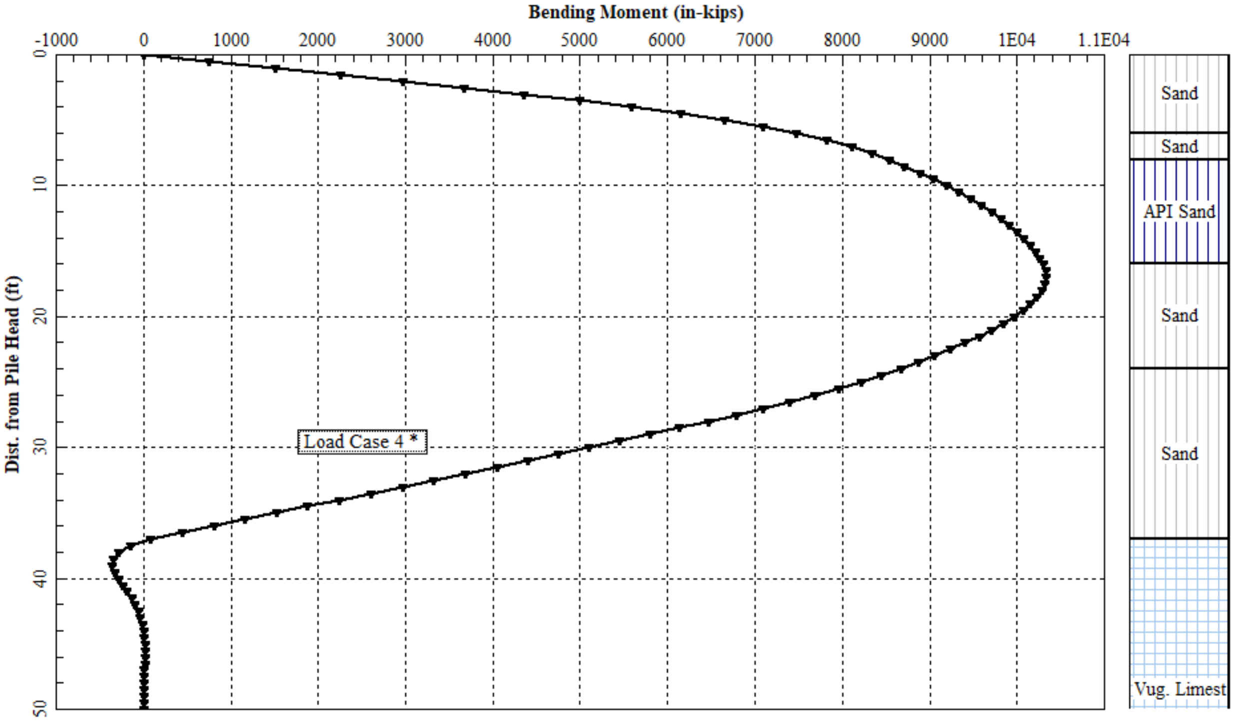
Shear Force Plot



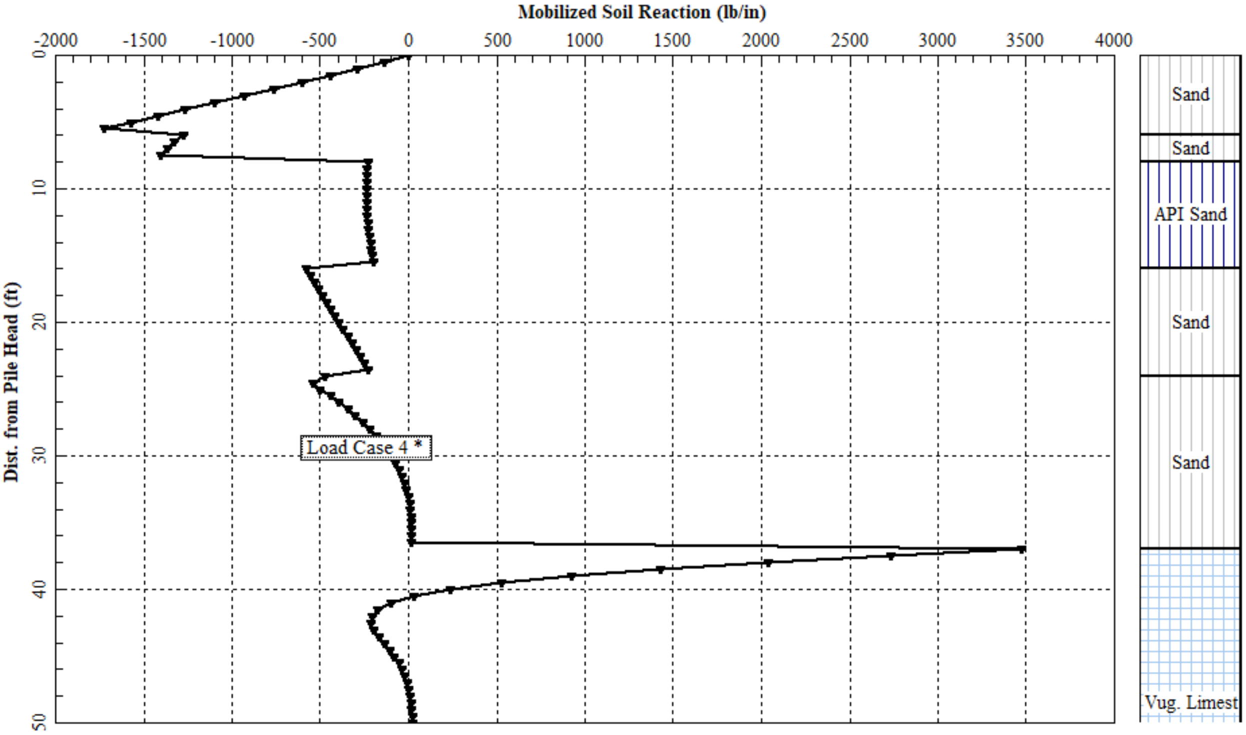
Lateral Deflection Plot



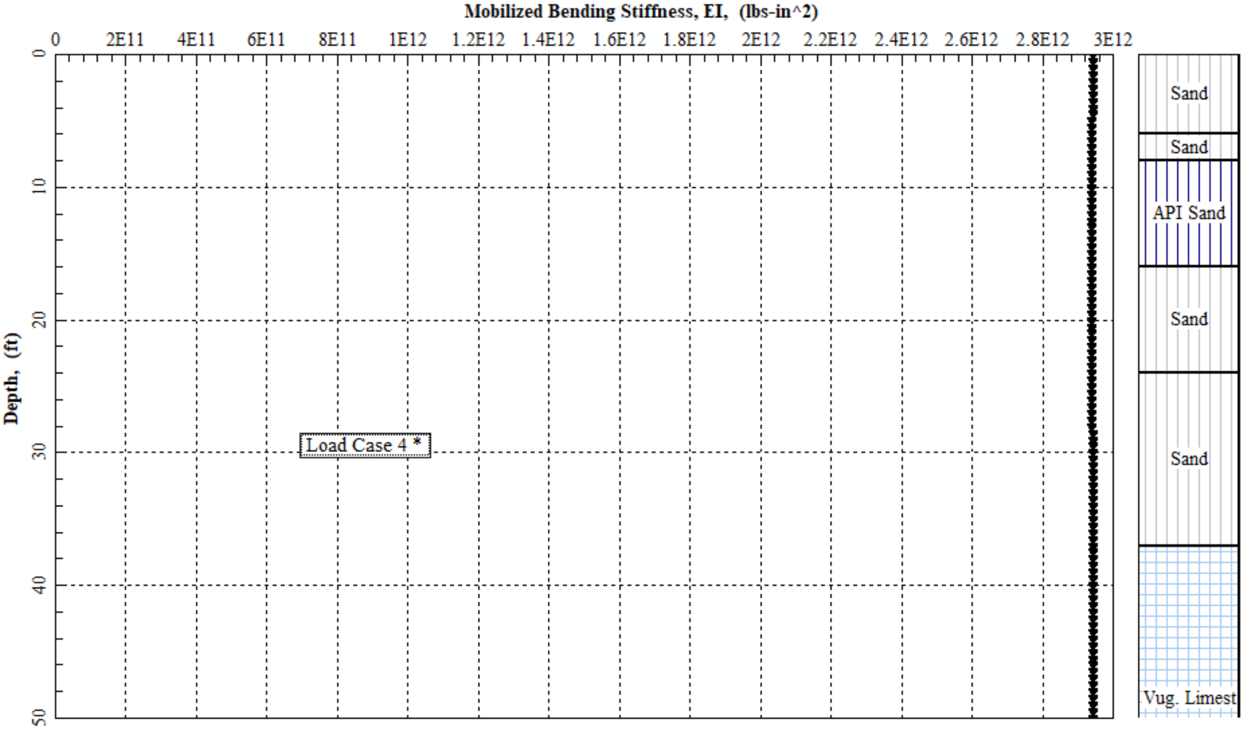
Bending Moment Plot



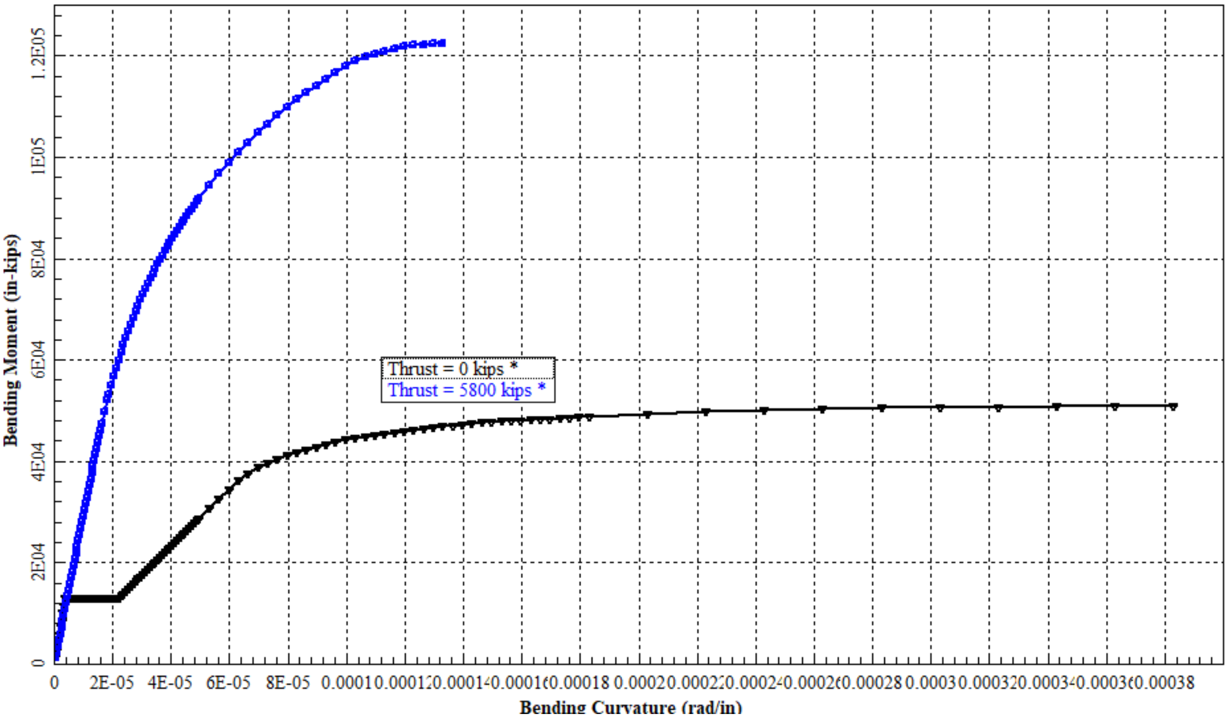
Mobilized Soil Reaction Plot



Mobilized EI Plot



Moment vs Curvature Plot



ATTACHMENT B – CUB1

BUILDING DESCRIPTION

The CUB1 building will have a footprint of about 450,000 square feet. The finished ground floor elevation (L10) of the building is reported to be el 400.67[1]. Existing grades in proximity to the subject building varies from about el 382 and 400. Therefore, significant filling will be needed in some areas to raise grades up to the ground floor level.

Per the latest architectural plans shared by Jacobs, columns for the CUB1 are typically spaced in a 36 feet x 36 feet grid with column axial loads (excluding the L10 level dead and live loads) of about 1,500 kips. After accounting for a 48-inch-thick L10 slab and 1,000 psf live load, the service column loads will be about 3,600 kips. The base shear from wind and seismic conditions varies between about 2,100 kips and 5,200 kips for the entire building. Assuming uniform distribution of the loading, the maximum base shear translates to about 15 kips of lateral load per column.

SUBSURFACE CONDITIONS

Subsurface Conditions

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others, which indicated a moderately distinct stratigraphy above bedrock within the drumlin deposits from the remainder of the site. Boring logs from the supplemental investigation for CUB1 are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy, observed outside the drumlins, consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

- *Topsoil:* The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.3 to 2 feet.
- *Silt & Clay:* A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 2 to 23 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), and clay (CL). SPT N-values in this layer were from 2 to 32, with an average value of 11. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples

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[1] All elevations herein are in feet and are referenced to the North American Vertical Datum of 1988, Geoid18 (NAVD88/18)

obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity indices.

- *Sand & Gravel (till):* A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 4 to 13 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 3 to 36, with an average value of 23. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Drumlin Soil Stratigraphy

The general subsurface stratigraphy in the drumlins consists of topsoil, underlain by sands and silts, underlain by weak rock, which are in-turn underlain by bedrock. Descriptions of each subsurface stratum below the drumlins are given below in order of increasing depth below grade.

- *Topsoil:* The topsoil within the drumlins comprises silt or clay with varying amounts of fine to medium sand, fine gravel, and organic matter. The thickness of this layer typically ranges from 0.5 to 1 foot.
- *Sand & Silt (till):* a layer of sand and silt with varying amounts of gravel and clay was encountered in all borings within the drumlins. This unit ranged in thickness from approximately 5 to 13 feet. According to USCS classifications, the soils include non-plastic silt (ML), clayey silt (ML-CL), silty sand (SM), clayey sand (SC), and poorly graded sand (SP) or gravel (GP). SPT N-values in this layer were 6 to 50, with an average value of 19. Granular portions of this layer are generally medium dense to very dense based on SPT N-values, with occasional loose zones encountered at shallow depths. The cohesive (silt and clay) components are typically medium stiff to hard, with isolated pockets of soft material observed within the upper 4 feet in some borings.

Weak Rock

Intermediate geomaterials, classified as weak rock, were generally composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock’s structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer varies from about 0.2 to 9 feet.

Bedrock

Bedrock was encountered at depths ranging from about 9.5 to 23.5 feet below existing grade, corresponding to elevations between el 363 and 382. Rock Quality Designation (RQD) values ranged from 0% to 100%, with a median value of about 57.5%. Roughly 60% of the core samples exhibited RQD values exceeding 50%, and about 30% were classified as good to excellent in quality, indicating that rock quality is variable but generally ranges from fair to good. The recovered rock cores as well geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Groundwater level was measured from one observation well installed in a completed borehole within the CUB footprint. Based on site-wide data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young's Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Monitoring well data reported by CME showed groundwater at about el 392.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing and seismic cone penetrometer (SCPT) testing obtained during the ongoing Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1B – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	$\mathbf{S_s}$	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	$\mathbf{S_1}$	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	$\mathbf{S_{MS}}$	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	$\mathbf{S_{M1}}$	0.06g	
5% damped design spectral response acceleration at short periods:	$\mathbf{S_{DS}}$	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	$\mathbf{S_{D1}}$	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	$\mathbf{PGA_M}$	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		IV	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6

***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Measured groundwater levels in the area of the CUB1 is at about 392. This elevation is subject to seasonal variations due to precipitation. Once the site is backfilled to final grade using material that is relatively free-draining compared to existing near-surface site soils, groundwater will begin freely draining towards Young's Creek and towards the various SMPs/detention pods spread throughout the site, and will generally not rise higher than the groundwater levels measured from the monitoring wells. However, due to possible groundwater mounding around below-grade walls that will serve as barriers for groundwater flow, we recommend a design groundwater level that is higher of (i) el 394 and (ii) bottom elevation of L10 slab.

Deep Foundation System (Drilled Piers)

Given the anticipated axial column loads, we recommend supporting the CUB1 columns on drilled piers socketed in bedrock. The drilled piers will derive their load bearing capacity through peripheral side shear and end bearing in rock. For the purpose of design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. The following table presents axial capacities for drilled piers of various sizes along with suggested structural detailing information. Rock socket for drilled piers should be constructed entirely within competent rock.

Table 2B – Drilled Pier Design

Pier Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)	Concrete Strength (f'_c) (ksi)*	Longitudinal Reinf.**	Transverse Reinf.***	Rock Socket Length (ft)
36	2000	50	6	(11)-#8/ (13)-#8	#4 @ 6″	10
42	2800	60	6	(16)-#8/(21)-#8	#4 @ 6″	11
48	3600	90	6	(15)-#9/ (19)-#9	#4 @ 6″	12

*Normal weight, self-consolidating concrete, placed by tremie

**Longitudinal Reinforcement = ASTM A615, Grade 75/ Grade 60

***Transverse Reinforcement = ASTM A615, Grade 60

The allowable tension capacity of piers will be the lesser of: (i) Pier structural capacity, (ii) Geotechnical capacity from side shear, (iii) global pullout analysis. Generally, the uplift capacity of 48″ and 60″ drilled piers that are spaced at the typical building column spacing will be about 360 and 670 kips, respectively. However, in areas where the drilled piers are spaced at a center-to-center spacing of 2D or closer, the tension capacity of the 48″ and 60″ two-pile group will be about 550 and 800 kips, respectively.

Two longitudinal reinforcement options are presented in Table 2B for each drilled pier: one assuming Grade 75 rebar will be used and one assuming Grade 60 rebar will be used. Per code, all reinforcement for drilled piers must incorporate a minimum grout/concrete cover of 2.5 inches.

In areas where bedrock is shallow, drilled piers typically will develop high internal forces (shear and bending moment) at top of rock, resulting in the potential development of a plastic hinge near the top of bedrock. Additional structural detailing near the plastic hinge will generally be needed in such cases. However, at the design loads indicated in Table 2B, the internal forces in the drilled pier are low enough that special structural detailing may not be required.

Lateral Group Pile Analysis

A reduction factor ("p-multiplier") will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. "First row" refers the leading row in the direction of lateral loading. Each subsequent row is a "trailing row" located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

The lateral capacities and point of fixity locations of the drilled piers were determined using the Lpile software by Ensoft, Inc. The geotechnical parameters of soil and bedrock used for the analysis are presented below in Tables 3B and 4B, respectively.

Table 3B – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4B – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Point of Fixity – Drilled Piers

The depth to point of fixity for drilled piers of a particular structural makeup will vary depending on the soil stratigraphy and depth to top of competent bedrock. Typical upper and lower bound values for the estimated point of fixity are provided in Table 5B. These values represent the estimated points of fixity for idealized subsurface conditions representing both shallow bedrock conditions (assumed typical of piers south of column line 24) and deep bedrock conditions (assumed typical elsewhere within CUB1). We note that there can be significant variation in the depth to fixity. As such, the EOR may need to perform a more detailed evaluation to address the local subsurface stratigraphy, loading, and boundary conditions, and pier structural configurations.

Table 5B – Drilled Pier Point of Fixity

Pier Diameter (inches)	Equivalent Lengths for Point of Fixity Below L10 Slab (ft)			
	42-inch Pier	48-inch Pier	54-inch Pier	60-inch Pier
Typical piers south of column line 11	7	7.25	7.25	7.25
Typical piers throughout the remainder of CUB1	7.5	11.25	16	17.5

Index Piles and Load Testing

We recommend installing at least 2% of drilled piers as index piles prior to starting production piles. The index piles should be spread across the building footprint to capture the variability in subsurface conditions. If the contractor elects to install the drill piers without the use of a casing, caliper logging should be performed to measure the diameter and shape of the drilled pier borehole. Regardless, all index piles must be tested using cross-hole sonic logging to evaluate the structural integrity of the pile.

The recommended compression and lateral capacities must be proven using instrumented load tests. Because of the high compression loads, a traditional top-down load test is likely not feasible or economical. We recommend performing the axial load tests using a bi-directional static load testing method using an embedded jack such as an Osterberg Cell. We recommend implementing an early test pile program, preferably before the building design is finalized and issued for construction, to optimize design parameters for side shear and end-bearing. At a minimum, at least one percent of drilled piers should be load tested in axial and lateral. Additional load tests may be warranted if multiple pile diameters are being implemented and pending initial load test results.

Equipment Pad Support

There are several transformer, fuel oil and radiator yard pads proposed around the CUB1 building. The average bearing pressure below the pads could vary from 800 to 2,000 psf, which includes dead load, superimposed dead load and live load. For equipment pad bearing on engineered fill placed in accordance with our specifications provided in this report, we recommend an allowable bearing capacity of 2 tons per square foot. For the purposes of design, we recommend slabs-on-grade be designed assuming a modulus of subgrade reaction equal to 150 psi/in. This assumes the slabs will be cast atop at least a 12-inch-thick layer of #57 stone. Total settlements are expected to be about ½-inch.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or ground anchors and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures, particularly those subject to higher hydrostatic pressures such as the deep pits with the FAB. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

As a redundant measure, below grade space can be additionally protected by installing a gravel or composite layer between the pressure slab and a wearing slab to collect seepage which may bypass the primary waterproofing system. Such systems are ordinarily comprised of a gravel layer measuring about 12-inches thick in conjunction with perforated piping to permit collection of accumulated water to ejector pits. Perforated piping should be redundantly connected and should drain to sump/desanding pits with redundant ejector pumps. Composite systems such as those manufactured by Cupolex Engineering Solutions, Inc. may be a suitable alternative to the use of gravel and can in many cases reduce the required system thickness.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft in soil and weak rock above the design groundwater level (see design groundwater elevation section) and 90 psf/ft in soil and weak rock below design groundwater level. We recommend assuming a uniform pressure of 250 psf plus any hydrostatic pressure be applied to walls cast below the top of competent bedrock rock. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall within soil and weak rock. Live loads on top of L10 slab need not be considered as a surcharge load to generate lateral pressures.

Utility Support

We recommend that the utilities within the building footprint be located in utility chases cast within the slab. For utilities that run outside the building footprint, we recommend placing the utilities within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least 1/2-inch.

ATTACHMENT C – WWT1

BUILDING DESCRIPTION

The WWT1 is located at the northwest corner of the Phase 1 development area. The existing grades within WWT1 are relatively flat and vary from about el 387 to 393. The WWT1 building has a footprint of about 440,000 square feet with a finished ground floor elevation (L10) of el 400.67. Per the architectural plans shared with Langan, the building is framed with columns in a 44 feet x 36 feet grid.

Column axial loads are generally expected to be about 3,000 kips with higher columns loads of about 3,500 kips expected under the mezzanine level. The reported column loads do not include the dead and live load from the L10 slab. Per Jacobs, the L10 slab will be 8-foot-thick mat with a live load of 1,000 psf. If the L10 slab is designed to be suspended between columns and not rely on soil support, the foundation load under the columns could vary between 6,500 and 7,000 kips. If a foundation element is used in the middle of each column grid to reduce slab span, foundation load under the columns could vary between 4,800 and 5,300 kips, while the foundation load at the middle of the column grid will be about 1,800 kips. The maximum base shear across the building will be about 2,800 kips which, when evenly spread across all building columns, will translate to about 10 kips per column.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others. Boring logs from the supplemental investigation for WWT1 are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

Subsurface Stratigraphy

The general stratigraphy consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till), followed by bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

Topsoil

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.3 to 1.5 feet.

Silt & Clay

A fine-grained soil layer, composed primarily of silt and clay was the most extensively encountered unit across the site. This layer varies in thickness from approximately 4 to 24 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were 3 to 20, with an average value of 7. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity.

Sand & Gravel (till)

A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 1.5 to 7 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 3 to 50, with an average value of 23. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Bedrock

Bedrock was encountered at depths ranging from approximately 14 to 25 feet below existing grade, corresponding to elevations between el 366 and el 373. Rock Quality Designation (RQD) values ranged from 11% to 98%, with a median value of about 60%. Roughly 70% of the core samples exhibited RQD values exceeding 50%, and approximately 40% were classified as good to excellent in quality, indicating that rock quality is variable but generally ranges from fair to good. The recovered rock cores as well as geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Groundwater levels were measured from observation wells installed in completed boreholes. Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young’s Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Monitoring wells installed by CME recorded groundwater elevation vary from a high of about el 394 to a low of about el 392.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing and seismic cone penetrometer (SCPT) testing obtained during the ongoing Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building’s footprint has sufficient factor of safety against liquefaction.

Table 1C – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		III	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Because of the presence of relatively impermeable silt/clay deposits, groundwater will generally flow at or near existing ground surface. Measured groundwater levels within borings indicate normal groundwater in the area is within 1 to 2 feet of ground surface. Once the site is backfilled to final grade using material that is relatively free-draining compared to existing near-surface site soils, groundwater will begin freely draining towards Young's Creek and towards the various SMPs/detention pods spread throughout the site, and will generally not rise higher than the groundwater levels measured from the monitoring wells. We recommend a design groundwater level of el 394.

Deep Foundation System (Drilled Piers) – Main Building

Given the anticipated axial column loads, we recommend supporting the WWT1 building on drilled piers socketed in bedrock. The drilled piers will derive their load bearing capacity through peripheral side shear and end bearing in rock. For the purpose of design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. The following table presents axial capacities for drilled piers of various sizes along with suggested structural detailing information. Rock socket for drilled piers should be constructed entirely within competent bedrock.

Table 2C – Drilled Pier Design

Pier Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)	Concrete Strength (f'_c) (ksi)*	Longitudinal Reinf.		Transverse Reinf.**	Rock Socket Length (ft)
				Gr. 75	Gr. 60		
24	1,850	25	6	(7)-#20	(10)-#20	#4 @ 12″	16
48	5300	90	7	(14)-#18	(18)-#18	#4 @ 6″	19
	7000		8	(20)-#20	(26)-#20		27
60	5300	120	6	(21)-#9		#5 @ 6″	13
	7000			(18)-#18	(23)-#18		19

*Normal weight, self-consolidating concrete, placed by tremie

**Transverse Reinforcement = ASTM A615, Grade 60

Two longitudinal reinforcement options are presented in Table 2C for each drilled pier: one assuming Grade 75 rebar will be used and one assuming Grade 60 rebar will be used. Per code, all reinforcement for drilled piers must incorporate a minimum grout/concrete cover of 2.5 inches.

Lateral Group Pile Analysis

A reduction factor ("p-multiplier") will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. "First row" refers the leading row in the direction of lateral loading. Each subsequent row is a "trailing row" located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

Recommended geotechnical parameters for soil and bedrock for use in performing lateral pile analyses are presented in Tables 3C and 4C, respectively.

Table 3C – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4C – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Mat Foundation with Ground Improvement – Equipment and Tanks

Utilization of a mat foundation coupled with a ground improvement program such as aggregate piers or rigid inclusions is feasible to support the equipment and tanks on the periphery of the main building. The type of ground improvement utilized will depend on the magnitude of bearing pressure exerted under the mat and soil conditions. Our preliminary analysis shows that soils improved by aggregate piers can accommodate about 5 kips per square foot (ksf) of bearing pressure. While feasible, this option requires a detailed study which may include utilization of FEM methods. As many of the ground improvement systems are proprietary, engaging specialty contractors in discussion to help evaluate ground improvement options further may be warranted.

Where utilized, the base shear can be resisted through friction between the mat slab and improved subgrade and a friction coefficient of 0.45 is considered appropriate for design purposes.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall. Live loads on top of suspended L10 slabs need not be considered as a surcharge load to generate lateral pressures.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Utility Support

We recommend that the utilities within the building footprint be located in utility chases cast within the L10 slab. For utilities that run outside the building footprint, we recommend placing the utilities within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least 1/2-inch.

ATTACHMENT D – FAB1 ADMIN

BUILDING DESCRIPTION

FAB1 Admin is an L-shaped building located immediately south of the FAB1 Probe building and north of an on-grade parking lot. Existing grades near the FAB1 Admin vary from about el 403 to 407. FAB1 Admin has a footprint of about 118,000 square feet. The finished ground floor elevation (L10) of the building is reported to be at el 415.67. Per 3D visualizations shared during project discussions, the FAB1 Admin building connects to the mezzanine level of FAB1 Probe.

Per architectural plans shared by Jacobs, the building is framed with columns typically spaced in a 32 feet by 32 feet grid. Column axial loads are expected to be about 1,100 kips without including the dead and live load of the ground floor slab. The ground floor slab is estimated to have a live load of about 105 psf. The maximum base shear in any direction is about 1,600 kips.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others. Boring logs from the supplemental investigation for FAB1 ADMIN are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

Subsurface Stratigraphy

The general stratigraphy consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

<u>Topsoil</u>

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.5 to 1.5 feet.

<u>Silt & Clay</u>

A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 3 to 10 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were 3 to 41, with an average value of 15. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity.

<u>Sand & Gravel (till)</u>

A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from about 5 to 39 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 6 to 100, with an average value of 44. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Weak Rock

Intermediate geomaterials, classified as weak rock, were composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock's structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer varies from about 0.5 to 10 feet.

Bedrock

Bedrock was encountered at depths ranging from about 12 to 45 feet below existing grade, corresponding to elevations between el 360 and 390. Rock Quality Designation (RQD) values ranged from 0% to 68%, with a median value of approximately 32%. Roughly 20% of the core samples exhibited RQD values exceeding 50% and rock quality is variable but generally ranges from fair to good. The recovered rock cores as well geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

No groundwater monitoring wells were installed within FAB1 Admin footprint. Based on data collected by Langan from other wells and field observations, the groundwater elevation is variable and is likely within 1 and 2 feet of ground surface.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing and seismic cone penetrometer (SCPT) testing obtained during the ongoing Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1D – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		III	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Because of the presence of the surficial clay/silt layer, groundwater is generally expected to be perched, with groundwater flow trending northward. For the purposes of design, we recommend a design groundwater level of el 406.

Foundation Recommendations

Shallow Foundations

We recommend that FAB1 Admin be supported on conventional spread footings bearing on a 12-inch-thick layer of compacted drainage aggregate (#57 stone or similar) placed on top of medium-dense to dense silt and silty sand, which was generally found at about 4 feet below existing site grade. For the purposes of design, we recommend that shallow foundations be proportioned assuming an allowable bearing pressure of 6 kips per square foot.

Isolated spread footings should be at least 3 feet in the short direction and continuous footings should be at least 2 feet wide. Lateral loads such as base shear can be resisted through friction between the base of footings and subgrade. For the purposes of design, we recommend a friction coefficient of 0.4. Where friction is determined to be insufficient to provide the necessary lateral resistance, alternative methods such as passive soil resistance against footings or the use of shear keys can be evaluated on a case-by-case basis.

Footings abutting the FAB1 Probe should be lowered to bear at or below the bottom of the L10 slab elevation of the FAB1 Probe to avoid imposing surcharge loads on the FAB1 Probe wall. We also recommend that the link between the Probe and Admin buildings be designed to accommodate a differential settlement of ½-inch.

Slab-on-Grade Floors

The L10 floor slab can be designed as a slab-on-grade bearing on a minimum 6-inch-thick layer of compacted aggregate atop newly placed engineered fill that is required to raise grade across the building footprint. For the purposes of design, we recommend that slab-on-grade floors be designed assuming a modulus of subgrade reaction equal to 150 psi/in. Note that a slab-on-grade slab will necessitate those walls, such as the FAB1 probe building wall, that abut or in the vicinity of the slab (walls within a influence zone defined by a 45 degree line drawn from the edge of slab) be designed to resist the slab’s surcharge loading (dead plus live load of the L10 slab). Alternatively, the slab can be designed as a suspended slab near walls to avoid the additional surcharge loads.

Construction Sequence

We recommend that construction sequence be evaluated to reduce the depth of excavations required to reach suitable bearing. Competent subgrade material is generally expected at depths of about 4 to 5 feet of existing grade; however, the required depth of excavation could increase to over 12 feet if site fill operations precede construction of FAB1 Admin. Generally, we expect that foundation construction of FAB1 Admin would be more efficient if fill, necessary to raise grade, is placed after the footings have been cast rather than before.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as ground anchors or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer’s recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Utility Support

Utilities within and immediately adjacent to the building may be installed within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least ½-inch.

ATTACHMENT E – PROBE1

BUILDING DESCRIPTION

The PROBE1 building will be south of FAB1. PROBE1's long axis is oriented in a roughly east-west direction and the building has with a footprint of about 183,000 square feet. The finished ground floor elevation (L10) of the building is reported to be at el 400.67. The building floor plate is reported to be relatively flat with occasional depressions for elevator pits and utilities.

Column axial loads for PROBE1 were reported to be 2,700 kips (excluding the L10 level dead and live loads) on columns spaced in a 32 feet x 24 feet grid. The average L10 floor load, after accounting for a 36-inch-thick L10 slab and an average live load of 250 psf, is about 700 psf. If the L10 slab is designed to span between columns and not rely on soil support, the service column loads will be about 3,250 kips. For lateral loading, Jacobs has indicated that the building will be split into two zones. Between wind and seismic forces, the base shear for the western segment of the building varies between 900 and 1,425 kips whereas the base shear for the eastern segment of the building varies between 1,160 and 3,415 kips. Assuming that the base shear is spread evenly across all columns, the average lateral force per column is expected to be about 17 kips per column.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others. Boring logs from the supplemental investigation for PROBE1 are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

Subsurface Stratigraphy

The general stratigraphy consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

Topsoil

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.5 to 1.5 feet.

Silt & Clay

A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 2 to 29 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were 2 to 50, with an average value of 24. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity indices.

Sand & Gravel (till)

A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 1.5 to 15 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 11 to 62, with an average value of 29. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Weak Rock

Intermediate geomaterials, classified as weak rock, were generally composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock's structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer varies from about 1 to 6.5 feet.

Bedrock

Bedrock was encountered at depths ranging from approximately 14 to 15 feet below existing grade, corresponding to elevations between El. 383 and El. 385. Rock Quality Designation (RQD) values ranged from 22% to 75%, with a median value of approximately 49%. Roughly 60% of the core samples exhibited RQD values exceeding 50%, indicating that rock quality is variable but generally ranges from fair to good. The recovered rock cores as well geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

No groundwater monitoring wells were installed within FAB1 Probe footprint. Based on data collected by Langan from other wells and field observations, the groundwater elevation is variable and is likely within 1 and 2 feet of ground surface.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing, seismic cone penetrometer (SCPT) testing, and seismic refraction testing performed during the Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1E – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		IV	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Because of the presence of relatively impermeable silt/clay deposits, groundwater will generally flow at or near existing ground surface. Measured groundwater levels within borings indicate normal groundwater in the area is within 1 to 2 feet of ground surface. For the purposes of design, we recommend a design groundwater elevation of el 406.

Foundation Recommendations

Option 1 – Deep Foundation System (Drilled Piers)

The anticipated axial column loads for PROBE1 is about 2,700 to 3,250 kips, depending on whether the L10 slab is designed to span between columns or not. The anticipated average lateral load per column is about 17 kips. These column loads can be supported by drilled piers socketed in bedrock. The drilled piers will derive their load bearing capacity through peripheral side shear and end bearing in rock. For the purpose of design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. The following table presents axial capacities for drilled piers of various sizes along with suggested structural detailing information. Rock socket for drilled piers should be constructed entirely within competent bedrock.

Table 2E – Deep Foundation Design

Element Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)	Concrete Strength (f'_c) (ksi)[1]	Longitudinal Reinf.[2]	Transverse Reinf.[3]	Rock Socket Length (ft)
39	2700	50	7	(11)-#8/ (15)-#8[2]	#3 @ 12″	12
48	3250	90	5.5	(12)-#9/ (15)-#9 [2]	#4 @ 6″	10

[1] Normal weight, self-consolidating concrete, placed by tremie

[2] Longitudinal Reinforcement = ASTM A615, Grade 75/ Grade 60

[3] Transverse Reinforcement = ASTM A615, Grade 60

Option 2 – Shallow Foundation (Mat Foundation)

Based on the anticipated column loads and L10 floor loads, the average bearing pressure under a mat foundation encompassing the entire building footprint is estimated to be about 4.2 kips per square foot (ksf). Soils at the bearing elevation of the L10 slab are generally comprised of very stiff or medium dense to dense silts and glacial till. With modest over-excavation and appropriate subgrade preparation, soils below the probe building can provide allowable bearing pressures of up to 12 ksf. Although this option is considered viable, a detailed study is necessary to establish the magnitude and distribution of subgrade moduli for use in structural design of the mat. This would entail performing Finite Element Methods (FEM) analyses to model the subsurface conditions and foundation geometry and structural loading in order to establish appropriate estimates of the subgrade response. We note that to perform such analyses, we would need detailed loading from the structural engineer. The establishment and distribution of subgrade moduli is often an iterative process to obtain reasonable convergence of settlement distributions between the structural and geotechnical models.

Where utilizing a mat foundation, the base shear can be resisted through friction between the mat and underlying soil subgrade. For the purpose of design, we recommend a friction coefficient of 0.45. Note, we expect that the mat foundation option would require placement of aggregate fill to ensure that the subgrade is suitably protected from the effects of construction traffic.

Option 3 – Hybrid Foundation (Drilled Piers and Slab-on-Grade)

An alternative to Options 1 and 2 is to utilize a hybrid approach where the columns are supported on drilled piers while the L10 slab functions as a slab-on-grade supported on the soil subgrade. The anticipated average total dead and live load of the L10 slab is about 700 psf, which is less than the allowable bearing pressure for soils at the anticipated bottom of slab elevation. The main concern with such an approach is to ensure displacement compatibility between the columns and the slab or to permit the slab to move independently of the columns to avoid potential cracking of the slab near columns. For the purpose of design, a slab-on-grade supported on aggregate fill placed atop a suitably compacted subgrade may be designed assuming a modulus of subgrade reaction equal to 200 psi/inch.

Lateral Group Pile Analysis

A reduction factor ("p-multiplier") will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. "First row" refers the leading row in the direction of lateral loading. Each subsequent row is a "trailing row" located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

Recommended geotechnical parameters for soil and bedrock for use in performing lateral pile analyses are presented below in Tables 3E and 4E, respectively.

Table 3E – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4E – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Index Piles and Load Testing

We recommend installing at least 2% of drilled piers as index piles prior to starting production piles. The index piles should be spread across the building footprint to capture the variability in subsurface conditions. If the contractor elects to install the drill piers without the use of a casing, caliper logging should be performed to measure the diameter and shape of the drilled pier borehole. Regardless, all index piles must be tested using cross-hole sonic logging to evaluate the structural integrity of the pile.

The recommended compression and lateral capacities must be proven using instrumented load tests. Because of the high compression loads, a traditional top-down load test is likely not feasible or economical. We recommend performing the axial load tests using a bi-directional static load testing method using an embedded jack such as an Osterberg Cell. We recommend implementing an early test pile program, preferably before the building design is finalized and issued for construction, to optimize design parameters for side shear and end-bearing. At a minimum, at least one percent of drilled piers should be load tested in axial and lateral. Additional load tests may be warranted if multiple pile diameters are being implemented and pending initial load test results.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall. Live loads on top of suspended L10 slabs need not be considered as a surcharge load to generate lateral pressures.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Utility Support

Utilities within and immediately adjacent to the building may be installed within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least ½-inch.

ATTACHMENT F – HPM & BSGS

BUILDING DESCRIPTION

HPM Buildings

Two HPM buildings (HPM1-N and HPM1-S) will be constructed within the Phase 1 development area east of the FAB1 building and two HPM buildings (HPM2-N and HPM2-S) will be constructed within the Phase 2 development area west of the FAB2 building. The long axis of the buildings is oriented roughly north-south and each north and south pair of buildings will be separated by an access road. Each HPM building has a footprint of about 159,000 square feet. The finished ground floor elevation (L10) of the buildings is reported to be at el 400.67. The building floor plates are reported to be relatively flat with occasional depressions for elevator pits and utilities.

Per the plans shared by Jacobs, columns for the HPM buildings are either spaced on a 25 feet x 32 feet grid or a 32 feet x 32 feet grid. Column axial loads, excluding the L10 level dead and live loads, are expected to be about 1,500 kips. The average L10 floor load, after accounting for a 48-inch-thick L10 slab and a maximum live load of 1,000 psf, is about 1,600 psf. If the L10 slab is designed to span between columns and not rely on soil support, the service column loads will be about 3,500 kips. Base shears for the HPM buildings from wind and seismic forces are reported to be about 2,800 kips in each direction. Assuming that the base shear is spread evenly across all columns, the average lateral force per column is expected to be about 15 kips per column.

BSGS Buildings

Two BSGS buildings (BSGS1-N and BSGS1-S) will be constructed within the Phase 1 development area east of the HPM1 buildings and two BSGS buildings (BSGS2-N and BSGS2-S) will be constructed within the Phase 2 development area west of the HPM2 buildings. The long axis of the BSGS buildings is oriented roughly north-south and each has a footprint of about 66,000 square feet. The finished ground floor elevation (L10) of the building is reported to be at el 400.67. The building floor plates are reported to be relatively flat with occasional depressions for elevator pits and utilities.

Per the plans shared by Jacobs, columns for the BSGS buildings are to be spaced roughly in a 24 feet by 50 feet grid. Per Jacobs, structural loads provided for the HPM building applies to the BSGS buildings as well.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others, which indicated a moderately distinct stratigraphy above bedrock within the drumlin deposits from the remainder of the site. Boring logs from the supplemental investigation for HPM & BSGS are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy, observed outside the drumlins, consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

- *Topsoil:* The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.3 to 2 feet.
- *Silt & Clay:* A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from about 4 to 34 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were WOH[1] to 26, with an average value of 7. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (60%) is non-plastic while the remaining soils exhibiting low plasticity.
- *Sand & Gravel (till):* A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 2 to 29 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 3 to Refusal (128), with an average value of 33. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Drumlin Soil Stratigraphy

The general subsurface stratigraphy in the drumlins consists of topsoil, underlain by sands and silts, underlain by weak rock, which are in-turn underlain by bedrock. Descriptions of each subsurface stratum below the drumlins are given below in order of increasing depth below grade.

- *Topsoil:* The topsoil within the drumlins comprises silt or clay with varying amounts of fine to medium sand, fine gravel, and organic matter. The thickness of this layer typically ranges from 0.5 to 2 feet.
- *Sand & Silt (till):* a layer of sand and silt with varying amounts of gravel and clay was encountered in all borings within the drumlins. This unit ranged in thickness from about 18 to 64 feet. According to USCS classifications, the soils include non-plastic silt (ML), clayey silt (ML-CL), silty sand (SM), clayey sand (SC), and poorly graded sand (SP) or gravel (GP). SPT N-values in this layer were 1 to Refusal (100), with an average value of 49. Granular portions of this layer are generally medium dense to very dense based on SPT N-values, with occasional loose zones encountered at shallow depths. The cohesive (silt

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[1] Weight of Hammer

and clay) components are typically medium stiff to hard, with isolated pockets of soft material observed within the upper 4 feet in some borings.

Weak Rock

Intermediate geomaterials, classified as weak rock, were generally composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock's structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer varies from about 3 to 12 feet.

Bedrock

Bedrock was encountered at depths ranging from approximately 17 to 40 feet below existing grade, corresponding to elevations between el 376 and 345. Rock Quality Designation (RQD) values ranged from 0% to 100%, with a median value of approximately 59%. Roughly 50% of the core samples exhibited RQD values exceeding 50%, and approximately 20% were classified as good to excellent in quality, indicating that rock quality is variable but generally ranges from fair to good. The recovered rock cores generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Groundwater levels were measured from observation wells installed in completed boreholes and within test pits that were excavated below the groundwater table. Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young's Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Monitoring wells installed by Langan recorded groundwater elevation from a high of about el 396 to a low of about el 385.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing, seismic cone penetrometer (SCPT) testing, and seismic refraction testing performed during the Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1F – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		IV	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Because of the presence of relatively impermeable silt/clay deposits, groundwater will generally flow at or near existing ground surface. Once the site is backfilled to final grade using material that is relatively free-draining compared to existing near-surface site soils, groundwater will begin freely draining towards Young's Creek and towards the various SMPs/detention pods spread throughout the site, and will generally not rise higher than the groundwater levels measured from the monitoring wells. For the purposes of design, we recommend a design groundwater level that is higher of (i) el 396 and (ii) bottom elevation of L10 slab.

Foundation Recommendations

Option 1 – Deep Foundation System (Drilled Piers)

Where the L10 slab is designed to span between the columns and not rely on soil support, the anticipated axial column load is about 3,500 kips. The anticipated average lateral load per column is about 15 kips. We recommend supporting these columns on drilled piers socketed in bedrock. For the purpose of design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. A table summarizing the drilled pier design is presented at the end of the foundation recommendations section. Rock socket for drilled piers should be constructed entirely within competent bedrock.

Table 2F – Deep Foundation Design

Element Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)[6]	Concrete Strength (f'_c) (ksi)[1]	Longitudinal Reinf.[2]	Transverse Reinf.[4]	Rock Socket Length (ft)[5]
48	3500	90	6	(11)-#9/ (14)-#9[2]	#4 @ 6″	11
60	1500	120	5	(15)-#9[3]	#5 @ 6″	N/A

[1] Normal weight, self-consolidating concrete, placed by tremie

[2] Longitudinal Reinforcement = ASTM A615, Grade 75/ Grade 60

[3] Longitudinal Reinforcement = ASTM A615 Grade 75

[4] Transverse Reinforcement = ASTM A615, Grade 60

[5] N/A indicates that the deep foundation is an end-bearing CFA

[6] Lateral capacity for both free head/fixed head condition

Option 2 – Shallow Foundations (Mat Foundation) with Ground Improvement

Utilization of a mat foundation coupled with a ground improvement program such as aggregate piers is feasible based on the average bearing pressures estimated from the column loads and L10 floor loads provided. The average bearing pressure under a mat foundation is expected to be about 3 to 4.4 kips per square foot (ksf). Soils improved with aggregate piers and a load transfer platform can provide allowable bearing pressures of up to 5 ksf. Although this option is considered viable, a detailed study is necessary to establish the magnitude and distribution of subgrade moduli for use in structural design of the mat. This would entail performing Finite Element Methods (FEM) analyses to model the subsurface conditions and foundation geometry and structural loading in order to establish appropriate estimates of the improved subgrade response. We note that to perform such analyses, we would need detailed loading from the structural engineer. The establishment and distribution of subgrade moduli is often an iterative process to obtain reasonable convergence of settlement distributions between the structural and geotechnical models.

The ground improvement system should be designed and installed by a specialty contractor for their specific proprietary system. Aggregate piers should be installed after site preparation in accordance with our recommendations has been performed, and fill has been placed to rough building pad elevations. The depth of aggregate piers is expected to vary across building footprints. We recommend installing aggregate piers to an elevation corresponding to the top of weak bedrock.

We recommend engaging specialty contractors in discussion to help evaluate ground improvement options.

Where utilized, the base shear can be resisted through friction between the mat slab and improved subgrade and a friction coefficient of 0.4 is considered appropriate for design purposes.

Option 3 – Hybrid Foundation (Cased CFAs and Slab on Improved Ground)

If the L10 slab is separated from the columns, the expected column load drops to about 1,500 kips. These columns can then be supported on Continuous Flight Auger (CFA) piles end-bearing on bedrock, while the L10 slab can be supported directly on improved soil subgrade. CFA design details are summarized in Table 2F above. For the purpose of design, we recommend using an allowable end-bearing of 80 ksf. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. For the purpose of design, a slab-on-grade supported on aggregate fill placed atop a suitably compact and improved subgrade may be designed assuming a modulus of subgrade reaction equal to 200 psi/inch.

Lateral Group Pile Analysis

A reduction factor ("p-multiplier") will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. "First row" refers the leading row in the direction of lateral loading. Each subsequent row is a "trailing row" located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

Recommended geotechnical parameters for soil and bedrock for use in performing lateral pile analyses are presented below in Tables 3F and 4F, respectively.

Table 3F – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4F – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Index Piles and Load Testing

We recommend installing at least 2% of drilled piers as index piles prior to starting production piles. The index piles should be spread across the building footprint to capture the variability in subsurface conditions. If the contractor elects to install the drill piers without the use of a casing, caliper logging should be performed to measure the diameter and shape of the drilled pier borehole. Regardless, all index piles must be tested using cross-hole sonic logging to evaluate the structural integrity of the pile.

The recommended compression and lateral capacities must be proven using instrumented load tests. Because of the high compression loads, a traditional top-down load test is likely not feasible or economical. We recommend performing the axial load tests using a bi-directional static load testing method using an embedded jack such as an Osterberg Cell. We recommend implementing an early test pile program, preferably before the building design is finalized and issued for construction, to optimize design parameters for side shear and end-bearing. At a minimum, at least one percent of drilled piers should be load tested in axial and lateral. Additional load tests may be warranted if multiple pile diameters are being implemented and pending initial load test results.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall. Live loads on top of suspended L10 slabs need not be considered as a surcharge load to generate lateral pressures.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Utility Support

We recommend that the utilities within the building footprint be located in utility chases cast within the L10 slab. For utilities that run outside the building footprint, we recommend placing the utilities within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least 1/2-inch.

ATTACHMENT G– FAB1 GARAGE

BUILDING DESCRIPTION

The Phase 1 parking garage building (FAB1 Garage) is south of FAB1 and CUB1 buildings, west of the PROBE1 building, and north of SMP-15. The building is situated near the southwestern corner of the campus about 340 to 500 feet east of Caughdenoy Road. Existing grades near the FAB1 Garage vary from about el 393 to 400.

FAB1 Garage has a footprint of about 174,000 square feet. The finished ground floor elevation (L10) of the building is reported to be at el 400.67. Per the latest architectural plans shared with Langan, the building load is shared by a grid of columns and load bearing walls. The columns are generally spaced in a 61 feet x 36 feet grid with bearing walls spaced in a 60-foot grid. Column axial loads are expected to be about 1,200 kips (excluding L10 slab dead and live load) and bearing wall loads are expected to be about 60 kips per linear foot of wall. The maximum base shear of the building in any direction is about 750 kips.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others. Boring logs from the supplemental investigation for FAB1 Garage are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The subsurface stratigraphy provided herein is based on the historic data reported by others as well as the results of Langan's supplemental investigation. The general stratigraphy consists of topsoil overlying a deposit of silts and clays, underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

Topsoil

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.3 to 2 feet.

Silt & Clay

A fine-grained soil layer, composed primarily of silt and clay, was the most extensively encountered unit across the site. This layer varies in thickness from approximately 2 to 9 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were WOH to 35, with an average value of 11. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity.

Bedrock

Bedrock was encountered at depths ranging from approximately 4 to 7 feet below existing grade, corresponding to elevations between el 386 and 395. Rock Quality Designation (RQD) values ranged from 65% to 97%, with a median value of about 87%. Approximately 75% were classified as good to excellent in quality, indicating that rock quality is variable but generally ranges from fair to excellent. The recovered rock cores generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to mildly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young's Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Monitoring wells installed by CME/Ramboll recorded groundwater elevation of about el 390.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing, seismic cone penetrometer (SCPT) testing, and seismic refraction testing performed during the Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.078g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1G – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Soft Rock**	BC	ASCE 7-22, Section 20.2
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.15g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.046g	

Description	Parameter	Recommended Value	Code Reference
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.1g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.031g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.078g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		II	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool.			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Because of the presence of shallow bedrock, groundwater is expected to be perched and flowing on top of bedrock. For the purposes of design, we recommend a design groundwater level that is higher of (i) el 394 and (ii) bottom elevation of L10 slab.

Foundation Recommendations

Shallow Foundations

We recommend that FAB1 Garage be supported on conventional spread footings bearing either directly atop bedrock or on the dense to very dense glacial till soils which overly bedrock. As the existing soils in the area are variable and often contain unsuitable bearing materials within the minimum frost depths (measured from the top of the L10 slab), over-excavation should be anticipated, and footings will likely need to lowered to reach bedrock or the dense glacial till soils. We estimate that the top of suitable glacial till may vary from el 397 to 386, while top of bedrock may vary from el 384 to 395 in the area.

For the purposes of design, we recommend that shallow foundations be proportioned for two cases: (i) foundations bearing directly on bedrock assuming an allowable bearing pressure of 40 kips per square foot, and (ii) foundations on dense glacial till assuming an allowable bearing pressure of 12 kips per square foot such that the final footing size may be selected in the field based on the locally encountered conditions at the time of construction. This approach provides flexibility to the contractor in situations where required excavation to reach competent bedrock may be impractical or more expensive.

Isolated spread footings should be at least 3 feet in the short direction and continuous footings should be at least 2 feet wide. Lateral loads such as base shear can be resisted through friction between the base of footings and subgrade. For the purpose of design, we recommend a friction coefficient of 0.45 for footings cast atop glacial till soils and 0.6 for footings cast directly atop bedrock. Where friction is determined to be insufficient to provide the necessary lateral resistance, alternative methods such as passive soil resistance, keys in rock, or the use of shear pins or ground anchors can be evaluated on a case-by-case basis.

Slab-on-Grade Floors

The L10 floor slab can be designed as a slab-on-grade bearing on a minimum 6-inch-thick layer of compacted aggregate atop newly placed engineered fill that is required to raise grade across the building footprint. For the purposes of design, we recommend that slab-on-grade floors be designed assuming a modulus of subgrade reaction equal to 150 psi/in.

Subgrade Preparation

Foundation subgrades should be level and clear of standing or frozen water, debris, or other deleterious materials. All bedrock subgrades should be scaled of loose rock and cleaned of debris using compressed air. The top of rock elevation may vary considerably over relatively short distances. Sloping rock and zones of highly weathered or highly fractured rock may require local deepening of the footings or piers to achieve the allowable bearing pressure. A competent person must inspect and approve foundation subgrades prior to placement of concrete to verify that the subgrade material is adequate to provide the recommended allowable bearing pressure. A mud slab may also be cast to provide protection and may be required to provide a suitable substrate for waterproofing.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as ground anchors or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads and slabs on grade should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall.

Utility Support

Utilities within and immediately adjacent to the building may be installed within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least ½-inch.

ATTACHMENT H – FAB2

BUILDING DESCRIPTION

The Phase 2 Fabrication building (FAB2) will have a footprint of about 1,200,000 square feet. The finished ground floor elevation (L10) of the building is reported to be el 400.67[1]. The FAB building will have two large below-grade areas with a combined footprint of about 126,000 square feet that will extend to el 375.67. Existing grades in proximity to the subject building varies from about el 392 and el 413. Therefore, significant filling and localized cutting will be needed to reach the proposed ground floor level.

We have assumed that the loading and architectural information provided by Jacobs for Phase 1 building will be applicable to the Phase 2 building. Column axial loads for the FAB1 building were provided by Jacobs on 18 April 2025. Due to significant construction equipment loading on the proposed FAB ground floor (L10) slab, two sets of column loads were provided: end-state design loads and temporary construction loads. The end-state design loads comprise dead plus live load reactions at each column and the temporary construction loads comprised of dead load of L10 slab and live loads due to construction crane placement. The reported column loads varied between 2,000 and 5,000 kips with the maximum column loads being experienced by roughly half the columns along column line R. The L10 slab will be about 5.5-feet-thick and be designed to span between building columns. The slab is not expected to rely on support from soil subgrade. The average bearing pressure below the waste pit mat foundation and tank pad outside the building footprint was provided by Jacobs in an email dated May 15,2025. Within the waste pit, the average pressure is about 5.5 kips per square foot (ksf) and under the tank pad, the average pressure is about 1.5 ksf.

For lateral loading, the FAB building is split into three zones (northern, middle and southern) with Seismic Isolation Breaks (SIBs). SIBs are located between column lines 29 and 30, and 51 and 52. The base shears from wind and seismic conditions in the southern and northern section varies between about 3,500 and 7,000 kips and base shears in the middle section varies between 3,300 and 4,200 kips. Per discussions with the Jacobs team, the lateral load at each column is expected to generally be about 25 kips.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others, which indicated a moderately distinct stratigraphy above bedrock within the drumlin deposits from the remainder of the site. Boring logs from the supplemental investigation for FAB2 are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy, observed outside the drumlins, consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by

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[1] All elevations herein are in feet and are referenced to the North American Vertical Datum of 1988, Geoid18 (NAVD88/18)

competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

- *Topsoil:* The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.5 to 2 feet.
- *Silt & Clay:* A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 2 to 48 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were WOH[2] to 50, with an average value of 10. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (85%) is non-plastic while the remaining soils exhibiting low plasticity indices.
- *Sand & Gravel (till):* A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 1 to 27 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 3 to Refusal (111), with an average value of 37. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Drumlin Soil Stratigraphy

The general subsurface stratigraphy in the drumlins consists of topsoil, underlain by sands and silts, underlain by weak rock, which are in-turn underlain by bedrock. Descriptions of each subsurface stratum below the drumlins are given below in order of increasing depth below grade.

- *Topsoil:* The topsoil within the drumlins comprises silt or clay with varying amounts of fine to medium sand, fine gravel, and organic matter. The thickness of this layer typically ranges from 0.5 to 0.7 feet.
- *Sand & Silt (till):* a layer of sand and silt with varying amounts of gravel and clay was encountered in all borings within the drumlins. This unit ranged in thickness from approximately 19 to 43 feet. According to USCS classifications, the soils include non-plastic silt (ML), clayey silt (ML-CL), silty sand (SM), clayey sand (SC), and poorly graded sand (SP) or gravel (GP). SPT N-values in this layer were WOH to Refusal (98), with an average value of 26. Granular portions of this layer are generally medium dense to very dense based on SPT N-values, with occasional loose zones encountered at shallow depths. The cohesive (silt and clay) components are typically medium stiff to hard, with isolated pockets of soft material observed within the upper 4 feet in some borings.

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[2] Weight of Hammer

Weak Rock

Intermediate geomaterials, classified as weak rock, were generally composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock's structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer can be up to 10 feet.

Bedrock

Bedrock was encountered at depths ranging from approximately 22 to 48 feet below existing grade, corresponding to elevations between el 352 and 377. Rock Quality Designation (RQD) values ranged from 7% to 100%, with a median value of about 64%. Roughly 75% of the core samples exhibited RQD values exceeding 50%, and approximately 60% were classified as good to excellent in quality, indicating that rock quality is variable but generally ranges from fair to good. The recovered rock cores as well as geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Groundwater levels were measured from observation wells installed in completed boreholes and within test pits that were excavated below the groundwater table. Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young's Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Between monitoring wells installed by CME and Langan, groundwater elevation was observed to vary from a high of about el 385 to a low of about el 402.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing, seismic cone penetrometer (SCPT) testing, and seismic refraction testing performed during the Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1H – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		IV	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Measured groundwater levels as well as mottling of soils observed within test pits indicate normal groundwater in the area of the FAB varies from about el 385 to el 402. This elevation is subject to seasonal variations due to precipitation. Once the site is backfilled to final grade using material that is relatively free-draining compared to existing near-surface site soils, groundwater will begin freely draining towards Young's Creek and towards the various SMPs/detention pods spread throughout the site, and will generally not rise higher than the groundwater levels measured from the monitoring wells. However, due to possible groundwater mounding around below-grade walls that will serve as barriers for groundwater flow, we recommend a design groundwater level that is higher of (i) el 394 and (ii) bottom elevation of L10 slab.

Deep Foundation System (Drilled Piers)

Given the anticipated axial column loads, we recommend supporting the FAB building on drilled piers socketed in bedrock. The drilled piers will derive their load bearing capacity through peripheral side shear and end bearing in rock. For the purpose of design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. The following table presents axial capacities for drilled piers of various sizes along with suggested structural detailing information. Rock socket for drilled piers should be constructed entirely within competent bedrock.

Table 2H – Drilled Pier Design

Pier Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)	Concrete Strength (f'_c) (ksi)*	Longitudinal Reinf.**	Transverse Reinf.***	Rock Socket Length (ft)
36	2000	50	6	(11)-#8/ (13)-#8	#4 @ 6″	10
42	2800	60	6	(16)-#8/(21)-#8	#4 @ 6″	11
48	3600	90	6	(15)-#9/ (19)-#9	#4 @ 6″	12
54	4700	110	6	(15)-#11/(19)-#11	#4 @ 6″	14
60	5800	120	6	(18)-#11/(24)-#11	#5 @ 6″	15
60	6100	120	6	(23)-#11/(29)-#11	#5 @ 6″	16

*Normal weight, self-consolidating concrete, placed by tremie

**Longitudinal Reinforcement = ASTM A615, Grade 75/ Grade 60

***Transverse Reinforcement = ASTM A615, Grade 60

Two longitudinal reinforcement options are presented in Table 2H for each drilled pier: one assuming Grade 75 rebar will be used and one assuming Grade 60 rebar will be used. Per code, all reinforcement for drilled piers must incorporate a minimum grout/concrete cover of 2.5 inches. Although the provided designs in Table 2H do not include any steel casing, isolation casing may be necessary within rock sockets in the event that an uncased rock socket will shed load onto adjacent building walls.

Lateral Group Pile Analysis

A reduction factor ("p-multiplier") will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. "First row" refers the leading row in the direction of lateral loading. Each subsequent row is a "trailing row" located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

The lateral capacities and point of fixity locations of the drilled piers were determined using the Lpile software by Ensoft, Inc. The geotechnical parameters of soil and bedrock used for the analysis are presented below in Tables 3H and 4H, respectively.

Table 3H – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4H – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Point of Fixity – Drilled Piers

The depth to point of fixity for drilled piers of a particular structural makeup will vary depending on the soil stratigraphy and depth to top of competent bedrock. Typical values for the estimated point of fixity are provided in Table 5H. These values represent the estimated points of fixity for idealized subsurface conditions. We note that there can be significant variation in the depth to fixity. As such, the EOR may need to perform a more detailed evaluation to address the local subsurface stratigraphy, loading, and boundary conditions, and pier structural configurations.

Table 5H – Drilled Pier Point of Fixity

Pier Diameter (inches)	Equivalent Lengths for Point of Fixity Below L10 Slab (ft)				
	36-inch Pier	42-inch Pier	48-inch Pier	54-inch Pier	60-inch Pier
Typical of piers throughout FAB2	7	7.5	11.25	16	17.5

Index Piles and Load Testing

We recommend installing at least 2% of drilled piers as index piles prior to starting production piles. The index piles should be spread across the building footprint to capture the variability in subsurface conditions. If the contractor elects to install the drill piers without the use of a casing, caliper logging should be performed to measure the diameter and shape of the drilled pier borehole. Regardless, all index piles must be tested using cross-hole sonic logging to evaluate the structural integrity of the pile.

The recommended compression and lateral capacities must be proven using instrumented load tests. Because of the high compression loads, a traditional top-down load test is likely not feasible or economical. We recommend performing the axial load tests using a bi-directional static load testing method using an embedded jack such as an Osterberg Cell. We recommend implementing an early test pile program, preferably before the building design is finalized and issued for construction, to optimize design parameters for side shear and end-bearing. At a minimum, at least one percent of drilled piers should be load tested in axial and lateral. Additional load tests may be warranted if multiple pile diameters are being implemented and pending initial load test results.

Shallow Foundations

Shallow foundations may be utilized within the deep waste pits of the FAB, where the subgrade elevation of the foundations will likely be within the weak rock or glacial till zone. In these areas, building columns can be supported on a mat foundation cast directly against the glacial till or weak rock subgrade or on top of a 1-foot-thick gravel layer placed on top of the prepared subgrade. The gravel layer can act as collection layer for any groundwater that reaches the underside of the waste pits' foundations. For the purposes of design, we recommend that the mat foundation be designed assuming an allowable bearing pressure of 12 ksf. Based on the building loading provided by Jacobs, we recommend a subgrade modulus of 900 psi/in.

Post-Tensioned Ground Anchors

As noted prior, uplift loads are anticipated within the deep pits as a result of hydrostatic pressure. Uplift loads on shallow foundations can be resisted using post tensioned tie-down anchors drilled into the competent rock mass. We recommend that all anchors be comprised of Class I corrosion protected high-strength fully threaded tendons meeting ASTM A-722.

Anchor bond lengths should be proportioned assuming an allowable peripheral shear resistance of 100 psi along the grout-rock interface. The free stressing length of the tendon should be a minimum of 10 feet. The total lengths of the anchors must consider group effects in addition to satisfying individual anchor loading criteria. The final design of anchors should be predicated on an evaluation of the actual anchor layout. Langan can assist with such analyses once specific horizontal layouts are developed.

Ten percent of the tie-down anchors should be performance (creep) tested to 133% of their design load. The remaining anchors should be proof tested to 133% their design load. Successfully tested anchors should be locked-off at the designated lock-off load that accounts for long term creep.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or ground anchors and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures, particularly those subject to higher hydrostatic pressures such as the deep pits with the FAB. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer’s recommendation.

As a redundant measure, below grade space can be additionally protected by installing a gravel or composite layer between the pressure slab and a wearing slab to collect seepage which may bypass the primary waterproofing system. Such systems are ordinarily comprised of a gravel layer measuring about 12-inches thick in conjunction with perforated piping to permit collection of accumulated water to ejector pits. Perforated piping should be redundantly connected and should drain to sump/desanding pits with redundant ejector pumps. Composite systems such as those manufactured by Cupolex Engineering Solutions, Inc. may be a suitable alternative to the use of gravel and can in many cases reduce the required system thickness.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft in soil and weak rock above the design groundwater level (see design groundwater elevation section) and 90 psf/ft in soil and weak rock below design groundwater level. We recommend assuming a uniform pressure of 250 psf plus any hydrostatic pressure be applied to walls cast below the top of competent bedrock rock. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall within soil and weak rock. Live loads on top of L10 slab need not be considered as a surcharge load to generate lateral pressures.

If the permanent below-grade walls are allowed to rotate to the extent that an active pressure condition is developed, we recommend lateral earth pressure of 36 psf/ft above design groundwater level and 80 psf/ft below design groundwater level. The earth pressure below the top of rock would be unchanged from that previously recommended. Generally, the rotation necessary to reach active earth pressure conditions would be on the order of 0.002 d/H to 0.004 d/H, where d = lateral movement at the top of the wall and H = the height of the wall. This is expected to require fairly significant movement at the top of the wall. If the walls cannot tolerate such movements, we recommend using the at-rest earth pressures provided in the previous paragraph.

Utility Support

We recommend that the utilities within the building footprint be located in utility chases cast within the L10 slab. For utilities that run outside the building footprint, we recommend placing the utilities within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least 1/2-inch.

ATTACHMENT I – CUB2

BUILDING DESCRIPTION

The CUB2 building will have a footprint of about 450,000 square feet. The finished ground floor elevation (L10) of the building is reported to be el 400.67[1]. Existing grades in proximity to the subject buildings varies from about el 390 and 408.

We have assumed that the loading and architectural information provided by Jacobs for Phase 1 building will be applicable to the Phase 2 building. Per the latest architectural plans shared by Jacobs, columns for the CUB1 are typically spaced in a 36 feet x 36 feet grid with column axial loads (excluding the L10 level dead and live loads) of about 1,500 kips. After accounting for a 48-inch-thick L10 slab and 1,000 psf live load, the service column loads will be about 3,600 kips. The base shear from wind and seismic conditions varies between about 2,100 kips and 5,200 kips for the entire building. Assuming uniform distribution of the loading, the maximum base shear translates to about 15 kips of lateral load per column.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others, which indicated a moderately distinct stratigraphy above bedrock within the drumlin deposits from the remainder of the site. Boring logs from the supplemental investigation for CUB2 are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy, observed outside the drumlins, consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till) and competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

Topsoil

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.5 to 2 feet.

Silt & Clay

A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 4 to 27 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were WOH[2] to 36, with an average value of 9. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at

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[1] All elevations herein are in feet and are referenced to the North American Vertical Datum of 1988, Geoid18 (NAVD88/18)

[2] Weight of Hammer

various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity indices.

Sand & Gravel (till)

A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 2 to 28 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 6 to 80, with an average value of 27. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Drumlin Soil Stratigraphy

The general subsurface stratigraphy in the drumlins consists of topsoil, underlain by sands and silts, which are in-turn underlain by bedrock. Descriptions of each subsurface stratum below the drumlins are given below in order of increasing depth below grade.

Topsoil

The topsoil within the drumlins comprises silt or clay with varying amounts of fine to medium sand, fine gravel, and organic matter. The thickness of this layer typically ranges from 0.5 to 2 feet.

Sand & Silt (till)

A layer of sand and silt with varying amounts of gravel and clay was encountered in all borings within the drumlins. This unit ranged in thickness from approximately 13 to 28 feet. According to USCS classifications, the soils include non-plastic silt (ML), clayey silt (ML-CL), silty sand (SM), clayey sand (SC), and poorly graded sand (SP) or gravel (GP). SPT N-values in this layer were 3 to 74, with an average value of 29. Granular portions of this layer are generally medium dense to very dense based on SPT N-values, with occasional loose zones encountered at shallow depths. The cohesive (silt and clay) components are typically medium stiff to hard, with isolated pockets of soft material observed within the upper 4 feet in some borings.

Bedrock

Bedrock was encountered at depths ranging from approximately 16.5 to 28.5 feet below existing grade, corresponding to elevations between el 365 and 378. Rock Quality Designation (RQD) values ranged from 7% to 83%, with a median value of about 42%. Roughly 58% of the core samples exhibited RQD values exceeding 50%, and approximately 16% were classified as good to excellent in quality, indicating that rock quality is variable but generally ranges from fair to good. The recovered rock cores as well geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Groundwater levels were measured from observation wells installed in completed boreholes and within test pits that were excavated below the groundwater table. Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young's Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Monitoring wells installed by CME and Langan recorded groundwater elevation at about el 385 to 400.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing and seismic cone penetrometer (SCPT) testing obtained during the ongoing Langan geotechnical investigation.

Table 1I – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***

Description	Parameter	Recommended Value	Code Reference
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		IV	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Measured groundwater levels as well as mottling of soils observed within test pits indicate normal groundwater in the area of the CUB2 is at about el 385 to 400. This elevation is subject to seasonal variations due to precipitation. Once the site is backfilled to final grade using material that is relatively free-draining compared to existing near-surface site soils, groundwater will begin freely draining towards Young's Creek and towards the various SMPs/detention pods spread throughout the site, and will generally not rise higher than the groundwater levels measured from the monitoring wells. However, due to possible groundwater mounding around below-grade walls that will serve as barriers for groundwater flow, we recommend a design groundwater level that is higher of (i) el 394 and (ii) bottom elevation of L10 slab.

Deep Foundation System (Drilled Piers)

Given the anticipated axial column loads, we recommend supporting the CUB columns on drilled piers socketed in bedrock. The drilled piers will derive their load bearing capacity through peripheral side shear and end bearing in rock. For the purpose of design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. The following table presents axial capacities for drilled piers of various sizes along with suggested structural detailing information. Rock socket for drilled piers should be constructed entirely within competent bedrock.

Table 2I – Drilled Pier Design

Pier Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)	Concrete Strength (f'_c) (ksi)*	Longitudinal Reinf.**	Transverse Reinf.***	Rock Socket Length (ft)
36	2000	50	6	(11)-#8/ (13)-#8	#4 @ 6″	10
42	2800	60	6	(16)-#8/(21)-#8	#4 @ 6″	11
48	3600	90	6	(15)-#9/ (19)-#9	#4 @ 6″	12

*Normal weight, self-consolidating concrete, placed by tremie

**Longitudinal Reinforcement = ASTM A615, Grade 75/ Grade 60

***Transverse Reinforcement = ASTM A615, Grade 60

The allowable tension capacity of piers will be the lesser of: (i) Pier structural capacity, (ii) Geotechnical capacity from side shear, (iii) global pullout analysis. Generally, the uplift capacity of 48″ and 60″ drilled piers that are spaced at the typical building column spacing will be about 360 and 670 kips, respectively. However, in areas where the drilled piers are spaced at a center-to-center spacing of 2D or closer, the tension capacity of the 48″ and 60″ two-pile group will be about 550 and 800 kips, respectively.

Two longitudinal reinforcement options are presented in Table 2I for each drilled pier: one assuming Grade 75 rebar will be used and one assuming Grade 60 rebar will be used. Per code, all reinforcement for drilled piers must incorporate a minimum grout/concrete cover of 2.5 inches.

Lateral Group Pile Analysis

A reduction factor ("p-multiplier") will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. "First row" refers the leading row in the direction of lateral loading. Each subsequent row is a "trailing row" located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

The lateral capacities and point of fixity locations of the drilled piers were determined using the Lpile software by Ensoft, Inc. The geotechnical parameters of soil and bedrock used for the analysis are presented below in Tables 3I and 4I, respectively.

Table 3I – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4I – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Point of Fixity – Drilled Piers

The depth to point of fixity for drilled piers of a particular structural makeup will vary depending on the soil stratigraphy and depth to top of competent bedrock. Typical upper and lower bound values for the estimated point of fixity are provided in Table 5I. These values represent the estimated points of fixity for idealized subsurface conditions representing both shallow bedrock conditions (assumed typical of piers south of column line 24) and deep bedrock conditions (assumed typical elsewhere within FAB1). We note that there can be significant variation in the depth to fixity. As such, the EOR may need to perform a more detailed evaluation to address the local subsurface stratigraphy, loading, and boundary conditions, and pier structural configurations.

Table 5I – Drilled Pier Point of Fixity

Pier Diameter (inches)	Equivalent Lengths for Point of Fixity Below L10 Slab (ft)			
	42-inch Pier	48-inch Pier	54-inch Pier	60-inch Pier
Typical of piers in CUB2	7.5	11.25	16	17.5

Index Piles and Load Testing

We recommend installing at least 2% of drilled piers as index piles prior to starting production piles. The index piles should be spread across the building footprint to capture the variability in subsurface conditions. If the contractor elects to install the drill piers without the use of a casing, caliper logging should be performed to measure the diameter and shape of the drilled pier borehole. Regardless, all index piles must be tested using cross-hole sonic logging to evaluate the structural integrity of the pile.

The recommended compression and lateral capacities must be proven using instrumented load tests. Because of the high compression loads, a traditional top-down load test is likely not feasible or economical. We recommend performing the axial load tests using a bi-directional static load testing method using an embedded jack such as an Osterberg Cell. We recommend implementing an early test pile program, preferably before the building design is finalized and issued for construction, to optimize design parameters for side shear and end-bearing. At a minimum, at least one percent of drilled piers should be load tested in axial and lateral. Additional load tests may be warranted if multiple pile diameters are being implemented and pending initial load test results.

Equipment Pad Support

There are several transformer, fuel oil and radiator yard pads proposed around the CUB building. We assume that the loading on these pads will be similar to the loads provided by Jacobs for CUB1. The average bearing pressure below the pads could vary from 800 to 2,000 psf, which includes dead load, superimposed dead load and live load. The loads are modest enough that the tank pad can be directly supported on compacted material placed in accordance with our specifications provided in this report. For the purposes of design, we recommend slabs-on-grade be designed assuming a modulus of subgrade reaction equal to 150 psi/in. This assumes the slabs will be cast atop at least a 12-inch-thick layer of #57 stone. Total settlements are expected to be about ½-inch.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or ground anchors and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures, particularly those subject to higher hydrostatic pressures such as the deep pits with the FAB. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

As a redundant measure, below grade space can be additionally protected by installing a gravel or composite layer between the pressure slab and a wearing slab to collect seepage which may bypass the primary waterproofing system. Such systems are ordinarily comprised of a gravel layer measuring about 12-inches thick in conjunction with perforated piping to permit collection of accumulated water to ejector pits. Perforated piping should be redundantly connected and should drain to sump/desanding pits with redundant ejector pumps. Composite systems such as those manufactured by Cupolex Engineering Solutions, Inc. may be a suitable alternative to the use of gravel and can in many cases reduce the required system thickness.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft in soil and weak rock above the design groundwater level (see design groundwater elevation section) and 90 psf/ft in soil and weak rock below design groundwater level. We recommend assuming a uniform pressure of 250 psf plus any hydrostatic pressure be applied to walls cast below the top of competent bedrock rock. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall within soil and weak rock. Live loads on top of L10 slab need not be considered as a surcharge load to generate lateral pressures.

Utility Support

We recommend that the utilities within the building footprint be located in utility chases cast within the slab. For utilities that run outside the building footprint, we recommend placing the utilities within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least 1/2-inch.

ATTACHMENT J – WWT2

BUILDING DESCRIPTION

The existing grades within WWT2 footprint vary from about el 387 to 393. The WWT2 building has a footprint of about 440,000 square feet. The finished ground floor elevation (L10) of the building is reported to be at el 395.

We have assumed that the loading and architectural information provided by Jacobs for Phase 1 building will be applicable to the Phase 2 building. Per the architectural plans shared with Langan, the building is framed with columns in a 44 feet x 36 feet grid. Column axial loads are generally expected to be about 3,000 kips with higher columns loads of about 3,500 kips expected under the mezzanine level. The reported column loads do not include the dead and live load from the L10 slab. Per Jacobs, the L10 slab will be 8-foot-thick with a live load of 1,000 psf. If the L10 slab is designed to be suspended between columns and not rely on soil support, the foundation load under the columns could vary between 6,500 and 7,000 kips. If a foundation element is used in the middle of each column grid to reduce slab span, foundation load under the columns could vary between 4,800 and 5,300 kips, while the foundation load at the middle of the column grid will be about 1,800 kips. The maximum base shear across the building will be about 2,800 kips which, when evenly spread across all building columns, will translate to about 10 kips of per column.

SUBSURFACE CONDITIONS

The findings from Langan’s supplemental geotechnical investigation are consistent with historic geotechnical data reported by others. Boring logs from the supplemental investigation for WWT2 are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

Topsoil

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.5 to 2 feet.

Silt & Clay

A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 4 to 19 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were WOH[1] to 16, with an average value of 7. Standard Penetration Test (SPT) N-values

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[1] Weight of Hammer

suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity indices.

Sand & Gravel (till)

A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 3.5 to 16 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 6 to 56, with an average value of 28. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Weak Rock

Intermediate geomaterials, classified as weak rock, were generally composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock’s structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer varies from about 0.5 to 5 feet.

Bedrock

Bedrock was encountered at depths ranging from approximately 10 to 24 feet below existing grade, corresponding to elevations between el 369 and 385. Rock Quality Designation (RQD) values ranged from 28% to 100%, with a median value of approximately 48%. Roughly 50% of the core samples exhibited RQD values exceeding 50%, and approximately 33% were classified as good to excellent in quality, indicating that rock quality is variable but is generally ranges from fair to good. The recovered rock cores as well geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Groundwater level was measured from an observation wells installed in a completed borehole. Based on site-wide data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young’s Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Monitoring well installed by Langan recorded groundwater elevation as el 388.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the

New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing and seismic cone penetrometer (SCPT) testing obtained during the ongoing Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1J – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	S_s	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	S_1	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	S_{MS}	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	S_{M1}	0.06g	
5% damped design spectral response acceleration at short periods:	S_{DS}	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	S_{D1}	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	PGA_M	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		III	ASCE 7-22, Table 1.5-1

Description	Parameter	Recommended Value	Code Reference
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Because of the presence of relatively impermeable silt/clay deposits, groundwater will generally flow at or near existing ground surface. Measured groundwater level indicates normal groundwater in the area is within 1 to 2 feet of ground surface. For the purposes of preliminary design, we recommend a design groundwater level that is higher of (i) el 392 and (ii) bottom elevation of L10 slab.

Deep Foundation System (Drilled Piers) – Main Building

Given the anticipated axial foundation loads, we recommend supporting the building on drilled piers socketed in bedrock. The drilled piers will derive their load bearing capacity through peripheral side shear and end bearing in rock. For the purposes of preliminary design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. The following table presents axial capacities for drilled piers of various sizes along with suggested structural detailing information. Rock socket for drilled piers should be constructed entirely within competent bedrock.

Table 2J – Drilled Pier Design

Pier Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)	Concrete Strength (f'_c) (ksi)*	Longitudinal Reinf.		Transverse Reinf.**	Rock Socket Length (ft)
				Gr. 75	Gr. 60		
24	1,850	25	6	(7)-#20	(10)-#20	#4 @ 12″	16
48	5300	90	7	(14)-#18	(18)-#18	#4 @ 6″	19
	7000		8	(20)-#20	(26)-#20		27
60	5300	120	6	(21)-#9		#5 @ 6″	13
	7000			(18)-#18	(23)-#18		19

*Normal weight, self-consolidating concrete, placed by tremie **Transverse Reinforcement = ASTM A615, Grade 60

Two longitudinal reinforcement options are presented in Table 2J for each drilled pier: one assuming Grade 75 rebar will be used and one assuming Grade 60 rebar will be used. Per code, all reinforcement for drilled piers must incorporate a minimum grout/concrete cover of 2.5 inches.

In areas where bedrock is shallow, drilled piers typically will develop high internal forces (shear and bending moment) at top of rock, resulting in the potential development of a plastic hinge near the top of bedrock. Additional structural detailing near the plastic hinge will generally be needed in such cases. However, at the design loads indicated in Table 2J, the internal forces in the drilled pier are low enough that special structural detailing may not be required.

Lateral Group Pile Analysis

A reduction factor ("p-multiplier") will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. "First row" refers the leading row in the direction of lateral loading. Each subsequent row is a "trailing row" located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

Recommended geotechnical parameters for soil and bedrock for use in performing lateral pile analyses are presented below in Tables 3J and 4J, respectively.

Table 3J – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4J – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Mat Foundation with Ground Improvement – Equipment and Tanks

Utilization of a mat foundation coupled with a ground improvement program such as aggregate piers or rigid inclusions is feasible to support the equipment and tanks on the periphery of the main building. The type of ground improvement utilized will depend on the magnitude of bearing pressure exerted under the mat and soil conditions. Our preliminary analysis shows that soils improved by aggregate piers can accommodate about 5 kips per square foot (ksf) of bearing pressure. While feasible, this option requires a detailed study which may include utilization of FEM methods. As many of the ground improvement systems are proprietary, engaging specialty contractors in discussion to help evaluate ground improvement options further may be warranted.

Where utilized, the base shear can be resisted through friction between the mat slab and improved subgrade and a friction coefficient of 0.45 is considered appropriate for preliminary design purposes.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall. Live loads on top of suspended L10 slabs need not be considered as a surcharge load to generate lateral pressures.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Utility Support

We recommend that the utilities within the building footprint be located in utility chases cast within the L10 slab. For utilities that run outside the building footprint, we recommend placing the utilities within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least 1/2-inch.

ATTACHMENT K – FAB2 ADMIN

BUILDING DESCRIPTION

FAB2 Admin is an L-shaped building located immediately south of the FAB2 Probe building and north of an on-grade parking lot. Existing grades near the FAB2 Admin vary from about el 404 to 408. FAB2 Admin has a footprint of about 118,000 square feet.

We have assumed that the loading and architectural information provided by Jacobs for Phase 1 building will be applicable to the Phase 2 building. The finished ground floor elevation (L10) of the building is reported to be at el 415. Per 3D visualizations shared during project discussions, the FAB1 Admin building connects to the mezzanine level of FAB1 Probe. We assume that the phase 2 buildings are connected similarly.

Per architectural plans shared by Jacobs, the building is framed with columns typically spaced in a 32 feet by 32 feet grid. Column axial loads are expected to be about 1,100 kips without including the dead and live load of the ground floor slab. The ground floor slab is estimated to have a live load of about 105 psf. The maximum base shear in any direction is about 1,600 kips.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others. Boring logs from the supplemental investigation for FAB2 Admin are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

Topsoil

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.6 to 2 feet.

Silt & Clay

A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 17 to 38 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were 9 to 50, with an average value of 27. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity indices.

Sand & Gravel (till)

A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 1 to 12 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 50 to 116, with an average value of 83. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Weak Rock

Intermediate geomaterials, classified as weak rock, were generally composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock's structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer can be up to about 5 feet.

Bedrock

Bedrock was encountered at a depths of about 39 feet below grade, corresponding to el 365. The depth to bedrock could vary across the building footprint, as evidenced by data obtained from borings outside the building footprint. Rock Quality Designation (RQD) value was about 35% to 50%. The recovered rock cores generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to mildly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

No groundwater monitoring wells were installed within FAB1 Admin footprint. Based on data collected by Langan from other wells and field observations, the groundwater elevation is variable and is likely within 1 and 2 feet of ground surface.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing and seismic cone penetrometer (SCPT) testing obtained during the ongoing Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1K – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		III	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Because of the presence of the surficial clay/silt layer, groundwater is generally expected to be perched, with groundwater flow trending northward. For the purposes of design, we recommend a design groundwater level of el 406.

Foundation Recommendations

Shallow Foundations

We recommend that FAB2 Admin be supported on conventional spread footings bearing on a 12-inch thick layer of compacted drainage aggregate (#57 stone or similar) placed on top of medium-dense to dense silt and silty sand, which was generally found at about 4 feet below existing site grade. For the purposes of design, we recommend that shallow foundations be proportioned assuming an allowable bearing pressure of 6 kips per square foot.

Isolated spread footings should be at least 3 feet in the short direction and continuous footings should be at least 2 feet wide. Lateral loads such as base shear can be resisted through friction between the base of footings and subgrade. For the purposes of design, we recommend a friction coefficient of 0.4. Where friction is determined to be insufficient to provide the necessary lateral resistance, alternative methods such as passive soil resistance against footings or the use of shear keys can be evaluated on a case-by-case basis.

Footings abutting the FAB2 Probe should be lowered to bear at or below the bottom of the L10 slab elevation of the FAB2 Probe to avoid imposing surcharge loads on the FAB2 Probe wall. We also recommend that the link between the Probe and Admin buildings be designed to accommodate a differential settlement of ½-inch.

Slab-on-Grade Floors

The L10 floor slab can be designed as a slab-on-grade bearing on a minimum 6-inch-thick layer of compacted aggregate atop newly placed engineered fill that is required to raise grade across the building footprint. For the purposes of preliminary design, we recommend that slab-on-grade floors be designed assuming a modulus of subgrade reaction equal to 150 psi/in. Note that a slab-on-grade slab will necessitate those walls, such as the FAB2 probe building wall, that abut or in the vicinity of the slab (walls within a influence zone defined by a 45 degree line drawn from the edge of slab) be designed to resist the slab's surcharge loading (dead plus live load of the L10 slab). Alternatively, the slab can be designed as a suspended slab near walls to avoid the additional surcharge loads.

Construction Sequence

We recommend that construction sequence be evaluated to reduce the depth of excavations required to reach suitable bearing. Competent subgrade material is generally expected at depths of about 4 to 5 feet of existing grade; however, the required depth of excavation could increase to over 12 feet if site fill operations precede construction of FAB2 Admin. Generally, we expect that foundation construction of FAB2 Admin would be more efficient if fill, necessary to raise grade, is placed after the footings have been cast rather than before.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as ground anchors or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Utility Support

Utilities within and immediately adjacent to the building may be installed within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least ½-inch.

ATTACHMENT L – FAB2 PROBE

BUILDING DESCRIPTION

The PROBE2 building will be south of FAB2. PROBE2's long axis is oriented in a roughly east-west direction and the building has with a footprint of about 183,000 square feet. The finished ground floor elevation (L10) of the building is reported to be at el 400.67. The building floor plate is reported to be relatively flat with occasional depressions for elevator pits and utilities.

We have assumed that the loading and architectural information provided by Jacobs for Phase 1 building will be applicable to the Phase 2 building. Column axial loads were reported to be 2,700 kips (excluding the L10 level dead and live loads) on columns spaced in a 32 feet x 24 feet grid. The average L10 floor load, after accounting for a 36-inch-thick L10 slab and an average live load of 250 psf, is about 700 psf. If the L10 slab is designed to span between columns and not rely on soil support, the service column loads will be about 3,250 kips. For lateral loading, Jacobs has indicated that the building will be split into two zones. Between wind and seismic forces, the base shear for the western segment of the building varies between 900 and 1,425 kips whereas the base shear for the eastern segment of the building varies between 1,160 and 3,415 kips. Assuming that the base shear is spread evenly across all columns, the average lateral force per column is expected to be about 17 kips per column.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others. Boring logs from the supplemental investigation for FAB2 Probe are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till), which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

Topsoil

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.5 to 1.5 feet.

Silt & Clay

A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 11 to 42 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were 3 to 50, with an average value of 27. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity indices.

Sand & Gravel (till)

A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 1.7 to 11.7 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 12 to 50, with an average value of 42. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Bedrock

Based on the available data from one boring, the bedrock was encountered at about 52 feet below grade corresponds to an elevation of el 354. Rock Quality Designation (RQD) values ranged from 11% to 98%. The recovered rock cores as well geophysical logging of select boreholes generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to highly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young's Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Monitoring wells installed by CME/Ramboll recorded groundwater elevation of about el 406.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing, seismic cone penetrometer (SCPT) testing, and seismic refraction testing performed during the Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1L – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.3
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	$\mathbf{S_s}$	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	$\mathbf{S_1}$	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	$\mathbf{S_{MS}}$	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	$\mathbf{S_{M1}}$	0.06g	
5% damped design spectral response acceleration at short periods:	$\mathbf{S_{DS}}$	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	$\mathbf{S_{D1}}$	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	$\mathbf{PGA_M}$	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		IV	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool. **https://ascehazardtool.org/**			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Because of the presence of relatively impermeable silt/clay deposits, groundwater will generally flow at or near existing ground surface. Measured groundwater levels within borings indicate normal groundwater in the area is within 1 to 2 feet of ground surface. For the purposes of preliminary design, we recommend a design groundwater level that is higher of (i) el 406 and (ii) bottom elevation of L10 slab.

Foundation Recommendations

Option 1 – Deep Foundation System (Drilled Piers)

The anticipated axial column loads for PROBE2 is about 2,700 to 3,250 kips, depending on whether the L10 slab is designed to span between columns or not. The anticipated average lateral load per column is about 17 kips. These column loads can be supported by drilled piers socketed in bedrock. The drilled piers will derive their load bearing capacity through peripheral side shear and end bearing in rock. For the purpose of design, we recommend using a basic allowable end-bearing of 80 ksf plus an increase for embedment equal to 5 percent per foot up to 50 percent of the basic value and an allowable side shear of 100 psi. The allowable side shear assumes that the contractor will not use bentonite or polymer slurry during drilling. The end-bearing value provided requires proper cleaning of the socket bottom to ensure a clean and stable interface between pier concrete and rock. In addition to the building service load, the drilled piers should also be designed to sustain drag loads caused by the soft/loose soils. We recommend using an ultimate side shear of 1.5 psi for estimating drag loads. A table summarizing the drilled pier design is presented below. Rock socket for drilled piers should be constructed entirely within competent bedrock.

Table 2L – Deep Foundation Design

Element Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)	Concrete Strength (f'c) (ksi)[1]	Longitudinal Reinf.[2]	Transverse Reinf.[3]	Rock Socket Length (ft)[4]
39	2700	50	7	(11)-#8/ (15)-#8[2]	#3 @ 12″	12
48	3250	90	5.5	(12)-#9/ (15)-#9 [2]	#4 @ 6″	10

[1] Normal weight, self-consolidating concrete, placed by tremie

[2] Longitudinal Reinforcement = ASTM A615, Grade 75/ Grade 60

[3] Transverse Reinforcement = ASTM A615, Grade 60

[4] N/A indicates that the deep foundation is an end-bearing CFA

Option 2 – Shallow Foundation (Mat Foundation)

Based on the anticipated column loads and L10 floor loads, the average bearing pressure under a mat foundation encompassing the entire building footprint is estimated to be about 4.2 kips per square foot (ksf). Soils at the bearing elevation of the L10 slab are generally comprised of very stiff or medium dense to dense silts and glacial till. With modest over-excavation and appropriate subgrade preparation, soils below the probe building can provide allowable bearing pressures of up to 12 ksf. Although this option is considered viable, a detailed study is necessary to establish the magnitude and distribution of subgrade moduli for use in structural design of the mat. This would entail performing Finite Element Methods (FEM) analyses to model the subsurface conditions and foundation geometry and structural loading in order to establish appropriate estimates of the subgrade response. We note that to perform such analyses, we would need detailed loading from the structural engineer. The establishment and distribution of subgrade moduli is often an iterative process to obtain reasonable convergence of settlement distributions between the structural and geotechnical models.

Where utilizing a mat foundation, the base shear can be resisted through friction between the mat and underlying soil subgrade. For the purpose of design, we recommend a friction coefficient of 0.45. Note, we expect that the mat foundation option would require placement of aggregate fill to ensure that the subgrade is suitably protected from the effects of construction traffic.

Option 3 – Hybrid Foundation (Drilled Piers and Slab-on-Grade)

An alternative to Options 1 and 2 is to utilize a hybrid approach where the columns are supported on drilled piers while the L10 slab functions as a slab-on-grade supported on the soil subgrade. The anticipated average total dead and live load of the L10 slab is about 700 psf, which is less than the allowable bearing pressure for soils at the anticipated bottom of slab elevation. The main concern with such an approach is to ensure displacement compatibility between the columns and the slab or to permit the slab to move independently of the columns to avoid potential cracking of the slab near columns. For the purpose of preliminary design, a slab-on-grade supported on aggregate fill placed atop a suitably compacted subgrade may be designed assuming a modulus of subgrade reaction equal to 200 psi/inch.

Lateral Group Pile Analysis

A reduction factor (“p-multiplier”) will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. “First row” refers the leading row in the direction of lateral loading. Each subsequent row is a “trailing row” located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

Recommended geotechnical parameters for soil and bedrock for use in performing lateral pile analyses are presented below in Tables 3L and 4L, respectively.

Table 3L – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4L– LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Index Piles and Load Testing

We recommend installing at least 2% of drilled piers as index piles prior to starting production piles. The index piles should be spread across the building footprint to capture the variability in subsurface conditions. If the contractor elects to install the drill piers without the use of a casing, caliper logging should be performed to measure the diameter and shape of the drilled pier borehole. Regardless, all index piles must be tested using cross-hole sonic logging to evaluate the structural integrity of the pile.

The recommended compression and lateral capacities must be proven using instrumented load tests. Because of the high compression loads, a traditional top-down load test is likely not feasible or economical. We recommend performing the axial load tests using a bi-directional static load testing method using an embedded jack such as an Osterberg Cell. We recommend implementing an early test pile program, preferably before the building design is finalized and issued for construction, to optimize design parameters for side shear and end-bearing. At a minimum, at least one percent of drilled piers should be load tested in axial and lateral. Additional load tests may be warranted if multiple pile diameters are being implemented and pending initial load test results.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall. Live loads on top of suspended L10 slabs need not be considered as a surcharge load to generate lateral pressures.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as deep foundations or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Utility Support

We recommend that the utilities within the building footprint be located in utility chases cast within the L10 slab. For utilities that run outside the building footprint, we recommend placing the utilities within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least 1/2-inch.

ATTACHMENT M – FAB2 GARAGE

BUILDING DESCRIPTION

The Phase 2 parking garage building (FAB2 Garage) is south of FAB2 and CUB2 buildings, east of the PROBE2 building, and north of SMP-09. The building is situated within the southern portion of the campus. Existing grades near the FAB2 Garage vary from about el 400 to 405.

FAB2 Garage has a footprint of about 174,000 square feet. The finished ground floor elevation (L10) of the building is assumed to be at el 400.67 based on review of the proposed grading pans provided by Jacobs. We have assumed that the loading and architectural information provided by Jacobs for Phase 1 building will be applicable to the Phase 2 building. Per the latest architectural plans shared with Langan, the building load is shared by a grid of columns and load bearing walls. The columns are generally spaced in a 61 feet x 36 feet grid with bearing walls spaced in a 60-foot grid. Column axial loads are expected to be about 1,200 kips (excluding L10 slab dead and live load) and bearing wall loads are expected to be about 60 kips per linear foot of wall. The maximum base shear of the building in any direction is about 750 kips.

SUBSURFACE CONDITIONS

The findings from Langan's supplemental geotechnical investigation are consistent with historic geotechnical data reported by others. Boring logs from the supplemental investigation for FAB2 Garage are presented in Appendix A and groundwater observation well logs are presented in Appendix B.

General Soil Stratigraphy

The general stratigraphy consists of topsoil overlying a deposit of silts and clays, underlain and/or interbedded by a layer of sand and gravel (till). Beneath the sand and gravel stratum lies a layer of weak rock (decomposed) which is ultimately underlain by competent bedrock. Descriptions of each subsurface stratum are given below in order of increasing depth below grade.

Topsoil

The surficial layer comprises topsoil, typically consisting of silt or clay with varying proportions of fine to medium sand, fine gravel, and organic matter (e.g., roots and decomposed vegetation). The thickness of this layer ranges from approximately 0.8 to 2 feet.

Silt & Clay

A fine-grained soil layer, composed primarily of silt and clay—was the most extensively encountered unit across the site. This layer varies in thickness from approximately 10 to 40 feet. Based on the Unified Soil Classification System (USCS), the soils are described as non-plastic to slightly plastic silt (ML), clayey silt (ML-CL), silty clay (CL-ML), and clay (CL). SPT N-values in this layer were 4 to 50, with an average value of 24. Standard Penetration Test (SPT) N-values suggest that this layer is generally soft to medium stiff, with occasional stiff zones observed at various depths. Atterberg limit tests performed on soil samples obtained from this layer showed that most of the soil (70%) is non-plastic while the remaining soils exhibiting low plasticity indices.

Sand & Gravel (till)

A granular layer, interpreted as glacial till, was encountered beneath the silt and clay in most borings. In some cases, this layer was observed to be interbedded within the finer-grained soils. The material consists primarily of sand with varying amounts of gravel, silt, and clay, and ranges in thickness from approximately 4 to 35 feet. The soils are typically described as poorly graded sand or gravel with variable fines content and are classified under the USCS as SP-SM, SP-SC, SM, SC, GP-GM, GP-GC, GM, or GC. SPT N-values in this layer were 3 to 95, with an average value of 30. SPT N-values indicate that the layer is generally medium dense to dense, although localized pockets of loose material were encountered.

Weak Rock

Intermediate geomaterials, classified as weak rock, were composed of materials that are easily penetrated with a roller bit during drilling but cannot be recovered intact using a standard rock core barrel. When sampled using a split-spoon sampler, this layer typically resulted in refusal, confirming a very dense, compact material. Although samples retrieved by split-spoon exhibited features indicative of the parent rock's structure, the material readily disintegrated under manual pressure. Based on field observations of recovered samples and drilling behavior, the thickness of the weak rock layer can be up to 5 feet in thickness.

Bedrock

Bedrock was encountered at depths ranging from approximately 25 to 65 feet below existing grade, corresponding to elevations between el 337 and 377. Rock Quality Designation (RQD) values ranged from 0% to 73%. The rock quality is variable but generally ranges from poor to fair. The recovered rock cores generally indicates that the predominant discontinuity set is sub horizontal and aligns with the depositional bedding plane. The rock was observed to be non-reactive to mildly reactive when exposed to dilute hydrochloric acid. No evidence of karstic features was observed during the investigation.

Groundwater

Based on data collected by Langan and field observations, the groundwater elevation is variable, and flow generally trends northwest toward Young's Creek. In general, the groundwater surface appears to be influenced by precipitation, surface and bedrock topography, and surficial geology. Monitoring wells installed by CME/Ramboll recorded groundwater elevation of about el 400.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing, seismic cone penetrometer (SCPT) testing, and seismic refraction testing performed during the Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1M – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.2
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	**S_s**	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	**S_1**	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	**S_{MS}**	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	**S_{M1}**	0.06g	
5% damped design spectral response acceleration at short periods:	**S_{DS}**	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	**S_{D1}**	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	**PGA_M**	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		II	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool.			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Design Groundwater Elevation

Groundwater level was measured at about el 400. This elevation is subject to seasonal variations due to precipitation. Once the site is backfilled to final grade using material that is relatively free-draining compared to existing near-surface site soils, groundwater will begin freely draining towards Young's Creek and towards the various SMPs/detention pods spread throughout the site, and will generally not rise higher than the groundwater levels measured from the monitoring wells. However, due to possible groundwater mounding around below-grade walls that will serve as barriers for groundwater flow, we recommend a design groundwater level that is higher of (i) el 400 and (ii) bottom elevation of L10 slab.

Foundation Recommendations

Shallow Foundations

We recommend that FAB1 Garage be supported on conventional spread footings or mat foundations bearing on engineered fill. For the purposes of design, we recommend that shallow foundations be proportioned assuming an allowable bearing pressure of 6 kips per square foot.

Isolated spread footings should be at least 3 feet in the short direction and continuous footings should be at least 2 feet wide. Lateral loads such as base shear can be resisted through friction between the base of footings and subgrade. For the purpose of design, we recommend a friction coefficient of 0.4 for footings cast atop engineered fill. Where friction is determined to be insufficient to provide the necessary lateral resistance, alternative methods such as passive soil resistance, or the use of ground anchors can be evaluated on a case-by-case basis.

Slab-on-Grade Floors

The L10 floor slab can be designed as a slab-on-grade bearing on a minimum 6-inch-thick layer of compacted aggregate atop newly placed engineered fill that is required to raise grade across the building footprint. For the purposes of design, we recommend that slab-on-grade floors be designed assuming a modulus of subgrade reaction equal to 150 psi/in.

Permanent Groundwater Control

We recommend that all slabs, pits, and foundation walls be designed to resist the full hydrostatic pressure resulting from the design groundwater elevation indicated herein. Such elements should be fully waterproofed to address groundwater control. Any slabs located below the design groundwater elevation should be designed as pressure slabs capable of spanning between resisting elements such as ground anchors or load bearing walls and should be keyed into the associated foundation walls. Integral waterstops should be provided to prevent seepage at all cold joints.

Foundation Waterproofing

We recommend waterproofing foundation walls and pits and below-grade slabs with a fully bonded membrane type waterproofing system such as those manufactured by GCP Applied Technologies (formerly Grace Construction Products), Carlisle Coatings and Waterproofing, Henry (a Carlisle Company), and Sika. As a redundant measure, critical structures located below the design groundwater elevation may also utilize waterproofing concrete admixtures such as those manufactured by Kryton International, Inc. or Hycrete. The use of bentonite waterproofing or negative side crystalline waterproofing as a primary waterproofing system is not recommended.

Waterstops should be provided at all cold joints. In addition, we recommend that post-grouting injection tubes such as those by Sika be considered at cold joints of all critical structures. We note that use of post-grouting tubes requires significant coordination and protection measures as the permissible length of runs is relatively limited (typically about 25 feet) and such tubes must daylight or be housed in access panels on the interior faces of the structure to facilitate injection of remedial grouts.

We recommend installing horizontally applied waterproofing membranes on a minimum 3-inch-thick lean concrete mud slab placed over an approved subgrade to provide a smooth, uniform application surface. Vertically applied waterproofing membranes should extend up to grade. Substrate preparation should be as per the manufacturer's recommendation.

Please note that the systems recommended herein assume that the concrete will be cast-in-place. Alternative systems would need to be considered where structures utilize alternative construction methods such as shotcrete. Selection and final design of any waterproofing system is the responsibility of the building envelope consultant and is outside of the scope of this study.

Lateral Earth Pressures

Permanent below-grade walls and pits should be designed to resist static earth pressures, hydrostatic pressures, and foundation and surface surcharge loading. We recommend that such walls be designed assuming an equivalent fluid weight of 60 psf/ft above the design groundwater level (see design groundwater elevation section) and 90 psf/ft below design groundwater level. Lateral pressures from surcharge loads and slabs on grade should be added as a uniform soil pressure equal to one-half the vertical pressure applied over the wall.

Utility Support

Utilities within and immediately adjacent to the building may be installed within engineered fill compacted to at least 95% of its maximum dry density as outlined in an earlier section of this report.

All utilities sensitive to movement should be buried below the frost line. Where utility transition from the buildings to on-grade support, flexible connections should be provided that are capable of accommodating differential movements of at least ½-inch.

ATTACHMENT N – TRESTLES

STRUCTURE DESCRIPTION

Several trestles were identified in the proposed site conveyance plan provided by Jacobs. These trestles are spread across the site with the westernmost trestle west of the Wastewater Treatment (WWT).

The maximum compression and tension pile demands reported by Jacobs are about 1,700 kips and 120 kips, respectively. The maximum lateral load per pedestal is about 120 kips.

SEISMIC EVALUATION AND DESIGN PARAMETERS

Based on recent discussions with the project team, we understand that the development has been approved by code officials to be designed assuming adoption of the pending update of the New York State Building Code which references ASCE 7-22. As such, our seismic evaluation was completed in accordance with ASCE 7-22. The seismic site class was evaluated using a combination of the historic shear wave velocity data reported by CME and the shear wave velocities recorded from cross-hole seismic testing, seismic cone penetrometer (SCPT) testing, and seismic refraction testing performed during the Langan geotechnical investigation. We performed a liquefaction susceptibility analysis following the 2008 Idriss & Boulanger method using a peak ground acceleration of 0.083g. Our analysis showed that the subsurface soils within the building's footprint has sufficient factor of safety against liquefaction.

Table 1N – Seismic Design Parameters (ASCE 7-22)

Description	Parameter	Recommended Value	Code Reference
Site classification for seismic design	**Very Dense Soil and Soft Rock**	C	ASCE 7-22, Section 20.2
5% Damped, spectral response acceleration at a period of 0.2 sec for Site Class BC	$\mathbf{S_s}$	0.17g	ASCE 7-22, Section 11.4***
5% Damped, spectral response acceleration at a period of 1 sec for Site Class BC	$\mathbf{S_1}$	0.046g	
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at short periods adjusted for site class effects	$\mathbf{S_{MS}}$	0.18g	ASCE 7-22, Chapter 22***
Risk Target Maximum Considered Earthquake (MCE_R), 5% damped, spectral response acceleration at a period of 1-sec adjusted for site class effects	$\mathbf{S_{M1}}$	0.06g	

Description	Parameter	Recommended Value	Code Reference
5% damped design spectral response acceleration at short periods:	S_{DS}	0.12g	ASCE 7-22, Section 11.4***
5% damped design spectral response acceleration at 1 sec period:	S_{D1}	0.04g	
Mapped Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration adjusted for site effects	PGA_M	0.083g	ASCE 7-22, Chapter 22***
Risk Category (as reported by Jacobs)		IV	ASCE 7-22, Table 1.5-1
Seismic Design Category	**SDC**	A	ASCE 7-22, Section 11.6
***All values presented herein determined using the ASCE Hazard Tool.			

GEOTECHNICAL DESIGN RECOMMENDATIONS

Foundation Recommendations

Option 1 – Drilled Piers

Given the anticipated axial and lateral loads, we recommend supporting the trestles on drilled piers socketed in bedrock. Drilled pier design recommendation is summarized in the table below. The selection of the drilled pier foundation is primarily based on the lateral load demand. A single drilled pier can provide a lateral capacity of 90 kips under a free head condition without any special rebar detailing even in cases where rock is shallow and the piers may exhibit a "short column effect". Based on the reported pedestal compression and lateral loads, two to four drilled piers will be sufficient to support a single pier cap.

Option 2 – Micropiles

An alternative to drilled pier foundation could be micropiles. Micropiles derive their load bearing capacity similar to a drilled pier but they are generally installed with a permanent steel casing. The table in the next section provides axial and lateral capacities that can be achieved in a typical 14-inch-diameter micropile. Where the lateral demands are less, typically in areas either shielded from wind activity or in areas where the trestles/links are tied to the building, micropiles can be an effective solution. They can be installed at a faster rate and are typically cheaper compared to a drilled pier element. Unlike drilled piers, micropiles can also be embedded deep into the pile cap to provide fixity, which will significantly improve the lateral load bearing capacity of the element. Lateral capacities in both free and fixed head conditions are provided in the table below. Note that in areas where the bedrock is shallow, in order to alleviate concerns with the development of a plastic hinge, we recommend embedding the steel casing at least 5 feet into bedrock. In such a situation, the design rock socket length will begin from the bottom of casing. Depending on the number and spacing of micropiles, group effects for lateral loading will need to be evaluated.

Table 2N – Deep Foundation Design

Pier/ Pile ID	Element Diameter (inches)	Estimated Compression Capacity (kips)	Estimated Lateral Capacity (kips)[4]	Concrete Strength [f′c] (ksi)[1]	Long. Reinf.[2]	Trans. Reinf.[3]	Rock Socket Length (ft)	Uplift Capacity (kips)
A	39	1700	50	5	(11)-#8	#3 @ 12″	4	N/A
B	39	2700	50	7	(11)-#8	#3 @ 12″	12	200
C	48	3600	90	6	(15)-#9	#4 @ 6″	12	360
D	48	1700	90	5	(12)-#8	#4 @ 6″	4	N/A
E	14″x0.5″	650	14/33[4]	7	(1)-#28[2,5] (2)-#14[2,5]	N/A	14	200

[1] Normal weight, self-consolidating concrete, placed by tremie

[2] Longitudinal Reinforcement = ASTM A615 Grade 75

[3] Transverse Reinforcement = ASTM A615, Grade 60

[4] Lateral capacity for both free head/fixed head condition

[5] The #28 bar to be provided for the entire micropile length and the #14 bars will only be provided in the socket and for a development length of 5 feet above the socket.

Note that in order to achieve full fixity in the pile cap, the cap must be reinforced sufficiently to resolve the shear and peak bending moment of the pile. For a service condition that limits deflection to 3/8″, we estimate that the micropiles would likely see an unfactored shear of 33 kips and an unfactored moment of 2,100 kip-in. Typically, embedding the casing 2 pile diameters into the pile cap can be conservatively assumed to provide fixity.

The lateral loads can also be resisted by passive pressure acting against the pier cap. For design, we recommend using a passive resistance equal to 90 psf/ft for soils below the groundwater and 180 psf/ft for soils above the groundwater table. The passive resistance should be ignored within the frost depth (4 feet), which will result in a trapezoidal distribution starting at a depth of 4 feet.

Lateral Capacity Multipliers for Pile Groups – General Recommendation

A reduction factor (“p-multiplier”) will apply to piles in pile groups that resist lateral forces. For piles spaced at 2D center-to-center, where D is the diameter of the piles, the p-multiplier for the first, second, third, fourth and subsequent rows are recommended to be 0.75, 0.55, 0.45, 0.35, respectively. “First row” refers the leading row in the direction of lateral loading. Each subsequent row is a “trailing row” located behind the leading row. There is no reduction required when piles are spaced 6D or more on center. For intermediate pile spacings, linear interpolation between the p-multiplier values at 2D spacing and 6D spacing can be used. Where dissimilar pile sizes are being considered, the required spacing should be based on diameter of the largest pile in the group when estimating the p-multiplier.

Lpile Parameters

Recommended geotechnical parameters for soil and bedrock for use in performing lateral pile analyses are presented below in Tables 3N and 4N, respectively.

Table 3N – LPile Soil Parameters

Soil	Model	Effective Unit Weight (pcf)	Friction Angle (deg)	Default k (pci)
New backfill above GWT	Reese	125	36	225
New backfill below GWT		62.6	36	125
Native loose silt/sand above GWT	API Sand	110	29	25
Native loose silt/sand below GWT		47.6	29	20
Native medium-dense sand/silt above GWT	Reese	125	33	90
Native medium-dense sand/silt below GWT		62.6	33	60
Dense Till below GWT	Reese	67.6	38	175

Table 4N – LPile Rock Parameters

Bedrock Designation	Model	Effective Unit Weight (pcf)	Strain Factor	Uniaxial Compressive Strength (psi)	Initial Modulus or Rock Mass (psi)	RQD (%)
Weak Rock	Weak Rock (Reese)	72.6	0.0005	500	2,500	0
Strong Rock	Vuggy Limestone	87.6	-	2,500	-	-

Lateral Group Pile Analysis

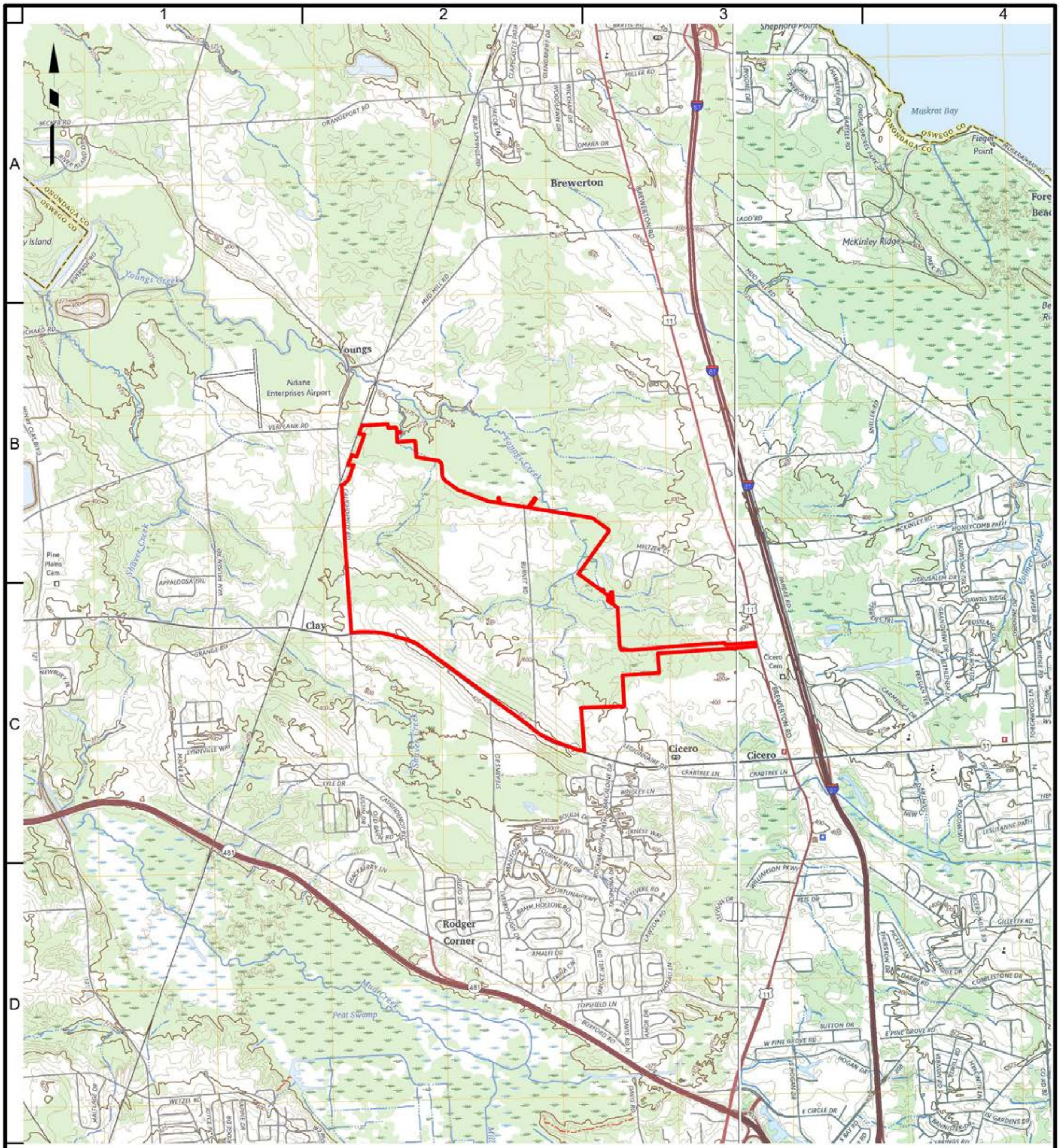
Upon Jacobs' request, we performed lateral analyses for four different 39- and 48-inch pier groups using the commercially available software GROUP by Ensoft. GROUP allows for modeling pile caps along with pile groups and includes provisions to account for soil resistance against pile caps in evaluating the pile group's lateral response. The pier cap dimension and pier locations were provided by Jacobs: 8 feet by 22 feet cap for the two-pier configuration and 16 feet by 22 feet cap for the four-pier configuration. We performed the analyses using the subsurface stratigraphy from boring B-604. Summary of analyses results are provided in Table 4N below. Note that the results are specific to the pier configuration and stratigraphy used. The lateral response and internal forces/moments will change for other pier configurations and stratigraphy.

To identify potential situations where a revision to the recommended pier designs will be necessary, we performed moment interaction checks of the pier configurations in Table 2N considering the peak 1,700 kip axial load provided by Jacobs for the piers and the moments established via the GROUP analyses (conservatively factored by 1.6). We note that the Pier A fell outside the interaction diagram's envelope for the unfactored moment equal to 11,500 kip-in. Jacobs' will need to perform an independent moment interaction check for the final pier designs to verify capacity is achieved for a given pier and loading configuration (including situations for pure bending and tension).

Table 5N – GROUP Analyses Results

Pier Diameter (in)	Pier cap	Axis	Allowable Lateral per Pedestal (kips)	Max. Moment (kip.in)	Max. Deflection (in)
48	2x1	Strong	40	3,400	0.04
			60	5,500	0.06
			80	6,500	0.08
			120	8,000	0.15
		Weak	40	7,500	0.27
			60	11,500	0.45
			80	15,000	0.62
	2x2	Strong	40	1,900	0.022
			60	2,900	0.034
			80	3,800	0.045
			120	5,500	0.07
		Weak	40	1,400	0.029
			60	2,100	0.043
			80	2,800	0.06
			120	4,250	0.09
39	2x1	Strong	40	2,800	0.05
			60	3,700	0.09
			80	4,200	0.13
			120	6,000	0.22
		Weak	40	7,500	0.4
			60	11,500	0.64
	2x2	Strong	40	1,550	0.03
			60	2,300	0.05
			80	3,000	0.06
			120	3,800	0.11
		Weak	40	1,200	0.04
			60	1,800	0.06
			80	2,400	0.08
			120	3,600	0.115

FIGURES



LEGEND

▭ APPROXIMATE SITE BOUNDARY

4,000 0 4,000

SCALE IN FEET

NOTES:

1. BASEMAP ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, BREWERTON AND CICERO, NEW YORK, QUADRANGLES.

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Langan International LLC
Collectively known as Langan

Project
MICRON NEW YORK MANUFACTURING FACILITY
TOWN OF CLAY
ONONDAGA COUNTY NEW YORK

Drawing Title
SITE LOCATION MAP

Project No. 170883801	Figure No.
Date 07/25/2025	1
Scale 1"=4,000'	
Drawn By MG	
Submission Date 07/25/2025	Sheet 1 of 9

Path: \\langan.com\data\NYC\data8\170883801\Project Data\ArcGIS\APRX\170883801\170883801.aprx Date: 2/20/2025 User: mgeorgalas Time: 2:31 PM

GENERAL NOTES:

1. EXISTING SITE GRADING BACKGROUND PLAN FROM DRAWING TITLED "#WPCCC-AAA00-100-EM-JAC" PROVIDED BY MICRON ON 12 DECEMBER 2024.
2. EXISTING SITE BACKGROUND PLAN FROM DRAWING TITLED "#WPCC0-AAA-00-100-EM-JAC" PROVIDED BY MICRON ON 12 DECEMBER 2024.
3. LANGAN SITE DEVELOPMENT LAYOUT PLAN REFERENCED FROM DRAWING TITLED "#WPCC0-AAA-00-100-DM-JAC" BY JACOBS DATED 12 MAY 2025.
4. LANGAN PHASE 1 SITE DEVELOPMENT PLAN INCLUDING TEMPORARY ROAD LAYOUT REFERENCED FROM DRAWING TITLED "DE_F20_000_SIT_B000_C0_CIVL_ZZZ_00_JAC" BY JACOBS, DATED 29 JANUARY 2025.
5. EXISITING WETLANDS INFORMATION SHOWN ON THIS PLAN AS DELINEATED BY RAMBOLL ON 09 AUGUST 2023 AND 21 JUNE 2024.
6. ALL ELEVATIONS SHOWN HEREIN ARE WITH RESPECT TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, GEOID18 (NAVD88/18).
7. ALL LOCATIONS, FOOTPRINTS, BOUNDARIES AND AREAS SHOULD BE CONSIDERED APPROXIMATE.

LEGEND:

- NYSDEC/USACE WETLANDS
- USACE WETLANDS
- EXISTING UTILITY EASEMENT
- DELINEATED STREAMS
- 100-FT NYSDEC ADJACENT AREA
- APPROXIMATE LIMITS FOR LANGAN PHASE 1A DEVELOPMENT
- APPROXIMATE LIMITS FOR LANGAN PHASE 1B DEVELOPMENT
- APPROXIMATE LIMITS FOR LANGAN PHASE 2 DEVELOPMENT
- APPROXIMATE LIMITS FOR LANGAN PHASE 3 DEVELOPMENT
- APPROXIMATE LIMITS FOR LANGAN PHASE 4 DEVELOPMENT
- APPROXIMATE LIMITS FOR LANGAN TEMPORARY ACCESS ROAD
- APPROXIMATE LIMITS FOR LANGAN PHASE 1 FAB BUILDING
- APPROXIMATE LIMITS FOR LANGAN PHASE 2 FAB BUILDING
- APPROXIMATE LIMITS FOR LANGAN PHASE 3 FAB BUILDING
- APPROXIMATE LIMITS FOR LANGAN PHASE 4 FAB BUILDING
- APPROXIMATE LIMITS FOR LANGAN SITE BOUNDARY

LANGAN PROJECT NO.: 170883801

Date	Description	No.
Revisions		

LANGAN

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Project
MICRON NEW YORK
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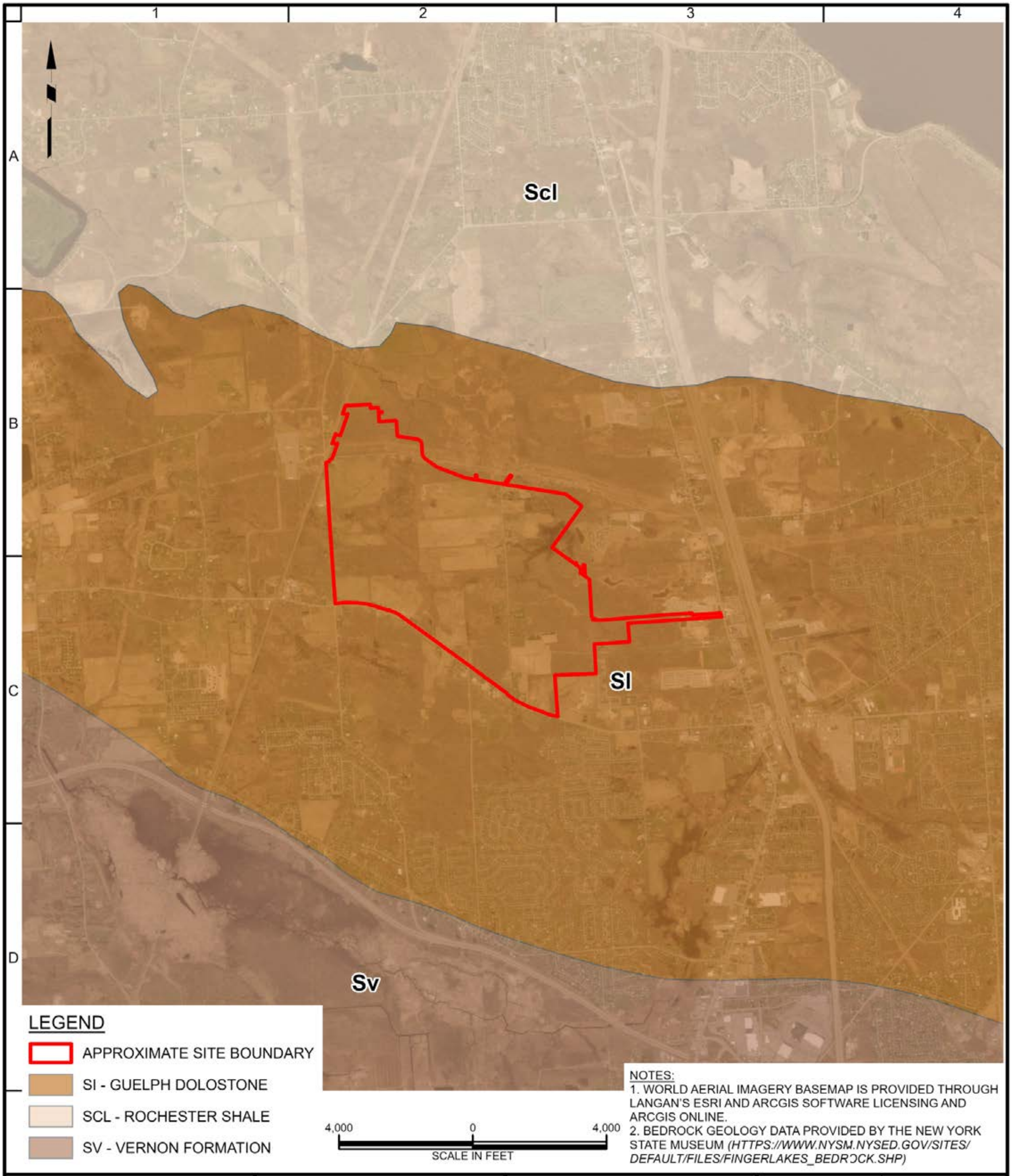
ONONDAGA COUNTY NEW YORK

Drawing Title
PROPOSED SITE
LAYOUT PLAN

Project No.
170883801
Date
07/24/2025
Drawn By
AG
Checked By
AJC/ SS

Figure
2
Sheet 2 of 8

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.



NOTES:
1. WORLD AERIAL IMAGERY BASEMAP IS PROVIDED THROUGH LANGAN'S ESRI AND ARCGIS SOFTWARE LICENSING AND ARCGIS ONLINE.
2. BEDROCK GEOLOGY DATA PROVIDED BY THE NEW YORK STATE MUSEUM *(HTTPS://WWW.NYSM.NYSED.GOV/SITES/DEFAULT/FILES/FINGERLAKES_BEDROCK.SHP)*

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Project
MICRON NEW YORK MANUFACTURING FACILITY
TOWN OF CLAY
ONONDAGA COUNTY
NEW YORK

Drawing Title
BEDROCK GEOLOGY MAP

Project No. 170883801
Date 07/25/2025
Scale 1"=4,000'
Drawn By MG
Submission Date 07/25/2025
Figure No. 3
Sheet 3 of 9

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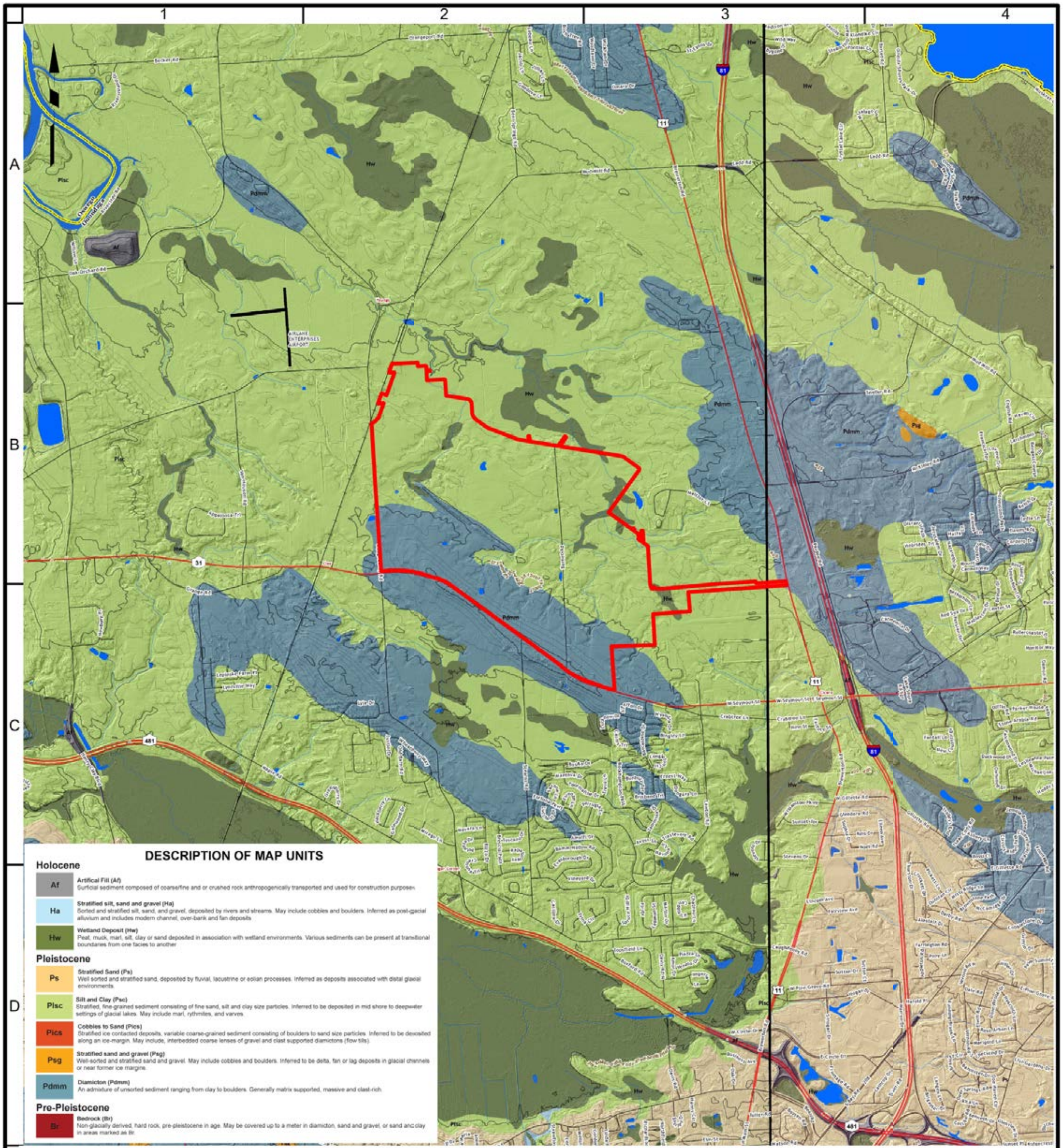

DESCRIPTION OF MAP UNITS

Holocene

Af	**Artifical Fill (Af)** Surficial sediment composed of coarse/fine and or crushed rock anthropogenically transported and used for construction purposes
Ha	**Stratified silt, sand and gravel (Ha)** Sorted and stratified silt, sand, and gravel, deposited by rivers and streams. May include cobbles and boulders. Inferred as post-gacial alluvium and includes modern channel, over-bank and fan deposits
Hw	**Wetland Deposit (Hw)** Peat, muck, marl, silt, clay or sand deposited in association with wetland environments. Various sediments can be present at transitional boundaries from one facies to another

Pleistocene

Ps	**Stratified Sand (Ps)** Well sorted and stratified sand, deposited by fluvial, lacustrine or eolian processes. Inferred as deposits associated with distal glacial environments
Plsc	**Silt and Clay (Psc)** Stratified, fine-grained sediment consisting of fine sand, silt and clay size particles. Inferred to be deposited in mid shore to deepwater settings of glacial lakes. May include marl, rythmites, and varves
Pics	**Cobbles to Sand (Pics)** Stratified ice contacted deposits, variable coarse-grained sediment consisting of boulders to sand size particles. Inferred to be deposited along an ice-margin. May include, interbedded coarse lenses of gravel and clast supported diamictons (flow tills).
Psg	**Stratified sand and gravel (Psg)** Well-sorted and stratified sand and gravel. May include cobbles and boulders. Inferred to be delta, fan or lag deposits in glacial channels or near former ice margins
Pdmm	**Diamicton (Pdmm)** An admixture of unsorted sediment ranging from clay to boulders. Generally matrix supported, massive and clast-rich

Pre-Pleistocene

Br	**Bedrock (Br)** Non-glacially derived, hard rock, pre-pleistocene in age. May be covered up to a meter in diamicton, sand and gravel, or sand anc clay in areas marked as Br.

LEGEND

🟥 APPROXIMATE SITE BOUNDARY

4,000 0 4,000
SCALE IN FEET

NOTES:

1. BASEMAP TAKEN FROM "SURFICIAL GEOLOGY OF THE BREWERTON 7.5-MINUTE QUADRANGLE, ONONDAGA AND OSWEGO COUNTIES, NEW YORK", PREPARED BY BRIAN C. BIRD, DONALD L. PAIR, AND KARL J. BACKHAUS. DATED 2021.

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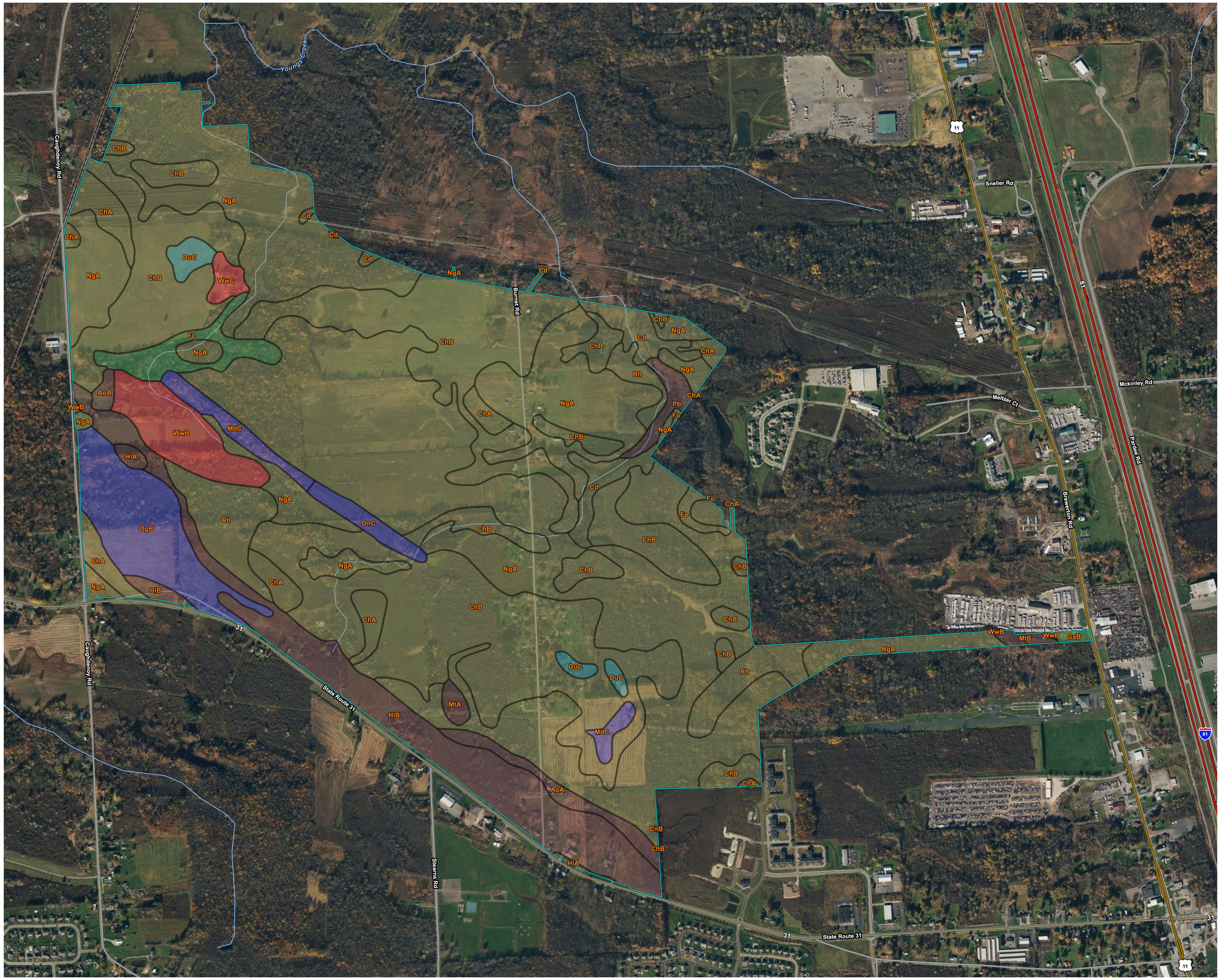
Drawing Title
SURFICIAL GEOLOGY MAP

Project No.	170883801
Date	07/25/2025
Scale	1"=4,000'
Drawn By	MG
Submission Date	07/25/2025
Figure No.	4
	Sheet 4 of 9



LEGEND:

Area of Interest (AOI)

☐ Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

HYDROLOGIC SOIL GROUP:

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AoA	Appleton loam, 0 to 3 percent slopes	B/D	11.5	1.1%
Cd	Canandaigua mucky silt loam	C/D	16.9	1.7%
ChA	Collamer silt loam, 0 to 2 percent slopes	C/D	28.4	2.8%
ChB	Collamer silt loam, 2 to 6 percent slopes	C/D	291.6	28.6%
DuC	Dunkirk silt loam, rolling	C	7.4	0.7%
FL	Fluvaquents, frequently flooded	A/D	14.3	1.4%
Fo	Fonda mucky silty clay loam	C/D	2.8	0.3%
GaB	Galen very fine sandy loam, 2 to 6 percent slopes	A/D	1.1	0.1%
HlA	Hilton loam, 0 to 3 percent slopes	B/D	2.2	0.2%
HlB	Hilton loam, 3 to 8 percent slopes	B/D	71.8	7.0%
MdC	Madrid fine sandy loam, 8 to 15 percent slopes	B	11.5	1.1%
MtA	Minoa fine sandy loam, 0 to 2 percent slopes	B/D	2.6	0.3%
MtB	Minoa fine sandy loam, 2 to 6 percent slopes	B/D	1.9	0.2%
NgA	Niagara silt loam, 0 to 4 percent slopes	C/D	436.9	42.8%
OgB	Ontario loam, 3 to 8 percent slopes	B	40.2	3.9%
OnC	Ontario gravelly loam, 8 to 15 percent slopes	B	6.7	0.7%
Pb	Palms muck	B/D	5.8	0.6%
Rh	Rhinebeck silt loam	C/D	38.4	3.8%
WwB	Williamson silt loam, 2 to 6 percent slopes	D	23.9	2.3%
WwC	Williamson silt loam, rolling	D	3.9	0.4%
Totals for Area of Interest			**1,019.7**	**100.0%**

GENERAL NOTES:

1. THE MAP SHOWN IS REFERENCED FROM THE U.S. DEPARTMENT OF AGRICULTURE (USDA) WEB SOIL SURVEY REPORT FOR ONONDOGA COUNTY, NEW YORK DATED 29 AUGUST 2024.
   REF: HTTPS://WEBSOILSURVEY.NRCS.USDA.GOV/APP/WEBSOILSURVEY.ASPX
2. THE AERIAL IMAGES WERE PHOTOGRAPHED BETWEEN 3 AUGUST 2021 AND 7 NOVEMBER 2021.
3. THE SITE EXTENTS DEPICTED HEREIN ARE BASED ON THE SITE PLAN LAYOUT PROVIDED BY JACOBS IN DRAWING NO. "#WPCC0–AAA00–100–DM–JAC" DATED 7 FEBRUARY 2025.
4. HYDROLOGIC SOIL GROUPS MENTIONED IN THE MAP ARE BASED ON ESTIMATES OF RUNOFF POTENTIAL. SOILS ARE ASSIGNED TO ONE OF FOUR GROUPS ACCORDING TO THE RATE OF WATER INFILTRATION WHEN THE SOILS ARE NOT PROTECTED BY VEGETATION, ARE THOROUGHLY WET AND RECEIVE PRECIPITATION FROM LONG–DURATION STORMS.
5. THE SOILS IN THE UNITED STATES ARE ASSIGNED TO FOUR GROUPS (A, B, C, AND D) AND THREE DUAL CLASSES (A/D, B/D, AND C/D). THE GROUPS ARE DEFINED AS FOLLOWS:
   - GROUP A. SOILS HAVING A HIGH INFILTRATION RATE (LOW RUNOFF POTENTIAL) WHEN THOROUGHLY WET. THESE CONSIST MAINLY OF DEEP, WELL DRAINED TO EXCESSIVELY DRAINED SANDS OR GRAVELLY SANDS. THESE SOILS HAVE A HIGH RATE OF WATER TRANSMISSION.
   - GROUP B. SOILS HAVING A MODERATE INFILTRATION RATE WHEN THOROUGHLY WET. THESE CONSIST CHIEFLY OF MODERATELY DEEP OR DEEP, MODERATELY WELL DRAINED OR WELL DRAINED SOILS THAT HAVE MODERATELY FINE TEXTURE TO MODERATELY COARSE TEXTURE. THESE SOILS HAVE A MODERATE RATE OF WATER TRANSMISSION.
   - GROUP C. SOILS HAVING A SLOW INFILTRATION RATE WHEN THOROUGHLY WET. THESE CONSIST CHIEFLY OF SOILS HAVING A LAYER THAT IMPEDES THE DOWNWARD MOVEMENT OF WATER OR SOILS OF MODERATELY FINE TEXTURE OR FINE TEXTURE. THESE SOILS HAVE A SLOW RATE OF WATER TRANSMISSION.
   - GROUP D. SOILS HAVING A VERY SLOW INFILTRATION RATE (HIGH RUNOFF POTENTIAL) WHEN THOROUGHLY WET. THESE CONSIST CHIEFLY OF CLAYS THAT HAVE A HIGH SHRINK–SWELL POTENTIAL, SOILS THAT HAVE A HIGH WATER TABLE, SOILS THAT HAVE A CLAYPAN OR CLAY LAYER AT OR NEAR THE SURFACE, AND SOILS THAT ARE SHALLOW OVER NEARLY IMPERVIOUS MATERIAL. THESE SOILS HAVE A VERY SLOW RATE OF WATER TRANSMISSION.
6. IF A SOIL IS ASSIGNED TO A DUAL HYDROLOGIC GROUP (A/D, B/D, OR C/D), THE FIRST LETTER IS FOR DRAINED AREAS AND THE SECOND IS FOR UNDRAINED AREAS. ONLY THE SOILS THAT IN THEIR NATURAL CONDITION ARE IN GROUP D ARE ASSIGNED TO DUAL CLASSES

7.5 0 3.75 7.5
SCALE: 1 INCH = 7.5 FEET

Date	Description	No.
Revisions		

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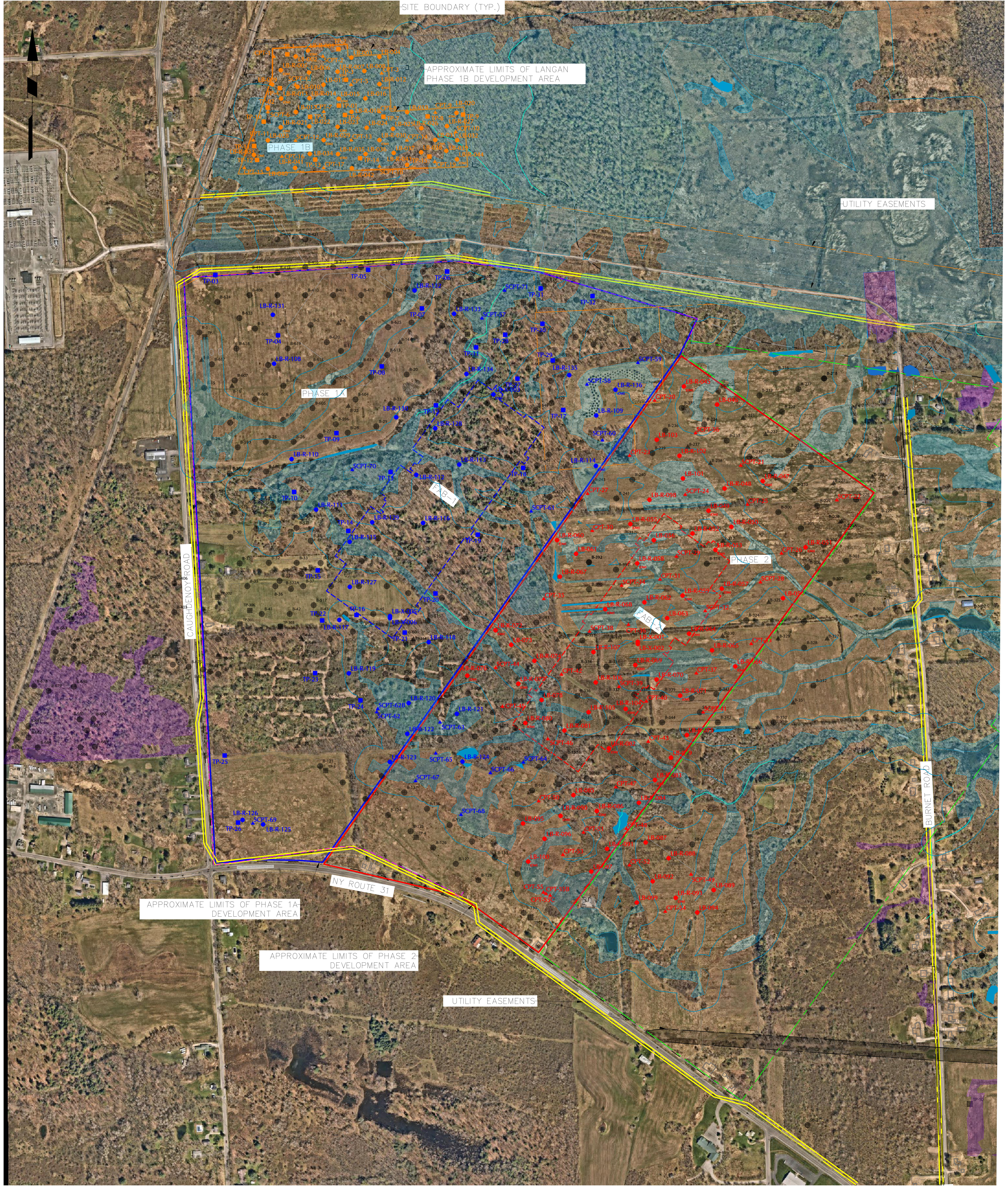
Project
MICRON NEW YORK
MANUFACTURING
FACILITY
TOWN OF CLAY
ONONDAGA COUNTY NEW YORK

Drawing Title
USDA SOIL
SURVEY MAP

Project No.
170883801
Date
07/24/2025
Drawn By
AG
Checked By
AJC/ SS

5

Project No. 170883801



GENERAL NOTES:

1. EXISTING SITE GRADING BACKGROUND PLAN FROM DRAWING TITLED "#WPCCC–AAA00–100–EM–JAC" PROVIDED BY MICRON ON 12 DECEMBER 2024.
2. EXISTING SITE BACKGROUND PLAN FROM DRAWING TITLED "#WPCC0–AAA–00–100–EM–JAC" PROVIDED BY MICRON ON 12 DECEMBER 2024.
3. EXISITING WETLANDS INFORMATION SHOWN ON THIS PLAN AS DELINEATED BY RAMBOLL ON 09 AUGUST 2023 AND 21 JUNE 2024.
4. AERIAL IMAGERY PROVIDED THROUGH LANGAN'S SUBSCRIPTION TO NEARMAP.COM, FLOWN 26 APRIL 2024.
5. ALL ELEVATIONS SHOWN HEREIN ARE WITH RESPECT TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, GEOID18 (NAVD88/18).
6. ALL WORK WAS PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CITY, STATE, AND FEDERAL REGULATIONS.
7. ALL LANGAN BORINGS WERE DRILLED UNDER THE FULL–TIME INSPECTION OF A LANGAN REPRESENTATIVE. DRILLING WAS PERFORMED BY ATLANTIC TESTING LABORATORIES (ATL), CANTON, NEW YORK BETWEEN 01 APRIL 2025 TO 07 MAY 2025. THE BORINGS WERE ADVANCED TO DEPTHS VARYING BETWEEN 10 FEET AND 69 FEET BELOW THE EXISTING GRADE
8. DISTURBED SAMPLES WERE TAKEN USING A 2–INCH OR 3–INCH OUTER DIAMETER SPLIT–SPOON SAMPLER DRIVEN BY A 140–LB HAMMER FREE FALLING 30–INCHES IN ACCORDANCE WITH ASTM D1586. UNDISTURBED SAMPLES WERE TAKEN USING A THIN–WALL SHELBY TUBE IN ACCORDANCE WITH ASTM D1587.
9. ROCK CORE SAMPLES WERE TAKEN USING A NX– OR NQ– CORE BARREL IN CASE OF NORMAL BOREHOLES AND PQ– CORE BARREL FOR CROSSHOLE SEISMIC BOREHOLES.
10. GROUNDWATER OBSERVATION WELLS WERE INSTALLED WITHIN INDICATED BORINGS.
11. THE CONTRACTOR BACKFILLED THE HOLES WITH SOIL CUTTINGS TO GRADE.
12. ALL LANGAN CONE PENETRATION TESTS (CPTs) WERE PERFORMED UNDER THE FULL–TIME INSPECTION OF A LANGAN REPRESENTATIVE. CPTs WERE PERFORMED BY CONETEC INC, WEST BERLIN, NEW JERSEY BETWEEN 04 APRIL 2025 AND 17 APRIL 2025 IN ACCORDANCE WITH ASTM D5778. THE SEISMIC CPTs (SCPTs) AND CPTs WERE ADVANCED TO DEPTHS BETWEEN 5 FEET AND 28 FEET BELOW GRADE DEPENDING ON LOCAL REFUSAL.
13. ALL LANGAN TEST PITS WERE EXCAVATED UNDER THE FULL–TIME INSPECTION OF A LANGAN REPRESENTATIVE. EXCAVATION WAS PERFORMED BY ATLANTIC TESTING LABORATORIES (ATL), CANTON, NEW YORK BETWEEN 21 APRIL 2025 TO 25 APRIL 2025. THE TEST PITS WERE ADVANCED TO DEPTHS VARYING BETWEEN 1.5 FEET AND 5 FEET BELOW THE EXISTING GRADE. UPON COMPLETION, THE TEST PITS WERE BACKFILLED AND COMPACTED TO MATCH THE EXISTING GRADE.
14. ALL LANGAN GEOPHYSICAL SURVEYS SUCH AS OPTICAL TELEVIEWER (OTV), ACOUSTIC TELEVIEWER (ATV), CROSSHOLE SEISMIC LOGGING (CSL), SEISMIC REFRACTION TESTING (SRT), ELECTRICAL AND THERMAL RESISTIVITY TESTS WERE PERFORMED ON SELECTED BOREHOLES AND TEST PITS UNDER THE FULL–TIME SUPERVISION OF A LANGAN REPRESENTATIVE. THE GEOPHYSICAL SURVEYS WERE PERFORMED BY HAGER RICHTER GEOSCIENCES (HRGS), FORDS, NEW JERSEY BETWEEN 12 APRIL 2025 AND 09 MAY 2025.
15. REFER TO APPENDIX A TO E FOR BORING LOGS, WELL CONSTRUCTION LOGS, TEST PIT LOGS, CPT DATA REPORTS AND GEOPHYSICAL SURVEY REPORTS RESPECTIVELY.

LEGEND:

PHASE–1A ADDITIONAL:

● LB-R-#	LANGAN GEOTECHNICAL BORING LOCATION (CORED MINIMUM 10–FT INTO COMPETENT BEDROCK)
● LB-X-#	LANGAN CROSSHOLE SEISMIC BORING LOCATION (CORED 30–FT INTO COMPETENT BEDROCK)
▲ SCPT-#	LANGAN SEISMIC CPT LOCATION
(OW)	LANGAN OBSERVATION WELL LOCATION
⊞ TP-#	LANGAN TEST PIT LOCATION

PHASE–1B:

● LB-R-#	LANGAN GEOTECHNICAL BORING LOCATION (CORED MINIMUM 10–FT INTO COMPETENT BEDROCK)
● LB-#	LANGAN BORING LOCATION (ADVANCED TO REFUSAL ON SUSPECTED BEDROCK)
▲ SCPT-#	LANGAN SEISMIC CPT LOCATION
(OW)	LANGAN OBSERVATION WELL LOCATION
⊞ TP-#	LANGAN TEST PIT LOCATION

PHASE–2:

● LB-#	LANGAN GEOTECHNICAL BORING LOCATION (ADVANCED TO REFUSAL ON SUSPECTED BEDROCK)
● LB-R-#	LANGAN GEOTECHNICAL BORING LOCATION (CORED MINIMUM 10–FT INTO COMPETENT BEDROCK)
● LB-X-#	LANGAN CROSS HOLE–SEISMIC BORING LOCATION (CORED 30–FT INTO COMPETENT BEDROCK)
▲ CPT-#	LANGAN CPT LOCATION
▲ SCPT-#	LANGAN SEISMIC CPT LOCATION
(OW)	LANGAN OBSERVATION WELL LOCATION

2023–2024 INVESTIGATION BY OTHERS:

● B-#/ SB-#	PREVIOUSLY COMPLETED BORINGS BY OTHERS
▲ B-#	PREVIOUSLY COMPLETED CPT BY OTHERS
⊞ TP-#	PREVIOUSLY COMPLETED TEST PIT BY OTHERS
✦ W-#	PREVIOUSLY COMPLETED MONITORING WELL LOCATIONS BY OTHERS

🟦	NYSDEC/USACE WETLANDS
🟪	USACE WETLANDS
—	DELINEATED STREAMS
—	100–FT NYSDEC ADJACENT AREA
— —	INVESTIGATION LIMITS FOR PHASE 1A DEVELOPMENT
— —	INVESTIGATION LIMITS FOR PHASE 1B
— —	INVESTIGATION LIMITS FOR PHASE 2 DEVELOPMENT

300 0 150 300
SCALE: 1 INCH = 300 FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

Date	Description	No.

Revisions

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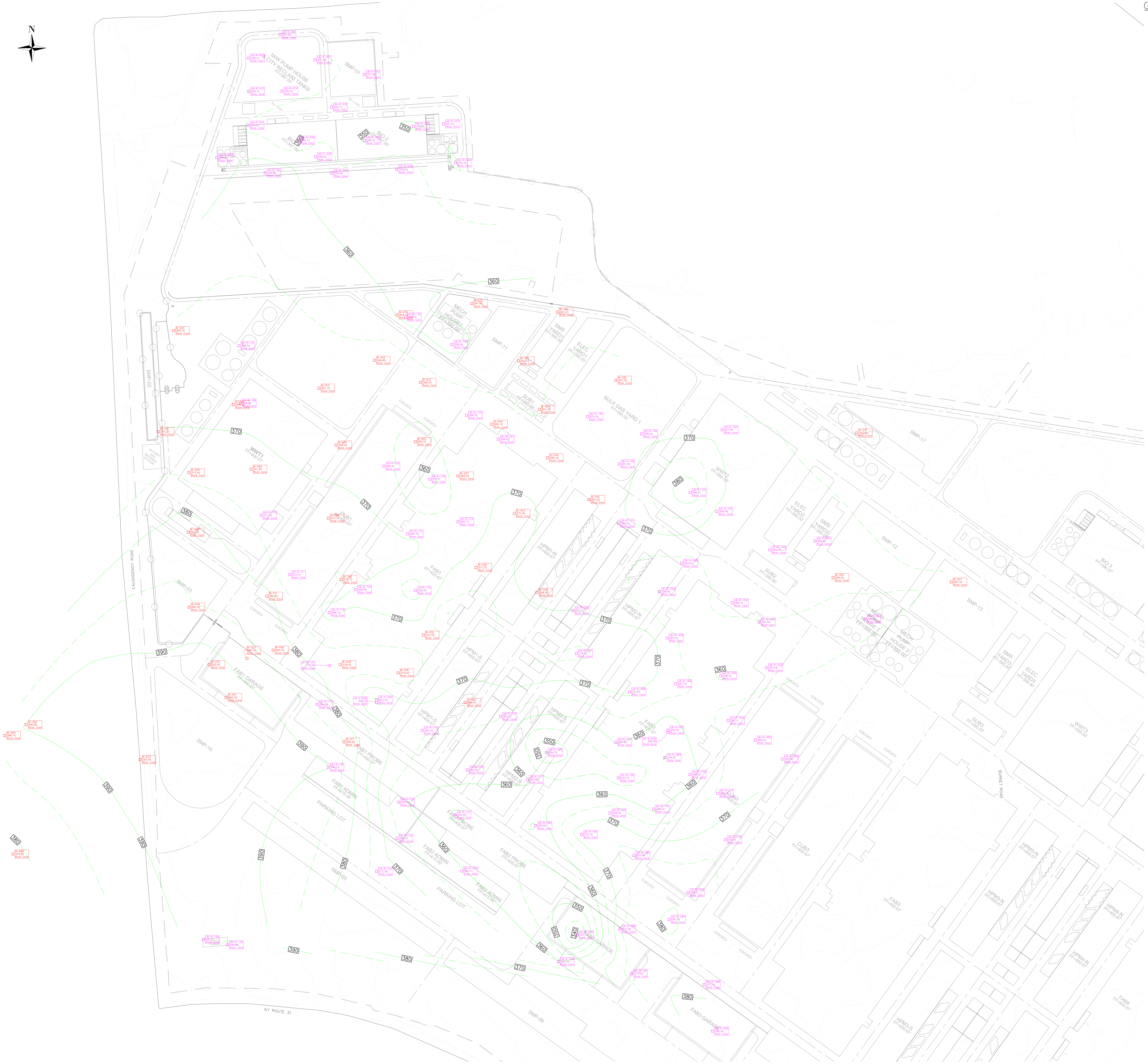
Project
MICRON NEWYORK MANUFACTURING FACILITY
TOWN OF CLAY
ONONDAGA COUNTY NEW YORK

Drawing Title
SUBSURFACE INVESTIGATION PLAN

Project No. 170883801	Figure 6
Date 07/24/2025	
Drawn By AG	
Checked By VV/ AJC	Sheet 6 of 9

LANGAN PROJECT NO. 170883801

Filename: C:\bms\langan-pw-01\d0777343\FG01-170883800-0201-BL101-0101_1.dwg Date: 7/25/2025 Time: 18:52 User: aganesan Style Table: Langan.stb Layout: April-May-Investigation



GENERAL NOTES:

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2. PROPOSED SITE DEVELOPMENT LAYOUT PLAN FROM DRAWING TITLED "#WPCC0–AAA–00–100–DM–JAC" PROVIDED BY MICRON ON 12 MAY 2025.
3. ALL ELEVATIONS SHOWN HEREIN ARE WITH RESPECT TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, GEOID18 (NAVD88/18).
4. ALL LANGAN BORING LOCATIONS WERE SURVEYED BY LANGAN. ALL OTHER BORING LOCATIONS SHOULD BE CONSIDERED APPROXIMATE.
5. BEDROCK ELEVATIONS CONTAINED HEREIN HAVE BEEN DETERMINED USING MULTIPLE DATA SOURCES INCLUDING LANGAN'S INVESTIGATION FINDINGS. LANGAN MAKES NO WARRANTY AS TO THE ACCURACY OF DATA FROM OTHERS.
6. BEDROCK CONTOURS ARE BASED ON A LIMITED NUMBER OF BORINGS THAT PROVIDED INFORMATION ONLY AT THE DRILLED LOCATIONS.
7. BEDROCK CONTOURS WERE DETERMINED BY LINEAR INTERPOLATION BETWEEN BOREHOLES. THE CONTOURS SHOWN ON THIS PLAN ARE A SIMPLIFIED REPRESENTATION OF THE SUBSURFACE CONDITIONS.
8. THE TOP OF BEDROCK SHOWN OR INDICATED HEREIN WAS INTERPRETED FROM CORING DATA. THE TOP OF BEDROCK CONDITIONS IN THE FIELD MAY VARY SIGNIFICANTLY FROM THOSE SHOWN HEREIN AND CAUTION SHOULD BE USED WHEN APPLYING SUCH INFORMATION.

LEGEND:

―	MAJOR CONTOURS AT 10–FT INTERVALS
– –	MINOR CONTOURS AT 5–FT INTERVALS
###	ELEVATION LABEL
BOREHOLE ID ELEVATION DESCRIPTION	CME – TOP OF COMPETENT BEDROCK
BOREHOLE ID ELEVATION DESCRIPTION	LANGAN – TOP OF COMPETENT BEDROCK

BORING SERIES INFORMATION:

B	CME (2023–2024)
LB	LANGAN (2025)

200 0 100 200
SCALE: 1 INCH = 200 FEET

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Project
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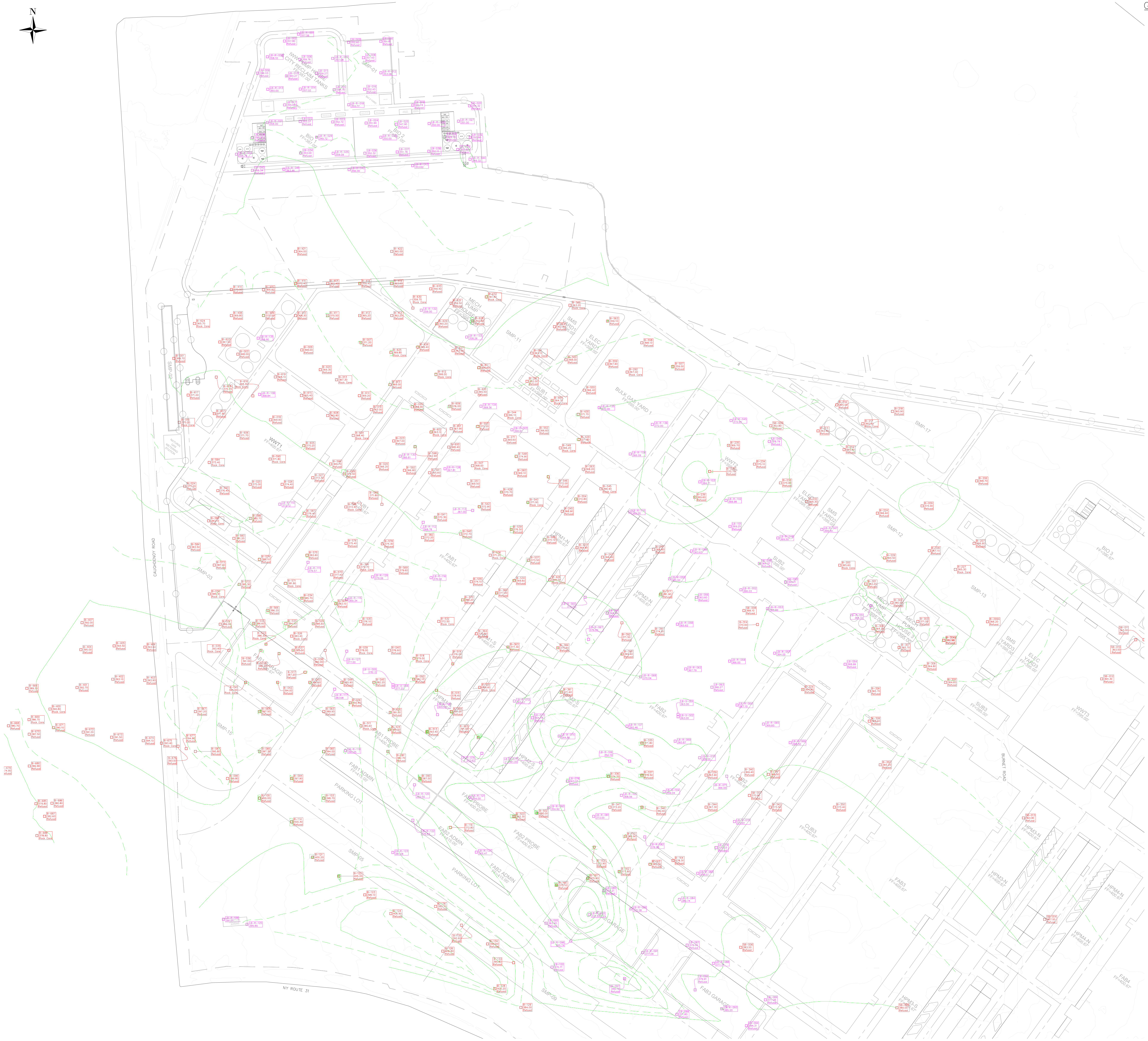
TOWN OF CLAY
ONONDAGA COUNTY NEW YORK

Drawing Title
CONTOUR PLAN -
TOP OF COMPETENT
BEDROCK

Project No. 170883801
Date 07/25/2025
Drawn By AG
Checked By VV/SS

7
Sheet 7 of 9

Project No. 170883801



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5. BEDROCK ELEVATIONS CONTAINED HEREIN HAVE BEEN DETERMINED USING MULTIPLE DATA SOURCES INCLUDING LANGAN'S INVESTIGATION FINDINGS. LANGAN MAKES NO WARRANTY AS TO THE ACCURACY OF DATA FROM OTHERS.
6. BEDROCK CONTOURS ARE BASED ON A LIMITED NUMBER OF BORINGS THAT PROVIDED INFORMATION ONLY AT THE DRILLED LOCATIONS.
7. BEDROCK CONTOURS WERE DETERMINED BY LINEAR INTERPOLATION BETWEEN BOREHOLES. THE CONTOURS SHOWN ON THIS PLAN ARE A SIMPLIFIED REPRESENTATION OF THE SUBSURFACE CONDITIONS
8. THE TOP OF BEDROCK AS SHOWN OR INDICATED HEREIN WAS INTERPRETED FROM A COMBINATION OF CORING DATA, SAMPLER PENETRATION/REFUSAL, AND DRILLING RESISTANCE/REFUSAL. THE TOP OF BEDROCK CONDITIONS IN THE FIELD MAY VARY SIGNIFICANTLY FROM THOSE SHOWN HEREIN AND CAUTION SHOULD BE USED WHEN APPLYING SUCH INFORMATION.

LEGEND:

——	MAJOR CONTOURS AT 10–FT INTERVALS
— — —	MINOR CONTOURS AT 5–FT INTERVALS
###	ELEVATION LABEL
BOREHOLE ID ELEVATION DESCRIPTION	CME – TOP OF BEDROCK
BOREHOLE ID ELEVATION	LANGAN – TOP OF BEDROCK

BORING SERIES INFORMATION:

SB	RAMBOLL (2021)
B	CME (2023–2024)
LB	LANGAN (2025)

200 0 100 200
SCALE: 1 INCH = 200 FEET

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Project
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Drawing Title
CONTOUR PLAN -
TOP OF BEDROCK

Project No. 170883801
Date 07/25/2025
Drawn By AG
Checked By VV/SS

8

Sheet 8 of 9

GENERAL NOTES:

1. EXISITING SITE GRADING BACKGROUND PLAN FROM DRAWING TITLED "#WPCCC–AAA00–100–EM–JAC" PROVIDED BY MICRON ON 12 DECEMBER 2024.
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3. ALL ELEVATIONS SHOWN HEREIN ARE WITH RESPECT TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, GEOID18 (NAVD88/18).
4. ALL LANGAN WELL LOCATIONS WERE SURVEYED BY LANGAN. ALL OTHER WELL LOCATIONS SHOULD BE CONSIDERED APPROXIMATE.
5. GROUNDWATER ELEVATIONS CONTAINED HEREIN HAVE BEEN DETERMINED FROM AVERAGING BETWEEN DIFFERENT SEASONS DURING THE INVESTIGATION. LANGAN MAKES NO WARRANTY AS TO THE ACCURACY OF DATA FROM OTHERS.
6. THE TOP OF GROUNDWATER CONDITIONS IN THE FIELD MAY VARY SIGNIFICANTLY FROM THOSE SHOWN HEREIN AND CAUTION SHOULD BE USED WHEN APPLYING SUCH INFORMATION.

LEGEND:

⬚	WELL ID GROUNDWATER ELEVATION EXISTING GROUND LEVEL	CME/ RAMBOLL – GROUNDWATER ELEVATION MEASUREMENT
⬚	BOREHOLE ID GROUNDWATER ELEVATION EXISTING GROUND LEVEL	LANGAN – GROUNDWATER ELEVATION MEASUREMENT

WELL ID SERIES INFORMATION:

W	RAMBOLL/ CME (2023–24)
LB	LANGAN (2025)

250 0 125 250
SCALE: 1 INCH = 250 FEET

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Project
MICRON NEW YORK MANUFACTURING FACILITY
TOWN OF CLAY
ONONDAGA COUNTY NEW YORK

Drawing Title
GROUNDWATER ELEVATION PLAN

Project No. 170883801
Date 07/24/2025
Drawn By AG
Checked By VV/ AJC

9

Sheet 9 of 9

APPENDIX A

LANGAN BORING LOGS

LANGAN Log of Boring **LB-002** Sheet 1 of 2

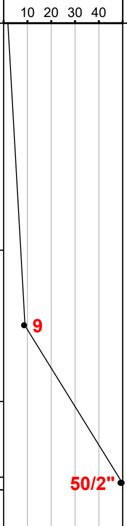
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 380.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/11/2025 / 4/11/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	22.2 ft / 22.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9; Undisturbed 0; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 22.0	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon	Field Engineer	Ning Lee
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +380.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Light brown CLAY, trace fine Gravel, roots (wet) [TOPSOIL]	0	S-1	SS	13	WOH WOH 2 1	2	04/11/2025, 1:35 PM Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft
+379.0	Light brown CLAY, trace fine Gravel (wet) [CL]	1						
	Light gray CLAY, trace fine Sand (wet) [CL]	2	S-2	SS	20	4 5 3 4	8	Take S-2 from 2 to 4 ft Drive casing to 4ft. Drill to 4ft, gray wash.
	Light brown CLAY, trace fine Sand (wet) [CL]	4	S-3	SS	19	2 4 4 4	8	Take S-3 from 4 to 6 ft
	Light brown CLAY, trace fine Sand (wet) [CL]	6	S-4	SS	22	5 5 5 6	10	Take S-4 from 6 to 8 ft Drive casing to 8ft. Drill to 8ft, brownish gray wash.
	Light mottled brown CLAY, trace fine Sand (wet) [CL]	8	S-5	SS	20	3 3 5 7	8	Take S-5 from 8 to 10 ft
	Light brown CLAY (wet) [CL]	10	S-6	SS	22	3 3 6 4	9	Take S-6 from 10 to 12 ft
		12						Drive casing to 14ft. Drill to 14ft, light rig chatter, gray wash.
+366.0	Light brown Silty CLAY, some fine Sand, trace fine Gravel (wet) [CL-ML]	14	S-7	SS	23	WOH WOH WOH WOH	0	Take S-7 from 14 to 16 ft S-7: #4 = 88%; #200 = 49% S-7: LL = 15%; PI = 5% Drive casing to 19ft. Drill to 19ft, moderate rig chatter, gray wash.
		16						

LANGAN Log of Boring **LB-002** Sheet 2 of 2

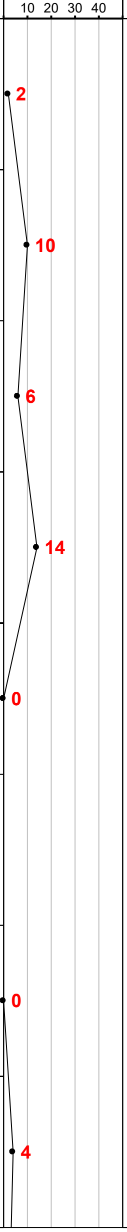
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 380.0

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+364.0		16 17						
	+362.5	Light Brown Silty fine SAND, trace fine angular Gravel (wet) [SM]	18 19 20 21	S-8	SS	10	4 5 4 3	9	Take S-8 from 19 to 21 ft S-8: #4 = 78%; #200 = 40% S-8: LL = NP; PI = NP Drill to 22ft, heavy rig chatter, gray wash.
	+357.8	Light Brown Silty fine SAND, trace fine angular Gravel (wet) [SM]	22	S-9	SS	6	50/2"	50/2"	Take S-9 from 22 to 22.2 ft Boring terminated at 22.2 ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 22.2ft.	23 24 25 26 27 28 29 30 31 32 33 34 35 36						



LANGAN Log of Boring **LB-003** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/10/2025 / 4/10/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	24.4 ft / 24.4 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9 Undisturbed 0 Core 0
Casing Diameter (in)	4 Casing Depth (ft) 24.0	Water Level (ft.)	First ▽ 0.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Field Engineer	Ning Lee



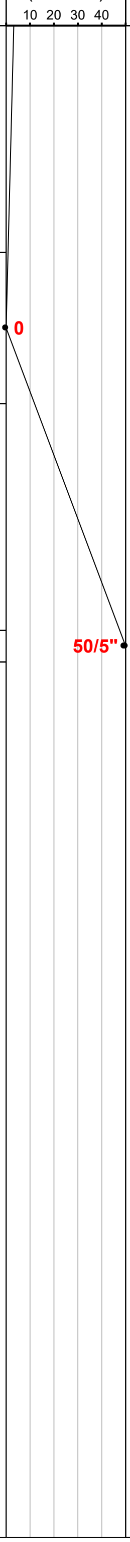
Elev. (ft) +377.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Gray CLAY, trace fine Sand, roots (wet) [TOPSOIL]	0						04/10/2025, 12:14 PM Utilities Clearance Exemption Signed by PIC
+376.0	Gray CLAY, trace fine Sand (wet) [CL]	1	S-1	SS	10	WOH WOH 2 3	2	Take S-1 from 0 to 2 ft
	Light brown to mottled grayish CLAY, trace fine Sand (wet) [CL]	2–3	S-2	SS	18	4 5 5 4	10	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brownish gray wash.
	Mottled light gray to light brown CLAY, trace fine Sand (wet) [CL]	4–5	S-3	SS	24	2 2 4 5	6	Take S-3 from 4 to 6 ft
	Light brown CLAY, trace fine Sand (wet) [CL]	6–7	S-4	SS	23	7 8 6 4	14	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8ft, gray wash.
	Grayish brown CLAY, trace fine Sand (wet) [CL]	8–9	S-5	SS	24	WOH WOH WOH 1	0	Take S-5 from 8 to 10 ft Drive casing to 12ft. Drill to 12ft, gray wash.
		10–11						
	Light gray CLAY, trace fine Sand (wet) [CL]	12–13	S-6	SS	23	WOH WOH WOH 1	0	Take S-6 from 12 to 14 ft
	Light gray soft CLAY, trace fine Sand (wet) [CL]	14–15	S-7	SS	19	2 2 2 2	4	Take S-7 from 14 to 16 ft Drive casing to 19ft. Drill to 19ft, gray wash.
		16						

LANGAN Log of Boring **LB-003** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0

Elev. (ft)	Sample Description	Depth Scale
+361.0		16
	Light gray CLAY, trace fine Sand, trace fine Gravel (wet) [CL]	16–24
+353.0	Dark gray Gravelly fine SAND, trace Clay (wet) [SP-SC]	24
+352.6	End of Boring at 24.4ft.	24.4

Depth	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
19	S-8	SS	20	WOH WOH WOH WOH	0	Take S-8 from 19 to 21 ft
23						Drive casing to 24ft. Drill to 24ft, moderate rig chatter, gray wash.
24	S-9	SS	7	50/5"	50/5"	Take S-9 from 24 to 24.4 ft Boring terminated at 24.4 ft. Boring backfilled to grade with soil cuttings.

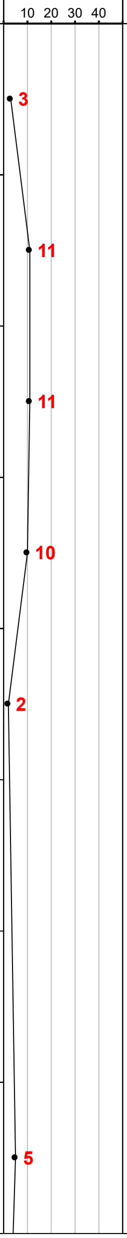


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-004** Sheet 1 of 2

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 376.5 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/10/2025	Date Finished: 4/10/2025
Drilling Equipment: Geoprobe 7822DT		Completion Depth: 24.6 ft	Rock Depth: 24.6 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 8	Undisturbed 1 Core 0
Casing Diameter (in): 4	Casing Depth (ft): 24.0	Water Level (ft.): First ▽ 0.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Darryl Green	
Sampler: 2in OD Split Spoon, Shelby Tube			
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Field Engineer: Ning Lee	

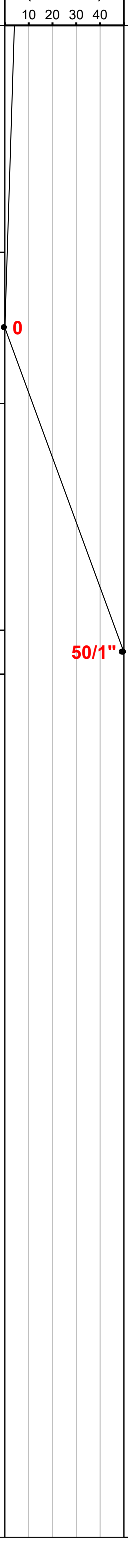
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.5	Light gray CLAY, trace fine Sand, roots (wet) [TOPSOIL]	0 – 2	S-1	SS	6	WOH WOH 3 3	3	04/10/2025, 9:06 AM Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft
+374.5	Yellowish brown SILT, trace fine Sand, trace fine Gravel (wet) [ML]	2 – 4	S-2	SS	17	4 5 6 6	11	Take S-2 from 2 to 4 ft S-2: #4 = 99%; #200 = 96% S-2: LL = NP; PI = NP Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Light brown CLAY, trace fine Sand (wet) [CL]	4 – 6	S-3	SS	18	4 6 5 3	11	Take S-3 from 4 to 6 ft
	Brown to mottled tannish orange CLAY, trace fine Sand (wet) [CL]	6 – 8	S-4	SS	22	4 5 5 5	10	Take S-4 from 6 to 8 ft
	Mottled brown to light brown CLAY, trace fine Sand (wet) [CL]	8 – 10	S-5	SS	17	WOH WOH 2 2	2	Drive casing to 8 ft. Drill to 8 ft brown wash Take S-5 from 8 to 10 ft Drive casing to 10 ft. Drill to 10 ft, brown wash
	Mottled Brown to light brown CLAY, trace fine Sand (wet) [CL]	10 – 12	UD-1	U	24			Take U-1 from 10 to 12 ft U-1: LL = 25%; PI = 11%
		12 – 14						Drive casing to 14 ft. Drill to 14 ft.
	Mottled Brown to light brown CLAY, trace fine Sand (wet) [CL]	14 – 16	S-7	SS	23	WOH 2 3 3	5	Take S-7 from 14 to 16 ft



LANGAN Log of Boring **LB-004** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 376.5

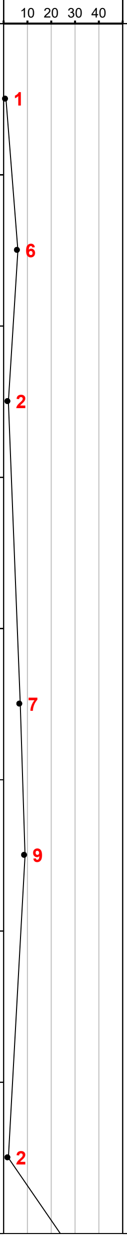
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+360.5		16						Drive casing to 19 ft. Drill to 19 ft.
+359.0	Light gray Silty CLAY, trace fine Sand (wet) [CL-ML]	19	S-8	SS	20	WOH WOH WOH WOH	0	Take S-8 from 19 to 21 ft S-8: #4 = 100%; #200 = 99% S-8: LL = 19%; PI = 4%
		21						Drive casing to 24 ft. Drill to 24 ft.
+352.5	No Recovery	24	S-9	SS	0	2 50/1"	50/1"	Take S-9 from 24 to 26 ft. Refusal encountered at 24.6 ft. Boring terminated at 24.58 ft. Boring backfilled to grade with soil cuttings.
+351.9	End of Boring at 24.6ft.							



LANGAN Log of Boring **LB-006** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 379.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/9/2025 / 4/9/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	19.3 ft / 19.3 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 7; Undisturbed 1; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 19.0	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, Shelby Tube	Field Engineer	Ning Lee
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+379.1 +378.6	Brown to yellowish tan CLAY, trace fine Sand, roots (wet) [TOPSOIL] Brown to yellowish tan CLAY, trace fine Sand (wet) [CL]	0 1	S-1	SS	11	WOH WOH 1 2	1	04/09/2025, 10:17 AM. Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
	Brown to yellowish tan CLAY, trace fine Sand (wet) [CL]	2 3	S-2	SS	23	WOH 3 3 3	6	Take S-2 from 2 to 4 ft S-2: LL = 31%; PI = 12% Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Brown to yellowish tan CLAY, trace fine Sand (wet) [CL]	4 5	S-3	SS	18	1 1 1 3	2	Take S-3 from 4 to 6 ft Drive casing to 6 ft. Drill to 6 ft, brown wash.
+373.1	Mottled Brown to yellowish tan Silty CLAY, trace fine Sand (wet) [CL-ML]	6 7	UD-1	U	24			Take U-1 from 6 to 8 ft U-1: LL = 24%; PI = 5% Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Mottled light brown to yellowish tan CLAY, trace fine Sand (wet) [CL-ML]	8 9	S-5	SS	21	3 3 4 4	7	Take S-5 from 8 to 10 ft
+369.1	Mottled light brown to yellowish tan CLAY, trace fine Sand (wet) [CL]	10 11	S-6	SS	16	4 4 5 5	9	Take S-6 from 10 to 12 ft
		12 13						Drive casing to 14 ft. Drill to 14 ft, brownish gray wash.
	Light gray to light brown CLAY, trace Sand (wet) [CL]	14 15 16	S-7	SS	23	2 1 1 1	2	Take S-7 from 14 to 16 ft. Color change at 16 inches with horizontal streaks



Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 379.1

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+363.1		16						Drive casing to 18 ft. Drill to 18 ft, light rig chatter, gray wash.
▨			17						
▨		Dark gray Gravelly CLAY, trace fine Sand (wet) [CL]	18	S-8	SS	12	13 32 50/4"	50/4"	Take S-8 from 18 to 20 ft. Refusal encountered at 19.3 ft.
▨	+359.7		19						Boring terminated at 19.3 ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 19.3ft.	20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
			31						
			32						
			33						
			34						
			35						
			36						

LANGAN Log of Boring **LB-008** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 376.5 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/11/2025 / 4/11/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	19.1 ft / 19.1 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8; Undisturbed 0; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 19.0	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon	Field Engineer	Ning Lee
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Material Symbol	Elev. (ft) +376.5	Sample Description ▽	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Light brown CLAY, trace fine Sand (wet) [CL]	0–2	S-1	SS	8	WOH WOH WOH 2	0	04/11/2023, 9:37 AM. Utilities Clearance Exemption Signed by PIC Take S-1 from 0ft to 2ft.
▨		Light brown CLAY, trace fine Sand (wet) [CL]	2–4	S-2	SS	16	2 2 4 4	6	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brownish gray wash.
▨		Mottled light gray CLAY, trace fine Sand (wet) [CL]	4–6	S-3	SS	16	2 2 2 3	4	Take S-3 from 4 to 6 ft
‖	+370.5	Light gray SILT, trace fine Sand (wet) [ML]	6–8	S-4	SS	18	5 5 4 3	9	Take S-4 from 6 to 8 ft
‖		Light gray SILT, trace fine Sand (wet) [ML]	8–10	S-5	SS	17	WOH WOH 1 2	1	Drive casing to 8 ft. Drill to 8 ft, gray wash. Take S-5 from 8 to 10 ft
‖		Light gray SILT, trace fine Sand (wet) [ML]	10–12	S-6	SS	23	1 4 3 2	7	Take S-6 from 10 to 12 ft S-6: #4 = 100%; #200 = 99% S-6: LL = NP; PI = NP Drive casing to 14 ft. Drill to 14 ft, gray wash.
‖			12–14						
‖		Light gray SILT, trace fine Sand (wet) [ML]	14–16	S-7	SS	22	WOH WOH WOH WOH	0	Take S-7 from 14 to 16 ft Drive casing to 19 ft. Drill to 19 ft, moderate rig chatter, gray wash.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-008** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 376.5

Material Symbol	Elev. (ft) +360.5	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16						
			17						
			18						
	+357.5 +357.4	No Recovery End of Boring at 19.1ft.	19	S-8	SS	0	50/1"	50/1"	Take S-8 from 19 to 19.1 ft. Refusal encountered at 19.1 ft. Boring terminated at 19.1 ft. Boring backfilled to grade with soil cuttings.
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
			31						
			32						
			33						
			34						
			35						
			36						

LANGAN Log of Boring **LB-009** Sheet 1 of 2

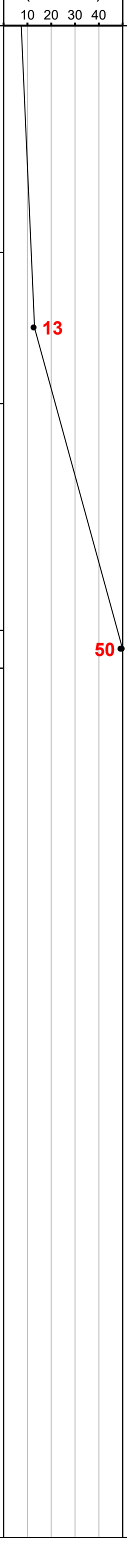
Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 380.5 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/14/2025	Date Finished: 4/15/2025
Drilling Equipment: Geoprobe 7822DT		Completion Depth: 24.5 ft	Rock Depth: 24.5 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 9	Undisturbed 0 Core 0
Casing Diameter (in): 4	Casing Depth (ft): 24.0	Water Level (ft.): First ▽ 2.5	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Darryl Green	
Sampler: 2in OD Split Spoon			
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Field Engineer: Ning Lee	

Material Symbol	Elev. (ft) +380.5	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Brown CLAY, trace fine Sand (moist) [CL]	0–2	S-1	SS	10	WOH WOH 2 3	2	04/15/2025, 8:50 AM. Utilities Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft
▨		Brown CLAY, trace fine Sand (moist) [CL] ▽	2–4	S-2	SS	10	4 3 2 2	5	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash
▨		Brown CLAY, trace fine Sand (wet) [CL]	4–6	S-3	SS	22	WOH 2 2 3	4	Take S-3 from 4 to 6 ft
▨	+374.5	Brown Silty CLAY, trace fine Sand (wet) [CL-ML]	6–8	S-4	SS	24	2 2 3 3	5	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, brown wash.
▨		Brown Silty CLAY, trace fine Sand (wet) [CL-ML]	8–10	S-5	SS	22	6 5 5 7	10	Take S-5 from 8 to 10 ft S-5: #4 = 100%; #200 = 99% S-5: LL = 23%; PI = 4%
▨		Brown Silty CLAY, trace fine Sand (wet) [CL-ML]	10–12	S-6	SS	22	4 5 6 7	11	Take S-6 from 10 to 12 ft
▨			12–14						Drive casing to 14 ft. Drill to 14 ft, brownish gray wash.
▥	+367.5	Light gray to brown SILT, trace fine Sand (wet) [ML]	14–16	S-7	SS	16	9 3 3 2	6	Take S-7 from 14 to 16 ft

LANGAN Log of Boring **LB-009** Sheet 2 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	380.5

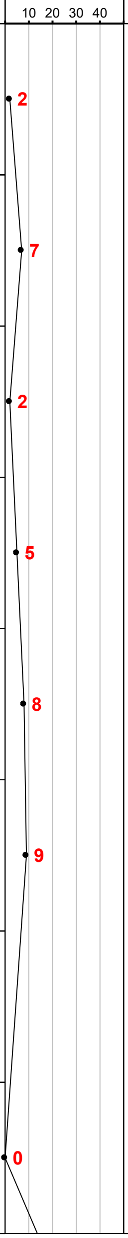
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+364.5		16						Drive casing to 19 ft. Drill to 19 ft, light rig chatter, gray wash.
+361.5	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	19	S-8	SS	16	2 6 7 9	13	Take S-8 from 19 to 21 ft
		21						Drive casing to 24 ft. Drill to 24 ft, moderate rig chatter, gray wash.
	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	24	S-9	SS	3	50	50	Take S-9 from 24 to 26 ft Boring terminated at 24.5 ft. Boring backfilled to grade with soil cuttings.
+356.0	End of Boring at 24.5ft.	24.5						



LANGAN Log of Boring **LB-010** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 379.3 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/18/2025
		Date Finished	4/18/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	19.0 ft
		Rock Depth	19.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8 Undisturbed 0 Core 0
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 3.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Depth (ft)	19.0		
Casing Hammer	Automatic	Drilling Foreman	Darryl Green
Weight (lbs)	140	Drop (in)	30
Sampler	2in OD Split Spoon	Field Engineer	Ning Lee
Sampler Hammer	Automatic		
Weight (lbs)	140	Drop (in)	30

Material Symbol	Elev. (ft) +379.3	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Brown CLAY, trace fine Sand (moist) [CL]	0	S-1	SS	16	WOH WOH 2 2	2	04/18/2025, 10:30 AM. Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft
▨		Brown CLAY, trace fine Sand (moist) [CL]	2	S-2	SS	22	4 4 3 4	7	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash
		▽	3						
▨		Brown CLAY, trace fine Sand (wet) [CL]	4	S-3	SS	23	1 1 1 1	2	Take S-3 from 4 to 6 ft S-3: #4 = 100%; #200 = 99% S-3: LL = 28%; PI = 10%
▥	+373.3	Dark brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	22	1 3 2 3	5	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, brown wash
▥		Brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	20	2 4 4 4	8	Take S-5 from 8 to 10 ft
▥		Brown SILT, trace fine Sand (wet) [ML]	10	S-6	SS	17	3 4 5 5	9	Take S-6 from 10 to 12 ft
▥			12						Drive casing to 14 ft. Drill to 14 ft, brownish gray wash.
▥			13						
▥		Light gray SILT, trace fine Sand (wet) [ML]	14	S-7	SS	13	WOH WOH WOH WOH	0	Take S-7 from 14 to 16 ft
			16						



LANGAN Log of Boring **LB-010** Sheet 2 of 2

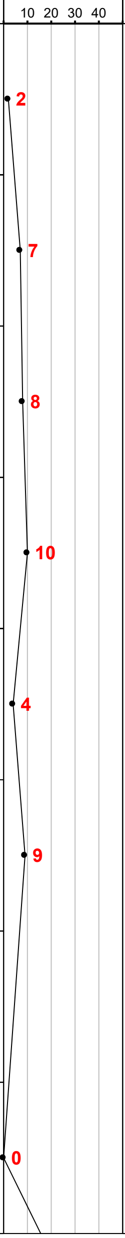
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 379.3

Material Symbol	Elev. (ft) +363.3	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16						Drive casing to 18 ft. Drill to 18 ft, gray wash.
			17						
	+361.0		18						Take S-8 from 18 to 20 ft
	+360.2	Dark gray Weak ROCK, trace fine Sand, trace Silt (wet) [Weak ROCK]		S-8	SS	4	42 50/3"	50/3"	Boring terminated at 18.8 ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 19.0ft.	19						
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
			31						
			32						
			33						
			34						
			35						
			36						

LANGAN Log of Boring **LB-011** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.7 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/15/2025
		Date Finished	4/15/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	18.4 ft
		Rock Depth	18.4 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8 Undisturbed 0 Core 0
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 0.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Depth (ft)	18.0		
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon	Field Engineer	Ning Lee
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

Material Symbol	Elev. (ft) +377.7	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Light brown CLAY, trace Sand, rootslets (wet) [CL]	0	S-1	SS	12	WOH WOH 2 3	2	04/09/2025, 1:54 PM. Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft
▨		Mottled brown CLAY, trace fine Sand (wet) [CL]	2	S-2	SS	23	3 4 3 5	7	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash
▨		Light brown CLAY, trace fine Sand (wet) [CL]	4	S-3	SS	18	1 4 4 5	8	Take S-3 from 4 to 6 ft
▨		Mottled light brown CLAY, trace fine Sand (wet) [CL]	6	S-4	SS	19	4 5 5 6	10	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, brownish gray wash
▨		Mottled light gray CLAY, trace fine Sand (wet) [CL]	8	S-5	SS	18	2 2 2 3	4	Take S-5 from 8 to 10 ft
▨		Light gray CLAY, trace fine Sand (wet) [CL]	10	S-6	SS	21	4 4 5 6	9	Take S-6 from 10 to 12 ft
▨			12						Drive casing to 14 ft. Drill to 14 ft, gray wash.
▥	+363.7	Brown SILT, trace fine Sand (wet) [ML]	14	S-7	SS	0	WOH WOH WOH WOH	0	Take S-7 from 14 to 16 ft S-7: LL = NP; PI = NP Drive casing to 18 ft. Drill to 18 ft, light rig chatter, gray wash.



LANGAN Log of Boring **LB-011** Sheet 2 of 2

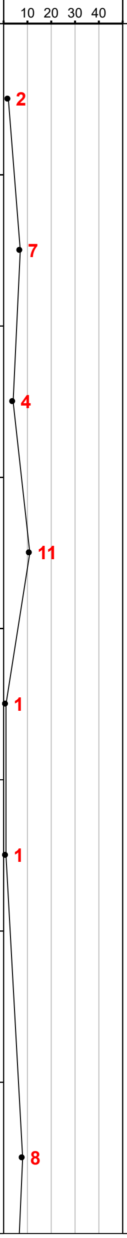
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.7

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+361.7		16						
	+361.5	No Recovery	17						
	+359.2	No Recovery	18	S-8	SS	0	50/5"	50/5"	Take S-8 from 18 to 20 ft. Refusal encountered at 18.4 ft. Boring terminated at 18.4 ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 18.4ft.	19						
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
			31						
			32						
			33						
			34						
			35						
			36						

LANGAN Log of Boring **LB-015** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.2 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/15/2025 / 4/15/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	22.5 ft / 22.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9; Undisturbed 0; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 22.0	Water Level (ft.)	First ▽ 4.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon	Field Engineer	Ning Lee
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

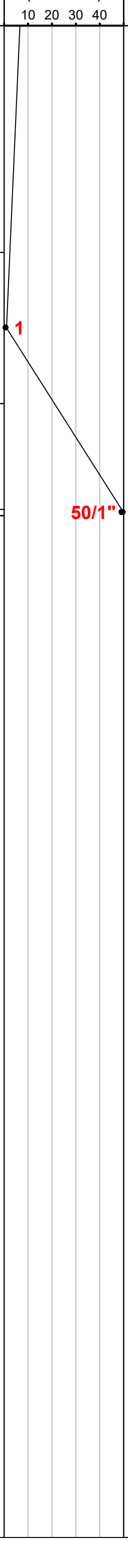
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.2	Brown SILT, trace fine Sand (moist) [ML]	0–2	S-1	SS	10	WOH WOH 2 3	2	04/15/2025 11:54 AM Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft
	Brown SILT, trace fine Sand (moist) [ML]	2–4	S-2	SS	17	4 3 4 3	7	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash
+373.2	▽ Brown CLAY, trace fine Sand (wet) [CL]	4–6	S-3	SS	17	2 2 2 4	4	Take S-3 from 4 to 6 ft
	Brown CLAY, trace fine Sand(wet) [CL]	6–8	S-4	SS	23	6 7 4 9	11	Take S-4 from 6 to 8 ft S-4: LL = 33%; PI = 13% Drive casing to 8 ft. Drill to 8 ft, brownish gray wash
+369.2	Light gray SILT, trace fine Sand (wet) [ML]	8–10	S-5	SS	24	WOH WOH 1 2	1	Take S-5 from 8 to 10 ft S-5: LL = NP; PI = NP S-5: LL = NP; PI = NP
	Light gray SILT, trace fine Sand (wet) [ML]	10–12	S-6	SS	22	WOH WOH 1 1	1	Take S-6 from 10 to 12 ft
		12–14						Drive casing to 14 ft. Drill to 14 ft, gray wash
	Light gray SILT, trace fine Sand (wet) [ML]	14–16	S-7	SS	20	5 4 4 2	8	Take S-7 from 14 to 16 ft



LANGAN Log of Boring **LB-015** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.2

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+361.2		16						Drive casing to 19 ft. Drill to 19 ft, gray wash
			17						
			18						
	+358.2	Light gray CLAY, trace fine Sand (wet) [CL]	19				1 WOH		Take S-8 from 19 to 21 ft
			20	S-8	SS	3	1 WOH	1	
			21						Drive casing to 19 ft. Drill to 19 ft, gray wash
			22						Take S-9 from 22 to 24 ft Boring terminated at 22.1 ft. Temporary well installed on 04/15/2025.
	+354.8 +354.7	No Recovery End of Boring at 22.5ft.		S-9	SS	0	50/1"	50/1"	
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
			31						
			32						
			33						
			34						
			35						
			36						



LANGAN

Log of Boring LB-016

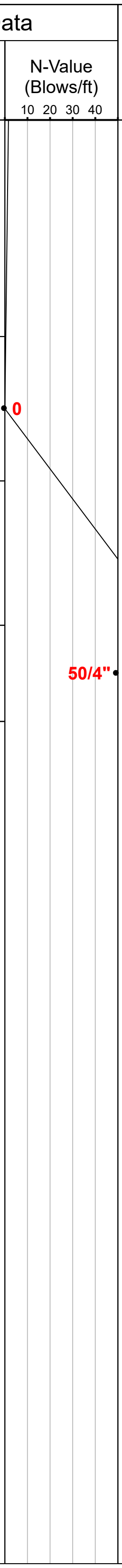
Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 376.7 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/16/2025
		Date Finished	4/16/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	24.3 ft
		Rock Depth	24.3 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9 Undisturbed 0 Core 0
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 6.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Depth (ft)	24.0		
Casing Hammer	Automatic	Drilling Foreman	Darryl Green
Weight (lbs)	140		
Drop (in)	30		
Sampler	2in OD Split Spoon	Field Engineer	Ning Lee
Sampler Hammer	Automatic		
Weight (lbs)	140		
Drop (in)	30		

Elev. (ft) +376.7	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0						4/16/2025 9:16 Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft
+375.7	Brown SILT, trace fine Sand (moist) [ML]	1	S-1	SS	10	WOH WOH 1 1	1	
	Brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	15	5 5 6 7	11	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash
	Brown SILT, trace fine Sand (moist) [ML]	4	S-3	SS	17	2 5 7 4	12	Take S-3 from 4 to 6 ft
+370.7	Brown CLAY, trace fine Sand (wet) [CL]	6 ▽	S-4	SS	20	3 3 3 4	6	Take S-4 from 6 to 8 ft S-4: LL = 34%; PI = 17% Drive casing to 8 ft. Drill to 8 ft, brownish gray wash
	Light gray CLAY, trace fine Sand (wet) [CL]	8	S-5	SS	19	WOH WOH WOH WOH	0	Take S-5 from 8 to 10 ft
	Light gray CLAY, trace fine Sand (wet) [CL]	10	S-6	SS	19	WOH WOH WOH WOH	0	Take S-6 from 10 to 12 ft Drive casing to 14 ft. Drill to 14 ft, gray wash
		12						
		13						
	Light gray SILT, trace fine Sand (wet) [ML]	14	S-7	SS	15	WOH 1 1 1	2	Take S-7 from 14 to 16 ft Drive casing to 19 ft. Drill to 19 ft, gray wash
		16						

LANGAN Log of Boring **LB-016** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 376.7



Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+360.7		16						
▨		Light gray SILT, trace fine Sand (wet) [ML]	19–21	S-8	SS	12	WOH WOH WOH WOH	0	Take S-8 from 19 to 21 ft Drive casing to 23 ft. Drill to 23 ft, moderate rig chatter, gray wash
⁘	+353.7	Dark gray Gravelly fine SAND, some Silt (wet) [SP-SM]	23–24.3	S-9	SS	9	47 38 50/4"	50/4"	Take S-9 from 23 to 24.3 ft
	+352.4	End of Boring at 24.3ft.							Boring terminated at 24.3 ft. Boring backfilled to grade with soil cuttings.

Depth Scale: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

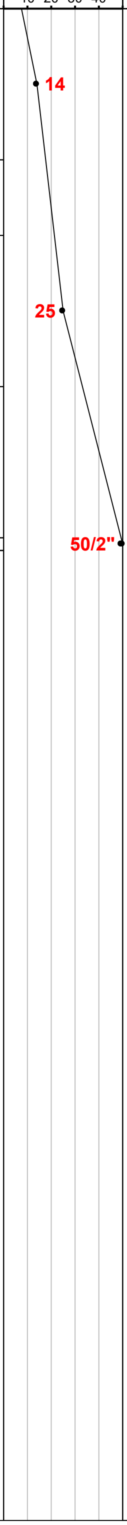
LANGAN Log of Boring **LB-017** Sheet 1 of 2

Project: Micron New York Manufacturing Facility
Project No.: 170883801
Location: Town of Clay, New York
Elevation and Datum: Approx +EL 378.9 NAVD88
Drilling Company: Atlantic Testing Laboratories (ATL)
Date Started: 4/23/2025
Date Finished: 4/23/2025
Drilling Equipment: CME-55LC
Completion Depth: 23.2 ft
Rock Depth: 23.2 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit
Number of Samples: Disturbed 11 Undisturbed 0 Core 0
Casing Diameter (in): 4
Casing Depth (ft): 23.0
Water Level (ft.): First ▽ 4.5 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic
Weight (lbs): 140
Drop (in): 30
Drilling Foreman: Scott McGregor
Sampler: 2in OD Split Spoon
Sampler Hammer: Automatic
Weight (lbs): 140
Drop (in): 30
Field Engineer: Brendon Creed

Elev. (ft) +378.9	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	12	WOH 1 2 2	3	04/23/2025,1:31:59 PM Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft
+378.4	Tannish brown CLAY, trace fine Sand (moist) [CL]		S-1B					
	Tannish brown to light brown CLAY, trace fine Sand (moist) [CL]	2	S-2	SS	19	1 3 4 4	7	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, smooth drilling, tannish brown wash.
+374.9	Tannish brown Sandy SILT (moist) [ML] ▽	4	S-3	SS	18	2 3 2 4	5	Take S-3 from 4 to 6 ft.
	Tannish brown SILT, some fine Sand (moist) [ML]	6	S-4	SS	16	3 3 5 4	8	Take S-4 from 6 to 8 ft.
	Gray to grayish brown Sandy SILT (wet) [ML]	8	S-5	SS	15	1 3 3 4	6	Take S-5 from 8 to 10 ft. Driving casing to 8 ft. Drill to 8 ft, smooth drilling, grayish brown wash.
	Grayish brown SILT, some fine Sand (wet) [ML]	10	S-6	SS	13	3 3 3 3	6	Take S-6 from 10 to 12 ft. Drive casing to 12 ft. Drill to 12 ft, smooth drilling, grayish brown wash.
	Grayish brown SILT, some fine Sand (wet) [ML]	12	S-7	SS	14	WOH 1 WOH 2	1	Take S-7 from 12 to 14 ft. Drive casing to 14 ft. Drill to 14 ft, smooth drilling, grayish brown wash.
	Grayish brown SILT, some fine Sand (wet) [ML]	14	S-8	SS	7	WOR WOH 1 1	1	Take S-8 from 14 to 16 ft.
		16						

LANGAN Log of Boring **LB-017** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 378.9



Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+362.9	Grayish brown SILT, some fine Sand (wet) [ML]	16	S-9A	SS	19	WOH 4 10	14	Take S-9 from 16 to 18 ft.
	Grayish brown SILT, some fine Gravel, trace fine Sand (wet) [ML]	17	S-9B			14		Drive casing to 19 ft. Drill to 19 ft, light rig chatter at 18.5 ft, grayish brown wash.
		18						
+359.9	Grayish brown fine SAND, some fine subangular Gravel, some Silt (wet) [SM]	19	S-10	SS	1	14 11 14 10	25	Take S-10 from 19 to 21 ft. S-10: LL = NP; PI = NP
		20						
		21						Drive casing to 22 ft. Drill to 22 ft, light rig chatter, dark grayish brown wash.
+356.9		22						
+355.7	Dark gray to black Weak Rock, trace Clay, trace fine Sand (wet) [Weak ROCK]	23	S-11	SS	1	50/2"	50/2"	Take S-11 from 23 to 23.2 ft.
	End of Boring at 23.2ft.	24						Boring terminated at 23.2 ft. Boring backfilled to grade with soil cuttings.
		25						
		26						
		27						
		28						
		29						
		30						
		31						
		32						
		33						
		34						
		35						
		36						

LANGAN Log of Boring **LB-019** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 376.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 4/23/2025	Date Finished: 4/23/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth: 24.9 ft	Rock Depth: 24.9 ft
Size and Type of Bit	4in Hollow Stem Auger	Number of Samples	Disturbed: 11 Undisturbed: 1 Core: 0
Casing Diameter (in): 4	Casing Depth (ft): 24.0	Water Level (ft.)	First ▽ 1.5 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, Shelby Tube	Field Engineer	Ning Lee
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Depth Scale	Elev. (ft)	Sample Description
0	+376.1	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]
	+375.8	Dark brown CLAY, trace fine Sand (moist) [CL]
1.5		▽
	+374.1	Orangish brown SILT, trace fine Sand (wet) [ML]
	+373.5	Orangish brown CLAY, trace fine Sand (wet) [CL]
4		Brown CLAY, trace fine Sand (wet) [CL]
6		Dark brown CLAY, trace fine Sand (wet) [CL]
8	+368.1	Dark brown SILT, trace fine Sand (wet) [ML]
10		Light gray SILT, trace fine Sand (wet) [ML]
12		Light gray SILT, trace fine Sand (wet) [ML]
14		Light gray SILT, trace fine Sand (wet) [ML]

Sample Data

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0	S-1A			WOH	
1	S-1B	SS	8	12 1 2	13
2	S-2A S-2B	SS	19	6 4 5 5	9
4	S-3	SS	22	2 3 3 4	6
6	S-4	SS	23	7 5 6 4	11
8	S-5	SS	15	WOH 2 4 3	6
10	S-6	SS	18	2 3 2 4	5
12	S-7	SS	20	3 3 5 6	8
14	UD-1	U	24		

Remarks

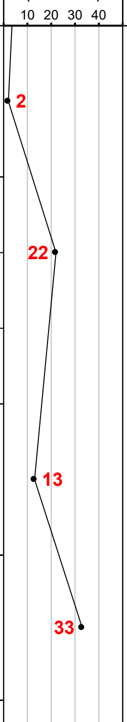
(Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth Scale	Remarks
0	04/23/2025, 11:33 AM Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft
2	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash.
4	Take S-3 from 4 to 6 ft
6	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, brown wash.
8	Take S-5 from 8 to 10 ft
10	Take S-6 from 10 to 12 ft
11	Drive casing to 12 ft. Drill to 12 ft, gray wash.
12	Take S-7 from 12 to 14 ft S-7: #4 = 100%; #200 = 99% S-7: LL = NP; PI = NP
13	Drive casing to 14 ft. Drill to 14 ft, gray wash.
14	Take U-1 from 14 to 16 ft. No recovery
15	Drive casing to 16 ft. Drill to 16 ft, gray wash.

LANGAN Log of Boring **LB-019** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 376.1

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+360.1	Light gray SILT, trace fine Sand (wet) [ML]	16	S-8	SS	22	1 1 1 1	2	Take S-8 from 16 to 18 ft
		18	S-9	SS	12	6 10 12 12	22	Drive casing to 19ft. Drill to 19ft, gray wash.
+357.1	Dark gray Gravelly fine SAND, some Silt (wet) [SM]	19						Take S-9 from 19 to 21 ft Drive casing to 21 ft. Drill to 21 ft, gray wash.
+356.1		20						
	No Recovery	21	S-10	SS	0	8 7 6 8	13	Take S-10 from 21 to 23 ft
	Dark gray fine GRAVEL, trace Clay (wet) [GP-GC][Weak ROCK]	23	S-11	SS	7	10 18 15 50/5"	33	Take S-11 from 23 to 25 ft
+351.2	End of Boring at 24.9ft.	24.9						Boring terminated at 24.9 ft. Boring backfilled to grade with soil cuttings.



Depth Scale: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-020** Sheet 1 of 2

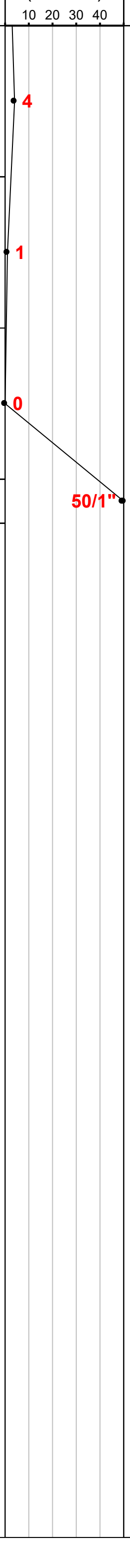
Project	Micron New York Manufacturing Facility		Project No.	170883801	
Location	Town of Clay, New York		Elevation and Datum	Approx +EL 376.9 NAVD88	
Drilling Company	Atlantic Testing Laboratories (ATL)		Date Started	4/24/2025	Date Finished 4/24/2025
Drilling Equipment	Geoprobe 7822DT		Completion Depth	22.6 ft	Rock Depth 22.6 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit		Number of Samples	Disturbed 12	Undisturbed 0 Core 0
Casing Diameter (in)	4	Casing Depth (ft) 22.0	Water Level (ft.)	First ∇ 4.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Darryl Green	
Sampler	2in OD Split Spoon		Field Engineer	Ning Lee	
Sampler Hammer	Automatic	Weight (lbs) 140 Drop (in) 30			

Material Symbol	Elev. (ft) +376.9	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+376.7	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL] Brown CLAY, trace fine Sand (moist) [CL]	0	S-1A			WOH		04/24/2025, 9:46AM. Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft
			1	S-1B	SS	14	WOH 1 2	1	
	+374.9	Brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	19	4 4 3 4	7	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash.
		Brown SILT, trace fine Sand (moist) [ML]	∇ 4	S-3	SS	17	1 2 4 4	6	Take S-3 from 4 to 6 ft
		Brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	22	7 6 6 4	12	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, brown wash.
		Brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	22	3 3 3 4	6	Take S-5 from 8 to 10 ft
		Brown SILT, trace fine Sand (wet) [ML]	10	S-6	SS	23	2 2 2 2	4	Take S-6 from 10 to 12 ft Drive casing to 12 ft. Drill to 12 ft, brown wash.
		Dark brown SILT, trace fine Sand (wet) [ML]	12	S-7	SS	22	4 3 3 3	6	Take S-7 from 12 to 14 ft
		Dark brown SILT, trace fine Sand (wet) [ML]	14	S-8	SS	17	WOH 1 1 1	2	Take S-8 from 14 to 16 ft Drive casing to 16 ft. Drill to 16 ft, brown wash
			16						

LANGAN Log of Boring **LB-020** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 376.9

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+360.9	Dark brown SILT, trace fine Sand (wet) [ML]	16	S-9	SS	22	1 2 2 1	4	Take S-9 from 16 to 18 ft
		Dark brown SILT, trace fine Sand (wet) [ML]	18	S-10	SS	17	2 1 WOH 1	1	Take S-10 from 18 to 20 ft Drive casing to 20 ft. Drill to 20 ft, brown wash
		Dark brown SILT, trace fine Sand (wet) [ML]	20	S-11	SS	15	WOH WOH WOH WOH	0	Take S-11 from 20 to 22 ft
	+354.3	Dark brown Sandy SILT, some fine Gravel (wet) [ML]	22	S-12	SS	6	WOH 50/1"	50/1"	Take S-12 from 22 to 22.6 ft. Boring terminated at 22.6 ft. Temporary well installed on 04/24/2025.
		End of Boring at 22.6ft.							

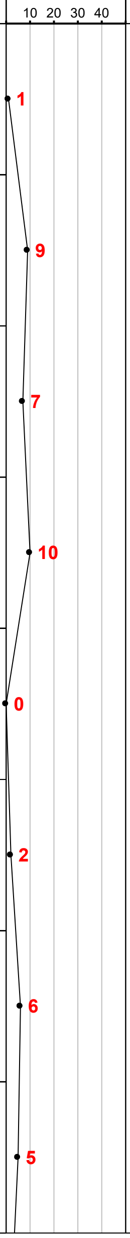


Depth Scale: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-022** Sheet 1 of 2

Project	Micron New York Manufacturing Facility			Project No.	170883801		
Location	Town of Clay, New York			Elevation and Datum	Approx +EL 378.5 NAVD88		
Drilling Company	Atlantic Testing Laboratories (ATL)			Date Started	4/28/2025	Date Finished	4/29/2025
Drilling Equipment	Geoprobe 7822DT			Completion Depth	25.1 ft	Rock Depth	25.1 ft
Size and Type of Bit	4in Hollow Stem Auger			Number of Samples	Disturbed 13	Undisturbed 0	Core 0
Casing Diameter (in)	4	Casing Depth (ft)	25.0	Water Level (ft.)	First ▽ 2.0	Completion ▼ N/A	24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30	Drilling Foreman	Darryl Green		
Sampler	2in OD Split Spoon			Field Engineer	Ning Lee		
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30				

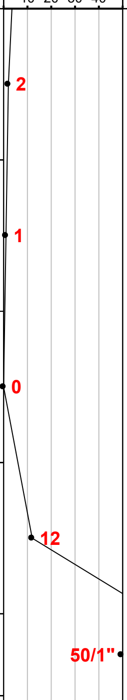


Elev. (ft) +378.5	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown CLAY, trace fine Sand, roots, some wood (moist) [TOPSOIL]	0	S-1	SS	8	WOH WOH 1 2	1	04/28/2025, 2:20 PM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+376.5	▽ Brown SILT, trace fine Sand, roots (moist) [ML]	2	S-2	SS	16	3 5 4 5	9	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash
+374.5	Brown CLAY, trace fine Sand (wet) [CL]	4	S-3	SS	17	2 3 4 4	7	Take S-3 from 4ft to 6ft.
	Brown CLAY, trace fine Sand (wet) [CL]	6	S-4	SS	10	6 5 5 4	10	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash
+370.5	Gray SILT, trace fine Sand (wet) [ML]	8	S-5	SS	16	WOH WOH WOH 2	0	Take S-5 from 8ft to 10ft.
	Gray SILT, trace fine Sand (wet) [ML]	10	S-6A S-6B	SS	21	WOH WOH 2 2	2	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML] Gray SILT, trace fine Sand (wet) [ML]	12	S-7A S-7B	SS	22	2 2 4 3	6	Take S-7 from 12ft to 14ft.
	Gray SILT, some fine Sand (wet) [ML]	14	S-8	SS	12	2 2 3 2	5	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash
		16						

Log of Boring LB-022

Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 378.5



Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+362.5	Gray SILT, some fine Sand (wet) [ML]	16	S-9A	SS	19	1 2		Take S-9 from 16ft to 18ft.
	Gray SILT, some fine Sand (wet) [ML]	17	S-9B			WOR 1	2	
	Gray SILT, some fine Sand (wet) [ML]	18	S-10	SS	19	WOH WOH		Take S-10 from 18ft to 20ft.
		19				1 2	1	Drive casing to 20ft. Drill to 20ft, gray wash.
	Gray SILT, some fine Sand (wet) [ML]	20	S-11A	SS	16	WOH WOH		Take S-11 from 20ft to 22ft.
+358.0	Gray Silty fine SAND, some fine subangular Gravel (wet) [SM]	21	S-11B			WOH WOH	0	
	Gray Silty fine SAND, some fine Gravel (wet) [SM]	22	S-12	SS	16	WOH 5		Take S-12 from 22ft to 24ft.
		23				7 7	12	Drive casing to 24ft. Drill to 24ft, moderate rig chatter, gray wash.
+354.5	Gray angular Weak ROCK, trace fine Sand (wet) [Weak ROCK]	24	S-13	SS	3	38 42 50/1"	50/1"	Take S-13 from 24ft to 26ft.
+353.4	End of Boring at 25.1ft.	25						Refusal encountered at 25.1 ft. Boring Terminated at 25.1 ft. Boring backfilled to grade with soil cuttings.
		26						
		27						
		28						
		29						
		30						
		31						
		32						
		33						
		34						
		35						
		36						

LANGAN Log of Boring **LB-023** Sheet 1 of 2

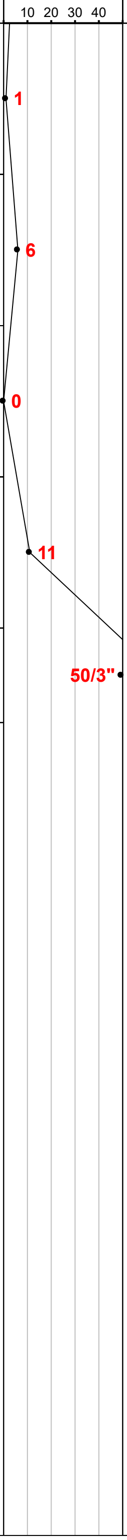
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.9 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/29/2025 / 4/29/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	25.2 ft / 25.2 ft
Size and Type of Bit	4in Hollow Stem Auger	Number of Samples	Disturbed 13 / Undisturbed 0 / Core 0
Casing Diameter (in)	4 ; Casing Depth (ft) 25.0	Water Level (ft.)	First ▽ 0.0 / Completion ▼ N/A / 24 HR. ▽ N/A
Casing Hammer	Automatic ; Weight (lbs) 140 ; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon	Field Engineer	Ning Lee
Sampler Hammer	Automatic ; Weight (lbs) 140 ; Drop (in) 30		

Material Symbol	Elev. (ft) +377.9	Sample Description ▽	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Brown CLAY, trace fine Sand, roots (wet) [TOPSOIL]	0	S-1	SS	10	WOH WOH 1 2	1	04/29/2025, 8:47 AM. Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
	+375.9	Brown SILT, trace fine Sand (wet) [ML]	2	S-2	SS	19	4 4 4 3	8	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	+373.9	Brown CLAY, trace fine Sand (wet) [CL]	4	S-3	SS	22	3 3 4 6	7	Take S-3 from 4ft to 6ft.
		Brown CLAY, trace fine Sand (wet) [CL]	6	S-4	SS	22	4 5 4 5	9	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	+369.9	Gray SILT, trace fine Sand (wet) [ML]	8	S-5	SS	20	WOH WOH 1 2	1	Take S-5 from 8ft to 10ft.
		Gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	21	1 2 2 1	4	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
		Gray SILT, trace fine Sand (wet) [ML]	12	S-7	SS	19	2 3 3 3	6	Take S-7 from 12ft to 14ft. Take S-8 from 14ft to 16ft.
		Gray SILT, trace fine Sand (wet) [ML]	14	S-8	SS	15	3 2 2 1	4	Drive casing to 16ft. Drill to 16ft, gray wash.
			16						

LANGAN Log of Boring **LB-023** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.9

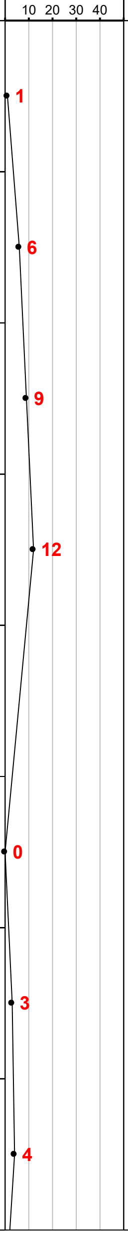
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+361.9	Gray SILT, trace fine Sand (wet) [ML]	16 17	S-9	SS	18	WOH WOH 1 1	1	Take S-9 from 16ft to 18ft.
	Gray SILT, trace fine Sand (wet) [ML]	18 19	S-10	SS	18	2 2 4 8	6	Take S-10 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML]	20 21	S-11	SS	6	1 WOR WOR WOR	0	Take S-11 from 20ft to 22ft.
+355.9	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	22 23	S-12	SS	14	4 5 6 9	11	Take S-12 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, light rig chatter, gray wash.
+353.9	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	24 25	S-13	SS	7	18 16 50/3"	50/3"	Take S-13 from 24ft to 26ft.
+352.7	End of Boring at 25.2ft.	26 27 28 29 30 31 32 33 34 35 36						Refusal encountered at 26.3 ft. Boring terminated at 26.3ft. Temporary well installed on 04/29/2025.



LANGAN Log of Boring **LB-024** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/28/2025 / 4/28/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	25.2 ft / 25.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12 / Undisturbed 1 / Core 0
Casing Diameter (in)	4 / Casing Depth (ft) 25.0	Water Level (ft.)	First ▽ 3.5 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, Shelby Tube		
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Field Engineer	Ning Lee

Elev. (ft) +377.1	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown CLAY trace fine Sand, roots (moist) [TOPSOIL]	0–2	S-1	SS	6	WOH WOH 1 1	1	04/28/2025, 12:40 PM Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
+374.7	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	2	S-2A	SS	14	3 3 3 4	6	Take S-2 from 2ft to 4ft.
	Dark brown CLAY, trace fine Sand (moist) [CL] ▽	2–4	S-2B					Drive casing to 4ft. Drill to 4ft, brown wash.
	Dark brown CLAY, trace fine Sand (wet) [CL]	4–6	S-3	SS	15	6 5 4 3	9	Take S-3 from 4ft to 6ft.
	Dark brown CLAY, trace fine Sand (wet) [CL]	6–8	S-4	SS	22	5 5 7 8	12	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	No Recovery	8–10	UD-1	U	0			Take U-1 from 8ft to 10ft.
	Gray CLAY, trace fine Sand (wet) [CL]	10–12	S-5	SS	14	WOH WOH WOH 3	0	Take S-5 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
+365.1	Gray SILT, trace fine Sand (wet) [ML]	12–14	S-6	SS	22	2 2 1 4	3	Take S-6 from 12ft to 14ft.
	Gray SILT, trace fine Sand (wet) [ML]	14–16	S-7	SS	19	3 3 1 3	4	Take S-7 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

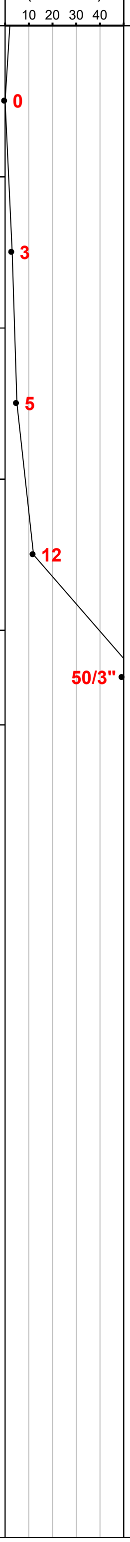
LANGAN Log of Boring **LB-024** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.1

Elev. (ft)	Sample Description
+361.1	Gray SILT, trace fine Sand (wet) [ML]
	Gray SILT, trace fine Sand (wet) [ML]
	Gray SILT, trace fine Sand (wet) [ML]
	Gray SILT, some fine subangular Gravel (wet) [ML]
+355.1	Gray Gravelly SAND, trace Silt (wet) [SP-SM]
+353.1	Dark gray fine SAND, some Silt, some fine subangular Gravel (wet) [SM]
+351.9	End of Boring at 25.2ft.

Sample Data

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
16	S-8A	SS	19	WOH WOH		Take S-8 from 16ft to 18ft.
17	S-8B			WOH 1	0	
18	S-9	SS	21	4 2 1 1	3	Take S-9 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, gray wash.
20	S-10	SS	8	WOH WOH 5 5	5	Take S-10 from 20ft to 22ft.
22	S-11	SS	9	8 8 4 5	12	Take S-11 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, brown wash.
24	S-12	SS	10	6 7 50/3"	50/3"	Take S-12 from 24ft to 26ft. S-12: #4 = 77%; #200 = 20% S-12: LL = NP; PI = NP Refusal encountered at 25.3 ft. Boring terminated at 25.3 ft. Boring backfilled to grade with soil cuttings.

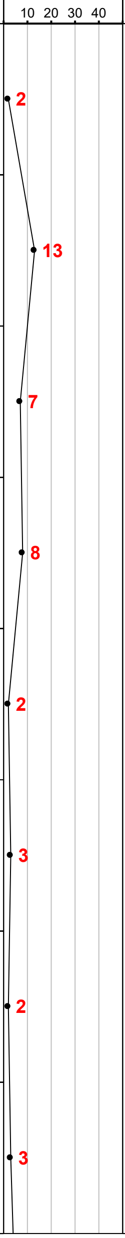


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-025** Sheet 1 of 2

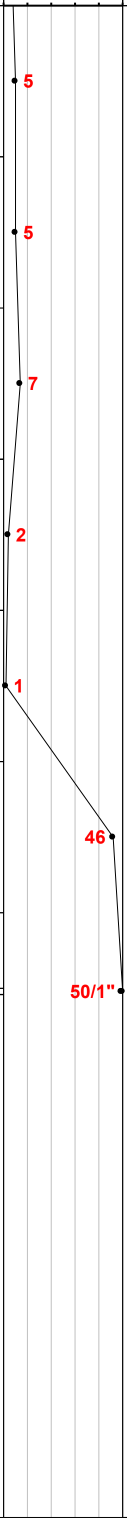
Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 377.0 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/24/2025	Date Finished: 4/24/2025
Drilling Equipment: CME-55LC		Completion Depth: 29.1 ft	Rock Depth: 29.1 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 15	Undisturbed 0 Core 0
Casing Diameter (in): 4	Casing Depth (ft): 29.0	Water Level (ft.): First ▽ 6.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Scott McGregor	
Sampler: 2in OD Split Spoon			
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Field Engineer: Brendon Creed	

Elev. (ft) +377.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.8	Dark brown CLAY, trace fine Sand, roots (wet) [TOPSOIL]	0	S-1A			WOH		04/24/2025,9:46:56 AM. Utilities Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
	Tannish brown CLAY, trace fine Sand (moist) [CL]	1	S-1B	SS	14	1 1 2	2	
+375.0	Yellowish brown SILT, trace fine Sand, trace fine Gravel (moist) [ML]	2	S-2	SS	14	8 8 5 7	13	Take S-2 from 2 to 4 ft. S-2: #4 = 97%; #200 = 94% S-2: LL = NP; PI = NP Drive casing to 4 ft. Drill to 4 ft, smooth drilling, tannish brown wash.
	Tannish orangish brown SILT, some fine Sand (moist) [ML]	4	S-3	SS	16	3 3 4 4	7	Take S-3 from 4 to 6 ft.
	Tannish orangish brown SILT, some fine Sand (moist) [ML]	6 ▽	S-4	SS	12	1 4 4 7	8	Take S-4 from 6 to 8 ft. Drive casing to 8ft. Drill to 8 ft, smooth drilling, tannish brown wash.
	Tan SILT, trace fine Sand (wet) [ML]	8	S-5	SS	24	1 1 1 2	2	Take S-5 from 8 to 10 ft.
	Tannish brown to grayish brown SILT, trace fine Sand (wet) [ML]	10	S-6	SS	10	2 2 1 2	3	Take S-6 from 10 to 12 ft. Drive casing to 12ft. Drill to 12 ft, smooth drilling, tannish brown wash.
	Brown to grayish brown SILT, trace fine Sand (wet) [ML]	12	S-7	SS	15	WOH 1 1 1	2	Take S-7 from 12 to 14 ft. S-7: LL = NP; PI = NP Drive casing to 14ft. Drill to 14 ft, smooth drilling, grayish brown wash.
	Grayish brown SILT, some fine Sand (wet) [ML]	14	S-8	SS	15	WOH 1 2 3	3	Take S-8 from 14 to 16 ft. Drive casing to 16ft. Drill to 16 ft, smooth drilling, grayish brown wash.
		16						



LANGAN Log of Boring **LB-025** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0



Elev. (ft) +361.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Gray to grayish brown SILT, trace fine Sand (wet) [ML]	16–18	S-9	SS	22	2 2 3 3	5	Take S-9 from 16 to 18 ft. Drive casing to 18ft. Drill to 18 ft, smooth drilling, grayish brown wash.
	Grayish brown SILT, trace fine Sand (wet) [ML]	18–20	S-10	SS	10	2 2 3 3	5	Take S-10 from 18 to 20 ft.
	Grayish brown SILT, trace fine Sand (wet) [ML]	20–22	S-11	SS	20	1 3 4 2	7	Take S-11 from 20 to 22 ft. Drive casing to 22ft. Drill to 22 ft, smooth drilling, grayish brown wash.
	Grayish brown SILT, trace fine Sand (wet) [ML]	22–24	S-12	SS	20	1 1 1 1	2	Take S-12 from 22 to 24 ft. S-12: #4 = 100%; #200 = 99% S-12: LL = NP; PI = NP
	Brown to gray SILT, trace fine Sand, trace fine Gravel (wet) [ML]	24–26	S-13	SS	15	WOR WOR 1 8	1	Take S-13 from 24 to 26 ft. Drive casing to 26ft. Drill to 26 ft, smooth drilling, grayish brown wash.
+351.0	Grayish brown Gravelly fine SAND, some Silt (wet) [SM]	26–28	S-14	SS	7	6 8 38 23	46	Take S-14 from 26 to 28 ft. Drill to 29 ft, moderate rig chatter, gray wash.
+349.0		28						
+347.9	Gray to dark gray Weak ROCK (wet) [Weak ROCK] End of Boring at 29.1ft.	29	S-15	SS	1	50/1"	50/1"	Take S-15 from 29 to 31 ft. Refusal encountered at 29.1 ft. Boring terminated at 29.1 ft. Boring backfilled to grade with soil cuttings.

Depth Scale: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

LANGAN Log of Boring **LB-028** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 380.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/30/2025 / 4/30/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	27.7 ft / 27.7 ft
Size and Type of Bit	4in Hollow Stem Auger	Number of Samples	Disturbed 14; Undisturbed 0; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 27.0	Water Level (ft.)	First ▽ 1.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Ning Lee

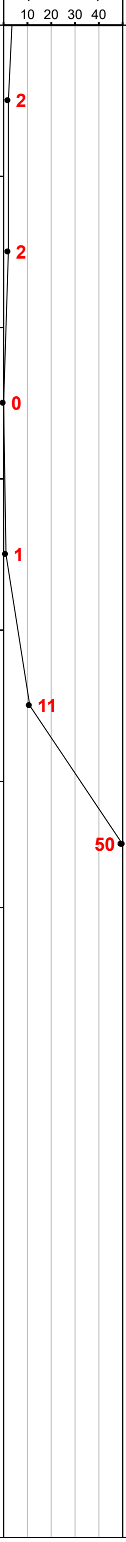
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+380.0	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A			WOH WOH		04/30/25, 9:30 AM Utility Clearance Exemption Signed by PIC.
+379.2	Brown CLAY, trace fine Sand (moist) [CL] ▽	1	S-1B	SS	12	1 3	1	Take S-1 from 0ft to 2ft.
+378.0	Brown SILT, trace fine Sand (moist) [ML]	2						
+377.3	Brown CLAY, trace fine Sand (moist) [CL]	3	S-2	SS	18	5 2 4 3	6	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, smooth drilling, tannish brown wash.
	Brown CLAY, trace fine Sand (moist) [CL]	4–6	S-3	SS	23	5 5 6 7	11	Take S-3 from 4ft to 6ft.
	Brown CLAY, trace fine Sand (wet) [CL]	6–8	S-4	SS	15	9 8 7 7	15	Take S-4 from 6 to 8 ft. Drive casing to 8ft. Drill to 8 ft, smooth drilling, tannish brown wash.
+372.0	Brown SILT, trace fine Sand (moist) [ML] Grayish brown SILT, trace fine Sand (wet) [ML]	8–10	S-5	SS	23	5 5 5 5	10	Take S-5 from 8 to 10 ft.
	Gray SILT, trace fine Sand, some fine subangular Gravel (wet) [ML]	10–12	S-6	SS	18	5 4 5 4	9	Take S-6 from 10 to 12 ft. Drive casing to 12ft. Drill to 12 ft, smooth drilling, tannish brown wash.
	Gray SILT, trace fine Sand (wet) [ML]	12–14	S-7	SS	23	4 5 7 5	12	Take S-7 from 12 to 14 ft. Drive casing to 14ft. Drill to 14 ft, smooth drilling, grayish brown wash.
	Gray SILT, trace fine Sand (wet) [ML]	14–16	S-8	SS	15	1 2 3 1	5	Take S-8 from 14 to 16 ft. Drive casing to 16ft. Drill to 16 ft, smooth drilling, grayish brown wash.

LANGAN

Log of Boring **LB-028** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 380.0

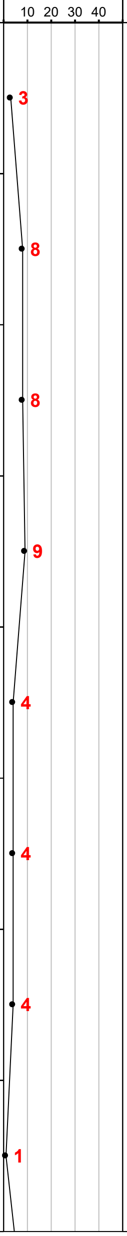
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+364.0	Gray SILT, trace fine Sand (wet) [ML]	16–18	S-9	SS	23	WOH 1 1 2	2	Take S-9 from 16 to 18 ft. Drive casing to 18ft. Drill to 18 ft, smooth drilling, grayish brown wash.
	Gray Sandy SILT, some fine subangular Gravel (wet) [ML]	18–20	S-10	SS	23	WOH WOH 2 2	2	Take S-10 from 18 to 20 ft.
	Gray Sandy SILT, some fine subangular Gravel (wet) [ML]	20–22	S-11	SS	23	WOH WOH WOH WOH	0	Take S-11 from 20 to 22 ft. Drive casing to 22ft. Drill to 22 ft, smooth drilling, grayish brown wash.
	Gray Sandy SILT, some fine subangular Gravel (wet) [ML]	22–24	S-12	SS	22	WOH WOH 1 1	1	Take S-12 from 22 to 24 ft. S-12: LL = 13%; PI = 3%
+356.0	Gray Silty fine SAND, some fine Gravel (wet) [SM]	24–26	S-13	SS	6	WOH WOH 11 10	11	Take S-13 from 24 to 26 ft. Drive casing to 26ft. Drill to 26 ft, light rig chatter drilling, grayish brown wash.
	Gray Silty fine SAND, some fine Gravel (wet) [SM]	26–26.5	S-14A	SS	18	9 20		Take S-14 from 26ft to 27.7ft. Refusal encountered at 27.7 ft.
+353.5	Gray fine subangular Weak ROCK, trace fine Sand, trace Silt (wet) [Weak ROCK]	26.5–27.7	S-14B			30 50/2"	50	
+352.3	End of Boring at 27.7ft.							Boring terminated at 27.7 ft. Boring backfilled to grade with soil cuttings.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-031** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/29/2025
		Date Finished	4/29/2025
Drilling Equipment	CME-55LC	Completion Depth	27.7 ft
		Rock Depth	27.7 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 13 Undisturbed 0 Core 0
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Depth (ft)	26.0	Drilling Foreman	Scott McGregor
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Field Engineer	Arvind Ganesan
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

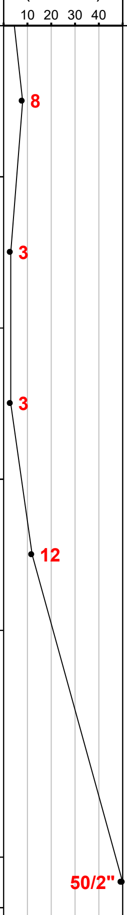


Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.0	Brownish gray Clayey medium to fine SAND, roots (moist) [TOPSOIL]	0	S-1A	SS	6	WOH WOH 3	3	4/29/2025 8:08 Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+375.2	Tannish brown CLAY, trace fine Sand (moist) [CL] ▽ Mottled grayish brown to gray CLAY, trace fine Sand [CL]		S-1B			2		
		2	S-2	SS	16	4 5 3 4	8	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Mottled grayish brown to gray CLAY, trace fine Sand [CL]	4	S-3	SS	16	1 4 4 7	8	Take S-3 from 4ft to 6ft.
	Mottled grayish brown to gray CLAY, trace fine Sand [CL]	6	S-4	SS	20	3 4 5 3	9	Take S-4 from 6ft to 8ft. S-4: LL = 33%; PI = 17% Drive casing to 8ft. Drill to 8ft, brown wash.
	Mottled grayish brown to gray CLAY, trace fine Sand [CL]	8	S-5	SS	10	1 2 2 2	4	Take S-5 from 8ft to 10ft.
+367.0	Tannish brown SILT, trace fine Sand (moist) [ML] Gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	24	1 2 2 2	4	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML]	12	S-7	SS	12	WOH 2 2 3	4	Take S-7 from 12ft to 14ft.
	Gray SILT, trace fine Sand (wet) [ML]	14	S-8	SS	9	WOH WOH 1 3	1	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
		16						

LANGAN Log of Boring **LB-031** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0

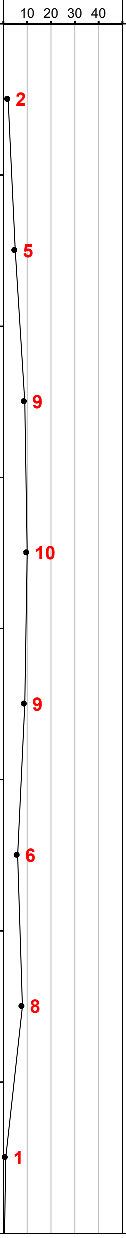
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+361.0	Gray SILT, trace fine Sand (wet) [ML]	16–18	S-9	SS	15	3 4 4 2	8	Take S-9 from 16ft to 18ft.
	Gray SILT, trace fine Sand (wet) [ML]	18–20	S-10	SS	18	1 1 2 2	3	Take S-10 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML]	20–22	S-11	SS	18	WOH 2 1 1	3	Take S-11 from 20ft to 22ft.
+355.0	Gray fine subangular to angular Weak ROCK, trace Clay (wet) [Weak ROCK]	22–24	S-12	SS	6	22 6 6 6	12	Take S-12 from 22ft to 24ft. Drive casing to 27ft. Drill to 27ft, moderate rig chatter, gray wash.
	Gray fine subangular to angular Weak ROCK, trace Clay (wet) [Weak ROCK]	27–27.7	S-13	SS	2	7 50/2"	50/2"	Take S-13 from 27ft to 29ft. Refusal encountered at 27.7 ft. Boring terminated at 27.7ft. Temporary well installed on 04/29/2025.
+349.3	End of Boring at 27.7ft.							



LANGAN Log of Boring **LB-032** Sheet 1 of 2

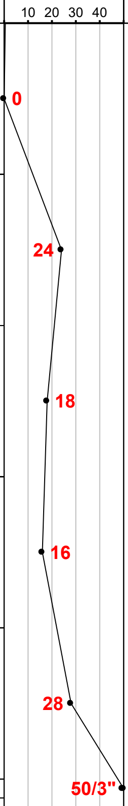
Project	Micron New York Manufacturing Facility		Project No.	170883801	
Location	Town of Clay, New York		Elevation and Datum	Approx +EL 377.0 NAVD88	
Drilling Company	Atlantic Testing Laboratories (ATL)		Date Started	4/24/2025	Date Finished: 4/28/2025
Drilling Equipment	Geoprobe 7822DT		Completion Depth	26.2 ft	Rock Depth: 26.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit		Number of Samples	Disturbed: 14	Undisturbed: 0 Core: 0
Casing Diameter (in)	4	Casing Depth (ft): 26.0	Water Level (ft.)	First ▽ 4.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Darryl Green	
Sampler	2in OD Split Spoon		Field Engineer	Ning Lee	
Sampler Hammer	Automatic	Weight (lbs): 140 Drop (in): 30			

Elev. (ft) +377.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.8	Dark brown SILT, trace fine Sand, roots (moist) [ML] Brown SILT, trace fine Sand (moist) [ML]	0	S-1A S-1B	SS	13	WOH WOH 2 2	2	04/24/2025, 2:07 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	Brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	18	4 3 2 3	5	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash.
	▽ Brown SILT, trace fine Sand (moist) [ML]	4	S-3	SS	23	3 4 5 7	9	Take S-3 from 4 to 6 ft
	Dark brown SILT, trace fine Sand (wet) [ML]	6	S-4A S-4B	SS	17	7 5 5 6	10	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, heavy rig chatter, brown wash.
	Brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	23	4 4 5 5	9	Take S-5 from 8 to 10 ft
	Brown SILT, trace fine Sand (wet) [ML]	10	S-6	SS	18	3 3 3 2	6	Take S-6 from 10 to 12 ft Drive casing to 12 ft. Drill to 12 ft, brownish gray wash.
	Light gray SILT, trace fine Sand (wet) [ML]	12	S-7	SS	20	3 4 4 3	8	Take S-7 from 12 to 14 ft
	Light gray SILT, trace fine Sand (wet) [ML]	14	S-8	SS	12	WOH WOH 1 WOH	1	Take S-8 from 14 to 16 ft Drive casing to 16 ft. Drill to 16 ft, heavy rig chatter, gray wash.
		16						



LANGAN Log of Boring **LB-032** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0



Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+361.0	Light gray SILT, trace fine Sand (wet) [ML]	16	S-9	SS	21	WOH WOH WOH WOH	0	Take S-9 from 16 to 18 ft S-9: LL = NP; PI = NP
	Light gray Sandy SILT, trace fine Sand (wet) [ML]	18	S-10A	SS	17	WOH 8		Take S-10 from 18 to 20 ft
+358.0	Light gray Silty fine SAND, some fine Gravel (wet) [SM]	19	S-10B			16 22	24	Drive casing to 20 ft. Drill to 20 ft, gray wash.
	Dark gray Silty medium to fine SAND, some fine subangular Gravel (wet) [SM]	20	S-11	SS	12	12 10 8 10	18	Take S-11 from 20 to 22 ft
	Dark gray Gravelly medium SAND, trace Silt (wet) [SP-SM]	22	S-12	SS	12	7 8 8 16	16	Take S-12 from 22 to 24 ft. Drive casing to 24 ft. Drill to 24 ft, moderate rig chatter, gray wash. Loss of water.
	Dark gray Gravelly medium SAND, trace Silt (wet) [SP-SM]	24	S-13	SS	8	16 16 12 14	28	Take S-13 from 24 to 26 ft
+350.8	Dark gray Gravelly medium SAND, trace Silt (wet) [SP-SM] End of Boring at 26.2ft.	26	S-14	SS	15	50/3"	50/3"	04/24/2025 4:26PM 04/25/2025 8:18 AM Take S-14 from 26 to 28 ft. Refusal encountered at 26.3 ft. Boring terminated at 26.3 ft. Boring backfilled to grade with soil cuttings.

Depth Scale: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

LANGAN Log of Boring **LB-034** Sheet 1 of 2

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 379.5 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 5/1/2025	Date Finished 5/1/2025
Drilling Equipment Geoprobe 7822DT		Completion Depth 26.5 ft	Rock Depth 26.5 ft
Size and Type of Bit 4in Hollow Stem Auger		Number of Samples: Disturbed 14	Undisturbed 0; Core 0
Casing Diameter (in) 4	Casing Depth (ft) 26.0	Water Level (ft.): First ▽ 6.0	Completion ▼ N/A; 24 HR. ▽ N/A
Casing Hammer Automatic	Weight (lbs) 140; Drop (in) 30	Drilling Foreman Darryl Green	
Sampler 2in OD Split Spoon			
Sampler Hammer Automatic	Weight (lbs) 140; Drop (in) 30	Field Engineer Ning Lee	

Elev. (ft) +379.5	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+379.2	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] Brown SILT, trace fine Sand (moist) [ML]	0	S-1A S-1B	SS	6	WOH WOH 1 2	1	5/1/2025, 8:14 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	Brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	22	10 7 8 8	15	Take S-2 from 2ft to 4ft.; Drive casing to 4ft. Drill to 4ft, brown wash.
+374.9	Brown SILT, trace fine Sand (moist) [ML] Brown CLAY, trace fine Sand (moist) [CL]	4	S-3A S-3B	SS	20	5 5 5 7	10	Take S-3 from 4ft to 6ft.
	▽ Mottled orange to yellowish brown CLAY, trace fine Sand (wet) [CL]	6	S-4	SS	23	6 6 8 8	14	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
+371.5	Gray SILT, trace fine Sand (wet) [ML]	8	S-5	SS	17	WOH 2 2 2	4	Take S-5 from 8ft to 10ft.
	Gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	23	1 2 3 3	5	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML]	12	S-7	SS	17	3 3 5 5	8	Take S-7 from 12ft to 14ft.
	Gray SILT, trace fine Sand (wet) [ML]	14	S-8	SS	8	3 4 4 4	8	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
		16						

LANGAN Log of Boring **LB-034** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 379.5

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+363.5	Gray SILT, trace fine Sand(wet) [ML]	16	S-9	SS	11	WOH 2 2 1	4	Take S-9 from 16ft to 18ft. S-9: LL = NP; PI = NP
		Gray SILT, trace fine Sand (wet) [ML]	18	S-10	SS	17	1 1 2 3	3	Take S-10 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, gray wash.
		Gray SILT, trace fine Sand (wet) [ML]	20	S-11	SS	2	WOH WOH 1 WOR	1	Take S-11 from 20ft to 22ft.
		Gray SILT, trace fine subangular Gravel, trace fine Sand (wet) [ML]	22	S-12	SS	22	WOH WOH WOH WOH	0	Take S-12 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, light rig chatter, gray wash.
	+355.5	Gray fine subangular Weak ROCK, some Silt (wet) [Weak ROCK]	24	S-13	SS	7	3 6 8 18	14	Take S-13 from 24ft to 26ft.
		Gray fine subangular GRAVEL, some Silt (wet) [GM]	26	S-14	SS	6	50	50	Take S-14 from 26ft to 26.5ft. Sample at 26.5 ft is reactive to acid Refusal encountered at 26.5 ft. Boring terminated at 26.5ft. Boring backfilled to grade with soil cuttings.
	+353.0	End of Boring at 26.5ft.							

Depth Scale: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

N-Value scale: 10 20 30 40

LANGAN Log of Boring **LB-036** Sheet 1 of 2

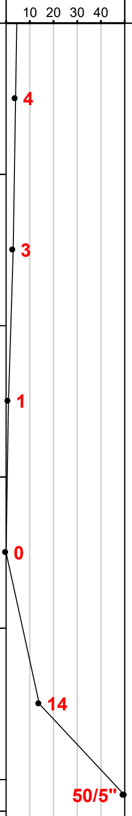
Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 378.7 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 5/1/2025	Date Finished: 5/1/2025
Drilling Equipment: Geoprobe 7822DT		Completion Depth: 26.4 ft	Rock Depth: 26.4 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 14	Undisturbed 0 Core 0
Casing Diameter (in): 4	Casing Depth (ft): 26.0	Water Level (ft.): First ▽ 2.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Darryl Green	
Sampler: 2in OD Split Spoon			
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Field Engineer: Ning Lee	

Material Symbol	Elev. (ft) +378.7	Sample Description	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1	SS	6	WOH WOH 1 2	1	5/1/2025, 11:56 AM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	+376.7	▽ Brown SILT, trace fine Sand (wet) [ML]	2	S-2	SS	17	2 3 4 4	7	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
		Brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	16	1 3 1 1	4	Take S-3 from 4ft to 6ft.
	+372.7	Brown CLAY, trace fine Sand (wet) [CL]	6	S-4A	SS	24	WOH WOH 1 1	1	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	+371.8	Brown SILT, trace fine Sand (wet) [ML]		S-4B					
		Tannish brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	12	1 1 1 1	2	Take S-5 from 8ft to 10ft.
		Gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	18	WOH WOH 2 2	2	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
		Gray SILT, trace fine Sand (wet) [ML]	12	S-7	SS	16	2 3 3 3	6	Take S-7 from 12ft to 14ft.
		Gray SILT, some fine Sand (wet) [ML]	14	S-8	SS	7	WOH 2 3 4	5	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
			16						

LANGAN Log of Boring **LB-036** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 378.7

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+362.7	Gray SILT, some fine Sand (wet) [ML]	16	S-9	SS	16	3 2 2 3	4	Take S-9 from 16ft to 18ft.
	Gray SILT, some Clay (wet) [ML]	18	S-10	SS	19	2 1 2 2	3	Take S-10 from 18ft to 20ft. S-10: LL = NP; PI = NP Drive casing to 20ft. Drill to 20ft, gray wash.
	Gray SILT, some fine Sand (wet) [ML]	20	S-11	SS	5	WOH WOH 1 1	1	Take S-11 from 20ft to 22ft.
	Gray SILT, some fine Sand (wet) [ML]	22	S-12A	SS	22	WOH WOH WOH 7	0	Take S-12 from 22ft to 24ft.
+356.2	Gray Silty fine SAND, some fine subangular Gravel (wet) [SP-SM]		S-12B					
	No Recovery	24	S-13	SS	0	15 7 7 10	14	Take S-13 from 24ft to 24ft. Drive casing to 24ft. Drill to 24ft, light rig chatter, gray wash.
+353.7		25						
+352.7	Gray Gravelly fine SAND, trace Silt, Weathered Rock (wet) [SP-SM]	26	S-14	SS	5	50/5"	50/5"	Take S-14 from 26ft to 28ft. Refusal encountered at 26.4 ft. Boring terminated at 26.4ft. Boring backfilled to grade with soil cuttings.
+352.3	End of Boring at 26.4ft.							
		27						
		28						
		29						
		30						
		31						
		32						
		33						
		34						
		35						
		36						

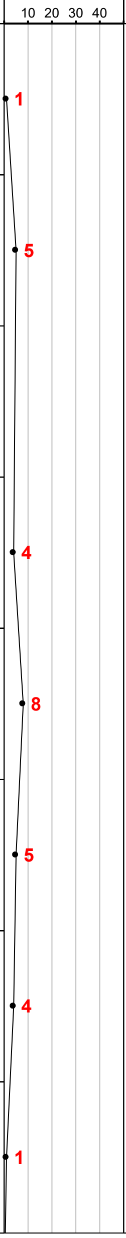


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-037** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 378.6 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/1/2025 / 5/1/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	26.8 ft / 26.8 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 13 / Undisturbed 1 / Core 0
Casing Diameter (in)	4	Casing Depth (ft)	26.0
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Water Level (ft.)	First ▽ 3.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Sampler	2in OD Split Spoon, Shelby Tube	Drilling Foreman	Darryl Green
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Ning Lee

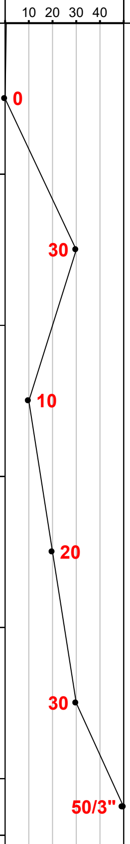
Depth Scale	Elev. (ft) +378.6	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0		Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	S-1	SS	9	WOH WOH 1 1	1	5/1/2025, 3:08 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
2	+376.6	Brown Silty CLAY, trace fine Sand (moist) [ML]	S-2	SS	23	4 2 3 2	5	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
3 ▽								
4		Brown Silty CLAY, trace fine Sand (wet) [CL-ML]	UD-1	U	24			Take U-1 from 4ft to 6ft. U-1: LL = 26%; PI = 6%
6	+372.6	Brown SILT, trace fine Sand (wet) [ML]	S-3	SS	12	2 2 2 2	4	Take S-3 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
8		Brown SILT, trace fine Sand (wet) [ML]	S-4	SS	19	3 4 4 5	8	Take S-4 from 8ft to 10ft.
10		Gray SILT, trace fine Sand (wet) [ML]	S-5	SS	20	1 2 3 2	5	Take S-5 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
12		Gray SILT, trace fine Sand (wet) [ML]	S-6	SS	20	4 2 2 3	4	Take S-6 from 12ft to 14ft.
14		No Recovery	S-7	SS	0	3 1 WOR 1	1	Take S-7 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
16								



LANGAN Log of Boring **LB-037** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 378.6

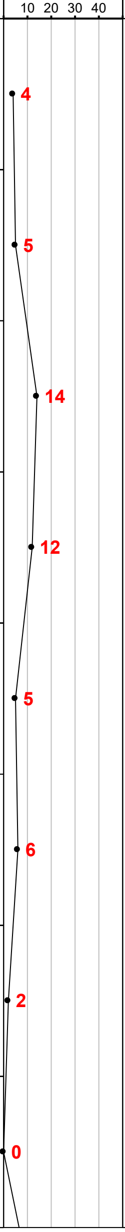
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+362.6	Gray Sandy SILT, trace fine subangular Gravel (wet) [ML]	16–18	S-8	SS	17	WOH WOH WOH WOH	0	Take S-8 from 16ft to 18ft. S-8: #4 = 98%; #200 = 57% S-8: LL = NP; PI = NP
+360.6	Gray subangular Weak ROCK, some fine Sand, some Silt (wet) [Weak ROCK]	18–20	S-9	SS	11	10 16 14 9	30	Take S-9 from 18ft to 20ft. S-9: LL = NP; PI = NP Sample reactive to acid
	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM] Weak ROCK]	20–22	S-10	SS	5	9 5 5 7	10	Drive casing to 20ft. Drill to 20ft, gray wash. Take S-10 from 20ft to 22ft.
	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM] Weak ROCK]	22–24	S-11	SS	9	10 10 10 12	20	Take S-11 from 22ft to 24ft. Sample reactive to acid.
	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM] Weak ROCK]	24–26	S-12	SS	11	8 12 18 32	30	Drive casing to 24ft. Drill to 24ft, moderate rig chatter, gray wash. Take S-12 from 24ft to 26ft. Sample reactive to acid .
+351.8	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM] Weak ROCK]	26–26.8	S-13	SS	9	28 50/3"	50/3"	Take S-13 from 26ft to 28ft. Refusal encountered at 26.8 ft. Boring terminated at 26.8ft. Boring backfilled to grade with soil cuttings.
	End of Boring at 26.8ft.	27–36						



LANGAN Log of Boring **LB-038** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 378.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/2/2025 / 5/2/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	26.7 ft / 26.7 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 14 / Undisturbed 0 / Core 0
Casing Diameter (in)	4 / Casing Depth (ft) 26.0	Water Level (ft.)	First ▽ 4.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, Shelby Tube		
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Field Engineer	Ning Lee

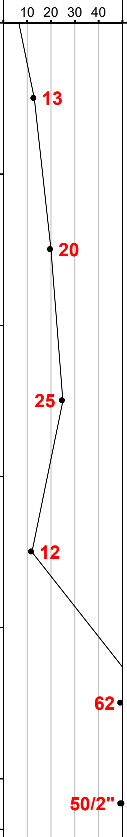
Elev. (ft) +378.8	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+378.6	Gray CLAY, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A			WOH		5/2/2025, 10:37 AM Utility Clearance Exemption Signed by PIC.
	Brown SILT, trace fine Sand (moist) [ML]	1	S-1B	SS	12	WOH 4 5	4	Take S-1 from 0ft to 2ft.
	Brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	22	5 3 2 3	5	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	▽ Brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]	4	S-3	SS	21	5 7 7 10	14	Take U-1 from 4ft to 6ft.
	Brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]	6	S-4	SS	17	7 6 6 7	12	Take S-3 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	Brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]	8	S-5	SS	18	2 3 2 4	5	Take S-4 from 8ft to 10ft.
	Brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]	10	S-6	SS	19	3 3 3 2	6	Take S-5 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, brownish gray wash.
	Gray SILT, trace fine Sand (wet) [ML]	12	S-7	SS	15	WOH WOH 2 3	2	Take S-6 from 12ft to 14ft.
	Gray SILT, trace fine Sand (wet) [ML]	14	S-8	SS	16	WOH WOH WOH WOH	0	Take S-7 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
		16						



LANGAN Log of Boring **LB-038** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 378.8

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+362.8	Gray Sandy SILT, some fine subangular Gravel (wet) [ML]	16	S-9	SS	15	WOH 6 7 9	13	Take S-8 from 16ft to 18ft.
+360.8	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	18	S-10	SS	13	8 8 12 14	20	Take S-9 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, light rig chatter, gray wash.
	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	20	S-11	SS	5	8 9 16 10	25	Take S-10 from 20ft to 22ft.
	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	22	S-12	SS	5	10 8 4 4	12	Take S-11 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, moderate rig chatter, gray wash.
	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	24	S-13	SS	16	20 30 32 35	62	Take S-13 from 24ft to 26ft.
+352.1	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	26	S-14	SS	8	40 50/2"	50/2"	Take S-14 from 26ft to 28ft. Refusal encountered at 26.7 ft. Boring terminated at 26.7ft. Boring backfilled to grade with soil cuttings.
	End of Boring at 26.7ft.							



LANGAN Log of Boring **LB-039** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.5 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 5/3/2025	Date Finished: 5/3/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth: 27.2 ft	Rock Depth: 27.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 13; Undisturbed: 1; Core: 0
Casing Diameter (in): 4	Casing Depth (ft): 27.0	Water Level (ft.)	First ▽ 5.5; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140; Drop (in): 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, Shelby Tube	Field Engineer	Ning Lee
Sampler Hammer: Automatic	Weight (lbs): 140; Drop (in): 30		

Elev. (ft) +377.5	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.2	Dark gray CLAY, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A			WOH		5/3/2025, 1:33 PM
	Brown CLAY, trace fine Sand (moist) [CL]	1	S-1B	SS	11	WOH 1 2	1	Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	Brown CLAY, trace fine Sand (wet) [CL]	2–3	S-2	SS	21	8 8 7 6	15	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Brown CLAY, trace fine Sand (wet) [CL]	4–5 (▽ 5.5)	S-3	SS	21	6 6 3 4	9	Take U-1 from 4ft to 6ft.
	Brown CLAY, trace fine Sand (wet) [CL]	6–7	UD-1	U	24			Take S-3 from 6ft to 8ft. U-1: LL = 28%; PI = 8% Drive casing to 8ft. Drill to 8ft, brownish gray wash.
	Brownish gray CLAY, trace fine Sand (wet) [CL]	8–9	S-4A	SS	18	1 1 1 1	2	Take S-4 from 8ft to 10ft.
+367.5	Gray SILT, trace fine Sand (wet) [ML]	10–11	S-5	SS	17	1 1 2 3	3	Take S-5 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML]	12–13	S-6	SS	17	2 1 2 2	3	Take S-6 from 12ft to 14ft.
	Gray SILT, trace fine Sand (wet) [ML]	14–15	S-7	SS	16	2 2 3 3	5	Take S-7 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
		16						

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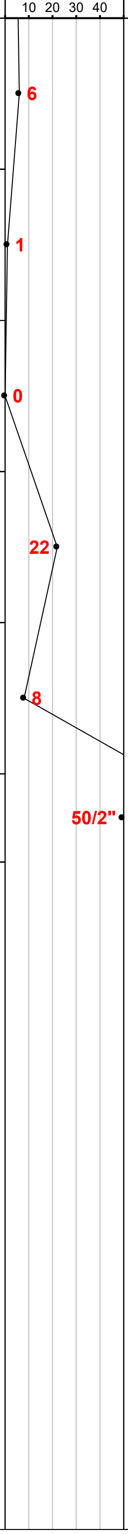
Log of Boring **LB-039** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.5

Depth Scale	Elev. (ft)	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
16	+361.5	Gray SILT, trace fine Sand (wet) [ML]	S-8	SS	15	1 3 3 1	6	Take S-8 from 16ft to 18ft.
18		Gray SILT, trace fine Sand (wet) [ML]	S-9	SS	16	1 1 WOR 1	1	Take S-9 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, light rig chatter, gray wash.
20		Gray SILT, trace fine Sand (wet) [ML]	S-10	SS	14	WOH WOH WOH WOH	0	Take S-10 from 20ft to 22ft.
22	+355.5	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	S-11	SS	10	8 14 8 10	22	Take S-11 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, moderate rig chatter, gray wash.
24		Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	S-12	SS	9	9 4 4 9	8	Take S-13 from 24ft to 26ft.
26		Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]	S-13	SS	9	11 47 50/2"	50/2"	Take S-14 from 26ft to 28ft. Refusal encountered at 27.2ft.
27.2	+350.3	End of Boring at 27.2ft.						Boring terminated at 27.2ft. Boring backfilled to grade with soil cuttings.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

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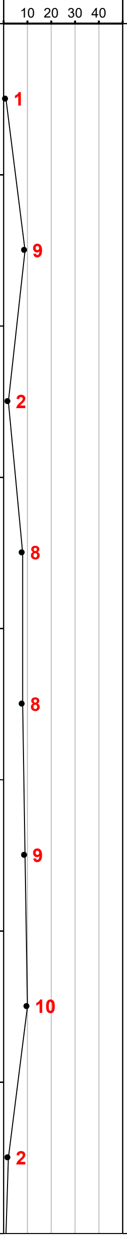
Log of Boring LB-040

Sheet 1 of 2

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 380.7 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 5/3/2025	Date Finished: 5/3/2025
Drilling Equipment: Geoprobe 7822DT		Completion Depth: 24.2 ft	Rock Depth: 24.2 ft
Size and Type of Bit: 4in Hollow Stem Auger		Number of Samples — Disturbed: 13	Undisturbed: 0 Core: 0
Casing Diameter (in): 4	Casing Depth (ft): 24.0	Water Level (ft.) — First ▽ 2.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Darryl Green	
Sampler: 2in OD Split Spoon, Shelby Tube		Field Engineer: Ning Lee	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

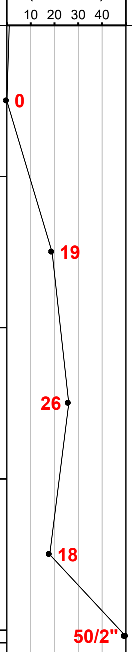
Depth Scale	Elev. (ft) +380.7	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0		Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	S-1A	SS	12	WOH WOH 1 3	1	5/3/2025, 1:12 PM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	+380.2	Brown CLAY, trace fine Sand (moist) [CL]	S-1B					
2	+378.7	▽ Brown SILT, trace fine Sand (moist) [ML]	S-2	SS	23	5 5 4 3	9	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
4		Brown SILT, trace fine Sand (moist) [ML]	S-3	SS	12	2 1 1 3	2	Take U-1 from 4ft to 6ft.
6	+374.7	Brown CLAY, trace fine Sand (moist) [CL]	S-4A	SS	22	3 4 4 6	8	Take S-3 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	+373.8	Brown SILT, trace fine Sand (wet) [ML]	S-4B					
8		Brown SILT, trace fine Sand (wet) [ML]	S-5	SS	18	4 4 4 5	8	Take S-4 from 8ft to 10ft.
10		Brown SILT, trace fine Sand (wet) [ML]	S-6A	SS	23	2 4 5 5	9	Take S-5 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, brownish gray wash.
		Gray SILT, trace fine Sand (wet) [ML]	S-6B					
12		Gray SILT, trace fine Sand (wet) [ML]	S-7	SS	22	4 5 5 3	10	Take S-6 from 12ft to 14ft.
14		Gray SILT, trace fine Sand (wet) [ML]	S-8	SS	18	1 1 1 1	2	Take S-7 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
16								



LANGAN Log of Boring **LB-040** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 380.7

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+364.7	Gray SILT, trace fine Sand (wet) [ML]	16	S-9	SS	22	WOH WOH WOH WOH	0	Take S-8 from 16ft to 18ft.
	Gray SILT, trace fine Sand (wet) [ML]	18	S-10A S-10B	SS	23	WOH 3 16 22	19	Take S-9 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, light rig chatter, gray wash.
+362.0	Gray Silty fine SAND, some fine subangular Gravel (wet) [SM]	19						
+360.7	Gray Sandy SILT, some fine Gravel (wet) [ML]	20	S-11	SS	5	8 10 16 14	26	Take S-10 from 20ft to 22ft.
+358.7	Gray Silty fine SAND, some fine Gravel (wet) [SM]	22	S-12	SS	14	7 9 9 7	18	Take S-11 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, light rig chatter, gray wash.
+356.7 +356.6	Gray Gravelly fine SAND, some Silt (wet) [GP-GC] End of Boring at 24.2ft.	24	S-13	SS	7	50/2"	50/2"	Take S-13 from 24ft to 26ft. Refusal encountered at 24.2 ft. Boring terminated at 24.2 ft. Boring backfilled to grade with soil cuttings.



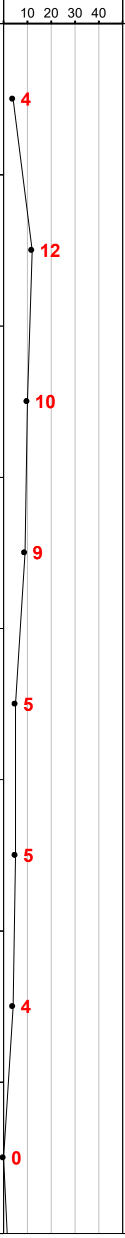
LANGAN Log of Boring **LB-046** Sheet 1 of 1

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 389.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/2/2025 / 5/2/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	10.3 ft / 10.3 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 6 / Undisturbed 0 / Core 0
Casing Diameter (in)	4 / Casing Depth (ft) 10.0	Water Level (ft.)	First ▽ 6.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Field Engineer	Bahar Ghaneshirazi

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+389.1	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	17	WOH 2		5/2/2025, 1:21 PM Utility Clearance Exemption Signed by PIC.
+388.4	Tannish brown to orangish brown Silty fine SAND (moist) [SM]	1	S-1B			4 3	6	Take S-1 from 0ft to 2ft.
	Tannish brown to orangish brown fine Clayey SAND (moist) [SC]	2–4	S-2	SS	20	4 5 4 3	9	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
+385.1	Tannish brown to brown SILT (wet) [ML]	4–6	S-3	SS	14	3 3 2 3	5	Take S-3 from 4ft to 6ft.
	▽ Tannish brown to orangish brown SILT, some fine Sand (moist) [ML]	6–8	S-4	SS	19	4 4 4 3	8	Take S-4 from 6ft to 8ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Tannish brown to pinkish orangish brown Sandy SILT (wet) [ML]	8–10	S-5	SS	17	2 3 3 5	6	Take S-5 from 8ft to 10ft.
+379.1 +378.8	Tannish brown to brown Weak ROCK (wet) [Weak ROCK]	10	S-6	SS	6	50/4"	50/4"	Take S-6 from 10ft to 12ft. Refusal encountered at 10.3ft.
	End of Boring at 10.3ft.	11						Boring terminated at 10.3 ft. Boring backfilled to grade with soil cuttings.

LANGAN Log of Boring LB-049 Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 391.6 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 4/29/2025	Date Finished: 4/29/2025
Drilling Equipment	CME-75	Completion Depth: 27.2 ft	Rock Depth: 27.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 13 Undisturbed: 0 Core: 0
Casing Diameter (in): 4	Casing Depth (ft): 27.0	Water Level (ft.)	First ▽ 4.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon	Field Engineer	Shreeya Pandey
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		



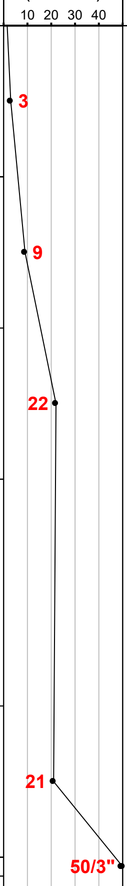
Material Symbol	Elev. (ft) +391.6	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Dark brown CLAY, trace fine Sand, roots (moist) [TOP SOIL]	0	S-1A	SS	19	WOH WOH	4	04/29/2025, 1:15 PM. Utility Clearance Exemption Signed by PIC.
	+390.9	Tannish brown CLAY, trace fine Sand (moist) [CL]	1	S-1B			4 5		Take S-1 from 0ft to 2ft.
		Tannish brown CLAY, trace fine Sand (moist) [CL]	2	S-2	SS	16	6 5 7 7	12	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	+387.6	▽ Mottled Yellowish brown to tan SILT (wet) [ML]	4	S-3	SS	15	3 4 6 4	10	Take S-3 from 4ft to 6ft.
		Mottled yellowish brown to tan SILT (wet) [ML]	6	S-4	SS	17	5 5 4 4	9	Take S-4 from 6ft to 8ft. S-4: LL = 23%; PI = 4% Drive casing to 8ft. Drill to 8ft, gray wash.
		Mottled yellowish brown to tan SILT (wet) [ML] Gray SILT, trace fine Sand (wet) [ML]	8	S-5	SS	16	2 2 3 2	5	Take S-5 from 8ft to 10ft.
		Gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	18	3 3 2 2	5	Take S-6 from 10ft to 12ft. Drive casing to 12ft.Drill to 12ft, gray wash.
		Gray SILT, trace fine Sand (wet) [ML]	12	S-7	SS	18	1 2 2 3	4	Take S-7 from 12ft to 14ft.
	+377.6	Reddish gray Silty CLAY, trace fine Sand (wet) [CL-ML]	14	S-8	SS	24	WOH WOH WOH 1	0	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
			16						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-049** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.6

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+375.6	Reddish gray Silty CLAY, trace fine Sand (wet) [CL-ML]	16–18	S-9	SS	24	WOH 1 2 2	3	Take S-9 from 16ft to 18ft. S-9: LL = 17%; PI = 5%
+373.6	Gray Silty fine SAND, some fine angular Gravel (wet) [SM]	18–20	S-10	SS	10	1 2 7 7	9	Take S-10 from 18ft to 20ft.
	Gray Silty fine SAND, some fine angular Gravel (wet) [SM]	20–22	S-11	SS	12	6 10 12 9	22	Drive casing to 20ft. Drill to 20ft, light rig chatter from 19ft to 20ft, gray wash. S-11: LL = NP; PI = NP Take S-11 from 20ft to 22ft.
+368.1		22–25						Drive casing to 25ft. Drill to 25ft, heavy rig chatter from 26ft to 27ft, gray wash.
	Dark gray fine angular GRAVEL, trace Silt, trace fine Sand (wet) [GP-GC] [Weak Rock]	25–27	S-12	SS	9	9 13 8 52	21	Take S-12 from 25ft to 27ft. Drive casing to 27ft, heavy rig chatter from 26ft to 27ft, gray wash.
+364.3	Dark gray fine angular GRAVEL, trace Silt, trace fine Sand (wet) [GP-GC] [Weak Rock] End of Boring at 27.2ft.	27	S-13	SS	2	50/3"	50/3"	Take S-13 from 27ft to 29ft. Slow acid test response on gravel Refusal encountered at 27.3ft. Boring terminated at 27.3 ft. Boring backfilled to grade with soil cuttings.

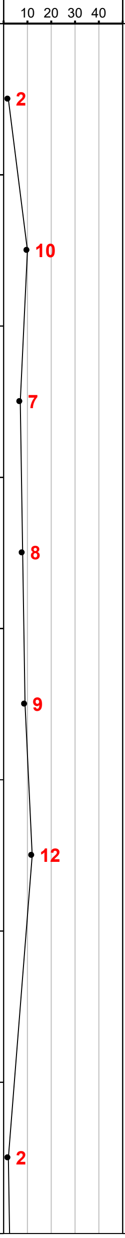


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring LB-050 Sheet 1 of 2

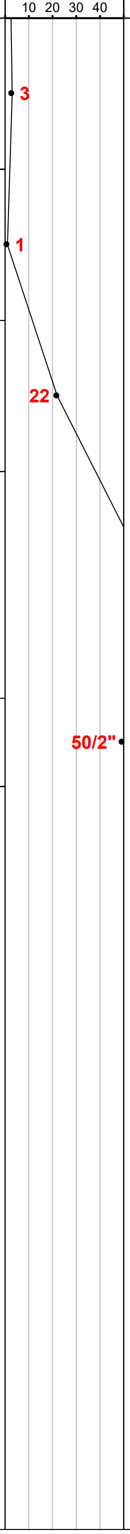
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 390.3 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/29/2025 / 5/30/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	26.2 ft / 26.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 11; Undisturbed 0; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 26.0	Water Level (ft.)	First ▽ 4.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Bahar Ghaneshirazi

Depth Scale	Elev. (ft) +390.3	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	+389.8	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	S-1A	SS	12	WOH 1 1 3	2	04/29/2025, 11:11AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
0.5		Brown CLAY, trace fine Sand (moist) [CL]	S-1B					
2		Tannish brown to yellowish brown CLAY (moist) [CL]	S-2	SS	18	2 5 5 5	10	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
4 ▽		Brown CLAY, trace fine Sand (moist) [CL]	S-3	SS	14	2 3 4 4	7	Take S-3 from 4ft to 6ft. S-3: #4 = 100%; #200 = 99% S-3: LL = 31%; PI = 12%
6	+384.3	Brown Silty CLAY, trace fine Sand (wet) [CL-ML] Brown CLAY, trace fine Sand (moist) [CL]	S-4	SS	14	4 4 4 4	8	Take S-4 from 6ft to 8ft. S-4: #4 = 100%; #200 = 99% S-4: LL = 24%; PI = 6% Drive casing to 8ft. Drill to 8ft, brown wash.
8		Brown Silty CLAY, trace fine Sand (wet) [CL-ML]	S-5A	SS	14	2 5 4 6	9	Take S-5 from 8ft to 10ft.
8.8	+381.5	Tannish gray Sandy SILT (wet) [ML]	S-5B					
10		Tannish gray Sandy SILT (wet) [ML]	S-6	SS	18	3 4 8 6	12	Take S-6 from 10ft to 12ft. Drive casing to 14ft. Drill to 14ft, gray wash.
14		Tannish gray Sandy SILT (wet) [ML]	S-7	SS	14	1 1 1 2	2	Take S-7 from 14ft to 16ft.



LANGAN Log of Boring **LB-050** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 390.3



Material Symbol	Elev. (ft) +374.3	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Tannish gray Sandy SILT (wet) [ML]	16	S-8	SS	18	1 2 1 WOH	3	Take S-8 from 16ft to 18ft. Drive casing to 18ft. Drill to 18ft, gray wash.
		Tannish gray Sandy SILT (wet) [ML]	18	S-9	SS	18	WOH WOH 1 2	1	Take S-9 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, gray wash.
	+370.3	Gray angular Gravel, some fine Sand, trace Silt (wet) [Weak ROCK]	20	S-10	SS	6	5 8 14 17	22	Take S-10 from 20ft to 22ft.
			24						Drive casing to 25ft. Drill to 25ft, heavy rig chatter at 23ft, gray wash.
		Gray angular Gravel, some fine Sand, trace Silt (wet) [Weak ROCK]	25	S-11	SS	12	18 46 50/2"	50/2"	Take S-11 from 25ft to 27ft. Reactive to acid. Boring terminated at 26ft due to steel equipment being dropped in the borehole and obstructing drilling. Boring backfilled to grade with soil cuttings.
	+364.1	End of Boring at 26.2ft.							

Depth Scale: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

LANGAN

Log of Boring **LB-054** Sheet 1 of 2

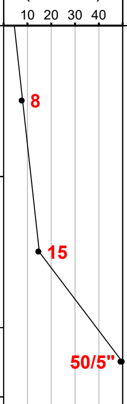
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 389.9 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/25/2025
		Date Finished	4/26/2025
Drilling Equipment	CME-55LC	Completion Depth	20.9 ft
		Rock Depth	20.9 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 11 · Undisturbed 0 · Core 0
Casing Diameter (in)	4	Casing Depth (ft)	20.0
Water Level (ft.)	First ▽ 2.0 · Completion ▼ N/A · 24 HR. ▼ N/A		
Casing Hammer	Automatic · Weight (lbs) 140 · Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic · Weight (lbs) 140 · Drop (in) 30	Field Engineer	Bahar Ghaneshirazi

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+389.9		0						
+389.6	Dark brown CLAY, trace medium to fine Sand (moist) [TOPSOIL]		S-1A			WOR		04/25/2025, 3:02 PM. Utility Clearance Exemption Signed by PIC.
	Tannish brown SILT, some fine Sand (moist) [ML]	1	S-1B	SS	12	WOH 3 4	3	Take S-1 from 0ft to 2ft.
	Tannish brown SILT, some fine Sand (wet) [ML] ▽	2	S-2	SS	20	2 4 3 5	7	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Tannish brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	18	2 6 4 4	10	Take S-3 from 4ft to 6ft. S-3: LL = NP; PI = NP
	Tannish brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	16	3 4 3 4	7	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	Brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	16	8 6 3 4	9	Take S-5 from 8ft to 10ft.
	Light gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	19	2 2 2 2	4	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, brown wash.
	Light gray Sandy SILT (wet) [ML]	12	S-7	SS	19	2 2 2 3	4	Take S-7 from 12ft to 14ft. S-7: LL = NP; PI = NP
	Grayish brown Sandy SILT (wet) [ML]	14	S-8	SS	15	WOH WOH 1 1	1	Take S-8 from 14ft to 16ft. S-8: #4 = 95%; #200 = 57% S-8: LL = NP; PI = NP Drive casing to 16ft. Drill to 16ft, brown wash.
+373.9		16						

LANGAN Log of Boring **LB-054** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 389.9

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+373.9	Grayish brown Sandy CLAY, trace fine subangular Gravel (wet) [CL]	16–18	S-9	SS	15	3 5 3 3	8	Take S-9 from 16ft to 18ft. S-9: #4 = 90%; #200 = 49% S-9: LL = NP; PI = NP
⁙	+371.9	Dark gray Silty fine SAND, some fine Gravel (wet) [SM]	18–20	S-10	SS	9	23 8 7 8	15	Take S-10 from 18ft to 20ft. S-10: #4 = 84%; #200 = 23% S-10: LL = NP; PI = NP Drive casing to 20ft. Drill to 20ft, brown wash.
	+369.9	No Recovery	20–20.9	S-11	SS	4	13 50/5"	50/5"	Take S-11 from 20ft to 22ft. Refusal encountered at 20.9ft. Boring terminated at 21 ft, 11:41 AM. Boring backfilled to grade with soil cuttings.
	+369.0	End of Boring at 20.9ft.	21–36						



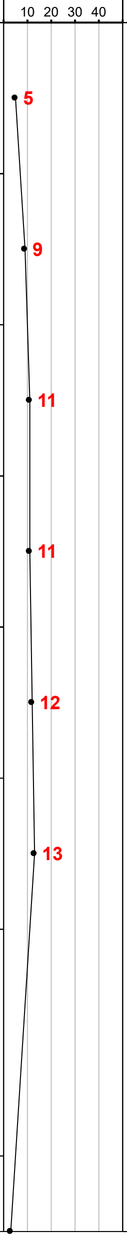
Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring LB-056

Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 393.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/23/2025
		Date Finished	4/23/2025
Drilling Equipment	CME-75	Completion Depth	29.4 ft
		Rock Depth	29.4 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 14; Undisturbed 0; Core 0
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 3.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Depth (ft)	29.0		
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+393.0	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	13	WOH 2		04/23/2025, 7:50 AM. Utility Clearance Exemption Signed by PIC.
+392.3	Mottled Tannish brown CLAY (moist) [CL]	1	S-1B			3 4	5	Take S-1 from 0ft to 2ft.
	Tannish brown CLAY, trace fine Sand (moist) [CL]	2 3 ▽	S-2	SS	20	4 5 4 6	9	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
+389.0	Yellowish brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	20	3 6 5 5	11	Take S-3 from 4 to 6 ft. S-3: #4 = 100%; #200 = 98% S-3: LL = NP; PI = NP
	Light brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	13	4 6 5 5	11	Take S-4 from 6 to 8 ft. S-4: LL = NP; PI = NP Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Light brown to grayish brown SILT, some fine Sand (wet) [ML]	8	S-5	SS	16	3 5 7 7	12	Take S-5 from 8 to 10 ft.
	Light brown SILT, trace fine Sand (wet) [ML]	10	S-6	SS	19	11 7 6 5	13	Take S-6 from 10 to 12 ft. S-6: #4 = 100%; #200 = 93% S-6: LL = NP; PI = NP
		12 13 14						Drive casing to 15 ft. Drill to 15 ft, gray wash.
	Gray SILT, some fine Sand (wet) [ML]	15 16		SS		2 1		Take S-7 from 15 to 17 ft.



LANGAN Log of Boring **LB-056** Sheet 2 of 2

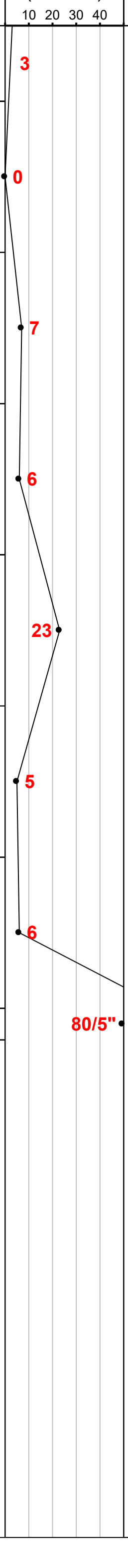
Project: Micron New York Manufacturing Facility

Project No.: 170883801

Location: Town of Clay, New York

Elevation and Datum: 393.0

Elev. (ft) +377.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		16	S-7		19	2 2	3	
	Gray SILT, some fine Sand (wet) [ML]	17–19	S-8	SS	19	4 WOH WOH WOH	0	Take S-8 from 17 to 19 ft. Drive casing to 19ft. Drill to 19 ft, gray wash.
	Gray SILT, some fine Sand, some fine angular Gravel (wet) [ML]	19–21	S-9	SS	12	WOH 2 5 6	7	Take S-9 from 19 to 21 ft.
	Gray Sandy SILT, some fine angular Gravel (wet) [ML]	21–23	S-10	SS	19	2 4 2 2	6	Take S-10 from 21 to 23 ft. Drive casing to 23 ft. Drill to 23 ft, light rig chatter from 21 to 23 ft, reddish gray wash.
	No Recovery	23–25	S-11	SS	0	9 15 8 5	23	Take S-11 from 23 to 25 ft.
+368.0	No Recovery	25–27	S-12	SS	0	2 2 3 3	5	Take S-12 from 25 to 27 ft. Drive casing to 27 ft. Drill to 27 ft, light rig chatter from 25 to 26 ft, gray wash.
	Dark gray CLAY, some fine angular Gravel, trace fine Sand (wet) [CL]	27–29	S-13	SS	12	5 3 3 5	6	Take S-13 from 27 to 29 ft.
+364.0 +363.6	Dark gray angular Gravel, trace fine Sand, trace Clay (wet) [Weak ROCK] End of Boring at 29.4ft.	29	S-14	SS	4	80/5"	80/5"	Take S-14 from 29 to 31 ft. Refusal encountered at 29.4 ft. Boring terminated at 29.4 ft. Boring backfilled to grade with soil cuttings.

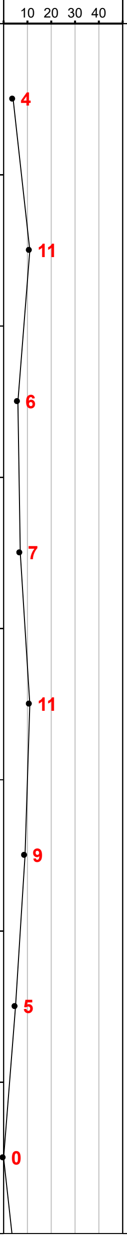


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-061** Sheet 1 of 2

Project	Micron New York Manufacturing Facility		Project No.	170883801	
Location	Town of Clay, New York		Elevation and Datum	Approx +EL 393.4 NAVD88	
Drilling Company	Atlantic Testing Laboratories (ATL)		Date Started	4/24/2025	Date Finished 4/24/2025
Drilling Equipment	CME-75		Completion Depth	23.8 ft	Rock Depth 23.8 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit		Number of Samples	Disturbed 11	Undisturbed 0 Core 0
Casing Diameter (in)	4	Casing Depth (ft) 23.0	Water Level (ft.)	First ▽ 3.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Brad Perry	
Sampler	2in OD Split Spoon		Field Engineer	Shreeya Pandey	
Sampler Hammer	Automatic	Weight (lbs) 140 Drop (in) 30			

Material Symbol	Elev. (ft) +393.4	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+392.7	Tannish brown CLAY, roots (moist) [CL]	0	S-1A	SS	13	WOH 2	4	04/24/2025, 9:28 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
|||		Tannish brown SILT, trace fine Sand (moist) [ML]	1	S-1B			2 2		
|||		Tannish brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	17	3 6 5 5	11	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
		▽	3						
|||		Light brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	18	1 3 3 3	6	Take S-3 from 4 to 6 ft.
|||		Yellowish brown SILT, trace fine Sand, trace fine Gravel (wet) [ML]	6	S-4	SS	19	3 2 5 5	7	Take S-4 from 6 to 8 ft. S-4: #4 = 98%; #200 = 96% S-4: LL = 20%; PI = 3% Drive casing to 8 ft. Drill to 8 ft, brown wash.
|||		Light brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	17	3 4 7 8	11	Take S-5 from 8 to 10 ft.
|||		Light brown SILT, trace fine Sand (wet) [ML]	10	S-6A	SS	19	10 6	9	Take S-6 from 10 to 12 ft. S-6A: LL = NP; PI = NP
|||		Gray SILT, some fine Sand (wet) [ML]	11	S-6B			3 2		Drive casing to 12 ft. Drill to 12 ft, gray wash.
|||	+379.4	Gray SILT, trace fine Sand (wet) [ML]	12	S-7	SS	18	4 3 2 WOH	5	Take S-7 from 12 to 14 ft. Drive casing to 14 ft. Drill to 14 ft, gray wash.
▨	+377.4	Gray CLAY, trace fine Sand (wet) [CL]	14	S-8	SS	17	2 WOH WOH 6	0	Take S-8 from 14 to 16 ft.
			16						



LANGAN Log of Boring **LB-061** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.4

Elev. (ft) +377.4	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark gray Gravelly fine SAND, some Clay (wet) [SC]	16				7 2		Take S-9 from 16 to 18 ft.
		17	S-9	SS	11	5 6	7	Drive casing to 18 ft, light rig chatter from 16 to 17 ft, gray wash.
	Dark gray Gravelly fine Clayey SAND (wet) [SC]	18				10 10		Take S-10 from 18 to 20 ft.
		19	S-10	SS	7	7 12	17	
		20						
		21						Drive casing to 23ft. Drill to 23 ft heavy rig chatter from 22 to 23 ft, , gray wash. Loss of water at about 22 ft.
		22						
	Dark gray to black Clayey SAND, some Gravel (wet) [SC]	23				67		Take S-11 from 23 to 25 ft.
+369.6			S-11	SS	8	50/3"	50/3"	Refusal encountered at 23.8 ft. Boring terminated at 23.75 ft. Boring backfilled to grade with soil cuttings
	End of Boring at 23.8ft.	24						
		25						
		26						
		27						
		28						
		29						
		30						
		31						
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		33						
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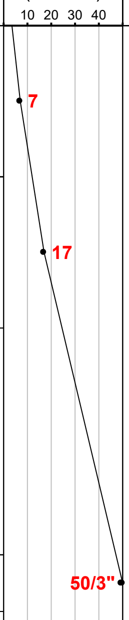


LANGAN Log of Boring LB-063 Sheet 1 of 3

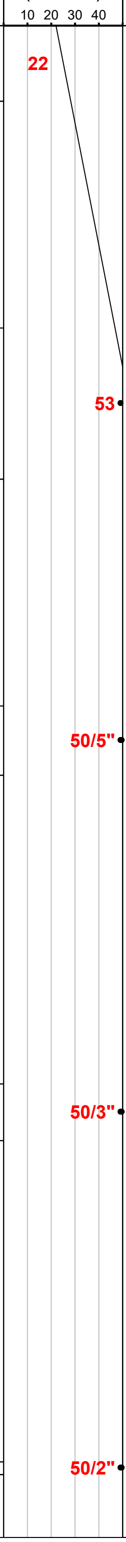
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.3 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/18/2025 / 4/21/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	35.2 ft / 35.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 0; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 35.0	Water Level (ft.)	First ▽ 3.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +392.3	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+391.8	Dark brown CLAY, trace fine Sand, roots (moist) [CL]	0	S-1A	SS	9	1 1 1 2	2	04/18/2025, 3:20 PM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	Yellowish brown CLAY, trace fine Sand (moist) [CL]	0.5–2	S-1B					
	Yellowish brown CLAY, trace fine Sand (moist) [CL] ▽	2	S-2	SS	24	3 3 4 4	7	Take S-2 from 2 to 4 ft. S-2: #4 = 100%; #200 = 97% S-2: LL = 32%; PI = 11% Drive casing to 4 ft. Drill to 4 ft, brown wash.
+388.3	Light brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	22	2 2 3 4	5	Take S-3 from 4 to 6 ft.
	Light brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	16	2 3 3 7	6	Take S-4 from 6 to 8 ft. S-4: LL = NP; PI = NP Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Light brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	14	3 3 2 3	5	Take S-5 from 8 to 10 ft.
	Gray Sandy SILT (wet) [ML]	10	S-6	SS	17	2 2 1 1	3	Take S-6 from 10 to 12 ft. S-6: LL = NP; PI = NP Drive casing to 12 ft. Drill to 12 ft, gray wash.
+380.3	Gray Silty medium to fine SAND (wet) [SM]	12	S-7	SS	8	5 5 6 10	11	Take S-7 from 12 to 14 ft. Drive casing to 15 ft. Drill to 15 ft, light rig chatter, gray wash.
		14						
	Gray Silty medium to fine SAND, trace fine angular Gravel (wet) [SM]	15		SS		14 11		Take S-8 from 15 to 17 ft.
		16						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-063** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.3

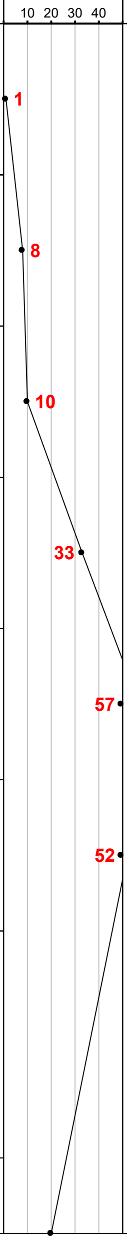


Material Symbol	Elev. (ft) +376.3	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16	S-8		3	11 8	22	
			18						Drive casing to 20 ft. Drill to 20 ft, gray wash, light rig chatter.
		Gray medium to fine SAND, some Silt, trace fine angular Gravel (wet) [SM]	20	S-9	SS	10	14 31 22 25	53	Take S-9 from 20 to 22 ft.
			22						04/18/2025, 5:00 PM.
			24						04/21/2025, 12:15 PM.
	+367.3	Dark gray Gravel, trace Clay (wet) [Weak ROCK]	25	S-10	SS	8	31 50/5"	50/5"	Take S-10 from 25 to 27 ft. Refusal encountered at 25.9 ft.
			28						Drive casing to 30 ft. Drill to 30 ft, light rig chatter, gray wash.
		Dark gray Gravel, trace Clay (wet) [Weak ROCK]	30	S-11	SS	8	40 50/3"	50/3"	Take S-11 from 30 to 32 ft. Refusal encountered at 31.75 ft.
			33						Drive casing to 35 ft. Drill to 35 ft, heavy rig chatter, gray wash.
	+357.1	No Recovery End of Boring at 35.2ft.	35	S-12	SS	0	50/2"	50/2"	Refusal encountered at 35.2 ft. Boring terminated at 35.2 ft. Boring backfilled to grade with soil cuttings.
			36						

LANGAN Log of Boring **LB-073** Sheet 1 of 3

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 402.8 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 5/5/2025	Date Finished: 5/6/2025
Drilling Equipment: Geoprobe 7822DT		Completion Depth: 43.0 ft	Rock Depth: 43.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples — Disturbed: 13	Undisturbed: 0 — Core: 0
Casing Diameter (in): 4	Casing Depth (ft): 42.0	Water Level (ft.) — First ▽ 3.0	Completion ▼ N/A — 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 — Drop (in): 30	Drilling Foreman: Robert Drake	
Sampler: 2in OD Split Spoon		Field Engineer: Roonak Ghaderi	
Sampler Hammer: Automatic	Weight (lbs): 140 — Drop (in): 30		

Elev. (ft) +402.8	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	17	WOH WOH	5/5/2025 11:49 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+402.1	Orangish brown SILT, trace fine Sand (moist) [ML]	1	S-1B			1 1	
	Light brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	28	5 5 3 4	Take S-2 from 2ft to 4ft.
	▽	3					
	Light brown SILT, some fine Sand (wet) [ML]	4	S-3A	SS	14	3 6	Drive casing to 4ft. Drill to 4ft, brown wash. Take S-3 from 4ft to 6ft.
+398.3	Light brown Gravelly fine SAND, some Silt (wet) [SM]	5	S-3B			4 11	
	Light brown Gravelly fine SAND, some Silt (wet) [SM]	6	S-4	SS	14	7 14 19 16	Take S-4 from 6ft to 8ft.
	Brown Gravelly fine SAND, trace Silt (wet) [SP-SM]	8	S-5	SS	12	24 30 27 17	Drive casing to 8ft. Drill to 8ft, heavy rig chatter from 6ft to 8ft, brown wash. Take S-5 from 8ft to 10ft.
	Brown Gravelly fine SAND, trace Silt (wet) [SP-SM]	10	S-6	SS	17	17 24 28 23	Take S-6 from 10ft to 12ft.
		12					
		13					
		14					
	Brown fine SAND, some fine subangular Gravel, some Silt (wet) [SM]	15		SS		7 10	Drive casing to 15ft. Drill to 15ft. heavy rig chatter, brown wash. Take S-7 from 15ft to 17ft.
		16					



LANGAN Log of Boring **LB-073** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.8

Material Symbol	Elev. (ft) +386.8	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
⁘			16	S-7		16	10 11	20	
⁘			17						
⁘			18						
⁘			19						
⁘		Brown fine SAND, trace fine subangular Gravel, some Silt (wet) [SM]	20	S-8	SS	20	21 32 32 44	64	Drill to 20ft, heavy rig chatter, brown wash. Take S-8 from 20ft to 22ft.
⁘		Gray fine SAND, trace fine subangular Gravel, some Silt (wet) [SM]	21						
⁘			22						Drive casing to 20ft.
⁘			23						
⁘			24						
⁘		Gray Gravelly fine SAND, some Silt (wet) [SM]	25	S-9A	SS	12	4 39 50 50/4"	89	Drill to 25ft, heavy rig chatter, gray wash. Take S-9 from 25ft to 26.8ft.
▨	+376.4	Gray CLAY, some fine Sand, trace fine subangular Gravel (moist) [CL]	26	S-9B					
▨			27						
▨			28						
▨			29						
▨		Gray CLAY, some fine Sand, trace fine angular Gravel (moist) [CL]	30	S-10	SS	6	50 50/3"	50/3"	Take S-10 from 30ft to 30.75ft.
▨			31						Drive casing to 30ft.
▨			32						Drill to 35ft, moderate rig chatter, gray wash.
▨			33						
▨			34						
▨		Gray Sandy CLAY, trace fine angular Gravel (moist) [CL]	35	S-11	SS	9	25 50 50/4"	50/4"	Take S-11 from 35ft to 36.3ft.
			36						

LANGAN Log of Boring **LB-073** Sheet 3 of 3

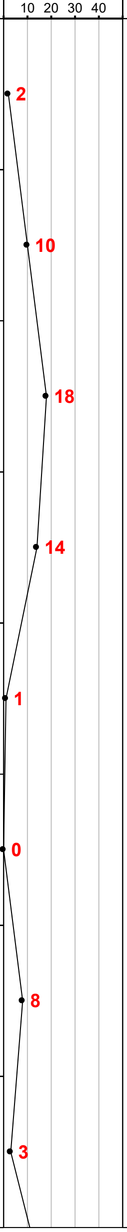
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.8

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+366.8		36						Drive casing to 40ft. Drill to 40ft, moderate rig chatter, gray wash.
+362.8	Dark gray angular GRAVEL, trace fine Sand (moist) [Weak ROCK]	40	S-12	SS	5	8 50 50/2"	50/2"	Take S-12 from 40ft to 41.2ft. Stop drilling for the day on 5/5/2025 4:56 PM. Start Drilling on 5/6/2025 07:51 AM.
+359.8 +359.8	No Recovery End of Boring at 43.0ft.	43	S-13	SS	0			Take S-13 at 43ft to 45ft. Refusal encountered at 43ft. Boring terminated at 43ft. Boring backfilled to grade with soil cuttings.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-078** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 398.4 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/2/2025 / 5/3/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	45.2 ft / 45.2 ft
Size and Type of Bit	4in Hollow Stem Auger	Number of Samples	Disturbed 15 / Undisturbed 0 / Core 0
Casing Diameter (in) / Casing Depth (ft)	4 / 45.0	Water Level (ft.)	First ▽ 1.1 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30		



Material Symbol	Elev. (ft) +398.4	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+397.4	Dark brown SILT, trace fine Sand, trace fine subrounded Gravel, roots (moist) [TOPSOIL]	0	S-1A	SS	16	WOH WOH	2	5/2/2025 03:33 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
		▽ Light brown SILT, some fine Sand (wet) [ML]	1	S-1B			2 3		
		Orangish brown SILT, trace fine Sand (wet) [ML]	2	S-2	SS	20	2 6 4 11	10	Take S-2 from 2ft to 4ft.
	+392.4	Light brown SILT, some fine Sand (moist) [ML]	4	S-3	SS	13	8 13 5 4	18	Drive Auger to 4ft, smooth drive, brown cuttings. Take S-3 from 4ft to 6ft.
		Gray CLAY, trace fine Sand (wet) [CL]	6	S-4	SS	10	4 6 8 8	14	Take S-4 from 6ft to 8ft.
		Gray CLAY, trace fine Sand (wet) [CL]	8	S-5	SS	5	WOH WOH 1 3	1	Drive Auger to 8ft, smooth drive, brown cuttings, gray cuttings 6-8ft. Take S-5 from 8ft to 10ft.
	+386.4	Gray CLAY, trace fine Sand (wet) [CL]	10	S-6	SS	18	WOH WOH WOH WOH	0	Drive Auger to 10ft, smooth drive, gray cuttings. Take S-6 from 10ft to 12ft.
		Gray SILT, some fine Sand (wet) [ML]	12	S-7	SS	18	5 4 4 5	8	Take S-7 from 12ft to 14ft. Drive Auger to 14ft, smooth drive, gray cuttings.
	+382.4	Gray SILT, some fine Sand (wet) [ML]	14	S-8	SS	20	5 3 WOH 1	3	Take S-8 from 14ft to 16ft.
			16						

LANGAN Log of Boring **LB-078** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 398.4

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+382.4	Gray Clayey fine SAND, trace fine subangular Gravel (wet) [SC]	16						Stop drilling for the day on 5/2/2025 04:56 PM.
			17	S-9	SS	15	3 10 9 8	19	Start Drilling on 5/3/2025 8:00 AM. Take S-9 from 16ft to 18ft.
		Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]	20	S-10	SS	4	50/4"	50/4"	Drive Auger to 20ft, smooth drive, gray cuttings. Take S-10 from 20ft to 22ft. Refusal encountered at 20.3ft.
			22						Drive auger to 25ft, gray cuttings.
	+373.4	Gray CLAY, trace fine Sand (moist) [CL]	25						Take S-11 from 25ft to 27ft.
			26	S-11	SS	18	25 35 35 50/4"	70	
			27						Refusal encountered at 26.8ft.
	+368.4	Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]	30	S-12	SS	13	21 42 50/4"	50/4"	Drive Auger to 30ft, gray cuttings. Take S-12 from 30ft to 32ft.
			33						Drive auger to 35ft, gray cuttings.
	+363.4	Dark gray angular GRAVEL, trace fine Sand (moist) [Weak ROCK]	35	S-13	SS	5	50/5"	50/5"	Take S-13 from 35ft to 37ft. Refusal encountered at 35.4ft.
			36						

LANGAN Log of Boring **LB-078** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 398.4

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+362.4		36						
	Dark gray angular GRAVEL, trace fine Sand (moist) [Weak ROCK]	40	S-14	SS	2	50/5"	50/5"	Take S-14 from 40ft to 42ft. Refusal encountered at 40.4ft.
+353.2	No Recovery	45	S-15	SS	0	50/2"	50/2"	Take S-15 from 45ft to 45.2ft. Refusal encountered at 45.2ft.
	End of Boring at 45.2ft.							Boring terminated at 45.2ft. Boring backfilled to grade with soil cuttings.

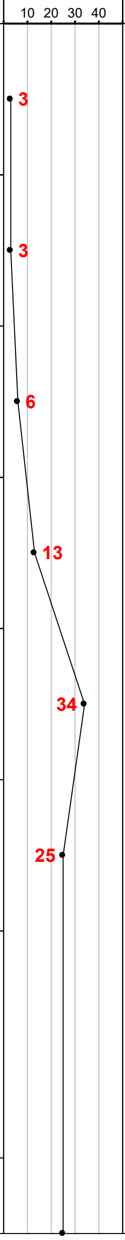
Depth Scale: 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56

LANGAN Log of Boring **LB-079** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 402.3 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/14/2025 / 4/14/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	30.3 ft / 30.3 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10 / Undisturbed 0 / Core 0
Casing Diameter (in)	4 — Casing Depth (ft) 30.0	Water Level (ft.)	First ▽ 4.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic — Weight (lbs) 140 — Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic — Weight (lbs) 140 — Drop (in) 30	Field Engineer	Bahar Ghaneshirazi

Elev. (ft)	Depth (ft)	Sample Description
+402.3	0	Brown fine to coarse SAND, some Silt, roots (moist) [TOPSOIL]
+400.3	2	Brown Silty fine SAND, trace fine subangular Gravel (moist) [SM]
	4 ▽	Brown Silty fine SAND, trace fine subangular to angular Gravel (wet) [SM]
	6	Brown Silty fine SAND, trace fine subangular to angular Gravel (wet) [SM]
	8	Brown Silty fine SAND, trace fine subangular to angular Gravel (wet) [SM]
	10	Brown Silty fine SAND, trace fine subangular to angular Gravel (wet) [SM]
+387.3	15	Brownish gray fine to medium SAND, some fine angular Gravel, trace Silt (wet) [SP-SM]

Depth (ft)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0–2	S-1	SS	12	1 1 2 1	3
2–4	S-2	SS	13	1 1 2 2	3
4–6	S-3	SS	9	3 3 3 2	6
6–8	S-4	SS	13	1 6 7 8	13
8–10	S-5	SS	15	13 19 15 13	34
10–12	S-6	SS	20	12 12 13 17	25
15–		SS		6 12	



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth (ft)	Remarks
0	04/14/2025 11:50AM. Utility Exemption Signed by PIC. Take S-1 from 0 to 2 ft
2	Take S-2 from 2 to 4 ft.
3	Drive casing to 4 ft. Drill to 4 ft, brown wash
4	Take S-3 from 4 to 6 ft.
6	Take S-4 from 6 to 8 ft.
7	Drive casing to 8 ft. Drill to 8ft, gray wash.
8	Take S-5 from 8 to 10 ft.
10	Take S-6 from 10 to 12 ft.
14	Drive casing to 15 ft. Drill to 15ft, brownish gray wash.
15	Take S-7 from 15 to 17 ft.

LANGAN Log of Boring **LB-079** Sheet 2 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 402.3

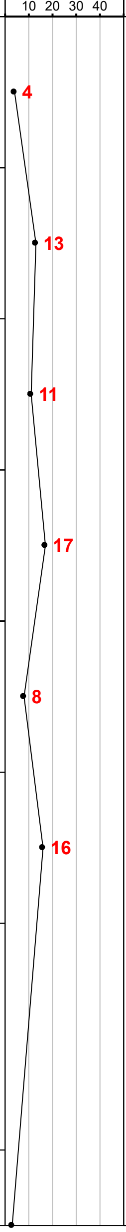
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+386.3		16	S-7		13	13 21	25	
		17						
		18						Drive casing to 20 ft.
		19						Drill to 20ft, gray wash.
+382.3	Gray Silty fine SAND, some fine angular Gravel (moist) [SM]	20	S-8A	SS	17	19 35	74	Take S-8 from 20 to 22 ft.
+381.8	Gray Gravelly fine Clayey SAND (wet) [SC]	21	S-8B			39 36		
		22						Light chatter 20 to 21 ft.
		23						Drive casing to 25 ft.
		24						Drill to 25 ft, gray wash.
	Grayish brown Silty fine SAND, trace subrounded to angular Gravel (wet) [SM]	25	S-9	SS	12	1 18 33 31	51	Take S-9 from 25 to 27 ft. S-9: #4 = 92%; #200 = 40% S-9: LL = NP; PI = NP
		26						
		27						
		28						Drive casing to 30 ft.
+373.8		29						Drill to 30 ft, light chatter, gray wash.
+372.3 +372.0	Dark gray fine angular GRAVEL (wet) [Weak ROCK] End of Boring at 30.3ft.	30	S-10	SS	3	50/4"	50/4"	Take S-10 from 30 to 32 ft. Refusal encountered at 30.3 ft.
		31						Boring terminated at 31 ft. Boring backfilled with grade cuttings.
		32						
		33						
		34						
		35						
		36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-085** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 401.2 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/18/2025 / 4/19/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	33.0 ft / 33.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12 / Undisturbed 0 / Core 0
Casing Diameter (in)	4; Casing Depth (ft) 30.0	Water Level (ft.)	First ▽ 2.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Roonak Ghaderi

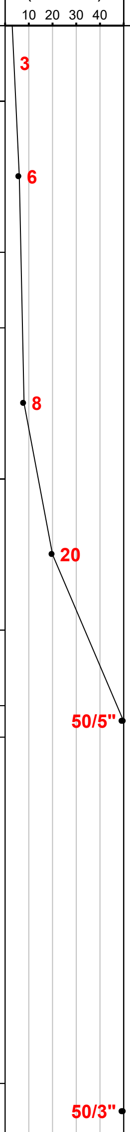
Elev. (ft) +401.2	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, trace fine Sand, roots (moist) [ML]	0	S-1A	SS	12	WOH WOH 4	4	04/18/2025,03:05 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+400.0	Light brown SILT, trace fine Sand (moist) [ML]	1	S-1B			6		
	▽ Orangish brown SILT, trace fine Sand (wet) [ML]	2	S-2	SS	23	4 7 6 5	13	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash
	Orangish brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	9	3 4 7 7	11	Take S-3 from 4 to 6 ft.
	Gray SILT, trace fine Sand (wet) [ML]	6	S-4	SS	14	10 9 8 9	17	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash
	Gray SILT, trace fine Sand (wet) [ML]	8	S-5	SS	9	1 3 5 5	8	Take S-5 from 8 to 10 ft.
	Gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	22	5 7 9 8	16	Take S-6 from 10 to 12 ft. S-6: #4 = 100%; #200 = 95% S-6: LL = NP; PI = NP
		12						
		13						Drive casing to 15 ft. Drill to 15 ft, low rig chatter, gray wash
	Gray Sandy SILT (wet) [ML]	15		SS		6 2		Take S-7 from 15 to 17 ft.
		16						



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-085** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 401.2



Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+385.2		16	S-7		10	1 5	3	
+384.2	Gray Clayey fine SAND, some fine subangular Gravel (wet) [SC]	17						Take S-8 from 17 to 19 ft.
		18	S-8	SS	5	2 2 4 4	6	Drive casing to 20 ft. Drill to 20 ft, low rig chatter, gray wash.
		19						
	Gray Clayey fine SAND, some fine subangular Gravel (wet) [SC]	20						Take S-9 from 20 to 22 ft.
		21	S-9	SS	5	9 4 4 9	8	
+379.2	Gray fine SAND, trace Clay (wet) [SP-SC]	22						Take S-10 from 22 to 24 ft.
		23	S-10	SS	15	5 10 10 50	20	4/18/2025,04:50 PM. 4/19/2025,7:48 AM. Drive casing to 25 ft. Drill to 25 ft, heavy rig chatter, gray wash;
		24						
	Gray fine SAND, some fine subangular Gravel, trace Clay (moist) [SP-SC]	25	S-11	SS	3	50/5"	50/5"	Take S-11 from 25 to 27 ft.
		26						
		27						
		28						Drive casing to 30ft. Drill to 30 ft, heavy rig chatter from 28 ft, dark gray wash.
		29						
	Dark gray medium SAND, trace fine angular Gravel, trace Clay (moist) [SP-SC]	30	S-12	SS	1	7 50/3"	50/3"	Take S-12 from 30 to 32 ft. Refusal encountered at 30.8ft.
		31						
		32						
+368.2	End of Boring at 33.0ft.	33						Drill to 33 ft, heavy rig chatter, dark gray wash. Refusal encountered at 33 ft. Boring terminated at 33 ft. Boring backfilled to grade with soil cuttings.
		34						
		35						
		36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-087** Sheet 1 of 2

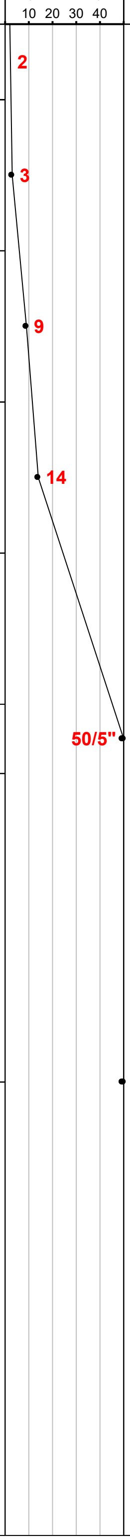
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 405.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/22/2025 / 4/22/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	30.0 ft / 30.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12 / Undisturbed 0 / Core 0
Casing Diameter (in)	4 / Casing Depth (ft) 30.0	Water Level (ft.)	First ▽ 3.5 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+405.0	Dark brown SILT, trace fine Sand, roots (moist) [ML]	0	S-1A	SS	15	WOH WOH		04/22/2025,09:33 AM. Utility Clearance Exemption Signed by PIC.
+404.1	Orangish brown SILT, some fine Sand, roots (moist) [ML]	1	S-1B			2 2	2	Take S-1 from 0ft to 2ft.
	Orangish brown to mottled gray SILT, trace fine Sand (moist) [ML]	2	S-2	SS	13	3 6 5 6	11	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	▽	3.5						
	Light brown SILT, some fine Sand (wet) [ML]	4	S-3	SS	19	2 4 3 5	7	Take S-3 from 4 to 6 ft.
	Yellowish brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	13	4 4 10 14	14	Take S-4 from 6 to 8 ft. S-4: #4 = 100%; #200 = 96% S-4: LL = 19%; PI = 3% Drive casing to 8 ft. Drill to 8 ft, low rig chatter, brown wash.
	Light brown SILT, some fine Sand (wet) [ML]	8	S-5	SS	16	5 5 5 6	10	Take S-5 from 8 to 10 ft.
	Light brown SILT, some fine Sand, trace fine subangular Gravel (wet) [ML]	10	S-6	SS	13	8 10 8 10	18	Take S-6 from 10 to 12 ft.
		12						
		14						Drive casing to 15 ft. Drill to 15 ft, moderate rig chatter, gray wash.
+390.0	Gray CLAY, trace fine Sand (wet) [CL]	15		SS		1 1		Take S-7 from 15 to 17 ft.
		16						

LANGAN Log of Boring **LB-087** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 405.0

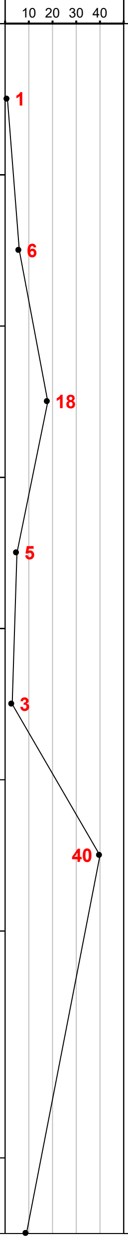
Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+389.0	Gray CLAY, trace fine Sand (wet) [CL]	16	S-7		19	1 1	2	
			17						Take S-8 from 17 to 19 ft.
			18	S-8	SS	22	1 2 1 1	3	Drive casing to 19 ft. Drill to 19 ft, moderate rig chatter, gray wash.
░	+386.0	Grayish brown Silty fine SAND, some fine Gravel (wet) [SM]	19						Take S-9 from 19 to 21 ft. S-9: #4 = 68%; #200 = 32% S-9: LL = NP; PI = NP
			20	S-9	SS	12	1 4 5 4	9	
		Gray Gravelly fine SAND, some Silt (wet) [SM]	21						Take S-10 from 21 to 23 ft.
			22	S-10	SS	4	4 6 8 6	14	
			23						
≈	+381.0	Dark gray Sandy fine GRAVEL, trace Silt (moist) [GP-GM] [Weak ROCK]	24						Drive casing to 25 ft. Drill to 25 ft, moderate rig chatter, heavy rig chatter from 24 to 25 ft, gray wash.
			25	S-11	SS	9	14 50/5"	50/5"	Take S-11 from 25 to 27 ft. Refusal encountered at 25.9ft.
			26						
			27						
			28						
			29						Drive casing to 30ft. Drill to 30 ft, heavy rig chatter, dark gray wash.
	+375.0	End of Boring at 30.0ft.	30	S-12	SS	0			Take S-12 at 30.1 ft. Refusal encountered at 30.1ft. Boring terminated at 30 ft. Boring backfilled to grade with soil cuttings.
			31						
			32						
			33						
			34						
			35						
			36						



LANGAN Log of Boring **LB-089** Sheet 1 of 2

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 401.5 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 5/2/2025	Date Finished 5/2/2025
Drilling Equipment Geoprobe 7822DT		Completion Depth 24.2 ft	Rock Depth 24.2 ft
Size and Type of Bit 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 10	Undisturbed 0; Core 0
Casing Diameter (in) 4	Casing Depth (ft) 24.0	Water Level (ft.): First ▽ 2.0	Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs) 140; Drop (in) 30	Drilling Foreman Robert Drake	
Sampler 2in OD Split Spoon		Field Engineer Roonak Ghaderi	
Sampler Hammer: Automatic	Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +401.5	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	13	WOH WOH 1	1	5/2/2025 10:04 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+400.0	Orangish brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML] ▽ Orangish brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]	1.5	S-1B			1		
		2	S-2	SS	19	2 2 4 4	6	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash. Take S-3 from 4ft to 6ft.
	Orangish brown SILT, trace fine Sand (wet) [ML]	4	S-3A	SS	13	5 9 9	18	
		5.8	S-3B			4		
+395.5	Gray SILT, trace fine Sand (wet) [ML] Gray CLAY, trace fine Sand (wet) [CL]	6	S-4	SS	18	WOH 3 2 4	5	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, gray wash. Take S-5 from 8ft to 10ft.
	Gray Sandy CLAY (wet) [CL]	8	S-5A	SS	13	2 1 2	3	
+391.9	Gray Clayey fine SAND, some fine subangular Gravel (wet) [SC] Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]	9.6	S-5B			10		
		10	S-6	SS	16	10 20 20 19	40	Take S-6 from 10ft to 12ft. Drive casing to 15ft. Drill to 15ft, gray wash.
	Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]	15		SS		11 4		Take S-7 from 15ft to 17ft.

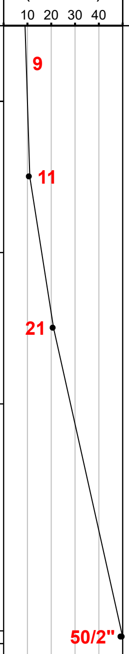


LANGAN Log of Boring **LB-089** Sheet 2 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 401.5

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+385.5		16	S-7		10	5 10	9	
+384.5	Grayish brown Silty CLAY, some fine Gravel, trace fine Sand (wet) [CL-ML]	17	S-8	SS	14	3 6 5 10	11	Take S-8 from 17ft to 19ft. S-8: LL = 18%; PI = 7% Drive casing to 19ft. Drill to 19ft, gray wash.
+382.5	Dark gray GRAVEL, some Clay, trace fine Sand (moist) [Weak ROCK] Dark gray Clayey fine SAND, some fine subangular Gravel (wet) [Weak ROCK]	19	S-9	SS	13	9 9 12 12	21	Take S-9 from 19ft to 21ft.
+377.3	End of Boring at 24.2ft.	24	S-10	SS	1	50/2"	50/2"	Drill to 24ft, heavy rig chatter, dark gray wash. Take S-10 from 24ft to 24.2ft. Refusal encountered at 24.2ft. Boring terminated at 24.2 ft. Boring backfilled to grade with soil cuttings.

Depth Scale: 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36

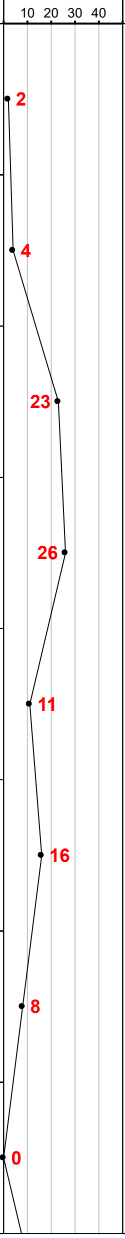


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-092** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 405.5 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/30/2025 / 4/30/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	25.6 ft / 25.6 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 0; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 25.0	Water Level (ft.)	First ▽ 3.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+405.5	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	14	WOH WOH 2 2	2	04/30/2025 02:00 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+404.4	Light brown SILT, trace fine Sand (wet) [ML]	1	S-1B					
	Orangish brown SILT, trace fine Sand (moist) [ML] ▽	2	S-2A	SS	20	2 2 2 4	4	Take S-2 from 2ft to 4ft.
		3	S-2B					
+401.5	Light brown Silty fine SAND (wet) [SM]	4	S-3	SS	20	2 11 12 15	23	Drive casing to 4ft. Drill to 4ft, brown wash. Take S-3 from 4ft to 6ft
	Light brown Silty fine SAND (wet) [SM]	6	S-4	SS	13	7 13 13 14	26	Take S-4 from 6ft to 8ft.
+397.5	Light brown SILT, trace fine Sand, trace fine Gravel (wet) [ML]	8	S-5	SS	19	4 5 6 5	11	Drive casing to 8ft. Drill to 8ft, brown wash. Take S-5 from 8ft to 10ft.
	Gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	9	4 9 7 11	16	Take S-6 from 10ft to 12ft. S-6: #4 = 100%; #200 = 91% S-6: LL = NP; PI = NP
	Gray SILT, trace fine Sand (wet) [ML]	12	S-7A	SS	15	3 3 5 3	8	Take S-7 from 12ft to 14ft.
+393.2	Gray fine Clayey SAND, fine subrounded Gravel lenses [SC]	13	S-7B					
	No Recovery	14	S-8	SS	0	WOH WOH WOH 2	0	Drive casing to 14ft. Drill to 14ft, gray wash. Take S-8 from 14ft to 14ft. 14 -16ft - Driller running sand.
		16						

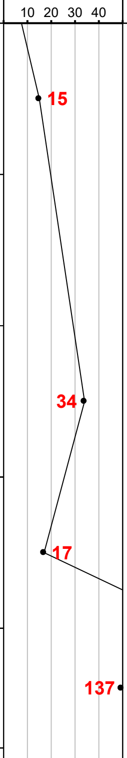


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-092** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 405.5

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+389.5	Gray fine Silty SAND, some fine subrounded Gravel (wet) [SM]	16–18	S-9	SS	12	3 9 6 16	15	Take S-9 from 16ft to 18ft.
		18–20						
+385.5	Black fine angular GRAVEL (moist) [Weak ROCK]	20–22	S-10	SS	15	20 27 7 7	34	Drive casing to 20ft. Drill to 20ft, heavy rig chatter, gray wash. Take S-10 from 20ft to 22ft.
	Black fine angular GRAVEL (moist) [Weak ROCK]	22–24	S-11	SS	4	6 3 14 10	17	Take S-11 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, heavy rig chatter, gray wash.
	Gray fine angular GRAVEL (moist) [Weak ROCK]	24–25.6	S-12	SS	15	11 50 87 50/1"	137	Take S-12 from 24ft to 25.6ft. Refusal encountered at 25.6ft.
+379.9	End of Boring at 25.6ft.	25.6						Boring terminated at 25.6 ft. Boring backfilled to grade with soil cuttings.



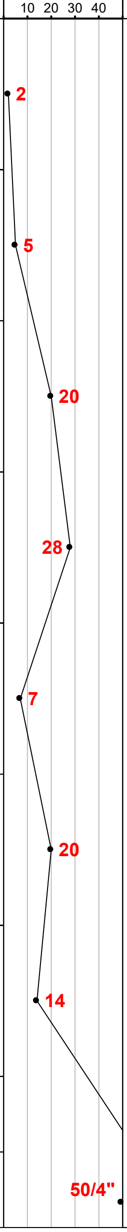
Depth Scale: 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

LANGAN Log of Boring **LB-094** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 404.4 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/1/2025 / 5/2/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	20.1 ft / 20.1 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9 Undisturbed 0 Core 0
Casing Diameter (in)	4 Casing Depth (ft) 20.0	Water Level (ft.)	First ▽ 1.8 Completion ▼ N/A 24 HR. ▽ N/A
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon		
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Field Engineer	Roonak Ghaderi

Elev. (ft)	Sample Description
+404.4	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]
+403.2	Orangish brown SILT, trace fine Sand (wet) [ML] ▽
	Orangish brown SILT, trace fine Sand (wet) [ML]
	Light brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]
	Orangish brown SILT, trace fine Sand (wet) [ML]
	Gray SILT, trace fine Sand (wet) [ML] Gray SILT, some fine Sand (wet) [ML]
+394.4	Gray Clayey fine SAND, trace fine subangular Gravel (wet) [SC]
	Gray Clayey fine SAND, some fine subangular Gravel (wet) [SC]
	Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0	S-1A	SS	18	WOH WOH	
1	S-1B			2 2	2
2	S-2	SS	12	2 2 3 5	5
4	S-3	SS	12	1 8 12 15	20
6	S-4A S-4B	SS	17	8 12 16 15	28
8	S-5	SS	12	3 4 3 2	7
10	S-6	SS	6	2 8 12 14	20
12	S-7	SS	7	7 7 7 13	14
15	S-8	SS	9	12 20 50/4"	50/4"



Depth	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	5/1/2025 03:58 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
2	Take S-2 from 2ft to 4ft.
4	Drive casing to 4ft. Drill to 4ft, brown wash. Take S-3 from 4ft to 6ft.
6	Take S-4 from 6ft to 8ft.
8	Drive casing to 8ft. Drill to 8ft, brown wash. Take S-5 from 8ft to 10ft.
10	Take S-6 from 10ft to 12ft.
11	5/1/2025 04:39 PM. 5/2/2025 8:04 AM. Drive casing to 12ft. Drill to 12ft, gray wash. Take S-7 from 12ft to 14ft.
15	Drive casing to 15ft. Drill to 15ft, gray wash. Take S-8 from 15ft to 17ft.

LANGAN Log of Boring **LB-094** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 404.4

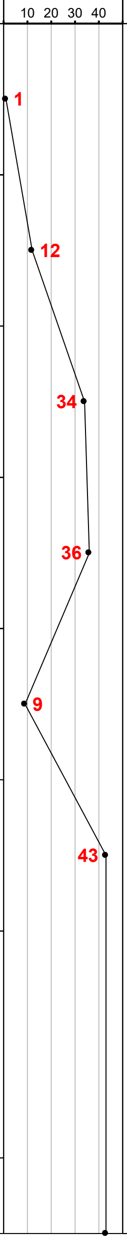
Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+388.4		16						Refusal encountered at 16.3ft.
		17						
		18						Drive casing to 20ft. Drill to 15ft, gray wash.
		19						
+384.4 +384.3	Dark gray Weak ROCK, trace Clay (moist) [Weak ROCK] End of Boring at 20.1ft.	20	S-9	SS	1	50/1"	50/1"	Take S-9 at 20ft to 22ft. Refusal encountered at 20.3ft. Boring terminated at 20.3. Boring backfilled to grade with soil cuttings
		21						
		22						
		23						
		24						
		25						
		26						
		27						
		28						
		29						
		30						
		31						
		32						
		33						
		34						
		35						
		36						

N-Value scale: 10 20 30 40

LANGAN Log of Boring **LB-095** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 404.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/12/2025
		Date Finished	4/12/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	40.6 ft
		Rock Depth	40.6 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 0; Core 0
Casing Diameter (in)	4	Casing Depth (ft)	40.0
Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon	Drilling Foreman	Robert Drake
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Field Engineer	Roonak Ghaderi		

Elev. (ft) +404.0	Depth Scale	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	0	Dark brown SILT, some fine Sand, roots (wet) [TOPSOIL]	S-1A	SS	10	WOH WOH 1	1	04/12/2025, 10:56 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+402.4		Brown SILT, some fine Sand (wet) [ML]	S-1B			3		
	2	Brown SILT, some fine Sand (wet) [ML]	S-2	SS	16	5 4 8 9	12	Take S-2 from 2 to 4 ft. S-2: #4 = 100%; #200 = 86% S-2: LL = NP; PI = NP Drive casing to 4 ft. Drill to 4 ft, brown wash.
	4	Brown SILT, some fine Sand (moist) [ML]	S-3	SS	19	11 17 17 18	34	Take S-3 from 4 to 6 ft.
+398.0	6	Grayish brown fine to medium SAND, some fine subrounded Gravel, some Silt (wet) [SP-SM]	S-4	SS	7	7 26 10 8	36	Take S-4 from 6 to 8 ft.
	8	No Recovery	S-5	SS	0	4 6 3 4	9	Drive casing to 8 ft. Drill to 8 ft, moderate rig chatter, brown wash. Take S-5 from 8 to 10 ft.
+394.0	10	Gray SILT, trace fine Sand, trace fine subrounded Gravel (moist) [ML]	S-6	SS	15	10 18 25 27	43	Take S-6 from 10 to 12 ft.
	15	Gray SILT, some fine Sand, some fine angular Gravel (moist) [ML]		SS		21 24		Drive casing to 15 ft. Drill to 15 ft, moderate rig chatter, gray wash. Take S-7 from 15 to 17 ft.



LANGAN Log of Boring **LB-095** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 404.0

Material Symbol	Elev. (ft) +388.0	Sample Description	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16	S-7		12	19 18	43	
			17						
			18						
			19						
		Gray SILT, trace fine Sand, some fine angular Gravel (moist) [ML]	20	S-8	SS	13	22 38 50/4"	50/4"	Drill to 20 ft, heavy rig chatter, gray wash. Take S-8 from 20 to 22 ft.
			21						
			22						
			23						
			24						Drill to 25 ft, heavy rig chatter, gray wash.
		Gray SILT, trace fine Sand (moist) [ML]	25	S-9	SS	9	40 50/5"	50/5"	Take S-9 from 25 to 27 ft.
			26						
			27						
			28						
			29						Drill to 30 ft, heavy rig chatter, gray wash.
		Gray SILT, trace fine Sand, some fine angular Gravel (moist) [ML]	30	S-10	SS	17	20 42 45 50/5"	87	Take S-10 from 30 to 32 ft.
			31						
			32						
			33						
			34						Drill to 35 ft, heavy rig chatter, gray wash.
		Gray SILT, trace fine Sand, trace fine subangular Gravel (moist) [ML]	35		SS		17 30		Take S-11 from 35 to 37 ft.
			36						

LANGAN Log of Boring **LB-095** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 404.0

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+368.0		36	S-11		19	32 42	62	
		37						
		38						
		39						Drill to 40 ft, heavy rig chatter, gray wash.
		40	S-12	SS	5	13 50/1"	50/1"	Take S-12 from 40 to 40.6 ft.
+363.4	Gray SILT, trace fine Sand, trace fine subangular Gravel (moist) [ML]							Refusal encountered at 40.6 ft.
	End of Boring at 40.6ft.	41						Boring terminated at 40.6 ft. Boring backfilled to grade with soil cuttings.
		42						
		43						
		44						
		45						
		46						
		47						
		48						
		49						
		50						
		51						
		52						
		53						
		54						
		55						
		56						

LANGAN Log of Boring LB-097

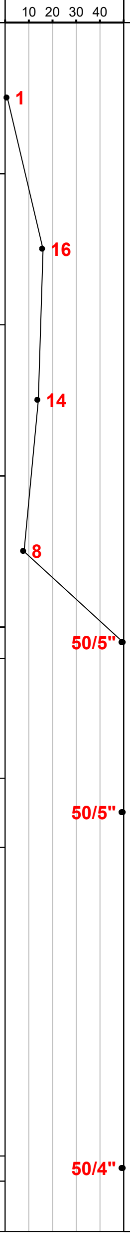
Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 403.2 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/18/2025 / 4/18/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	53.5 ft / 53.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 15; Undisturbed 0; Core 0
Casing Diameter (in)	4; Casing Depth (ft) 53.0	Water Level (ft.)	First ▽ 2.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Depth (ft)	Sample Description
+403.2	0	Dark brown SILT, trace fine Sand, roots (moist) [ML]
+402.0	1.2	Orangish brown SILT, trace fine Sand (moist) [ML]
	2 ▽	Light brown SILT, trace fine Sand (wet) [ML]
	4	Brownish gray Sandy SILT, trace fine subrounded Gravel (wet) [ML]
	6	Light gray Sandy SILT, some fine subangular Gravel (wet) [ML]
+395.2	8	Gray Sandy coarse angular Clayey GRAVEL (moist) [GC]
+388.2	15	Gray Clayey fine SAND (moist) [SC]

Sample Data

Depth	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0–2	S-1A S-1B	SS	13	WOH WOH 1 4	1
2–4	S-2	SS	16	9 9 7 13	16
4–6	S-3	SS	9	9 9 5 3	14
6–8	S-4	SS	10	3 4 4 9	8
8	S-5	SS	0	50/5"	50/5"
10	S-6	SS	9	31 50/5"	50/5"
15	S-7	SS	4	50/4"	50/4"



Remarks
(Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth	Remarks
0	04/18/2025, 09:23 AM. Utility Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
2	Take S-2 from 2 to 4 ft.
3	Drive casing to 4 ft. Drill to 4 ft, brown wash.
4	Take S-3 from 4 to 6 ft.
6	Take S-4 from 6 to 8 ft. S-4: #4 = 82%; #200 = 51% S-4: LL = NP; PI = NP
7	Drive casing to 8 ft. Drill to 8 ft, low rig chatter, brown wash.
8	Take S-5 from 8 to 10 ft.
10	Take S-6 from 10 to 10.9 ft.
12	Drive casing to 15 ft. Drill to 15 ft, heavy rig chatter, gray wash
15	Take S-7 from 15 to 17 ft.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-097** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.2

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+387.2		16						Drive casing to 20ft. Drill to 20 ft, heavy rig chatter, gray wash
+383.2	Gray Clayey fine SAND, some Gravel (moist) [SC]	20	S-8	SS	10	15 40 50/3"	50/3"	Take S-8 from 20 to 22 ft.
		22						Drive casing to 25ft. Drill to 25 ft, heavy rig chatter, gray wash.
+378.2	Gray Clayey coarse subangular GRAVEL, some Sand (moist) [GC]	25	S-9	SS	4	30 50/4"	50/4"	Take S-9 from 25 to 27ft.
		27						Drill to 30 ft, heavy rig chatter, gray wash;
+373.2	Gray CLAY, trace fine Sand, trace fine subangular Gravel (moist) [CL]	30	S-10	SS	22	22 25 50 50	75	Take S-10 from 30 to 32 ft.
		33						Drive casing to 35ft. Drill to 35 ft, heavy rig chatter, gray wash.
	Gray CLAY, trace fine Sand, trace fine subangular Gravel (moist) [CL]	35		SS		29 34		Take S-11 from 35 to 37 ft.
		36						

LANGAN Log of Boring **LB-097** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.2

Material Symbol	Elev. (ft) +367.2	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			36	S-11		21	40 40	74	Drive casing to 40ft. Drill to 40 ft, heavy rig chatter, gray wash.
▥	+363.2	Gray Sandy SILT, some fine subangular Gravel (moist) [ML]	40	S-12	SS	21	28 33 35 25	68	Take S-12 from 40 to 42 ft. S-12: #4 = 86%; #200 = 52% S-12: LL = NP; PI = NP Drive casing to 45ft. Drill to 45 ft, heavy rig chatter, gray wash.
▥		Gray Sandy SILT, some fine subangular Gravel (moist) [ML]	45	S-13	SS	9	21 50 50/3"	50/3"	Take S-13 from 45 to 47 ft. Drive casing to 50ft. Drill to 50 ft, heavy rig chatter, gray wash;
▨	+353.2	Gray CLAY, some fine Sand (moist) [CL]	50	S-14	SS	9	31 50/5"	50/5"	Take S-14 from 50 to 52 ft. Drill to 53.5 ft, heavy rig chatter, gray wash.
	+349.7 +349.7	No Recovery End of Boring at 53.5ft.	53.5	S-15	SS	0			Take S-15 at 53.5 ft to 55.5 ft. Refusal encountered at 53.5 ft Boring terminated at 53.5 ft. Boring backfilled to grade with soil cuttings.

Depth Scale: 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56

LANGAN Log of Boring **LB-099** Sheet 1 of 2

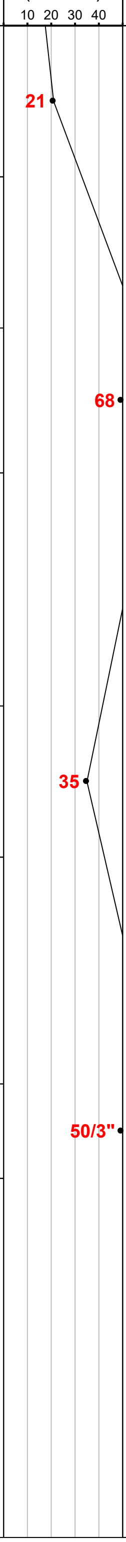
Project	Micron New York Manufacturing Facility		Project No.	170883801	
Location	Town of Clay, New York		Elevation and Datum	Approx +EL 403.0 NAVD88	
Drilling Company	Atlantic Testing Laboratories (ATL)		Date Started	5/1/2025	Date Finished 5/1/2025
Drilling Equipment	Geoprobe 7822DT		Completion Depth	31.2 ft	Rock Depth 31.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit		Number of Samples	Disturbed 12	Undisturbed 0 Core 0
Casing Diameter (in)	4	Casing Depth (ft) 31.0	Water Level (ft.)	First ▽ 3.3	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Robert Drake	
Sampler	2in OD Split Spoon		Field Engineer	Roonak Ghaderi	
Sampler Hammer	Automatic	Weight (lbs) 140 Drop (in) 30			

Elev. (ft) +403.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	16	WOH WOH 2 3	2	5/1/2025 8:04 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+401.5	Orangish brown SILT, trace fine Sand (moist) [ML]		S-1B					
	Orangish brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	13	4 6 8 11	14	Take S-2 from 2ft to 4ft.
	▽	3						
	Orangish brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]	4	S-3	SS	16	2 8 8 10	16	Drive casing to 4ft. Drill to 4ft, brown wash. Take S-3 from 4ft to 6ft.
	Orangish brown SILT, trace fine Sand (wet) [ML]	6	S-4A	SS	12	3 12 12 12	24	Take S-4 from 6ft to 8ft.
	Gray SILT, trace fine Sand (wet) [ML]		S-4B					
+395.0	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	8	S-5	SS	20	3 2 1 1	3	Drive casing to 8ft. Drill to 8ft, brown wash. Take S-5 from 8ft to 10ft.
	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	10	S-6	SS	10	WOH 1 3 8	4	Take S-6 from 10ft to 12ft. S-6: #4 = 95%; #200 = 45% S-6: LL = NP; PI = NP
	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	12	S-7	SS	6	5 9 7 9	16	Drive casing to 12ft. Take S-7 from 12ft to 14ft. Drive casing to 14ft.
	No Recovery	14	S-8	SS	0	4 5 9 12	14	Take S-8 from 14ft to 16ft.
		16						

LANGAN Log of Boring **LB-099** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.0

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+387.0	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	16	S-9	SS	10	2 10 11 26	21	Take S-9 from 16ft to 18ft.
								Drill to 20ft, heavy rig chatter, gray wash.
	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	20	S-10	SS	18	18 39 29 50/5"	68	Take S-10 from 20ft to 21.9ft.
	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	25	S-11	SS	7	7 10 25 33	35	Drill to 25ft, heavy rig chatter, gray wash. Take S-11 from 25ft to 27ft.
+373.0	Dark gray GRAVEL, trace Silt (moist) [Weak ROCK]	30	S-12	SS	2	20 19 50/3"	50/3"	Take S-12 from 30ft to 31.25ft.
+371.8	End of Boring at 31.2ft.							Refusal encountered at 31.3ft. Boring terminated at 31.3 ft. Boring backfilled to grade with soil cuttings.

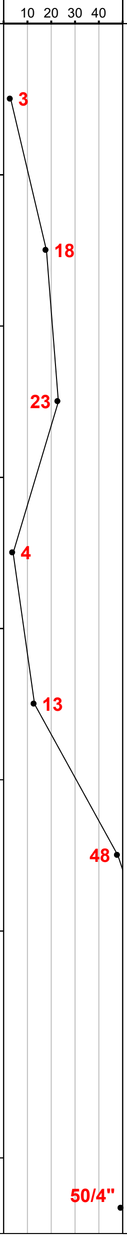


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-100** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 407.7 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/11/2025 / 4/11/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	41.8 ft / 41.8 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12 Undisturbed 0 Core 0
Casing Diameter (in)	4 Casing Depth (ft) 41.0	Water Level (ft.)	First ▽ 0.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+407.7 +406.9	Dark brown SILT, some fine Sand, roots (wet) [TOPSOIL]	0	S-1A	SS	11	WOH WOH		04/11/2025, 8:31 AM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	Light brown Sandy SILT (wet) [ML]	1	S-1B			3 4	3	
	Light brown SILT, some fine Sand (wet) [ML]	2–3	S-2	SS	15	6 9 9 10	18	Take S-2 from 2 to 4 ft. S-2: LL = NP; PI = NP Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Light brown Sandy SILT (wet) [ML]	4–5	S-3	SS	18	6 10 13 10	23	Take S-3 from 4 to 6 ft.
	Gray Sandy SILT, trace fine subangular Gravel (wet) [ML]	6–7	S-4	SS	12	2 2 2 3	4	Take S-4 from 6 to 8 ft. S-4: #4 = 91%; #200 = 50% S-4: LL = NP; PI = NP Drive casing to 8 ft. Drill to 8 ft,light rig chatter, gray wash.
	Gray Sandy SILT, some fine subangular Gravel (wet) [ML]	8–9	S-5	SS	13	4 5 8 17	13	Take S-5 from 8 to 10 ft.
	Gray Sandy SILT, trace fine subangular Gravel (moist) [ML]	10–11	S-6	SS	13	9 23 25 29	48	Take S-6 from 10 to 12 ft.
		12–14						Drive casing to 15 ft. Drill to 15 ft, moderate rig chatter, gray wash.
	Gray Sandy SILT, trace fine angular Gravel (moist) [ML]	15–16	S-7	SS	11	27 47 50/4"	50/4"	Take S-7 from 15 to 17 ft.



LANGAN Log of Boring **LB-100** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 407.7

Material Symbol	Elev. (ft) +391.7	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16						
			17						
			18						Drive casing to 20ft. Drill to 20 ft, heavy rig chatter, gray wash.
			19						
		Gray SILT, some fine Sand, trace fine subangular Gravel (moist) [ML]	20	S-8	SS	13	38 50 50/5"	50/5"	Take S-8 from 20 to 22 ft.
			21						
			22						
			23						
			24						
		Gray SILT, some fine Sand, trace fine subangular Gravel (moist) [ML]	25	S-9	SS	8	35 50/5"	50/5"	Drive casing to 29ft. Drill to 29 ft, heavy rig chatter, gray wash. Take S-9 from 25 to 27 ft.
			26						
			27						
			28						
			29						Drill to 30 ft, heavy rig chatter, gray wash.
		Green SILT, some fine Sand (moist) [ML]	30	S-10	SS	18	29 40 50 50/4"	90	Take S-10 from 30 to 32 ft.
			31						
			32						Drill to 35 ft, heavy rig chatter, gray wash.
			33						
			34						
		Gray SILT, some fine Sand (moist) [ML]	35	S-11	SS	13	37 50 50/5"	50/5"	Take S-11 from 35 to 37 ft.
			36						

N-Value scale: 10 20 30 40

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-100** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 407.7

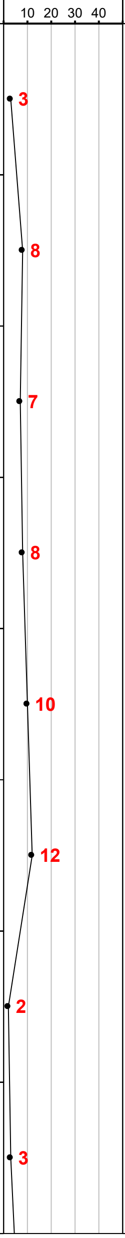
Material Symbol	Elev. (ft) +371.7	Sample Description	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	Sample Data N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			36						
			37						
			38						Drill to 40 ft, heavy rig chatter, gray wash.
			39						
		Gray SILT, some fine Sand (moist) [ML]	40	S-12	SS	18	15 27 27 50/3"	54	Take S-12 from 40 to 42 ft. Refusal encountered at 41.8 ft.
			41						
	+366.0	End of Boring at 41.8ft.	42						Boring terminated at 41.8 ft. Temporary well installed on 04/11/2025
			43						
			44						
			45						
			46						
			47						
			48						
			49						
			50						
			51						
			52						
			53						
			54						
			55						
			56						

LANGAN Log of Boring LB-101

Sheet 1 of 2

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 392.2 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 5/1/2025	Date Finished: 5/1/2025
Drilling Equipment: CME-55LC		Completion Depth: 22.9 ft	Rock Depth: 22.9 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 12	Undisturbed 0 Core 0
Casing Diameter (in): 4	Casing Depth (ft): 22.0	Water Level (ft.): First ▽ 0.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Landon Nelson	
Sampler: 2in OD Split Spoon		Field Engineer: Bahar Ghaneshirazi	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

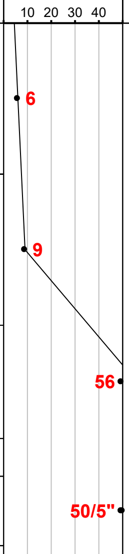
Depth Scale (ft)	Elev. (ft)	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	+392.2	Dark brown CLAY, trace fine Sand, roots (wet) [TOPSOIL] ▽	S-1A	SS	14	WOH	3	5/1/2025, 10:51 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
0.6	+391.6	Tannish brown to orangish grayish brown SILT, trace fine Sand (wet) [ML]	S-1B			1 2 3		
2		Tannish brown to pinkish grayish brown SILT, trace fine Sand (wet) [ML]	S-2	SS	18	2 4 4 5	8	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
4		Tannish brown to pinkish grayish brown SILT, trace fine Sand, trace fine subrounded Gravel (wet) [ML]	S-3	SS	19	2 3 4 4	7	Take S-3 from 4ft to 6ft.
6		Tannish brown to pinkish brown Sandy SILT, trace fine subrounded Gravel (wet) [ML]	S-4	SS	18	4 4 4 5	8	Take S-4 from 6ft to 8ft. Drive casing to 8 ft. Drill to 8ft, brown wash.
8		Tannish brown Sandy SILT, trace fine subrounded Gravel (wet) [ML]	S-5	SS	18	2 5 5 6	10	Take S-5 from 8ft to 10ft.
10		Tannish brown Sandy SILT, trace fine subrounded Gravel (wet) [ML]	S-6	SS	20	6 6 6 6	12	Take S-6 from 10ft to 12ft. Drive casing to 12 ft. Drill to 12ft, grayish brown wash.
12		Tannish gray Sandy SILT, trace fine Gravel (wet) [ML]	S-7	SS	13	2 1 1 2	2	Take S-7 from 12ft to 14ft.
14		Tannish gray Sandy SILT, trace fine Gravel (wet) [ML]	S-8	SS	24	1 1 2 2	3	Drive casing to 15ft. Drill to 15ft, grayish brown wash. Take S-8 from 14ft to 16ft.
14.5		Tannish gray Silty Clayey fine SAND, some fine subangular Gravel (wet) [SC-SM]						
16	+376.2							



LANGAN Log of Boring **LB-101** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.2

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.2	Grayish brown Silty Clayey fine SAND, some fine Gravel (wet) [SC-SM]	16	S-9	SS	18	1 2 4 3	6	Take S-9 from 16ft to 18ft. S-9: #4 = 82%; #200 = 44% S-9: LL = 15%; PI = 7%
+374.2	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	18	S-10	SS	19	3 4 5 9	9	Take S-10 from 18ft to 20ft. S-10: #4 = 92%; #200 = 46% S-10: LL = 12%; PI = 2% Drive casing to 20ft. Drill to 20ft, gray wash.
	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]	20	S-11A	SS	15	7 6 50	56	Take S-11 from 20ft to 22ft.
+371.6	Gray angular GRAVEL (wet) [Weak ROCK]	21	S-11B					
	No Recovery	22	S-12	SS	0	24 50/5"	50/5"	Take S-12 from 22ft to 24ft. Refusal encountered at 22 ft. Boring terminated at 22.9ft. Boring backfilled to grade with soil cuttings.
+369.2	End of Boring at 22.9ft.	23						
		24						
		25						
		26						
		27						
		28						
		29						
		30						
		31						
		32						
		33						
		34						
		35						
		36						



LANGAN Log of Boring **LB-R-001** Sheet 1 of 2

Project Micron New York Manufacturing Facility			Project No. 170883801		
Location Town of Clay, New York			Elevation and Datum Approx +EL 379.1 NAVD88		
Drilling Company Atlantic Testing Laboratories (ATL)			Date Started 4/5/2025	Date Finished 4/8/2025	
Drilling Equipment Geoprobe 7822DT			Completion Depth 28.9 ft	Rock Depth 21.4 ft	
Size and Type of Bit 3-7/8in Tricone Roller Bit			Number of Samples	Disturbed 10	Undisturbed 0 / Core 2
Casing Diameter (in) 4	Casing Depth (ft) 21.0		Water Level (ft.)	First ▽ 1.0	Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer Automatic	Weight (lbs) 140	Drop (in) 30	Drilling Foreman Darryl Green		
Sampler 2in OD Split Spoon, Shelby Tube, NX Core Barrel (2.15in)			Field Engineer Ning Lee		
Sampler Hammer Automatic	Weight (lbs) 140	Drop (in) 30			

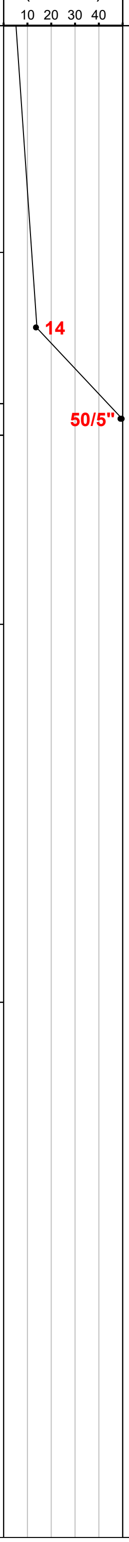
Elev. (ft) +379.1	Depth Scale	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]		S-1A	SS	19	WOH 1		04/05/2025,12:49 PM. Utility Clearance Exemption Signed by PIC.
+378.3		Light brown SILT, trace fine Sand (moist) [ML] ▽							
	1			S-1B			1 3	2	Take S-1 from 0 to 2 ft.
	2	Light brown SILT, trace fine Sand (wet) [ML]		S-2A	SS	18	2 5		Take S-2 from 2 to 4 ft.
	3			S-2B			2 2	7	
	4	Brown Sandy SILT (wet) [ML]		S-3	SS	7	1 1 1 1	2	Drive Casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft
	6	Brown Sandy SILT (wet) [ML]		S-4	SS	7	2 3 4 4	7	Take S-4 from 6 to 8 ft.
	7								Drive casing to 8 ft. Drill to 8 ft, brown wash
+371.1	8	Light gray CLAY, trace fine Sand (wet) [CL]		S-5	SS	12	1 WOH 2 2	2	Take S-5 from 8 to 10 ft.
	10	Light gray CLAY, trace fine Sand (wet) [CL]		S-6	SS	12	2 2 1 3	3	Take S-6 from 10 to 12 ft.
	11								Drive casing to 12 ft. Drill to 12 ft, brown wash
	12	Light gray CLAY, trace fine Sand (wet) [CL]		S-7	SS	17	2 2 4 4	6	Take S-7 from 12 to 14 ft.
	13								Drive casing to 14 ft. Drill to 14 ft, low rig chatter, brown wash.
	14	Light gray CLAY, trace fine Sand (wet) [CL]		S-8	SS	14	3 2 1 2	3	Take S-8 from 14 to 16 ft.
	16								

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-001** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 379.1

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+363.1			16						Drive casing to 19. Drill to 19 ft.
+360.1	Light gray Silty SAND, trace subangular Gravel (wet) [SM]		19	S-9	SS	9	7 8 6 5	14	Take S-9 from 19 to 21 ft.
+358.1	Light gray GRAVEL, trace Clay (wet) [Weak ROCK]		21	S-10	SS	3	50/5"	50/5"	Take S-10 from 21 to 23 ft. Basal gravel lenses.
+357.6	Dark gray calcareous DOLOSTONE; fine grained calcite; fresh weathered; very wide fracture spacing; fractures near horizontal; intact; rock quality good [BEDROCK]	[06:01] [05:51]	21.4	C-1	NX	REC=83%	RQD=0%		C-1: UCS = 16944 psi Slightly reactive to acid test. Take C-1 from 21.4ft to 23.9 ft. Refusal encountered at 21.4ft. Take C-2 from 23.9 to 28.9 ft.
	Dark gray SHALE; fine grained fresh weathered; close fracture spacing; fractures near horizontal; blocky; rock quality very poor; [BEDROCK]	[12:12]							
		[18:21]	23.9	C-2	NX	REC=55"/60"=92%	RQD=23"/60"=38%		
	Dark gray DOLOSTONE; fine grained fresh weathered; moderate fracture spacing; fractures near horizontal; blocky; rock quality very poor; [BEDROCK]	[12:30] [07:40] [18:55] [30:13]							
+350.1	End of Boring at 28.9ft.		28.9						Boring terminated at 28.9 ft. Temporary well installed on 04/08/2025.

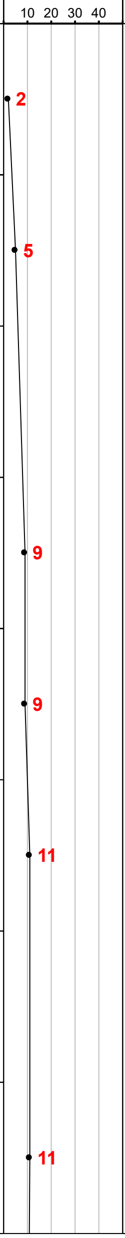


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-005** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 381.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/12/2025 / 4/14/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	32.9 ft / 22.9 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 7; Undisturbed 1; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 21.0	Water Level (ft.)	First ▽ 4.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Ning Lee
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +381.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+381.0	Light brown to brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0–2	S-1	SS	12	WOH WOH 2 4	2	04/12/2025,2:17 PM. Utilities Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft
+379.0	Light brown CLAY, trace fine Sand (moist) [CL]	▽	2–4	S-2	SS	21	4 3 2 4	5	Take S-2 from 2 to 4 ft Drive Casing to 4 ft. Drill to 4 ft, brown wash.
	Light brown CLAY, trace fine Sand (moist) [CL]		4–6	UD-1	U	24			Take U-1 from 4 to 6 ft U-1: LL = 29%; PI = 10%
+375.0	Grayish brown Silty CLAY, trace fine Sand (moist) [CL-ML]		6–8	S-3	SS	23	6 4 5 4	9	Take S-3 from 6 to 8 ft. Layer of iron oxidation. S-3: LL = 24%; PI = 7% Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Grayish brown Silty CLAY, trace fine Sand (moist) [CL-ML]		8–10	S-4	SS	21	WOH 4 5 4	9	Take S-4 from 8 to 10 ft. Layer of iron oxidation. S-4: LL = 23%; PI = 6%
+371.0	Grayish brown SILT, trace fine Sand, trace fine Gravel (wet) [ML]		10–12	S-5	SS	22	4 5 6 4	11	Take S-5 from 10 to 12 ft. Layer of iron oxidation.
			12–14						Drive casing to 14 ft. Drill to 14 ft, brownish gray wash.
	Grayish brown to grayish SILT, trace fine Sand (wet) [ML]		14–16	S-6	SS	19	7 6 5 2	11	Take S-6 from 14 to 16 ft



LANGAN

Log of Boring **LB-R-005** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 381.0

Material Symbol	Elev. (ft) +365.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Gray SILT, some fine Sand (wet) [ML]		16–19						Drive casing to 19 ft. Drill to 19 ft, brownish gray wash .
				19–21	S-7	SS	13	3 4 6 7	10	Take S-7 from 19 to 21 ft S-7: #4 = 96%; #200 = 56% S-7: LL = NP; PI = NP
				21–22.9						Casing refusal encountered at 22.9 ft.
	+358.1	Dark gray DOLOSTONE; fine grained fresh weathered; very close fracture spacing; fractures shallow dipping to near horizontal; intact; rock quality excellent [BEDROCK]	[06:13] [06:39] [10:29] [06:10] [05:44]	22.9–27.9	C-1	NX	REC=50"/60"=83%	RQD=36"/60"=59%		Take C-1 from 22.9 to 27.9 ft; Low rig chatter, gray wash. C-1: UCS = 33275 psi
		Dark gray DOLOSTONE ; fine grained fresh weathered; close fracture spacing; fractures near horizontal; intact; rock quality fair; [BEDROCK]	[05:15] [05:17] [06:52] [05:39] [06:55]	27.9–32.9	C-2	NX	REC=56"/60"=93%	RQD=32"/60"=53%		Take C-2 from 27.9 to 32.9 ft
	+348.1	End of Boring at 32.9ft.		32.9–36						Boring terminated at 32.9 ft. Boring backfilled to grade with soil cuttings.

LANGAN Log of Boring **LB-R-007** Sheet 1 of 2

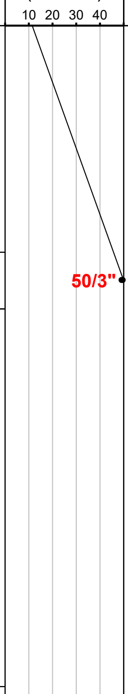
Project	Micron New York Manufacturing Facility		Project No.	170883801	
Location	Town of Clay, New York		Elevation and Datum	Approx +EL 377.1 NAVD88	
Drilling Company	Atlantic Testing Laboratories (ATL)		Date Started	4/12/2025	Date Finished 4/12/2025
Drilling Equipment	Geoprobe 7822DT		Completion Depth	24.8 ft	Rock Depth 19.8 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit		Number of Samples	Disturbed 8	Undisturbed 0 Core 1
Casing Diameter (in)	4	Casing Depth (ft) 19.0	Water Level (ft.)	First ▽ 0.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Darryl Green	
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer	Ning Lee	
Sampler Hammer	Automatic	Weight (lbs) 140 Drop (in) 30			

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.1	Mottled Light brown CLAY, trace fine Sand, roots (wet) [TOPSOIL]		0	S-1	SS	9	WOH WOH 1 2	1	04/12/2025, 8:36 AM. Utilities Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft
+375.1	Mottled Light brown CLAY, trace fine Sand (wet) [CL]		2	S-2	SS	16	2 2 2 3	4	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash
	Brown CLAY, trace fine Sand (wet) [CL]		4	S-3	SS	11	2 2 3 2	5	Take S-3 from 4 to 6 ft
	Light brown CLAY, trace fine Sand (wet) [CL]		6	S-4	SS	14	2 3 4 3	7	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, gray wash
+369.1	Light gray SILT, trace fine Sand (wet) [ML]		8	S-5	SS	13	WOH WOH 2 3	2	Take S-5 from 8 to 10 ft Drive casing to 10 ft. Drill to 10 ft, heavy rig chattering, gray wash.
	Brownish gray SILT, trace fine Sand (wet) [ML]		10	S-6	SS	16	2 2 2 4	4	Take S-6 from 10 to 12 ft S-6: #4 = 100%; #200 = 99% S-6: LL = NP; PI = NP
			12						
	Light gray SILT, trace fine Sand (wet) [ML]		14	S-7	SS	10	WOH WOH WOH WOH	0	Take S-7 from 14 to 16 ft
			16						

LANGAN Log of Boring **LB-R-007** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.1

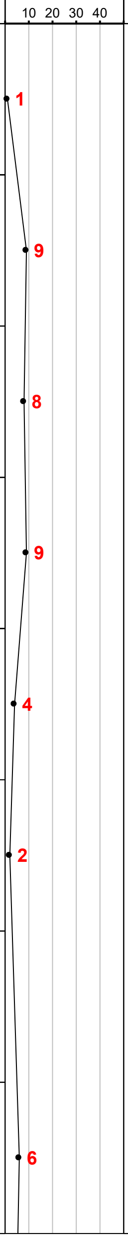
Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+361.1			16						Drive casing to 19 ft. Drill to 19 ft, light rig chatter, gray wash.
+358.1	Dark gray Gravelly medium to fine SAND, trace Silt (wet) [SP-SM]		19	S-8	SS	10	22 50/3"	50/3"	Take S-8 from 19 to 21 ft. Refusal encountered at 19.8 ft.
+357.3	Dark gray DOLOSTONE; fine grained fresh weathered; close fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality poor [BEDROCK]	[06:32] [06:21] [04:16] [09:24] [07:55]	20	C-1	NX	REC=45"/60"=75%	RQD=28"/60"=48%		Drive casing to 19.8 ft. Drill to 198 ft, heavy rig chattering, gray wash. Take C-1 from 19.8 to 24.8 ft C-1: UCS = 20257 psi
+352.3	End of Boring at 24.8ft.		24.8						Boring terminated at 24.8 ft. Temporary well installed on 04/12/2025



LANGAN Log of Boring **LB-R-012** Sheet 1 of 2

Project	Micron New York Manufacturing Facility		Project No.	170883801	
Location	Town of Clay, New York		Elevation and Datum	Approx +EL 376.1 NAVD88	
Drilling Company	Atlantic Testing Laboratories (ATL)		Date Started	4/16/2025	Date Finished: 4/17/2025
Drilling Equipment	Geoprobe 7822DT		Completion Depth	28.0 ft	Rock Depth: 23.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit		Number of Samples	Disturbed: 9	Undisturbed: 0 Core: 1
Casing Diameter (in)	4	Casing Depth (ft): 23.0	Water Level (ft.)	First ▽ 4.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Darryl Green	
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)				
Sampler Hammer	Automatic	Weight (lbs): 140 Drop (in): 30	Field Engineer	Ning Lee	

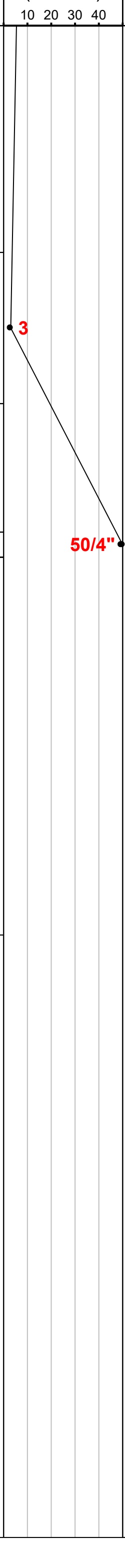
Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.1	Brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1	SS	12	WOH WOH 1 2	1	04/16/2024, 12:09 PM. Utilities Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft
+374.1	Brown CLAY, trace fine Sand (moist) [CL]		2	S-2	SS	22	6 5 4 4	9	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash
	▽ Light brown to light gray CLAY, trace fine Sand (wet) [CL]		4	S-3	SS	20	2 3 5 5	8	Take S-3 from 4 to 6 ft
	Light gray CLAY, trace fine Sand (wet) [CL]		6	S-4	SS	14	6 5 4 2	9	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, gray wash
	Light gray CLAY, trace fine Sand (wet) [CL]		8	S-5	SS	20	1 2 2 2	4	Take S-5 from 8 to 10 ft
+366.1	Light gray SILT, trace fine Sand (wet) [ML]		10	S-6	SS	20	WOH 1 1 1	2	Take S-6 from 10 to 12 ft S-6: LL = 20%; PI = 2%
			12						Drive casing to 14 ft. Drill to 14 ft, gray wash
	Light gray SILT, trace fine Sand (wet) [ML]		14	S-7	SS	16	WOH 4 2 2	6	Take S-7 from 14 to 16 ft S-7: LL = NP; PI = NP
			16						



LANGAN Log of Boring **LB-R-012** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 376.1

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+360.1			16						Drive casing to 19 ft. Drill to 19 ft, light rig chatter, gray wash
+357.1	Light gray Gravelly fine SAND, trace Silt (wet) [SP-SM]		19	S-8	SS	10	WOH WOH 3 6	3	Take S-8 from 19 to 21 ft
			21						4/16/2025 4:42 PM 4/17/2025 8:13 AM Drive casing to 22 ft. Drill to 22.7 ft, light rig chatter, gray wash
+353.4	Dark gray GRAVEL, trace fine Sand, trace Clay (wet) [Weak ROCK]		22.7	S-9	SS	3	50/4"	50/4"	Take S-9 from 22.7 to 23 ft
+353.0	Gray DOLOSTONE; fine grained fresh weathered; close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality fair [BEDROCK]	[07:15] [03:15] [03:32] [05:04] [01:13]	23	C-1	NX	REC=55"/60"=92%	RQD=42"/60"=70%		Drill to 23, heavy rig chatter, gray wash Take C-1 from 23 to 28 ft C-1: UCS = 14842 psi
+348.0	End of Boring at 28.0ft.		28						Boring terminated at 28 ft. Temporary well installed on 04/17/2025



LANGAN Log of Boring **LB-R-013** Sheet 1 of 2

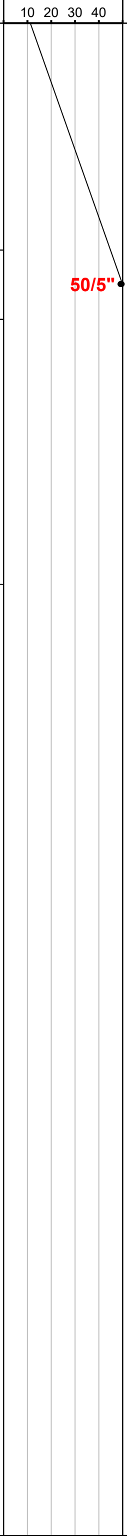
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 380.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/18/2025 / 4/19/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	23.4 ft / 19.9 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8 / Undisturbed 0 / Core 1
Casing Diameter (in)	4 ; Casing Depth (ft) 19.0	Water Level (ft.)	First ▽ 4.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic ; Weight (lbs) 140 ; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Ning Lee
Sampler Hammer	Automatic ; Weight (lbs) 140 ; Drop (in) 30		

Material Symbol	Elev. (ft) +380.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Brown SILT, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1	SS	12	1 2 2 2	4	04/18/2025, 2:21 PM. Utilities Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft
	+378.0	Brown SILT, trace fine Sand (moist) [ML]		2	S-2	SS	23	7 7 6 9	13	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft brown wash.
		Brown SILT, trace fine Sand (wet) [ML]	▽	4	S-3	SS	18	3 7 7 6	14	Take S-3 from 4 to 6 ft
		Brown SILT, trace fine Gravel (wet) [ML]		6	S-4	SS	21	6 7 7 6	14	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drive casing to 8 ft, light rig chatter, brown wash.
		Brown SILT, trace fine Sand (wet) [ML]		8	S-5	SS	15	4 6 5 6	11	Take S-5 from 8 to 10 ft
		Brown to light gray SILT, trace fine Sand (wet) [ML]		10	S-6	SS	17	3 5 4 3	9	Take S-6 from 10 to 12 ft
				12						Drive casing to 14 ft. Drill to 14 ft, brown wash
		Brown to light gray SILT, trace fine Sand (wet) [ML]		14	S-7	SS	6	WOH WOH WOH WOH	0	Take S-7 from 14 to 16 ft
				16						

LANGAN Log of Boring **LB-R-013** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 380.0

Material Symbol	Elev. (ft) +364.0	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+362.5			16 17						Drive casing to 19 ft. Drill to 19 ft, light rig chatter, gray wash.
	+360.1	Dark gray GRAVEL, trace Silt (wet) [Weak ROCK]		18 19	S-8	SS	5	18 50/5"	50/5"	Take S-8 from 19 to 21 ft Refusal encountered at 19.9ft. Take C-1 from 19.9 to 23.4 ft
	+356.6	Dark gray DOLOSTONE; fine grained fresh weathered; close fracture spacing; fractures near horizontal; intact; rock quality good [BEDROCK]	[09:56] [07:39] [08:23] [04:27]	20 21 22 23	C-1	NX	REC=37"/42"=88%	RQD=32"/42"=76%		
		End of Boring at 23.4ft.		24 25 26 27 28 29 30 31 32 33 34 35 36						Boring terminated at 23.4 ft. Temporary well installed on 04/19/2025

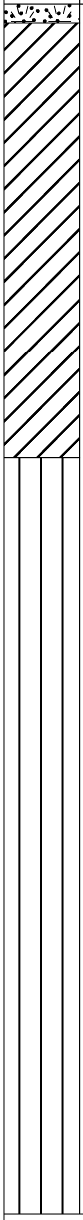


LANGAN Log of Boring **LB-R-014** Sheet 1 of 2

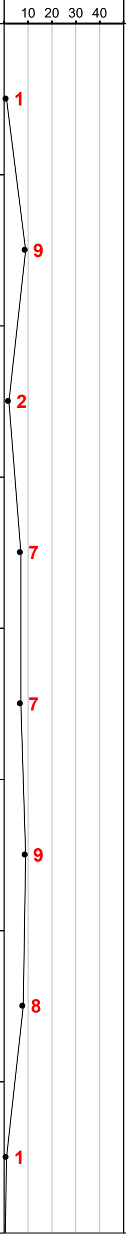
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 378.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/21/2025
		Date Finished	4/22/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	29.4 ft
		Rock Depth	21.4 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 11 Undisturbed 0 Core 2
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 4.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Depth (ft)	21.0		
Casing Hammer	Automatic	Drilling Foreman	Darryl Green
Weight (lbs)	140	Drop (in)	30
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Ning Lee
Sampler Hammer	Automatic		
Weight (lbs)	140	Drop (in)	30

Elev. (ft) +378.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.8	Light gray medium to fine SAND, trace Clay, roots (moist) [TOPSOIL]		0	S-1A			WOH		04/23/2025, 2:21 PM. Utilities Clearance Exemption Signed by PIC.
	Brown CLAY, trace fine Sand (moist) [CL]		0.5–2	S-1B	SS	10	WOH 1 2	1	Take S-1 from 0 to 2 ft
	Brown CLAY (moist) [CL]		2–4	S-2	SS	20	6 5 4 6	9	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash
	Brown CLAY, trace fine Sand (wet) [CL] ▽		4–6	S-3	SS	23	1 1 1 1	2	Take S-3 from 4 to 6 ft
+372.0	Brown SILT, trace fine Sand (wet) [ML]		6–8	S-4	SS	21	3 3 4 4	7	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, brown wash
	Brown SILT, trace fine Sand (wet) [ML]		8–10	S-5	SS	23	3 3 4 3	7	Take S-5 from 8 to 10 ft S-5: LL = 20%; PI = 3%
	Light gray SILT, trace fine Sand (wet) [ML]		10–12	S-6	SS	17	3 4 5 6	9	Take S-6 from 10 to 12 ft Drive casing to 12 ft. Drill to 12 ft, gray wash
	Light gray SILT, trace fine Sand (wet) [ML]		12–14	S-7	SS	16	4 4 4 4	8	Take S-7 from 12 to 14 ft
	Light gray SILT, trace fine Sand (wet) [ML]		14–16	S-8	SS	20	1 1 WOH 1	1	Take S-8 from 14 to 16 ft Drive casing to 16 ft. Drill to 16 ft, gray wash

Material Symbol



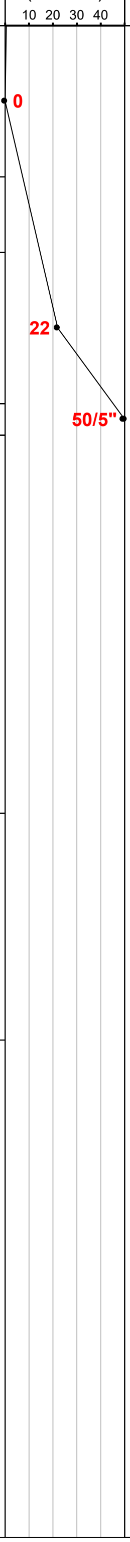
N-Value (Blows/ft)



LANGAN Log of Boring **LB-R-014** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 378.0

Depth Scale	Elev. (ft) +362.0	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
16		Light gray SILT, trace fine Sand (wet) [ML]		S-9A	SS	22	WOH WOH		Take S-9 from 16 to 18 ft
17	+361.1	Light gray fine SAND, trace fine subangular Gravel, trace Silt (wet) [SP-SM]		S-9B			WOH 11	0	
18									Drive casing to 19 ft. Drill to 19 ft, gray wash
19		Dark gray fine SAND, some GRAVEL and SILT (wet) [SP-SM]		S-10	SS	7	11 10 12 13	22	Take S-10 from 19 to 21 ft
21	+356.6	Dark gray Gravelly fine to medium SAND, trace subangular Gravel, trace Silt (wet) [SP-SM]		S-11	SS	4	50/5"	50/5"	Take S-11 from 21 to 23 ft Refusal encountered at 21.4ft. Take C-1 from 21.4 to 26.4 ft
22		Dark gray DOLOSTONE; fine grained fresh to slightly weathered; very close fracture spacing; fractures near horizontal; intact; rock quality fair; Decompose Rock with Clay seam [BEDROCK]	[03:54]	C-1	NX	REC=52"/60"=87%	RQD=34"/60"=57%		
23			[08:35]						Loss of water, heavy rig chatter.
24			[07:09]						
25			[05:38]						
26			[04:03]						
27		Dark gray DOLOSTONE ; fine grained fresh weathered; very close fracture spacing; fractures near horizontal; intact; rock quality fair; [BEDROCK]	[03:04]	C-2	NX	REC=100%	RQD=72%		Take C-2 from 26.4 to 29.4 ft C-2: UCS = 29991 psi
28			[06:19]						Loss of water, heavy rig chatter, gray wash.
29			[07:10]						Loss of water, heavy rig chatter, gray wash.
	+348.6	End of Boring at 29.4ft.							Boring terminated at 29.4 ft. Boring backfilled to grade with soil cuttings.



LANGAN Log of Boring **LB-R-018** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.3 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/22/2025 / 4/23/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	28.5 ft / 23.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 11 Undisturbed 0 Core 1
Casing Diameter (in)	4	Casing Depth (ft)	22.0
Water Level (ft.)			First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Ning Lee
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

Depth Scale (ft)	Elev. (ft) +377.3	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0		Brown CLAY, some fine Sand, roots (moist) [TOPSOIL]		S-1	SS	11	WOH WOH 2 3	2	04/22/2023,1:58 PM. Utilities Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft
1	+376.3	Brown CLAY, trace fine Sand (wet) [CL]							
2		▽ Brown to orangish CLAY, trace fine Sand (wet) [CL]		S-2	SS	20	7 5 5 4	10	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
4		Brown to orange SILT, trace fine Sand (wet) [ML]		S-3	SS	22	3 2 2 4	4	Take S-3 from 4 to 6 ft
6		Brown CLAY, trace fine Sand (wet) [CL]		S-4	SS	20	4 4 4 3	8	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, brown wash.
8		Brown CLAY, trace fine Sand (wet) [CL]		S-5	SS	17	WOH WOH WOH WOH	0	Take S-5 from 8 to 10 ft
10		Light gray CLAY, trace fine Sand (wet) [CL]		S-6	SS	22	WOH WOH 2 2	2	Take S-6 from 10 to 12 ft. Drive casing to 12 ft. Drill to 12 ft, brown wash.
12	+365.3	Light gray SILT, trace fine Sand (wet) [ML]		S-7	SS	22	3 3 4 2	7	Take S-7 from 12 to 14 ft
14		Light gray SILT, trace fine Sand (wet) [ML]		S-8	SS	14	3 3 3 3	6	Take S-8 from 14 to 16 ft. Drive casing to 16 ft. Drill to 16 ft, gray wash
16									

LANGAN Log of Boring **LB-R-018** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.3

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+361.3	Light gray SILT, trace fine Sand (wet) [ML]		16				1		Take S-9 from 16 to 18 ft
				17	S-9	SS	21	1 1 1	2	
				18						4/22/2025 5:01 PM 4/23/2025 8:10 AM
		Light gray SILT, some fine Sand, trace fine Gravel (wet) [ML]		19				WOH		Take S-10 from 19 to 21 ft S-10: #4 = 97%; #200 = 76% S-10: LL = 15%; PI = 3%
				20	S-10	SS	22	WOH WOH 22	0	
	+355.9	Light gray SILT, some fine Sand (wet) [ML]		21	S-11A			18		Take S-11 from 21 to 23 ft
		Light gray Gravelly fine SAND, trace Silt (wet) [SP-SM]		22	S-11B	SS	10	5 4 50/5"	9	Refusal encountered at 22.9 ft.
	+353.8			23						Drive casing to 23.5. Drill to 23.5 heavy rig chatter, gray wash. Take C-1 from 23.5 to 28.5 ft
		Dark gray DOLOSTONE; fine grained fresh weathered; close fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality poor [BEDROCK]	[05:52]	24						
			[02:46]	25						
			[06:10]	26	C-1	NX	REC=53"/60"=88%	RQD=23"/60"=38%		Loss Of Water, heavy rig chatter. Loss of water, heavy rig chatter.
			[06:53]	27						
	+348.8		[02:05]	28						
		End of Boring at 28.5ft.		29						Boring terminated at 28.5 ft. Boring backfilled to grade with soil cuttings.
				30						
				31						
				32						
				33						
				34						
				35						
				36						

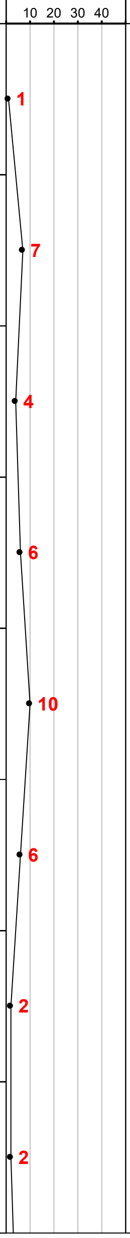
LANGAN

Log of Boring LB-R-021

Sheet 1 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: Approx +EL 379.0 NAVD88
Drilling Company: Atlantic Testing Laboratories (ATL)	Date Started: 4/30/2025 · Date Finished: 4/30/2025
Drilling Equipment: CME-55LC	Completion Depth: 35.0 ft · Rock Depth: 25.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit	Number of Samples: Disturbed 13 · Undisturbed 0 · Core 2
Casing Diameter (in): 4 · Casing Depth (ft): 24.0	Water Level (ft.): First ▽ 1.5 · Completion ▼ N/A · 24 HR. ▼ N/A
Casing Hammer: Automatic · Weight (lbs): 140 · Drop (in): 30	Drilling Foreman: Scott McGregor
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer: Arvind Ganesan
Sampler Hammer: Automatic · Weight (lbs): 140 · Drop (in): 30	

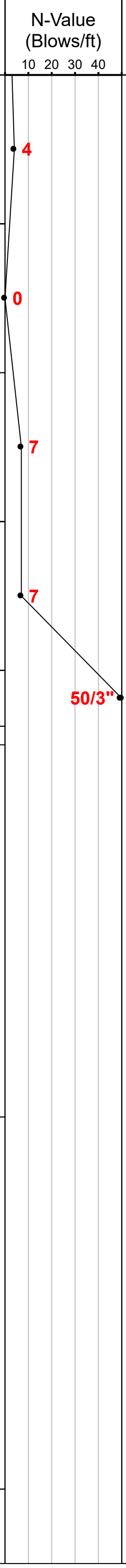
Depth Scale (ft)	Elev. (ft) +379.0	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0		Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL] ▽	S-1A	SS	14	WOH WOH 1 5	1	4/30/2025 12:30 Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2ft.
1.6	+377.4	Tannish brown SILT, trace fine Sand (wet) [ML]	S-1B					
2		Tannish brown SILT, trace fine Sand (wet) [ML]	S-2	SS	12	3 4 3 3	7	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
4		Tannish mottled brown to gray SILT (wet) [ML]	S-3	SS	18	1 2 2 2	4	Take S-3 from 4ft to 6ft.
6		Tannish mottled brown to gray SILT (wet) [ML]	S-4	SS	20	2 3 3 3	6	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brownish gray wash.
8		Tannish mottled brown to gray SILT (wet) [ML]	S-5	SS	2	3 4 6 5	10	Take S-5 from 8ft to 10ft.
10		Tannish mottled brown to gray SILT (wet) [ML]	S-6	SS	9	3 3 3 5	6	Take S-6 from 10ft to 12ft. Drive casing to 12ft.. Drill to 12ft, gray wash.
12		Grayish brown SILT, trace fine Sand (wet) [ML]	S-7	SS	13	WOH WOH 2 3	2	Take S-7 from 12ft to 14ft.
14		Grayish brown SILT, trace fine Sand (wet) [ML]	S-8	SS	19	WOR WOR 2 4	2	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
16								



LANGAN Log of Boring **LB-R-021** Sheet 2 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 379.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+363.0	Grayish brown SILT, trace fine Sand (wet) [ML]		16	S-9	SS	15	1 2 2 2	Take S-9 from 16ft to 18ft. S-9: #4 = 100%; #200 = 98% S-9: LL = NP; PI = NP Drive casing to 18ft. Drill to 18ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML]		18	S-10	SS	4	WOR WOH WOH WOH	Take S-10 from 18ft to 20ft.
	Gray SILT, some fine Sand (wet) [ML]		20	S-11A	SS	20	2 3	Take S-11 from 20ft to 22ft. S-11A: #4 = 99%; #200 = 91% S-11A: LL = NP; PI = NP
+358.0	Gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]		21	S-11B			4 12	Drive casing to 22ft. Drill to 22ft, light rig chatter, gray wash.
	Gray Silty fine SAND, trace fine Gravel (wet) [SM]		22	S-12A	SS	4	WOH 4 3	Take S-12 from 22ft to 24ft.
+355.3	Gray GRAVEL, trace fine to medium Sand, trace Silt (wet) [Weak ROCK]		23	S-12B			12	
			24	S-13	SS	4	47 50/3"	Take S-13 from 24ft to 24.75ft. Drive casing to 25ft.
+354.0	Gray calcareous DOLOSTONE; fine to medium grained quartz; fresh weathered; extremely close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality fair; [BEDROCK]	[03:45]	25	C-1	NX	REC=54"/60"=90%	RQD=43"/60"=72%	Drill to 25ft, heavy rig chatter, gray wash. Take C-1 from 25ft to 30ft.
		[04:07]	26					C-1: UCS = 24083 psi
		[04:01]	27					
		[03:41]	28					
		[04:22]	29					
	Gray calcareous DOLOSTONE; fine to medium grained quartz; fresh weathered; extremely close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality fair; [BEDROCK]	[05:23]	30	C-2	NX	REC=57"/60"=95%	RQD=30"/60"=50%	Take C-2 from 30ft to 35ft.
		[04:33]	31					Loss of water.
		[02:17]	32					Drop from 2.5 to 3ft.
		[02:59]	33					
		[04:00]	34					
+344.0	End of Boring at 35.0ft.		35					Boring terminated at 35 ft. Temporary well installed on 04/29/2025.
			36					

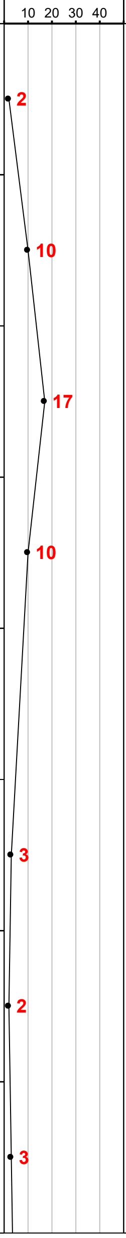


LANGAN Log of Boring LB-R-026

Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/29/2025 / 4/30/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	37.5 ft / 27.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 1; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 26.0	Water Level (ft.)	First ▽ 3.5; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, Shelby Tube, NX Core Barrel (2.15in)	Field Engineer	Arvind Ganesan
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.0	Brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	15	WOH WOH		4/29/2025 12:30 Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+376.0	Tannish brown CLAY, trace fine Sand (moist) [CL]		1	S-1B			2 3	2	
	Tannish brown CLAY, trace fine Sand (moist) [CL]	▽	2	S-2	SS	10	3 3 7 13	10	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Brown CLAY, trace fine Sand (wet) [CL]		4	S-3	SS	16	6 6 11 10	17	Take S-3 from 4ft to 6ft.
+371.0	Brown Silty CLAY, trace fine Sand (wet) [CL-ML]		6	S-4	SS	22	3 4 6 8	10	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	Brown Silty CLAY, trace fine Sand (wet) [CL-ML]		8	UD-1	U	24			Take U-1 from 8ft to 10ft. U-1: LL = 21%; PI = 5%
	Brownish gray Silty CLAY, trace fine Sand (wet) [CL-ML]		10	S-5	SS	16	1 1 2 3	3	Take S-5 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, brownish gray wash.
+365.0	Tannish brown SILT, trace fine Sand (moist) [ML] Gray SILT, trace fine Sand (wet) [ML]		12	S-6	SS	16	WOH WOH 2 3	2	Take S-6 from 12ft to 14ft.
	Gray SILT, trace fine Sand (wet) [ML]		14	S-7	SS	12	WOR 1 2 2	3	Take S-7 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
			16						

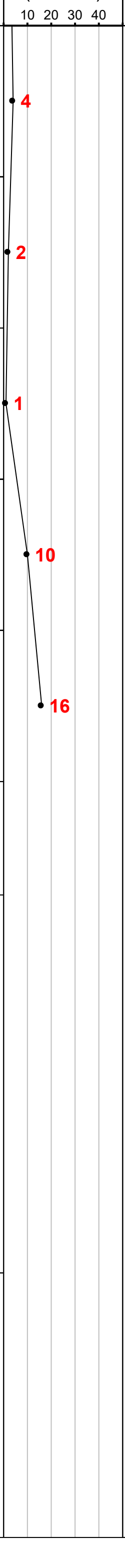


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-026** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+361.0	Gray SILT, trace fine Sand (wet) [ML]		16–18	S-8	SS	18	2 1 3 2	4	Take S-8 from 16ft to 18ft.
	Gray SILT, trace fine Sand (wet) [ML]		18–20	S-9	SS	16	1 1 1 2	2	Take S-9 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML]		20–22	S-10	SS	15	WOR WOH 1 1	1	Take S-10 from 20ft to 22ft. S-10: LL = NP; PI = NP
	Gray SILT, some fine Sand (wet) [ML]		22–24	S-11A	SS	12	1 3 7 11	10	Take S-11 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, gray wash.
+353.5	Gray fine GRAVEL, some Silt, trace fine Sand (wet) [Weak ROCK]			S-11B					
	Gray fine angular GRAVEL, some Silt, trace fine Sand (wet) [GP-GM]		24–26	S-12	SS	4	10 9 7 8	16	Take S-12 from 24ft to 26ft. 4/29/2025 17:00 4/30/2025 8:56
			26–27.5						Drive casing to 27.5ft. Drill to 27.5ft, light rig chatter, gray wash. Casing refusal encountered at 27.5 ft.
+349.5	Gray DOLOSTONE; fine grained quartz; fresh weathered; very close to moderate fracture spacing; fractures near vertical to near horizontal; intact; rock quality good; [BEDROCK]	[05:29] [03:03] [03:35] [04:33] [05:28]	27.5–32.5	C-1	NX	REC=60"/60"=100%	RQD=48"/60"=80%		Take C-1 from 27.5ft to 32.5ft. C-1: UCS = 40607 psi
	Gray DOLOSTONE; fine grained quartz; fresh weathered; very close to moderate fracture spacing; fractures near vertical to near horizontal; intact; rock quality good; [BEDROCK]	[04:23] [04:19] [03:24]	32.5–36	C-2	NX	REC=60"/60"=100%	RQD=50"/60"=83%		Take C-2 from 32.5ft to 37.5ft.



LANGAN Log of Boring **LB-R-026** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+341.0									
▨	+339.5		[03:26] [05:34]	36 37						
		End of Boring at 37.5ft.		38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56						Boring terminated at 37.5 ft. Boring backfilled to grade with soil cuttings.

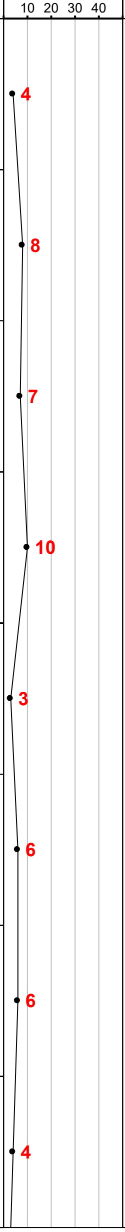
LANGAN

Log of Boring LB-R-027

Sheet 1 of 3

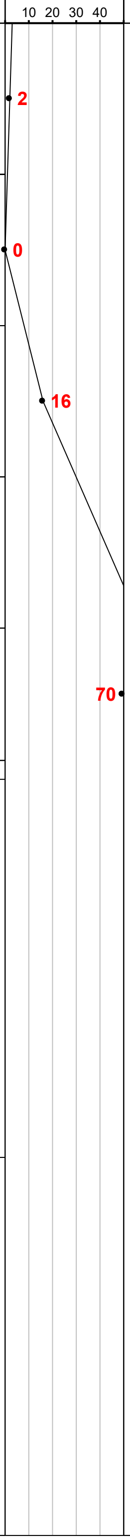
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/24/2025
		Date Finished	4/28/2025
Drilling Equipment	CME-55LC	Completion Depth	36.0 ft
		Rock Depth	26.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12 Undisturbed 0 Core 2
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 6.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Depth (ft)	25.0	Drilling Foreman	Scott McGregor
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Field Engineer	Brendon Creed/ Arvind Ganesan
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

Elev. (ft) +377.0	Depth Scale	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.8	0	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		S-1A			WOH		04/24/2025, 2:08:05 PM. Utility Clearance Exemption Signed by PIC.
	1	Tannish brown to grayish brown Silty fine SAND, roots (moist) [SM]		S-1B	SS	9	1 3 3	4	Take S-1 from 0 to 2 ft.
	2	Tannish brown Silty fine SAND (moist) [SM]		S-2	SS	18	4 3 5 10	8	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, tannish brown wash.
	4	Tannish brown to orangish brown Silty fine SAND (moist) [SM]		S-3A	SS	22	4 3 4 5	7	Take S-3 from 4 to 6 ft.
+371.5	5.5	Tannish brown SILT, some fine Sand (wet) [ML] ▽		S-3B					
	6	Tannish brown SILT, some fine Sand (wet) [ML]		S-4	SS	12	2 4 6 4	10	Take S-4 from 6 to 8 ft. Drive casing to 8ft. Drill to 8 ft, grayish brown wash.
	8	Grayish brown SILT, trace fine Sand (wet) [ML]		S-5	SS	16	1 1 2 3	3	Take S-5 from 8 to 10 ft.
	10	Brownish gray SILT, some fine Sand (wet) [ML]		S-6	SS	19	1 3 3 2	6	Take S-6 from 10 to 12 ft. Drive casing to 12 ft. Drill to 12 ft, brown wash
	12	Brownish gray SILT, some fine Sand (wet) [ML]		S-7	SS	15	2 3 3 3	6	Take S-7 from 12 to 14 ft. Drive casing to 14 ft. Drill to 14 ft, gray wash.
	14	Brownish gray SILT, some fine Sand (wet) [ML]		S-8	SS	13	2 2 2 2	4	Take S-8 from 14 to 16 ft.
	16								



Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0

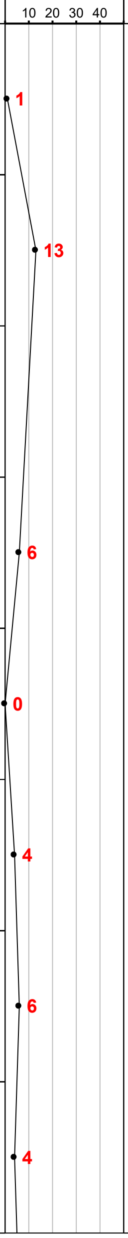
Elev. (ft) +361.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Grayish brown SILT, trace fine Sand (wet) [ML]		16–18	S-9	SS	15	1 1 1 2	2	Take S-9 from 16 to 18 ft. Drive casing to 18 ft. Drill to 18 ft, brown wash.
	Grayish brown SILT, trace fine Sand (wet) [ML]		18–20	S-10	SS	8	WOH WOH WOH 1	0	Take S-10 from 18 to 20 ft. Drive casing to 20 ft. Drill to 20 ft, gray wash.
+357.0	Brown to grayish brown medium to fine SAND, trace Silt, trace fine Gravel (wet) [SP-SM]		20–22	S-11	SS	8	7 8 8 5	16	Take S-11 from 20 to 22 ft.
			22–24						Drive casing to 24 ft. Drill to 24 ft, light chatter from 23 to 24 ft, gray wash.
	Gray to brownish gray fine SAND, some fine angular Gravel, trace Silt (wet) [SP-SM]		24–26	S-12	SS	11	11 20 50 50/3"	70	Take S-12 from 24 to 26 ft.
+351.0	Dark gray DOLOSTONE; medium to fine grained quartz; fresh weathered; close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality good; [BEDROCK]	[11:21] [07:00] [04:50] [04:39] [04:52]	26–31	C-1	NX	REC=60"/60"=100%	RQD=48"/60"=80%		Drive casing to 26ft. Drill to 26 ft, light rig chatter, gray wash. Take C-1 from 26 to 31 ft. 4/28/2025, 11:15:00 AM C-1: UCS = 29446 psi C-1: UCS = 26833 psi
	Dark gray DOLOSTONE; medium to fine grained quartz; fresh weathered; close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality poor; [BEDROCK] Clayey medium to fine Sand Infill	[07:30] [13:08] [14:04] [04:38] [04:45]	31–36	C-2	NX	REC=42"/60"=70%	RQD=24"/60"=40%		Take C-2 from 31 to 36 ft.
+341.0	End of Boring at 36.0ft.		36						Boring terminated at 36 ft. Boring backfilled to grade with soil cuttings.



LANGAN Log of Boring **LB-R-029** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 378.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/8/2025 / 5/8/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	39.1 ft / 29.1 ft
Size and Type of Bit	2-7/8in Tricone Roller Bit	Number of Samples	Disturbed 13; Undisturbed 1; Core 5
Casing Diameter (in)	3; Casing Depth (ft) 29.0	Water Level (ft.)	First ▽ 4.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, Shelby Tube, NX Core Barrel (2.15in)	Field Engineer	Sanjan Bussu
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +378.8	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+378.3	Dark gray CLAY, trace fine Sand, roots (wet) [TOPSOIL]	0						Start Drilling: 0 ft, 9:38 AM Utility Clearance Exemption Signed by PIC.
	Tan to brownish gray Silty CLAY, trace fine Sand (moist) [CL-ML]	0–2	S-1	SS	7	WOH WOH 1 2	1	Take S-1 from 0 to 2 ft.
	Tan to brownish gray Silty CLAY, trace fine Sand (moist) [CL-ML]	2–4	S-2	SS	24	8 7 6 4	13	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	▽ Brown Silty CLAY, trace fine Sand (moist) [CL-ML]	4–6	UD-1	U	24			Take U-1 from 4ft to 6ft.
	Tan to brownish gray Silty CLAY, trace fine Sand (moist) [CL-ML]	6–8	S-3	SS	20	2 3 3 2	6	Take S-3 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash
+368.8	Tan to brownish gray Silty CLAY, trace fine Sand (moist) [CL-ML]	8–10	S-4	SS	11	WOH WOH WOH 1	0	Take S-4 from 8ft to 10ft.
	Tan to brownish gray SILT, trace fine Sand (moist) [ML]	10–12	S-5A S-5B	SS	24	1 2 2 4	4	Take S-5 from 10ft to 12ft. S-5A: #4 = 100%; #200 = 99% S-5A: LL = NP; PI = NP Drive casing to 12ft. Drill to 12ft, brown wash
	Grayish brown SILT, trace fine Sand [ML]	12–14	S-6	SS	21	1 2 4 5	6	Take S-6 from 12ft to 14ft.
	Grayish brown SILT, trace fine Sand [ML]	14–16	S-7	SS	19	1 2 2 3	4	Take S-7 from 14ft to 16ft. Drive casing to 14ft. Drill to 14ft, grayish brown wash



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Log of Boring **LB-R-029** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 378.8

Depth Scale	Elev. (ft) +362.8	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
16		Grayish brown SILT, trace fine Sand [ML]					1 2		Take S-8 from 16ft to 18ft. S-8: #4 = 100%; #200 = 99% S-8: LL = NP; PI = NP
17				S-8	SS	22	4 3	6	
18	+360.8	Grayish brown CLAY, trace fine Sand [CL]					1 2		Take S-9 from 18ft to 20ft. S-9: #4 = 100%; #200 = 99% S-9: LL = NP; PI = NP
19				S-9	SS	24	2 1	4	Drive casing to 16ft. Drill to 16ft, grayish brown wash
20		Grayish brown CLAY, trace fine Sand [CL]					WOH WOH		Take S-10 from 20ft to 22ft.
21				S-10	SS	20	WOH WOH	0	
22		Grayish brown CLAY, trace fine Sand [CL]					WOH 1		Take S-11 from 22ft to 24ft.
23				S-11	SS	24	WOH 1	1	Drive casing to 24ft. Drill to 24ft, grayish brown wash
24	+354.8	Dark gray GRAVEL, trace Silt, trace fine Sand (moist) [Weak ROCK]					6 7		Take S-12 from 24ft to 26ft.
25				S-12	SS	9	9 9	16	
26									
27									
28									
29	+349.8 +349.7	No Recovery Dark gray DOLOSTONE; medium grained moderately weathered; moderate fracture spacing; fractures shallow dipping; rock quality fair; [DOLOSTONE]	[02:07]	S-13	SS	0	50/1"	50/1"	Take S-13 from 29ft to 31ft. Refusal encountered at 29.1ft. Take C-1 from 29.1ft to 34.1ft.
30			[02:06]	C-1A					C-1: UCS = 42240 psi
31			[02:15]		NX	REC=51"/60"=85%	RQD=33"/60"=55%		
32	+347.0	Dark gray SHALE; medium to fine grained moderately to slightly weathered; moderate fracture spacing; fractures shallow dipping; rock quality fair; [SHALE]	[03:56]						
33			[04:22]	C-1B					
34		Dark gray SHALE; medium to fine grained moderately to slightly weathered; moderate fracture spacing; fractures shallow dipping; rock quality good; [BEDROCK]	[04:49]	C-2A					Take C-2 from 34.1ft to 39.1ft.
35	+343.8	Dark gray DOLOSTONE; medium grained slightly weathered; moderate fracture spacing; fractures shallow dipping; rock quality good; [DOLOSTONE]	[01:51]						
36									

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-029** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 378.8

Material Symbol	Elev. (ft) +342.8	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[02:20]	36	C-2B	NX	REC=58"/60"=97%	RQD=51"/60"=85%		C-2: UCS = 23873 psi
			[03:06]	37						
▨	+340.7	Dark gray SHALE; fine grained slightly weathered; moderate fracture spacing; fractures shallow dipping; rock quality good; [SHALE]	[02:53]	38	C-2C					
	+339.7	End of Boring at 39.1ft.		39						Boring terminated at 39.1 ft.Temporary well installed on 05/08/2025.
				40						
				41						
				42						
				43						
				44						
				45						
				46						
				47						
				48						
				49						
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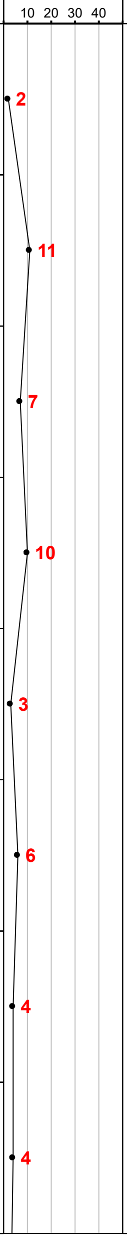
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-030** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/6/2025 / 5/7/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	37.5 ft / 27.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 13 / Undisturbed 1 / Core 2
Casing Diameter (in)	4; Casing Depth (ft) 27.0	Water Level (ft.)	First ▽ 2.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, Shelby Tube, NX Core Barrel (2.15in)	Field Engineer	Ning Lee
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

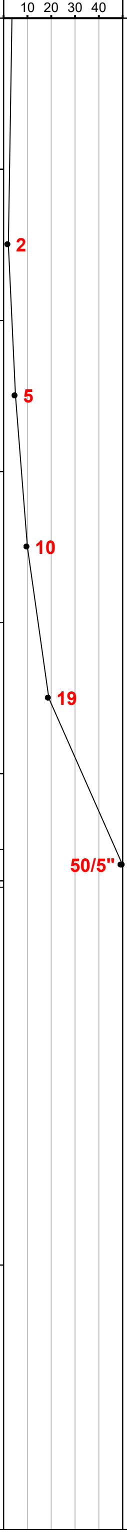
Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.0	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1	SS	8	WOH WOH 2 4	2	5/5/2025 8:30 AM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+375.0	▽ Tannish brown SILT, trace fine Sand (wet) [ML]		2	S-2	SS	14	2 6 5 7	11	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	15	3 3 4 5	7	Take S-3 from 4ft to 6ft.
	Tannish brown SILT, trace fine Sand (wet) [ML]		6	S-4A S-4B	SS	23	5 5 5 6	10	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
+369.0	Grayish brown CLAY, trace fine Sand (wet) [CL]		8	S-5	SS	15	1 1 2 2	3	Take S-5 from 8ft to 10ft.
	Grayish brown CLAY, trace fine Sand (wet) [CL]		10	S-6	SS	17	1 3 3 3	6	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
	Grayish brown CLAY, trace fine Sand (wet) [CL]		12	S-7	SS	13	WOR 1 3 2	4	Take S-7 from 12ft to 14ft.
	Grayish brown CLAY, trace fine Sand (wet) [CL]		14	S-8	SS	14	1 2 2 2	4	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
+361.0			16						



LANGAN Log of Boring **LB-R-030** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0

Elev. (ft) +361.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	No Recovery		16–18	UD-1	U	0			Take U-1 from 16ft to 18ft.
	Grayish brown Silty CLAY, trace fine Sand (wet) [CL-ML]		18–20	S-9	SS	15	2 1 1 1	2	Take S-9 from 18ft to 20ft. S-9: LL = 20%; PI = 5% Drive casing to 20ft. Drill to 20ft, gray wash.
	Grayish brown Silty CLAY, trace fine Sand (wet) [CL-ML]		20–22	S-10	SS	17	WOH 1 4 5	5	Take S-10 from 20ft to 22ft.
+355.0	Dark gray GRAVEL, trace fine Sand (wet) [Weak ROCK]		22–24	S-11	SS	10	3 5 5 5	10	Take S-11 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, gray wash.
	Dark gray GRAVEL, trace fine Sand (wet) [Weak ROCK]		24–26	S-12	SS	8	13 12 7 5	19	Take S-12 from 24ft to 26ft. 24ft reactive to acid
	Dark gray GRAVEL, trace fine Sand (wet) [Weak ROCK]		27–27.5	S-13	SS	3	50/5"	50/5"	Take S-13 from 27ft to 29ft.
+349.5	Dark gray DOLOSTONE; fine grained fresh weathered; very close fracture spacing; fractures near horizontal; intact; rock quality good; [BEDROCK]	[07:54] [04:47] [02:52] [03:43] [06:24]	27.5–32.5	C-1	NX	REC=56"/60"=93%	RQD=47"/60"=78%		Refusal encountered at 27.5ft. Take C-1 from 27.5t to 32.5ft C-1: UCS = 15026 psi
	Dark gray DOLOSTONE; fine grained fresh weathered; very close to close fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality excellent; [BEDROCK]	[06:30] [10:20] [03:34]	32.5–36	C-2	NX	REC=60"/60"=100%	RQD=54"/60"=90%		Take C-2 from 32.5ft to 37.5ft.



LANGAN Log of Boring **LB-R-030** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.0

Material Symbol	Elev. (ft) +341.0	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	Sample Data N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[04:10]	36						
			[04:21]	37						
	+339.5	End of Boring at 37.5ft.								Boring terminated at 37.5 ft Temporary well installed on 05/08/2025
				38						
				39						
				40						
				41						
				42						
				43						
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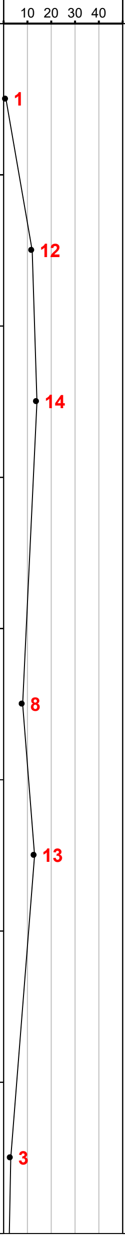
				56						

LANGAN Log of Boring **LB-R-033** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801		
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 381.5 NAVD88		
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	5/7/2025	Date Finished	5/7/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	34.7 ft	Rock Depth	24.7 ft
Size and Type of Bit	2-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8	Undisturbed 1	Core 2
Casing Diameter (in)	3; Casing Depth (ft) 24.0	Water Level (ft.)	First ▽ 3.5	Completion ▼ N/A	24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green		
Sampler	2in OD Split Spoon, Shelby Tube, NX Core Barrel (2.15in)				
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Sanjan Bussu		



Elev. (ft) +381.5	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+379.5	Dark gray SILT, trace fine Sand, roots (wet) [TOPSOIL]		0 1	S-1	SS	1	WOH WOH 1 2	1	5/6/2025 9:55 AM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+377.5	Tan SILT, trace fine Sand, trace fine subangular Gravel (moist) [ML] ▽		2 3	S-2	SS	24	5 6 6 8	12	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, tannish brown wash. Take S-3 from 4ft to 6ft.
	Brown Silty CLAY, trace fine Sand [CL-ML]		4 5	S-3	SS	14	7 7 7 5	14	Drive casing to 6ft. Drill to 6ft, tannish brown wash.
+373.5	Brown Silty CLAY, trace fine Sand [CL-ML]		6 7	UD-1	U	24			Take U-1 from 6ft to 8ft. U-1: LL = 22%; PI = 4% Drive casing to 8ft. Drill to 8ft, tannish brown wash. Take S-4 from 8ft to 10ft.
	Tan SILT, trace fine Sand (moist) [ML]		8 9	S-4	SS	9	4 4 4 4	8	
	Tan SILT, trace fine Sand (moist) [ML]		10 11	S-5	SS	18	7 7 6 3	13	Take S-5 from 10ft to 12ft.
			12 13						Drive casing to 14ft. Drill to 14ft, gray wash.
+367.1	Tan SILT, trace fine Sand (wet) [ML]		14	S-6A	SS	10	1		Take S-6 from 14ft to 16ft.
	Bluish gray CLAY, trace fine Sand (wet) [CL]		15 16	S-6B			2 1 WOH	3	

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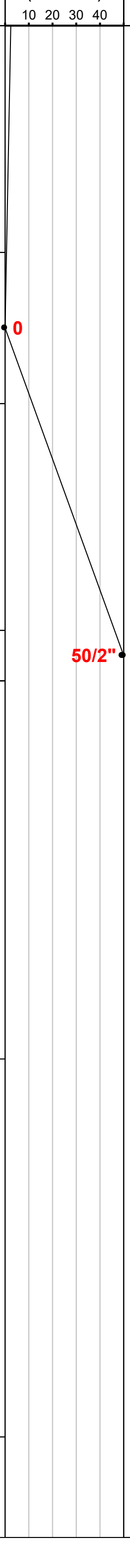
Log of Boring **LB-R-033** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 381.5

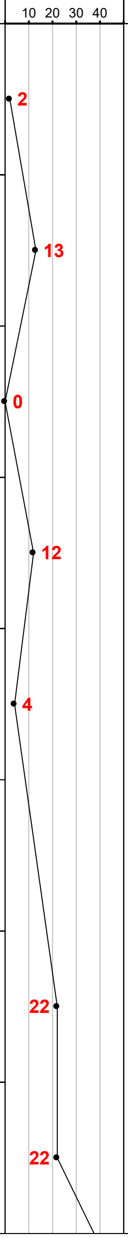
Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+365.5			16						
			17						
			18						Drive casing to 19ft. Drill to 19ft, gray wash.
+362.5	Dark brown SILT, trace fine Gravel, gravel lens (wet) [ML]		19						Take S-7 from 19ft to 21ft.
			20	S-7	SS	14	1 WOH WOH 12	0	
			21						
			22						Drive casing to 24ft. Drill to 24ft, gray wash.
			23						
+357.5	Brownish gray GRAVEL [Weak ROCK]		24	S-8	SS	6	18 50/2"	50/2"	Take S-8 from 24ft to 26ft.
+356.8	Dark gray DOLOSTONE; medium to coarse grained moderately weathered; moderate fracture spacing; fractures shallow dipping; rock quality poor; [DOLOSTONE]	[01:40]	25						Refusal encountered at 24.7ft Take C-1 from 24.7ft to 29.7ft.
		[02:10]	26						C-1: UCS = 22091 psi
		[02:20]	27	C-1	NX	REC=38"/60"=63%	RQD=19"/60"=32%		
		[08:30]	28						
		[07:40]	29						Take C-2 from 29.7ft to 34.7ft.
	Dark gray DOLOSTONE; medium to fine grained slightly weathered; moderate fracture spacing; fractures shallow dipping; rock quality poor; [BEDROCK]	[05:13]	30						
		[03:12]	31						
		[04:22]	32	C-2	NX	REC=54"/60"=90%	RQD=23"/60"=38%		
		[04:10]	33						
		[03:52]	34						
+346.8	End of Boring at 34.7ft.		35						Boring terminated at 34.7ft. Temporary well installed on 05/07/2025.
			36						



LANGAN Log of Boring **LB-R-035** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 379.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 5/6/2025	Date Finished: 5/6/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth: 30.4 ft	Rock Depth: 20.4 ft
Size and Type of Bit	2-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 8 Undisturbed: 1 Core: 2
Casing Diameter (in): 3	Casing Depth (ft): 20.0	Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, Shelby Tube, NX Core Barrel (2.15in)		
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Field Engineer	Sanjan Bussu

Elev. (ft) +379.1	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+378.8	Dark brown CLAY, roots, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A			WOH		5/5/2025 3:32 PM. Utility Clearance Exemption Signed by PIC.
	Tannish brown SILT, trace fine Sand (moist) [ML]		1	S-1B	SS	11	WOH 2 3	2	Take S-1 from 0ft to 2ft.
	▽ Tannish brown SILT, trace fine Sand (moist) [ML]		2 3	S-2	SS	23	10 8 5 5	13	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Brown SILT, trace fine Sand (moist) [ML]		4 5	S-3	SS	20	WOH WOH WOH WOH	0	Take S-3 from 4ft to 6ft. S-3: #4 = 100%; #200 = 99% S-3: LL = NP; PI = NP
	Brown SILT, trace fine Sand (moist) [ML]		6 7	S-4	SS	19	4 6 6 7	12	Take S-4 from 6ft to 8ft.
	Grayish brown SILT, trace fine Sand (moist) [ML]		8 9	S-5	SS	23	1 2 2 2	4	Drive casing to 8ft. Drill to 8ft, brown wash. Take S-5 from 8ft to 10ft. S-5: #4 = 95%; #200 = 86% S-5: LL = NP; PI = NP Drive casing to 10ft. Drill to 10ft, gray wash.
	Dark gray SILT, trace fine Sand (moist) [ML]		10 11	UD-1	U	24			Take U-1 from 10ft to 12ft. U-1: LL = 14%; PI = 3%
+367.1	Gray fine SAND, some Gravel, trace Silt (moist) [SP-GM]		12 13	S-6	SS	14	6 10 12 14	22	Take S-6 from 12ft to 14ft. Drive casing to 14ft. Drill to 14ft, gray wash.
	Gray subangular GRAVEL, some Sand, trace Silt (moist) [GP-GM]		14 15 16	S-7	SS	9	9 8 14 13	22	Take S-7 from 14ft to 16ft.



LANGAN Log of Boring **LB-R-035** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 379.1

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
⁘	+363.1 +361.6			16–17.5						
≀	+358.7	Gray GRAVEL, trace fine Sand, trace Silt (moist) [Weak ROCK]		17.5–20.4	S-8	SS	12	38 45 50/5"	50/5"	Drive casing to 19ft. Drill to 19ft, gray wash. Take S-8 from 19ft to 21ft.
▨		Gray DOLOSTONE; medium grained slightly weathered; moderate fracture spacing; fractures shallow dipping; rock quality poor; [DOLOSTONE]	[01:50] [03:15] [07:25] [13:34] [27:35]	20.4–25.4	C-1	NX	REC=52"/60"=87%	RQD=27"/60"=45%		Refusal encountered at 20.4ft. Take C-1 from 20.4ft to 25.4ft. Clay lens from 20.4 ft to 23 ft
▨	+348.7	Dark gray DOLOSTONE; medium to fine grained slightly weathered to fresh; moderate fracture spacing; fractures shallow dipping; rock quality good; [BEDROCK]	[03:04] [02:35] [04:21] [05:43] [03:01]	25.4–30.4	C-2	NX	REC=59"/60"=98%	RQD=48"/60"=80%		Take C-2 from 25.4ft to 30.4ft.
		End of Boring at 30.4ft.		30.4–36						Boring terminated at 30.4ft. Temporary well installed on 05/06/2025.

LANGAN Log of Boring **LB-R-041** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 381.5 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/3/2025 / 5/5/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	37.6 ft / 17.6 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8 / Undisturbed 1 / Core 4
Casing Diameter (in)	4 / Casing Depth (ft) 17.0	Water Level (ft.)	First ▽ 2.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, Shelby Tube, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Field Engineer	Ning Lee

Elev. (ft) +381.5	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0–2	S-1	SS	10	WOH 1 2 2	3	5/3/2025 11:24 AM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+379.5	▽ Tannish brown SILT, trace fine Sand (wet) [ML]		2–4	S-2	SS	18	2 2 3 2	5	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Tannish brown SILT, trace fine Sand (wet) [ML]		4–6	UD-1	U	15			Take U-1 from 4ft to 6ft.
	Tannish brown SILT, trace fine Sand (wet) [ML]		6–8	S-3	SS	17	1 3 4 5	7	Take S-3 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, gray wash.
	Tannish brown SILT, trace fine Sand (wet) [ML]		8–10	S-4	SS	16	4 5 6 5	11	Take S-4 from 8ft to 10ft.
	Tannish brown SILT, trace fine Sand (wet) [ML]		10–12	S-5	SS	16	4 6 5 4	11	Take S-5 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
	Light gray Sandy SILT, some fine subangular Gravel (wet) [ML]		12–14	S-6	SS	9	WOH 1 1 2	2	Take S-6 from 12ft to 14ft.
	Light gray Sandy SILT, some fine subangular Gravel (wet) [ML]		14–16	S-7	SS	23	2 3 6 7	9	Take S-7 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 381.5

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+365.5	Light gray Sandy SILT, some fine Gravel (wet) [ML]		16				3 3		Take S-8 from 16ft to 18ft.
			17	S-8	SS	7	16 50/1"	19	
+363.9	Dark gray DOLOSTONE; fine grained fresh weathered; very close fracture spacing; fractures near vertical; intact; rock quality poor; [BEDROCK]	[03:02]	18						C-1: UCS = 19968 psi Refusal encountered at 17.6ft. Take C-1 from 17.6ft to 22.6ft.
		[04:55]	19						Low rig chatter, Loss Of Water, gray wash.
		[03:46]	20	C-1	NX	REC=34"/60"=57%	RQD=26"/60"=42%		Reactive to acid test.
		[03:53]	21						
		[02:08]	22						Take C-2 from 22.6ft to 27.6ft.
	Dark gray DOLOSTONE; fine grained fresh weathered; very close fracture spacing; fractures near vertical; blocky; rock quality very poor; [BEDROCK]	[04:28]	23						
		[03:27]	24						
		[05:01]	25	C-2	NX	REC=15"/60"=25%	RQD=5"/60"=8%		Low rig chatter, loss of water, gray wash.
		[10:01]	26						
		[07:20]	27						Take C-3 from 27.6ft to 32.6ft.
	Dark gray DOLOSTONE; fine grained fresh weathered; very close fracture spacing; fractures near vertical; blocky/disturbed; rock quality very poor; [BEDROCK]	[06:49]	28						
		[06:53]	29						C-3: UCS = 27713 psi Heavy rig chatter, loss of water, gray wash.
		[05:24]	30	C-3	NX	REC=18"/60"=30%	RQD=0"/60"=0%		
		[12:37]	31						Reactive to the acid.
		[02:36]	32						Take C-4 from 32.6ft to 37.6ft.
	Dark gray DOLOSTONE; fine grained fresh weathered; very close fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality fair; [BEDROCK]	[05:52]	33						
		[05:52]	34						Light to Heavy rig chatter, loss of water, gray wash. Reactive to the acid.
		[02:17]	35	C-4	NX	REC=53"/60"=88%	RQD=30"/60"=50%		
			36						

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 381.5

Material Symbol	Elev. (ft) +345.5	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[08:51]	36						
▨	+343.9		[07:01]	37						
		End of Boring at 37.6ft.		38						Boring terminated at 37.6 ft.Temporary well installed on 05/06/2025
				39						
				40						
				41						
				42						
				43						
				44						
				45						
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				54						
				55						
				56						

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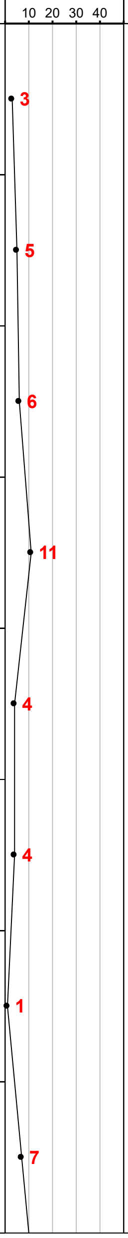
Log of Boring LB-R-042

Sheet 1 of 2

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 380.0 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 5/2/2025	Date Finished 5/2/2025
Drilling Equipment CME-55LC		Completion Depth 34.2 ft	Rock Depth 24.2 ft
Size and Type of Bit 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 11; Undisturbed 0; Core 2	
Casing Diameter (in) 4	Casing Depth (ft) 24.0	Water Level (ft.): First ▽ 2.0; Completion ▼ N/A; 24 HR. ▼ N/A	
Casing Hammer: Automatic; Weight (lbs) 140; Drop (in) 30		Drilling Foreman Scott McGregor	
Sampler 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer Arvind Ganesan	
Sampler Hammer: Automatic; Weight (lbs) 140; Drop (in) 30			

Elev. (ft) +380.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	13	WOR WOH 3	3	5/2/2025 01:20 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+378.5	Tannish brown SILT, trace fine Sand (moist) [ML]		1.5	S-1B			4		
	▽ Tannish brown SILT, trace fine Sand (wet) [ML]		2	S-2	SS	18	WOH 2 3 6	5	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Tannish brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	12	1 2 4 5	6	Take S-3 from 4ft to 6ft.
	Brownish mottled gray SILT, trace fine Sand (wet) [ML]		6	S-4	SS	17	5 5 6 5	11	Take S-4 from 6ft to 8ft. S-4: LL = NP; PI = NP Drive casing to 8ft. Drill to 8ft, brownish gray wash.
	Brownish gray SILT, trace fine Sand (wet) [ML]		8	S-5	SS	16	3 4 0 ,3	4	Take S-5 from 8ft to 10ft.
	Grayish brown SILT, trace fine Sand (wet) [ML]		10	S-6	SS	19	1 2 2 3	4	Take S-6 from 10ft to 12ft. S-6: #4 = 99%; #200 = 97% S-6: LL = 20%; PI = 2% Drive casing to 12ft. Drill to 12ft, gray wash.
+368.0	Grayish brown CLAY, trace fine Sand (moist) [CL]		12	S-7	SS	13	WOH WOH 1 1	1	Take S-7 from 12ft to 14ft. S-7: #4 = 100%; #200 = 98% S-7: LL = NP; PI = NP
	Gray CLAY, trace fine Sand, trace fine Gravel (wet) [CL]		14	S-8A	SS	6	WOR 1 6 11	7	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
+364.0			16						



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

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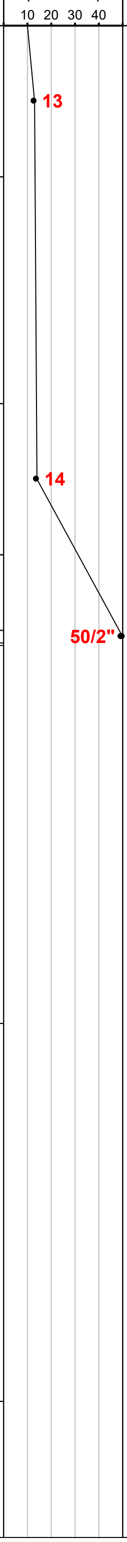
Log of Boring LB-R-042

Sheet 2 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 380.0

Material Symbol	Elev. (ft) +364.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Gray GRAVEL, trace fine Sand, trace Silt (wet) [Weak ROCK]		16–18	S-9	SS	5	12 6 7 9	13	Take S-9 from 16ft to 18ft.
				18–21						Drive casing to 21ft. Drill to 21ft, light rig chatter, gray wash.
		Gray GRAVE, trace fine Sand, trace Silt (wet) [Weak ROCK]		21–23	S-10	SS	11	7 8 6 17	14	Take S-10 from 21ft to 23ft. Drive casing to 24ft. Drill to 24ft, gray wash.
	+355.8	No Recovery		24	S-11	SS	0	50/2"	50/2"	Take S-11 from 24ft to 26ft. Refusal encountered at 24.2ft. Take C-1 from 24.2ft to 29.2ft. C-1: UCS = 24520 psi
		Gray calcareous DOLOSTONE; fine grained calcite; fresh weathered; extremely close to close fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality good; [BEDROCK] Gray calcareous SHALE; fine grained calcite; fresh weathered; extremely close to close fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality excellent; [BEDROCK]	[05:25] [04:44] [05:01] [05:08] [05:32]	24.2–29.2	C-1	NQ	REC=57"/60"=95%	RQD=51"/60"=85%		
	+345.8	Gray calcareous DOLOSTONE; fine grained calcite; fresh weathered; extremely close to close fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality excellent; [BEDROCK]	[08:54] [12:05] [08:23] [07:19] [05:38]	29.2–34.2	C-2	NQ	REC=60"/60"=100%	RQD=54"/60"=90%		Take C-2 from 29.2ft to 34.2ft. Boring terminated at 34.2 ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 34.2ft.		34.2–36						

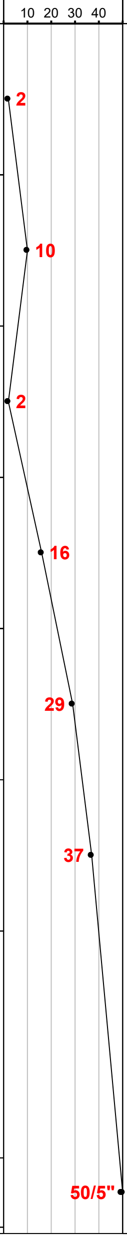


Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-043** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 380.6 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 5/1/2025	Date Finished: 5/2/2025
Drilling Equipment	CME-55LC	Completion Depth: 32.0 ft	Rock Depth: 22.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 8 Undisturbed: 0 Core: 3
Casing Diameter (in): 4	Casing Depth (ft): 21.0	Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Arvind Ganesan
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+380.6	Brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A S-1B	SS	18	WOH 1 1 5	2	5/1/2025 10:10 Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+378.6	▽ Tannish brown SILT, trace fine Sand (wet) [ML]		2	S-2	SS	14	4 5 5 3	10	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Brownish gray SILT, trace fine Sand (wet) [ML]		4	S-3A S-3B	SS	9	1 1 1 3	2	Take S-3 from 4ft to 6ft.
+375.1	Brownish gray Silty fine SAND, trace fine subangular Gravel (wet) [SM] Brownish gray Silty fine SAND, some fine Gravel (wet) [SM]								
			6	S-4	SS	6	6 8 8 8	16	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, moderate rig chatter. Transition from brown wash to gray wash.
	Brownish gray Silty fine Sand, some fine Gravel (wet) [SM]		8	S-5	SS	11	10 11 18 22	29	Take S-5 from 8ft to 10ft.
	Yellowish brown Silty fine SAND, some fine Gravel (wet) [SM]		10	S-6	SS	9	17 18 19 37	37	Take S-6 from 10ft to 12ft. S-6: #4 = 86%; #200 = 30% S-6: LL = NP; PI = NP
			12						Drive casing to 15ft.; Drill to 15ft, moderate rig chatter, gray wash.
+365.6	Gray GRAVEL, some fine Sand, trace Silt (wet) [Weak ROCK]		15	S-7	SS	6	18 50/5"	50/5"	Take S-7 from 15ft to 17ft. Refusal encountered at 16ft.
			16						



LANGAN Log of Boring **LB-R-043** Sheet 2 of 2

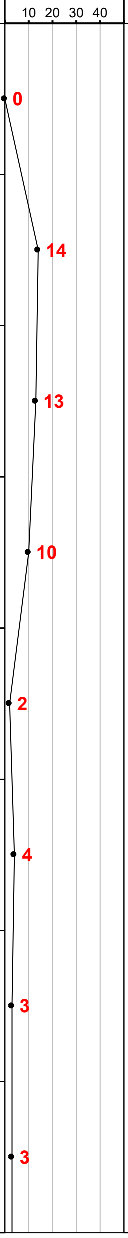
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 380.6

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+364.6	Gray Weak ROCK; rock quality very poor; [Weak ROCK]	[00:51]	16	C-1	NX	REC=4"/60"=7%	RQD=0"/60"=0%		Take C-1 from 16ft to 21ft.
			[01:36]	17						
			[03:23]	18						
			[02:07]	19						
			[05:33]	20						
		Gray Weak ROCK, some fine Sand, trace Silt (wet) [Weak ROCK]		21	S-8	SS	2	4 50/3"	50/3"	Take S-8 from 21ft to 23ft.
	+358.6									Drill to 22ft, heavy rig chatter, gray wash. Refusal encountered at 21.8ft. Take C-2 from 22ft to 27ft.
		Gray calcareous DOLOSTONE; fine grained calcite, pyrite; fresh to slightly weathered; extremely close to moderate fracture spacing; fractures shallow dipping to near horizontal; intact; rock quality poor; [BEDROCK]	[02:32]	22	C-2	NX	REC=48"/60"=80%	RQD=27"/60"=45%		
			[06:46]	23						C-2: UCS = 20780 psi Loss of water.
		Gray calcareous SHALE; fine grained calcite, pyrite; fresh to slightly weathered; extremely close to moderate fracture spacing; fractures near horizontal; intact; rock quality poor; [BEDROCK]	[02:31]	24						
			[06:55]	25						Loss of water.
			[08:11]	26						Loss of water.
		Gray calcareous DOLOSTONE; fine grained calcite, pyrite; fresh to slightly weathered; extremely close to moderate fracture spacing; fractures shallow dipping to near horizontal; intact; rock quality fair; [BEDROCK] Gray calcareous SHALE; fine grained calcite, pyrite; fresh to slightly weathered; extremely close to moderate fracture spacing; fractures near horizontal; intact; rock quality poor; [BEDROCK]	[03:14]	27	C-3	NX	REC=46"/60"=77%	RQD=30"/60"=50%		Take C-3 from 27ft to 32ft.
			[07:59]	28						
			[07:23]	29						5/1/2025 17:30
			[04:50]	30						5/2/2025 8:37
	+348.6	Gray calcareous DOLOSTONE; fine grained calcite, pyrite; fresh to slightly weathered; extremely close to moderate fracture spacing; fractures near horizontal; intact; rock quality poor; [BEDROCK]	[05:28]	31						
		End of Boring at 32.0ft.		32						Boring terminated at 32 ft. Temporary well installed on 05/02/2025
				33						
				34						
				35						
				36						

LANGAN Log of Boring **LB-R-044** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 377.3 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/3/2025 / 5/5/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	38.1 ft / 28.1 ft
Size and Type of Bit	2-7/8in Tricone Roller Bit	Number of Samples	Disturbed 15 Undisturbed 0 Core 2
Casing Diameter (in)	3	Casing Depth (ft)	28.0
Water Level (ft.)	First ▽ 0.2 Completion ▼ N/A 24 HR. ▼ N/A		
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Sanjan Bussu
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

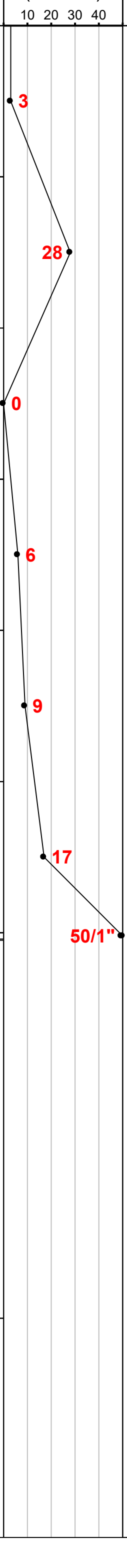
Depth Scale	Elev. (ft) +377.3	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	+377.1	Dark gray CLAY, trace fine Sand, roots (moist) [TOPSOIL] ▽		S-1A	SS	18	WOH		5/2/2025 01:20 PM. Utility Clearance Exemption Signed by PIC.
1		Brown SILT, trace fine Sand (wet) [ML]		S-1B	SS	8	WOH WOH 1	0	Take S-1 from 0ft to 2ft.
2		Brown SILT, trace fine Sand (wet) [ML]		S-2	SS	18	8 7 7 6	14	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
4		Brown SILT, trace fine Sand (wet) [ML]		S-3	SS	18	4 6 7 10	13	Take S-3 from 4ft to 6ft.
6		Brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]		S-4	SS	22	6 5 5 5	10	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brownish gray wash.
8		Brownish gray SILT, trace fine Sand (wet) [ML]		S-5	SS	17	1 1 1 1	2	Take S-5 from 8ft to 10ft. S-5: LL = NP; PI = NP S-5: LL = NP; PI = NP
10		Gray SILT, trace fine Sand (wet) [ML]		S-6	SS	18	1 2 2 2	4	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
12		Gray SILT, trace fine Sand (wet) [ML]		S-7	SS	15	1 1 2 2	3	Take S-7 from 12ft to 14ft.
14		Gray SILT, trace fine Sand (wet) [ML]		S-8	SS	14	2 1 2 2	3	Take S-8 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, gray wash.
16									



LANGAN Log of Boring **LB-R-044** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.3

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+361.3	Gray SILT, trace fine Sand (wet) [ML]		16	S-9	SS	15	WOH 2 1 1	3	Take S-9 from 16ft to 18ft.
	Gray SILT, trace fine Sand (wet) [ML]		18	S-10	SS	18	13 13 15 9	28	Take S-10 from 18ft to 20ft. Drive casing to 20ft. Drill to 20ft, light rig chatter, gray wash.
	No Recovery		20	S-11	SS	0	WOR WOR WOR WOR	0	Take S-11 from 20ft to 22ft.
+355.3	Dark gray Gravelly fine SAND, trace Silt (wet) [SP-SM]		22	S-12	SS	3	WOH WOH 6 4	6	Take S-12 from 22ft to 24ft. Drive casing to 24ft. Drill to 24ft, gray wash.
	Reddish gray Gravelly fine SAND, trace Silt (wet) [SP-SM]		24	S-13	SS	10	10 5 4 4	9	Take S-13 from 24ft to 26ft
	Dark gray Gravelly fine SAND, trace Silt (wet) [SP-SM]		26	S-14	SS	8	5 6 11 20	17	Take S-14 from 26ft to 28ft. Drive casing to 28ft. Drill to 28ft, heavy rig chatter, gray wash.
+349.3	No Recovery		28				50/1"	50/1"	Refusal encountered at 28.1ft.
+349.2	Gray calcareous DOLOSTONE; fine grained calcite; fresh to slightly weathered; extremely close to moderate fracture spacing; fractures shallow dipping to near horizontal; intact; rock quality fair; [BEDROCK]	[02:46] [06:10] [06:53] [06:05] [07:45]	29 30 31 32 33	C-1	NX	REC=48"/60"=80%	RQD=39"/60"=65%		Take C-1 from 28.1ft to 33.1ft. C-1: UCS = 12900 psi
	Gray calcareous DOLOSTONE; fine grained calcite; fresh to slightly weathered; extremely close to moderate fracture spacing; fractures shallow dipping to near horizontal; intact; rock quality excellent; [BEDROCK]	[05:07] [06:01] [06:41]	34 35 36	C-2	NX	REC=60"/60"=100%	RQD=57"/60"=95%		Take C-2 from 33.1ft to 38.1ft.



LANGAN Log of Boring **LB-R-044** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 377.3

Material Symbol	Elev. (ft) +341.3	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨				36						
▨			[05:22]	37						
▨			[05:23]							
	+339.2	End of Boring at 38.1ft.		38						Boring terminated at 38.1ft. Temporary well installed on 05/05/2025
				39						
				40						
				41						
				42						
				43						
				44						
				45						
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				56						

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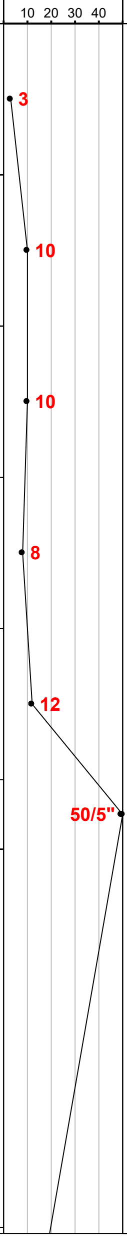
Log of Boring LB-R-045

Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 388.9 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/2/2025 / 5/5/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	31.0 ft / 21.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 7 / Undisturbed 0 / Core 3
Casing Diameter (in)	4 / Casing Depth (ft) 18.0	Water Level (ft.)	First ▽ 2.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Field Engineer	Richo Brian

Elev. (ft) +388.9	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown Clayey fine SAND, roots (moist) [TOPSOIL]		0	S-1A	SS	18	WOH 1		5/8/2025 2:44 PM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+388.2	Tannish brown fine SAND, some Clay (moist) [SC]		1	S-1B			2 4	3	
	▽ Tannish brown fine SAND, some Clay (moist) [SC]		2–3	S-2	SS	20	3 5 5 5	10	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
+384.9	Tannish brown SILT, trace fine Sand (wet) [ML]		4–5	S-3	SS	15	4 5 5 5	10	Take S-3 from 4ft to 6ft.
	Tannish brown SILT, trace fine Sand (wet) [ML]		6–7	S-4	SS	15	4 4 4 3	8	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	Tannish brown SILT, trace fine Sand (wet) [ML]		8	S-5A	SS	18	2 7		Take S-5 from 8ft to 10ft.
+379.9	Tannish brown Silty fine GRAVEL (wet) [GM]		9	S-5B			5 14	12	Heavy Return Water 9ft to 11ft.
	Black to brown Silty fine GRAVEL (wet) [GM]		10	S-6	SS	3	10 50/5"	50/5"	Take S-6 from 10ft to 12ft. Refusal encountered at 10.9ft. Drive casing to 11ft. Drill to 11ft, brown wash. Take C-1 from 10.9ft to 15.9ft.
+378.0	Dark gray DOLOSTONE; fine grained; slightly weathered to fresh; extremely close to moderate fracture spacing; fractures steeply vertical to near horizontal; rock quality poor; [BEDROCK]	[01:32] [03:03]	11–12	C-1	NX	REC=35"/60"=58%	RQD=19"/60"=32%		
	Soft brown rock core with fine to coarse grained reactive to acid	[03:31] [04:34] [02:46]	13–16						Drill to 16.5ft, heavy rig chatter, gray wash.



LANGAN Log of Boring **LB-R-045** Sheet 2 of 2

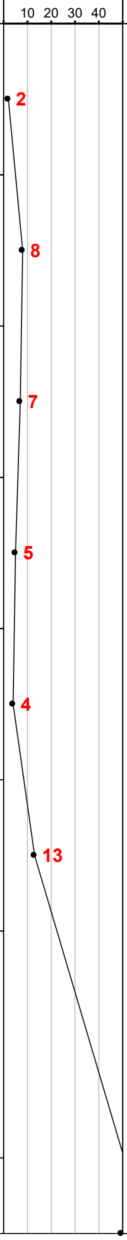
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 388.9

Material Symbol	Elev. (ft) +372.9	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	Sample Data N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+372.4			16						
		Gray GRAVEL (wet) [Weak ROCK]		17	S-7	SS	3	5 6 5 4	11	Take S-7 from 16.5ft to 18.5ft.
				18						Drill to 21ft, heavy rig chatter, gray wash.
				19						
				20						
	+367.9	Dark gray DOLOSTONE; fine grained slightly weathered to fresh; extremely close to moderate fracture spacing; fractures steeply vertical to near horizontal; rock quality poor; [BEDROCK]	[04:56]	21	C-2	NX	REC=45"/60"=75%	RQD=17"/60"=28%		Take C-2 from 21ft to 26ft. C-2: UCS = 17250 psi
			[02:58]	22						
		At 23.5 ft - Seam of 1-inch gray CLAY with some fine Sand infill	[03:01]	23						
			[07:48]	24						
			[11:04]	25						Loss Of Water.
		Gray calcareous SHALE; fine grained calcite, pyrite; fresh to slightly weathered; extremely close to moderate fracture spacing; fractures near horizontal; intact; rock quality poor; [BEDROCK]	[04:00]	26	C-3	NX	REC=50"/60"=82%	RQD=42"/60"=69%		Take C-3 from 26ft to 31ft.
		Dark gray DOLOSTONE ; fine grained fresh weathered; extremely close to moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality fair; [BEDROCK]	[04:00]	27						
			[04:00]	28						
			[04:54]	29						Loss Of Water.
			[03:15]	30						
	+357.9	End of Boring at 31.0ft.		31						Boring terminated at 31 ft. Temporary well installed on 05/05/2025.
				32						
				33						
				34						
				35						
				36						

LANGAN Log of Boring **LB-R-047** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 390.4 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/30/2025
		Date Finished	4/30/2025
Drilling Equipment	CME-75	Completion Depth	32.0 ft
		Rock Depth	22.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8; Undisturbed 0; Core 2
Casing Diameter (in)	4	Casing Depth (ft)	21.0
Water Level (ft.)	First ▽ 3.0	Completion ▼ N/A	24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Drilling Foreman	Brad Perry
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Field Engineer	Shreeya Pandey		

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+390.4	Dark brown CLAY, roots (moist) [TOPSOIL]		0	S-1A	SS	12	WOH WOH		04/30/2025, 12:42 PM Utility Clearance Exemption Signed by PIC.
+389.6	Brown CLAY, trace fine Sand (moist) [CL]		1	S-1B			2 3	2	Take S-1 from 0ft to 2ft.
	Tannish brown CLAY, trace fine Sand (moist) [CL] ▽		2	S-2	SS	18	2 4 4 3	8	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
+386.4	Brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	20	8 4 3 4	7	Take S-3 from 4ft to 6ft. S-3: #4 = 100%; #200 = 99% S-3: LL = NP; PI = NP
	Brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	24	2 2 3 7	5	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	Brown SILT, trace fine Sand (wet) [ML]		8	S-5	SS	17	4 3 1 5	4	Take S-5 from 8ft to 10ft. S-5: #4 = 100%; #200 = 93% S-5: LL = 20%; PI = 1%
+380.4	Reddish brown Silty fine SAND, trace fine Gravel (wet) [SM]		10	S-6	SS	17	5 4 9 19	13	Take S-6 from 10ft to 12ft.
			13						Drive casing to 15ft. Drill to 15ft, brown wash, light rig chatter from 13ft to 15ft.
+375.4	Brownish gray GRAVEL, trace Sand, trace Silt (wet) [Weak ROCK]		15		SS		47 38		Take S-7 from 15ft to 17ft.



LANGAN Log of Boring **LB-R-047** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 390.4

Elev. (ft)	Depth Scale (ft)	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
+374.4	16		S-7		6	22 20	60
	20	Gray GRAVEL, trace Sand, trace Silt (wet) [Weak ROCK]	S-8	SS	12	16 18 21 50/3"	39
+368.4	22	Dark gray to gray calcareous DOLOSTONE; fine grained dolomite, shale; highly to completely weathered; extremely close to very close fracture spacing; fractures near vertical to near horizontal; rock quality very poor; [BEDROCK]	C-1	NX	REC=22"/60"=37%	RQD=0"/60"=0%	
	27	Dark gray to gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh to slightly weathered; close to moderate fracture spacing; fractures near horizontal; blocky; rock quality fair; [BEDROCK]	C-2	NX	REC=60"/60"=100%	RQD=40"/60"=68%	
+358.4	32	End of Boring at 32.0ft.					

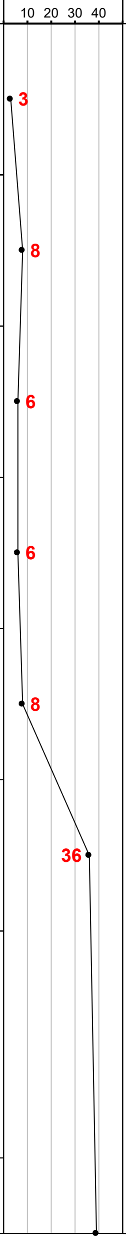
Depth (ft)	Coring (min)
22–23	[05:12]
23–24	[10:23]
24–25	[06:56]
25–26	[09:11]
26–27	[08:11]
27–28	[06:40]
28–29	[07:35]
29–30	[03:09]
30–31	[03:19]
31–32	[03:28]

Depth (ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
18	Drive casing to 20ft. Drill to 20ft, brown wash, light rig chatter from 18ft to 20ft.
20	Take S-8 from 20ft to 21.75ft.
21	Drive casing to 22ft. Casing refusal at 22ft. Drill to 22ft, heavy rig chatter at 22ft, brown wash.
22	Take C-1 from 22ft to 27ft.
24	Loss Of Water at 24 ft.
26	Loss Of Water at 26ft, heavy rig chatter at 26ft.
27	Dolostone - Moderate reactive to acid. Take C-2 from 27ft to 32ft.
30	C-2: UCS = 20552 psi
32	Dolostone - Moderate reactive to acid. Boring terminated at 32 ft. Temporary well installed on 04/30/2025.

LANGAN Log of Boring **LB-R-048** Sheet 1 of 2

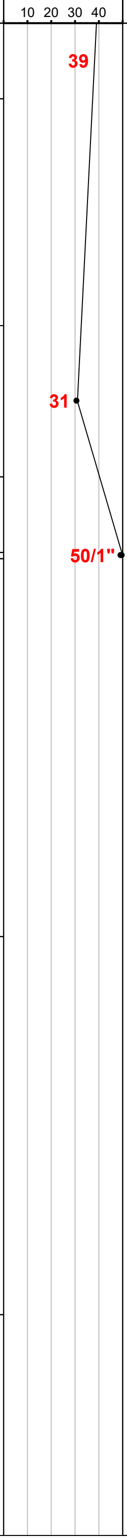
Project	Micron New York Manufacturing Facility	Project No.	170883801		
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.5 NAVD88		
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/29/2025	Date Finished	4/30/2025
Drilling Equipment	CME-75	Completion Depth	33.1 ft	Rock Depth	23.1 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9	Undisturbed 0	Core 2
Casing Diameter (in)	4	Casing Depth (ft)	23.0		
Water Level (ft.)	First ▽ 3.0	Completion ▼ N/A	24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30		
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)				
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30		
Drilling Foreman	Brad Perry				
Field Engineer	Shreeya Pandey				

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+392.5	Dark brown CLAY, roots (moist) [TOPSOIL]		0	S-1A	SS	14	WOH 1		04/30/2025. Utility Clearance Exemption signed by PIC
+391.8	Tannish brown CLAY, trace fine Sand (moist) [CL]		1	S-1B			2 3	3	Take S-1 from 0ft to 2ft.
	Tannish brown CLAY, trace fine Sand (moist) [CL]		2				3 4		Take S-2 from 2ft to 4ft.
	▽		3	S-2	SS	18	4 3	8	Drive casing to 4ft. Drill to 4ft, brown wash.
+388.5	Light brown SILT, trace fine Sand (wet) [ML]		4				2 3		Take S-3 from 4ft to 6ft.
			5	S-3	SS	14	3 4	6	
	Light brown SILT, trace fine Sand (wet) [ML]		6				2 3		Take S-4 from 6ft to 8ft.
			7	S-4	SS	18	3 3	6	Drive casing to 8ft. Drill to 8ft, brown wash.
	Light brown SILT, trace fine Sand (wet) [ML]		8				5 3		Take S-5 from 8ft to 10ft.
			9	S-5	SS	13	5 11	8	
+382.5	Brown Silty medium to fine SAND, some fine angular Gravel (wet) [SM]		10				27 18		Take S-6 from 10ft to 12ft. S-6: #4 = 74%; #200 = 17% S-6: LL = NP; PI = NP
			11	S-6	SS	12	18 19	36	
			12						
			13						Drive casing to 15ft. Drill to 15ft, light rig chatter from 12ft to 14ft, brown wash.
			14						
	Brown Silty medium to fine SAND, some fine angular Gravel (wet) [SM]		15		SS		26 21		Take S-7 from 15ft to 17ft.
			16						



LANGAN Log of Boring **LB-R-048** Sheet 2 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 392.5

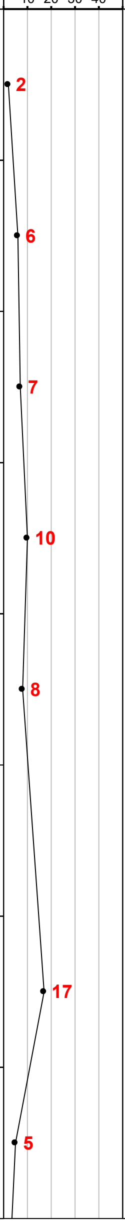


Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.5			16	S-7		14	18 18	39	
			17						
			18						Drive casing to 20ft. Drill to 20ft, light rig chatter from 23ft to 24ft, brown wash.
			19						
+372.0	Brown medium to fine SAND, trace Silt, trace fine angular Gravel (wet) [SP-SM]		20	S-8A			17		Take S-8 from 20ft to 22ft.
	Gray medium to fine Clayey SAND, trace fine angular Gravel [SC]		21	S-8B	SS	13	14 17 36	31	Drive casing to 23ft. Casing refusal at 23ft. Drill to 23ft, heavy rig chatter at about 23ft, gray wash.
			22						
+369.5 +369.4	No Recovery		23	S-9	SS	0	50/1"	50/1"	Take S-9 from 23ft to 23.1ft. Refusal encountered at 23.1ft. Take C-1 from 23.1ft to 28.1ft.
	Dark gray to gray calcareous DOLOSTONE ; fine grained shale, dolomite ; fresh to slightly weathered; close to very close fracture spacing; fractures near vertical to near horizontal; blocky; rock quality poor; [BEDROCK]	[05:30] [10:11] [04:45] [05:23] [05:20]	24–28	C-1	NX	REC=58"/60"=97%	RQD=24"/60"=41%		Loss of water at about 26ft. Dolostone - Moderate reactive to acid.
	Dark gray to gray calcareous DOLOSTONE ; fine grained shale, dolomite ; fresh weathered; wide fracture spacing; fractures near horizontal; rock quality excellent; [BEDROCK]	[05:58] [05:52] [04:58] [04:46] [05:11]	28–33	C-2	NX	REC=60"/60"=100%	RQD=60"/60"=100%		Take C-2 from 28.1ft to 33.1ft. C-2: UCS = 21064 psi
+359.4	End of Boring at 33.1ft.		33						Dolostone - Moderate reactive to acid. Boring terminated at 33.1 ft. Boring backfilled to grade with soil cuttings.
			34						
			35						
			36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-051** Sheet 1 of 3

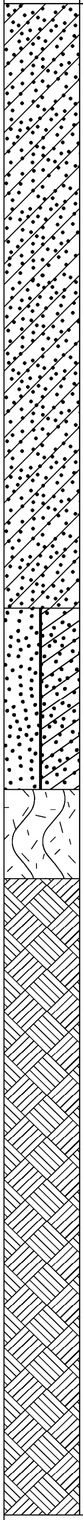
Project: Micron New York Manufacturing Facility			Project No.: 170883801		
Location: Town of Clay, New York			Elevation and Datum: Approx +EL 391.3 NAVD88		
Drilling Company: Atlantic Testing Laboratories (ATL)			Date Started: 4/26/2025	Date Finished: 4/28/2025	
Drilling Equipment: CME-55LC			Completion Depth: 37.6 ft	Rock Depth: 27.3 ft	
Size and Type of Bit: 3-7/8in Tricone Roller Bit			Number of Samples	Disturbed: 12	Undisturbed: 1 / Core: 2
Casing Diameter (in): 4	Casing Depth (ft): 27.0		Water Level (ft.)	First ▽ 4.0	Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140	Drop (in): 30	Drilling Foreman: Landon Nelson		
Sampler: 2in OD Split Spoon, Shelby Tube, NX Core Barrel (2.15in)					
Sampler Hammer: Automatic	Weight (lbs): 140	Drop (in): 30	Field Engineer: Bahar Ghaneshirazi		

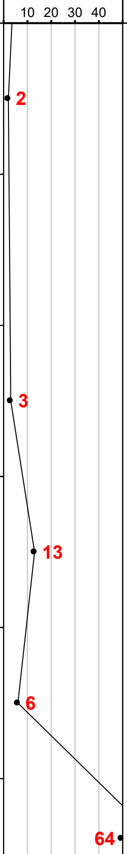


Material Symbol	Elev. (ft) +391.3	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	10	WOH		04/26/2025, 12:03 PM Utility Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	+391.0	Dark brown CLAY, trace fine Sand (moist) [CL]		1	S-1B			1 1 2	2	
		Brown CLAY, trace fine Sand (moist) [CL]		2–3	S-2A S-2B	SS	22	2 3 3 4	6	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
		Brown CLAY, trace fine Sand (moist) [CL]	▽	4–5	S-3A S-3B	SS	19	2 4 3 4	7	Take S-3 from 4ft to 6ft. S-3A: LL = 29%; PI = 11%
		Brown CLAY, trace fine Sand (moist) [CL]		6–7	S-4	SS	20	4 5 5 4	10	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	+383.3	Brown SILT, trace fine Sand (wet) [ML]		8–9	S-5	SS	15	2 5 3 5	8	Take S-5 from 8ft to 10ft.
		Brown SILT, trace fine Sand (wet) [ML]		10–11	UD-1	U	10			Take U-1 from 10ft to 12ft. U-1: LL = 20%; PI = 2%
	+379.3	Tannish brown Silty fine SAND, trace fine subangular Gravel, gravel lens (wet) [SM]		12–13	S-6	SS	24	13 11 6 5	17	Take S-6 from 12ft to 14ft.
	+377.3	Gray Clayey fine SAND (wet) [SC]		14–15	S-7	SS	11	2 4 1 2	5	Take S-7 from 14ft to 16ft. Drive casing to 15ft. Drill to 15ft, gray wash.
				16						

LANGAN Log of Boring **LB-R-051** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.3





Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+375.3	Gray Clayey fine SAND (wet) [SC]		16	S-8	SS	22	1 1 1 1	2	Take S-8 from 16ft to 18ft.
			17						
			18						
			19						Drive casing to 20ft. Drill to 20ft, gray wash.
	Gray Clayey fine SAND, trace fine subrounded Gravel (wet) [SC]		20	S-9	SS	26	3 2 1 1	3	Take S-9 from 20ft to 22ft.
			21						
	Gray Clayey fine SAND, trace fine subrounded Gravel (wet) [SC]		22	S-10	SS	12	10 8 5 6	13	Take S-10 from 22ft to 24ft.
			23						Drive casing to 25ft. Drill to 25ft, gray wash.
+367.3	Gray fine SAND, trace Clay (wet) [SP-SC]		24	S-11	SS	11	8 3 3 9	6	Take S-11 from 24ft to 26ft.
			25						
	Gray fine SAND, trace Clay (wet) [SP-SC]		26	S-12A	SS	17	14 32		Take S-12 from 26ft to 28ft.
+364.9	Dark gray GRAVEL, trace Clay (moist) [Weak ROCK]		27	S-12B			32 50/1"	64	Refusal encountered at 27.3ft.
+363.7	Black to light gray calcareous dolostone; fine grained calcite, dolomite, shale; fresh weathered; close to moderate fracture spacing; fractures near vertical to near horizontal; blocky; rock quality good; [BEDROCK]	[02:06]	28	C-1	NX	REC=62"/60"=103%	RQD=51"/60"=85%		Take C-1 from 27.3ft to 32.4ft. Dolostone (based on acid response), thin shale lensing (light rock, non-reactive to acid)
		[02:55]	29						Loss Of Water at 29ft.
		[03:14]	30						
	31-32.5ft - Fracture Zone, including healed zone at 32.0ft	[02:37]	31						
		[02:39]	32						Take C-2 from 32.4ft to 37.4ft.
	Banded black to light gray calcareous DOLOSTONE; fine grained dolomite, shale; fresh to slightly weathered; wide to close fracture spacing; fractures near horizontal; blocky; rock quality excellent; [BEDROCK]	[02:30]	33	C-2	NX	REC=60"/60"=100%	RQD=60"/60"=100%		Loss Of Water at 33ft.
		[02:50]	34						C-2: UCS = 15599 psi Dolostone (based on acid response), thin shale lensing (light rock, non-reactive to acid).
	35.5ft 1ft pitted weathering zone	[01:39]	35						
			36						

LANGAN

Log of Boring **LB-R-051**

Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.3

Material Symbol	Elev. (ft) +355.3	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+353.7	36.6ft 8in pitted weathering zone	[02:07] [01:46]	36 37						Boring terminated at 37.4ft. Temporary well installed on 04/28/2025
		End of Boring at 37.6ft.		38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56						

Log of Boring LB-R-052

Sheet 1 of 3

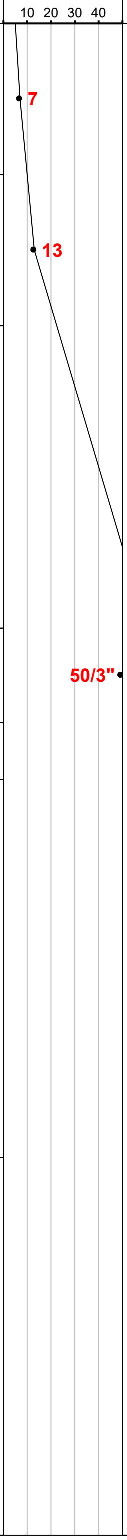
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/29/2025
		Date Finished	4/29/2025
Drilling Equipment	CME-75	Completion Depth	36.0 ft
		Rock Depth	26.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10; Undisturbed 1; Core 2
Casing Diameter (in)	4	Casing Depth (ft)	25.0
Water Level (ft.)	First ▽ 2.0	Completion ▼ N/A	24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Drilling Foreman	Brad Perry		
Sampler	2in OD Split Spoon, Shelby Tube, NQ Core Barrel (1.875in)		
Field Engineer	Shreeya Pandey		
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30

Elev. (ft) +392.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Tannish brown CLAY, roots, trace fine Sand (moist) [TOPSOIL]		0	S-1A	SS	17	WOH 1		04/29/2025, 7:40 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+391.4	Tannish brown CLAY, trace fine Sand (moist) [CL]		1	S-1B			1 2	2	
	▽ Tannish brown CLAY, trace fine Sand (wet) [CL]		2	S-2	SS	15	2 2 5 8	7	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Tannish brown CLAY, trace fine Sand (wet) [CL]		4	S-3A	SS	16	1 2		Take S-3 from 4ft to 6ft.
+387.0	Light SILT, trace fine Sand (wet) [ML]		5	S-3B			4 2	6	
	Light brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	18	3 4 3 3	7	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	Light brown SILT, trace fine Sand (wet) [ML]		8	S-5	SS	17	1 WOH WOH WOH	0	Take S-5 from 8ft to 10ft.
	Light brown SILT, trace fine Sand (wet) [ML]		10	UD-1	U	24			Take U-1 from 10ft to 12ft. U-1: LL = 12%; PI = 2% Drive casing to 12ft. Drill to 12ft, gray wash.
	Gray Sandy SILT, some fine angular Gravel (wet) [ML]		12	S-6	SS	6	WOH WOH 1 WOH	1	Take S-6 from 12ft to 14ft.
	Gray Sandy SILT, some fine angular Gravel (wet) [ML]		14	S-7	SS	9	2 2 1 1	3	Take S-7 from 14ft to 16ft. Drive casing to 16ft. Drill to 16ft, light rig chatter from 15ft to 16ft.
+376.0			16						

LANGAN Log of Boring **LB-R-052** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.0	Gray Silty fine SAND, some fine angular Gravel (wet) [SM]		16	S-8	SS	24	2 2 5 14	7	Take S-8 from 16ft to 18ft. S-8: #4 = 86%; #200 = 35% S-8: LL = NP; PI = NP Drive casing to 18ft. Drill to 18ft, light rig chatter from 17ft to 18ft.
	Gray Silty fine SAND, some fine angular Gravel (wet) [SM]		18	S-9	SS	9	9 6 7 10	13	Take S-9 from 18ft to 20ft.
			20						
			22						Drive casing to 24ft. Drill to 24ft, light rig chatter from 23ft to 24ft, gray wash.
+368.0	Gray Gravelly fine SAND, trace Silt (wet) [SP-SM]		24	S-10	SS	7	14 16 50/3"	50/3"	Take S-10 from 24ft to 25.25ft.
			25						Drive casing to 26ft. Casing refusal at 26ft. Drill to 26, heavy rig chatter from 25.5ft to 26ft.
+366.0	Black to light gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh weathered; close fracture spacing; fractures near vertical to near horizontal; blocky; rock quality poor; [BEDROCK] 26ft - 0.5ft fracture zone	[06:28]	26	C-1	NX	REC=47"/60"=78%	RQD=24"/60"=39%		Take C-1 from 26ft to 31ft.
		[03:35]	27						Dolostone - Hard, moderate reactive to acid. Thin shale lending, light, non-reactive to acid
		[04:46]	28						Loss Of Water from 28ft to 29ft.
	28.8ft - 1ft fracture zone	[04:37]	29						
		[06:19]	30						Loss Of Water from 30ft to 31ft.
	Banded light gray calcareous DOLOSTONE ; fine grained shale, dolomite ; fresh weathered; moderate to close fracture spacing; fractures near vertical to near horizontal; blocky; rock quality fair; [BEDROCK]	[06:56]	31	C-2	NX	REC=58"/60"=97%	RQD=44"/60"=73%		Take C-2 from 31ft to 36ft.
		[08:35]	32						Heavy rig chatter from 32ft to 33ft.
		[13:12]	33						
		[04:32]	34						
		[02:14]	35						
			36						



LANGAN Log of Boring **LB-R-052** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.0

Material Symbol	Elev. (ft) +356.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+356.0	End of Boring at 36.0ft.		36						Boring terminated at 36ft. Boring backfilled to grade with soil cuttings
				37						
				38						
				39						
				40						
				41						
				42						
				43						
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				45						
				46						
				47						
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				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-053** Sheet 1 of 3

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 392.0 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/28/2025	Date Finished: 4/28/2025
Drilling Equipment: CME-75		Completion Depth: 37.1 ft	Rock Depth: 27.1 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 13	Undisturbed 1 Core 2
Casing Diameter (in): 4	Casing Depth (ft): 27.0	Water Level (ft.): First ▽ 2.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Brad Perry	
Sampler: 2in OD Split Spoon, Shelby Tube, NQ Core Barrel (1.875in)		Field Engineer: Shreeya Pandey	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+392.0	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	11	WOH WOH		04/28/2025, 10:30 AM. Utility Clearance Exemption Signed by PIC
+391.3	Tannish brown CLAY, trace fine Sand (moist) [CL]		1	S-1B			1 6	1	Take S-1 from 0 to 2 ft.
	▽ Tannish brown CLAY, trace fine Sand (wet) [CL]		2	S-2	SS	15	4 4 3 2	7	Take S-2 from 2 to 4 ft. Drive casing to 4 ft.Drill to 4 ft, brown wash.
	Tannish brown CLAY, trace fine Sand (wet) [CL]		4	S-3	SS	18	1 1 2 2	3	Take S-3 from 4 to 6 ft.
+386.0	Light brown SILT, some fine Sand (wet) [ML]		6	S-4	SS	20	2 4 6 8	10	Take S-4 from 6 to 8 ft. Drive casing to 8 ft.Drill to 8 ft, brown wash.
	Light brown SILT, some fine Sand (wet) [ML]		8	S-5	SS	18	4 1 1 2	2	Take S-5 from 8 to 10 ft.
	Grayish brown SILT, trace fine Sand (wet) [ML]		10	S-6	SS	18	2 1 1 1	2	Take S-6 from 10 to 12 ft. S-6: #4 = 100%; #200 = 97% S-6: LL = NP; PI = NP Drive casing to 12 ft. Drill to 12 ft, gray wash.
	Grayish brown SILT, trace fine Sand (wet) [ML]		12	UD-1	U	22			Take U-1 from 12 to 14 ft. Drill to 14 ft, gray wash. U-1: LL = 25%; PI = 11%
	Gray Sandy SILT, some fine angular Gravel (wet) [ML]		14	S-7	SS	24	WOH WOH WOH WOH	0	Take S-7 from 14 to 16 ft.
			16						

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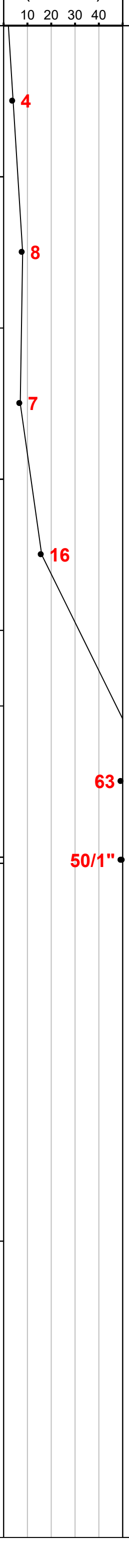
Log of Boring LB-R-053

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 392.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.0	Gray Sandy SILT, some fine angular Gravel (wet) [ML]		16	S-8A	SS	18	WOH 1 3	4	Take S-8 from 16 to 18 ft. Drive casing to 18 ft. Drill to 18 ft, light rig chatter from 17 to 18 ft, gray wash.
+374.8	Gray fine SAND, some Silt, trace fine angular Gravel (wet) [SM]		17	S-8B			8		
	Gray fine SAND, some Silt, trace fine angular Gravel (wet) [SM]		18	S-9	SS	3	8 5 3 3	8	Take S-9 from 18 to 20 ft.
	Gray fine SAND, some Silt, trace fine angular Gravel (wet) [SM]		20	S-10	SS	10	2 3 4 4	7	Take S-10 from 20 to 22 ft. Drive casing to 22 ft. Drill to 22 ft, light rig chatter from 21 to 22 ft.
	Gray fine SAND, some Silt, trace fine angular Gravel (wet) [SM]		22	S-11	SS	12	10 7 9 28	16	Take S-11 from 22 to 24 ft. Drive casing to 25 ft. Drill to 25 ft, light rig chatter at about 25 ft, gray wash.
			24						
	Gray fine SAND, some Silt, trace fine angular Gravel (wet) [SM]		25	S-12	SS	12	16 30 33 41	63	Take S-12 from 25 to 27 ft. Drive casing to 27ft. Drill to 27 ft, heavy rig chatter at 27 ft, gray wash. S-12: #4 = 87%; #200 = 29% S-12: LL = NP; PI = NP
+365.0	No Recovery		27	S-13	SS	0	50/1"	50/1"	Take S-13 from 27 to 27.1 ft.
+364.9	Dark gray to gray LIMESTONE; fine grained moderately to slightly weathered; close fracture spacing; fractures near horizontal; rock quality poor [BEDROCK]	[04:58] [04:48] [04:20] [04:28] [04:15]	28	C-1	NX	REC=50"/60"=83%	RQD=25"/60"=42%		Refusal encountered at 27.1 ft. Take C-1 from 27.1 to 32.1 ft. Heavy rig chatter from 27ft to 28ft. heavy rig chatter from 27ft to 28ft. Loss of water from 31 to 32 ft. Rapid acid response on rock core.
	Dark gray to gray LIMESTONE; fine grained slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality fair; [BEDROCK]	[04:27] [06:56] [03:36] [04:06]	32	C-2	NX	REC=60"/60"=100%	RQD=44"/60"=73%		Take C-2 from 32.1 to 37.1 ft. heavy rig chatter from 32 to 34 ft.
			36						



LANGAN Log of Boring **LB-R-053** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.0

Material Symbol	Elev. (ft) +356.0	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+354.9		[06:02]	36						Rapid acid test response on rock core.
		End of Boring at 37.1ft.		37						Boring terminated at 37.1ft. Temporary well installed on 04/28/2025.
				38						
				39						
				40						
				41						
				42						
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				56						

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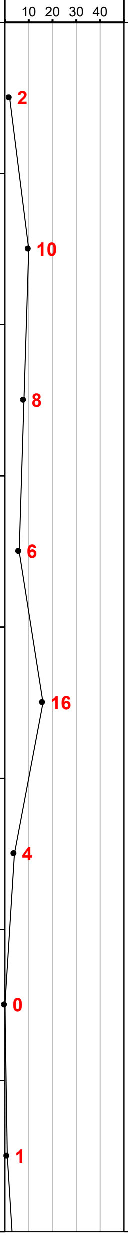
Log of Boring LB-R-055

Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 393.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/23/2025
		Date Finished	4/23/2025
Drilling Equipment	CME-75	Completion Depth	43.2 ft
		Rock Depth	33.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 13; Undisturbed 0; Core 2
Casing Diameter (in)	4	Casing Depth (ft)	33.0
Water Level (ft.)	First ▽ 3.0; Completion ▼ N/A; 24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Drilling Foreman	Brad Perry
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Field Engineer	Shreeya Pandey		

Elev. (ft) +393.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+392.3	Tannish brown CLAY, trace fine Sand, roots (moist) [TOPSOIL] Tannish mottled brown CLAY (moist) [CL]	0	S-1A S-1B	SS	16	WOH WOH 2 2	2	04/23/2025, 11:40 AM. Utility Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
	Tannish brown CLAY, trace fine Sand (moist) [CL] ▽	2	S-2	SS	24	4 5 5 5	10	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
+389.0	Light brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	18	3 3 5 4	8	Take S-3 from 4 to 6 ft
	Light brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	16	2 2 4 3	6	Take S-4 from 6 to 8 ft Drive casing to 8 ft. Drill to 8 ft, brown wash
	Light brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	14	6 8 8 5	16	Take S-5 from 8 to 10 ft.
	Grayish brown SILT, trace fine Sand (wet) [ML]	10	S-6	SS	18	4 2 2 3	4	Take S-6 from 10 to 12 ft. Drive casing to 12 ft. Drill to 12 ft, gray wash.
	Grayish brown SILT, trace fine Sand (wet) [ML]	12	S-7	SS	20	2 WOH WOH 1	0	Take S-7 from 12 to 14 ft. S-7: #4 = 100%; #200 = 97% S-7: LL = NP; PI = NP
+378.3	Grayish brown Sandy SILT, trace fine Gravel (wet) [ML] Grayish brown Silty fine SAND, some fine angular Gravel (wet) [SM]	14	S-8A S-8B	SS	15	WOH WOH 1 WOH	1	Take S-8 from 14 to 16 ft. S-8A: #4 = 90%; #200 = 51% S-8A: LL = NP; PI = NP Drive casing to 16 ft. Drill to 16 ft, light rig chatter from 15 to 16 ft, reddish gray wash.
		16						



LANGAN Log of Boring **LB-R-055** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Elev. (ft) +377.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Grayish brown Silty fine SAND, trace fine Gravel (wet) [SM]		16–18	S-9	SS	20	WOH 1 4 11	5	Take S-9 from 16 to 18 ft. S-9: LL = 13%; PI = 1% S-9: #4 = 87%; #200 = 42% S-9: LL = NP; PI = NP Drive casing to 18 ft. Drill to 18 ft, reddish gray wash, light rig chatter from 17 to 18 ft. Take S-10 from 18 to 20 ft.
			18–20	S-10	SS	8	10 7 5 7	12	
			22						Drive casing to 23 ft. Drill to 23 ft, gray wash, light rig chatter from 22 to 23 ft.
	Gray Silty medium to fine SAND, some fine angular Gravel (wet) [SM]		23–25	S-11	SS	9	13 13 12 17	25	Take S-11 from 23 to 25 ft.
			26						Drive casing to 28 ft. Drill to 28 ft, heavy rig chatter from 27 to 28 ft, gray wash.
+365.0	Dark gray CLAY, some fine angular Gravel, trace fine Sand (wet) [CL]		28–29.3	S-12	SS	13	38 64 50/3"	50/3"	Take S-12 from 28 to 29.3 ft. Refusal encountered at 29.3 ft.
			31						Drive casing to 33 ft. Casing refusal at 33 ft. Drill to 33 ft, heavy rig chatter at from 32 to 33 ft, gray wash.
+360.0	No Recovery		33–33.2	S-13	SS	0	50/2"	50/2"	Spoon refusal at 33.2 ft.
+359.8	Dark gray to gray DOLOSTONE; fine grained completely to highly weathered; very close to extremely close fracture spacing; fractures near horizontal; rock quality poor [BEDROCK]	[05:15] [08:36] [09:05]	33.2–36	C-1	NX	REC=54"/60"=90%	RQD=18"/60"=31%		Take C-1 from 33.2 to 38.2 ft. heavy rig chatter from 34 to 35 ft. Loss of water from 34 to 35 ft. C-1: UCS = 39265 psi

LANGAN Log of Boring **LB-R-055** Sheet 3 of 3

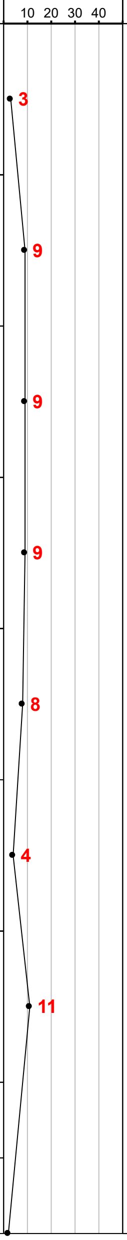
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+357.0	Dark gray to gray DOLOSTONE; fine grained fresh to slightly weathered; moderate to wide fracture spacing; fractures near horizontal; rock quality good; [BEDROCK]		36						
			[07:56]	37						Slow acid response on the rock sample.
			[08:40]	38						Take C-2 from 38.2 to 43.2 ft.
			[07:29]	39	C-2	NX	REC=53"/60"=88%	RQD=47"/60"=78%		C-2: UCS = 28926 psi
			[09:12]	40						
			[08:40]	41						
			[06:58]	42						Slow acid response on the rock sample.
	+349.8		[07:21]	43						Boring terminated at 43.2 ft. Temporary well installed on 04/24/2025.
		End of Boring at 43.2ft.		44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-057** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 391.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/24/2025 / 4/25/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	37.0 ft / 27.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 11; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 27.0	Water Level (ft.)	First ▽ 2.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Bahar Ghaneshirazi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +391.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+390.5	Dark brown CLAY, trace fine to medium Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	12	WOH 2	3	04/24/2025, 4:20 PM Utility Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
	Tannish brown SILT, some fine Sand (moist) [ML]	1	S-1B			1 1		
	▽ Tannish brown SILT, some fine Sand (wet) [ML]	2	S-2	SS	24	3 4 5 5	9	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
	Tannish brown SILT, some fine to medium Sand (wet) [ML]	4	S-3	SS	18	2 4 5 6	9	Take S-3 from 4ft to 6ft.
	Tannish brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	14	3 3 6 6	9	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	Tannish gray Sandy SILT (wet) [ML]	8	S-5	SS	10	18 4 4 4	8	Take S-5 from 8ft to 10ft.
	Tannish gray Sandy SILT (wet) [ML]	10	S-6	SS	20	1 3 1 3	4	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
	Tannish gray Sandy SILT (wet) [ML]	12	S-7	SS	26	1 2 9 3	11	Take S-7 from 12ft to 14ft. Drive casing to 15ft. Drill to 15ft, gray wash.
+376.0	Tannish gray Silty fine SAND (wet) [SM]	15		SS		WOH 1		Take S-8 from 15ft to 17ft.
		16						

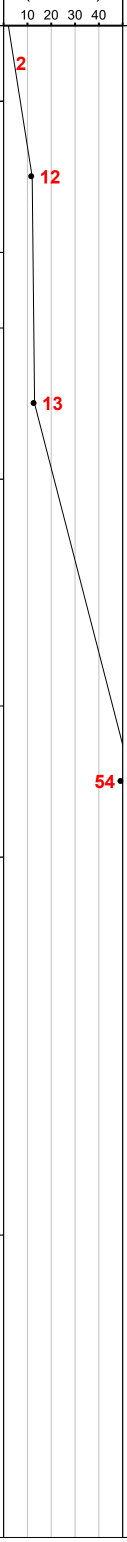


Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.0

Elev. (ft)	Depth (ft)	Sample Description
+375.0	16	Tannish gray Silty fine SAND (wet) [SM]
+371.0	20	Gray Silty fine SAND with Gravel (wet) [SM]
+366.0	25	Brownish gray silty medium to fine SAND, some fine Gravel (wet) [SM]
+364.0	27	Dark gray DOLOSTONE; fine grained fresh weathered; close fracture spacing; fractures moderately vertical to near horizontal; rock quality poor; [BEDROCK]
	32	Dark gray DOLOSTONE; fine grained fresh weathered; moderate fracture spacing; fractures near vertical to near horizontal; rock quality fair; [BEDROCK]

Sample Data

Depth (ft)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
16–17	S-8		8	1 1	2
17–19	S-9	SS	7	6 6 6 4	12
20–22	S-10	SS	7	24 7 6 3	13
25–27	S-11	SS	17	26 25 29 28	54
27–32	C-1	NX	REC=56"/60"=92%	RQD=26"/60"=44%	
32–36	C-2	NX	REC=55"/60"=92%	RQD=38"/60"=64%	



Depth (ft)	Coring (min)
27–28	[03:35]
28–29	[02:46]
29–30	[03:17]
30–31	[02:48]
31–32	[03:16]
32–33	[03:07]
33–34	[02:21]
34–35	[02:47]
35–36	[02:46]

Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth (ft)	Remarks
17	Take S-9 from 17ft to 19ft.
19	Drive casing to 20ft. Drill to 20ft, gray wash.
20	Take S-10 from 20ft to 22ft.
24	Drive casing to 25ft. Drill to 25ft, light rig chatter, gray wash.
25	Take S-11 from 25ft to 27ft. S-11: #4 = 68%; #200 = 14% S-11: LL = NP; PI = NP Drive casing to 27ft. Drill to 27ft, moderate rig chatter, gray wash. Refusal encountered at 27ft. Take C-1 from 27ft to 32ft.
30	C-1: UCS = 23836 psi
32	Take C-2 from 32ft to 37ft.

LANGAN Log of Boring **LB-R-057** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+355.0			36						
▨	+354.0		[03:07]	37						Boring terminated at 37 ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 37.0ft.		38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						
				46						
				47						
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				53						
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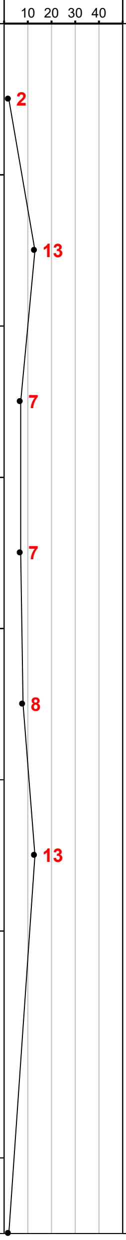
				55						
				56						

LANGAN Log of Boring **LB-R-058** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.6 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 4/21/2025	Date Finished: 4/22/2025
Drilling Equipment	CME-75	Completion Depth: 37.0 ft	Rock Depth: 27.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 10 Undisturbed: 0 Core: 2
Casing Diameter (in)	4	Casing Depth (ft)	25.0
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Water Level (ft.)	First ▽ 3.0 Completion ▼ N/A 24 HR. ▼ N/A
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Drilling Foreman	Brad Perry
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Shreeya Pandey

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+392.6	Grayish brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	12	WOH WOH 2 3	2	04/22/2025, 11:30 AM. Utility Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
+392.0	Tannish mottled brown CLAY, trace Sand (moist) [CL]	1	S-1B					
	Tannish brown CLAY, trace Sand (moist) [CL] ▽	2	S-2	SS	15	2 6 7 6	13	Take S-2 from 2 to 4 ft.
+388.6	Brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	16	4 3 4 3	7	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
	Brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	18	3 4 3 3	7	Take S-4 from 6 to 8 ft.
	Light brown SILT, trace fine Sand (wet) [ML]	8	S-5A S-5B	SS	17	4 4 4 3	8	Drive casing to 8 ft. Drill to 8 ft, brown wash. Take S-5 from 8 to 10 ft. S-5A: #4 = 100%; #200 = 98% S-5A: LL = NP; PI = NP
	Light brown SILT, trace fine Sand (wet) [ML]	10	S-6	SS	16	4 6 7 8	13	Take S-6 from 10 to 12 ft.
		12						Drive casing to 15 ft. Drill to 15 ft, gray wash.
	Lenses of flowing sand	15		SS		3 2		Take S-7 from 15 to 17 ft. Lenses of flowing sand S-7: LL = 20%; PI = 3%



LANGAN Log of Boring **LB-R-058** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.6

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.6			16	S-7		18	WOH WOH	2	
+375.6	Brown Silty CLAY, trace fine Sand (wet) [CL-ML]		17				1 1		Take S-8 from 17 to 19 ft. S-8: #4 = 100%; #200 = 99% S-8: LL = 23%; PI = 7%
			18	S-8	SS	20	WOH 2	1	Drive casing to 19ft. Drill to 19 ft, gray wash.
	Brown Silty CLAY, trace fine Sand (wet) [CL-ML]		19	S-9A			2 8		Take S-9 from 19 to 21 ft.
+372.7	Dark brownish gray Gravelly medium to fine SAND, trace Silt (wet) [SP-SM]		20	S-9B	SS	13	10 7	18	
			21						
			22						Drive casing to 24 ft. Drill to 24ft, light rig chatter from 20 to 23 ft, gray wash.
			23						
	Dark gray Gravelly medium to fine SAND, trace Silt (wet) [SP-SM]		24	S-10	SS	11	28 21 50/5"	50/5"	Take S-10 from 24 to 25.4 ft.
			25						Refusal encountered at 25.4 ft. Drive casing to 27 ft. Drill to 27 ft, heavy rig chatter from 26 to 27 ft.
			26						
+365.6	Dark gray to gray DOLOSTONE; fine grained slightly to moderately weathered; close fracture spacing; fractures near horizontal; rock quality poor [BEDROCK]	[10:11]	27						Take C-1 from 27 to 32 ft.
		[08:46]	28						Heavy rig chatter from 27 to 28 ft.
		[07:57]	29	C-1	NX	REC=58"/60"=97%	RQD=27"/60"=45%		
		[08:22]	30						Loss of water from 29 to 30 ft. C-1: UCS = 16812 psi
		[08:35]	31						Slow acid response on rock core
	Dark gray to gray DOLOSTONE; fine grained fresh to slightly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality excellent; [BEDROCK]	[10:22]	32						Take C-2 from 32 to 37 ft.
		[08:19]	33						
		[08:22]	34	C-2	NX	REC=60"/60"=100%	RQD=56"/60"=92%		Loss of water from 34 to 35 ft.
		[10:12]	35						
			36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-058** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.6

Material Symbol	Elev. (ft) +356.6	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+355.6		[08:12]	36						C-2: UCS = 22541 psi Slow acid test response on rock core. Boring terminated at 37 ft. Temporary well installed on 04/22/2025
		End of Boring at 37.0ft.		37						
				38						
				39						
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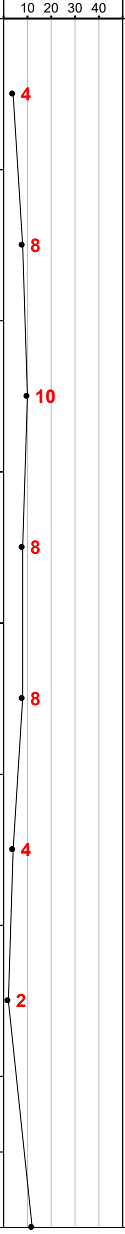
				56						

LANGAN Log of Boring **LB-R-059** Sheet 1 of 3

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 391.0 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/23/2025	Date Finished: 4/24/2025
Drilling Equipment: CME-55LC		Completion Depth: 42.0 ft	Rock Depth: 32.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 12	Undisturbed 0 Core 2
Casing Diameter (in): 4	Casing Depth (ft): 30.0	Water Level (ft.): First ▽ 6.0	Completion ▼ N/A 24 HR. ▽ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Landon Nelson	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Bahar Ghaneshirazi	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Material Symbol	Elev. (ft) +391.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+390.3	Dark brown CLAY, trace fine to medium Sand, roots (wet) [TOPSOIL] Tannish brown Silty CLAY, trace fine Sand, trace fine Gravel (moist) [CL-ML]		0	S-1A S-1B	SS	16	1 2 2 2	4	04/23/2025, 11:58 AM. Utility Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
		Tannish brown Silty CLAY, trace fine Sand, trace fine Gravel (moist) [CL-ML]		2	S-2	SS	22	2 2 6 5	8	Take S-2 from 2 to 4 ft Drive casing to 4 ft. Drill to 4 ft, brown wash.
	+385.0	Tannish brown Silty CLAY, trace fine Sand, trace fine Gravel (moist) [CL-ML] ▽		4	S-3	SS	19	2 4 6 6	10	Take S-3 from 4 to 6 ft S-3: #4 = 98%; #200 = 96% S-3: LL = 24%; PI = 5%
		Tannish brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	18	4 4 4 5	8	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
		Mottled tan SILT, some fine Sand (wet) [ML]		8	S-5	SS	15	8 4 4 2	8	Take S-5 from 8 to 10 ft.
	+379.0	Tannish gray Sandy SILT (wet) [ML]		10	S-6	SS	18	1 2 2 3	4	Take S-6 from 10 to 12 ft. Drive casing to 12 ft. Drive casing to 12 ft, gray wash.
		Tannish gray Silty fine SAND (wet) [SM]		12	S-7	SS	11	2 1 1 2	2	Take S-7 from 12 to 14 ft.
				14						Drive casing to 15 ft. Drill to 15ft, gray wash.
		Gray Silty fine to coarse SAND, trace fine Gravel (wet) [SM]		15		SS		WOH 4		Take S-8 from 15 to 17 ft.
				16						



Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 391.0

Elev. (ft)	Sample Description	Coring (min)
+375.0	Gray Silty fine SAND with Gravel (wet) [SM]	
	Gray Silty fine SAND, with Gravel (wet) [SM]	
+367.5	Gray GRAVEL, some fine Sand (wet) [Weak ROCK]	
	Gray GRAVEL, some fine Sand (wet) [Weak ROCK]	
+359.0	Dark gray LIMESTONE; fine grained slightly weathered; fractures near vertical [BEDROCK]	[04:37] [02:03] [04:02] [03:29]

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
16	S-8		8	8 9	12
17–19	S-9	SS	11	9 13 13 13	26
20–22	S-10	SS	5	33 13 8 6	21
25	S-11	SS	6	50	50
30	S-12	SS	6	30 50/3"	50/3"
32–36	C-1	NX	REC=54"/60"=89%	RQD=16"/60"=28%	

Depth	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
17	Take S-9 from 17 to 19 ft. S-9: LL = 14%; PI = 2%
19	Drive casing to 20 ft. Drill to 20 ft, heavy rig chatter, gray wash.
20	Take S-10 from 20 to 22 ft.
24	Drive casing to 25 ft. Drill to 25 ft, moderate rig chatter, gray wash.
25	Take S-11 from 25 to 27 ft
27	Drive casing to 30 ft.
28	Heavy rig chatter 28 to 29 ft.
29	Drive casing to 30 ft. Drill to 30 ft, moderate rig chatter, gray wash.
30	Take S-12 from 30 to 30.8 ft.
31	Drill to 32 ft, light chatter, gray wash.
32	Take C-1 from 32 to 37 ft.
33	Rapid acid test respond.
34.5	C-1: UCS = 16214 psi

LANGAN Log of Boring **LB-R-059** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+355.0		[03:28]	36						
▨		Dark gray SILTSTONE; fine grained fresh weathered; fractures near vertical to steeply vertical; [BEDROCK]	[02:25]	37						C-2: UCS = 37214 psi Take C-2 from 37 to 42 ft.
▨			[02:06]	38						Rapid acid test respond.
▨			[03:11]	39	C-2	NX	REC=55"/60"=92%	RQD=54"/60"=90%		
▨			[02:08]	40						C-2: UCS = 18281 psi
▨			[01:55]	41						
	+349.0	End of Boring at 42.0ft.		42						Boring terminated at 42 ft. Boring backfilled to grade with soil cuttings.
				43						
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
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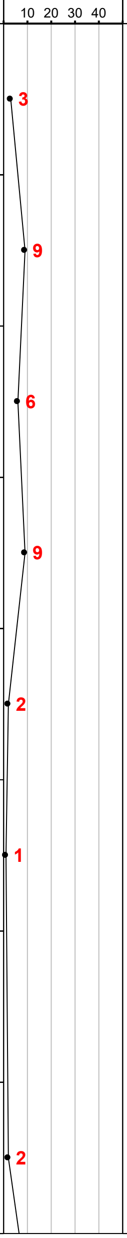
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-060** Sheet 1 of 2

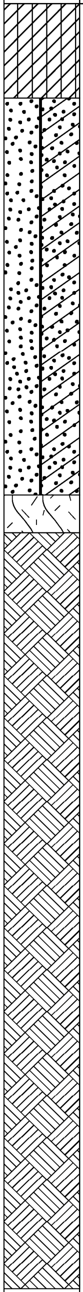
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 393.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/24/2025 / 4/24/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	33.0 ft / 23.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10 / Undisturbed 1 / Core 2
Casing Diameter (in)	4 / Casing Depth (ft) 22.0	Water Level (ft.)	First ▽ 3.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, Shelby Tube, NQ Core Barrel (1.875in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30		

Elev. (ft) +393.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+392.5	Tannish brown CLAY, roots (moist) [TOPSOIL]		0	S-1A	SS	14	WOH 1 2 2	3	04/24/2025, 12:11 PM. Utility Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
	Tannish brown CLAY, trace fine Sand (moist) [CL]		1	S-1B					
	Tannish brown CLAY, trace fine Sand (moist) [CL] ▽		2	S-2	SS	18	2 5 4 4	9	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
+389.0	Light brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	19	2 2 4 1	6	Take S-3 from 4 to 6 ft.
	Light brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	17	3 4 5 4	9	Take S-4 from 6 to 8 ft. S-4: LL = NP; PI = NP Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Light brown SILT, trace fine Sand (wet) [ML]		8	S-5	SS	17	4 1 1 2	2	Take S-5 from 8 to 10 ft. S-5: #4 = 100%; #200 = 97% S-5: LL = NP; PI = NP
	Light brown SILT, trace fine Sand (wet) [ML]		10	S-6	SS	19	1 WOH 1 1	1	Take S-6 from 10 to 12 ft. Drive casing to 12 ft. Drill to 12 ft, gray wash.
	No Recovery		12	UD-1	U	0			Take U-1 from 12 to 14 ft. No recovery in the Shelby tube.
+380.0	Grayish brown Silty CLAY, trace fine Sand (wet) [CL-ML]		13						
			14	S-7	SS	17	WOH 1 1 2	2	Drill to 14 ft, gray wash. Take S-7 from 14 to 16 ft.
			16						



LANGAN Log of Boring **LB-R-060** Sheet 2 of 2

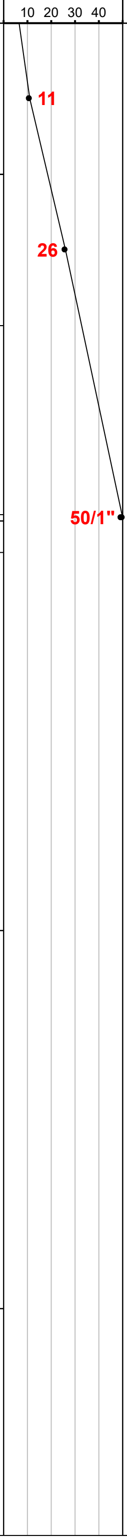
Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 393.0



Elev. (ft)	Sample Description
+377.0	Grayish brown Silty CLAY, trace fine Sand (wet) [CL-ML]
+375.8	Dark gray Clayey SAND with Gravel (wet) [SP-SC] Dark gray Clayey fine SAND with Gravel (wet) [SP-SC]
+370.5	No Recovery
+370.0	Dark gray to gray DOLOSTONE; fine grained quartz; moderately to highly weathered; very close to close fracture spacing; fractures near horizontal; rock quality poor; [BEDROCK]
	Dark gray to gray DOLOSTONE; fine grained moderately weathered; close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]
+360.0	End of Boring at 33.0ft.

Sample Data

Depth (ft)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
16–17	S-8A	SS	20	3 6	11
17–18	S-8B			5 6	
18–20	S-9	SS	7	15 15 11 7	26
22.5–22.6	S-10	SS	0	50/1"	50/1"
23–28	C-1	NX	REC=47"/60"=78%	RQD=18"/60"=30%	
28–33	C-2	NX	REC=60"/60"=100%	RQD=37"/60"=62%	



Depth (ft)	Coring (min)
23–24	[12:11]
24–25	[08:15]
25–26	[08:46]
26–27	[07:28]
27–28	[08:07]
28–29	[10:11]
29–30	[08:14]
30–31	[07:20]
31–32	[07:29]
32–33	[05:36]

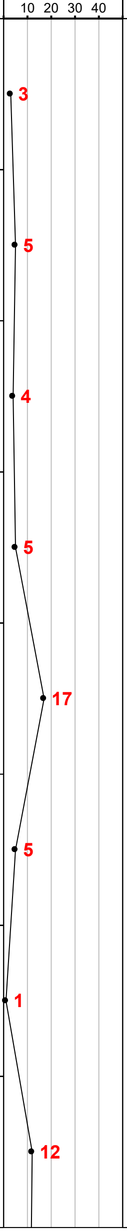
Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth (ft)	Remarks
16	Take S-8 from 16 to 18 ft. S-8A: LL = 14%; PI = 3% S-8A: LL = 15%; PI = 5% Drive casing to 18 ft. Drill to 18 ft, light rig chatter at about 18 ft, dark gray wash.
18	Take S-9 from 18 to 20 ft.
21	Drive casing to 22.5 ft. Drill to 22.5 ft, gray wash, heavy rig chatter from at about 22 ft.
22.5	Take S-10 from 22.5 to 24.5 ft.
23	Refusal encountered at 22.6 ft. Drill to 23ft, heavy rig chatter, gray wash. Take C-1 from 23 to 28 ft.
25	Loss of water at about 25 ft. Heavy rig chatter from 24 to 25 ft.
27	Slow acid test response on the rock core.
28	Take C-2 from 28 to 33 ft.
30.5	C-2: UCS = 12315 psi
31	Slow acid test response on the rock core.
33	Boring terminated at 33 ft. Temporary well installed on 04/24/2025.

LANGAN Log of Boring **LB-R-062** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/22/2025 / 4/22/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	35.0 ft / 25.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 24.0	Water Level (ft.)	First ▽ 4.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

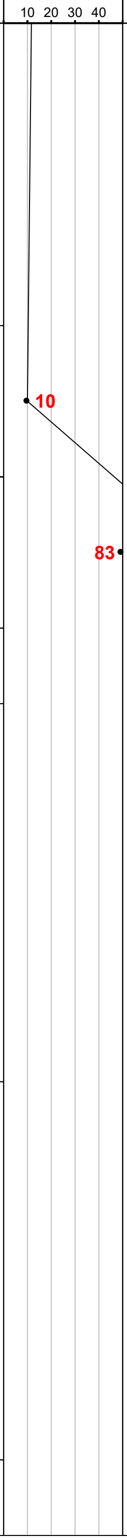
Elev. (ft) +392.8	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	16	WOH WOH		04/21/2025. 3:14 PM. Utility Clearance Exemption Signed by PIC
+392.1	Brown CLAY, trace fine Sand (moist) [CL]		1	S-1B			3 2	3	Take S-1 from 0 to 2 ft
	Brown CLAY, trace fine Sand (moist) [CL]		2–3	S-2	SS	14	1 2 3 2	5	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
+388.8	Light brown SILT, trace fine Sand (wet) [ML]		4–5	S-3	SS	19	2 2 2 2	4	Take S-3 from 4 to 6 ft. S-3: LL = NP; PI = NP
	Light brown SILT, some fine Sand (wet) [ML]		6–7	S-4	SS	14	2 2 3 3	5	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Light brown Sandy SILT (wet) [ML]		8–9	S-5	SS	15	7 13 4 4	17	Take S-5 from 8 to 10 ft.
+382.8	Grayish brown Silty CLAY (wet) [CL-ML]		10–11	S-6	SS	16	2 2 3 3	5	Take S-6 from 10 to 12 ft. S-6: #4 = 100%; #200 = 98% S-6: LL = 18%; PI = 5% Drive casing to 12 ft. Drill to 12 ft, gray wash
	Grayish brown Silty CLAY (wet) [CL-ML]		12–13	S-7	SS	12	3 1 WOH WOH	1	Take S-7 from 12 to 14 ft. Drive casing to 14 ft. Drill to 14 ft, brown wash. Drill to 14ft, gray wash.
	Grayish brown Silty CLAY (wet) [CL-ML]		14	S-8A	SS	10	4		Take S-8 from 14 to 16 ft.
+378.4	Dark gray Gravelly medium to fine SAND, trace Silt (wet) [SP-SM]		15–16	S-8B			5 7 6	12	



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-062** Sheet 2 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 392.8



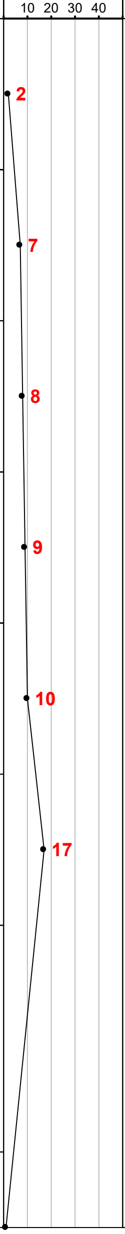
Material Symbol	Elev. (ft) +376.8	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
⁘				16–20						Drive casing to 20 ft. Drill to 20 ft, light rig chatter between 17 to 19 ft, gray wash.
⁘		Dark gray Gravelly medium to fine SAND, trace Silt (wet) [SP-SM]		20–22	S-9	SS	4	4 6 4 17	10	Take S-9 from 20 to 22 ft.
⁘		Dark gray Gravelly medium to fine SAND, trace Silt (wet) [SP-SM]		22–24	S-10	SS	10	59 55 28 39	83	Take S-10 from 22 to 24 ft.
⁘				24–25						Drive casing to 25 ft. Casing refusal. Drill to 25 ft, heavy rig chatter at 25 ft, gray wash.
▨	+367.8	Dark gray to gray DOLOSTONE; fine grained completely to highly weathered; very close to extremely close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[10:36] [08:56] [08:15] [09:45] [09:11]	25–30	C-1	NX	REC=50"/60"=83%	RQD=8"/60"=13%		Take C-1 from 25 to 30 ft. Loss of water. C-1: UCS = 29565 psi Rapid acid test response on the rock core.
▨		Dark gray to gray DOLOSTONE; fine grained moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality poor; [BEDROCK]	[12:08] [08:23] [09:32] [08:09] [07:36]	30–35	C-2	NX	REC=60"/60"=100%	RQD=24"/60"=40%		Take C-2 from 30 to 35 ft. Loss of water. C-2: UCS = 13218 psi Loss of water. Rapid acid test response on the rock core.
	+357.8	End of Boring at 35.0ft.		35–36						Boring terminated at 35 ft. Boring backfilled to grade with soil cuttings.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-064** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 391.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/9/2025 / 4/10/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	44.0 ft / 24.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10 Undisturbed 0 Core 4
Casing Diameter (in)	4 Casing Depth (ft) 23.0	Water Level (ft.)	First ▽ 1.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

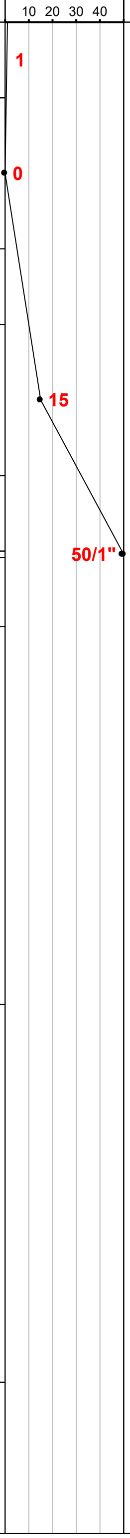
Elev. (ft) +391.1	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown SILT, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	12	1 1 1 2	2	04/09/2025; 8:51 AM Utility Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
+390.6	Light brown SILT, trace fine Sand (moist) [ML] ▽		1	S-1B					
	Light brown SILT, trace fine Sand (moist) [ML]		2	S-2	SS	16	4 4 3 4	7	Take S-2 from 2 to 4 ft. Drive Casing to 4 ft. Dril to 4 ft, brown wash.
	Light brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	16	1 4 4 5	8	Take S-3 from 4 to 6 ft.
	Light brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	12	6 4 5 5	9	Take S-4 from 6 to 8 ft. Drive Casing to 8 ft. Drill to 8 ft, brown wash.
	Light brown SILT, trace fine Sand (wet) [ML]		8	S-5	SS	17	5 5 5 6	10	Take S-5 from 8 to 10 ft.
	Grayish brown Sandy SILT (wet) [ML]		10	S-6	SS	12	6 7 10 10	17	Take S-6 from 10 to 12 ft. Drive Casing to 15 ft. Drill to 15 ft, brown wash.
	Grayish brown Sandy SILT (wet) [ML]		15		SS		1 WOH		Take S-7 from 15 to 17 ft.



LANGAN Log of Boring **LB-R-064** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.1

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+375.1	Grayish brown Sandy SILT (wet) [ML]		16	S-7		22	1 WOH	1	
			17	S-8	SS	14	1 WOH WOH 1	0	Take S-8 from 17 to 19 ft. S-8: #4 = 100%; #200 = 97% S-8: LL = NP; PI = NP
			19						Drive Casing to 20 ft. Drill to 20 ft, light rig chatter, gray wash.
+371.1	Dark gray Gravelly medium SAND, trace Silt (wet) [SP-SM]		20	S-9	SS	9	8 10 5 12	15	Take S-9 from 20 to 22 ft.
			22						
	Dark gray Gravelly medium SAND, trace Silt (wet) [SP-SM]		23	S-10	SS	1	50/1"	50/1"	Take S-10 from 23 to 25 ft. Refusal encountered at 23.1ft.
+367.1	Gray to dark gray DOLOSTONE; fine grained highly weathered; close fracture spacing; fractures near horizontal; rock quality poor [BEDROCK]	[09:46] [15:30] [06:11] [13:34] [10:02]	24	C-1	NQ	REC=39"/60"=65%	RQD=18"/60"=29%		Drill to 24ft, heavy rig chatter, gray wash. Take C-1 from 24 to 29 ft. Slow acid response Loss of water.
	Gray to dark gray DOLOSTONE; fine grained moderately to highly weathered; close to very close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[10:08] [08:11] [08:36] [11:00] [08:00]	29	C-2	NQ	REC=60"/60"=100%	RQD=33"/60"=55%		Take C-2 from 29 to 34 ft. Slow acid response Loss of water.
	Gray to dark gray DOLOSTONE; fine grained fresh to slightly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[08:22] [07:50]	34						Take C-3 from 34 to 39 ft. Slow acid response
			36						



LANGAN Log of Boring **LB-R-064** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.1

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+355.1	Gray to dark gray DOLOSTONE; fine grained slightly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[06:17]	36	C-3	NQ	REC=60"/60"=100%	RQD=51"/60"=85%		C-3: UCS = 15127 psi Loss of water.
			[05:15]	37						
			[05:53]	38						Loss of water.
			[10:11]	39	C-4	NQ	REC=60"/60"=100%	RQD=48"/60"=79%		Take C-4 from 39 to 44 ft. Slow acid response
			[09:57]	40						Loss of water.
			[08:02]	41						C-4: UCS = 21383 psi
			[07:13]	42						
			[07:46]	43						Boring terminated at 44 ft. Flush out borehole until clear water return. Installed 3-inch ID PVC to facilitate OTV/ATV testing.
	+347.1	End of Boring at 44.0ft.		44						Temporary well installed on 05/05/2025.
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-065** Sheet 1 of 2

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 390.6 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 4/22/2025	Date Finished 4/23/2025
Drilling Equipment CME-55LC		Completion Depth 32.0 ft	Rock Depth 22.0 ft
Size and Type of Bit 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 10	Undisturbed 0; Core 2
Casing Diameter (in) 4	Casing Depth (ft) 22.0	Water Level (ft.): First ▽ 2.0	Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs) 140; Drop (in) 30	Drilling Foreman Landon Nelson	
Sampler 2in OD Split Spoon, NX Core Barrel (2.15in)			
Sampler Hammer: Automatic	Weight (lbs) 140; Drop (in) 30	Field Engineer Bahar Ghaneshirazi	

Elev. (ft) +390.6	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+390.1	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL] Tannish brown SILT, trace fine Sand (moist) [ML]		0 1	S-1A S-1B	SS	16	WOH 1 2 4	3	04/22/2025, 2:38 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	▽ Tannish mottled brown to pinkish gray SILT, trace fine Sand (wet) [ML]		2 3	S-2	SS	21	3 4 4 4	8	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Tannish mottled brown SILT, some fine Sand (wet) [ML]		4 5	S-3	SS	21	1 3 4 4	7	Take S-3 from 4 to 6 ft.
	Tannish brown Sandy SILT (wet) [ML]		6 7	S-4	SS	14	3 3 5 4	8	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Tannish brown Sandy SILT (wet) [ML]		8 9	S-5	SS	15	4 7 4 3	11	Take S-5 from 8 to 10 ft.
	Tannish gray Sandy SILT (wet) [ML]		10 11	S-6	SS	21	2 3 3 3	6	Take S-6 from 10 to 12 ft. Drive casing to 12 ft. Drill to 12 ft, gray wash.
	Tannish gray SILT, some fine Sand (wet) [ML]		12 13	S-7	SS	16	10 6 7 5	13	Take S-7 from 12 to 14 ft.
			14						Drive casing to 15 ft. Drill to 15 ft, gray wash.
	No Recovery		15 16		SS		5 7		Take S-8 from 15 to 17 ft.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-065** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 390.6

Depth Scale	Elev. (ft) +374.6	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
16–17		Grayish brown SILT, trace fine Sand (wet) [ML]		S-8		0	5 4	12	
17–18				S-9	SS	26	5 8	13	Take S-9 from 17 to 19 ft. S-9: #4 = 100%; #200 = 99% S-9: LL = NP; PI = NP
18–19							5 5		
19–20									Drive casing to 20 ft. Drill to 20 ft, gray wash, light chatter.
20–21	+370.6	Gray Silty fine to medium SAND, trace fine Gravel (wet) [SM]		S-10	SS	6	2 7	12	Take S-10 from 20 to 22 ft.
21–22							5 6		Refusal encountered at 22 ft.
22–23	+368.6	Dark gray DOLOSTONE; fine grained slightly weathered; fractures near vertical; rock quality very poor; [BEDROCK]	[02:04]	C-1	NX	REC=58"/60"=97%	RQD=24"/60"=41%		Take C-1 from 22 to 27 ft.
23–24			[02:19]						Light chatter, gray wash. C-1: UCS = 13514 psi
24–25			[03:20]						
25–26			[02:45]						Slow acid reaction.
26–27			[02:02]						Heavy chatter 26 to 27 ft.
27–28		Dark gray LIMESTONE; fine grained fresh weathered; fractures near vertical; rock quality very poor [BEDROCK]	[04:58]	C-2	NX	REC=60"/60"=100%	RQD=40"/60"=68%		Take C-2 from 27 to 32 ft.
28–29			[02:54]						C-2: UCS = 14459 psi Rapid acid reaction.
29–30			[02:48]						Light chatter, gray wash.
30–31			[01:59]						
31–32			[01:31]						
32	+358.6	End of Boring at 32.0ft.							Boring terminated at 32 ft. Boring backfilled to grade with cuttings
33									
34									
35									
36									

LANGAN Log of Boring **LB-R-066** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 389.5 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/21/2025 / 4/22/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	31.9 ft / 21.9 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9 / Undisturbed 0 / Core 2
Casing Diameter (in)	4; Casing Depth (ft) 21.0	Water Level (ft.)	First ▽ 2.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Bahar Ghaneshirazi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

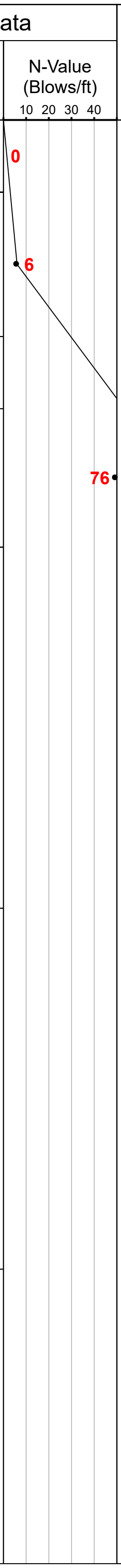
Elev. (ft) +389.5	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown CLAY, trace fine Sand, roots (wet) [TOPSOIL]		0	S-1A	SS	15	WOH		04/21/2025 4:20 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+388.9	Tannish brown SILT, trace fine Sand (moist) [ML]		1	S-1B			1 3 5	4	
	▽ Mottled tannish brown SILT, trace fine Sand (wet) [ML]		2–4	S-2	SS	18	2 4 4 7	8	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Mottled tannish brown SILT, trace fine Sand (wet) [ML]		4–6	S-3	SS	19	3 5 6 4	11	Take S-3 from 4 to 6 ft.
	Tannish gray SILT, some fine Sand (wet) [ML]		6–8	S-4	SS	14	3 4 4 5	8	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Tannish gray Sandy SILT (wet) [ML]		8–10	S-5	SS	10	2 5 2 3	7	Take S-5 from 8 to 10 ft.
	Tannish gray Sandy SILT (wet) [ML]		10–12	S-6	SS	19	1 5 8 10	13	Take S-6 from 10 to 12 ft.
			12–15						Drive casing to 15 ft. Drill to 15 ft, gray wash.
	Tannish gray Sandy SILT (wet) [ML]		15–16		SS		WOH WOH		Take S-7 from 15 to 17 ft.

LANGAN Log of Boring LB-R-066

Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 389.5

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+373.5	Tannish gray Sandy SILT (wet) [ML]		16	S-7		16	WOH 2	
			17	S-8	SS	23	WOH 4 2 3	Take S-8 from 17 to 19 ft.
			18					
			19					Drive casing to 20 ft. Drill to 20 ft, gray wash.
+369.5	Dark gray GRAVEL, some Silt (wet) [Weak ROCK]		20	S-9	SS	14	47 45 31 50/5"	Take S-9 from 20 to 22 ft. Drive casing to 21 ft. Drill to 21.9 ft, light to heavy chatter, gray wash.
			21					Refusal encountered at 21.9 ft.
+367.6	Dark gray DOLOSTONE; fine grained quartz; moderately weathered; fractures near vertical to steeply vertical; rock quality very poor; vertical and near vertical cracks in some parts. [BEDROCK]	[02:53]	22	C-1	NX	REC=60"/60"=100%	RQD=23"/60"=38%	Take C-1 from 21.9 to 26.9 ft.
		[02:15]	23					Slow acid reaction, rapid reaction in some parts.
		[03:03]	24					
		[03:05]	25					C-1: UCS = 22491 psi
		[04:21]	26					C-1: UCS = 18458 psi
	Dark gray LIMESTONE; fine grained slightly weathered; fractures near vertical; rock quality very poor [BEDROCK]	[02:17]	27	C-2	NX	REC=60"/60"=100%	RQD=38"/60"=62%	Take C-2 from 26.9 to 31.9 ft.
		[02:45]	28					Rapid acid reaction.
		[02:57]	29					
		[02:28]	30					
		[02:18]	31					
+357.6	End of Boring at 31.9ft.		32					Boring terminated at 32 ft. Temporary well installed on 04/22/2025.
			33					
			34					
			35					
			36					



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring LB-R-067

Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 393.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/25/2025
		Date Finished	4/25/2025
Drilling Equipment	CME-75	Completion Depth	32.0 ft
		Rock Depth	17.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 7 Undisturbed 0 Core 3
Casing Diameter (in)	4	Casing Depth (ft)	16.0
Water Level (ft.)	First ▽ 3.0 Completion ▼ N/A 24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Drilling Foreman	Brad Perry
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Field Engineer	Shreeya Pandey		

Material Symbol	Elev. (ft) +393.0	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Gray CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	17	WOH 2		04/25/2025, 8:15 AM. Utility Clearance Exemption Signed by PIC
	+392.1	Tannish brown CLAY, trace fine Sand (moist) [CL]		1	S-1B			1 2	3	Take S-1 from 0 to 2 ft.
		Tannish brown CLAY, trace fine Sand (moist) [CL] ▽		2 3	S-2	SS	18	3 2 4 3	6	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	+389.0	Light brown SILT, trace fine Sand (wet) [ML]		4 5	S-3	SS	17	2 WOH WOH 2	0	Take S-3 from 4 to 6 ft.
		Light brown SILT, trace fine Sand (wet) [ML]		6 7	S-4	SS	15	1 WOH 1 6	1	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	+385.0	Dark gray Gravelly SAND, trace Clay (wet) [SP-SC]		8 9	S-5	SS	9	22 9 7 11	16	Take S-5 from 8 to 10 ft.
		Dark gray Gravelly SAND, trace Clay (wet) [SP-SC]		10 11	S-6	SS	8	12 9 8 6	17	Take S-6 from 10 to 12 ft.
				12 13 14						Drive casing to 15 ft. Drill to 15 ft, light rig chatter from about 14 to 15 ft, dark gray wash.
	+378.0	Dark gray GRAVEL, trace Clay, (wet) [Weak ROCK]		15 16	S-7	SS	3	12 9 50	59	Take S-7 from 15 to 17 ft. Refusal encountered at 16.7 ft.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-067** Sheet 2 of 2

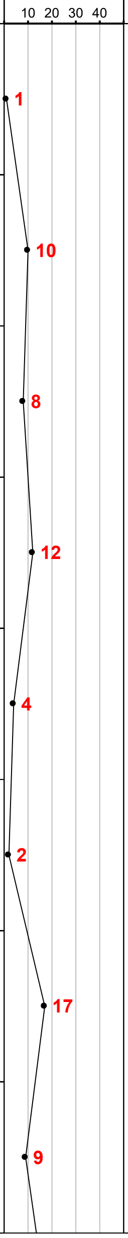
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Elev. (ft) +377.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.0			16				50/2"		
	Dark gray to gray DOLOSTONE ; fine grained highly to completely weathered; extremely close to very close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[06:50]	17	C-1	NX	REC=21"/60"=35%	RQD=8"/60"=13%		Drive casing to 17 ft. Drill to 17 ft, heavy rig chatter at about 17 ft Take C-1 from 17 to 22 ft.
		[05:12]	18						Loss of water from 18 to 22 ft.
		[06:16]	19						
		[05:12]	20						
		[05:20]	21						Slow response to acid test on rock core.
	Dark gray to gray DOLOSTONE; fine grained highly to completely weathered; extremely close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[07:05]	22	C-2	NX	REC=34"/60"=57%	RQD=5"/60"=8%		Take C-2 from 22 to 27 ft.
		[08:25]	23						Loss of water from 23 to 27 ft.
		[10:45]	24						Heavy rig chatter from 24 to 25 ft.
		[12:05]	25						
		[07:20]	26						
	Dark gray to gray DOLOSTONE; fine grained highly weathered; extremely close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[18:12]	27	C-3	NX	REC=36"/60"=60%	RQD=8"/60"=13%		Slow response to acid test on rock core; Take C-3 from 27 to 32 ft. Loss of water from 27 to 28 ft.
		[04:53]	28						
		[07:52]	29						
		[08:45]	30						Loss of water from 30 to 32 ft.
+361.0		[06:22]	31						
	End of Boring at 32.0ft.		32						Slow response to acid test on rock core. Boring terminated at 32 ft. Borehole backfilled to grade with cuttings.
			33						
			34						
			35						
			36						

LANGAN Log of Boring **LB-R-068** Sheet 1 of 3

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 393.0 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/25/2025	Date Finished: 4/26/2025
Drilling Equipment: CME-75		Completion Depth: 37.0 ft	Rock Depth: 22.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 10	Undisturbed 0 Core 3
Casing Diameter (in): 4	Casing Depth (ft): 21.0	Water Level (ft.): First ▽ 3.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Brad Perry	
Sampler: 2in OD Split Spoon, NQ Core Barrel (1.875in)			
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Field Engineer: Shreeya Pandey	

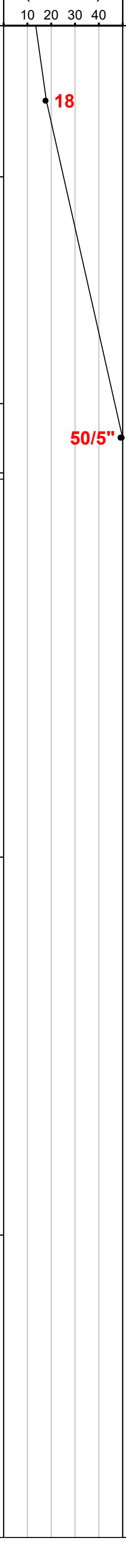
Material Symbol	Elev. (ft) +393.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+392.5	Grayish brown CLAY, trace Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	9	WOH		04/25/2025, 1:30 PM. Utility Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
		Tannish brown CLAY, trace Sand (moist) [CL]		1	S-1B			WOH 1 5	1	
	+389.0	Mottled tannish brown CLAY, trace fine Sand (moist) [CL] ▽		2	S-2	SS	20	3 5 5 5	10	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash
		Light brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	17	3 4 4 4	8	Take S-3 from 4 to 6 ft.
		Light brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	11	3 4 8 9	12	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	+384.2	Light brown SILT, trace fine Sand (wet) [ML]		8	S-5A	SS	23	5 3 1 2	4	Take S-5 from 8 to 10 ft.
		Gray Sandy CLAY (wet) [CL]		9	S-5B					
	+381.0	Gray Sandy CLAY (wet) [CL]		10	S-6	SS	13	1 1 1 2	2	Take S-6 from 10 to 12 ft. Drive casing to 12 ft. Drill to 12 ft, gray wash.
		Dark gray GRAVEL, trace Clay (wet) [Weak ROCK]		12	S-7	SS	7	5 6 11 9	17	Take S-7 from 12 to 14 ft. Drive casing to 14 ft. Drill to 14 ft, light rig chatter at about 14 ft, gray wash.
		Dark gray GRAVEL, trace Clay (wet) [Weak ROCK]		14	S-8	SS	7	12 5 4 3	9	Take S-8 from 14 to 16 ft.
				16						



LANGAN Log of Boring **LB-R-068** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+377.0	Dark gray GRAVEL, trace Clay (wet) [Weak ROCK]		16	S-9	SS	7	10 10 8 7	18	Take S-9 from 16 to 18 ft.
				17						
				18						
				19						
				20						Drive casing to 21 ft. Drill to 21 ft, light rig chatter from 19 to 20 ft, dark gray wash.
		Dark gray GRAVEL, trace Clay (wet) [Weak ROCK]		21	S-10	SS	9	34 50/5"	50/5"	Take S-10 from 21 to 23 ft. Refusal encountered at 21.9 ft.
	+371.0	Dark gray to gray DOLOSTONE; fine grained highly to completely weathered; very close to extremely close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[03:25]	22	C-1	NX	REC=48"/60"=80%	RQD=11"/60"=18%		Take C-1 from 22 to 27 ft.
			[05:11]	23						Loss of water from 23 to 24 ft.
			[09:21]	24						Heavy rig chatter from 24 to 25 ft.
			[08:27]	25						
			[08:30]	26						Loss water from 26 to 27 ft. Slow acid test response on rock the core.
		Dark gray to gray DOLOSTONE; fine grained highly to completely weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[07:33]	27	C-2	NX	REC=60"/60"=100%	RQD=9"/60"=15%		Take C-2 from 27 to 32 ft.
			[07:45]	28						
			[08:27]	29						
			[08:13]	30						
			[09:10]	31						Heavy rig chatter from 30 to 31 ft. Slow acid test response on the rock core.
		Dark gray to gray DOLOSTONE; fine grained moderately weathered; close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[04:50]	32	C-3	NX	REC=60"/60"=100%	RQD=34"/60"=57%		Take C-3 from 32 to 37 ft.
			[04:49]	33						
			[05:25]	34						
			[04:59]	35						
				36						



LANGAN Log of Boring **LB-R-068** Sheet 3 of 3

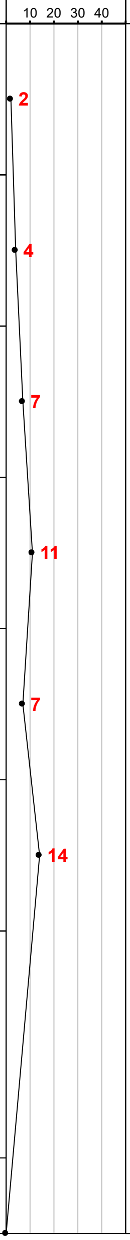
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+357.0		[05:21]	36						Slow acid test response on the rock core.
	+356.0	End of Boring at 37.0ft.		37						Boring terminated at 37 ft. Temporary well installed on 04/26/2025.
				38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-069** Sheet 1 of 3

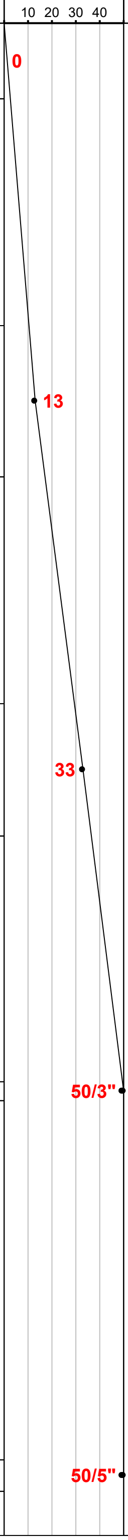
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.9 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 4/18/2025	Date Finished: 4/18/2025
Drilling Equipment	CME-75	Completion Depth: 48.0 ft	Rock Depth: 38.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 11 Undisturbed: 0 Core: 2
Casing Diameter (in)	4 Casing Depth (ft): 35.0	Water Level (ft.)	First ▽ 4.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic Weight (lbs): 140 Drop (in): 30		

Elev. (ft) +392.9	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, trace fine angular Gravel, roots (moist) [TOPSOIL]	0	S-1A			WOH		04/18/2025; 8:30 AM. Utility Clearance Exemption Signed by PIC.
+392.4	Light brown SILT, trace fine Sand (moist) [ML]	0.5	S-1B	SS	12	WOH 2 2	2	Take S-1 from 0 to 2 ft.
	Light brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	24	1 2 2 3	4	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	▽ Light brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	18	1 4 3 3	7	Take S-3 from 4 to 6 ft.
	Light brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	20	6 6 5 4	11	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Gray SILT, trace fine Sand (wet) [ML]	8	S-5	SS	14	2 3 4 3	7	Take S-5 from 8 to 10 ft. S-5: LL = NP; PI = NP
	Gray SILT, trace fine Sand (wet) [ML]	10	S-6	SS	16	4 8 6 3	14	Take S-6 from 10 to 12 ft.
		13						Drive casing to 15 ft. Drill to 15 ft, gray wash.
	Gray SILT, trace fine Sand (wet) [ML]	15		SS		1 WOH		Take S-7 from 15 to 17 ft. Flowing sand. S-7: LL = NP; PI = NP



Project	Micron New York Manufacturing Facility
Project No.	170883801
Location	Town of Clay, New York
Elevation and Datum	392.9

Elev. (ft) +376.9	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		16	S-7		20	WOH 1	0	
		17						Drive casing to 20 ft. Drill to 20 ft, heavy rig chatter, gray wash.
+372.9	Gray medium to fine SAND, some fine angular Gravel, trace Silt (wet) [SP-SM]	20	S-8	SS	9	9 6 7 6	13	Take S-8 from 20 to 22 ft.
		22						Drive casing to 25 ft. Drill to 25 ft, heavy rig chatter, gray wash.
+367.9	Dark gray CLAY, trace fine Sand (wet) [CL]	25	S-9	SS	9	3 7 26 50/3"	33	Take S-9 from 25 to 27 ft. Gravel lenses.
		28						Drill to 30 ft, heavy rig chatter, gray wash.
+362.9	Gray fine GRAVEL, trace Clay (wet) [Weak ROCK]	30	S-10	SS	2	50/3"	50/3"	Take S-10 from 30 to 30.3 ft. Refusal encountered at 30.3 ft.
		33						Drill to 35 ft, heavy rig chatter, gray wash.
	Gray fine GRAVEL, trace Clay (wet) [Weak ROCK]	35	S-11	SS	2	50/5"	50/5"	Take S-11 from 35 to 37 ft. Refusal encountered at 35.4 ft.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-069** Sheet 3 of 3

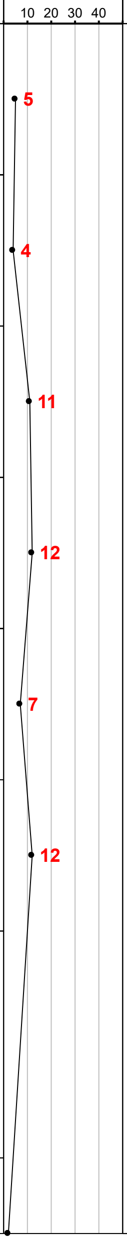
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.9

Material Symbol	Elev. (ft) +356.9	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	Sample Data N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				36						
				37						
	+354.9	Dark gray to gray DOLOSTONE ; fine grained slightly to moderately weathered; close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[09:22]	38	C-1	NX	REC=47"/60"=78%	RQD=36"/60"=59%		Take C-1 from 38 to 43 ft. Slow acid test response
			[05:36]	39						
			[06:38]	40						C-1: UCS = 14326 psi
			[08:01]	41						
			[06:41]	42						
		Dark gray to gray DOLOSTONE ; fine grained slightly to moderately weathered; close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[09:16]	43	C-2	NX	REC=53"/60"=88%	RQD=30"/60"=51%		Take C-2 from 43 to 48 ft. Slow acid test response C-2: UCS = 38120 psi
			[06:22]	44						
			[05:26]	45						
			[05:58]	46						
			[05:45]	47						
	+344.9	End of Boring at 48.0ft.		48						Boring terminated at 48 ft. Boring backfilled to grade with soil cuttings.
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

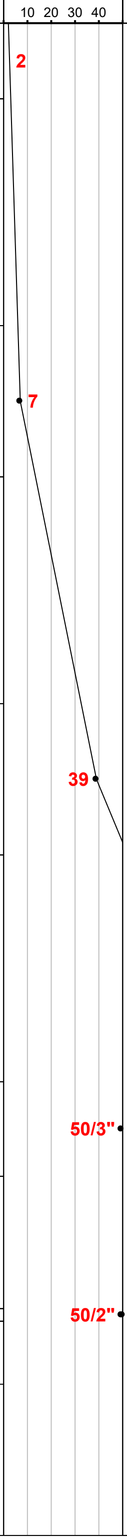
LANGAN Log of Boring **LB-R-070** Sheet 1 of 3

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 392.0 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 4/10/2025	Date Finished 4/11/2025
Drilling Equipment CME-75		Completion Depth 44.0 ft	Rock Depth 34.0 ft
Size and Type of Bit 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 11	Undisturbed 0; Core 2
Casing Diameter (in) 4	Casing Depth (ft) 33.0	Water Level (ft.): First ▽ 1.0	Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer Automatic	Weight (lbs) 140; Drop (in) 30	Drilling Foreman Brad Perry	
Sampler 2in OD Split Spoon, NQ Core Barrel (1.875in)		Field Engineer Shreeya Pandey	
Sampler Hammer Automatic	Weight (lbs) 140; Drop (in) 30		

Material Symbol	Elev. (ft) +392.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	17	WOH		04/11/2025, 7:50 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	+391.3	Light brown SILT, trace fine Sand (moist) [ML] ▽		1	S-1B			2 3 4	5	
		Light brown SILT, trace fine Sand (moist) [ML]		2	S-2	SS	13	WOH 2 2 4	4	Take S-2 from 2 to 4 ft. Drive Casing to 4 ft. Drill to 4 ft, brown wash.
		Light brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	24	3 5 6 6	11	Take S-3 from 4 to 6 ft.
		Light brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	15	6 7 5 3	12	Take S-4 from 6 to 8 ft. Drive Casing to 8 ft. Drill to 8 ft, brown wash
		Brown Sandy SILT (wet) [ML]		8	S-5	SS	14	4 4 3 3	7	Take S-5 from 8 to 10 ft. S-5: LL = NP; PI = NP
		Brown Sandy SILT (wet) [ML]		10	S-6	SS	15	4 6 6 11	12	Take S-6 from 10 to 12 ft.
				12 13 14						Drive casing to 15 ft. Drill to 15 ft, light rig chatter, gray wash.
		Brown Sandy SILT (wet) [ML]		15 16		SS		4 1		Take S-7 from 15 to 17 ft. S-7: LL = 20%; PI = 5%



Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.0



Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.0			16	S-7		19	1 2	2	S-6: LL = 20%; PI = 5%
			17						Drive casing to 20 ft. Drill to 20 ft, light rig chatter, gray wash.
+372.0	Brown Silty fine Sand, trace fine Gravel (wet) [SM]		20	S-8	SS	3	WOR 1 6 8	7	Take S-8 from 20 to 22 ft.
			23						Drive casing to 25 ft. Drill to 25 ft, light rig chatter, gray wash.
	Brown medium to fine Sand, some Silt (wet) [SM]		25	S-9	SS	13	12 11 28 67	39	Take S-9 from 25 to 27 ft. S-9: #4 = 100%; #200 = 16% S-9: LL = NP; PI = NP
			27						Drive casing to 30 ft. Drill to 30 ft, heavy rig chatter, gray wash.
	Brownish gray medium to fine Sand, some Silt, trace fine angular Gravel (wet) [SM]		30	S-10	SS	10	28 50 50/3"	50/3"	Take S-10 from 30 to 32 ft. Refusal encountered at 31.3ft. Drive casing to 33 ft. Drill to 33 ft, heavy rig chatter, gray wash.
	Brownish gray medium to fine Sand, some Silt, trace fine angular Gravel (wet) [SM]		33	S-11	SS	2	50/2"	50/2"	Take S-11 from 33 to 33.2 ft. Refusal encountered at 33.2 ft. Drill to 34ft, heavy rig chatter, gray wash. Take C-1 from 34 to 39 ft.
+358.0	Dark gray to gray DOLOSTONE; fine grained fresh to slightly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[05:49]	34						Slow acid test response
		[08:38]	35						
			36						

LANGAN Log of Boring **LB-R-070** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.0

Material Symbol	Elev. (ft) +356.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[07:12]	36	C-1	NQ	REC=60"/60"=100%	RQD=51"/60"=85%		C-1: UCS = 20443 psi
▨			[06:48]	37						
▨			[07:47]	38						
▨		Dark gray to gray DOLOSTONE; fine grained fresh to slightly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[06:35]	39						Take C-2 from 39 to 44 ft. Slow acid test response
▨			[04:58]	40						
▨			[08:15]	41	C-2	NQ	REC=56"/60"=93%	RQD=42"/60"=69%		C-2: UCS = 22779 psi
▨			[06:33]	42						
▨	+348.0		[07:01]	43						
		End of Boring at 44.0ft.		44						Boring terminated at 44 ft. Borehole backfilled with soil cuttings.
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring LB-R-071

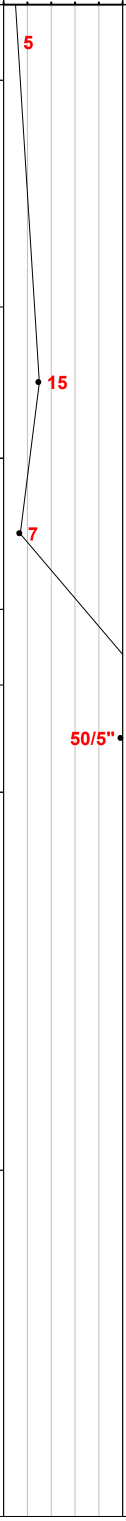
Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801		
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.0 NAVD88		
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/18/2025	Date Finished	4/18/2025
Drilling Equipment	CME-55LC	Completion Depth	36.4 ft	Rock Depth	26.4 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10	Undisturbed 0	Core 2
Casing Diameter (in)	4	Casing Depth (ft)	26.0		
Water Level (ft.)	First ▽ 4.0	Completion ▼ N/A	24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs)	140	Drop (in)	30
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Drilling Foreman	Landon Nelson		
Sampler Hammer	Automatic	Weight (lbs)	140	Drop (in)	30
Field Engineer	Bahar Ghaneshirazi				

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+392.0	Dark brown CLAY, some fine Sand, roots (moist) [TOPSOIL]		0	S-1A			WOH 1		04/18/2025, 11:05 AM Utility Clearance Exemption Signed by PIC
+391.3	Tannish brown CLAY, trace fine Sand (wet) [CL]		1	S-1B	SS	15	1 2	2	Take S-1 from 0 to 2 ft.
	Mottled tannish brown CLAY, trace fine Sand (moist) [CL]		2				2 4		Take S-2 from 2 to 4 ft.
			3	S-2	SS	24	5 6	9	Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Mottled tannish brown CLAY, trace fine Sand (moist) [CL]	▽	4				2 5		Take S-3 from 4 to 6 ft.
			5	S-3	SS	20	5 4	10	
+386.0	Tannish brown SILT, some fine Sand (wet) [ML] Brown Sandy SILT (wet) [ML]		6				4 5		Take S-4 from 6 to 8 ft.
			7	S-4	SS	26	6 4	11	Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Reddish gray SILT, trace fine Sand (wet) [ML]		8				1 3		Take S-5 from 8 to 10 ft. S-5: #4 = 100%; #200 = 97% S-5: LL = NP; PI = NP
			9	S-5	SS	17	3 4	6	
	Tannish gray Sandy SILT (wet) [ML]		10				4 5		Take S-6 from 10 to 12 ft.
			11	S-6	SS	20	6 5	11	
			12						
			13						Drive casing to 15 ft.
			14						Drill to 15 ft, gray wash.
	Tannish gray SILT, some Clay, trace fine Sand (wet) [ML]		15		SS		WOH 1		Take S-7 from 15 to 17 ft. S-7: LL = NP; PI = NP
			16						

LANGAN Log of Boring **LB-R-071** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.0



Material Symbol	Elev. (ft) +376.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				16	S-7		14	4 4	5	
				17						Drive casing to 20 ft. Drill to 20 ft, light rig chatter, gray wash.
				18						
				19						
		No Recovery		20	S-8	SS	0	47 11 4 7	15	Take S-8 from 20 to 22 ft.
				21						
		No Recovery		22	S-10	SS	0	3 4 3 2	7	Take S-10 from 22 to 22 ft.
				23						Drive casing to 25 ft. Drill to 25 ft, gray wash.
	+367.5	Gray Silty fine to medium SAND, some fine Gravel (moist) [SM]		24						
				25	S-9A	SS	6	35 30		Take S-9 from 25 to 27 ft.
	+366.5	Dark gray GRAVEL, some fine Sand (moist) [Weak ROCK]		26	S-9B			50/5"	50/5"	
	+365.6	Dark gray DOLOSTONE; fine grained slightly to highly weathered; fractures near vertical; rock quality very poor [BEDROCK]	[05:17] [02:29] [05:04] [06:02] [02:17]	27 28 29 30 31	C-1	NX	REC=60"/60"=100%	RQD=10"/60"=16%		Refusal encountered at 26.4 ft. Take C-1 from 26.4 to 31.4 ft. Slow acid test respond.
		Dark gray DOLOSTONE; fine grained slightly to moderately weathered; fractures near vertical; rock quality very poor [BEDROCK]	[02:29] [02:27] [02:09] [02:21]	32 33 34 35 36	C-2	NX	REC=60"/60"=100%	RQD=40"/60"=68%		Take C-2 from 31.4 to 36.4 ft. Slow acid test response. C-2: UCS = 12985 psi

LANGAN Log of Boring **LB-R-071** Sheet 3 of 3

Project	Project No.
Micron New York Manufacturing Facility	170883801
Location	Elevation and Datum
Town of Clay, New York	392.0

Material Symbol	Elev. (ft) +356.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+355.6		[03:04]	36						Boring terminated at 36.4 ft. Temporary well installed on 04/18/2025.
		End of Boring at 36.4ft.		37 – 56						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

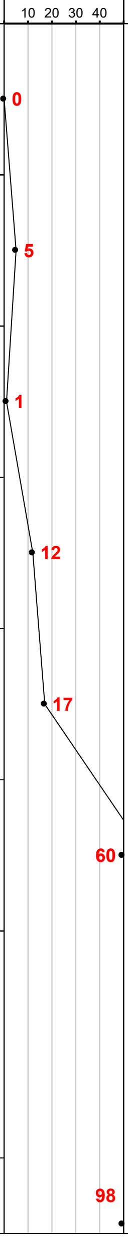
LANGAN Log of Boring **LB-R-072** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 405.7 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	5/6/2025
		Date Finished	5/7/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	48.8 ft
		Rock Depth	40.4 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12 Undisturbed 0 Core 2
Casing Diameter (in)	4	Casing Depth (ft)	40.0
Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Drilling Foreman	Robert Drake		
Field Engineer	Roonak Ghaderi		

Elev. (ft)	Sample Description
+405.7	Dark brown SILT, some fine Sand, roots (moist) [TOPSOIL]
+404.2	Light brown SILT, trace fine Sand (moist) [ML] ▽ Light brown SILT, trace fine Sand (wet) [ML] Orangish brown SILT, trace fine Sand (wet) [ML]
+400.2	Brown Gravelly fine SAND, some Silt (wet) [SP-SM] Orangish gray Gravelly fine SAND, some Silt (wet) [SM] Orangish brown Gravelly fine SAND, some Silt (wet) [SM] Orangish gray Gravelly fine SAND, some Silt (wet) [SM] Brown Gravelly fine SAND, some Silt (wet) [SM]
+390.2	Gray Sandy SILT, trace fine subangular Gravel (moist) [ML]

Sample Data

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0–2	S-1A S-1B	SS	14	WOH WOH WOH 1	0
2–4	S-2	SS	20	1 3 2 5	5
4–6	S-3A S-3B	SS	13	2 1 WOH 1	1
6–8	S-4	SS	13	3 5 7 5	12
8–10	S-5	SS	16	6 9 8 13	17
10–12	S-6	SS	10	7 15 45 50	60
15–	S-7A	SS		32 48 50	98



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

5/6/2025 09:28 AM.
Utility Clearance Exemption Signed by PIC.
Take S-1 from 0ft to 2ft.

Take S-2 from 2ft to 4ft.

Drive casing to 4ft.
Drill to 4ft, brown wash.
Take S-3 from 4ft to 6ft.

Take S-4 from 6ft to 8ft.

Drive casing to 8ft.
Drill to 8ft, low rig chatter, gray wash.
Take S-5 from 8ft to 10ft.

Take S-6 from 10ft to 12ft.

Drive casing to 15ft.
Drill to 15ft, heavy rig chatter, gray wash.
Take S-7 from 15ft to 17ft.

LANGAN Log of Boring **LB-R-072** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 405.7

Elev. (ft) +389.7	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16	S-7B		17	50/3"		
			17						
			18						
			19						
+385.7	Gray Sandy CLAY, trace fine subangular Gravel (moist) [CL]		20	S-8	SS	16	40 50 50 50/3"	100	Drive casing to 20ft. Drill to 20ft, gray wash. Take S-8 from 20ft to 22ft.
			21						
			22						
			23						
			24						
	Gray Sandy CLAY (moist) [CL]		25	S-9	SS	21	26 35 42 50	77	Drive casing to 25ft. Drill to 25ft, gray wash. Take S-9 from 25ft to 27ft.
			26						
			27						
			28						
+377.2									
			29						
	Gray GRAVEL, trace fine Sand, some Clay (moist) [Weak ROCK]		30	S-10	SS	13	28 40 50/3"	50/3"	Drive casing to 30ft. Drill to 30ft, light rig chatter, gray wash. Take S-10 from 30ft to 32ft.
			31						
			32						
			33						
			34						
	Gray GRAVEL, trace fine Sand, some Clay (moist) [Weak ROCK]		35		SS		14 28		Drive casing to 35ft. Drill to 35ft, light rig chatter, gray wash. Take S-11 from 35ft to 37ft.
			36						

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 405.7

Material Symbol	Elev. (ft) +369.7	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				36	S-11		20	22 38	50	
	+365.2	Gray GRAVEL, trace fine Sand, some Clay (moist) [Weak ROCK]		40	S-12	SS	2	50/5"	50/5"	Drive casing to 40ft. Drill to 40ft, heavy rig chatter, gray wash. Take S-12 from 40ft to 42ft. Refusal encountered at 40.4ft. Take C-1 from 40.4ft to 45.4ft. 5/6/2025 4:50PM.
▨		Dark gray DOLOSTONE; fine grained dolomite; fresh weathered; extremely close to very close fracture spacing; fractures near horizontal; blocky; rock quality very poor; [BEDROCK]	[01:15] [02:55] [05:20] [04:41] [05:02]	41 42 43 44 45	C-1	NX	REC=30"/60"=50%	RQD=0"/60"=0%		
▨		Dark gray DOLOSTONE; fine grained dolomite; fresh weathered; close fracture spacing; fractures near horizontal; blocky; rock quality fair; [BEDROCK]	[02:44] [02:48] [02:17]	46 47 48	C-2	NX	REC=40"/41"=98%	RQD=21"/41"=51%		5/7/2025 08:02 AM. Take C-2 from 45.4ft to 48.8ft.
	+356.8	End of Boring at 48.8ft.		49						Boring terminated at 48.8ft. Temporary well installed on 05/07/2025
				50 51 52 53 54 55 56						

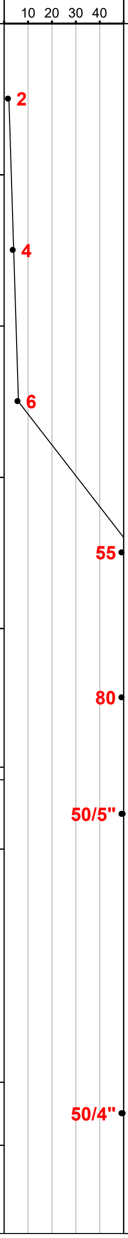
LANGAN Log of Boring **LB-R-074** Sheet 1 of 4

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 403.9 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 5/7/2025	Date Finished: 5/8/2025
Drilling Equipment: CME-55LC		Completion Depth: 69.1 ft	Rock Depth: 59.1 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 16	Undisturbed 0 Core 2
Casing Diameter (in): 4	Casing Depth (ft): 59.0	Water Level (ft.): First ▽ 6.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Landon Nelson	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Richo Brian	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Elev. (ft) +403.9	Sample Description	Depth Scale
	Greenish brown Clayey fine SAND, some fine Gravel, roots (moist) [TOPSOIL]	0
+401.9	Greenish brown Silty fine SAND, trace subangular Gravel (moist) [SM]	2
	Greenish brown Silty fine SAND, trace fine angular Gravel (moist) [SM]	4
	Greenish brown Silty fine SAND, trace fine angular Gravel (moist) [SM] ▽	6
+395.9	Grayish brown subangular GRAVEL, some fine Sand, trace Silt (wet) [GP-GM]	8
+393.9	Gray fine subangular GRAVEL, some Silt (wet) [GM]	10
	Brownish gray fine subangular GRAVEL, some Silt (wet) [GM]	14

Sample Data

Depth	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0-2	S-1	SS	13	WOH 1 1 2	2
2-4	S-2	SS	17	3 2 2 3	4
4-6	S-3	SS	13	1 2 4 3	6
6-8	S-4	SS	18	6 12 43 49	55
8-10	S-5	SS	8	15 28 52 50/4"	80
10-11	S-6	SS	9	50 50/5"	50/5"
14-15	S-7	SS	6	40 50/4"	50/4"



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

05/06/2025 2:39 PM
Utility Clearance Exemption Signed by PIC
Take S-1 from 0ft to 2ft.

Take S-2 from 2ft to 4ft.

Drive casing to 4 ft. Drill to 4ft, brown wash.

Take S-3 from 4ft to 6ft.

Take S-4 from 6ft to 8ft.
S-4: LL = NP; PI = NP

5/6/2025 17:00
Drive casing to 8 ft. Drill to 8ft, grayish brown wash.
5/7/2025 8:15
Take S-5 from 8ft to 10ft.

Refusal encountered at 9.5ft

Drive casing to 10ft. Drill to 10ft, gray wash.
Take S-6 from 10ft to 12ft.

Refusal encountered at 10.9ft.

Drive casing to 14ft. Drill to 14ft, gray wash.

Take S-7 from 14ft to 16ft.

Refusal encountered at 14.8ft.

Drive casing to 19ft.

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.9

Material Symbol	Elev. (ft) +387.9	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				16						Drill to 19ft, gray wash.
		Brownish gray fine subangular GRAVEL, some Silt (wet) [GM]		19	S-8	SS	4	50/5"	50/5"	Take S-8 from 19ft to 19.42ft. Refusal encountered at 19.4ft. Drive casing to 24ft. Drill to 24ft, gray wash.
		Gray fine subangular GRAVEL, some Silt (wet) [GM]		24	S-9	SS	6	34 50/3"	50/3"	Take S-9 from 24ft to 26ft. Refusal encountered at 24.8ft. Drive casing to 29ft. Drill to 29ft, gray wash.
		Dark gray fine subangular GRAVEL, some Silt (wet) [GM]		29	S-10	SS	6	5 28 50/2"	50/2"	Take S-10 from 29ft to 31ft. Drive casubg to 34ft. Drill to 34ft, gray wash. Refusal encountered at 30.2ft.
		Dark gray fine subangular GRAVEL, some Silt (wet) [GM]		34	S-11	SS	5	50/5"	50/5"	Take S-11 from 34ft to 36ft. Refusal encountered at 34.4ft. Drive casing to 39ft. Drill to 39ft, gray wash.
				36						

LANGAN Log of Boring **LB-R-074** Sheet 3 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.9

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+367.9			36						
+364.9	Dark gray Sandy CLAY, trace fine Gravel (wet) [CL]		39	S-12	SS	21	14 20 29 43	49	Take S-12 from 39ft to 41ft. Drive casing to 44ft. Drill to 44ft, gray wash.
+359.9	Dark gray fine subangular GRAVEL, some Clay (wet) [GC]		44	S-13	SS	16	36 40 45 38	85	Take S-13 from 44ft to 46ft. Drive casing to 49ft. Drill to 49ft, light rig chatter, gray wash.
+354.9	Dark gray GRAVEL, trace Silt (wet) [Weak ROCK]		49	S-14	SS	3	50/4"	50/4"	Take S-14 from 49ft to 51ft. Refusal encountered at 49.3ft. Drive casing to 54ft. Drill to 54ft, gray wash.
	Dark gray GRAVEL, trace Silt (wet) [Weak ROCK]		54	S-15	SS	15	29 56 48 50/4"	104	05/07/2025 04:30PM Take S-15 from 54ft to 56ft. 05/08/2025 08:00AM Refusal encountered at 55.8ft.
			56						

LANGAN Log of Boring **LB-R-074** Sheet 4 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.9

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+347.9			56						Drive casing to 59ft. Drill to 59ft, moderate rig chatter, gray wash.
+344.8	No Recovery		59	S-16	SS	0	50/1"	50/1"	Take S-16 from 59ft to 61ft. Refusal encountered at 59.1ft.
	Dark gray DOLOSTONE ; fine grained fresh weathered; extremely close to close fracture spacing; fractures shallow dipping to near horizontal; rock quality poor; [BEDROCK]	[04:21]		C-1	NX	REC=50"/60"=83%	RQD=17"/60"=28%		Take C-1 from 59.1ft to 64.1ft.
	Dark gray SHALE	[27:54]	60						
	Dark gray SHALE	[06:28]	61						Rig chattering at 61.5ft.
		[11:52]	62						
		[07:42]	63						
	Dark gray DOLOSTONE ; fine grained fresh weathered; extremely close to moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality fair; [BEDROCK]	[09:56]	64	C-2	NX	REC=58"/60"=97%	RQD=42"/60"=69%		Take C-2 from 64.1ft to 69.1ft. C-2: UCS = 24221 psi
		[09:37]	65						
		[07:45]	66						
		[07:02]	67						
		[07:41]	68						
+334.8	End of Boring at 69.1ft.		69						Boring terminated at 69.1ft. Boring backfilled to grade with soil cuttings.
			70						
			71						
			72						
			73						
			74						
			75						
			76						

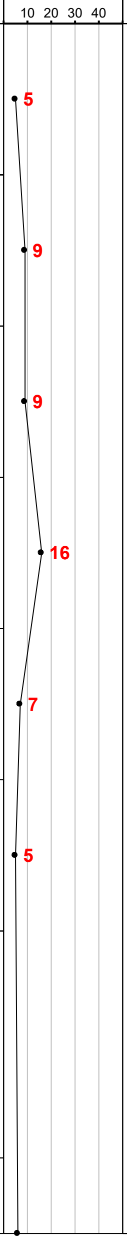
Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring LB-R-075

Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 395.6 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/17/2025 / 4/18/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	32.0 ft / 22.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 22.0	Water Level (ft.)	First ▽ 0.5; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Bahar Ghaneshirazi

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+395.6			0						
+395.2	Dark brown CLAY, some fine to medium Sand, roots (wet) [TOPSOIL] ▽		0	S-1A			WOH		04/17/2025, 11:03 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	Brown Sandy fine to medium SILT (wet) [ML]		1	S-1B	SS	15	2 3 4	5	
	Brown Sandy SILT (wet) [ML]		2–4	S-2	SS	19	3 5 4 4	9	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Brown SILT, some fine Sand (wet) [ML]		4–6	S-3	SS	18	2 5 4 5	9	Take S-3 from 4 to 6 ft.
	Brown SILT, some fine Sand (wet) [ML]		6–8	S-4	SS	16	8 10 6 7	16	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Tannish gray Sandy SILT (wet) [ML]		8–10	S-5	SS	12	1 4 3 2	7	Take S-5 from 8 to 10 ft.
	Tannish gray Sandy SILT (wet) [ML]		10–12	S-6	SS	22	2 2 3 2	5	Take S-6 from 10 to 12 ft. S-6: LL = NP; PI = NP
			12–15						Drive casing to 15 ft. Drill to 15 ft, light chatter, tannish gray wash.
+380.6	Brownish gray Silty fine to medium SAND, some fine subangular Gravel (wet) [SM]		15–16		SS		3 3		Take S-7 from 15 to 17 ft. S-7: #4 = 87%; #200 = 37% S-7: LL = NP; PI = NP

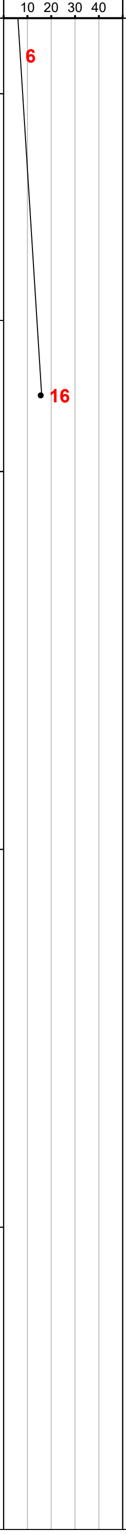


LANGAN

Log of Boring **LB-R-075** Sheet 2 of 2

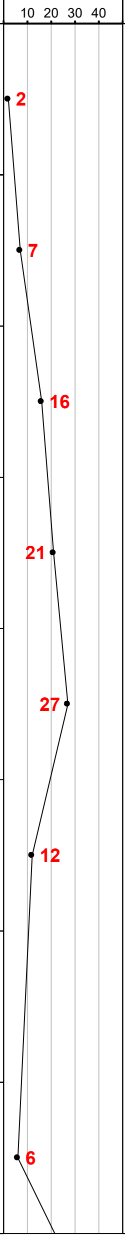
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 395.6

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+379.6			16	S-7		14	3 4	6	Drive casing to 20 ft. Drill to 20 ft, tannish gray wash.
+375.6	Gray GRAVEL, some Silt (wet) [Weak ROCK]		20	S-8	SS	8	9 11 5 30	16	Take S-8 from 20 to 22 ft. Drive casing to 22ft. Casing refusal encountered at 22 ft.
+373.6	Dark gray DOLOSTONE; fine grained fresh to moderately weathered; fractures near vertical to steeply vertical; rock quality very poor; some longitudinal cracks. [BEDROCK]	[03:20] [03:10] [06:36] [04:28] [03:30]	22	C-1	NX	REC=60"/60"=100%	RQD=50"/60"=83%		Take C-1 from 22 to 27 ft. Slow acid test respond.
	Dark gray DOLOSTONE; fine grained fresh to slightly weathered; fractures near vertical; rock quality very poor; some longitudinal cracks. [BEDROCK]	[03:09] [04:23] [03:34] [02:47] [04:27]	27	C-2	NX	REC=60"/60"=100%	RQD=49"/60"=82%		Take C-2 from 27 to 32 ft. Slow acid test respond. C-2: UCS = 12607 psi
+363.6	End of Boring at 32.0ft.		32						Boring terminated at 32 ft. Boring backfilled to grade with soil cuttings.



LANGAN Log of Boring **LB-R-076** Sheet 1 of 3

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 401.6 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/3/2025	Date Finished: 4/4/2025
Drilling Equipment: Geoprobe 7822DT		Completion Depth: 49.0 ft	Rock Depth: 39.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 13	Undisturbed 0 / Core 2
Casing Diameter (in): 4	Casing Depth (ft): 39.0	Water Level (ft.): First ▽ 0.0	Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 / Drop (in): 30	Drilling Foreman: Robert Drake	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Roonak Ghaderi	
Sampler Hammer: Automatic	Weight (lbs): 140 / Drop (in): 30		

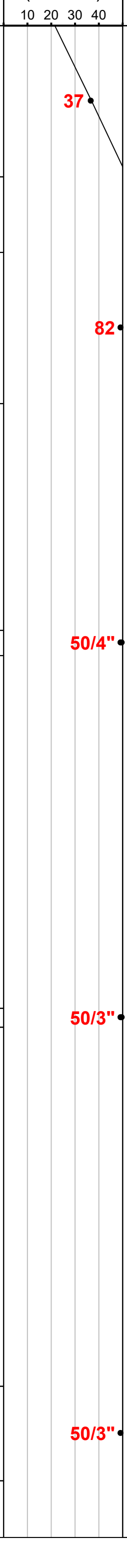


Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+401.6	Dark brown SILT, some fine Sand, roots (wet) [TOPSOIL]		0	S-1	SS	14	WOH WOH 2 4	2	04/03/2025,2:01 PM. Utility Clearance Exemption Signed by PIC Take S-1 from 0 to 2 ft.
	+399.6	Brown SILT, trace fine Sand (wet) [ML]		2	S-2	SS	19	4 3 4 7	7	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
		Mottled orangish brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	20	5 8 8 10	16	S-3 from 4 to 6 ft.
		Brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	17	7 10 11 15	21	Take S-4 from 6 to 8 ft. S-4: #4 = 100%; #200 = 94% S-4: LL = NP; PI = NP Drive casing to 8 ft. Drilled to 8 ft, moderate rig chatter, brown wash
	+393.6	Light brown Silty fine SAND, some fine subangular Gravel (wet) [SM]		8	S-5	SS	17	8 13 14 13	27	Take S-5 from 8 to 10 ft. S-5: LL = NP; PI = NP
		Light brown Gravelly medium to fine SAND, some Silt (wet) [SP-SM]		10	S-6	SS	12	17 7 5 8	12	Take S-6 from 10 to 12 ft.
				12						Drive casing to 14 ft. Drill to 14 ft, moderate rig chatter, gray wash
	+387.6	Gray Sandy SILT, trace fine subangular Gravel (moist) [ML]		14	S-7	SS	3	1 1 5 7	6	Take S-7 from 14 to 16 ft.
	+385.6			16						

LANGAN Log of Boring **LB-R-076** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 401.6

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+385.6	Gray SAND, some Silt, some fine subangular Gravel (moist) [SM]		16	S-8	SS	14	9 18 19 25	37	Take S-8 from 16 to 18 ft.
				18						Drive casing to 19 ft. Drill to 19 ft, moderate rig chatter, gray wash
		Gray medium to fine SAND, some fine subangular Gravel, some Silt (moist) [SM]		19	S-9	SS	16	20 39 43 68	82	Take S-9 from 19 to 21 ft.
				23						Drive casing to 24 ft. Drill to 24 ft, moderate rig chatter, gray wash.
	+377.6	Gray SILT, trace fine to medium Sand, trace fine subangular Gravel (moist) [ML]		24	S-10	SS	3	50/4"	50/4"	Take S-10 from 24 to 26 ft. Refusal encountered at 24.3ft. 4/3/2025 16:00 4/4/2025 8:00
	+372.6	Gray GRAVEL, some fine to medium Sand (moist) [Weak ROCK]		29	S-11	SS	3	50/3"	50/3"	Drive casing to 29 ft. Drill to 29 ft, heavy rig chatter, gray wash. Take S-11 from 29 to 31 ft. Refusal encountered at 29.3ft.
		Gray GRAVEL, some fine to medium Sand (moist) [Weak ROCK]		34	S-12	SS	8	4 42 50/3"	50/3"	Drive casing to 34 ft, heavy rig chatter, gray wash. Take S-12 from 34 to 36 ft. Refusal encountered at 35.3ft.
				36						



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-076** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 401.6

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+365.6			36						
				37						
				38						
	+362.6	Gray SHALE; moderately weathered; fractures near horizontal; rock quality poor; [BEDROCK]	[02:38]	39	S-13	SS	0			Take S-13 at 39 ft to 41 ft. Refusal encountered at 39ft. Take C-1 from 39 to 44 ft.
			[03:17]	40						
			[03:55]	41	C-1	NX	REC=60"/60"=100%	RQD=16"/60"=27%		
			[04:02]	42						
			[03:15]	43						
		Gray SHALE; moderately weathered; fractures near horizontal; rock quality fair; BEDROCK]	[01:48]	44						Take C-2 from 44 to 49 ft.
			[00:00]	45						
			[02:50]	46	C-2	NX	REC=60"/60"=100%	RQD=30"/60"=50%		
			[03:04]	47						
		At 48ft - Seam of 1-inch-thick dark gray CLAY	[02:48]	48						
	+352.6	End of Boring at 49.0ft.		49						Boring terminated at 49 ft. Temporary well installed on 04/04/2025.
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring LB-R-077

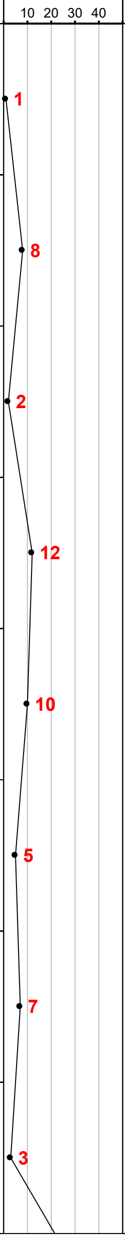
Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 401.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/28/2025 / 4/29/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	50.2 ft / 40.2 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 14 / Undisturbed 0 / Core 2
Casing Diameter (in)	4	Casing Depth (ft)	40.0
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Water Level (ft.)	First 3.5 / Completion N/A / 24 HR. N/A
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Drilling Foreman	Robert Drake
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Field Engineer	Roonak Ghaderi

Elev. (ft)	Sample Description
+401.0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]
+399.9	Brown SILT, trace fine Sand (moist) [ML]
	Light brown SILT, trace fine Sand (moist) [ML]
	Brown SILT, trace fine Sand (wet) [ML]
	Light brown SILT, trace fine Sand (wet) [ML]
+393.0	Gray CLAY, trace Sand (wet) [CL]
	Grayish brown CLAY, some fine Sand (wet) [CL] Grayish brown CLAY, some fine Sand (wet) [CL]
+389.7	Gray Clayey fine SAND, some fine subangular Gravel (wet) [SC]
	Gray Clayey fine SAND (wet) [SC]
	Gray Clayey fine SAND, some fine subangular Gravel (wet) [SC]

Sample Data

Depth	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0	S-1A	SS	17	WOH WOH	
1	S-1B			1 4	1
2	S-2	SS	16	4 4 4 3	8
4	S-3	SS	21	1 1 1 1	2
6	S-4	SS	13	1 5 7 6	12
8	S-5A	SS	16	WOH 3 7	10
	S-5B			4	
10	S-6A	SS	24	3 2	5
	S-6B			3 5	
12	S-7	SS	2	8 5 2 4	7
14	S-8	SS	13	WOH WOH 3 6	3



Remarks

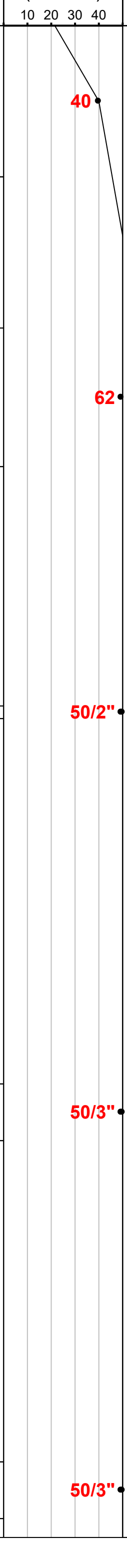
(Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth	Remarks
0	04/28/2025 04:21 PM Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
2	Take S-2 from 2ft to 4ft.
4	Drive casing to 4ft. Drill to 4ft, brown wash. Take S-3 from 4ft to 6ft. S-3: #4 = 99%; #200 = 91% S-3: LL = 21%; PI = 1%
6	Take S-4 from 6ft to 8ft. 4/28/2025 04:43 PM. 4/29/2025 7:45AM. Drive casing to 8ft. Drill to 8ft, brown wash. Take S-5 from 8ft to 10ft.
10	Take S-6 from 10ft to 12ft.
12	Take S-7 from 12ft to 14ft.
14	Drive casing to 14ft. Drill to 14ft, light rig chatter, gray wash. Take S-8 from 14ft to 16ft.

LANGAN Log of Boring **LB-R-077** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 401.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+385.0	Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]		16–18	S-9	SS	16	10 21 19 26	40	Take S-9 from 16ft to 18ft.
		Gray Clayey fine SAND, trace fine subangular Gravel (moist) [SC]		20–21.8	S-10	SS	12	17 27 35 50/4"	62	Drive casing to 20ft. Drill to 20ft, heavy rig chatter, gray wash. Take S-10 from 20ft to 21.8ft.
		Gray Clayey fine SAND, some fine angular Gravel (moist) [SC]		25–25.2	S-11	SS	1	50/2"	50/2"	Drive casing to 25ft. Drill to 25ft, heavy rig chatter, gray wash. Take S-11 from 25ft to 25.2ft.
		Dark gray Clayey fine SAND, some fine angular Gravel [SC]		30–30.75	S-12	SS	8	50 50/3"	50/3"	Drive casing to 30ft. Drill to 30ft, heavy rig chatter, gray wash. Take S-12 from 30ft to 30.75ft.
		Dark gray Clayey fine SAND, some fine angular Gravel (moist) [SC]		35–35.75	S-13	SS	8	50 50/3"	50/3"	Drill to 35ft, heavy rig chatter, dark gray wash. Take S-13 from 35ft to 35.75ft.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

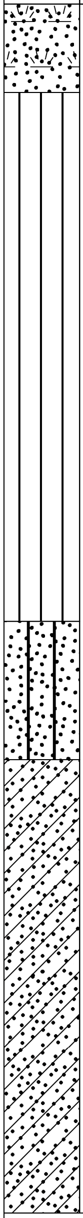
LANGAN Log of Boring **LB-R-077** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 401.0

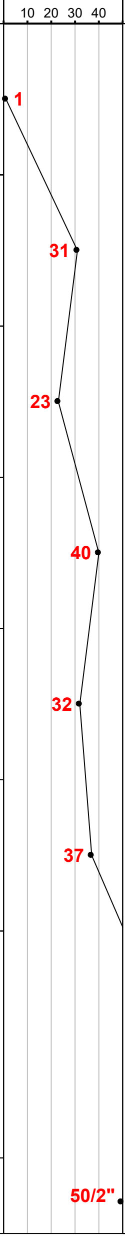
Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+365.0			36						
			37						
			38						
			39						
+361.0 +360.8	Dark gray GRAVEL, some Clay (moist) [Weak ROCK]		40	S-14	SS	2	50/2"	50/2"	Drive casing to 40ft. Drill to 40ft, heavy rig chatter, dark gray wash. Take S-14 from 40ft to 40.2ft. Refusal encountered at 40.2ft. Take C-1 from 40.2ft to 45.2ft. C-1: UCS = 16123 psi
	Gray LIMESTONE; fine grained fresh weathered; fractures near horizontal; rock quality very poor; Highly reactive to acid. [BEDROCK]	[01:20] [01:59] [01:25] [01:25] [02:00]	41 42 43 44 45	C-1	NX	REC=31"/60"=52%	RQD=14"/60"=23%		
	Gray LIMESTONE; fine grained fresh weathered; fractures near horizontal; rock quality fair; [BEDROCK]	[02:26] [03:28] [03:50] [03:45] [04:15]	46 47 48 49 50	C-2	NX	REC=60"/60"=100%	RQD=33"/60"=55%		Take C-2 from 45.2ft to 50.2ft.
+350.8	End of Boring at 50.2ft.		50						Boring terminated at 50.2 ft. Temporary well installed on 04/29/2025
			51 52 53 54 55 56						

LANGAN Log of Boring **LB-R-080** Sheet 1 of 4

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 399.9 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/26/2025	Date Finished: 4/28/2025
Drilling Equipment: Geoprobe 7822DT		Completion Depth: 55.2 ft	Rock Depth: 45.3 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 13	Undisturbed 0 Core 2
Casing Diameter (in): 4	Casing Depth (ft): 45.0	Water Level (ft.): First ▽ 2.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Robert Drake	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Roonak Ghaderi	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		



Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+399.9	Dark brown SILT, trace fine Sand, roots (wet) [TOPSOIL]		0	S-1A	SS	16	WOH WOH 1 2	1	04/26/2025,10:50 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+398.8	Light brown SILT, trace fine Sand (wet) [ML] ▽		1	S-1B					
	Light brown Silty fine SAND (wet) [SM]		2	S-2	SS	19	9 14 17 17	31	Take S-2 from 2 to 4 ft.
	Orangish brown to brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	19	12 11 12 13	23	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
	Gray SILT, trace fine Sand (wet) [ML]		6	S-4	SS	15	10 15 25 30	40	Take S-4 from 6 to 8 ft.
+391.8	Gray SILT, trace fine Sand (wet) [ML] Brown Gravelly fine SAND, some Silt (wet) [SM]		8	S-5A S-5B	SS	17	27 21 11 10	32	Drive casing to 8 ft. Drill to 8 ft, moderate rig chatter, brown wash. Take S-5 from 8 to 10 ft.
+389.9	Gray Gravelly fine SAND, some Silt (wet) [SM] Gray Clayey fine SAND, some subangular Gravel (moist) [SC]		10	S-6	SS	12	7 14 23 20	37	Take S-6 from 10 to 12 ft.
			12						
			14						Drive casing to 15 ft. Drill to 15 ft, heavy rig chatter, gray wash.
	Gray Clayey fine SAND, some subangular Gravel (moist) [SC]		15	S-7	SS	12	17 50 50/2"	50/2"	Take S-7 from 15 to 17 ft.
			16						



Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 399.9

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+383.9			16						
			17						
			18						
			19						
	Gray Clayey fine SAND (moist) [SC]		20	S-8	SS	3	50/3"	50/3"	Drill to 20 ft, heavy rig chatter, gray wash. Take S-8 from 20 to 22 ft.
			21						
			22						
			23						
			24						
	Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]		25	S-9	SS	3	50/3"	50/3"	Drill to 25 ft, heavy rig chatter, gray wash. Take S-9 from 25 to 27 ft.
			26						
			27						
			28						
			29						
	Gray Clayey fine SAND, trace fine subangular Gravel (moist) [SC]		30	S-10	SS	3	50/3"	50/3"	Drill to 30 ft, heavy rig chatter, gray wash. Take S-10 from 30 to 32 ft.
			31						
			32						
			33						
			34						
+364.9	Dark gray GRAVEL, some Clay (moist) [Weak ROCK]		35	S-11	SS	12	48 50/4"	50/4"	Drill to 35 ft, heavy rig chatter, gray wash. Take S-11 from 35 to 37 ft. 4/26/2025 2:43 PM.
			36						

LANGAN Log of Boring **LB-R-080** Sheet 3 of 4

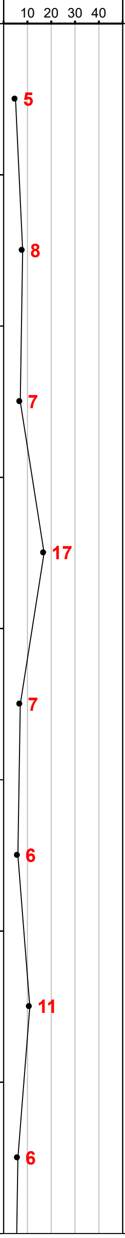
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 399.9

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+363.9			36						4/28/2025,10:43 AM.
			39						Drill to 40 ft, heavy rig chatter, gray wash.
	Dark gray GRAVEL, some Clay (moist) [Weak ROCK]		40	S-12	SS	9	50 50/4"	50/4"	Take S-12 from 40 to 40.8 ft.
+354.7	Dark gray GRAVEL, some Clay (moist) [Weak ROCK]		45	S-13	SS	1	50/3"	50/3"	Drill to 45 ft, heavy rig chatter, gray wash. Take S-13 from 45 to 45.25 ft. Refusal encountered at 45.25 ft.
	Gray LIMESTONE; fine grained fresh weathered; fractures near horizontal; rock quality very poor [BEDROCK]	[03:09] [04:55] [04:18] [05:11] [04:22]	45.3–50.3	C-1	NX	REC=51"/60"=85%	RQD=13"/60"=22%		Take C-1 from 45.3 to 50.3 ft. Highly reactive to acid. Take C-1 from 45.3ft to 50.3ft.
	Gray LIMESTONE; fine grained fresh weathered; fractures near horizontal; rock quality poor [BEDROCK]	[02:02] [03:22] [04:01] [03:05] [02:05]	50.3–55.3	C-2	NX	REC=58"/60"=97%	RQD=26"/60"=43%		Take C-2 from 50.3 to 55.3 ft. Highly reactive to acid. C-2: UCS = 30659 psi
+344.7	End of Boring at 55.2ft.		55.2						Boring terminated at 55.2 ft. Boring backfilled to grade with soil cuttings.

LANGAN Log of Boring **LB-R-081** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 403.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/25/2025 / 4/25/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	44.3 ft / 29.3 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12 / Undisturbed 0 / Core 3
Casing Diameter (in)	4 — Casing Depth (ft) 29.0	Water Level (ft.)	First ▽ 3.5 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic — Weight (lbs) 140 — Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic — Weight (lbs) 140 — Drop (in) 30		

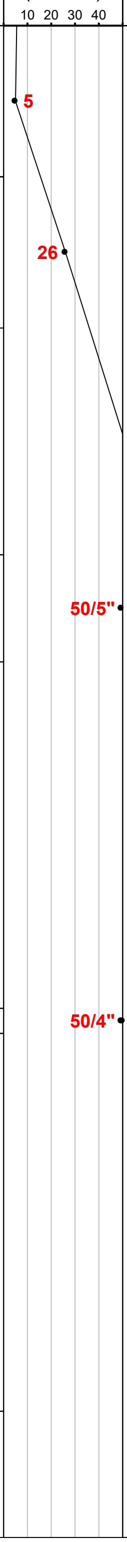
Depth Scale	Elev. (ft) +403.0	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	S-1A	SS	13	WOH 1		04/25/2025,07:50 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
1	+401.5	Orangish brown SILT, trace fine Sand (moist) [ML]	S-1B			4 5	5	
2		Grayish orangish brown SILT, some fine Sand (moist) [ML] ▽	S-2	SS	14	5 4 4 4	8	Take S-2 from 2 to 4 ft.
4		Light brown SILT, some fine Sand (wet) [ML]	S-3	SS	9	1 2 5 4	7	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft. 6-inch piece of wood at the top the sampler. S-3: LL = NP; PI = NP S-3: LL = NP; PI = NP Take S-4 from 6 to 8 ft.
6		Light brown SILT, some fine Sand (wet) [ML]	S-4	SS	24	8 7 10 12	17	
8		Gray SILT, some fine Sand, trace fine subangular Gravel (wet) [ML]	S-5	SS	10	3 3 4 3	7	Drive casing to 8 ft. Drill to 8 ft, brown wash. Take S-5 from 8 to 10 ft.
10		Gray SILT, trace fine Sand (wet) [ML]	S-6	SS	10	WOH 2 4 5	6	Take S-6 from 10 to 12 ft. Wood fibers at the tip of the sampler. S-6: LL = NP; PI = NP
12		Gray SILT, some fine Sand (wet) [ML]	S-7	SS	13	3 5 6 4	11	Take S-7 from 12 to 14 ft. Sandy gravel at the tip of the sampler
14	+389.0	Gray Clayey fine SAND, some fine subangular Gravel [SC]	S-8	SS	5	WOH WOH 6 6	6	Drive casing to 14 ft. Drill to 14ft, gray wash. Take S-8 from 14 to 16 ft.
16	+387.0							



LANGAN Log of Boring **LB-R-081** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.0

Elev. (ft) +387.0	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Gray CLAY, some fine Sand (wet) [CL]		16	S-9	SS	2	1 2 3 3	5	Take S-9 from 16 to 18 ft.
+385.0	Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]		18	S-10	SS	12	7 10 16 14	26	Drive casing to 18 ft. Drill to 18ft, gray wash. Take S-10 from 18 to 20 ft.
	Gray Clayey fine SAND, some subangular Gravel (moist) [S]		23	S-11	SS	14	18 23 50/5"	50/5"	Drill to 23 ft, moderate rig chatter, gray wash. Take S-11 from 23 to 25 ft.
			25						Drive casing to 29 ft.
+374.0	Dark gray GRAVEL, trace Clay (moist) [Weak ROCK]		29	S-12	SS	2	50/4"	50/4"	Drill to 29 ft, heavy rig chatter, gray wash. Take S-12 from 29 to 31 ft.
+373.7	Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality very poor [BEDROCK]	[01:42] [01:18] [01:14] [03:45] [03:52]	29.3	C-1	NX	REC=33"/60"=55%	RQD=0"/60"=0%		Refusal encountered at 29.3 ft. Take C-1 from 29.3 to 34.3 ft. Reactive to acid when scratched
	Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality very poor [BEDROCK]	[04:40] [04:48]	34.3						Take C-2 from 34.3 to 39.3 ft. Reactive to acid, especially when scratched C-2: UCS = 29920 psi



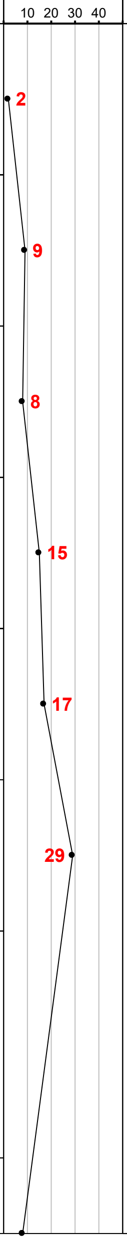
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+367.0	Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality poor [BEDROCK]		36						
▨			[03:58]	37	C-2	NX	REC=47"/60"=78%	RQD=6"/60"=11%		
▨			[04:31]	38						
▨			[03:48]	39						
▨			[06:28]	40						Take C-3 from 39.3 to 44.3 ft. Reactive to acid, especially when scratched
▨			[04:15]	41						
▨			[03:39]	42	C-3	NX	REC=57"/60"=95%	RQD=19"/60"=32%		
▨			[04:32]	43						
▨	+358.7		[04:33]	44						Boring terminated at 44.3ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 44.3ft.		45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-082** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 405.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/15/2025 / 4/16/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	42.0 ft / 28.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9 / Undisturbed 0 / Core 3
Casing Diameter (in)	4 ; Casing Depth (ft) 27.0	Water Level (ft.)	First ▽ 2.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic ; Weight (lbs) 140 ; Drop (in) 30	Drilling Foreman	Landon Nelson
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Bahar Ghaneshirazi
Sampler Hammer	Automatic ; Weight (lbs) 140 ; Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+405.0	Dark brown CLAY, trace fine Sand, roots (wet) [TOPSOIL]	0	S-1A	SS	17	WOH		04/15/2025, 2:47 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+404.4	Brown CLAY, some fine to medium Sand (moist) [CL]	1	S-1B			1 1 4	2	
+403.0 ▽	Brown SILT, some fine Sand (wet) [ML]	2	S-2	SS	17	4 5 4 4	9	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Brown SILT, some fine Sand (wet) [ML]	4	S-3	SS	12	3 4 4 5	8	Take S-3 from 4 to 6 ft.
	Brown SILT, some fine Sand (wet) [ML]	6	S-4	SS	18	7 7 8 7	15	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Brown SILT, some fine Sand (wet) [ML]	8	S-5	SS	16	6 9 8 9	17	Take S-5 from 8 to 10 ft.
	Brown SILT, some fine Sand, trace fine subangular Gravel (wet) [ML]	10	S-6	SS	22	11 16 13 9	29	Take S-6 from 10 to 12 ft.
	Tannish gray SILT, trace fine Sand (wet) [ML]	15		SS		3 3		Drive casing to 15ft. Drill to 15 ft, brown wash. Take S-7 from 15 to 17 ft. A 2in layer of brown sandy silt.



LANGAN Log of Boring **LB-R-082** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 405.0

Material Symbol	Elev. (ft) +389.0	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				16	S-7		12	5 5	8	
				17						
				18						
				19						Drive casing to 20 ft. Drill to 20 ft, tanish gray wash.
		Tannish gray SILT, trace fine Sand (wet) [ML]		20						Take S-8 from 20 to 22 ft. S-8: LL = NP; PI = NP
				21	S-8	SS	15	1 4 1 3	5	
				22						
				23						Drive casing to 25 ft.
				24						Drill to 25 ft, gray wash.
	+380.0	Gray Silty fine to medium SAND, some angular Gravel (wet) [SM]		25						Take S-9 from 25 to 27 ft. S-9: #4 = 69%; #200 = 32% S-9: LL = NP; PI = NP
				26	S-9	SS	10	7 4 4 7	8	
				27						Drive casing to 28 ft. Drill to 28 ft, light chatter, gray wash.
	+377.0	Dark gray DOLOSTONE; fine grained moderately weathered; fractures near vertical; rock quality very poor [BEDROCK]	[02:36]	28						Take C-1 from 28 to 33 ft.
			[03:29]	29						
			[04:48]	30	C-1	NX	REC=30"/60"=50%	RQD=14"/60"=22%		Slow acid test respond.
			[08:51]	31						
			[03:04]	32						
		Dark gray DOLOSTONE; fine grained fresh weathered; fractures near vertical; rock quality very poor [BEDROCK]	[05:01]	33						Take C-2 from 33 to 38 ft.
			[03:30]	34						
			[02:36]	35	C-2	NX	REC=60"/60"=100%	RQD=31"/60"=52%		Slow acid test respond.
				36						

LANGAN Log of Boring **LB-R-082** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 405.0

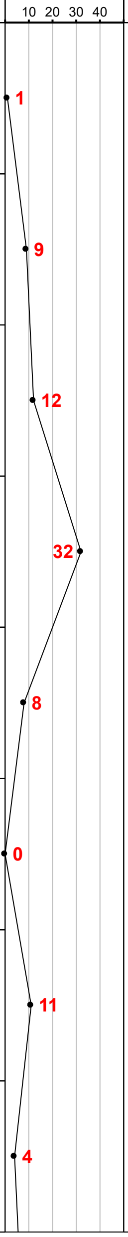
Material Symbol	Elev. (ft) +369.0	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Dark gray DOLOSTONE; fine grained fresh weathered; fractures near vertical; rock quality very poor [BEDROCK]	[02:41]	36						C-2: UCS = 13903 psi
▨			[07:33]	37						
▨			[15:36]	38						Take C-3 from 38 to 42 ft.
▨			[02:26]	39						Slow acid test respond.
▨			[03:54]	40	C-3	NX	REC=48"/48"=100%	RQD=22"/48"=46%		
▨	+363.0		[03:18]	41						
		End of Boring at 42.0ft.		42						Boring terminated at 42 ft. Installed 3-inch PVC pipe to facilitate OTV/ATV and Packer testing.
				43						
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring LB-R-083

Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 400.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/24/2025
		Date Finished	4/24/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	31.5 ft
		Rock Depth	21.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 11 Undisturbed 0 Core 2
Casing Diameter (in)	4	Casing Depth (ft)	21.0
Water Level (ft.)	First ▽ 4.0 Completion ▼ N/A 24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Drilling Foreman	Robert Drake		
Field Engineer	Roonak Ghaderi		

Depth (ft)	Elev. (ft) +400.1	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0–0.9	+399.2	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	S-1A	SS	16	WOH WOH	1	04/24/2025,10:22 AM. Utility Clearance Exemption Signed by PIC; Take S-1 from 0 to 2 ft.
0.9–2		Light brown SILT, some fine Sand (moist) [ML]	S-1B			1 1		
2–4		Light orangish brown to mottled gray SILT, trace fine Sand (moist) [ML]	S-2	SS	12	1 4 5 4	9	Take S-2 from 2 to 4 ft.
4–6		Light brown Sandy SILT (wet) [ML] ▽	S-3	SS	19	3 5 7 10	12	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
6–8	+392.1	Light brown Sandy SILT (wet) [ML]	S-4	SS	11	13 21 11 5	32	Take S-4 from 6 to 8 ft.
8–10		Gray CLAY, some fine Sand (wet) [CL]	S-5	SS	16	WOH 3 5 2	8	Drive casing to 8 ft. Drill to 8 ft, brownish gray wash. Take S-5 from 8 to 10 ft.
10–12		Gray CLAY, trace fine Sand (wet) [CL]	S-6	SS	19	WOH WOH WOH 3	0	Take S-6 from 10 to 12 ft.
12–14		Gray CLAY, trace fine Sand (wet) [CL]	S-7	SS	17	WOH 5 6 7	11	Drive casing to 12 ft. Drill to 12ft, gray wash. Take S-7 from 12 to 14 ft.
14–16	+384.1	Gray CLAY, some fine Sand (wet) [CL]	S-8	SS	7	3 2 2 4	4	Take S-8 from 14 to 16 ft. A piece of gravel at the tip of the sampler. Drive casing to 16 ft. Drill to 16ft, gray wash.



LANGAN Log of Boring **LB-R-083** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.1

Material Symbol	Elev. (ft) +384.1	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Gray Gravelly fine SAND, some Clay (wet) [SC]		16 17	S-9	SS	3	7 4 3 5	7	Take S-9 from 16 to 18 ft.
▨	+382.1	Gray GRAVEL, some Clay (wet) [Weak ROCK]		18 19	S-10	SS	10	9 7 8 10	15	Take S-10 from 18 to 20 ft.
▨		Gray GRAVEL, some Clay (wet) [Weak ROCK]		20 21	S-11	SS	4	9 11 33 50/0"	44	Drive casing to 20 ft. Drill to 20ft, gray wash. Take S-11 from 20 to 22 ft. Refusal encountered at 21.5 ft.
▨	+378.6	Gray DOLOSTONE; fine grained fractures near horizontal; rock quality very poor [BEDROCK]	[01:21] [03:05] [02:24] [02:27] [02:45]	22 23 24 25 26	C-1	NX	REC=34"/60"=57%	RQD=13"/60"=22%		Take C-1 from 21.5 to 26.5 ft. Reactive to acid when scratched
▨		Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality fair [BEDROCK]	[01:45] [03:17] [05:20] [02:19] [02:17]	27 28 29 30 31	C-2	NX	REC=60"/60"=100%	RQD=32"/60"=53%		Take C-2 from 26.5 to 31.5 ft.
	+368.6	End of Boring at 31.5ft.		32 33 34 35 36						Boring terminated at 31.5 ft. Temporary well installed on 04/24/2025

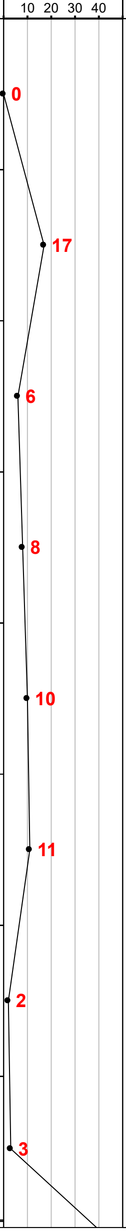
Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN

Log of Boring **LB-R-084** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 397.7 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/23/2025
		Date Finished	4/24/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	26.7 ft
		Rock Depth	16.7 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9 Undisturbed 0 Core 2
Casing Diameter (in)	4	Casing Depth (ft)	16.0
Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A		
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

Elev. (ft) +397.7	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, trace fine Sand, trace fine Gravel, roots (moist) [TOPSOIL]		0	S-1A	SS	4	WOH WOH WOH 2	0	04/23/2025,02:27 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+395.7	Light brown SILT, some fine Sand (wet) [ML]		2	S-1B S-2	SS	13	3 8 9 10	17	Take S-2 from 2 to 4 ft.
	Gray SILT, some fine Sand (wet) [ML]		4	S-3A S-3B	SS	17	6 4 2 4	6	Drive casing to 4 ft. Drill to 4ft, brown wash. Take S-3 from 4 to 6 ft.
	Gray SILT, some fine Sand (wet) [ML]		6	S-4	SS	9	2 5 3 2	8	Take S-4 from 6 to 8 ft.
	Gray SILT, some fine Sand (wet) [ML]		8	S-5	SS	16	1 7 3 3	10	Drive casing to 8 ft. Drill to 8, ft low rig chatter, gray wash. Take S-5 from 8 to 9 ft.
	Gray SILT, some fine Sand (wet) [ML]		10	S-6	SS	18	1 5 6 4	11	Take S-6 from 10 to 12 ft. S-6: LL = NP; PI = NP
	Gray SILT, some fine Sand (wet) [ML]		12	S-7	SS	9	3 1 1 2	2	Drive casing to 12 ft. Drill to 12ft, gray wash. Take S-7 from 12 to 14 ft.
+383.7	Gray GRAVEL (wet) [Weak ROCK]		14	S-8A	SS	13	WOR WOH 3	3	Take S-8 from 14 to 16 ft. Refusal encountered at 15.8ft.
	Gray GRAVEL (wet) [Weak ROCK]			S-8B			50/5" 40		
			16						



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-084** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 397.7

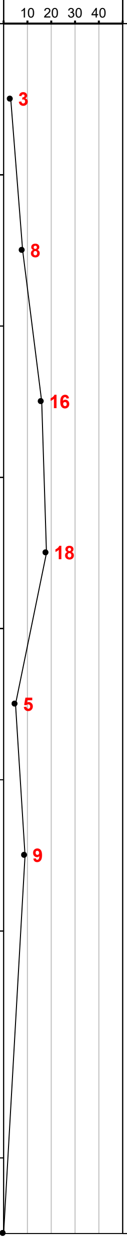
Material Symbol	Elev. (ft) +381.7	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+381.0			16	S-9	SS	8	50/4"	50/4"	Take S-9 from 15.9 to 16.7 ft. Refusal encountered at 16.7 ft.
		Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality very poor [BEDROCK]	[01:03] [02:15] [02:44] [02:21] [03:30]	17 18 19 20 21	C-1	NX	REC=44"/60"=73%	RQD=4"/60"=7%		Take C-1 from 16.7 to 21.7 ft. Reactive to acid when scratched. 4/23/2025,4:47 PM. 4/24/2025,7:41 AM
	+371.0	Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality fair [BEDROCK]	[02:46] [02:29] [02:30] [05:27] [02:45]	22 23 24 25 26	C-2	NX	REC=60"/60"=100%	RQD=37"/60"=62%		Take C-2 from 21.7 to 26.7 ft. C-2: UCS = 15480 psi Boring terminated at 26.7 ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 26.7ft.		27 28 29 30 31 32 33 34 35 36						

LANGAN Log of Boring **LB-R-086** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 400.4 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/19/2025 / 4/21/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	35.1 ft / 25.1 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 25.0	Water Level (ft.)	First ▽ 2.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +400.4	Depth	Sample Description
+400.4	0	Dark brown SILT, trace Sand, roots (moist) [TOPSOIL]
+398.8	1.6	Light brown SILT, trace fine Sand (moist) [ML] ▽
	2	Orangish brown SILT, trace fine Sand (wet) [ML]
	4	Orangish brown SILT, trace fine Sand (wet) [ML]
	6	Gray Sandy SILT (wet) [ML]
	8	Gray SILT, trace fine Sand (wet) [ML]
	10	Gray SILT, trace fine Sand (wet) [ML]
+385.4	15	Gray Silty fine SAND, some fine subangular Gravel (wet) [SM]

Depth	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0–2	S-1A S-1B	SS	8	WOH WOH 3 3	3
2–4	S-2	SS	20	4 4 4 6	8
4–6	S-3A S-3B	SS	13	2 6 10 13	16
6–8	S-4	SS	12	9 10 8 8	18
8–10	S-5	SS	12	WOH 2 3 2	5
10–12	S-6	SS	22	WOH 3 6 12	9
15–		SS		WOH WOH	



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

0 ft: 04/19/2025,10:47 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.

2 ft: Take S-2 from 2 to 4 ft. Piece of wood at 3 ft.

4 ft: Drive casing to 4 ft. Drill to 4 ft, brown wash.

Take S-3 from 4 to 6 ft. Piece of wood at 5.2 ft.

6 ft: Take S-4 from 6 to 8 ft.

8 ft: Drive casing to 8 ft. Drill to 8 ft, low rig chatter, brown wash.

Take S-5 from 8 to 10 ft.
S-5: #4 = 100%; #200 = 96%
S-5: LL = NP; PI = NP

10 ft: Take S-6 from 10 to 12 ft.

15 ft: Drive casing to 15ft. Drill to 15 ft, moderate rig chatter, gray wash.

Take S-7 from 15 to 17 ft.

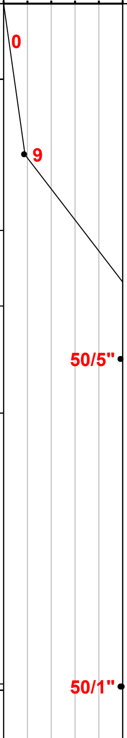
LANGAN Log of Boring **LB-R-086** Sheet 2 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 400.4

Elev. (ft)	Sample Description
+384.4	Gray Silty fine SAND, some fine subangular Gravel (wet) [SM]
+380.4	Dark gray GRAVEL, some Clay (moist) [Weak ROCK]
+375.3	Dark gray GRAVEL, trace Clay (wet) [Weak ROCK] Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality poor [BEDROCK]
	Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality poor [BEDROCK]
+365.3	End of Boring at 35.1ft.

Depth Scale	Coring (min)
25–26	[01:37]
26–27	[02:39]
27–28	[02:35]
28–29	[02:40]
29–30	[04:02]
30–31	[02:18]
31–32	[02:16]
32–33	[03:46]
33–34	[03:04]
34–35	[03:16]

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
16–17	S-7		16	WOH WOH	0
17–19	S-8	SS	14	1 2 7 9	9
20–21.4	S-9	SS	14	22 25 50/5"	50/5"
25–25.1	S-10	SS	1	50/1"	50/1"
25.1–30.1	C-1	NX	REC=54"/60"=90%	RQD=29"/60"=48%	
30.1–35.1	C-2	NX	REC=60"/60"=100%	RQD=24"/60"=40%	



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

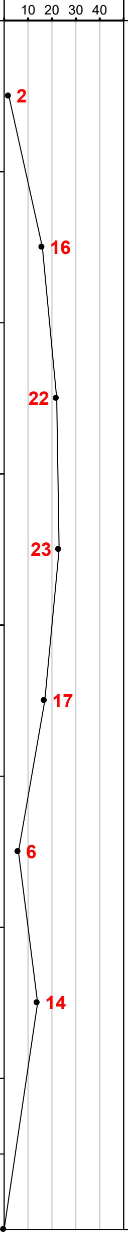
Depth Scale	Remarks
17	Take S-8 from 17 to 19 ft.
20	Drive casing to 20 ft. Drill to 20 ft, moderate rig chatter, gray wash. Take S-9 from 20 to 22 ft.
25	Drill to 25 ft, heavy rig chatter, gray wash. Take S-10 from 25 to 27 ft. Refusal encountered at 25.1 ft. 4/19/2025 2:00 PM. Take C-1 from 25.1 to 30.1 ft. Reactive to acid when scratched.
30	Take C-2 from 30.1 to 35.1 ft.
32	C-2: UCS = 13332 psi
35	Boring terminated at 35.1 ft. Temporary well installed on 04/21/2025

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-088** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 404.7 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 4/29/2025	Date Finished: 4/30/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth: 37.0 ft	Rock Depth: 27.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 12 Undisturbed: 0 Core: 2
Casing Diameter (in)	4 Casing Depth (ft): 25.0	Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic Weight (lbs): 140 Drop (in): 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+404.7	Dark brown CLAY, trace fine subangular Gravel, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	20	WOH WOH		04/30/2025 08:12 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+403.7	Orangish brown CLAY, trace fine Sand, trace fine subangular Gravel (moist) [CL] ▽	1	S-1B			2 2	2	
+402.7	Light brown SILT, trace fine Sand (wet) [ML]	2	S-2	SS	20	5 7 9 10	16	Take S-2 from 2ft to 4ft.
	Light brown SILT, trace fine Sand (wet) [ML]	4	S-3	SS	13	3 9 13 11	22	Drive casing to 4ft. Drill to 4ft, brown wash. Take S-3 from 4ft to 6ft.
	Light brown SILT, trace fine subrounded Gravel (wet) [ML]	6	S-4	SS	14	9 13 10 8	23	Take S-4 from 6ft to 8ft.
	Light brown SILT, trace fine Sand, trace fine subangular Gravel (wet) [ML]	8	S-5	SS	13	5 8 9 15	17	Drive casing to 8ft. Drill to 8ft, brown wash return. Take S-5 from 8ft to 10ft.
	Light brown SILT, trace fine Sand (wet) [ML]	10	S-6	SS	11	3 3 3 3	6	Take S-6 from 10ft to 12ft.
+392.7	Brownish gray Silty fine SAND (wet) [SM]	12	S-7	SS	24	5 7 7 7	14	Take S-7 from 12ft to 14ft.
		14						Drive casing to 15ft. Drill to 15ft, gray wash.
+389.7	Grayish brown SILT, trace fine Sand (wet) [ML]	15		SS		WOH WOH		Take S-8 from 15ft to 17ft.
		16						



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-088** Sheet 2 of 3

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 404.7

Elev. (ft) +388.7	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr- resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16	S-8		4	WOH 2	0	
	Grayish brown SILT, some fine Sand (wet) [ML]		17	S-9	SS	24	8 9 9 15	18	Take S-9 from 17ft to 19ft.
			19						Drive casing to 20ft. Drill to 20ft, gray wash.
	Grayish brown SILT, some fine Sand (wet) [ML]		20	S-10	SS	11	3 3 3 6	6	Take S-10 from 20ft to 22ft.
	Grayish brown SILT, some fine Sand (wet) [ML]		22	S-11	SS	18	WOH 1 3 3	4	Take S-11 from 22ft to 24ft. S-11: #4 = 100%; #200 = 75% S-11: LL = NP; PI = NP Drive casing to 24ft.
+380.7	Dark gray GRAVEL, some fine Sand, some Silt (moist) [Weak ROCK]		24	S-12	SS	10	5 25 50/4"	50/4"	Take S-12 from 24ft to 26ft. Reactive to acid.
+377.7	Black to light gray calcareous DOLOSTONE; fine grained shale, dolomite; fresh to slightly weathered; close fracture spacing; fractures near horizontal; blocky; rock quality fair; [BEDROCK] 27.5 - 28 ft pitted weathering	[02:24] [02:50] [02:56] [02:55] [03:14]	27	C-1	NX	REC=60"/60"=100%	RQD=36"/60"=60%		Take C-1 from 27ft to 32ft. Reactive to acid.
	Light banding gray to dark gray calcareous DOLOSTONE; fine grained dolomite, shale; fresh weathered; moderate fracture spacing; fractures near horizontal; blocky; rock quality good; [BEDROCK]	[02:51] [02:07] [02:01] [02:25]	32	C-2	NX	REC=60"/60"=100%	RQD=51"/60"=85%		Take C-2 from 32ft to 37ft. Reactive to acid. C-2: UCS = 23093 psi Interbedded with shale and limestone. Reactive to acid when scratched.
			36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-088** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 404.7

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	Sample Data N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+368.7		[02:17]	36						
	+367.7	End of Boring at 37.0ft.		37						
				38						Boring terminated at 37 ft. Boring backfilled to grade with soil cuttings.
				39						
				40						
				41						
				42						
				43						
				44						
				45						
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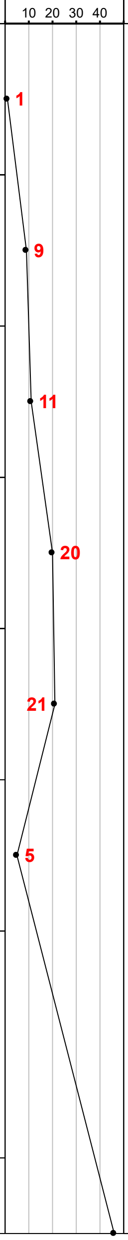
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-090** Sheet 1 of 4

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 402.9 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/17/2025	Date Finished: 4/17/2025
Drilling Equipment: Geoprobe 7822DT		Completion Depth: 68.4 ft	Rock Depth: 65.4 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 17	Undisturbed 0 Core 1
Casing Diameter (in): 4	Casing Depth (ft): 65.0	Water Level (ft.): First ▽ 2.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Robert Drake	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Roonak Ghaderi	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Elev. (ft) +402.9	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	16	WOH WOH 1	1	04/17/2025,07:42 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+401.4	Light brown SILT, some fine Sand (moist) [ML] ▽			S-1B			2		
	Light brown SILT, some fine Sand (moist) [ML]		2	S-2	SS	15	5 4 5 6	9	Take S-2 from 2 to 4 ft.
	Orangish brown SILT, some fine Sand (wet) [ML]		4	S-3	SS	16	4 5 6 6	11	Drive casing to 4 ft. Drill to 4 ft, brown wash Take S-3 from 4 to 6 ft.
	Gray SILT, some fine Sand (wet) [ML]		6	S-4	SS	15	6 9 11 11	20	Take S-4 from 6 to 8 ft.
	Gray SILT, trace fine Sand (wet) [ML]		8	S-5	SS	14	7 10 11 9	21	Drive casing to 8 ft. Drill to 8 ft, low rig chatter, brown wash. Take S-5 from 8 to 10 ft. S-5: LL = NP; PI = NP
+392.9	Grayish brown Silty Clayey fine SAND, trace fine subrounded Gravel (wet) [SC-SM]		10	S-6	SS	13	3 2 3 4	5	Take S-6 from 10 to 12 ft. S-6: #4 = 92%; #200 = 45% S-6: LL = 14%; PI = 4%
			12						
			13						
			14						
	Grayish brown Silty Clayey fine SAND, trace fine subrounded Gravel (wet) [SC-SM]		15		SS		19 21		Drive casing to 15 ft. Drill to 15 ft, heavy rig chatter, gray wash. Take S-7 from 15 to 17 ft.
			16						



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.9

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+386.9			16	S-7		17	25 23	46	
		Grayish brown Silty Clayey fine SAND, trace fine subrounded Gravel (wet) [SC-SM]		20	S-8	SS	14	8 11 10 13	21	Drive casing to 20 ft. Drill to 20 ft, heavy rig chatter, gray wash. Take S-8 from 20 to 22 ft.
		Grayish brown Silty Clayey fine SAND, trace fine subrounded Gravel (wet) [SC-SM]		25	S-9	SS	9	46 50/4"	50/4"	Drive casing to 25 ft. Drill to 25 ft, heavy rig chatter, gray wash. Take S-9 from 25 to 25.8 ft.
	+372.9	Gray Sandy CLAY, trace fine subangular Gravel (moist) [CL]		30	S-10	SS	11	12 50 50/4"	50/4"	Drive casing to 30 ft. Drill to 30 ft, heavy rig chatter, gray wash. Take S-10 from 30 to 31.3 ft.
		Gray Sandy CLAY, trace fine subangular Gravel (moist) [CL]		35	S-11	SS	12	50 50/4"	50/4"	Drive casing to 35 ft. Drill to 35 ft, heavy rig chatter, gray wash. Take S-11 from 35 to 35.8 ft.
				36						

LANGAN Log of Boring **LB-R-090** Sheet 3 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.9

Material Symbol	Elev. (ft) +366.9	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				36						
				37						
				38						
				39						
	+362.9	Gray Clayey fine SAND, trace fine subangular Gravel (moist) [SC]		40	S-12	SS	6	16 50/5"	50/5"	Drive casing to 40 ft. Drill to 40 ft, heavy rig chatter, gray wash. Take S-12 from 40 to 40.9 ft.
				41						
				42						
				43						
				44						
		Gray Clayey fine SAND, trace fine subangular Gravel (moist) [SC]		45	S-13	SS	7	50 50/3"	50/3"	Drive casing to 45 ft. Drill to 45 ft, heavy rig chatter, gray wash. Take S-13 from 45 to 45.75 ft.
				46						
				47						
				48						
				49						
		Gray Clayey fine SAND, trace fine subangular Gravel (moist) [SC]		50	S-14	SS	6	50 50/1"	50/1"	Drive casing to 50 ft. Drill to 50 ft, heavy rig chatter, gray wash Take S-14 from 50 to 50.6 ft.
				51						
				52						
				53						
				54						
	+347.9	Gray Sandy CLAY, some fine subangular Gravel (moist) [CL]		55	S-15	SS	12	11 50 50/5"	50/5"	Drill to 55 ft, heavy rig chatter, gray wash. Take S-15 from 55 to 56.4 ft.
				56						

LANGAN Log of Boring **LB-R-090** Sheet 4 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.9

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+346.9	Gray Sandy CLAY (moist) [CL]		56						
				60	S-16	SS	5	34 50/3"	50/3"	Drill to 60 ft, heavy rig chatter, gray wash. Take S-16 from 60 to 60.75 ft.
	+337.5	No Recovery		65	S-17	SS	0	50/5"	50/5"	Drill to 65 ft, heavy rig chatter, gray wash. Take S-17 from 65 to 65.4 ft.
▦		Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality very poor [BEDROCK]	[04:30] [07:46] [11:10]	66 67 68	C-1	NX	REC=64%	RQD=0%		Take C-1 from 65.4 to 68.4 ft. Reactive to acid when scratched
	+334.5	End of Boring at 68.4ft.		69						Boring terminated at 68.4 ft. Boring backfilled to grade with soil cuttings.
				70 71 72 73 74 75 76						

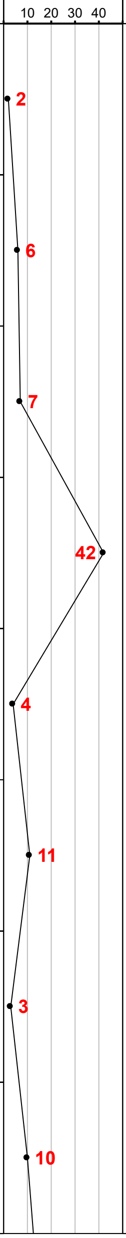
Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-091** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 402.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/22/2025 / 4/23/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	35.0 ft / 25.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 11, Undisturbed 0, Core 2
Casing Diameter (in)	4; Casing Depth (ft) 25.0	Water Level (ft.)	First ▽ 4.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Depth (ft)	Sample Description
+402.1	0	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]
+400.5	1.6	Brown CLAY, some fine Sand (moist) [CL]
+398.1	4	▽ Brownish gray SILT, trace fine Sand (wet) [ML]
	6	Orangish brown to mottled gray SILT, some fine Sand (wet) [ML]
	8	Gray SILT, some fine Sand (wet) [ML]
	10	Gray SILT, some fine Sand (wet) [ML]
+390.1	12	Gray Silty fine SAND, some fine subangular Gravel (wet) [SM]
	14	Gray Silty fine SAND, some fine subangular Gravel (wet) [SM]

Depth	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0-2	S-1A S-1B	SS	15	WOH WOH 2 4	2
2-4	S-2	SS	23	4 3 3 6	6
4-6	S-3	SS	15	1 3 4 8	7
6-8	S-4	SS	13	9 20 22 16	42
8-10	S-5	SS	12	3 2 2 4	4
10-12	S-6	SS	16	17 6 5 7	11
12-14	S-7	SS	16	WOH WOH 3 6	3
14-16	S-8	SS	5	1 5 5 7	10



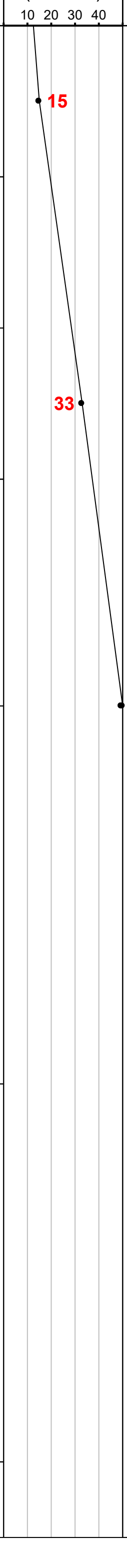
Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth	Remarks
0	04/22/2025,04:04 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
2	Take S-2 from 2 to 4 ft. S-2: LL = 22%; PI = 8%
4	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
6	Take S-4 from 6 to 8 ft.
8	Drive casing to 8 ft. Drill to 8 ft, low rig chatter, brown wash. Take S-5 from 8 to 10 ft.
10	Take S-6 from 10 to 12 ft.
12	4/22/2025, 05:01 PM. 4/23/2025, 7:36 AM. Take S-7 from 12 to 14 ft. Drive casing to 15 ft. Casing dropped from 12 to 14 ft.
14	Take S-8 from 14 to 16 ft.

LANGAN Log of Boring **LB-R-091** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.1

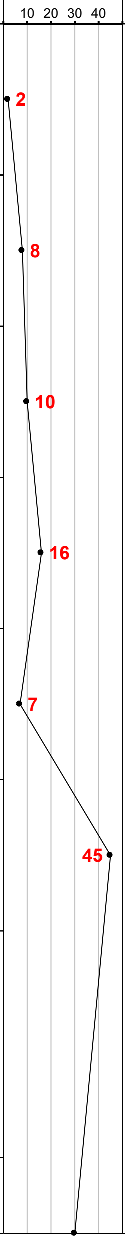
Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+386.1	Gray Silty fine SAND, some fine subangular Gravel (wet) [SM]		16	S-9A	SS	21	5 8 7	15	Take S-9 from 16 to 18 ft. S-9A: #4 = 84%; #200 = 45% S-9A: LL = NP; PI = NP
	+384.6	Gray Clayey fine SAND, some fine subangular Gravel (wet) [SC]		17.5	S-9B			10		
				18						Drive casing to 20 ft,
		Gray Clayey fine SAND, trace fine subangular Gravel (moist) [SC]		20	S-10	SS	14	11 13 20 25	33	Drill to 20 ft. heavy rig chatter, gray wash. Take S-10 from 20 to 22 ft.
	+377.1	Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality poor [BEDROCK]	[02:47] [02:25] [02:20] [02:11] [03:15]	25	S-11	SS	0			Drill to 25 ft, heavy rig chatter, gray wash. Take S-11 at 25 ft to 27ft. Rock at the tip of the sampler. Refusal encountered at 25 ft. Take C-1 from 25 to 30 ft.
				25–30	C-1	NX	REC=54"/60"=90%	RQD=22"/60"=37%		
		Gray DOLOSTONE; fine grained fresh weathered; fractures near horizontal; rock quality fair [BEDROCK]	[03:13] [02:58] [02:57] [02:54] [02:42]	30–35	C-2	NX	REC=60"/60"=100%	RQD=44"/60"=73%		C-2: UCS = 12396 psi Take C-2 from 30 to 35 ft.
	+367.1	End of Boring at 35.0ft.		35						Boring terminated at 35ft. Boring backfilled to grade with soil cuttings.



LANGAN Log of Boring **LB-R-093** Sheet 1 of 2

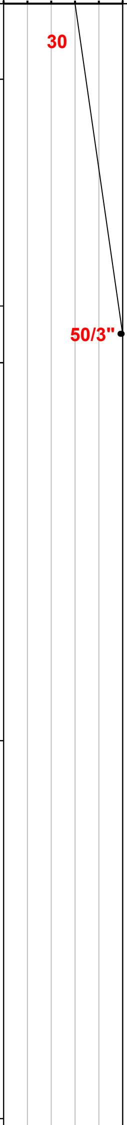
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 406.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	5/1/2025
		Date Finished	5/1/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	30.8 ft
		Rock Depth	20.8 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8 Undisturbed 0 Core 2
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 3.5 Completion ▼ N/A 24 HR. ▼ N/A
Casing Depth (ft)	20.0	Drilling Foreman	Robert Drake
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Field Engineer	Roonak Ghaderi
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

Depth Scale	Elev. (ft)	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	+406.0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]		S-1A	SS	18	WOH WOH 2 3	2	5/1/2025 10:51 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
1.4	+404.6	Orangish brown CLAY, trace fine Sand (moist) [CL]		S-1B					
2		Orangish brown CLAY, trace fine Sand (moist) [CL] ▽		S-2	SS	22	2 4 4 5	8	Take S-2 from 2ft to 4ft.
4	+402.0	Light brown SILT, trace fine Sand, woody vegetation (wet) [ML]		S-3	SS	12	1 4 6 10	10	Drive casing to 4ft. Drill to 4ft, brown wash. Take S-3 from 4ft to 6ft.
6		Orangish brown SILT, trace fine Sand (wet) [ML]		S-4	SS	16	5 8 8 10	16	Take S-4 from 6ft to 8ft.
8		Gray Sandy SILT (wet) [ML]		S-5A	SS	8	10 6 1 WOH	7	Drive casing to 8ft. Drill to 8ft, brown wash. Take S-5 from 8ft to 10ft.
9.8	+396.2	Gray Silty fine SAND (wet) [SM]		S-5B					
10	+396.0	Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]		S-6	SS	15	21 25 20 16	45	Take S-6 from 10ft to 12ft.
15		Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]		S-7A	SS		9 12		Drive casing to 15ft. Drill to 15ft, heavy rig chatter, gray wash. Take S-7 from 15ft to 17ft.
15.2	+390.8	Black GRAVEL, some fine Sand (moist) [Weak ROCK]							



LANGAN Log of Boring **LB-R-093** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.0



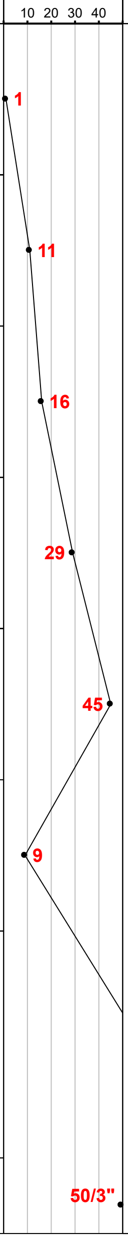
Elev. (ft) +390.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16 – 17	S-7B		17	18 21	30	15.3ft - 17ft: Gravel reactive to acid.
+385.2	Black Clayey fine angular GRAVEL, some fine Sand (moist) [Weak ROCK]		20 – 20.8	S-8	SS	5	9 50/3"	50/3"	Drive casing to 20ft. Drill to 20ft, heavy rig chatter, dark gray wash. Take S-8 from 20ft to 22ft. Refusal encountered at 20.8ft.
	Gray DOLOSTONE; fine grained dolomite; fresh weathered; very close fracture spacing; fractures near horizontal; blocky; rock quality very poor; [BEDROCK]	[03:21] [02:22] [02:57] [05:18] [04:20]	20.8 – 25.8	C-1	NX	REC=34"/60"=57%	RQD=12"/60"=19%		Take C-1 from 20.8ft to 25.8ft. Drive casing to 21ft.
+375.2	Dark gray DOLOSTONE; fine grained dolomite; fresh weathered; moderate fracture spacing; fractures near horizontal; blocky; rock quality excellent; [BEDROCK]	[01:58] [02:05] [02:15] [02:10] [02:18]	25.8 – 30.8	C-2	NX	REC=60"/60"=100%	RQD=56"/60"=93%		Take C-2 from 25.8ft to 30.8ft.
	End of Boring at 30.8ft.								Boring terminated at 30.8 ft. Temporary well installed on 05/01/2025

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-096** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 405.2 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/11/2025 / 4/12/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	54.5 ft / 44.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 41.0	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Depth (ft)	Elev. (ft) +405.2	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0		Dark brown SILT, some fine Sand, roots (wet) [TOPSOIL] ▽	S-1A	SS	13	WOH WOH 1	1	04/11/2025, 2:07 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
1.5	+403.7	Brown SILT, some fine Sand (wet) [ML]	S-1B			3		
2		Brown SILT, trace fine Sand (wet) [ML]	S-2	SS	10	4 5 6 6	11	Take S-2 from 2 to 4 ft.
4		Brown SILT, trace fine Sand (wet) [ML]	S-3	SS	14	5 6 10 16	16	Drive casing to 4ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft. S-3: #4 = 99%; #200 = 90% S-3: LL = NP; PI = NP
6		Brownish gray SILT, trace fine Sand (wet) [ML]	S-4	SS	14	12 15 14 10	29	Take S-4 from 6 to 8 ft.
8		Brownish gray Sandy SILT, trace fine angular Gravel (wet) [ML]	S-5	SS	13	WOH 30 15 17	45	Drive casing to 8 ft, drill to 8 ft, gray wash. Take S-5 from 8 to 10 ft. S-5: LL = NP; PI = NP
10		Gray Sandy SILT, trace fine subangular Gravel (wet) [ML]	S-6	SS	14	7 3 6 13	9	Take S-6 from 10 to 12 ft. S-6: LL = 14%; PI = 2%
14								Drive casing to 15 ft. Drill to 15 ft, moderate rig chatter, gray wash.
15		Gray SILT, some fine Sand, some coarse angular Gravel (moist) [ML]	S-7	SS	8	36 50 50/3"	50/3"	Take S-7 from 15 to 17 ft.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 405.2

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+389.2			16						
			17						
			18						
			19						
+385.2	Gray Silty fine SAND, trace fine angular Gravel (moist) [SM]		20	S-8	SS	13	25 45 50/4"	50/4"	Drive casing to 20ft. Drill to 20 ft, heavy rig chatter, gray wash. Take S-8 from 20 to 22 ft.
			21						
			22						
			23						
			24						Drive casing to 25 ft. Drill to 25 ft, heavy rig chatter, gray wash.
	No Recovery		25	S-9	SS	0	50/1"	50/1"	Take S-9 from 25 to 27 ft.
			26						
			27						
+377.7			28						
			29						Drive casing to 30ft. Drill to 30 ft, heavy rig chatter, gray wash.
	Gray SILT, some fine Sand, some fine subangular Gravel (moist) [ML]		30	S-10	SS	5	50/5"	50/5"	Take S-10 from 30 to 32 ft.
			31						
			32						
			33						
			34						
	Gray SILT, some fine Sand (moist) [ML]		35	S-11	SS	8	35 50/3"	50/3"	Drive casing to 35ft. Drill to 35 ft, heavy rig chatter, gray wash. Take S-11 from 35 to 37 ft.
			36						

LANGAN Log of Boring **LB-R-096** Sheet 3 of 3

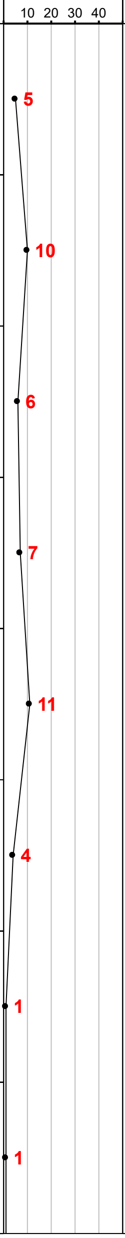
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 405.2

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▥	+369.2			36						
▥				37						
▥				38						Drive casing to 40ft. Drill to 40 ft, heavy rig chatter, gray wash.
▥				39						
▥		Gray SILT, some fine Sand (moist) [ML]		40	S-12	SS	20	34 49 45 50/5"	94	Take S-12 from 40 to 42 ft.
▥				41						
▥				42						4/11/2025, 4:43 PM. 4/12/2025, 8:20 AM.
▥				43						
▥				44						
▨	+360.7	Gray DOLOSTONE; fine grained, fresh, rock quality poor [BEDROCK]	[01:48]	45	C-1	NX	REC=60"/60"=100%	RQD=20"/60"=33%		Refusal encountered at 44.5 ft. Take C-1 from 44.5 to 49.5 ft. Reactive to acid when scratched 4/12/2025 08:21 AM.
▨			[02:08]	46						
▨			[02:35]	47						
▨			[02:37]	48						
▨			[02:04]	49						
▨		Gray DOLOSTONE, fine grained, fresh, rock quality fair [BEDROCK]	[01:48]	50	C-2	NX	REC=60"/60"=100%	RQD=34"/60"=57%		Take C-2 from 49.5 to 54.5 ft. Reactive to acid when scratched C-2: UCS = 29099 psi
▨			[02:15]	51						
▨			[02:33]	52						
▨			[02:58]	53						
▨			[02:35]	54						
	+350.7	End of Boring at 54.5ft.		55						Boring terminated at 54.5. Boring backfilled to grade with soil cuttings.
				56						

LANGAN Log of Boring **LB-R-098** Sheet 1 of 3

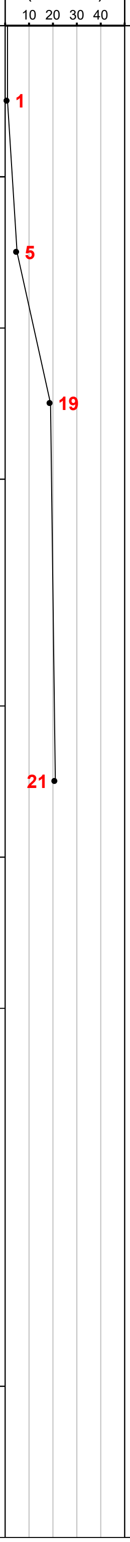
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.6 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/1/2025 / 5/1/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	39.0 ft / 29.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 27.0	Water Level (ft.)	First ▽ 3.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+392.6	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A			WOH		05/01/2025, 11:30 AM. Utility Clearance Exemption Signed by PIC.
+392.2	Light brown SILT, trace fine Sand (wet) [ML]	0.4–2	S-1B	SS	16	2 3 4	5	Take S-1 from 0ft to 2ft.
	Light brown SILT, trace fine Sand (wet) [ML] ▽	2–4	S-2	SS	18	4 5 5 5	10	Take S-2 from 2ft to 4ft.
	Light brown SILT, trace fine Sand (wet) [ML]	4–6	S-3	SS	22	2 4 2 4	6	Drive casing to 4ft. Drill to 4ft,brown wash. Take S-3 from 4ft to 6ft.
		6–8	S-4	SS	21	3 5 2 4	7	Take S-4 from 6ft to 8ft.
	Light brown SILT, trace fine Sand (wet) [ML]	8–10	S-5	SS	20	8 7 4 4	11	Drive casing to 8ft. Drill to 8ft, brown wash. Take S-5 from 8ft to 10ft.
	Light brown SILT, trace fine Sand (wet) [ML]	10–12	S-6	SS	16	3 2 2 2	4	Take S-6 from 10ft to 12ft.
+380.6	Light brown Silty CLAY, trace fine Sand (wet) [CL-ML]	12–14	S-7	SS	15	WOH WOH 1 1	1	Drive casing to 12ft. Drill to 12ft, brown wash. Take S-7 from 12ft to 14ft.
	Brown Sandy Silty CLAY (wet) [CL-ML]	14–16	S-8	SS	15	WOH WOH 1 WOH	1	Drive casing to 14ft. Drill to 14ft, gray wash. Take S-8 from 14ft to 16ft.



Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.6

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.6	Brown Sandy Silty CLAY (wet) [CL-ML]		16						Drive casing to 16ft. Drill to 16ft, gray wash.
			17	S-9	SS	20	WOH 1 WOH 1	1	Take S-9 from 16ft to 18ft. S-9: #4 = 98%; #200 = 54% S-9: LL = 14%; PI = 4% Take S-10 from 18ft to 20ft.
	No Recovery		18						
+373.6			19	S-10	SS	0	2 3 2 3	5	
	Gray Silty fine SAND, trace fine angular Gravel (wet) [SM]		20						Take S-11 from 20ft to 22ft.
			21	S-11	SS	11	11 10 9 6	19	
			22						
			23						Drive casing to 25ft. Drill to 25ft, gray wash, light rig chatter from 24ft to 25ft.
			24						
+367.6	Dark gray medium to fine SAND, trace Silt, trace fine angular Gravel (wet) [SP-SM]		25						Take S-12 from 25ft to 27ft.
			26	S-12	SS	9	12 14 7 7	21	
			27						
			28						Drive casing to 29ft. Casing refusal at 29ft. Drill to 29ft, heavy rig chatter from 28ft to 29ft, gray wash.
+363.6	Dark gray to gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh to slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality fair; [BEDROCK]	[04:45]	29						Spoon refusal at 29ft. C-1: UCS = 24839 psi Take C-1 from 29ft to 34ft.
		[07:20]	30						
		[05:15]	31	C-1	NX	REC=60"/60"=100%	RQD=40"/60"=67%		
		[03:56]	32						
		[05:32]	33						Dolostone - Moderate reactive to acid.
	Dark gray to gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh weathered; wide fracture spacing; fractures near horizontal; rock quality excellent; [BEDROCK]	[05:27]	34						Take C-2 from 34ft to 39ft.
		[05:03]	35						C-2: UCS = 18879 psi
			36						



LANGAN Log of Boring **LB-R-098** Sheet 3 of 3

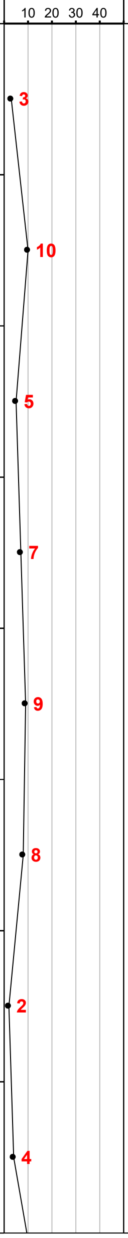
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.6

Material Symbol	Elev. (ft) +356.6	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[04:36]	36	C-2	NX	REC=60"/60"=100%	RQD=60"/60"=100%		
▨			[02:14]	37						
▨			[03:49]	38						Dolostone - Moderate reactive to acid.
	+353.6	End of Boring at 39.0ft.		39						Boring terminated at 39 ft. Boring backfilled to grade with soil cuttings.
				40						
				41						
				42						
				43						
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring LB-R-102

Sheet 1 of 2

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 393.0 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/30/2025	Date Finished: 5/1/2025
Drilling Equipment: CME-55LC		Completion Depth: 34.0 ft	Rock Depth: 24.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 10	Undisturbed 0 Core 2
Casing Diameter (in): 4	Casing Depth (ft): 22.0	Water Level (ft.): First ▽ 4.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Landon Nelson	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Bahar Ghaneshirazi	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

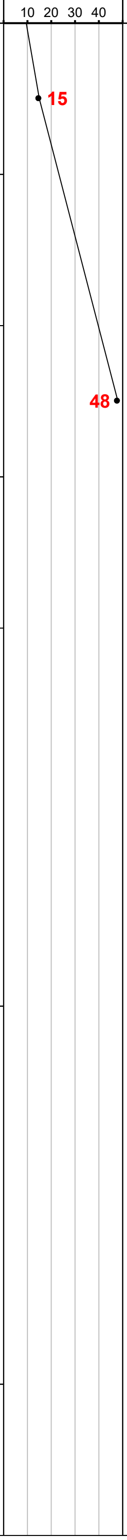


Material Symbol	Elev. (ft) +393.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
⁘		Dark brown CLAY, trace fine to coarse Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	14	1 1 2 4	3	04/30/2025, 11:54 AM Utility Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
▨	+392.4	Tannish brown to yellowish brown CLAY (moist) [CL]		1	S-1B					
▨		Tannish brown to yellowish brown CLAY (moist) [CL]		2	S-2	SS	17	4 4 6 5	10	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
▨		▽ Tannish brown to yellowish brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	18	1 2 3 3	5	Take S-3 from 4ft to 6ft. S-3: LL = 27%; PI = 7%
‖	+387.0	Tannish brown SILT, some fine Sand (wet) [ML]		6	S-4	SS	16	3 4 3 4	7	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
‖		Tannish brown SILT, some fine Sand, trace fine subrounded Gravel (wet) [ML]		8	S-5	SS	15	4 5 4 2	9	Take S-5 from 8ft to 10ft.
‖		Tannish brown to orangish brown SILT, some fine Sand, trace subrounded fine Gravel (wet) [ML]		10	S-6	SS	20	3 4 4 4	8	Take S-6 from 10ft to 12ft.
‖		Tannish brown Sandy SILT, trace subrounded fine Gravel (wet) [ML]		12	S-7A	SS	17	2 1 1 3	2	Take S-7 from 12ft to 14ft.
▨	+380.5	Brown Sandy CLAY, trace fine Gravel (wet) [CL]		13	S-7B					Drive casing to 14ft. Drill to 14ft, brown wash.
▨		Brown Sandy CLAY, trace fine Gravel (wet) [CL]		14	S-8	SS	5	1 2 2 1	4	Take S-8 from 14ft to 16ft.
				16						

LANGAN Log of Boring **LB-R-102** Sheet 2 of 2

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 393.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.0	Brown Sandy CLAY, trace fine Gravel (wet) [CL]		16	S-9A	SS	16	5 6		Take S-9 from 16ft to 18ft. S-9A: #4 = 95%; #200 = 51% S-9A: LL = NP; PI = NP
+376.0	Gray medium SAND, trace fine subrounded to subangular Gravel, trace Silt (wet) [SP-SM]		17	S-9B			9 7	15	
			18						
			19						Drive casing to 20ft. Drill to 20ft, light rig chatter, brown wash.
	Gray medium SAND, trace fine subrounded to subangular Gravel, trace Silt (wet) [SP-SM]		20	S-10	SS	2	38 8 40 11	48	Take S-10 from 20ft to 22ft.
			21						
			22						Drive casing to 24ft. Drill to 24ft, light rig chatter, gray wash.
			23						
+369.0	Dark gray DOLOSTONE; fine grained fresh weathered; moderate to very close fracture spacing; fractures near horizontal; rock quality good; [BEDROCK]	[06:48]	24	C-1	NX	REC=60"/60"=100%	RQD=48"/60"=79%		Refusal encountered at 24 ft. Take C-1 from 24ft to 29ft.
		[08:57]	25						C-1: UCS = 37259 psi
		[07:39]	26						Slow acid reaction.
		[06:55]	27						Loss Of Water around 26.5ft and 28ft.
		[08:35]	28						Slow acid reaction.
	Dark gray DOLOSTONE; fine grained fresh weathered; moderate fracture spacing; fractures steeply vertical to shallow dipping; rock quality excellent; [BEDROCK]	[04:46]	29	C-2	NX	REC=60"/60"=100%	RQD=60"/60"=100%		Take C-2 from 29ft to 34ft.
		[04:54]	30						
		[04:27]	31						Slow acid reaction.
		[04:42]	32						C-2: UCS = 25931 psi
		[05:05]	33						
+359.0	End of Boring at 34.0ft.		34						Boring terminated at 34 ft: 34 ft, 10:50 AM. Boring backfilled to grade with soil cuttings.
			35						
			36						



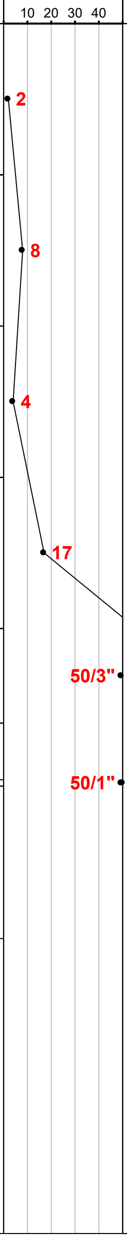
Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-103** Sheet 1 of 1

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 394.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/1/2025 / 5/1/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	12.1 ft / 10.1 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 6 / Undisturbed 0 / Core 0
Casing Diameter (in)	4 / Casing Depth (ft) 10.0	Water Level (ft.)	First ▽ 3.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30		

Elev. (ft)	Sample Description	Coring (min)
+394.8	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	
+394.1	Tannish brown CLAY (moist) [CL]	
	Tannish brown CLAY, trace fine Sand (moist) [CL] ▽	
+390.8	Tannish brown SILT, trace fine Sand (wet) [ML]	
+390.4	Brown Silty medium to fine SAND, trace fine angular Gravel (wet) [SM]	
	Brown Silty medium to fine SAND, trace fine Gravel (wet) [SM]	
+386.8	Grayish black GRAVEL, trace fine Sand, trace Silt (wet) [Weak ROCK]	
+384.7	No Recovery Dark gray to gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh to slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality poor; [BEDROCK]	[05:12] [05:29]
+382.7	End of Boring at 12.1ft.	

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0	S-1A S-1B	SS	13	WOH 1 1 1	2
2	S-2	SS	18	2 5 3 3	8
4	S-3A S-3B	SS	15	3 WOH 4 4	4
6	S-4	SS	8	WOH 11 6 5	17
8	S-5	SS	7	58 30 50/3"	50/3"
10	S-6	SS	0	50/1"	50/1"
10.1–12.1			REC=100%	RQD=42%	



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

05/01/2025, 7:45 AM.
Utility Clearance Exemption Signed by PIC.
Take S-1 from 0ft to 2ft.

Take S-2 from 2ft to 4ft.

Drive casing to 4ft. Drill to 4ft,brown wash.

Take S-3 from 4ft to 6ft.

Take S-4 from 6ft to 8ft.

Drive casing to 8ft. Drill to 8ft,brown wash.

Take S-5 from 8ft to 9.25ft.

Drill to 10ft, heavy rig chatter from 8ft to 10ft, brown wash.
Take S-6 from 10ft to 12ft.

Refusal encountered at 10.1 ft.

C-1: UCS = 26347 psi

Take C-1 from 10.1 to 12.1.

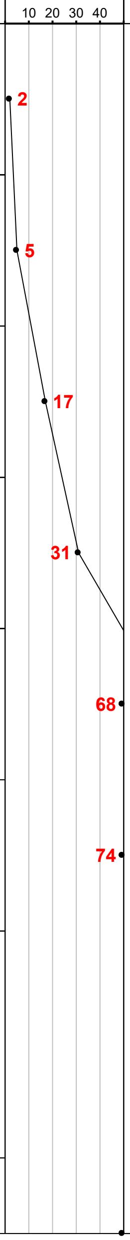
Boring terminated at 12.1 ft. Boring backfilled to grade with soil cuttings.

LANGAN

Log of Boring **LB-R-104** Sheet 1 of 4

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 403.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/11/2025 / 4/15/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	59.0 ft / 44.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 0; Core 3
Casing Diameter (in)	4; Casing Depth (ft) 40.0	Water Level (ft.)	First ▽ 4.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +403.0	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+402.4	Brown medium to fine SAND, trace Silt, trace fine angular Gravel, roots (moist) [TOPSOIL]	0	S-1A	SS	17	WOH 1		04/11/2025, 1:54 PM Utility Clearance Exemption Signed by PIC.
	Brown fine SAND, some Silt, trace fine angular Gravel (moist) [SM]	1	S-1B			1 1	2	Take S-1 from 0 to 2 ft. S-1A: LL = NP; PI = NP
	Brown fine SAND, some Silt, trace fine angular Gravel (moist) [SM]	2	S-2	SS	14	WOH 2 3 4	5	Take S-2 from 2 to 4 ft.
	▽ Brown fine SAND, some Silt, trace fine angular Gravel (moist) [SM]	4	S-3	SS	14	9 8 9 8	17	Drive Casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
	Brown fine SAND, some Silt, trace fine angular Gravel (moist) [SM]	6	S-4	SS	13	13 15 16 18	31	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, light rig chatter, brown wash.
	Brown Gravelly medium to fine SAND, some Silt (wet) [SM]	8	S-5	SS	11	24 33 35 27	68	Take S-5 from 8 to 10 ft.
	Brown medium to fine SAND, some Silt, trace fine angular Gravel (wet) [SM]	10	S-6A S-6B	SS	14	32 36 38 33	74	Take S-6 from 10 to 12 ft. Drill to 15 ft, heavy rig chatter, brown wash.
+388.0	Brown medium to fine SAND, trace Silt, trace fine Gravel (wet) [SP-SM]	15		SS		19 33		Take S-7 from 15 to 17 ft. Fine angular gravel lenses.



Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+387.0			16	S-7		16	53 49	86	
			17						
			18						Drill to 20 ft, heavy rig chatter, brown wash.
			19						
	Brownish gray fine angular Gravelly fine SAND, trace Silt (wet) [SP-GM]		20	S-8	SS	4	70	70	Take S-8 from 20 to 20.5 ft.
			21						
			22						Drill to 25 ft, heavy rig chatter, grayish brown wash
			23						
			24						
	Brown medium SAND, trace Silt (wet) [SP-SM]		25	S-9	SS	15	17 21 24 27	45	Take S-9 from 25 to 27 ft.
			26						
			27						Drill to 30 ft, brown wash.
			28						
			29						
+373.0	Gray Gravelly medium to fine SAND, some Silt (wet) [SM]		30	S-10	SS	6	16 77/3"	77/3"	Take S-10 from 30 to 30.75 ft.
			31						
			32						
			33						Drive casing to 35 ft. Drill to 35 ft, heavy rig chatter,gray wash return.
			34						
	Gray Gravelly medium to fine SAND, some Silt (wet) [SM]		35	S-11	SS	6	50	50	Take S-11 from 35 to 35.5 ft.
			36						

LANGAN Log of Boring **LB-R-104** Sheet 3 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	Sample Data N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+367.0			36						Drive casing to 40 ft. Drill to 40 ft, heavy rig chatter, gray wash return.
				37						
				38						
				39						
		Gray Gravelly medium to fine SAND, some Silt (wet) [SM]		40	S-12	SS	8	36 50/3"	50/3"	Take S-12 from 40 to 40.75 ft.
				41						
				42						Drive casing to 44 ft. Drill to 44 ft, heavy rig chatter, gray wash.
				43						
	+359.0	Dark gray to gray DOLOSTONE; fine grained completely weathered; extremely close to very close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[05:50]	44	C-1	NQ	REC=53"/60"=88%	RQD=0"/60"=0%		Take C-1 from 44 to 49 ft. Slow acid test response
			[06:50]	45						
			[16:11]	46						
			[10:40]	47						
			[07:16]	48						
		Dark gray to gray DOLOSTONE ; fine grained completely weathered; extremely close to very close fracture spacing; fractures near horizontal; rock quality poor [BEDROCK]	[05:56]	49	C-2	NQ	REC=60"/60"=100%	RQD=20"/60"=32%		Take C-2 from 49 to 54 ft. Slow acid test response
			[06:33]	50						
			[05:17]	51						
			[06:03]	52						
			[06:40]	53						
		Dark gray to gray DOLOSTONE ; fine grained slightly to moderately weathered; close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[06:42]	54						Take C-3 from 54 to 59 ft. Slow acid test response
			[07:11]	55						
				56						

LANGAN Log of Boring **LB-R-104** Sheet 4 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 403.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	Sample Data N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+347.0		[06:28]	56	C-3	NQ	REC=60"/60"=100%	RQD=44"/60"=73%		C-3: UCS = 24581 psi Boring terminated at 59 ft. Flush out borehole until clear wash return. Installed 3-inch ID PVC to facilitate OTV/ATV and Packer Testing. Temporary well installed on 05/06/2025.
▨			[08:16]	57						
▨			[12:02]	58						
	+344.0	End of Boring at 59.0ft.		59						
				60						
				61						
				62						
				63						
				64						
				65						
				66						
				67						
				68						
				69						
				70						
				71						
				72						
				73						
				74						
				75						
				76						

LANGAN Log of Boring **LB-R-105** Sheet 1 of 3

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 402.6 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/17/2025	Date Finished: 4/17/2025
Drilling Equipment: CME-75		Completion Depth: 49.0 ft	Rock Depth: 34.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 10	Undisturbed 1; Core 3
Casing Diameter (in): 4	Casing Depth (ft): 32.0	Water Level (ft.): First ▽ 1.0	Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140; Drop (in): 30	Drilling Foreman: Brad Perry	
Sampler: 2in OD Split Spoon, Shelby Tube, NQ Core Barrel (1.875in)		Field Engineer: Shreeya Pandey	
Sampler Hammer: Automatic	Weight (lbs): 140; Drop (in): 30		

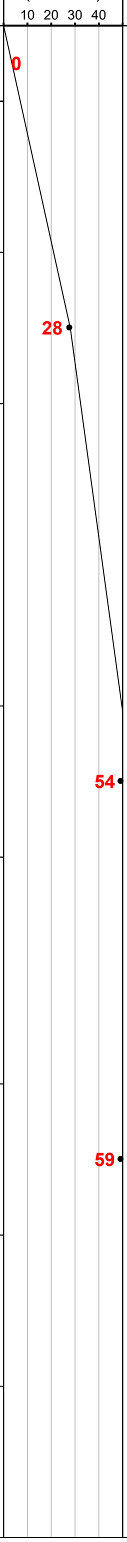
Elev. (ft) +402.6	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+401.9	Dark brown SILT, trace Sand, trace fine angular Gravel, roots (moist) [TOPSOIL] Light brown SILT, trace fine Sand (moist) [ML] ▽		0–2	S-1A S-1B	SS	17	WOH WOH 2 4	2	04/17/2025, 10:00 AM Utility Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	Light brown SILT, trace fine Sand (wet) [ML]		2–4	S-2	SS	20	4 4 4 7	8	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Light brown Sandy SILT (wet) [ML]		4–6	S-3	SS	17	4 8 5 7	13	Take S-3 from 4 to 6 ft.
	Light brown Sandy SILT (wet) [ML]		6–8	S-4	SS	14	11 11 12 14	23	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
+394.6	Grayish brown Silty CLAY, trace fine Sand (wet) [CL-ML]		8–10	S-5	SS	11	4 2 3 2	5	Take S-5 from 8 to 10 ft.
	Grayish brown Silty CLAY, trace fine Sand (wet) [CL-ML]		10–12	S-6	SS	20	4 6 6 4	12	Take S-6 from 10 to 12 ft. S-6: #4 = 100%; #200 = 98% S-6: LL = 18%; PI = 5% Drive casing to 15 ft. Drill to 15 ft, gray wash.
+389.6			13						
	Gray SILT, trace fine Sand (moist) [ML]		15–16		SS		WOH WOH		Take S-7 from 15 to 17 ft. S-7: #4 = 100%; #200 = 97% S-7: LL = NP; PI = NP

LANGAN Log of Boring **LB-R-105** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.6

Elev. (ft)	Sample Description	Coring (min)
+386.6	No Recovery	
+384.6	Gray Silty medium to fine SAND, fine angular Gravel lenses (wet) [SM]	
+377.6	Dark gray CLAY, trace fine Sand (wet) [CL]	
	Dark gray CLAY, trace fine Sand (wet) [CL]	
+368.6	Dark gray to black DOLOSTONE; fine grained moderately to highly weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[07:02] [06:36]

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
16–17	S-7		20	WOH WOH	0
17–19	UD-1	U	0		
19–21	S-8	SS	11	10 14 14 21	28
25–27	S-9	SS	17	20 27 27 45	54
30–32	S-10	SS	18	19 27 32 31	59



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth	Remarks
16	Drill to 17 ft, gray wash.
17	Take U-1 from 17 to 19 ft. No recovery.
19	Take S-8 from 19 to 21 ft.
21	Drill to 25 ft, light rig chatter, gray wash.
25	Take S-9 from 25 to 27 ft. Fine angular gravel lenses
28	Drill to 30 ft, heavy rig chatter, gray wash.
30	Take S-10 from 30 to 32 ft. Fine gravel lenses.
32	Drill to 34 ft, heavy rig chatter,gray wash.
34	Take C-1 from 34 to 39 ft. Slow acid test response.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-105** Sheet 3 of 3

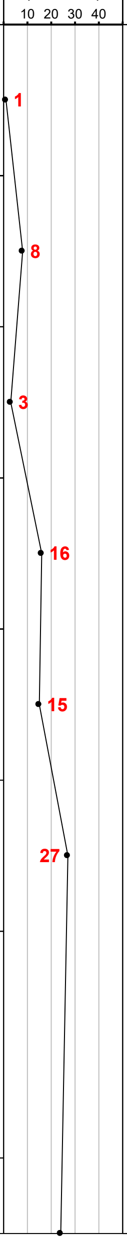
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.6

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+366.6		[07:15]	36	C-1	NX	REC=57"/60"=95%	RQD=13"/60"=22%		
▨			[05:58]	37						
▨			[06:20]	38						
▨		Dark gray to black DOLOSTONE ; fine grained highly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[06:36]	39	C-2	NX	REC=58"/60"=97%	RQD=5"/60"=8%		Take C-2 from 39 to 44 ft. Slow acid test response.
▨			[08:25]	40						
▨			[06:48]	41						
▨			[07:01]	42						
▨			[05:22]	43						
▨		Dark gray to black DOLOSTONE ; fine grained highly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[06:33]	44	C-3	NX	REC=58"/60"=97%	RQD=8"/60"=13%		Take C-3 from 44 to 49 ft. Slow acid test response.
▨			[05:21]	45						
▨			[05:12]	46						
▨			[08:08]	47						
▨			[06:58]	48						
	+353.6	End of Boring at 49.0ft.		49						Boring terminated at 49 ft. Boring backfilled to grade with soil cuttings.
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-106** Sheet 1 of 4

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 400.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/16/2025 / 4/17/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	58.0 ft / 48.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 13; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 45.0	Water Level (ft.)	First ▽ 1.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

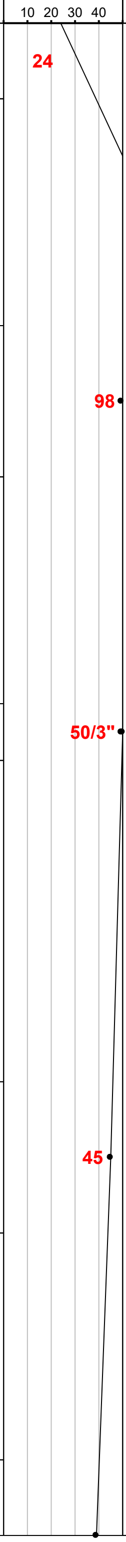
Elev. (ft) +400.1	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown CLAY, trace fine Sand, trace fine angular Gravel, roots (moist) [TOPSOIL]		0	S-1A			WOH		04/16/2025; 7:30 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+399.6	Light brown CLAY, trace fine Sand (moist) [CL] ▽		1	S-1B	SS	10	WOH 1 2	1	
	Light brown CLAY, trace fine Sand (wet) [CL]		2	S-2	SS	24	4 4 4 5	8	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Light brown CLAY, trace fine Sand (wet) [CL]		4	S-3	SS	12	4 WOH 3 6	3	Take S-3 from 4 to 6 ft.
+394.1	Light brown Sandy SILT (wet) [ML]		6	S-4	SS	17	12 10 6 5	16	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash.
+392.1	Brown medium to fine SAND, some Silt, trace fine angular Gravel (wet) [SM]		8	S-5	SS	16	6 8 7 10	15	Take S-5 from 8 to 10 ft.
	Brown medium to fine SAND, some Silt, trace fine Gravel (wet) [SM]		10	S-6	SS	24	15 13 14 10	27	Take S-6 from 10 to 12 ft.
			13						Drive casing to 15 ft. Drill to 15 ft, light rig chatter, brown wash.
	Brown medium to fine SAND, some Silt, trace fine angular Gravel (wet) [SM]		15		SS		9 10		Take S-7 from 15 to 17 ft.



LANGAN Log of Boring **LB-R-106** Sheet 2 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.1

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+384.1		16	S-7		12	14 17	24	
		17						Drive casing to 20 ft. Drill to 20 ft, light rig chatter, brown wash.
	Gray medium to fine SAND, some Silt, trace fine angular Gravel (wet) [SM]	20	S-8	SS	14	34 54 44 44	98	Take S-8 from 20 to 22 ft. Fine angular gravel lenses
		23						Drive casing to 25 ft. Drill to 25 ft, heavy rig chatter, gray wash.
	Brownish gray medium to fine SAND, some fine angular Gravel, trace Silt (wet) [SP-SM]	25	S-9	SS	6	15 50/3"	50/3"	Take S-9 from 25 to 25.75 ft.
		28						Drill to 30 ft, heavy rig chatter, gray wash.
+370.1	Dark brownish gray SILT, trace fine Sand, trace fine Gravel (wet) [ML]	30	S-10	SS	13	12 20 25 32	45	Take S-10 from 30 to 32 ft. S-10: #4 = 95%; #200 = 89% S-10: LL = NP; PI = NP
		33						Drill to 35 ft, gray wash.
	Dark gray SILT, trace fine Sand, trace fine Gravel (wet) [ML]	35		SS		14 18		Take S-11 from 35 to 37 ft.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-106** Sheet 3 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.1

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+364.1			36	S-11		13	21 35	39	
	+363.1	Dark gray CLAY, trace fine Sand (wet) [CL]		37						
				38						Drill to 40 ft, gray wash.
				39						
		Dark gray CLAY, trace fine Sand (wet) [CL]		40	S-12	SS	6	22 24 24 31	48	Take S-12 from 40 to 42 ft. S-12: LL = 18%; PI = 5%
				41						
				42						
				43						Drill to 45 ft, heavy rig chatter, gray wash.
				44						
		Dark gray CLAY, trace fine Sand (wet) [CL]		45	S-13	SS	6	16 50/3"	50/3"	Take S-13 from 45 to 45.75 ft. Refusal encountered at 45.75 ft.
				46						Drill to 48 ft, heavy rig chatter, gray wash.
				47						4/16/2025 4:51 PM. 04/17/2025; 8:22 AM.
	+352.1	Dark gray to black DOLOSTONE; fine grained moderately weathered; close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[05:05] [06:22] [07:15] [05:39] [06:31]	48	C-1	NX	REC=49"/60"=82%	RQD=30"/60"=50%		Take C-1 from 48 to 53 ft. Slow acid test response. C-1: UCS = 36479 psi
				49						
				50						
				51						
				52						
		Dark gray to black DOLOSTONE; fine grained moderately weathered; close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[05:20] [06:19] [06:40]	53	C-2	NX	REC=60"/60"=100%	RQD=40"/60"=68%		Take C-2 from 53 to 58 ft. Slow acid test response. C-2: UCS = 17762 psi
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-106** Sheet 4 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.1

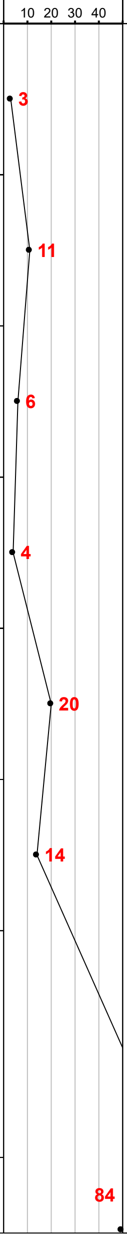
Material Symbol	Elev. (ft) +344.1	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[05:08]	56						
▨			[05:36]	57						C-2: UCS = 23772 psi
	+342.1	End of Boring at 58.0ft.		58						Boring terminated at 58 ft. Boring backfilled to grade with soil cuttings
				59						
				60						
				61						
				62						
				63						
				64						
				65						
				66						
				67						
				68						
				69						
				70						
				71						
				72						
				73						
				74						
				75						
				76						

Log of Boring LB-R-107

Sheet 1 of 3

Project: Micron New York Manufacturing Facility
Project No.: 170883801
Location: Town of Clay, New York
Elevation and Datum: Approx +EL 395.5 NAVD88
Drilling Company: Atlantic Testing Laboratories (ATL)
Date Started: 4/15/2025
Date Finished: 4/15/2025
Drilling Equipment: CME-75
Completion Depth: 45.0 ft
Rock Depth: 35.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit
Number of Samples: Disturbed 10 | Undisturbed 0 | Core 2
Casing Diameter (in): 4
Casing Depth (ft): 30.0
Water Level (ft.): First ▽ 1.0 | Completion ▼ N/A | 24 HR. ▼ N/A
Casing Hammer: Automatic | Weight (lbs) 140 | Drop (in) 30
Drilling Foreman: Brad Perry
Sampler: 2in OD Split Spoon, NQ Core Barrel (1.875in)
Field Engineer: Shreeya Pandey
Sampler Hammer: Automatic | Weight (lbs) 140 | Drop (in) 30

Elev. (ft) +395.5	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A			WOH		04/15/2025; 9:15 AM. Utility Clearance Exemption Signed by PIC.
+395.0	Light brown SILT, trace fine Sand (moist) [ML] ▽		1	S-1B	SS	15	WOH 3 4	3	Take S-1 from 0 to 2 ft.
	Light brown SILT, some fine Sand (wet) [ML]		2	S-2	SS	20	6 7 4 5	11	Take S-2 from 2 to 4 ft. S-2: LL = 18%; PI = 5% Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Light brown SILT, some fine Sand (wet) [ML]		4	S-3	SS	18	5 4 2 2	6	Take S-3 from 4 to 6 ft.
+389.5	Brown CLAY, trace fine Sand (wet) [CL]		6	S-4	SS	19	4 2 2 2	4	Take S-4 from 6 to 8 ft. S-4: LL = 21%; PI = 5% Drive casing to 8 ft. Drill to 8 ft, brown wash.
+387.5	Brown medium to fine SAND, trace Silt, trace fine angular Gravel (wet) [SP-SM]		8	S-5	SS	12	12 11 9 9	20	Take S-5 from 8 to 10 ft.
	Brownish gray medium to fine SAND, trace Silt, trace fine Gravel (wet) [SP-SM]		10	S-6	SS	15	9 7 7 8	14	Take S-6 from 10 to 12 ft.
			12						
			13						Drive casing to 15 ft. Drill to 15 ft, light rig chatter, gray wash.
			14						
	Gray medium to fine SAND, trace Silt, trace fine angular Gravel (wet) [SP-SM]		15		SS		19 30 54	84	Take S-7 from 15 to 16.9 ft.
			16						



LANGAN Log of Boring **LB-R-107** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 395.5

Material Symbol	Elev. (ft) +379.5	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				16	S-7		2	50/5"		
				17						Drill to 20 ft, light rig chatter, gray wash.
	+375.5	Dark gray CLAY, trace fine angular Gravel (wet) [CL]		20	S-8	SS	8	48 50/3"	50/3"	Take S-8 from 20 to 20.75 ft. Refusal encountered at 20.75 ft.
				23						Drive casing to 25 ft. Drill to 25 ft, heavy rig chatter, gray wash.
	+370.5	Dark gray medium to fine SAND, some fine angular Gravel, trace Clay (wet) [SP-SC]		25	S-9	SS	4	50/4"	50/4"	Take S-9 from 25 to 25.3 ft. Refusal encountered at 25.33 ft.
				28						Drive casing to 30 ft. Drill to 30 ft, heavy rig chatter, brown wash.
	+365.5	Dark gray CLAY, trace fine angular Gravel (wet) [CL]		30	S-10	SS	9	50 50/3"	50/3"	Take S-10 from 30 to 30.75 ft. Refusal encountered at 30.75 ft.
				33						Drive casing to 35 ft. Drill to 35 ft, heavy rig chatter, gray wash.
	+360.5	Dark gray to black DOLOSTONE; fine grained slightly to moderately weathered; close to moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[09:14]	35						Take C-1 from 35 to 40 ft. Slow acid test response.
				36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-107** Sheet 3 of 3

Project: Micron New York Manufacturing Facility

Project No.: 170883801

Location: Town of Clay, New York

Elevation and Datum: 395.5

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+359.5	Dark gray to black DOLOSTONE; fine grained quartz; slightly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[06:05]	36	C-1	NX	REC=60"/60"=100%	RQD=37"/60"=62%		
			[05:56]	37						
			[06:44]	38						
			[05:28]	39						C-1: UCS = 12394 psi
			[06:12]	40	C-2	NX	REC=60"/60"=100%	RQD=44"/60"=73%		Take C-2 from 40 to 45 ft. Slow acid test response.
			[08:05]	41						
			[07:30]	42						
			[05:08]	43						Boring terminated at 45 ft. Borehole backfilled to grade with soil cuttings.
	+350.5		[05:22]	44						
		End of Boring at 45.0ft.		45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-108** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 4/2/2025	Date Finished: 4/3/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth: 34.0 ft	Rock Depth: 24.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 9 Undisturbed: 0 Core: 2
Casing Diameter (in): 4	Casing Depth (ft): 21.0	Water Level (ft.)	First ▽ 6.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Ning Lee
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

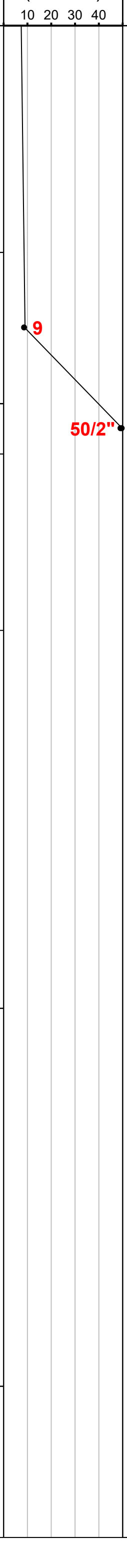
Elev. (ft) +392.8	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Orangish brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	17	WOH 3 4	7	04/02/2025,7:35AM. Utilities clearance signed by PIC. Take S-1 from 0 to 2 ft. S-1A: #4 = 99%; #200 = 91% S-1A: LL = 37%; PI = 18%
+391.4	Grayish brown CLAY, trace fine Sand (moist) [CL]			S-1B			5		
	Brown CLAY, trace fine Sand (moist) [CL]		2	S-2 S-2B	SS	13	5 5 5 5	10	Take S-2 from 2 to 4 ft.
	Brown CLAY, trace fine Sand (moist) [CL]		4	S-3 S-3B	SS	21	4 7 7 6	14	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft. S-3: LL = 44%; PI = 26%
+386.8	▽ Yellowish brown Silty CLAY, trace fine Sand (wet) [CL-ML]		6	S-4 S-4B	SS	24	5 6 8 9	14	Take S-4 from 6 to 8 ft. S-4: #4 = 100%; #200 = 98% S-4: LL = 25%; PI = 7%
	Yellowish brown Silty CLAY, trace fine Sand (wet) [CL-ML]		8	S-5	SS	11	WOH 1 3 8	4	Drive casing to 8 ft. Drill to 8 ft, low rig chatter, brown wash. Take S-5 from 8 to 10 ft.
+382.8	Brownish gray Sandy SILT (wet) [ML]		10	S-6	SS	18	7 8 8 9	16	Take S-6 from 10 to 12 ft.
			12						Drive casing to 14 ft. Drill to 14 ft, low rig chatter, brown wash.
	Grayish brown Sandy SILT (wet) [ML]		14	S-7	SS	17	3 3 4 3	7	Take S-7 from 14 to 16 ft. S-7: LL = NP; PI = NP
			16						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-108** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.8

Elev. (ft) +376.8	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16						Drive casing to 19 ft. Drill to 19 ft, low rig chatter, brown wash.
+373.8	Light gray Silty fine SAND (wet) [SM]		19	S-8	SS	11	5 5 4 5	9	Take S-8 from 19 to 21 ft.
	No Recovery		21	S-9	SS	0	5 50/2"	50/2"	Refusal was encountered at 21.67 ft; Drive casing to 24 ft. Drill to 24 ft , heavy rig chatter, brown wash.
+368.8	Gray to dark gray DOLOSTONE; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[04:47] [02:18] [05:03] [12:10] [04:58]	24	C-1	NX	REC=60"/60"=100%	RQD=30"/60"=50%		Take C-1 from 24 to 29 ft. C-1: UCS = 11753 psi Loss of water.
	Dark gray to gray DOLOSTONE; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[06:15] [04:47] [14:40] [08:11] [11:22]	29	C-2	NX	REC=57"/60"=95%	RQD=12"/60"=20%		Take C-2 from 29 to 34 ft. Loss of water. Boring terminated at depth 34 ft. Boring backfilled to grade with soil cuttings.
+358.8	End of Boring at 34.0ft.		34						



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-109** Sheet 1 of 2

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 389.1 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 5/2/2025	Date Finished 5/2/2025
Drilling Equipment CME-75		Completion Depth 33.1 ft	Rock Depth 23.1 ft
Size and Type of Bit 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 11	Undisturbed 0; Core 2
Casing Diameter (in) 4	Casing Depth (ft) 23.0	Water Level (ft.): First ∇ 3.0	Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer Automatic	Weight (lbs) 140; Drop (in) 30	Drilling Foreman Brad Perry	
Sampler 2in OD Split Spoon, NQ Core Barrel (1.875in)		Field Engineer Shreeya Pandey	
Sampler Hammer Automatic	Weight (lbs) 140; Drop (in) 30		

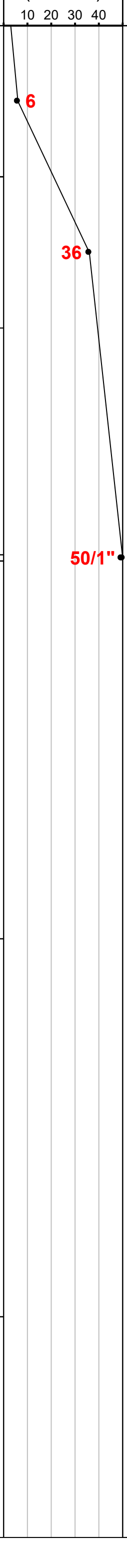
Elev. (ft) +389.1	Sample Description	Coring (min)
+388.3	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	
	Tannish brown CLAY, trace fine Sand (moist) [CL]	
+385.1	Tannish brown CLAY, trace fine Sand (moist) [CL] ∇	
	Brown SILT, trace fine Sand (wet) [ML]	
	Brown SILT, trace fine Sand (wet) [ML]	
	Light brown SILT, trace fine Sand (wet) [ML]	
	Light brown SILT, trace fine Sand (wet) [ML]	
+375.1	Gray SILT, trace fine Sand (wet) [ML]	
	Gray Silty fine SAND, trace fine angular Gravel (wet) [SM]	

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	S-1A S-1B	SS	19	1 4 4 4	8	05/02/2025. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
2	S-2	SS	20	5 4 4 4	8	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
4	S-3	SS	19	2 2 3 2	5	Take S-3 from 4ft to 6ft.
6	S-4	SS	22	3 3 4 4	7	Take S-4 from 6ft to 8ft. S-4: #4 = 100%; #200 = 99% S-4: LL = NP; PI = NP Drive casing to 8ft. Drill to 8ft, gray wash.
8	S-5	SS	16	1 1 1 1	2	Take S-5 from 8ft to 10ft.
10	S-6	SS	15	4 5 2 2	7	Take S-6 from 10ft to 12ft. Drive casing to 12ft. Drill to 12ft, gray wash.
12	S-7	SS	15	3 4 5 6	9	Take S-7 from 12ft to 14ft. Drive casing to 14ft. Drill to 14ft, gray wash.
14	S-8	SS	9	1 WOH WOH 1	0	Take S-8 from 14ft to 16ft.
16						

LANGAN Log of Boring **LB-R-109** Sheet 2 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	389.1

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+373.1	Gray Silty fine SAND, trace fine angular Gravel (wet) [SM]		16–18	S-9	SS	24	3 2 4 2	6	Take S-9 from 16ft to 18ft. S-9: #4 = 90%; #200 = 47% S-9: LL = NP; PI = NP Drive casing to 18ft. Drill to 18ft, gray wash. Soft rig chatter from 17ft to 18ft.
	Gray Silty fine SAND, trace fine angular Gravel (wet) [SM]		18	S-10A	SS	10	24 21 15 20	36	Take S-10 from 18ft to 20ft.
+370.6	Gray to black GRAVEL, trace Clay, trace fine Sand (wet) [Weak ROCK]		19	S-10B					
			21						Drive casing to 23ft. Drill to 23ft, gray wash. Soft rig chatter from 21ft to 23ft.
+366.1	No Recovery		23	S-11	SS	0	50/1"	50/1"	Take S-11 from 23ft to 23.1ft.
+366.0	Dark gray to gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh weathered; close to moderate fracture spacing; fractures near vertical to near horizontal; rock quality good; [BEDROCK]	[05:27] [05:39] [03:58] [04:06] [04:27]	23.1–28.1	C-1	NX	REC=60"/60"=100%	RQD=52"/60"=87%		Refusal encountered at 23.1 ft. Take C-1 from 23.1ft to 28.1ft. Moderately reactive to acid.
	Dark gray to gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh weathered; moderate fracture spacing; fractures near horizontal; rock quality excellent; [BEDROCK]	[00:00] [00:00] [00:00] [00:00] [00:00]	28.1–33.1	C-2	NX	REC=60"/60"=100%	RQD=60"/60"=100%		Take C-2 from 28.1ft to 33.1ft. Moderately reactive to acid.
+356.0	End of Boring at 33.1ft.		33.1						Boring terminated at 33.1 ft. Boring backfilled to grade with soil cuttings.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

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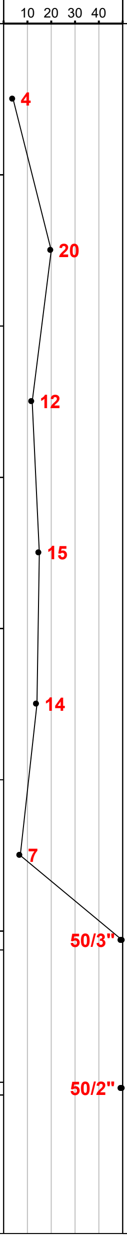
Log of Boring **LB-R-110** Sheet 1 of 2

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 387.7 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/19/2025	Date Finished: 4/21/2025
Drilling Equipment: CME-55LC		Completion Depth: 24.2 ft	Rock Depth: 14.2 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 8	Undisturbed 0 Core 2
Casing Diameter (in): 4	Casing Depth (ft): 14.0	Water Level (ft.): First ▽ 4.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Scott McGregor	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Brendon Creed	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Elev. (ft) +387.7	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+387.2	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	15	WOH		04/19/2025, 2:36 PM. Utility Clearance Exemption Signed by PIC.
	Tannish brown Sandy SILT (moist) [ML]		1	S-1B			1 3 10	4	Take S-1 from 0 to 2 ft.
	Tannish brown Sandy SILT (moist) [ML]		2 3	S-2	SS	15	6 10 10 9	20	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, tannish brown wash.
	▽ Tannish brown SILT, some fine Sand (wet) [ML]		4 5	S-3	SS	14	3 6 6 6	12	Take S-3 from 4 to 6 ft.
	Tannish brown SILT, some fine Sand (wet) [ML]		6 7	S-4A	SS	12	7 6 9	15	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, tannish brown wash.
+379.7	Tannish brown SILT, some fine Sand (wet) [ML]			S-4B			11		
	Grayish brown to dark gray medium to fine SAND, trace Clay, trace fine Gravel (moist) [SP-SC]		8 9	S-5	SS	11	13 5 9 10	14	Take S-5 from 8 to 10 ft. Drive casing to 10ft. Drill to 10 ft, light rig chatter, gray wash.
	Grayish brown to dark gray medium to fine SAND, trace Clay, some fine Gravel (moist) [SP-SC]		10 11	S-6	SS	5	6 4 3 10	7	Take S-6 from 10 to 12 ft.
+373.7	Dark gray medium to fine SAND, trace fine Gravel, trace Clay (moist) [SP-SC]		12 13	S-7	SS	1	50/3"	50/3"	Take S-7 from 12 to 14 ft. Drive casing to 14 ft. Drill to 14 ft, heavy rig chatter from 13 to 14 ft.
+373.6	No Recovery		14	S-8	SS	0	50/2"	50/2"	Take S-8 from 14 to 16 ft.
	Dark gray to black SHALE; fine grained slightly weathered; close to moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality fair [BEDROCK]	[04:51] [07:36]	15 16						Refusal encountered at 14.2ft. Take C-1 from 14.2 to 19.2 ft.



LANGAN Log of Boring **LB-R-110** Sheet 2 of 2

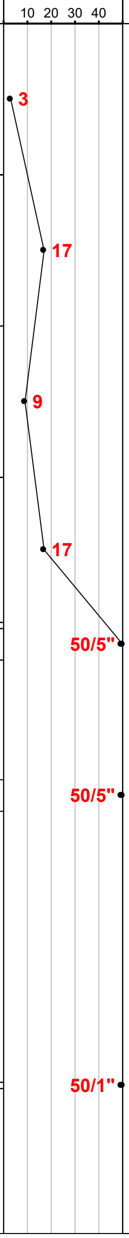
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 387.7

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+371.7	Dark gray to black SHALE; fine grained slightly weathered; close to moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality excellent; [BEDROCK]	[08:26] [05:55] [07:33]	16 17 18 19	C-1	NX	REC=53"/60"=88%	RQD=44"/60"=72%		
			[05:07] [08:20] [07:26] [03:32] [03:55]	20 21 22 23 24	C-2	NX	REC=60"/60"=99%	RQD=60"/60"=99%		Take C-2 from 19.2 to 24.2 ft. C-2: UCS = 16379 psi C-2: UCS = 9692 psi
	+363.6	End of Boring at 24.2ft.		25 26 27 28 29 30 31 32 33 34 35 36						Boring terminated at 24.2ft. Boring backfilled to grade with soil cuttings.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-111** Sheet 1 of 2

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 387.1 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/22/2025	Date Finished: 4/23/2025
Drilling Equipment: CME-55LC		Completion Depth: 26.5 ft	Rock Depth: 16.5 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 8	Undisturbed 0 Core 3
Casing Diameter (in): 4	Casing Depth (ft): 16.0	Water Level (ft.): First ▽ 4.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Scott McGregor	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Brendon Creed	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		



Elev. (ft) +387.1	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	14	1		04/22/2025, 2:23 PM. Utility Clearance Exemption Signed by PIC
+386.6	Brown Silty CLAY, trace fine Sand (moist) [CL-ML]		1	S-1B			1 2	3	Take S-1 from 0 to 2 ft.
				S-1C			3		
	Brown Silty CLAY, trace fine Sand (moist) [CL-ML]		2	S-2	SS	14	4 8		Take S-2 from 2 to 4 ft. S-2: LL = 22%; PI = 4%
			3				9 9	17	Drive casing to 4 ft. Drill to 4ft, tannish brown wash.
+383.1	▽ Dark brown to dark gray SILT, trace fine Sand, trace fine Gravel (wet) [ML]		4	S-3	SS	13	4 5		Take S-3 from 4 to 6 ft. S-3: #4 = 96%; #200 = 84% S-3: LL = NP; PI = NP
			5				4 5	9	
+381.1	Dark brown to dark gray medium SAND, some Clay, some fine Gravel (wet) [SC]		6	S-4A	SS	16	3 6		Take S-4 from 6 to 8 ft. S-4A: LL = 20%; PI = 2%
			7				11	17	Drill to 8 ft. Drill to 8ft, moderate rig chatter, dark brown wash.
+379.6	Gray GRAVEL (dry) [Weak ROCK]			S-4B			50/5"		
	Gray GRAVEL (dry) [Weak ROCK]		8	S-5	SS	3	50/5"	50/5"	Take S-5 from 8 to 10 ft.
			9						Drive casing to 10ft. Drill to 10 ft, heavy rig chatter, dark brown wash.
	Gray GRAVEL (dry) [Weak ROCK]		10	S-6	SS	2	50/5"	50/5"	Take S-6 from 10 to 12 ft.
			11						Drill to 14 ft, heavy intermittent chatter, dark brown wash.
			12						
			13						
	Gray GRAVEL (dry) [Weak ROCK]		14	S-7	SS	0	50/1"	50/1"	Take S-7 from 14 to 16 ft.
			15						Drive casing to 16 ft. Drill to 16.25 ft, intermittent heavy rig chatter, gray wash.
			16						

LANGAN Log of Boring **LB-R-111** Sheet 2 of 2

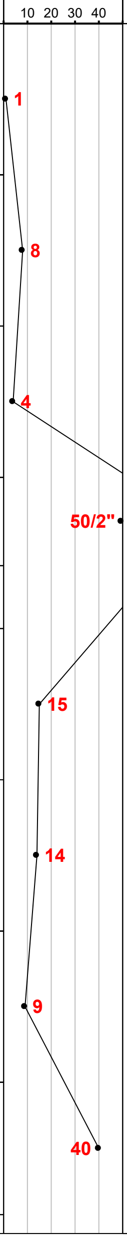
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 387.1

Material Symbol	Elev. (ft) +371.1	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+370.6	No Recovery		16	S-8	SS	0	50/1"	50/1"	Take S-8 from 16.2 to 16.3 ft. Refusal encountered at 16.3ft. Drill to 16.5, heavy rig chatter, gray wash. Take C-1 from 16.5 to 21.5 ft.
▨		Dark gray to black SHALE; fine grained slightly weathered; moderate to close fracture spacing; fractures shallow dipping to near horizontal; rock quality good [BEDROCK]	[06:22]	17	C-1	NX	REC=59"/60"=98%	RQD=50"/60"=83%		
▨			[08:05]	18						
▨			[06:25]	19						C-1: UCS = 13703 psi
▨			[05:59]	20						
▨			[05:28]	21						Take C-2 from 21.5 to 26.5 ft.
▨		Dark gray to black SHALE; fine grained slightly weathered; moderate to close fracture spacing; fractures shallow dipping to near horizontal; rock quality excellent [BEDROCK]	[07:56]	22	C-2A	NX	REC=60"/60"=100%	RQD=60"/60"=100%		
▨		Dark gray to black DOLOSTONE; fine grained slightly weathered; moderate to close fracture spacing; fractures shallow dipping to near horizontal; rock quality excellent [BEDROCK]	[05:48]	23	C-2B					C-2: UCS = 14808 psi
▨			[03:42]	24						
▨			[04:45]	25						
▨			[05:08]	26						
	+360.6	End of Boring at 26.5ft.								Boring terminated at 26.5ft. Boring backfilled to grade with soil cuttings.
				27						
				28						
				29						
				30						
				31						
				32						
				33						
				34						
				35						
				36						

LANGAN Log of Boring LB-R-112 Sheet 1 of 2

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 386.8 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/21/2025	Date Finished: 4/22/2025
Drilling Equipment: CME-55LC		Completion Depth: 28.0 ft	Rock Depth: 18.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 8 / Undisturbed 0	Core 3
Casing Diameter (in): 4	Casing Depth (ft): 15.0	Water Level (ft.): First ▽ 4.0 / Completion ▼ N/A	24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 / Drop (in): 30	Drilling Foreman: Scott McGregor	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Brendon Creed	
Sampler Hammer: Automatic	Weight (lbs): 140 / Drop (in): 30		

Elev. (ft) +386.8	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+386.3	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	18	1 WOH 1 3	1	04/21/2025, 4:51 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	Brown to tannish brown SILT, trace fine Sand (moist) [ML]		1	S-1B					
	Brown to tannish brown SILT, trace Sand (moist) [ML]		2	S-2	SS	19	2 5 3 1	8	Take S-2 from 2 to 4 ft. S-2: #4 = 100%; #200 = 95% S-2: LL = NP; PI = NP Drive casing to 4 ft. Drill to 4 ft, tannish brown wash.
	Tannish brown SILT, some fine Sand (wet) [ML]	▽	4	S-3A	SS	15	1 2 2 3	4	Take S-3 from 4 to 6 ft.
+381.0	Grayish brown fine SAND, some Silt, some fine Gravel (moist) [SM]			S-3B					
	Tannish brown to brown fine SAND, some Silt, some Gravel (moist) [SM]		6	S-4A	SS	12	8 31 50/2"	50/2"	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, light chatter, tannish brown wash.
			7	S-4B					
	Tannish brown Silty fine SAND, some Gravel (wet) [SM]		8	S-5A	SS	10	9 9 6 5	15	Take S-5 from 8 to 10 ft.
+377.3	Gray fine SAND, trace Clay, trace fine Gravel (wet) [SP-SC]			S-5B					
	Gray fine SAND, trace Clay, trace fine Gravel (wet) [SP-SC]		10	S-6	SS	7	5 8 6 6	14	Take S-6 from 10 to 12 ft. Drive casing to 12ft. Drill to 12 ft, light chatter, gray wash.
	Gray fine SAND, trace Clay, trace fine Gravel (wet) [SP-SC]		12	S-7	SS	4	4 4 5 6	9	Take S-7 from 12 to 14 ft. Drive casing to 14 ft. Drill to 14 ft, gray wash.
	Dark gray to black fine angular Weak ROCK (moist) [GP]		14	S-8	SS	8	13 20 20 50/3"	40	Take S-8 from 14 to 16 ft.
			16						



LANGAN Log of Boring **LB-R-112** Sheet 2 of 2

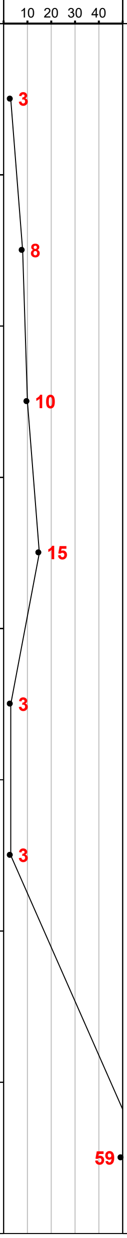
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 386.8

Material Symbol	Elev. (ft) +370.8	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨				16						Drive casing to 18 ft. Drill to 18 ft, gray wash.
▨				17						
▨	+368.8 +368.8	Dark gray to black DOLOSTONE; fine grained highly weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality poor [BEDROCK]	[07:26]	18	C-1	NX	REC=56"/60"=93%	RQD=26"/60"=43%		Take C-1 from 18 to 23 ft.
▨			[07:47]	19						
▨			[05:02]	20						
▨			[02:59]	21						
▨			[06:33]	22						
▨		Dark gray to black DOLOSTONE; fine grained highly weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality poor [BEDROCK]	[03:42]	23	C-2A	NX	REC=60"/60"=100%	RQD=18"/60"=29%		Take C-2 from 23 to 28 ft.
▨			[04:26]	24						
▨			[02:59]	25						
▨		Dark gray to black LIMESTONE; fine grained highly weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality poor [BEDROCK]	[04:33]	26	C-2B					
▨			[06:45]	27						
	+358.8	End of Boring at 28.0ft.		28						Boring terminated at 28ft. Boring backfilled to grade with soil cuttings.
				29						
				30						
				31						
				32						
				33						
				34						
				35						
				36						

LANGAN Log of Boring **LB-R-113** Sheet 1 of 2

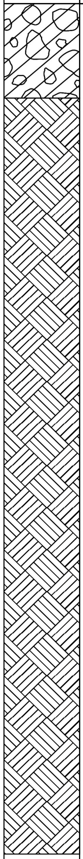
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 384.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/17/2025 / 4/17/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	27.2 ft / 17.3 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 7 / Undisturbed 0 / Core 3
Casing Diameter (in)	4 / Casing Depth (ft) 16.0	Water Level (ft.)	First ▽ 4.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Field Engineer	Brendon Creed

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+384.0	Dark brown CLAY, some medium to fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	13	WOH 1	3	04/17/2025, 9:11 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+383.5	Tannish brown SILT, trace fine Sand (moist) [ML]	0.5	S-1B			2 4		
	Tannish brown SILT, trace fine Sand (moist) [ML]	2	S-2	SS	18	6 4 4 4	8	Take S-2 from 2 to 4 ft. S-2: #4 = 100%; #200 = 97% S-2: LL = NP; PI = NP Drive casing to 4 ft. Drill to 4 ft, tannish brown wash.
	Tannish brown SILT, trace fine Sand (wet) [ML] ▽	4	S-3	SS	15	3 4 6 6	10	Take S-3 from 4 to 6 ft. S-3: #4 = 100%; #200 = 97% S-3: LL = NP; PI = NP
	Tannish brown Sandy SILT (wet) [ML]	6	S-4	SS	16	5 10 5 7	15	Take S-4 from 6 to 8 ft. Drive casing to 8ft. Drill to 8 ft, tannish brown wash.
	Grayish brown SILT, trace fine Sand (wet) [ML]	8	S-5	SS	16	1 1 2 1	3	Take S-5 from 8 to 10 ft.
+374.0	Light brown to grayish brown Silty fine Sand, trace fine Gravel (wet) [SM]	10	S-6	SS	21	WOH WOH 3 4	3	Take S-6 from 10 to 12 ft. S-6: #4 = 94%; #200 = 47% S-6: LL = NP; PI = NP
		12						Drive casing to 14ft. Drill to 14 ft, light rig chatter, light brown wash.
+370.0	Dark gray GRAVEL, some Clay, trace fine Sand (wet) [Weak ROCK]	14	S-7	SS	11	4 13 46 50	59	Take S-7 from 14 to 16 ft.
		16						



LANGAN Log of Boring **LB-R-113** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 384.0

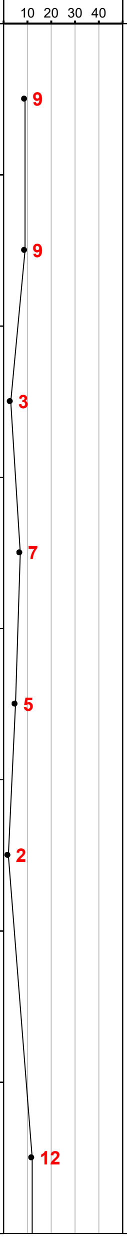


Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+368.0			16						Drive casing to 14 ft. Drill to 17.25 ft, heavy rig chatter from 15 to 17.25 ft, grayish brown wash.
+366.8	Dark gray to black DOLOSTONE; medium to fine grained highly weathered; very close fracture spacing; fractures shallow dipping to near horizontal; rock quality very poor; [SHALE]	[05:48]	17	C-1	NX	REC=60"/60"=100%	RQD=4"/60"=7%		Take C-1 from 17.3 to 22.3 ft.
		[04:14]	18						
		[02:38]	19						
		[02:25]	20						
		[04:44]	21						
	Dark gray to black DOLOSTONE; medium to fine grained highly weathered; very close fracture spacing; fractures shallow dipping to near horizontal; rock quality fair [SHALE]	[02:30]	22	C-2A	NX	REC=60"/60"=100%	RQD=38"/60"=62%		Take C-2 from 22.3 to 27.3 ft.
		[03:34]	23						C-2: UCS = 21651 psi
		[02:34]	24						
	Dark gray to black LIMESTONE; medium to fine grained highly weathered; very close fracture spacing; fractures shallow dipping to near horizontal; rock quality fair [SHALE]	[04:29]	25	C-2B					
		[02:40]	26						
+356.8	End of Boring at 27.2ft.		27						Boring terminated at 27.3 ft. Boring backfilled to grade with soil cuttings.
			28						
			29						
			30						
			31						
			32						
			33						
			34						
			35						
			36						

LANGAN Log of Boring **LB-R-114** Sheet 1 of 2

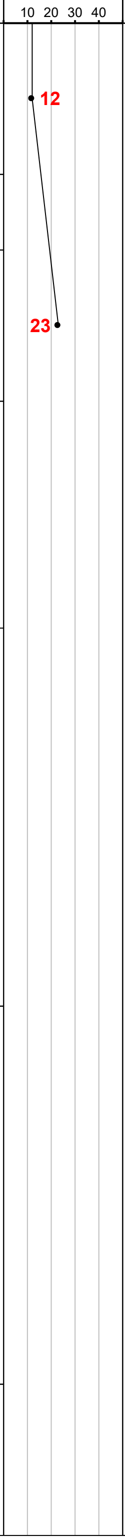
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 393.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	5/1/2025
		Date Finished	5/2/2025
Drilling Equipment	CME-75	Completion Depth	34.0 ft
		Rock Depth	24.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9; Undisturbed 1; Core 2
Casing Diameter (in)	4	Water Level (ft.)	First ∇ 3.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Depth (ft)	21.0		
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, Shelby Tube, NQ Core Barrel (1.875in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+393.0	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	0	S-1A	SS	12	WOH 2	9	05/01/2025. 3:38 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+392.5	Tannish brown CLAY (moist) [CL]	0.5	S-1B			7 5		
	Tannish brown CLAY, trace fine Sand (moist) [CL] ∇	2	S-2	SS	17	3 5 4 4	9	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
+389.0	Light brown Silty CLAY, trace fine Sand (wet) [CL-ML]	4	S-3	SS	17	2 1 2 1	3	Take S-3 from 4ft to 6ft. S-3: #4 = 100%; #200 = 98% S-3: LL = 21%; PI = 5%
	Light brown Silty CLAY, trace fine Sand (wet) [CL-ML]	6	S-4	SS	15	3 3 4 2	7	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
	Light brown Silty CLAY, trace fine Sand (wet) [CL-ML]	8	S-5	SS	18	2 2 3 3	5	Take S-5 from 8ft to 10ft.
	Light brown Silty CLAY trace fine Sand (wet) [CL-ML]	10	S-6A	SS	18	WOH 1 1 1	2	Take S-6 from 10ft to 12ft. 05/01/2025 4:45 PM. 05/02/2025 8:33 AM.
+381.7	Brown SILT, trace fine Sand, trace fine angular Gravel (wet) [ML]	11	S-6B					Drive casing to 12ft. Drill to 12ft, gray wash.
	Brown SILT, trace fine Sand, trace fine angular Gravel (wet) [ML]	12	UD-1	U	24			Take U-1 from 12ft to 14ft. U-1: LL = NP; PI = NP
	Brown SILT, trace fine Sand, trace fine angular Gravel (wet) [ML]	14	S-7	SS	6	WOH 3 9 3	12	Drive casing to 14ft. Drill to 14ft, gray wash. Take S-7 from 14ft to 16ft.
		16						



LANGAN Log of Boring **LB-R-114** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0



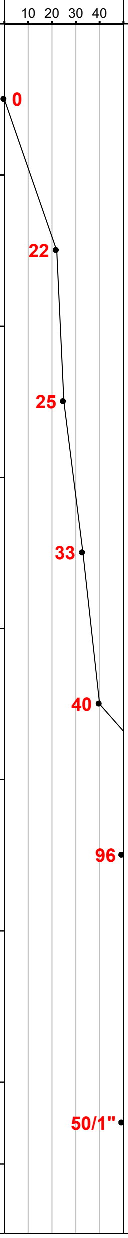
Material Symbol	Elev. (ft) +377.0	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		Brown SILT, trace fine Sand, trace fine angular Gravel (wet) [ML]		16	S-8A	SS	19	1 5 7	12	Take S-8 from 16ft to 18ft. S-8A: LL = NP; PI = NP
	+375.6	Dark gray Gravelly fine SAND, trace Clay (wet) [SP-SC]		17	S-8B			10		
				18						Drive casing to 19ft. Drill to 19ft, light rig chatter from 18ft to 19ft, gray wash.
		Dark gray fine SAND, some Silt, some fine Gravel (wet) [SM]		19	S-9	SS	8	18 12 11 16	23	Take S-9 from 19ft to 21ft. S-9: #4 = 68%; #200 = 26% S-9: LL = NP; PI = NP
				20						
				21						
				22						Drive casing to 24ft. Casing refusal at 24ft. Drill to 24ft, moderate rig chatter, gray wash.
				23						
	+369.0	Gray to dark gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh to slightly weathered; close fracture spacing; fractures near vertical to near horizontal; rock quality poor; [BEDROCK]	[07:11]	24	C-1	NX	REC=56"/60"=93%	RQD=29"/60"=48%		Refusal encountered at 24ft. Take C-1 from 24ft to 29ft.
			[07:36]	25						Loss of water from 24ft to 25ft, heavy rig chatter from 24ft to 25ft.
			[04:28]	26						
			[03:56]	27						
			[04:18]	28						Moderately reactive to acid.
		Gray to dark gray calcareous DOLOSTONE ; fine grained dolomite , shale; fresh weathered; close to moderate fracture spacing; fractures near horizontal; rock quality good; [BEDROCK]	[05:52]	29	C-2	NX	REC=57"/60"=95%	RQD=51"/60"=85%		Take C-2 from 29ft to 34ft.
			[04:45]	30						
			[04:47]	31						Loss Of Water from 31ft to 32ft.
			[05:00]	32						
			[04:38]	33						
	+359.0	End of Boring at 34.0ft.		34						Moderately reactive to acid. Boring terminated at 34 ft. Temporary well installed on 05/02/2025.
				35						
				36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-115** Sheet 1 of 3

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 388.3 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/9/2025	Date Finished: 4/10/2025
Drilling Equipment: CME-55LC		Completion Depth: 40.0 ft	Rock Depth: 20.0 ft
Size and Type of Bit: 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 8	Undisturbed 0 Core 4
Casing Diameter (in): 4	Casing Depth (ft): 19.0	Water Level (ft.): First ▽ 0.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman: Scott McGregor	
Sampler: 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer: Brendon Creed	
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Depth Scale	Elev. (ft)	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	+388.3 +388.1	Dark brown CLAY, trace fine Sand, roots (wet) [TOPSOIL] Grayish brown SILT, trace fine Sand (wet) [ML]	S-1A			WOR		04/09/2025,11:23 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
1			S-1B	SS	6	WOH WOH 1	0	
2		Brown to grayish brown SILT, some fine Gravel, trace fine Sand (moist) [ML]	S-2	SS	15	1 9 13 18	22	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
4		Brown to dark grayish brown Gravelly SILT, trace fine Sand (moist) [ML]	S-3	SS	11	12 12 13 13	25	Take S-3 from 4 to 6 ft.
6		Brown to grayish brown Gravelly SILT, trace fine Sand (moist) [ML]	S-4	SS	11	18 17 16 18	33	Take S-4 from 6 to 8 ft. Drive casing to 8ft. Drill to 8 ft, light rig chatter, brown wash.
8		Brown to grayish brown Gravelly SILT, trace fine Sand (moist) [ML]	S-5	SS	12	19 17 23 26	40	Take S-5 from 8 to 10 ft. Drive casing to 10ft. Drill to 10 ft, moderate rig chatter, brown wash.
10		Dark brown to black Silty GRAVEL, trace fine Sand (moist) [GM]	S-6	SS	11	27 40 56 42	96	Take S-6 from 10 to 12 ft.
12								Drive casing to 14ft. Drill to 14 ft, light rig chatter, brown wash.
14	+374.3	Dark gray to black Clayey fine SAND, some fine Gravel (moist) [SC]	S-7	SS	7	6 34 50/1"	50/1"	Take S-7 from 14 to 16 ft.
16								



Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 388.3

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+372.3			16						Drive casing to 18 ft. Drill to 19 ft, heavy chatter from 15 to 19 ft, brown wash.
			17						
			18						
+369.3	Dark gray GRAVEL (wet) [Weak ROCK]		19	S-8	SS	1	3 50/5"	50/5"	Take S-8 from 19 to 21 ft.
+368.3	Dark gray to black SHALE; fine grained slightly weathered; moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality good; [BEDROCK]	[08:03]	20	C-1	NX	REC=58"/60"=97%	RQD=46"/60"=76%		Refusal encountered at 19.9 ft. Drill to 20 ft, moderate rig chatter from 19 to 20 ft, brown wash. Take C-1 from 20 to 25 ft.
		[07:54]	21						
		[06:45]	22						
		[06:08]	23						
		[06:57]	24						
	Dark gray to black SHALE; fine grained slightly weathered; moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality excellent [BEDROCK]	[05:11]	25	C-2	NX	REC=60"/60"=100%	RQD=60"/60"=100%		Take C-2 from 25 to 30 ft.
		[05:00]	26						
		[04:38]	27						
		[07:01]	28						
		[07:24]	29						
	Dark gray to black SHALE; fine grained slightly weathered; moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality good [BEDROCK]	[07:51]	30	C-3	NX	REC=60"/60"=100%	RQD=48"/60"=81%		Take C-3 from 30 to 35 ft.
		[04:55]	31						
		[06:21]	32						
		[05:29]	33						C-3: UCS = 18103 psi
		[03:03]	34						
	Dark gray to black LIMESTONE; fine grained slightly weathered; moderate to close fracture spacing; fractures shallow dipping to near horizontal; rock quality excellent [BEDROCK]	[05:24]	35						Take C-4 from 35 to 40 ft.
			36						

LANGAN Log of Boring **LB-R-115** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 388.3

Material Symbol	Elev. (ft) +352.3	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[04:59]	36						C-4: UCS = 39491 psi
▨			[05:24]	37	C-4	NX	REC=60"/60"=100%	RQD=55"/60"=92%		
▨			[05:29]	38						
▨			[07:14]	39						
	+348.3	End of Boring at 40.0ft.		40						Boring terminated at 40 ft. Installed 3-inch PVC to facilitate OTV/ATV and Packer testing.
				41						
				42						
				43						
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-116** Sheet 1 of 3

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 395.0 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 4/11/2025	Date Finished 4/14/2025
Drilling Equipment CME-55LC		Completion Depth 43.0 ft	Rock Depth 33.0 ft
Size and Type of Bit 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 10	Undisturbed 0; Core 4
Casing Diameter (in) 4	Casing Depth (ft) 32.0	Water Level (ft.): First ▽ 2.0	Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer Automatic	Weight (lbs) 140; Drop (in) 30	Drilling Foreman Scott McGregor	
Sampler 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer Brendon Creed	
Sampler Hammer Automatic	Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +395.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+394.8	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL] Tannish brown Sandy SILT (moist) [ML]		0	S-1A S-1B	SS	11	WOH 1 1 4	2	04/11/2025, 3:23 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	▽ Tannish brown to orangish brown SILT, trace fine Sand (wet) [ML]		2	S-2	SS	13	5 7 7 7	14	Take S-2 from 2 to 4 ft. S-2: #4 = 100%; #200 = 96% S-2: LL = NP; PI = NP Drive casing to 4 ft. Drill to 4 ft, tannish brown wash.
	Tannish brown to orangish brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	9	5 4 3 2	7	Take S-3 from 4 to 6 ft. S-3: LL = NP; PI = NP
	Tannish brown to orangish brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	14	2 3 4 5	7	Take S-4 from 6 to 8 ft. S-4: #4 = 100%; #200 = 95% S-4: LL = NP; PI = NP Drive casing to 8 ft. Drill to 8 ft, moderate rig chatter from 7 to 8 ft, tannish brown wash.
+385.2	Tannish brown to brown Silty fine SAND, trace fine Gravel (wet) [SM]		8	S-5A	SS	10	19 11 12 9	23	Take S-5 from 8 to 10 ft. Drive casing to 10ft. Drill to 10 ft, moderate rig chatter, tannish brown wash.
	Dark gray CLAY, trace fine Gravel (wet) [CL] Dark gray CLAY, trace fine Gravel (wet) [CL]		10	S-5B S-6	SS	12	9 9 15 17	24	Take S-6 from 10 to 12 ft.
			12						Drive casing to 14 ft. Drill to 14 ft, moderate rig chatter, grayish brown wash. Possilble boulder at 12 ft.
	Dark gray CLAY, trace fine Gravel (wet) [CL]		14	S-7	SS	8	9 11 15 15	26	Take S-7 from 14 to 16 ft.
			16						

LANGAN Log of Boring **LB-R-116** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 395.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+379.0			16						Drive casing to 19ft. Drill to 19 ft, heavy rig chatter, gray wash.
+376.0	Dark gray to grayish brown GRAVEL, trace Clay (moist) [Weak ROCK]		19	S-8	SS	9	9 49 50/3"	50/3"	Take S-8 from 19 to 21 ft. S-8: LL = 22%; PI = 6%
			21						Drill to 20 ft, heavy rig chatter, brownish gray wash. Attempt to core.
			25						Drive casing to 24 ft. Drill to 28 ft, heavy rig chatter, brownish gray wash.
	Dark gray to grayish brown GRAVEL, trace Clay (moist) [Weak ROCK]		28	S-9	SS	1	50/1"	50/1"	Take S-9 from 28 to 30 ft. Refusal encountered at 28.1ft. Drill to 32 ft. Hard drilling, brownish gray wash.
			32	S-10	SS	0	50/0"	50/0"	Take S-10 from 32 to 34 ft. Refusal encountered at 32.1ft. Drill to 33ft, heavy rig chatter, gray wash.
+362.0	Dark gray calcareous SHALE; medium to fine grained moderately weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality poor; [BEDROCK]	[06:44]	33	C-1A	NX	REC=60"/60"=100%	RQD=24"/60"=39%		Take C-1 from 33 to 38 ft.
		[07:27]	34						
		[06:01]	35						
			36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-116** Sheet 3 of 3

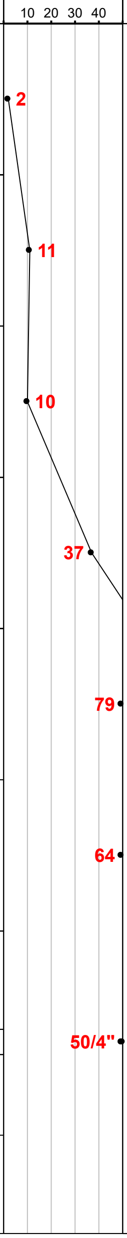
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 395.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+359.0	Dark gray calcareous DOLOSTONE; medium to fine grained moderately weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality poor [SHALE]	[04:23]	36						
▨			[08:10]	37	C-1B					
▨		Dark gray calcareous DOLOSTONE; medium to fine grained moderately weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality fair [SHALE]	[04:30]	38						Take C-2 from 38 to 43 ft.
▨			[04:47]	39	C-2A					
▨			[07:00]	40		NX	REC=60"/60"=100%	RQD=34"/60"=57%		C-2: UCS = 11588 psi
▨		Dark gray calcareous LIMESTONE; medium to fine grained moderately weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality fair [SHALE]	[04:29]	41						
▨			[05:59]	42	C-2B					
	+352.0	End of Boring at 43.0ft.		43						Boring terminated at 43 ft. Boring backfilled to grade with soil cuttings.
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-117** Sheet 1 of 2

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 398.4 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 4/1/2025	Date Finished 4/1/2025
Drilling Equipment Geoprobe 7822DT		Completion Depth 29.7 ft	Rock Depth 14.7 ft
Size and Type of Bit 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 7	Undisturbed 0 Core 3
Casing Diameter (in) 4	Casing Depth (ft) 13.0	Water Level (ft.): First ▽ 3.0	Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer Automatic	Weight (lbs) 140 Drop (in) 30	Drilling Foreman Robert Drake	
Sampler 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer Roonak Ghaderi	
Sampler Hammer Automatic	Weight (lbs) 140 Drop (in) 30		

Elev. (ft) +398.4	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown SILT, some fine to medium Sand (moist) [ML]		0–2	S-1	SS	6	0 1 1 6	2	04/01/2025, 10:40 AM Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+396.4	Brown to mottled orange Silty fine Sand, trace fine angular Gravel (moist) [SM] ▽		2–4	S-2	SS	13	29 6 5 4	11	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. S-2: #4 = 89%; #200 = 44% S-2: LL = NP; PI = NP Drill to 4 ft, brown wash.
	No Recovery		4–6	S-3	SS	0	WOR WOR 10 WOR	10	Take S-3 from 4 to 6 ft.
	Gray angular GRAVEL, some medium to coarse Sand, trace Silt (wet) [GP-GM]		6–8	S-4	SS	9	12 15 22 21	37	Take S-4 from 6 to 8 ft. Drive casing to 8ft. Drill to 8 ft, brown wash.
+390.4	Dark gray angular GRAVEL, some fine Sand, some Clay (wet) [Weak ROCK]		8–10	S-5	SS	10	12 38 41 43	79	Take S-5 from 8 to 10 ft.
			10–12	S-6	SS	7	13 20 44 50	64	Take S-6 from 10 to 12 ft.
	No Recovery		13.3–13.6	S-7	SS	0	50/4"	50/4"	Drive casing to 13.30 ft. Drill to 13.3 ft, light rig chatter, gray wash. Take S-7 from 13.3 to 13.6 ft.
+383.7	Gray SHALE; moderately weathered; fractures near horizontal; rock quality poor; [BEDROCK]	[01:40]	14.7–16						Casing refusal at 14.7ft. Drill to 14.7 ft, light rig chatter, gray wash. Take C-1 from 14.7 to 19.7 ft.



LANGAN Log of Boring **LB-R-117** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 398.4

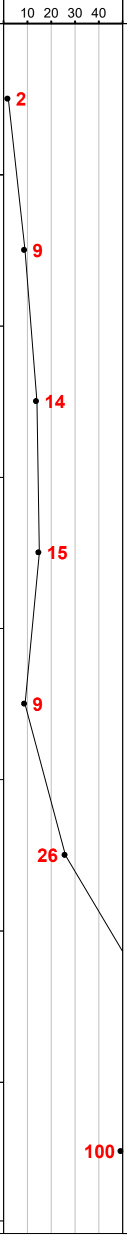
Material Symbol	Elev. (ft) +382.4	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[01:53]	16						
▨			[02:58]	17	C-1	NX	REC=52"/60"=87%	RQD=18"/60"=30%		
▨			[01:30]	18						
▨			[02:05]	19						
▨		Gray SHALE; moderately weathered;rock quality good; [SHALE]	[01:30]	20						Take C-2 from 19.7 to 24.7 ft.
▨			[02:05]	21						
▨			[02:03]	22	C-2	NX	REC=60"/60"=100%	RQD=45"/60"=75%		
▨			[00:00]	23						
▨			[00:00]	24						
▨		Gray SHALE; moderately weathered;rock quality good; [SHALE]	[01:58]	25						Take C-3 from 24.7 to 29.7 ft.
▨			[02:05]	26						
▨			[01:45]	27	C-3	NX	REC=60"/60"=100%	RQD=45"/60"=75%		
▨			[01:55]	28						
▨	+368.7		[01:42]	29						
		End of Boring at 29.7ft.		30						Boring terminated at 29.7 ft. Installed 3-inch PVC to facilitate OTV/ATV.
				31						
				32						
				33						
				34						
				35						
				36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring LB-R-118

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 398.4 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/3/2025 / 4/3/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	43.6 ft / 33.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 29.0	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +398.4	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+398.1	Dark brown SILT, trace fine Sand, roots, organics (wet) [TOPSOIL] Brown SILT, trace fine Sand (wet) [ML]		0–2	S-1	SS	7	0 0 2 3	2	04/03/2025,8:05 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	Brown SILT, trace fine Sand (wet) [ML]		2–4	S-2	SS	18	4 5 4 2	9	Take S-2 from 2 to 4 ft. S-2: #4 = 100%; #200 = 90% S-2: LL = NP; PI = NP
	Brown Sandy SILT, trace fine subangular Gravel (wet) [ML]		4–6	S-3	SS	5	2 6 8 4	14	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
	Brown Sandy SILT, trace fine subangular Gravel (wet) [ML]		6–8	S-4	SS	10	5 6 9 5	15	Take S-4 from 6 to 8 ft.
+390.4	Gray Sandy SILT, some fine angular Gravel (moist) [ML]		8–10	S-5	SS	6	5 4 5 5	9	Drive casing to 8 ft. Drill to 8 ft, brown wash. Take S-5 from 8 to 10 ft.
			10–12	S-6	SS	12	9 14 12 22	26	Take S-6 from 10 to 12 ft.
			12–14						Drive casing to 14 ft. Drill to 14 ft, light rig chatter, gray wash.
+384.4	Dark gray SILT, some fine Sand, trace fine angular Gravel (moist) [ML] Dark gray SILT, some fine Sand, trace fine angular Gravel (moist) [ML]		14–16	S-7	SS	10	50 50 50 50/4"	100	Take S-7 from 14 to 16 ft.



LANGAN Log of Boring **LB-R-118** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 398.4

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+382.4			16						
			17						Drive casing to 19 ft.
			18						Drive casing to 19 ft, light chatter, gray wash.
	Dark gray SILT, some fine Sand, trace fine angular Gravel (moist) [ML]		19	S-8	SS	5	50/4"	50/4"	Take S-8 from 19 to 21 ft.
			20						
			21						
			22						Drive casing to 24 ft.
			23						Drill to 24 ft, light rig chatter, gray wash.
+374.4	Dark gray Silty fine SAND, some fine angular Gravel (moist) [SM]		24	S-9	SS	19	23 70 58 50/4"	128	Take S-9 from 24 to 26 ft. S-9: #4 = 71%; #200 = 31% S-9: LL = NP; PI = NP
			25						
			26						
			27						
			28						Drive casing to 29 ft. Drill to 29 ft, light rig chatter, gray wash.
	Dark gray Silty fine SAND, some fine angular Gravel (moist) [SM]		29	S-10	SS	1	50/1"	50/1"	Take S-10 from 29 to 31 ft.
			30						
			31						
			32						
+365.4	Gray SHALE; moderately weathered; fractures near horizontal; rock quality fair; a 1/4 inch Sand seam are 27 inch from top of core. [BEDROCK]	[01:56]	33	C-1	NX	REC=60"/60"=100%	RQD=42"/60"=70%		Refusal encountered at 33 ft. Take C-1 from 33 to 38 ft.
		[02:02]	34						
		[02:23]	35						
			36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-118** Sheet 3 of 3

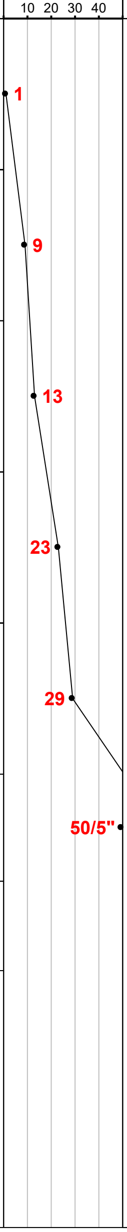
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 398.4

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Sample Data: Type	Sample Data: Recov. (in)	Sample Data: Penetr-resist BL/6in	Sample Data: N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+362.4	Gray SHALE; moderately weathered; fractures near horizontal; rock quality fair [BEDROCK]	[01:48]	36						
▨			[03:12]	37						
▨			[00:00]	38	C-2	NX	REC=67"/67"=100%	RQD=42"/67"=62%		Take C-2 from 38 to 43.6 ft.
▨			[00:00]	39						
▨			[00:00]	40						
▨			[00:00]	41						C-2: UCS = 11772 psi
▨			[00:00]	42						
▨				43						Boring terminated 43.6 ft. Boring backfilled to grade with soil cuttings.
	+354.8	End of Boring at 43.6ft.		44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-119** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 402.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/2/2025 / 4/2/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	33.6 ft / 12.6 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 6; Undisturbed 0; Core 4
Casing Diameter (in)	4; Casing Depth (ft) 11.0	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+402.8	Brown SILT, some fine Sand, trace subrounded Gravel, roots, organics (moist) [TOPSOIL]		0						04/02/2025,8:31 AM. Utility Clearance Exemption Signed by PIC.
+402.4	Brown SILT, some fine Sand (wet) [ML]		1	S-1	SS	5	0 0 1 1	1	Take S-1 from 0 to 2 ft.
	Brown Sandy SILT, trace fine subrounded Gravel (wet) [ML]		2–3	S-2	SS	16	4 3 6 5	9	Take S-2 from 2 to 4 ft. Drive casing to 4 ft.
+398.8	Brown Silty fine GRAVEL, some fine to medium Sand (wet) [GM]		4–5	S-3	SS	7	3 5 8 8	13	Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
+396.8	Brown Silty fine SAND, trace fine subangular Gravel (wet) [SM]		6–7	S-4	SS	11	5 12 11 17	23	Take S-4 from 6 to 8 ft. S-4: LL = NP; PI = NP Drive casing to 8 ft. Drill to 8 ft, brown wash.
	Brown Silty SAND, some fine subangular Gravel (wet) [SM]		8–9	S-5A S-5B	SS	12	10 10 19 18	29	Take S-5 from 8 to 10 ft.
+393.4	Gray Sandy SILT, some fine Gravel (wet) [ML] Gray Sandy SILT, some fine subangular Gravel (wet) [ML]		10–11	S-6	SS	8	13 16 50/5"	50/5"	Take S-6 from 10 to 11.4 ft.
			12						Drive casing to 12.6 ft. Drill to 12.6 ft, gray wash.
+390.2	Gray SHALE; highly weathered; fractures near horizontal; rock quality very poor; [BEDROCK]	[01:25] [03:30] [04:00]	13–16	C-1	NX	REC=43"/72"=60%	RQD=0"/72"=0%		Refusal encountered at 12.6 ft. Take C-1 from 12.6 to 18.6 ft.



LANGAN Log of Boring **LB-R-119** Sheet 2 of 2

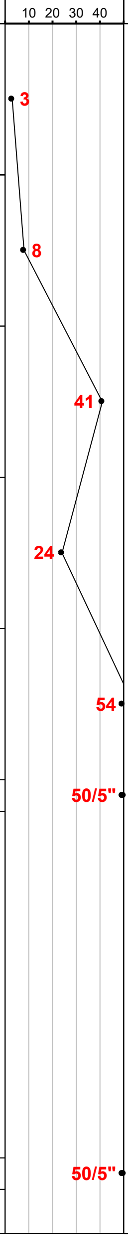
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 402.8

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+386.8		[03:45]	16						
▨			[03:38]	17						
▨				18						
▨		Gray SHALE; highly weathered; fractures near horizontal; rock quality poor; [BEDROCK]	[03:15]	19						Take C-2 from 18.6 to 23.6 ft.
▨		Gray Clay infill	[03:45]	20						
▨			[02:58]	21	C-2	NX	REC=60"/60"=100%	RQD=26"/60"=44%		
▨			[03:05]	22						
▨			[02:07]	23						
▨		Gray SHALE; highly weathered;rock quality very poor; [BEDROCK]	[03:09]	24						Take C-3 from 23.6 to 28.6 ft.
▨			[04:14]	25						
▨			[03:44]	26	C-3	NX	REC=18"/60"=30%	RQD=0"/60"=0%		
▨			[03:18]	27						
▨			[03:20]	28						
▨		Gray SHALE; moderately weathered; fractures near horizontal; rock quality fair; [BEDROCK]	[02:00]	29						Take C-4 from 28.6 to 33.6 ft.
▨			[02:00]	30						
▨			[02:00]	31	C-4	NX	REC=60"/60"=100%	RQD=41"/60"=68%		
▨			[02:00]	32						
▨			[02:00]	33						
	+369.2	End of Boring at 33.6ft.		34						Boring terminated at 33.6 ft. Boring backfilled to grade with soil cuttings.
				35						
				36						

LANGAN Log of Boring **LB-R-120** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 406.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/16/2025 / 4/16/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	55.5 ft / 45.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 13 Undisturbed 0 Core 2
Casing Diameter (in)	4	Casing Depth (ft)	45.0
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Water Level (ft.)	First ▽ 0.0 Completion ▼ N/A 24 HR. ▼ N/A
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Drilling Foreman	Robert Drake
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Roonak Ghaderi

Elev. (ft)	Sample Description ▽	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+406.0	Dark brown SILT, trace fine Sand, roots (wet) [TOPSOIL]	0	S-1A	SS	14	WOH WOH 3	3	04/16/2025,7:53 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+404.5	Light brown SILT, some fine Sand (wet) [ML]		S-1B			4		
	Light brown SILT, some fine Sand (wet) [ML]	2	S-2	SS	16	5 3 5 16	8	Take S-2 from 2 to 4 ft.
	Light brown SILT, some fine Sand (wet) [ML]	4	S-3	SS	18	14 20 21 11	41	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
+400.0	Light brown Silty fine SAND (wet) [SM]	6	S-4	SS	11	6 11 13 11	24	Take S-4 from 6 to 8 ft.
	Light brown Silty fine SAND, some fine subangular Gravel (wet) [SM]	8	S-5	SS	9	9 9 45 48	54	Drive casing to 8 ft, low rig chatter, brown wash. Take S-5 from 8 to 10 ft. Coarse gravel in the bottom inch of sampler. S-5: #4 = 85%; #200 = 40% S-5: LL = NP; PI = NP
+396.0	Grayish brown Clayey fine SAND, some fine subangular Gravel (wet) [SC]	10	S-6	SS	2	50/5"	50/5"	Take S-6 from 10 to 10.4 ft.
		14						Drive casing to 15 ft, drill to 15 ft, heavy rig chatter, gray wash.
	Gray Clayey fine SAND (moist) [SC]	15	S-7	SS	5	50/5"	50/5"	Take S-7 from 15 to 17 ft.



LANGAN Log of Boring **LB-R-120** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.0

Material Symbol	Elev. (ft) +390.0	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				16						
				17						
				18						
				19						
		Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]		20	S-8	SS	14	50 50 50/4"	50/4"	Drill to 20 ft, heavy rig chatter, gray wash. Take S-8 from 20 to 21.3 ft.
				21						
				22						
				23						
				24						
		Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]		25	S-9	SS	4	50/5"	50/5"	Drill to 25 ft, heavy rig chatter, gray wash. Take S-9 from 25 to 25.4 ft.
				26						
				27						
				28						
				29						
		Gray Clayey fine SAND, some fine subangular Gravel (moist) [SC]		30	S-10	SS	9	50 50/4"	50/4"	Drill to 30 ft, heavy rig chatter, gray wash. Take S-10 from 30 to 30.8 ft.
				31						
				32						
				33						
				34						
		Gray Clayey SAND, some fine subangular Gravel (moist) [SC]		35	S-11	SS	5	50/5"	50/5"	Drill to 35 ft, heavy rig chatter, gray wash. Take S-11 from 35 to 35.4 ft.
				36						

LANGAN Log of Boring **LB-R-120** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+370.0			36						
				37						
				38						
				39						
	+366.0	Gray CLAY, trace fine Sand (moist) [CL]		40	S-12	SS	13	47 50 50/1"	50/1"	Drill to 40 ft, heavy rig chatter, gray wash. Take S-12 from 40 to 41.1 ft.
				41						
				42						
				43						
				44						
	+361.0	Gray fine angular GRAVEL, some medium Sand (moist) [Weak ROCK]		45	S-13	SS	1	50/4"	50/4"	Drill to 45 ft, heavy rig chatter, gray wash. Take S-13 from 45 to 45.3 ft.
	+360.5	Gray SHALE; fine grained fresh weathered; fractures near horizontal; rock quality poor; [BEDROCK]	[03:05]	46	C-1	NX	REC=54"/60"=90%	RQD=23"/60"=38%		Refusal encountered at 45.5 ft. Take C-1 from 45.5 to 50.5 ft.
			[03:49]	47						
			[04:34]	48						
			[05:16]	49						C-1: UCS = 17494 psi
			[05:15]	50						
		Gray SHALE; fine grained fresh weathered; fractures near horizontal; rock quality poor; [BEDROCK]	[06:06]	51	C-2	NX	REC=50"/60"=83%	RQD=19"/60"=32%		Take C-2 from 50.5 to 55.5 ft.
			[06:15]	52						
			[07:25]	53						
			[07:10]	54						
			[08:45]	55						
	+350.5	End of Boring at 55.5ft.		56						Boring terminated at 55.5 ft. Boring backfilled to grade with soil cuttings.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

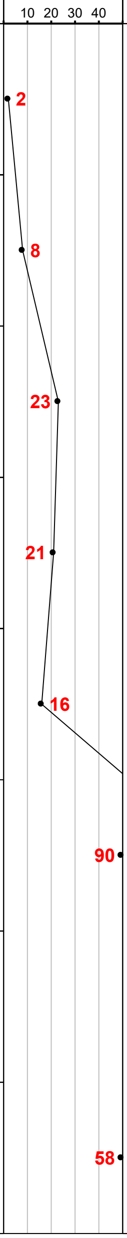
LANGAN Log of Boring LB-R-121

Sheet 1 of 4

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 406.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/4/2025
		Date Finished	4/7/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	62.0 ft
		Rock Depth	52.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 14; Undisturbed 0; Core 2
Casing Diameter (in)	4	Casing Depth (ft)	49.0
Water Level (ft.)	First ▽ 2.0	Completion ▼ N/A	24 HR. ▼ N/A
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Drilling Foreman	Robert Drake
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Field Engineer	Roonak Ghaderi		

Elev. (ft)	Sample Description
+406.0	
+405.5	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]
	Brown SILT, trace fine Sand (moist) [ML]
	▽ Brown SILT, trace fine Sand (wet) [ML]
	Brown SILT, trace fine Sand (wet) [ML]
	Brown SILT, trace fine Sand (wet) [ML]
	Brown SILT, trace fine Sand (wet) [ML]
+396.0	Brown Clayey fine to medium SAND, some fine angular Gravel (wet) [SC]
+394.5	Light brown fine to medium SAND, trace fine subangular Gravel, trace Silt (moist) [SP-SM]
+392.0	Gray Sandy CLAY, some fine angular Gravel (wet) [CL]

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0	S-1A	SS	18	WOR WOR	2
	S-1B			2 3	
2	S-2	SS	18	4 4 4 6	8
4	S-3	SS	19	7 11 12 11	23
6	S-4	SS	20	10 9 12 13	21
8	S-5	SS	18	11 11 5 9	16
10	S-6A	SS	13	20 60 30	90
	S-6B			12	
12					
14	S-7	SS	12	13 28 30 39	58
16					



Remarks

(Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth	Remarks
0	04/04/2025,4:10 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
2	Take S-2 from 2 to 4 ft. S-2: LL = NP; PI = NP
4	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft. S-3: #4 = 100%; #200 = 96% S-3: LL = NP; PI = NP
6	Take S-4 from 6 to 8 ft. S-4: LL = NP; PI = NP
8	Drive casing to 8 ft. Drill to 8 ft, light rig chatter, brown wash. Take S-5 from 8 to 10 ft.
10	Take S-6 from 10 to 12 ft.
12	4/4/2025 17:00 4/5/2025 7:00
14	Drive casing to 14 ft. Drill to 14 ft, moderate rig chatter, gray wash. Take S-7 from 14 to 16 ft.

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+390.0			16						
▨		Gray Sandy CLAY, some fine angular Gravel (moist) [CL]		19	S-8	SS	4	50/4"	50/4"	Drive casing to 19 ft. Drill to 19 ft, moderate rig chatter, gray wash Take S-8 from 19 to 19.3 ft.
▨		Gray Sandy CLAY, some fine angular Gravel (moist) [CL]		24	S-9	SS	15	50 50 50/4"	50/4"	Drill to 24 ft, moderate rig chatter, gray wash. Take S-9 from 24 to 25.3 ft.
▨		Gray Sandy CLAY, some fine angular Gravel (moist) [CL]		29	S-10	SS	5	50/5"	50/5"	Drill to 29 ft, moderate rig chatter, gray wash. Take S-10 from 29 to 29.42 ft.
▨		Gray CLAY, trace fine Sand (moist) [CL]		34	S-11	SS	9	50 50/5"	50/5"	Drill to 34 ft, moderate rig chatter, gray wash. Take S-11 from 34 to 34.9 ft.
▨				36						

LANGAN Log of Boring **LB-R-121** Sheet 3 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+370.0			36						
▨				37						
▨				38						
▨		Gray CLAY, trace fine Sand (moist) [CL]		39	S-12	SS	18	50 40 50 50/4"	90	Drive casing to 39 ft, moderate rig chatter, gray wash. Take S-12 from 39 to 40.8 ft.
▨				40						
▨				41						
▨				42						
▨				43						
▨		Gray CLAY, trace fine Sand (moist) [CL]		44	S-13	SS	22	24 23 44 45	67	Drive casing to 44 ft, light rig chatter, gray wash return. Take S-13 from 44 to 46 ft. S-13: LL = 21%; PI = 6%
▨				45						
▨				46						
▨	+358.5			47						
▒				48						
▒		Gray GRAVEL, trace Clay, trace fine Sand (moist) [Weak ROCK]		49	S-14	SS	8	18 50/3"	50/3"	Drill to 49 ft, moderate rig chatter, gray wash. Take S-14 from 49 to 49.75 ft. Rock fragments at the tip of spoon.
▒				50						
▒	+354.0			51						Drill to 52 ft, heavy rig chatter, gray wash.
▩		Gray DOLOSTONE; moderately weathered; fractures near horizontal; rock quality poor [BEDROCK]	[02:31]	52	C-1	NX	REC=60"/60"=100%	RQD=16"/60"=27%		Refusal encountered at 52 ft. Take C-1 from 52 to 57 ft.
▩			[02:34]	53						
▩			[02:14]	54						
▩			[02:12]	55						
				56						

LANGAN Log of Boring **LB-R-121** Sheet 4 of 4

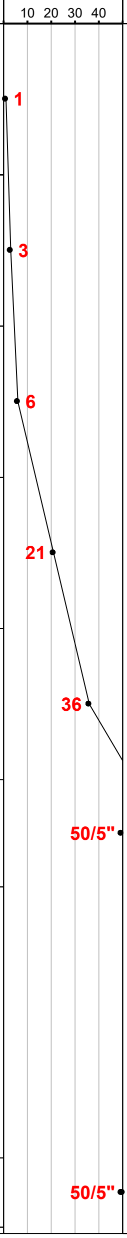
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+350.0	Gray Calcareous DOLOSTONE; inter bedded SHALE; slightly to moderately weathered; fractures near horizontal; rock quality fair [BEDROCK]	[02:24]	56						
▨			[02:02]	57	C-2	NX	REC=60"/60"=100%	RQD=32"/60"=53%		4/5/2025 3:00 PM. 4/7/2025 11:25 AM. Take C-2 from 57 to 62 ft. C-2: UCS = 36730 psi
▨			[03:16]	58						
▨			[02:12]	59						
▨			[02:58]	60						
▨			[01:48]	61						
	+344.0	End of Boring at 62.0ft.		62						Boring terminated at 62 ft. Boring backfilled to grade with soil cuttings.
				63						
				64						
				65						
				66						
				67						
				68						
				69						
				70						
				71						
				72						
				73						
				74						
				75						
				76						

LANGAN Log of Boring **LB-R-122** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 406.6 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/14/2025 / 4/15/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	50.6 ft / 40.6 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 0; Core 3
Casing Diameter (in)	4; Casing Depth (ft) 40.0	Water Level (ft.)	First ▽ 2.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +406.6	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, some fine Sand, roots (wet) [TOPSOIL]		0	S-1A	SS	14	WOH WOH 1 2	1	04/14/2025,01:37 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+405.4	Light brown SILT, some fine Sand (wet) [ML]		1	S-1B					
	▽ Light brown Sandy SILT (wet) [ML]		2	S-2	SS	8	1 1 2 2	3	Take S-2 from 2 to 4 ft.
+402.6	Brown Silty fine SAND, some fine subrounded Gravel (wet) [SM]		4	S-3	SS	10	1 3 3 6	6	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
	Brown Silty fine SAND, trace fine subangular Gravel (wet) [SM]		6	S-4	SS	10	4 7 14 22	21	Take S-4 from 6 to 8 ft. S-4: #4 = 96%; #200 = 48% S-4: LL = NP; PI = NP
	Brown Silty fine SAND, trace fine subangular Gravel (wet) [SM]		8	S-5	SS	13	12 16 20 24	36	Drive casing to 8 ft. Drill to 8 ft, low rig chatter, brown wash Take S-5 from 8 to 10 ft.
	Brownish gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]		10	S-6	SS	1	12 18 50/5"	50/5"	Take S-6 from 10 to 11.4 ft.
	Brownish gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]		15	S-7	SS	6	32 50/5"	50/5"	Drive casing to 15 ft. Drill to 15 ft, heavy rig chatter, gray wash. Take S-7 from 15 to 15.9 ft.



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Log of Boring **LB-R-122** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.6

Elev. (ft) +390.6	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16						
			17						
			18						
			19						
	Brownish gray Silty fine SAND, trace fine subangular Gravel (wet) [SM]		20	S-8	SS	2	10 50/3"	50/3"	Drive casing to 20 ft. Drill to 20 ft, heavy rig chatter, gray wash. Take S-8 from 20 to 20.75 ft.
			21						
+384.6	Light gray BOULDER [GP] Recovered 6in Boulder and 1in grey Silty Sand.	[01:43]	22	C-1	NX	REC=7"/60"=12%	RQD=6"/60"=9%		Refusal encountered at 22 ft. Take C-1 from 22 to 27 ft. Encountered 6 inches of boulder and 1 inch of gray silty sand.
		[01:28]	23						
		[01:28]	24						
		[01:02]	25						
		[01:11]	26						
+379.6	Brownish gray Silty fine SAND (wet) [SM]		27	S-9	SS	10	10 17 42 50	59	Take S-9 from 27 to 29 ft. S-9: #4 = 100%; #200 = 43% S-9: LL = NP; PI = NP
			28						
			29						Drive casing to 30 ft. Drill to 30 ft, heavy rig chatter, gray wash.
+376.6	Gray fine angular GRAVEL (wet) [Weak ROCK]		30	S-10	SS	1	50/4"	50/4"	Take S-10 from 30 to 30.3 ft.
			31						
			32						
			33						
			34						
	Gray fine angular GRAVEL (wet) [Weak ROCK]		35	S-11	SS	1	58/4"	58/4"	Drill to 35 ft, heavy rig chatter, gray wash. Take S-11 from 35 to 35.3 ft. 4/14/2025,4:43PM.
			36						

LANGAN Log of Boring **LB-R-122** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.6

Elev. (ft) +370.6	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			36–40						4/15/2025,9:16 AM. Drill to 40 ft, moderate rig chatter, heavy rig chatter from 39 to 40 ft, gray wash.
+366.0	Gray fine angular GRAVEL (wet) [Weak ROCK]		40–40.6	S-12	SS	2	19 50/1"	50/1"	Take S-12 from 40 to 40.6 ft. Possible cobbles. Refusal encountered at 40.6 ft.
	Gray SHALE; fine grained fresh weathered; fractures near horizontal; rock quality poor [BEDROCK]	[03:13] [02:25] [02:01] [02:05] [02:07]	40.6–45.6	C-2	NX	REC=48"/60"=80%	RQD=19"/60"=32%		Take C-2 from 40.6 to 45.6 ft.
+356.0	Gray SHALE; fine grained fresh weathered; fractures near horizontal; rock quality fair [BEDROCK]	[02:52] [03:20] [02:27] [03:45] [03:25]	45.6–50.6	C-3	NX	REC=60"/60"=100%	RQD=34"/60"=57%		Take C-3 from 45.6 to 50.6 ft. Non-reactive to acid.
	End of Boring at 50.6ft.		50.6–56						Boring terminated at 50.6 ft. Boring backfilled to grade with soil cuttings.

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Log of Boring **LB-R-123** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 410.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/9/2025
		Date Finished	4/9/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	41.5 ft
		Rock Depth	36.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12; Undisturbed 0; Core 1
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▽ N/A
Casing Depth (ft)	36.0	Drilling Foreman	Robert Drake
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Field Engineer	Roonak Ghaderi
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Depth Scale	Elev. (ft) +410.1	Sample Description ▽	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	+409.9	Dark brown SILT, some fine Sand, roots [TOPSOIL]					WOH		04/09/2025,10:30 AM. Utility Clearance Exemption Signed by PIC
		Brown Sandy SILT, trace fine angular Gravel (wet) [SM]		S-1A			WOH		
1				S-1B	SS	9	WOH 1	0	Take S-1 from 0 to 2 ft.
2		Brown Sandy SILT, trace fine angular Gravel (wet) [SM]							Take S-2 from 2 to 4 ft. S-2: #4 = 94%; #200 = 52% S-2: LL = NP; PI = NP
3				S-2	SS	14	5 5 50 8	55	Drive casing to 4 ft. Drill to 4 ft, brown wash.
4									Take S-3 from 4 to 6 ft.
5	+405.1	Brown Sandy SILT, trace fine Gravel (wet) [ML]		S-3	SS	6	50 26 14 28	40	
6		Brown Sandy SILT, trace fine Gravel (wet) [ML]							Take S-4 from 6 to 8 ft. S-4: LL = NP; PI = NP
7				S-4	SS	16	30 35 30 21	65	Drive casing to 8 ft. Drill to 8 ft, light rig chatter, brown wash.
8		Gray Sandy SILT, trace fine subangular Gravel (moist) [ML]							Take S-5 from 8 to 9.3 ft.
9				S-5	SS	11	31 50 51/4"	51/4"	
10		Gray SILT, some fine Sand, some fine angular Gravel (moist) [ML]		S-6	SS	7	40 50/5"	50/5"	Take S-6 from 10 to 10.9 ft.
11									
12									
13									
14									Drive casing to 15 ft. Drill to 15 ft, heavy rig chatter, gray wash
15		Gray Sandy SILT, trace fine subangular Gravel (moist) [ML]		S-7	SS	9	35 50/5"	50/5"	Take S-7 from 15 to 15.9 ft.
16									

LANGAN Log of Boring **LB-R-123** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 410.1

Depth Scale	Elev. (ft)	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
16	+394.1								
17									Drill to 20 ft, moderate to heavy rig chatter, gray wash
20		Gray Sandy SILT (moist) [ML]		S-8	SS	17	33 42 50/5"	50/5"	Take S-8 from 20 to 21.4 ft.
22									Drill to 24 ft, heavy rig chatter, gray wash.
24		Gray Sandy SILT, trace fine angular Gravel (moist) [ML]		S-9	SS	10	50 50/3"	50/3"	Take S-9 from 24 to 24.75 ft.
25									Orange sand at the bottom of the sample.
28									Drill to 29 ft, heavy rig chatter, gray wash.
29	+381.1	Dark gray angular GRAVEL (wet) [Weak ROCK]		S-10	SS	1	50/2"	50/2"	Take S-10 from 29 to 29.2 ft. Possible cobble Drive casing to 25 ft.
33									Drill to 34 ft, heavy rig chatter to 33 ft, low rig chatter from 33 to 34 ft.
34		No Recovery		S-11	SS	0	50/1"	50/1"	Take S-11 at 34 ft to 34.5ft.
35									Drill to 36 ft, moderate rig chatter, gray wash. Take S-12 at 36 ft to 38ft.
36									

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-123** Sheet 3 of 3

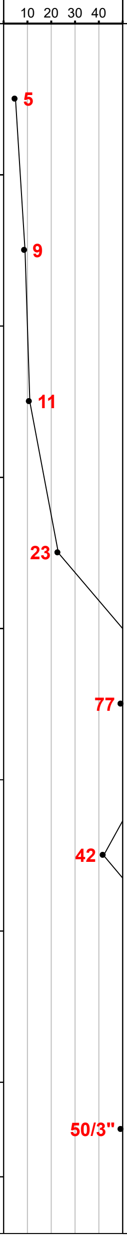
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 410.1

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+374.1			36						
		No Recovery			S-12	SS	0	50/5"	50/5"	Refusal encountered at 36.5 ft. Take C-1 from 36.5 to 41.5 ft.
▨	+373.6	Gray SHALE; fine grained moderately weathered;rock quality very poor; [BEDROCK]	[01:56]	37						
			[01:53]	38						
			[02:26]	39	C-1	NX	REC=50"/60"=83%	RQD=14"/60"=23%		
			[01:58]	40						
			[03:32]	41						
	+368.6	End of Boring at 41.5ft.								Boring terminated at 41.5 ft. Boring backfilled to grade with soil cuttings.
				42						
				43						
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring LB-R-124 Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 404.5 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/7/2025
		Date Finished	4/8/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth	54.1 ft
		Rock Depth	44.1 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 13 Undisturbed 0 Core 2
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Depth (ft)	44.0	Drilling Foreman	Robert Drake
Casing Hammer	Automatic	Field Engineer	Roonak Ghaderi
Weight (lbs)	140		
Drop (in)	30		
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)		
Sampler Hammer	Automatic		
Weight (lbs)	140		
Drop (in)	30		

Elev. (ft) +404.5	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+403.9	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	15	WOR	5	04/07/2025, 2:11 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	Light brown SILT, some fine Sand (moist) [ML]		1	S-1B			1 4 6		
	▽ Brown SILT, some fine Sand (wet) [ML]		2	S-2	SS	18	4 5 4 9	9	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Brown SILT, trace fine Sand, trace fine subrounded Gravel (wet) [ML]		4	S-3	SS	18	2 5 6 6	11	Take S-3 from 4 to 6 ft. S-3: #4 = 96%; #200 = 86% S-3: LL = 16%; PI = 2%
	Brown SILT, some fine subrounded Gravel (wet) [ML]		6	S-4	SS	12	6 10 13 30	23	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, moderate rig chatter, brown wash.
+396.5	Grayish brown Silty CLAY, trace fine Sand (wet) [CL-ML]		8	S-5	SS	15	25 35 42 42	77	Take S-5 from 8 to 10 ft. S-5: #4 = 100%; #200 = 98% S-5: LL = 20%; PI = 5%
	Light brown Silty CLAY, some fine Sand, trace fine subrounded Gravel (wet) [CL-ML]		10	S-6	SS	9	27 42 WOH 77	42	Take S-6 from 10 to 12 ft.
			12						Drive casing to 14ft. Drill to 14 ft, moderate rig chatter, gray wash.
+390.5	Gray CLAY, some fine Sand, trace fine subangular Gravel (wet) [CL]		14	S-7	SS	10	41 89 50/3"	50/3"	Take S-7 from 14 to 15.25 ft.
			16						



LANGAN Log of Boring **LB-R-124** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 404.5

Material Symbol	Elev. (ft) +388.5	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨				16						
				17						
				18						
		Dark gray CLAY, trace fine Sand, trace angular Gravel (wet) [CL]		19	S-8	SS	13	48 72 50/3"	50/3"	Drive casing to 19ft. Drill to 19 ft, moderate rig chatter, gray wash. Take S-8 from 19 to 20.25 ft.
				20						
				21						
				22						
				23						
		Dark gray CLAY, trace fine Sand, trace angular Gravel (wet) [CL]		24	S-9	SS	12	37 59 50/4"	50/4"	Drive casing to 24ft. Drill to 24 ft, moderate rig chatter, gray wash. Take S-9 from 24 to 25.3 ft.
				25						
				26						
				27						
				28						
		Dark gray CLAY, trace fine Sand, trace angular Gravel (wet) [CL]		29	S-10	SS	8	50 50/2"	50/2"	Drive casing to 29ft. Drill to 29 ft, moderate rig chatter, gray wash. Take S-10 from 29 to 29.7 ft.
				30						
				31						
				32						
				33						
		Dark gray CLAY, trace fine Sand, trace angular Gravel (wet) [CL]		34	S-11	SS	18	21 34 37 50/5"	71	Drive casing to 34ft. Drill to 34 ft, moderate rig chatter, gray wash. Take S-11 from 34 to 35.9 ft.
				35						
				36						

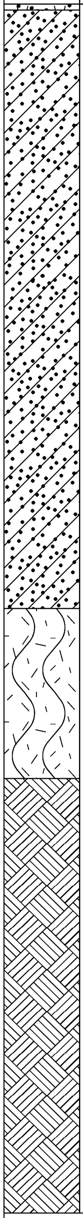
LANGAN Log of Boring **LB-R-124** Sheet 3 of 3

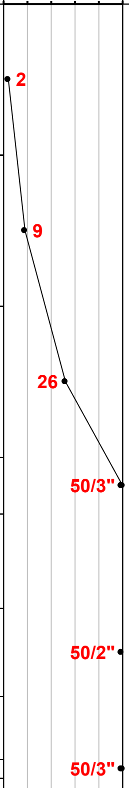
Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 404.5

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+368.5			36						4/7/2025, 4:55PM.
			37						4/8/2025, 08:15 AM .
+365.5	Gray GRAVEL, trace Clay (wet) [Weak ROCK]		39	S-12	SS	7	50 50/1"	50/1"	Drive casing to 39 ft. Drill to 39 ft, heavy rig chatter, gray wash. Take S-12 from 39 to 39.6 ft.
+360.4	Gray SHALE; fine grained moderately to slightly weathered; close fracture spacing; fractures near horizontal; rock quality poor; [BEDROCK]	[02:02]	44	S-13	SS	0	50/1"	50/1"	Drill to 44 ft, heavy rig chatter, gray wash. Take S-13 from 44 to 44.1 ft. Refusal encountered at 44.1 ft.
		[02:25]	45						
		[02:28]	46	C-1	NX	REC=51"/60"=85%	RQD=21"/60"=35%		Take C-1 from 44.1 to 49.1 ft. C-1: UCS = 15822 psi
		[02:55]	47						
		[02:48]	48						
	Gray SHALE; fine grained slightly to moderately weathered; fractures near horizontal; rock quality fair [BEDROCK]	[00:00]	49	C-2	NX	REC=60"/60"=100%	RQD=30"/60"=50%		Take C-2 from 49.1 to 54.1 ft. C-2: UCS = 17002 psi
		[00:00]	50						
		[00:00]	51						
		[00:00]	52						
		[00:00]	53						
+350.4	End of Boring at 54.1ft.		54						Boring terminated at 54.1 ft. Boring backfilled to grade with soil cuttings.
			55						
			56						

LANGAN Log of Boring **LB-R-125** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 406.4 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 4/10/2025	Date Finished: 4/10/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth: 20.5 ft	Rock Depth: 10.5 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 6 Undisturbed: 0 Core: 2
Casing Diameter (in): 4	Casing Depth (ft): 10.0	Water Level (ft.)	First ∇ 4.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		





Elev. (ft) +406.4	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+406.3	Dark brown Clayey fine SAND, roots (moist) [TOPSOIL] Orangish brown Clayey fine SAND, some fine Gravel (wet) [SC]		0	S-1A S-1B	SS	5	WOR WOR 2 2	2	04/10/2025,12:20 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	Orangish brown Clayey fine SAND, some Gravel (wet) [SC]		2	S-2	SS	17	3 4 5 3	9	Take S-2 from 2 to 4 ft. S-2: #4 = 82%; #200 = 44% S-2: LL = 27%; PI = 12% 1-inch dark brown silt at 3.2 ft.
	∇ Orangish brown Clayey fine SAND, some Gravel (wet) [SC]		4	S-3	SS	12	30 13 13 17	26	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
	No Recovery		6	S-4	SS	0	5 50/3"	50/3"	Take S-4 at 6 to 8 ft.
+398.4	Grayish brown GRAVEL, some Silt (wet) [Weak ROCK]		8	S-5	SS	7	35 32 50/2"	50/2"	Drive casing to 8 ft. Drill to 8 ft, heavy rig chatter, brown wash. Take S-5 from 8 to 9.2 ft.
+396.1	No Recovery		10	S-6	SS	0	50/3"	50/3"	Drive casing to Drill to 10 ft, heavy rig chatter, brown wash. Take S-6 at 10 ft to 12 ft. Refusal encountered at 10.5 ft
	Gray SHALE; fine grained slightly weathered; moderate fracture spacing; fractures near horizontal; rock quality fair; [BEDROCK]	[02:13] [01:39] [02:31] [01:51] [01:27]	11 12 13 14 15	C-1	NX	REC=60"/60"=100%	RQD=31"/60"=52%		Take C-1 from 10.5 to 15.5 ft. C-1: UCS = 26340 psi
	Gray SHALE; fine grained slightly weathered; moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]		16						Take C-2 from 15.5 to 20.5 ft.

LANGAN Log of Boring **LB-R-125** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 406.4

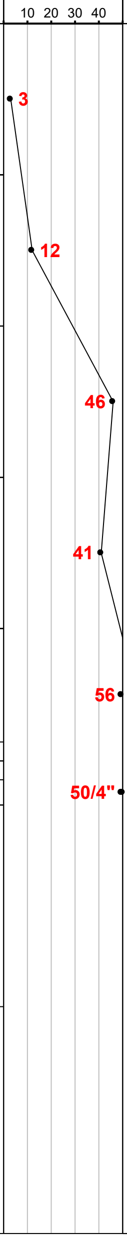
Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+390.4		[01:46]	16						
▨			[02:08]	17						
▨			[02:48]	18	C-2	NX	REC=60"/60"=100%	RQD=36"/60"=60%		
▨			[01:59]	19						
▨	+386.1		[02:06]	20						
		End of Boring at 20.5ft.								Boring terminated at 20.5 ft. Boring backfilled to grade with soil cuttings.
				21						
				22						
				23						
				24						
				25						
				26						
				27						
				28						
				29						
				30						
				31						
				32						
				33						
				34						
				35						
				36						

LANGAN Log of Boring **LB-R-126** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 404.7 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/10/2025 / 4/10/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	23.0 ft / 13.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 7 / Undisturbed 0 / Core 2
Casing Diameter (in)	4 / Casing Depth (ft) 10.0	Water Level (ft.)	First ▽ 4.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic / Weight (lbs) 140 / Drop (in) 30		

Elev. (ft) +404.7	Sample Description	Coring (min)	Depth Scale
+404.1	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0
	Orangish brown Clayey fine SAND, trace fine Gravel (wet) [SC]		0.6
	Orangish brown Clayey fine SAND, trace fine Gravel (wet) [SC]	▽	4
	Orangish brown Clayey fine SAND, some fine Gravel (wet) [SC]		6
+395.2	Orangish brown Clayey fine SAND, some fine Gravel (wet) [SC]		8
+391.7	Grayish brown angular GRAVEL, some Silt (wet) [Weak ROCK] No Recovery		9.5
	Gray SHALE; fine grained moderately weathered; close fracture spacing; fractures near horizontal; rock quality poor; [BEDROCK]	[01:35] [02:32] [02:07]	13

Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
S-1A			WOR	
S-1B	SS	11	1 2 2	3
S-2	SS	18	2 5 7 8	12
S-3	SS	10	5 10 36 8	46
S-4	SS	12	8 18 23 15	41
S-5A	SS	8	30 17 39	56
S-5B			50/3"	
S-6	SS SS	0 8	50/4"	50/4"
C-1	NX	REC=55"/60"=92%	RQD=18"/60"=30%	



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

04/10/2025, 7:53 AM.
Utility Clearance Exemption Signed by PIC.
Take S-1 from 0 to 2 ft.

Take S-2 from 2 to 4 ft.

Drive casing to 4 ft. Drill to 4 ft, brown wash.

Take S-3 from 4 to 6 ft.
S-3: LL = NP; PI = NP

Take S-4 from 6 to 8 ft.
S-4: #4 = 77%; #200 = 36%
S-4: LL = 18%; PI = 6%

Drive casing to 8 ft. Drill to 8 ft, heavy rig chatter, brown wash.

Take S-5 from 8 to 9.75 ft.

Drill to 10 ft, gray wash.

Take S-6 at 10 ft.

Drill to 13ft, heavy rig chatter, gray wash.

Refusal encountered at 13 ft.
Take C-1 from 13 to 18 ft.

LANGAN Log of Boring **LB-R-126** Sheet 2 of 2

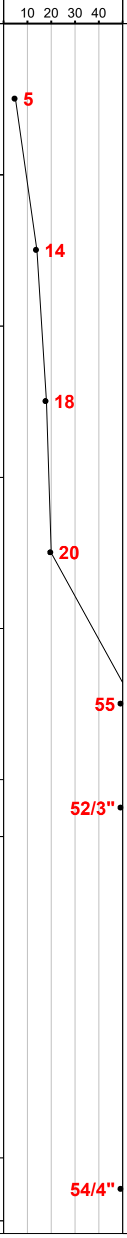
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 404.7

Material Symbol	Elev. (ft) +388.7	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Gray SHALE; fine grained slightly weathered; moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[03:07]	16						
			[03:06]	17						
			[01:45]	18	C-2	NX	REC=60"/60"=100%	RQD=33"/60"=55%		Take C-2 from 18 to 23 ft.
			[01:58]	19						C-2: UCS = 12682 psi
			[01:37]	20						
			[02:08]	21						C-2: UCS = 24456 psi
			[01:52]	22						
	+381.7	End of Boring at 23.0ft.		23						Boring terminatedat 23 ft. Boring backfilled to grade with soil cuttings.
				24						
				25						
				26						
				27						
				28						
				29						
				30						
				31						
				32						
				33						
				34						
				35						
				36						

LANGAN Log of Boring **LB-R-127** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 396.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 4/1/2025	Date Finished: 4/1/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth: 34.2 ft	Rock Depth: 19.3 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8 Undisturbed 0 Core 3
Casing Diameter (in)	4 Casing Depth (ft) 19.0	Water Level (ft.)	First ▽ 3.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Robert Drake
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Roonak Ghaderi
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

Elev. (ft) +396.8	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown SILT, some fine Sand (moist) [ML]		0–2	S-1	SS	24	1 3 2 4	5	04/01/2025, 7:55 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	Brown SILT, some fine Sand (moist) [ML] ▽		2–4	S-2	SS	24	8 6 8 4	14	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
+392.8	Brownish gray fine SAND, some fine angular Gravel, some Silt (wet) [SM]		4–6	S-3	SS	17	6 10 8 7	18	Take S-3 from 4 to 6 ft. S-3: #4 = 68%; #200 = 22% S-3: LL = NP; PI = NP
	Brownish gray Silty fine SAND, trace fine angular Gravel (wet) [SM]		6–8	S-4	SS	18	9 9 11 20	20	Take S-4 from 6 to 8 ft. S-4: #4 = 93%; #200 = 31% S-4: LL = NP; PI = NP Drive casing to 8ft. Drill to 8 ft, light rig chatter, clear wash.
	Brownish gray fine SAND, some Silt, some fine angular Gravel (wet) [SM]		8–10	S-5	SS	6	17 15 40 65	55	Take S-5 from 8 to 10 ft.
	Brownish gray medium to coarse SAND, some angular Gravel, some Silt (wet) [SM]		10–10.75	S-6	SS	18	16 52/3"	52/3"	Take S-6 from 10 to 10.75 ft. Drive casing to 15ft. Drill to 15ft, light rig chatter, brownish gray wash.
+381.3	Dark gray medium to coarse SAND, trace Silt (wet) [SP-SM] Gray SILT, some fine Sand (wet) [ML]		15–15.83	S-7A S-7B	SS	8	16 54/4"	54/4"	Take S-7 from 15 to 15.83 ft.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-127** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 396.8

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+380.8			16						
				17						
				18						Drill to 19ft, heavy rig chatter, gray wash.
	+377.8 +377.5	Gray angular Weak ROCK (wet) [Weak ROCK]		19	S-8	SS	3	50/3"	50/3"	Take S-8 from 19 to 19.3 ft. Take C-1 from 19.25 to 24.25 ft. refusal encountered at 19.3ft.
		Gray SHALE; moderately weathered;rock quality poor; Vertical fractures from 22.25 to 22.75 feet and from 23,8 to 24.4 feet. A half an inch lense of weathering at 22.9 feet. [BEDROCK]	[02:17]	20						
			[02:40]	21						
			[02:31]	22	C-1	NX	REC=60"/60"=100%	RQD=24"/60"=40%		
			[02:28]	23						
			[02:29]	24						Take C-2 from 24.25 to 29.25 ft.
		Gray SHALE; moderately weathered; fractures near horizontal; rock quality fair; [BEDROCK]	[02:52]	25						
			[01:45]	26						
			[01:33]	27	C-2	NX	REC=60"/60"=100%	RQD=42"/60"=70%		
			[01:32]	28						
			[01:35]	29						Take C-3 from 29.25 to 34.25 ft.
		Gray SHALE; slightly weathered; fractures near horizontal; rock quality excellent; [BEDROCK]	[02:02]	30						
			[02:21]	31						C-3: UCS = 11202 psi
			[01:58]	32	C-3	NX	REC=60"/60"=100%	RQD=54"/60"=90%		C-3: UCS = 10315 psi
			[02:42]	33						
	+362.5		[02:29]	34						
		End of Boring at 34.2ft.								Boring terminated at 34.25 ft. Installed 3-inch PVC to facilitate OTV/ATV.
				35						
				36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-128** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 386.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/16/2025
		Date Finished	4/16/2025
Drilling Equipment	CME-55LC	Completion Depth	39.2 ft
		Rock Depth	29.3 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10; Undisturbed 0; Core 2
Casing Diameter (in)	4	Casing Depth (ft)	29.0
Water Level (ft.)	First ▽ 2.0; Completion ▼ N/A; 24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Drilling Foreman	Scott McGregor
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Field Engineer	Brendon Creed		

Elev. (ft) +386.8	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	13	WOH		04/16/2025, 7:50 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+386.3	Tannish brown SILT, trace medium to fine Sand (wet) [ML] ▽		1	S-1B			1 5 6	6	
	Tannish brown SILT, trace medium to fine Sand (wet) [ML]		2	S-2	SS	14	3 5 8 7	13	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, tannish brown wash.
	Tannish brown SILT, trace medium to fine Sand (wet) [ML]		4	S-3	SS	19	7 6 11 14	17	Take S-3 from 4 to 6 ft.
	Tannish brown SILT, trace medium to fine Sand (wet) [ML]		6	S-4	SS	17	19 10 10 9	20	Take S-4 from 6 to 8 ft. S-4: #4 = 100%; #200 = 94% S-4: LL = NP; PI = NP Drive casing to 8ft. Drill to 8 ft, tannish brown wash.
+378.8	Brown medium to fine SAND, some Silt (wet) [SM]		8	S-5A	SS	12	3		Take S-5 from 8 to 10 ft.
+378.3	Dark gray angular fine GRAVEL, trace fine Sand, some Silt (wet) [GM]		9	S-5B			7 8 9	15	
	Dark gray angular fine GRAVEL, trace fine Sand, some Silt (wet) [GM]		10	S-6	SS	10	9 11 14 9	25	Take S-6 from 10 to 12 ft.
			12						Drive casing to 14 ft. Drill to 14 ft, light rig chatter, brown wash.
	Dark gray angular fine GRAVEL, trace fine Sand, some Silt (wet) [GM]		14	S-7	SS	2	16 9 6 6	15	Take S-7 from 14 to 16 ft.
			16						

LANGAN Log of Boring **LB-R-128** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 386.8

Elev. (ft) +370.8	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16						Drive casing to 19 ft. Drill to 19 ft, heavy rig chatter, brown wash.
			17						
			18						
+367.8	Dark brown to grayish brown GRAVEL, trace fine Sand (wet) [Weak ROCK]		19	S-8	SS	8	17 50 50/2"	50/2"	Take S-8 from 19 to 20.167 ft.
			20						
			21						
			22						
			23						
	Dark gray angular GRAVEL, trace fine Sand (wet) [Weak ROCK]		24	S-9	SS	1	50/2"	50/2"	Take S-9 from 24 to 24.167 ft.
			25						Drill to 29 ft, heavy rig chatter, grayish brown wash.
			26						
			27						
			28						Take S-10 from 29 to 29.167 ft.
+357.6	Dark gray angular Weak ROCK, trace fine Sand (wet) [Weak ROCK]		29	S-10	SS	1	50/2"	50/2"	
	Dark gray LIMESTONE; medium to fine grained moderately to highly weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality poor; [BEDROCK]	[09:37]	30	C-1	NX	REC=60"/60"=100%	RQD=20"/60"=32%		Take C-1 from 29.3 to 34.3 ft.
		[09:33]	31						
		[05:34]	32						
		[05:54]	33						
		[05:41]	34						
	Dark gray LIMESTONE; medium to fine grained moderately to highly weathered; close fracture spacing; fractures shallow dipping to near horizontal; rock quality fair [BEDROCK]	[11:21]	35						Take C-2 from 34.3 to 39.3 ft.
		[04:42]	36						C-2: UCS = 35783 psi

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-128** Sheet 3 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 386.8

Material Symbol	Elev. (ft) +350.8	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨				36	C-2	NX	REC=60"/60"=100%	RQD=33"/60"=55%		
▨			[15:08]	37						
▨			[03:41]	38						C-2: UCS = 21761 psi
▨			[03:45]	39						
	+347.6	End of Boring at 39.2ft.								Boring terminated at 39.3 ft. Boring backfilled to grade with soil cuttings.
				40						
				41						
				42						
				43						
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring LB-R-129

Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 398.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/10/2025 / 4/11/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	49.0 ft / 29.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10; Undisturbed 0; Core 6
Casing Diameter (in)	4; Casing Depth (ft) 28.0	Water Level (ft.)	First ▽ 8.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Brendon Creed
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +398.1	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+397.6	Dark brown medium to fine SAND, some Silt, roots (moist) [TOPSOIL]	0	S-1A			1		04/10/2025, 2:02 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	Orangish brown fine SAND, some Silt, roots (moist) [SM]	1	S-1B	SS	9	1 1 1	2	
	Brown Silty medium to fine SAND (moist) [SM]	2	S-2	SS	15	2 2 2 2	4	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Brown to orangish brown Silty fine SAND, trace fine Gravel (moist) [SM]	4	S-3	SS	5	2 1 1 1	2	Take S-3 from 4 to 6 ft.
+392.1	Brown to tannish brown Sandy SILT, trace fine Gravel (moist) [ML]	6	S-4	SS	15	1 4 6 20	10	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, tannish brown wash.
+390.1	▽ Dark gray CLAY, some fine Gravel, some fine Sand	8	S-5	SS	8	26 50/3"	50/3"	Take S-5 from 8 to 8.75 ft.
		9						Drive casing 10ft. Drill to 10 ft, light rig chatter, brownish gray wash.
	Dark gray CLAY, some fine Gravel, some fine Sand	10	S-6	SS	12	25 35 39 38	74	Take S-6 from 10 to 12 ft.
		12						Drive casing to 14ft. Drill to 14 ft, heavy rig chatter, gray wash.
	Dark gray CLAY, some fine Gravel, some fine Sand	14	S-7	SS	16	16 27 47 48	74	Take S-7 from 14 to 16 ft. S-7: #4 = 76%; #200 = 35% S-7: LL = 26%; PI = 12%
		16						

LANGAN Log of Boring **LB-R-129** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 398.1

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+382.1			16						Drive casing to 19ft. Drill to 19 ft, moderate rig chatter, gray wash.
			17						
			18						
+379.1	Tannish brown to dark gray Weak ROCK, some fine Sand (moist) [Weak ROCK]		19	S-8	SS	9	24 50/3"	50/3"	Take S-8 from 19 to 19.8 ft.
			20						
			21						Drive casing to 24ft. Drill to 24 ft, heavy rig chatter from 22 to 24 ft, gray wash.
			22						
			23						
	No Recovery		24	S-9	SS	0	50/0"	50/0"	Take S-9 from 24 to 24.1 ft.
			25						Drill to 28 ft, heavy rig chatter, gray wash.
			26						
			27						
	No Recovery		28	S-10	SS	0	50/0"	50/0"	Take S-10 from 28 to 28.1 ft. Refusal encountered at 28.1 ft. Drill to 29ft, heavy rig chatter, gray wash.
+369.1	Dark gray to black SHALE; fine grained slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality good; [BEDROCK]	[09:08]	29	C-1	NX	REC=58"/60"=97%	RQD=47"/60"=78%		Take C-1 from 29 to 34 ft.
		[09:41]	30						
		[08:58]	31						
		[06:51]	32						
		[05:01]	33						
	Dark gray to black SHALE; fine grained slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality excellent [BEDROCK]	[08:12]	34						Take C-2 from 34 to 39 ft.
		[06:43]	35	C-2A					C-3: UCS = 13145 psi
			36						

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-129** Sheet 3 of 3

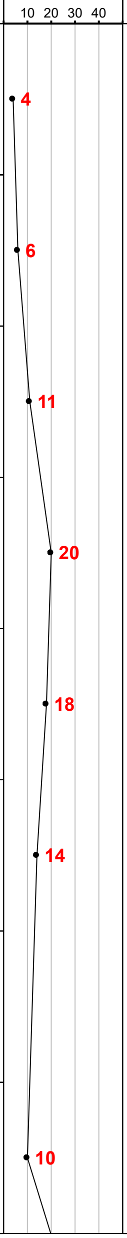
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 398.1

Material Symbol	Elev. (ft) +362.1	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[05:57]	36		NX	REC=60"/60"=100%	RQD=57"/60"=95%		
▨			[04:32]	37						
▨		Dark gray to black DOLOSTONE; fine grained slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality excellent [BEDROCK]	[07:07]	38	C-2B					
▨		Dark gray to black DOLOSTONE; fine grained slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[06:44]	39		NX	REC=60"/60"=100%	RQD=50"/60"=84%		Take C-3 from 39 to 44 ft.
▨			[06:00]	40						
▨			[04:09]	41	C-3A					C-3: UCS = 20748 psi
▨			[04:51]	42						
▨		Dark gray to black LIMESTONE; fine grained slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[07:03]	43	C-3B					
▨		Dark gray to black LIMESTONE; fine grained slightly weathered; moderate to close fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[05:10]	44		NX	REC=59"/60"=98%	RQD=45"/60"=75%		Take C-4 from 44 to 49 ft. C-4: UCS = 26103 psi
▨			[05:46]	45						
▨			[06:19]	46	C-4					
▨			[05:01]	47						
▨			[09:24]	48						
	+349.1	End of Boring at 49.0ft.		49						Boring terminated at 49 ft. Installed 3-inch PVC to facilitate OTV/ATV and Packer testing.
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring LB-R-130 Sheet 1 of 2

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 385.8 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 4/3/2025	Date Finished 4/4/2025
Drilling Equipment Geoprobe 7822DT		Completion Depth 33.2 ft	Rock Depth 19.2 ft
Size and Type of Bit 3-7/8in Tricone Roller Bit		Number of Samples: Disturbed 8; Undisturbed 0; Core 4	
Casing Diameter (in) 4	Casing Depth (ft) 19.0	Water Level (ft.): First ▽ 4.0; Completion ▼ N/A; 24 HR. ▼ N/A	
Casing Hammer Automatic	Weight (lbs) 140; Drop (in) 30	Drilling Foreman Darryl Green	
Sampler 2in OD Split Spoon, NX Core Barrel (2.15in)		Field Engineer Ning Lee	
Sampler Hammer Automatic	Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +385.8	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Orangish brown SILT, some fine Sand, roots (wet) [TOPSOIL]	0	S-1	SS	18	WOH 1 3 3	4	04/03/2025,8:05 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+383.8	Orangish brown SILT, some fine Sand (wet) [ML]	2	S-2	SS	16	4 3 3 4	6	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, low rig chatter, brown wash.
	Brown SILT, trace fine Sand (moist) [ML]	4	S-3	SS	19	5 5 6 7	11	Take S-3 from 4 to 6 ft.
	Light brown SILT, trace fine Sand (wet) [ML]	6	S-4	SS	19	8 9 11 8	20	Take S-4 from 6 to 8 ft. S-4: LL = NP; PI = NP Drive casing to 8 ft. Drill to 8 ft, low rig chatter, brown wash.
	Brownish light gray SILT, some fine Sand (wet) [ML]	8	S-6	SS	15	10 10 8 4	18	Take S-5 from 8 to 10 ft.
	Light gray to brownish gray SILT, trace fine Sand (wet) [ML]	10	S-8	SS	19	3 8 6 4	14	Take S-6 from 10 to 12 ft. S-8: #4 = 99%; #200 = 93% S-8: LL = NP; PI = NP
		12						Drive casing to 14 ft. Drill to 14 ft, low rig chatter, brown wash
	Light gray Sandy SILT, trace subangular Gravel (wet) [ML]	14	S-9	SS	19	WOH 4 6 9	10	Take S-7 from 14 to 16 ft. S-9: #4 = 99%; #200 = 54% S-9: LL = NP; PI = NP



LANGAN Log of Boring **LB-R-130** Sheet 2 of 2

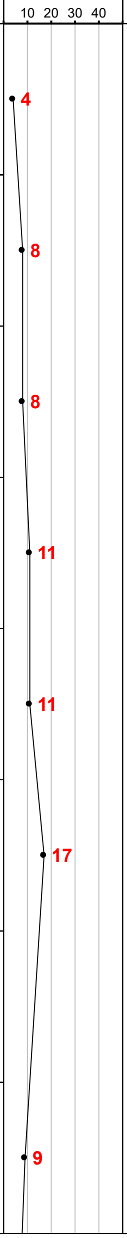
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 385.8

Material Symbol	Elev. (ft) +369.8	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
				16 17 18						Drive casing to 19 ft. Drill to 19 ft, low rig chatter, light gray wash.
	+366.6	No Recovery		19	S-10	SS	0	50/2"	50/2"	Take S-8 from 19 to 19.2 ft. Refusal encountered at 19.2 ft. Take C-1 from 19.2 to 21.2 ft.
▨		Dark gray to gray DOLOSTONE; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor; [BEDROCK]	[07:46] [26:05]	20 21	C-1	NX	REC=58%	RQD=0%		
▨		Dark gray to gray DOLOSTONE; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality fair; [BEDROCK]	[07:25] [07:03] [07:15] [07:55] [09:19]	22 23 24 25 26	C-4	NX	REC=60"/60"=100%	RQD=30"/60"=50%		Take C-2 from 21.2 to 26.2 ft. C-2: UCS = 25773 psi
▨		Dark gray to gray DOLOSTONE ; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[11:38] [10:17]	27 28	C-3	NX	REC=58%	RQD=21%		Take C-3 from 26.2 to 28.2 ft. Water return Low rig chatter, light gray wash.
▨		Dark gray to gray DOLOSTONE ; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality poor [BEDROCK]	[06:12] [07:33] [04:48] [05:55] [03:15]	29 30 31 32 33	C-5	NX	REC=46"/60"=77%	RQD=27"/60"=45%		Take C-4 from 28.2 to 33.2 ft. C-4: UCS = 14770 psi Boring terminated at 33.2 ft. Boring backfilled to grade with soil cuttings.
	+352.6	End of Boring at 33.2ft.		34 35 36						

LANGAN Log of Boring **LB-R-131** Sheet 1 of 3

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 393.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/1/2025 / 4/2/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	37.1 ft / 24.1 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 9; Undisturbed 0; Core 3
Casing Diameter (in)	4; Casing Depth (ft) 24.0	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Ning Lee
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Depth Scale	Elev. (ft) +393.0	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0		Light gray to brown CLAY, trace fine Sand (wet) [CL]	S-1	SS	16	WOH 2 2 2	4	04/01/2025,1:28PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
2		Light brown SILT, trace fine Sand, subangular Gravel (wet) [ML]	S-2	SS	24	5 4 4 4	8	Take S-2 from 2 to 4 ft.
4	+389.0	Brown SILT, trace fine Sand, trace fine Gravel (wet) [ML]	S-3	SS	17	2 4 4 5	8	Take S-3 from 4 to 6 ft. Drive casing to 4 ft. Drill to 4 ft, low rig chatter, brown wash. S-3: #4 = 98%; #200 = 95% S-3: LL = NP; PI = NP
6		Brown Sandy SILT (moist) [ML]	S-4	SS	16	4 6 5 5	11	Take S-4 from 6 to 8 ft.
8		Brown SILT, trace fine Sand, trace fine Gravel (wet) [ML]	S-5	SS	16	4 5 6 7	11	Take S-5 from 8 to 10 ft. Drive casing to 8 ft. Drill to 8 ft, brown wash. S-5: #4 = 100%; #200 = 97% S-5: LL = 21%; PI = 1%
10		Brown SILT, trace fine Sand, trace fine Gravel (wet) [ML]	S-6	SS	22	6 9 8 9	17	Take S-6 from 10 to 12 ft.
12								Drive casing at 14 ft. Drill at 14 ft, brown wash.
14		Brown SILT, trace fine Sand, trace fine Gravel (wet) [ML]	S-7	SS	15	3 5 4 4	9	Take S-7 from 14 to 16 ft.
16								



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-131** Sheet 2 of 3

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+377.0			16						Drive casing to 19 ft. Drill at 19 ft, heavy rig chatter, brown wash.
	Brownish gray SILT, trace fine Sand (moist) [ML]		19	S-8	SS	21	WOH WOH 3 7	3	Take S-8 from 19 to 21 ft. S-8: LL = 14%; PI = 2%
			21						Drive casing to 24 ft. Drill at 24 ft, heavy rig chatter, brown wash.
+369.0 +368.9	No Recovery		24	S-9	SS	0	50/1"	50/1"	Take S-9 from 24 to 24.1 ft.
	Dark gray DOLOSTONE ; fine grained fresh weathered; wide fracture spacing; fractures near horizontal; blocky; rock quality very poor; [BEDROCK]	[07:11] [08:08] [07:40]	24.1	C-1	NX	REC=47%	RQD=11%		Refusal encountered at 24.1 ft. Take C-1 from 24.1 to 27.1 ft.
	Gray to dark gray DOLOSTONE; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality poor [BEDROCK]	[05:30] [05:41] [05:25] [05:33] [05:51]	27.1	C-2	NX	REC=34"/60"=57%	RQD=20"/60"=33%		Take C-2 from 27.1 to 32.1 ft. Loss of water.
	Gray to dark gray DOLOSTONE; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor [BEDROCK]	[06:10] [04:51] [05:12] [04:22]	32.1	C-3	NX	REC=50"/60"=83%	RQD=12"/60"=20%		Take C-3 from 32.1 to 37.1 ft. Loss of water.
			36						

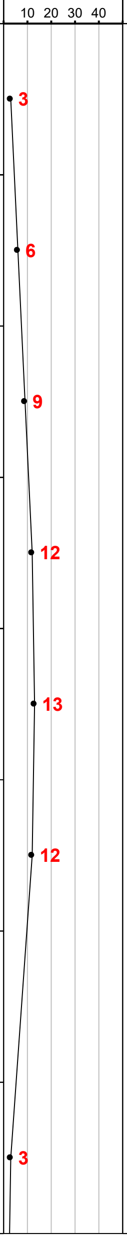
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+357.0			36						
▨			[05:32]							
	+355.9			37						Boring terminated at 37.1 ft. Boring backfilled to grade with soil cuttings.
		End of Boring at 37.1ft.								
				38						
				39						
				40						
				41						
				42						
				43						
				44						
				45						
				46						
				47						
				48						
				49						
				50						
				51						
				52						
				53						
				54						
				55						
				56						

LANGAN Log of Boring **LB-R-132** Sheet 1 of 2

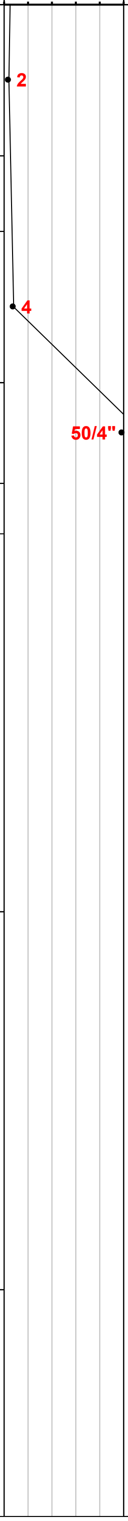
Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 382.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/18/2025
		Date Finished	4/19/2025
Drilling Equipment	CME-55LC	Completion Depth	33.0 ft
		Rock Depth	23.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10; Undisturbed 0; Core 3
Casing Diameter (in)	4	Water Level (ft.)	First ▽ 6.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Depth (ft)	22.0		
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Brendon Creed
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+382.0	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	13	1 1	3	04/18/2025,3:54:43 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+381.5	Tannish brown SILT, trace fine Sand (moist) [ML]		0.5	S-1B			2 3		
	Tannish brown SILT, trace fine Sand (moist) [ML]		2	S-2	SS	17	2 3 3 6	6	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, tannish brown wash.
	Tannish brown SILT, trace fine Sand (moist) [ML]		4	S-3	SS	13	4 5 4 5	9	Take S-3 from 4 to 6 ft. S-3: #4 = 100%; #200 = 98% S-3: LL = NP; PI = NP
	Tannish brown SILT, trace fine Sand (moist) [ML]	▽	6	S-4	SS	18	4 6 6 8	12	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, tannish brown wash.
	Tannish brown SILT, trace fine Sand (moist) [ML]		8	S-5	SS	16	6 7 6 9	13	Take S-5 from 8 to 10 ft.
	Tannish brown SILT, some fine Sand, trace fine Gravel (wet) [ML]		10	S-6A	SS	16	8 8	12	Take S-6 from 10 to 12 ft.
	Grayish brown SILT, trace fine Sand (wet) [ML]		11	S-6B			4 4		Drive casing to 14 ft. Drill to 14 ft, brown wash.
	Grayish brown SILT, trace fine Sand (wet) [ML]		14	S-7	SS	14	2 2 1 1	3	Take S-7 from 14 to 16 ft. Drive casing to 16 ft. Drill to 16 ft, grayish brown wash.
			16						



LANGAN Log of Boring **LB-R-132** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 382.0

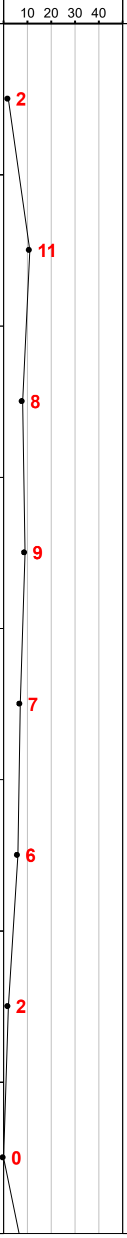


Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+366.0	Grayish brown SILT, trace fine Sand (wet) [ML]		16	S-8	SS	7	2 1 1 1	2	Take S-8 from 16 to 18 ft. Drive casing to 19 ft. Drill to 19 ft, grayish brown wash.
				17						
				18						
		Grayish brown SILT, trace fine Sand (wet) [ML]		19	S-9A	SS	9	2 WOH 4 8	4	Take S-9 from 19 to 21 ft.
	+362.0	Dark gray GRAVEL, trace fine Sand, trace Clay (wet) [Weak ROCK]		20	S-9B					
		Dark gray GRAVEL, some fine Sand, trace Clay (wet) [GP-GC]		21	S-10	SS	12	6 8 50/4"	50/4"	Take S-10 from 21 to 22.3 ft. Drive casing to 23 ft. Drill to 23 ft, heavy rig chatter, gray wash. Refusal encountered at 22.3 ft.
				22						
	+359.0	Dark gray to black LIMESTONE; medium to fine grained moderately weathered; moderate to close fracture spacing; fractures shallow dipping to near horizontal; rock quality fair; [BEDROCK]	[08:51]	23	C-1	NX	REC=60"/60"=100%	RQD=40"/60"=67%		Take C-1 from 23 to 28 ft.
			[10:10]	24						
			[11:45]	25						
			[10:15]	26						
			[13:59]	27						
		Dark gray to black LIMESTONE; medium to fine grained moderately weathered; moderate to close fracture spacing; fractures shallow dipping to near horizontal; rock quality good [BEDROCK] Dark gray to black DOLOSTONE; medium to fine grained moderately weathered; moderate to close fracture spacing; fractures shallow dipping to near horizontal; rock quality good [BEDROCK]	[05:52]	28	C-2A	NX	REC=60"/60"=100%	RQD=50"/60"=83%		Take C-2 from 28 to 33 ft.
			[05:44]	29	C-2B					
			[05:02]	30						
			[04:48]	31						
			[05:43]	32						C-2: UCS = 31786 psi
	+349.0	End of Boring at 33.0ft.		33						Boring terminated at 33 ft. Boring backfilled to grade with soil cuttings.
				34						
				35						
				36						

LANGAN Log of Boring **LB-R-133** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 381.3 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/17/2025 / 4/18/2025
Drilling Equipment	CME-55LC	Completion Depth / Rock Depth	33.0 ft / 23.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 10 / Undisturbed 0 / Core 3
Casing Diameter (in)	4; Casing Depth (ft) 21.0	Water Level (ft.)	First ▽ 6.0 / Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Brendon Creed
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +381.3	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Dark brown SILT, some fine Sand, roots (moist) [TOPSOIL]		0	S-1A	SS	12	WOH WOH 2 3	2	04/17/2025,4:42:03 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+380.3	Brown to tannish brown Sandy SILT (moist) [ML]		1	S-1B					
	Brown to tannish brown Sandy SILT (moist) [ML]		2	S-2	SS	16	3 5 6 7	11	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
	Brown to tannish brown SILT, some fine Sand (moist) [ML]		4	S-3	SS	17	2 4 4 5	8	Take S-3 from 4 to 6 ft.
	Brown to tannish brown SILT, some fine Sand (wet) [ML]	▽	6	S-4	SS	17	3 4 5 5	9	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, tannish brown wash.
	Brown to tannish brown SILT, some fine Sand (wet) [ML]		8	S-5	SS	17	3 4 3 3	7	Take S-5 from 8 to 10 ft. S-5: #4 = 100%; #200 = 98% S-5: LL = NP; PI = NP
	Brown to tannish brown SILT, some fine Sand (wet) [ML]		10	S-6A	SS	12	2 4 2 1	6	Take S-6 from 10 to 12 ft. Drill to 12 ft, light brown wash.
+369.8	Gray Sandy Silty CLAY, trace fine Gravel (wet) [CL-ML]			S-6B					
	Gray Sandy Silty CLAY, trace fine Gravel (wet) [CL-ML]		12	S-7	SS	24	WOH 1 1 2	2	Take S-7 from 12 to 14 ft. S-7: #4 = 90%; #200 = 52% S-7: LL = 17%; PI = 6% Drive casing to 14 ft. Drill to 14 ft, light rig chatter, gray wash.
	Gray Sandy Silty CLAY, trace fine Gravel (wet) [CL-ML]		14	S-8	SS	8	WOR WOR WOR 1	0	Take S-8 from 14 to 16 ft. Drill to 16 ft. Smooth drilling, gray wash.
+365.3			16						



LANGAN Log of Boring **LB-R-133** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 381.3

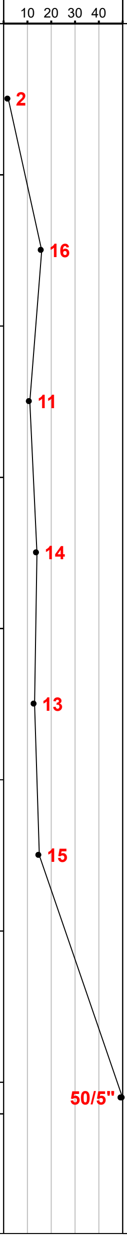
Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+365.3	Gray Clayey fine SAND, trace fine Gravel (wet) [SC]		16–18	S-9	SS	8	4 5 8 9	13	Take S-9 from 16 to 18 ft.
▨				18–19						Drive casing to 19 ft. Drill to 19 ft, grayish brown wash.
▨		Gray to grayish brown medium to fine SAND, some Clay, some fine Gravel (wet) [SC]		19–21	S-10	SS	5	11 6 12 9	18	Take S-10 from 19 to 21 ft.
▨				21–23						Drive casing to 23 ft . Drill to 23 ft, heavy rig chatter, gray to black wash.
▩	+358.3	Dark gray to black LIMESTONE; medium to fine grained moderately weathered; moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality fair; [BEDROCK]	[08:27] [06:41] [07:48] [06:35] [07:29]	23–28	C-1	NX	REC=60"/60"=100%	RQD=42"/60"=69%		Take C-1 from 23 to 28 ft.
▩		Dark gray to black LIMESTONE; medium to fine grained moderately weathered; moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality good [BEDROCK] Dark gray to black DOLOSTONE; medium to fine grained moderately weathered; moderate fracture spacing; fractures shallow dipping to near horizontal; rock quality good [BEDROCK]	[04:59] [04:24] [04:25] [02:57] [05:01]	28–33	C-2A C-2B	NX	REC=58"/60"=97%	RQD=50"/60"=83%		Take C-2 from 28 to 33 ft.
	+348.3	End of Boring at 33.0ft.		33–36						Boring terminated at 33 ft. Boring backfilled to grade with soil cuttings.

LANGAN Log of Boring **LB-R-134** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 382.8 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/4/2025 / 4/4/2025
Drilling Equipment	Geoprobe 7822DT	Completion Depth / Rock Depth	29.4 ft / 14.4 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 7 Undisturbed 0 Core 3
Casing Diameter (in)	4 Casing Depth (ft) 14.0	Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer	Automatic Weight (lbs) 140 Drop (in) 30	Drilling Foreman	Darryl Green
Sampler	2in OD Split Spoon, NX Core Barrel (2.15in)	Field Engineer	Ning Lee
Sampler Hammer	Automatic Weight (lbs) 140 Drop (in) 30		

Elev. (ft)	Sample Description	Coring (min)
+382.8	Dark brown CLAY, trace fine Sand, roots (moist) [TOPSOIL]	
+382.3	Dark brown CLAY, trace fine Sand (moist) [CL]	
	▽ Orangish brown to dark brown CLAY, trace fine Sand (moist) [ML]	
	Light brown CLAY, trace fine Sand (moist) [CL]	
	Brown CLAY, trace fine Sand (moist) [CL]	
	No Recovery	
+373.8	Dark gray medium SAND, trace fine Gravel, trace Silt (wet) [SP-SM]	
	No Recovery	
+368.3	Dark gray to gray DOLOSTONE ; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality very poor; [BEDROCK]	[07:18]

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0	S-1	SS	16	WOH WOH 2 3	2	04/04/2025, 10:51 AM Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
2	S-2	SS	20	4 6 10 8	16	Take S-2 from 2 to 4 ft. S-2: #4 = 100%; #200 = 96% S-2: LL = NP; PI = NP
4	S-3	SS	18	5 5 6 6	11	Drive casing to 4 ft. Drill to 4 ft, low rig chatter, brown wash. Take S-3 from 4 to 6 ft.
6	S-4	SS	18	9 8 6 12	14	Take S-4 from 6 to 8 ft. Drive casing to 8 ft. Drill to 8 ft, heavy rig chatter, brown wash. S-4: LL = 29%; PI = 10%
8	S-5	SS	0	5 7 6 5	13	Take S-5 from 8 to 10 ft.
10	S-6	SS	10	5 7 8 10	15	Take S-6 from 10 to 12 ft.
12						Drive casing to 14 ft. Drill to 14 ft, low rig chatter, light gray wash.
14	S-7	SS	0	50/5"	50/5"	Take S-7 from 14 to 14.4 ft. Refusal encountered at 14.4 ft. Take C-1 from 14.4 to 19.4 ft.



Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-R-134** Sheet 2 of 2

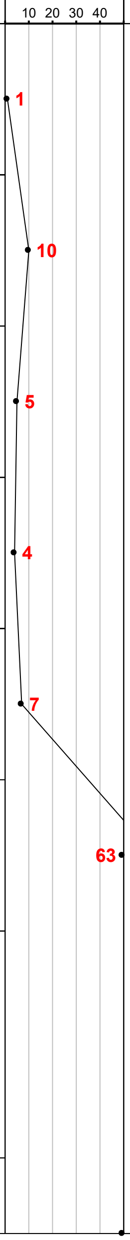
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 382.8

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨	+366.8		[06:51]	16						
			[03:51]	17	C-1	NX	REC=48"/60"=80%	RQD=12"/60"=20%		Heavy rig chatter, Loss of water, brown wash.
			[07:22]	18						
			[06:33]	19						Take C-2 from 19.4 to 24.4 ft.
		Dark gray to gray DOLOSTONE; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[05:22]	20						
			[06:33]	21						
			[05:14]	22	C-2	NX	REC=60"/60"=100%	RQD=35"/60"=58%		Low rig chatter, gray wash.
			[07:25]	23						
			[04:49]	24						Take C-3 from 24.4 to 29.4 ft.
		Dark gray to gray DOLOSTONE; slightly to moderately weathered; very close to close fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[07:21]	25						
			[08:15]	26						
			[09:42]	27	C-3	NX	REC=58"/60"=97%	RQD=42"/60"=70%		Low rig chatter, gray wash.
			[06:31]	28						Boring terminated at 29.4 ft. Boring backfilled to grade with soil cuttings.
	+353.3		[07:55]	29						
		End of Boring at 29.4ft.		30						
				31						
				32						
				33						
				34						
				35						
				36						

LANGAN Log of Boring **LB-R-135** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 391.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	5/6/2025 / 5/6/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	31.0 ft / 21.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8; Undisturbed 0; Core 2
Casing Diameter (in)	4; Casing Depth (ft) 20.0	Water Level (ft.)	First ▽ 0.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Field Engineer	Bahar Ghaneshirazi
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+391.0	Dark brown Silty fine SAND, roots, roots (wet) [TOPSOIL]	0	S-1A	SS	18	WOH WOH		05/06/2025, 11:00 AM Utilities Clearance Exemption Signed by PIC. Take S-1 from 0ft to 2ft.
+390.2	Brown Silty fine SAND (wet) [SM]	1	S-1B			1 2	1	
	Brown Silty fine SAND (wet) [SM]	2	S-2	SS	21	4 4 6 4	10	Take S-2 from 2ft to 4ft. Drive casing to 4 ft. Drill to 4ft, brown wash.
+387.0	Brown SILT, some fine Sand (wet) [ML]	4	S-3	SS	16	4 3 2 2	5	Take S-3 from 4ft to 6ft.
	Brown SILT, trace fine Sand, some fine angular to subangular Gravel (wet) [ML]	6	S-4	SS	8	WOH 1 3 3	4	Take S-4 from 6ft to 8ft. Drive casing to 8 ft. Drill to 8ft, brown wash.
+383.0	Tannish gray Silty fine angular GRAVEL, some fine Sand (wet) [GM]	8	S-5	SS	2	7 4 3 9	7	Take S-5 from 8ft to 10ft.
	Tannish gray Silty fine angular GRAVEL, some fine Sand (wet) [GM]	10	S-6	SS	13	50 35 28 19	63	Take S-6 from 10ft to 12ft. S-6: LL = NP; PI = NP
		12						Drive casing to 15 ft. Drill to 15ft, light rig chatter, grayish brown wash.
	Tannish gray Silty fine angular GRAVEL, some fine Sand (wet) [GM]	15	S-7A	SS		24 25		Take S-7 from 15ft to 17ft. S-7A: #4 = 60%; #200 = 25% S-7A: LL = NP; PI = NP
		16						



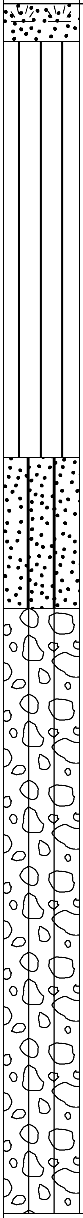
LANGAN Log of Boring **LB-R-135** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.0

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+375.0			16	S-7B		11	30 35	55	
				17						
				18						
				19						Drive casing to 20ft. Drill to 20ft, heavy rig chatter, grayish brown wash.
	+371.0	Grayish brown GRAVEL, some Silt (wet) [Weak ROCK] Gray GRAVEL, some Silt (wet) [Weak ROCK]		20	S-8	SS	8	43 50/3"	50/3"	Take S-8 from 20ft to 22ft. Refusal encountered at 21 ft.
	+370.0	Dark gray dolostone; fine grained shale, dolomite; fresh to moderately weathered; very close to moderate fracture spacing; fractures near horizontal to shallow dipping; rock quality poor; [BEDROCK]	[02:41]	21						Take C-1 from 21ft to 26ft.
			[05:04]	22						Banded shale. C-1: UCS = 45054 psi
			[07:46]	23	C-1	NX	REC=45"/60"=75%	RQD=26"/60"=42%		
			[06:42]	24						
			[05:46]	25						
		Dark gray DOLOSTONE; fine grained calcite, dolomite, shale; fresh weathered; close to wide fracture spacing; fractures near horizontal to shallow dipping; rock quality excellent; [BEDROCK]	[02:56]	26						Banded shale. Take C-2 from 26ft to 31ft. C-2: UCS = 30651 psi
			[02:22]	27						
			[02:19]	28	C-2	NX	REC=60"/60"=100%	RQD=60"/60"=100%		
			[02:37]	29						
			[02:05]	30						
	+360.0	End of Boring at 31.0ft.		31						Boring terminated at 31 ft. Boring backfilled to grade with soil cuttings.
				32						
				33						
				34						
				35						
				36						

LANGAN Log of Boring **LB-R-136** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 392.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	5/5/2025
		Date Finished	5/6/2025
Drilling Equipment	CME-75	Completion Depth	34.0 ft
		Rock Depth	24.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed 8 Undisturbed 0 Core 2
Casing Diameter (in)	4	Casing Depth (ft)	20.0
Water Level (ft.)	First ▽ 3.0 Completion ▼ N/A 24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, NQ Core Barrel (1.875in)	Drilling Foreman	Brad Perry
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Field Engineer	Bahar Ghaneshirazi		

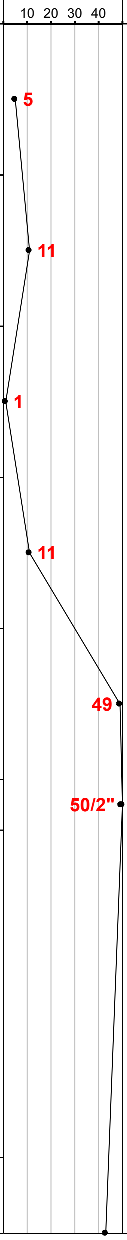


Elev. (ft) +392.0	Sample Description
+391.5	Dark brown Sandy SILT, roots (wet) [TOPSOIL]
	Brown Sandy SILT (wet) [ML]
	Brown SILT, trace fine Gravel (moist) [ML] ▽
	Brown SILT, trace fine Sand (moist) [ML] Brown Sandy SILT, some fine angular to subangular Gravel (wet) [ML]
+386.0	Brown Silty SAND, some fine Gravel (wet) [SM]
+384.0	Tannish gray Silty fine angular GRAVEL, some fine Sand (wet) [GM]
	Tannish gray Silty fine angular GRAVEL, some fine Sand (wet) [GM]
	Gray Silty fine angular GRAVEL, some fine Sand (wet) [GM]

Coring (min)

Sample Data

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
0	S-1A	SS	18	WOH	
	S-1B			2 3 4	5
2	S-2	SS	20	1 4 7 6	11
4	S-3A	SS	10	2	
	S-3B			1 WOH 2	1
6	S-4	SS	10	3 5 6 9	11
8	S-5	SS	8	30 27 22 16	49
10	S-6	SS	2	16 50/2"	50/2"
15		SS		37 22	



Remarks

(Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth	Remarks
0	05/05/2025, 2:00 PM. Utility Clearance Exemption Signed by PIC.
1	Take S-1 from 0ft to 2ft.
2	Take S-2 from 2ft to 4ft.
3	Drive casing to 4ft. Drill to 4ft, brown wash.
4	Take S-3 from 4ft to 6ft.
6	Take S-4 from 6ft to 8ft.
7	Drive casing to 8ft. Drill to 8ft, brown wash.
8	Take S-5 from 8ft to 10ft.
10	Take S-6 from 10ft to 12ft.
13.5	Drive casing to 15 ft. Drill to 15ft, light rig chatter, brown wash.
15	Take S-7 from 15ft to 17ft.

LANGAN Log of Boring **LB-R-136** Sheet 2 of 2

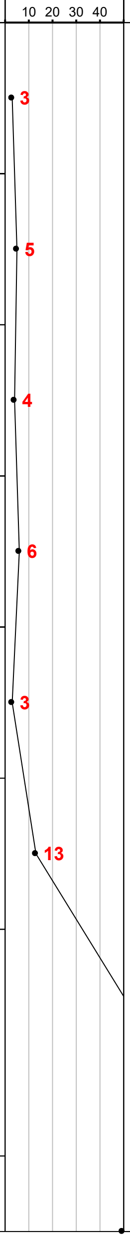
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 392.0

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+376.0			16	S-7		4	21 34	43	
			17						Drive casing to 20ft. Drill to 20ft, light rig chatter, gray wash.
			18						
			19						
+372.0	Grayish brown GRAVEL, some Silt (wet) [Weak ROCK]		20	S-8	SS	4	50	50	Take S-8 from 20ft to 22ft.
			21						
			22						
			23						Drill to 24ft, heavy rig chatter, gray wash. Refusal encountered at 24 ft.
+368.0	Dark gray dolostone; fine grained shale, dolomite; fresh weathered; very close to moderate fracture spacing; fractures near horizontal to near vertical; rock quality fair; [BEDROCK]	[05:23]	24	C-1	NX	REC=52"/60"=87%	RQD=37"/60"=62%		Take C-1 from 24ft to 29ft. C-1: UCS = 15562 psi
		[05:58]	25						
		[05:27]	26						
		[03:58]	27						Loss Of Water from 26ft to 28ft.
		[04:04]	28						
	Dark gray DOLOSTONE; fine grained dolomite, shale; fresh weathered; very close to moderate fracture spacing; fractures near horizontal to steeply vertical; rock quality excellent; [BEDROCK]	[03:14]	29	C-2	NX	REC=60"/60"=100%	RQD=55"/60"=92%		Take C-2 from 29ft to 34ft. C-2: UCS = 10494 psi
		[04:13]	30						
		[03:00]	31						Banded shale.
		[03:24]	32						
		[02:36]	33						
+358.0	End of Boring at 34.0ft.		34						Boring terminated at 34 ft. Temporary well installed on 05/06/2025
			35						
			36						

LANGAN Log of Boring **LB-X-001** Sheet 1 of 4

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 393.0 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started / Date Finished	4/1/2025 / 4/4/2025
Drilling Equipment	CME-75	Completion Depth / Rock Depth	67.0 ft / 37.0 ft
Size and Type of Bit	4-7/8in Tricone Roller Bit	Number of Samples	Disturbed 11; Undisturbed 0; Core 6
Casing Diameter (in)	5; Casing Depth (ft) 35.0	Water Level (ft.)	First ▽ 2.0; Completion ▼ N/A; 24 HR. ▼ N/A
Casing Hammer	Automatic; Weight (lbs) 140; Drop (in) 30	Drilling Foreman	Brad Perry
Sampler	2in OD Split Spoon, PQ Core Barrel (4.83in)	Field Engineer	Shreeya Pandey
Sampler Hammer	Automatic; Weight (lbs) 140; Drop (in) 30		

Elev. (ft) +393.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+392.5	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] Light brown SILT, trace fine Sand (moist) [ML]		0	S-1	SS	12	WOH 1 2 2	3	04/01/2025,2:08 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
	▽ Light brown SILT, trace fine Sand (wet) [ML]		2	S-2	SS	15	2 3 2 3	5	Take S-2 from 2 to 4 ft. S-2: LL = NP; PI = NP
	Light brown SILT, trace fine Sand (wet) [ML]		4	S-3	SS	15	2 2 2 2	4	Drive casing to 4 ft. Drill to 4 ft, brown wash. Take S-3 from 4 to 6 ft.
	Light brown SILT, trace fine Sand (wet) [ML]		6	S-4	SS	24	3 3 3 4	6	Take S-4 from 6 to 8 ft.
	Light brown SILT, trace fine Sand (wet) [ML] Brown SILT, trace fine Sand (wet) [ML]		8	S-5A S-5B	SS	20	1 2 1 1	3	Drive casing to 8 ft. Drill to 8 ft, brown wash. Take S-5 from 8 to 10 ft. S-5A: #4 = 100%; #200 = 94% S-5A: LL = NP; PI = NP
+383.0	Gray Silty medium to fine SAND, trace fine angular Gravel (wet) [SM]		10	S-6	SS	14	4 5 8 9	13	Take S-6 from 10 to 12 ft.
			12						Drive casing to 15 ft.Drill to 15 ft, light rig chatter, gray wash.
	Gray medium to fine SAND, some Silt, some fine angular Gravel (wet) [SM]		15		SS		41 70		Take S-7 from 15 to 17 ft.
			16						



LANGAN Log of Boring **LB-X-001** Sheet 2 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Depth Scale	Elev. (ft) +377.0	Sample Description	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
16			S-7		12	41 24	111	
17								Drive casing to 20 ft.Drill to 20 ft, light rig chatter, gray wash.
20		Gray Silty medium to fine SAND, trace fine angular Gravel (wet) [SM]	S-8	SS	14	15 22 48 100/4"	70	Take S-8 from 20 to 22 ft.
22								Drive casing to 25 ft. Drill to 25 ft, light rig chatter, gray wash.
25	+368.0	Gray CLAY, some fine Sand, trace fine angular Gravel (wet) [CL]	S-9	SS	17	23 29 41 91	70	Take S-9 from 25 to 27 ft.
27								Drive casing to 30 ft. Drill to 30 ft, medium rig chatter, gray wash.
30	+363.0	Gray GRAVEL, trace Silt (moist) [Weak ROCK]	S-10	SS	3	100/5"	100/5"	Take S-10 from 30 to 32 ft. Drive casing to 35 ft. Drill to 35 ft, light rig chatter, gray wash.
35		Gray Gravelly medium to fine SAND, trace Silt (moist) [SP-SM]	S-11	SS	2	50/3"	50/3"	Take S-11 from 35 to 37 ft. Refusal encountered at 35.2 ft. Drive casing to 37 ft. Drill to 37 ft, heavy
36								

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

LANGAN Log of Boring **LB-X-001** Sheet 3 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Elev. (ft) +357.0	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			36						rig chatter, gray wash.
+356.0	Gray to dark gray DOLOSTONE; slightly weathered to fresh; close to moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[02:02]	37	C-1	PQ	REC=42"/60"=70%	RQD=32"/60"=53%		Take C-1 from 37 to 42 ft.
		[35:22]	38						Loss of water.
		[20:05]	39						
		[30:11]	40						
		[10:02]	41						
	Gray to dark gray DOLOSTONE; moderately to highly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality poor [BEDROCK]	[20:06]	42	C-2	PQ	REC=53"/60"=88%	RQD=18"/60"=30%		Loss of water; Take C-2 from 42 to 47 ft.
		[20:19]	43						
		[23:05]	44						
		[15:25]	45						
		[43:00]	46						
	Gray to dark gray DOLOSTONE; fine grained quartz; fresh to slightly weathered; moderate fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[13:02]	47	C-3	PQ	REC=60"/60"=100%	RQD=50"/60"=82%		Take C-3 from 47 to 52 ft.
		[07:22]	48						
		[05:14]	49						
		[04:02]	50						
		[06:21]	51						
	Gray to dark gray DOLOSTONE; fine grained quartz; fresh to slightly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[06:02]	52	C-4	PQ	REC=60"/60"=100%	RQD=36"/60"=61%		Take C-4 from 52 to 57 ft.
		[05:02]	53						
		[09:44]	54						
		[06:30]	55						
			56						

LANGAN

Log of Boring LB-X-001

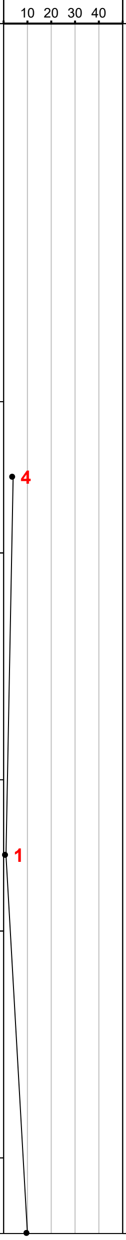
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Material Symbol	Elev. (ft) +337.0	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨			[13:40]	56						
▨		Gray to dark gray DOLOSTONE; fresh weathered; moderate fracture spacing; fractures near horizontal; rock quality excellent [BEDROCK]	[12:02]	57	C-5	PQ	REC=60"/60"=100%	RQD=60"/60"=100%		Take C-5 from 57 to 62 ft.
▨			[12:22]	58						
▨			[12:36]	59						
▨			[09:10]	60						
▨			[07:27]	61						
▨		Gray to dark gray DOLOSTONE; fresh weathered; moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[09:01]	62	C-6	PQ	REC=38"/60"=63%	RQD=38"/60"=63%		Take C-6 from 62 to 67 ft.
▨			[12:22]	63						
▨			[15:03]	64						
▨			[11:37]	65						Installed 3-inch ID PVC down to top of rock to facilitate OTV/ATV. Flush out PVC with water.
▨			[35:32]	66						
	+326.0	End of Boring at 67.0ft.		67						Boring terminated at 67 ft. Installed 3-inch ID PVC down to the bottom of the borehole for Cross Hole Seismic Test. Flush out PVC with water. PVC grouted in the borehole.
				68						
				69						
				70						
				71						
				72						
				73						
				74						
				75						
				76						

LANGAN Log of Boring **LB-X-002** Sheet 1 of 4

Project: Micron New York Manufacturing Facility		Project No.: 170883801	
Location: Town of Clay, New York		Elevation and Datum: Approx +EL 393.0 NAVD88	
Drilling Company: Atlantic Testing Laboratories (ATL)		Date Started: 4/4/2025	Date Finished: 4/8/2025
Drilling Equipment: CME-75		Completion Depth: 64.2 ft	Rock Depth: 34.2 ft
Size and Type of Bit: 4-7/8in Tricone Roller Bit		Number of Samples: Disturbed 7	Undisturbed 0 / Core 6
Casing Diameter (in): 5	Casing Depth (ft): 34.0	Water Level (ft.): First ∇ 1.5	Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 / Drop (in): 30	Drilling Foreman: Brad Perry	
Sampler: 2in OD Split Spoon, PQ Core Barrel (4.83in)		Field Engineer: Shreeya Pandey	
Sampler Hammer: Automatic	Weight (lbs): 140 / Drop (in): 30		

Elev. (ft)	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+393.0		0						04/04/2025,1:40 PM. Utility Clearance Exemption Signed by PIC
	∇	1.5						
		4						Drive casing 5 ft. Drill to 5 ft, brown wash.
	Light brown SILT, trace fine Sand (wet) [ML]	5	S-1	SS	16	2 2 2 3	4	Take S-1 from 5 to 7 ft.
		7						Drive casing to 10 ft. Drill to 10 ft, brown wash.
	Brown SILT, trace fine Sand (wet) [ML]	10	S-2	SS	15	1 WOH 1 8	1	Take S-2 from 10 to 12 ft. S-2: LL = NP; PI = NP
		12						Drive casing to 15 ft. Drill to 15 ft, low rig chatter, gray wash.
+378.0	Gray medium to fine SAND, some Silt, some fine angular Gravel (wet) [SM]	15		SS		2 4		Take S-3 from 15 to 17 ft.



LANGAN

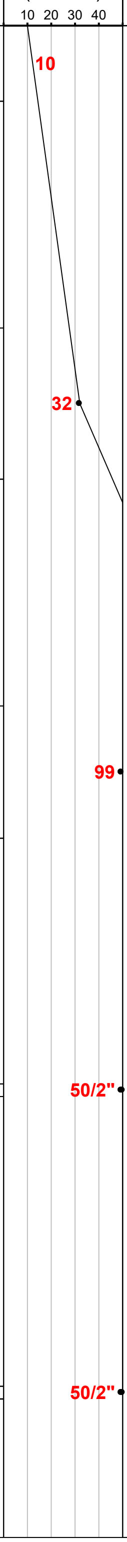
Log of Boring **LB-X-002** Sheet 2 of 4

Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 393.0

Elev. (ft)	Sample Description	Coring (min)
+377.0	Gray Silty medium to fine SAND, some fine angular Gravel (wet) [SM]	
+368.0	Gray CLAY, trace fine Sand, trace fine angular Gravel (wet) [CL]	
+363.0	Gray GRAVEL, trace Silt (wet) [Weak ROCK]	
+358.8	No Recovery	
	Gray to dark gray DOLOSTONE; fine grained quartz; slightly weathered; close to moderate fracture spacing; fractures near horizontal; rock quality fair; [BEDROCK]	[12:36] [15:50]

Sample Data

Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)
16	S-3		8	6 36	10
20	S-4	SS	10	20 17 15 26	32
25	S-5	SS	13	48 41 58 50/3"	99
30	S-6	SS	2	50/2"	50/2"
34	S-7	SS	0	50/2"	50/2"



Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)

Depth	Remarks
17	Drive casing to 20 ft. Drill to 20 ft, heavy rig chatter, gray wash.
20	Take S-4 from 20 to 22 ft.
22	Drive casing to 25 ft. Drill to 25 ft, heavy rig chatter, gray wash.
25	Take S-5 from 25 to 26.8 ft. Refusal encountered at 26.8 ft
27	Drive casing to 30 ft. Drill to 30 ft, heavy rig chatter, gray wash return.
30	Take S-6 from 30 to 30.8 ft. Refusal encountered at 30.8 ft.
32	Drive casing to 34 ft. Drill to 34 ft, heavy rig chatter, gray wash.
33	Take S-7 from 34 to 36 ft.
34	Refusal encountered at 34.2 ft. Take C-1 from 34.2 to 39.2 ft.

Template: Log-BH; Strip: BH-GEO; Printed on 07/26/2025

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Elev. (ft) +357.0	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
		[08:29]	36	C-1	PQ	REC=60"/60"=100%	RQD=44"/60"=74%		
		[18:23]	37						
		[17:07]	38						
	Gray to dark gray DOLOSTONE; fine grained slightly to moderately weathered; close to moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[10:49]	39	C-2	PQ	REC=58"/60"=97%	RQD=32"/60"=53%		Take C-2 from 39.2 to 44.2 ft.
		[12:36]	40						
		[13:06]	41						
		[08:37]	42						
		[09:45]	43						
	Gray to dark gray DOLOSTONE; fine grained slightly to moderately weathered; close to moderate fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[05:52]	44	C-3	PQ	REC=60"/60"=100%	RQD=51"/60"=85%		Take C-3 from 44.2 to 49.2 ft.
		[09:57]	45						
		[05:55]	46						
		[07:34]	47						
		[08:33]	48						
	Gray to dark gray DOLOSTONE; fine grained slightly weathered to fresh; wide to moderate fracture spacing; fractures near horizontal; rock quality excellent [BEDROCK]	[07:06]	49	C-4	PQ	REC=60"/60"=100%	RQD=60"/60"=100%		Take C-4 from 49.2 to 54.2 ft.
		[08:22]	50						
		[10:12]	51						
		[07:23]	52						
		[08:45]	53						
	Gray to dark gray DOLOSTONE; fine grained slightly to moderately weathered; close to moderate fracture spacing; fractures near horizontal; rock quality fair [BEDROCK]	[09:36]	54						Take C-5 from 54.2 to 59.2 ft.
		[10:11]	55						
			56						

LANGAN Log of Boring **LB-X-002** Sheet 4 of 4

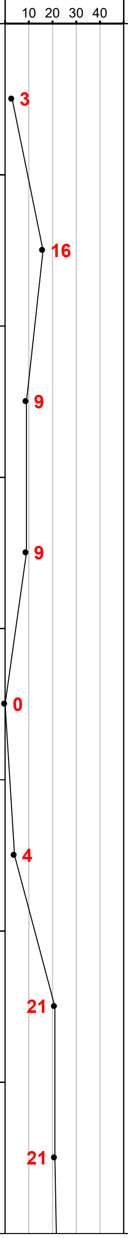
Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 393.0

Material Symbol	Elev. (ft) +337.0	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Sample Data: Type	Sample Data: Recov. (in)	Sample Data: Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Gray to dark gray DOLOSTONE; fine grained slightly weathered to fresh; close to moderate fracture spacing; fractures near horizontal; rock quality good [BEDROCK]	[09:56]	56	C-5	PQ	REC=60"/60"=100%	RQD=40"/60"=68%		
▨			[10:01]	57						
▨			[09:22]	58						
▨			[08:42]	59	C-6	PQ	REC=60"/60"=100%	RQD=52"/60"=88%		Take C-6 from 59.2 to 64.2 ft.
▨			[10:11]	60						
▨			[12:09]	61						
▨			[11:17]	62						
▨			[10:53]	63						
	+328.8	End of Boring at 64.2ft.		64						Boring terminated at 64.2 ft. Installed 3-inch ID PVC down to the bottom of the borehole for Cross Hole Seismic Test. Flush out PVC with water. PVC grouted in the borehole.
				65						
				66						
				67						
				68						
				69						
				70						
				71						
				72						
				73						
				74						
				75						
				76						

LANGAN Log of Boring **LB-X-003** Sheet 1 of 2

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 391.6 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started: 5/8/2025	Date Finished: 5/8/2025
Drilling Equipment	CME-55LC	Completion Depth: 35.0 ft	Rock Depth: 25.0 ft
Size and Type of Bit	3-7/8in Tricone Roller Bit	Number of Samples	Disturbed: 10 Undisturbed: 0 Core: 2
Casing Diameter (in): 4	Casing Depth (ft): 24.0	Water Level (ft.)	First ▽ 4.0 Completion ▼ N/A 24 HR. ▼ N/A
Casing Hammer: Automatic	Weight (lbs): 140 Drop (in): 30	Drilling Foreman	Scott McGregor
Sampler	2in OD Split Spoon, PQ Core Barrel (4.83in)	Field Engineer	Ning Lee
Sampler Hammer: Automatic	Weight (lbs): 140 Drop (in): 30		

Depth Scale	Elev. (ft) +391.6	Sample Description	Coring (min)	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
0–2		Tannish brown SILT, trace fine Sand (moist) [ML]		S-1	SS	14	WOH 1 2 7	3	5/7/2025, 4:26 PM Utility Clearance Exemption Signed by PIC Take S-1 from 0ft to 2ft.
2–4		Tannish brown SILT, trace fine Sand (moist) [ML]		S-2	SS	12	11 9 7 7	16	Take S-2 from 2ft to 4ft. Drive casing to 4ft. Drill to 4ft, brown wash.
4–6		Tannish brown SILT, trace fine Sand (wet) [ML]	▽	S-3	SS	5	3 5 4 4	9	Take S-3 from 4ft to 6ft.
6–8	+385.6	Tannish brown Silty Clayey SAND, trace fine Gravel (moist) [SC-SM] Tannish brown SILT, trace fine Sand (wet) [ML]		S-4	SS	10	5 4 5 5	9	Take S-4 from 6ft to 8ft. Drive casing to 8ft. Drill to 8ft, brown wash.
8–10		Tannish brown Silty Clayey SAND, trace fine subangular Gravel (wet) [SC-SM]		S-5	SS	23	WOH WOH WOH WOH	0	Take S-5 from 8ft to 10ft. S-5: #4 = 92%; #200 = 41% S-5: LL = 19%; PI = 6%
10–12	+381.6	Tannish brown Silty fine SAND, trace fine Gravel (wet) [SM]		S-6	SS	17	WOH WOH 4 9	4	Take S-6 from 10ft to 12ft. S-6: #4 = 91%; #200 = 40% S-6: LL = NP; PI = NP Drive casing to 12ft. Drill to 12 ft, brownish gray wash.
12–14		Tannish brown Silty fine SAND, some fine Gravel (wet) [SM]		S-7	SS	10	9 9 12 17	21	Take S-7 from 12ft to 14ft.
14–16		Tannish brown Gravelly fine SAND, some Silt (wet) [SM]		S-8	SS	10	9 11 10 14	21	Take S-8 from 14ft to 16ft. S-8: #4 = 62%; #200 = 23% S-8: LL = NP; PI = NP



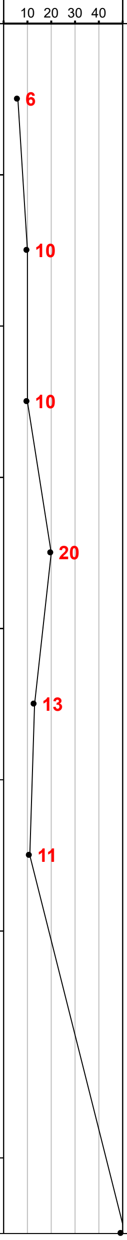
LANGAN Log of Boring **LB-X-003** Sheet 2 of 2

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 391.6

Elev. (ft) +375.6	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16						Drive casing to 16ft. Drill to 16ft, gray wash.
			17						
			18						
	No Recovery		19				10		Take S-9 from 19ft to 21ft.
							10		
			20	S-9	SS	0	14	24	
							24		
			21						Drive casing to 23ft. Drill to 23ft, gray wash.
+370.1									
			22						
			23						
	Dark gray subangular GRAVEL, trace fine Sand, trace Clay (wet) [Weak ROCK]		24	S-10	SS	4	47 50/5"	50/5"	Take S-10 from 24ft to 24.9ft.
+366.6	Dark gray DOLOSTONE; fine grained fresh weathered; very close fracture spacing; fractures near horizontal to shallow dipping; blocky/disturbed; rock quality poor; [BEDROCK]	[05:21]	25	C-1	NX	REC=47"/60"=78%	RQD=17"/60"=28%		Take C-1 from 25ft to 30ft. Reactive to the acid.
		[02:14]	26						
		[04:55]	27						
		[06:18]	28						
		[08:14]	29						
	Dark gray DOLOSTONE; fine grained fresh weathered; very close fracture spacing; fractures near horizontal; intact; rock quality fair; [BEDROCK]	[05:16]	30	C-2	NX	REC=60"/60"=100%	RQD=43"/60"=72%		Take C-2 from 30ft to 35ft. Reactive to the acid.
		[04:47]	31						C-2: UCS = 19818 psi
		[05:00]	32						C-2: UCS = 15262 psi
		[04:48]	33						
		[07:33]	34						
+356.6	End of Boring at 35.0ft.		35						Boring terminated at 35 ft. Temporary well installed on 05/09/2025.
			36						

Project	Micron New York Manufacturing Facility	Project No.	170883801
Location	Town of Clay, New York	Elevation and Datum	Approx +EL 400.1 NAVD88
Drilling Company	Atlantic Testing Laboratories (ATL)	Date Started	4/1/2025
		Date Finished	4/3/2025
Drilling Equipment	CME-55LC	Completion Depth	66.2 ft
		Rock Depth	36.2 ft
Size and Type of Bit	5-7/8in Tricone Roller Bit	Number of Samples	Disturbed 12 Undisturbed 0 Core 6
Casing Diameter (in)	6	Casing Depth (ft)	30.0
Water Level (ft.)	First ▽ 2.0 Completion ▼ N/A 24 HR. ▼ N/A		
Casing Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Sampler	2in OD Split Spoon, PQ Core Barrel (4.83in)	Drilling Foreman	Scott McGregor
Sampler Hammer	Automatic	Weight (lbs) 140	Drop (in) 30
Field Engineer	Arvind Ganesan		

Elev. (ft) +400.1	Sample Description	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown CLAY, some fine Sand, trace fine Gravel, roots (moist) [TOPSOIL]	0	S-1	SS	12	WOH 2 4 6	6	04/01/2025,01:14 PM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+398.1	▽ Tannish brown SILT, some fine Sand (wet) [ML]	2	S-2	SS	16	3 4 6 7	10	Take S-2 from 2 to 4 ft. Drive casing to 4 ft. Drill to 4 ft, brown wash.
+396.1	Tannish brown Silty fine SAND, some fine subangular Gravel (wet) [SM]	4	S-3	SS	10	5 4 6 12	10	Take S-3 from 4 to 6 ft.
	Brown fine SAND, some Silt, trace fine subangular Gravel (wet) [SM] Flowing sand observed	6	S-4	SS	14	12 12 8 10	20	Take S-4 from 6 to 8 ft. Flowing condition. Drive casing to 8 ft. Drill to 8 ft, light rig chatter, brown wash.
	Tannish brown Silty fine SAND, some fine subangular Gravel (wet) [SM]	8	S-5	SS	6	8 7 6 6	13	Take S-5 from 8 to 10 ft.
	Gray fine to medium SAND, trace Silt (wet) [SP-SM]	10	S-6	SS	6	8 6 5 10	11	Take S-6 from 10 to 12 ft. Drive casing to 15 ft.
		12						Drill to 15 ft, brownish gray wash.
	Gray fine to medium SAND, some Silt, trace fine subangular Gravel (wet) [SM]	15		SS		5 18		Take S-7 from 15 to 17 ft.



Project: Micron New York Manufacturing Facility	Project No.: 170883801
Location: Town of Clay, New York	Elevation and Datum: 400.1

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+384.1	Dark gray Gravelly fine to medium SAND, trace Silt (wet) [SP-SM]		16	S-7		10	33 39	51	Loss of water.
			17						Drill to 19 ft, light rig chatter, brownish gray wash.
			18						4/1/2025, 5:45 PM 4/2/2025, 07:32 AM.
			19	S-8	SS	8	15 55 50/4"	50/4"	Take S-8 from 19 to 21 ft.
			20						
+379.1			21						Drive casing to 22 ft. Drill to 22 ft, moderate rig chatter, gray wash.
	Gray angular GRAVEL (wet) [Weak ROCK]		22	S-9	SS	3	50/3"	50/3"	Take S-9 from 22 to 24 ft.
			23						
			24						Drill to 27 ft, light rig chatter, gray wash.
			25						
			26						
	Gray angular GRAVEL (wet) [Weak ROCK]		27	S-10	SS	1	50/2"	50/2"	Take S-10 from 27 to 29 ft.
			28						
			29						
			30						Drive casing to 32 ft.
			31						Drill to 32 ft, moderate rig chatter, gray wash.
	Gray angular GRAVEL (wet) [Weak ROCK]		32	S-11	SS	3	50/3"	50/3"	Take S-11 from 32 to 34 ft.
			33						
			34						
			35						
			36						

LANGAN Log of Boring **LB-X-005** Sheet 3 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.1

Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
+364.1									
+363.9	No Recovery		36				50/2"	50/2"	Take S-12 from 36 to 36.2 ft.
	Gray to dark gray DOLOSTONE; fine grained quartz; fresh weathered; close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality good; [BEDROCK]	[09:49]		S-12	SS	0			Take C-1 from 36.2 to 41.2 ft.
		[07:59]	37						
		[08:14]	38	C-1	PQ	REC=60"/60"=100%	RQD=53"/60"=88%		
		[06:03]	39						
		[07:14]	40						
	Gray to dark gray DOLOSTONE; fine grained quartz; fresh weathered; close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality excellent [BEDROCK]	[06:03]	41						Take C-2 from 41.2 to 46.2 ft.
		[06:56]	42						
		[06:44]	43	C-2	PQ	REC=60"/60"=100%	RQD=57"/60"=95%		
		[06:42]	44						
		[06:00]	45						
	Gray to dark gray DOLOSTONE; fine grained quartz; fresh weathered; close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality fair [BEDROCK]	[08:45]	46						Take C-3 from 46.2 to 51.2 ft.
		[08:14]	47						
		[08:29]	48	C-3	PQ	REC=60"/60"=100%	RQD=44"/60"=73%		
		[07:58]	49						
		[08:06]	50						
	Gray to dark gray DOLOSTONE; fine grained quartz; fresh weathered; close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality excellent [BEDROCK]	[08:05]	51						Take C-4 from 51.2 to 56.2 ft.
		[08:03]	52						
		[08:12]	53	C-4	PQ	REC=60"/60"=100%	RQD=54"/60"=90%		
		[08:00]	54						
		[07:55]	55						
			56						

LANGAN Log of Boring **LB-X-005** Sheet 4 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.1

Material Symbol	Elev. (ft)	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Sample Data Type	Sample Data Recov. (in)	Sample Data Penetr-resist BL/6in	Sample Data N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+344.1			56						Take C-5 from 56.2 to 61.2 ft.
▨		Gray to dark gray DOLOSTONE; fine grained quartz; fresh weathered; close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality excellent [BEDROCK]	[08:00]	57	C-5	PQ	REC=60"/60"=100%	RQD=58"/60"=97%		
▨			[07:54]	58						
▨			[08:21]	59						4/2/2025, 04:45 PM.
▨			[08:01]	60						
▨			[08:44]	61						04/03/2025, 8:15 AM
▨		Gray to dark gray DOLOSTONE; fine to medium grained quartz; fresh weathered; wide to moderate fracture spacing; fractures shallow dipping to steeply vertical; intact; rock quality excellent [BEDROCK]	[05:02]	62	C-6	PQ	REC=60"/60"=100%	RQD=56"/60"=93%		Take C-6 from 61.2 to 66.2 ft.
▨			[05:27]	63						
▨			[04:01]	64						
▨			[03:07]	65						
▨	+333.9		[03:42]	66						Boring terminated at 66.2 ft.
		End of Boring at 66.2ft.		67						Installed 3-inch ID PVC down to the bottom of the borehole for Cross Hole Seismic Test. Flush out PVC with water. PVC grouted in the borehole.
				68						
				69						
				70						
				71						
				72						
				73						
				74						
				75						
				76						

LANGAN Log of Boring **LB-X-006** Sheet 1 of 4

Project Micron New York Manufacturing Facility		Project No. 170883801	
Location Town of Clay, New York		Elevation and Datum Approx +EL 400.2 NAVD88	
Drilling Company Atlantic Testing Laboratories (ATL)		Date Started 4/3/2025	Date Finished 4/8/2025
Drilling Equipment CME-55LC		Completion Depth 66.0 ft	Rock Depth 36.0 ft
Size and Type of Bit 5-7/8in Tricone Roller Bit		Number of Samples: Disturbed 8	Undisturbed 0 / Core 6
Casing Diameter (in) 6	Casing Depth (ft) 27.0	Water Level (ft.): First ▽ 2.0	Completion ▼ N/A / 24 HR. ▼ N/A
Casing Hammer Automatic	Weight (lbs) 140 / Drop (in) 30	Drilling Foreman Scott McGregor	
Sampler 2in OD Split Spoon, PQ Core Barrel (4.83in)			
Sampler Hammer Automatic	Weight (lbs) 140 / Drop (in) 30	Field Engineer Arvind Ganesan/ Brendon Creed	

Elev. (ft) +400.2	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft)	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	Brown Sandy CLAY, roots (moist) [TOPSOIL]		0	S-1A	SS	15	WOH 1 2	3	04/03/2025,10:47 AM. Utility Clearance Exemption Signed by PIC. Take S-1 from 0 to 2 ft.
+398.7	Tannish brown SILT, some fine Sand (moist) [ML] ▽		1.5	S-1B			6		
			3						Drive casing to 5 ft.
			4						Drill to 5 ft, brown wash.
+395.2	Tannish brown to brownish gray Silty fine SAND, some fine subangular Gravel (wet) [SM]		5	S-2	SS	8	7 7 9 7	16	Take S-2 from 5 to 7 ft.
	Tannish brown to brownish gray Silty fine SAND, trace fine subangular Gravel (wet) [SM] Flowing sand observed		7	S-3	SS	23	7 8 9 10	17	Take S-3 from 7 to 9 ft. Flowing sand. S-3: #4 = 91%; #200 = 48% S-3: LL = NP; PI = NP
			11						Drive casing to 13 ft.
			12						Drill to 13 ft, light rig chatter, brownish gray wash.
	Brownish gray to gray Silty fine SAND, some fine Gravel (wet) [SM]		13	S-4	SS	18	34 39 46 50/5"	85	Take S-4 from 13 to 15 ft S-4: #4 = 81%; #200 = 47% S-4: LL = NP; PI = NP
			16						

LANGAN Log of Boring **LB-X-006** Sheet 2 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.2

Elev. (ft) +384.2	Sample Description	Coring (min)	Depth Scale	Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
			16						Drive casing to 18 ft.
			17						Drill to 18 ft, moderate rig chatter, gray wash.
	Brownish gray to gray Silty fine SAND, some fine Gravel (wet) [SM]		18	S-5	SS	12	33 50 50/5"	50/5"	Take S-5 from 18 to 20 ft.
			19						
			20						
+379.2			21						Drive casing to 23 ft.
			22						Drill to 23 ft, light rig chatter, gray wash.
	Gray angular GRAVEL (wet) [Weak ROCK]		23	S-6	SS	2	50/2"	50/2"	Take S-6 from 23 to 25 ft.
			24						
			25						
			26						Drive casing to 28 ft.
			27						Drill to 28 ft, medium rig chatter, gray wash.
	Gray angular GRAVEL (wet) [Weak ROCK]		28	S-7	SS	2	50/2"	50/2"	Take S-7 from 28 to 30 ft.
			29						
			30						
			31						Drill to 33 ft, medium rig chatter, gray wash.
			32						
	Gray angular GRAVEL (wet) [Weak ROCK]		33	S-8	SS	1	50/1"	50/1"	Take S-8 from 33 to 35 ft.
			34						Drive casing to 36 ft.
			35						Drill to 36 ft, heavy rig chatter, gray wash.
			36						

LANGAN

Log of Boring **LB-X-006** Sheet 3 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.2

Material Symbol	Elev. (ft) +364.2	Sample Description	Coring (min)	Depth Scale	Sample Data Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
	+364.2	Dark gray DOLOSTONE; fine grained quartz; fresh weathered; very close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality excellent; [BEDROCK]	[06:27]	36	C-1	PQ	REC=60"/60"=100%	RQD=54"/60"=90%		Take C-1 from 36 to 41 ft.
			[07:25]	37						
			[06:36]	38						
			[05:15]	39						
			[06:38]	40						
		Dark gray DOLOSTONE; fine grained quartz; fresh weathered; very close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality good [BEDROCK]	[06:02]	41	C-2	PQ	REC=60"/60"=100%	RQD=47"/60"=78%		Take C-2 from 41 to 46 ft.
			[05:49]	42						
			[06:31]	43						
			[06:14]	44						
			[06:08]	45						
		Dark gray DOLOSTONE; fine grained quartz; fresh weathered; very close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality very poor [BEDROCK]	[06:05]	46	C-3	PQ	REC=50"/60"=83%	RQD=0"/60"=0%		Take C-3 from 46 to 51 ft.
			[06:01]	47						
			[06:12]	48						
			[06:02]	49						
			[06:41]	50						
		Dark gray DOLOSTONE; fine grained quartz; fresh weathered; very close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality good [BEDROCK]	[05:45]	51	C-4	PQ	REC=60"/60"=100%	RQD=53"/60"=88%		Take C-4 from 51 to 56 ft.
			[05:59]	52						
			[05:39]	53						
			[06:10]	54						
			[06:05]	55						
				56						

LANGAN Log of Boring **LB-X-006** Sheet 4 of 4

Project Micron New York Manufacturing Facility	Project No. 170883801
Location Town of Clay, New York	Elevation and Datum 400.2

Material Symbol	Elev. (ft) +344.2	Sample Description	Coring (min)	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr-resist BL/6in	N-Value (Blows/ft) 10 20 30 40	Remarks (Drilling Fluid, Casing Depth, Fluid Loss, Drilling Resistance, etc.)
▨		Dark gray DOLOSTONE; fine grained quartz; fresh weathered; very close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality good [BEDROCK]	[06:25]	56						Take C-5 from 56 to 61 ft.
▨			[06:03]	57						
▨			[06:11]	58	C-5	PQ	REC=60"/60"=100%	RQD=52"/60"=87%		
▨			[06:14]	59						
▨			[06:00]	60						
▨		Dark gray DOLOSTONE; fine grained quartz; fresh weathered; very close to moderate fracture spacing; fractures near horizontal to shallow dipping; intact; rock quality good [BEDROCK]	[06:00]	61						Take C-6 from 61 to 66 ft.
▨			[05:54]	62						
▨			[05:58]	63	C-6	PQ	REC=54"/60"=90%	RQD=49"/60"=82%		
▨			[06:10]	64						
▨	+334.2		[05:49]	65						
		End of Boring at 66.0ft.		66						Boring terminated at 66 ft. Casing left in the hole for geophysical testing.
				67						
				68						
				69						
				70						
				71						
				72						
				73						
				74						
				75						
				76						

APPENDIX B
WELL CONSTRUCTION LOGS

OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-001 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 379.1 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/5/2025 — **DATE FINISHED** 4/8/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 15-ft of riser were installed to a depth of 21-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 13-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	383.1	-4
TOP OF SEAL	379.1	0
TOP OF FILTER	371.1	8
TOP OF SCREEN	368.1	11
BOTTOM OF BORING	350.2	28.9

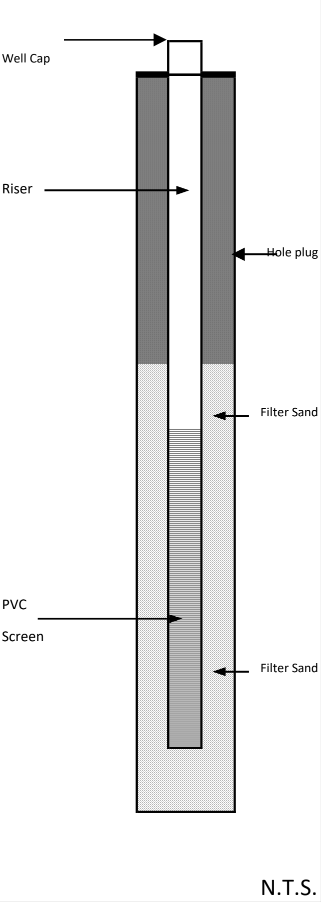
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
377.40	4/21/2025	1.7
377.60	4/25/2025	1.5
377.7	5/1/2025	1.4
377.9	5/9/2025	1.2

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
TOPSOIL	2.0
SILT	8.0
CLAY	19.0
SAND	21.0
WEAK ROCK	21.5
BEDROCK	29.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-007 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 377.1 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/12/2025 **DATE FINISHED** 4/12/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 17-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	380.1	-3
TOP OF SEAL	377.1	0
TOP OF FILTER	372.1	5
TOP OF SCREEN	370.1	7
BOTTOM OF BORING	352.3	24.8

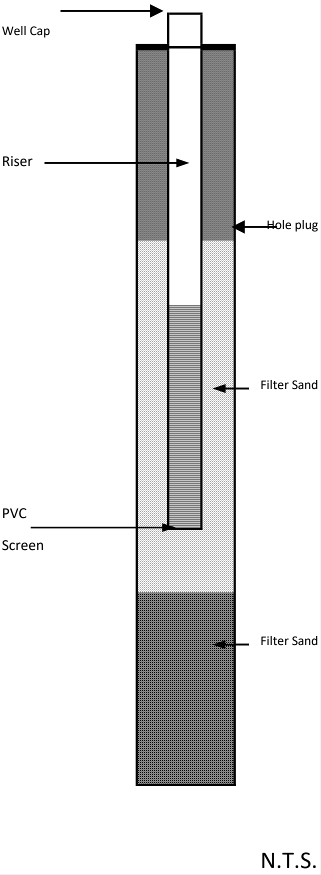
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
377.20	4/21/2025	-0.1
377.10	4/25/2025	0.0
377.3	5/1/2025	-0.2
377.4	5/9/2025	-0.3

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	2.0
CLAY	8.0
SILT	19.0
SAND	19.8
BEDROCK	24.8

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OBSERVATION WELL CONSTRUCTION SUMMARY
Well No. LB-R-013 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801	
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 380 ft ± (NAVD88)	
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/18/2025	**DATE FINISHED** 4/19/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green	
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee	

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 17-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	383	-3
TOP OF SEAL	380	0
TOP OF FILTER	370	10
TOP OF SCREEN	365	15
BOTTOM OF BORING	356.5	23.5

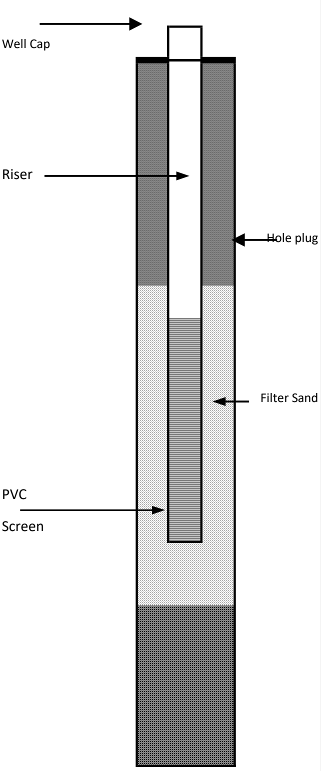
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
379.10	4/22/2025	0.9
378.80	4/25/2025	1.2
379.3	5/1/2025	0.7
379.4	5/9/2025	0.6

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	2.0
SILT	17.5
WEAK ROCK	20.0
BEDROCK	23.5

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-015 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 377.2 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/15/2025 **DATE FINISHED** 4/15/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 16-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 11-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

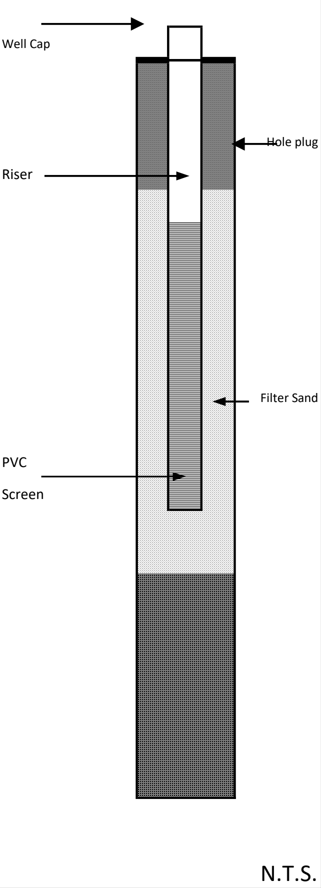
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	381.2	-4
TOP OF SEAL	377.2	0
TOP OF FILTER	372.2	5
TOP OF SCREEN	371.2	6
BOTTOM OF BORING	355.2	22.0
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
376.70	4/21/2025	0.5
376.70	4/25/2025	0.5
376.8	5/1/2025	0.4
377	5/9/2025	0.2

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
SILT	4.0
CLAY	8.0
SILT	19.0
CLAY	22.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-020 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 376.9 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/24/2025 **DATE FINISHED** 4/24/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 5-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

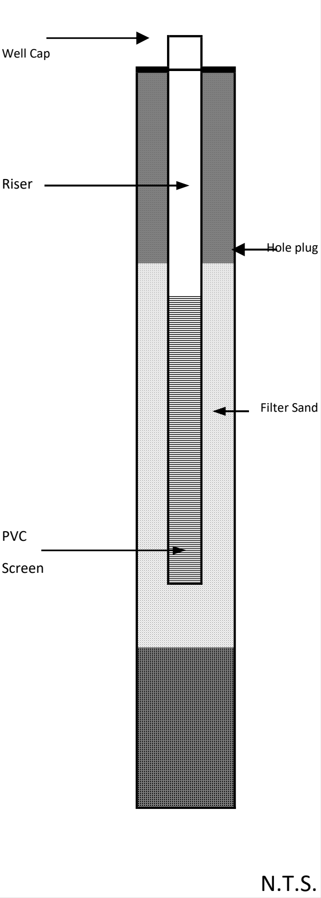
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	381.9	-5
TOP OF SEAL	376.9	0
TOP OF FILTER	366.9	10
TOP OF SCREEN	361.9	15
BOTTOM OF BORING	354.4	22.5
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
376.50	4/25/2025	0.4
376.70	5/1/2025	0.2

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-5.0
TOPSOIL	0.3
CLAY	2.0
SILT	15.0
	22.5

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OBSERVATION WELL CONSTRUCTION SUMMARY
Well No. LB-R-021 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 377 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/6/2025 **DATE FINISHED** 5/6/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Scott McGregor
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Arvind Ganesan

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 20-ft of riser were installed to a depth of 25-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	381.5	-4.5
TOP OF SEAL	377	0
TOP OF FILTER	365	12
TOP OF SCREEN	363	14
BOTTOM OF BORING	342	35

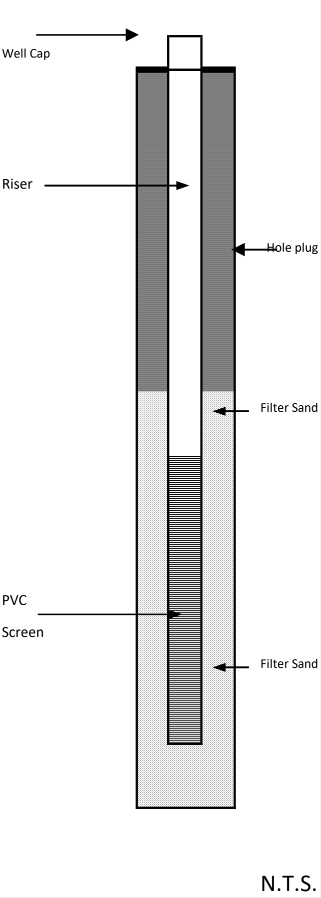
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
377.50	5/1/2025	-0.5
378.00	5/9/2025	-1.0

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.5
TOPSOIL	2.0
SILT	
SAND	23.5
WEAK ROCK	25.0
BEDROCK	35.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-023 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 377.9 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/29/2025 **DATE FINISHED** 4/29/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 5-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	382.9	-5
TOP OF SEAL	377.9	0
TOP OF FILTER	367.9	10
TOP OF SCREEN	362.9	15
BOTTOM OF BORING	352.6	25.3

SCREEN LENGTH

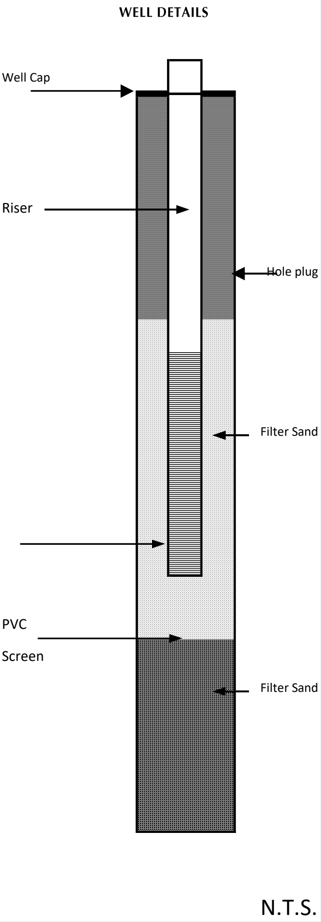
10 ft

SLOT SIZE

0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
377.40	5/1/2025	0.5
377.50	5/9/2025	0.4



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-5.0
TOPSOIL	2.0
SILT	4.0
CLAY	8.0
SILT	15.0
	22.0
SAND	25.3

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-029 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 378.8 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/8/2025 **DATE FINISHED** 5/8/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Sanjan Bussu

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

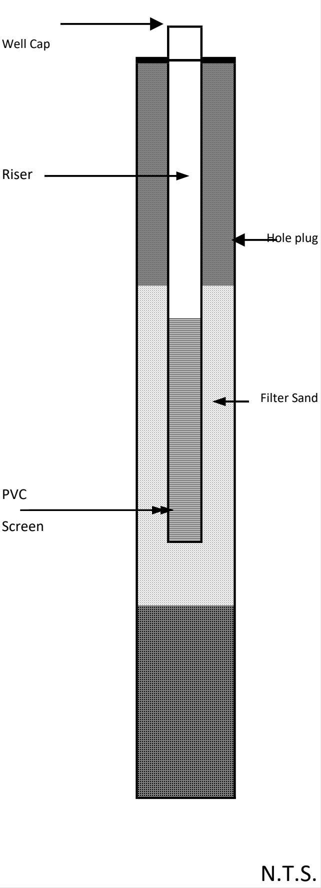
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

TOP OF CASING	**ELEVATION** 380.8	**DEPTH (ft)** -2
TOP OF SEAL	**ELEVATION (ft)** 378.8	**DEPTH (ft)** 0
TOP OF FILTER	**ELEVATION (ft)** 368.8	**DEPTH (ft)** 10
TOP OF SCREEN	**ELEVATION (ft)** 363.8	**DEPTH (ft)** 15
BOTTOM OF BORING	**ELEVATION (ft)** 339.72	**DEPTH (ft)** 39.08
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
377.80	5/9/2025	1.0

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.0
TOPSOIL	1.0
SILTY CLAY	
SILT	15.0
CLAY	24.0
WEAK ROCK	29.0
BEDROCK	39.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-030 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 377 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/6/2025 **DATE FINISHED** 5/6/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Scott McGregor
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 2.5-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

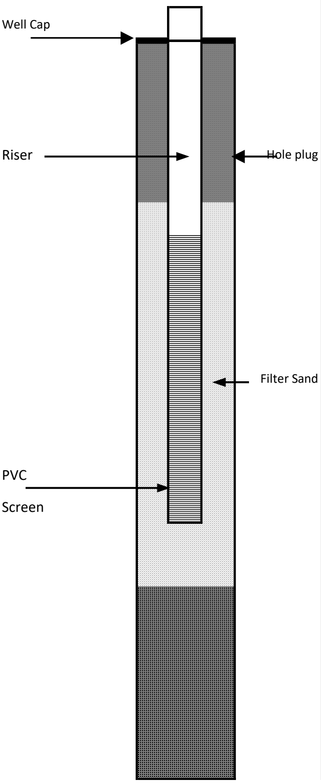
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	379.5	-2.5
TOP OF SEAL	377	0
TOP OF FILTER	374	3
TOP OF SCREEN	372	5
BOTTOM OF BORING	339.5	37.5
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
376.40	5/9/2025	0.6

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.5
TOPSOIL	2.0
SILT	8.0
CLAY/ SILTY CLAY	15.0 22.0
WEAK ROCK	
BEDROCK	22.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-031 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 377 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/7/2025 **DATE FINISHED** 5/7/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Scott McGregor
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Arvind Ganesan

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 16-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	381	-4
TOP OF SEAL	377	0
TOP OF FILTER	373	4
TOP OF SCREEN	371	6
BOTTOM OF BORING	349.3	27.7

SCREEN LENGTH

10 ft

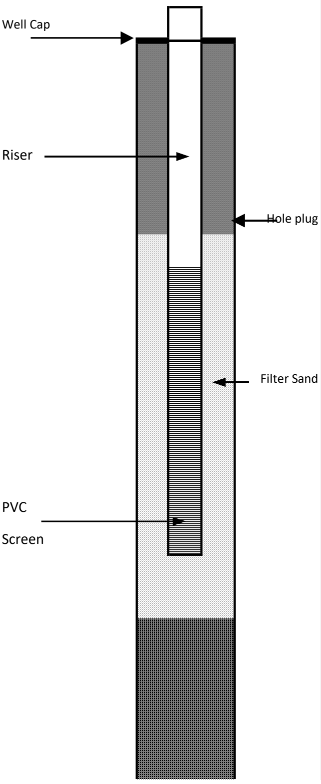
SLOT SIZE

0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
376.80	5/1/2025	0.2

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
TOPSOIL	2.0
CLAY	10.0
SILT	15.0
	22.0
WEAK ROCK	27.7

N.T.S.

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-033(OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 381.5 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/7/2025 **DATE FINISHED** 5/7/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Sanjan Bussu

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 15-ft of riser were installed to a depth of 21-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 13-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

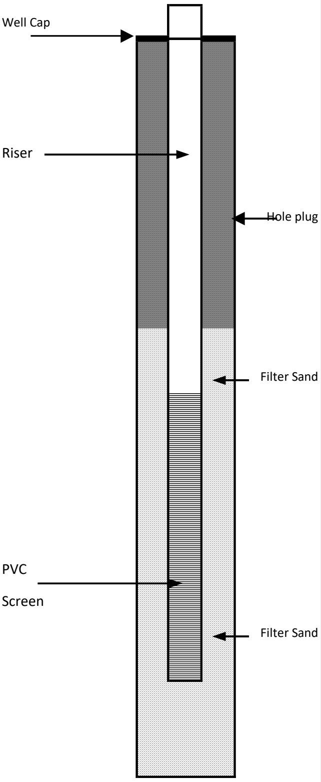
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	385.5	-4
TOP OF SEAL	381.5	0
TOP OF FILTER	372.5	9
TOP OF SCREEN	370.5	11
BOTTOM OF BORING	346.8	34.7
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
381.50	5/9/2025	0.0

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
TOPSOIL	2.0
SILT	4.0
CLAY	8.0
SILT	14.5
CLAY	19.0
SILT	24.0
WEAK ROCK	24.7
BEDROCK	34.7

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-035 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 379.1 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/6/2025 **DATE FINISHED** 5/6/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Sanjan Bussu

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 16-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

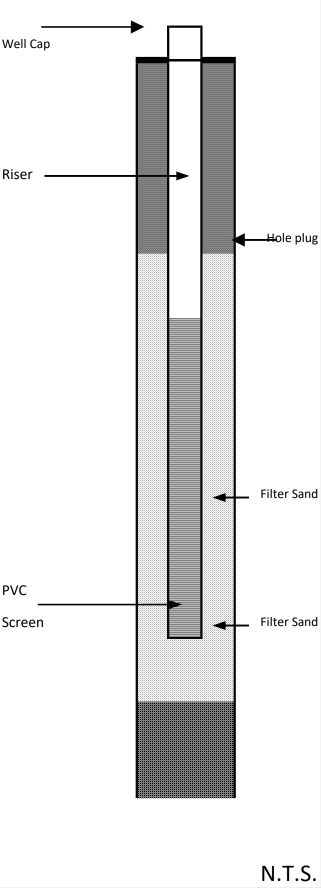
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	383.1	-4
TOP OF SEAL	379.1	0
TOP OF FILTER	375.1	4
TOP OF SCREEN	373.1	6
BOTTOM OF BORING	348.68	30.42
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
379.20	5/9/2025	-0.1

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
TOPSOIL	2.0
SILT	12.0
SAND	17.5
WEAK ROCK	20.0
BEDROCK	30.4

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-041 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 381.5 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/3/2025 **DATE FINISHED** 5/5/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Scott McGregor
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 17-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

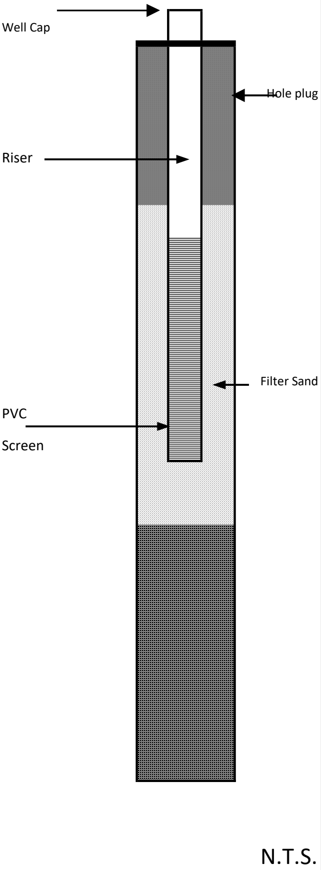
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

TOP OF CASING	**ELEVATION** 384.5	**DEPTH (ft)** -3
TOP OF SEAL	**ELEVATION (ft)** 381.5	**DEPTH (ft)** 0
TOP OF FILTER	**ELEVATION (ft)** 376.5	**DEPTH (ft)** 5
TOP OF SCREEN	**ELEVATION (ft)** 374.5	**DEPTH (ft)** 7
BOTTOM OF BORING	**ELEVATION (ft)** 343.9	**DEPTH (ft)** 37.6
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
380.10	5/9/2025	1.4

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	2.0
SILT	17.5
BEDROCK	37.6

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-043 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 380.6 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/1/2025 **DATE FINISHED** 5/1/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Arvind Ganesan

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 8-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	383.6	-3
TOP OF SEAL	380.6	0
TOP OF FILTER	377.6	3
TOP OF SCREEN	375.6	5
BOTTOM OF BORING	348.6	32

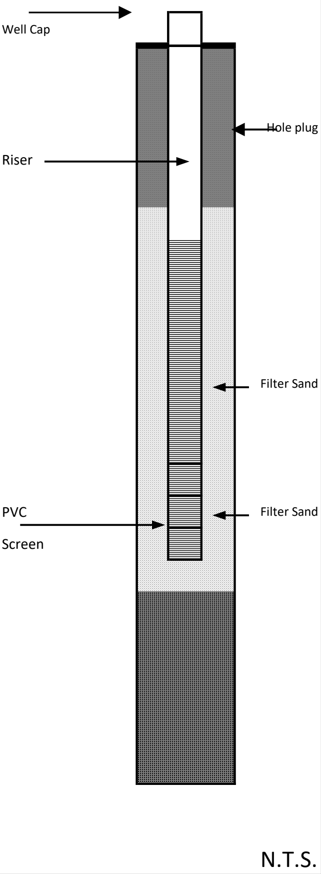
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
378.90	5/1/2025	1.7
379.20	5/9/2025	1.4

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
FILL	2.0
SILT	5.5
SAND	15.0
WEAK ROCK	22.0
BEDROCK	32.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-044 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 377.3 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/3/2025 **DATE FINISHED** 5/5/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Daryl Green
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Sanjan Bussu

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 12-ft of riser were installed to a depth of 22-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 13-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	380.3	-3
TOP OF SEAL	377.3	0
TOP OF FILTER	368.3	9
TOP OF SCREEN	365.3	12
BOTTOM OF BORING	339.2	38.1

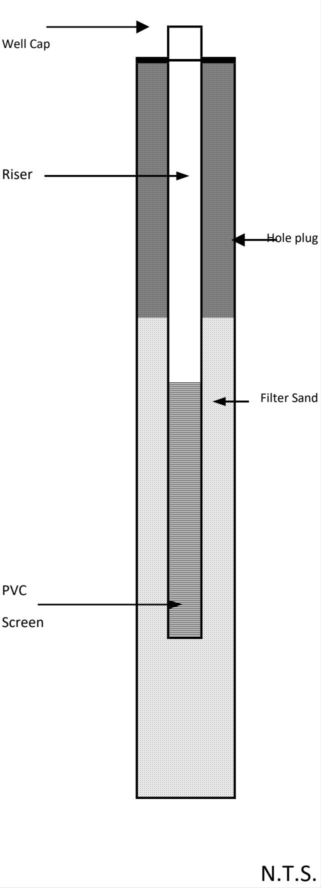
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
377.60	5/9/2025	-0.3

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
FILL	2.0
SILT	18.0
SAND	28.0
BEDROCK	38.1

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-045 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 388.6 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/1/2025 **DATE FINISHED** 5/1/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Landon Nelson
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Bahar Ghsneshirazi/Richo Brian

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 5-ft of riser were installed to a depth of 11-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	392.6	-4
TOP OF SEAL	388.6	0
TOP OF FILTER	388.6	0
TOP OF SCREEN	387.6	1
BOTTOM OF BORING	357.6	31

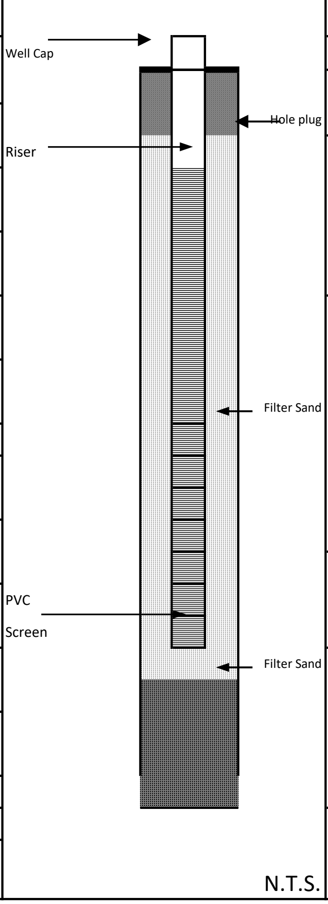
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
387.70	5/9/2025	0.9

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
TOPSOIL	0.8
SAND	4.0
SILT	9.0
GRAVEL	11.0
BEDROCK	31.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-047 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 390.4 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/30/2025 **DATE FINISHED** 4/30/2025
DRILLING EQUIPMENT CEM-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 12-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	392.4	-2
TOP OF SEAL	390.4	0
TOP OF FILTER	382.4	8
TOP OF SCREEN	380.4	10
BOTTOM OF BORING	358.4	32

SCREEN LENGTH

10 ft

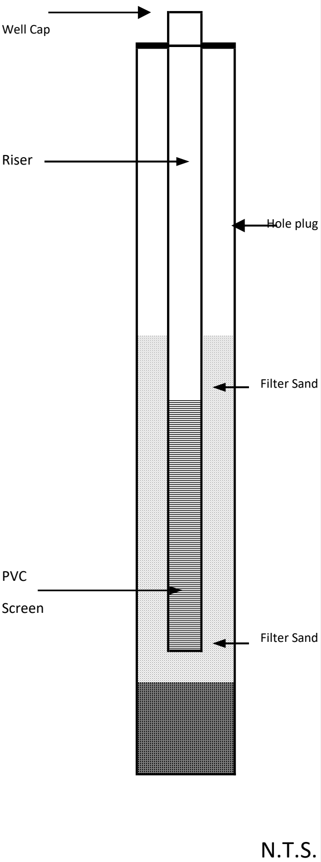
SLOT SIZE

0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
390.40	5/9/2025	0.0

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.0
CLAY	4.0
SILT	10.0
SAND	15.0
WEAK ROCK	20.0
	22.0
ROCK	32.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-051 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 391.3 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/26/2025 **DATE FINISHED** 4/28/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Landon Nelson
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Bahar Ghsneshirazi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 8-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	394.3	-3
TOP OF SEAL	391.3	0
TOP OF FILTER	383.3	8
TOP OF SCREEN	381.3	10
BOTTOM OF BORING	353.7	37.6

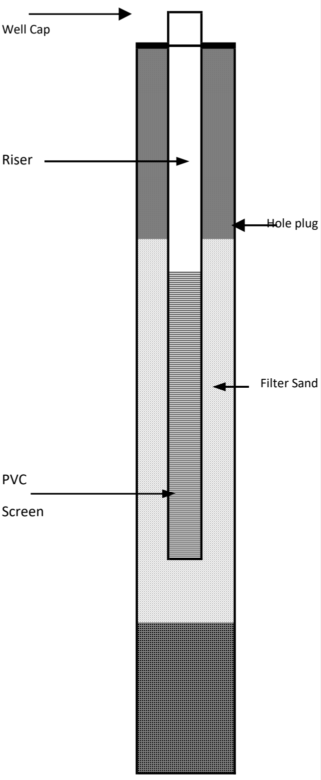
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
390.90	4/30/2025	0.4
391.30	5/9/2025	0.0
393.4	5/16/2025	-2.1
387.3	6/30/2025	4

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	0.3
CLAY	8.0
SILT	12.0
SAND	15.0
WEAK ROCK	26.4
BEDROCK	27.6 37.6

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-053 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 391.2 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/22/2025 **DATE FINISHED** 4/22/2025
DRILLING EQUIPMENT CEM-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 20-ft of riser were installed to a depth of 26-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	393.2	-2
TOP OF SEAL	388.9	2.3
TOP OF FILTER	378.2	13
TOP OF SCREEN	371.2	20
BOTTOM OF BORING	354.2	37

SCREEN LENGTH

10 ft

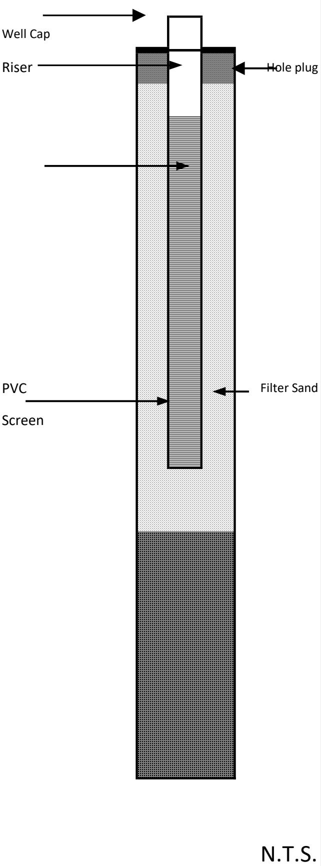
SLOT SIZE

0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
391.60	4/30/2025	-0.4
391.10	5/9/2025	0.1
389.7	6/30/2025	1.5

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	2.0
CLAY	6.0
SILT	14.0
	15.0
SAND	27.0
ROCK	37.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-055 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 393 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/23/2025 **DATE FINISHED** 4/23/2025
DRILLING EQUIPMENT CEM-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 18-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

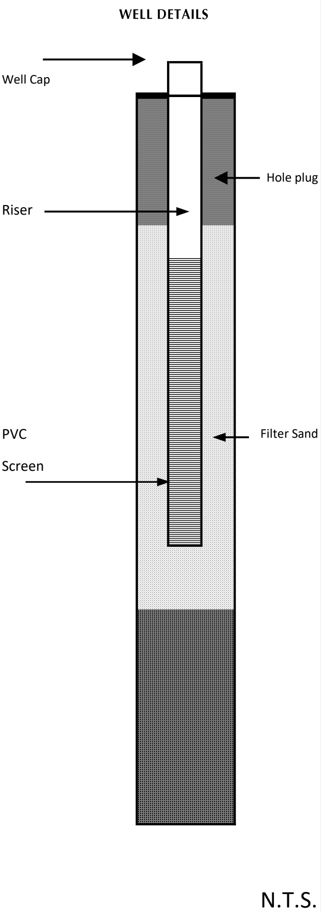
	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	395	-2
TOP OF SEAL	393	0
TOP OF FILTER	387	6
TOP OF SCREEN	375	18
BOTTOM OF BORING	350	43

SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
391.80	4/25/2025	1.2
392.50	4/30/2025	0.5
392.6	5/9/2025	0.4
389.4	6/30/2025	3.6



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.0
CLAY	4.0
SILT	15.0
	18.0
SAND	28.0
CLAY	33.0
ROCK	43.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-058 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 392.6 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/28/2025 **DATE FINISHED** 4/28/2025
DRILLING EQUIPMENT CEM-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 17-ft of riser were installed to a depth of 25-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING		2.4
TOP OF SEAL	390.2	2.4
TOP OF FILTER	380.6	12
TOP OF SCREEN	375.6	17
BOTTOM OF BORING	355.6	37

SCREEN LENGTH

10 ft

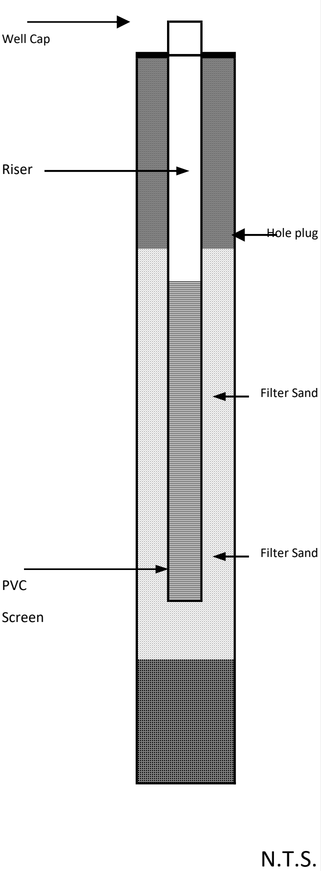
SLOT SIZE

0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
392.30	4/23/2025	0.3
392.40	4/25/2025	0.2
392.7	4/30/2025	-0.1
392.8	5/9/2025	-0.2
391.5	6/30/2025	1.1

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.0
CLAY	4.0
SILT/ SILTY CLAY	20.0
SAND	25.0 27.0
ROCK	37.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-059 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 391 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/18/2025 **DATE FINISHED** 4/21/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Landon Nelson
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Bahar Ghsneshirazi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 20-ft of riser were installed to a depth of 26-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	393	-2
TOP OF SEAL	391	0
TOP OF FILTER	388	3
TOP OF SCREEN	386	5
BOTTOM OF BORING	349	42

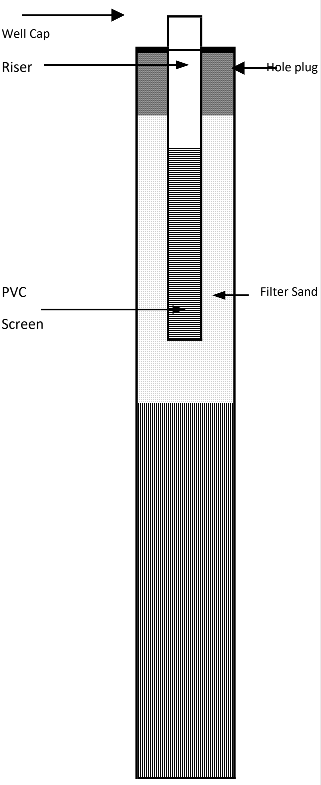
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
390.40	4/30/2025	0.6
387.60	6/30/2025	3.4

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.0
TOPSOIL	2.0
SILT	12.0
	15.0
SAND	23.5
WEAK ROCK	32.0
BEDROCK	42.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-060 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 393 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/24/2025 **DATE FINISHED** 4/24/2025
DRILLING EQUIPMENT CEM-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 15-ft of riser were installed to a depth of 23-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	396	-3
TOP OF SEAL	390.6	2.4
TOP OF FILTER	385	8
TOP OF SCREEN	381	12
BOTTOM OF BORING	360	33

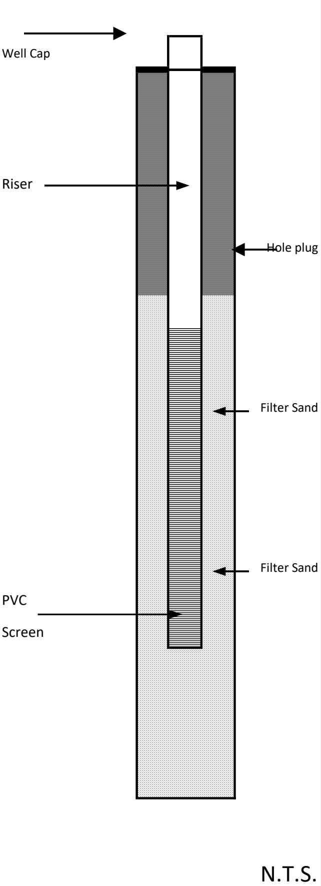
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
394.30	4/30/2025	-1.3
394.00	5/9/2025	-1.0
388.4	6/30/2025	4.6

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	0.3
CLAY	4.0
SILT	17.0
SAND	23.0
ROCK	33.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-064 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 392.8 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/22/2025 **DATE FINISHED** 4/22/2025
DRILLING EQUIPMENT CME-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 13-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	395.8	-3
TOP OF SEAL	392.8	0
TOP OF FILTER	389.8	3
TOP OF SCREEN	387.8	5
BOTTOM OF BORING	357.8	35

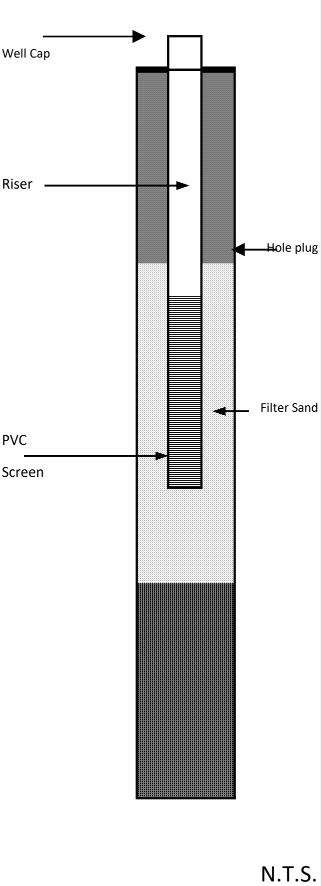
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
393.00	4/30/2025	-0.2
393.20	5/9/2025	-0.4
390.3	6/30/2025	2.5

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	0.3
CLAY	4.0
SILT	10.0
SILTY CLAY	14.5
SAND	20.0
	25.0
BEDROCK	35.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-066 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 389.5 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/21/2025 **DATE FINISHED** 4/22/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Landon Nelson
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Bahar Ghsneshirazi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 9-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	393.5	-4
TOP OF SEAL	389.5	0
TOP OF FILTER	386.5	3
TOP OF SCREEN	384.5	5
BOTTOM OF BORING	357.5	32

SCREEN LENGTH

10 ft

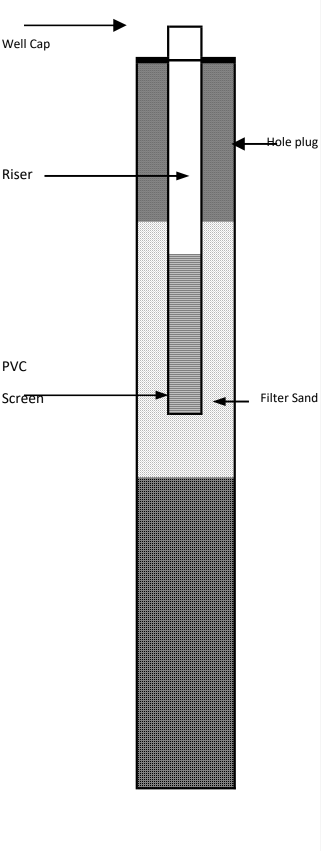
SLOT SIZE

0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
391.60	4/30/2025	-2.1
391.80	5/9/2025	-2.3
388.7	6/30/2025	0.8

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
TOPSOIL	0.3
SILT	15.0 20.0
WEAK ROCK	22.0
BEDROCK	32.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-068 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 393 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/25/2025 **DATE FINISHED** 4/26/2025
DRILLING EQUIPMENT CEM-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 20-ft of riser were installed to a depth of 26-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	395.5	-2.5
TOP OF SEAL	390.5	2.5
TOP OF FILTER	385	8
TOP OF SCREEN	388	5
BOTTOM OF BORING	356	37

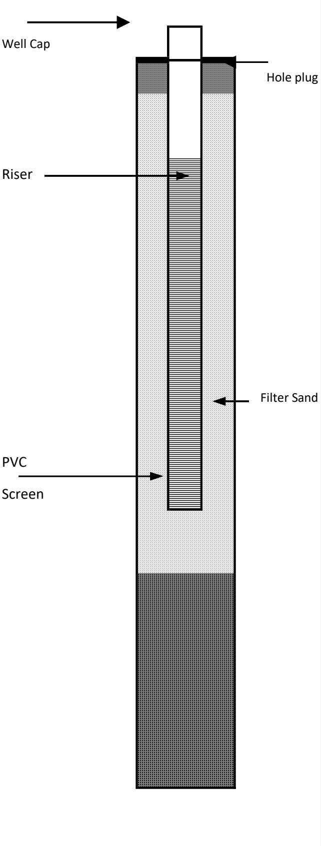
SCREEN LENGTH 10 ft

SLOT SIZE 0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
393.10	4/30/2025	-0.1
393.10	5/9/2025	-0.1
390	6/30/2025	3

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.5
CLAY	4.0
SILT	8.5
CLAY	12.0
WEAK ROCK	15.0
	22.0
ROCK	37.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-071 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 392 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/18/2025 **DATE FINISHED** 4/21/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Landon Nelson
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Bahar Ghsneshirazi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 12-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 15-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	394	-2
TOP OF SEAL	392	0
TOP OF FILTER	384	8
TOP OF SCREEN	382	10
BOTTOM OF BORING	355.6	36.4

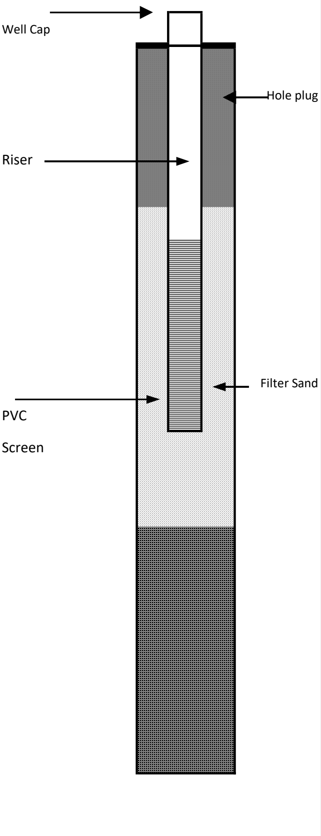
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
391.75	4/21/2025	0.3
391.50	4/25/2025	0.5
392.10	4/30/2025	-0.1
392.30	5/9/2025	-0.3
389.70	6/30/2025	2.3

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.0
TOPSOIL	0.4
CLAY	2.0 6.0
SILT	20.0 24.5
SAND	25.5
WEAK ROCK	26.4
BEDROCK	36.4

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OBSERVATION WELL CONSTRUCTION SUMMARY
Well No. LB-R-072 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 405.7 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/6/2025 **DATE FINISHED** 5/7/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Robert Drake
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Roobak Ghaderi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 15.5-ft below grade with a stick-up of 3.5-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	409.2	-3.5
TOP OF SEAL	405.7	0
TOP OF FILTER	402.7	3
TOP OF SCREEN	400.7	5
BOTTOM OF BORING	356.9	48.8

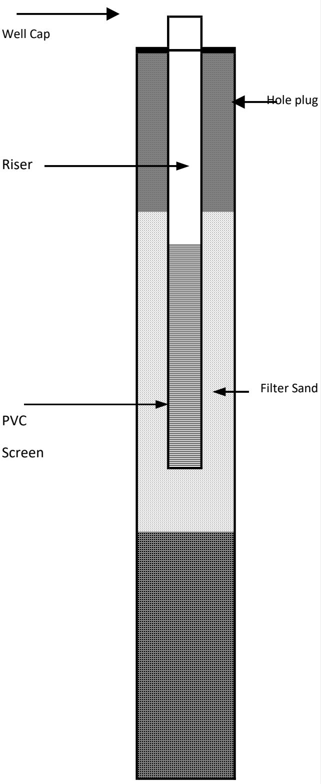
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
403.10	5/9/2025	2.6
404.40	5/16/2025	1.3
398.2	6/30/2025	7.5

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.5
TOPSOIL	1.5
SILT	5.5
SAND	15.5
SILT	20.0
CLAY	28.5
WEAKROCK	40.4
BEDROCK	48.8

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-076 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 401.6 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/3/2025 **DATE FINISHED** 4/4/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Robert Drake
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Roobak Ghaderi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 13-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	404.6	-3
TOP OF SEAL	401.6	0
TOP OF FILTER	393.6	8
TOP OF SCREEN	391.6	10
BOTTOM OF BORING	352.6	49

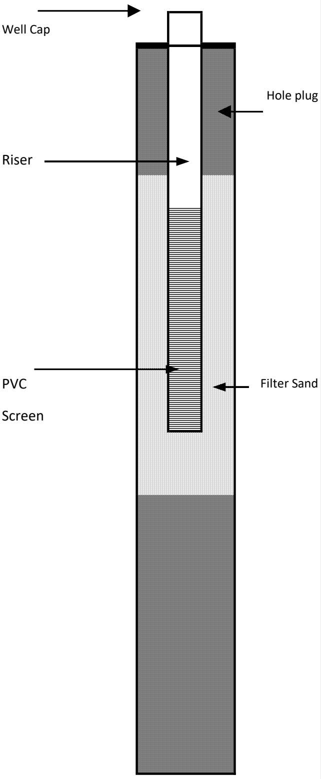
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
401.50	4/21/2025	0.1
401.40	4/25/2025	0.2
402.1	4/30/2025	-0.5
402.2	5/9/2025	-0.6
399.7	6/30/2025	1.9

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	2.0
SILT	8.0
SAND	14.0
SILT	16.0
SAND	24.0
SILT	29.0
WEAK ROCK	39.0
BEDROCK	49.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-077 (OW)

PROJECT	Micron New York Manufacturing Facility	**PROJECT NO.**	170883801
LOCATION	Town of Clay, New York	**ELEVATION AND DATUM**	401 ft ± (NAVD88)
DRILLING AGENCY	Atlantic Testing Laboratory (ATL)	**DATE STARTED**	4/28/2025
		DATE FINISHED	4/29/2025
DRILLING EQUIPMENT	Geoprobe 7822DT	**DRILLER**	Robert Drake
SIZE AND TYPE OF BIT	3 7/8" tricone roller bit	**INSPECTOR**	Roobak Ghaderi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 13-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING	4" flush joint steel casing	**DIAMETER**	4.00 inches
TYPE OF SCREEN	PVC	**DIAMETER**	2.00 inches
BOREHOLE NOMINAL DIAMETER	4 inches		
TYPE OF BACKFILL MATERIAL	Filter sand		
TYPE OF SEAL MATERIAL	Bentonite Pellets		
TYPE OF FILTER MATERIAL	No. 1 Filter Sand (Silica Quartz Sand)		

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	404	-3
TOP OF SEAL	401	0
TOP OF FILTER	393	8
TOP OF SCREEN	391	10
BOTTOM OF BORING	350.8	50.2

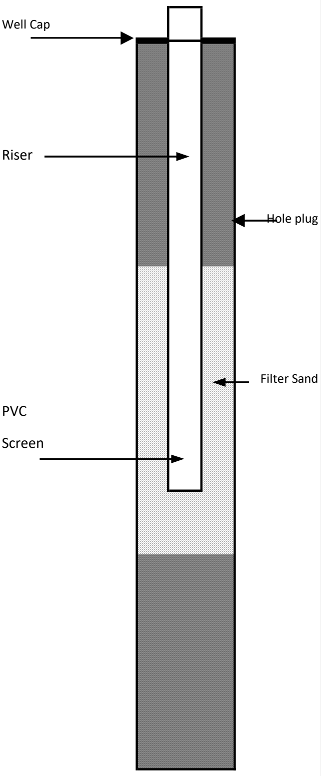
SCREEN LENGTH 10 ft

SLOT SIZE 0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
396.40	4/30/2025	4.6
395.40	5/9/2025	5.6
392.5	6/30/2025	8.5

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	1.0
	2.0
SILT	
	8.0
CLAY	
	11.3
SAND	20.0
	40.2
BEDROCK	
	50.2

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-080 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 399.9 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/26/2025 **DATE FINISHED** 4/28/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Robert Drake
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Roobak Ghaderi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 18-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	396.9	-3
TOP OF SEAL	399.9	0
TOP OF FILTER	391.9	8
TOP OF SCREEN	389.9	10
BOTTOM OF BORING	344.7	55.2

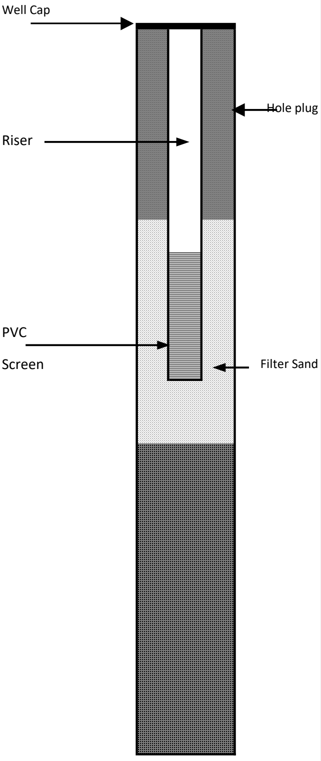
SCREEN LENGTH
10 ft

SLOT SIZE
0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
399.40	4/30/2025	0.5

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	1.2
SILT	8.0
SAND	20.0
	35.0
WEAK ROCK	45.2
BEDROCK	55.2

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-082 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 405 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/15/2025 **DATE FINISHED** 4/16/2025
DRILLING EQUIPMENT CME-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Bahar Ghsneshirazi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 13.5-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 3.5-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	408.5	-3.5
TOP OF SEAL	405	0
TOP OF FILTER	397	8
TOP OF SCREEN	395	10
BOTTOM OF BORING	363	42

SCREEN LENGTH

10 ft

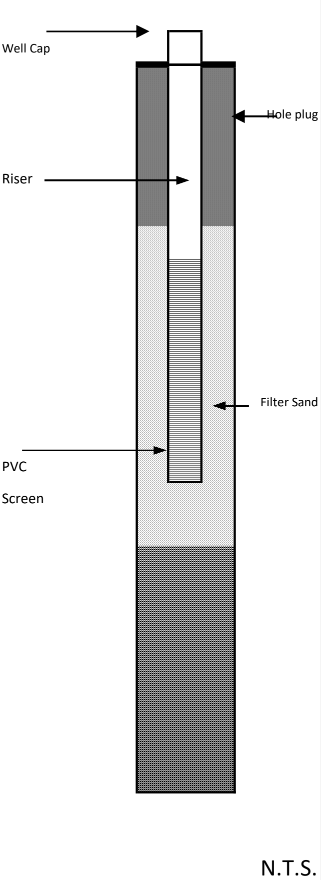
SLOT SIZE

0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
403.30	4/30/2025	1.7
404.90	5/9/2025	0.1
401.6	6/30/2025	3.4

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	0.5
CLAY	2.0
SILT	20.0 25.0
SAND	28.0
BEDROCK	42.0

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OBSERVATION WELL CONSTRUCTION SUMMARY
Well No. LB-R-083 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 400.1 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/24/2025 **DATE FINISHED** 4/24/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Robert Drake
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Roobak Ghaderi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 12-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	402.1	-2
TOP OF SEAL	400.1	0
TOP OF FILTER	392.1	8
TOP OF SCREEN	390.1	10
BOTTOM OF BORING	368.6	31.5

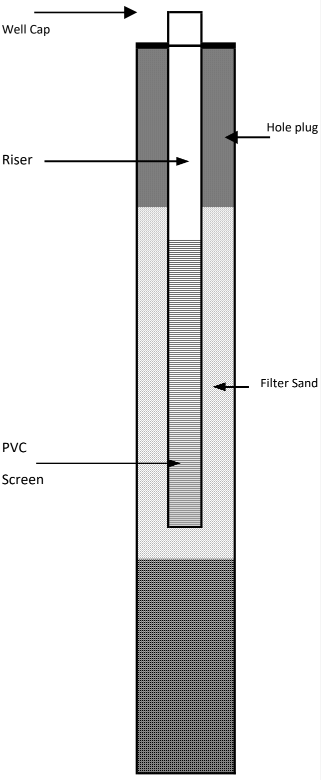
SCREEN LENGTH 10 ft

SLOT SIZE 0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
399.40	4/30/2025	0.7
399.50	5/9/2025	0.6
398.7	7/3/2025	1.4

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	2.0
TOPSOIL	1.0
SILT	8.0
CLAY	18.0
WEAK ROCK	21.5
BEDROCK	31.5

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-086 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 400.4 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/21/2025 **DATE FINISHED** 4/21/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Robert Drake
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Roobak Ghaderi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 14-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

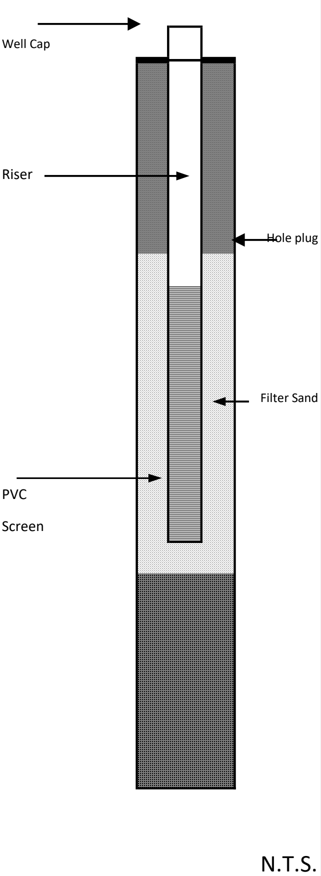
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	404.4	-4
TOP OF SEAL	400.4	0
TOP OF FILTER	392.4	8
TOP OF SCREEN	390.4	10
BOTTOM OF BORING	365.3	35.1
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
400.00	4/30/2025	0.4
400.30	5/9/2025	0.1
397.3	6/30/2025	3.1

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
TOPSOIL	1.7
SILT	15.0
SAND	20.0
WEAK ROCK	25.1
BEDROCK	35.1

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OBSERVATION WELL CONSTRUCTION SUMMARY
Well No. LB-R-093 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 406 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/1/2025 **DATE FINISHED** 5/1/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Robert Drake
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Roobak Ghaderi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 9-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 4-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

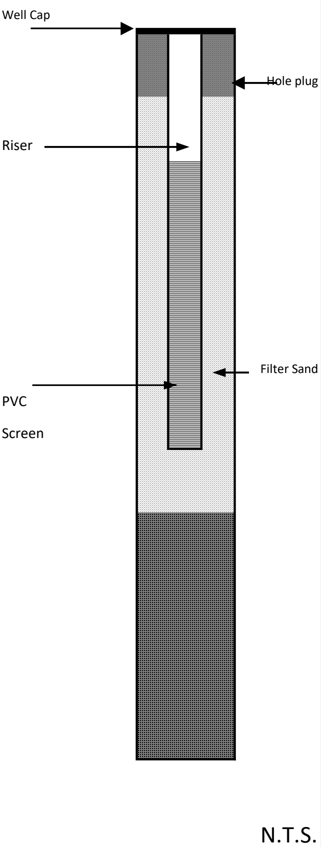
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	410	-4
TOP OF SEAL	406	0
TOP OF FILTER	403	3
TOP OF SCREEN	401	5
BOTTOM OF BORING	375.2	30.8
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
403.40	5/9/2025	2.6

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-4.0
FILL	1.5
CLAY	4.0
SILT	10.0
SAND	15.0
WEAK ROCK	20.8
BEDROCK	30.8

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-100 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801	
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 407.7 ft ± (NAVD88)	
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/11/2025	**DATE FINISHED** 4/11/2025
DRILLING EQUIPMENT Geoprobe 7822DT	**DRILLER** Robert Drake	
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Roobak Ghaderi	

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 10-ft of riser were installed to a depth of 18-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

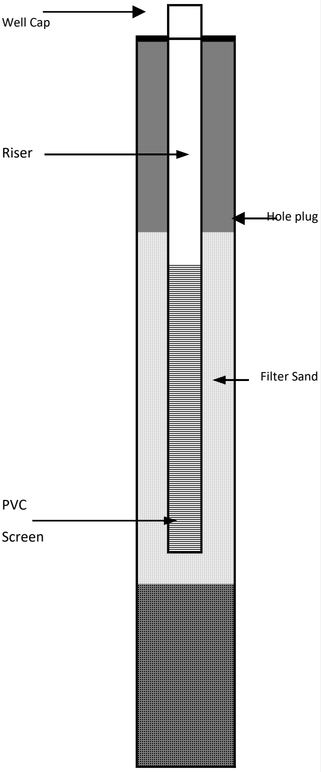
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

TOP OF CASING	**ELEVATION** 410.7	**DEPTH (ft)** -3
TOP OF SEAL	**ELEVATION (ft)** 407.7	**DEPTH (ft)** 0
TOP OF FILTER	**ELEVATION (ft)** 399.7	**DEPTH (ft)** 8
TOP OF SCREEN	**ELEVATION (ft)** 397.7	**DEPTH (ft)** 10
BOTTOM OF BORING	**ELEVATION (ft)** 365.9	**DEPTH (ft)** 41.8
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
407.40	4/30/2025	0.3
407.50	5/9/2025	0.2

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	2.0
SILT	20.0
	41.8

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-104 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 403 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 4/11/2025 **DATE FINISHED** 4/15/2025
DRILLING EQUIPMENT CME-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 7-ft of riser were installed to a depth of 15-ft below grade with a stick-up of 2-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	405	-2
TOP OF SEAL	403	0
TOP OF FILTER	400	3
TOP OF SCREEN	398	5
BOTTOM OF BORING	344	59

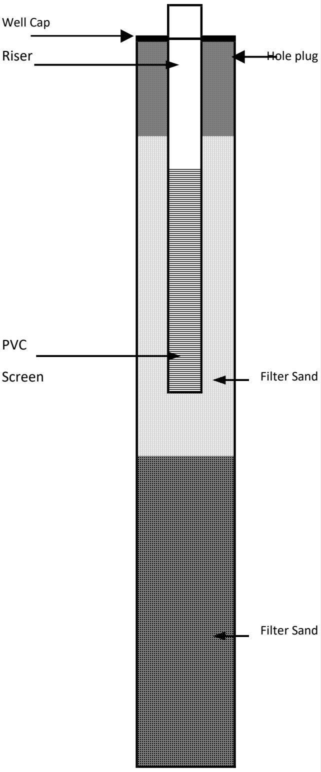
SCREEN LENGTH 10 ft

SLOT SIZE 0.01 in

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
392.00	4/30/2025	11.0
397.80	5/9/2025	5.2
394.4	6/30/2025	8.6

WELL DETAILS



N.T.S.

SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.0
TOPSOIL	
SAND	2.0
	15.0
BEDROCK	44.0
	59.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-114 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 393 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/1/2025 **DATE FINISHED** 5/2/2025
DRILLING EQUIPMENT CEM-75	**DRILLER** Brad Perry
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Shreeya Pandey

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 12.5-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 2.5-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

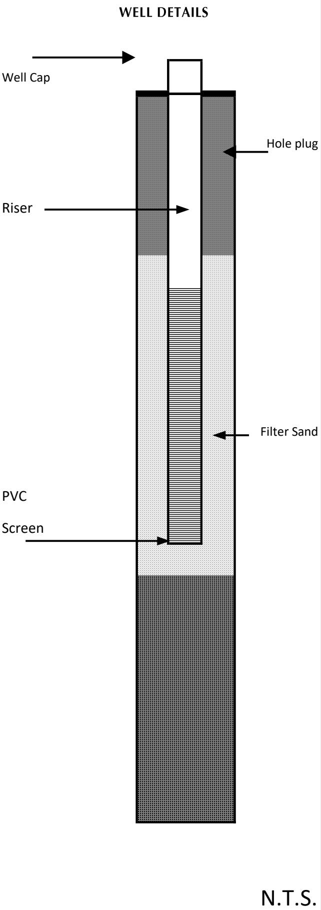
The well was pumped until clear outflow was observed.

TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

TOP OF CASING	**ELEVATION**	**DEPTH (ft)**
	395.5	-2.5
TOP OF SEAL	**ELEVATION (ft)**	**DEPTH (ft)**
	390.4	2.6
TOP OF FILTER	**ELEVATION (ft)**	**DEPTH (ft)**
	381	12
TOP OF SCREEN	**ELEVATION (ft)**	**DEPTH (ft)**
	379	14
BOTTOM OF BORING	**ELEVATION (ft)**	**DEPTH (ft)**
	359	34
SCREEN LENGTH		
	10 ft	
SLOT SIZE		
	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
392.50	5/9/2025	0.5
393.80	5/16/2025	-0.8



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-2.5
TOPSOIL	
CLAY	4.0
SILTY CLAY/ SILT	17.5
SAND	20.0 24.0
BEDROCK	34.0

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OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-R-136 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 392 ft ± (NAVD88)
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/6/2025 **DATE FINISHED** 5/6/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Landon Nelson
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Bahar Ghsneshirazi

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 13-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

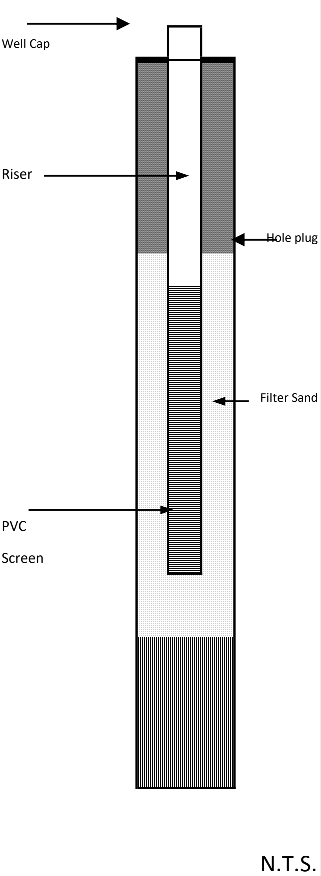
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION (ft)	DEPTH (ft)
TOP OF CASING	395	-3
TOP OF SEAL	392	0
TOP OF FILTER	384	8
TOP OF SCREEN	382	10
BOTTOM OF BORING	358	34
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
381.70	5/16/2025	10.3

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
TOPSOIL	0.5
SILT	6.0
SAND/ GRAVEL	20.0
WEAK ROCK	24.0
BEDROCK	34.0

LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
368 Nineth Avenue, 8th Floor , New York, NY 10001

OBSERVATION WELL CONSTRUCTION SUMMARY

Well No. LB-X-003 (OW)

PROJECT Micron New York Manufacturing Facility	**PROJECT NO.** 170883801	
LOCATION Town of Clay, New York	**ELEVATION AND DATUM** 391.6 ft ± (NAVD88)	
DRILLING AGENCY Atlantic Testing Laboratory (ATL)	**DATE STARTED** 5/8/2025	**DATE FINISHED** 5/8/2025
DRILLING EQUIPMENT CME-55LC	**DRILLER** Scott McGregor	
SIZE AND TYPE OF BIT 3 7/8" tricone roller bit	**INSPECTOR** Ning Lee	

METHOD OF INSTALLATION

10-ft of 2-in diameter PVC screen and 13-ft of riser were installed to a depth of 20-ft below grade with a stick-up of 3-ft from exiting grade; borehole casing was then removed. As the casing was removed 12-ft of sand filter was packed. Hole plug was placed to the top of the hole and a well cap closure was installed.

METHOD OF WELL DEVELOPMENT

The well was pumped until clear outflow was observed.

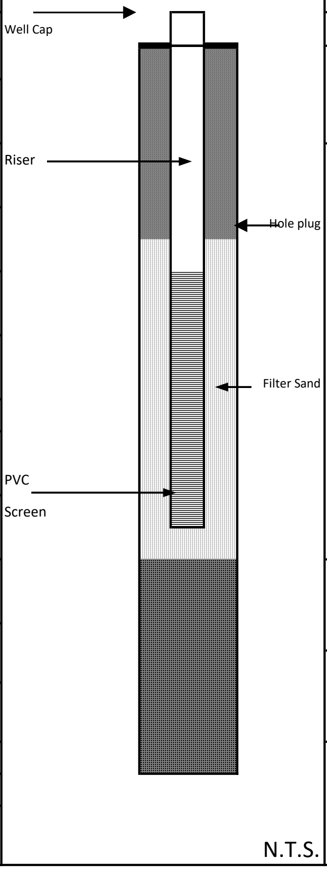
TYPE OF CASING 4" flush joint steel casing	**DIAMETER** 4.00 inches	**TYPE OF BACKFILL MATERIAL** Filter sand
TYPE OF SCREEN PVC	**DIAMETER** 2.00 inches	**TYPE OF SEAL MATERIAL** Bentonite Pellets
BOREHOLE NOMINAL DIAMETER 4 inches		**TYPE OF FILTER MATERIAL** No. 1 Filter Sand (Silica Quartz Sand)

	ELEVATION	DEPTH (ft)
TOP OF CASING	394.6	-3
TOP OF SEAL	391.6	0
TOP OF FILTER	383.6	8
TOP OF SCREEN	381.6	10
BOTTOM OF BORING	356.6	35
SCREEN LENGTH	10 ft	
SLOT SIZE	0.01 in	

GROUNDWATER ELEVATIONS

ELEVATION (ft)	DATE	DEPTH TO WATER (ft)
384.8	5/16/2025	6.8
379.6	7/3/2025	12.0

WELL DETAILS



SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	-3.0
SILT	6.0
SAND	21.5
WEAK ROCK	25.0
BEDROCK	35.0

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APPENDIX C
TEST PIT LOGS

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Log of Test Pit **TP-01**

Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801		Date
Location Town of Clay, New York	Elevation and Datum 377.3		
Excavation Company Atlantic Testing Laboratories (ATL)	Depth	Water Level - First ▽	Water Level - Completion ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo	

SYMBOL	Elev. (ft) +377.3	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+377.3	THE TEST PIT WAS LOCATED ON A WETLAND AND HENCE COULD NOT BE EXCAVATED	0			
			1			
			2			
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-02** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/25/2025
Location Town of Clay, New York	Elevation and Datum 380.0	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 1.8 ft	Water Level - First 1.8 ▽ Water Level - Completion 0.2 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+380.0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] ▽	0			4/25/2025
	+379.0	Brown SILT, trace fine Sand (moist) [ML] ▽	1	B-1		Take B-1 from 1ft to 1.83ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
	+378.2	End of Test Pit at 1.8ft.	2			Test pit terminated at 1.83ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-03** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/25/2025
Location Town of Clay, New York	Elevation and Datum 390.2	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.0 ft	Water Level - First 2.0 ▽ Water Level - Completion 0.0 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+390.2	▽	0			
		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]				4/25/2025
	+388.9		1			
		Brown SILT, trace fine Sand (moist) [ML]		B-1		Take B-1 from 1.3ft to 2ft. Laboratory Thermal Resistivity Tests
	+388.2	▽	2			
		End of Test Pit at 2.0ft.				Test pit terminated at 2ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-04** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/25/2025
Location Town of Clay, New York	Elevation and Datum 393.0	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.0 ft	Water Level - First 2.0 ▽ Water Level - Completion 0.1 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+393.0	▽	0			
	+392.7	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]				4/25/2025
		Brown SILT, trace fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.3ft to 2ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
	+391.0	▽	2			Test pit terminated at 2ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
		End of Test Pit at 2.0ft.	3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-05** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/25/2025
Location Town of Clay, New York	Elevation and Datum 385.8	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.0 ft	Water Level - First 2.0 ▽ Water Level - Completion 0.6 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+385.8		0			
	+385.5	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]				4/25/2025
		Brown SILT, trace fine Sand (moist) [ML] ▽	1	B-1		Take B-1 from 0.3ft to 2ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
	+383.8	▽	2			Test pit terminated at 2ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
		End of Test Pit at 2.0ft.	3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-06** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/23/2025	
Location Town of Clay, New York	Elevation and Datum 382.9		
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 4.5 ft	Water Level - First 4.5 ▽	Water Level - Completion 1.8 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo	

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+382.9					
	+382.4	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/23/2025
		Brown SILT, trace fine Sand (moist) [ML] ▽	1 2 3 4	B-1		Take B-1 from 0.5ft to 4.5ft. Laboratory Thermal Resistivity Tests
	+378.4	▽ End of Test Pit at 4.5ft.	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20			Test pit terminated at 4.5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

LANGAN Log of Test Pit **TP-07** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/23/2025
Location Town of Clay, New York	Elevation and Datum 383.7	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.3 ft	Water Level - First 2.3 ▽ Water Level - Completion 0.8 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+383.7					
		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] ▽	0			4/23/2025
	+382.6	Brown SILT, some fine Sand (moist) [ML]	1	B-1		Take B-1 from 1.1ft to 2.3ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
	+381.4	▽	2			
		End of Test Pit at 2.3ft.				Test pit terminated at 2.3ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

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Log of Test Pit **TP-08** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801		Date 4/23/2025
Location Town of Clay, New York	Elevation and Datum 390.2		
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.1 ft	Water Level - First 2.0 ▽	Water Level - Completion 0.8 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse		Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+390.2	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/23/2025
	+389.4	▽ Brown SILT, trace fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.75ft to 2.1ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
	+388.1	▽ End of Test Pit at 2.1ft.	2			Test pit terminated at 2.1ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

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Log of Test Pit **TP-09**

Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/22/2025	
Location Town of Clay, New York	Elevation and Datum 390.3		
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 4.0 ft	Water Level - First 4.0 ▽	Water Level - Completion 1.6 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo	

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+390.3					
	+389.7	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/22/2025
		Brown SILT, trace fine Sand (moist) [ML]	1			Take B-1 from 0.63ft to 4ft. Laboratory Thermal Resistivity Tests
		▽	2	B-1		
			3			
	+386.3	▽	4			
		End of Test Pit at 4.0ft.				Test pit terminated at 4ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

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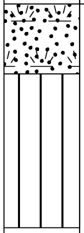
Log of Test Pit **TP-10**

Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/23/2025
Location Town of Clay, New York	Elevation and Datum 388.0	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 3.2 ft	Water Level - First 3.1 ▽ Water Level - Completion 1.3 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo



SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+388.0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/23/2025
	+387.0	Brown SILT, some fine Sand (moist) [ML] ▽	1	B-1		Take B-1 from 1ft to 3.2ft. Laboratory Thermal Resistivity Tests
			2			
	+384.8	▽	3			
		End of Test Pit at 3.2ft.				Test pit terminated at 3.2ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-11** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/23/2025
Location Town of Clay, New York	Elevation and Datum 380.8	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.0 ft	Water Level - First 1.8 ▽ Water Level - Completion 0.8 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+380.8					
▨	+380.0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] ▽	0			4/23/2025
▥	+378.8	Brown SILT, some fine Sand (moist) [ML] ▽	1	B-1		Take B-1 from 0.83ft to 2ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
		End of Test Pit at 2.0ft.	2			Test pit terminated at 2ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-12** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/23/2025
Location Town of Clay, New York	Elevation and Datum 383.0	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.3 ft	Water Level - First 2.3 ▽
		Water Level - Completion 0.8 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+383.0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] ▽	0			4/23/2025
	+381.7	Brown SILT, some fine Sand (moist) [ML] ▽	1.3	B-1		Take B-1 from 1.3ft to 2.3ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
	+380.7	End of Test Pit at 2.3ft.	2.3			Test pit terminated at 2.3ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

Depth Scale: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

LANGAN Log of Test Pit **TP-13** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date	
Location Town of Clay, New York	Elevation and Datum 383.0		
Excavation Company Atlantic Testing Laboratories (ATL)	Depth	Water Level - First ▽	Water Level - Completion ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo	

SYMBOL	Elev. (ft) +383.0	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+383.0	THE TEST PIT WAS LOCATED ON A WETLAND AND HENCE COULD NOT BE EXCAVATED	0			
			1			
			2			
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-14** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/23/2025
Location Town of Clay, New York	Elevation and Datum 388.9	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 3.5 ft	Water Level - First 3.5 ▽ Water Level - Completion 1.4 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+388.9	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/23/2025
	+388.1	Brown SILT, trace fine Sand (moist) [ML] ▽	1	B-1		Take B-1 from 0.8ft to 3.5ft. Laboratory Thermal Resistivity Tests
	+385.4	▽ End of Test Pit at 3.5ft.				Test pit terminated at 3.5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

Depth Scale: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

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Log of Test Pit **TP-15** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/21/2025
Location Town of Clay, New York	Elevation and Datum 397.8	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 5.0 ft	Water Level - First ▽ Water Level - Completion 4.6 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+397.8					
		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/21/2025
	+397.0	Brown SILT, trace fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.8ft to 5ft. Laboratory Thermal Resistivity Tests
			2			
			3			
			4			
		▽				
	+392.8	End of Test Pit at 5.0ft.	5			Test pit terminated at 5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-16** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/21/2025
Location Town of Clay, New York	Elevation and Datum 399.3	

Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.3 ft	Water Level - First 2.1 ▽	Water Level - Completion 1.4 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo	

SYMBOL	Elev. (ft) +399.3	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+398.6	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/21/2025
	+397.0	Brownish red SILT, some fine Sand (moist) [ML] ▽ ▽	1 2	B-1		Take B-1 from 0.7ft to 2.3ft. Laboratory Thermal Resistivity Tests
		End of Test Pit at 2.3ft.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20			Test pit terminated at 2.3ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

LANGAN Log of Test Pit **TP-17** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/24/2025
Location Town of Clay, New York	Elevation and Datum 391.0	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.3 ft	Water Level - First 2.3 ▽
		Water Level - Completion 0.7 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
+391.0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] ▽	0			4/24/2025
+390.2	Brown SILT, trace fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.8ft to 2.3ft. Laboratory Thermal Resistivity Tests
+388.7	▽	2			
	End of Test Pit at 2.3ft.	3			Test pit terminated at 2.3ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
		4			
		5			
		6			
		7			
		8			
		9			
		10			
		11			
		12			
		13			
		14			
		15			
		16			
		17			
		18			
		19			
		20			

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Log of Test Pit TP-18

Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801		Date 4/24/2025
Location Town of Clay, New York	Elevation and Datum 391.9		
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 1.7 ft	Water Level - First 1.6 ▽	Water Level - Completion 0.0 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse		Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+391.9	▽				
		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/24/2025
	+391.4	Brown SILT, trace fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.58ft to 1.7ft. Laboratory Thermal Resistivity Tests
	+390.2	▽				
		End of Test Pit at 1.7ft.	2			Test pit terminated at 1.7ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-19** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/22/2025
Location Town of Clay, New York	Elevation and Datum 391.7	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.0 ft	Water Level - First 2.0 ▽
		Water Level - Completion 1.0 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+391.7	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/22/2025
	+390.9	Brown SILT, trace fine Sand (moist) [ML] ▽	1	B-1		Take B-1 from 0.83ft to 2ft. Laboratory Thermal Resistivity Tests
	+389.7	▽ End of Test Pit at 2.0ft.	2			Test pit terminated at 2ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			3			
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-20** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/22/2025
Location Town of Clay, New York	Elevation and Datum 395.2	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 5.0 ft	Water Level - First ▽ Water Level - Completion 3.8 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
+395.2	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/22/2025
+393.7	Brown SILT, some fine Sand (moist) [ML]	1.5	B-1		Take B-1 from 1.5ft to 5ft. Laboratory Thermal Resistivity Tests
	▽	3.8			
+390.2	End of Test Pit at 5.0ft.	5			Test pit terminated at 5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

LANGAN Log of Test Pit **TP-21** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/21/2025
Location Town of Clay, New York	Elevation and Datum 401.3	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 4.0 ft	Water Level - First 3.4 ▽
		Water Level - Completion 1.4 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft) +401.3	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+400.6	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/21/2025
		Brown SILT, trace fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.67ft to 4ft. Laboratory Thermal Resistivity Tests
		▽				
			2			
			3			
		▽				
	+397.3	End of Test Pit at 4.0ft.	4			Test pit terminated at 4ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-22** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/21/2025
Location Town of Clay, New York	Elevation and Datum 397.6	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.4 ft	Water Level - First 2.1 ▽
		Water Level - Completion 1.4 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+397.6	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/21/2025
	+396.9	Brown SILT, some fine Sand (moist) [ML] ▽ ▽	1 2	B-1		Take B-1 from 0.67ft to 2.4ft. Laboratory Thermal Resistivity Tests
	+395.2	End of Test Pit at 2.4ft.	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20			Test pit terminated at 2.4ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

LANGAN Log of Test Pit **TP-23** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/21/2025
Location Town of Clay, New York	Elevation and Datum 404.3	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 3.0 ft	Water Level - First 2.9 ▽ Water Level - Completion 2.2 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft) +404.3	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/21/2025
	+403.5	Brown SILT, trace fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.75ft to 3ft. Laboratory Thermal Resistivity Tests
		▽	2			
	+401.3	▽ End of Test Pit at 3.0ft.	3			Test pit terminated at 3ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-24** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/21/2025
Location Town of Clay, New York	Elevation and Datum 406.3	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 5.0 ft	Water Level - First ▽ Water Level - Completion 2.6 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+406.3		0			
	+405.3	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0–1			4/21/2025
	+401.3	Brown SILT, trace fine Sand (moist) [ML] ▽	1–5	B-1		Take B-1 from 1ft to 5ft. Laboratory Thermal Resistivity Tests
		End of Test Pit at 5.0ft.	5			Test pit terminated at 5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

Depth Scale: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

LANGAN

Log of Test Pit **TP-25**

Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/22/2025
Location Town of Clay, New York	Elevation and Datum 406.0	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 4.5 ft	Water Level - First 4.5 ▽ Water Level - Completion 3.8 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+406.0	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/22/2025
	+405.2	Brown SILT, some fine Sand (moist) [ML]	1			Take B-1 from 0.75ft to 4.5ft. Laboratory Thermal Resistivity Tests
			2			
			3	B-1		
		▽	4			
	+401.5	▽ End of Test Pit at 4.5ft.	5			Test pit terminated at 4.5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-26** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801		Date 4/22/2025
Location Town of Clay, New York	Elevation and Datum 403.9		
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.5 ft	Water Level - First 2.4 ▽	Water Level - Completion 2.0 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse		Field Engineer Anthony Grippo

SYMBOL	Elev. (ft) +403.9	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
		Brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/22/2025
	+403.1	Light Brown SILT, some fine Sand, trace fine Gravel (moist) [ML] ▽ ▽	1 2	B-1		Take B-1 from 0.83ft to 2.5ft. Laboratory Thermal Resistivity Tests
	+401.4	End of Test Pit at 2.5ft.	3			Test pit terminated at 2.5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			4			
			5			
			6			
			7			
			8			
			9			
			10			
			11			
			12			
			13			
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			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-27** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/24/2025
Location Town of Clay, New York	Elevation and Datum 388.7	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 5.0 ft	Water Level - First 5.0 ▽
		Water Level - Completion 4.0 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+388.7					
	+388.1	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/24/2025
		Brown SILT, trace fine Sand (moist) [ML]	1 2 3 ▽ 4	B-1		Take B-1 from 0.58ft to 5ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
	+383.7	End of Test Pit at 5.0ft.	▽ 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20			Test pit terminated at 5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

LANGAN

Log of Test Pit **TP-28** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/24/2025
Location Town of Clay, New York	Elevation and Datum 382.4	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 1.6 ft	Water Level - First 1.6 ▽ Water Level - Completion 2.3 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+382.4	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/24/2025
	+381.7	Brown SILT, some fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.67ft to 1.6ft. Modified Proctor, CBR and Laboratory Thermal Resistivity Tests.
	+380.8	▽ End of Test Pit at 1.6ft.				Test pit terminated at 1.6ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
		▽	2			
			3			
			4			
			5			
			6			
			7			
			8			
			9			
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			11			
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			18			
			19			
			20			

LANGAN

Log of Test Pit **TP-29** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/24/2025
Location Town of Clay, New York	Elevation and Datum 387.0	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 2.2 ft	Water Level - First 2.1 ▽
		Water Level - Completion 0.5 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+387.0					
		Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] ▽	0			4/24/2025
	+386.2	Brown SILT, some fine Sand (moist) [ML]	1	B-1		Take B-1 from 0.83ft to 2.2ft. Laboratory Thermal Resistivity Tests
	+384.8	▽	2			
		End of Test Pit at 2.2ft.				Test pit terminated at 2.2ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.
			3			
			4			
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			11			
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			17			
			18			
			19			
			20			

LANGAN Log of Test Pit **TP-30** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/24/2025	
Location Town of Clay, New York	Elevation and Datum 385.3		
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 4.5 ft	Water Level - First 4.5 ▽	Water Level - Completion 2.3 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo	

SYMBOL	Elev. (ft) +385.3	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+384.3	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL]	0			4/24/2025
	+380.8	Brown SILT, trace fine Sand (moist) [ML]	1 2 ▽ 3 4 ▽	B-1		Take B-1 from 1ft to 4.5ft. Laboratory Thermal Resistivity Tests
		End of Test Pit at 4.5ft.	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20			Test pit terminated at 4.5ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

LANGAN Log of Test Pit **TP-31** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/25/2025
Location Town of Clay, New York	Elevation and Datum 381.4	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 1.8 ft	Water Level - First 1.8 ▽
		Water Level - Completion 0.3 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft) +381.4	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+380.7	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] ▽	0			4/25/2025
	+379.6	Brown SILT, some fine Sand (moist) [ML] ▽	1	B-1		Take B-1 from 0.75ft to 1.8ft. Laboratory Thermal Resistivity Tests
		End of Test Pit at 1.8ft.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20			Test pit terminated at 1.8ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

LANGAN

Log of Test Pit **TP-32** Sheet 1 of 1

Project Micron New York Manufacturing Facility	Project No. 170883801	Date 4/24/2025
Location Town of Clay, New York	Elevation and Datum 380.5	
Excavation Company Atlantic Testing Laboratories (ATL)	Depth 1.9 ft	Water Level - First 1.7 ▽
		Water Level - Completion 0.4 ▼
Excavation Equipment Hand Tools	Excavation Foreman Nathaniel Morehouse	Field Engineer Anthony Grippo

SYMBOL	Elev. (ft)	DESCRIPTION	Depth Scale	SAMPLE Number	SAMPLE Type	REMARKS
	+380.5					
	+379.8	Dark brown SILT, trace fine Sand, roots (moist) [TOPSOIL] ▽	0			4/24/2025
	+378.6	Brown SILT, some fine Sand (moist) [ML] ▽	1	B-1		Take B-1 from 0.67ft to 1.9ft. Laboratory Thermal Resistivity Tests
		End of Test Pit at 1.9ft.	2			Test pit terminated at 1.9ft upon observing water at the bottom of the test pit. Geophysical tests were carried out. Test pit backfilled to grade with soil cuttings placed in lifts and compacted.

APPENDIX D

CONETEC CPT DATA REPORTS

PRESENTATION OF SITE INVESTIGATION RESULTS

Micron New York Manufacturing Facility - Clay, NY

Prepared for:
Langan Engineering

ConeTec Job No:	**25-53-29335**
Project Start Date:	2025-04-08
Project End Date:	2025-04-17
Release Date:	2025-05-14

Report prepared by:
ConeTec, Inc.

436 Commerce Lane, Unit C, West Berlin, NJ 08091
Tel: (856) 767-8600

ConeTecNJ@conetec.com
www.conetec.com
www.conetecdataservices.com

ABOUT THIS REPORT

The attached report presents the findings of the site investigation program.

At the request of: Langan Engineering.

Conducted by: ConeTec, Inc.

Please be advised that this report, along with all associated data, is subject to the Third-Party Disclaimer and the Client Disclaimer contained in the 'Limitations' section of this report. For further reference, please consult the list of attached documents following the main body of the report.

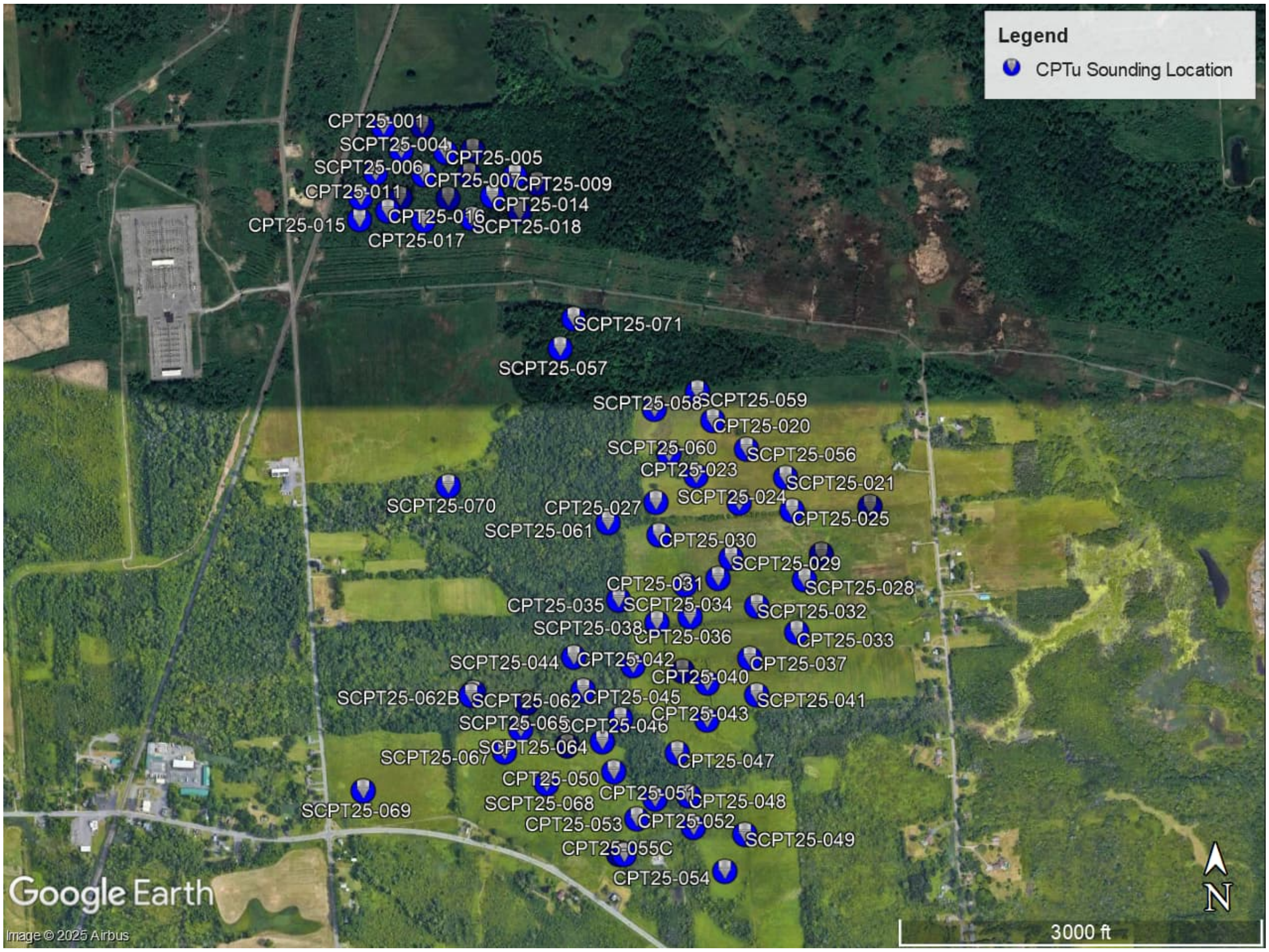
PROJECT	
Client Name	Langan Engineering
Project Name	Micron New York Manufacturing Facility - Clay, NY
Test Types	CPTu, SCPTu
ConeTec Project Number	25-53-29335
Additional Comments	None

CONTENTS

The following are included in the body of the report:

- Site Map
- Limitations and Closure
- Project Information
- Test Summaries and Plots
- Supporting Documents and Materials

SITE MAP



All locations are approximate unless otherwise stated in the body of the report.

ConeTec Job Number: 25-53-29335

Client: Langan Engineering

Project: Micron New York Manufacturing Facility - Clay, NY

Date: 2025-05-14

LIMITATIONS

Third-Party Disclaimer

‘Report’ refers to this document titled: Micron New York Manufacturing Facility - Clay, NY

The Report was prepared by ConeTec for: Langan Engineering

The Report is confidential and may not be distributed to or relied upon by any third parties without the express written consent of ConeTec. Third parties who gain access to the Report do not acquire any rights by virtue of such access. Any use which a third party makes of the Report, or any reliance on or decisions made based on it, are the responsibility of such third parties. ConeTec accepts no responsibility for loss, damage and/or expense, if any, suffered by any third parties as a result of decisions made, or actions taken or not taken, which are in any way based on, or related to, the Report or any portion(s) thereof.

Client Disclaimer

ConeTec was retained by: Langan Engineering

‘Report’ refers to this document titled: Micron New York Manufacturing Facility - Clay, NY

ConeTec was retained to collect and provide the raw data (‘Data’) which is included in the Report.

ConeTec has collected and reported the Data in accordance with current industry standards. No other warranties, either expressed or implied, with respect to the Data is made by ConeTec. To fully understand the Data included in the Report, reference must be made to the supporting documents and other sources referenced in the Report in their entirety. Other than the Data, the contents of the Report, including any Interpretations, should not be relied upon in any fashion without independent verification. ConeTec is in no way responsible for any loss, damage or expense resulting from the use of, and/or reliance on, such material by any party.

Closure

Thank you for the opportunity to contribute to this project. The equipment utilized, as well as the field procedures followed, fully complied with currently accepted best practice standards.

Report prepared by: Sam Connelly, Jesse Martinez

PROJECT INFORMATION

Rig Utilized		
Description	**Deployment System**	**Test Type**
C03-007 CPT Track Rig	Twin mounted cylinders	CPTu, SCPTu
A04-004 CPT Marsh Buggy	Twin mounted cylinders	CPTu, SCPTu

Coordinates			
Test Type	Number of Locations	GPS Collection Method	EPSG Number
CPTu	38	Consumer Grade GPS	32618 (WGS84 / UTM Zone 18 North)
SCPTu	36	Consumer Grade GPS	32618 (WGS84 / UTM Zone 18 North)

Piezocones Used for this Project						
Cone Description	**Cone Number**	**Cross Sectional Area** (cm^2)	**Sleeve Area** (cm^2)	**Tip Capacity** (bar)	**Sleeve Capacity** (bar)	**Pore Pressure Capacity** (bar)
EC1149:T1500F15U35	1149	15	225	1500	15	35
EC1075:T1000F10U35	1075	15	225	1000	10	35
The CPTu summary indicates which cone was used for each sounding.						

Cone Penetration Test (CPTu)	
Depth reference	Depths are referenced to the existing ground surface at the time of each test.
Tip and sleeve data offset	0.1 Meters. This has been accounted for in the CPT data files.
Additional Comments	None

Calculated Geotechnical Parameters	
Additional information	The Normalized Soil Behavior Type Chart based on Q_{tn} (SBT Q_{tn}) (Robertson, 2009) was used to classify the soil for this project. A detailed set of calculated CPTu parameters have been generated and are provided in Excel format files in the release folder. The CPTu parameter calculations are based on values of corrected tip resistance (q_t) sleeve friction (f_s) and pore pressure (u_2). Effective stresses are calculated based on unit weights that have been assigned to the individual soil behavior type zones and the assumed equilibrium pore pressure profile. Soils were classified as either drained or undrained based on the Q_{tn} Normalized Soil Behavior Type Chart (Robertson, 2009). Calculations for both drained and undrained parameters were included for materials that classified as silt mixtures (zone 4). For calculating undrained shear strength based on pore pressure (Su(NΔu)) and undrained shear strength based on cone tip resistance (Su(Nkt)), an NΔu value of 6 and an Nkt value of 15 were selected.

REPORT APPENDICES

The appendices listed below are included in the report:

- **Cone Penetration Test (CPTu) Summary and Standard CPTu Plots**
- **Advanced Cone Penetration Test Plots with Ic, Su(Nkt), Phi, and N1(60)Ic**
- **Soil Behavior Type (SBT) Scatter Plots**
- **Pore Pressure Dissipation Test (PPD) Summary and PPD Plots**
- **Seismic Cone Penetration Test (SCPTu) Tabular Results**
- **SCPTu Test Plots**
- **SCPTu Velocity Wave Traces**
- **Supporting Documents and Materials**

Cone Penetration Test (CPTu) Summary and Standard CPTu Plots

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Start Date: 8-Apr-2025
End Date: 17-Apr-2025

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Rig	Cone	Cone Area (cm^2)	Assumed Phreatic Surface[1] (ft)	Final Depth (ft)	Seismic Intervals	Northing[2] (m)	Easting[2] (m)	Refer to Notation Number
CPT25-001	25-53-29335_CP001	10-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.5	19.36		4783841	405401	3
SCPT-002	25-53-29335_SP002	10-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.5	22.06	7	4783840	405499	
CPT25-003	25-53-29335_CP003	11-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.1	19.28		4783778	405625	3
SCPT25-004	25-53-29335_SP004	14-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.7	19.03	6	4783781	405444	
CPT25-005	25-53-29335_CP005	11-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.1	20.26		4783774	405556	3
SCPT25-006	25-53-29335_SP006	11-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.7	23.05	7	4783725	405378	3
CPT25-007	25-53-29335_CP007	14-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.1	21.57		4783718	405500	3
CPT25-008	25-53-29335_CP008	14-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.1	22.80		4783716	405615	
CPT25-009	25-53-29335_CP009	15-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.8	23.38		4783710	405730	
SCPT25-010	25-53-29335_SP010	16-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.8	21.90	7	4783689	405786	3
CPT25-011	25-53-29335_CP011	11-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	1.0	17.63		4783664	405339	3
SCPT25-012	25-53-29335_SP012	15-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.7	19.85	6	4783661	405439	3
CPT25-013	25-53-29335_CP013	15-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.1	25.18		4783657	405560	
CPT25-014	25-53-29335_CP014	15-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.5	27.07		4783660	405672	
CPT25-015	25-53-29335_CP015	11-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.0	20.26		4783609	405335	3
CPT25-016	25-53-29335_CP016	16-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.1	17.47		4783629	405407	3
CPT25-017	25-53-29335_CP017	16-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.1	21.16		4783602	405497	3
SCPT25-018	25-53-29335_SP018	16-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.5	17.22	5	4783605	405619	3
CPT25-019	25-53-29335_CP019	16-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.5	17.96		4783617	405740	3
CPT25-020	25-53-29335_CP020	8-Apr-2025	TC-7	1149:T1500F15U35	15	2.8	16.40		4783081	406215	3
SCPT25-021	25-53-29335_SP021	8-Apr-2025	TC-7	1149:T1500F15U35	15	1.4	18.62	5	4782933	406395	3
SCPT25-022	25-53-29335_SP022	8-Apr-2025	TC-7	1149:T1500F15U35	15	1.4	23.70	7	4782855	406606	3
CPT25-023	25-53-29335_CP023	9-Apr-2025	TC-7	1149:T1500F15U35	15	2.1	21.98		4782943	406169	3
SCPT25-024	25-53-29335_SP024	10-Apr-2025	TC-7	1149:T1500F15U35	15	1.4	15.09	5	4782872	406276	3
CPT25-025	25-53-29335_CP025	8-Apr-2025	TC-7	1149:T1500F15U35	15	1.4	15.83		4782850	406409	
CPT25-026	25-53-29335_CP026	8-Apr-2025	TC-7	1149:T1500F15U35	15	0.1	17.55		4782738	406480	3
CPT25-027	25-53-29335_CP027	10-Apr-2025	TC-7	1149:T1500F15U35	15	0.2	15.99		4782879	406066	3
SCPT25-028	25-53-29335_SP028	9-Apr-2025	TC-7	1149:T1500F15U35	15	0.1	22.47	7	4782675	406436	3
SCPT25-029	25-53-29335_SP029	9-Apr-2025	TC-7	1149:T1500F15U35	15	0.2	28.13	8	4782734	406252	3

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Start Date: 8-Apr-2025
End Date: 17-Apr-2025

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Rig	Cone	Cone Area (cm^2)	Assumed Phreatic Surface[1] (ft)	Final Depth (ft)	Seismic Intervals	Northing[2] (m)	Easting[2] (m)	Refer to Notation Number
CPT25-030	25-53-29335_CP030	11-Apr-2025	TC-7	1149:T1500F15U35	15	0.2	11.32		4782797	406072	
CPT25-031	25-53-29335_CP031	9-Apr-2025	TC-7	1149:T1500F15U35	15	0.1	25.67		4782684	406218	3
SCPT25-032	25-53-29335_SP032	9-Apr-2025	TC-7	1149:T1500F15U35	15	0.0	22.39	7	4782612	406314	
CPT25-033	25-53-29335_CP033	11-Apr-2025	TC-7	1149:T1500F15U35	15	0.1	22.15		4782544	406413	
SCPT25-034	25-53-29335_SP034	10-Apr-2025	TC-7	1149:T1500F15U35	15	0.2	23.21	7	4782670	406134	
CPT25-035	25-53-29335_CP035	11-Apr-2025	TC-7	1149:T1500F15U35	15	0.7	21.16		4782636	405966	3
CPT25-036	25-53-29335_CP036	10-Apr-2025	TC-7	1149:T1500F15U35	15	0.7	23.79		4782589	406145	
CPT25-037	25-53-29335_CP037	11-Apr-2025	TC-7	1149:T1500F15U35	15	0.1	20.75		4782481	406293	3
SCPT25-038	25-53-29335_SP038	10-Apr-2025	TC-7	1149:T1500F15U35	15	0.7	22.23	7	4782577	406061	3
SCPT25-039	25-53-29335_SP039	11-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	17.47	4	4782454	406122	3
CPT25-040	25-53-29335_CP040	11-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	28.54		4782422	406184	3
SCPT25-041	25-53-29335_SP041	14-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	21.57	6	4782389	406308	3
CPT25-042	25-53-29335_CP042	17-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	12.30		4782471	405998	3
CPT25-043	25-53-29335_CP043	14-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	11.48		4782330	406181	3
SCPT25-044	25-53-29335_SP044	17-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	19.03	6	4782496	405849	3
CPT25-045	25-53-29335_CP045	17-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	12.88		4782412	405871	3
SCPT25-046	25-53-29335_SP046	17-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	17.22	5	4782338	405963	
CPT25-047	25-53-29335_CP047	14-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	18.54		4782249	406104	3
CPT25-048	25-53-29335_CP048	15-Apr-2025	TC-7	1149:T1500F15U35	15	3.9	19.11		4782141	406130	3
SCPT25-049	25-53-29335_SP049	15-Apr-2025	TC-7	1149:T1500F15U35	15	0.3	22.15	7	4782041	406269	
CPT25-050	25-53-29335_CP050	14-Apr-2025	TC-7	1149:T1500F15U35	15	0.6	18.45		4782206	405943	
CPT25-051	25-53-29335_CP051	14-Apr-2025	TC-7	1149:T1500F15U35	15	3.9	15.17		4782135	406045	3
CPT25-052	25-53-29335_CP052	15-Apr-2025	TC-7	1149:T1500F15U35	15	3.9	21.08		4782062	406140	3
CPT25-053	25-53-29335_CP053	14-Apr-2025	TC-7	1149:T1500F15U35	15	3.9	14.93		4782087	405998	3
CPT25-054	25-53-29335_CP054	15-Apr-2025	TC-7	1149:T1500F15U35	15	3.9	20.18		4781950	406216	3
CPT25-055	25-53-29335_CP055	14-Apr-2025	TC-7	1149:T1500F15U35	15	3.9	5.25		4782000	405950	3
CPT25-055B	25-53-29335_CP055B	14-Apr-2025	TC-7	1149:T1500F15U35	15	3.9	5.25		4782003	405955	
CPT25-055C	25-53-29335_CP055C	14-Apr-2025	TC-7	1149:T1500F15U35	15	3.9	5.99		4781999	405964	3
SCPT25-056	25-53-29335_SP056	8-Apr-2025	TC-7	1149:T1500F15U35	15	2.8	20.92	6	4783007	406298	

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Start Date: 8-Apr-2025
End Date: 17-Apr-2025

CONE PENETRATION TEST SUMMARY

Sounding ID	File Name	Date	Rig	Cone	Cone Area (cm^2)	Assumed Phreatic Surface[1] (ft)	Final Depth (ft)	Seismic Intervals	Northing[2] (m)	Easting[2] (m)	Refer to Notation Number
SCPT25-057	25-53-29335_SP057	10-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	1.0	18.21	6	4783272	405834	3
SCPT25-058	25-53-29335_SP058	10-Apr-2025	TC-7	1149:T1500F15U35	15	2.1	20.59	6	4783113	406068	3
SCPT25-059	25-53-29335_SP059	10-Apr-2025	TC-7	1149:T1500F15U35	15	2.1	15.26	5	4783154	406178	3
SCPT25-060	25-53-29335_SP060	9-Apr-2025	TC-7	1149:T1500F15U35	15	2.1	13.78	3	4783000	406102	
SCPT25-061	25-53-29335_SP061	16-Apr-2025	TC-7	1149:T1500F15U35	15	0.2	19.36	6	4782831	405944	3
SCPT25-062	25-53-29335_SP062	17-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.8	8.37	3	4782407	405589	3
SCPT25-062B	25-53-29335_SP062B	17-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.8	8.78		4782414	405595	
SCPT25-063	25-53-29335_SP063	17-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.0	13.53	5	4782384	405728	
SCPT25-064	25-53-29335_SP064	15-Apr-2025	TC-7	1149:T1500F15U35	15	1.0	13.86	4	4782282	405916	3
SCPT25-065	25-53-29335_SP065	16-Apr-2025	TC-7	1149:T1500F15U35	15	0.0	13.04	4	4782319	405711	3
SCPT25-066	25-53-29335_SP066	15-Apr-2025	TC-7	1149:T1500F15U35	15	0.6	16.24	5	4782274	405827	3
SCPT25-067	25-53-29335_SP067	16-Apr-2025	TC-7	1149:T1500F15U35	15	0.0	8.69	3	4782263	405669	3
SCPT25-068	25-53-29335_SP068	15-Apr-2025	TC-7	1149:T1500F15U35	15	0.0	9.27	3	4782181	405773	3
SCPT25-069	25-53-29335_SP069	16-Apr-2025	TC-7	1149:T1500F15U35	15	0.8	8.12	3	4782174	405311	3
SCPT25-070	25-53-29335_SP070	10-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	0.0	11.98	4	4782933	405543	3
SCPT25-071	25-53-29335_SP071	17-Apr-2025	Marsh Buggy	1075:T1000F10U35	15	1.0	20.01	6	4783346	405870	3
Totals	74 Soundings						1331.51	191			

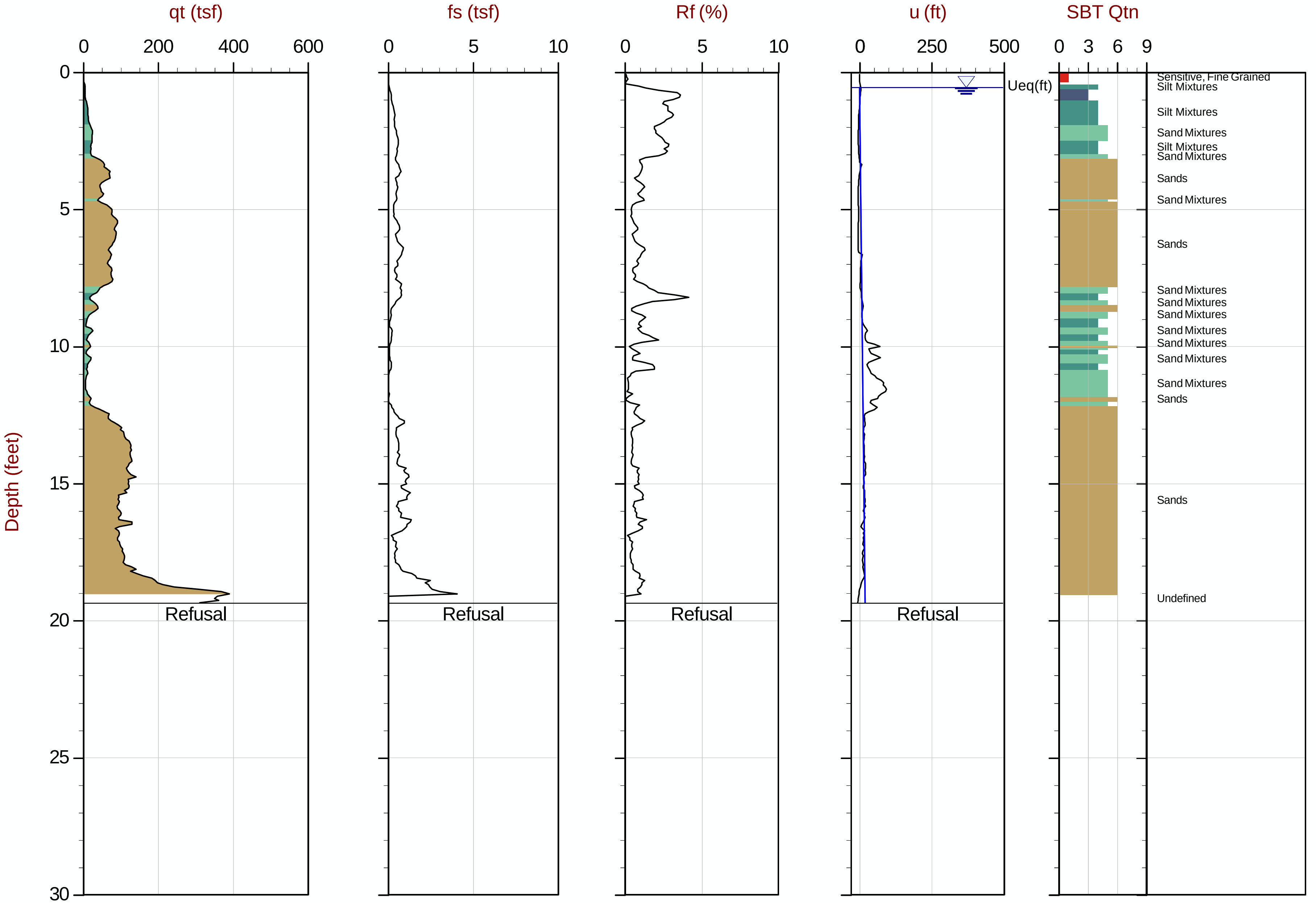
1. The assumed phreatic surface was based off the shallowest pore pressure dissipation tests performed within or nearest the sounding. Hydrostatic conditions were assumed for the calculated parameters.
2. The coordinates were collected using consumer grade GPS. EPSG number: 32618 (WGS84 / UTM Zone 18 North).
3. The phreatic surface is based on an adjacent sounding.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 15:46
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-001
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_CP001.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783841m E: 405401m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

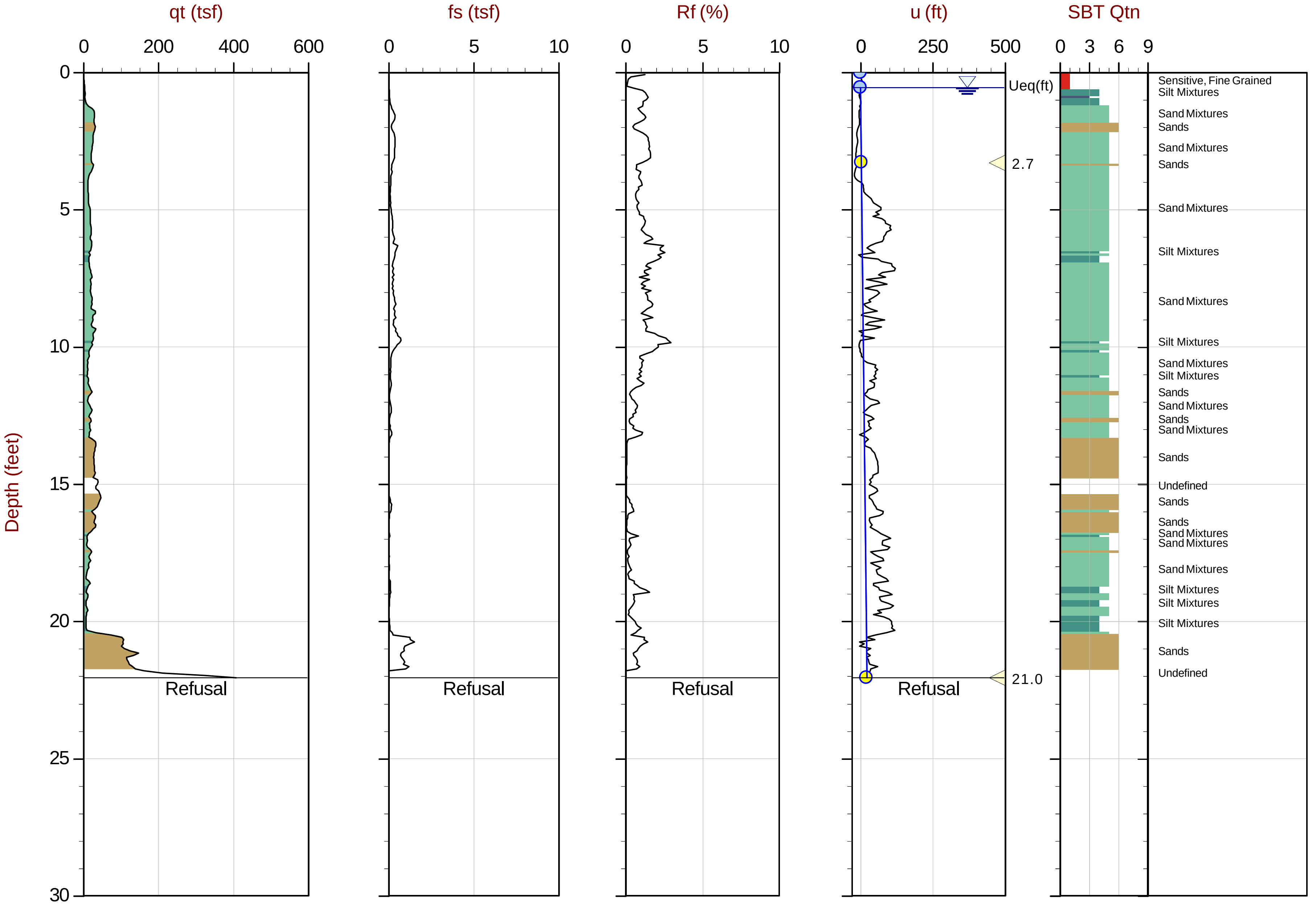
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 12:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT-002
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.725 m / 22.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP002.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783840m E: 405499m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

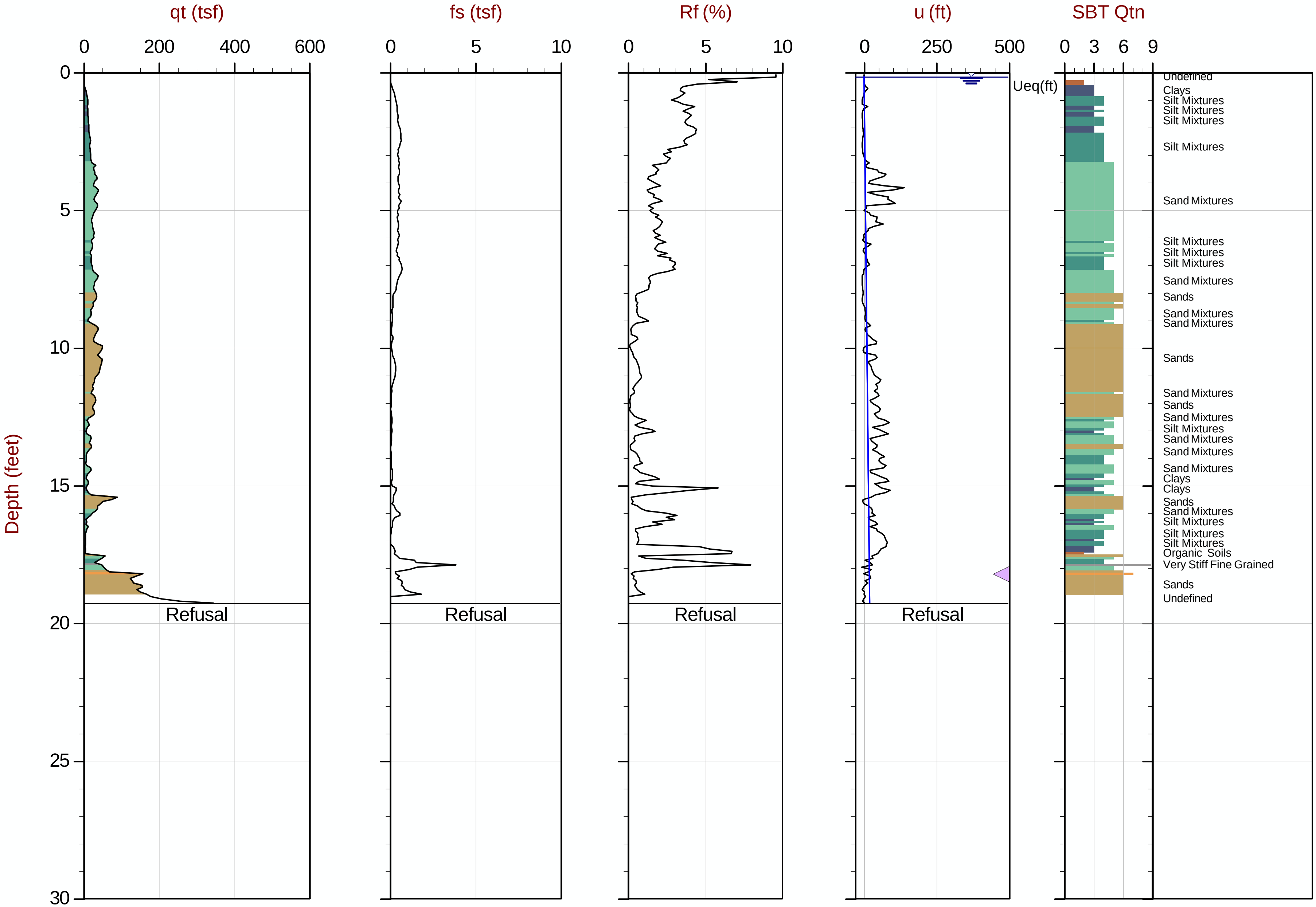
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 11:40
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-003
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 5.875 m / 19.27 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP003.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783778m E: 405625m

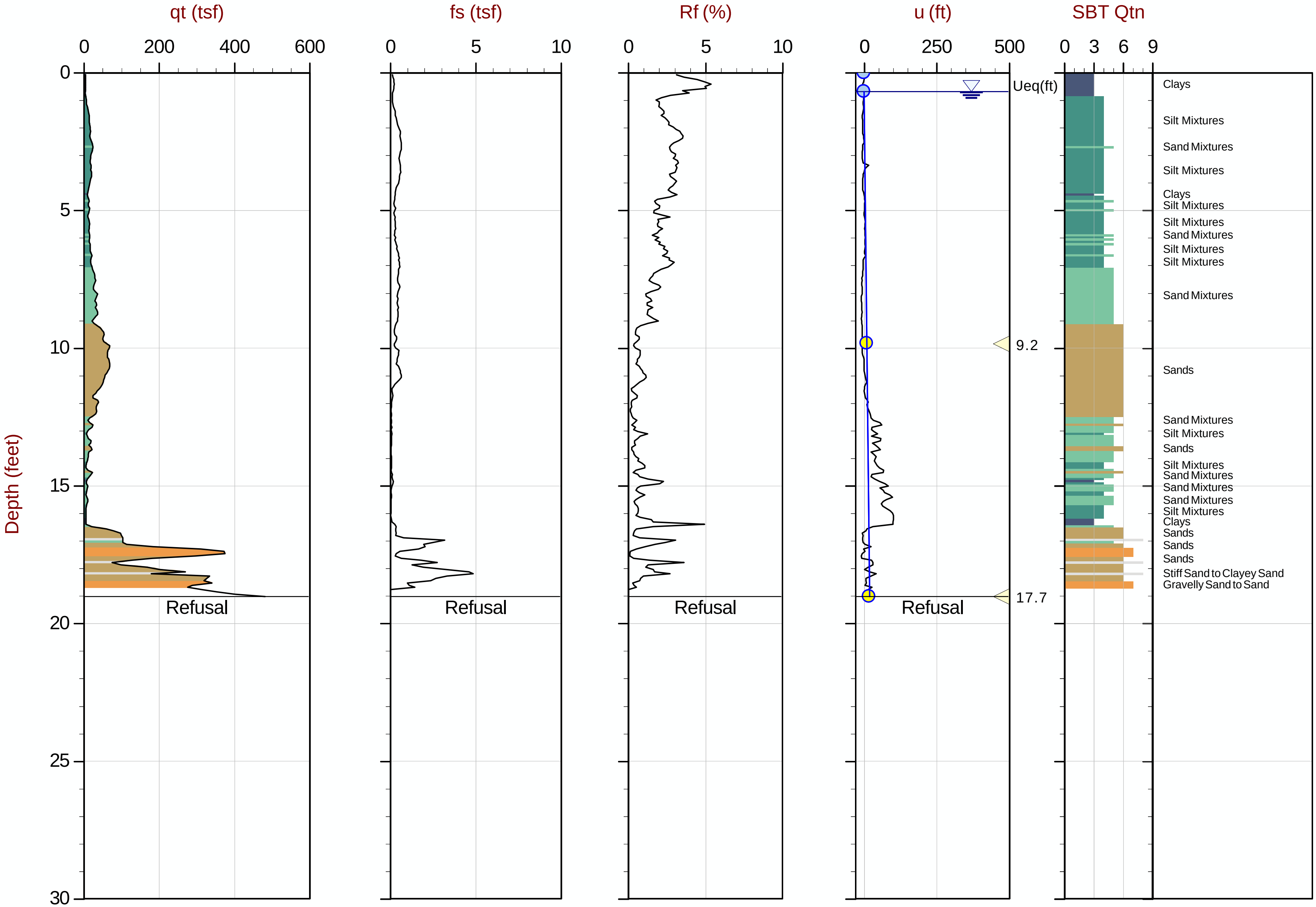
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 11:57
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-004
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 5.800 m / 19.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP004.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783781m E: 405444m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

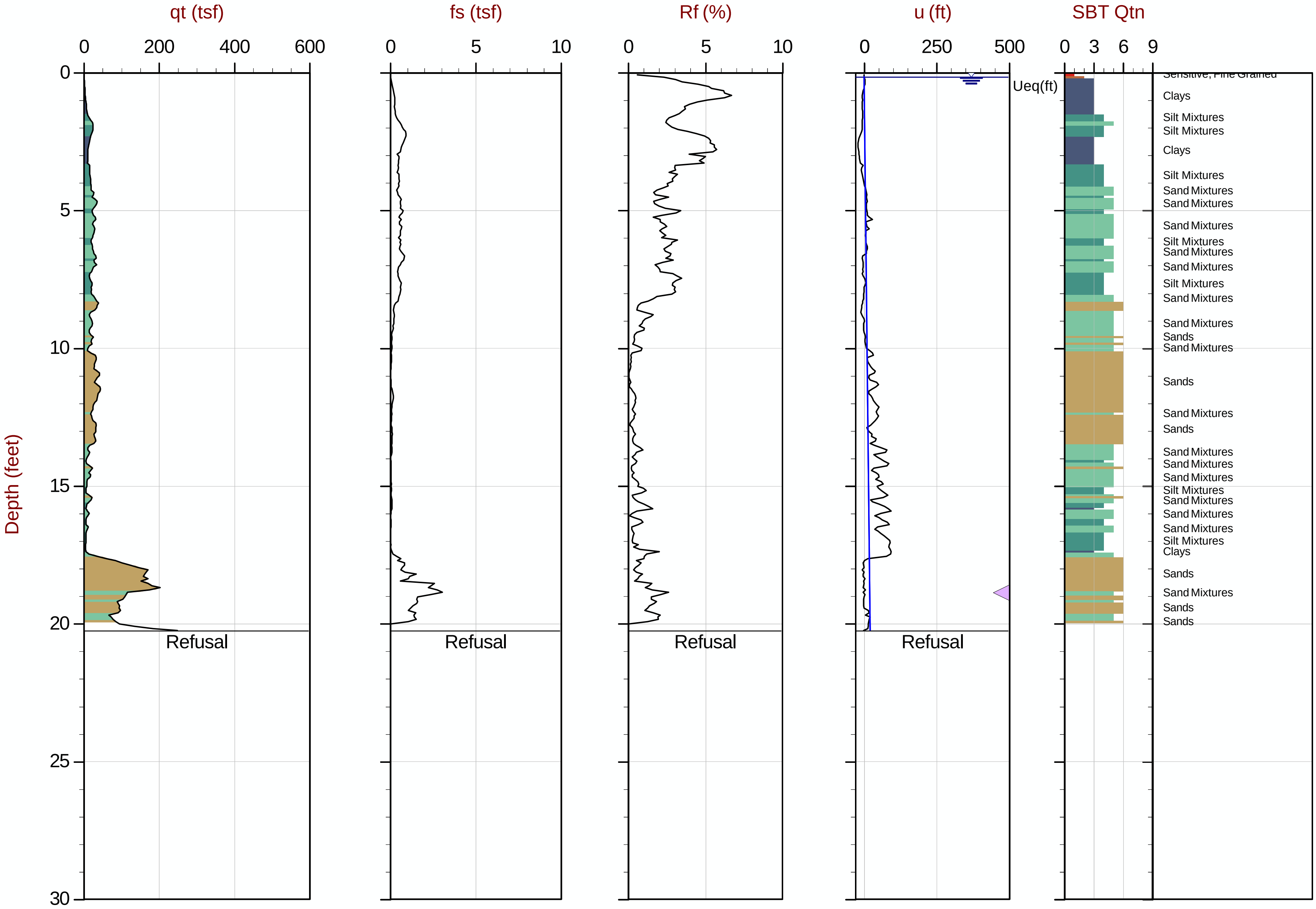
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 10:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-005
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.175 m / 20.26 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP005.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783774m E: 405556m

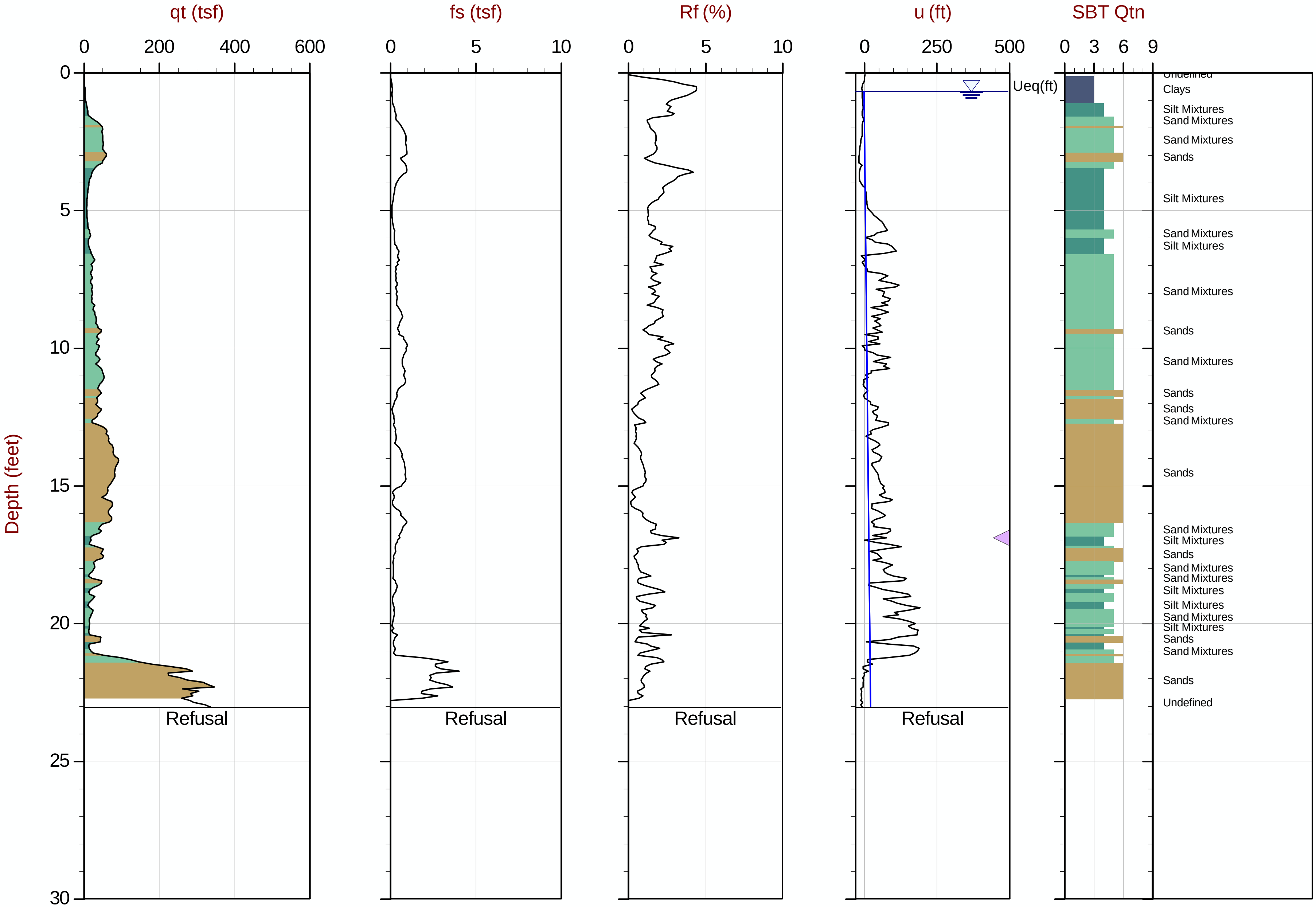
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 12:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-006
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 7.025 m / 23.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP006.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783725m E: 405378m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

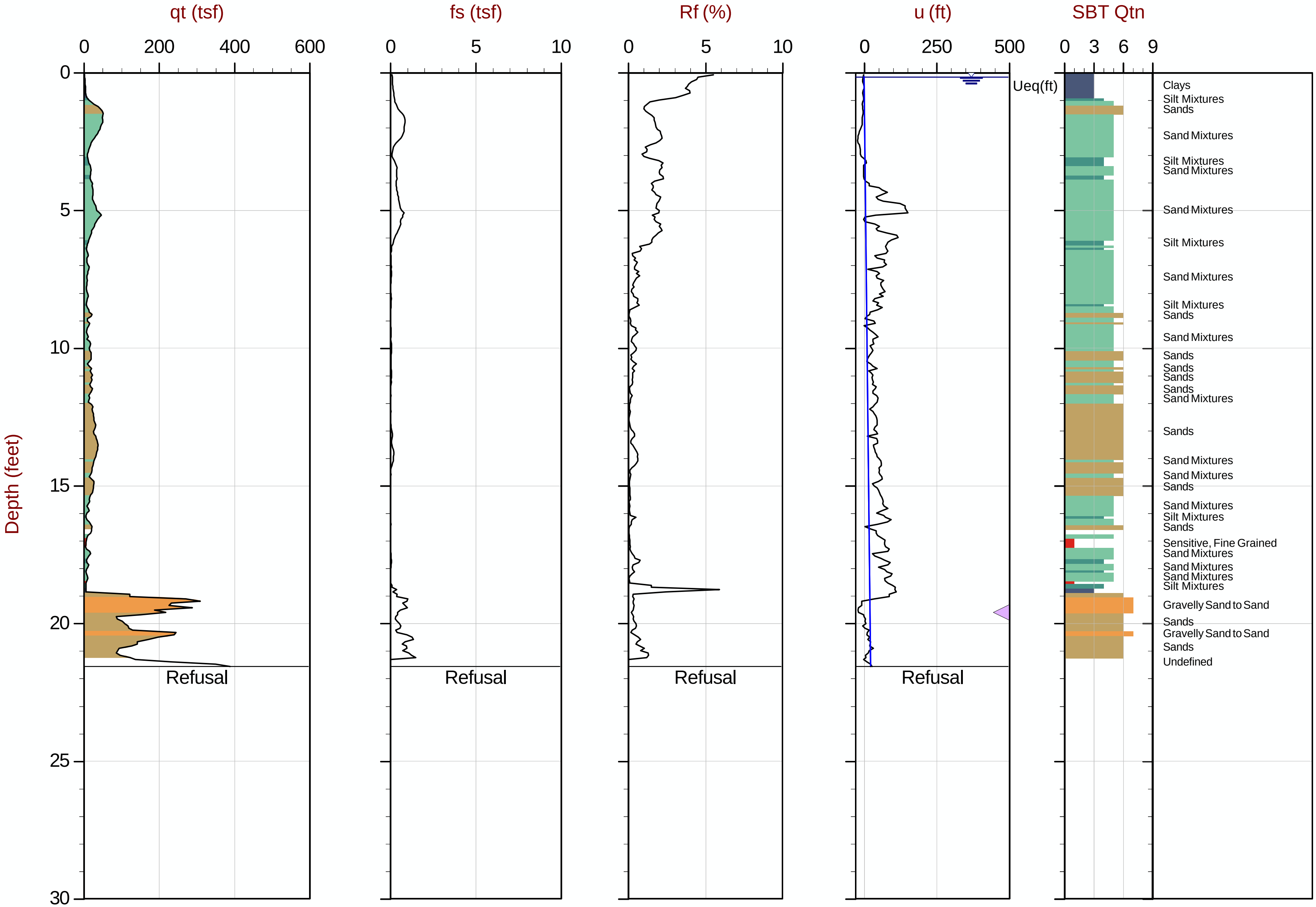
Job No: 25-53-29335

Date: 2025-04-14 13:44

Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-007

Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.575 m / 21.57 ft

Depth Inc: 0.025 m / 0.082 ft

Avg Int: Every Point

File: 25-53-29335_CP007.COR

Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010

Coords: (UTM Zone 18 North) N: 4783718m E: 405500m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

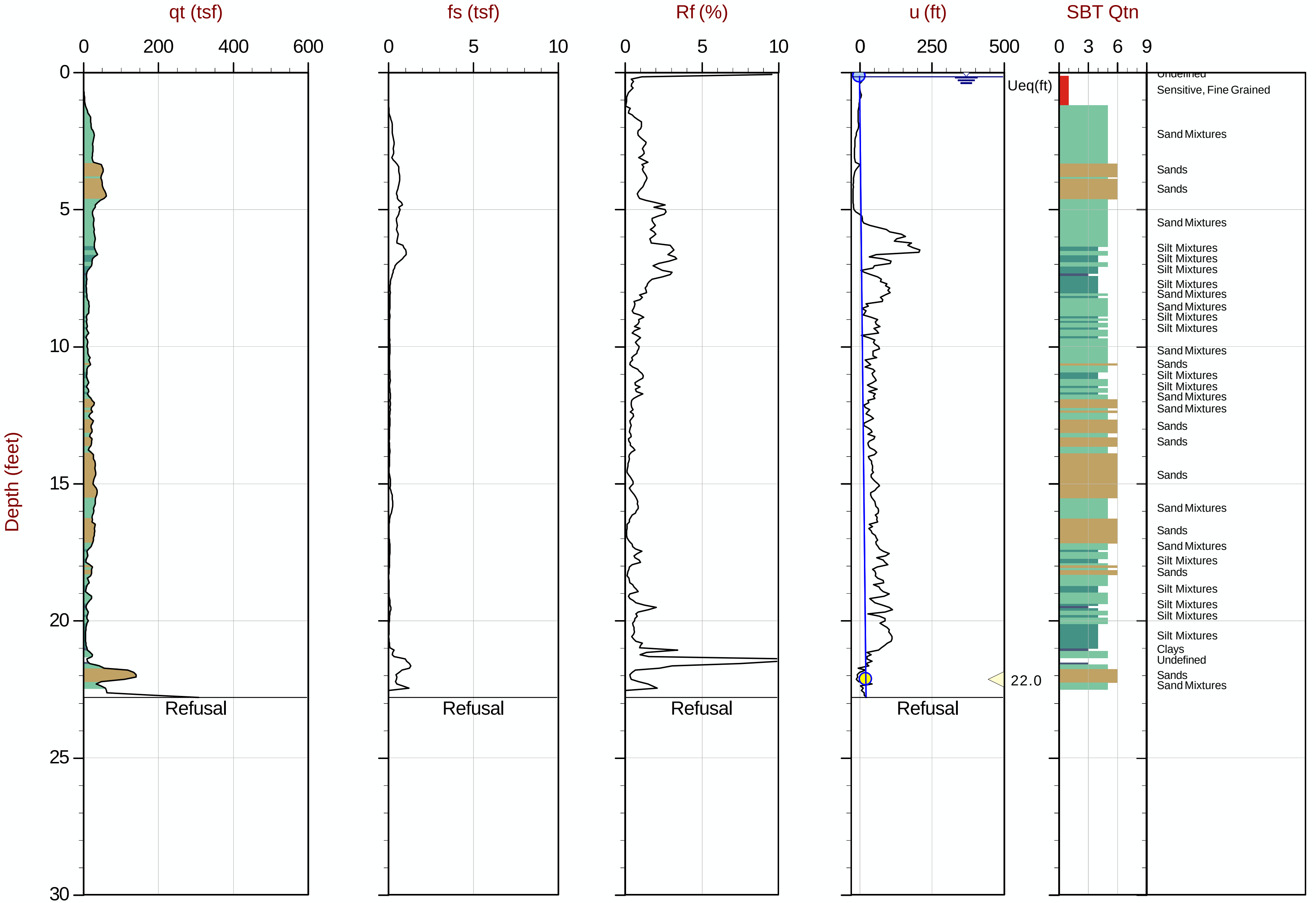
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:51
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-008
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.950 m / 22.80 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP008.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783716m E: 405615m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

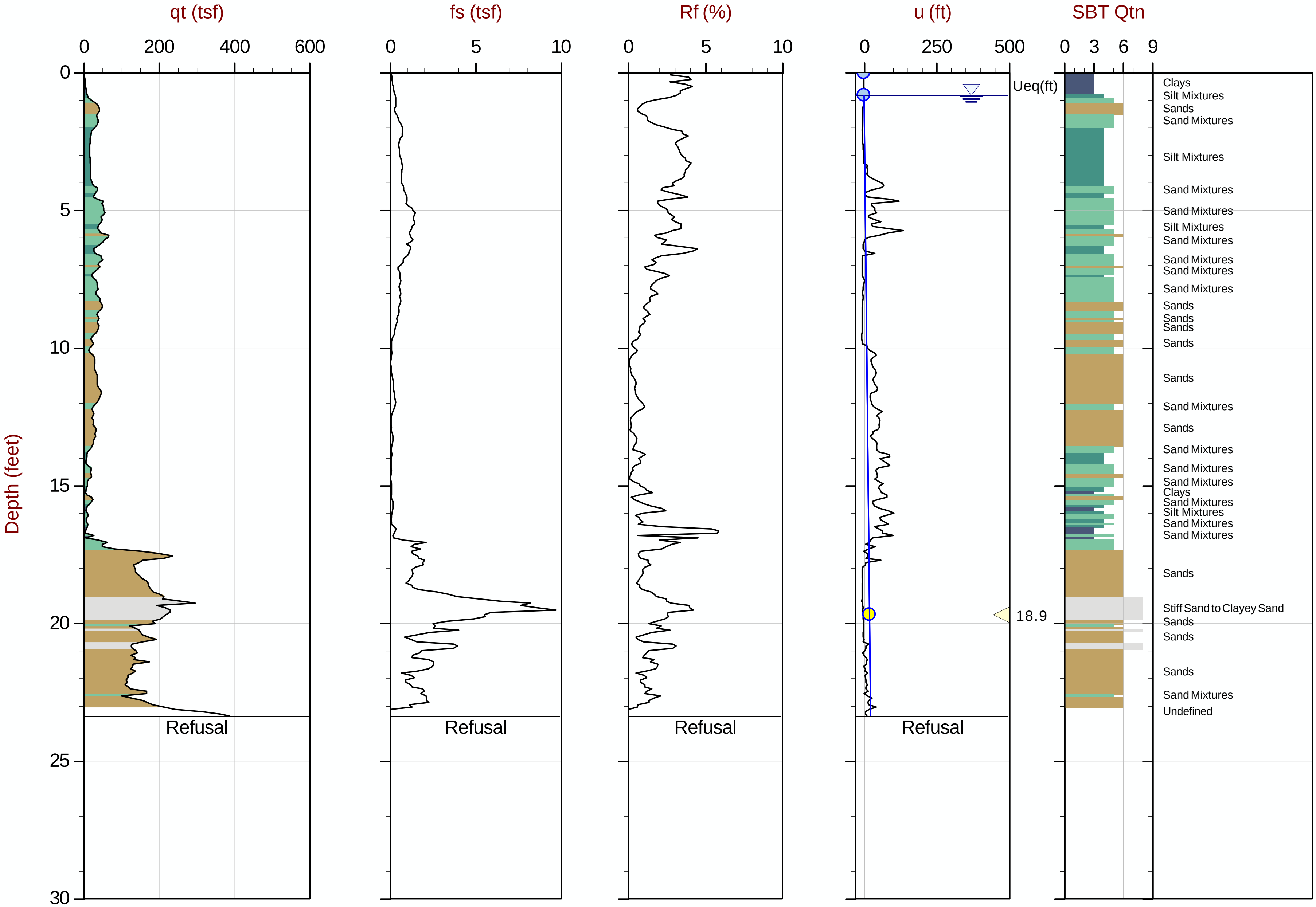
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 13:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-009
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 7.125 m / 23.38 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP009.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783710m E: 405730m

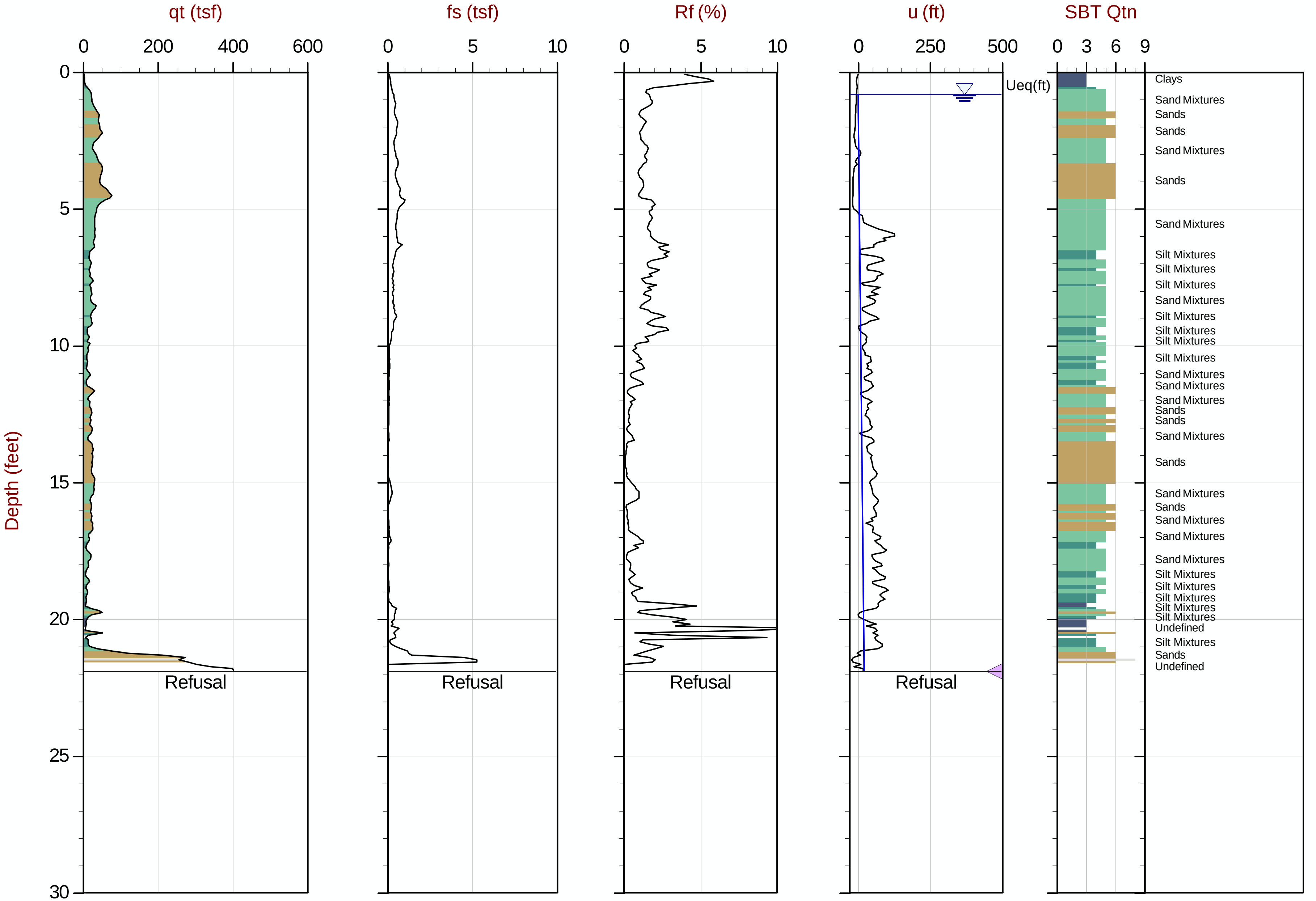
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 13:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-010
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.675 m / 21.90 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP010.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783689m E: 405786m

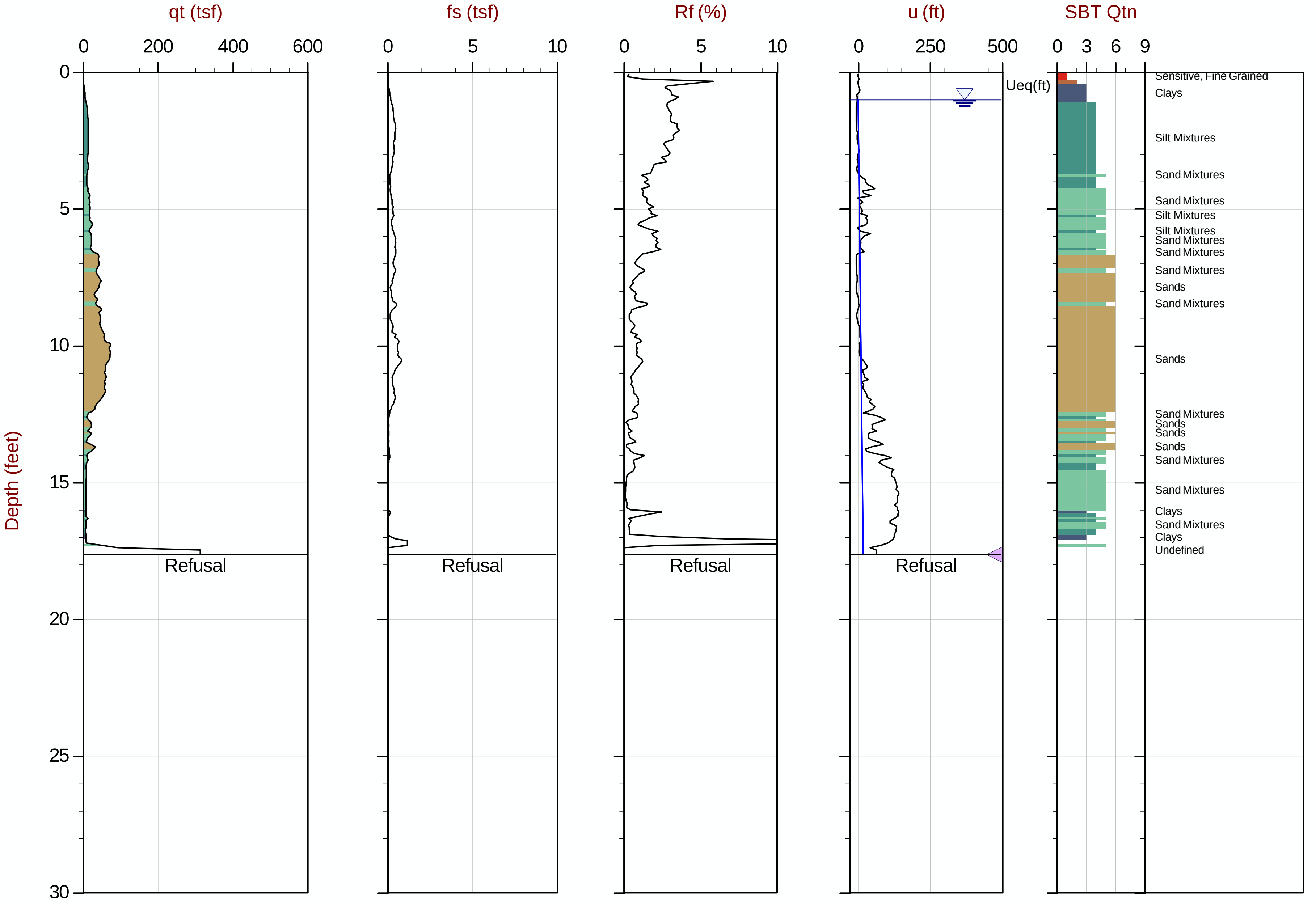
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 14:31
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-011
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 5.375 m / 17.63 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP011.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783664m E: 405339m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

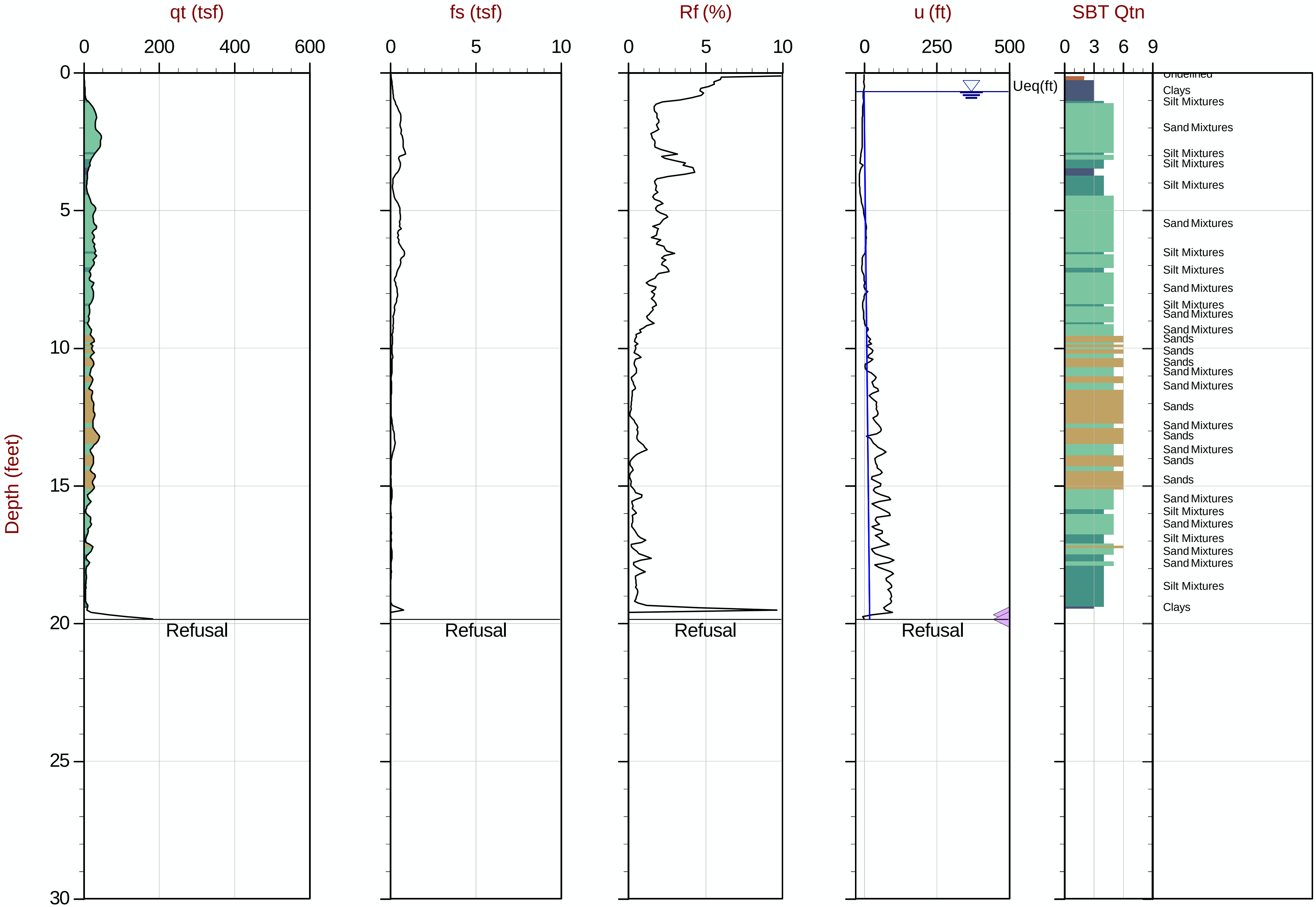
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 10:21
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-012
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.050 m / 19.85 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP012.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783661m E: 405439m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

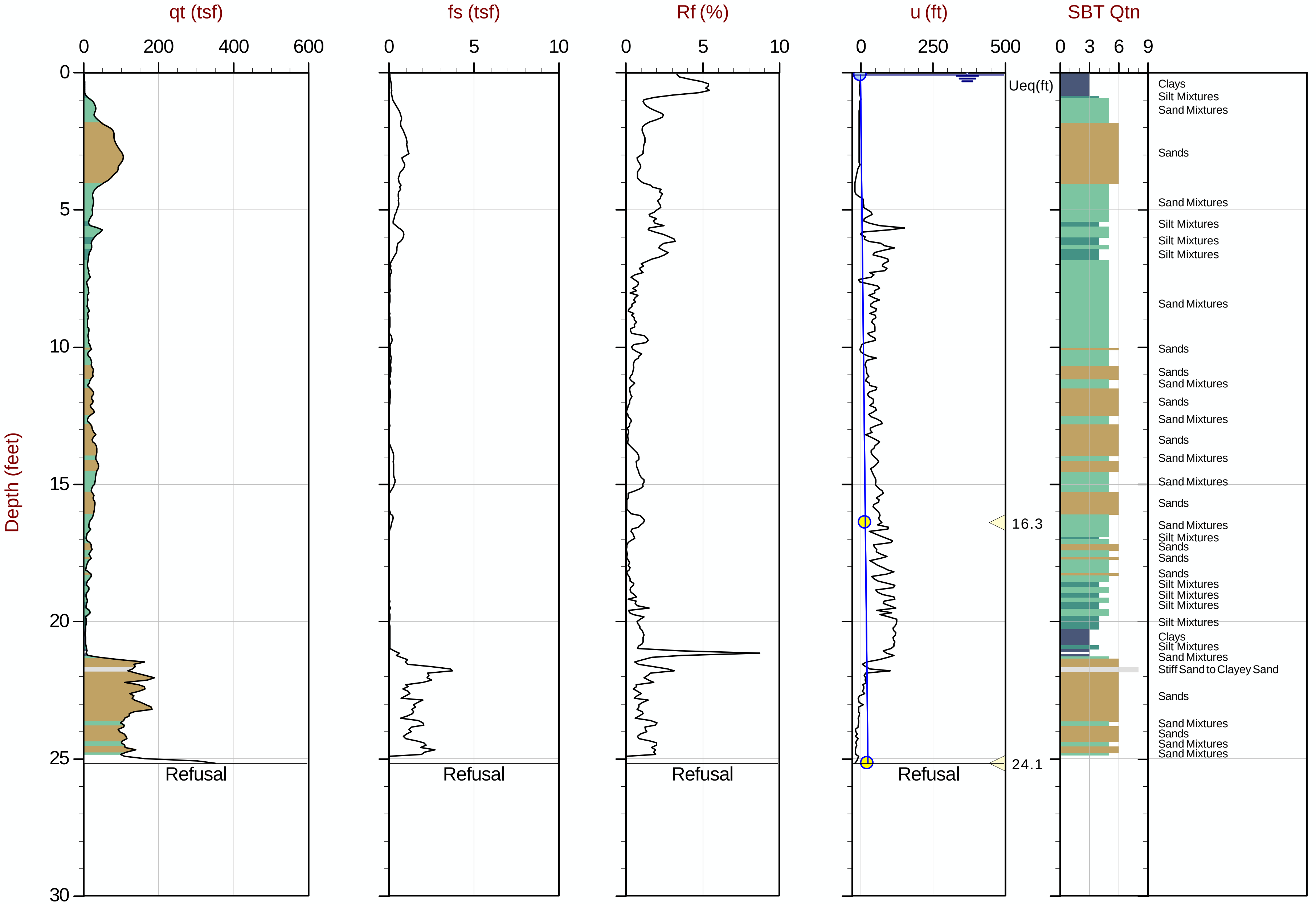
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 11:24
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-013
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 7.675 m / 25.18 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP013.COR
Unit Wt: SBTQtn (PKR2009)

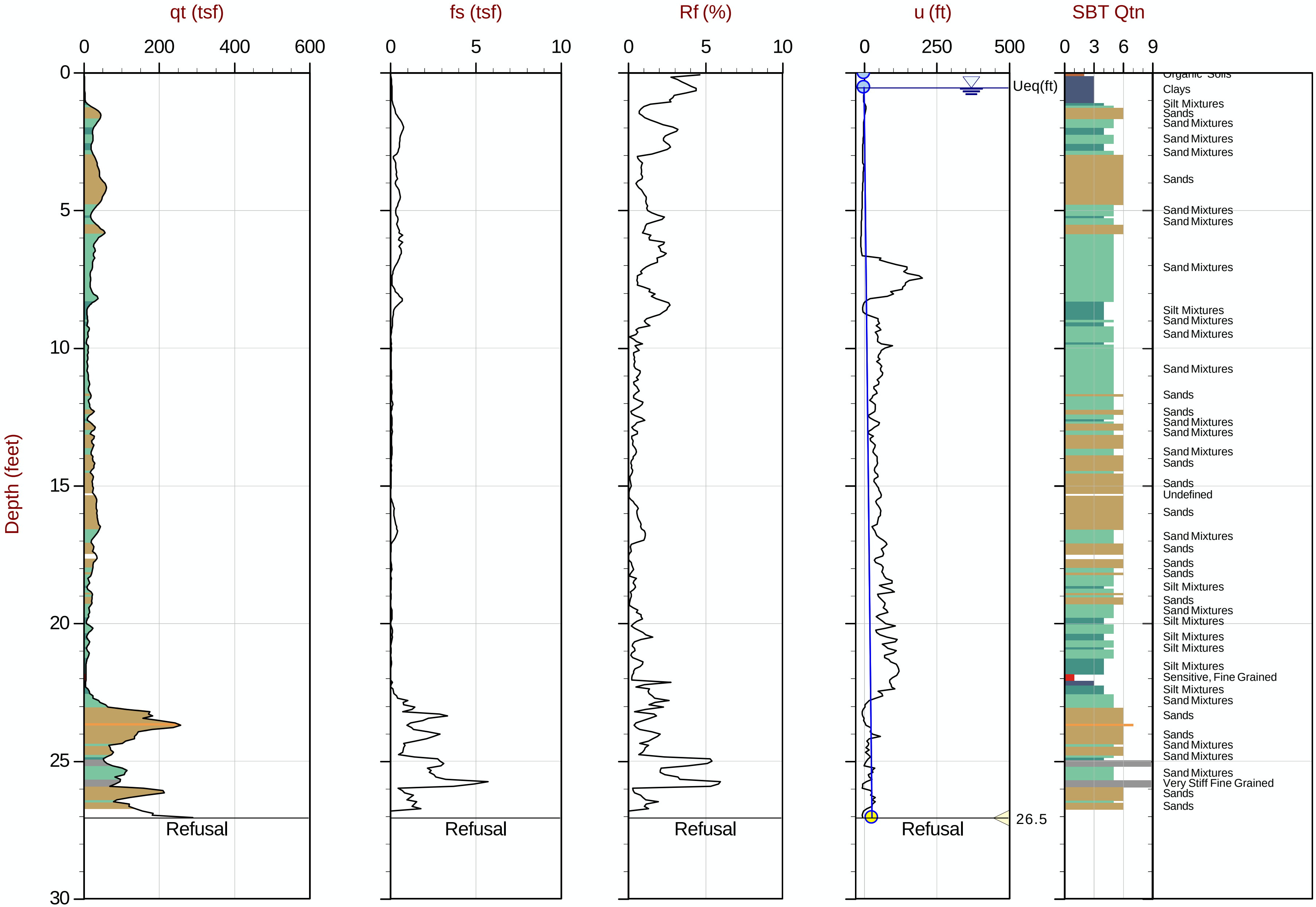
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783657m E: 405560m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 12:28
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-014
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 8.250 m / 27.07 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP014.COR
Unit Wt: SBTQtn (PKR2009)

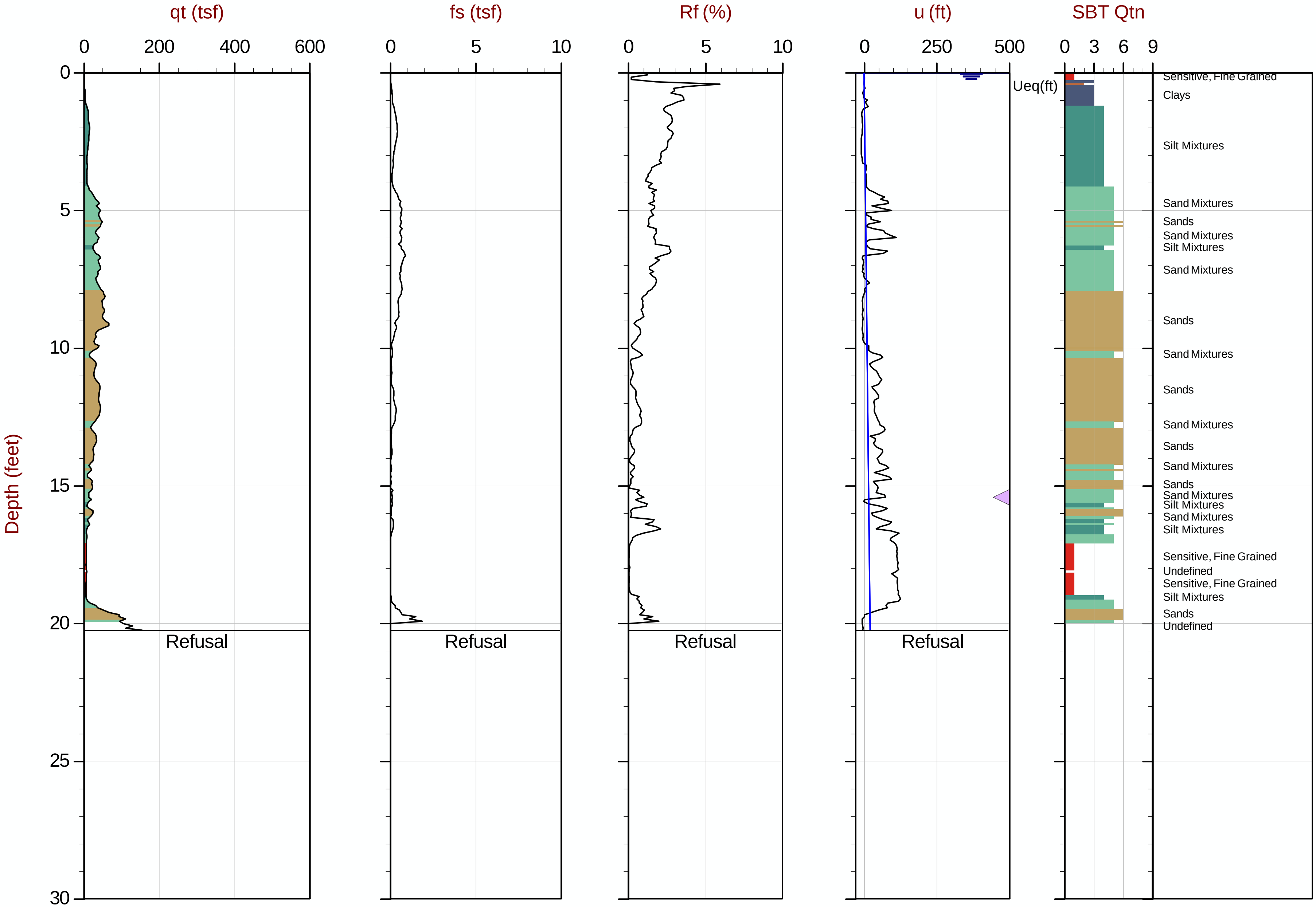
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783660m E: 405672m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 15:21
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-015
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.175 m / 20.26 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP015.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783609m E: 405335m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

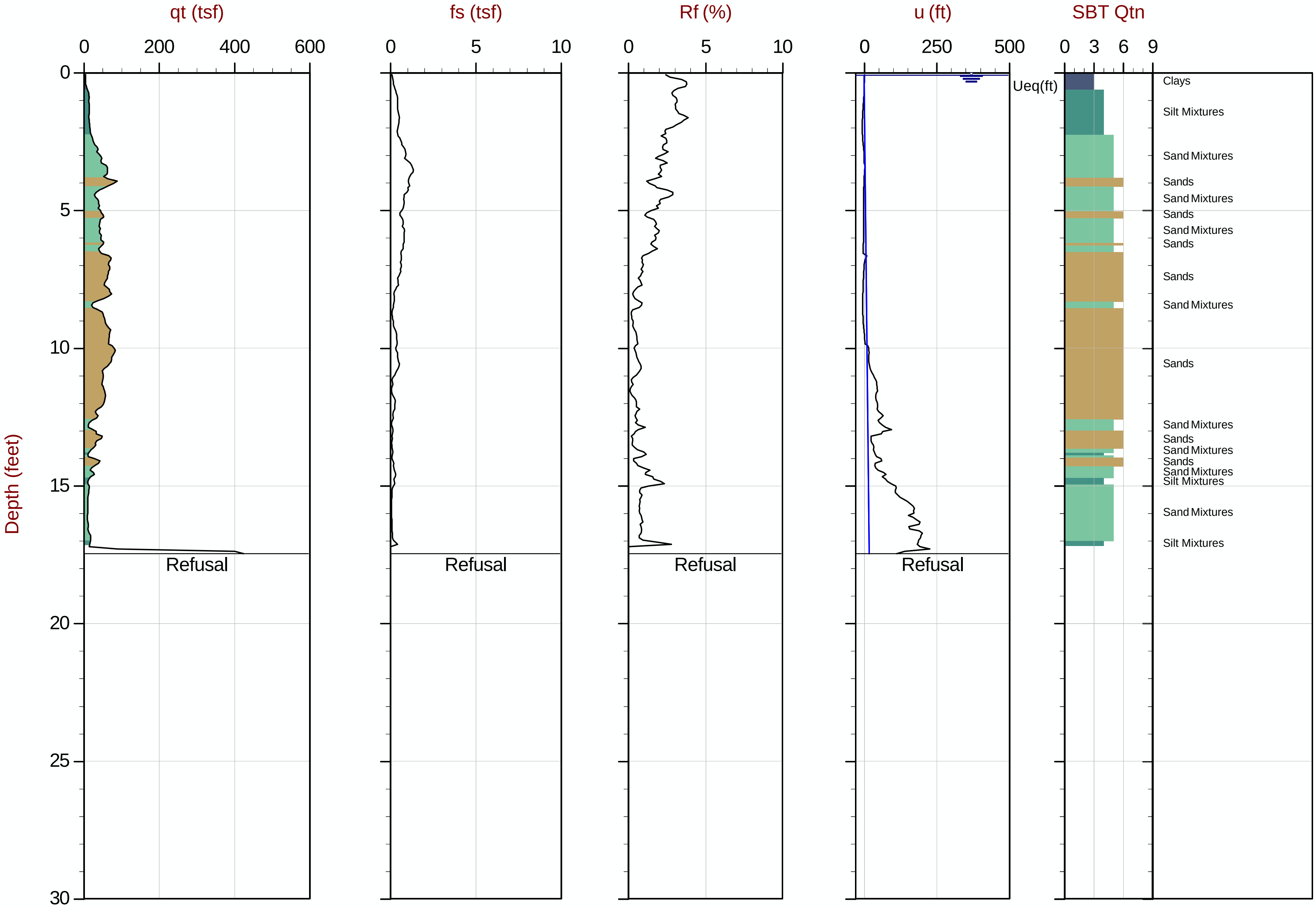
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 09:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-016
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 5.325 m / 17.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP016.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783629m E: 405407m

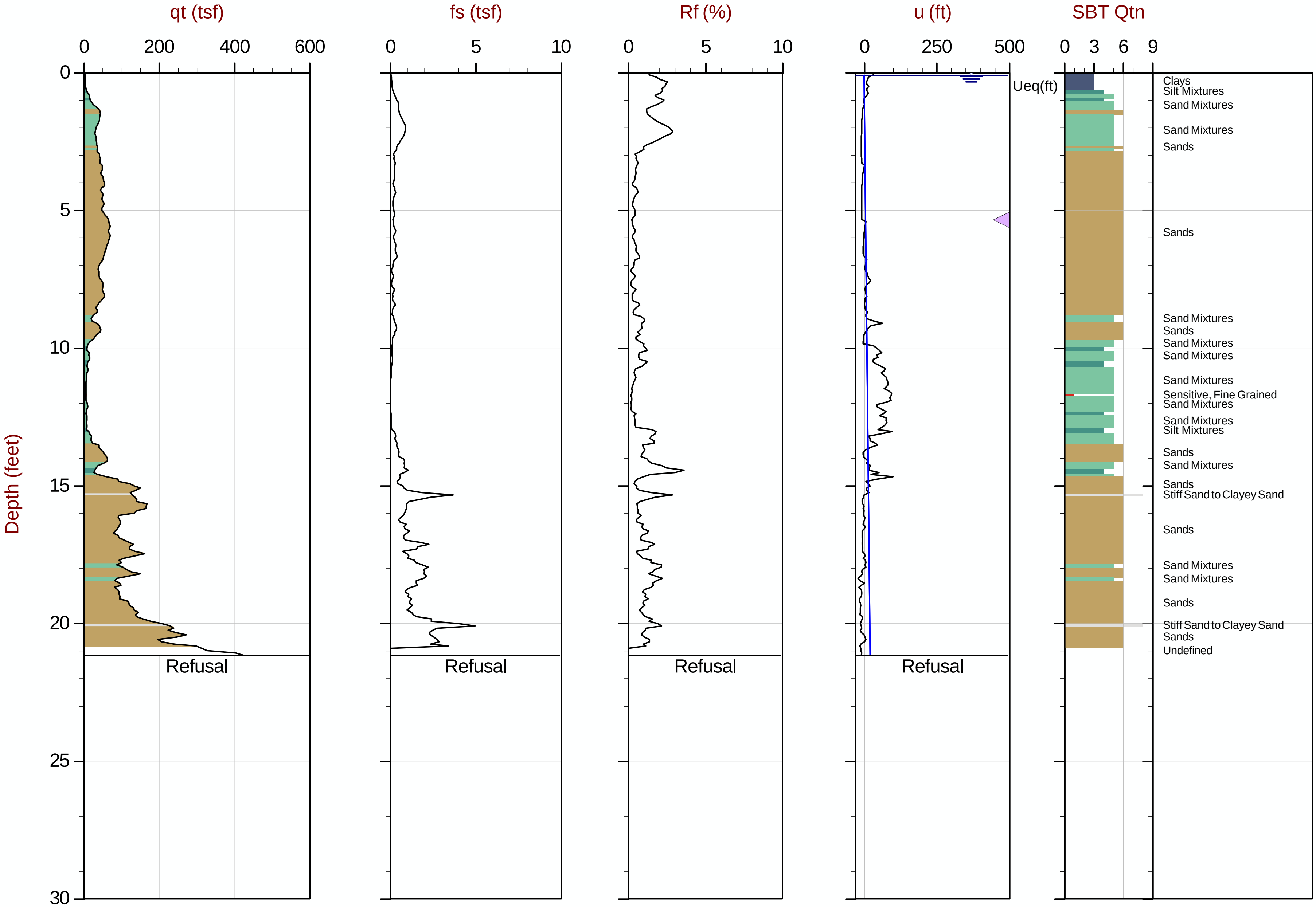
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 09:43
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-017
Cone: 1075:T1000F10U35 Area=15 cm^2



Max Depth: 6.450 m / 21.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP017.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783602m E: 405497m

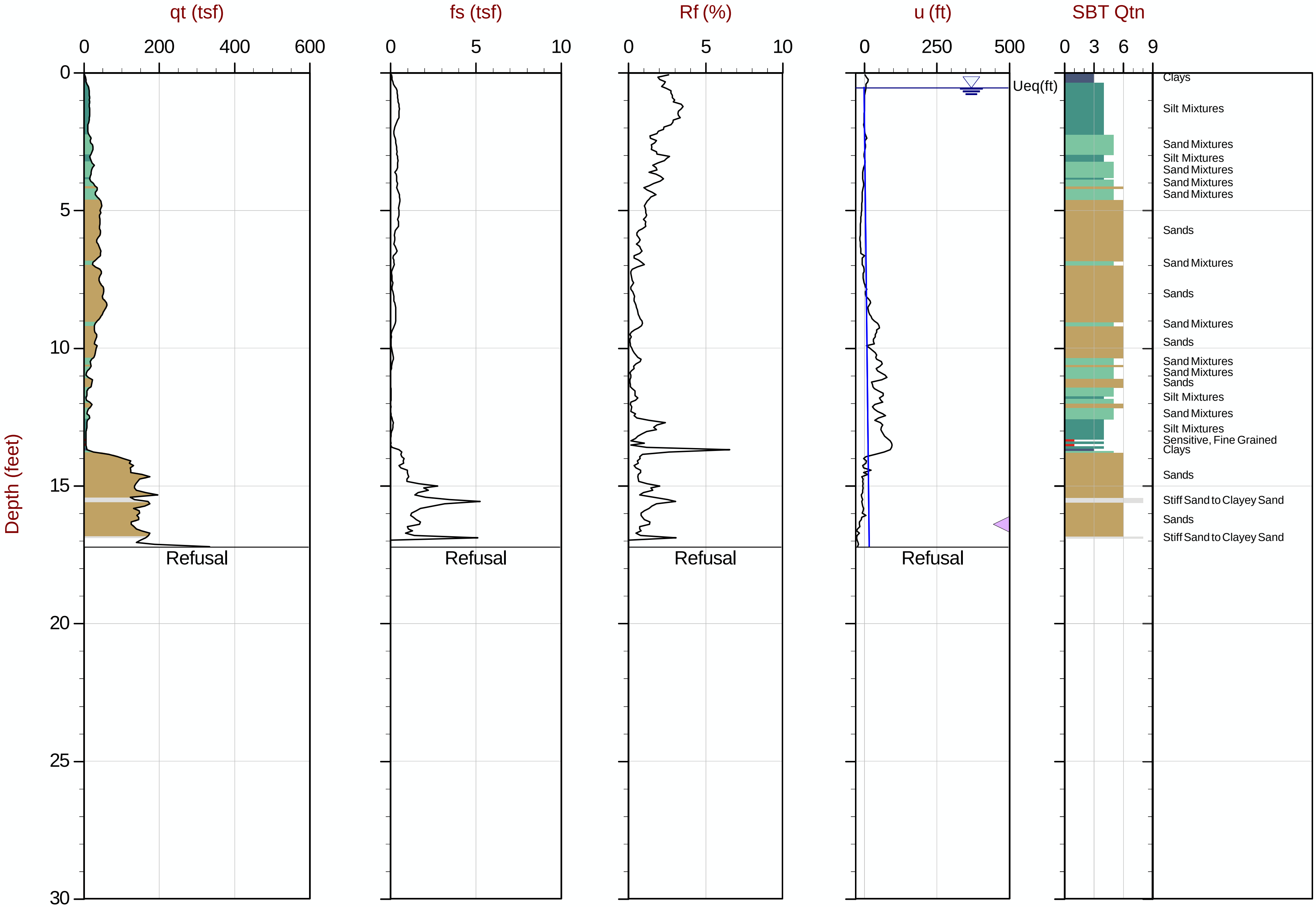
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 10:38
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-018
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_SP018.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783605m E: 405619m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

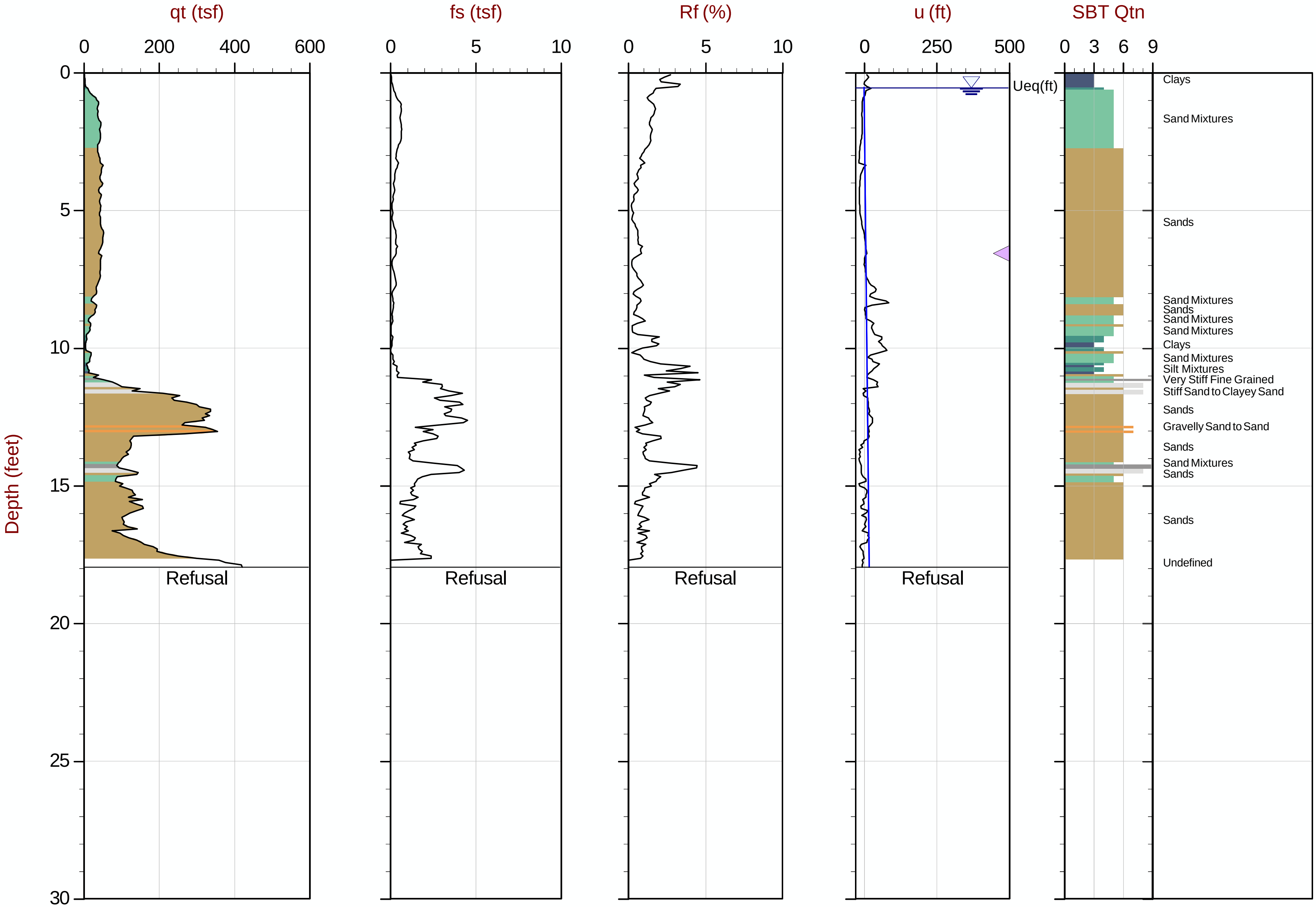
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 12:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-019
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_CP019.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783617m E: 405740m

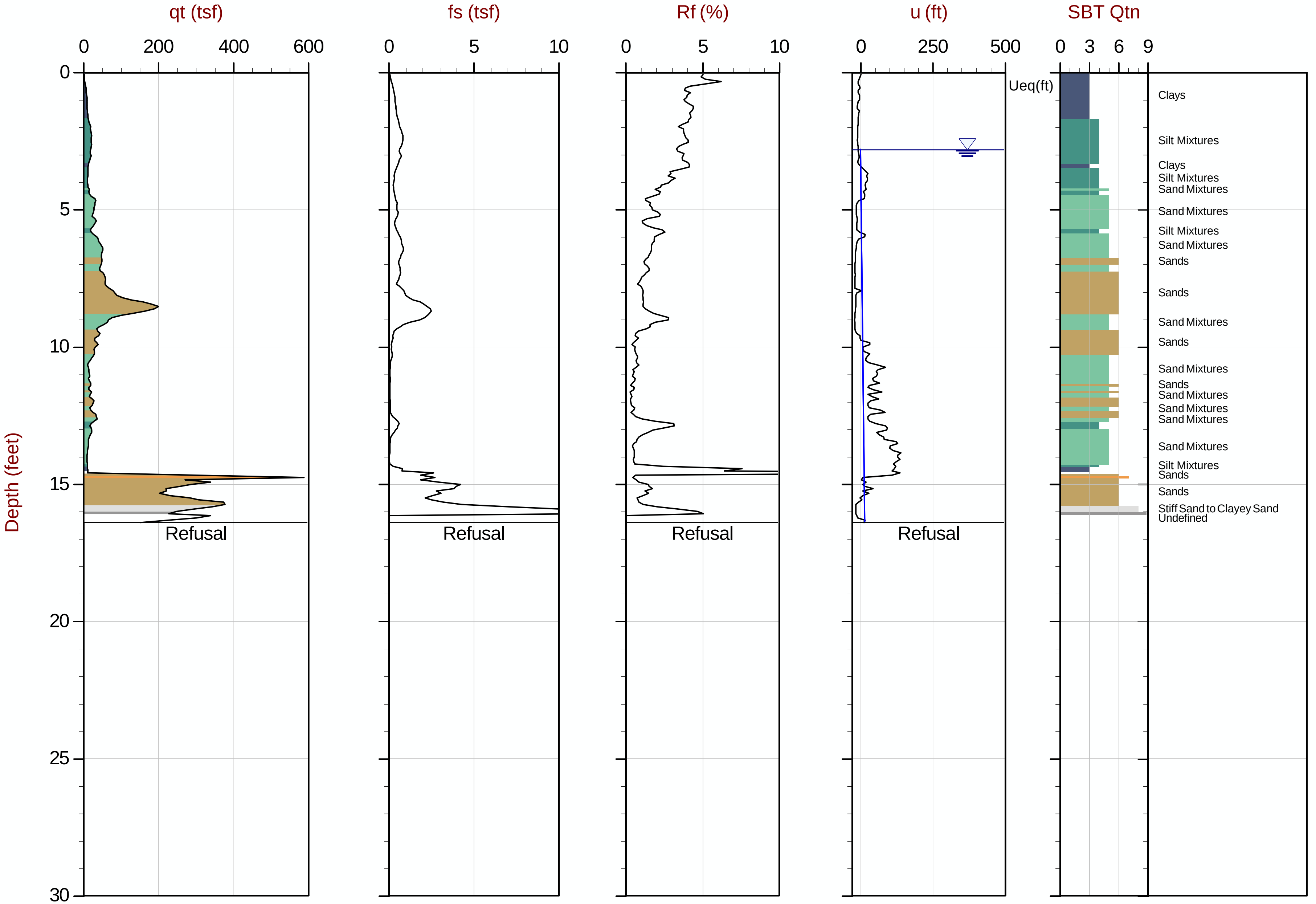
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 13:57
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-020
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.000 m / 16.40 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP020.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783081m E: 406215m

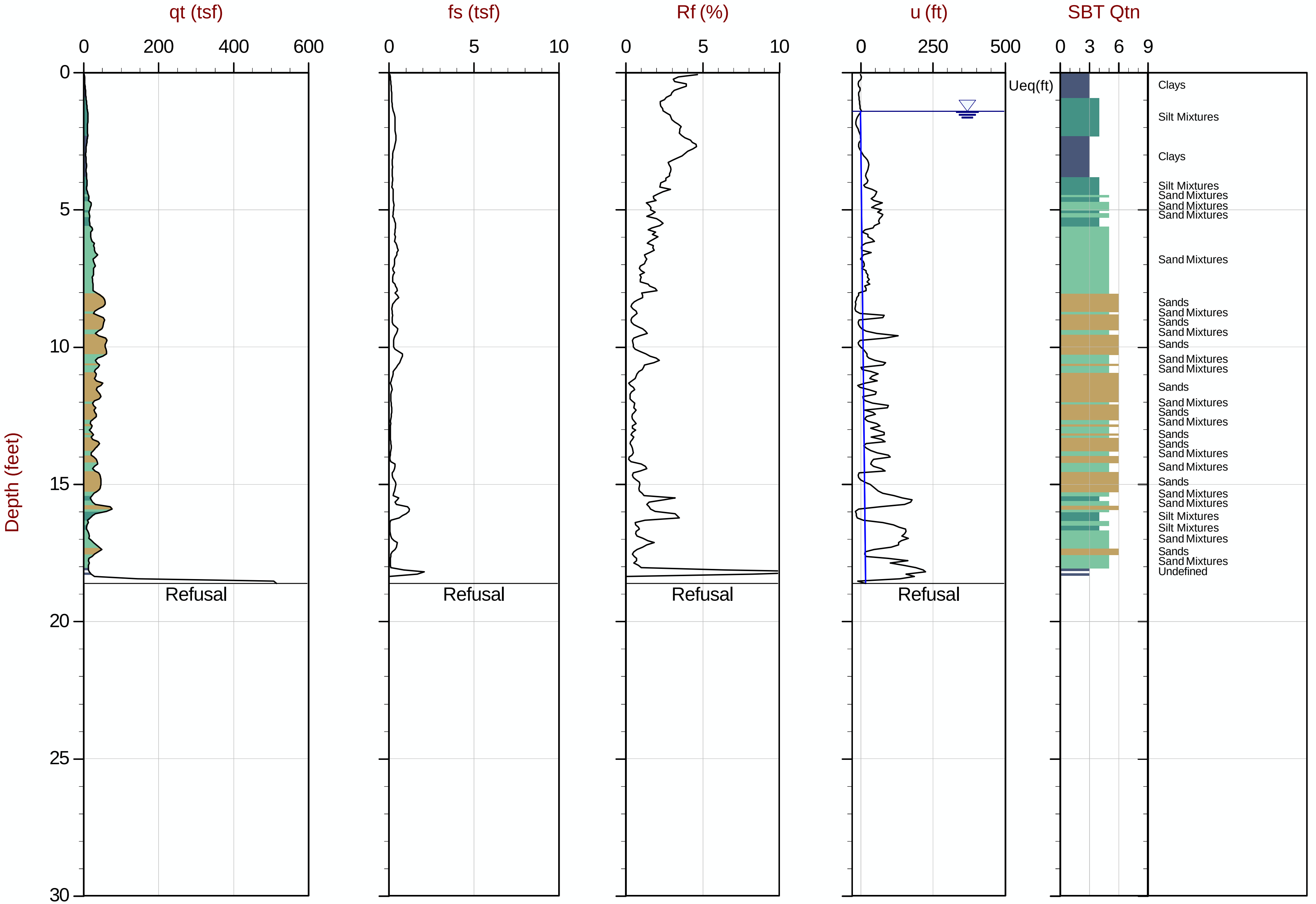
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 11:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-021
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_SP021.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782933m E: 406395m

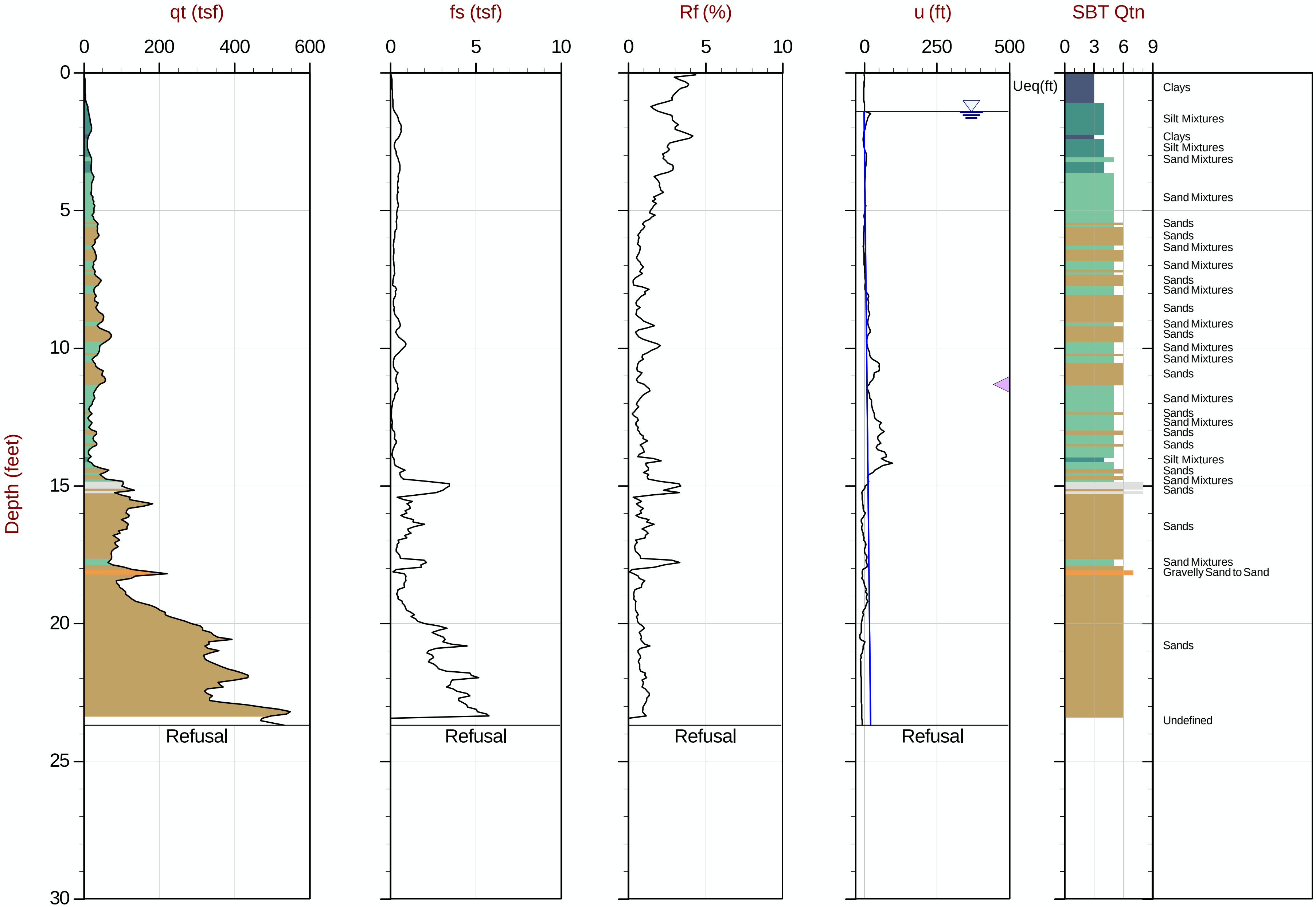
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 07:53
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-022
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 7.225 m / 23.70 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP022.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782855m E: 406606m

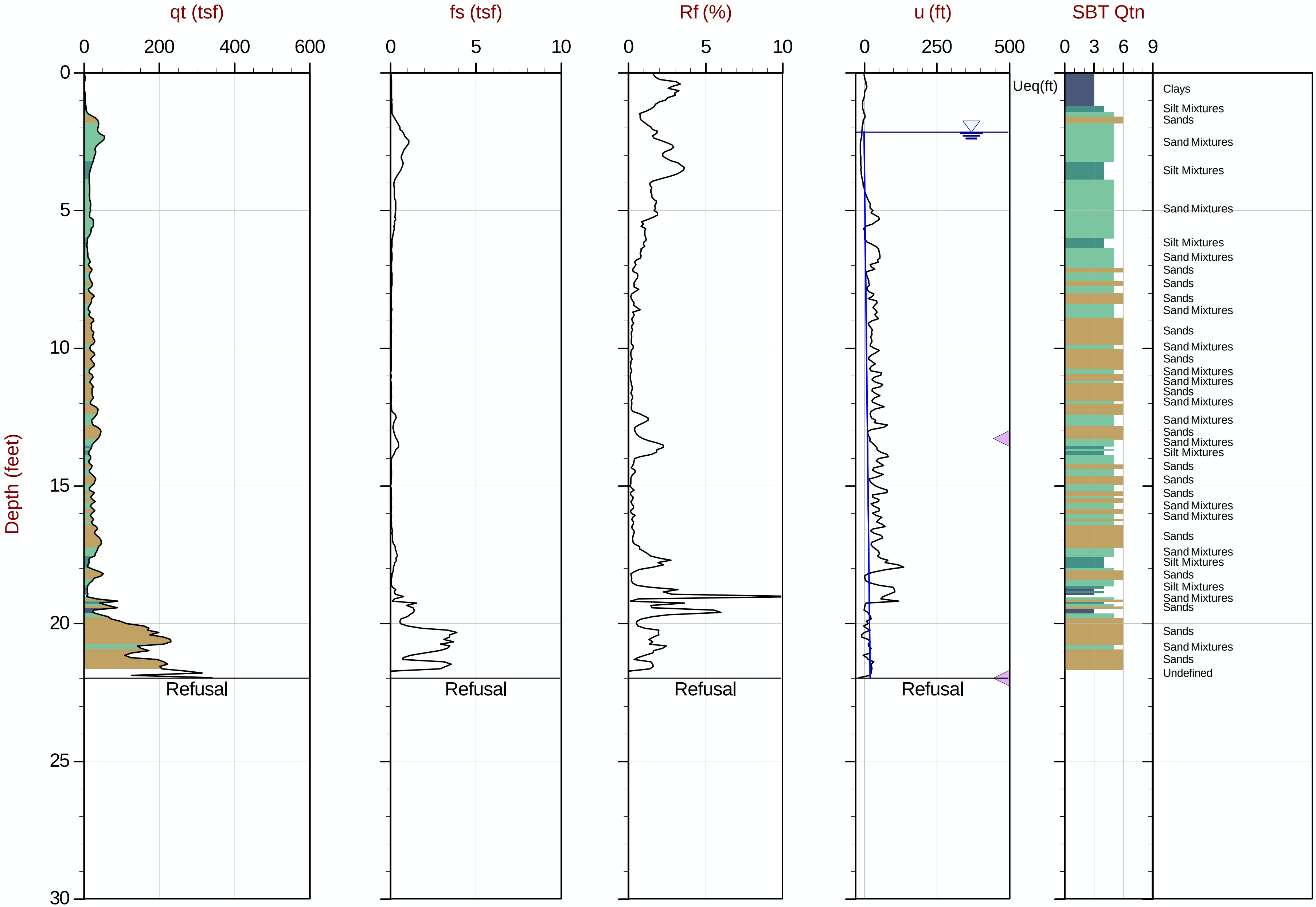
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 09:15
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-023
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.700 m / 21.98 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP023.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782943m E: 406169m

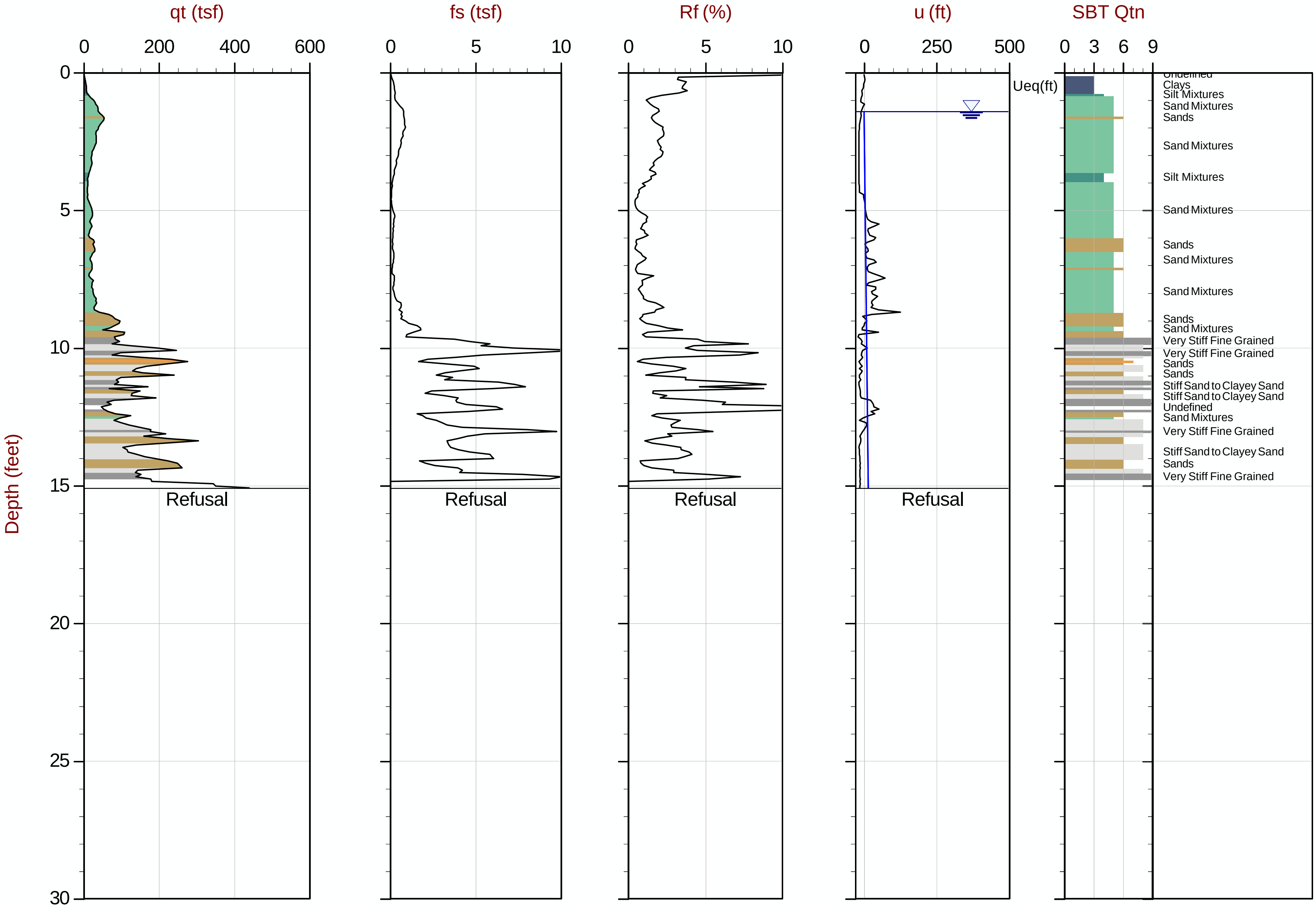
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 10:55
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-024
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.600 m / 15.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP024.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782872m E: 406276m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

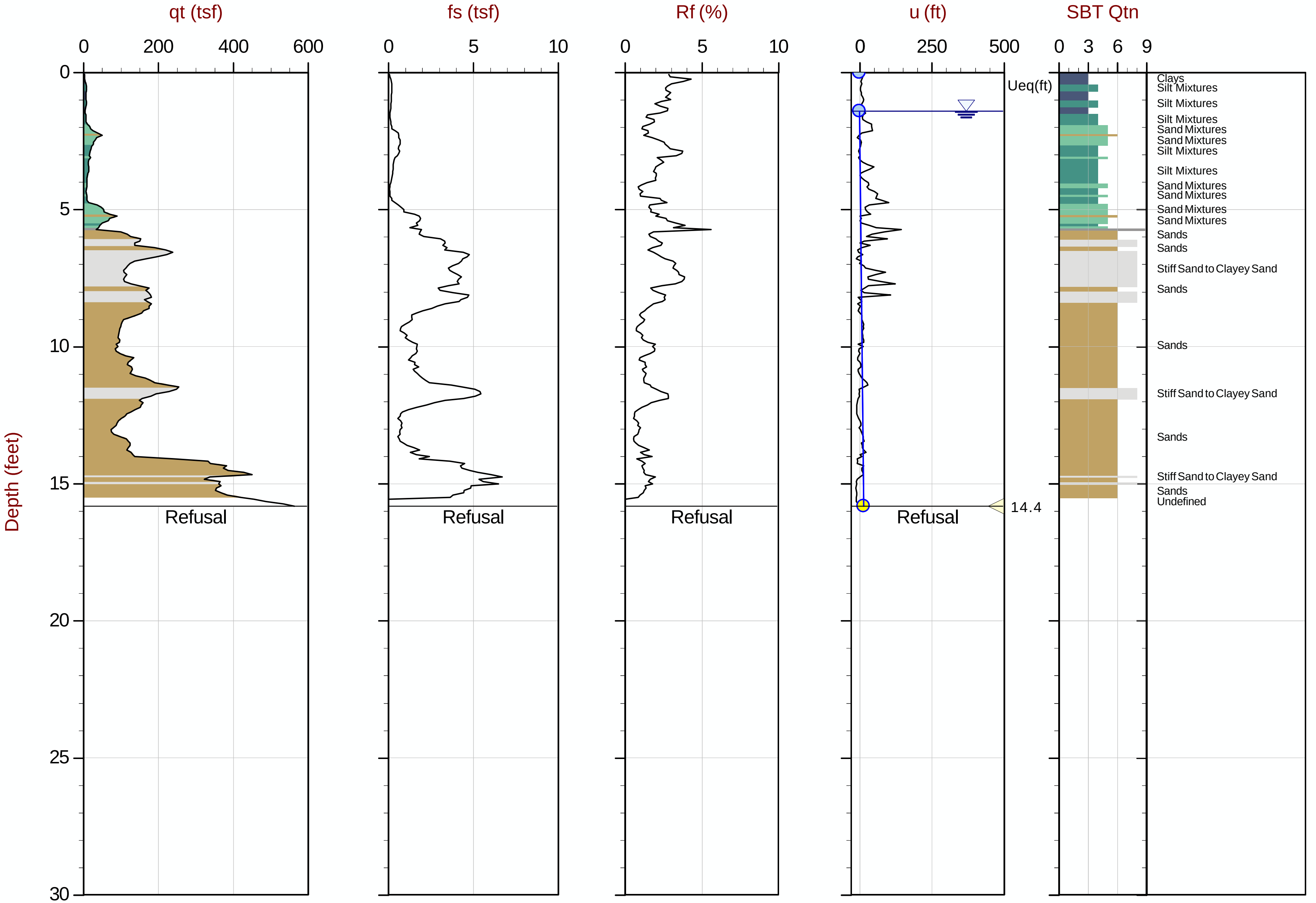
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 10:33
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-025
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.825 m / 15.83 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

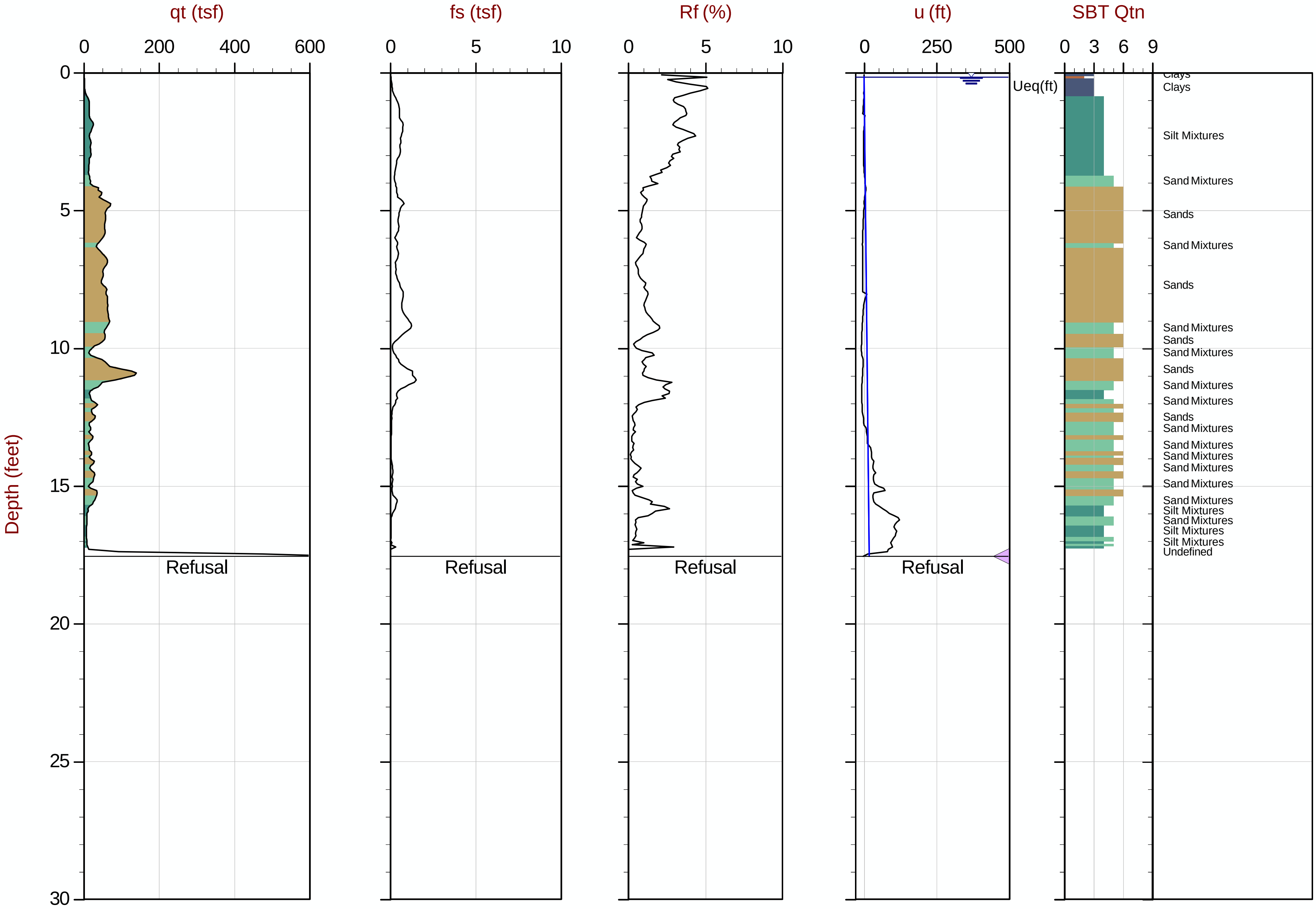
File: 25-53-29335_CP025.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782850m E: 406409m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering	Job No: 25-53-29335	Sounding: CPT25-026
	Date: 2025-04-08 09:27	Cone: 1149:T1500F15U35 Area=15 cm²
	Site: Micron New York Manufacturing Facility - Clay, NY	



Max Depth: 5.350 m / 17.55 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP026.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782738m E: 406480m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

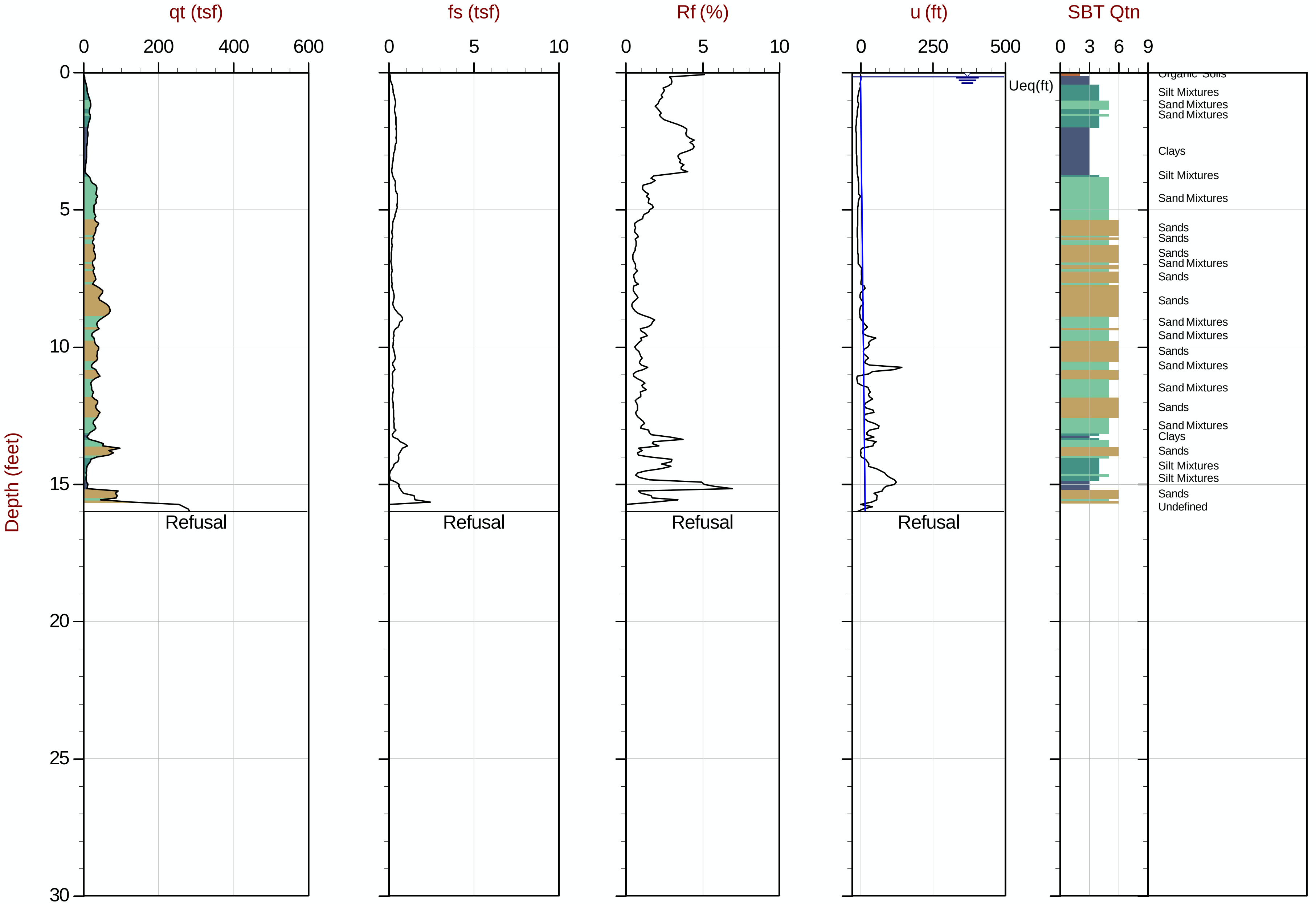
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 11:44
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-027
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.875 m / 15.99 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP027.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782879m E: 406066m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

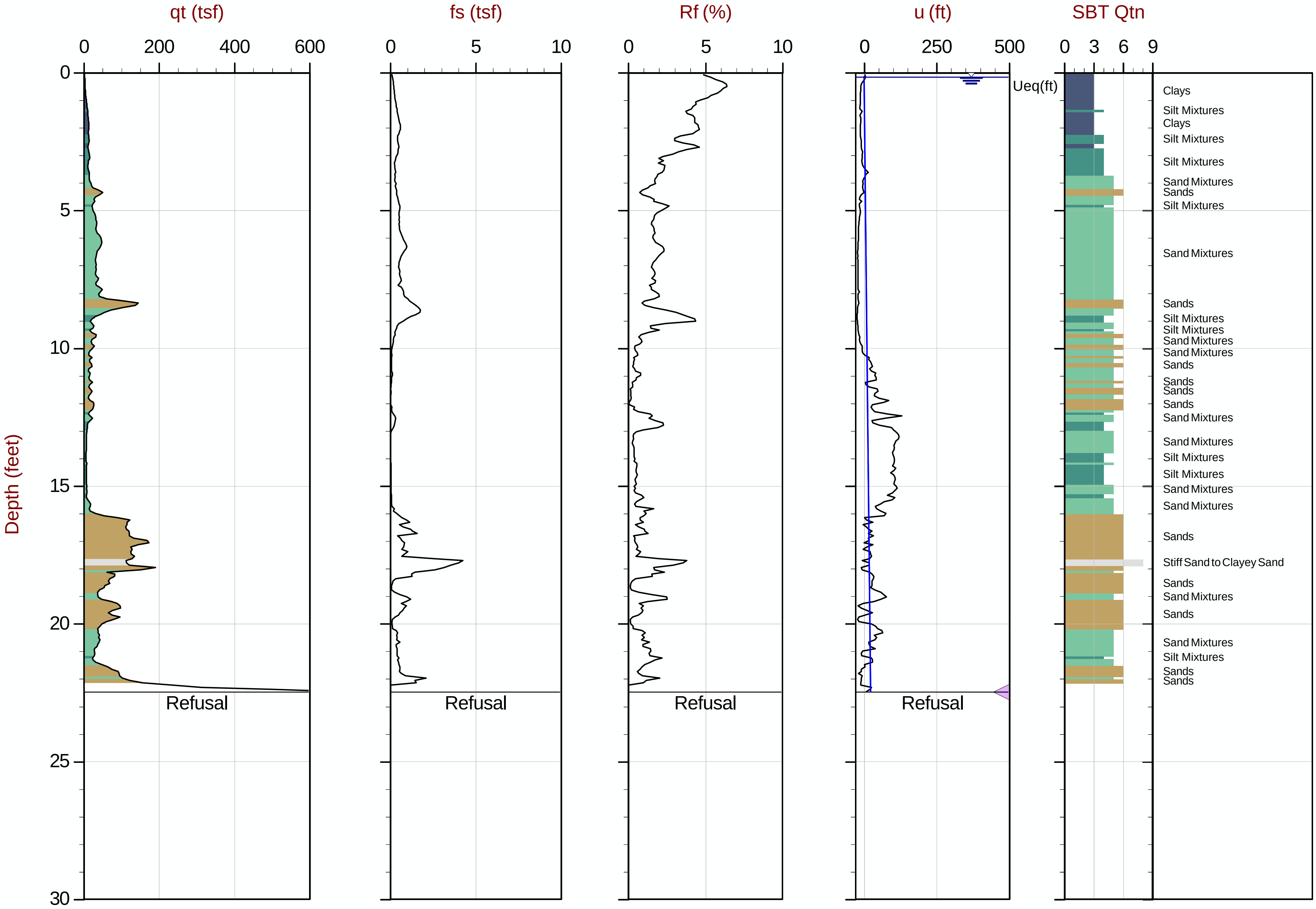
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 11:32
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-028
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.850 m / 22.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP028.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782675m E: 406436m

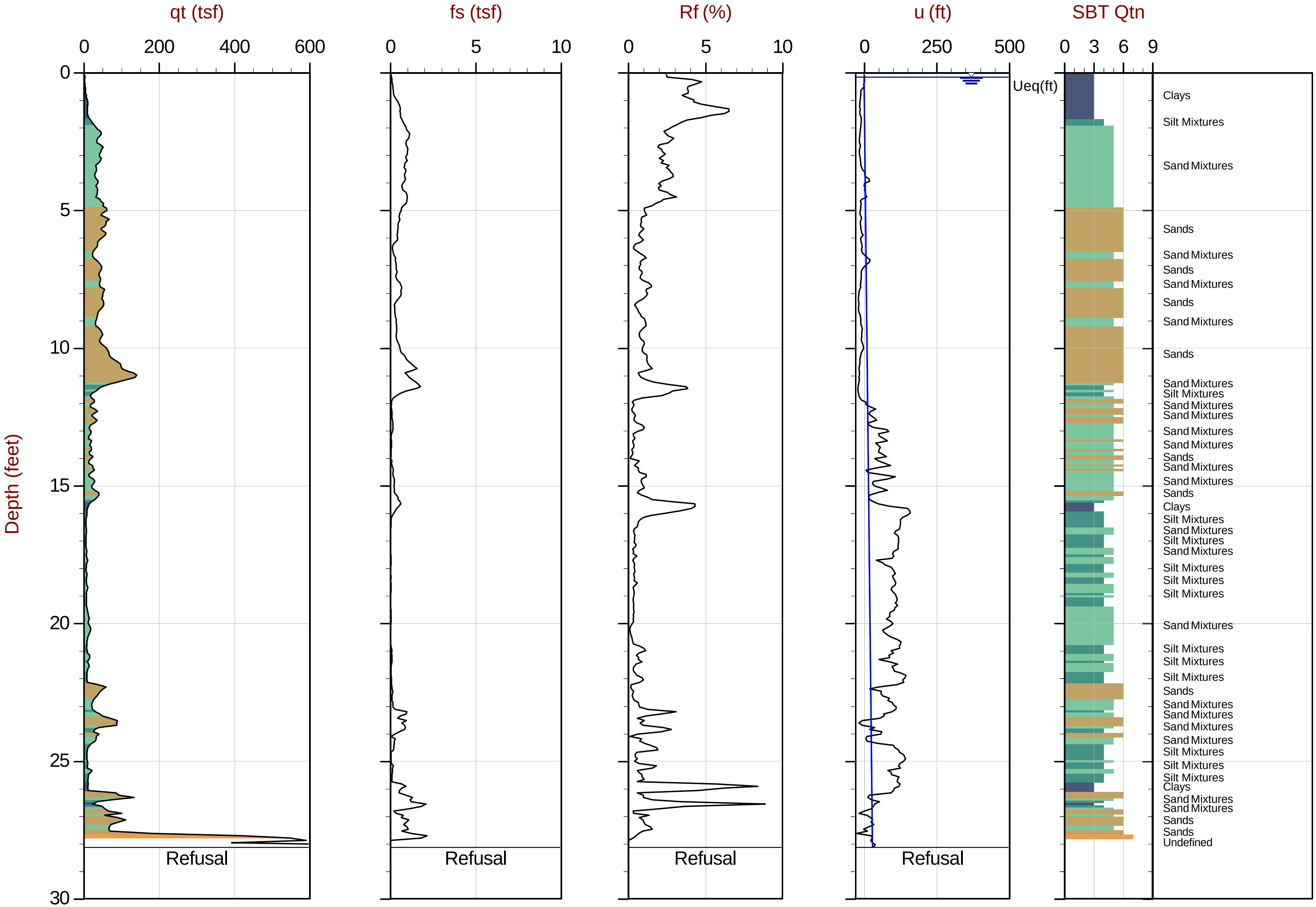
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 15:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-029
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 8.575 m / 28.13 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP029.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782734m E: 406252m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

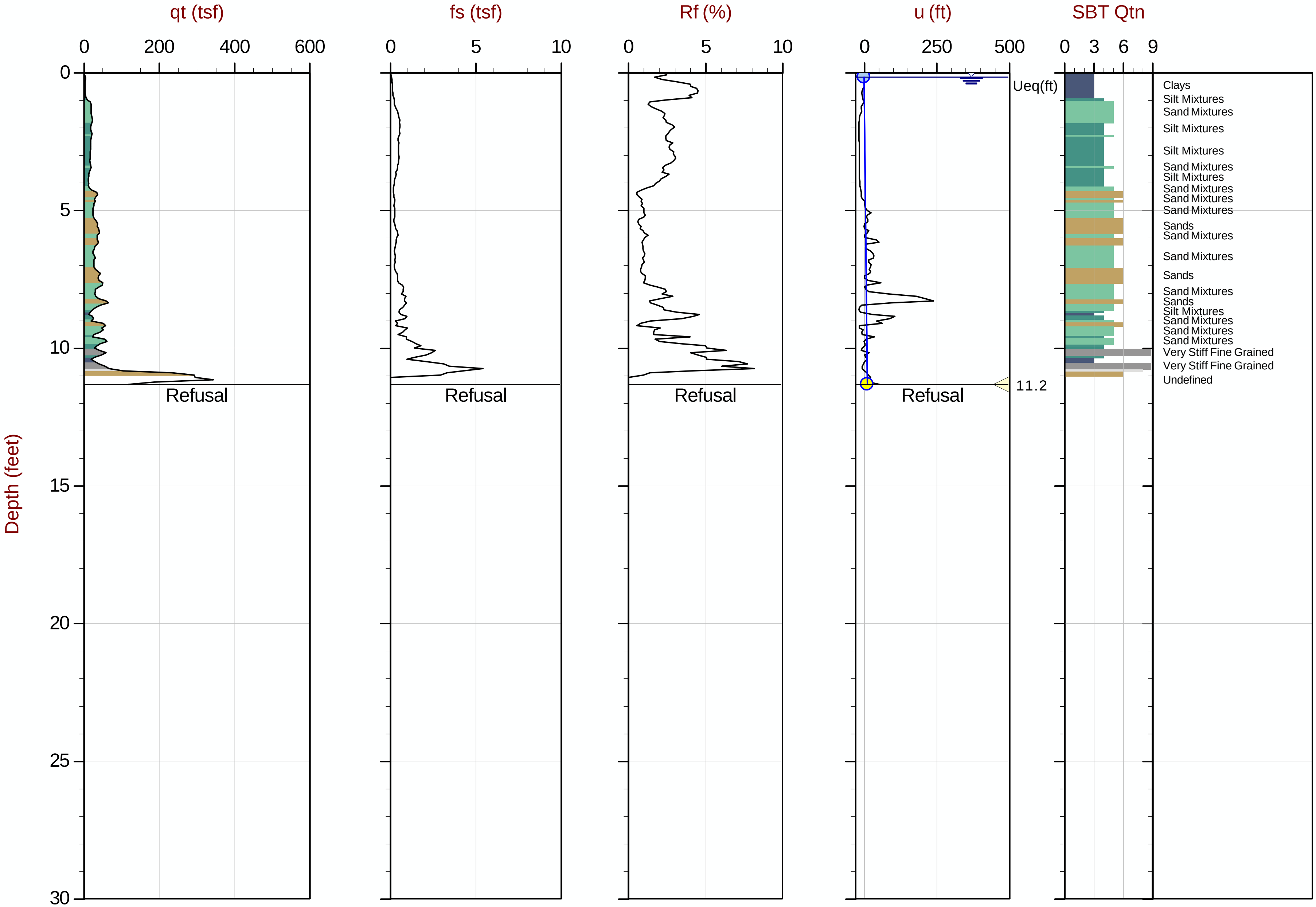
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 08:42
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-030
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_CP030.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782797m E: 406072m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

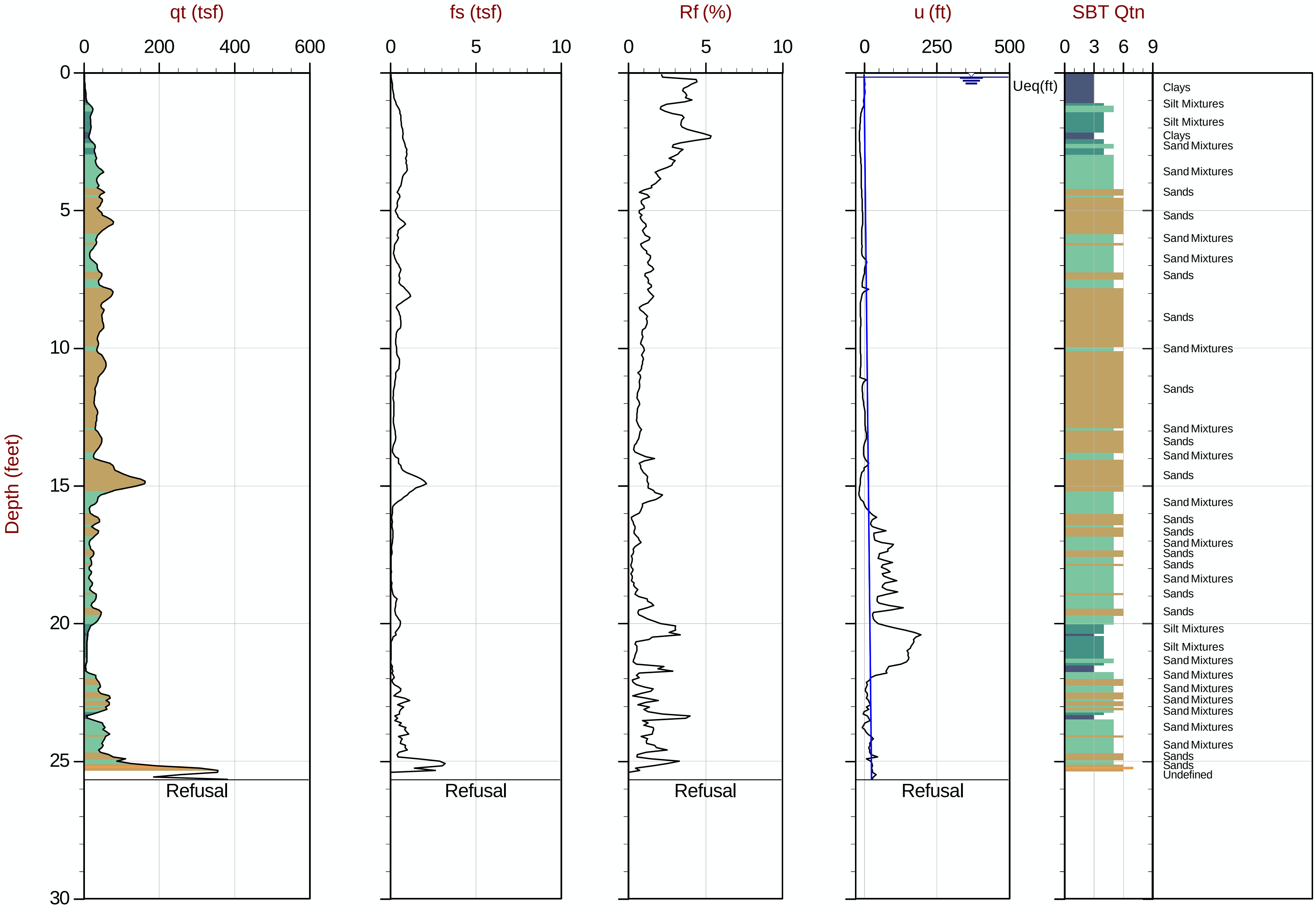
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 14:43
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-031
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 7.825 m / 25.67 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP031.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782684m E: 406218m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

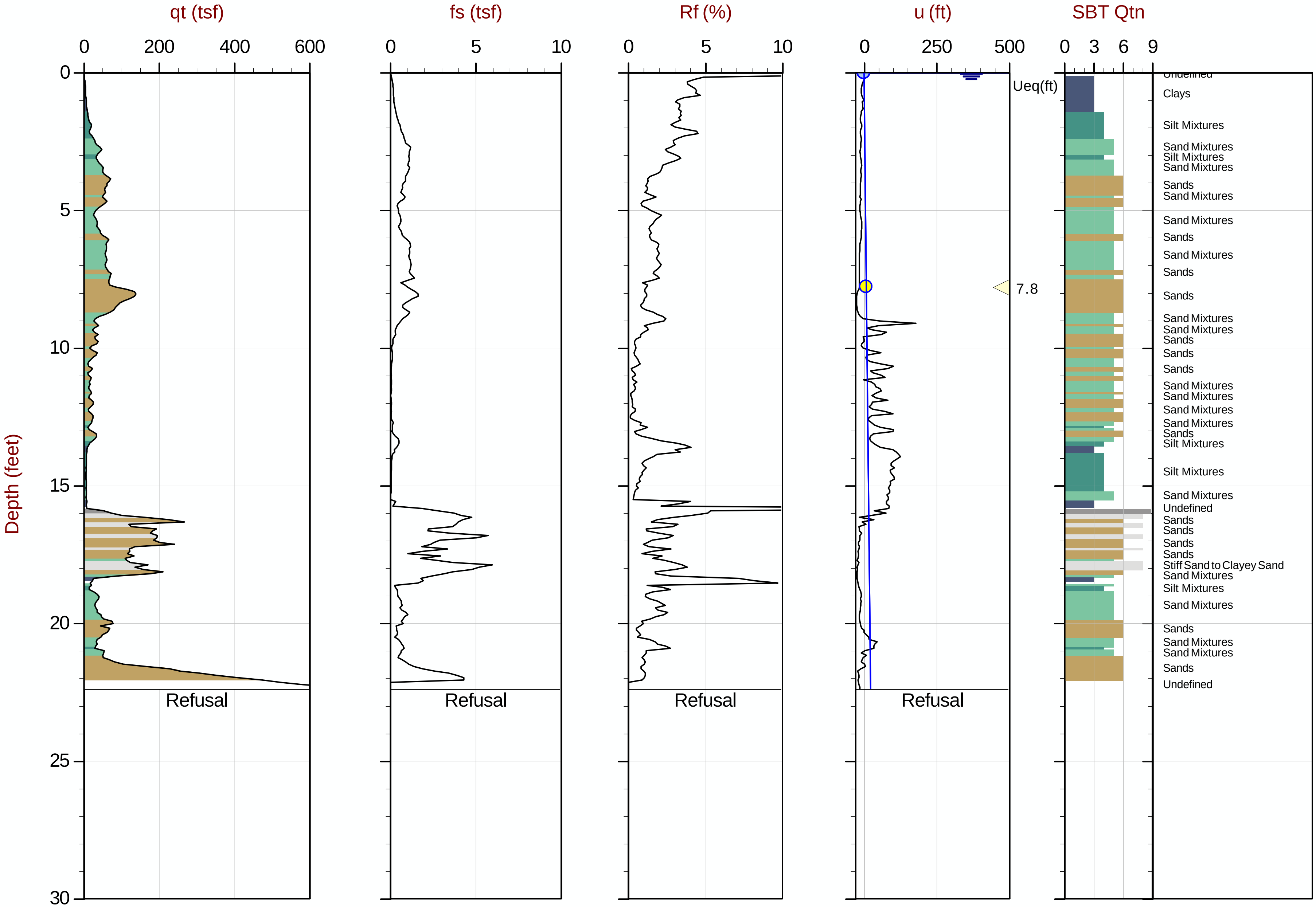
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 13:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-032
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.825 m / 22.39 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP032.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782612m E: 406314m

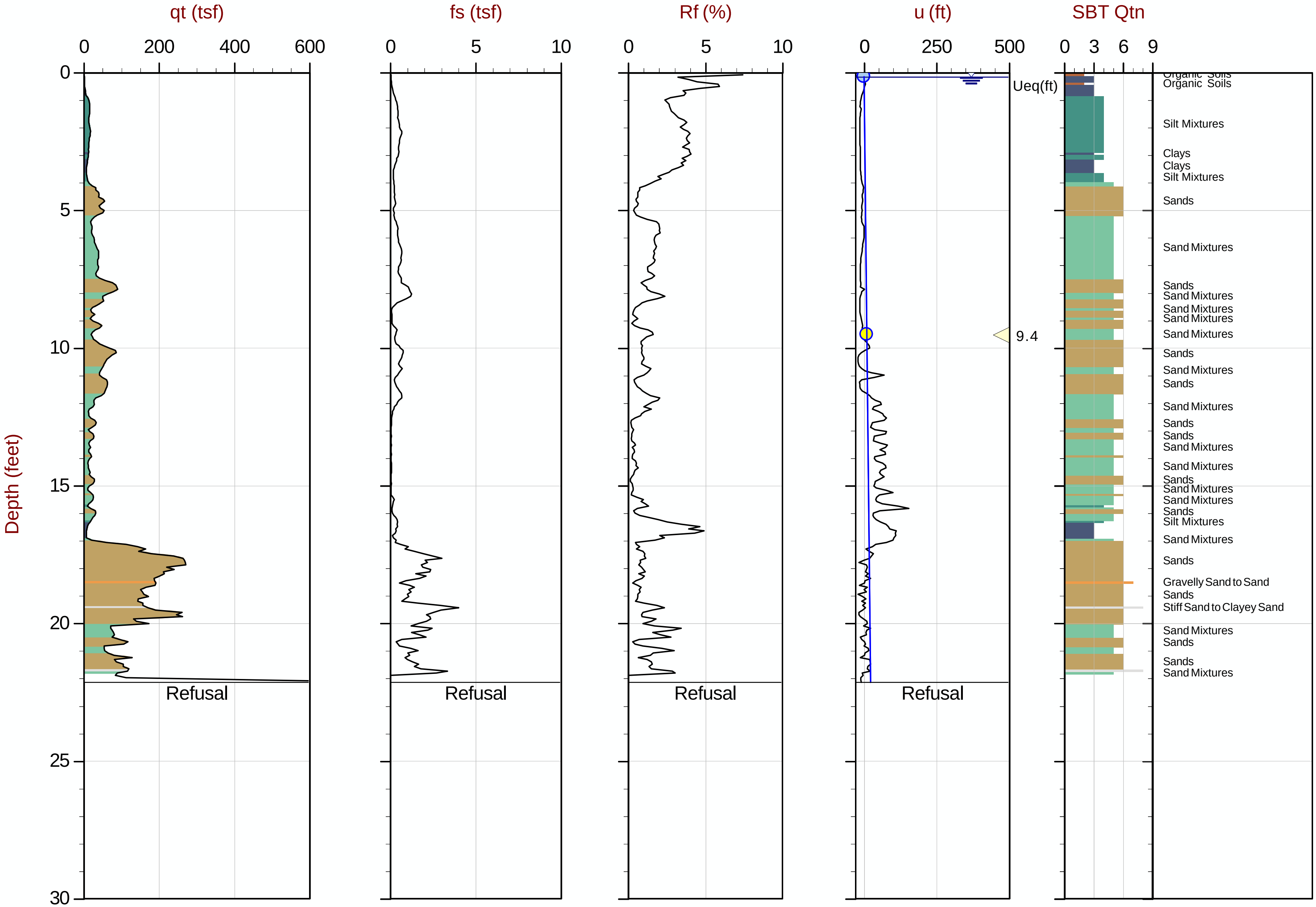
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

ConeTec

Langan Engineering

Job No: 25-53-29335	Sounding: CPT25-033
Date: 2025-04-11 10:50	Cone: 1149:T1500F15U35 Area=15 cm²
Site: Micron New York Manufacturing Facility - Clay, NY	



Max Depth: 6.750 m / 22.15 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP033.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782544m E: 406413m

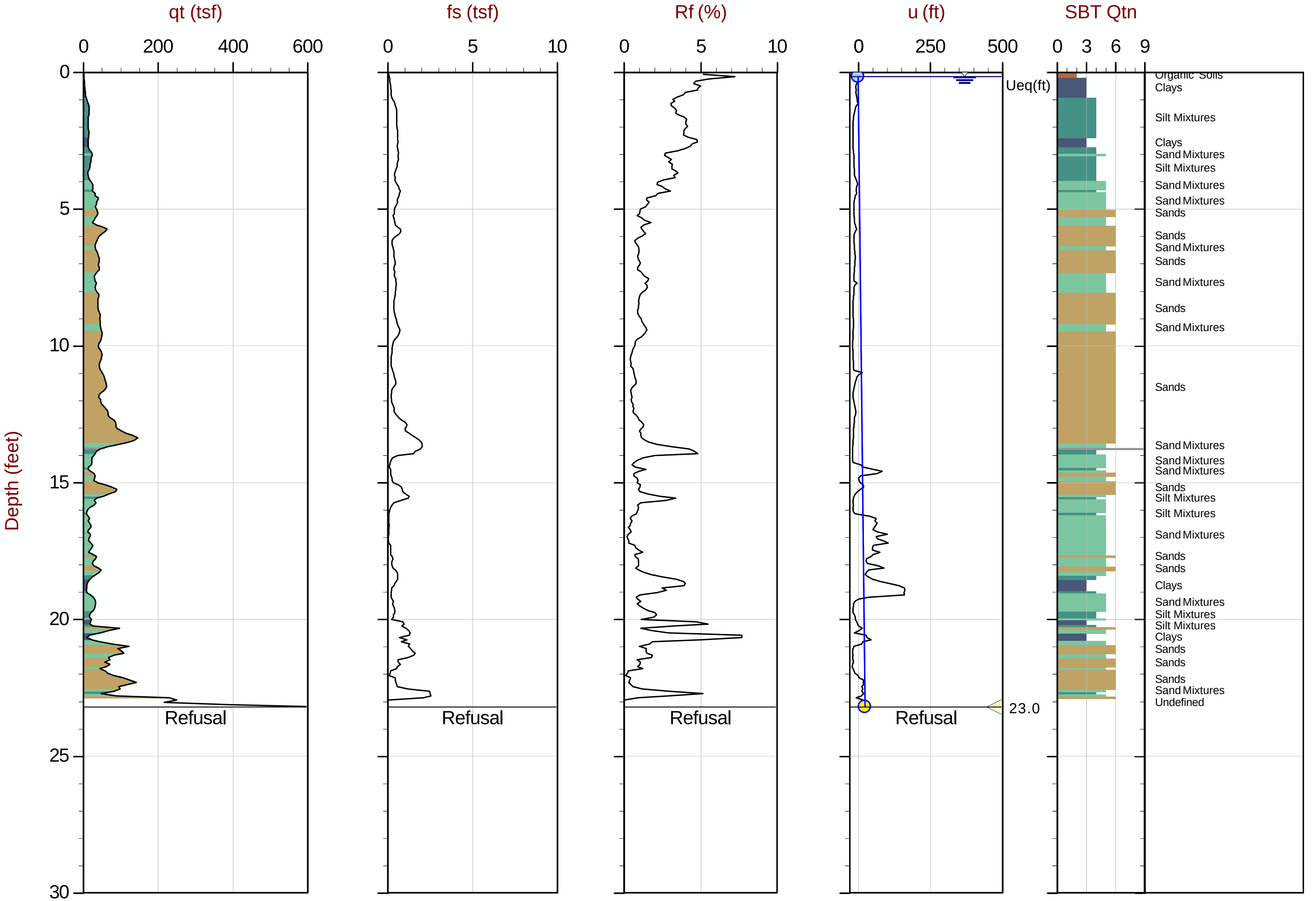
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 13:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-034
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 7.075 m / 23.21 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP034.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782670m E: 406134m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

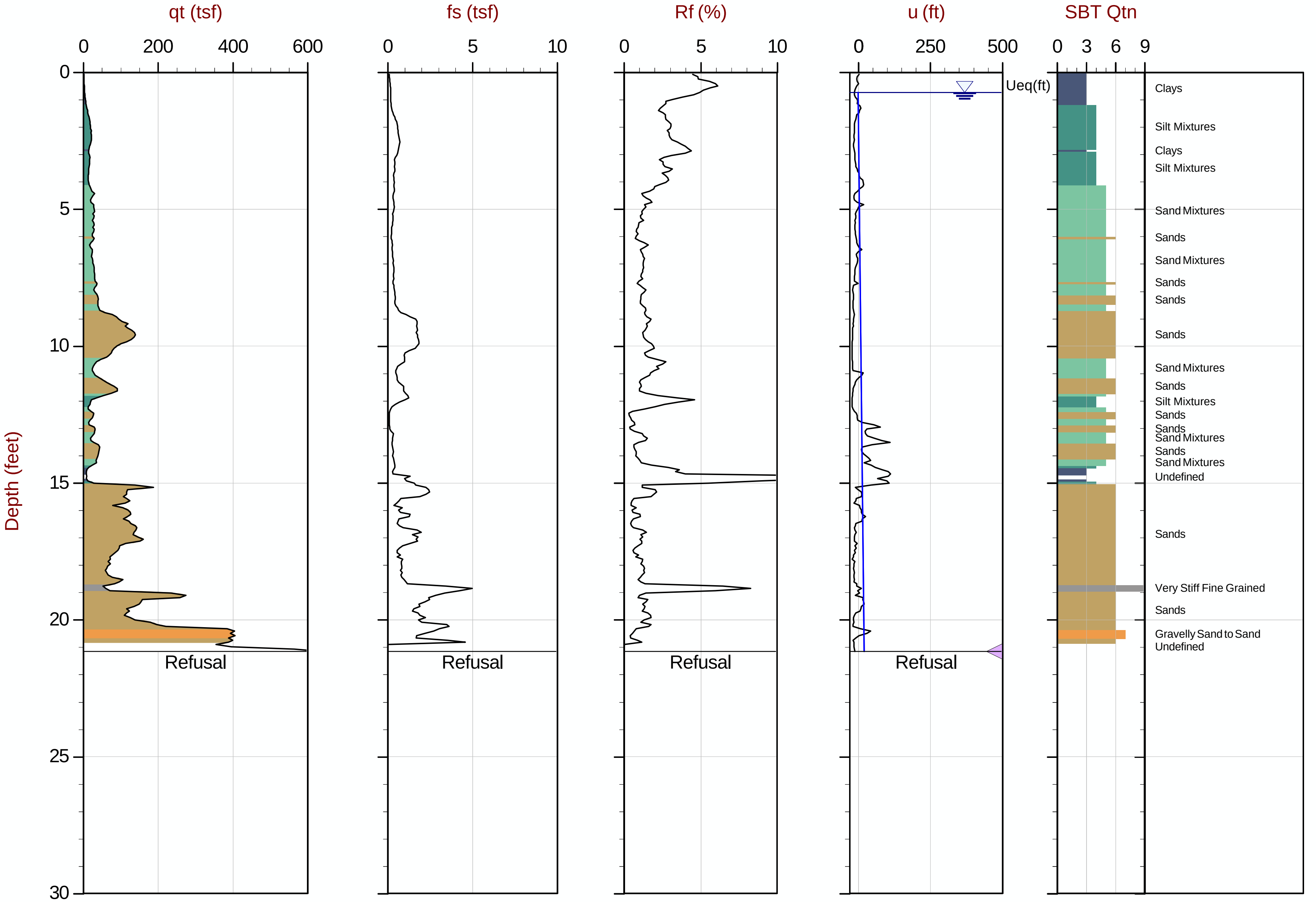
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 09:37
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-035
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.450 m / 21.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP035.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782636m E: 405966m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

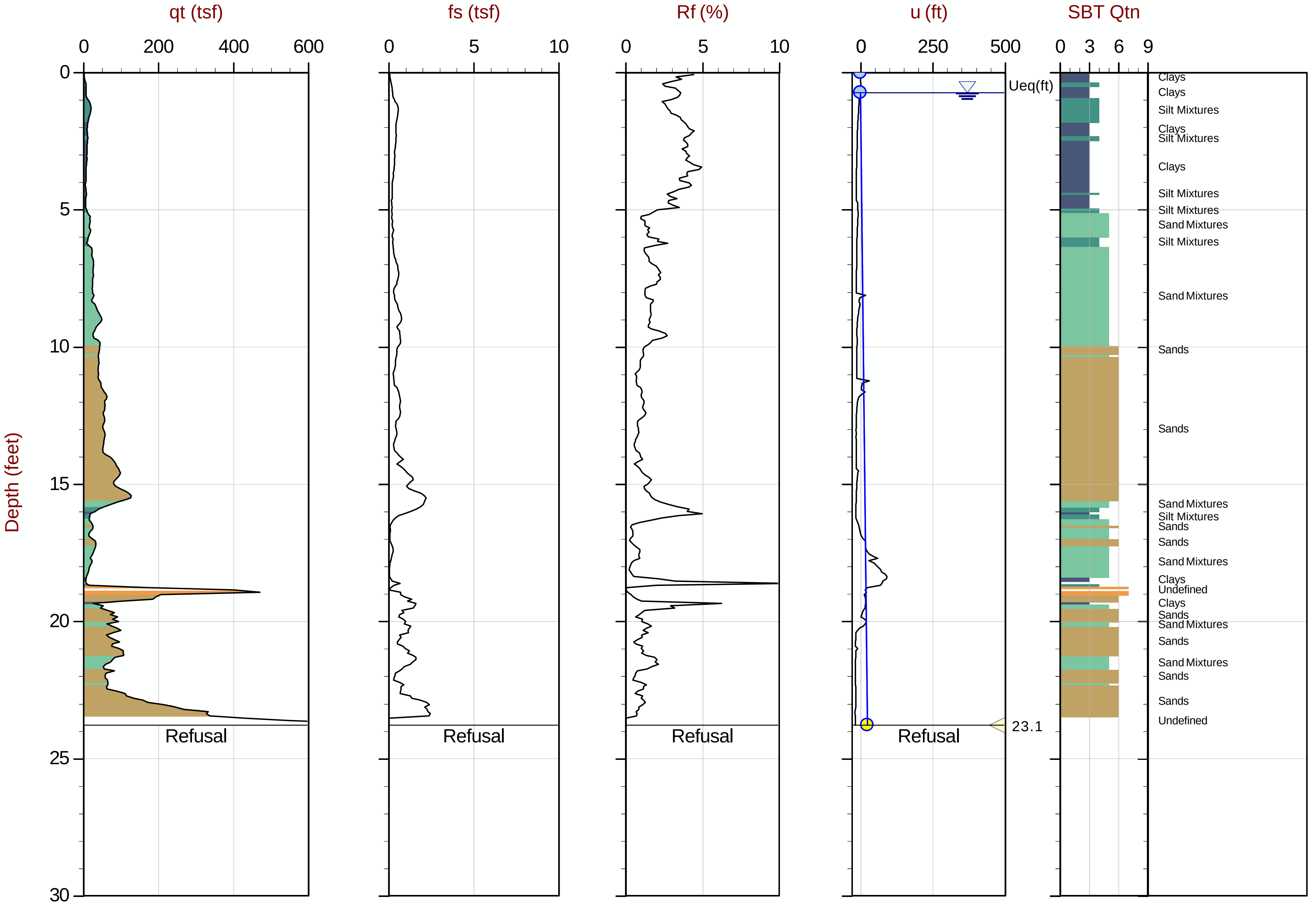
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 14:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-036
Cone: 1149:T1500F15U35 Area=15 cm^2



Max Depth: 7.250 m / 23.79 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP036.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782589m E: 406145m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

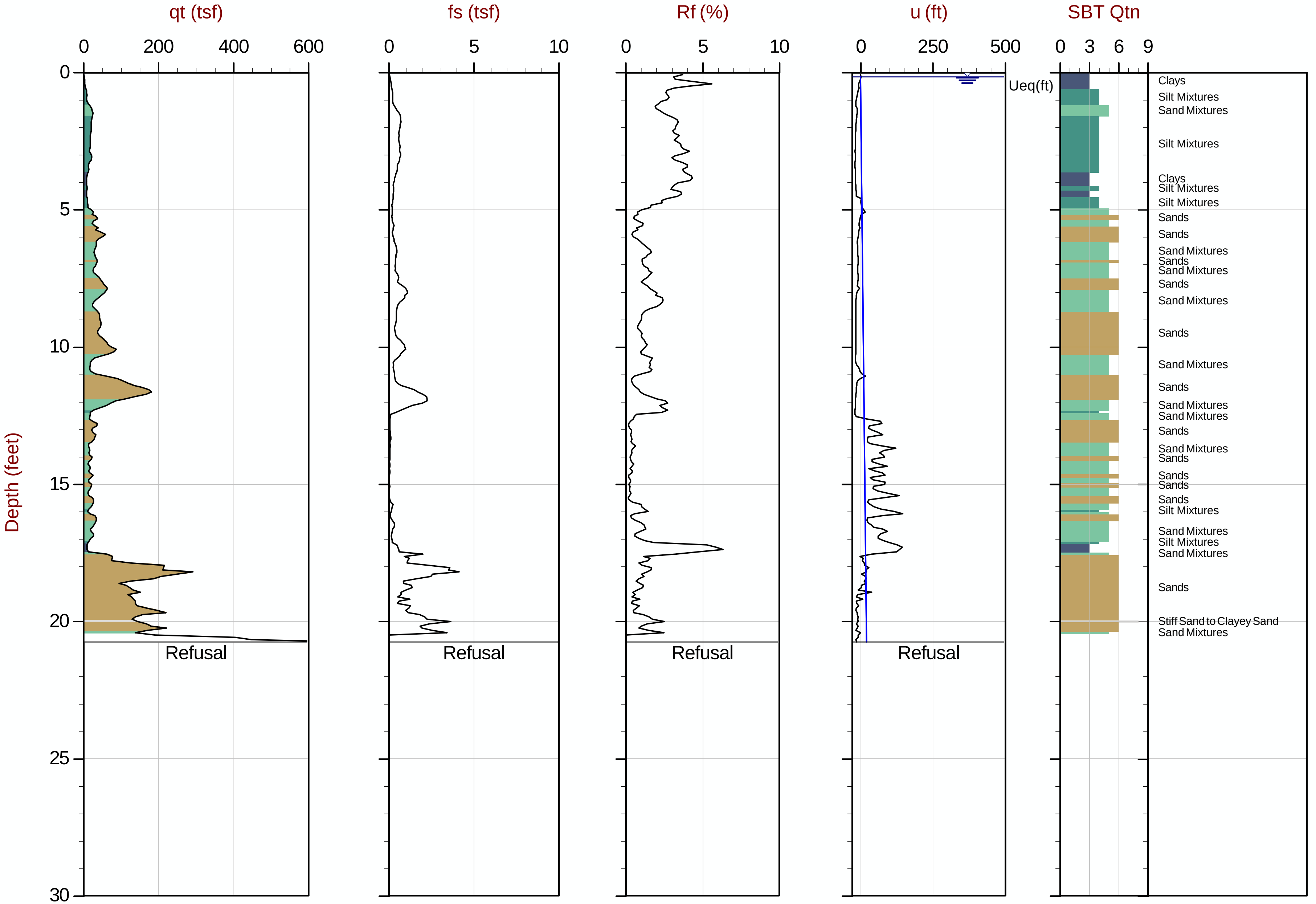
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 11:38
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-037
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.325 m / 20.75 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP037.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782481m E: 406293m

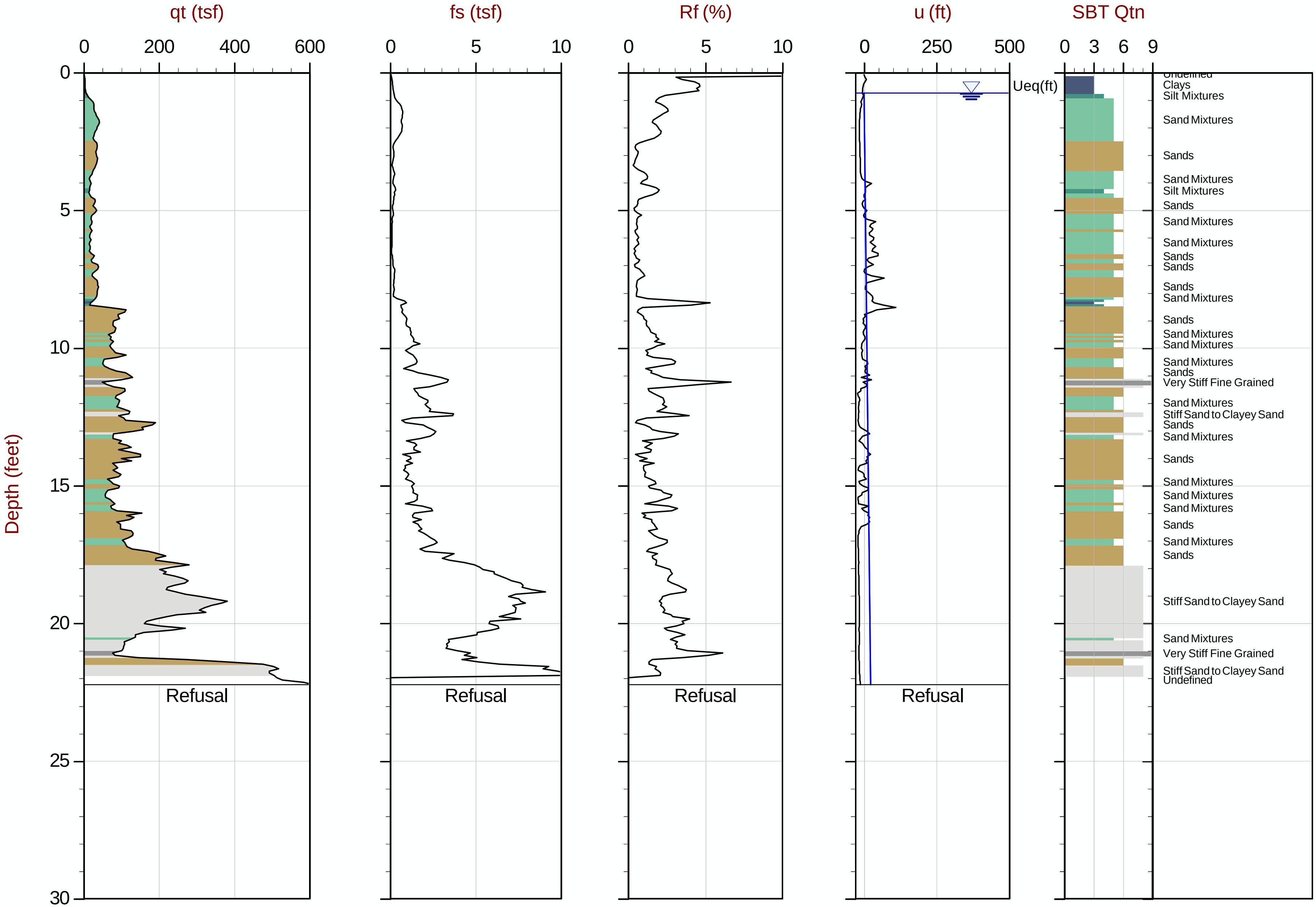
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 14:11
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-038
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.775 m / 22.23 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP038.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782577m E: 406061m

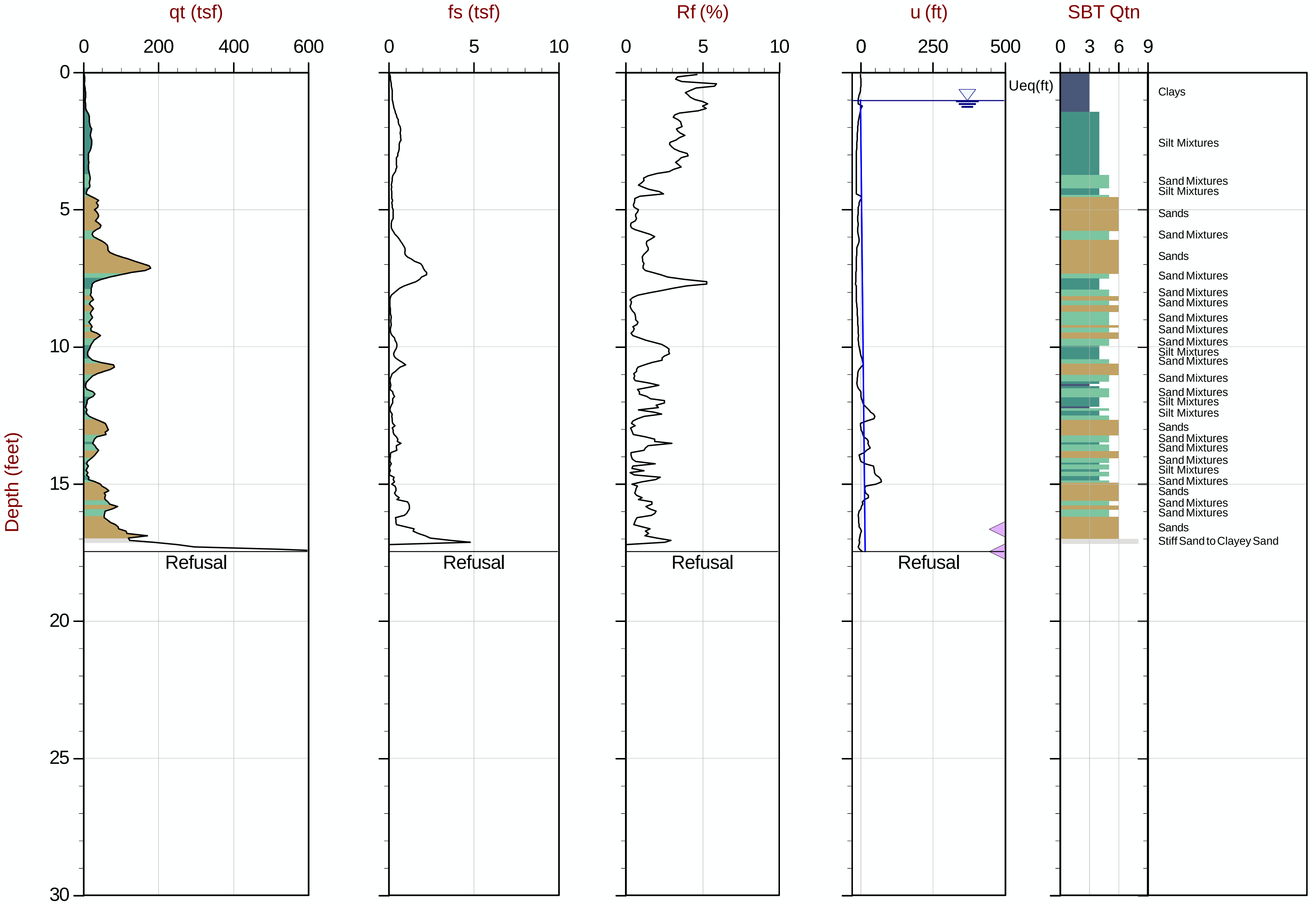
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 13:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-039
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.325 m / 17.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP039.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782454m E: 406122m

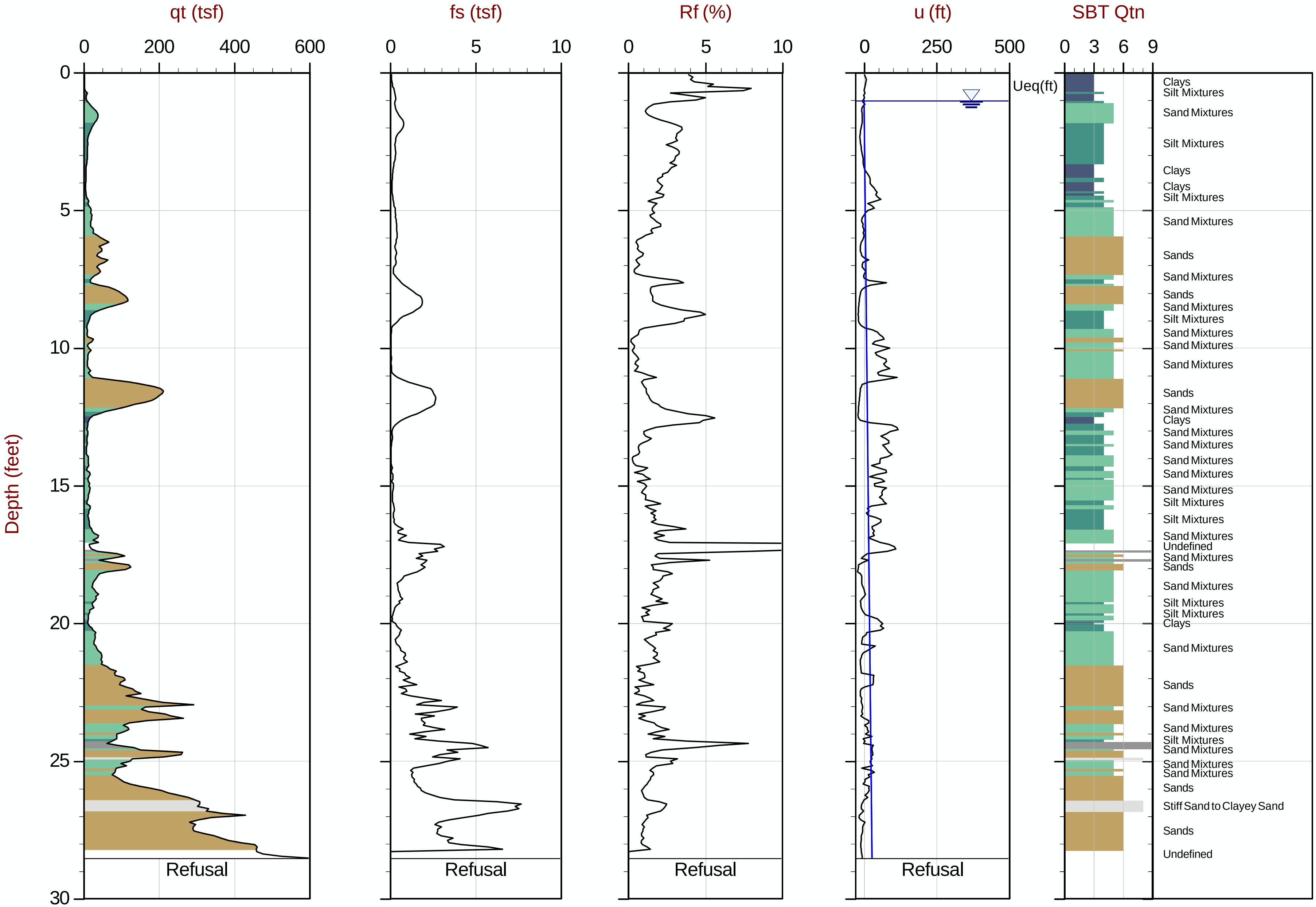
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 14:32
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-040
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 8.700 m / 28.54 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP040.COR
Unit Wt: SBTQtn (PKR2009)

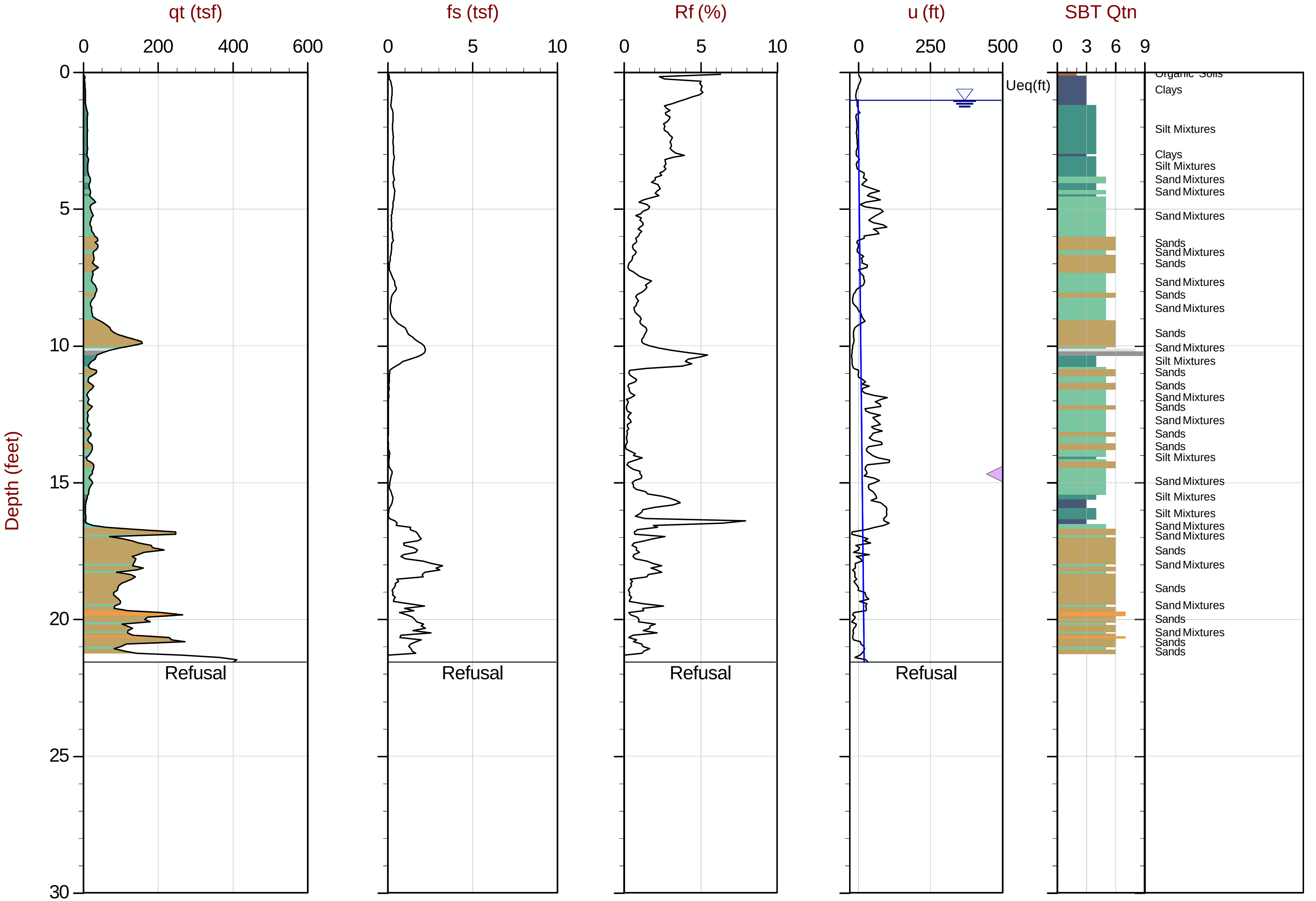
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782422m E: 406184m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 08:19
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-041
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.575 m / 21.57 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP041.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782389m E: 406308m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

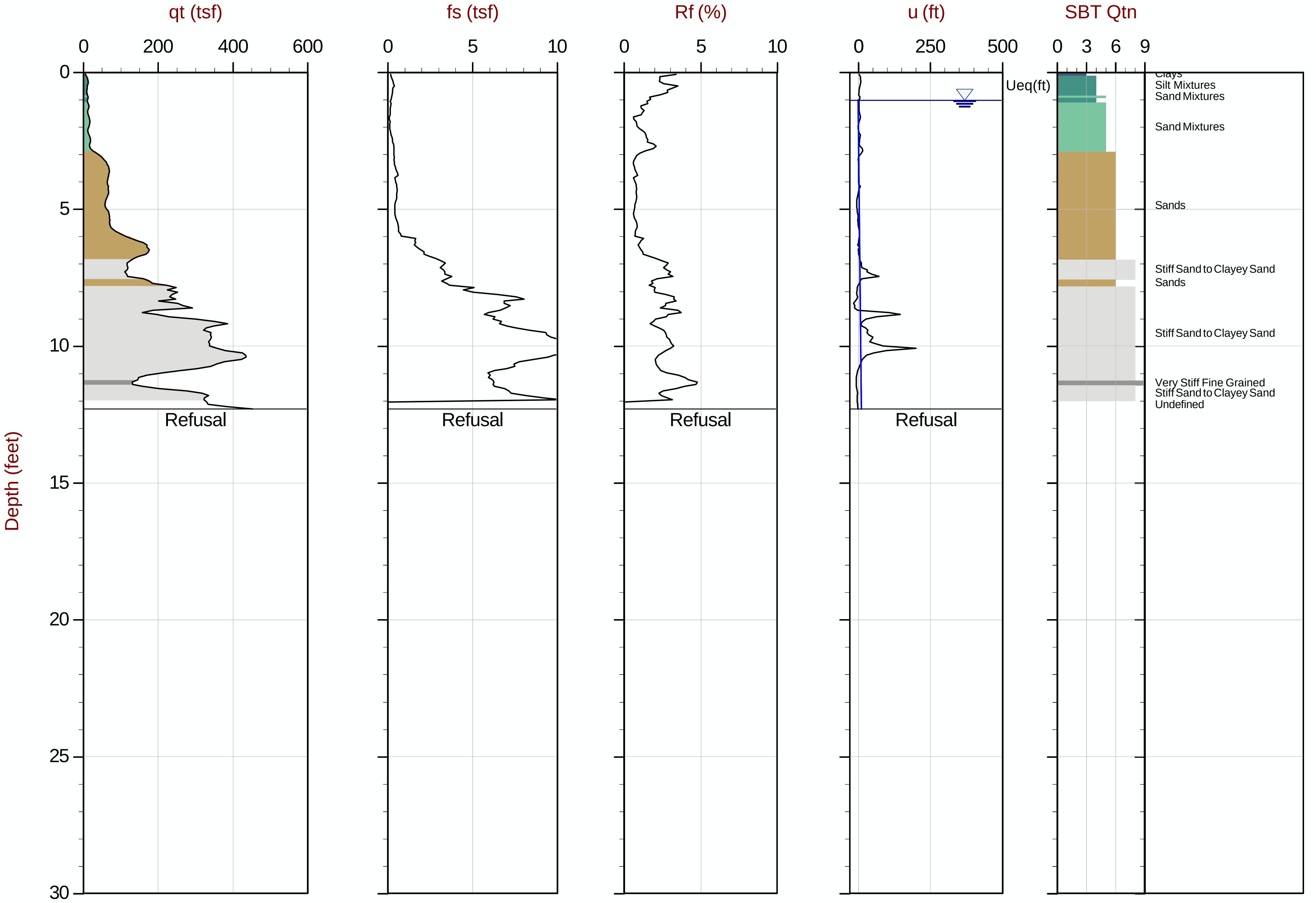
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 08:53
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-042
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 3.750 m / 12.30 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP042.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782471m E: 405998m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

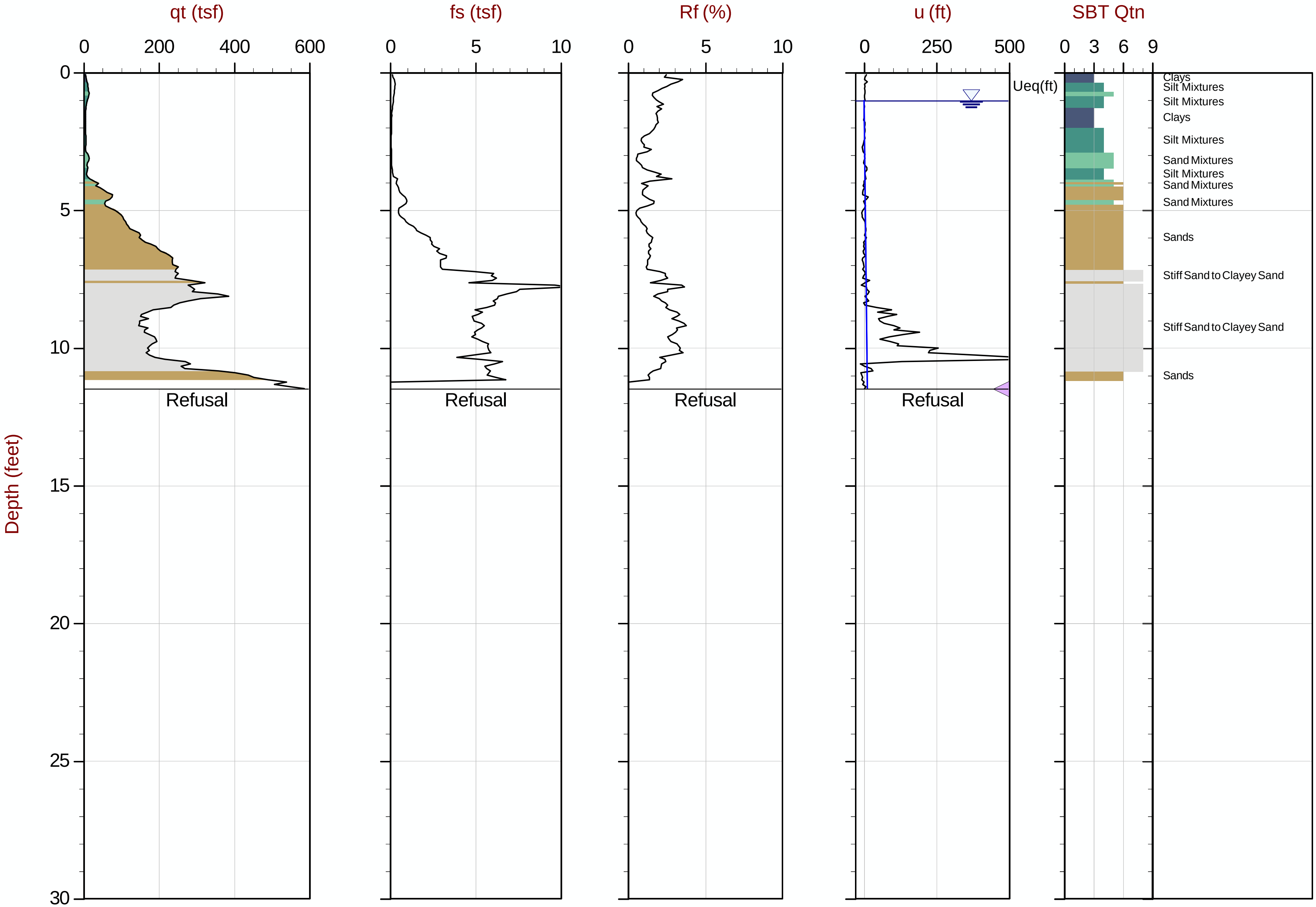
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 09:44
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-043
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 3.500 m / 11.48 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP043.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782330m E: 406181m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

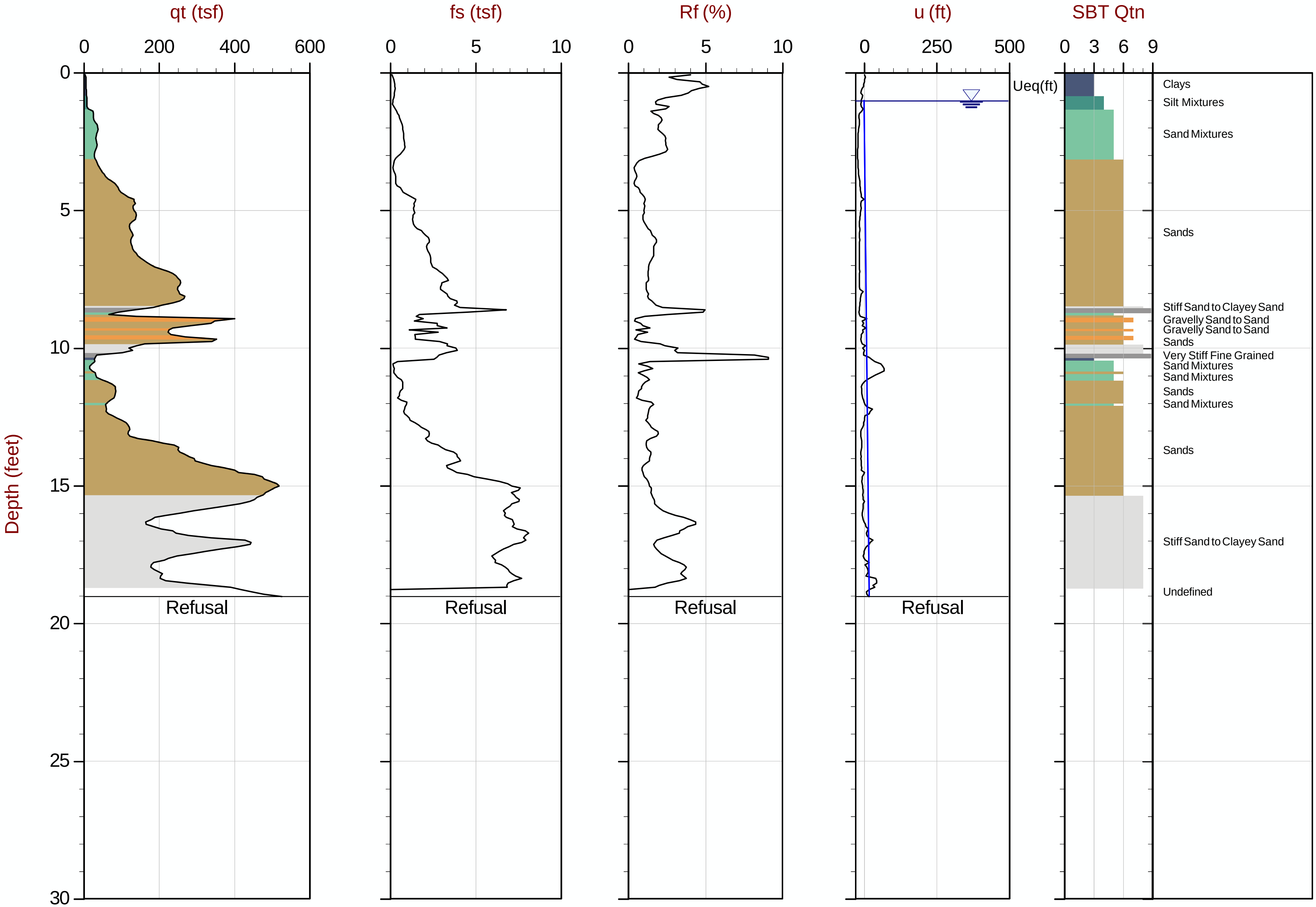
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 12:34
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-044
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.800 m / 19.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP044.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782496m E: 405849m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

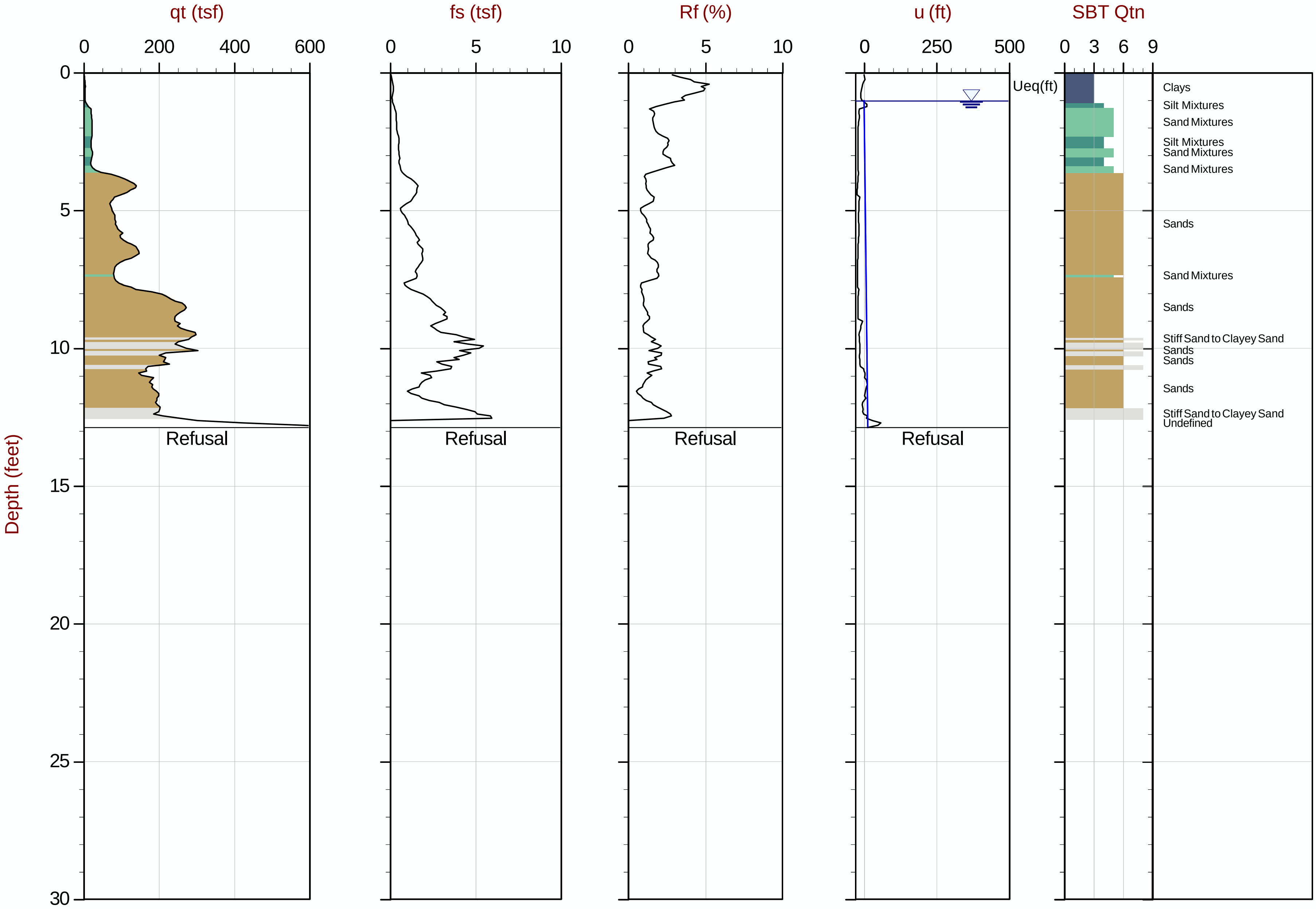
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 11:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-045
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 3.925 m / 12.88 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP045.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782412m E: 405871m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

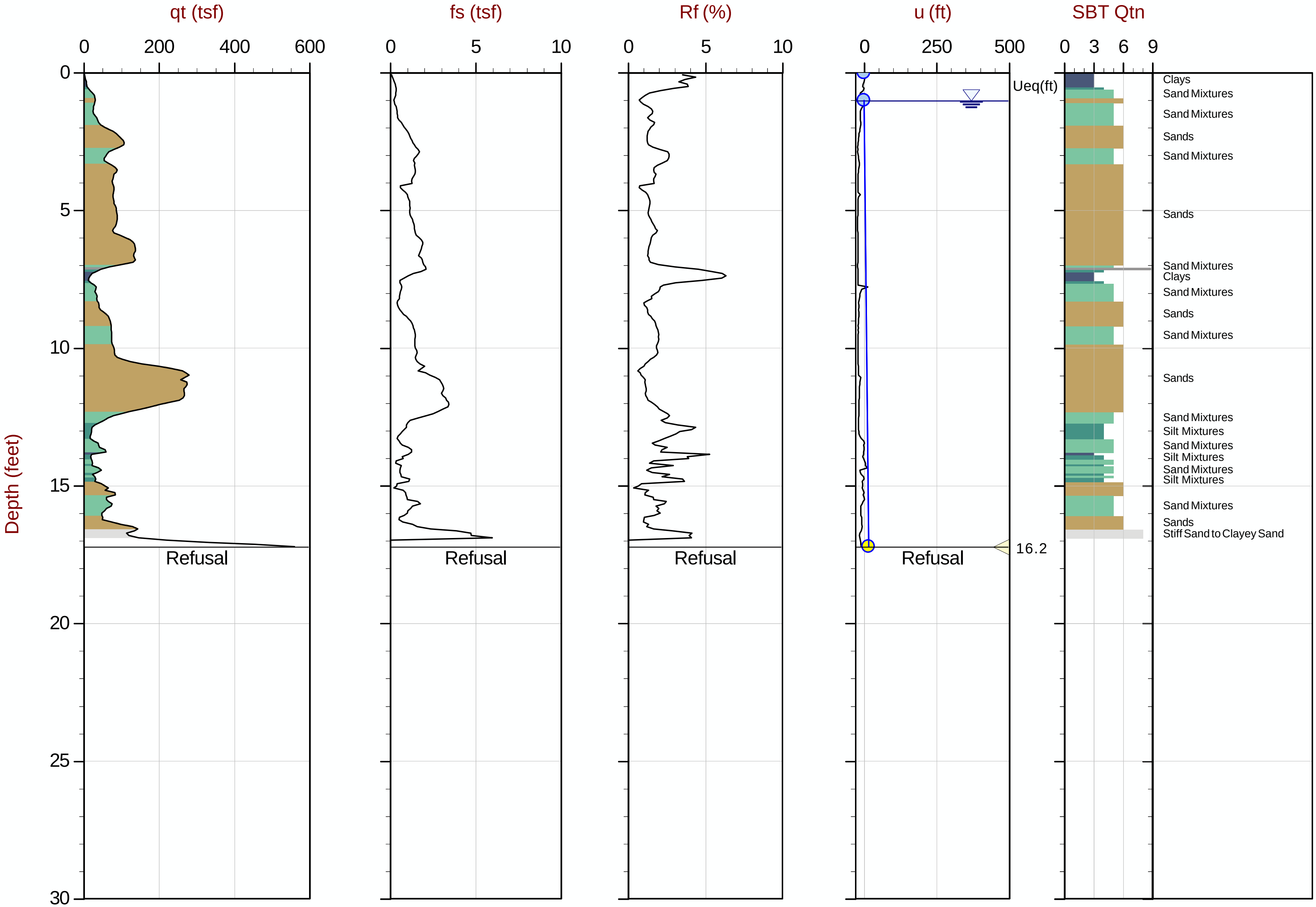
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 10:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-046
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_SP046.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782338m E: 405963m

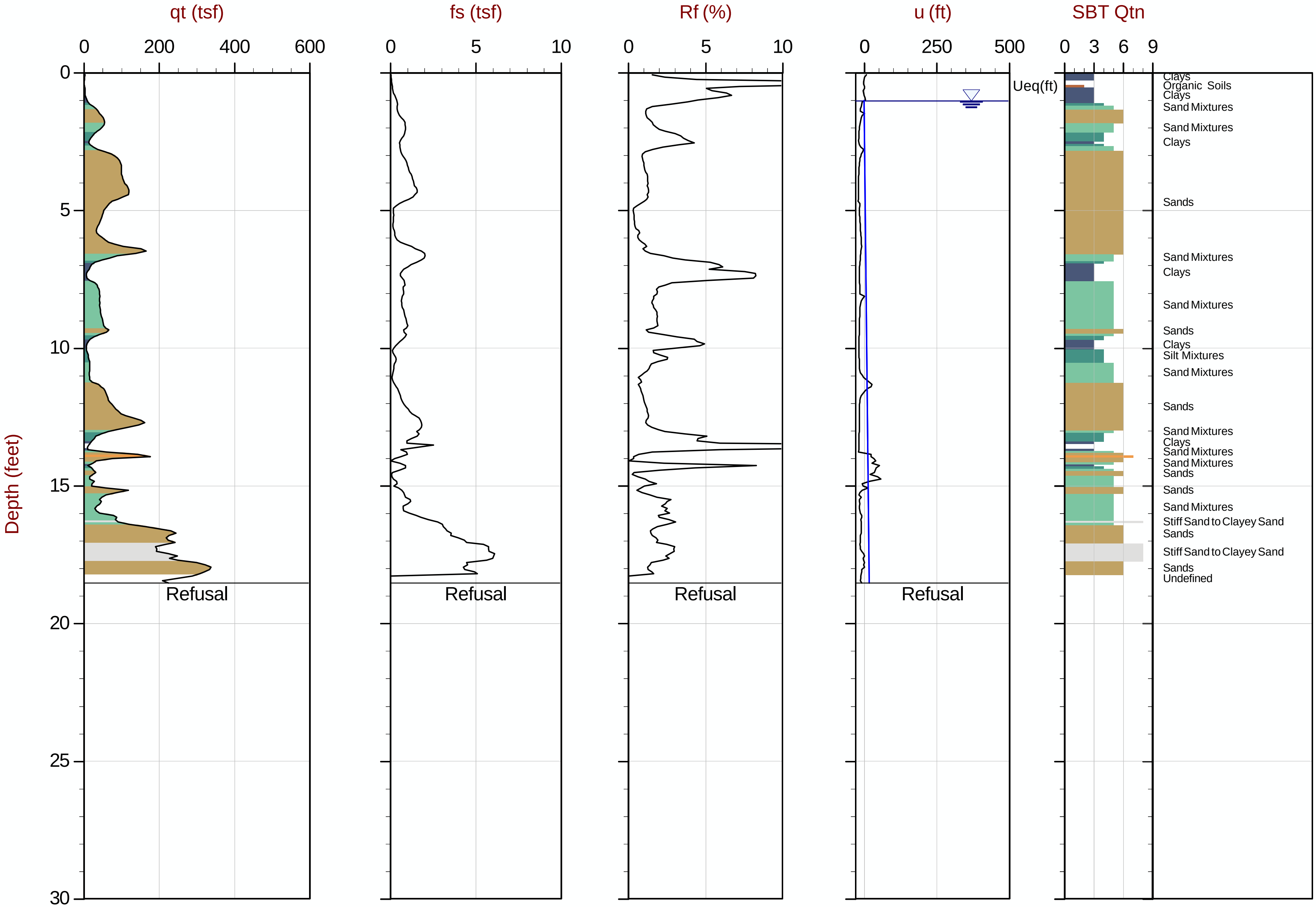
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 10:24
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-047
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_CP047.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782249m E: 406104m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

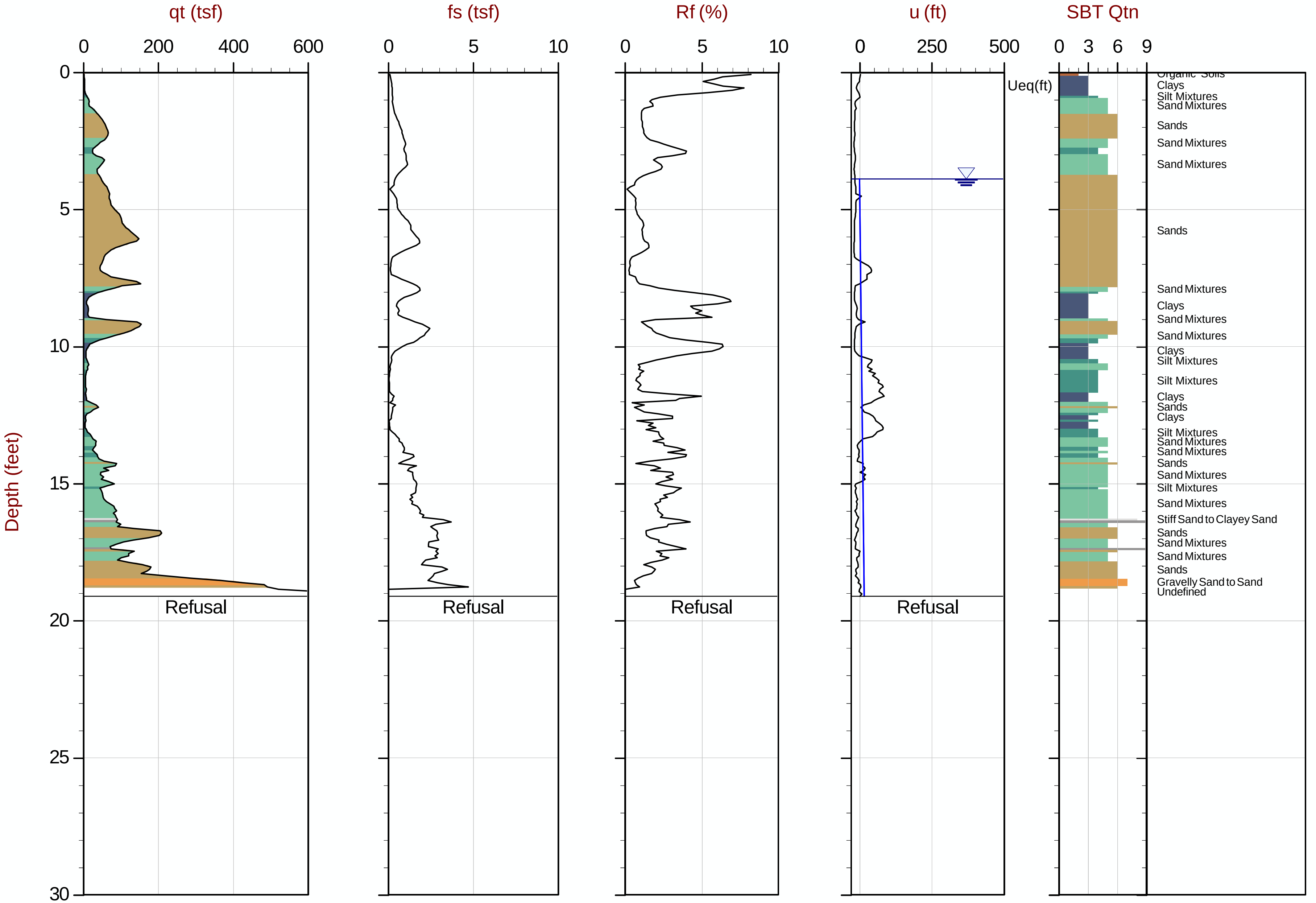
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 11:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-048
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.825 m / 19.11 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP048.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782141m E: 406130m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

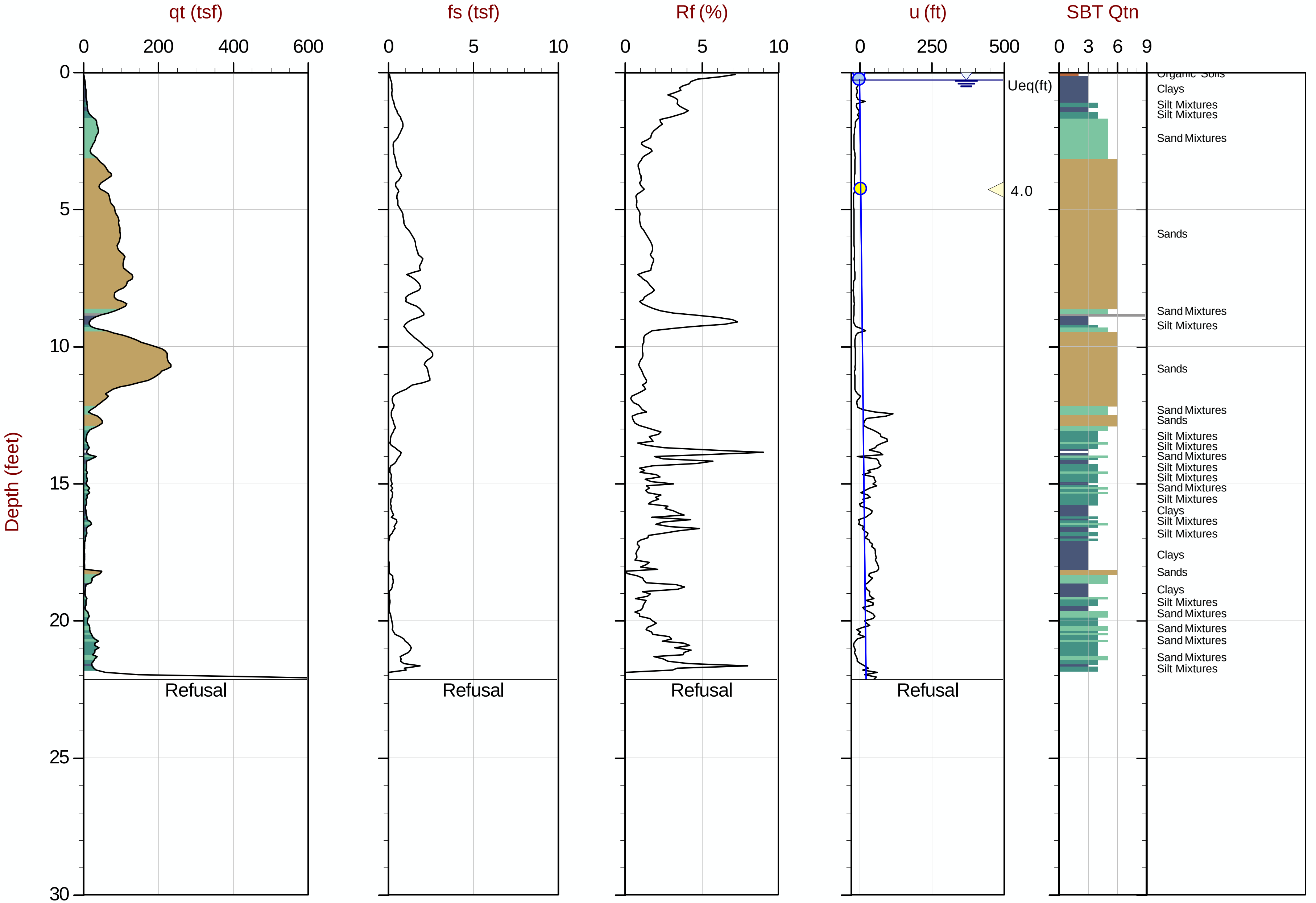
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 10:29
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-049
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.750 m / 22.15 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP049.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782041m E: 406269m

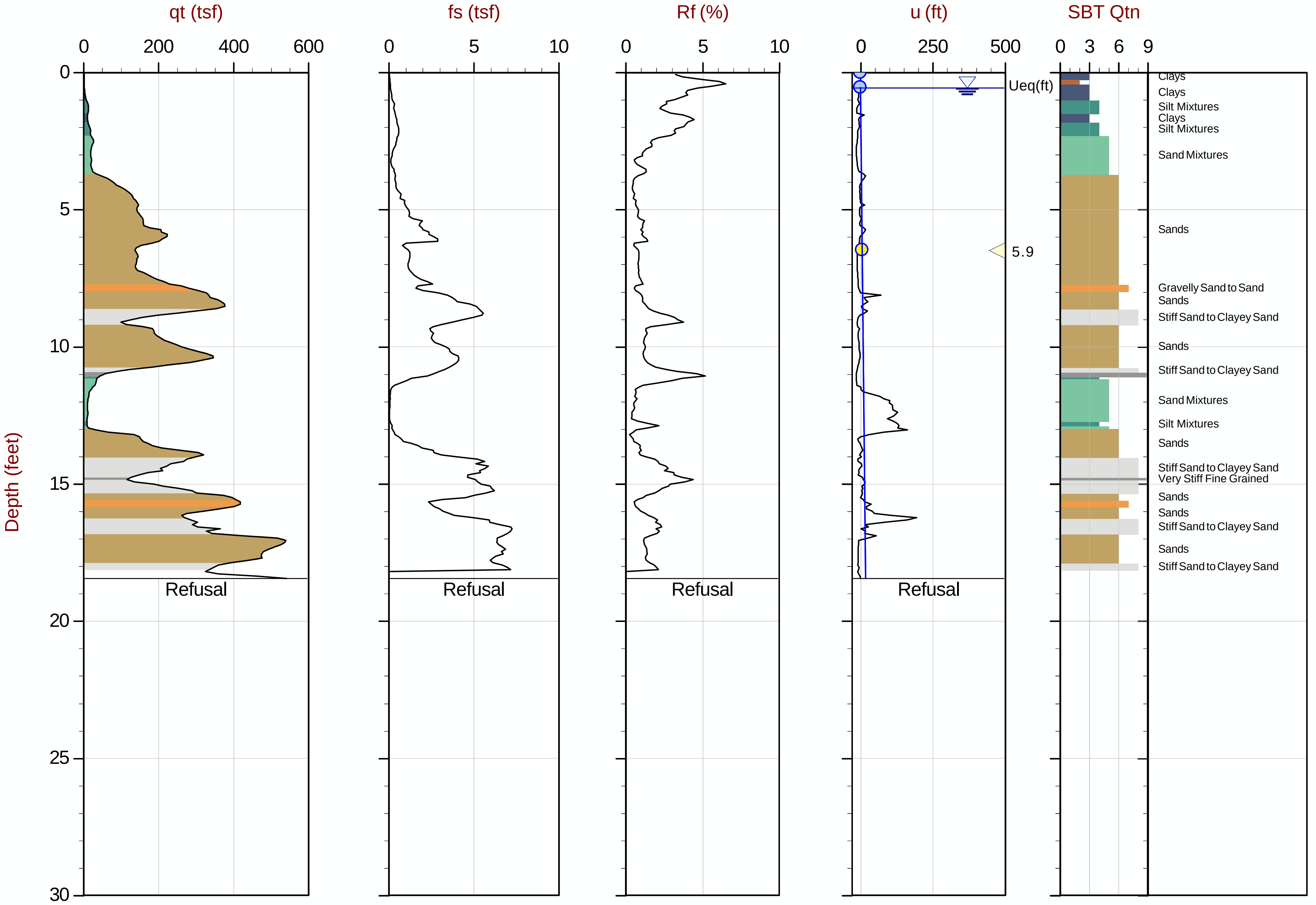
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 13:19
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-050
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.625 m / 18.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP050.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782206m E: 405943m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

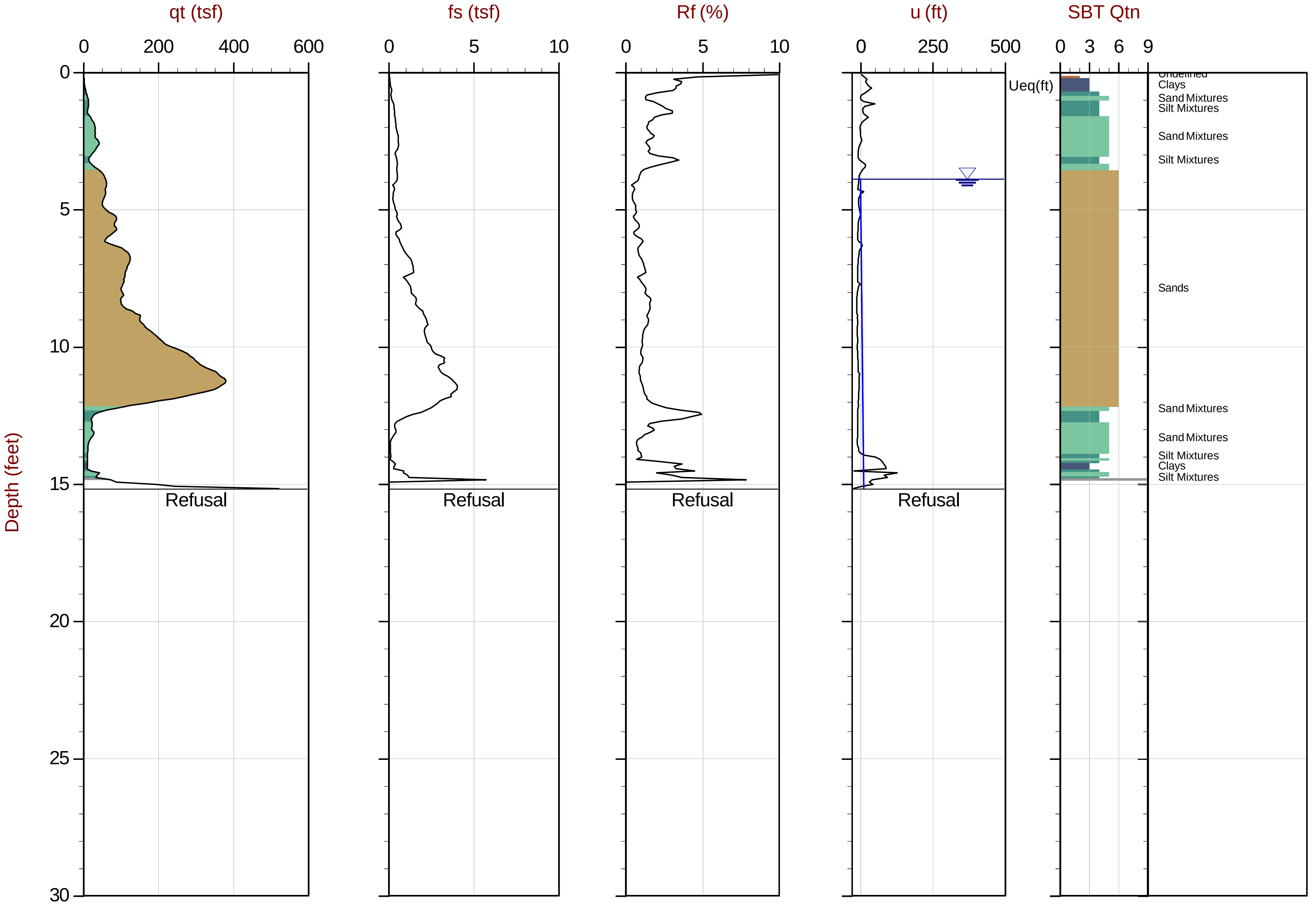
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 11:16
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-051
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_CP051.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782135m E: 406045m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

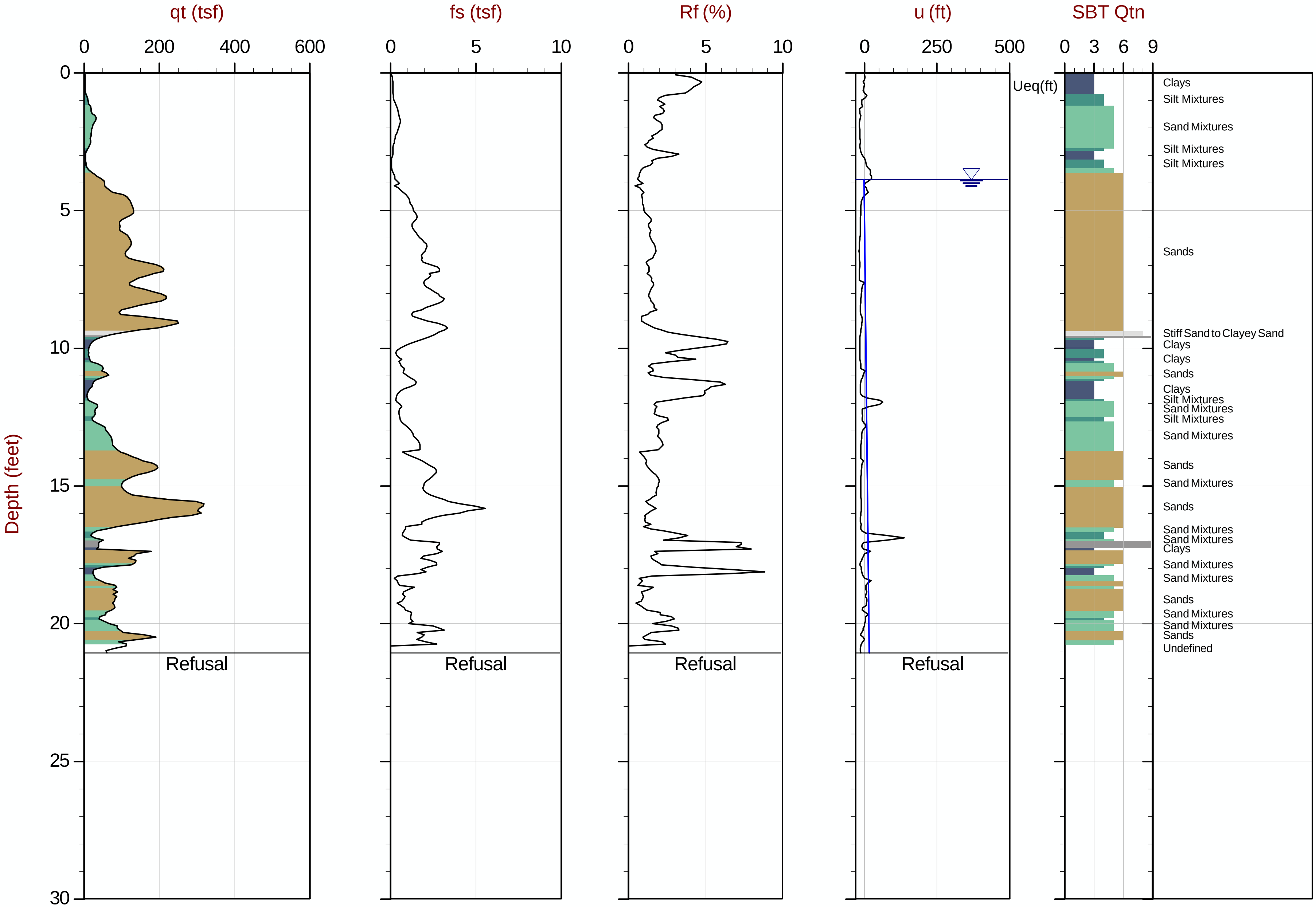
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 09:23
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-052
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.425 m / 21.08 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP052.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782062m E: 406140m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

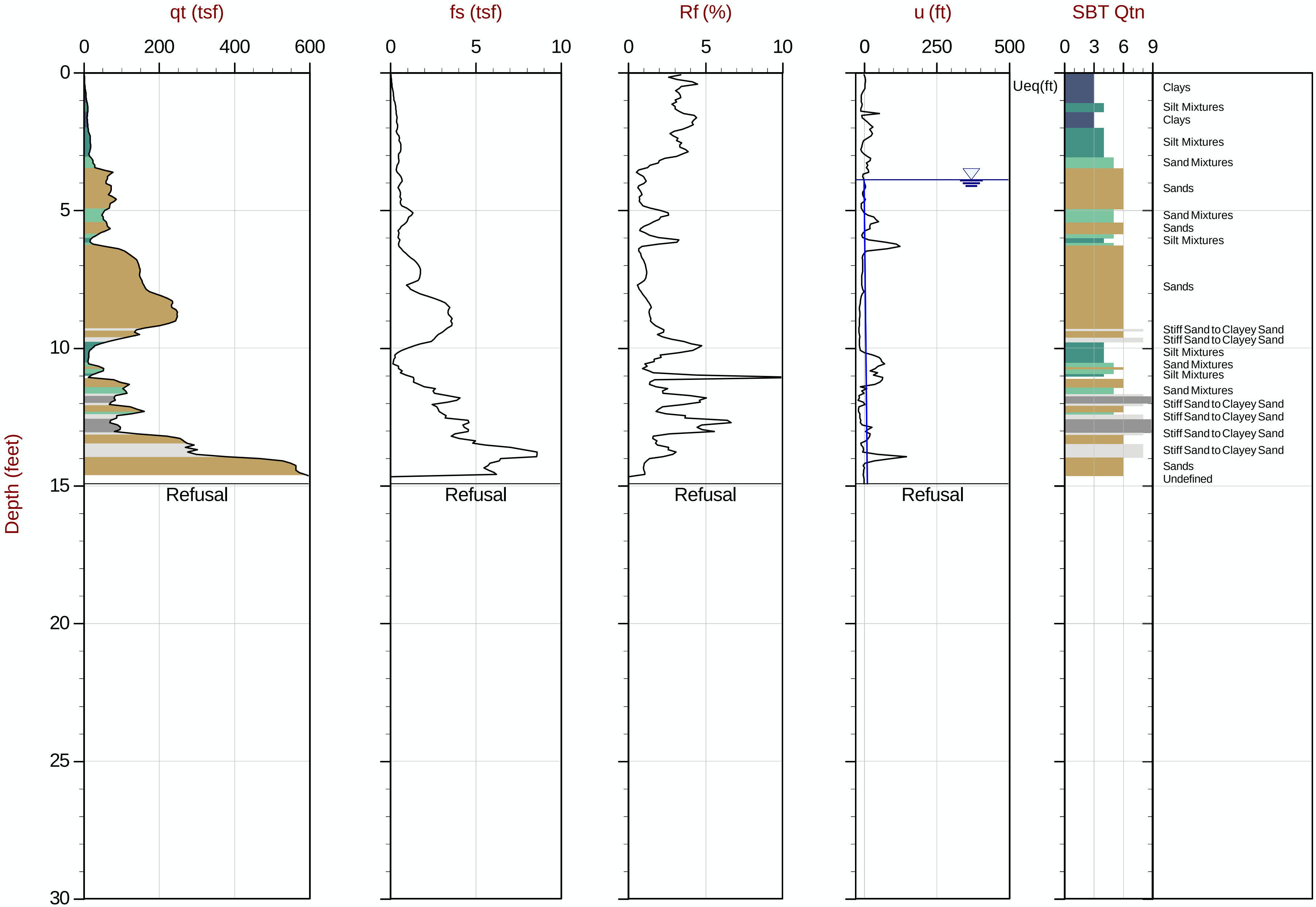
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 15:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-053
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_CP053.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782087m E: 405998m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

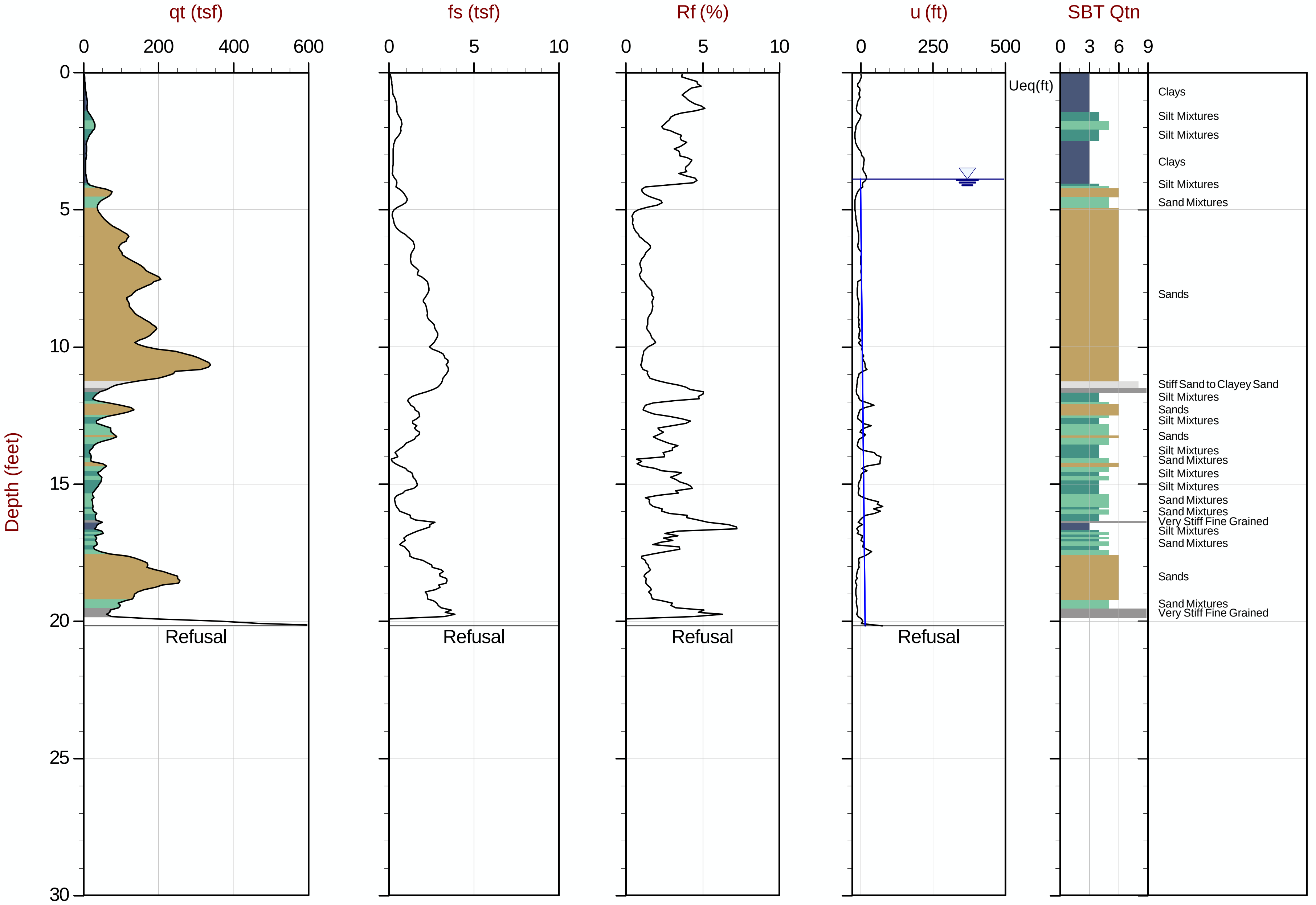
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 09:57
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-054
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.150 m / 20.18 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP054.COR
Unit Wt: SBTQtn (PKR2009)

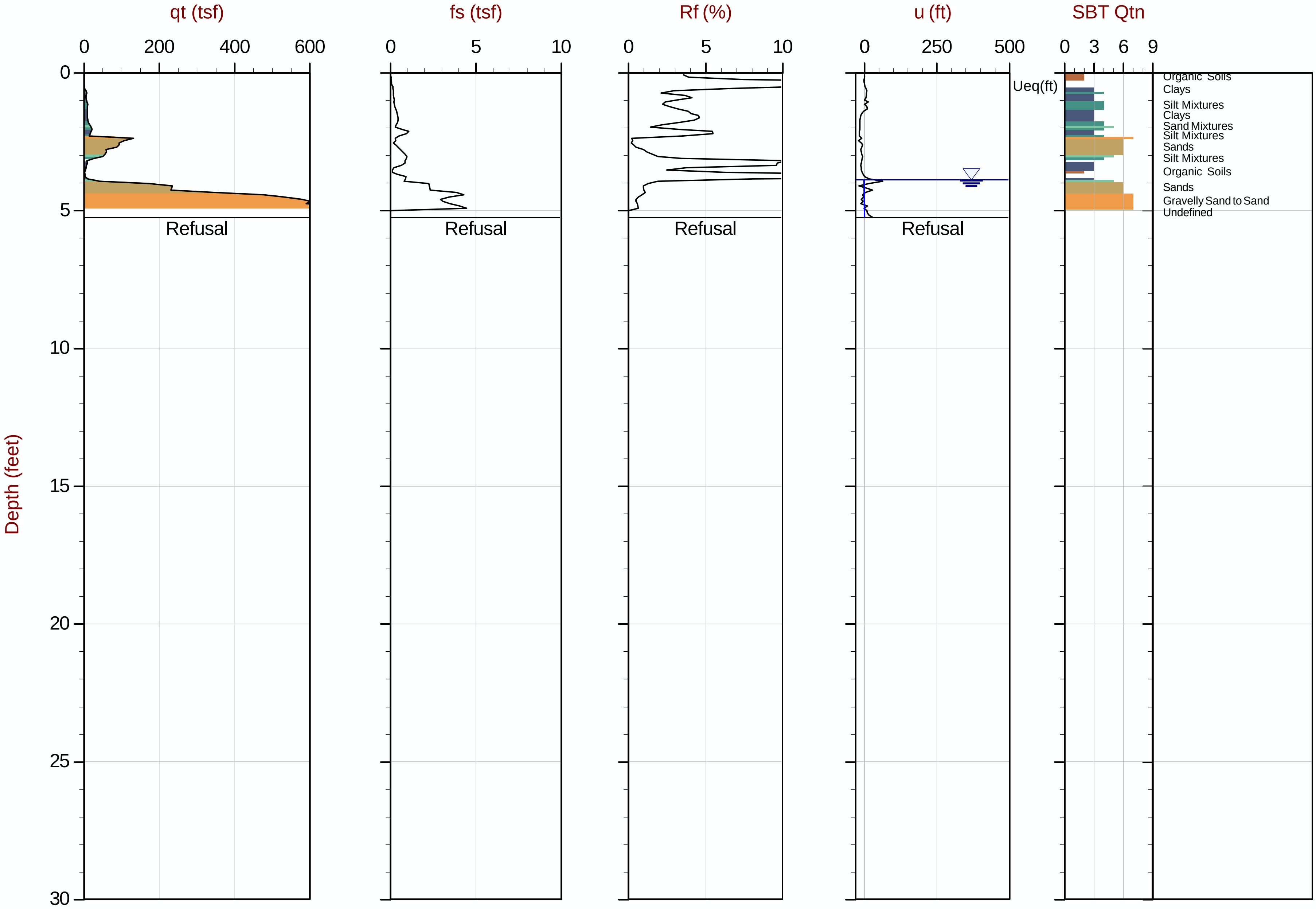
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4781950m E: 406216m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 13:57
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-055
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 1.600 m / 5.25 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP055.COR
Unit Wt: SBTQtn (PKR2009)

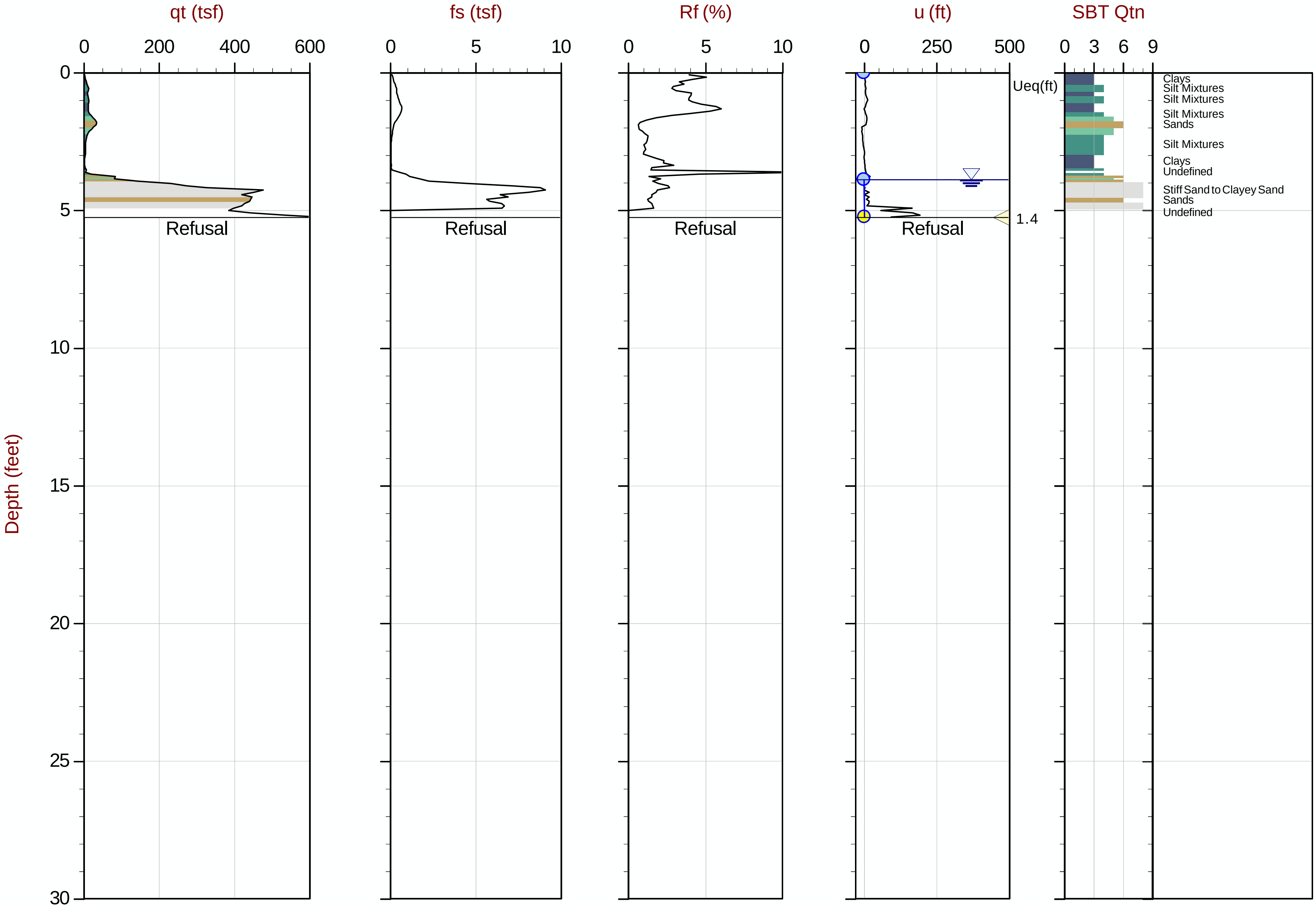
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782000m E: 405950m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:18
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-055B
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 1.600 m / 5.25 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP055B.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782003m E: 405955m

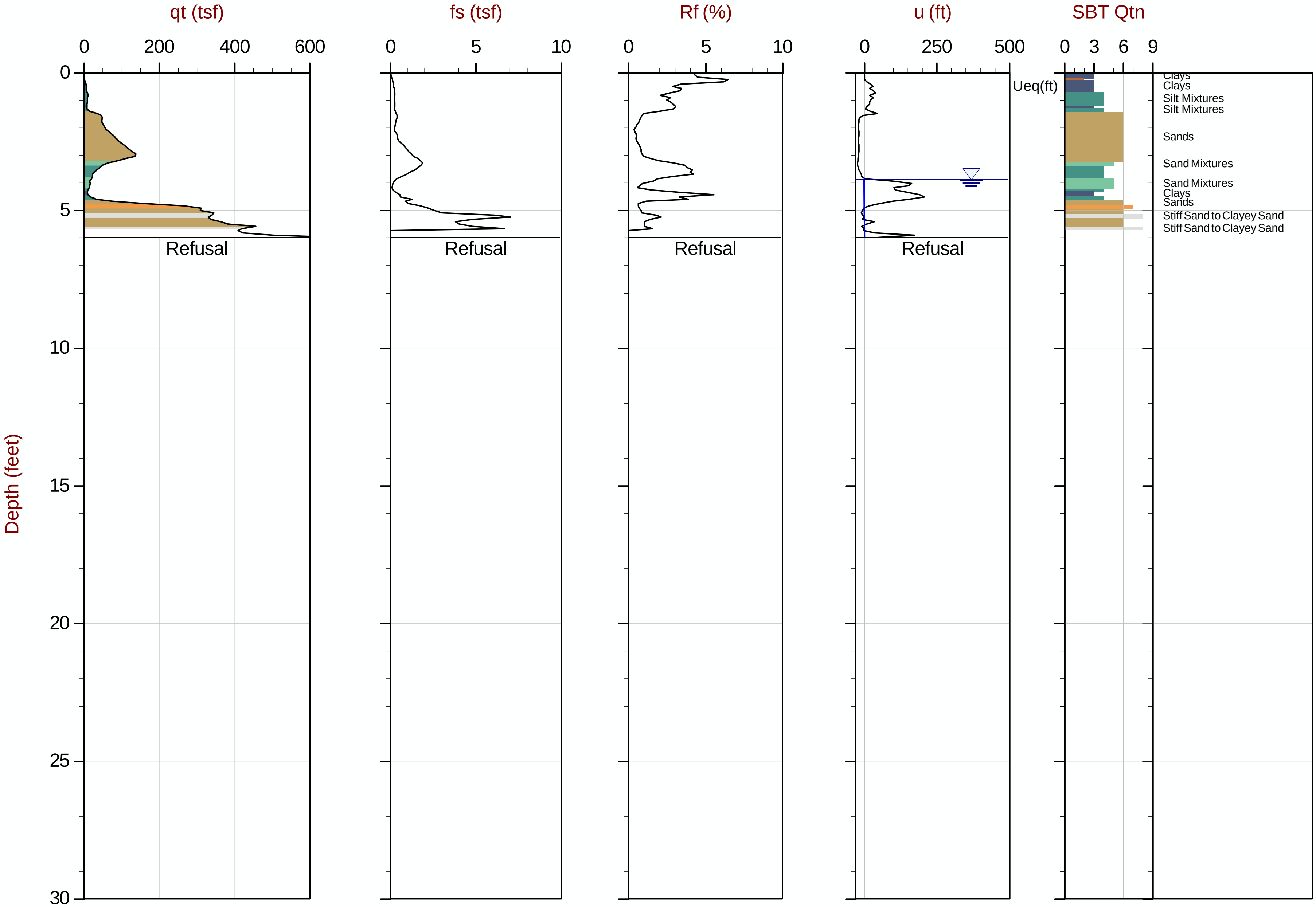
Overplot Item: 🟡 Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:47
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-055C
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 1.825 m / 5.99 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP055C.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4781999m E: 405964m

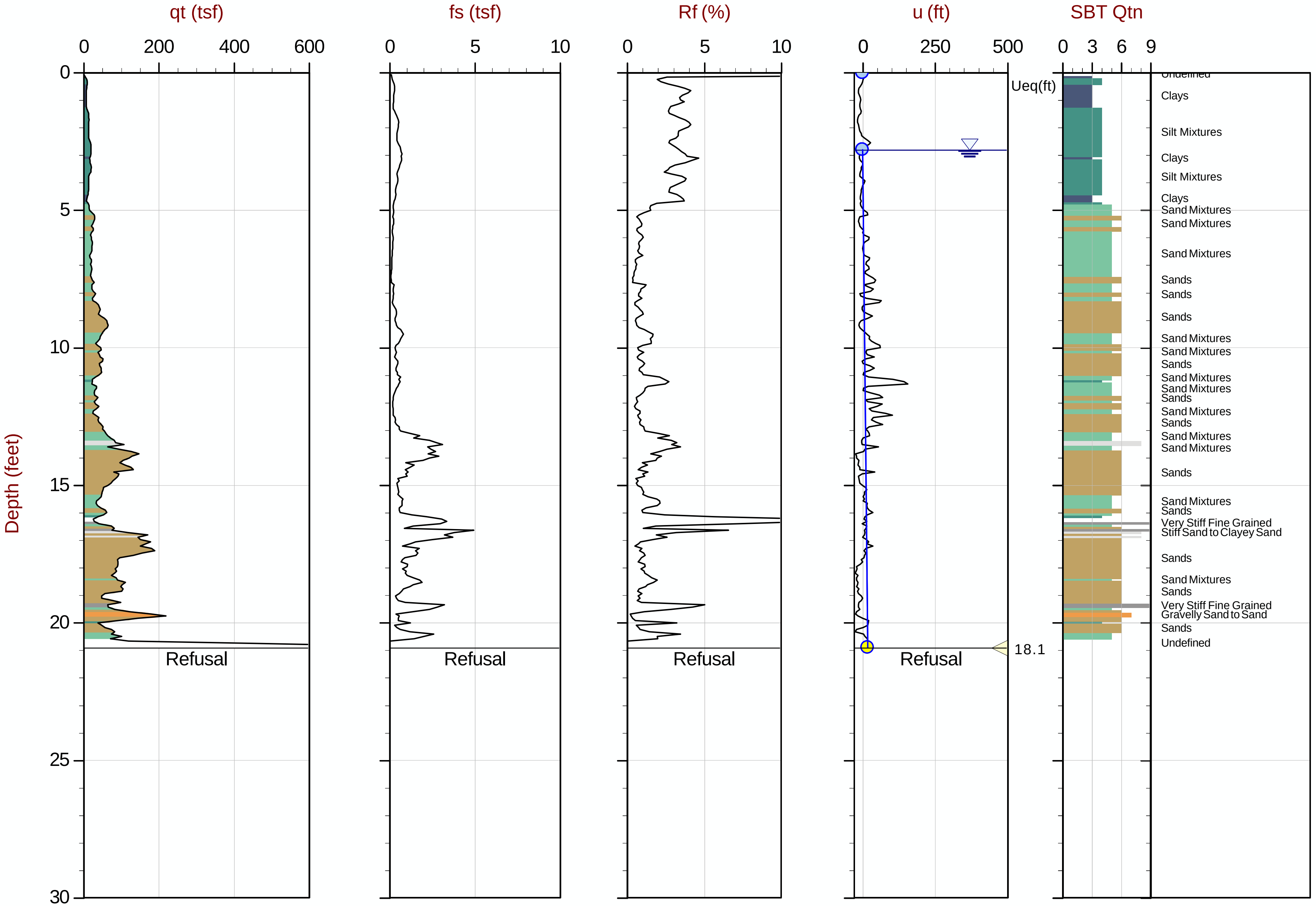
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 11:52
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-056
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.375 m / 20.92 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP056.COR
Unit Wt: SBTQtn (PKR2009)

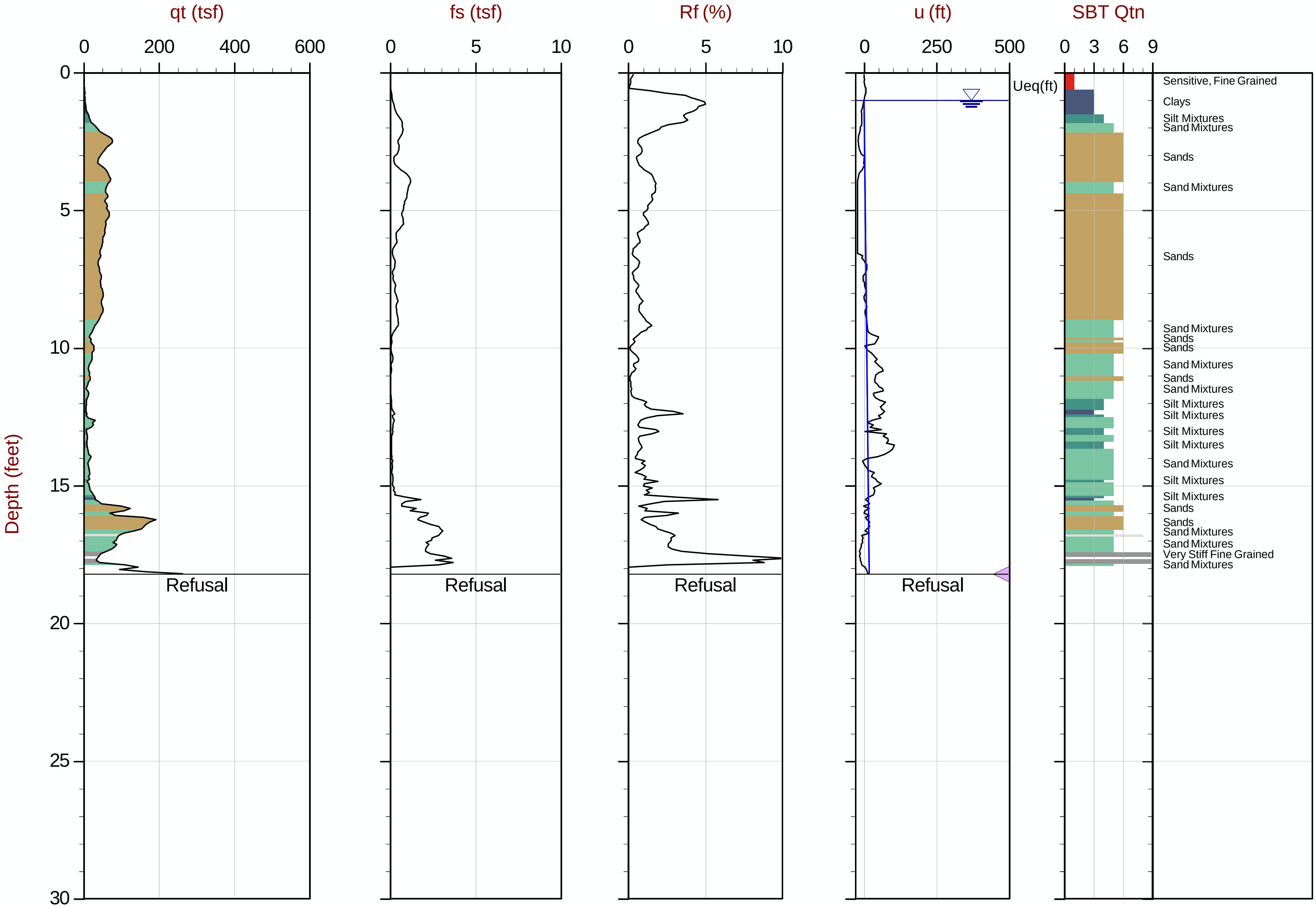
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783007m E: 406298m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 10:15
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-057
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_SP057.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783272m E: 405834m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

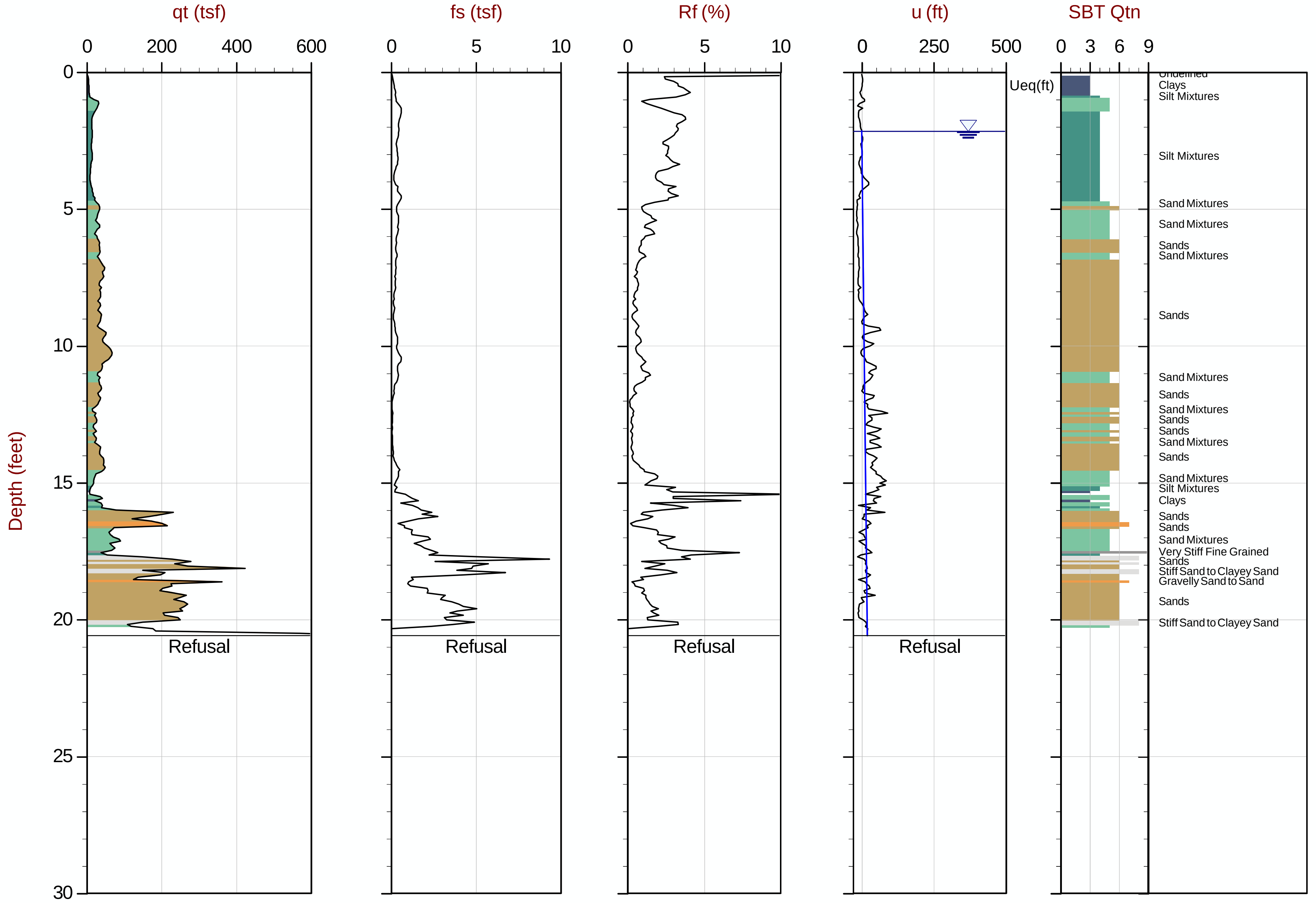
Job No: 25-53-29335

Date: 2025-04-10 09:51

Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-058

Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.275 m / 20.59 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP058.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783113m E: 406068m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

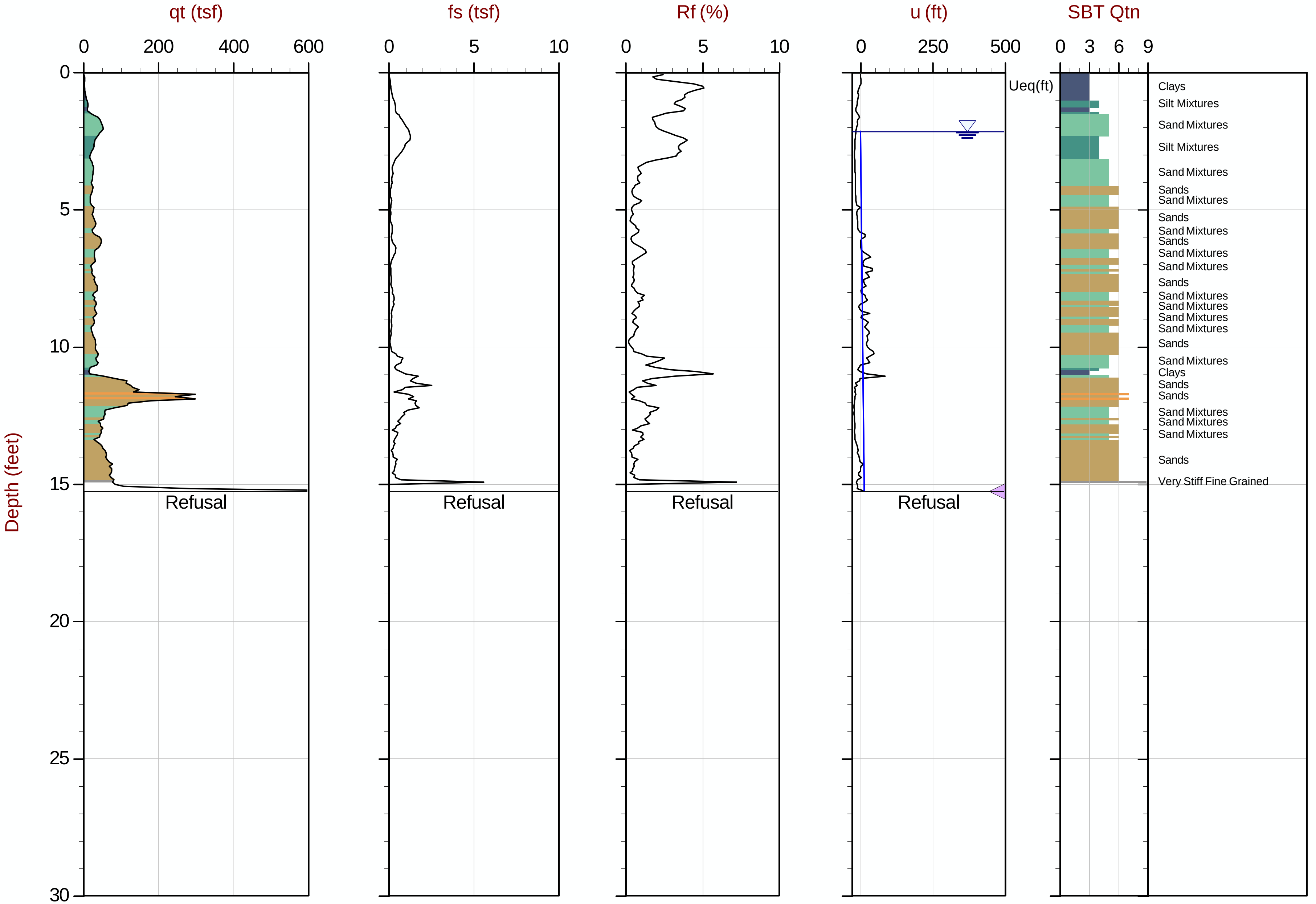
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 09:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-059
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.650 m / 15.26 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP059.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783154m E: 406178m

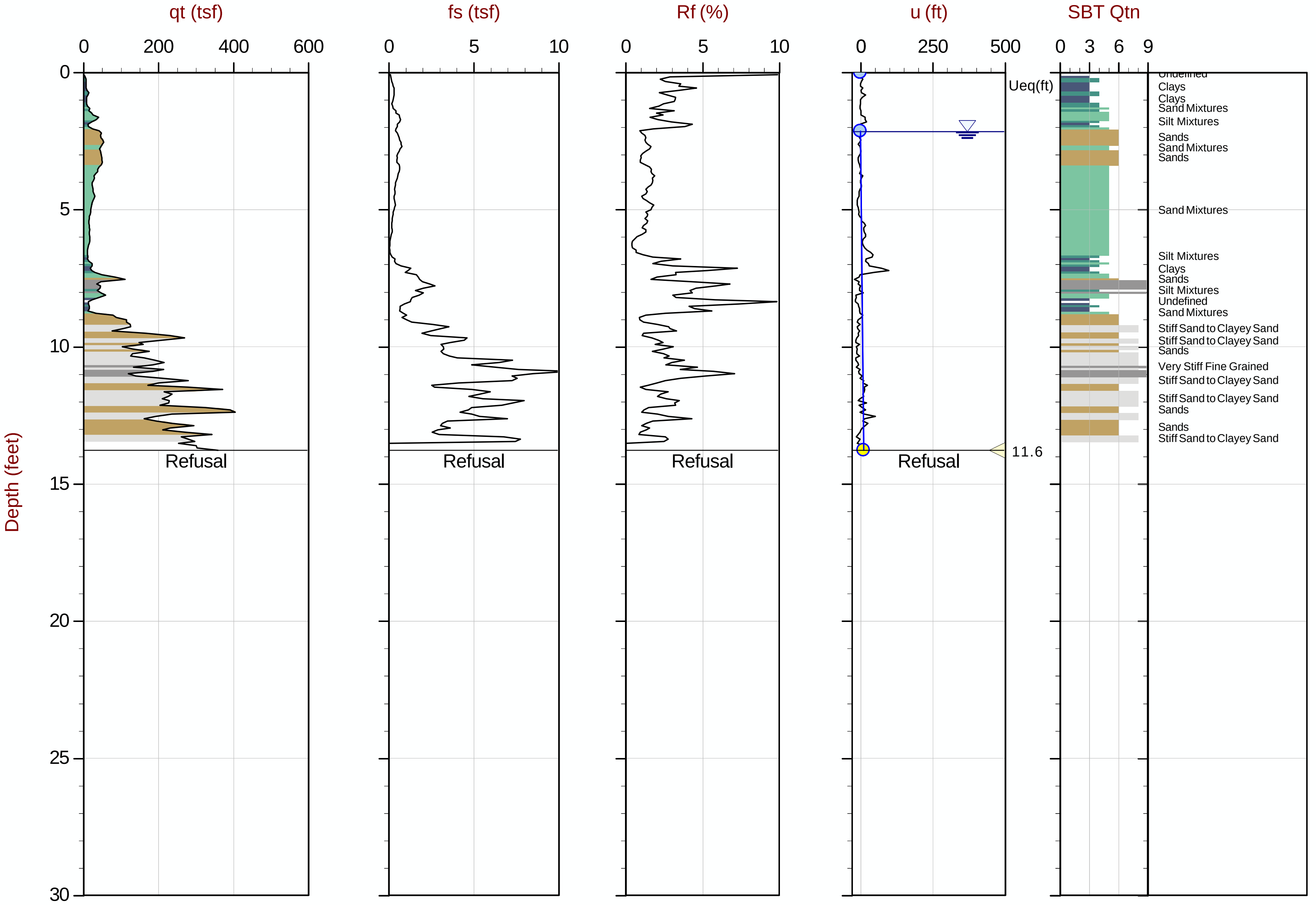
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 10:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-060
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.200 m / 13.78 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP060.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783000m E: 406102m

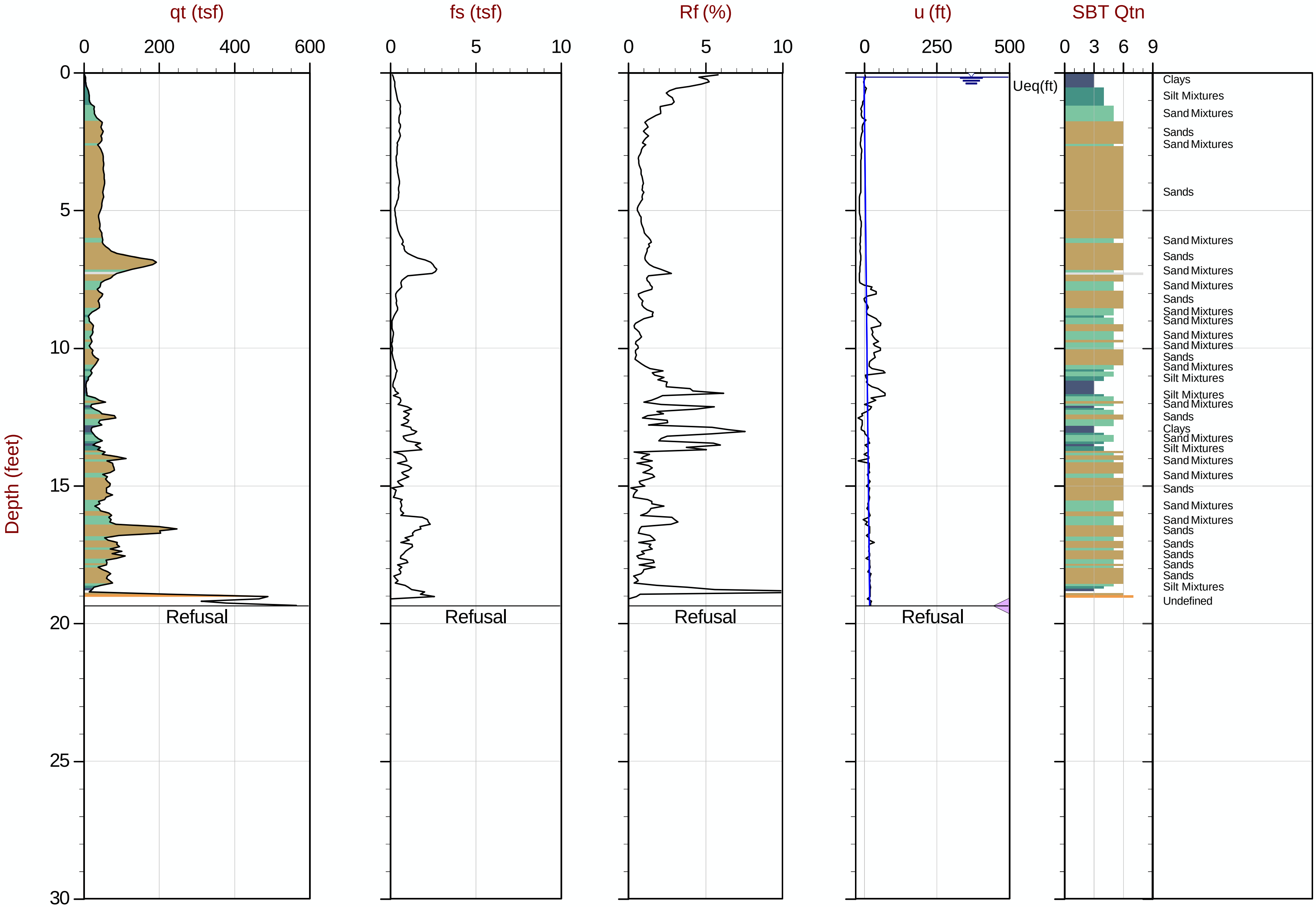
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 08:27
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-061
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_SP061.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782831m E: 405944m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

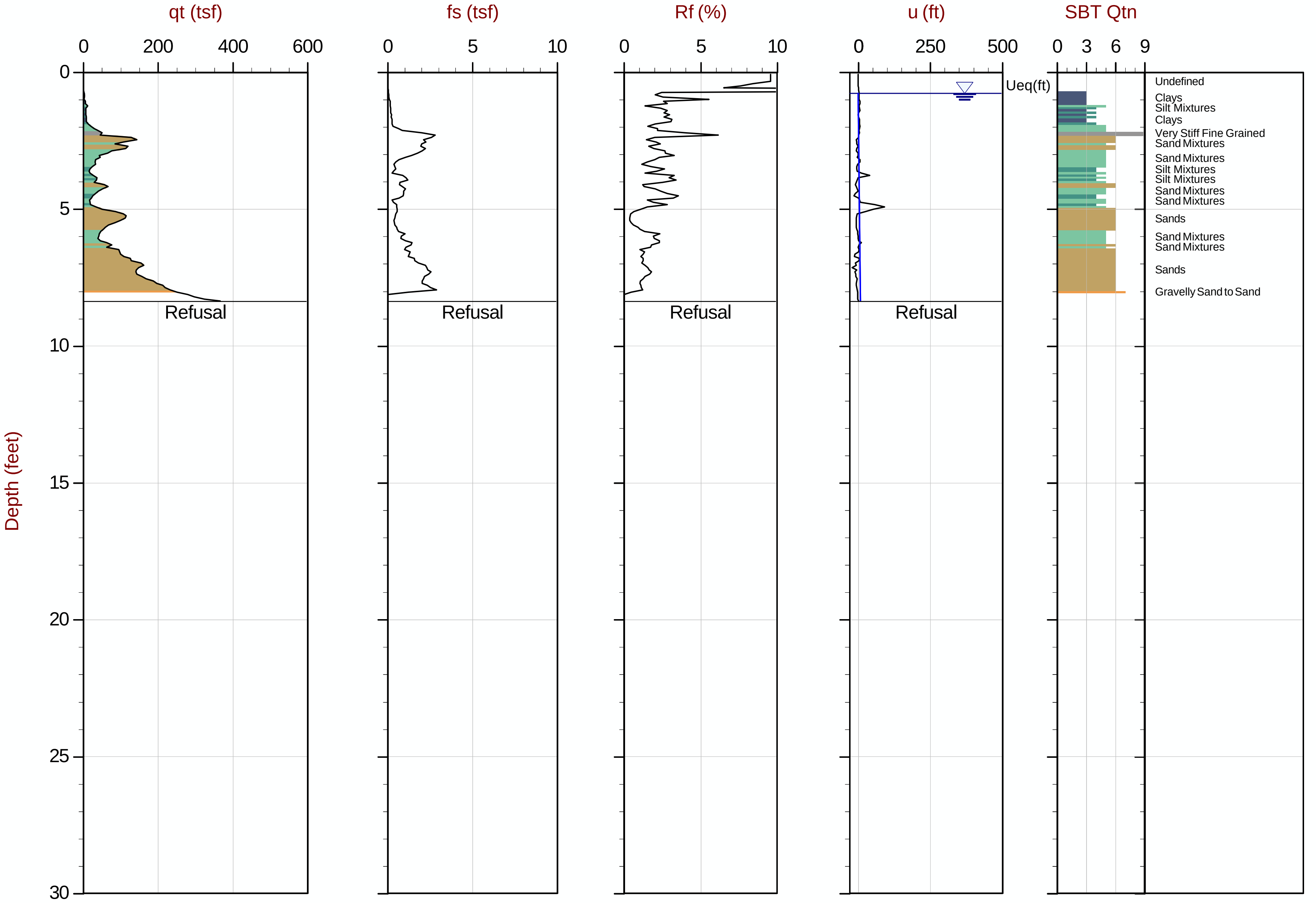
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 14:39
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-062
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 2.550 m / 8.37 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP062.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782407m E: 405589m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

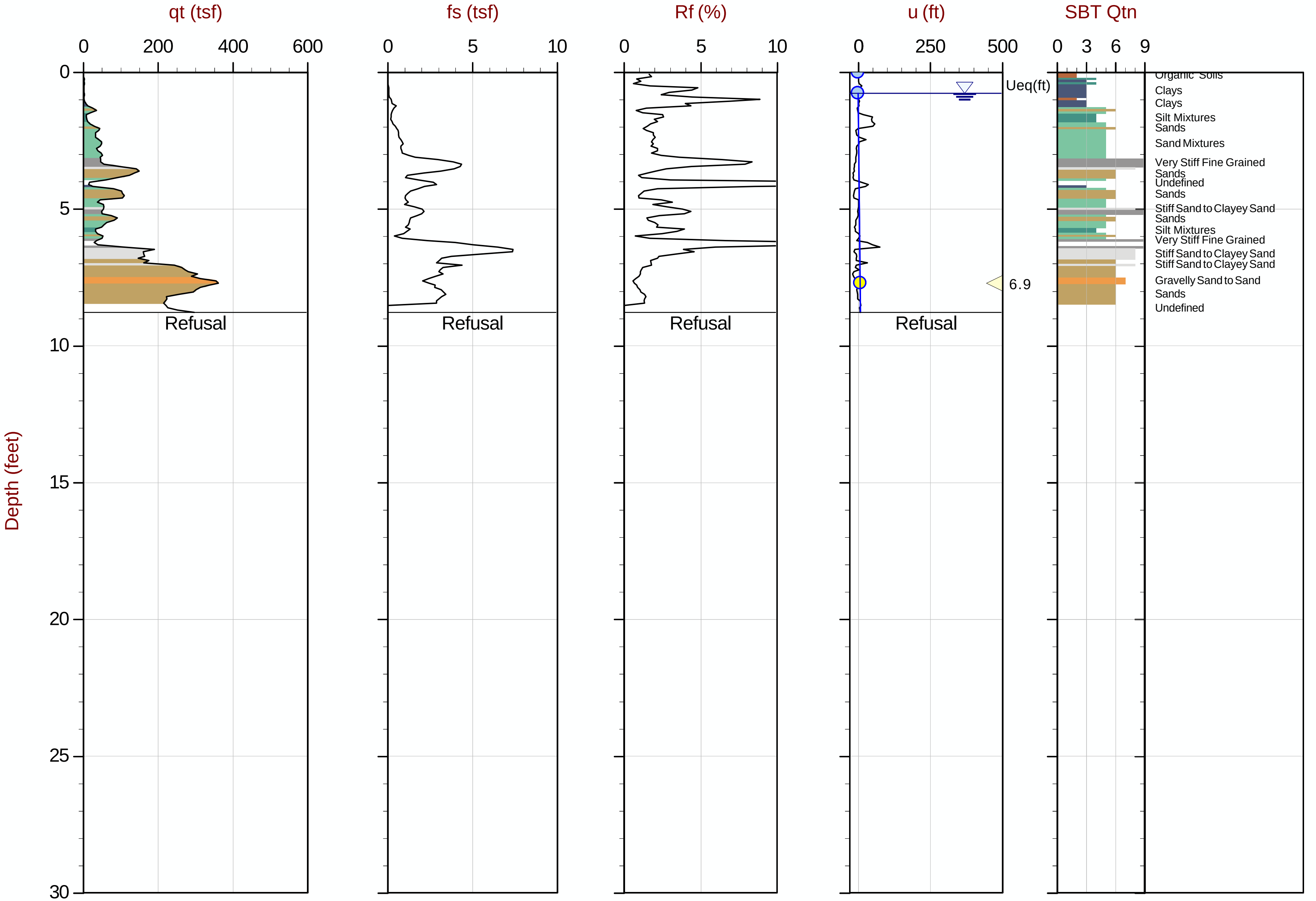
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 15:11
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-062B
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 2.675 m / 8.78 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP062B.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782414m E: 405595m

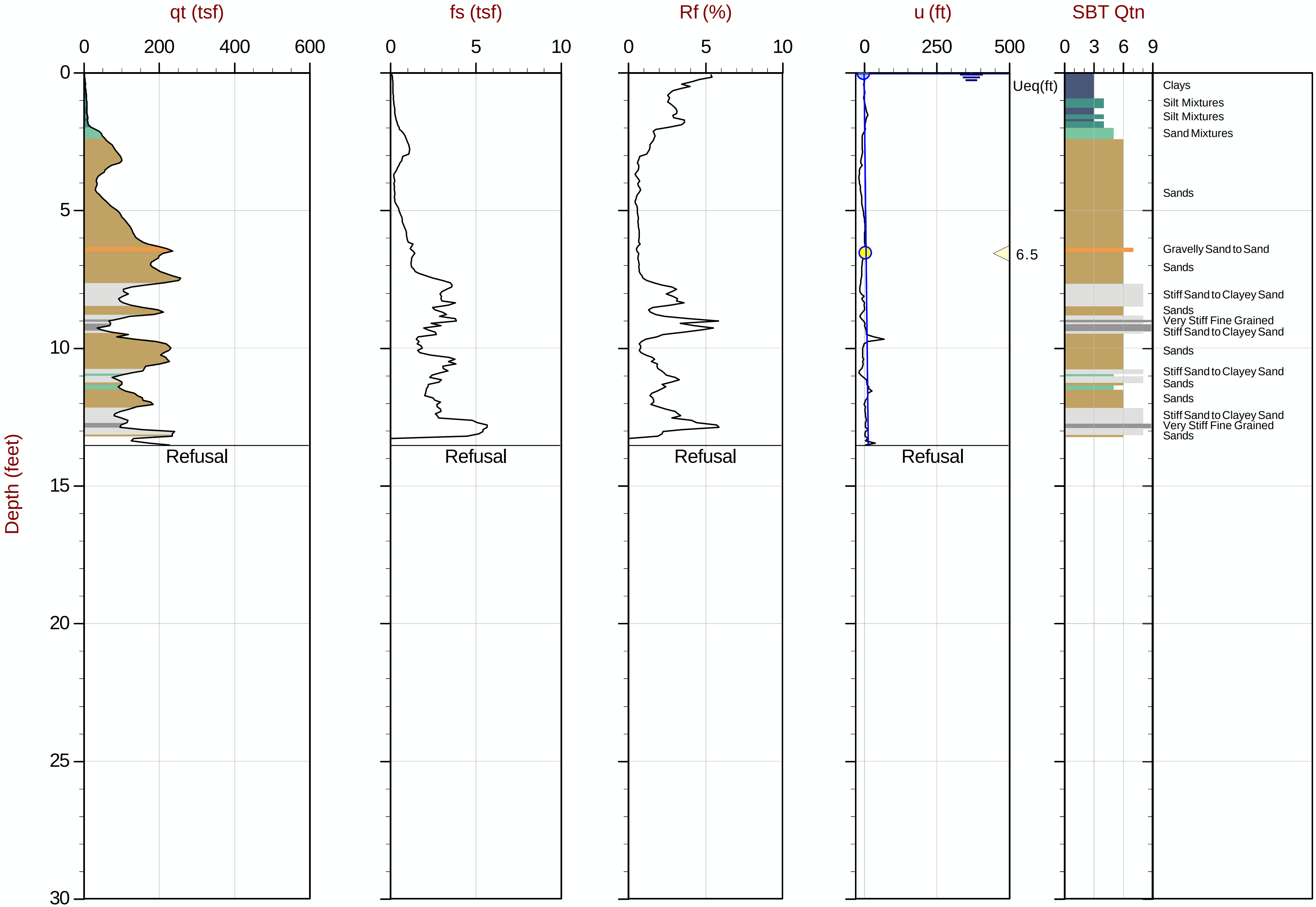
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 13:13
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-063
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_SP063.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782384m E: 405728m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

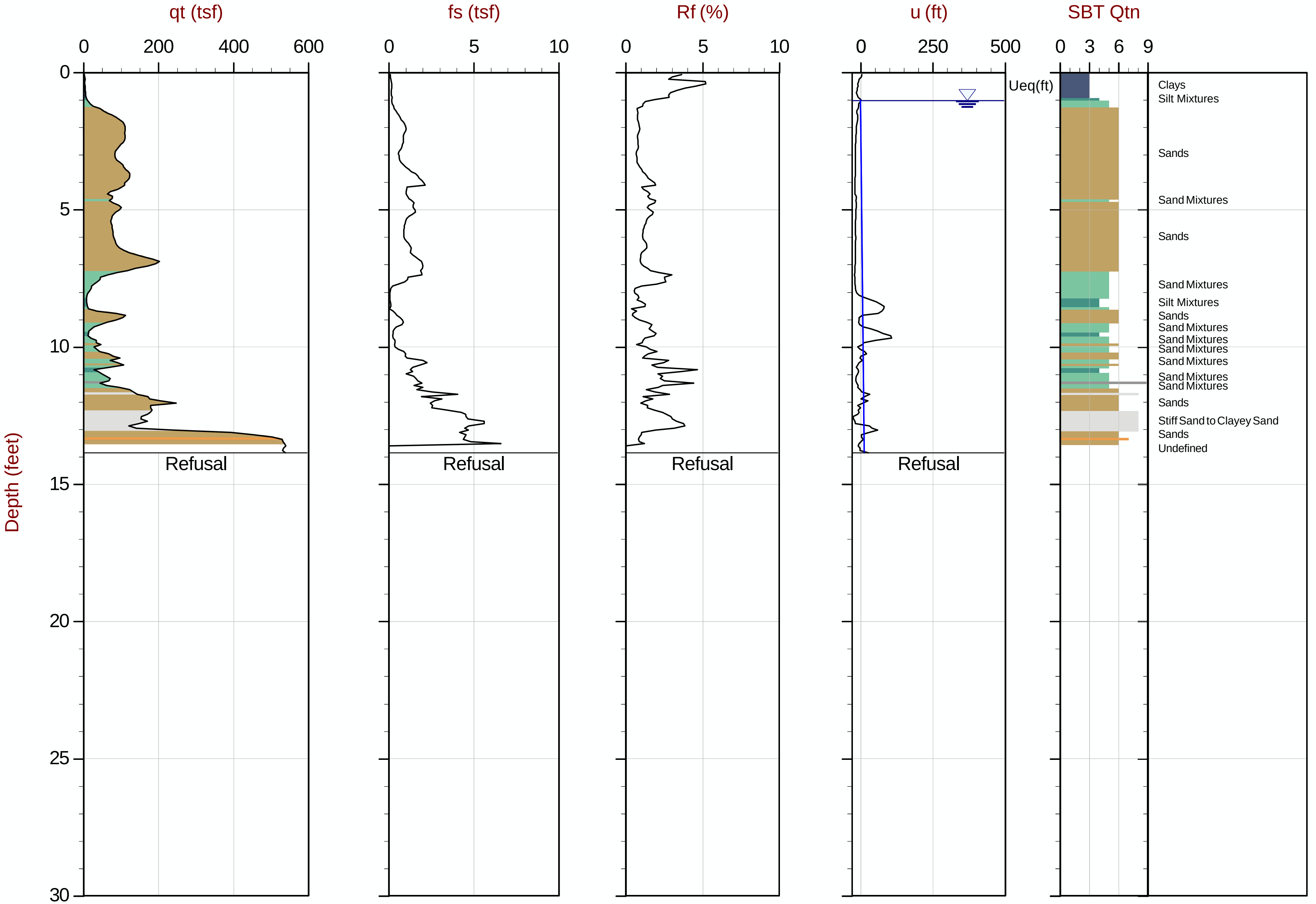
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 13:28
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-064
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.225 m / 13.86 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP064.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782282m E: 405916m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

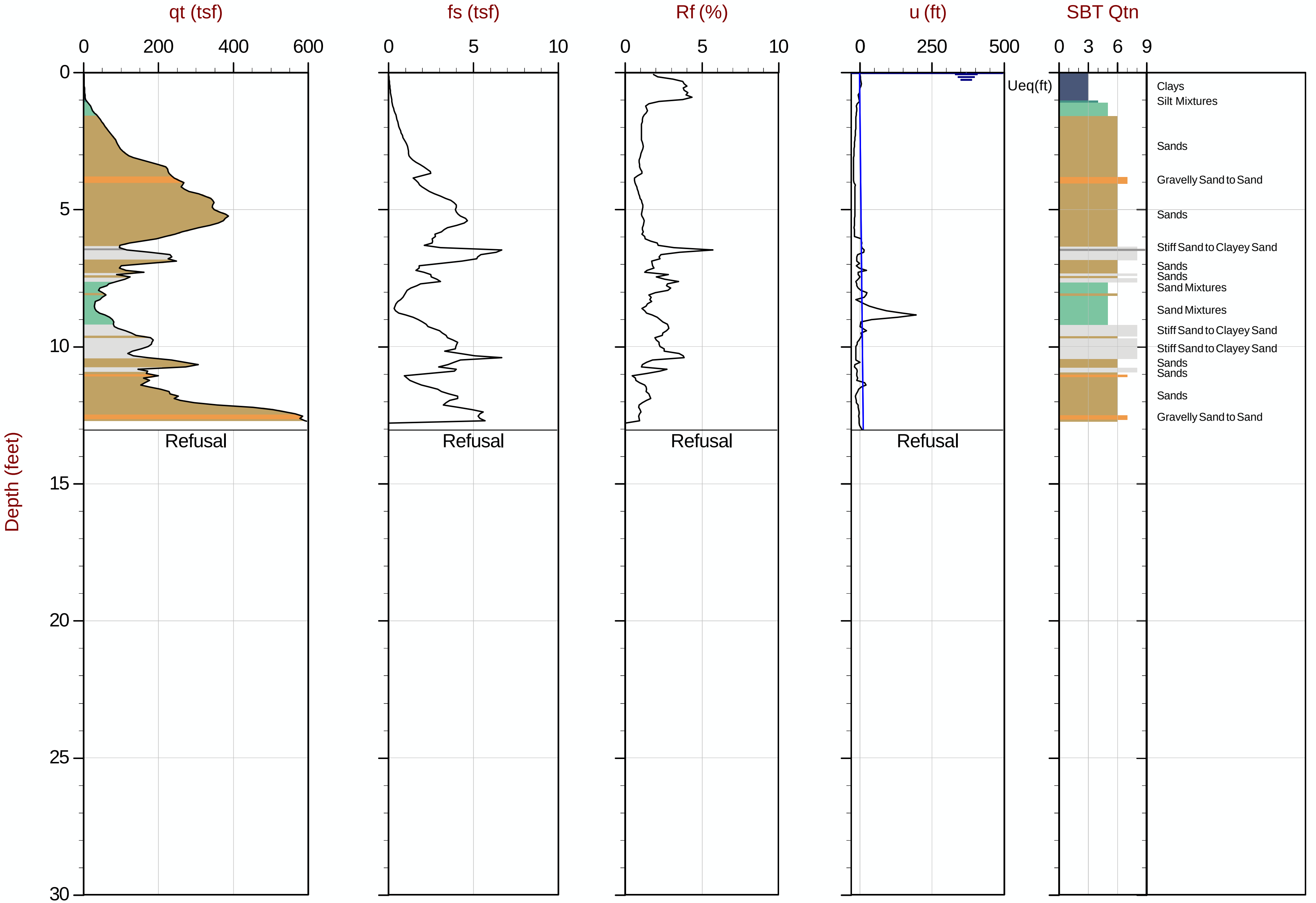
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 15:34
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-065
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 3.975 m / 13.04 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP065.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782319m E: 405711m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

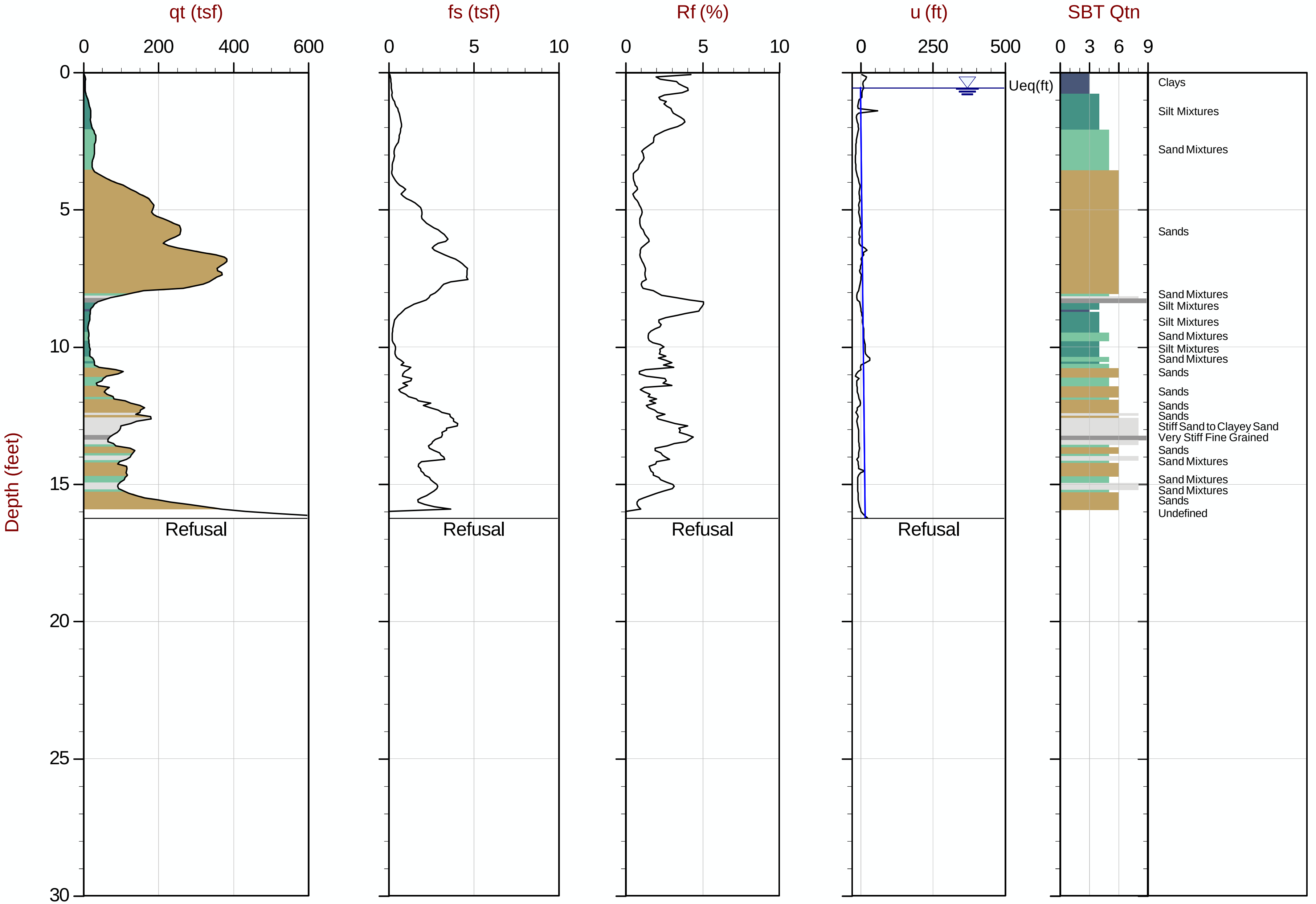
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 14:06
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-066
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.950 m / 16.24 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP066.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782274m E: 405827m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

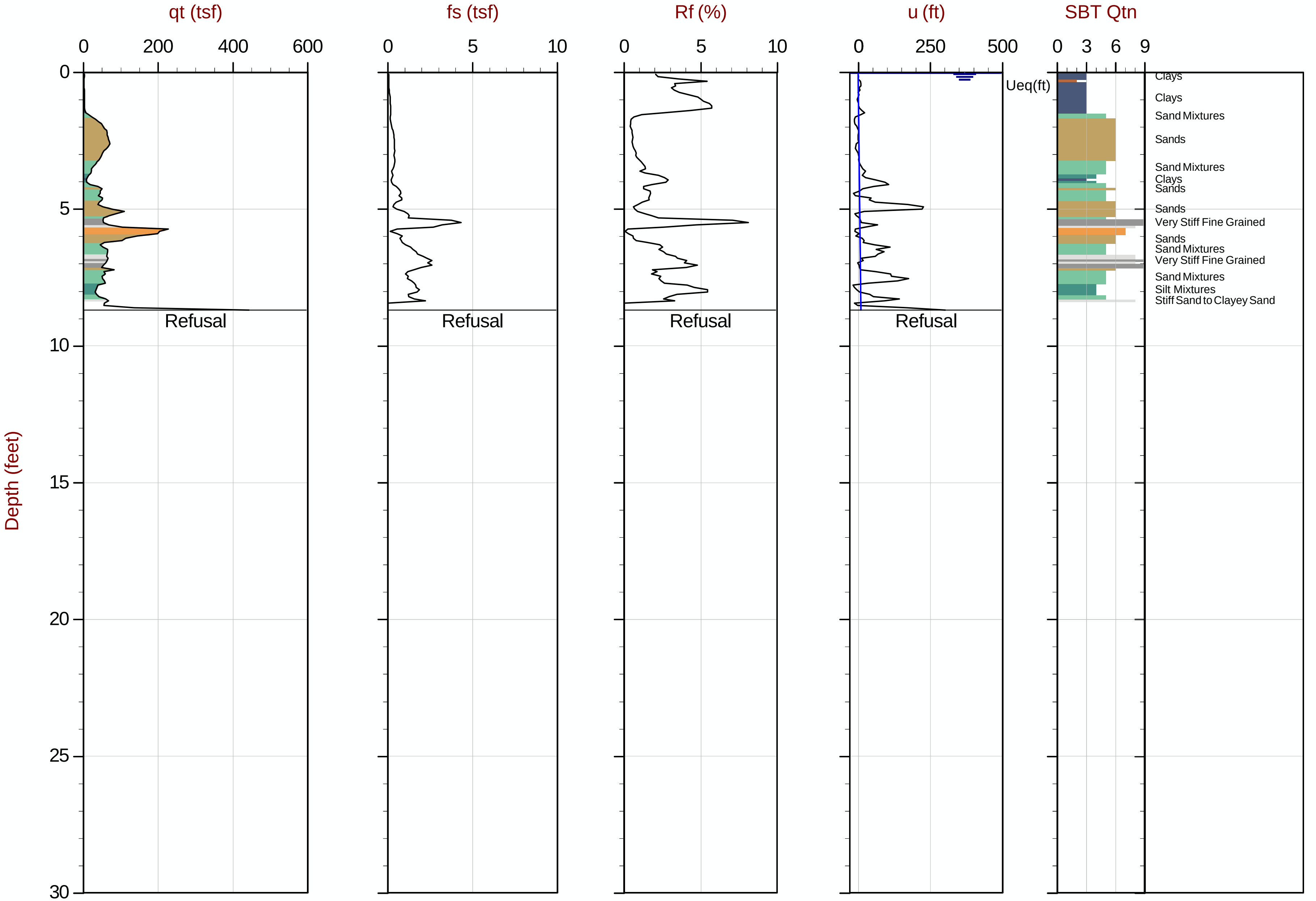
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 11:54
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-067
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 2.650 m / 8.69 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP067.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782263m E: 405669m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

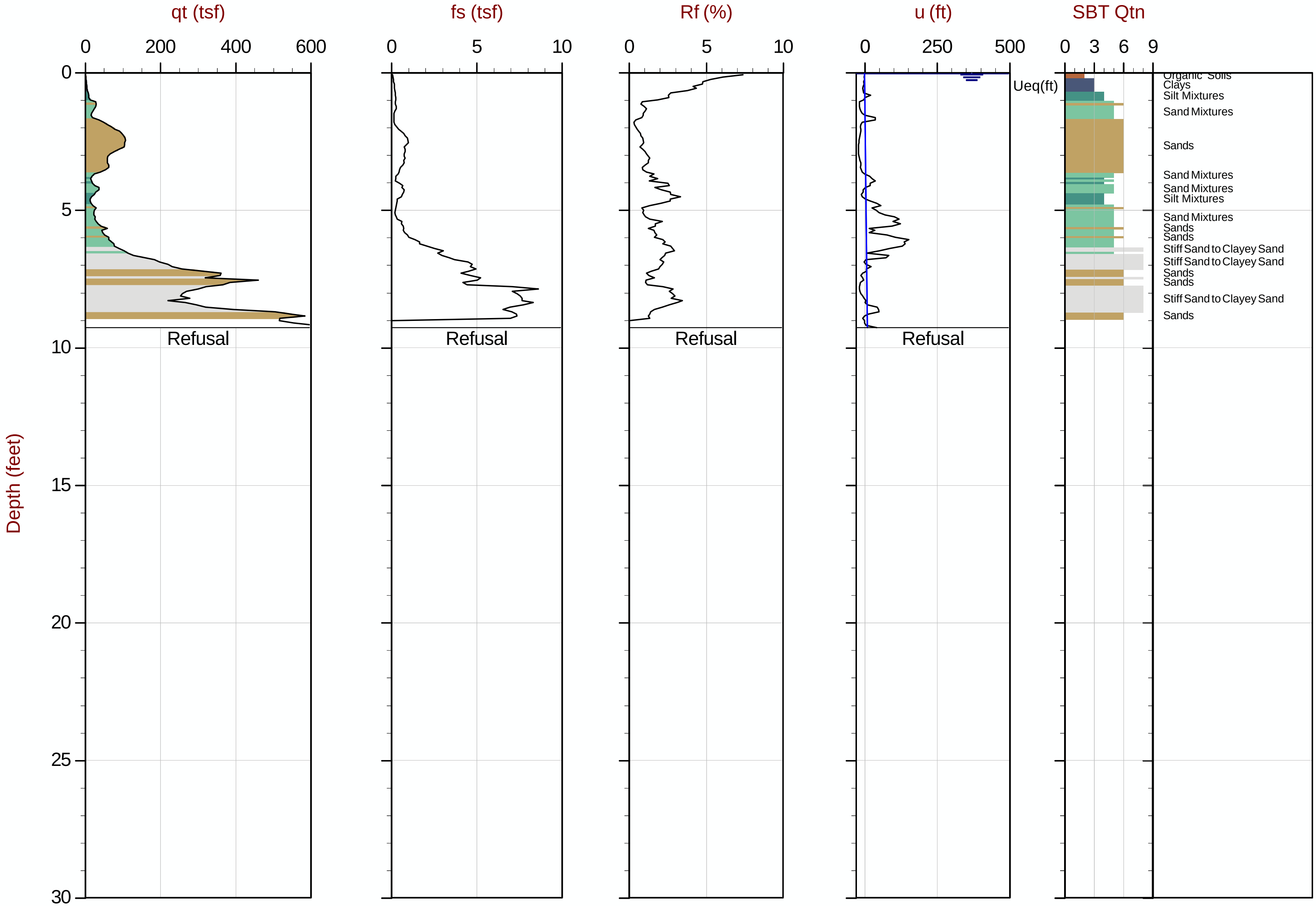
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 14:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-068
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 2.825 m / 9.27 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP068.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782181m E: 405773m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

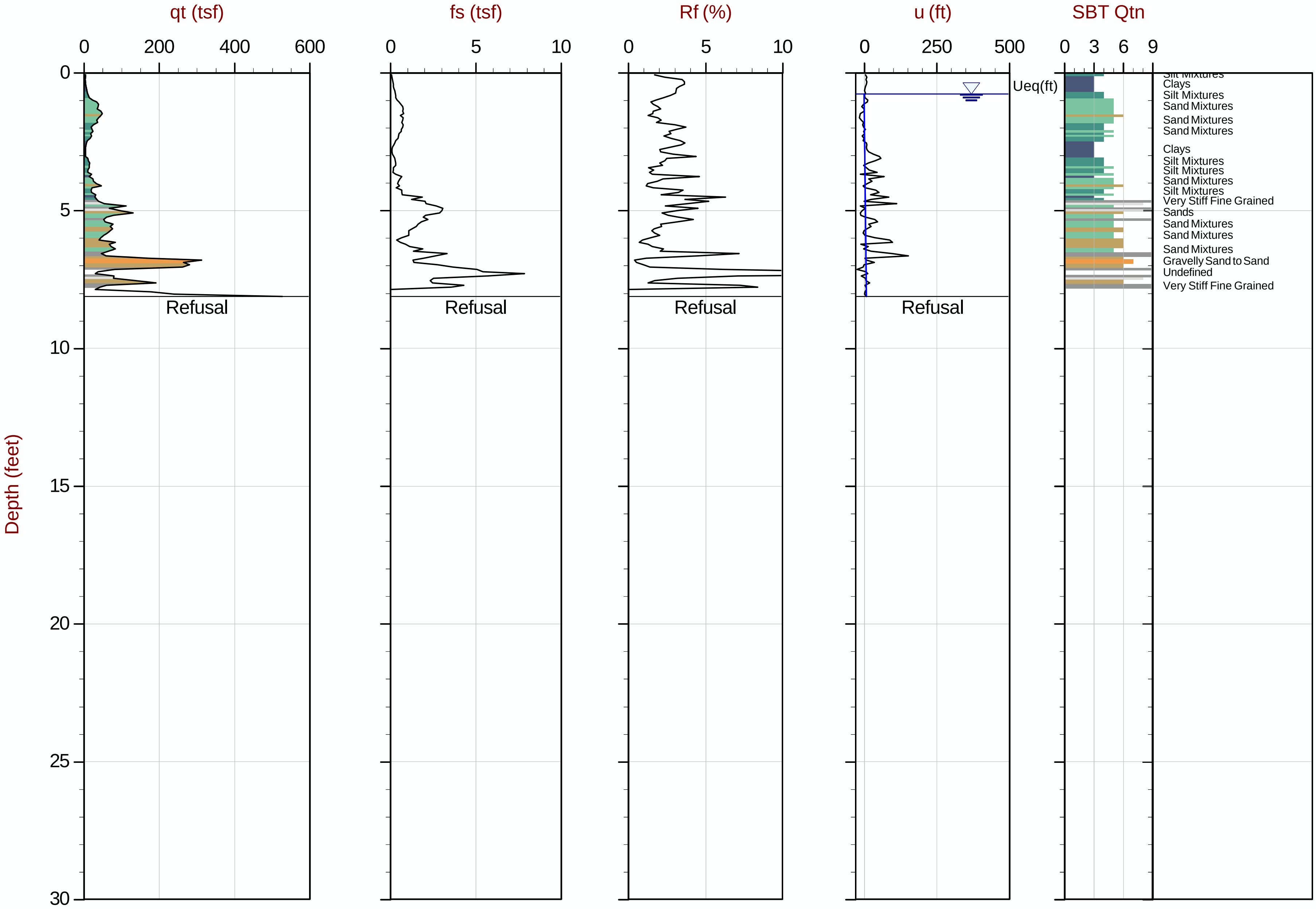
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 11:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-069
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 2.475 m / 8.12 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP069.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782174m E: 405311m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

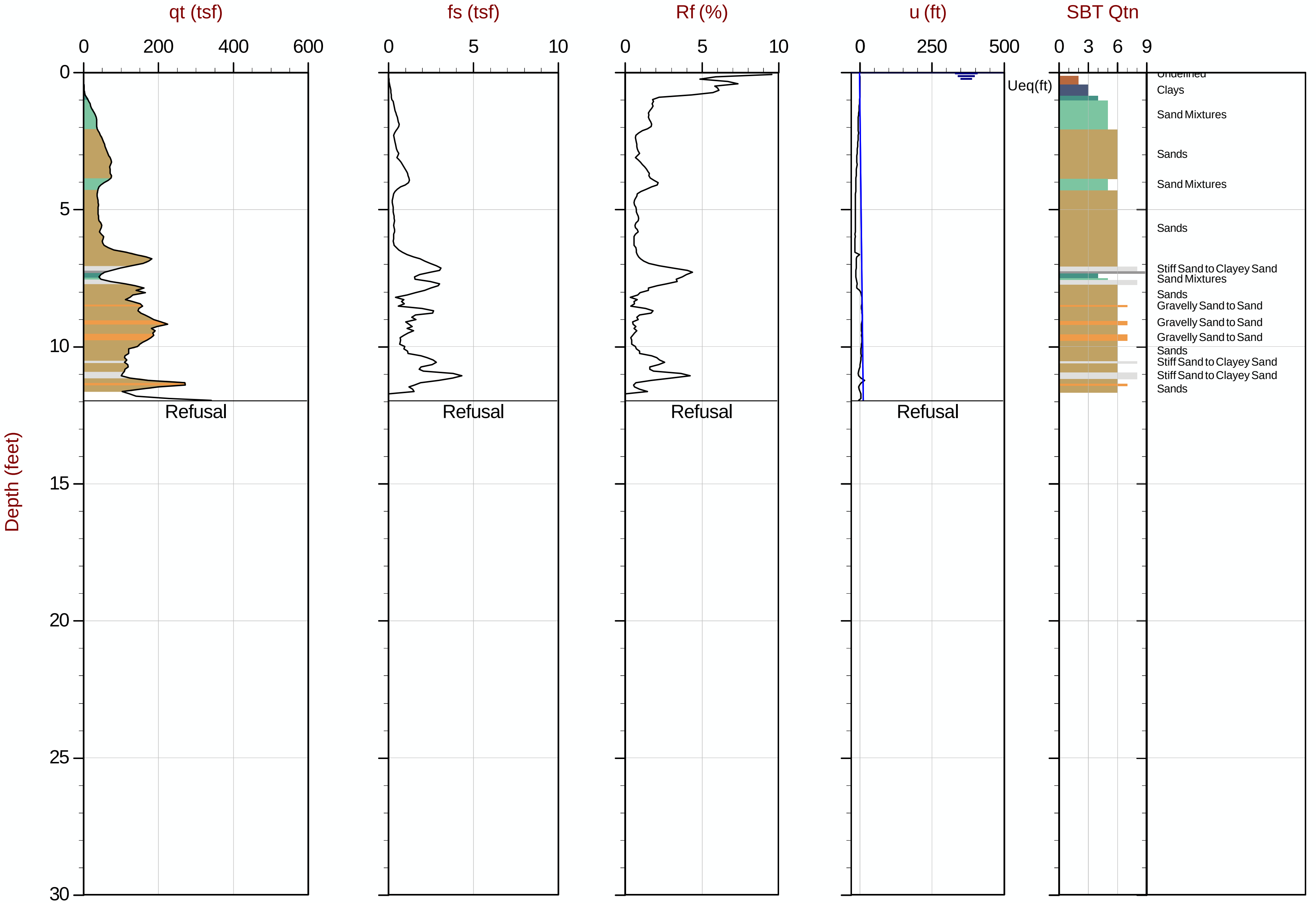
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 11:36
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-070
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 3.650 m / 11.97 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP070.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782933m E: 405543m

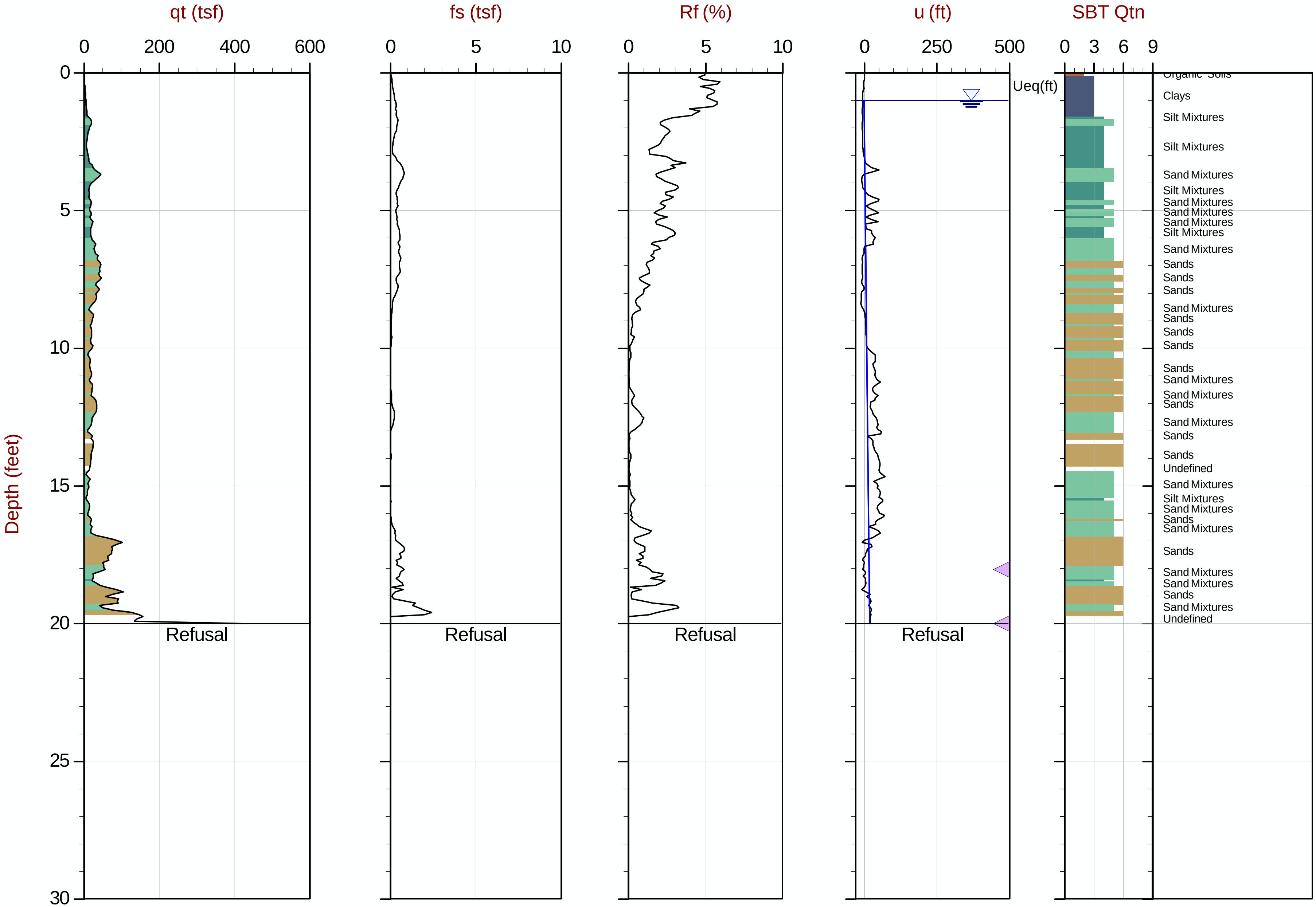
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 10:22
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-071
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_SP071.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783346m E: 405870m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

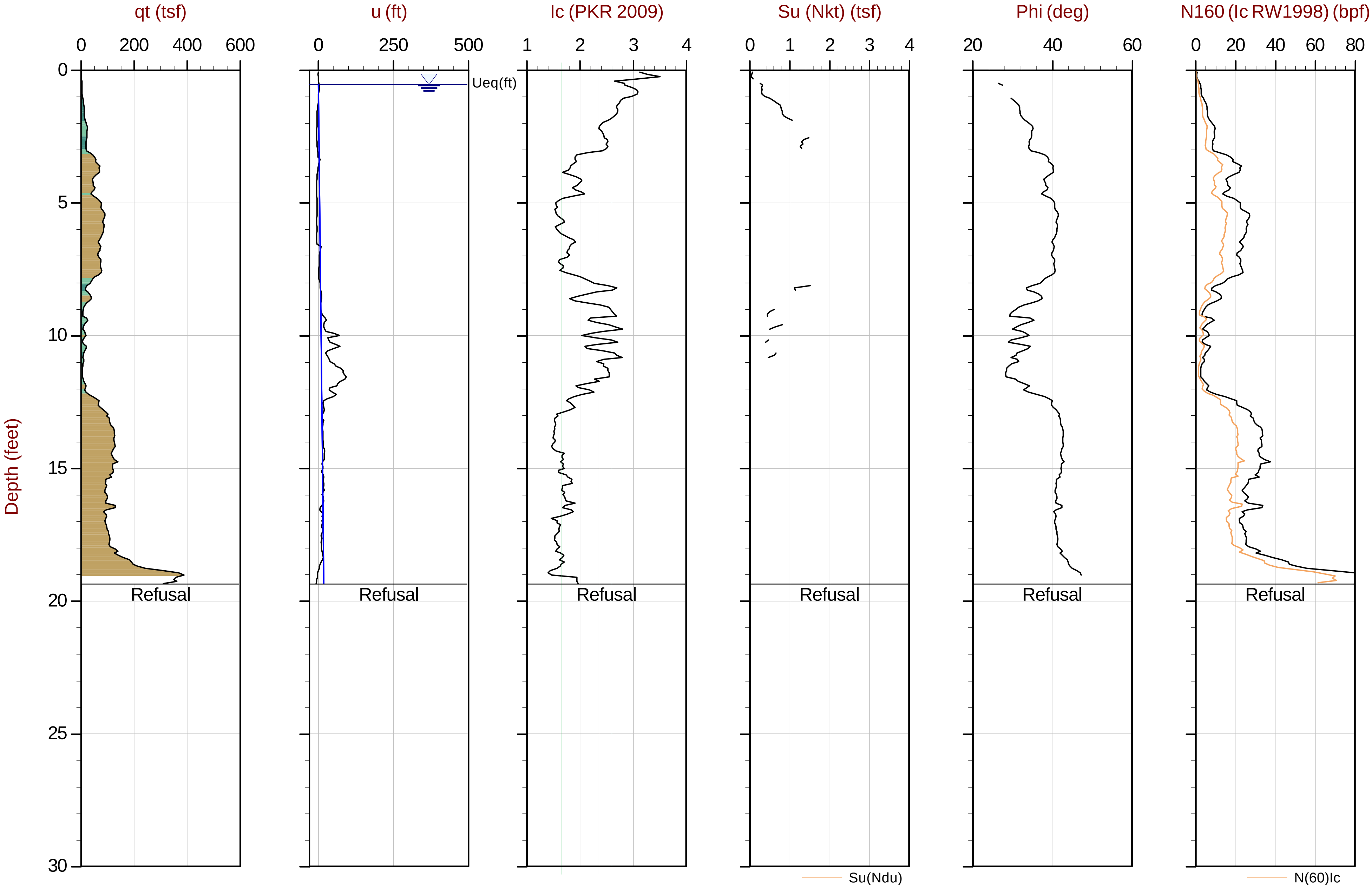
Advanced Cone Penetration Test Plots with Ic, Su(Nkt), Phi, and N1(60)Ic

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 15:46
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-001
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_CP001.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783841m E: 405401m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

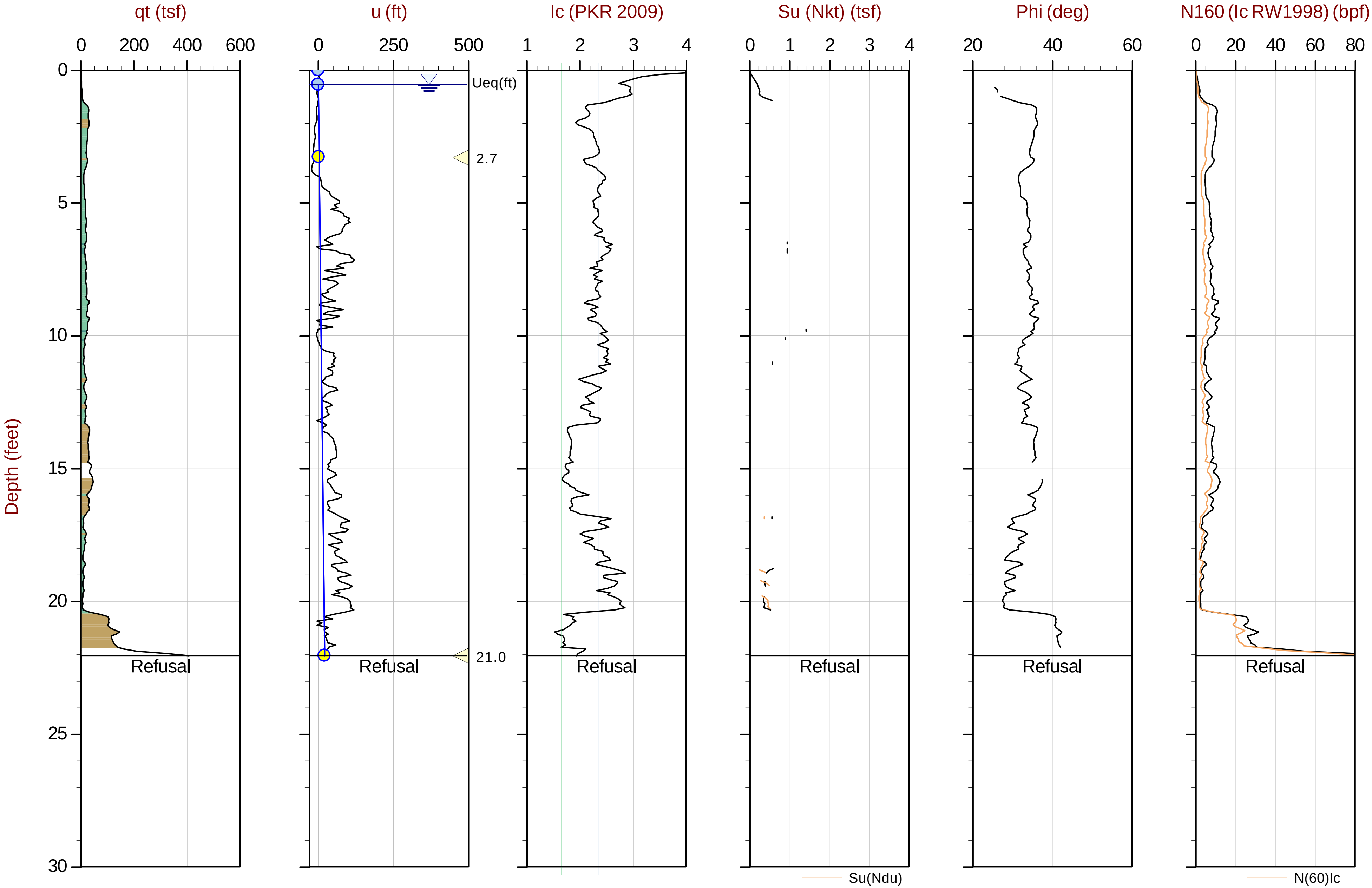
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 12:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT-002
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.725 m / 22.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP002.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783840m E: 405499m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

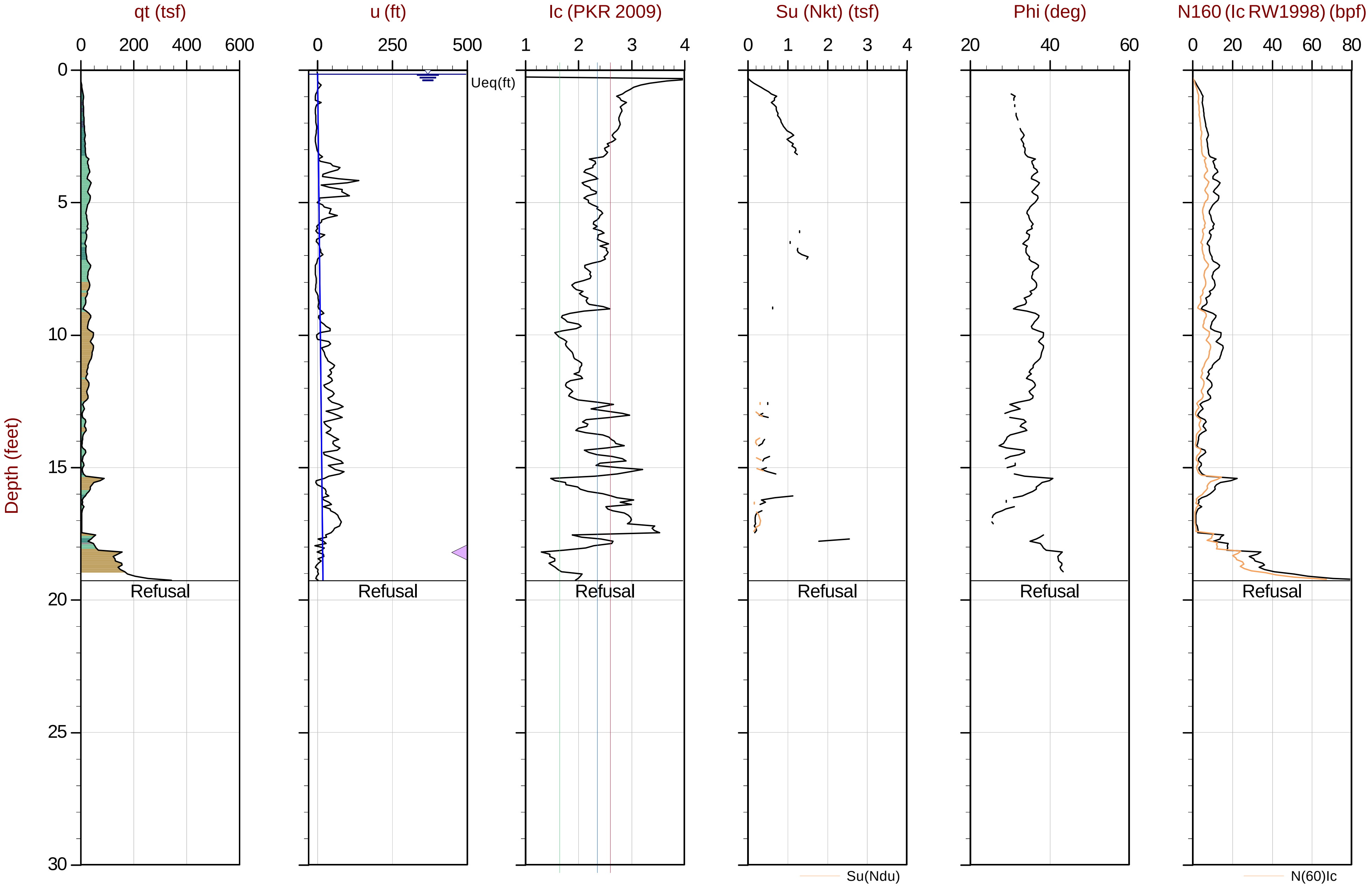
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 11:40
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-003
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 5.875 m / 19.27 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

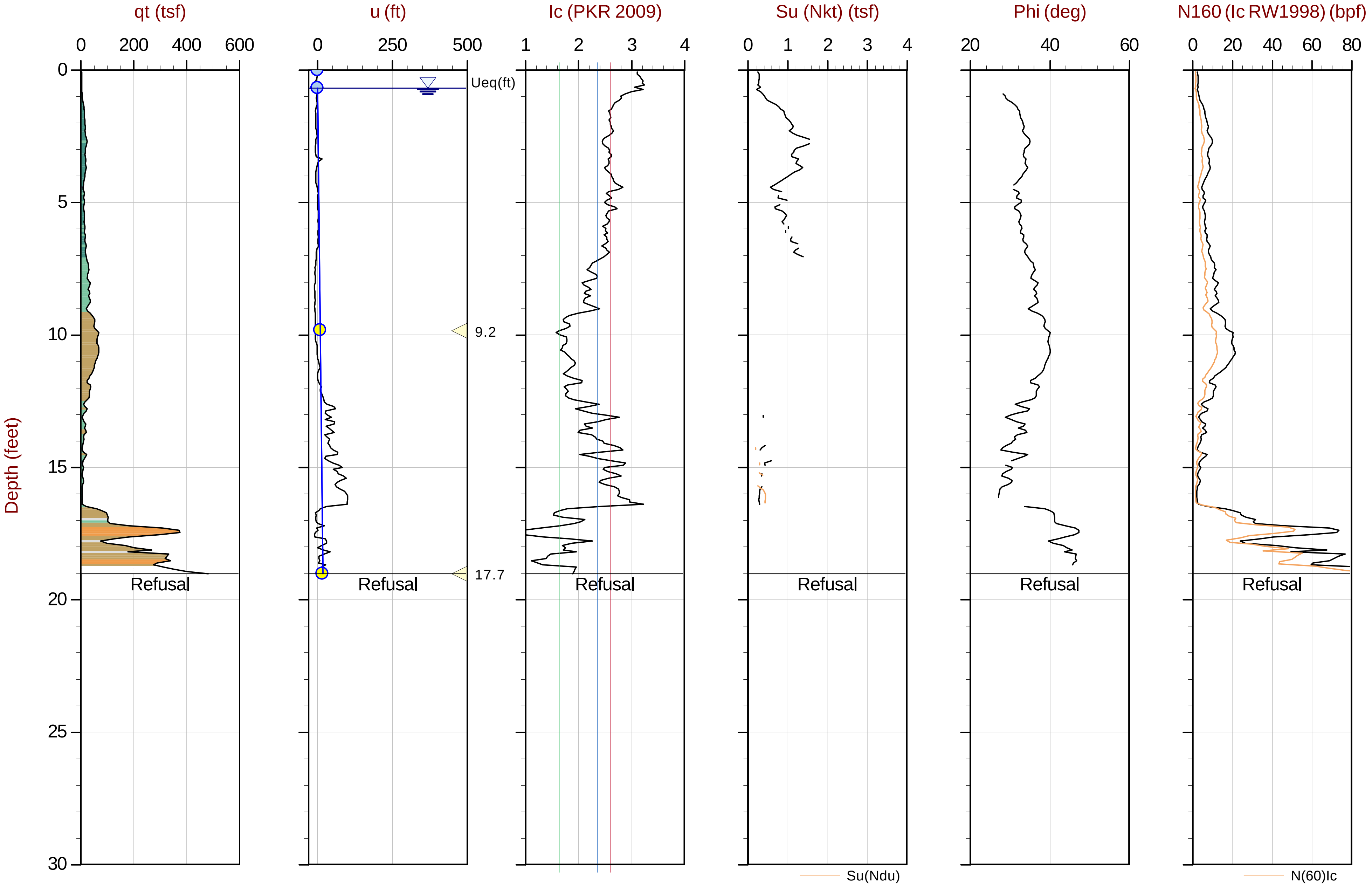
File: 25-53-29335_CP003.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783778m E: 405625m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 11:57
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-004
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 5.800 m / 19.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP004.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783781m E: 405444m

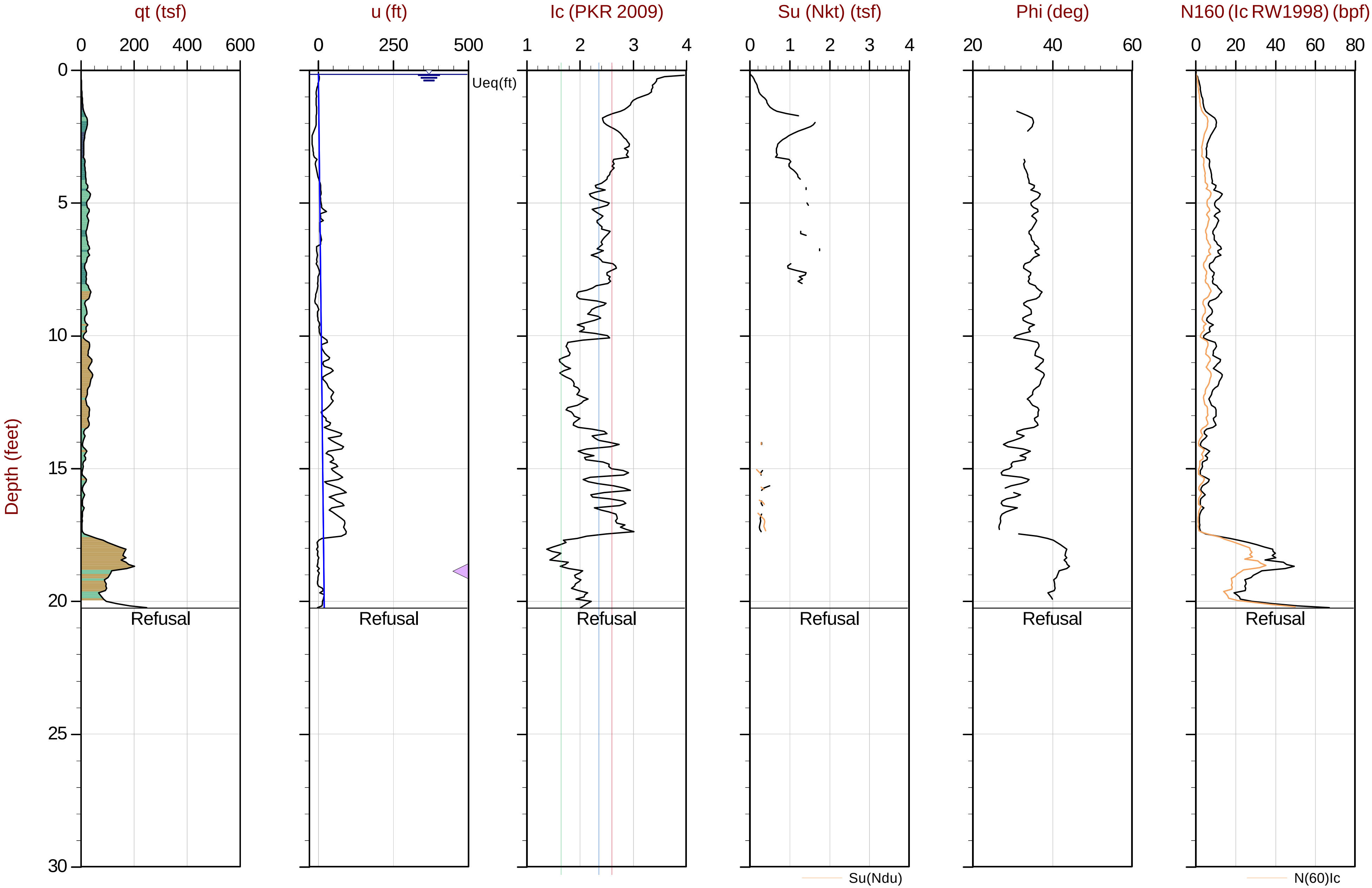
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 10:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-005
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.175 m / 20.26 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP005.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783774m E: 405556m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

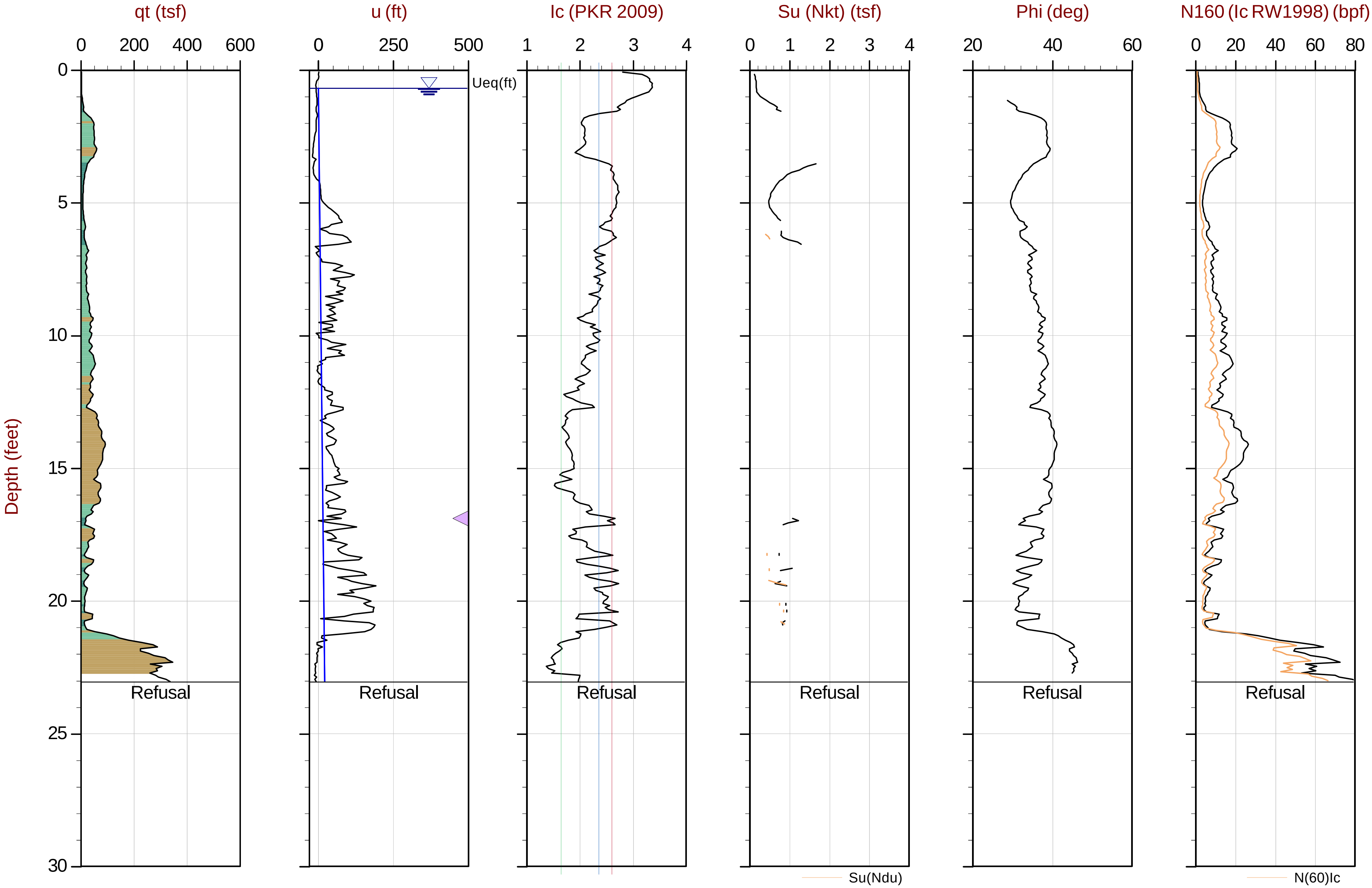
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 12:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-006
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 7.025 m / 23.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP006.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783725m E: 405378m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

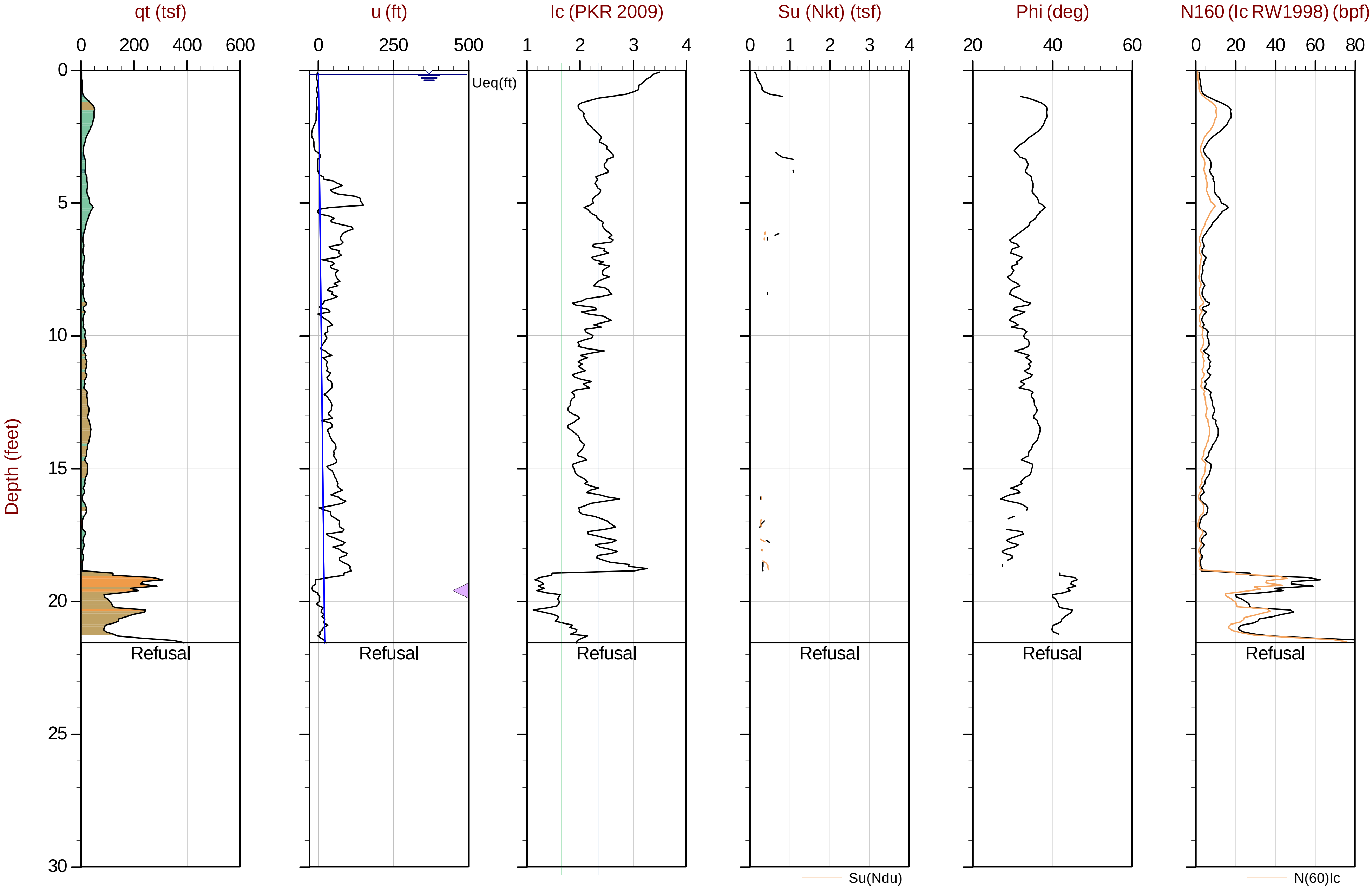
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 13:44
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-007
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.575 m / 21.57 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP007.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783718m E: 405500m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

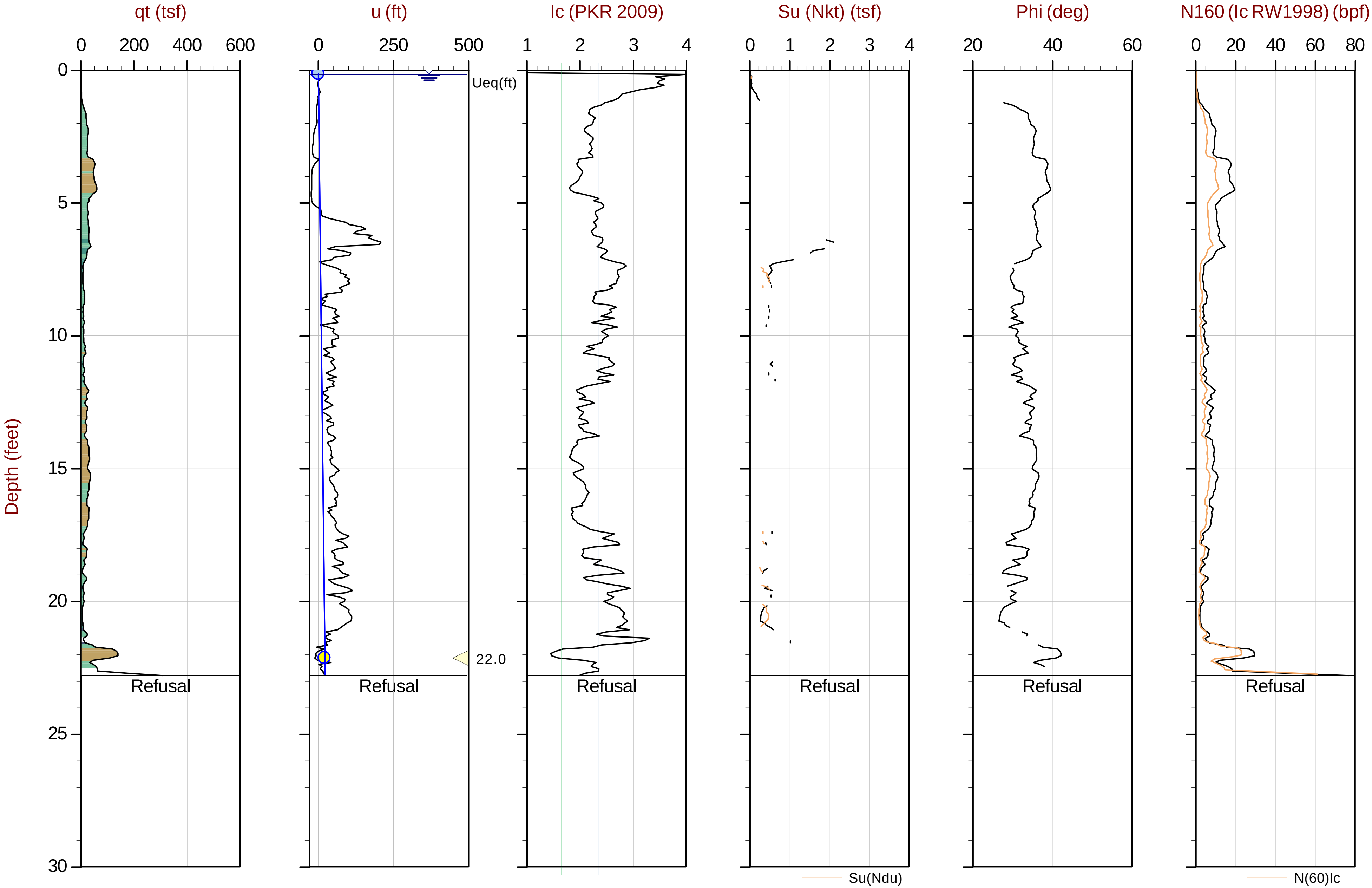
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:51
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-008
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.950 m / 22.80 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP008.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783716m E: 405615m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

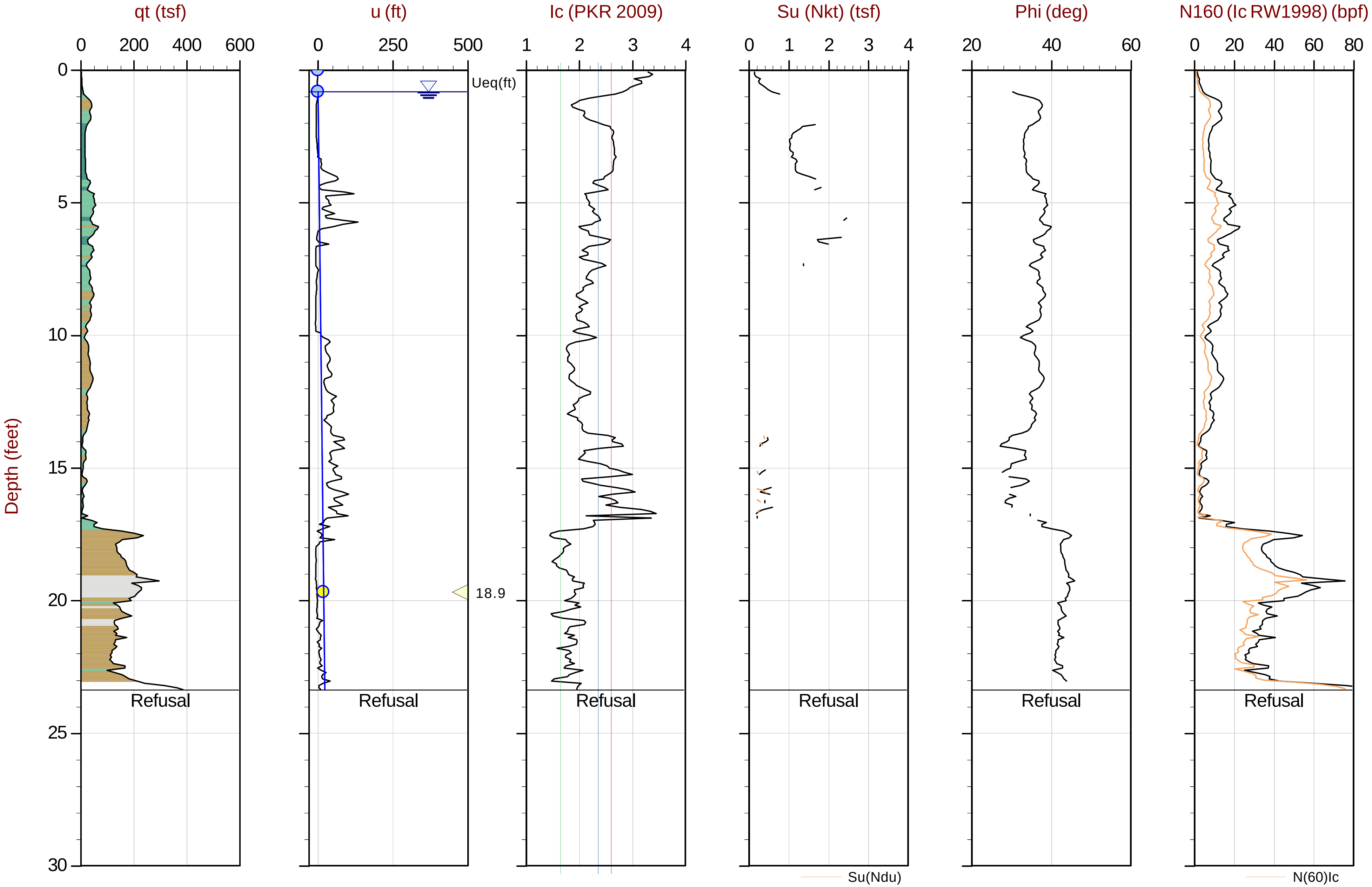
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 13:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-009
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 7.125 m / 23.38 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP009.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783710m E: 405730m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

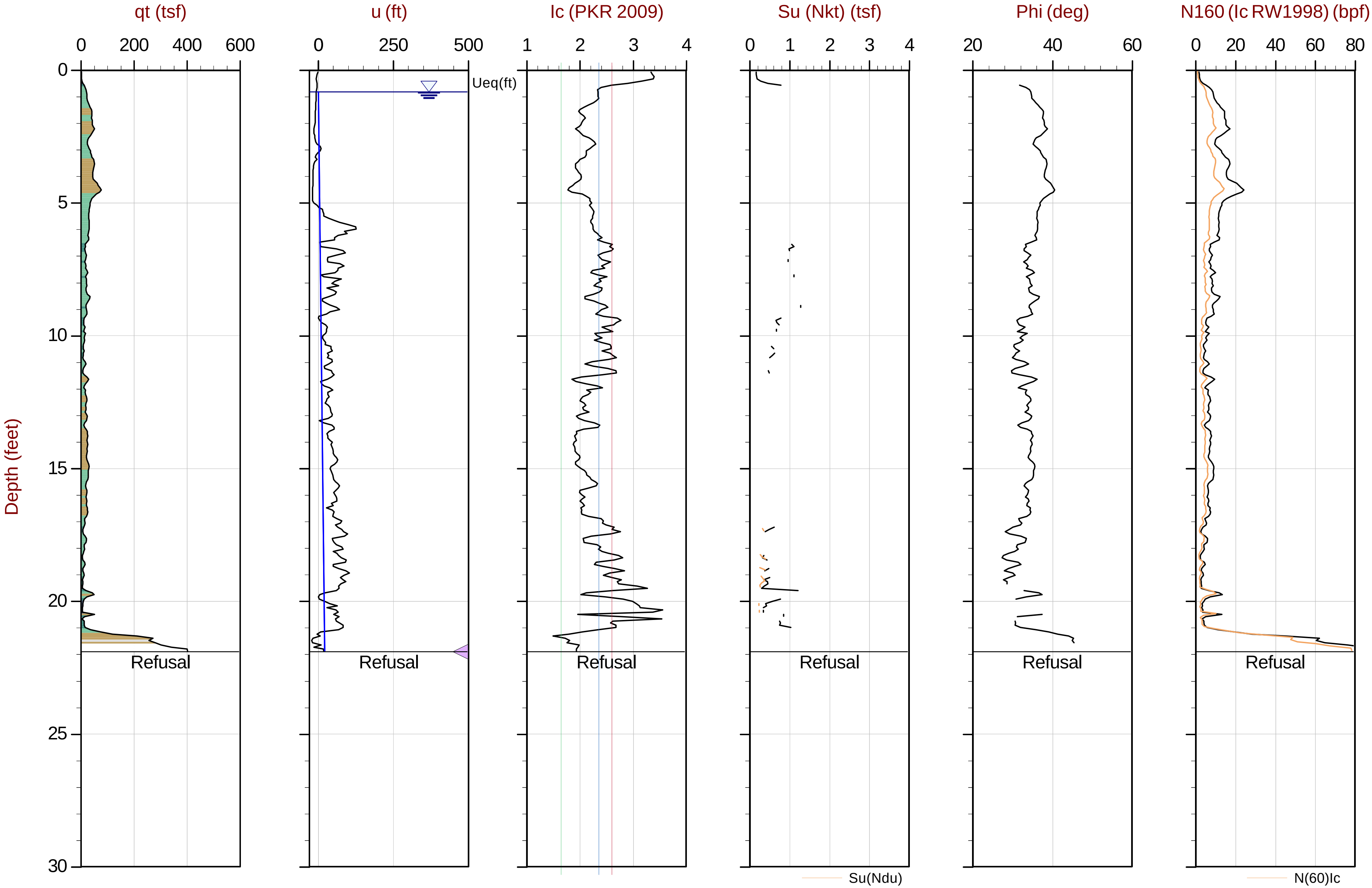
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 13:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-010
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.675 m / 21.90 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP010.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

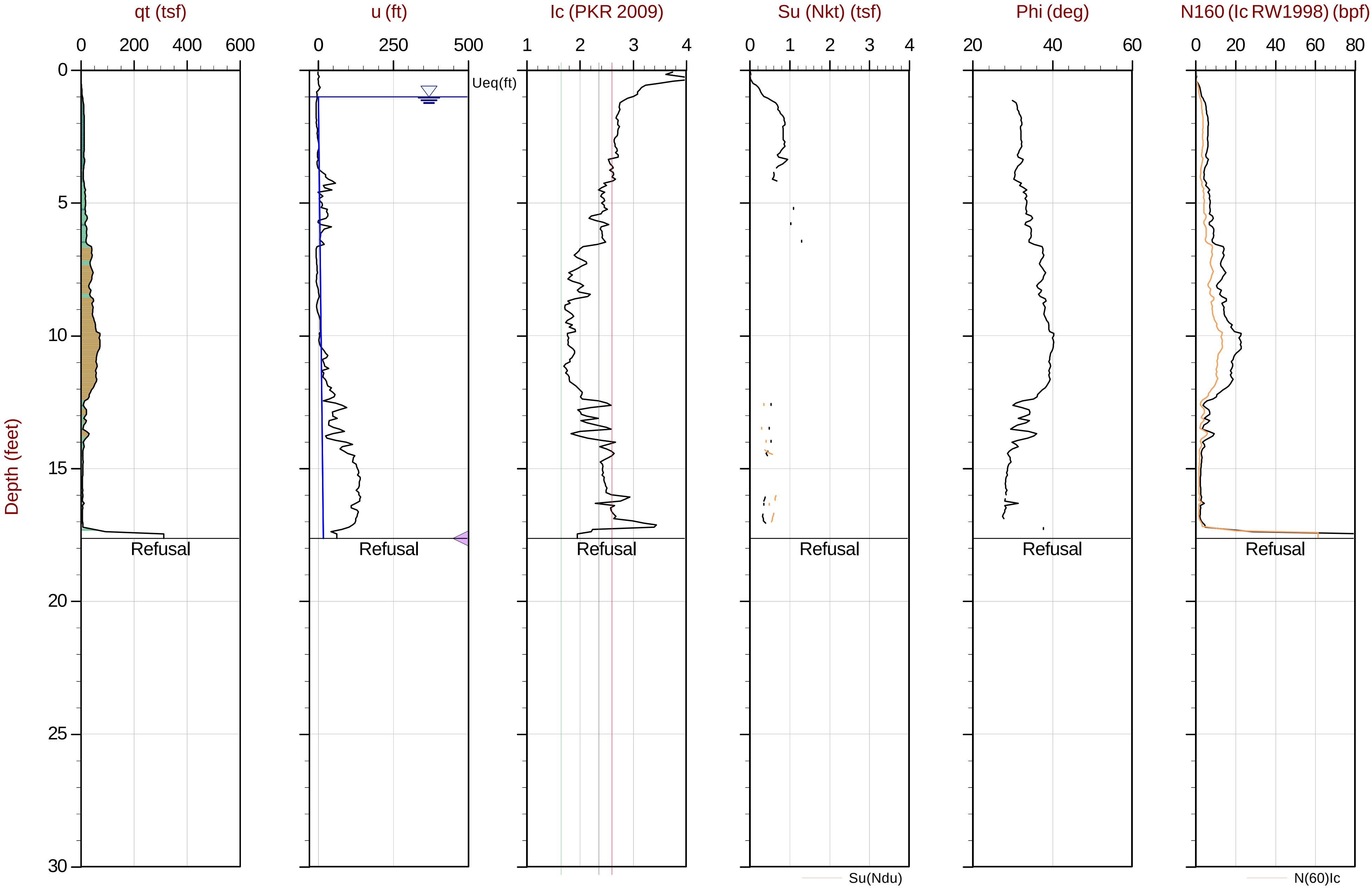
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783689m E: 405786m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 14:31
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-011
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 5.375 m / 17.63 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP011.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783664m E: 405339m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

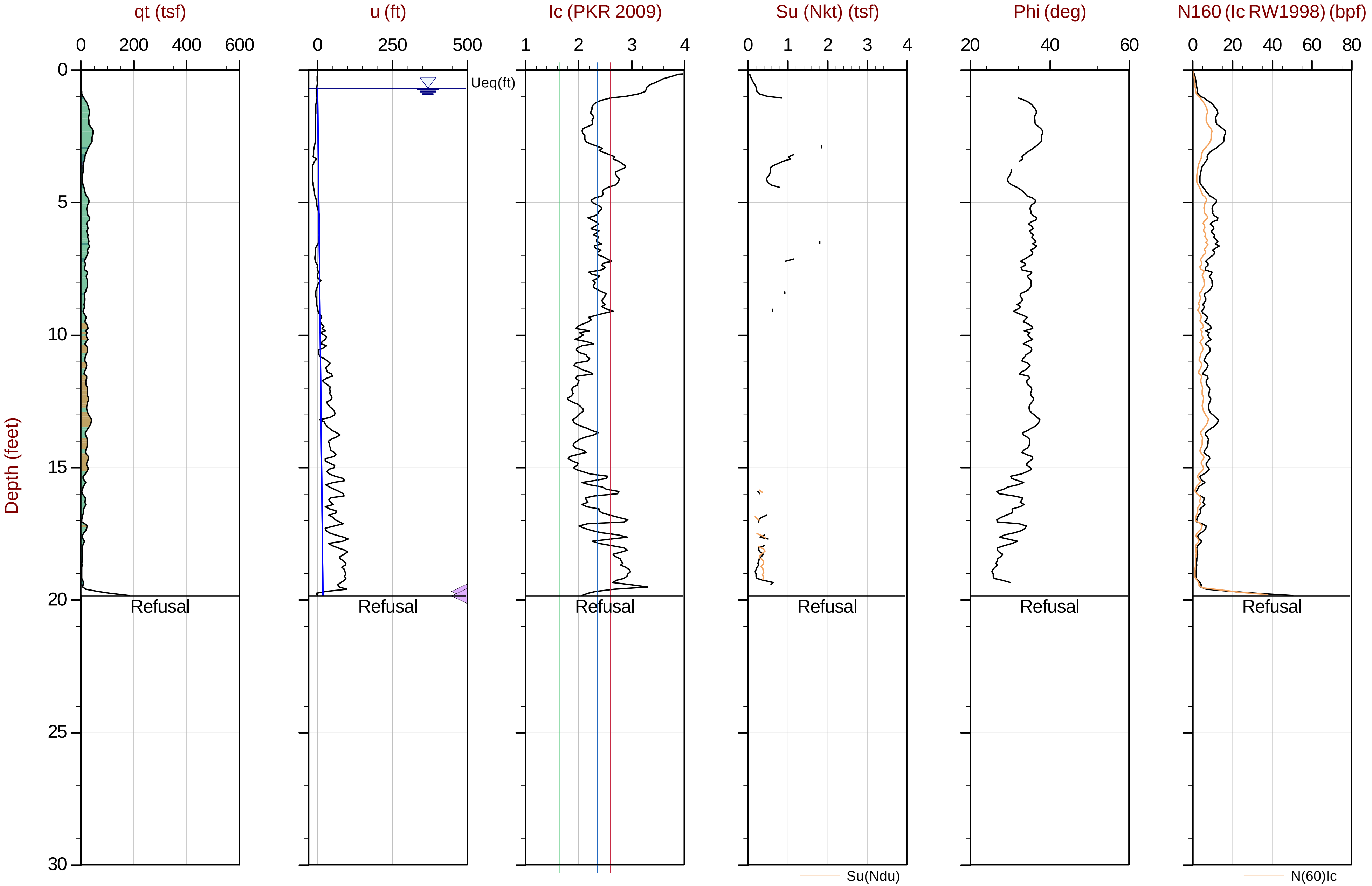
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 10:21
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-012
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.050 m / 19.85 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP012.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

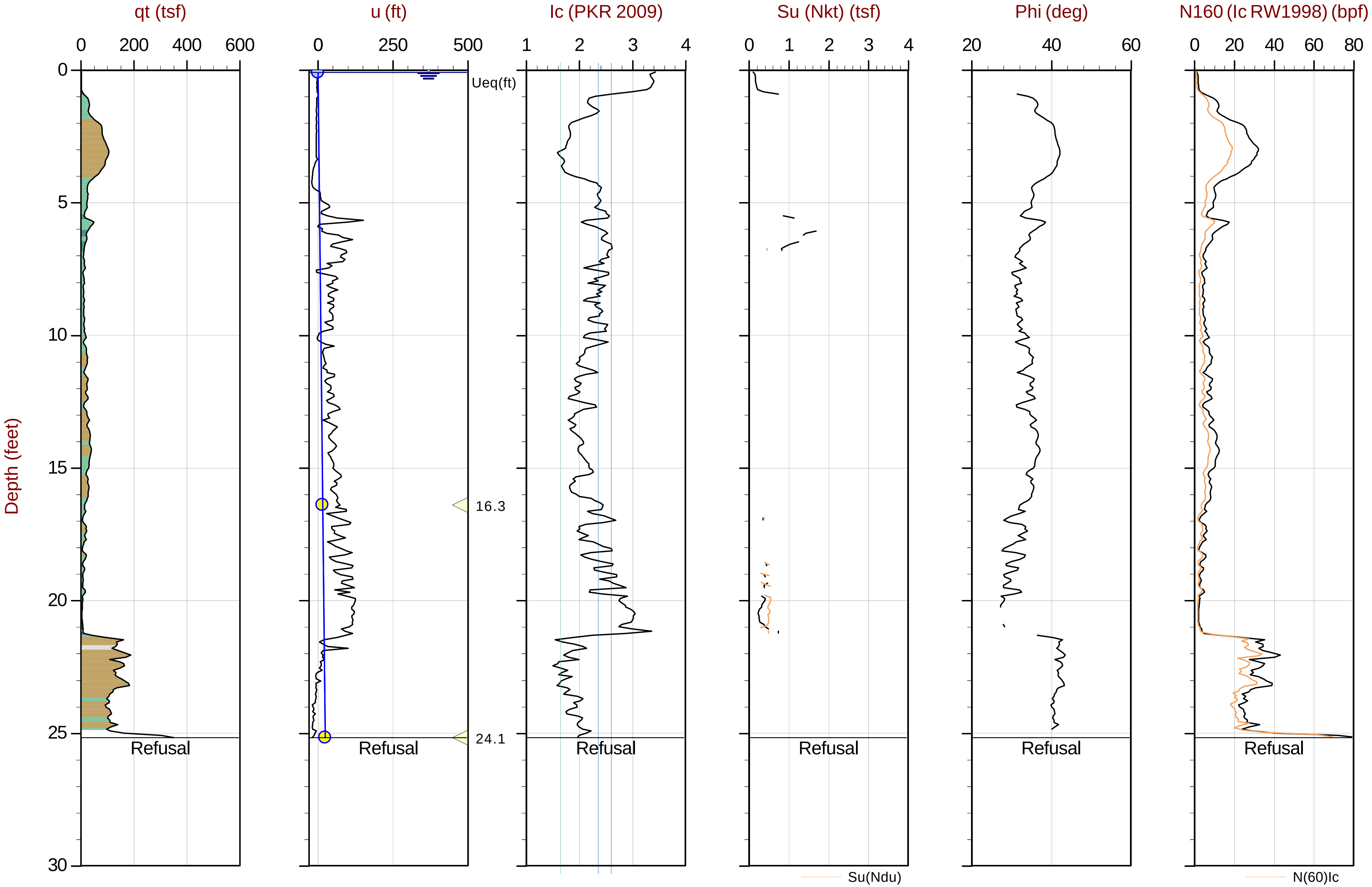
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783661m E: 405439m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 11:24
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-013
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 7.675 m / 25.18 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP013.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783657m E: 405560m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

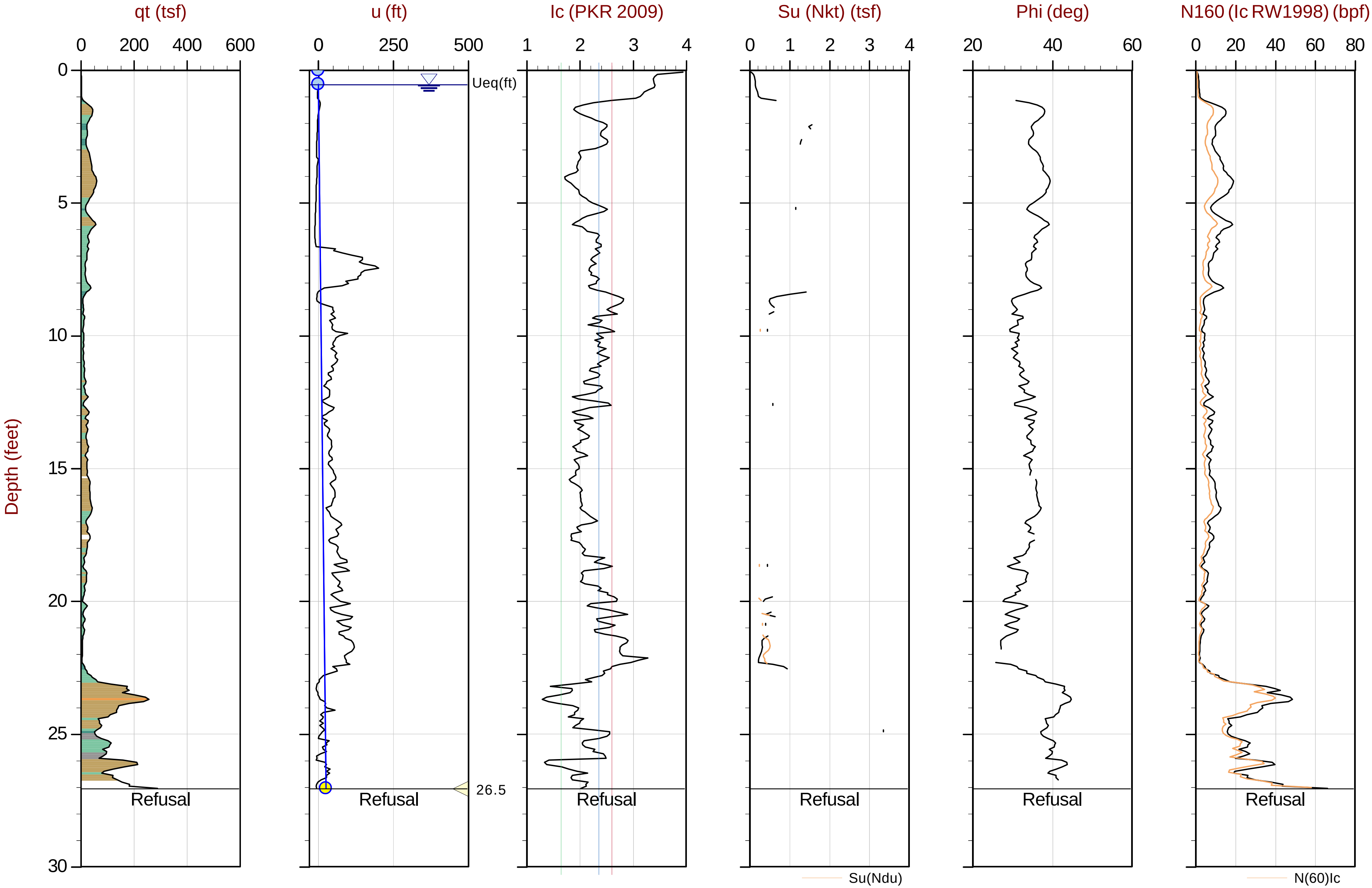
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 12:28
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-014
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 8.250 m / 27.07 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP014.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783660m E: 405672m

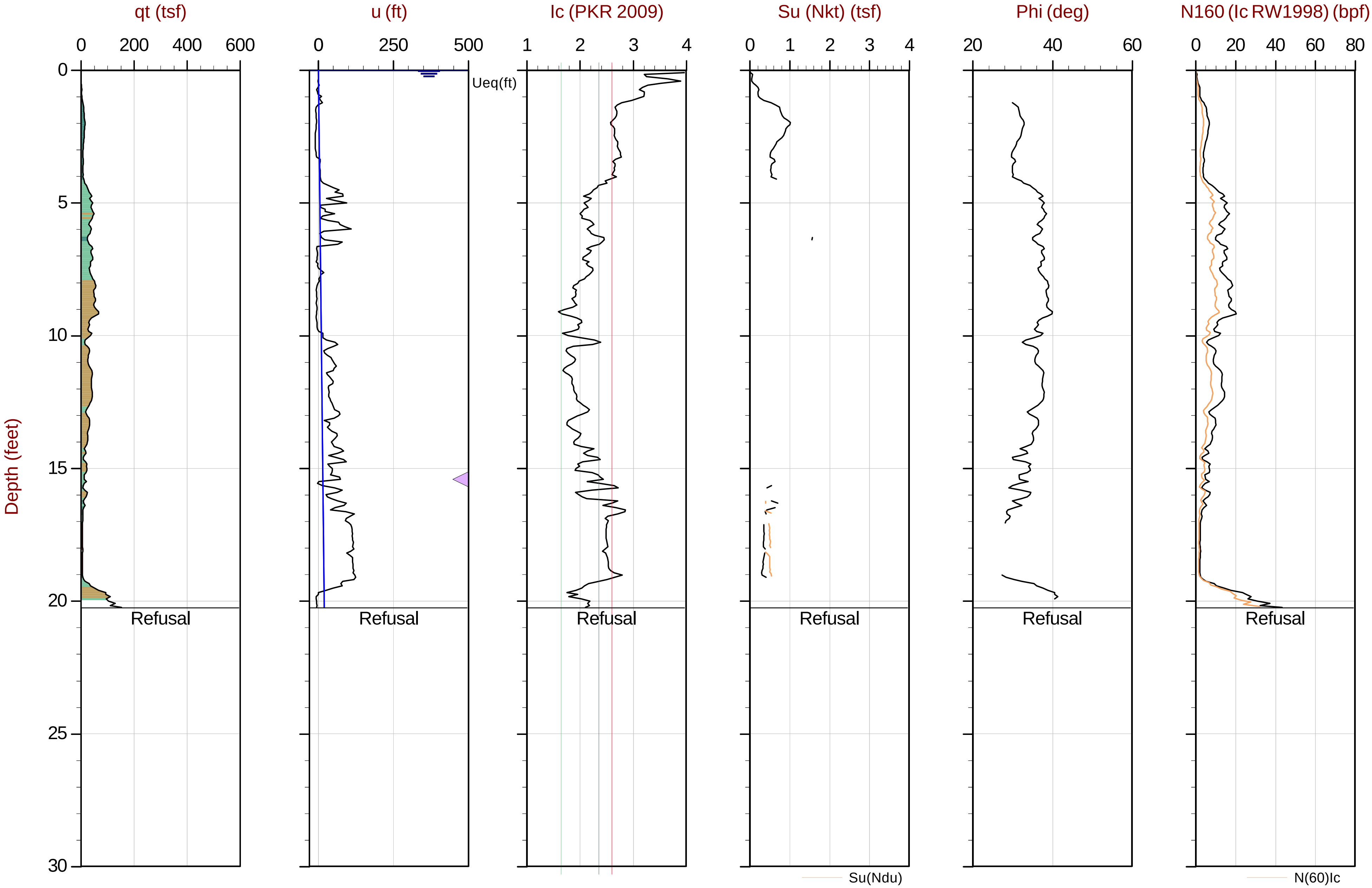
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 15:21
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-015
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.175 m / 20.26 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP015.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783609m E: 405335m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

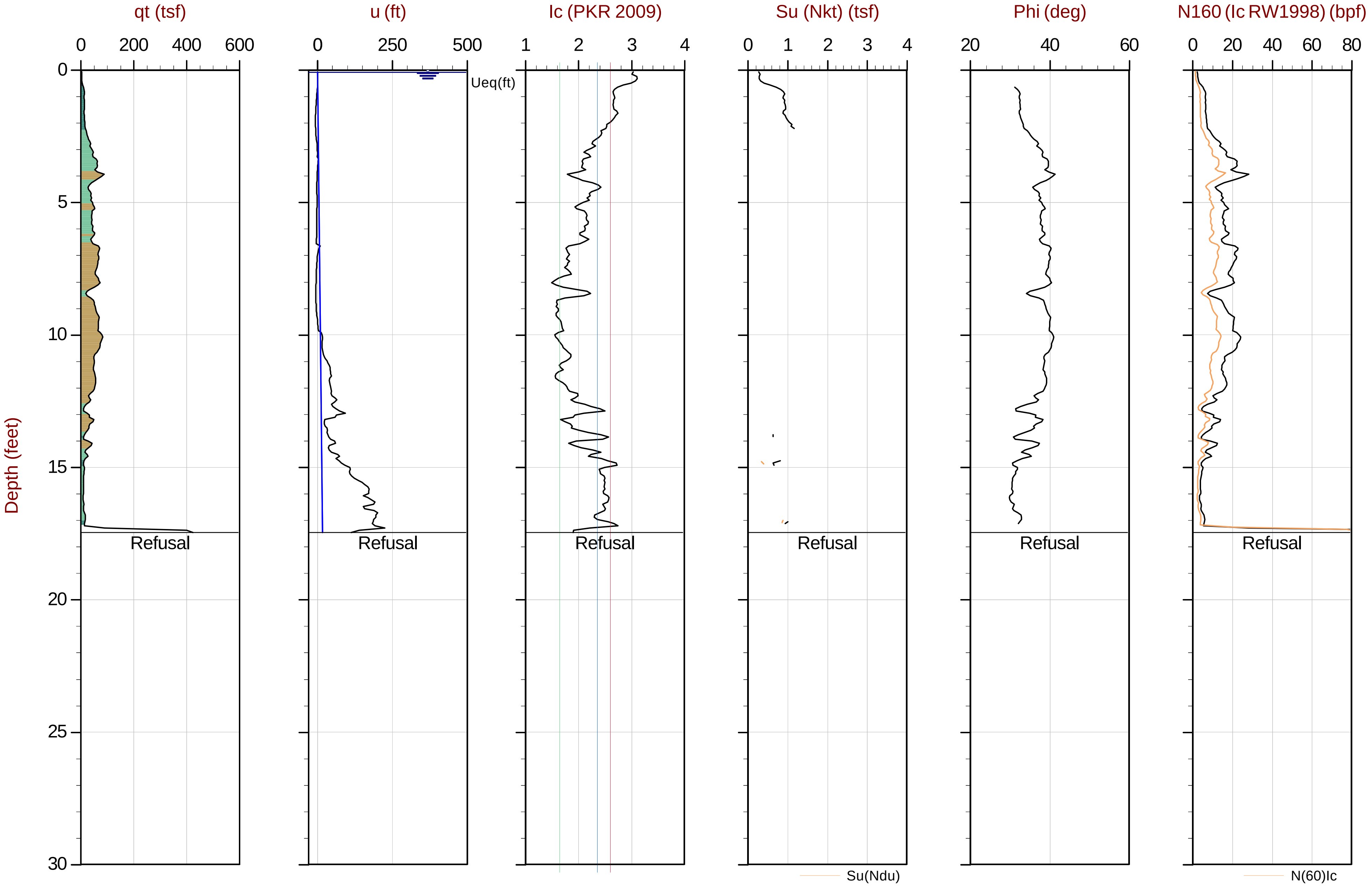
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 09:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-016
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 5.325 m / 17.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP016.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

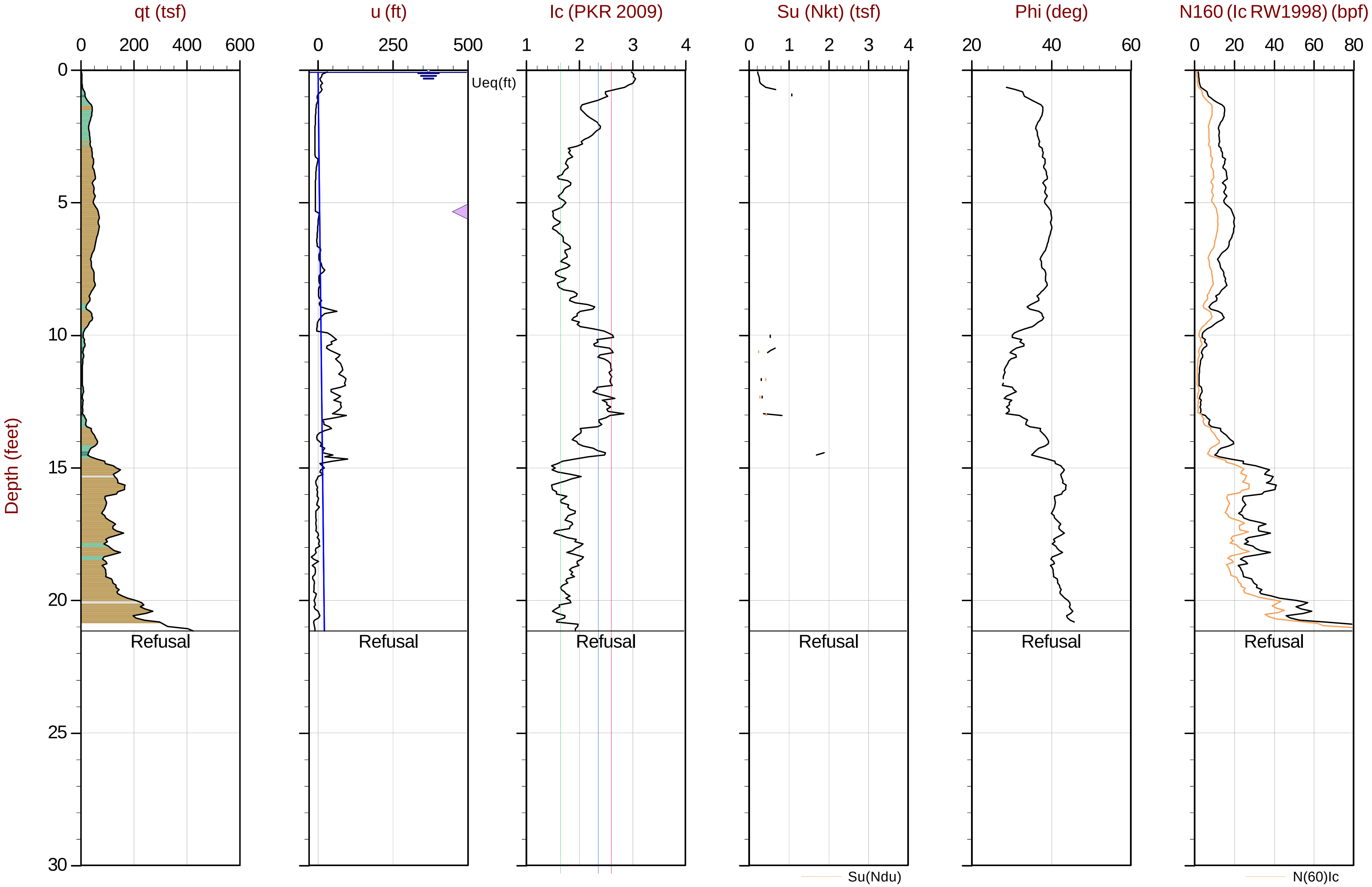
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783629m E: 405407m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 09:43
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-017
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 6.450 m / 21.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP017.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

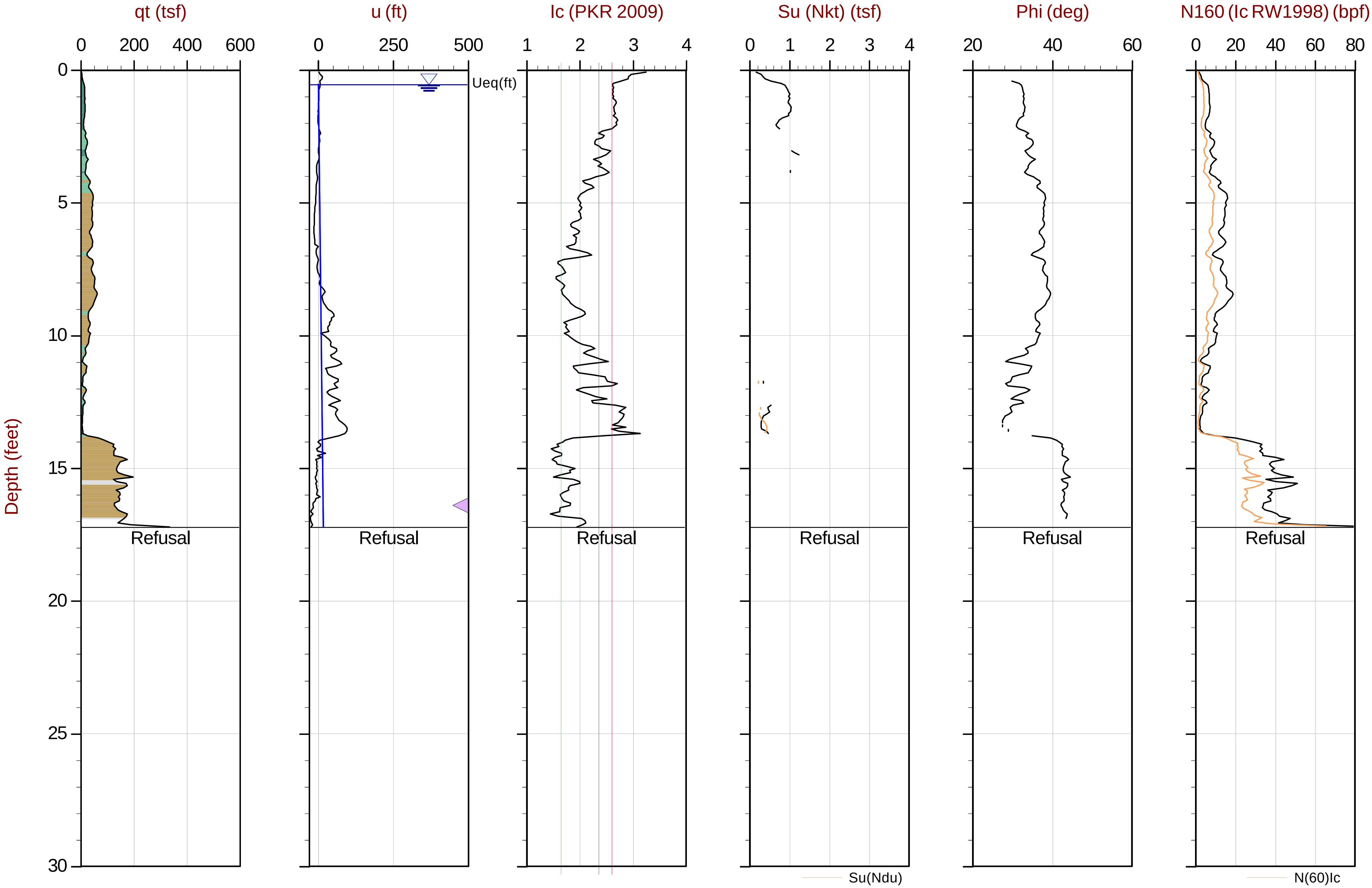
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783602m E: 405497m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◀ Dissipation, Ueq not achieved ◀ Dissipation, Ueq assumed — Hydrostatic Line

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 10:38
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-018
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_SP018.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783605m E: 405619m

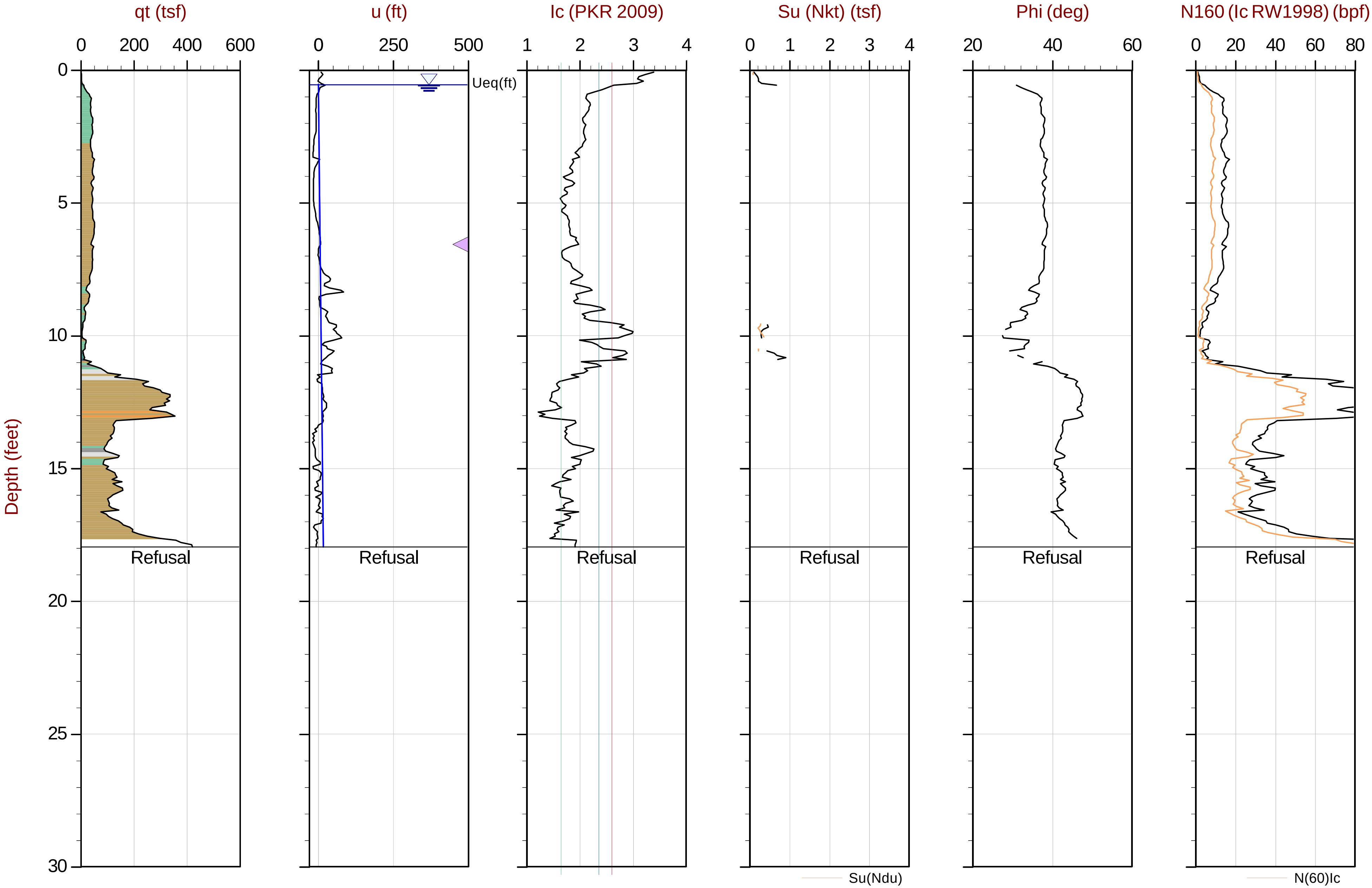
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 12:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-019
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_CP019.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783617m E: 405740m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

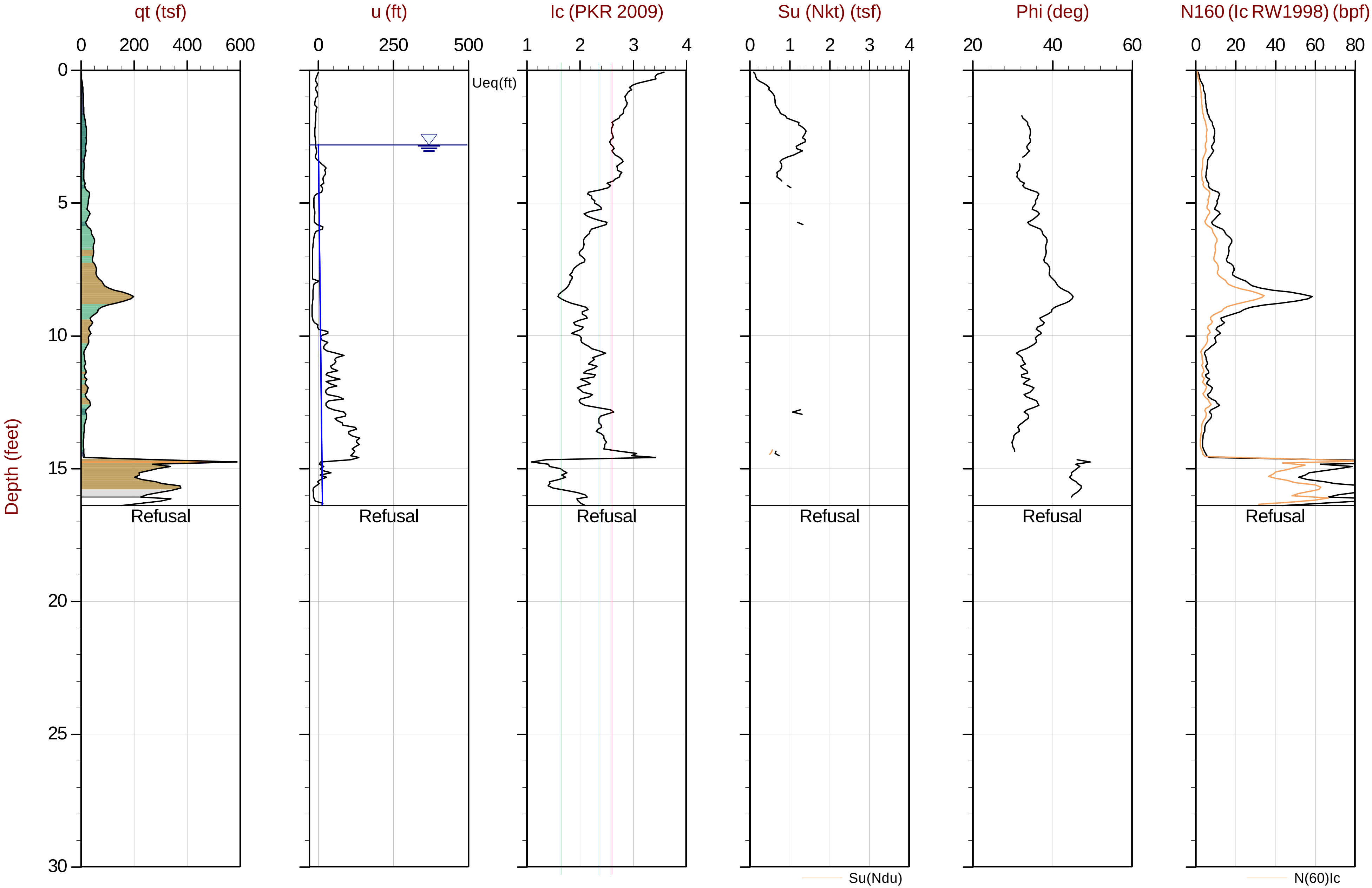
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 13:57
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-020
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.000 m / 16.40 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP020.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783081m E: 406215m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

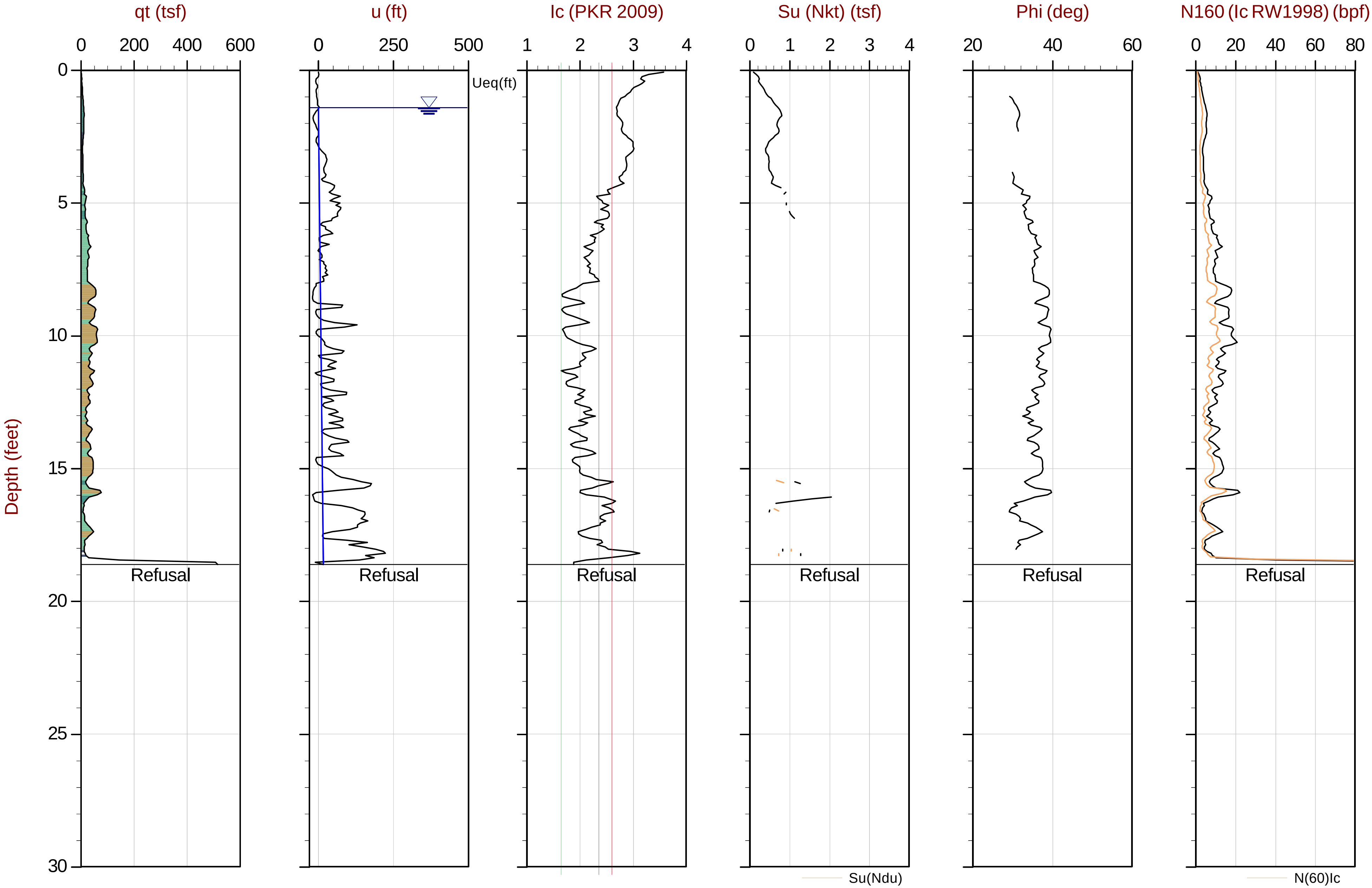
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 11:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-021
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_SP021.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782933m E: 406395m

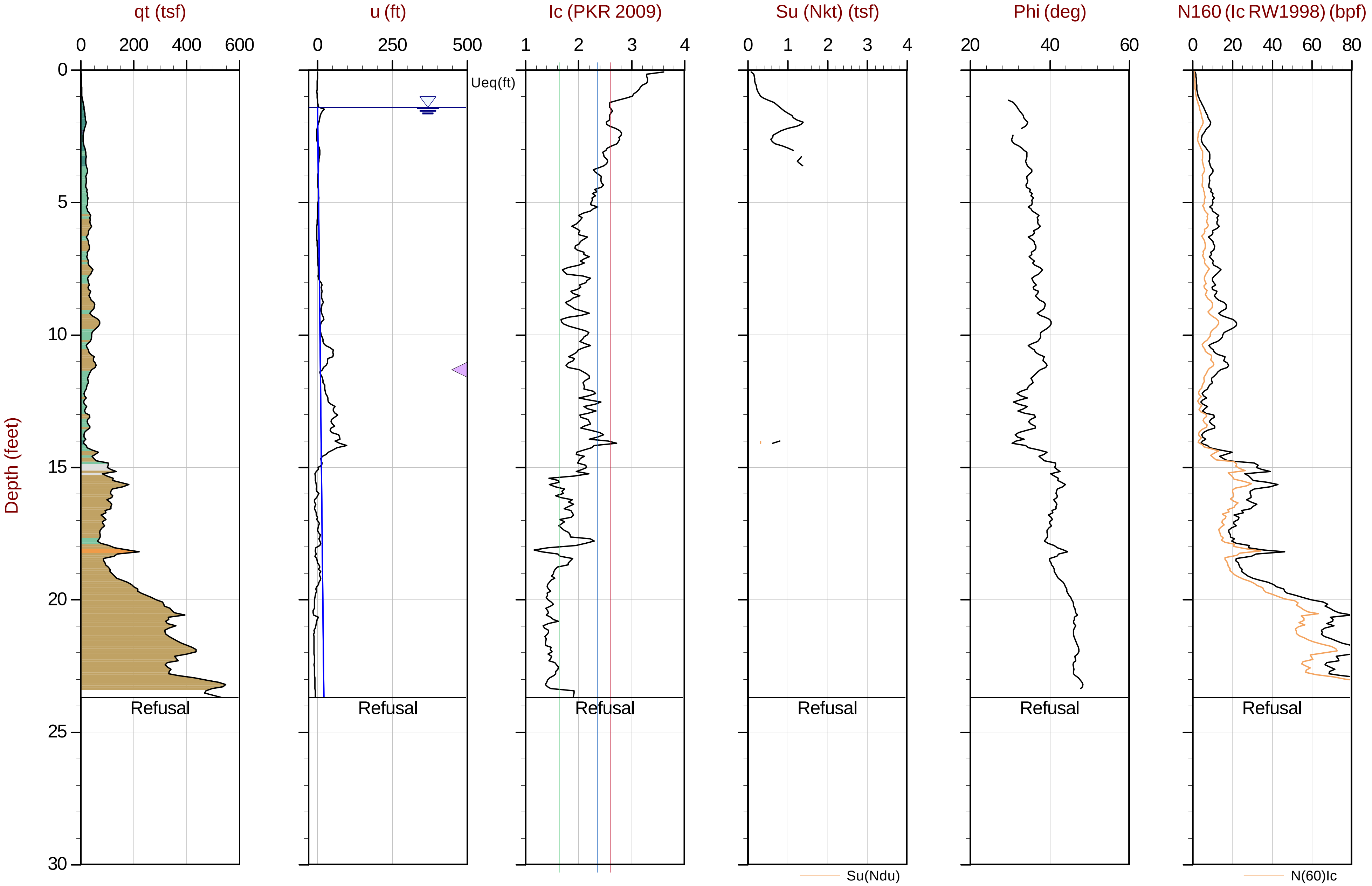
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 07:53
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-022
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 7.225 m / 23.70 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP022.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

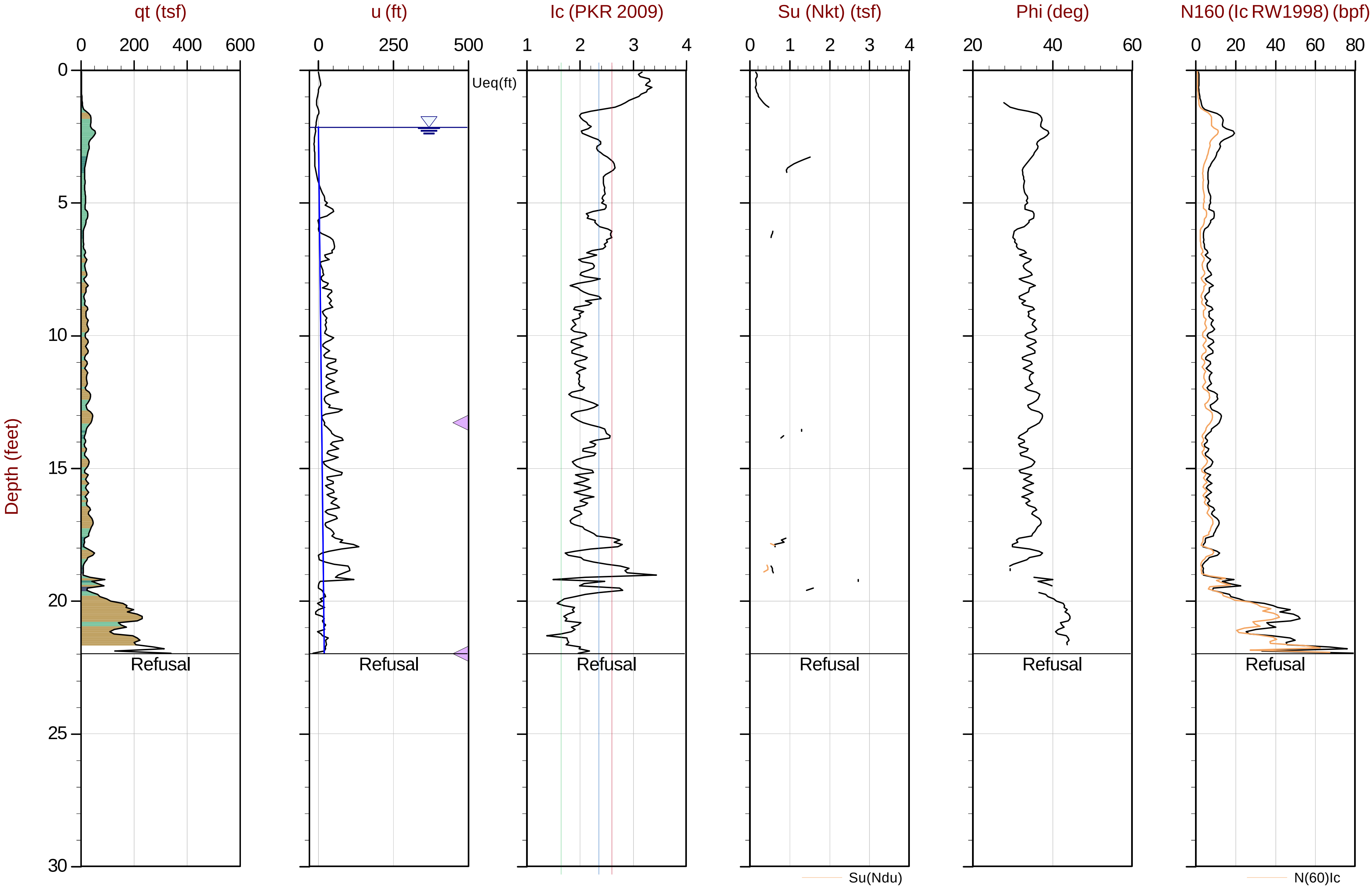
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782855m E: 406606m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 09:15
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-023
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.700 m / 21.98 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP023.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782943m E: 406169m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

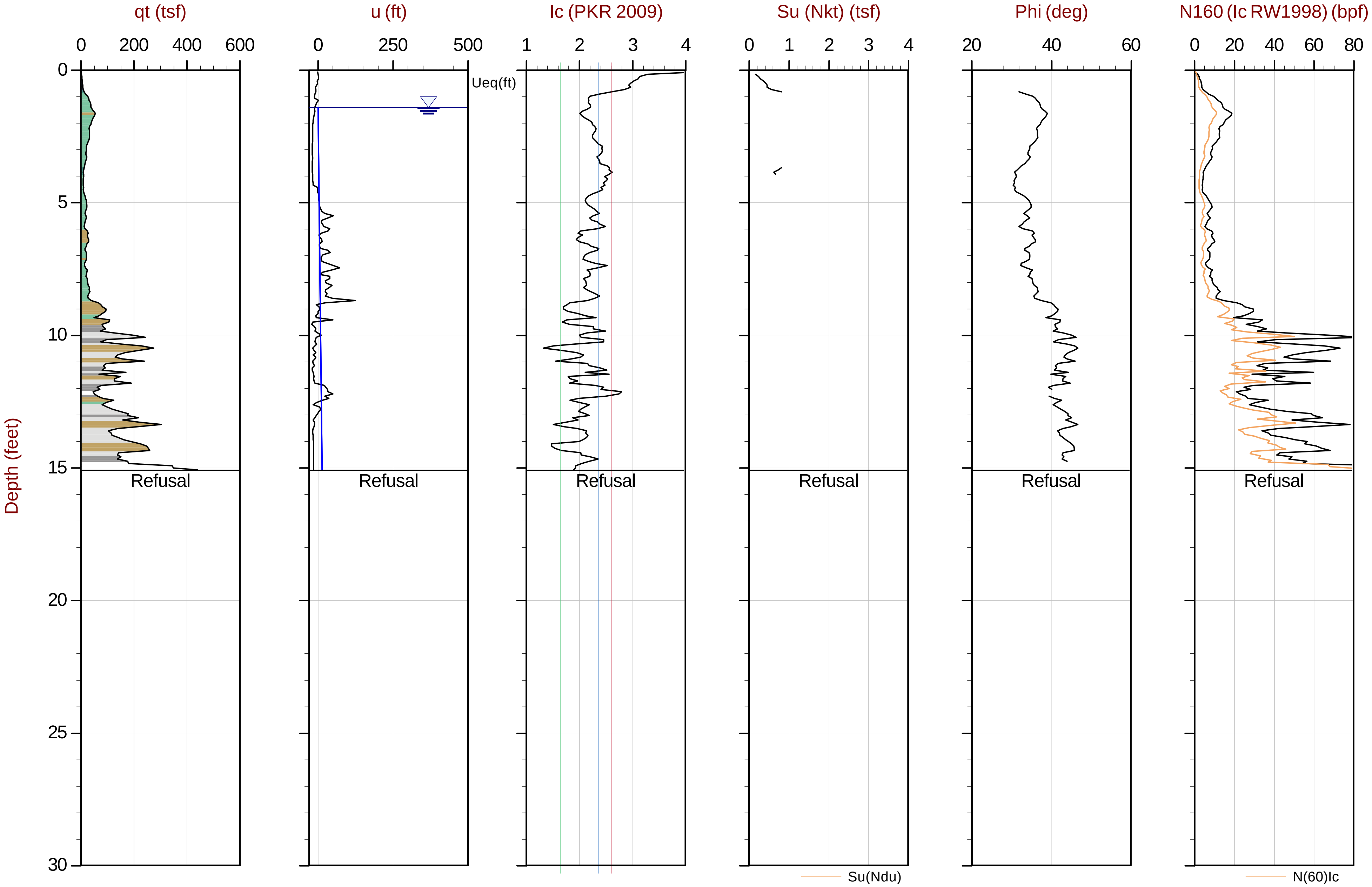
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 10:55
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-024
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.600 m / 15.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP024.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782872m E: 406276m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

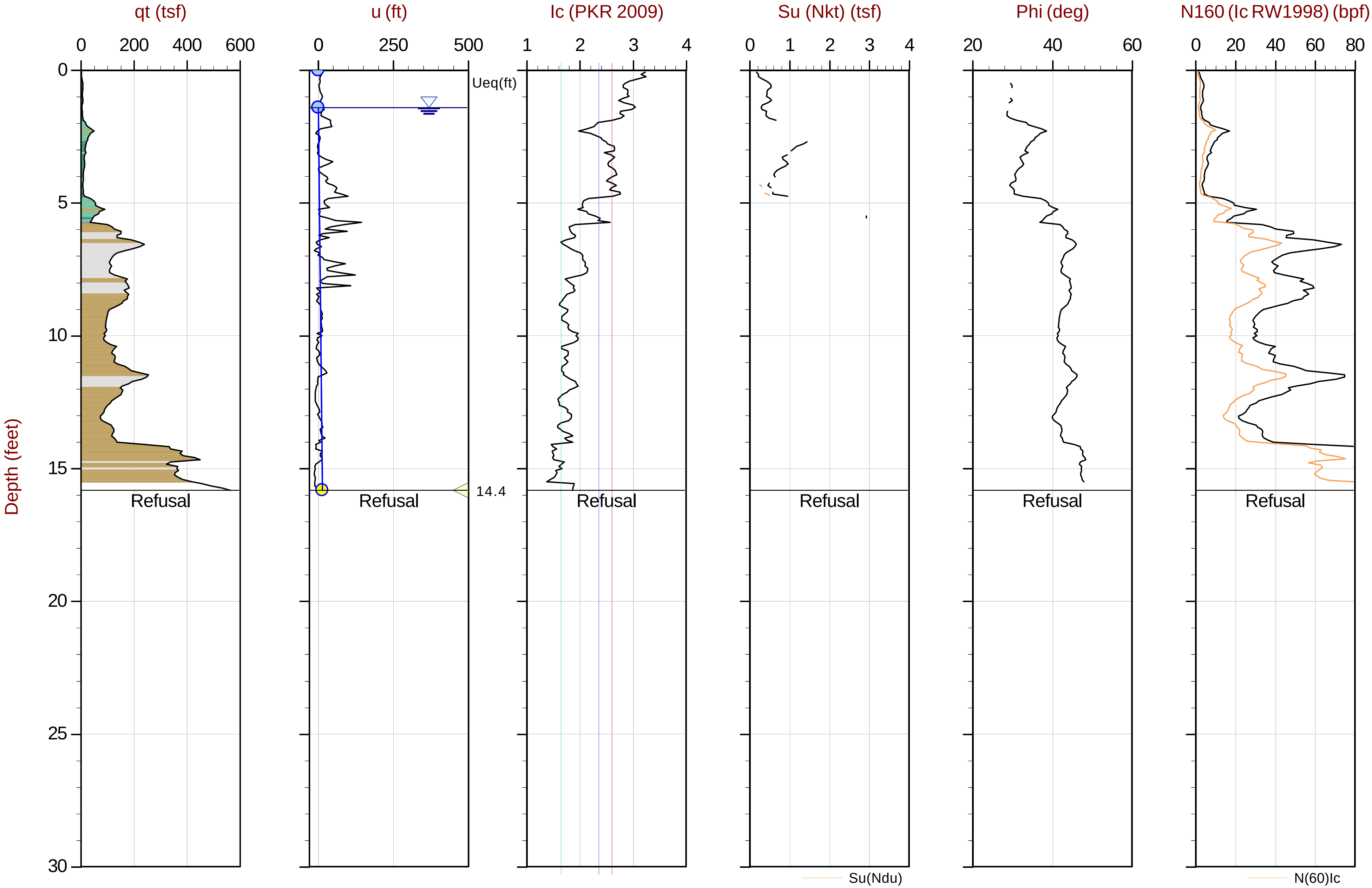
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 10:33
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-025
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.825 m / 15.83 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP025.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782850m E: 406409m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

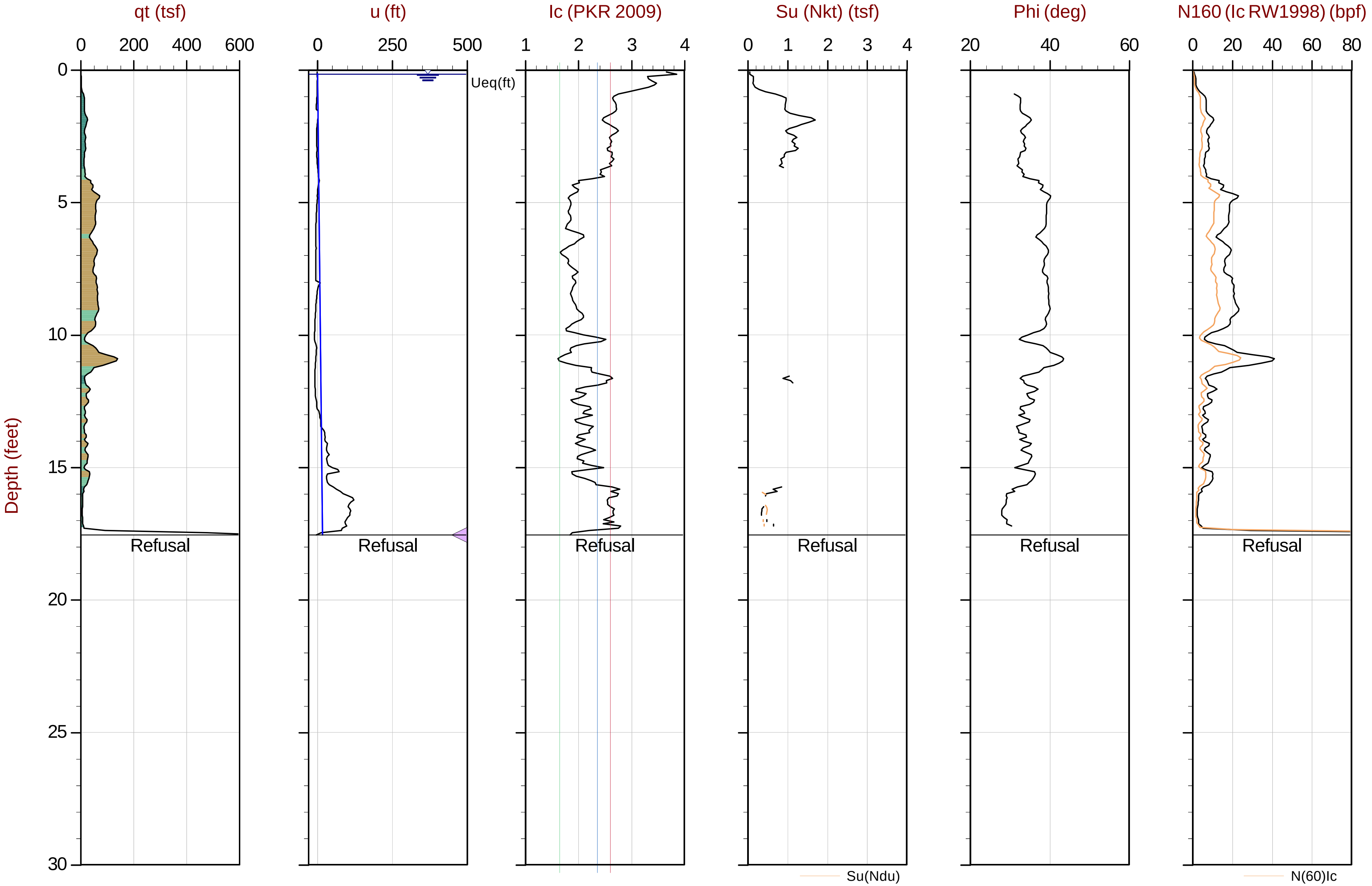
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 09:27
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-026
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.350 m / 17.55 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP026.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

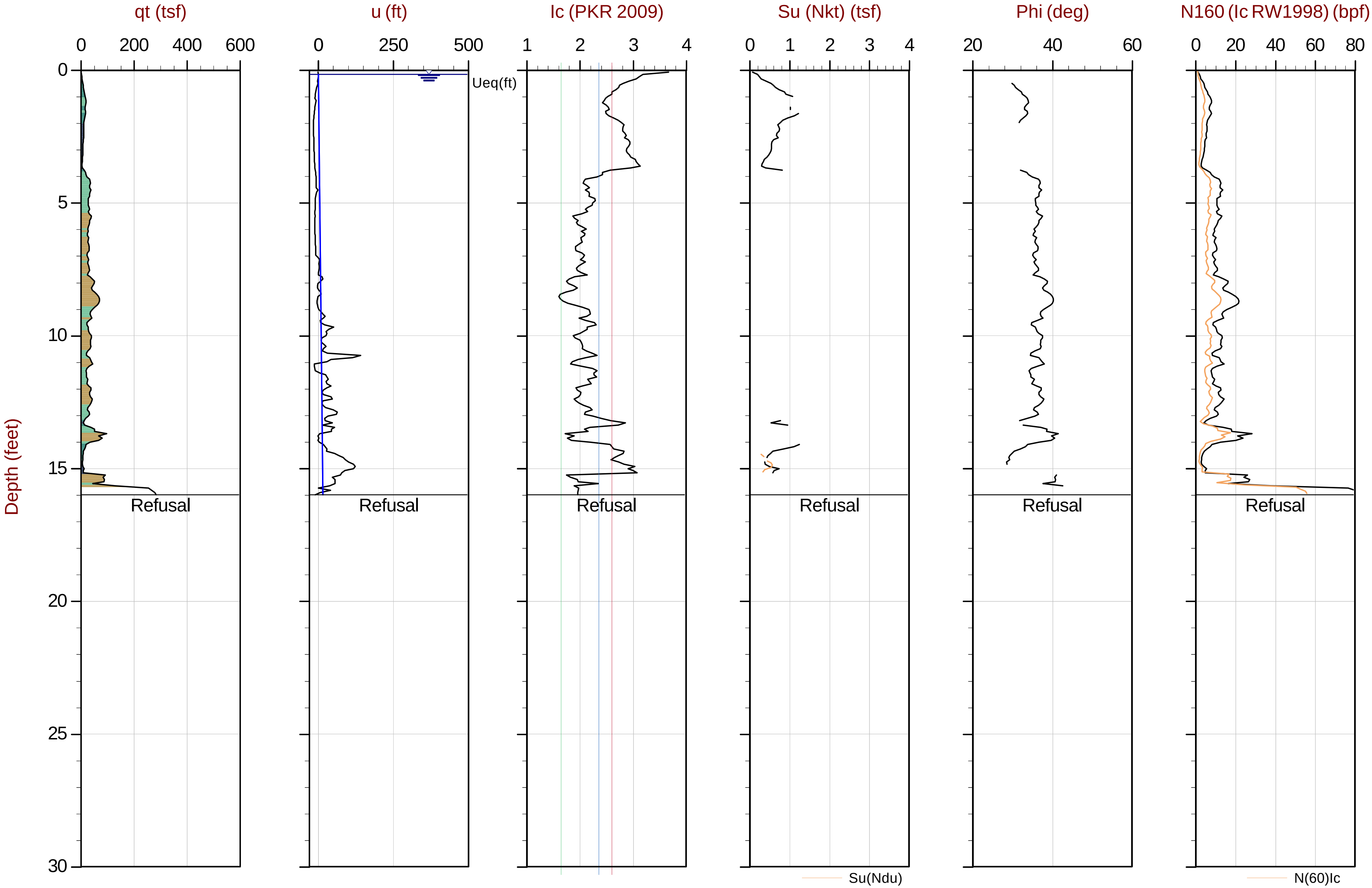
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782738m E: 406480m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 11:44
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-027
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.875 m / 15.99 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP027.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782879m E: 406066m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

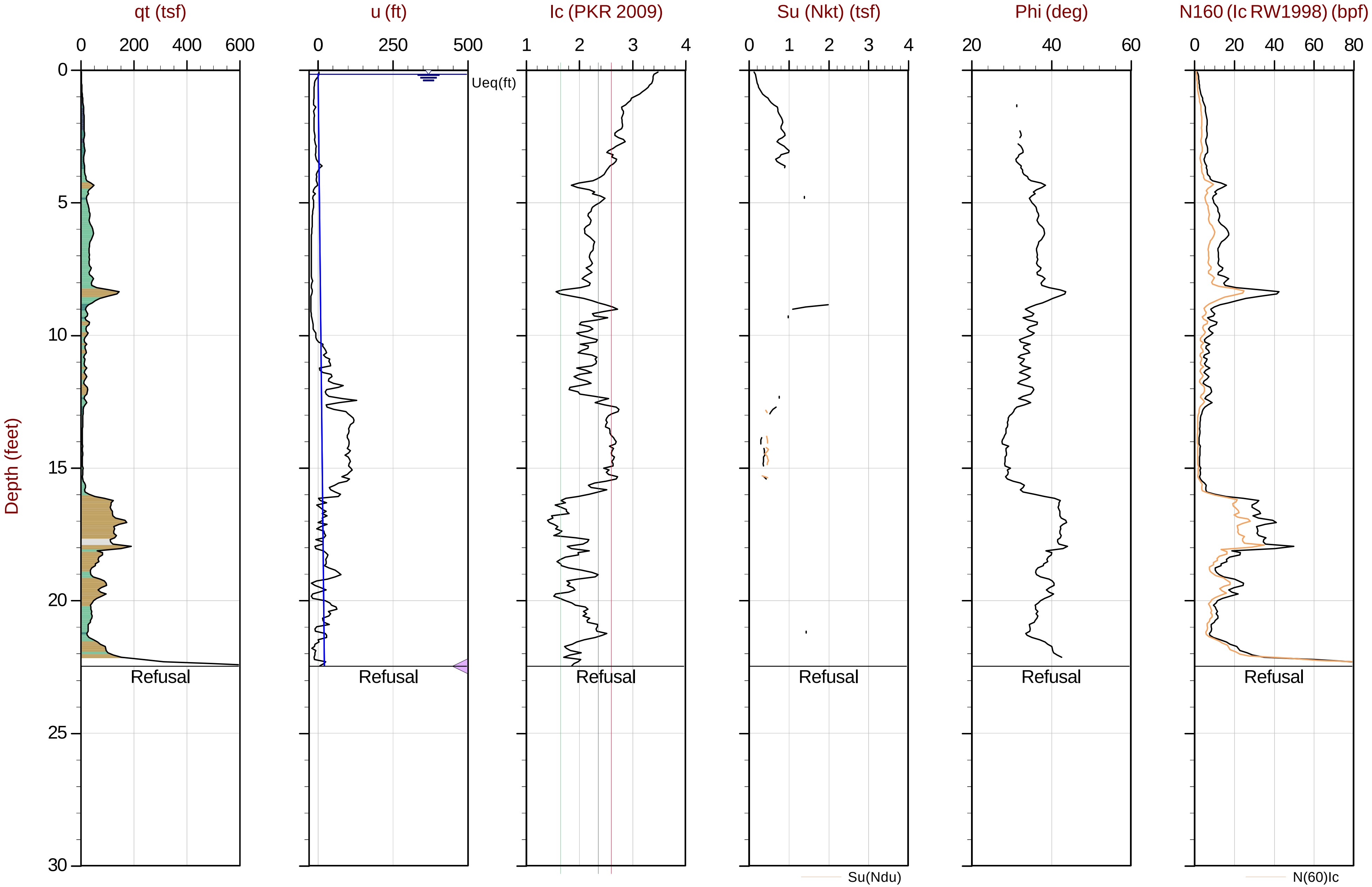
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 11:32
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-028
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.850 m / 22.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP028.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782675m E: 406436m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

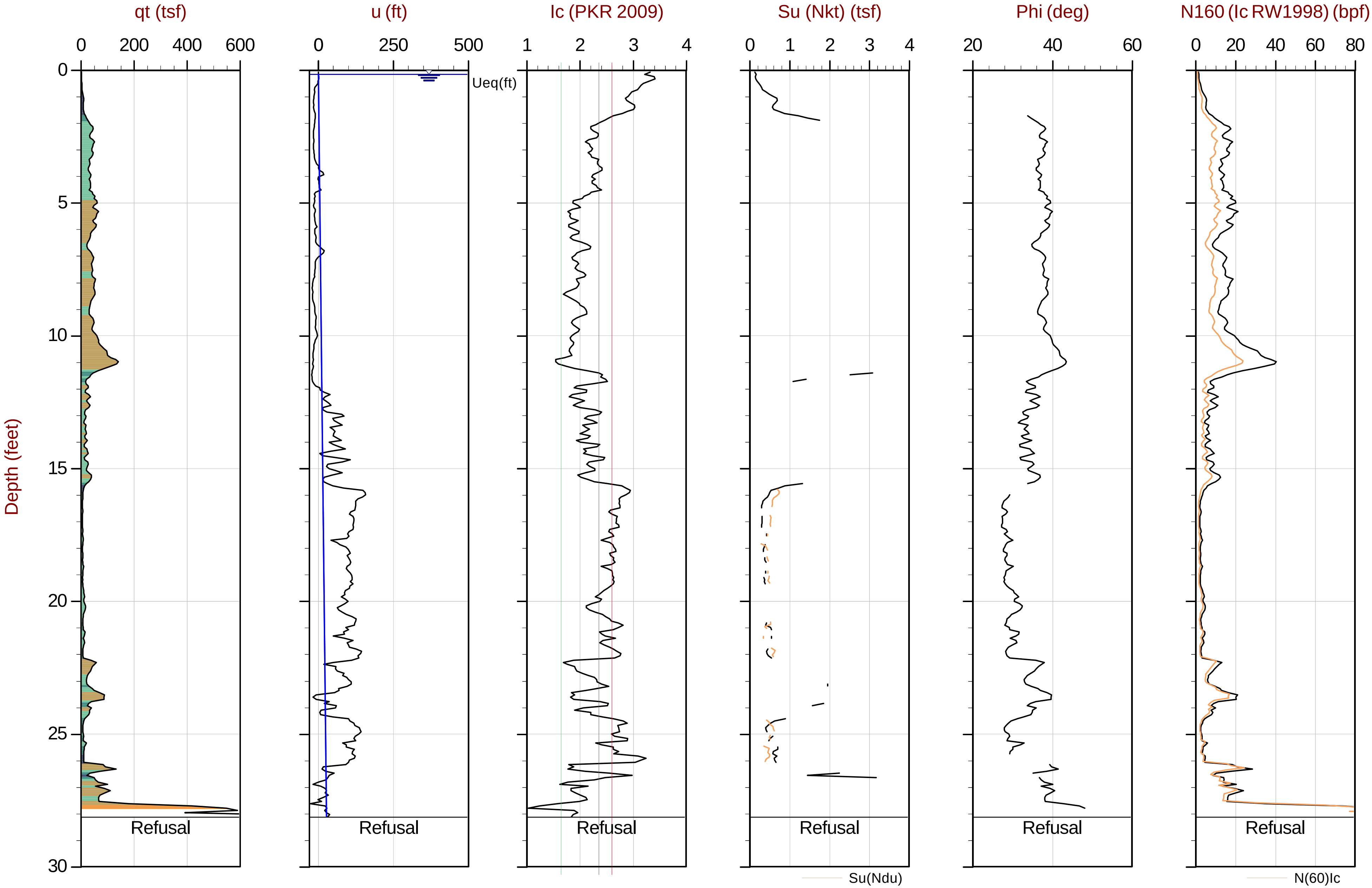
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 15:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-029
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 8.575 m / 28.13 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP029.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782734m E: 406252m

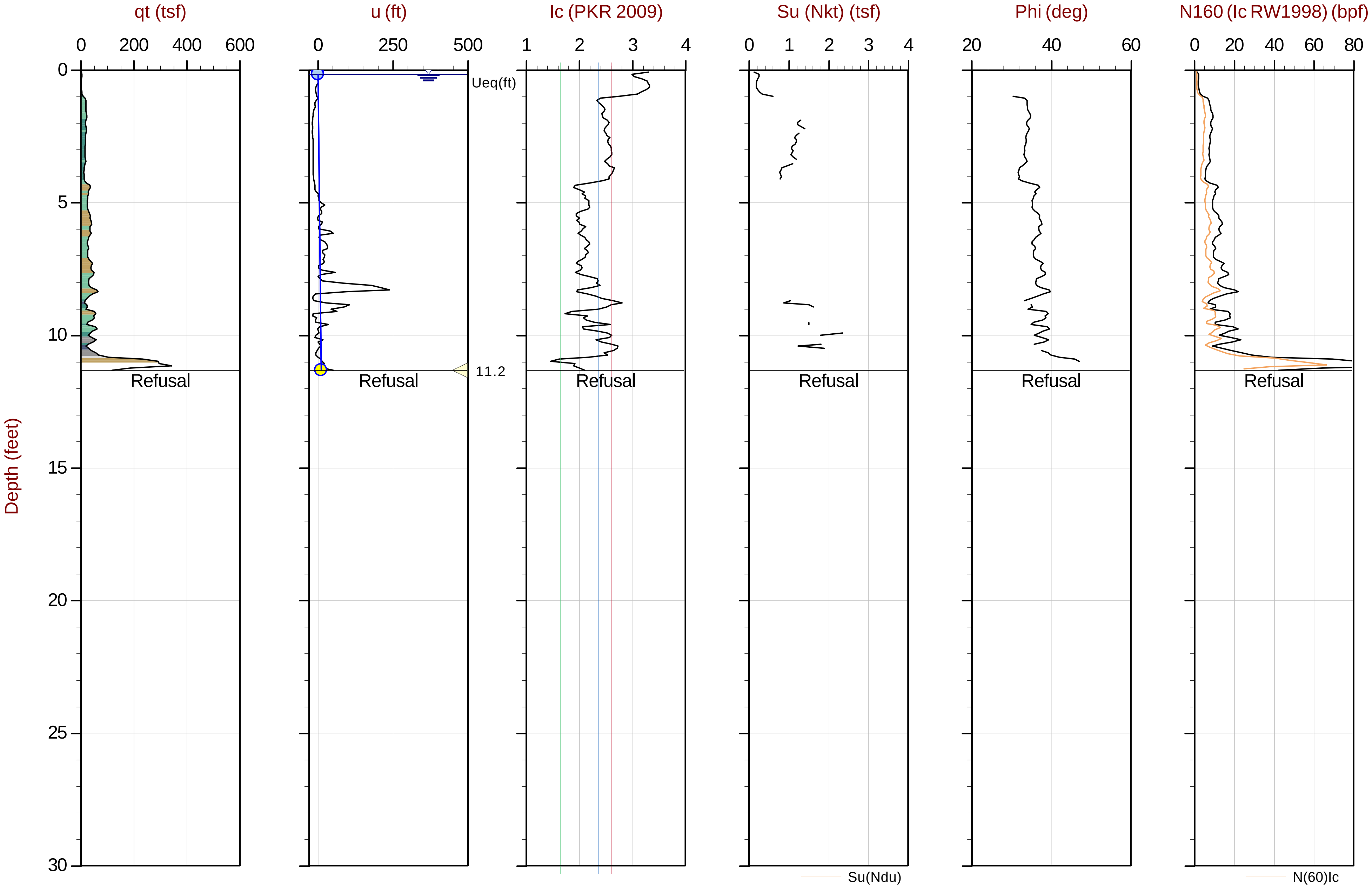
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 08:42
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-030
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_CP030.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

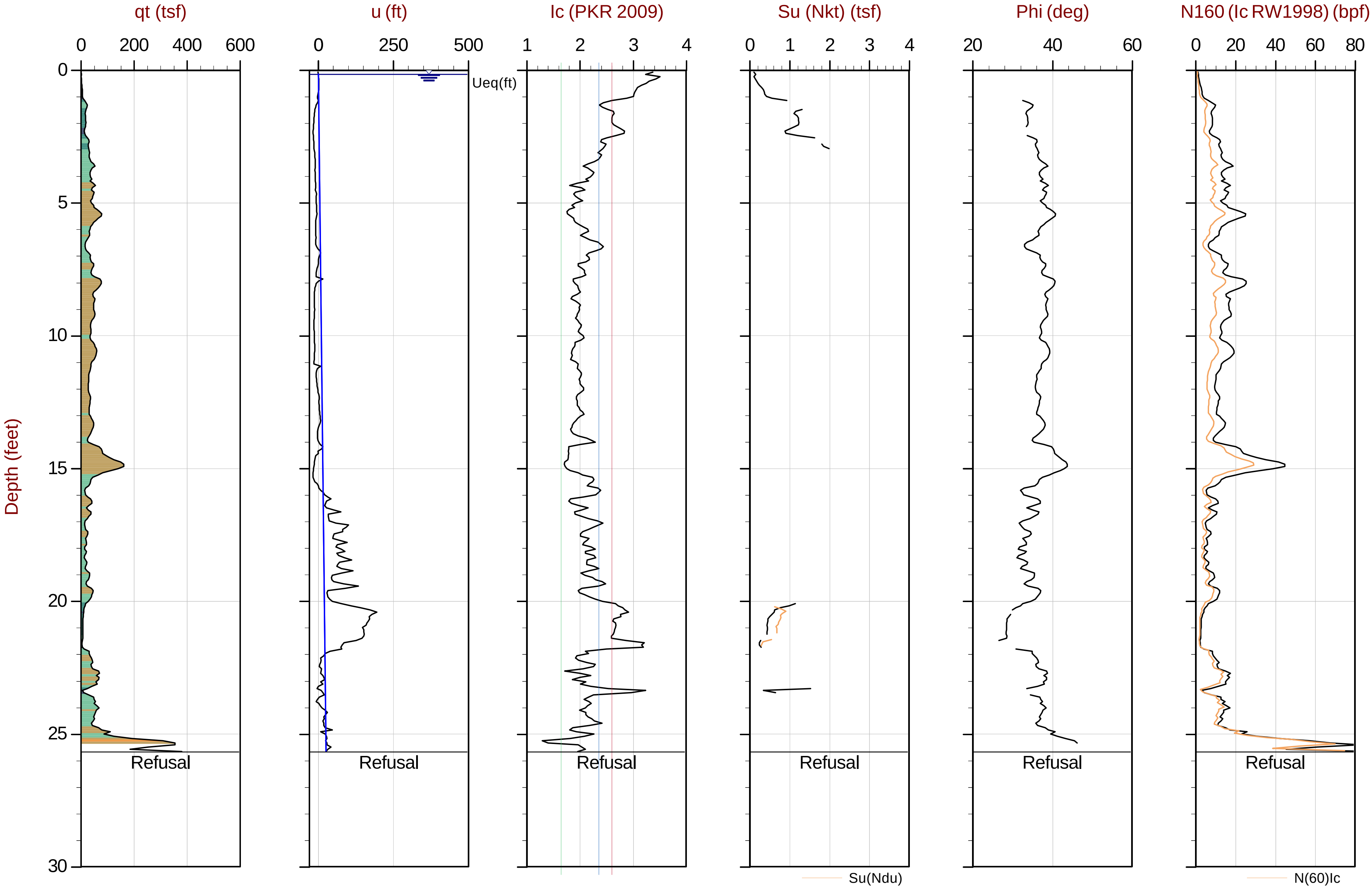
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782797m E: 406072m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 14:43
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-031
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 7.825 m / 25.67 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP031.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782684m E: 406218m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

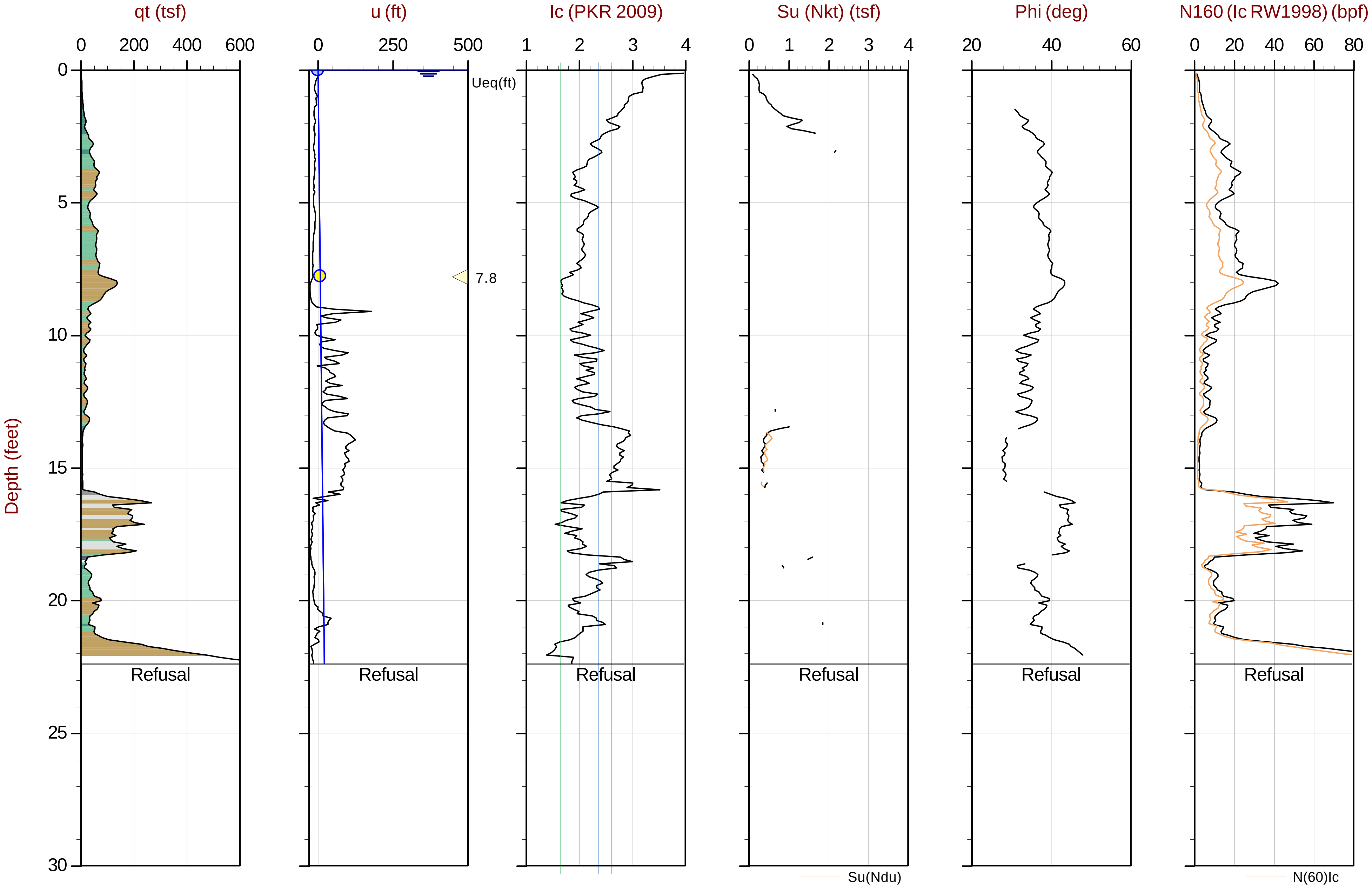
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 13:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-032
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.825 m / 22.39 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP032.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782612m E: 406314m

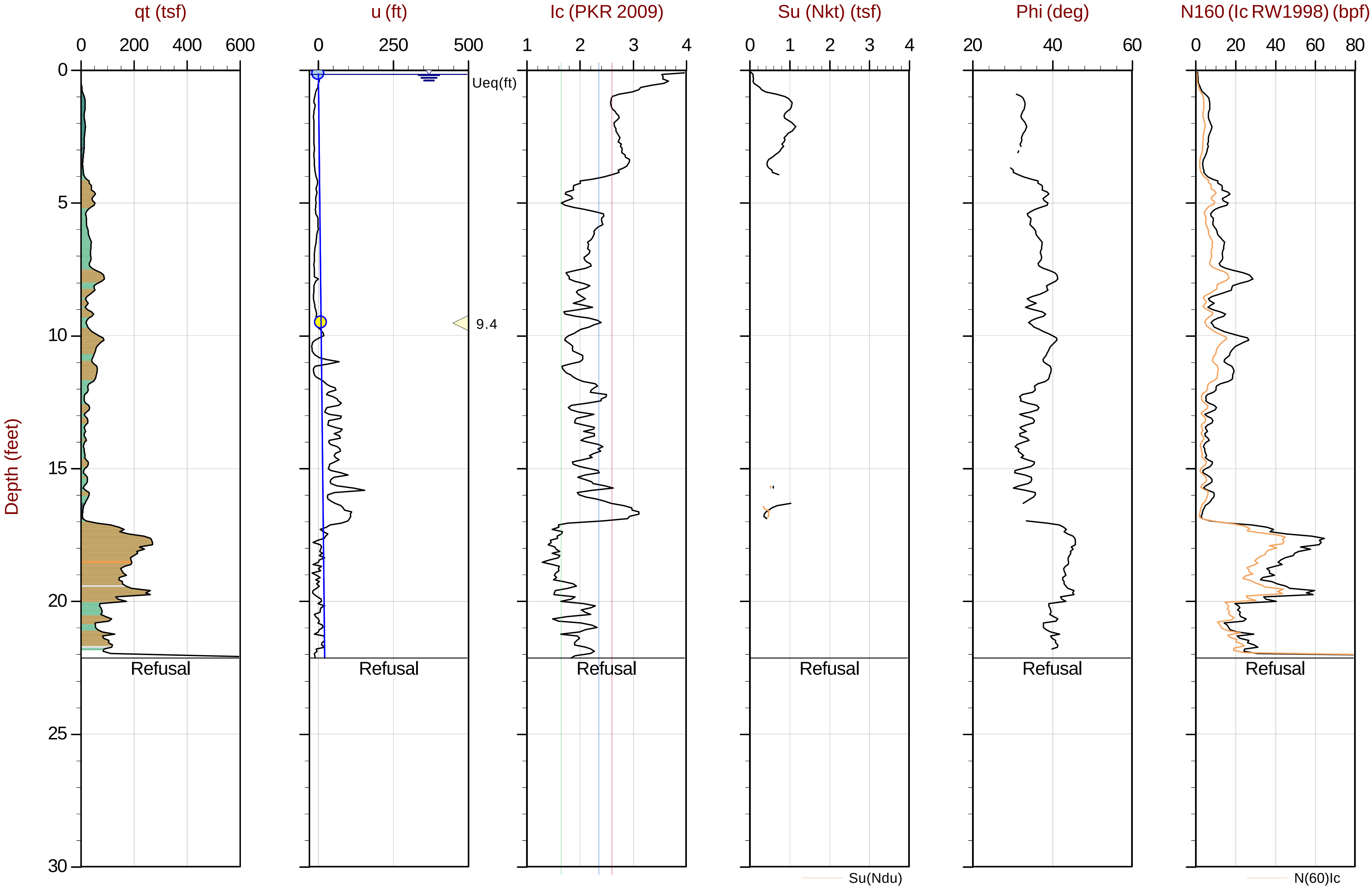
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 10:50
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-033
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.750 m / 22.15 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP033.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782544m E: 406413m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

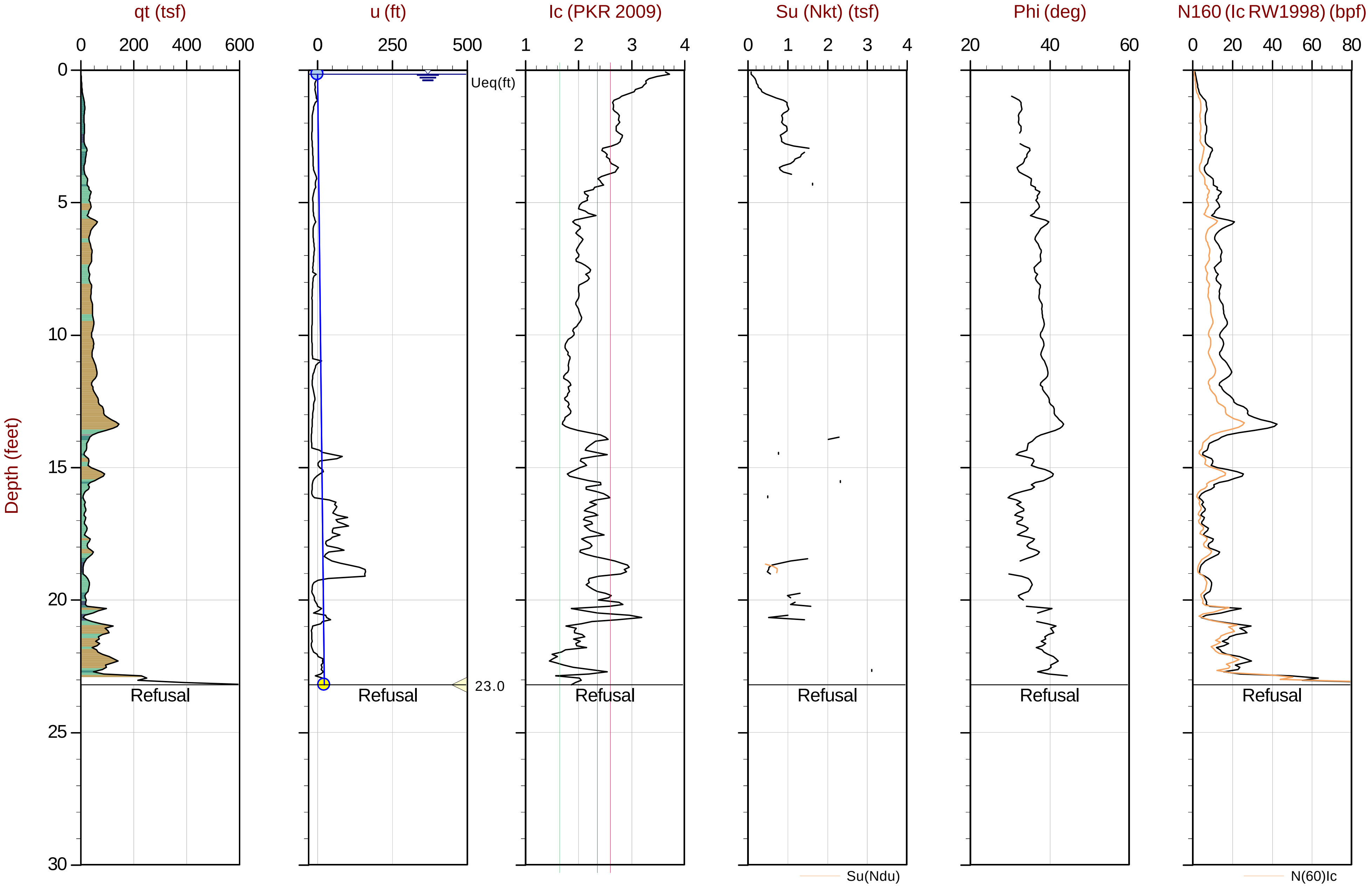
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 13:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-034
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 7.075 m / 23.21 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP034.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782670m E: 406134m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

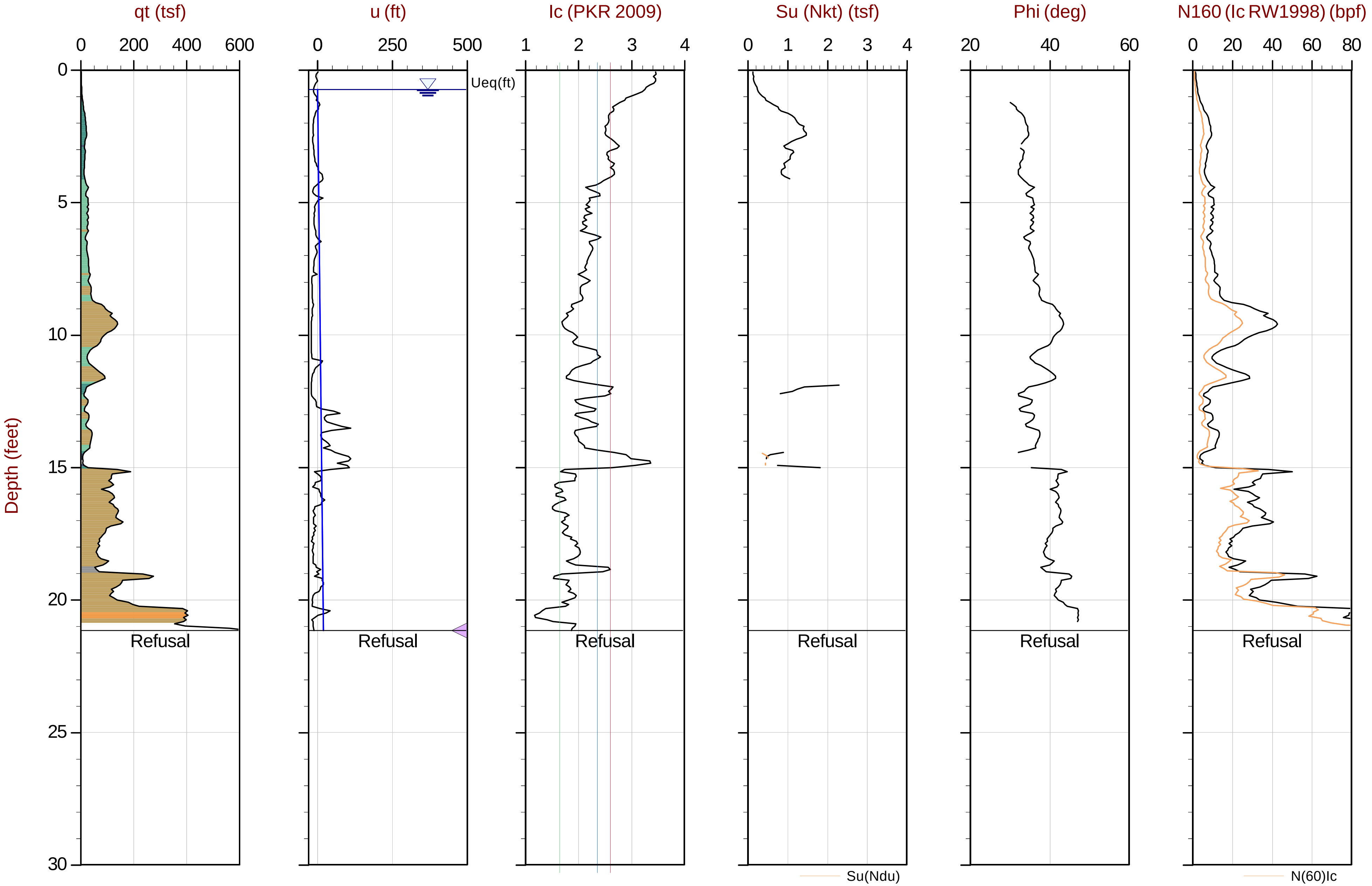
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 09:37
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-035
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.450 m / 21.16 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP035.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782636m E: 405966m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

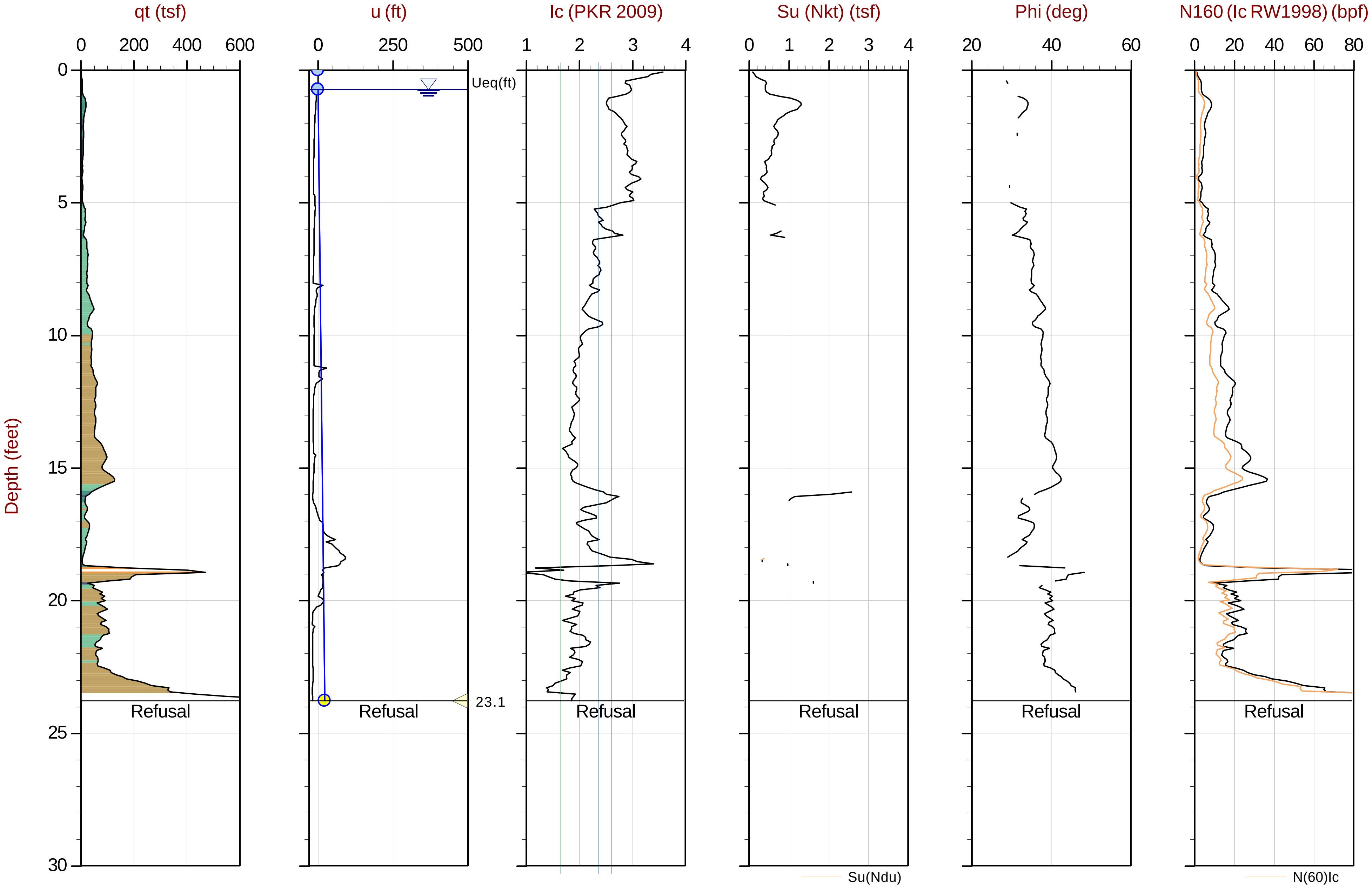
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 14:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-036
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 7.250 m / 23.79 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP036.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782589m E: 406145m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

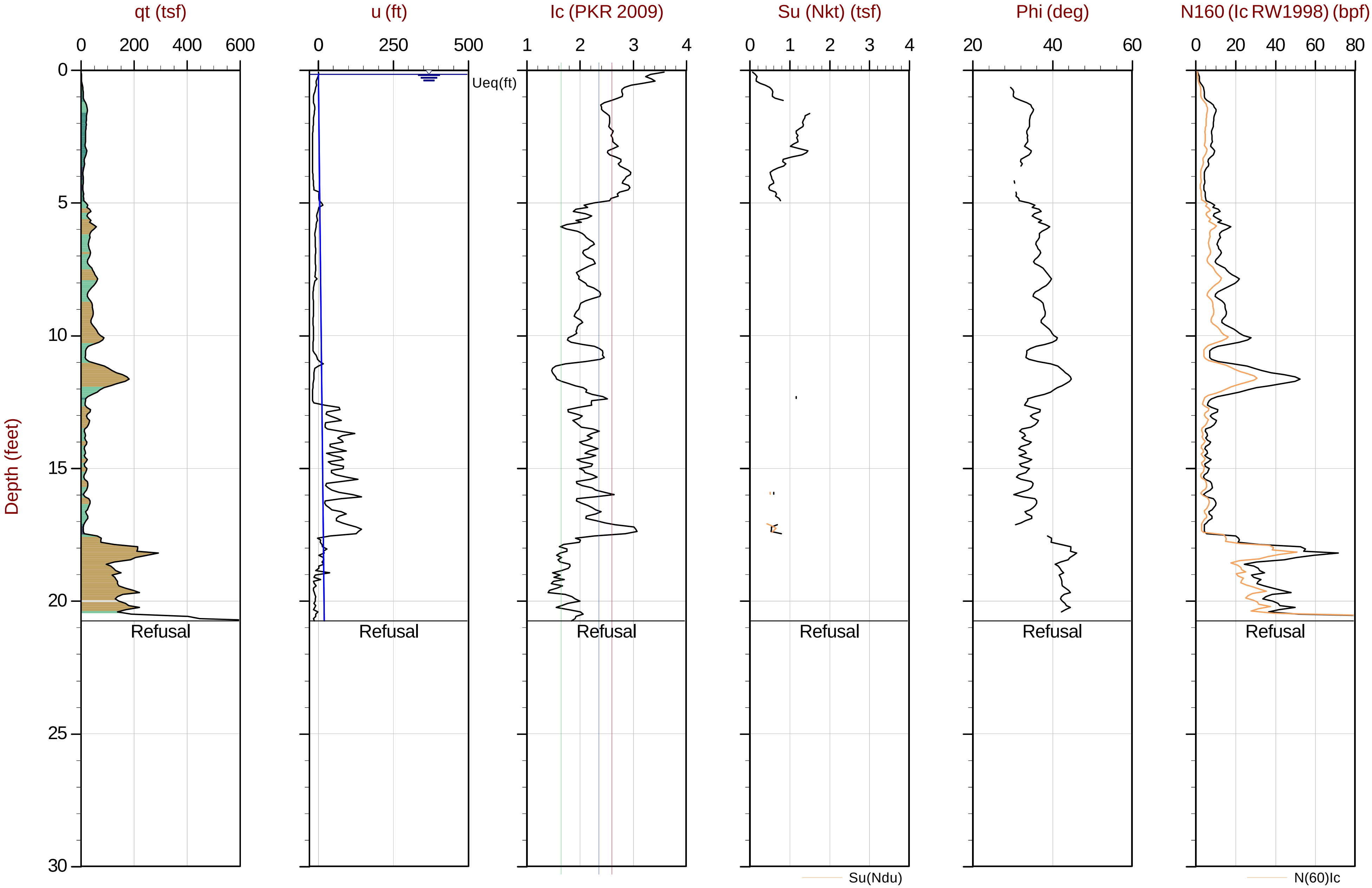
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 11:38
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-037
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.325 m / 20.75 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP037.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782481m E: 406293m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

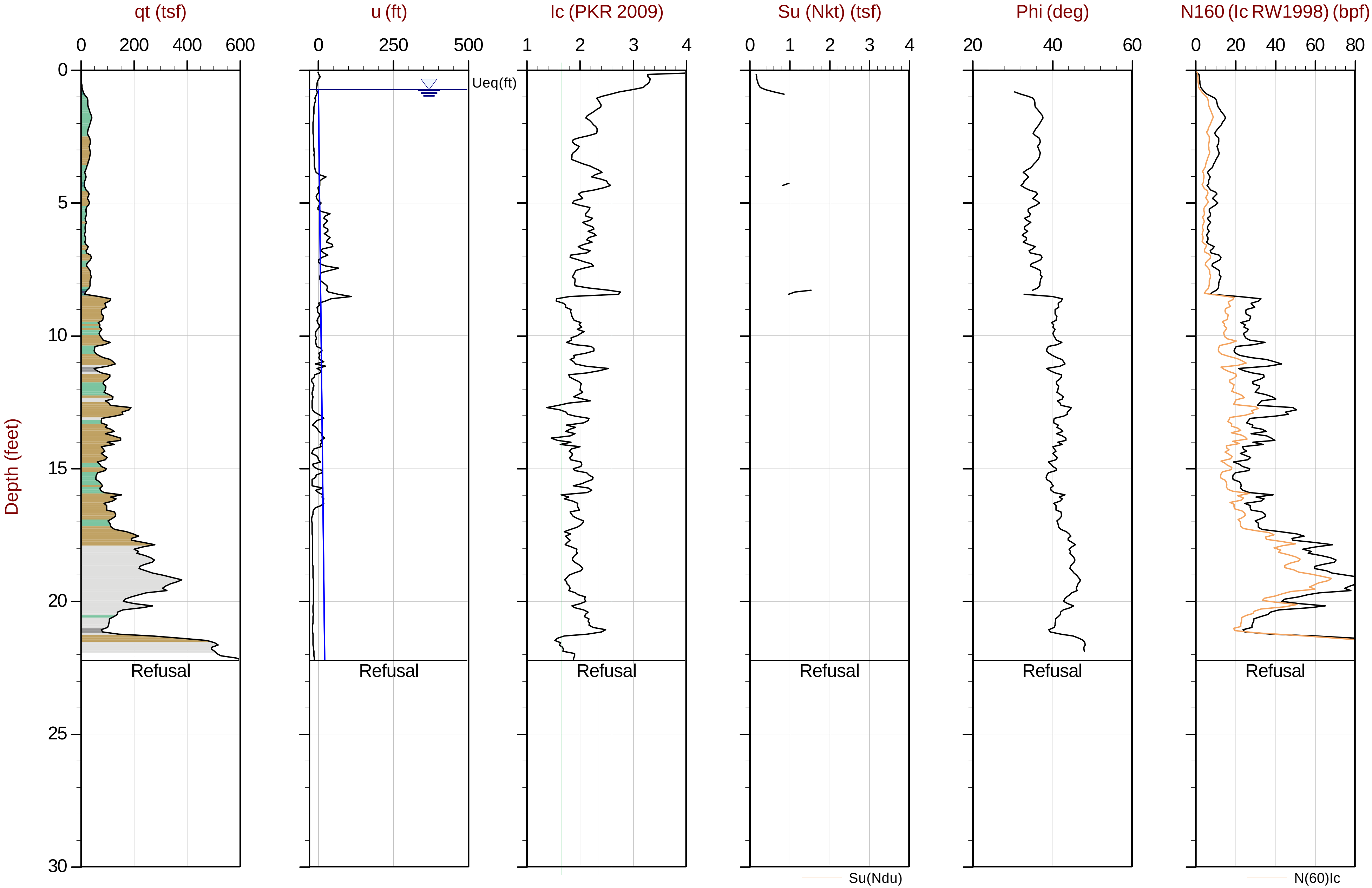
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 14:11
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-038
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.775 m / 22.23 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP038.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782577m E: 406061m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

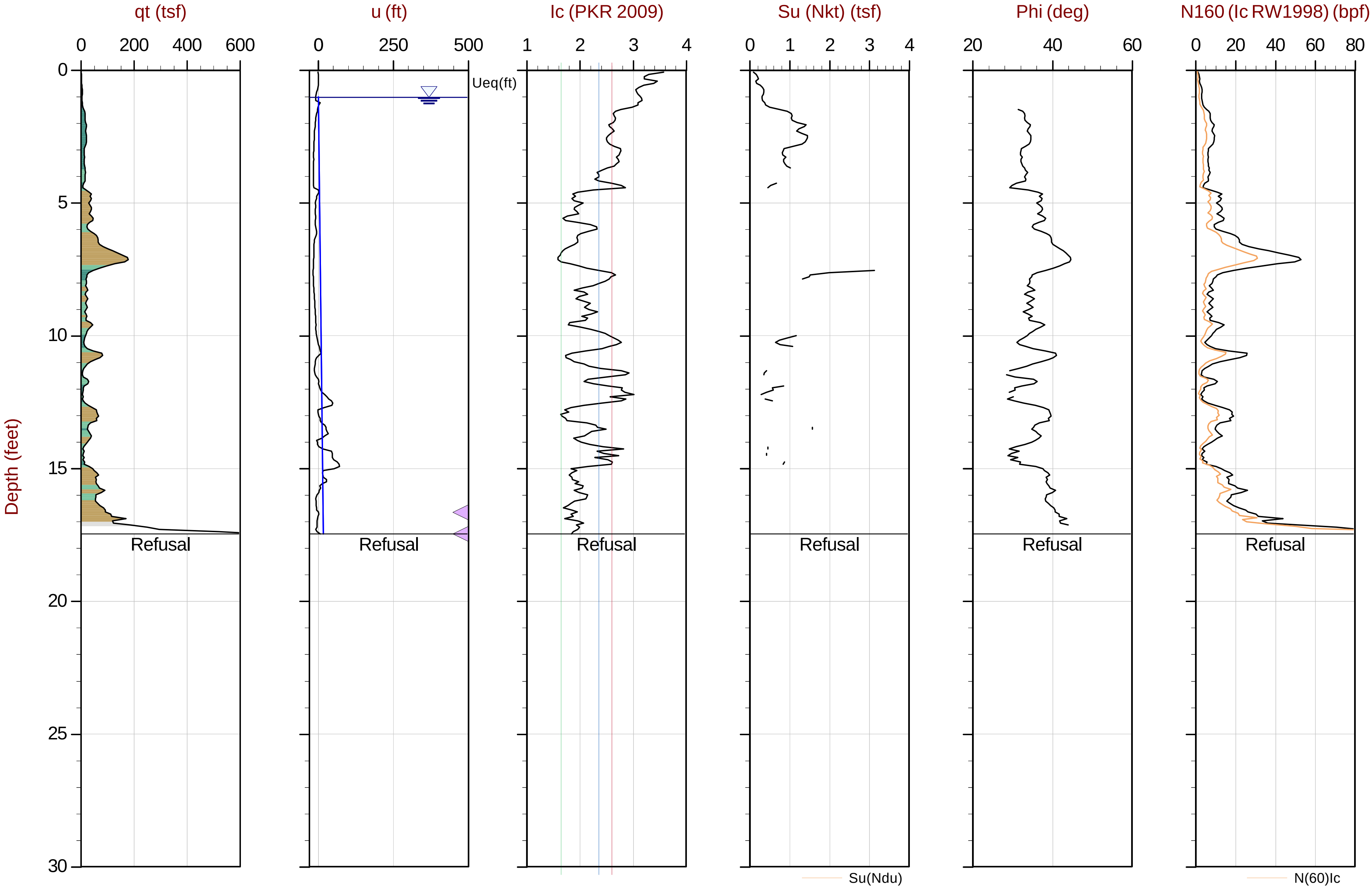
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 13:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-039
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.325 m / 17.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP039.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782454m E: 406122m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

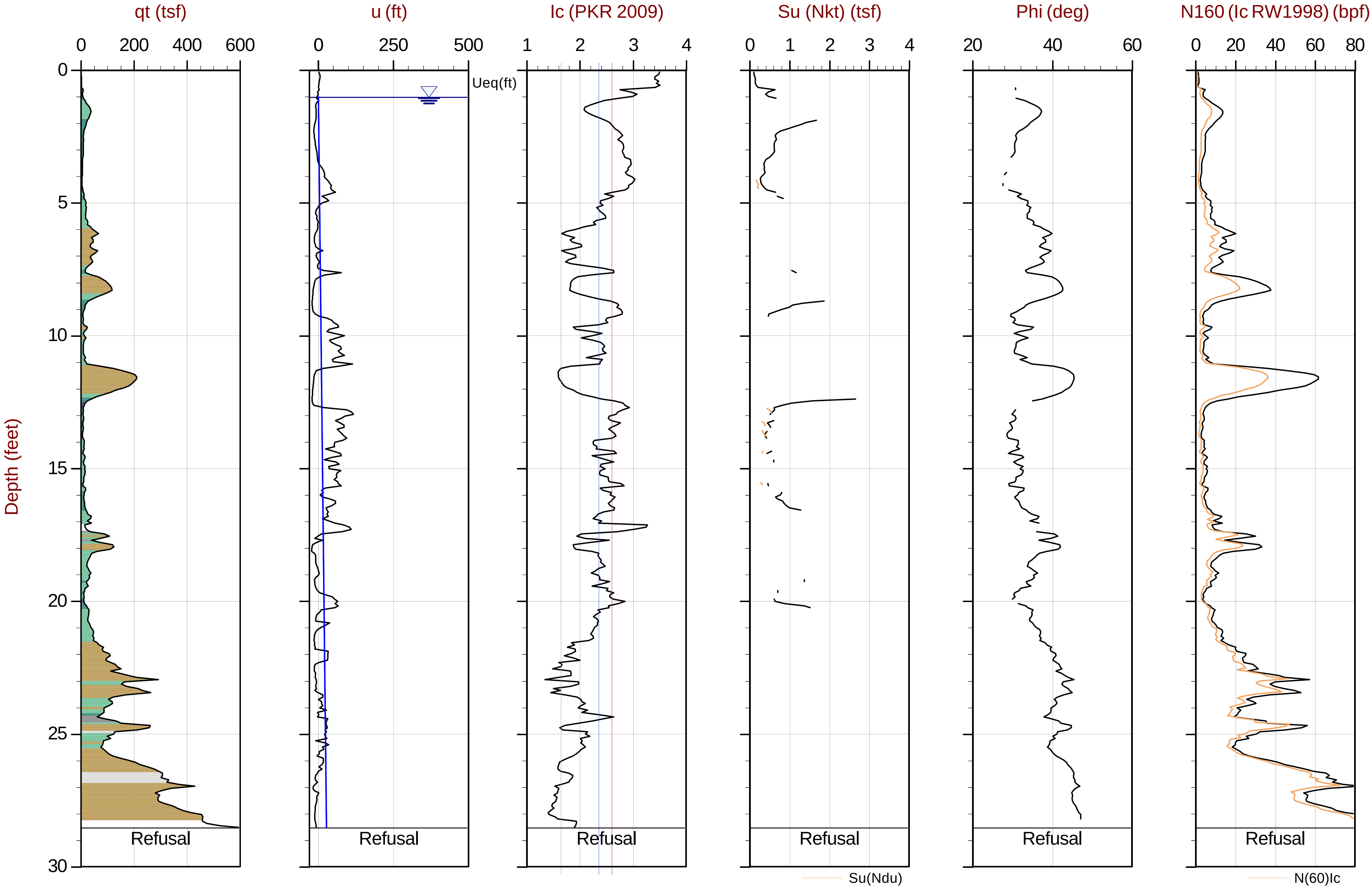
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 14:32
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-040
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 8.700 m / 28.54 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP040.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782422m E: 406184m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

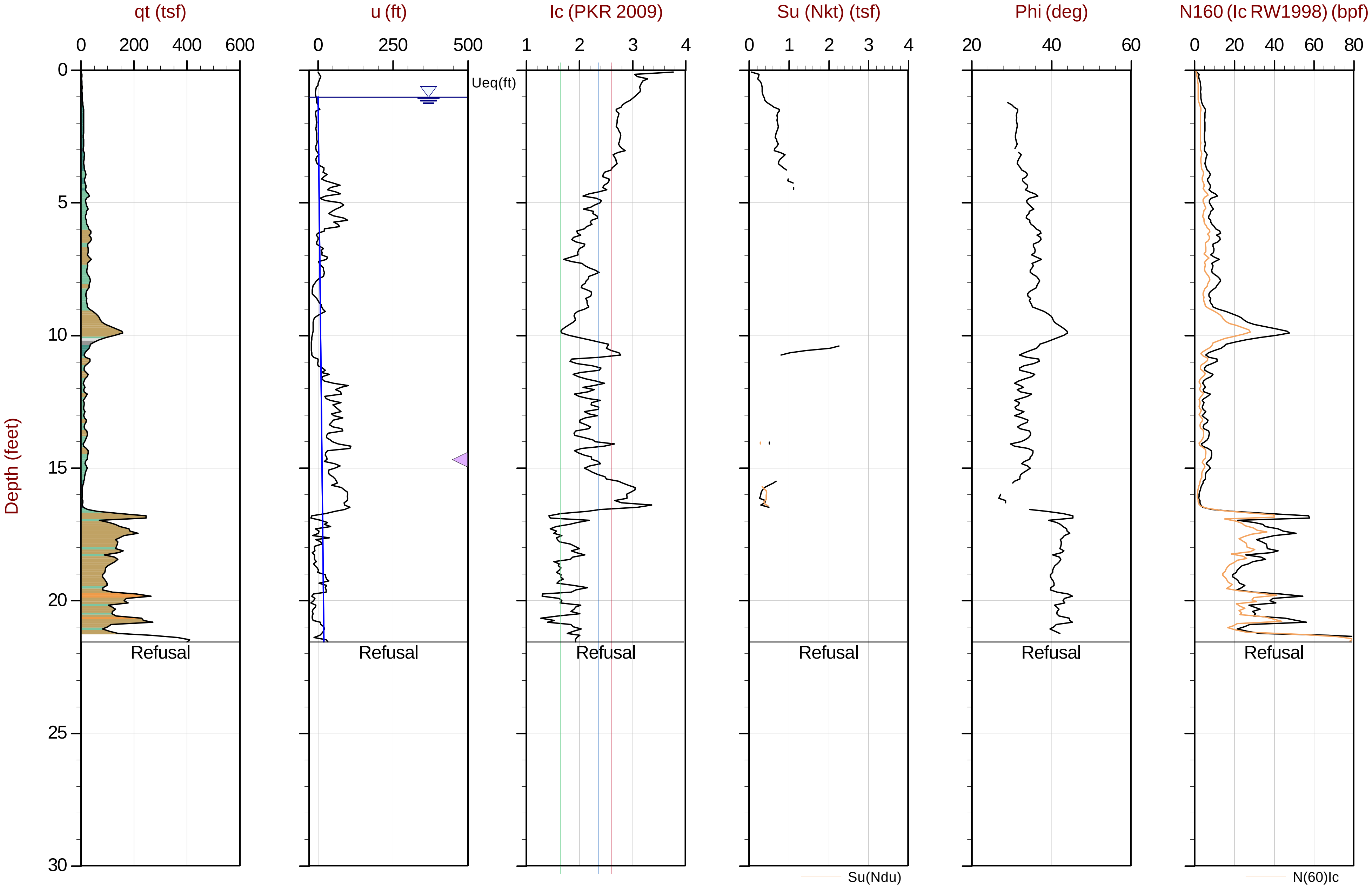
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 08:19
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-041
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.575 m / 21.57 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP041.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782389m E: 406308m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

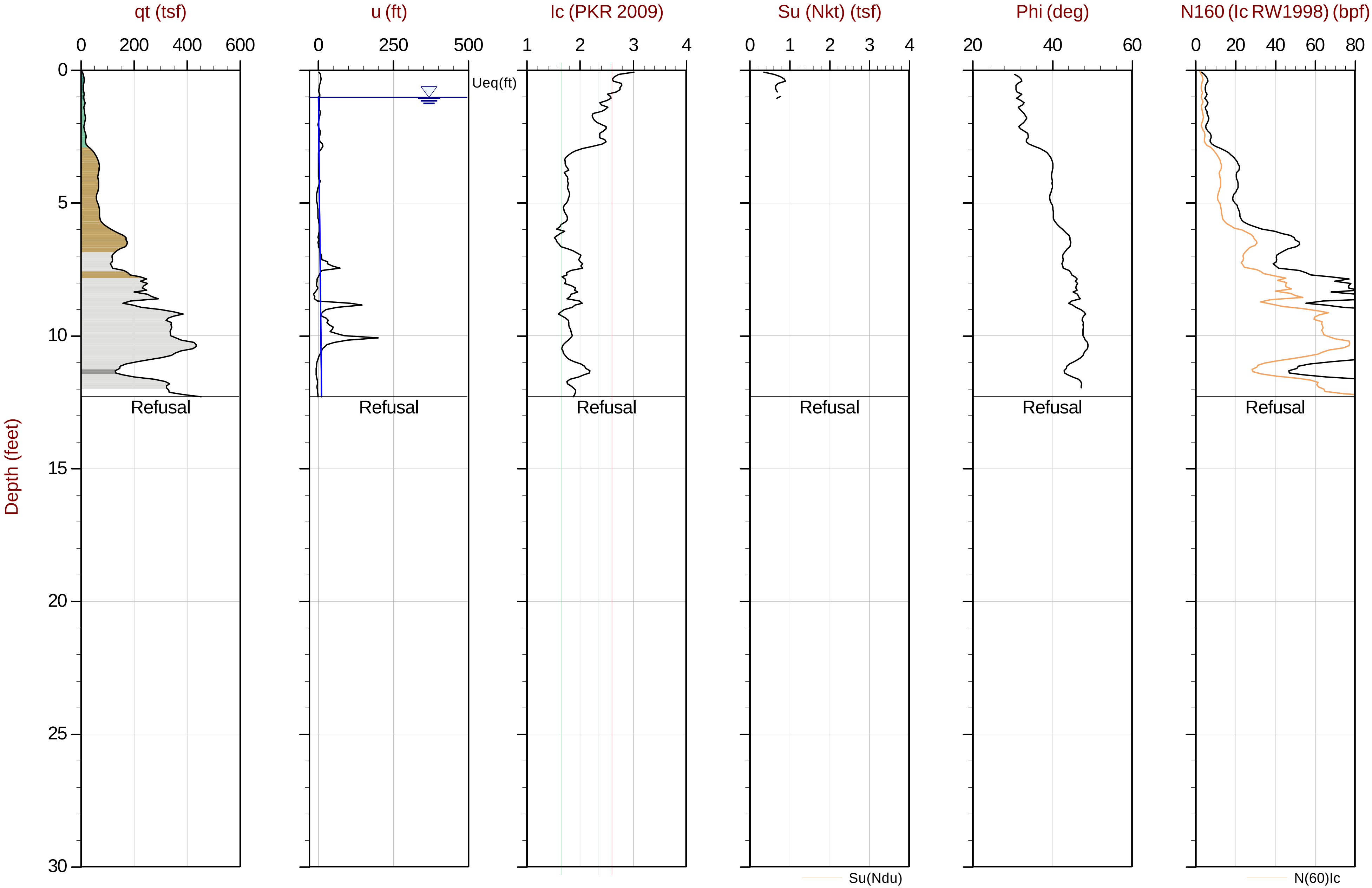
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 08:53
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-042
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 3.750 m / 12.30 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP042.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782471m E: 405998m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

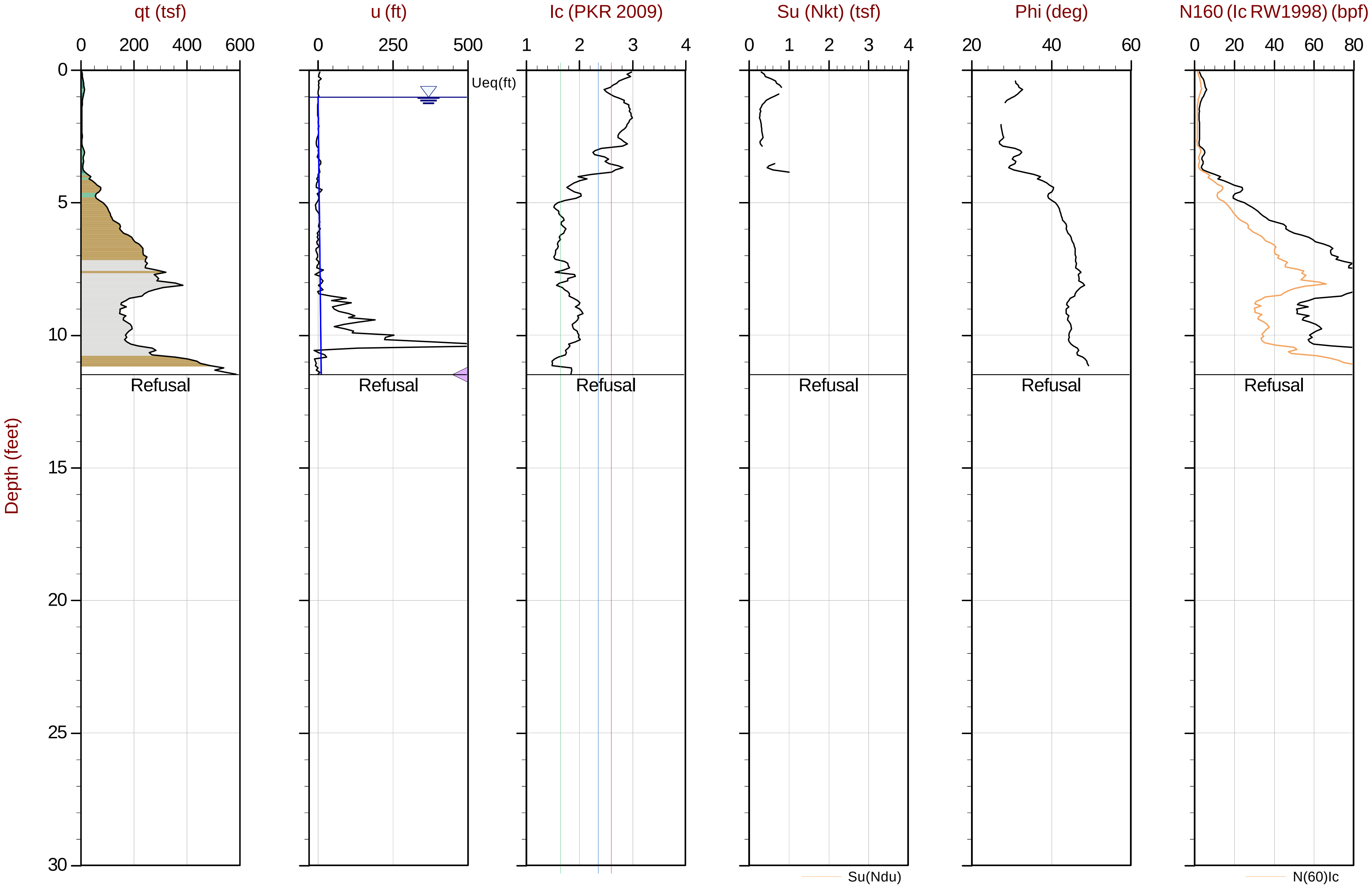
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 09:44
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-043
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 3.500 m / 11.48 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP043.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782330m E: 406181m

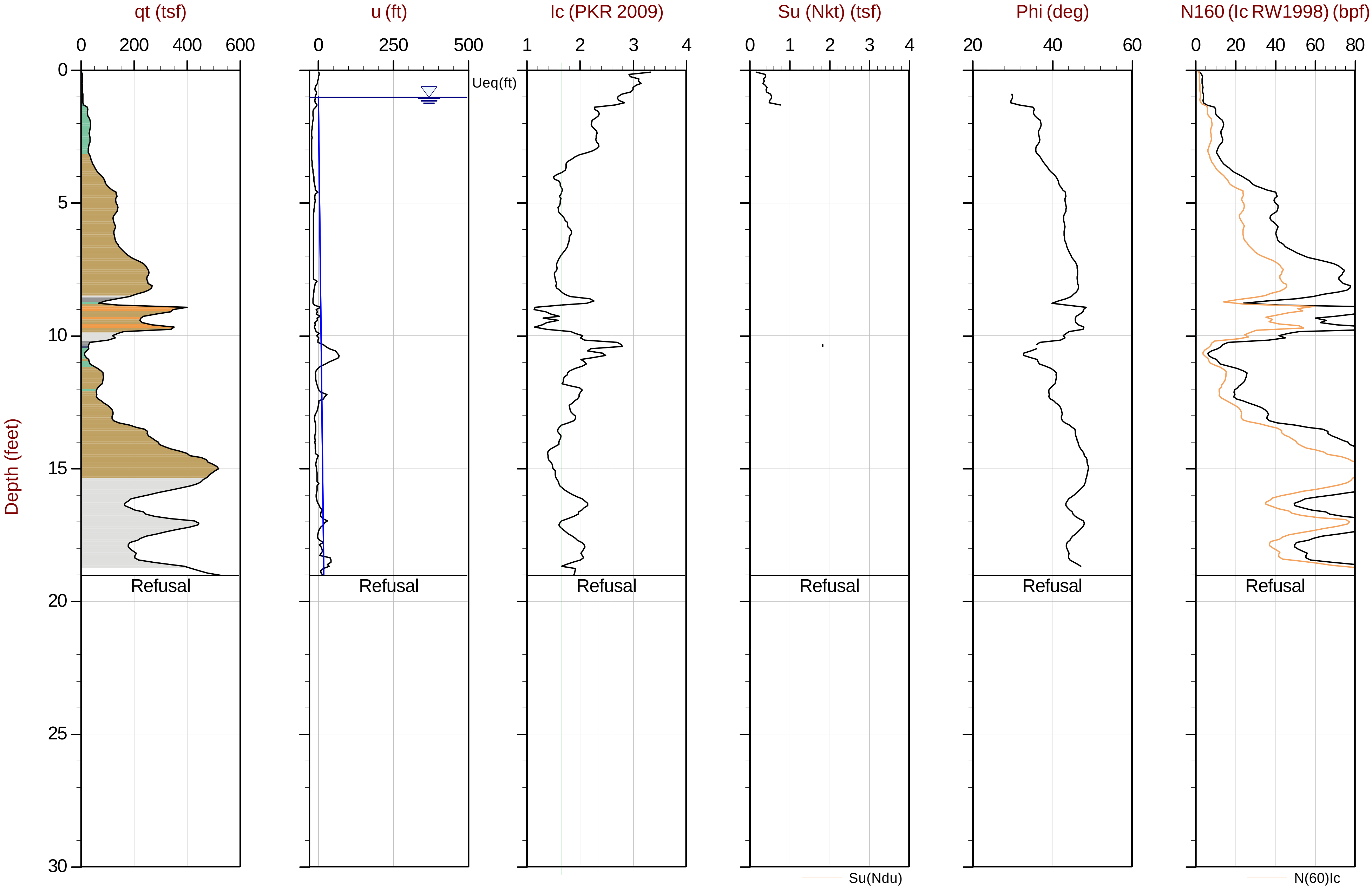
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 12:34
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-044
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.800 m / 19.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP044.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782496m E: 405849m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

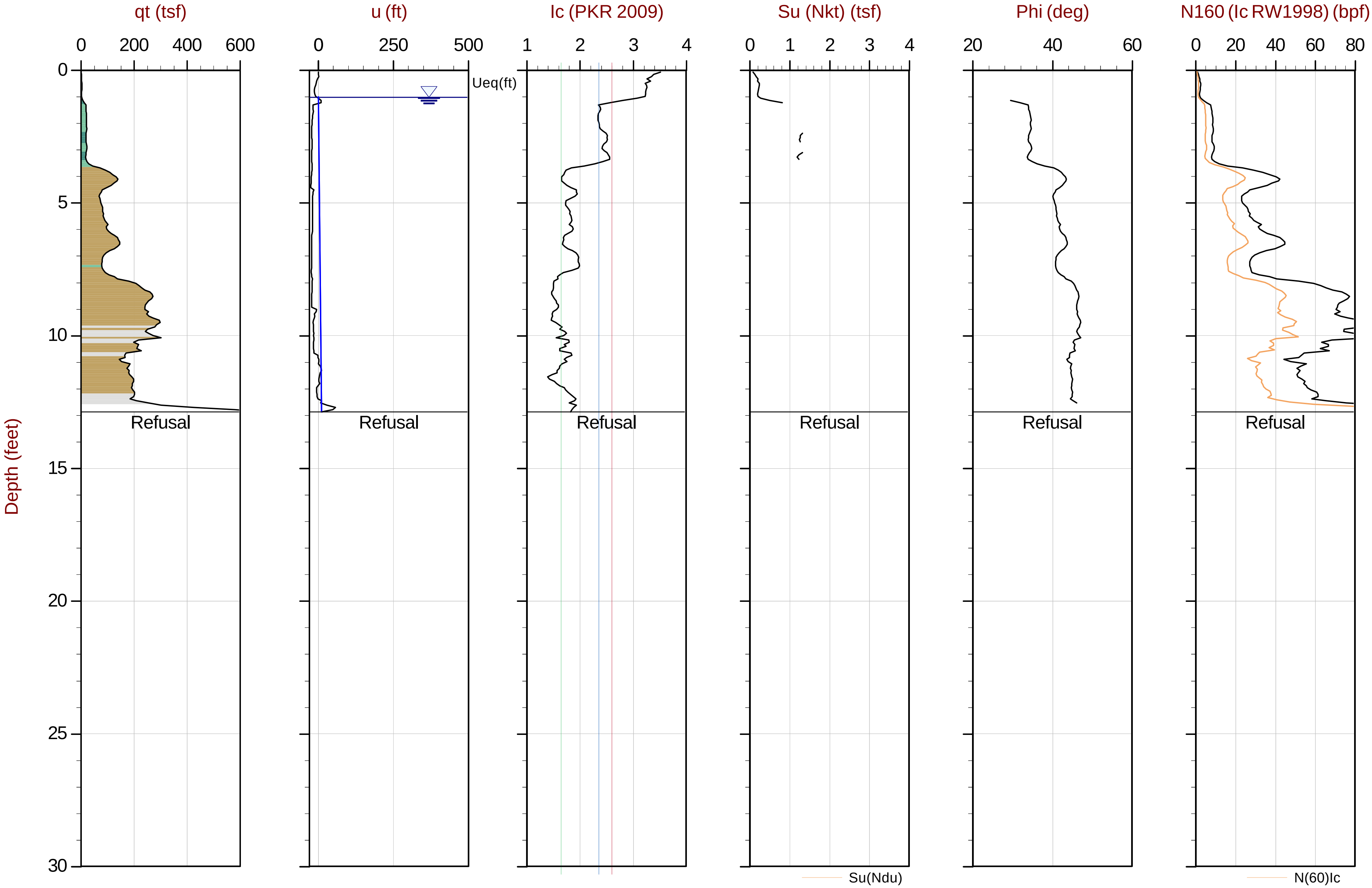
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 11:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-045
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 3.925 m / 12.88 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP045.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782412m E: 405871m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

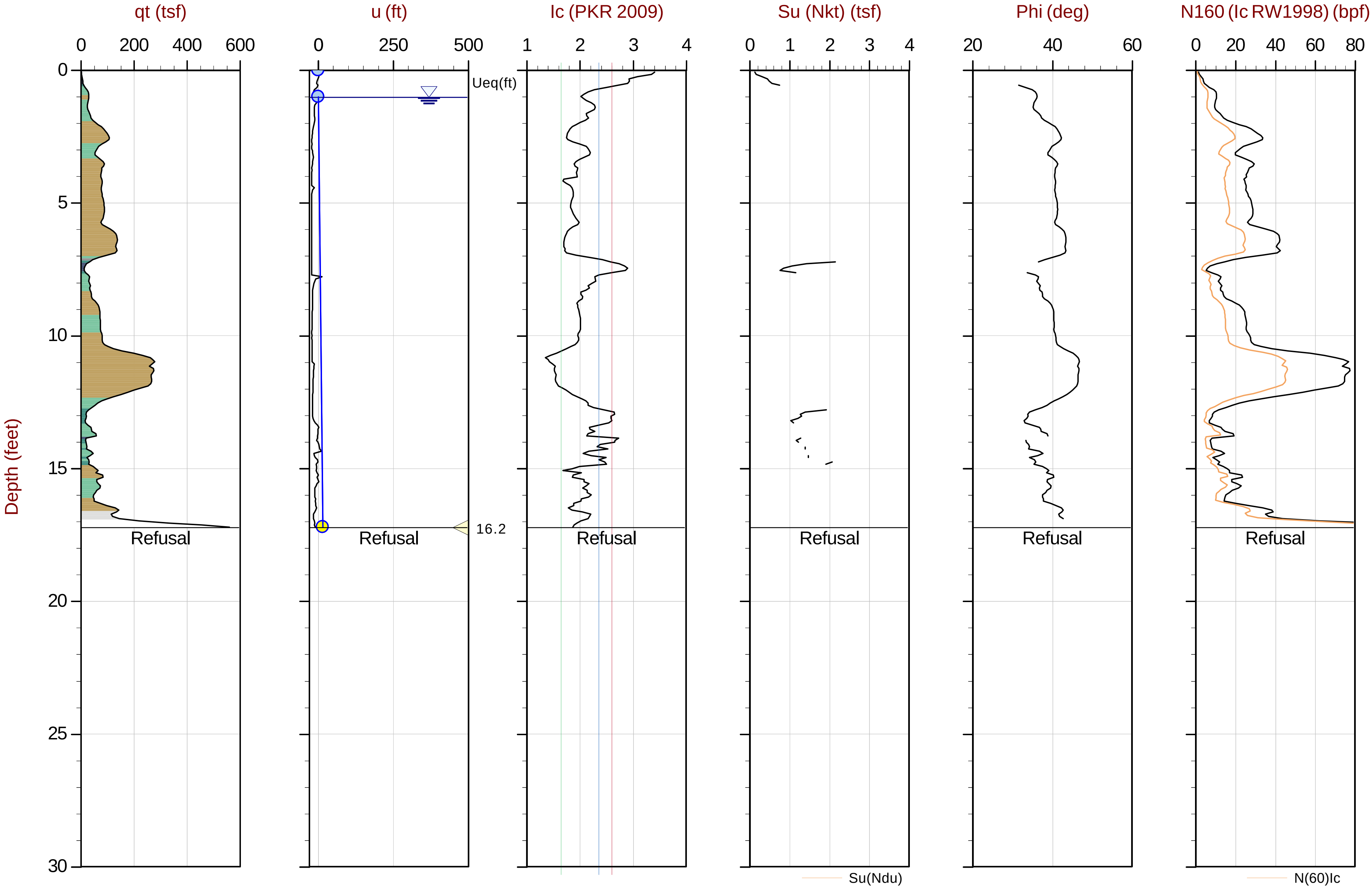
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 10:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-046
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_SP046.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782338m E: 405963m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

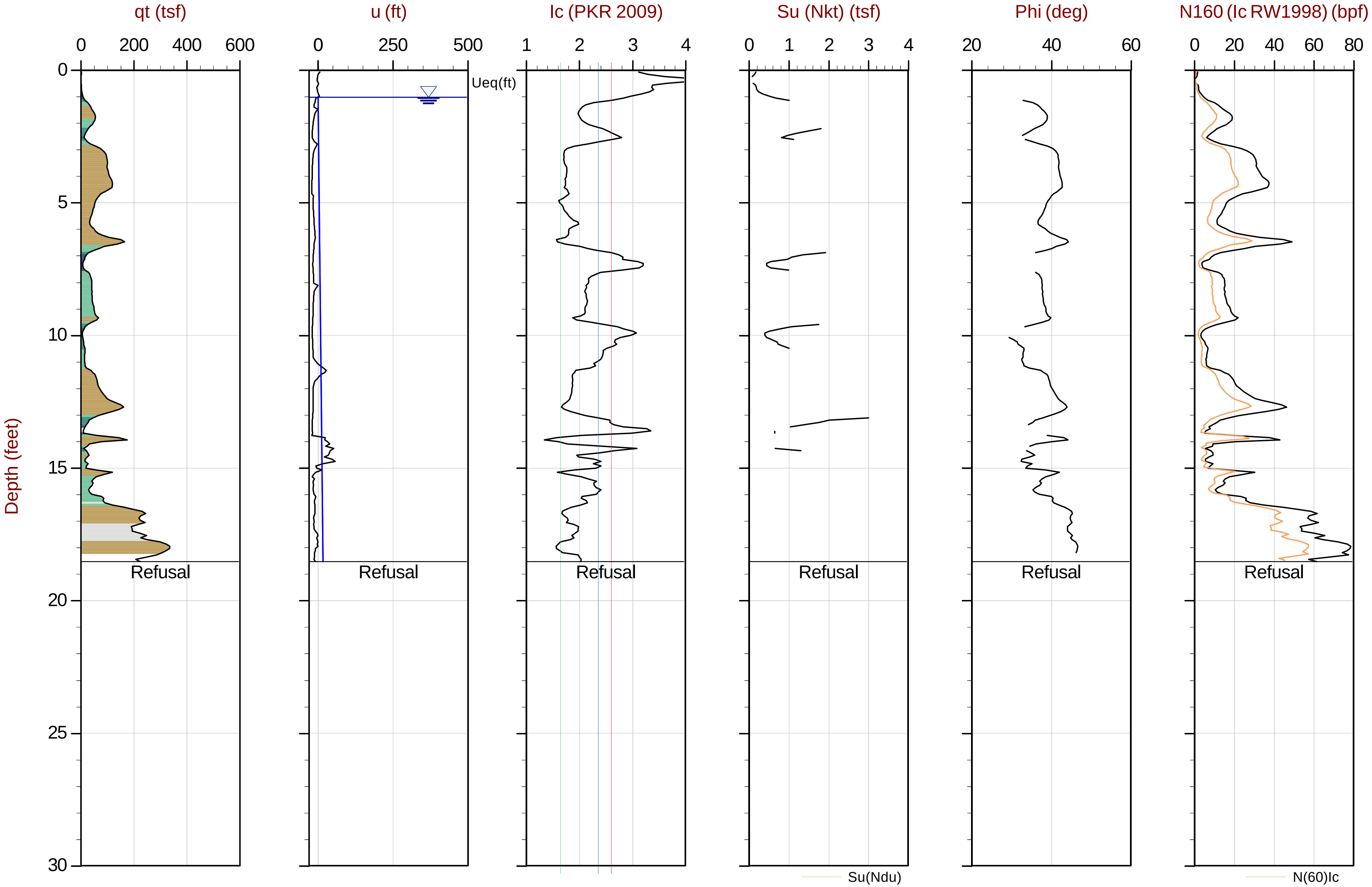
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 10:24
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-047
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_CP047.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782249m E: 406104m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

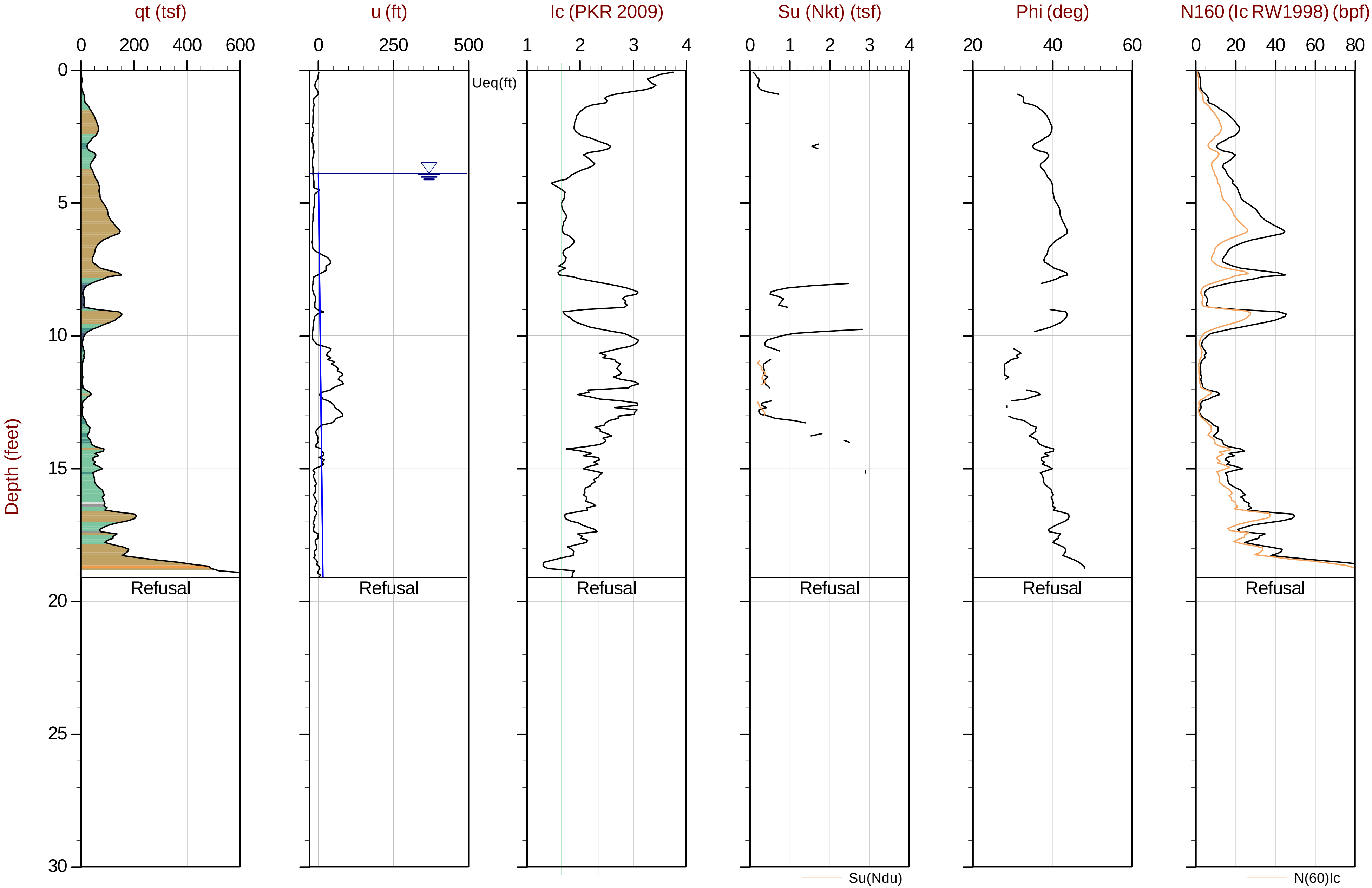
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 11:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-048
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.825 m / 19.11 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP048.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782141m E: 406130m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

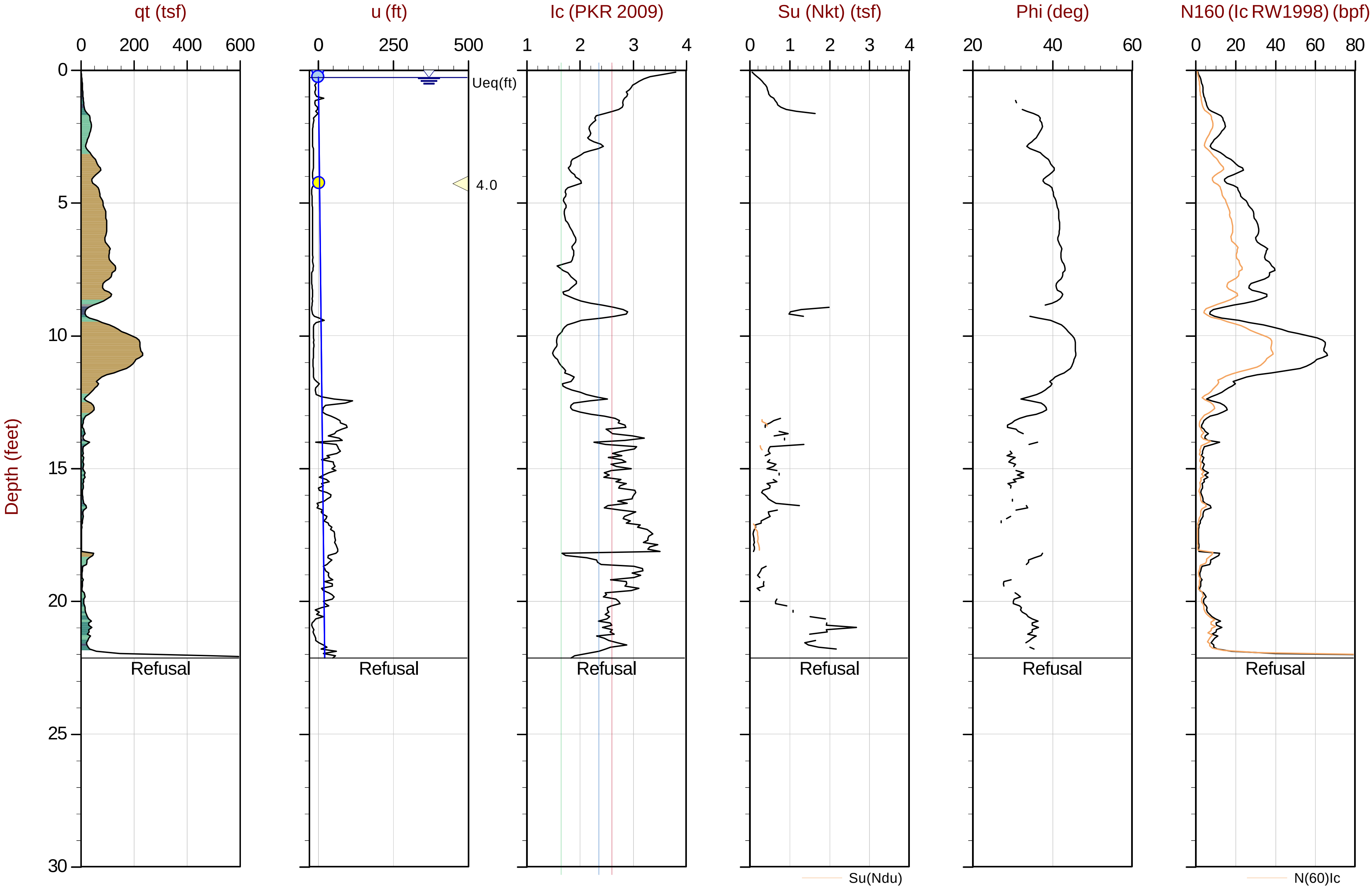
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 10:29
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-049
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.750 m / 22.15 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP049.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782041m E: 406269m

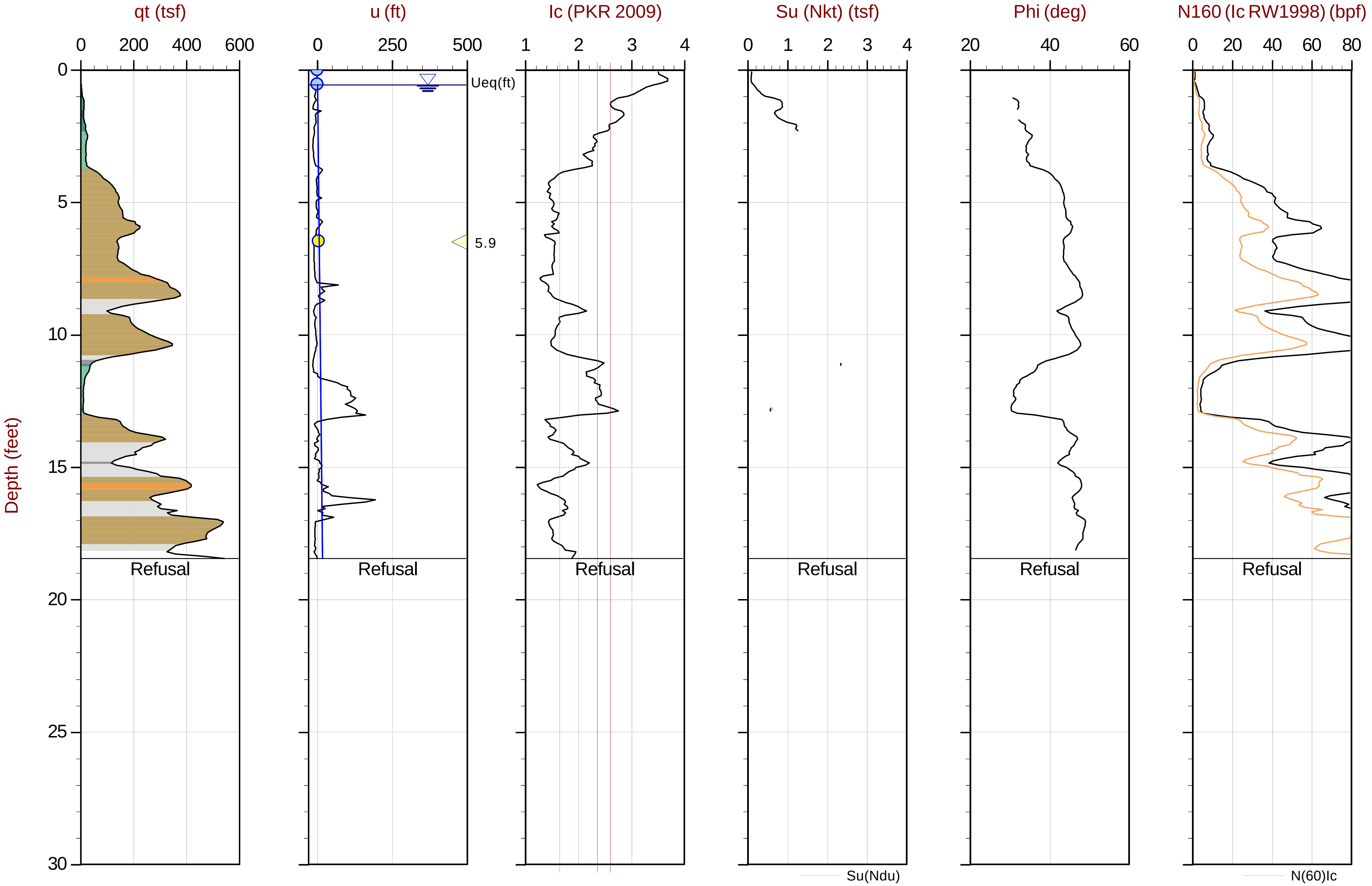
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 13:19
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-050
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 5.625 m / 18.45 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP050.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782206m E: 405943m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

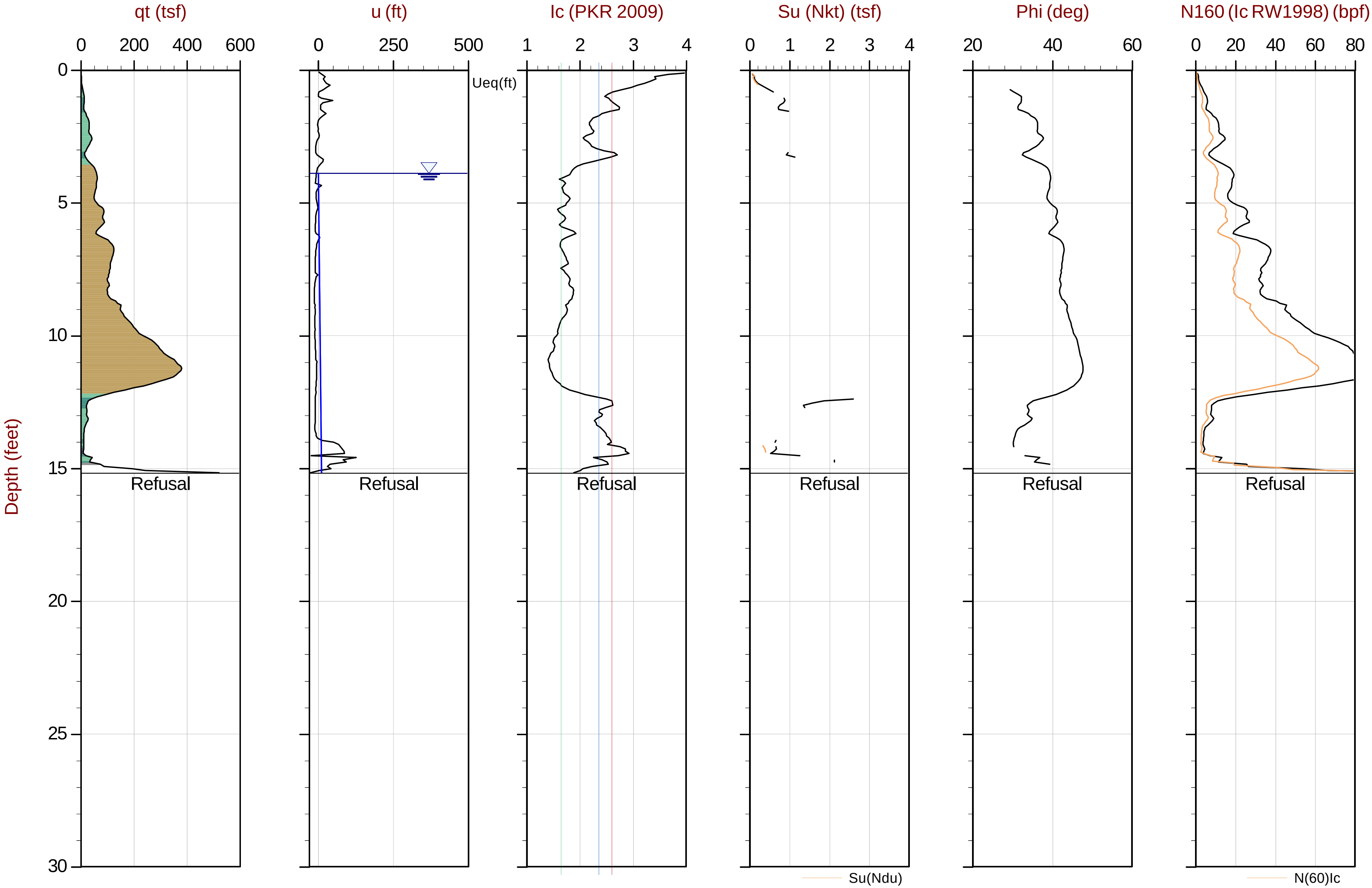
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 11:16
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-051
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_CP051.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

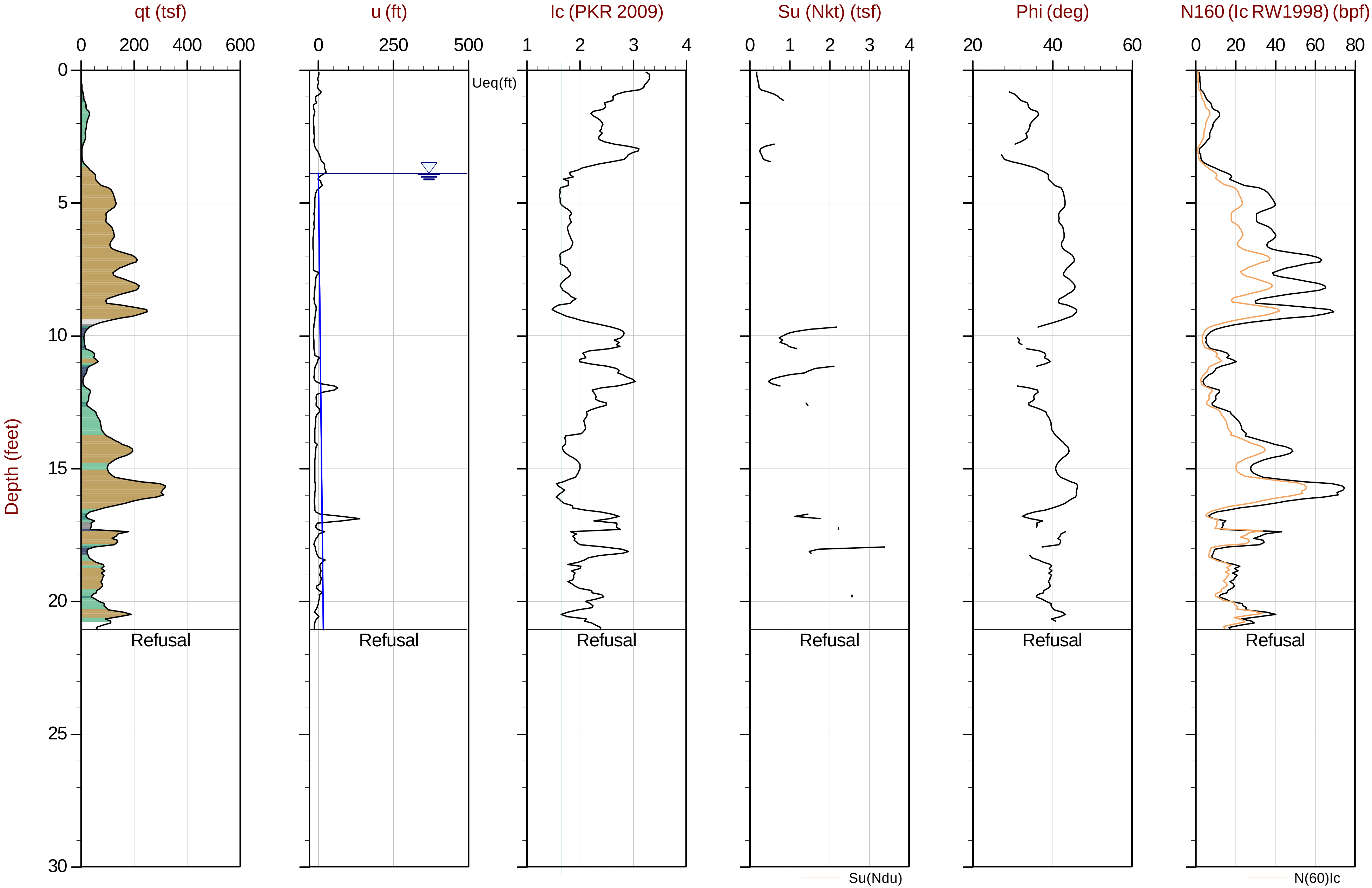
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782135m E: 406045m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 09:23
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-052
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.425 m / 21.08 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP052.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782062m E: 406140m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

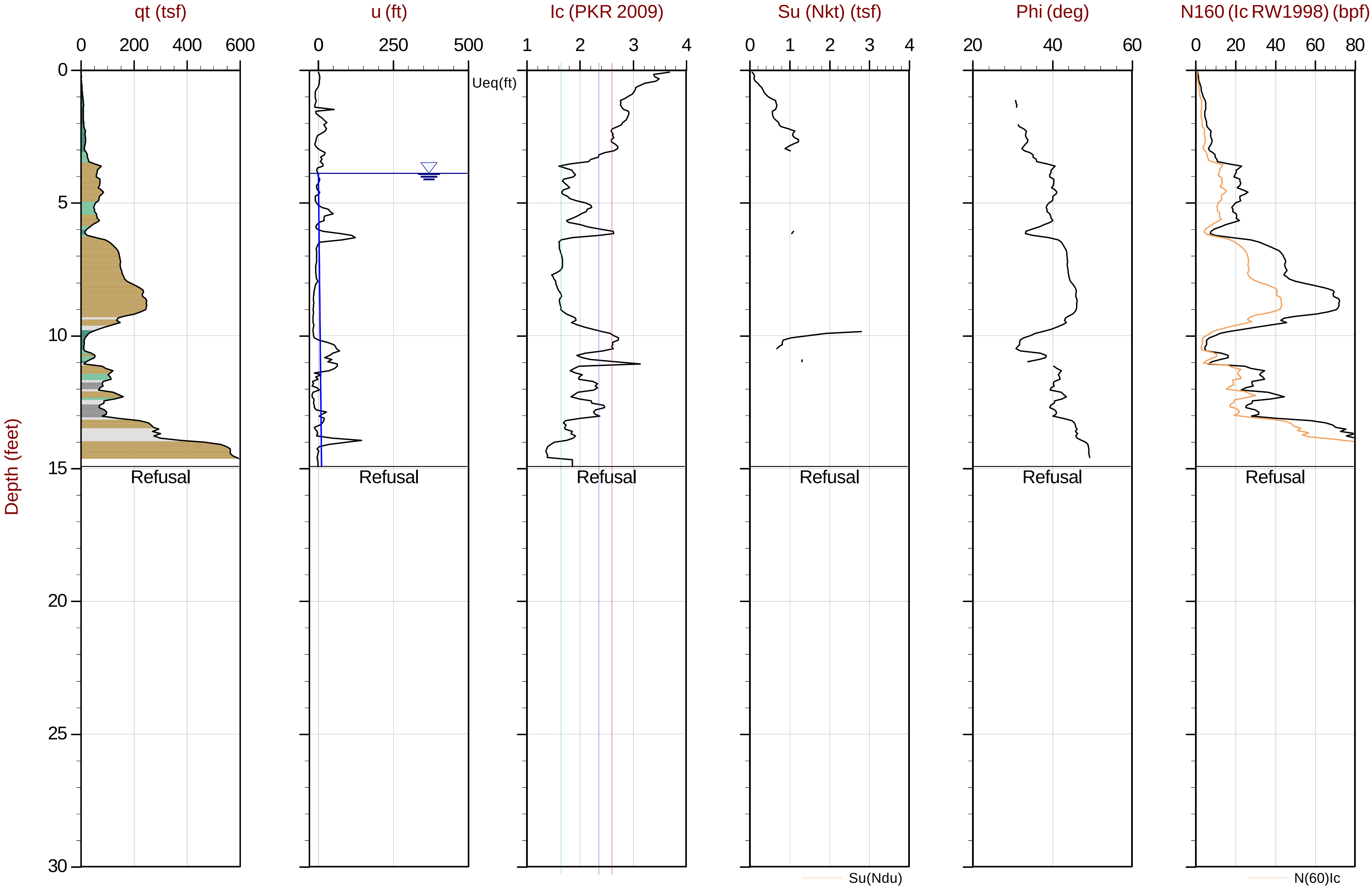
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 15:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-053
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_CP053.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782087m E: 405998m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

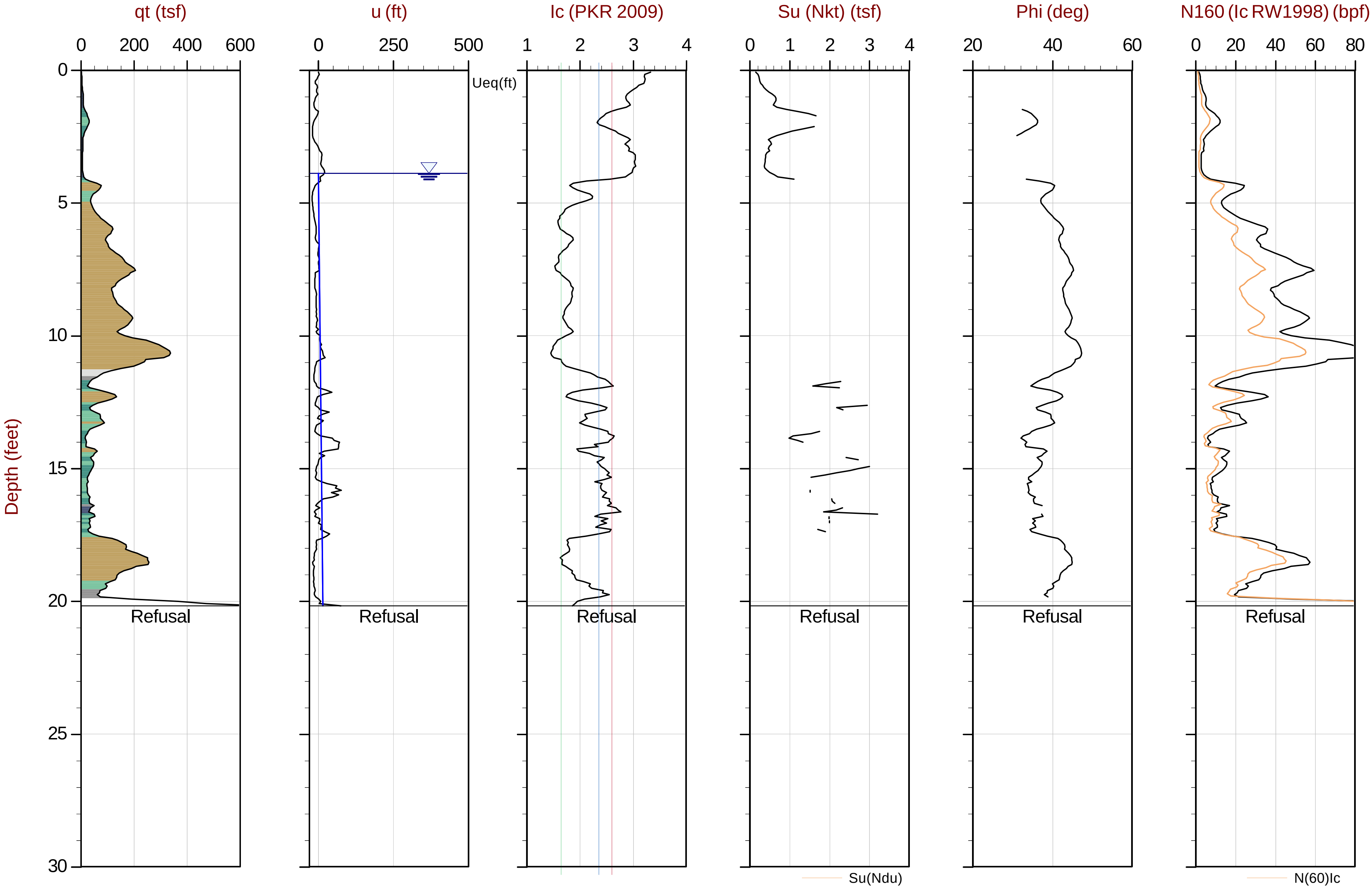
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 09:57
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-054
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.150 m / 20.18 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP054.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

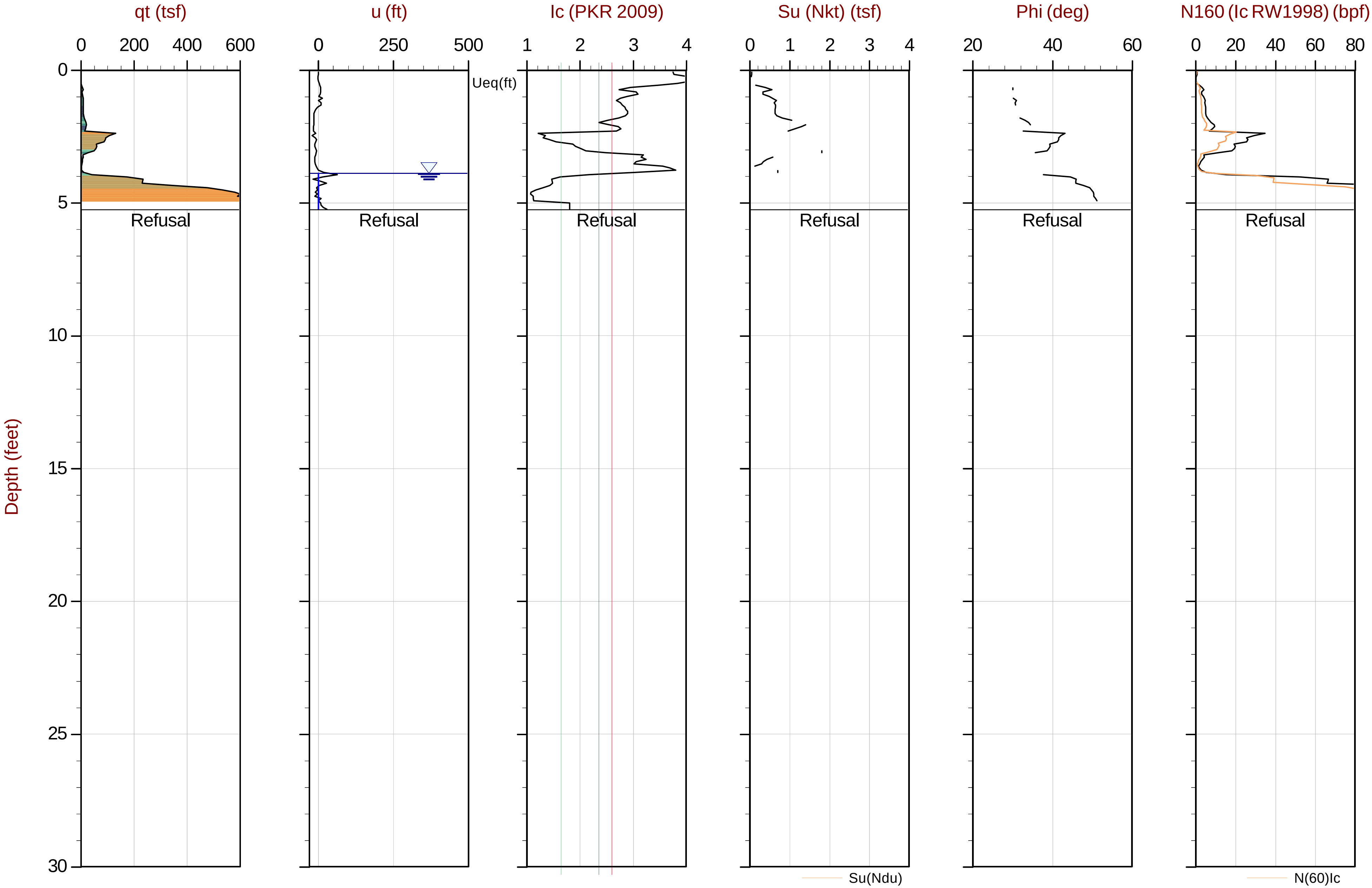
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4781950m E: 406216m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 13:57
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-055
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 1.600 m / 5.25 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP055.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782000m E: 405950m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

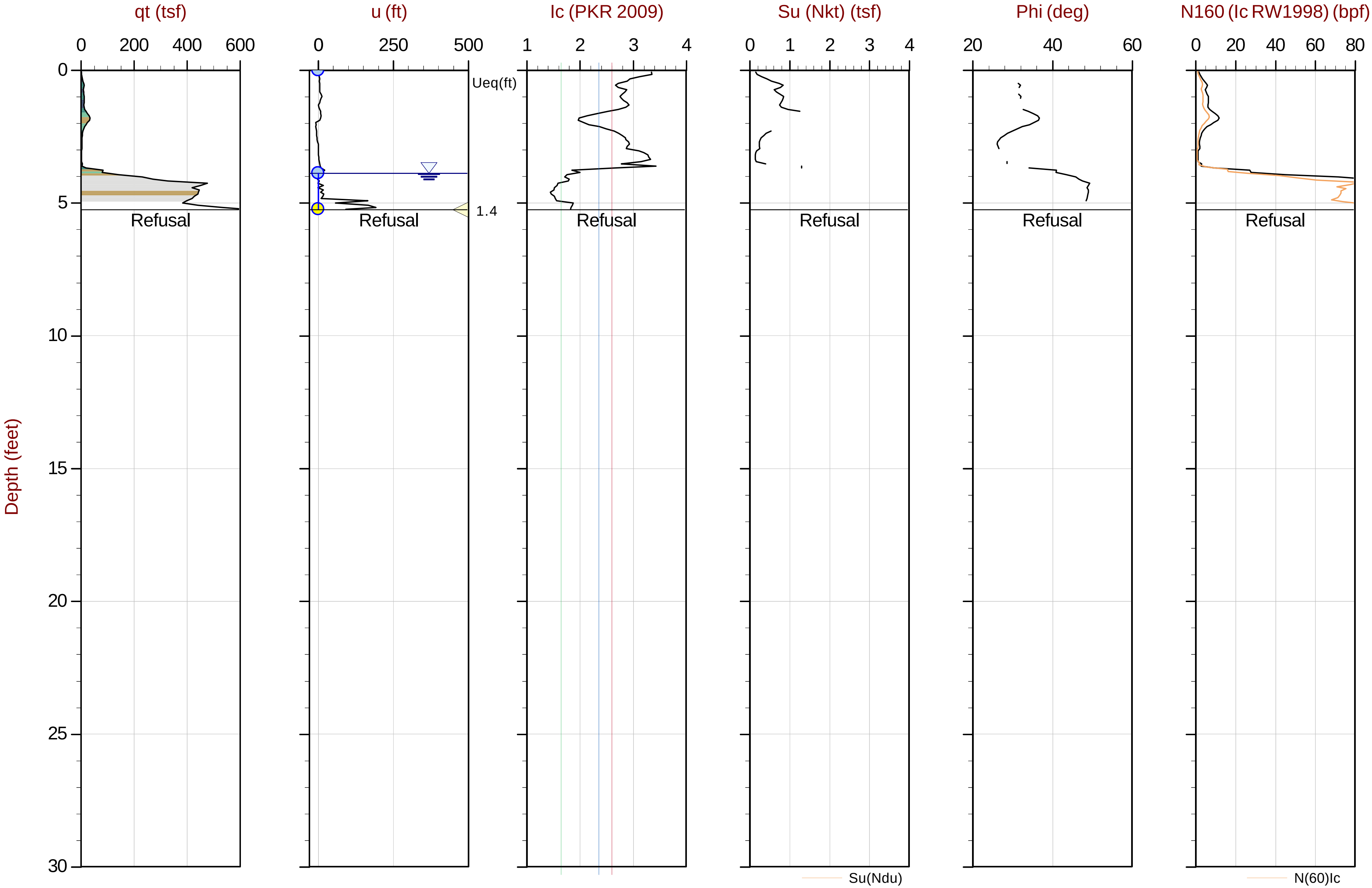
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:18
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-055B
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 1.600 m / 5.25 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP055B.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782003m E: 405955m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

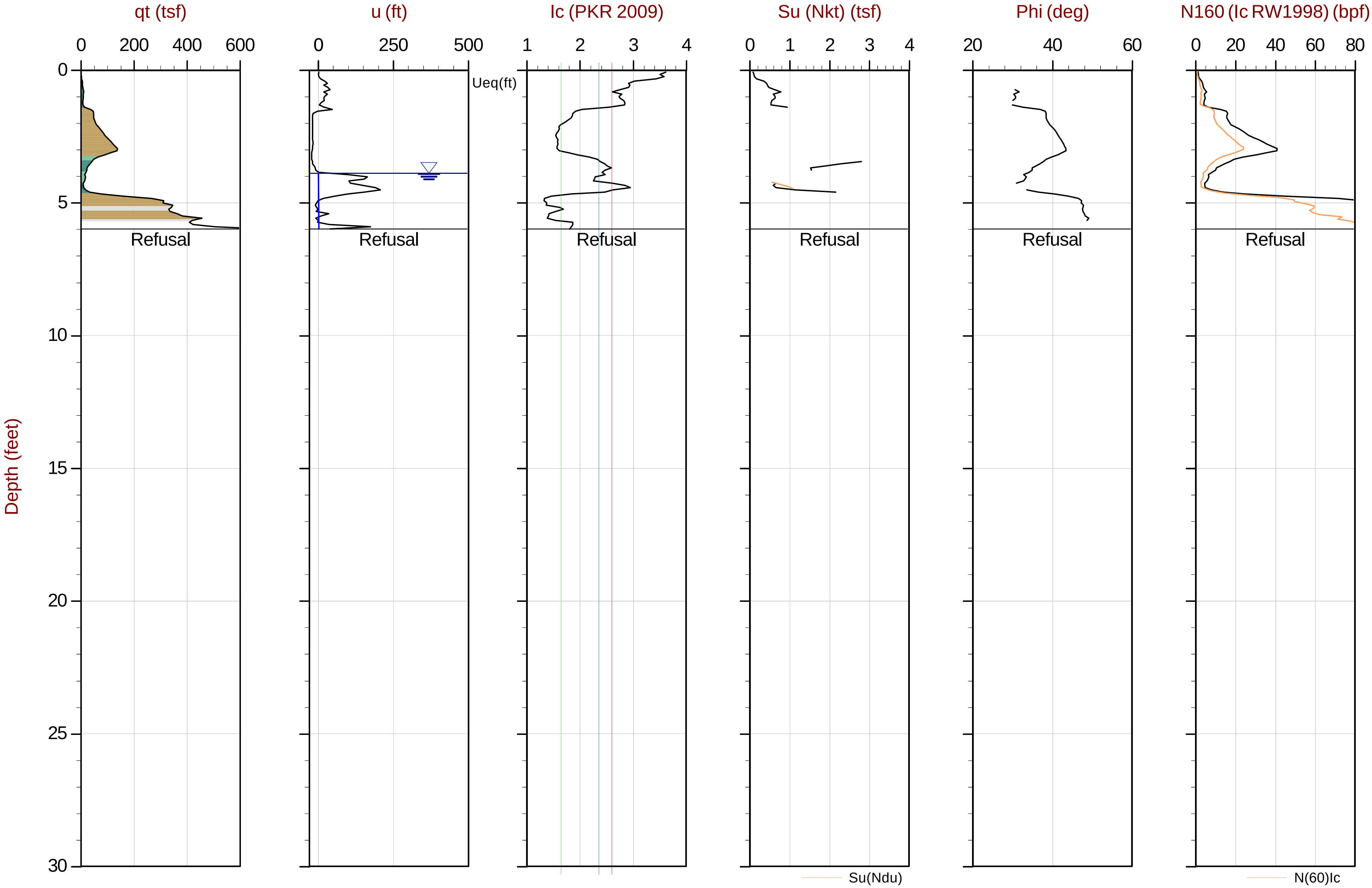
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:47
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-055C
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 1.825 m / 5.99 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP055C.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4781999m E: 405964m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

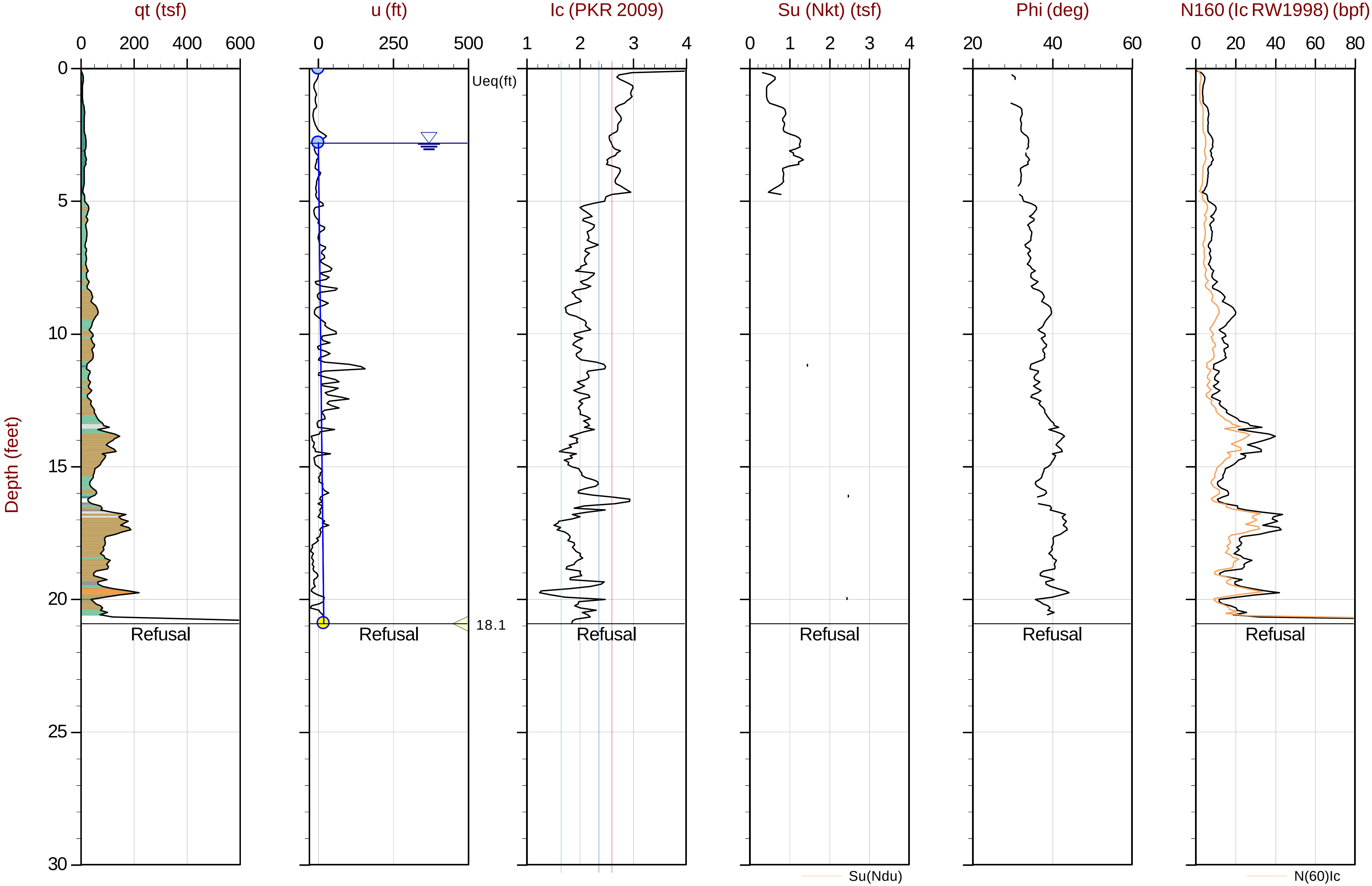
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 11:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-056
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.375 m / 20.92 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP056.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783007m E: 406298m

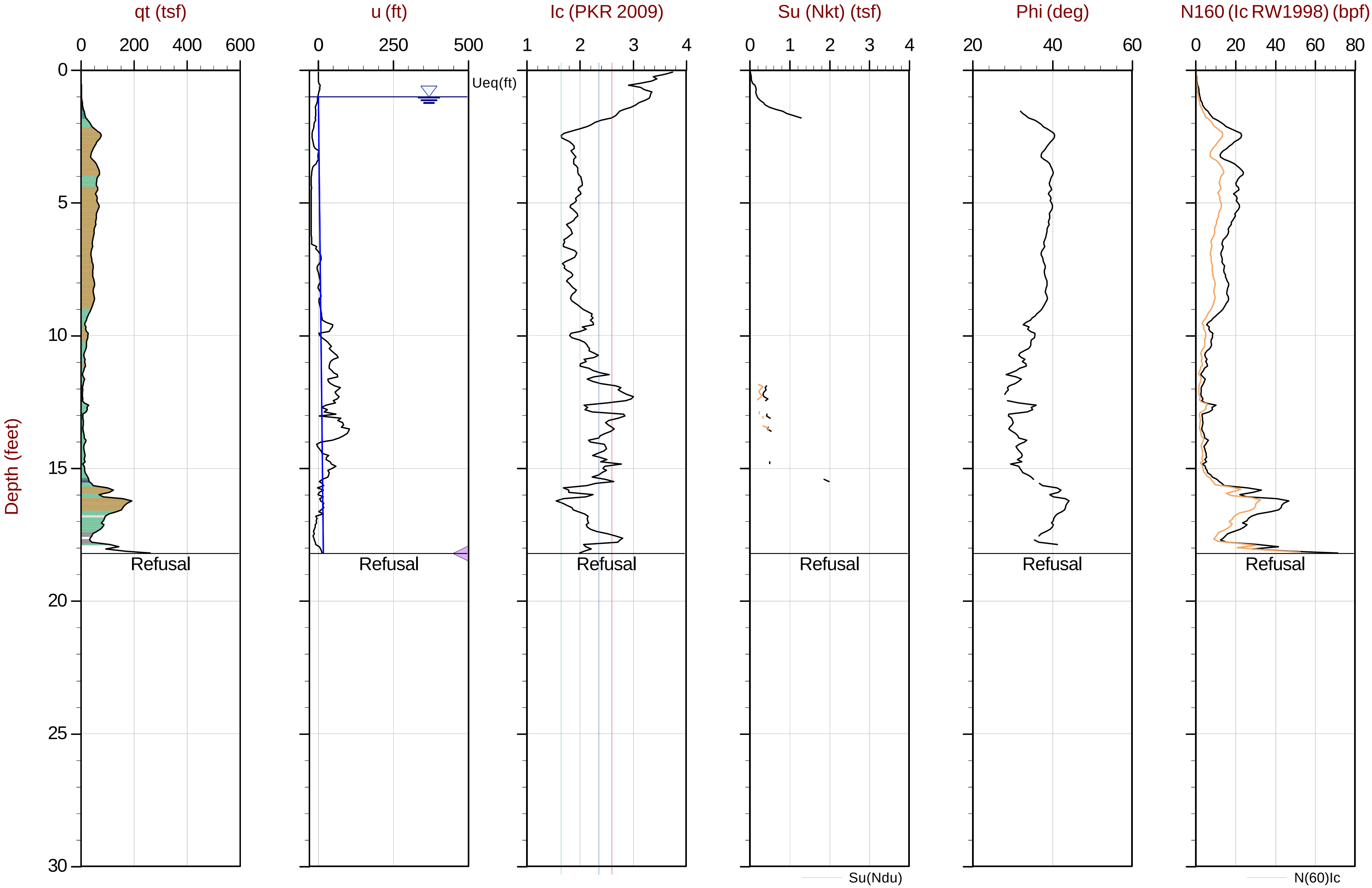
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 10:15
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-057
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_SP057.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783272m E: 405834m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

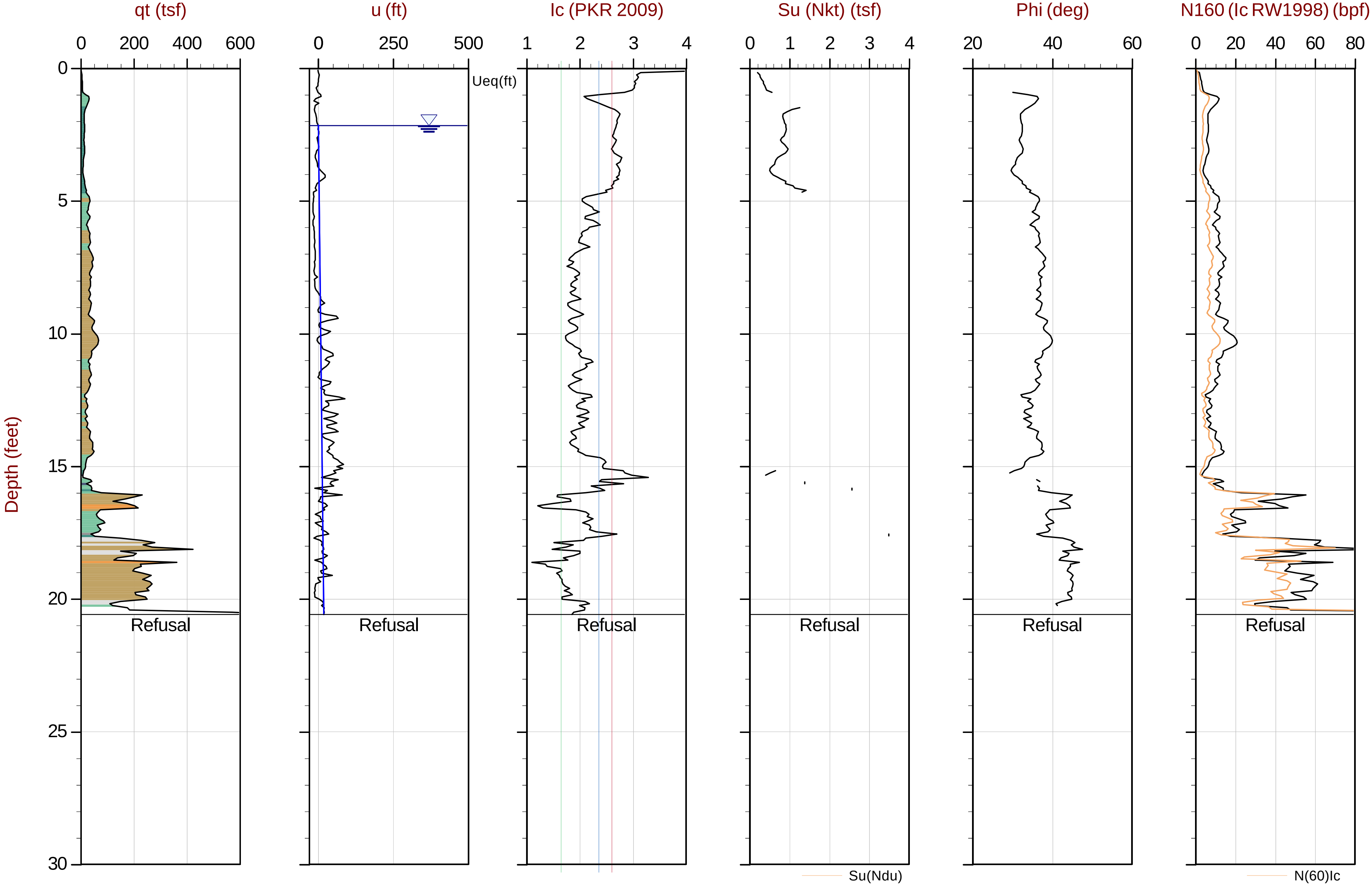
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 09:51
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-058
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 6.275 m / 20.59 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP058.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783113m E: 406068m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

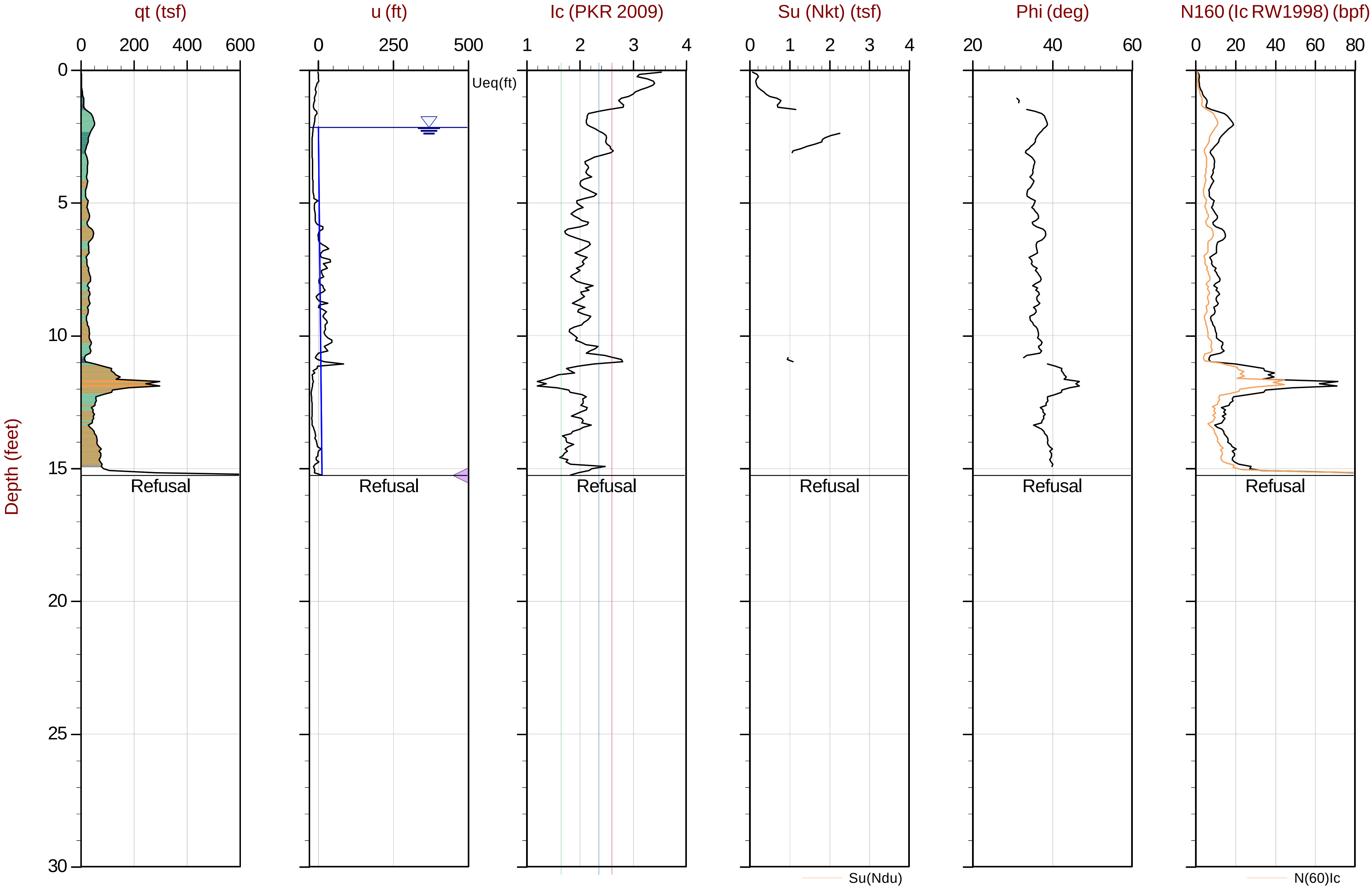
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 09:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-059
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.650 m / 15.26 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP059.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783154m E: 406178m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

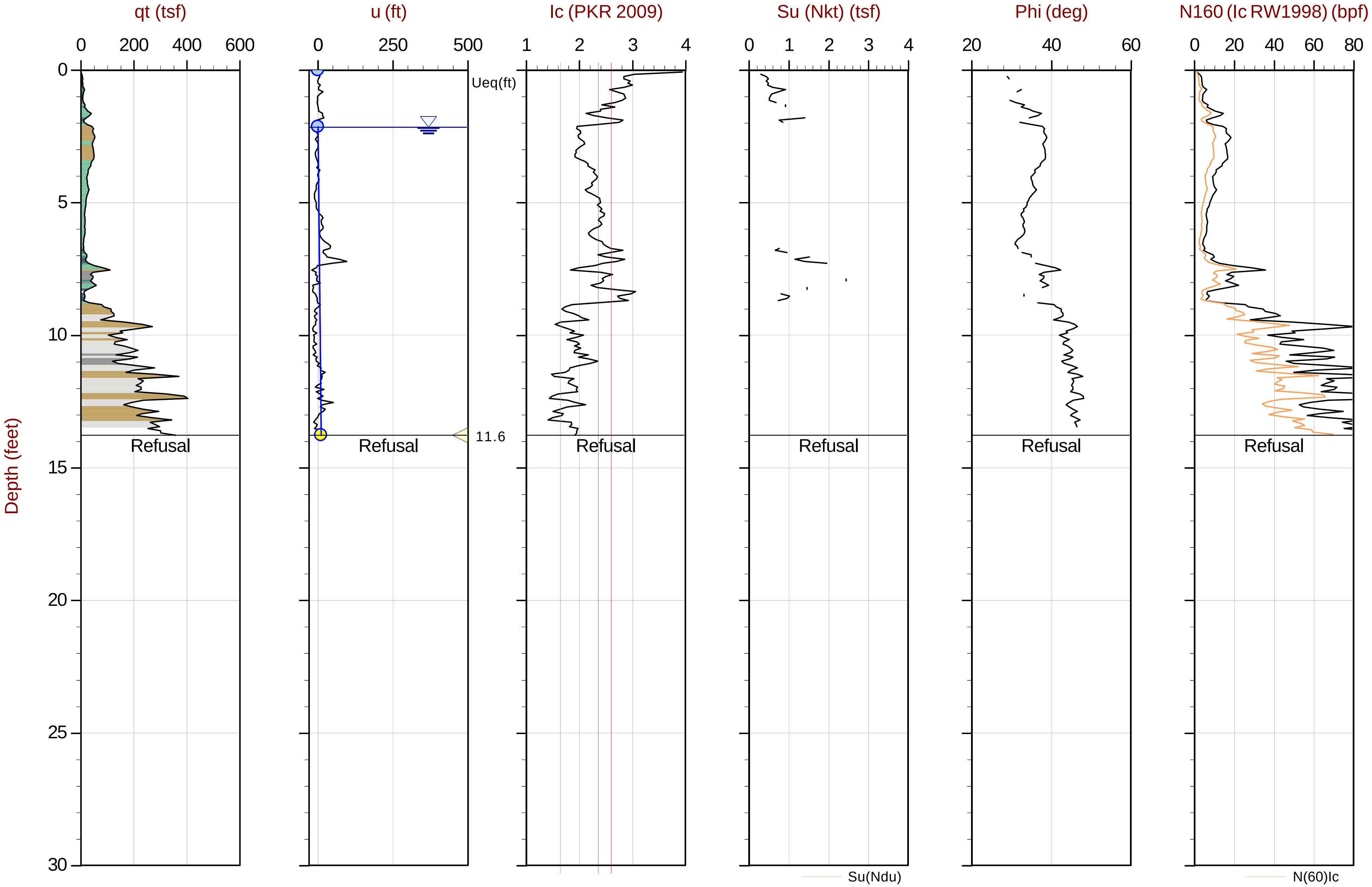
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 10:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-060
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.200 m / 13.78 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP060.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783000m E: 406102m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

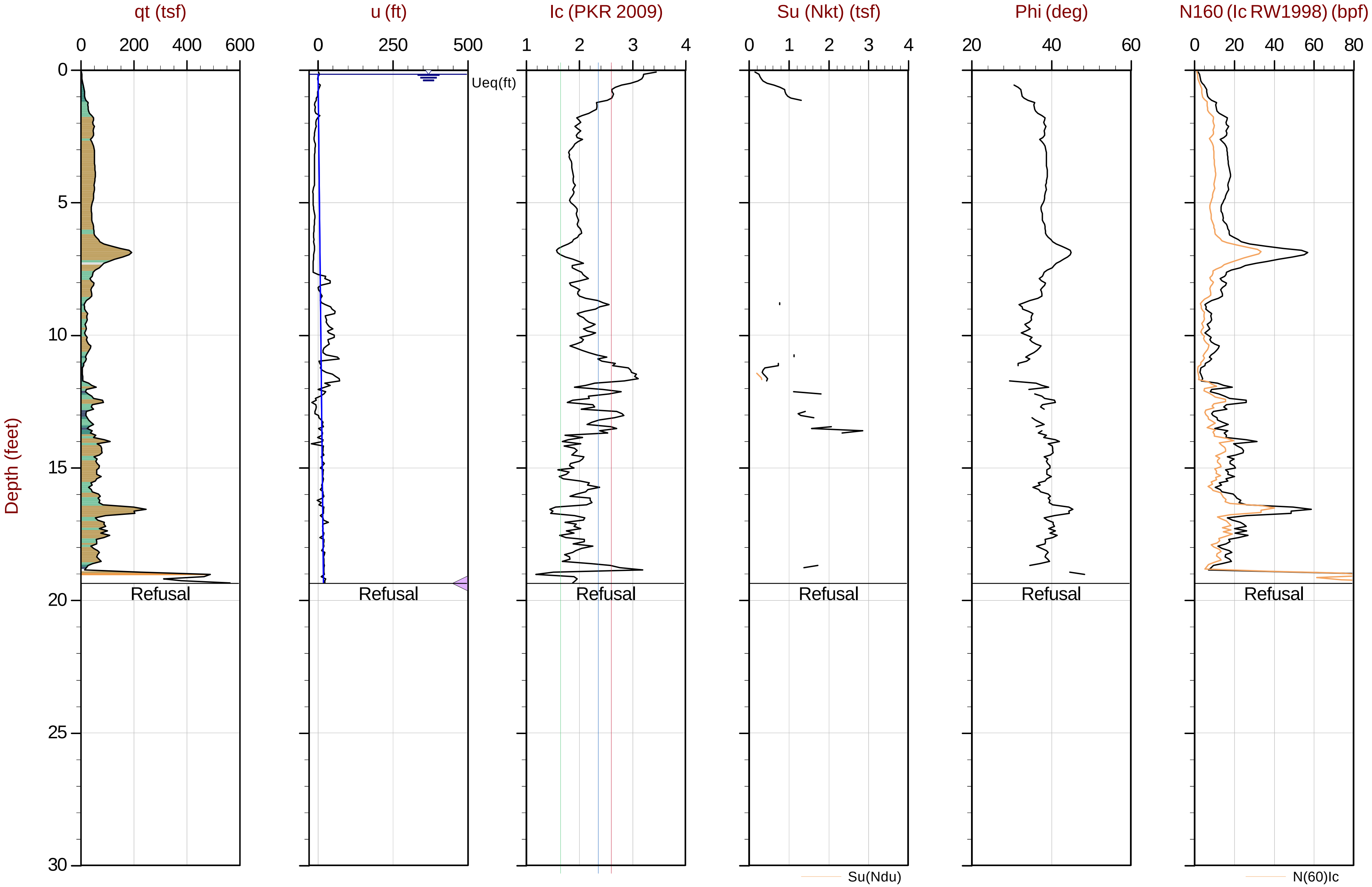
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 08:27
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-061
Cone: 1149:T1500F15U35 Area=15 cm²



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

File: 25-53-29335_SP061.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782831m E: 405944m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

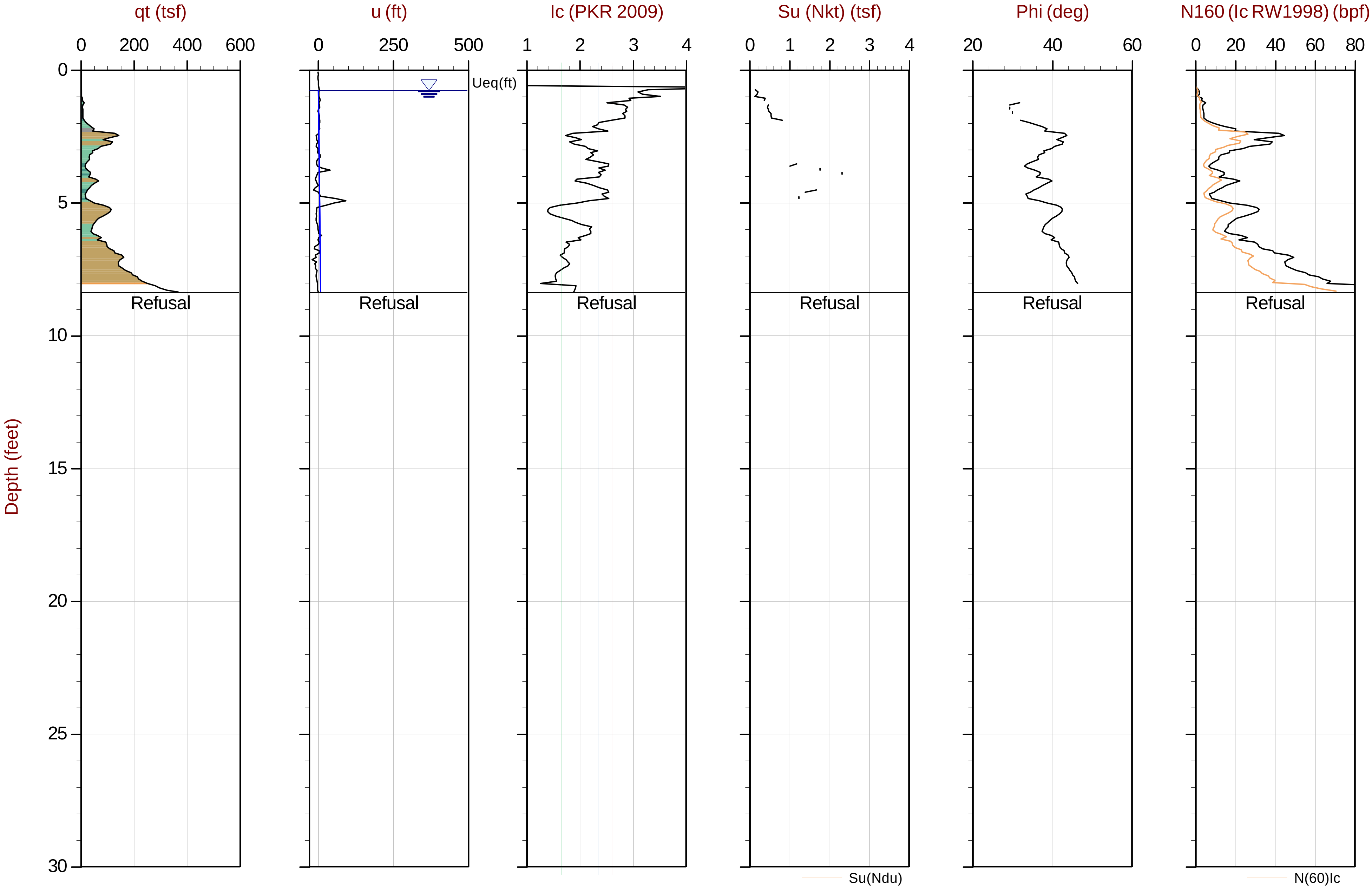
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 14:39
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-062
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 2.550 m / 8.37 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP062.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782407m E: 405589m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

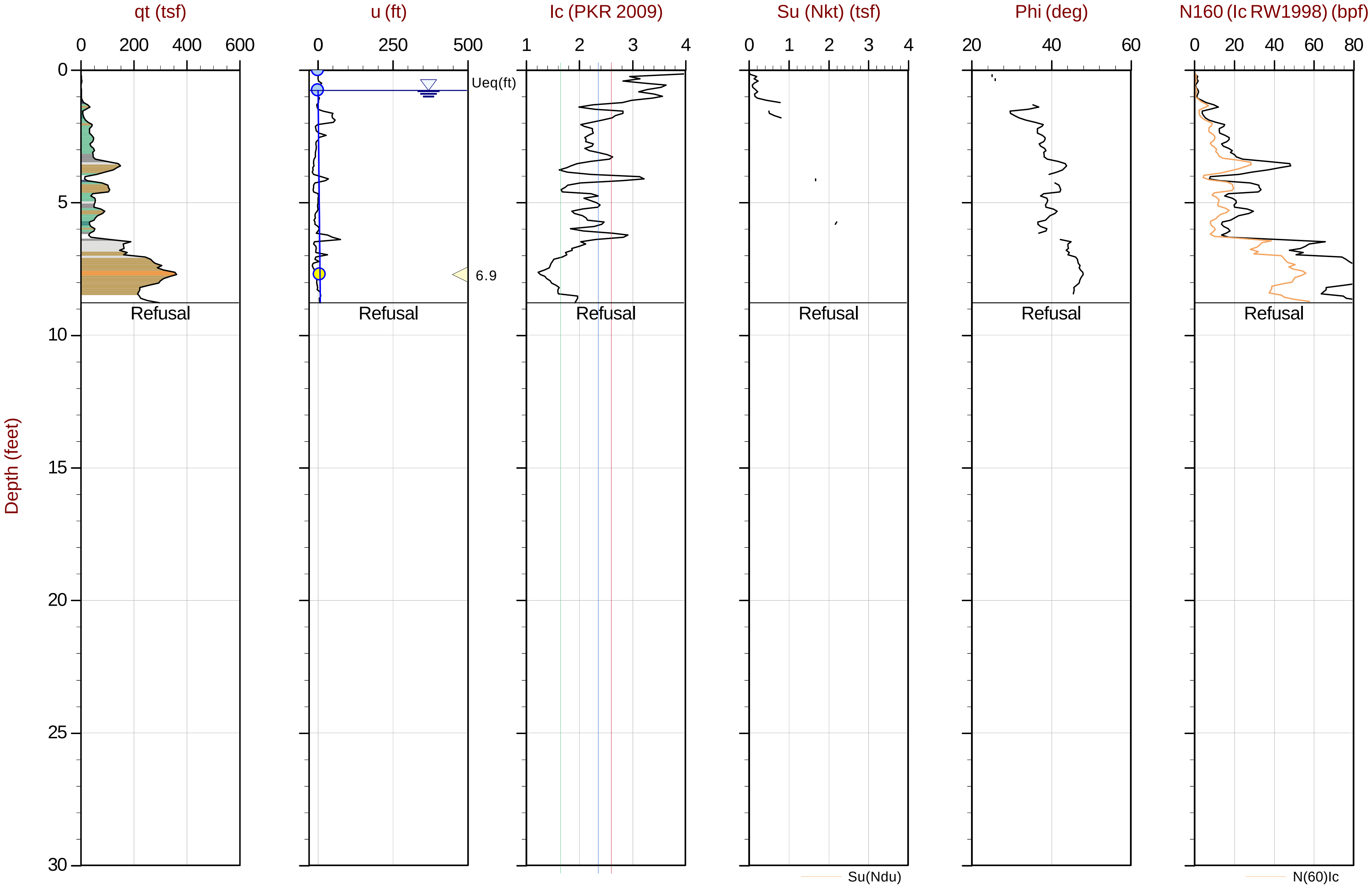
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 15:11
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-062B
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 2.675 m / 8.78 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_CP062B.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782414m E: 405595m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

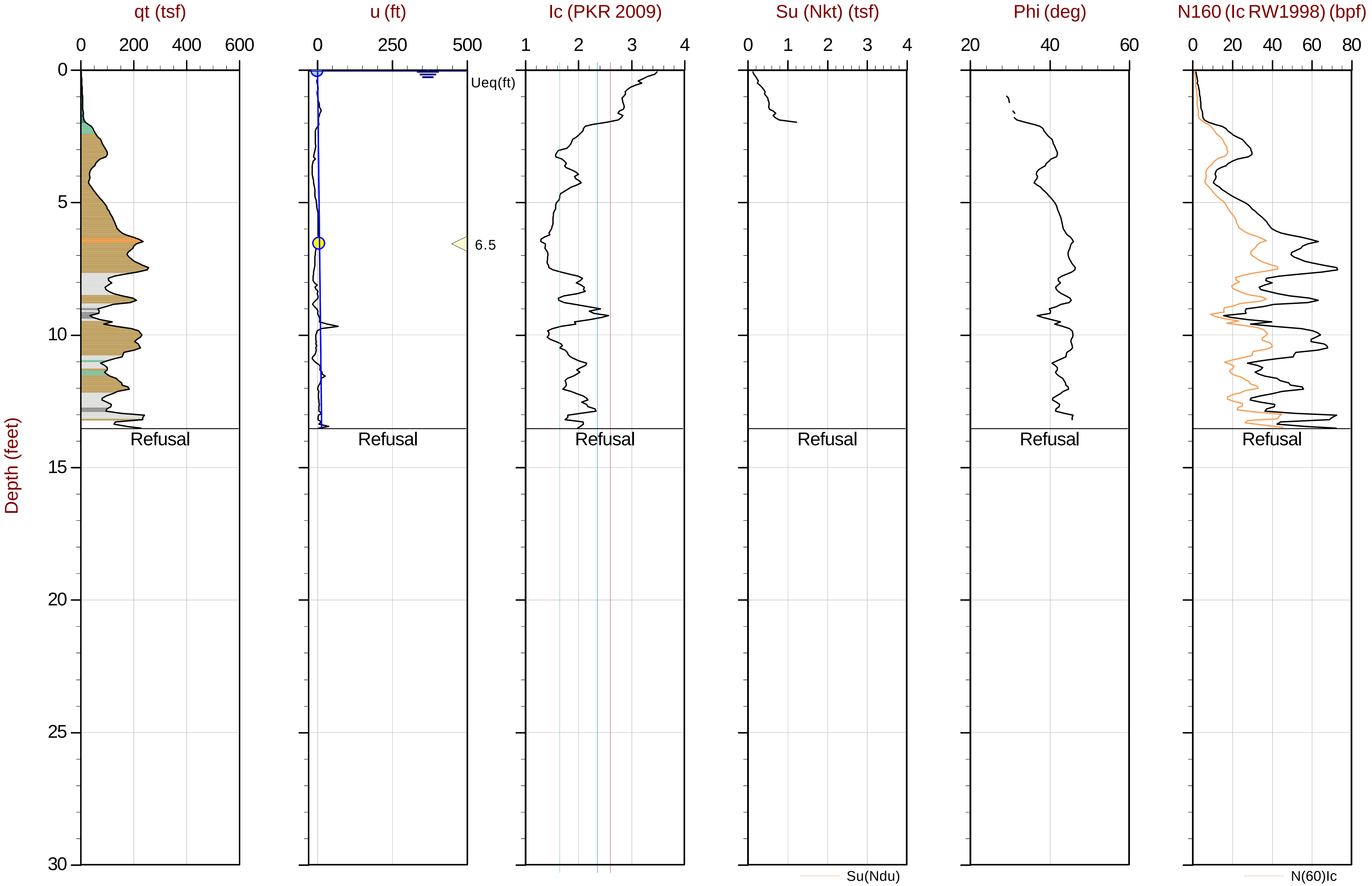
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 13:13
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-063
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_SP063.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

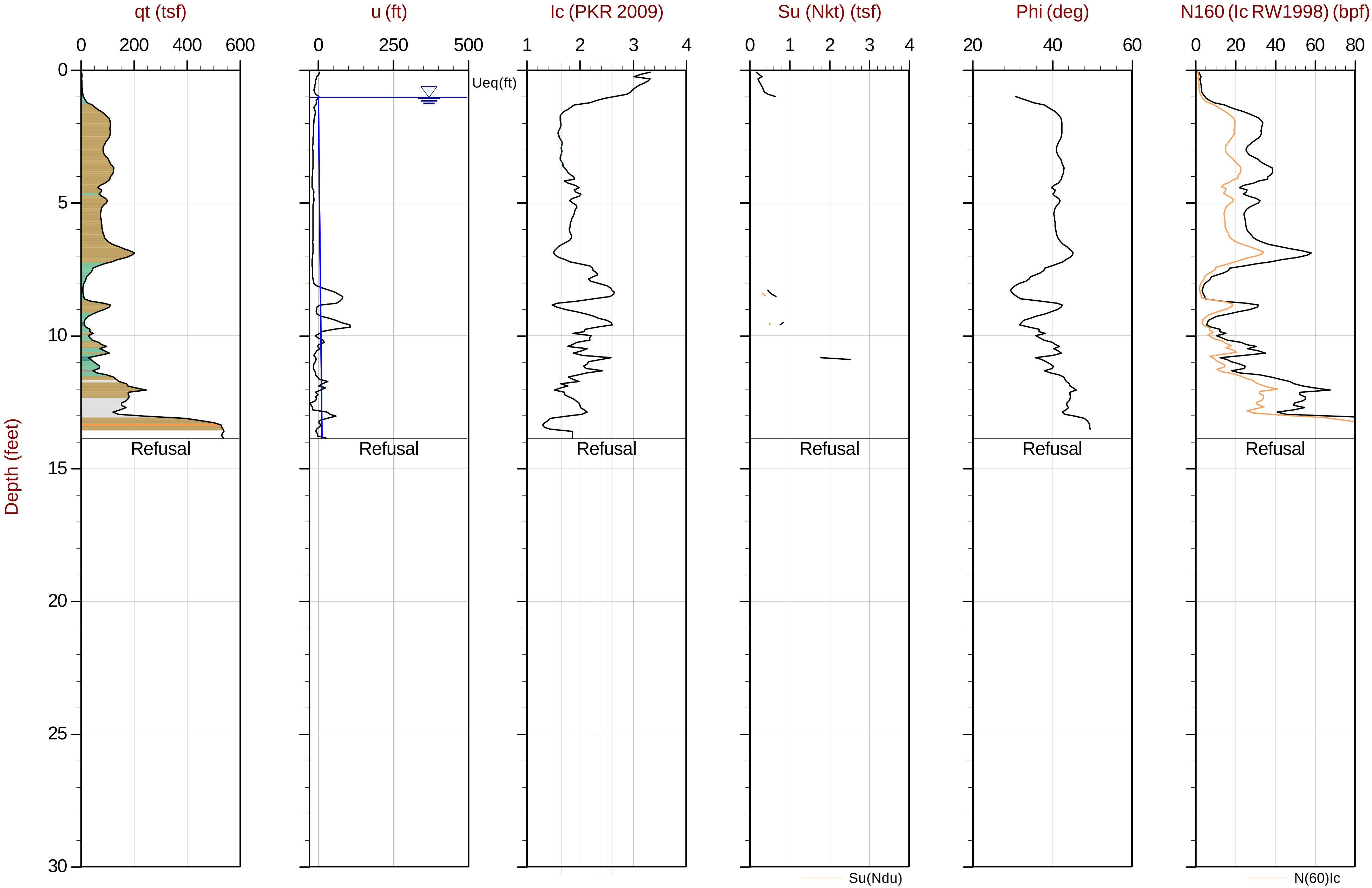
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782384m E: 405728m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 13:28
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-064
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.225 m / 13.86 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP064.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782282m E: 405916m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

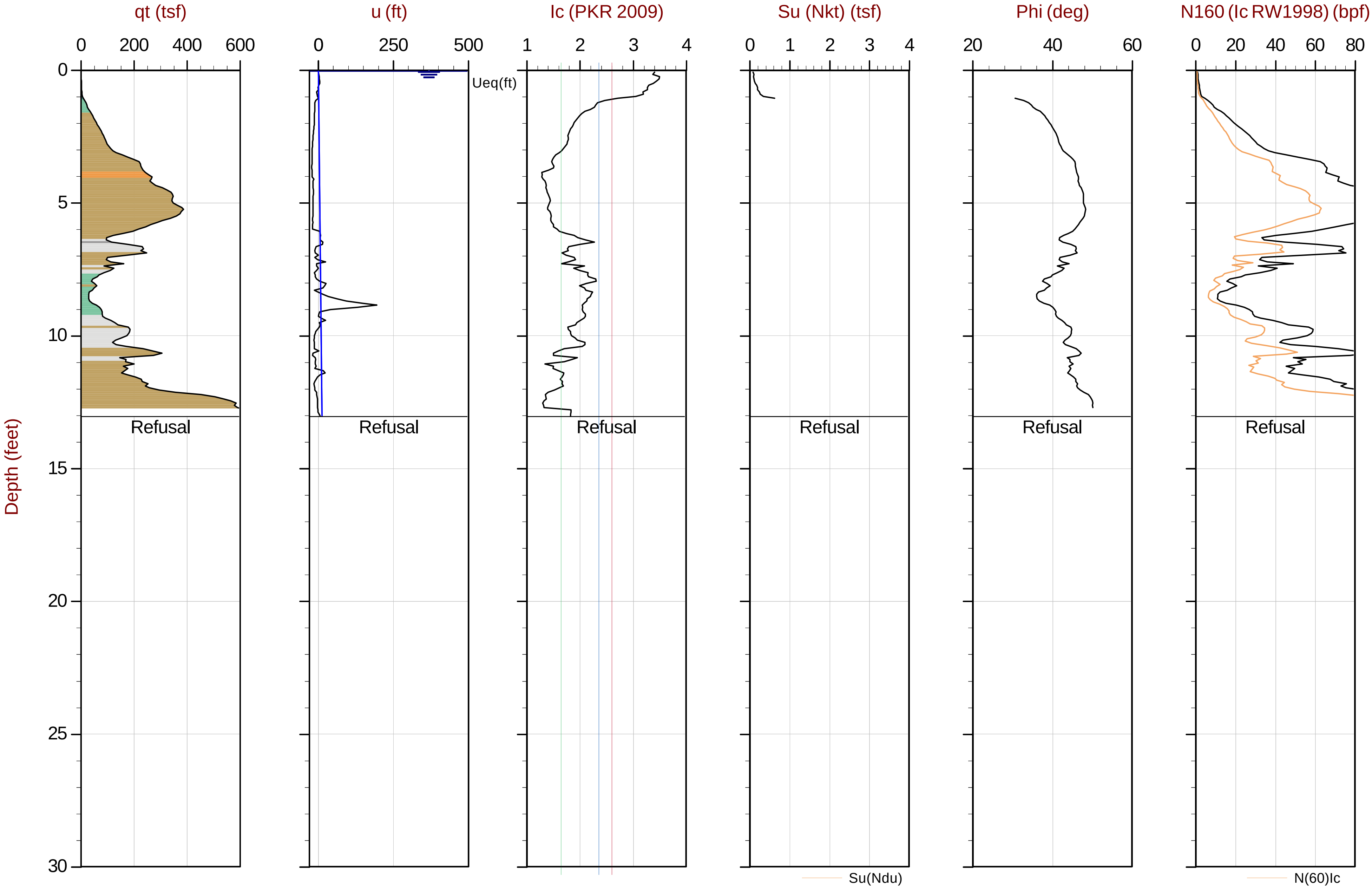
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 15:34
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-065
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 3.975 m / 13.04 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP065.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782319m E: 405711m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

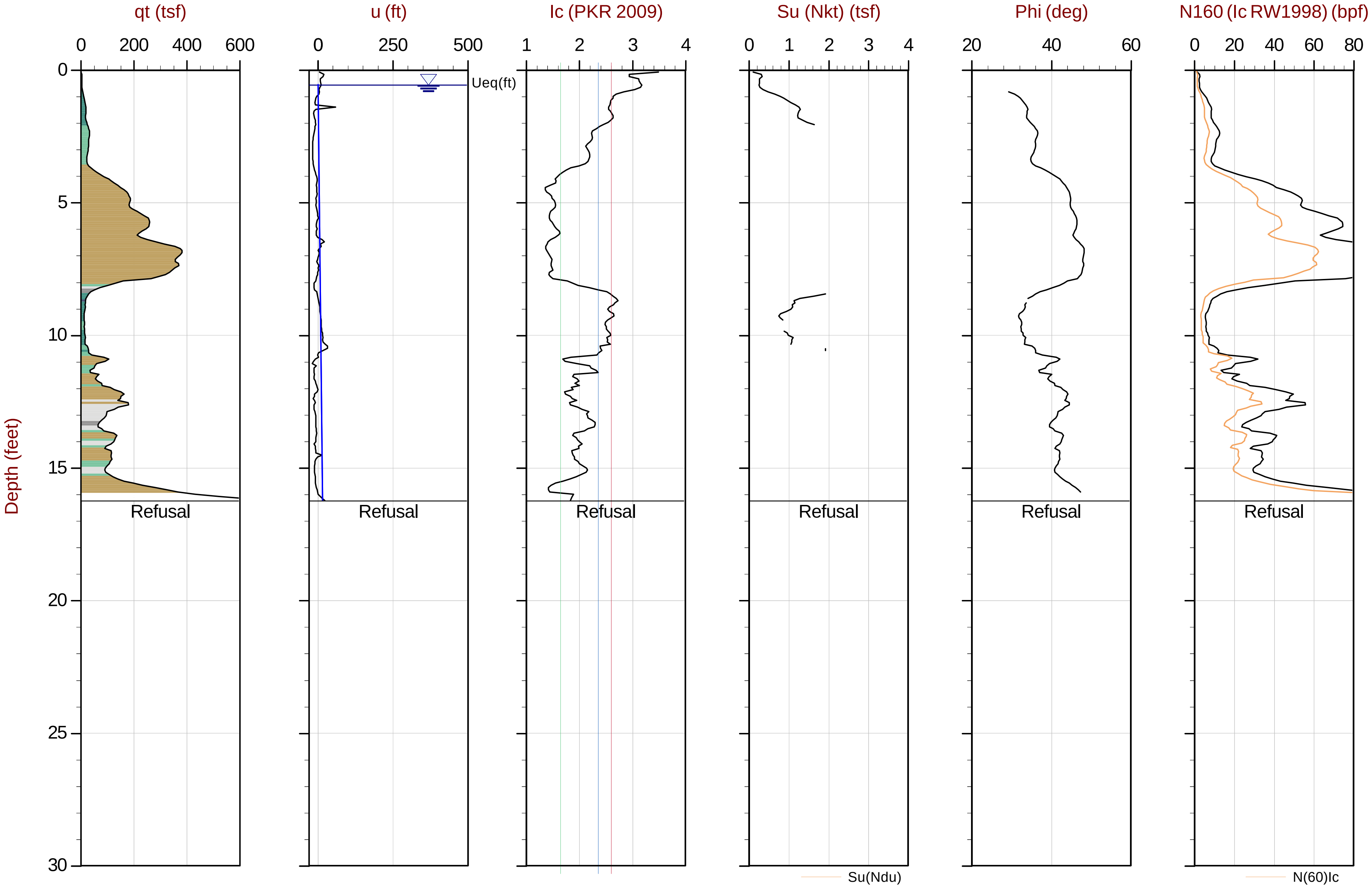
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 14:06
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-066
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 4.950 m / 16.24 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP066.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782274m E: 405827m

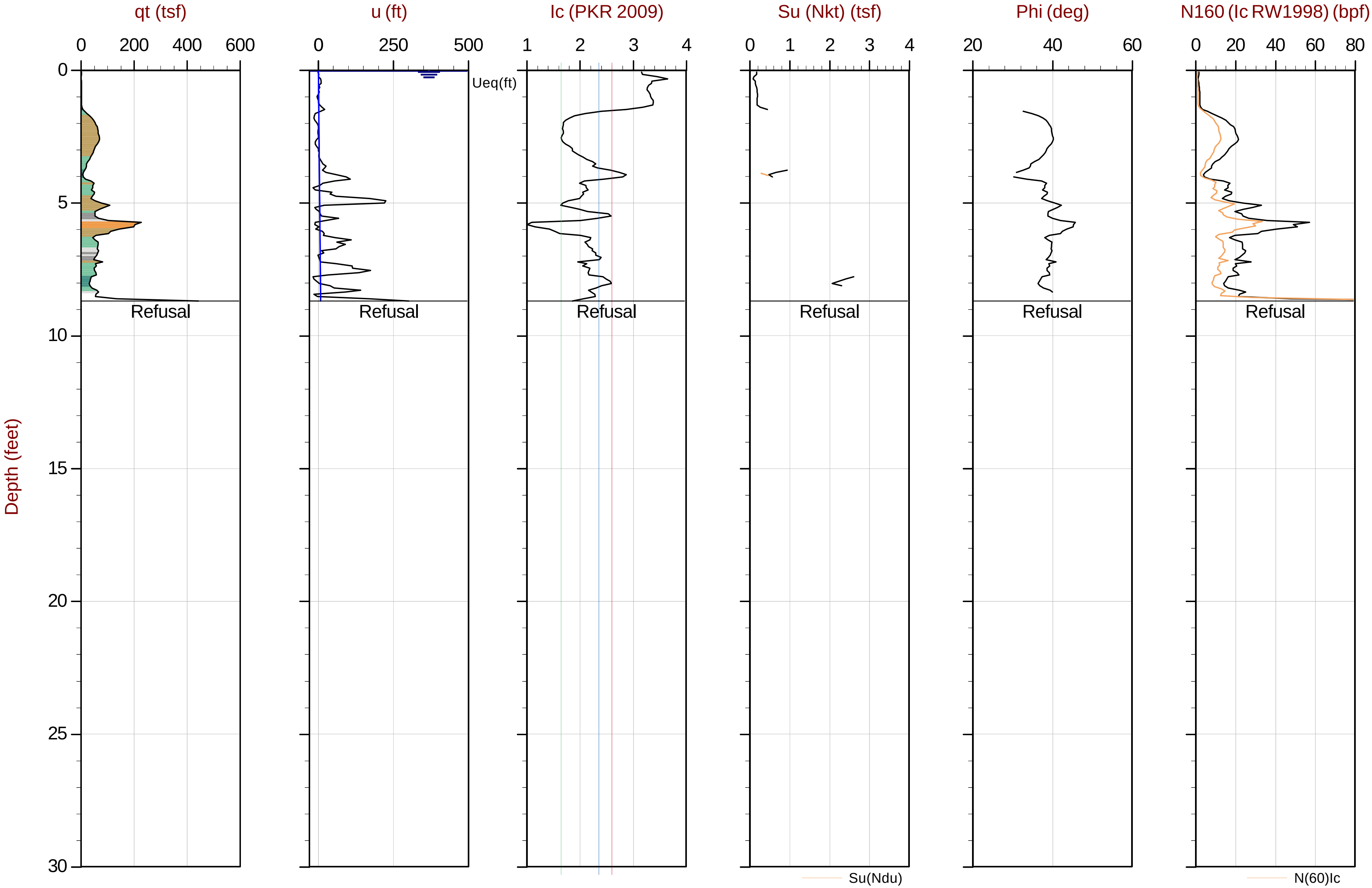
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 25-53-29335	Sounding: SCPT25-067
Date: 2025-04-16 11:54	Cone: 1149:T1500F15U35 Area=15 cm²
Site: Micron New York Manufacturing Facility - Clay, NY	



Max Depth: 2.650 m / 8.69 ft	File: 25-53-29335_SP067.COR	SBT: Robertson, 2009 and 2010
Depth Inc: 0.025 m / 0.082 ft	Unit Wt: SBTQtn (PKR2009)	Coords: (UTM Zone 18 North) N: 4782263m E: 405669m
Avg Int: Every Point	Su Nkt/Ndu: 15.0 / 6.0	

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

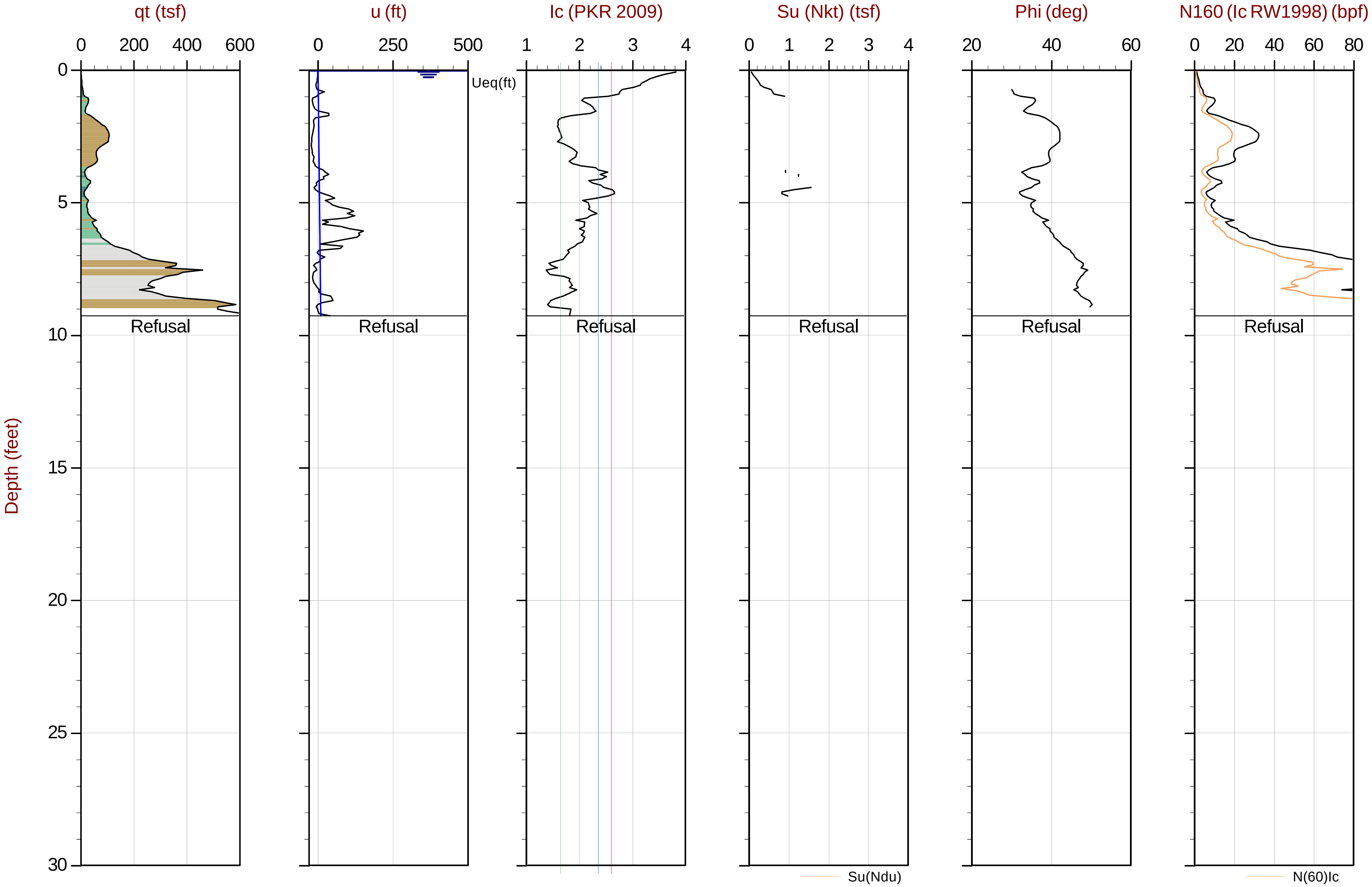
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 14:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-068
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 2.825 m / 9.27 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP068.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782181m E: 405773m

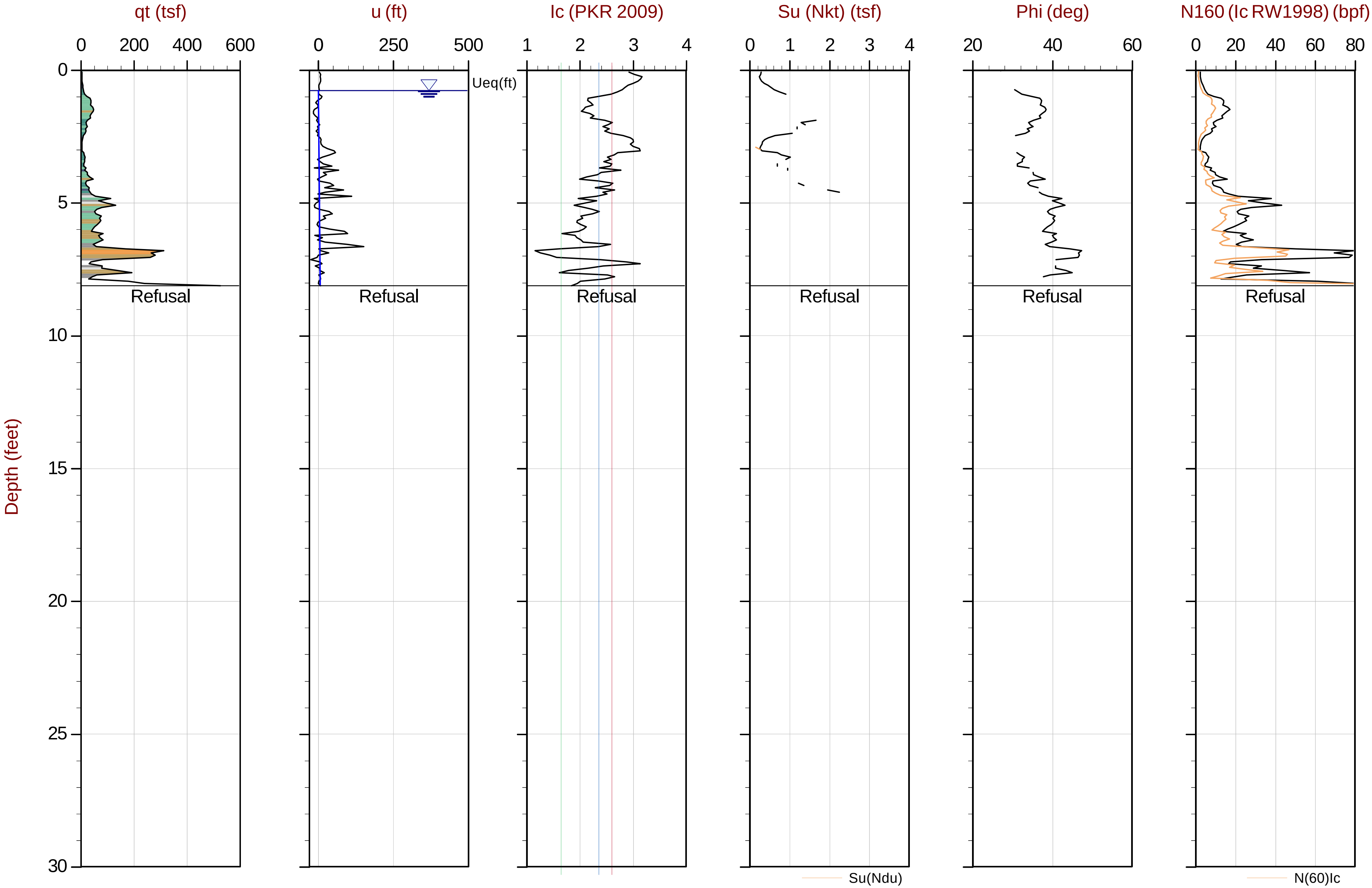
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 11:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-069
Cone: 1149:T1500F15U35 Area=15 cm²



Max Depth: 2.475 m / 8.12 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP069.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782174m E: 405311m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

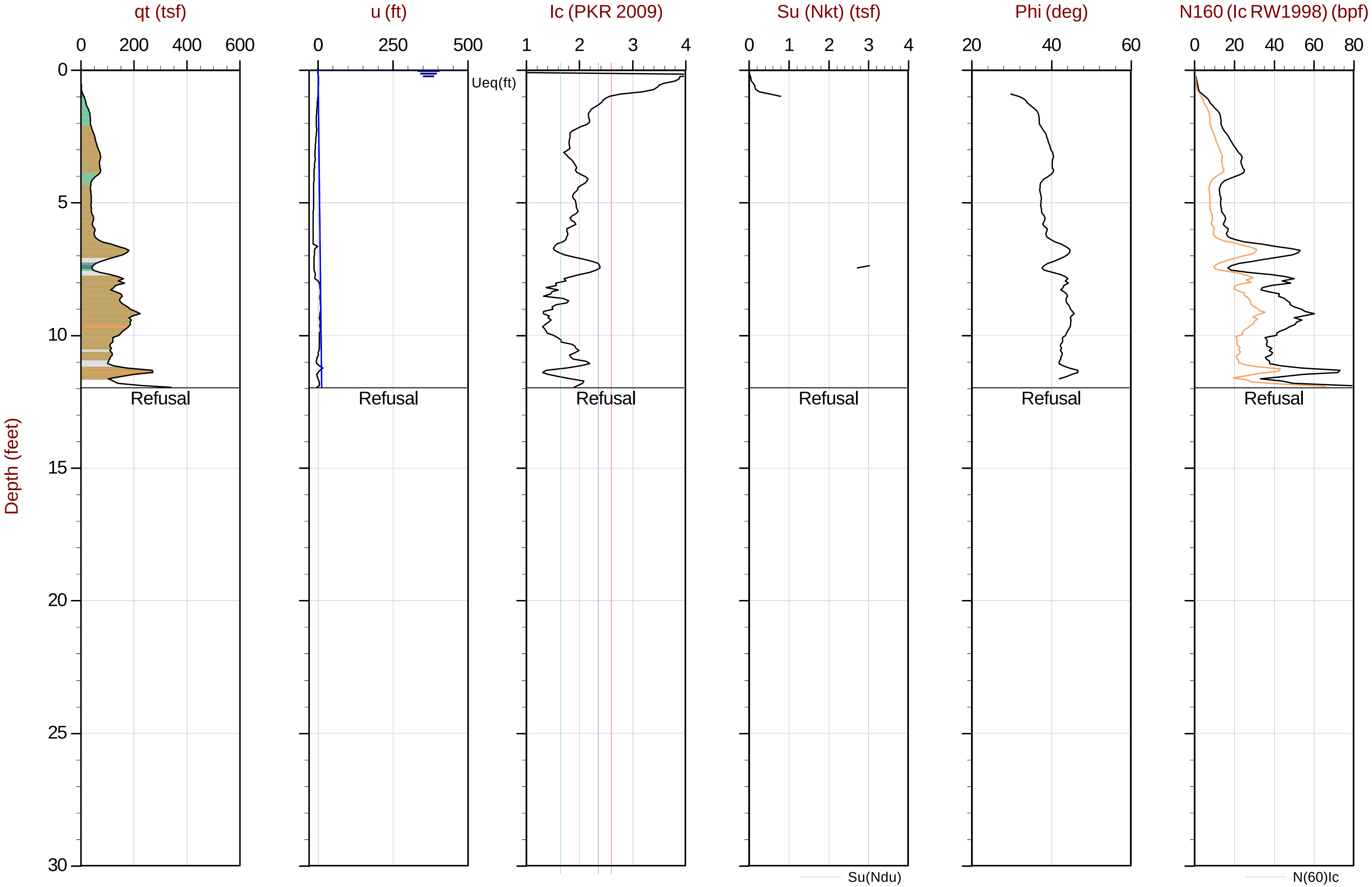
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 11:36
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-070
Cone: 1075:T1000F10U35 Area=15 cm²



Max Depth: 3.650 m / 11.97 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP070.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782933m E: 405543m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

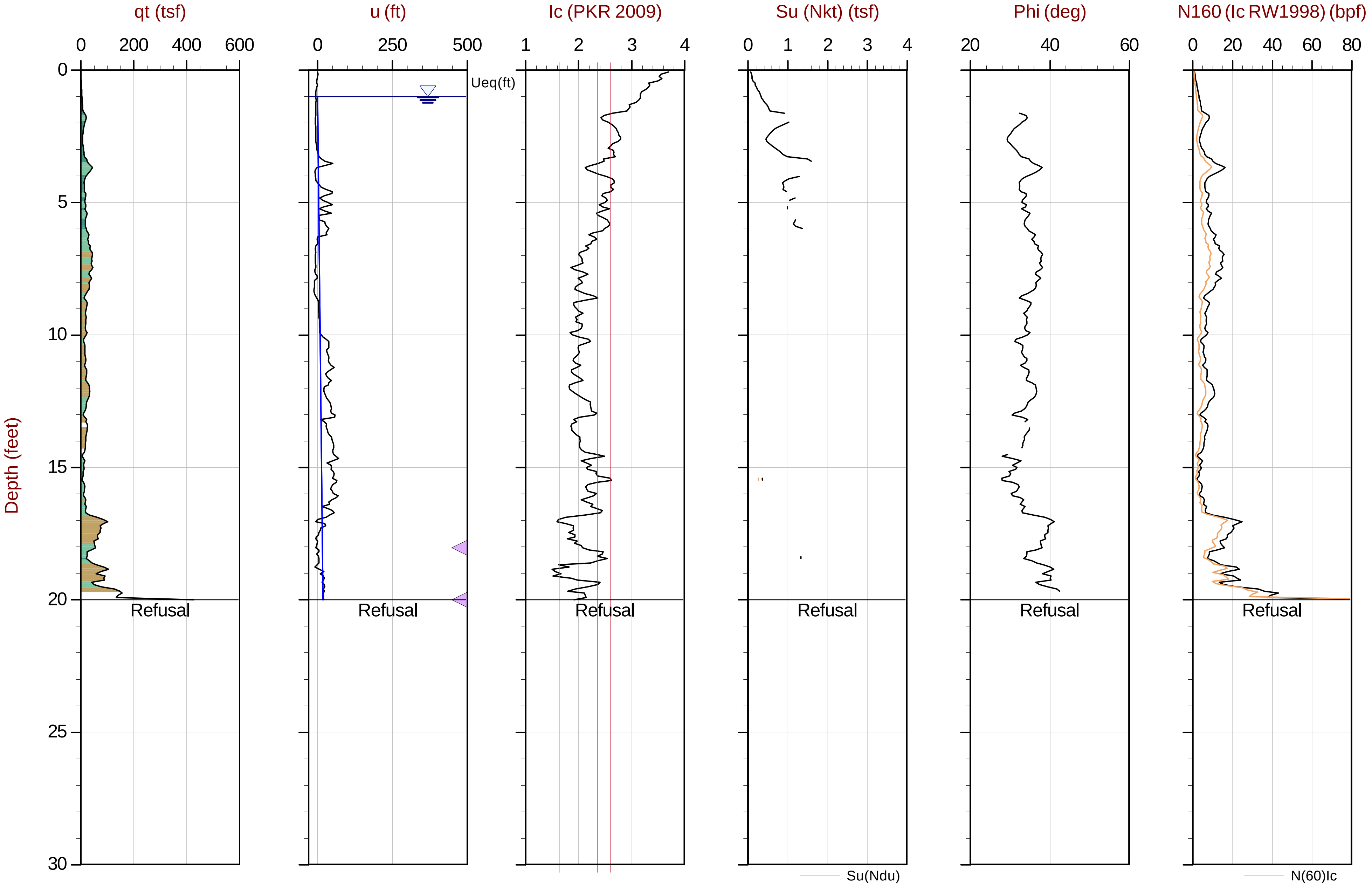
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 10:22
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-071
Cone: 1075:T1000F10U35 Area=15 cm²



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

File: 25-53-29335_SP071.COR
Unit Wt: SBTQtn (PKR2009)
Su Nkt/Ndu: 15.0 / 6.0

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783346m E: 405870m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

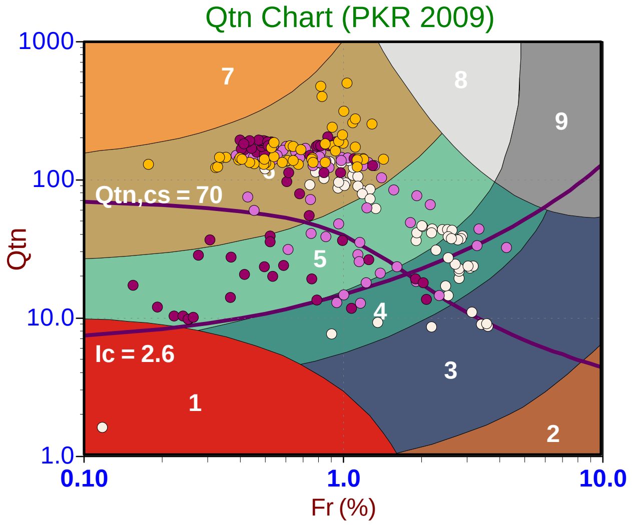
Soil Behavior Type (SBT) Scatter Plots

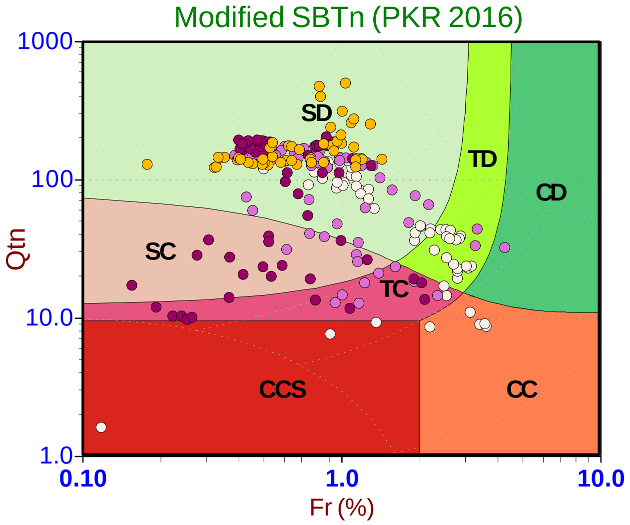
CONETEC

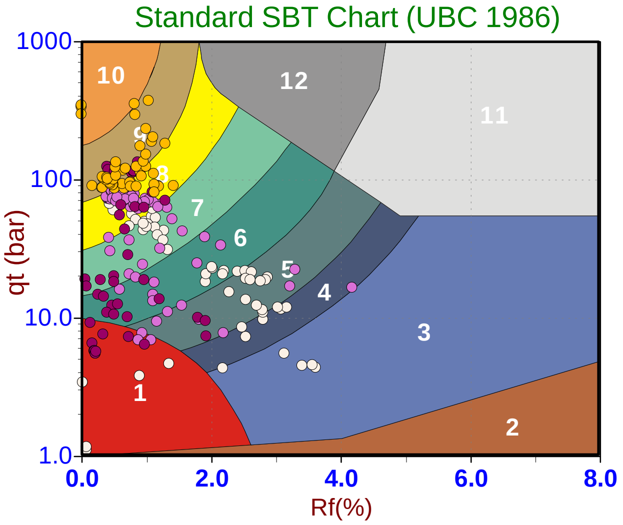
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 15:46
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-001
Cone: 1075:T1000F10U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ⚪ >0.0 to 5.0 ft
- 🟣 >5.0 to 10.0 ft
- 🟣 >10.0 to 15.0 ft
- 🟠 >15.0 to 20.0 ft
- 🔴 >20.0 to 25.0 ft
- 🔵 >25.0 to 30.0 ft
- 🔵 >30.0 to 35.0 ft
- 🟢 >35.0 to 40.0 ft
- 🟢 >40.0 to 45.0 ft
- 🟡 >45.0 to 50.0 ft
- 🟡 >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

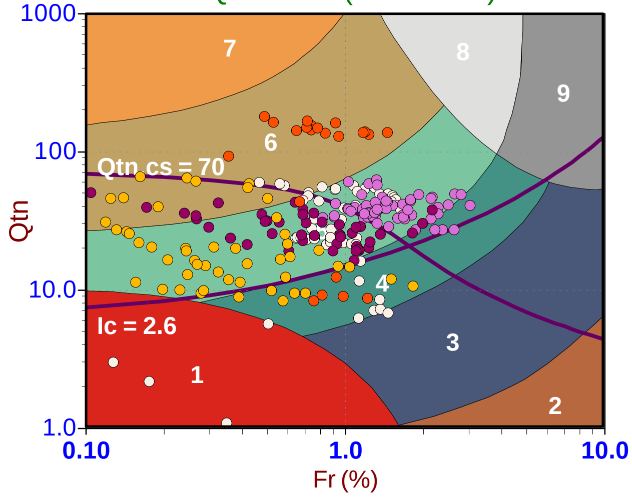
Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

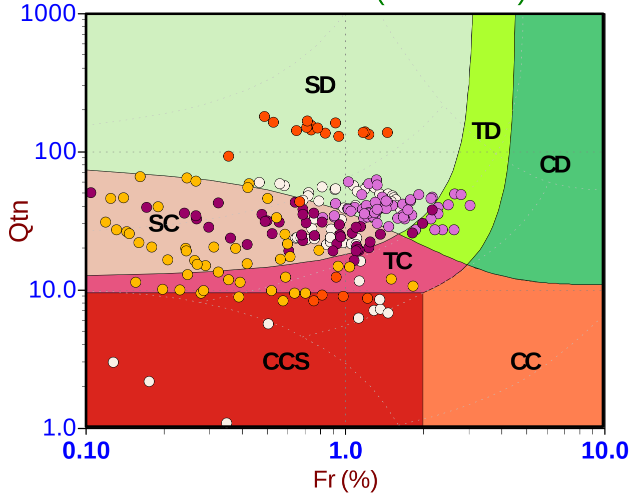
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 12:52
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT-002
Cone: 1075:T1000F10U35 Area=15 cm²

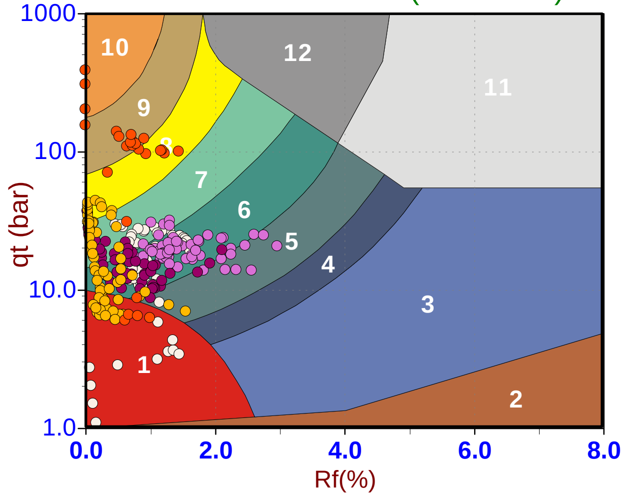
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

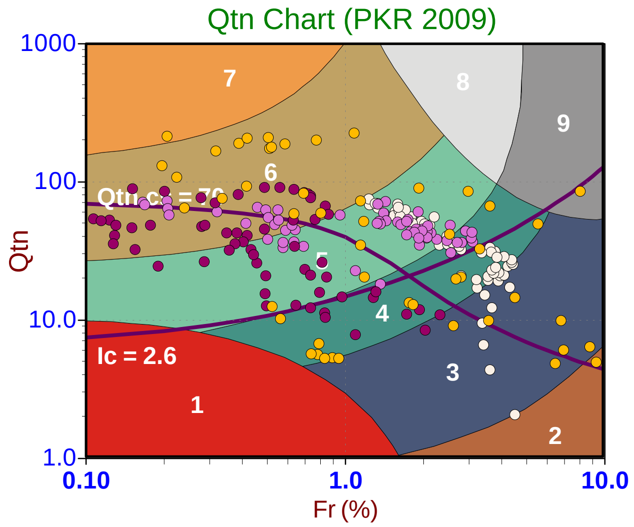
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

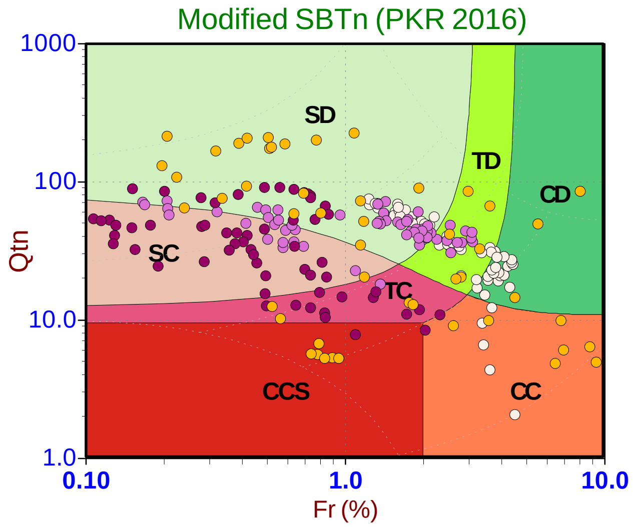
CONETEC

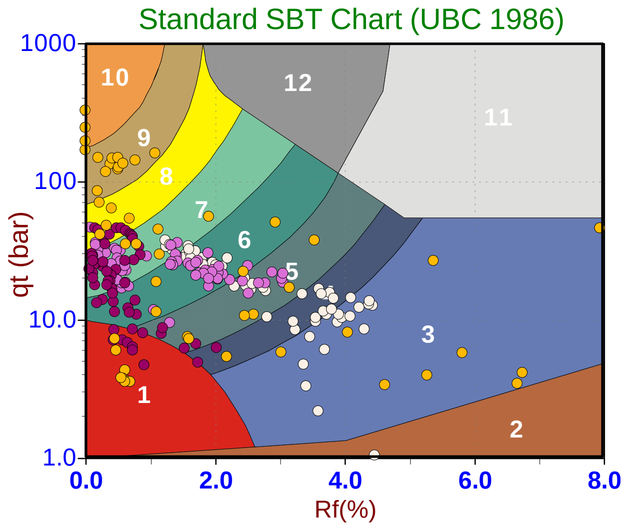
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 11:40
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-003
Cone: 1075:T1000F10U35 Area=15 cm²







Depth Ranges
○ >0.0 to 5.0 ft
● >5.0 to 10.0 ft
● >10.0 to 15.0 ft
● >15.0 to 20.0 ft
● >20.0 to 25.0 ft
● >25.0 to 30.0 ft
● >30.0 to 35.0 ft
● >35.0 to 40.0 ft
● >40.0 to 45.0 ft
● >45.0 to 50.0 ft
● >50.0 ft

Legend
■ Sensitive, Fine Grained
■ Organic Soils
■ Clays
■ Silt Mixtures
■ Sand Mixtures
■ Sands
■ Gravelly Sand to Sand
■ Stiff Sand to Clayey Sand
■ Very Stiff Fine Grained

Legend
■ CCS (Cont. sensitive clay like)
■ CC (Cont. clay like)
■ TC (Cont. transitional)
■ SC (Cont. sand like)
■ CD (Dil. clay like)
■ TD (Dil. transitional)
■ SD (Dil. sand like)

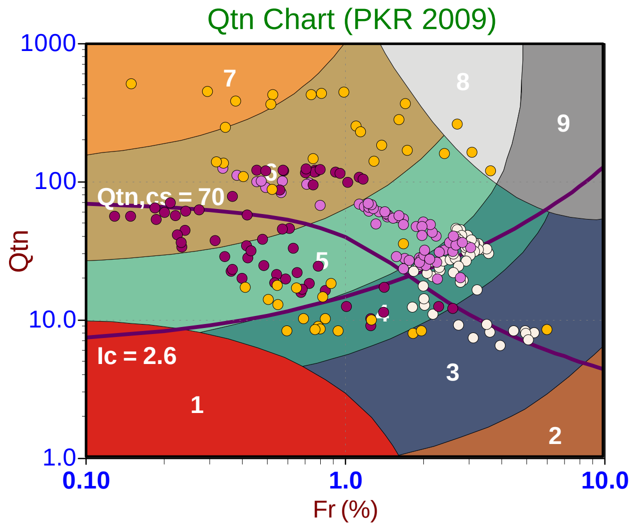
Legend
■ Sensitive Fines
■ Organic Soil
■ Clay
■ Silty Clay
■ Clayey Silt
■ Silt
■ Sandy Silt
■ Silty Sand/Sand
■ Sand
■ Gravelly Sand
■ Stiff Fine Grained
■ Cemented Sand

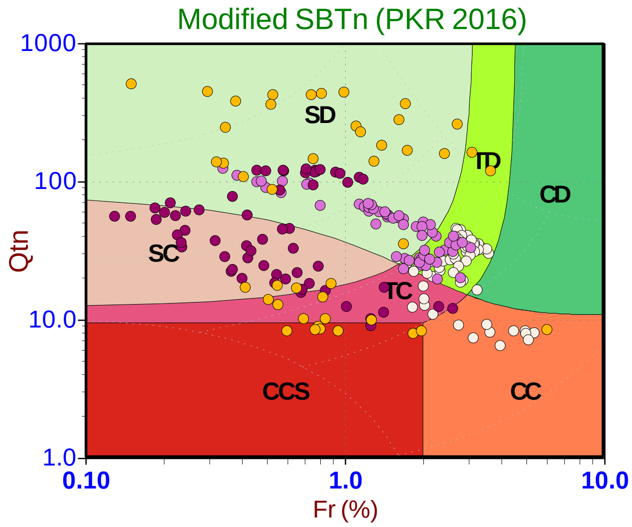
CONETEC

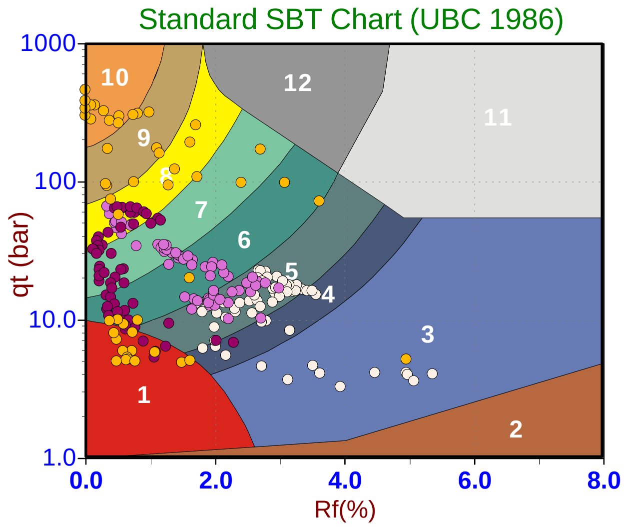
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 11:57
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-004
Cone: 1075:T1000F10U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

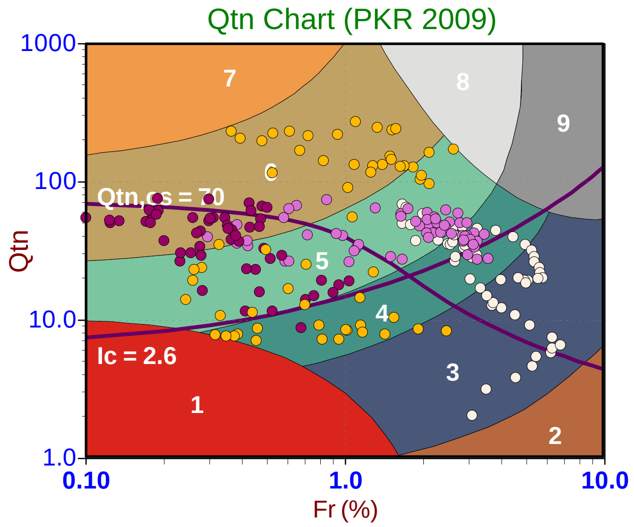
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

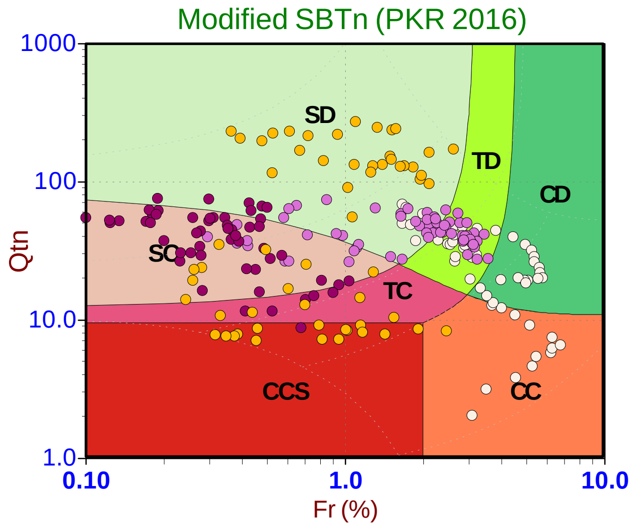
CONETEC

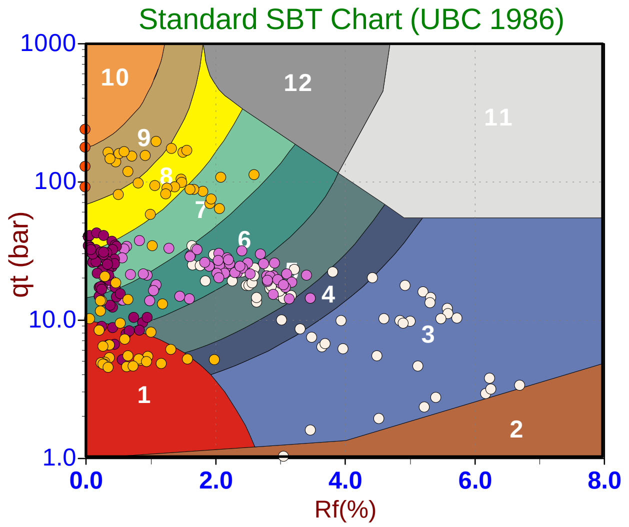
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 10:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-005
Cone: 1075:T1000F10U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

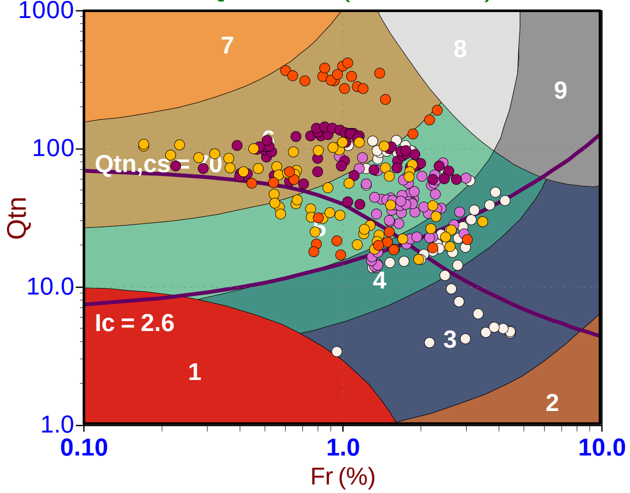
CONETEC

Langan Engineering

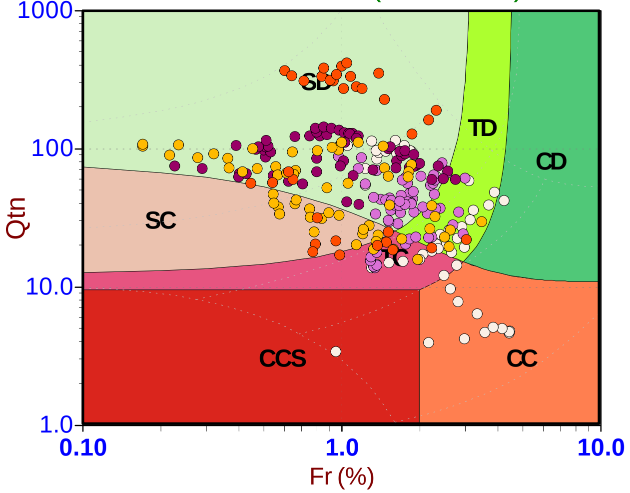
Job No: 25-53-29335
Date: 2025-04-11 12:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-006
Cone: 1075:T1000F10U35 Area=15 cm²

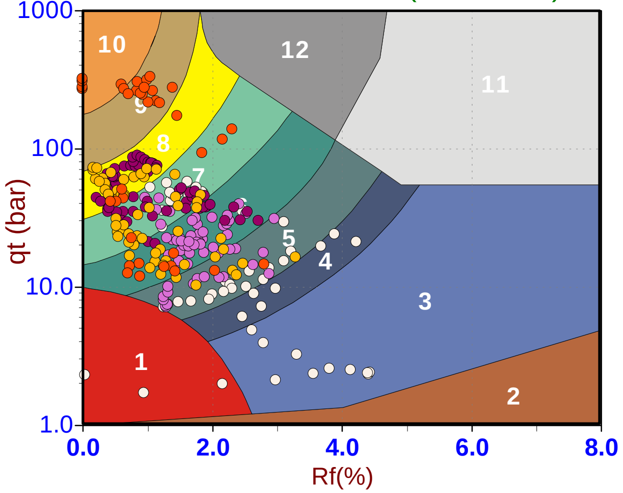
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

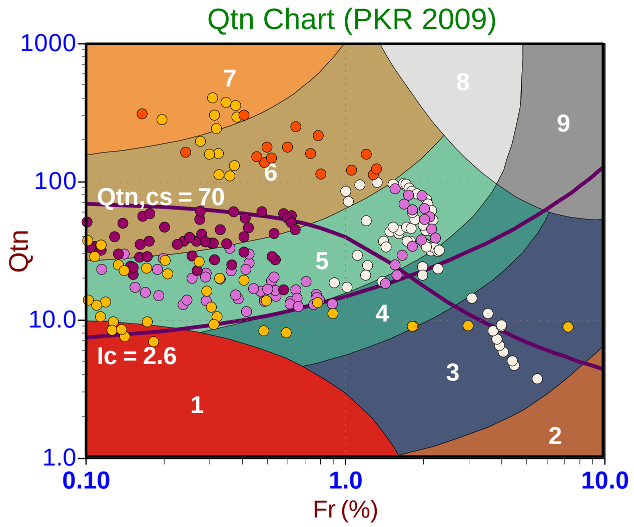
Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

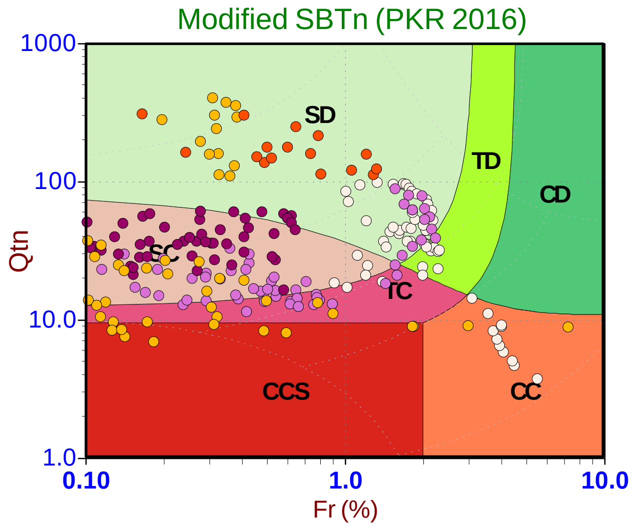
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

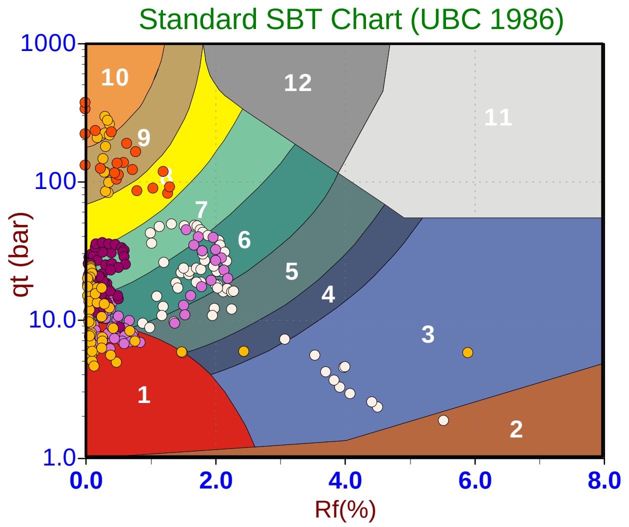
CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 13:44
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-007
Cone: 1075:T1000F10U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

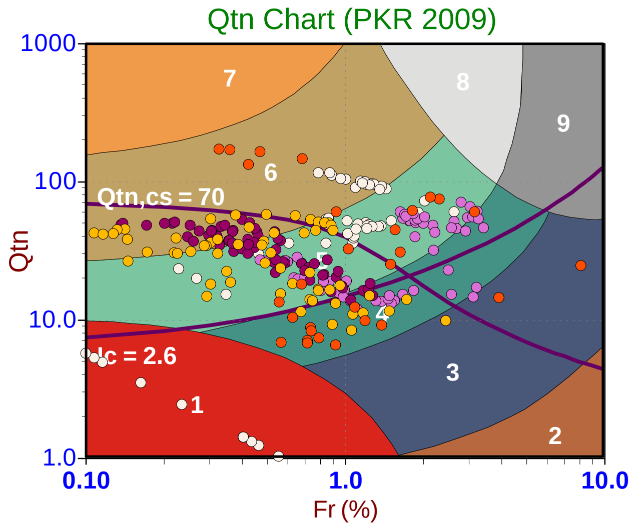
Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

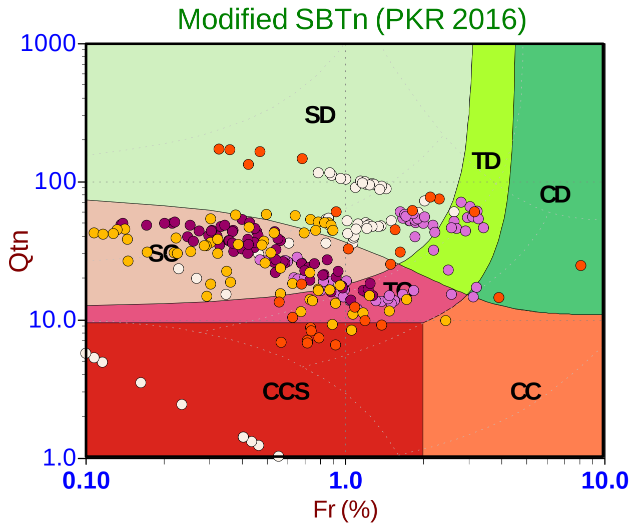
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

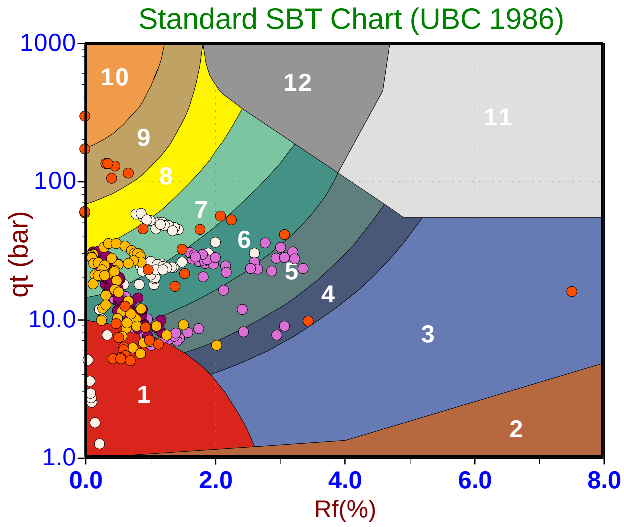
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:51
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-008
Cone: 1075:T1000F10U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

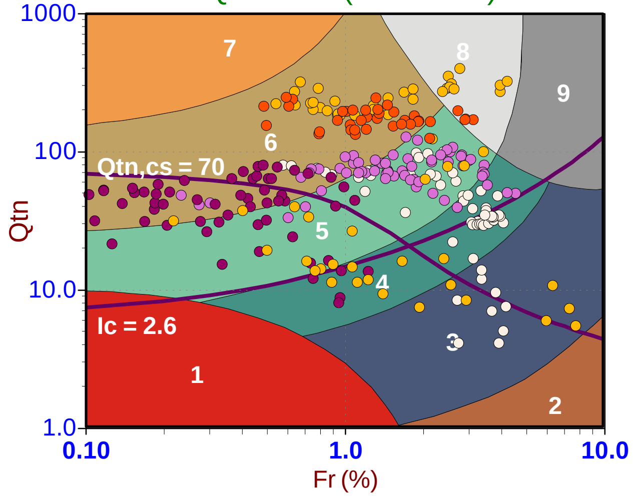
CONETEC

Langan Engineering

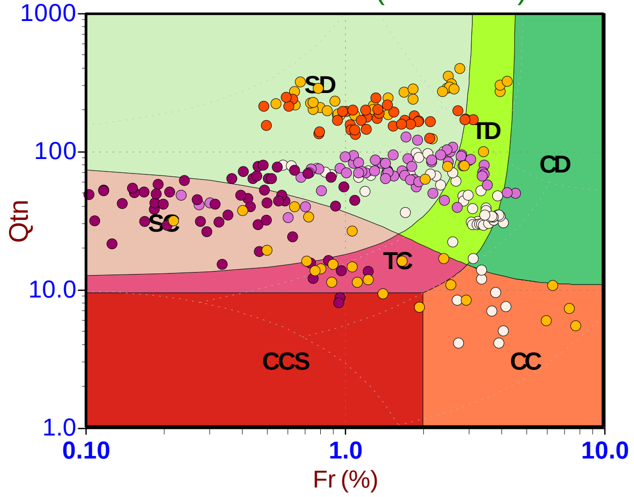
Job No: 25-53-29335
Date: 2025-04-15 13:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-009
Cone: 1075:T1000F10U35 Area=15 cm²

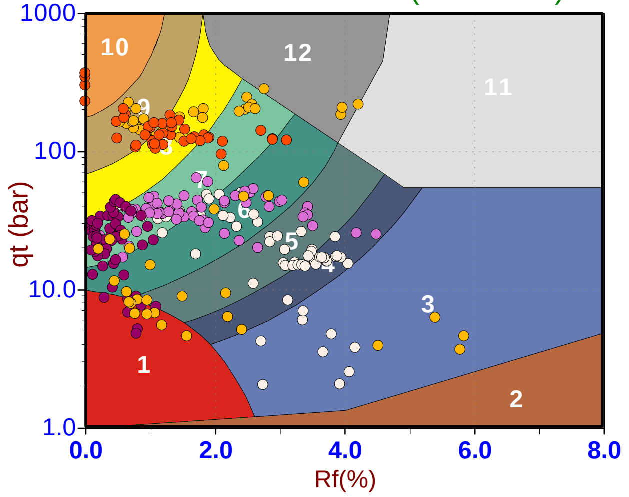
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

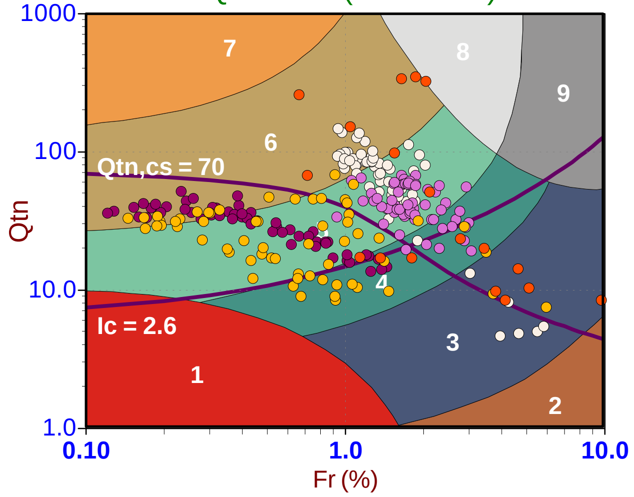
ConeTec

Langan Engineering

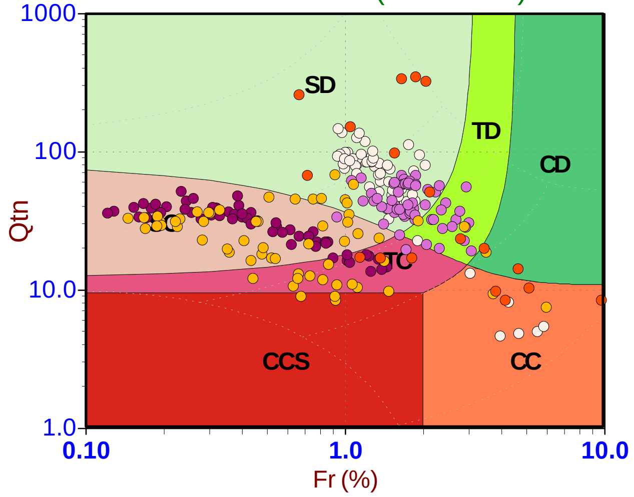
Job No: 25-53-29335
Date: 2025-04-16 13:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-010
Cone: 1075:T1000F10U35 Area=15 cm²

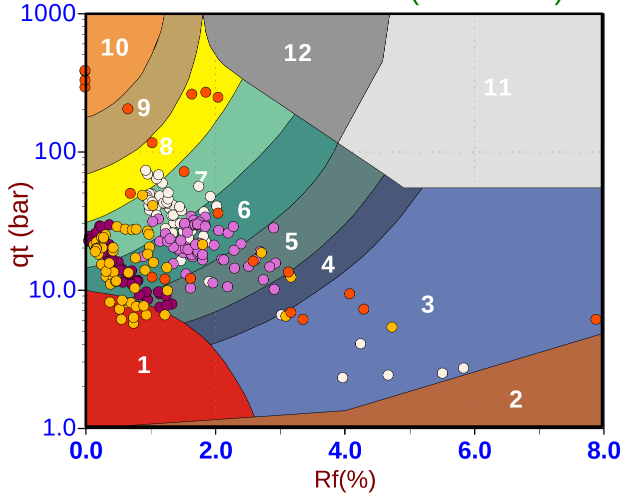
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

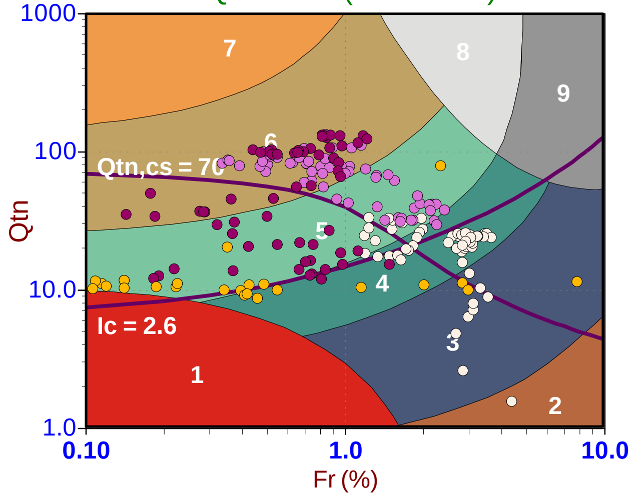
CONETEC

Langan Engineering

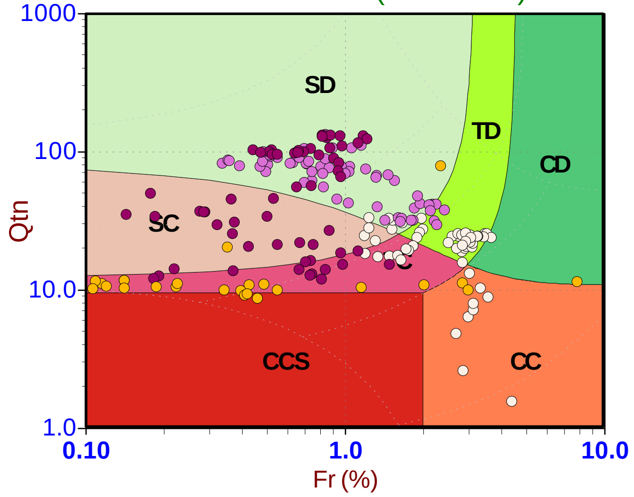
Job No: 25-53-29335
Date: 2025-04-11 14:31
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-011
Cone: 1075:T1000F10U35 Area=15 cm²

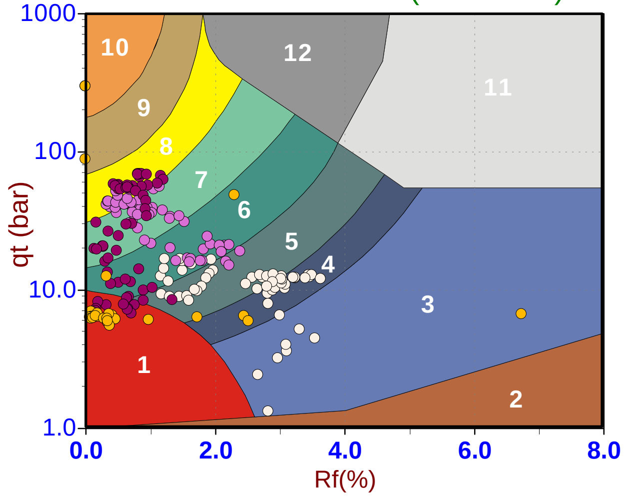
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ⚪ >0.0 to 5.0 ft
- 🟣 >5.0 to 10.0 ft
- 🟣 >10.0 to 15.0 ft
- 🟠 >15.0 to 20.0 ft
- 🔴 >20.0 to 25.0 ft
- 🔵 >25.0 to 30.0 ft
- 🔵 >30.0 to 35.0 ft
- 🟢 >35.0 to 40.0 ft
- 🟢 >40.0 to 45.0 ft
- 🟡 >45.0 to 50.0 ft
- 🟡 >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

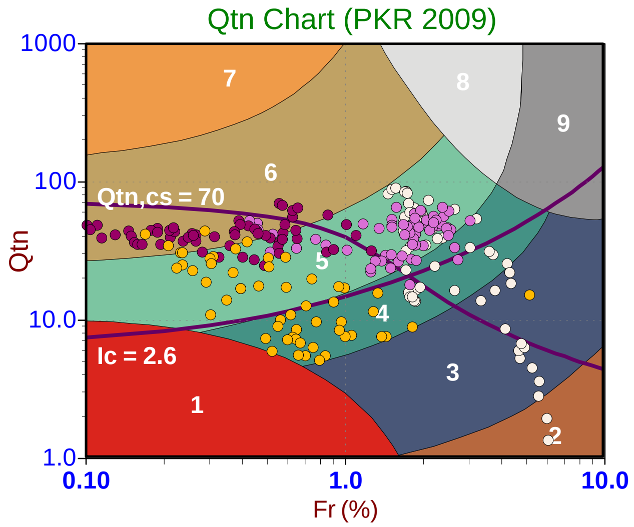
Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟧 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

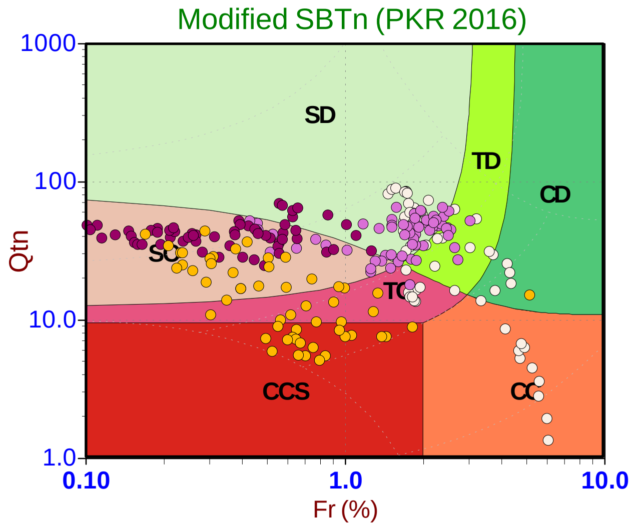
CONETEC

Langan Engineering

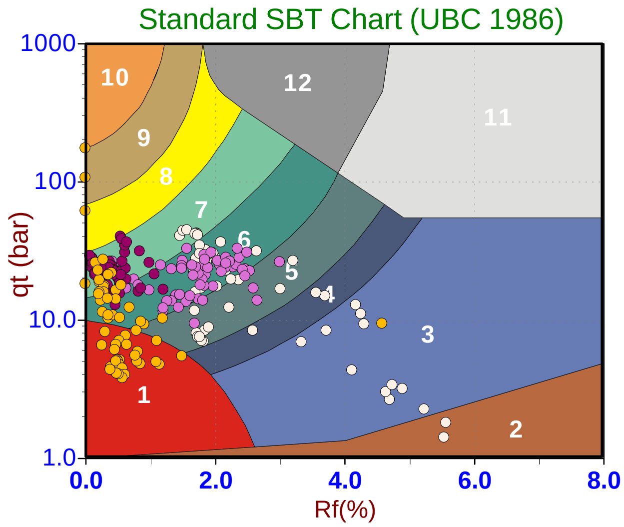
Job No: 25-53-29335
Date: 2025-04-15 10:21
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-012
Cone: 1075:T1000F10U35 Area=15 cm²



Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)

Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

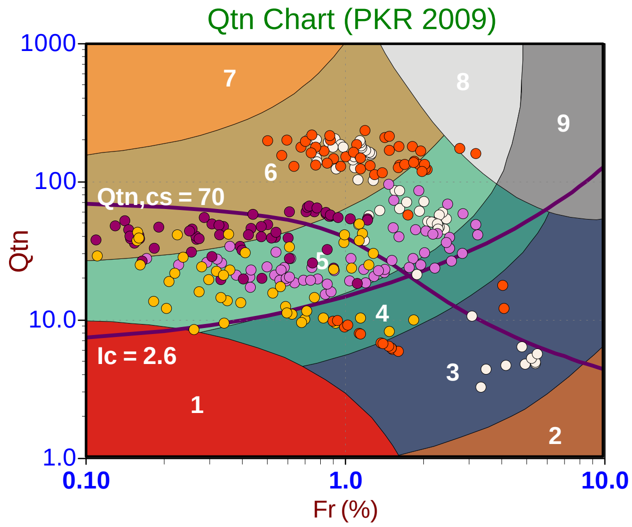
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

CONETEC

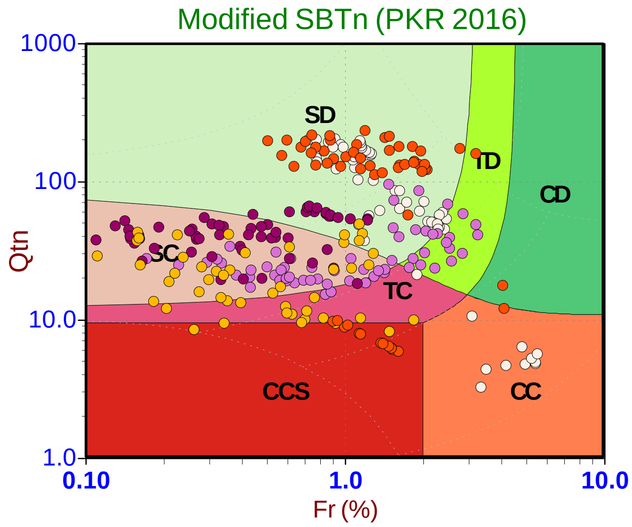
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 11:24
Site: Micron New York Manufacturing Facility - Clay, NY

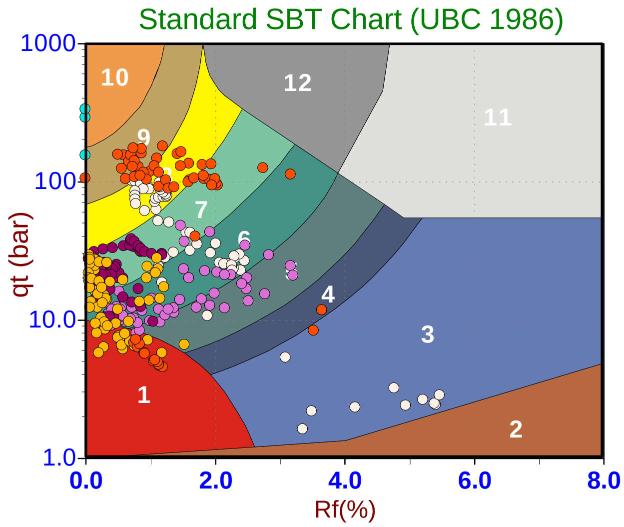
Sounding: CPT25-013
Cone: 1075:T1000F10U35 Area=15 cm²



Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)

Depth Ranges

- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

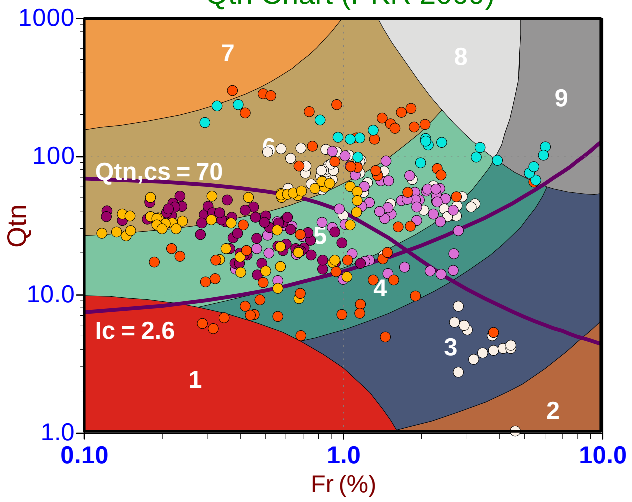
Legend

- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

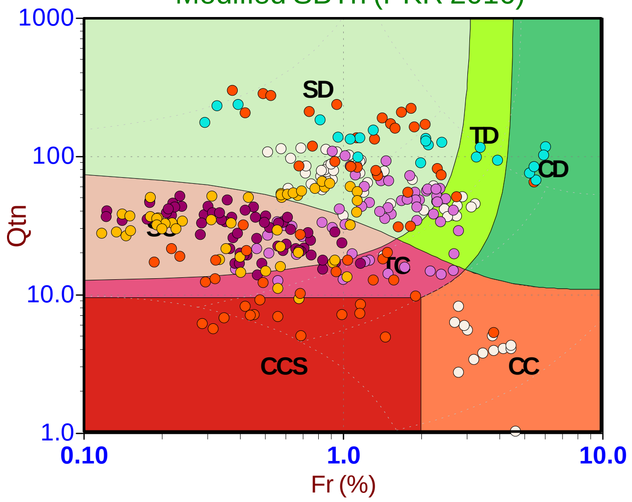
CONETEC

Langan Engineering

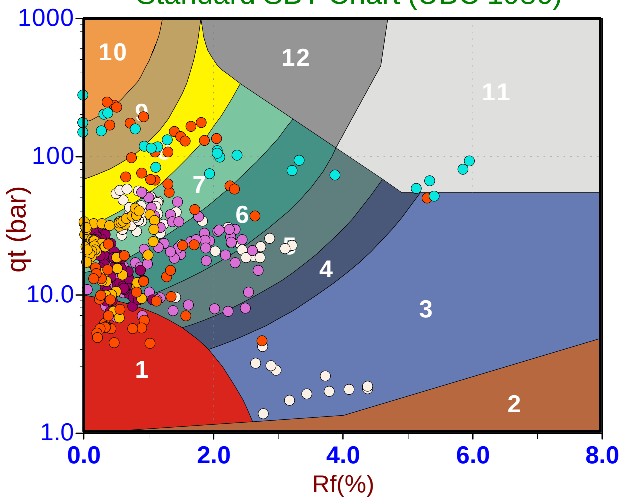
Job No: 25-53-29335
Date: 2025-04-15 12:28
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-014
Cone: 1075:T1000F10U35 Area=15 cm²



Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

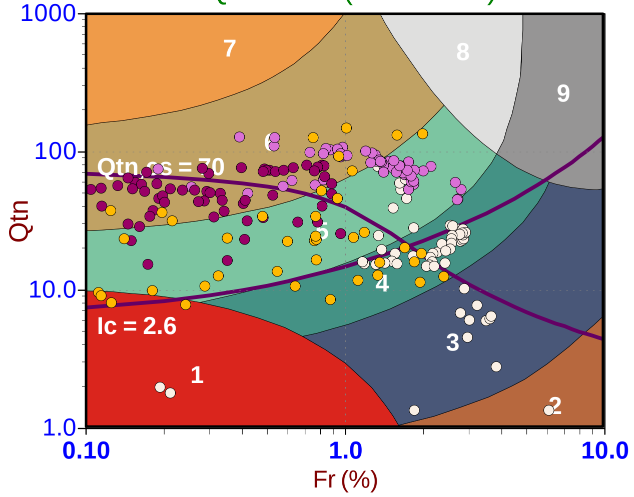
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

CONETEC

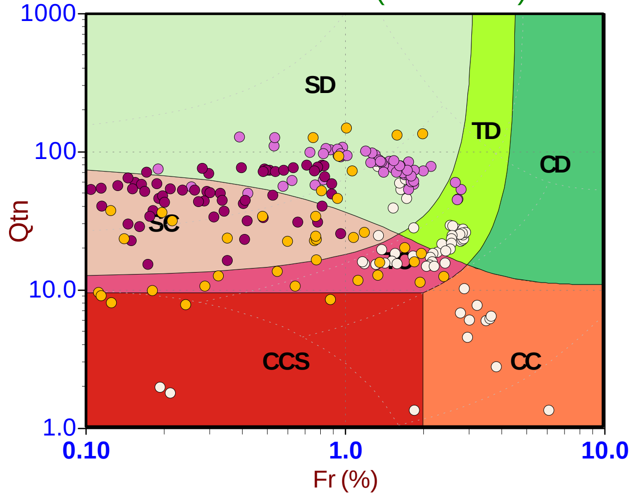
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 15:21
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-015
Cone: 1075:T1000F10U35 Area=15 cm²

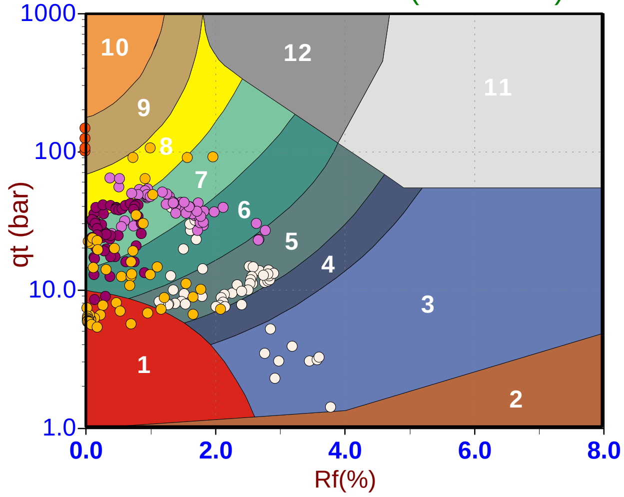
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

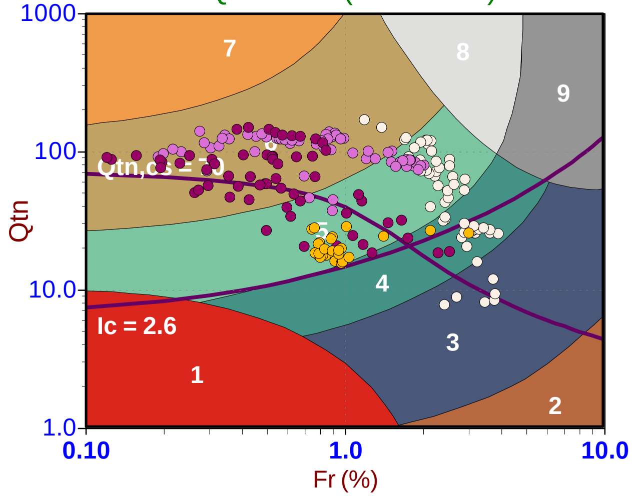
CONETEC

Langan Engineering

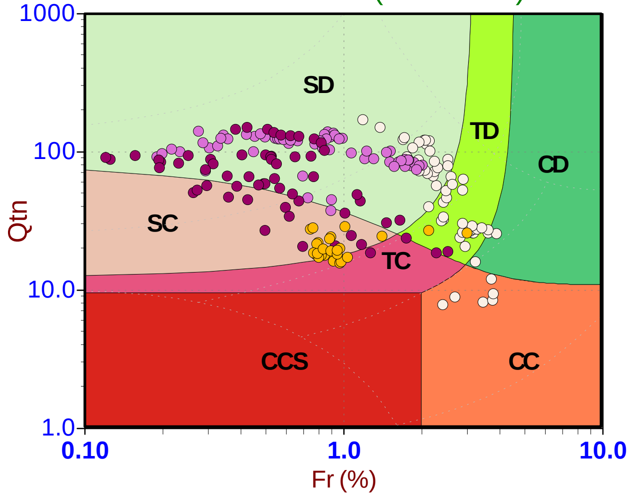
Job No: 25-53-29335
Date: 2025-04-16 09:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-016
Cone: 1075:T1000F10U35 Area=15 cm²

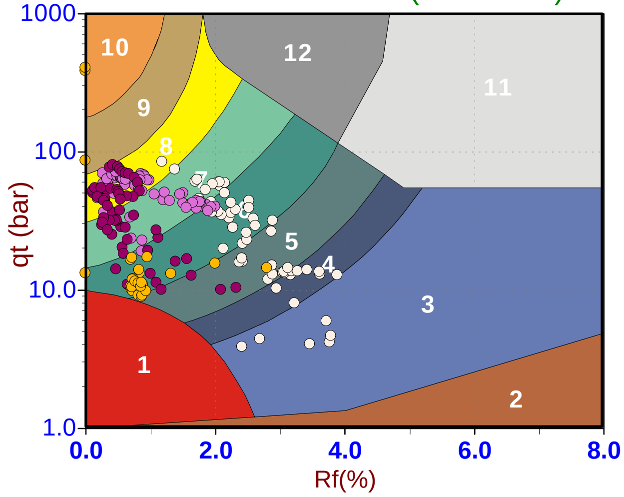
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

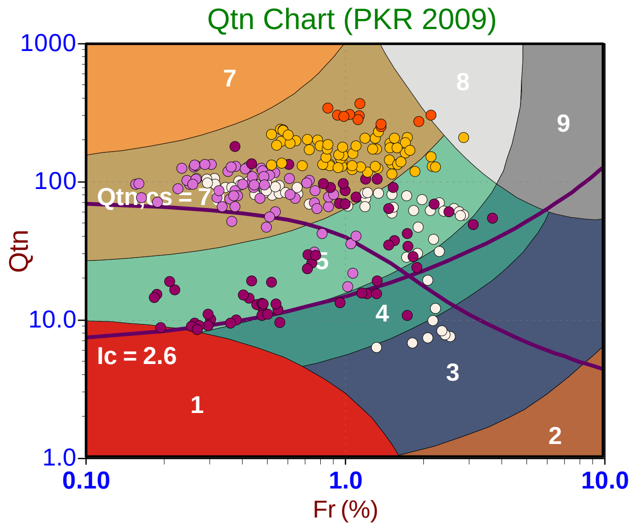
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

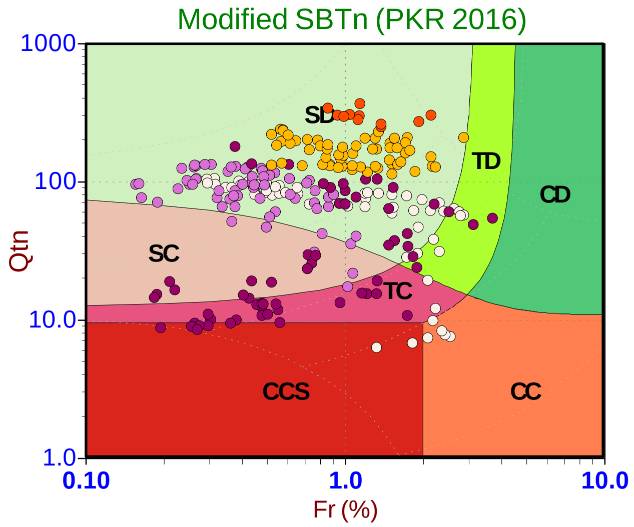
ConeTec

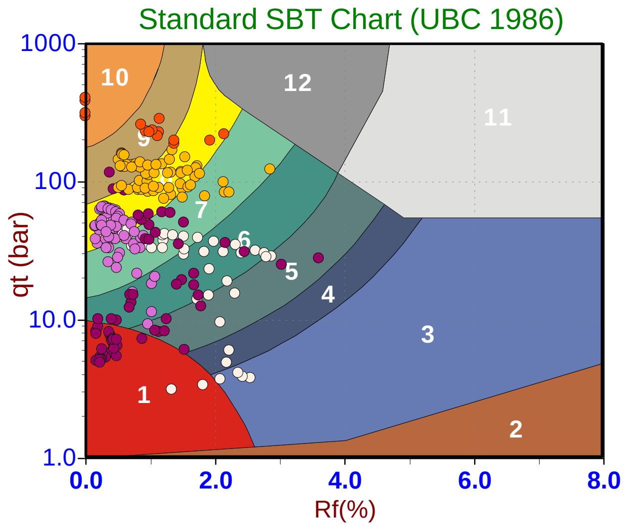
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 09:43
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-017
Cone: 1075:T1000F10U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

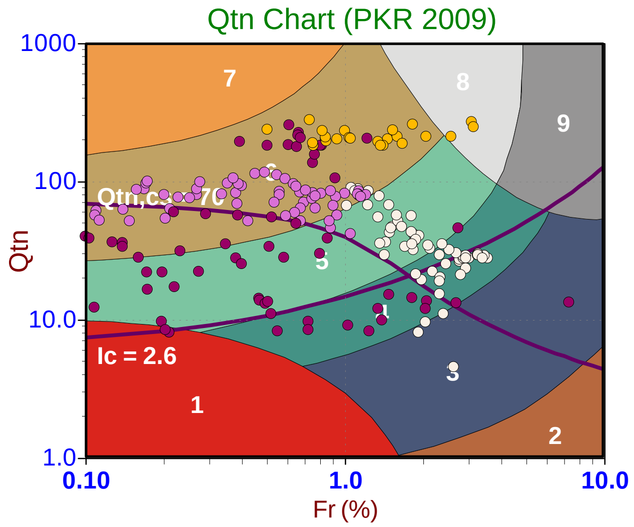
Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

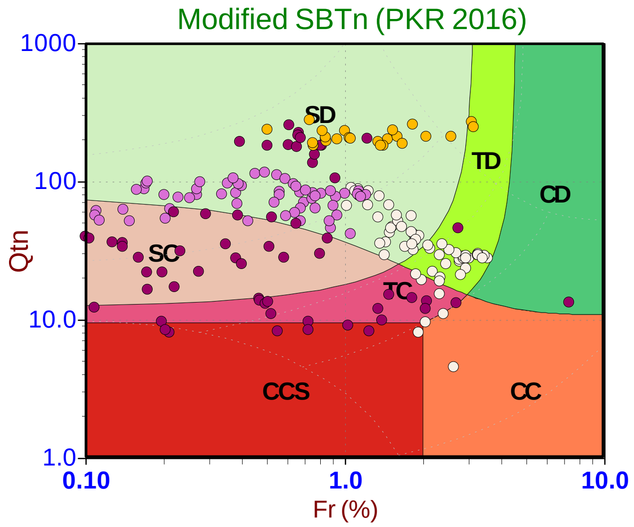
CONETEC

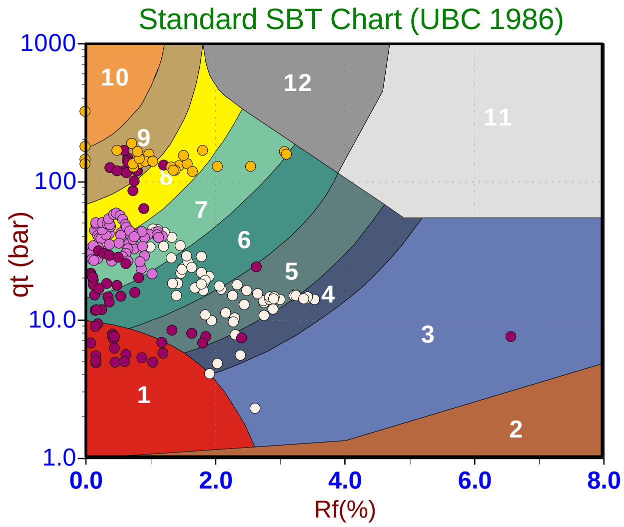
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 10:38
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-018
Cone: 1075:T1000F10U35 Area=15 cm²







Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

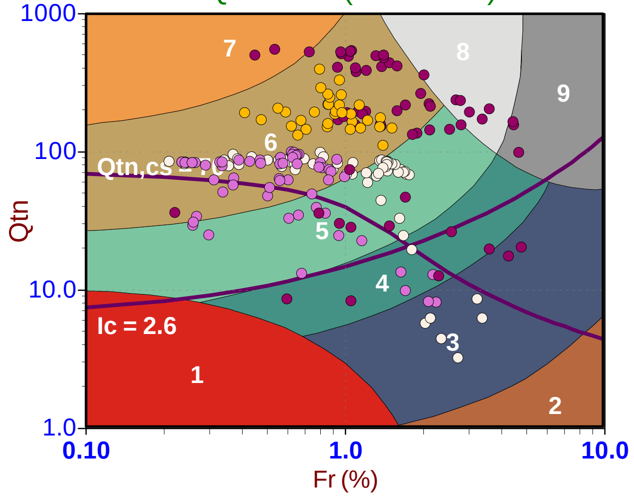
CONETEC

Langan Engineering

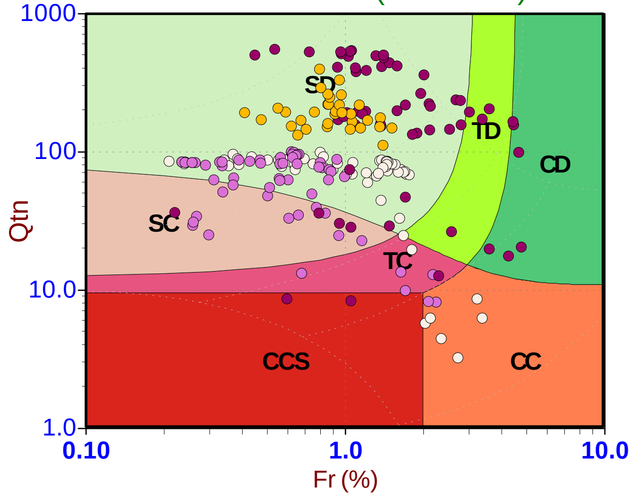
Job No: 25-53-29335
Date: 2025-04-16 12:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-019
Cone: 1075:T1000F10U35 Area=15 cm²

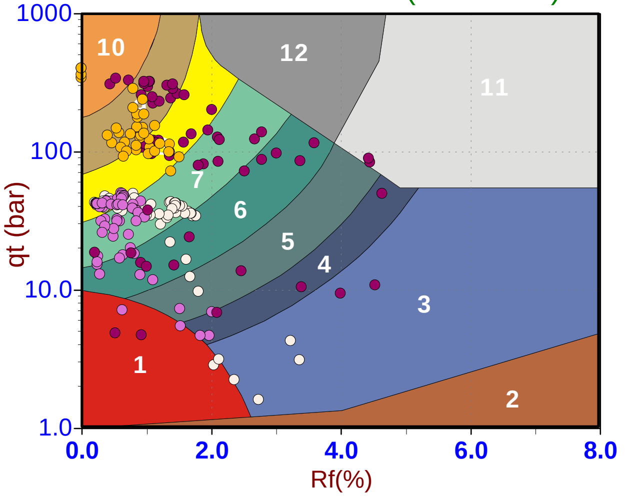
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)

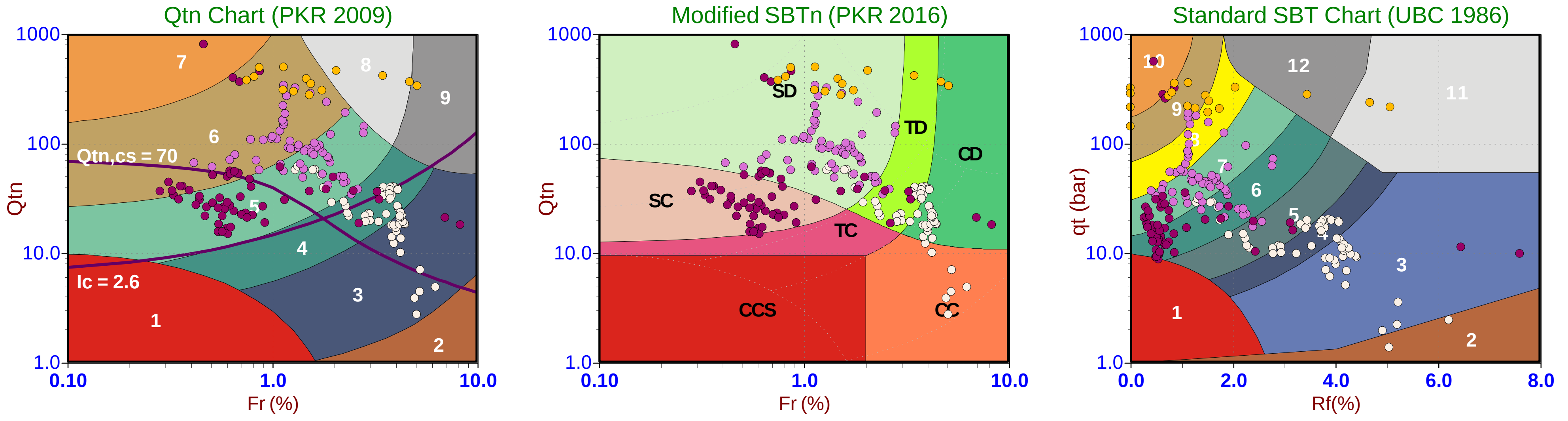


Depth Ranges
- ⚪ >0.0 to 5.0 ft
- 🟣 >5.0 to 10.0 ft
- 🟣 >10.0 to 15.0 ft
- 🟠 >15.0 to 20.0 ft
- 🔴 >20.0 to 25.0 ft
- 🔵 >25.0 to 30.0 ft
- 🔵 >30.0 to 35.0 ft
- 🟢 >35.0 to 40.0 ft
- 🟢 >40.0 to 45.0 ft
- 🟡 >45.0 to 50.0 ft
- 🟡 >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand



Qtn Chart (PKR 2009)

Modified SBTn (PKR 2016)

Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- 🟣 >5.0 to 10.0 ft
- 🟣 >10.0 to 15.0 ft
- 🟠 >15.0 to 20.0 ft
- 🔴 >20.0 to 25.0 ft
- 🔵 >25.0 to 30.0 ft
- 🔵 >30.0 to 35.0 ft
- 🟢 >35.0 to 40.0 ft
- 🟢 >40.0 to 45.0 ft
- 🟡 >45.0 to 50.0 ft
- 🟡 >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- ⬛ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

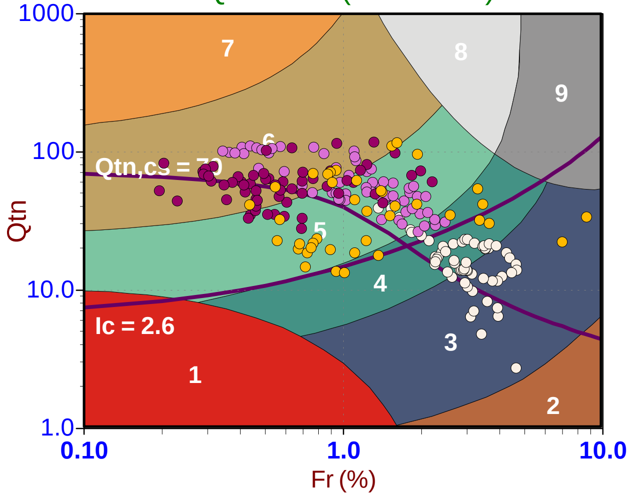
CONETEC

Langan Engineering

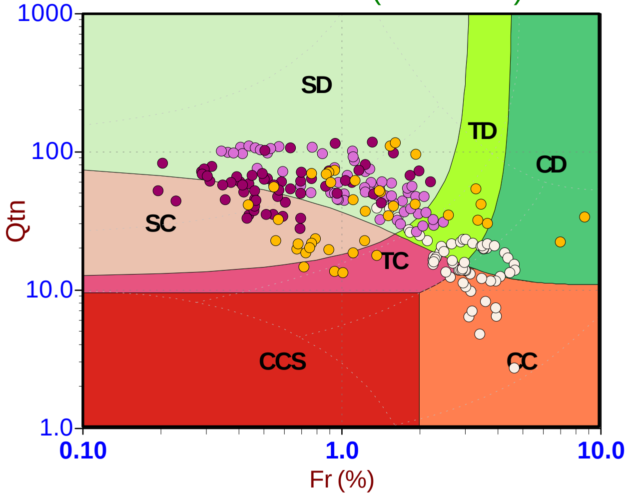
Job No: 25-53-29335
Date: 2025-04-08 11:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-021
Cone: 1149:T1500F15U35 Area=15 cm²

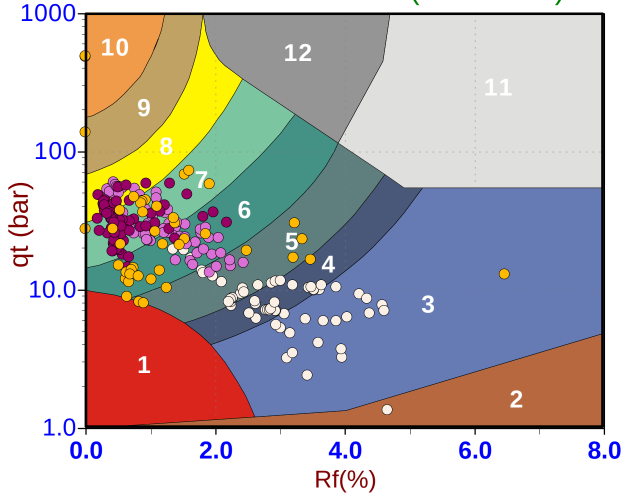
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

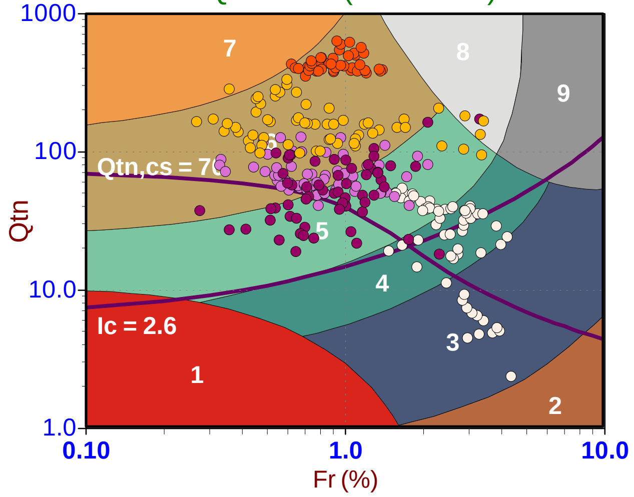
CONETEC

Langan Engineering

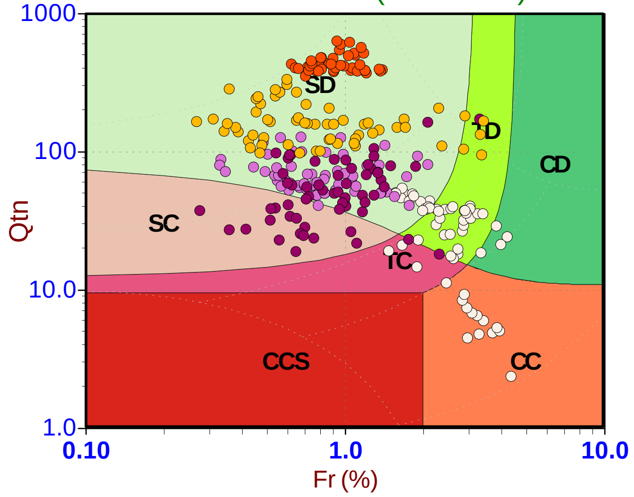
Job No: 25-53-29335
Date: 2025-04-08 07:53
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-022
Cone: 1149:T1500F15U35 Area=15 cm²

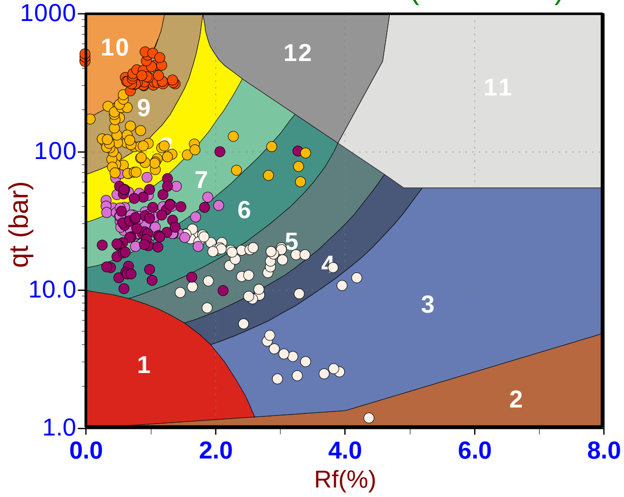
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

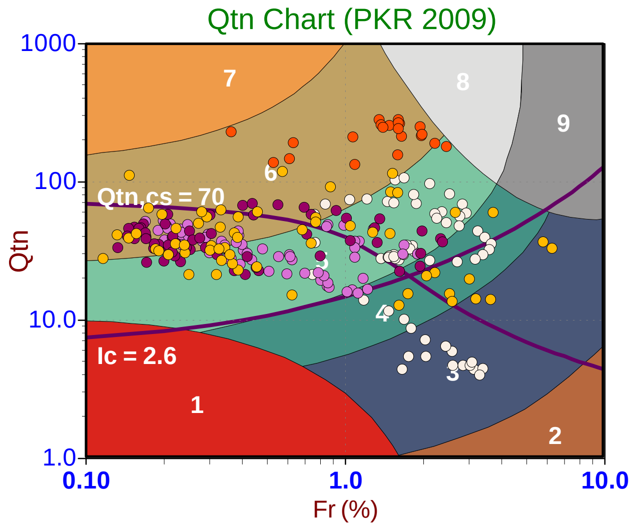
Legend

- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 09:15
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-023
Cone: 1149:T1500F15U35 Area=15 cm²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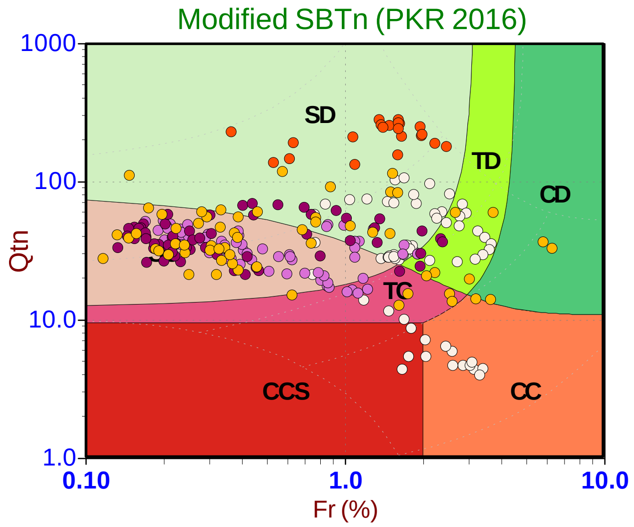
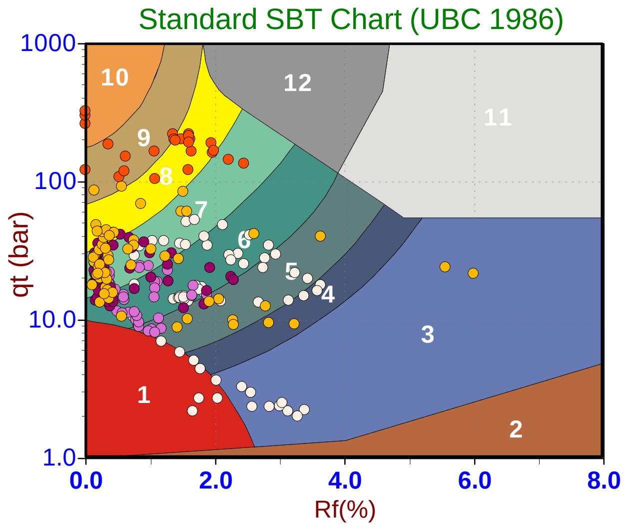

Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

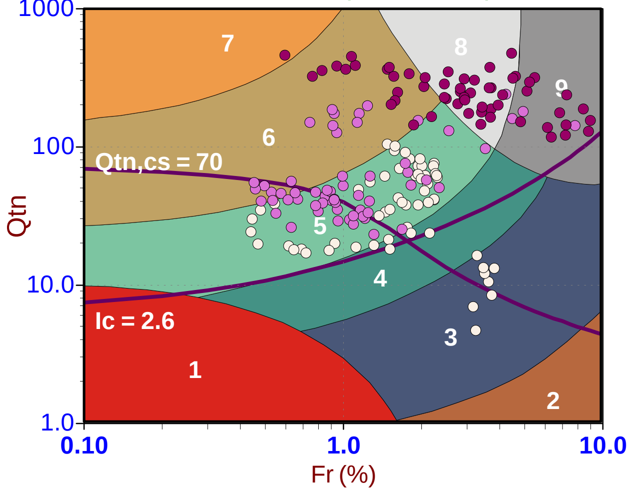
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

CONETEC

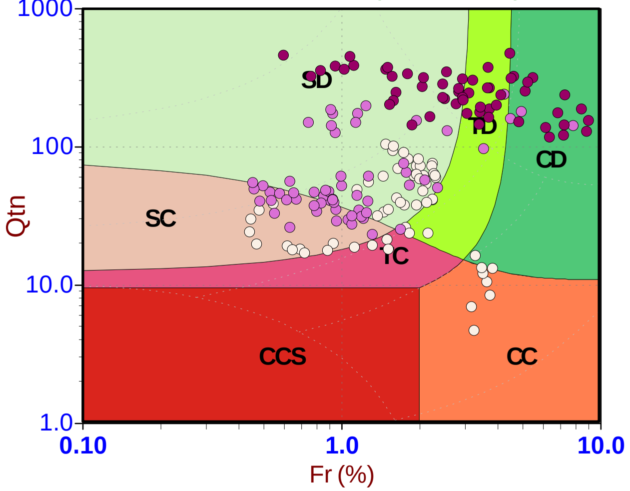
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 10:55
Site: Micron New York Manufacturing Facility - Clay, NY

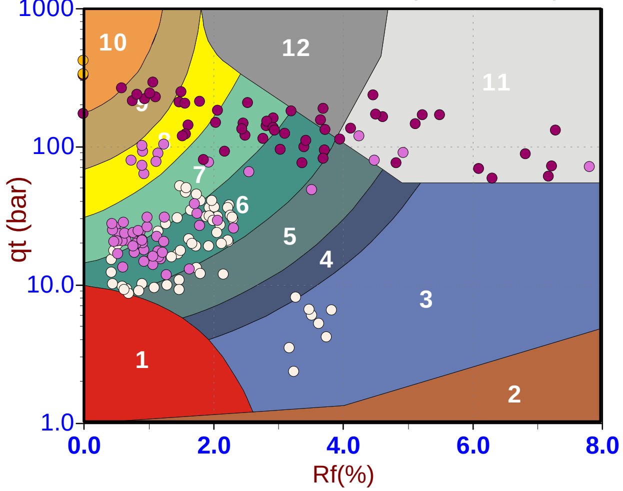
Sounding: SCPT25-024
Cone: 1149:T1500F15U35 Area=15 cm²



Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)

Depth Ranges

- ○ >0.0 to 5.0 ft
- 🟣 >5.0 to 10.0 ft
- 🟣 >10.0 to 15.0 ft
- 🟠 >15.0 to 20.0 ft
- 🔴 >20.0 to 25.0 ft
- 🔵 >25.0 to 30.0 ft
- 🔵 >30.0 to 35.0 ft
- 🟢 >35.0 to 40.0 ft
- 🟢 >40.0 to 45.0 ft
- 🟡 >45.0 to 50.0 ft
- 🟡 >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

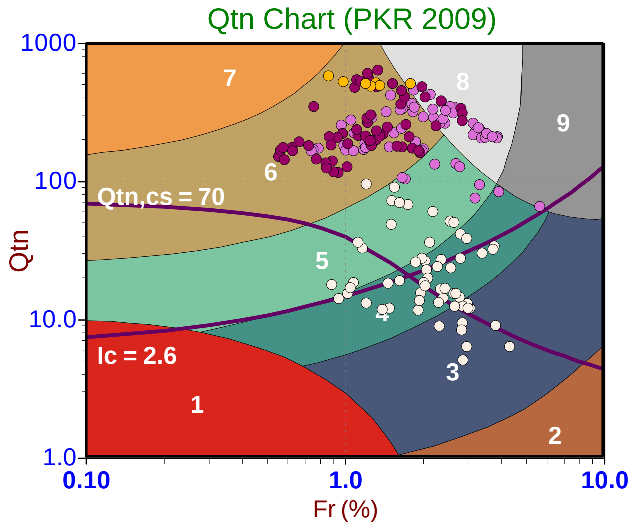
Legend

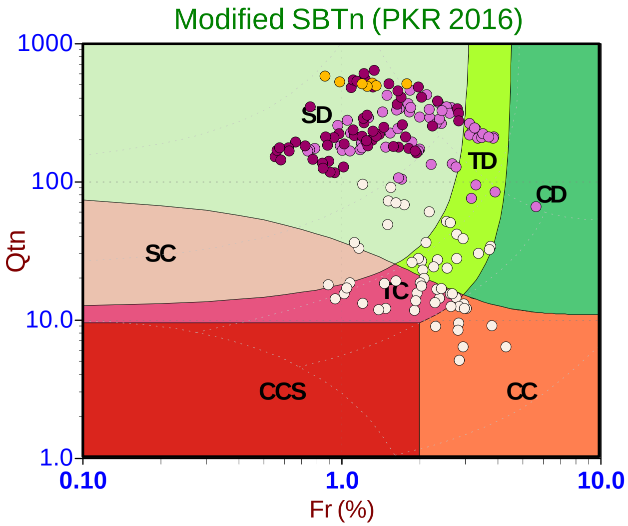
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

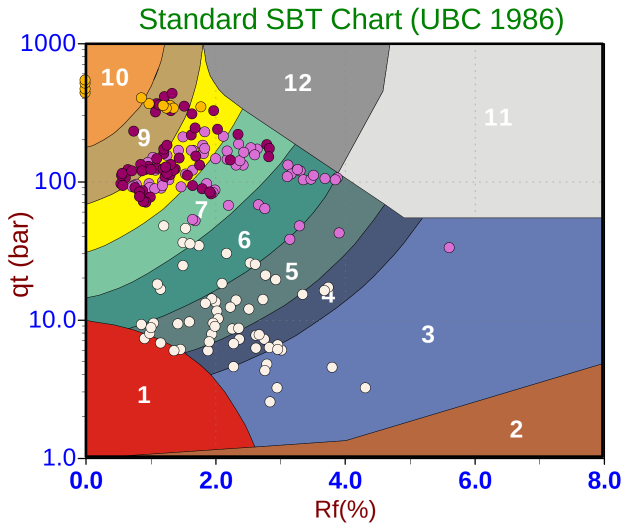
CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 10:33
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-025
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend

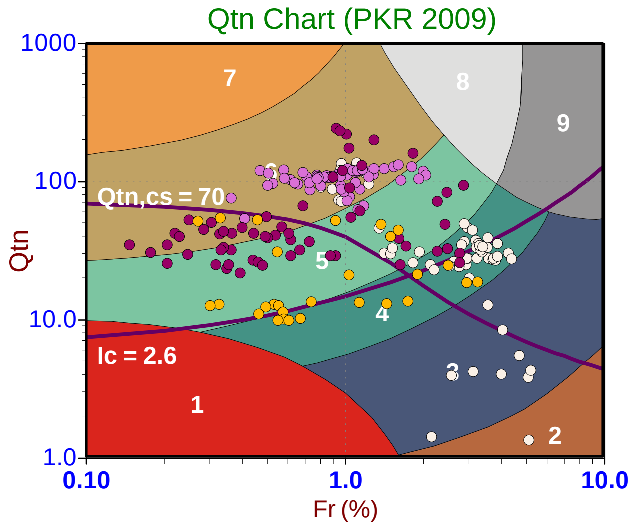
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

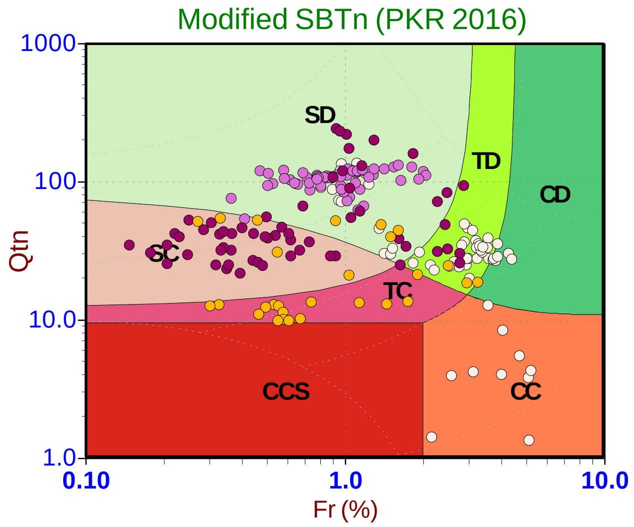
CONETEC

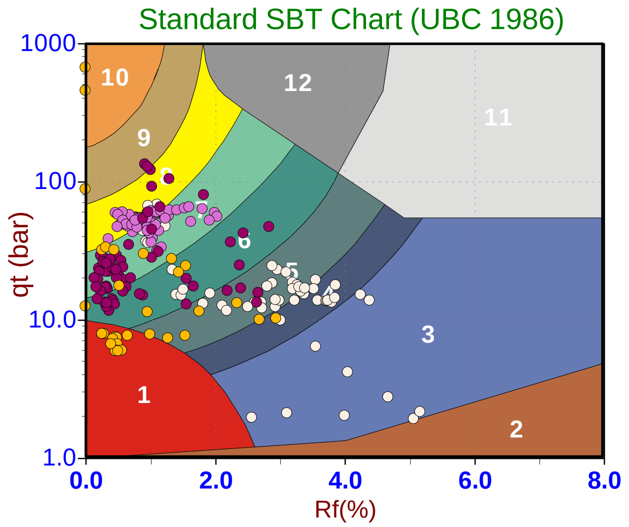
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 09:27
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-026
Cone: 1149:T1500F15U35 Area=15 cm²







Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- ▨ Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- ▨ Silty Clay
- ▨ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

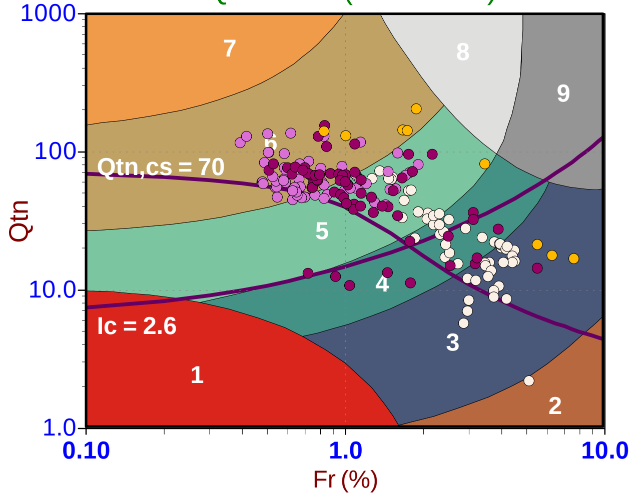
CONETEC

Langan Engineering

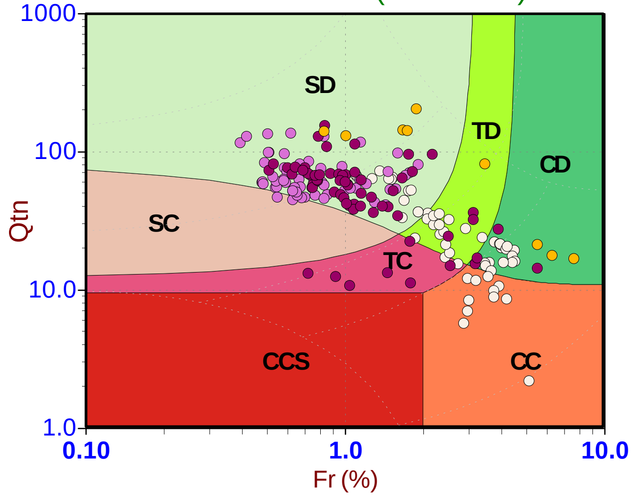
Job No: 25-53-29335
Date: 2025-04-10 11:44
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-027
Cone: 1149:T1500F15U35 Area=15 cm²

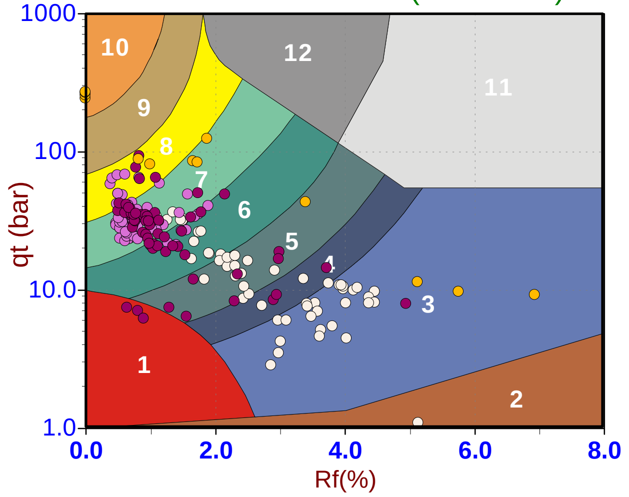
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

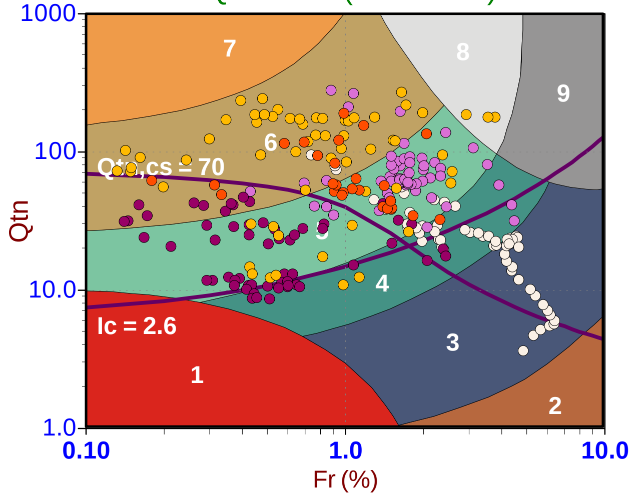
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

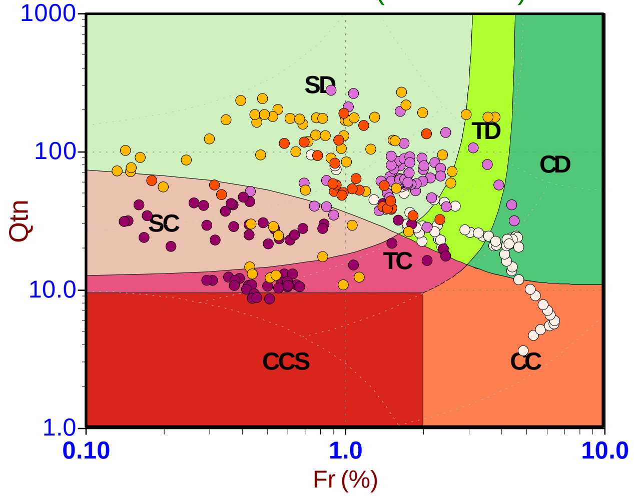
CONETEC

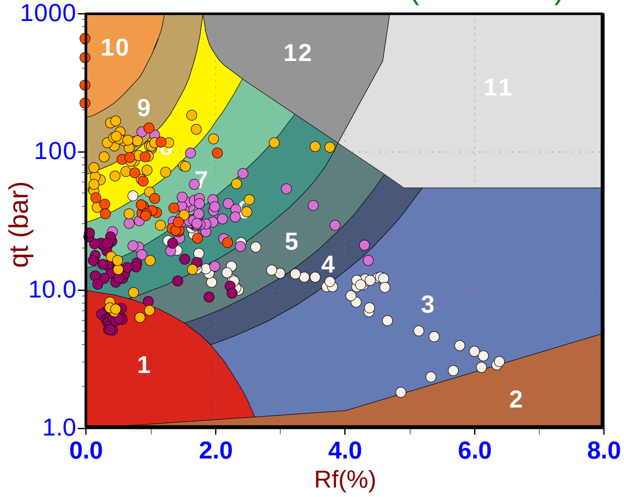
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 11:32
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-028
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

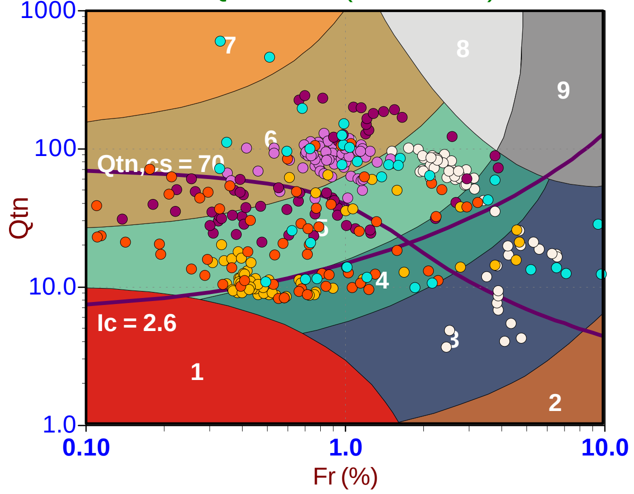
CONETEC

Langan Engineering

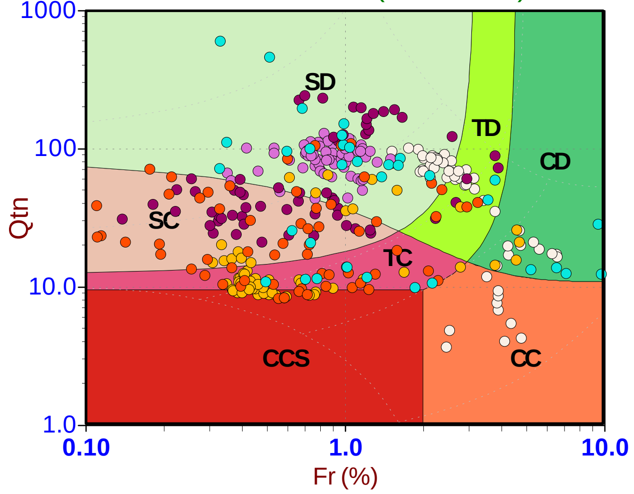
Job No: 25-53-29335
Date: 2025-04-09 15:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-029
Cone: 1149:T1500F15U35 Area=15 cm²

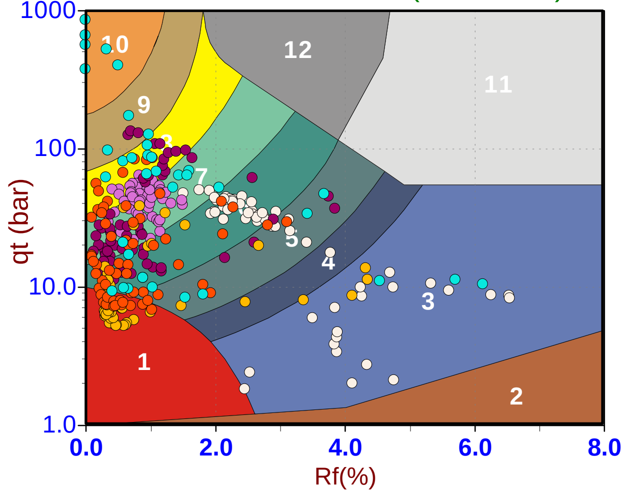
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

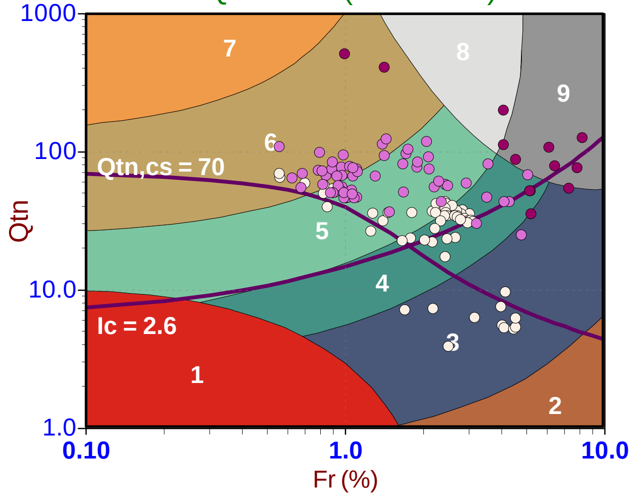
CONETEC

Langan Engineering

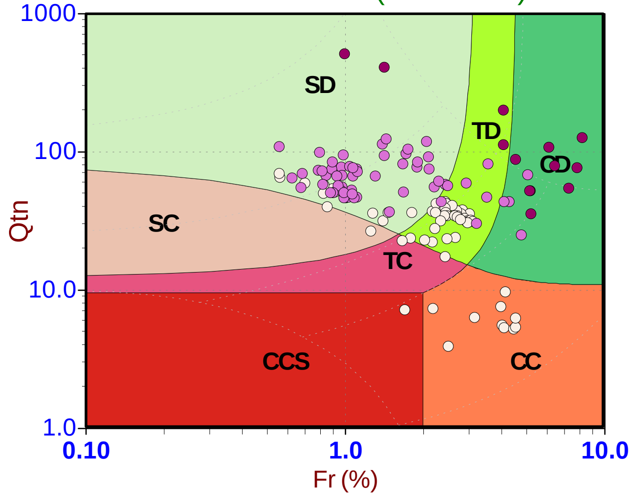
Job No: 25-53-29335
Date: 2025-04-11 08:42
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-030
Cone: 1149:T1500F15U35 Area=15 cm²

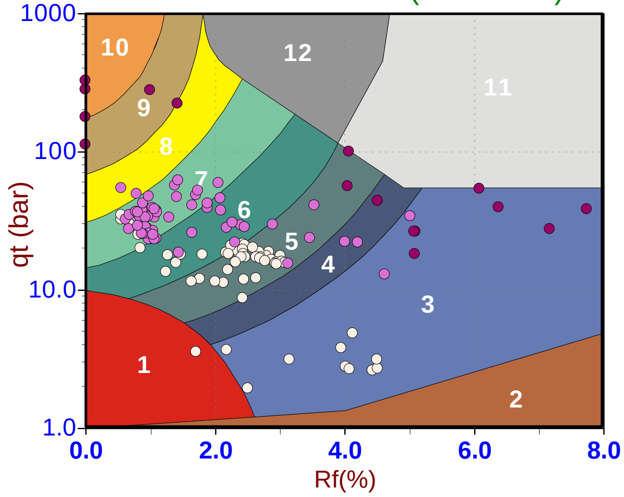
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

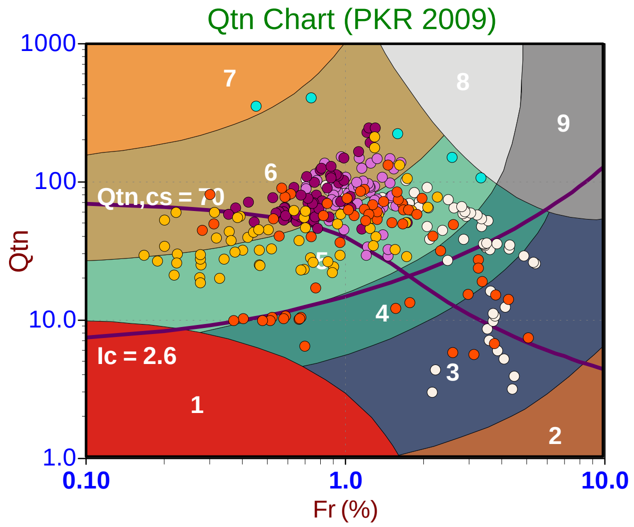
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

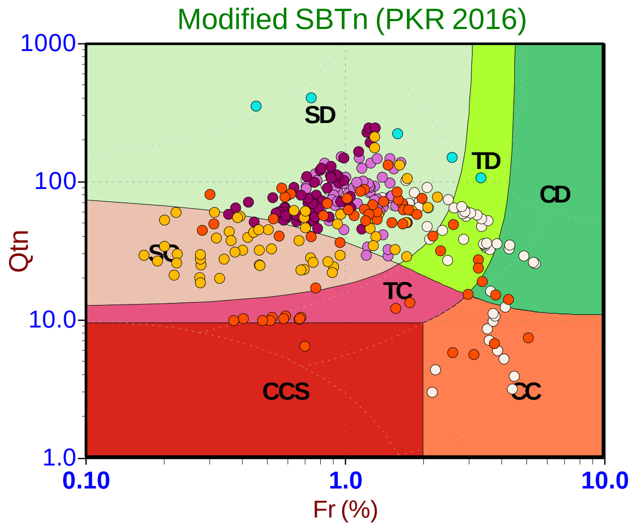
CONETEC

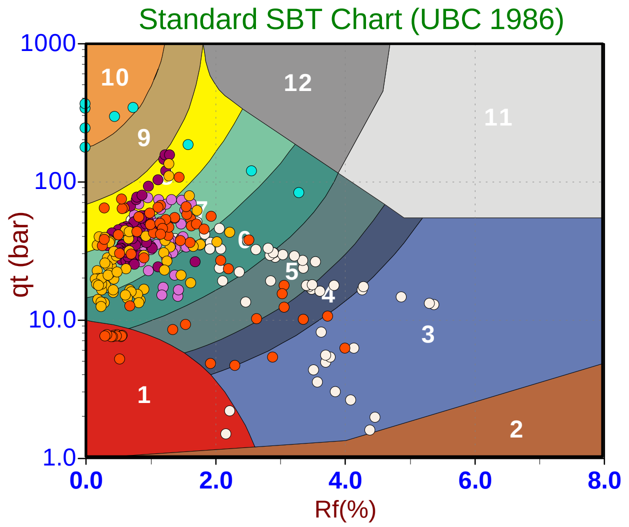
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 14:43
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-031
Cone: 1149:T1500F15U35 Area=15 cm²







Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- ⬛ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

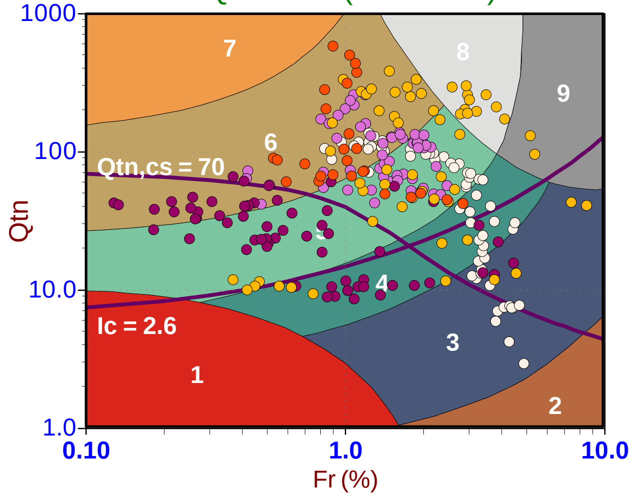
CONETEC

Langan Engineering

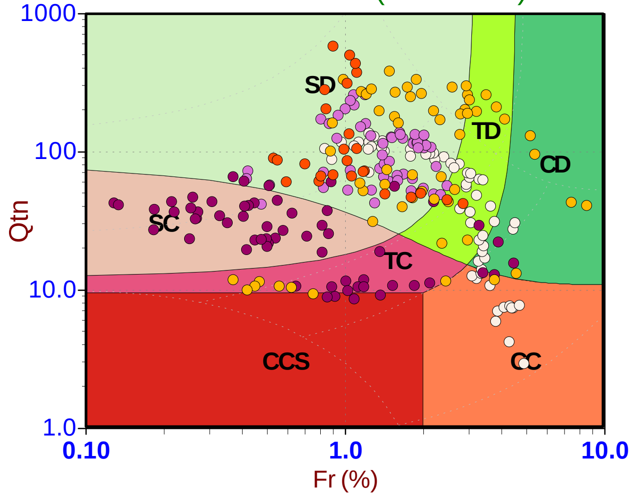
Job No: 25-53-29335
Date: 2025-04-09 13:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-032
Cone: 1149:T1500F15U35 Area=15 cm²

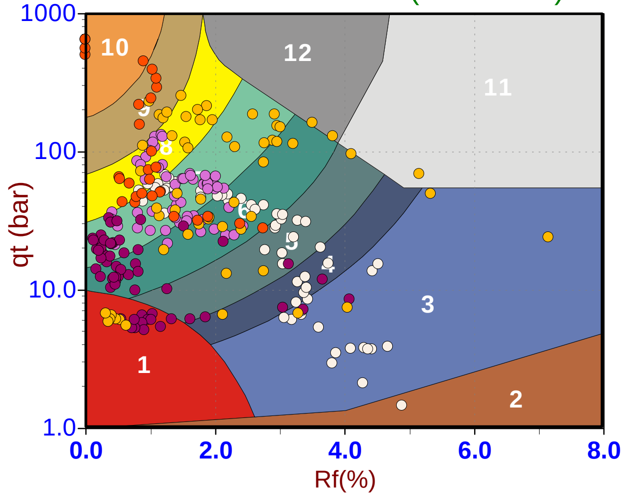
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

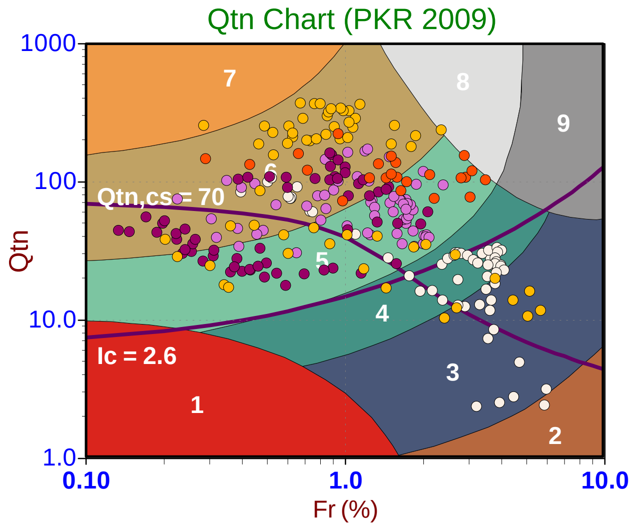
Legend

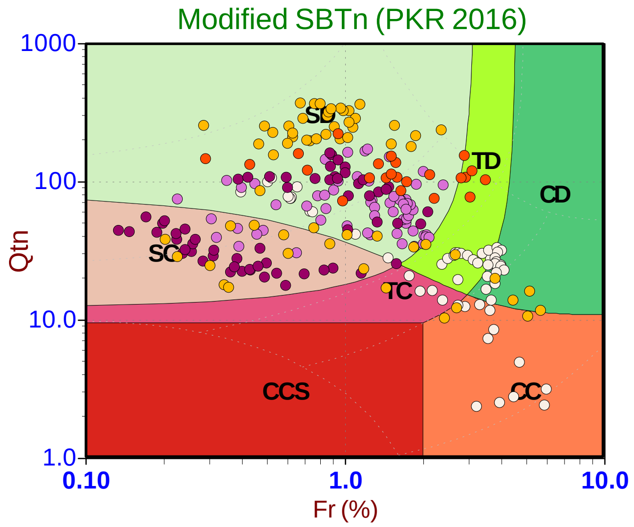
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

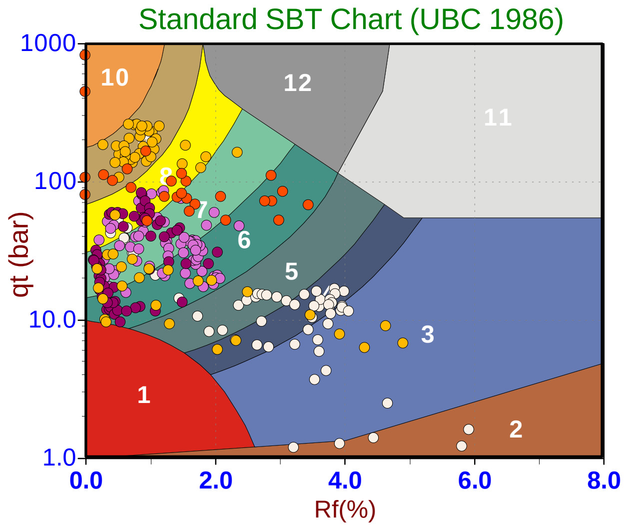
CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 10:50
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-033
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ⚪ >0.0 to 5.0 ft
- 🟣 >5.0 to 10.0 ft
- 🟣 >10.0 to 15.0 ft
- 🟡 >15.0 to 20.0 ft
- 🟠 >20.0 to 25.0 ft
- 🔵 >25.0 to 30.0 ft
- 🔵 >30.0 to 35.0 ft
- 🟢 >35.0 to 40.0 ft
- 🟢 >40.0 to 45.0 ft
- 🟡 >45.0 to 50.0 ft
- 🟡 >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

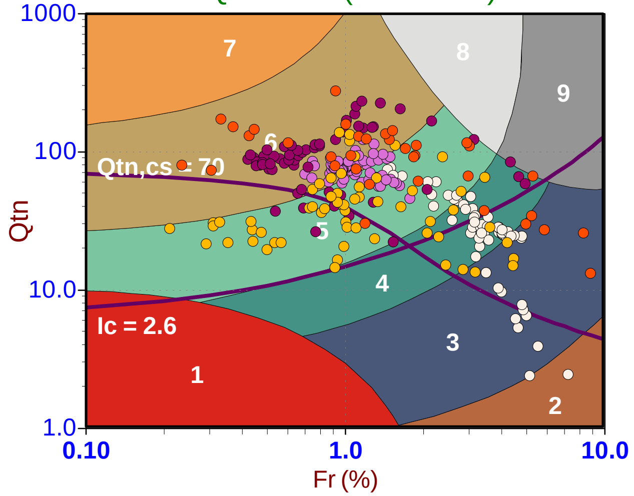
CONETEC

Langan Engineering

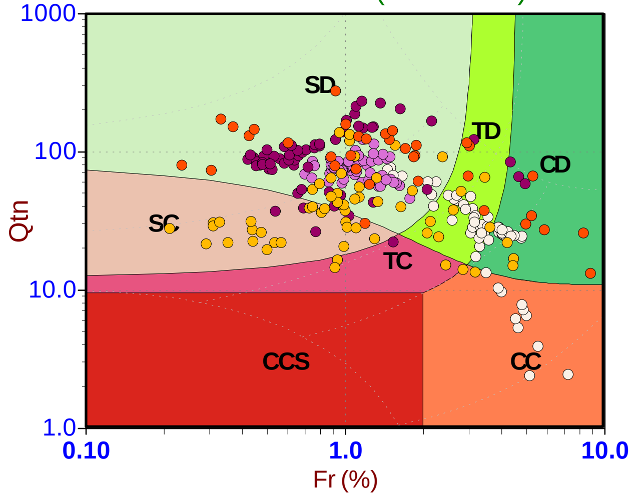
Job No: 25-53-29335
Date: 2025-04-10 13:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-034
Cone: 1149:T1500F15U35 Area=15 cm²

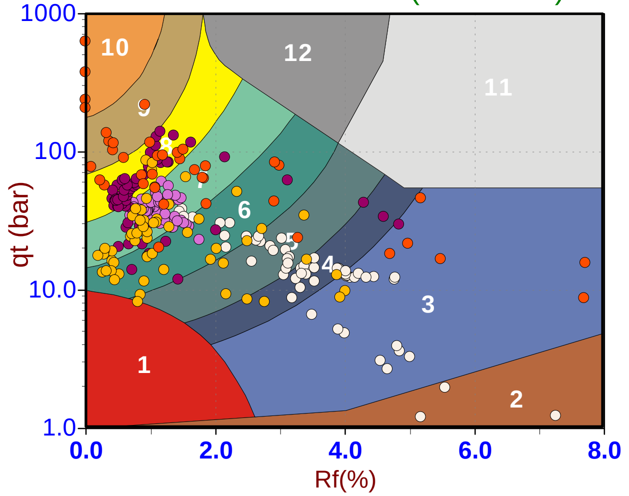
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

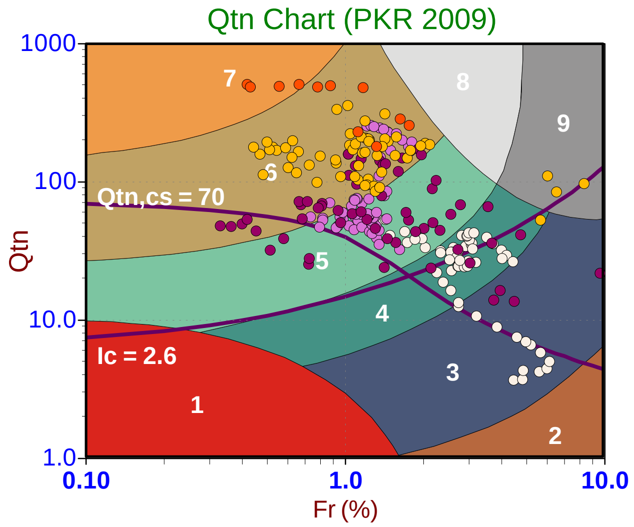
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

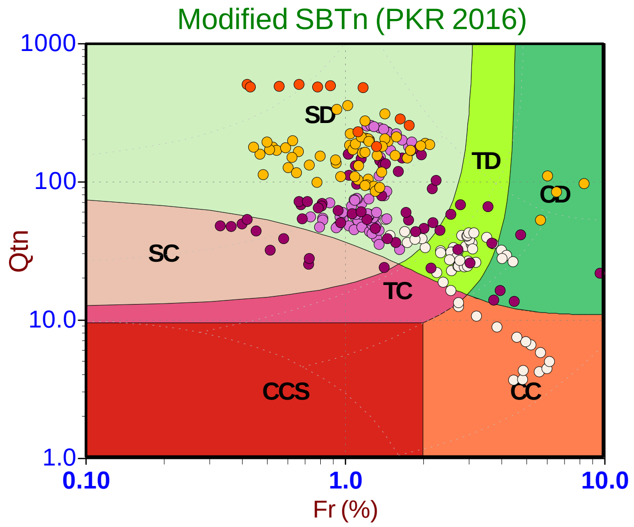
Legend

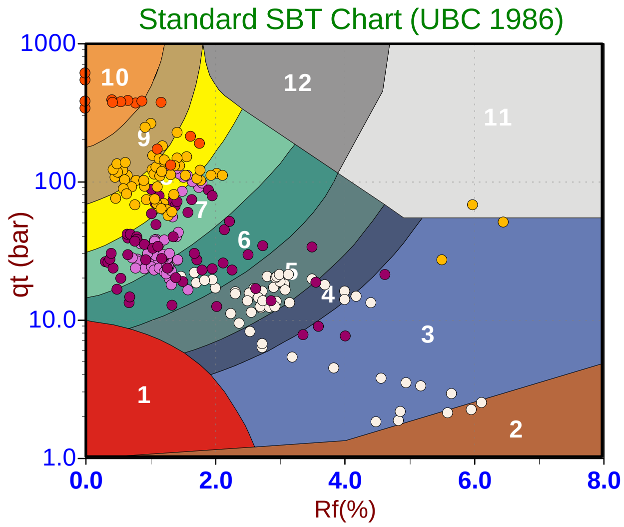
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 09:37
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-035
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

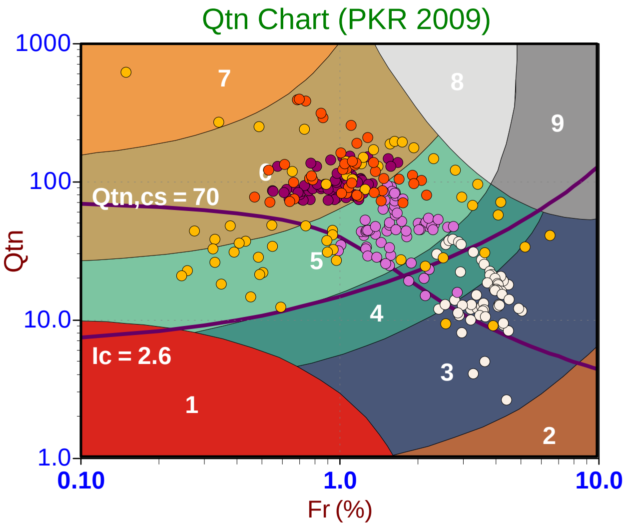
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

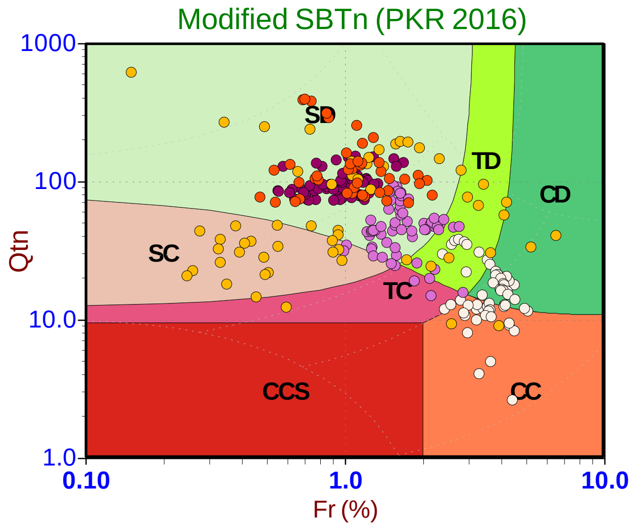
ConeTec

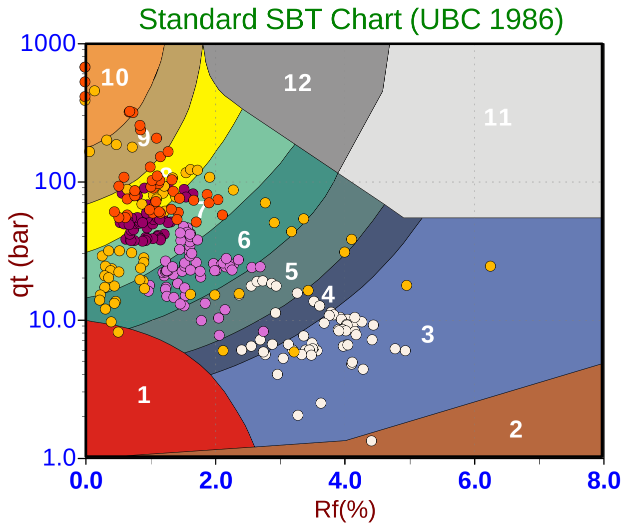
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 14:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-036
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

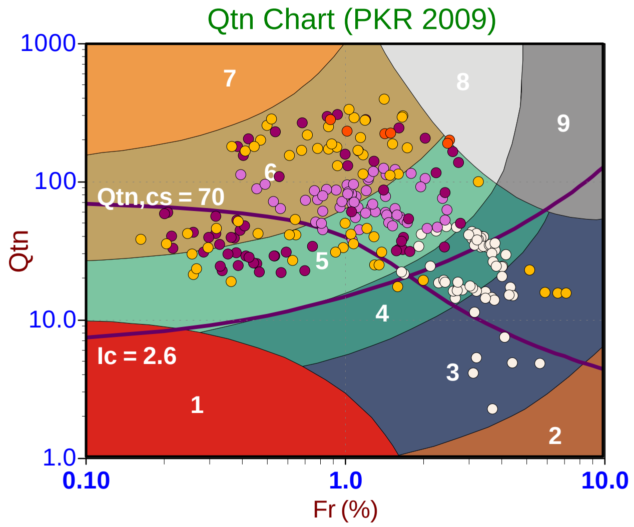
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

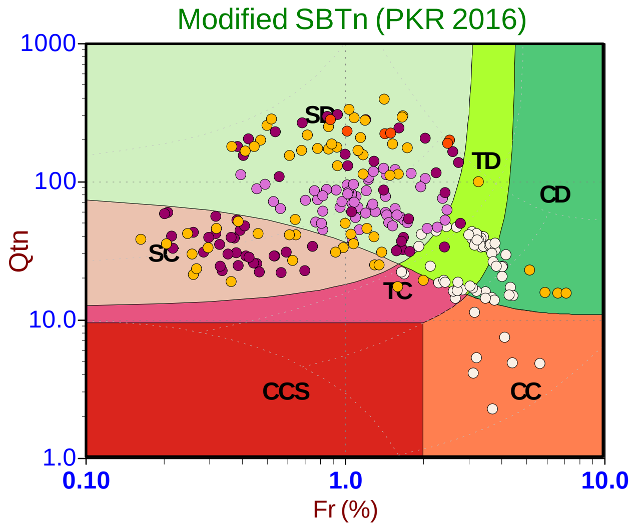
ConeTec

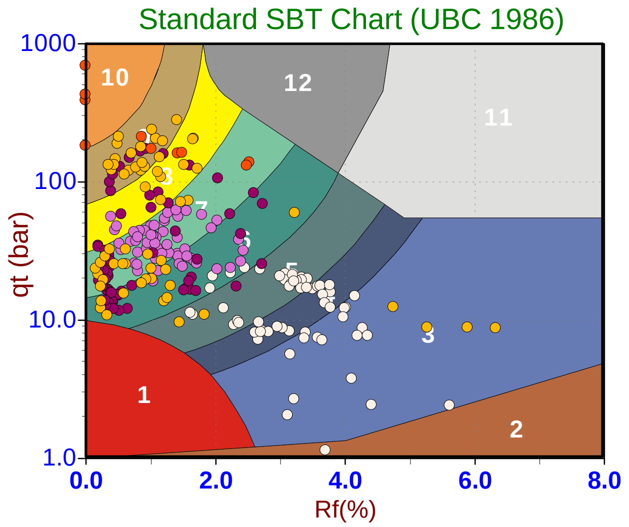
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 11:38
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-037
Cone: 1149:T1500F15U35 Area=15 cm²







Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

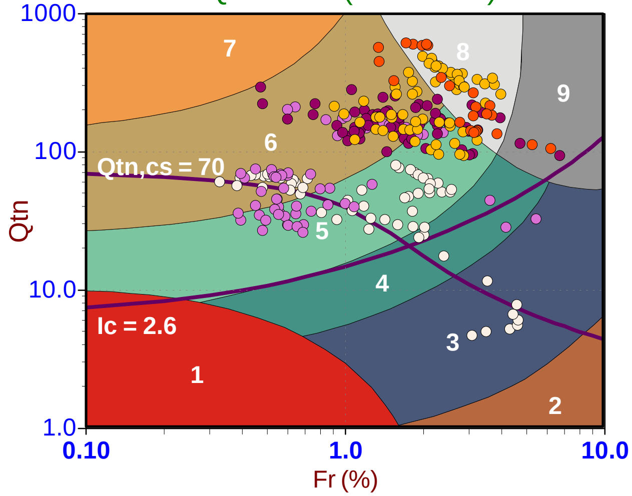
CONETEC

Langan Engineering

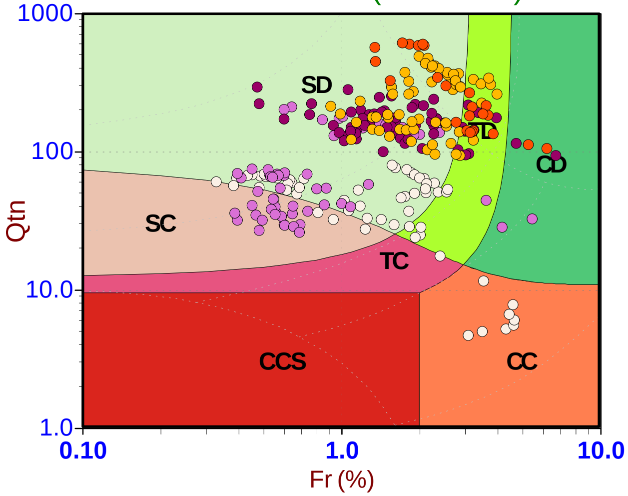
Job No: 25-53-29335
Date: 2025-04-10 14:11
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-038
Cone: 1149:T1500F15U35 Area=15 cm²

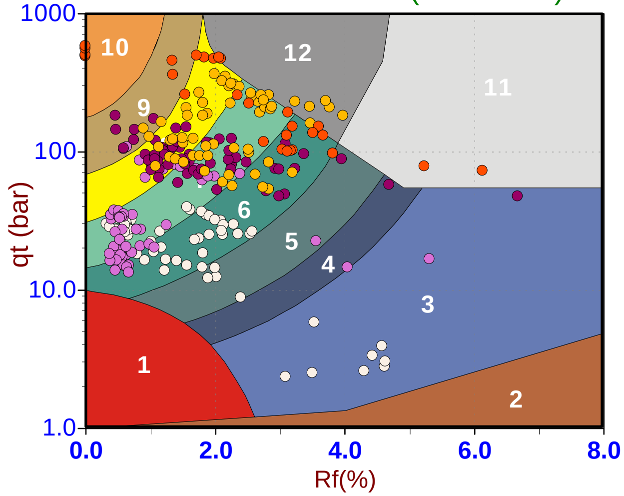
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

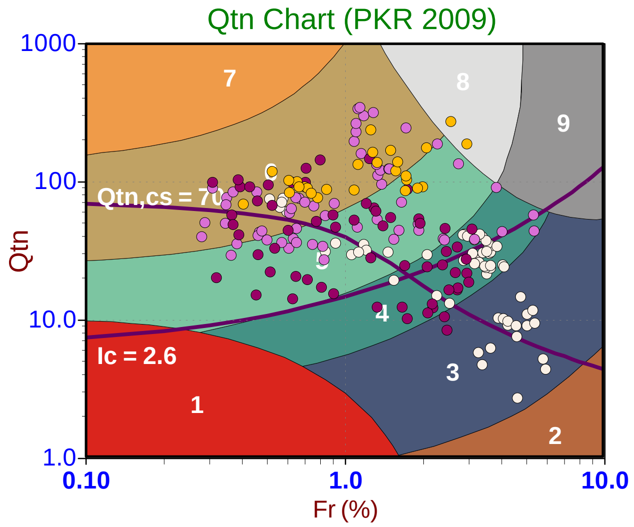
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

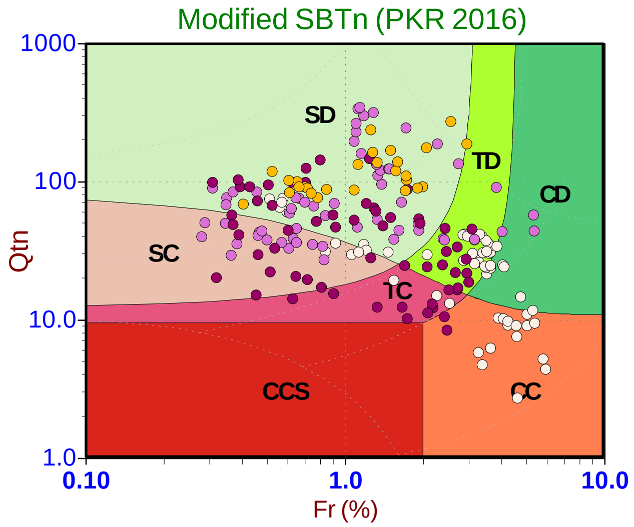
CONETEC

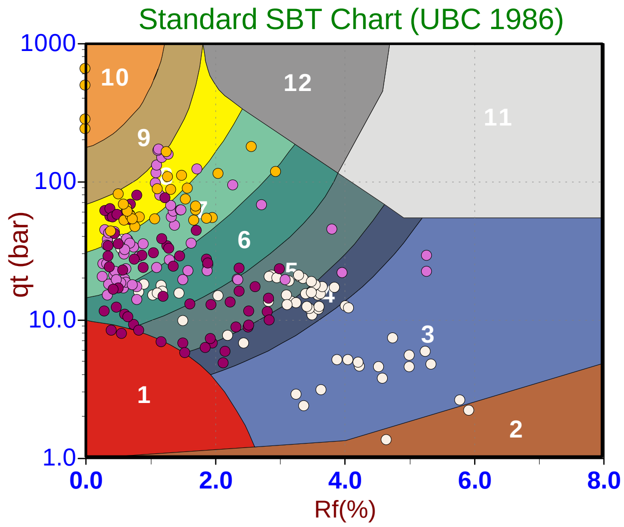
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 13:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-039
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- ■ Clays
- ■ Silt Mixtures
- 🟩 Sand Mixtures
- ■ Sands
- 🟧 Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

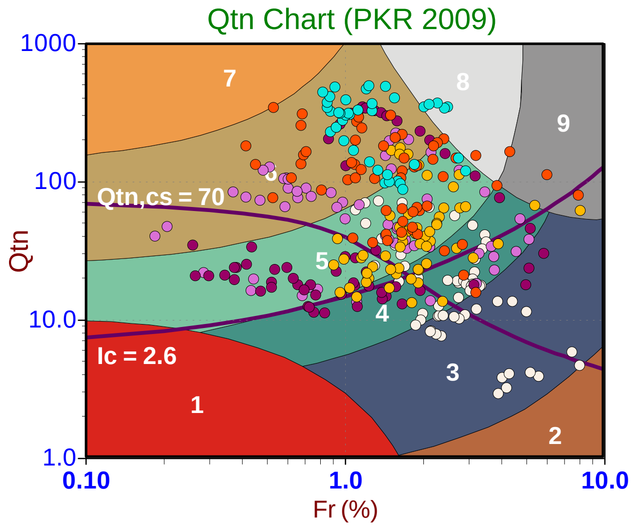
Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- ■ SD (Dil. sand like)

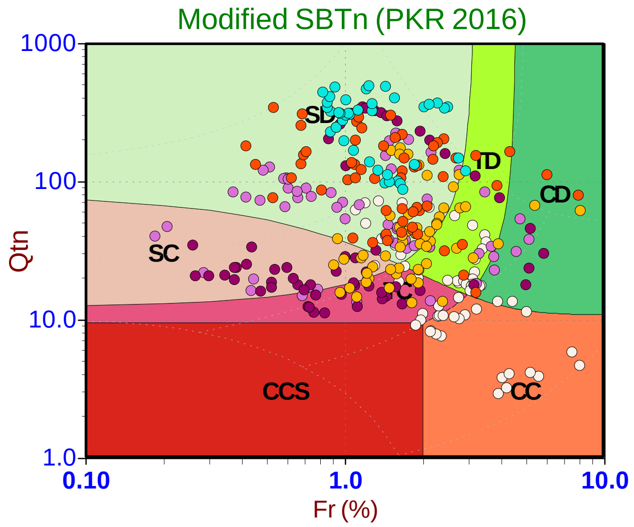
Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- ■ Sand
- 🟧 Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

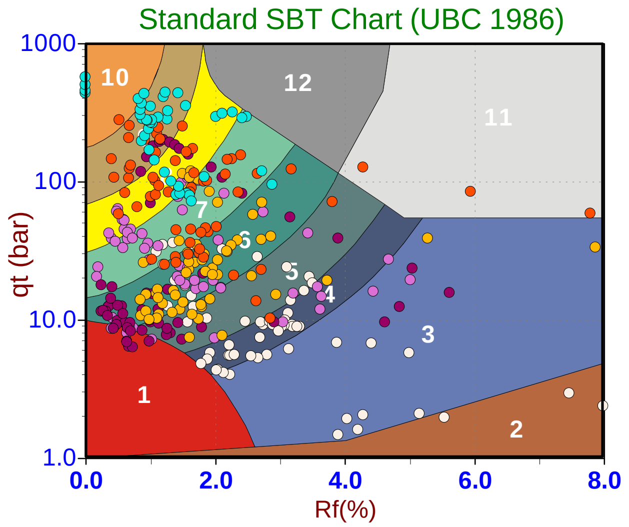
CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 14:32
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-040
Cone: 1149:T1500F15U35 Area=15 cm²







Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

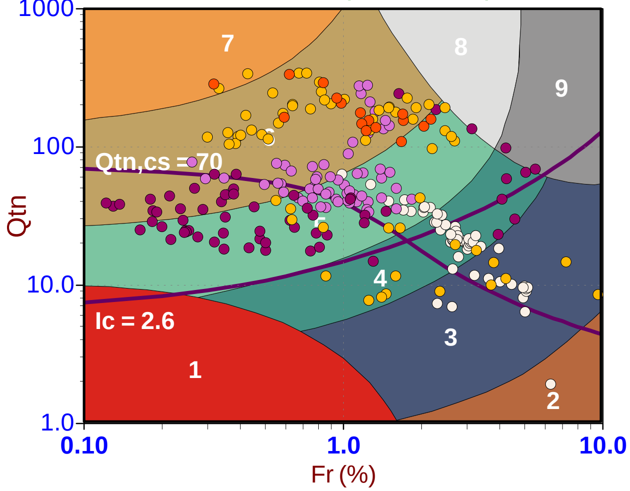
CONETEC

Langan Engineering

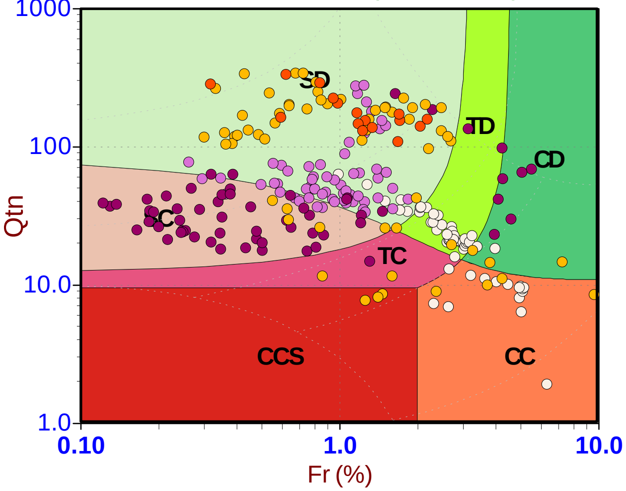
Job No: 25-53-29335
Date: 2025-04-14 08:19
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-041
Cone: 1149:T1500F15U35 Area=15 cm²

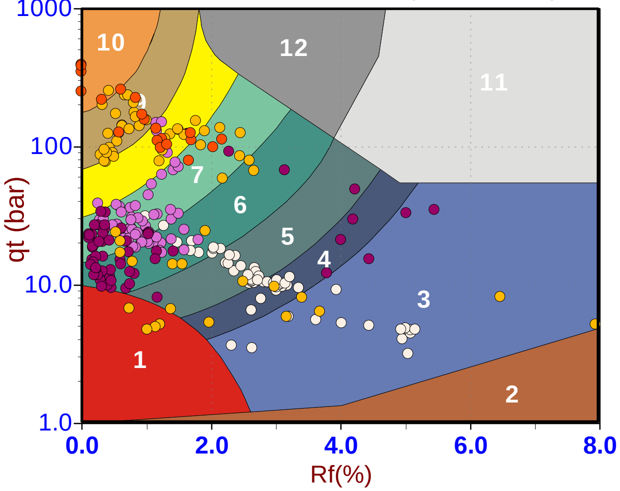
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- ⬛ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

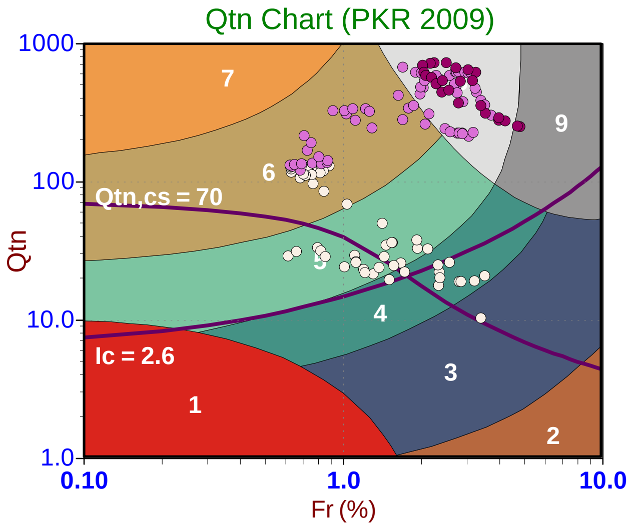
CONETEC

Langan Engineering

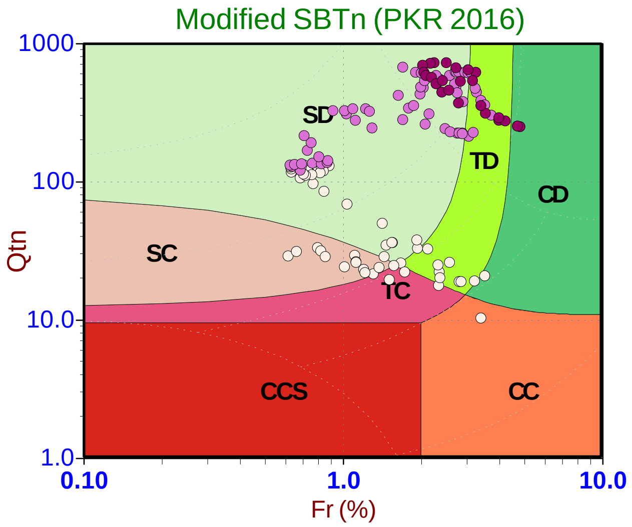
Job No: 25-53-29335
Date: 2025-04-17 08:53
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-042
Cone: 1149:T1500F15U35 Area=15 cm²

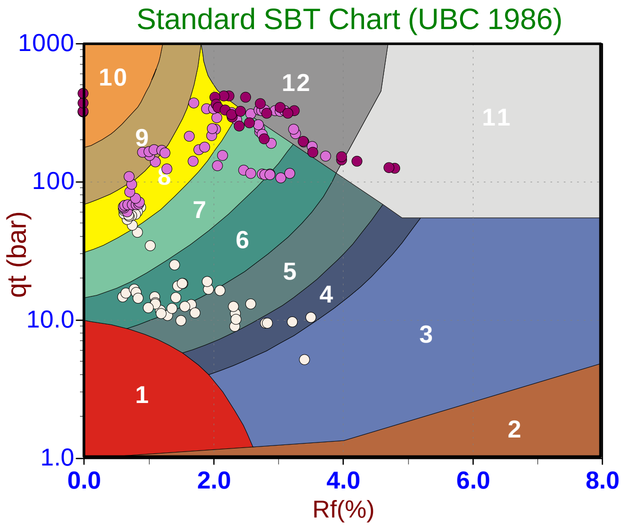
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend

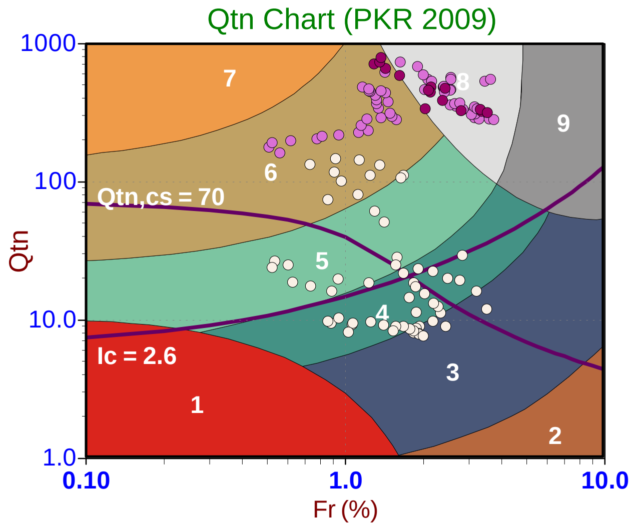
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- ⬛ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

CONETEC

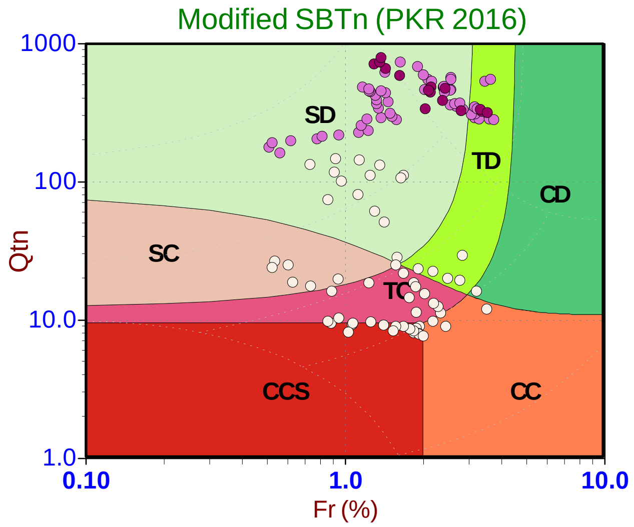
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 09:44
Site: Micron New York Manufacturing Facility - Clay, NY

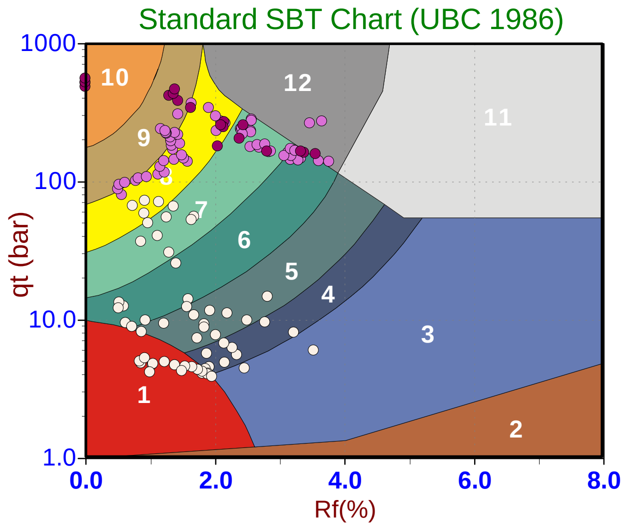
Sounding: CPT25-043
Cone: 1149:T1500F15U35 Area=15 cm²



Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)

Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend

- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

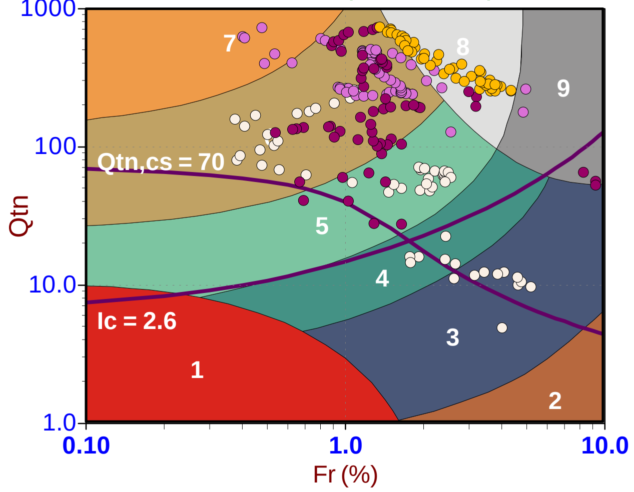
CONETEC

Langan Engineering

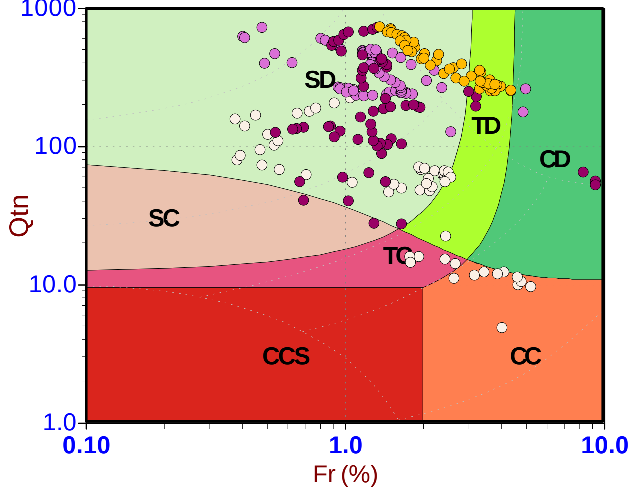
Job No: 25-53-29335
Date: 2025-04-17 12:34
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-044
Cone: 1149:T1500F15U35 Area=15 cm²

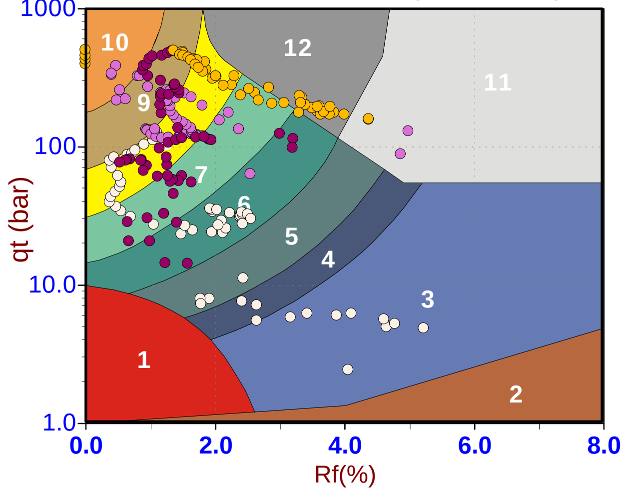
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

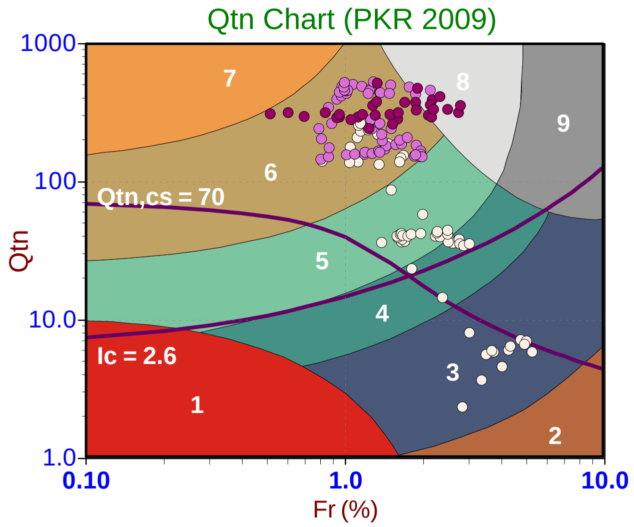
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

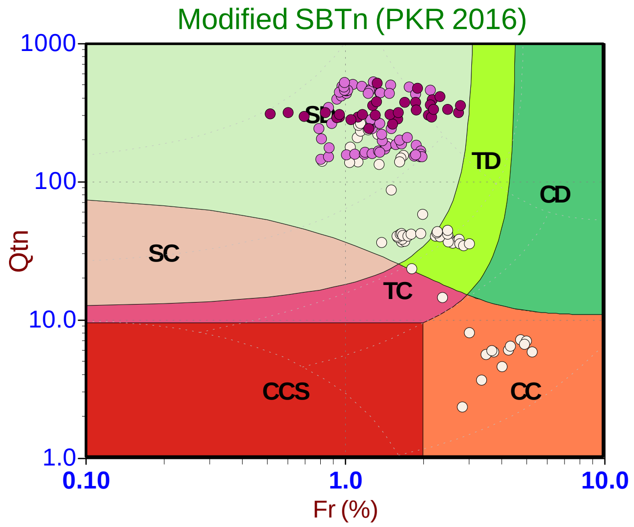
CONETEC

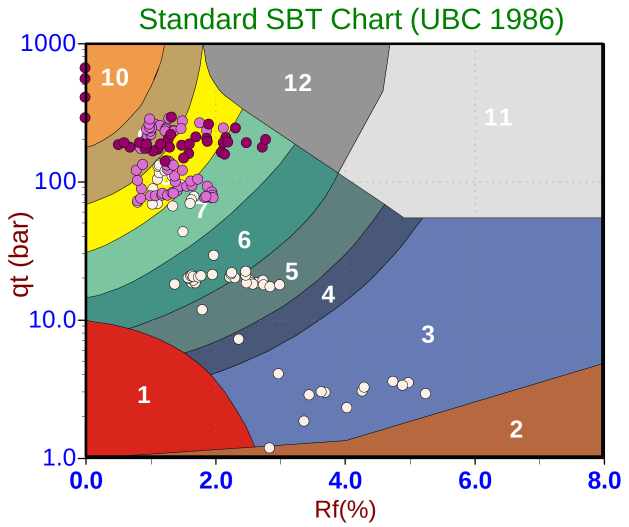
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 11:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-045
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)

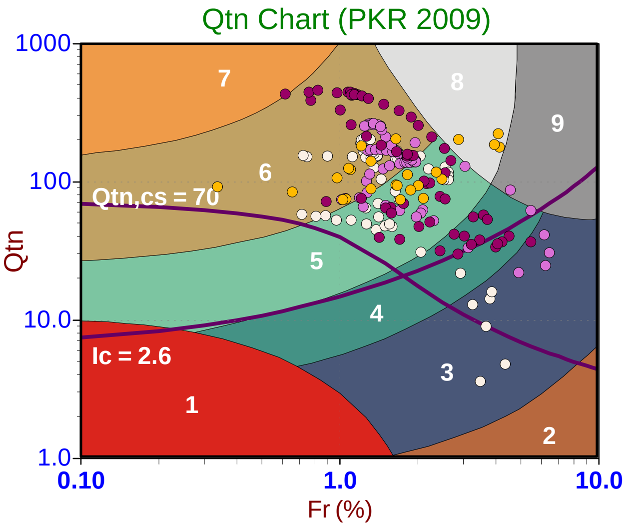

Standard SBT Chart (UBC 1986)

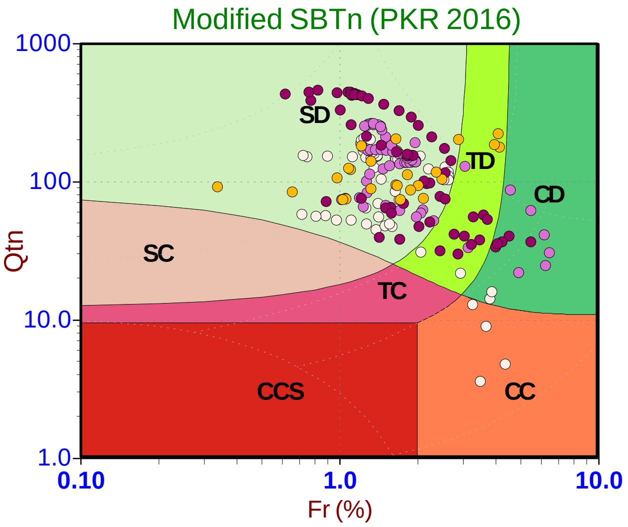
Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

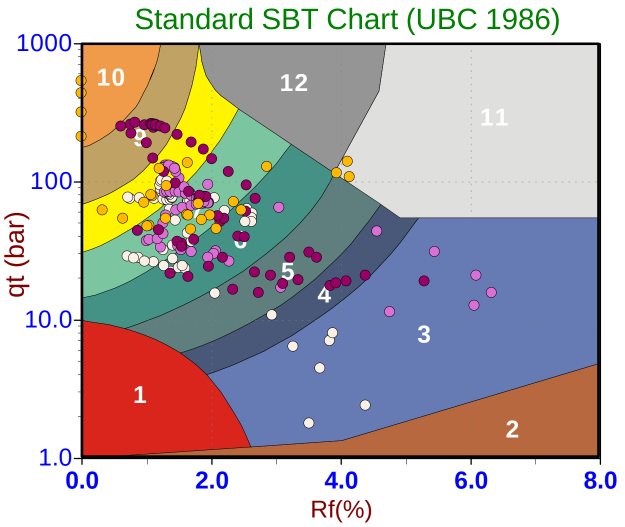
Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- ⬛ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

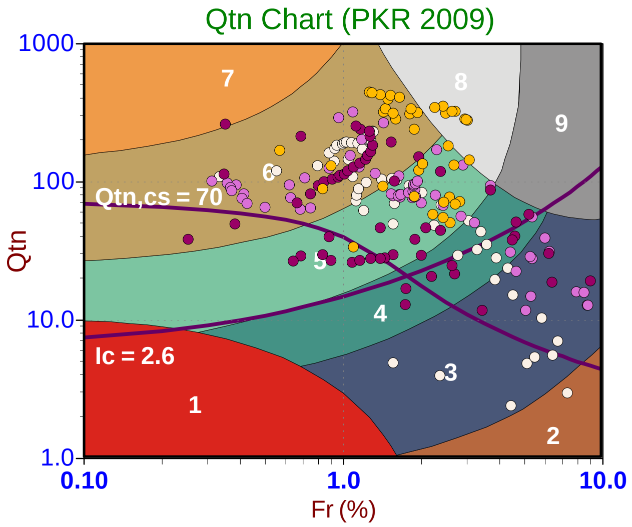
Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- ⬛ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

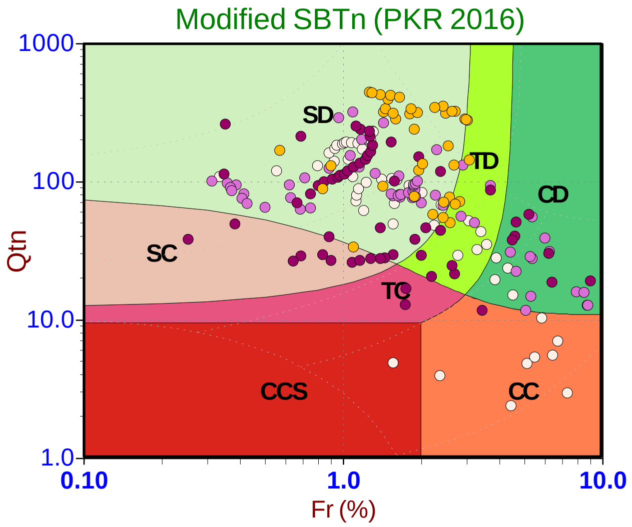
CONETEC

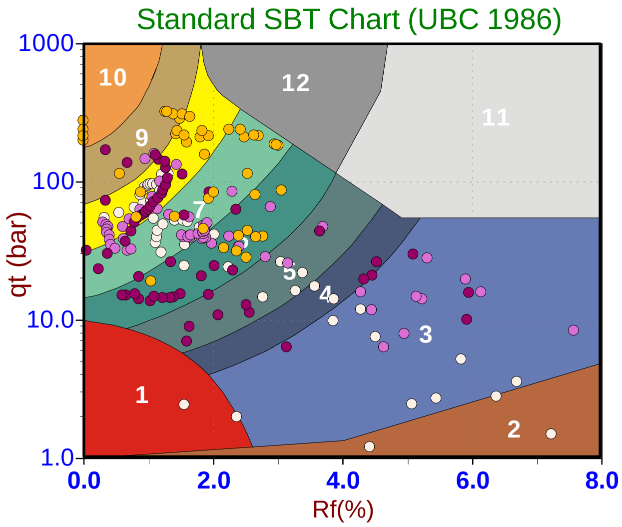
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 10:24
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-047
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)

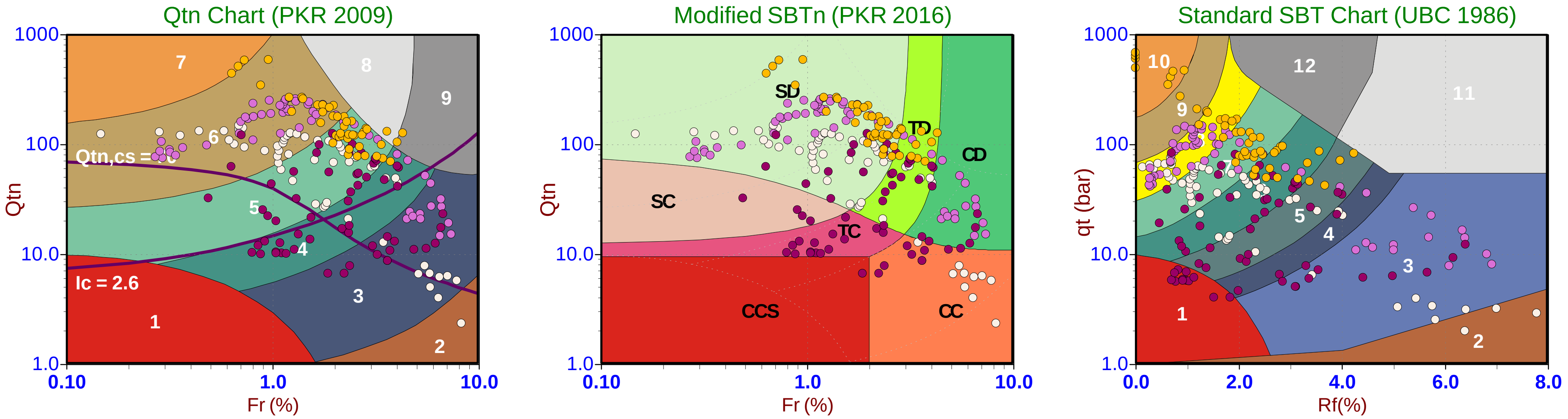

Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand



Depth Ranges

- ⚪ >0.0 to 5.0 ft
- 🟣 >5.0 to 10.0 ft
- 🟣 >10.0 to 15.0 ft
- 🟠 >15.0 to 20.0 ft
- 🔴 >20.0 to 25.0 ft
- 🔵 >25.0 to 30.0 ft
- 🔵 >30.0 to 35.0 ft
- 🟢 >35.0 to 40.0 ft
- 🟢 >40.0 to 45.0 ft
- 🟡 >45.0 to 50.0 ft
- 🟡 >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

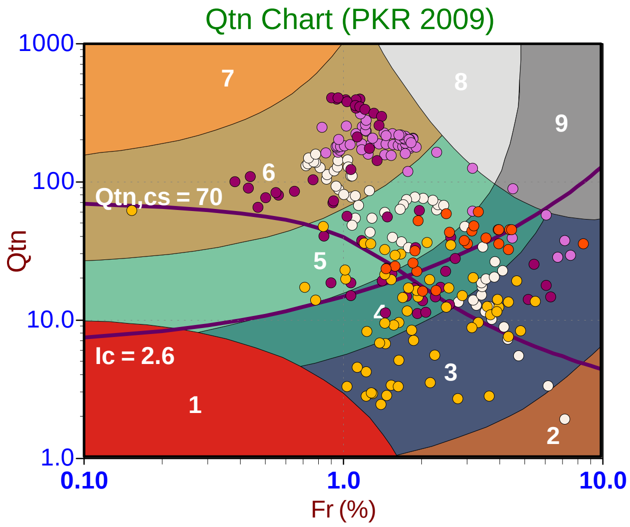
Legend

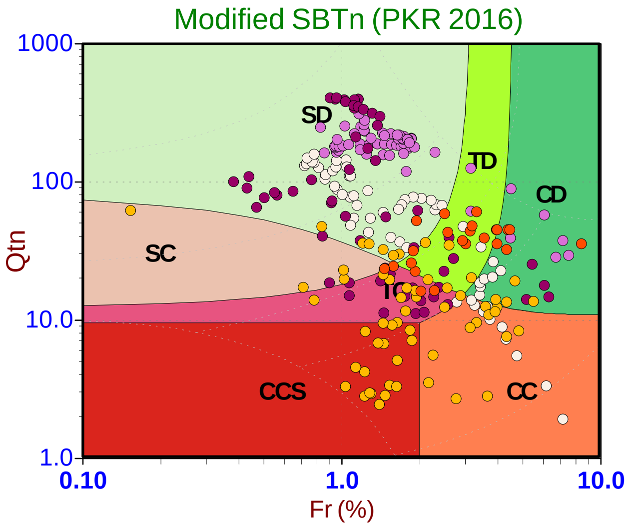
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- ⬛ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

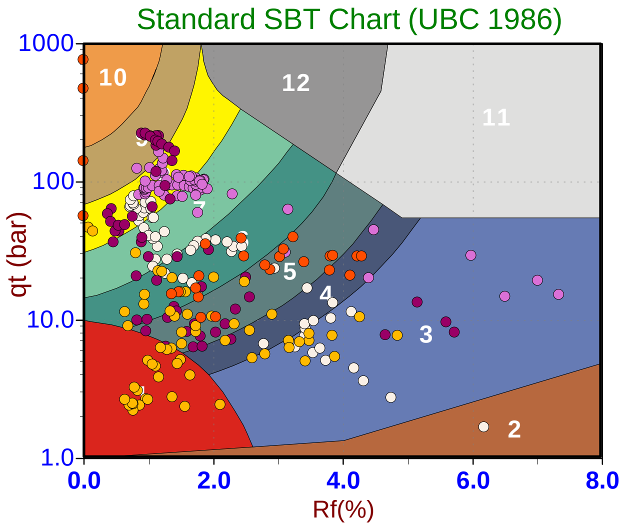
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 10:29
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-049
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

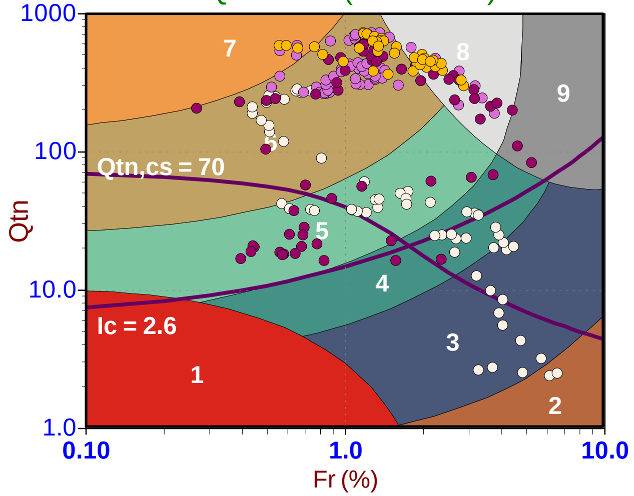
ConeTec

Langan Engineering

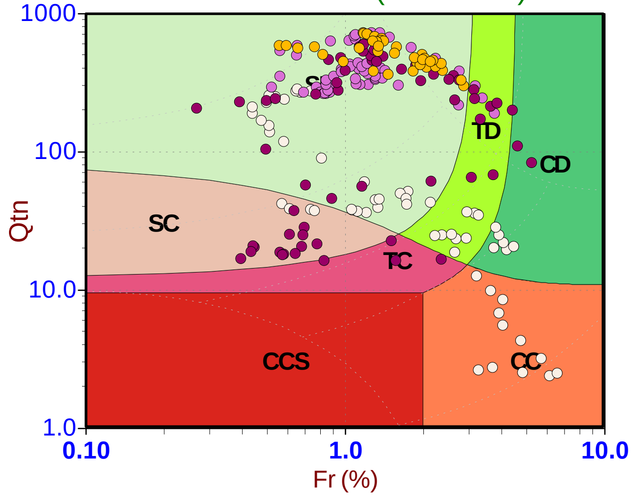
Job No: 25-53-29335
Date: 2025-04-14 13:19
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-050
Cone: 1149:T1500F15U35 Area=15 cm²

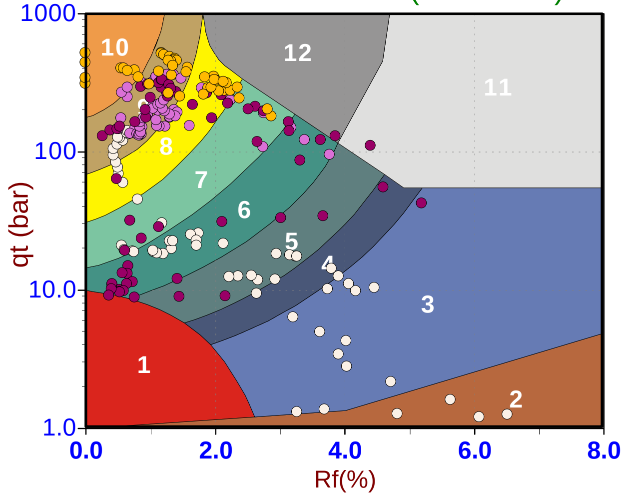
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

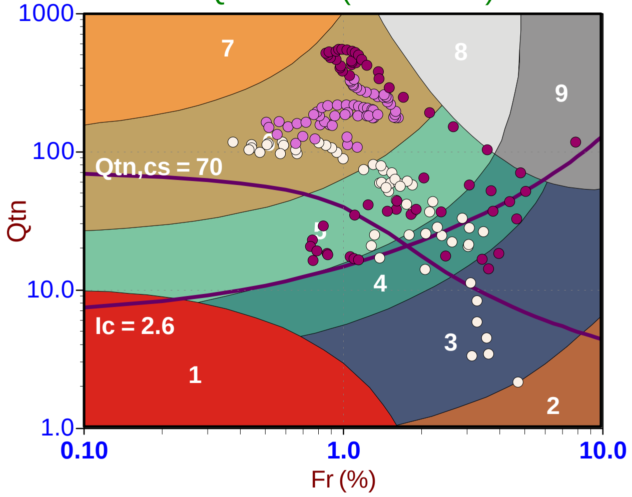
Legend

- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

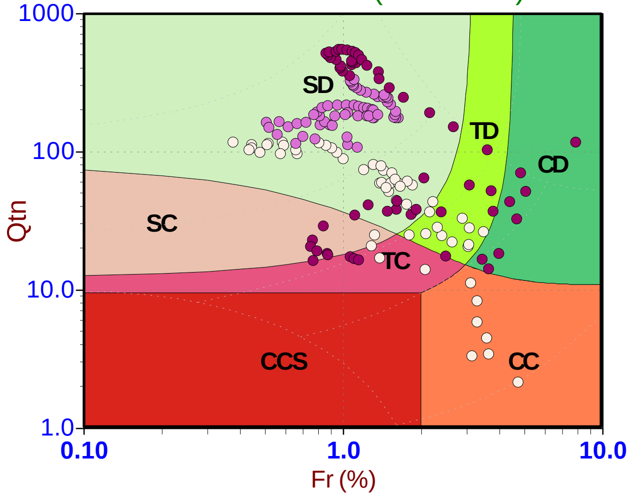
CONETEC

Langan Engineering

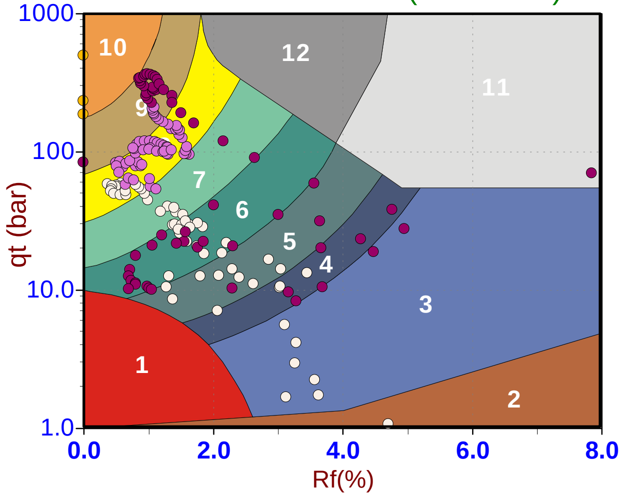
Job No: 25-53-29335
Date: 2025-04-14 11:16
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-051
Cone: 1149:T1500F15U35 Area=15 cm²



Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)

Depth Ranges

- >0.0 to 5.0 ft
- >5.0 to 10.0 ft
- >10.0 to 15.0 ft
- >15.0 to 20.0 ft
- >20.0 to 25.0 ft
- >25.0 to 30.0 ft
- >30.0 to 35.0 ft
- >35.0 to 40.0 ft
- >40.0 to 45.0 ft
- >45.0 to 50.0 ft
- >50.0 ft

Legend

- Sensitive, Fine Grained
- Organic Soils
- Clays
- Silt Mixtures
- Sand Mixtures
- Sands
- Gravelly Sand to Sand
- Stiff Sand to Clayey Sand
- Very Stiff Fine Grained

Legend

- CCS (Cont. sensitive clay like)
- CC (Cont. clay like)
- TC (Cont. transitional)
- SC (Cont. sand like)
- CD (Dil. clay like)
- TD (Dil. transitional)
- SD (Dil. sand like)

Legend

- Sensitive Fines
- Organic Soil
- Clay
- Silty Clay
- Clayey Silt
- Silt
- Sandy Silt
- Silty Sand/Sand
- Sand
- Gravelly Sand
- Stiff Fine Grained
- Cemented Sand

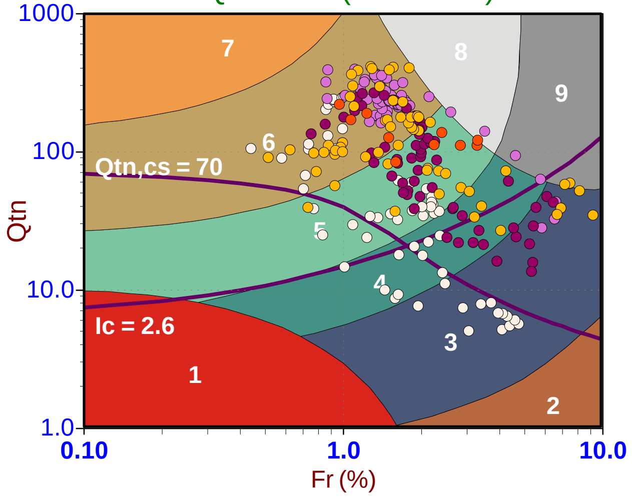
CONETEC

Langan Engineering

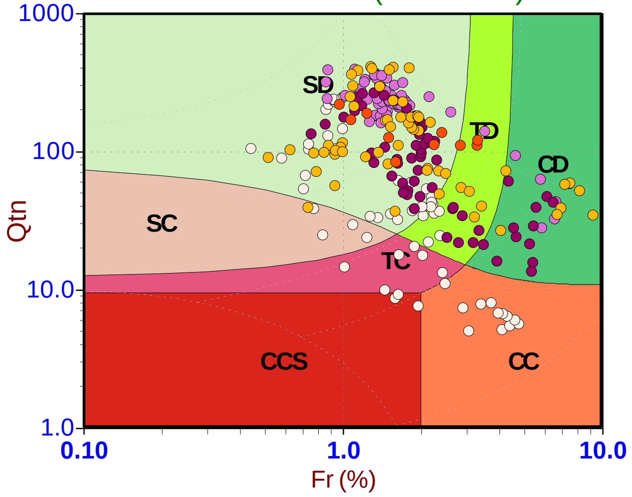
Job No: 25-53-29335
Date: 2025-04-15 09:23
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-052
Cone: 1149:T1500F15U35 Area=15 cm²

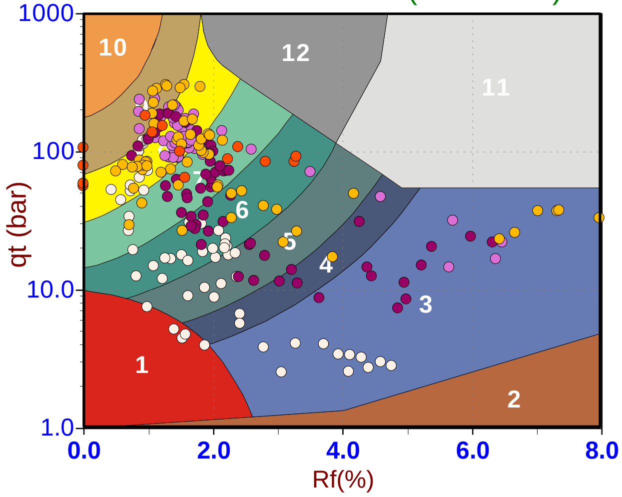
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

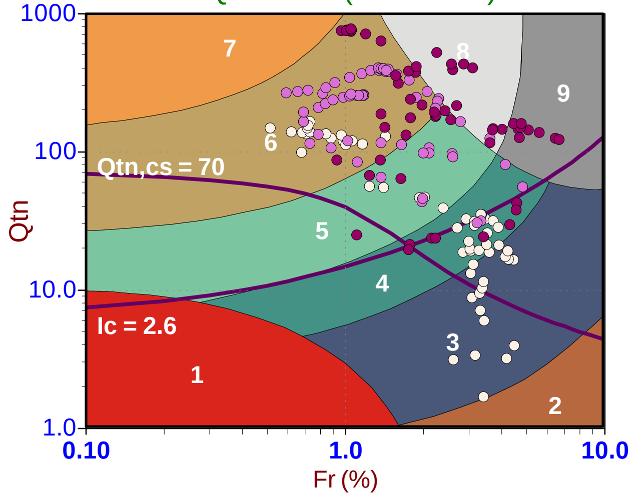
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

CONETEC

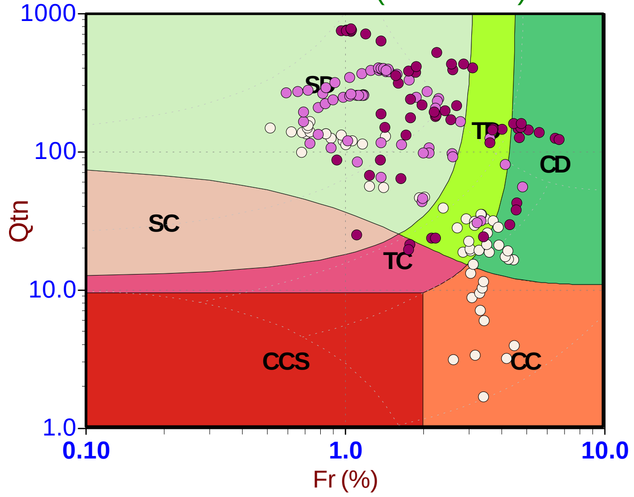
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 15:15
Site: Micron New York Manufacturing Facility - Clay, NY

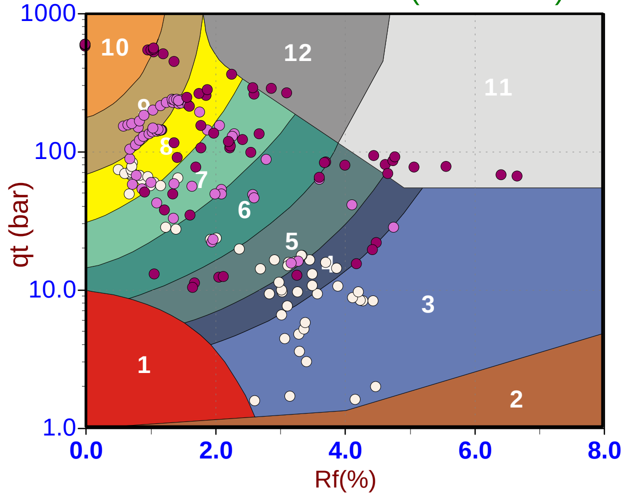
Sounding: CPT25-053
Cone: 1149:T1500F15U35 Area=15 cm²



Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)

Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- 🟧 Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- 🟨 Silty Sand/Sand
- ■ Sand
- 🟧 Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

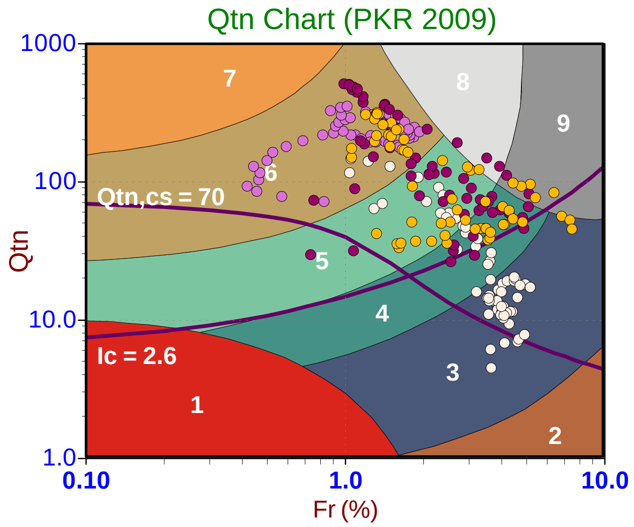
CONETEC

Langan Engineering

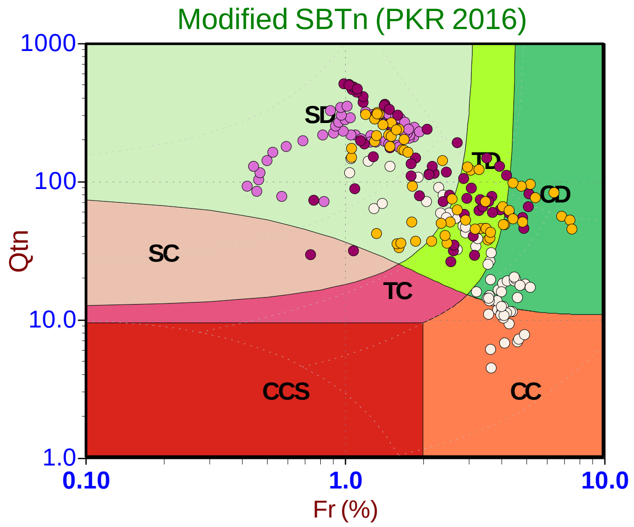
Job No: 25-53-29335
Date: 2025-04-15 09:57
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-054
Cone: 1149:T1500F15U35 Area=15 cm²

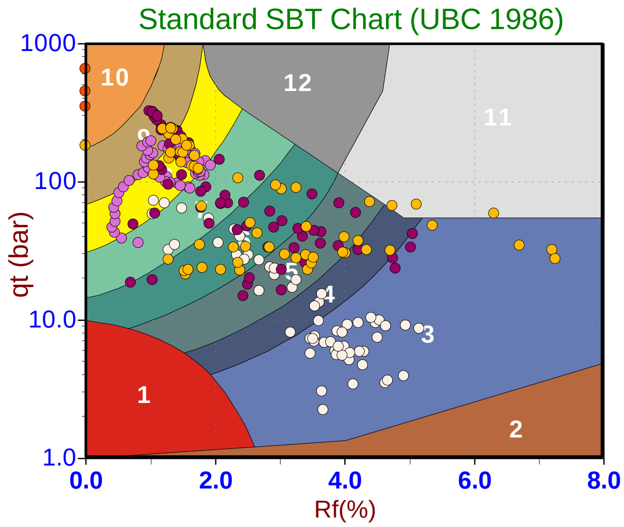
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

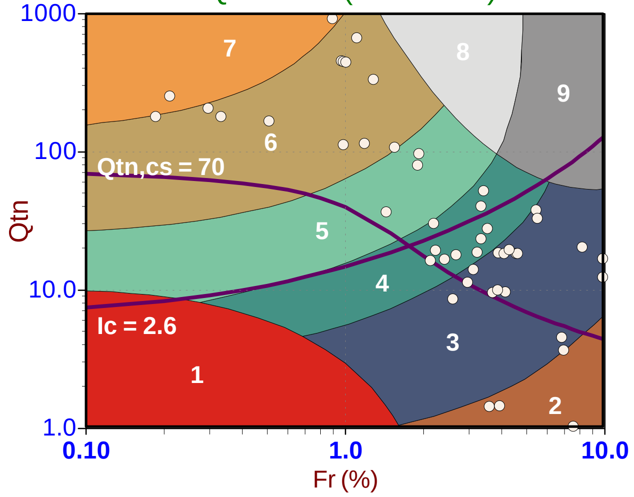
CONETEC

Langan Engineering

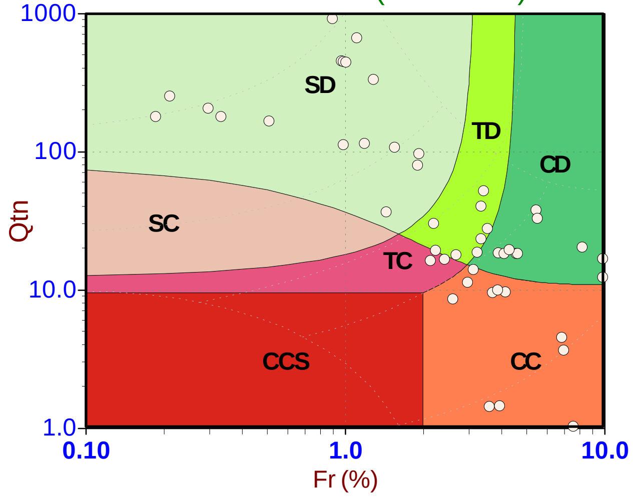
Job No: 25-53-29335
Date: 2025-04-14 13:57
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-055
Cone: 1149:T1500F15U35 Area=15 cm²

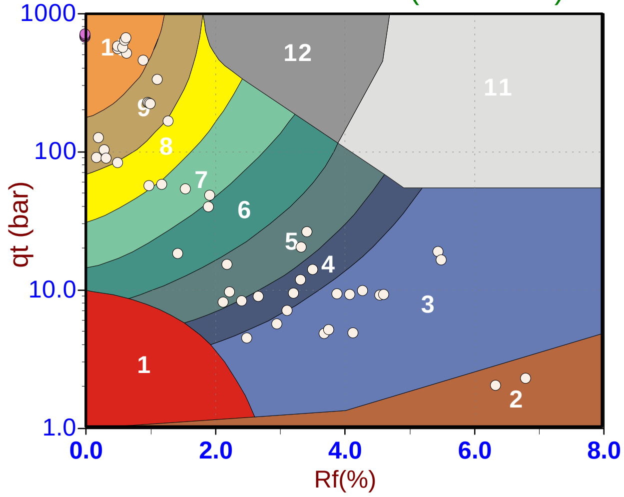
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

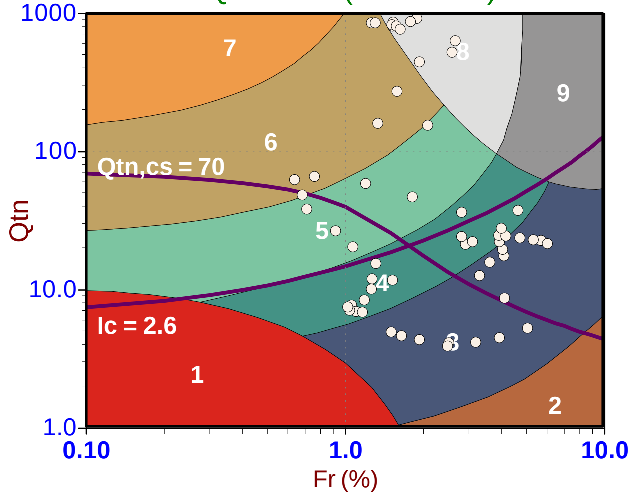
CONETEC

Langan Engineering

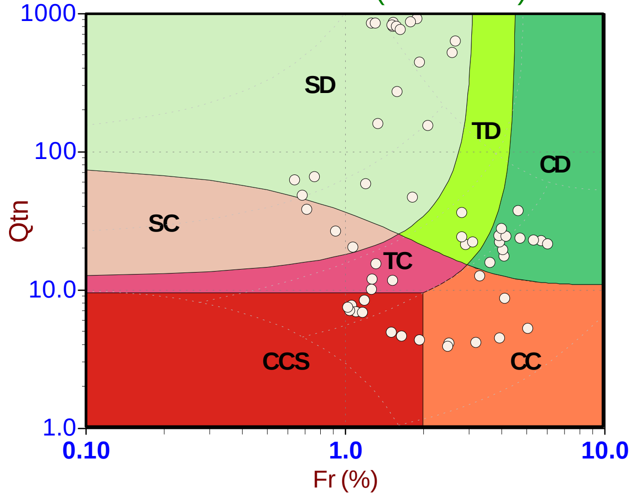
Job No: 25-53-29335
Date: 2025-04-14 14:18
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-055B
Cone: 1149:T1500F15U35 Area=15 cm²

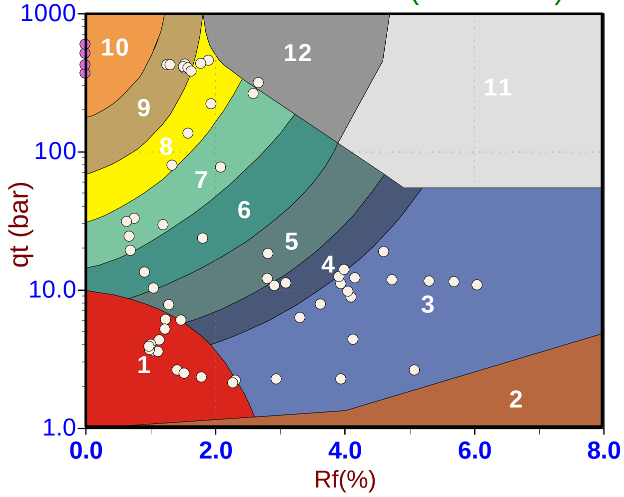
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

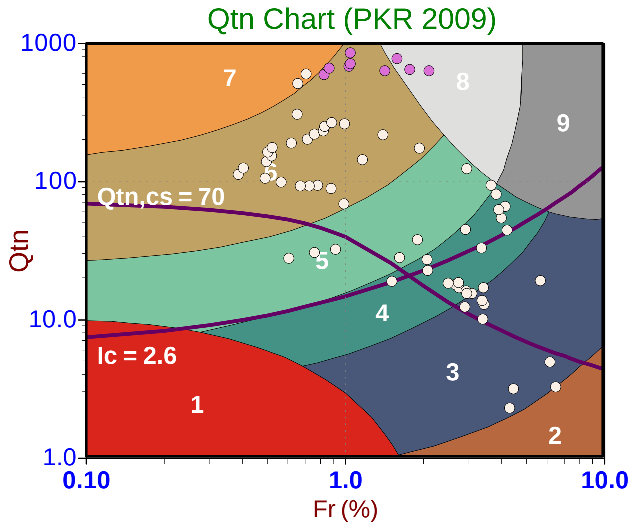
Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

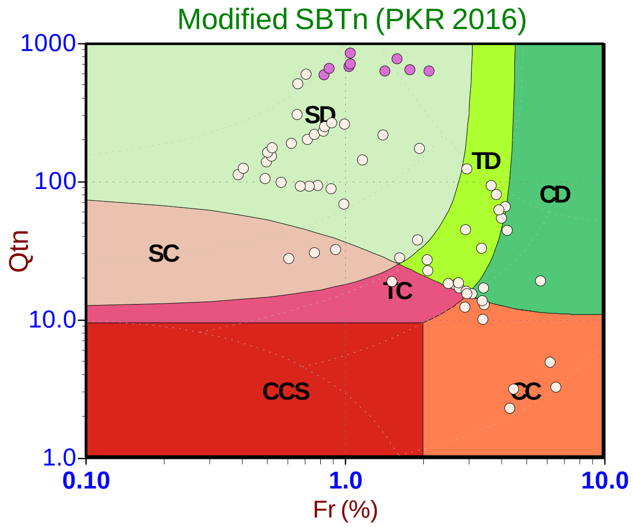
Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

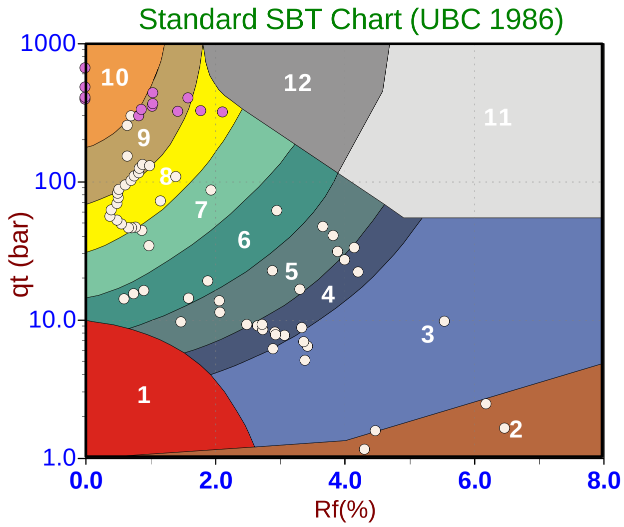
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:47
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-055C
Cone: 1149:T1500F15U35 Area=15 cm²







Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

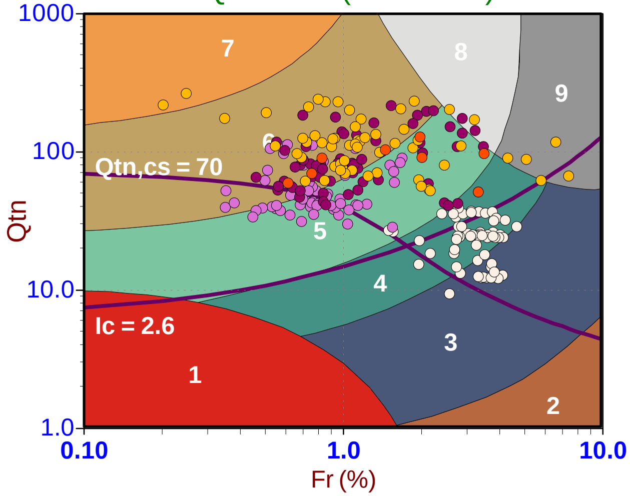
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

Langan Engineering

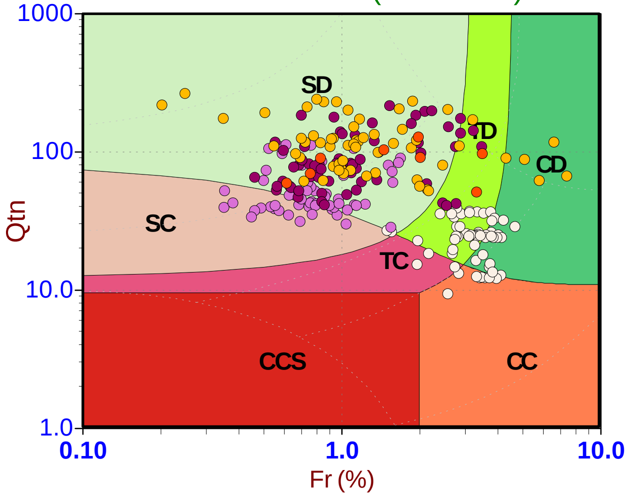
Job No: 25-53-29335
Date: 2025-04-08 11:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-056
Cone: 1149:T1500F15U35 Area=15 cm²

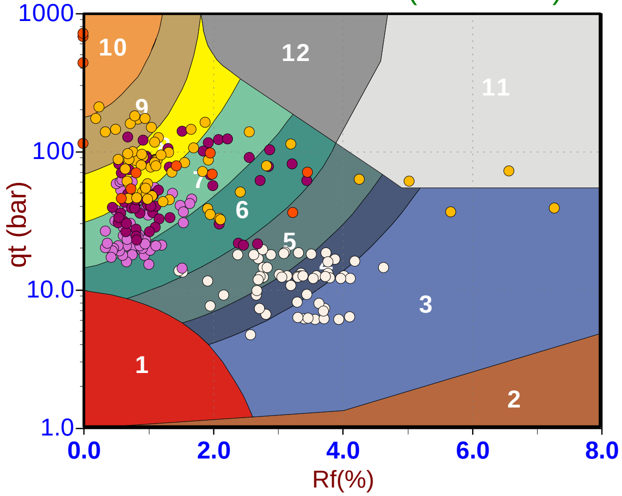
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend

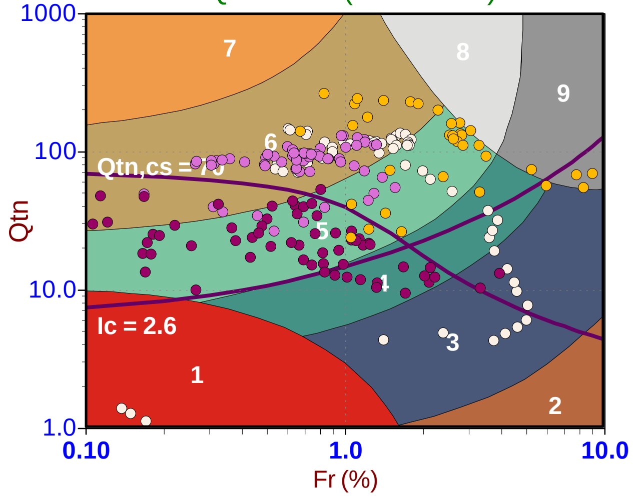
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

Langan Engineering

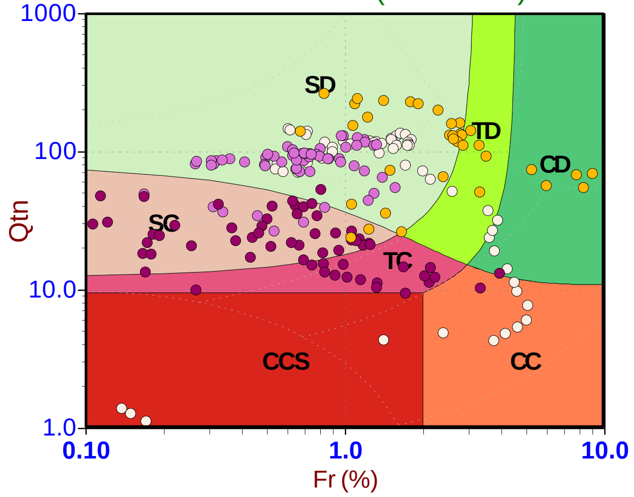
Job No: 25-53-29335
Date: 2025-04-10 10:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-057
Cone: 1075:T1000F10U35 Area=15 cm²

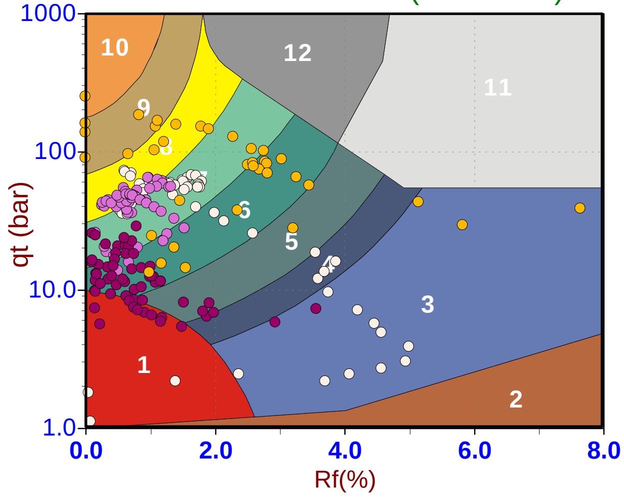
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

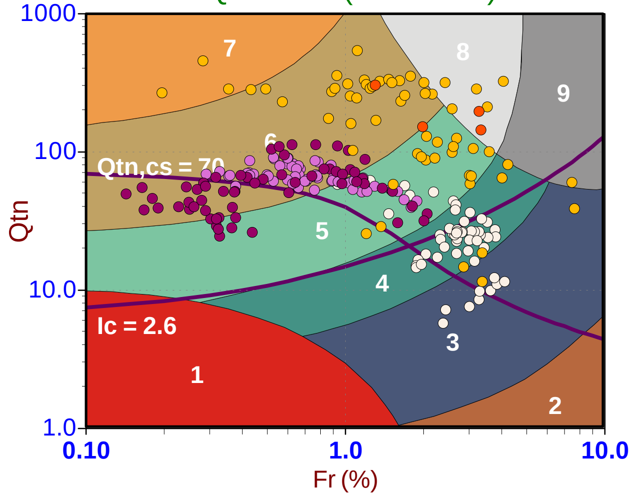
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

CONETEC

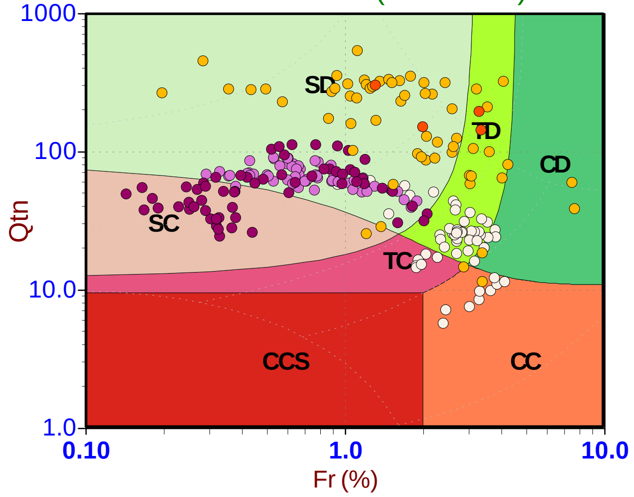
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 09:51
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-058
Cone: 1149:T1500F15U35 Area=15 cm²

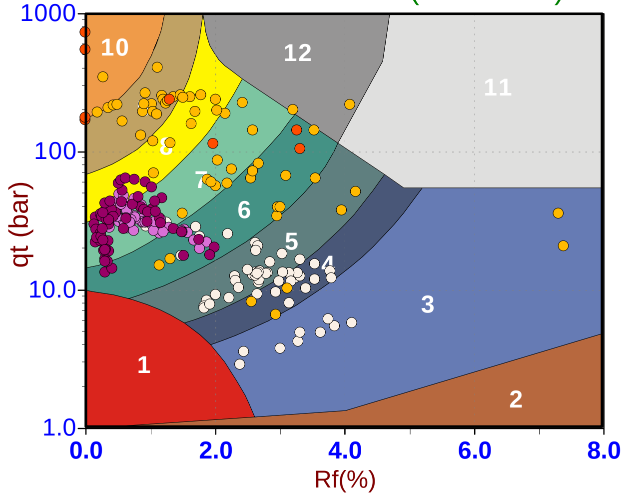
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

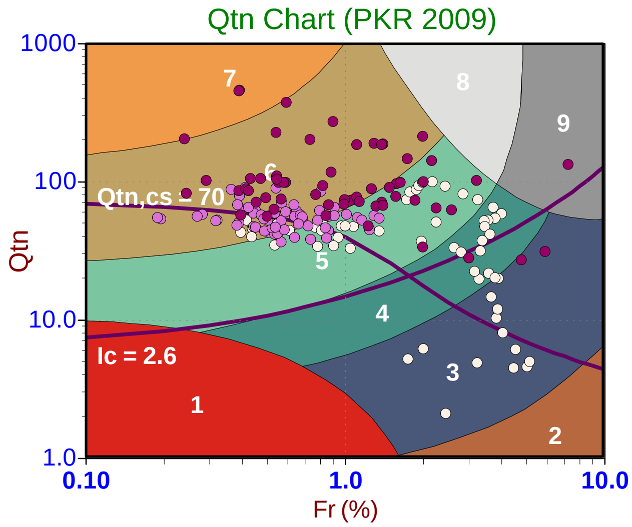
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

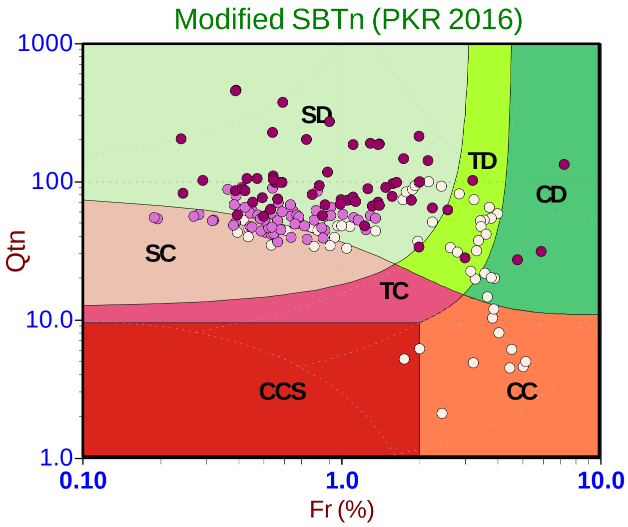
CONETEC

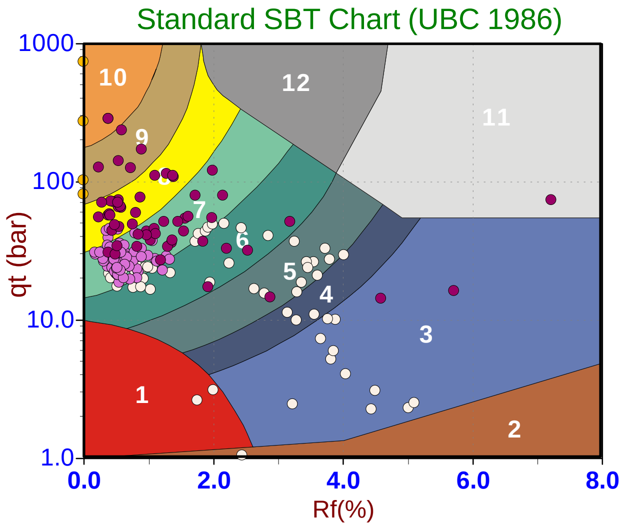
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 09:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-059
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- 🟧 Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

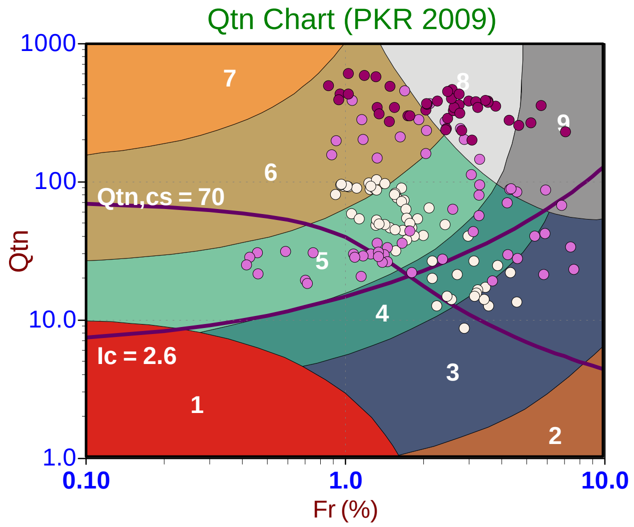
Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- ■ SD (Dil. sand like)

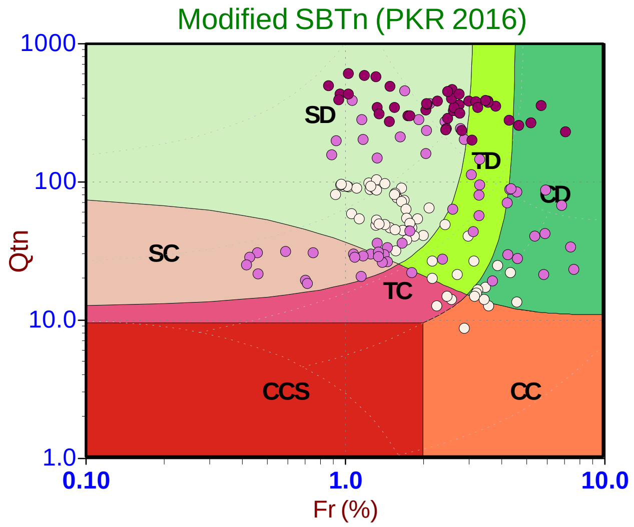
Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- 🟨 Silty Sand/Sand
- ■ Sand
- 🟧 Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

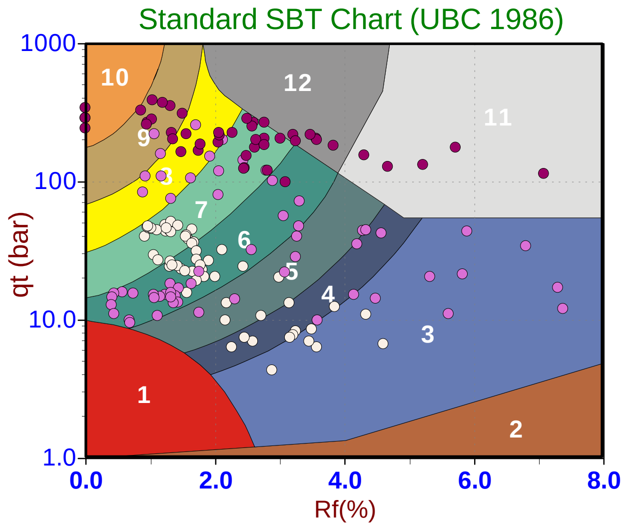
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 10:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-060
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

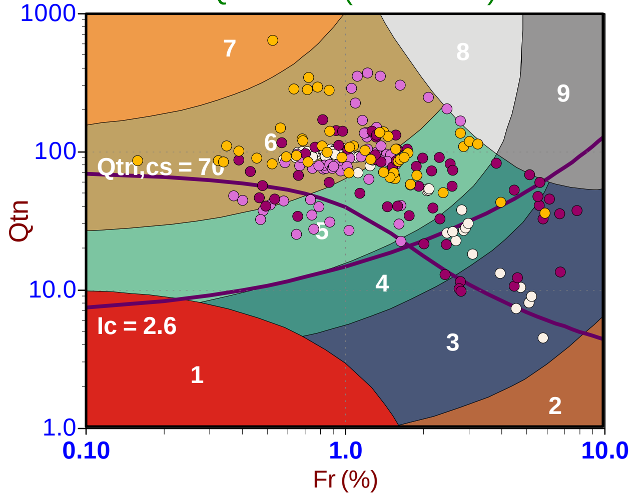
CONETEC

Langan Engineering

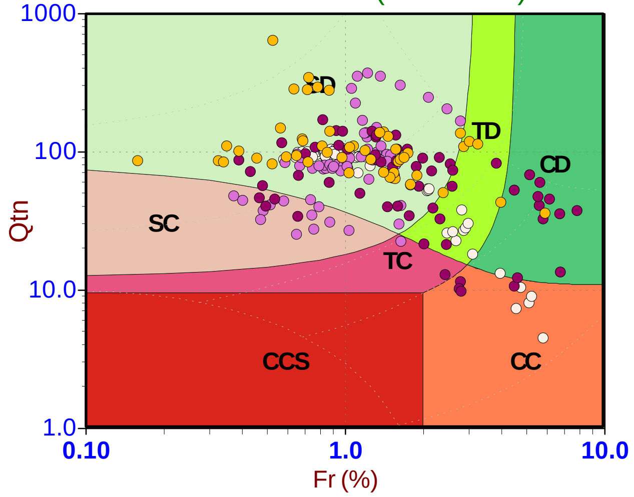
Job No: 25-53-29335
Date: 2025-04-16 08:27
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-061
Cone: 1149:T1500F15U35 Area=15 cm²

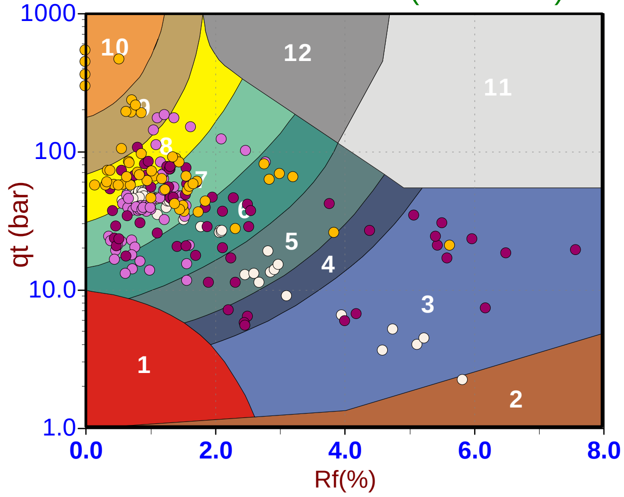
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend

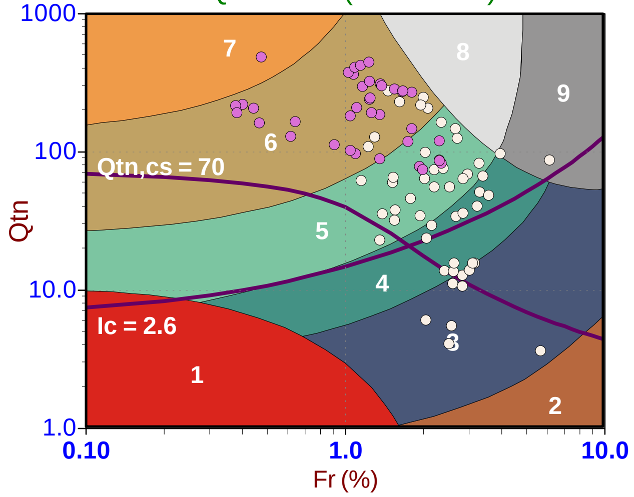
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

CONETEC

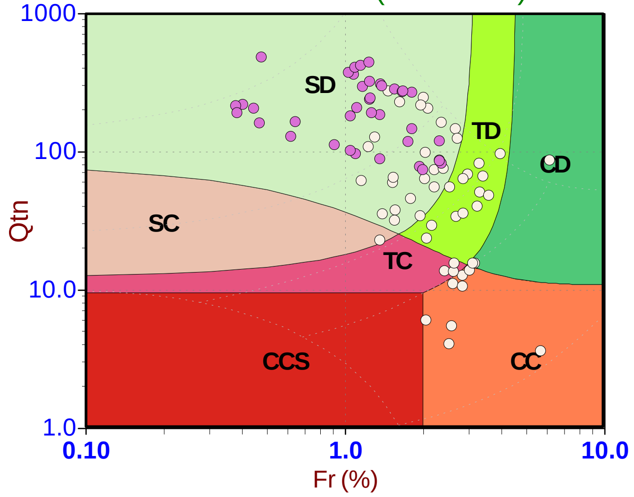
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 14:39
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-062
Cone: 1075:T1000F10U35 Area=15 cm²

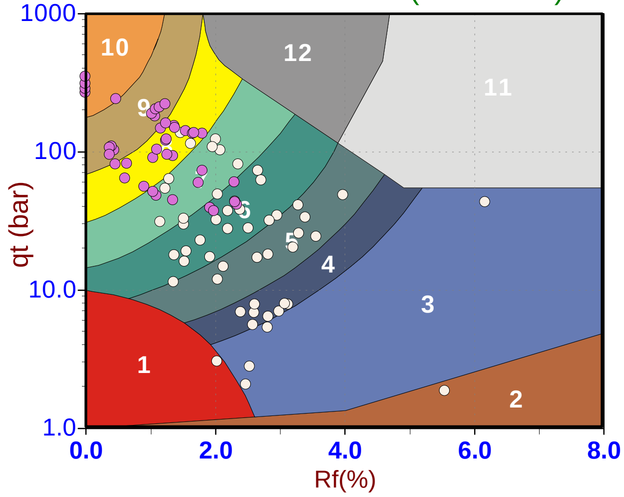
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

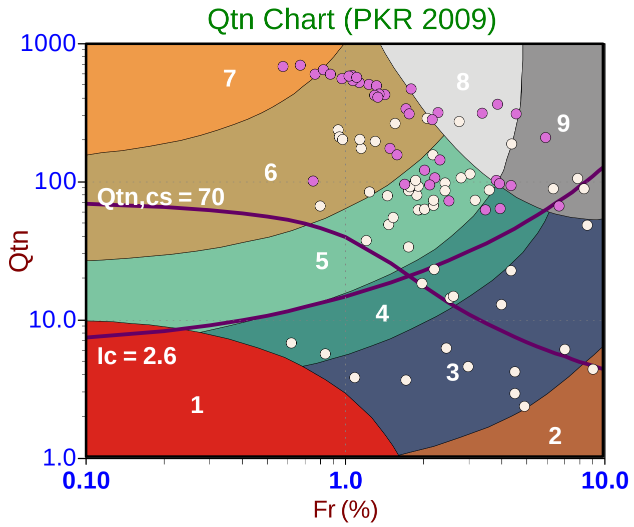
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

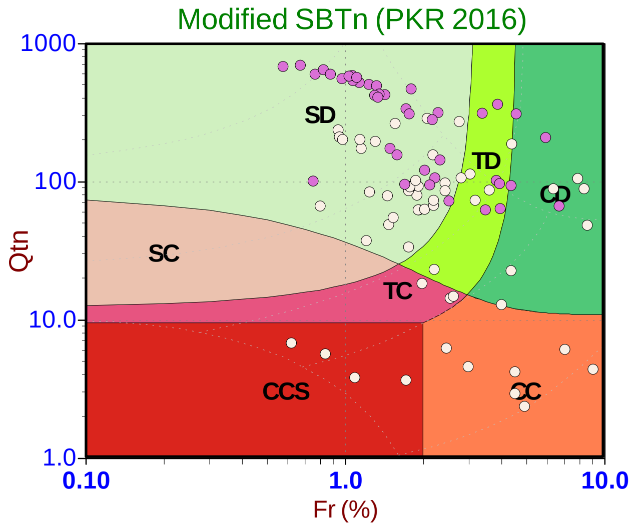
CONETEC

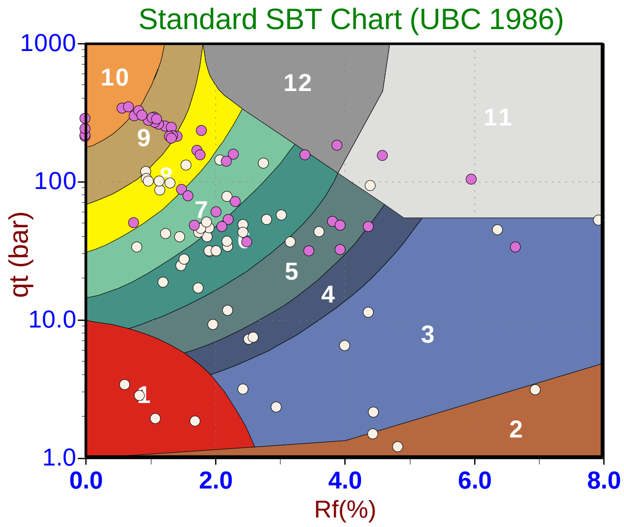
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 15:11
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-062B
Cone: 1075:T1000F10U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges

- ⚪ >0.0 to 5.0 ft
- 🟣 >5.0 to 10.0 ft
- 🟣 >10.0 to 15.0 ft
- 🟠 >15.0 to 20.0 ft
- 🔴 >20.0 to 25.0 ft
- 🔵 >25.0 to 30.0 ft
- 🔵 >30.0 to 35.0 ft
- 🟢 >35.0 to 40.0 ft
- 🟢 >40.0 to 45.0 ft
- 🟡 >45.0 to 50.0 ft
- 🟡 >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟨 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟧 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend

- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- ⬛ Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟨 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

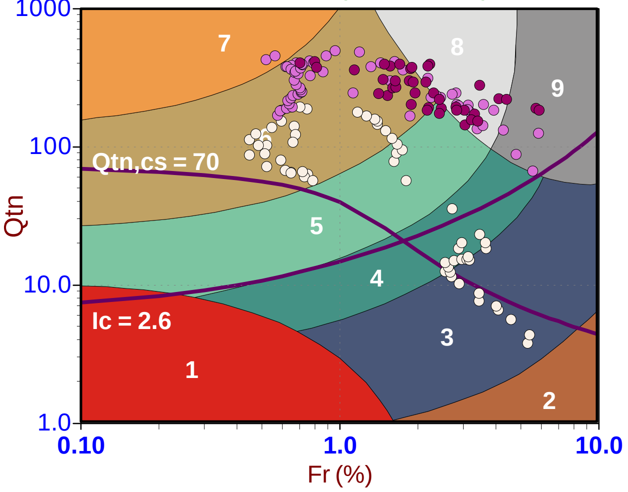
CONETEC

Langan Engineering

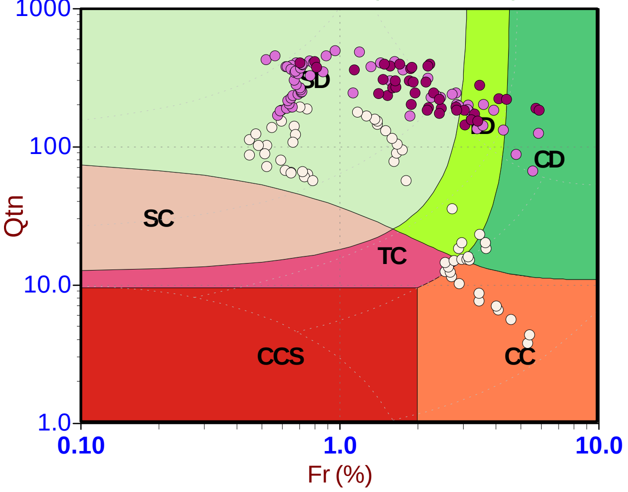
Job No: 25-53-29335
Date: 2025-04-17 13:13
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-063
Cone: 1075:T1000F10U35 Area=15 cm²

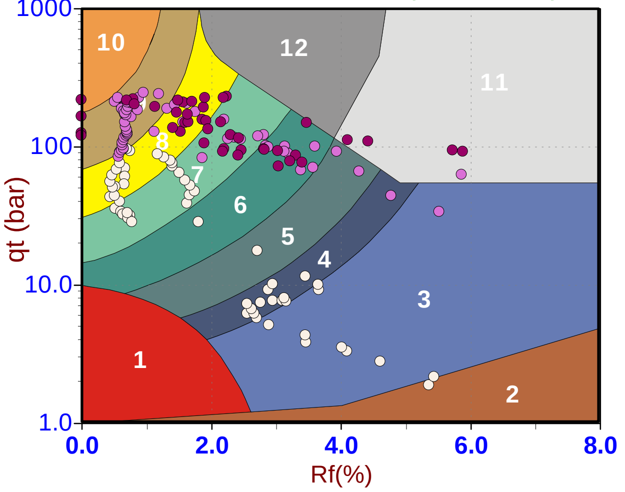
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges

- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

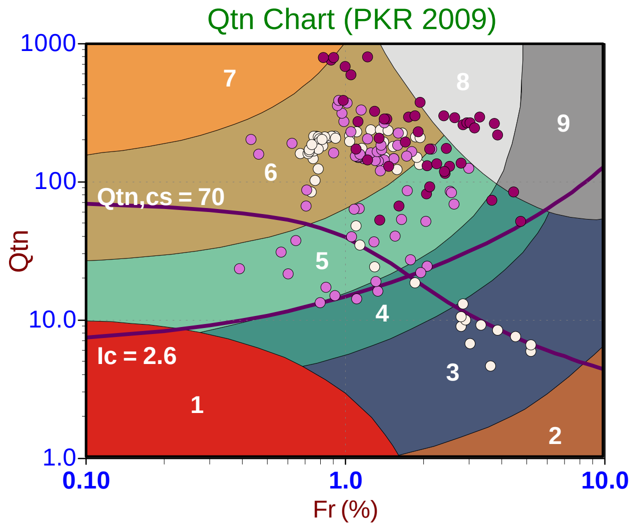
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

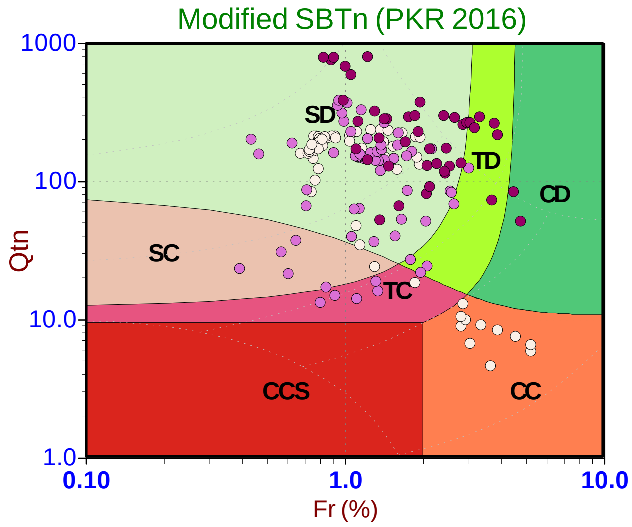
CONETEC

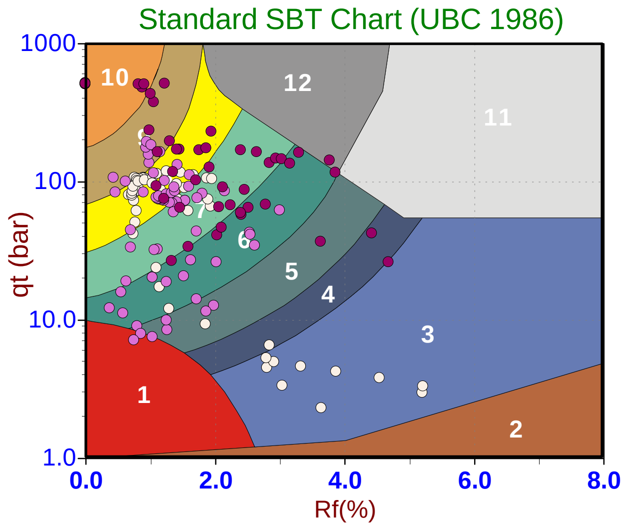
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 13:28
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-064
Cone: 1149:T1500F15U35 Area=15 cm²







Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

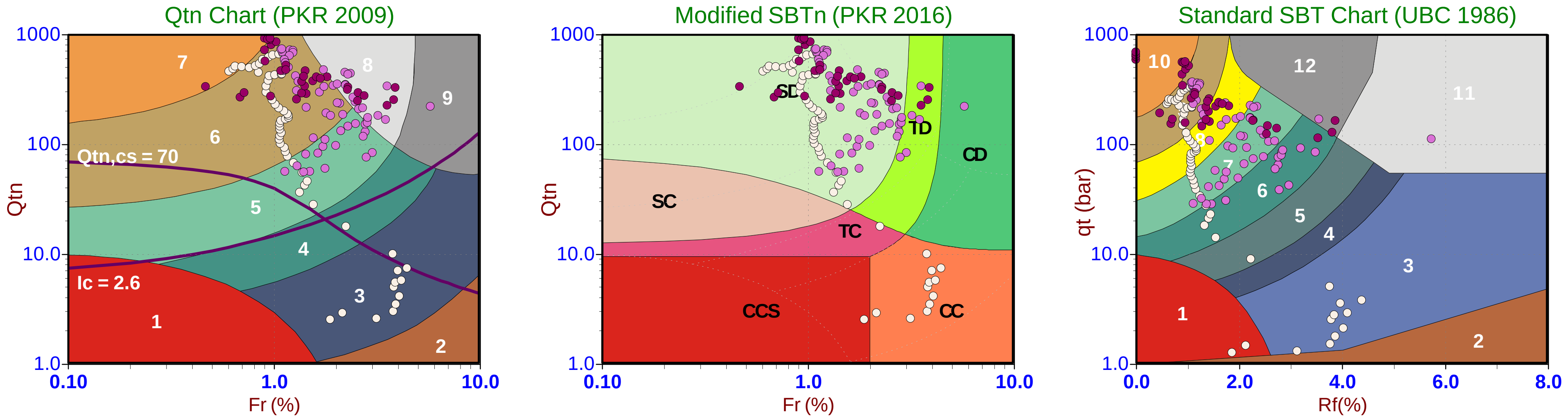
Legend

- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 15:34
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-065
Cone: 1149:T1500F15U35 Area=15 cm²



Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

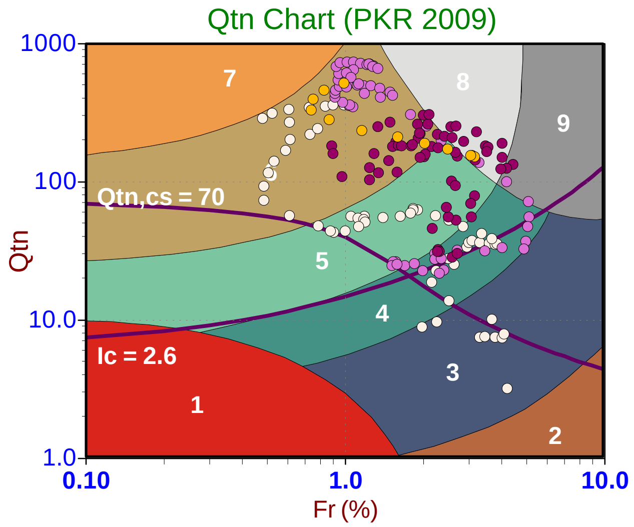
Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

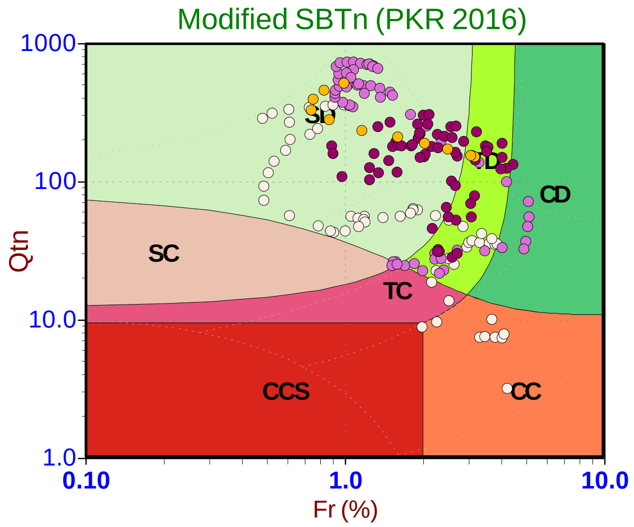
CONETEC

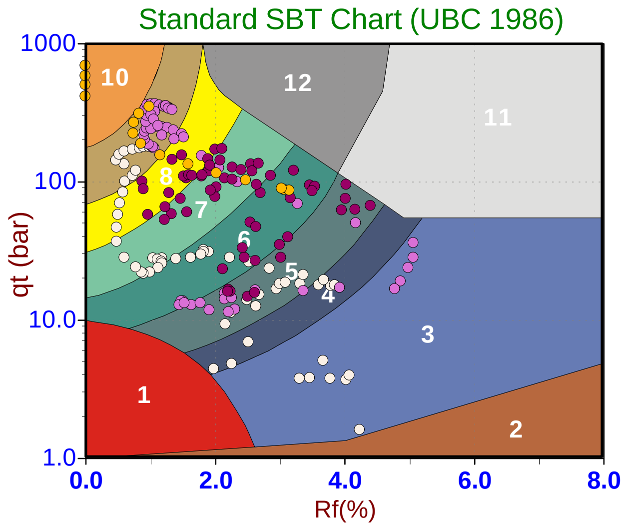
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 14:06
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-066
Cone: 1149:T1500F15U35 Area=15 cm²







Depth Ranges

- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend

- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- 🟧 Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend

- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend

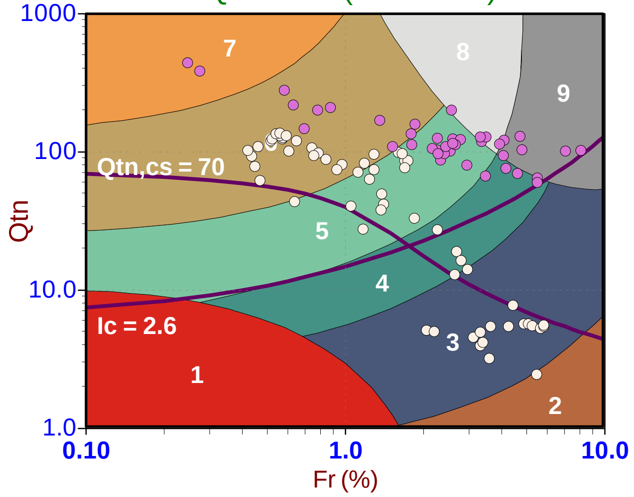
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- 🟨 Silty Sand/Sand
- ■ Sand
- 🟧 Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

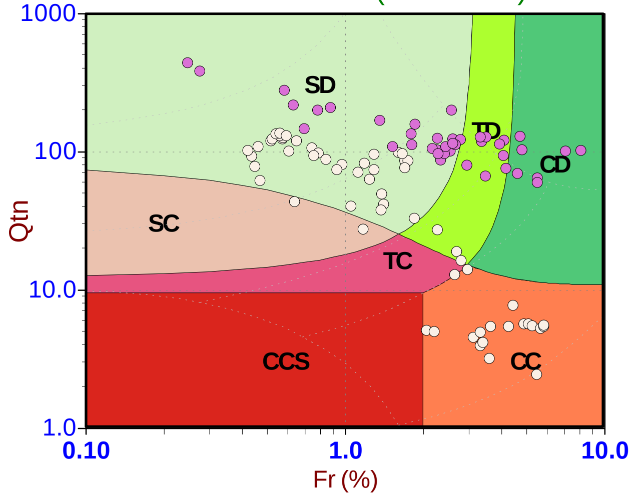
CONETEC

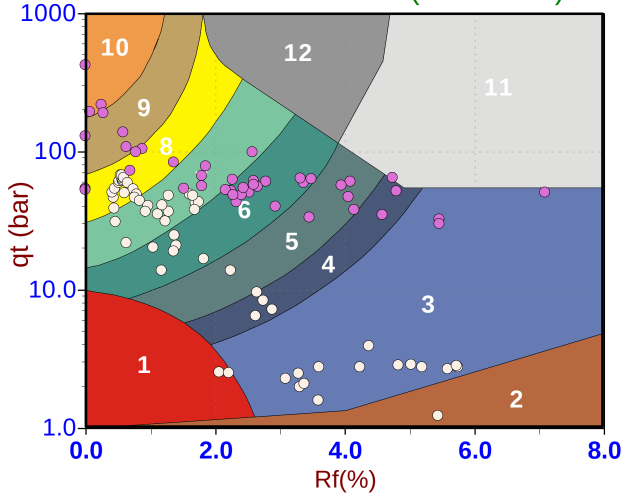
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 11:54
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-067
Cone: 1149:T1500F15U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

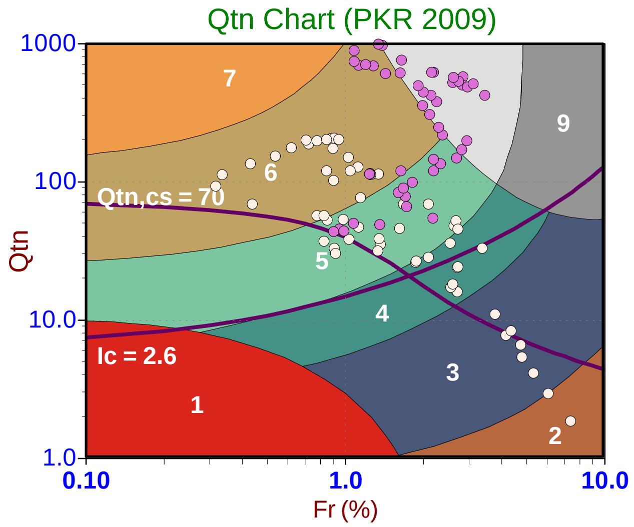
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

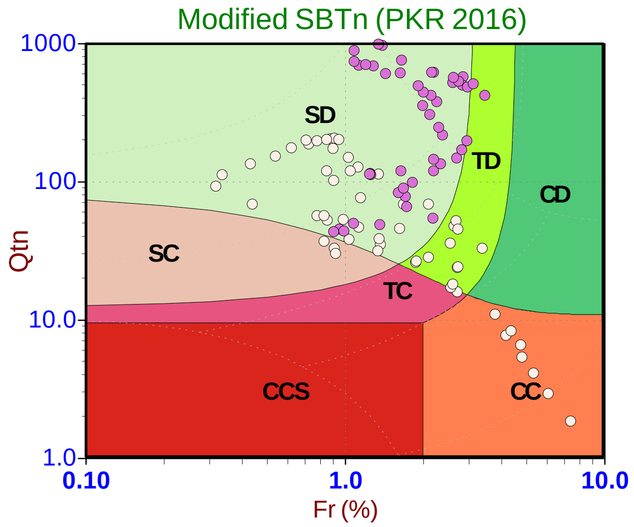
CONETEC

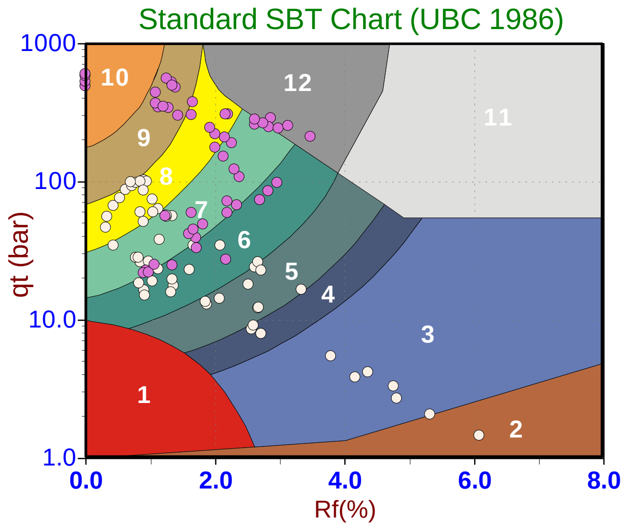
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 14:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-068
Cone: 1149:T1500F15U35 Area=15 cm²







Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- ■ Clays
- ■ Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- ■ SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ■ Cemented Sand

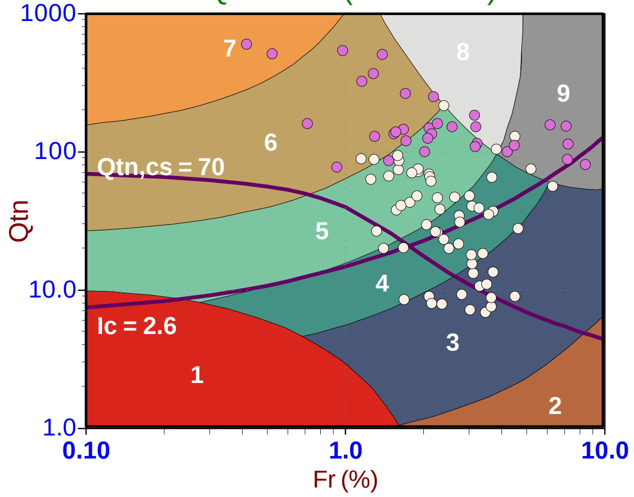
CONETEC

Langan Engineering

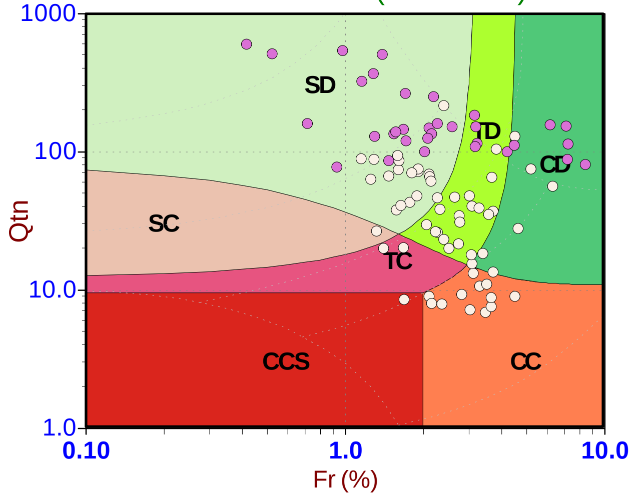
Job No: 25-53-29335
Date: 2025-04-16 11:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-069
Cone: 1149:T1500F15U35 Area=15 cm²

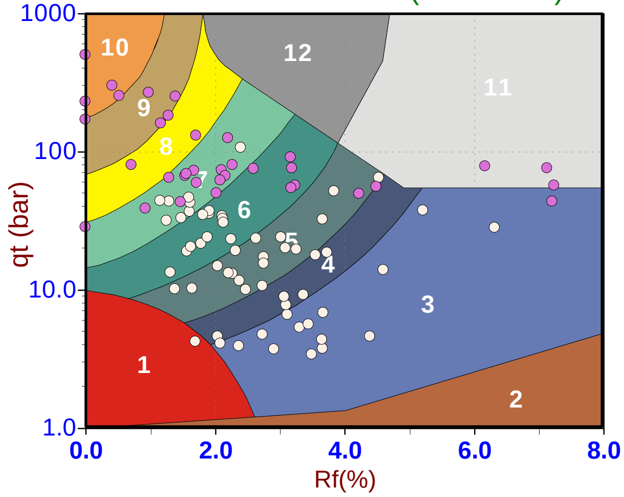
Qtn Chart (PKR 2009)



Modified SBTn (PKR 2016)



Standard SBT Chart (UBC 1986)



Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

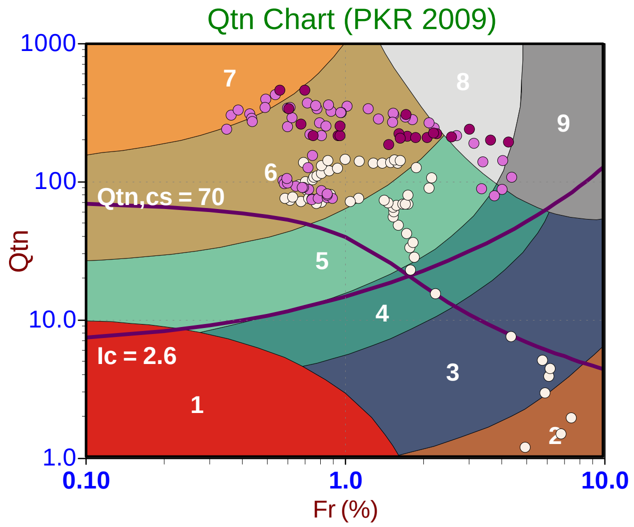
Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

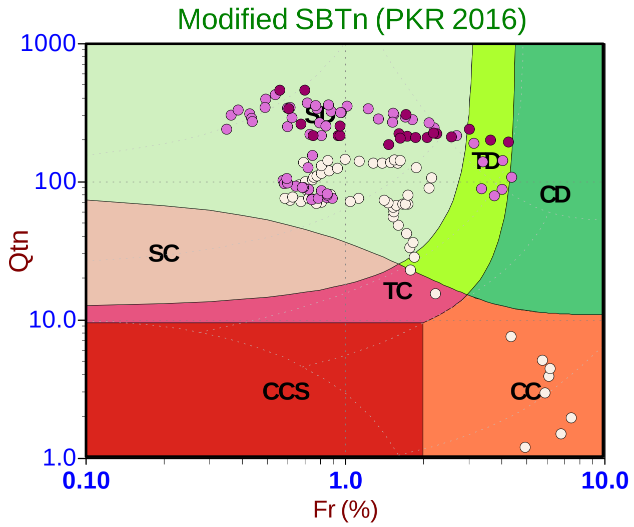
Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

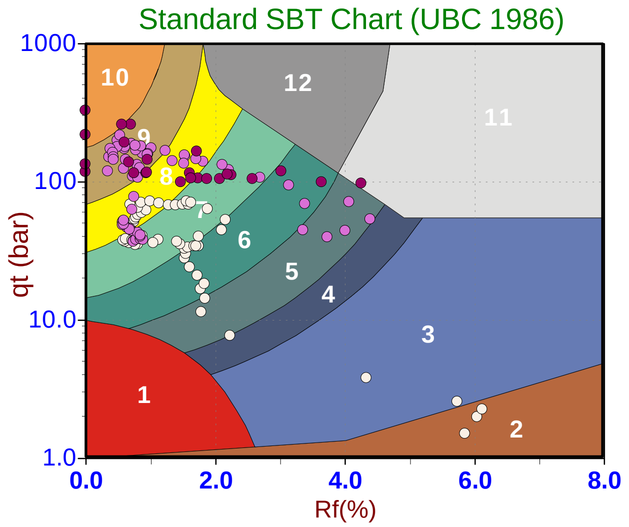
Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 11:36
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-070
Cone: 1075:T1000F10U35 Area=15 cm²


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ○ >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- 🟥 Sensitive, Fine Grained
- 🟫 Organic Soils
- 🟦 Clays
- 🟩 Silt Mixtures
- 🟩 Sand Mixtures
- 🟫 Sands
- 🟧 Gravelly Sand to Sand
- ⬜ Stiff Sand to Clayey Sand
- ⬛ Very Stiff Fine Grained

Legend
- 🟥 CCS (Cont. sensitive clay like)
- 🟧 CC (Cont. clay like)
- 🟥 TC (Cont. transitional)
- 🟫 SC (Cont. sand like)
- 🟩 CD (Dil. clay like)
- 🟩 TD (Dil. transitional)
- 🟩 SD (Dil. sand like)

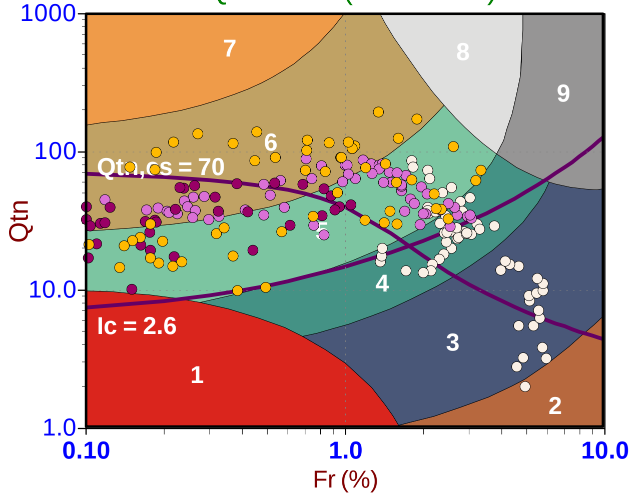
Legend
- 🟥 Sensitive Fines
- 🟫 Organic Soil
- 🟦 Clay
- 🟦 Silty Clay
- 🟩 Clayey Silt
- 🟩 Silt
- 🟩 Sandy Silt
- 🟨 Silty Sand/Sand
- 🟫 Sand
- 🟧 Gravelly Sand
- ⬜ Stiff Fine Grained
- ⬛ Cemented Sand

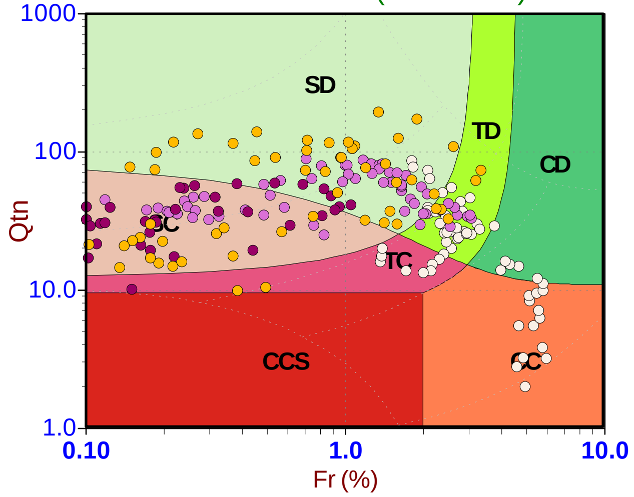
CONETEC

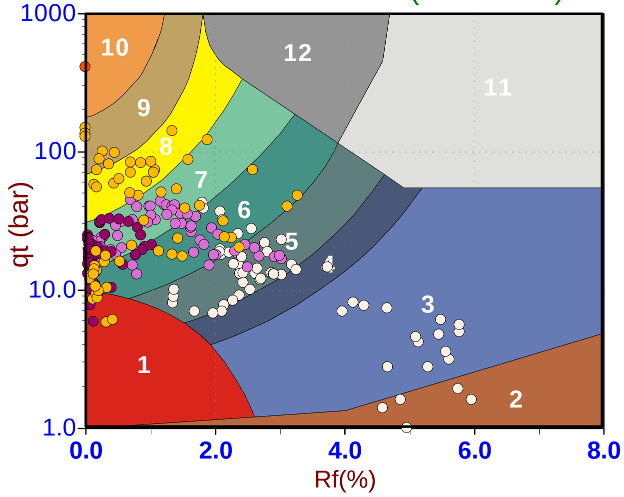
Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 10:22
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-071
Cone: 1075:T1000F10U35 Area=15 cm^2


Qtn Chart (PKR 2009)


Modified SBTn (PKR 2016)


Standard SBT Chart (UBC 1986)

Depth Ranges
- ● >0.0 to 5.0 ft
- ● >5.0 to 10.0 ft
- ● >10.0 to 15.0 ft
- ● >15.0 to 20.0 ft
- ● >20.0 to 25.0 ft
- ● >25.0 to 30.0 ft
- ● >30.0 to 35.0 ft
- ● >35.0 to 40.0 ft
- ● >40.0 to 45.0 ft
- ● >45.0 to 50.0 ft
- ● >50.0 ft

Legend
- ■ Sensitive, Fine Grained
- ■ Organic Soils
- ■ Clays
- ■ Silt Mixtures
- ■ Sand Mixtures
- ■ Sands
- ■ Gravelly Sand to Sand
- ■ Stiff Sand to Clayey Sand
- ■ Very Stiff Fine Grained

Legend
- ■ CCS (Cont. sensitive clay like)
- ■ CC (Cont. clay like)
- ■ TC (Cont. transitional)
- ■ SC (Cont. sand like)
- ■ CD (Dil. clay like)
- ■ TD (Dil. transitional)
- ■ SD (Dil. sand like)

Legend
- ■ Sensitive Fines
- ■ Organic Soil
- ■ Clay
- ■ Silty Clay
- ■ Clayey Silt
- ■ Silt
- ■ Sandy Silt
- ■ Silty Sand/Sand
- ■ Sand
- ■ Gravelly Sand
- ■ Stiff Fine Grained
- ■ Cemented Sand

Pore Pressure Dissipation Test (PPD) Summary and PPD Plots

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Start Date:	8-Apr-2025
End Date:	17-Apr-2025

CPTu 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)	Refer to Notation Number
SCPT-002	25-53-29335_SP002	15	340	3.28	2.7	0.5	
SCPT-002	25-53-29335_SP002	15	325	22.06	21.1	1.0	
CPT25-003	25-53-29335_CP003	15	300	18.21			1
SCPT25-004	25-53-29335_SP004	15	500	9.84	9.2	0.7	
SCPT25-004	25-53-29335_SP004	15	290	19.03	17.7	1.3	
CPT25-005	25-53-29335_CP005	15	325	18.86			1
SCPT25-006	25-53-29335_SP006	15	770	16.90			1
CPT25-007	25-53-29335_CP007	15	500	19.60			1
CPT25-008	25-53-29335_CP008	15	400	22.15	22.0	0.1	
CPT25-009	25-53-29335_CP009	15	310	19.68	18.9	0.8	
SCPT25-010	25-53-29335_SP010	15	300	21.90			1
CPT25-011	25-53-29335_CP011	15	770	17.63			1
SCPT25-012	25-53-29335_SP012	15	640	19.68			1
SCPT25-012	25-53-29335_SP012	15	335	19.85			1
CPT25-013	25-53-29335_CP013	15	740	16.40	16.3	0.1	
CPT25-013	25-53-29335_CP013	15	340	25.18	24.1	1.1	
CPT25-014	25-53-29335_CP014	15	1170	27.07	26.5	0.5	
CPT25-015	25-53-29335_CP015	15	860	15.42			1
CPT25-017	25-53-29335_CP017	15	355	5.33			1
SCPT25-018	25-53-29335_SP018	15	405	16.40			1
CPT25-019	25-53-29335_CP019	15	320	6.56			1
SCPT25-022	25-53-29335_SP022	15	400	11.32			1
CPT25-023	25-53-29335_CP023	15	400	13.29			1
CPT25-023	25-53-29335_CP023	15	400	21.98			1
CPT25-025	25-53-29335_CP025	15	420	15.83	14.4	1.4	
CPT25-026	25-53-29335_CP026	15	960	17.55			1
SCPT25-028	25-53-29335_SP028	15	800	22.47			1
CPT25-030	25-53-29335_CP030	15	400	11.32	11.2	0.2	
SCPT25-032	25-53-29335_SP032	15	1400	7.79	7.8	0.0	
CPT25-033	25-53-29335_CP033	15	600	9.51	9.4	0.1	
SCPT25-034	25-53-29335_SP034	15	400	23.21	23.1	0.2	
CPT25-035	25-53-29335_CP035	15	400	21.16			1
CPT25-036	25-53-29335_CP036	15	800	23.79	23.1	0.7	
SCPT25-039	25-53-29335_SP039	15	400	16.65			1
SCPT25-039	25-53-29335_SP039	15	600	17.47			1
SCPT25-041	25-53-29335_SP041	15	190	14.68			1
CPT25-043	25-53-29335_CP043	15	300	11.48			1

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Start Date: 8-Apr-2025
End Date: 17-Apr-2025

CPTu 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)	Refer to Notation Number
SCPT25-046	25-53-29335_SP046	15	400	17.22	16.2	1.0	
SCPT25-049	25-53-29335_SP049	15	400	4.27	4.0	0.3	
CPT25-050	25-53-29335_CP050	15	400	6.48	5.9	0.6	
CPT25-055B	25-53-29335_CP055B	15	500	5.25	1.4	3.9	
SCPT25-056	25-53-29335_SP056	15	190	20.92	18.1	2.8	
SCPT25-057	25-53-29335_SP057	15	740	18.21			1
SCPT25-059	25-53-29335_SP059	15	600	15.26			1
SCPT25-060	25-53-29335_SP060	15	400	13.78	11.6	2.1	
SCPT25-061	25-53-29335_SP061	15	400	19.36			
CPT25-062B	25-53-29335_CP062B	15	305	7.71	6.9	0.8	
SCPT25-063	25-53-29335_SP063	15	335	6.56	6.5	0.0	
SCPT25-071	25-53-29335_SP071	15	315	18.04			1
SCPT25-071	25-53-29335_SP071	15	305	20.01			1
Totals			408 min				

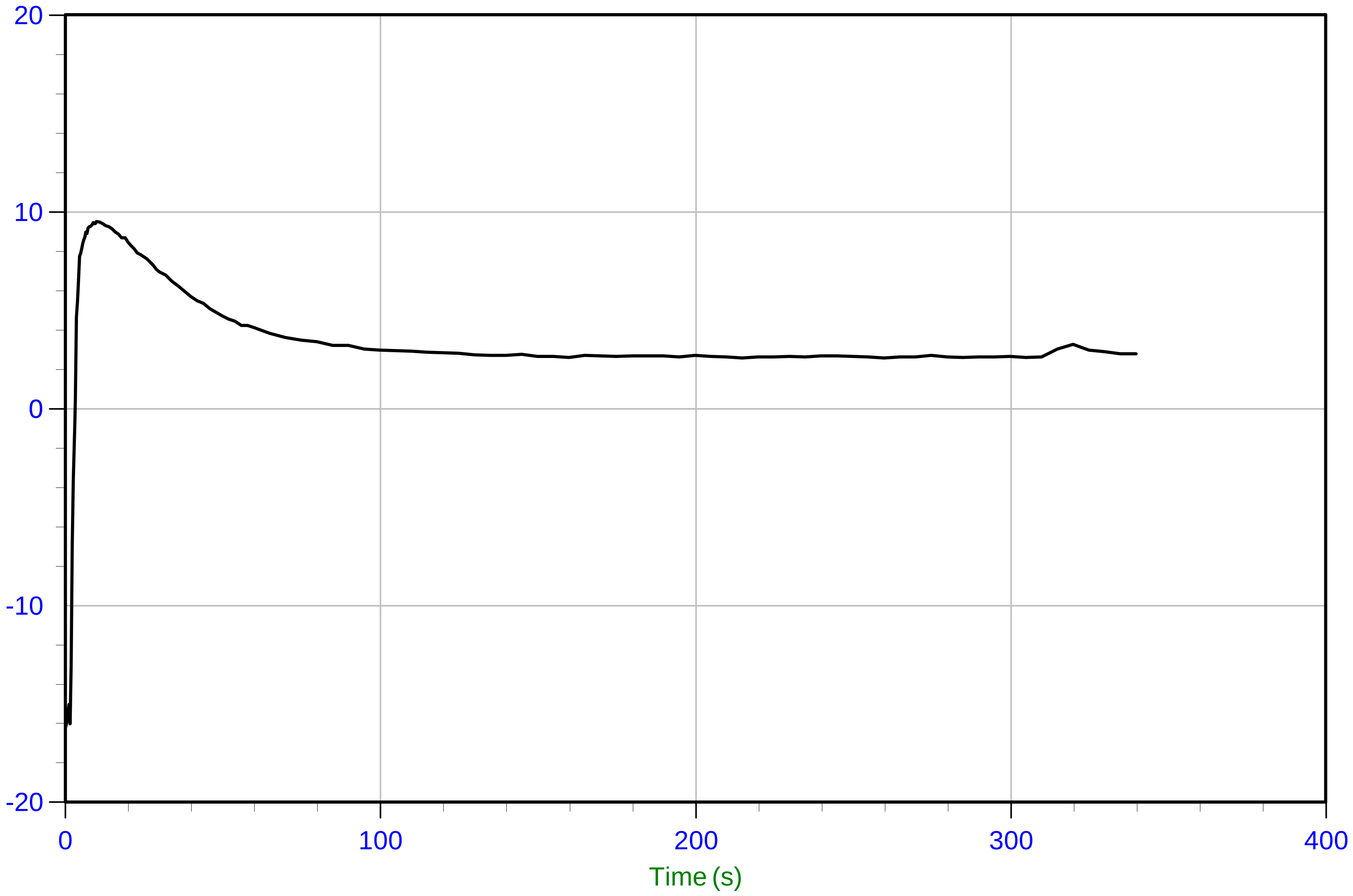
1. Equilibrium pore pressure was not achieved.

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 12:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT-002
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP002.PPF2
Depth: 1.000 m / 3.281 ft
Duration: 340.0 s

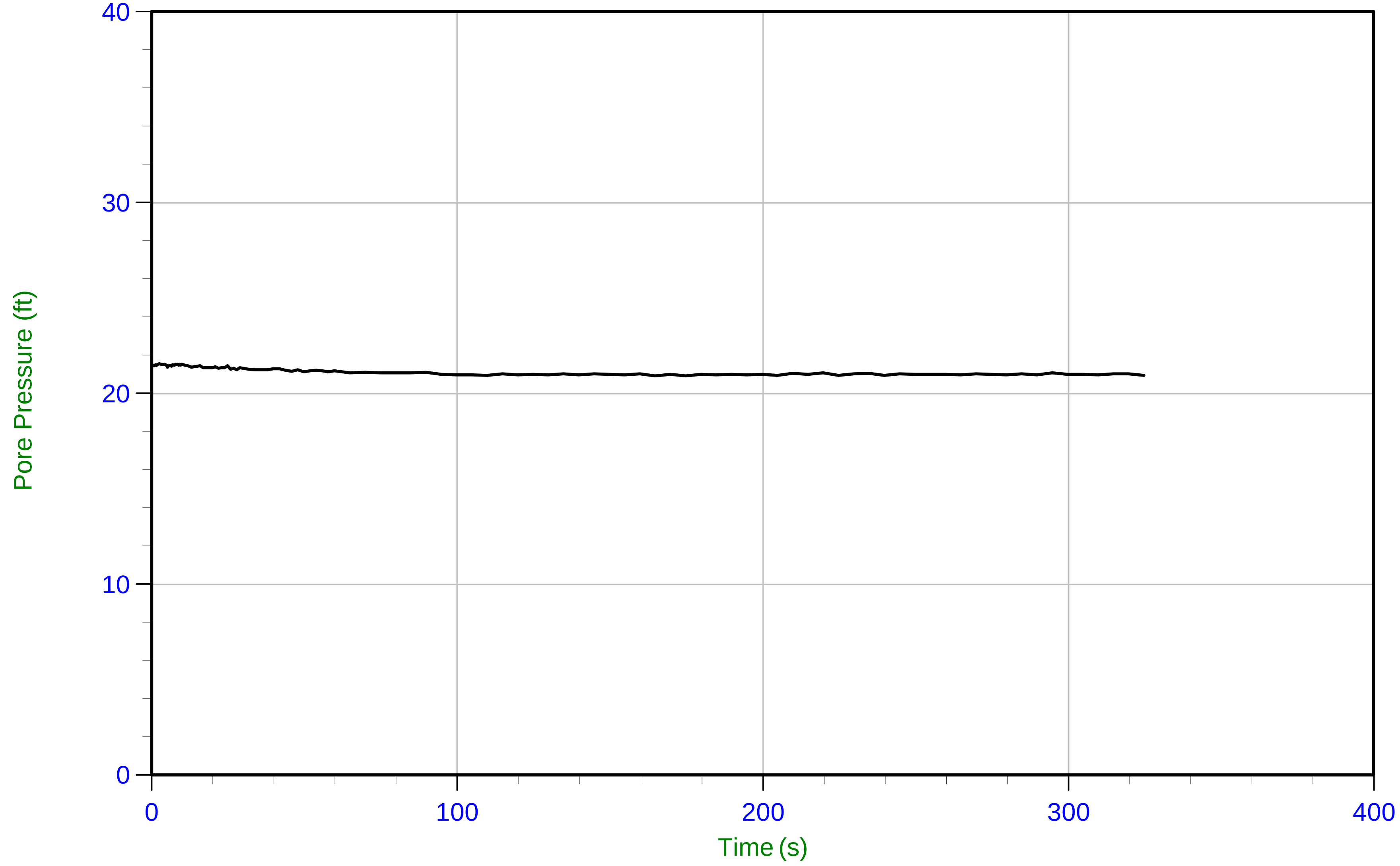
u Min: -16.2 ft
u Max: 9.5 ft
u Final: 2.8 ft

WT: 0.2 m / 0.5 ft
Ueq: 2.7 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 12:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT-002
Cone: 1075:T1000F10U35 Area=15 cm²



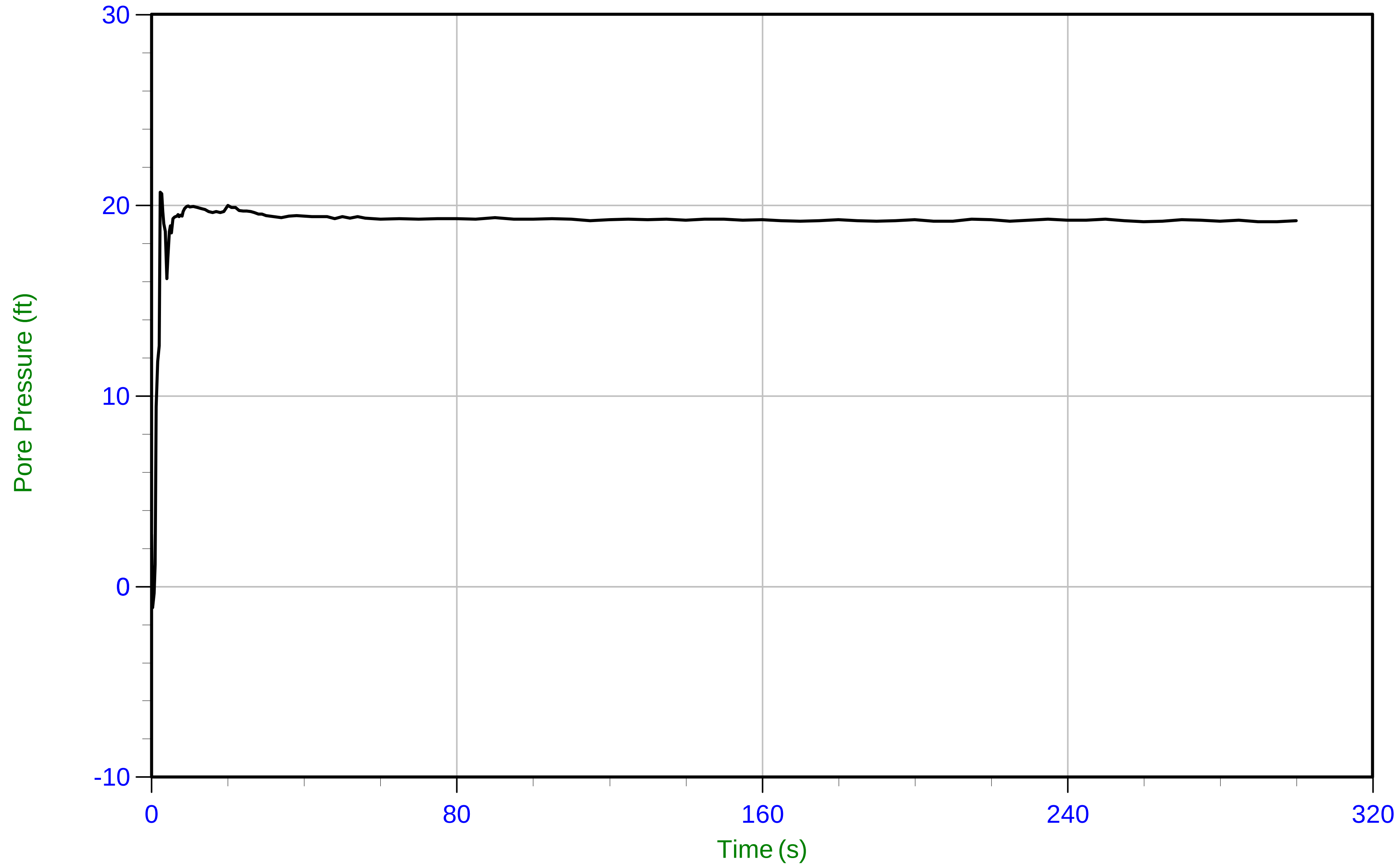
Trace Summary:

Filename: 25-53-29335_SP002.PPF2
Depth: 6.725 m / 22.063 ft
Duration: 325.0 s

u Min: 20.9 ft
u Max: 21.6 ft
u Final: 20.9 ft

WT: 0.3 m / 1.0 ft
Ueq: 21.1 ft

Langan Engineering	Job No: 25-53-29335 Date: 2025-04-11 11:40 Site: Micron New York Manufacturing Facility - Clay, NY	Sounding: CPT25-003 Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP003.PPF2

Depth: 5.550 m / 18.208 ft

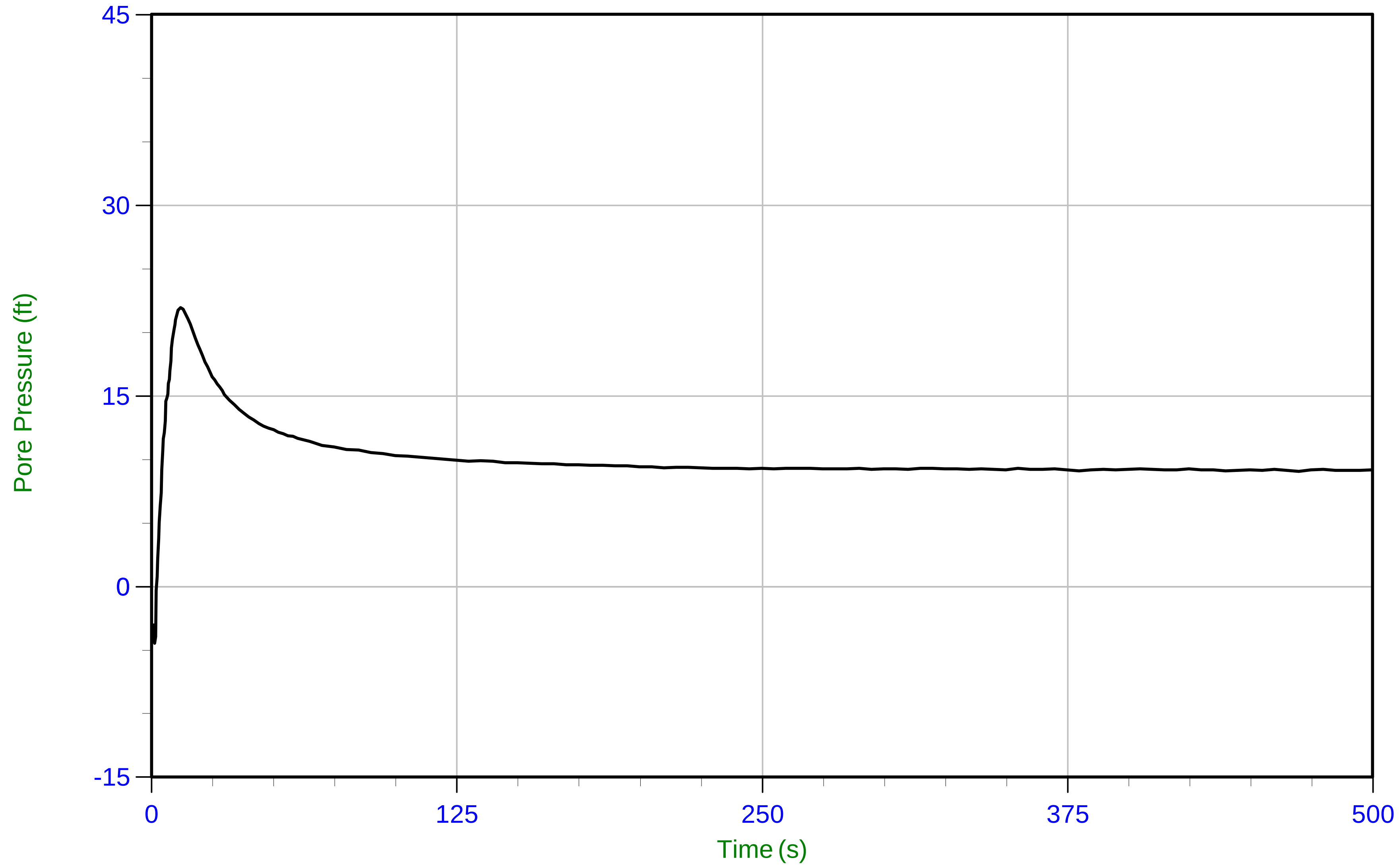
Duration: 300.0 s

u Min: -1.1 ft

u Max: 20.7 ft

u Final: 19.2 ft

Langan Engineering	Job No: 25-53-29335	Sounding: SCPT25-004
	Date: 2025-04-14 11:57	Cone: 1075:T1000F10U35 Area=15 cm²
	Site: Micron New York Manufacturing Facility - Clay, NY	



Trace Summary:

Filename: 25-53-29335_SP004.PPF2
Depth: 3.000 m / 9.842 ft
Duration: 500.0 s

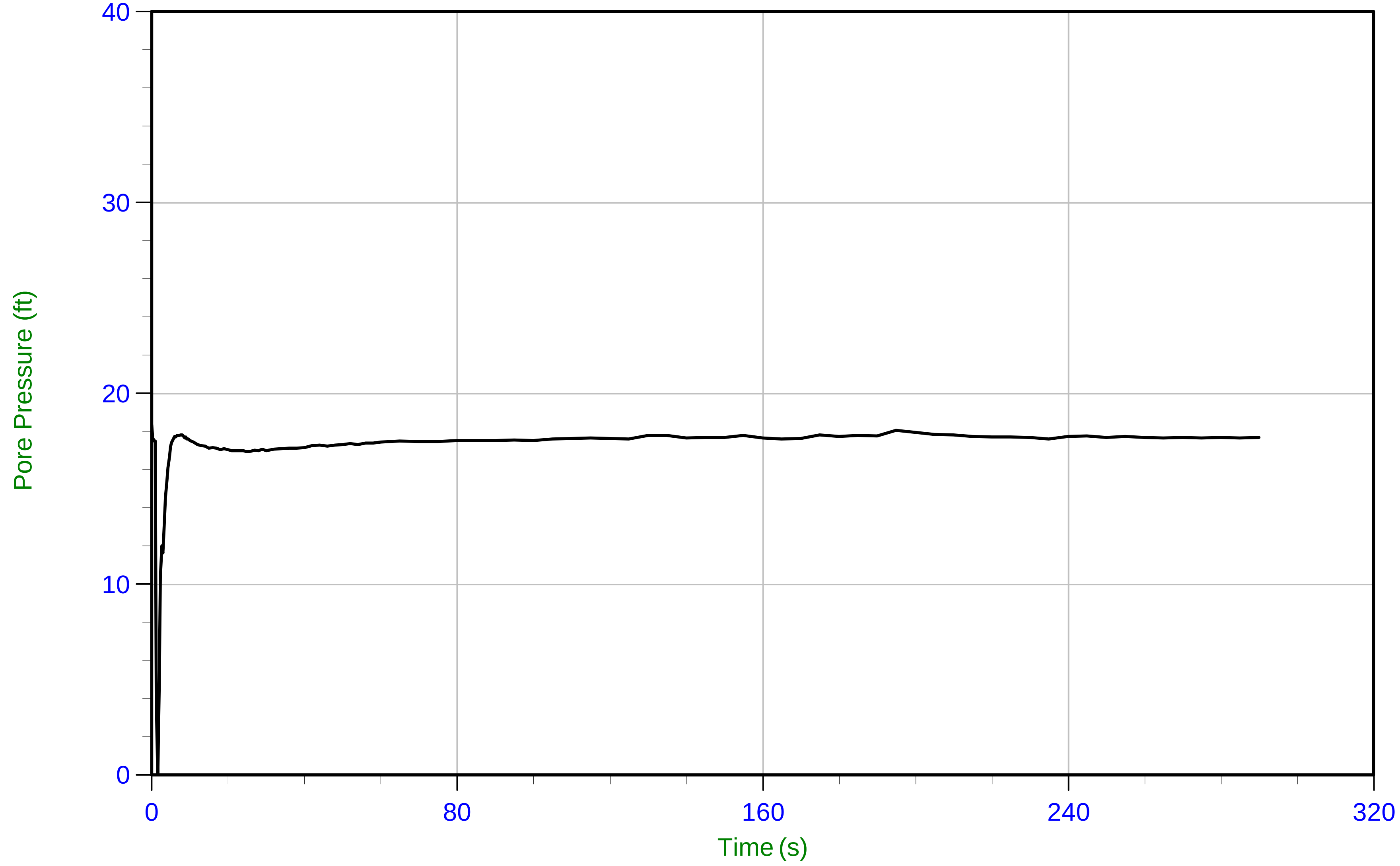
u Min: -4.5 ft
u Max: 21.9 ft
u Final: 9.2 ft

WT: 0.2 m / 0.7 ft
Ueq: 9.2 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 11:57
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-004
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP004.PPF2
Depth: 5.800 m / 19.029 ft
Duration: 290.0 s

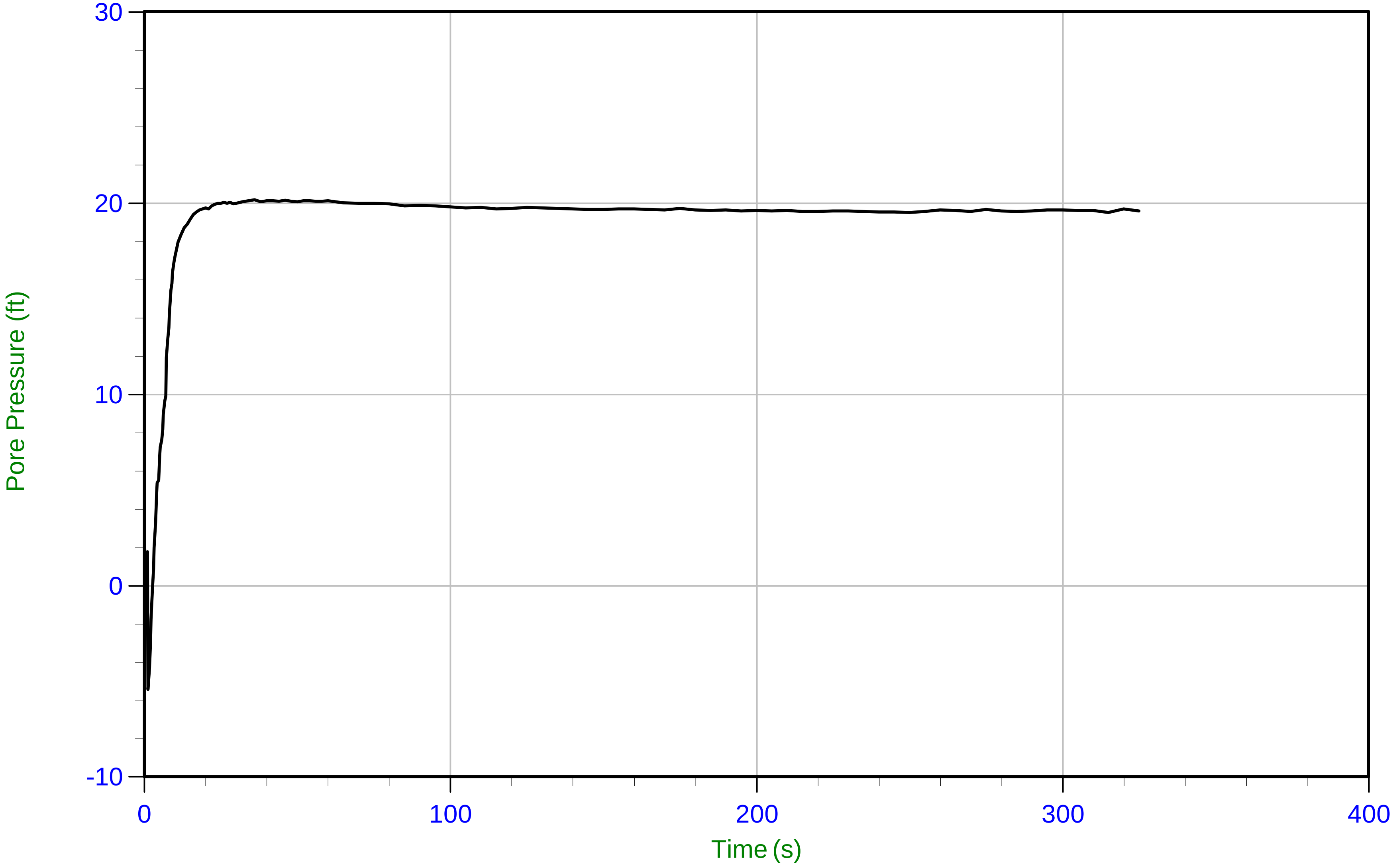
u Min: -0.1 ft
u Max: 18.4 ft
u Final: 17.7 ft

WT: 0.4 m / 1.3 ft
Ueq: 17.7 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 10:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-005
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP005.PPF2
Depth: 5.750 m / 18.865 ft
Duration: 325.0 s

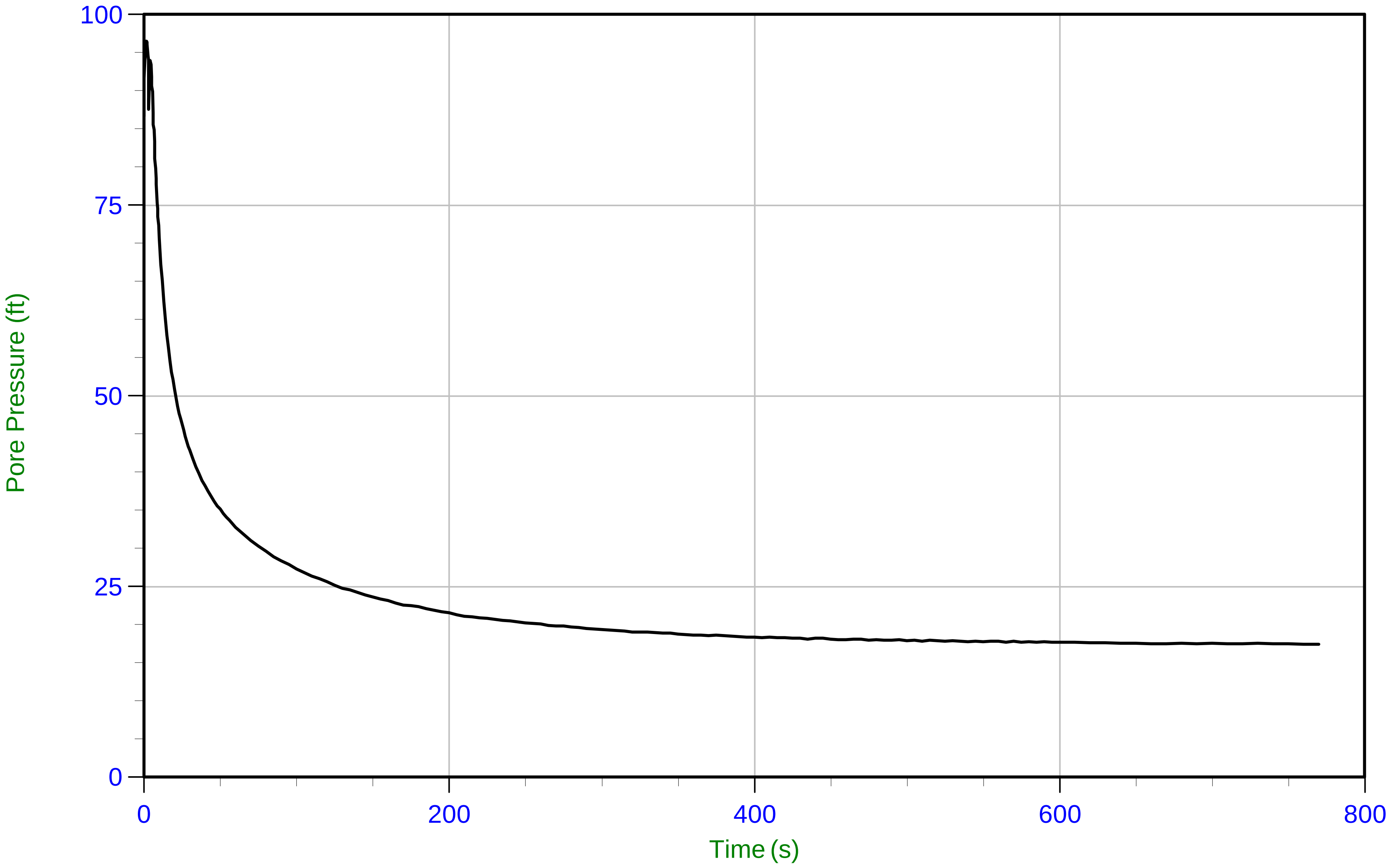
u Min: -5.4 ft
u Max: 20.2 ft
u Final: 19.6 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 12:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-006
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP006.PPF2
Depth: 5.150 m / 16.896 ft
Duration: 770.0 s

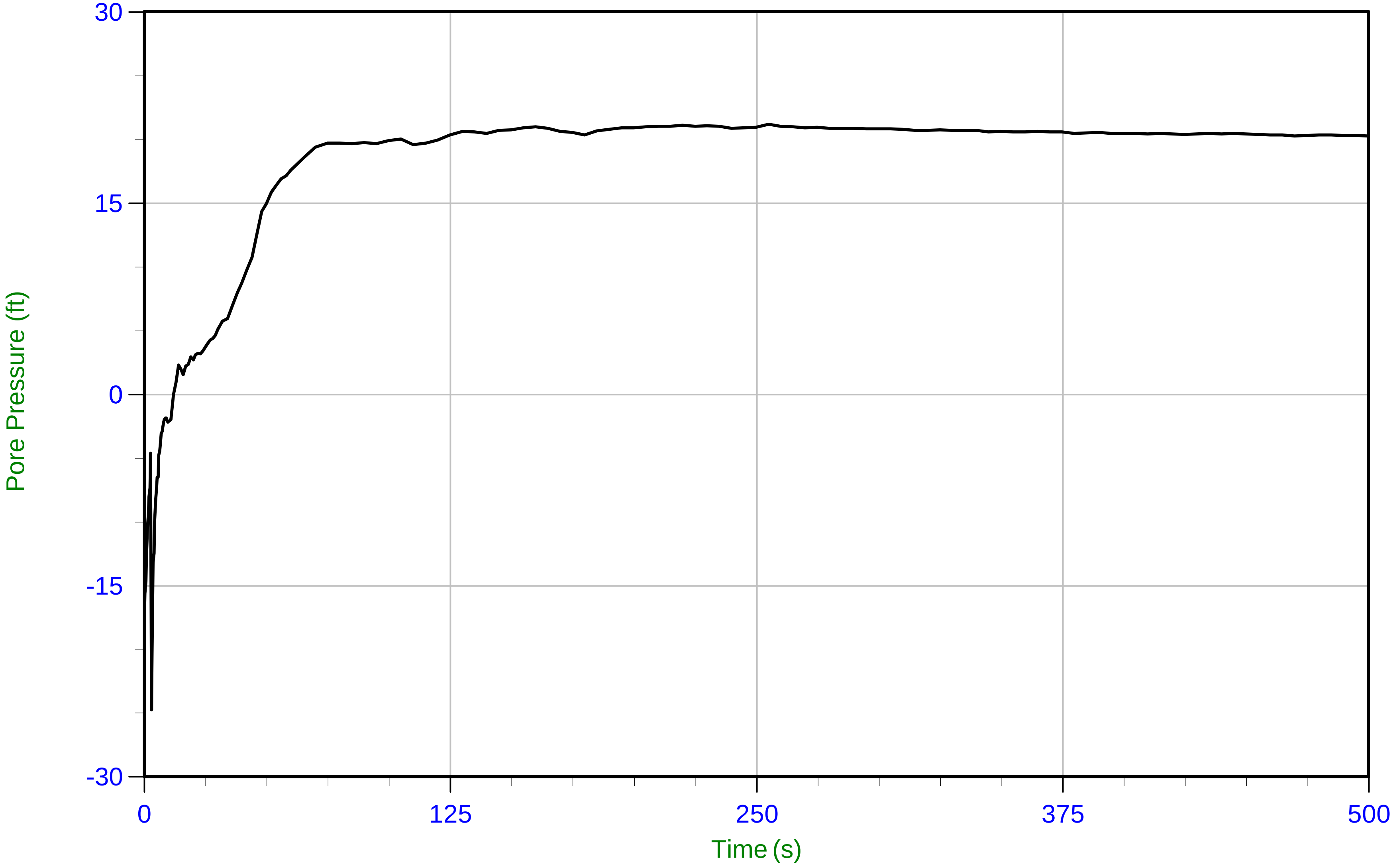
u Min: 17.4 ft
u Max: 96.5 ft
u Final: 17.4 ft

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 13:44
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-007
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP007.PPF2
Depth: 5.975 m / 19.603 ft
Duration: 500.0 s

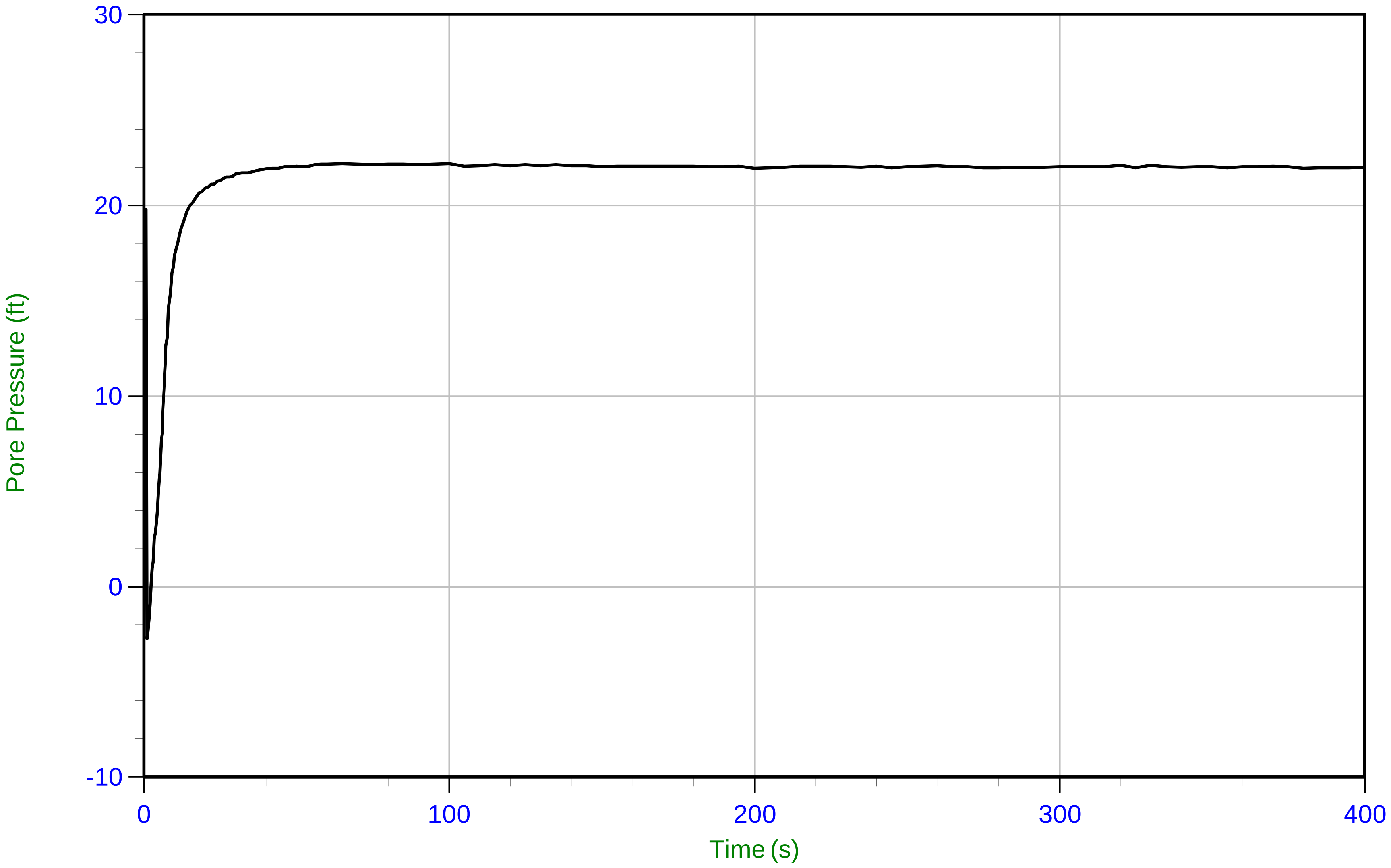
u Min: -24.7 ft
u Max: 21.2 ft
u Final: 20.3 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:51
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-008
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP008.PPF2
Depth: 6.750 m / 22.145 ft
Duration: 400.0 s

u Min: -2.7 ft
u Max: 22.2 ft
u Final: 22.0 ft

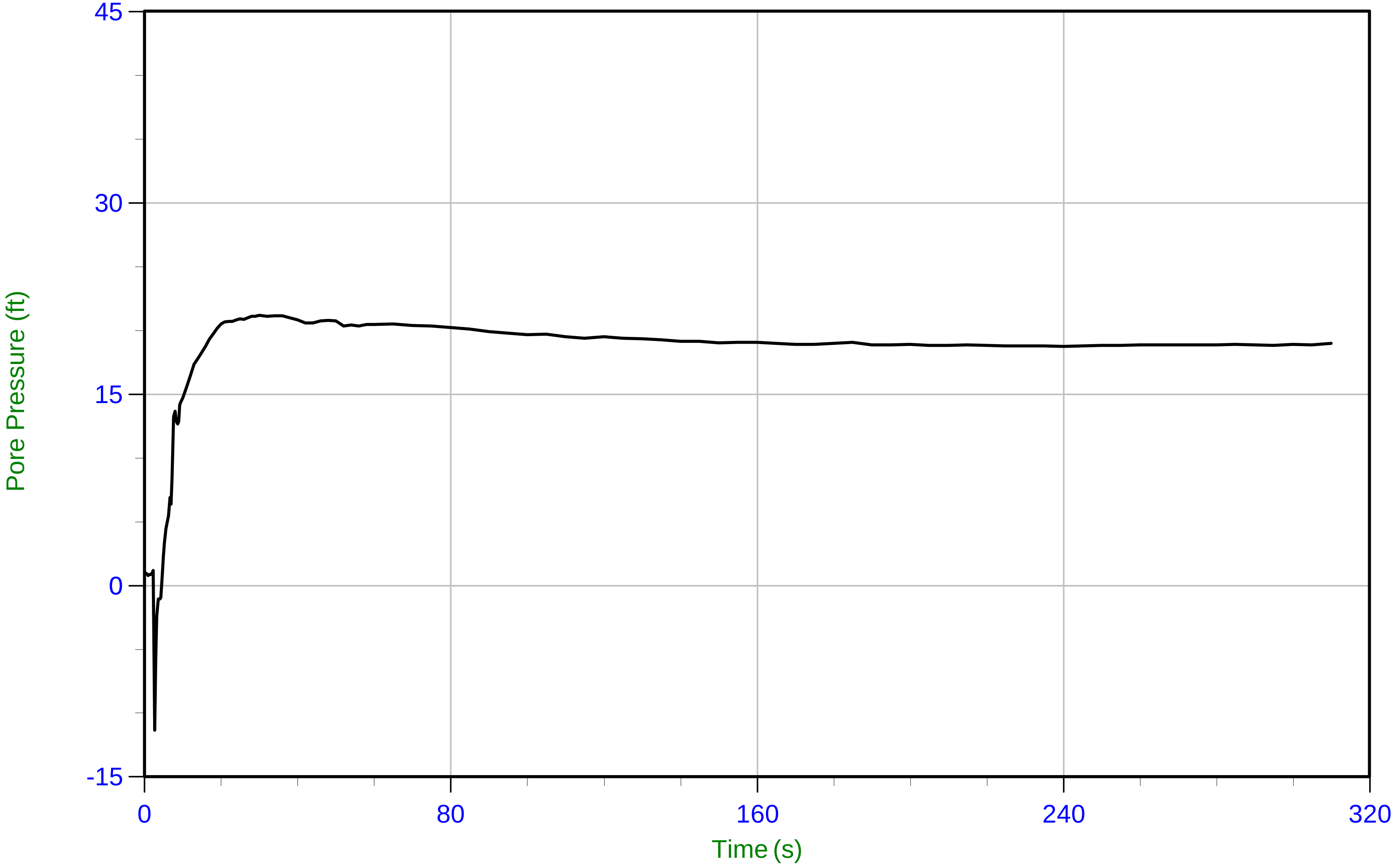
WT: 0.0 m / 0.1 ft
Ueq: 22.0 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 13:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-009
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP009.PPF2
Depth: 6.000 m / 19.685 ft
Duration: 310.0 s

u Min: -11.3 ft
u Max: 21.2 ft
u Final: 19.0 ft

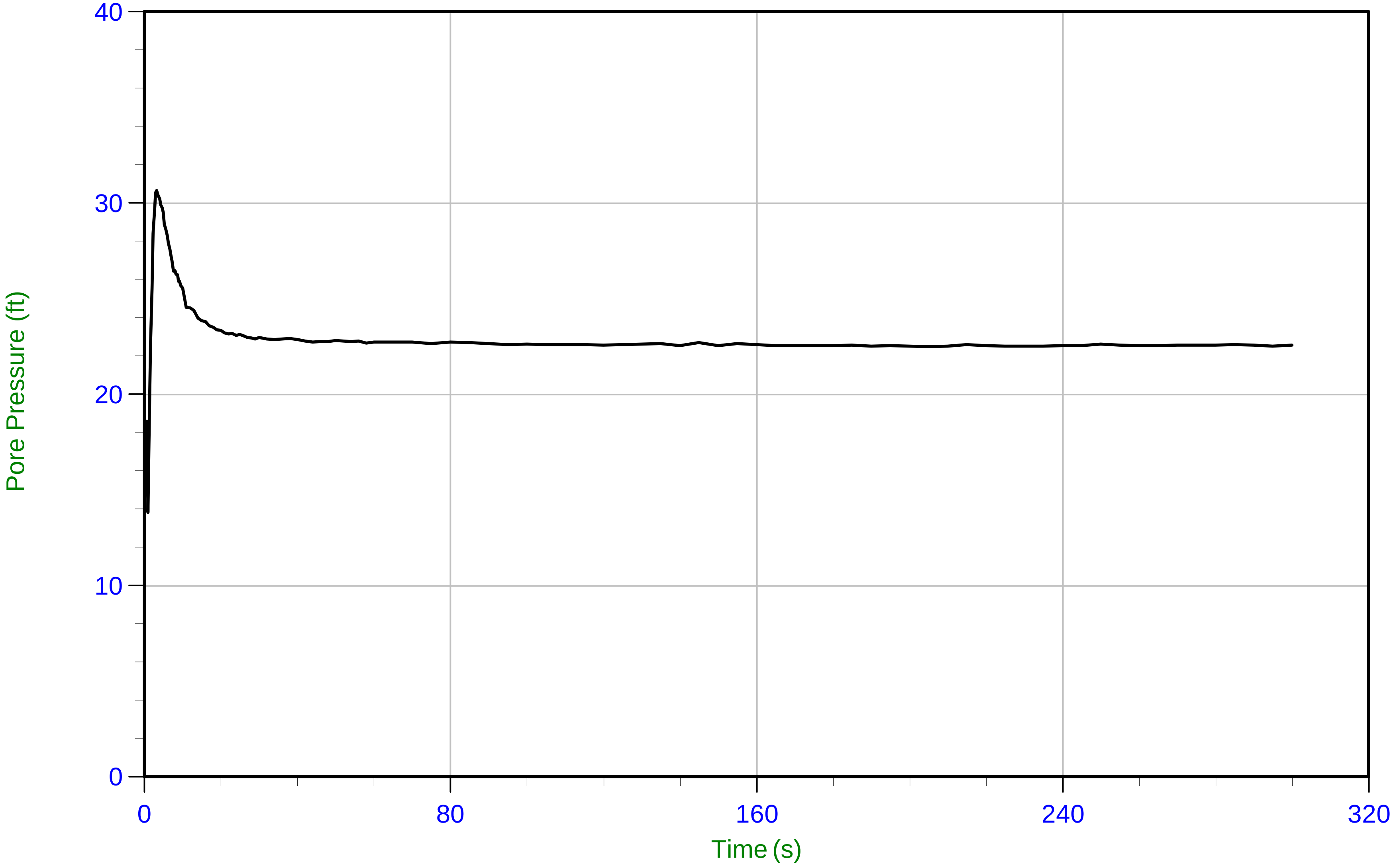
WT: 0.2 m / 0.8 ft
Ueq: 18.9 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 13:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-010
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP010.PPF2
Depth: 6.675 m / 21.899 ft
Duration: 300.0 s

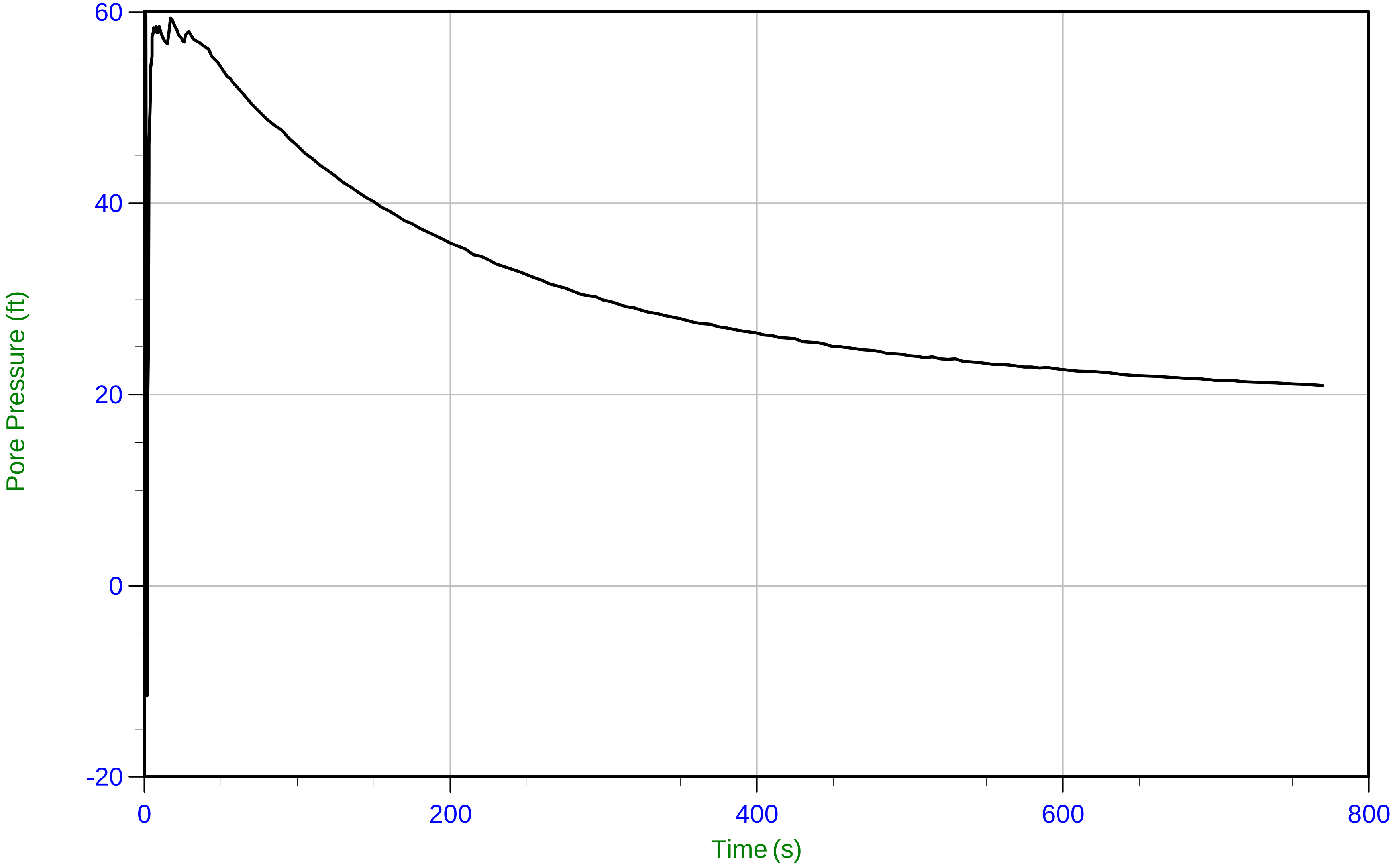
u Min: 13.8 ft
u Max: 30.7 ft
u Final: 22.6 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 14:31
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-011
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP011.PPF2
Depth: 5.375 m / 17.634 ft
Duration: 770.0 s

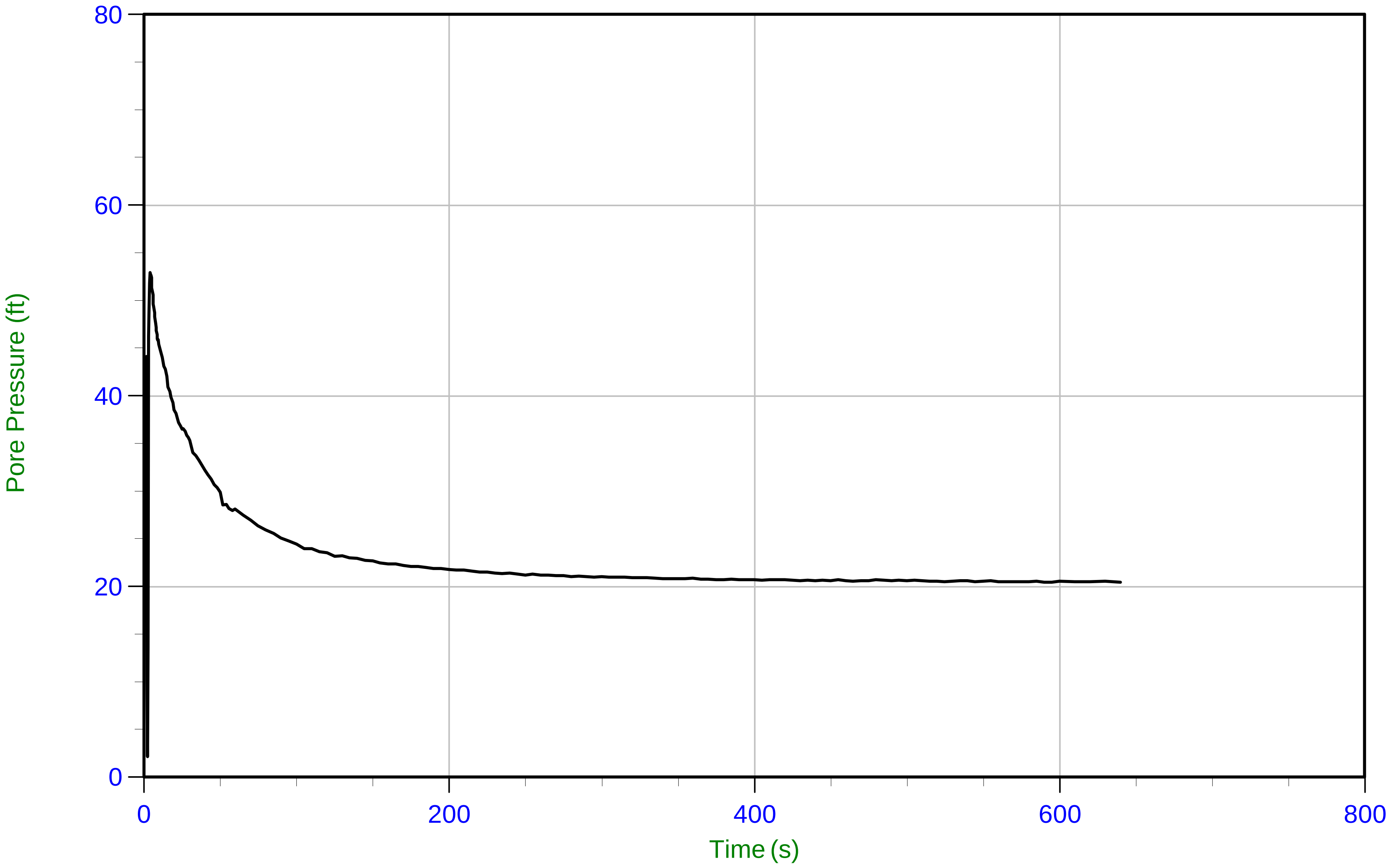
u Min: -11.5 ft
u Max: 60.3 ft
u Final: 20.9 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 10:21
Site: Micron New York Manufacturing Facility - Clay, NY

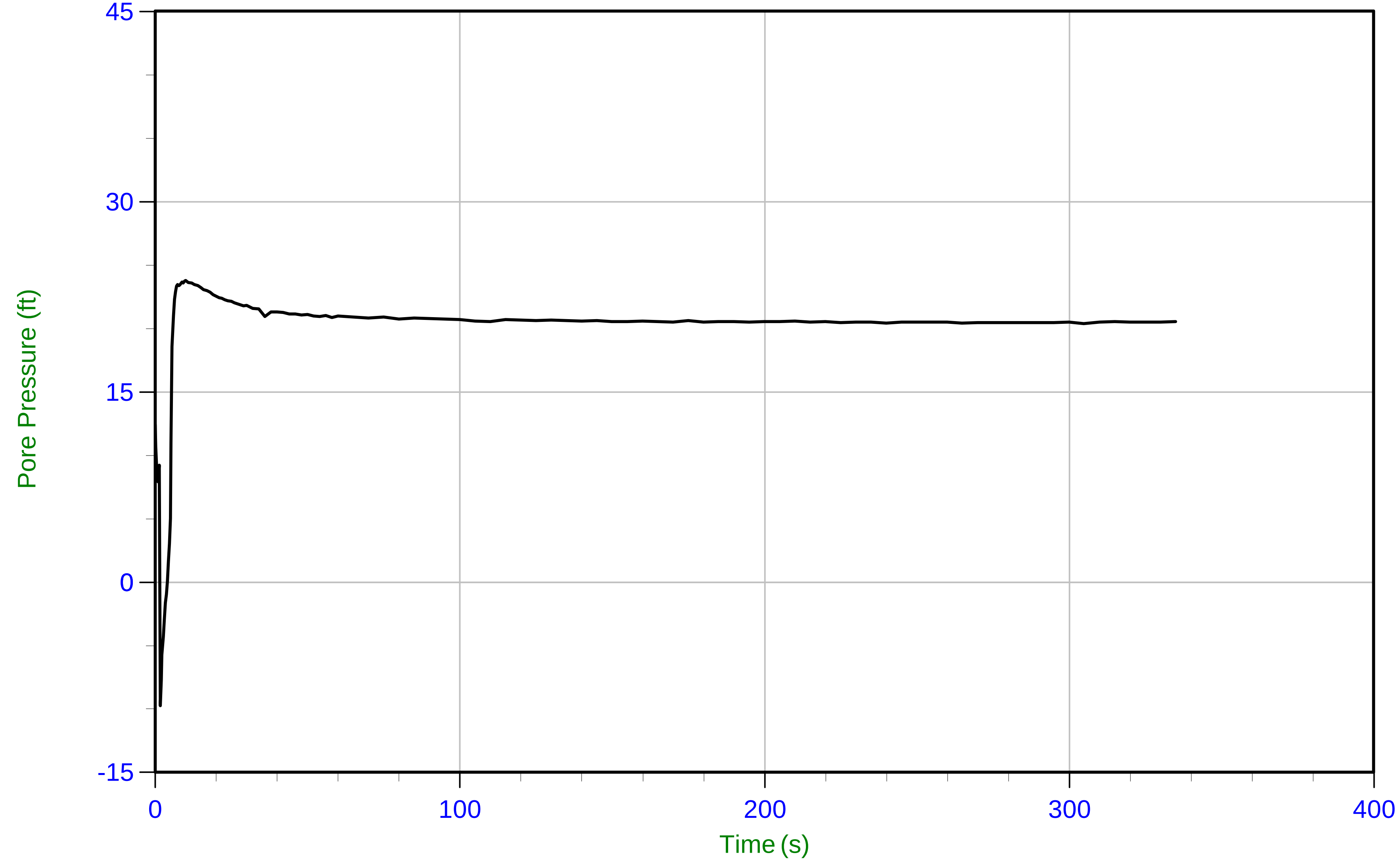
Sounding: SCPT25-012
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP012.PPF2
Depth: 6.000 m / 19.685 ft
Duration: 640.0 s

u Min: 2.1 ft
u Max: 52.9 ft
u Final: 20.4 ft



Trace Summary:

Filename: 25-53-29335_SP012.PPF2
Depth: 6.050 m / 19.849 ft
Duration: 335.0 s

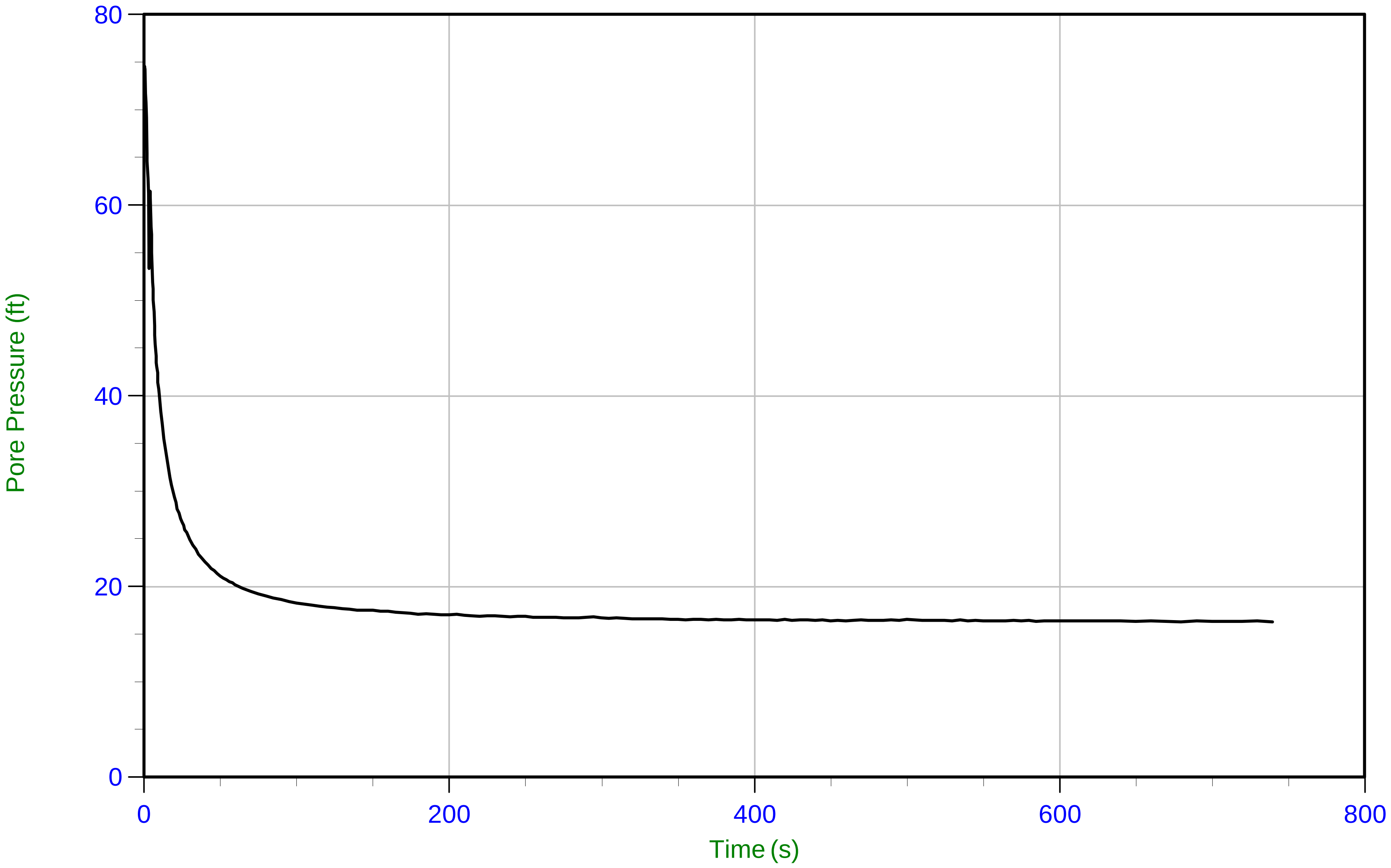
u Min: -9.7 ft
u Max: 23.8 ft
u Final: 20.5 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 11:24
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-013
Cone: 1075:T1000F10U35 Area=15 cm²



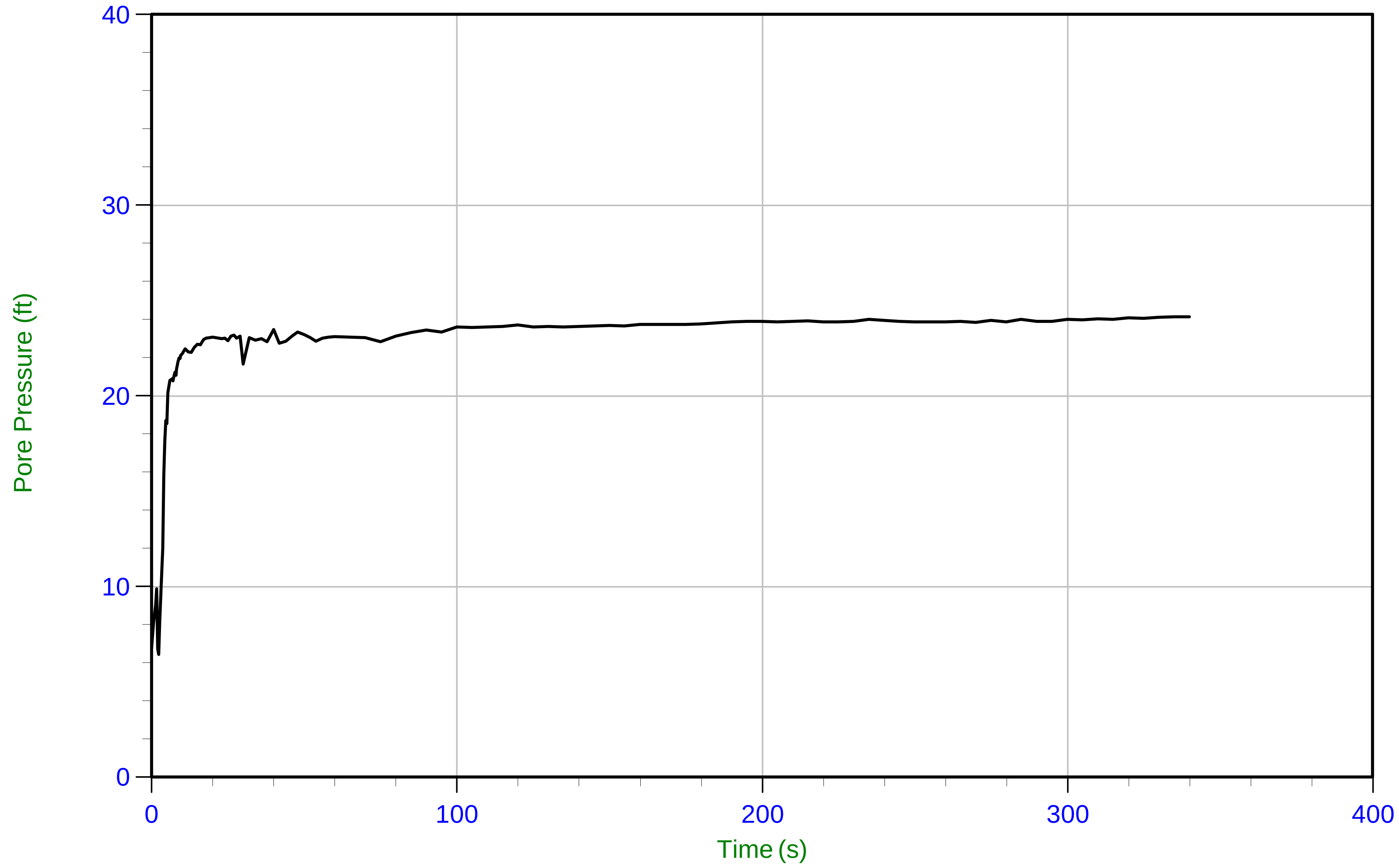
Trace Summary:	Filename: 25-53-29335_CP013.PPF2	u Min: 16.3 ft	WT: 0.0 m / 0.1 ft
	Depth: 5.000 m / 16.404 ft	u Max: 74.6 ft	Ueq: 16.3 ft
	Duration: 740.0 s	u Final: 16.3 ft	

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 11:24
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-013
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP013.PPF2
Depth: 7.675 m / 25.180 ft
Duration: 340.0 s

u Min: 6.4 ft
u Max: 24.1 ft
u Final: 24.1 ft

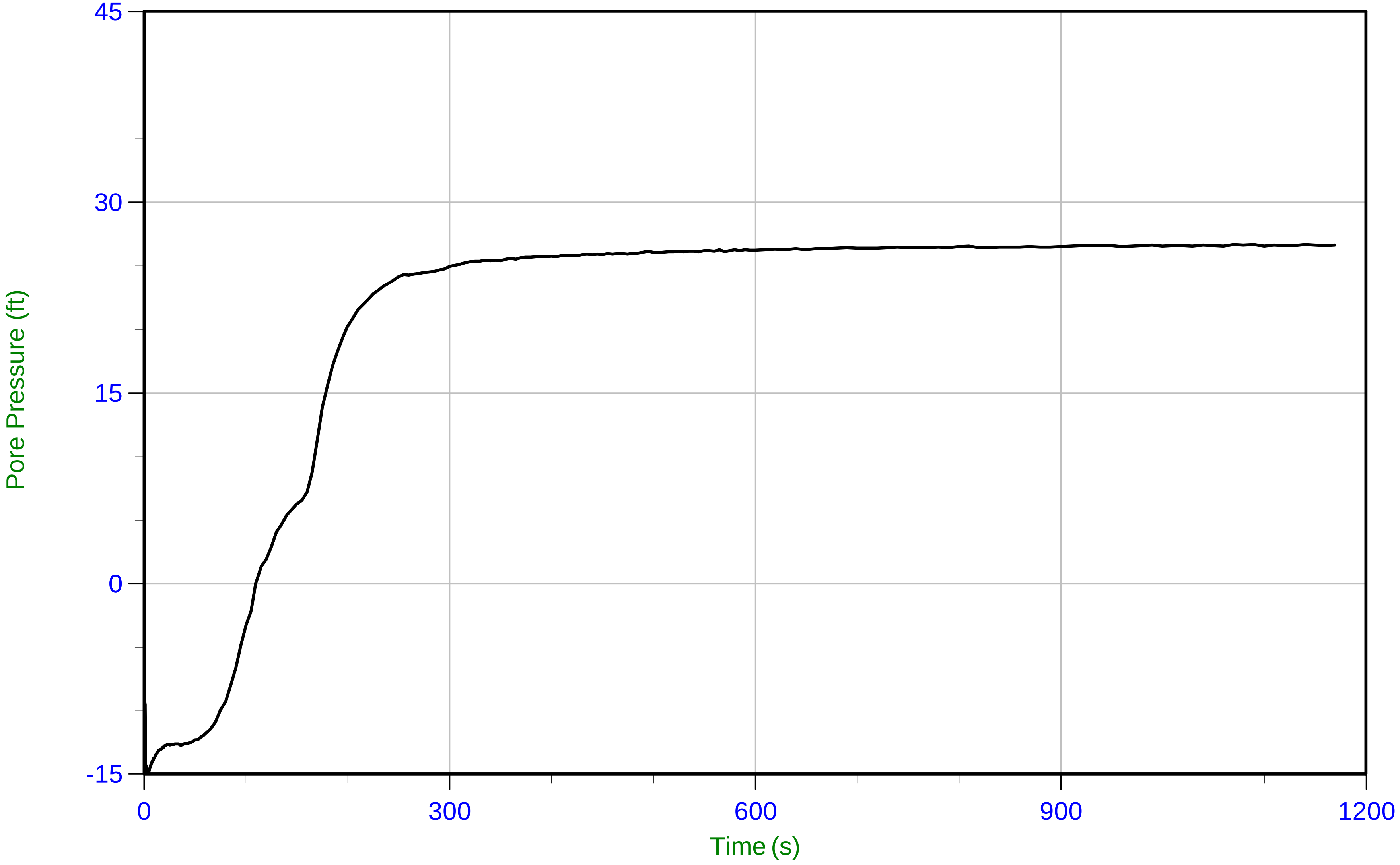
WT: 0.3 m / 1.1 ft
Ueq: 24.1 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 12:28
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-014
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

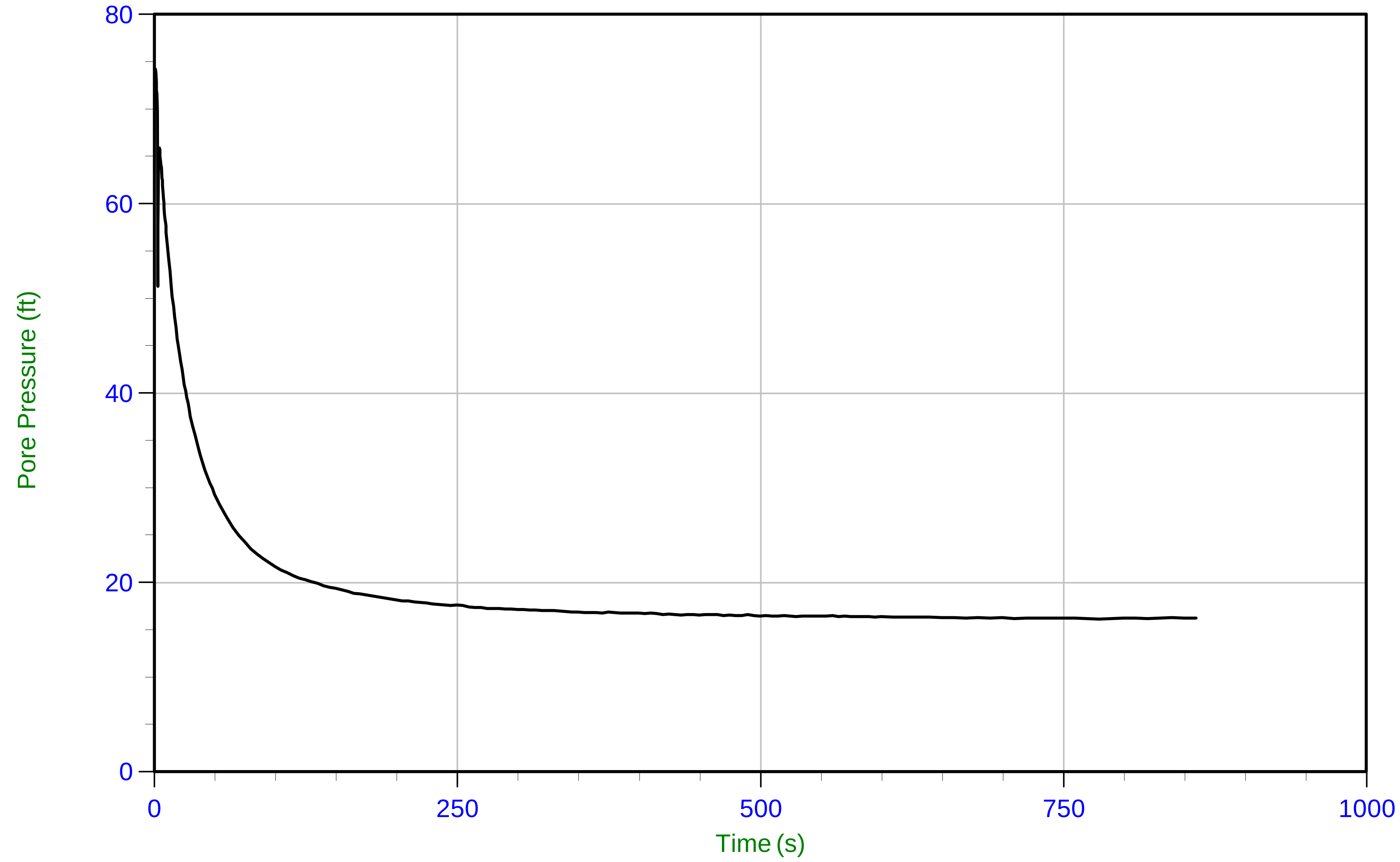
Filename: 25-53-29335_CP014.PPF2
Depth: 8.250 m / 27.067 ft
Duration: 1170.0 s

u Min: -15.2 ft
u Max: 26.7 ft
u Final: 26.6 ft

WT: 0.2 m / 0.5 ft
Ueq: 26.5 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 15:21
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-015
Cone: 1075:T1000F10U35 Area=15 cm²



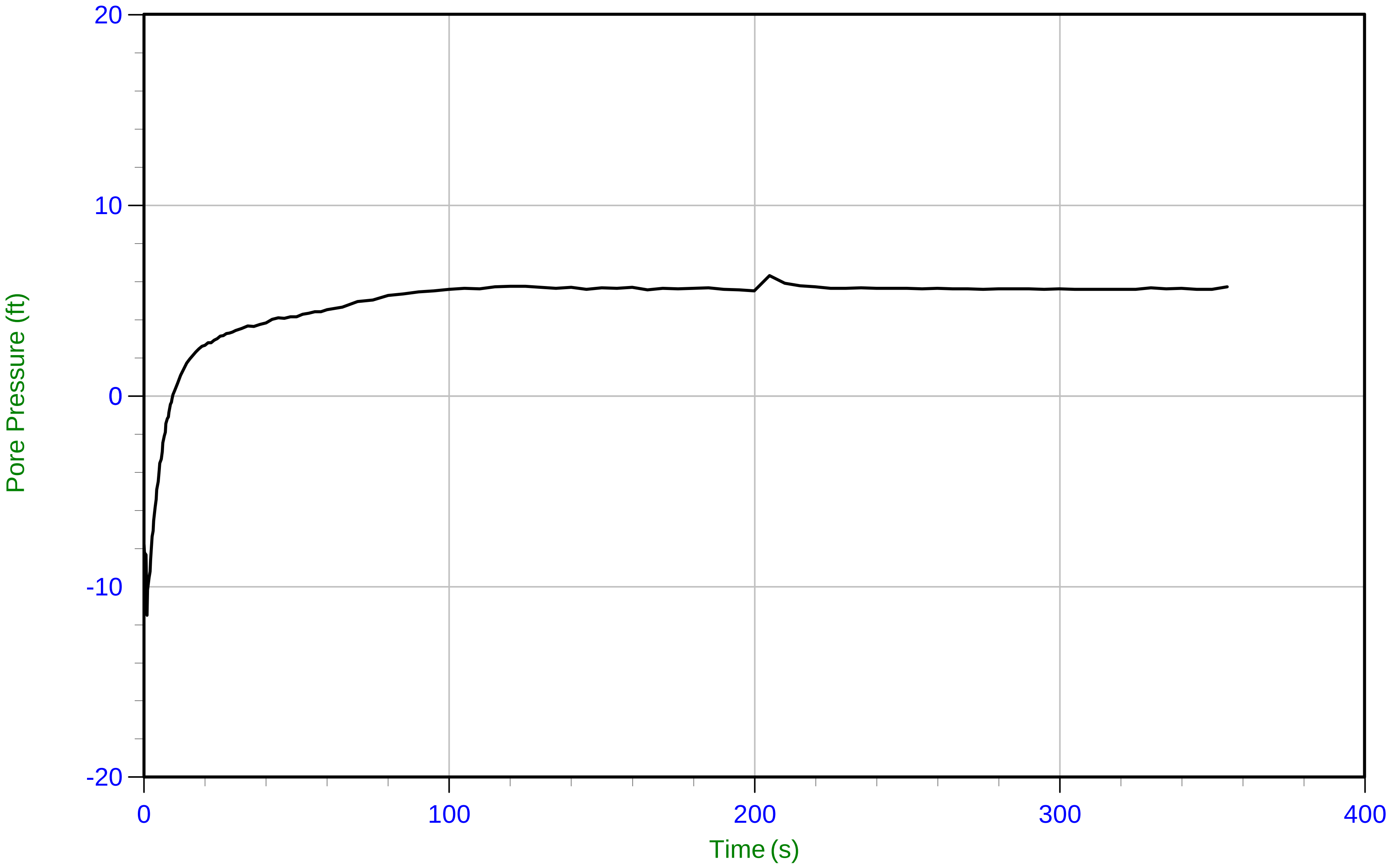
Trace Summary:

Filename: 25-53-29335_CP015.PPF2
Depth: 4.700 m / 15.420 ft
Duration: 860.0 s

u Min: 16.1 ft
u Max: 74.2 ft
u Final: 16.2 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 09:43
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-017
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP017.PPF2
Depth: 1.625 m / 5.331 ft
Duration: 355.0 s

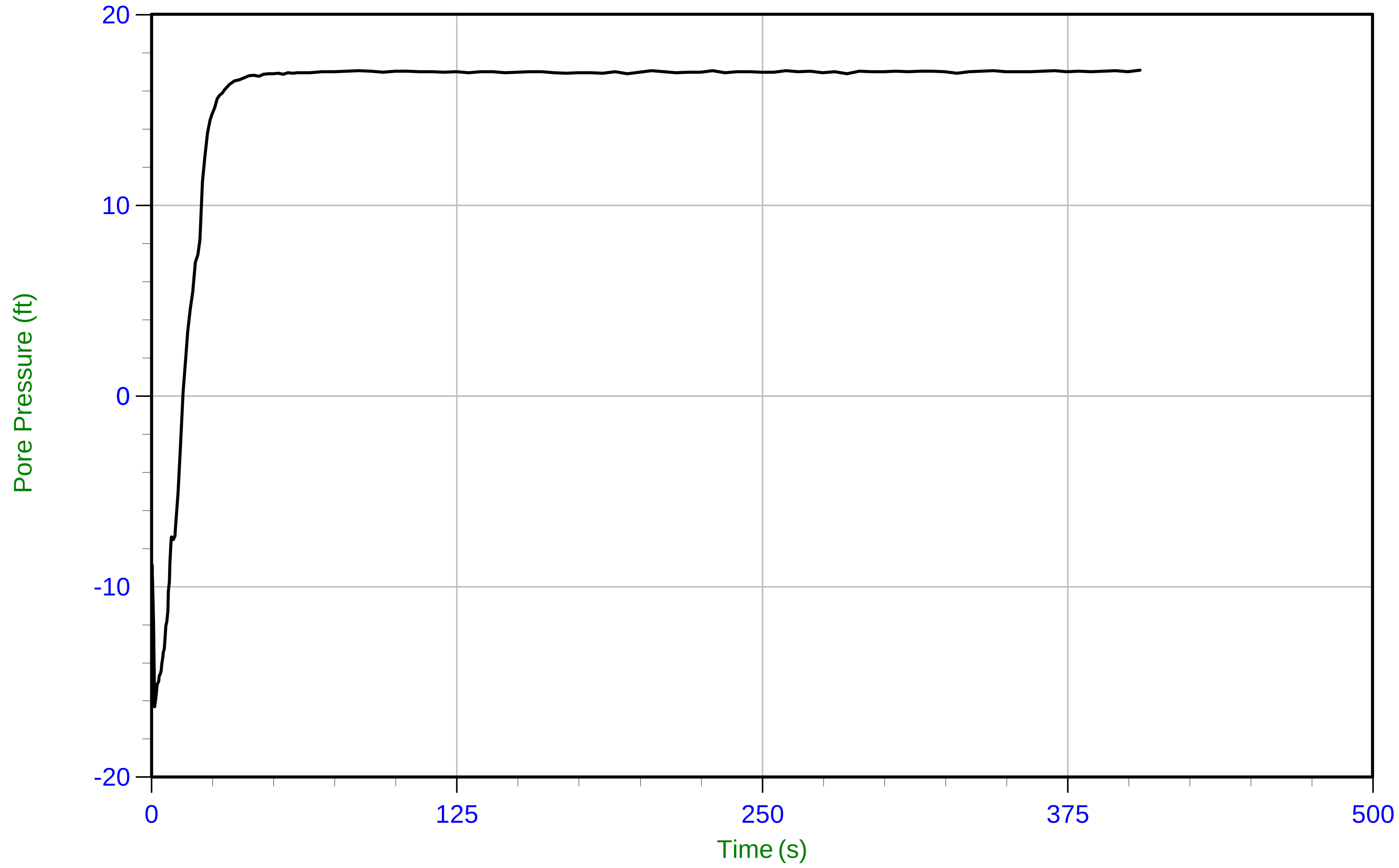
u Min: -11.5 ft
u Max: 6.3 ft
u Final: 5.7 ft

ConeTec

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 10:38
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-018
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP018.PPF2
Depth: 5.000 m / 16.404 ft
Duration: 405.0 s

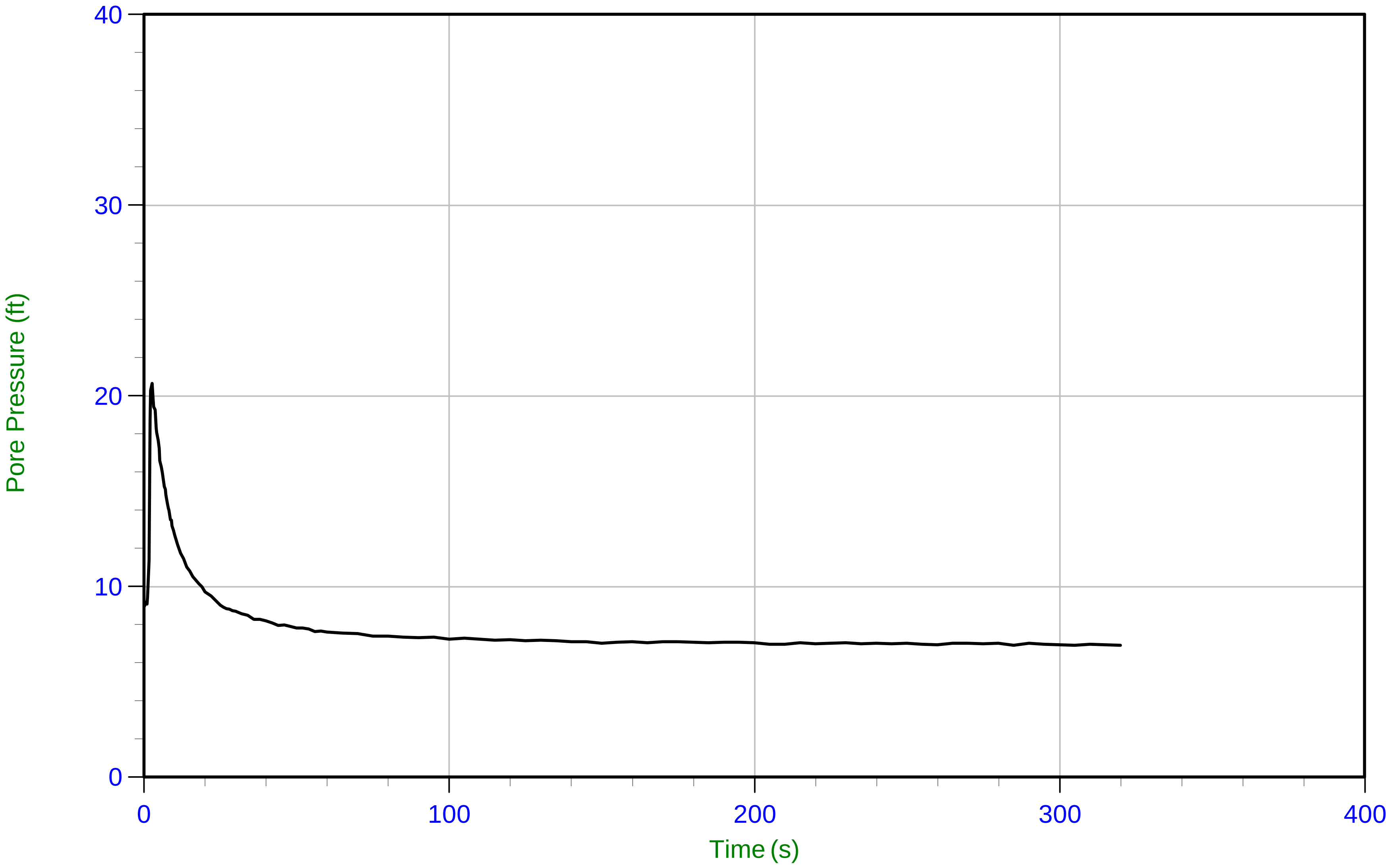
u Min: -16.3 ft
u Max: 17.1 ft
u Final: 17.1 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 12:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-019
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

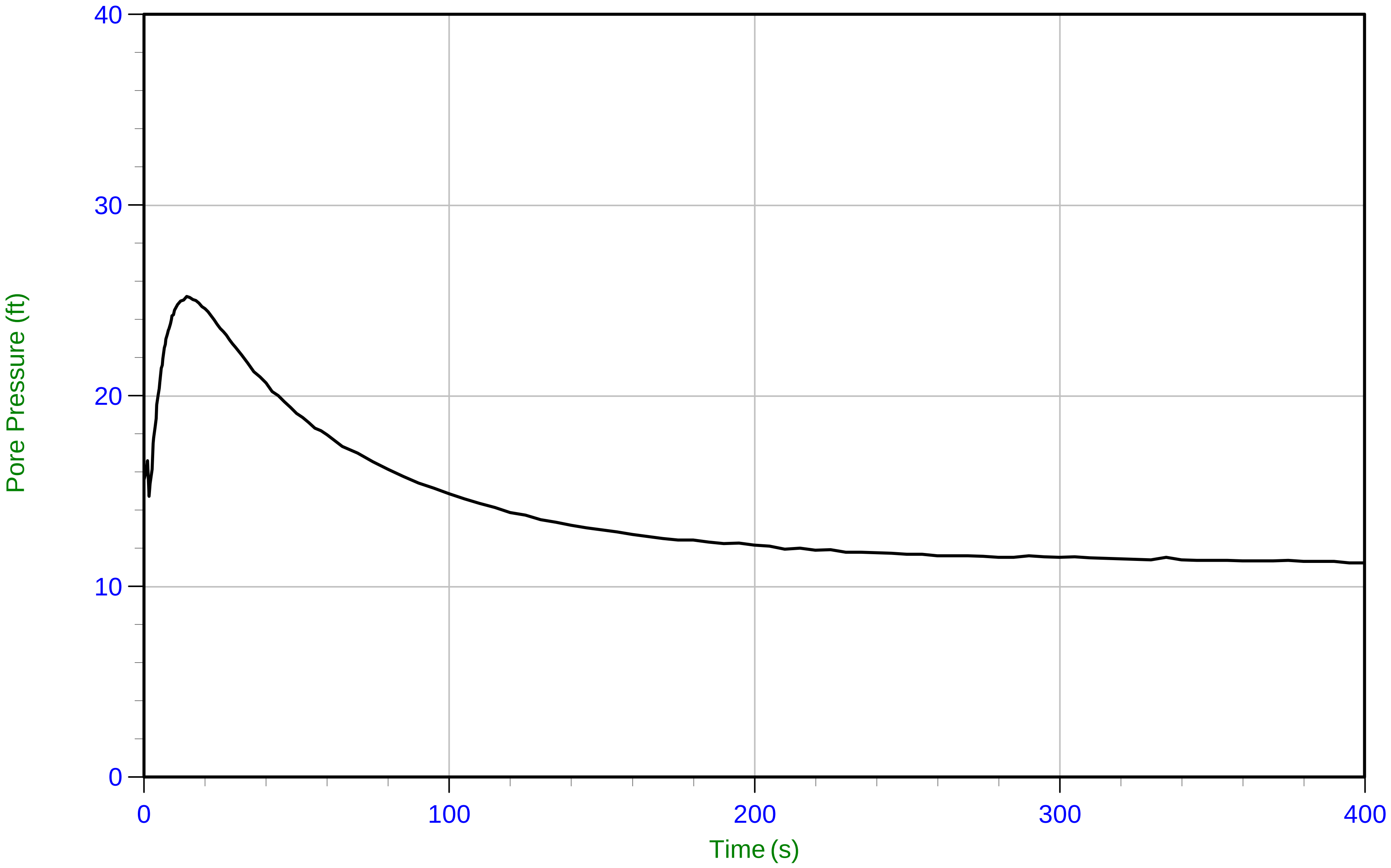
Filename: 25-53-29335_CP019.PPF2
Depth: 2.000 m / 6.562 ft
Duration: 320.0 s

u Min: 6.9 ft
u Max: 20.7 ft
u Final: 6.9 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 07:53
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-022
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP022.PPF2
Depth: 3.450 m / 11.319 ft
Duration: 400.0 s

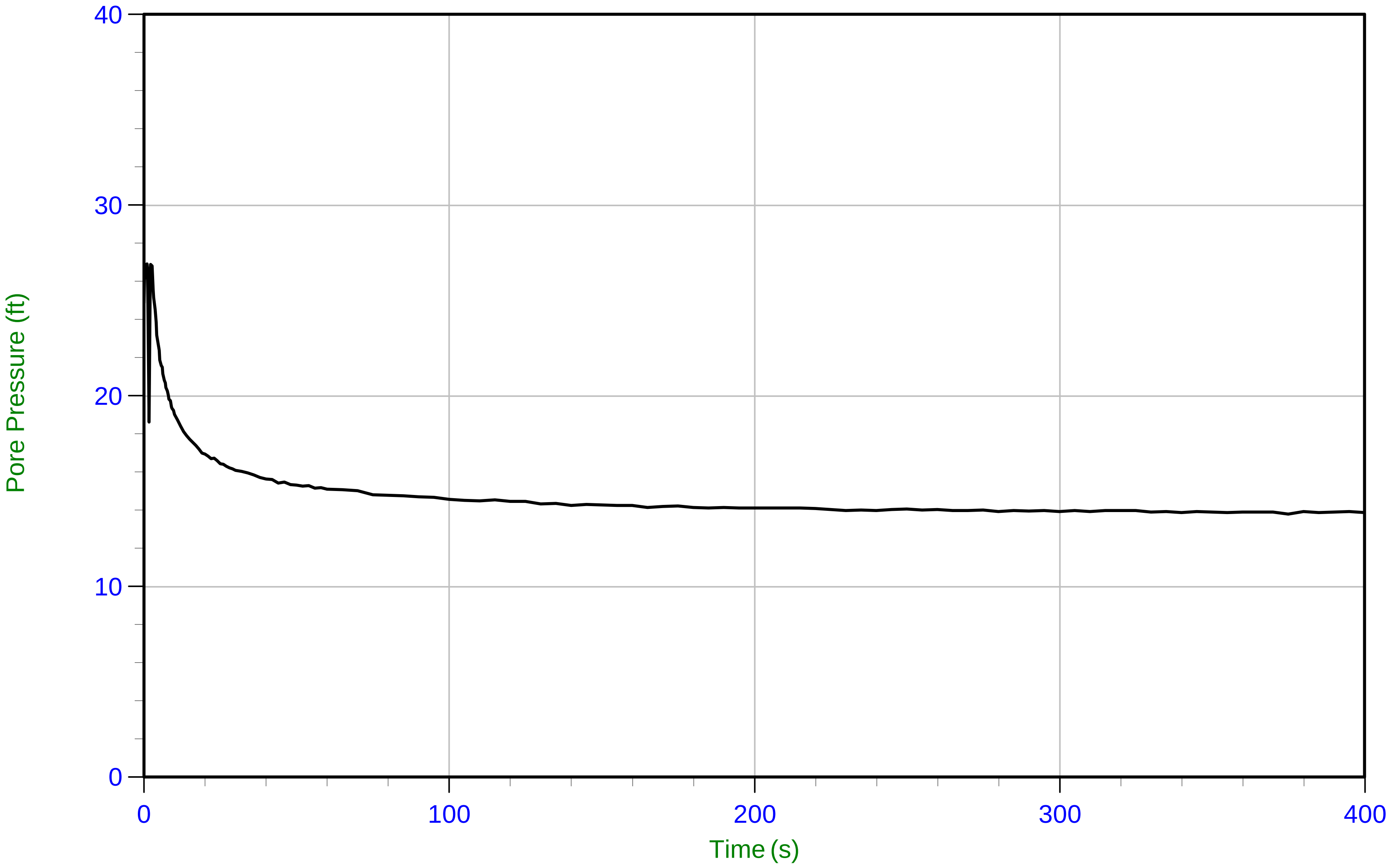
u Min: 11.2 ft
u Max: 25.2 ft
u Final: 11.2 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 09:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-023
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

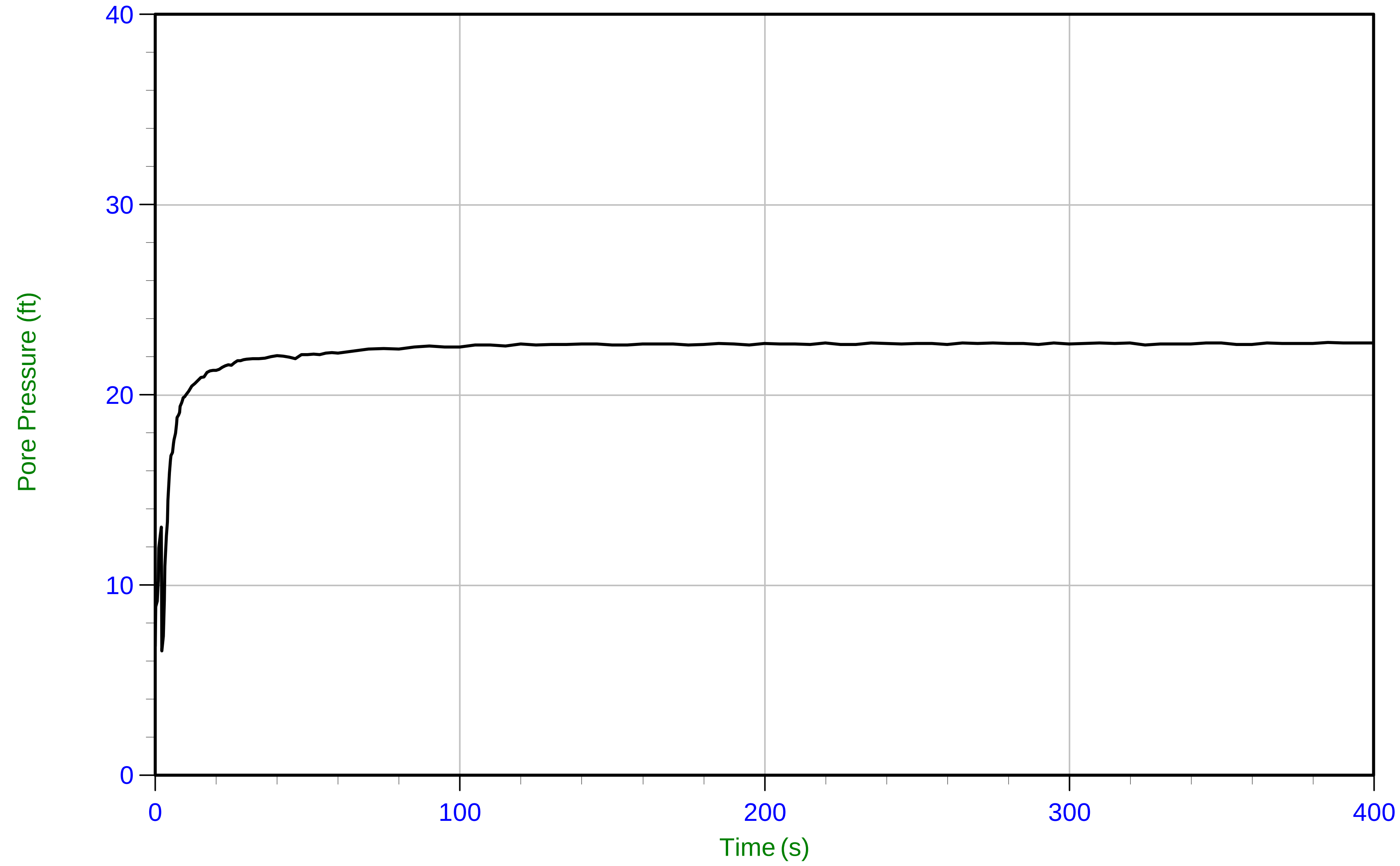
Filename:	25-53-29335_CP023.PPF2	u Min:	13.8 ft
Depth:	4.050 m / 13.287 ft	u Max:	26.9 ft
Duration:	400.0 s	u Final:	13.9 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 09:15
Site: Micron New York Manufacturing Facility - Clay, NY

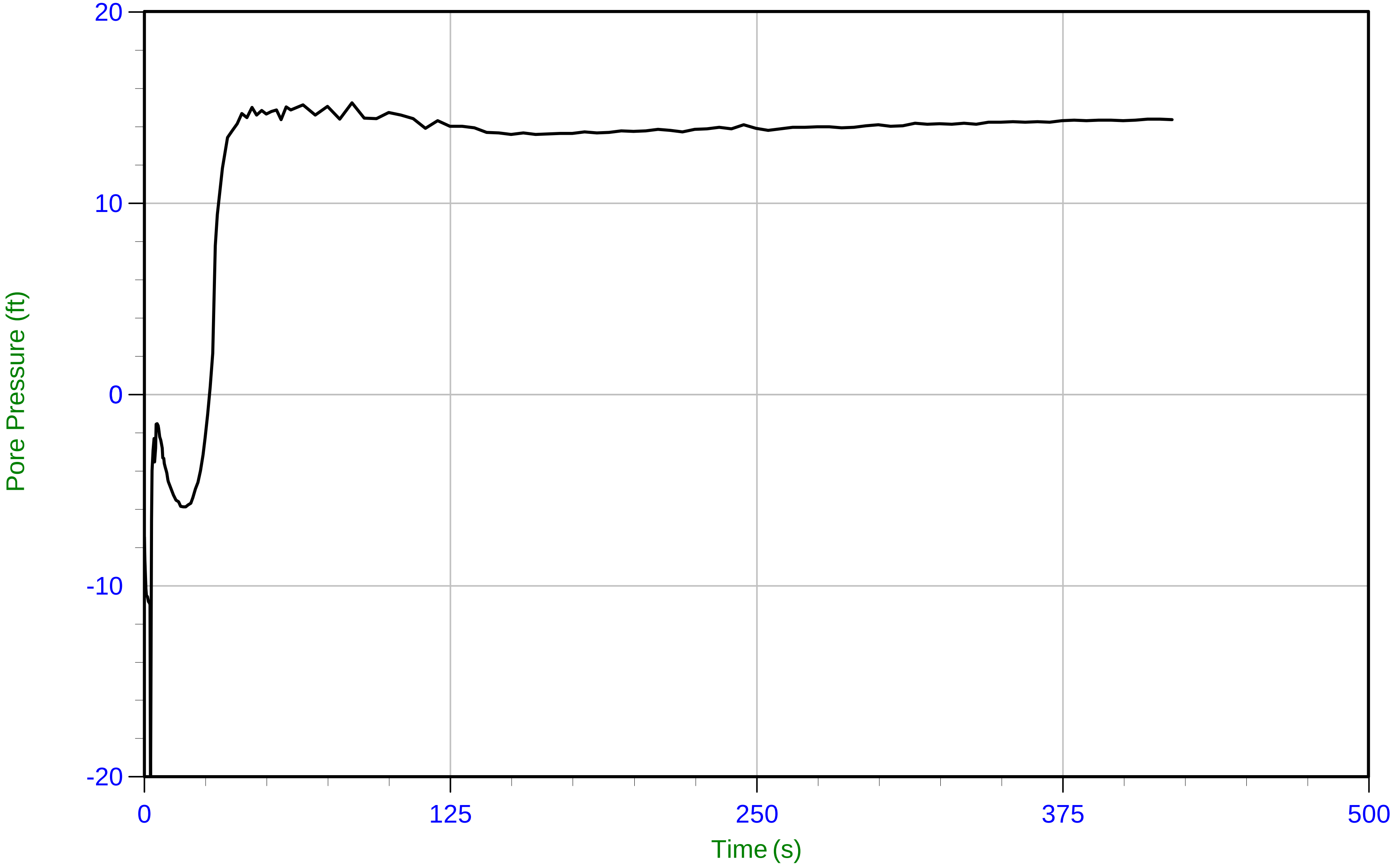
Sounding: CPT25-023
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP023.PPF2
Depth: 6.700 m / 21.981 ft
Duration: 400.0 s

u Min: 6.5 ft
u Max: 22.8 ft
u Final: 22.7 ft



Trace Summary:

Filename: 25-53-29335_CP025.PPF2
Depth: 4.825 m / 15.830 ft
Duration: 420.0 s

u Min: -21.5 ft
u Max: 15.2 ft
u Final: 14.4 ft

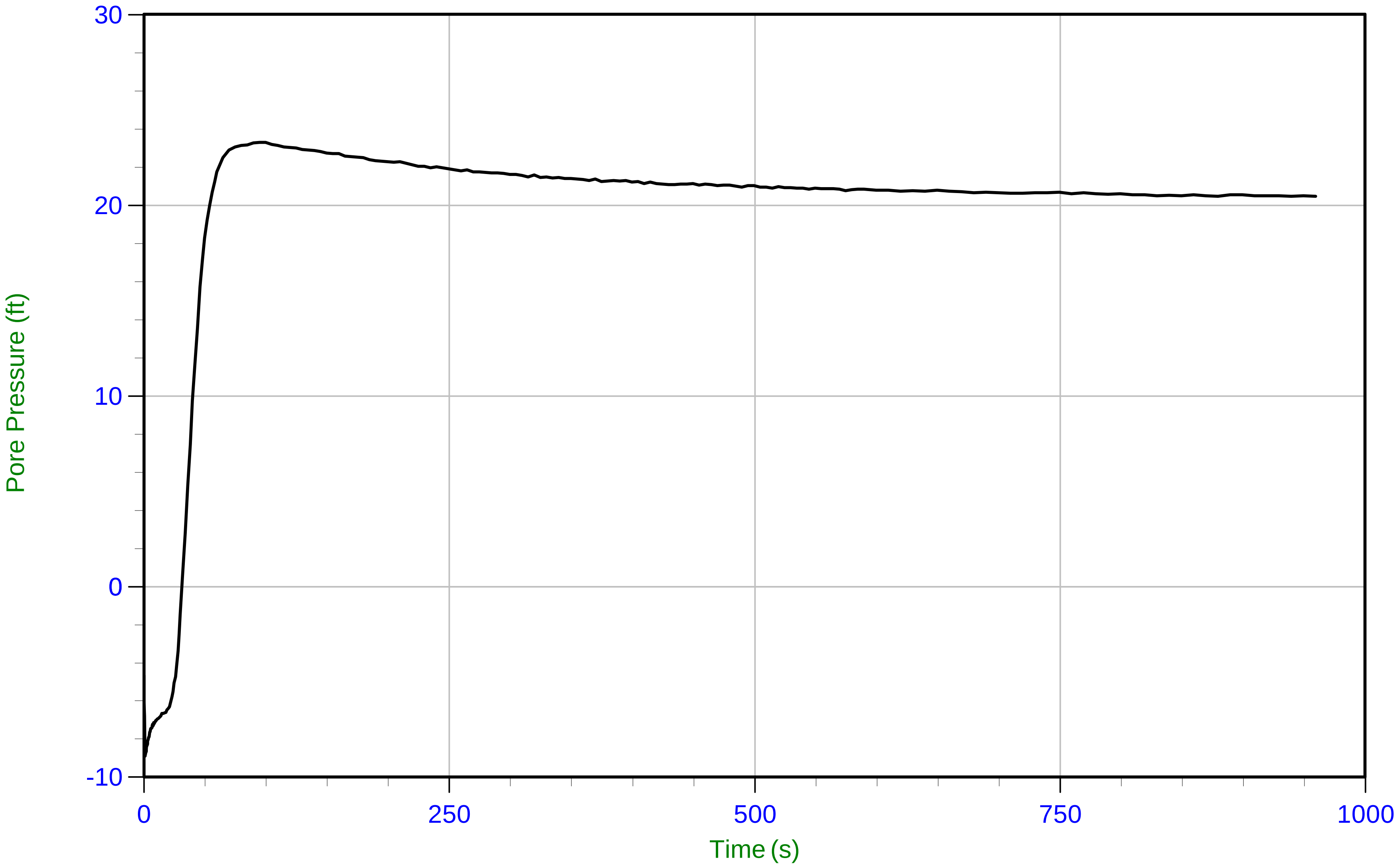
WT: 0.4 m / 1.4 ft
Ueq: 14.4 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 09:27
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-026
Cone: 1149:T1500F15U35 Area=15 cm²

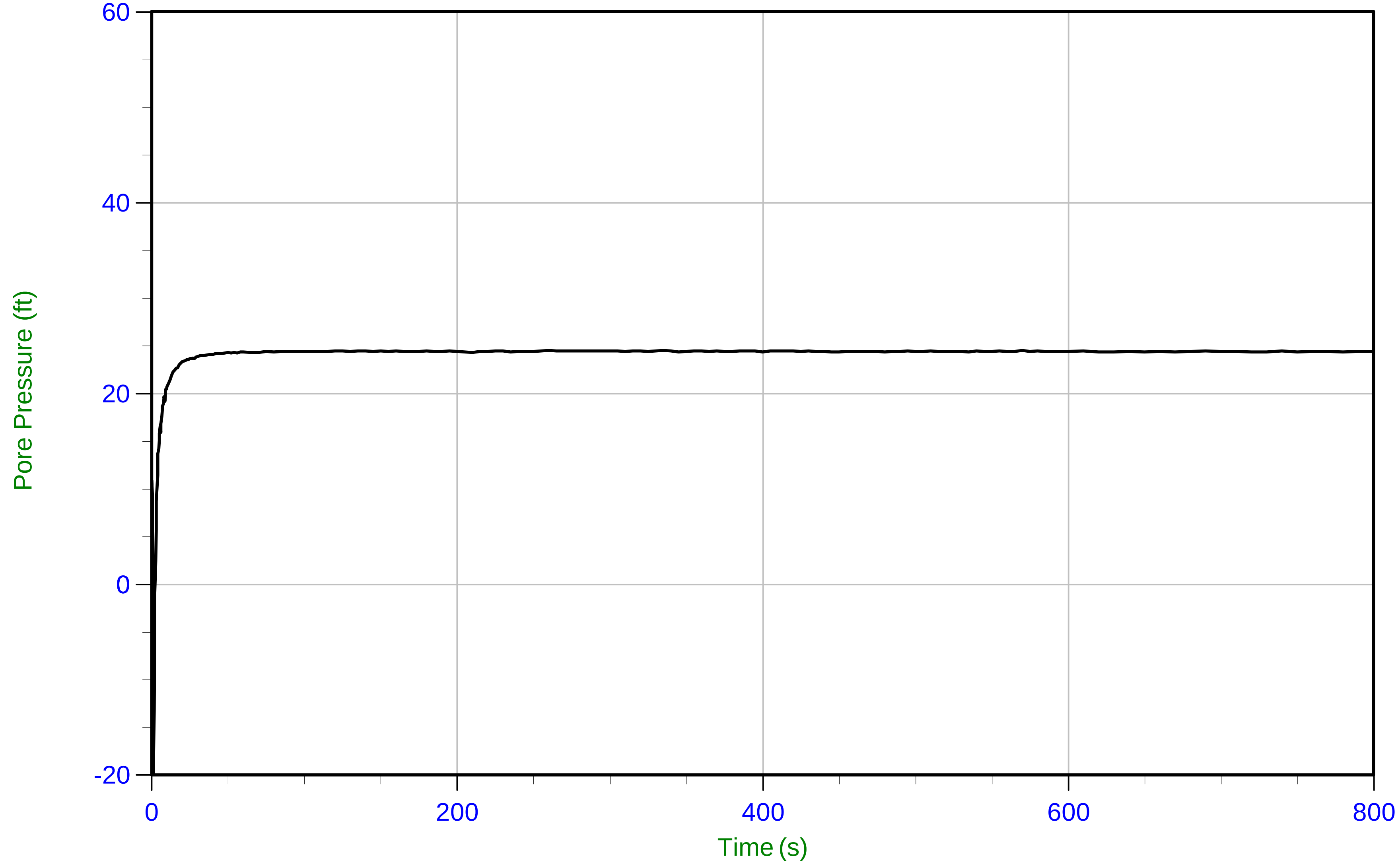


Trace Summary:

Filename: 25-53-29335_CP026.PPF2
Depth: 5.350 m / 17.552 ft
Duration: 960.0 s

u Min: -8.9 ft
u Max: 23.3 ft
u Final: 20.5 ft

CONETEC Langan Engineering		
	Job No: 25-53-29335	Sounding: SCPT25-028
	Date: 2025-04-09 11:32	Cone: 1149:T1500F15U35 Area=15 cm²
	Site: Micron New York Manufacturing Facility - Clay, NY	



Trace Summary:

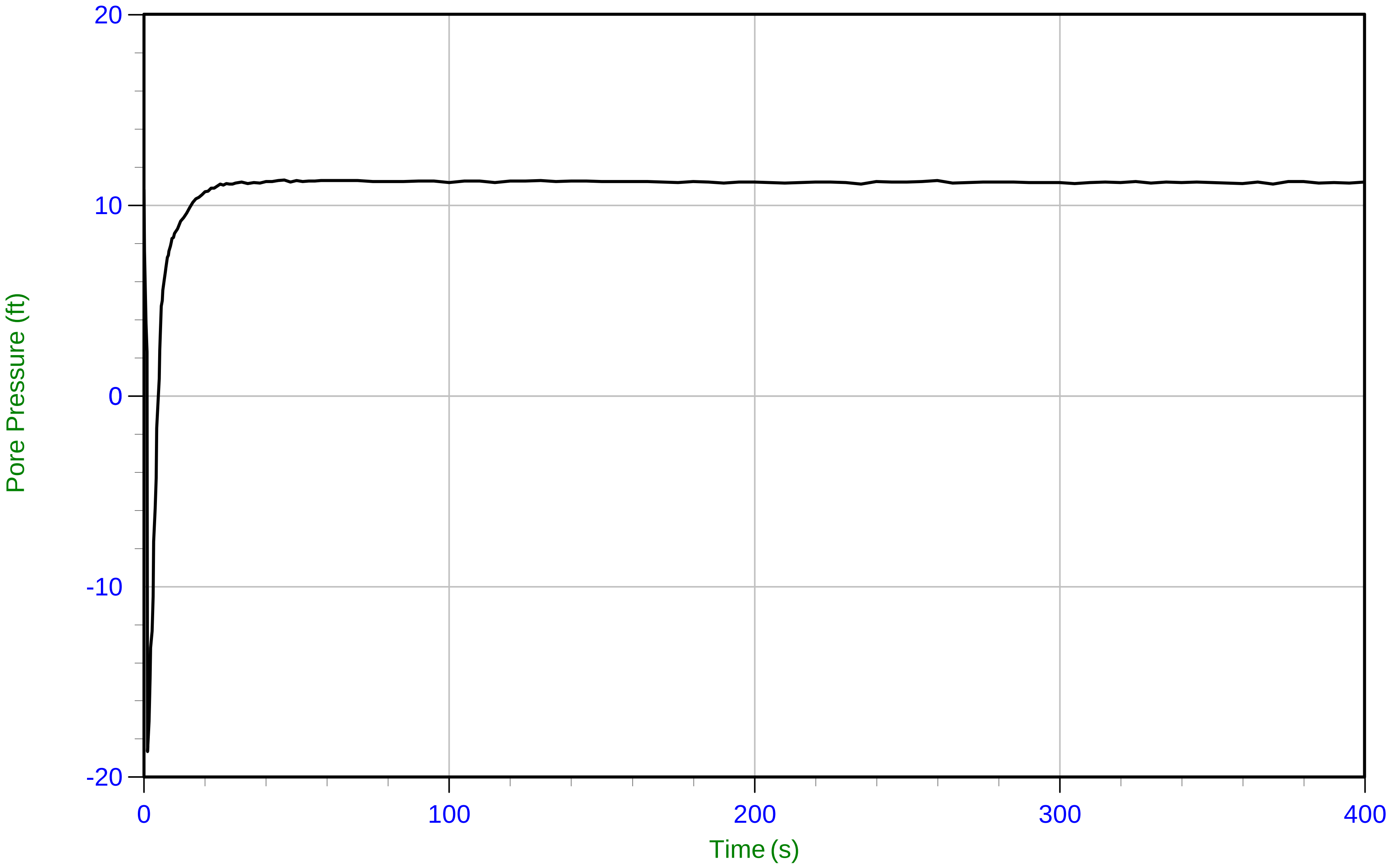
Filename: 25-53-29335_SP028.PPF2
Depth: 6.850 m / 22.473 ft
Duration: 800.0 s

u Min: -24.2 ft
u Max: 24.5 ft
u Final: 24.4 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 08:42
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-030
Cone: 1149:T1500F15U35 Area=15 cm²

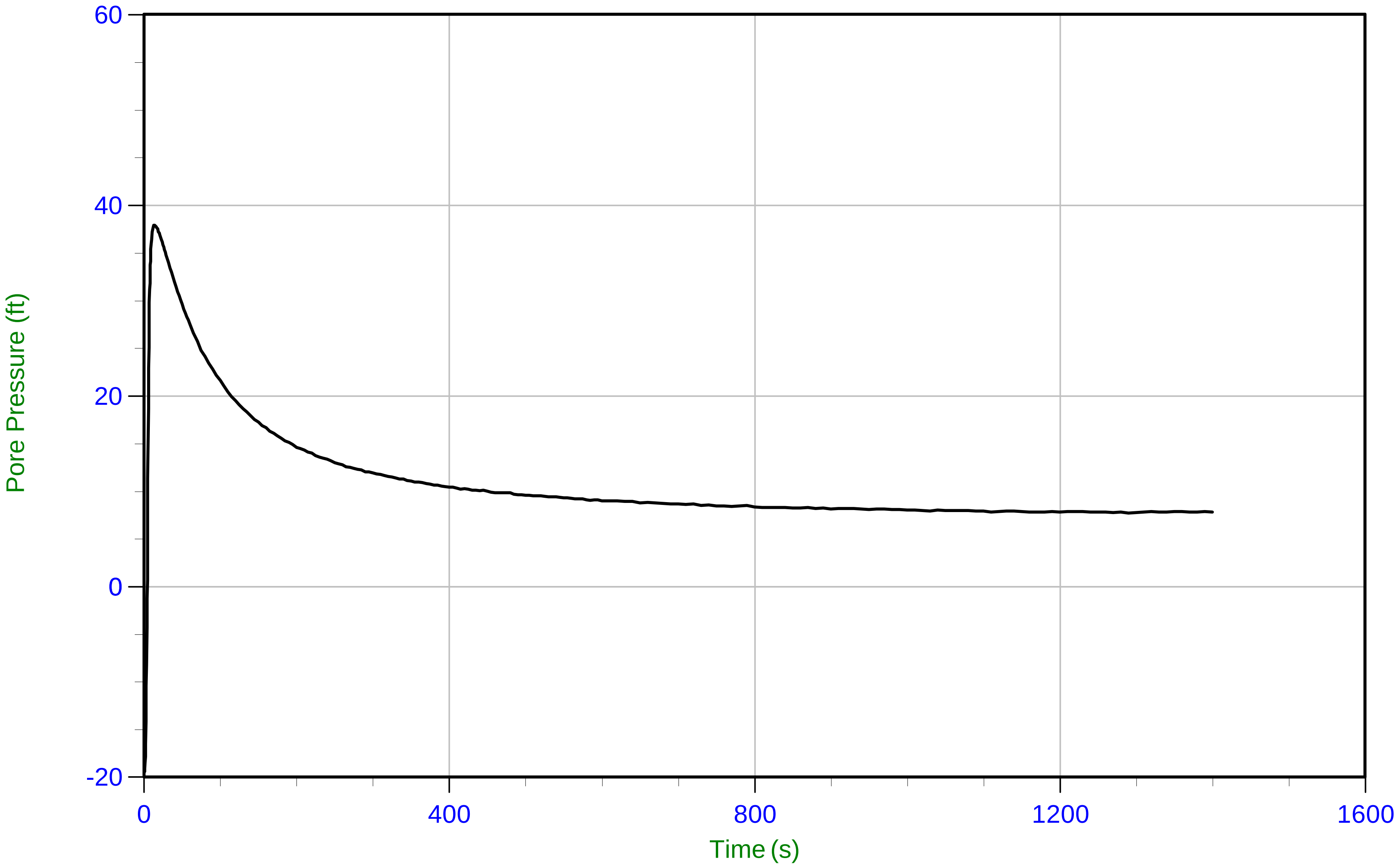


Trace Summary:

Filename: 25-53-29335_CP030.PPF2	u Min: -18.7 ft	WT: 0.0 m / 0.2 ft
Depth: 3.450 m / 11.319 ft	u Max: 11.3 ft	Ueq: 11.2 ft
Duration: 400.0 s	u Final: 11.2 ft	

ConeTec

Langan Engineering	Job No: 25-53-29335	Sounding: SCPT25-032
	Date: 2025-04-09 13:04	Cone: 1149:T1500F15U35 Area=15 cm²
	Site: Micron New York Manufacturing Facility - Clay, NY	

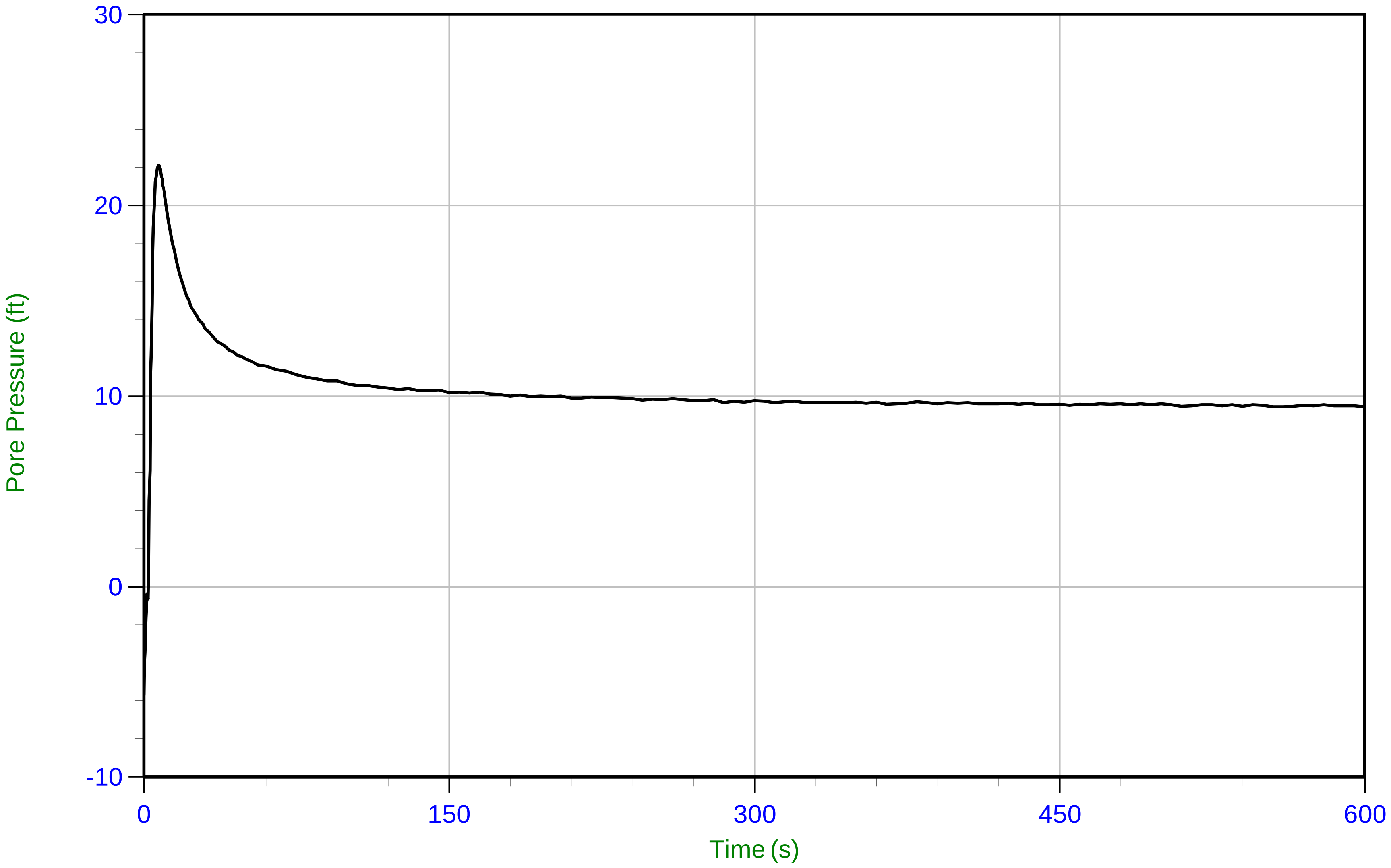


Trace Summary:

Filename: 25-53-29335_SP032.PPF2
Depth: 2.375 m / 7.792 ft
Duration: 1400.0 s

u Min: -19.4 ft
u Max: 37.9 ft
u Final: 7.8 ft

WT: 0.0 m / 0.0 ft
Ueq: 7.8 ft



Trace Summary:

Filename: 25-53-29335_CP033.PPF2
Depth: 2.900 m / 9.514 ft
Duration: 600.0 s

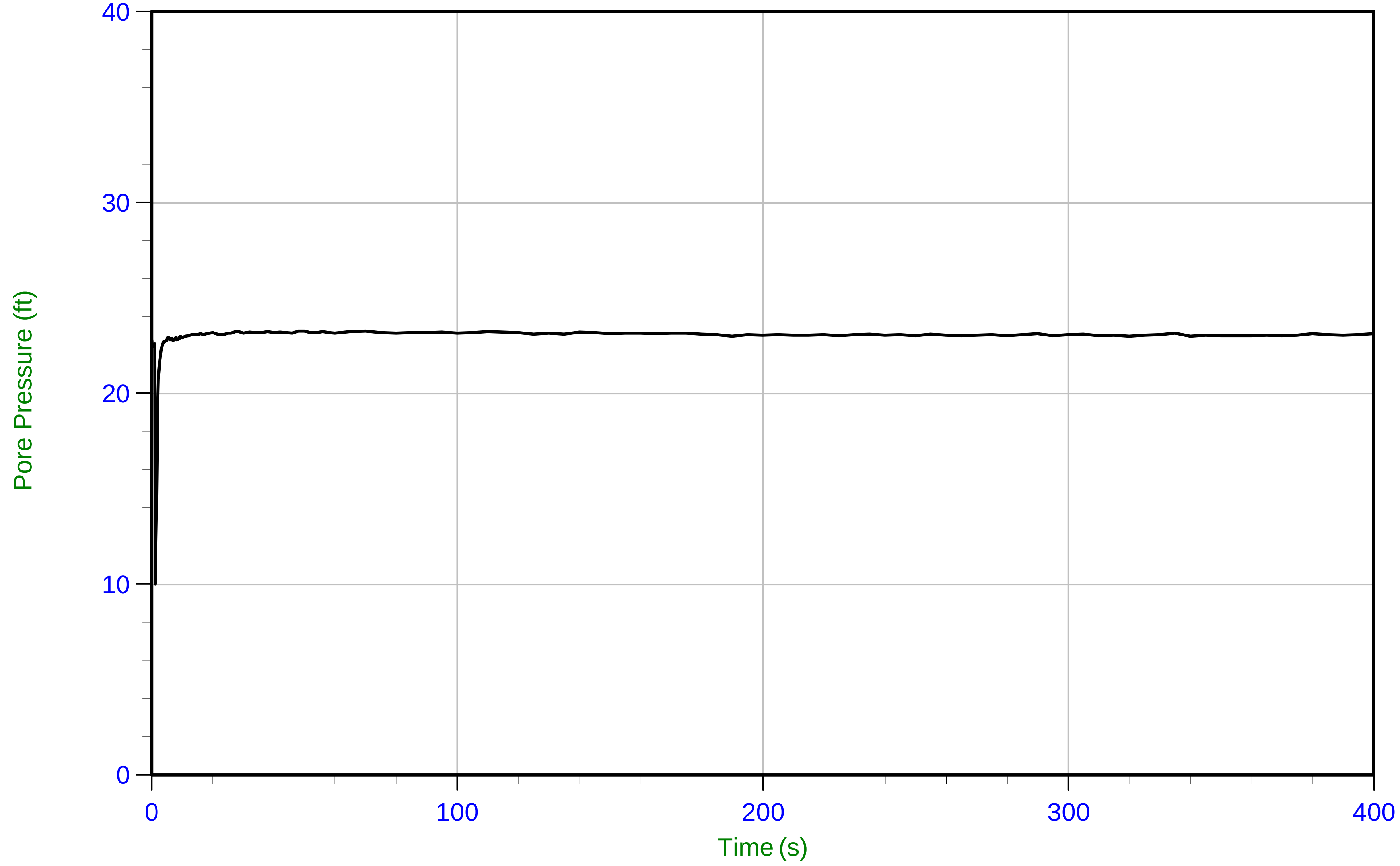
u Min: -5.7 ft
u Max: 22.1 ft
u Final: 9.4 ft

WT: 0.0 m / 0.1 ft
Ueq: 9.4 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 13:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-034
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP034.PPF2
Depth: 7.075 m / 23.212 ft
Duration: 400.0 s

u Min: 10.0 ft
u Max: 23.3 ft
u Final: 23.1 ft

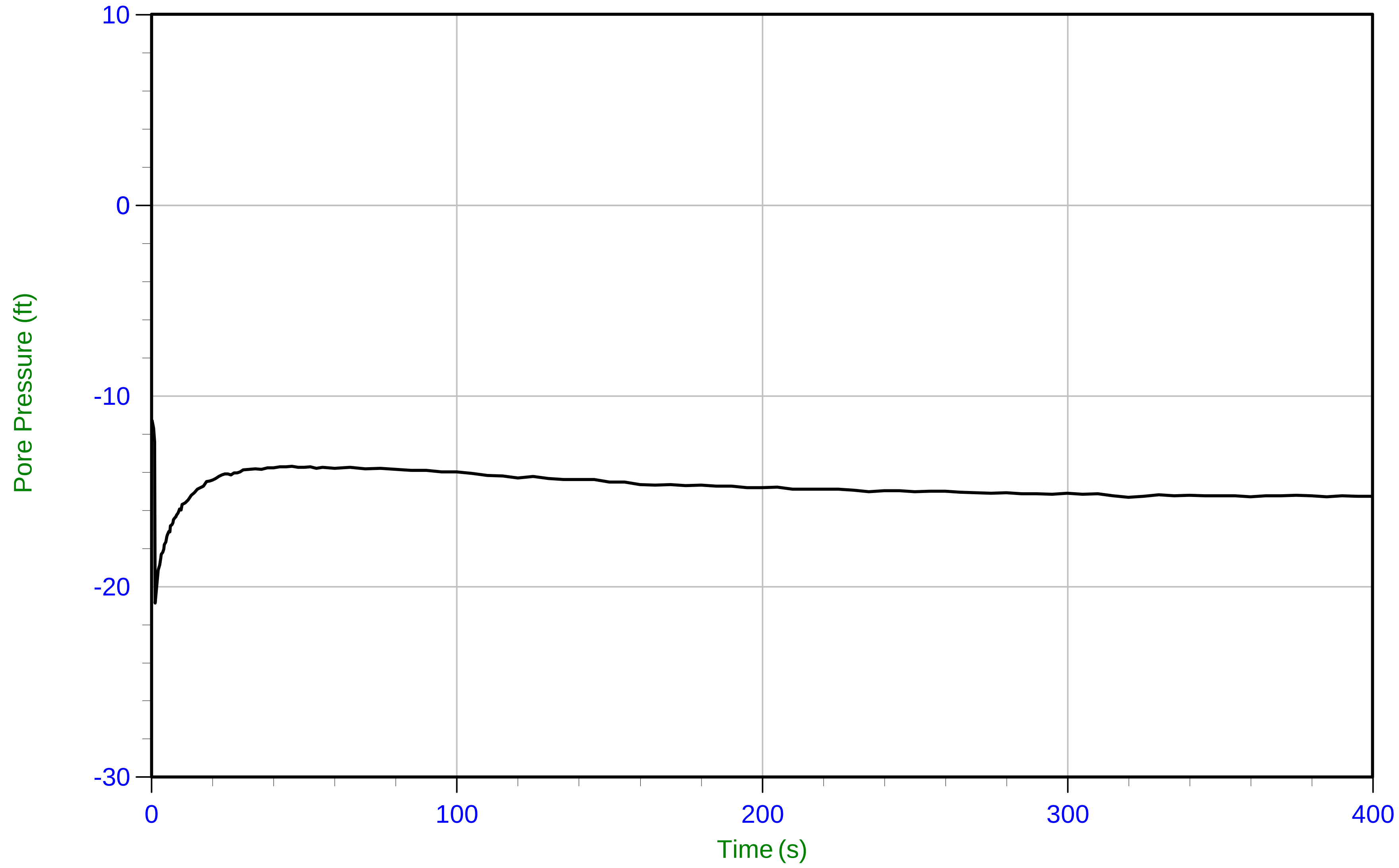
WT: 0.0 m / 0.2 ft
Ueq: 23.1 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 09:37
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-035
Cone: 1149:T1500F15U35 Area=15 cm²

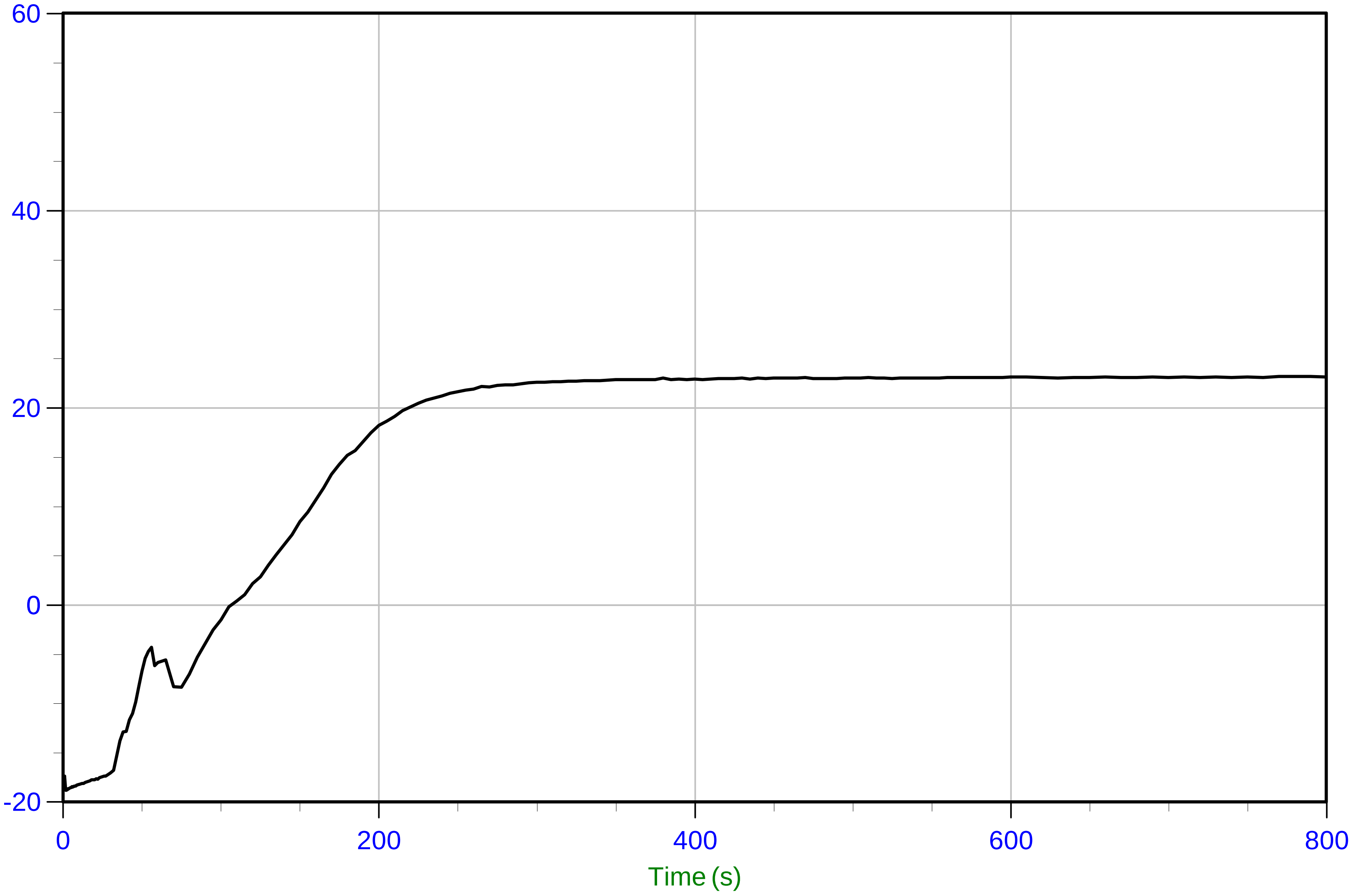


Trace Summary:

Filename: 25-53-29335_CP035.PPF2
Depth: 6.450 m / 21.161 ft
Duration: 400.0 s

u Min: -20.9 ft
u Max: -11.3 ft
u Final: -15.3 ft

Langan Engineering	Job No: 25-53-29335	Sounding: CPT25-036
	Date: 2025-04-10 14:48	Cone: 1149:T1500F15U35 Area=15 cm²
	Site: Micron New York Manufacturing Facility - Clay, NY	

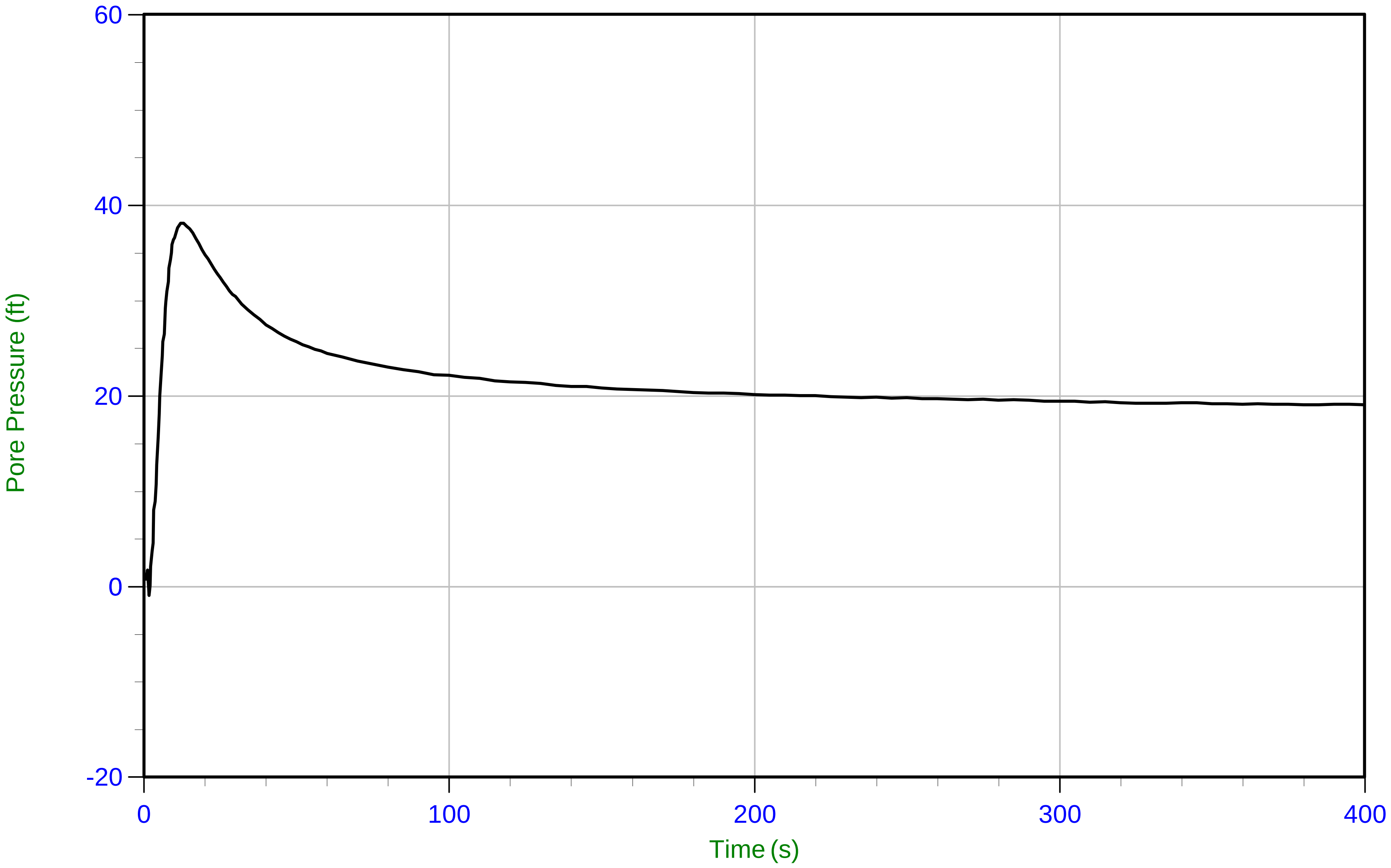


Trace Summary:

Filename: 25-53-29335_CP036.PPF2
Depth: 7.250 m / 23.786 ft
Duration: 800.0 s

u Min: -18.8 ft
u Max: 23.2 ft
u Final: 23.1 ft

WT: 0.2 m / 0.7 ft
Ueq: 23.1 ft



Trace Summary:

Filename: 25-53-29335_SP039.PPF2
Depth: 5.075 m / 16.650 ft
Duration: 400.0 s

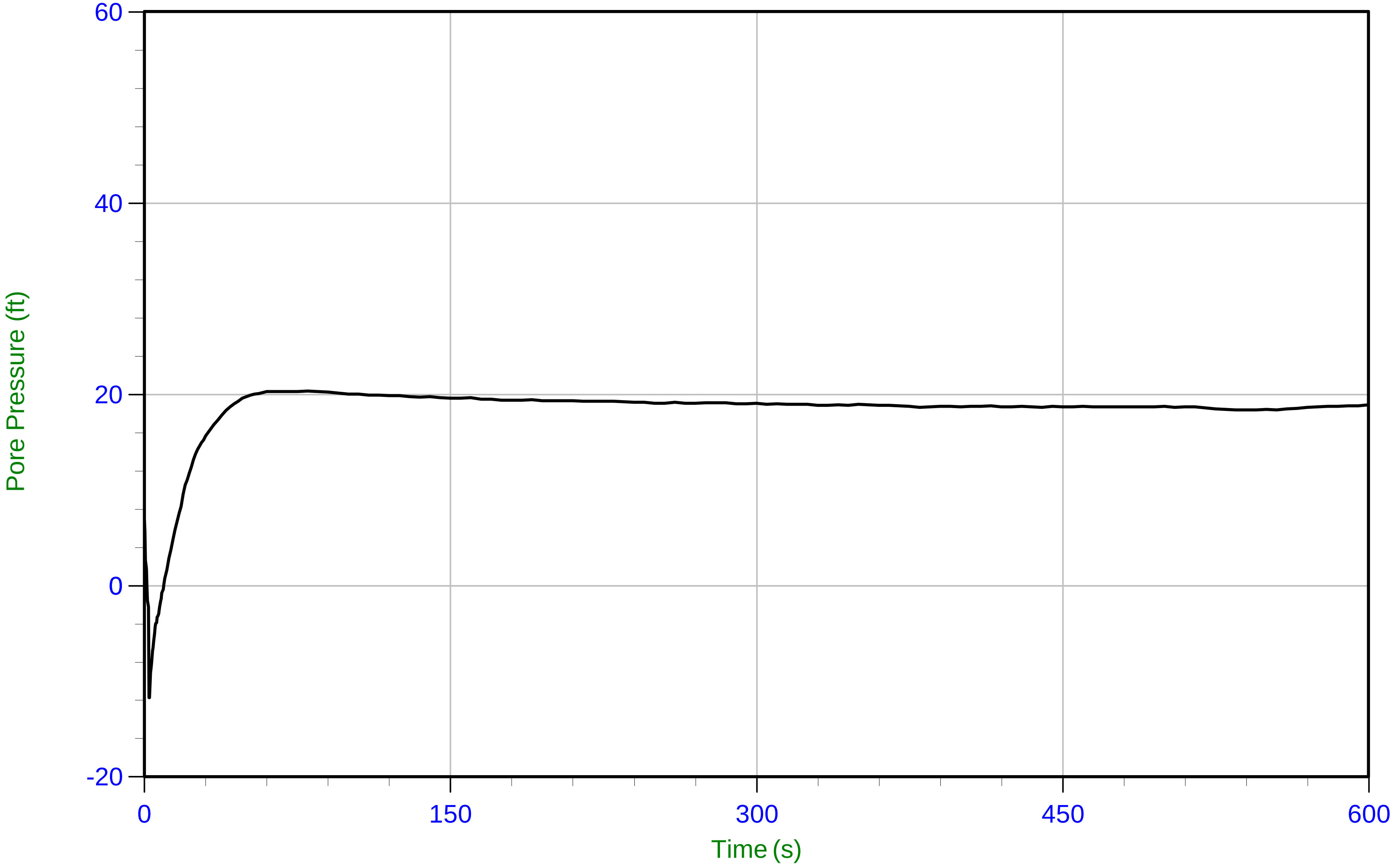
u Min: -0.9 ft
u Max: 38.1 ft
u Final: 19.0 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-11 13:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-039
Cone: 1149:T1500F15U35 Area=15 cm²

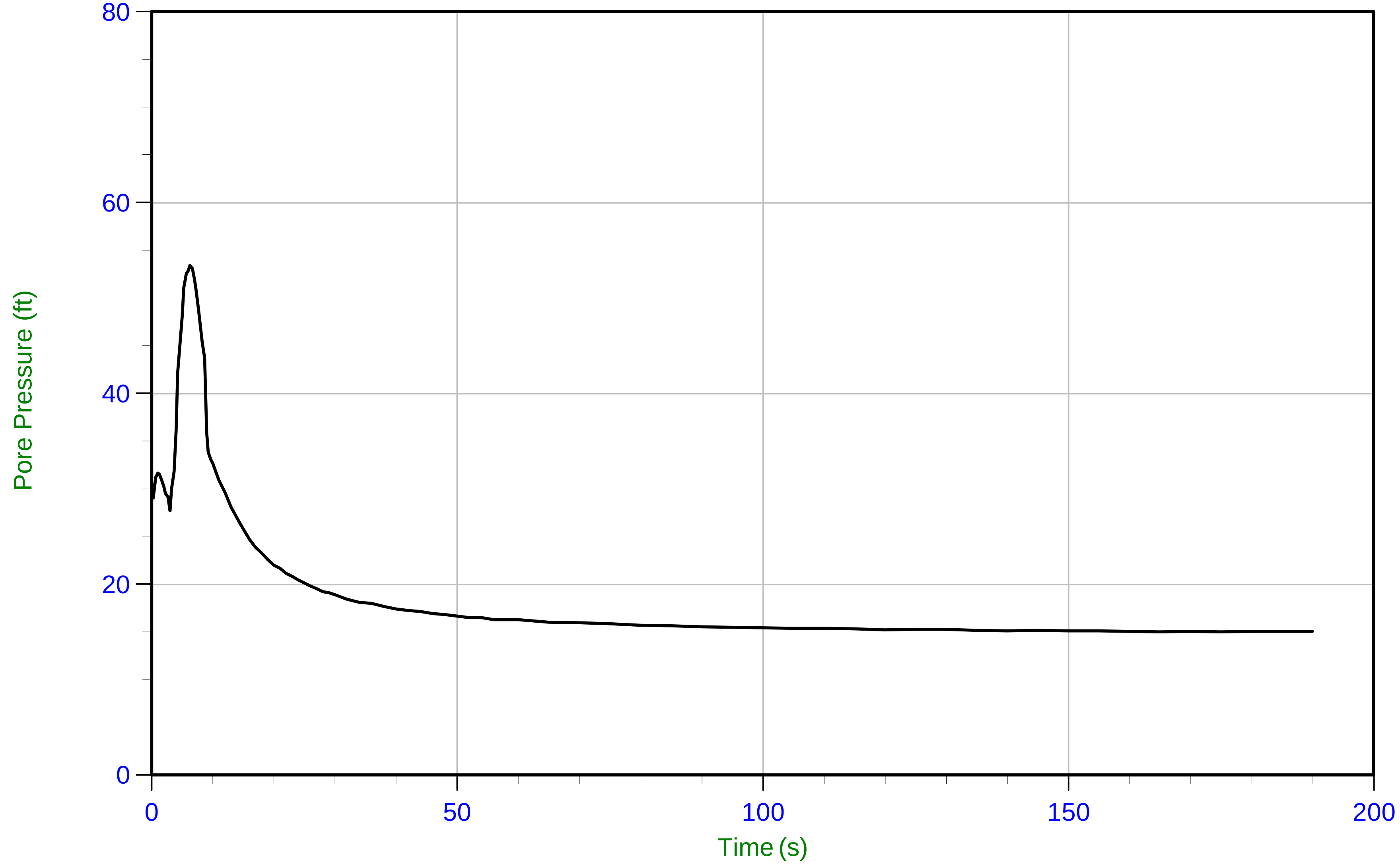


Trace Summary:

Filename: 25-53-29335_SP039.PPF2
Depth: 5.325 m / 17.470 ft
Duration: 600.0 s

u Min: -11.7 ft
u Max: 20.3 ft
u Final: 18.9 ft

Langan Engineering	Job No: 25-53-29335 Date: 2025-04-14 08:19 Site: Micron New York Manufacturing Facility - Clay, NY	Sounding: SCPT25-041 Cone: 1149:T1500F15U35 Area=15 cm²



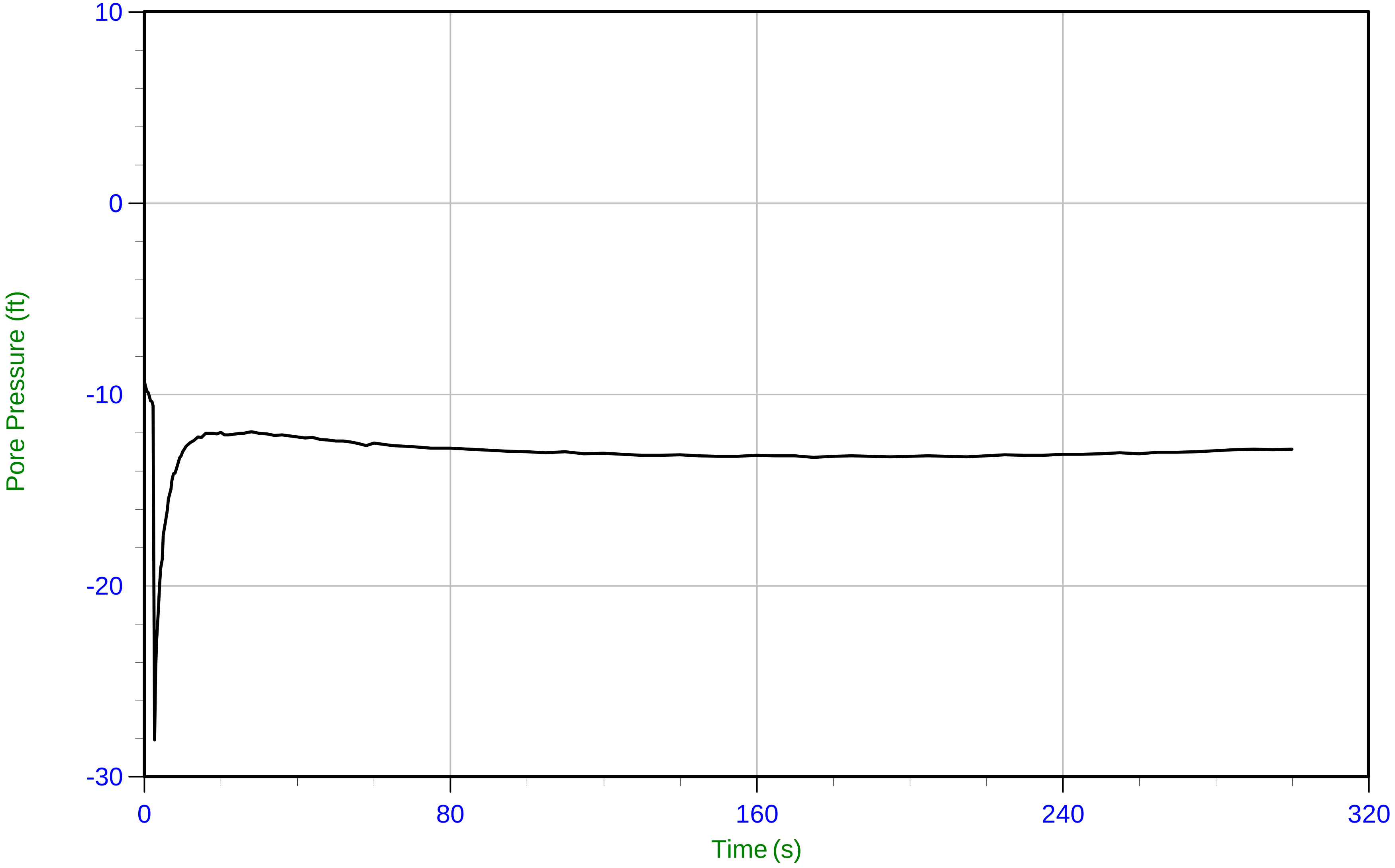
Trace Summary:

Filename: 25-53-29335_SP041.PPF2
Depth: 4.475 m / 14.682 ft
Duration: 190.0 s

u Min: 15.0 ft
u Max: 53.4 ft
u Final: 15.1 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 09:44
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-043
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

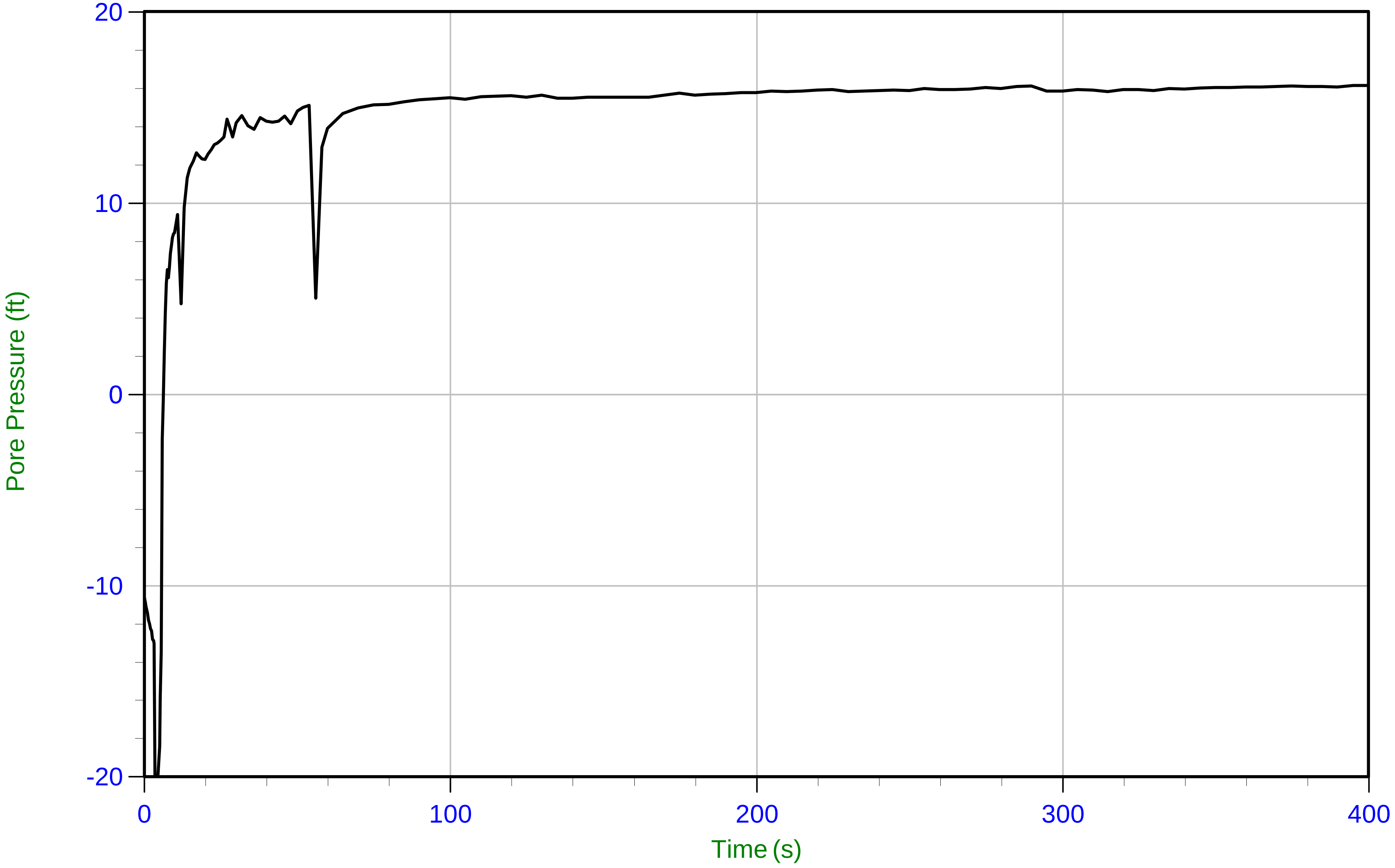
Filename: 25-53-29335_CP043.PPF2
Depth: 3.500 m / 11.483 ft
Duration: 300.0 s

u Min: -28.1 ft
u Max: -9.3 ft
u Final: -12.9 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 10:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-046
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP046.PPF2
Depth: 5.250 m / 17.224 ft
Duration: 400.0 s

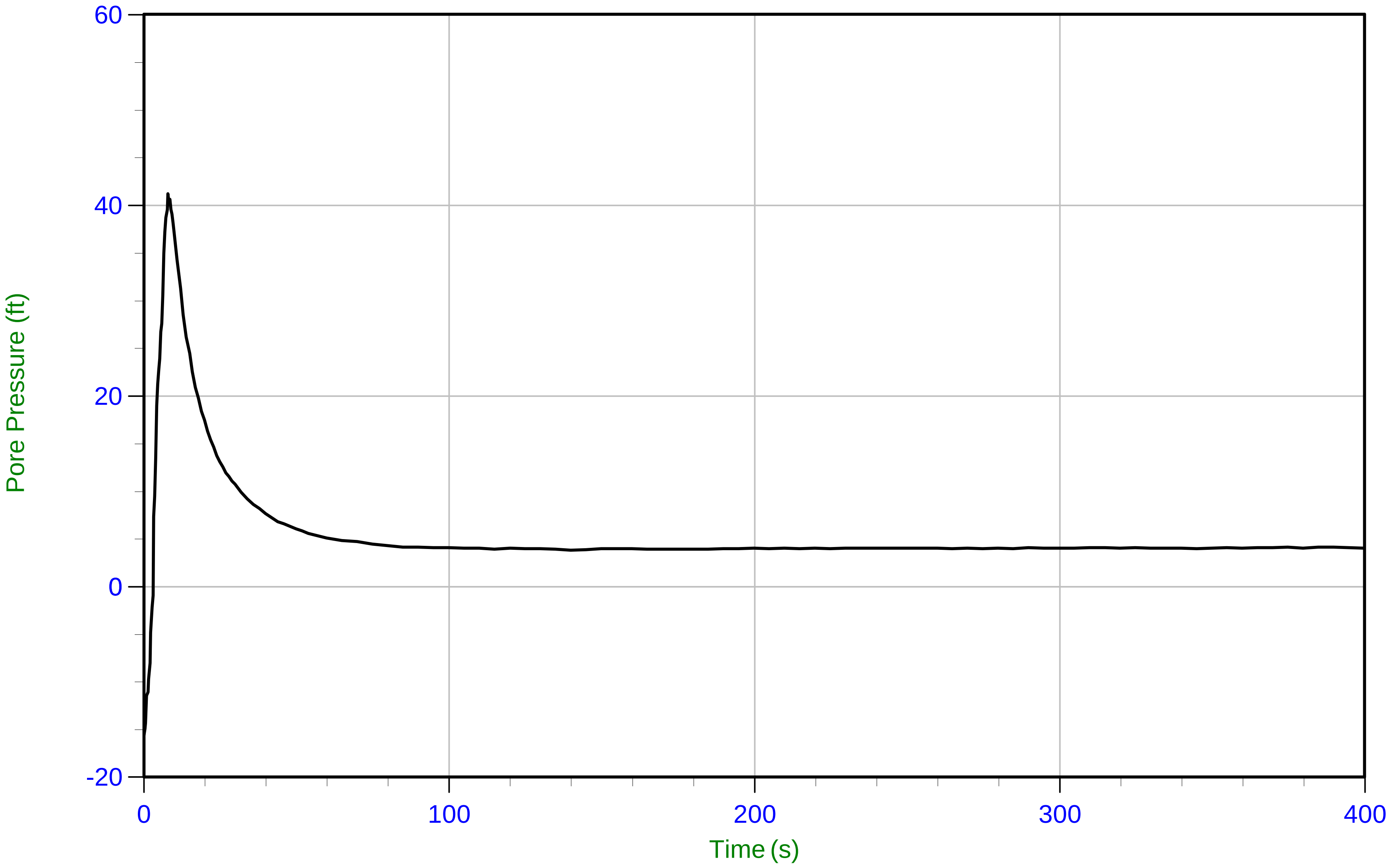
u Min: -21.2 ft
u Max: 16.2 ft
u Final: 16.2 ft

WT: 0.3 m / 1.0 ft
Ueq: 16.2 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-15 10:29
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-049
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP049.PPF2
Depth: 1.300 m / 4.265 ft
Duration: 400.0 s

u Min: -15.6 ft
u Max: 41.2 ft
u Final: 4.0 ft

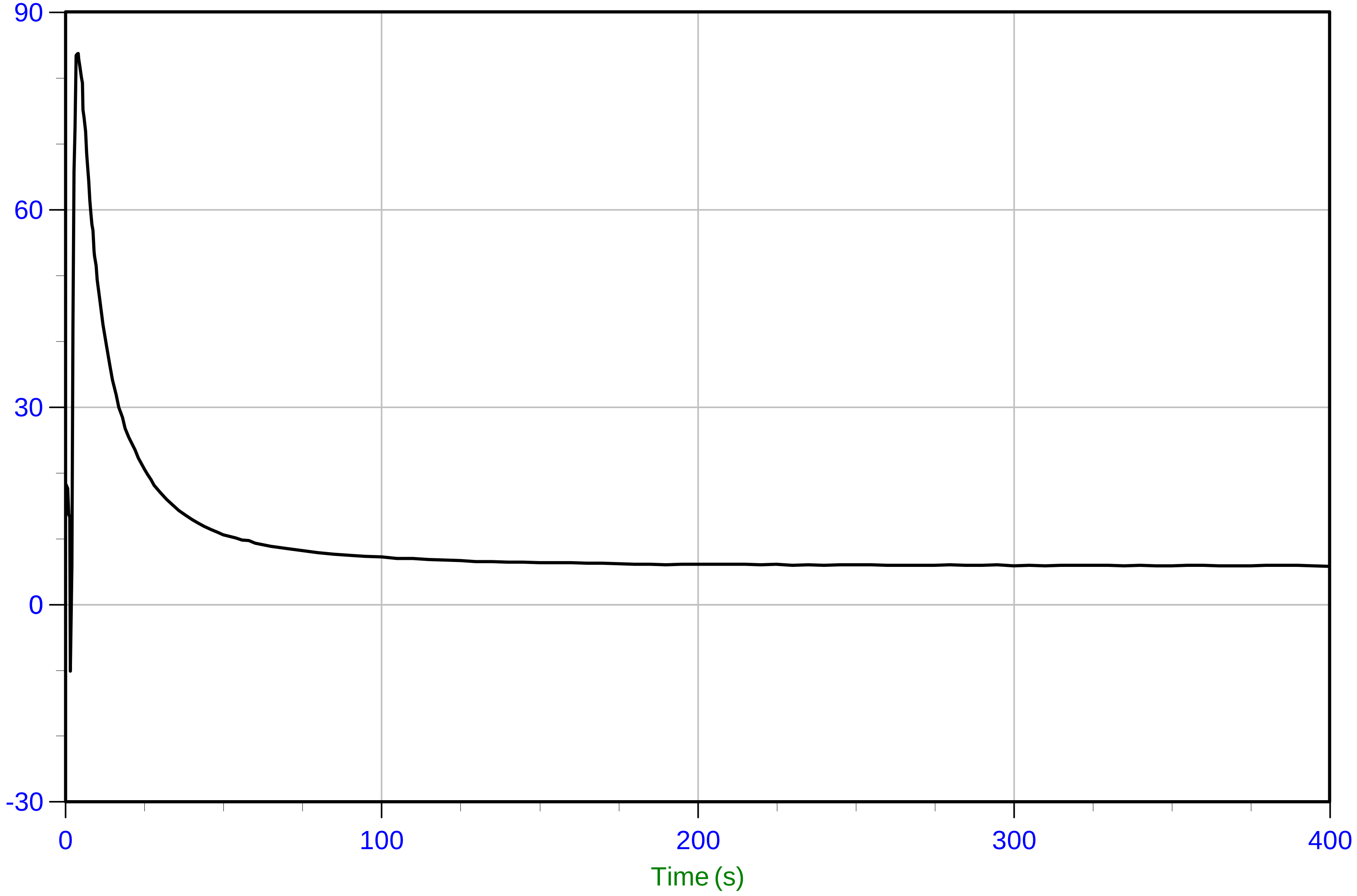
WT: 0.1 m / 0.3 ft
Ueq: 4.0 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 13:19
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-050
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP050.PPF2
Depth: 1.975 m / 6.480 ft
Duration: 400.0 s

u Min: -10.1 ft
u Max: 83.7 ft
u Final: 5.8 ft

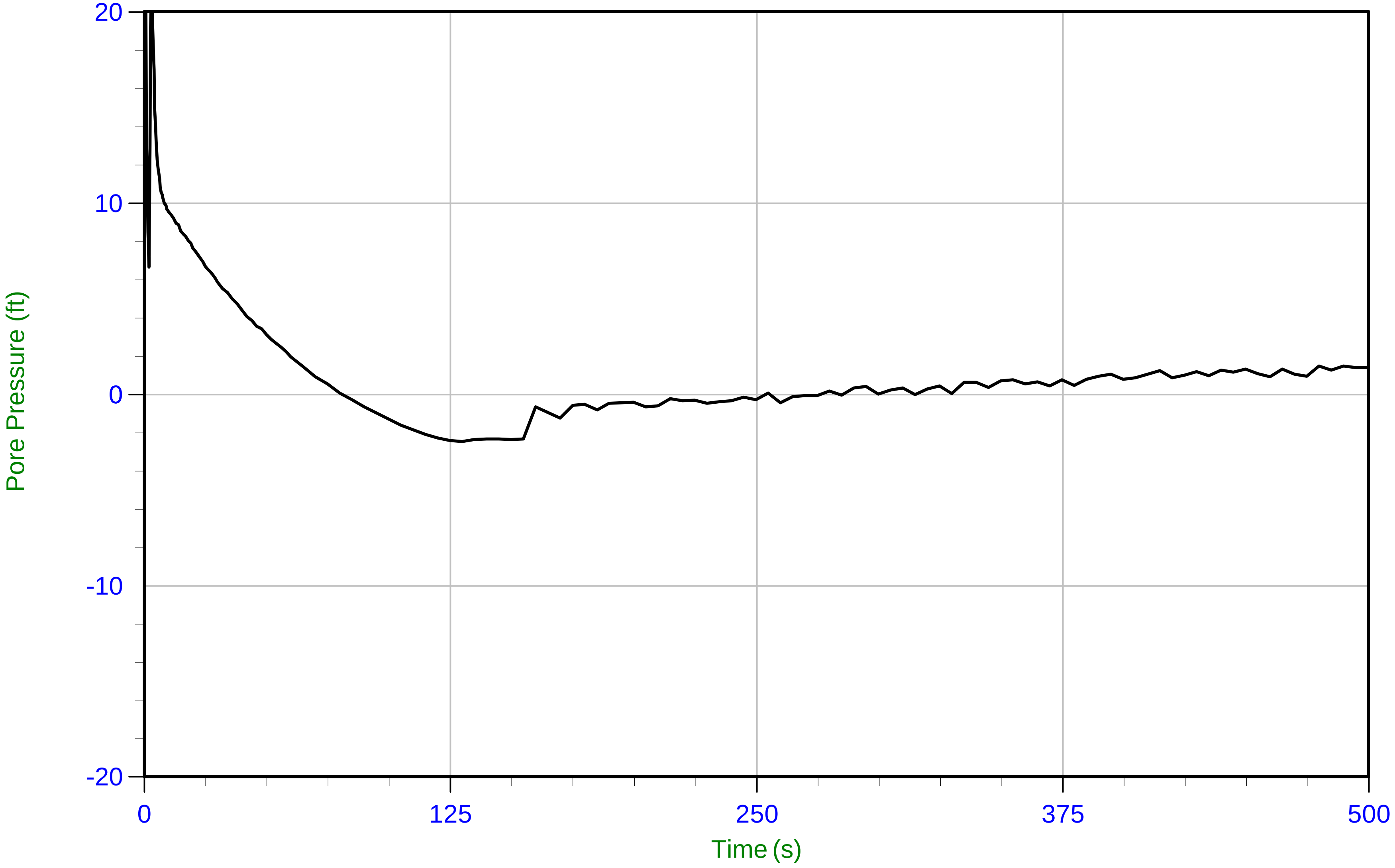
WT: 0.2 m / 0.6 ft
Ueq: 5.9 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-14 14:18
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: CPT25-055B
Cone: 1149:T1500F15U35 Area=15 cm²



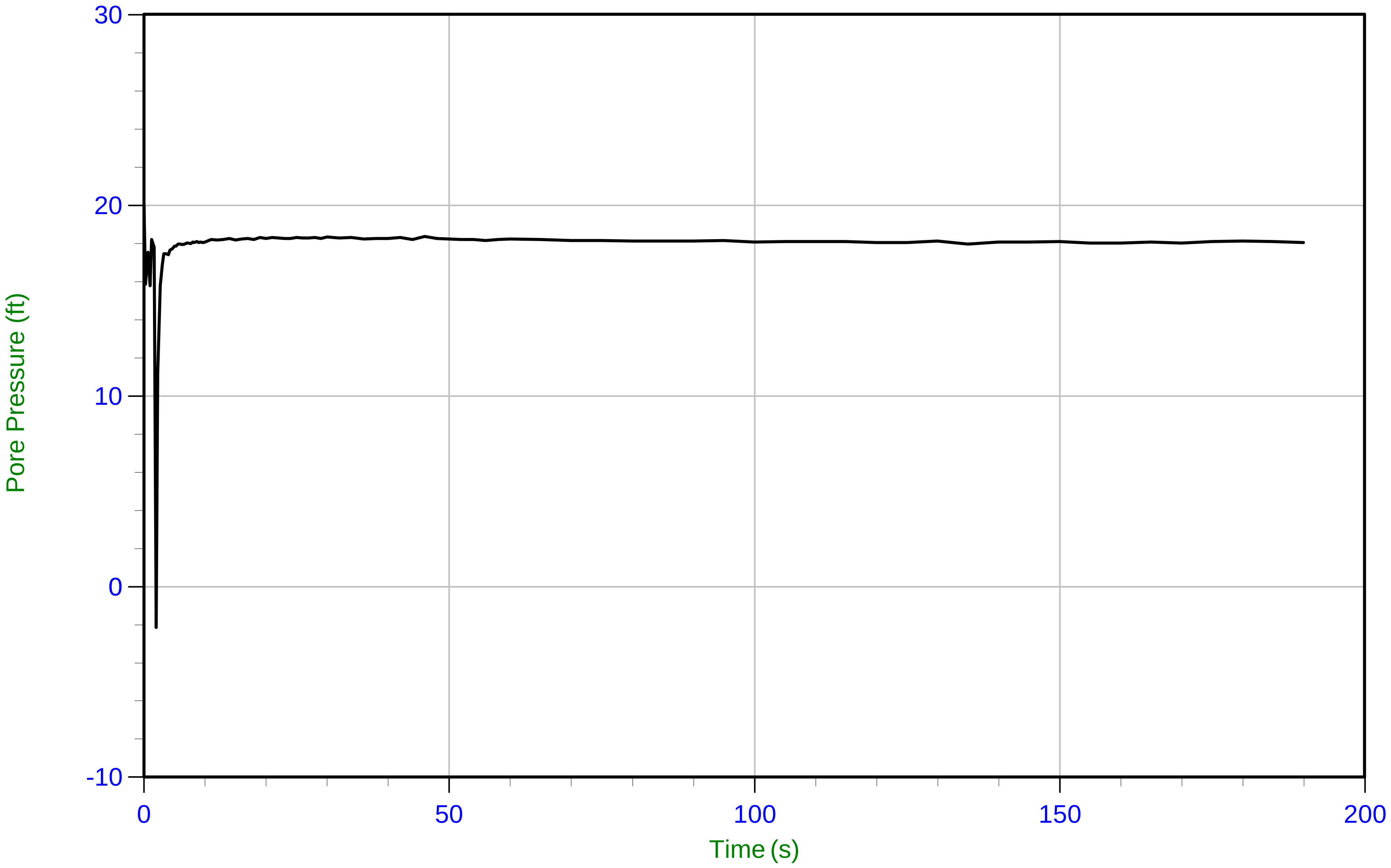
Trace Summary:	Filename: 25-53-29335_CP055B.PPF2	u Min: -2.5 ft	WT: 1.2 m / 3.9 ft
	Depth: 1.600 m / 5.249 ft	u Max: 42.3 ft	Ueq: 1.4 ft
	Duration: 500.0 s	u Final: 1.4 ft	

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-08 11:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-056
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

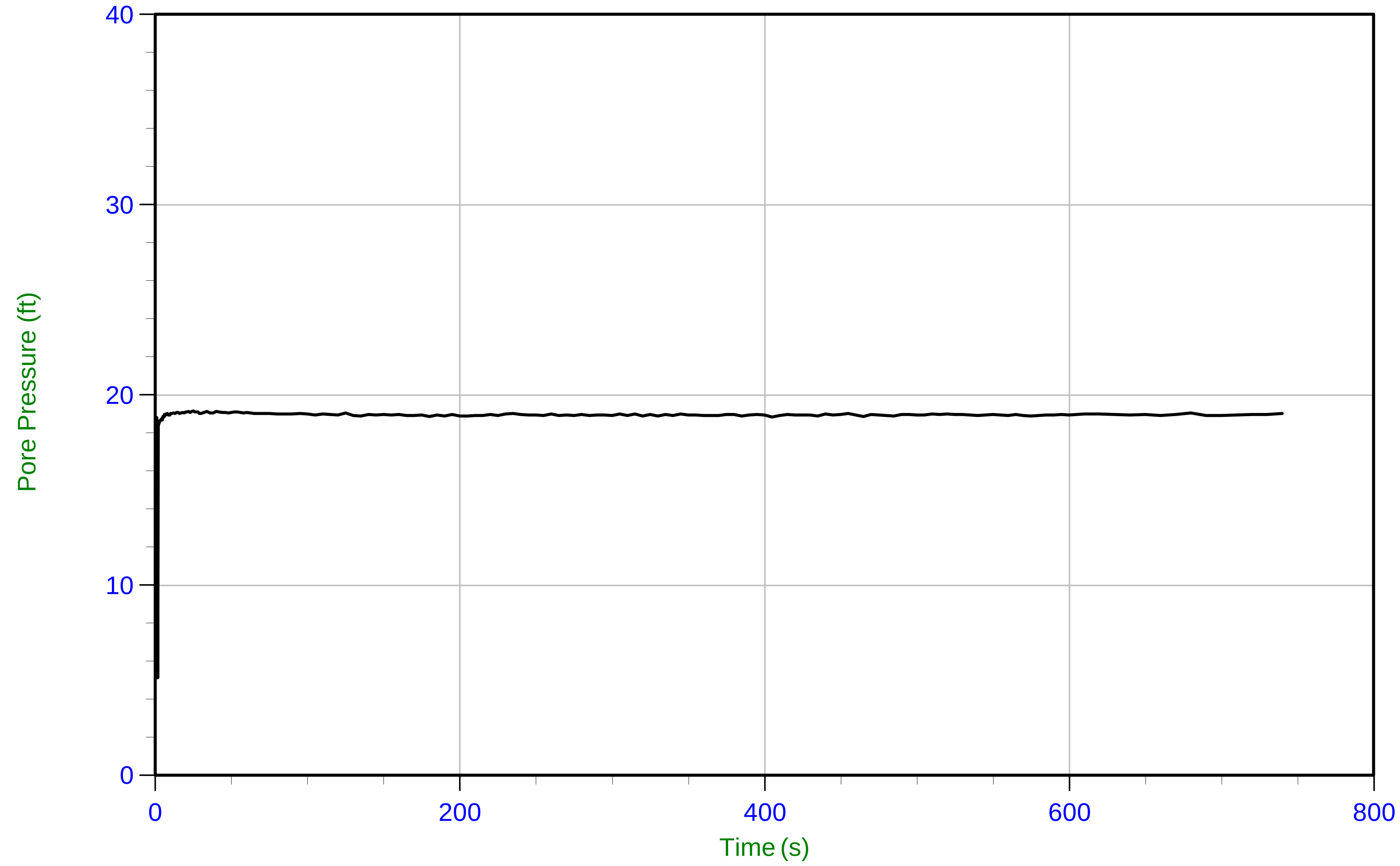
Filename: 25-53-29335_SP056.PPF2
Depth: 6.375 m / 20.915 ft
Duration: 190.0 s

u Min: -2.1 ft
u Max: 20.0 ft
u Final: 18.0 ft

WT: 0.9 m / 2.8 ft
Ueq: 18.1 ft

CONETEC

Langan Engineering	Job No: 25-53-29335	Sounding: SCPT25-057
	Date: 2025-04-10 10:15	Cone: 1075:T1000F10U35 Area=15 cm²
	Site: Micron New York Manufacturing Facility - Clay, NY	



Trace Summary:

Filename: 25-53-29335_SP057.PPF2
Depth: 5.550 m / 18.208 ft
Duration: 740.0 s

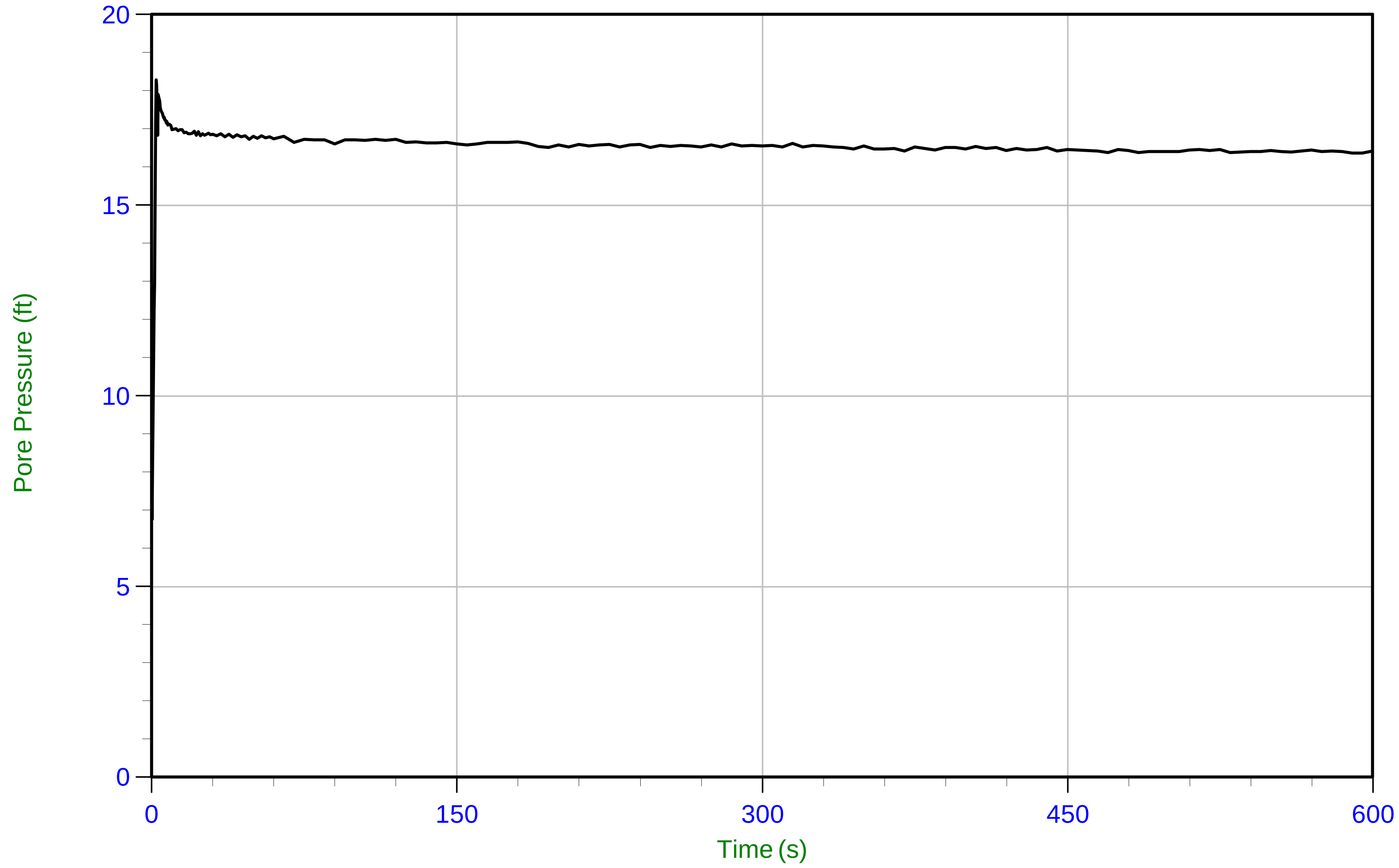
u Min: 5.1 ft
u Max: 19.2 ft
u Final: 19.0 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-10 09:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-059
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

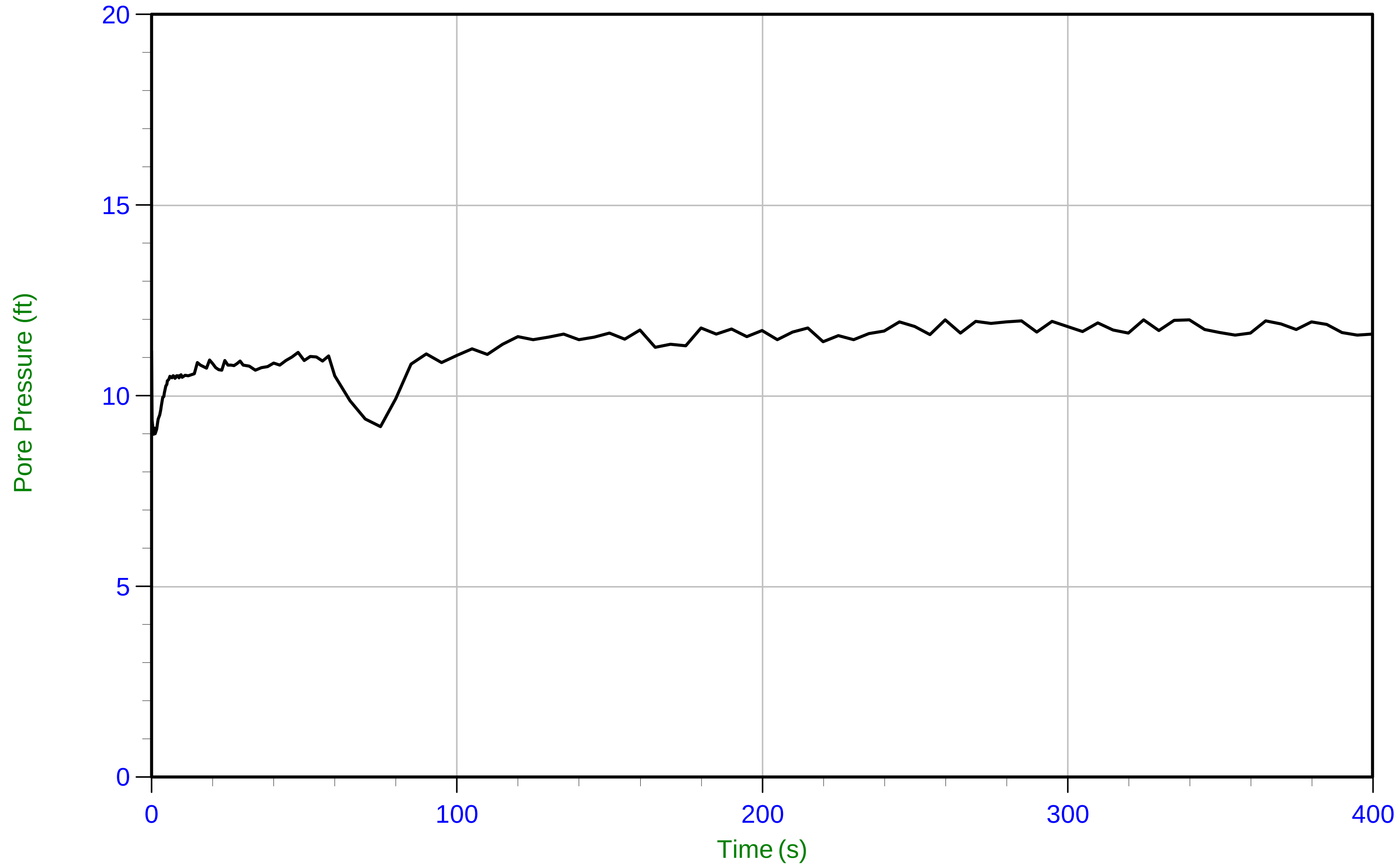
Filename: 25-53-29335_SP059.PPF2
Depth: 4.650 m / 15.256 ft
Duration: 600.0 s

u Min: 6.8 ft
u Max: 18.3 ft
u Final: 16.4 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-09 10:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-060
Cone: 1149:T1500F15U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP060.PPF2
Depth: 4.200 m / 13.779 ft
Duration: 400.0 s

u Min: 9.0 ft
u Max: 12.0 ft
u Final: 11.6 ft

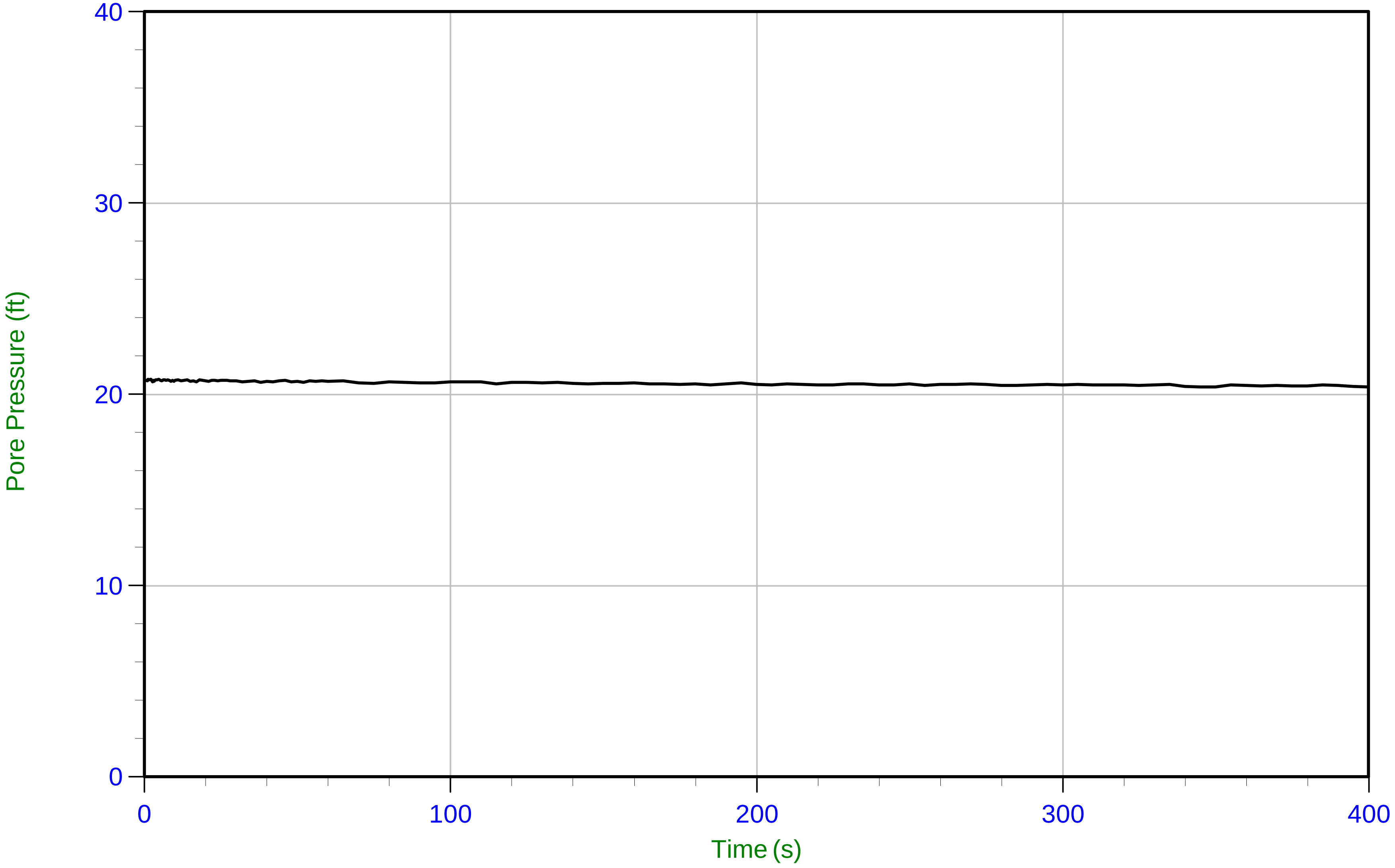
WT: 0.7 m / 2.1 ft
Ueq: 11.6 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-16 08:27
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-061
Cone: 1149:T1500F15U35 Area=15 cm²



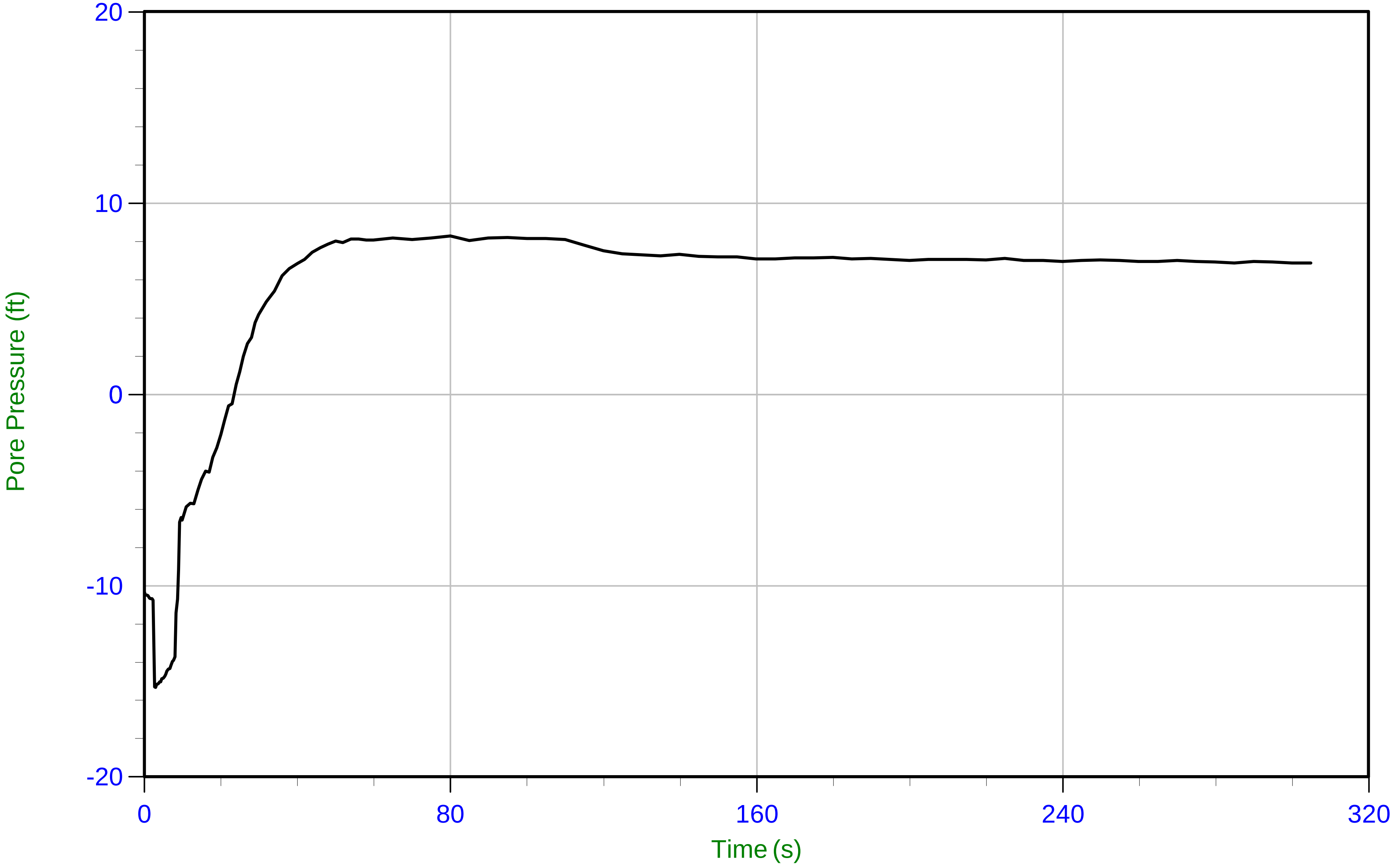
Trace Summary:

Filename: 25-53-29335_SP061.PPF2
Depth: 5.900 m / 19.357 ft
Duration: 400.0 s

u Min: 20.4 ft
u Max: 20.8 ft
u Final: 20.4 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 15:11
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: CPT25-062B
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_CP062B.PPF2
Depth: 2.350 m / 7.710 ft
Duration: 305.0 s

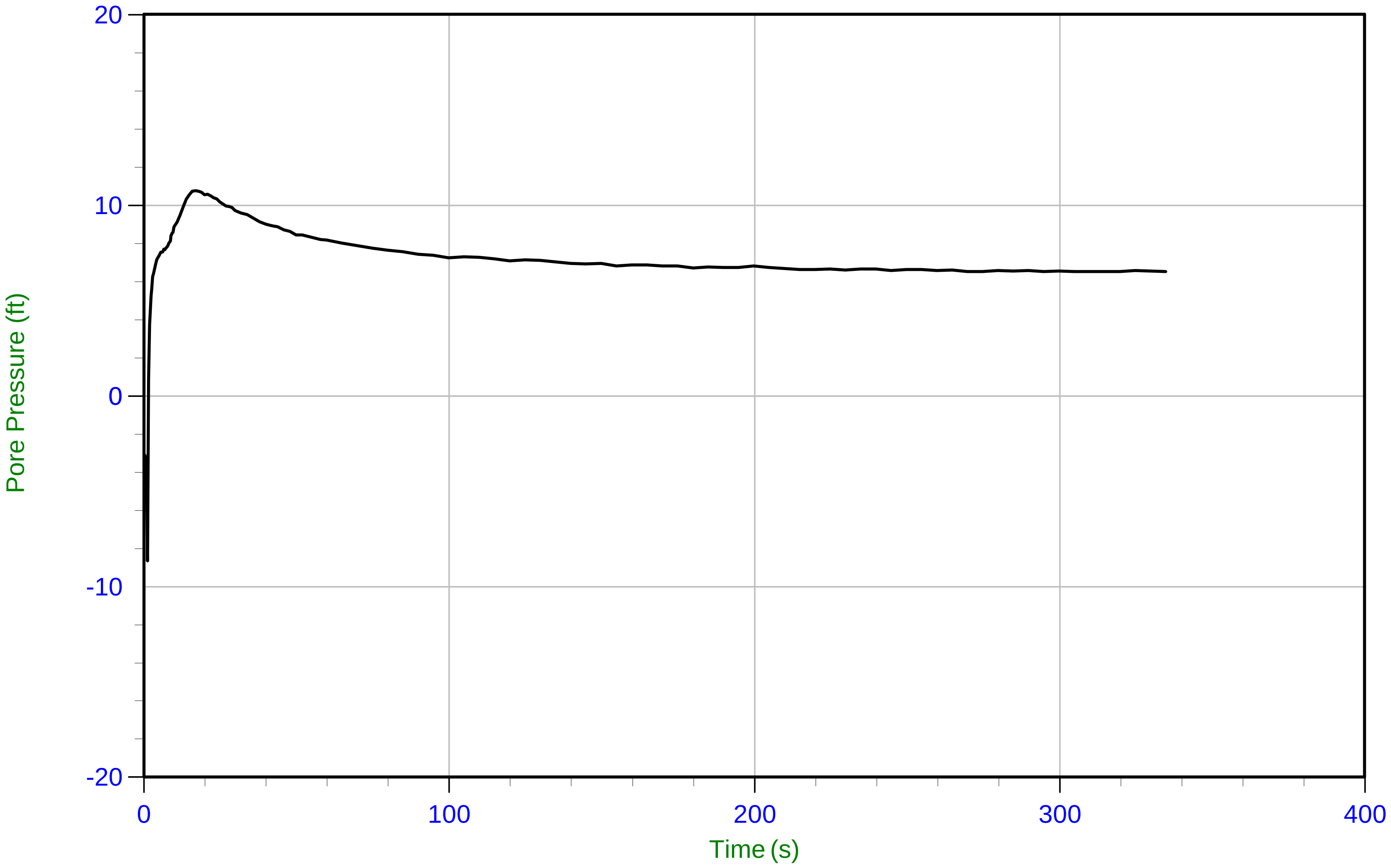
u Min: -15.3 ft
u Max: 8.3 ft
u Final: 6.9 ft

WT: 0.2 m / 0.8 ft
Ueq: 6.9 ft

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 13:13
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-063
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP063.PPF2
Depth: 2.000 m / 6.562 ft
Duration: 335.0 s

u Min: -8.7 ft
u Max: 10.8 ft
u Final: 6.5 ft

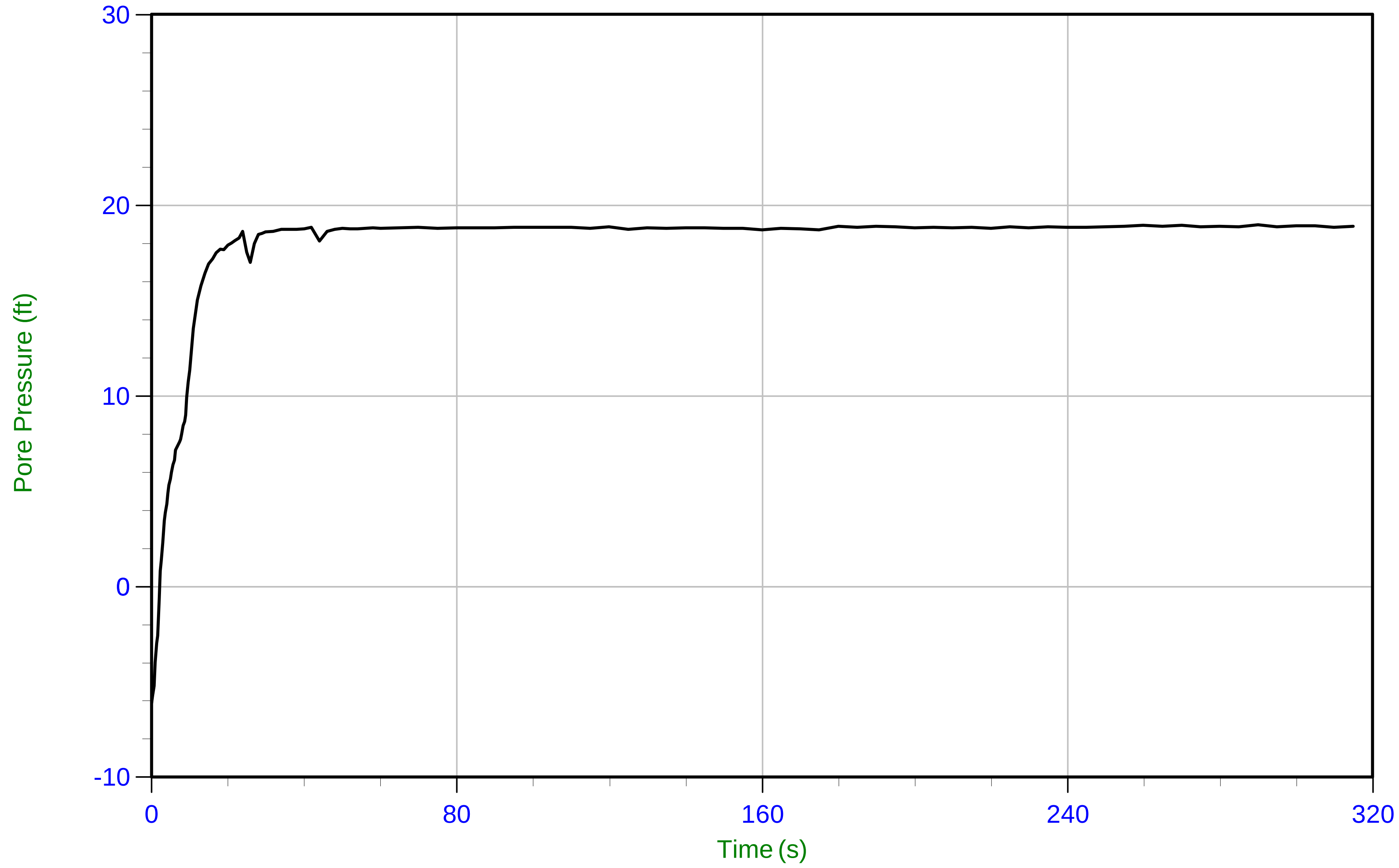
WT: 0.0 m / 0.0 ft
Ueq: 6.5 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 10:22
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-071
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP071.PPF2
Depth: 5.500 m / 18.044 ft
Duration: 315.0 s

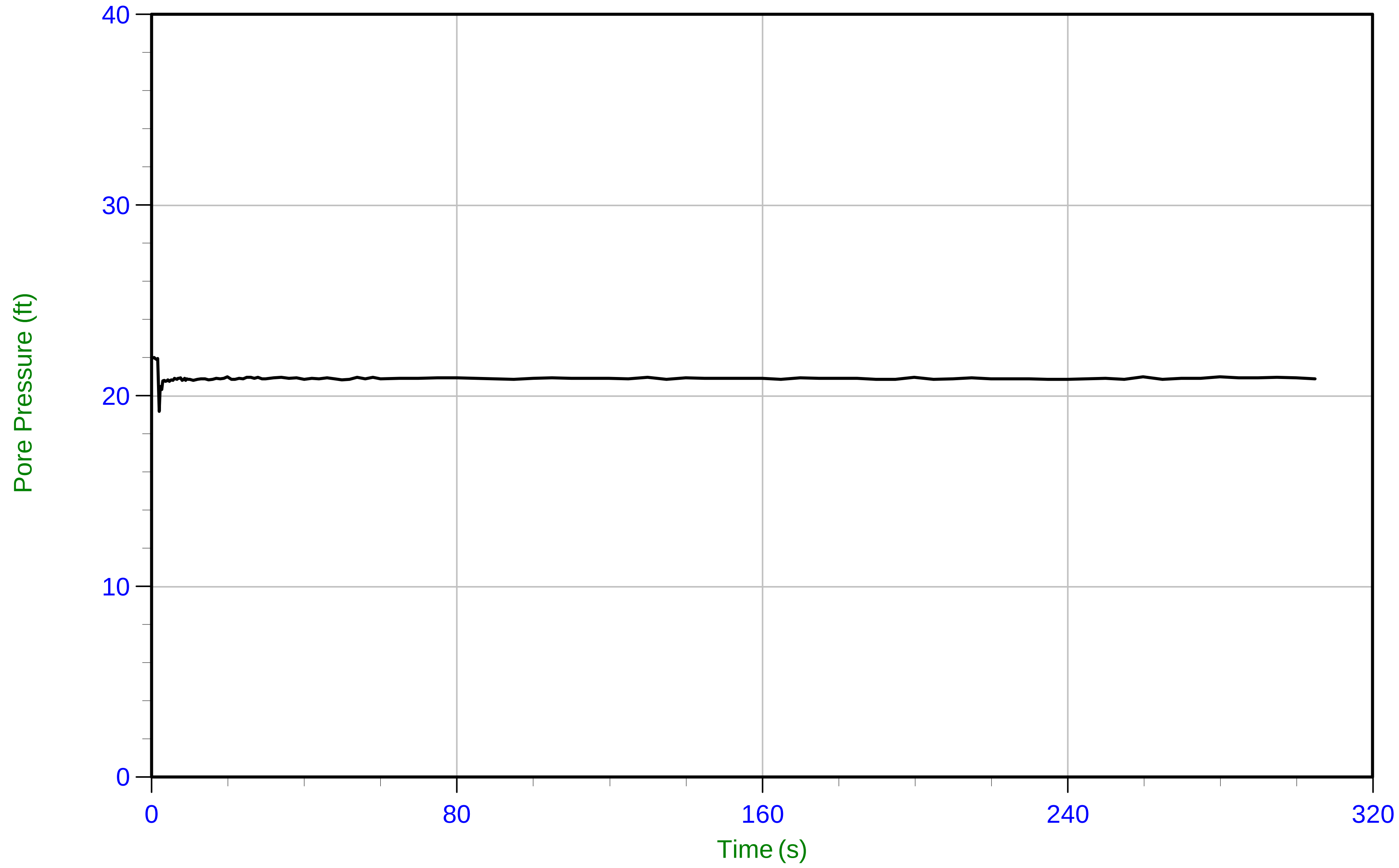
u Min: -6.1 ft
u Max: 19.0 ft
u Final: 18.9 ft

CONETEC

Langan Engineering

Job No: 25-53-29335
Date: 2025-04-17 10:22
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-071
Cone: 1075:T1000F10U35 Area=15 cm²



Trace Summary:

Filename: 25-53-29335_SP071.PPF2
Depth: 6.100 m / 20.013 ft
Duration: 305.0 s

u Min: 19.2 ft
u Max: 22.0 ft
u Final: 20.9 ft

Seismic Cone Penetration Test (SCPTu) Tabular Results

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-002
Date: 10-Apr-2025

Seismic Source: Wedge
Source Offset (ft): 7.87
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
6.56	5.90	9.84			
9.84	9.18	12.09	2.26	3.31	683
13.12	12.46	14.74	2.65	3.97	667
16.40	15.74	17.60	2.86	4.46	641
19.69	19.03	20.59	2.99	4.38	682
22.05	21.39	22.79	2.20	2.64	832

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-004
Date:	14-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	5.90
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
3.28	2.62	6.46			
6.56	5.90	8.35	1.89	5.78	327
9.84	9.18	10.92	2.57	3.89	660
13.12	12.46	13.79	2.87	3.36	855
16.40	15.74	16.81	3.02	4.48	675
19.03	18.37	19.29	2.48	2.07	1201

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-006
Date:	11-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	6.00
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
3.28	2.62	6.55			
6.56	5.90	8.42	1.87	4.32	433
9.84	9.18	10.97	2.55	4.80	532
13.12	12.46	13.83	2.86	5.02	571
16.40	15.74	16.85	3.02	4.97	608
19.69	19.03	19.95	3.10	4.64	668
22.97	22.31	23.10	3.15	4.21	748

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-010
Date:	16-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	5.90
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
6.56	5.90	8.35			
9.84	9.18	10.92	2.57	3.25	790
13.12	12.46	13.79	2.87	4.93	583
16.40	15.74	16.81	3.02	5.12	590
19.69	19.03	19.92	3.11	4.77	652
21.92	21.26	22.06	2.14	3.16	677

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-012
Date:	15-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	6.00
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
6.56	5.90	8.42			
9.84	9.18	10.97	2.55	4.48	570
13.12	12.46	13.83	2.86	5.78	495
16.40	15.74	16.85	3.02	5.96	506
19.85	19.19	20.11	3.26	5.25	620

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-018
Date: 16-Apr-2025

Seismic Source: Beam
Source Offset (ft): 5.91
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
3.28	2.62	6.47			
6.56	5.90	8.35	1.89	2.92	646
9.84	9.18	10.92	2.57	4.43	580
13.12	12.46	13.79	2.87	5.25	547
17.22	16.56	17.59	3.79	2.53	1497

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-021
Date: 08-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
8.14	7.48	7.65			
11.48	10.82	10.95	3.29	4.63	711
14.76	14.10	14.20	3.25	4.30	757
18.05	17.39	17.46	3.26	3.33	979
18.60	17.94	18.02	0.56	0.53	1040

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-022
Date: 08-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.76	4.10	4.41			
8.04	7.38	7.56	3.15	5.79	544
11.32	10.66	10.78	3.23	4.79	673
14.60	13.94	14.04	3.25	4.88	667
17.88	17.22	17.30	3.26	3.41	958
21.16	20.50	20.57	3.27	3.45	946
23.69	23.03	23.09	2.52	2.23	1129

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-024
Date: 10-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.36	3.70	4.05			
7.64	6.98	7.17	3.12	7.00	446
10.83	10.17	10.30	3.12	8.04	389
14.17	13.51	13.61	3.32	3.50	947
15.09	14.43	14.53	0.91	0.80	1141

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-028
Date:	09-Apr-2025
Seismic Source:	Beam
Source Offset (ft):	1.64
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.59	3.93	4.26			
7.87	7.21	7.40	3.14	5.28	595
11.16	10.50	10.62	3.22	4.50	717
14.44	13.78	13.87	3.25	7.78	418
17.72	17.06	17.14	3.26	5.54	590
21.00	20.34	20.40	3.27	4.93	663
22.47	21.81	21.88	1.47	1.38	1064

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-029
Date:	09-Apr-2025
Seismic Source:	Beam
Source Offset (ft):	1.64
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.53	3.87	4.20			
7.81	7.15	7.33	3.13	5.27	595
11.09	10.43	10.56	3.22	4.53	711
14.37	13.71	13.81	3.25	5.54	587
17.65	16.99	17.07	3.26	4.78	683
20.93	20.27	20.34	3.27	5.53	591
24.21	23.55	23.61	3.27	4.56	718
28.15	27.49	27.54	3.93	2.88	1364

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-032
Date: 09-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.53	3.87	4.20			
7.81	7.15	7.33	3.13	5.39	581
11.09	10.43	10.56	3.22	6.01	536
14.37	13.71	13.81	3.25	6.38	509
17.65	16.99	17.07	3.26	4.83	675
20.93	20.27	20.34	3.27	3.47	942
22.38	21.72	21.78	1.44	1.18	1223

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-034
Date:	10-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	1.64
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.36	3.70	4.05			
7.64	6.98	7.17	3.12	5.57	560
10.89	10.23	10.36	3.19	5.02	636
14.27	13.61	13.71	3.35	5.95	563
17.55	16.89	16.97	3.26	6.07	537
20.83	20.17	20.24	3.27	5.16	634
23.20	22.54	22.60	2.36	2.59	911

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-038
Date: 10-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.36	3.70	4.05			
7.71	7.05	7.24	3.19	6.84	466
10.89	10.23	10.36	3.13	5.28	592
14.17	13.51	13.61	3.25	3.70	878
17.45	16.79	16.87	3.26	2.89	1131
20.74	20.08	20.14	3.27	2.12	1542
22.24	21.58	21.65	1.50	0.80	1889

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-039
Date: 11-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.43	3.77	4.11			
7.71	7.05	7.24	3.13	5.76	543
10.99	10.33	10.46	3.22	5.33	605
14.27	13.61	13.71	3.25	5.58	583

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-041
Date: 14-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.66	4.00	4.32			
7.97	7.31	7.49	3.17	6.57	483
11.32	10.66	10.78	3.29	5.92	556
14.70	14.04	14.13	3.35	4.78	701
17.88	17.22	17.30	3.17	4.62	685
21.59	20.93	20.99	3.69	3.65	1013

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-044
Date: 17-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.53	3.87	4.20			
7.87	7.21	7.40	3.20	3.21	995
11.09	10.43	10.56	3.16	3.27	967
14.44	13.78	13.87	3.32	3.43	966
19.03	18.37	18.44	4.57	2.90	1576

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-046
Date:	17-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	1.50
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.36	3.70	4.00			
7.71	7.05	7.21	3.21	4.84	664
10.99	10.33	10.44	3.23	4.84	668
14.27	13.61	13.69	3.26	4.01	811
17.22	16.56	16.63	2.94	3.83	767

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-049
Date: 15-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.27	3.61	3.96			
7.55	6.89	7.08	3.12	5.35	583
11.58	10.92	11.04	3.96	5.91	670
14.04	13.38	13.48	2.44	3.24	752
17.22	16.56	16.65	3.16	3.48	908
20.51	19.85	19.91	3.27	3.32	983
22.15	21.49	21.55	1.64	1.62	1009

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-056
Date:	08-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	1.64
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.66	4.00	4.32			
7.97	7.31	7.49	3.17	5.47	580
11.32	10.66	10.78	3.29	5.84	563
14.60	13.94	14.04	3.25	4.66	698
17.88	17.22	17.30	3.26	3.17	1028
20.93	20.27	20.34	3.04	2.60	1170

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-057
Date: 10-Apr-2025

Seismic Source: Beam
Source Offset (ft): 5.90
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
3.28	2.62	6.46			
6.56	5.90	8.35	1.89	2.02	937
9.84	9.18	10.92	2.57	4.54	566
13.12	12.46	13.79	2.87	7.06	407
18.21	17.55	18.51	4.73	5.33	887

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-058
Date:	10-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	1.64
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.53	3.87	4.20			
7.81	7.15	7.33	3.13	7.06	444
11.09	10.43	10.56	3.22	4.83	667
14.37	13.71	13.81	3.25	4.52	719
17.65	16.99	17.07	3.26	3.03	1076
20.60	19.94	20.01	2.94	2.29	1285

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-059
Date: 10-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.86	4.20	4.51			
8.14	7.48	7.65	3.15	7.31	431
11.42	10.76	10.88	3.23	5.95	543
14.70	14.04	14.13	3.25	5.08	640
15.26	14.60	14.69	0.56	0.75	745

CONETEC

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-060
Date: 09-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.43	3.77	4.11			
7.71	7.05	7.24	3.13	6.71	466
10.99	10.33	10.46	3.22	3.33	968

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-061
Date:	16-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	1.64
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.36	3.70	4.05			
7.64	6.98	7.17	3.12	6.09	513
10.89	10.23	10.36	3.19	4.76	670
14.27	13.61	13.71	3.35	3.59	932
17.55	16.89	16.97	3.26	2.36	1384
19.36	18.70	18.77	1.80	1.18	1525

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-062
Date: 17-Apr-2025

Seismic Source: Beam
Source Offset (ft): 6.00
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
6.56	5.90	8.42			
8.37	7.71	9.77	1.35	1.28	1056

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-063
Date: 17-Apr-2025

Seismic Source: Beam
Source Offset (ft): 6.00
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
6.56	5.90	8.42			
9.84	9.18	10.97	2.55	1.82	1403
13.12	12.46	13.83	2.86	2.01	1426
13.52	12.86	14.19	0.36	0.25	1416

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-064
Date: 15-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.43	3.77	4.11			
7.71	7.05	7.24	3.13	4.05	772
10.89	10.23	10.36	3.13	3.97	787
13.88	13.22	13.32	2.96	2.47	1199

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-065
Date: 16-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.04	3.38	3.75			
7.22	6.56	6.76	3.01	2.76	1091
10.50	9.84	9.98	3.22	3.08	1044
13.06	12.40	12.51	2.53	1.96	1291

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-066
Date: 15-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.59	3.93	4.26			
7.87	7.21	7.40	3.14	3.67	856
11.09	10.43	10.56	3.16	4.66	679
14.44	13.78	13.87	3.32	3.92	847
16.24	15.58	15.67	1.79	1.51	1185

Job No:	25-53-29335
Client:	Langan Engineering
Project:	Micron New York Manufacturing Facility - Clay, NY
Sounding ID:	SCPT25-067
Date:	16-Apr-2025

Seismic Source:	Beam
Source Offset (ft):	1.64
Source Depth (ft):	0.00
Sensor Type:	Geophone
Sensor Offset (ft):	0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.36	3.70	4.05			
7.71	7.05	7.24	3.19	3.56	894
8.69	8.03	8.20	0.96	0.98	985

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-068
Date: 15-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.27	3.61	3.96			
9.25	8.59	8.75	4.79	3.05	1570

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-069
Date: 16-Apr-2025

Seismic Source: Beam
Source Offset (ft): 1.64
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
4.59	3.93	4.26			
7.87	7.21	7.40	3.14	2.67	1176
8.14	7.48	7.65	0.26	0.21	1208

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-070
Date: 10-Apr-2025

Seismic Source: Wedge
Source Offset (ft): 7.87
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
3.28	2.62	8.29			
6.56	5.90	9.84	1.54	1.95	791
9.84	9.18	12.09	2.26	2.48	910
11.98	11.32	13.78	1.69	1.82	929

Job No: 25-53-29335
Client: Langan Engineering
Project: Micron New York Manufacturing Facility - Clay, NY
Sounding ID: SCPT25-071
Date: 17-Apr-2025

Seismic Source: Beam
Source Offset (ft): 6.00
Source Depth (ft): 0.00
Sensor Type: Geophone
Sensor Offset (ft): 0.66

SCPTu SHEAR WAVE VELOCITY TEST RESULTS - Vs

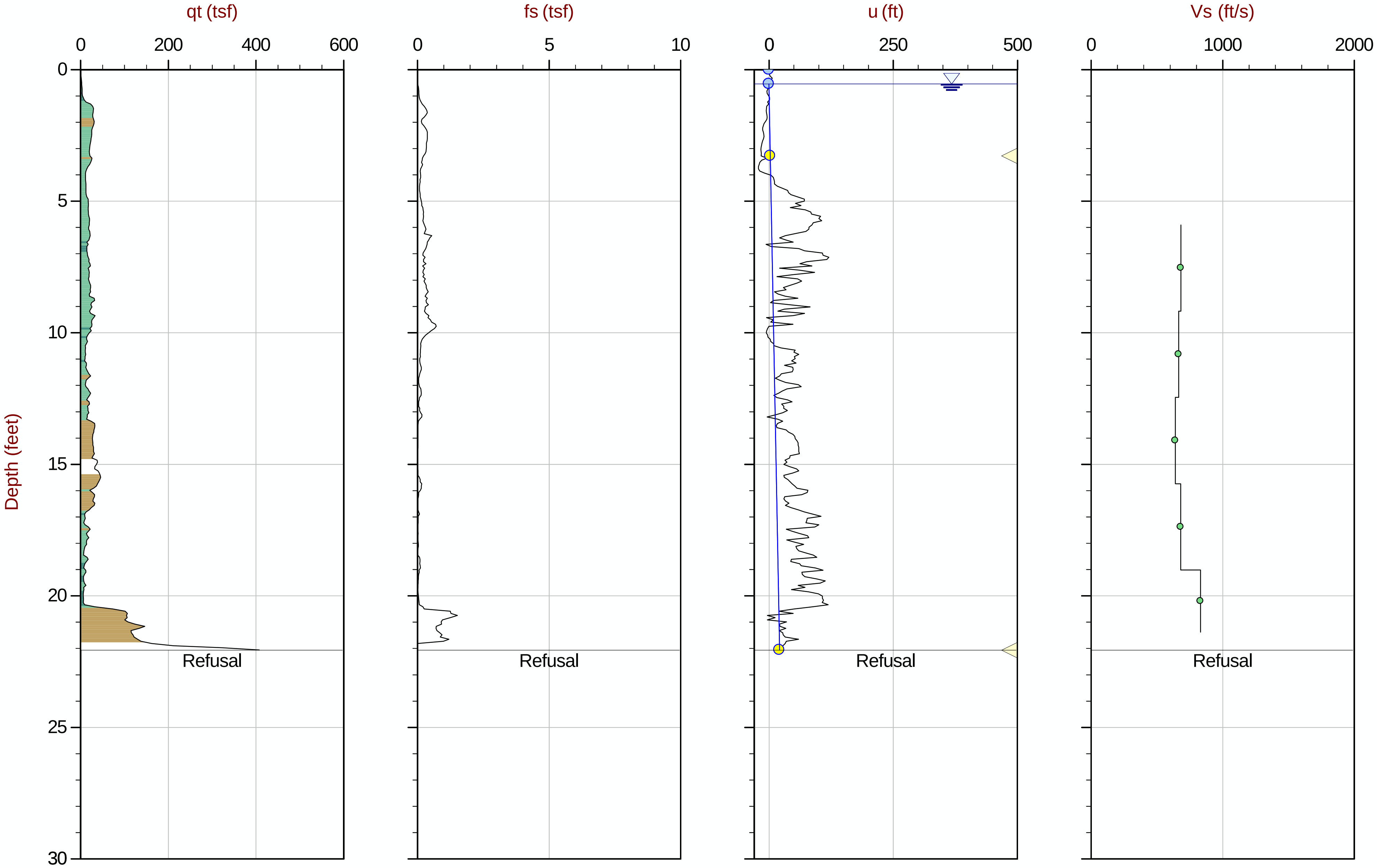
Tip Depth (ft)	Sensor Depth (ft)	Ray Path (ft)	Ray Path Difference (ft)	Travel Time Interval (ms)	Interval Velocity (ft/s)
6.56	5.90	8.42			
9.84	9.18	10.97	2.55	4.89	522
13.12	12.46	13.83	2.86	5.39	531
16.40	15.74	16.85	3.02	3.06	986
20.01	19.35	20.26	3.41	3.39	1006

SCPTu Test Plots

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-10 12:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-002
Cone: 1075:T1000F10U35



Max Depth: 6.725 m / 22.06 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP002.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783840m E: 405499m

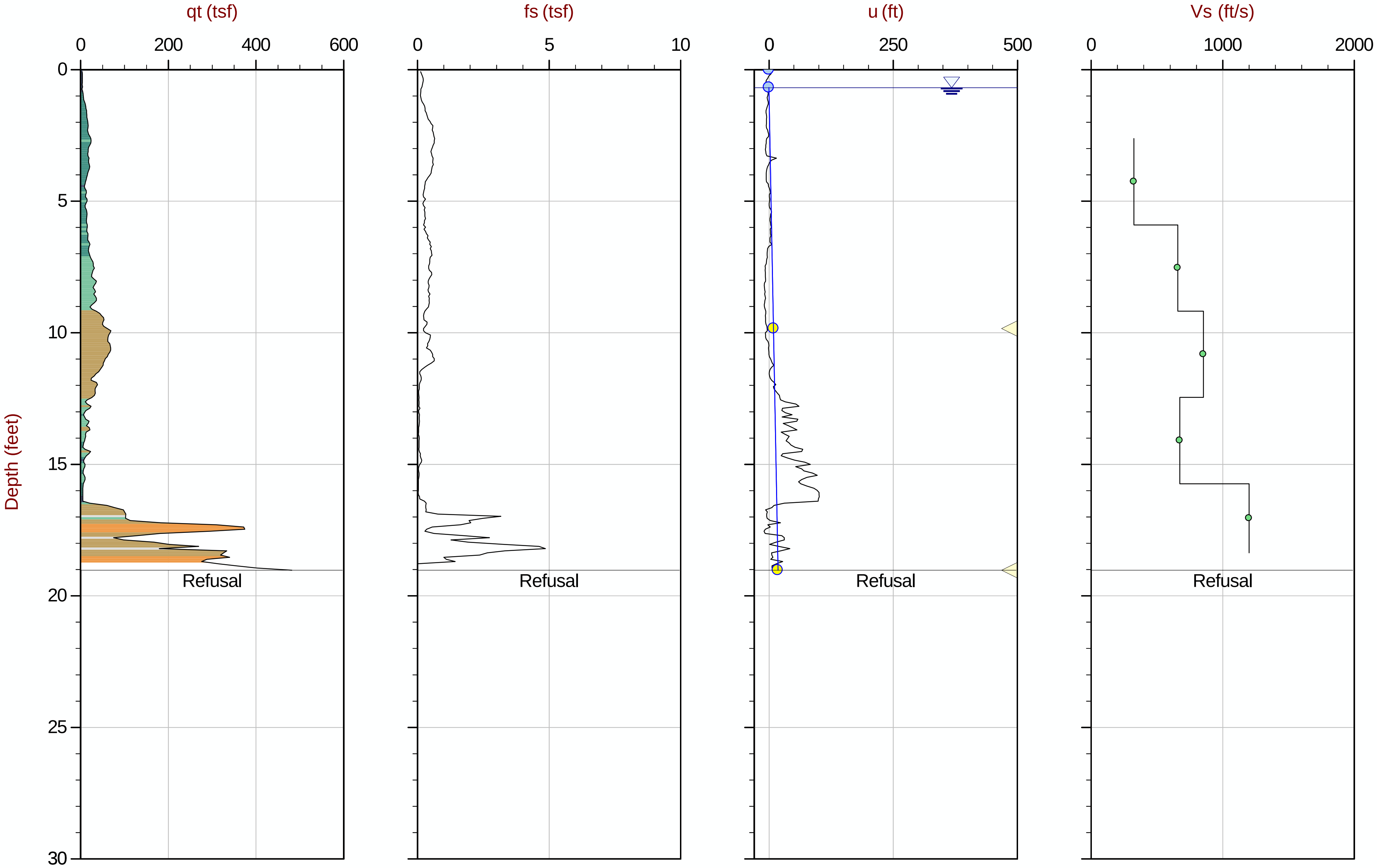
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-14 11:57
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-004
Cone: 1075:T1000F10U35



Max Depth: 5.800 m / 19.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP004.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783781m E: 405444m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

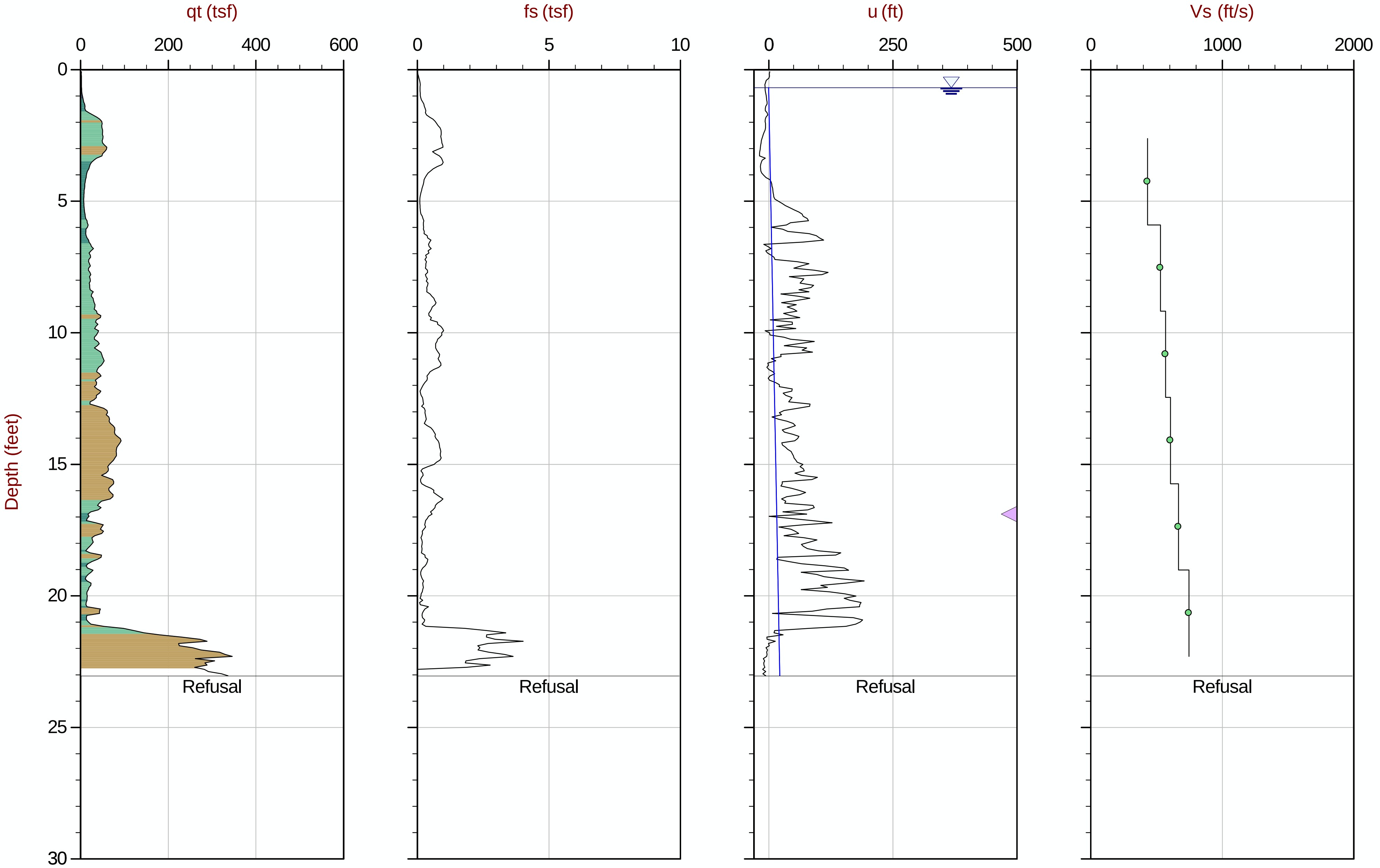
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-11 12:45
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-006
Cone: 1075:T1000F10U35



Max Depth: 7.025 m / 23.05 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP006.COR
Unit Wt: SBTQtn (PKR2009)

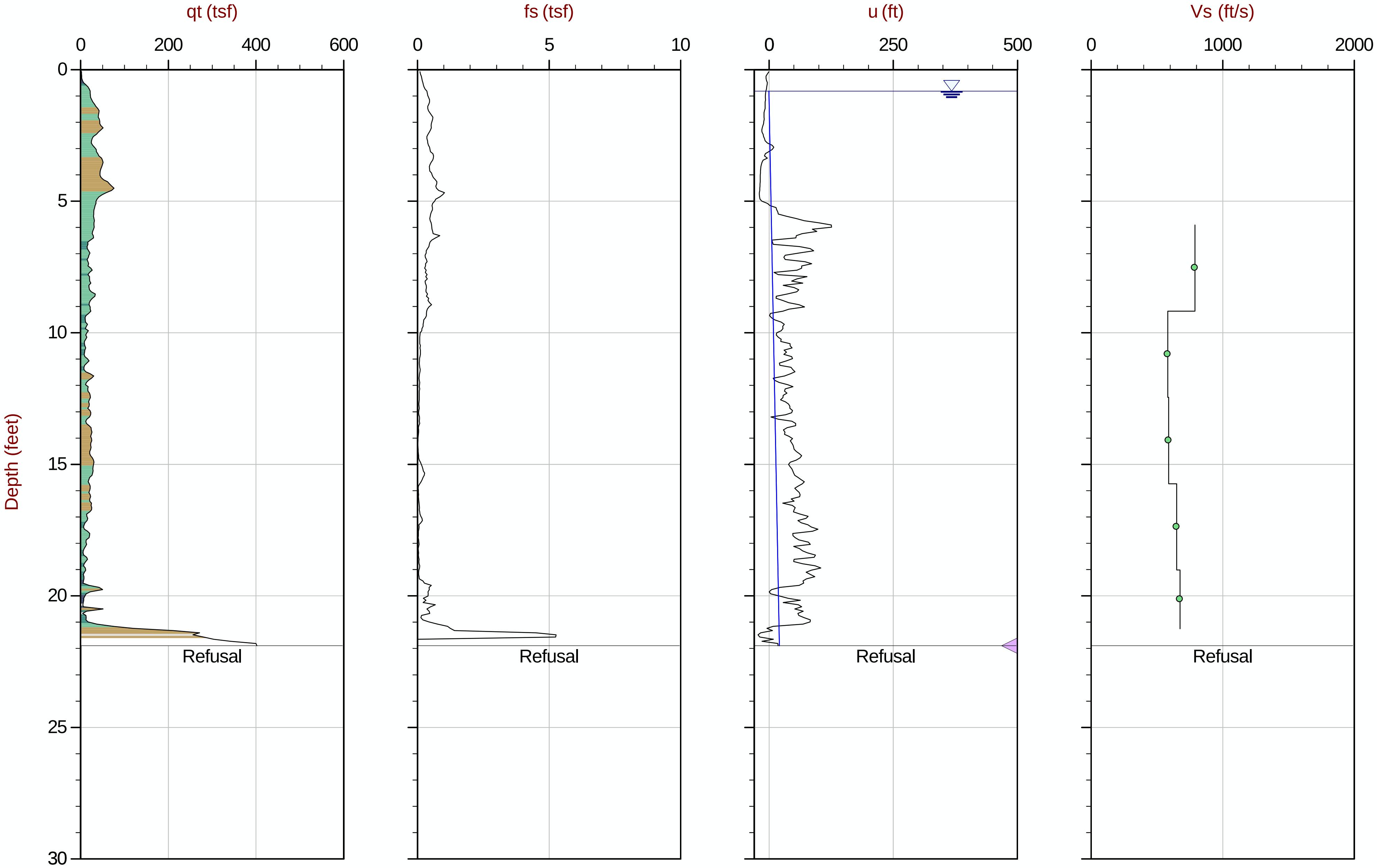
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783725m E: 405378m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-16 13:52
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-010
Cone: 1075:T1000F10U35



Max Depth: 6.675 m / 21.90 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP010.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783689m E: 405786m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

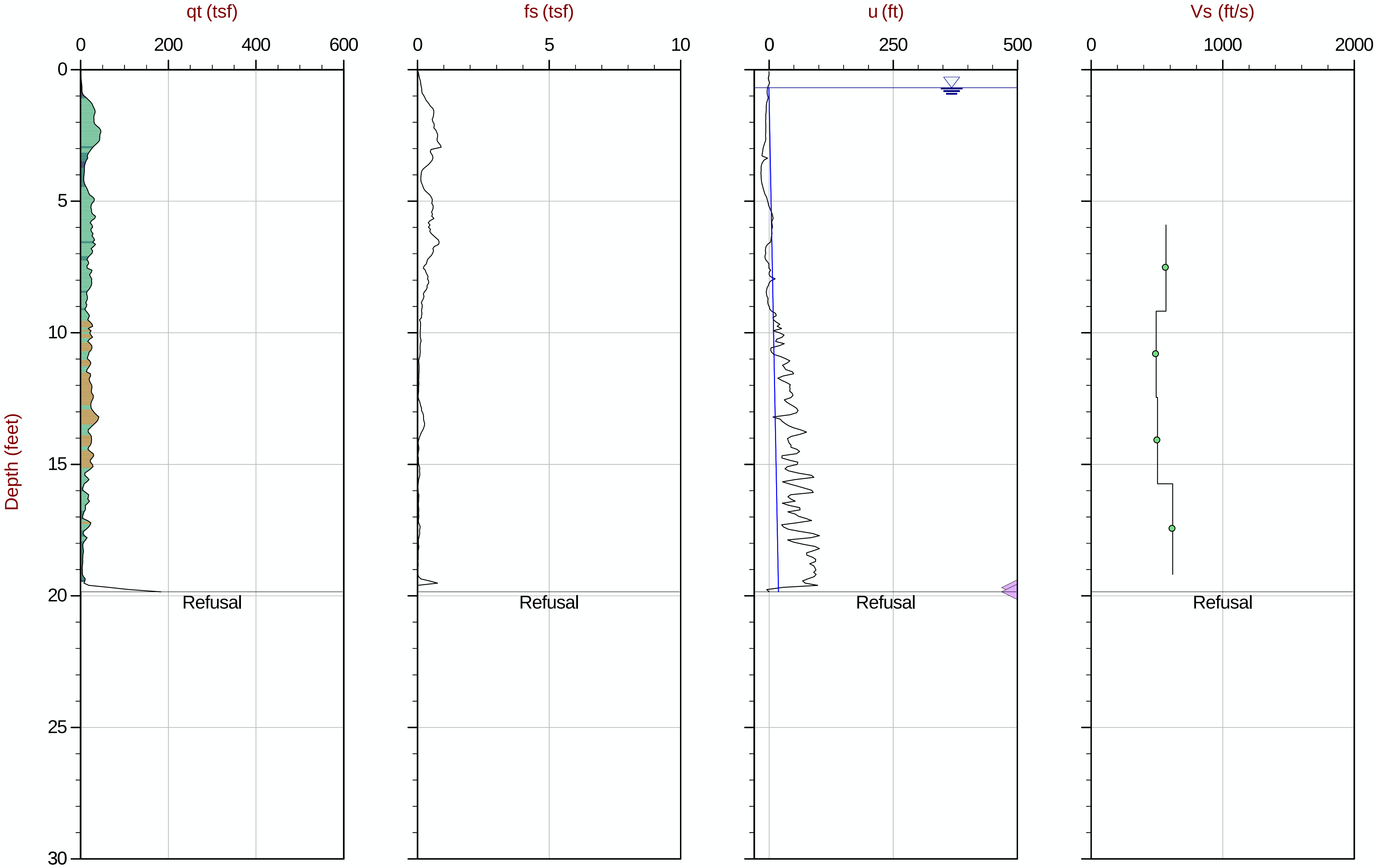
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-15 10:21
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-012
Cone: 1075:T1000F10U35



Max Depth: 6.050 m / 19.85 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP012.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783661m E: 405439m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

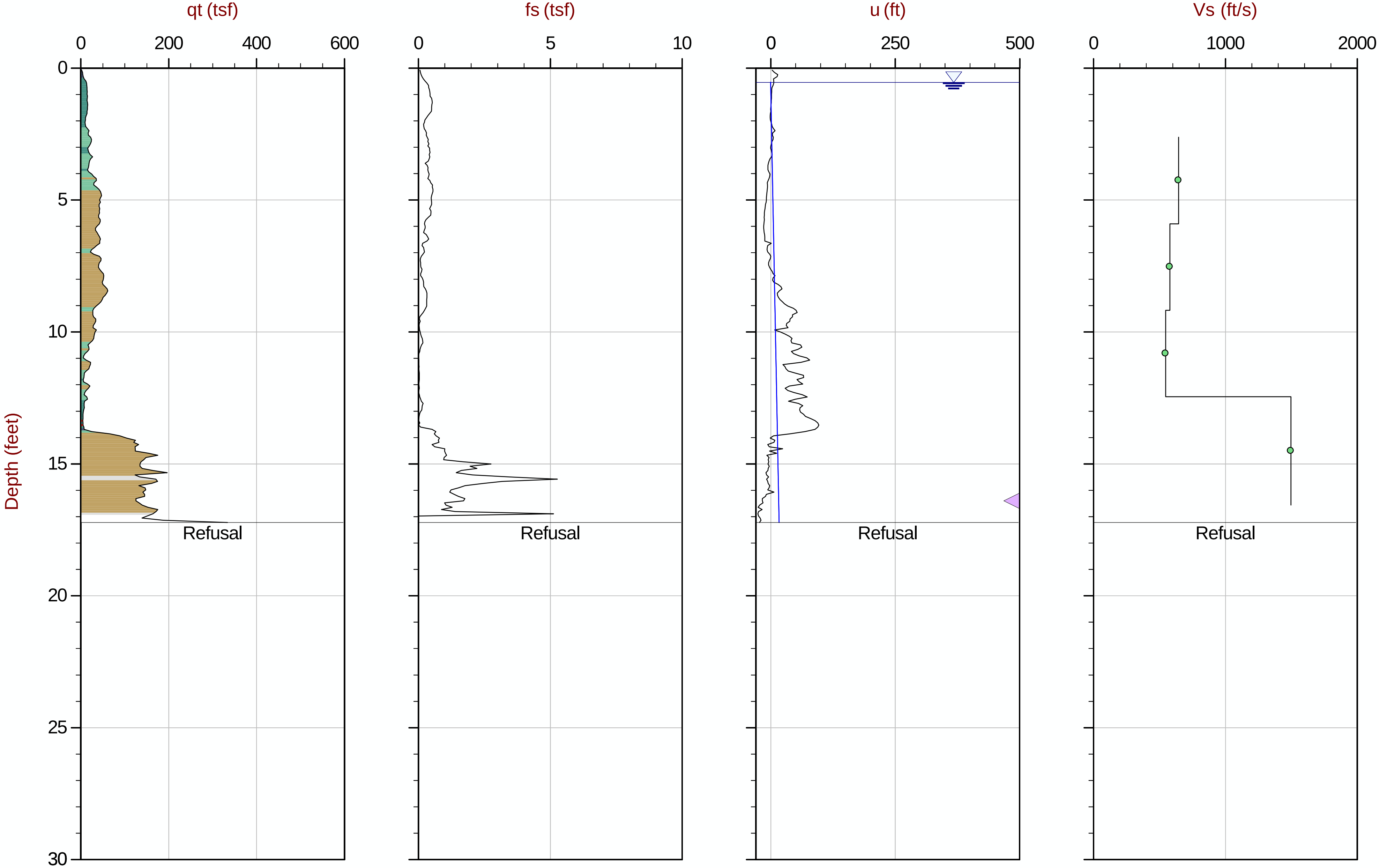
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-16 10:38
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-018
Cone: 1075:T1000F10U35



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

File: 25-53-29335_SP018.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783605m E: 405619m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

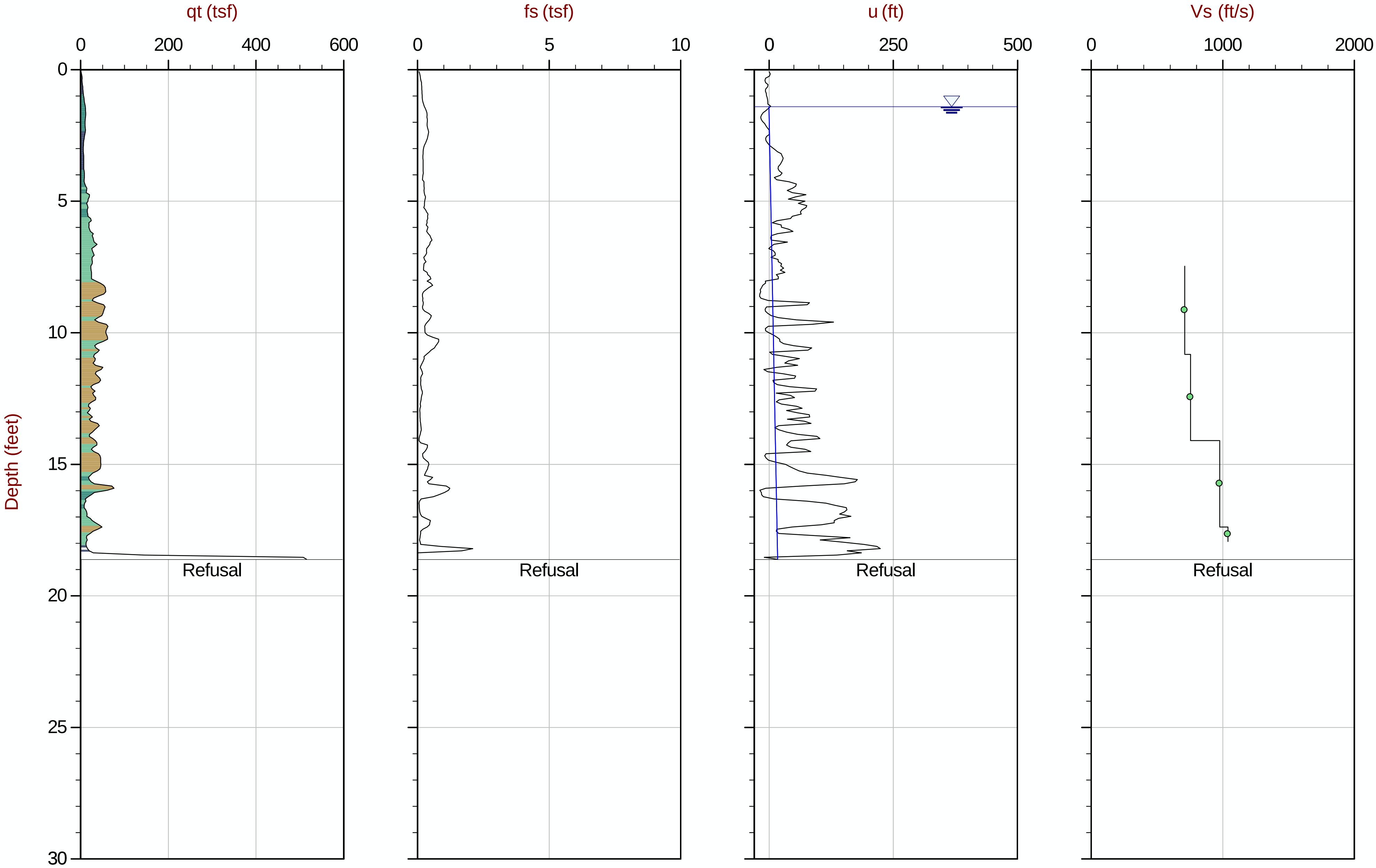
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-08 11:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-021
Cone: 1149:T1500F15U35



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

File: 25-53-29335_SP021.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782933m E: 406395m

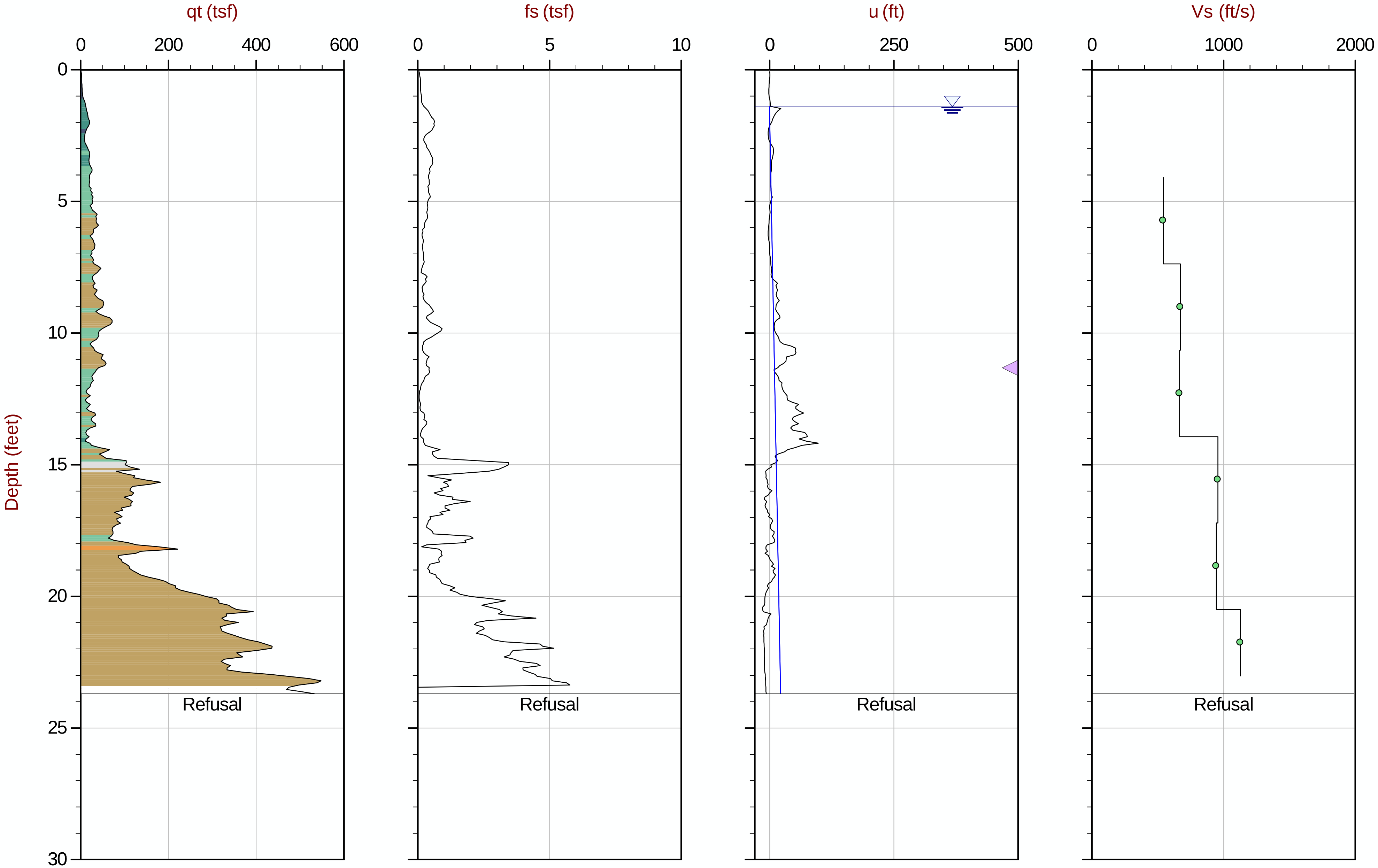
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 23-53-25283	Sounding: SCPT25-022
Date: 2025-04-08 07:53	Cone: 1149:T1500F15U35
Site: Micron New York Manufacturing Facility - Clay, NY	



Max Depth: 7.225 m / 23.70 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP022.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782855m E: 406606m

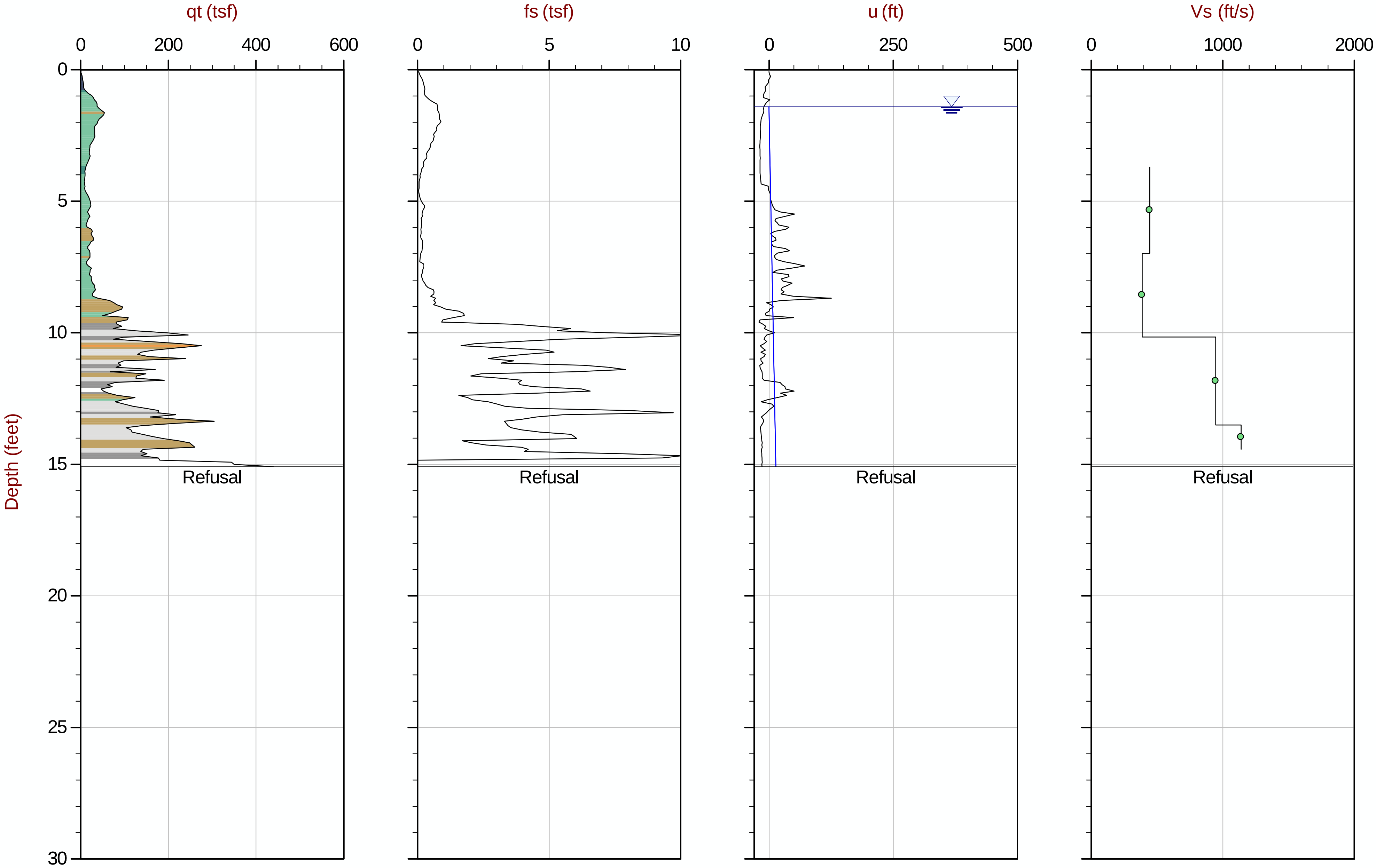
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

ConeTec

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-10 10:55
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-024
Cone: 1149:T1500F15U35



Max Depth: 4.600 m / 15.09 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP024.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782872m E: 406276m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

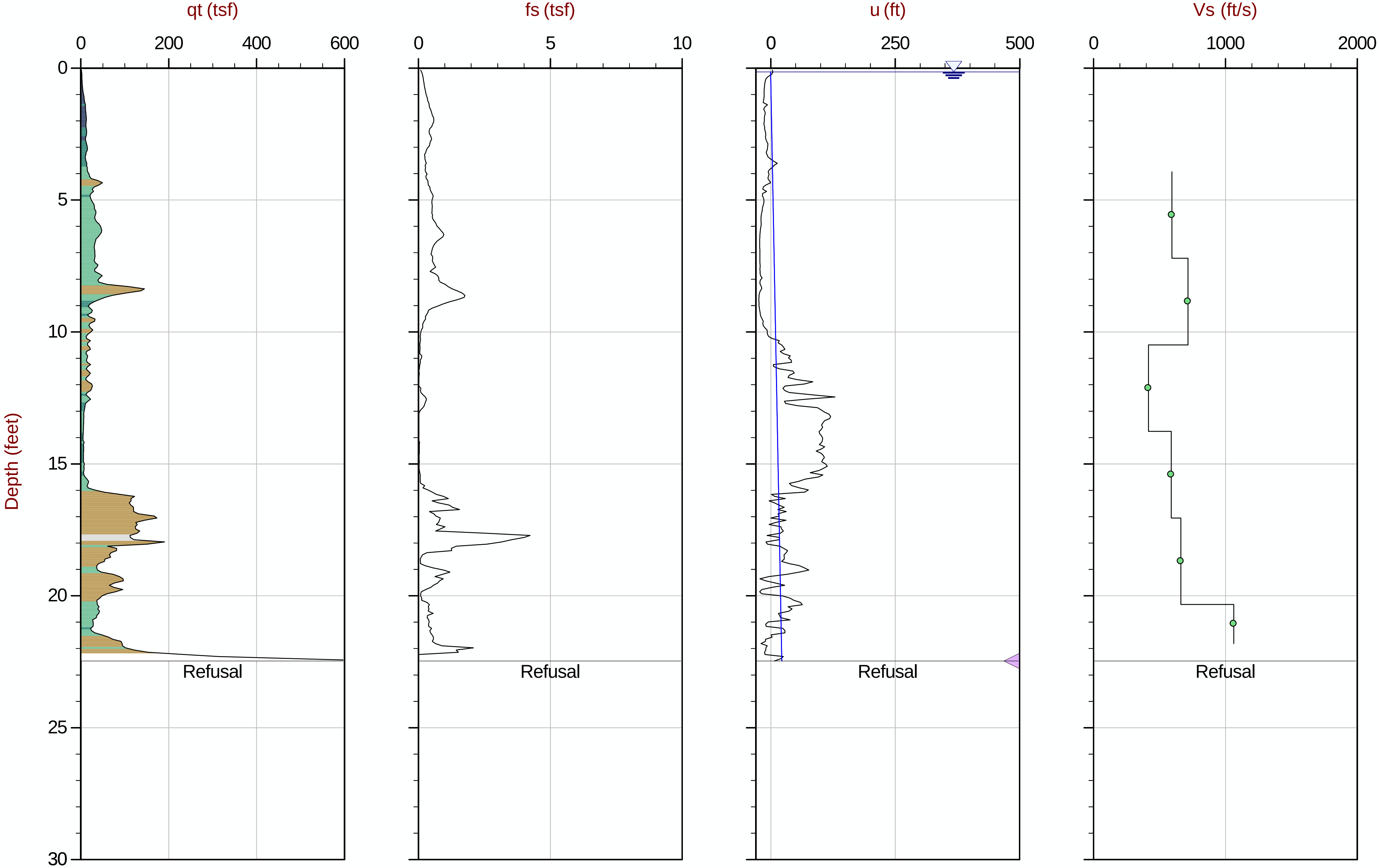
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-09 11:32
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-028
Cone: 1149:T1500F15U35



Max Depth: 6.850 m / 22.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP028.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782675m E: 406436m

Overplot Item: 🟡 Ueq 🔵 Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

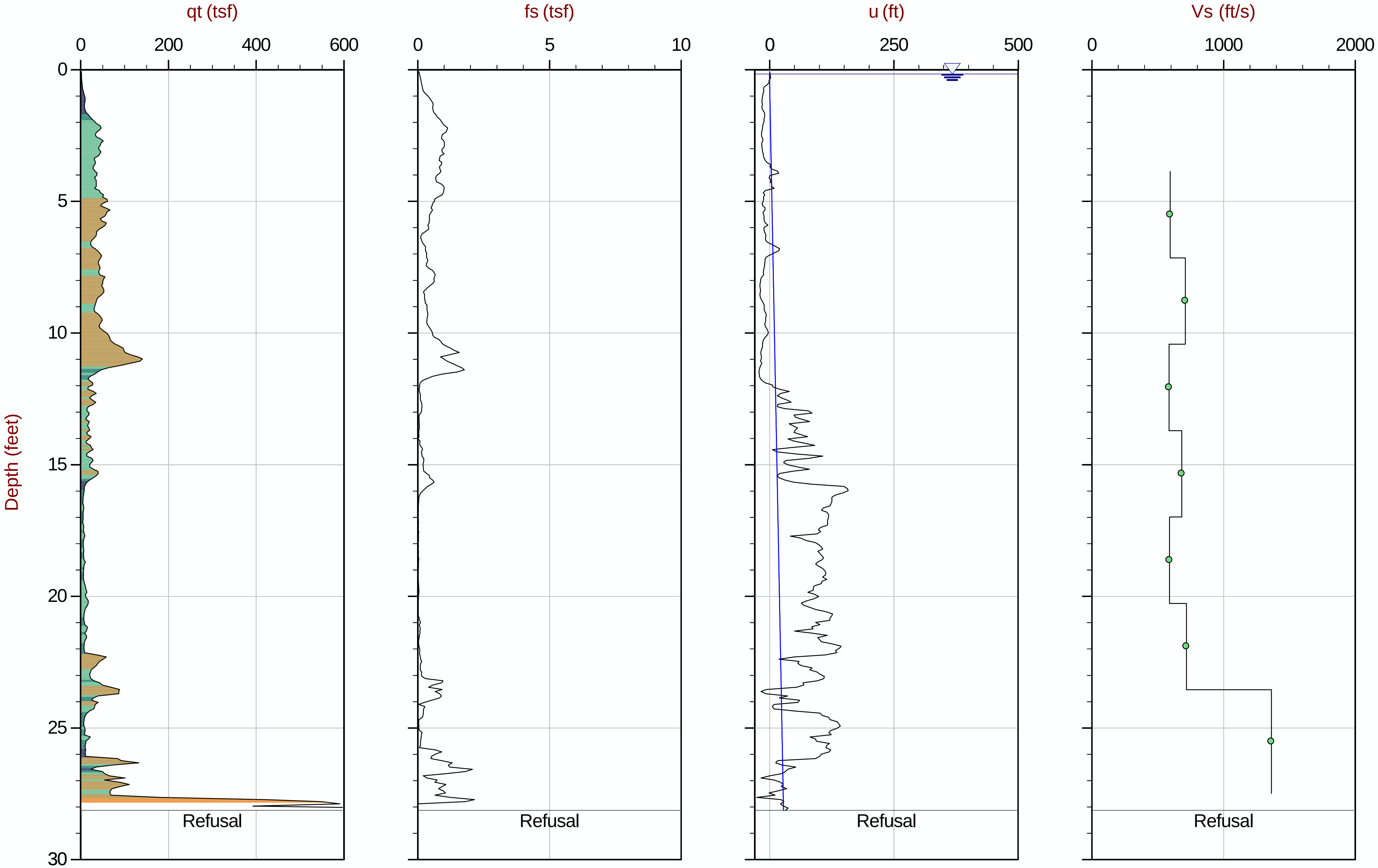
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-09 15:15
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-029
Cone: 1149:T1500F15U35



Max Depth: 8.575 m / 28.13 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP029.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782734m E: 406252m

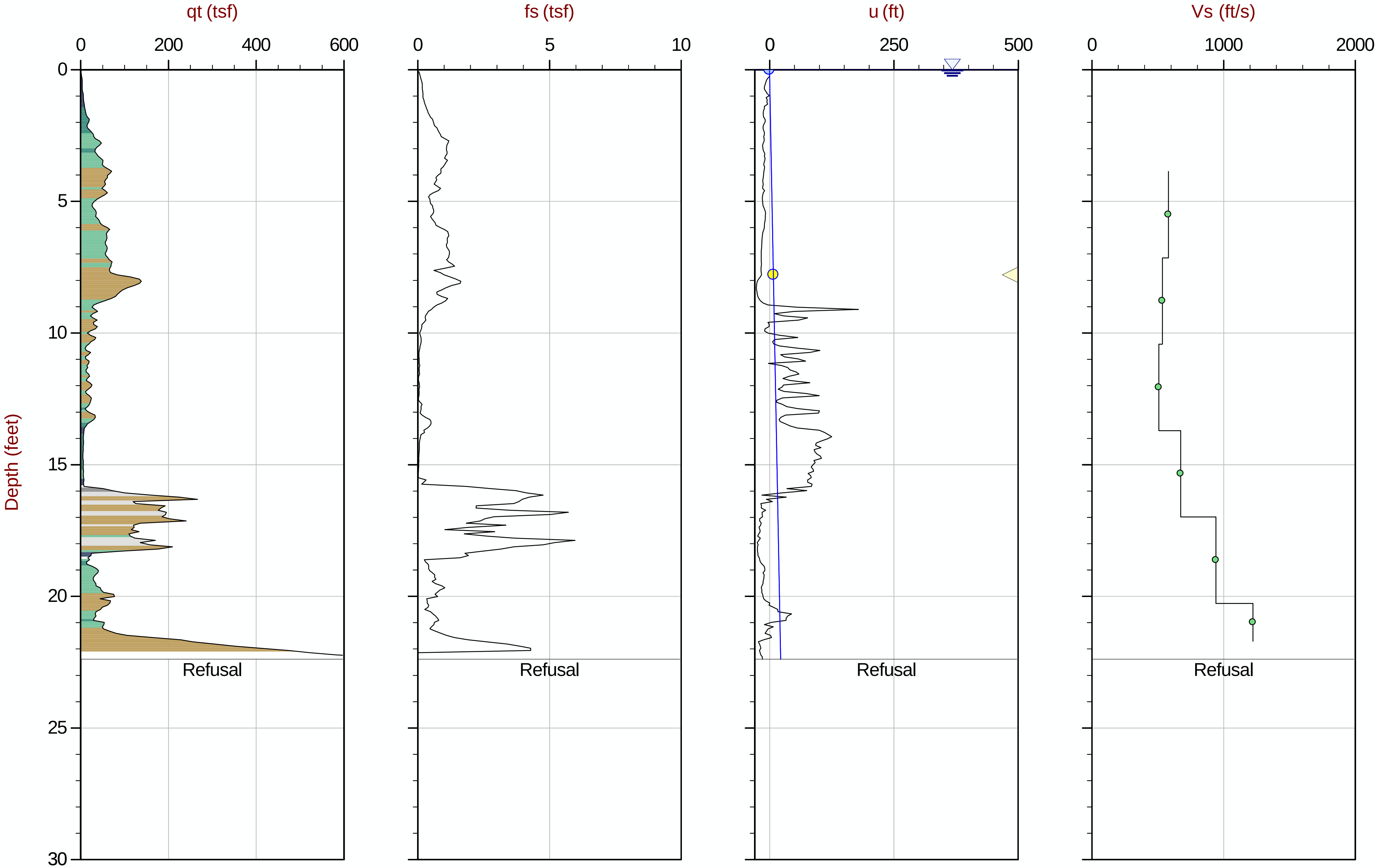
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-09 13:04
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-032
Cone: 1149:T1500F15U35



Max Depth: 6.825 m / 22.39 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP032.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782612m E: 406314m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

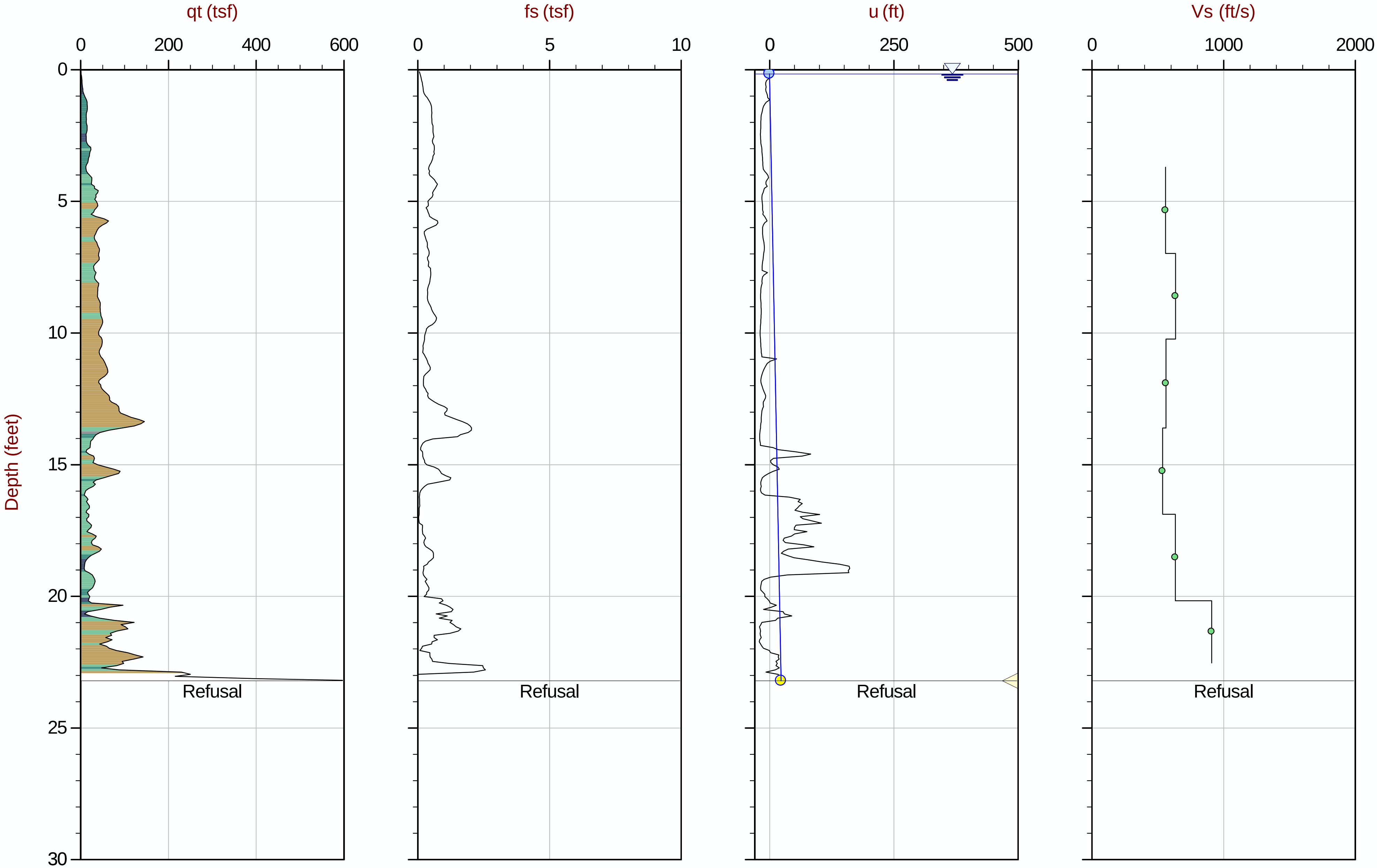
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-10 13:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-034
Cone: 1149:T1500F15U35



Max Depth: 7.075 m / 23.21 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP034.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782670m E: 406134m

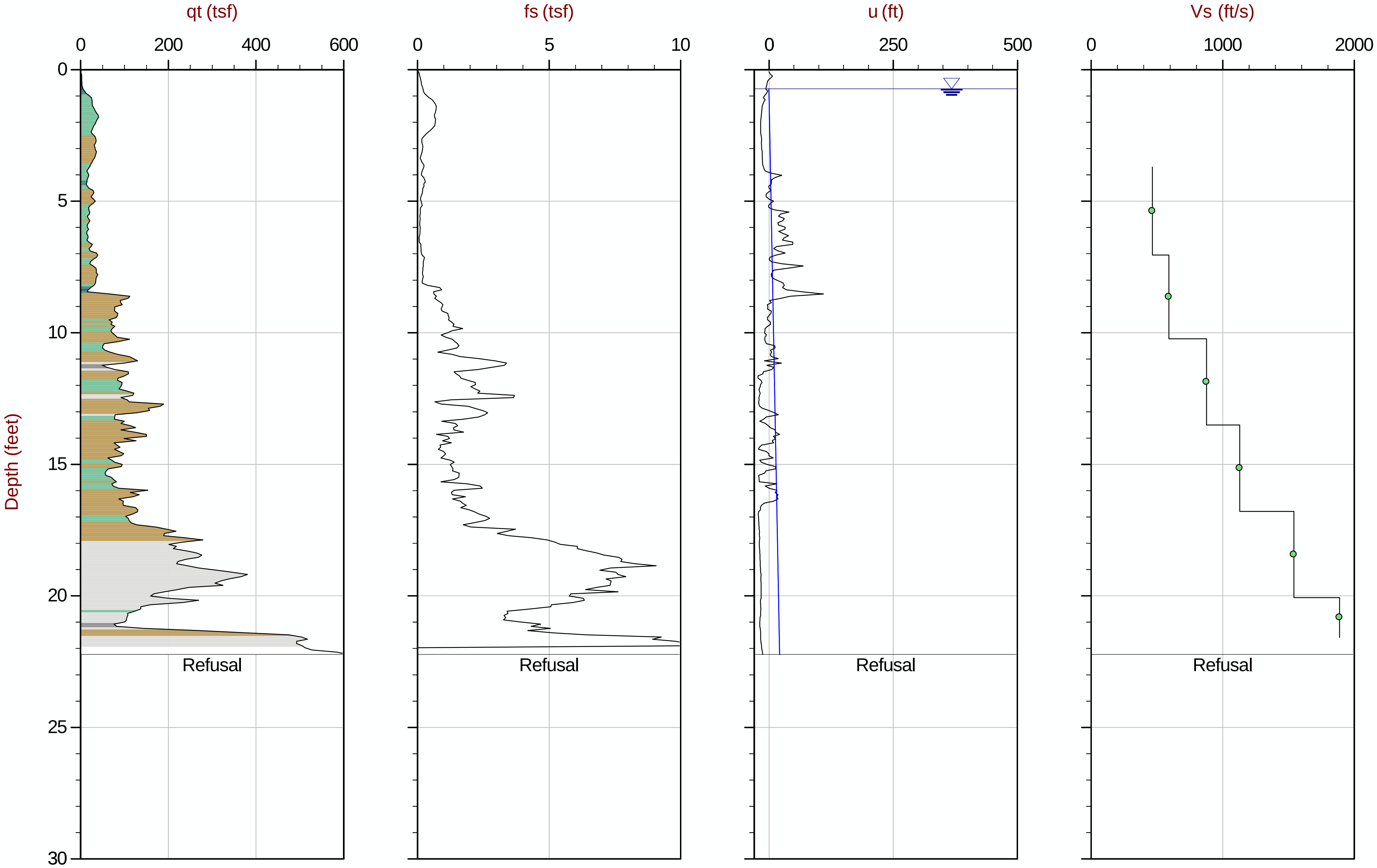
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-10 14:11
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-038
Cone: 1149:T1500F15U35



Max Depth: 6.775 m / 22.23 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP038.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782577m E: 406061m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

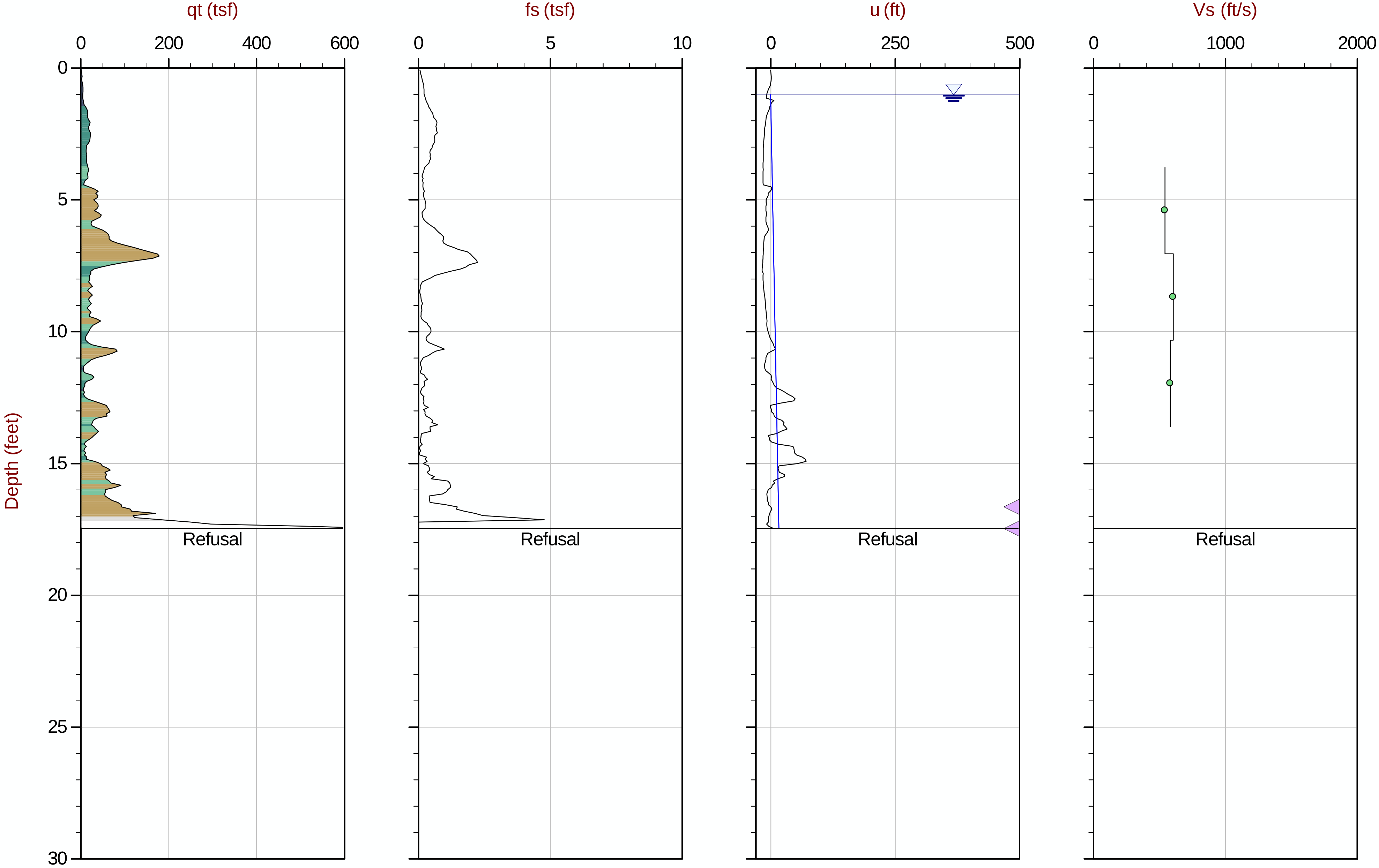
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-11 13:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-039
Cone: 1149:T1500F15U35



Max Depth: 5.325 m / 17.47 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP039.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782454m E: 406122m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

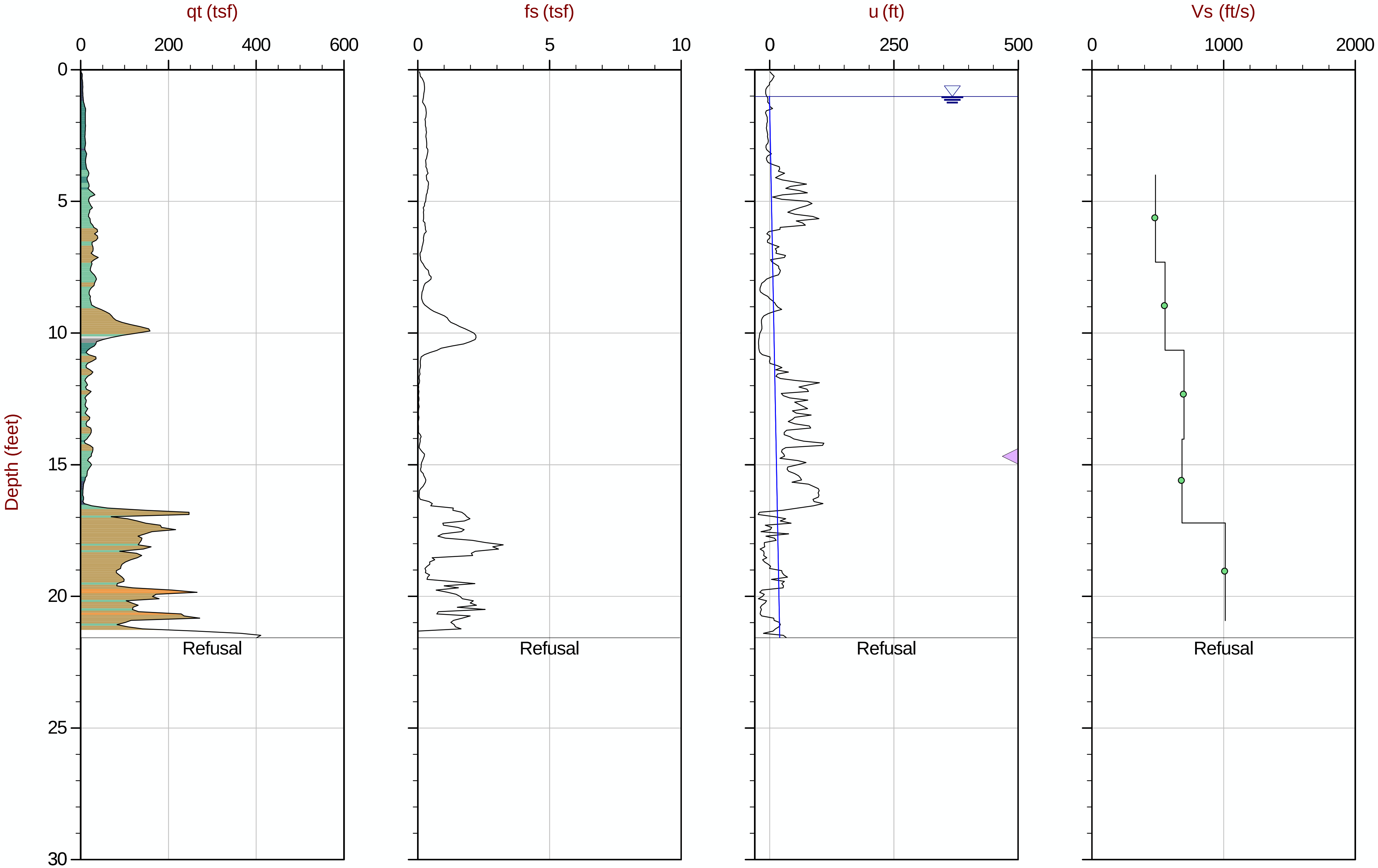
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-14 08:19
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-041
Cone: 1149:T1500F15U35



Max Depth: 6.575 m / 21.57 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP041.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782389m E: 406308m

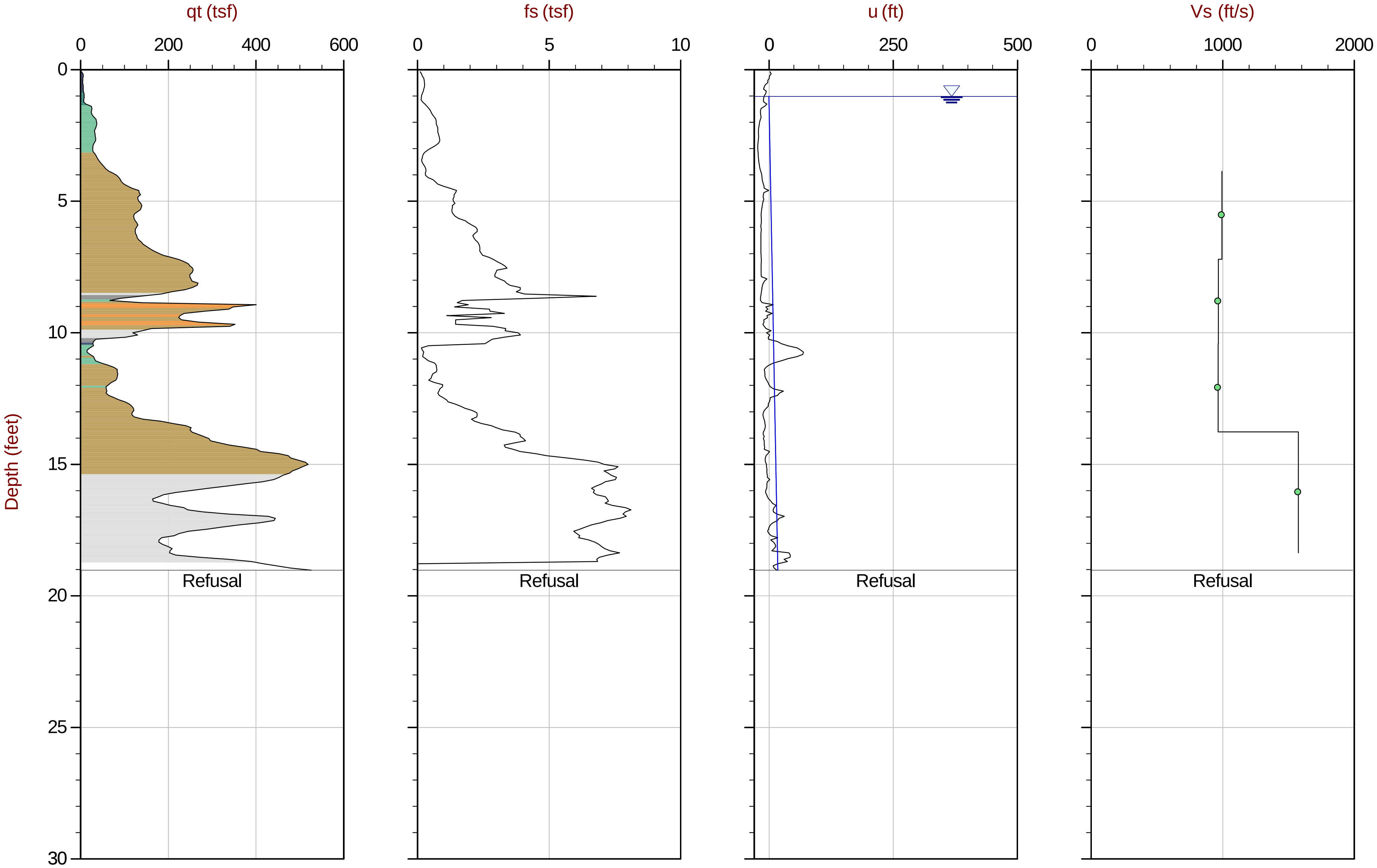
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-17 12:34
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-044
Cone: 1149:T1500F15U35



Max Depth: 5.800 m / 19.03 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP044.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782496m E: 405849m

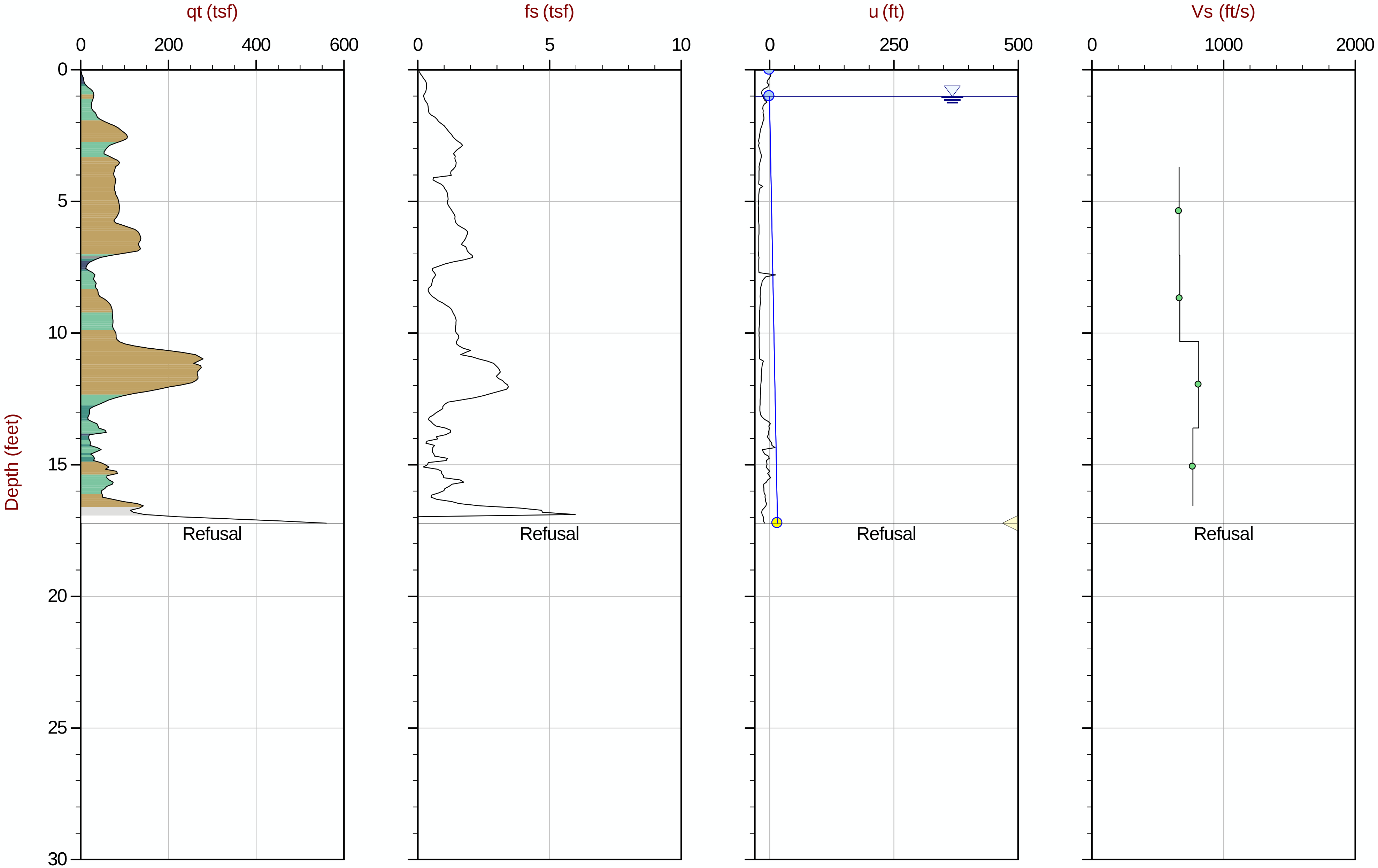
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-17 10:04
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-046
Cone: 1149:T1500F15U35



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

File: 25-53-29335_SP046.COR
Unit Wt: SBTQtn (PKR2009)

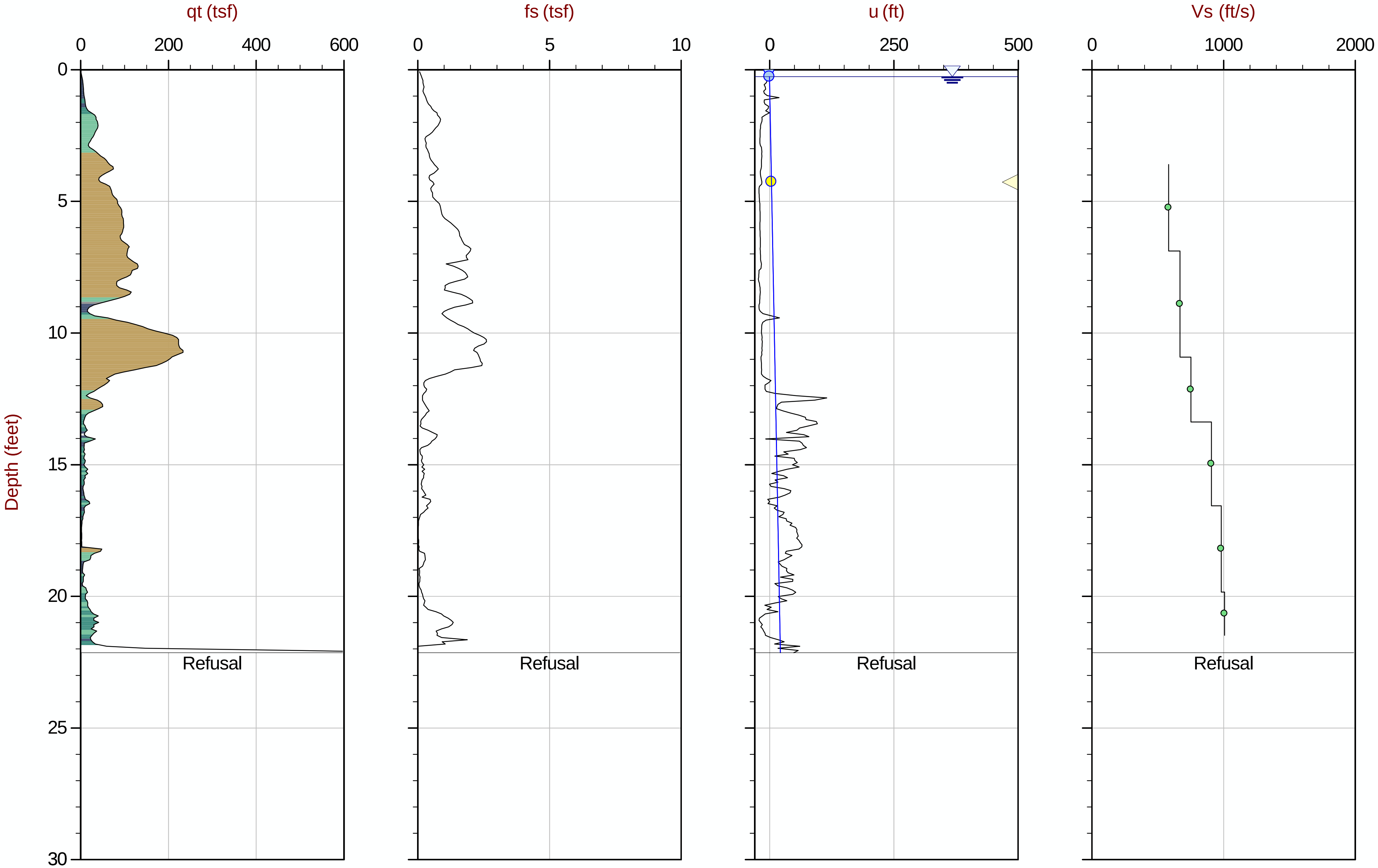
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782338m E: 405963m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-15 10:29
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-049
Cone: 1149:T1500F15U35



Max Depth: 6.750 m / 22.15 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP049.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782041m E: 406269m

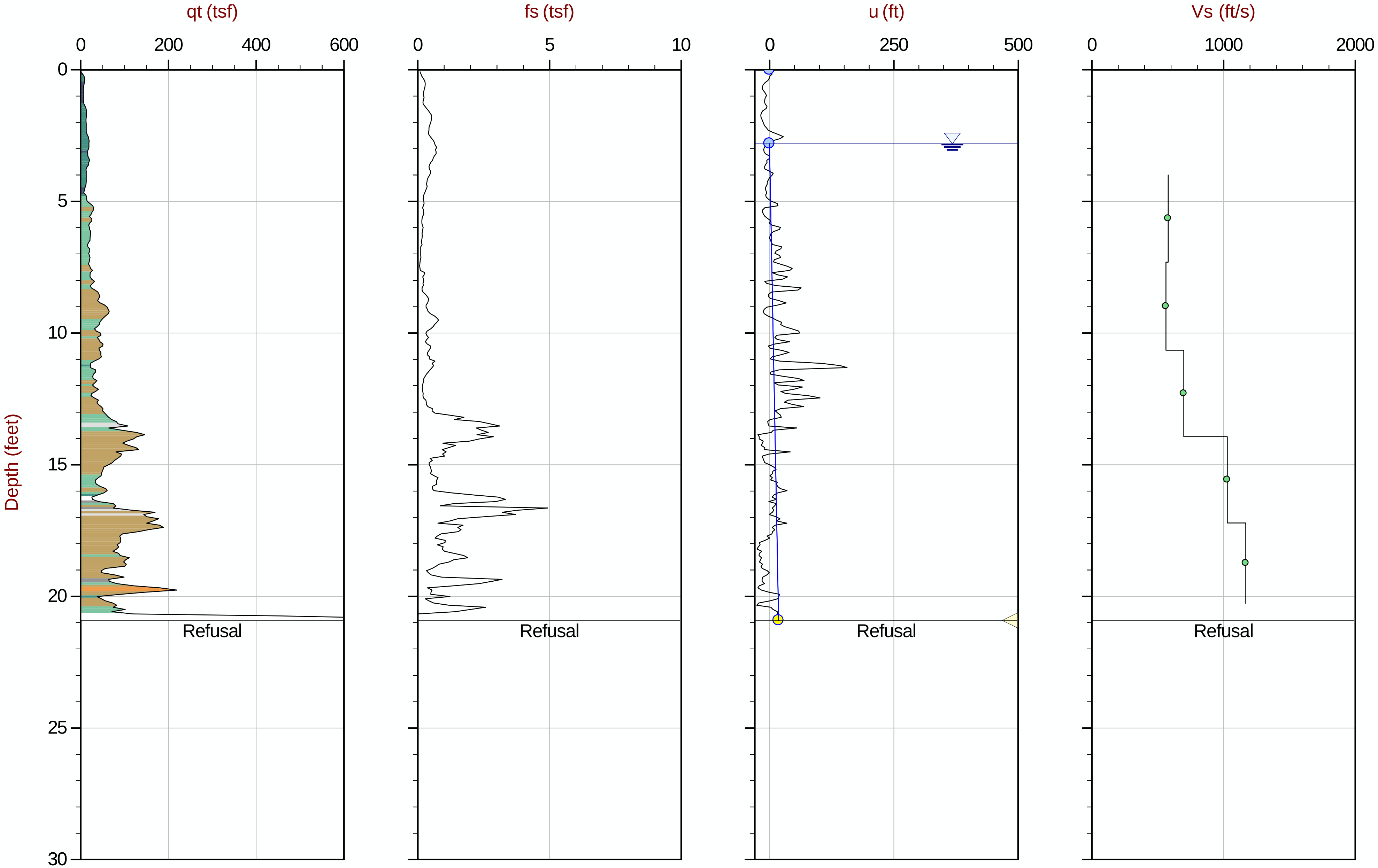
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-08 11:52
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-056
Cone: 1149:T1500F15U35



Max Depth: 6.375 m / 20.92 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP056.COR
Unit Wt: SBTQtn (PKR2009)

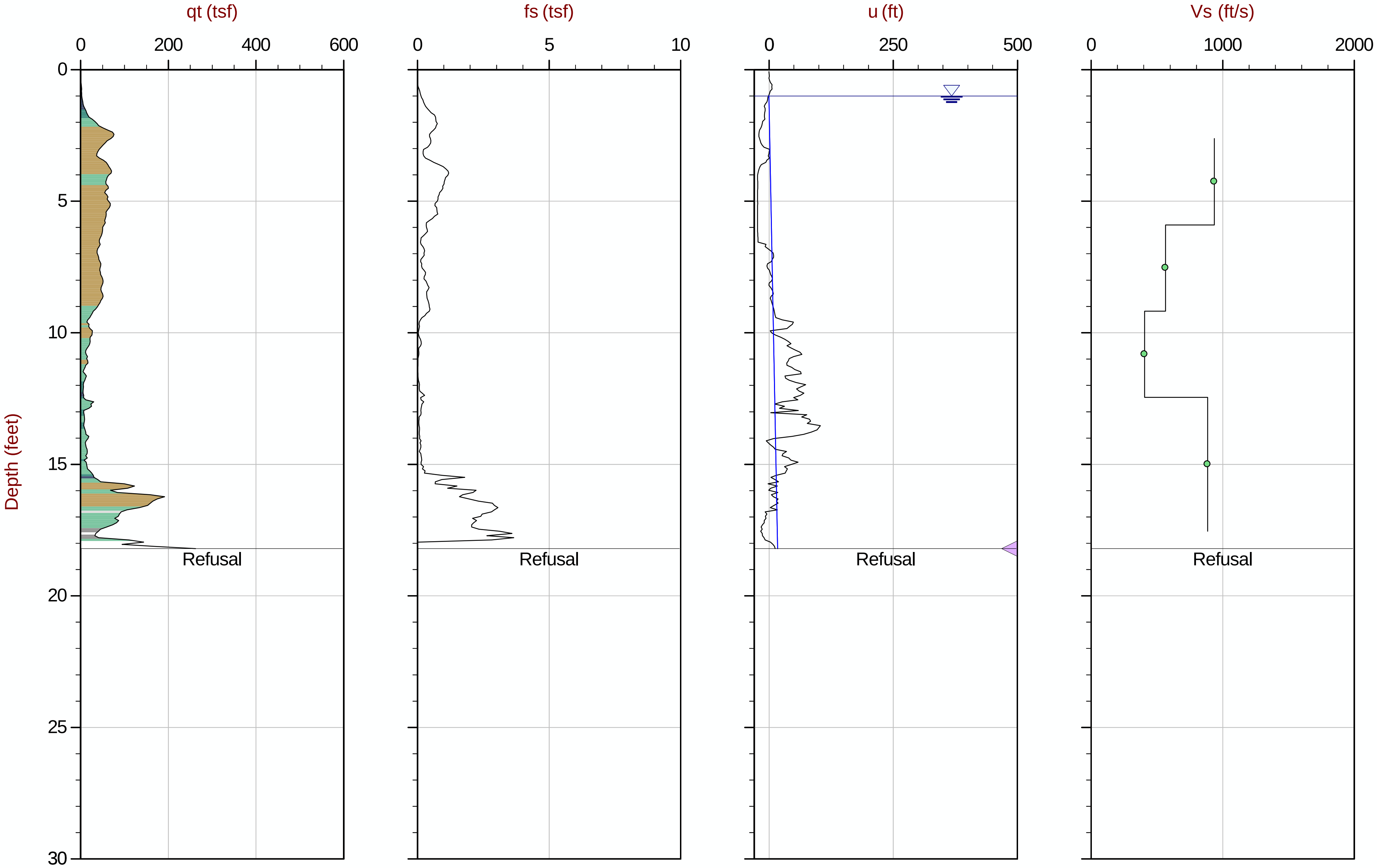
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783007m E: 406298m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-10 10:15
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-057
Cone: 1075:T1000F10U35



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

File: 25-53-29335_SP057.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783272m E: 405834m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

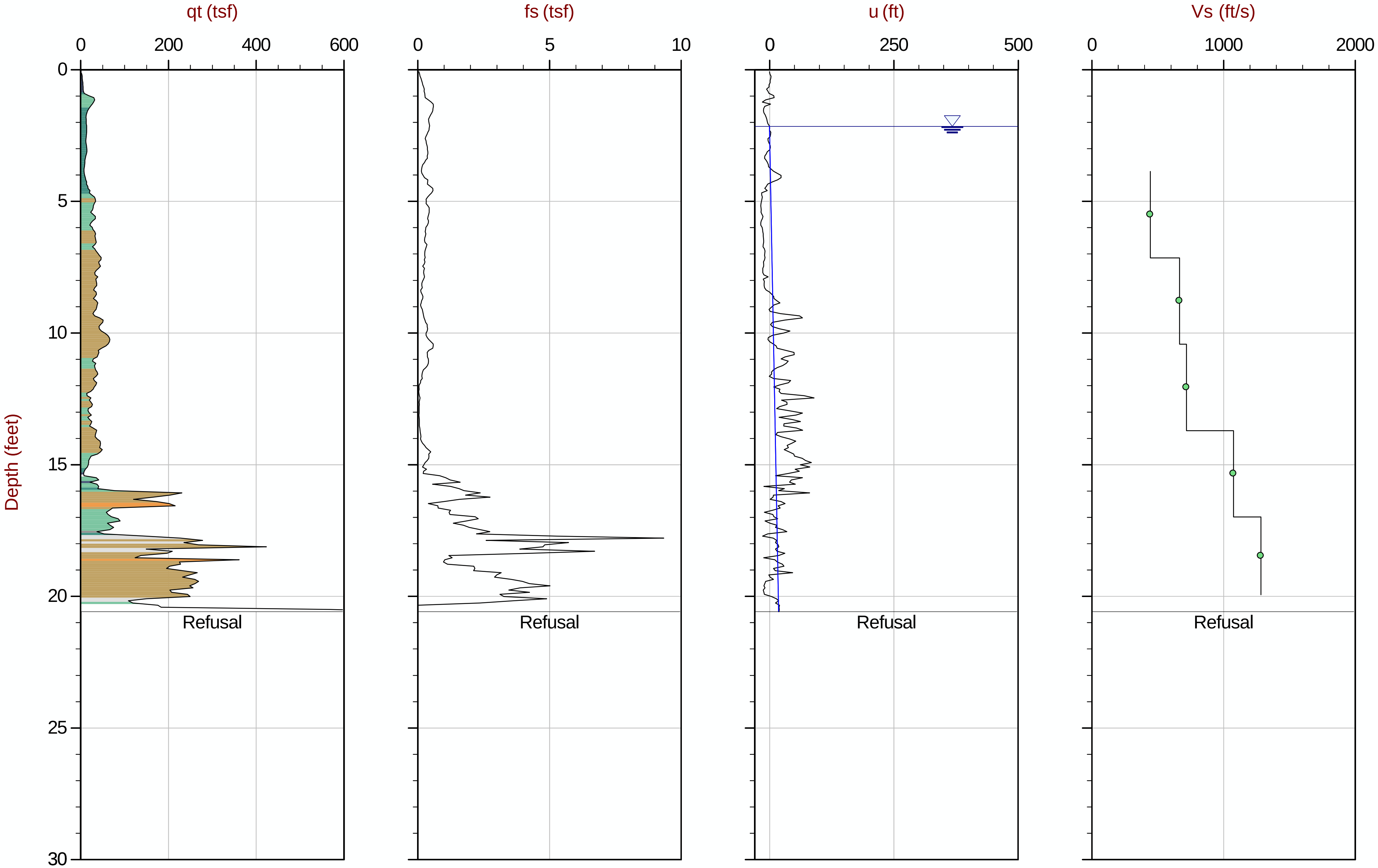
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-10 09:51
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-058
Cone: 1149:T1500F15U35



Max Depth: 6.275 m / 20.59 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP058.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783113m E: 406068m

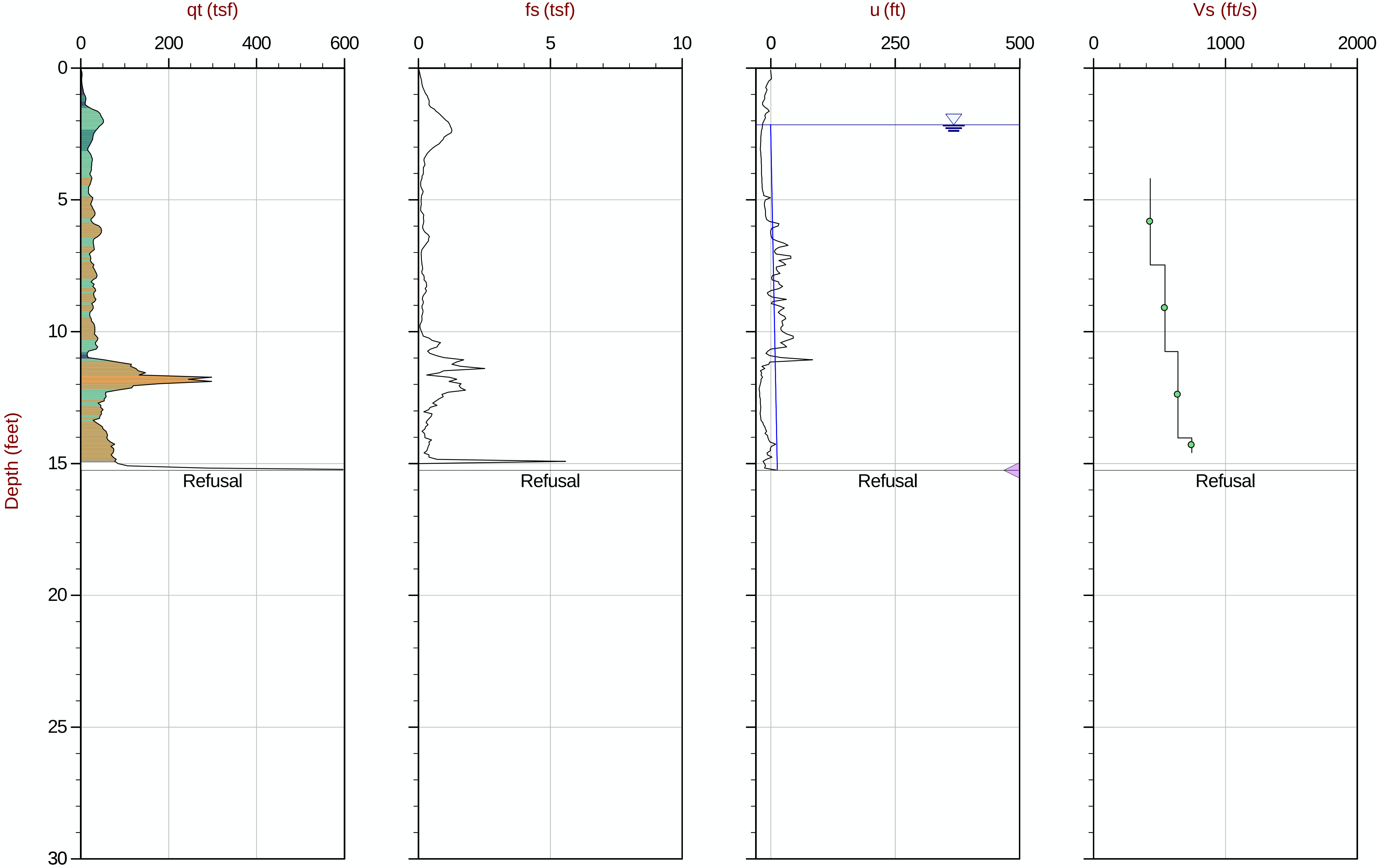
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-10 09:10
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-059
Cone: 1149:T1500F15U35



Max Depth: 4.650 m / 15.26 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP059.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783154m E: 406178m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

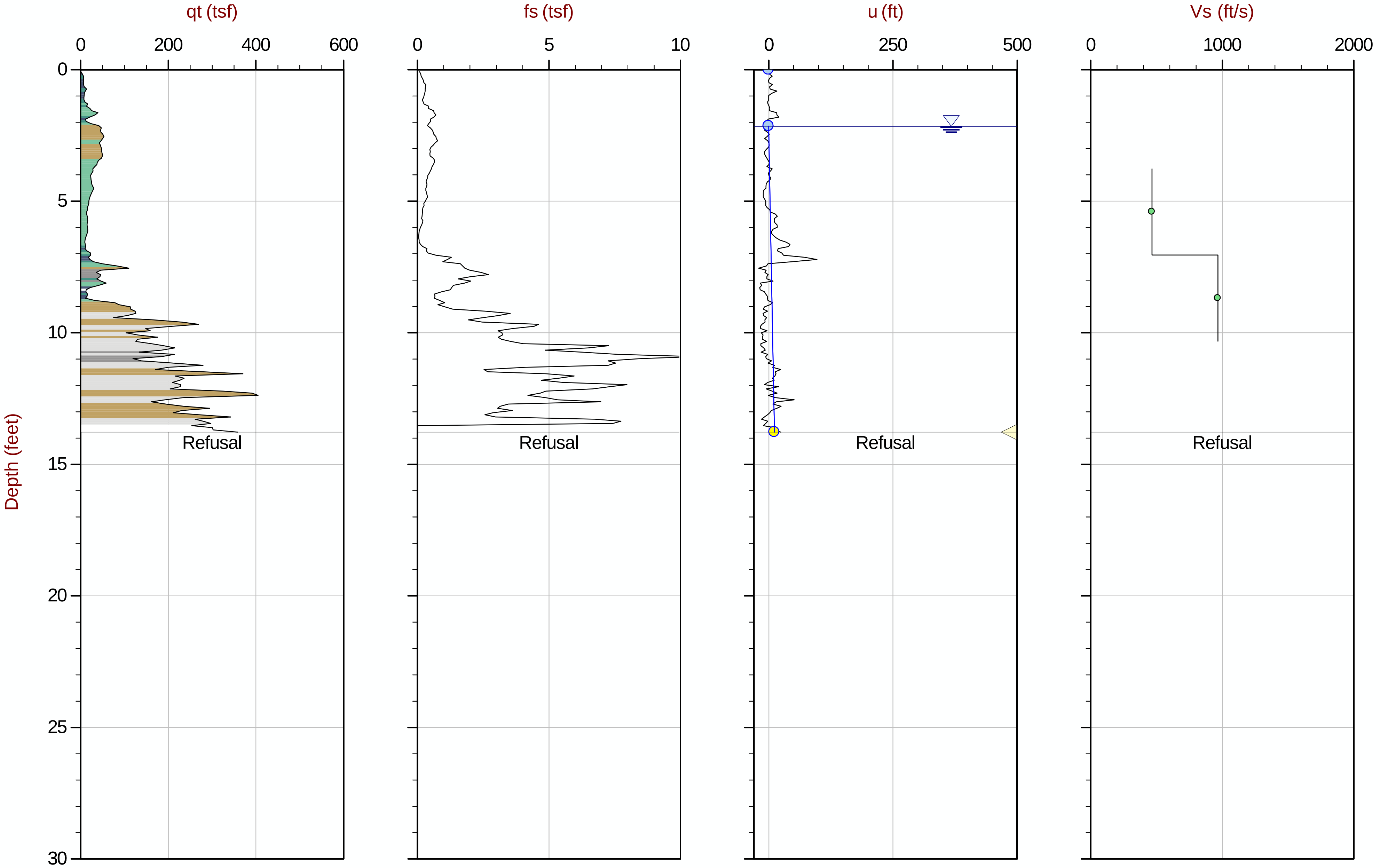
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-09 10:02
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-060
Cone: 1149:T1500F15U35



Max Depth: 4.200 m / 13.78 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP060.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783000m E: 406102m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

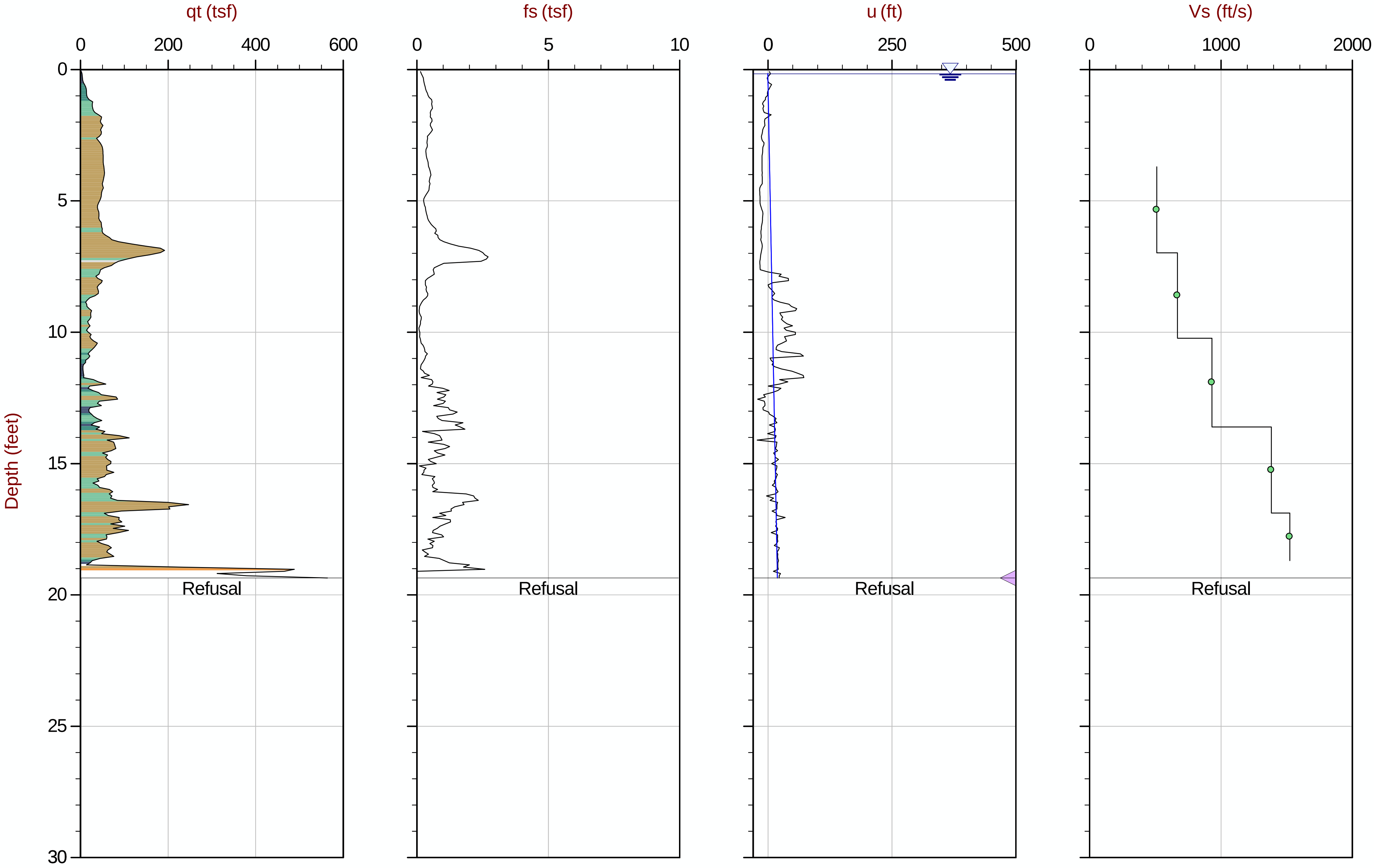
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

ConeTec

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-16 08:27
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-061
Cone: 1149:T1500F15U35



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

File: 25-53-29335_SP061.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782831m E: 405944m

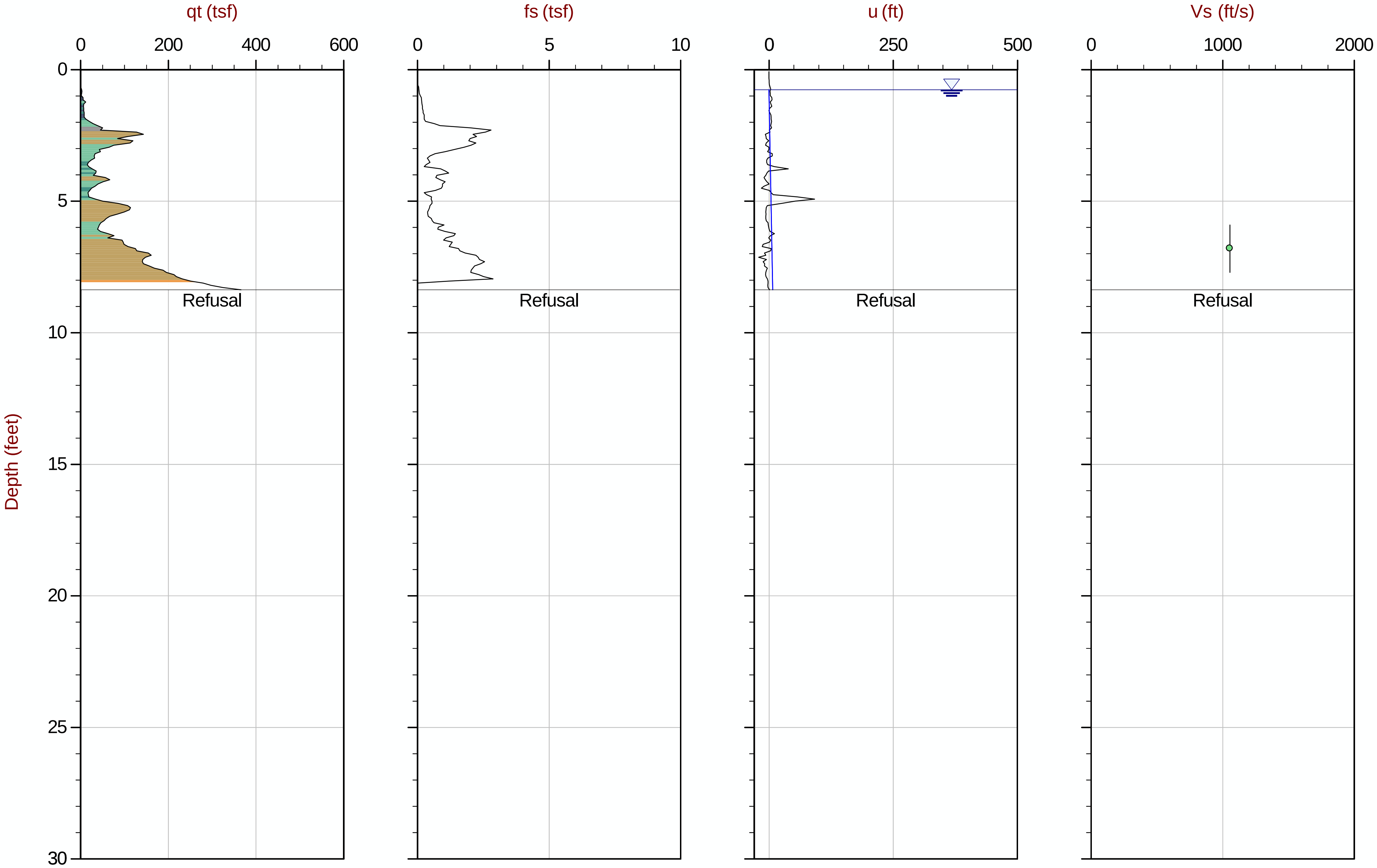
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-17 14:39
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-062
Cone: 1075:T1000F10U35



Max Depth: 2.550 m / 8.37 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP062.COR
Unit Wt: SBTQtn (PKR2009)

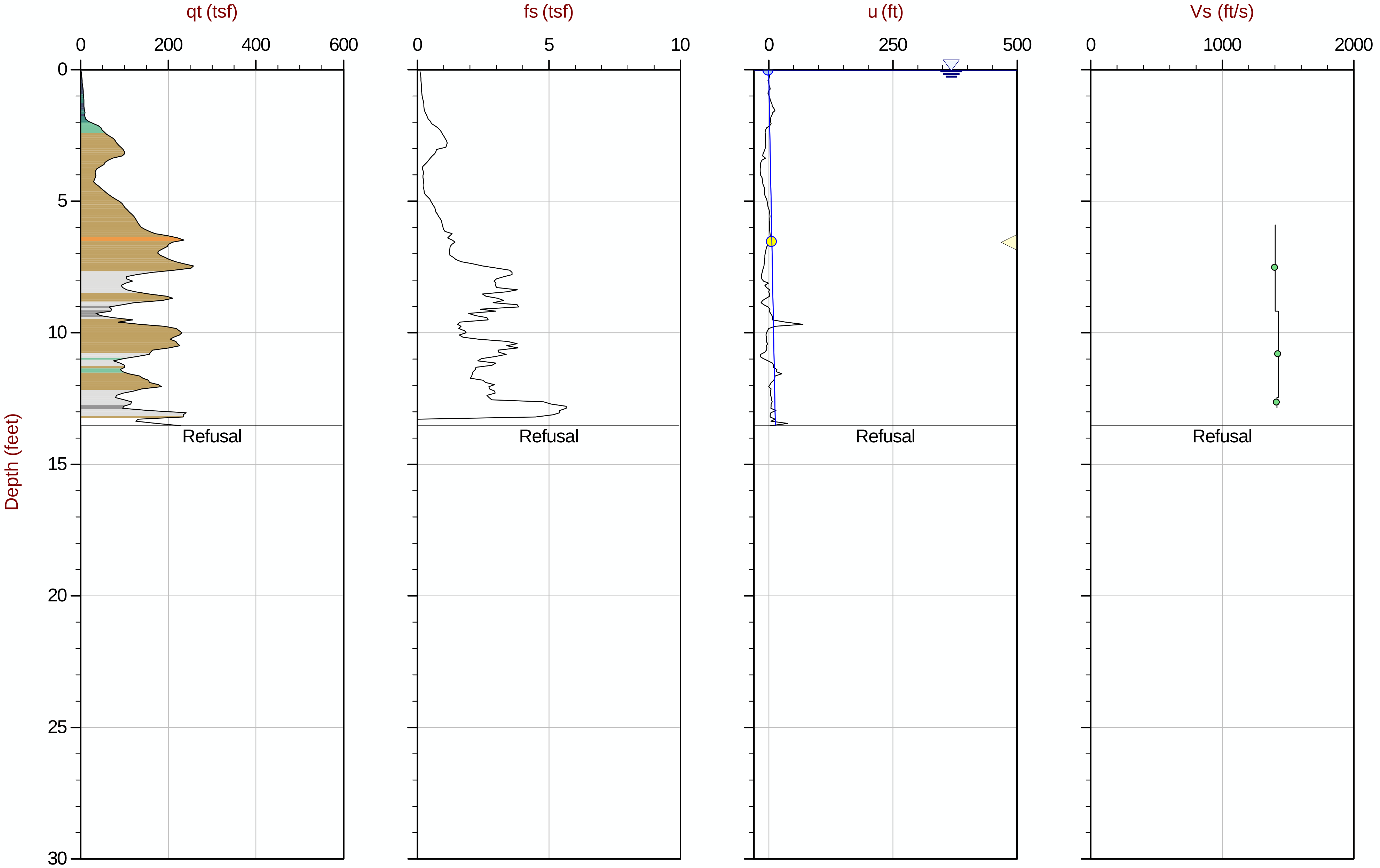
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782407m E: 405589m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-17 13:13
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-063
Cone: 1075:T1000F10U35



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

File: 25-53-29335_SP063.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782384m E: 405728m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

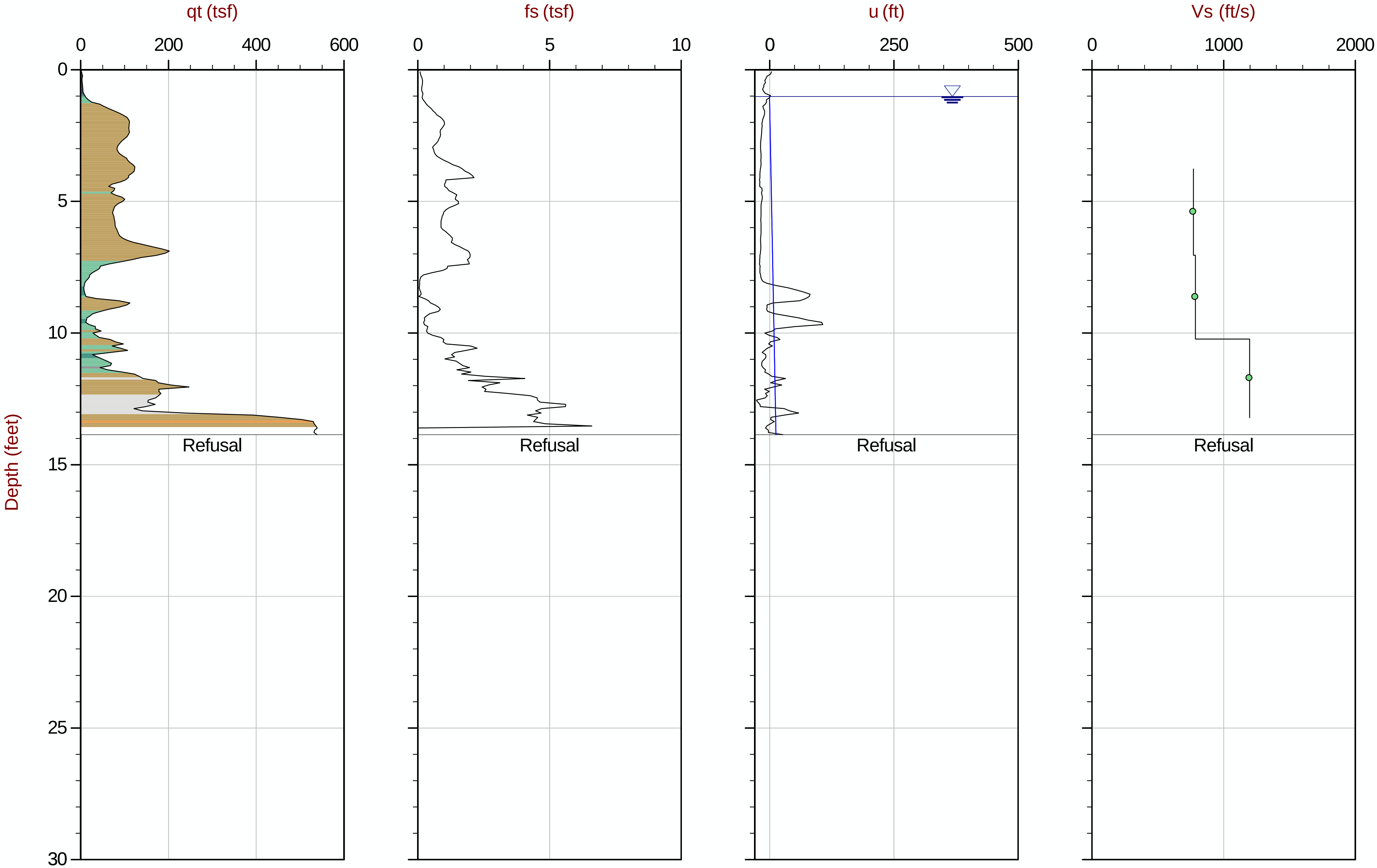
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-15 13:28
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-064
Cone: 1149:T1500F15U35



Max Depth: 4.225 m / 13.86 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP064.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782282m E: 405916m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

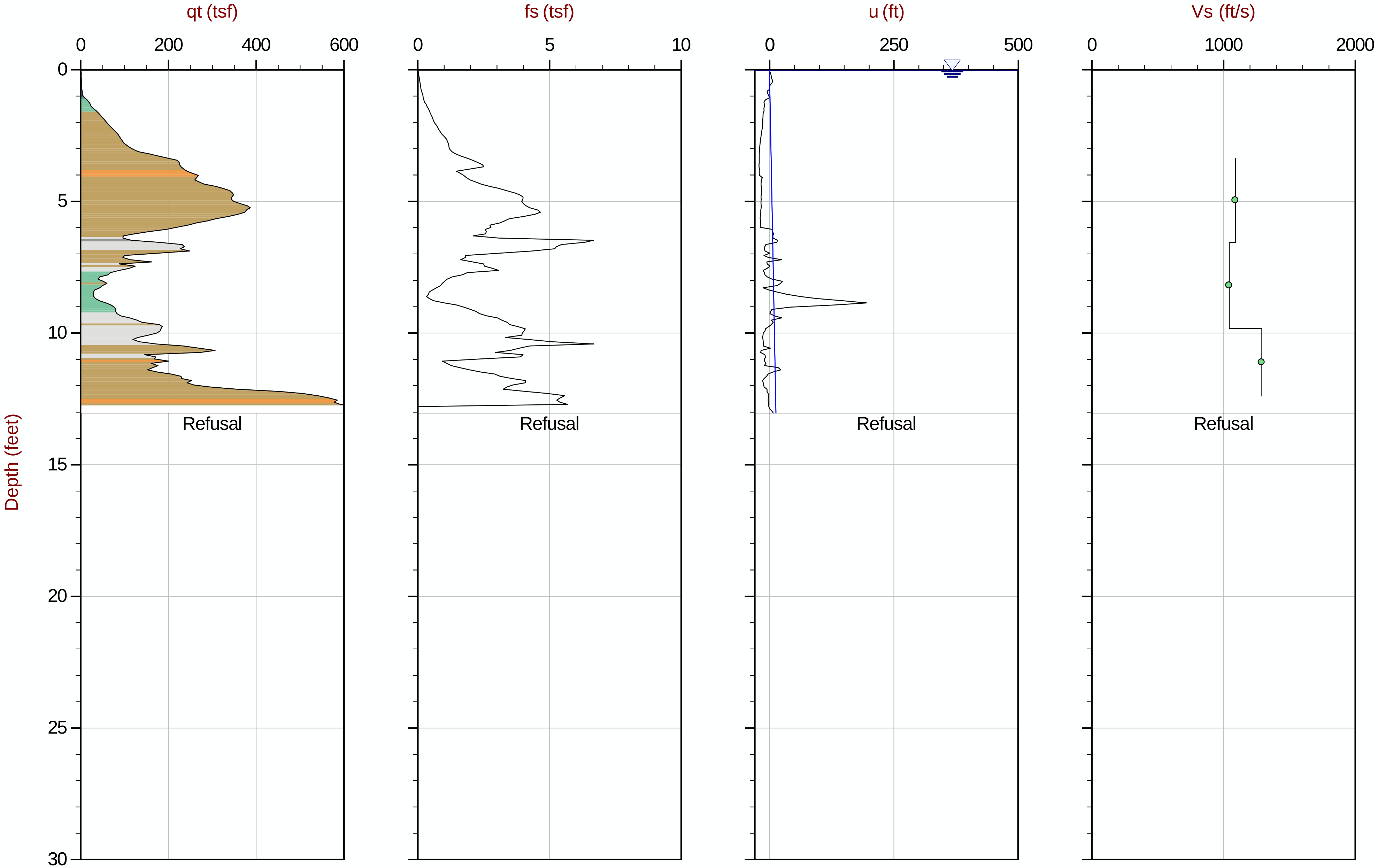
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-16 15:34
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-065
Cone: 1149:T1500F15U35



Max Depth: 3.975 m / 13.04 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP065.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782319m E: 405711m

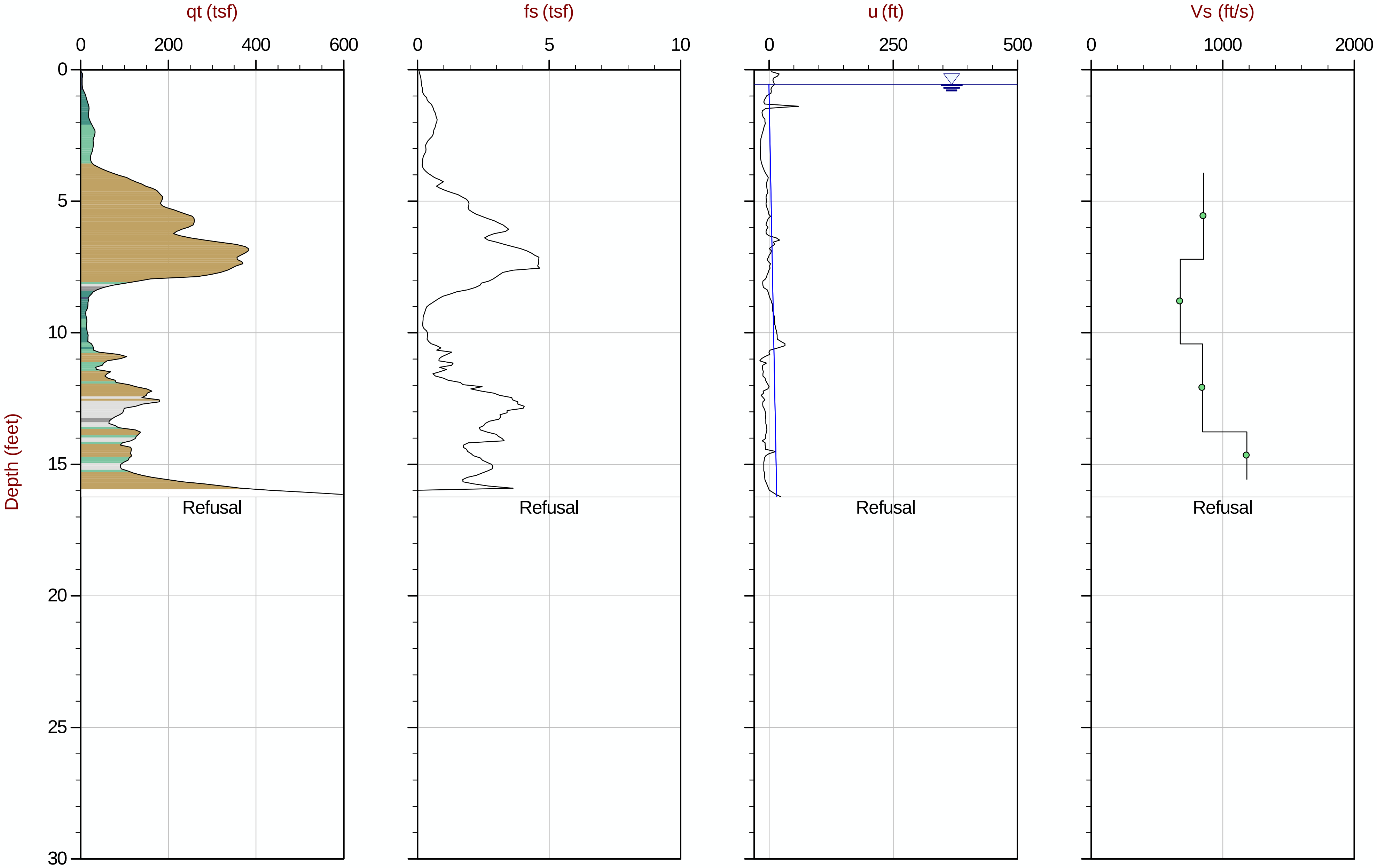
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-15 14:06
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-066
Cone: 1149:T1500F15U35



Max Depth: 4.950 m / 16.24 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP066.COR
Unit Wt: SBTQtn (PKR2009)

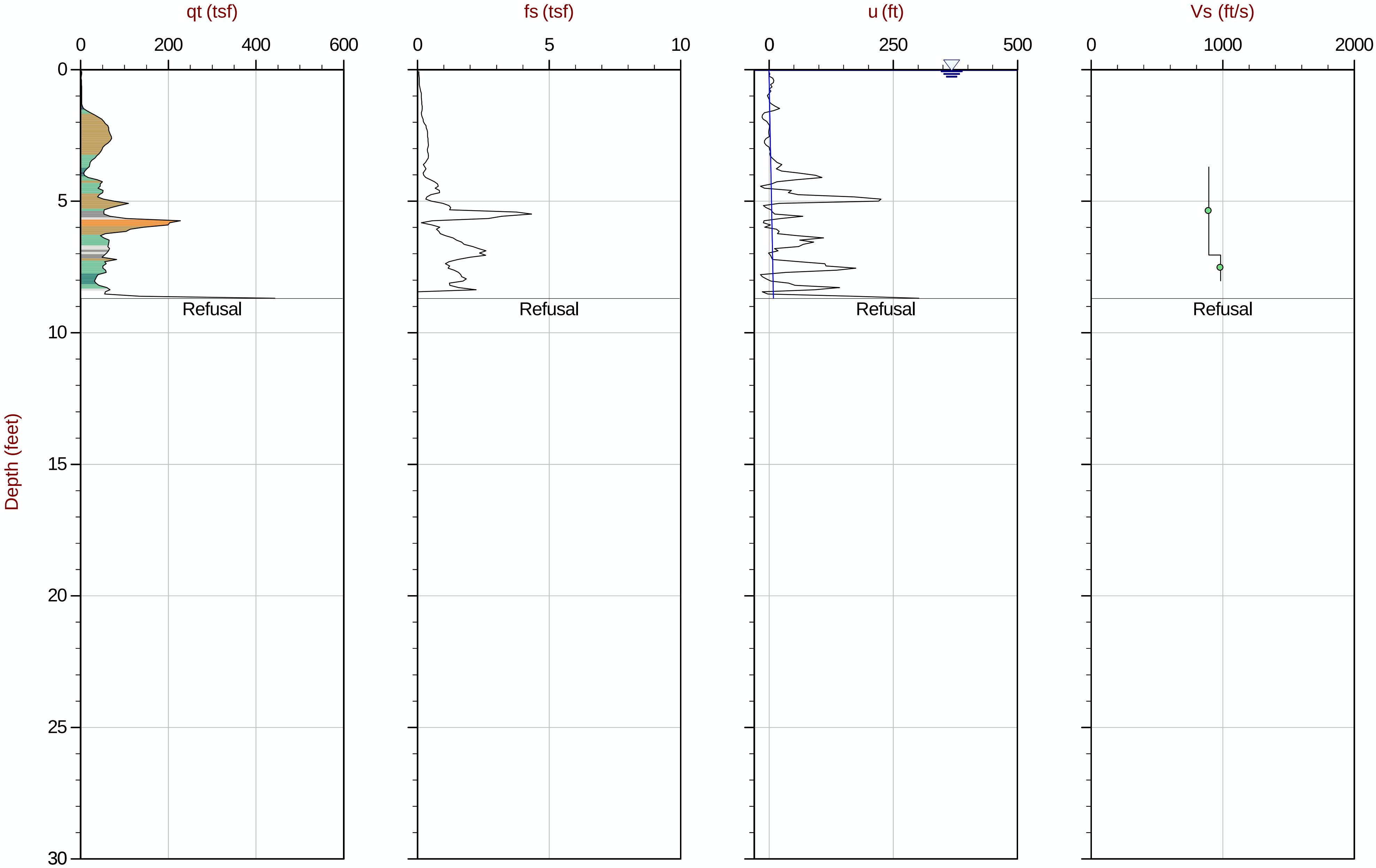
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782274m E: 405827m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-16 11:54
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-067
Cone: 1149:T1500F15U35



Max Depth: 2.650 m / 8.69 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP067.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782263m E: 405669m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

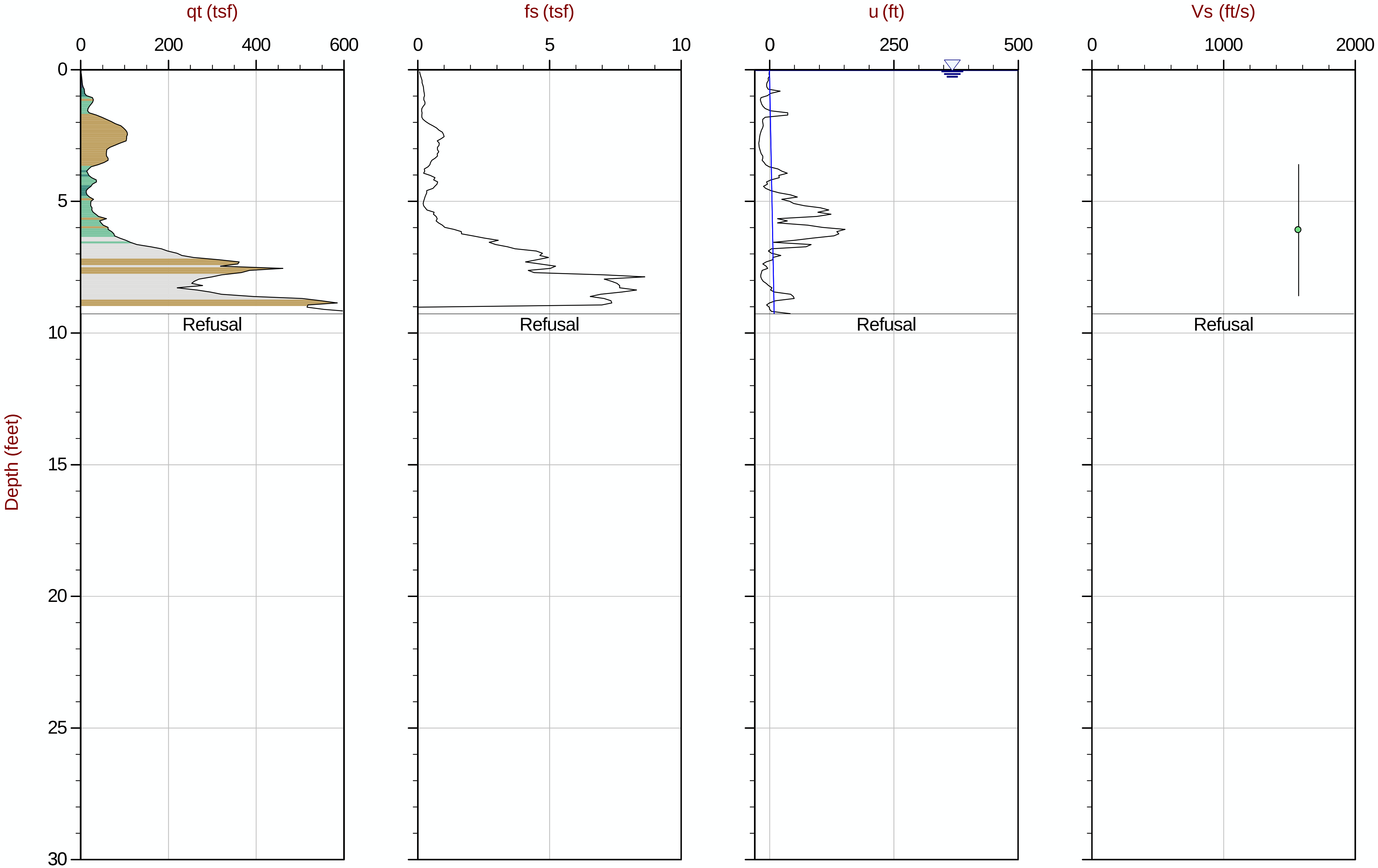
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-15 14:48
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-068
Cone: 1149:T1500F15U35



Max Depth: 2.825 m / 9.27 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP068.COR
Unit Wt: SBTQtn (PKR2009)

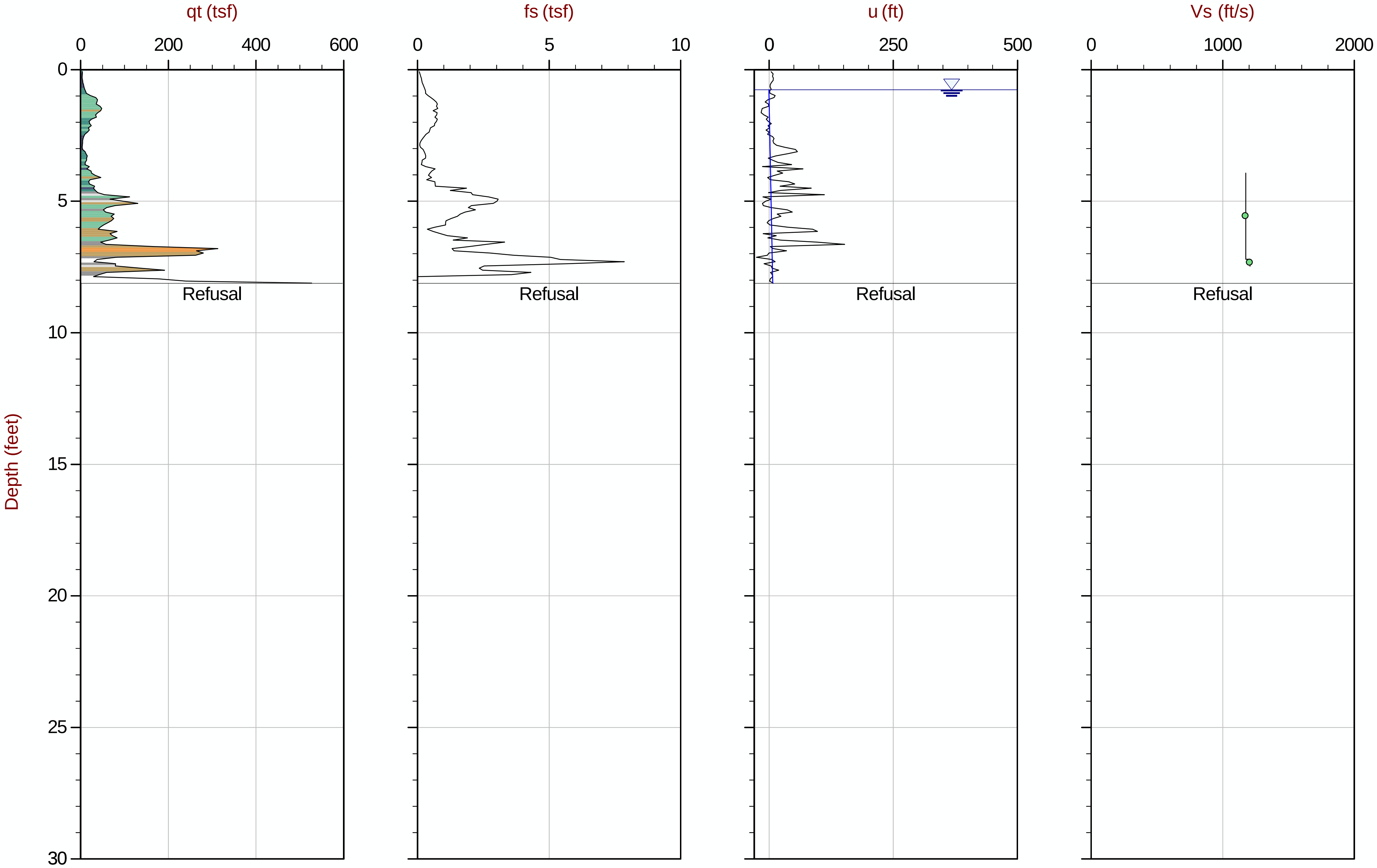
SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782181m E: 405773m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-16 11:15
Site: Micron New York Manufacturing Facility - Clay, NY
Sounding: SCPT25-069
Cone: 1149:T1500F15U35



Max Depth: 2.475 m / 8.12 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP069.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782174m E: 405311m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

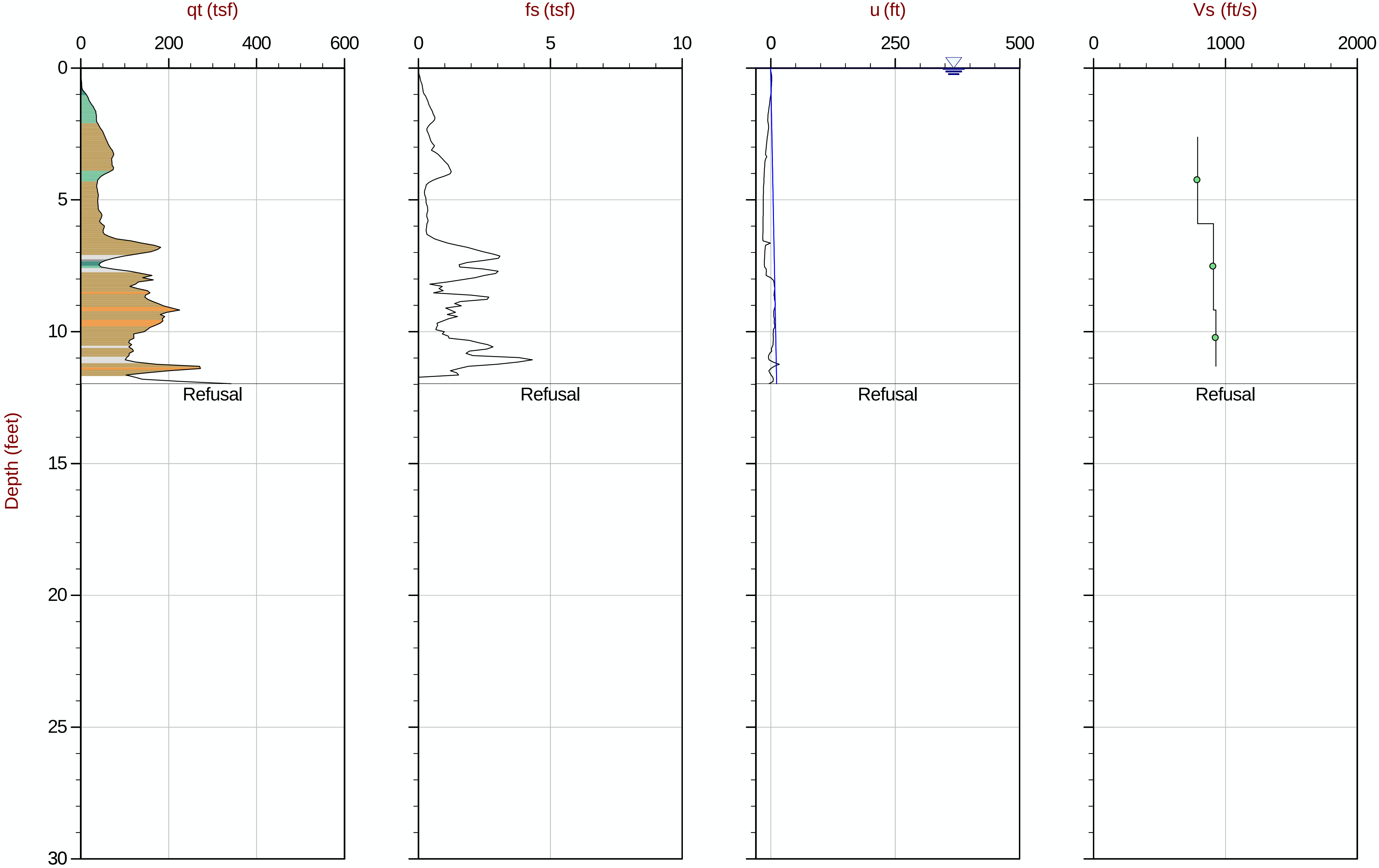
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-10 11:36
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-070
Cone: 1075:T1000F10U35



Max Depth: 3.650 m / 11.97 ft
Depth Inc: 0.025 m / 0.082 ft
Avg Int: Every Point

File: 25-53-29335_SP070.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4782933m E: 405543m

Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

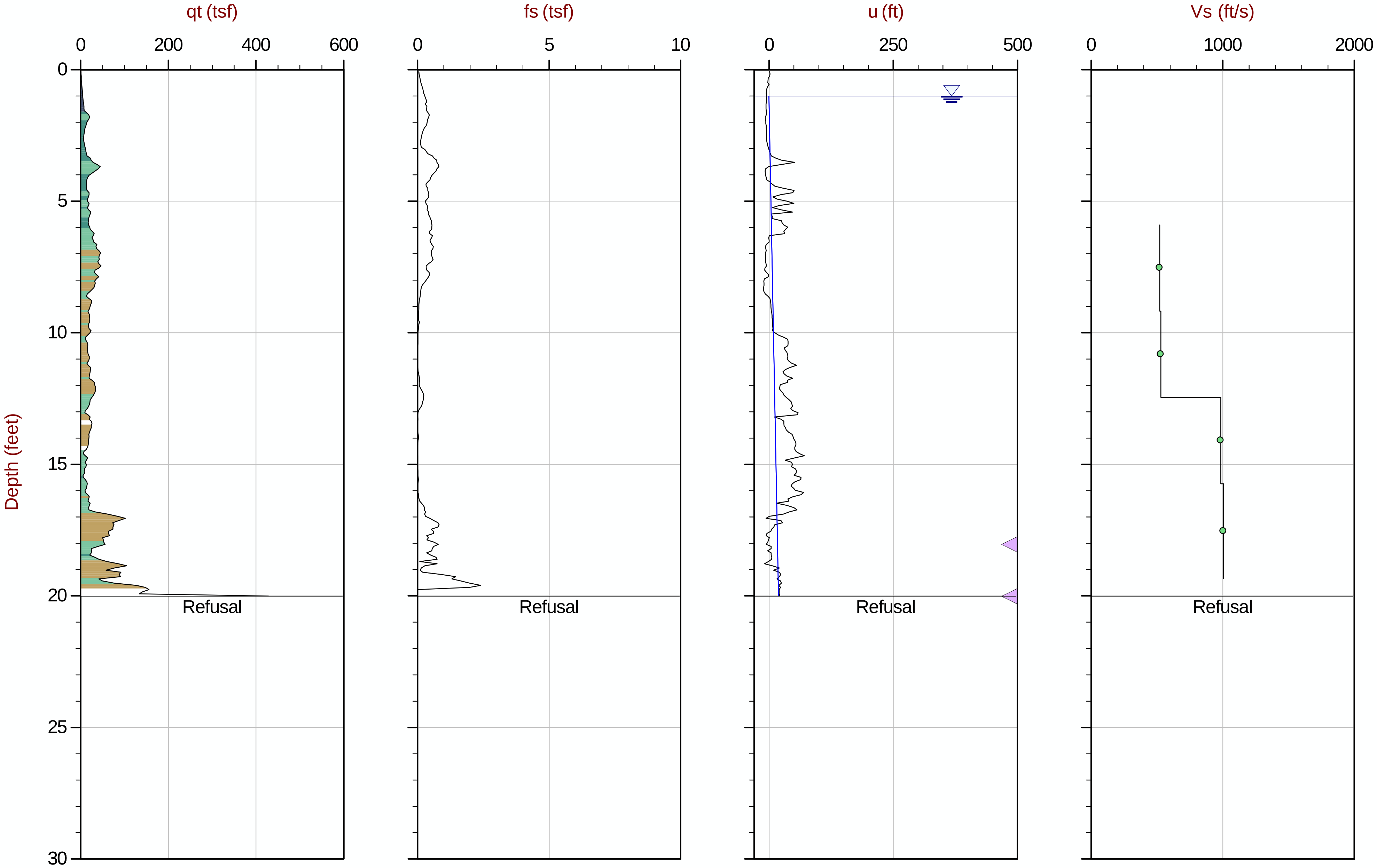
The reported coordinates were acquired from consumer grade GPS equipment and are only approximate locations. The coordinates should not be used for design purposes.

CONETEC

Langan Engineering

Job No: 23-53-25283
Date: 2025-04-17 10:22
Site: Micron New York Manufacturing Facility - Clay, NY

Sounding: SCPT25-071
Cone: 1075:T1000F10U35



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

File: 25-53-29335_SP071.COR
Unit Wt: SBTQtn (PKR2009)

SBT: Robertson, 2009 and 2010
Coords: (UTM Zone 18 North) N: 4783346m E: 405870m

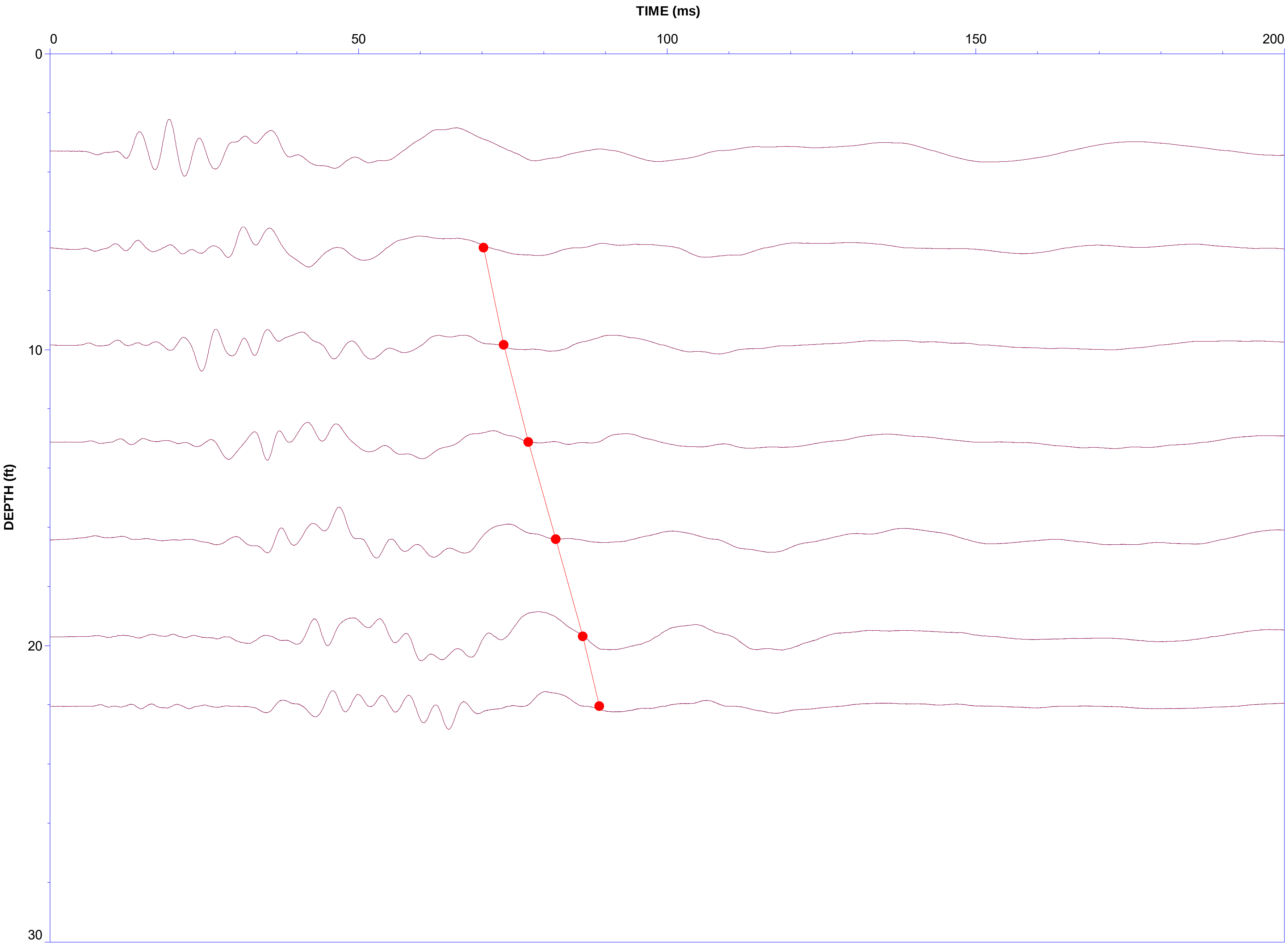
Overplot Item: ● Ueq ● Assumed Ueq ◁ Dissipation, Ueq achieved ◁ Dissipation, Ueq not achieved ◁ Dissipation, Ueq assumed — Hydrostatic Line

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

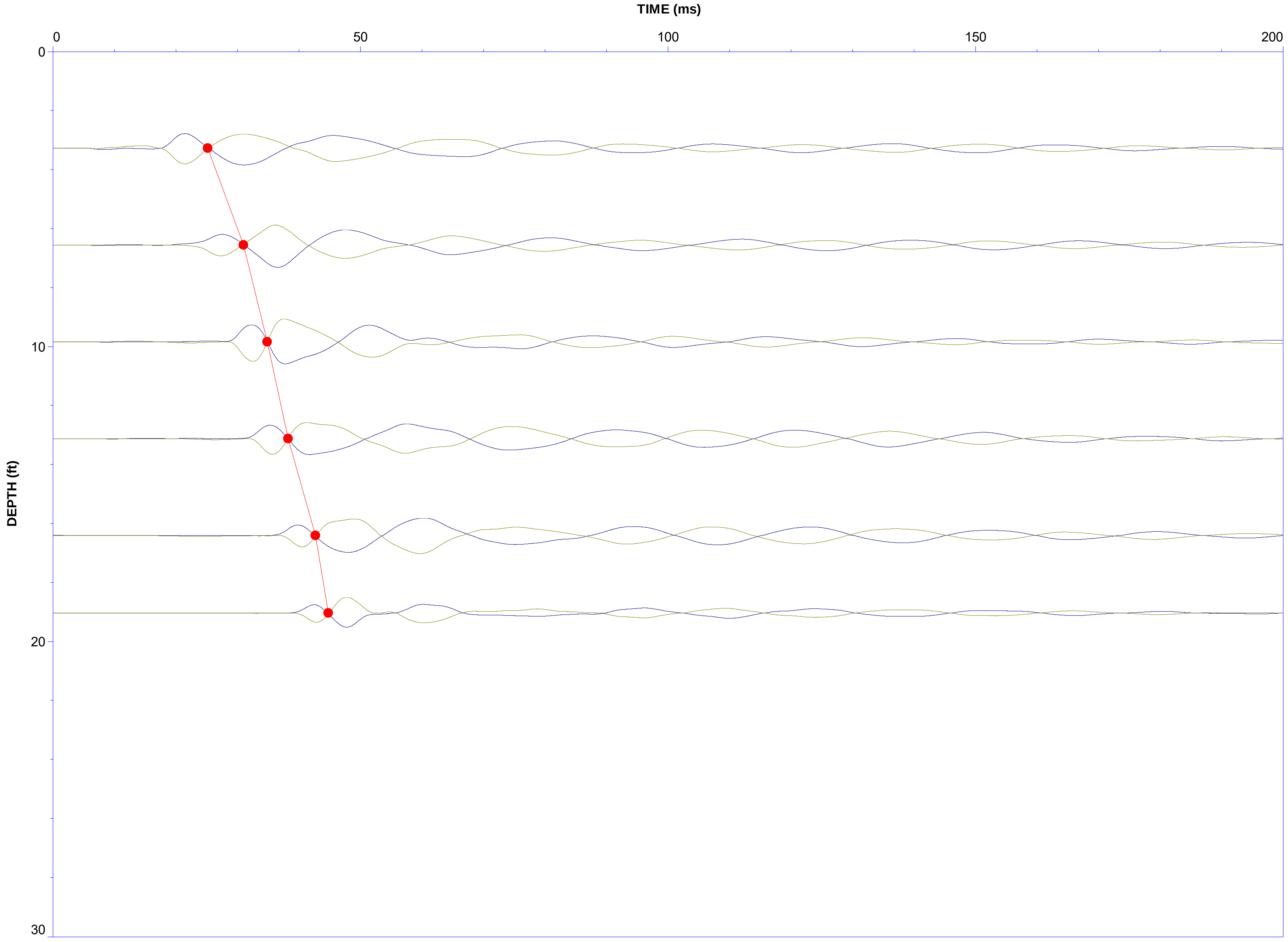
SCPTu Velocity Wave Traces

Job No: 25-53-29335 | Client: Langan Engineering | Project: Micron New York Manufacturing Facility - Clay, NY | Analysis: Shear Wave | Sounding: SCPT25-002

Filter: None | Date: 10-Apr-2025 | Cone: 1075:T1000F10U35



Job No: 25-53-29335	Client: Langan Engineering	Project: Micron New York Manufacturing Facility - Clay, NY	Analysis: Shear Wave	Sounding: SCPT25-004
Filter: None	Date: 14-Apr-2025	Cone: 1075:T1000F10U35		



CONETEC

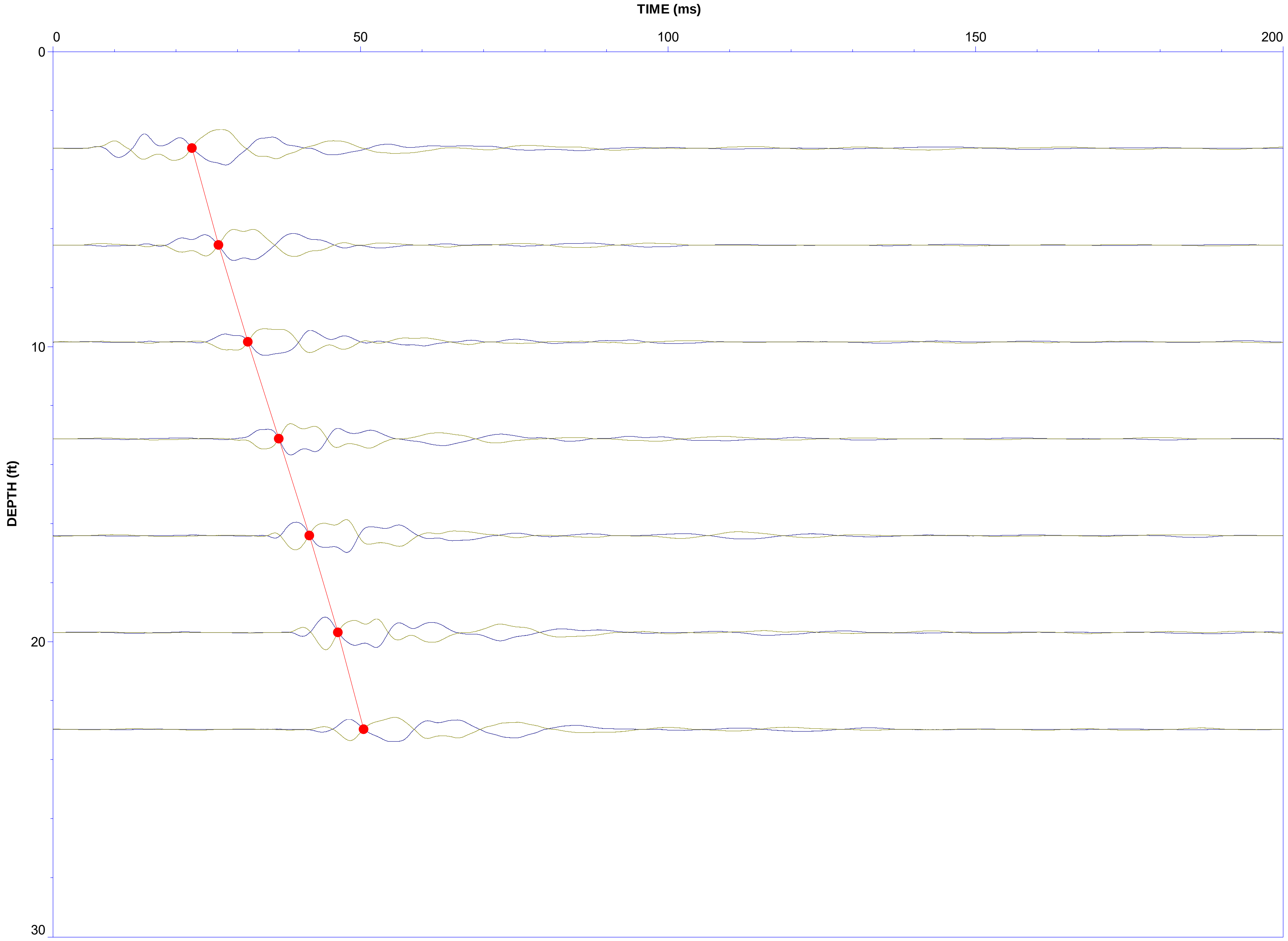
Job No: 25-53-29335
Filter: None

Client: Langan Engineering
Date: 11-Apr-2025

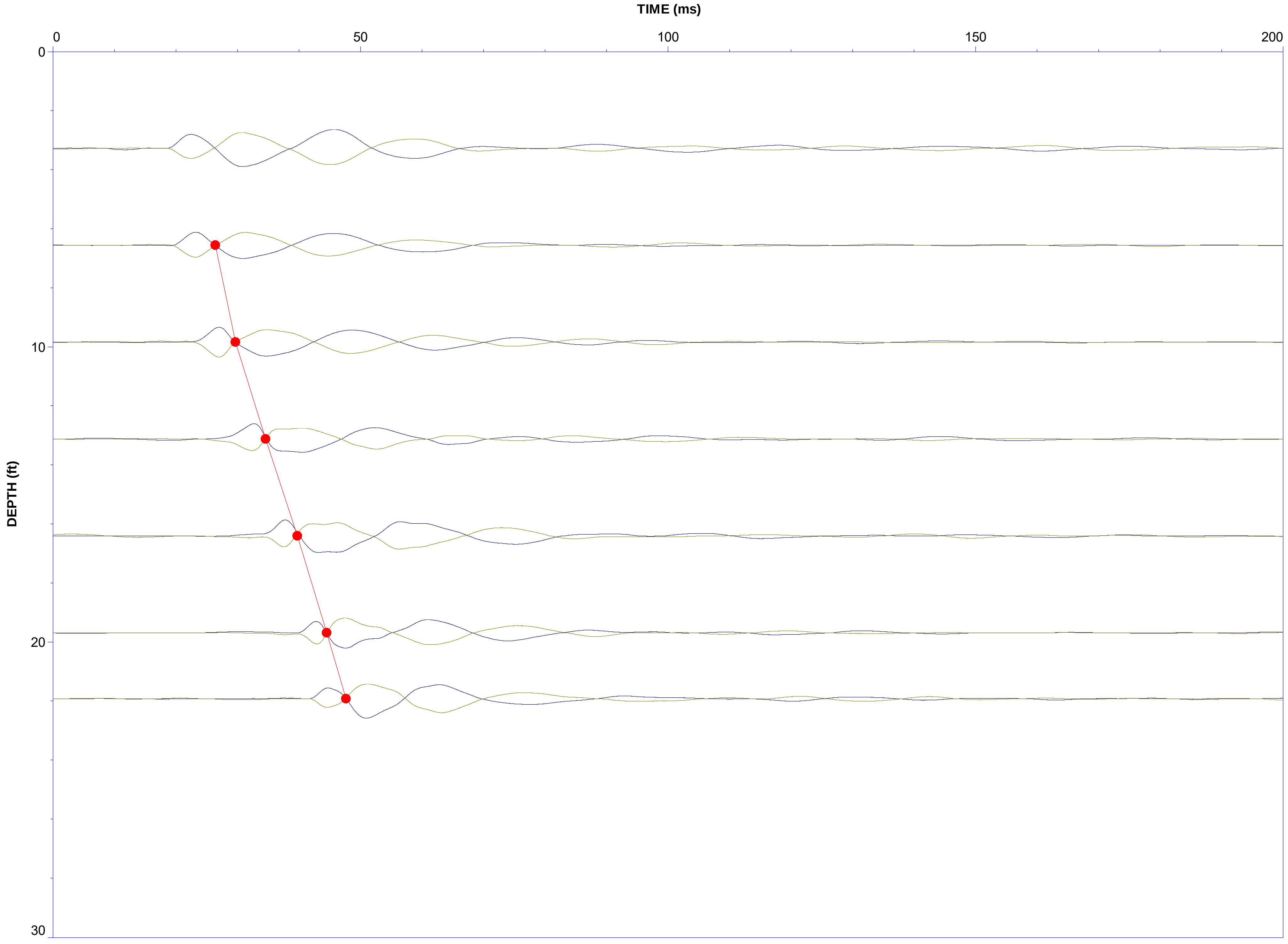
Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1075:T1000F10U35

Analysis: Shear Wave

Sounding: SCPT25-006



Job No: 25-53-29335	Client: Langan Engineering	Project: Micron New York Manufacturing Facility - Clay, NY	Analysis: Shear Wave	Sounding: SCPT25-010
Filter: None	Date: 16-Apr-2025	Cone: 1075:T1000F10U35		



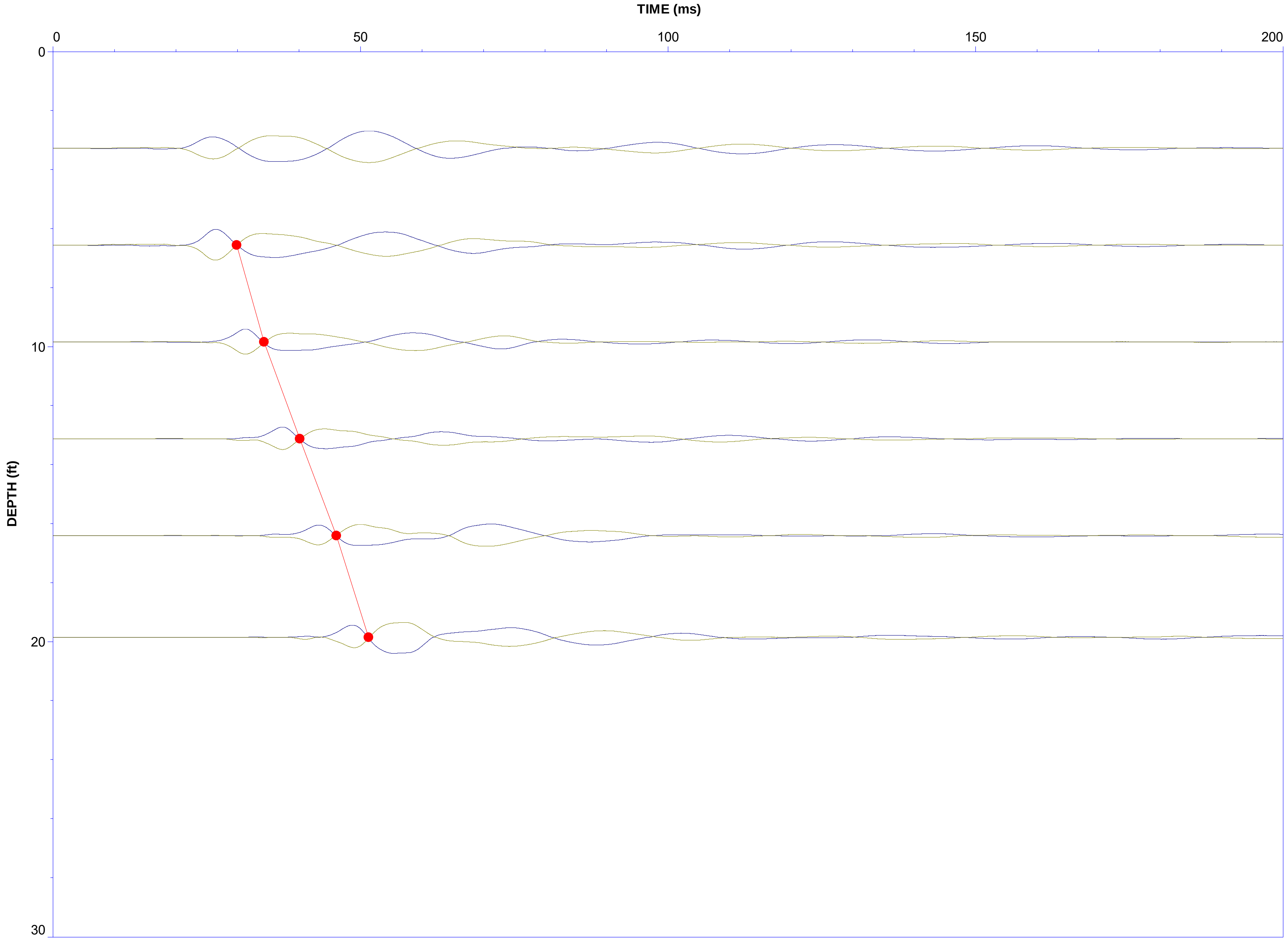
Job No: 25-53-29335
Filter: None

Client: Langan Engineering
Date: 15-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1075:T1000F10U35

Analysis: Shear Wave

Sounding: SCPT25-012



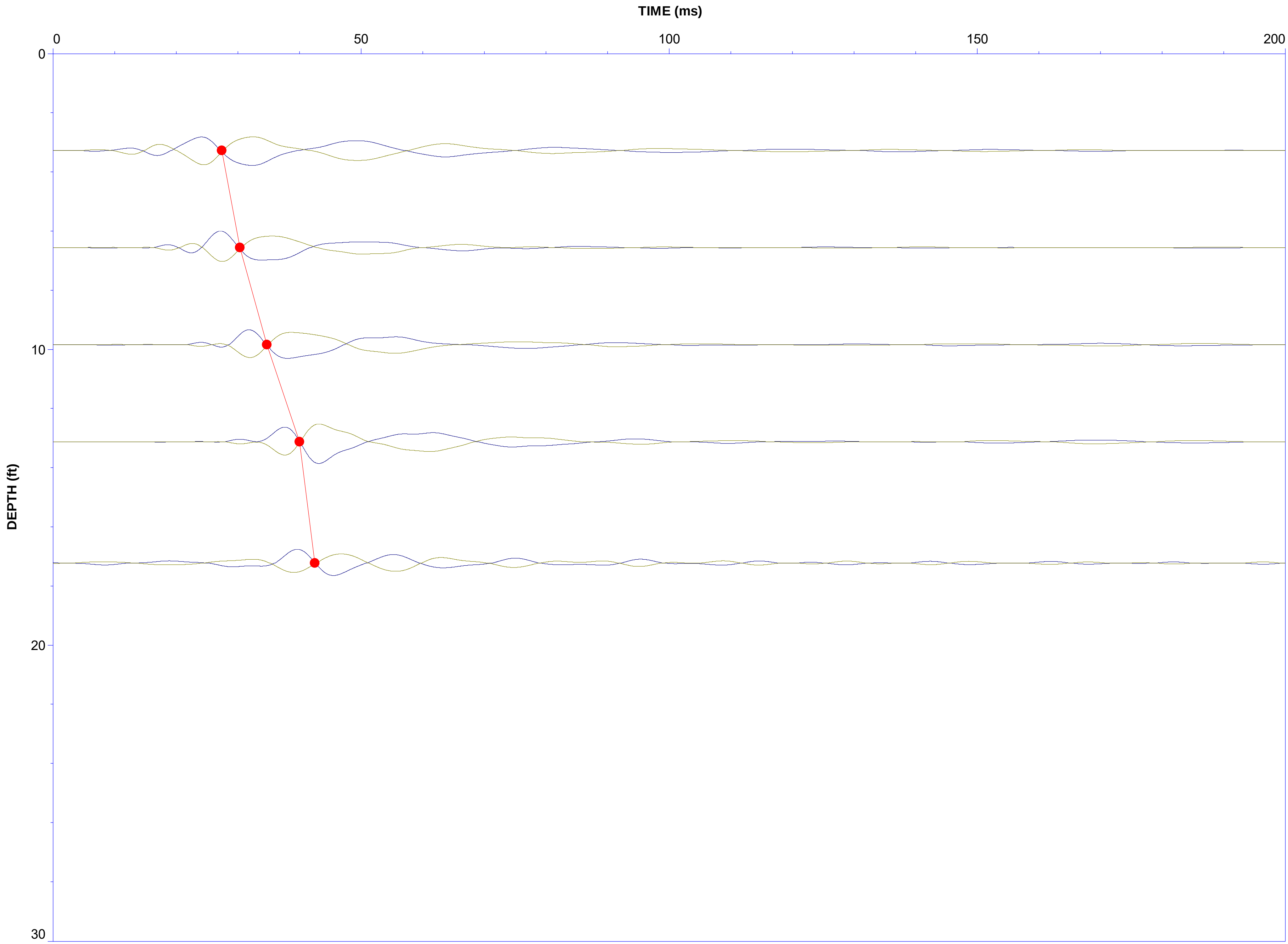
Job No: 25-53-29335
Filter: 0-200Hz BP

Client: Langan Engineering
Date: 16-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1075:T1000F10U35

Analysis: Shear Wave

Sounding: SCPT25-018



CONETEC

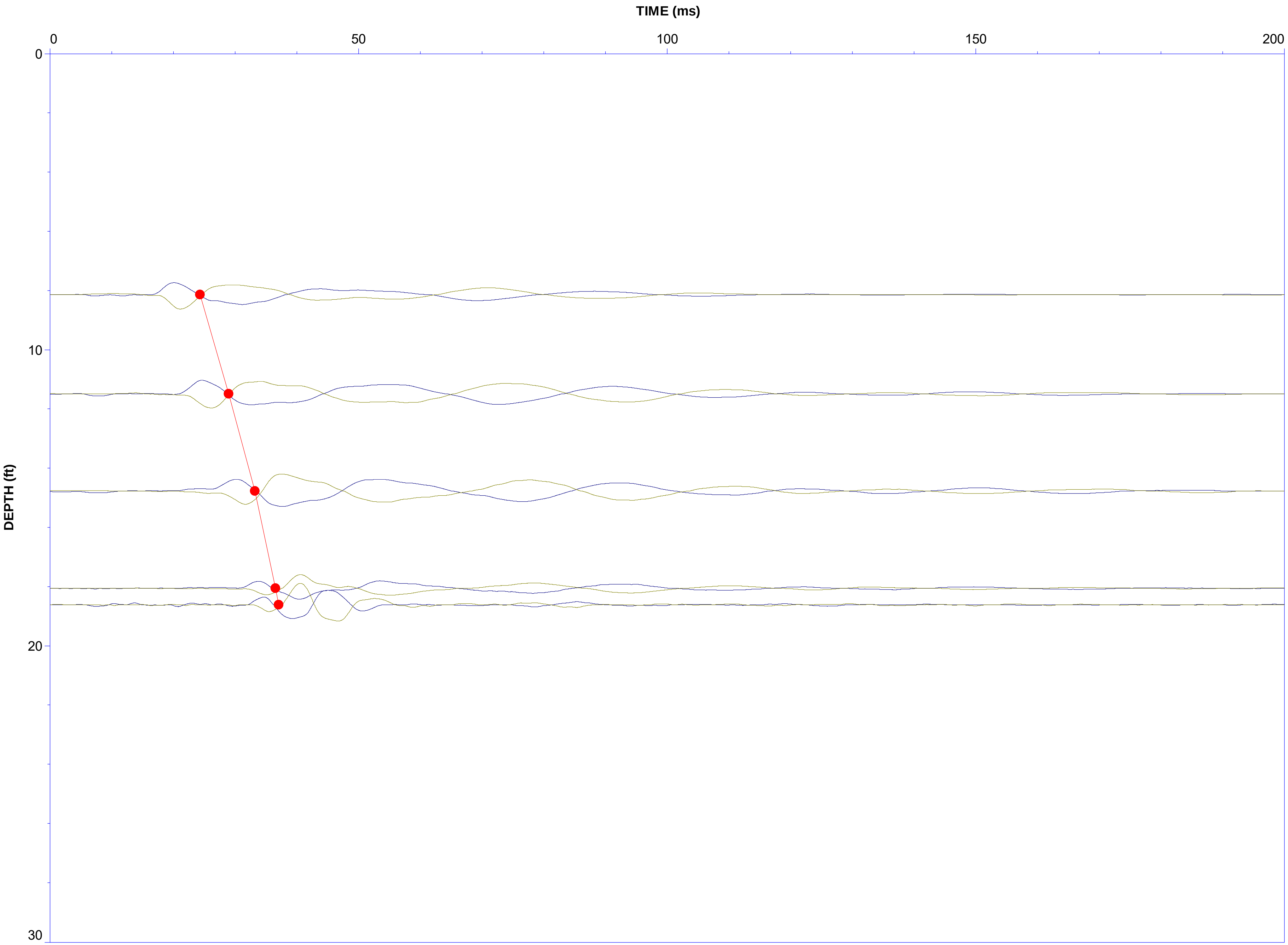
Job No: 25-53-29335
Filter: None

Client: Langan Engineering
Date: 08-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-021



CONETEC

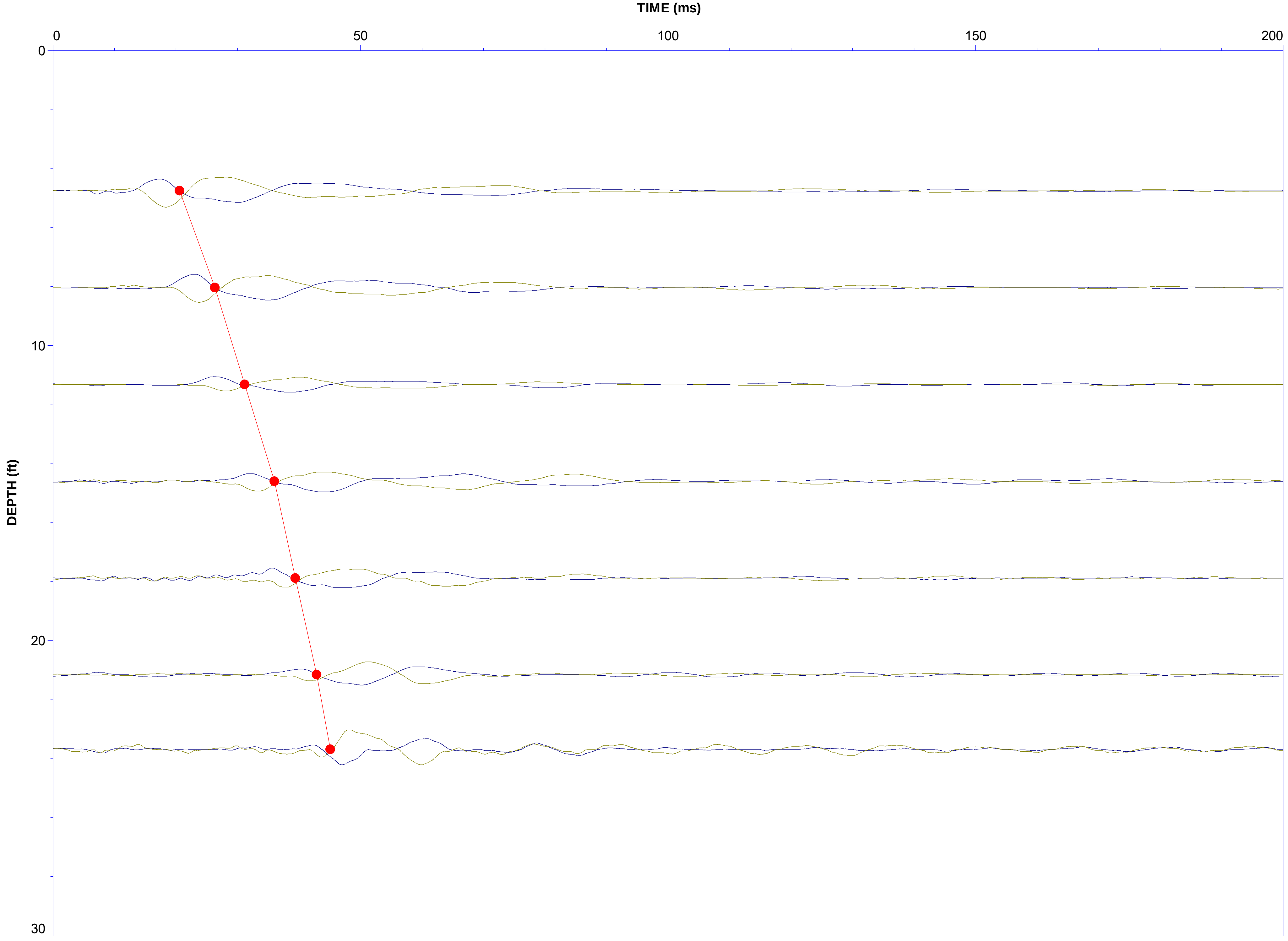
Job No: 25-53-29335
Filter: None

Client: Langan Engineering
Date: 08-Apr-2025

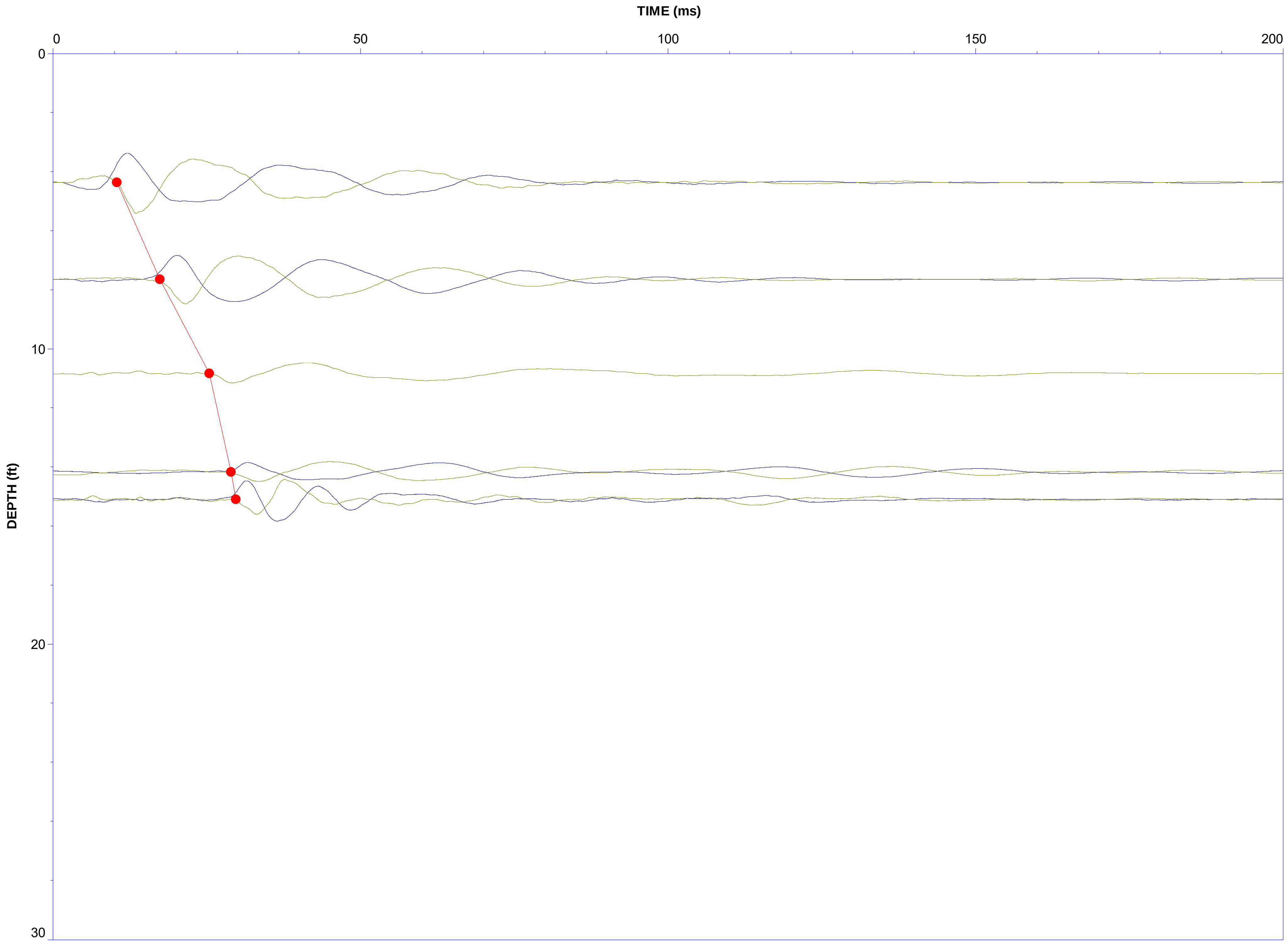
Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

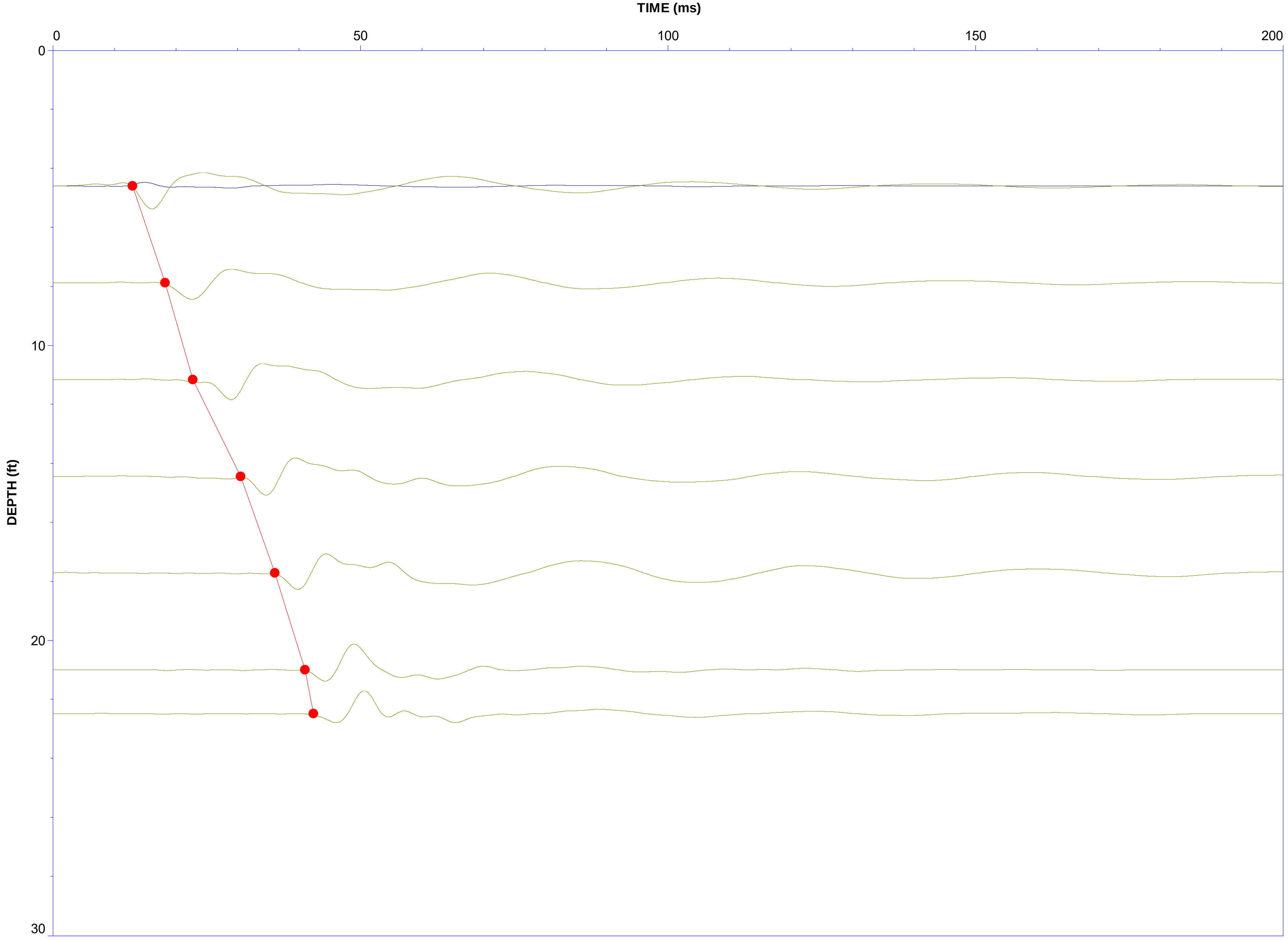
Sounding: SCPT25-022



Job No: 25-53-29335	Client: Langan Engineering	Project: Micron New York Manufacturing Facility - Clay, NY	Analysis: Shear Wave	Sounding: SCPT25-024
Filter: 0-200Hz BP	Date: 10-Apr-2025	Cone: 1149:T1500F15U35		



Job No: 25-53-29335 Client: Langan Engineering Project: Micron New York Manufacturing Facility - Clay, NY Analysis: Shear Wave Sounding: SCPT25-028
Filter: None Date: 09-Apr-2025 Cone: 1149:T1500F15U35



CONETEC

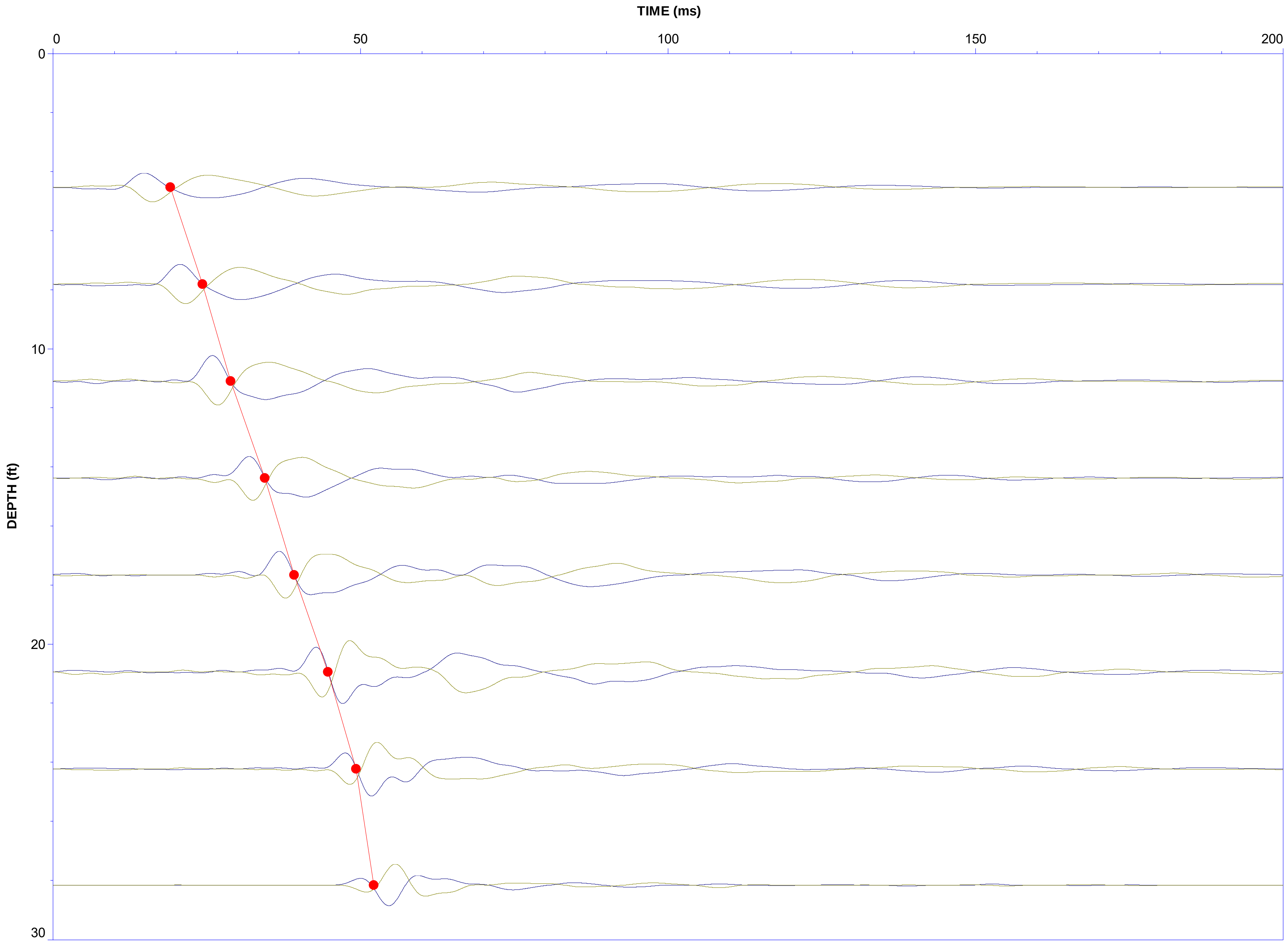
Job No: 25-53-29335
Filter: 0-200Hz BP

Client: Langan Engineering
Date: 09-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-029



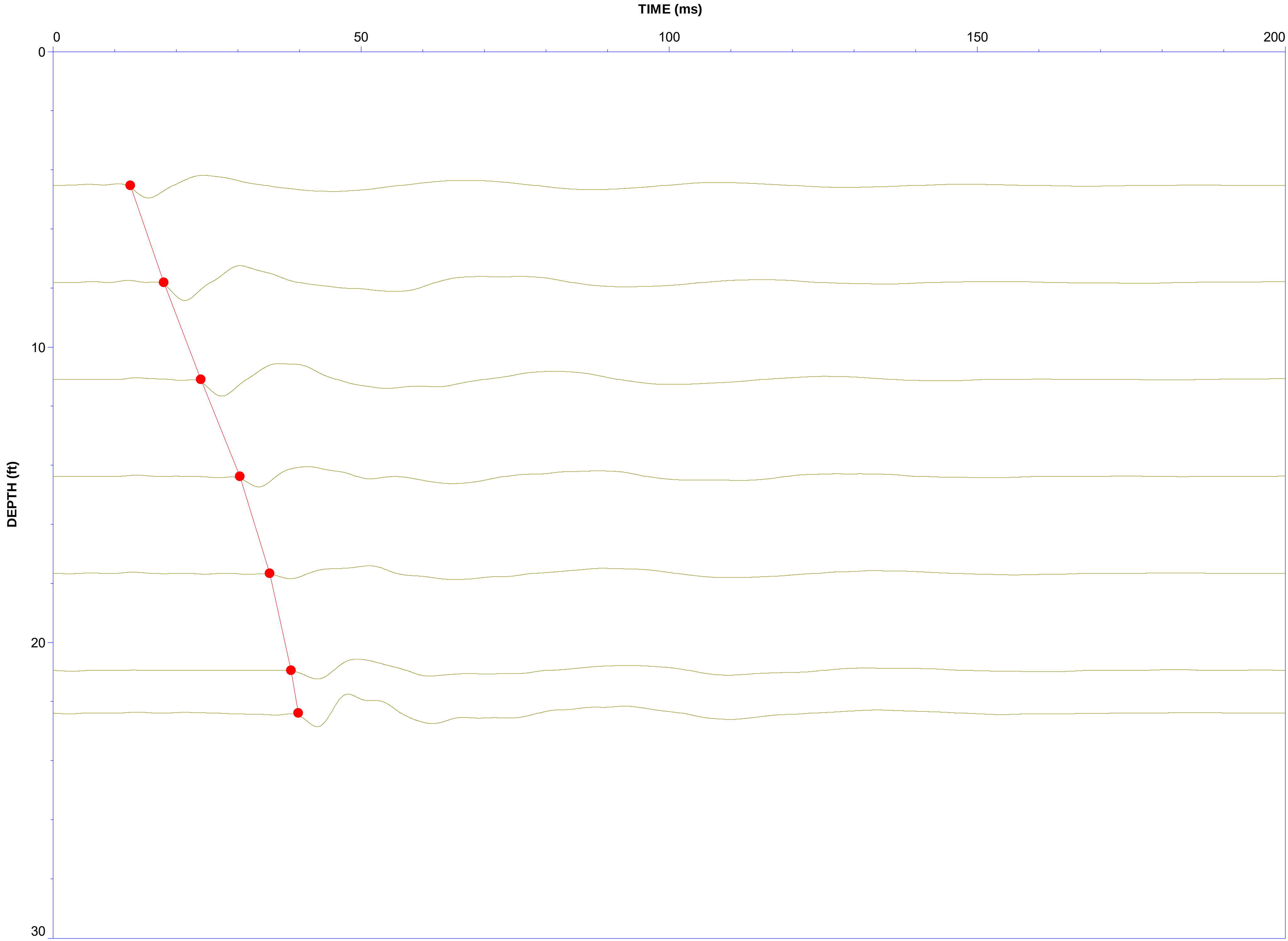
Job No: 25-53-29335
Filter: None

Client: Langan Engineering
Date: 09-Apr-2025

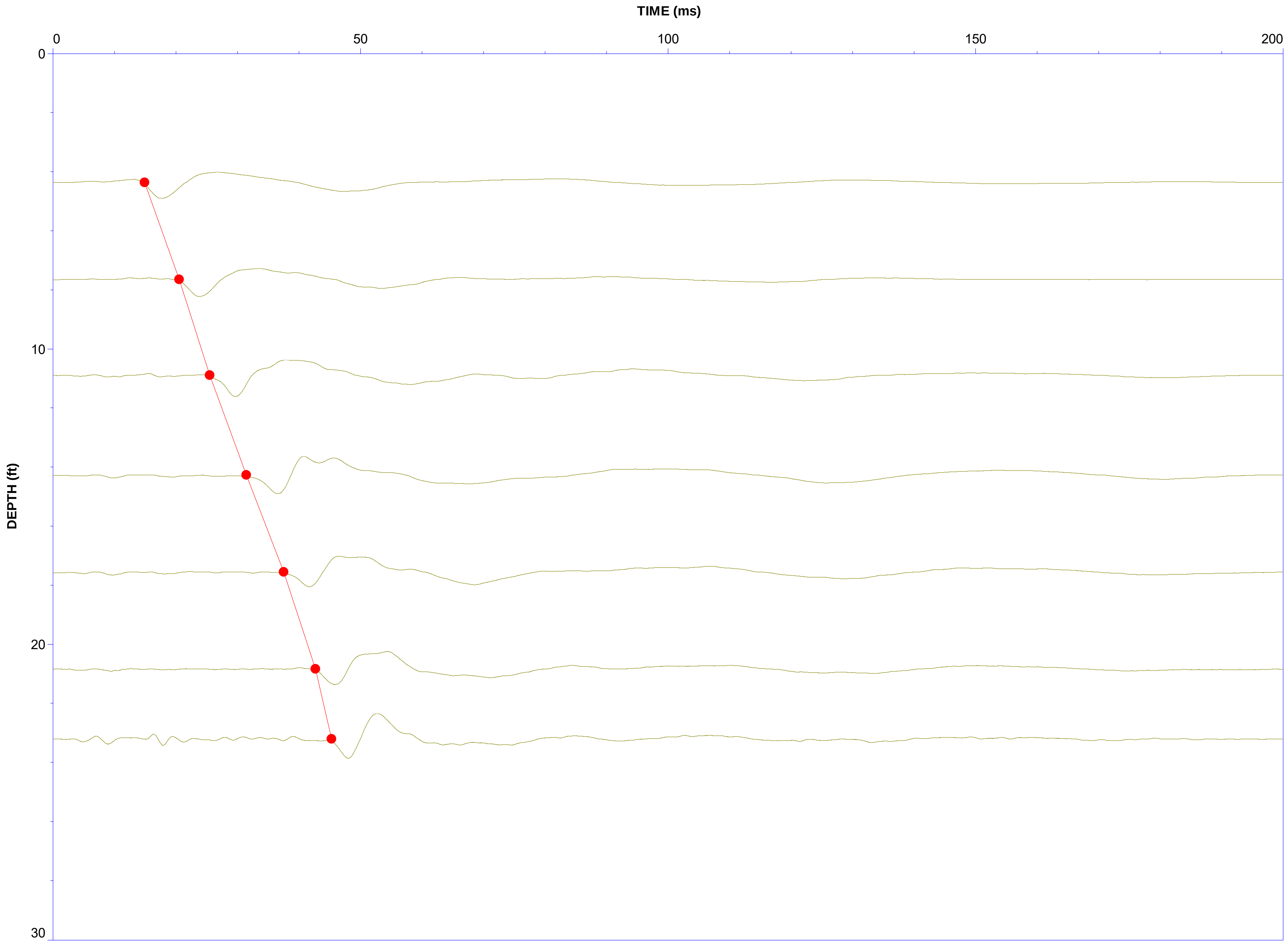
Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-032



Job No: 25-53-29335	Client: Langan Engineering	Project: Micron New York Manufacturing Facility - Clay, NY	Analysis: Shear Wave	Sounding: SCPT25-034
Filter: None	Date: 10-Apr-2025	Cone: 1149:T1500F15U35		



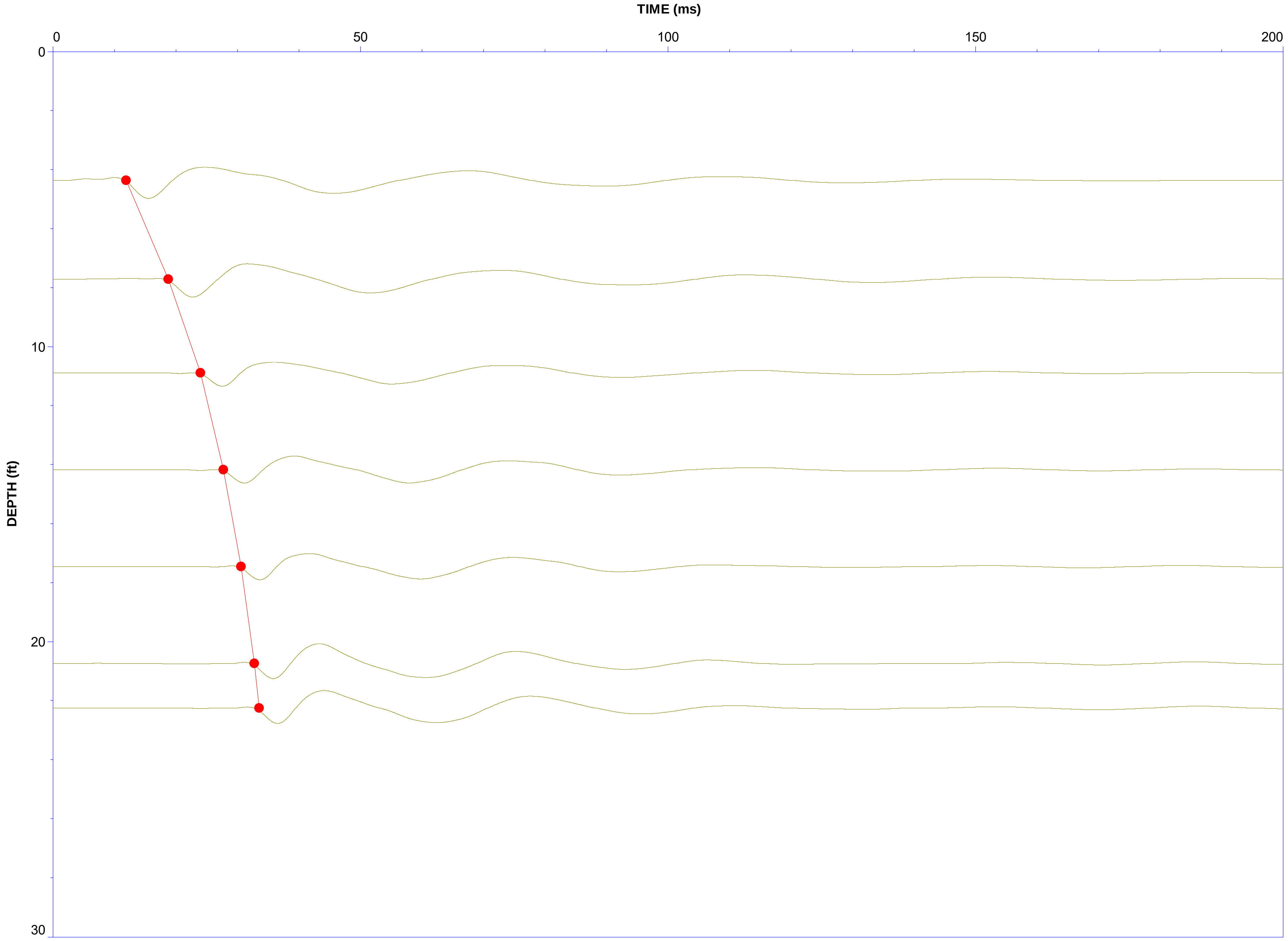
Job No: 25-53-29335
Filter: None

Client: Langan Engineering
Date: 10-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-038



CONETEC

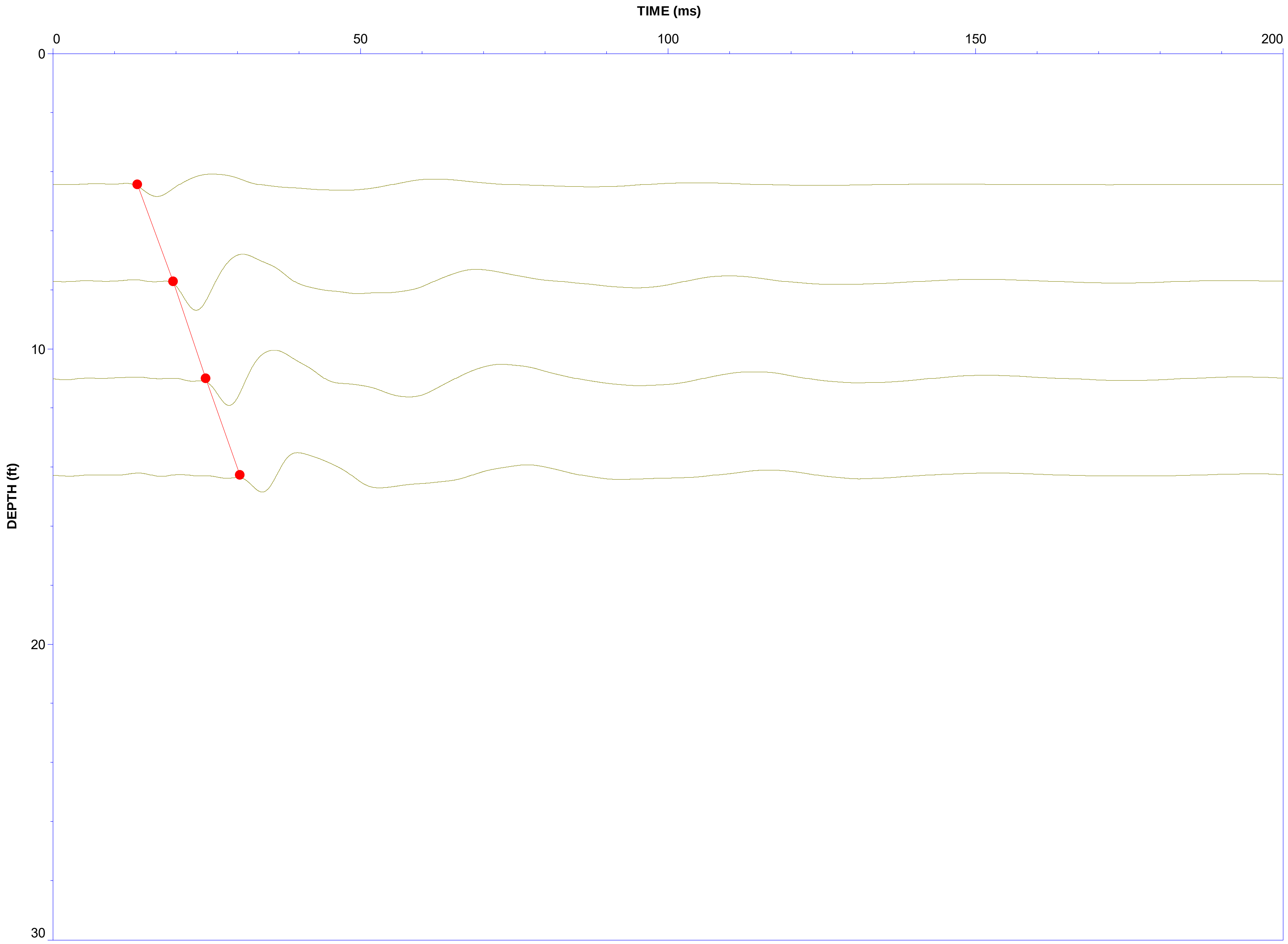
Job No: 25-53-29335
Filter: None

Client: Langan Engineering
Date: 11-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-039



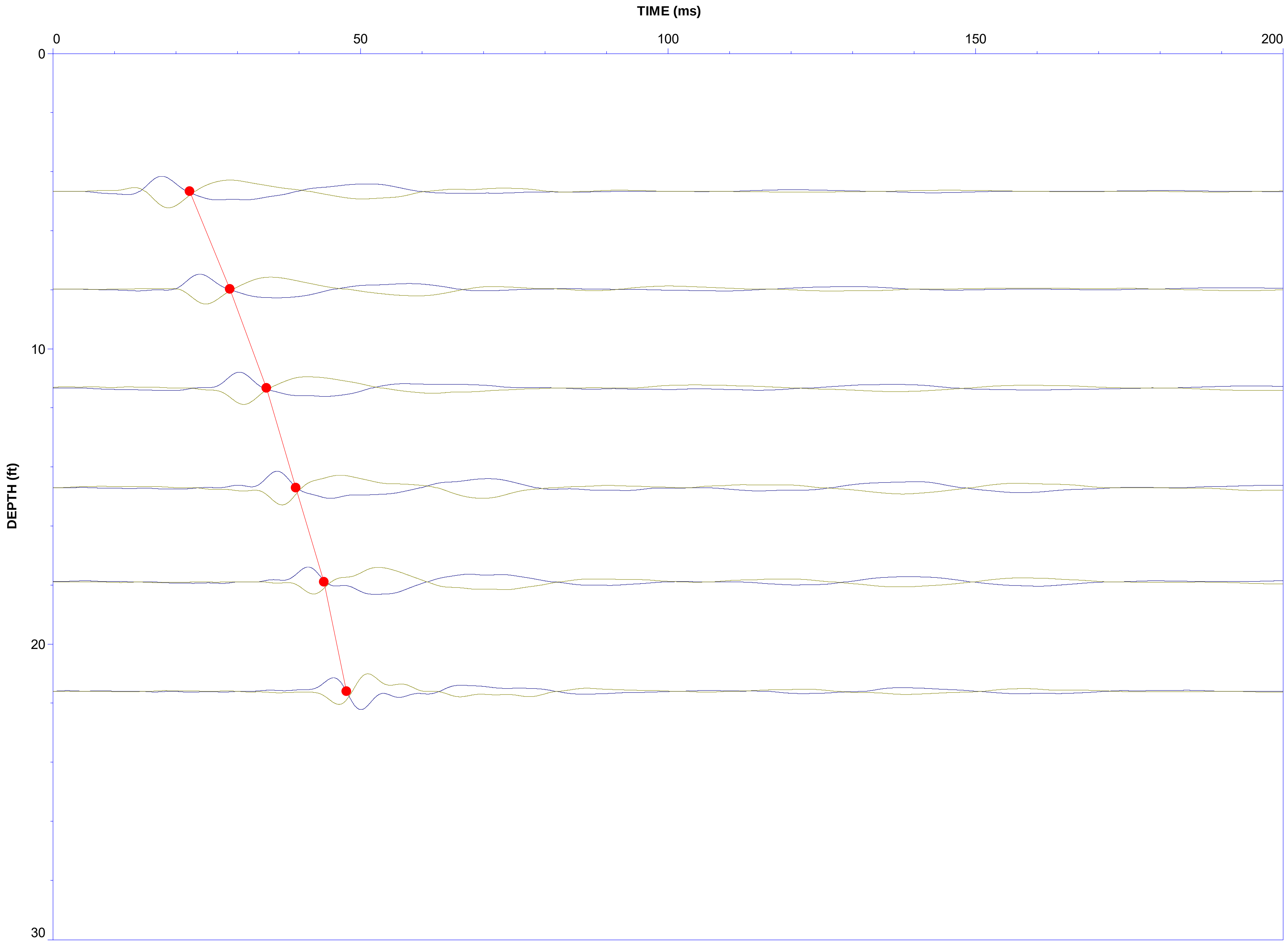
Job No: 25-53-29335
Filter: None

Client: Langan Engineering
Date: 14-Apr-2025

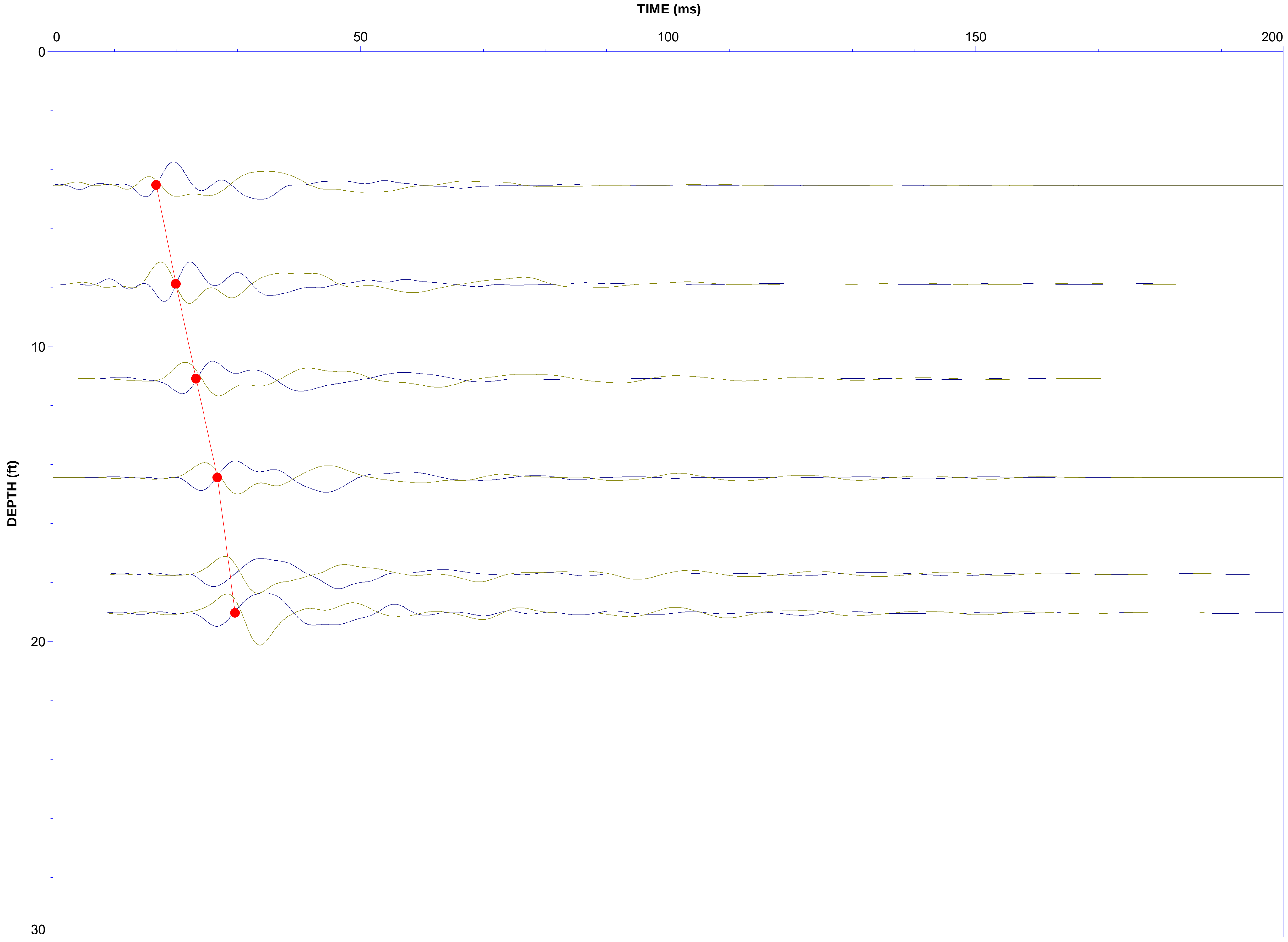
Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-041



Job No: 25-53-29335	Client: Langan Engineering	Project: Micron New York Manufacturing Facility - Clay, NY	Analysis: Shear Wave	Sounding: SCPT25-044
Filter: None	Date: 17-Apr-2025	Cone: 1149:T1500F15U35		



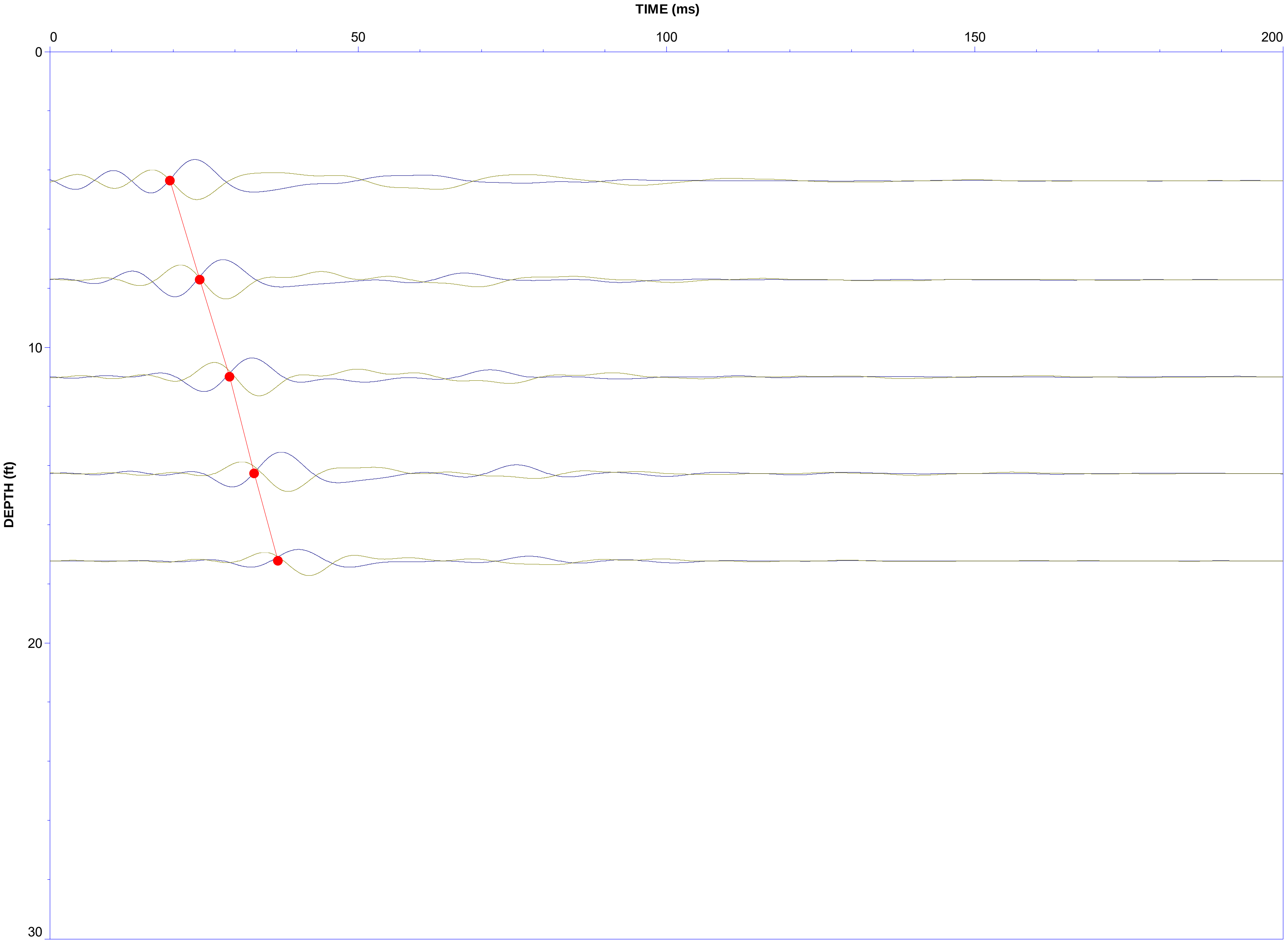
Job No: 25-53-29335
Filter: 0-100Hz BP

Client: Langan Engineering
Date: 17-Apr-2025

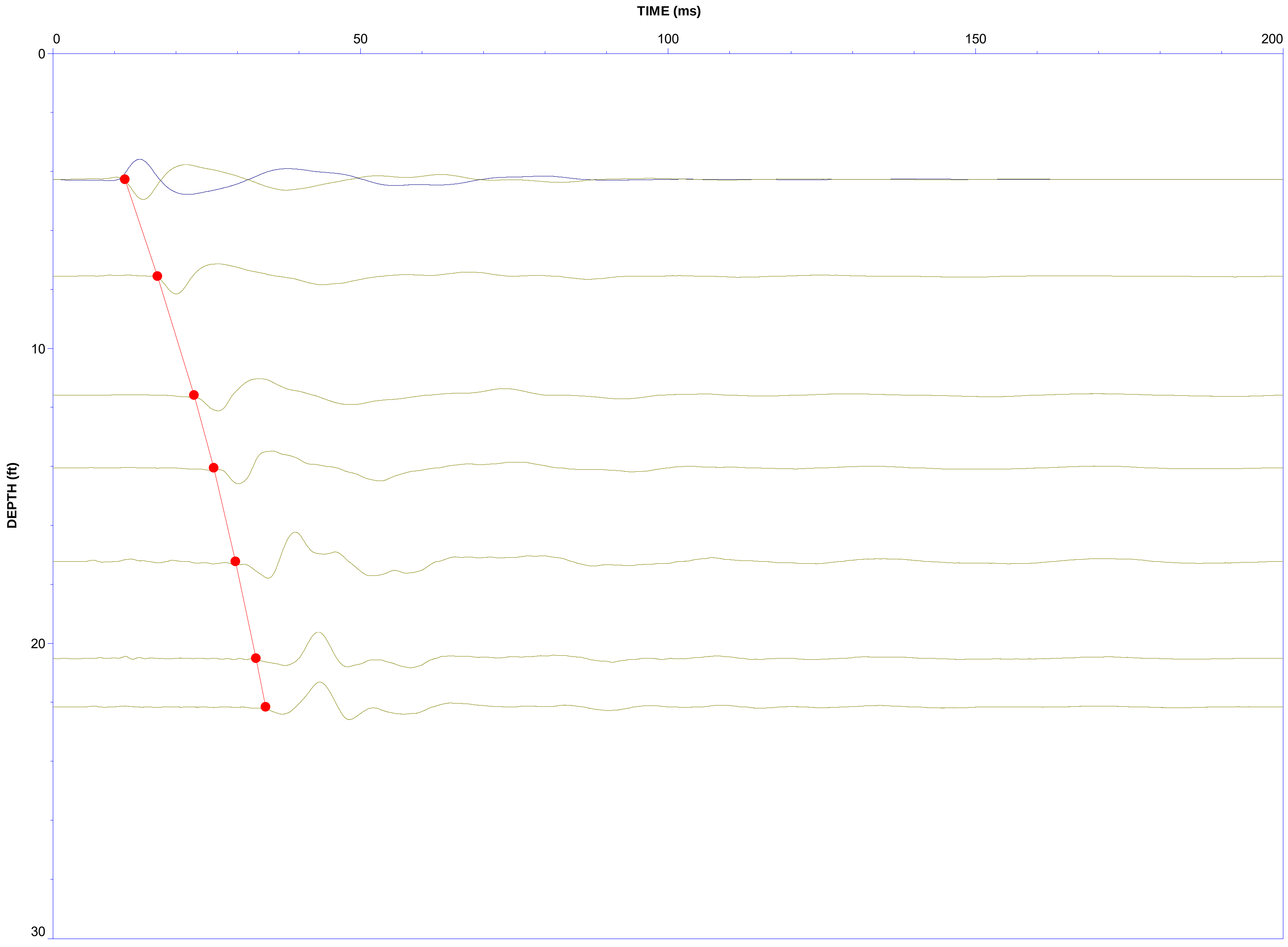
Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-046



Job No: 25-53-29335	Client: Langan Engineering	Project: Micron New York Manufacturing Facility - Clay, NY	Analysis: Shear Wave	Sounding: SCPT25-049
Filter: None	Date: 15-Apr-2025	Cone: 1149:T1500F15U35		



CONETEC

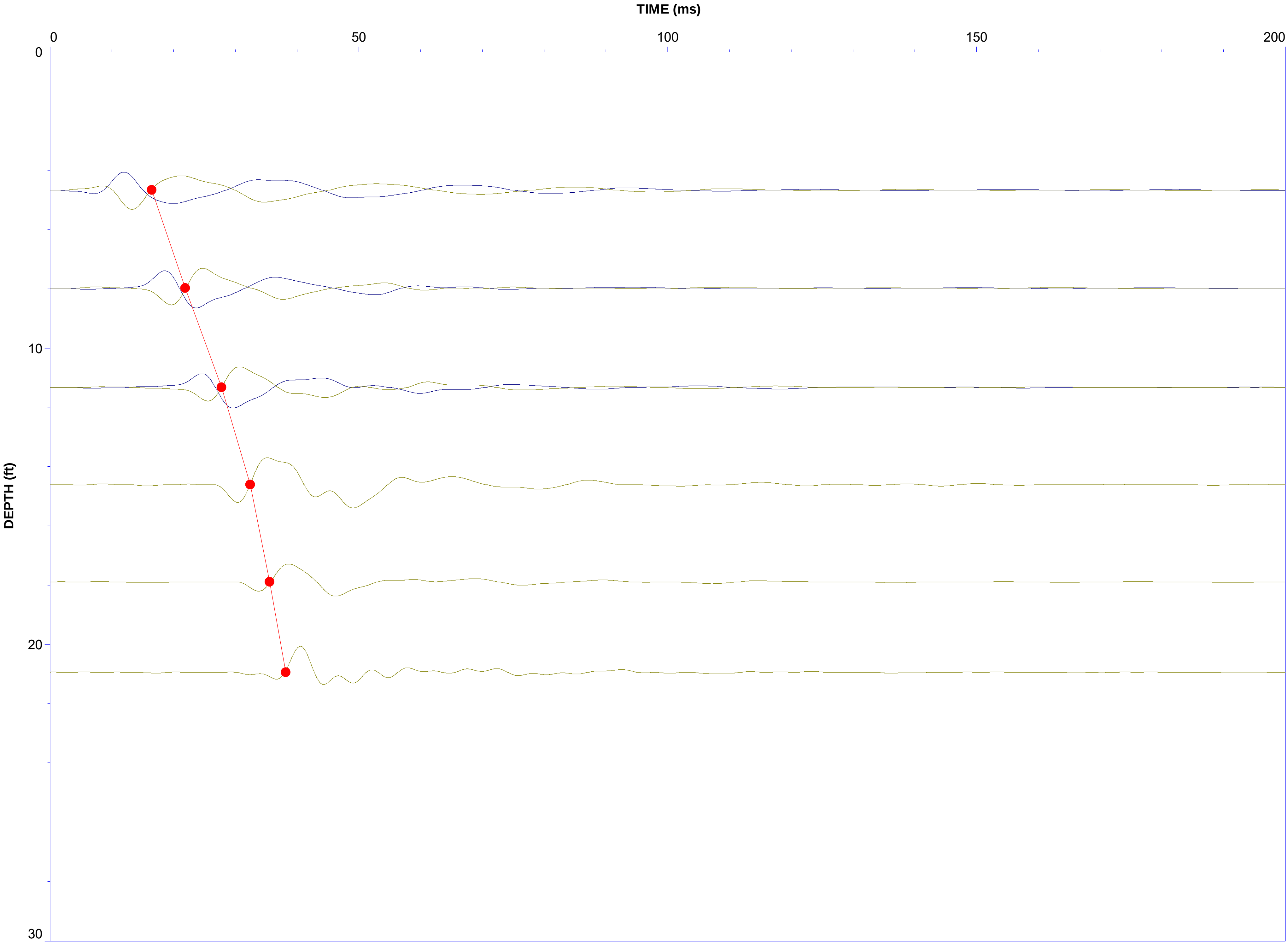
Job No: 25-53-29335
Filter: 0-200Hz BP

Client: Langan Engineering
Date: 08-Apr-2025

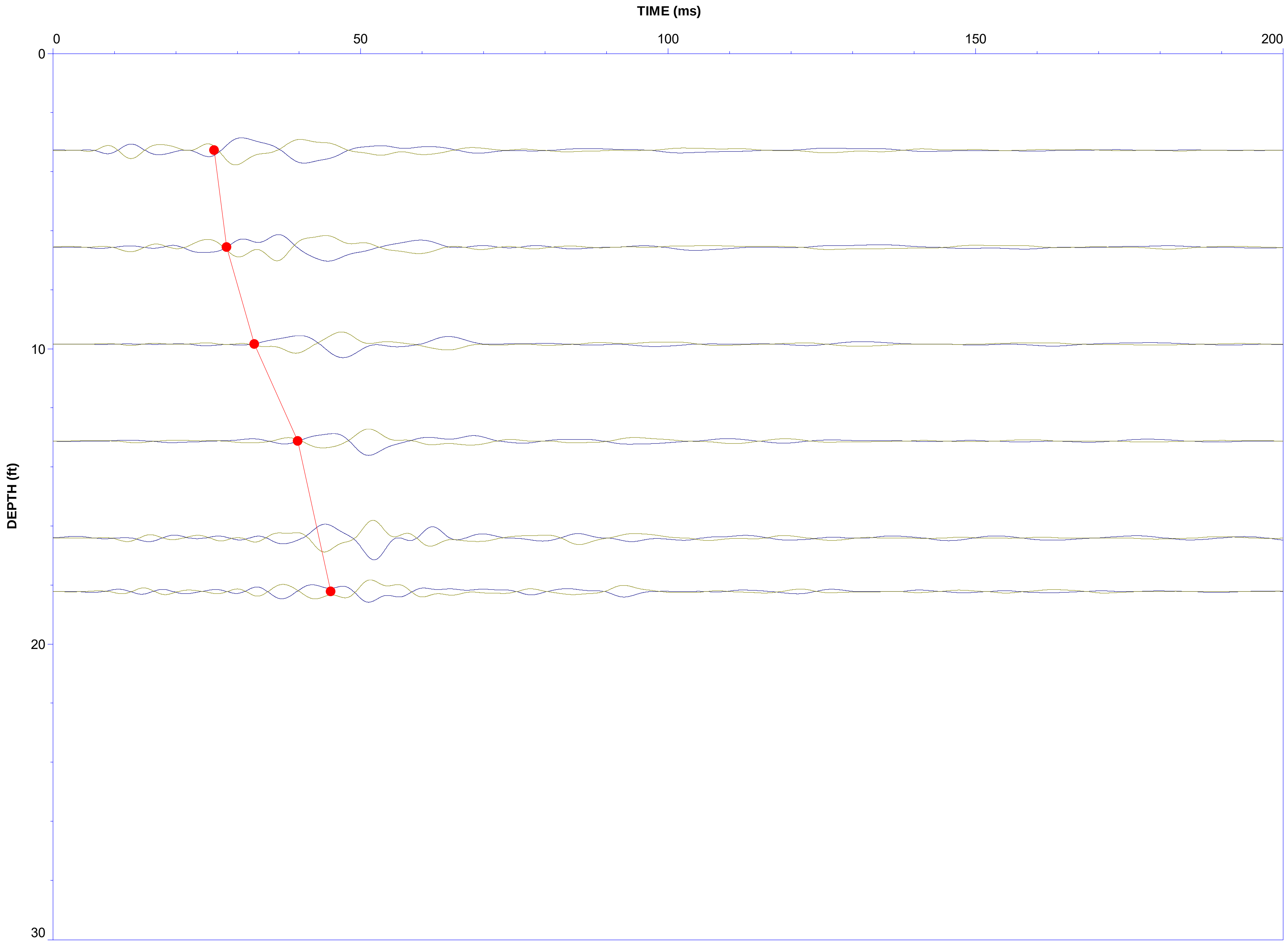
Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-056



Job No: 25-53-29335	Client: Langan Engineering	Project: Micron New York Manufacturing Facility - Clay, NY	Analysis: Shear Wave	Sounding: SCPT25-057
Filter: 0-200Hz BP	Date: 10-Apr-2025	Cone: 1075:T1000F10U35		



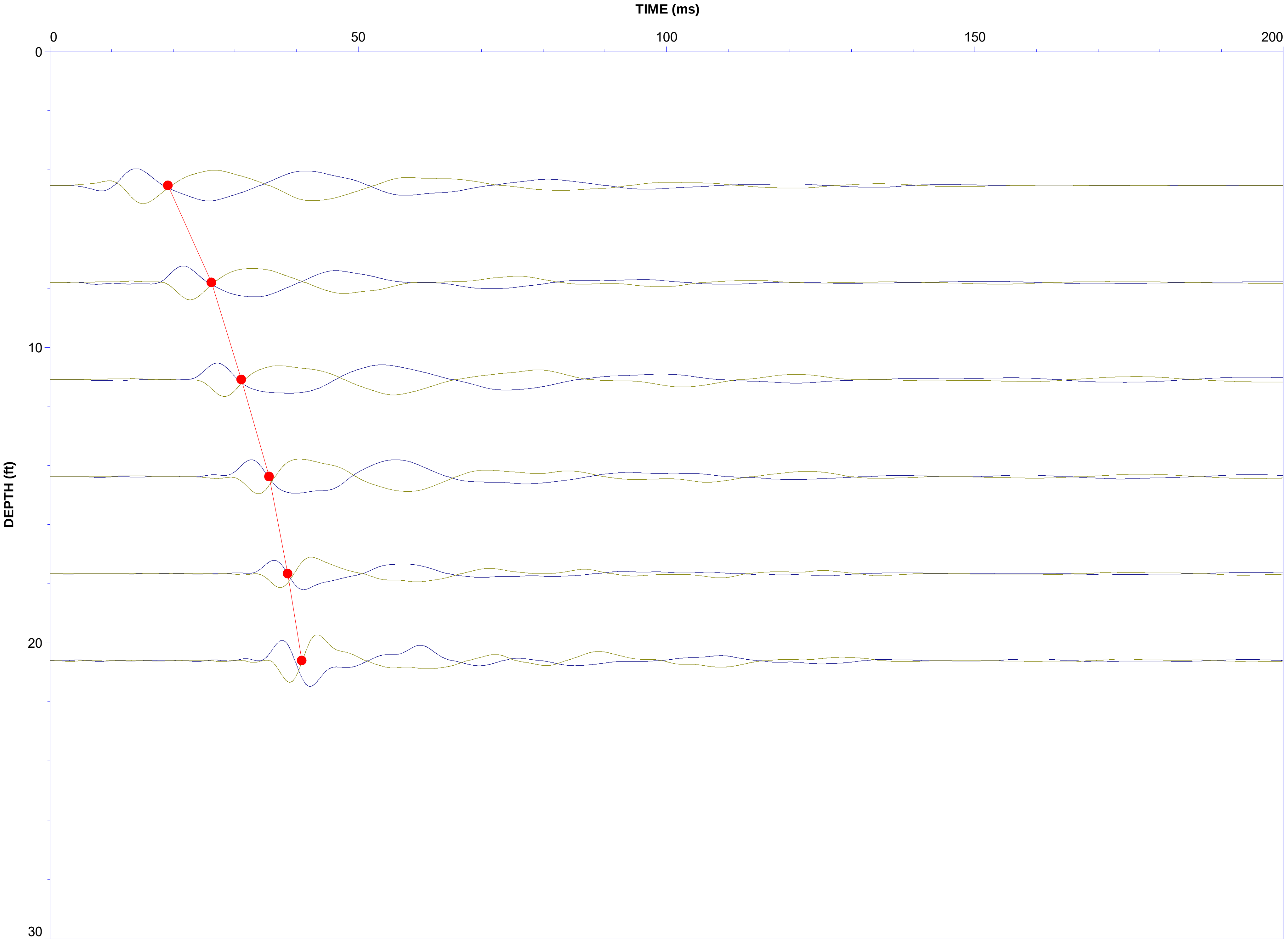
Job No: 25-53-29335
Filter: 0-200Hz BP

Client: Langan Engineering
Date: 10-Apr-2025

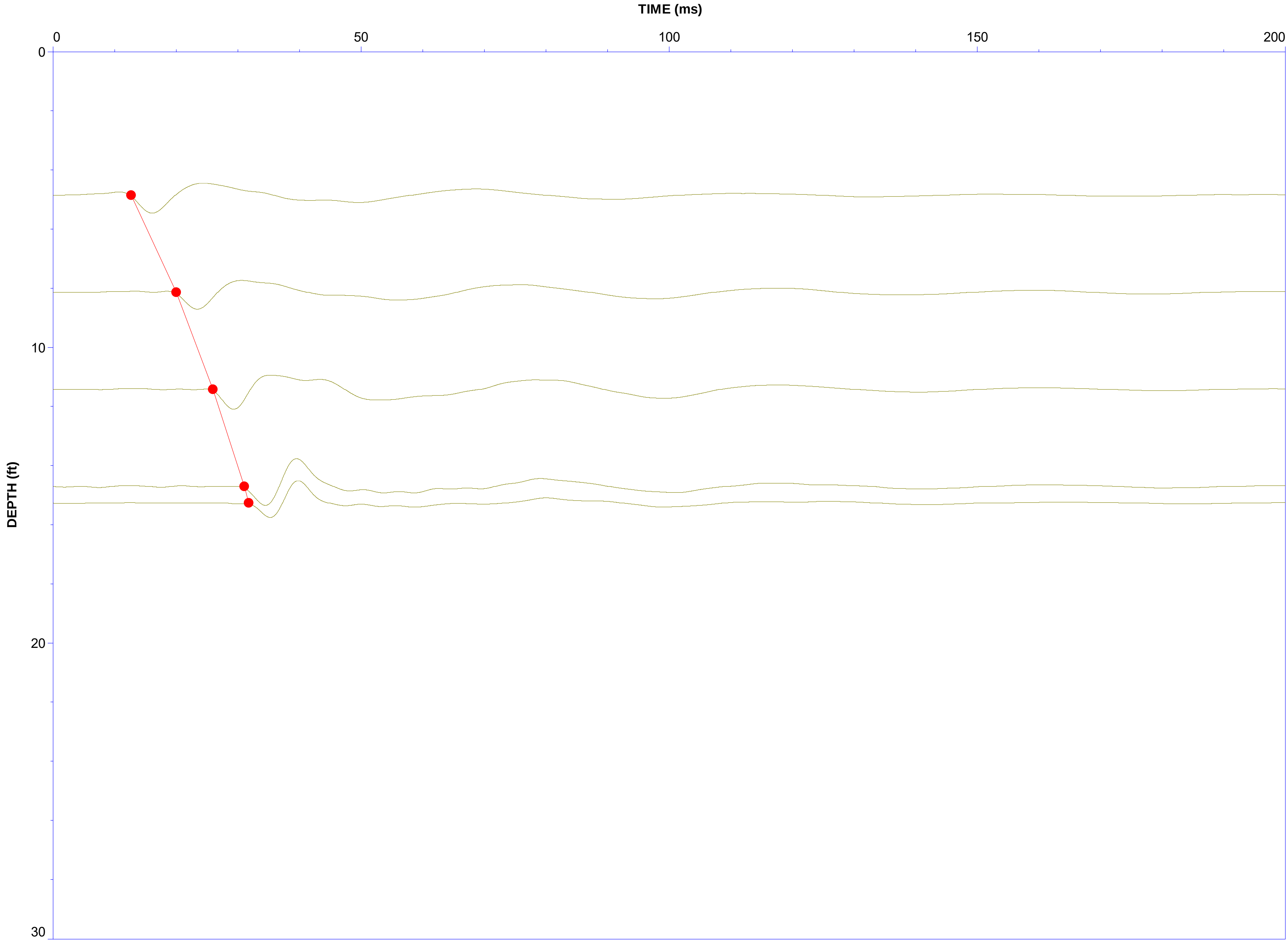
Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-058



Job No: 25-53-29335	Client: Langan Engineering	Project: Micron New York Manufacturing Facility - Clay, NY	Analysis: Shear Wave	Sounding: SCPT25-059
Filter: None	Date: 10-Apr-2025	Cone: 1149:T1500F15U35		



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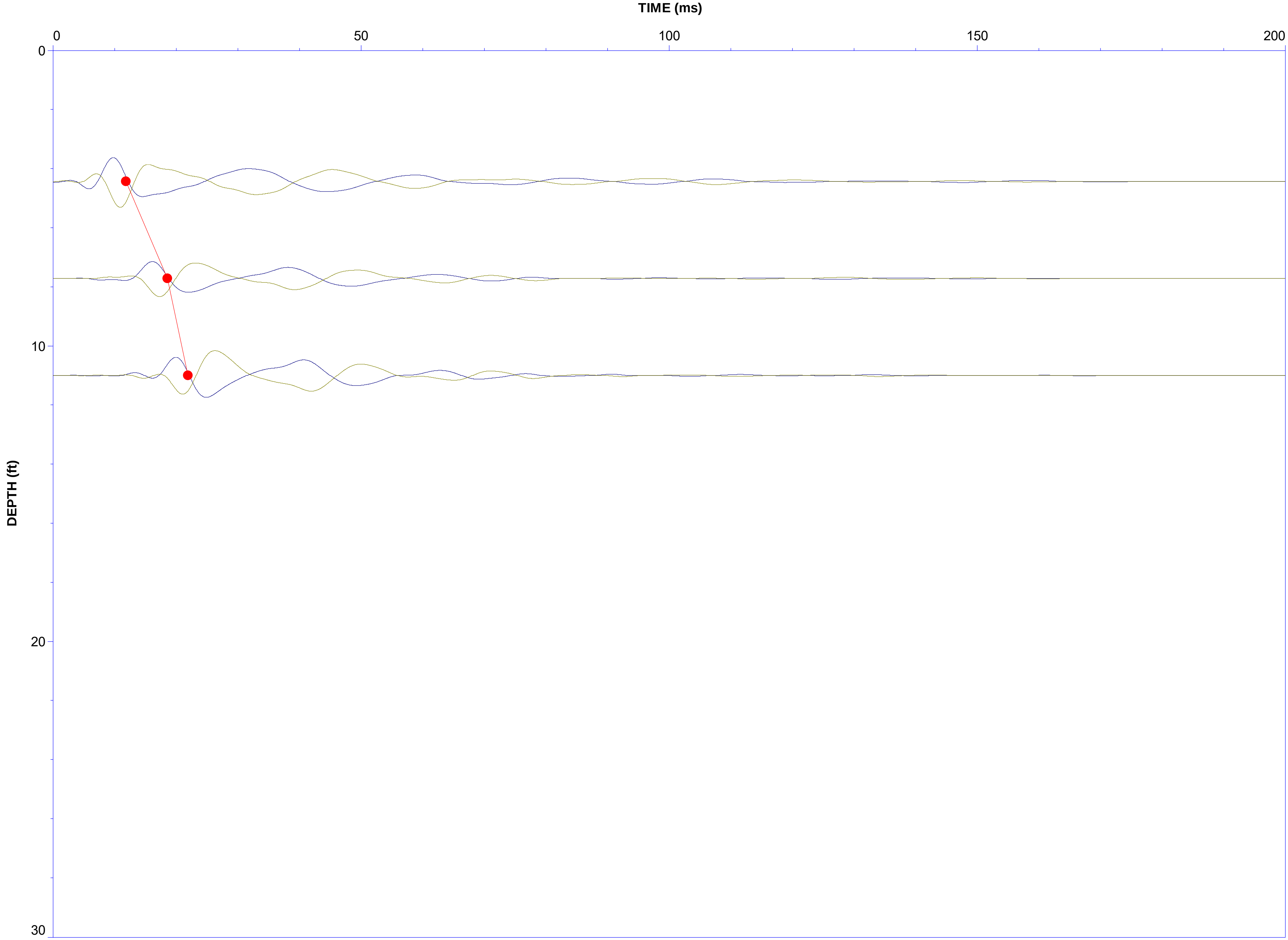

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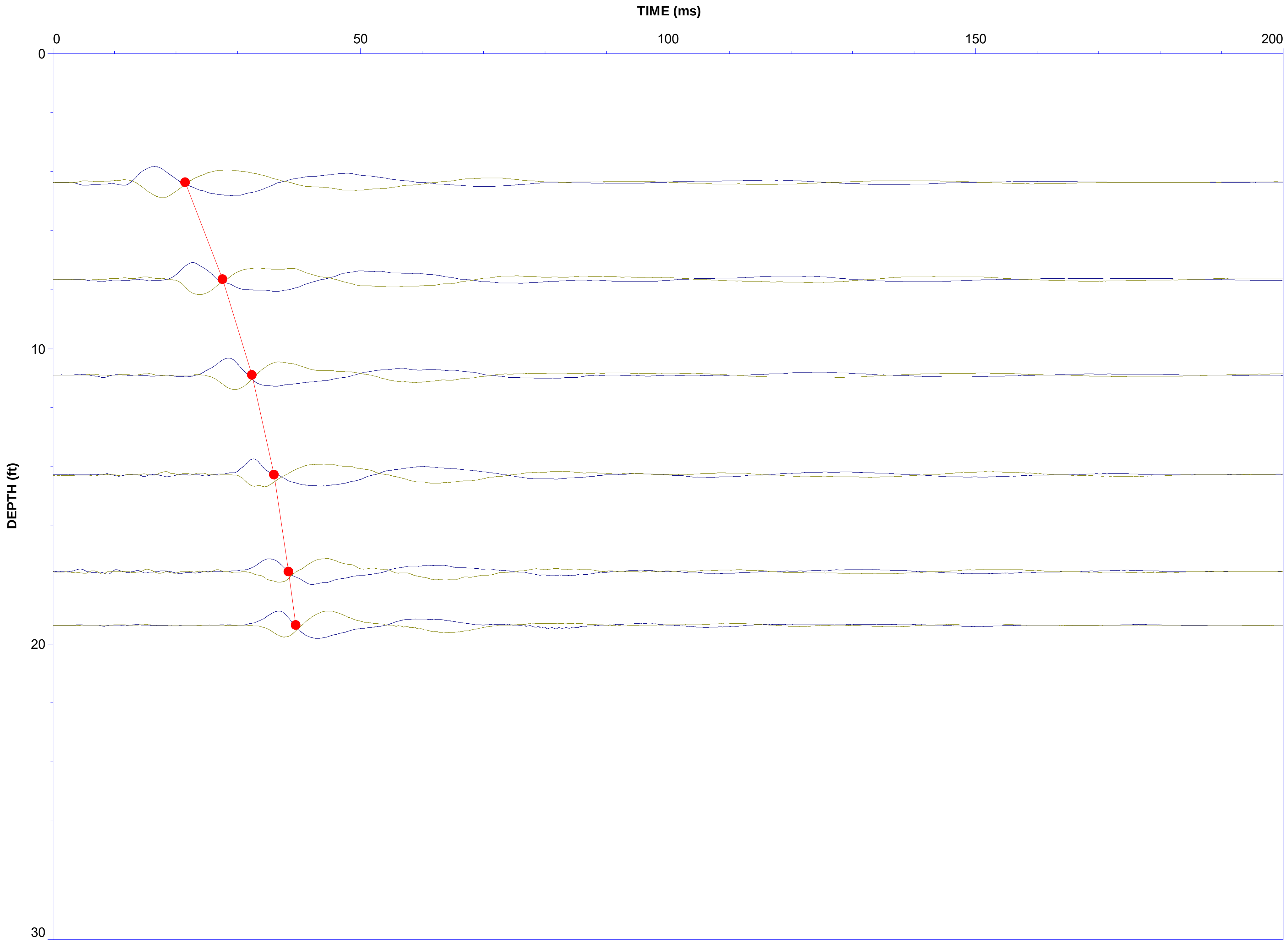

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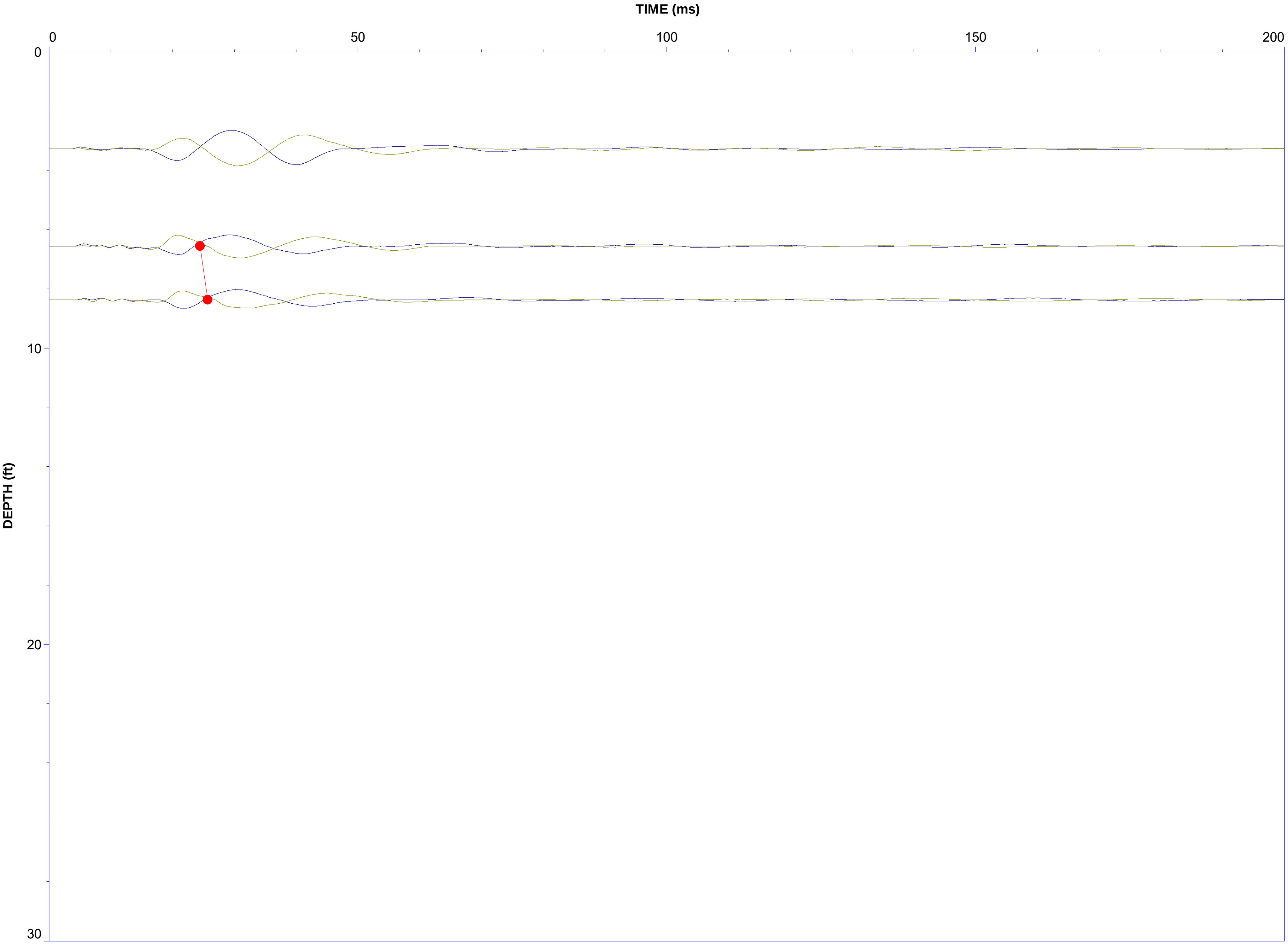

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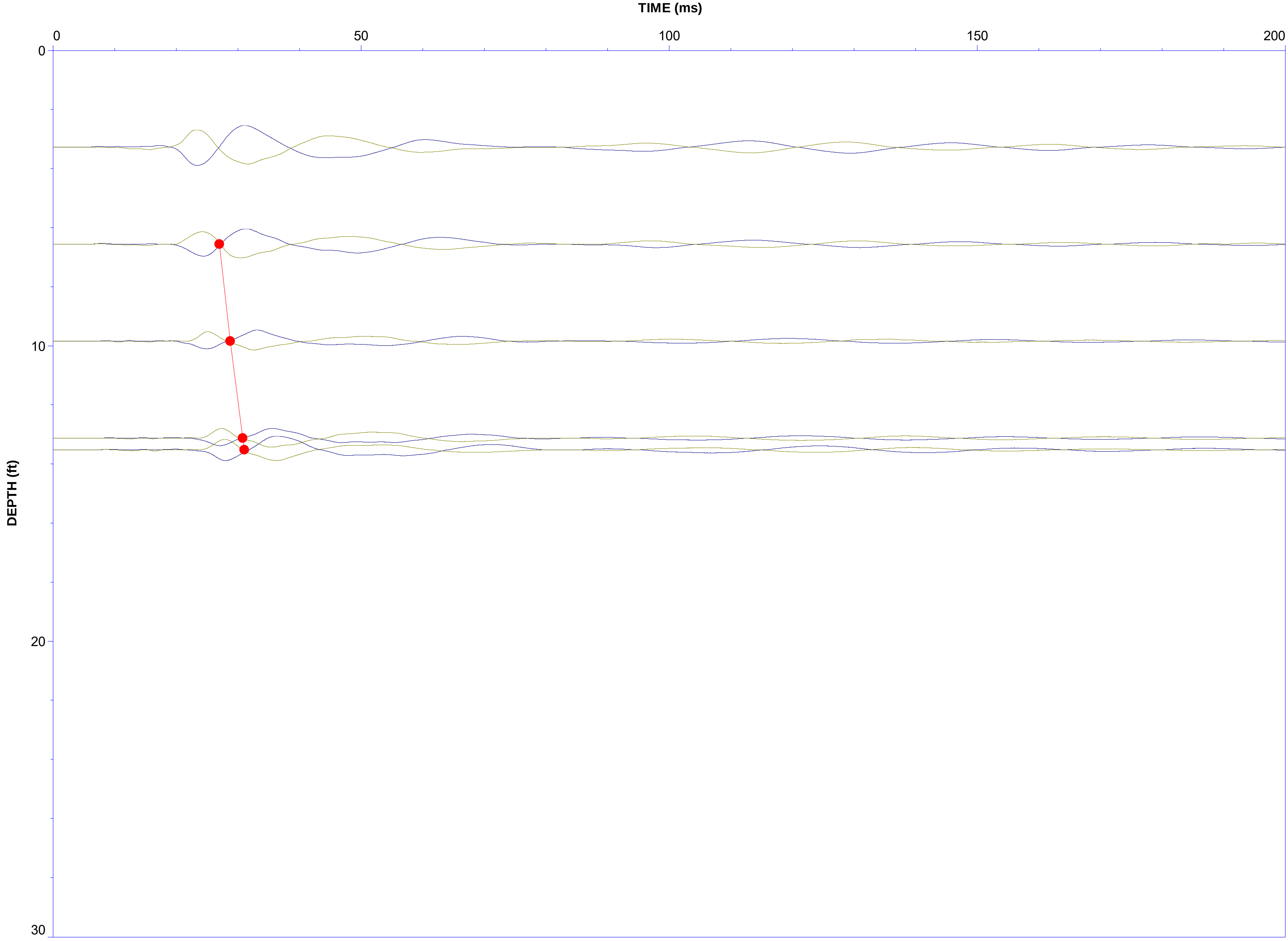
Client: Langan Engineering
Date: 17-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1075:T1000F10U35

Analysis: Shear Wave

Sounding: SCPT25-063



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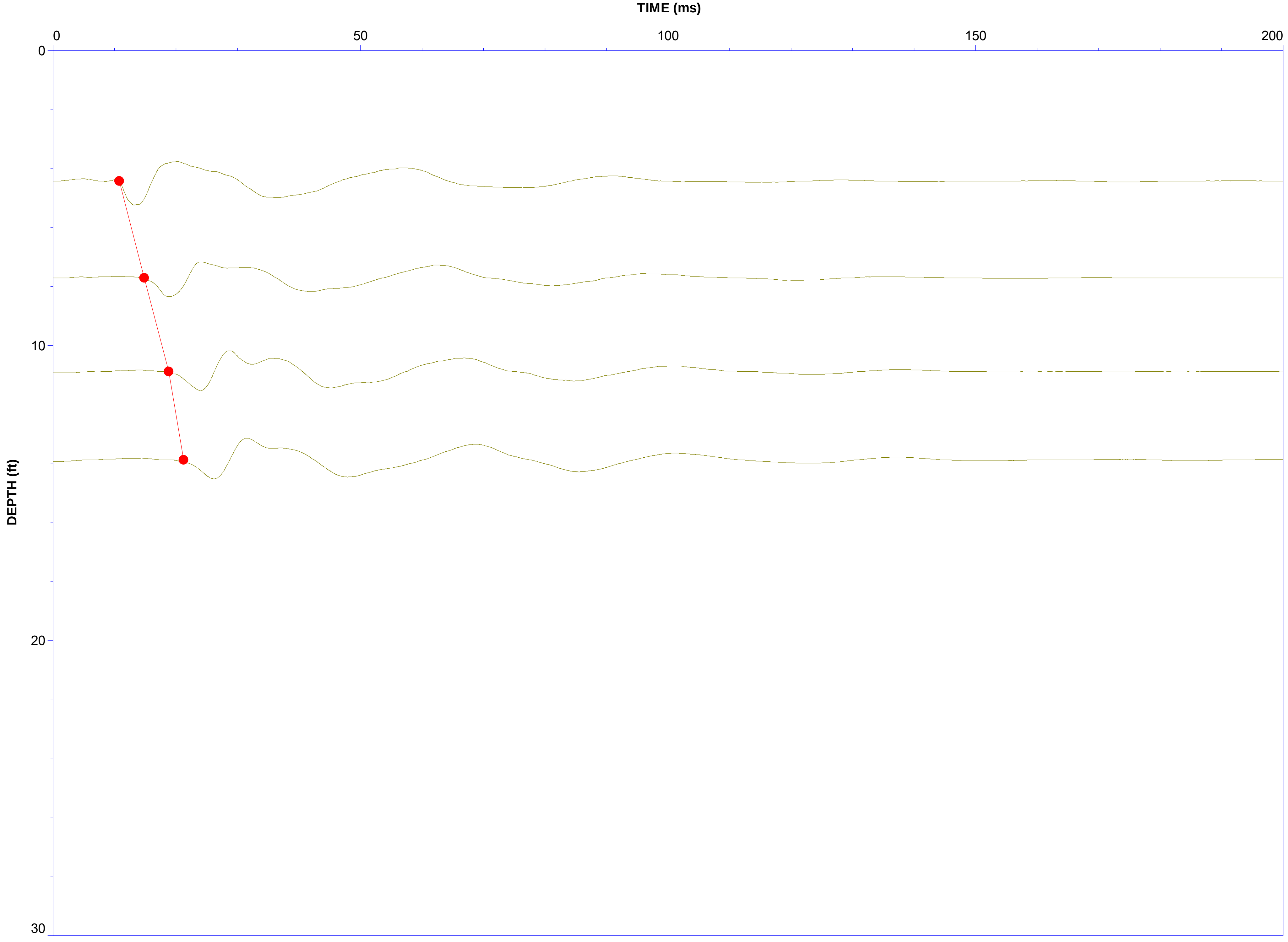

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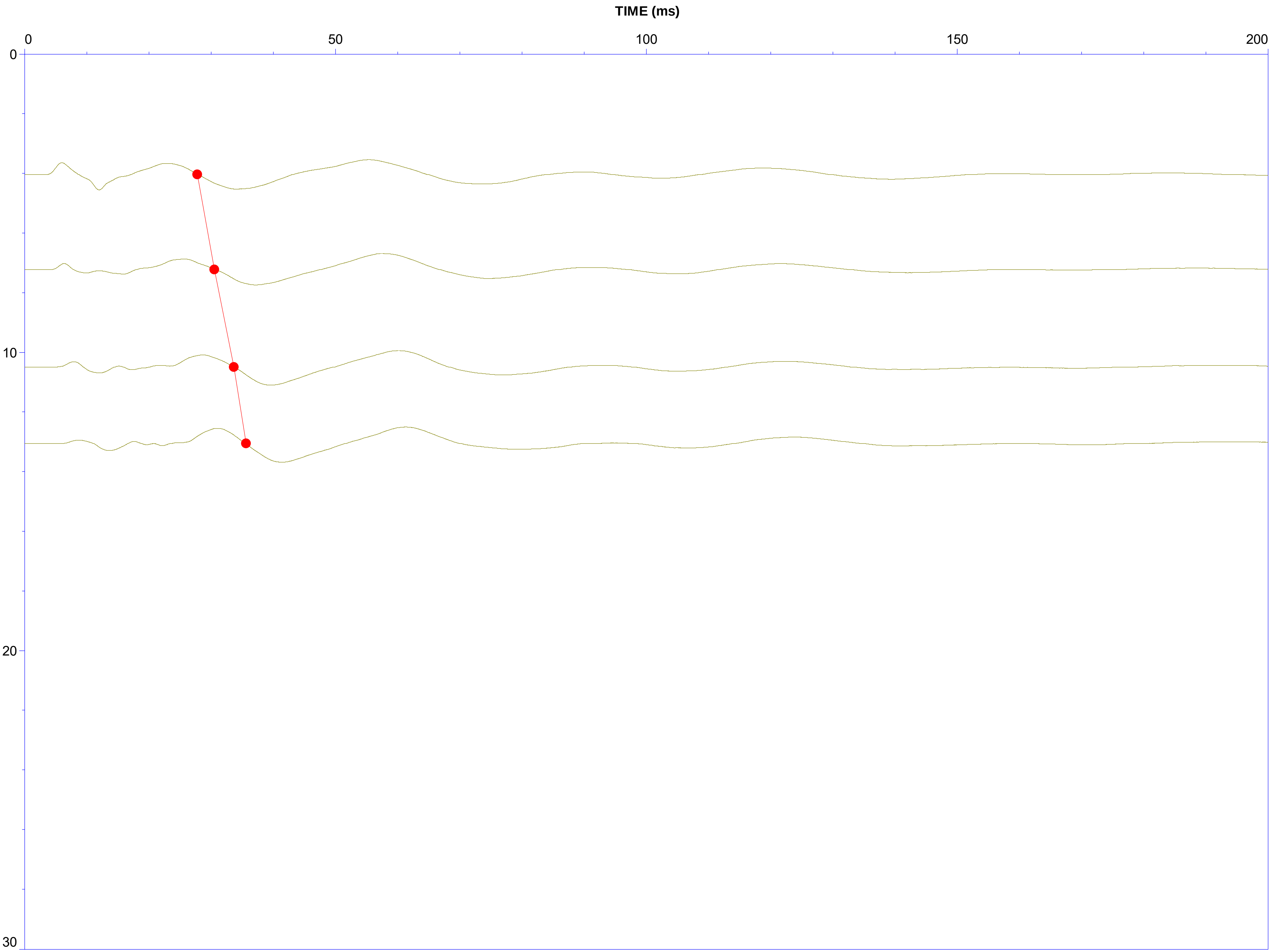

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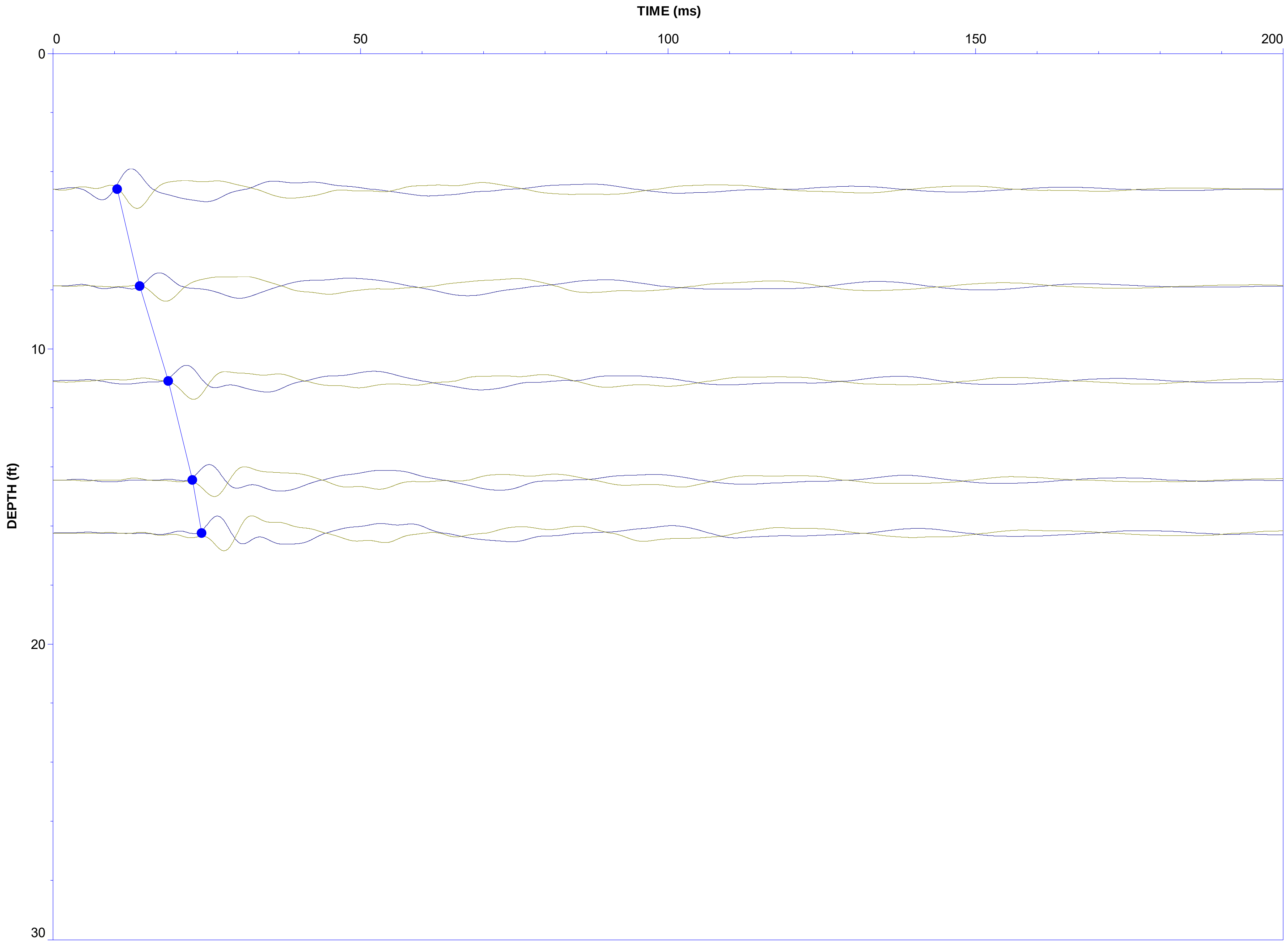


CONETEC

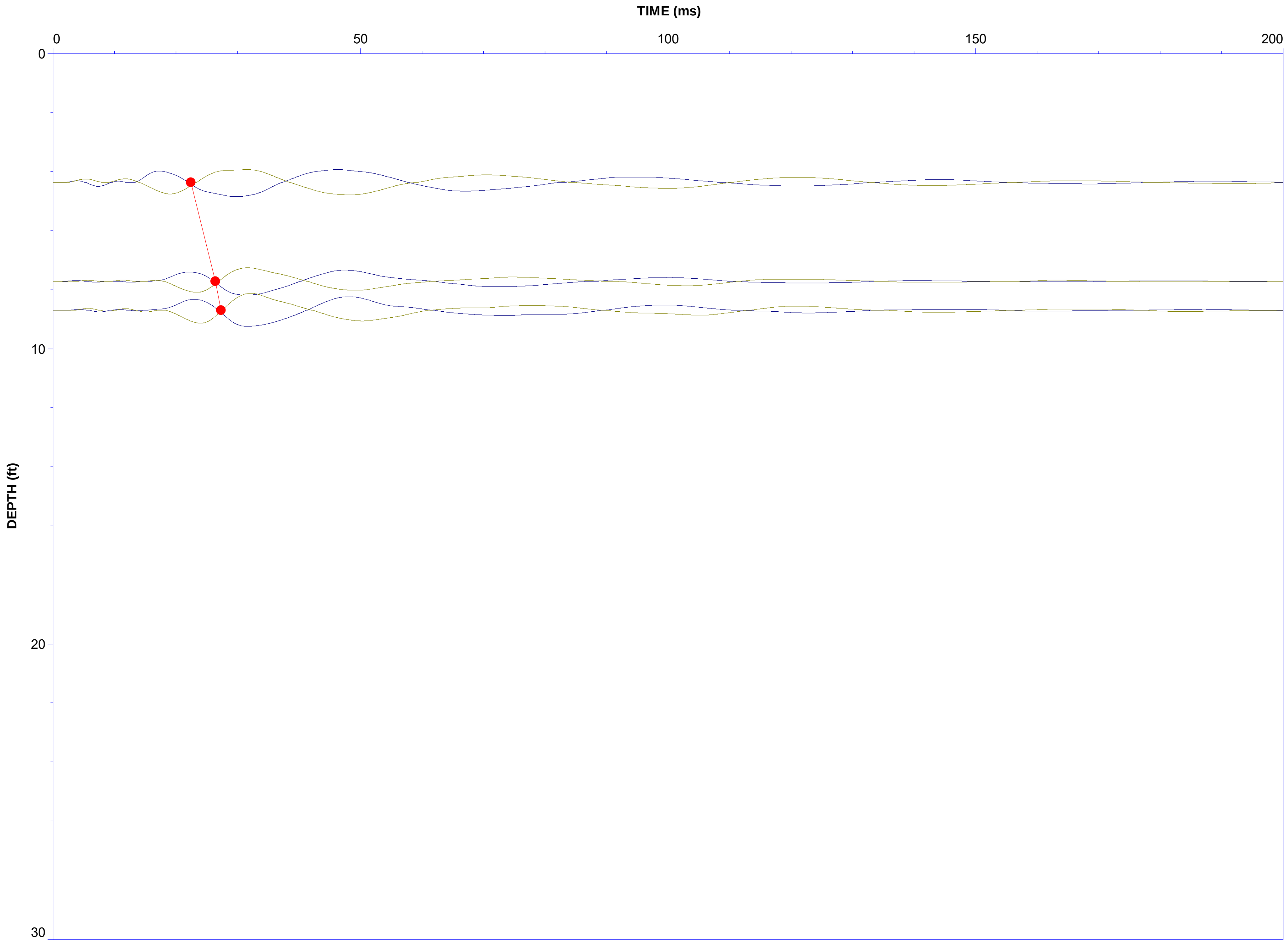
Job No: 25-53-29335
Filter: 0-200Hz BP

Client: Langan Engineering
Date: 16-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1149:T1500F15U35

Analysis: Shear Wave

Sounding: SCPT25-067



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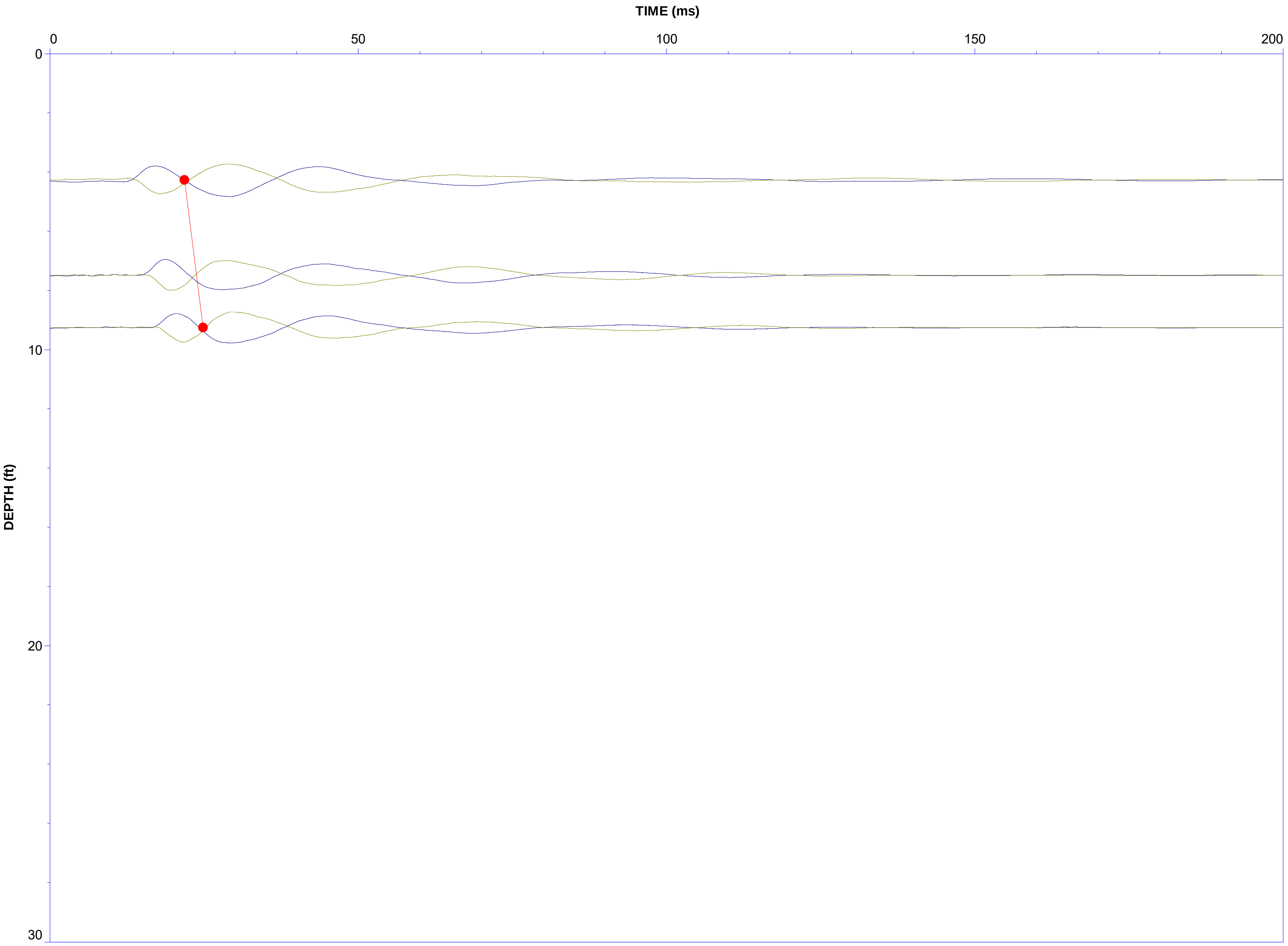

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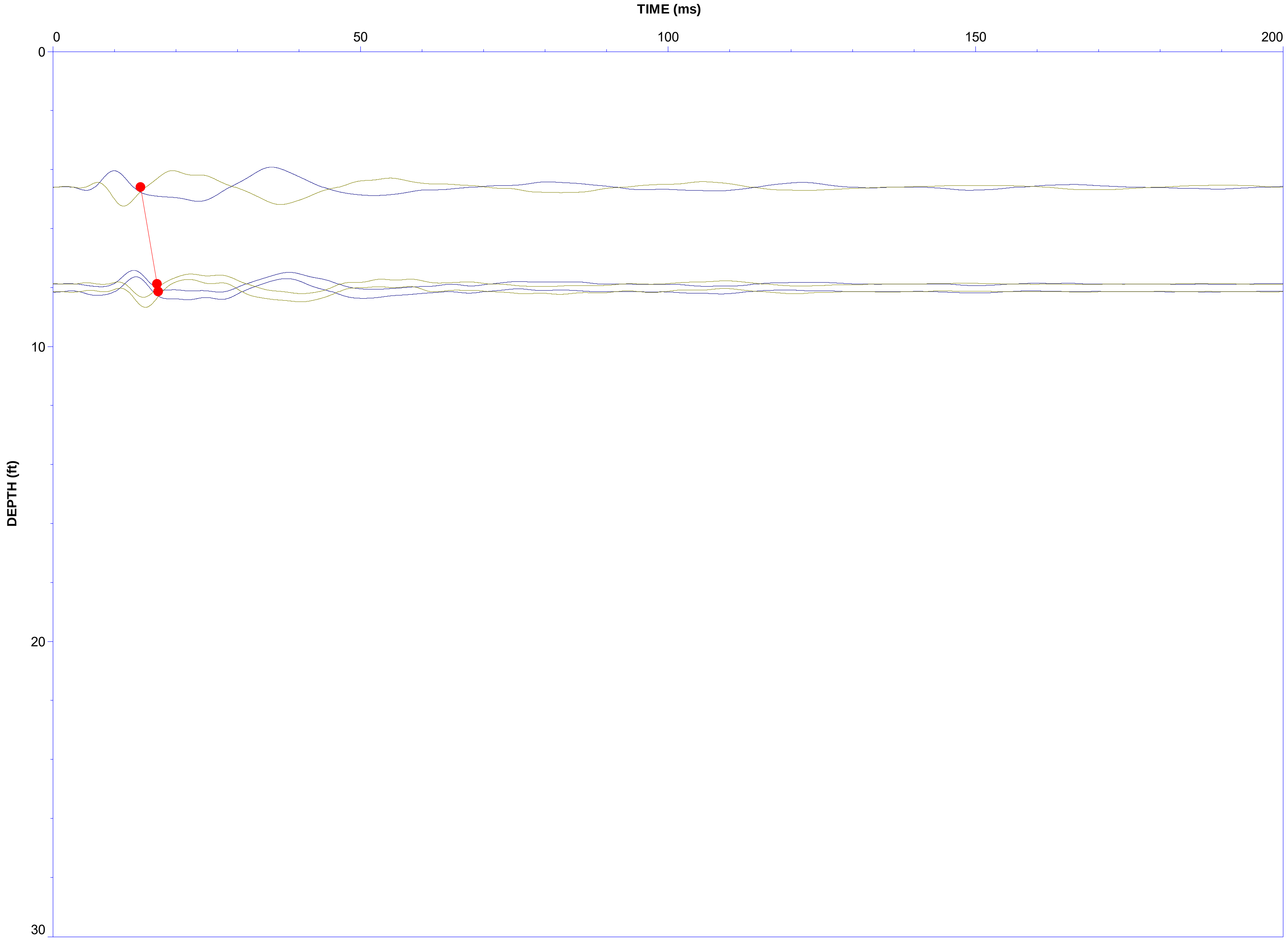

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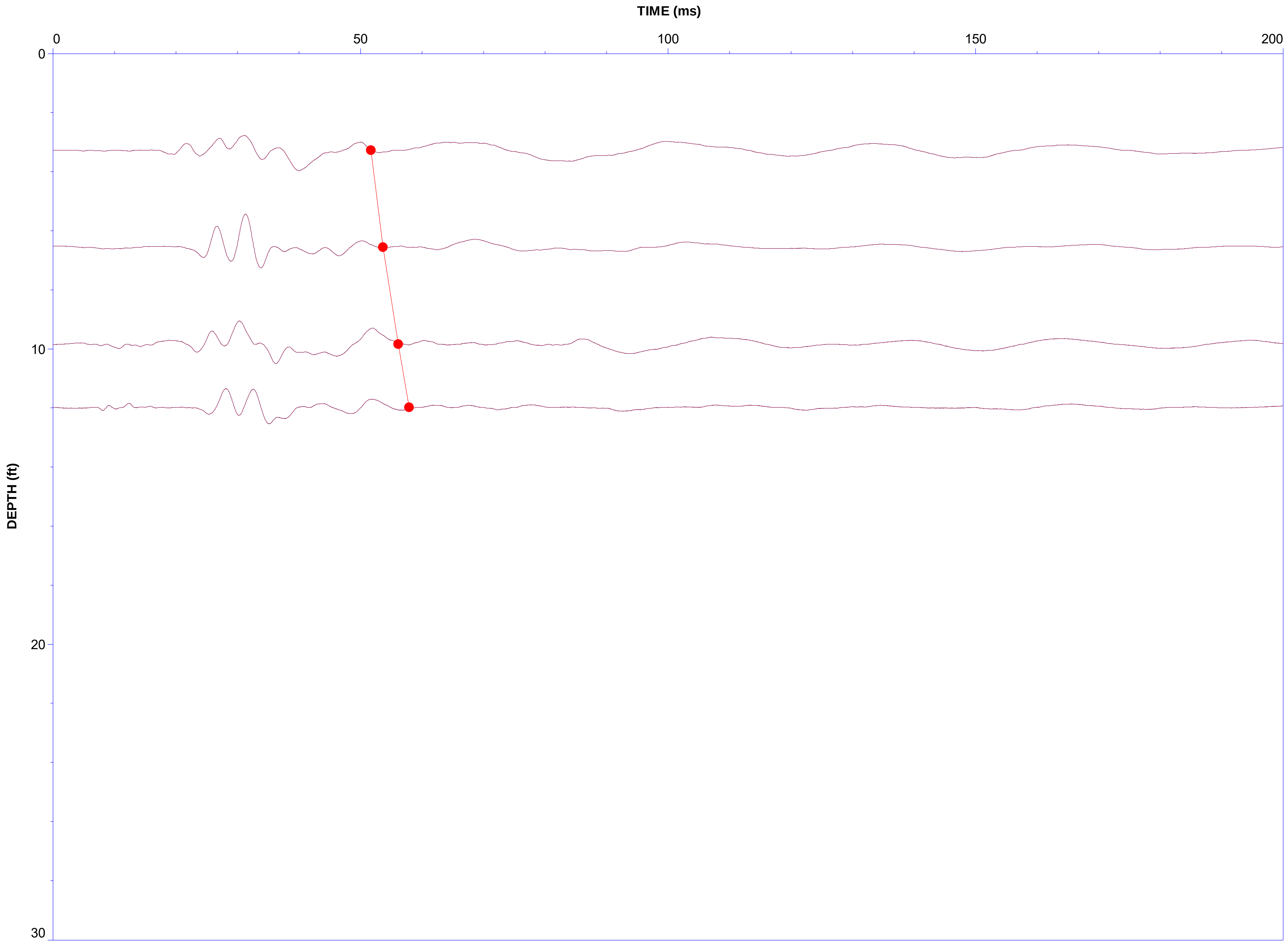
Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1075:T1000F10U35

Analysis: Shear Wave

Sounding: SCPT25-070



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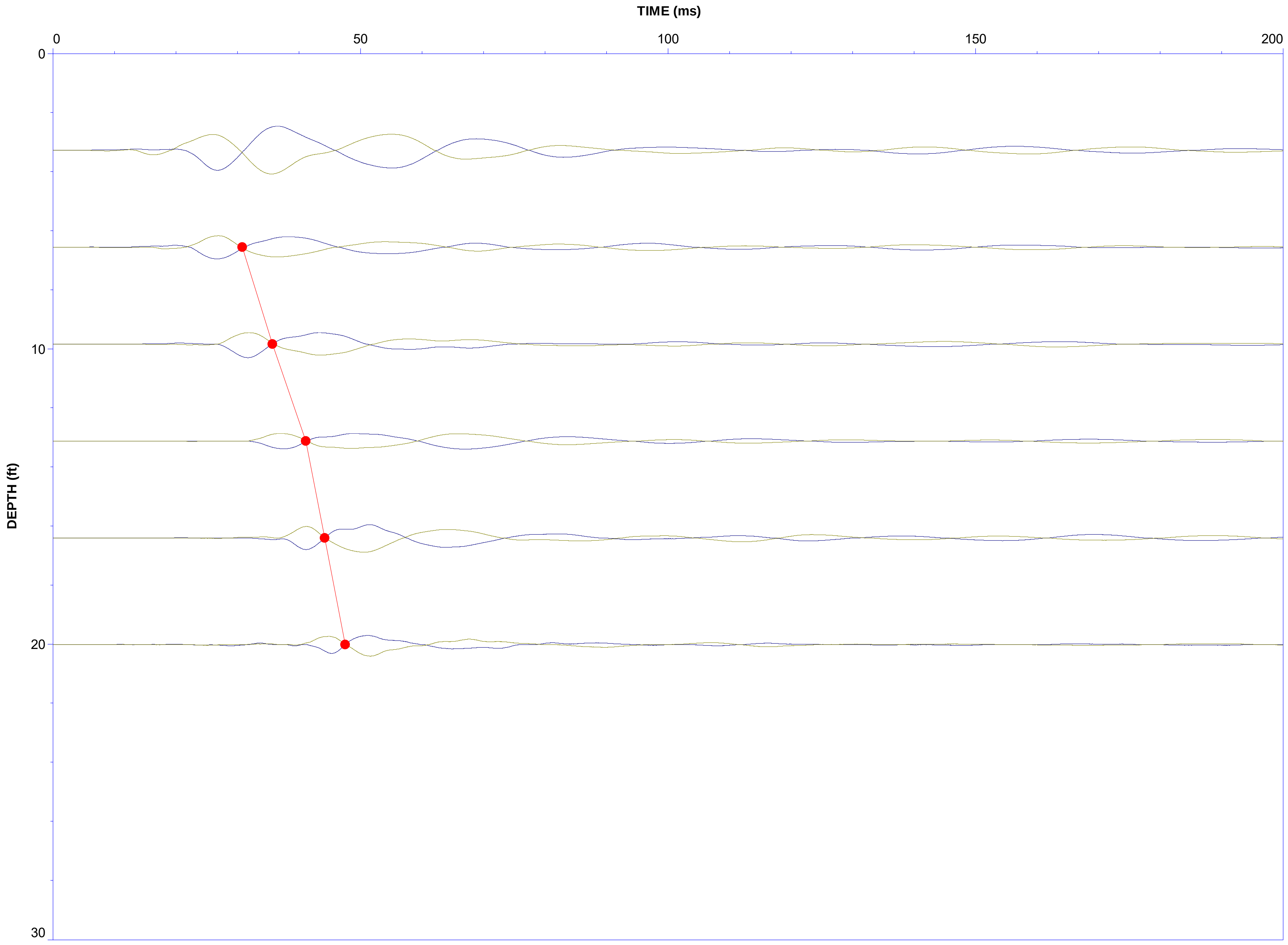
Client: Langan Engineering
Date: 17-Apr-2025

Project: Micron New York Manufacturing Facility - Clay, NY
Cone: 1075:T1000F10U35

Analysis: Shear Wave

Sounding: SCPT25-071



SUPPORTING DOCUMENTS AND MATERIALS

The documents and materials listed below are included in the report:

- **Methodology Statements**
- **Cone Penetration Digital File Formats**
- **Description of Methods for Calculated CPTu Geotechnical Parameters**
- **Calibration Records**

Methodology Statements

METHODOLOGY STATEMENTS

CONE PENETRATION TEST (CPTu) - eSeries

Cone penetration tests (CPTu) are conducted using an integrated electronic piezocone penetrometer and data acquisition system manufactured by Adara Systems Ltd., a subsidiary of ConeTec.

ConeTec's piezocone penetrometers are compression type designs in which the tip and friction sleeve load cells are independent and have separate load capacities. The piezocones use strain gauged load cells for tip and sleeve friction and a strain gauged diaphragm type transducer for recording pore pressure. The piezocones also have a platinum resistive temperature device (RTD) for monitoring the temperature of the sensors, an accelerometer type dual axis inclinometer and two geophone sensors for recording seismic signals. All signals are amplified and measured with minimum sixteen-bit resolution down hole within the cone body, and the signals are sent to the surface using a high bandwidth, error corrected digital interface through a shielded cable.

ConeTec penetrometers are manufactured with various tip, friction and pore pressure capacities in both 10 cm^2 and 15 cm^2 tip base area configurations in order to maximize signal resolution for various soil conditions. The specific piezocone used for each test is described in the CPT summary table. The 15 cm^2 penetrometers do not require friction reducers as they have a diameter larger than the deployment rods. The 10 cm^2 piezocones use a friction reducer consisting of a rod adapter extension behind the main cone body with an enlarged cross sectional area (typically 44 millimeters diameter over a length of 32 millimeters with tapered leading and trailing edges) located at a distance of 585 millimeters above the cone tip.

The penetrometers are designed with equal end area friction sleeves, a net end area ratio of 0.8 and cone tips with a 60 degree apex angle.

All ConeTec piezocones can record pore pressure at various locations. Unless otherwise noted, the pore pressure filter is located directly behind the cone tip in the "u_2" position (ASTM Type 2). The filter is six millimeters thick, made of porous plastic (polyethylene) having an average pore size of 125 microns (90-160 microns). The function of the filter is to allow rapid movements of extremely small volumes of water needed to activate the pressure transducer while preventing soil ingress or blockage.

The piezocone penetrometers are manufactured with dimensions, tolerances and sensor characteristics that are in general accordance with the current ASTM D5778 standard. ConeTec's calibration criteria also meets or exceeds those of the current ASTM D5778 standard. An illustration of the piezocone penetrometer is presented in Figure CPTu.

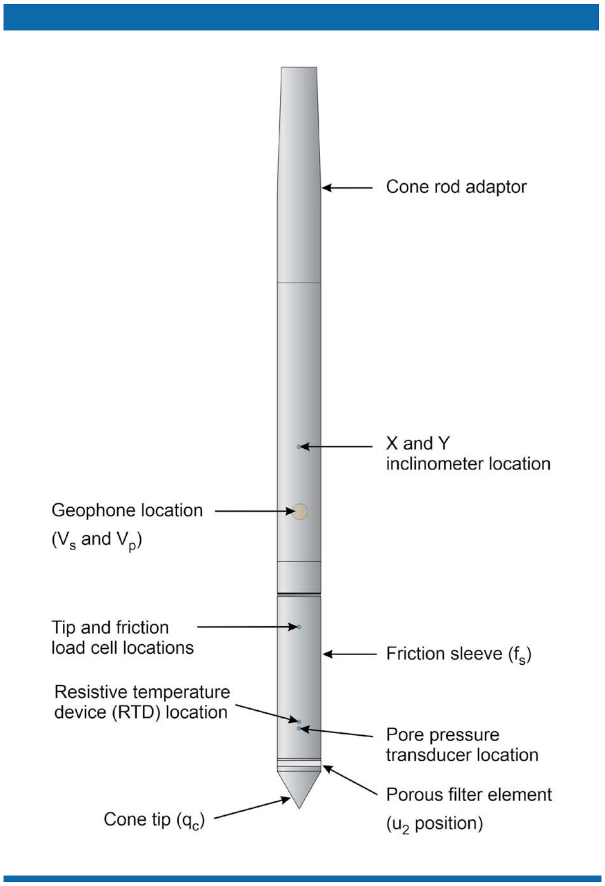


Figure CPTu. Piezocone Penetrometer (15 cm²)

The ConeTec data acquisition system consists of a Windows based computer, signal interface box, and power supply. The signal interface combines depth increment signals, seismic trigger signals and the downhole digital data. This combined data is then sent to the Windows based computer for collection and presentation. The data is recorded at fixed depth increments using a depth encoder that is either portable or integrated into the rig. The typical recording interval is 2.5 centimeters; custom recording intervals are possible.

The system displays the CPTu data in real time and records the following parameters to a storage media during penetration:

- Depth
- Uncorrected tip resistance (q_c)
- Sleeve friction (f_s)
- Dynamic pore pressure (u)
- Additional sensors such as resistivity, passive gamma, ultra violet induced fluorescence, if applicable

All testing is performed in accordance to ConeTec's CPTu operating procedures which are in general accordance with the current ASTM D5778 standard.

Prior to the start of a CPTu sounding a suitable cone is selected, the cone and data acquisition system are powered on, the pore pressure system is saturated with silicone oil and the baseline readings are recorded with the cone hanging freely in a vertical position.

The CPTu is conducted at a steady rate of two centimeters per second, within acceptable tolerances. Typically one meter length rods with an outer diameter of 1.5 inches are added to advance the cone to the sounding termination depth. After cone retraction final baselines are recorded.

Additional information pertaining to ConeTec's cone penetration testing procedures:

- Each filter is saturated in silicone oil under vacuum pressure prior to use
- Baseline readings are compared to previous readings
- Soundings are terminated at the client's target depth or at a depth where an obstruction is encountered, excessive rod flex occurs, excessive inclination occurs, equipment damage is likely to take place, or a dangerous working environment arises
- Differences between initial and final baselines are calculated to ensure zero load offsets have not occurred and to ensure compliance with ASTM standards

The interpretation of piezocone data for this report is based on the corrected tip resistance (q_t), sleeve friction (f_s) and pore water pressure (u). The interpretation of soil type is based on the correlations developed by Robertson, P.K., 2010. The Soil Behavior Type (SBT) classification chart developed by Robertson, P.K., 2010 is presented in Figure SBT. It should be noted that it is not always possible to accurately identify a soil behavior type based on these parameters. In these situations, experience, judgment and an assessment of other parameters may be used to infer soil behavior type.

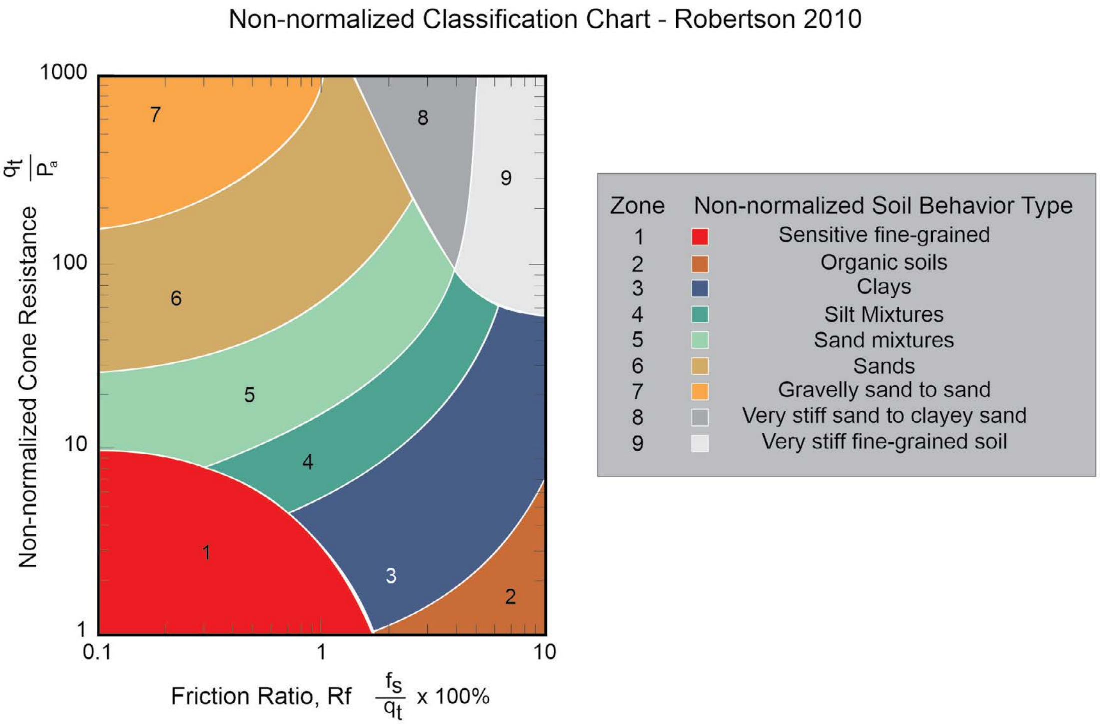


Figure SBT. Non-Normalized Soil Behavior Type Classification Chart (SBT)

The recorded tip resistance (q_c) is the total force acting on the piezocone tip divided by its base area. The tip resistance is corrected for pore pressure effects and termed corrected tip resistance (q_t) according to the following expression presented in Robertson et al. (1986):

$$q_t = q_c + (1\text{-}a) \cdot u_2$$

where: q_t is the corrected tip resistance

q_c is the recorded tip resistance

u_2 is the recorded dynamic pore pressure behind the tip (u_2 position)

a is the Net Area Ratio for the piezocone (0.8 for ConeTec probes)

The sleeve friction (f_s) is the frictional force on the sleeve divided by its surface area. As all ConeTec piezocones have equal end area friction sleeves, pore pressure corrections to the sleeve data are not required.

The dynamic pore pressure (u) is a measure of the pore pressures generated during cone penetration. To record equilibrium pore pressure, the penetration must be stopped to allow the dynamic pore pressures to stabilize. The rate at which this occurs is predominantly a function of the permeability of the soil and the diameter of the cone.

The friction ratio (Rf) is a calculated parameter. It is defined as the ratio of sleeve friction to the tip resistance expressed as a percentage. Generally, saturated cohesive soils have low tip resistance, high friction ratios and generate large excess pore water pressures. Cohesionless soils have higher tip resistances, lower friction ratios and do not generate significant excess pore water pressure.

For additional information on CPTu interpretations and calculated geotechnical parameters, refer to Robertson et al. (1986), Lunne et al. (1997), Robertson (2009), Mayne (2013, 2014) and Mayne and Peuchen (2012).

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ASTM D5778-20, 2020, “Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils”, ASTM International, West Conshohocken, PA. DOI: 10.1520/D5778-20.

Lunne, T., Robertson, P.K. and Powell, J. J. M., 1997, “Cone Penetration Testing in Geotechnical Practice”, Blackie Academic and Professional.

Mayne, P.W., 2013, “Evaluating yield stress of soils from laboratory consolidation and in-situ cone penetration tests”, Sound Geotechnical Research to Practice (Holtz Volume) GSP 230, ASCE, Reston/VA: 406-420. DOI: 10.1061/9780784412770.027.

Mayne, P.W. and Peuchen, J., 2012, “Unit weight trends with cone resistance in soft to firm clays”, Geotechnical and Geophysical Site Characterization 4, Vol. 1 (Proc. ISC-4, Pernambuco), CRC Press, London: 903-910.

Mayne, P.W., 2014, “Interpretation of geotechnical parameters from seismic piezocone tests”, CPT’14 Keynote Address, Las Vegas, NV, May 2014.

Robertson, P.K., Campanella, R.G., Gillespie, D. and Greig, J., 1986, “Use of Piezometer Cone Data”, Proceedings of InSitu 86, ASCE Specialty Conference, Blacksburg, Virginia.

Robertson, P.K., 2009, “Interpretation of cone penetration tests – a unified approach”, Canadian Geotechnical Journal, Volume 46: 1337-1355. DOI: 10.1139/T09-065.

Robertson, P.K., 2010. Soil behavior type from the CPT: an update. 2nd International Symposium on Cone Penetration Testing, CPT’10, Huntington Beach, CA, USA

PORE PRESSURE DISSIPATION TEST

The cone penetration test is halted at specific depths to carry out pore pressure dissipation (PPD) tests, shown in Figure PPD-1. For each dissipation test the cone and rods are decoupled from the rig and the data acquisition system measures and records the variation of the pore pressure (u) with time (t).

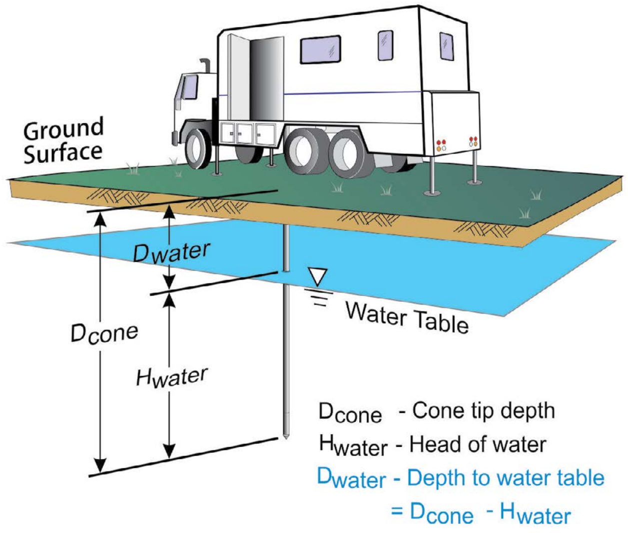

Figure PPD-1. Pore pressure dissipation test setup

Pore pressure dissipation data can be interpreted to provide estimates of ground water conditions, permeability, consolidation characteristics and soil behavior.

The typical shapes of dissipation curves shown in Figure PPD-2 are very useful in assessing soil type, drainage, in situ pore pressure and soil properties. A flat curve that stabilizes quickly is typical of a freely draining sand. Undrained soils such as clays will typically show positive excess pore pressure and have long dissipation times. Dilative soils will often exhibit dynamic pore pressures below equilibrium that then rise over time. Overconsolidated fine-grained soils will often exhibit an initial dilatory response where there is an initial rise in pore pressure before reaching a peak and dissipating.

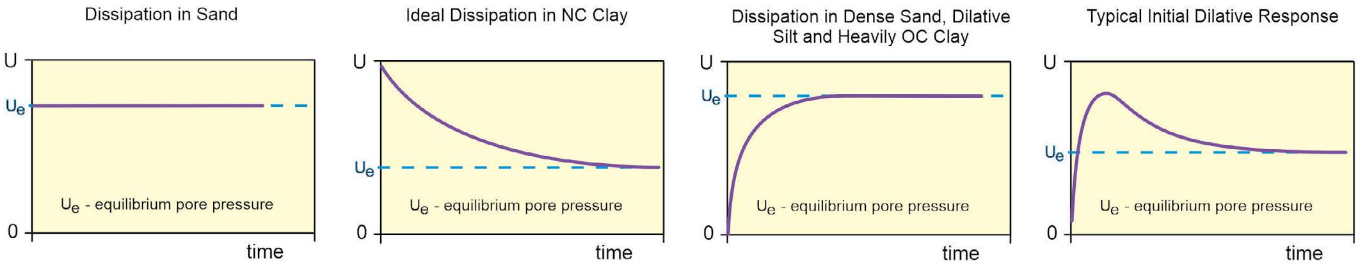

Figure PPD-2. Pore pressure dissipation curve examples

In order to interpret the equilibrium pore pressure (u_{eq}) and the apparent phreatic surface, the pore pressure should be monitored until such time as there is no variation in pore pressure with time as shown for each curve in Figure PPD-2.

SEISMIC CONE PENETRATION TEST (SCPTu) - eSeries

Shear wave velocity (Vs) testing is performed in conjunction with the piezocone penetration test (SCPTu) in order to collect interval velocities. For some projects seismic compression wave velocity (Vp) testing is also performed.

ConeTec's piezocone penetrometers are manufactured with one horizontally active geophone (28 hertz) and one vertically active geophone (28 hertz). Both geophones are rigidly mounted in the body of the cone penetrometer, 0.2 meters behind the cone tip. The vertically mounted geophone is more sensitive to compression waves.

Shear waves are typically generated by using an impact hammer horizontally striking a beam that is held in place by a normal load. In some instances, an auger source or an imbedded impulsive source may be used for both shear waves and compression waves. The hammer and beam act as a contact trigger that initiates the recording of the seismic wave traces. For impulsive devices an accelerometer trigger may be used. The traces are recorded in the memory of the cone using a fast analog to digital converter. The seismic trace is then transmitted digitally uphole to a Windows based computer through a signal interface box for recording and analysis. An illustration of the shear wave testing configuration is presented in Figure SCPTu-1.

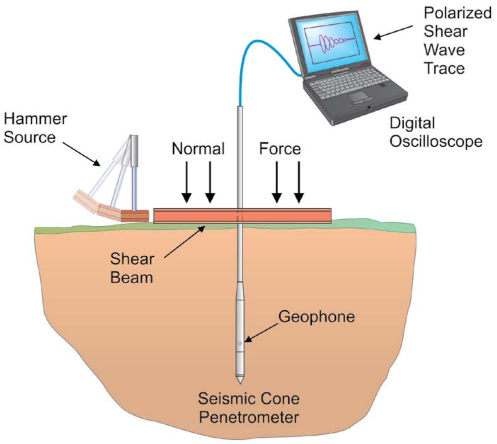

Figure SCPTu-1. Illustration of the SCPTu system

All testing is performed in accordance to ConeTec's SCPTu operating procedures which are in general accordance with the current ASTM D5778 and ASTM D7400 standards.

Prior to the start of a SCPTu sounding, the procedures described in the Cone Penetration Test section are followed. In addition, the active axis of the geophone is aligned parallel to the beam (or source) and the horizontal offset between the cone and the source is measured and recorded.

Prior to recording seismic waves at each test depth, cone penetration is stopped and the rods are decoupled from the rig to avoid transmission of rig energy down the rods. Typically, five wave traces for each orientation are recorded for quality control and uncertainty analysis purposes. After reviewing wave traces for consistency the cone is pushed to the next test depth (typically one meter intervals or as requested by the client). Figure SCPTu-2 presents an illustration of a SCPTu test.

For additional information on seismic cone penetration testing refer to Robertson et al. (1986).

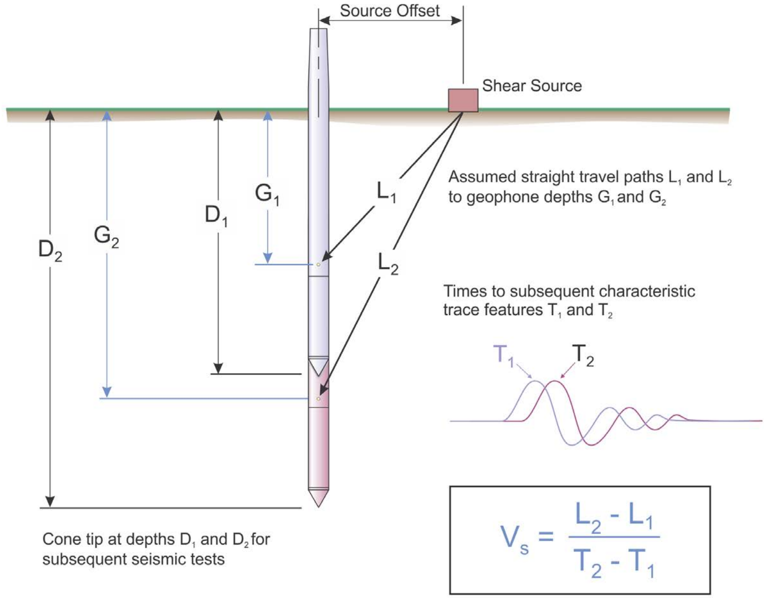

Figure SCPTu-2. Illustration of a seismic cone penetration test

For the determination of interval travel times the wave traces from all depths are displayed in analysis software. The results of the interval picks are supplied in the relevant appendix of this report. Standard practice for ConeTec is to record five wave traces for each source direction at each test depth. Outlier impacts are identified in the field and the impacts are repeated. For the final wave trace profile, the traces are stacked in the time domain to display a single average trace.

Calculation of the interval velocities are performed by visually picking a common feature (e.g. the first characteristic peak, trough, or crossover) on all of the recorded wave sets and taking the difference in ray path divided by the time difference between subsequent features. Ray path is defined as the straight line distance from the seismic source to the geophone, accounting for beam offset, source depth and geophone offset from the cone tip.

In some cases, usually for shear wave velocity testing, more than one characteristic marker may be used. If there is an overlap between different sets of characteristic markers, then the average time value for those sets of interval times is applied to the determination of velocity.

Ideally, all depths are used for the determination of the velocity profile. However, an interval may be skipped if there is some ambiguity or quality concern with a particular depth, resulting in a larger interval.

Tabular velocity results and SCPTu plots are presented in the relevant appendix.

For all SCPTu soundings that have achieved a depth of at least 100 feet (30 meters), the average shear wave velocity to a depth of 100 feet ($\overline{v}_S$) has been calculated and provided for all applicable soundings using the following equation presented in ASCE (2010).

$$\bar{v}_s = \frac{\sum_{i=1} d_i}{\sum_{i=1}^{n} \frac{d_i}{v_{si}}}$$

where: $\bar{v}_s$ = average shear wave velocity ft/s (m/s)
d_i = the thickness of any layer between 0 and 100 ft (30 m)
v_{si} = the shear wave velocity in ft/s (m/s)
$\sum_{i=1}^{n} d_i$ = the total thickness of all layers between 0 and 100 ft (30 m)

Average shear wave velocity, $\bar{v}_s$ is also referenced to $V_{S}100$ or $V_{S}30$.

The layer travel times refers to the travel times propagating in the vertical direction, not the measured travel times from an offset source.

REFERENCES

American Society of Civil Engineers (ASCE), 2010, “Minimum Design Loads for Buildings and Other Structures”, Standard ASCE/SEI 7-10, American Society of Civil Engineers, ISBN 978-0-7844-1085-1, Reston, Virginia. DOI: 10.1061/9780784412916.

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Cone Penetration Digital File Formats

CONE PENETRATION DIGITAL
FILE FORMATS - eSeries

CPT Data Files (COR Extension)

ConeTec CPT data files are stored in ASCII text files that are readable by almost any text editor. ConeTec file names start with the job number (which includes the two digit year number) an underscore as a separating character, followed by two letters based on the type of test and the sounding ID. The last character position is reserved for an identifier letter (such as b, c, d etc) used to uniquely distinguish multiple soundings at the same location. The CPT sounding file has the extension COR. As an example, for job number 21-02-00001 the first CPT sounding will have file name 21-02-00001_CP01.COR

The sounding (COR) file consists of the following components:

1. Two lines of header information
2. Data records
3. End of data marker
4. Units information

Header Lines

Line 1: Columns 1-6 may be blank or may indicate the version number of the recording software
Columns 7-21 contain the sounding Date and Time (Date is MM:DD:YY)
Columns 23-38 contain the sounding Operator
Columns 51-100 contain extended Job Location information

Line 2: Columns 1-16 contain the Job Location
Columns 17-32 contain the Cone ID
Columns 33-47 contain the sounding number
Columns 51-100 may contain extended sounding ID information

Data Records

The data records contain 4 or more columns of data in floating point format. A comma and spaces separate each data item:

Column 1: Sounding Depth (meters)
Column 2: Tip (q_c), recorded in units selected by the operator
Column 3: Sleeve (f_s), recorded in units selected by the operator
Column 4: Dynamic pore pressure (u), recorded in units selected by the operator
Column 5: Empty or may contain other requested data such as Gamma, Resistivity or UVIF data

End of Data Marker

After the last line of data there is a line containing an ASCII 26 (CTL-Z) character (small rectangular shaped character) followed by a newline (carriage return / line feed). This is used to mark the end of data.

Units Information

The last section of the file contains information about the units that were selected for the sounding. A separator bar makes up the first line. The second line contains the type of units used for depth, q_c, f_s and u. The third line contains the conversion values required for ConeTec's software to convert the recorded data to an internal set of base units (bar for q_c, bar for f_s and meters for u). Additional lines intended for internal ConeTec use may appear following the conversion values.

CPT Data Files (XLS Extension)

Excel format files of ConeTec CPT data are also generated from corresponding COR files. The XLS files have the same base file name as the COR file with a -BSC suffix. The information in the file is presented in table format and contains additional information about the sounding such as coordinate information, and tip net area ratio.

The BSCI suffix is given to XLS files which are enhanced versions of the BSC files and include the same data records in addition to inclination data collected for each sounding.

CPT Dissipation Files (XLS Extension)

Pore pressure dissipation files are provided in Excel format and contain each dissipation trace that exceeds a minimum duration (selected during post-processing) formatted column wise within the spreadsheet. The first column (Column A) contains the time in seconds and the second column (Column B) contains the time in minutes. Subsequent columns contain the dissipation trace data. The columns extend to the longest trace of the data set.

Detailed header information is provided at the top of the worksheet. The test depth in meters and feet, the number of points in the trace and the particular units are all presented at the top of each trace column.

CPT Dissipation files have the same naming convention as the CPT sounding files with a "–PPD" suffix.

Data Records

Each file will contain dissipation traces that exceed a minimum duration (selected during post-processing) in a particular column. The dissipation pore pressure values are typically recorded at varying time intervals throughout the trace; rapidly to start and increasing as the duration of the test lengthens. The test depth in meters and feet, the number of points in the trace and the trace number are identified at the top of each trace column.

Cone Type Designations

Cone ID	Cone Description	Tip Cross Sect. Area (cm^2)	Tip Capacity (bar)	Sleeve Area (cm^2)**	Sleeve Capacity (bar)	Pore Pressure Capacity (bar)
EC###	A15T1500F15U35	15	1500	225	15	35
EC###	A15T375F10U35	15	375	225	10	35
EC###	A10T1000F10U35	10	1000	150	10	35

refers to the Cone ID number

**Outer Cylindrical Area

Description of Methods for Calculated CPT Geotechnical Parameters

CALCULATED CPT GEOTECHNICAL PARAMETERS

A Detailed Description of the Methods Used in ConeTec's CPT Geotechnical Parameter Calculation and Plotting Software

Revision SZW-Rev 18

Revised February 10, 2023
Prepared by Jim Greig, M.A.Sc, P.Eng (BC, AB, ON)

Limitations

The geotechnical parameter output was prepared specifically for the site and project named in the accompanying report subject to objectives, site conditions and criteria provided to ConeTec by the client. The output may not be relied upon by any other party or for any other site without the express written permission of ConeTec Group (ConeTec) or any of its affiliates. For this project, ConeTec has provided site investigation services, prepared factual data reporting and produced geotechnical parameter calculations consistent with current best practices. No other warranty, expressed or implied, is made.

To understand the calculations that have been performed and to be able to reproduce the calculated parameters the user is directed to the basic descriptions for the methods in this document and the detailed descriptions and their associated limitations and appropriateness in the technical references cited for each parameter.

ConeTec's Calculated CPT Geotechnical Parameters as of February 10, 2023.

ConeTec's CPT parameter calculation and plotting routine provides a tabular output of geotechnical parameters based on current published CPT correlations and is subject to change to reflect the current state of practice. Due to drainage conditions and the basic assumptions and limitations of the correlations, not all geotechnical parameters provided are considered applicable for all soil types. The results are presented only as a guide for geotechnical use and should be carefully examined for consideration in any geotechnical design. Reference to current literature is strongly recommended. ConeTec does not warranty the correctness or the applicability of any of the geotechnical parameters calculated by the program and does not assume liability for any use of the results in any design or review. For verification purposes we recommend that representative hand calculations be done for any parameter that is critical for design purposes. The end user of the parameter output should also be fully aware of the techniques and the limitations of any method used by the program. The purpose of this document is to inform the user as to which methods were used and to direct the end user to the appropriate technical papers and/or publications for further reference.

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The CPT calculations are based on values of tip resistance, sleeve friction and pore pressures considered at each data point or averaged over a user specified layer thickness (e.g., 0.20 m). Note that q_t is the tip resistance corrected for pore pressure effects and q_c is the recorded tip resistance. The corrected tip resistance (corrected using u_2 pore pressure values) is used for all calculations. Since all ConeTec cones have equal end area friction sleeves pore pressure corrections to sleeve friction, f_s, are not performed.

Corrected tip resistance: $q_t = q_c + (1-a) \cdot u_2$ (consistent units are required)

where: q_t is the corrected tip resistance
q_c is the recorded tip resistance
u_2 is the recorded dynamic pore pressure from behind the tip (u_2 position)
a is the Net Area Ratio for the cone (typically 0.80 for ConeTec cones)

The total stress calculations are based on soil unit weight values that have been assigned to the Soil Behavior Type (SBT) zones, from a user defined unit weight profile, by using a single uniform value throughout the profile, through unit weight estimation techniques described in various technical papers or from a combination of these methods. The parameter output files indicate the method(s) used.

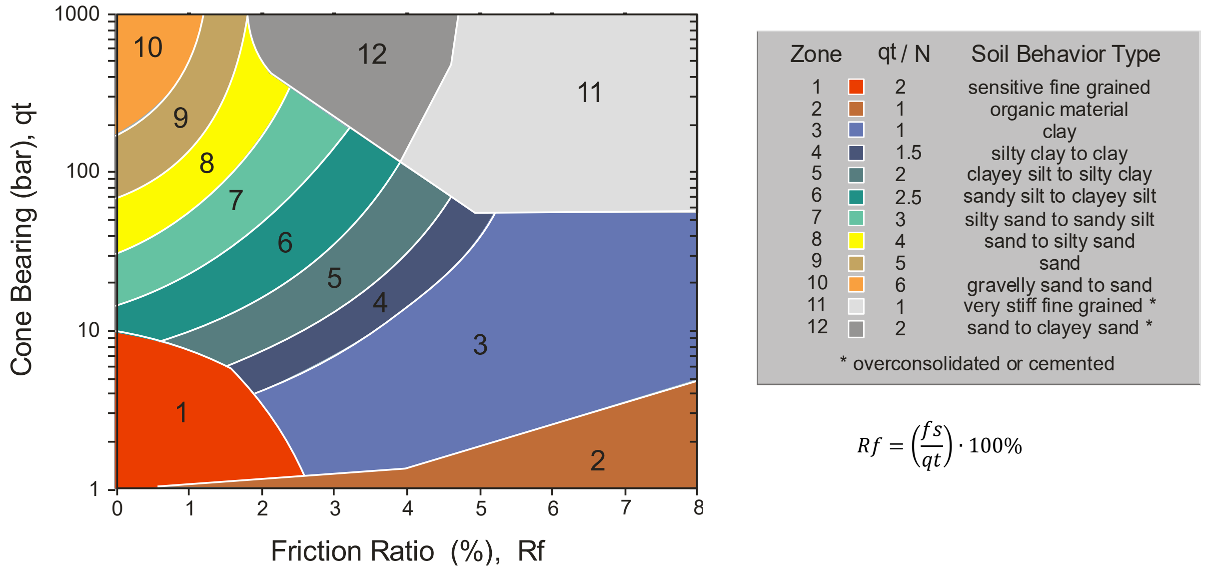
Effective vertical overburden stresses are calculated using the total stress and equilibrium pore pressure (u_{eq} or u_o) values derived from an assumed hydrostatic distribution of pore pressures below the water table or from a user defined equilibrium pore pressure profile (typically obtained from CPT dissipation tests) or a combination of the two. For over water projects the stress effects of the column of water above the mudline are taken into account as is the appropriate unit weight of water. How this is done depends on where the instruments are zeroed (i.e. on deck or at the mudline). The parameter output files indicate the method(s) used.

A majority of parameter calculations are derived from or driven by results based on material types as determined by the various soil behavior type charts depicted in Figures 1 through 6. The parameter output files indicate the method(s) used.

The Soil Behavior Type classification chart shown in Figure 1 is the classic non-normalized SBT Chart developed at the University of British Columbia and reported in Robertson, Campanella, Gillespie and Greig (1986). Figure 2 shows the original normalized (linear method) SBTn chart developed by Robertson (1990). The Bq classification charts shown in Figures 3a and 3b incorporate pore pressures into the SBT classification and are based on the methods described in Robertson (1990). Many of these charts have been summarized in Lunne, Robertson and Powell (1997). The Jefferies and Davies SBT chart shown in Figure 3c is based on the techniques discussed in Jefferies and Davies (1993) which introduced the concept of the Soil Behavior Type Index parameter, I_c. Take note that the I_c parameter developed by Robertson and Fear (1995) and Robertson and Wride (1998) is similar in concept but uses a slightly different calculation method than that defined by Jefferies and Davies (1993) as the latter incorporates pore pressure in their technique through the use of the Bq parameter. The normalized Qtn SBT chart shown in Figure 4 is based on the work by Robertson (2009) utilizing a variable stress ratio exponent, n, for normalization based on a slightly modified redefinition and iterative approach for I_c. The boundary curves drawn on the chart are based on the work described in Robertson (2010).

Figure 5 shows a revised 1986 SBT Chart presented to CPT'10 by Robertson (2010b). It is known as the Updated non-normalized Soil Behavior Chart (also referred to as the Rev SBT Chart (PKR2010) in our output files). This chart was produced to be more in line with all post-1986 Robertson charts having the same 9 soil type zones, a $\log_{10}$ axis for friction ratio, R_f in this case, and a unitless tip resistance axis.

Figure 6 shows a revised behavior based chart by Robertson (2016) depicting contractive-dilative zones. As the zones represent material behavior rather than soil gradation ConeTec has chosen a set of zone colors that are less likely to be confused with material type colors from previous SBT charts. These colors differ from those used by Dr. Robertson. A green palette was selected for the dilative (desirable) side of the chart and a red palette for the contractive side of the chart.



$$Rf = \left(\frac{fs}{qt}\right) \cdot 100\%$$

Figure 1. Non-normalized Soil Behavior Type Classification Chart (SBT)

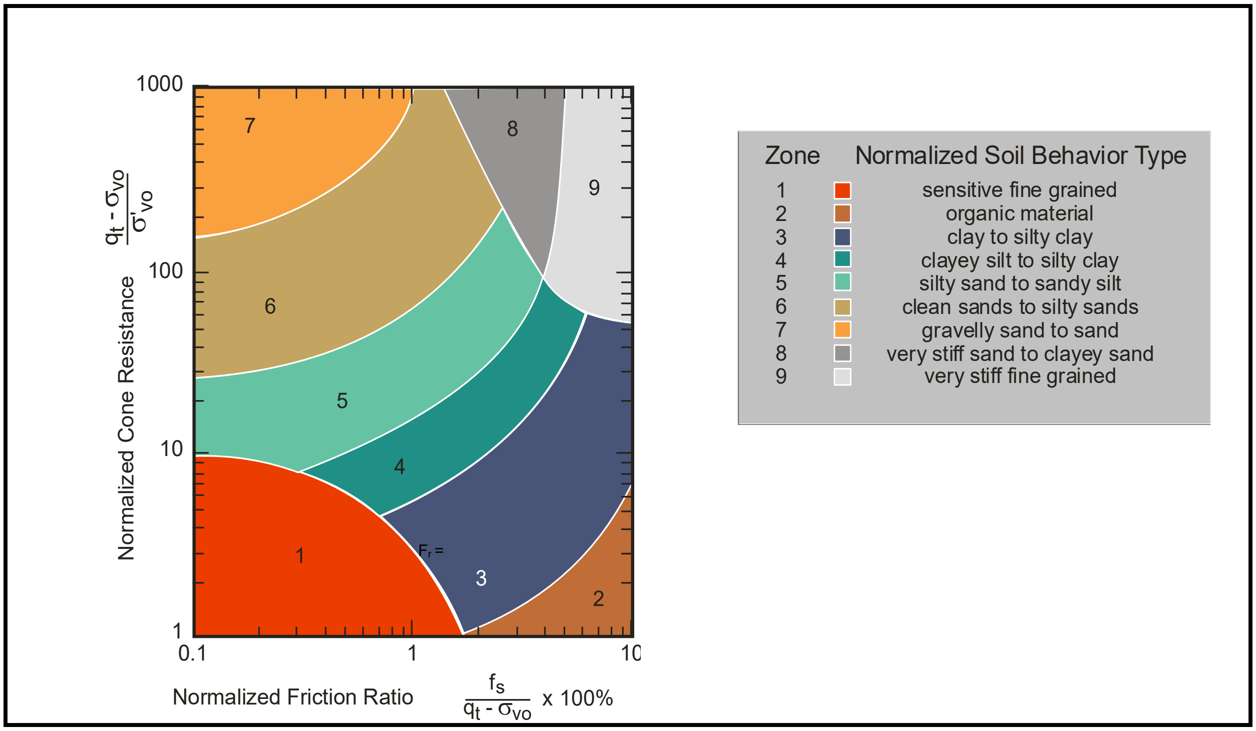


Figure 2. Normalized Soil Behavior Type Classification Chart (SBTn)

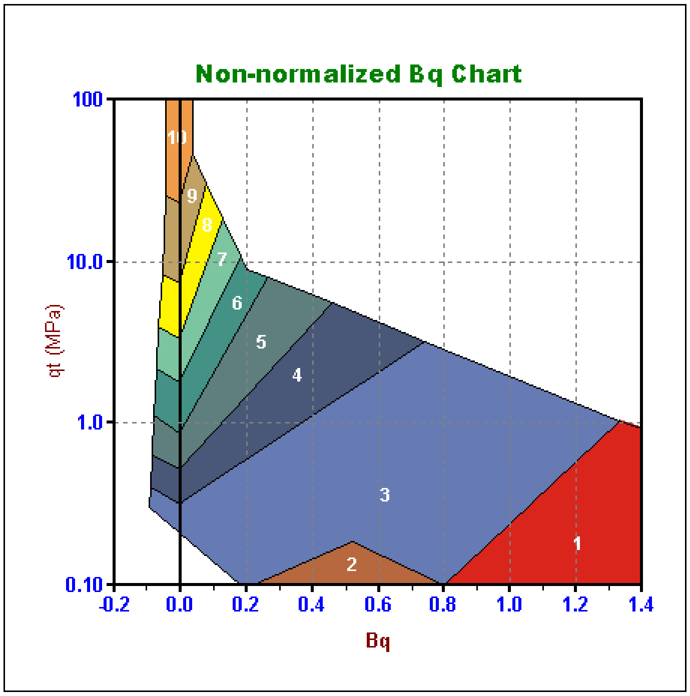


Figure 3a. Alternate Soil Behavior Type Chart (SBT Bq): q_t - B_q

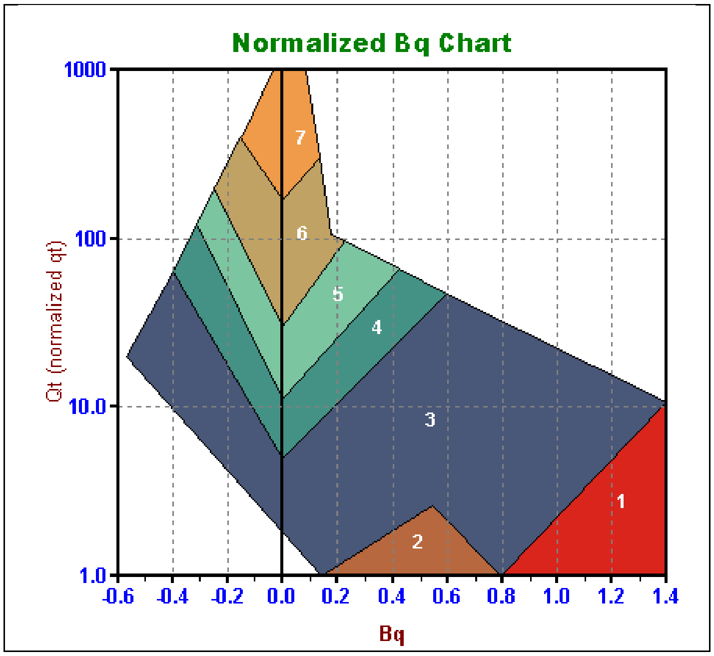


Figure 3b. Alternate Soil Behavior Type Charts (SBT Bqn): Q_t-B_q

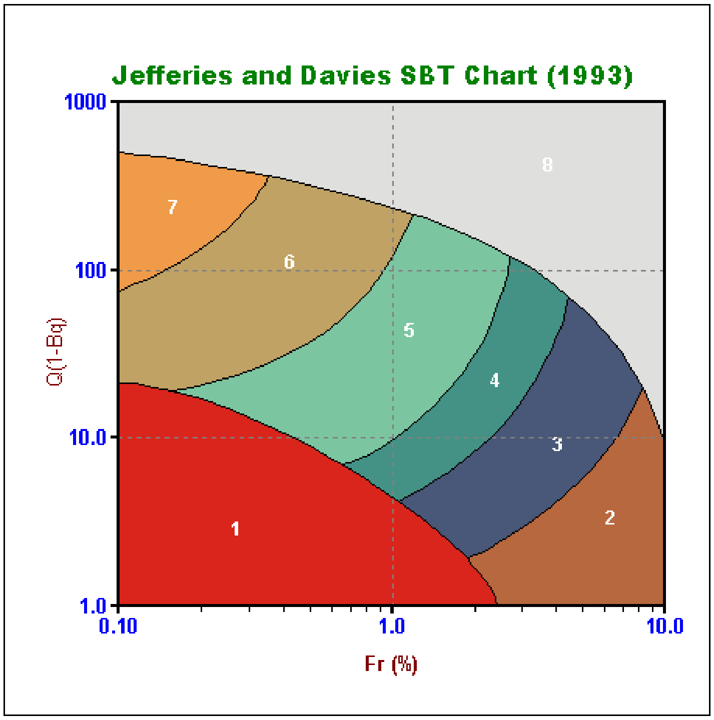


Figure 3c. Alternate Soil Behavior Type Charts: $Q(1-B_q)$ - F_r

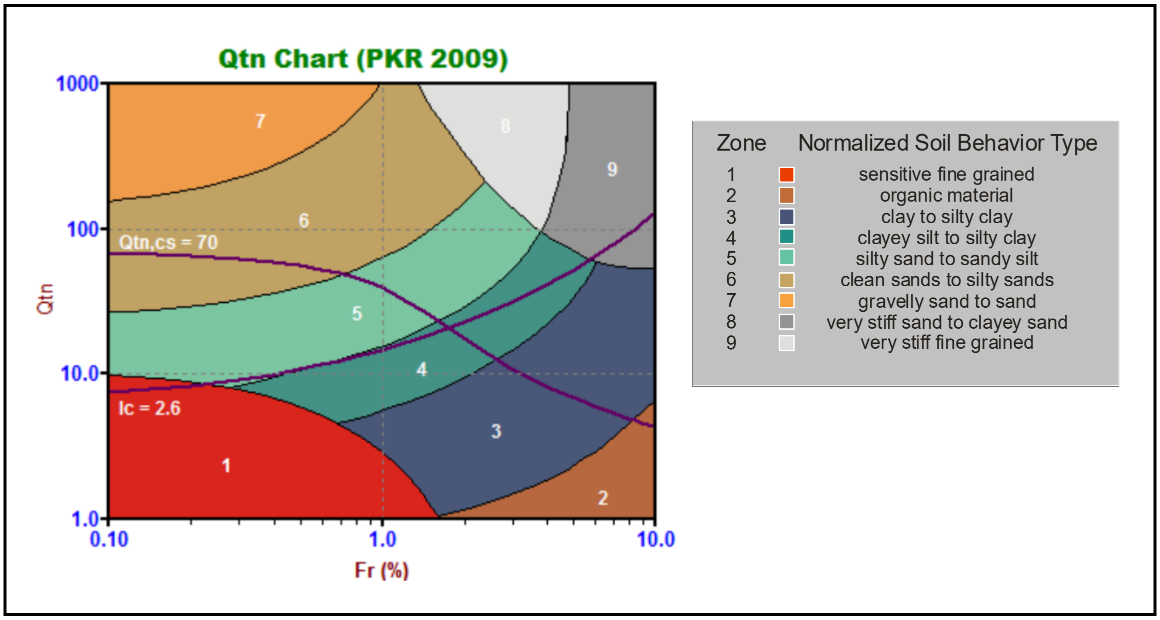


Figure 4. Normalized Soil Behavior Type Chart using Q_{tn} (SBT Qtn)

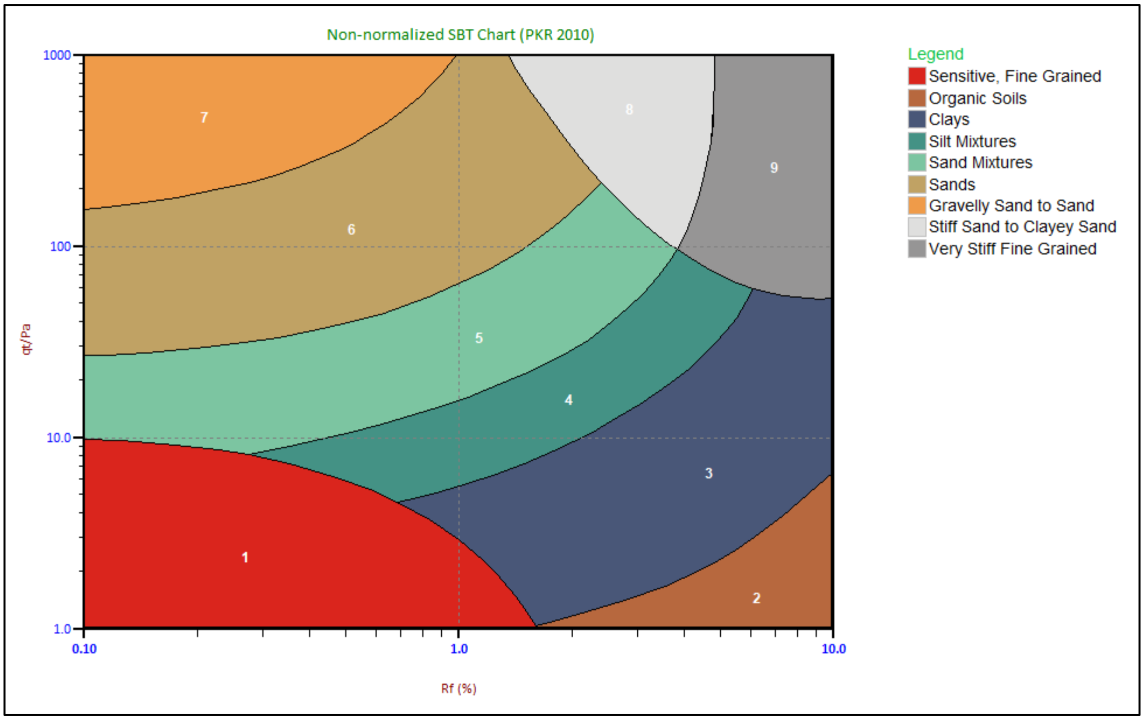


Figure 5. Non-normalized Soil Behavior Type Chart (2010)

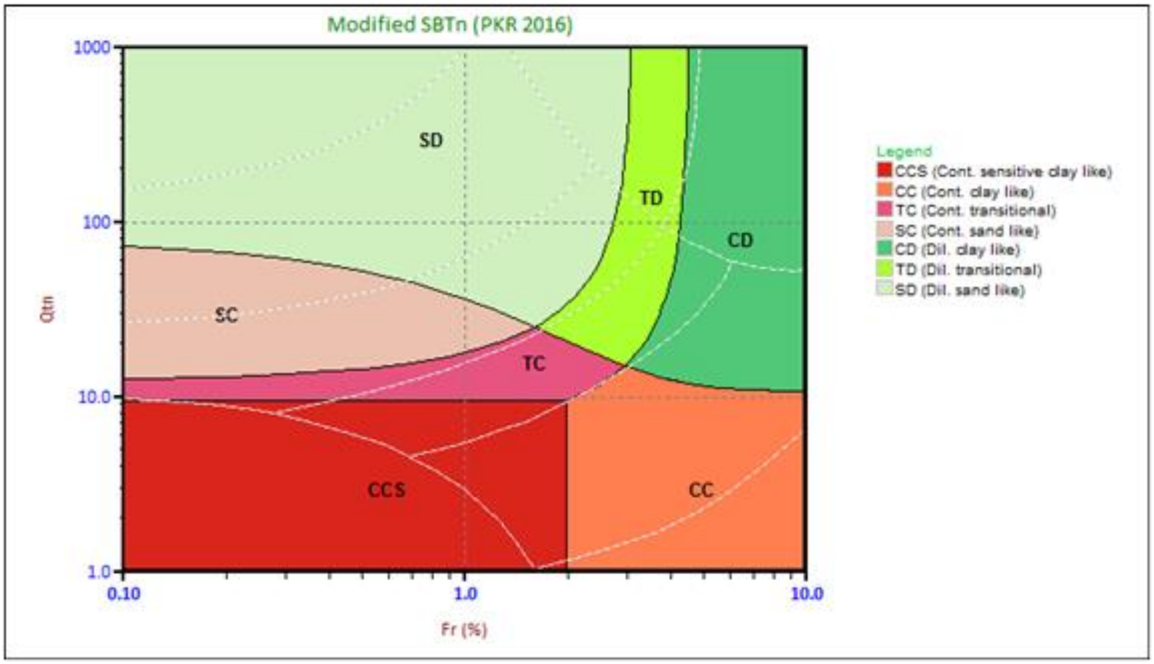


Figure 6. Modified SBTn Behavior Based Chart

Details regarding the geotechnical parameter calculations are provided in Tables 1a and 1b. The appropriate references cited are listed in Table 2. Non-liquefaction specific parameters are detailed in Table 1a and liquefaction specific parameters are detailed in Table 1b.

Where methods are based on charts or techniques that are too complex to describe in this summary, we recommend that the user refer to the cited material. Specific limitations for each method are described in the cited material.

Where the results of a calculation/correlation are deemed *'invalid'* the value will be represented by the text strings "-9999", "-9999.0", the value 0.0 (Zero) or an empty cell. Invalid results will occur because of (and not limited to) one or a combination of:

1. Invalid or undefined CPT data (e.g., drilled out section or data gap).

2. Where the calculation method is inappropriate, for example, drained parameters in a material behaving in an undrained manner (and vice versa).

3. Where input values are beyond the range of the referenced charts or specified limitations of the correlation method.

4. Where pre-requisite or intermediate parameter calculations are invalid.

The parameters selected for output from the program are often specific to a particular project. As such, not all of the calculated parameters listed in Tables 1and 1a may be included in the output files delivered with this report.

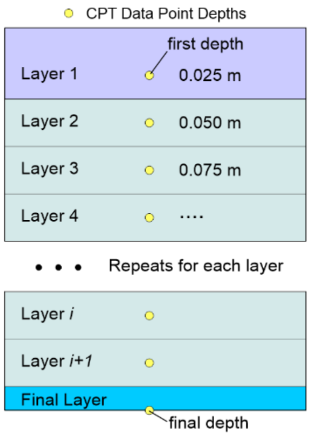
The output files are typically provided in Microsoft Excel XLS, XLSX or CSV format. The ConeTec software has several options for output depending on the number or types of calculated parameters desired or those specifically contracted for by the client. Each output file is named using the original file base name (from the .COR file) followed by a three or four character indicator of the output set selected (e.g. BSC, TBL, NLI, NL2, IFI, IFI2, IFI3) and possibly followed by an operator selected suffix identifying the characteristics of the particular calculation run.

Table 1a. CPT Parameter Calculation Methods – Non liquefaction Parameters

Reference Notes: CK* - Common Knowledge, U* - Unpublished

Calculated Parameter	Description	Equation	Ref
Depth	Mid Layer Depth *(where calculations are done at each point then Mid Layer Depth = Recorded Depth)*	*[Depth (Layer Top) + Depth (Layer Bottom)]/ 2.0*	CK*
Elevation	Elevation of Mid Layer is based on the sounding collar elevation supplied by the client or through a site survey In Sweden a variation of elevation is used where the elevation increases with depth. We refer to this as inverse elevation.	Elevation = Collar Elevation – Depth InverseElevation = Collar Elevation + Depth	CK* N/A
Avg qc	Averaged recorded tip value (q_c)	$Avgqc = \frac{1}{n}\sum_{i=1}^{n} q_c$ *n=1 when calculations are done at each point*	CK*
Avg qt	Averaged corrected tip (q_t) where: $q_t = q_c + (1-a) \cdot u_2$ Averaged q_t is not calculated using the average q_c and averaged u values. Averaged q_t is based on the average of the q_t values calculated at each data point.	$Avgqt = \frac{1}{n}\sum_{i=1}^{n} q_t$ *n=1 when calculations are done at each point*	1
Avg fs	Averaged sleeve friction (f_s) No pore pressure corrections are applied to f_s.	$Avgfs = \frac{1}{n}\sum_{i=1}^{n} fs$ *n=1 when calculations are done at each point*	CK*
Avg Rf	Averaged friction ratio (R_f) where friction ratio is defined as: $R_f = 100\% \cdot \frac{fs}{q_t}$	$AvgRf = 100\% \cdot \frac{Avgfs}{Avgqt}$ *not an average of individual R_f values*	CK*
Avg u	Averaged dynamic pore pressure *(u)*	$Avgu = \frac{1}{n}\sum_{i=1}^{n} u_i$ *n=1 when calculations are done at each point*	CK*
Avg Res	Averaged Resistivity (this data is not always available since it is a specialized test requiring an additional module)	$AvgRes = \frac{1}{n}\sum_{i=1}^{n} Resistivity_i$ *n=1 when calculations are done at each point*	CK*
Avg UVIF	Averaged UVIF ultra-violet induced fluorescence (this data is not always available since it is a specialized test requiring an additional module)	$AvgUVIF = \frac{1}{n}\sum_{i=1}^{n} UVIF_i$ *n=1 when calculations are done at each point*	CK*
Avg Temp	Averaged Temperature (this data is not always available)	$AvgTemp = \frac{1}{n}\sum_{i=1}^{n} Temperature_i$ *n=1 when calculations are done at each point*	CK*
Avg Gamma	Averaged Gamma Counts (this data is not always available since it is a specialized test requiring an additional module)	$AvgGamma = \frac{1}{n}\sum_{i=1}^{n} Gamma_i$ *n=1 when calculations are done at each point*	CK*
SBT	Soil Behavior Type as defined by Robertson et al 1986 (often referred to as Robertson and Campanella, 1986)	See Figure 1	1, 5
SBTn	Normalized Soil Behavior Type as defined by Robertson 1990 (linear normalization using Q_t, now referred to as Q_{t1})	See Figure 2	2, 5

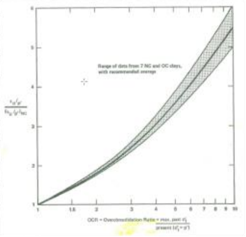
Calculated Parameter	Description	Equation	Ref
SBT-Bq	Non-normalized Soil Behavior type based on non-normalized tip resistance and the B_q parameter	See Figure 3a	1, 2, 5
SBT-Bqn	Normalized Soil Behavior type based on normalized tip resistance (Q_t, now called Q_{t1}) and the B_q parameter	See Figure 3b	2, 5
SBT-JandD	Soil Behavior Type as defined by Jeffries and Davies	See Figure 3c	7
SBT Qtn	Soil Behavior Type as defined by Robertson (2009) using a variable stress ratio exponent for normalization based on $I_{c\ (PKR\ 2009)}$	See Figure 4	15
Modified Non-normalized SBT Chart SBT (PKR2010)	This is a revised version of the simple 1986 non-normalized SBT chart (presented at CPT '10). The revised version has been reduced from 12 zones to 9 zones to be similar to the normalized Robertson charts. Other updates include a dimensionless tip resistance normalized to atmospheric pressure, q_t/P_a, on the vertical axis and a log scale for non-normalized friction ratio, R_f, along the horizontal axis.	See Figure 5	33
Modified SBTn (contractive /dilative)	Modified SBTn chart as defined by Robertson (2016) indicating zones of contractive/dilative behavior. Note that ConeTec displays the chart with colors different from Robertson. ConeTec's colors were chosen to avoid confusion with soil type descriptions.	See Figure 6	30
Unit Wt.	Unit Weight of soil determined from one of the following user selectable options: 1) uniform value 2) value assigned to each SBT zone 3) value assigned to each SBTn zone 4) value assigned to SBTn zone as determined from Robertson and Wride (1998) based on q_{c1n} 5) values assigned to SBT Qtn zones 6) values based on Robertson updated non-normalized Soil Behavior Type Chart (2010b) 6) Mayne f_s (sleeve friction) method 7) Robertson and Cabal 2010 method 8) user supplied unit weight profile The last option may co-exist with any of the other options.	See references	3, 5, 15, 21, 24, 29, 33

Calculated Parameter	Description	Equation	Ref
TStress σ_v	Total vertical overburden stress at Mid Layer Depth *A layer is defined as the averaging interval specified by the user where depths are reported at their respective mid-layer depth.* For data calculated at each point layers are defined using the recorded depth as the mid-point of the layer. Thus, a layer starts half-way between the previous depth and the current depth unless this is the first point in which case the layer start is at zero depth. The layer bottom is half-way from the current depth to the next depth unless it is the last data point. Defining layers affects how stresses are calculated since the unit weight attributed to a data point is used throughout the entire layer. This means that to calculate the stresses the total stress at the top and bottom of a layer are required. The stress at mid layer is determined by adding the incremental stress from the layer top to the mid-layer depth. The stress at the layer bottom becomes the stress at the top of the subsequent layer. Stresses are NOT calculated from mid-point to mid-point. For over-water work the total stress due to the column of water above the mud line is taken into account where appropriate.	$TStress = \sum_{i=1}^{n} \gamma_i h_i$ *where* γ_i is layer unit weight h_i is layer thickness 	CK*
EStress σ_v'	Effective vertical overburden stress at mid-layer depth.	$\sigma_v' = \sigma_v - u_{eq}$	CK*
Equil u u_{eq} or u_0	Equilibrium pore pressures are determined from one of the following user selectable options: 1) hydrostatic below the water table 2) user supplied profile 3) combination of those above When a user supplied profile is used/provided a linear interpolation is performed between equilibrium pore pressures defined at specific depths. If the profile values start below the water table then a linear transition from zero pressure at the water table to the first defined pointed is used. Equilibrium pore pressures may come from dissipation tests, adjacent piezometers or other sources. Occasionally, an extra equilibrium point ("assumed value") will be provided in the profile that does not come from a recorded value to smooth out any abrupt changes or to deal with material interfaces. These "assumed" values will be indicated on our plots and in tabular summaries.	For the hydrostatic option: $u_{eq} = \gamma_w \cdot (D - D_{wt})$ where u_{eq} is equilibrium pore pressure γ_w is the unit weight of water D is the current depth D_{wt} is the depth to the water table	CK*
K_0	Coefficient of earth pressure at rest, K_0.	$K_o = (1 - \sin\Phi') OCR^{\sin\Phi'}$	17
C_n	Overburden stress correction factor used for $(N_1)_{60}$ and older CPT parameters.	$C_n = (P_a/\sigma_v')^{0.5}$ where $0.0 < C_n < 2.0$ *(user adjustable, typically ranging from 1.7 to 2.0)* P_a *is atmospheric pressure (100 kPa)*	4, 12

Calculated Parameter	Description	Equation	Ref
C_q	Overburden stress normalizing factor.	$C_q = 1.8 / [0.8 + (\sigma_v'/P_a)]$ where *$0.0 < C_q < 2.0$ (user adjustable)* *P_a is atmospheric pressure (100 kPa)* *Robertson and Wride define C_q to be the same as C_n. The Olson definition above is used in the program.*	3, 12
N_{60}	SPT N value at 60% energy calculated from q_t/N ratios assigned to each SBT zone. This method has abrupt N value changes at zone boundaries.	*See Figure 1*	5
$(N_1)_{60}$	SPT N_{60} value corrected for overburden pressure.	$(N_1)_{60} = C_n \bullet N_{60}$	4
$N_{60}I_c$	SPT N_{60} values based on the I_c parameter, as defined by Robertson and Wride 1998 (3), or by Robertson 2009 (15).	$(q_t/P_a)/ N_{60} = 8.5\,(1 - I_c/4.6)$ $(q_t/P_a)/ N_{60} = 10^{(1.1268 - 0.2817 Ic)}$ P_a being atmospheric pressure	3, 5 15, 31
$(N_1)_{60}I_c$	SPT N_{60} value corrected for overburden pressure (using N_{60} I_c). User has 3 options.	1) $(N_1)_{60}Ic = C_n \bullet (N_{60}\,I_c)$ 2) $q_{c1n}/ (N_1)_{60}I_c = 8.5\,(1 - I_c/4.6)$ 3) $(Q_{tn})/ (N_1)_{60}I_c = 10^{(1.1268 - 0.2817 Ic)}$	4 5 15, 31
S_u or S_u (N_{kt})	Undrained shear strength based on q_t S_u factor N_{kt} is user selectable.	$Su = \dfrac{qt - \sigma_v}{N_{kt}}$	1, 5
S_u or S_u (N_{du}) or S_u ($N_{\Delta u}$)	Undrained shear strength based on pore pressure S_u factor $N_{\Delta u}$ is user selectable.	$Su = \dfrac{u_2 - u_{eq}}{N_{\Delta u}}$	1, 5
D_r	Relative Density determined from one of the following user selectable options: 1) Ticino Sand 2) Hokksund Sand 3) Schmertmann (1978) 4) Jamiolkowski (1985) - All Sands 5) Jamiolkowski et al (2003) (various compressibilities, K_o)	See reference (methods 1 through 4) Jamiolkowski et al (2003) reference	5 14
PHI ϕ	Friction Angle determined from one of the following user selectable options (methods 1 through 4 are for sands and method 5 is for silts and clays): 1) Campanella and Robertson 2) Durgunoglu and Mitchel 3) Janbu 4) Kulhawy and Mayne 5) NTH method (clays and silts)	See appropriate reference	5 5 5 11 23
Delta U/q_t $\Delta u/q_t$ du/q_t	Differential pore pressure ratio (older parameter used before B_q was established)	$= \dfrac{\Delta u}{qt}$ *where:* $\Delta u = u - u_{eq}$ *and* *u = dynamic pore pressure* *u_{eq} = equilibrium pore pressure*	39

Calculated Parameter	Description	Equation	Ref
B_q	Pore pressure parameter	$Bq = \frac{\Delta u}{qt - \sigma_v}$ where: $\Delta u = u - u_{eq}$ *and* u = *dynamic pore pressure* u_{eq} = *equilibrium pore pressure*	1, 2, 5
Net q_t or qtNet	Net tip resistance (used in many subsequent correlations)	$qt - \sigma_v$	36
q_e or qE or q_E	Effective tip resistance (using the dynamic pore pressure u_2 and not equilibrium pore pressure)	$q_t - u_2$	36
qeNorm	Normalized effective tip resistance	$\frac{qt - u_2}{\sigma_v'}$	36
Q_t or Norm: Qt or Q_{t1}	Normalized q_t for Soil Behavior Type classification as defined by Robertson (1990) using a linear stress normalization. Note this is different from Q_{tn}. This parameter was renamed to Q_{t1} in Robertson, 2009. Without normalization limits this parameter calculates to very high unrealistic values at low stresses.	$Qt = \frac{qt - \sigma_v}{\sigma_v'}$	2, 5, 15
F_r or Norm: Fr	Normalized Friction Ratio for Soil Behavior Type classification as defined by Robertson (1990)	$Fr = 100\% \cdot \frac{fs}{qt - \sigma_v}$	2, 5
$Q(1-B_q)$ $Q(1-B_q) + 1$	$Q(1-B_q)$ grouping as suggested by Jefferies and Davies for their classification chart and the establishment of their I_c parameter. Later papers added the +1 term to the equation.	$Q \cdot (1 - Bq)$ $Q \cdot (1 - Bq) + 1$ *where Bq is defined as above and Q is the same as the normalized tip resistance,* Q_{t1}*, defined above*	6, 7, 34
q_{c1}	Normalized tip resistance, q_{c1}, using a fixed stress ratio exponent, n (this method has stress units)	$q_{c1} = q_t \cdot (Pa/\sigma_v')^{0.5}$ where: P_a = atmospheric pressure	21
q_{c1} (0.5)	Normalized tip resistance, q_{c1}, using a fixed stress ratio exponent, n (this method is unit-less)	$q_{c1}\ (0.5) = (q_t/P_a) \cdot (Pa/\sigma_v')^{0.5}$ where: P_a = atmospheric pressure	5
q_{c1} (C_n)	Normalized tip resistance, q_{c1}, based on C_n (this method has stress units)	$q_{c1}(Cn) = C_n * q_t$	5, 12
q_{c1} (C_q)	Normalized tip resistance, q_{c1}, based on C_q (this method has stress units)	$q_{c1}\ (Cq) = C_q * q_t$ (some papers use q_c)	5, 12
q_{c1n}	normalized tip resistance, q_{c1n}, using a variable stress ratio exponent, n (where n=0.0, 0.70, or 1.0) (this method is unit-less)	$q_{c1n} = (q_t / P_a)(P_a/\sigma_v')^n$ where: P_a = atm. Pressure and n varies as described below	3

Calculated Parameter	Description	Equation	Ref
I_c or Ic (RW1998)	Soil Behavior Type Index as defined by Robertson and Wride (1997, 1998) for estimating grain size characteristics and providing smooth gradational changes across the SBTn chart. Ic(RW1998) is different from that of Jefferies and Davies (7) and is different from Ic(PKR2009).	$I_c = [(3.47 - \log_{10}Q)^2 + (\log_{10} Fr + 1.22)^2]^{0.5}$ Where: $Q = \left(\frac{qt - \sigma_v}{P_a}\right)\left(\frac{P_a}{\sigma'_v}\right)^n$ Or $Q = q_{c1n} = \left(\frac{qt}{P_a}\right)\left(\frac{P_a}{\sigma'_v}\right)^n$ *depending on the iteration in determining* I_c *And* *Fr is in percent* P_a *= atmospheric pressure* *n has the following distinct values:* *0.5, 0.75 and 1.0* *and is determined in an iterative manner based on the resulting* I_c *in each iteration* *Note that NCEER replaced 0.75 with 0.70*	3, 4, 5 10
I_c (PKR 2009)	Soil Behavior Type Index, I_c (PKR 2009) is based on a variable stress ratio exponent n, which itself is based on I_c (PKR 2009). An iterative calculation is required to determine I_c (PKR 2009) and its corresponding n (PKR 2009).	I_c *(PKR 2009) =* $[(3.47 - \log_{10}Q_{tn})^2 + (1.22 + \log_{10}F_r)^2]^{0.5}$	15
n (PKR 2009)	Stress ratio exponent n, based on I_c (PKR 2009). An iterative calculation is required to determine n (PKR 2009) and its corresponding I_c (PKR 2009).	$n \text{ (PKR 2009)} = 0.381 (I_c) + 0.05 (\sigma_v'/P_a) - 0.15$	15
Q_{tn} (PKR 2009)	Normalized tip resistance using a variable stress ratio exponent based on I_c (PKR 2009) and n (PKR 2009). An iterative calculation is required to determine Q_{tn} (PKR 2009).	$Q_{tn} = [(qt - \sigma_v)/P_a](P_a/\sigma_v')^n$ *where* P_a *= atmospheric pressure (100 kPa)* *n = stress ratio exponent described above*	15
FC	Apparent fines content (%)	$FC=1.75(Ic^{3.25}) - 3.7$ $FC=100$ *for* $I_c > 3.5$ $FC=0$ *for* $I_c < 1.26$ $FC = 5\%$ *if* $1.64 < I_c < 2.6$ *AND* $F_r<0.5$	3
I_c Zone	This parameter is the Soil Behavior Type zone based on the I_c parameter (valid for zones 2 through 7 on SBTn or SBT Qtn charts)	$I_c < 1.31$ Zone = 7 $1.31 < I_c < 2.05$ Zone = 6 $2.05 < I_c < 2.60$ Zone = 5 $2.60 < I_c < 2.95$ Zone = 4 $2.95 < I_c < 3.60$ Zone = 3 $I_c > 3.60$ Zone = 2	3
CD	The contractive / dilative boundary on Robertson's Modified SBTn (contractive/dilative) Chart shown in Figure 6 above. The boundary is marked as CD = 70 on the chart in the relevant paper. Similar to the $Q_{tn,cs}$ = 70 line in Figure 4.	$CD = 70 = (Q_{tn} - 11)(1 + 0.06F_r)^{17}$ lower bound of CD = 60: $CD = 60 = (Q_{tn} - 9.5)(1 + 0.06F_r)^{17}$	30

Calculated Parameter	Description	Equation	Ref
I_B	Hyperbolic fit defining the boundary between SBT soil types proposed by Schneider as a better fit than the I_c circles. I_B = 32 represents the boundary for most sand like soils. I_B = 22 represents the upper boundary for most clay like soils. The region between I_B=22 and I_B=32 is the "transitional soil" zone.	$I_B = 100\ (Q_{tn} + 10) / (70 + Q_{tn}\ F_r)$	30
State Param or State Parameter or ψ	The state parameter index, ψ, is defined as the difference between the current void ratio, e, and the critical void ratio, e_c. Positive ψ - contractive soil Negative ψ - dilative soil This is based on the work by Been and Jefferies (1985) and Plewes, Davies and Jefferies (1992) This method uses mean normal stresses based on a uniform value of K_0 or a calculated K_0 using methods described elsewhere in this document	See reference	6, 8
Yield Stress σ_p'	Yield stress is calculated using the following methods 1) General method 2) 1st order approximation using q_tNet (clays) 3) 1st order approximation using Δu_2 (clays) 4) 1st order approximation using q_e (clays) 5) Based on Vs	All stresses in kPa 1) $\sigma_p' = 0.33 \cdot (q_t - \sigma_v)^{m'}\ (\sigma_{atm}/100)^{1-m'}$ where $m' = 1 - \dfrac{0.28}{1 + (I_c / 2.65)^{25}}$ 2) $\sigma_p' = 0.33 \cdot (q_t - \sigma_v)$ 3) $\sigma_p' = 0.54 \cdot (\Delta u_2)$ $\Delta u_2 = u_2 - u_0$ 4) $\sigma_p' = 0.60 \cdot (q_t - u_2)$ 5) $\sigma_p' = (Vs/4.59)^{1.47}$	19 20 20 20 18
OCR OCR(JS1978) YSR(Mayne2014) YSR (qtNet) YSR (deltaU) YSR (qe) YSR (Vs) OCR (PKR2015)	Over Consolidation Ratio based on 1) Schmertmann (1978) method involving a plot plot of $S_u/\sigma_v' / (S_u/\sigma_v')_{NC}$ and OCR  2) based on Yield stresses described above 3) approximate version based on qtNet 4) approximate version based on Δu 5) approximate version based on effective tip, q_e 6) approximate version based on shear wave velocity, V_s and σ_v' 7) based on Qt	1) requires a user defined value for NC Su/P_c' ratio 2 through 5) *based on yield stresses* 6) YSR (Vs) = $\sigma_p'(Vs) / \sigma_v'$ 7) OCR = $0.25 \cdot (Qt)^{1.25}$	9 19 20 20 20 18 32
Es/qt	Intermediate parameter for calculating Young's Modulus, E, in sands. It is the Y axis of the reference chart. Note that Figured 5.59 from reference 5, Lunne, Robertson and Powell, (LRP) has an error. The X axis values are too high by a factor of 10. The plot is based on Baldi's (not Bellotti as cited in	Based on Figure 5.59 in the reference	5, 37

Calculated Parameter	Description	Equation	Ref
	LRP) original Figure 3 where the X axis is: $\frac{q_c}{\sqrt{\sigma'_v}}$ (both in kPa) with a range of 200 to 3000. Figure 5.59 from LRP shows a dimensionless form of the equation, q_{c1}, displaying the same range of values. Figure 5.59's X axis uses $q_{c1} = \left(\frac{q_c}{P_a}\right)\left(\frac{P_a}{\sigma'_v}\right)^{0.5}$ The two expressions are not the same: they differ by a factor of $\frac{\sqrt{P_a}}{P_a}$. With P_a taken to be 100 kPa the factor is 1/10. Substituting typical values of 200 bar (20000 kPa) for q_c and 225 kPa for σ_v' one gets: 20000 / 15 = 1333.33 for Bellotti's axis and $(200/1)(100/225)^{0.5}$ = 200 * (10/15) = 133.3 for LRP's axis (noting that P_a = 1 bar) showing a factor of 10 difference.		
Es or E_s Young's Modulus E	Young's Modulus based on the work done in Italy. There are three types of sands considered in this technique. The user selects the appropriate type for the site from: a) OC Sands b) Aged NC Sands c) Recent NC Sands Each sand type has a family of curves that depend on mean normal stress. The program calculates mean normal stress and linearly interpolates between the two extremes provided in the E_s/q_t chart. E_s is evaluated for an axial strain of 0.1%.	Mean normal stress is evaluated from: $\sigma'_m = \frac{1}{3}(\sigma'_v + \sigma'_h + \sigma'_h)$ where σ_v'= vertical effective stress σ_h'= horizontal effective stress *and* $\sigma_h = K_o \cdot \sigma_v'$ with K_o assumed to be 0.5	5
Delta U/TStress $\Delta u / \sigma_v$	Differential pore pressure ratio with respect to total stress	$= \frac{\Delta u}{\sigma_v}$ *where:* $\Delta u = u - u_{eq}$	39
Delta U/EStress, P Value, Excess Pore Pressure Ratio $\Delta u/\sigma_v'$	Differential pore pressure ratio with respect to effective stress. Key parameter (P, Normalized Pore Pressure Parameter, Excess Pore Pressure Ratio) in the Winckler et. al. static liquefaction method.	$= \frac{\Delta u}{\sigma'_v}$ *where:* $\Delta u = u - u_{eq}$	25, 25a
Su/EStress S_u/σ_v'	Undrained shear strength ratio with respect to vertical effective overburden stress using the S_u (N_{kt}) method	$= S_u (N_{kt}) / \sigma_v'$	9, 23
Vs or V_s	Recorded shear wave velocities (not estimated). The shear wave velocities are typically collected over 1 m depth intervals. Each data point over the relevant depth range is assigned the same V_s value.	recorded data	27
Vp or V_p	Recorded compression wave (or P wave) velocities (not estimated). The P wave velocities are typically collected over 1 m depth intervals. Each data point over the relevant depth range is assigned the same V_p value.	recorded data	27

Calculated Parameter	Description	Equation	Ref
V_{s30} V_{s100}	The average shear wave velocity of the near surface materials to a depth of 30 m (100 ft). It is based on the sum of all travel times through all layers in the top 30m (100 ft). V_{s100} is the same calculation as V_{s30} except down to a depth of 100 feet.	$V_{s30} = \dfrac{total\ thickness\ of\ all\ layers\ to\ 30\ m}{\Sigma\left(\dfrac{layer\ thickness}{layer\ shear\ wave\ velocity}\right)}$ $V_{s30} = \dfrac{total\ thickness\ of\ all\ layers\ to\ 30\ m}{\Sigma\ (layer\ travel\ times)}$	38
G_{max}	G_{max} determined from SCPT shear wave velocities (not estimated values). Note that seismic data (V_s) is collected over set depth intervals (typically 1 meter). Each data point over the test segment is assigned the same V_s value. Since soil density changes with depth, slightly different G_{max} values may be calculated over the test depth interval.	$G_{max} = \rho V_s^2$ where ρ is the mass density of the soil determined from the estimated unit weights at each test depth	27
qtNet/G_{max}	Net tip resistance ratio with respect to the small strain modulus G_{max} determined from SCPT shear wave velocities (not estimated values)	$= (qt - \sigma_v) / G_{max}$ where $G_{max} = \rho V_s^2$ and ρ is the mass density of the soil determined from the estimated unit weights at each test depth	15, 28, 30
qUlt	A site specific and client specific parameter for estimating the limiting stress for "crane walk" accessibility	$q_{ult} = CraneWalkFactor \cdot S_u$ Where: *CraneWalkFactor* is client provided	U*
Estimated G_o	Estimated value for small strain shear modulus	$G_o = 0.0188[10^{(0.55Ic + 1,68)}](q_t - \sigma_v)$	15
Estimated E_{25}	Estimated value for Young's Modulus, E, at a 25% working load	$E_{25} = \alpha_E\ (qtNet)$ where $\alpha_E = 0.015[10^{(0.55Ic + 1,68)}]$	15
k_{SBT}	Estimated soil permeability derived from Soil Behavior Type (SBT) Chart I_c values.	For $1.0 < I_c \leq 3.27$: $k = 10^{(0.952 – 3.04Ic)}$ in m/s For $3.27 < Ic < 4.0$: $k = 10^{(-4.52 – 1.37Ic)}$ in m/s	35
M or D' Constrained Modulus	Constrained Modulus based on 1) Robertson, M 2) Mayne, D'	1) Robertson $M = \alpha_M\ (q_t - \sigma_v)$ $I_c > 2.2$ (fine grained) $\alpha_M = Qt$ when $Qt < 14$ $\alpha_M = 14$ when $Qt > 14$ $Ic < 2.2$ (coarse grained) $\alpha_M = 0.0188\ [10^{(0.55Ic + 1.68)}]$ $D' = \alpha_D\ (qt - \sigma_v)$ where $\alpha_D = 5$	32 23

Table 1b. CPT Parameter Calculation Methods – Liquefaction Parameters

Calculated Parameter	Description	Equation	Ref
K_{SPT} or K_s	Equivalent clean sand factor for $(N_1)60$	$K_{SPT} = 1 + ((0.75/30) \cdot (FC - 5))$	10
K_{CPT} or K_c (RW1998)	Equivalent clean sand correction for q_{c1N}	$K_{cpt} = 1.0$ for $I_c \leq 1.64$ $K_{cpt} = f(I_c)$ for $I_c > 1.64$ (see reference) $K_c = -0.403 I_c^4 + 5.581 I_c^3 - 21.63 I_c^2 + 33.75 I_c - 17.88$	3, 10
K_c (PKR 2010)	Clean sand equivalent factor to be applied to Q_{tn}	$K_c = 1.0$ for $I_c \leq 1.64$ $K_c = -0.403 I_c^4 + 5.581 I_c^3 - 21.63 I_c^2 + 33.75 I_c - 17.88$ for $I_c > 1.64$	16
$(N_1)_{60cs}I_c$	Clean sand equivalent SPT $(N_1)_{60}I_c$. User has 3 options.	1) $(N_1)_{60cs}Ic = \alpha + \beta((N_1)_{60}I_c)$ 2) $(N_1)_{60cs}Ic = K_{SPT} * ((N_1)_{60}I_c)$ 3) $(q_{c1ncs}) / (N_1)_{60cs}I_c = 8.5 (1 - I_c/4.6)$ FC ≤ 5%: $\alpha = 0$, $\beta = 1.0$ FC ≥ 35% $\alpha = 5.0$, $\beta = 1.2$ 5% < FC < 35% $\alpha = \exp[1.76 - (190/FC^2)]$ $\beta = [0.99 + (FC^{1.5}/1000)]$	10 10 5
q_{c1ncs}	Clean sand equivalent q_{c1n}	$q_{c1ncs} = q_{c1n} \cdot K_{cpt}$	3
$Q_{tn,cs}$ (PKR 2010)	Clean sand equivalent for Q_{tn} described above - Q_{tn} being the normalized tip resistance based on a variable stress exponent as defined by Robertson (2009)	$Q_{tn,cs} = Q_{tn} \cdot K_c$ (PKR 2016)	16
Su(Liq)/ESv or $S_u(Liq)/\sigma_v'$	Liquefied shear strength ratio as defined by Olson and Stark	$\frac{S_u(Liq)}{\sigma_v'} = 0.03 + 0.0143(q_{c1})$ Note: σ_v' and s_v' are synonymous	13
Su(Liq)/ESv or $S_u(Liq)/\sigma_v'$ (PKR 2010)	Liquefied shear strength ratio as defined by Robertson (2010)	$\frac{S_u(Liq)}{\sigma_v'}$ Based on a function involving $Q_{tn,cs}$	16
S_u (Liq) (PKR 2010)	Liquefied shear strength derived from the liquefied shear strength ratio and effective overburden stress	$S_u(Liq) = \sigma_v' \cdot \left(\frac{S_u(Liq)}{\sigma_v'}\right)$	16
Cont/Dilat Tip	Contractive / Dilative q_{c1} Boundary based on $(N_1)_{60}$	$(\sigma_v')_{boundary} = 9.58 \times 10^{-4} [(N_1)_{60}]^{4.79}$ q_{c1} is calculated from specified q_t(MPa)/N ratio	13
CRR	Cyclic Resistance Ratio (for Magnitude 7.5)	$q_{c1ncs} < 50$: $CRR_{7.5} = 0.833 [q_{c1ncs}/1000] + 0.05$ $50 \leq q_{c1ncs} < 160$: $CRR_{7.5} = 93 [q_{c1ncs}/1000]^3 + 0.08$	10
Kg or K_g	Small strain Stiffness Ratio Factor, K_g	$[G_{max}/q_t]/[q_{c1n}^{-m}]$ m = empirical exponent, typically 0.75	26

Calculated Parameter	Description	Equation	Ref
K_g*	Revised K_g factor extended to fine grained soils (Robertson).	$K_g^* = (G_o / q_n)(Q_{tn})^{0.75}$ where q_n is the net tip resistance = $q_t - \sigma_v$	30
SP Distance	State Parameter Distance, Winckler static liquefaction method	Perpendicular distance on Q_{tn} chart from plotted point to state parameter Ψ = -0.05 curve	25
URS NP Fr	Normalized friction ratio point on Ψ = -0.05 curve used in SP distance calculation		25
URS NP Q_{tn}	Normalized tip resistance (Q_{tn}) point on Ψ = -0.05 curve used in SP Distance calculation		25

Table 2. References

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Calibration Records

ADARA

Adara Systems Ltd.
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Tel: 1-604-273-6013

CERTIFICATE OF CALIBRATION

Calibration Information			
Cone Serial Number	EC1075	Model	A15 T1000 F10 U35
Calibration Date (YYYY-MM-DD)	2024-11-04		
Calibration Due (YYYY-MM-DD)	2025-11-04		
Calibration Performed By	Richard Chen	Signature	Chen Digitally signed by Richard Chen Date: 2024-11-19
Calibration Approved By	Diane Eden	Signature	DEden Digitally signed by Diane Eden Date: 2025-02-12

Lab Condition	As Found	As Left		
Lab Temperature	N/A	23˚C		
Lab Humidity	N/A	36%	Reason for Calibration	Repair

Cone Information				
Tip Stress Limit	1000	bar	Tip End Area	15 cm^2
Friction Stress Limit	10	bar	Friction Surface Area	225 cm^2
Pressure Limit	35	bar	RTD Location	Pressure Carrier
X-Inclinometer Limit	30	degrees	Geophone	X and Z
Y-Inclinometer Limit	30	degrees	Temperature Range	-20°C to 60°C

Baseline Summary: (For Reference Only)

Channel	Units	As Found	As Left
Tip	bar	N/A	-0.348
Sleeve	bar	N/A	-0.028
Pressure	bar	N/A	0.987
X-Inclinometer	degrees	N/A	0.000
Y-Inclinometer	degrees	N/A	0.000
Temperature	˚C	N/A	22.704

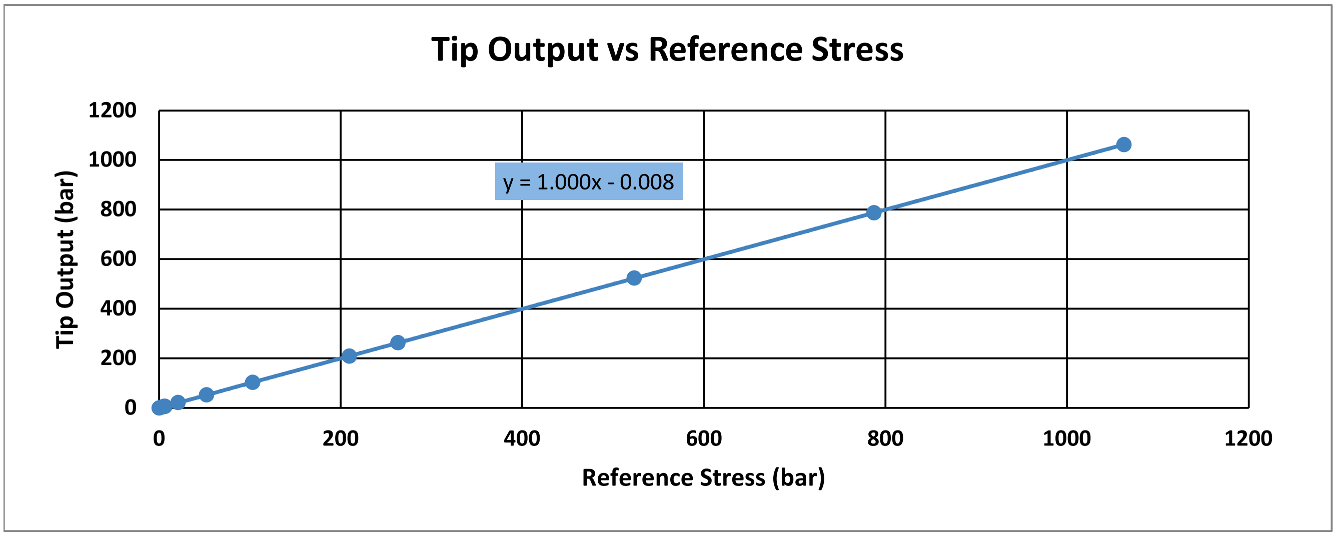
Classified in accordance with ISO 22476-1:2012 Class 1
Classified in accordance with ISO 22476-1:2012 Class 2

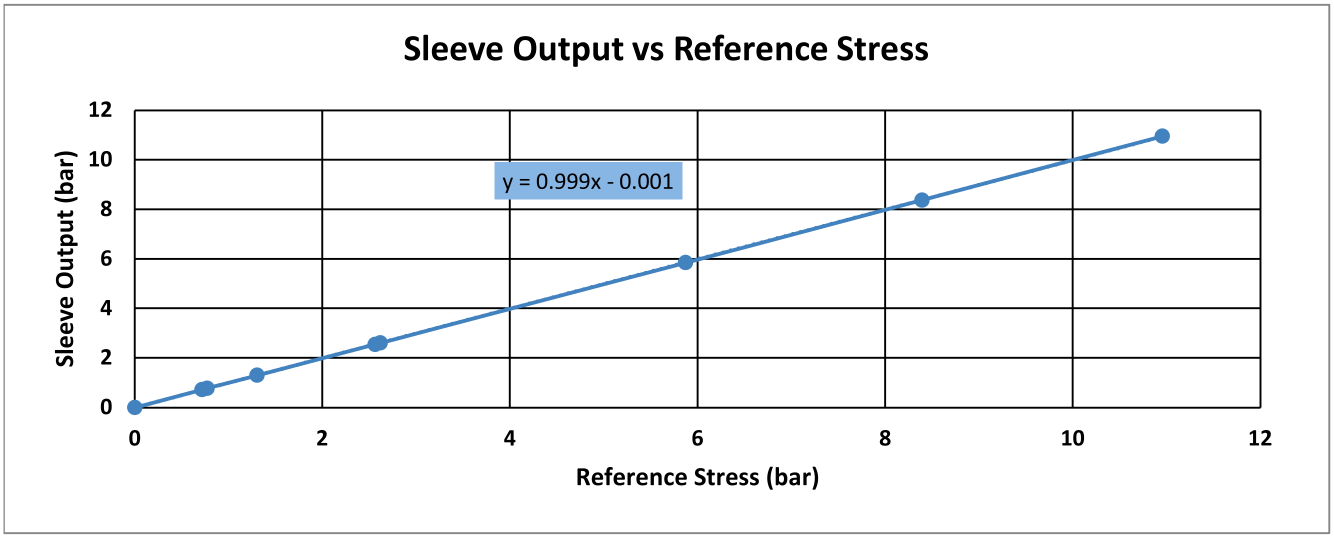
Calibrated in general accordance with the ASTM D5778-20 and D7400-19 standards

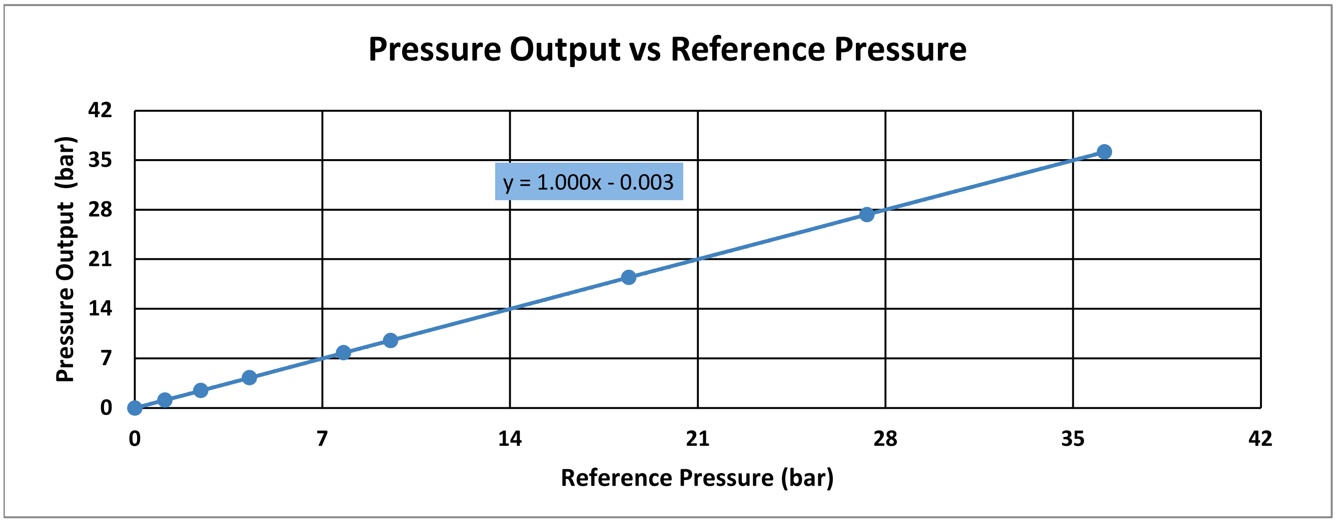
Calibrated with Adara calibration procedure EC_CPTCAL-2.3

Collective uncertainty of the measurement standards conforms to a test uncertainty ratio (TUR) of 3:1 for tip and sleeve measurement and 4:1 for pressure measurement with a confidence level k=2

Cone Output vs Reference Stress/Pressure Plots







Calibration Results

Tip Calibration

As Found			As Left		
Max. Non Linearity	0.08%	PASS	Max. Non Linearity	0.03%	PASS
Calibration Error	0.10%	PASS	Calibration Error	0.02%	PASS

Sleeve Calibration

As Found			As Left		
Max. Non Linearity	0.27%	PASS	Max. Non Linearity	0.25%	PASS
Calibration Error	0.54%	FAIL	Calibration Error	0.43%	PASS

Pressure Calibration

As Found			As Left		
Max. Non Linearity	N/A	N/A	Max. Non Linearity	0.05%	PASS
Calibration Error	N/A	N/A	Calibration Error	0.20%	PASS

X-Inclinometer Calibration

As Found			As Left		
Max. Non Linearity	N/A	N/A	Max. Non Linearity	-0.79%	PASS
Calibration Error	N/A	N/A	Calibration Error	1.58%	PASS

Y-Inclinometer Calibration

As Found			As Left		
Max. Non Linearity	N/A	N/A	Max. Non Linearity	-0.79%	PASS
Calibration Error	N/A	N/A	Calibration Error	1.58%	PASS

Seismic Calibration

As Found			As Left		
Trigger Delay Error	N/A	N/A	Trigger Delay Error	0.01%	PASS

Temperature Calibration

Full Scale Error	0.12%	PASS	

Channel	Cold	Room	Hot	Units
Ref_Temp	2.1	22.1	43.2	˚C
Tip	-1.541	-0.604	0.115	bar
Sleeve	-0.030	-0.029	-0.007	bar
Pressure	0.999	1.046	1.059	bar
Temperature	2.099	22.155	43.247	˚C

Tip Temperature Coefficient	0.040 bar/˚C	PASS
Sleeve Temperature Coefficient	0.001 bar/˚C	PASS
Pressure Temperature Coefficient	0.001 bar/˚C	PASS

Testing Equipment Details

Testing Machines	Model Number	Serial Number	Calibration Number	Due Date
Tip Load Cell	Precision	P-10289	101141	2025-07-03
Sleeve Load Cell	Precision	P-11313	101214	2025-10-21
Digital Loadcell Indicator	4215	62140	101141	2025-07-02
Fluke Reference Pressure Monitor	RPM4 A10Ms	3910	100835	2024-12-12
Tektronix Function Generator	AFG1022	1820013	101200	2025-09-30
Thermometer	THS-222-555	D23255834	101116	2025-06-27
Thermometer	THS-222-555	D23255829	101116	2025-06-27
Thermometer	THS-222-555	D20345575	101116	2025-06-27

Adara Error Definitions

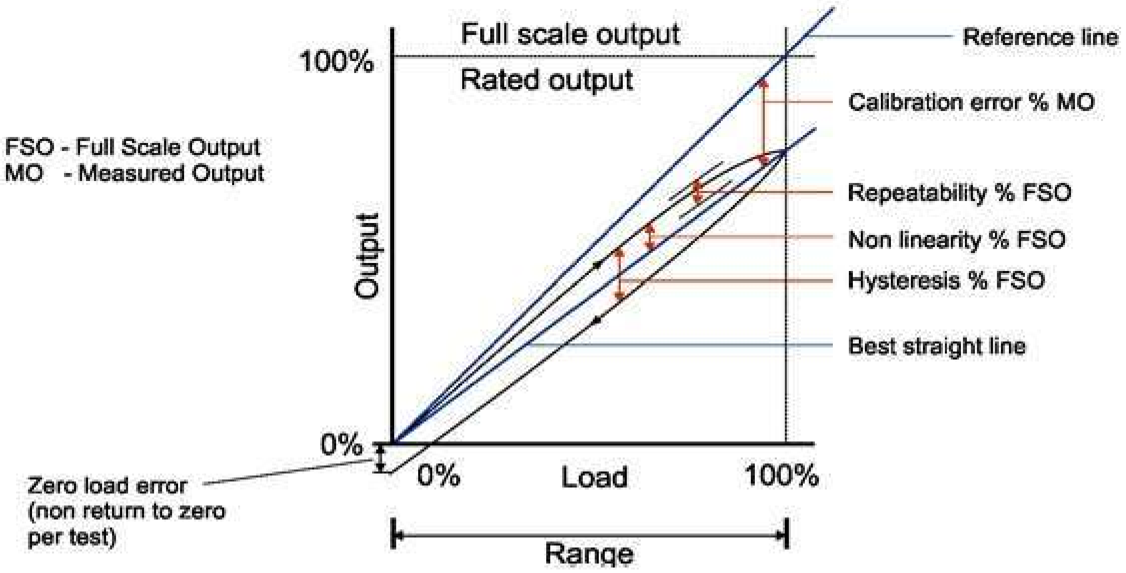


Figure 1: Definition of Calibration Terms for Load Cell and Transducers (Adapted from [1])

Actual Sensitivity	The slope of the best fit line through all data points starting at zero load.
Slope Error	The error in the best fit line compared to the ideal linear calibration in % . Slope Error = (Best Fit Slope - Ideal Slope) / Ideal Slope
Maximum Non Linearity	This value represents the maximum error (absolute value) relative to the best fit line considering each calibration point starting at loads greater than approximately 10% of FSO. The reported errors are a percent error of FSO. Adara's Pass/Fail criteria is 0.5% of FSO (ASTM is 0.5% of FSO at loads > 20% FSO).
Calibration Error	This value represents the maximum error (absolute value) in the recorded load value as compared to the actual load value for each calibration point for loads greater than approximately 10% of FSO. Adara's Pass/Fail criteria for the tip and sleeve is 0.5% of MO and 1.0% of MO for the pore pressure (ASTM for the tip and sleeve is 1.5% and 1.0% of MO respectively at loads greater than 20% of FSO)

Temperature Check Passing Criteria

Tip Temperature Coefficient	<0.200	bar/˚C
Sleeve Temperature Coefficient	<0.005	bar/˚C
Pressure Temperature Coefficient	<0.0196	bar/˚C

ASTM D5778-20 Annex A Summary [1]

A1.4 Force Transducer Calibration Requirements

A1.4.1 states the following limits:

Non Linearity	Tip	≤ +0.5% of FSO
	Sleeve	≤ +1.0% of FSO
Calibration Error	Tip	≤ +1.5% of MO at loads > 20% FSO
	Sleeve	≤ +1.0% of MO at loads > 20% FSO

A1.5 Pressure Transducer Calibrations

A1.5.1 limits:

Non Linearity	Pore Pressure	≤ +1.0% of FSO
Calibration Error	Pore Pressure	not specified

ISO 22476 -1:2012 Summary [2]

Section 5.2 states the following allowable minimum accuracy

Class 1	Cone Resistance	35 kPa or 5%
	Sleeve Friction	5 kPa or 10%
	Pore Pressure	10 kPa or 2%
Class 2	Cone Resistance	100 kPa or 5%
	Sleeve Friction	15 kPa or 15%
	Pore Pressure	25 kPa or 3%

Note: ISO Compliance is based on low end calibration only.

References

[1] ASTM D5778-20. "Standard Test Method for Electronic Friction Cone and Piezocone Penetration Testing of Soils". ASTM, West Conshohocken, PA, USA.

[2] ISO 22476-1:2012. "Geotechnical investigation and testing - Field Testing - Part 1: Electrical cone and piezocone penetration test". ISO, Geneva, Switzerland.

ASTM D7400-19. "Standard Test Methods for Downhole Seismic Testing". ASTM, West Conshohocken, PA, USA.

ADARA

Adara Systems Ltd.
201-8327 Eastlake Drive, Burnaby, BC, Canada V5A4W2
Tel: 1-604-273-6013

CERTIFICATE OF CALIBRATION

Calibration Information			
Cone Serial Number	EC1149	Model	A15 T1500 F15 U35
Calibration Date (YYYY-MM-DD)	2024-11-21		
Calibration Due (YYYY-MM-DD)	2025-11-21		
Calibration Performed By	Richard Chen	Signature	Digitally signed by Richard Chen Date: 2024-11-21
Calibration Approved By	Diane Eden	Signature	Digitally signed by Diane Eden Date: 2024-11-26

Lab Condition	As Found	As Left		
Lab Temperature	N/A	24˚C		
Lab Humidity	N/A	27%	Reason for Calibration	new

Cone Information				
Tip Stress Limit	1500	bar	Tip End Area	15 cm^2
Friction Stress Limit	15	bar	Friction Surface Area	225 cm^2
Pressure Limit	35	bar	RTD Location	Pressure Carrier
X-Inclinometer Limit	30	degrees	Geophone	X and Z
Y-Inclinometer Limit	30	degrees	Temperature Range	-20°C to 60°C

Baseline Summary: (For Reference Only)

Channel	Units	As Found	As Left
Tip	bar	N/A	1.388
Sleeve	bar	N/A	-0.022
Pressure	bar	N/A	1.012
X-Inclinometer	degrees	N/A	0.000
Y-Inclinometer	degrees	N/A	-0.025
Temperature	˚C	N/A	24.599

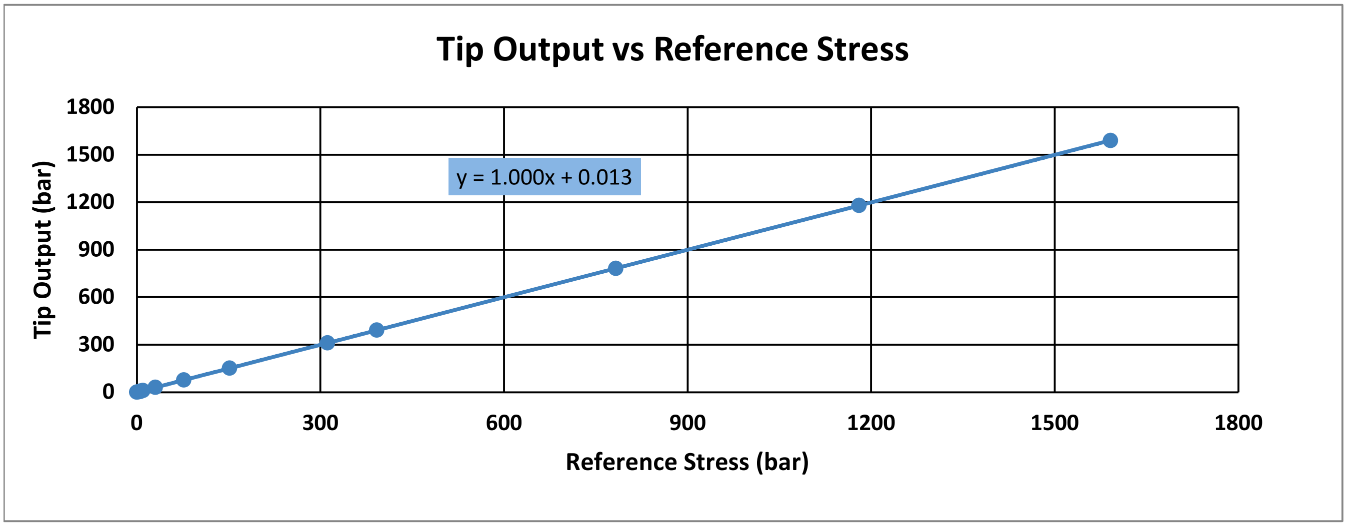
Classified in accordance with ISO 22476-1:2012 Class 1
Classified in accordance with ISO 22476-1:2012 Class 2

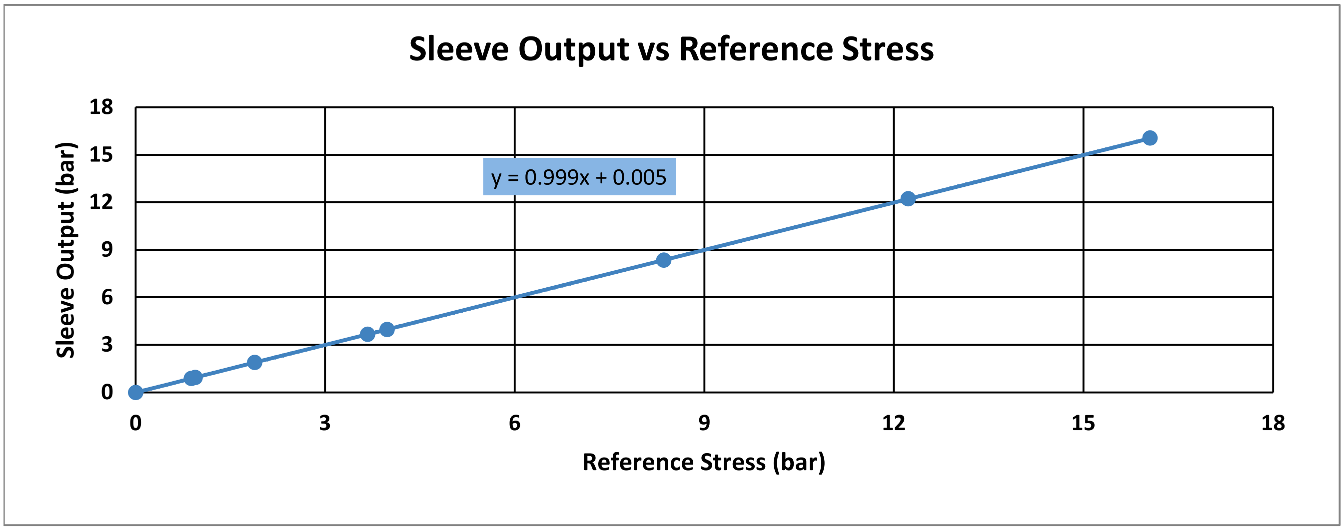
Calibrated in general accordance with the ASTM D5778-20 and D7400-19 standards

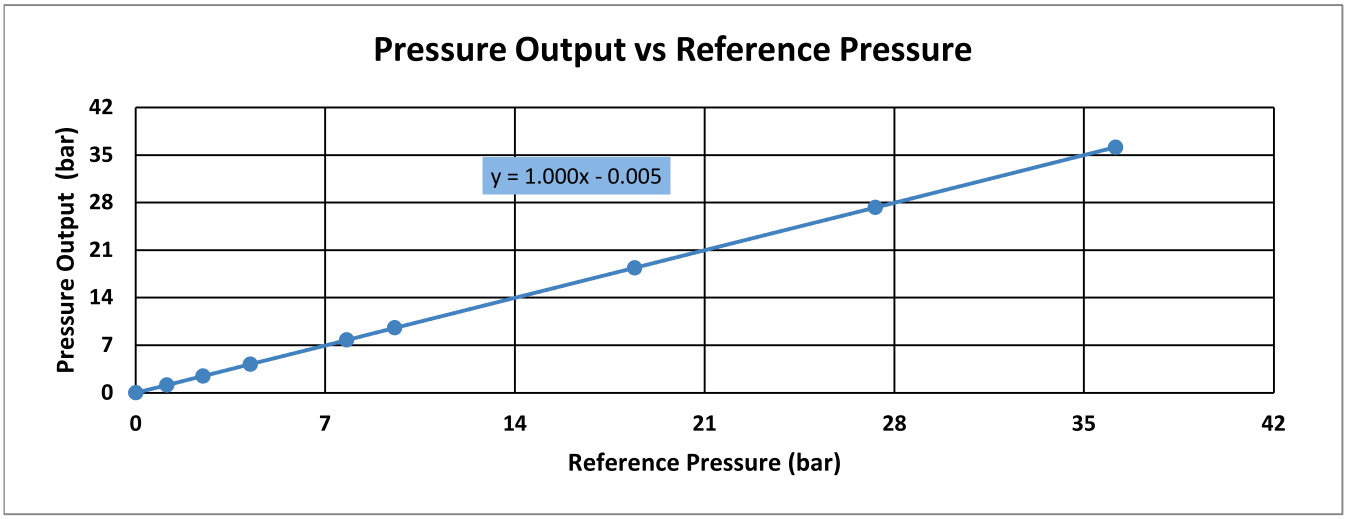
Calibrated with Adara calibration procedure EC_CPTCAL-2.3

Collective uncertainty of the measurement standards conforms to a test uncertainty ratio (TUR) of 3:1 for tip and sleeve measurement and 4:1 for pressure measurement with a confidence level k=2

Cone Output vs Reference Stress/Pressure Plots







Calibration Results

Tip Calibration					
As Found			**As Left**		
Max. Non Linearity	N/A	N/A	Max. Non Linearity	0.03%	PASS
Calibration Error	N/A	N/A	Calibration Error	0.08%	PASS

Sleeve Calibration					
As Found			**As Left**		
Max. Non Linearity	N/A	N/A	Max. Non Linearity	0.05%	PASS
Calibration Error	N/A	N/A	Calibration Error	0.39%	PASS

Pressure Calibration					
As Found			**As Left**		
Max. Non Linearity	N/A	N/A	Max. Non Linearity	0.02%	PASS
Calibration Error	N/A	N/A	Calibration Error	0.18%	PASS

X-Inclinometer Calibration					
As Found			**As Left**		
Max. Non Linearity	N/A	N/A	Max. Non Linearity	-0.50%	PASS
Calibration Error	N/A	N/A	Calibration Error	1.00%	PASS

Y-Inclinometer Calibration					
As Found			**As Left**		
Max. Non Linearity	N/A	N/A	Max. Non Linearity	-0.54%	PASS
Calibration Error	N/A	N/A	Calibration Error	1.08%	PASS

Seismic Calibration					
As Found			**As Left**		
Trigger Delay Error	N/A	N/A	Trigger Delay Error	0.01%	PASS

Temperature Calibration			
Full Scale Error	0.13%	PASS	

Channel	Cold	Room	Hot	Units
Ref_Temp	2.4	22.5	42.8	˚C
Tip	-1.490	0.983	3.966	bar
Sleeve	-0.047	-0.022	0.026	bar
Pressure	1.007	1.050	1.069	bar
Temperature	2.328	22.399	42.805	˚C

Tip Temperature Coefficient	0.135 bar/˚C	PASS
Sleeve Temperature Coefficient	0.002 bar/˚C	PASS
Pressure Temperature Coefficient	0.002 bar/˚C	PASS

Testing Equipment Details

Testing Machines	Model Number	Serial Number	Calibration Number	Due Date
Tip Load Cell	Precision	P-10289	101141	2025-07-03
Sleeve Load Cell	Precision	P-11313	101214	2025-10-21
Digital Loadcell Indicator	4215	62140	101141	2025-07-02
Fluke Reference Pressure Monitor	RPM4 A10Ms	3910	100835	2024-12-12
Tektronix Function Generator	AFG1022	1820013	101200	2025-09-30
Thermometer	THS-222-555	D23255834	101116	2025-06-27
Thermometer	THS-222-555	D23255829	101116	2025-06-27
Thermometer	THS-222-555	D20345575	101116	2025-06-27

Adara Error Definitions

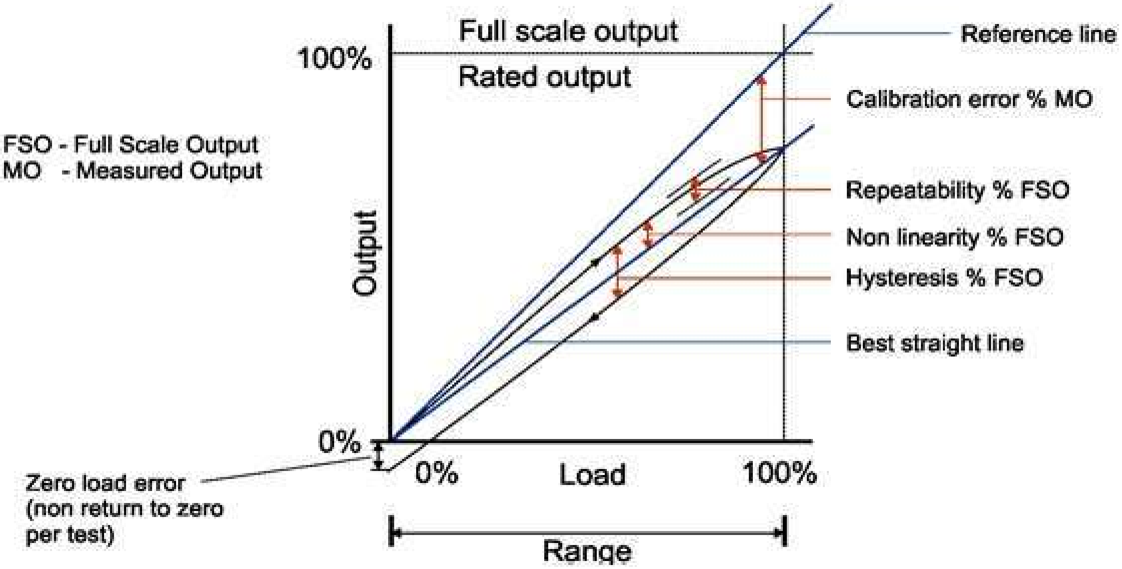


Figure 1: Definition of Calibration Terms for Load Cell and Transducers (Adapted from [1])

Actual Sensitivity	The slope of the best fit line through all data points starting at zero load.
Slope Error	The error in the best fit line compared to the ideal linear calibration in % . Slope Error = (Best Fit Slope - Ideal Slope) / Ideal Slope
Maximum Non Linearity	This value represents the maximum error (absolute value) relative to the best fit line considering each calibration point starting at loads greater than approximately 10% of FSO. The reported errors are a percent error of FSO. Adara's Pass/Fail criteria is 0.5% of FSO (ASTM is 0.5% of FSO at loads > 20% FSO).
Calibration Error	This value represents the maximum error (absolute value) in the recorded load value as compared to the actual load value for each calibration point for loads greater than approximately 10% of FSO. Adara's Pass/Fail criteria for the tip and sleeve is 0.5% of MO and 1.0% of MO for the pore pressure (ASTM for the tip and sleeve is 1.5% and 1.0% of MO respectively at loads greater than 20% of FSO)

Temperature Check Passing Criteria

Tip Temperature Coefficient	<0.200	bar/˚C
Sleeve Temperature Coefficient	<0.005	bar/˚C
Pressure Temperature Coefficient	<0.0196	bar/˚C

ASTM D5778-20 Annex A Summary [1]

A1.4 Force Transducer Calibration Requirements

A1.4.1 states the following limits:

Non Linearity	Tip	≤ +0.5% of FSO
	Sleeve	≤ +1.0% of FSO
Calibration Error	Tip	≤ +1.5% of MO at loads > 20% FSO
	Sleeve	≤ +1.0% of MO at loads > 20% FSO

A1.5 Pressure Transducer Calibrations

A1.5.1 limits:

Non Linearity	Pore Pressure	≤ +1.0% of FSO
Calibration Error	Pore Pressure	not specified

ISO 22476 -1:2012 Summary [2]

Section 5.2 states the following allowable minimum accuracy

Class 1	Cone Resistance	35 kPa or 5%
	Sleeve Friction	5 kPa or 10%
	Pore Pressure	10 kPa or 2%
Class 2	Cone Resistance	100 kPa or 5%
	Sleeve Friction	15 kPa or 15%
	Pore Pressure	25 kPa or 3%

Note: ISO Compliance is based on low end calibration only.

References

[1] ASTM D5778-20. "Standard Test Method for Electronic Friction Cone and Piezocone Penetration Testing of Soils". ASTM, West Conshohocken, PA, USA.

[2] ISO 22476-1:2012. "Geotechnical investigation and testing - Field Testing - Part 1: Electrical cone and piezocone penetration test". ISO, Geneva, Switzerland.

ASTM D7400-19. "Standard Test Methods for Downhole Seismic Testing". ASTM, West Conshohocken, PA, USA.

APPENDIX E
GEOPHYSICAL SURVEY REPORTS

HRGS
HAGER-RICHTER GEOSCIENCE

GEOPHYSICS FOR THE ENGINEERING & ENVIRONMENTAL COMMUNIITIES

26 Kendall Pond Road, Derry NH 03038 (603.893.9944)
846 Main Street, Fords, NJ 08863 (732.661.0555)

www.hager-richter.com

BOREHOLE GEOPHYSICAL LOGGING - DATA REPORT
BOREHOLES
LB-R-065, LB-R-082, LB-R-104, LB-R-115, LB-R-117, LB-R-127, LB-R-128, LB-R-129, LB-X-002, LB-X-006

MICRON – NEW YORK MANUFACTURING FACILITY
CLAY, NEW YORK

Prepared for:

Langan
360 West 31st Street, 8th Floor
New York, New York 10001

Prepared by:

Hager-Richter Geoscience, dba HR Geological Services in New York
26 Kendall Pond Road
Derry, New Hampshire 03038

846 Main Street
Fords, New Jersey 08863

Robert L. Garfield

Robert L. Garfield, P.G. (NY 000041)
Owner / Principal Borehole Geophysicist

ROBERT L. GARFIELD
000041

File 24RG87
July 2025

HAGER-RICHTER GEOSCIENCE
Derry, NH & Fords, NJ

Tadpole	Structure Category (Symbol Color)	Description
●	Fracture Rank 1 (Light Blue)	Minor Fracture - not distinct and may not be continuous around the borehole
●	Fracture Rank 2 (Blue)	Intermediate Fracture - distinct and continuous around the borehole with little or no apparent aperture
●	Fracture Rank 3 (Light Green)	Intermediate Fracture - distinct and continuous around the borehole with some apparent aperture
●	Fracture Rank 4 (Red)	Major Fracture - distinct with continuous apparent aperture around the borehole
◣	Bedding (Brown)	Planar geologic feature interpreted as bedding

Figure 1. Key to bedrock structure categories.

HRGS

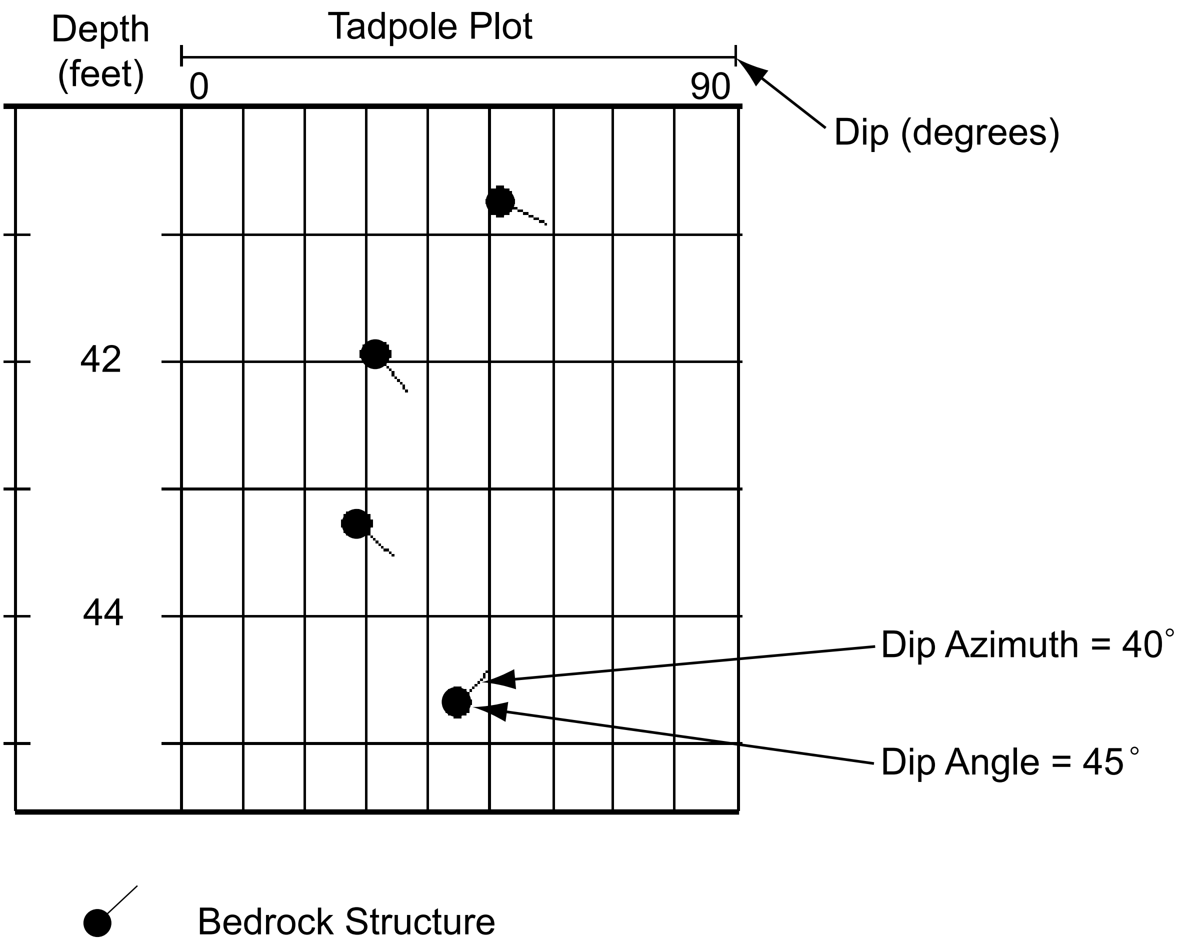


Figure 2. Tadpole plot explanation. The orientation of the bedrock structures is graphically displayed by a tadpole consisting of a circle, the head, and a line, the tail. The position of the head, left to right on the tadpole plot, gives the dip angle of the structure. The left side of the track indicates a dip angle of 0°, and the right side of the track indicates a dip angle of 90° from horizontal. The orientation of the tail gives the dip azimuth of the structure and can be read like a compass. The tail pointing directly up is 0°, north.

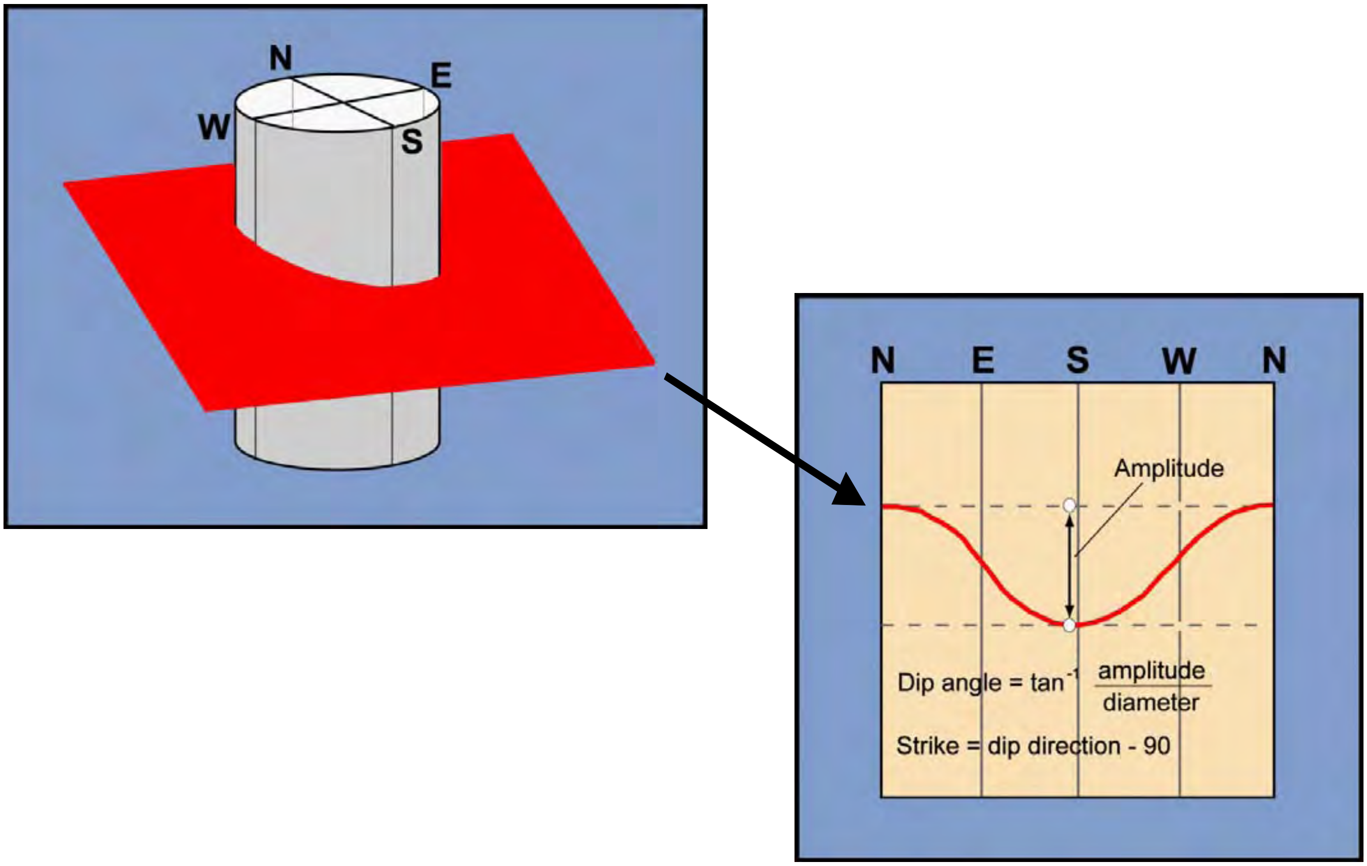


Figure 3. Televiewer Explanation Figure. The image on the left depicts a planar structure in red, such as a fracture or bedding plane, intersected by a borehole. The image on the right depicts the same structure unwrapped as it would be displayed in an optical televiewer (OTV) or acoustic televiewer (ATV) log.

Figure modified from: Garfield, R.L., Day-Lewis, F.D., Gray, M.B., Johnson, C.D., Williams, J.H. and Day-Lewis, A.D.F., 2003, Fractured-Rock Aquifer Characterization within a Regional Geologic Context: Results from the Bucknell University Hydrogeophysics Test Site, GSA Northeastern Section, 38th Annual Meeting, Paper No. 25-19.

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dba HR Geological Services in New York

Derry, NH (603.893.9944)
Fords, NJ (732.661.0555)

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LB-R-064 - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: April 14, 2025

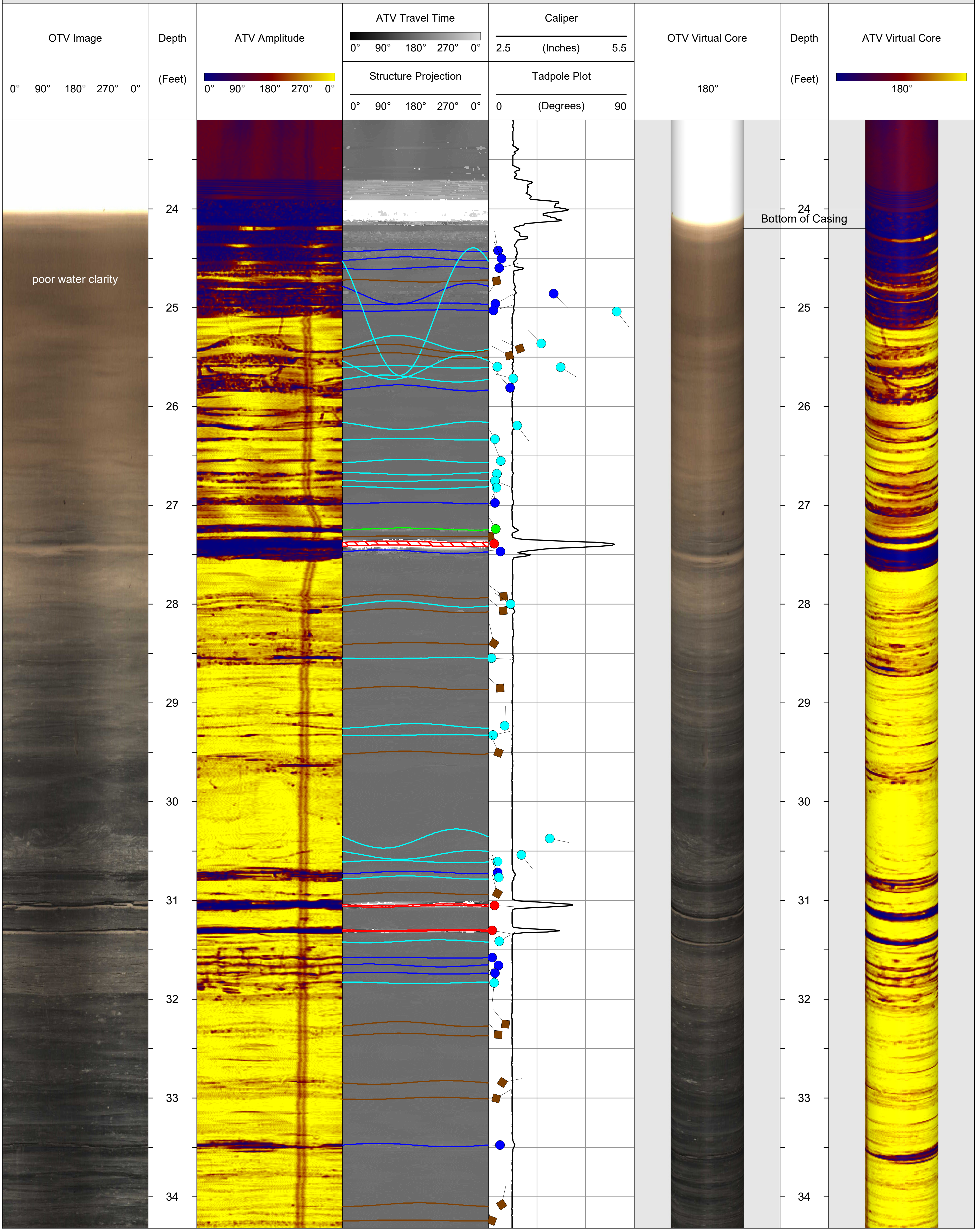
CLIENT: Langan
PROJECT: Micron – New York Manufacturing Facility
LOCATION: Clay, New York
LOGGING GEOPHYSICIST(S): Mishak Boshoff
LOGS PROCESSED BY: Robert Garfield, P.G. & Nick DeCristofaro

HRGS FILE: 24RG87
BOREHOLE TYPE: Approximately Vertical
LOG DATUM: Ground Surface
ORIENTATION REFERENCE: True North (Magnetic Declination = 12° West)
BOREHOLE DIAMETER: 3 Inches (NQ-Cored)

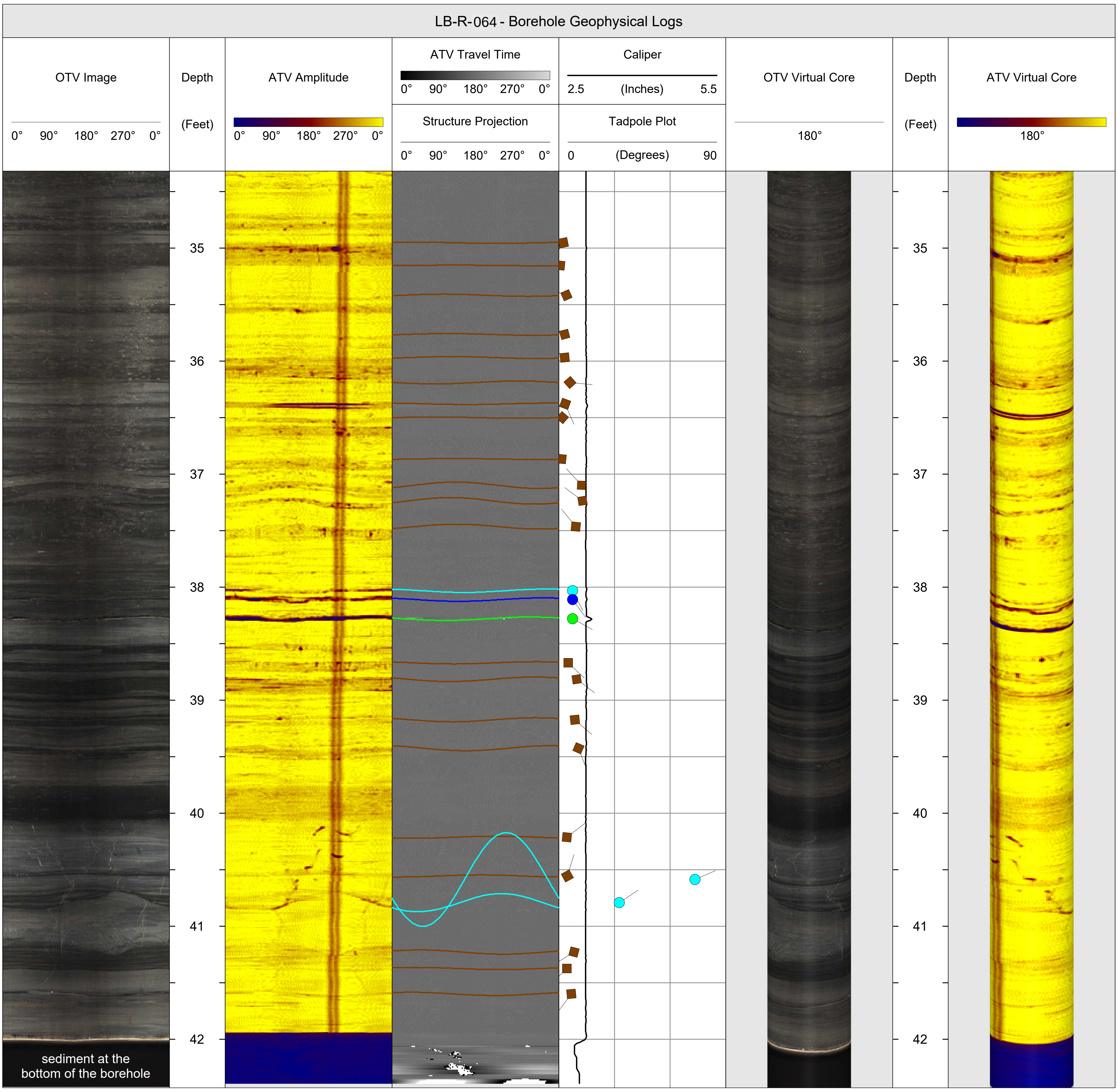
STRUCTURE LEGEND

● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

LB-R-064 - Borehole Geophysical Logs



LB-R-064 - Borehole Geophysical Logs



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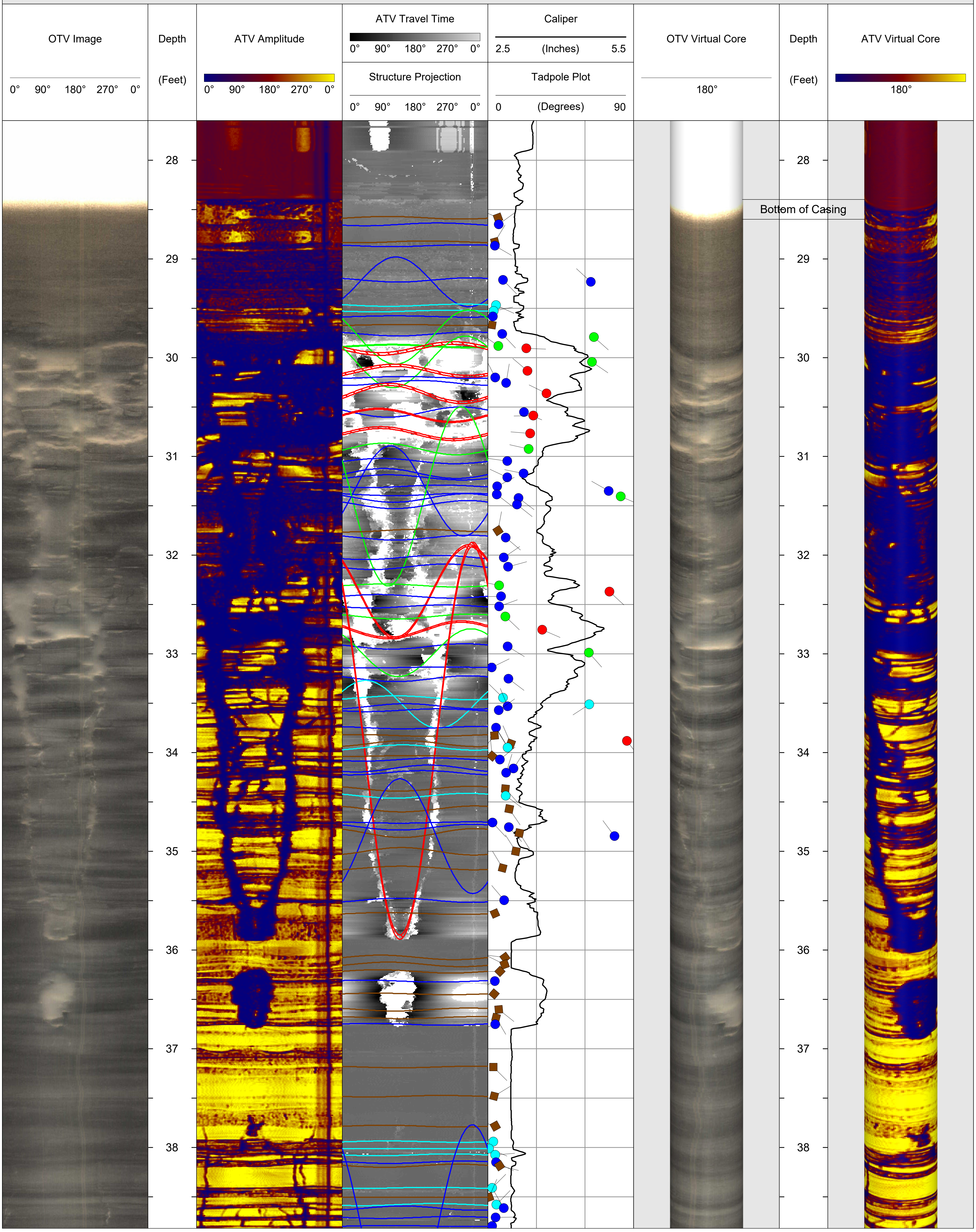
LB-R-082 - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED:	April 17, 2025		
CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	BOREHOLE TYPE:	Approximately Vertical
LOCATION:	Clay, New York	LOG DATUM:	Ground Surface
LOGGING GEOPHYSICIST(S):	Mishak Boshoff	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	BOREHOLE DIAMETER:	3 Inches (NQ-Cored)

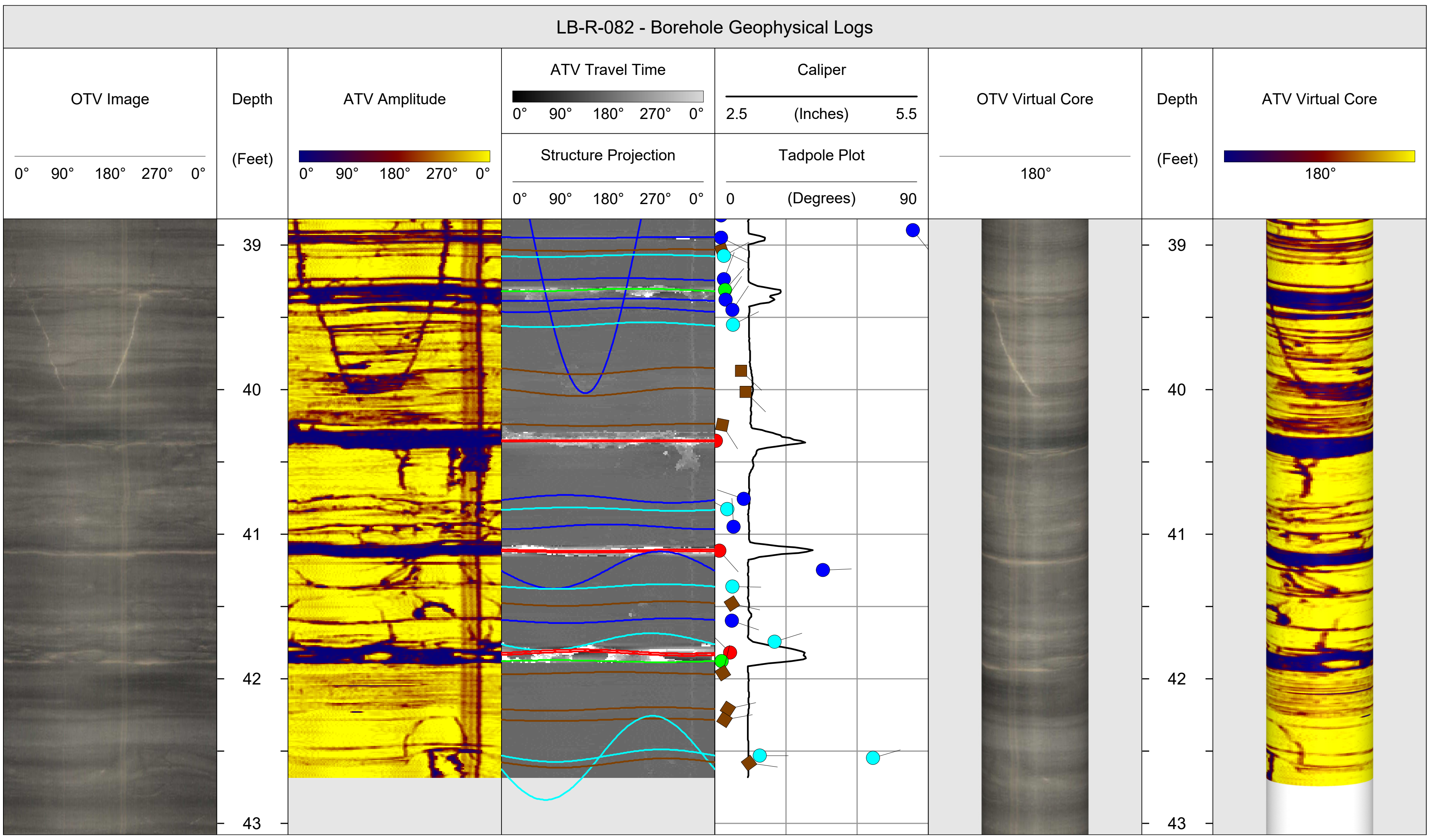
STRUCTURE LEGEND

● Fracture Rank 1   ● Fracture Rank 2   ● Fracture Rank 3   ● Fracture Rank 4   ■ Bedding

LB-R-082 - Borehole Geophysical Logs



LB-R-082 - Borehole Geophysical Logs



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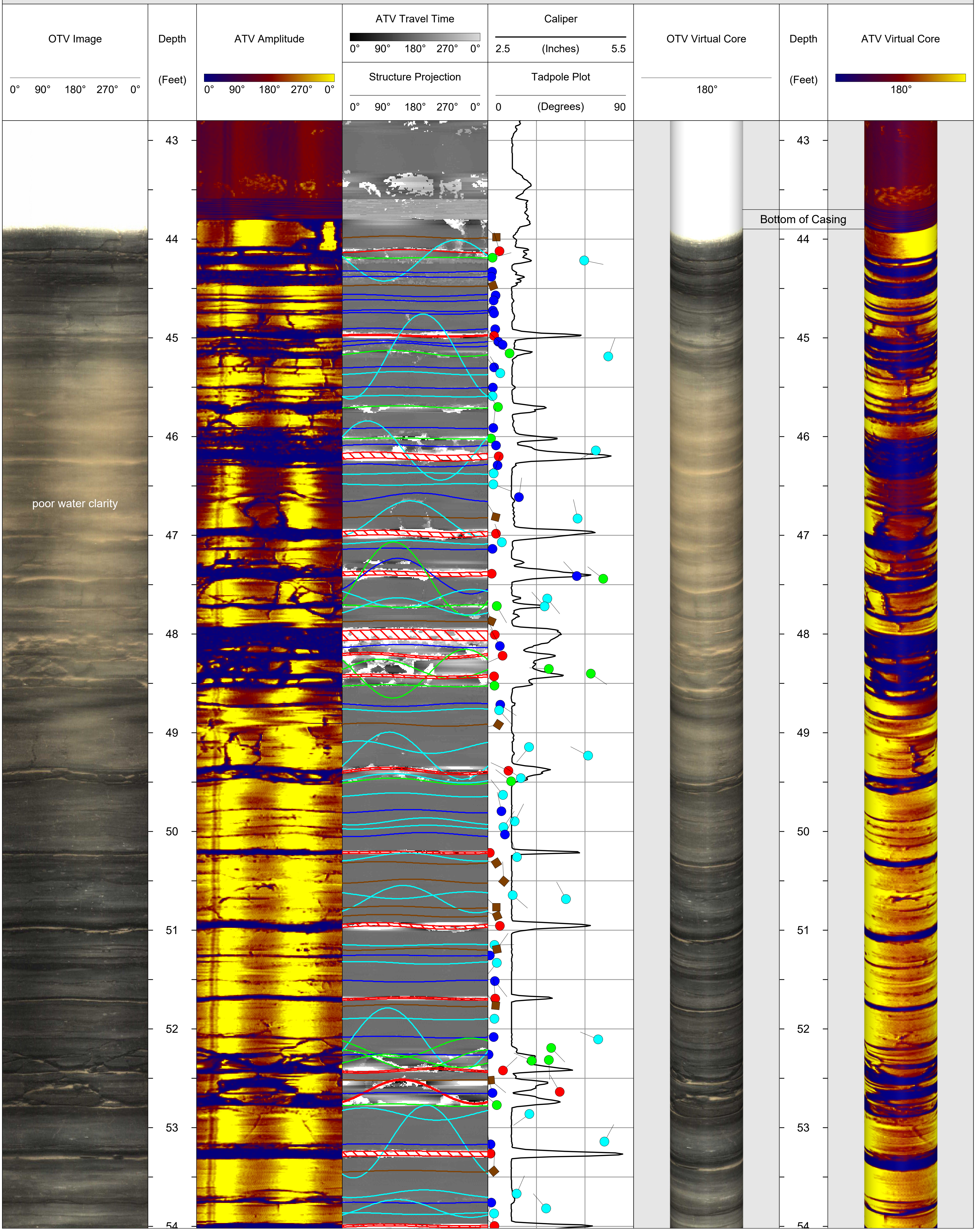
LB-R-104 - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED:	April 16, 2025
CLIENT:	Langan
PROJECT:	Micron – New York Manufacturing Facility
LOCATION:	Clay, New York
LOGGING GEOPHYSICIST(S):	Mishak Boshoff
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro
HRGS FILE:	24RG87
BOREHOLE TYPE:	Approximately Vertical
LOG DATUM:	Ground Surface
ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
BOREHOLE DIAMETER:	3 Inches (NQ-Cored)

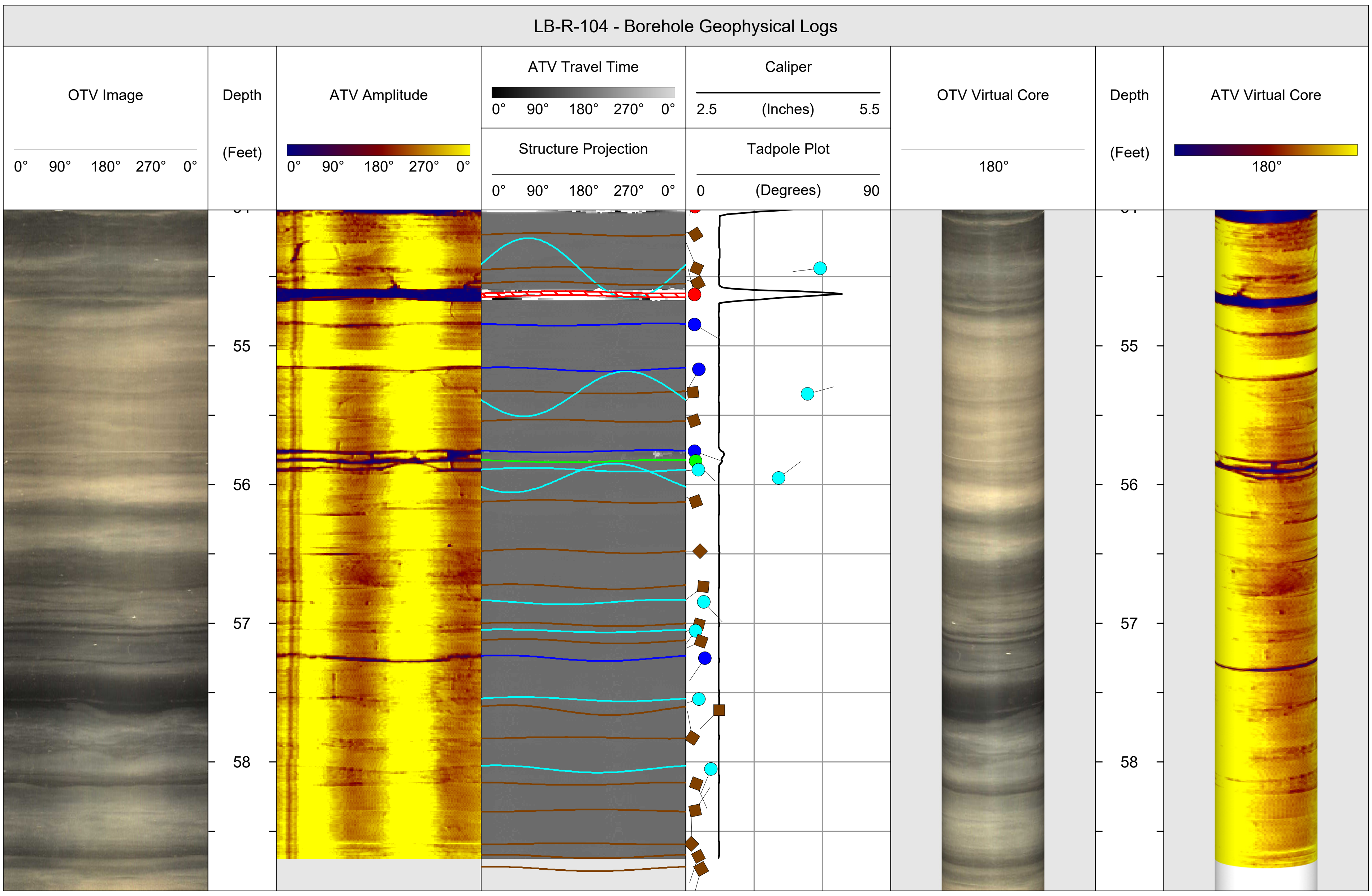
STRUCTURE LEGEND

● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

LB-R-104 - Borehole Geophysical Logs



LB-R-104 - Borehole Geophysical Logs



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Fords, NJ (732.661.0555)

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LB-R-115 - BOREHOLE GEOPHYSICAL LOGS

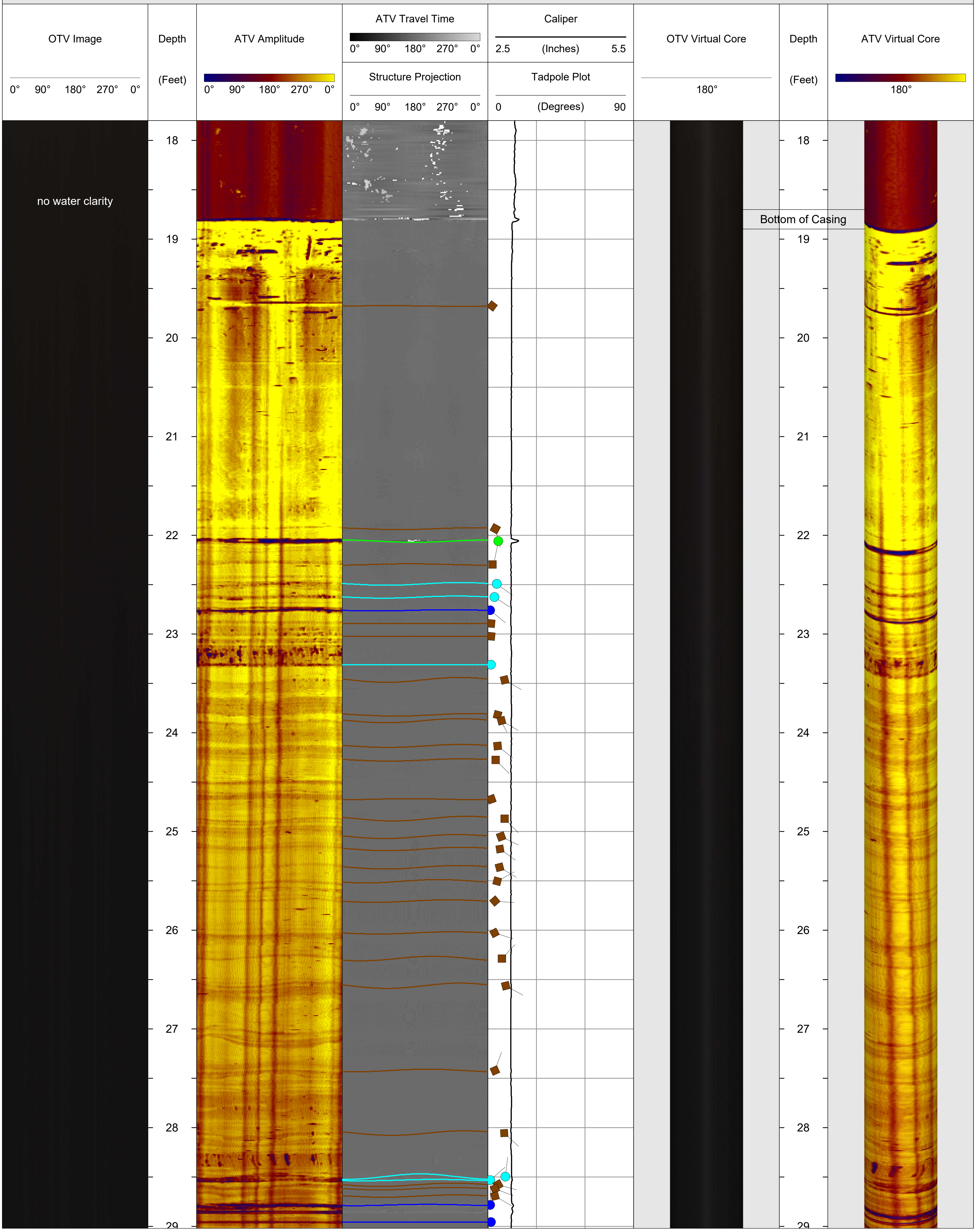
DATE(S) LOGGED: April 16, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	BOREHOLE TYPE:	Approximately Vertical
LOCATION:	Clay, New York	LOG DATUM:	Ground Surface
LOGGING GEOPHYSICIST(S):	Mishak Boshoff	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	BOREHOLE DIAMETER:	3 Inches (NQ-Cored)

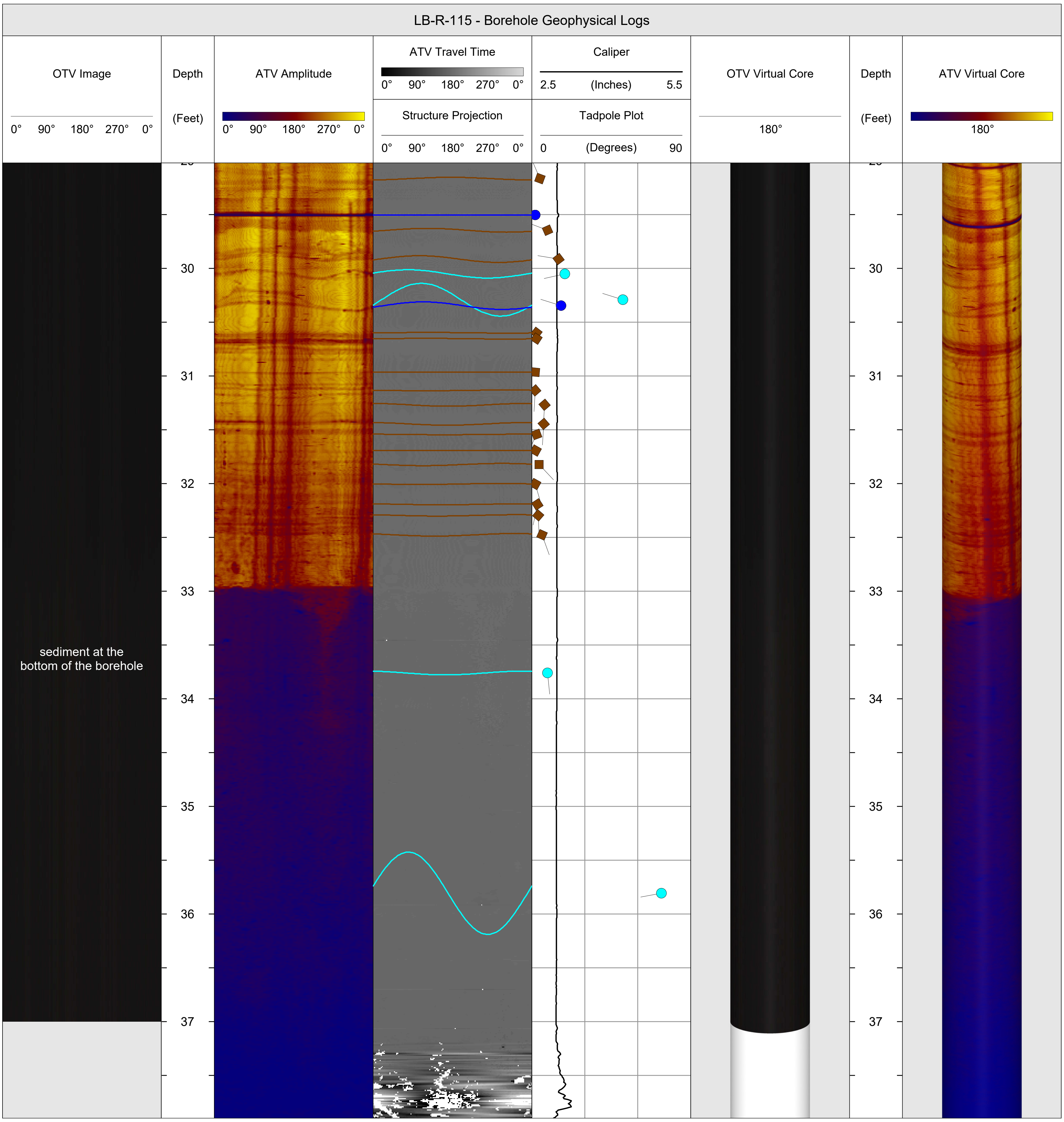
STRUCTURE LEGEND

● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ■ Bedding

LB-R-115 - Borehole Geophysical Logs



LB-R-115 - Borehole Geophysical Logs



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Fords, NJ (732.661.0555)

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LB-R-117 - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: April 14, 2025

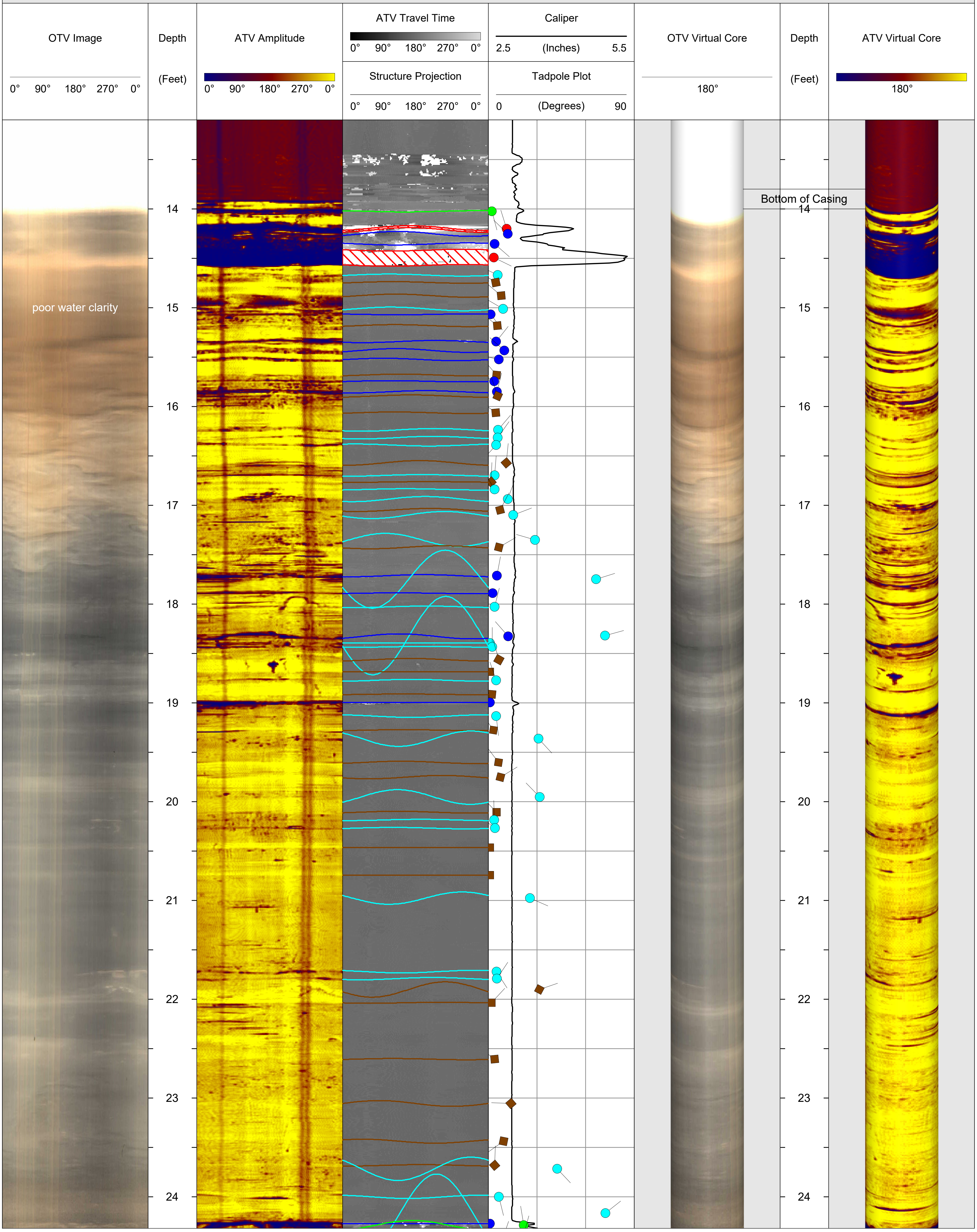
CLIENT: Langan
PROJECT: Micron – New York Manufacturing Facility
LOCATION: Clay, New York
LOGGING GEOPHYSICIST(S): Mishak Boshoff
LOGS PROCESSED BY: Robert Garfield, P.G. & Nick DeCristofaro

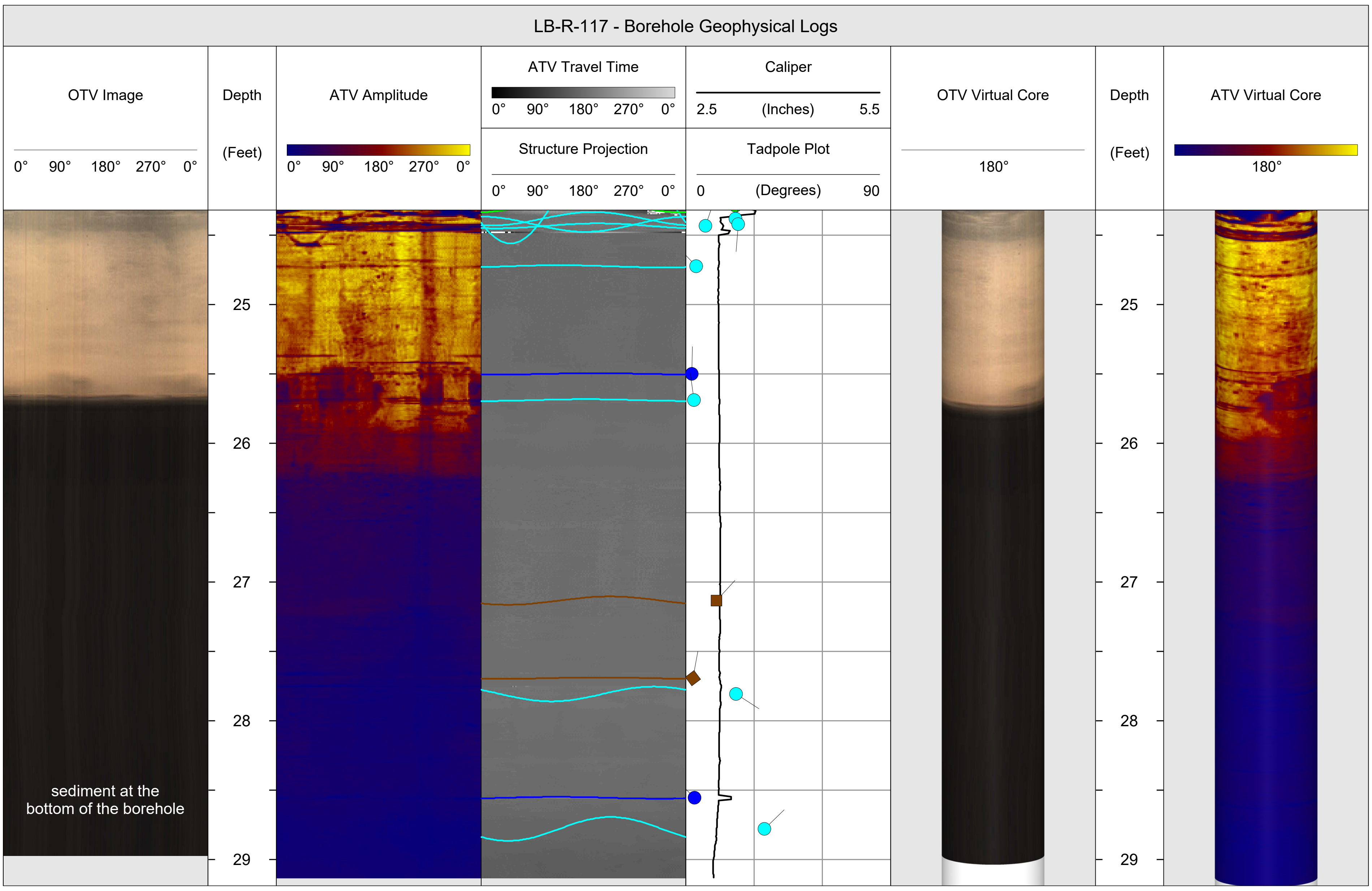
HRGS FILE: 24RG87
BOREHOLE TYPE: Approximately Vertical
LOG DATUM: Ground Surface
ORIENTATION REFERENCE: True North (Magnetic Declination = 12° West)
BOREHOLE DIAMETER: 3 Inches (NQ-Cored)

STRUCTURE LEGEND

● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

LB-R-117 - Borehole Geophysical Logs




LB-R-117 - Borehole Geophysical Logs
OTV Image
0° 90° 180° 270° 0°
Depth
(Feet)
ATV Amplitude
0° 90° 180° 270° 0°
ATV Travel Time
0° 90° 180° 270° 0°
Structure Projection
0° 90° 180° 270° 0°
Caliper
2.5 (Inches) 5.5
Tadpole Plot
0 (Degrees) 90
OTV Virtual Core
180°
Depth
(Feet)
ATV Virtual Core
180°
25
26
27
28
29
sediment at the
bottom of the borehole

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LB-R-127 - BOREHOLE GEOPHYSICAL LOGS

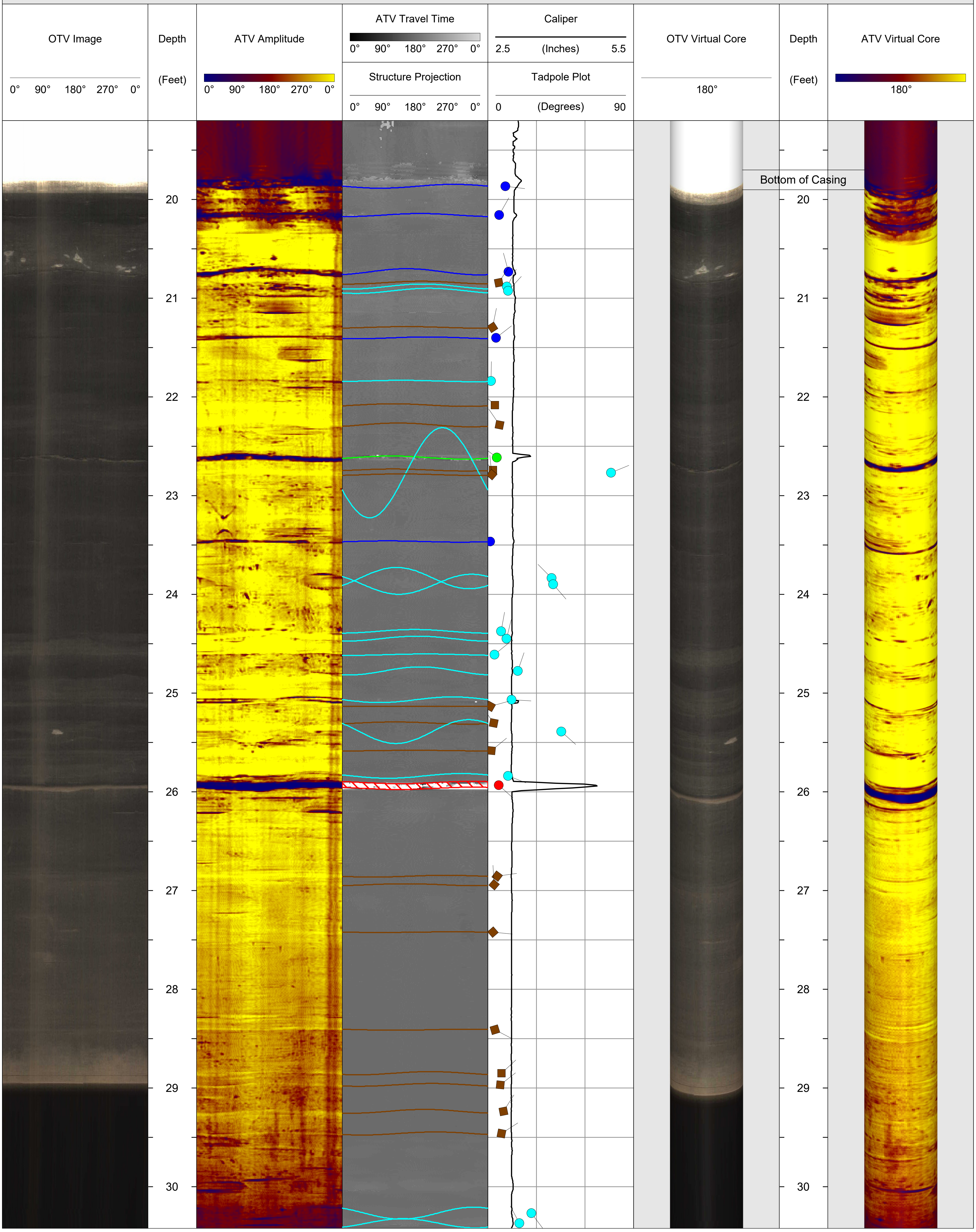
DATE(S) LOGGED: April 14, 2025

CLIENT:	Langan
PROJECT:	Micron – New York Manufacturing Facility
LOCATION:	Clay, New York
LOGGING GEOPHYSICIST(S):	Mishak Boshoff
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro
HRGS FILE:	24RG87
BOREHOLE TYPE:	Approximately Vertical
LOG DATUM:	Ground Surface
ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
BOREHOLE DIAMETER:	3 Inches (NQ-Cored)

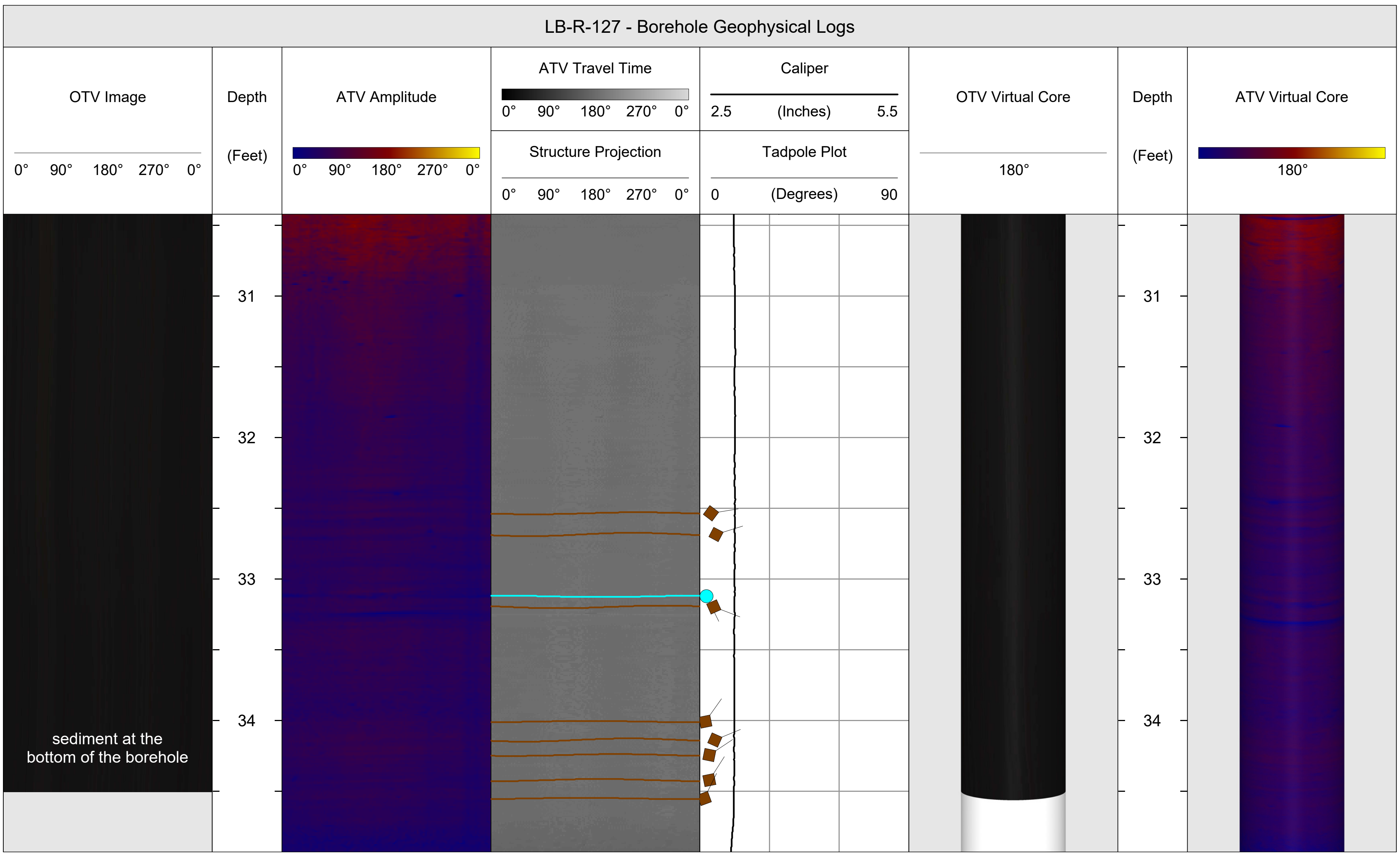
STRUCTURE LEGEND

● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

LB-R-127 - Borehole Geophysical Logs



LB-R-127 - Borehole Geophysical Logs



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Derry, NH (603.893.9944)
Fords, NJ (732.661.0555)

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LB-R-128 - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: April 17, 2025

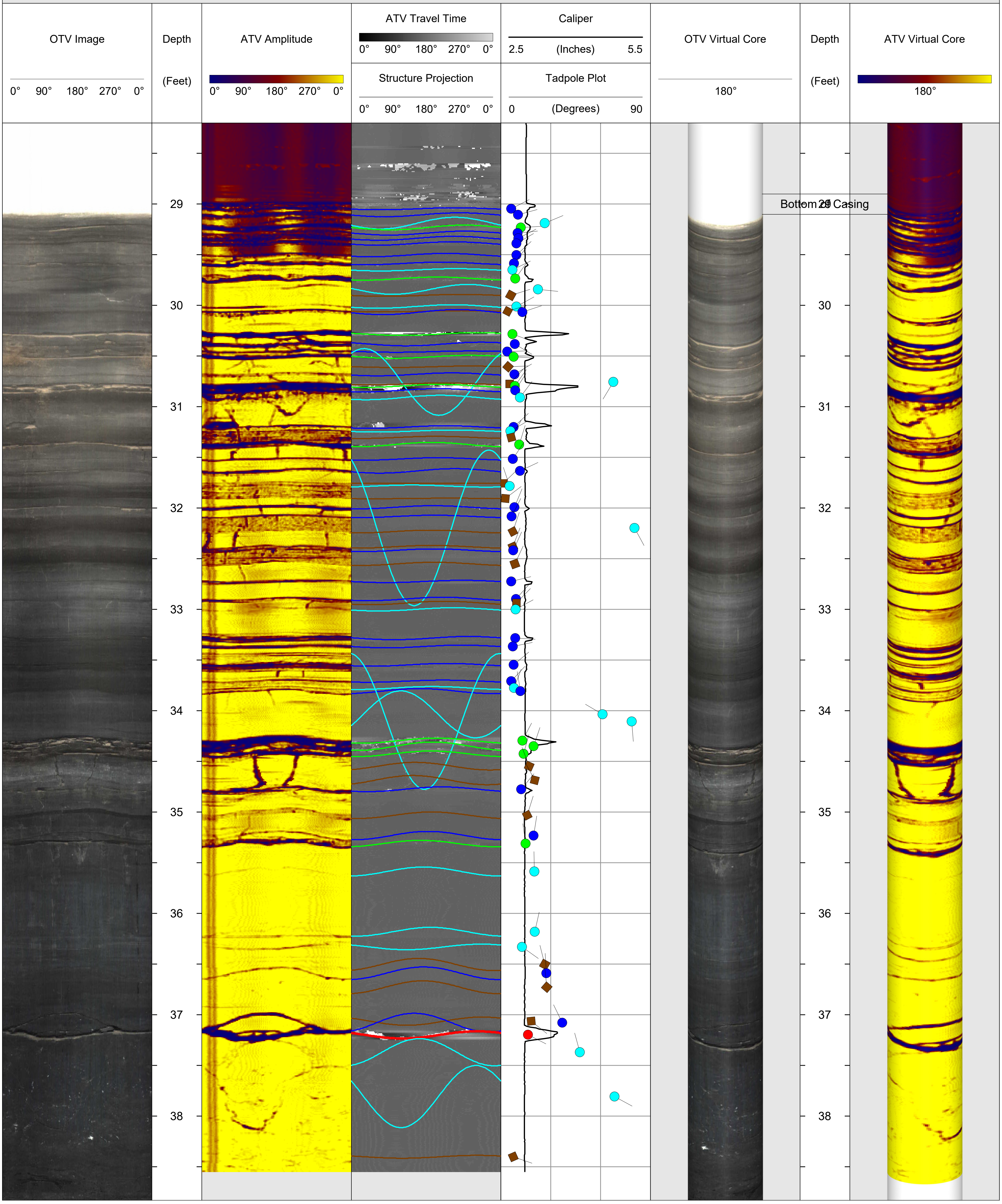
CLIENT: Langan
PROJECT: Micron – New York Manufacturing Facility
LOCATION: Clay, New York
LOGGING GEOPHYSICIST(S): Mishak Boshoff
LOGS PROCESSED BY: Robert Garfield, P.G. & Nick DeCristofaro

HRGS FILE: 24RG87
BOREHOLE TYPE: Approximately Vertical
LOG DATUM: Ground Surface
ORIENTATION REFERENCE: True North (Magnetic Declination = 12° West)
BOREHOLE DIAMETER: 3 Inches (NQ-Cored)

STRUCTURE LEGEND

- ● Fracture Rank 1
- ● Fracture Rank 2
- ● Fracture Rank 3
- ● Fracture Rank 4
- ■ Bedding

LB-R-128 - Borehole Geophysical Logs



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LB-R-129 - BOREHOLE GEOPHYSICAL LOGS

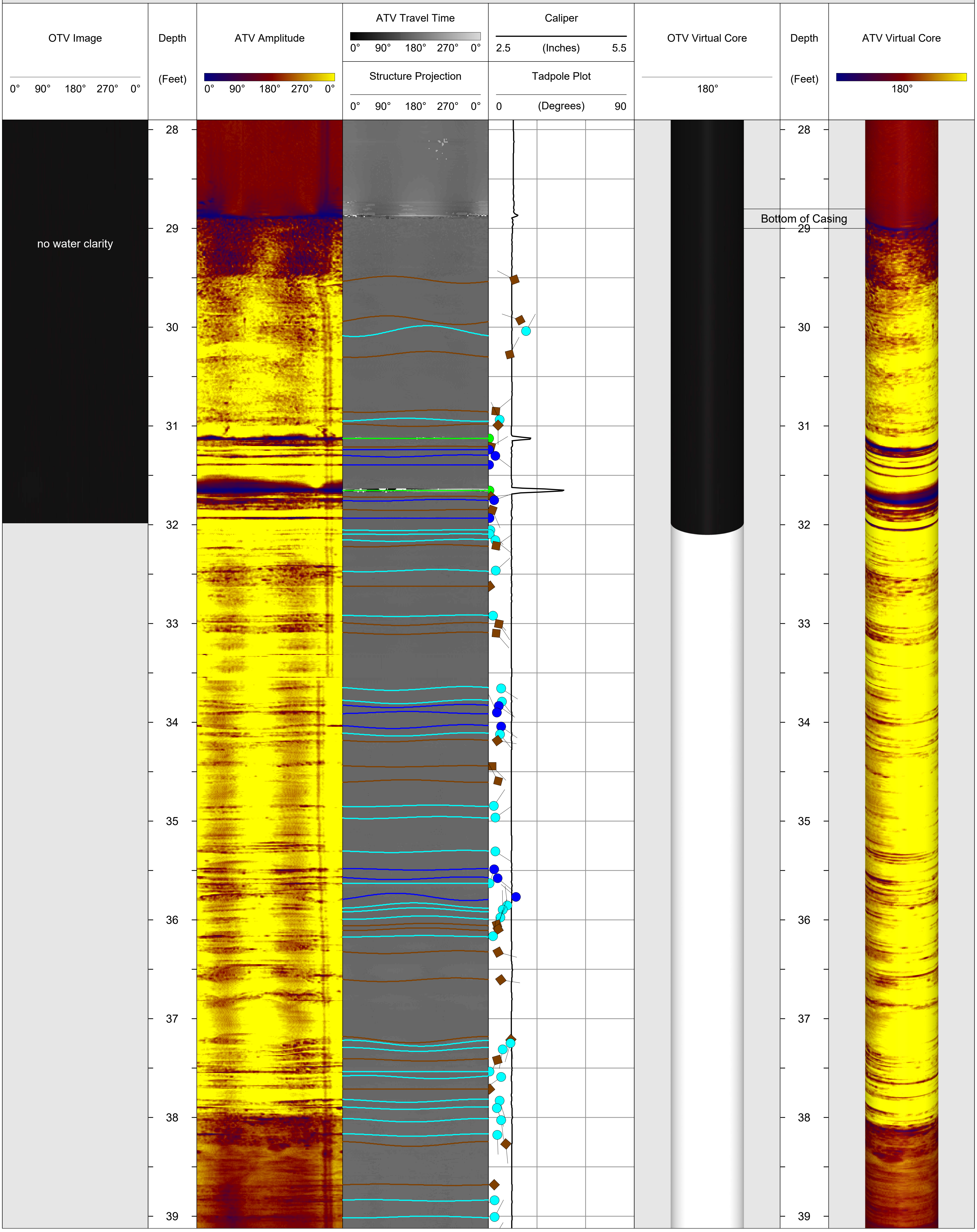
DATE(S) LOGGED: April 16, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	BOREHOLE TYPE:	Approximately Vertical
LOCATION:	Clay, New York	LOG DATUM:	Ground Surface
LOGGING GEOPHYSICIST(S):	Mishak Boshoff	ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro	BOREHOLE DIAMETER:	3 Inches (NQ-Cored)

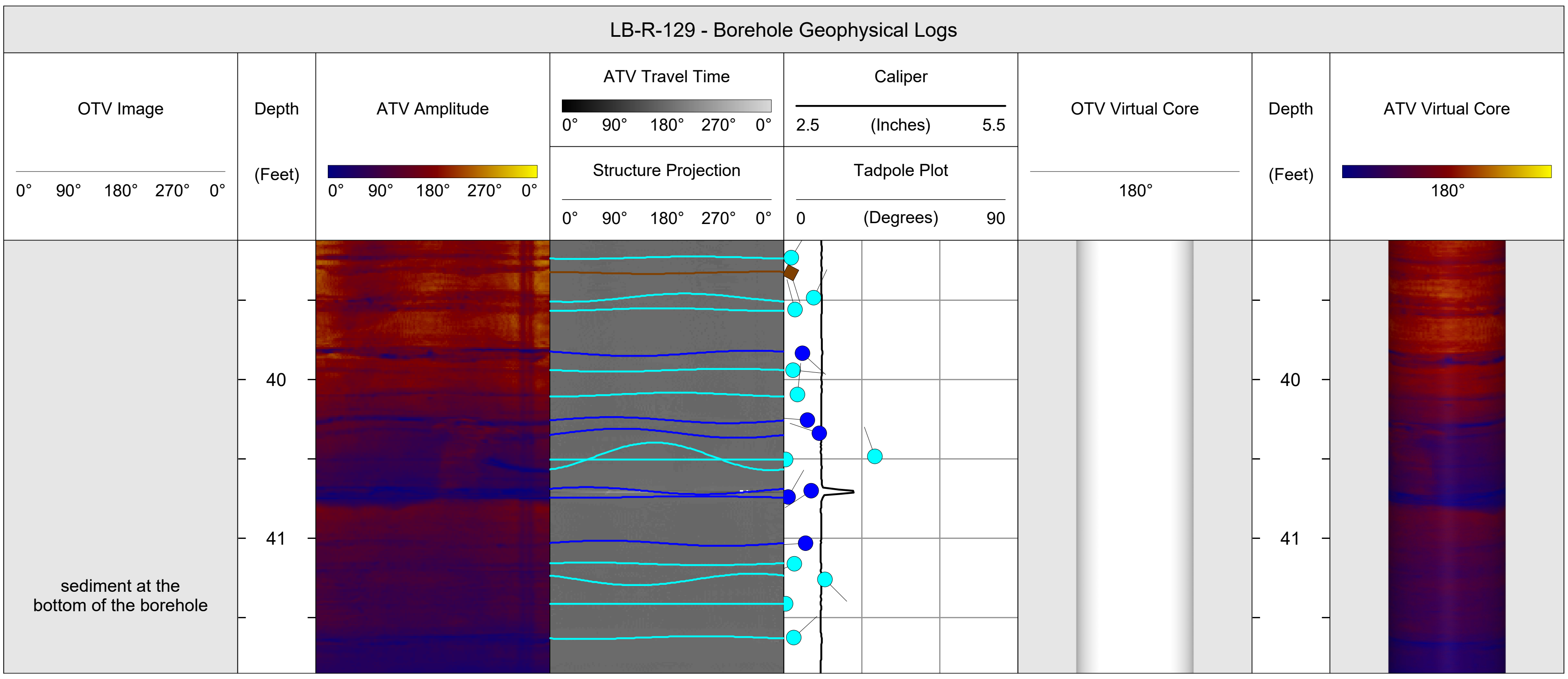
STRUCTURE LEGEND

● Fracture Rank 1
● Fracture Rank 2
● Fracture Rank 3
■ Bedding

LB-R-129 - Borehole Geophysical Logs



LB-R-129 - Borehole Geophysical Logs



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Derry, NH (603.893.9944)
Fords, NJ (732.661.0555)
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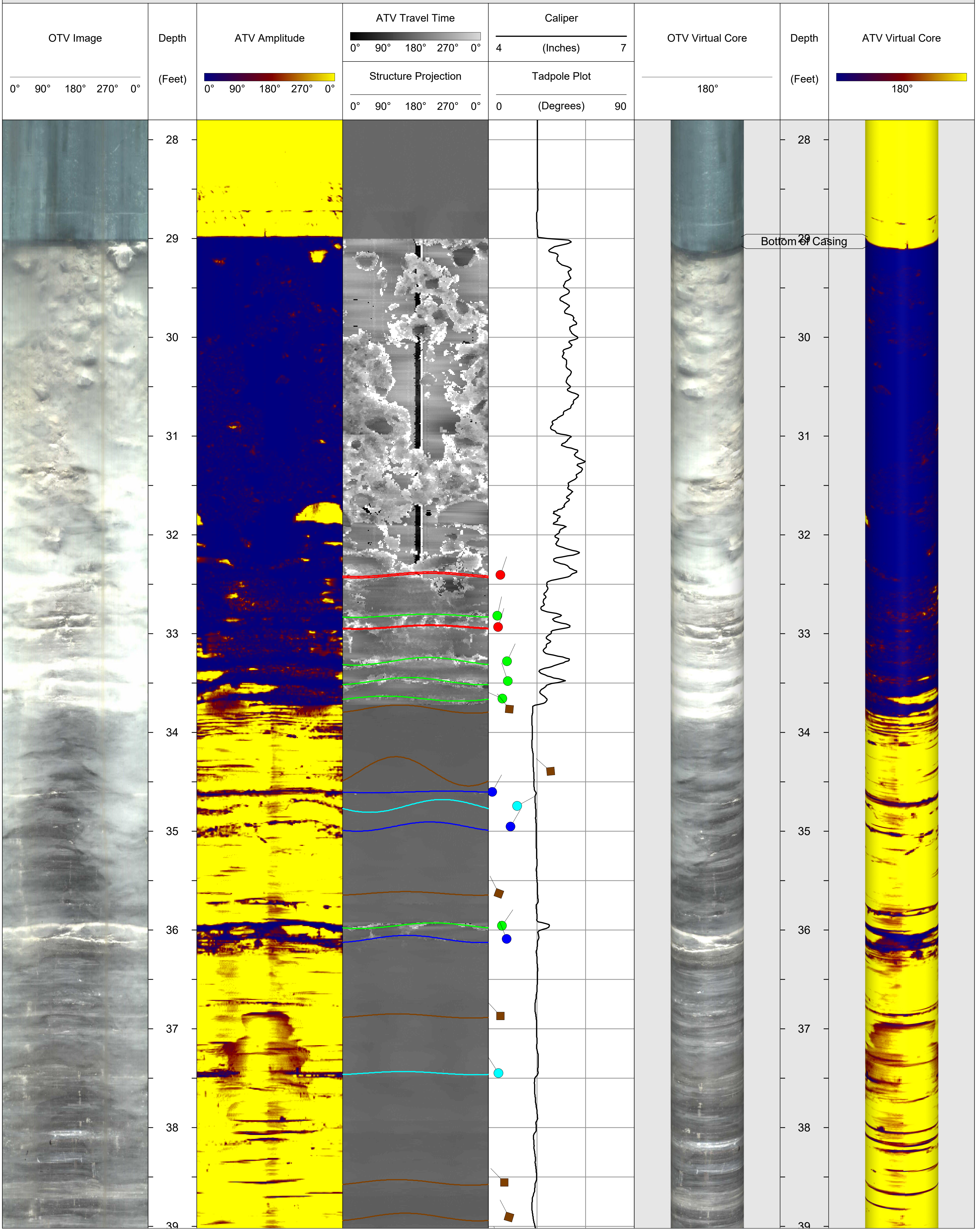
LB-X-002 - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED:	April 14, 2025
CLIENT:	Langan
PROJECT:	Micron – New York Manufacturing Facility
LOCATION:	Clay, New York
LOGGING GEOPHYSICIST(S):	Mishak Boshoff
LOGS PROCESSED BY:	Robert Garfield, P.G. & Nick DeCristofaro
HRGS FILE:	24RG87
BOREHOLE TYPE:	Approximately Vertical
LOG DATUM:	Ground Surface
ORIENTATION REFERENCE:	True North (Magnetic Declination = 12° West)
BOREHOLE DIAMETER:	4.8 Inches (PQ-Cored)

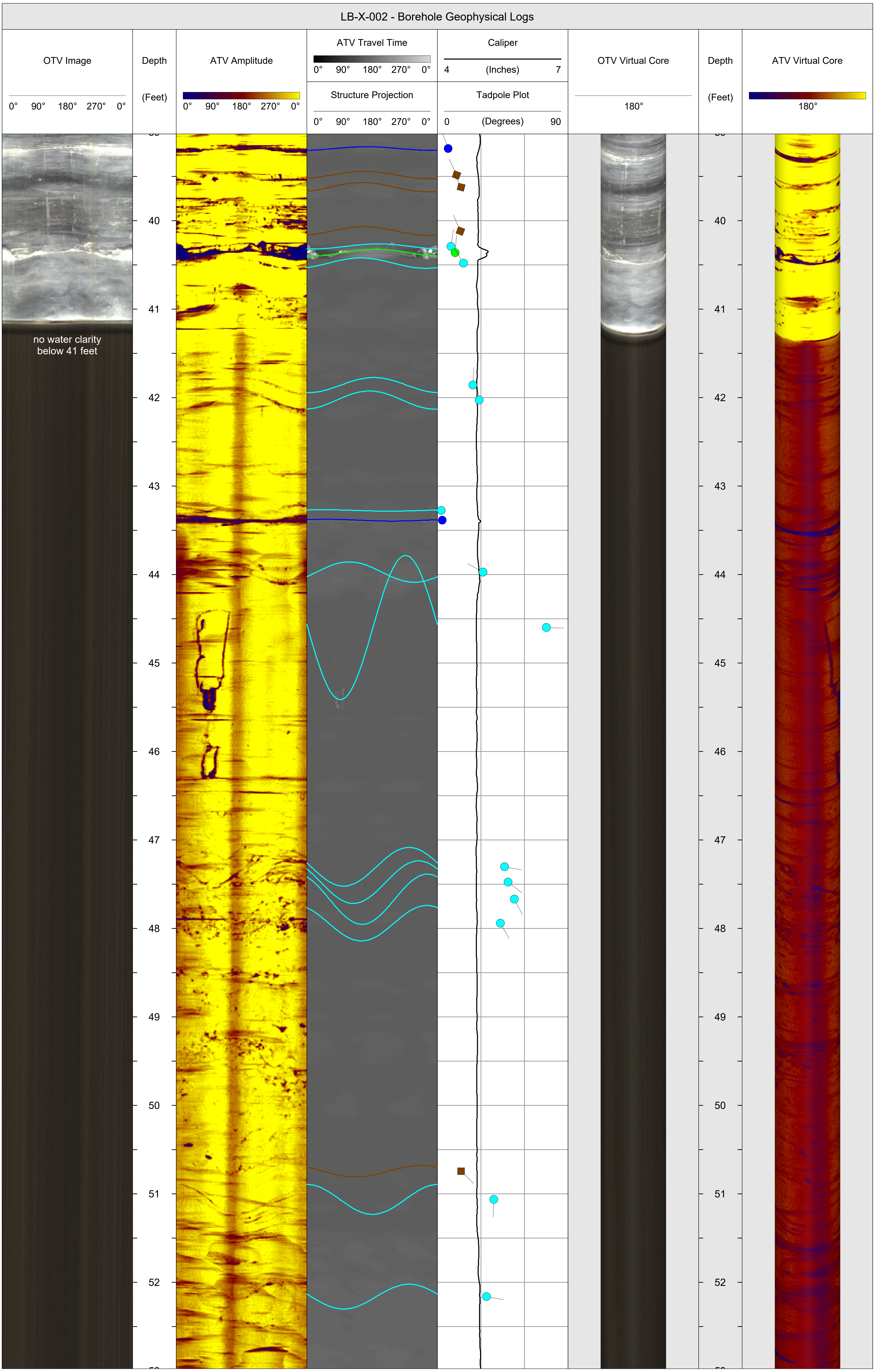
STRUCTURE LEGEND

●	Fracture Rank 1
●	Fracture Rank 2
●	Fracture Rank 3
●	Fracture Rank 4
■	Bedding

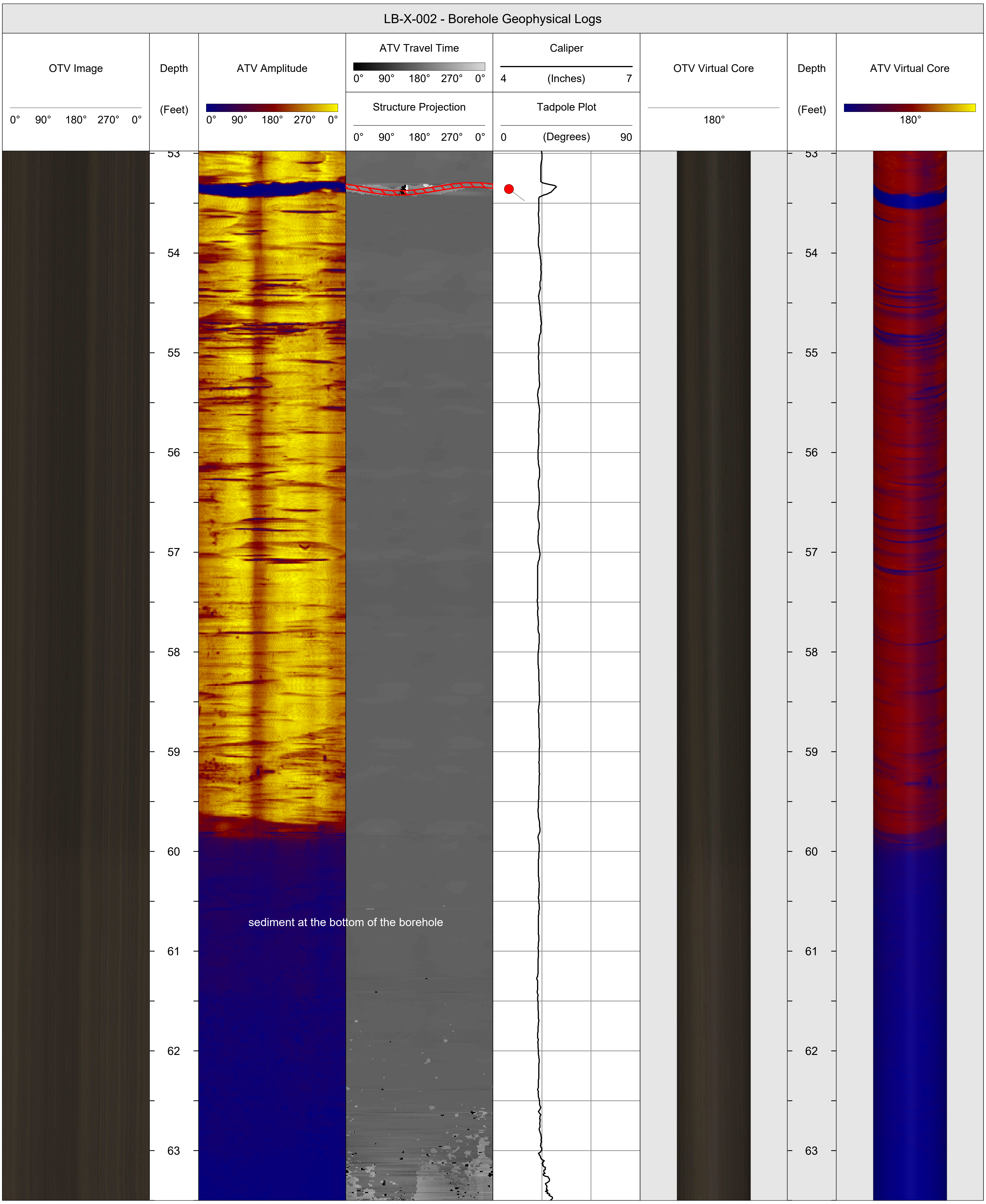
LB-X-002 - Borehole Geophysical Logs



LB-X-002 - Borehole Geophysical Logs



LB-X-002 - Borehole Geophysical Logs



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LB-X-006 - BOREHOLE GEOPHYSICAL LOGS

DATE(S) LOGGED: April 14, 2025

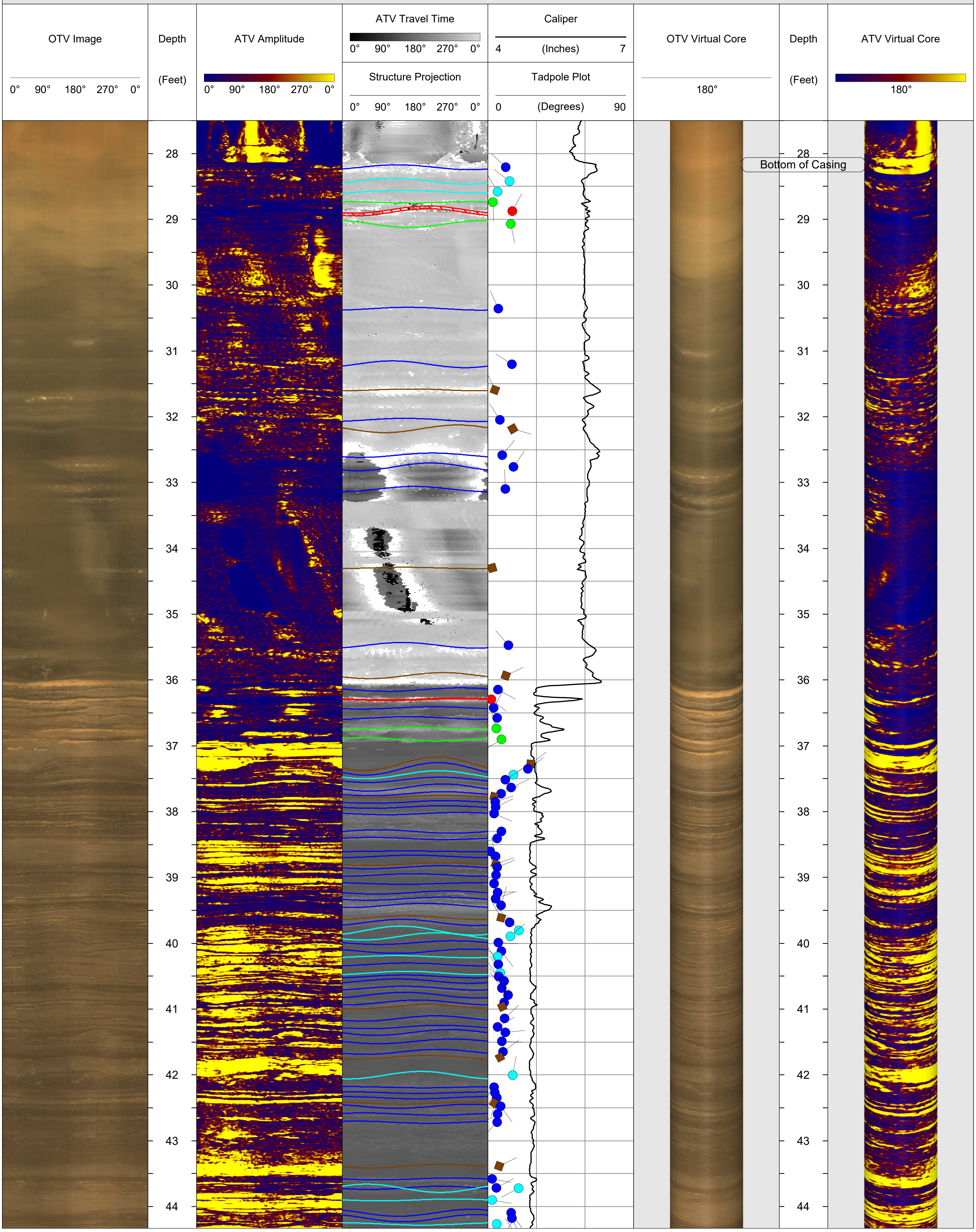
CLIENT: Langan
PROJECT: Micron – New York Manufacturing Facility
LOCATION: Clay, New York
LOGGING GEOPHYSICIST(S): Mishak Boshoff
LOGS PROCESSED BY: Robert Garfield, P.G. & Nick DeCristofaro

HRGS FILE: 24RG87
BOREHOLE TYPE: Approximately Vertical
LOG DATUM: Ground Surface
ORIENTATION REFERENCE: True North (Magnetic Declination = 12° West)
BOREHOLE DIAMETER: 4.8 Inches (PQ-Cored)

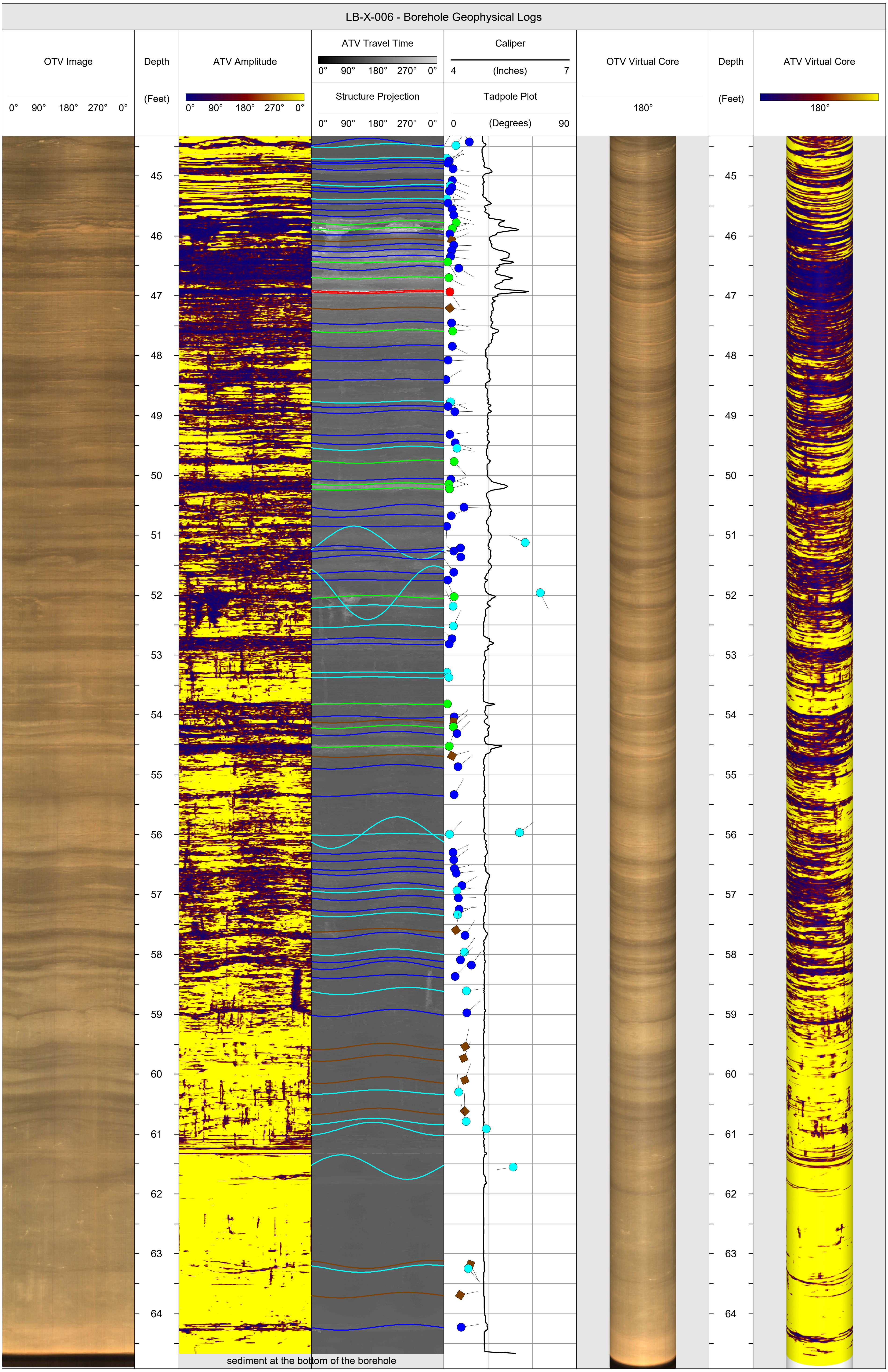
STRUCTURE LEGEND

● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

LB-X-006 - Borehole Geophysical Logs



LB-X-006 - Borehole Geophysical Logs



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ALL BOREHOLES - BEDROCK STRUCTURE STATISTICS PLOTS WITH CONTOURED STEREOGRAMS

DATE(S) LOGGED: April 2025

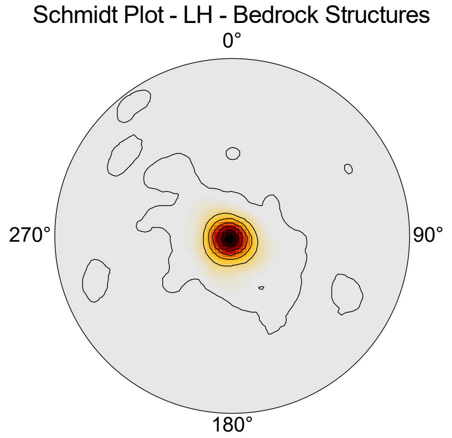
CLIENT: Langan
PROJECT: Micron – New York Manufacturing Facility
LOCATION: Clay, New York

HRGS FILE: 24RG87
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

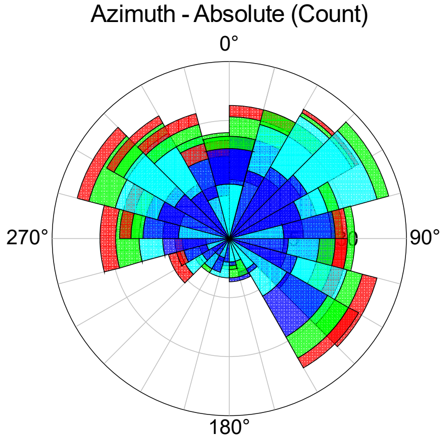
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Fractures



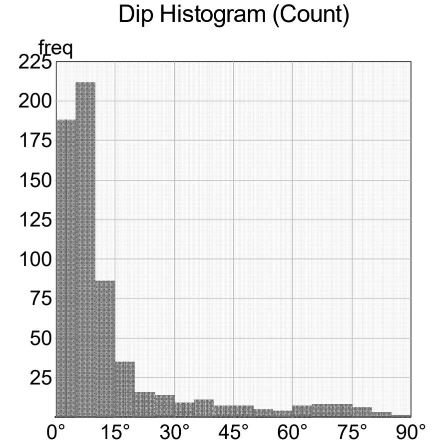
	Counts	Dip[deg]	Azi[deg]
Mean	627	13.22	32.45
●	65	14.35	27.33
●	41	13.02	333.93
●	276	8.73	34.12
●	245	18.27	39.16

Dip Azimuth Rose Diagram of Fractures



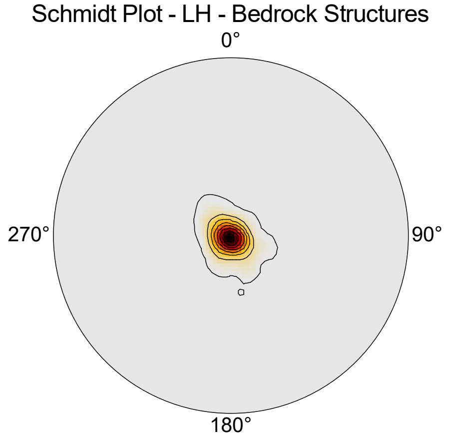
Components	Azimuth
Mean (2D)	32.45
Counts	627.00
●	65
●	41
●	276
●	245

Dip Angle Histogram of Fractures



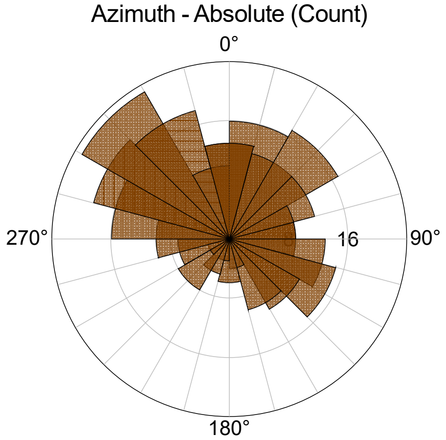
Counts:	627.00
Mean (2D):	13.22
Std.Dev.:	16.82
Min:	0.50
Max:	85.94

Stereogram - Lower Hemisphere of Bedding



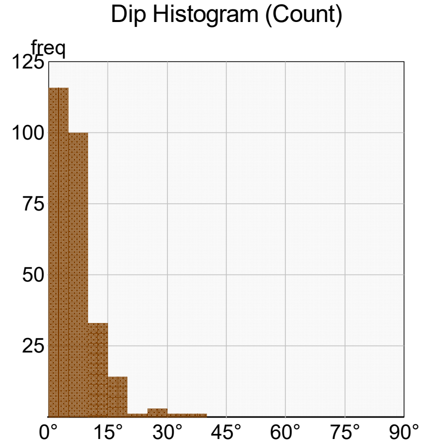
	Counts	Dip[deg]	Azi[deg]
Mean	269	6.97	9.02
■	269	6.97	9.02

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	9.02
Counts	269.00
■	269

Dip Angle Histogram of Bedding



Counts:	269.00
Mean (2D):	6.97
Std.Dev.:	5.23
Min:	0.60
Max:	38.31

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LB-R-064 - BEDROCK STRUCTURE STATISTICS PLOTS

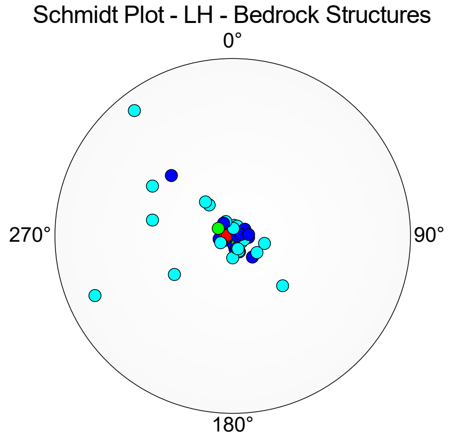
DATE(S) LOGGED: April 14, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	ORIENTATION REFERENCE:	True North
LOCATION:	Clay, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

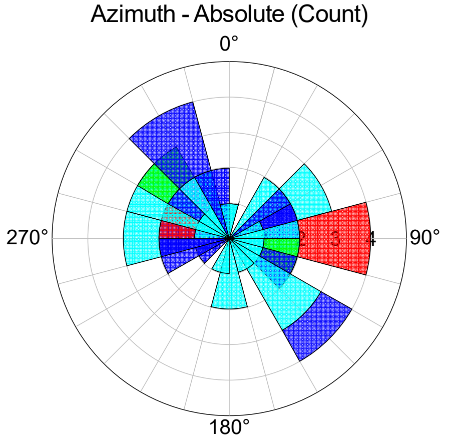
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



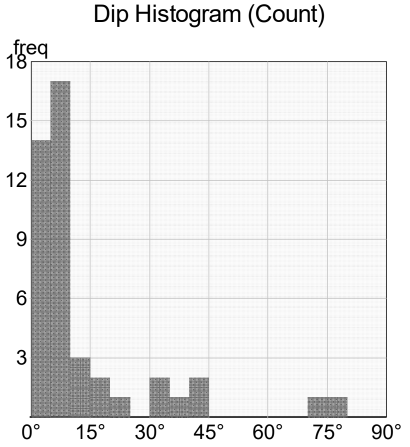
	Counts	Dip[deg]	Azi[deg]
Mean	44	12.85	29.77
●	15	8.38	325.02
●	24	17.68	82.01
●	2	6.05	44.14
●	3	3.30	79.09

Dip Azimuth Rose Diagram of Bedrock Fractures



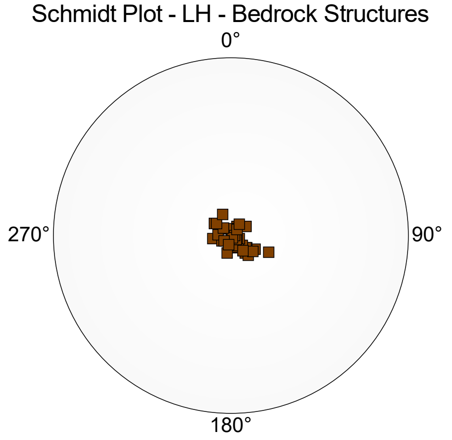
Components	Azimuth
Mean (2D)	29.77
Counts	44.00
●	15
●	24
●	2
●	3

Dip Angle Histogram of Bedrock Fractures



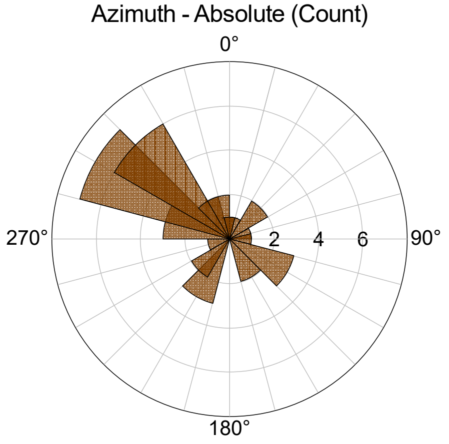
Counts:	44.00
Mean (2D):	12.85
Std.Dev.:	16.96
Min:	1.89
Max:	79.14

Stereogram - Lower Hemisphere of Bedding



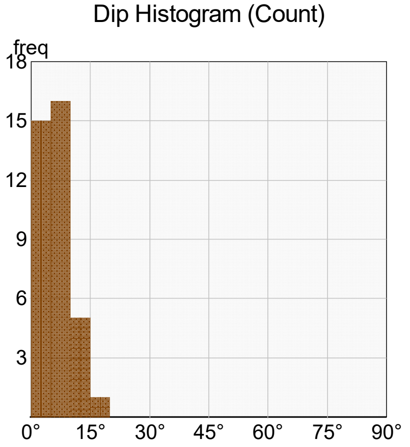
	Counts	Dip[deg]	Azi[deg]
Mean	37	6.54	311.52
■	37	6.54	311.52

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	311.52
Counts	37.00
■	37

Dip Angle Histogram of Bedding



Counts:	37.00
Mean (2D):	6.54
Std.Dev.:	3.92
Min:	0.81
Max:	19.36

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LB-R-082 - BEDROCK STRUCTURE STATISTICS PLOTS

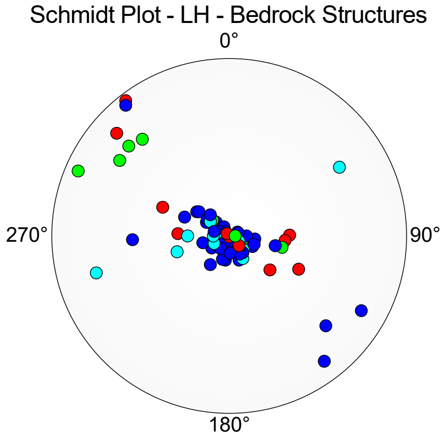
DATE(S) LOGGED: April 17, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	ORIENTATION REFERENCE:	True North
LOCATION:	Clay, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

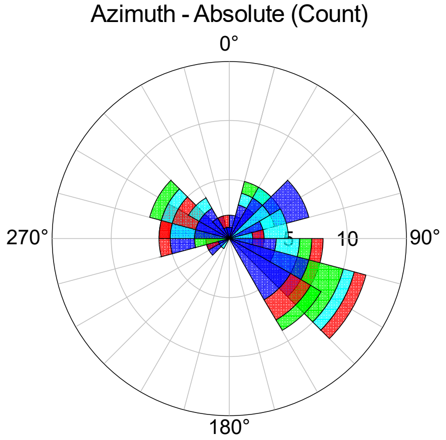
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



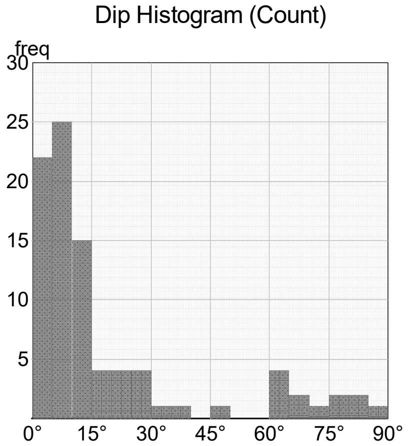
	Counts	Dip[deg]	Azi[deg]
Mean	89	17.77	64.62
●	50	14.05	60.08
●	18	13.50	64.90
●	10	32.50	149.10
●	11	30.22	285.52

Dip Azimuth Rose Diagram of Bedrock Fractures



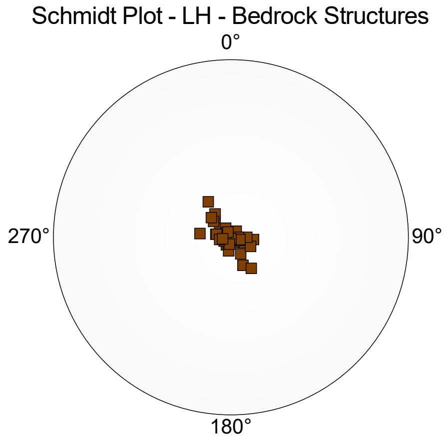
Components	Azimuth
Mean (2D)	64.62
Counts	89.00
●	50
●	18
●	10
●	11

Dip Angle Histogram of Bedrock Fractures



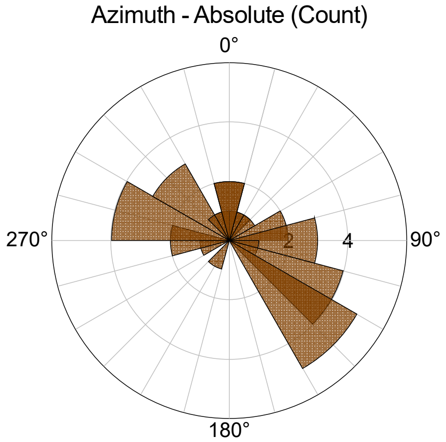
Counts:	89.00
Mean (2D):	17.77
Std.Dev.:	22.42
Min:	0.50
Max:	85.94

Stereogram - Lower Hemisphere of Bedding



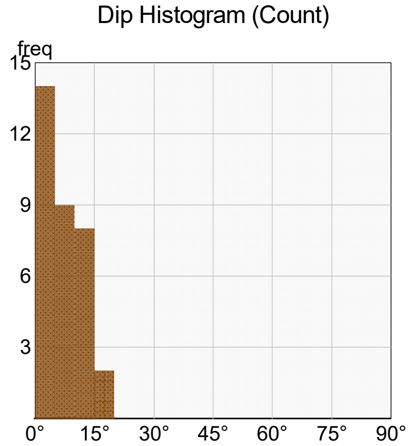
	Counts	Dip[deg]	Azi[deg]
Mean	33	7.34	65.36
■	33	7.34	65.36

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	65.36
Counts	33.00
■	33

Dip Angle Histogram of Bedding



Counts:	33.00
Mean (2D):	7.34
Std.Dev.:	4.57
Min:	0.82
Max:	19.50

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LB-R-104 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: April 16, 2025

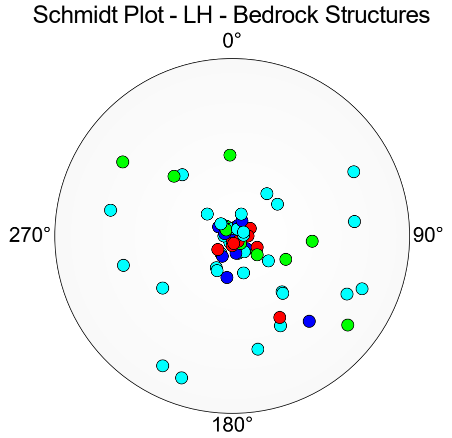
CLIENT: Langan
PROJECT: Micron – New York Manufacturing Facility
LOCATION: Clay, New York

HRGS FILE: 24RG87
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

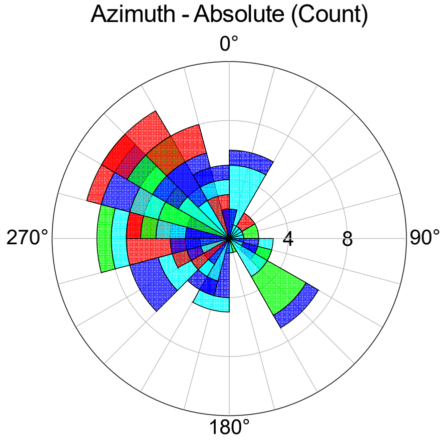
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



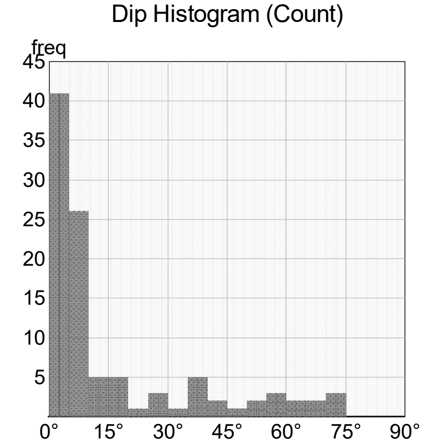
	Counts	Dip[deg]	Azi[deg]
Mean	102	15.87	298.58
●	17	7.59	307.25
●	15	21.74	292.69
●	38	26.09	319.56
●	32	6.41	280.05

Dip Azimuth Rose Diagram of Bedrock Fractures



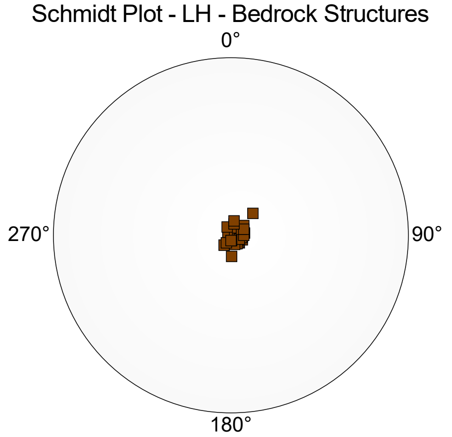
Components	Azimuth
Mean (2D)	298.58
Counts	102.00
●	17
●	15
●	38
●	32

Dip Angle Histogram of Bedrock Fractures



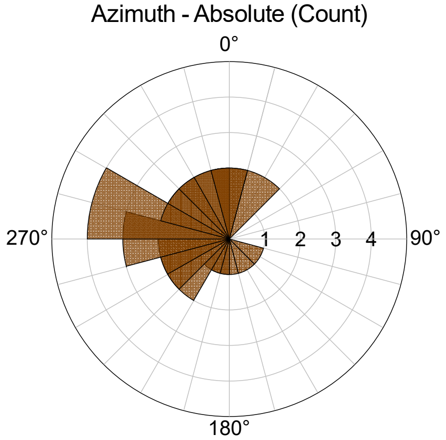
Counts:	102.00
Mean (2D):	15.87
Std.Dev.:	20.08
Min:	0.60
Max:	74.32

Stereogram - Lower Hemisphere of Bedding



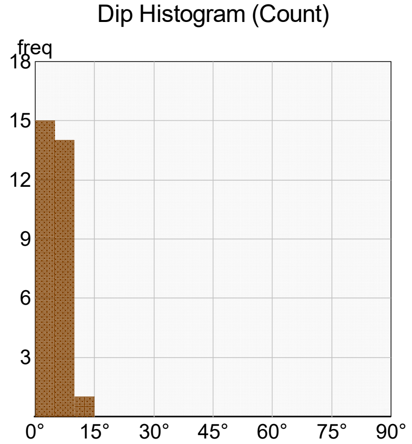
	Counts	Dip[deg]	Azi[deg]
Mean	30	5.20	293.55
■	30	5.20	293.55

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	293.55
Counts	30.00
■	30

Dip Angle Histogram of Bedding



Counts:	30.00
Mean (2D):	5.20
Std.Dev.:	2.41
Min:	1.79
Max:	14.54

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LB-R-115 - BEDROCK STRUCTURE STATISTICS PLOTS

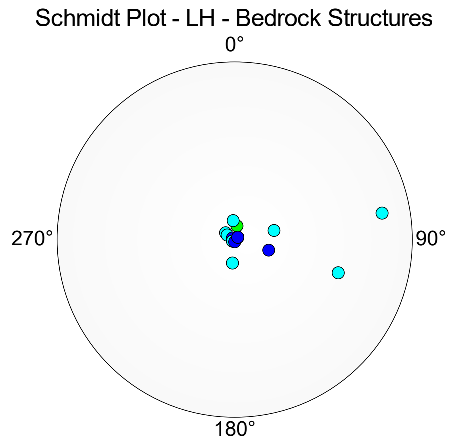
DATE(S) LOGGED: April 16, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	ORIENTATION REFERENCE:	True North
LOCATION:	Clay, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

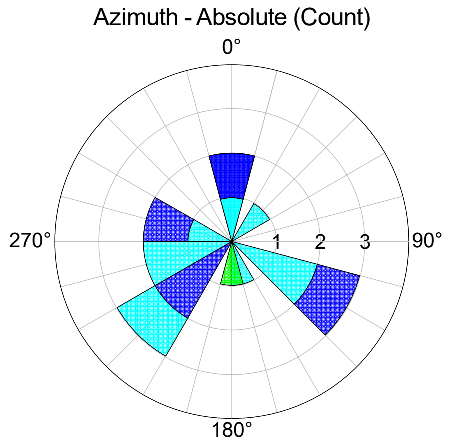
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



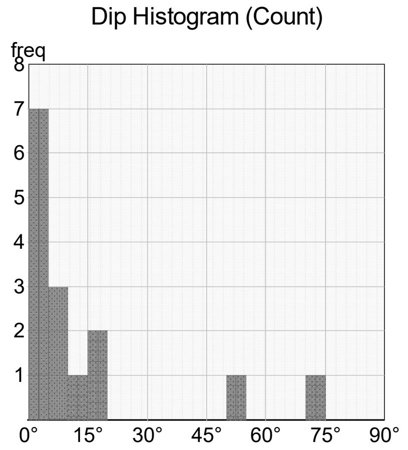
	Counts	Dip[deg]	Azi[deg]
Mean	15	12.90	227.08
●	1	6.60	191.10
●	9	18.62	221.33
●	5	4.65	251.53

Dip Azimuth Rose Diagram of Bedrock Fractures



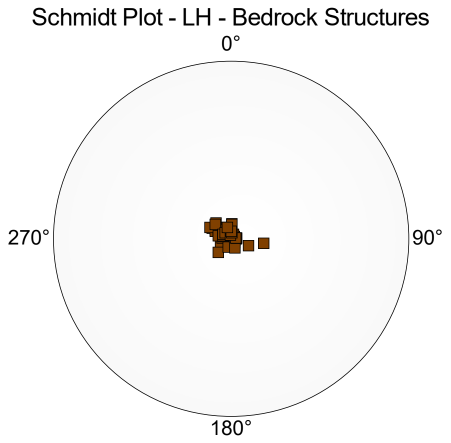
Components	Azimuth
Mean (2D)	227.08
Counts	15.00
●	1
●	9
●	5

Dip Angle Histogram of Bedrock Fractures



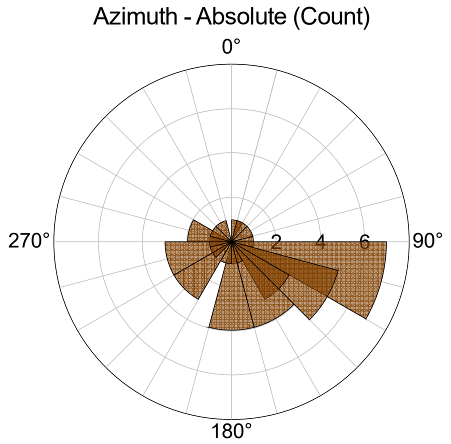
Counts:	15.00
Mean (2D):	12.90
Std.Dev.:	19.91
Min:	1.37
Max:	73.47

Stereogram - Lower Hemisphere of Bedding



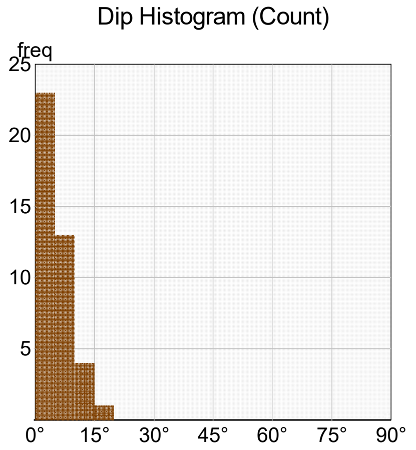
	Counts	Dip[deg]	Azi[deg]
Mean	41	5.45	159.47
■	41	5.45	159.47

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	159.47
Counts	41.00
■	41

Dip Angle Histogram of Bedding



Counts:	41.00
Mean (2D):	5.45
Std.Dev.:	3.07
Min:	1.80
Max:	15.14

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LB-R-117 - BEDROCK STRUCTURE STATISTICS PLOTS

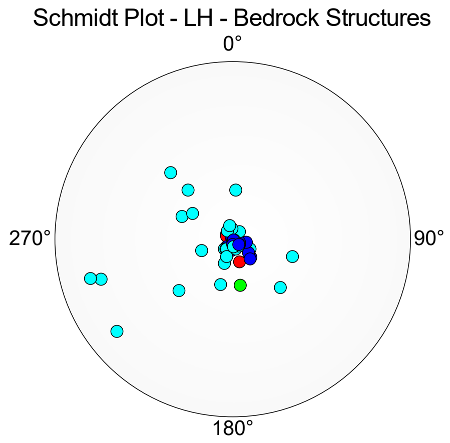
DATE(S) LOGGED: April 14, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	ORIENTATION REFERENCE:	True North
LOCATION:	Clay, New York	MAGNETIC DECLINATION:	12° West

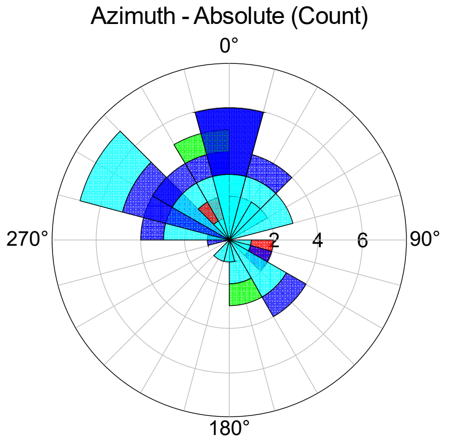
STRUCTURE LEGEND

● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

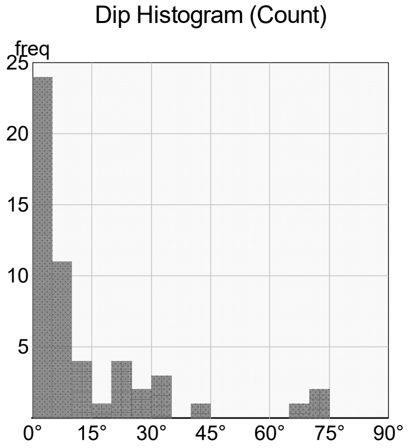
Stereogram - Lower Hemisphere of Bedrock Fractures	Dip Azimuth Rose Diagram of Bedrock Fractures	Dip Angle Histogram of Bedrock Fractures	Stereogram - Lower Hemisphere of Bedding	Dip Azimuth Rose Diagram of Bedding	Dip Angle Histogram of Bedding



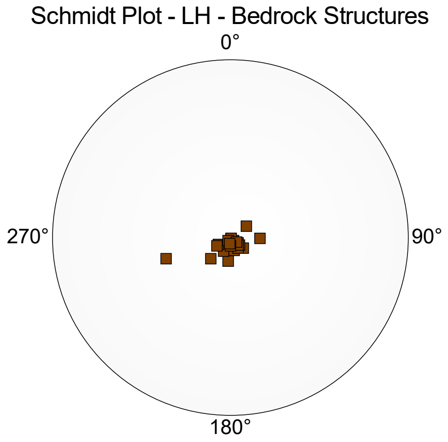
	Counts	Dip[deg]	Azi[deg]
Mean	53	12.86	2.11
●	2	12.01	77.79
●	2	7.25	49.43
●	15	5.05	334.49
●	34	16.90	19.44



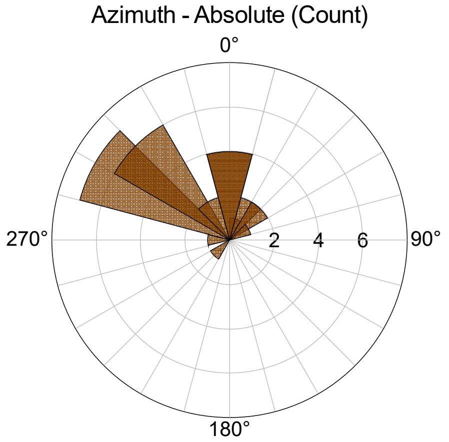
Components	Azimuth
Mean (2D)	2.11
Counts	53.00
●	2
●	2
●	15
●	34



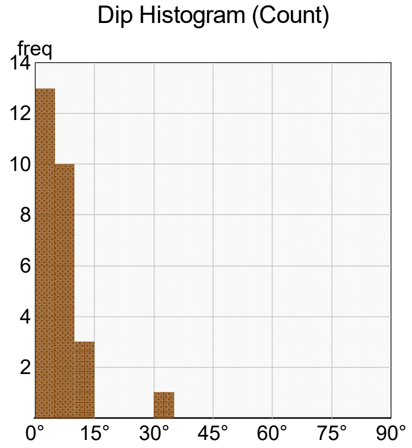
Counts:	53.00
Mean (2D):	12.86
Std.Dev.:	16.72
Min:	0.90
Max:	72.30



	Counts	Dip[deg]	Azi[deg]
Mean	27	6.38	339.25
■	27	6.38	339.25



Components	Azimuth
Mean (2D)	339.25
Counts	27.00
■	27



Counts:	27.00
Mean (2D):	6.38
Std.Dev.:	5.93
Min:	0.90
Max:	31.35

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LB-R-127 - BEDROCK STRUCTURE STATISTICS PLOTS

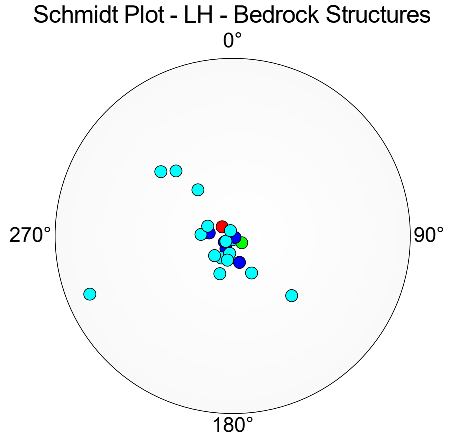
DATE(S) LOGGED: April 14, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	ORIENTATION REFERENCE:	True North
LOCATION:	Clay, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

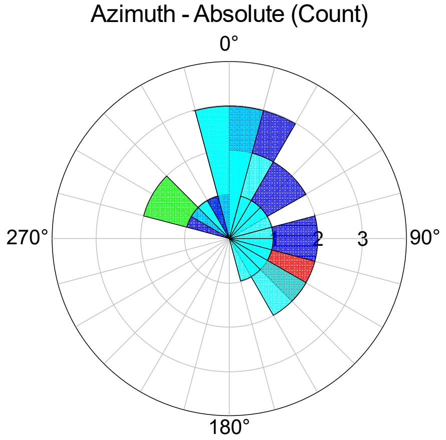
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



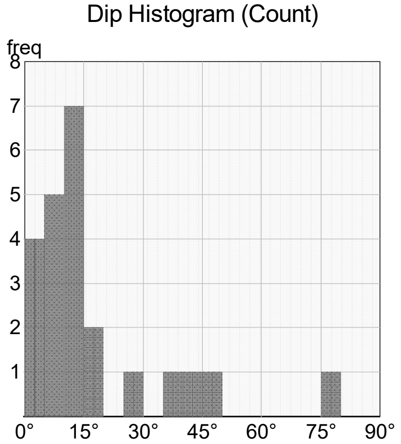
	Counts	Dip[deg]	Azi[deg]
Mean	23	16.67	47.15
●	5	7.41	22.45
●	16	21.10	56.18
●	1	5.47	306.59
●	1	6.68	131.64

Dip Azimuth Rose Diagram of Bedrock Fractures



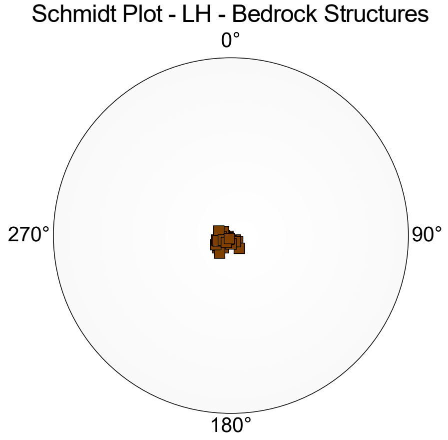
Components	Azimuth
Mean (2D)	47.15
Counts	23.00
●	5
●	16
●	1
●	1

Dip Angle Histogram of Bedrock Fractures



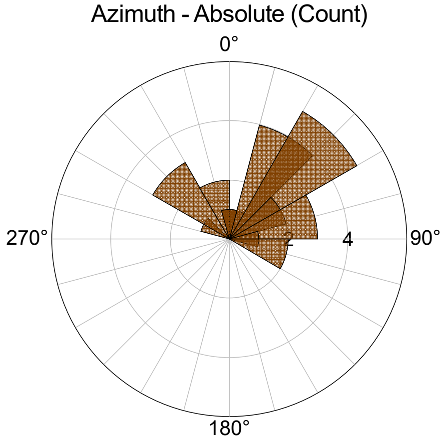
Counts:	23.00
Mean (2D):	16.67
Std.Dev.:	17.23
Min:	1.33
Max:	76.12

Stereogram - Lower Hemisphere of Bedding



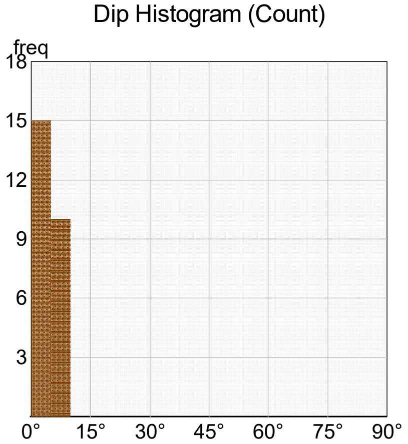
	Counts	Dip[deg]	Azi[deg]
Mean	25	4.86	40.78
■	25	4.86	40.78

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	40.78
Counts	25.00
■	25

Dip Angle Histogram of Bedding



Counts:	25.00
Mean (2D):	4.86
Std.Dev.:	2.25
Min:	1.50
Max:	9.51

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LB-R-128 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: April 17, 2025

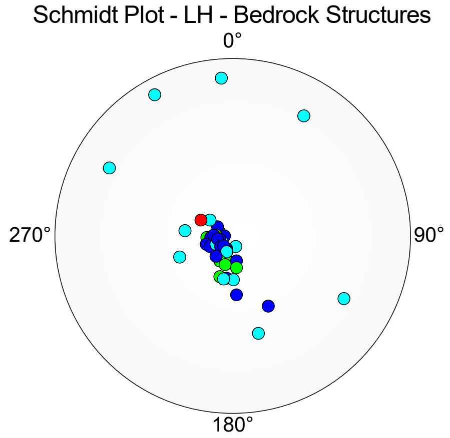
CLIENT: Langan
PROJECT: Micron – New York Manufacturing Facility
LOCATION: Clay, New York

HRGS FILE: 24RG87
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

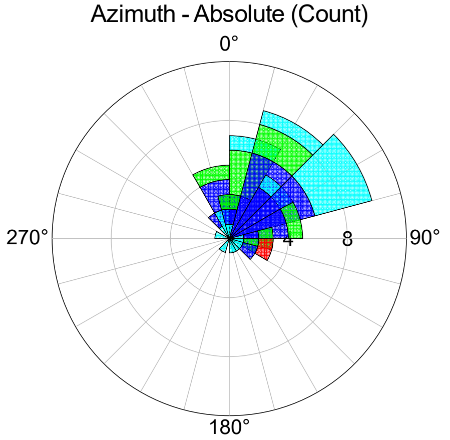
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



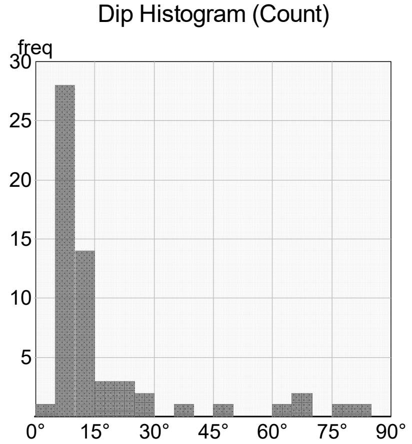
	Counts	Dip[deg]	Azi[deg]
Mean	58	16.55	50.49
●	29	10.58	49.15
●	18	30.43	57.01
●	10	11.61	41.38
●	1	16.30	116.84

Dip Azimuth Rose Diagram of Bedrock Fractures



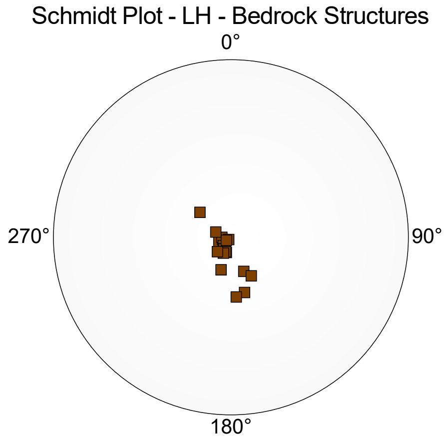
Components	Azimuth
Mean (2D)	50.49
Counts	58.00
●	29
●	18
●	10
●	1

Dip Angle Histogram of Bedrock Fractures



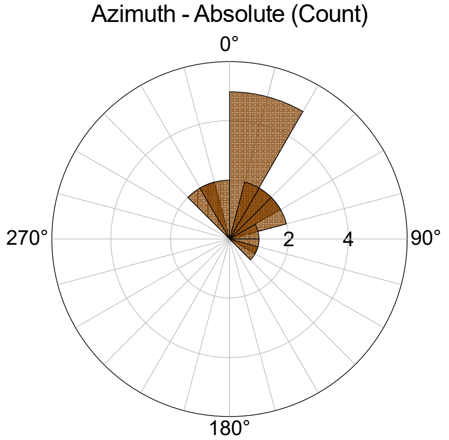
Counts:	58.00
Mean (2D):	16.55
Std.Dev.:	18.00
Min:	3.86
Max:	80.41

Stereogram - Lower Hemisphere of Bedding



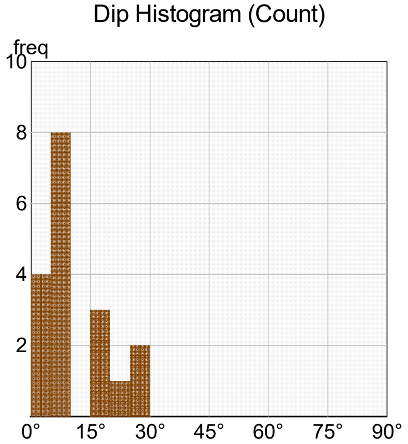
	Counts	Dip[deg]	Azi[deg]
Mean	18	10.82	37.24
■	18	10.82	37.24

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	37.24
Counts	18.00
■	18

Dip Angle Histogram of Bedding



Counts:	18.00
Mean (2D):	10.82
Std.Dev.:	7.79
Min:	1.50
Max:	27.64

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LB-R-129 - BEDROCK STRUCTURE STATISTICS PLOTS

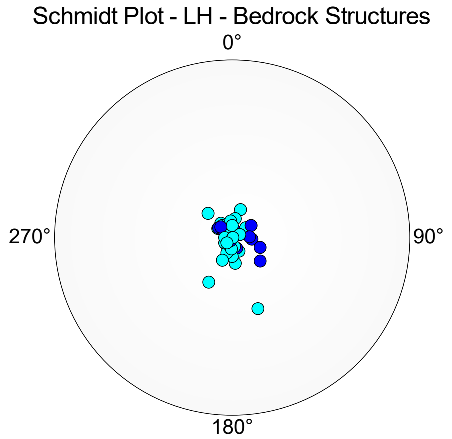
DATE(S) LOGGED: April 16, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	ORIENTATION REFERENCE:	True North
LOCATION:	Clay, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

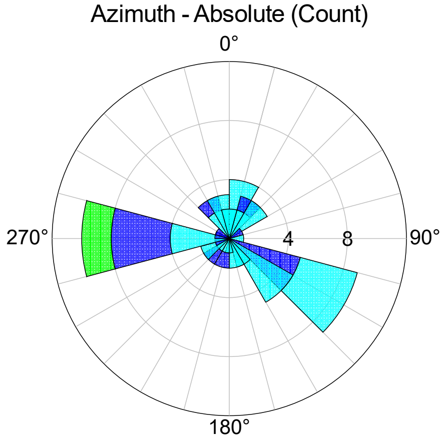
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



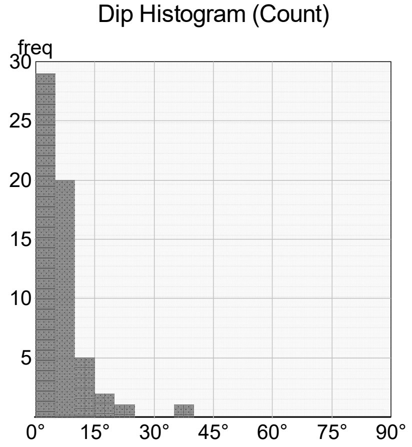
	Counts	Dip[deg]	Azi[deg]
Mean	58	6.36	154.78
●	39	6.71	81.75
●	2	0.55	272.15
●	17	6.26	245.87

Dip Azimuth Rose Diagram of Bedrock Fractures



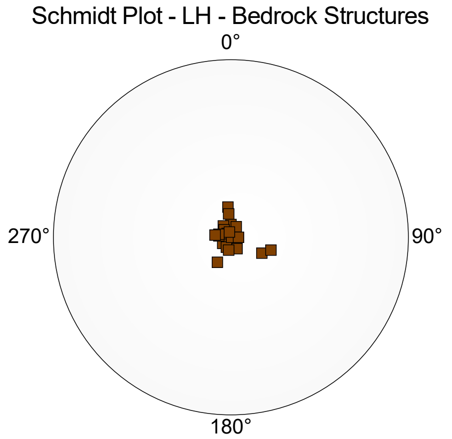
Components	Azimuth
Mean (2D)	154.78
Counts	58.00
●	39
●	2
●	17

Dip Angle Histogram of Bedrock Fractures



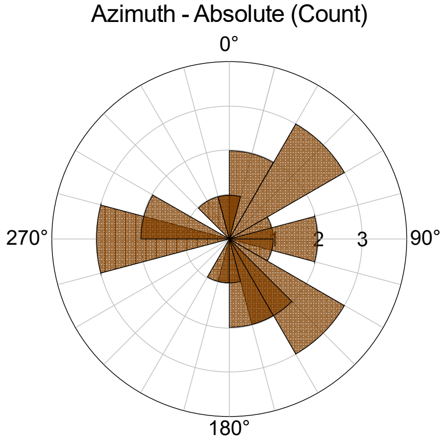
Counts:	58.00
Mean (2D):	6.36
Std.Dev.:	5.91
Min:	0.50
Max:	35.10

Stereogram - Lower Hemisphere of Bedding



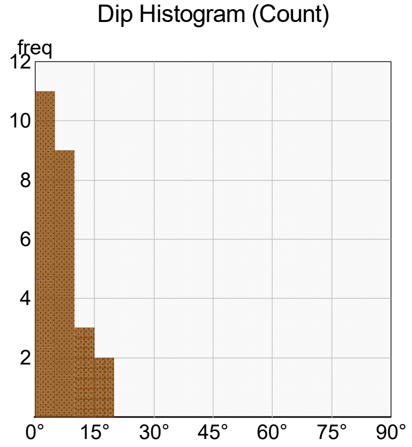
	Counts	Dip[deg]	Azi[deg]
Mean	25	6.33	115.55
■	25	6.33	115.55

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	115.55
Counts	25.00
■	25

Dip Angle Histogram of Bedding



Counts:	25.00
Mean (2D):	6.33
Std.Dev.:	4.76
Min:	0.60
Max:	19.67

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LB-X-002 - BEDROCK STRUCTURE STATISTICS PLOTS

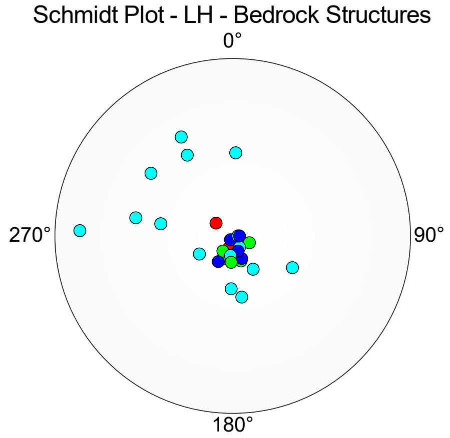
DATE(S) LOGGED: April 14, 2025

CLIENT:	Langan	HRGS FILE:	24RG87
PROJECT:	Micron – New York Manufacturing Facility	ORIENTATION REFERENCE:	True North
LOCATION:	Clay, New York	MAGNETIC DECLINATION:	12° West

STRUCTURE LEGEND

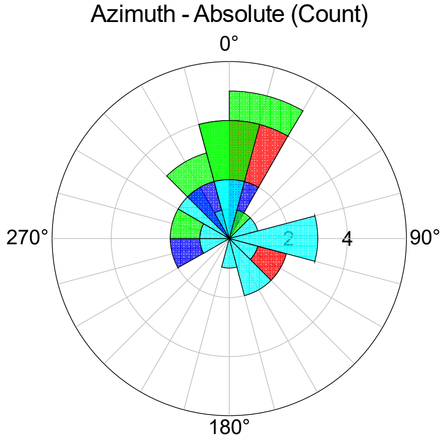
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



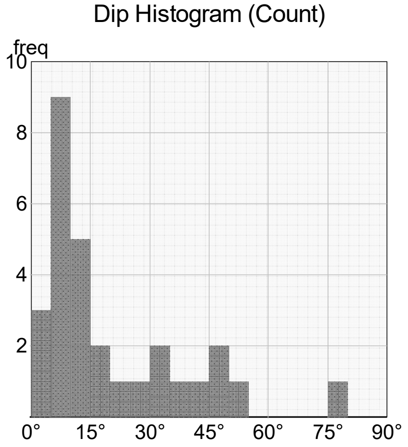
	Counts	Dip[deg]	Azi[deg]
Mean	29	20.24	16.02
●	3	7.86	47.71
●	6	9.74	0.49
●	5	7.66	348.47
●	15	31.72	55.40

Dip Azimuth Rose Diagram of Bedrock Fractures



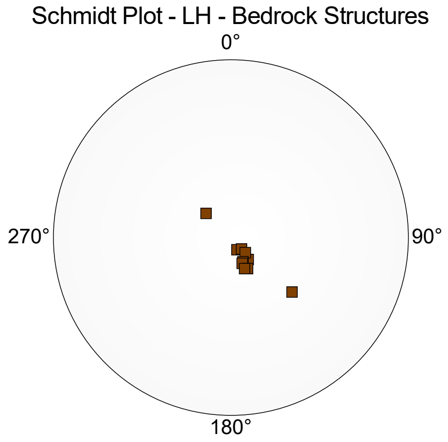
Components	Azimuth
Mean (2D)	16.02
Counts	29.00
●	3
●	6
●	5
●	15

Dip Angle Histogram of Bedrock Fractures



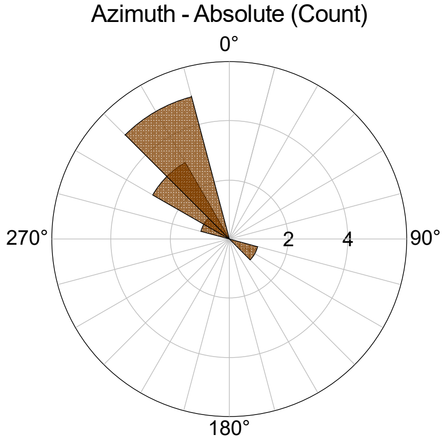
Counts:	29.00
Mean (2D):	20.24
Std.Dev.:	18.09
Min:	2.30
Max:	75.20

Stereogram - Lower Hemisphere of Bedding



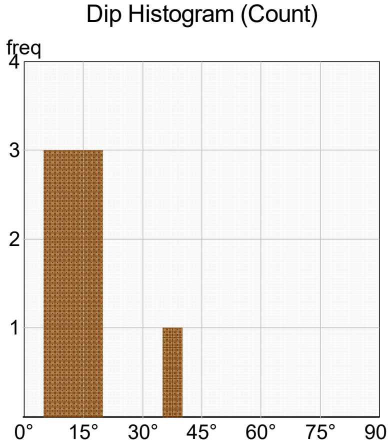
	Counts	Dip[deg]	Azi[deg]
Mean	10	14.90	327.93
■	10	14.90	327.93

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	327.93
Counts	10.00
■	10

Dip Angle Histogram of Bedding



Counts:	10.00
Mean (2D):	14.90
Std.Dev.:	8.44
Min:	6.48
Max:	38.31

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LB-X-006 - BEDROCK STRUCTURE STATISTICS PLOTS

DATE(S) LOGGED: April 14, 2025

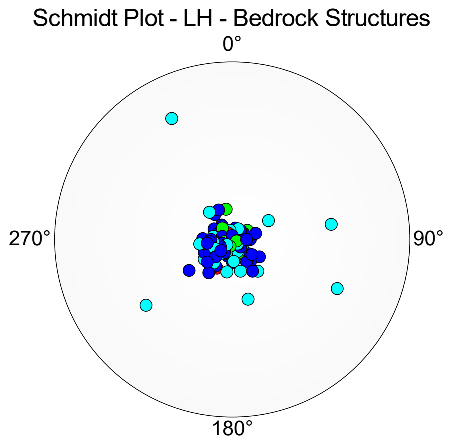
CLIENT: Langan
PROJECT: Micron – New York Manufacturing Facility
LOCATION: Clay, New York

HRGS FILE: 24RG87
ORIENTATION REFERENCE: True North
MAGNETIC DECLINATION: 12° West

STRUCTURE LEGEND

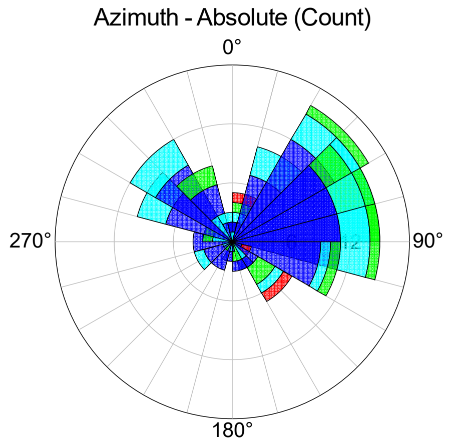
● Fracture Rank 1 ● Fracture Rank 2 ● Fracture Rank 3 ● Fracture Rank 4 ■ Bedding

Stereogram - Lower Hemisphere of Bedrock Fractures



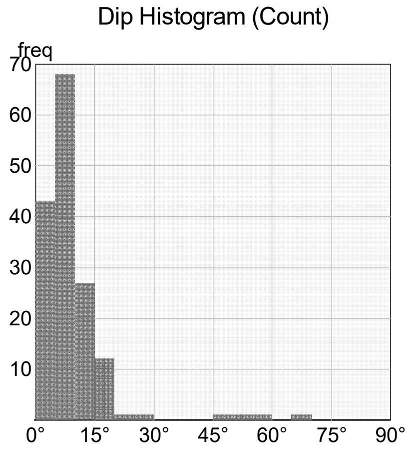
	Counts	Dip[deg]	Azi[deg]
Mean	156	9.02	55.56
●	103	7.78	58.17
●	34	14.73	22.53
●	16	5.69	88.73
●	3	7.03	107.02

Dip Azimuth Rose Diagram of Bedrock Fractures



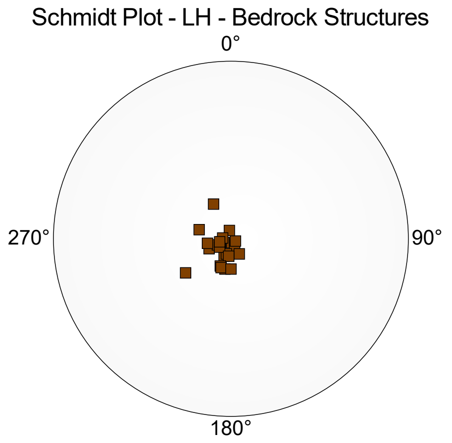
Components	Azimuth
Mean (2D)	55.56
Counts	156.00
●	103
●	34
●	16
●	3

Dip Angle Histogram of Bedrock Fractures



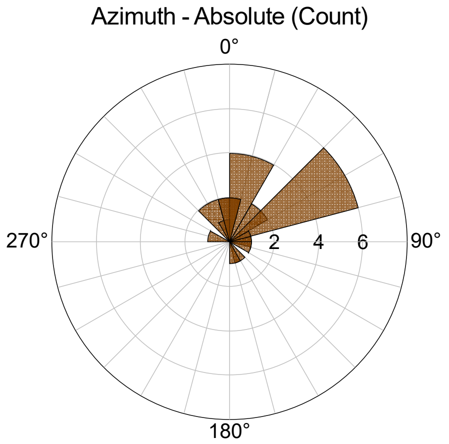
Counts:	156.00
Mean (2D):	9.02
Std.Dev.:	8.64
Min:	1.46
Max:	65.45

Stereogram - Lower Hemisphere of Bedding



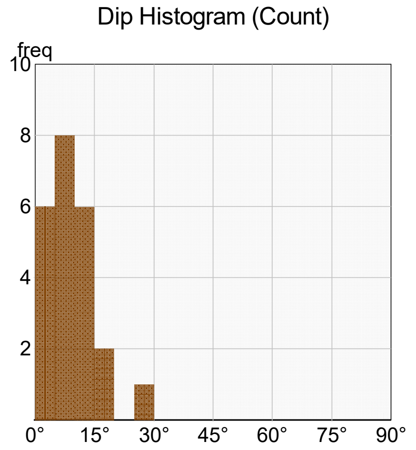
	Counts	Dip[deg]	Azi[deg]
Mean	23	9.51	45.46
■	23	9.51	45.46

Dip Azimuth Rose Diagram of Bedding



Components	Azimuth
Mean (2D)	45.46
Counts	23.00
■	23

Dip Angle Histogram of Bedding



Counts:	23.00
Mean (2D):	9.51
Std.Dev.:	5.64
Min:	2.54
Max:	26.51

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LB-R-065 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 14, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-R-064 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
24.4	350	6	Fracture Rank 2	not detected
24.5	336	8	Fracture Rank 2	not detected
24.6	76	7	Fracture Rank 2	not detected
24.7	213	5	Bedding	not detected
24.9	134	40	Fracture Rank 2	not detected
25.0	61	4	Fracture Rank 2	not detected
25.0	74	3	Fracture Rank 2	not detected
25.0	142	79	Fracture Rank 1	not detected
25.4	315	33	Fracture Rank 1	not detected
25.4	294	19	Bedding	not detected
25.5	299	13	Bedding	not detected
25.6	305	5	Fracture Rank 1	not detected
25.6	122	45	Fracture Rank 1	not detected
25.7	284	15	Fracture Rank 1	not detected
25.8	318	13	Fracture Rank 2	not detected
26.2	143	18	Fracture Rank 1	not detected
26.3	329	4	Fracture Rank 1	not detected
26.6	338	8	Fracture Rank 1	not detected
26.7	189	5	Fracture Rank 1	not detected
26.8	112	4	Fracture Rank 1	not detected
26.8	204	5	Fracture Rank 1	not detected
27.0	354	4	Fracture Rank 2	not detected
27.2	330	5	Fracture Rank 3	not detected
27.3	304	1	Bedding	not detected
27.4	297	4	Fracture Rank 4	0.46
27.5	277	8	Fracture Rank 2	not detected
27.9	307	9	Bedding	not detected
28.0	305	14	Fracture Rank 1	not detected
28.1	308	9	Bedding	not detected
28.4	347	3	Bedding	not detected
28.6	93	2	Fracture Rank 1	not detected
28.9	312	7	Bedding	not detected

LB-R-065 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
29.2	2	10	Fracture Rank 1	not detected
29.3	77	3	Fracture Rank 1	not detected
29.5	336	6	Bedding	not detected
30.4	101	38	Fracture Rank 1	not detected
30.5	141	20	Fracture Rank 1	not detected
30.6	289	6	Fracture Rank 1	not detected
30.7	343	6	Fracture Rank 2	not detected
30.8	338	7	Fracture Rank 1	not detected
30.9	345	6	Bedding	not detected
31.1	94	4	Fracture Rank 4	0.18
31.3	100	2	Fracture Rank 4	0.18
31.4	59	7	Fracture Rank 1	not detected
31.6	271	2	Fracture Rank 2	not detected
31.7	241	6	Fracture Rank 2	not detected
31.7	257	4	Fracture Rank 2	not detected
31.8	186	4	Fracture Rank 1	not detected
32.3	320	11	Bedding	not detected
32.4	321	6	Bedding	not detected
32.9	79	9	Bedding	not detected
33.0	59	5	Bedding	not detected
33.5	264	7	Fracture Rank 2	not detected
34.1	13	8	Bedding	not detected
34.2	337	2	Bedding	not detected
35.0	213	2	Bedding	not detected
35.2	319	1	Bedding	not detected
35.4	290	4	Bedding	not detected
35.8	300	3	Bedding	not detected
36.0	309	3	Bedding	not detected
36.2	96	6	Bedding	not detected
36.4	157	3	Bedding	not detected
36.5	264	2	Bedding	not detected
36.9	320	1	Bedding	not detected
37.1	318	12	Bedding	not detected
37.2	306	13	Bedding	not detected
37.5	320	9	Bedding	not detected
38.0	153	7	Fracture Rank 1	not detected
38.1	144	7	Fracture Rank 2	not detected
38.3	119	8	Fracture Rank 3	not detected
38.7	134	5	Bedding	not detected
38.8	126	9	Bedding	not detected
39.2	131	9	Bedding	not detected
39.4	158	11	Bedding	not detected
40.2	52	4	Bedding	not detected
40.6	17	4	Bedding	not detected
40.6	67	73	Fracture Rank 1	not detected
40.8	57	33	Fracture Rank 1	not detected
41.2	238	8	Bedding	not detected

LB-R-064 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
41.4	226	4	Bedding	not detected
41.6	217	7	Bedding	not detected

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LB-R-082 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 17, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-R-082 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
28.6	294	6	Bedding	not detected
28.7	54	7	Fracture Rank 2	not detected
28.8	32	4	Bedding	not detected
28.9	121	4	Fracture Rank 2	not detected
29.2	136	9	Fracture Rank 2	not detected
29.2	313	64	Fracture Rank 2	not detected
29.5	114	5	Fracture Rank 1	not detected
29.5	78	4	Fracture Rank 1	not detected
29.6	312	3	Fracture Rank 2	not detected
29.7	323	3	Bedding	not detected
29.8	137	9	Fracture Rank 2	not detected
29.8	132	65	Fracture Rank 3	not detected
29.9	305	7	Fracture Rank 3	0.09
29.9	93	24	Fracture Rank 4	0.29
30.0	125	64	Fracture Rank 3	not detected
30.1	310	25	Fracture Rank 4	0.25
30.2	333	4	Fracture Rank 2	not detected
30.3	10	11	Fracture Rank 2	not detected
30.4	296	36	Fracture Rank 4	0.24
30.6	113	22	Fracture Rank 2	not detected
30.6	269	28	Fracture Rank 4	0.14
30.8	275	26	Fracture Rank 4	0.23
30.9	282	25	Fracture Rank 3	not detected
31.1	278	12	Fracture Rank 2	not detected
31.2	282	22	Fracture Rank 2	not detected
31.2	295	12	Fracture Rank 2	not detected
31.3	63	6	Fracture Rank 2	not detected
31.4	299	75	Fracture Rank 2	not detected
31.4	128	6	Fracture Rank 2	not detected
31.4	113	82	Fracture Rank 3	not detected
31.4	127	19	Fracture Rank 2	not detected
31.5	129	18	Fracture Rank 2	not detected

LB-R-082 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
31.8	11	6	Bedding	not detected
31.8	130	11	Fracture Rank 2	not detected
32.0	55	10	Fracture Rank 2	not detected
32.1	75	13	Fracture Rank 2	not detected
32.3	282	7	Fracture Rank 3	not detected
32.4	132	75	Fracture Rank 4	0.07
32.4	269	8	Fracture Rank 2	not detected
32.5	70	7	Fracture Rank 2	not detected
32.6	134	11	Fracture Rank 3	not detected
32.8	114	34	Fracture Rank 4	0.17
32.9	121	12	Fracture Rank 2	not detected
33.0	138	62	Fracture Rank 3	not detected
33.1	64	2	Fracture Rank 2	not detected
33.3	127	13	Fracture Rank 2	not detected
33.5	315	9	Fracture Rank 1	not detected
33.5	238	63	Fracture Rank 1	not detected
33.5	337	12	Fracture Rank 2	not detected
33.6	55	7	Fracture Rank 2	not detected
33.8	149	5	Fracture Rank 2	not detected
33.8	219	4	Bedding	not detected
33.9	143	86	Fracture Rank 4	0.03
33.9	336	14	Bedding	not detected
34.0	329	12	Fracture Rank 1	not detected
34.0	354	3	Bedding	not detected
34.1	51	7	Fracture Rank 2	not detected
34.2	33	16	Fracture Rank 2	not detected
34.2	17	11	Fracture Rank 2	not detected
34.4	138	11	Bedding	not detected
34.4	127	11	Fracture Rank 1	not detected
34.6	146	13	Bedding	not detected
34.7	137	3	Fracture Rank 2	not detected
34.8	138	13	Fracture Rank 2	not detected
34.8	147	20	Bedding	not detected
34.9	323	78	Fracture Rank 2	not detected
35.0	327	17	Bedding	not detected
35.2	329	9	Bedding	not detected
35.5	320	10	Fracture Rank 2	not detected
35.6	291	4	Bedding	not detected
36.1	277	10	Bedding	not detected
36.2	296	10	Bedding	not detected
36.2	271	7	Bedding	not detected
36.3	244	4	Fracture Rank 2	not detected
36.5	266	4	Bedding	not detected
36.6	128	7	Bedding	not detected
36.7	150	5	Bedding	not detected
36.8	250	5	Fracture Rank 2	not detected
37.2	135	3	Bedding	not detected

LB-R-082 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
37.5	59	4	Bedding	not detected
37.8	287	4	Bedding	not detected
37.9	295	3	Fracture Rank 1	not detected
38.0	113	1	Fracture Rank 1	not detected
38.1	86	5	Fracture Rank 1	not detected
38.2	116	5	Fracture Rank 2	not detected
38.2	104	7	Bedding	not detected
38.4	45	3	Fracture Rank 1	not detected
38.5	23	1	Bedding	not detected
38.6	45	5	Fracture Rank 1	not detected
38.6	330	10	Fracture Rank 2	not detected
38.7	89	5	Fracture Rank 2	not detected
38.8	304	3	Fracture Rank 2	not detected
38.9	142	83	Fracture Rank 2	not detected
39.0	116	3	Fracture Rank 2	not detected
39.0	117	3	Bedding	not detected
39.1	62	4	Fracture Rank 1	not detected
39.2	21	4	Fracture Rank 2	not detected
39.3	41	4	Fracture Rank 3	not detected
39.4	34	4	Fracture Rank 2	not detected
39.5	34	7	Fracture Rank 2	not detected
39.6	63	8	Fracture Rank 1	not detected
39.9	133	11	Bedding	not detected
40.0	135	13	Bedding	not detected
40.3	148	3	Bedding	not detected
40.4	351	1	Fracture Rank 4	0.11
40.8	288	12	Fracture Rank 2	not detected
40.8	298	5	Fracture Rank 1	not detected
41.0	357	8	Fracture Rank 2	not detected
41.1	138	2	Fracture Rank 4	0.11
41.3	88	46	Fracture Rank 2	not detected
41.4	91	7	Fracture Rank 1	not detected
41.5	103	7	Bedding	not detected
41.6	108	7	Fracture Rank 2	not detected
41.7	73	25	Fracture Rank 1	not detected
41.8	314	7	Fracture Rank 4	0.16
41.9	272	3	Fracture Rank 3	not detected
42.0	14	3	Bedding	not detected
42.2	77	5	Bedding	not detected
42.3	80	4	Bedding	not detected
42.5	90	19	Fracture Rank 1	not detected
42.6	74	67	Fracture Rank 1	not detected
42.6	98	14	Bedding	not detected

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LB-R-104 - TABLE OF BEDROCK STRUCTURES	
CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 16, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-R-104 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
44.0	313	5	Bedding	not detected
44.1	343	7	Fracture Rank 4	not detected
44.2	75	3	Fracture Rank 3	not detected
44.2	102	59	Fracture Rank 1	not detected
44.3	199	3	Fracture Rank 2	not detected
44.4	288	2	Fracture Rank 2	not detected
44.5	297	3	Bedding	not detected
44.6	202	5	Fracture Rank 2	not detected
44.6	234	4	Fracture Rank 2	not detected
44.7	277	3	Fracture Rank 2	not detected
44.8	251	4	Fracture Rank 2	not detected
44.9	254	4	Fracture Rank 2	not detected
45.0	252	4	Fracture Rank 4	0.17
45.0	271	7	Fracture Rank 2	not detected
45.1	312	9	Fracture Rank 2	not detected
45.2	303	13	Fracture Rank 3	not detected
45.2	20	74	Fracture Rank 1	not detected
45.3	323	4	Fracture Rank 2	not detected
45.4	328	8	Fracture Rank 1	not detected
45.5	278	3	Fracture Rank 2	not detected
45.6	314	3	Fracture Rank 1	not detected
45.7	323	6	Fracture Rank 3	not detected
45.9	6	3	Fracture Rank 2	not detected
46.0	324	2	Fracture Rank 3	not detected
46.1	274	5	Fracture Rank 2	not detected
46.1	242	67	Fracture Rank 1	not detected
46.2	262	7	Fracture Rank 4	0.68
46.3	238	6	Fracture Rank 2	not detected
46.4	20	4	Fracture Rank 1	not detected
46.5	111	3	Fracture Rank 1	not detected
46.6	8	19	Fracture Rank 2	not detected
46.8	329	5	Bedding	not detected

LB-R-104 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
46.8	347	56	Fracture Rank 1	not detected
47.0	280	5	Fracture Rank 4	0.55
47.1	339	9	Fracture Rank 1	not detected
47.1	313	3	Fracture Rank 2	not detected
47.4	282	2	Fracture Rank 4	0.49
47.4	318	55	Fracture Rank 2	not detected
47.4	308	71	Fracture Rank 3	not detected
47.6	141	37	Fracture Rank 1	not detected
47.7	150	6	Fracture Rank 3	not detected
47.7	318	35	Fracture Rank 1	not detected
47.9	341	2	Bedding	not detected
48.0	334	4	Fracture Rank 4	1.17
48.1	332	8	Fracture Rank 2	not detected
48.2	246	9	Fracture Rank 4	0.24
48.4	274	38	Fracture Rank 3	not detected
48.4	124	64	Fracture Rank 3	not detected
48.4	251	4	Fracture Rank 4	0.25
48.5	302	4	Fracture Rank 3	not detected
48.7	125	8	Fracture Rank 2	not detected
48.8	138	7	Fracture Rank 1	not detected
48.9	258	7	Bedding	not detected
49.2	219	25	Fracture Rank 1	not detected
49.2	297	62	Fracture Rank 1	not detected
49.4	295	13	Fracture Rank 4	0.23
49.5	305	21	Fracture Rank 1	not detected
49.5	307	14	Fracture Rank 3	not detected
49.6	322	9	Fracture Rank 1	not detected
49.8	348	8	Fracture Rank 2	not detected
49.9	27	17	Fracture Rank 1	not detected
50.0	34	10	Fracture Rank 1	not detected
50.0	26	11	Fracture Rank 2	not detected
50.2	329	1	Fracture Rank 4	0.27
50.3	343	18	Fracture Rank 1	not detected
50.3	281	5	Bedding	not detected
50.5	357	10	Bedding	not detected
50.7	131	15	Fracture Rank 1	not detected
50.7	332	48	Fracture Rank 1	not detected
50.8	313	5	Bedding	not detected
50.9	291	6	Bedding	not detected
51.0	272	7	Fracture Rank 4	0.37
51.2	89	4	Fracture Rank 1	not detected
51.2	35	6	Bedding	not detected
51.3	293	1	Fracture Rank 2	not detected
51.3	219	5	Fracture Rank 1	not detected
51.5	142	4	Fracture Rank 2	not detected
51.7	356	5	Fracture Rank 4	0.19
51.8	323	5	Bedding	not detected

LB-R-104 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
51.9	279	4	Fracture Rank 1	not detected
52.1	286	4	Fracture Rank 2	not detected
52.1	292	68	Fracture Rank 1	not detected
52.2	136	39	Fracture Rank 3	not detected
52.3	342	1	Fracture Rank 2	not detected
52.3	178	38	Fracture Rank 3	not detected
52.3	293	27	Fracture Rank 3	not detected
52.4	47	9	Fracture Rank 4	0.19
52.5	129	2	Bedding	not detected
52.6	330	44	Fracture Rank 4	0.12
52.7	343	3	Fracture Rank 2	not detected
52.8	311	5	Fracture Rank 3	not detected
52.9	235	26	Fracture Rank 1	not detected
53.1	28	72	Fracture Rank 1	not detected
53.2	270	2	Fracture Rank 2	not detected
53.3	351	2	Fracture Rank 4	0.58
53.4	3	4	Bedding	not detected
53.7	24	18	Fracture Rank 1	not detected
53.8	200	2	Fracture Rank 2	not detected
53.8	319	36	Fracture Rank 1	not detected
53.9	190	4	Fracture Rank 1	not detected
54.0	311	4	Fracture Rank 4	0.22
54.2	284	4	Bedding	not detected
54.4	338	5	Bedding	not detected
54.4	263	59	Fracture Rank 1	not detected
54.6	285	5	Bedding	not detected
54.6	346	4	Fracture Rank 4	0.33
54.9	120	4	Fracture Rank 2	not detected
55.2	209	6	Fracture Rank 2	not detected
55.3	218	3	Bedding	not detected
55.4	75	54	Fracture Rank 1	not detected
55.5	294	4	Bedding	not detected
55.8	109	4	Fracture Rank 2	not detected
55.8	136	4	Fracture Rank 3	not detected
55.9	266	5	Fracture Rank 1	not detected
56.0	53	41	Fracture Rank 1	not detected
56.1	295	4	Bedding	not detected
56.5	270	6	Bedding	not detected
56.7	233	8	Bedding	not detected
56.9	137	8	Fracture Rank 1	not detected
57.0	240	6	Bedding	not detected
57.1	216	4	Fracture Rank 1	not detected
57.1	245	7	Bedding	not detected
57.3	214	9	Fracture Rank 2	not detected
57.6	252	6	Fracture Rank 1	not detected
57.6	225	15	Bedding	not detected
57.8	350	3	Bedding	not detected

LB-R-104 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
58.1	203	11	Fracture Rank 1	not detected
58.2	156	4	Bedding	not detected
58.4	33	4	Bedding	not detected
58.6	2	2	Bedding	not detected
58.7	198	5	Bedding	not detected
58.8	195	7	Bedding	not detected

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LB-R-115 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 16, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-R-115 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
19.7	263	3	Bedding	not detected
21.9	165	5	Bedding	not detected
22.1	191	7	Fracture Rank 3	not detected
22.3	313	3	Bedding	not detected
22.5	126	5	Fracture Rank 1	not detected
22.6	123	4	Fracture Rank 1	not detected
22.8	129	2	Fracture Rank 2	not detected
22.9	231	2	Bedding	not detected
23.0	231	2	Bedding	not detected
23.3	230	2	Fracture Rank 1	not detected
23.5	120	10	Bedding	not detected
23.8	152	6	Bedding	not detected
23.9	120	9	Bedding	not detected
24.1	129	6	Bedding	not detected
24.3	135	5	Bedding	not detected
24.7	296	2	Bedding	not detected
24.9	136	10	Bedding	not detected
25.1	116	8	Bedding	not detected
25.2	126	7	Bedding	not detected
25.4	121	7	Bedding	not detected
25.5	61	6	Bedding	not detected
25.7	95	4	Bedding	not detected
26.0	108	4	Bedding	not detected
26.3	43	9	Bedding	not detected
26.6	119	11	Bedding	not detected
27.4	20	4	Bedding	not detected
28.1	132	10	Bedding	not detected
28.5	7	11	Fracture Rank 1	not detected
28.5	49	1	Fracture Rank 1	not detected
28.6	106	6	Bedding	not detected
28.6	111	4	Bedding	not detected
28.7	120	4	Bedding	not detected

LB-R-115 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
28.8	1	1	Fracture Rank 2	not detected
29.0	231	2	Fracture Rank 2	not detected
29.2	336	5	Bedding	not detected
29.5	232	2	Fracture Rank 2	not detected
29.7	291	9	Bedding	not detected
29.9	279	15	Bedding	not detected
30.1	257	19	Fracture Rank 1	not detected
30.3	288	52	Fracture Rank 1	not detected
30.4	288	17	Fracture Rank 2	not detected
30.6	261	3	Bedding	not detected
30.7	259	3	Bedding	not detected
31.0	231	2	Bedding	not detected
31.1	183	2	Bedding	not detected
31.3	184	7	Bedding	not detected
31.4	183	7	Bedding	not detected
31.6	205	3	Bedding	not detected
31.7	254	2	Bedding	not detected
31.8	137	4	Bedding	not detected
32.0	164	2	Bedding	not detected
32.2	191	3	Bedding	not detected
32.3	177	4	Bedding	not detected
32.5	160	6	Bedding	not detected
33.8	175	9	Fracture Rank 1	not detected
35.8	260	73	Fracture Rank 1	not detected

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LB-R-117 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 14, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-R-117 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
14.0	165	2	Fracture Rank 3	0.00
14.2	342	11	Fracture Rank 4	0.25
14.3	314	12	Fracture Rank 2	0.00
14.4	131	4	Fracture Rank 2	0.00
14.5	117	3	Fracture Rank 4	1.85
14.7	296	6	Fracture Rank 1	0.00
14.8	303	4	Bedding	0.00
14.9	310	8	Bedding	0.00
15.0	300	9	Fracture Rank 1	0.00
15.1	143	1	Fracture Rank 2	0.00
15.2	308	6	Bedding	0.00
15.3	38	5	Fracture Rank 2	0.00
15.4	312	10	Fracture Rank 2	0.00
15.5	283	7	Fracture Rank 2	0.00
15.7	320	5	Bedding	0.00
15.8	298	4	Fracture Rank 2	0.00
15.9	14	5	Fracture Rank 2	0.00
15.9	341	6	Bedding	0.00
16.1	307	4	Bedding	0.00
16.2	40	6	Fracture Rank 1	0.00
16.3	35	6	Fracture Rank 1	0.00
16.4	223	5	Fracture Rank 1	0.00
16.6	6	11	Bedding	0.00
16.7	4	4	Fracture Rank 1	0.00
16.8	2	2	Bedding	0.00
16.8	329	4	Fracture Rank 1	0.00
16.9	20	12	Fracture Rank 1	0.00
17.1	28	7	Bedding	0.00
17.1	69	15	Fracture Rank 1	0.00
17.4	286	29	Fracture Rank 1	0.00
17.4	60	6	Bedding	0.00
17.7	10	5	Fracture Rank 2	0.00

LB-R-117 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
17.8	73	66	Fracture Rank 1	0.00
17.9	313	3	Fracture Rank 2	0.00
18.0	14	4	Fracture Rank 1	0.00
18.3	74	72	Fracture Rank 1	0.00
18.3	319	12	Fracture Rank 2	0.00
18.4	307	1	Fracture Rank 1	0.00
18.4	360	2	Fracture Rank 1	0.00
18.6	344	6	Bedding	0.00
18.7	315	1	Bedding	0.00
18.8	341	5	Fracture Rank 1	0.00
18.9	319	2	Bedding	0.00
19.0	352	1	Fracture Rank 2	0.00
19.1	173	5	Fracture Rank 1	0.00
19.3	324	3	Bedding	0.00
19.4	138	31	Fracture Rank 1	0.00
19.6	324	6	Bedding	0.00
19.8	58	7	Bedding	0.00
20.0	315	32	Fracture Rank 1	0.00
20.1	315	5	Bedding	0.00
20.2	359	4	Fracture Rank 1	0.00
20.3	307	4	Fracture Rank 1	0.00
20.5	317	1	Bedding	0.00
20.8	315	1	Bedding	0.00
21.0	114	26	Fracture Rank 1	0.00
21.7	147	5	Fracture Rank 1	0.00
21.8	34	5	Fracture Rank 1	0.00
21.9	72	31	Bedding	0.00
22.0	43	2	Bedding	0.00
22.6	307	4	Bedding	0.00
23.1	273	14	Bedding	0.00
23.4	235	9	Bedding	0.00
23.7	2	4	Bedding	0.00
23.7	137	43	Fracture Rank 1	0.00
24.0	166	7	Fracture Rank 1	0.00
24.2	51	72	Fracture Rank 1	0.00
24.3	312	1	Fracture Rank 2	0.00
24.3	350	22	Fracture Rank 3	0.00
24.4	15	22	Fracture Rank 1	0.00
24.4	184	23	Fracture Rank 1	0.00
24.4	19	9	Fracture Rank 1	0.00
24.7	317	5	Fracture Rank 1	0.00
25.5	2	3	Fracture Rank 2	0.00
25.7	352	4	Fracture Rank 1	0.00
27.1	43	13	Bedding	0.00
27.7	10	3	Bedding	0.00
27.8	123	22	Fracture Rank 1	0.00
28.6	314	4	Fracture Rank 2	0.00

LB-R-117 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
28.8	46	34	Fracture Rank 1	0.00

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LB-R-127 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 14, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-R-127 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
19.9	97	11	Fracture Rank 2	not detected
20.2	29	7	Fracture Rank 2	not detected
20.7	345	13	Fracture Rank 2	not detected
20.8	32	7	Bedding	not detected
20.9	28	12	Fracture Rank 1	not detected
20.9	43	12	Fracture Rank 1	not detected
21.3	11	3	Bedding	not detected
21.4	52	5	Fracture Rank 2	not detected
21.8	1	2	Fracture Rank 1	not detected
22.1	314	4	Bedding	not detected
22.3	326	7	Bedding	not detected
22.6	307	5	Fracture Rank 3	not detected
22.7	317	3	Bedding	not detected
22.8	68	76	Fracture Rank 1	not detected
22.8	354	3	Bedding	not detected
23.5	304	1	Fracture Rank 2	not detected
23.8	315	39	Fracture Rank 1	not detected
23.9	139	40	Fracture Rank 1	not detected
24.4	11	8	Fracture Rank 1	not detected
24.5	14	12	Fracture Rank 1	not detected
24.6	51	4	Fracture Rank 1	not detected
24.8	19	18	Fracture Rank 1	not detected
25.1	93	15	Fracture Rank 1	not detected
25.1	75	2	Bedding	not detected
25.3	325	4	Bedding	not detected
25.4	132	45	Fracture Rank 1	not detected
25.6	51	2	Bedding	not detected
25.8	112	12	Fracture Rank 1	not detected
25.9	132	7	Fracture Rank 4	0.70
26.9	82	6	Bedding	not detected
26.9	357	4	Bedding	not detected
27.4	95	3	Bedding	not detected

LB-R-127 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
28.4	118	4	Bedding	not detected
28.9	48	8	Bedding	not detected
29.0	51	8	Bedding	not detected
29.2	33	10	Bedding	not detected
29.5	58	8	Bedding	not detected
30.3	143	27	Fracture Rank 1	not detected
30.4	333	19	Fracture Rank 1	not detected
32.5	81	5	Bedding	not detected
32.7	72	7	Bedding	not detected
33.1	155	3	Fracture Rank 1	not detected
33.2	111	6	Bedding	not detected
34.0	35	2	Bedding	not detected
34.1	67	6	Bedding	not detected
34.2	56	4	Bedding	not detected
34.4	33	4	Bedding	not detected
34.6	26	2	Bedding	not detected

HRGS

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LB-R-128 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 17, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-R-128 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
29.1	63	6	Fracture Rank 2	not detected
29.1	75	10	Fracture Rank 2	not detected
29.2	68	27	Fracture Rank 1	not detected
29.2	86	12	Fracture Rank 3	not detected
29.3	85	10	Fracture Rank 2	not detected
29.3	63	11	Fracture Rank 2	not detected
29.4	60	9	Fracture Rank 2	not detected
29.5	47	9	Fracture Rank 2	not detected
29.6	38	8	Fracture Rank 2	not detected
29.7	64	7	Fracture Rank 1	not detected
29.7	36	9	Fracture Rank 3	not detected
29.8	96	22	Fracture Rank 1	not detected
29.9	73	6	Bedding	not detected
30.0	61	9	Fracture Rank 1	not detected
30.1	72	4	Bedding	not detected
30.1	72	13	Fracture Rank 2	not detected
30.3	110	7	Fracture Rank 3	not detected
30.4	122	8	Fracture Rank 2	not detected
30.5	88	4	Fracture Rank 2	not detected
30.5	93	8	Fracture Rank 3	not detected
30.6	87	4	Bedding	not detected
30.7	59	8	Fracture Rank 2	not detected
30.8	211	68	Fracture Rank 1	not detected
30.8	43	5	Bedding	not detected
30.8	36	8	Fracture Rank 3	not detected
30.8	33	9	Fracture Rank 2	not detected
30.9	38	12	Fracture Rank 1	not detected
31.2	47	8	Fracture Rank 2	not detected
31.2	60	6	Fracture Rank 1	not detected
31.3	30	6	Bedding	not detected
31.4	18	11	Fracture Rank 3	not detected
31.5	33	7	Fracture Rank 2	not detected

LB-R-128 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
31.6	65	12	Fracture Rank 2	not detected
31.8	46	2	Bedding	not detected
31.8	342	5	Fracture Rank 1	not detected
31.9	53	3	Bedding	not detected
32.0	22	8	Fracture Rank 2	not detected
32.1	27	7	Fracture Rank 2	not detected
32.2	151	80	Fracture Rank 1	not detected
32.2	18	7	Bedding	not detected
32.4	21	7	Bedding	not detected
32.4	24	8	Fracture Rank 2	not detected
32.6	25	8	Bedding	not detected
32.7	76	6	Fracture Rank 2	not detected
32.9	42	9	Fracture Rank 2	not detected
32.9	44	9	Bedding	not detected
33.0	62	9	Fracture Rank 1	not detected
33.3	93	9	Fracture Rank 2	not detected
33.4	79	7	Fracture Rank 2	not detected
33.6	50	8	Fracture Rank 2	not detected
33.7	43	6	Fracture Rank 2	not detected
33.8	21	8	Fracture Rank 1	not detected
33.8	350	12	Fracture Rank 2	not detected
34.0	300	61	Fracture Rank 1	not detected
34.1	176	79	Fracture Rank 1	not detected
34.3	27	13	Fracture Rank 3	not detected
34.4	18	20	Fracture Rank 3	not detected
34.4	15	14	Fracture Rank 3	not detected
34.6	339	17	Bedding	not detected
34.7	332	20	Bedding	not detected
34.8	39	12	Fracture Rank 2	not detected
35.0	17	16	Bedding	not detected
35.2	9	20	Fracture Rank 2	not detected
35.3	352	15	Fracture Rank 3	not detected
35.6	358	20	Fracture Rank 1	not detected
36.2	13	20	Fracture Rank 1	not detected
36.3	125	13	Fracture Rank 1	not detected
36.5	346	26	Bedding	not detected
36.6	356	27	Fracture Rank 2	not detected
36.7	355	28	Bedding	not detected
37.1	129	18	Bedding	not detected
37.1	333	37	Fracture Rank 2	not detected
37.2	117	16	Fracture Rank 4	0.14
37.4	345	48	Fracture Rank 1	not detected
37.8	119	68	Fracture Rank 1	not detected
38.4	109	7	Bedding	not detected

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LB-R-129 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 16, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-R-129 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
29.5	297	16	Bedding	not detected
29.9	288	20	Bedding	not detected
30.0	28	23	Fracture Rank 1	not detected
30.3	29	13	Bedding	not detected
30.9	51	5	Bedding	not detected
30.9	334	7	Fracture Rank 1	not detected
31.0	180	6	Bedding	not detected
31.1	272	1	Fracture Rank 3	not detected
31.2	58	2	Bedding	not detected
31.2	272	1	Fracture Rank 2	not detected
31.3	126	4	Fracture Rank 2	not detected
31.4	272	1	Fracture Rank 2	not detected
31.7	272	1	Fracture Rank 3	not detected
31.7	84	2	Bedding	not detected
31.8	70	4	Fracture Rank 2	not detected
31.9	156	2	Bedding	not detected
31.9	275	1	Fracture Rank 2	not detected
32.1	138	1	Fracture Rank 1	not detected
32.1	146	1	Fracture Rank 1	not detected
32.2	128	4	Fracture Rank 1	not detected
32.2	55	5	Bedding	not detected
32.5	48	5	Fracture Rank 1	not detected
32.6	276	1	Bedding	not detected
32.9	139	3	Fracture Rank 1	not detected
33.0	145	6	Bedding	not detected
33.1	139	5	Bedding	not detected
33.7	123	8	Fracture Rank 1	not detected
33.8	142	8	Fracture Rank 1	not detected
33.8	125	7	Fracture Rank 2	not detected
33.9	336	5	Fracture Rank 2	not detected
34.0	126	8	Fracture Rank 2	not detected
34.1	141	7	Fracture Rank 1	not detected

LB-R-129 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
34.2	99	6	Bedding	not detected
34.4	136	2	Bedding	not detected
34.6	331	6	Bedding	not detected
34.8	34	3	Fracture Rank 1	not detected
35.0	54	4	Fracture Rank 1	not detected
35.3	123	4	Fracture Rank 1	not detected
35.5	199	4	Fracture Rank 2	not detected
35.6	130	6	Fracture Rank 2	not detected
35.6	274	1	Fracture Rank 1	not detected
35.8	310	17	Fracture Rank 2	not detected
35.9	353	12	Fracture Rank 1	not detected
35.9	358	9	Fracture Rank 1	not detected
36.0	19	8	Fracture Rank 1	not detected
36.1	26	5	Bedding	not detected
36.1	13	6	Bedding	not detected
36.2	10	3	Fracture Rank 1	not detected
36.3	105	6	Bedding	not detected
36.6	100	8	Bedding	not detected
37.2	174	14	Bedding	not detected
37.2	197	14	Fracture Rank 1	not detected
37.3	191	9	Fracture Rank 1	not detected
37.4	207	6	Bedding	not detected
37.5	275	1	Fracture Rank 1	not detected
37.6	235	8	Fracture Rank 1	not detected
37.7	274	1	Bedding	not detected
37.8	162	7	Fracture Rank 1	not detected
37.9	160	5	Fracture Rank 1	not detected
38.0	173	8	Fracture Rank 1	not detected
38.2	178	6	Fracture Rank 1	not detected
38.3	174	11	Bedding	not detected
38.7	272	4	Bedding	not detected
38.8	249	4	Fracture Rank 1	not detected
39.0	28	4	Fracture Rank 1	not detected
39.2	32	3	Fracture Rank 1	not detected
39.3	162	3	Bedding	not detected
39.5	25	12	Fracture Rank 1	not detected
39.6	345	4	Fracture Rank 1	not detected
39.8	132	7	Fracture Rank 2	not detected
39.9	95	4	Fracture Rank 1	not detected
40.1	6	5	Fracture Rank 1	not detected
40.3	274	9	Fracture Rank 2	not detected
40.3	289	14	Fracture Rank 2	not detected
40.5	340	35	Fracture Rank 1	not detected
40.5	274	1	Fracture Rank 1	not detected
40.7	237	10	Fracture Rank 2	not detected
40.7	30	2	Fracture Rank 2	not detected
41.0	266	8	Fracture Rank 2	not detected

LB-R-129 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
41.2	247	4	Fracture Rank 1	not detected
41.3	135	16	Fracture Rank 1	not detected
41.4	273	1	Fracture Rank 1	not detected
41.6	47	4	Fracture Rank 1	not detected

HRGS

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LB-X-002 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 14, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-X-002 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
32.4	19	8	Fracture Rank 4	0.19
32.8	12	6	Fracture Rank 3	not detected
32.9	18	6	Fracture Rank 4	0.11
33.3	25	12	Fracture Rank 3	not detected
33.5	342	12	Fracture Rank 3	not detected
33.7	293	9	Fracture Rank 3	not detected
33.8	322	13	Bedding	not detected
34.4	312	38	Bedding	not detected
34.6	29	2	Fracture Rank 2	not detected
34.7	61	18	Fracture Rank 1	not detected
35.0	30	14	Fracture Rank 2	not detected
35.6	333	6	Bedding	not detected
36.0	34	8	Fracture Rank 3	not detected
36.1	338	11	Fracture Rank 2	not detected
36.9	317	7	Bedding	not detected
37.5	327	6	Fracture Rank 1	not detected
38.6	316	10	Bedding	not detected
38.9	333	13	Bedding	not detected
39.2	340	8	Fracture Rank 2	not detected
39.5	336	13	Bedding	not detected
39.6	332	16	Bedding	not detected
40.1	336	16	Bedding	not detected
40.3	8	9	Fracture Rank 1	not detected
40.4	5	12	Fracture Rank 3	not detected
40.5	328	18	Fracture Rank 1	not detected
41.9	2	24	Fracture Rank 1	not detected
42.0	351	29	Fracture Rank 1	not detected
43.3	266	3	Fracture Rank 1	not detected
43.4	266	3	Fracture Rank 2	not detected
44.0	298	31	Fracture Rank 1	not detected
44.6	92	75	Fracture Rank 1	not detected
47.3	101	46	Fracture Rank 1	not detected

LB-X-002 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
47.5	128	49	Fracture Rank 1	not detected
47.7	153	53	Fracture Rank 1	not detected
47.9	151	43	Fracture Rank 1	not detected
50.7	134	16	Bedding	not detected
51.1	183	39	Fracture Rank 1	not detected
52.2	100	34	Fracture Rank 1	not detected
53.4	127	10	Fracture Rank 4	0.48

HRGS

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LB-X-006 - TABLE OF BEDROCK STRUCTURES

CLIENT	Langan
PROJECT	Micron – New York Manufacturing Facility
LOCATION	Clay, New York
HRGS FILE	24RG87
DATE LOGGED	April 14, 2025
LOG DATUM	Ground Surface
DIP AZIMUTH	True North (Magnetic Declination = 12° West)
DIP ANGLE	Measured from Horizontal
FRACTURE APERTURE	Fracture apertures are only provided for open (Fracture Rank 4) fractures where continuous or near continuous aperture was detected around the borehole.

LB-X-006 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
28.2	313	11	Fracture Rank 2	not detected
28.4	307	13	Fracture Rank 1	not detected
28.6	329	6	Fracture Rank 1	not detected
28.7	177	3	Fracture Rank 3	not detected
28.9	28	15	Fracture Rank 4	0.50
29.1	168	14	Fracture Rank 3	not detected
30.4	336	7	Fracture Rank 2	not detected
31.2	303	15	Fracture Rank 2	not detected
31.6	335	4	Bedding	not detected
32.1	328	7	Fracture Rank 2	not detected
32.2	106	15	Bedding	not detected
32.6	39	9	Fracture Rank 2	not detected
32.8	35	16	Fracture Rank 2	not detected
33.1	358	11	Fracture Rank 2	not detected
34.3	298	3	Bedding	not detected
35.5	319	13	Fracture Rank 2	not detected
35.9	65	11	Bedding	not detected
36.2	119	6	Fracture Rank 2	not detected
36.3	128	2	Fracture Rank 4	0.17
36.4	28	4	Fracture Rank 2	not detected
36.6	332	6	Fracture Rank 2	not detected
36.7	344	5	Fracture Rank 3	not detected
36.9	238	8	Fracture Rank 3	not detected
37.3	53	27	Bedding	not detected
37.4	54	25	Fracture Rank 2	not detected
37.4	54	16	Fracture Rank 1	not detected
37.5	58	11	Fracture Rank 2	not detected
37.6	65	14	Fracture Rank 2	not detected
37.7	67	8	Fracture Rank 2	not detected
37.8	60	4	Bedding	not detected
37.9	71	5	Fracture Rank 2	not detected
37.9	65	5	Fracture Rank 2	not detected

LB-X-006 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
38.0	113	4	Fracture Rank 2	not detected
38.3	271	8	Fracture Rank 2	not detected
38.4	255	6	Fracture Rank 2	not detected
38.6	308	1	Fracture Rank 2	not detected
38.7	348	5	Fracture Rank 2	not detected
38.8	70	5	Bedding	not detected
38.8	68	6	Fracture Rank 2	not detected
39.0	343	5	Fracture Rank 2	not detected
39.1	169	4	Fracture Rank 2	not detected
39.2	87	6	Fracture Rank 2	not detected
39.3	70	5	Fracture Rank 2	not detected
39.4	17	8	Fracture Rank 2	not detected
39.6	330	8	Bedding	not detected
39.7	322	14	Fracture Rank 2	not detected
39.8	321	19	Fracture Rank 1	not detected
39.9	48	14	Fracture Rank 1	not detected
40.0	93	6	Fracture Rank 2	not detected
40.1	143	8	Fracture Rank 2	not detected
40.2	302	6	Fracture Rank 1	not detected
40.3	329	6	Fracture Rank 2	not detected
40.5	329	8	Fracture Rank 1	not detected
40.5	322	7	Fracture Rank 2	not detected
40.6	311	10	Fracture Rank 2	not detected
40.7	322	9	Fracture Rank 2	not detected
40.8	328	12	Fracture Rank 2	not detected
40.9	1	10	Fracture Rank 2	not detected
41.0	21	9	Bedding	not detected
41.1	47	10	Fracture Rank 2	not detected
41.3	60	6	Fracture Rank 2	not detected
41.4	84	11	Fracture Rank 2	not detected
41.5	92	9	Fracture Rank 2	not detected
41.7	54	9	Fracture Rank 2	not detected
41.7	18	7	Bedding	not detected
42.0	10	15	Fracture Rank 1	not detected
42.2	219	4	Fracture Rank 2	not detected
42.3	210	4	Fracture Rank 2	not detected
42.4	198	6	Fracture Rank 2	not detected
42.4	169	4	Bedding	not detected
42.5	144	8	Fracture Rank 2	not detected
42.6	241	6	Fracture Rank 2	not detected
42.7	225	6	Fracture Rank 2	not detected
43.4	64	7	Bedding	not detected
43.6	100	3	Fracture Rank 2	not detected
43.7	62	5	Fracture Rank 2	not detected
43.7	242	19	Fracture Rank 1	not detected
43.9	100	3	Fracture Rank 1	not detected
44.1	145	14	Fracture Rank 2	not detected

LB-X-006 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
44.2	155	15	Fracture Rank 2	not detected
44.3	210	6	Fracture Rank 1	not detected
44.4	327	17	Fracture Rank 2	not detected
44.5	34	8	Fracture Rank 1	not detected
44.7	77	2	Fracture Rank 1	not detected
44.8	52	4	Fracture Rank 2	not detected
44.8	58	3	Fracture Rank 2	not detected
44.9	100	6	Fracture Rank 2	not detected
45.1	110	6	Fracture Rank 2	not detected
45.2	165	4	Fracture Rank 1	not detected
45.2	111	5	Fracture Rank 2	not detected
45.3	118	4	Fracture Rank 2	not detected
45.4	93	2	Fracture Rank 1	not detected
45.5	104	3	Fracture Rank 2	not detected
45.6	98	6	Fracture Rank 2	not detected
45.7	107	7	Fracture Rank 2	not detected
45.8	96	8	Fracture Rank 3	not detected
45.9	73	6	Fracture Rank 3	not detected
46.0	73	4	Fracture Rank 2	not detected
46.1	69	5	Bedding	not detected
46.2	91	7	Fracture Rank 2	not detected
46.2	89	5	Fracture Rank 2	not detected
46.4	98	5	Fracture Rank 2	not detected
46.4	149	3	Fracture Rank 3	not detected
46.5	120	10	Fracture Rank 2	not detected
46.7	118	3	Fracture Rank 3	not detected
46.9	146	4	Fracture Rank 4	0.23
47.2	95	4	Bedding	not detected
47.5	103	5	Fracture Rank 2	not detected
47.6	85	6	Fracture Rank 3	not detected
47.8	117	6	Fracture Rank 2	not detected
48.1	93	3	Fracture Rank 2	not detected
48.4	58	2	Fracture Rank 2	not detected
48.8	113	5	Fracture Rank 1	not detected
48.9	81	3	Fracture Rank 2	not detected
48.9	89	7	Fracture Rank 2	not detected
49.3	84	4	Fracture Rank 2	not detected
49.5	109	8	Fracture Rank 2	not detected
49.6	101	9	Fracture Rank 1	not detected
49.8	139	7	Fracture Rank 3	not detected
50.1	108	5	Fracture Rank 2	not detected
50.1	69	3	Fracture Rank 3	not detected
50.2	73	4	Fracture Rank 3	not detected
50.5	92	14	Fracture Rank 2	not detected
50.7	68	5	Fracture Rank 2	not detected
50.9	182	2	Fracture Rank 2	not detected
51.1	295	55	Fracture Rank 1	not detected

LB-X-006 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
51.2	254	11	Fracture Rank 2	not detected
51.3	275	7	Fracture Rank 2	not detected
51.4	308	12	Fracture Rank 2	not detected
51.6	324	7	Fracture Rank 2	not detected
51.8	281	3	Fracture Rank 2	not detected
52.0	153	65	Fracture Rank 1	not detected
52.0	335	7	Fracture Rank 3	not detected
52.2	335	6	Fracture Rank 1	not detected
52.5	25	6	Fracture Rank 1	not detected
52.7	311	5	Fracture Rank 2	not detected
52.8	308	4	Fracture Rank 2	not detected
53.3	300	2	Fracture Rank 1	not detected
53.4	313	3	Fracture Rank 1	not detected
53.8	289	2	Fracture Rank 3	not detected
54.0	270	7	Fracture Rank 2	not detected
54.1	54	7	Bedding	not detected
54.2	49	7	Fracture Rank 3	not detected
54.3	46	9	Fracture Rank 2	not detected
54.5	19	4	Fracture Rank 3	not detected
54.7	75	5	Bedding	not detected
54.9	51	10	Fracture Rank 2	not detected
55.3	31	7	Fracture Rank 2	not detected
56.0	53	51	Fracture Rank 1	not detected
56.0	44	4	Fracture Rank 1	not detected
56.3	63	6	Fracture Rank 2	not detected
56.4	53	7	Fracture Rank 2	not detected
56.6	77	7	Fracture Rank 2	not detected
56.6	83	8	Fracture Rank 2	not detected
56.9	58	12	Fracture Rank 2	not detected
56.9	81	9	Fracture Rank 1	not detected
57.1	89	10	Fracture Rank 2	not detected
57.2	83	10	Fracture Rank 2	not detected
57.3	62	9	Fracture Rank 1	not detected
57.6	9	8	Bedding	not detected
57.7	32	14	Fracture Rank 2	not detected
58.0	37	14	Fracture Rank 1	not detected
58.1	43	11	Fracture Rank 2	not detected
58.2	36	19	Fracture Rank 2	not detected
58.4	45	8	Fracture Rank 2	not detected
58.6	82	15	Fracture Rank 1	not detected
59.0	47	16	Fracture Rank 2	not detected
59.5	12	14	Bedding	not detected
59.7	22	14	Bedding	not detected
60.1	20	14	Bedding	not detected
60.3	355	10	Fracture Rank 1	not detected
60.6	359	14	Bedding	not detected
60.8	344	15	Fracture Rank 1	not detected

LB-X-006 - TABLE OF BEDROCK STRUCTURES

Depth (Feet)	Dip Azimuth (Degrees)	Dip Angle (Degrees)	Bedrock Fracture Category	Fracture Aperture (Inches)
60.9	345	29	Fracture Rank 1	not detected
61.6	261	47	Fracture Rank 1	not detected
63.2	154	18	Bedding	not detected
63.3	140	17	Fracture Rank 1	not detected
63.7	78	11	Bedding	not detected
64.2	80	12	Fracture Rank 2	not detected

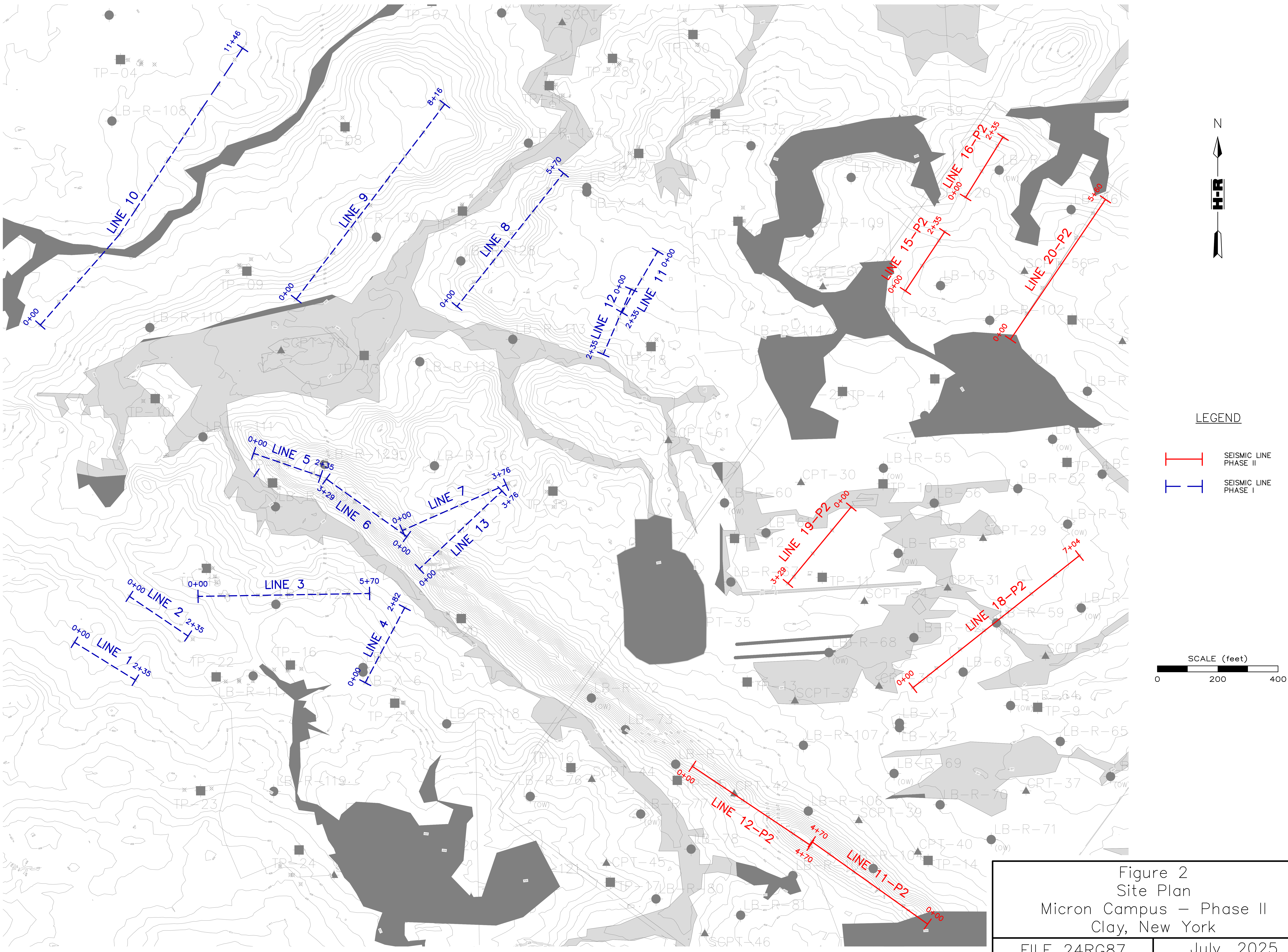


Figure 2
Site Plan
Micron Campus – Phase II
Clay, New York

FILE 24RG87

July, 2025

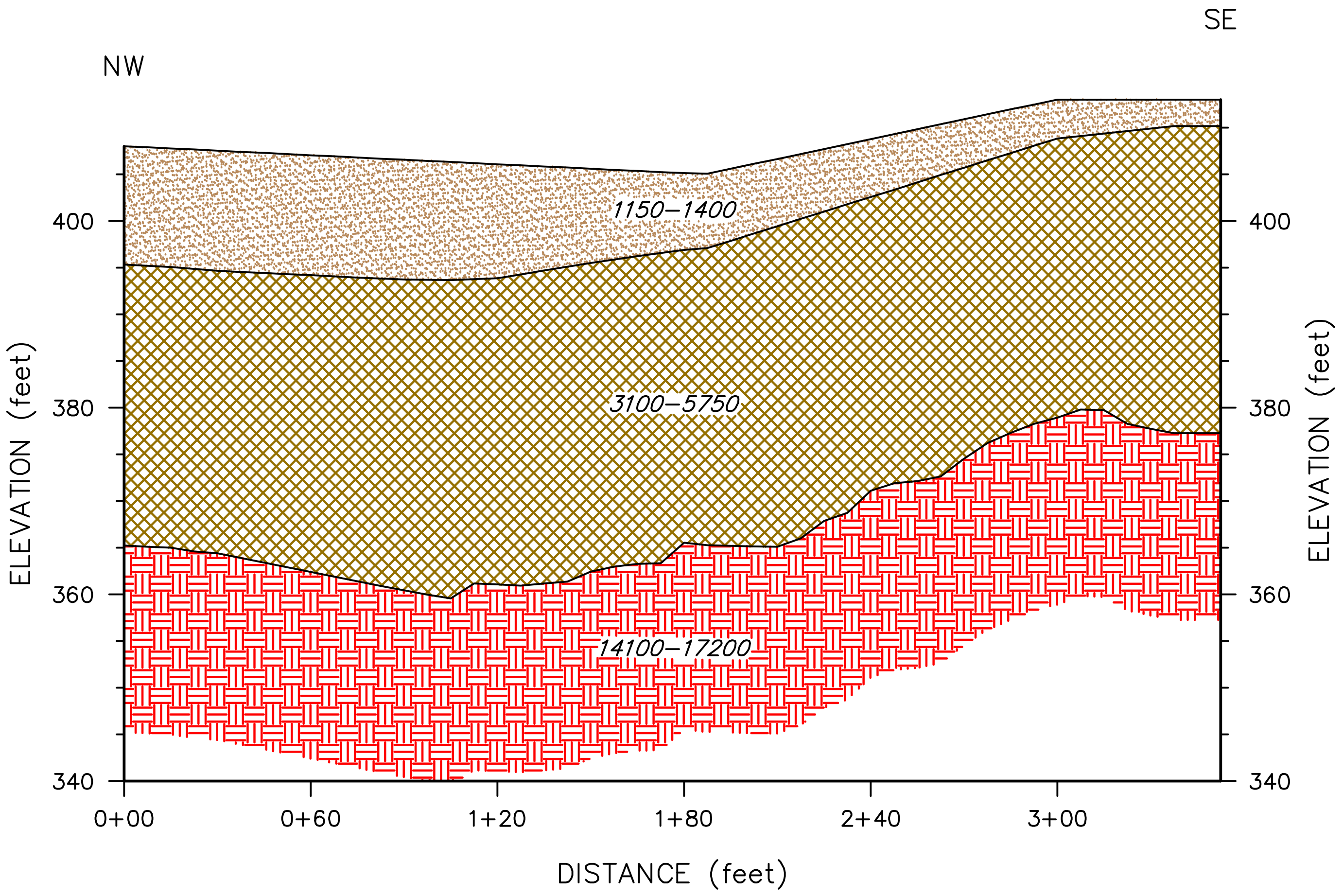
HRGS *

Derry, NH
Fords, NJ

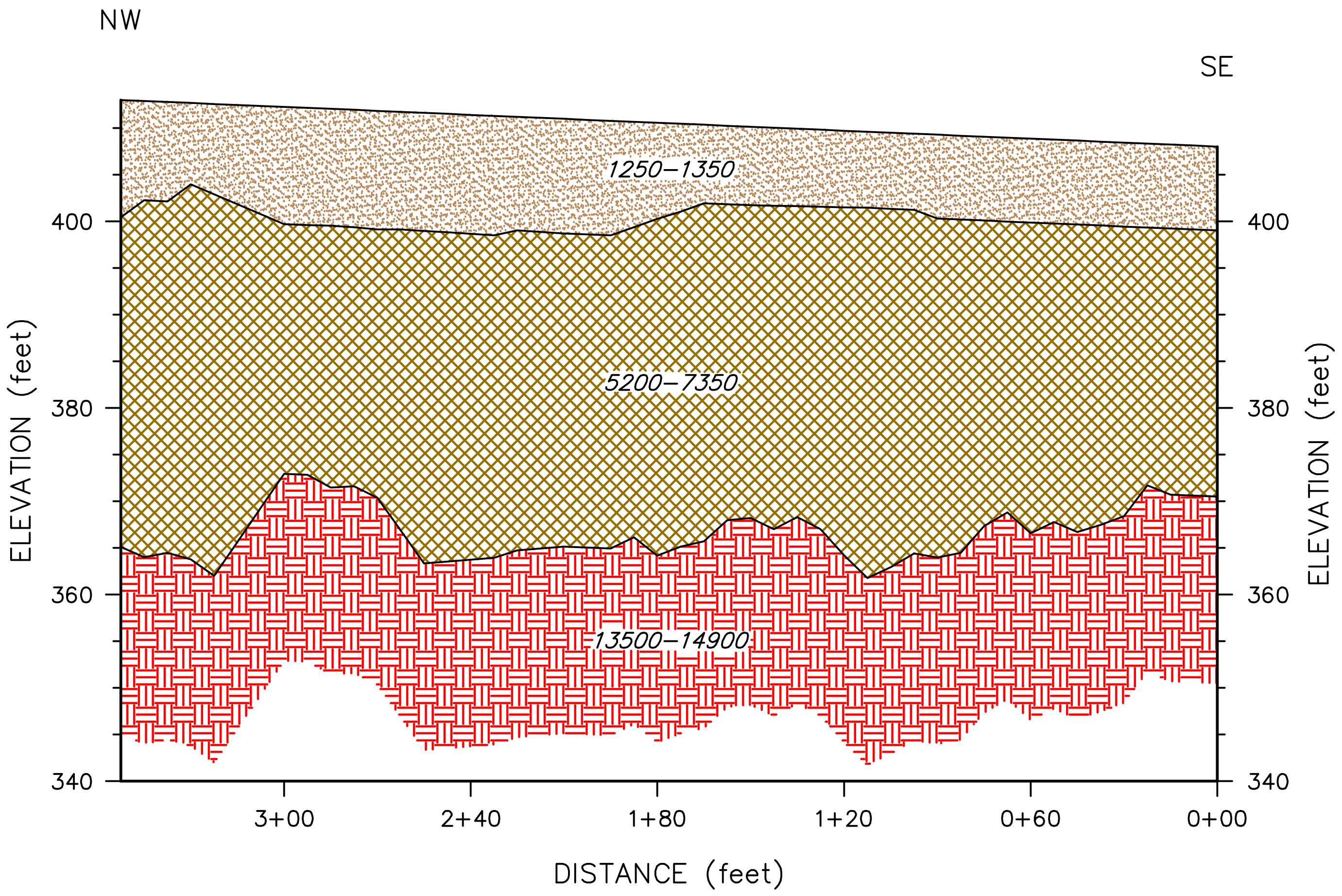
NOTE:
Modified from site plan provided by Langan, identified as WPCCC-AAA00-100-EM-JAC.dwg.

* DBA HR Geological Services in New York

SEISMIC LINE 12



SEISMIC LINE 11

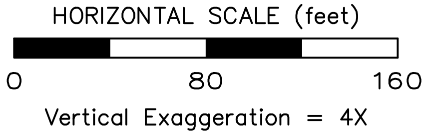


NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations estimated from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

LEGEND

▒	Unsaturated soils
▩	Unsaturated/ saturated soils
▦	Bedrock
14100–17200	Velocity (fps)
∼	Interface determined from seismic refraction data

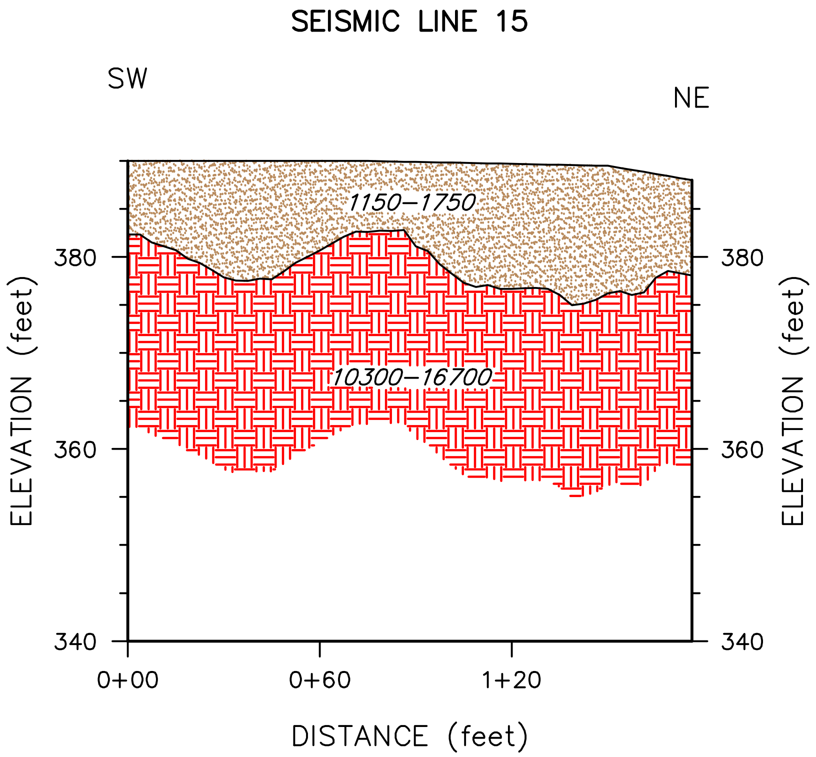


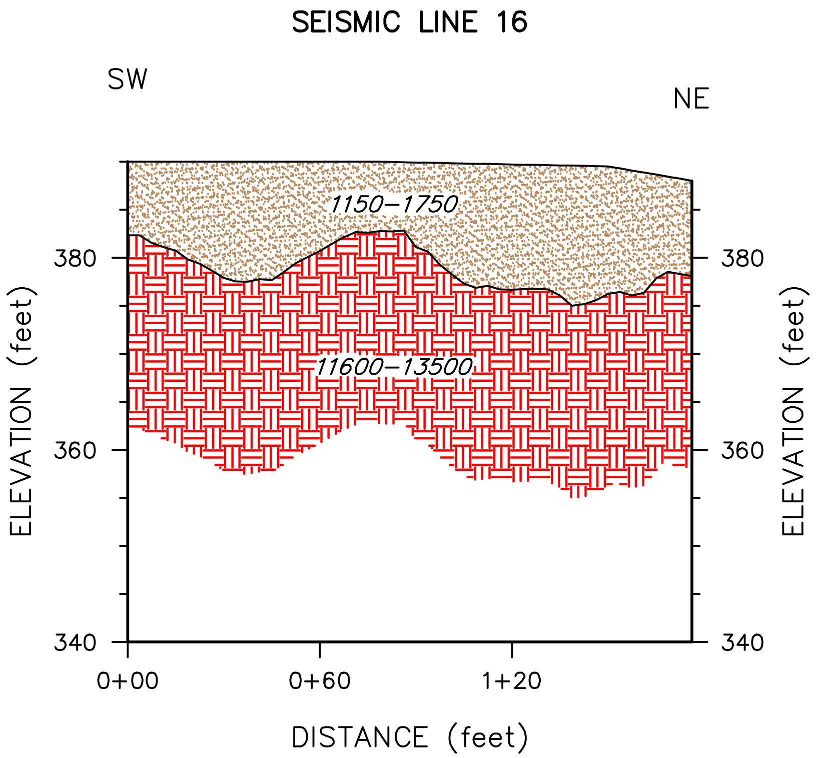
Vertical Exaggeration = 4X

* DBA HR Geological Services in New York

Figure 3
Seismic Lines 12 & 11
Micron Campus – Phase II
Clay, New York

File 24RG87	July, 2025
HRGS*	**Derry, NH** **Fords, NJ**


SEISMIC LINE 15

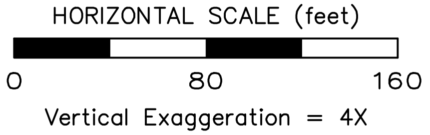

SEISMIC LINE 16

NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations estimated from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

LEGEND

▒	Unsaturated soils
▩	Unsaturated/ saturated soils
▦	Bedrock
14100–17200	Velocity (fps)
~	Interface determined from seismic refraction data



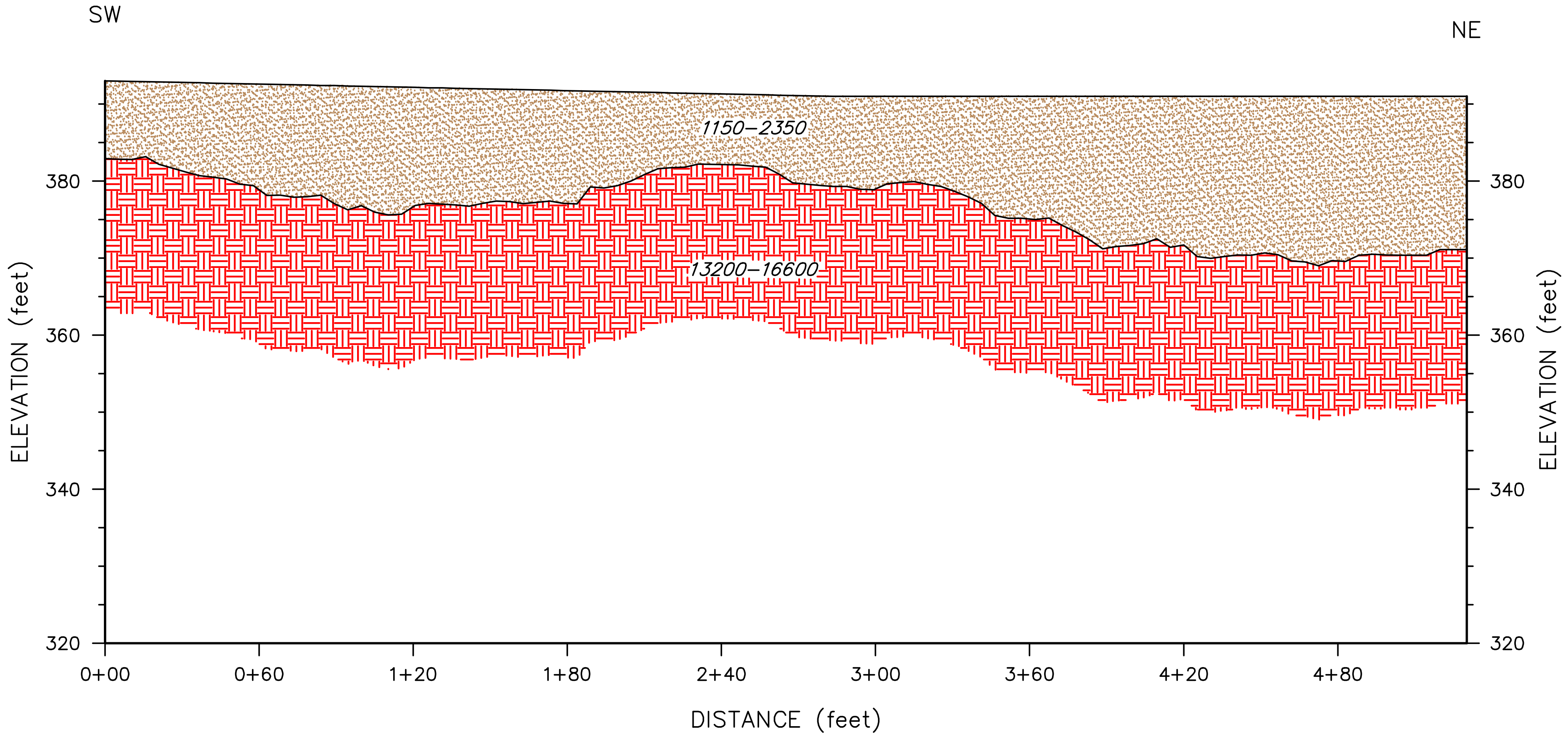
Vertical Exaggeration = 4X

* DBA HR Geological Services in New York

Figure 4
Seismic Lines 15 & 16
Micron Campus – Phase II
Clay, New York

File 24RG87
July, 2025

HRGS*
Derry, NH
Fords, NJ



NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations estimated from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

LEGEND

▨	Unsaturated soils
▩	Unsaturated/ saturated soils
▦	Bedrock
14100–17200	Velocity (fps)
∼	Interface determined from seismic refraction data

HORIZONTAL SCALE (feet)
0 80 160
Vertical Exaggeration = 4X

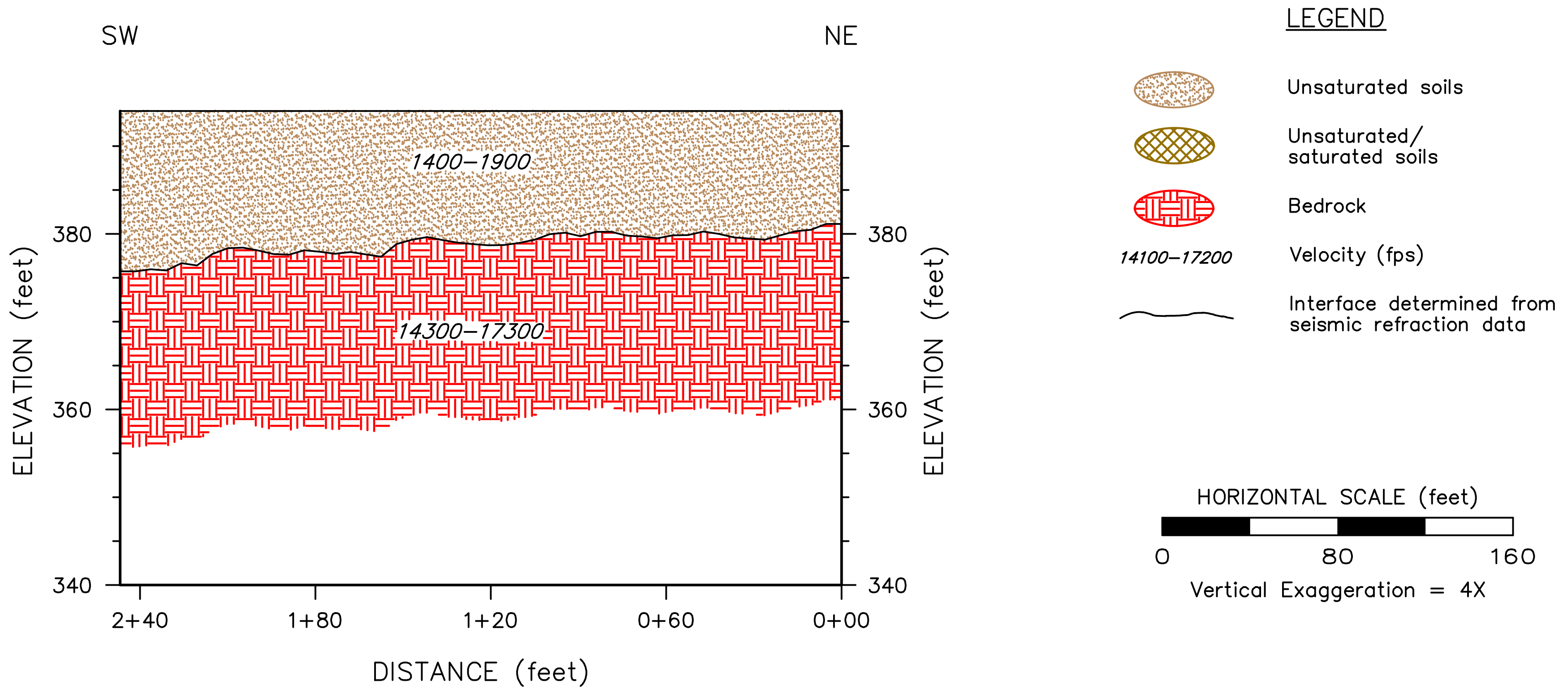
* DBA HR Geological Services in New York

Figure 5
Seismic Line 18
Micron Campus – Phase II
Clay, New York

File 24RG87
July, 2025

HRGS*

Derry, NH
Fords, NJ



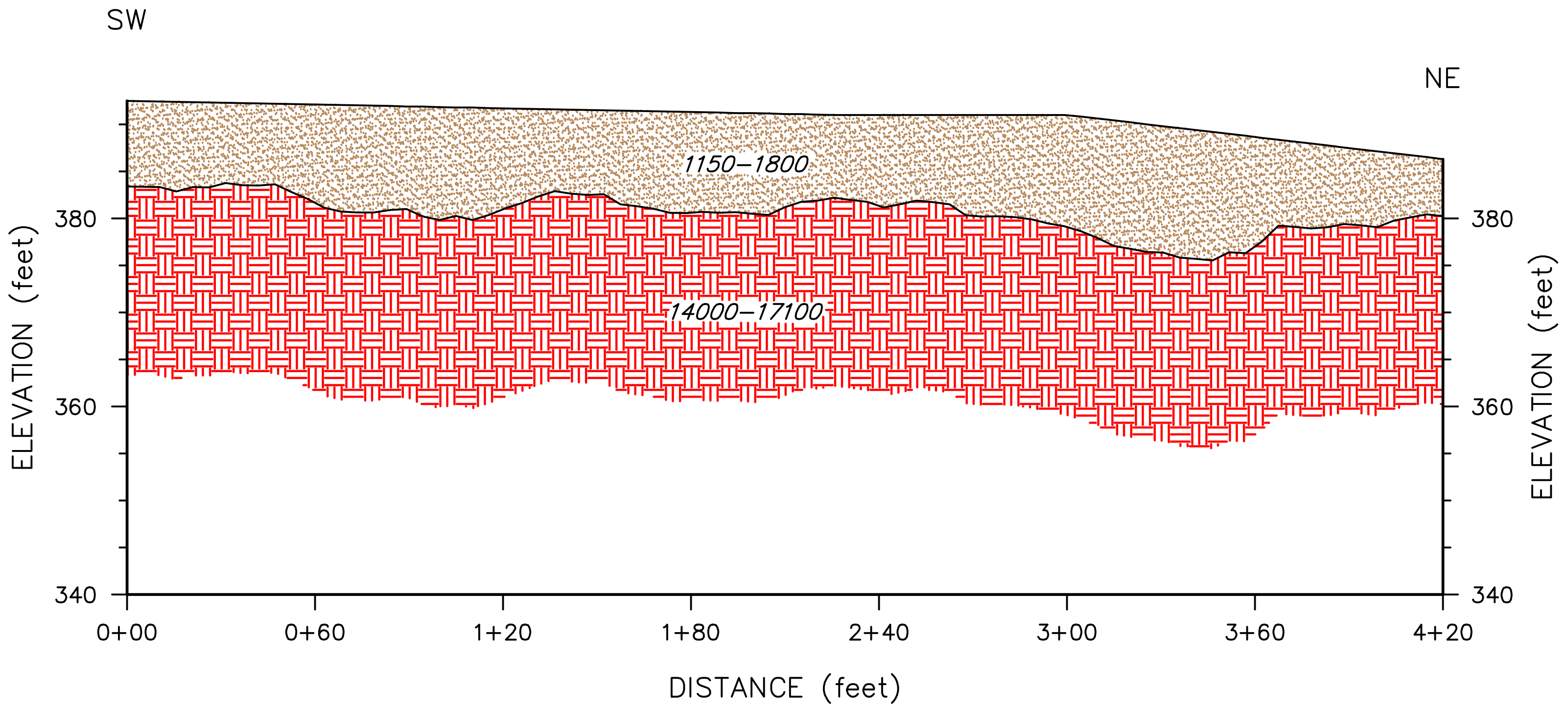
NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

* DBA HR Geological Services in New York

Figure 6
Seismic Line 19
Micron Campus – Phase II
Clay, New York

File 24RG87	July, 2025
HRGS*	**Derry, NH** **Fords, NJ**



NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations estimated from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

LEGEND

▨	Unsaturated soils
▩	Unsaturated/ saturated soils
▦	Bedrock
14100–17200	Velocity (fps)
~	Interface determined from seismic refraction data

HORIZONTAL SCALE (feet)

0 80 160

Vertical Exaggeration = 4X

* DBA HR Geological Services in New York

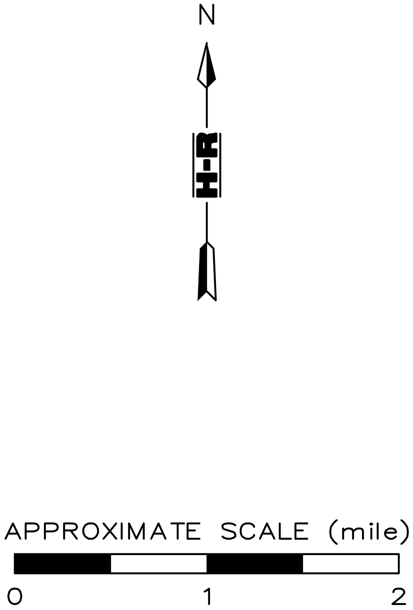
Figure 7
Seismic Lines 20
Micron Campus – Phase II
Clay, New York

File 24RG87

July, 2025

HRGS*

Derry, NH
Fords, NJ



LOCATION

Figure 1
General Site Location
Micron Campus – Phase II
Clay, New York

File 24RG87	July, 2025
HRGS*	**Derry, NH Fords, NJ**

* DBA HR Geological Services in New York

NOTE:

Modified from Google Earth Pro aerial photograph.

HRGS

SEISMIC REFRACTION SURVEY
MICRON CAMPUS – PHASE I
CLAY, NEW YORK

Prepared for:

LANGAN
368 Ninth Avenue, 8th Floor
New York, NY 10001-2727

Prepared by:

Hager-Richter Geoscience, Inc.
dba HR Geological Services in New York
846 Main Street
Fords, New Jersey 08863

File 24RG87
June 2025

GEOPHYSICS FOR THE ENGINEERING & ENVIRONMENTAL COMMUNITIES

HRGS
HAGER-RICHTER GEOSCIENCE

26 Kendall Pond Road, Derry, NH (603.893.9944)
846 Main Street, Fords, NJ (732.661.0555)

www.hager-richter.com

June 10, 2025
File 24RG87

Joseph Como, PE
Senior Staff Engineer
LANGAN
368 Ninth Avenue, 8th Floor
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Tel: 212.479.5480
Cell: 716.380.6199
Email: jcomo@langan.com

RE: Geophysical Services
Micron Campus – Phase I
Clay, New York

Dear Mr. Como:

In this report, we summarize the results of a seismic refraction survey conducted by Hager-Richter Geoscience, Inc. dba HR Geological Services in New York, (HRGS) in support of a geotechnical investigation for proposed construction at the above referenced site, in April-May 2025. The scope of work and area of interest were specified by LANGAN.

INTRODUCTION

This site is the proposed location of an industrial complex identified as Micron Campus, located in Clay, New York. Figure 1 shows the general location of the Site. In support of the Phase I design of the new facility LANGAN requested costs to conduct a high-resolution seismic refraction survey to determine the bedrock topography along accessible transects within the footprint of Phase I area of interest. The locations of the seismic refraction lines and the boreholes installed by LANGAN are shown in Figure 2.

OBJECTIVE

The objective of the seismic refraction survey is to determine the bedrock profile along selected profiles within the specified area of interest.

THE SURVEY

HRGS personnel conducted the geophysical survey on April 21-25 and March 12-15, 2025. Christopher Call, P.G., Alexis Martinex, and Abraham Kaplan of HRGS conducted the seismic refraction survey. The project was coordinated with Mr. Como, who was present during portions of the survey and indicated the areas of interest for the survey. Original data and field notes reside in the HRGS files and will be retained for a minimum of three years.

The geophysical survey was conducted using the seismic refraction method. Seismic refraction data were acquired along 13 transects identified as Seismic Lines 1 through 13, totaling 5,640. The site included large, inundated areas at the time of the survey. The seismic transect locations approved by

LANGON were established in relatively dry areas. The locations of the seismic lines are shown in Figure 2. The positions of the start and end points of the seismic transects were surveyed with a Trimble Geo 7X CM GPS system.

EQUIPMENT AND PROCEDURES

The seismic refraction survey was conducted using our 48-channel seismograph (two 24-channel Geometrics Geodes) coupled to 48 14-Hz geophones. Geophone spacings between 5 and 7 feet were used for the seismic lines and a 10-pound sledgehammer was used as the energy source. The seismograph is connected to, and controlled by, a notebook PC computer. The software provides for the acquisition, display, plotting, filtering, and storage of seismic data.

The seismic refraction data were interpreted with the Generalized Reciprocal Method (GRM). For the GRM interpretation, we used IXRefraX, commercially licensed software from Interpex Limited. GRM allows the depth to bedrock to be determined for *each* geophone location, rather than only at the shot points as for most other methods, and it is less sensitive to the presence of dipping interfaces and hidden layers. The GRM method requires at least seven "shots" per cable spread -- one shot off each end of the cable, one shot at each end of the cable, and three shots interior to the cable. This configuration provides reversed profiles.

LIMITATIONS OF THE METHOD

> IN GENERAL, THE ACCURACY (STANDARD DEVIATION) OF THE APPARENT DEPTHS OF RELATIVELY COMPETENT BEDROCK DETERMINED BY THE SEISMIC REFRACTION METHOD IS ABOUT ± 10% OF THE APPARENT DEPTH OF BEDROCK, OR ± 2 FEET, WHICHEVER IS GREATER. **THE BEDROCK MODEL LISTED AS TABULAR DATA SHOULD NOT BE USED SOLELY FOR CONTRACT BEDROCK REMOVAL QUANTITIES.**

As with all geophysical methods, the seismic refraction method assumes that the local geology is relatively uncomplicated. In particular, the seismic refraction method assumes that interfaces between geologic materials correlate with sharp increases in seismic velocity and that the interfaces between geologic units are relatively flat lying. The method is not very sensitive to lateral variations within layers, and relatively subtle features such as fracture zones within bedrock generally cannot be detected unless there is a topographic expression of the feature and/or a significant drop in bedrock velocity. The accuracy of the method is degraded in areas with strong topographic relief and/or where the interfaces have apparent dips greater than about 20°. ***In general, the accuracy of determined depths is estimated to be about 10% or 2 feet, whichever is greater. The results of this survey should not be relied upon for contract bedrock removal quantities.***

Where two materials do not exhibit contrasting velocities, or where velocities gradually increase with depth, a clear refracted signal is not generated, and the seismic refraction method cannot be used to distinguish the two materials. In some cases, the "geophysical contact" between materials with contrasting velocities does not correlate exactly with the "geologic contact." For example, where a highly weathered bedrock is overlain by a dense material such as till, the velocity range of the weathered bedrock might overlap or approach the velocity range of the till, and the two materials cannot be distinguished seismically. In such cases, the depth determined by seismic refraction is the depth of *competent* bedrock, which might be located at some depth below the geologic contact.

The depth relations of the water table and bedrock may constitute a significant problem for the seismic refraction technique. This problem is that of a "blind layer." A blind layer occurs where the thickness of the saturated overburden is less than about half the depth of bedrock. In such cases, the water-saturated material immediately above bedrock is "blind" in the sense that no refracted seismic energy from it will be received as a first arrival of seismic energy, and all methods used to reduce the seismic data to determine the depth of bedrock, the objective of this survey, use *only* first arrivals. Thus, the saturated layer will not be detected where it is close to bedrock, and most methods of seismic data reduction will indicate that bedrock is considerably shallower than it is. Although GRM, the method used by HRGS to reduce the seismic refraction data, does not use first arrivals through the water saturated zone (because there is none to use) in such cases, GRM determines the depth of bedrock correctly by using the *average* velocity of the saturated and unsaturated zones.

A "hidden layer" occurs where a lower velocity material underlies a higher velocity material, a common situation in stratified sediments. An example is where sands are present under layers of clay or till. As in the case of a "blind layer," most methods of seismic refraction data reduction will indicate that bedrock is deeper than it is if a hidden layer is present but not detected. Internal tests in the seismic refraction data reduction software that we use (IXRefraX by Interpex) indicate that such layers might be present, and an average velocity of the two layers is used to determine the depth of bedrock.

RESULTS

General. The seismic refraction survey consisted of 13 seismic lines, identified as Seismic Lines 1 through 13. The locations of the seismic lines are shown in Figure 2. The results of the survey are shown in Figures 3-15 for seismic lines 1-13 and are listed in Table 1.

Data Quality. The quality of the seismic refraction data is excellent. A measure of the accuracy of the data can be obtained by comparing the results at seismic line intersections or by comparing the seismically determined depths with depths in borings that intersect bedrock. Several boreholes were present in the vicinity of the seismic lines and no intersections were available.

Based on the results of comparing seismically determined depths with reported depth of bedrock, by comparing the seismically determined depth at line intersections, and data acquired for similar projects, we estimate the accuracy (standard deviation) of the depths of competent bedrock determined by the seismic refraction survey, to be within the typical limits of about ±10% of the depth of bedrock, or ± 2 feet, whichever is greater.

Interpretation of Velocities. We note that the bedrock surface determined seismically coincides with the sharp increase of N-value reported in the boring logs for borings near the seismic lines. Although the competent bedrock reported in the boring logs is shown significantly deeper than those determined seismically, the velocities determined seismically correspond to velocities typical for competent bedrock.

The results of the seismic refraction survey are listed in tabular form in Table 1. Based on the interpretation obtained with the GRM method, materials with three velocity ranges were detected. The upper material (Layer 1) exhibits a compressional wave velocity range of about 1,070 feet per second (ft/s) to 1,830 ft/s and is interpreted to consist of dry soils. The middle material (Layer 2) exhibits compressional wave velocity ranging between 4,400 and 6,450 ft/s and is interpreted to consist of saturated soils or extremely weathered bedrock. The bottom layer (Layer 3) exhibits compressional wave velocity ranging between 10,650 and 17,250 ft/s and corresponds to competent bedrock.

Bedrock Depths and Configuration. The depth of competent bedrock varies between 4 and 28 feet below ground surface. The elevation of competent bedrock in the area surveyed varies between approximately 360 feet and 396 feet, an apparent relief of 36 feet.

CONCLUSIONS

Based on the seismic refraction survey conducted by Hager-Richter Geoscience, Inc., at the proposed location of the Micron Campus – Phase I, in Clay, New York, we conclude the following:

- The depth of competent bedrock varies between 4 and 28 feet below ground surface, corresponding to elevation 360 and 396 feet.

LIMITATIONS ON USE OF THE REPORT

This Report was prepared for the exclusive use of LANGAN and its clients (Collectively Client). No other party shall be entitled to rely on this Report or any information, documents, records, data, interpretations, advice or opinions given to Client by Hager-Richter Geoscience, Inc. (HRGS) in the performance of its work. The Report relates solely to the specific project for which HRGS has been retained and shall not be used or relied upon by Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of HRGS. Any unpermitted use by Client or any third party shall be at Client's or such third party's own risk and without any liability to HRGS.

HRGS has used reasonable care, skill, competence, and judgment in the preparation of this Report consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by HRGS should be understood to be exploratory and interpretative in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Except as expressly provided in this limitations section, HRGS makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

If you have any questions or comments on this report, please contact us at your convenience. It has been a pleasure to work with you on this project.

HAGER-RICHTER GEOSCIENCE, INC.
dba HR Geological Services in New York

José Carlos Cambero Calzada, P.G. (NY 000899)
Senior Geophysicist

Attachments: Figures 1 – 15
Table 1

Table 1 - Seismic Refraction Results

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
1	931762.5	1162844	0	1366.4		11469.3	6.3	398.5	392.2
1	931770.9	1162839	5	1366.4		11065.4	6.3	398.5	392.2
1	931775.1	1162836	10	1366.4		11065.4	6.7	398.5	391.9
1	931779.3	1162834	15	1366.4		11065.4	6.8	398.6	391.8
1	931783.5	1162831	20	1366.4		12421.3	6.4	398.6	392.2
1	931787.7	1162828	25	1366.4		12421.3	6.9	398.6	391.7
1	931791.9	1162826	30	1366.4		12421.3	7.4	398.6	391.2
1	931796.1	1162823	35	1799.4		12421.3	8.5	398.6	390.2
1	931800.3	1162821	40	1799.4		13535.1	8.9	398.6	389.7
1	931804.5	1162818	45	1799.4		13535.1	8.8	398.7	389.8
1	931808.7	1162815	50	1799.4		13535.1	8.6	398.7	390.1
1	931812.9	1162813	55	1799.4		13535.1	8.9	398.7	389.8
1	931817.1	1162810	60	1799.4		13535.1	9.1	398.7	389.6
1	931821.2	1162808	65	1799.4		13535.1	8.9	398.7	389.8
1	931825.5	1162805	70	1799.4		13535.1	8.6	398.7	390.2
1	931829.7	1162802	75	1799.4		13535.1	8.4	398.8	390.3
1	931833.9	1162800	80	1799.4		13535.1	8.3	398.8	390.5
1	931838.1	1162797	85	1799.4		13535.1	8.6	398.8	390.1
1	931842.2	1162795	90	1799.4		13326.2	8.8	398.8	390
1	931846.4	1162792	95	1799.4		13704.9	8.7	398.8	390.1
1	931850.7	1162789	100	1518.7		13704.9	7.9	398.8	390.9
1	931854.9	1162787	105	1518.7		13704.9	8	398.8	390.9
1	931859.1	1162784	110	1518.7		13704.9	7.8	398.9	391.1
1	931863.2	1162782	115	1518.7		13704.9	8	398.9	390.9
1	931867.4	1162779	120	1518.7		13704.9	8.1	398.9	390.8
1	931871.6	1162776	125	1518.7		13704.9	8.3	398.9	390.7
1	931875.9	1162774	130	1518.7		13704.9	8.1	398.9	390.8
1	931880.1	1162771	135	1518.7		13704.9	8.6	398.9	390.3
1	931884.2	1162769	140	1518.7		13299.1	8	399	390.9
1	931888.4	1162766	145	1518.7		13299.1	7.4	399	391.5
1	931892.6	1162763	150	1518.7		13299.1	7.3	399	391.6
1	931896.8	1162761	155	1216.8		13130.6	5.9	399	393.1
1	931901.1	1162758	160	1216.8		13130.6	5.8	399.3	393.5
1	931905.2	1162756	165	1216.8		13130.6	5.8	399.4	393.5
1	931909.4	1162753	170	1216.8		13130.6	5.7	399.4	393.7

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
1	931913.6	1162750	175	1216.8		13130.6	5.7	399.4	393.7
1	931917.8	1162748	180	1216.8		13130.6	6.1	399.4	393.3
1	931922	1162745	185	1216.8		13130.6	6	399.4	393.4
1	931926.2	1162743	190	1216.8		13130.6	6.2	399.4	393.2
1	931930.4	1162740	195	1216.8		13130.6	5.9	399.4	393.5
1	931934.6	1162737	200	1216.8		13130.6	5.9	399.4	393.6
1	931938.8	1162735	205	1216.8		13130.6	6	399.4	393.4
1	931943	1162732	210	1216.8		13130.6	5.9	399.4	393.5
1	931947.2	1162729	215	1216.8		12815.9	6.2	399.5	393.2
1	931951.4	1162727	220	1216.8		12212.7	6.5	399.5	393
1	931955.6	1162724	225	1216.8		12212.7	7.5	399.5	392
1	931959.8	1162722	230	1216.8		12212.7	7.5	399.5	392
1	931964	1162719	235	1216.8		11876	7.5	399.5	392
2	931943.6	1162998	0	1125.4		13778.2	9.1	393.8	384.7
2	931951.7	1162993	5	1125.4		13494.2	9.1	393.9	384.7
2	931955.8	1162990	10	1125.4		13494.2	9	393.9	384.9
2	931959.8	1162987	15	1125.4		13494.2	9	393.9	384.9
2	931963.9	1162985	20	1125.4		13480.8	9.1	394	384.9
2	931967.9	1162982	25	1194.6		13480.8	9.6	394	384.4
2	931972	1162979	30	1194.6		13480.8	9.6	394	384.4
2	931976.1	1162976	35	1194.6		13480.8	9.5	394.1	384.6
2	931980.1	1162974	40	1194.6		13480.8	9.6	394.1	384.5
2	931984.1	1162971	45	1194.6		13480.8	9.4	394.1	384.7
2	931988.2	1162968	50	1194.6		13480.8	9.5	394.2	384.7
2	931992.2	1162965	55	1194.6		13480.8	9.6	394.2	384.6
2	931996.3	1162963	60	1288.7		13480.8	10.5	394.2	383.7
2	932000.4	1162960	65	1288.7		13480.8	10.6	394.3	383.7
2	932004.4	1162957	70	1288.7		13480.8	10.8	394	383.2
2	932008.4	1162955	75	1288.7		13480.8	11	394.1	383.1
2	932012.5	1162952	80	1288.7		13611	11.3	394.2	382.8
2	932016.6	1162949	85	1288.7		13611	11.3	394.2	382.9
2	932020.6	1162946	90	1349		13611	12	394.2	382.2
2	932024.7	1162944	95	1349		13636.8	12.3	394.2	382
2	932028.8	1162941	100	1349		13636.8	12.4	394.2	381.8
2	932032.8	1162938	105	1349		13636.8	12.2	394.3	382.1
2	932036.9	1162935	110	1349		13636.8	12.2	394.3	382.1
2	932040.9	1162933	115	1349		13636.8	12.1	394.3	382.2
2	932044.9	1162930	120	1255.7		13636.8	11.5	394.3	382.9

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
2	932049	1162927	125	1255.7		13636.8	11	394.3	383.4
2	932053.1	1162924	130	1255.7		13636.8	11	394.4	383.4
2	932057.1	1162922	135	1255.7		13706	11.6	394.4	382.8
2	932061.2	1162919	140	1255.7		14024.5	11.9	394.4	382.5
2	932065.2	1162916	145	1255.7		14024.5	11.9	394.4	382.5
2	932069.2	1162914	150	1258.6		14024.5	11.9	394.4	382.6
2	932073.3	1162911	155	1258.6		13742.8	12	394.5	382.5
2	932077.4	1162908	160	1258.6		13742.8	12	394.5	382.5
2	932081.4	1162905	165	1258.6		13742.8	12.1	394.5	382.4
2	932085.5	1162903	170	1258.6		13742.8	12.2	394.5	382.4
2	932089.6	1162900	175	1258.6		13742.8	12.1	394.5	382.5
2	932093.6	1162897	180	1202.1		13742.8	11.1	394.6	383.5
2	932097.7	1162894	185	1202.1		13742.8	10.9	394.6	383.7
2	932101.7	1162892	190	1202.1		13742.8	11	394.6	383.6
2	932105.8	1162889	195	1202.1		13742.8	11	394.6	383.6
2	932109.8	1162886	200	1202.1		13742.8	11.2	394.7	383.4
2	932113.9	1162883	205	1202.1		13462.7	10.4	394.7	384.3
2	932117.9	1162881	210	1202.1		13462.7	10.5	394.7	384.2
2	932122	1162878	215	1130.2		13462.7	9.7	394.7	385
2	932126.1	1162875	220	1130.2		13462.7	9.6	394.7	385.1
2	932130.1	1162873	225	1130.2		13642.7	9.6	394.8	385.2
2	932134.1	1162870	230	1130.2		13642.7	9.6	394.8	385.2
2	932138.2	1162867	235	1130.2		13642.7	9.6	395	385.4
3	932169.9	1162999	0	1117.4		13303.8	9.5	396	386.5
3	932175.9	1163006	6	1117.4		13785.8	9.5	396.1	386.7
3	932181.9	1163006	12	1117.4		13785.8	9.9	396.3	386.4
3	932187.9	1163006	18	1117.4		13785.8	10.1	396.4	386.4
3	932193.9	1163006	24	1117.4		13785.8	10.1	396.6	386.5
3	932199.9	1163006	30	1117.4		13785.8	10.3	396.7	386.4
3	932206	1163006	36	1117.4		14237.2	11.1	396.9	385.8
3	932212	1163006	42	1074		14237.2	10.3	397	386.7
3	932218	1163006	48	1074		14237.2	9.9	397.1	387.2
3	932224	1163006	54	1074		14237.2	9.4	397.2	387.9
3	932230.1	1163006	60	1074		14237.2	9.3	397.4	388.1
3	932236.1	1163006	66	1074		14237.2	9.4	397.5	388.1
3	932242.1	1163006	72	1128.4		14237.2	10.1	397.6	387.5
3	932248.1	1163006	78	1128.4		14237.2	10.2	397.8	387.5
3	932254.1	1163006	84	1128.4		14237.2	10.3	397.9	387.6

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
3	932260.1	1163006	90	1128.4		14237.2	10	398	388
3	932266.1	1163006	96	1128.4		14237.2	10	398.2	388.2
3	932272.1	1163006	102	1128.4		13982.6	10.4	398.4	388
3	932278.1	1163006	108	1137.8		13664.3	10.2	398.6	388.4
3	932284.2	1163006	114	1137.8		13664.3	10.1	398.8	388.7
3	932290.2	1163006	120	1137.8		13664.3	10.2	398.6	388.4
3	932296.2	1163006	126	1137.8		13664.3	10	398.4	388.4
3	932302.2	1163006	132	1137.8		13664.3	10.2	398.2	388
3	932308.2	1163006	138	1137.8		13664.3	10.4	397.5	387.1
3	932314.2	1163006	144	1085.3		13664.3	10	396.8	386.8
3	932320.2	1163006	150	1085.3		13664.3	10.1	396.6	386.5
3	932326.2	1163006	156	1085.3		13664.3	10.3	396.4	386.1
3	932332.2	1163006	162	1085.3		13664.3	10.4	396.2	385.8
3	932338.3	1163006	168	1085.3		13664.3	10.1	396	385.9
3	932344.3	1163006	174	1085.3		13281.2	9.4	395.8	386.4
3	932350.3	1163006	180	1085.3		13281.2	8.3	395.6	387.3
3	932356.3	1163006	186	1203.1		13620.4	8.3	395.4	387.1
3	932362.3	1163006	192	1203.1		13620.4	8.9	395.2	386.3
3	932368.4	1163006	198	1203.1		13620.4	8.5	395	386.5
3	932374.4	1163006	204	1203.1		13620.4	8.5	395	386.5
3	932380.4	1163006	210	1203.1		13620.4	9	395	386
3	932386.4	1163006	216	1203.1		13620.4	8.9	395	386.1
3	932392.4	1163006	222	1203.1		13620.4	9.2	395	385.8
3	932398.4	1163006	228	1203.1		13620.4	9.1	395	385.9
3	932404.4	1163006	234	1203.1		13620.4	9.1	395	385.9
3	932410.4	1163006	240	1658.3		13620.4	10.2	395.1	384.9
3	932416.4	1163006	246	1658.3		13620.4	10.7	395.2	384.4
3	932422.5	1163006	252	1658.3		14010.3	11	395.2	384.2
3	932428.5	1163006	258	1658.3		14010.3	11	395.3	384.3
3	932434.5	1163006	264	1658.3		14010.3	11.2	395.4	384.2
3	932440.5	1163006	270	1658.3		14010.3	11.2	395.5	384.2
3	932446.5	1163006	276	1658.3		14010.3	11	395.5	384.5
3	932452.6	1163006	282	1658.3		14010.3	11.2	395.6	384.4
3	932458.6	1163006	288	1658.3		15219	11.5	395.7	384.2
3	932464.6	1163006	294	1658.3		15219	11.3	395.8	384.4
3	932470.6	1163006	300	1658.3		15219	11.5	395.8	384.3
3	932476.6	1163006	306	1658.3		15219	11.5	395.9	384.5
3	932482.6	1163006	312	1658.3		15219	11.2	396	384.8

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
3	932488.6	1163006	318	1658.3		15047.8	11.1	396.1	385
3	932494.6	1163006	324	1116.4		14497.7	10.6	396.2	385.6
3	932500.6	1163006	330	1116.4		14497.7	10.8	396.2	385.5
3	932506.7	1163006	336	1116.4		14497.7	10.7	396.3	385.6
3	932512.7	1163006	342	1116.4		14497.7	10.7	396.4	385.7
3	932518.7	1163006	348	1116.4		14497.7	10.5	396.5	386
3	932524.7	1163006	354	1116.4		14497.7	10.6	396.5	385.9
3	932530.8	1163006	360	1116.4		14497.7	10.7	396.6	385.9
3	932536.8	1163006	366	1116.4		14497.7	10.5	396.7	386.2
3	932542.8	1163006	372	1116.4		14497.7	10.3	396.8	386.5
3	932548.8	1163006	378	1116.4		14497.7	10.3	396.8	386.5
3	932554.8	1163006	384	1116.4		14497.7	10.5	396.9	386.4
3	932560.8	1163006	390	1116.4		14415.5	10.7	397	386.3
3	932566.8	1163006	396	1268.8		14273.1	11.9	397	385.1
3	932572.8	1163006	402	1268.8		14273.1	11.7	397.1	385.4
3	932578.8	1163006	408	1268.8		14273.1	11.9	397.2	385.3
3	932584.9	1163006	414	1268.8		14273.1	12.1	397.3	385.2
3	932590.9	1163006	420	1268.8		14273.1	12.3	397.4	385.1
3	932596.9	1163006	426	1268.8		14273.1	12.1	397.4	385.3
3	932602.9	1163006	432	1299.2		14273.1	12.5	397.5	385
3	932608.9	1163006	438	1299.2		14273.1	12.5	397.5	385
3	932614.9	1163006	444	1299.2		14273.1	12.6	397.5	385
3	932620.9	1163006	450	1299.2		14273.1	12.7	397.6	384.9
3	932626.9	1163006	456	1299.2		14273.1	12.5	397.6	385.2
3	932632.9	1163006	462	1299.2		14422.8	12.3	397.7	385.4
3	932638.9	1163006	468	1166.7		14873.3	11.2	397.8	386.5
3	932645	1163006	474	1166.7		14873.3	11.7	397.8	386.1
3	932651	1163006	480	1166.7		14873.3	12.1	397.9	385.8
3	932657	1163006	486	1166.7		14873.3	12	397.9	385.9
3	932663	1163006	492	1166.7		14873.3	12.1	397.5	385.3
3	932669.1	1163006	498	1166.7		14873.3	11.6	397	385.4
3	932675.1	1163006	504	1162.5		14873.3	11.4	396.8	385.3
3	932681.1	1163006	510	1162.5		14873.3	11.3	396.5	385.3
3	932687.1	1163006	516	1162.5		14873.3	11	396.3	385.3
3	932693.1	1163006	522	1162.5		14873.3	10.8	396.1	385.3
3	932699.1	1163006	528	1162.5		14873.3	10.3	395.8	385.6
3	932705.1	1163006	534	1162.5		14873.3	9.8	395.6	385.8
3	932711.1	1163006	540	1162.5		14873.3	9.4	395.4	386

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3	932717.1	1163006	546	1195.7		15285.7	10.2	395.1	384.9
3	932723.2	1163006	552	1195.7		15285.7	9.4	394.9	385.5
3	932729.2	1163006	558	1195.7		15285.7	8.8	394.7	385.8
3	932735.2	1163006	564	1195.7		15484.4	8.8	394.4	385.6
3	932741.2	1163006	570	1195.7		15484.4	8.8	394.2	385.4
4	932726.6	1162710	0	1647.9		13686.2	14	400.3	386.3
4	932732.1	1162721	6	1647.9		14176.9	14	400	386
4	932734.8	1162726	12	1647.9		15696.6	13.7	399.9	386.2
4	932737.5	1162731	18	1647.9		15696.6	13.7	399.7	386
4	932740.2	1162736	24	1647.9		15696.6	13.9	399.6	385.7
4	932742.9	1162741	30	1647.9		15696.6	13.9	399.4	385.5
4	932745.7	1162746	36	1647.9		14685.4	13.1	399.3	386.2
4	932748.4	1162752	42	1647.9		14685.4	13.2	399.1	385.9
4	932751.1	1162757	48	1647.9		14685.4	13.5	399	385.5
4	932753.9	1162762	54	1647.9		14685.4	13.1	398.8	385.8
4	932756.6	1162767	60	1647.9		14685.4	13.3	398.7	385.4
4	932759.3	1162772	66	1647.9		14685.4	13.1	398.5	385.4
4	932762.1	1162777	72	1647.9		14685.4	13.1	398.4	385.3
4	932764.8	1162783	78	1318.5		14685.4	10.7	398.2	387.5
4	932767.5	1162788	84	1318.5		14685.4	10.8	398.1	387.3
4	932770.2	1162793	90	1318.5		14685.4	11.5	397.9	386.4
4	932772.9	1162798	96	1318.5		14685.4	11.8	397.8	386
4	932775.7	1162803	102	1318.5		15584.6	11.3	397.6	386.3
4	932778.4	1162809	108	1318.5		15584.6	10.9	397.5	386.6
4	932781.1	1162814	114	1318.5		15344.4	10.4	397.3	387
4	932783.9	1162819	120	1318.5		15344.4	10.5	397.2	386.7
4	932786.6	1162824	126	1318.5		15344.4	10.5	397	386.5
4	932789.3	1162829	132	1318.5		15344.4	10.5	396.9	386.4
4	932792.1	1162834	138	1318.5		15344.4	10.9	396.8	385.8
4	932794.8	1162840	144	1201.6		15344.4	10.2	396.6	386.4
4	932797.5	1162845	150	1201.6		15344.4	10.5	396.5	386
4	932800.2	1162850	156	1201.6		15344.4	10.2	396.3	386.1
4	932802.9	1162855	162	1201.6		15344.4	10.2	396.2	385.9
4	932805.7	1162860	168	1201.6		15344.4	10.2	396	385.8
4	932808.4	1162865	174	1201.6		14441.9	10	395.9	385.8
4	932811.1	1162871	180	1201.6		13943.8	9.8	395.7	385.9
4	932813.9	1162876	186	1271.7		13943.8	10.5	395.6	385.1
4	932816.6	1162881	192	1271.7		13943.8	9.9	395.4	385.5

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
4	932819.3	1162886	198	1271.7		13943.8	9.9	395.3	385.3
4	932822.1	1162891	204	1271.7		13943.8	9.8	395.1	385.4
4	932824.8	1162897	210	1271.7		13943.8	9.5	395	385.4
4	932827.5	1162902	216	1250.3		13943.8	9.4	394.8	385.4
4	932830.2	1162907	222	1250.3		13943.8	9.2	394.7	385.5
4	932832.9	1162912	228	1250.3		13943.8	8.6	394.5	385.9
4	932835.7	1162917	234	1250.3		13943.8	8.1	394.4	386.3
4	932838.4	1162922	240	1250.3		13943.8	7.9	394.2	386.4
4	932841.1	1162928	246	1250.3		13943.8	7.8	394.1	386.3
4	932843.9	1162933	252	1250.3		13943.8	7.6	393.9	386.3
4	932846.6	1162938	258	1250.3		13396.8	7	393.8	386.8
4	932849.3	1162943	264	1250.3		13955.7	7.1	393.6	386.6
4	932852.1	1162948	270	1250.3		11294.9	7.2	393.5	386.3
4	932854.8	1162953	276	1250.3		15857.3	7.2	393.3	386.1
4	932857.5	1162959	282	1250.3		15857.3	7.2	393.2	386
5	932356.8	1163470	0	1146.2		13745.2	8.9	390	381.1
5	932366	1163467	5	1146.2		13414.1	9.6	390.5	380.9
5	932370.6	1163465	10	1146.2		14128.6	11.2	390.9	379.8
5	932375.2	1163464	15	1146.2		14128.6	11.4	391.4	380
5	932379.9	1163462	20	1146.2		14128.6	10.7	391.9	381.1
5	932384.5	1163461	25	1458.6		14169.1	11.7	392.3	380.6
5	932389.1	1163459	30	1458.6		14169.1	11.6	392.8	381.2
5	932393.7	1163457	35	1458.6		14169.1	11	393.3	382.3
5	932398.3	1163456	40	1458.6		14169.1	10.9	393.7	382.9
5	932402.9	1163454	45	1458.6		14169.1	11.5	394.2	382.7
5	932407.6	1163453	50	1458.6		14169.1	12.2	394.7	382.5
5	932412.2	1163451	55	1458.6		14169.1	12.5	395.1	382.7
5	932416.8	1163449	60	1458.6		14169.1	12.4	395.6	383.2
5	932421.4	1163448	65	1458.6		14169.1	12.3	396.1	383.7
5	932426	1163446	70	1458.6		14169.1	11.6	396.5	384.9
5	932430.6	1163445	75	1458.6		14169.1	11.5	397	385.5
5	932435.2	1163443	80	1164.5		14169.1	9	397.4	388.4
5	932439.9	1163441	85	1164.5		14703.2	9	397.4	388.5
5	932444.5	1163440	90	1164.5		15158.6	9.3	397.5	388.1
5	932449.1	1163438	95	1164.5		15158.6	9.8	397.5	387.7
5	932453.7	1163437	100	1164.5		14578.6	9.9	397.5	387.6
5	932458.3	1163435	105	1164.5		14578.6	10.3	397.5	387.2
5	932462.9	1163434	110	1164.5		14578.6	10.6	397.6	386.9

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
5	932467.6	1163432	115	1164.5		14578.6	11.5	397.6	386.1
5	932472.2	1163430	120	1211.2		14578.6	12.8	397.6	384.8
5	932476.8	1163429	125	1211.2		14578.6	13.2	397.6	384.4
5	932481.4	1163427	130	1211.2		14578.6	13.4	397.7	384.3
5	932486	1163426	135	1211.2		14872	13.1	397.7	384.6
5	932490.6	1163424	140	1211.2		14979.5	12.9	397.7	384.8
5	932495.2	1163422	145	1211.2		14979.5	12.9	397.7	384.9
5	932499.9	1163421	150	1195.4		14979.5	12.7	397.8	385.1
5	932504.4	1163419	155	1195.4		14413.8	13.1	397.8	384.7
5	932509.1	1163418	160	1195.4		14413.8	13	397.8	384.8
5	932513.7	1163416	165	1195.4		14413.8	13.1	397.8	384.8
5	932518.3	1163415	170	1195.4		14413.8	13	397.9	384.9
5	932522.9	1163413	175	1195.4		14413.8	13.3	397.9	384.6
5	932527.6	1163411	180	1266.6		14413.8	14.4	397.9	383.5
5	932532.1	1163410	185	1266.6		14413.8	14.4	397.9	383.6
5	932536.8	1163408	190	1266.6		14413.8	14.1	398	383.9
5	932541.4	1163407	195	1266.6		14413.8	14	398	384
5	932546	1163405	200	1266.6		15151.6	14.9	398.2	383.3
5	932550.6	1163403	205	1266.6		15151.6	14.4	398.5	384.1
5	932555.2	1163402	210	1266.6		15151.6	13.7	398.8	385.1
5	932559.8	1163400	215	1125.1		15151.6	12.5	399.1	386.5
5	932564.4	1163399	220	1125.1		10693.6	11.2	399.3	388.1
5	932569.1	1163397	225	1125.1		10693.6	11.2	399.6	388.4
5	932573.7	1163395	230	1125.1		10693.6	11.2	399.9	388.7
5	932578.3	1163394	235	1125.1		10693.6	11.2	399.9	388.7
6	932865.2	1163194	0	1074		14525.4	7.7	404	396.3
6	932854.1	1163202	7	1074		15124.6	7.7	404	396.3
6	932848.5	1163206	14	1074		15124.6	8.6	404	395.4
6	932842.9	1163210	21	1074		15124.6	9.5	404	394.5
6	932837.3	1163214	28	1074		14758	9.4	404	394.6
6	932831.8	1163218	35	1074		14758	9.1	404	394.9
6	932826.2	1163222	42	1118.9		14758	9.8	404	394.2
6	932820.6	1163226	49	1118.9		14758	10.7	404	393.3
6	932815	1163230	56	1118.9		14758	10.8	404	393.2
6	932809.4	1163234	63	1118.9		14758	10.8	404	393.2
6	932803.9	1163238	70	1118.9		14758	11.1	404	392.9
6	932798.3	1163241	77	1118.9		14758	11.4	404	392.6
6	932792.8	1163245	84	1227.5		14758	12.6	404	391.4

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
6	932787.1	1163249	91	1227.5		14758	12.1	404	391.9
6	932781.6	1163253	98	1227.5		14758	11.8	404	392.2
6	932776	1163257	105	1227.5		14758	11.6	404	392.4
6	932770.4	1163261	112	1227.5		14758	11	404	393
6	932764.9	1163265	119	1227.5		14393.4	11.9	404	392.1
6	932759.2	1163269	126	1475.5		14525.8	13.6	404	390.3
6	932753.7	1163273	133	1475.5		14525.8	13.9	403.9	390
6	932748.1	1163277	140	1475.5		14525.8	13.7	403.9	390.2
6	932742.6	1163281	147	1475.5		14525.8	13.7	403.8	390.1
6	932737	1163285	154	1475.5		14525.8	14.1	403.8	389.7
6	932731.4	1163289	161	1475.5		14525.8	14.5	403.7	389.2
6	932725.8	1163293	168	1475.5		14525.8	14.6	403.7	389
6	932720.2	1163297	175	1475.5		14525.8	14.8	403.6	388.8
6	932714.7	1163301	182	1475.5		14525.8	14.7	403.6	388.9
6	932709.1	1163305	189	1475.5		14525.8	14.1	403.5	389.4
6	932703.5	1163309	196	1475.5		14525.8	13.3	403.5	390.2
6	932697.9	1163313	203	1127.1		14525.8	11.3	403.4	392.1
6	932692.4	1163317	210	1127.1		14525.8	11.3	403.4	392
6	932686.8	1163321	217	1127.1		14823.6	12	403.3	391.3
6	932681.2	1163325	224	1127.1		14823.6	12.1	403.3	391.2
6	932675.6	1163329	231	1127.1		14823.6	12	403.2	391.2
6	932670.1	1163333	238	1127.1		14823.6	12	403.2	391.2
6	932664.5	1163337	245	1127.1		14823.6	12.1	403.1	391.1
6	932658.9	1163341	252	1223.7		14823.6	13.3	403.1	389.8
6	932653.4	1163345	259	1223.7		14823.6	13	403	390
6	932647.8	1163349	266	1223.7		15226.2	13.1	403	389.9
6	932642.2	1163353	273	1223.7		15244.3	13.4	402.6	389.2
6	932636.6	1163357	280	1223.7		15244.3	13.6	402.2	388.6
6	932631.1	1163361	287	1620.4		15244.3	14.1	401.8	387.8
6	932625.5	1163365	294	1620.4		15244.3	14.2	401.4	387.2
6	932619.9	1163369	301	1620.4		15244.3	14.3	401.1	386.7
6	932614.3	1163373	308	1620.4		16702.3	14	400.7	386.6
6	932608.8	1163377	315	1620.4		12385.7	14.1	400.3	386.2
6	932603.2	1163381	322	1620.4		12385.7	14.1	399.9	385.8
6	932597.6	1163385	329	1620.4		12385.7	14.1	399.5	385.4
7	932849.5	1163214	0	1821.3		11751.9	19.6	404	384.4
7	932864.1	1163221	8	1821.3		12285.4	19.3	402.5	383.2
7	932871.4	1163224	16	1821.3		16157.3	19.3	401	381.7

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
7	932878.7	1163227	24	1821.3		16157.3	19.7	399.5	379.8
7	932886	1163230	32	1821.3		16157.3	20.5	398	377.5
7	932893.3	1163234	40	1821.3		16157.3	20.6	396.5	375.9
7	932900.6	1163237	48	1821.3		16157.3	20	395	375
7	932907.9	1163240	56	1821.3		16157.3	18.8	395	376.2
7	932915.2	1163243	64	1831		16138.6	17.6	395.1	377.5
7	932922.5	1163246	72	1831		16138.6	16.3	395.1	378.8
7	932929.8	1163250	80	1831		16138.6	15.1	395.2	380.1
7	932937.1	1163253	88	1831		16138.6	14.2	395.2	381.1
7	932944.4	1163256	96	1831		16138.6	14	395.3	381.3
7	932951.7	1163259	104	1831		16138.6	14.5	395.4	380.9
7	932959	1163263	112	1831		16138.6	14.6	395.4	380.8
7	932966.3	1163266	120	1831		16138.6	14.9	395.5	380.6
7	932973.6	1163269	128	1831		16138.6	15.2	395.5	380.3
7	932980.9	1163272	136	1831		15363.4	13.6	395.5	381.9
7	932988.2	1163276	144	1251.7		15363.4	11.8	395.6	383.8
7	932995.5	1163279	152	1251.7		15265.2	10.6	395.6	385.1
7	933002.8	1163282	160	1251.7		15265.2	10.9	395.7	384.8
7	933010.1	1163285	168	1251.7		15265.2	11.4	395.8	384.3
7	933017.4	1163289	176	1251.7		15265.2	11.8	395.8	384
7	933024.7	1163292	184	1251.7		15265.2	12.4	395.9	383.4
7	933032	1163295	192	1251.7		15265.2	13.5	395.9	382.4
7	933039.3	1163298	200	1251.7		15265.2	14.2	396	381.7
7	933046.6	1163302	208	1251.7		15265.2	14.9	396	381.1
7	933053.9	1163305	216	1251.7		15265.2	14.9	395.6	380.7
7	933061.2	1163308	224	1251.7		15265.2	14.7	395.5	380.7
7	933068.5	1163311	232	1251.7		15340.5	14.4	395.3	380.8
7	933075.8	1163314	240	1232.5		14937.1	13.8	395.1	381.3
7	933083.1	1163318	248	1232.5		14937.1	13.7	394.9	381.2
7	933090.4	1163321	256	1232.5		14937.1	14	394.7	380.7
7	933097.7	1163324	264	1232.5		14937.1	13.9	394.5	380.6
7	933105	1163327	272	1232.5		14937.1	13.9	394.4	380.4
7	933112.3	1163331	280	1232.5		14937.1	13.8	394.2	380.4
7	933119.6	1163334	288	1168.6		14937.1	13.1	394	380.9
7	933126.9	1163337	296	1168.6		14937.1	13	393.8	380.8
7	933134.2	1163340	304	1168.6		14937.1	12.9	393.6	380.7
7	933141.5	1163344	312	1168.6		14937.1	13	393.5	380.4
7	933148.8	1163347	320	1168.6		14937.1	13.1	393.3	380.2

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
7	933156.1	1163350	328	1168.6		15065.8	12.8	393.1	380.2
7	933163.4	1163353	336	1477.7		15030.7	13.8	392.9	379.1
7	933170.7	1163357	344	1477.7		15030.7	14.7	392.7	378
7	933178	1163360	352	1477.7		15030.7	14.9	392.5	377.6
7	933185.3	1163363	360	1477.7		14155.9	14.6	392.4	377.8
7	933192.6	1163366	368	1477.7		14087.9	14.6	392.2	377.6
7	933199.9	1163370	376	1477.7		14087.9	14.6	392	377.4
8	933030.7	1163957	0	1568.3		15624	11.9	385.5	373.6
8	933034.4	1163961	6	1568.3		14656.8	11.9	385.8	373.9
8	933038.1	1163966	12	1568.3		14656.8	13.3	386.2	372.9
8	933041.8	1163971	18	1568.3		14656.8	15	386.5	371.5
8	933045.5	1163975	24	1568.3		14656.8	15.3	386.8	371.5
8	933049.2	1163980	30	1568.3		14656.8	15.4	387.1	371.7
8	933052.9	1163985	36	1568.3		14656.8	13.8	387.5	373.7
8	933056.6	1163989	42	1124.2		15358	11.6	387.8	376.2
8	933060.2	1163994	48	1124.2		15358	11.7	388.1	376.4
8	933063.9	1163998	54	1124.2		15358	11.6	388.5	376.8
8	933067.7	1164003	60	1124.2		15358	12	388.8	376.8
8	933071.4	1164008	66	1124.2		15358	12.5	389.1	376.6
8	933075.1	1164012	72	1123.2		15358	12.8	389.5	376.7
8	933078.8	1164017	78	1123.2		15358	13	389.8	376.8
8	933082.4	1164022	84	1123.2		15358	13.3	390.1	376.8
8	933086.1	1164026	90	1123.2		15358	13.4	390.5	377
8	933089.9	1164031	96	1123.2		15358	13.5	390.8	377.3
8	933093.6	1164036	102	1123.2		15552.4	12.9	391	378.2
8	933097.2	1164040	108	1123.2		15552.4	12	391.1	379
8	933100.9	1164045	114	1192.2		15552.4	11.8	391.1	379.3
8	933104.6	1164050	120	1192.2		15552.4	11.1	391.2	380.1
8	933108.4	1164054	126	1192.2		15552.4	10.7	391.3	380.5
8	933112.1	1164059	132	1192.2		15552.4	10.3	391.3	381.1
8	933115.8	1164064	138	1192.2		15552.4	9.8	391.4	381.5
8	933119.4	1164068	144	1307.5		15552.4	11	391.4	380.4
8	933123.1	1164073	150	1307.5		15552.4	11.5	391.5	380
8	933126.9	1164077	156	1307.5		15552.4	12.4	391.6	379.2
8	933130.6	1164082	162	1307.5		15552.4	13.4	391.6	378.2
8	933134.2	1164087	168	1307.5		15552.4	14.8	391.7	376.9
8	933137.9	1164091	174	1307.5		15618.8	15.1	391.7	376.6
8	933141.7	1164096	180	1307.5		15618.8	13.6	391.8	378.2

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8	933145.4	1164101	186	1132.6		15618.8	13.2	391.9	378.6
8	933149.1	1164105	192	1132.6		15618.8	13.3	391.9	378.6
8	933152.8	1164110	198	1132.6		15618.8	13	392	379
8	933156.5	1164115	204	1132.6		15618.8	12.4	391.8	379.4
8	933160.2	1164119	210	1132.6		15618.8	12	391.4	379.4
8	933163.9	1164124	216	1125.8		15618.8	12	391	379
8	933167.6	1164129	222	1125.8		15618.8	12	390.7	378.7
8	933171.4	1164133	228	1125.8		15618.8	12.1	390.3	378.2
8	933175.1	1164138	234	1125.8		15618.8	12.3	390	377.7
8	933178.8	1164143	240	1125.8		15618.8	12	389.6	377.6
8	933182.5	1164147	246	1125.8		15618.8	10.8	389.2	378.5
8	933186.2	1164152	252	1125.8		15618.8	9.2	388.9	379.7
8	933189.9	1164157	258	1125.8		15618.8	8	388.5	380.5
8	933193.7	1164161	264	1125.8		15075.1	4.6	388.2	383.6
8	933197.4	1164166	270	1125.8		15075.1	4.6	387.8	383.2
8	933201.1	1164170	276	1125.8		15160.8	4.6	387.4	382.9
8	933204.8	1164175	282	1125.8		15160.8	4.5	387.1	382.6
8	933208.6	1164180	288	1125.8		15160.8	4.4	386.7	382.3
8	933212.2	1164184	294	1125.8		10645.7	4.3	386.4	382.1
8	933216	1164189	300	1125.8		10645.7	4.3	386	381.7
8	933220	1164194	306	1125.8		16398.1	4.8	386.2	381.3
8	933224	1164199	312	1125.8		16398.1	5	386.4	381.3
8	933227.9	1164204	318	1125.8		16398.1	5.5	386.5	381
8	933231.9	1164208	324	1295.6		16398.1	6.8	386.7	379.9
8	933235.9	1164213	330	1295.6		16398.1	7.2	386.9	379.7
8	933239.9	1164218	336	1295.6		16398.1	7.4	387.1	379.7
8	933243.9	1164223	342	1295.6		16398.1	7.5	387.3	379.8
8	933247.9	1164228	348	1295.6		16398.1	7.4	387.4	380.1
8	933251.9	1164233	354	1295.6		16398.1	7.4	387.6	380.2
8	933255.9	1164237	360	1295.6		16398.1	7.6	387.8	380.2
8	933259.9	1164242	366	1295.6		16398.1	8.3	388	379.7
8	933263.8	1164247	372	1295.6		16398.1	9.2	388.2	379
8	933267.8	1164252	378	1295.6		16398.1	10.3	388.3	378
8	933271.8	1164257	384	1295.6		16398.1	11.3	388.5	377.2
8	933275.8	1164262	390	1295.6		16526.5	11.8	388.7	376.9
8	933279.8	1164266	396	1295.6		16526.5	11.5	388.9	377.4
8	933283.6	1164271	402	1295.6		16526.5	11.7	389	377.3
8	933286.9	1164275	408	1295.6		16526.5	12.7	389	376.3

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
8	933290.2	1164280	414	1295.6		16526.5	13.9	389	375.1
8	933293.6	1164284	420	1295.6		16526.5	14.6	389	374.4
8	933296.9	1164289	426	1295.6		16526.5	14.8	389	374.2
8	933300.2	1164293	432	1140.3		16526.5	13.2	389	375.8
8	933303.5	1164297	438	1140.3		16526.5	13.8	389	375.2
8	933306.9	1164302	444	1140.3		16526.5	14.8	389	374.2
8	933310.2	1164306	450	1140.3		16526.5	15.2	389	373.8
8	933313.5	1164310	456	1140.3		16526.5	14.8	389	374.2
8	933316.9	1164315	462	1140.3		16520.5	14.5	389	374.5
8	933320.2	1164319	468	1140.3		16520.5	14.2	389	374.8
8	933323.5	1164323	474	1143.9		16520.5	13.9	389	375.1
8	933326.8	1164328	480	1143.9		16520.5	13.6	389	375.4
8	933330.2	1164332	486	1143.9		16520.5	13.5	389	375.5
8	933333.5	1164336	492	1143.9		16520.5	13.5	389	375.5
8	933336.8	1164341	498	1143.9		16520.5	13.7	389	375.3
8	933340.6	1164345	504	1140.7		16520.5	13.7	388.8	375.2
8	933344.4	1164350	510	1140.7		16520.5	13.9	388.6	374.6
8	933348.3	1164355	516	1140.7		16520.5	14.2	388.3	374.2
8	933352.2	1164360	522	1140.7		16520.5	14.4	388.1	373.6
8	933356.1	1164365	528	1140.7		16520.5	14.2	387.8	373.6
8	933360	1164369	534	1140.7		16520.5	13.6	387.5	374
8	933363.9	1164374	540	1140.7		16662	13.8	387.3	373.4
8	933367.8	1164379	546	1071.4		11200.2	13	387	374
8	933371.7	1164384	552	1071.4		11200.2	13	386.8	373.7
8	933375.6	1164389	558	1071.4		11200.2	13	386.5	373.5
8	933379.5	1164394	564	1199.6		11200.2	14.6	386.3	371.7
8	933383.4	1164398	570	1199.6		11200.2	14.6	386	371.4
9	932497.9	1163981	0	1407.9	6153.8	15170.5	20	385	365
9	932501.6	1163986	6	1407.9	5311.2	15170.5	20.2	385.2	365
9	932505.2	1163990	12	1407.9	5311.2	15170.5	20.2	385.4	365.2
9	932508.9	1163995	18	1407.9	5311.2	15170.5	18.1	385.6	367.6
9	932512.6	1164000	24	1407.9	5311.2	15170.5	15.9	385.8	369.9
9	932516.2	1164005	30	1407.9	4671.5	15170.5	16.4	386	369.7
9	932519.9	1164010	36	1407.9	5303.9	17253	16.9	386.3	369.4
9	932523.6	1164015	42	1407.9	5303.9	17159.7	16.2	386.5	370.2
9	932527.3	1164019	48	1407.9	5303.9	17159.7	15.8	386.7	370.9
9	932531	1164024	54	1407.9	5303.9	17159.7	16.9	386.9	370
9	932534.7	1164029	60	1407.9	5303.9	17159.7	17.4	387.1	369.7

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
9	932538.3	1164034	66	1407.9	5303.9	17159.7	16.2	387.3	371.2
9	932542	1164039	72	1407.9	5871.6	17159.7	15.4	387.5	372.1
9	932545.7	1164043	78	1407.9	5871.6	17159.7	16	387.7	371.7
9	932549.4	1164048	84	1407.9	5871.6	17159.7	15.1	387.9	372.8
9	932553.1	1164053	90	1407.9	5871.6	17082.8	15.9	388.1	372.2
9	932556.8	1164058	96	1407.9	5871.6	17082.8	15.4	388.4	373
9	932560.4	1164063	102	1407.9	5688.9	17082.8	16.9	388.5	371.7
9	932564	1164067	108	1407.9	5688.9	17082.8	18.6	388.7	370
9	932567.6	1164072	114	1210.3	5517.2	17082.8	19.4	388.8	369.4
9	932571.2	1164077	120	1210.3	5517.2	16864.2	23.8	388.9	365.1
9	932574.8	1164082	126	1210.3	5517.2	16864.2	25.2	389	363.8
9	932578.4	1164086	132	1210.3	5517.2	16864.2	23.1	389.1	366
9	932582.1	1164091	138	1210.3	5517.2	16864.2	24.1	389.3	365.2
9	932585.7	1164096	144	1210.3	5201.2	16864.2	21.4	389.4	368
9	932589.2	1164101	150	1210.3	5201.2	16864.2	18.1	389.5	371.4
9	932592.9	1164105	156	1210.3	5201.2	16981	16.6	389.6	373
9	932596.5	1164110	162	1210.3	5201.2	16981	17.8	389.7	371.9
9	932600.1	1164115	168	1210.3	5540	16981	18.2	389.9	371.6
9	932603.8	1164120	174	1210.3	5540	16981	17.1	390	372.9
9	932607.3	1164124	180	1219.6	5540	16981	17.7	390.1	372.4
9	932610.9	1164129	186	1219.6	5540	16981	19.7	390.2	370.5
9	932614.6	1164134	192	1219.6	5540	16981	21.5	390.3	368.8
9	932618.2	1164139	198	1219.6	5540	16981	22.4	390.5	368.1
9	932621.8	1164143	204	1219.6	5540	16981	21.8	390.5	368.7
9	932625.4	1164148	210	1219.6	5540	16981	21.7	390.4	368.7
9	932629.1	1164153	216	1420.2	4389.3	16981	19.9	390.3	370.5
9	932632.7	1164158	222	1420.2	4389.3	16981	18.9	390.3	371.3
9	932636.3	1164163	228	1420.2	4389.3	15510.2	19.3	390.2	370.9
9	932639.9	1164167	234	1420.2	4389.3	15510.2	19.6	390.2	370.5
9	932643.6	1164172	240	1420.2	4389.3	15510.2	19.9	390.1	370.2
9	932647.2	1164177	246	1420.2	4389.3	15510.2	20.2	390	369.8
9	932650.8	1164182	252	1420.2	4389.3	15510.2	20.5	390	369.4
9	932654.4	1164186	258	1420.2	4389.3	15510.2	20.8	389.9	369.1
9	932658.1	1164191	264	1420.2	4389.3	15510.2	21.1	389.9	368.7
9	932661.8	1164196	270	1420.2	4389.3	15510.2	22	389.8	367.8
9	932665.4	1164201	276	1420.2	4389.3	15510.2	22	389.7	367.7
9	932669	1164206	282	1420.2	6450.2	15510.2	21.9	389.7	367.8
9	932672.6	1164210	288	1420.2	6450.2	15510.2	23.4	389.6	366.3

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
9	932676.2	1164215	294	1420.2	6450.2	15510.2	23.5	389.6	366.1
9	932679.9	1164220	300	2343.4	6344.1	15510.2	25.5	389.5	364
9	932683.5	1164225	306	2343.4	6344.1	15510.2	24.8	389.4	364.6
9	932687.1	1164229	312	2343.4	6344.1	15510.2	24.8	389.4	364.6
9	932690.8	1164234	318	2343.4	6344.1	15044	24.9	389.3	364.4
9	932694.4	1164239	324	2343.4	6344.1	15044	25	389.3	364.3
9	932698	1164244	330	2343.4	6344.1	15044	25	389.2	364.2
9	932701.6	1164248	336	2343.4	6344.1	15044	25	389.1	364.2
9	932705.2	1164253	342	2343.4	6344.1	15044	24.2	389.1	364.8
9	932708.8	1164258	348	2343.4	6344.1	15044	23.5	389	365.5
9	932712.4	1164263	354	2343.4	6344.1	15044	22.3	389	366.6
9	932716.1	1164267	360	2343.4	5432.5	15044	18.2	388.9	370.7
9	932719.7	1164272	366	2343.4	5432.5	15044	17.9	388.8	370.9
9	932723.3	1164277	372	2343.4	5432.5	15044	18.6	388.8	370.2
9	932726.9	1164282	378	2343.4	5432.5	15044	21.2	388.7	367.5
9	932730.6	1164286	384	2343.4	5432.5	15044	21.4	388.7	367.3
9	932734.1	1164291	390	2343.4	5432.5	15044	22.8	388.6	365.8
9	932737.8	1164296	396	2343.4	5432.5	15044	26	388.5	362.5
9	932741.4	1164301	402	2343.4	5432.5	15044	28.3	388.5	360.3
9	932745	1164305	408	2343.4	5432.5	15044	28.2	388.7	360.5
9	932748.6	1164310	414	2343.4	5432.5	15044	27.4	388.9	361.4
9	932752.2	1164315	420	2343.4	5432.5	14899.4	26	389	363
9	932755.9	1164320	426	2343.4	3137.3	14899.4	19.9	389.1	369.2
9	932759.5	1164324	432	1127.6	3137.3	14899.4	19.6	389.3	369.7
9	932763.1	1164329	438	1127.6	3137.3	14899.4	20	389.5	369.4
9	932766.8	1164334	444	1127.6	3137.3	14899.4	20.7	389.6	368.9
9	932770.4	1164339	450	1127.6	3137.3	14899.4	20.9	389.8	368.9
9	932773.9	1164343	456	1127.6	3137.3	14899.4	21.5	389.9	368.4
9	932777.6	1164348	462	1127.6	3137.3	14899.4	21	390	369
9	932781.2	1164353	468	1127.6	3137.3	14899.4	20.3	390.2	369.9
9	932784.8	1164358	474	1127.6	3137.3	14899.4	21	390.4	369.4
9	932788.4	1164362	480	1127.6	3137.3	14899.4	21.8	390.5	368.7
9	932792.1	1164367	486	1127.6	3137.3	14899.4	21.5	390.6	369.1
9	932795.7	1164372	492	1127.6	3137.3	14899.4	18.5	390.8	372.3
9	932799.3	1164377	498	1127.6	3137.3	14899.4	17.9	391	373.1
9	932802.9	1164381	504	1189.4	3137.3	14899.4	18.3	391.1	372.8
9	932806.5	1164386	510	1189.4	3137.3	14899.4	19	391.1	372.2
9	932810.1	1164391	516	1189.4	4334.1	16024.2	19.6	391.2	371.6

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9	932813.8	1164396	522	1189.4	4334.1	16024.2	19.8	391.3	371.6
9	932817.4	1164400	528	1189.4	4334.1	16024.2	19.9	391.4	371.5
9	932820.9	1164405	534	1189.4	4334.1	16123.9	20.1	391.5	371.4
9	932824.6	1164410	540	1233.4	4334.1	16123.9	20.4	391.6	371.2
9	932828.2	1164415	546	1233.4	4334.1	16123.9	20.6	391.7	371.1
9	932831.8	1164419	552	1233.4	4334.1	16123.9	20.8	391.8	371
9	932835.4	1164424	558	1233.4	4334.1	16123.9	21	391.9	370.9
9	932839	1164429	564	1233.4	4334.1	16123.9	21.2	392	370.8
9	932842.6	1164434	570	1233.4	4334.1	16123.9	21.3	392	370.7
9	932846.2	1164438	576	1233.4	4334.1	16224.8	21.5	392.1	370.6
9	932849.9	1164443	582	1223.6	4334.1	16224.8	22.4	392.2	369.9
9	932853.4	1164448	588	1223.6	4334.1	16224.8	21.8	392.3	370.5
9	932857.1	1164453	594	1223.6	4334.1	16224.8	21.6	392.4	370.8
9	932860.7	1164457	600	1223.6	4334.1	16224.8	22	392.5	370.5
9	932864.3	1164462	606	1344.7	2976.7	16224.8	21.3	392.6	371.2
9	932867.9	1164467	612	1344.7	2976.7	16224.8	21	392.6	371.6
9	932871.5	1164472	618	1344.7	2976.7	16224.8	21.7	392.7	370.9
9	932875.1	1164476	624	1344.7	2976.7	16224.8	22.4	392.7	370.4
9	932878.7	1164481	630	1344.7	2976.7	16224.8	23	392.8	369.8
9	932882.3	1164486	636	1344.7	2976.7	15184.1	23	392.9	369.9
9	932885.9	1164490	642	1163.8	2976.7	12595.3	19.5	392.9	373.4
9	932889.5	1164495	648	1163.8	2976.7	12595.3	18.3	393	374.6
9	932893.1	1164500	654	1163.8	2976.7	13060	17.3	393	375.7
9	932896.7	1164505	660	1163.8	2976.7	13060	15.9	393.1	377.2
9	932900.3	1164509	666	1163.8	2976.7	13060	15.7	393.2	377.5
9	932903.9	1164514	672	1163.8	2976.7	13060	15.4	393.2	377.8
9	932907.5	1164519	678	1258.5	2976.7	13060	16.3	393.3	377
9	932911.1	1164524	684	1258.5	2976.7	13060	17.2	393.3	376.1
9	932914.7	1164528	690	1258.5	2976.7	13210.9	17.5	393.4	375.9
9	932918.3	1164533	696	1258.5	2976.7	13210.9	17.3	393.5	376.1
9	932921.9	1164538	702	1258.5	2976.7	13210.9	17.5	393.5	376
9	932925.4	1164542	708	1258.5	2976.7	13210.9	17.7	393.4	375.7
9	932929.1	1164547	714	1231	2976.7	13210.9	18	393.4	375.3
9	932932.6	1164552	720	1231	2976.7	13210.9	17.6	393.3	375.7
9	932936.2	1164557	726	1231	2976.7	13210.9	17.4	393.3	375.9
9	932939.8	1164561	732	1231	2976.7	13210.9	17.9	393.2	375.4
9	932943.4	1164566	738	1231	2976.7	13210.9	17.9	393.2	375.3
9	932947	1164571	744	1231	2976.7	13210.9	18	393.1	375.1

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9	932950.6	1164575	750	1272.6	2976.7	13210.9	17.6	393.1	375.5
9	932954.1	1164580	756	1272.6	2976.7	13210.9	17	393.1	376.1
9	932957.8	1164585	762	1272.6	2976.7	13210.9	16.8	393	376.2
9	932961.3	1164589	768	1272.6	2976.7	11952.9	16	393	376.9
9	932964.9	1164594	774	1272.6	2976.7	11952.9	16.1	392.9	376.8
9	932968.5	1164599	780	1272.6	2976.7	13588.2	18.4	392.9	374.4
9	932972.1	1164604	786	1156	2976.7	13588.2	18.9	392.8	373.9
9	932975.7	1164608	792	1156	2976.7	13135.1	19.1	392.8	373.7
9	932979.2	1164613	798	1156	2976.7	13135.1	19.7	392.7	373.1
9	932982.9	1164618	804	1156	2976.7	13135.1	20.2	392.6	372.4
9	932986.5	1164623	810	1156	2976.7	13135.1	20.8	392.5	371.7
9	932990.1	1164627	816	1156	2976.7	13135.1	20.9	392.3	371.4
10	931650.1	1163895	0	1629.9		16835.8	13.4	394	380.6
10	931653.8	1163900	6	1629.9		16835.8	13.4	394	380.5
10	931657.5	1163904	12	1629.9		16835.8	13.4	393.9	380.5
10	931661.2	1163909	18	1486.4		17049.4	13.4	393.9	380.5
10	931664.9	1163914	24	1486.4		16230.5	13.8	393.9	380.1
10	931668.6	1163918	30	1486.4		16297.1	14.1	393.9	379.8
10	931672.2	1163923	36	2027.2		16297.1	14.4	393.8	379.4
10	931675.9	1163928	42	2027.2		16297.1	14.5	393.8	379.3
10	931679.6	1163932	48	2027.2		16297.1	14.5	393.8	379.3
10	931683.3	1163937	54	2027.2		16297.1	14.3	393.7	379.4
10	931687	1163941	60	2027.2		16297.1	14.2	393.7	379.5
10	931690.7	1163946	66	2027.2		16297.1	14.2	393.7	379.5
10	931694.4	1163951	72	2027.2		16297.1	14.3	393.6	379.3
10	931698.1	1163955	78	2027.2		16297.1	14.7	393.6	378.9
10	931701.8	1163960	84	2027.2		16297.1	15.7	393.6	377.9
10	931705.5	1163965	90	1981.3		16302.1	15.7	393.5	377.8
10	931709.2	1163969	96	1981.3		16302.1	16	393.5	377.5
10	931713	1163974	102	1981.3		16302.1	16	393.5	377.5
10	931717.1	1163978	108	1981.3		16302.1	16.1	393.4	377.3
10	931721.1	1163983	114	1981.3		16302.1	16.3	393.4	377.1
10	931725.2	1163987	120	1981.3		16302.1	15.8	393.3	377.5
10	931729.3	1163992	126	1981.3		15864.3	16.3	393.2	377
10	931733.4	1163996	132	1981.3		15864.3	16.4	393.2	376.8
10	931737.4	1164000	138	1981.3		15864.3	16.3	393.1	376.8
10	931741.5	1164005	144	1777.5		15864.3	14.4	393.1	378.6
10	931745.6	1164009	150	1777.5		15864.3	14	393	379

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10	931749.7	1164014	156	1777.5		15864.3	14	392.9	378.9
10	931753.8	1164018	162	1777.5		15864.3	13.9	392.9	378.9
10	931757.8	1164022	168	1777.5		15610.7	14.6	392.8	378.3
10	931761.9	1164027	174	1777.5		15610.7	14.6	392.8	378.1
10	931766	1164031	180	1777.5		15610.7	14.5	392.7	378.2
10	931770.1	1164036	186	1754.5		15276.7	13.9	392.6	378.8
10	931774.1	1164040	192	1754.5		15276.7	13.7	392.6	378.8
10	931778.2	1164044	198	1754.5		15276.7	13.6	392.5	378.9
10	931782.2	1164049	204	1754.5		15276.7	13.4	392.5	379.1
10	931786.3	1164053	210	1754.5		15276.7	13.3	392.4	379.1
10	931790.4	1164057	216	1532.9		15276.7	11.5	392.3	380.9
10	931794.4	1164062	222	1532.9		15276.7	11.3	392.3	381
10	931798.5	1164066	228	1532.9		15276.7	11	392.2	381.2
10	931802.6	1164071	234	1532.9		15276.7	10.6	392.2	381.6
10	931806.6	1164075	240	1532.9		15276.7	10.2	392.1	381.9
10	931810.6	1164079	246	1532.9		14196	9.7	392	382.3
10	931814.7	1164084	252	1532.9		16999	9.7	392	382.3
10	931818.8	1164088	258	1532.9		16999	9.5	391.9	382.4
10	931822.8	1164092	264	1532.9		17637.9	10	391.9	381.9
10	931826.9	1164097	270	1532.9		17637.9	9.9	391.8	381.9
10	931830.9	1164101	276	1532.9		17637.9	10.3	391.7	381.5
10	931834.9	1164105	282	1532.9		17637.9	10.3	391.7	381.3
10	931839	1164110	288	1532.9		17637.9	10.5	391.6	381.1
10	931843.1	1164114	294	1532.9		17637.9	11	391.6	380.5
10	931847.1	1164119	300	2228.8		13917.7	11.2	391.5	380.3
10	931851	1164123	306	2228.8		13917.7	11.5	391.5	380.1
10	931854.9	1164128	312	2228.8		13917.7	11.7	391.6	379.8
10	931858.8	1164132	318	2228.8		13917.7	11.7	391.6	379.9
10	931862.6	1164137	324	2228.8		16539.3	11.9	391.6	379.7
10	931866.5	1164141	330	2228.8		16539.3	11.6	391.6	380
10	931870.4	1164146	336	2228.8		16539.3	11.8	391.7	379.9
10	931874.3	1164150	342	2228.8		16539.3	11.9	391.7	379.8
10	931878.2	1164155	348	2228.8		16539.3	12.2	391.7	379.5
10	931882.1	1164159	354	2228.8		16539.3	12.8	391.8	378.9
10	931885.9	1164164	360	2228.8		16539.3	13.7	391.8	378.1
10	931889.8	1164168	366	2228.8		16539.3	14.3	391.8	377.5
10	931893.7	1164173	372	2228.8		16539.3	15.2	391.9	376.6
10	931897.6	1164177	378	2228.8		16539.3	15.5	391.9	376.4

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
10	931901.4	1164182	384	2228.8		16243.5	15.5	391.9	376.4
10	931905.4	1164187	390	2228.8		16243.5	15.3	392	376.6
10	931909.2	1164191	396	1896.4		16243.5	15.1	392	376.9
10	931912.9	1164196	402	1896.4		15605.9	15.1	392	376.9
10	931916.1	1164201	408	1896.4		15605.9	14.6	392	377.4
10	931919.3	1164206	414	1896.4		15605.9	14.2	392.1	377.8
10	931922.6	1164211	420	1896.4		15605.9	13.8	392.1	378.3
10	931925.8	1164216	426	1896.4		15605.9	13.9	392.1	378.2
10	931929	1164221	432	1860.1		15605.9	13.6	392.1	378.6
10	931932.2	1164226	438	1860.1		15605.9	14.1	392.2	378.1
10	931935.4	1164231	444	1860.1		15605.9	14.7	392.2	377.5
10	931938.7	1164236	450	1860.1		14772.6	14.8	392.2	377.4
10	931941.9	1164241	456	1860.1		14772.6	15	392.2	377.2
10	931945.1	1164246	462	1860.1		14772.6	15.1	392.2	377.1
10	931948.4	1164251	468	1798.5		14772.6	14.8	392.3	377.5
10	931951.6	1164256	474	1740.9		14772.6	14.5	392.3	377.8
10	931954.8	1164261	480	1740.9		14772.6	14.6	392.3	377.7
10	931958.1	1164266	486	1740.9		14772.6	14.7	392.3	377.6
10	931961.2	1164271	492	1740.9		14772.6	14.9	392.4	377.5
10	931964.5	1164276	498	1740.9		14772.6	15	392.4	377.4
10	931967.7	1164281	504	1901.7		14772.6	16.6	392.4	375.8
10	931970.9	1164286	510	1901.7		14772.6	16.8	392.3	375.5
10	931974.1	1164291	516	1901.7		14772.6	16.9	392.3	375.3
10	931977.2	1164296	522	1901.7		14772.6	17.1	392.2	375.1
10	931980.4	1164301	528	1901.7		14772.6	17.2	392.1	374.9
10	931983.6	1164306	534	1901.7		14772.6	17.4	392.1	374.7
10	931986.8	1164311	540	1901.7		13025	17.5	392	374.6
10	931989.9	1164316	546	1775		13025	16.3	392	375.7
10	931993.1	1164321	552	1775		13025	15.6	391.9	376.4
10	931996.3	1164326	558	1775		13025	14.9	391.9	377
10	931999.5	1164331	564	1775		13025	14.2	391.8	377.7
10	932002.7	1164336	570	1775		13025	13.5	391.8	378.3
10	932005.8	1164341	576	1643.8		12011.9	11.8	391.7	379.9
10	932009	1164346	582	1643.8		12011.9	11.2	391.7	380.5
10	932012.2	1164351	588	1643.8		12011.9	10.5	391.6	381.1
10	932015.4	1164357	594	1643.8		12011.9	9.9	391.6	381.7
10	932018.6	1164362	600	1643.8		12393	9.9	391.5	381.6
10	932021.9	1164367	606	1643.8		16201.2	8.8	391.4	382.7

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
10	932025.2	1164371	612	1643.8		16201.2	9	391.3	382.3
10	932028.6	1164376	618	1643.8		16201.2	8.4	391.2	382.8
10	932031.9	1164381	624	1643.8		16201.2	8.5	391.1	382.7
10	932035.3	1164386	630	1643.8		16201.2	8.6	391	382.4
10	932038.6	1164391	636	1643.8		16201.2	8.7	391	382.2
10	932042	1164396	642	1643.8		16201.2	8.8	390.9	382.1
10	932045.4	1164401	648	2047.9		16201.2	9.7	390.8	381.1
10	932048.7	1164406	654	2047.9		16201.2	9.4	390.7	381.3
10	932052.1	1164411	660	2047.9		16201.2	9.5	390.6	381.1
10	932055.4	1164416	666	2047.9		16201.2	10.2	390.5	380.3
10	932058.8	1164421	672	2047.9		16201.2	9.9	390.4	380.5
10	932062.1	1164426	678	2047.9		16201.2	9.9	390.3	380.5
10	932065.4	1164431	684	2047.9		17119.6	10.3	390.2	379.9
10	932068.8	1164436	690	2047.9		17119.6	10.7	390.1	379.4
10	932072.1	1164441	696	2047.9		17119.6	11.2	390.1	378.8
10	932075.4	1164446	702	2047.9		17119.6	11.9	390	378.2
10	932078.8	1164451	708	2047.9		17119.6	12.5	390.2	377.6
10	932082	1164456	714	2047.9		17119.6	13.2	390.3	377.1
10	932085.2	1164461	720	2047.9		17119.6	13.7	390.4	376.8
10	932088.5	1164466	726	2047.9		17119.6	13.8	390.6	376.7
10	932091.8	1164471	732	2047.9		17119.6	13.8	390.7	376.9
10	932095	1164476	738	1802		17119.6	13.7	390.8	377.2
10	932098.2	1164481	744	1802		17306.2	14	391	376.9
10	932101.5	1164486	750	1802		17306.2	14.5	391.1	376.6
10	932104.8	1164491	756	1802		17306.2	14.3	391.2	377
10	932108.1	1164496	762	1802		17306.2	13.9	391.4	377.5
10	932111.3	1164501	768	1802		17306.2	14	391.5	377.5
10	932114.6	1164506	774	1802		17306.2	14.7	391.6	376.9
10	932117.8	1164511	780	1802		17306.2	15.2	391.8	376.6
10	932121.1	1164516	786	1802		17306.2	15.4	391.9	376.5
10	932124.3	1164521	792	1208.7		17306.2	15.3	392	376.7
10	932127.6	1164526	798	1208.7		17306.2	15.3	392.2	376.8
10	932130.9	1164531	804	1208.7		17306.2	15.3	392.2	376.9
10	932134.2	1164536	810	1208.7		17306.2	15.2	392.1	376.9
10	932137.5	1164540	816	1208.7		13607.7	15.2	392	376.8
10	932140.8	1164545	822	1715.2		13607.7	15.3	391.9	376.7
10	932144.1	1164550	828	1715.2		13607.7	15.2	391.9	376.6
10	932147.4	1164555	834	1715.2		13607.7	15.2	391.8	376.6

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10	932150.7	1164560	840	1715.2		13607.7	15.2	391.7	376.5
10	932154	1164565	846	1715.2		13607.7	15.2	391.6	376.5
10	932157.3	1164570	852	1715.2		13607.7	15.2	391.6	376.4
10	932160.6	1164575	858	1715.2		13607.7	15.1	391.5	376.4
10	932163.9	1164580	864	1801.8		14854.5	15.1	391.4	376.3
10	932167.2	1164585	870	1801.8		14854.5	15	391.4	376.4
10	932170.6	1164590	876	1801.8		14854.5	15.3	391.3	375.9
10	932173.8	1164595	882	1801.8		14854.5	15.2	391.2	376
10	932177.1	1164600	888	1801.8		14854.5	15.1	391.1	376.1
10	932180.4	1164605	894	1801.8		16713	15	391.1	376.1
10	932183.8	1164610	900	1801.8		16887.1	14.4	391	376.6
10	932187.1	1164615	906	1801.8		17048.1	13.5	391.1	377.5
10	932190.6	1164620	912	1801.8		17048.1	13.9	391.2	377.3
10	932193.9	1164624	918	1774.7		17048.1	14.2	391.3	377
10	932197.4	1164629	924	1774.7		17048.1	14.3	391.4	377.1
10	932200.8	1164634	930	1774.7		17048.1	14.3	391.5	377.1
10	932204.2	1164639	936	1774.7		17048.1	14.4	391.5	377.1
10	932207.6	1164644	942	1774.7		17048.1	14.8	391.6	376.8
10	932210.9	1164649	948	1774.7		17048.1	15	391.7	376.8
10	932214.4	1164654	954	1774.7		17048.1	15.2	391.8	376.6
10	932217.8	1164659	960	1774.7		17048.1	15.3	391.9	376.6
10	932221.2	1164664	966	1774.7		17048.1	15.7	392	376.2
10	932224.6	1164669	972	1741.2		17048.1	15.5	392.1	376.6
10	932227.9	1164674	978	1741.2		16946.4	16.2	392.2	375.9
10	932231.4	1164678	984	1741.2		16946.4	15.6	392.3	376.6
10	932234.8	1164683	990	1741.2		16946.4	15.5	392.4	376.8
10	932238.2	1164688	996	1741.2		16946.4	15.9	392.4	376.6
10	932241.5	1164693	1002	1741.2		16946.4	15.4	392.5	377.1
10	932244.8	1164698	1008	1420.8		16946.4	15.4	392.4	377
10	932247.9	1164703	1014	1420.8		16946.4	14.6	392.4	377.8
10	932251.2	1164708	1020	1420.8		16772.6	14.4	392.3	377.9
10	932254.4	1164713	1026	1420.8		16772.6	14.5	392.3	377.8
10	932257.6	1164718	1032	1420.8		16772.6	14.8	392.2	377.4
10	932260.8	1164723	1038	1420.8		16772.6	14.7	392.2	377.5
10	932264.1	1164728	1044	1420.8		15497.7	15	392.1	377.2
10	932267.2	1164733	1050	1420.8		15497.7	14.8	392.1	377.3
10	932270.5	1164738	1056	2108.5		15497.7	15.5	392.1	376.5
10	932273.8	1164743	1062	2108.5		15497.7	15.7	392	376.3

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10	932276.9	1164748	1068	2108.5		15497.7	16	392	375.9
10	932280.2	1164753	1074	2108.5		15497.7	15.8	391.9	376.1
10	932283.4	1164758	1080	2108.5		15497.7	16.1	391.9	375.8
10	932286.6	1164763	1086	2108.5		15497.7	15.4	391.8	376.4
10	932289.8	1164768	1092	2108.5		15497.7	15.6	391.8	376.2
10	932293.1	1164773	1098	2108.5		15497.7	15.8	391.7	375.9
10	932296.4	1164778	1104	2108.5		15497.7	16.2	391.7	375.5
10	932299.8	1164783	1110	2108.5		15513	15.9	391.8	375.9
10	932303.2	1164788	1116	2108.5		15513	16	391.8	375.8
10	932306.6	1164793	1122	1853.8		15513	14.5	391.8	377.3
10	932310.1	1164798	1128	1853.8		15513	14.4	391.9	377.4
10	932313.5	1164803	1134	1853.8		16455.8	14.2	391.9	377.7
10	932316.9	1164807	1140	1853.8		16455.8	14.2	392	377.8
10	932320.3	1164812	1146	1853.8		16683.4	14	392	378
11	933694.3	1164137	0	1163.7		13418.7	9.9	394	384.1
11	933691.8	1164133	5	1163.7		13418.7	9.9	394	384.1
11	933689.2	1164129	10	1163.7		13418.7	9.9	394	384.1
11	933686.8	1164125	15	1163.7		13418.7	9.9	393.9	384
11	933684.2	1164120	20	1181.6		13418.7	10.1	393.9	383.9
11	933681.7	1164116	25	1198.7		12102.9	10.2	393.9	383.7
11	933679.2	1164112	30	1216.2		12102.9	10.8	393.9	383.1
11	933676.7	1164107	35	1216.2		12102.9	10.4	393.9	383.5
11	933674.1	1164103	40	1216.2		12102.9	10.3	393.8	383.5
11	933671.6	1164099	45	1216.2		12102.9	10.2	393.8	383.6
11	933669.1	1164094	50	1216.2		12102.9	10.2	393.8	383.6
11	933666.6	1164090	55	1216.2		12102.9	10.3	393.8	383.5
11	933664.1	1164086	60	1380.9		12102.9	12.1	393.7	381.7
11	933661.6	1164081	65	1380.9		12102.9	12.6	393.7	381.1
11	933659.1	1164077	70	1380.9		12102.9	12.9	393.7	380.8
11	933656.5	1164073	75	1380.9		12102.9	13.2	393.7	380.5
11	933654	1164068	80	1380.9		13418.7	13.1	393.7	380.5
11	933651.5	1164064	85	1380.9		13418.7	13.1	393.6	380.6
11	933648.9	1164060	90	1380.9		13418.7	13.1	393.6	380.6
11	933646.4	1164056	95	1380.9		13392.5	13.1	393.6	380.5
11	933643.9	1164051	100	1267.3		13392.5	11.8	393.6	381.8
11	933641.4	1164047	105	1171		13392.5	10.8	393.6	382.8
11	933638.9	1164043	110	1171		13392.5	10.6	393.5	382.9
11	933636.4	1164038	115	1171		13392.5	10.5	393.5	383

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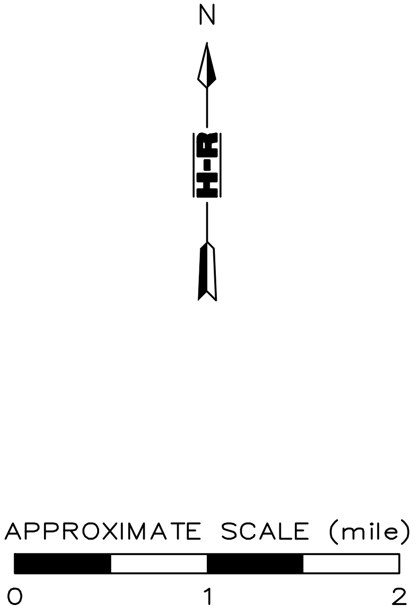
11	933633.8	1164034	120	1115.5		13392.5	9.8	393.5	383.7
11	933631.3	1164030	125	1115.5		13392.5	9.7	393.5	383.8
11	933628.8	1164025	130	1115.5		13392.5	9.6	393.4	383.9
11	933626.2	1164021	135	1115.5		13392.5	9.4	393.4	384
11	933623.8	1164017	140	1115.5		13392.5	9.3	393.4	384.1
11	933621.2	1164012	145	1115.5		13392.5	9.1	393.4	384.3
11	933618.7	1164008	150	1319		13392.5	10.8	393.4	382.6
11	933616.2	1164004	155	1319		13381.5	10.8	393.3	382.5
11	933613.7	1163999	160	1319		13381.5	10.9	393.3	382.4
11	933611.1	1163995	165	1319		13381.5	11	393.3	382.3
11	933608.6	1163991	170	1319		13381.5	11.1	393.3	382.2
11	933606.1	1163987	175	1319		13381.5	11.1	393.3	382.1
11	933603.6	1163982	180	1319.7		13381.5	11.2	393.2	382
11	933601.1	1163978	185	1319.7		13381.5	11.3	393.2	381.9
11	933598.6	1163974	190	1319.7		13381.5	11.4	393.2	381.8
11	933596.1	1163969	195	1319.7		13381.5	11.5	393.2	381.7
11	933593.5	1163965	200	1319.7		13381.5	11.6	393.1	381.6
11	933591	1163961	205	1319.7		13381.5	11.6	393.1	381.5
11	933588.5	1163956	210	1319.7		13381.5	11.6	393.1	381.5
11	933585.9	1163952	215	1219.8		13381.5	10.8	393.1	382.3
11	933583.4	1163948	220	1219.8		13381.5	10.8	393.1	382.3
11	933580.9	1163943	225	1219.8		13381.5	10.8	393	382.3
11	933578.4	1163939	230	1219.8		13381.5	10.8	393	382.3
11	933575.9	1163935	235	1219.8		13381.5	10.8	393	382.2
12	933607.2	1164013	0	1271		12195.5	12	394	382
12	933605.3	1164008	5	1271		12195.5	12	393.9	381.9
12	933603.3	1164004	10	1271		12195.5	12	393.8	381.9
12	933601.4	1163999	15	1286.8		12195.5	12.1	393.7	381.6
12	933599.4	1163994	20	1286.8		17471.8	12.1	393.6	381.5
12	933597.4	1163990	25	1286.8		17471.8	12.5	393.5	381
12	933595.5	1163985	30	1286.8		17471.8	12.4	393.4	381
12	933593.5	1163980	35	1181.1		17272.1	10.3	393.3	383
12	933591.6	1163976	40	1181.1		17272.1	10	393.2	383.2
12	933589.6	1163971	45	1181.1		17272.1	10.4	393.1	382.7
12	933587.6	1163966	50	1181.1		17272.1	10.2	393	382.8
12	933585.7	1163962	55	1181.1		17272.1	10.5	393	382.5
12	933583.7	1163957	60	1206.7		17272.1	11	392.9	381.9
12	933581.8	1163952	65	1206.7		17272.1	11	392.8	381.8

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
12	933579.8	1163947	70	1206.7		17272.1	10.8	392.7	381.8
12	933577.8	1163943	75	1206.7		17272.1	10.7	392.6	381.8
12	933575.9	1163938	80	1206.7		17471.8	10.5	392.5	382
12	933573.9	1163933	85	1206.7		17471.8	10.3	392.4	382.1
12	933571.9	1163929	90	1183.1		17379.1	10.8	392.3	381.5
12	933569.9	1163924	95	1183.1		17379.1	11.2	392.2	381
12	933568	1163919	100	1183.1		17379.1	11.8	392.1	380.3
12	933566.1	1163915	105	1183.1		17379.1	12	391.9	379.9
12	933564.1	1163910	110	1183.1		17379.1	12.2	391.8	379.6
12	933562.1	1163906	115	1183.1		17379.1	12.3	391.6	379.3
12	933560.2	1163901	120	1143.4		17379.1	11.7	391.5	379.8
12	933558.2	1163897	125	1143.4		17379.1	11.3	391.3	380
12	933556.2	1163892	130	1143.4		17379.1	11.1	391.2	380.1
12	933554.2	1163888	135	1143.4		17379.1	10.5	391	380.5
12	933552.3	1163883	140	1143.4		17379.1	9.8	390.9	381.1
12	933550.4	1163879	145	1143.4		17379.1	9.4	390.7	381.4
12	933548.4	1163874	150	1143.4		17379.1	9	390.6	381.6
12	933546.4	1163870	155	1159.1		17379.1	8.7	390.4	381.7
12	933544.5	1163865	160	1159.1		17379.1	8.7	390.3	381.5
12	933542.5	1163861	165	1159.1		17379.1	9.2	390.1	380.9
12	933540.6	1163856	170	1159.1		17379.1	9.5	390	380.4
12	933538.6	1163852	175	1159.1		17379.1	9.9	389.8	380
12	933536.6	1163847	180	1159.1		17379.1	10.1	389.7	379.5
12	933534.7	1163843	185	1159.1		17379.1	10	389.5	379.5
12	933532.7	1163838	190	1159.1		17379.1	10	389.4	379.4
12	933530.8	1163834	195	1159.1		17379.1	10	389.2	379.2
12	933528.8	1163829	200	1459.4		17379.1	9.7	389.1	379.3
12	933526.8	1163825	205	1459.4		17219.1	9.4	388.9	379.5
12	933524.9	1163820	210	1459.4		16973.6	9.2	388.8	379.6
12	933522.9	1163816	215	1459.4		16515.5	8.8	388.6	379.8
12	933520.9	1163811	220	1459.4		16512.2	8.8	388.5	379.6
12	933519	1163807	225	1459.4		17444.5	9.1	388.3	379.2
12	933517	1163802	230	1459.4		17444.5	9.1	388.2	379.1
12	933515.1	1163798	235	1459.4		17444.5	9.1	388	378.9
13	932906.1	1163087	0	1125.5		15176.1	12.9	399	386.1
13	932911.9	1163093	8	1125.5		15176.1	12.9	400.2	387.3
13	932917.7	1163098	16	1125.5		15176.1	12.9	401.3	388.5
13	932923.5	1163104	24	1125.5		14117.8	12.9	402.5	389.6

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
13	932929.3	1163109	32	1125.5		14117.8	12.7	403.7	391
13	932935.1	1163115	40	1125.5		14213.1	12.3	404.9	392.6
13	932940.9	1163120	48	1125.5		14213.1	12.2	406	393.8
13	932946.8	1163126	56	1171.9		14213.1	13	406.7	393.7
13	932952.7	1163131	64	1171.9		14213.1	12.8	405.3	392.5
13	932958.6	1163137	72	1171.9		14213.1	12.5	403.8	391.3
13	932964.5	1163142	80	1171.9		14213.1	12.2	402.4	390.2
13	932970.4	1163148	88	1171.9		14213.1	11.9	401	389.1
13	932976.3	1163153	96	1214		14213.1	13	399.5	386.5
13	932982.2	1163159	104	1214		14213.1	13.8	398.1	384.3
13	932988.1	1163164	112	1214		14213.1	13.9	397	383.1
13	932993.8	1163170	120	1214		14213.1	13.7	396.9	383.2
13	932999.5	1163175	128	1214		14213.1	13.4	396.8	383.4
13	933005.2	1163181	136	1214		14149.6	13.3	396.7	383.4
13	933010.9	1163186	144	1214		14149.6	13	396.6	383.6
13	933016.6	1163191	152	1214		14149.6	12.5	396.5	384.1
13	933022.4	1163197	160	1333.5		14334.2	13.5	396.4	383
13	933028.1	1163202	168	1333.5		14334.2	13.2	396.4	383.1
13	933033.8	1163208	176	1333.5		14334.2	12.7	396.3	383.6
13	933039.5	1163213	184	1333.5		14334.2	12.4	396.2	383.8
13	933045.2	1163219	192	1333.5		14334.2	12.3	396.1	383.8
13	933050.9	1163224	200	1333.5		14334.2	12.6	396	383.4
13	933056.8	1163229	208	1333.5		14334.2	13.2	395.8	382.7
13	933062.6	1163235	216	1333.5		14334.2	13.6	395.7	382.1
13	933068.5	1163240	224	1333.5		14334.2	13.2	395.5	382.3
13	933074.3	1163246	232	1333.5		14563.2	13.7	395.4	381.6
13	933080.1	1163251	240	1333.5		14563.2	13.9	395.2	381.3
13	933086	1163257	248	1123.8		15213.4	12	395	383
13	933091.9	1163262	256	1123.8		15213.4	12.2	394.9	382.7
13	933097.7	1163268	264	1123.8		15213.4	12	394.7	382.7
13	933103.5	1163273	272	1123.8		15213.4	12.1	394.6	382.5
13	933109.4	1163279	280	1123.8		15213.4	12.1	394.4	382.3
13	933115.2	1163285	288	1127.1		15213.4	12.5	394.2	381.8
13	933121.1	1163290	296	1127.1		15213.4	12.7	394.1	381.3
13	933126.9	1163296	304	1127.1		15213.4	12.9	393.9	381
13	933132.8	1163301	312	1127.1		15213.4	12.7	393.8	381.1
13	933138.6	1163307	320	1127.1		15213.4	12.4	393.6	381.2
13	933144.4	1163312	328	1127.1		15213.4	12	393.5	381.4

LINE ID	Easting (ft)	Northing (ft)	Station (ft)	Vp Layer 1 (ft/s)	Vp Layer 2 (ft/s)	Vp Layer 3 (ft/s)	Layer 2 Depth (ft)	Surface Elevation (ft)	Layer 2 Elevation (ft)
13	933150.2	1163318	336	1127.1		15213.4	12.2	393.3	381.1
13	933156.1	1163323	344	1149.8		15264.9	12.3	393.1	380.8
13	933162	1163329	352	1149.8		15264.9	11.9	393	381.1
13	933167.8	1163334	360	1149.8		15264.9	11.8	392.8	381
13	933173.6	1163340	368	1149.8		15176.1	11.8	392.7	380.8
13	933179.5	1163345	376	1149.8		15176.1	11.8	392.5	380.7

Coordinate system in reference to US State Plane 1983 New York Central in US Feet. Estimated standard deviation of depth of interfaces for seismic lines is normally taken as 10% or 2 feet, whichever is greater. Depths and elevations of bedrock determined here are for competent bedrock. Heavily weathered or highly fractured bedrock may occur at shallower depths.



NOTE:

Modified from Google Earth Pro aerial photograph.

* DBA HR Geological
Services in New York

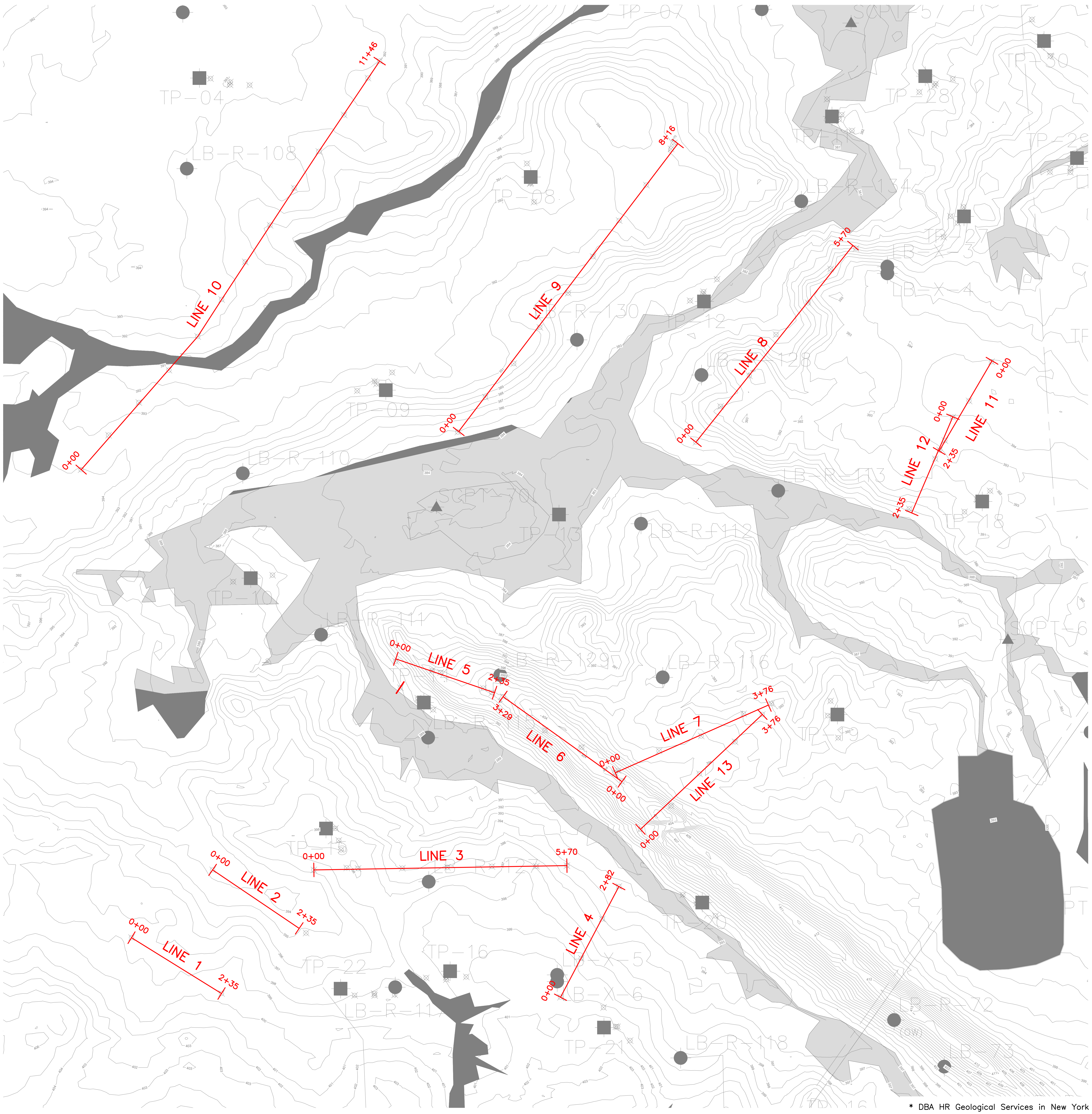
Figure 1
General Site Location
Micron Campus – Phase 1
Clay, New York

File 24RG87

June, 2025

HRGS*

Derry, NH
Fords, NJ



N

H-R

LEGEND

⊢—⊣ SEISMIC LINE

SCALE (feet)
0 150 300

NOTE:

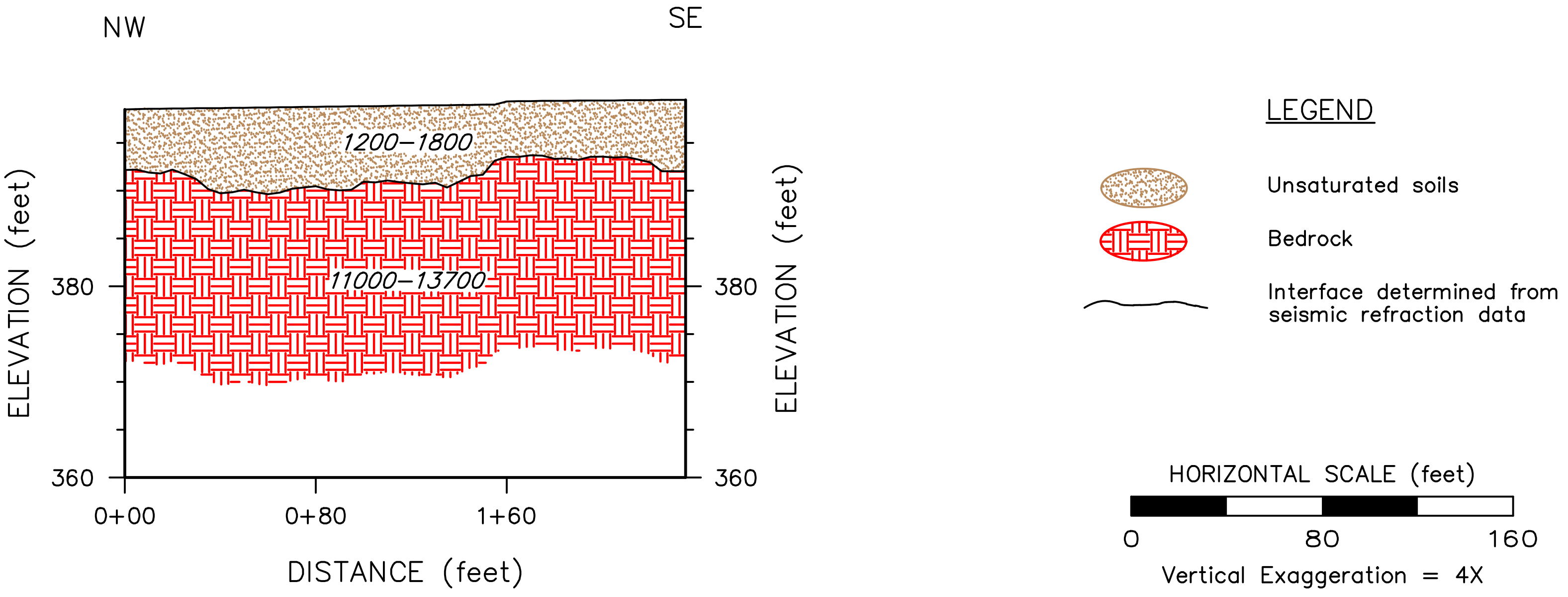
Modified from site plan provided by Langan, identified as WPCCC-AAA00-100-EM-JAC.dwg.

Figure 2
Site Plan
Micron Campus – Phase 1
Clay, New York

FILE 24RG87 | June, 2025

HRGS* **Derry, NH**
Fords, NJ

* DBA HR Geological Services in New York



NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

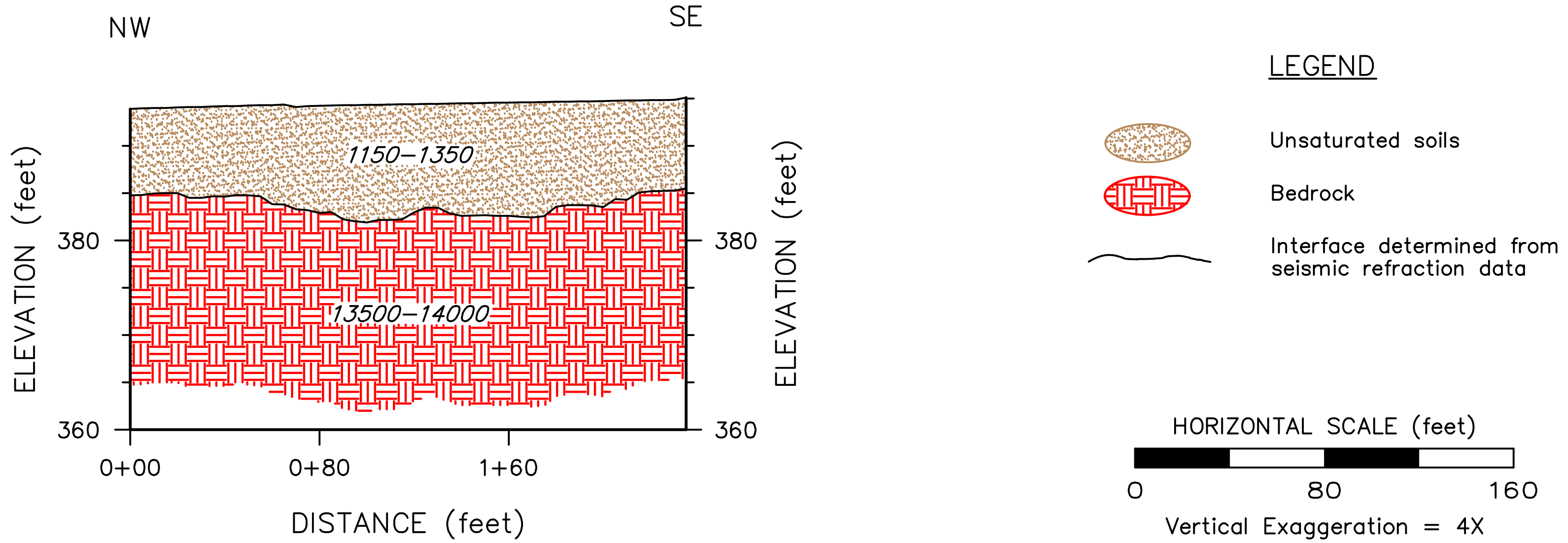
* DBA HR Geological Services in New York

Figure 3
Seismic Line 1
Micron Campus – Phase 1
Clay, New York

File 24RG87 | June, 2025

HRGS*

Derry, NH
Fords, NJ



NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

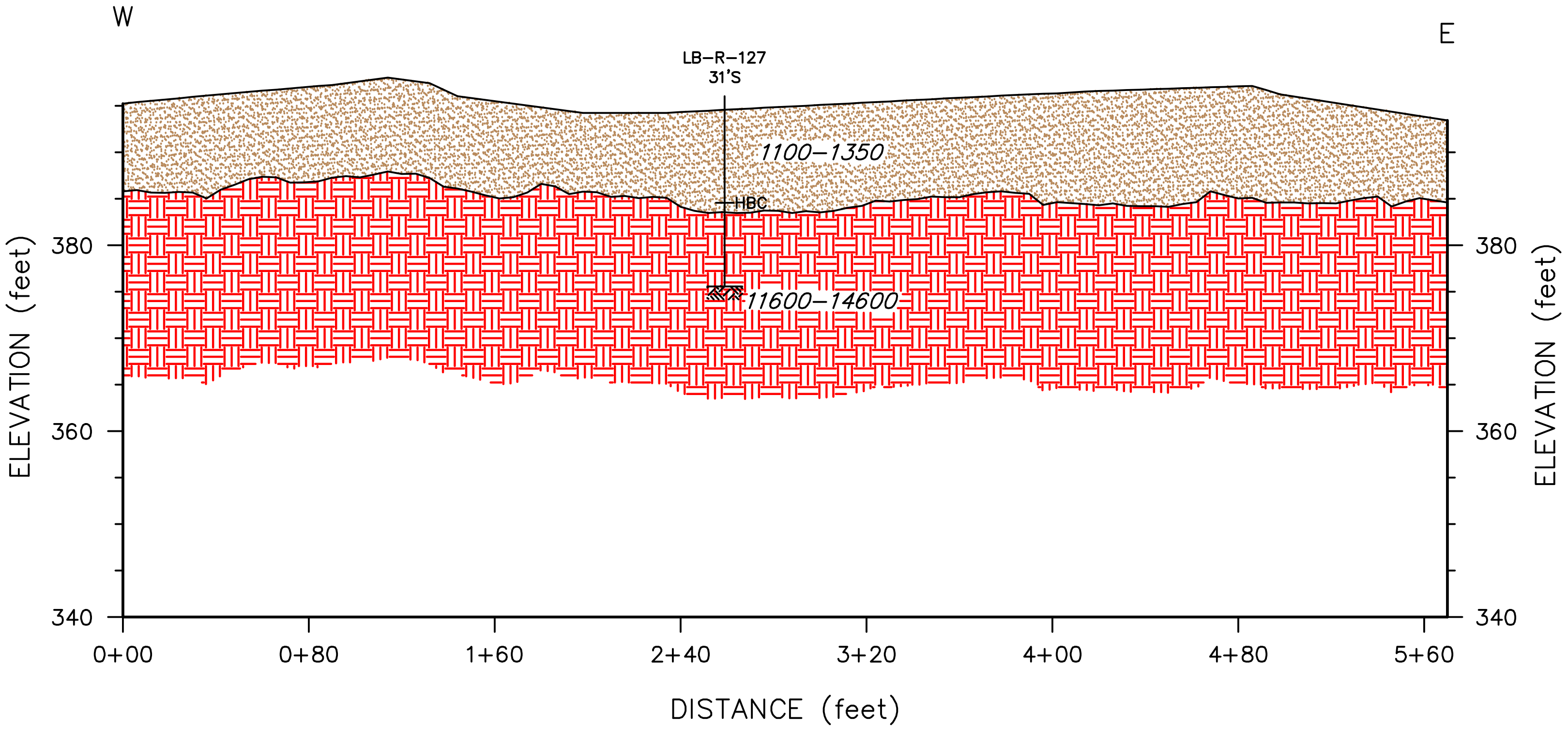
* DBA HR Geological Services in New York

Figure 4
Seismic Line 2
Micron Campus – Phase 1
Clay, New York

File 24RG87 | June, 2025

HRGS*

Derry, NH
Fords, NJ



LEGEND

▨	Unsaturated soils
▦	Bedrock
〰	Interface determined from seismic refraction data
LB–R–127 31'W	Boring with identification, distance and direction from traverse, and depth of bedrock based on logs provided by Langan.
LB–X–6 22'W HBC	Boring with identification, distance from traverse, and depth of high blow count, based on logs provided by Langan.

* DBA HR Geological Services in New York

HORIZONTAL SCALE (feet)

0 80 160

Vertical Exaggeration = 4X

NOTES:

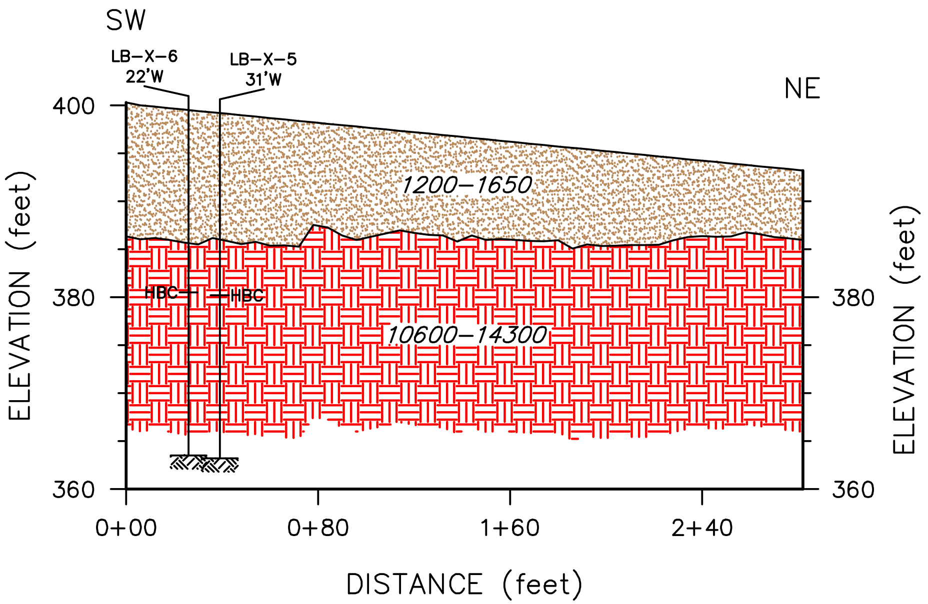
1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

Figure 5
Seismic Line 3
Micron Campus – Phase 1
Clay, New York

File 24RG87 | June, 2025

HRGS*

Derry, NH
Fords, NJ



LEGEND

▨	Unsaturated soils
▦	Bedrock
∼	Interface determined from seismic refraction data
LB–R–127 31'W	Boring with identification, distance and direction from traverse, and depth of bedrock based on logs provided by Langan.
LB–X–6 22'W HBC	Boring with identification, distance from traverse, and depth of high blow count, based on logs provided by Langan.

HORIZONTAL SCALE (feet)

0 80 160

Vertical Exaggeration = 4X

NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

* DBA HR Geological Services in New York

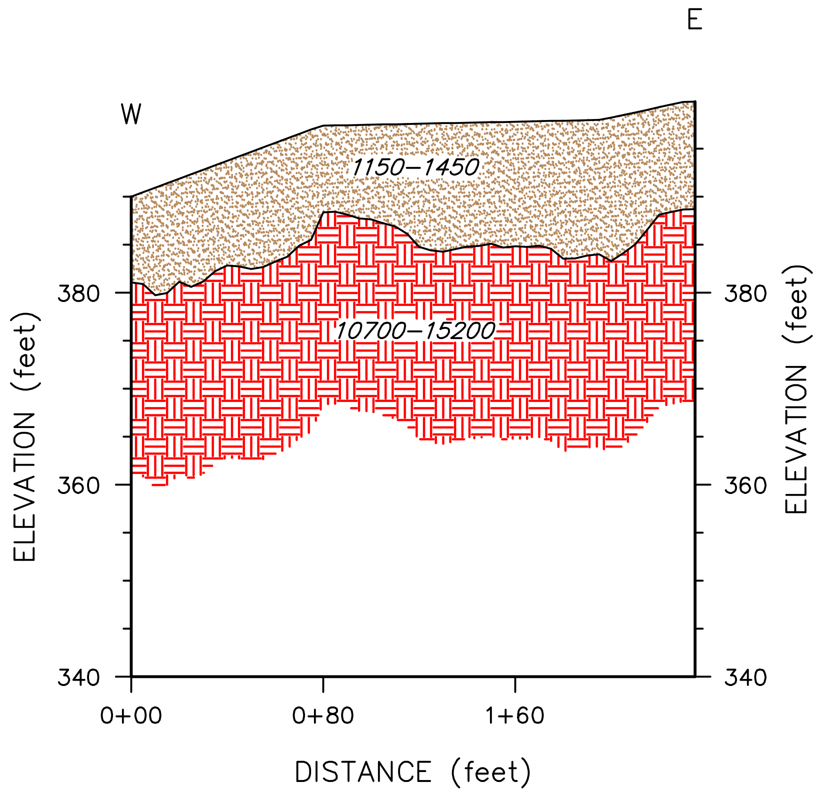
Figure 6
Seismic Line 4
Micron Campus – Phase 1
Clay, New York

File 24RG87

June, 2025

HRGS*

Derry, NH
Fords, NJ



LEGEND

▨ Unsaturated soils

🟥 Bedrock

〰 Interface determined from seismic refraction data

HORIZONTAL SCALE (feet)

0 80 160

Vertical Exaggeration = 4X

NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

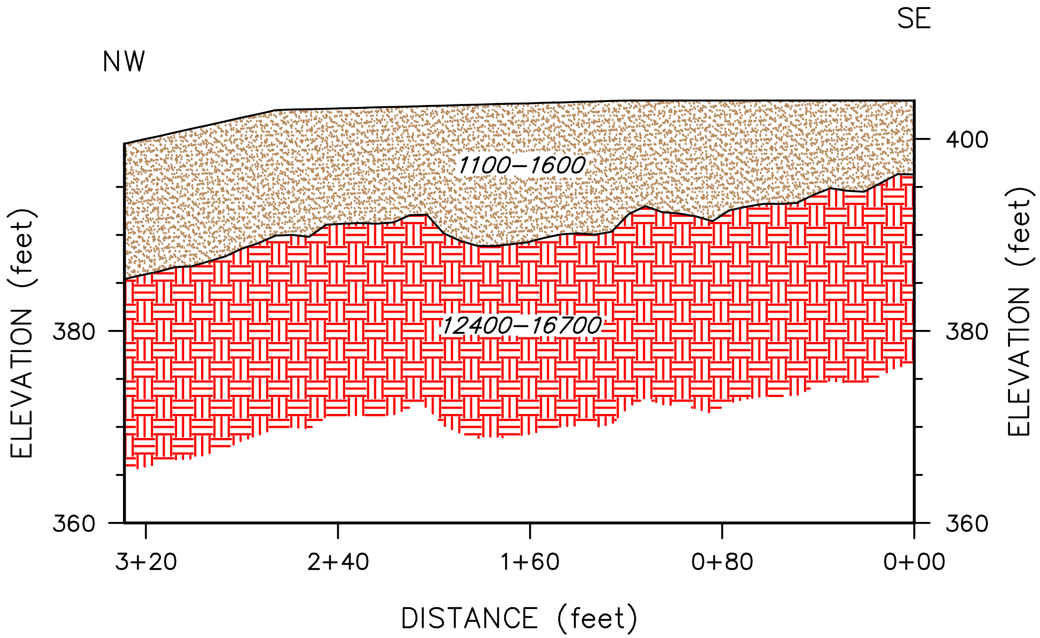
* DBA HR Geological Services in New York

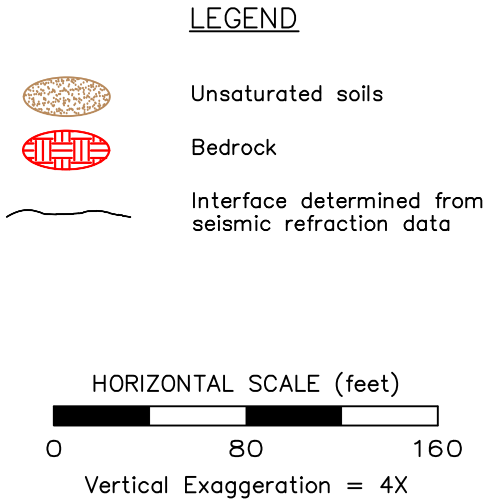
Figure 7
Seismic Line 5
Micron Campus – Phase 1
Clay, New York

File 24RG87 | June, 2025

HRGS*

Derry, NH
Fords, NJ





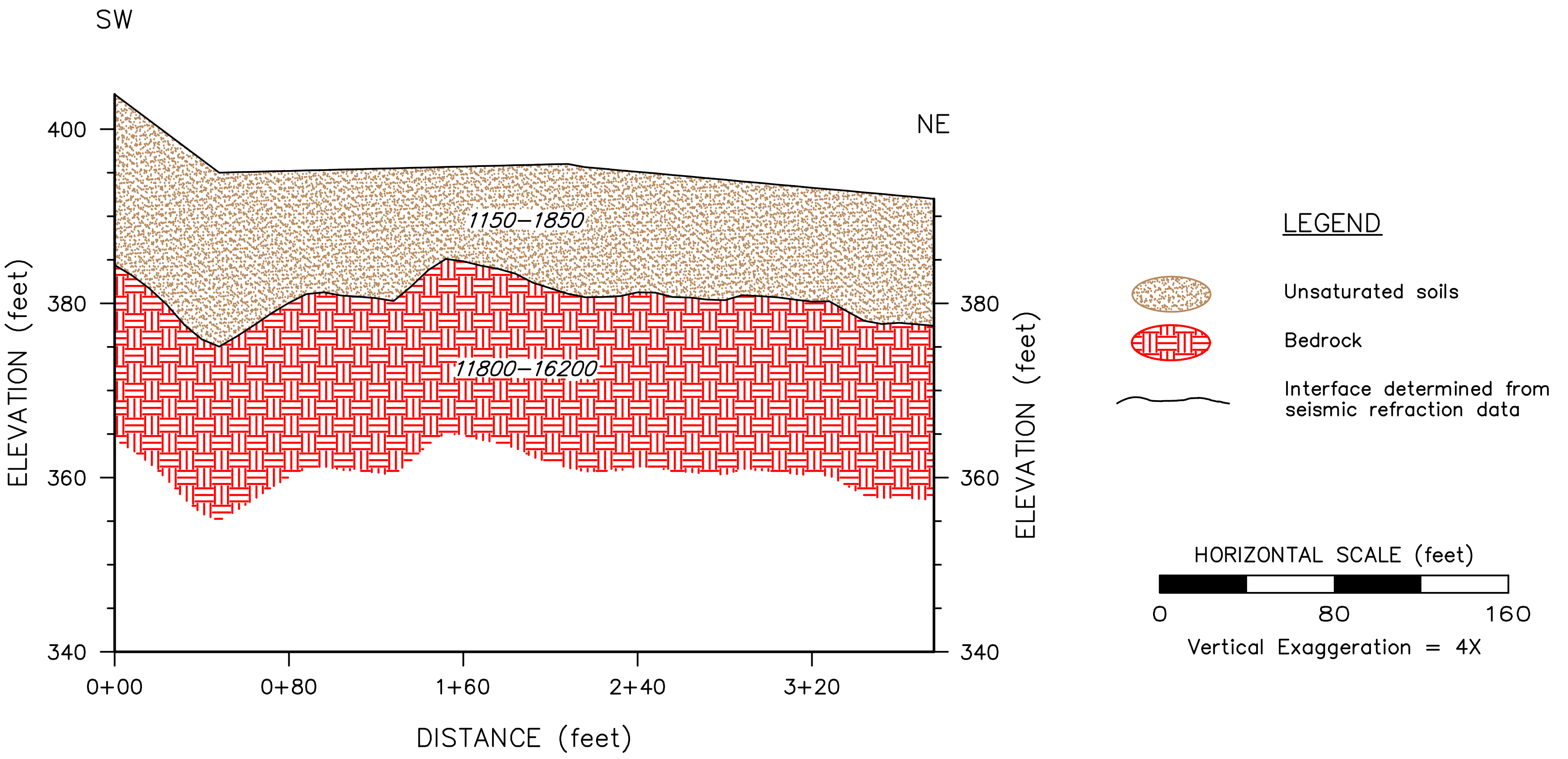
NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

* DBA HR Geological Services in New York

Figure 8
Seismic Line 6
Micron Campus – Phase 1
Clay, New York

File 24RG87	June, 2025
HRGS*	**Derry, NH** **Fords, NJ**



NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.

2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.

3. Surface elevations determined from plans provided by Langan.

4. Data were analyzed using the Generalized Reciprocal Method.

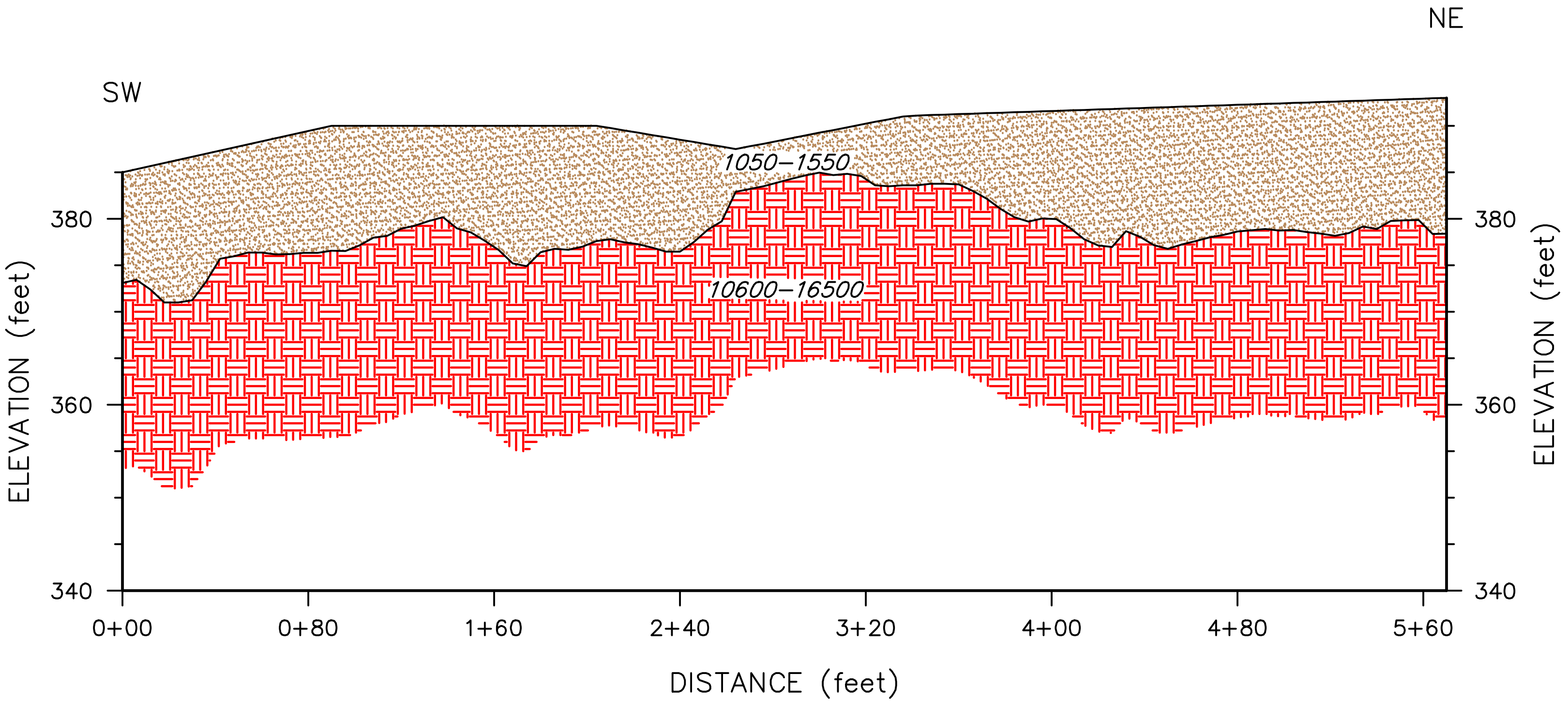
* DBA HR Geological Services in New York

Figure 9
Seismic Line 7
Micron Campus – Phase 1
Clay, New York

File 24RG87 | June, 2025

HRGS*

Derry, NH
Fords, NJ



HORIZONTAL SCALE (feet)

0 80 160

Vertical Exaggeration = 4X

NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

LEGEND

▨ Unsaturated soils

▦ Bedrock

〰 Interface determined from seismic refraction data

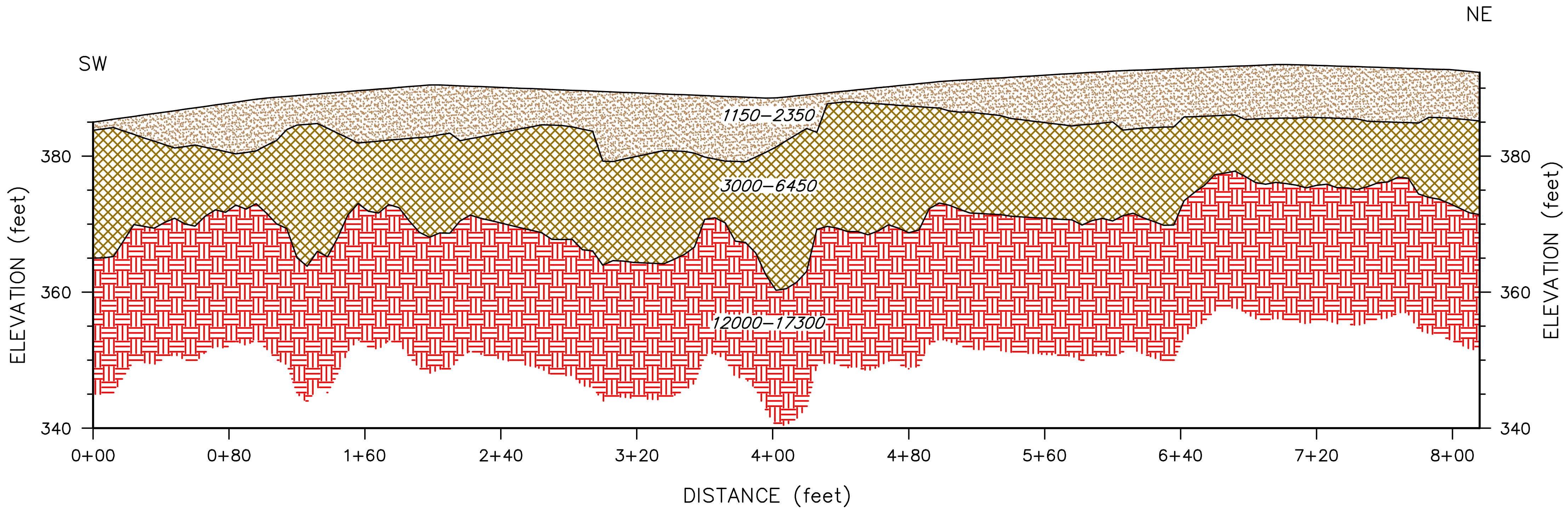
* DBA HR Geological Services in New York

Figure 10
Seismic Line 8
Micron Campus – Phase 1
Clay, New York

File 24RG87 | June, 2025

HRGS*

Derry, NH
Fords, NJ



NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations estimated from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

LEGEND

▒	Unsaturated soils
▩	Unsaturated/ saturated soils
▦	Bedrock
〜	Interface determined from seismic refraction data

HORIZONTAL SCALE (feet)
0 80 160
Vertical Exaggeration = 4X

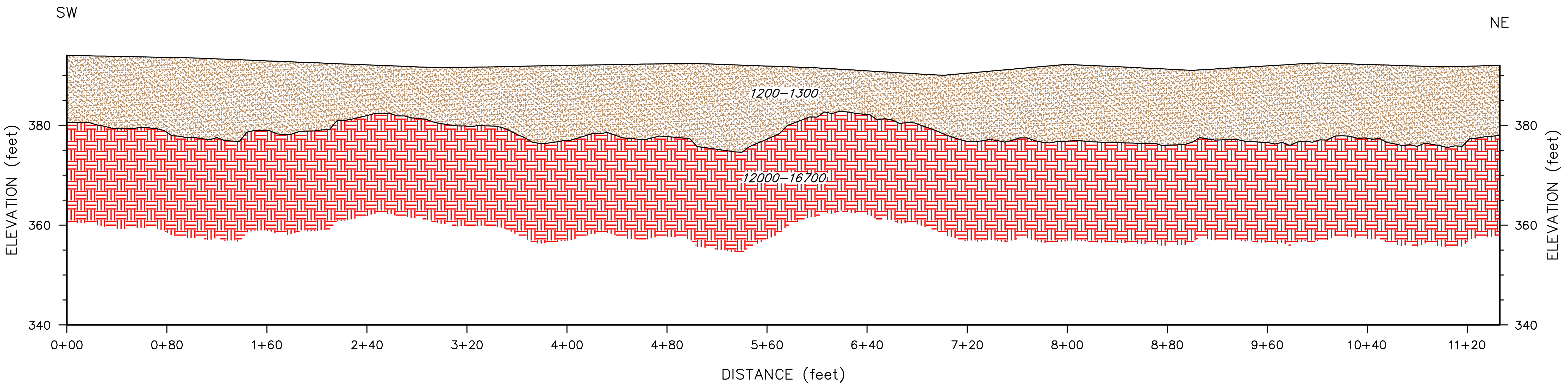
* DBA HR Geological Services in New York

Figure 11
Seismic Line 9
Micron Campus – Phase 1
Clay, New York

File 24RG87 | June, 2025

HRGS*

Derry, NH
Fords, NJ



NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations estimated from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

LEGEND

▨ Unsaturated soils

🟥 Bedrock

〜 Interface determined from seismic refraction data

HORIZONTAL SCALE (feet)

0 80 160

Vertical Exaggeration = 4X

* DBA HR Geological Services in New York

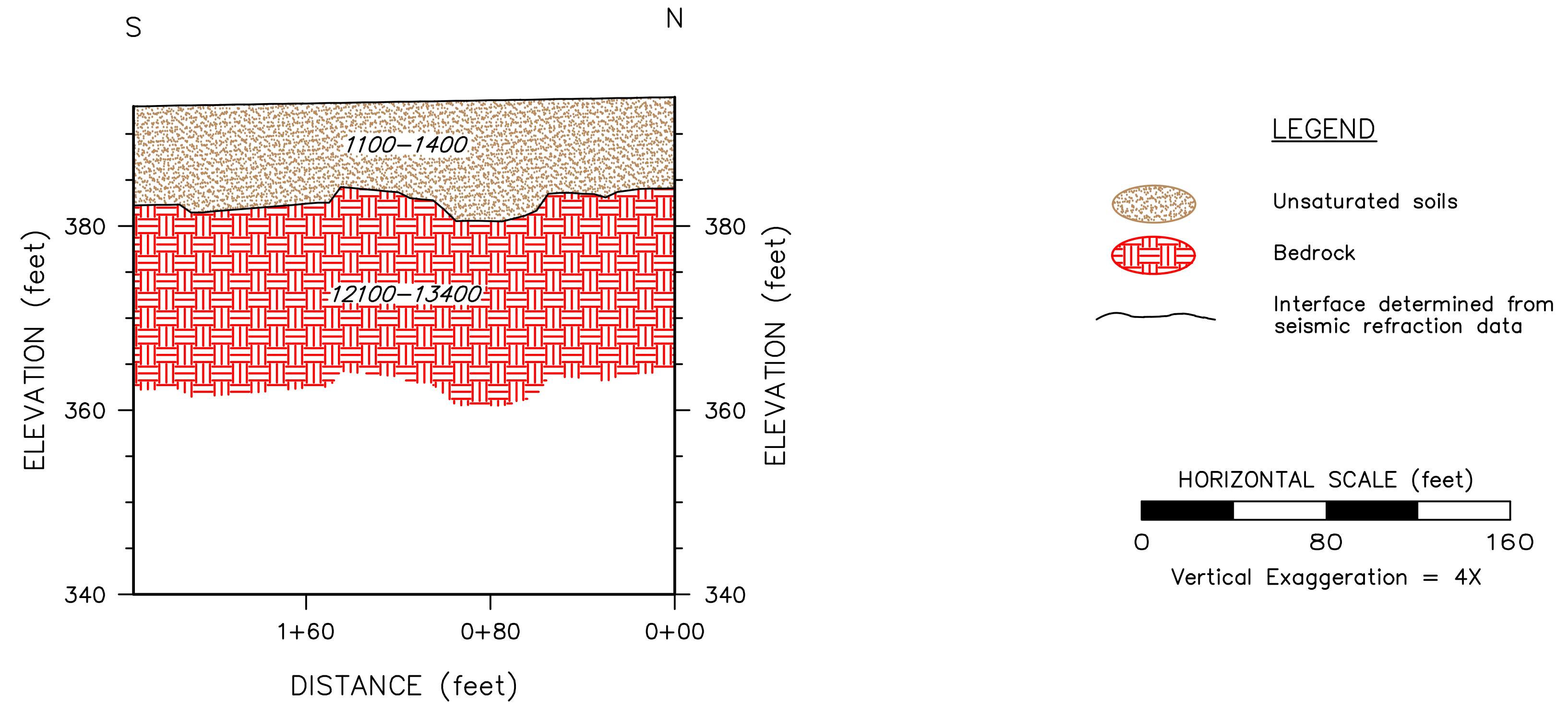
Figure 12
Seismic Line 10
Micron Campus – Phase 1
Clay, New York

File 24RG87

June, 2025

HRGS*

Derry, NH
Fords, NJ



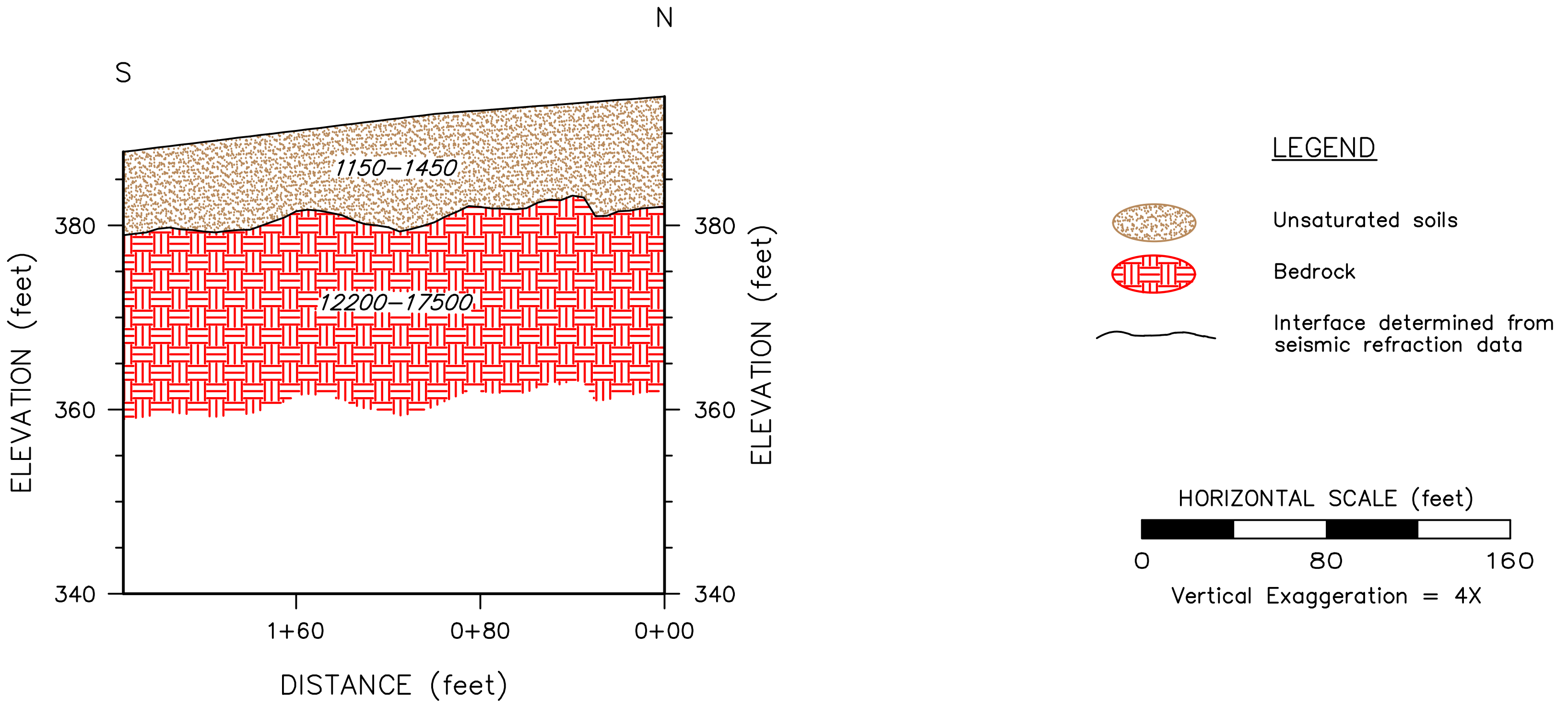
NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

* DBA HR Geological Services in New York

Figure 13
Seismic Line 11
Micron Campus – Phase 1
Clay, New York

File 24RG87	June, 2025
HRGS*	**Derry, NH** **Fords, NJ**



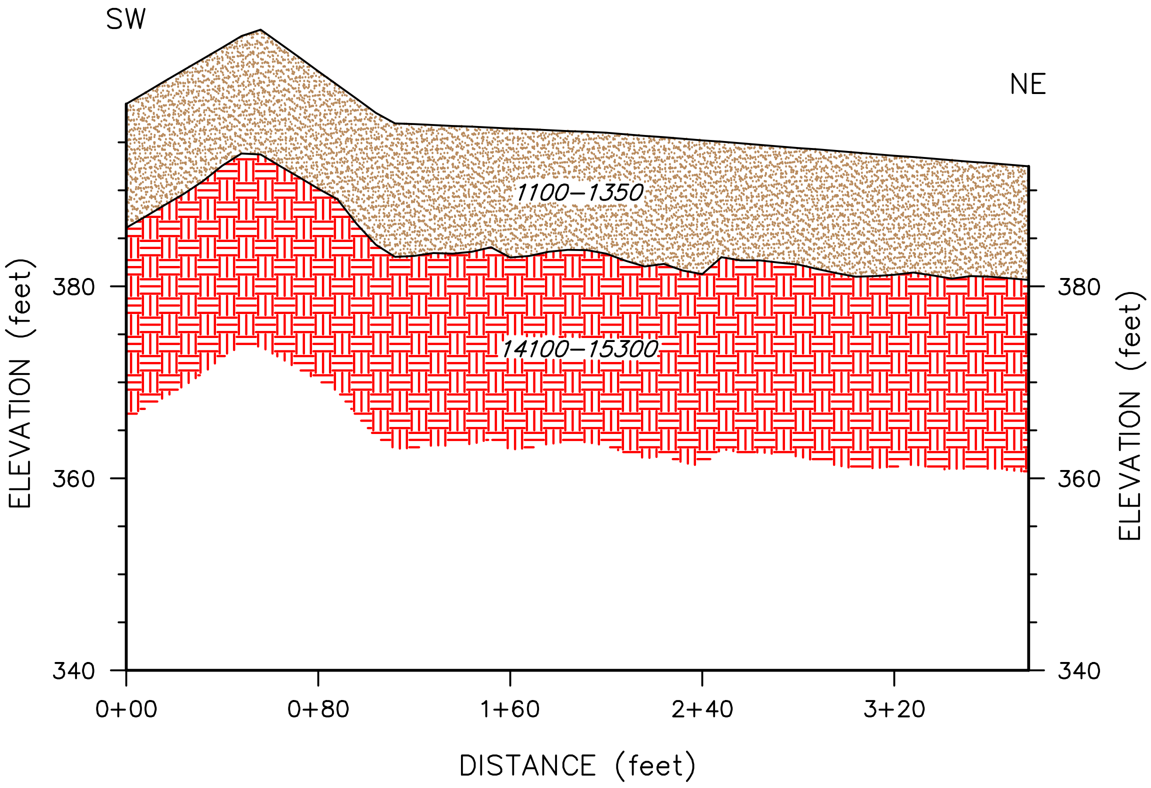
NOTES:

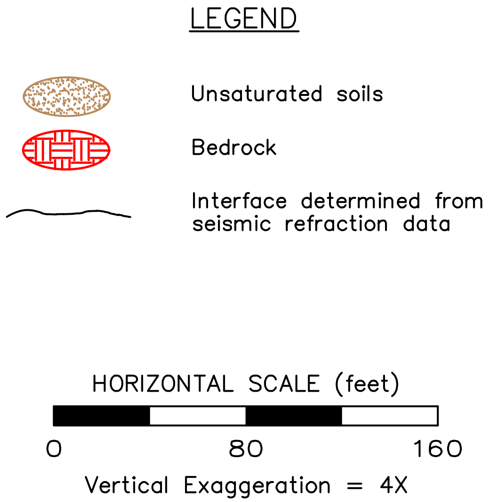
1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

* DBA HR Geological Services in New York

Figure 14
Seismic Line 12
Micron Campus – Phase 1
Clay, New York

File 24RG87	June, 2025
HRGS*	**Derry, NH** **Fords, NJ**





NOTES:

1. Estimated accuracy (standard deviation) of depth of bedrock is ±10% or 2 feet, whichever is greater.
2. The depths determined for bedrock are depths of competent rock; weathered and/or fractured bedrock might occur at shallower depths.
3. Surface elevations determined from plans provided by Langan.
4. Data were analyzed using the Generalized Reciprocal Method.

* DBA HR Geological Services in New York

Figure 15
Seismic Line 13
Micron Campus – Phase 1
Clay, New York

File 24RG87
June, 2025

HRGS*

Derry, NH
Fords, NJ

HRGS

CROSSHOLE SEISMIC TESTING
MICRON CAMPUS – PHASE I
CLAY, NEW YORK

Prepared for:

LANGAN
360 West 31st Street,
8th Floor
New York, NY 10001-2727

Prepared by:

Hager-Richter Geoscience, Inc.
846 Main Street
Fords, New Jersey 08863

File 24RG87
June 2025

0. EXECUTIVE SUMMAY

Hager-Richter Geoscience, Inc. dba HR Geological Services in New York, (HRGS) conducted crosshole seismic testing in two (2) two-borehole arrays in support of the geotechnical design of Phase I of an industrial complex identified as Micron Campus located in Clay, New York. The testing was conducted in April 2025 in accordance with ASTM D4428/D4428 M-14 "Standard Test Methods for Crosshole Seismic Testing."

The objective of the crosshole seismic testing program was to determine shear (V_s) and compressional (V_p) wave velocities as a function of depth at the specified locations.

The boreholes were identified by Langan as LB-X-01/LB-X-02 and LB-X-05/LB-X-06. The velocities of shear (V_s) and compressional (V_p) waves for the array vary with depth, Z, as follows:

LB-X-01/LB-X-02 Array

ΔZ (ft)	V_s **(ft/s)**	V_p **(ft/s)**	**SIMPLIFIED LITHOLOGY**
3 – 10	425	461.7 * Z – 766	Silt
10 – 17	258.19 – 2056		Sand
17 – 30	2,428	8,097	
30 – 35	1,039*Z – 27,290	11,847 * Z – 46,381	
35 - 57	9,098	17,569	Dolostone
57 - 65	8,508	16,311	

LB-X-05/LB-X-06 Array

ΔZ (ft)	V_s **(ft/s)**	V_p **(ft/s)**	**SIMPLIFIED LITHOLOGY**
3 – 9	565	533.7*Z – 59	Sand
9 – 11	202.36*Z – 1,161		
11 – 20		343.5 * Z – 2,756	
20 – 34	225.4*Z + 513		Gravel
34 - 63	56.5*Z + 6,211	116.8*Z + 10,765	Dolostone

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TABLES

FIGURES

1. INTRODUCTION

Hager-Richter Geoscience, Inc. (HRGS) conducted crosshole seismic testing in two (2) two borehole arrays in support of the geotechnical design of Phase I of an industrial complex identified as Micron Campus located in Clay, New York. The testing was conducted on April 16-17, 2025, in substantial accordance with ASTM D4428/D4428 M-14 "Standard Test Methods for Crosshole Seismic Testing."

The general project location is shown in Figure 1. The boreholes for the arrays were identified by Langan as LB-X-01/LB-X-02 and LB-X-05/LB-X-06. The approximate locations of the boreholes are shown in Figure 2. The objective of the crosshole seismic testing program was to determine shear and compressional wave velocities as a function of depth at the specified locations.

The boring logs for the four boreholes indicate that the stratigraphy from surface downwards consists of sand, silt, clay and gravel over bedrock described as dolostone. Dolostone Bedrock was encountered between depths of 34-37 feet in boreholes LB-X-01 and LB-X-02, respectively, and at a depth of 36 feet in boreholes LB-X-05 and LB-X-06.

The crosshole seismic testing was conducted by José Carlos Cambero Calzada, P.G. and Mikko Aarnio of HRGS. The project was coordinated with Mr. Joseph Como, Senior Staff Engineer of Langan, who was also in the field during the testing. Field work and subsequent data processing were performed in substantial accordance with ASTM D4428/D4428 M-14 “Standard Test Methods for Crosshole Seismic Testing.” The project records will be kept for a minimum of three years.

2. CROSSHOLE SEISMIC TESTING

2.1 General

As noted in the Introduction, the testing was performed in conformance with ASTM D4428/D4428 M-14 "Standard Test Methods for Crosshole Seismic Testing."

2.2 Field Procedures

The approved two-borehole option was used for the crosshole seismic testing method. The ASTM document specifies the construction details of the boreholes, including a requirement for grouting the casing from bottom to top. The grout provides a path for the elastic signals from the source to the borehole wall in one borehole and from the borehole wall to the geophone in one or more other boreholes. The deviation of each borehole from vertical was measured with a deviation probe, providing the data necessary to calculate the distance between the boreholes.

The geometry of the testing system is shown in Figure 3. The source and geophone are positioned at the same elevation. The source generates a seismic signal that travels as an elastic wave to the geophones, where it is converted to an electric signal, sent to the seismograph via cable, and amplified, filtered, and recorded by the seismograph.

The seismograph is a 24-channel seismograph (Geometrics Geode), coupled to a downhole geophone assembly. The seismic source was a Geotomographie downhole source Borehole Sparker S-Wave Probe BIS-SH-DS and Impulse Generator IPG800. The downhole geophone assembly includes a Mark Products triaxial geophone and a mechanical clamping mechanism to secure the assembly to the inside of the casing. The vertical axis of the geophone is oriented vertically (because it is constrained by the borehole), and the two horizontal axes are oriented perpendicularly and parallel to the borehole alignment. The seismograph records data digitally and the records are available immediately to verify the quality of the data. The stored digital data are transferred to a laptop computer at the end of the field day for storage, backup, and future data processing.

The source is placed at a depth of 5 feet in the source hole, and the geophone assembly is placed at the same elevation in the other borehole. Data are acquired with the source actuated in one direction several times to produce a shear wave and then actuated in the opposite direction several times to produce a shear wave with opposite polarity. The reason for actuating the source several times is that the signals are stacked in the seismograph to improve the signal to noise ratio. The source and geophones are moved to 2.5- or 5-feet depth, and the data are taken as before. This procedure is repeated to the full depth of the holes, increasing the depth by 2.5- or 5- feet each time. The time of transit of the shear waves are observed, and, if a relatively large difference between the values at any pair of successive depths is recognized, then additional measurements at depths intermediate between those two depths are made in order to determine a more precise interface depth,

The deviation probe is a Mount Sopris downhole tool 2DVA-1000 that was operated with a Mount Sopris Matrix portable logger. The downhole tool includes a 3-axis magnetometer and three accelerometers.

The manufacturer's stated accuracy is Azimuth ±1° and Inclination ±0.3°. Additional specifications and the manual for the deviation probe are available on the website www.mountsopris.com.

2.3 Data Analysis

The seismic data are analyzed using digital data and commercially available software. The arrival times for the shear and compressional waves at each geophone are determined from the digital seismic data. The *apparent*[1] velocities are calculated for each depth from the arrival times and the distances between the two pairs of boreholes as follows:

$$V_s\ (S\text{-}R_1) = L\ (S\text{-}R_1)\ /\Delta T_S\ (S\text{-}R_1) \qquad (1)$$

$$V_p\ (S\text{-}R_1) = L\ (S\text{-}R_1)\ /\Delta T_P\ (S\text{-}R_1) \qquad (2)$$

Where:

V is the velocity, with subscripts S and P indicating shear and compressional waves, respectively,

$L\ (S\text{-}R_1)$ is the distance between borings containing the source and Receiver R_1;

$\Delta T\ (S\text{-}R_1)$ is the time of transit of elastic energy from the source to Receiver R_1, averaged for source up and down, and with subscripts and superscripts as defined for V.

The assumptions inherent in Equations 1 and 2 are that the medium is isotropic and homogeneous within layers, the interface between layers is horizontal, and the displacements are small. The velocities determined with Equations 1 and 2 are *apparent* velocities. The actual velocities would be determined by correcting for the effects of refraction, if refraction is present, using Snell's Law, which for any two layers is given by.

$$\text{SIN}\ \alpha_1/\text{SIN}\ \alpha_2 = V_1/V_2 \qquad (3)$$

Where:

α_1 is the angle of incidence,
α_2 is the angle of the refracted wave, and
V_1 and V_2 are the velocities of layers 1 and 2, respectively.

2.4 Site Specific

The boreholes were reportedly constructed in accordance with the recommendations of ASTM D4428/D4428 M-14 "Standard Test Methods for Crosshole Seismic Testing." A deviation survey was performed by HRGS in each of the borings. The distance between the boreholes for the crosshole testing

---

[1] Apparent velocity is the ratio of distance between source and Receiver 1 divided by the time required for the seismic signal to travel from source to Receiver 1.

was determined as a function of depth from the surface and is reported in Table 1 and shown in Figure 4. The depths available for the test were 28.5 feet, somewhat shallower than the drilled depth due to the length of the instruments. The maximum change in separation of the boreholes within the depth range where velocity measurements were acquired, and the source and sensor locations were as follows:

	Distance Between Boreholes on the surface (ft)	Maximum Change in Separation (ft)	Maximum Change in Separation (%)	Source Location	Sensor Location
LB-X 01/02	14.5	3.2	22.4	LB-X-01	LB-X-02
LB-X 05/06	15.0	0.1	1	LB-X-05	LB-X-06

These results emphasize the importance of the deviation survey, which is crucial to obtain accurate seismic velocities. Crosshole seismic data were obtained at intervals of no more than 5 feet. Less than 10 stacks of seismic signals were required to increase the signal-to-noise ratio to an acceptable value. Drilling activities were conducted in the vicinity of the sites. Data were acquired during quiet periods to minimize the impact from ambient noise. The datum for the depths reported in this document is ground surface at the borehole locations for the two arrays.

2.5 Limitations of the Method

Like all geophysical methods, the crosshole seismic method assumes that the local geology is uncomplicated, and that rock and soil interfaces are planar. For those tests in which the signals are generated in a single borehole, the interfaces are assumed to be horizontal, and this assumption is inherent in correcting for refraction.

Thin units with velocities that are lower than the velocity of adjacent materials may not be detectable with the geometry of a particular installation. The details important to this limitation are the velocities of adjacent materials, thickness of the units, and the distances as functions of depth between arrays.

If deviation measurements are not available, then the distance between boreholes is *assumed* to be constant from the surface to the bottom of the boreholes. Although ASTM D4428 does not require deviation measurements to be made for borings with depths less than 50 ft, we have measured departures from vertical of several ft in borings that were only 30 ft deep.

If the casing in each borehole is not grouted in accordance with ASTM D4428, or the grout is not continuous, then the signal may be significantly degraded for at least some depths. The practical result is that the velocity determined under such conditions is less accurate at best, and in some cases may not be determinable. The acoustic noise in the subsurface can be a significant problem, particularly at active construction sites, and may interfere with the signals generated in the crosshole seismic testing. Drilling, pile driving, and the activity of heavy construction equipment have been especially troublesome at some sites.

3. RESULTS AND DISCUSSION

3.1 General

The distance between boreholes as a function of depth is given in Tables 1A and 1B for arrays LB-X-01/LB-X-02 and LB-X-05/LB-X-06, respectively, and plotted graphically in Figure 4. The arrival times of shear and compressional waves and the apparent shear and compressional wave velocities are also reported in Tables 1A and 1B and plotted as a function of depth in Figures 5 and 6 for arrays LB-X-01/LB-X-02 and LB-X-05/LB-X-06, respectively. Simplified versions of the boring logs plotted as a function of depth are also included in Figures 5 and 6 for reference.

3.2 Data Quality

The quality of the seismic data obtained in this project is judged to be good. The validity of this assessment for the quality of the shear waves can be confirmed by examining the reversed polarity of the seismic waves marked by the blue symbols in the composite plots of the horizontal component for the arrays, displayed in the left portion of Figures 5 and 6.

3.3 Refraction Effects

As noted in section 2.3, the velocity obtained by dividing distance between borings by the time required for the signal to travel between the borings, called *apparent* velocity, may not be the true velocity, especially where the source and receiver are located at a depth near an interface between two materials with significantly different velocities and/or the distance between borings is large. The difference between apparent and true velocity is due to refraction.

Inspection of Tables 1A and 1B and Figures 5 and 6 do not reveal large shear and compressional wave velocity change due to the transition between soils and bedrock.

3.4 Results

Tables 1A and 1B report the apparent shear and compressional wave velocities as a function of depth for the arrays. The apparent shear and compressional wave velocities are plotted as a function of depth in Figures 5 and 6.

Array LB-X-01/LB-X-02: In the upper 15 feet, described as silt and sand, the apparent velocity of shear waves (V_s) varies between 400 and 2,200 ft/s, and the apparent velocity of compressional (V_p) waves varies between 1,800 and 6,400 ft/s. In the sand between depth of 15 and 35 feet, V_s varies between 2,200 and 5,900 ft/s. In the same depth interval, average V_p varies between 7,200 and 12,640 ft/s. In bedrock, below 35 feet from ground surface, V_s varies between 8,360 and 9,500 ft/s. In the same depth interval, average V_p varies between 16,900 and 18,500 ft/s.

Array LB-X-05/LB-X-06: In the upper 35 feet, described as silt, sand and gravel, the apparent velocity of shear waves (V_s) increases gradually from 550 ft/s to 7,500 ft/s, and the apparent velocity of compressional (V_p) waves from 1,100 ft/s to 13,000 ft/s. In bedrock, below 35 feet from ground surface, V_s varies between 7,900 and 10,050 ft/s. In the same depth interval, average V_p varies between 14,800 and 18,060 ft/s.

We have determined models of V_s and V_p using two simple functions: (1) Y = C, where C is a constant determined by averaging, and (2) Y = A*X + B, where A and B are constants determined by least squares. The functions are fitted to sections of the measured data. Our models of the velocity of shear and compressional waves are reported in the conclusions section and are shown graphically in Figures 6 and 7 for arrays LB-X-01/LB-X-02 and LB-X-05/LB-X-06, respectively.

4. CONCLUSIONS

Based on the crosshole seismic testing conducted in one two-borehole array in support of the geotechnical design for the Micron Campus – Phase I, in Clay, New York, we conclude that the shear wave (V_s) and compressional wave (V_p) velocities vary with depth (Z) as follows:

LB-X-01/LB-X-02 Array

ΔZ (ft)	V_s **(ft/s)**	V_p **(ft/s)**	**SIMPLIFIED LITHOLOGY**
3 – 10	425	461.7 * Z – 766	Silt
10 – 17	258.19 – 2056		Sand
17 – 30	2,428	8,097	
30 – 35	1,039*Z – 27,290	11,847 * Z – 46,381	
35 - 57	9,098	17,569	Dolostone
57 - 65	8,508	16,311	

LB-X-05/LB-X-06 Array

ΔZ (ft)	V_s **(ft/s)**	V_p **(ft/s)**	**SIMPLIFIED LITHOLOGY**
3 – 9	565	533.7*Z – 59	Sand
9 – 11	202.36*Z – 1,161		
11 – 20		343.5 * Z – 2,756	
20 – 34	225.4*Z + 513		Gravel
34 - 63	56.5*Z + 6,211	116.8*Z + 10,765	Dolostone

5. LIMITATIONS

This report was prepared for the exclusive use of for Langan and its clients, (Collectively Client). Any use by any third party of this Report or any information, documents, records, data, interpretations, advice or opinions given to the Client by HRGS in the performance of its work shall be at such third party's own risk and without any liability to HRGS.

HRGS has performed its professional services, obtained its findings, and made its conclusions in accordance with generally accepted and customary principles and practices in the field of geophysics. No other warranty, either expressed or implied, is made. HRGS is not responsible for the independent conclusions, opinions, or recommendations made by others based on the information, geophysical data, and interpretations presented in this report.

This geophysical testing included a limited set of data obtained at the project Site and was conducted with limited knowledge of the Site and its subsurface conditions. HRGS does not assume responsibility for the accuracy of information that was provided to us by others about the Site and its subsurface conditions. The findings provided by HRGS are based solely on the information described in this document. The conclusions drawn from this investigation are considered reliable; however, there may exist localized variations in subsurface conditions that have not been completely defined at this time. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, coring and laboratory testing.

TABLE 1A

LB-X-01 / LB-X-02

DISTANCE BETWEEN BOREHOLES AND APPARENT VELOCITIES

Depth (ft)	Distance (ft)	Time S (ms)	Time P (ms)	V_s (ft/s)	V_p (ft/s)
1.65	14.66	37.94	8.13	386	1803
4.35	14.75	36.39	6.03	405	2447
6.65	14.82	30.75	3.71	482	3993
9.35	14.90	34.55	3.19	431	4676
11.65	14.96	18.36	2.32	815	6454
14.35	15.04	8.76	2.06	1717	7298
16.65	15.10	6.74	1.77	2240	8543
19.35	15.20	6.77	1.80	2246	8444
21.65	15.29	7.48	1.96	2043	7812
24.35	15.42	6.76	1.93	2280	7979
26.65	15.52	5.72	1.90	2711	8170
29.35	15.67	5.14	2.05	3047	7631
31.65	15.79	2.66	1.25	5930	12637
34.35	15.95	1.93	0.94	8270	16917
36.65	16.07	1.85	0.92	8689	17446
39.35	16.24	1.76	0.92	9227	17631
41.65	16.38	1.78	0.99	9211	16501
44.35	16.56	1.76	0.97	9407	17039
46.65	16.70	1.77	0.90	9430	18486
49.35	16.88	1.78	0.92	9493	18323
51.65	17.02	1.84	0.96	9239	17721
54.35	17.21	1.88	0.95	9146	18053
56.65	17.37	1.98	1.10	8778	15840
59.35	17.56	2.10	1.04	8364	16843
61.65	17.72	2.10	1.05	8439	16877
64.35	17.75	2.04	1.13	8722	15683

TABLE 1B

LB-X-05 / LB-X-06

DISTANCE BETWEEN BOREHOLES AND APPARENT VELOCITIES

Depth (ft)	Distance (ft)	Time S (ms)	Time P (ms)	V_s (ft/s)	V_p (ft/s)
0.65	15.00	27.14	13.63	553	1101
3.35	15.01	26.80	12.77	560	1175
5.65	15.01	26.41	6.17	569	2432
8.35	15.02	25.94	3.99	579	3763
10.65	15.03	15.11	2.30	995	6526
13.35	15.04	11.55	2.20	1302	6824
15.65	15.04	6.66	1.90	2257	7917
18.35	15.05	6.05	1.82	2488	8245
20.65	15.05	3.11	1.40	4835	10723
23.35	15.05	2.62	1.31	5745	11514
25.65	15.05	2.29	1.27	6563	11869
28.35	15.04	2.04	1.15	7389	13120
30.65	15.03	2.00	1.10	7523	13711
33.35	15.01	2.01	1.13	7454	13303
35.65	14.99	1.74	1.04	8639	14478
38.35	14.97	1.72	0.99	8707	15081
40.65	14.96	1.78	0.96	8384	15569
43.35	14.93	1.88	1.01	7943	14777
45.65	14.92	1.69	0.87	8813	17120
48.35	14.90	1.69	0.82	8802	18061
50.65	14.89	1.63	0.88	9115	16917
53.35	14.88	1.60	0.91	9309	16345
55.65	14.88	1.62	0.90	9166	16598
58.35	14.87	1.60	0.83	9286	17875
60.65	14.87	1.50	0.82	9912	18022
63.35	14.85	1.48	0.84	10047	17700

NOTE:

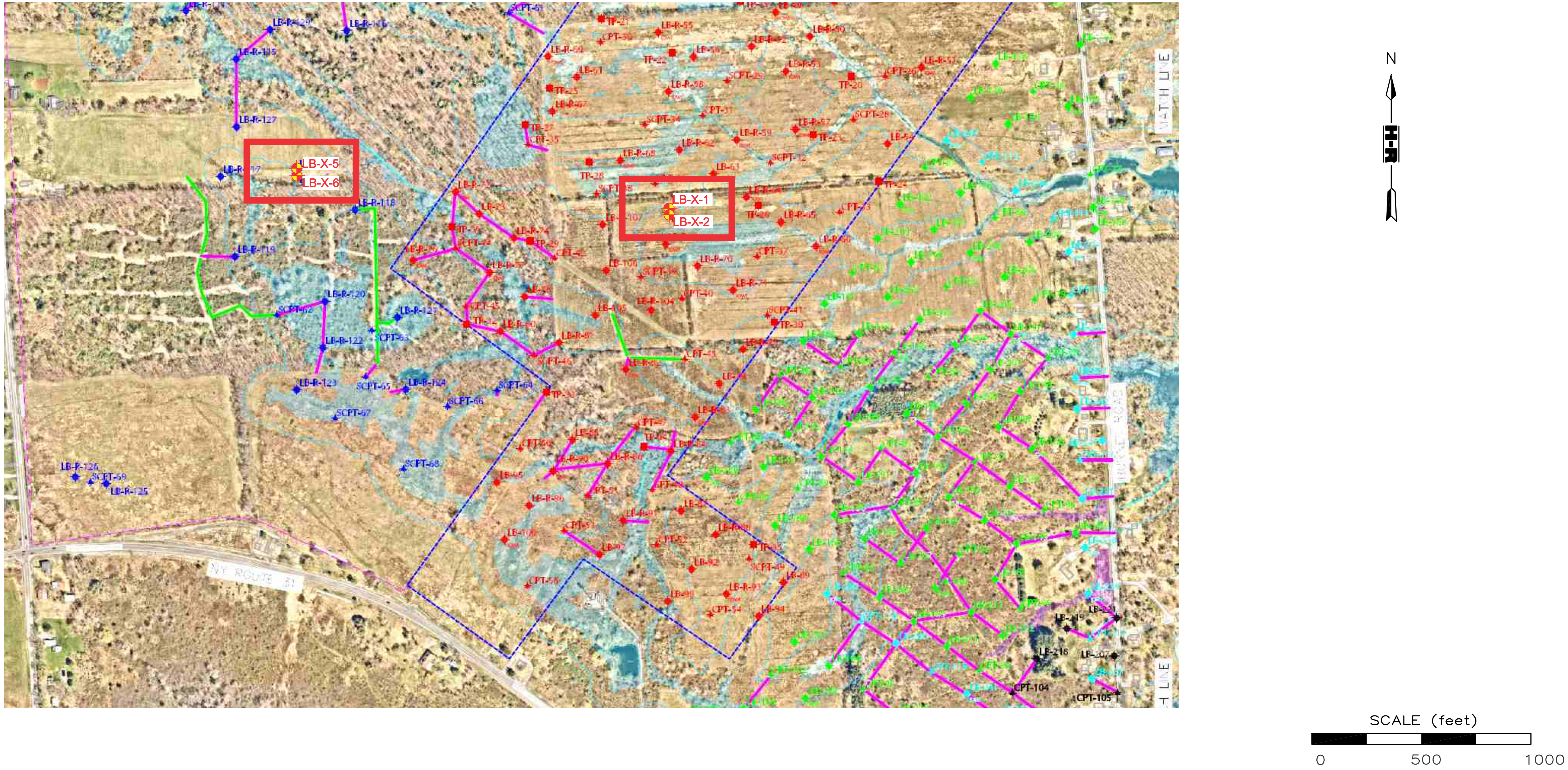
Modified from Bing Map aerial photograph

* DBA HR Geological Services in New York

Figure 1
General Site Location
Micron Campus – Phase I
Clay, New York

File 24RG87 | June 2025

HRGS ***Derry, NH**
Fords, NJ



NOTE:

Modified from a site plan provided by Langan entitled
2.27.25_USACE_NYSDEC JPA – Micron Geotech_Inv Plan.pdf

LB–X–5 ⊕ Crosshole Seismic Testing Borehole installed by Langan

* DBA HR Geological Services in New York

Figure 2
Site Plan
Micron Campus – Phase I
Clay, New York

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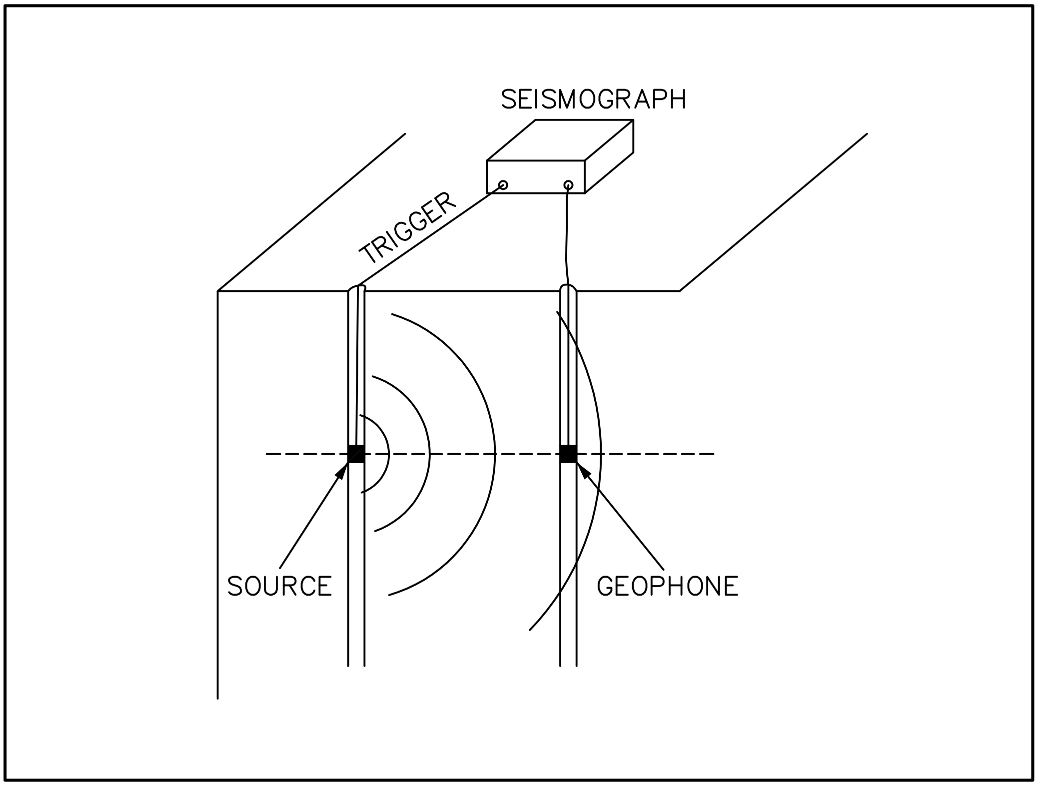
HRGS *Derry, NH
Fords, NJ



NOTE:
The source and receiver are placed at the same depths in each borehole. A seismic signal is generated by the source, radiates in all directions, travels at the speed determined by the elastic properties and density of the soils, and is detected by the geophone in the other borehole. When the seismic signal is initiated, a signal is transmitted to the seismograph to start a timing clock, and the wave is recorded as a function of time in the seismograph.

Figure 3
Geometry of Crosshole
Micron Campus – Phase I
Clay, New York

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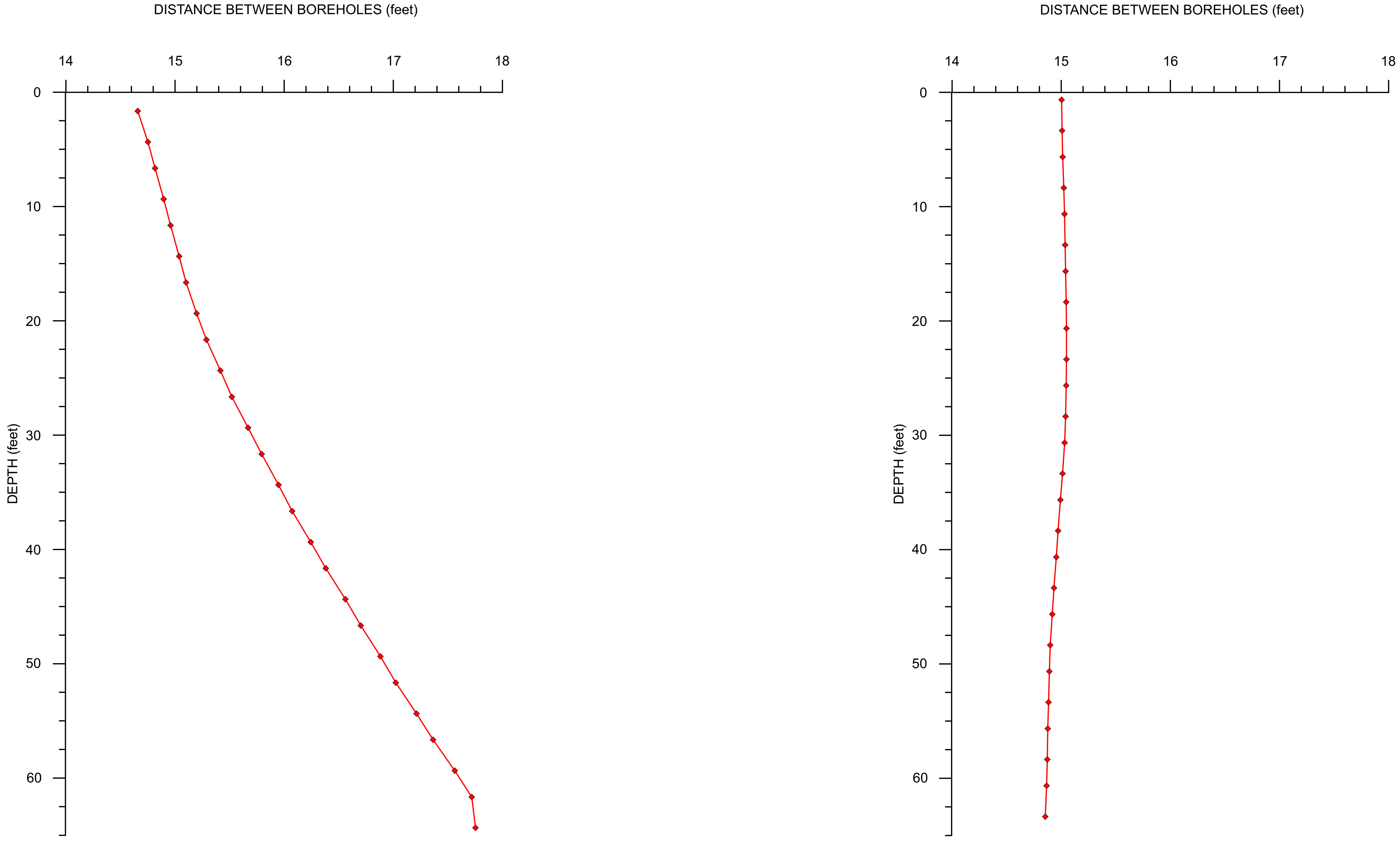
* DBA HR Geological Services in New York



LB–X–1/LB–X–2

LB–X–5/LB–X–6

Figure 2
Distance Between Boreholes
Micron Campus – Phase I
Clay, New York

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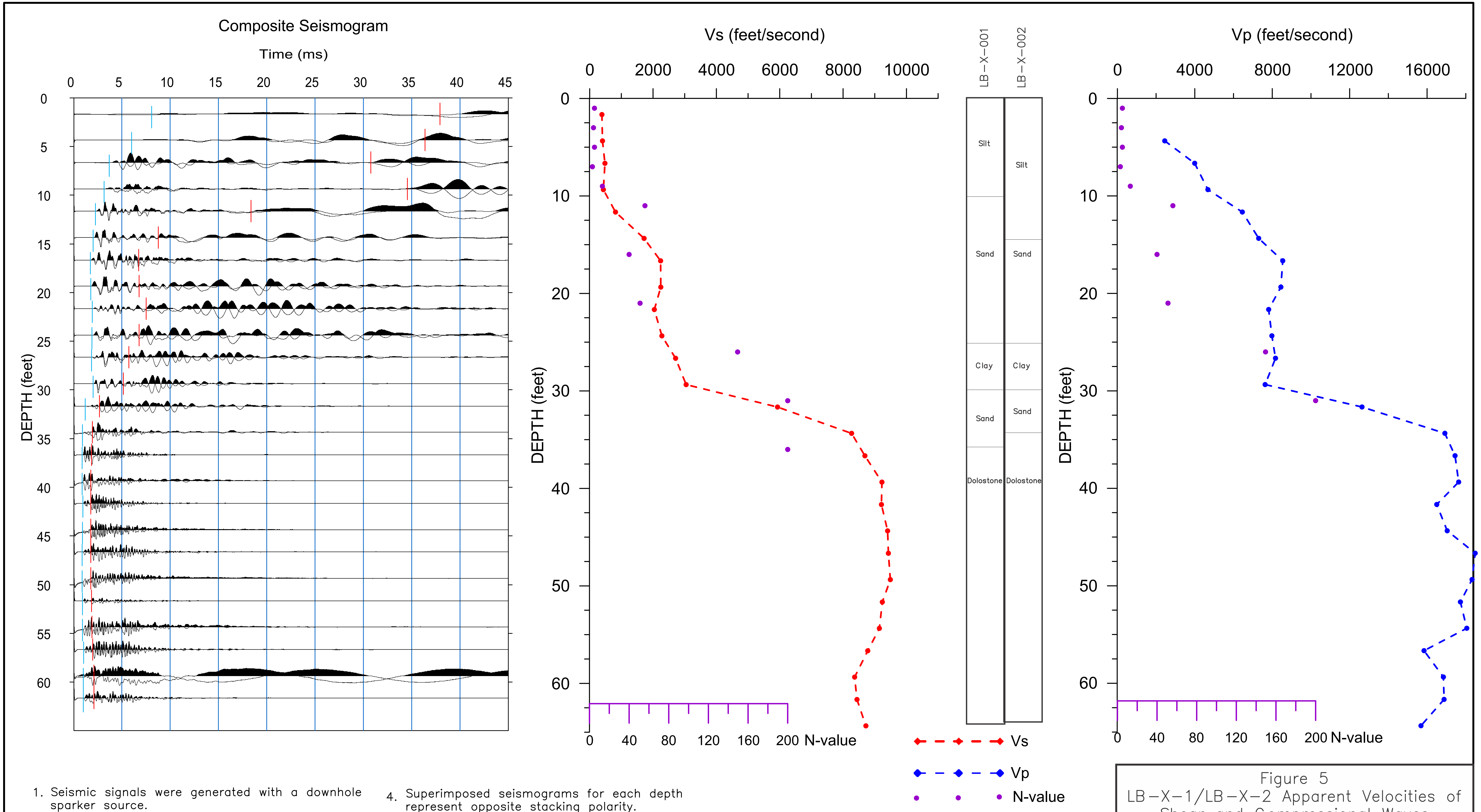

1. Seismic signals were generated with a downhole sparker source.
2. Seismic signals were detected with downhole triaxial geophone receiver.
3. Downhole source and receiver were positioned at same depth for each seismogram.
4. Superimposed seismograms for each depth represent opposite stacking polarity.
5. Composite seismograms were assembled from horizontal components.
6. The short blue and red lines mark the initial arrivals of compressional and shear waves, respectively.
7. Geologic descriptions shown are taken from the boring logs for boreholes LB−X−1 & LB−X−2 provided by Langan

* DBA HR Geological Services in New York

Figure 5
LB−X−1/LB−X−2 Apparent Velocities of Shear and Compressional Waves
Micron Campus − Phase I
Clay, New York

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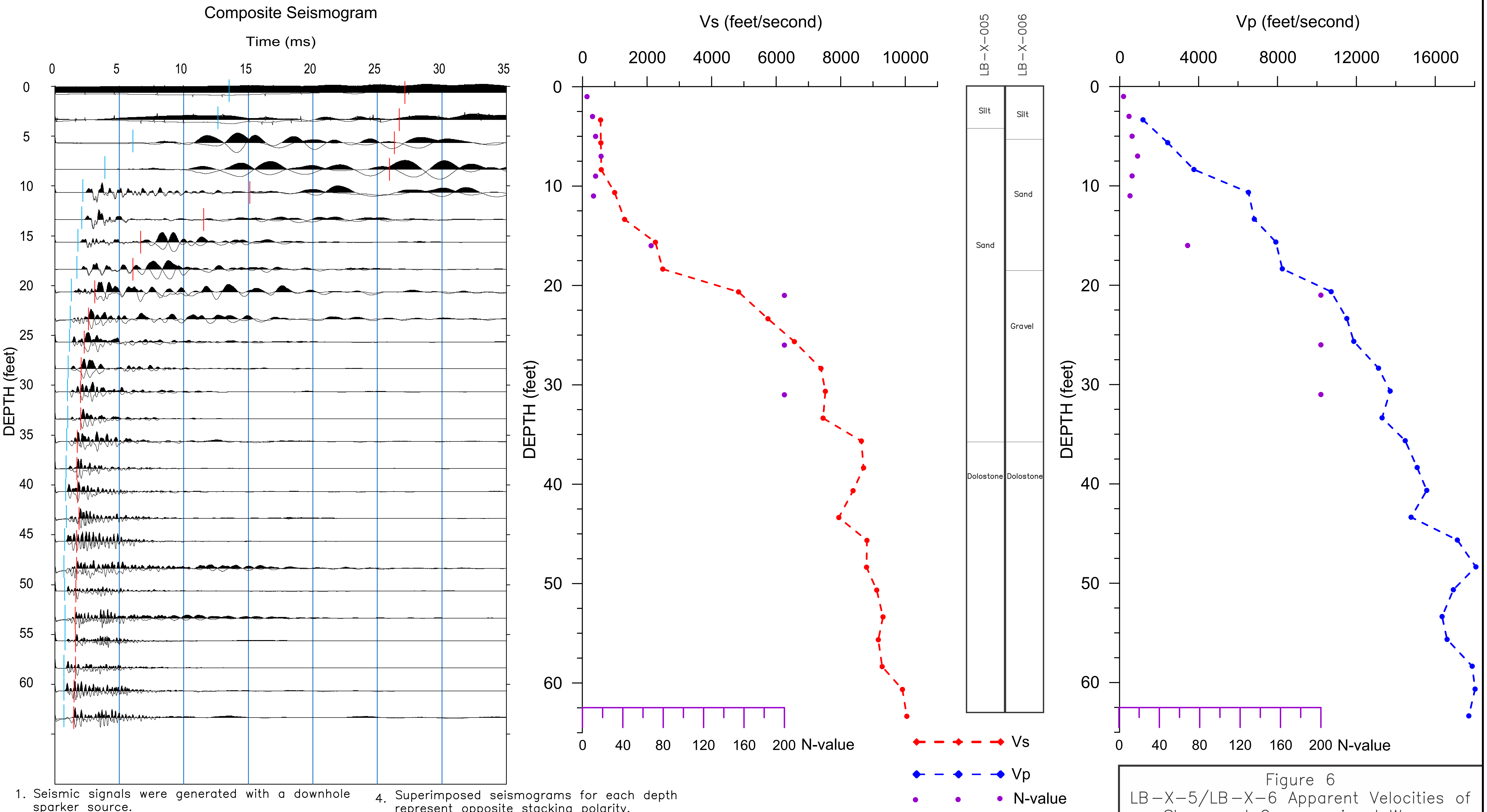
Fords, NJ



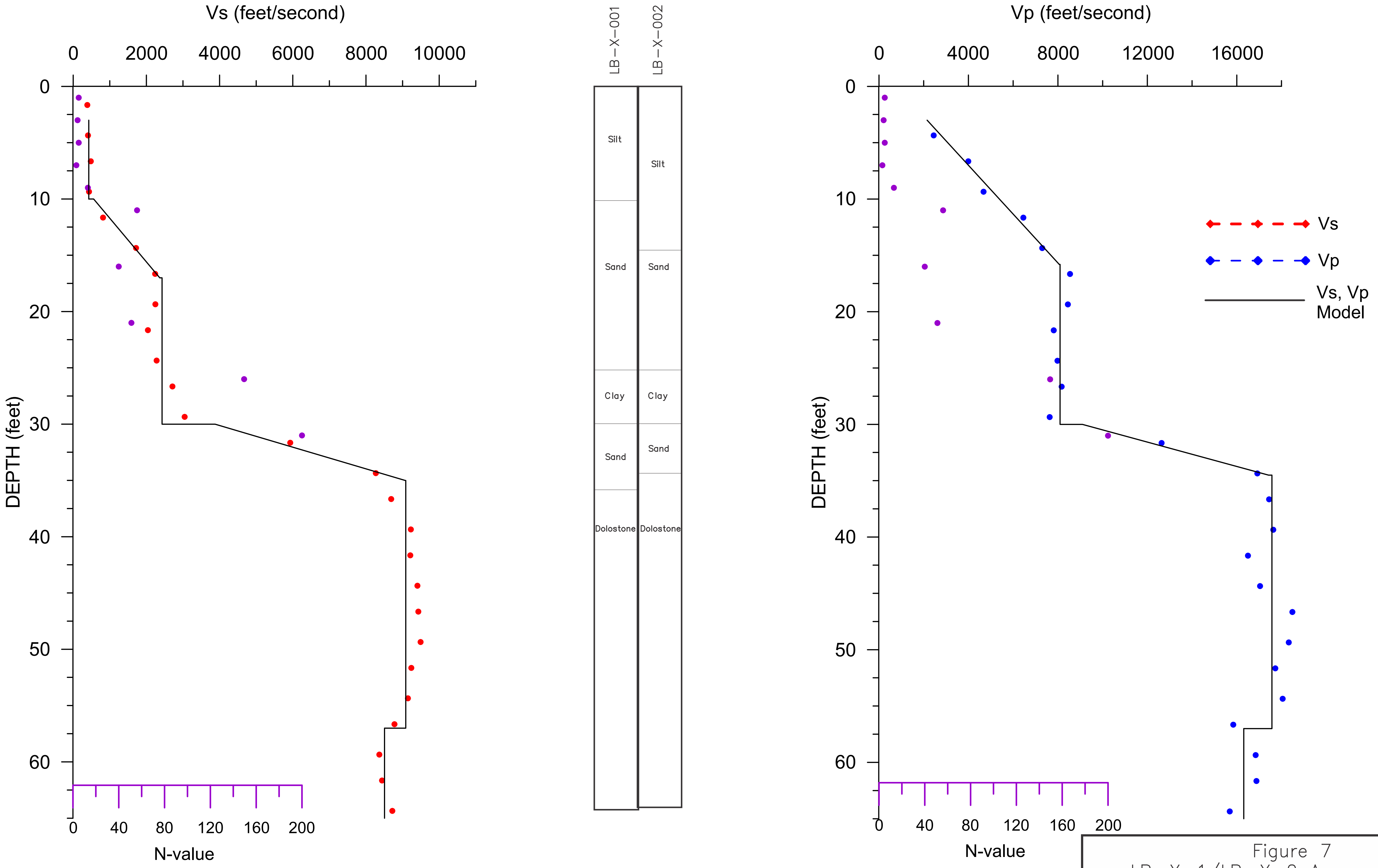
1. Seismic signals were generated with a downhole sparker source.
2. Seismic signals were detected with downhole triaxial geophone receiver.
3. Downhole source and receiver were positioned at same depth for each seismogram.
4. Superimposed seismograms for each depth represent opposite stacking polarity.
5. Composite seismograms were assembled from horizontal components.
6. The short blue and red lines mark the initial arrivals of compressional and shear waves, respectively.
7. Geologic descriptions shown are taken from the boring logs for boreholes LB−X−5 & LB−X−6 provided by Langan

* DBA HR Geological Services in New York

Figure 6
LB−X−5/LB−X−6 Apparent Velocities of Shear and Compressional Waves
Micron Campus − Phase I
Clay, New York

File 24RG87 | June 2025

HRGS *Derry, NH
Fords, NJ



NOTE:

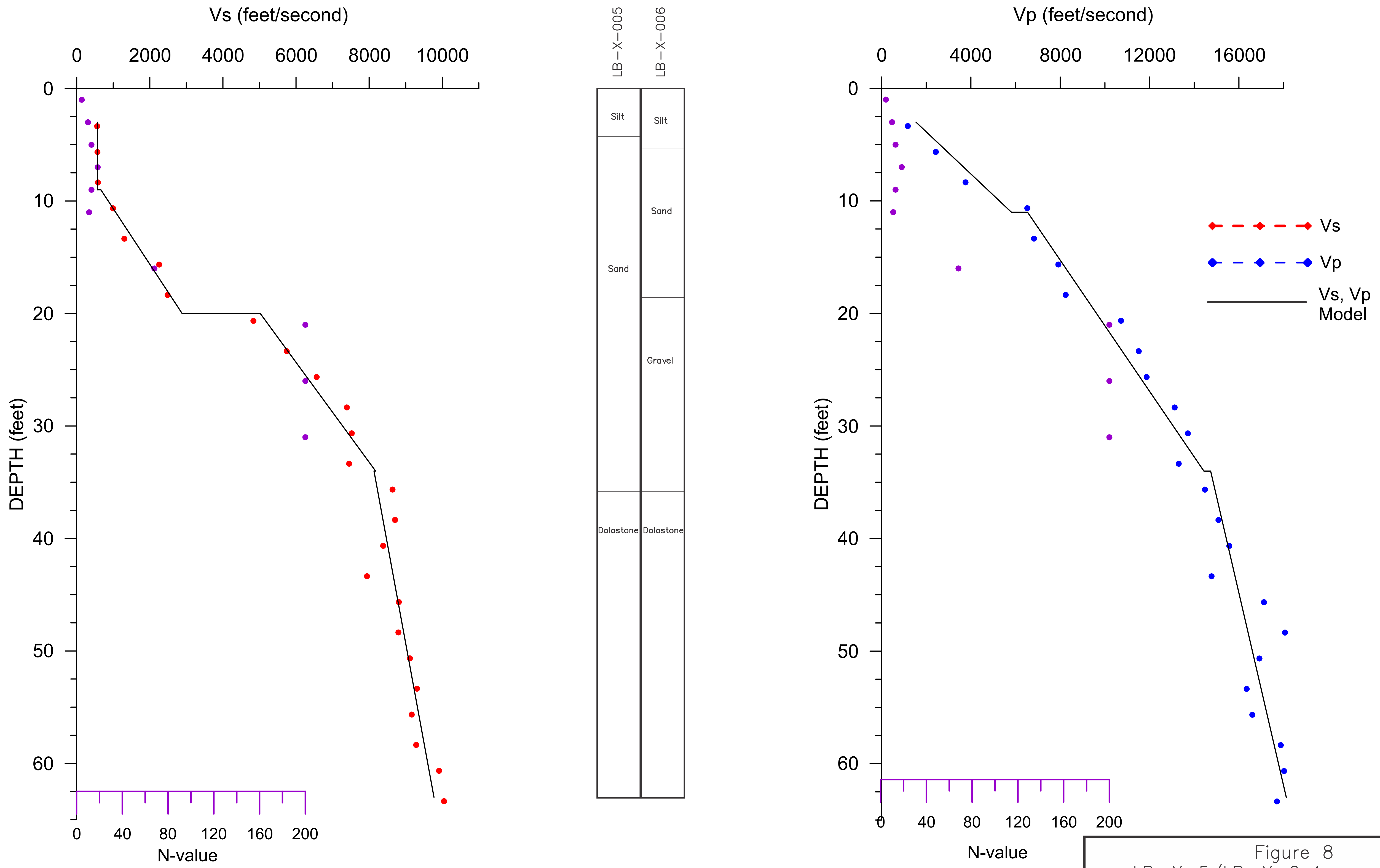
Geologic descriptions shown are taken from the boring logs for boreholes LB–X–1 & LB–X–2 provided by Langan

Figure 7
LB–X–1/LB–X–2 Apparent Model
Velocities of Shear and
Compressional Waves
Micron Campus – Phase I
Clay, New York

File 24RG87	June 2025

HRGS *Derry, NH
Fords, NJ

* DBA HR Geological Services in New York



NOTE:

Geologic descriptions shown are taken from the boring logs for boreholes LB−X−5 & LB−X−6 provided by Langan

* DBA HR Geological Services in New York

Figure 8
LB−X−5/LB−X−6 Apparent Model
Velocities of Shear and
Compressional Waves
Micron Campus − Phase I
Clay, New York

File 24RG87	June 2025

HRGS ***Derry, NH**
Fords, NJ

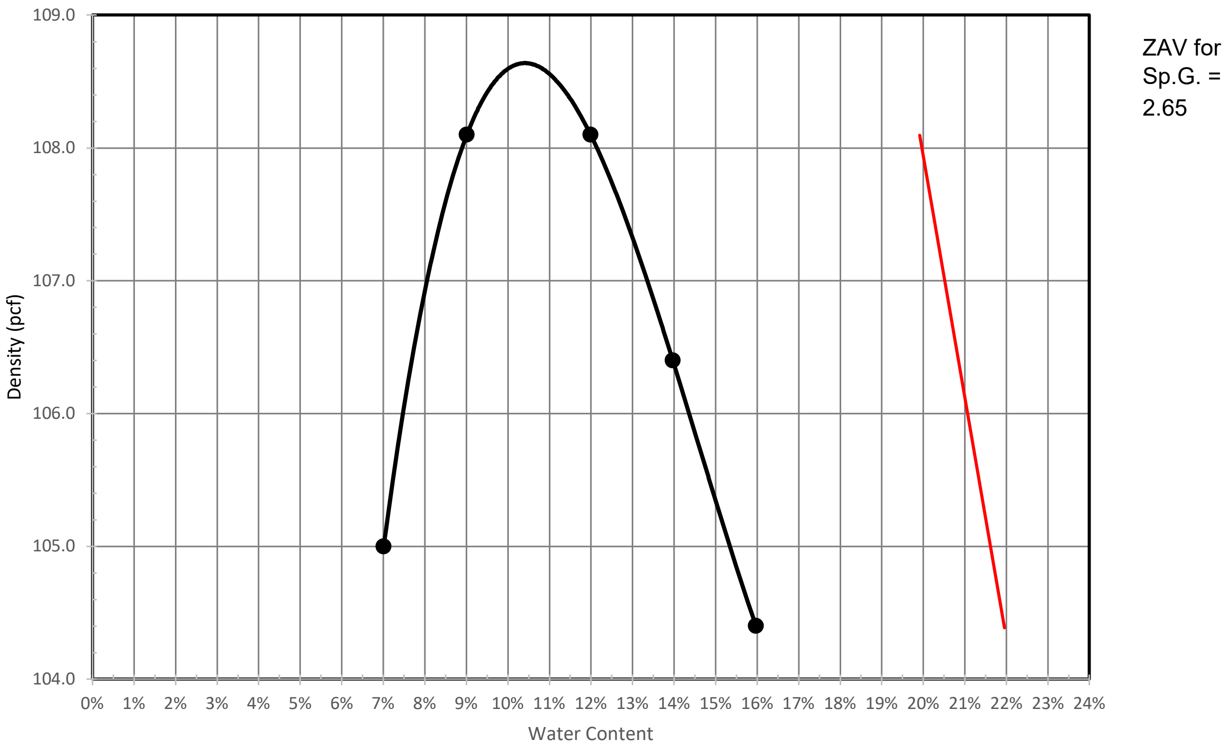
APPENDIX F

LABORATORY TEST REPORTS

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
1.0-1.75'				2.65				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum Dry Density = **108.6 pcf** **Optimum Moisture =** **10.4%**	--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-02 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

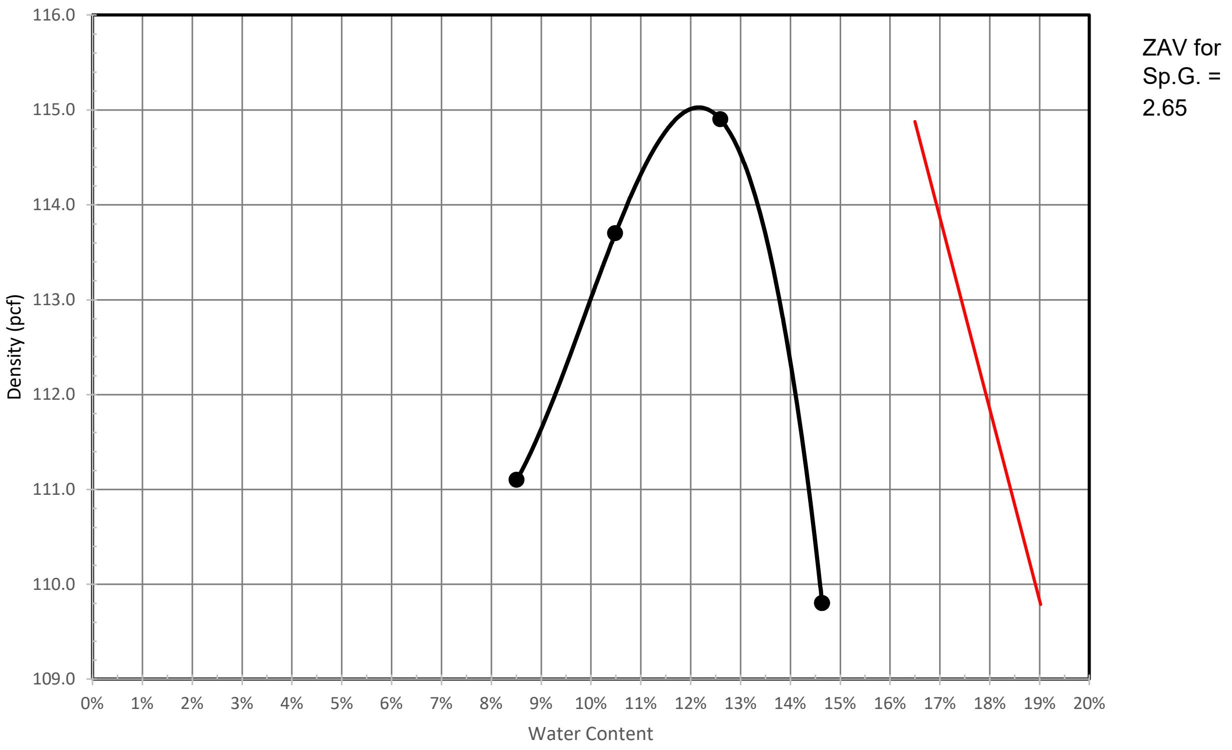
Reviewed by:

Date: 5/22/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.25-2.0'				2.65				

TEST RESULTS

Maximum Dry Density = **115.0 pcf**

Optimum Moisture = **12.2%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-04 **Date:** 5/15/2025

Remarks:

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Rammer: Mechanical

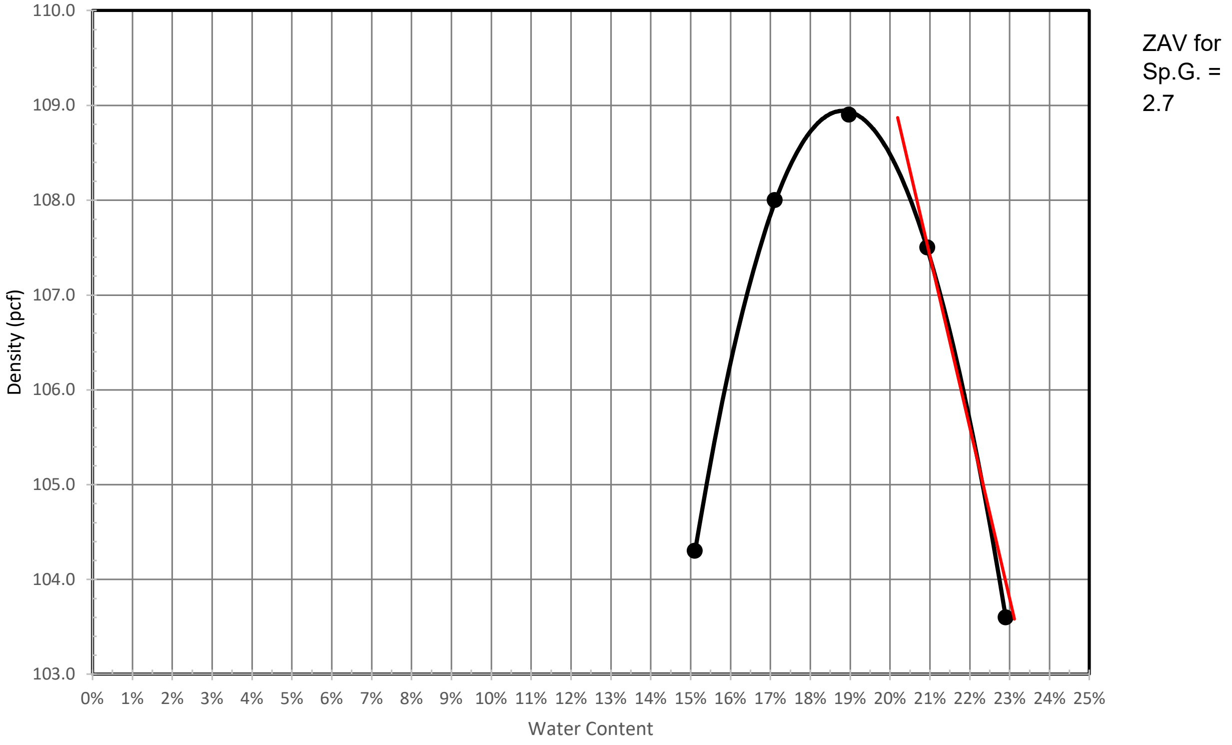
Specific Gravity: Assumed

Reviewed by: ______________________ Date: 5/22/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
1.0-2.0'				2.7				

TEST RESULTS

Maximum Dry Density = **108.9 pcf**

Optimum Moisture = **18.8%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-05 **Date:** 5/15/2025

Remarks:

ATLANTIC TESTING LABORATORIES, LIMITED

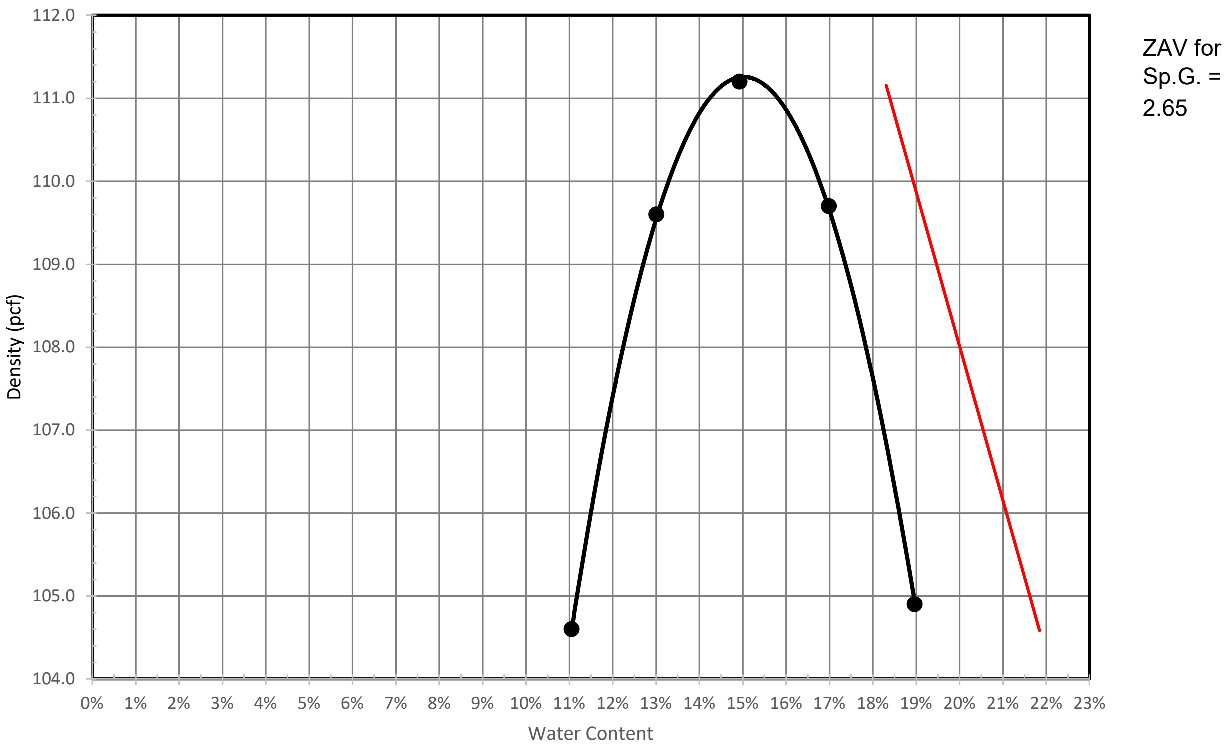
Canton, NY

Rammer: Manual

Specific Gravity: Assumed

Reviewed by: ____________________ Date: 5/22/2025

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
1.0-2.25'				2.65				

TEST RESULTS

Maximum Dry Density = **111.3 pcf**

Optimum Moisture = **15.0%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-07 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

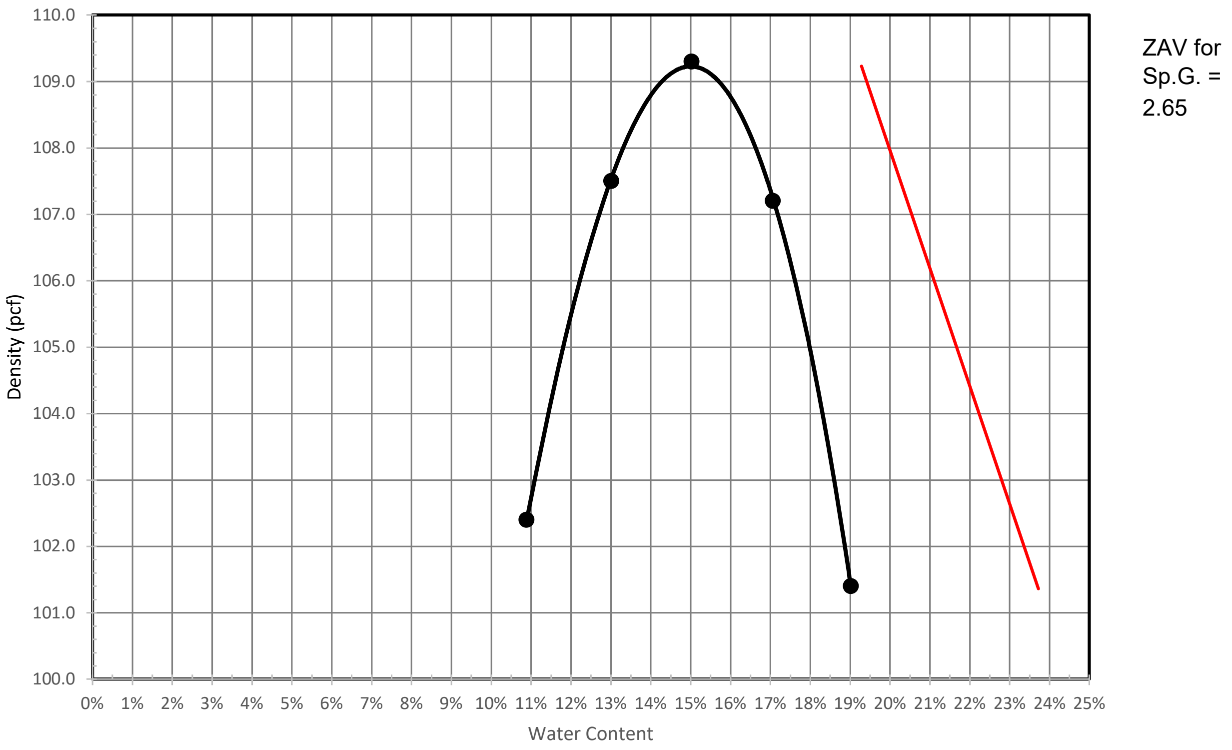
Canton, NY

Reviewed by: ______________________ Date: 5/22/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.75-2.0'				2.65				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum Dry Density = **109.2 pcf**	--
Optimum Moisture = **15.0%**	

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-08 **Date:** 5/15/2025

Remarks:

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Rammer: Mechanical

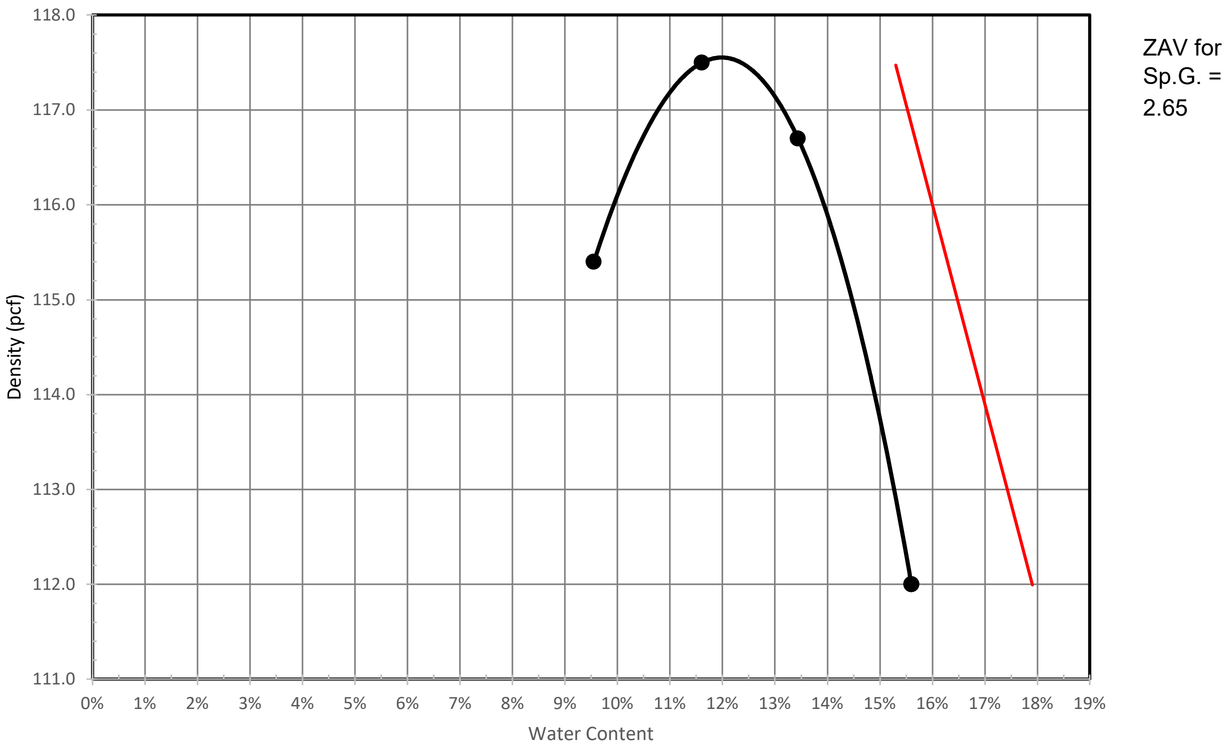
Specific Gravity: Assumed

Reviewed by: Date: 5/22/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.8-2.0'				2.65				

TEST RESULTS

Maximum Dry Density = **117.6 pcf**

Optimum Moisture = **12.0%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-11 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

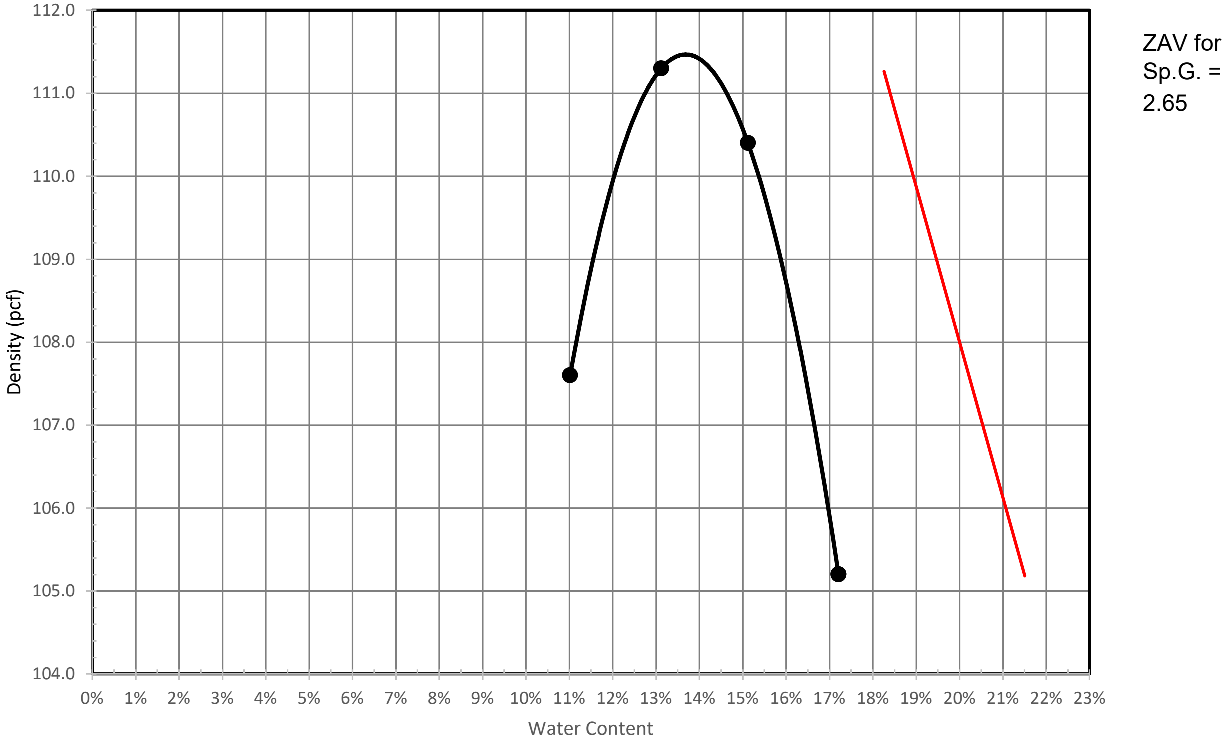
Reviewed by:

Date: 5/22/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
1.25-2.25'				2.65				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum Dry Density = 111.5 pcf **Optimum Moisture =** 13.7%	--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-12 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Reviewed by: ______________________ Date: 5/22/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT

Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.5-5'				2.65				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum Dry Density = **109.0 pcf** **Optimum Moisture =** **14.7%**	--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-27 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

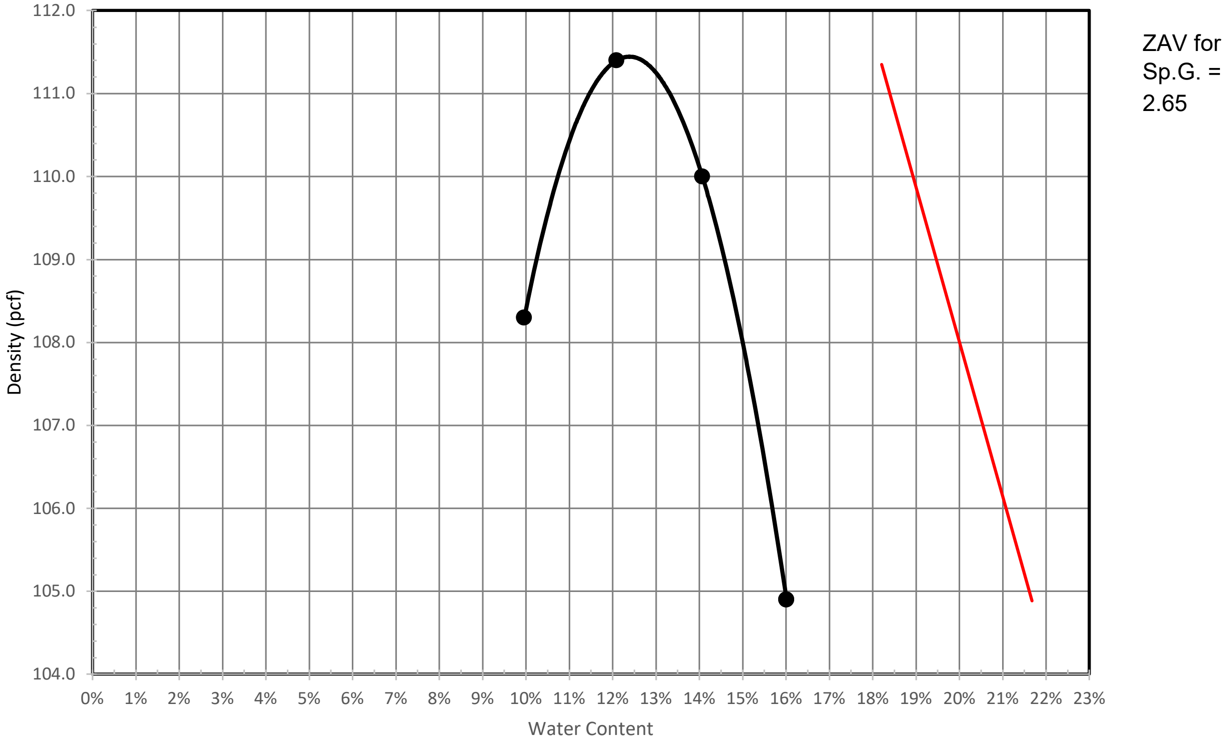
Canton, NY

Reviewed by: ______________________ Date: 5/22/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.5-1.5'				2.65				

TEST RESULTS

Maximum Dry Density = **111.4 pcf**

Optimum Moisture = **12.4%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-28 **Date:** 5/15/2025

Remarks:

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Rammer: Mechanical

Specific Gravity: Assumed

Reviewed by: ______________________ Date: 5/22/2025

ATLANTIC TESTING LABORATORIES

Canton
6431 U.S. Highway 11
Canton, NY 13617
315-386-4578 (T)
atlantictesting.com

May 2, 2025

Langan Engineering Services
555 Long Wharf Maritime Center
New Haven, CT 06511

Telephone:212-479-5400
Email: jcomo@langan.com

Attn: Joseph Como, PE
Senior Staff Engineer

Re: Subsurface Investigation Services
Confidential Project
Clay, Onondaga County, New York
ATL No. CD11010D-01-05-25

Ladies and Gentlemen:

At the request of Joseph Como, PE, representing Langan Engineering Services (Langan), and in accordance with our proposal (ATL No. CD998-3258X-11-24, dated March 6, 2025), Atlantic Testing Laboratories, Limited (ATL) performed geotechnical laboratory testing as requested by Langan.

Select soil samples were submitted to ATL's laboratory for analysis. Twenty-one (21) samples were tested for Moisture Content, in general accordance with ASTM D 2216. Nineteen (19) samples were tested for Particle Size Analysis, in general accordance with ASTM D 422. Nineteen (19) samples were tested for Atterberg Limits, in general accordance with ASTM D 4318. The **Laboratory Test Results** are included in **Attachment A**.

Please contact our office if you have any questions or if we may be of further service. We look forward to our continued association to obtain a successful completion of the project.

Sincerely,

ATLANTIC TESTING LABORATORIES, Limited

Aaron D. Woods, IE
Operations Manager

ADW/AJS/adw

Enclosures

ATTACHMENT A

LABORATORY TEST RESULTS

ATLANTIC TESTING LABORATORIES

WBE certified company

LABORATORY DETERMINATION OF MOISTURE CONTENT OF SOILS
ASTM D 2216

PROJECT INFORMATION

Client:	Langan Engineering	**ATL Report No.:**	CD11010CSL-01-04-25
Project:	1708883801	**Report Date:**	May 2, 2025
		Date Received:	April 21, 2025

TEST DATA

Boring No.	Sample No.	Depth (ft)	Moisture Content (%)
LB-010	S - 3	4.0 - 6.0	26
LB-016	S - 4	6.0 - 8.0	27
LB-63	S - 6	10.0 - 12.0	24
LB-R-005	S - 3	6.0 - 8.0	26
LB-R-012	S - 7	14.0 - 16.0	24
LB-R-69	S - 5	8.0 - 10.0	20
LB-R-69	S - 7	15.0 - 17.0	24
LB-R-70	S - 5	8.0 - 10.0	20
LB-R-70	S - 7	15.0 - 17.0	24
LB-R-075	S - 6 [1]	10.0 - 12.0	23
LB-R-82	S - 8	20.0 - 22.0	23
LB-R-096	S - 5	10.0 - 12.0	12
LB-R-105	S - 6	10.0 - 12.0	19
LB-R-105	S - 7	15.0 - 17.0	23
LB-R-106	S - 10 [1]	30.0 - 32.0	22
LB-R-107	S - 4	6.0 - 8.0	34
LB-R-107	S - 12	40.0 - 42.0	11
LB-R-116	S - 3	4.0 - 6.0	27
LB-R-116	S - 8	19.0 - 21.0	12
LB-R-118	S - 9 [1]	24.0 - 26.0	11
LB-R-121	S - 4	6.0 - 8.0	18
LB-R-123	S - 4 [1]	6.0 - 8.0	9

REMARKS

1. Sample mass was less than the minimum mass outlined in the referenced test method.

Reviewed By: ______________________ Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

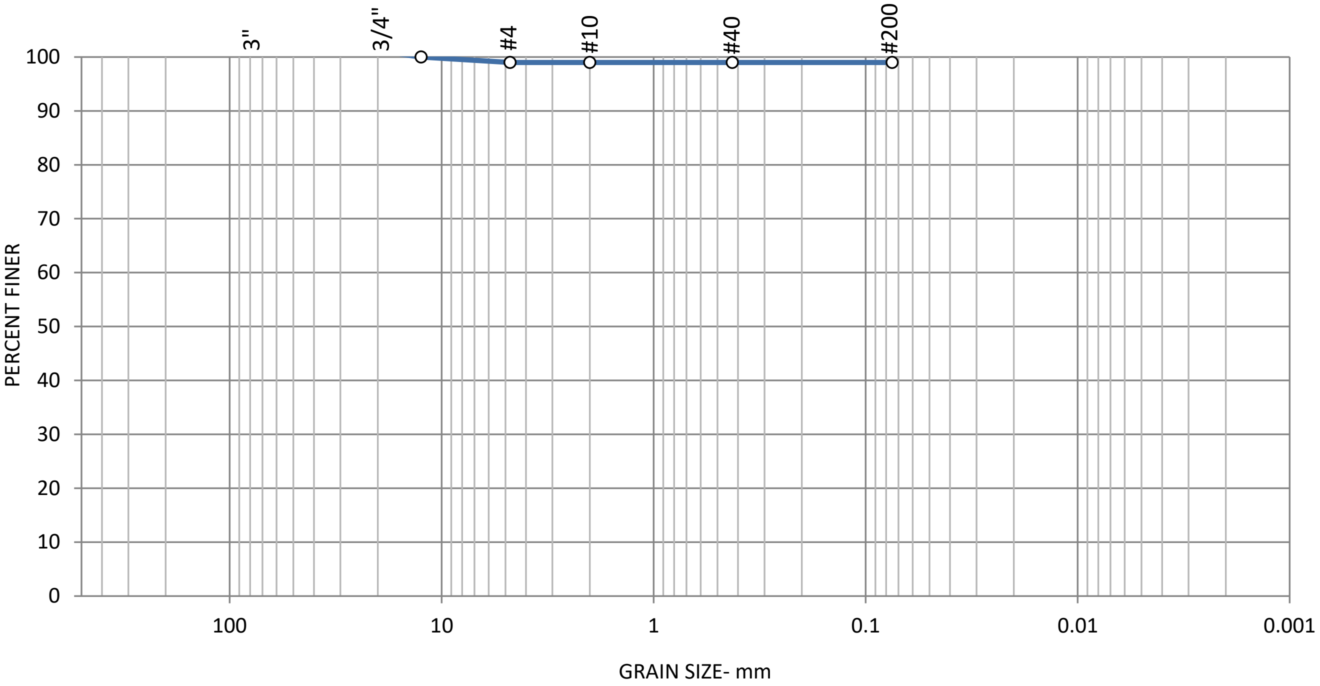
Particle Size Distribution Report
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-01-04-25

Client: Langan Engineering **Test Date:** 4/24/2025

Sample No: LB-010, S-3 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 4.0-6.0



% Cobbles	% Gravel		% Sand			% Fines	
						99	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		1					

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	99		
#10	99		
#40	99		
#200	99		

Soil Description

Brown Silty CLAY; trace f Gravel

Moisture Content = 26%

Atterburg Limits

PL= 18 LL= 39 PI= 21

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

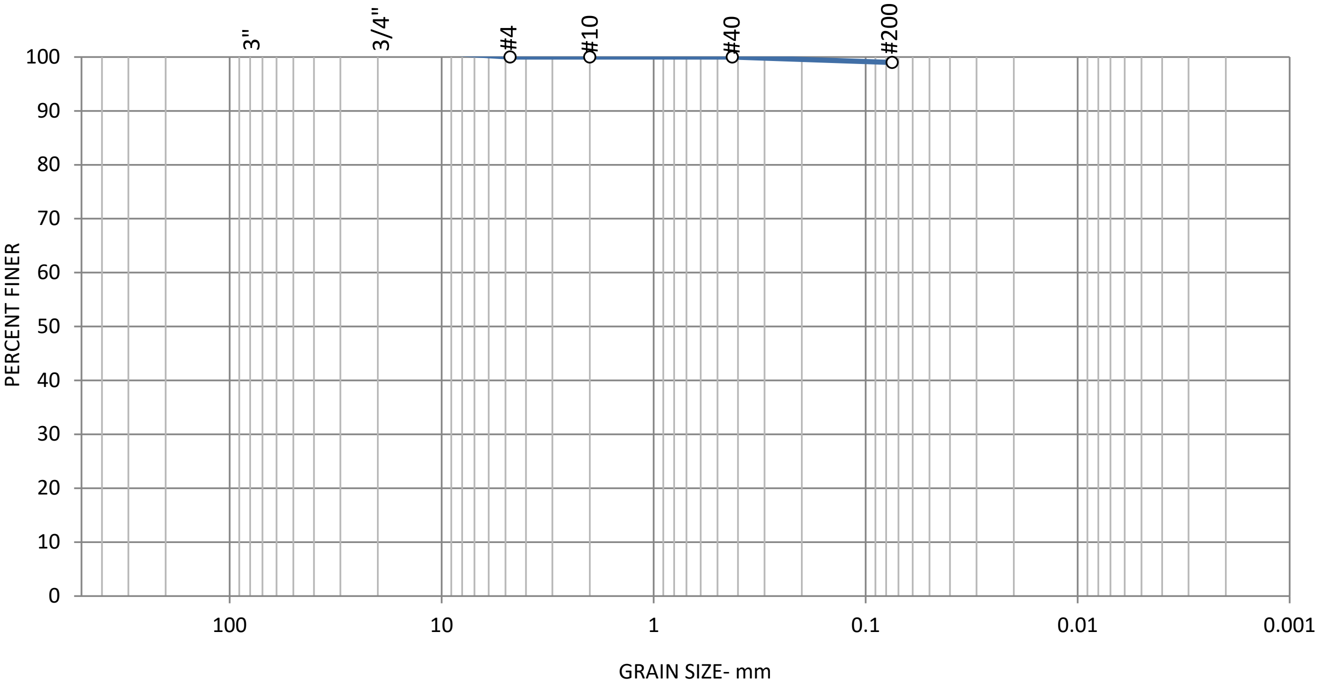
Date: 5/2/2025

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-016, S-4
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 6.0-8.0



% Cobbles	% Gravel		% Sand			% Fines	
						99	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					1		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	99		

Soil Description

Brown CLAY & SILT; trace f Sand

Moisture Content = 27%

Atterburg Limits

PL= 17 LL= 34 PI= 17

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

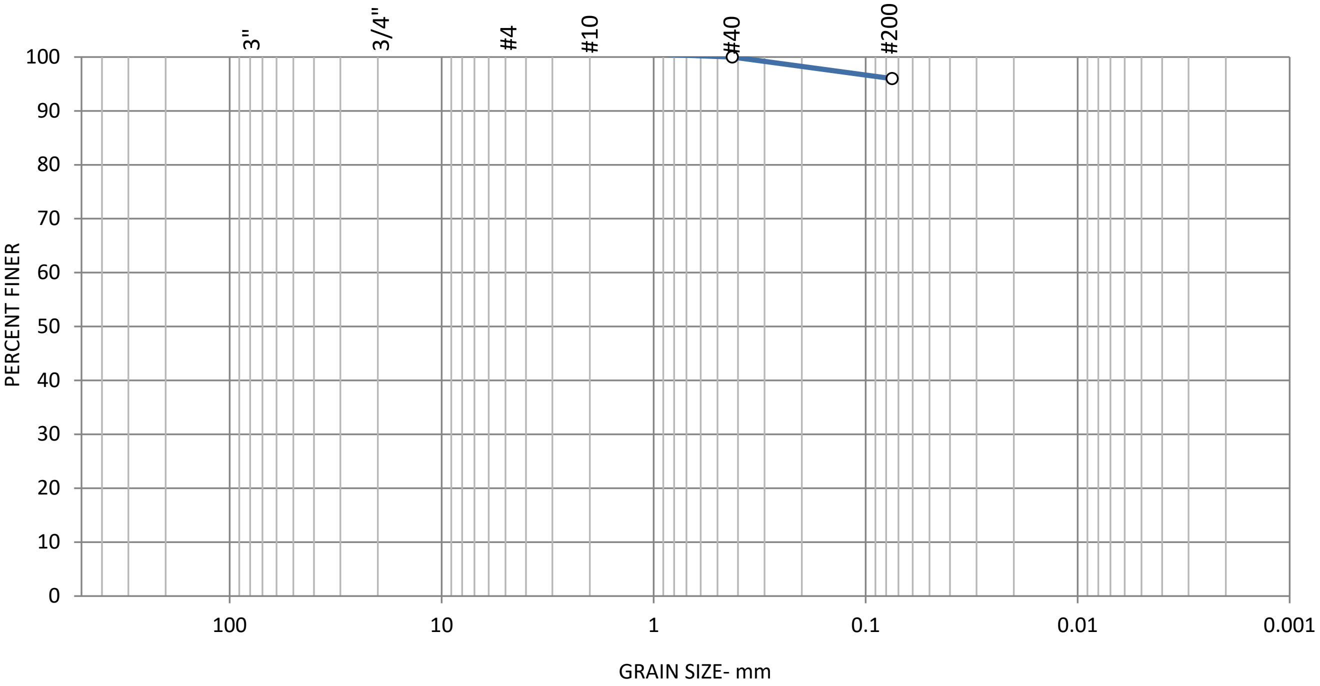
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-01-04-25

Client: Langan Engineering **Test Date:** 4/24/2025

Sample No: LB-63, S-4 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 6.0-8.0



% Cobbles	% Gravel		% Sand			% Fines	
						96	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					4		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	96		

Soil Description

Grey SILT; trace f Sand

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

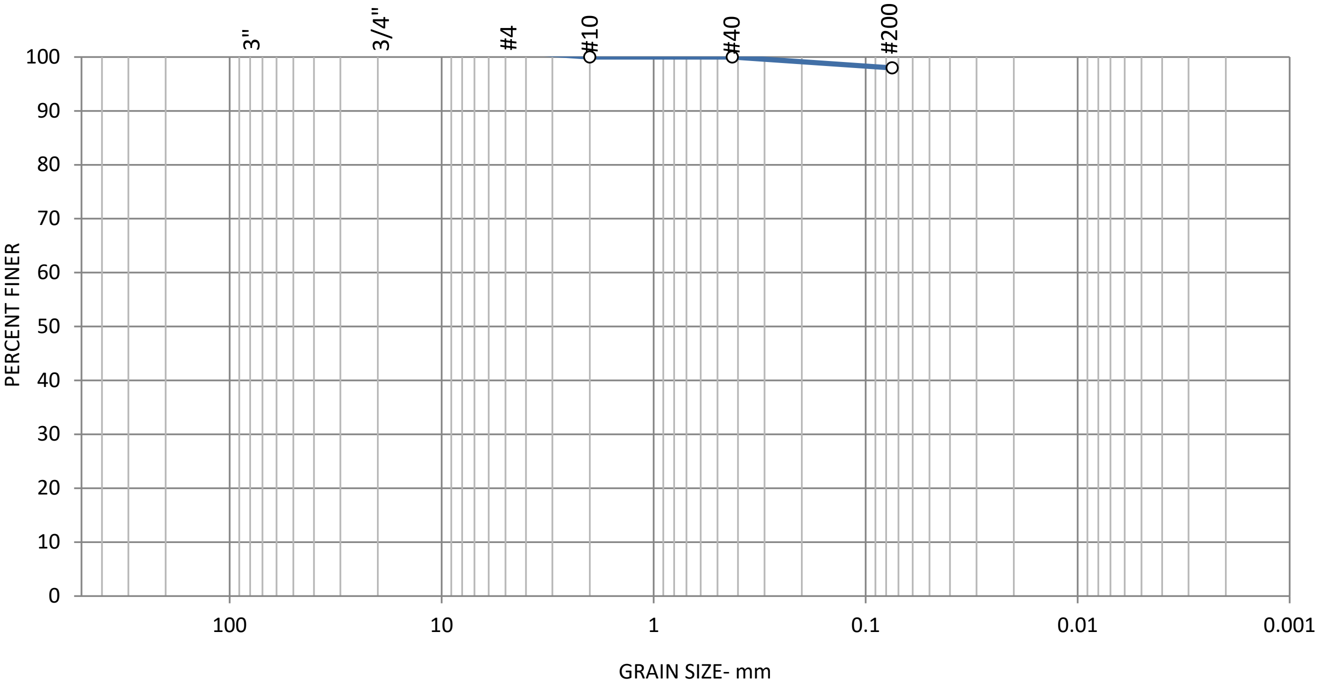
Date: 5/2/2025

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-R-012, S-7
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 14.0-16.0



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	98		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 24%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/2/2025

Particle Size Distribution Report

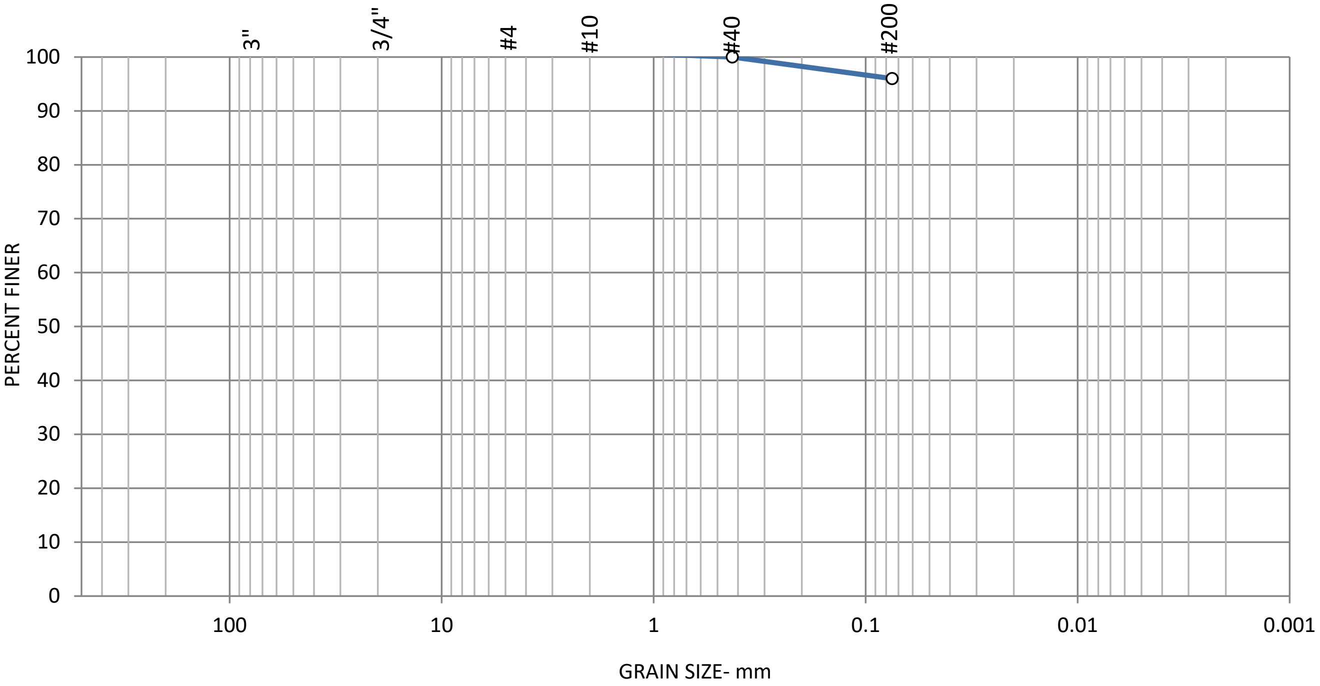
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-01-04-25

Client: Langan Engineering **Test Date:** 4/24/2025

Sample No: LB-R-69, S-5 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 8.0-10.0



% Cobbles	% Gravel		% Sand			% Fines	
						96	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					4		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	96		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 19.6%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

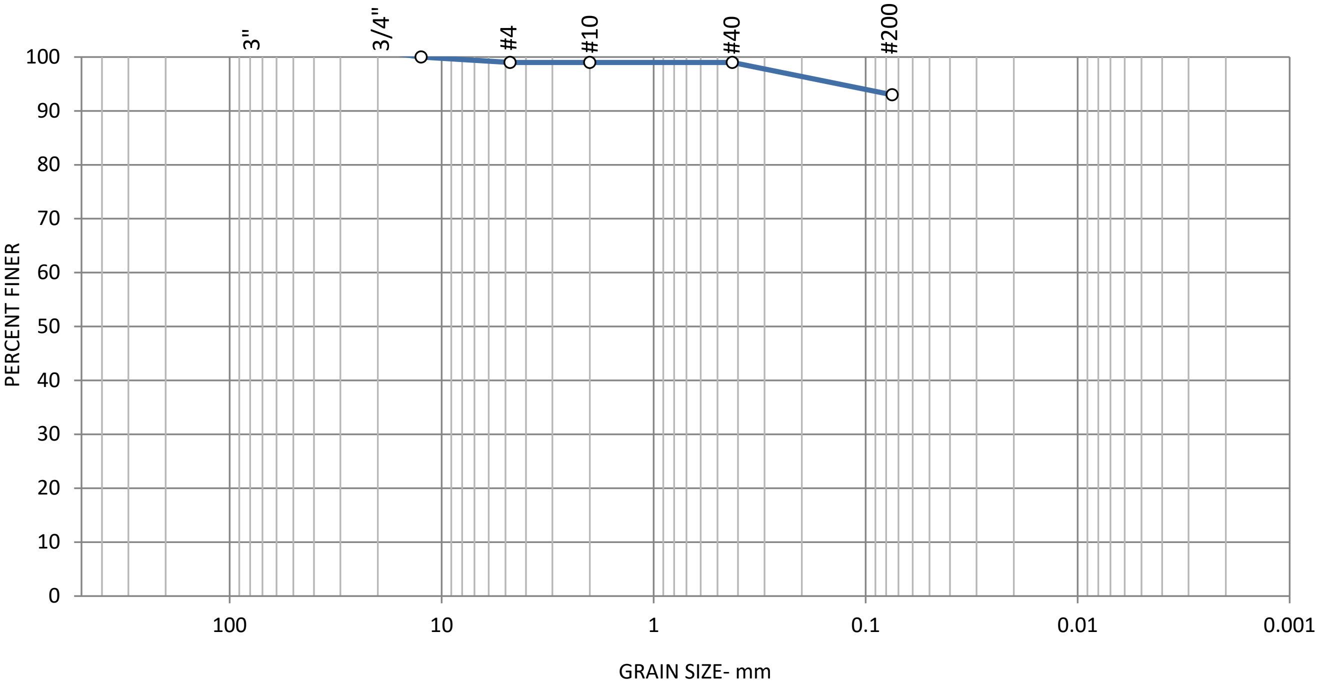
Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-R-69, S-7
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 15.0-17.0



% Cobbles	% Gravel		% Sand			% Fines	
						93	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		1			6		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	99		
#10	99		
#40	99		
#200	93		

Soil Description

Brown SILT; trace f Sand; trace f Gravel

Moisture Content = 24%

Atterburg Limits

PL= NP
LL= NP
PI= NP

Coefficients

D_{60}=
D_{30}=
D_{10}=
C_u= NA
C_c= NA

Classification

USCS=
AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

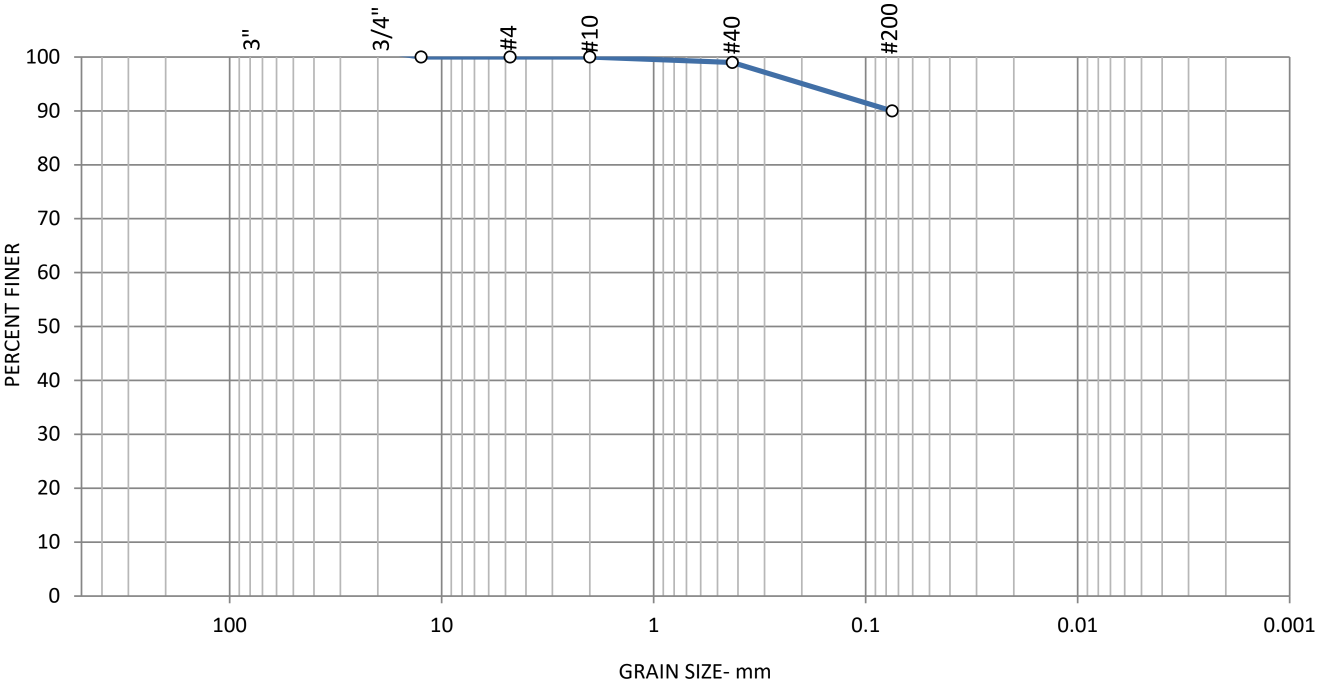
Reviewed by:

Date: 5/2/2025

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-R-075, S-6
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 10.0-12.0



% Cobbles	% Gravel		% Sand			% Fines	
						90	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				1	9		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	100		
#10	100		
#40	99		
#200	90		

Soil Description

Brown SILT; trace mf Sand

Moisture Content = 23%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

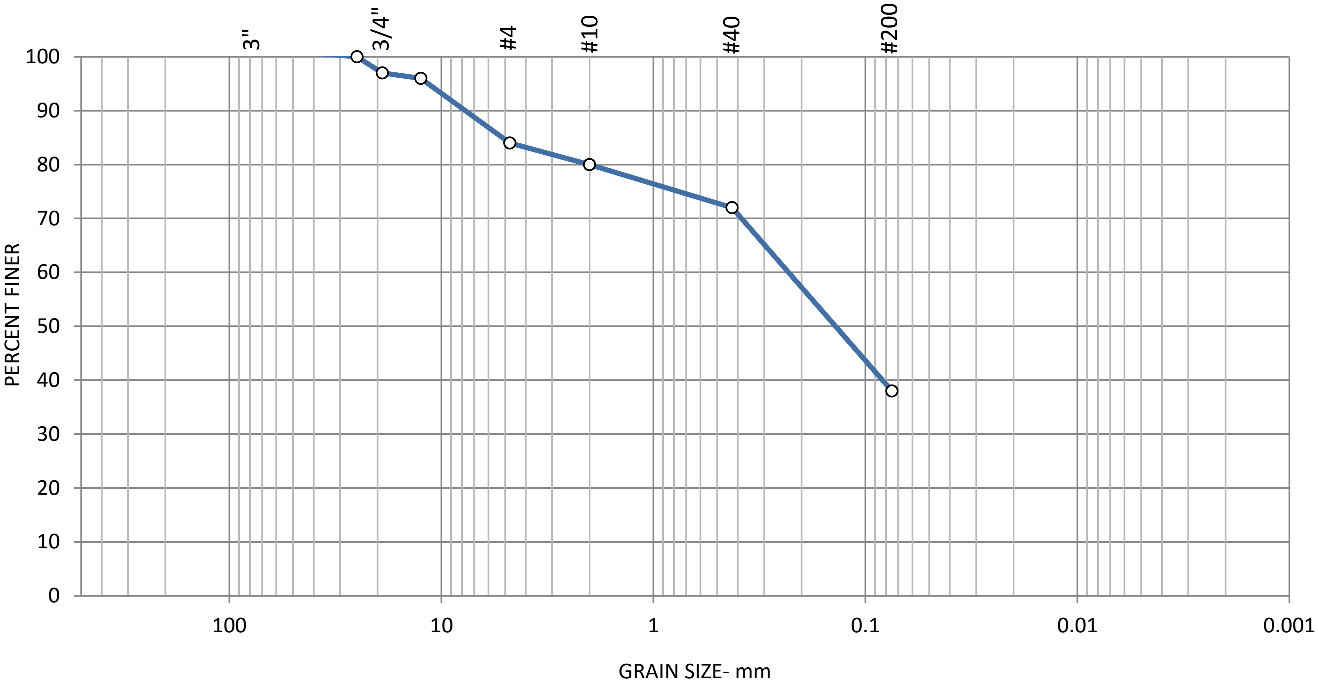
Date: 5/2/2025

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-R-76, S-5
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 8.0-10.0



% Cobbles	% Gravel		% Sand			% Fines 38	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	3	13	4	8	34		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"	100		
3/4"	97		
1/2"	96		
#4	84		
#10	80		
#40	72		
#200	38		

Soil Description

Brown cmf SAND; and Silt; little cf Gravel

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 0.125 D_{30}= D_{10}=
C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

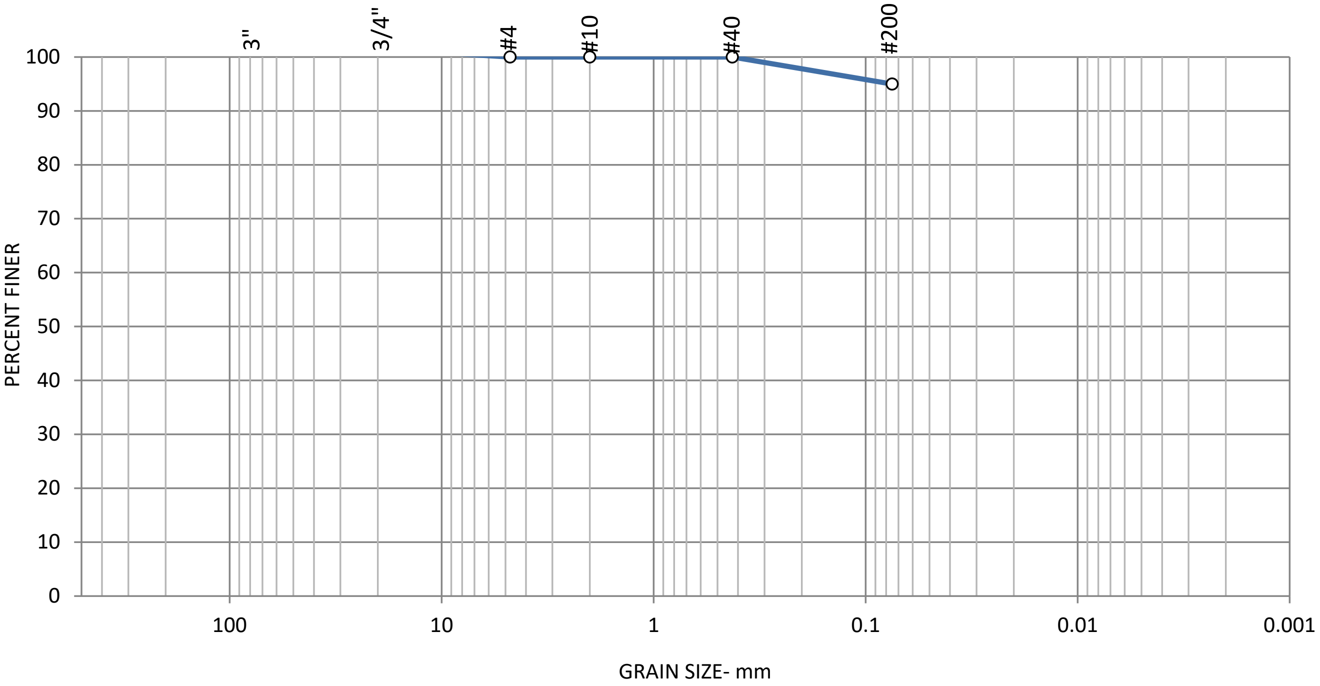
Date: 5/2/2025

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-R-82, S-8
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 20.0-22.0



% Cobbles	% Gravel		% Sand			% Fines	
						95	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					5		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	95		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 23%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

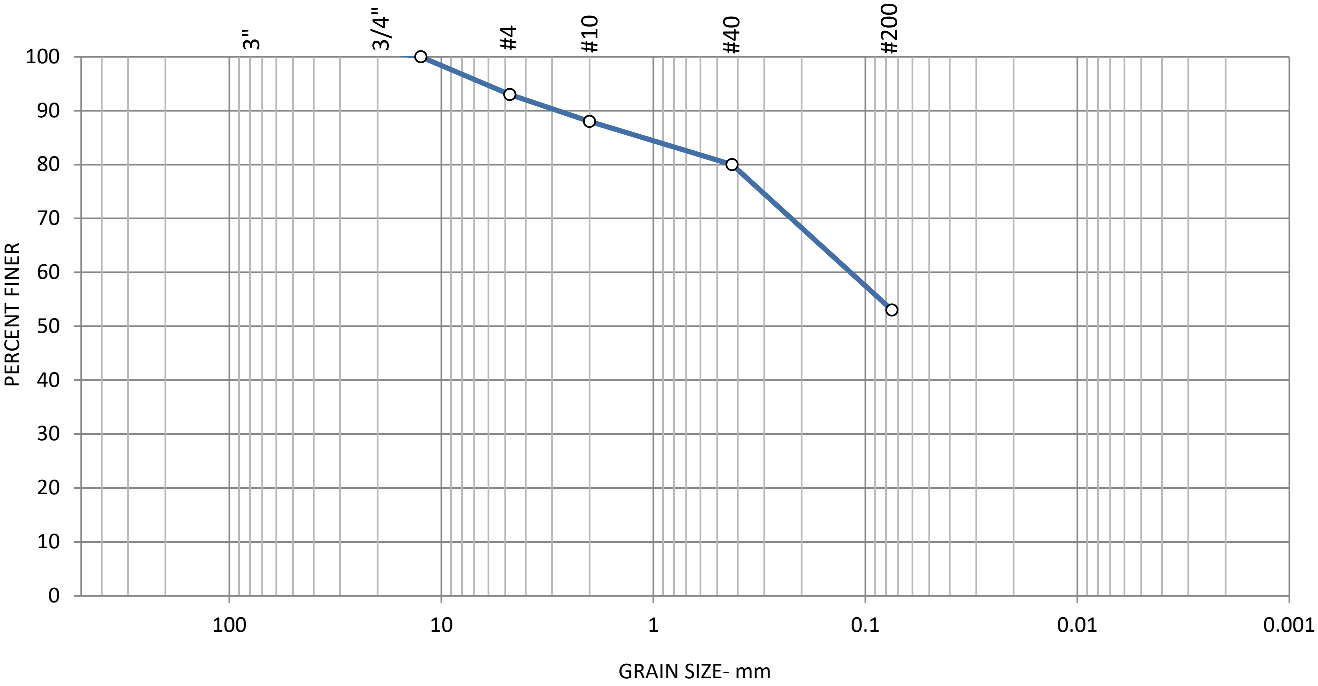
Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-R-096, S-5
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 10.0-12.0



% Cobbles	% Gravel		% Sand			% Fines 53	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		7	5	8	27		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	93		
#10	88		
#40	80		
#200	53		

Soil Description

Brown Clayey SILT; and cmf Sand; trace f Gravel

Moisture Content = 12%

Atterburg Limits

PL= 12 LL= 14 PI= 2

Coefficients

D_{60}= 0.094 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

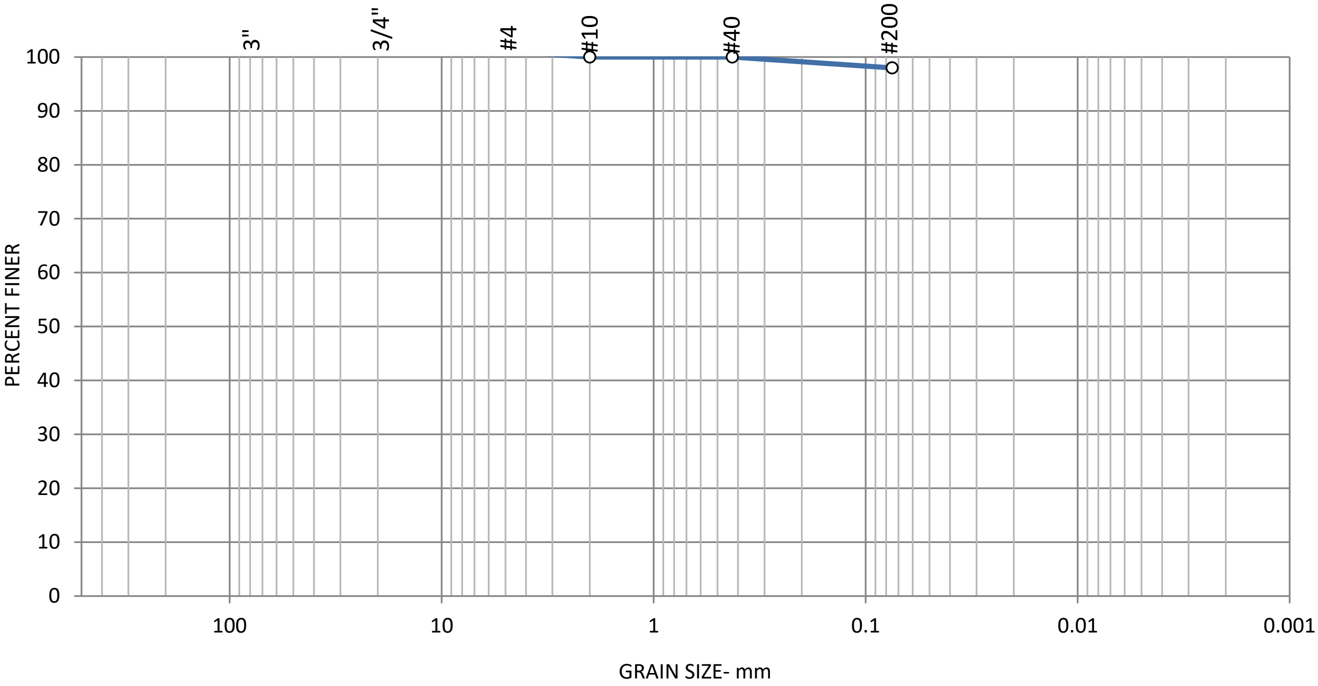
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-01-04-25

Client: Langan Engineering **Test Date:** 4/24/2025

Sample No: LB-R-105, S-6 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 10.0-12.0



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	98		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 19%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by: Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

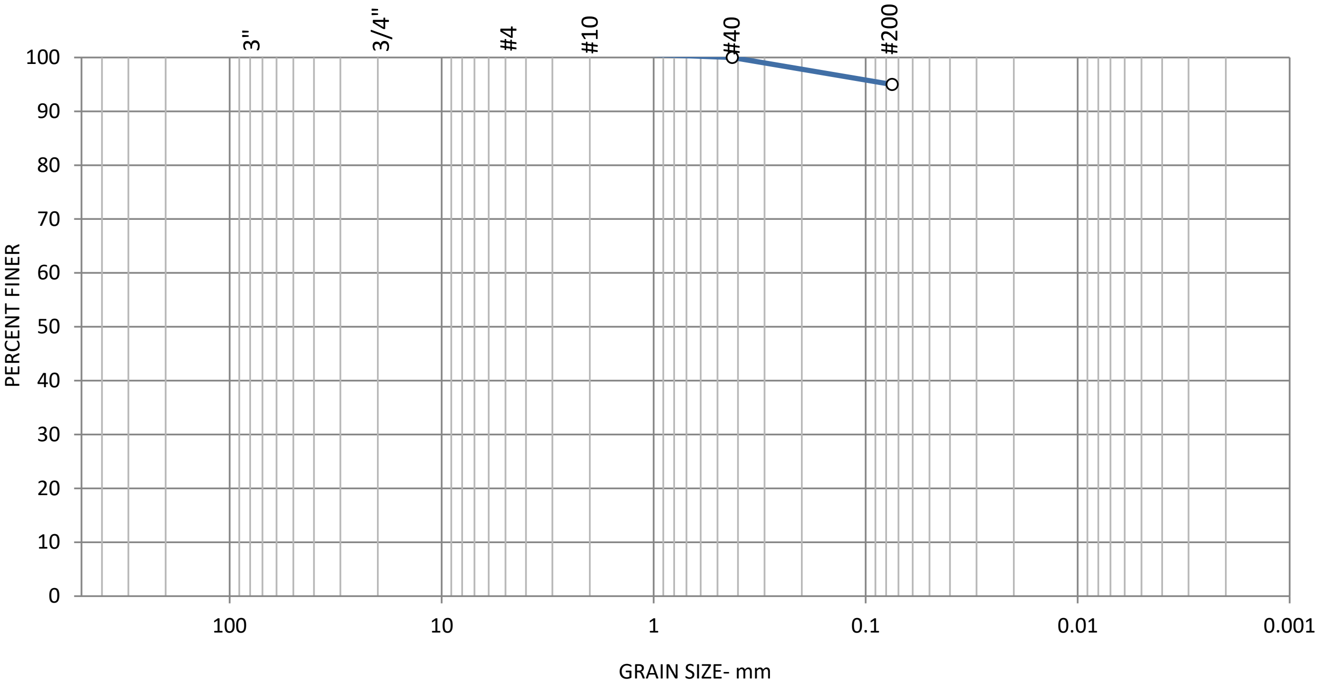
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-01-04-25

Client: Langan Engineering **Test Date:** 4/24/2025

Sample No: LB-R-105, S-7 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 15.0-17.0



% Cobbles	% Gravel		% Sand			% Fines	
						95	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					5		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10			
#40	100		
#200	95		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 23%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

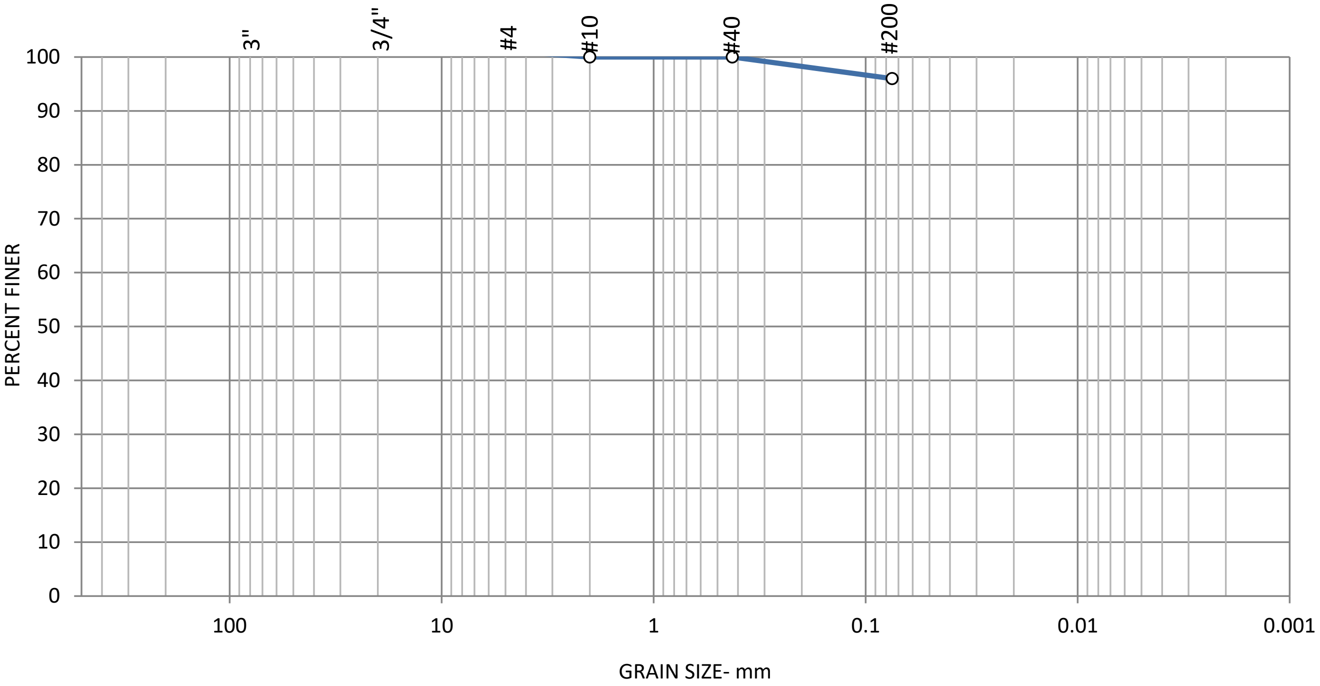
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-01-04-25

Client: Langan Engineering **Test Date:** 4/24/2025

Sample No: LB-R-113, S-2 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 2.0-4.0



% Cobbles	% Gravel		% Sand			% Fines	
						96	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					4		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	96		

Soil Description

Brown SILT; trace f Sand

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

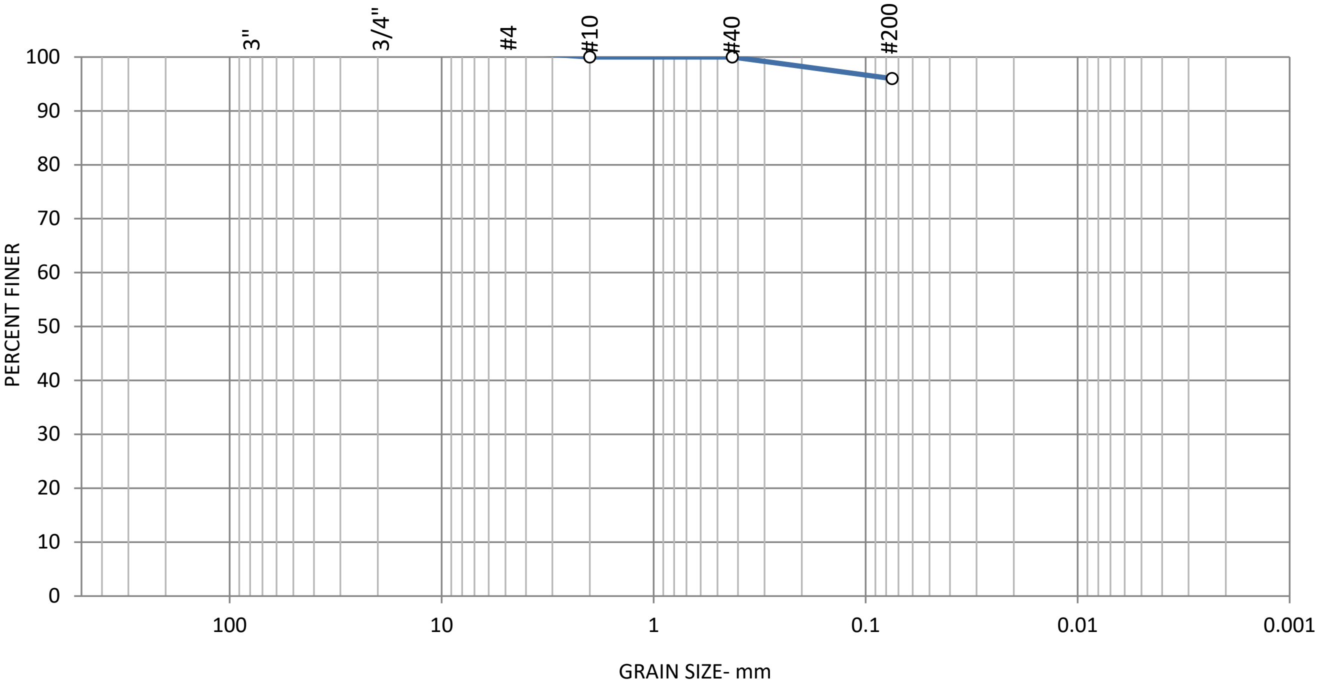
Reviewed by: Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-R-116, S-3
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 4.0-6.0



% Cobbles	% Gravel		% Sand			% Fines	
						96	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					4		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	96		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 27%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/2/2025

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-01-04-25

Client: Langan Engineering

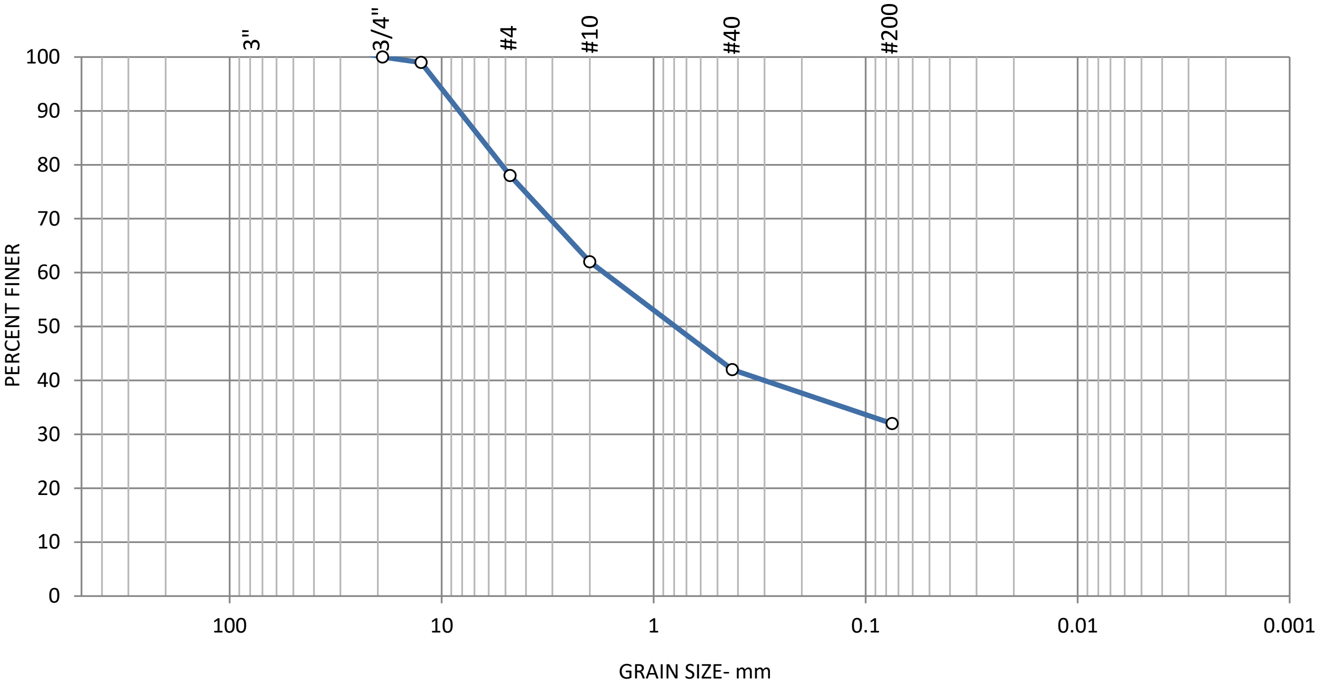
Test Date: 4/24/2025

Sample No: LB-R-118, S-9

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 24.0-26.0



% Cobbles	% Gravel		% Sand			% Fines	
						32	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		22	16	20	10		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	99		
#4	78		
#10	62		
#40	42		
#200	32		

Soil Description

Grey cmf SAND; some Silt & Clay; some f Gravel

Moisture Content = 11%

Atterburg Limits

PL= 15 LL= 22 PI= 7

Coefficients

D_{60}= 0.826 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-01-04-25

Client: Langan Engineering

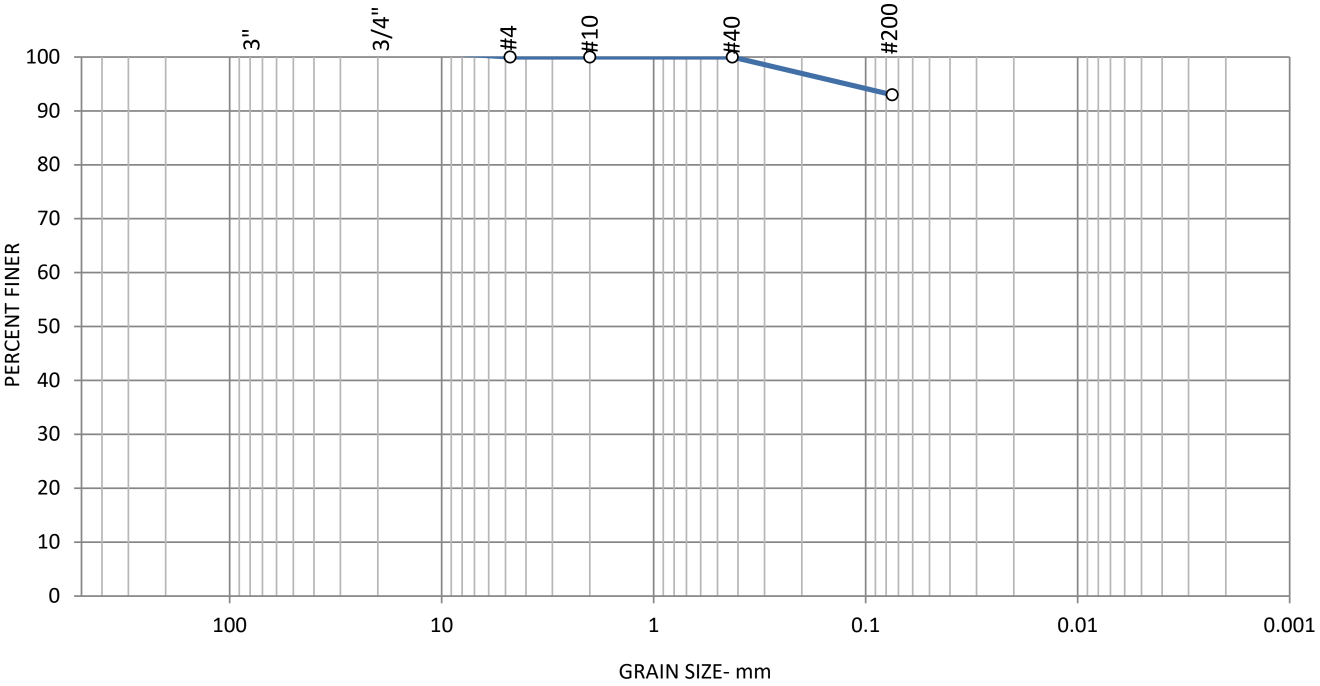
Test Date: 4/24/2025

Sample No: LB-R-121, S-4

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 6.0-8.0



% Cobbles	% Gravel		% Sand			% Fines	
						93	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					7		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	93		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 18%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

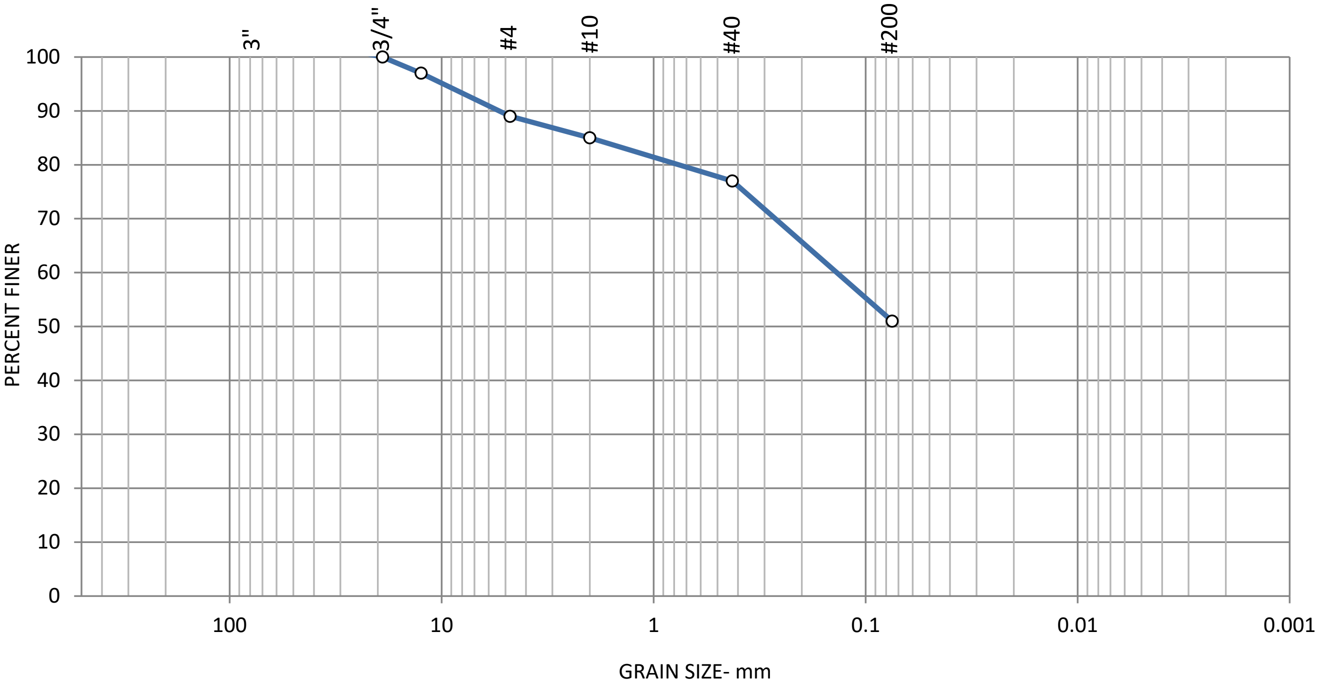
Date: 5/2/2025

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-R-123, S-4
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 6.0-8.0



% Cobbles	% Gravel		% Sand			% Fines	
						51	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		11	4	8	26		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	97		
#4	89		
#10	85		
#40	77		
#200	51		

Soil Description

Brown SILT; and cmf Sand; little f Gravel

Moisture Content = 9%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 0.1 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORATORITES, LIMITED

Reviewed by:

Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-01-04-25

Client: Langan Engineering

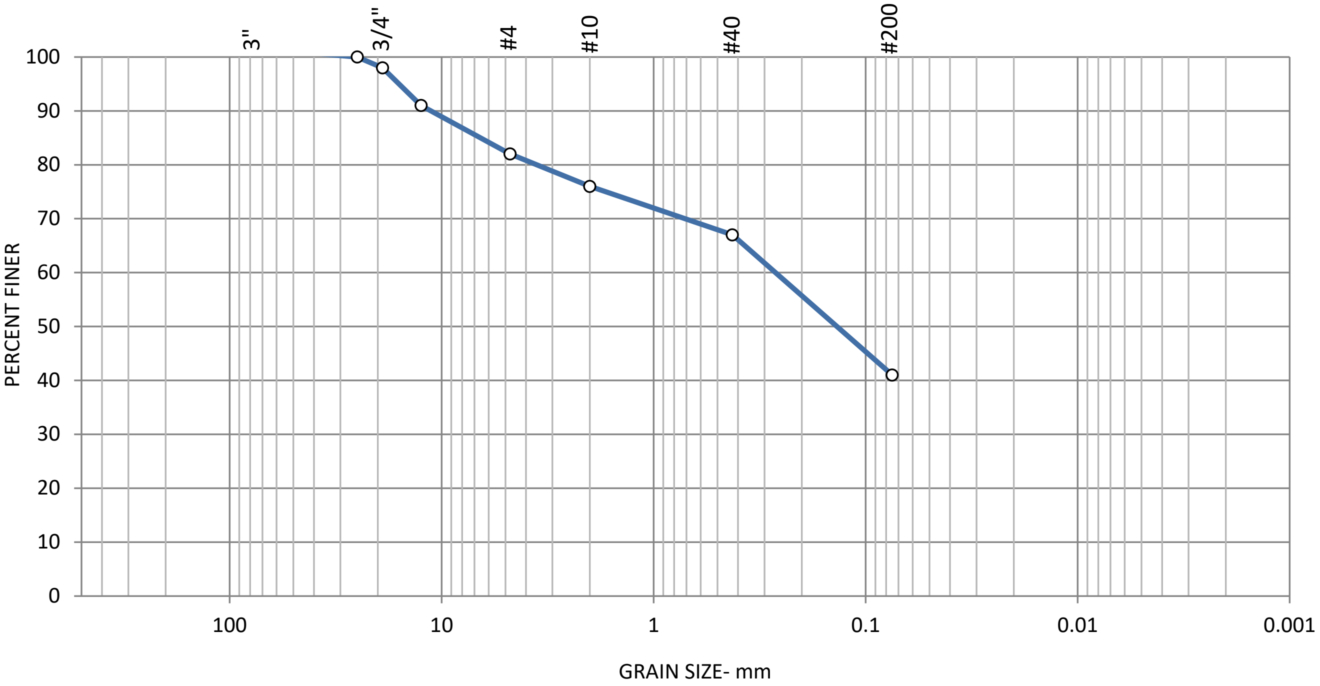
Test Date: 4/24/2025

Sample No: LB-R-126, S-3

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 4.0-6.0



% Cobbles	% Gravel		% Sand			% Fines	
						41	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	2	16	6	9	26		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"	100		
3/4"	98		
1/2"	91		
#4	82		
#10	76		
#40	67		
#200	41		

Soil Description

Brown cmf SAND; and Silt; little cf Gravel

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 0.131 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

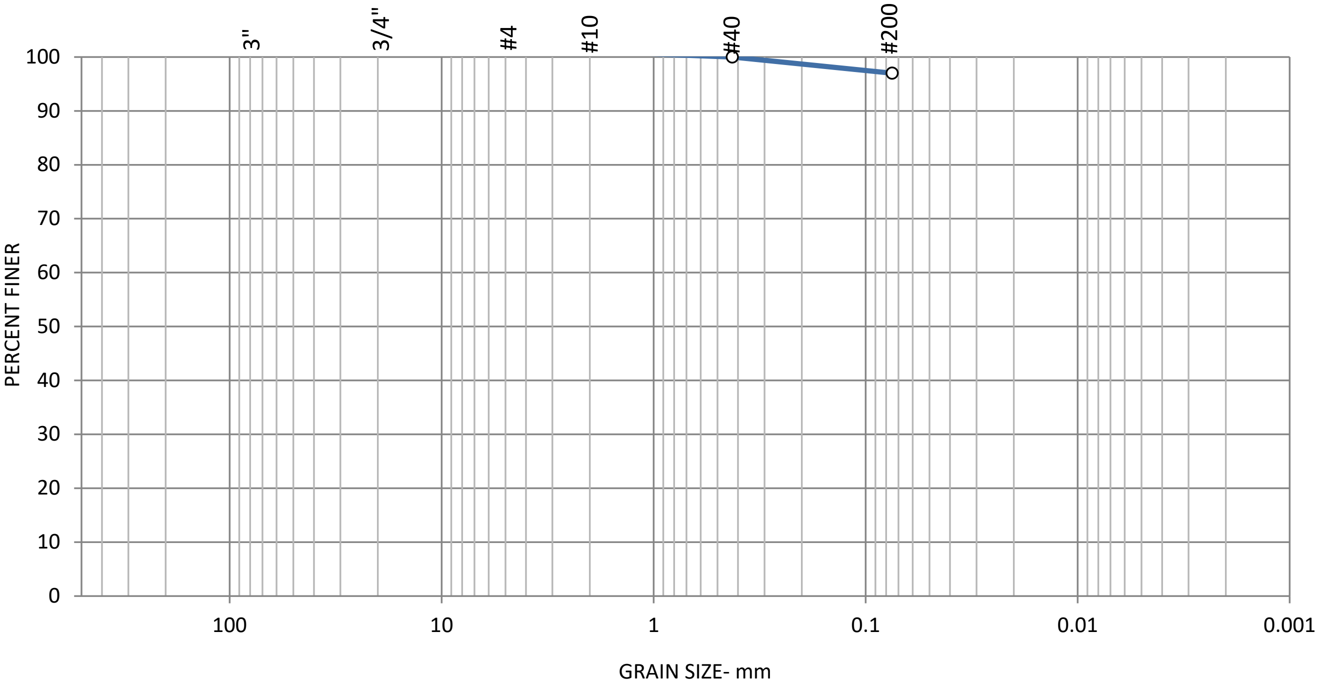
Reviewed by:

Date: 5/2/2025

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-01-04-25
Client: Langan Engineering
Test Date: 4/24/2025

Sample No: LB-X-2, S-6
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 10.0-12.0



% Cobbles	% Gravel		% Sand			% Fines	
						97	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					3		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	97		

Soil Description

Brown SILT; trace f Sand

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOIL
ASTM D 4318

PROJECT INFORMATION

Client:	Langan Engineereing	**ATL Report No.:**	CD11010CSL-01-04-25
Project:	170883801	**Report Date:**	May 2, 2025
		Date Received:	April 21, 2025

TEST DATA

Boring No.	Sample No.	As Received Moisture Content (%)	LL	PL	PI
LB-010	S-3	26	39	18	21
LB-016	S-4	27	34	17	17
LB-63	S-6	24	NP	NP	NP
LB-R-005	S-3	26	24	20	4
LB-R-012	S-7	24	NP	NP	NP
LB-R-69	S-7	24	NP	NP	NP
LB-R-70	S-5	20	NP	NP	NP
LB-R-70	S-7	24	20	15	5
LB-R-075	S-6	23	NP	NP	NP
LB-R-096	S-5	12	14	12	2

SAMPLE INFORMATION

Boring No.	Sample No.	Maximum Grain Size (mm)	Estimated Amount of Sample Retained on No. 40 Sieve (%)	Preparation	Method of Removing Oversized Material
LB-010	S-3	12.5	1	Oven Dry	Pulverizing and Screening
LB-016	S-4	4.75	0	Oven Dry	Pulverizing and Screening
LB-63	S-6	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-005	S-3	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-012	S-7	4.75	0	Oven Dry	Pulverizing and Screening
LB-R-69	S-7	12.5	1	Oven Dry	Pulverizing and Screening
LB-R-70	S-5	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-70	S-7	2	0	Oven Dry	Pulverizing and Screening
LB-R-075	S-6	4.75	0	Oven Dry	Pulverizing and Screening
LB-R-096	S-5	12.5	20	Oven Dry	Pulverizing and Screening

EQUIPMENT INFORMATION

Liquid Limit Procedure:	Multipoint - Method A	☒	Single Point - Method B	☐
Liquid Limit Apparatus:	Manual	☒	Motor Driven	☐
Liquid Limit Grooving Tool Material:	Plastic	☒	Metal	☐
Liquid Limit Grooving Tool Shape:	Flat	☒	Curved (AASHTO Only)	☐
Plastic Limit:	Hand Rolled	☒	Mechanical Rolling Device	☐

Reviewed By: ____________________ Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

WBE certified company

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOIL

ASTM D 4318

PROJECT INFORMATION

Client:	Langan Engineering	**ATL Report No.:**	CD11010CSL-01-04-25
Project:	170883801	**Report Date:**	May 2, 2025
		Date Received:	April 21, 2025

TEST DATA

Boring No.	Sample No.	As Received Moisture Content (%)	LL	PL	PI
LB-R-105	S-6	19	NP	NP	NP
LB-R-105	S-7	23	NP	NP	NP
LB-R-106	S-10	22	34	18	16
LB-R-107	S-4	34	21	16	5
LB-R-107	S-12	11	18	13	5
LB-R-113	S-2	22	NP	NP	NP
LB-R-116	S-3	27	NP	NP	NP
LB-R-116	S-8	12	22	16	6
LB-R-118	S-9	11	22	15	7

SAMPLE INFORMATION

Boring No.	Sample No.	Maximum Grain Size (mm)	Estimated Amount of Sample Retained on No. 40 Sieve (%)	Preparation	Method of Removing Oversized Material
LB-R-105	S-6	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-105	S-7	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-106	S-10	19	13	Oven Dry	Pulverizing and Screening
LB-R-107	S-4	2	0	Oven Dry	Pulverizing and Screening
LB-R-107	S-12	25	26	Oven Dry	Pulverizing and Screening
LB-R-113	S-2	4.75	0	Oven Dry	Pulverizing and Screening
LB-R-116	S-3	4.75	0	Oven Dry	Pulverizing and Screening
LB-R-116	S-8	25	66	Oven Dry	Pulverizing and Screening
LB-R-118	S-9	19	68	Oven Dry	Pulverizing and Screening

EQUIPMENT INFORMATION

Liquid Limit Procedure:	Multipoint - Method A	X	Single Point - Method B	
Liquid Limit Apparatus:	Manual	X	Motor Driven	
Liquid Limit Grooving Tool Material:	Plastic	X	Metal	
Liquid Limit Grooving Tool Shape:	Flat	X	Curved (AASHTO Only)	
Plastic Limit:	Hand Rolled	X	Mechanical Rolling Device	

Reviewed By: ______________________ Date: 5/2/2025

ATLANTIC TESTING LABORATORIES

Canton
6431 U.S. Highway 11
Canton, NY 13617
315-386-4578 (T)
atlantictesting.com

May 30, 2025

Langan Engineering Services
555 Long Wharf Maritime Center
New Haven, CT 06511

Telephone:212-479-5400
Email: jcomo@langan.com

Attn: Joseph Como, PE
Senior Staff Engineer

Re: Subsurface Investigation Services
Confidential Project
Clay, Onondaga County, New York
ATL No. CD11010D-02-05-25

Ladies and Gentlemen:

At the request of Joseph Como, PE, representing Langan Engineering Services (Langan), and in accordance with our proposal (ATL No. CD998-3258X-11-24, dated March 6, 2025), Atlantic Testing Laboratories, Limited (ATL) performed geotechnical laboratory testing as requested by Langan.

Select soil samples were submitted to ATL's laboratory for analysis. Thirty-two (32) samples were tested for Moisture Content, in general accordance with ASTM D 2216. Thirty-six (36) samples were tested for Particle Size Analysis without hydrometer, and seven (7) for Particle Size Analysis with hydrometer, in general accordance with ASTM D 422. Thirty (30) samples were tested for Atterberg Limits, in general accordance with ASTM D 4318. Nine (9) sample were tested for Modified Proctor, in general accordance with ASTM D 1557. Three (3) samples were tested for 1-point California Bearing Ratio, and six (6) samples were tested for 3-point California Bearing Ratio, in general accordance with ASTM D 1883. The **Laboratory Test Results** are included in **Attachment A**.

Please contact our office if you have any questions or if we may be of further service. We look forward to our continued association to obtain a successful completion of the project.

Sincerely,

ATLANTIC TESTING LABORATORIES, Limited

Aaron D. Woods, IE
Operations Manager

ADW/AJS/adw

Enclosures

ATTACHMENT A

LABORATORY TEST RESULTS

ATLANTIC TESTING LABORATORIES

WBE certified company

LABORATORY DETERMINATION OF MOISTURE CONTENT OF SOILS
ASTM D 2216

PROJECT INFORMATION

Client:	Langan, NYC	**ATL Report No.:**	CD11010CSL-02-05-25
Project:	170883801	**Report Date:**	May 30, 2025
	Clay, NY	**Date Received:**	May 12, 2025

TEST DATA

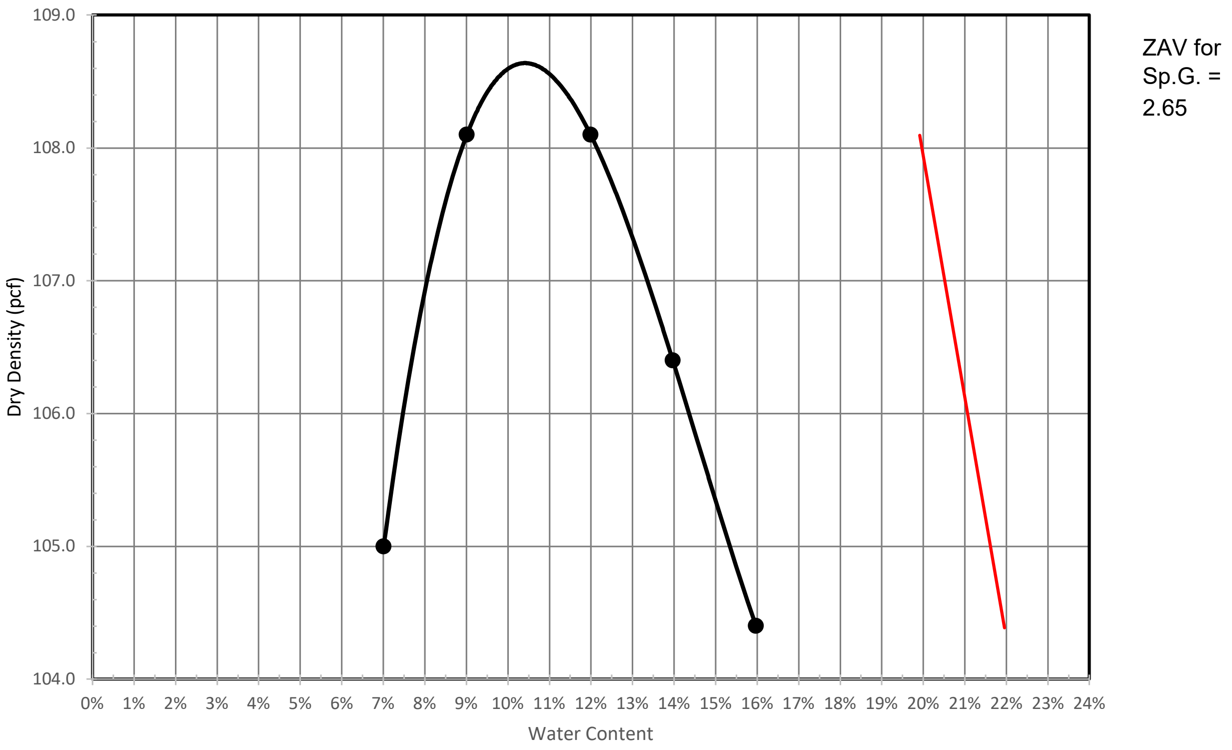
Boring No.	Sample No.	Depth (ft)	Moisture Content (%)
TP-02	S - 1	-	16
TP-04	S - 1	-	31
TP-05	S - 1	-	21
TP-06	S - 1	-	26
TP-07	S - 1	-	19
TP-08	S - 1	-	15
TP-11	S - 1	-	24
TP-12	S - 1	-	26
TP-27	S - 1	-	18
TP-30	S - 1	-	17
TP-31	S - 1	-	25

Reviewed By: ____________________ Date: 5/30/25

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
1.0-1.75'				2.65				

TEST RESULTS

Maximum Dry Density = **108.6 pcf**

Optimum Moisture = **10.4%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-02 **Date:** 5/15/2025

Remarks:

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Rammer: Mechanical

Specific Gravity: Assumed

Reviewed by: ______________________ Date: 5/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client: Langan, NYC
Project: 170883801
Clay, NY

ATL Report No.: CD11010CSL-02-05-2
Report Date: May 30, 2025
Date Received: May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-02	1-1.75ft	90	ASTM D 1557, C	10.4
		92	ASTM D 1557, C	10.4
		95	ASTM D 1557, C	10.4

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-02	1-1.75ft	96	10.01	2.7
		96	10.01	2.5
		96	10.01	2.4

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-02	1-1.75ft	97.7	10.4	28.8	0.3	0.4
		99.9	10.4	26.3	1.0	1.0
		103.2	10.4	25.6	1.8	2.4

REMARKS

Reviewed By: ______________________

Date: 05/30/25

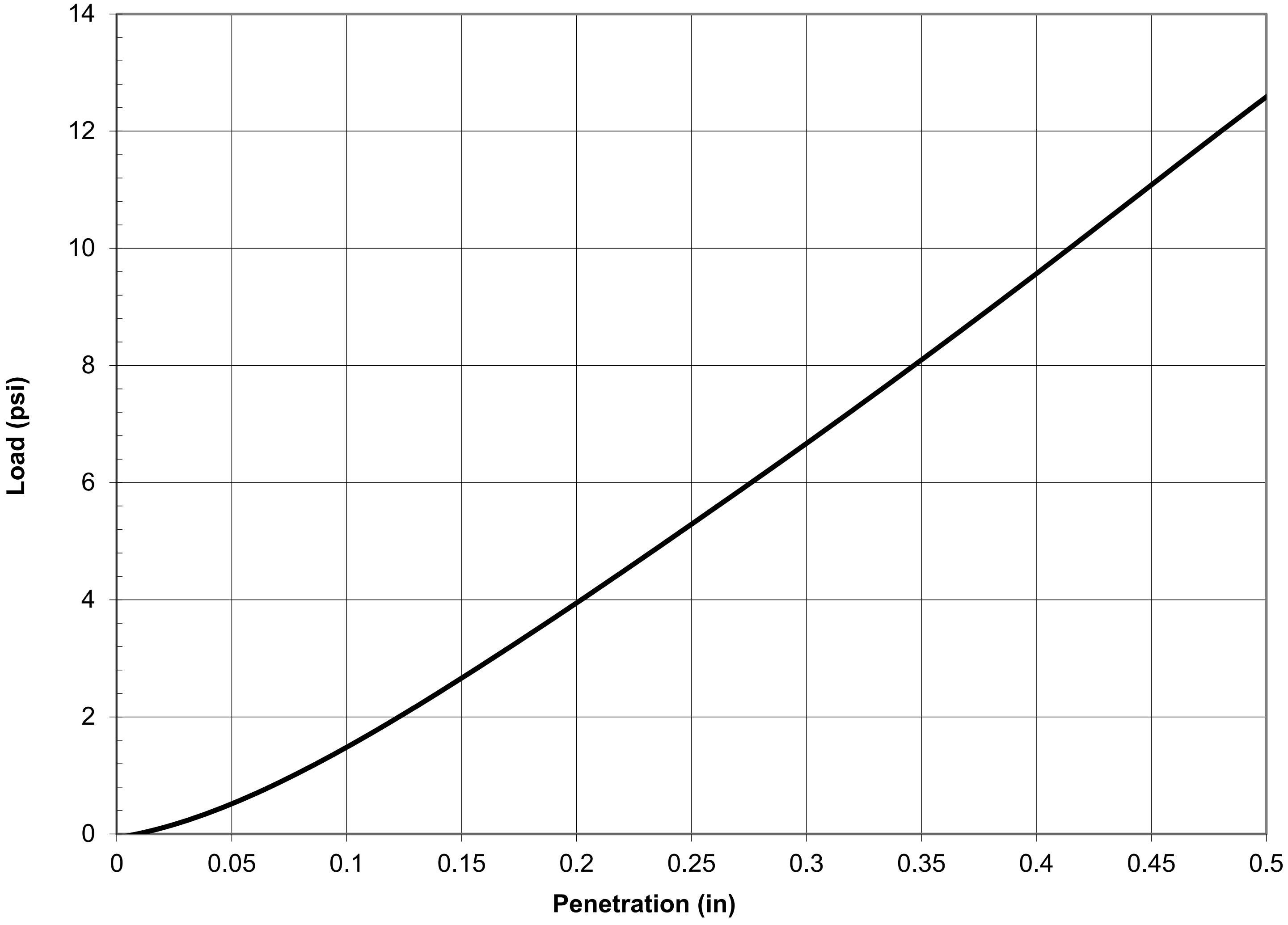
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-02
1-1.75ft

May 30, 2025

Load-Penetration Curve



ATLANTIC TESTING LABORATORIES

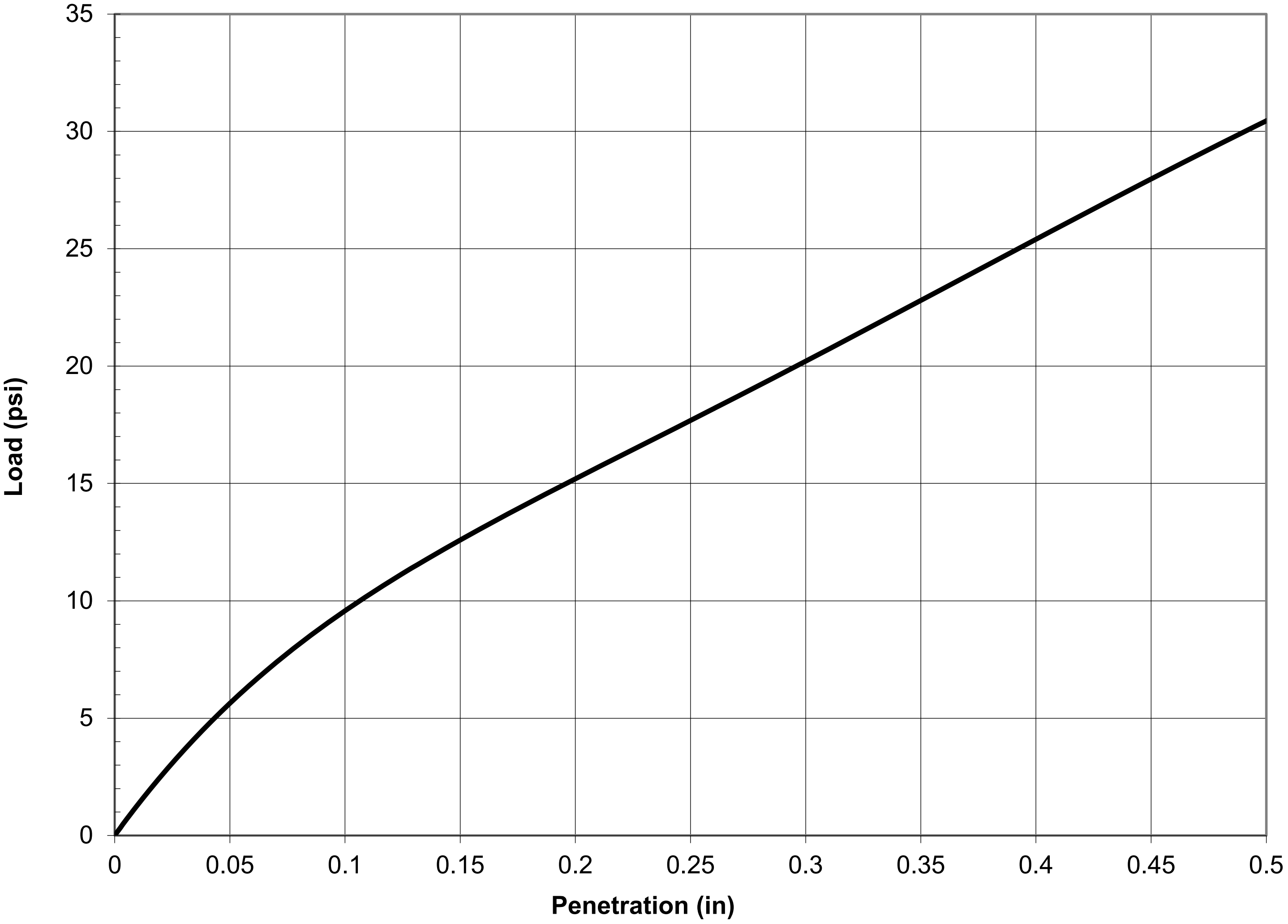
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-02
1-1.75ft

May 30, 2025

Load-Penetration Curve



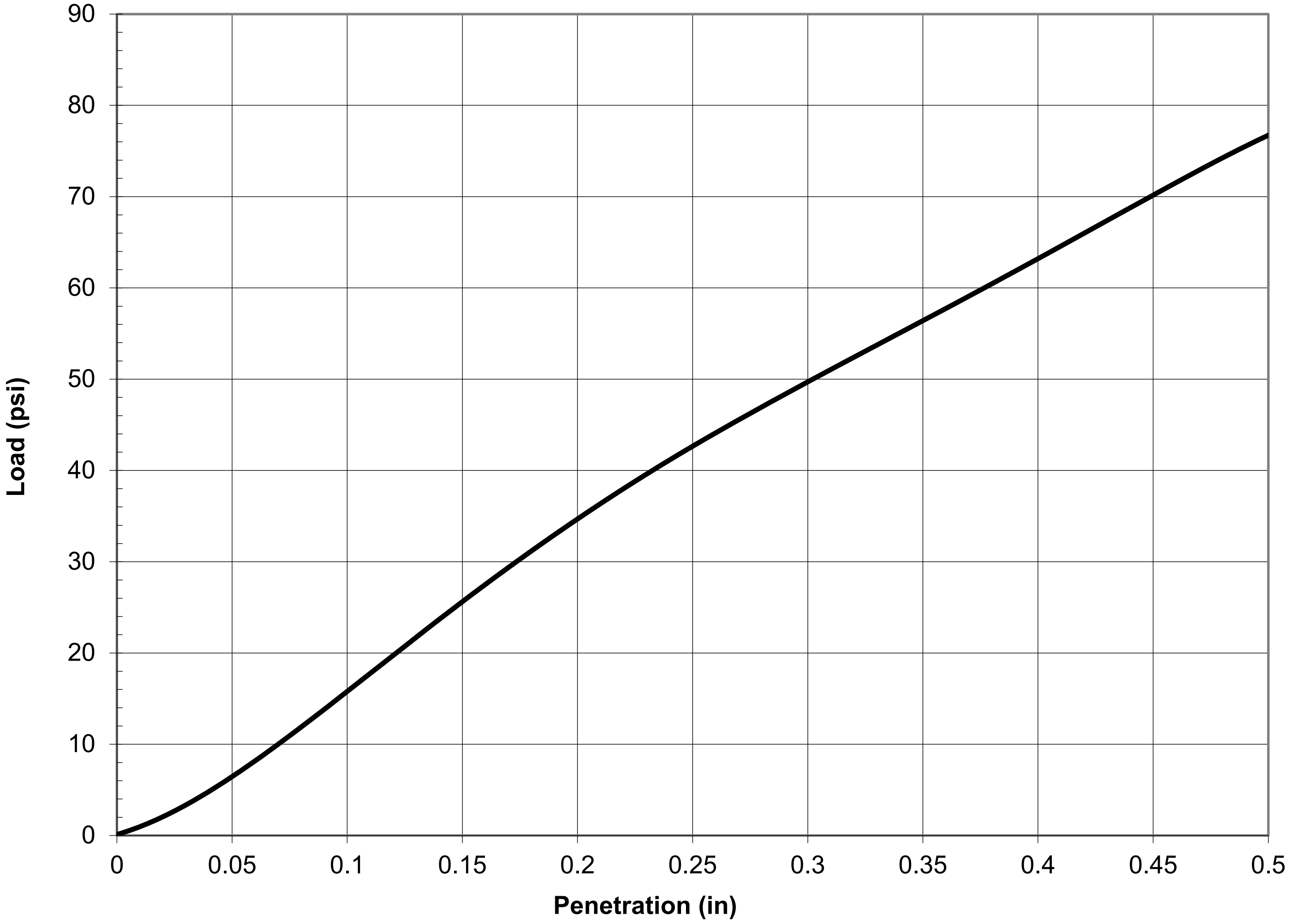
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.:CD11010CSL-02-05-25

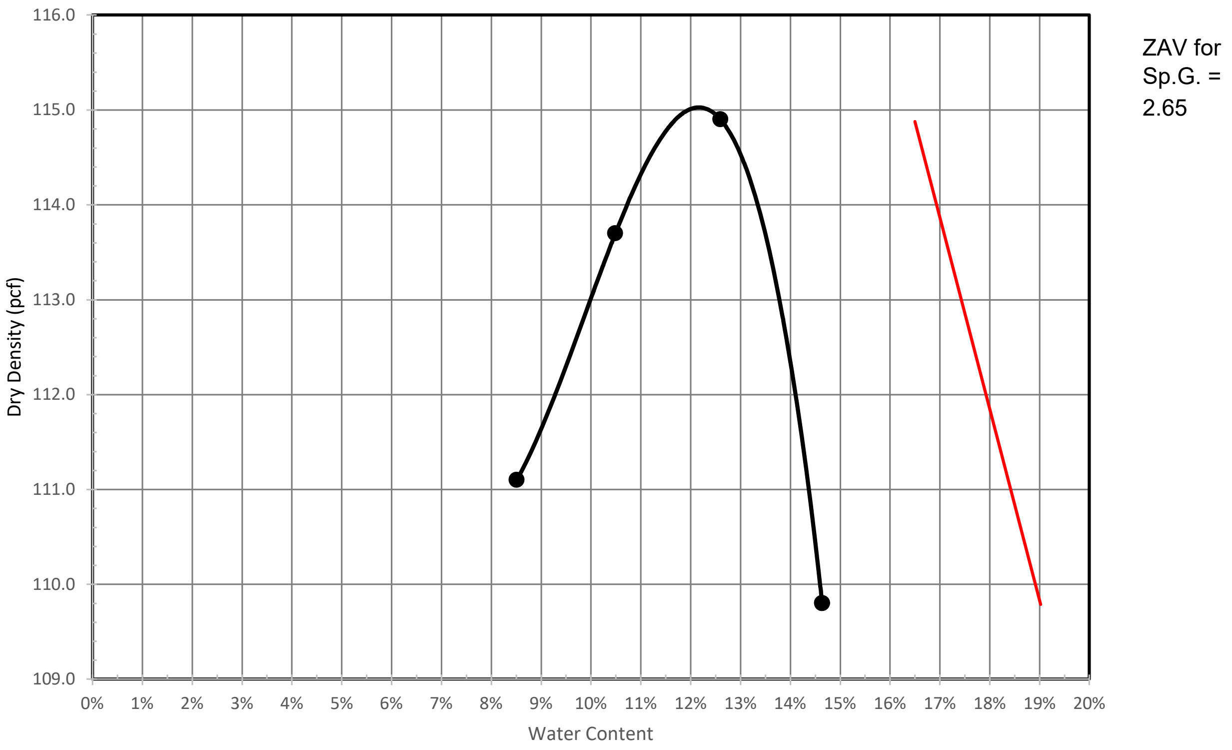
Langan, NYC
170883801
Clay, NY
TP-02
1-1.75ft

May 30, 2025

Load-Penetration Curve



COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.25-2.0'				2.65				

TEST RESULTS

Maximum Dry Density = **115.0 pcf**

Optimum Moisture = **12.2%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-04 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Reviewed by: ______________________ Date: 5/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client:	Langan, NYC	**ATL Report No.:**	CD11010CSL-02-05-2
Project:	170883801	**Report Date:**	May 30, 2025
	Clay, NY	**Date Received:**	May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-04	0.25-2ft	95	ASTM D 1557, C	12.2

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-04	0.25-2ft	96	10.01	0.1

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-04	0.25-2ft	109.3	12.2	24.4	1.3	1.5

REMARKS

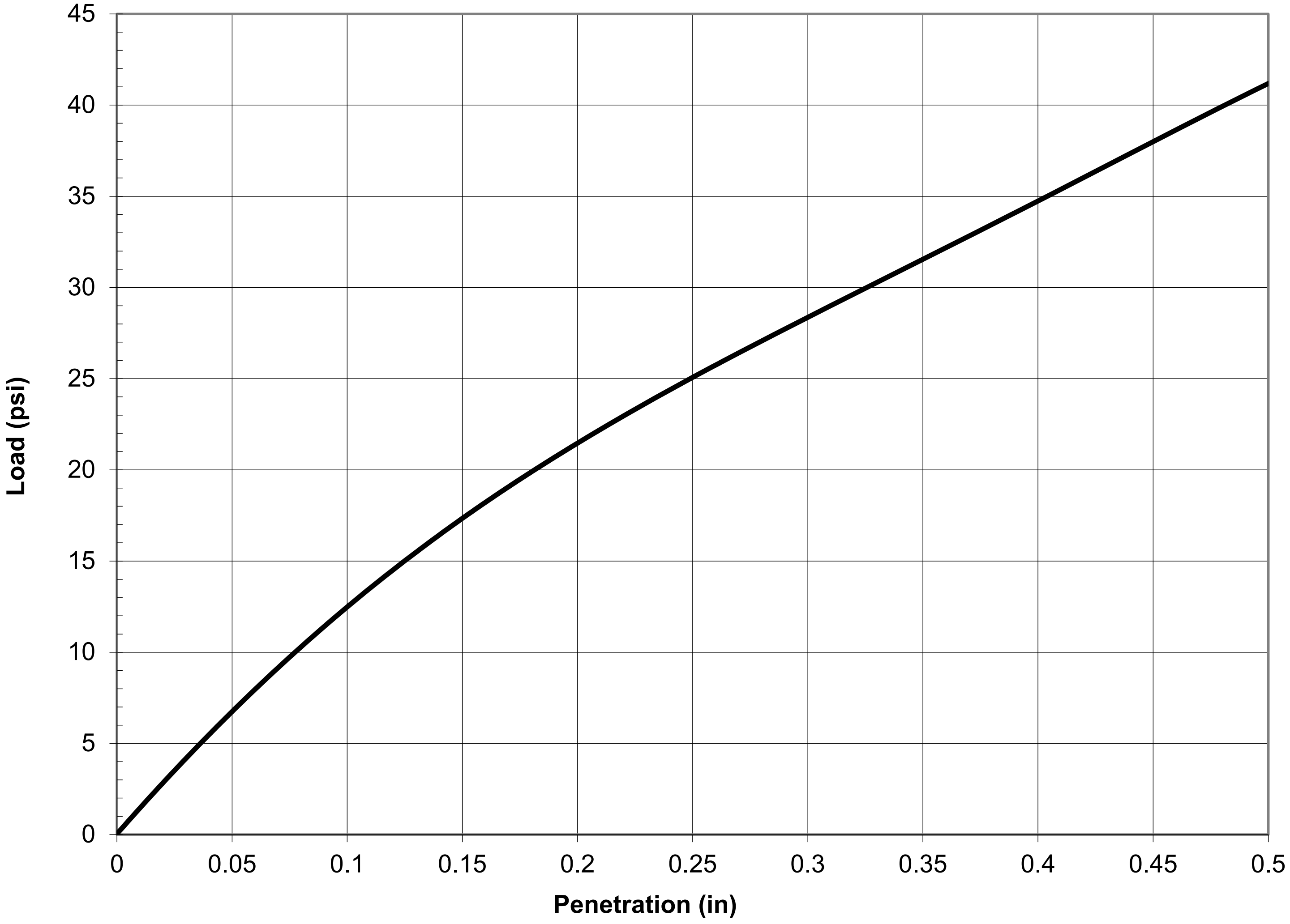
Reviewed By: ____________________ Date: 05/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-04
0.25-2ft
May 30, 2025

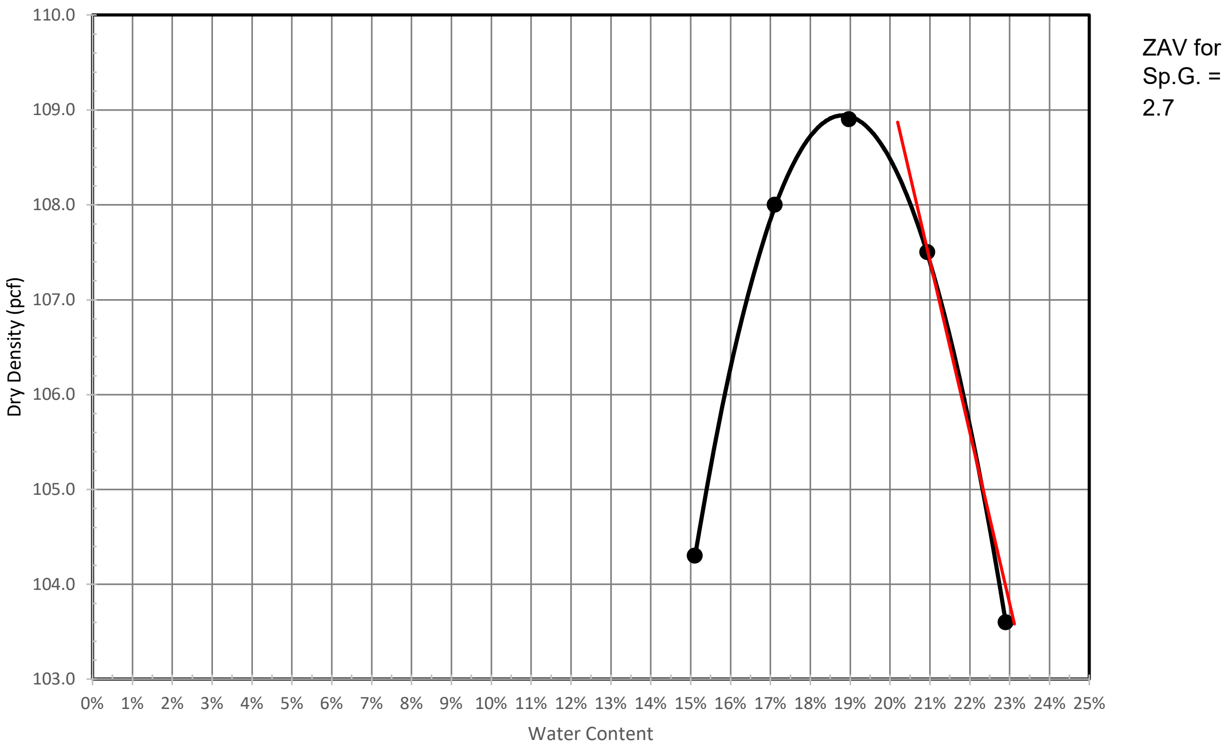
Load-Penetration Curve



ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
1.0-2.0'				2.7				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum Dry Density = **108.9 pcf** **Optimum Moisture =** **18.8%**	--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-05 **Date:** 5/15/2025

Remarks:

Rammer: Manual

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Reviewed by: ______________________ Date: 5/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client:	Langan, NYC	**ATL Report No.:**	CD11010CSL-02-05-25
Project:	170883801	**Report Date:**	May 30, 2025
	Clay, NY	**Date Received:**	May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-05	1-2ft	95	ASTM D 1557, C	18.8

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-05	1-2ft	96	10.01	0.1

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-05	1-2ft	103.5	18.8	22.6	3.7	3.8

REMARKS

Reviewed By: ____________________ Date: 05/30/25

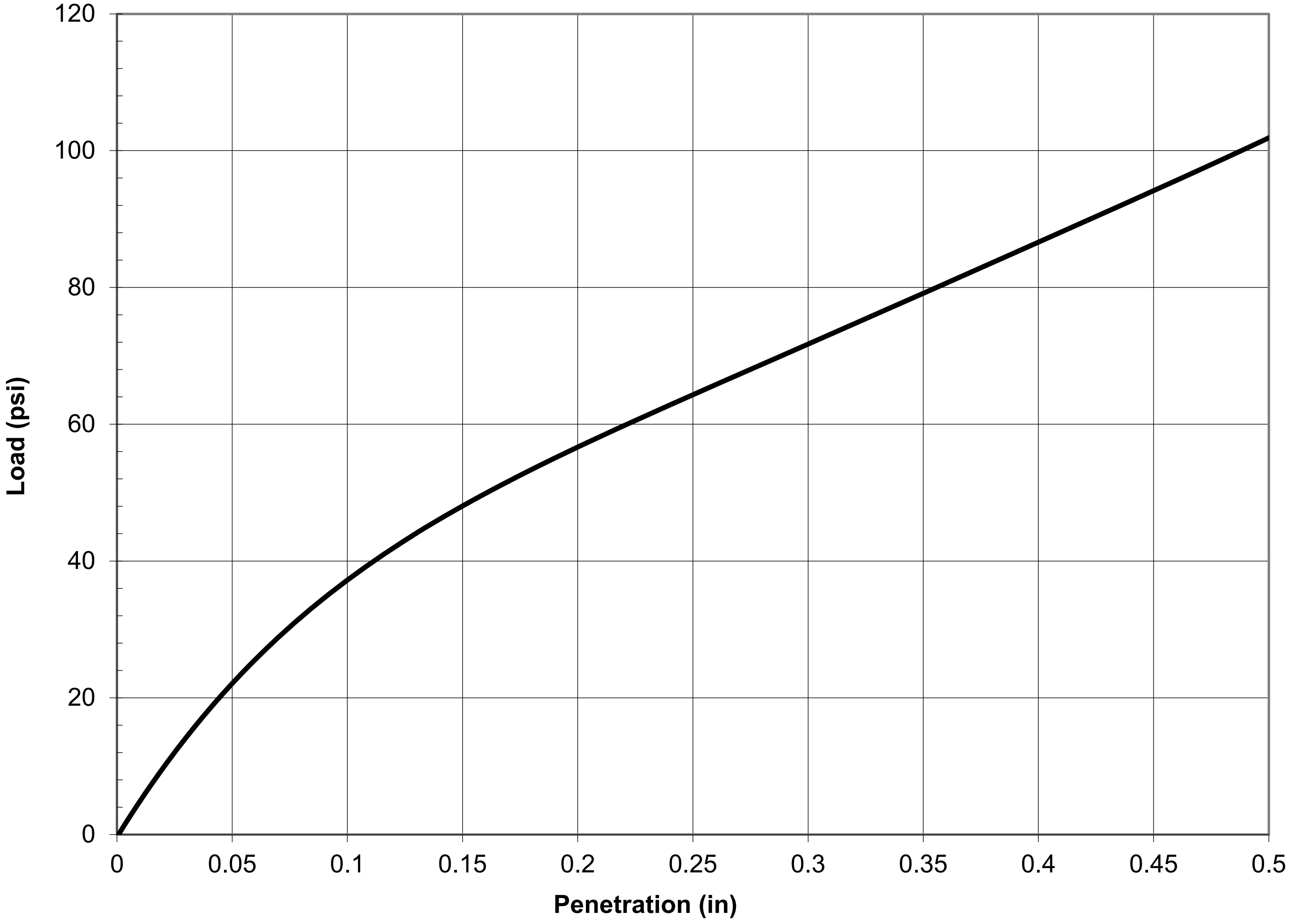
ATLANTIC TESTING LABORATORIES

CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-05
1-2ft
May 30, 2025

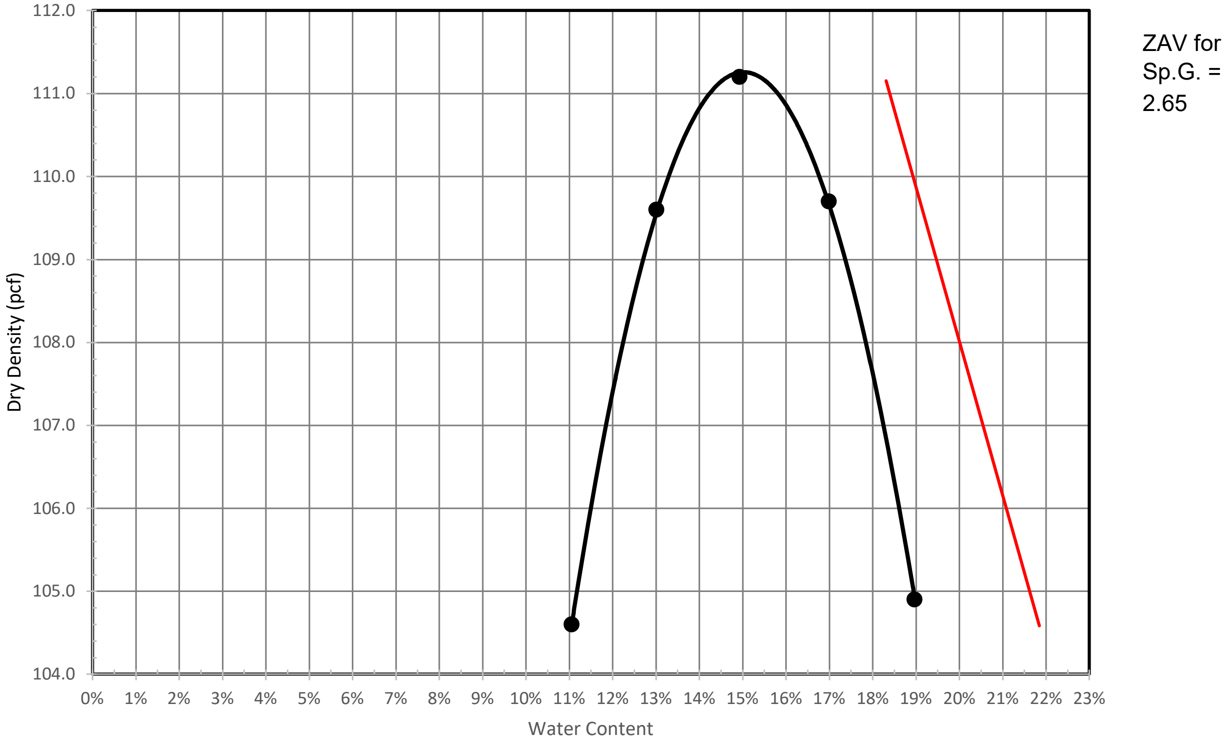
Load-Penetration Curve



ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
1.0-2.25'				2.65				

TEST RESULTS	MATERIAL DESCRIPTION
Maximum Dry Density = **111.3 pcf** **Optimum Moisture =** **15.0%**	--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-07 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Reviewed by: ______________________ Date: 5/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client: Langan, NYC
Project: 170883801
Clay, NY

ATL Report No.: CD11010CSL-02-05-25
Report Date: May 30, 2025
Date Received: May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-07	1-2.25ft	95	ASTM D 1557, C	15.0

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-07	1-2.25ft	96	10.01	0.2

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-07	1-2.25ft	105.7	15.0	19.7	1.9	2.6

REMARKS

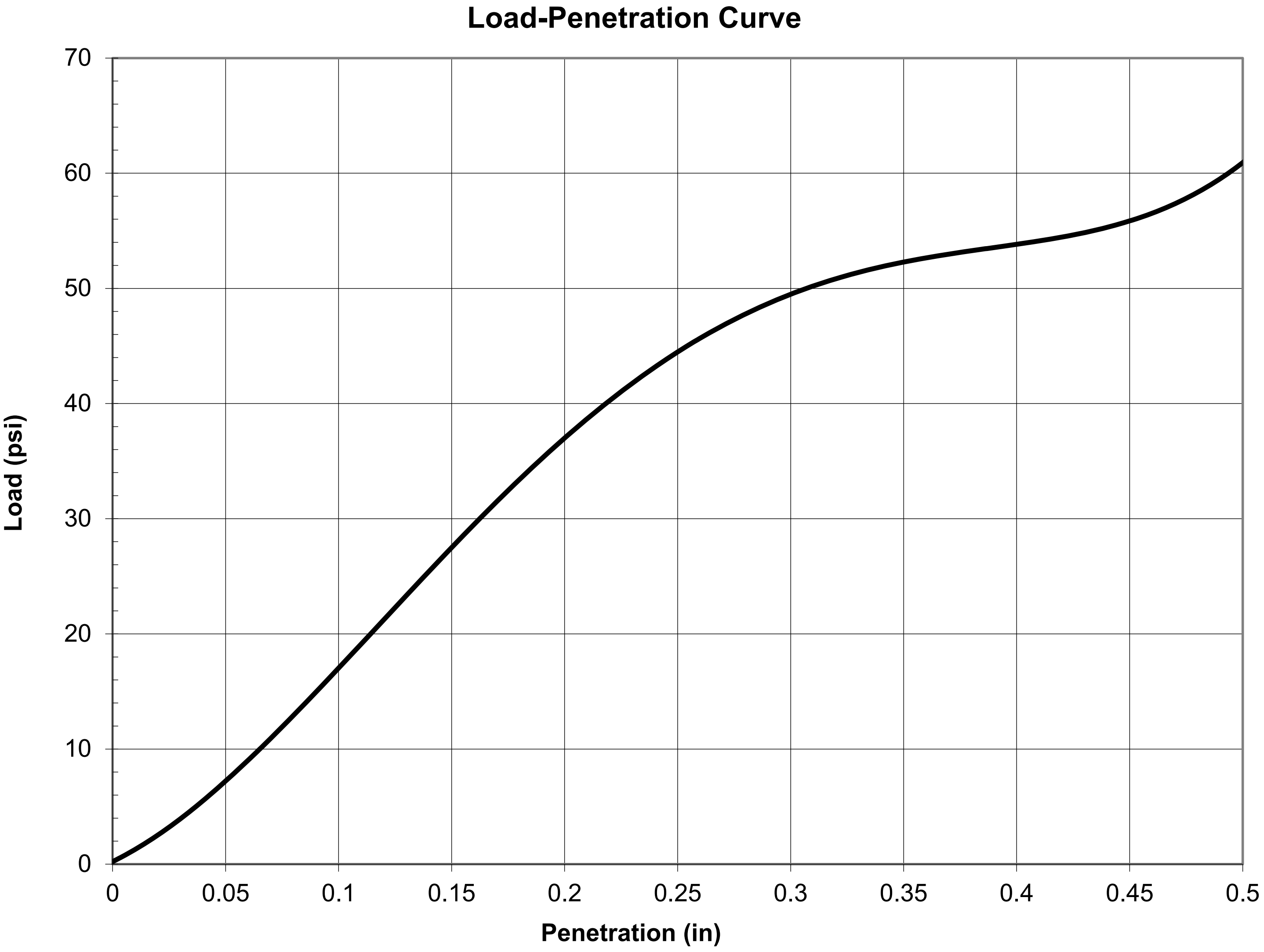
Reviewed By: ____________________

Date: 05/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

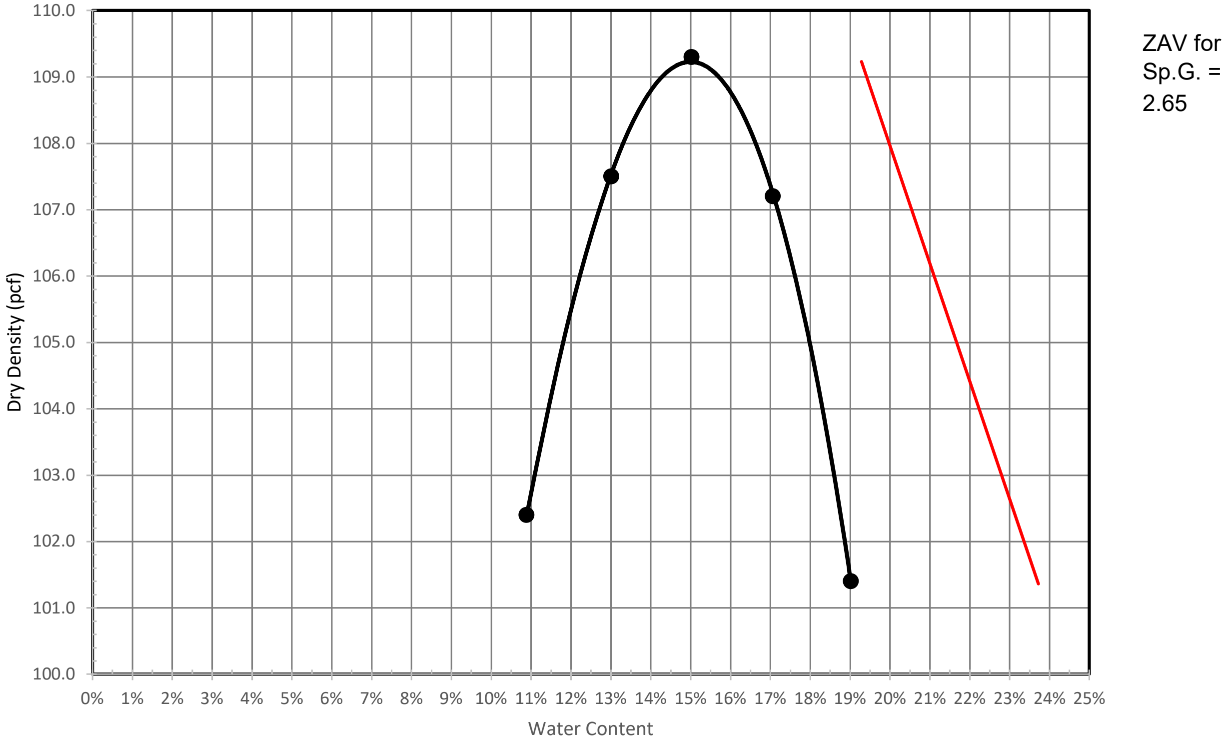
Langan, NYC
170883801
Clay, NY
TP-07
1-2.25ft
May 30, 2025



ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.75-2.0'				2.65				

TEST RESULTS

Maximum Dry Density = **109.2 pcf**

Optimum Moisture = **15.0%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-08 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Reviewed by:

Date: 5/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client: Langan, NYC
Project: 170883801
Clay, NY

ATL Report No.: CD11010CSL-02-05-25
Report Date: May 30, 2025
Date Received: May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-08	0.75-2ft	95	ASTM D 1557, C	14.7

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-08	0.75-2ft	96	10.01	0.2

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-08	0.75-2ft	103.9	14.7	22.2	3.9	3.3

REMARKS

Reviewed By: ____________________

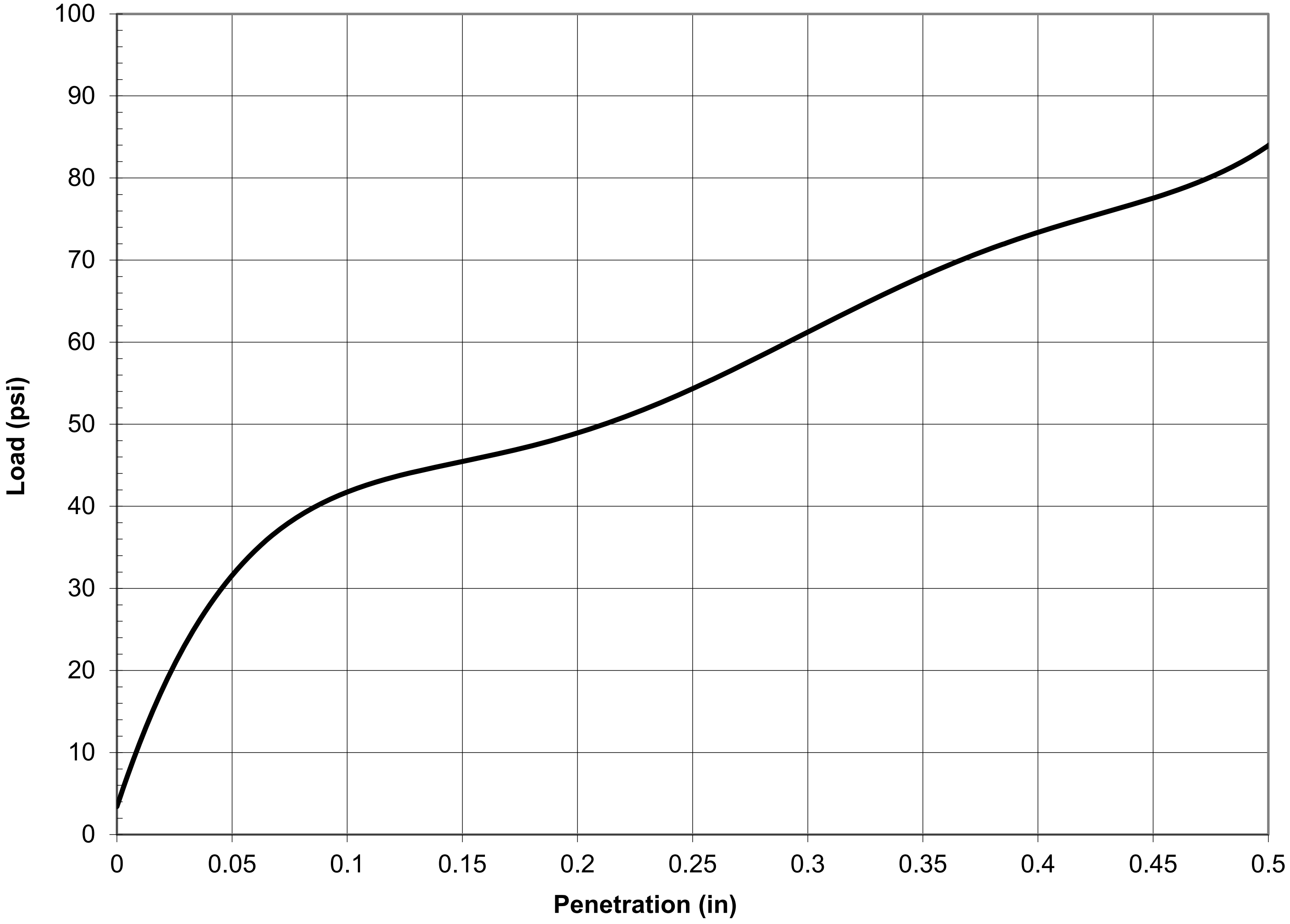
Date: 05/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-08
0.75-2ft
May 30, 2025

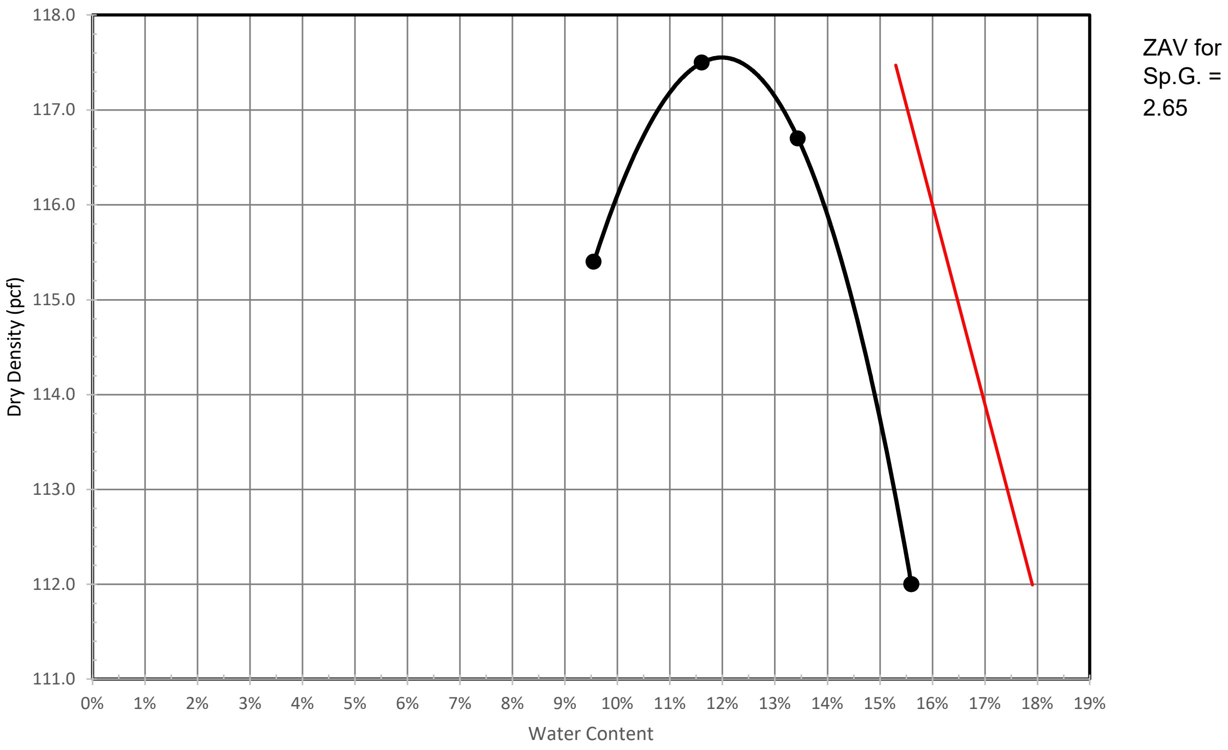
Load-Penetration Curve



ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.8-2.0'				2.65				

TEST RESULTS

Maximum Dry Density = **117.6 pcf**

Optimum Moisture = **12.0%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-11 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Reviewed by: ______

Date: 5/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client: Langan, NYC
Project: 170883801
Clay, NY

ATL Report No.: CD11010CSL-02-05-25
Report Date: May 30, 2025
Date Received: May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-11	0.8-2ft	90	ASTM D 1557, C	12.0
		92	ASTM D 1557, C	12.0
		95	ASTM D 1557, C	12.0

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-11	0.8-2ft	96	10.01	0.4
		96	10.01	0.3
		96	10.01	0.1

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-11	0.8-2ft	105.8	12.0	22.5	1.8	1.7
		108.2	12.0	20.1	4.8	4.7
		111.7	12.0	18.9	6.3	6.0

REMARKS

Reviewed By: ____________________

Date: 05/30/25

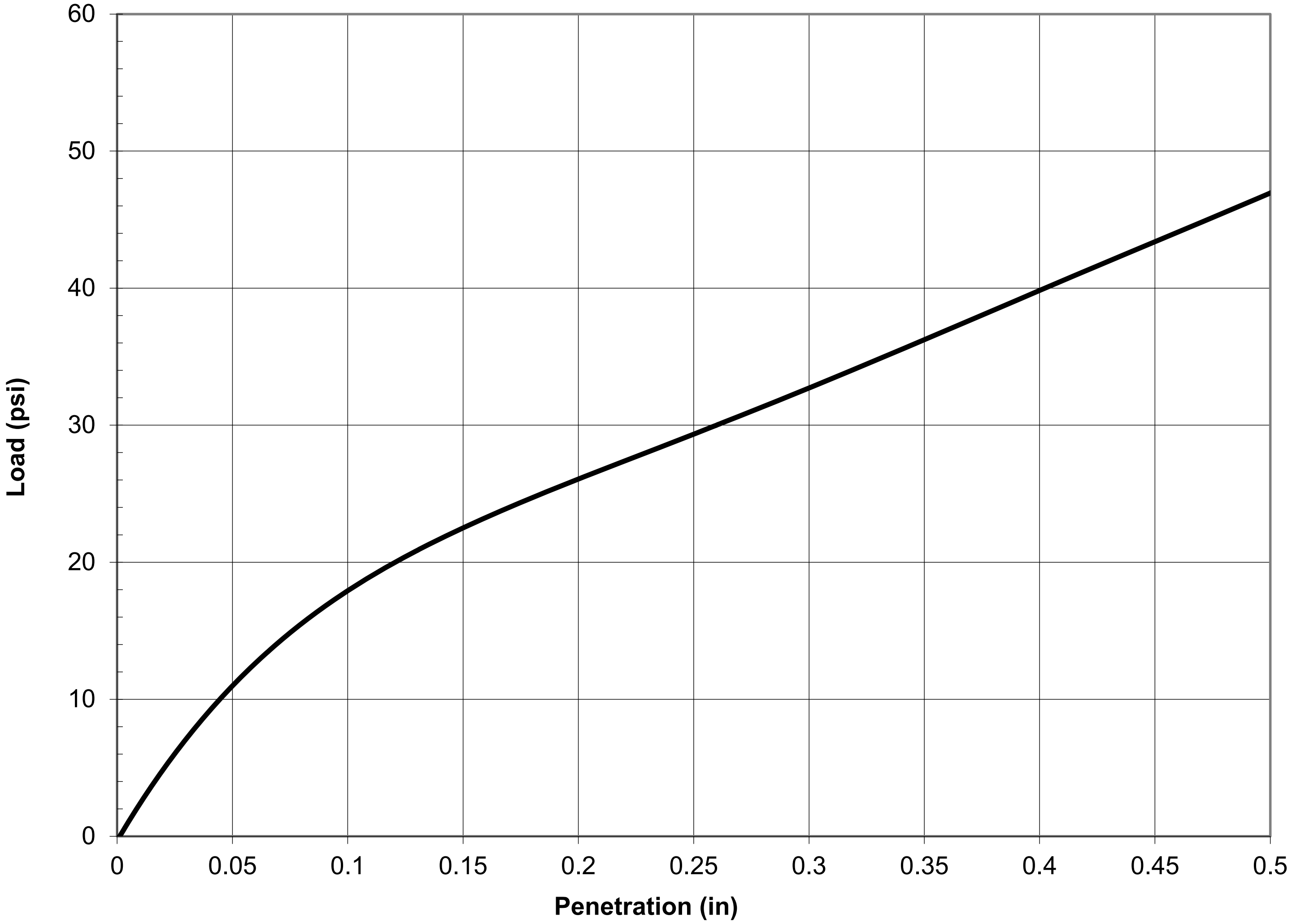
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-11
0.8-2ft

May 30, 2025

Load-Penetration Curve



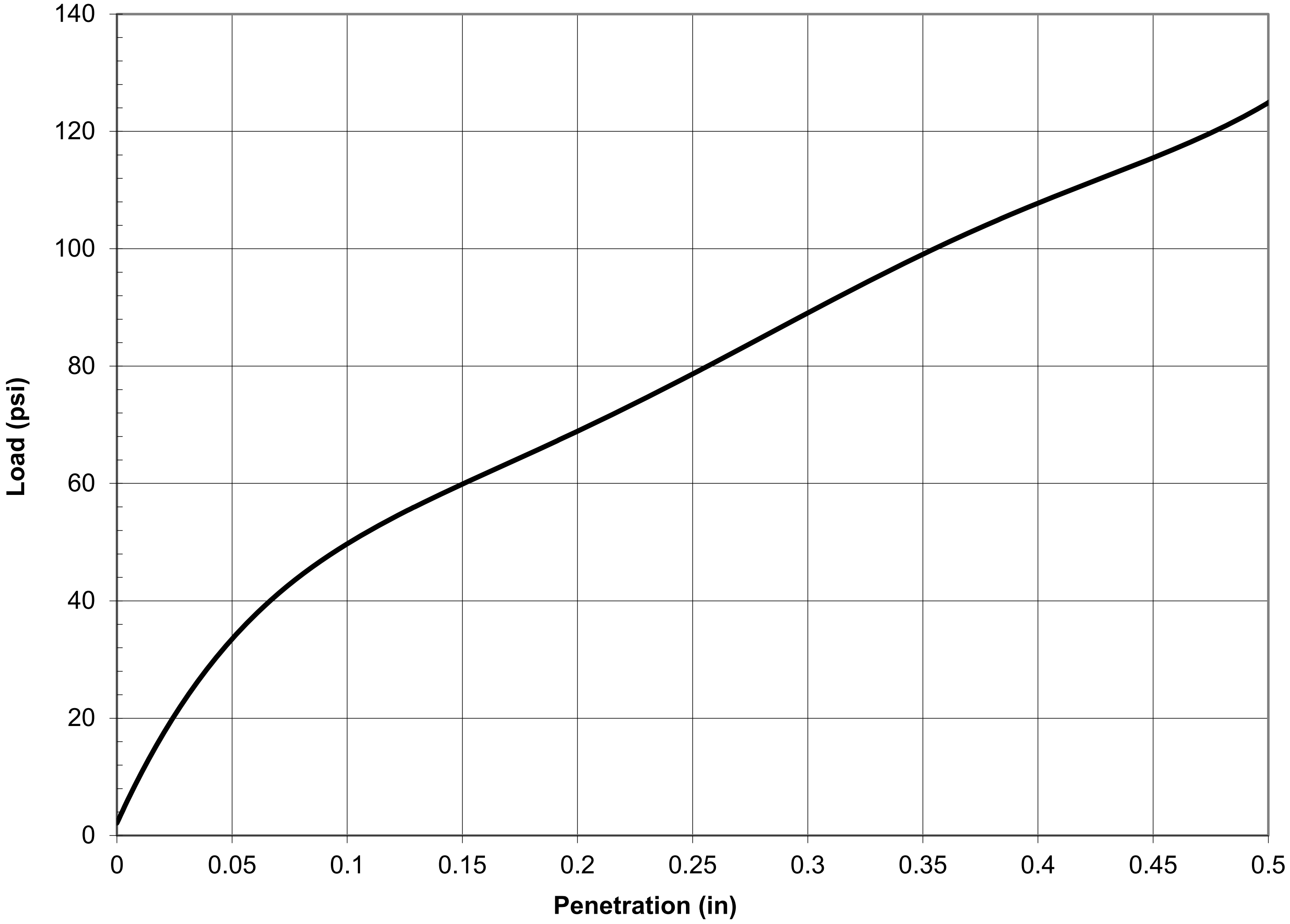
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-11
0.8-2ft

May 30, 2025

Load-Penetration Curve



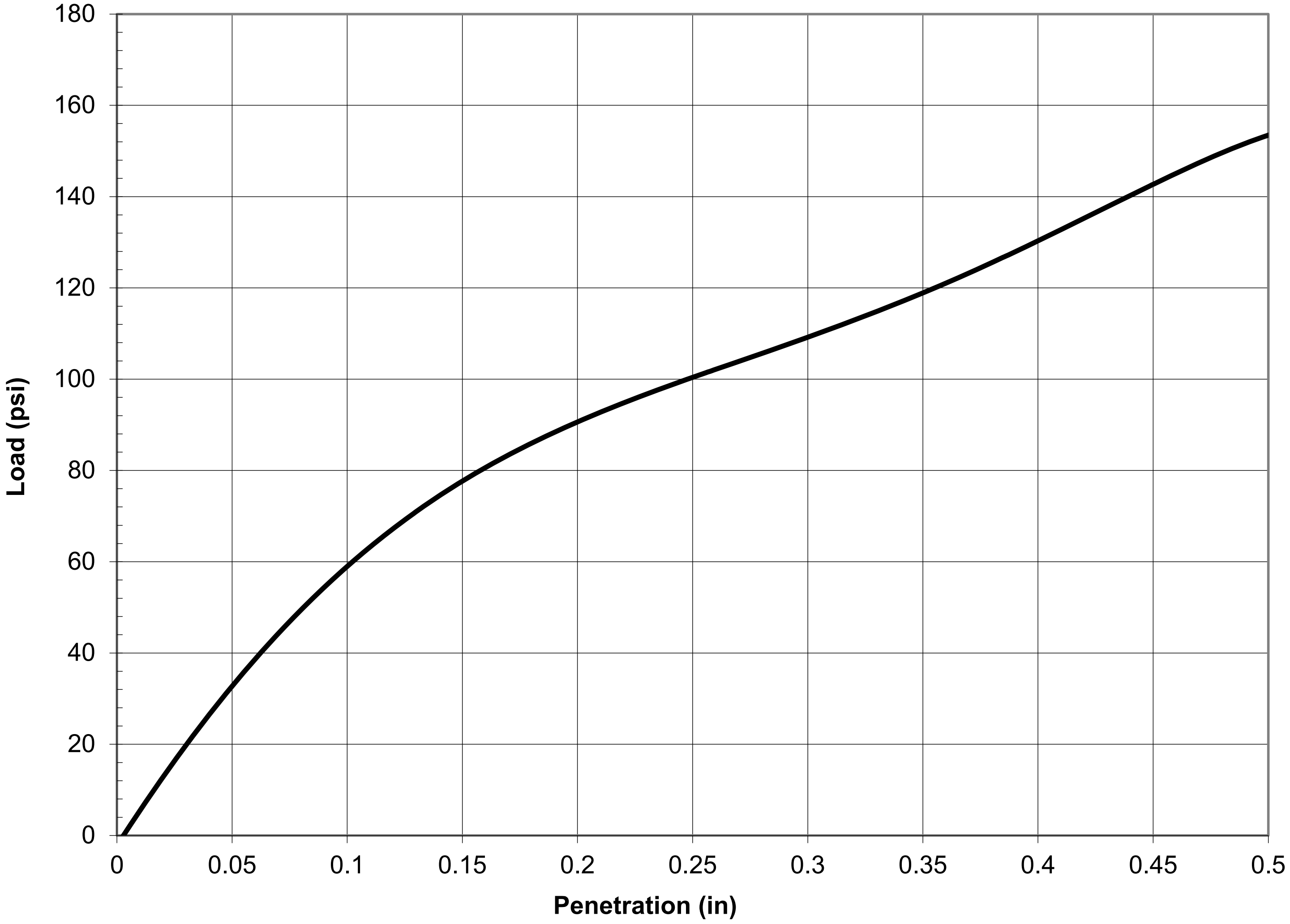
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.:CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-11
0.8-2ft

May 30, 2025

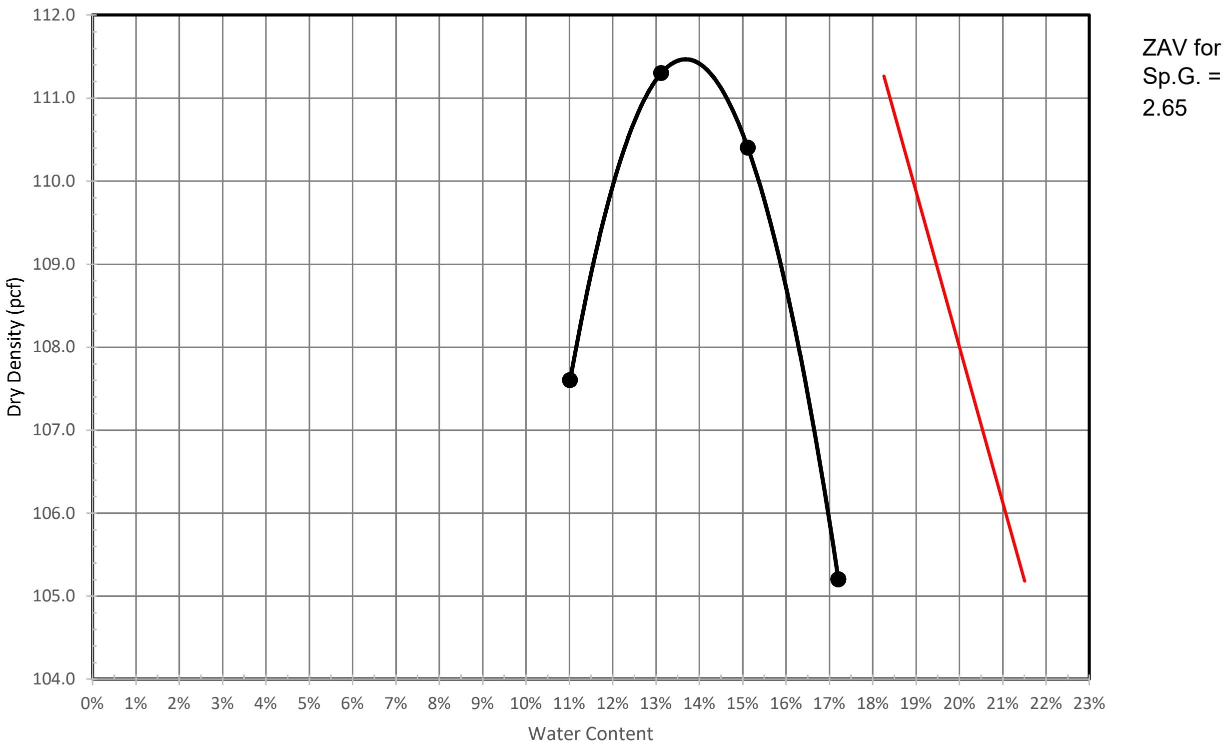
Load-Penetration Curve



ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
1.25-2.25'				2.65				

TEST RESULTS

Maximum Dry Density = **111.5 pcf**

Optimum Moisture = **13.7%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-12 **Date:** 5/15/2025

Remarks:

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Rammer: Mechanical

Specific Gravity: Assumed

Reviewed by: ______________________ Date: 5/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client: Langan, NYC
Project: 170883801
Clay, NY

ATL Report No.: CD11010CSL-02-05-25
Report Date: May 30, 2025
Date Received: May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-12	1.25-2.25ft	95	ASTM D 1557, C	13.7

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-12	1.25-2.25ft	96	10.01	0.3

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-12	1.25-2.25ft	105.9	13.7	23.7	1.9	2.1

REMARKS

Reviewed By: ______________________

Date: 05/30/25

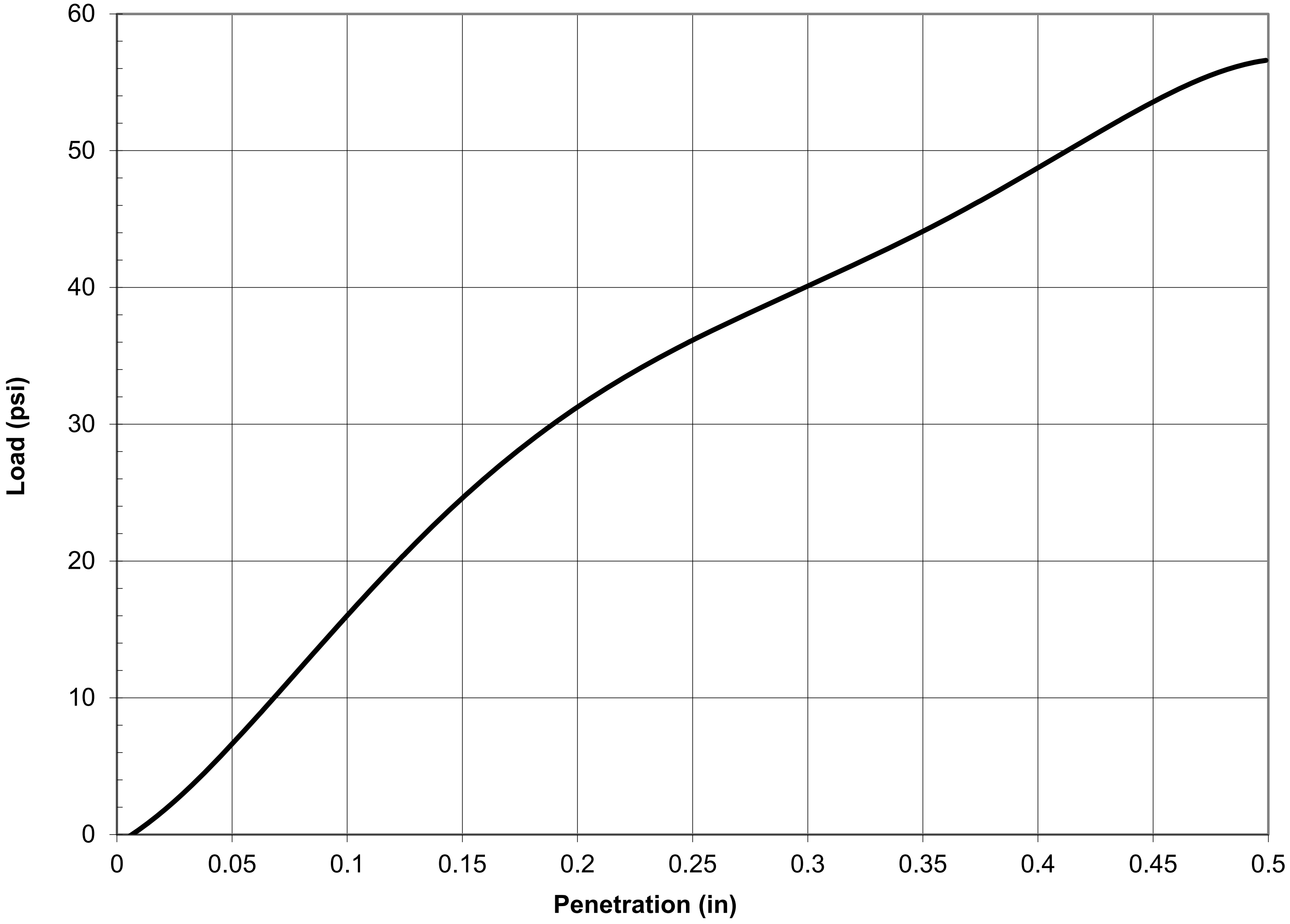
ATLANTIC TESTING LABORATORIES

CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-12
1.25-2.25ft
May 30, 2025

Load-Penetration Curve



COMPACTION TEST REPORT

Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.5-5'				2.65				

TEST RESULTS

Maximum Dry Density = **109.0 pcf**

Optimum Moisture = **14.7%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-27 **Date:** 5/15/2025

Remarks:

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Rammer: Mechanical

Specific Gravity: Assumed

Reviewed by: ____

Date: 5/30/25

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client: Langan, NYC
Project: 170883801
Clay, NY

ATL Report No.: CD11010CSL-02-05-25
Report Date: May 30, 2025
Date Received: May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-27	0.5-5ft	90	ASTM D 1557, C	14.7
		92	ASTM D 1557, C	14.7
		95	ASTM D 1557, C	14.7

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-27	0.5-5ft	96	10.01	0.4
		96	10.01	0.2
		96	10.01	0.1

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-27	0.5-5ft	98.1	14.7	25.3	0.8	1.0
		100.3	14.7	24.6	2.9	2.5
		103.6	14.7	18.1	2.4	3.0

REMARKS

Reviewed By: ____________________

Date: 05/30/25

ATLANTIC TESTING LABORATORIES

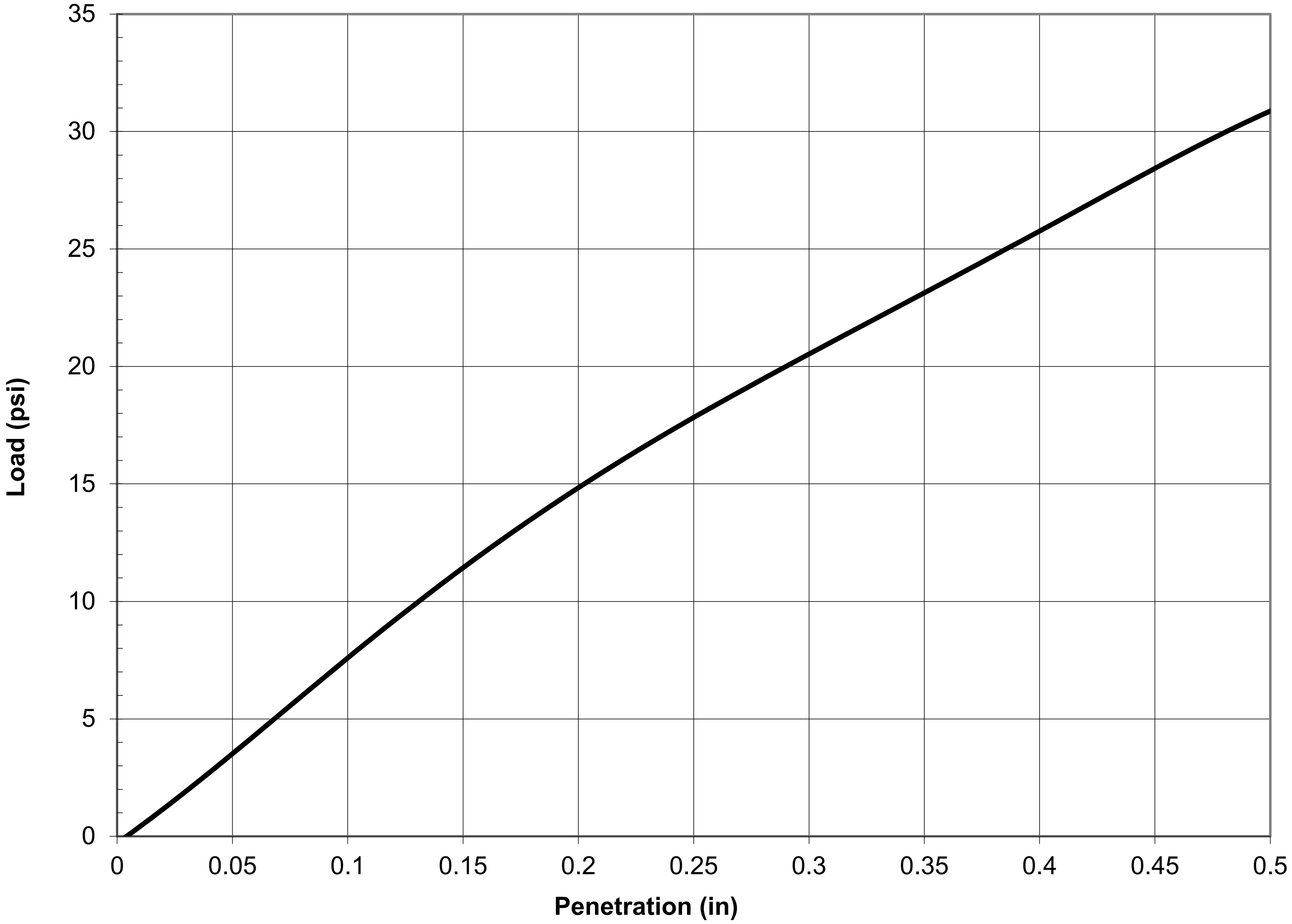
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-27
0.5-5ft

May 30, 2025

Load-Penetration Curve



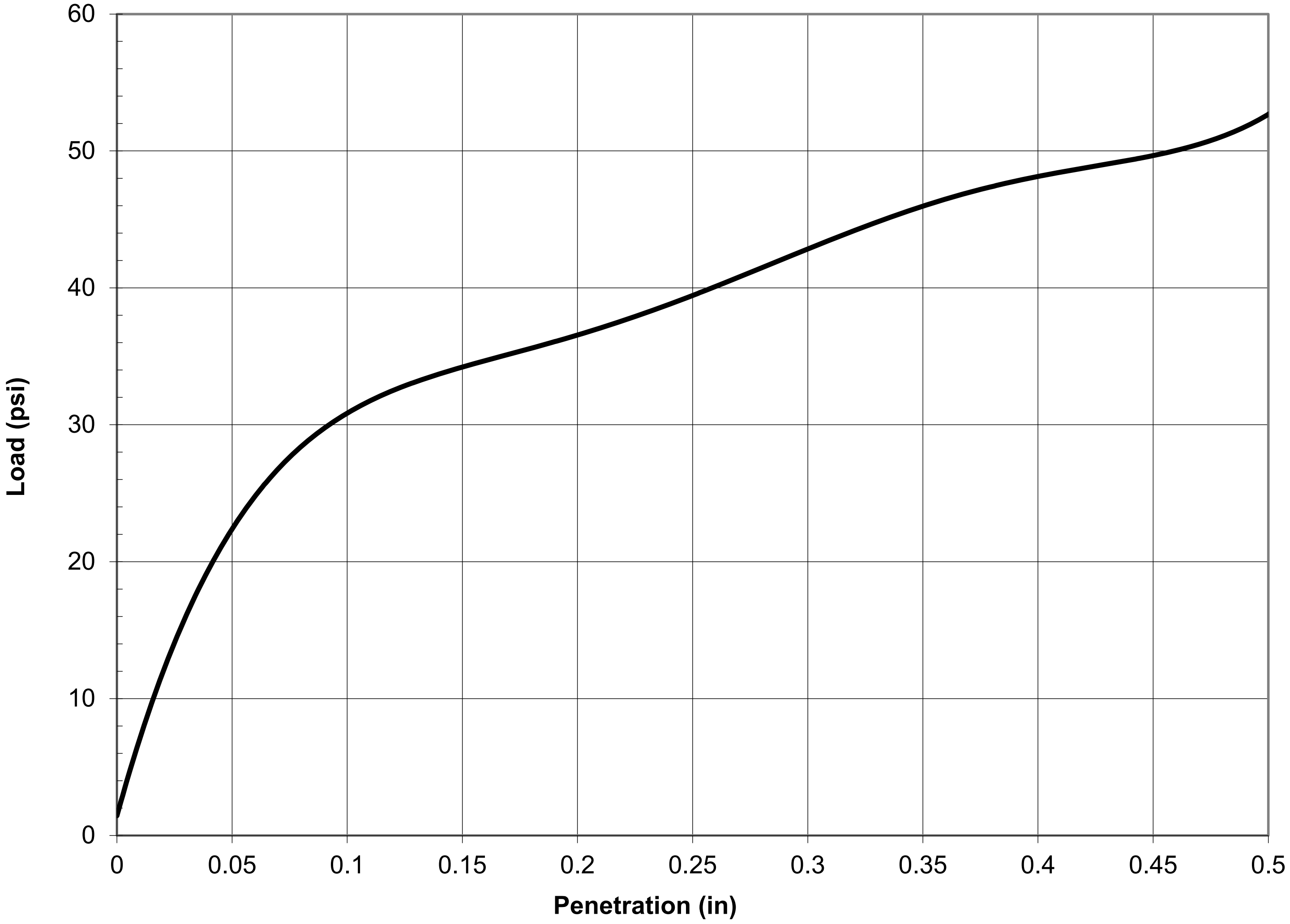
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-27
0.5-5ft

May 30, 2025

Load-Penetration Curve



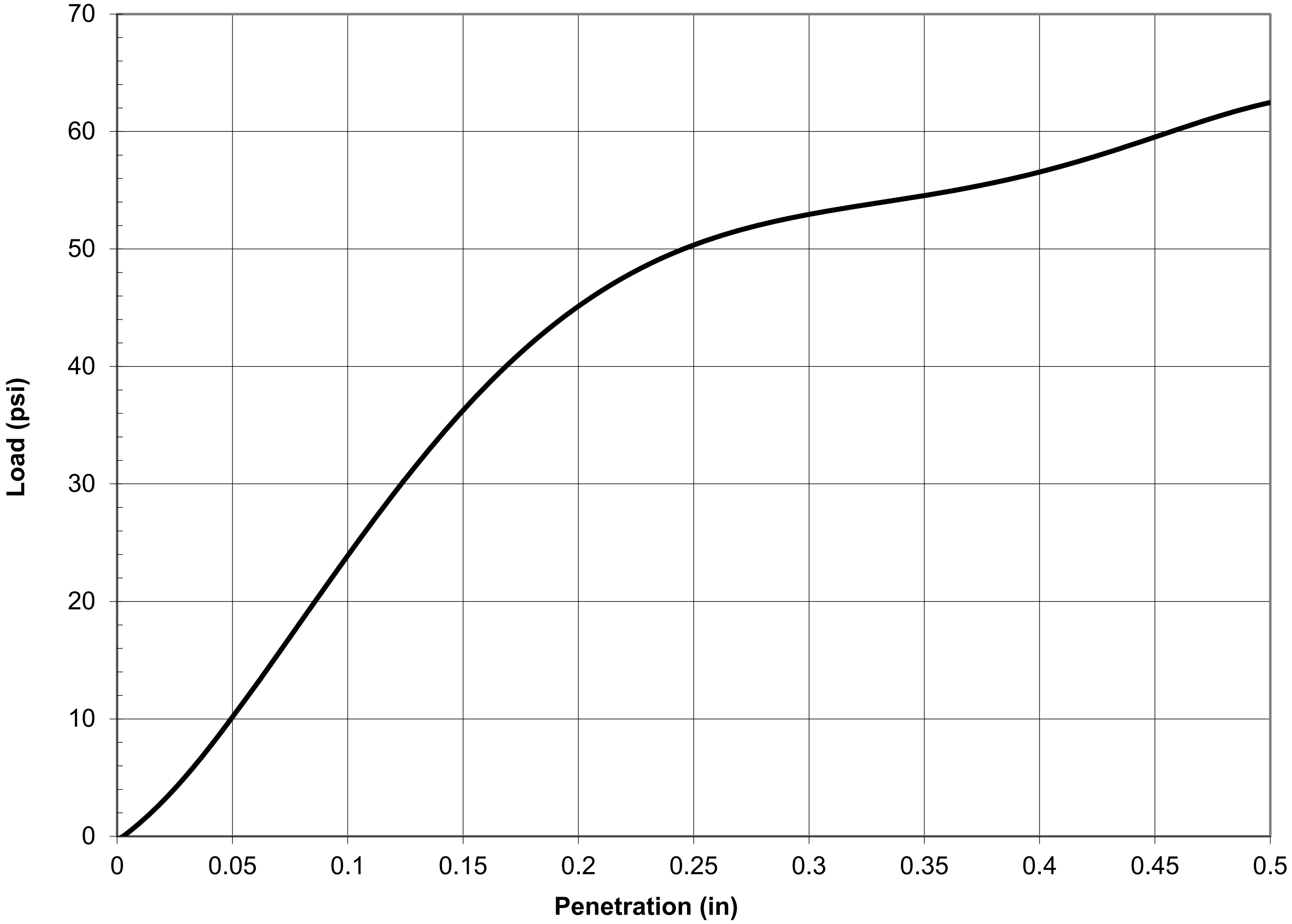
CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.:CD11010CSL-02-05-25

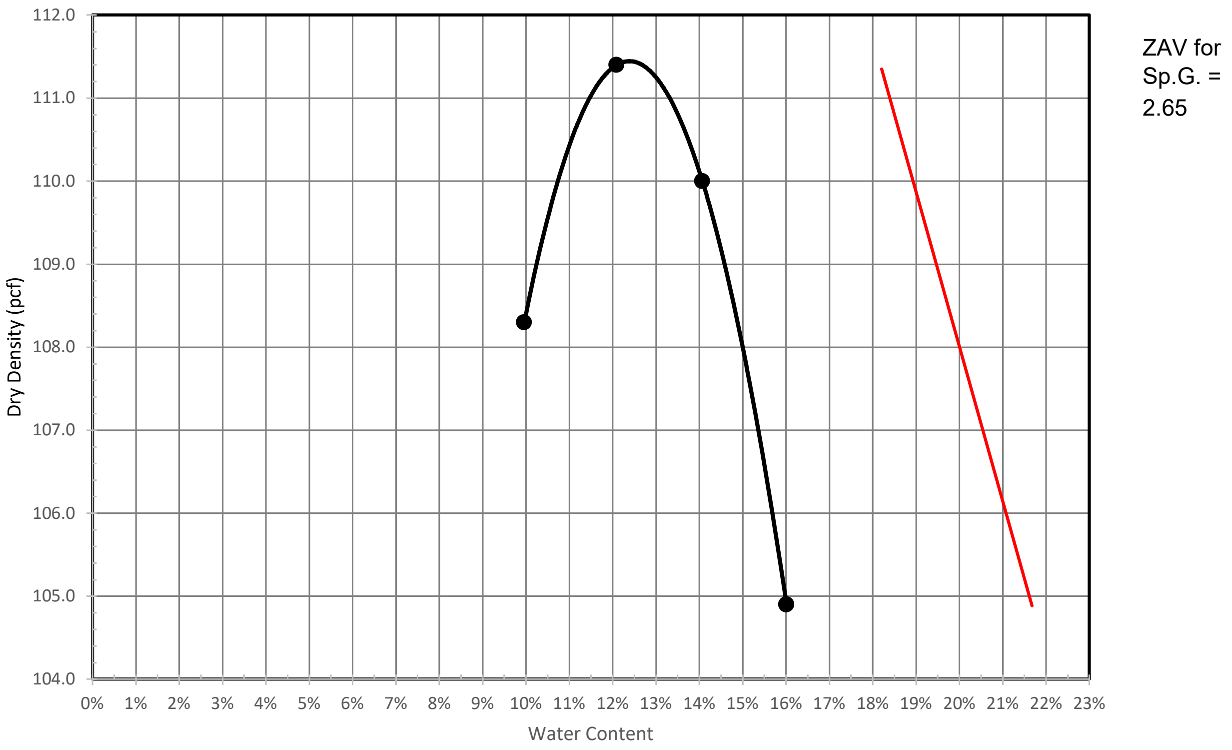
Langan, NYC
170883801
Clay, NY
TP-27
0.5-5ft

May 30, 2025

Load-Penetration Curve



COMPACTION TEST REPORT



Test Specification: ASTM D 1557 Method B

Elev/ Depth (ft)	Classification		Received Moist.	Sp.G.	LL	PL	PI	%> 3/8"
	USCS	AASHTO						
0.5-1.5'				2.65				

TEST RESULTS

Maximum Dry Density = **111.4 pcf**

Optimum Moisture = **12.4%**

MATERIAL DESCRIPTION

--

Report No.: CD11010CSL-02-05-25

Client: Langan, NYC

Project: 170883801

Location: Clay, NY

Source of Sample: Bulk Sample **Tested By:** K. Summers

Sample No.: TP-28 **Date:** 5/15/2025

Remarks:

Rammer: Mechanical

Specific Gravity: Assumed

ATLANTIC TESTING LABORATORIES, LIMITED

Canton, NY

Reviewed by: ____________________ Date: 5/30/25

ATLANTIC TESTING LABORATORIES

CALIFORNIA BEARING RATIO
ASTM D 1883

PROJECT INFORMATION

Client:	Langan, NYC	**ATL Report No.:**	CD11010CSL-02-05-25
Project:	170883801	**Report Date:**	May 30, 2025
	Clay, NY	**Date Received:**	May 12, 2025

TEST DATA

Sample	Depth	Percent Compaction	Method	Moisture Content (%)
TP-28	0.5-1.5ft	95	ASTM D 1557, C	12.4

SOAKING INFORMATION

Sample	Depth	Soaking Time (Hours)	Surcharge Weight (lbs)	Swell (%)
TP-28	0.5-1.5ft	96	10.01	2.4

BEARING TEST INFORMATION

Sample	Depth	Dry Density (pcf)	Moisture Content As Compacted (%)	Moisture Content Top 1 inch (%)	CBR at 0.100 in (%)	CBR at 0.200 in (%)
TP-28	0.5-1.5ft	105.8	12.4	25.8	1.0	1.2

REMARKS

Reviewed By:

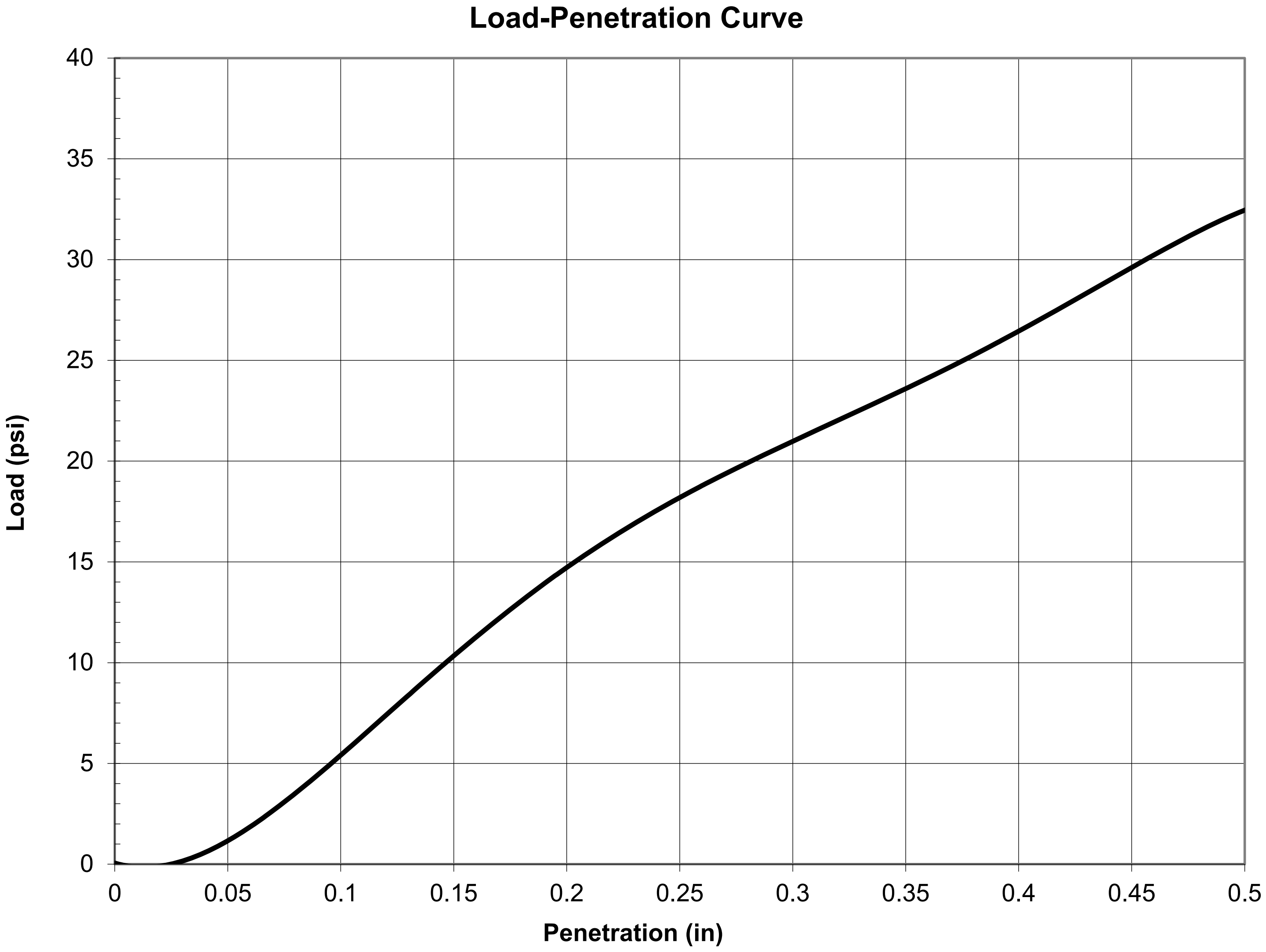
Date: 05/30/25

ATLANTIC TESTING LABORATORIES

CALIFORNIA BEARING RATIO
ASTM D 1883

ATL Report No.: CD11010CSL-02-05-25

Langan, NYC
170883801
Clay, NY
TP-28
0.5-1.5ft
May 30, 2025



ATLANTIC TESTING LABORATORIES

WBE certified company

LABORATORY DETERMINATION OF MOISTURE CONTENT OF SOILS
ASTM D 2216

PROJECT INFORMATION

Client:	Langan, NYC	**ATL Report No.:**	CD11010CSL-03-05-25
Project:	170883801	**Report Date:**	May 30, 2025
		Date Received:	May 12, 2025

TEST DATA

Boring No.	Sample No.	Depth (ft)	Moisture Content (%)
LB-017	S - 10 [1]	19.0 - 21.0	9
LB-034	S - 9	16.0 - 18.0	23
LB-037	S - 9 [1]	18.0 - 20.0	7
LB-049	S - 11	20.0 - 22.0	11
LB-054	S - 3	4.0 - 6.0	25
LB-061	S - 4	6.0 - 8.0	26
LB-061	S - 6	10.0 - 12.0	25
LB-100	S - 2	2.0 - 4.0	21
LB-R-044	S - 5	8.0 - 10.0	26
LB-R-057	S - 11 [1]	25.0 - 27.0	10
LB-R-060	S - 5	8.0 - 10.0	24
LB-R-065	S - 9	17.0 - 19.0	21
LB-R-090	S - 5	8.0 - 10.0	18
LB-R-096	S - 5 [1]	8.0 - 10.0	11
LB-R-098	S - 9	16.0 - 18.0	13
LB-R-104	S - 1	0.0 - 2.0	16
LB-R-109	S - 9	16.0 - 18.0	10
LB-R-119	S - 4	6.0 - 8.0	11
LB-R-121	S - 13	44.0 - 46.0	19
LB-R-135	S - 6 [1]	10.0 - 12.0	9
LB-X-001	S - 2	2.0 - 4.0	25

REMARKS

1. Sample mass was less than the minimum mass outlined in the referenced test method.

Reviewed By: ____________________

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-03-05-25

Client: Langan, NYC

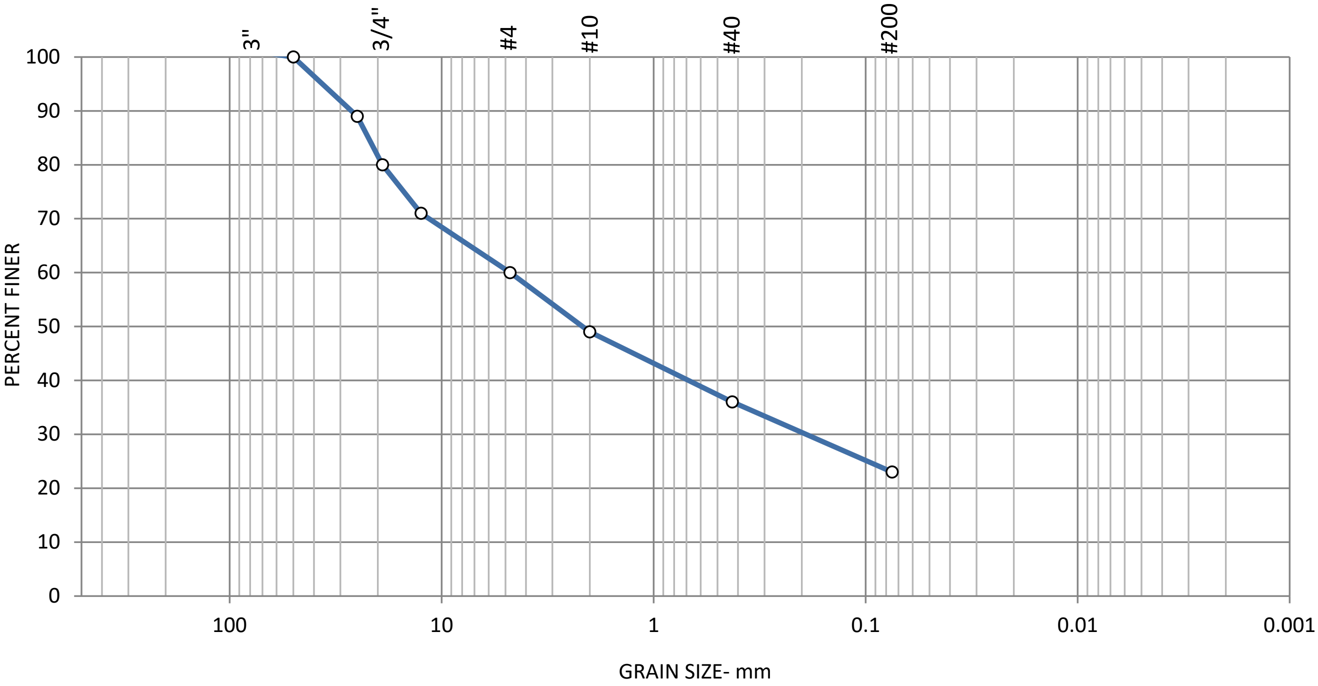
Test Date: 5/19/2025

Sample No: LB-017, S-10

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 19-21'



% Cobbles	% Gravel		% Sand			% Fines	
						23	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	20	20	11	13	13		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"	100		
1"	89		
3/4"	80		
1/2"	71		
#4	60		
#10	49		
#40	36		
#200	23		

Soil Description

Brown cf GRAVEL; and cmf Sand; some Silt

Moisture Content = 9%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 4.653 D_{30}= 0.37 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-03-05-25

Client: Langan, NYC

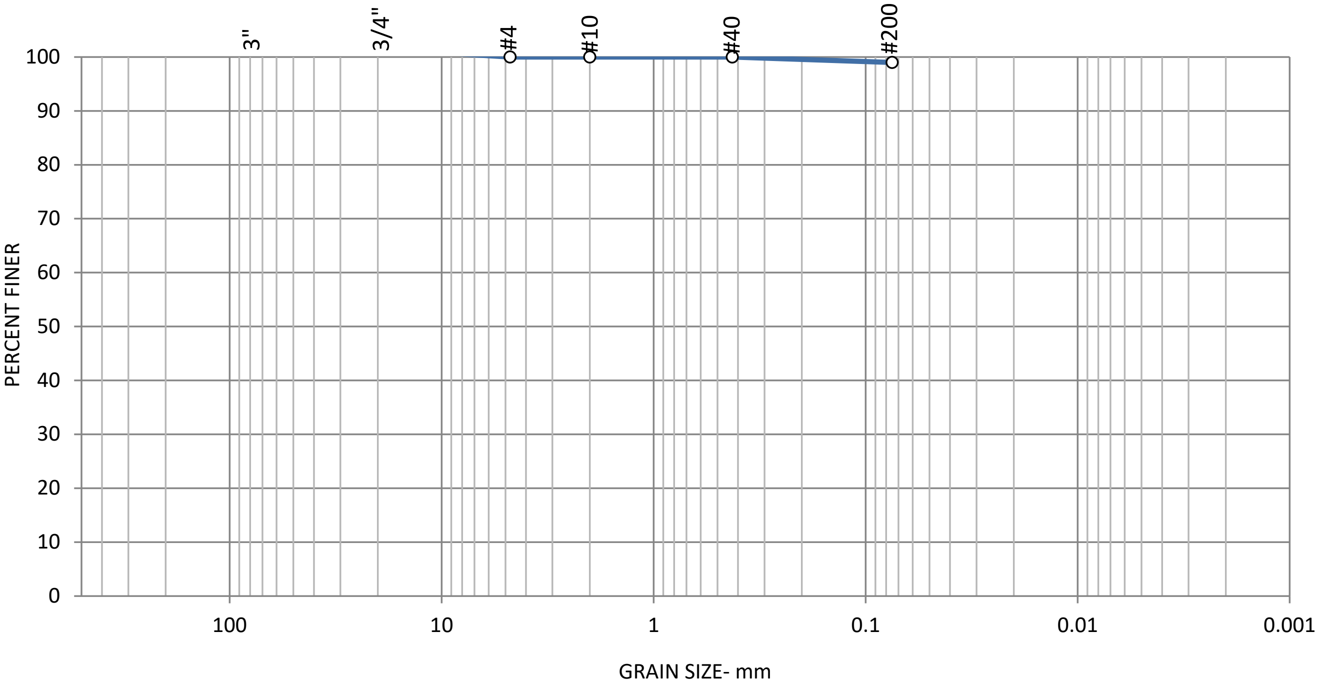
Test Date: 5/19/2025

Sample No: LB-025 S-12

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 22-24'



% Cobbles	% Gravel		% Sand			% Fines	
						99	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					1		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	99		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 23%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-03-05-25

Client: Langan, NYC

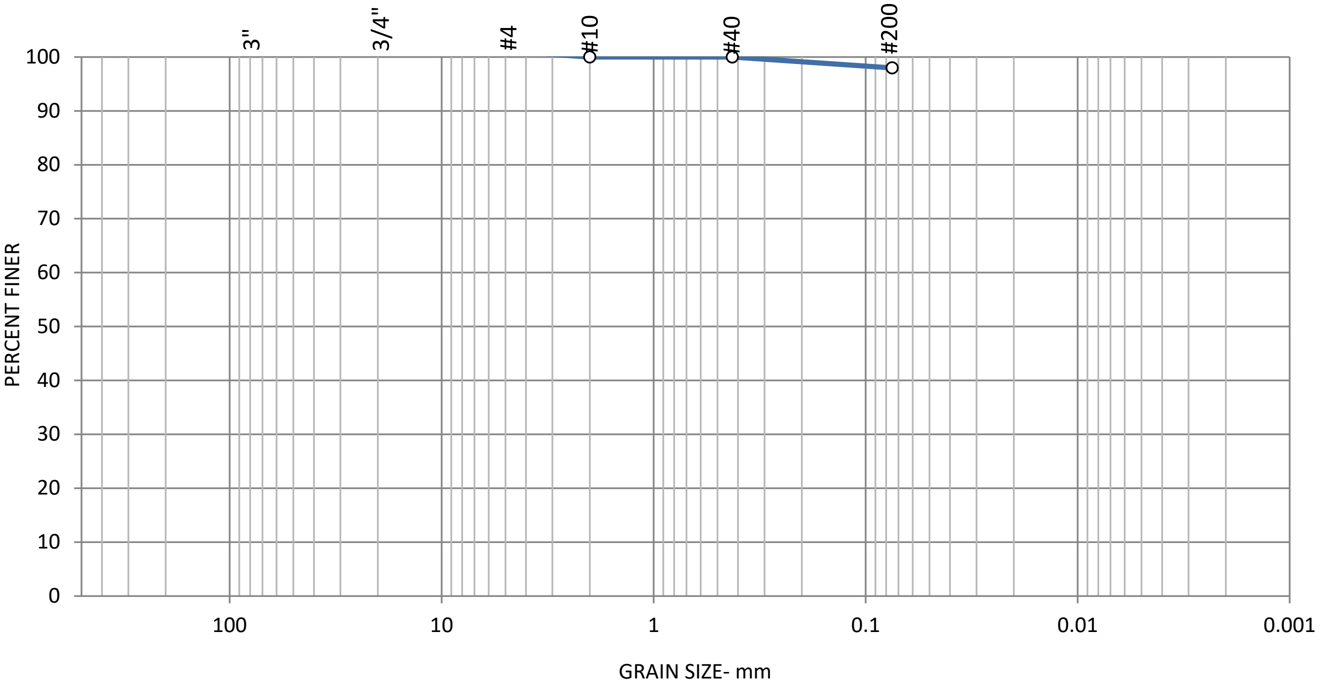
Test Date: 5/19/2025

Sample No: LB-031, S-4

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 6-8'



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	98		

Soil Description

Brown SILT & CLAY; trace f Sand

Moisture Content = 24%

Atterburg Limits

PL= 18 LL= 26 PI= 8

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

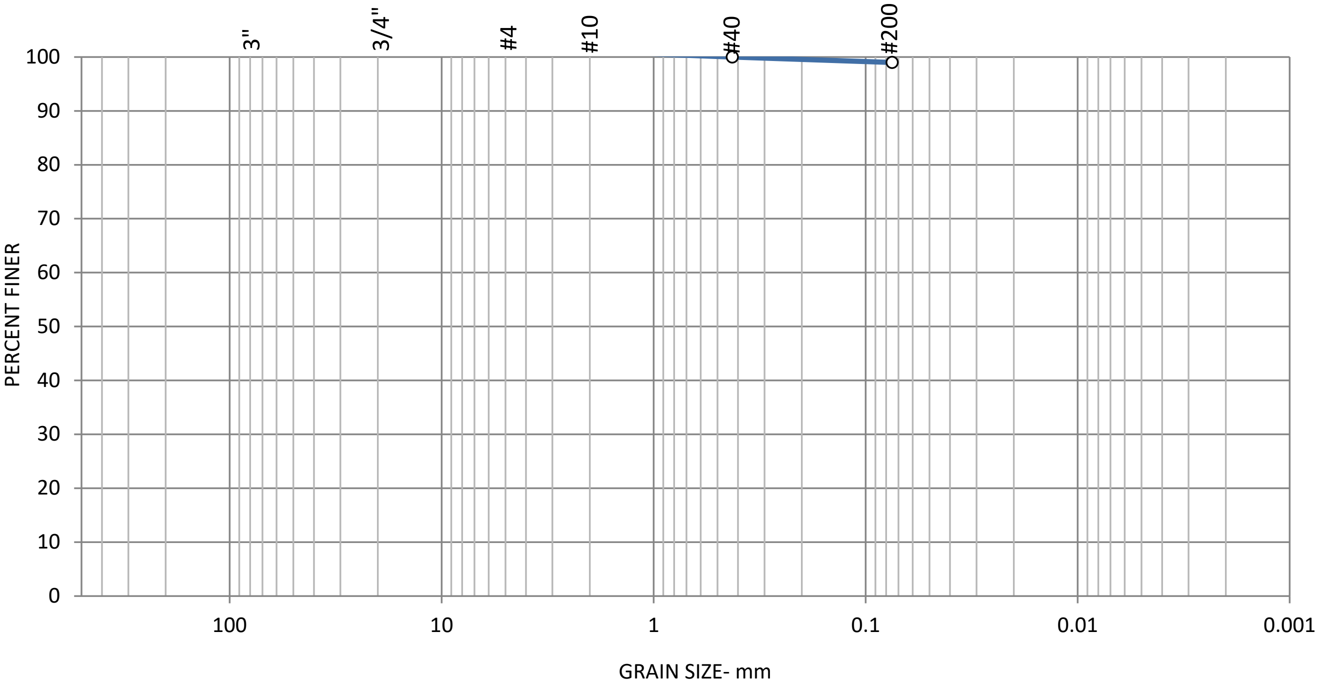
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-034, S-9 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 16-18'



% Cobbles	% Gravel		% Sand			% Fines 99	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					1		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	99		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 23%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

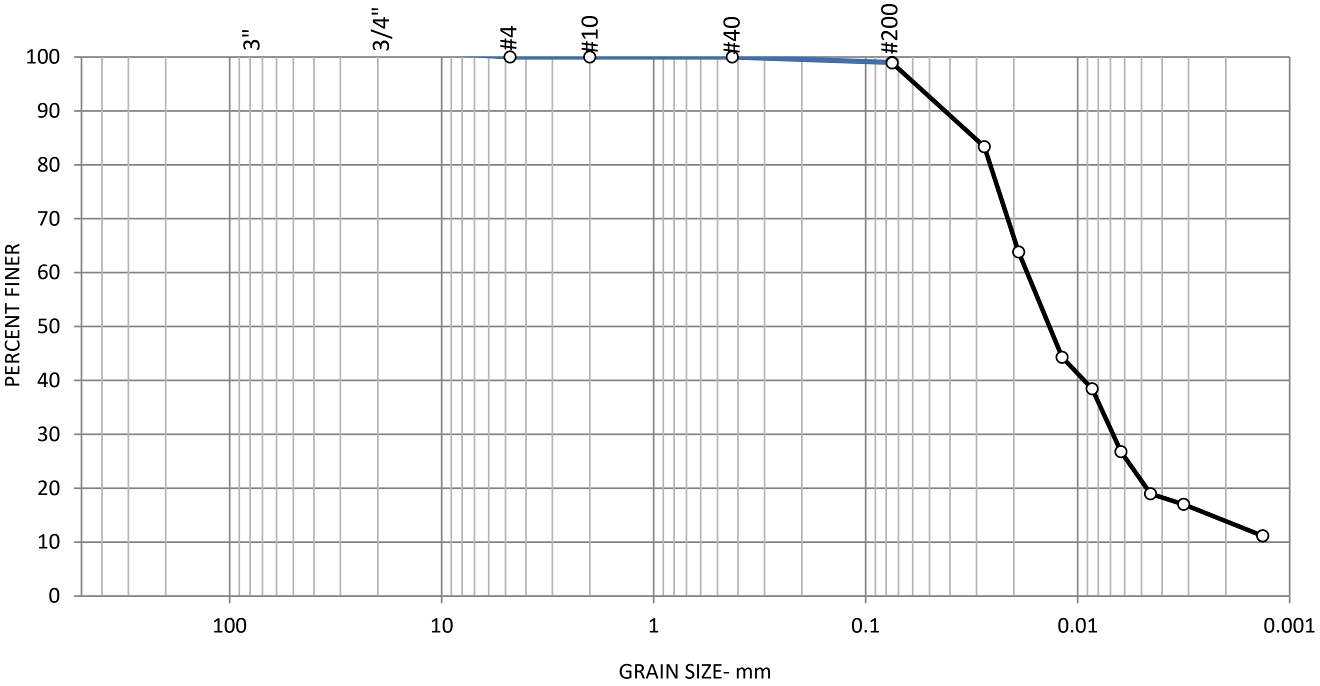
Date: 5/30/25

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/29/2025

Sample No: LB-036, S-10
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 18.0-20.0



% Cobbles	% Gravel		% Sand			% Fines	
						99	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					1	78	21

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10			
#40	100		
#200	99		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 22%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.018 D_{30}= 0.007 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORATORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

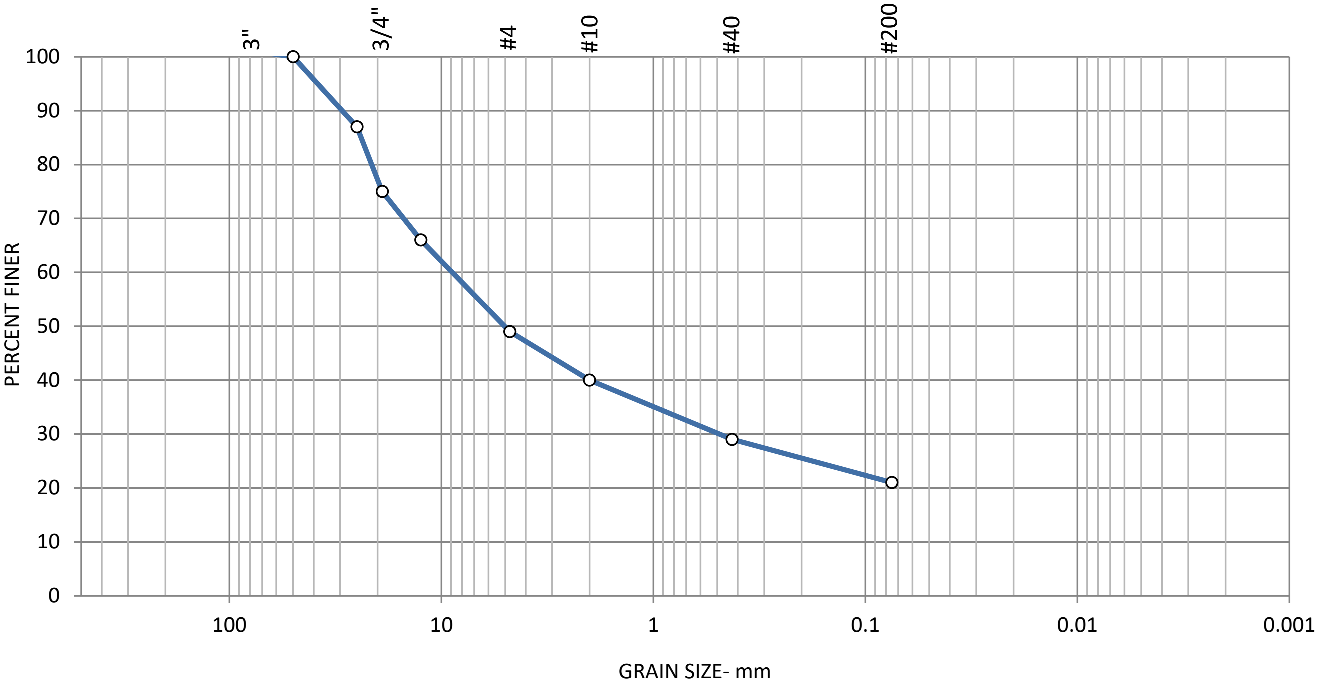
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-037, S-9 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 18-20'



% Cobbles	% Gravel		% Sand			% Fines 21	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	25	26	9	11	8		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"	100		
1"	87		
3/4"	75		
1/2"	66		
#4	49		
#10	40		
#40	29		
#200	21		

Soil Description

Brown cf GRAVEL; some cmf Sand; some Silt

Moisture Content = 7%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 5.734 D_{30}= 0.681 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by: ______________________

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

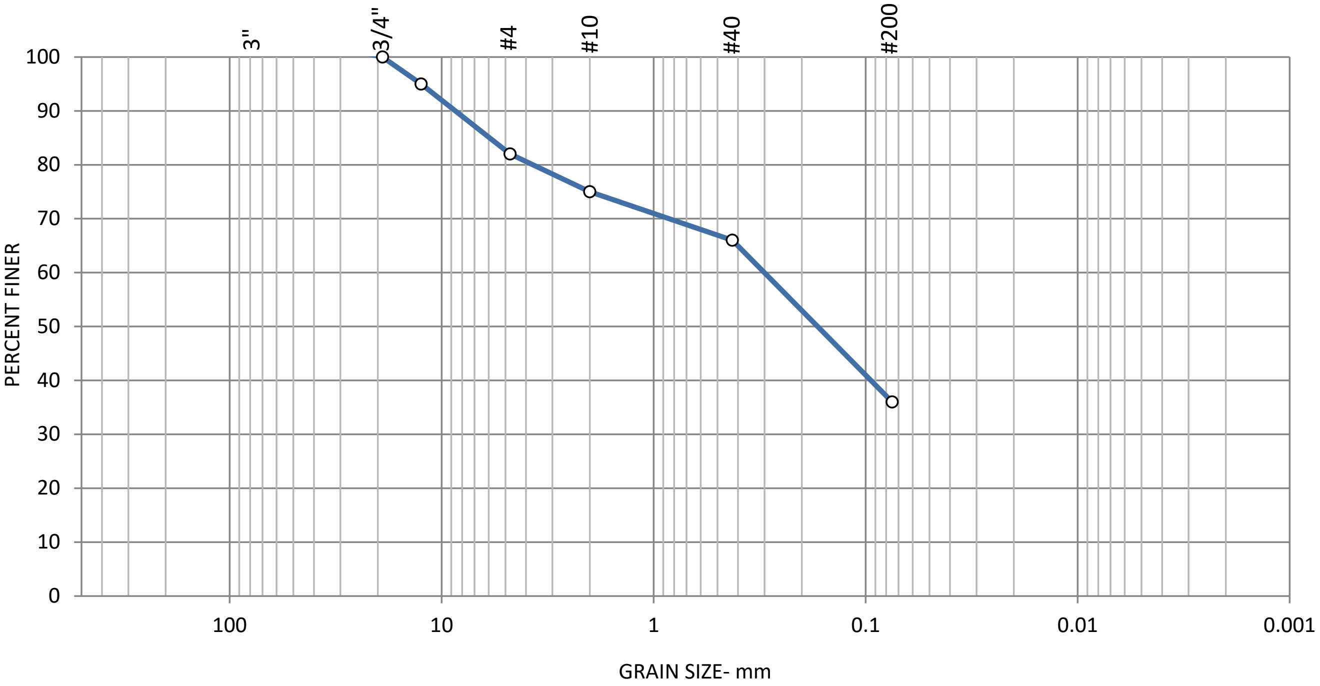
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-049 S-11 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 20-22'



% Cobbles	% Gravel		% Sand			% Fines	
						36	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		18	7	9	30		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	95		
#4	82		
#10	75		
#40	66		
#200	36		

Soil Description

Brown cmf SAND; and Silt; little f Gravel

Moisture Content = 11%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 0.496 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

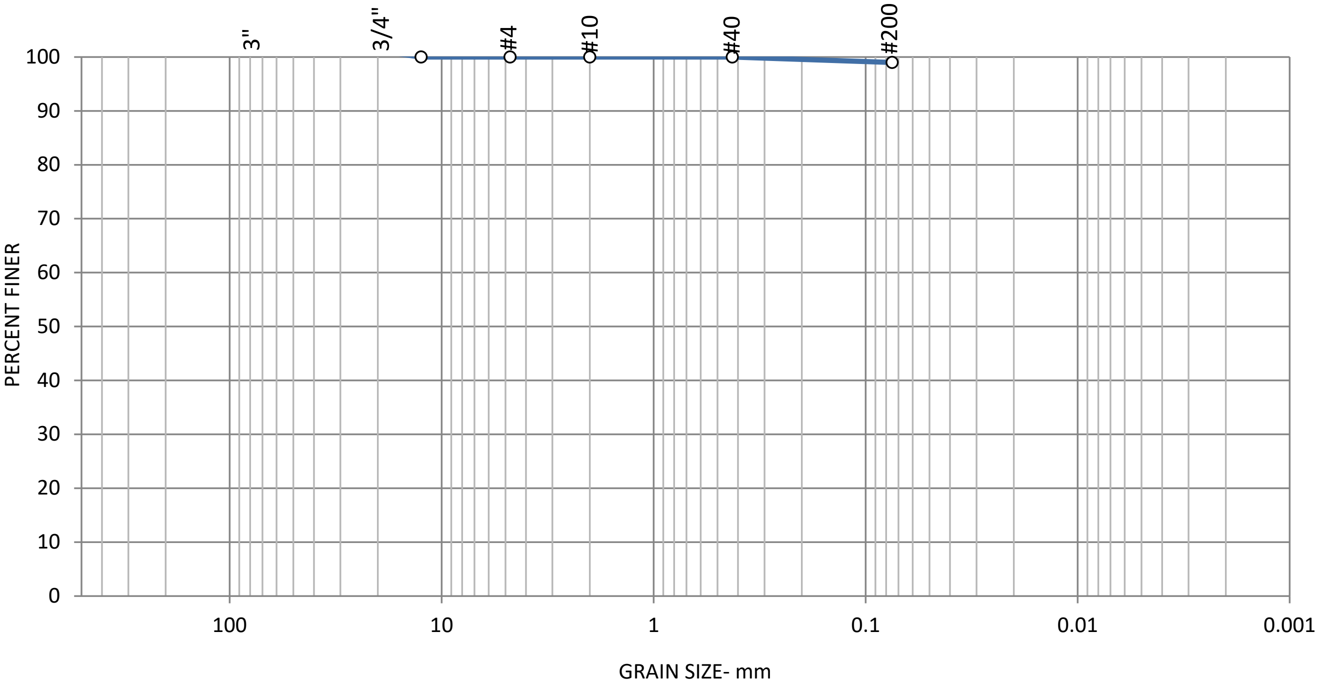
Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25

Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-054, S-3
Source of Sample: Boring Sample

Location: In-place
Elev./Depth (ft): 4-6'



% Cobbles	% Gravel		% Sand			% Fines	
						99	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					1		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	100		
#10	100		
#40	100		
#200	99		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 25%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

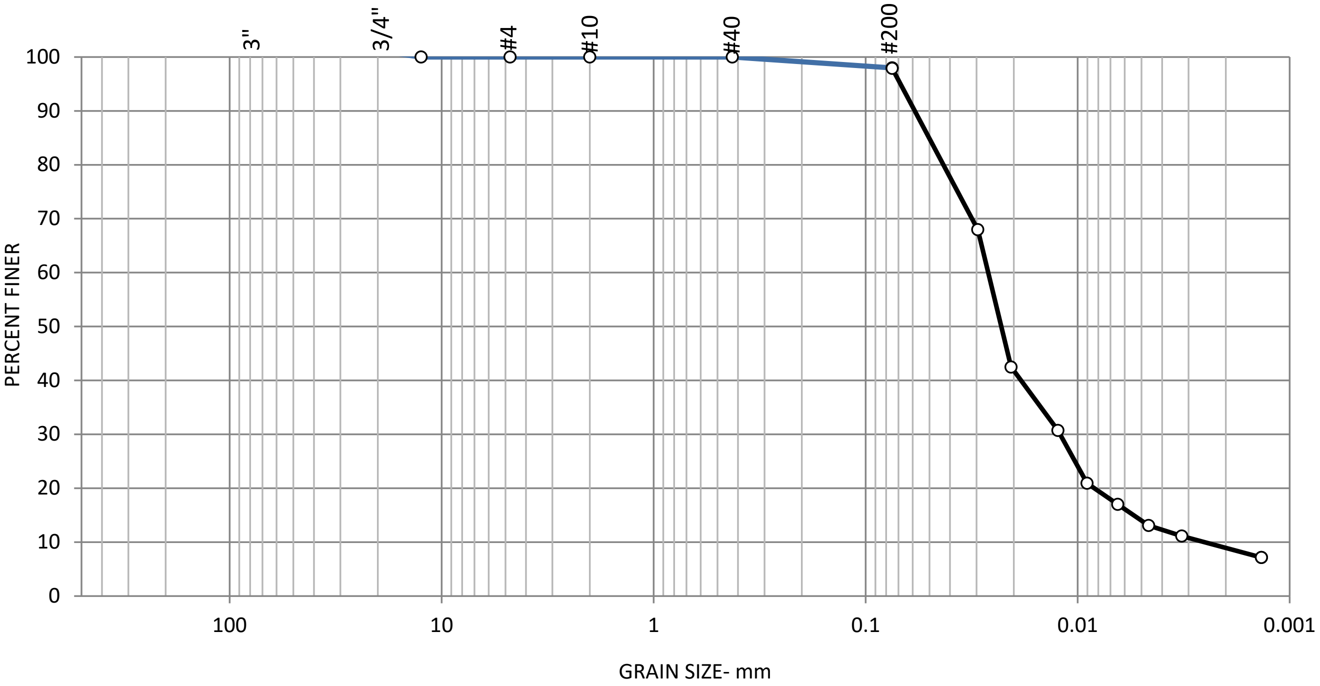
Particle Size Distribution Report
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/29/2025

Sample No: LB-056, S-4 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 6.0-8.0



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2	84	14

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10			
#40	100		
#200	98		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 21%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.027 D_{30}= 0.012 D_{10}= 0.003

C_u= 9 C_c= 1.778

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

Particle Size Distribution Report

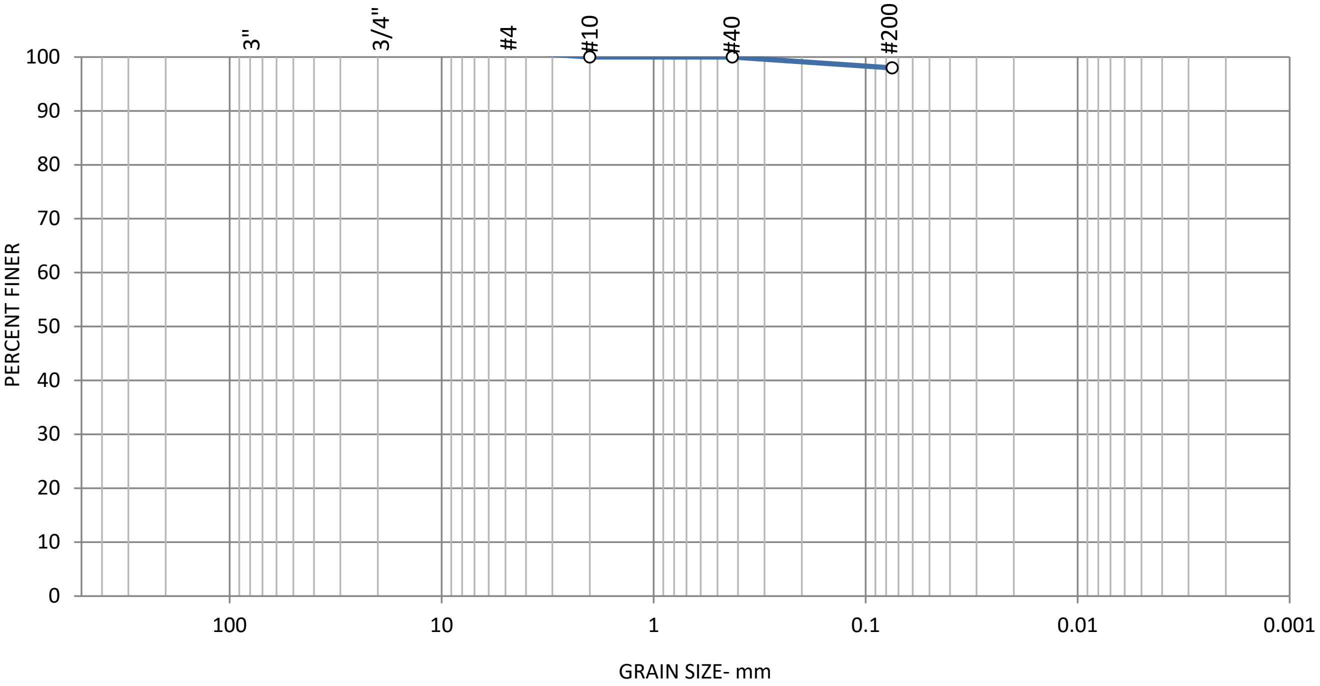
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB--056, S-6 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 10-12'



% Cobbles	% Gravel		% Sand			% Fines 98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	98		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 20%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

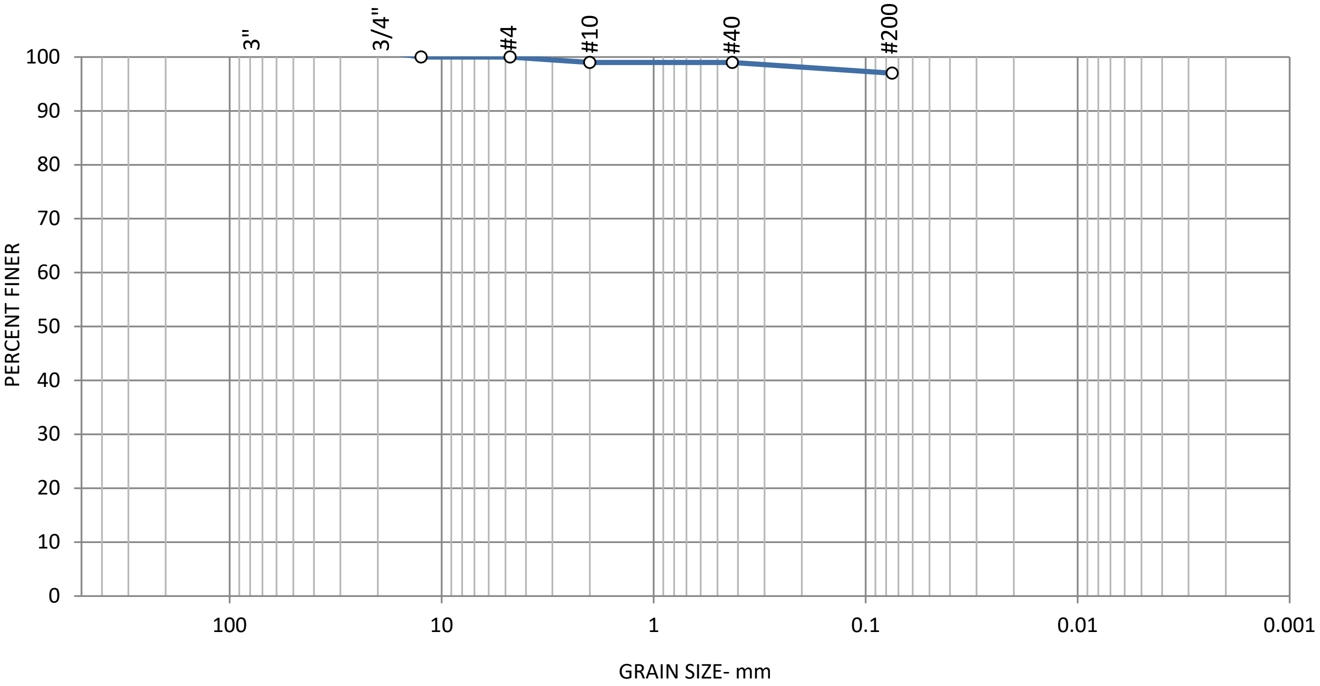
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-061, S-4 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 6-8'



% Cobbles	% Gravel		% Sand			% Fines	
						97	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
			1		2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	100		
#10	99		
#40	99		
#200	97		

Soil Description

Brown SILT; trace cmf Sand

Moisture Content = 26%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

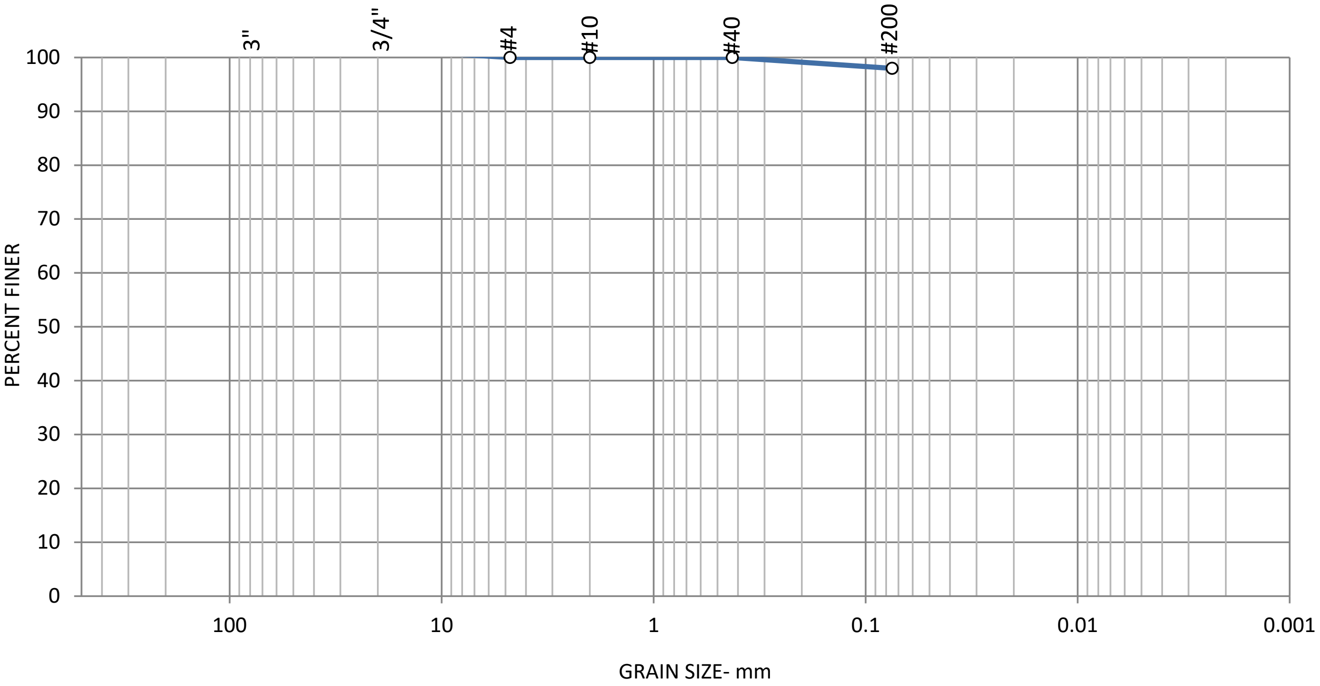
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25

Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-061, S-6B
Source of Sample: Boring Sample

Location: In-place
Elev./Depth (ft): 10-12'



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	98		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 25%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

Particle Size Distribution Report

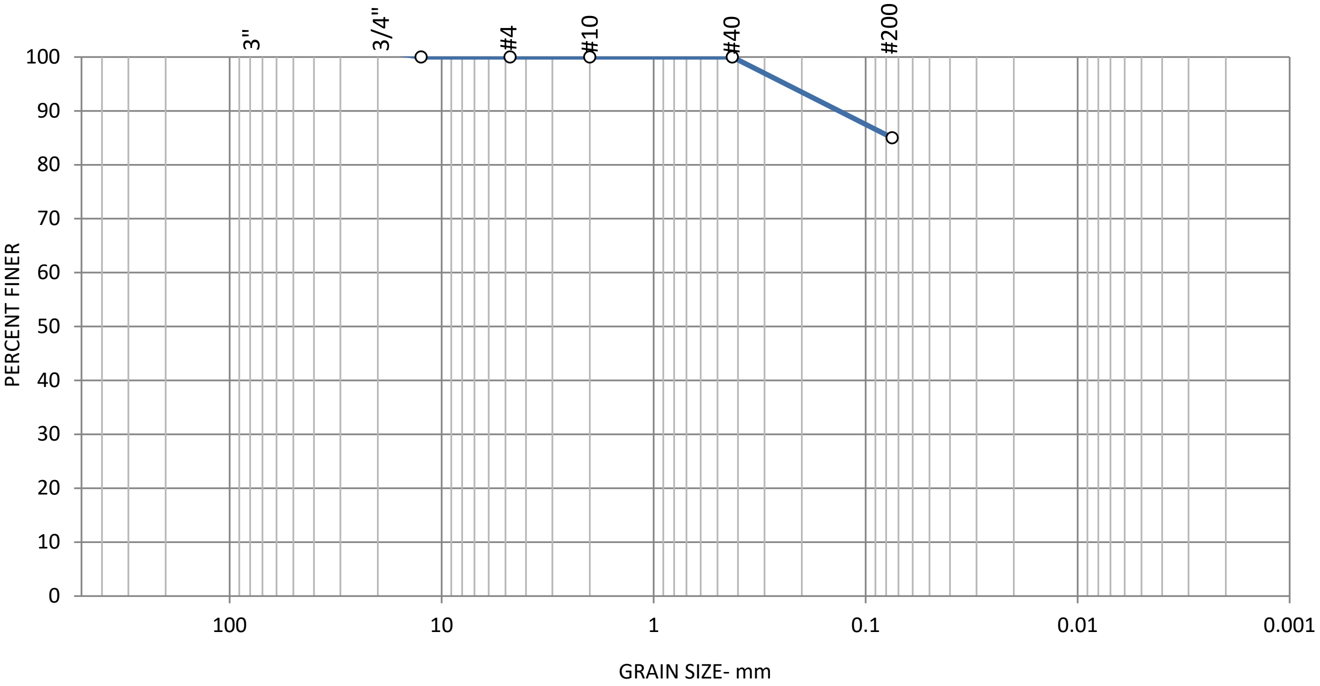
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-100, S-2 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 2-4'



% Cobbles	% Gravel		% Sand			% Fines 85	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					15		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	100		
#10	100		
#40	100		
#200	85		

Soil Description

Brown SILT; little f Sand

Moisture Content = 21%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

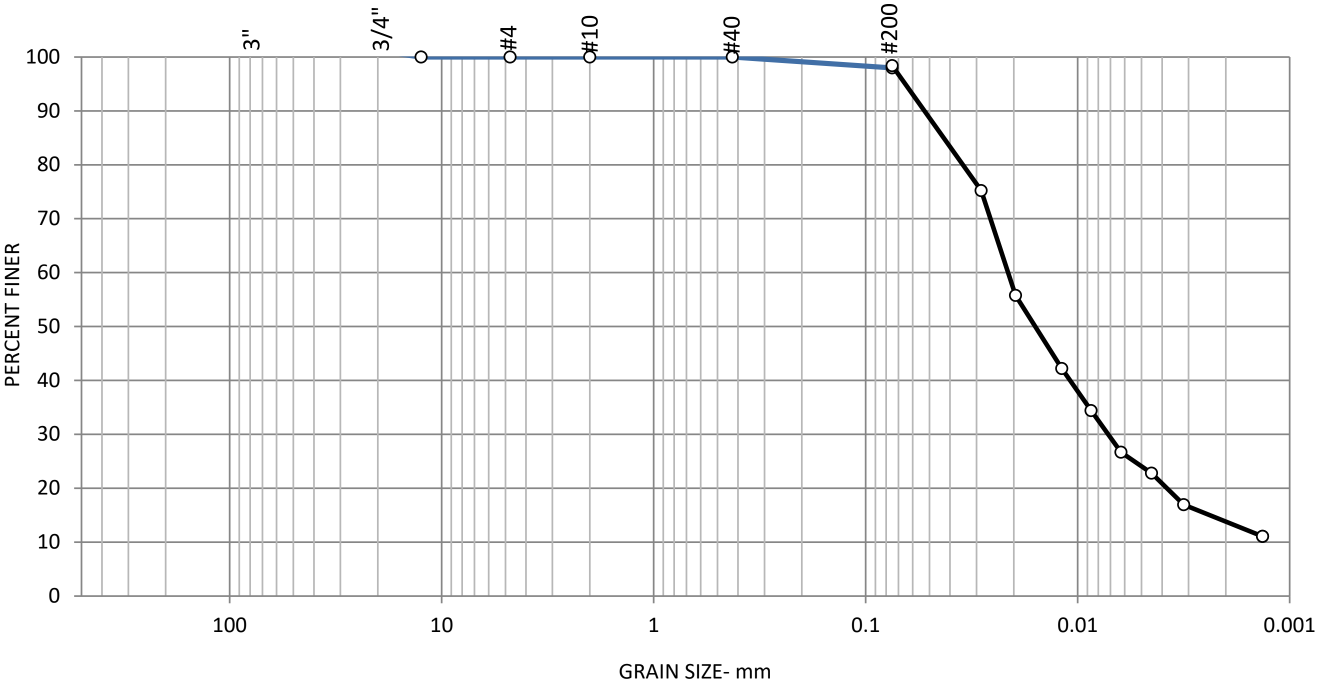
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/29/2025

Sample No: LB-R-018, S-10 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 19.0-21.0



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2	74	24

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	98		

Soil Description

Grey SILT; trace f Sand

Moisture Content = 19%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.021 D_{30}= 0.007 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-03-05-25

Client: Langan, NYC

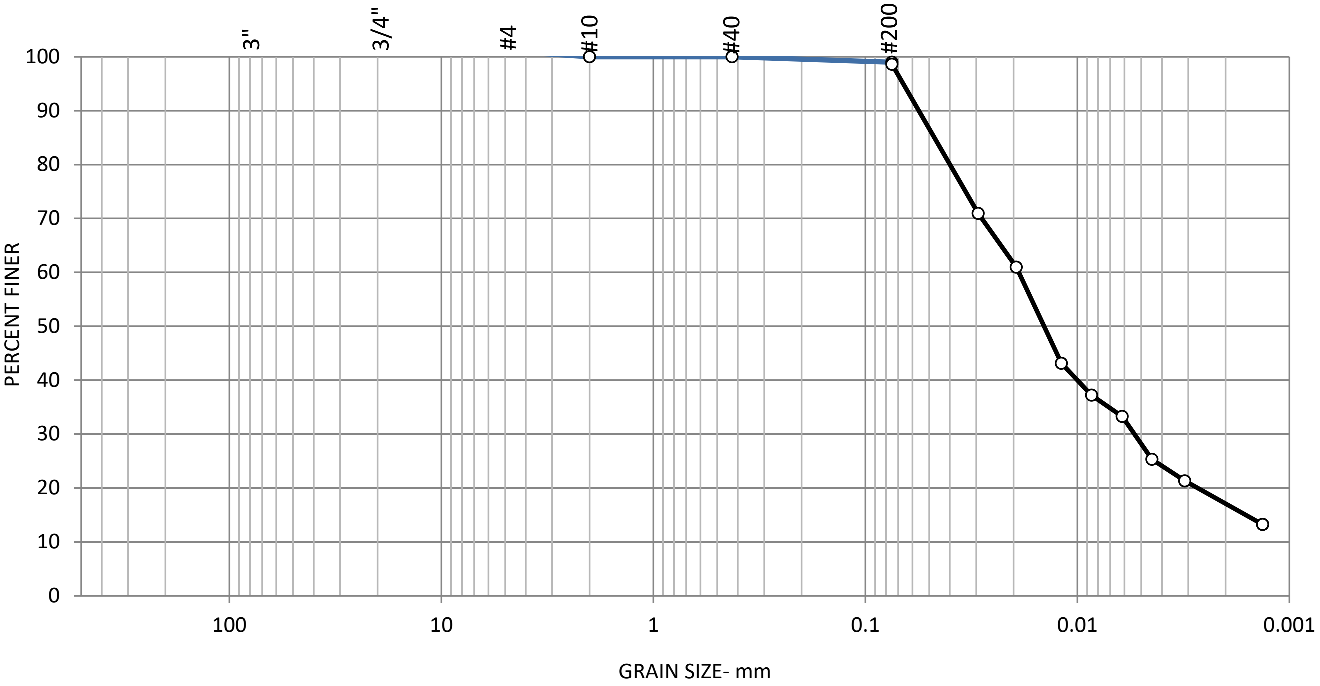
Test Date: 5/28/2025

Sample No: LB-R-054, S-7A

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 12-14'



% Cobbles	% Gravel		% Sand			% Fines	
						99	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					1	71	28

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	99		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 24%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.019 D_{30}= 0.005 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORATORIES, LIMITED

Reviewed by:

Date: 5/30/25

Particle Size Distribution Report

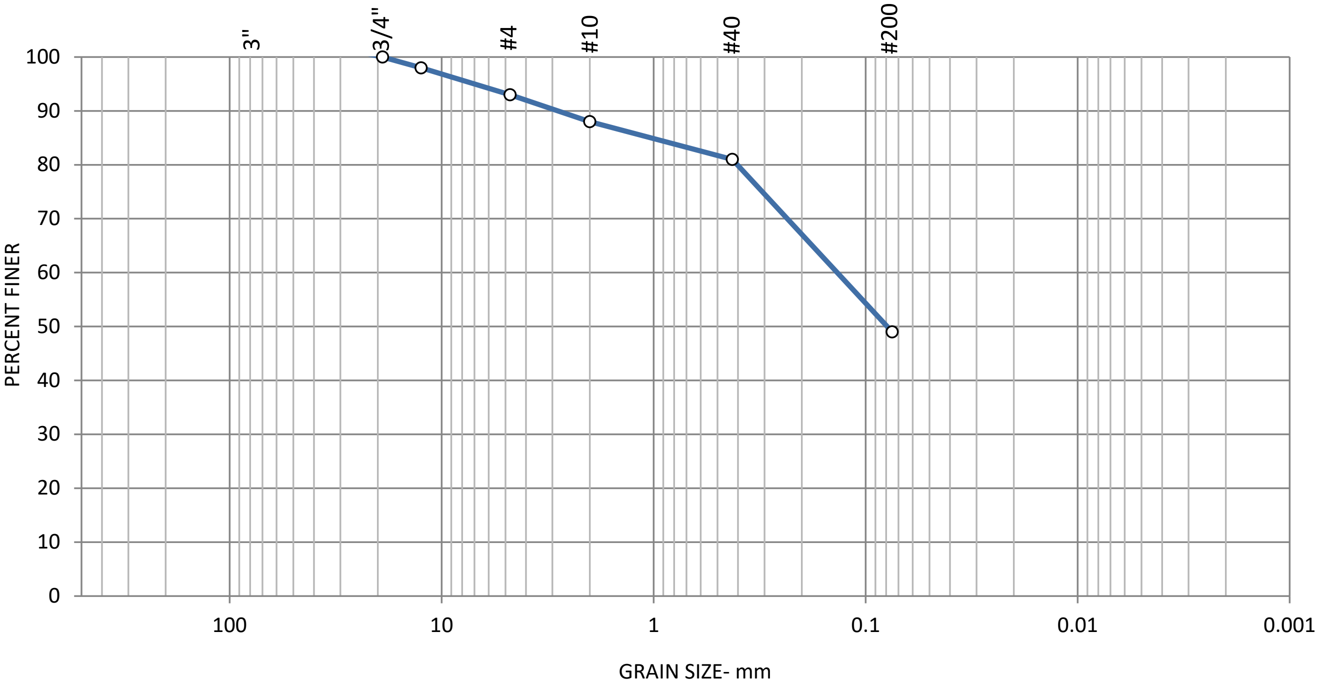
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-R-055, S-9 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 16-18'



% Cobbles	% Gravel		% Sand			% Fines	
						49	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		7	5	7	32		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	98		
#4	93		
#10	88		
#40	81		
#200	49		

Soil Description

Brown SILT; and cmf Sand; trace f Gravel

Moisture Content = 12%

Atterburg Limits

PL= 12 LL= 13 PI= 1

Coefficients

D_{60}= 0.258 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

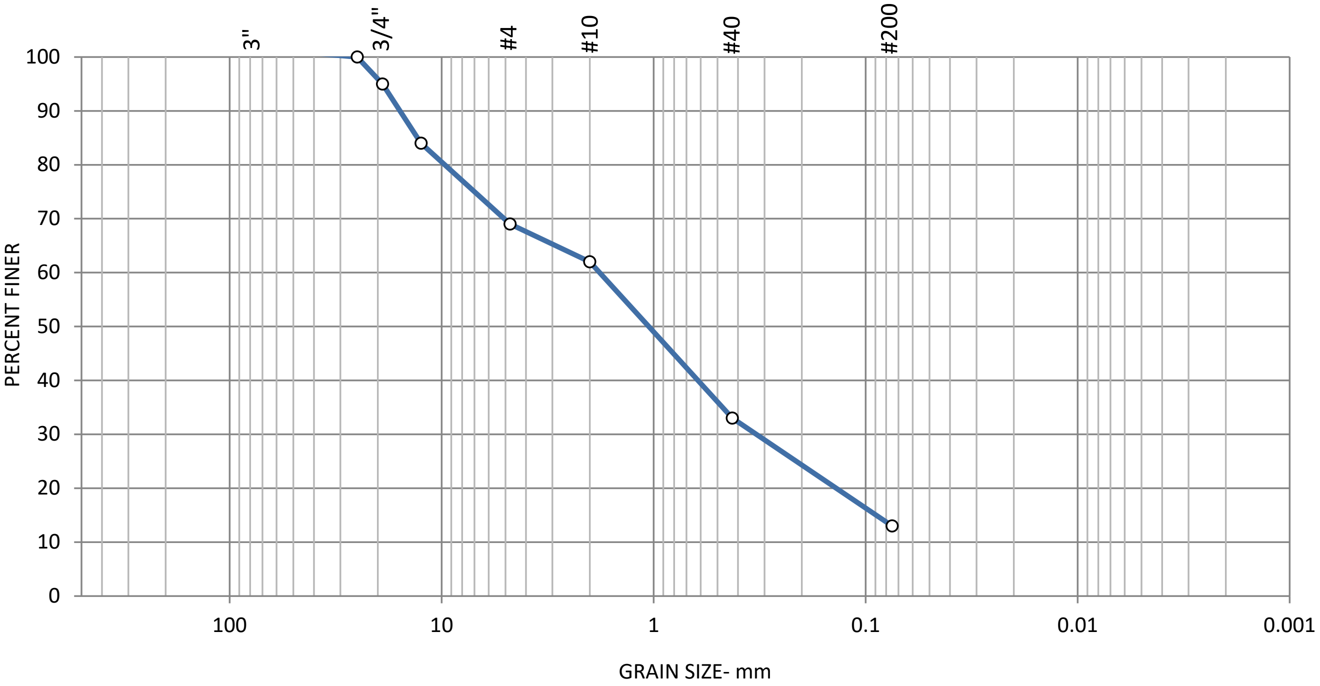
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-R-057, S-11 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 25-27'



% Cobbles	% Gravel		% Sand			% Fines	
						13	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	5	26	7	29	20		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"	100		
3/4"	95		
1/2"	84		
#4	69		
#10	62		
#40	33		
#200	13		

Soil Description

Brown cmf SAND; some cf Gravel; little Silt

Moisture Content = 10%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 1.89 D_{30}= 0.524 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

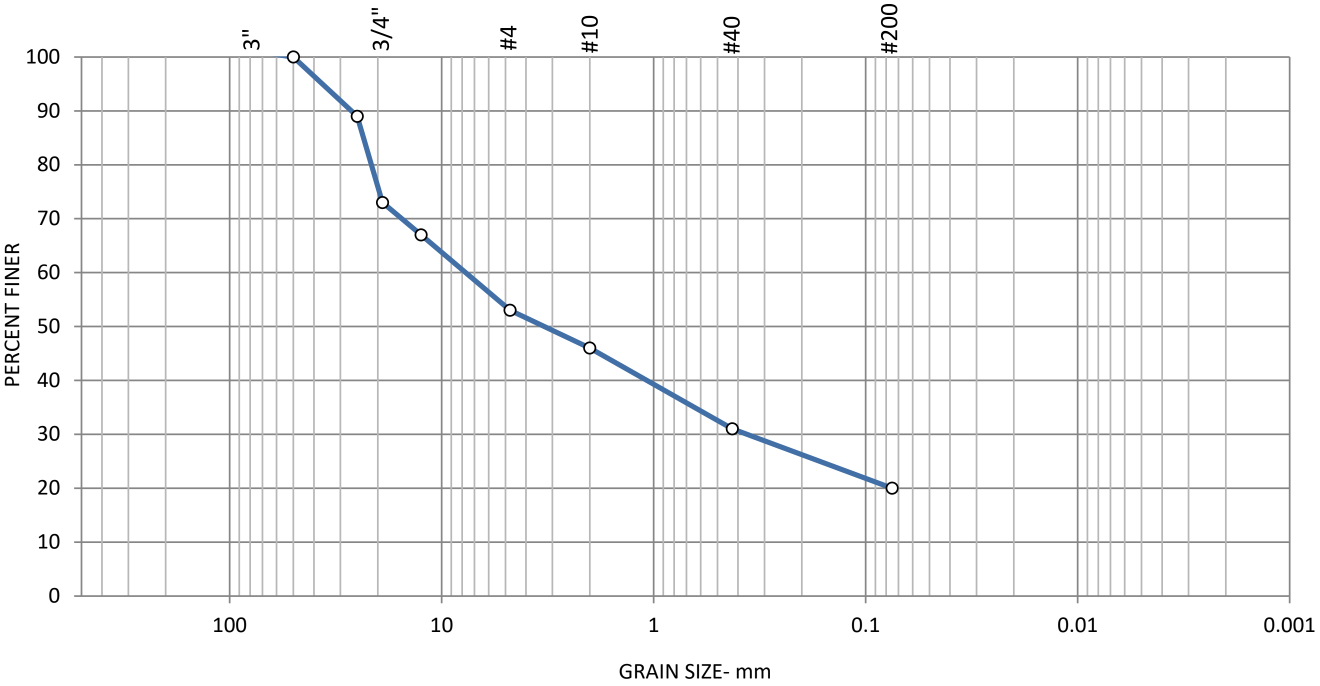
Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-059, S-9
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 17-19



% Cobbles	% Gravel		% Sand			% Fines 20	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	27	20	7	15	11		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"	100		
1"	89		
3/4"	73		
1/2"	67		
#4	53		
#10	46		
#40	31		
#200	20		

Soil Description

Brown cf GRAVEL; some cmf Sand; little Clayey Silt

Moisture Content = 8%

Atterburg Limits

PL= 12 LL= 14 PI= 2

Coefficients

D_{60}= 5.519 D_{30}= 0.542 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORATORITES, LIMITED

Reviewed by:

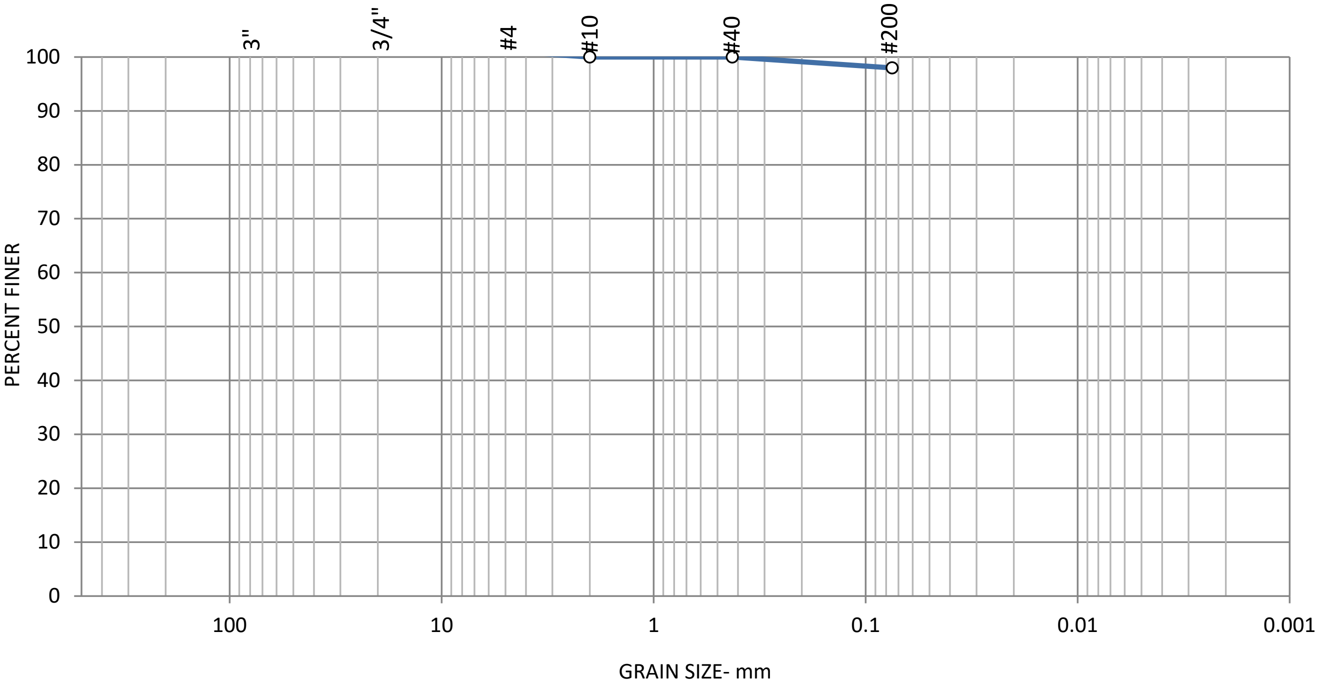
Date: 5/30/25

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-60, S-4
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 6.0-8.0



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	98		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 20%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

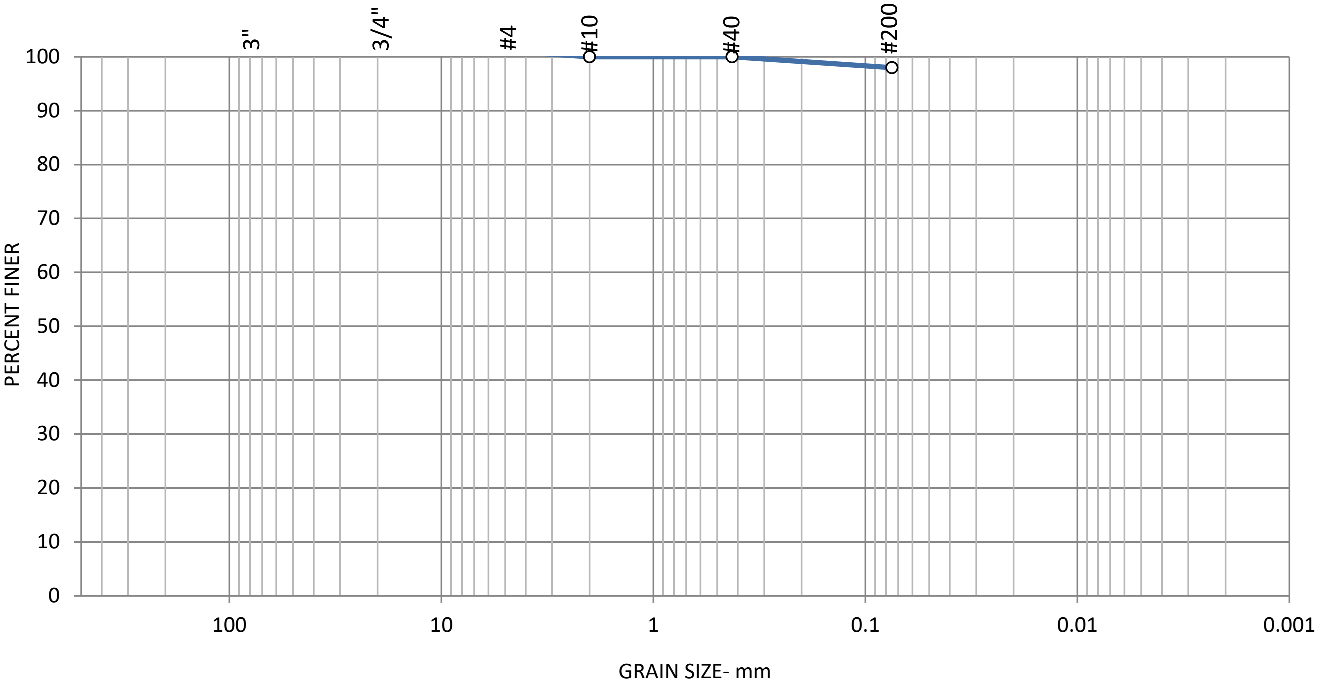
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25

Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-060, S-5
Source of Sample: Boring Sample

Location: In-place
Elev./Depth (ft): 8-10'



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	100		
#200	98		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 24%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-03-05-25

Client: Langan, NYC

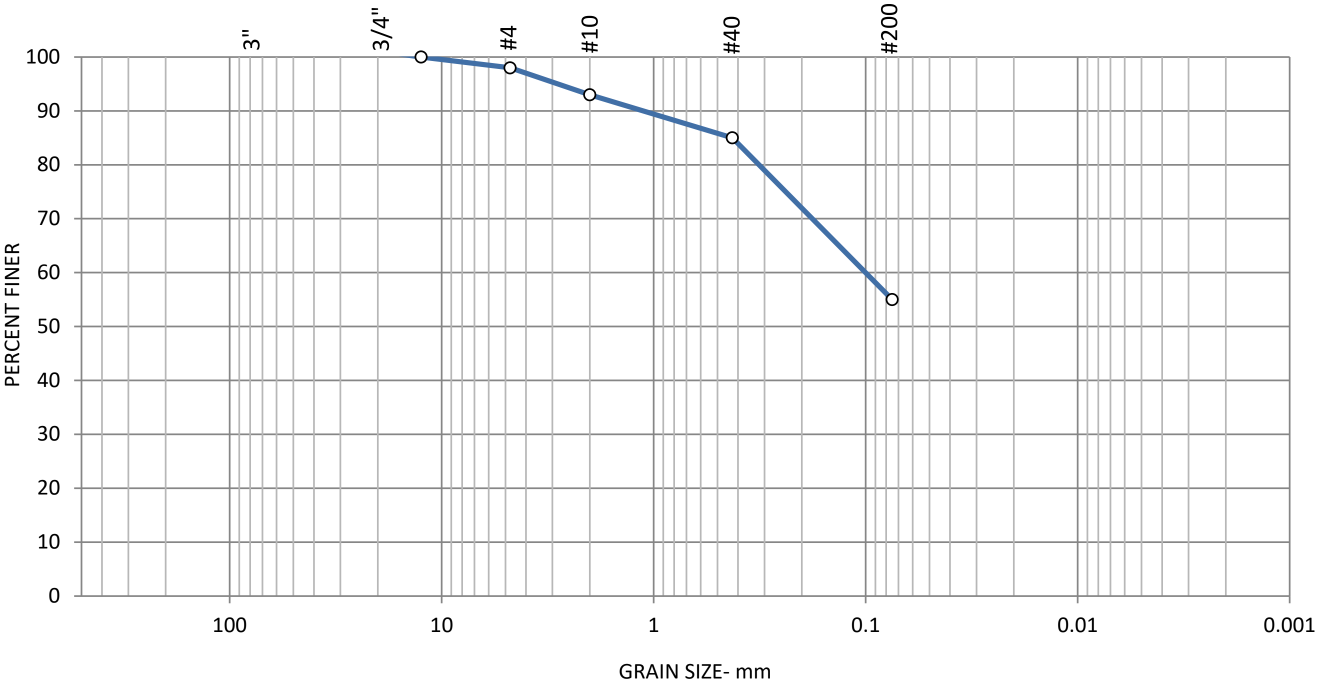
Test Date: 5/19/2025

Sample No: LB-R-060 S-9A

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 16-18'



% Cobbles	% Gravel		% Sand			% Fines	
						55	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		2	5	8	30		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	98		
#10	93		
#40	85		
#200	55		

Soil Description

Brown Clayey SILT; and cmf Sand; trace f Gravel

Moisture Content = 13%

Atterburg Limits

PL= 11 LL= 14 PI= 3

Coefficients

D_{60}= 0.165 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

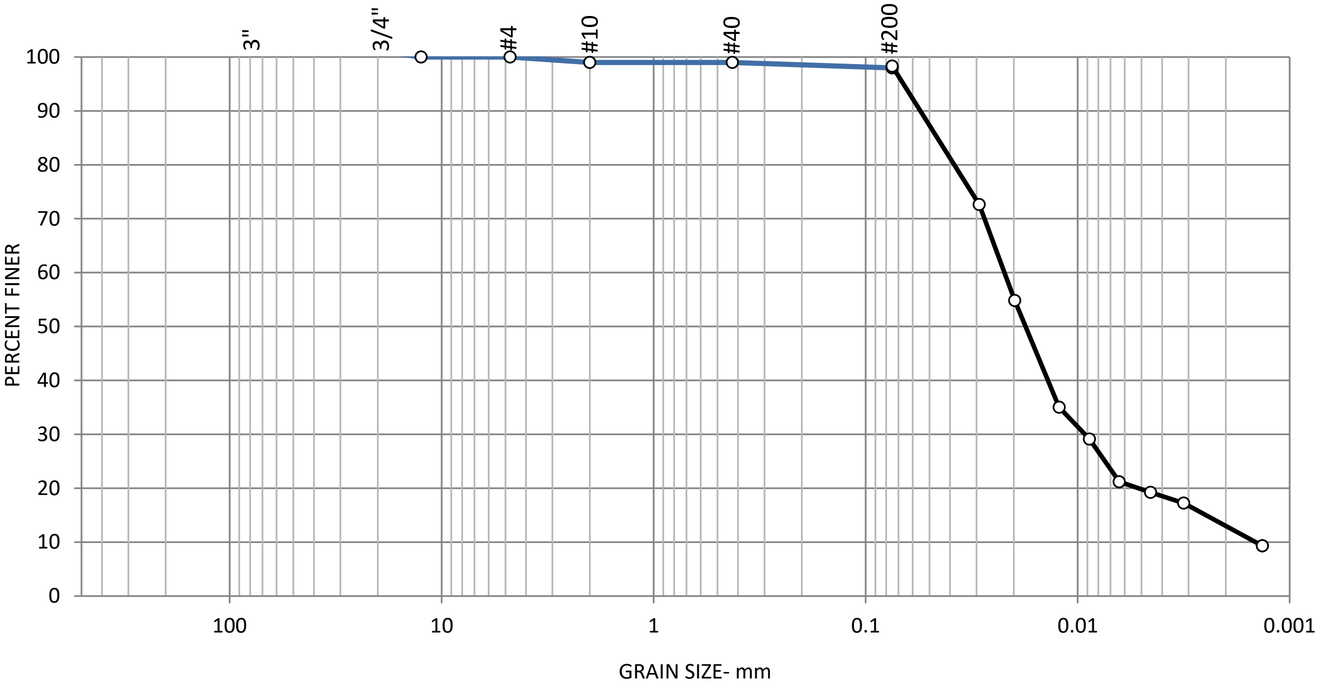
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25

Client: Langan, NYC
Test Date: 5/29/2025

Sample No: LB-R-062, S-3
Source of Sample: Boring Sample

Location: In-place
Elev./Depth (ft): 4.0-6.0



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
			1		1	79	20

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	100		
#10	99		
#40	99		
#200	98		

Soil Description

Brown SILT; trace cmf Sand

Moisture Content = 25%

Atterburg Limits

PL= NP
LL= NP
PI= NP

Coefficients

D_{60}= 0.022
D_{30}= 0.009
D_{10}= 0.001

C_u= 22
C_c= 3.682

Classification

USCS=
AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-03-05-25

Client: Langan, NYC

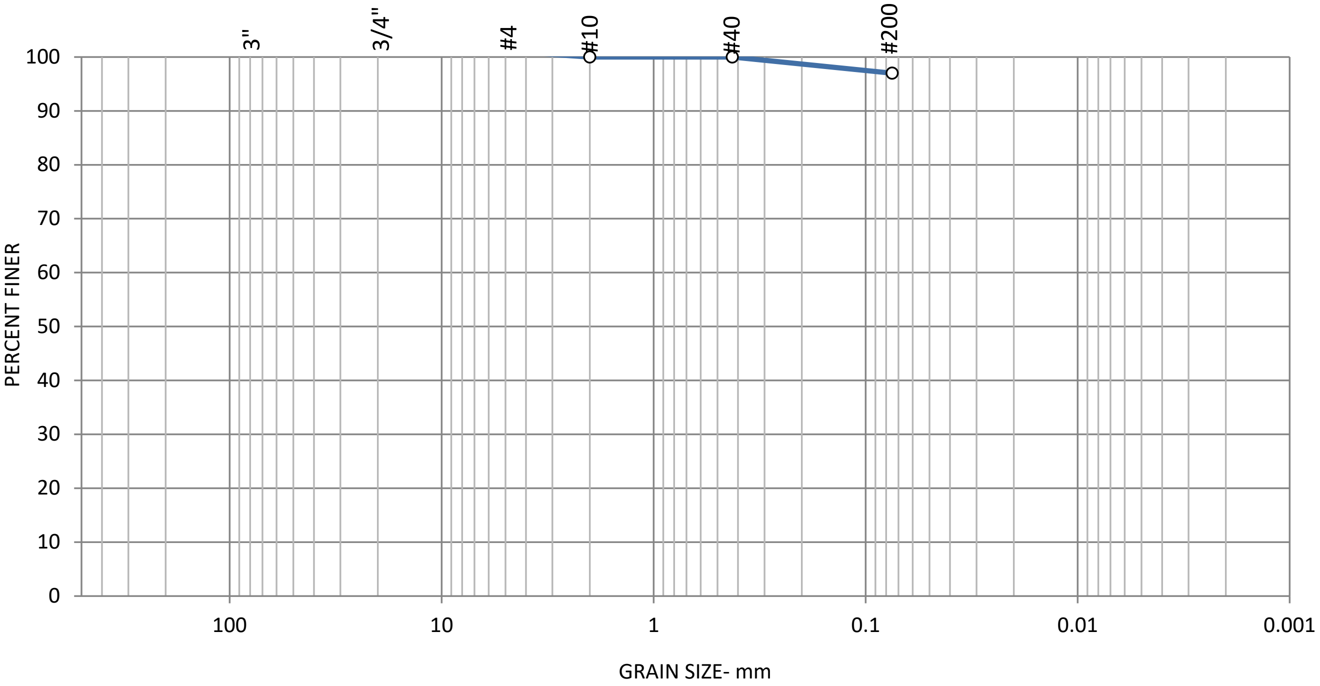
Test Date: 5/19/2025

Sample No: LB-R-065. S-9

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 17-19'



% Cobbles	% Gravel		% Sand			% Fines	
						97	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					3		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	97		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 21%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

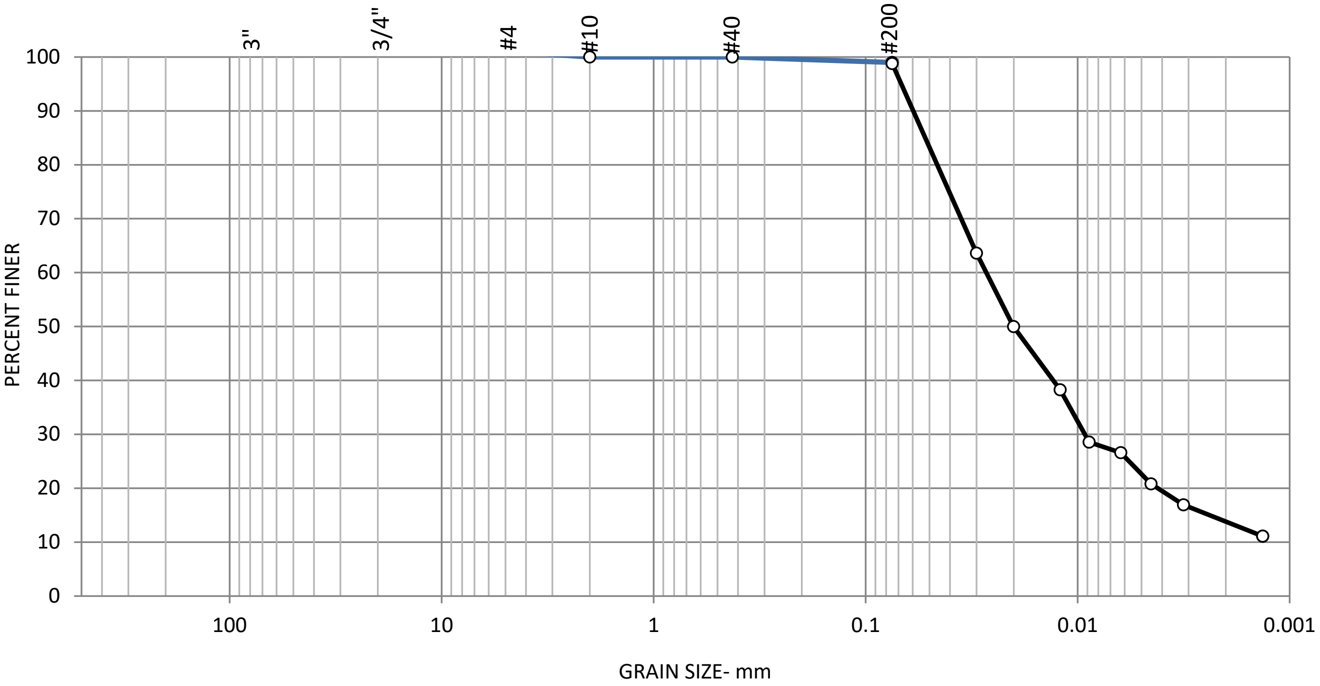
Reviewed by:

Date: 5/30/25

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/28/2025

Sample No: LB-R-071, S-7
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 15-17'



% Cobbles	% Gravel		% Sand			% Fines	
						99	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					1	76	22

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	99		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 23%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.027 D_{30}= 0.009 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

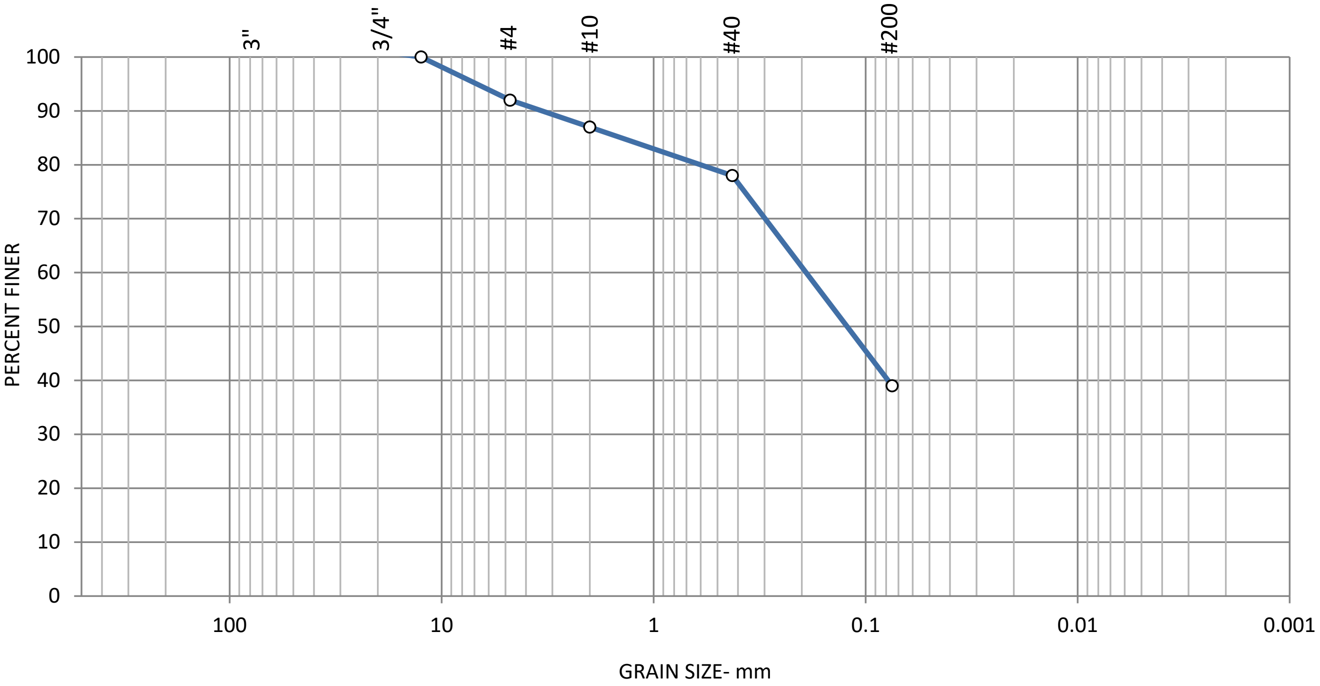
Particle Size Distribution Report
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-R-074, S-4 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 6-8'



% Cobbles	% Gravel		% Sand			% Fines	
						39	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		8	5	9	39		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	92		
#10	87		
#40	78		
#200	39		

Soil Description

Brown cmf SAND; and Silt; trace f Gravel

Moisture Content = 11%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.357 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

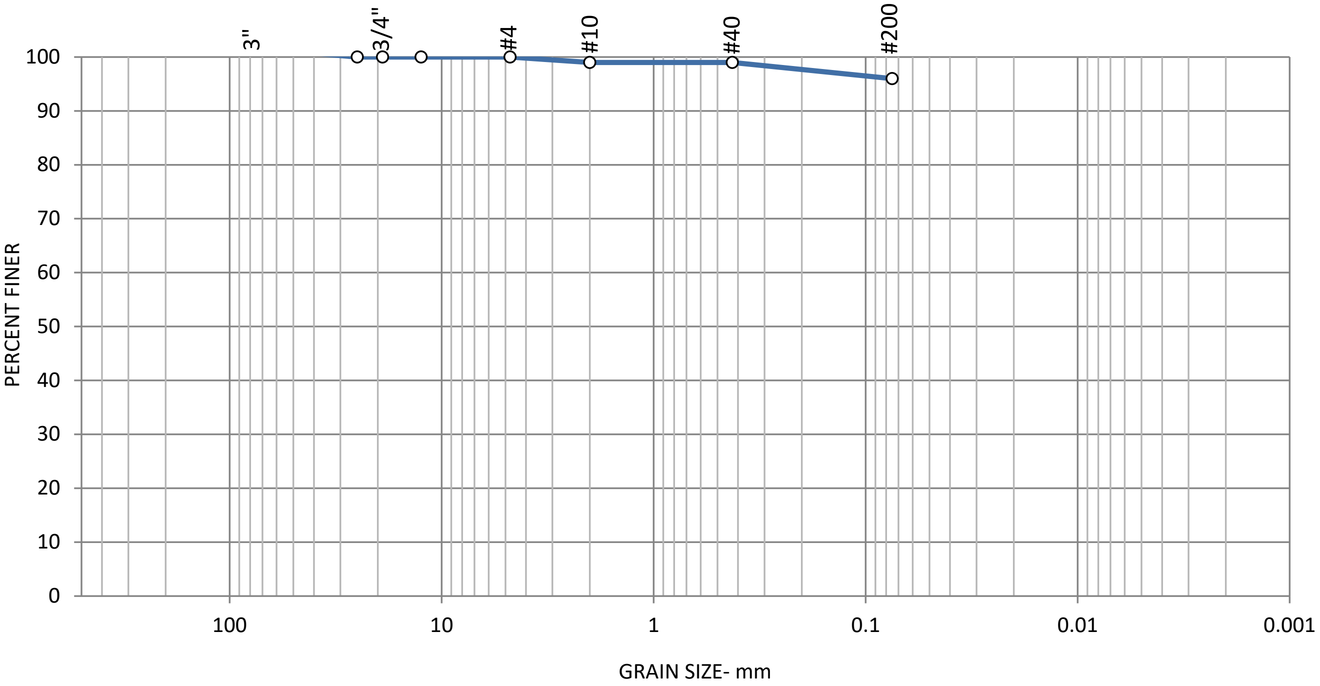
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-R-081, S-6 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 10-12'



% Cobbles	% Gravel		% Sand			% Fines	
						96	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
			1		3		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"	100		
3/4"	100		
1/2"	100		
#4	100		
#10	99		
#40	99		
#200	96		

Soil Description

Brown SILT; trace cmf Sand

Moisture Content = 19%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

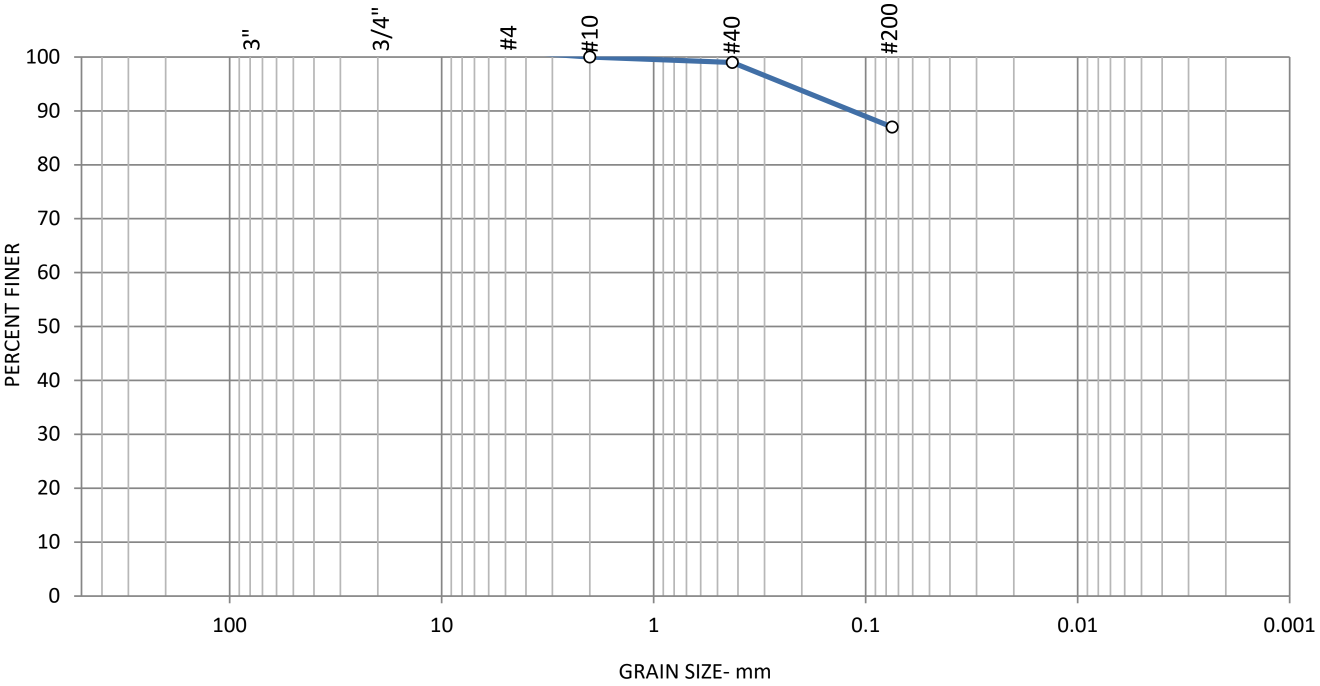
Particle Size Distribution Report
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-R-084, S-6 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 10-12'



% Cobbles	% Gravel		% Sand			% Fines	
						87	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				1	12		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	99		
#200	87		

Soil Description

Brown SILT; little mf Sand

Moisture Content = 17%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

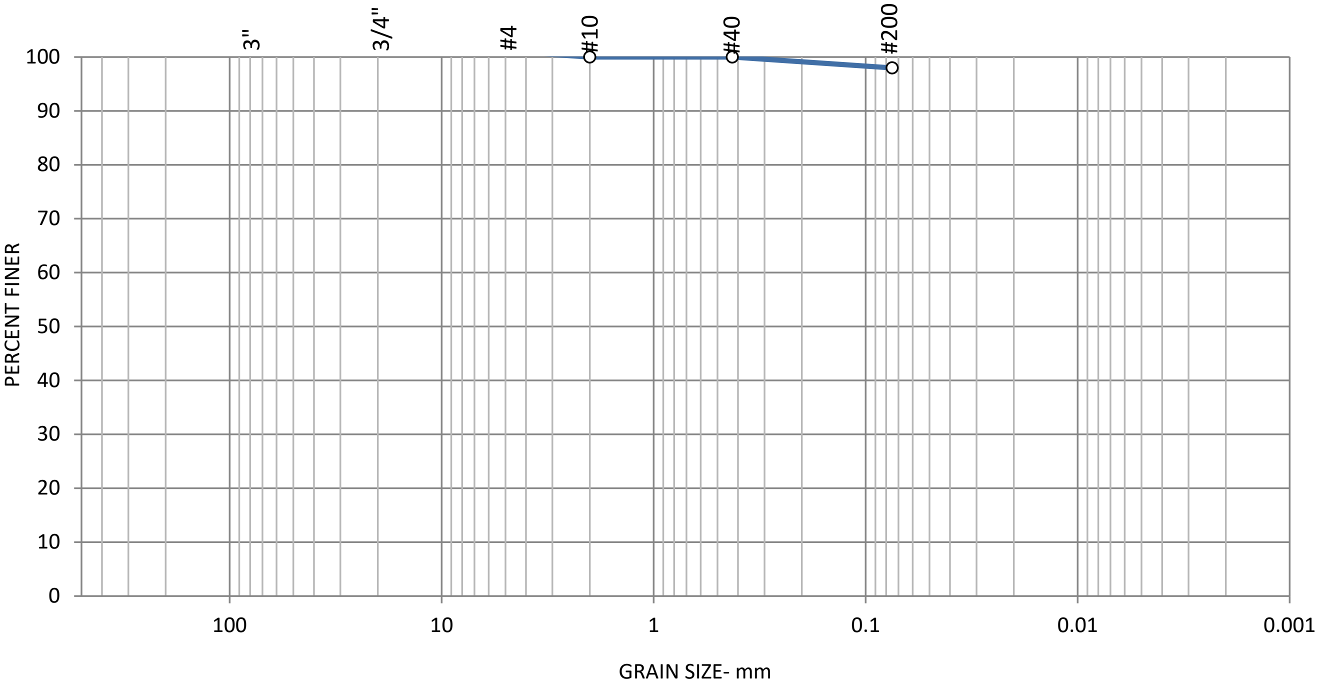
Date: 5/30/25

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-089, S-3
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 4-6'



% Cobbles	% Gravel		% Sand			% Fines	
						98	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	98		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 21%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

Particle Size Distribution Report

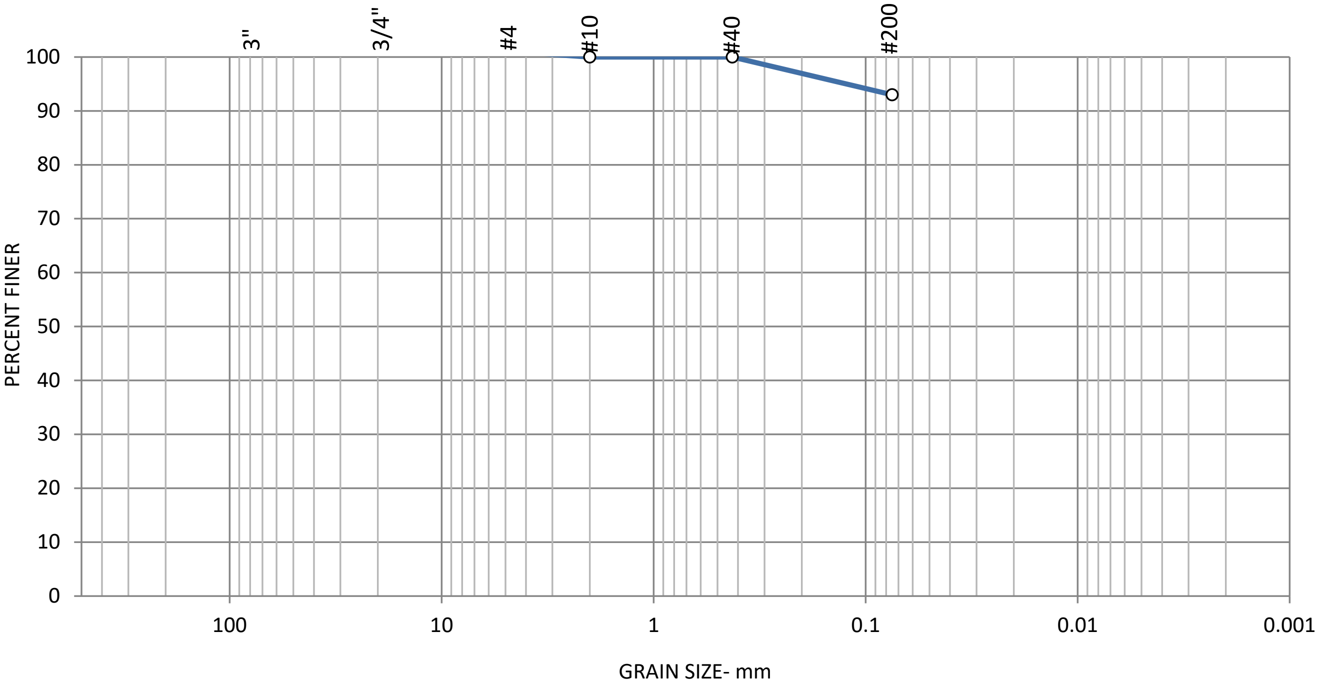
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25

Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-090, S-5
Source of Sample: Boring Sample

Location: In-place
Elev./Depth (ft): 8-10'



% Cobbles	% Gravel		% Sand			% Fines	
						93	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					7		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	93		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 18%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

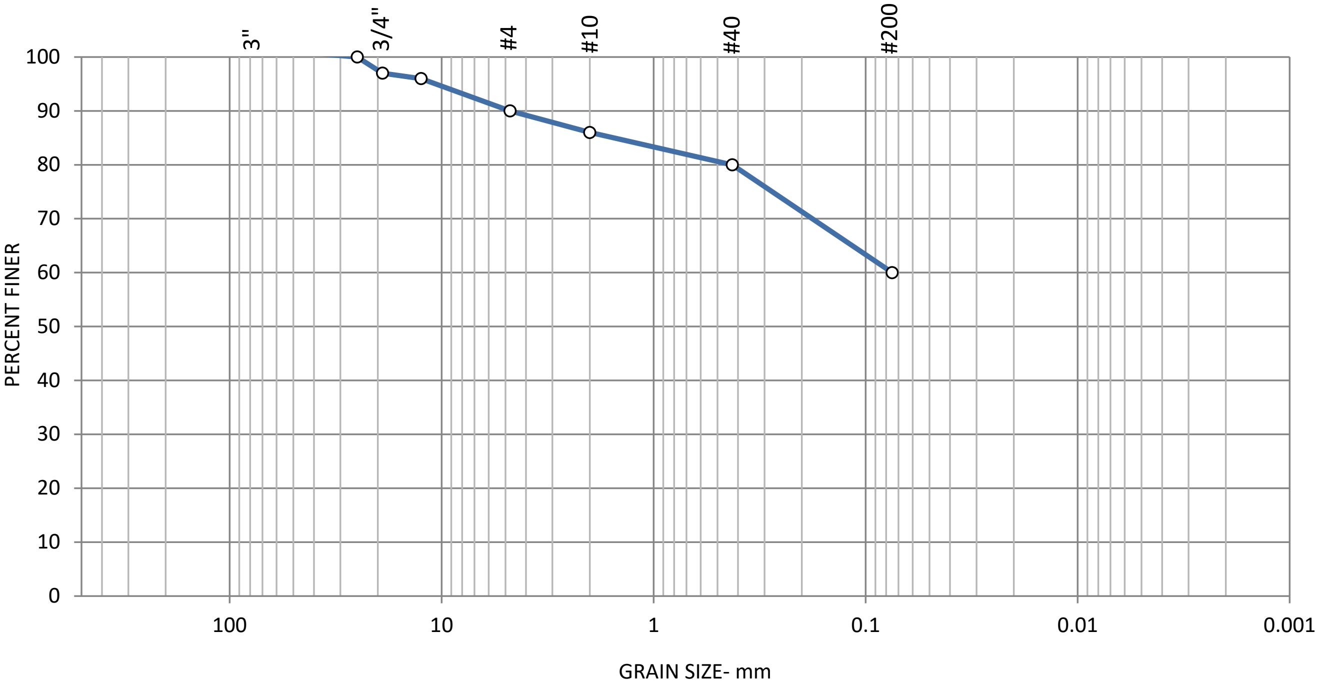
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-R-096, S-5 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 8-10'



% Cobbles	% Gravel		% Sand			% Fines	
						60	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	3	7	4	6	20		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"	100		
3/4"	97		
1/2"	96		
#4	90		
#10	86		
#40	80		
#200	60		

Soil Description

Brown SILT; some cmf Sand; trace cf Gravel

Moisture Content = 11%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

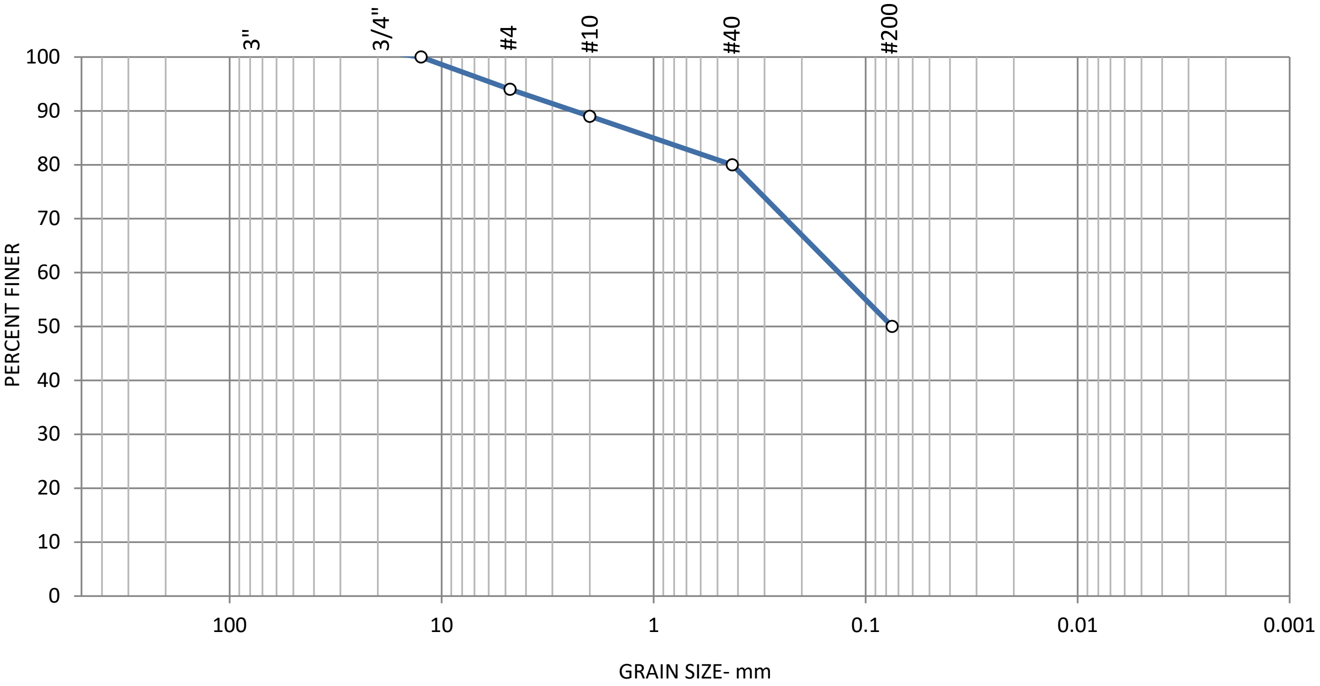
Date: 5/30/25

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-098, S-9
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 16-18'



% Cobbles	% Gravel		% Sand			% Fines	
						50	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		6	5	9	30		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	94		
#10	89		
#40	80		
#200	50		

Soil Description

Brown SILT; and cmf Sand; trace f Gravel

Moisture Content = 13%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 0.253 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

Particle Size Distribution Report

ASTM D 422

Project: 170883801

Report No.: CD11010CSL-03-05-25

Client: Langan, NYC

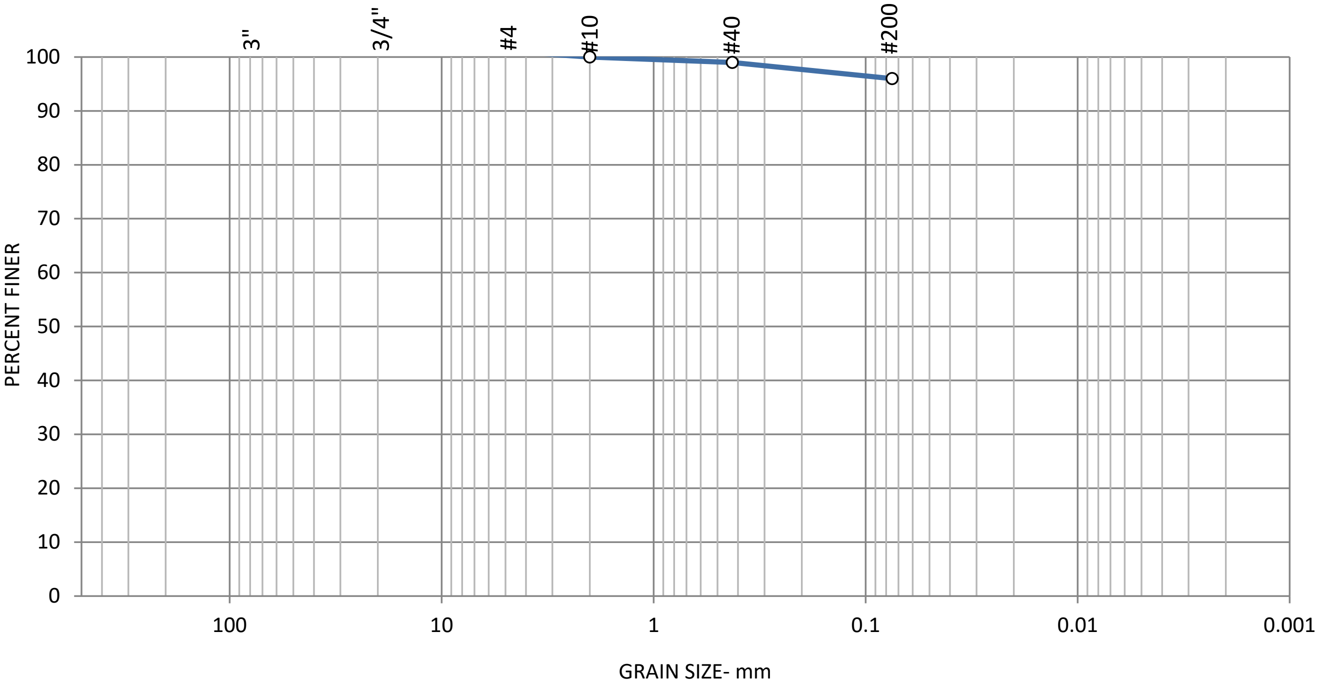
Test Date: 5/19/2025

Sample No: LB-R-102 S-3

Source of Sample: Boring Sample

Location: In-place

Elev./Depth (ft): 4-6'



% Cobbles	% Gravel		% Sand			% Fines	
						96	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				1	3		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	99		
#200	96		

Soil Description

Brown SILT & CLAY; trace mf Sand

Moisture Content = 27%

Atterburg Limits

PL= 20 LL= 27 PI= 7

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

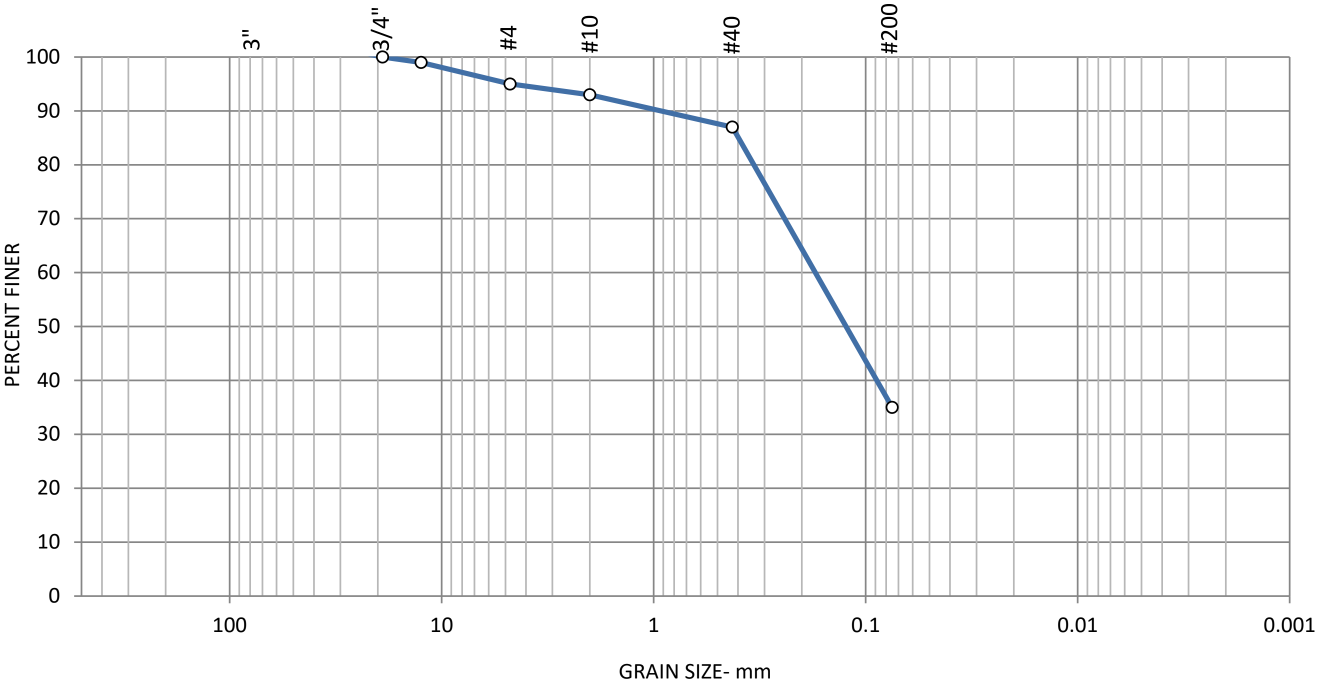
Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-104, S-1
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 0-2'



% Cobbles	% Gravel		% Sand			% Fines	
						35	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		5	2	6	52		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	99		
#4	95		
#10	93		
#40	87		
#200	35		

Soil Description

Brown cmf SAND; some Silt; trace f Gravel

Moisture Content = 16%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 0.329 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

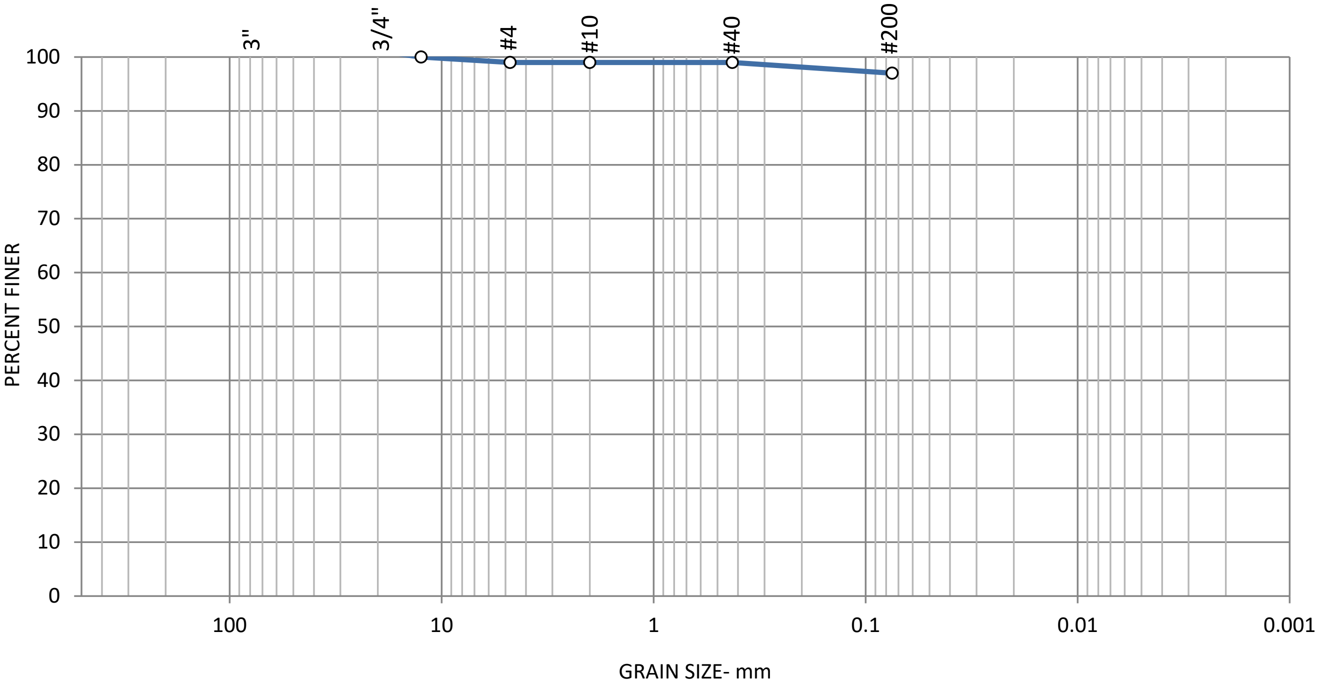
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-R-109, S-4 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 6-8'



% Cobbles	% Gravel		% Sand			% Fines	
						97	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		1			2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	99		
#10	99		
#40	99		
#200	97		

Soil Description

Brown SILT; trace cmf Sand; trace f Gravel

Moisture Content = 24%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by: ______________________ Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

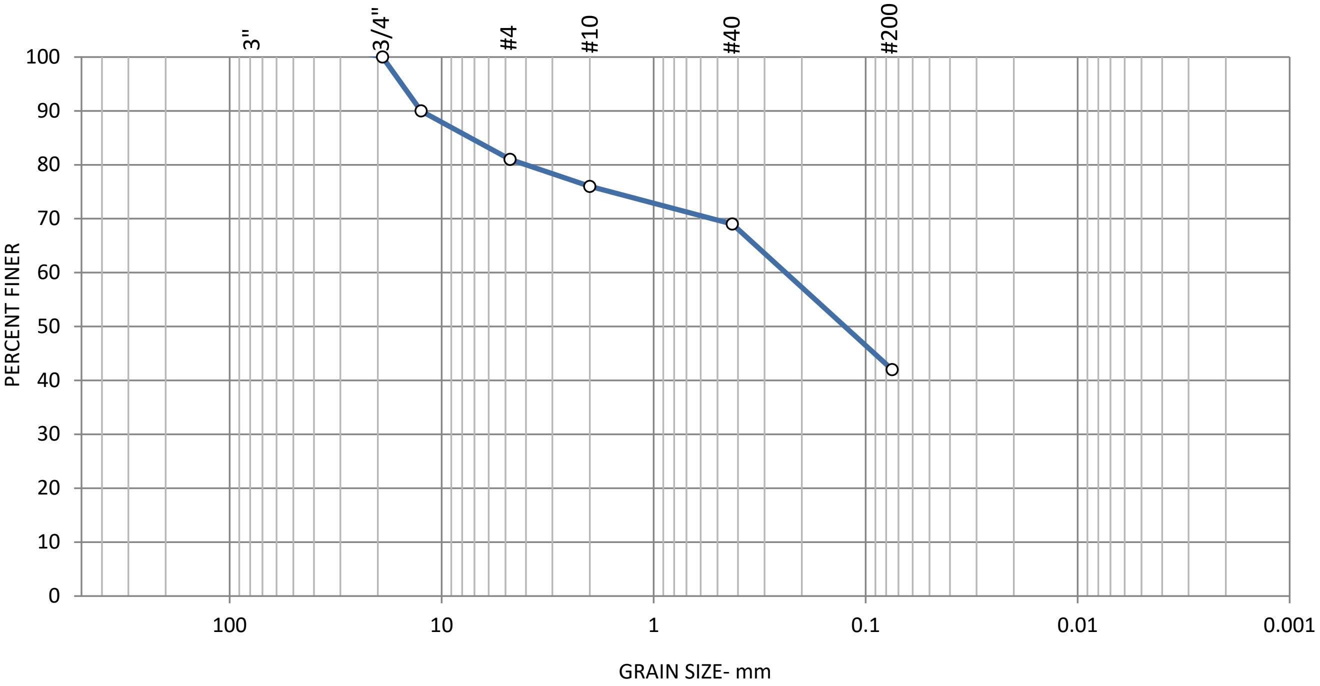
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25

Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-109, S-9
Source of Sample: Boring Sample

Location: In-place
Elev./Depth (ft): 16-18'



% Cobbles	% Gravel		% Sand			% Fines	
						42	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		19	5	7	27		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	90		
#4	81		
#10	76		
#40	69		
#200	42		

Soil Description

Brown SILT; and cmf Sand; little f Gravel

Moisture Content = 10%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 0.435 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by: ______________ Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

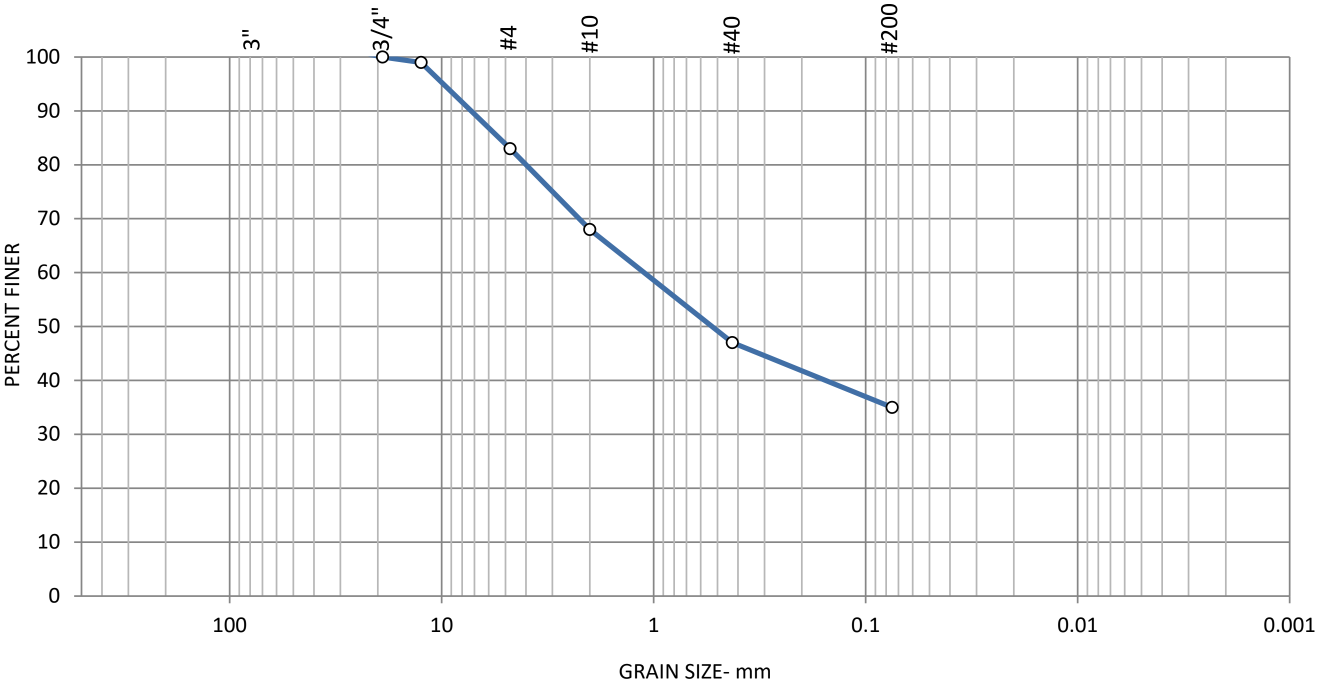
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/19/2025

Sample No: LB-R-111, S-4 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 6-8'



% Cobbles	% Gravel		% Sand			% Fines	
						35	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		17	15	21	12		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	99		
#4	83		
#10	68		
#40	47		
#200	35		

Soil Description

Dark Grey cmf SAND; some Clayey Silt; little f Gravel

Moisture Content = 15%

Atterburg Limits

PL= 18 LL= 20 PI= 2

Coefficients

D_{60}= 1.472 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by: Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

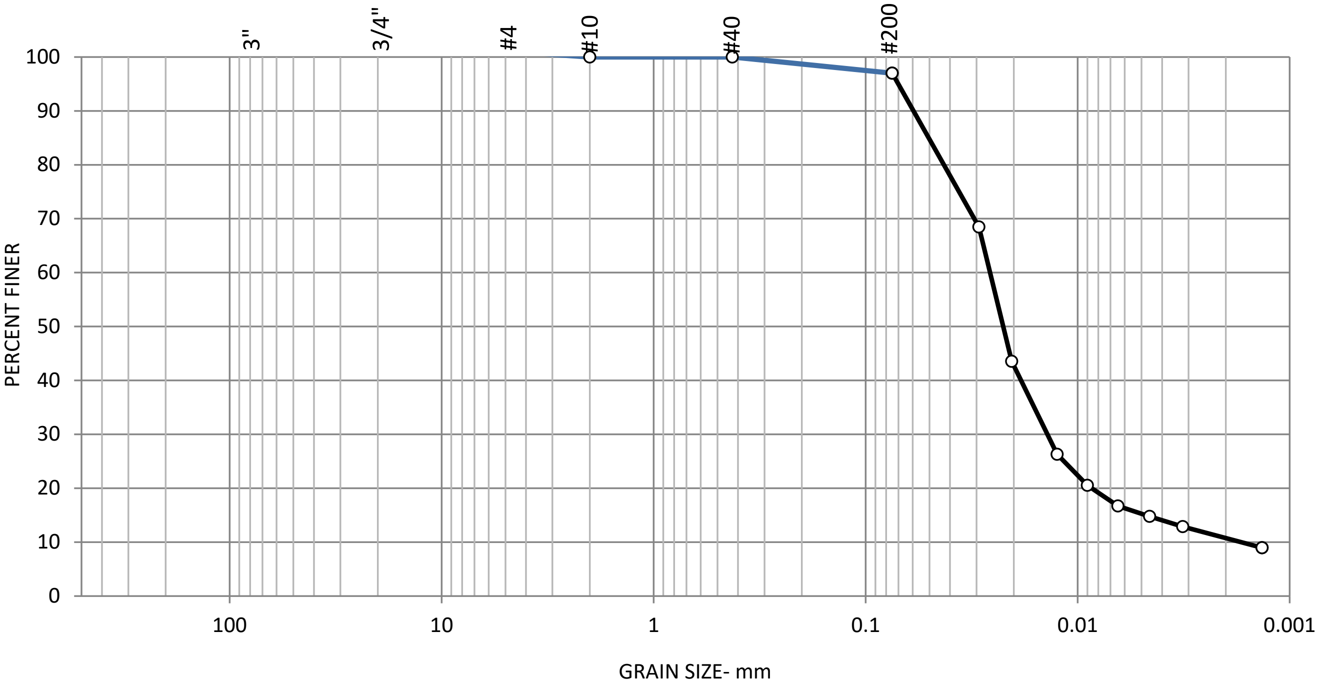
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/28/2025

Sample No: LB-R-112, S-2 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 2-4'



% Cobbles	% Gravel		% Sand			% Fines	
						97	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					3	82	15

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4			
#10	100		
#40	100		
#200	97		

Soil Description

Brown SILT; trace f Sand

Moisture Content = 26%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.026 D_{30}= 0.014 D_{10}= 0.002

C_u= 13 C_c= 3.769

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

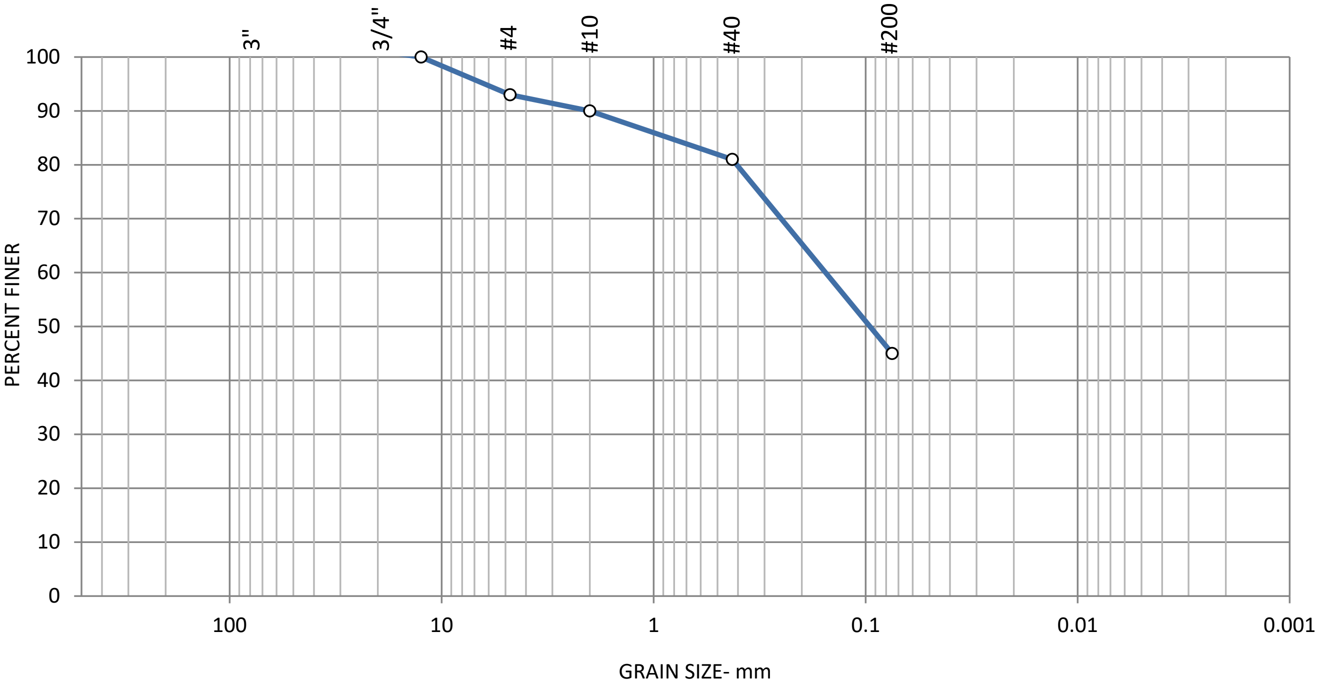
Date: 5/30/25

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-114, S-8
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 16-18'



% Cobbles	% Gravel		% Sand			% Fines	
						45	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
		7	3	9	36		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	93		
#10	90		
#40	81		
#200	45		

Soil Description

Brown cmf SAND; and Silt; trace f Gravel

Moisture Content = 12%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.293 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

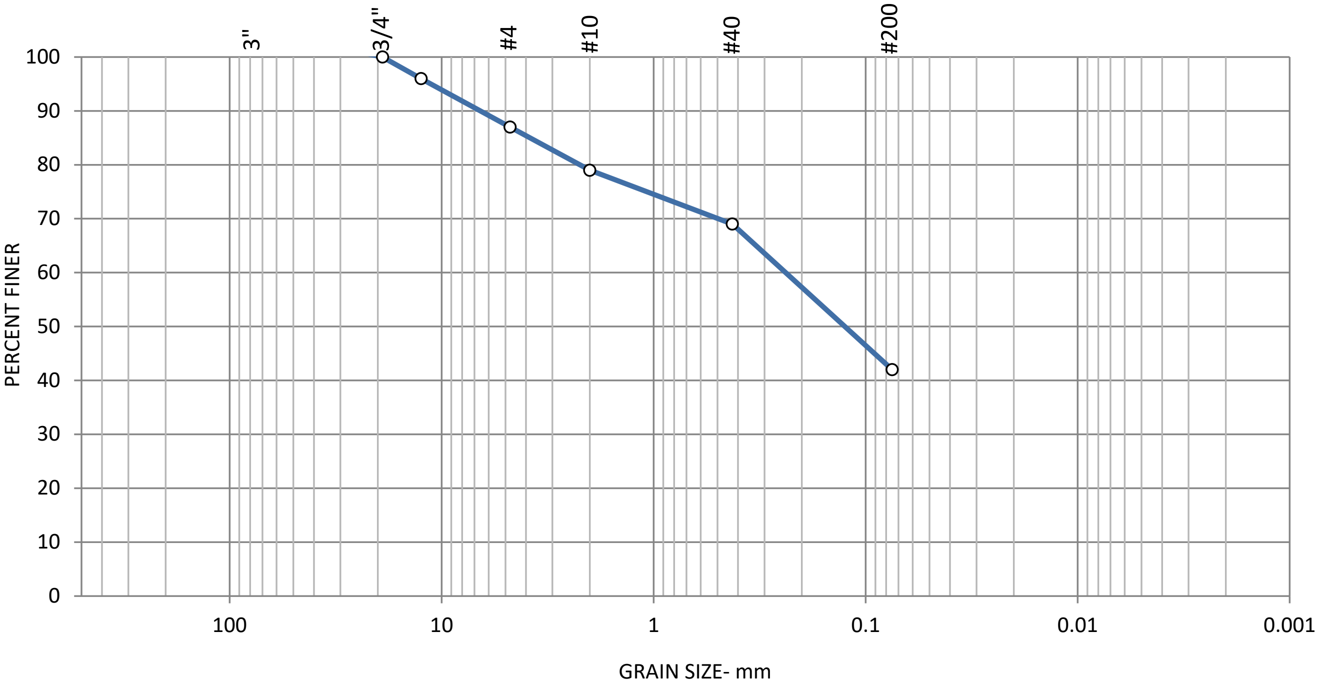
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25

Client: Langan, NYC
Test Date: 5/19/2025

Sample No: LB-R-119, S-4
Source of Sample: Boring Sample

Location: In-place
Elev./Depth (ft): 6-8'



<table>
<tr><th rowspan="2">% Cobbles</th><th colspan="2">% Gravel</th><th colspan="3">% Sand</th><th colspan="2">% Fines
42</th></tr>
<tr><th>Coarse</th><th>Fine</th><th>Coarse</th><th>Medium</th><th>Fine</th><th>Silt</th><th>Clay</th></tr>
<tr><td></td><td></td><td>13</td><td>8</td><td>10</td><td>27</td><td></td><td></td></tr>
</table>

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"	100		
1/2"	96		
#4	87		
#10	79		
#40	69		
#200	42		

Soil Description

Brown cmf SAND; and Silt; little f Gravel

Moisture Content = 11%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 0.424 D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

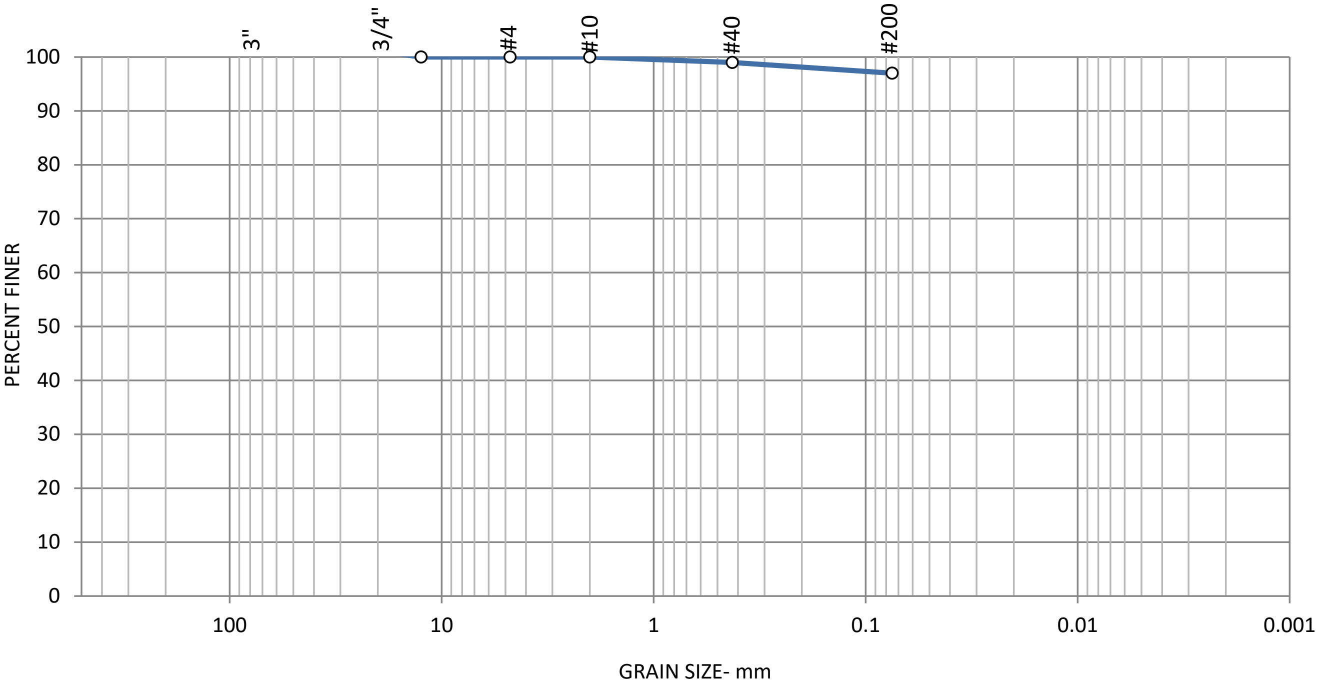
Date: 5/30/25

Particle Size Distribution Report

ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/21/2025

Sample No: LB-R-121, S-2
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 2-4'



% Cobbles	% Gravel		% Sand			% Fines	
						97	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				1	2		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"	100		
#4	100		
#10	100		
#40	99		
#200	97		

Soil Description

Brown SILT; trace mf Sand

Moisture Content = 22%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

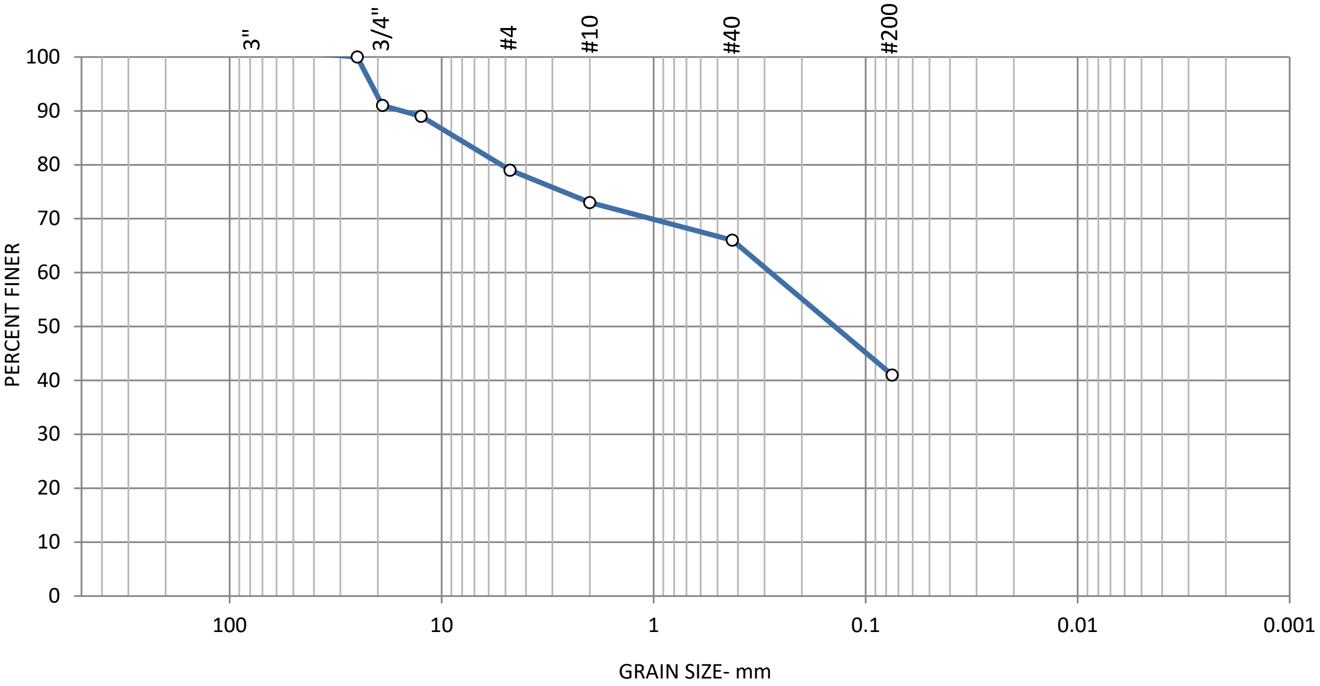
Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/21/2025

Sample No: LB-R-133, S-7
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 12-14'



% Cobbles	% Gravel		% Sand			% Fines	
						41	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	9	12	6	7	25		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"	100		
3/4"	91		
1/2"	89		
#4	79		
#10	73		
#40	66		
#200	41		

Soil Description

Brown SILT; and cmf Sand; some cf Gravel

Moisture Content = 11%

Atterburg Limits

PL= NP LL= NP PI= NP

Coefficients

D_{60}= 0.483 D_{30}= D_{10}=
C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by: ____________________ Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report

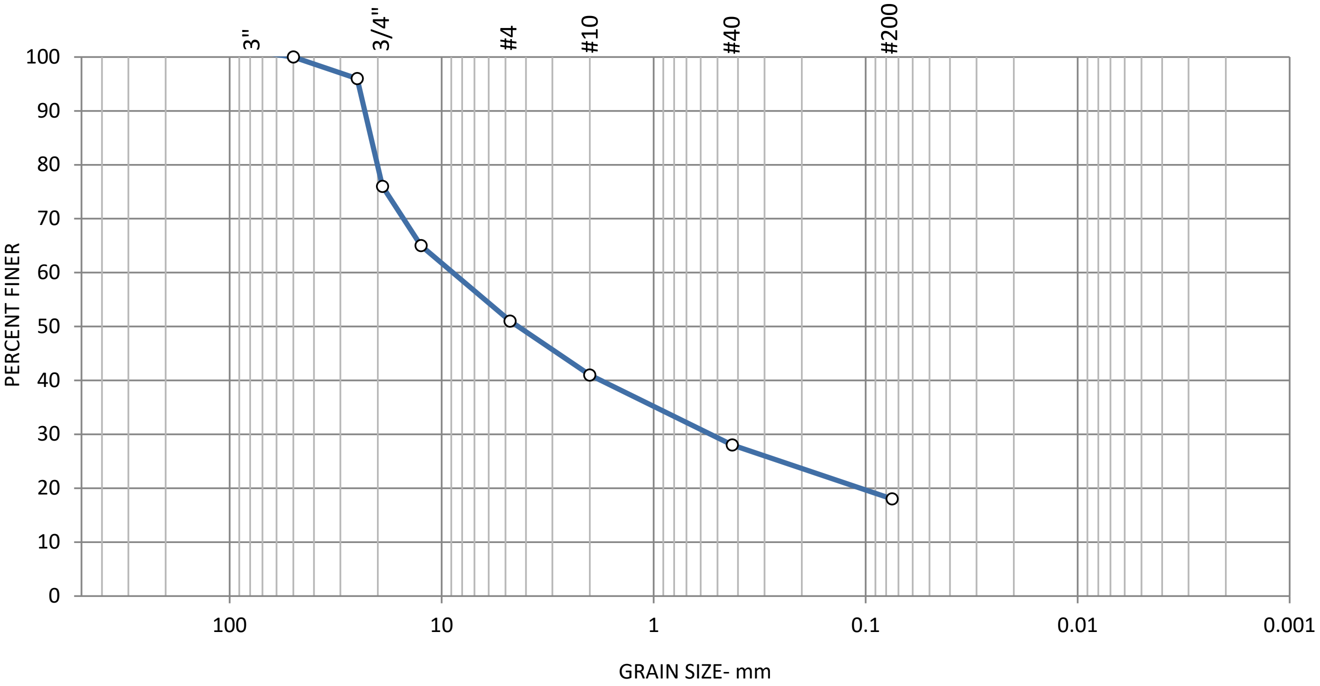
ASTM D 422

Project: 170883801 **Report No.:** CD11010CSL-03-05-25

Client: Langan, NYC **Test Date:** 5/21/2025

Sample No: LB-R-135, S-6 **Source of Sample:** Boring Sample

Location: In-place **Elev./Depth (ft):** 10-12'



% Cobbles	% Gravel		% Sand			% Fines 18	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
	24	25	10	13	10		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"	100		
1"	96		
3/4"	76		
1/2"	65		
#4	51		
#10	41		
#40	28		
#200	18		

Soil Description

Brown cmf SAND; some cf Gravel; little Silt

Moisture Content = 9%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= 5.716 D_{30}= 0.851 D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by: ______________

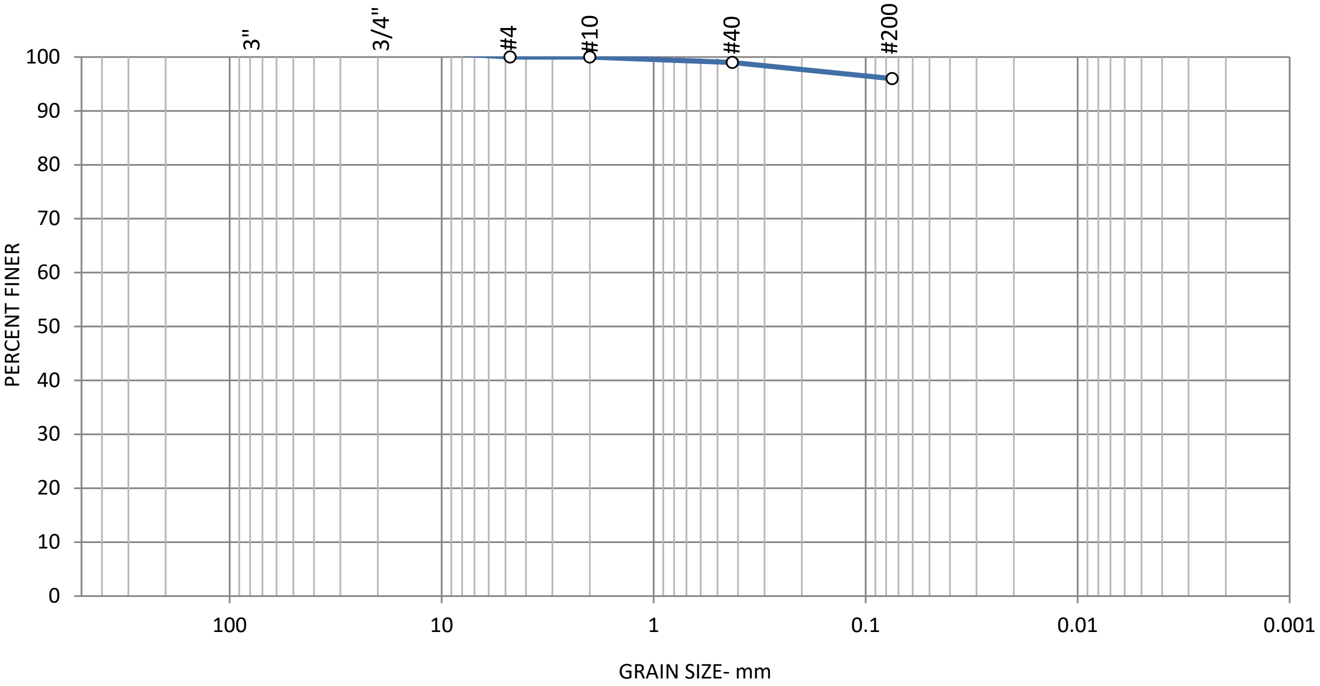
Date: 5/30/25

ATLANTIC TESTING LABORATORIES

Particle Size Distribution Report
ASTM D 422

Project: 170883801
Report No.: CD11010CSL-03-05-25
Client: Langan, NYC
Test Date: 5/21/2025

Sample No: LB-X-001, S-2
Source of Sample: Boring Sample
Location: In-place
Elev./Depth (ft): 2-4'



% Cobbles	% Gravel		% Sand			% Fines	
						96	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
				1	3		

SIEVE SIZE	PERCENT FINER	SPEC. PERCENT	OUT OF SPEC.
4"			
3"			
2"			
1"			
3/4"			
1/2"			
#4	100		
#10	100		
#40	99		
#200	96		

Soil Description

Brown SILT; trace mf Sand

Moisture Content = 25%

Atterburg Limits

PL= LL= PI=

Coefficients

D_{60}= D_{30}= D_{10}=

C_u= NA C_c= NA

Classification

USCS= AASHTO=

Remarks

ATLANTIC TESTING LABORITORIES, LIMITED

Reviewed by:

Date: 5/30/25

ATLANTIC TESTING LABORATORIES

WBE certified company

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOIL

ASTM D 4318

PROJECT INFORMATION

Client:	Langan, NYC	**ATL Report No.:**	CD11010CSL-03-05-25
Project:	170883801	**Report Date:**	May 30, 2025
		Date Received:	May 12, 2025

TEST DATA

Boring No.	Sample No.	As Received Moisture Content (%)	LL	PL	PI
LB-015	S-5	23	NP	NP	NP
LB-025	S-12	23	NP	NP	NP
LB-031	S-4	24	26	18	8
LB-036	S-10	22	NP	NP	NP
LB-056	S-4	21	NP	NP	NP
LB-056	S-6	20	NP	NP	NP
LB-101	S-9	12	NP	NP	NP
LB-R-018	S-10	19	NP	NP	NP
LB-R-044	S-5	26	NP	NP	NP
LB-R-054	S-7	24	NP	NP	NP

SAMPLE INFORMATION

Boring No.	Sample No.	Maximum Grain Size (mm)	Estimated Amount of Sample Retained on No. 40 Sieve (%)	Preparation	Method of Removing Oversized Material
LB-015	S-5	0.425	0	Oven Dry	Pulverizing and Screening
LB-025	S-12	0.425	0	Oven Dry	Pulverizing and Screening
LB-031	S-4	2	0	Oven Dry	Pulverizing and Screening
LB-036	S-10	0.425	0	Oven Dry	Pulverizing and Screening
LB-056	S-4	0.425	0	Oven Dry	Pulverizing and Screening
LB-056	S-6	2	0	Oven Dry	Pulverizing and Screening
LB-101	S-9	9	28	Oven Dry	Pulverizing and Screening
LB-R-018	S-10	2	0	Oven Dry	Pulverizing and Screening
LB-R-044	S-5	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-054	S-7	0.425	0	Oven Dry	Pulverizing and Screening

EQUIPMENT INFORMATION

Liquid Limit Procedure:	Multipoint - Method A	X	Single Point - Method B	
Liquid Limit Apparatus:	Manual	X	Motor Driven	
Liquid Limit Grooving Tool Material:	Plastic	X	Metal	
Liquid Limit Grooving Tool Shape:	Flat	X	Curved (AASHTO Only)	
Plastic Limit:	Hand Rolled	X	Mechanical Rolling Device	

Reviewed By: ______________________ Date: 5/30/25

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOIL
ASTM D 4318

PROJECT INFORMATION

Client: Langan, NYC
Project: 170883801

ATL Report No.: CD11010CSL-03-05-25
Report Date: May 30, 2025
Date Received: May 12, 2025

TEST DATA

Boring No.	Sample No.	As Received Moisture Content (%)	LL	PL	PI
LB-R-051	S-3a	26	25	19	6
LB-R-055	S-9	12	13	12	1
LB-R-058	S-8	21	NP	NP	NP
LB-R-059	S-9	8	14	12	2
LB-R-060	S-4	20	NP	NP	NP
LB-R-060	S-9	13	14	11	3
LB-R-062	S-3	25	NP	NP	NP
LB-R-071	S-7	23	NP	NP	NP
LB-R-074	S-4	11	NP	NP	NP
LB-R-081	S-6	19	NP	NP	NP

SAMPLE INFORMATION

Boring No.	Sample No.	Maximum Grain Size (mm)	Estimated Amount of Sample Retained on No. 40 Sieve (%)	Preparation	Method of Removing Oversized Material
LB-R-051	S-3a	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-055	S-9	19	15	Oven Dry	Pulverizing and Screening
LB-R-058	S-8	2	0	Oven Dry	Pulverizing and Screening
LB-R-059	S-9	25	64	Oven Dry	Pulverizing and Screening
LB-R-060	S-4	12.5	1	Oven Dry	Pulverizing and Screening
LB-R-060	S-9	9.5	28	Oven Dry	Pulverizing and Screening
LB-R-062	S-3	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-071	S-7	2	0	Oven Dry	Pulverizing and Screening
LB-R-074	S-4	9.5	33	Oven Dry	Pulverizing and Screening
LB-R-081	S-6	0.425	0	Oven Dry	Pulverizing and Screening

EQUIPMENT INFORMATION

Liquid Limit Procedure:	Multipoint - Method A	X	Single Point - Method B	
Liquid Limit Apparatus:	Manual	X	Motor Driven	
Liquid Limit Grooving Tool Material:	Plastic	X	Metal	
Liquid Limit Grooving Tool Shape:	Flat	X	Curved (AASHTO Only)	
Plastic Limit:	Hand Rolled	X	Mechanical Rolling Device	

Reviewed By: ______________________ Date: 5/30/25

ATLANTIC TESTING LABORATORIES

WBE certified company

LIQUID LIMIT, PLASTIC LIMIT, AND PLASTICITY INDEX OF SOIL
ASTM D 4318

PROJECT INFORMATION

Client: Langan, NYC
Project: 170883801

ATL Report No.: CD11010CSL-03-05-25
Report Date: May 30, 2025
Date Received: May 12, 2025

TEST DATA

Boring No.	Sample No.	As Received Moisture Content (%)	LL	PL	PI
LB-R-084	S-6	17	NP	NP	NP
LB-R-081	S-3	21	NP	NP	NP
LB-R-102	S-3	27	27	20	7
LB-R-109	S-4	24	NP	NP	NP
LB-R-111	S-4	15	20	18	2
LB-R-112	S-2	26	NP	NP	NP
LB-R-114	S-8	12	NP	NP	NP
LB-R-121	S-13	19	21	15	6
LB-R-121	S-2	22	NP	NP	NP
LB-R-133	S-7	11	NP	NP	NP

SAMPLE INFORMATION

Boring No.	Sample No.	Maximum Grain Size (mm)	Estimated Amount of Sample Retained on No. 40 Sieve (%)	Preparation	Method of Removing Oversized Material
LB-R-084	S-6	2	2	Oven Dry	Pulverizing and Screening
LB-R-081	S-3	0.425	0	Oven Dry	Pulverizing and Screening
LB-R-102	S-3	4.75	0	Oven Dry	Pulverizing and Screening
LB-R-109	S-4	9.5	0	Oven Dry	Pulverizing and Screening
LB-R-111	S-4	25	56	Oven Dry	Pulverizing and Screening
LB-R-112	S-2	2	0	Oven Dry	Pulverizing and Screening
LB-R-114	S-8	19	33	Oven Dry	Pulverizing and Screening
LB-R-121	S-13	12.5	5	Oven Dry	Pulverizing and Screening
LB-R-121	S-2	4.75	0	Oven Dry	Pulverizing and Screening
LB-R-133	S-7	12.5	33	Oven Dry	Pulverizing and Screening

EQUIPMENT INFORMATION

Liquid Limit Procedure:	Multipoint - Method A	X	Single Point - Method B	
Liquid Limit Apparatus:	Manual	X	Motor Driven	
Liquid Limit Grooving Tool Material:	Plastic	X	Metal	
Liquid Limit Grooving Tool Shape:	Flat	X	Curved (AASHTO Only)	
Plastic Limit:	Hand Rolled	X	Mechanical Rolling Device	

Reviewed By: ______________________

Date: 5/30/25

GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096

Boring ID:	---	Sample Type:	---	Tested By:	ajl
Sample ID:	---	Test Date:	05/30/25	Checked By:	ank
Depth :	---	Test Id:	817400		

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content,%
LB-024	- --	24-26'	Moist, dark gray sand with silt and gravel	10.8
LB-025	- --	2-4'	Moist, yellowish brown silt	21.4
LB-025	- --	22-24'	Moist, light grayish brown silt	25.5
LB-054	- --	16-18'	Moist, light grayish brown sandy clay	12.8
LB-056	- --	10-12'	Moist, light grayish brown silt	21.7
LB-079	- --	25-27'	Moist, light grayish brown silty sand	18.9
LB-087	- --	19-21'	Moist, light grayish brown silty sand with gravel	6.9
LB-097	- --	6-8'	Moist, gray sandy silt with gravel	12.5
LB-097	- --	40-42'	Moist, dark gray sandy silt	9.8
LB-099	- --	10-12'	Moist, light grayish brown silty sand	12.2

Notes: Temperature of Drying : 110º Celsius

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GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: ---
Sample Type: ---
Tested By: GA
Sample ID: ---
Test Date: 05/29/25
Checked By: ank
Depth : ---
Test Id: 817410

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content,%
LB-100	- --	6-8'	Moist, light grayish brown sandy silt	11.6
LB-R-005	- --	19-21'	Moist, light grayish brown sandy silt	13.6
LB-R-008	- --	10-12'	Moist, light grayish brown silt	22.9
LB-R-019	- --	12-14'	Moist, light grayish brown silt	21.1
LB-R-021		16-18'	Moist, light grayish brown silt	26.5
LB-R-021	- --	20-22'	Moist, light grayish brown clay	22.7
LB-R-029	- --	18-20'	Moist, grayish brown clay	25.8
LB-R-035	- --	4-6'	Moist, brown silt	23.6
LB-R-035	- --	8-10'	Wet, grayish brown clay	28.3
LB-R-042	- --	12-14'	Wet, grayish brown clay	27.6

Notes: Temperature of Drying : 110º Celsius

GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	---	Sample Type:	---	Tested By:	ajl
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	---	Test Id:	817421		

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content,%
LB-R-043	- --	10-12'	Moist, yellowish brown silty sand	10.7
LB-R-053	- --	10-12'	Moist, grayish brown silt	22.9
LB-R-055	- --	12-14'	Moist, light grayish brown silt	30.6
LB-R-055	- --	16-18'	Moist, light grayish brown silty sand	10.6
LB-R-058	- --	8-10'	Moist, brown silt	21.5
LB-R-060	- --	8-10'	Moist, light brown silt	23.1
LB-R-065	- --	17-19'	Moist, light grayish brown silt	24.5
LB-R-070	- --	25-27'	Moist, brown silty sand	19.4
LB-R-071	- --	8-10'	Moist, dark reddish gray silt	20.3
LB-R-079	- --	8-10'	Moist, brown silty sand	12.4

Notes: Temperature of Drying : 110º Celsius

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GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	---	Sample Type:	---	Tested By:	ajl
Sample ID:	---	Test Date:	06/02/25	Checked By:	ank
Depth :	---	Test Id:	817432		

Moisture Content of Soil and Rock - ASTM D2216

Boring ID	Sample ID	Depth	Description	Moisture Content,%
LB-R-082	- --	25-27'	Moist, dark gray silty sand with gravel	8.8
LB-R-088	- --	22-24'	Wet, grayish brown silt with sand	21.9
LB-R-091	- --	16-18'	Moist, light grayish brown silty sand with gravel	12.0
LB-R-102	- --	16-18'	Moist, brown sandy clay	12.1
LB-R-106	- --	30-32'	Moist, dark brownish gray silt	19.5
LB-R-109	- --	6-8'	Moist, brown silt	23.4
LB-R-113	- --	2-4'	Moist, brown silt	25.5
LB-R-113	- --	10-12'	Moist, grayish brown silty sand	12.7
LB-R-114	- --	19-21'	Moist, light grayish brown silty sand with gravel	7.6
LB-R-116	- --	2-4'	Moist, dark yellowish brown silt	22.9

Notes: Temperature of Drying : 110º Celsius

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	---	Sample Type:	---	Tested By:	ajl
Sample ID:	---	Test Date:	06/03/25	Checked By:	ank
Depth :	---	Test Id:	817443		

Moisture Content of Soil and Rock - ASTM D2216

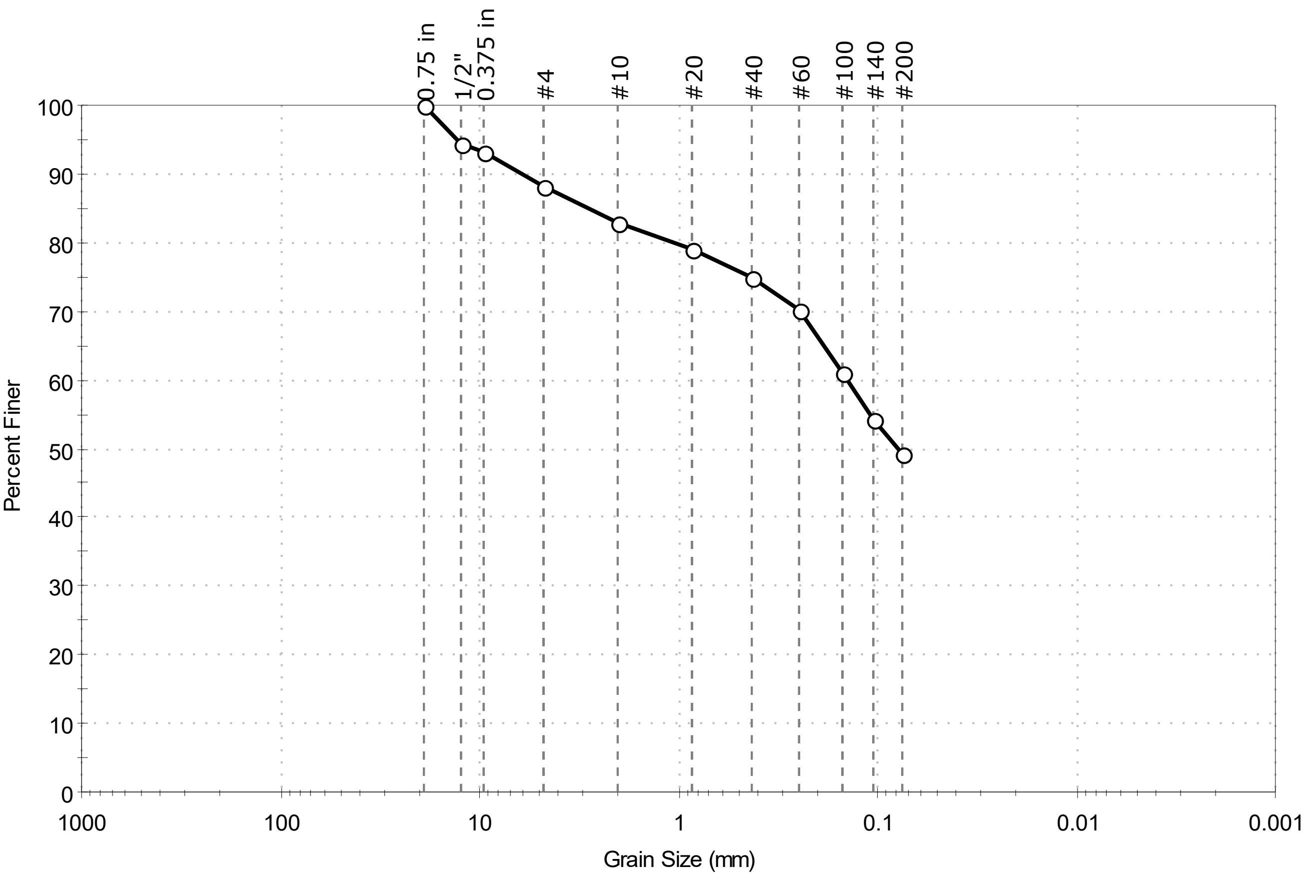
Boring ID	Sample ID	Depth	Description	Moisture Content,%
LB-R-117	- --	2-4'	Moist, dark yellowish brown silty sand	14.1
LB-R-118	- --	24-26'	Moist, black silty sand with gravel	10.5
LB-R-121		4-6'	Moist, brown silt	20.1
LB-R-123	- --	2-4'	Moist, brown sandy silt	15.3
LB-R-127	- --	4-6'	Moist, dark grayish brown silty sand with gravel	9.7
LB-R-131	- --	4-6'	Moist, dark yellowish brown silt	24.9
LB-X-003	- --	10-12'	Moist, brown silty sand	22.0
LB-X-003	- --	14-16'	Moist, yellowish brown silty sand with gravel	10.9
LB-X-006	- --	13-15'	Moist, dark gray silty sand with gravel	9.7
LB-X-006	- --	7-9'	Moist, dark brown silty sand	10.7

Notes: Temperature of Drying : 110º Celsius

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-002	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/17/25	Checked By:	ank
Depth :	14-16'	Test Id:	817301		

Test Comment: ---
Visual Description: Moist, light brown silty, clayey sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	11.7	39.1	49.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
1/2"	12.50	94		
0.375 in	9.50	93		
#4	4.75	88		
#10	2.00	83		
#20	0.85	79		
#40	0.42	75		
#60	0.25	70		
#100	0.15	61		
#140	0.11	54		
#200	0.075	49		

Coefficients

D_{85} =2.8015 mm	D_{30} =N/A
D_{60} =0.1411 mm	D_{15} =N/A
D_{50} =0.0791 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Silty, Clayey SAND (SC-SM)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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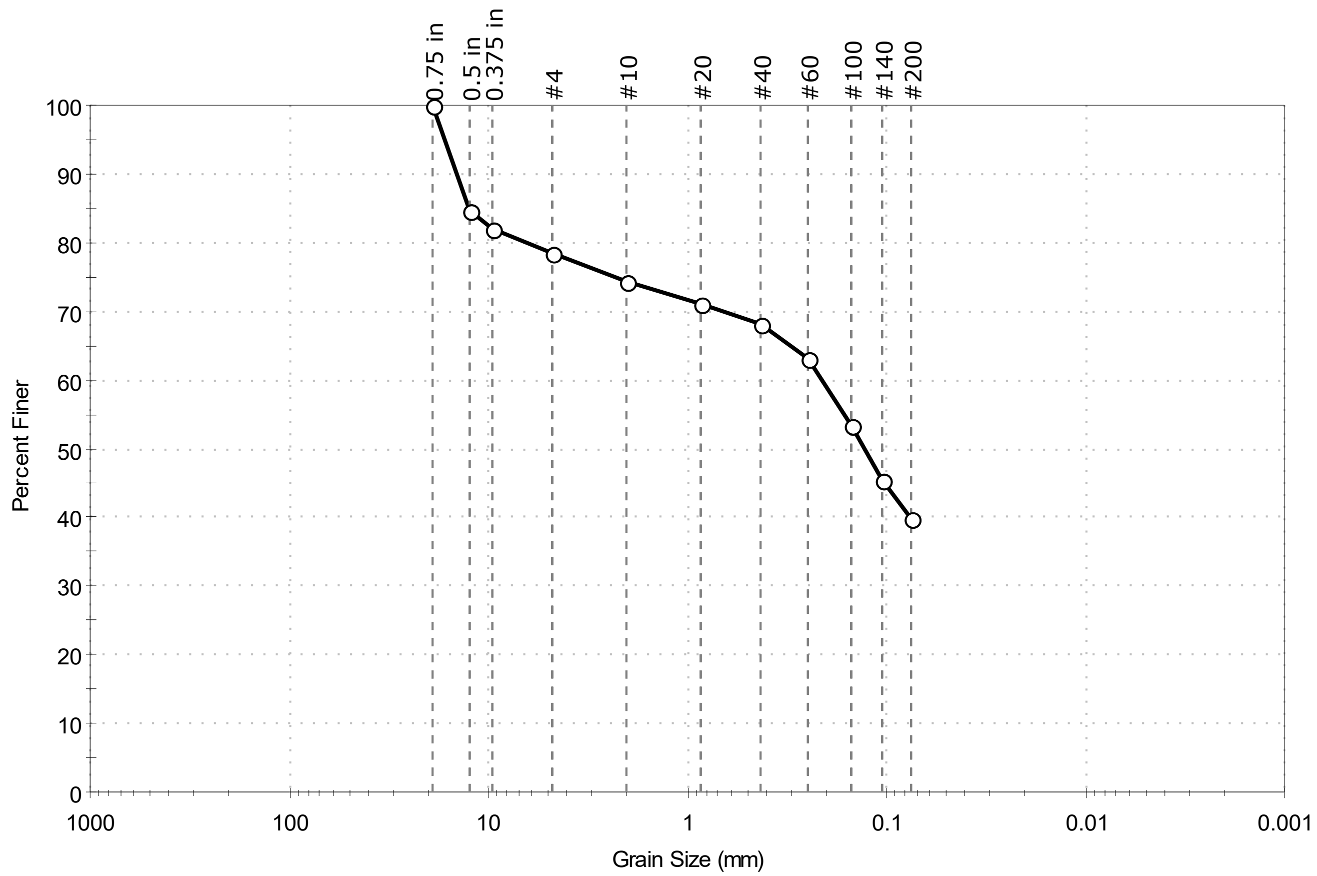
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-002	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	19-21'	Test Id:	817282		

Test Comment: ---

Visual Description: Moist, grayish brown silty sand with gravel

Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	21.5	38.6	39.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	85		
0.375 in	9.50	82		
#4	4.75	78		
#10	2.00	74		
#20	0.85	71		
#40	0.42	68		
#60	0.25	63		
#100	0.15	53		
#140	0.11	45		
#200	0.075	40		

Coefficients

D_{85} =12.6593 mm	D_{30} =N/A
D_{60} =0.2127 mm	D_{15} =N/A
D_{50} =0.1293 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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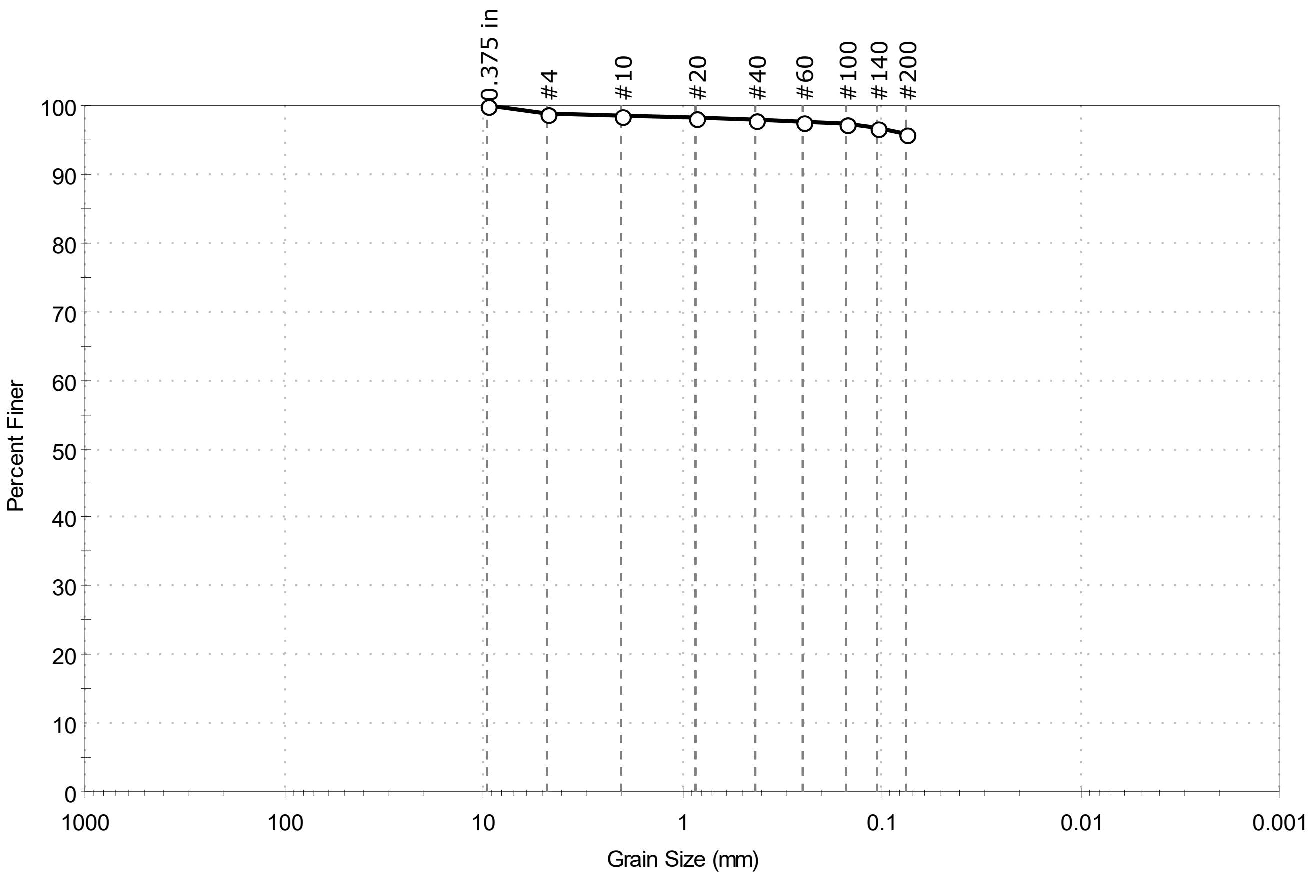
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-004	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	2-4'	Test Id:	817283		

Test Comment: ---
Visual Description: Moist, yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	1.1	3.0	95.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	98		
#20	0.85	98		
#40	0.42	98		
#60	0.25	98		
#100	0.15	97		
#140	0.11	97		
#200	0.075	96		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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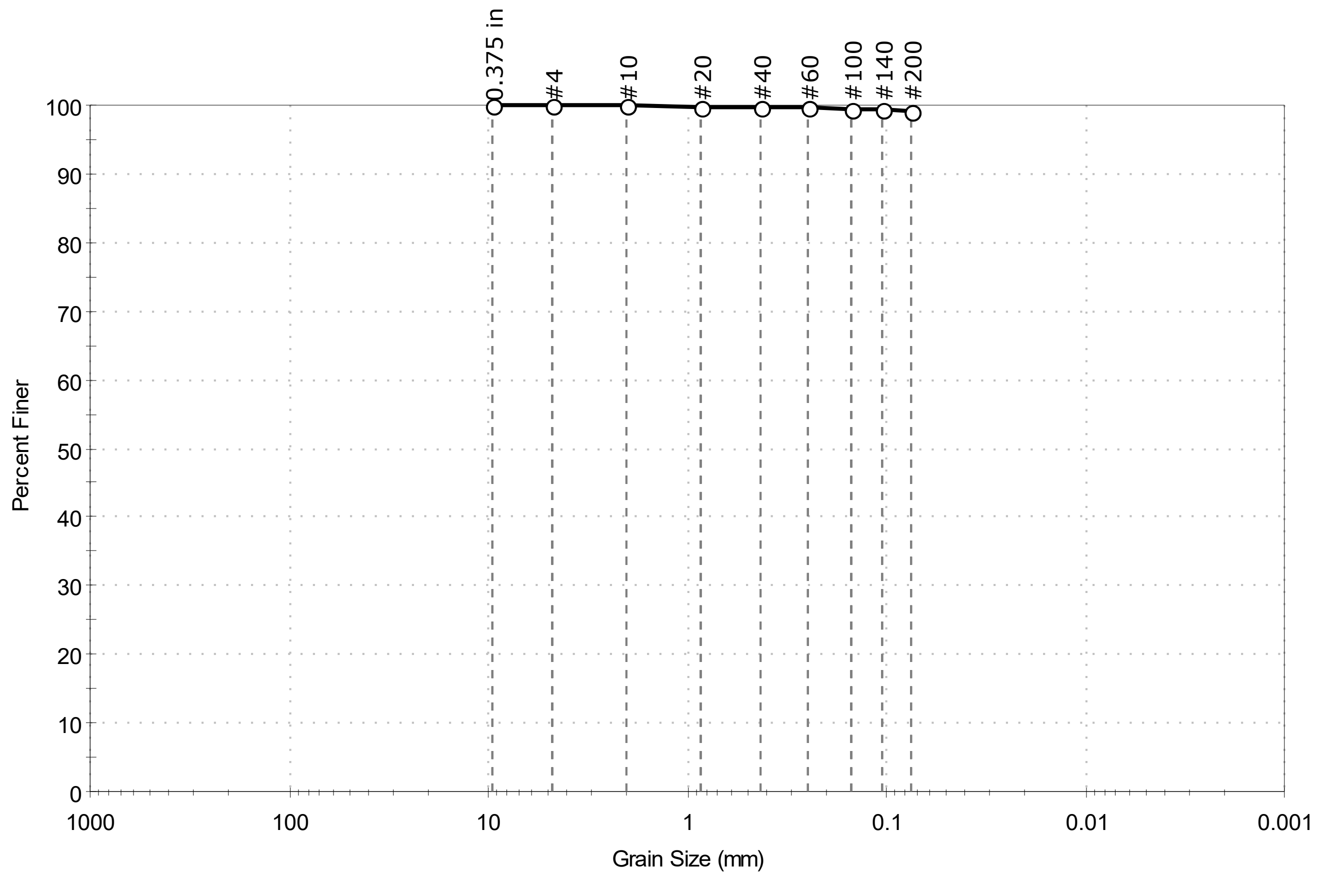
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-010	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/07/25	Checked By:	ank
Depth :	4-6'	Test Id:	817284		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.1	0.8	99.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Lean CLAY (CL)
AASHTO	Silty Soils (A-4 (9))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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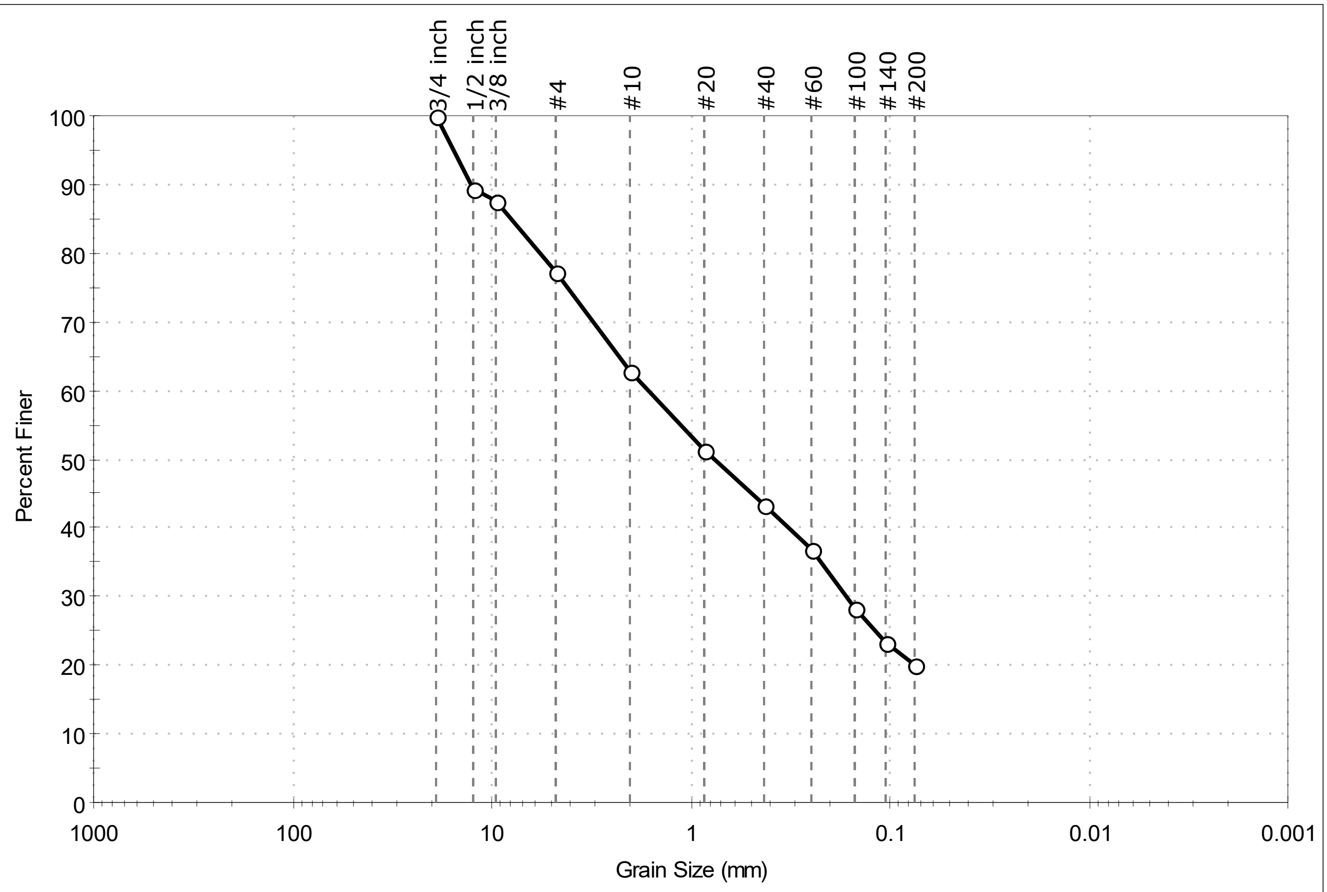
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-024
Sample Type: Jar
Tested By: ajl
Sample ID: ---
Test Date: 06/09/25
Checked By: ank
Depth : 24-26'
Test Id: 817285

Test Comment: ---
Visual Description: Moist, dark gray silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	22.8	57.2	20.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	89		
3/8 inch	9.50	88		
#4	4.75	77		
#10	2.00	63		
#20	0.85	51		
#40	0.42	43		
#60	0.25	37		
#100	0.15	28		
#140	0.11	23		
#200	0.075	20		

Coefficients

D_{85} =8.0055 mm
D_{30} =0.1656 mm
D_{60} =1.6258 mm
D_{15} =N/A
D_{50} =0.7503 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

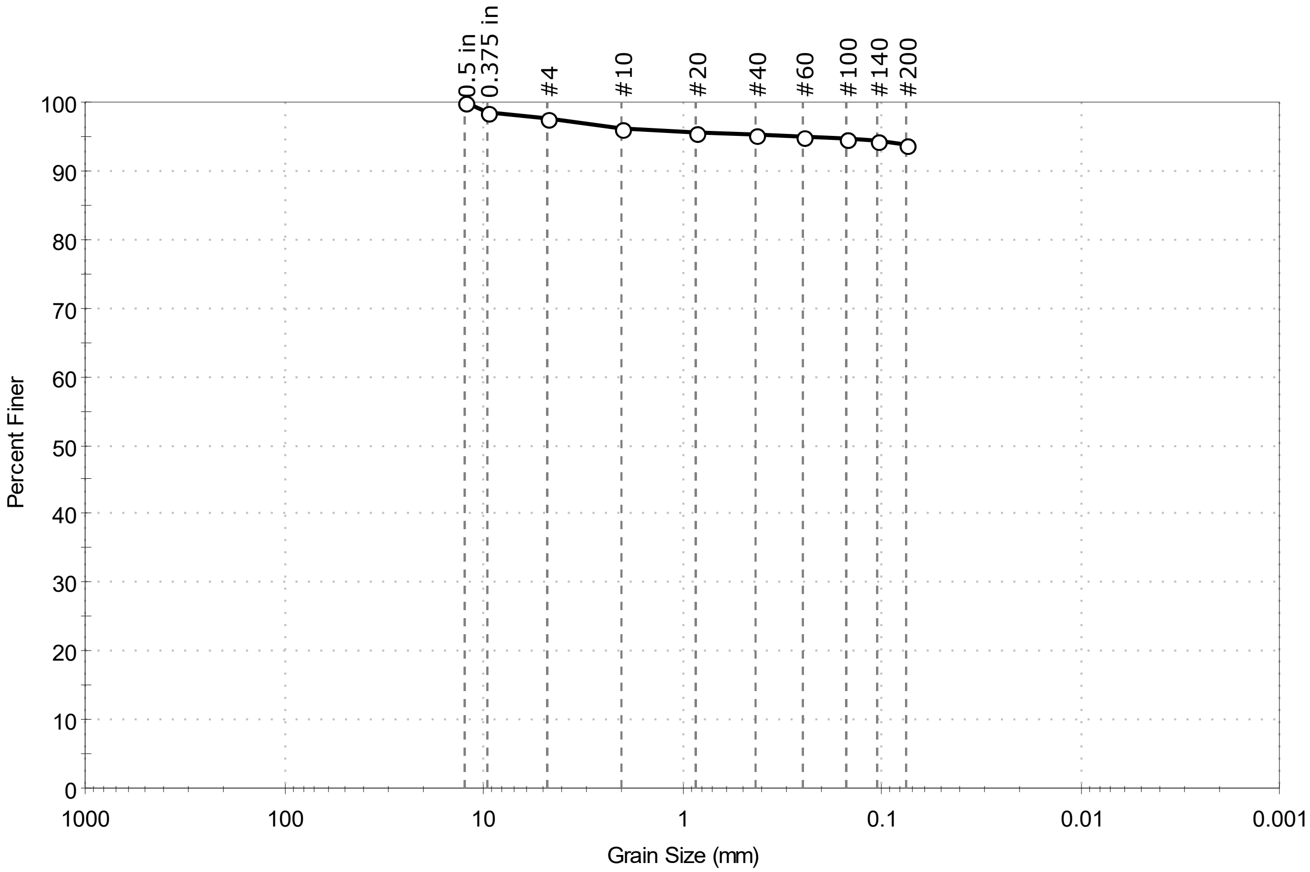
Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-025	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	2-4'	Test Id:	817286		

Test Comment: ---
Visual Description: Moist, yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	2.5	3.7	93.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	98		
#4	4.75	97		
#10	2.00	96		
#20	0.85	96		
#40	0.42	95		
#60	0.25	95		
#100	0.15	95		
#140	0.11	95		
#200	0.075	94		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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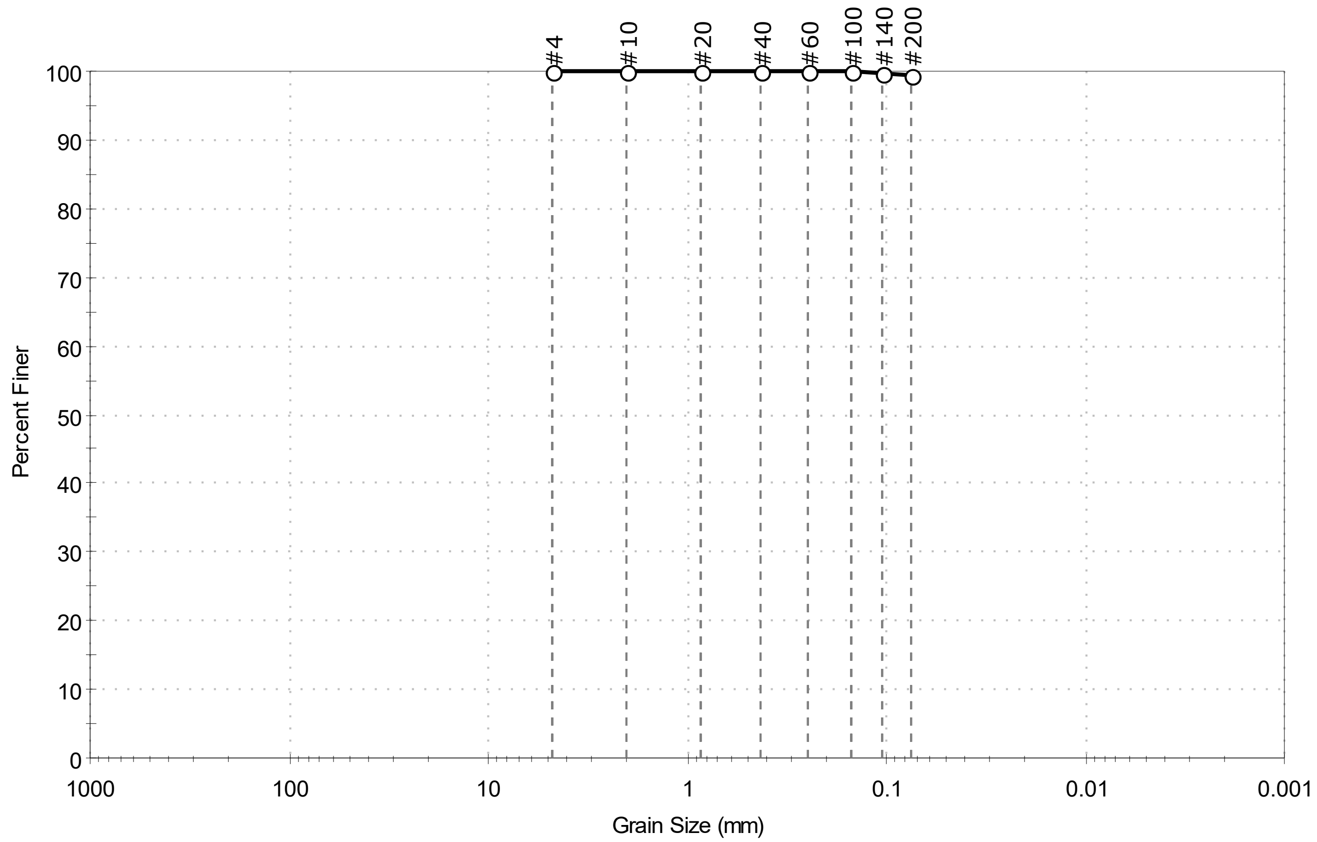
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-025	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	22-24'	Test Id:	817287		

Test Comment: ---
Visual Description: Moist, light grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	0.6	99.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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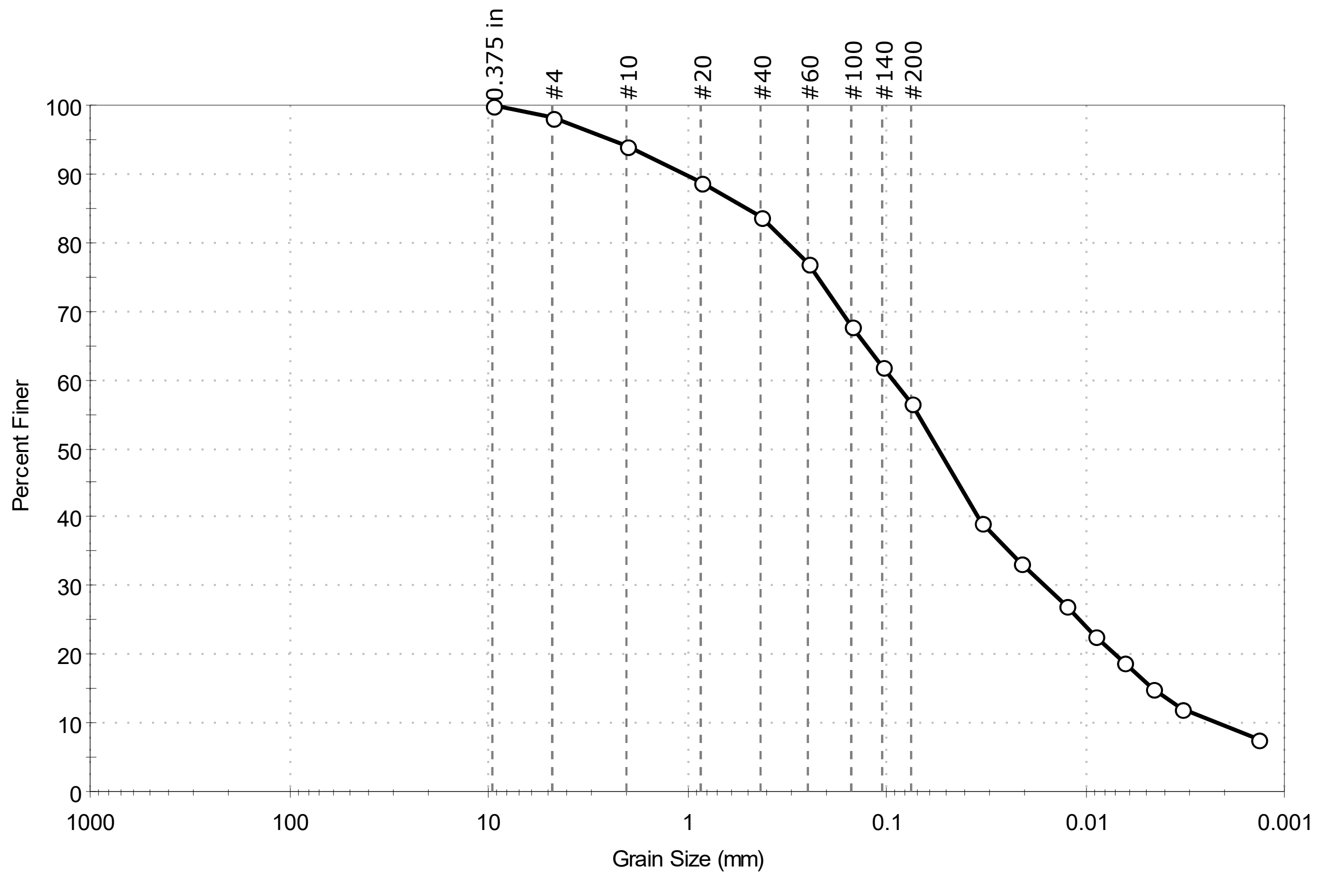
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-037	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	16-18'	Test Id:	817537		

Test Comment: ---
Visual Description: Moist, dark gray sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	1.9	41.6	56.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	98		
#10	2.00	94		
#20	0.85	89		
#40	0.42	84		
#60	0.25	77		
#100	0.15	68		
#140	0.11	62		
#200	0.075	57		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0330	39		
---	0.0212	33		
---	0.0125	27		
---	0.0090	23		
---	0.0065	19		
---	0.0046	15		
---	0.0033	12		
---	0.0014	8		

Coefficients

D_{85} =0.4957 mm
D_{30} =0.0160 mm
D_{60} =0.0936 mm
D_{15} =0.0046 mm
D_{50} =0.0550 mm
D_{10} =0.0022 mm
C_u =42.545
C_c =1.243

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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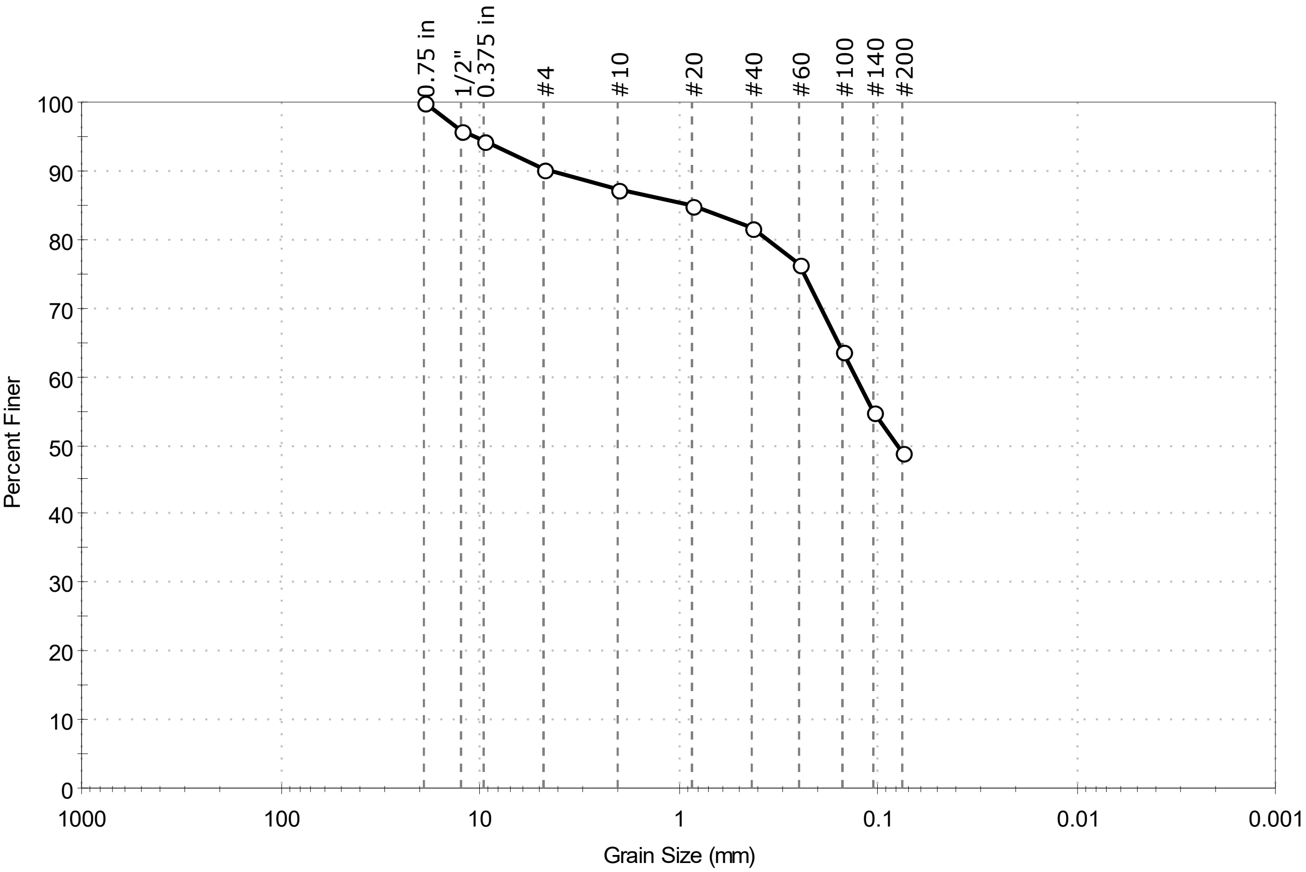
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-054	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	16-18'	Test Id:	817288		

Test Comment: ---
Visual Description: Moist, light grayish brown sandy clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	9.8	41.3	48.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
1/2"	12.50	96		
0.375 in	9.50	95		
#4	4.75	90		
#10	2.00	87		
#20	0.85	85		
#40	0.42	82		
#60	0.25	76		
#100	0.15	64		
#140	0.11	55		
#200	0.075	49		

Coefficients

D_{85} =0.8382 mm	D_{30} =N/A
D_{60} =0.1295 mm	D_{15} =N/A
D_{50} =0.0801 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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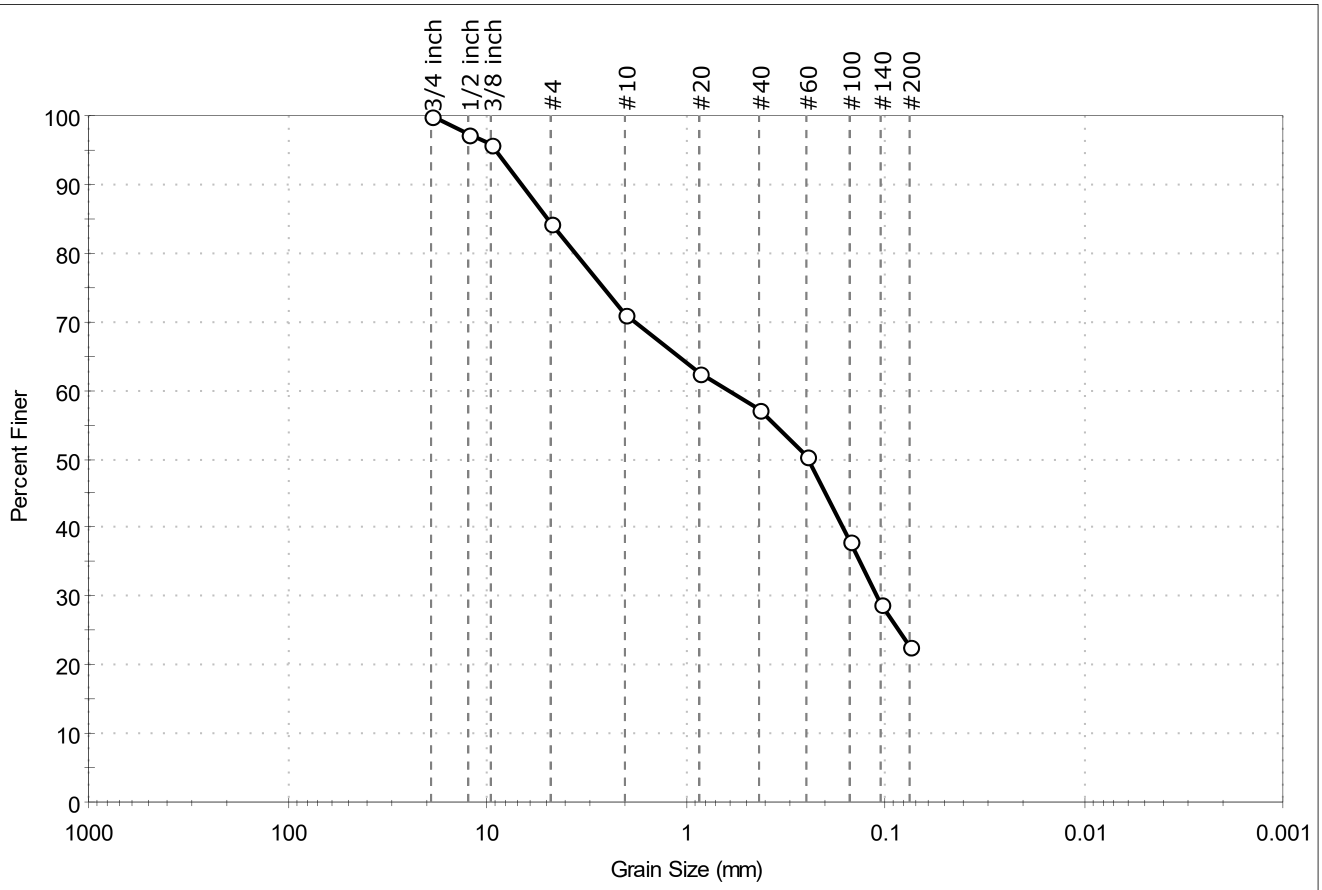
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-054	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	18-20'	Test Id:	817289		

Test Comment: ---
Visual Description: Moist, light grayish brown silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	15.7	61.6	22.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	97		
3/8 inch	9.50	96		
#4	4.75	84		
#10	2.00	71		
#20	0.85	63		
#40	0.42	57		
#60	0.25	50		
#100	0.15	38		
#140	0.11	29		
#200	0.075	23		

Coefficients

D_{85} =4.9644 mm	D_{30} =0.1100 mm
D_{60} =0.6047 mm	D_{15} =N/A
D_{50} =0.2469 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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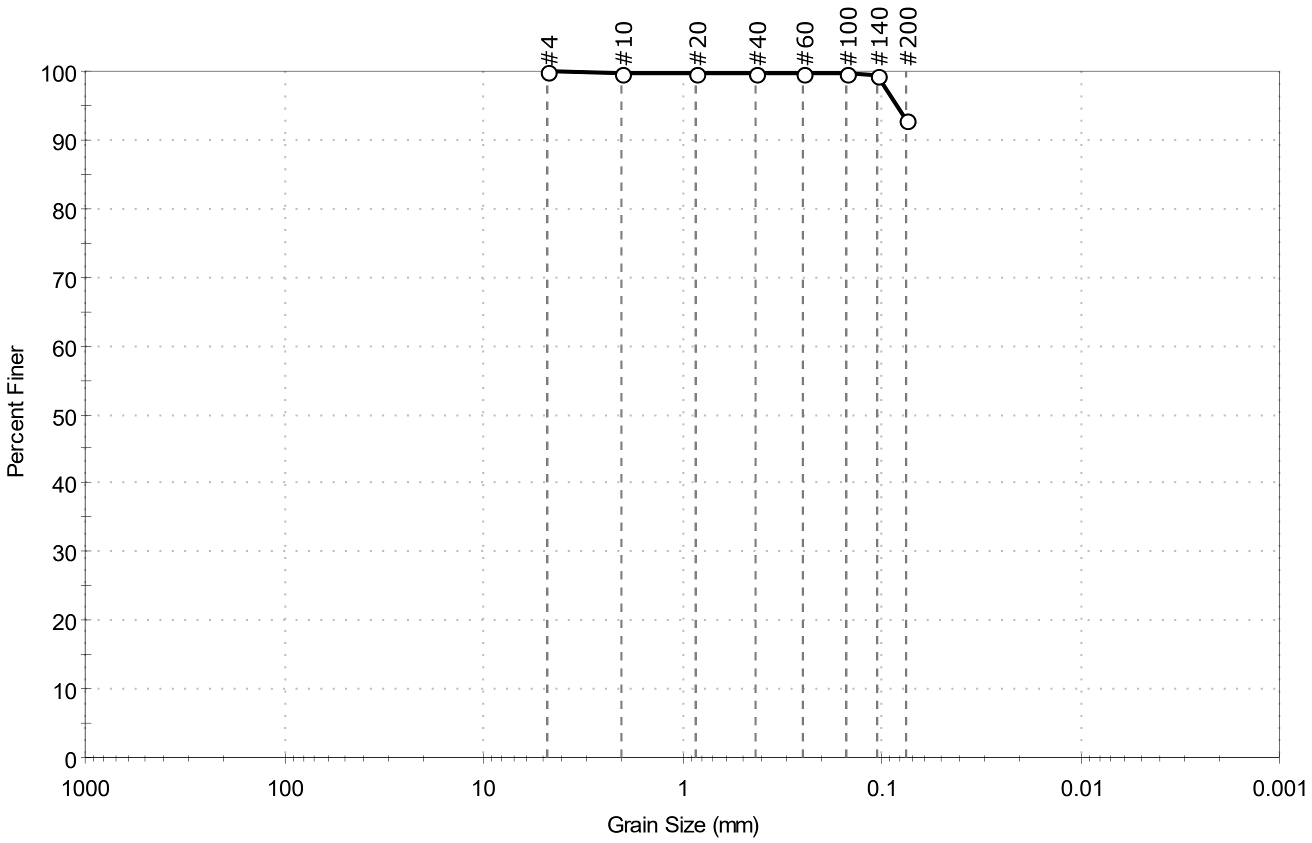
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID:	LB-056	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	10-12'	Test Id:	817290		

Test Comment: ---
Visual Description: Moist, light grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	7.2	92.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	93		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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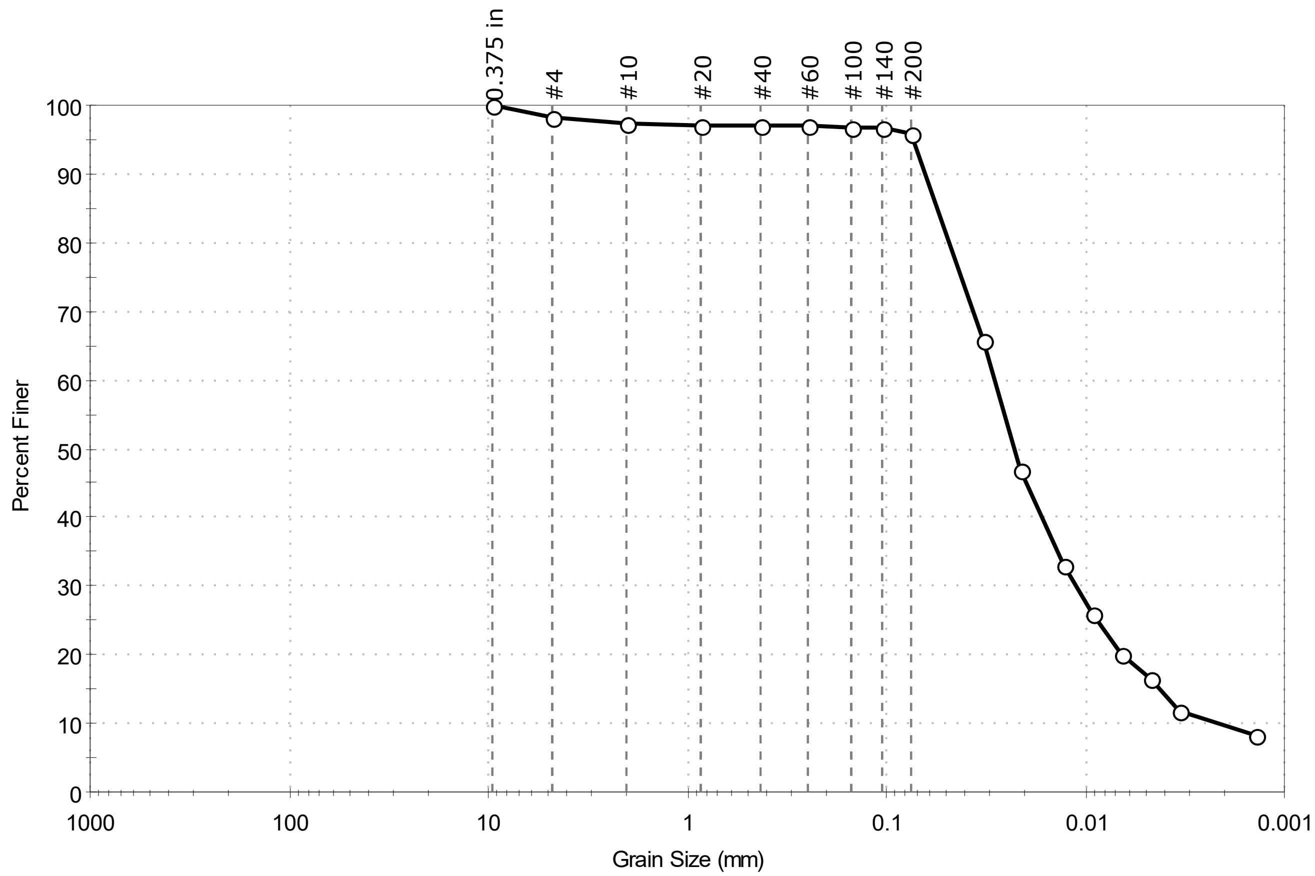
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-061	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	6-8'	Test Id:	817538		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	1.8	2.5	95.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	98		
#10	2.00	97		
#20	0.85	97		
#40	0.42	97		
#60	0.25	97		
#100	0.15	97		
#140	0.11	97		
#200	0.075	96		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0323	66		
---	0.0212	47		
---	0.0127	33		
---	0.0092	26		
---	0.0066	20		
---	0.0047	16		
---	0.0033	12		
---	0.0014	8		

Coefficients

D_{85} =0.0554 mm	D_{30} =0.0111 mm
D_{60} =0.0284 mm	D_{15} =0.0042 mm
D_{50} =0.0227 mm	D_{10} =0.0022 mm
C_u =12.909	C_c =1.972

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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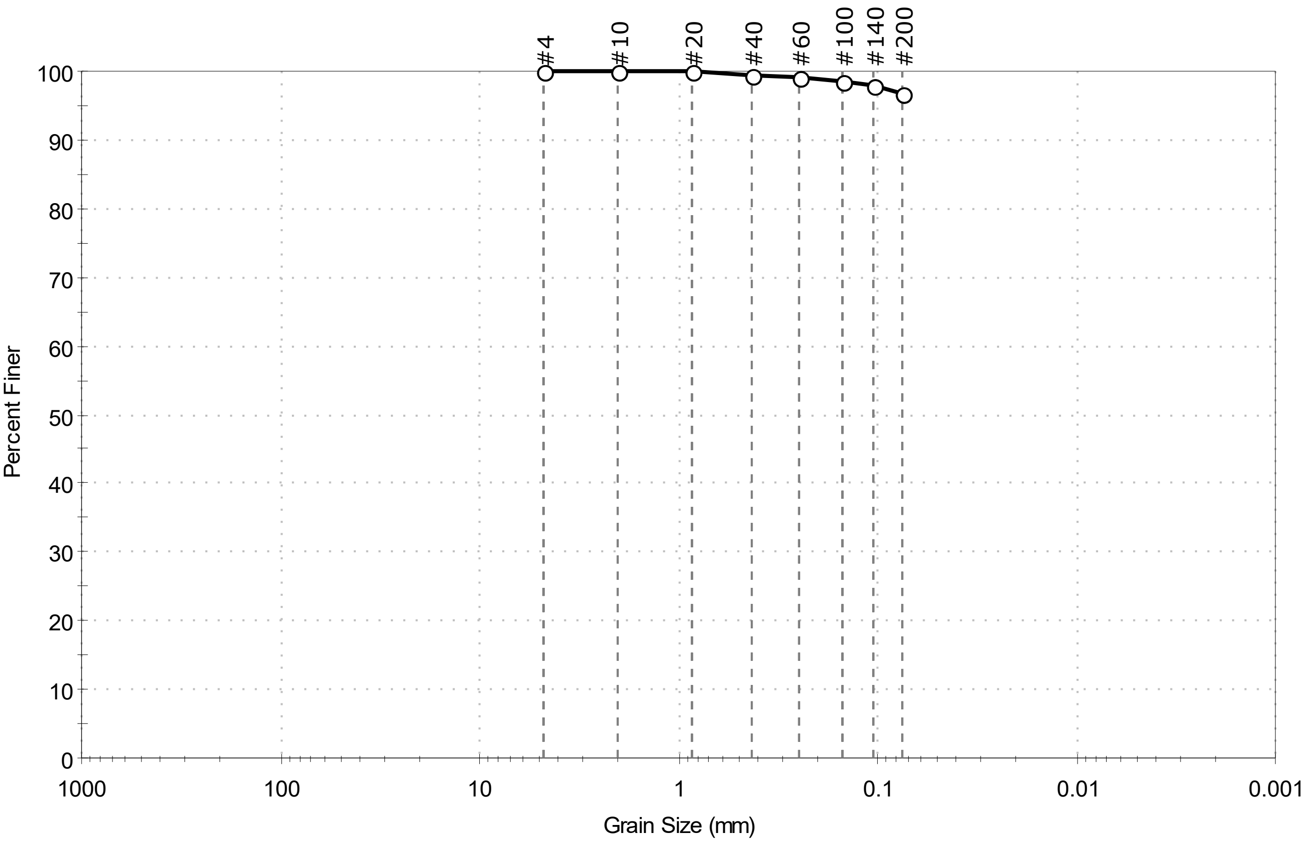
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-063	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/16/25	Checked By:	ank
Depth :	2-4'	Test Id:	819995		

Test Comment: ---
Visual Description: Moist, dark yellowish brown clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.1	96.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	98		
#140	0.11	98		
#200	0.075	97		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Lean CLAY (CL)
AASHTO	Clayey Soils (A-6 (11))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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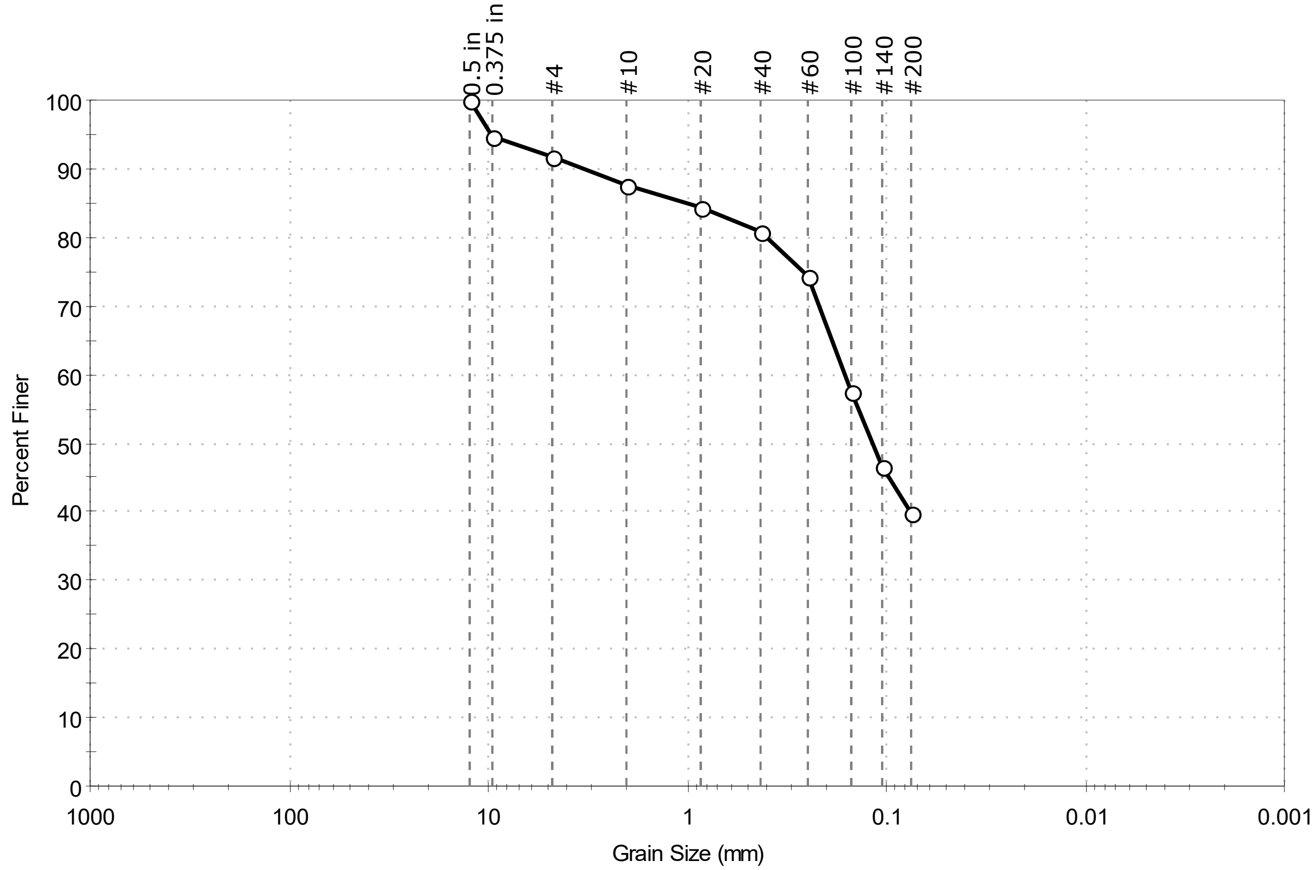
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-079	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	25-27'	Test Id:	817292		

Test Comment: ---
Visual Description: Moist, light grayish brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	8.4	51.9	39.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	95		
#4	4.75	92		
#10	2.00	88		
#20	0.85	84		
#40	0.42	81		
#60	0.25	74		
#100	0.15	57		
#140	0.11	47		
#200	0.075	40		

Coefficients

D_{85} =1.0389 mm
D_{30} =N/A
D_{60} =0.1619 mm
D_{15} =N/A
D_{50} =0.1183 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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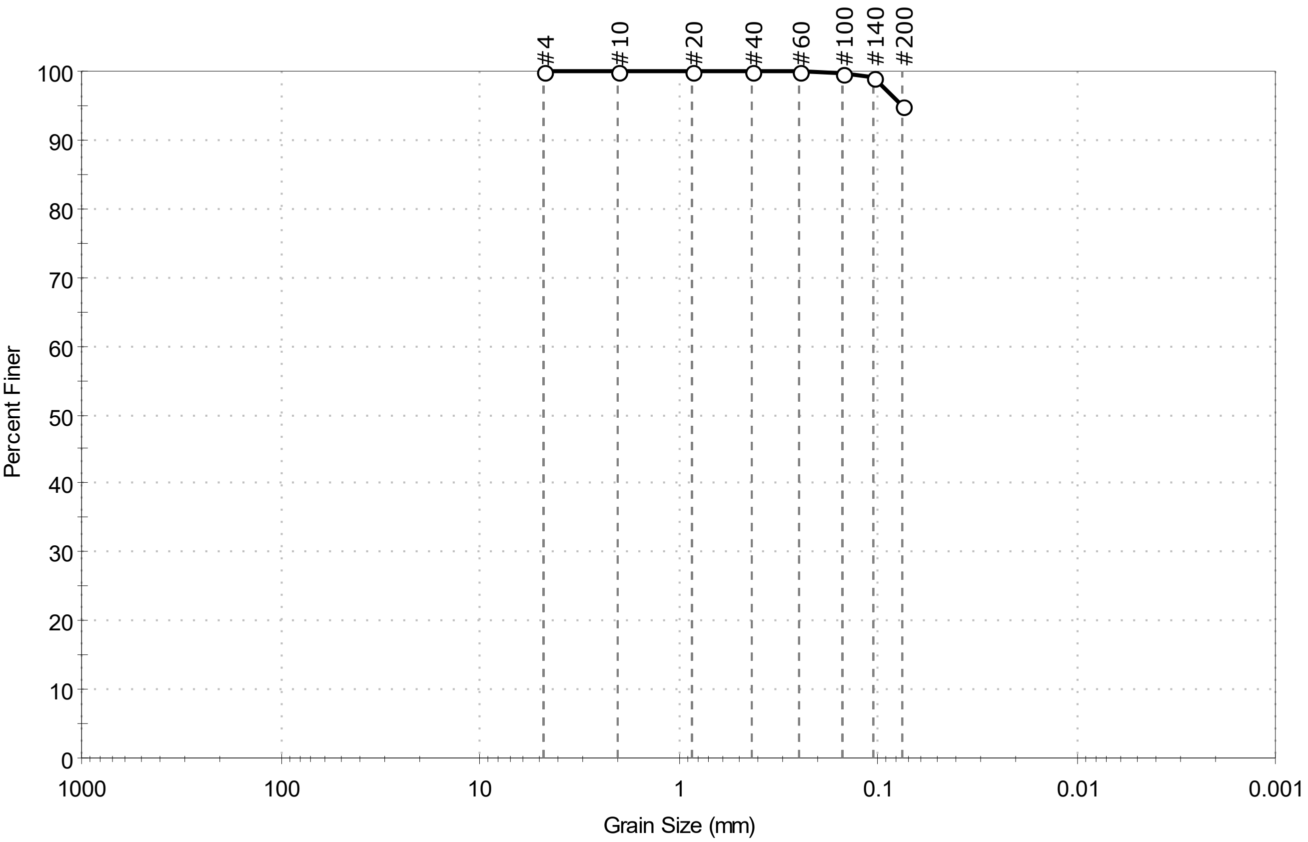
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-085	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	10-12'	Test Id:	817293		

Test Comment: ---
Visual Description: Moist, grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	4.9	95.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	95		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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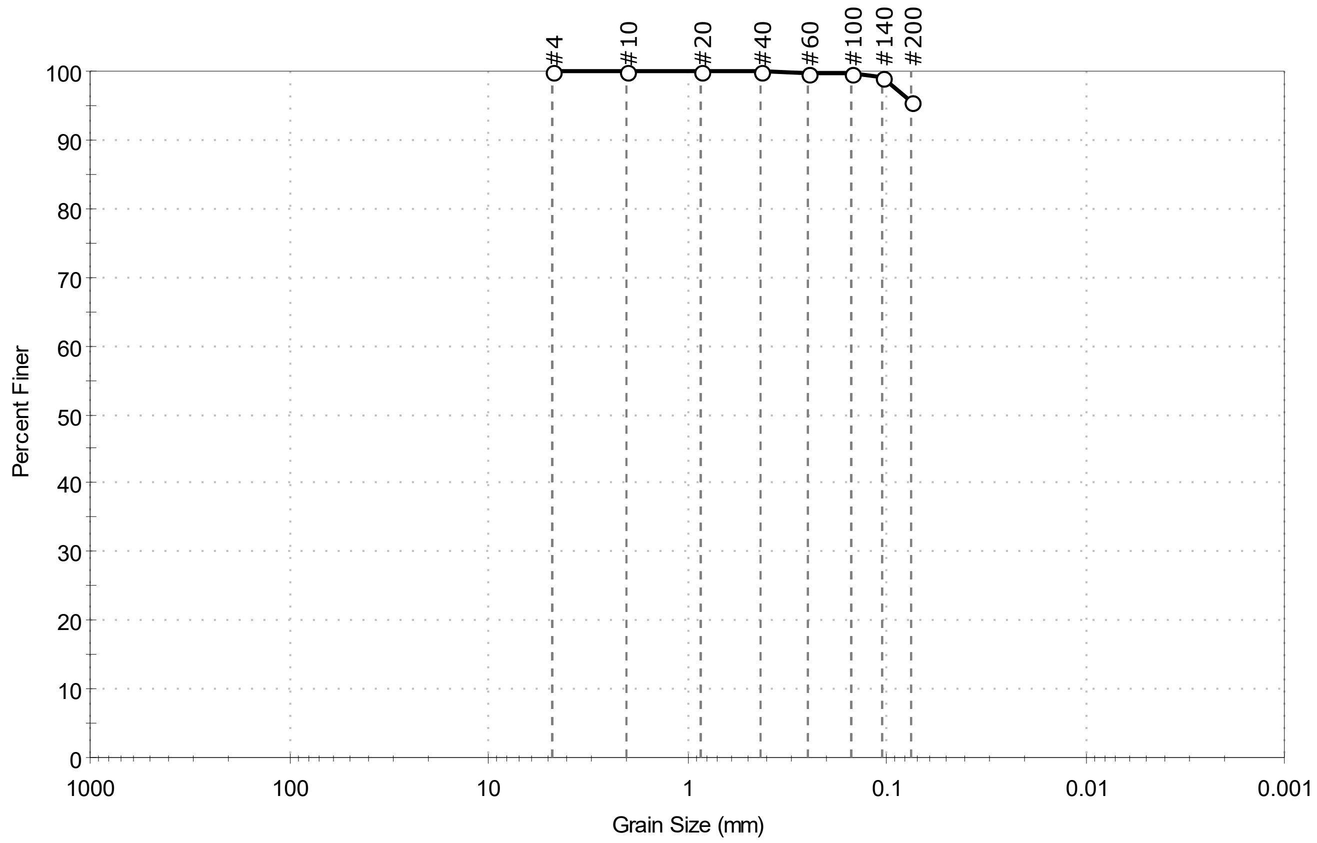
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-087	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	6-8'	Test Id:	817295		

Test Comment: ---
Visual Description: Moist, dark yelowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	4.4	95.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	96		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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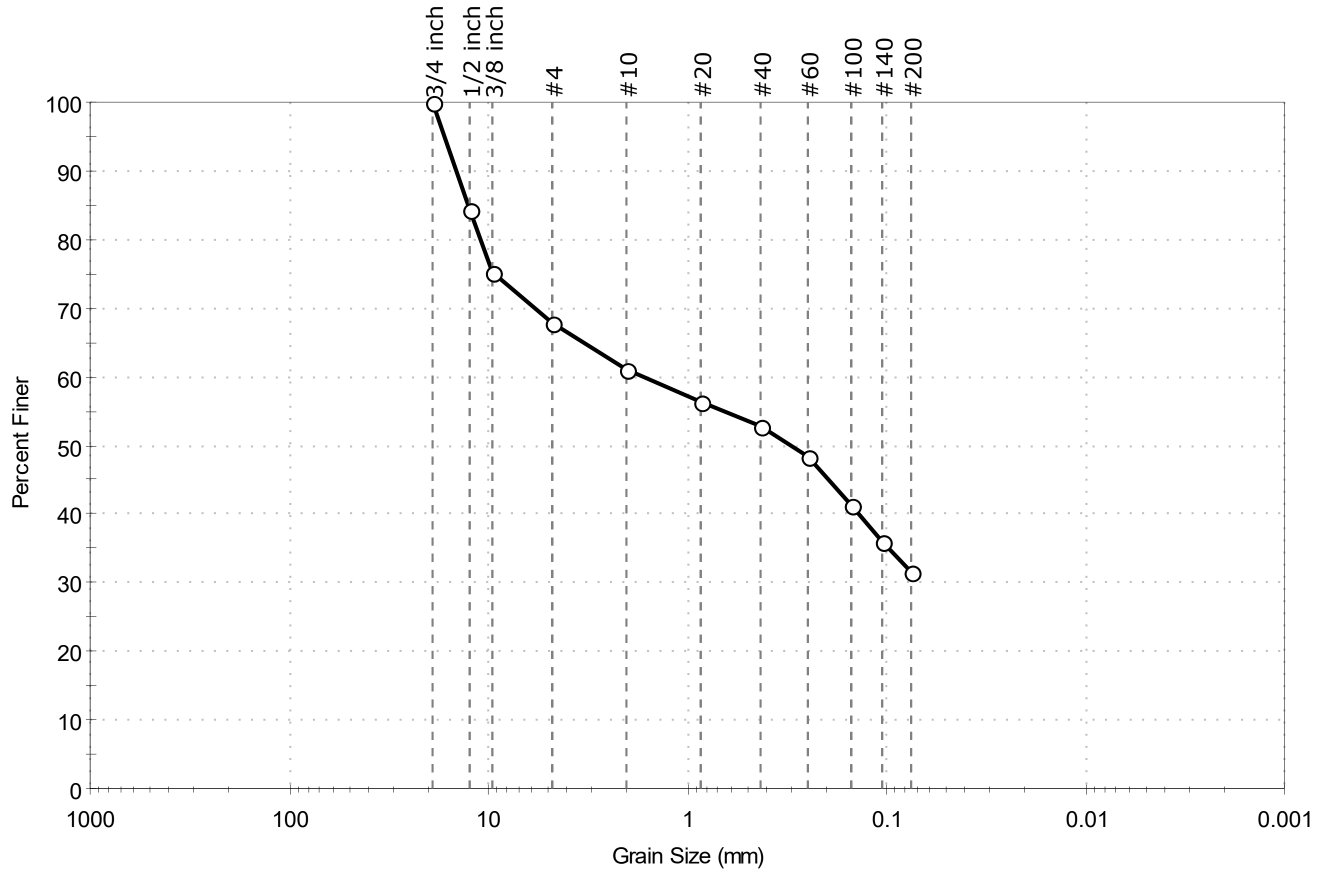
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-087
Sample ID: ---
Depth : 19-21'
Sample Type: Jar
Test Date: 06/09/25
Test Id: 817294
Tested By: ajl
Checked By: ank

Test Comment: ---
Visual Description: Moist, light grayish brown silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	32.3	36.0	31.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	84		
3/8 inch	9.50	75		
#4	4.75	68		
#10	2.00	61		
#20	0.85	56		
#40	0.42	53		
#60	0.25	48		
#100	0.15	41		
#140	0.11	36		
#200	0.075	32		

Coefficients

D_{85} =12.7390 mm
D_{30} =N/A
D_{60} =1.6749 mm
D_{15} =N/A
D_{50} =0.3028 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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GeoTesting EXPRESS
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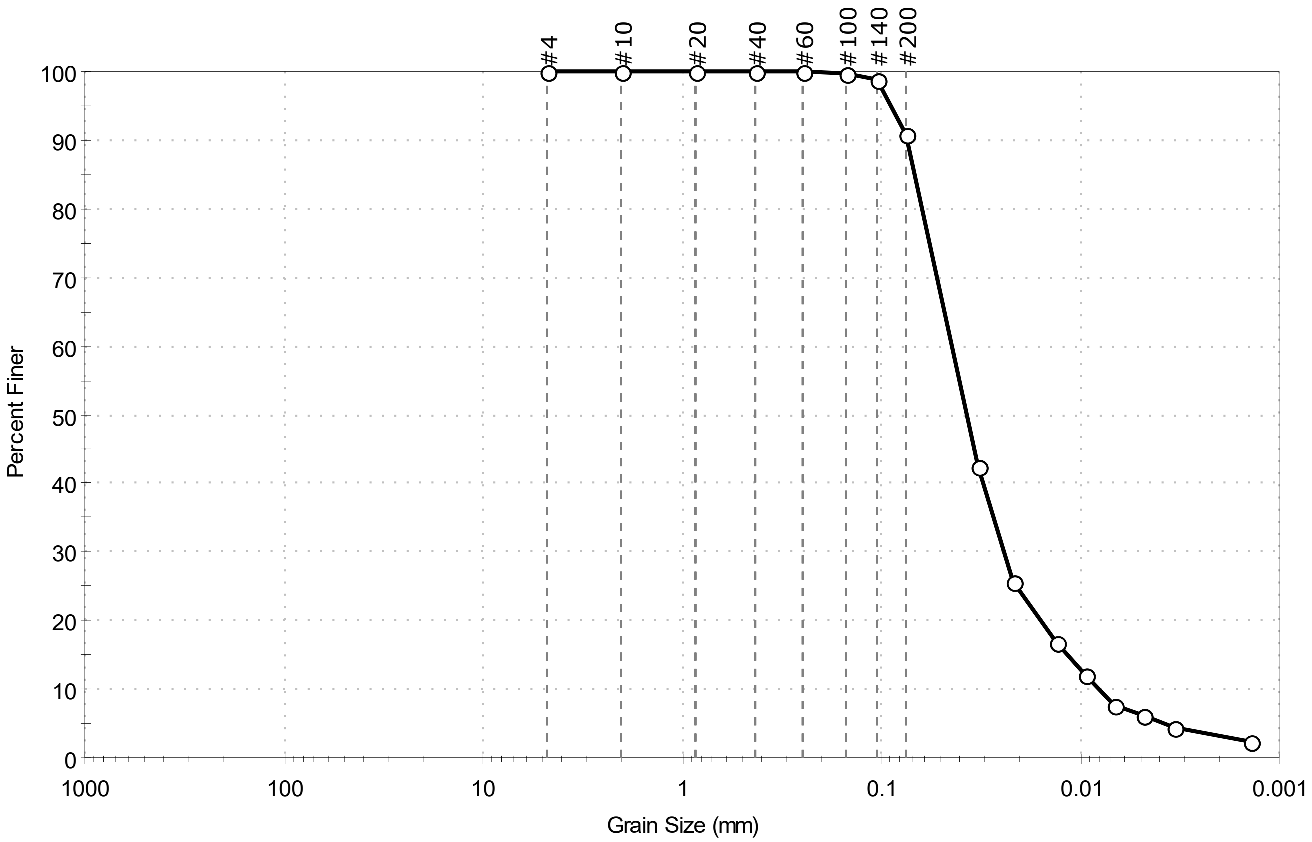
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-092
Sample ID: ---
Depth : 10-12'
Sample Type: Jar
Test Date: 06/11/25
Test Id: 817539
Tested By: ajl
Checked By: ank

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	9.0	91.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	91		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0323	43		
---	0.0216	26		
---	0.0131	17		
---	0.0094	12		
---	0.0067	8		
---	0.0048	6		
---	0.0034	5		
---	0.0014	2		

Coefficients

D_{85} =0.0676 mm	D_{30} =0.0239 mm
D_{60} =0.0437 mm	D_{15} =0.0116 mm
D_{50} =0.0367 mm	D_{10} =0.0080 mm
C_u =5.462	C_c =1.634

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

Est. Specific Gravity : 2.65

Separation of Sample: #200 Sieve

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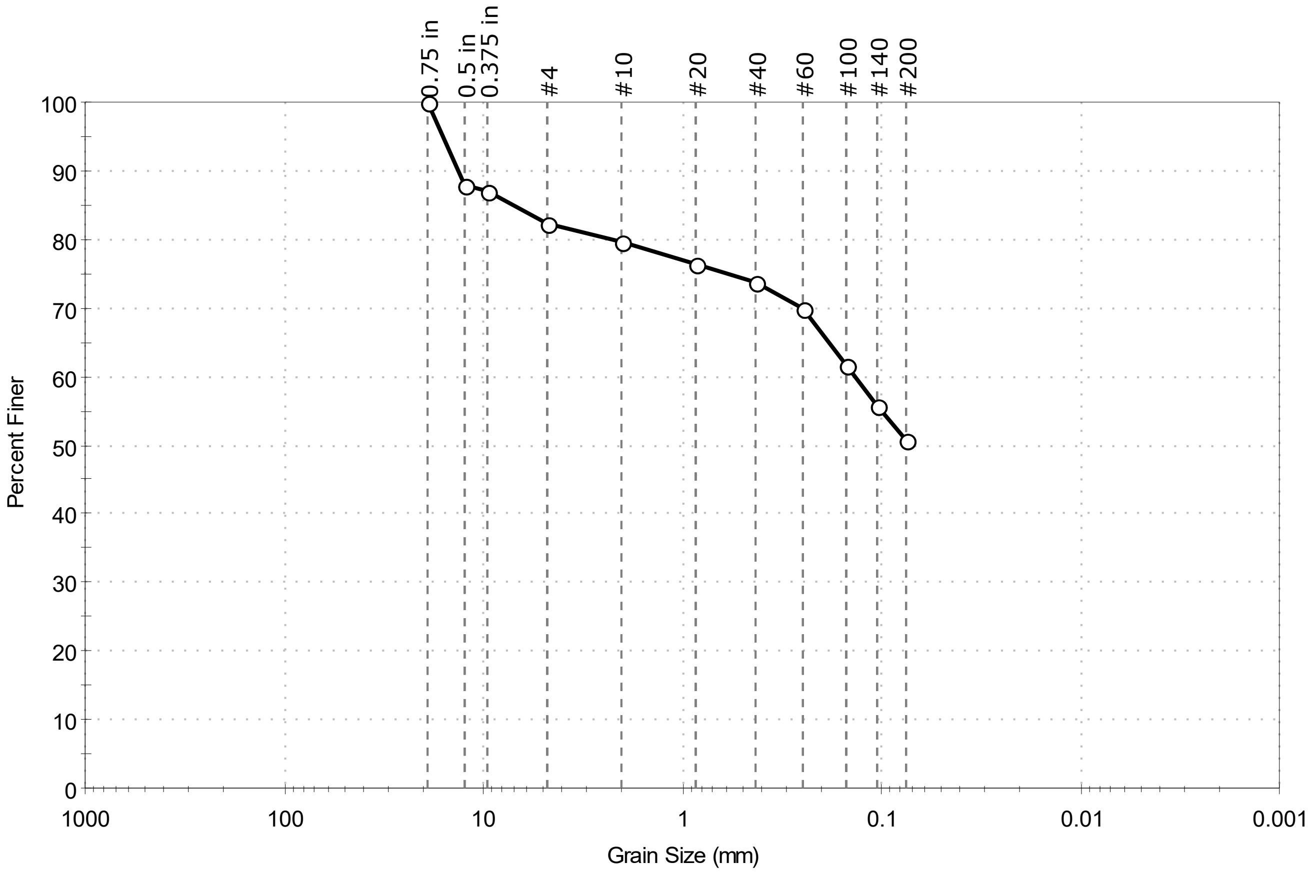
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-097	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	6-8'	Test Id:	817296		

Test Comment: ---
Visual Description: Moist, gray sandy silt with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	17.7	31.5	50.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	88		
0.375 in	9.50	87		
#4	4.75	82		
#10	2.00	80		
#20	0.85	77		
#40	0.42	74		
#60	0.25	70		
#100	0.15	62		
#140	0.11	56		
#200	0.075	51		

Coefficients

D_{85} =7.0729 mm
D_{30} =N/A
D_{60} =0.1363 mm
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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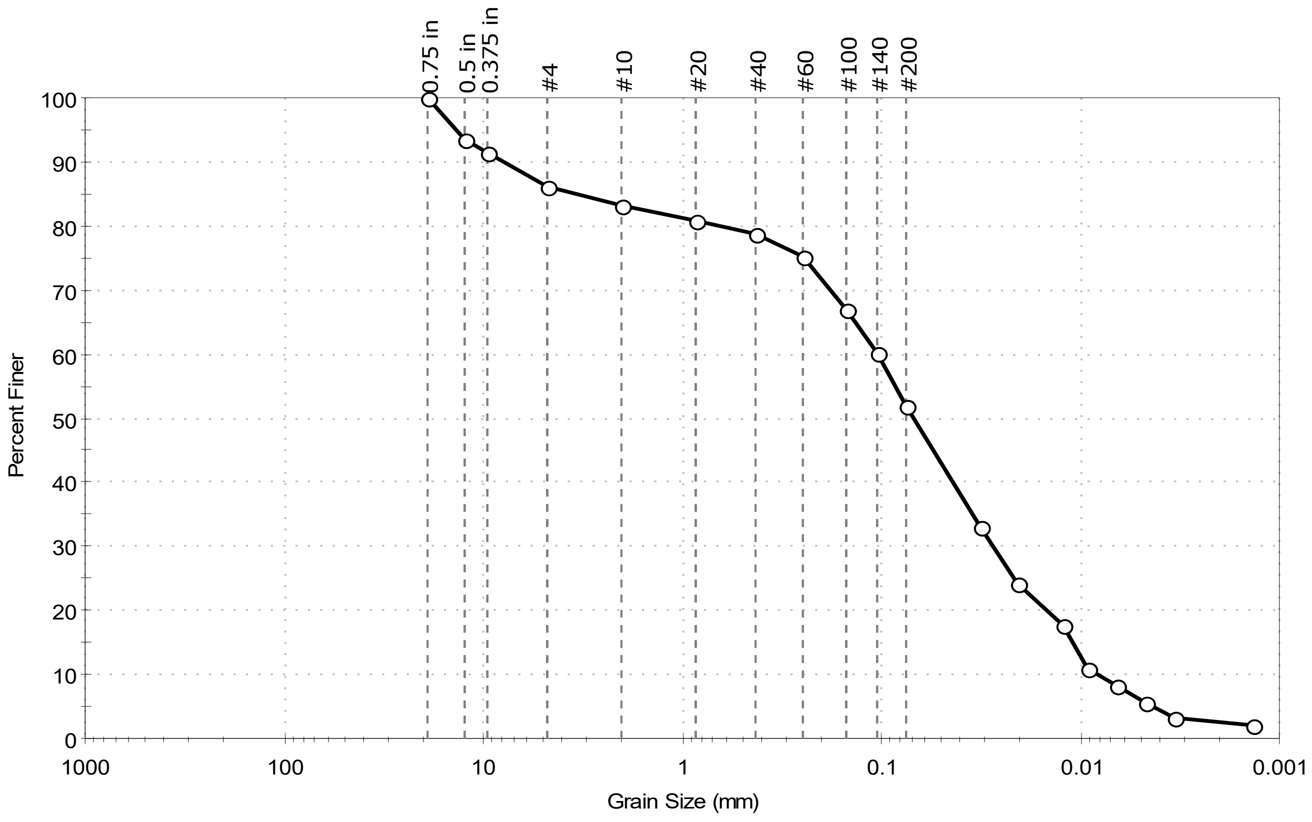
GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-097
Sample ID: ---
Depth : 40-42'
Sample Type: Jar
Test Date: 06/12/25
Test Id: 817540
Tested By: ajl
Checked By: ank
Test Comment: ---
Visual Description: Moist, dark gray sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	13.8	34.2	52.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	93		
0.375 in	9.50	92		
#4	4.75	86		
#10	2.00	83		
#20	0.85	81		
#40	0.42	79		
#60	0.25	75		
#100	0.15	67		
#140	0.11	60		
#200	0.075	52		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0317	33		
---	0.0207	24		
---	0.0124	18		
---	0.0091	11		
---	0.0065	8		
---	0.0047	5		
---	0.0033	3		
---	0.0014	2		

Coefficients

D_{85} =3.4254 mm	D_{30} =0.0275 mm
D_{60} =0.1058 mm	D_{15} =0.0110 mm
D_{50} =0.0686 mm	D_{10} =0.0081 mm
C_u =13.062	C_c =0.882

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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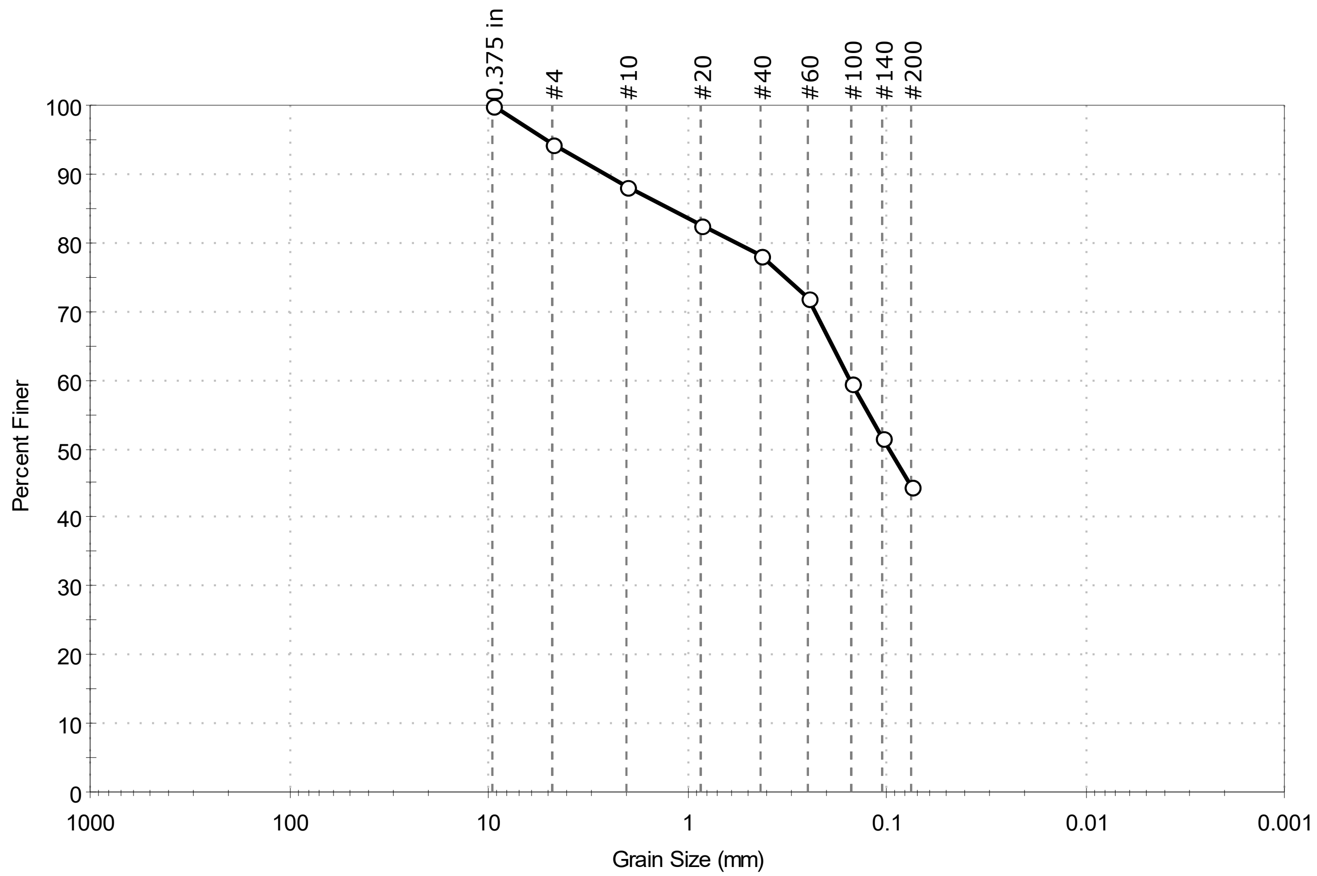
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-099	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	10-12'	Test Id:	817297		

Test Comment: ---
Visual Description: Moist, light grayish brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	5.4	50.0	44.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	95		
#10	2.00	88		
#20	0.85	83		
#40	0.42	78		
#60	0.25	72		
#100	0.15	60		
#140	0.11	52		
#200	0.075	45		

Coefficients

D_{85} =1.2125 mm
D_{30} =N/A
D_{60} =0.1528 mm
D_{15} =N/A
D_{50} =0.0976 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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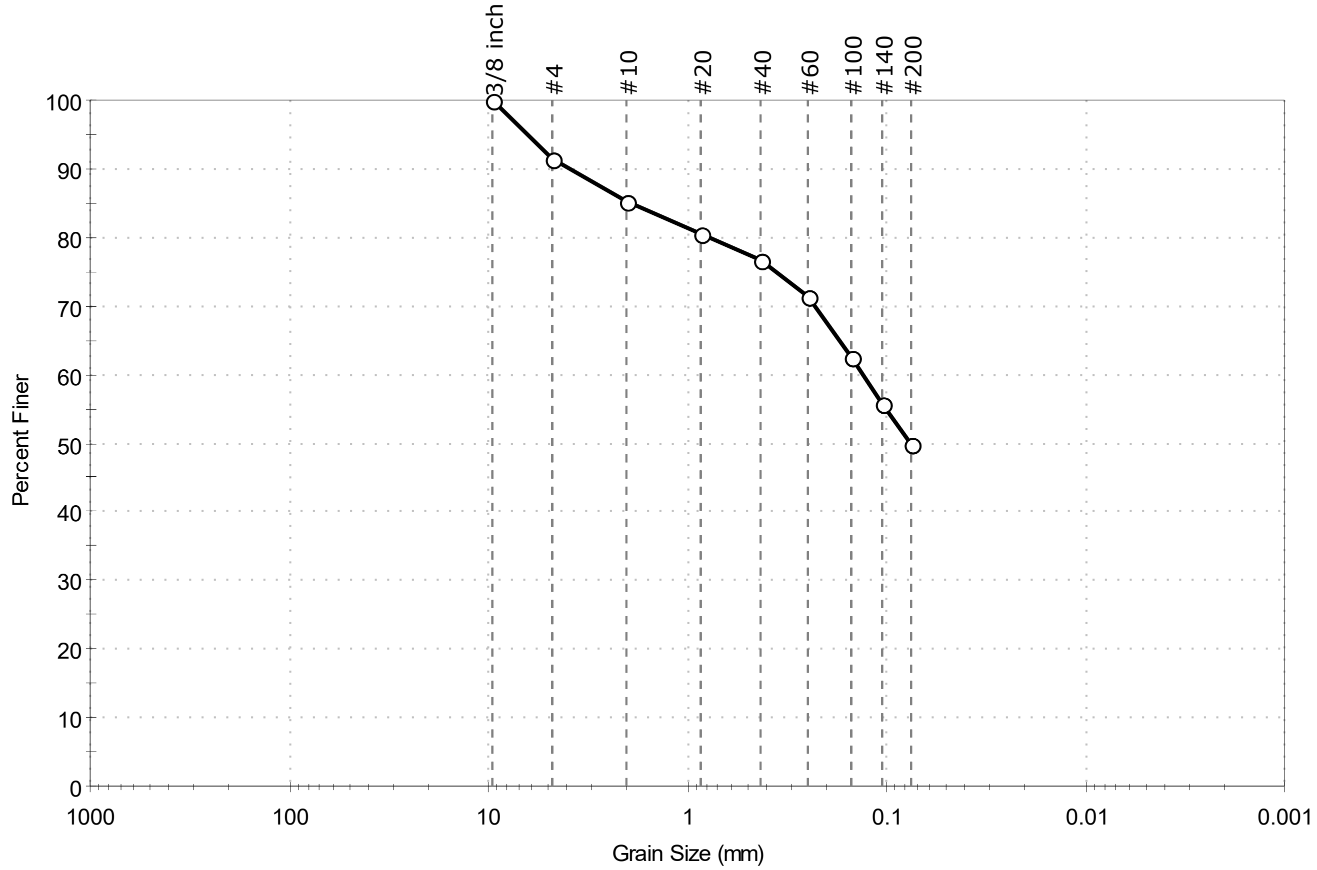
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-100	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	6-8'	Test Id:	817298		

Test Comment: ---
Visual Description: Moist, light grayish brown sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	8.7	41.3	50.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	91		
#10	2.00	85		
#20	0.85	81		
#40	0.42	77		
#60	0.25	71		
#100	0.15	62		
#140	0.11	56		
#200	0.075	50		

Coefficients

D_{85} =1.9598 mm	D_{30} =N/A
D_{60} =0.1320 mm	D_{15} =N/A
D_{50} =0.0751 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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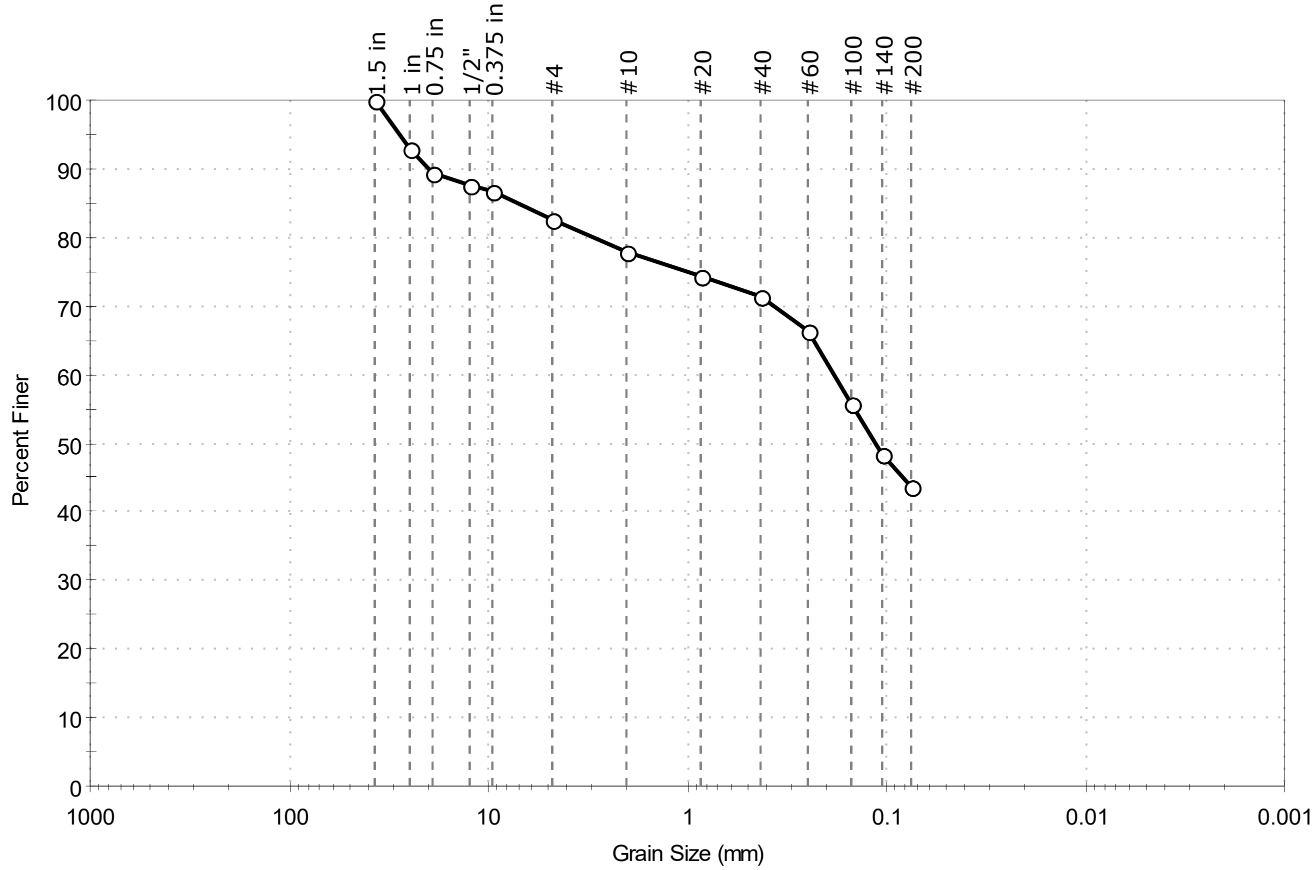
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-101	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	16-18'	Test Id:	817299		

Test Comment: ---
Visual Description: Moist, grayish brown silty, clayey sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	17.5	38.7	43.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1.5 in	37.50	100		
1 in	25.00	93		
0.75 in	19.00	89		
1/2"	12.50	88		
0.375 in	9.50	87		
#4	4.75	82		
#10	2.00	78		
#20	0.85	74		
#40	0.42	71		
#60	0.25	66		
#100	0.15	56		
#140	0.11	48		
#200	0.075	44		

Coefficients

D_{85} =7.2213 mm
D_{30} =N/A
D_{60} =0.1832 mm
D_{15} =N/A
D_{50} =0.1140 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM Silty, Clayey SAND with Gravel (SC-SM)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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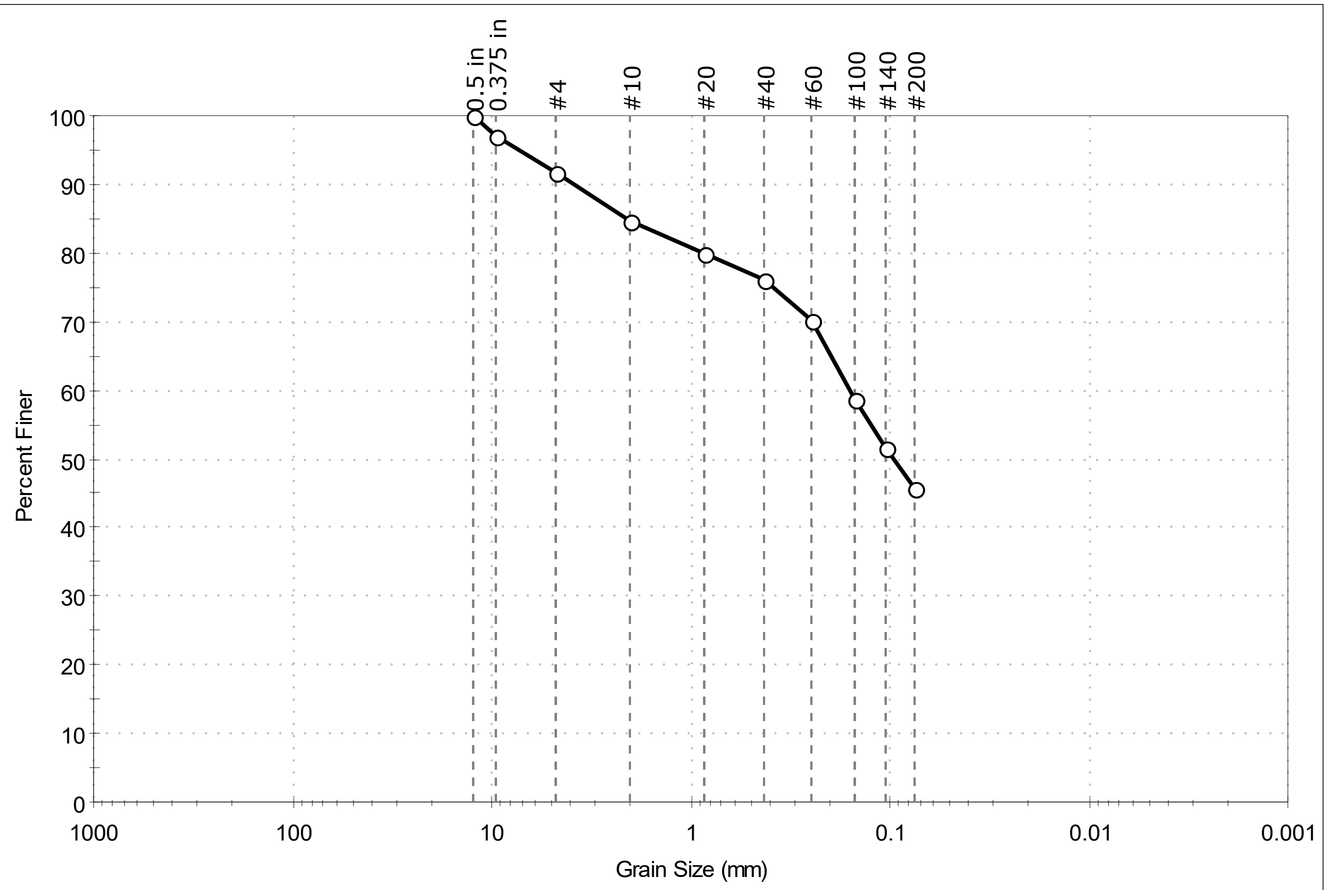
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-101	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	18-20'	Test Id:	817300		

Test Comment: ---
Visual Description: Moist, gray silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	8.2	46.2	45.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	97		
#4	4.75	92		
#10	2.00	85		
#20	0.85	80		
#40	0.42	76		
#60	0.25	70		
#100	0.15	59		
#140	0.11	51		
#200	0.075	46		

Coefficients

D_{85} =2.0880 mm
D_{30} =N/A
D_{60} =0.1596 mm
D_{15} =N/A
D_{50} =0.0972 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM Silty SAND (SM)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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GeoTesting EXPRESS
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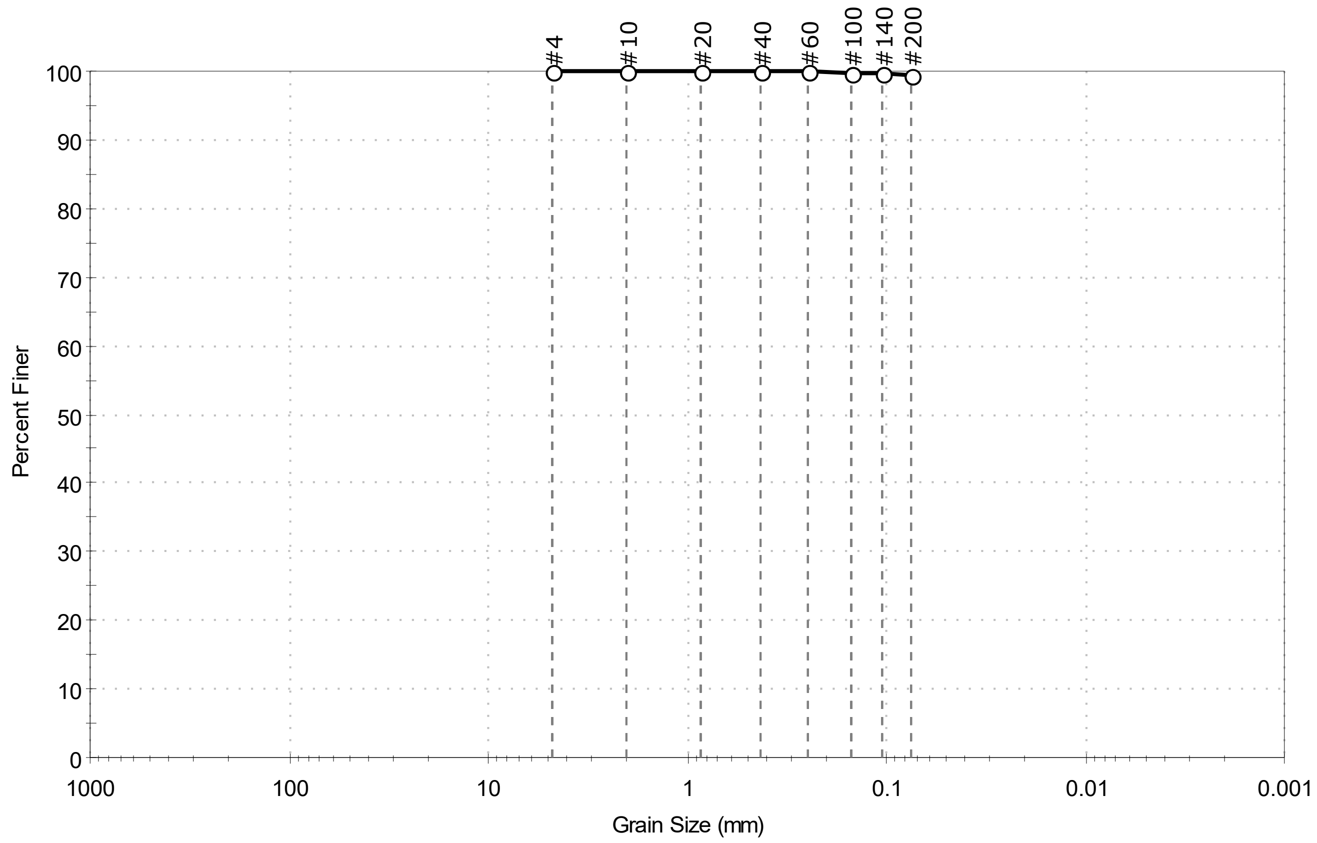
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-004	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	19-21'	Test Id:	817302		

Test Comment: ---
Visual Description: Wet, grayish brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	0.5	99.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Silty CLAY (CL-ML)
AASHTO	Silty Soils (A-4 (1))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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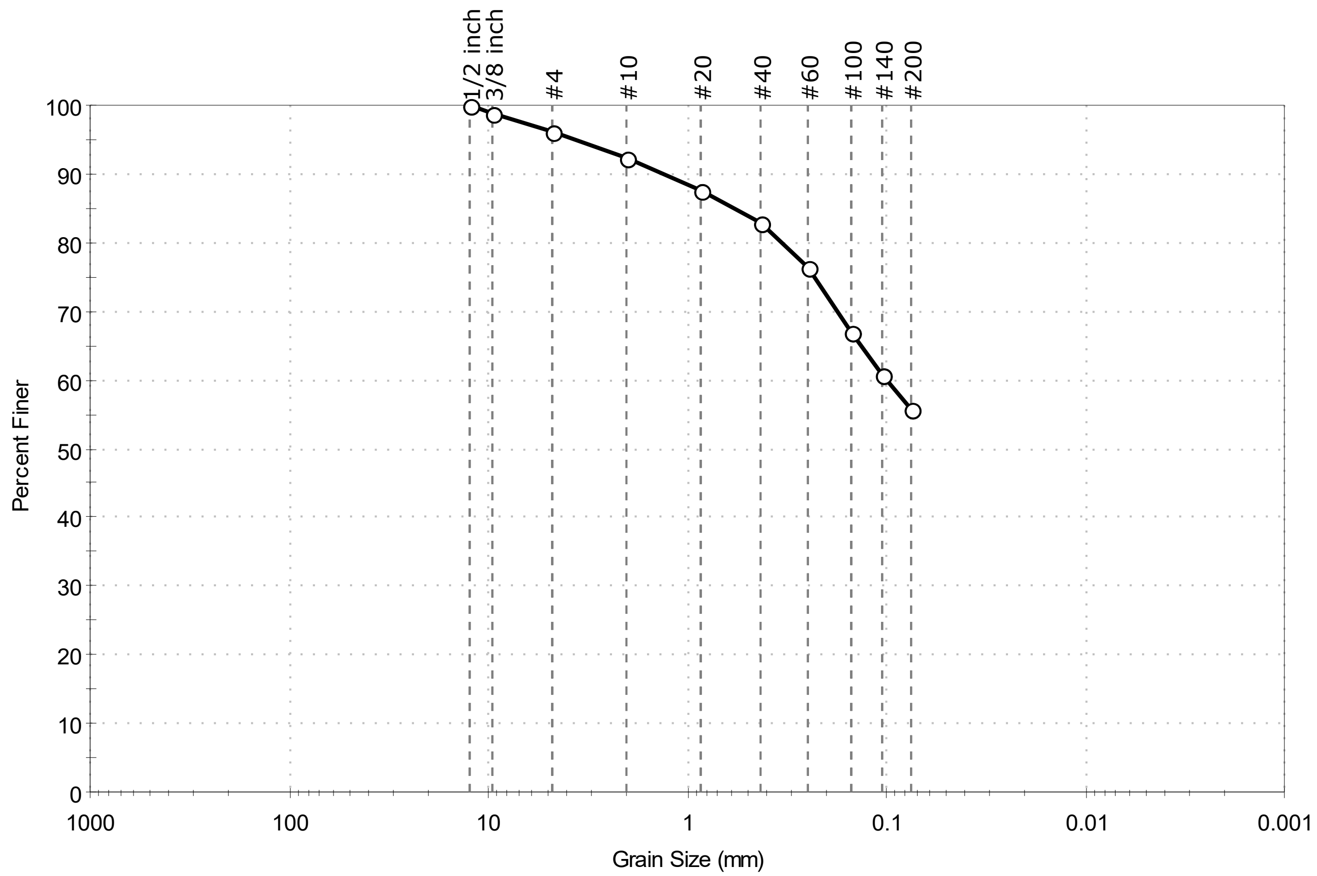
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-005	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	19-21'	Test Id:	817303		

Test Comment: ---
Visual Description: Moist, light grayish brown sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	3.9	40.2	55.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2 inch	12.50	100		
3/8 inch	9.50	99		
#4	4.75	96		
#10	2.00	92		
#20	0.85	88		
#40	0.42	83		
#60	0.25	76		
#100	0.15	67		
#140	0.11	61		
#200	0.075	56		

Coefficients

D_{85} =0.5808 mm
D_{30} =N/A
D_{60} =0.1003 mm
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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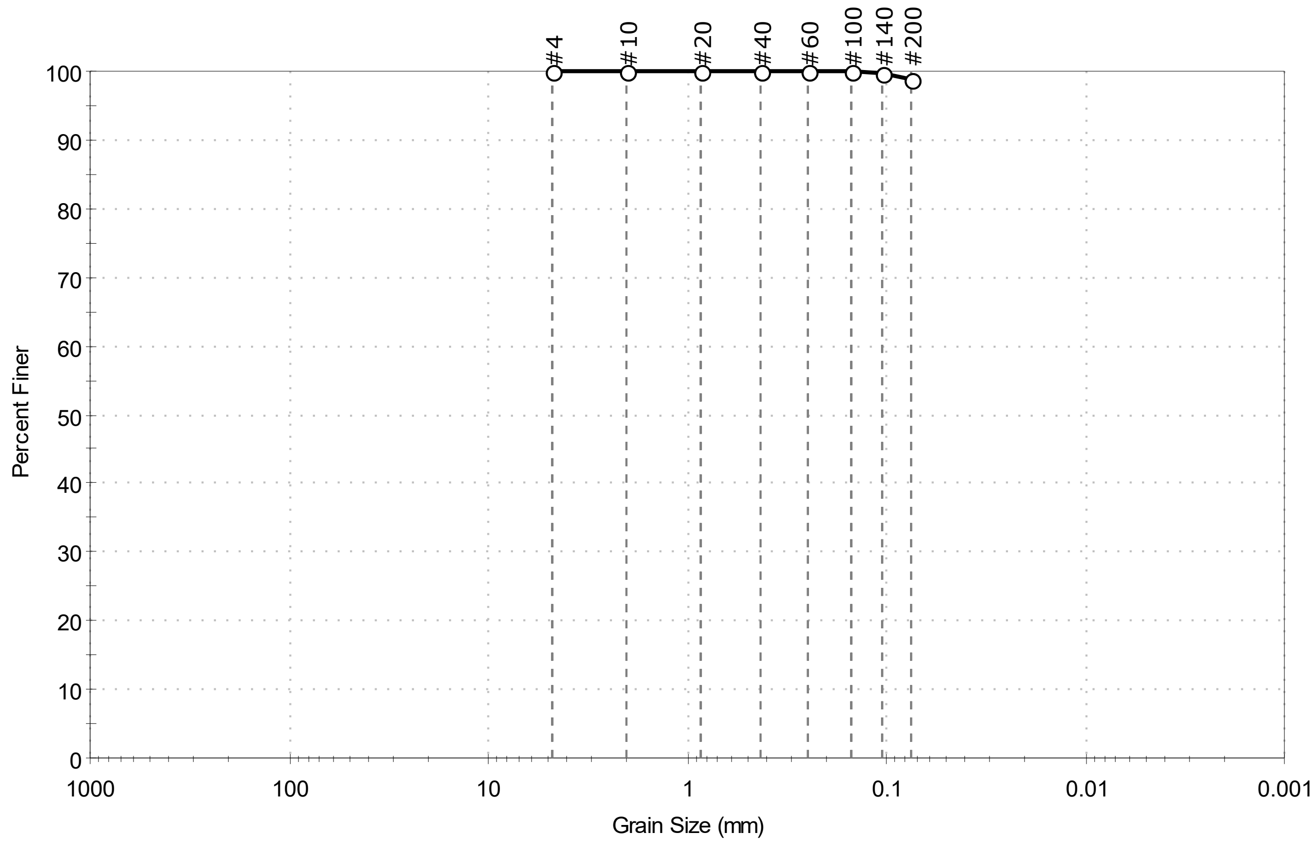
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-007	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	10-12'	Test Id:	817304		

Test Comment: ---
Visual Description: Moist, gray brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.2	98.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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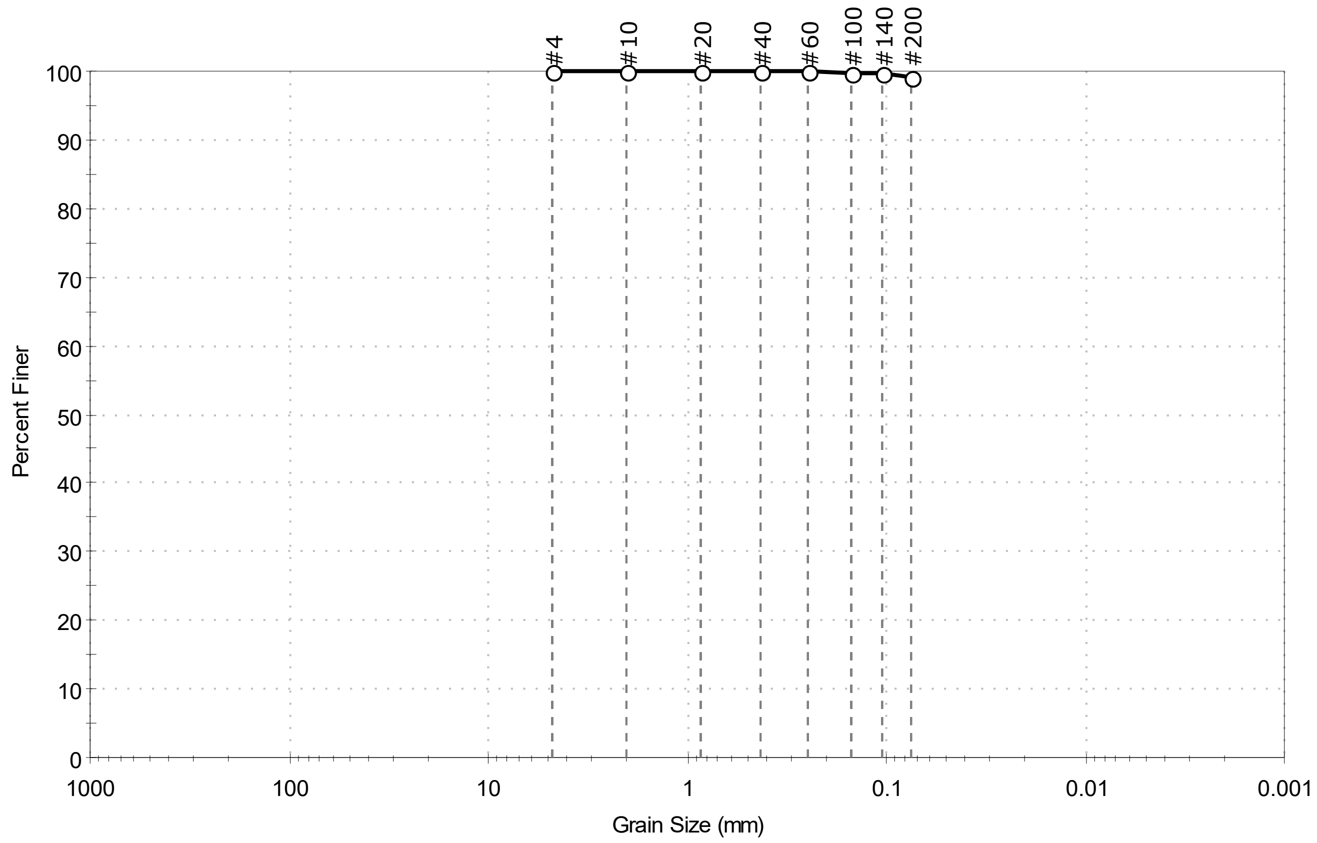
GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-008	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	10-12'	Test Id:	817305		

Test Comment: ---
Visual Description: Moist, light grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	0.8	99.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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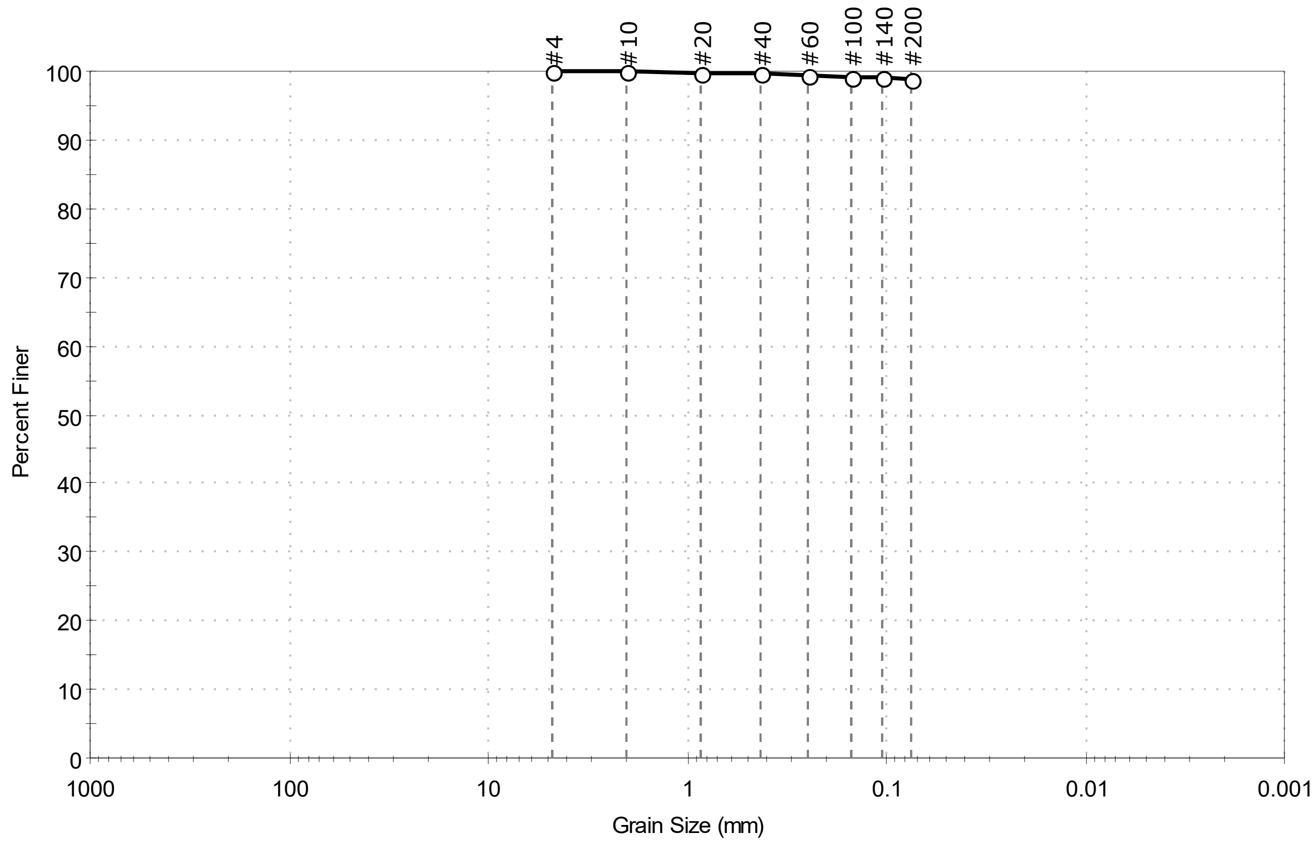
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-009	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	8-10'	Test Id:	817306		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.2	98.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Silty CLAY (CL-ML)
AASHTO	Silty Soils (A-4 (2))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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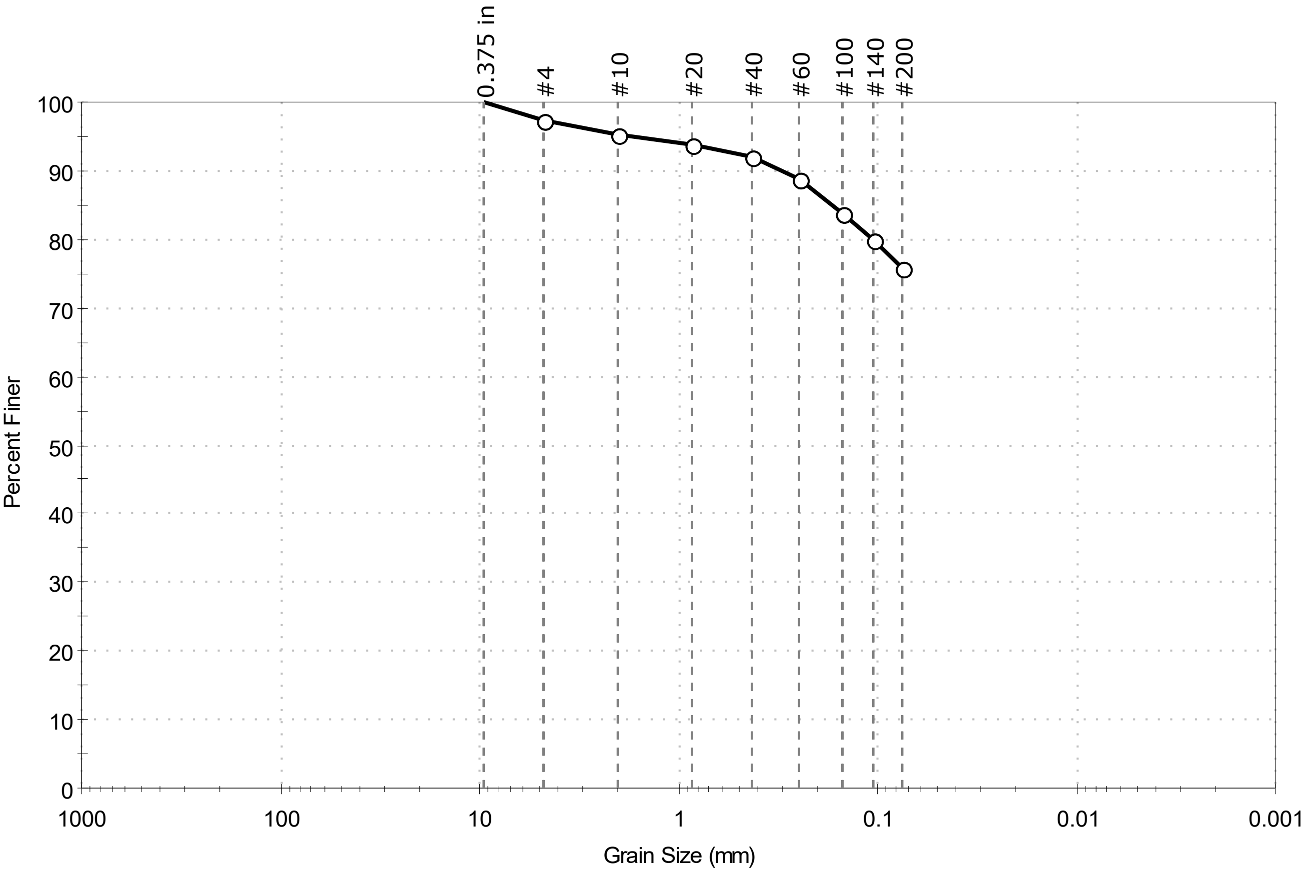
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-018	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/16/25	Checked By:	ank
Depth :	19-21'	Test Id:	817307		

Test Comment: ---
Visual Description: Moist, grayish brown silt with sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	2.6	21.6	75.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	97		
#10	2.00	95		
#20	0.85	94		
#40	0.42	92		
#60	0.25	89		
#100	0.15	84		
#140	0.11	80		
#200	0.075	76		

Coefficients

D_{85} =0.1699 mm	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	SILT with Sand (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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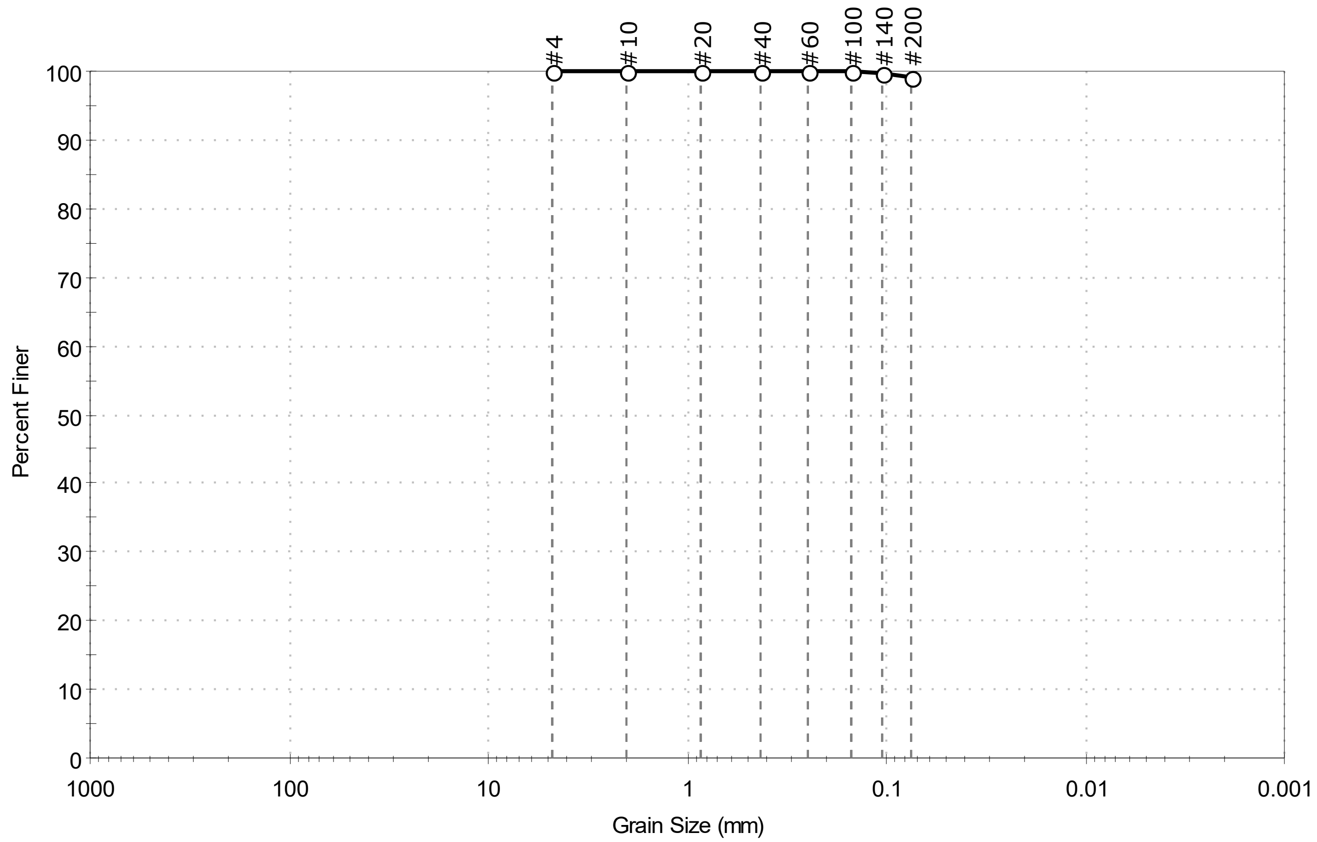
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-019	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	12-14'	Test Id:	817308		

Test Comment: ---
Visual Description: Moist, light grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	0.8	99.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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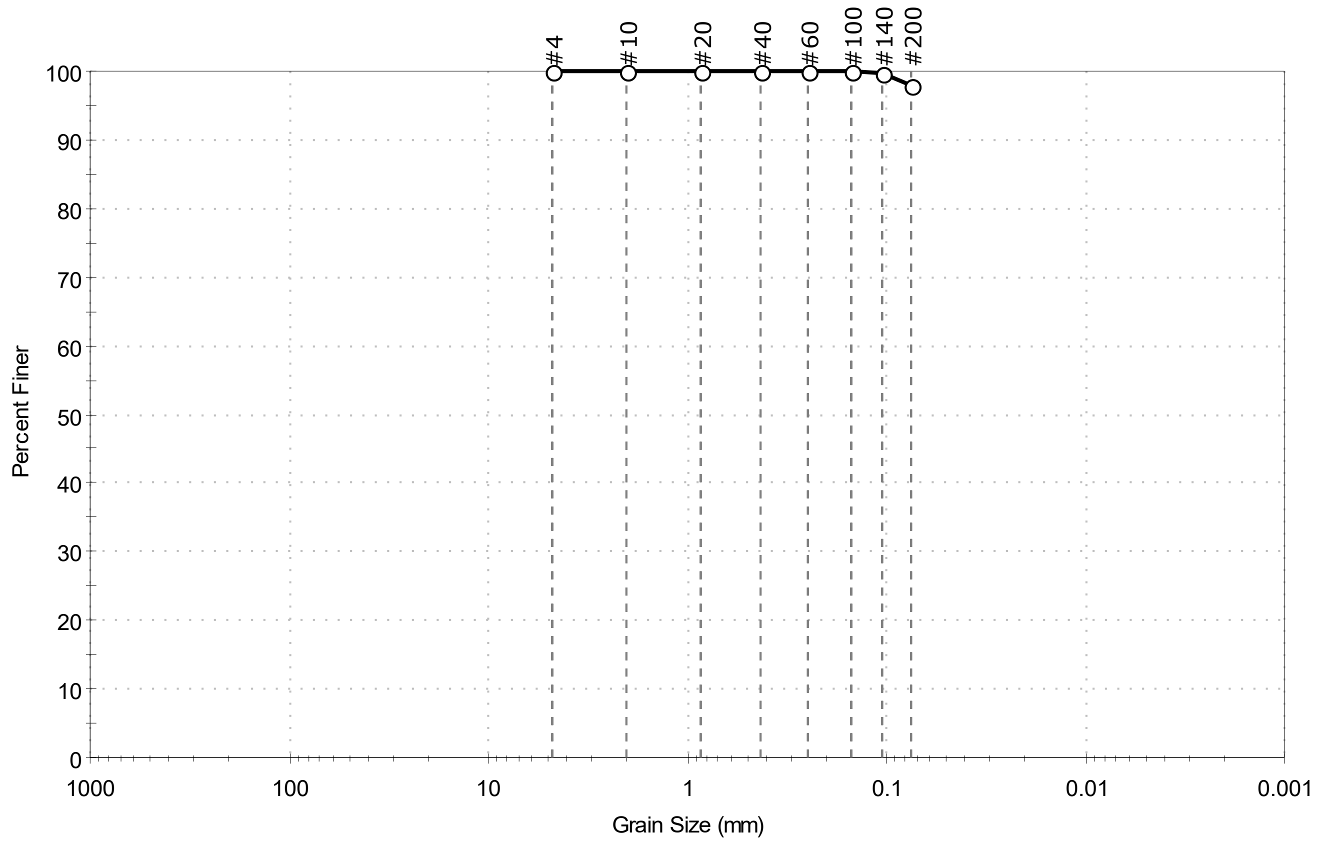
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-021
Sample ID: ---
Depth : 16-18'
Sample Type: Jar
Test Date: 06/13/25
Test Id: 817310
Tested By: ajl
Checked By: ank

Test Comment: ---
Visual Description: Moist, light grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.1	2.0	97.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	98		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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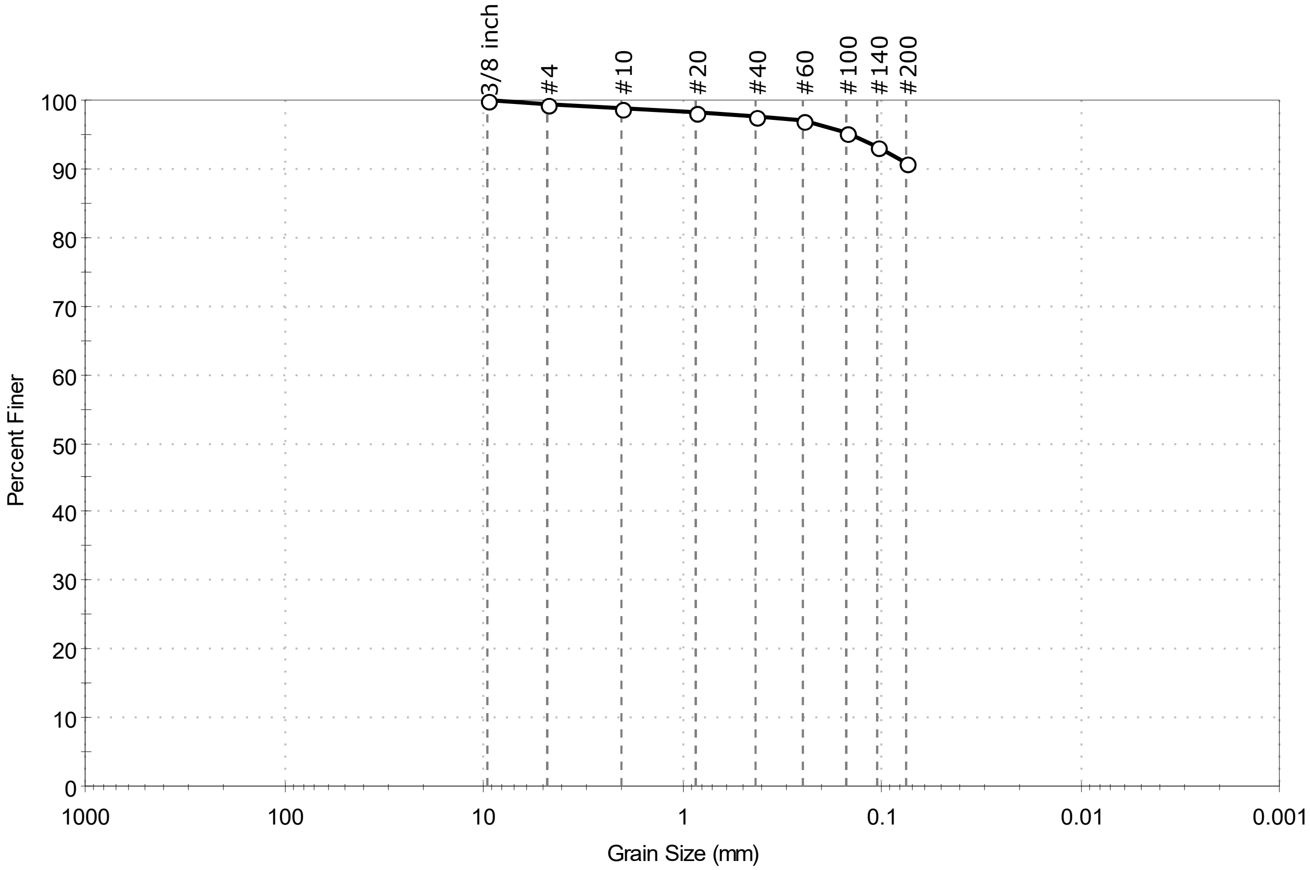
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-021	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	20-22'	Test Id:	817309		

Test Comment: ---
Visual Description: Moist, light grayish brown clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.6	8.4	91.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	99		
#10	2.00	99		
#20	0.85	98		
#40	0.42	98		
#60	0.25	97		
#100	0.15	95		
#140	0.11	93		
#200	0.075	91		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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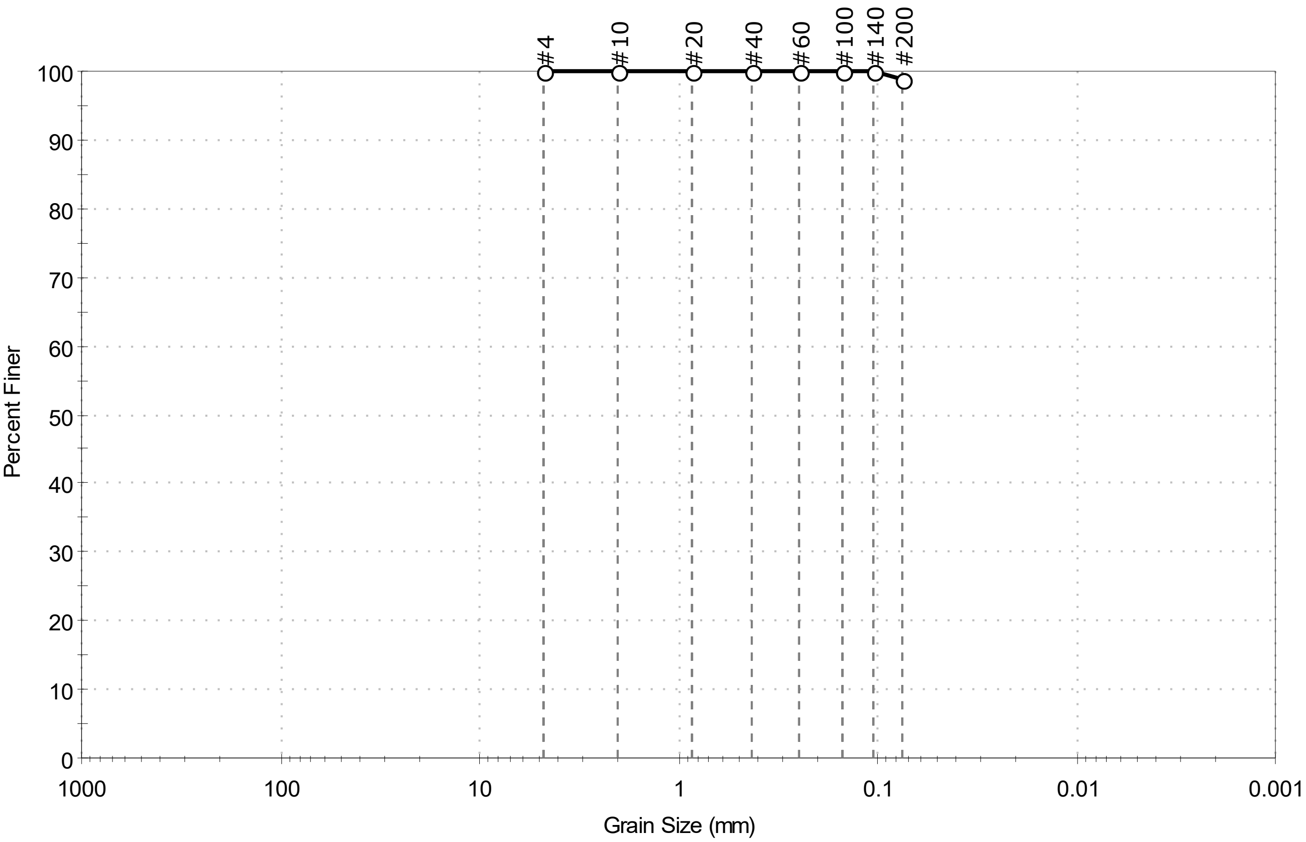
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-029	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	18-20'	Test Id:	817313		

Test Comment: ---
Visual Description: Moist, grayish brown clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.1	98.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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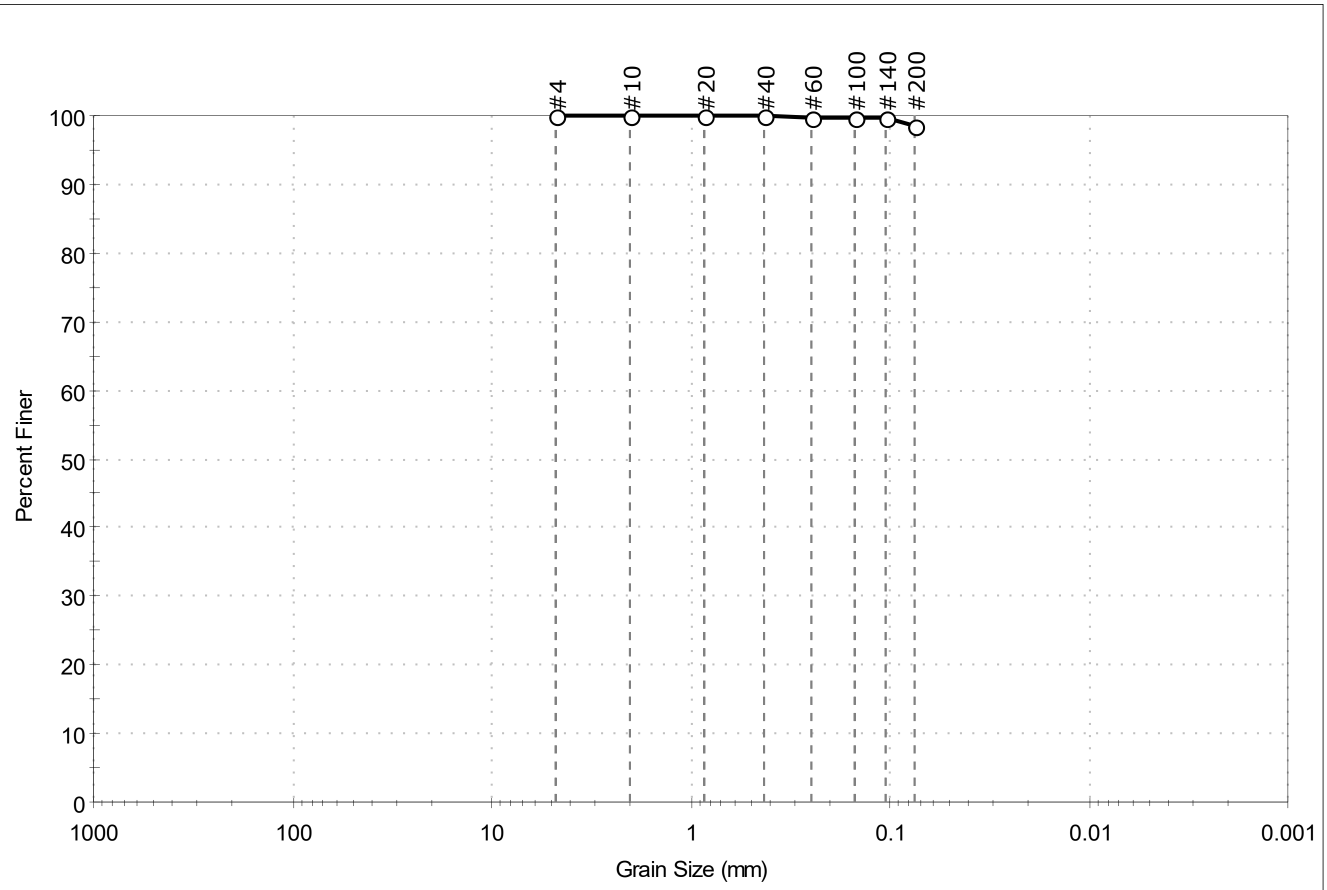
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-029	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	16-18'	Test Id:	817312		

Test Comment: ---
Visual Description: Moist, light grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.1	1.3	98.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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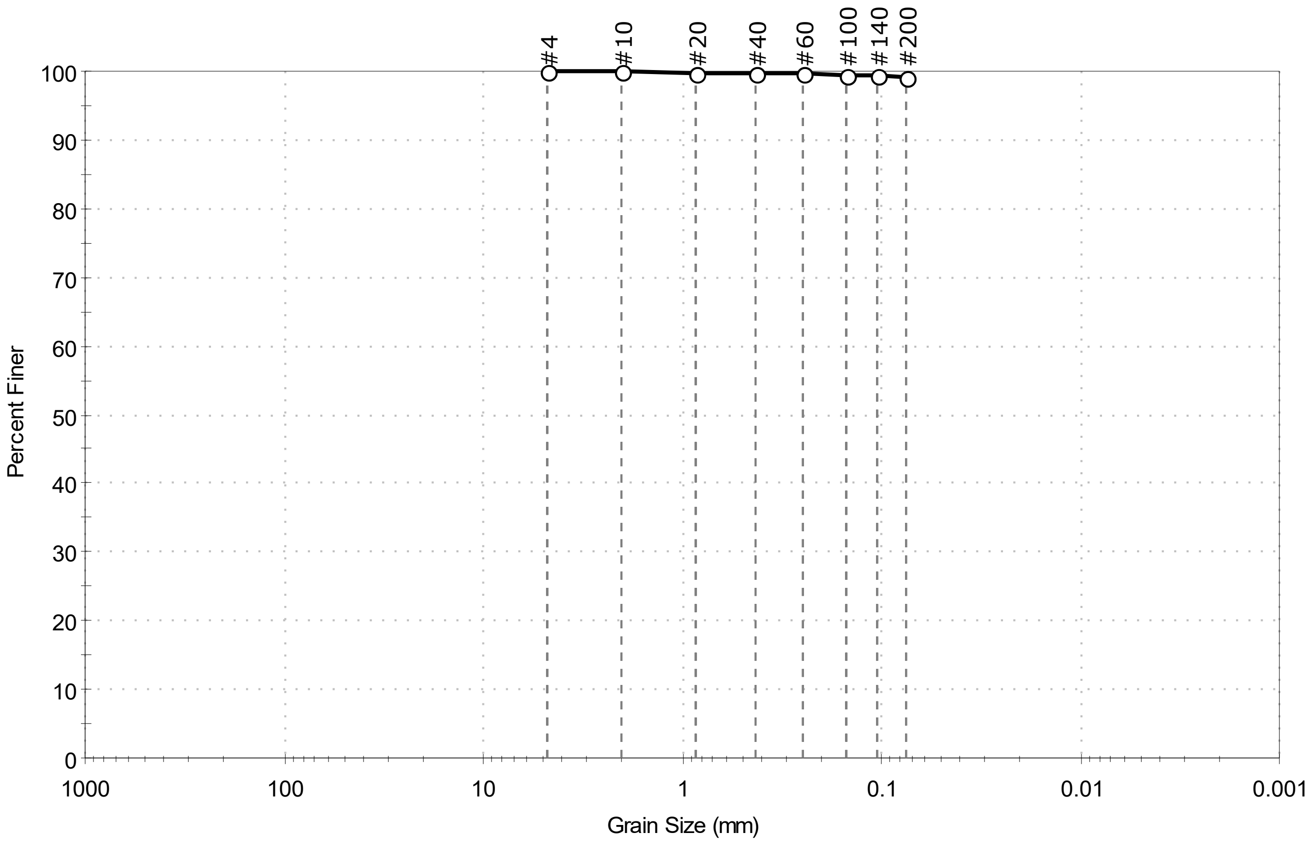
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-029
Sample Type: Jar
Tested By: ajl
Sample ID: ---
Test Date: 06/13/25
Checked By: ank
Depth : 10-12'
Test Id: 817311
Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	0.9	99.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	99		

Coefficients

D_{85} =N/A
D_{30} =N/A
D_{60} =N/A
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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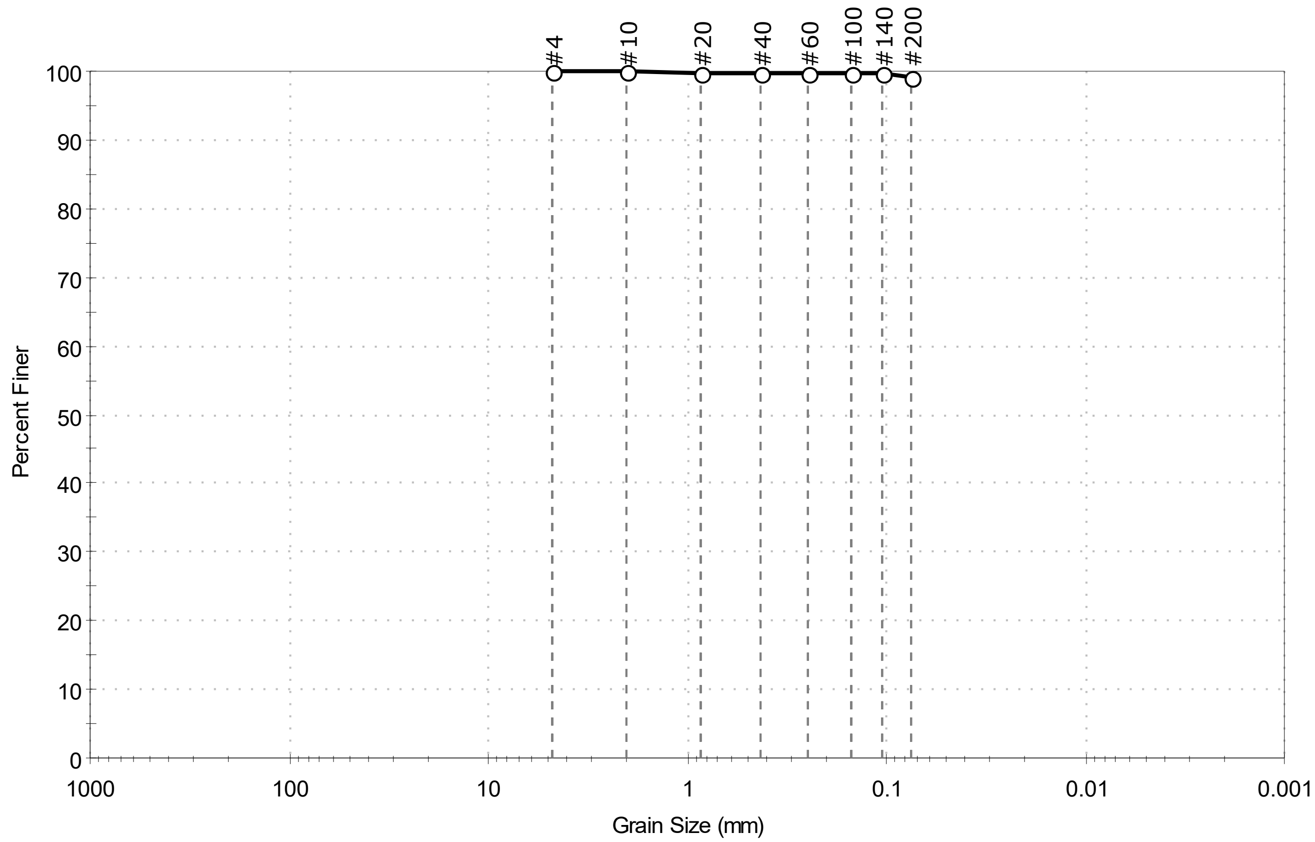
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-035	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	4-6'	Test Id:	817314		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	0.9	99.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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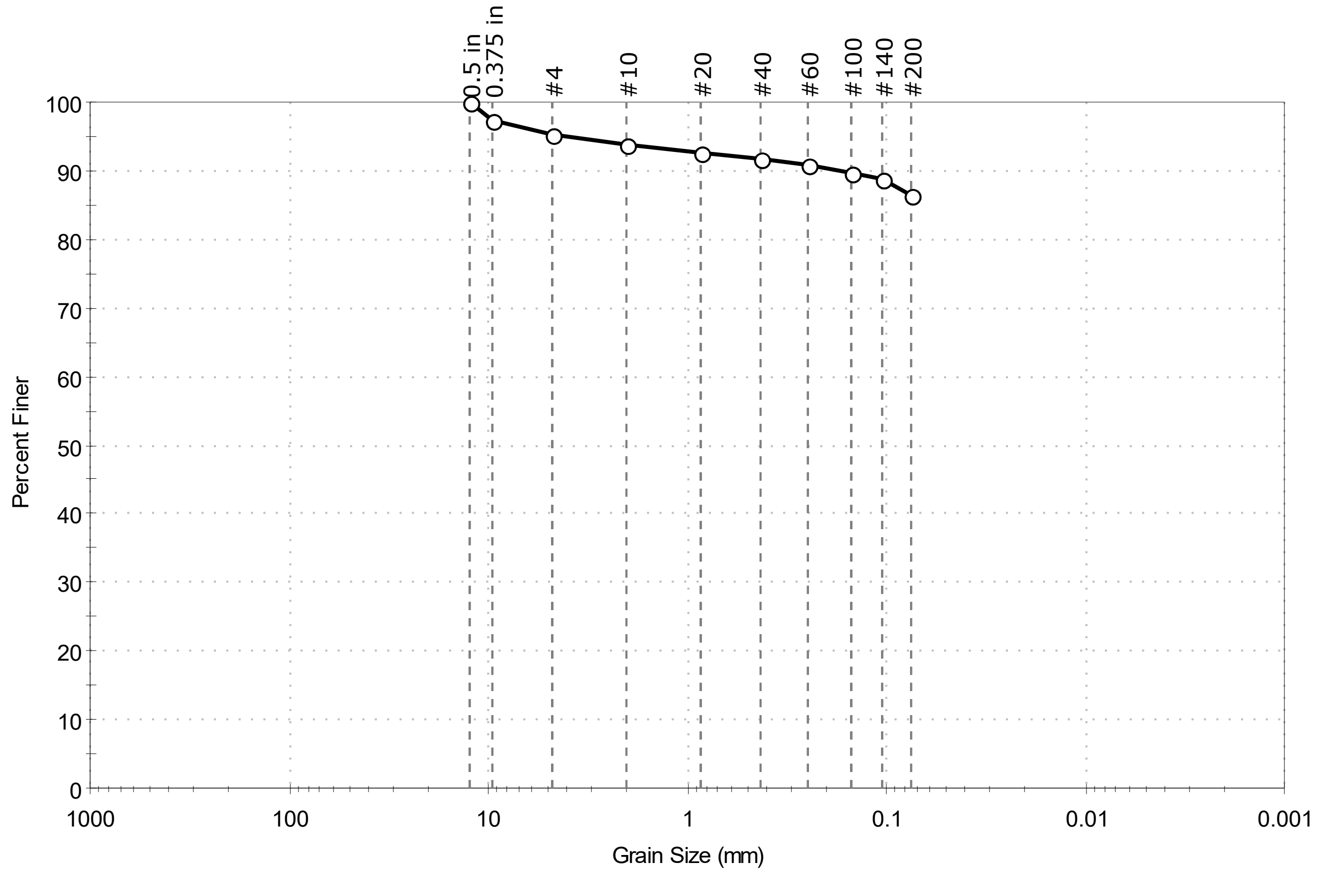
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-035	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	8-10'	Test Id:	817315		

Test Comment: ---
Visual Description: Wet, grayish brown clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	4.7	8.8	86.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	97		
#4	4.75	95		
#10	2.00	94		
#20	0.85	93		
#40	0.42	92		
#60	0.25	91		
#100	0.15	90		
#140	0.11	89		
#200	0.075	86		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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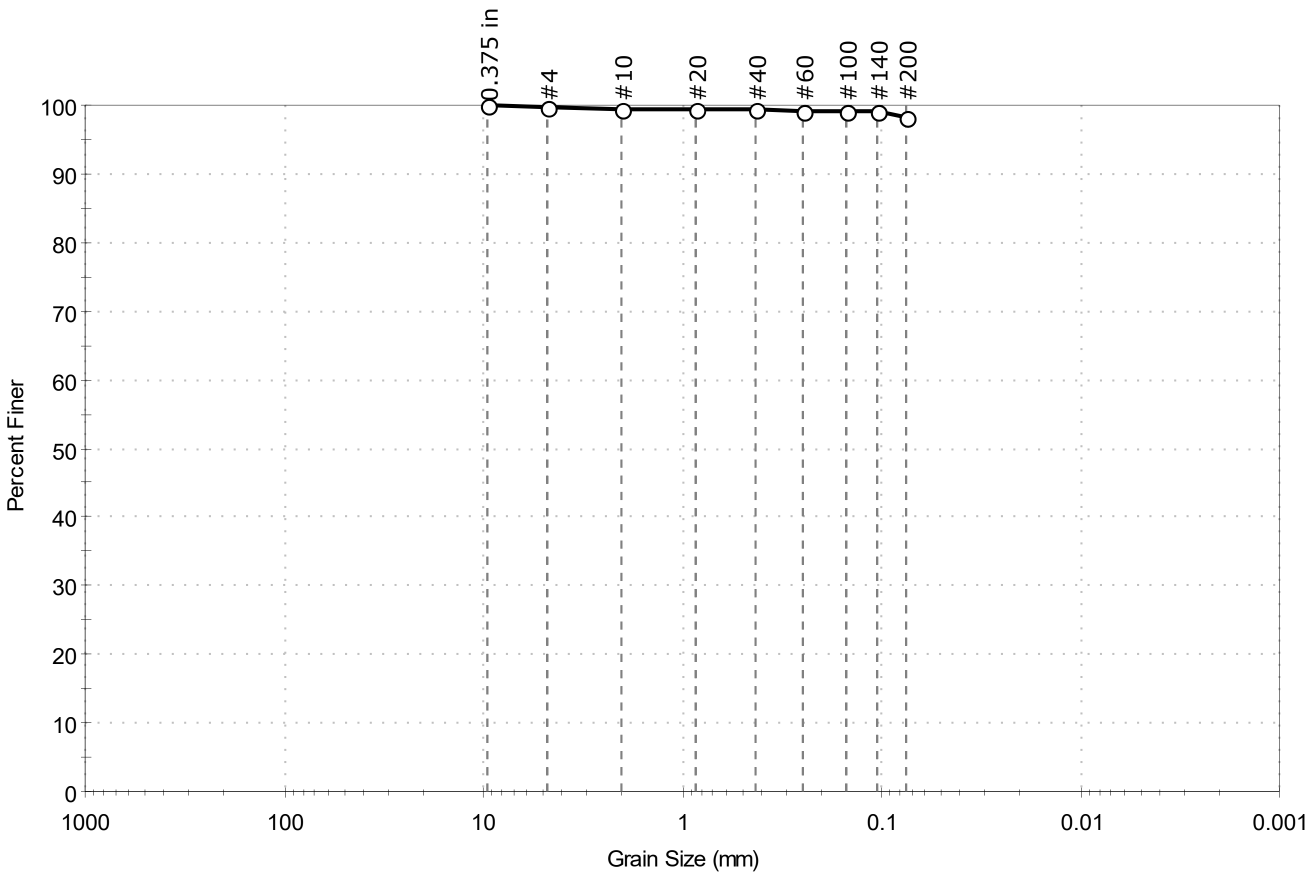
GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-042
Sample ID: ---
Depth : 12-14'
Sample Type: Jar
Test Date: 05/29/25
Test Id: 817316
Tested By: GA
Checked By: ank

Test Comment: ---
Visual Description: Wet, grayish brown clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.2	1.4	98.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	100		
#10	2.00	99		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	98		

Coefficients

D_{85} =N/A
D_{30} =N/A
D_{60} =N/A
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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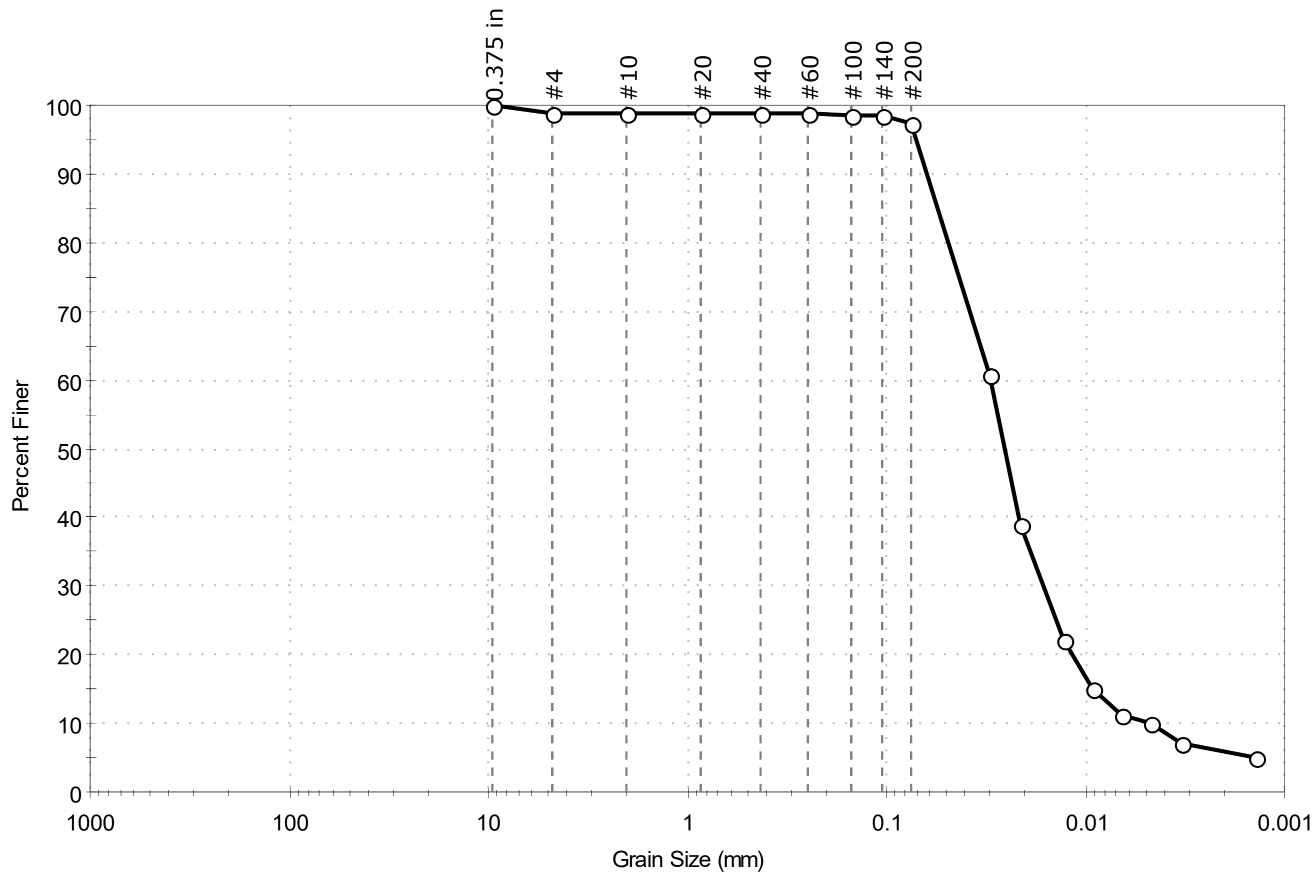
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-042	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/30/25	Checked By:	ank
Depth :	10-12'	Test Id:	817541		

Test Comment: ---
Visual Description: Wet, grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	1.1	1.5	97.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	99		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	97		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0307	61		
---	0.0210	39		
---	0.0128	22		
---	0.0092	15		
---	0.0066	11		
---	0.0047	10		
---	0.0033	7		
---	0.0014	5		

Coefficients

D_{85} =0.0554 mm	D_{30} =0.0161 mm
D_{60} =0.0302 mm	D_{15} =0.0091 mm
D_{50} =0.0254 mm	D_{10} =0.0046 mm
C_u =6.565	C_c =1.866

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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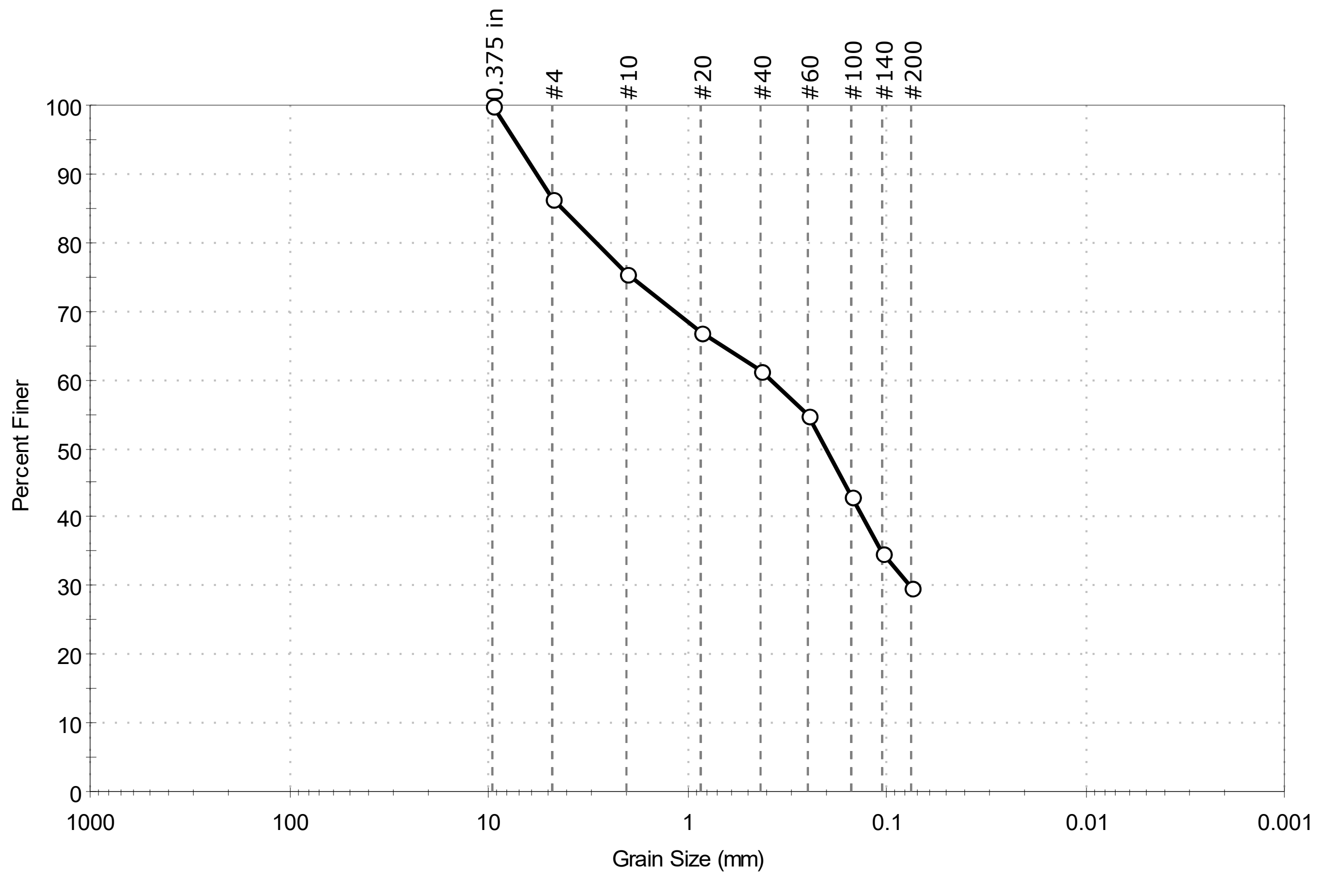
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-043	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	10-12'	Test Id:	817317		

Test Comment: ---
Visual Description: Moist, yellowish brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	13.7	56.5	29.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	86		
#10	2.00	76		
#20	0.85	67		
#40	0.42	61		
#60	0.25	55		
#100	0.15	43		
#140	0.11	35		
#200	0.075	30		

Coefficients

D_{85} =4.2652 mm
D_{30} =0.0760 mm
D_{60} =0.3795 mm
D_{15} =N/A
D_{50} =0.2028 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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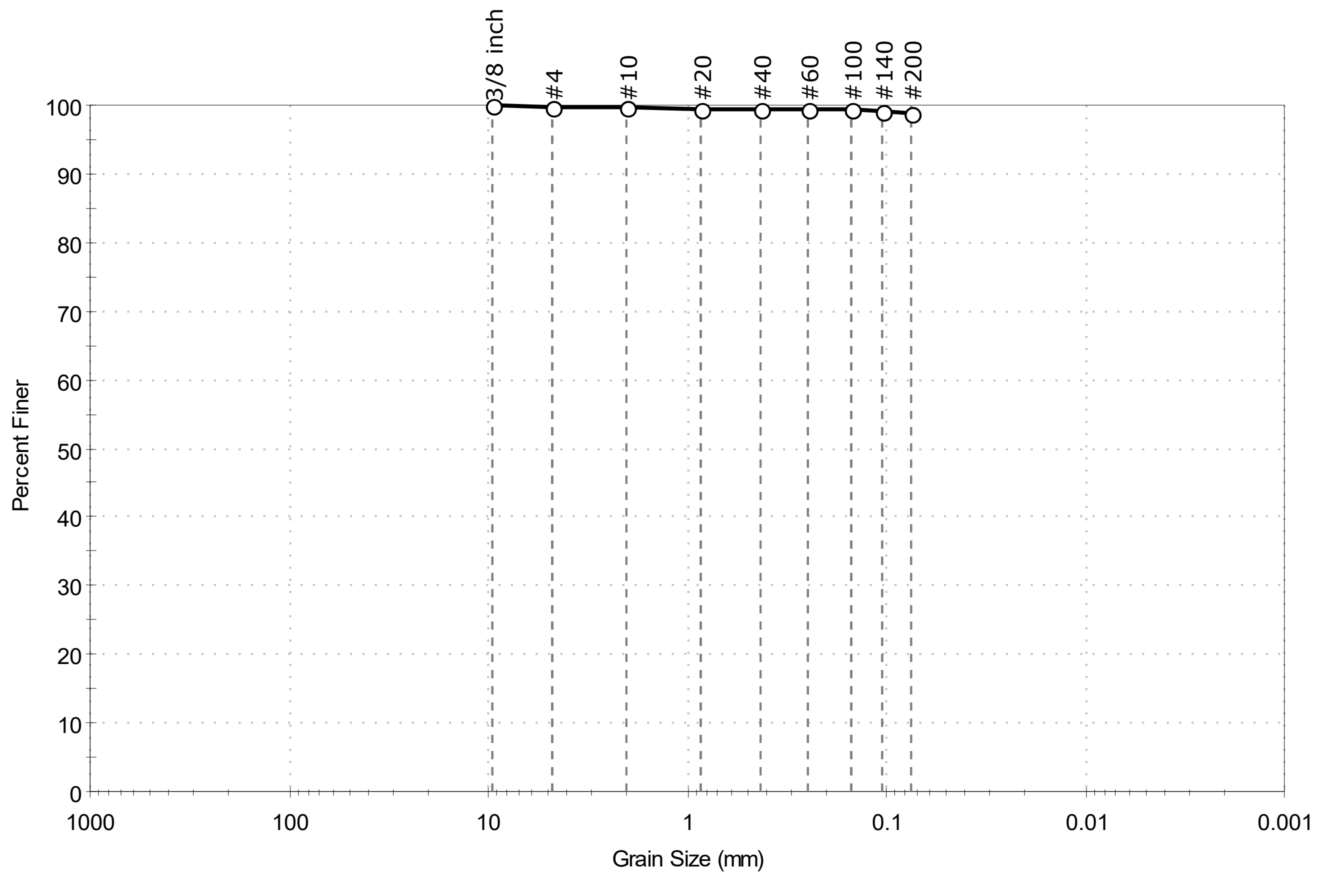
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-047	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	4-6'	Test Id:	817318		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.2	1.0	98.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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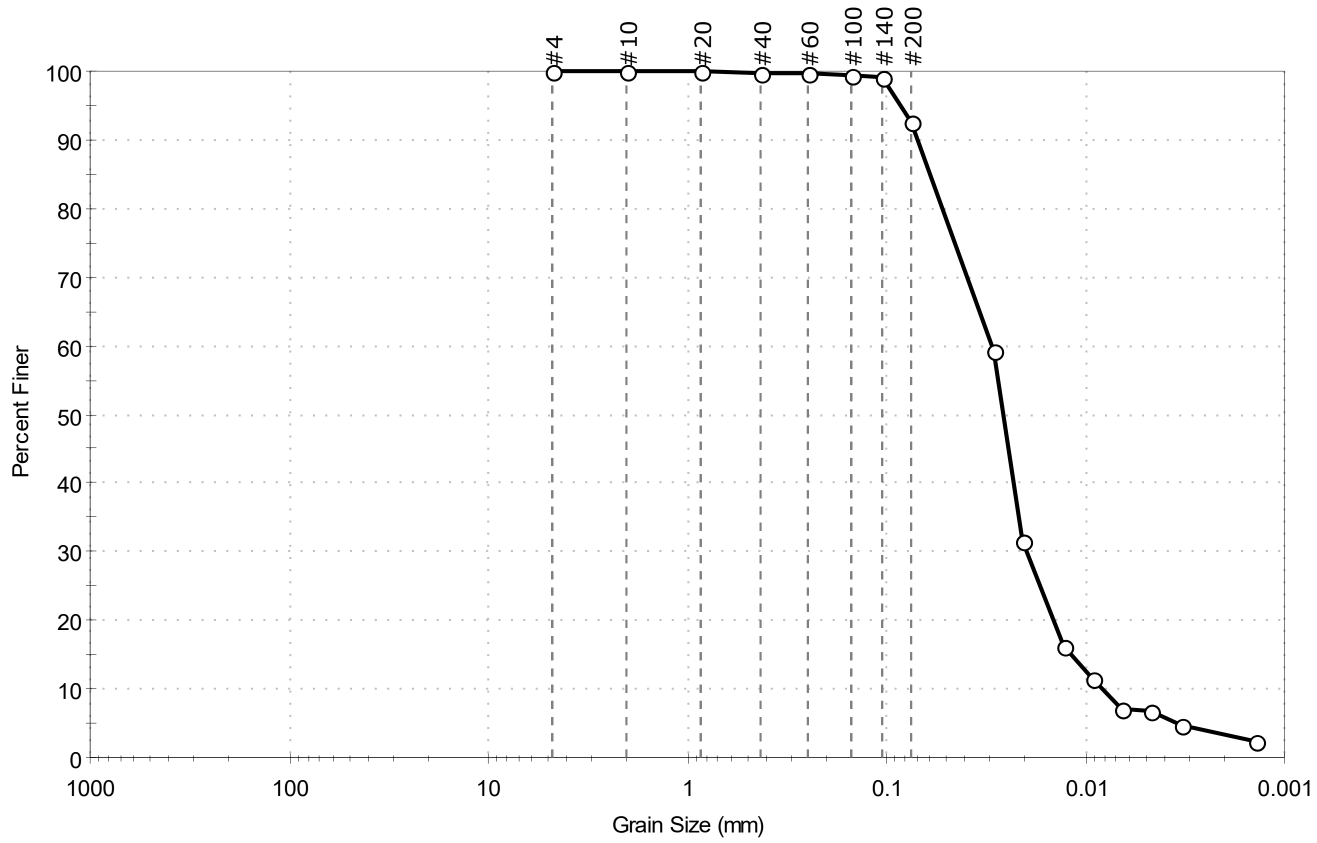
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-047	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/30/25	Checked By:	ank
Depth :	8-10'	Test Id:	817542		

Test Comment: ---
Visual Description: Wet, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	7.4	92.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	93		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0287	59		
---	0.0208	32		
---	0.0128	16		
---	0.0092	12		
---	0.0066	7		
---	0.0047	7		
---	0.0033	5		
---	0.0014	2		

Coefficients

D_{85} =0.0602 mm	D_{30} =0.0198 mm
D_{60} =0.0294 mm	D_{15} =0.0117 mm
D_{50} =0.0258 mm	D_{10} =0.0082 mm
C_u =3.585	C_c =1.626

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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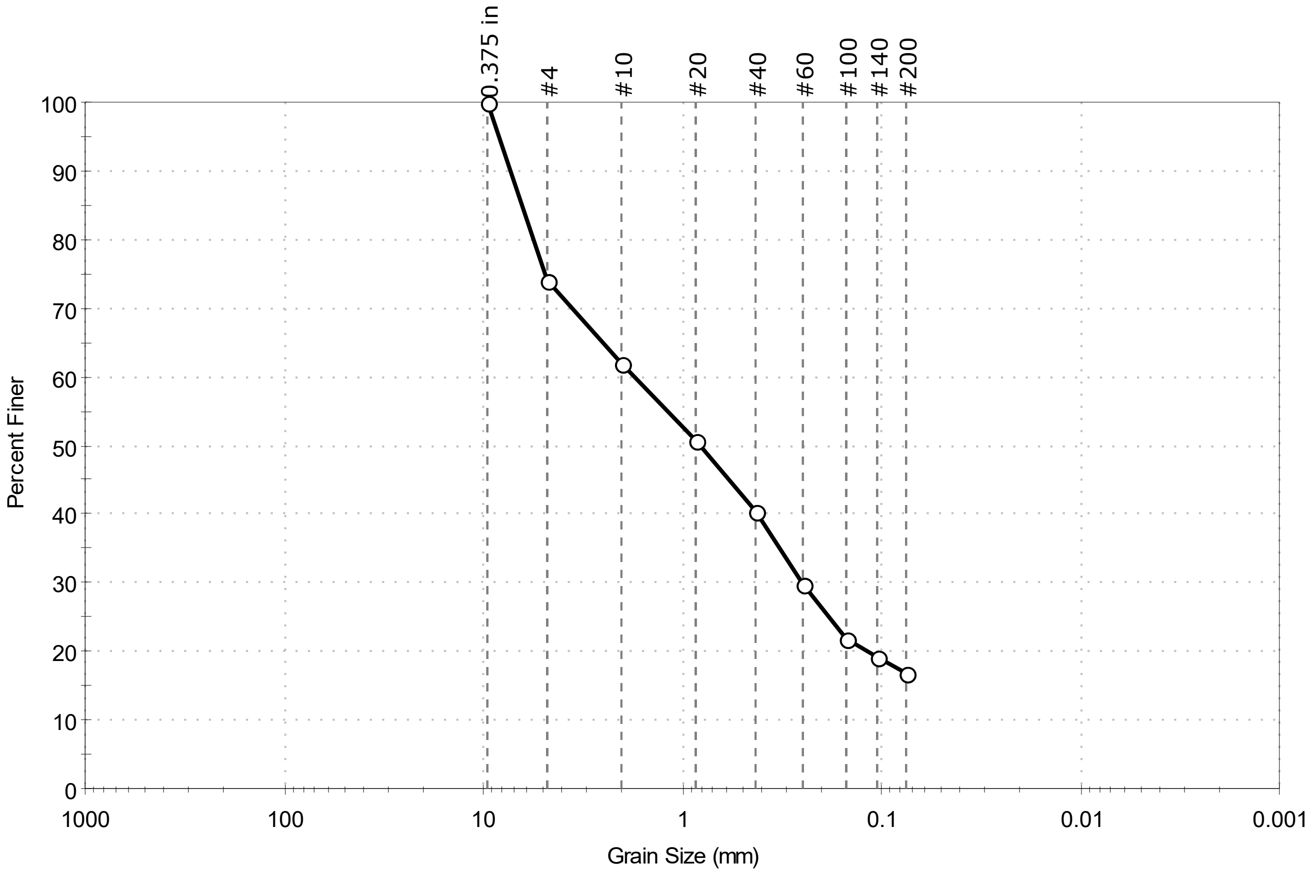
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-048	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	10-12'	Test Id:	817319		

Test Comment: ---

Visual Description: Moist, brown silty sand with gravel

Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	26.0	57.3	16.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	74		
#10	2.00	62		
#20	0.85	51		
#40	0.42	40		
#60	0.25	30		
#100	0.15	22		
#140	0.11	19		
#200	0.075	17		

Coefficients

D_{85} =6.3686 mm	D_{30} =0.2542 mm
D_{60} =1.7184 mm	D_{15} =N/A
D_{50} =0.8160 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Silty SAND with Gravel (SM)
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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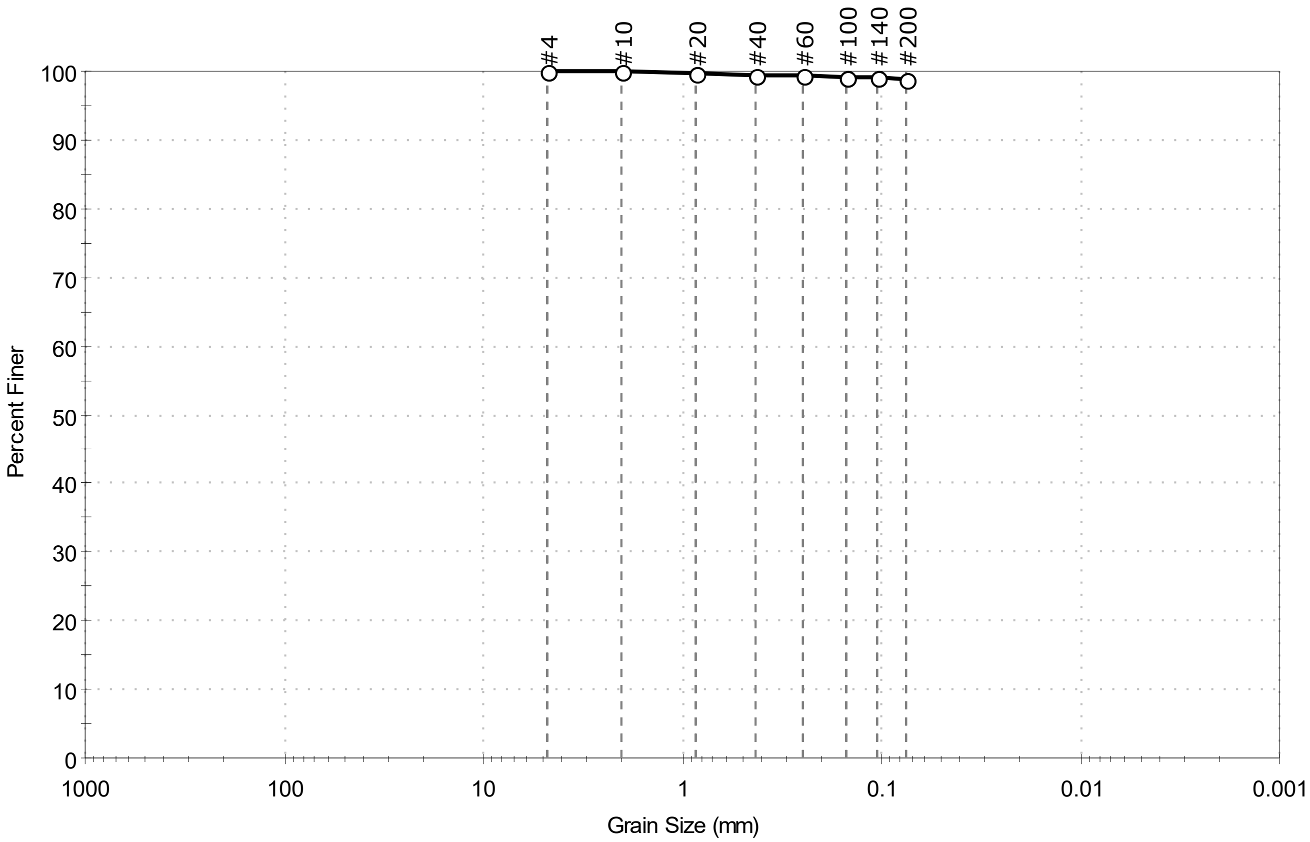
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-050	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	4-6'	Test Id:	817320		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.2	98.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Lean CLAY (CL)
AASHTO	Clayey Soils (A-6 (12))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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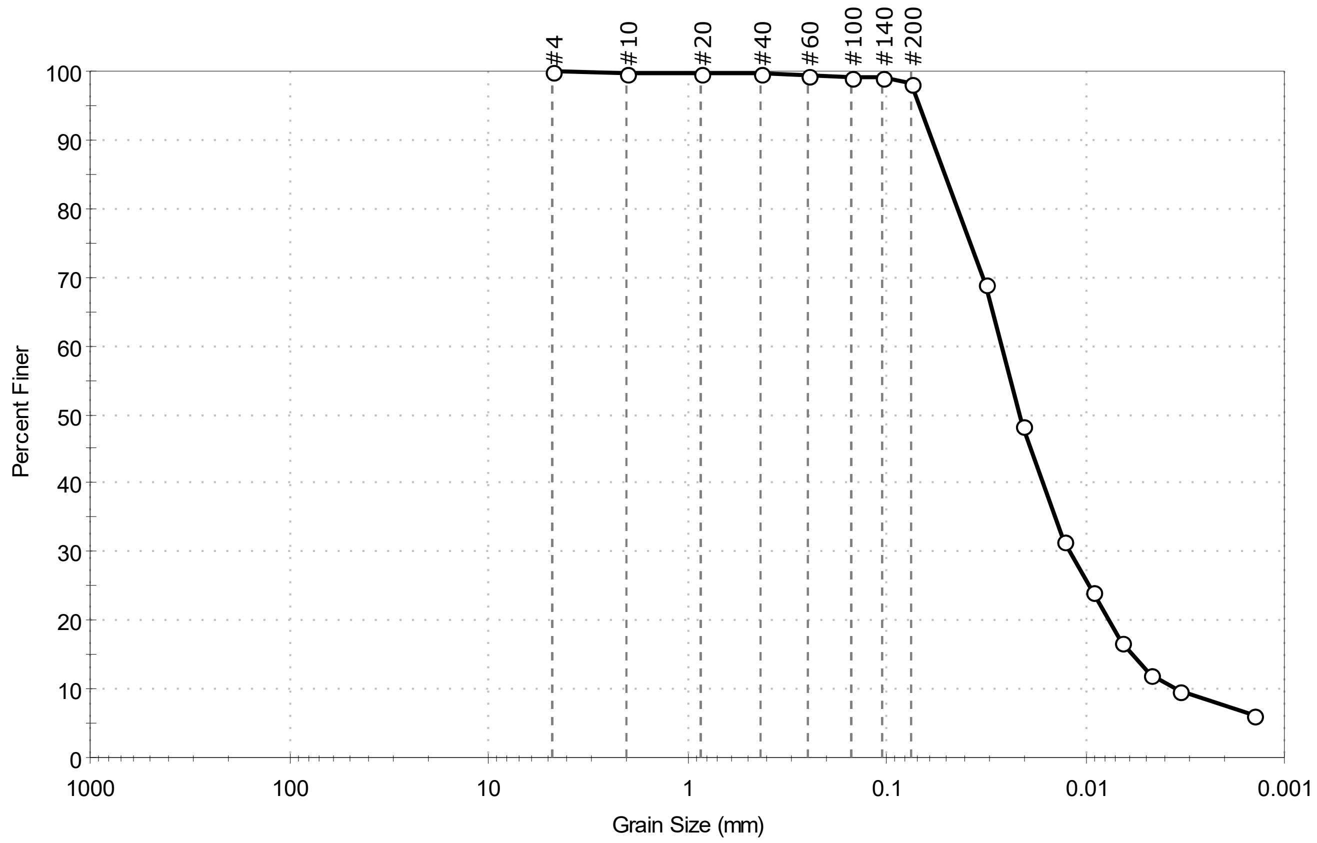
Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096

Boring ID:	LB-R-050	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	6-8'	Test Id:	817543		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.8	98.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	98		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0317	69		
---	0.0209	48		
---	0.0128	31		
---	0.0092	24		
---	0.0066	17		
---	0.0047	12		
---	0.0034	10		
---	0.0014	6		

Coefficients

D_{85} =0.0508 mm	D_{30} =0.0120 mm
D_{60} =0.0264 mm	D_{15} =0.0058 mm
D_{50} =0.0216 mm	D_{10} =0.0035 mm
C_u =7.543	C_c =1.558

Classification

ASTM Silty CLAY (CL-ML)

AASHTO Silty Soils (A-4 (4))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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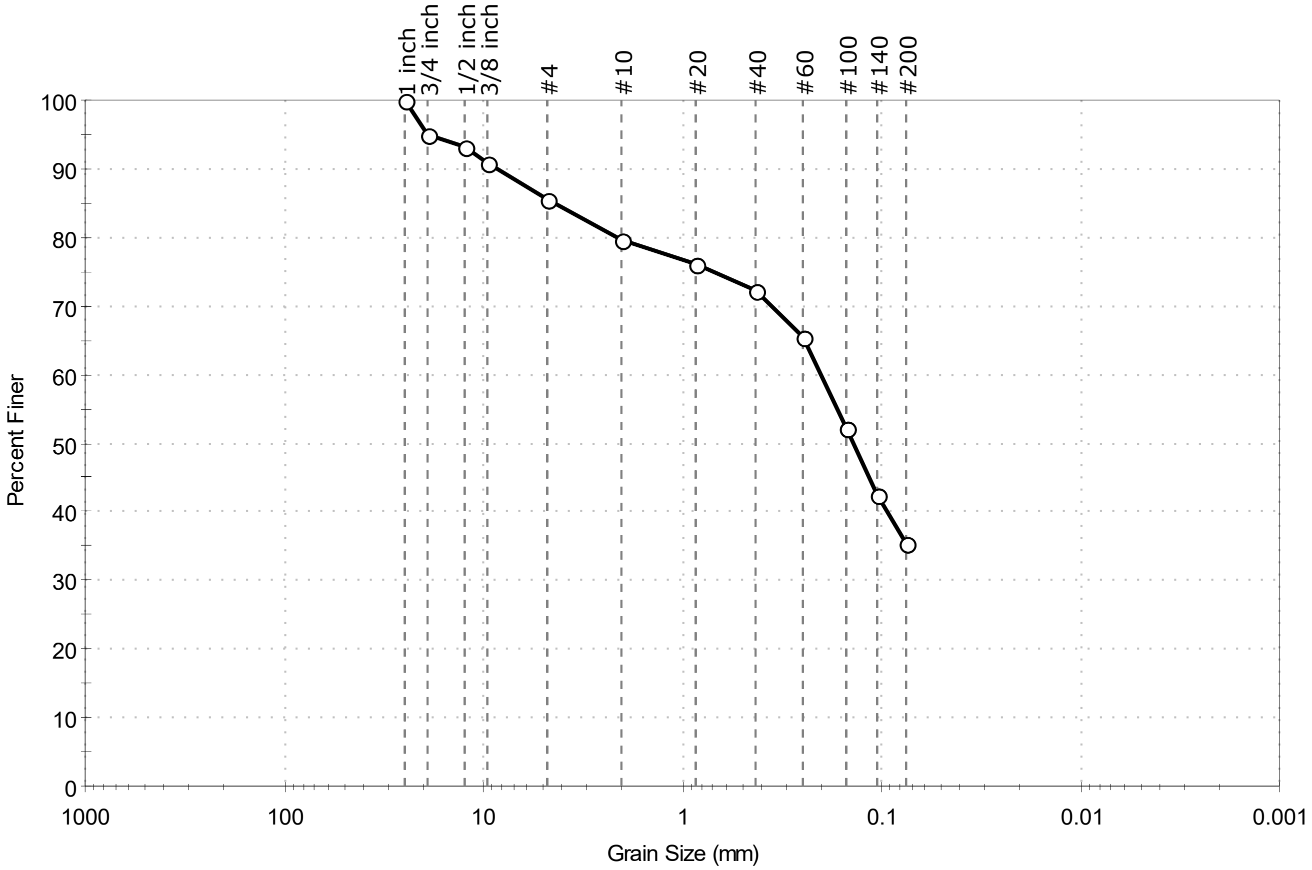
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-052	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	16-18'	Test Id:	817321		

Test Comment: ---
Visual Description: Moist, gray silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	14.5	50.1	35.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 inch	25.00	100		
3/4 inch	19.00	95		
1/2 inch	12.50	93		
3/8 inch	9.50	91		
#4	4.75	86		
#10	2.00	80		
#20	0.85	76		
#40	0.42	72		
#60	0.25	66		
#100	0.15	52		
#140	0.11	42		
#200	0.075	35		

Coefficients

D_{85} =4.4009 mm	D_{30} =N/A
D_{60} =0.2026 mm	D_{15} =N/A
D_{50} =0.1393 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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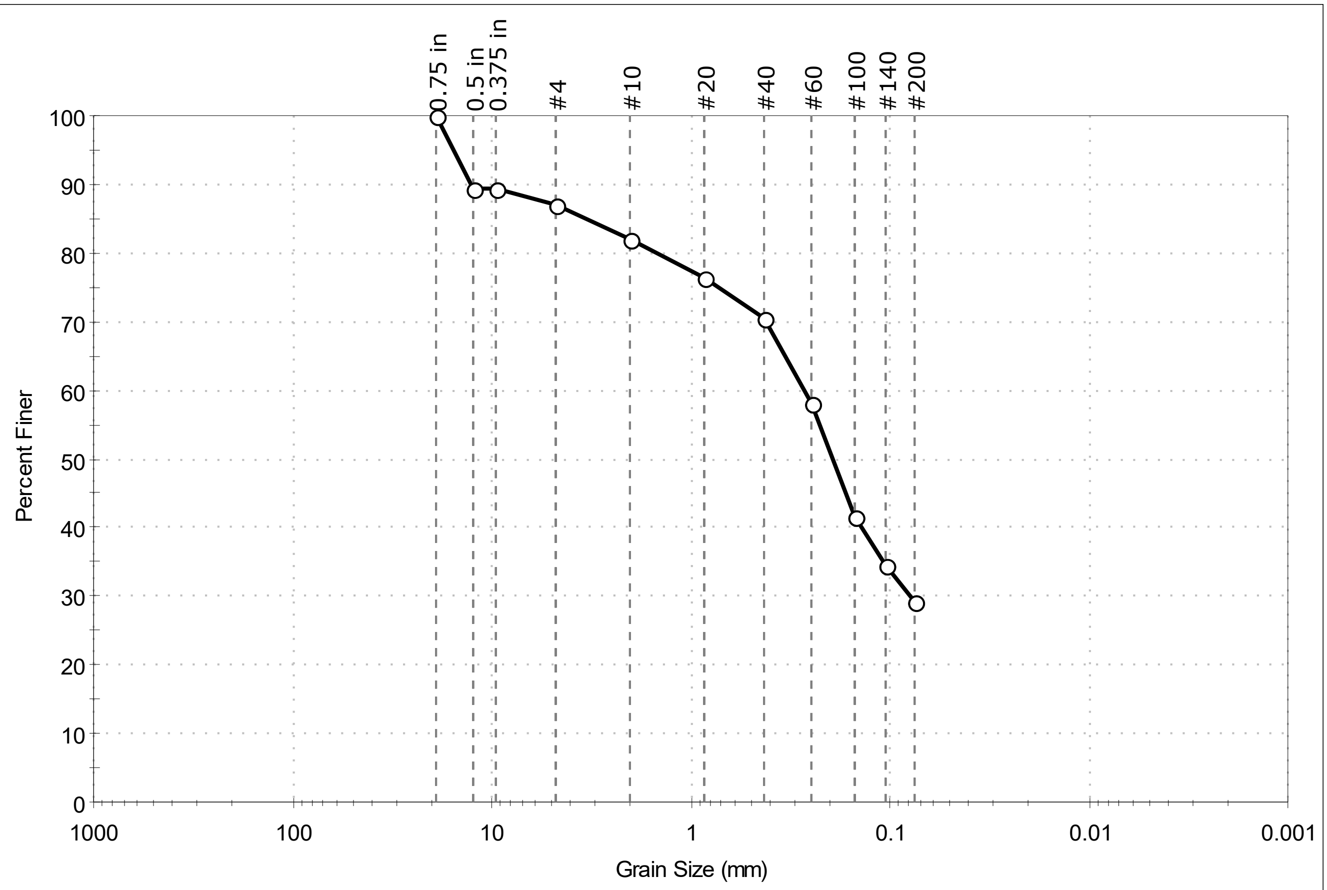
Client: Langan Engineering			
Project: Upstate Confidential Project			
Location: NY		Project No:	GTX-321096
Boring ID: LB-R-053	Sample Type: Jar	Tested By:	ajl
Sample ID: ---	Test Date: 06/13/25	Checked By:	ank
Depth : 25-27'	Test Id: 817324		

Test Comment: ---
Visual Description: Moist, light grayish brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	13.1	57.7	29.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	89		
0.375 in	9.50	89		
#4	4.75	87		
#10	2.00	82		
#20	0.85	76		
#40	0.42	71		
#60	0.25	58		
#100	0.15	42		
#140	0.11	35		
#200	0.075	29		

Coefficients

D_{85} =3.3997 mm
D_{30} =0.0789 mm
D_{60} =0.2710 mm
D_{15} =N/A
D_{50} =0.1941 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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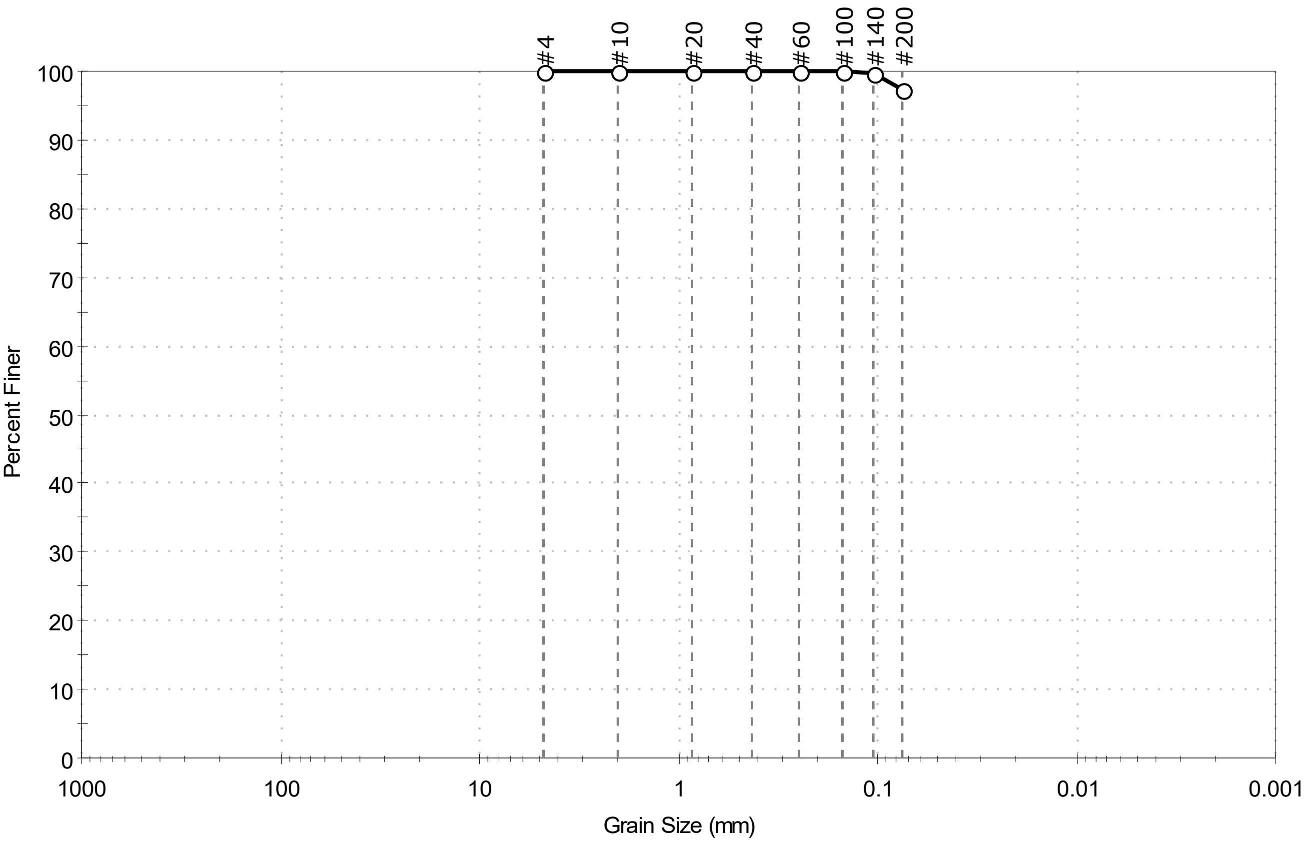
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-053	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/07/25	Checked By:	ank
Depth :	10-12'	Test Id:	817323		

Test Comment: ---
Visual Description: Moist, grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.7	97.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	97		

Coefficients

D_{85} =N/A
D_{30} =N/A
D_{60} =N/A
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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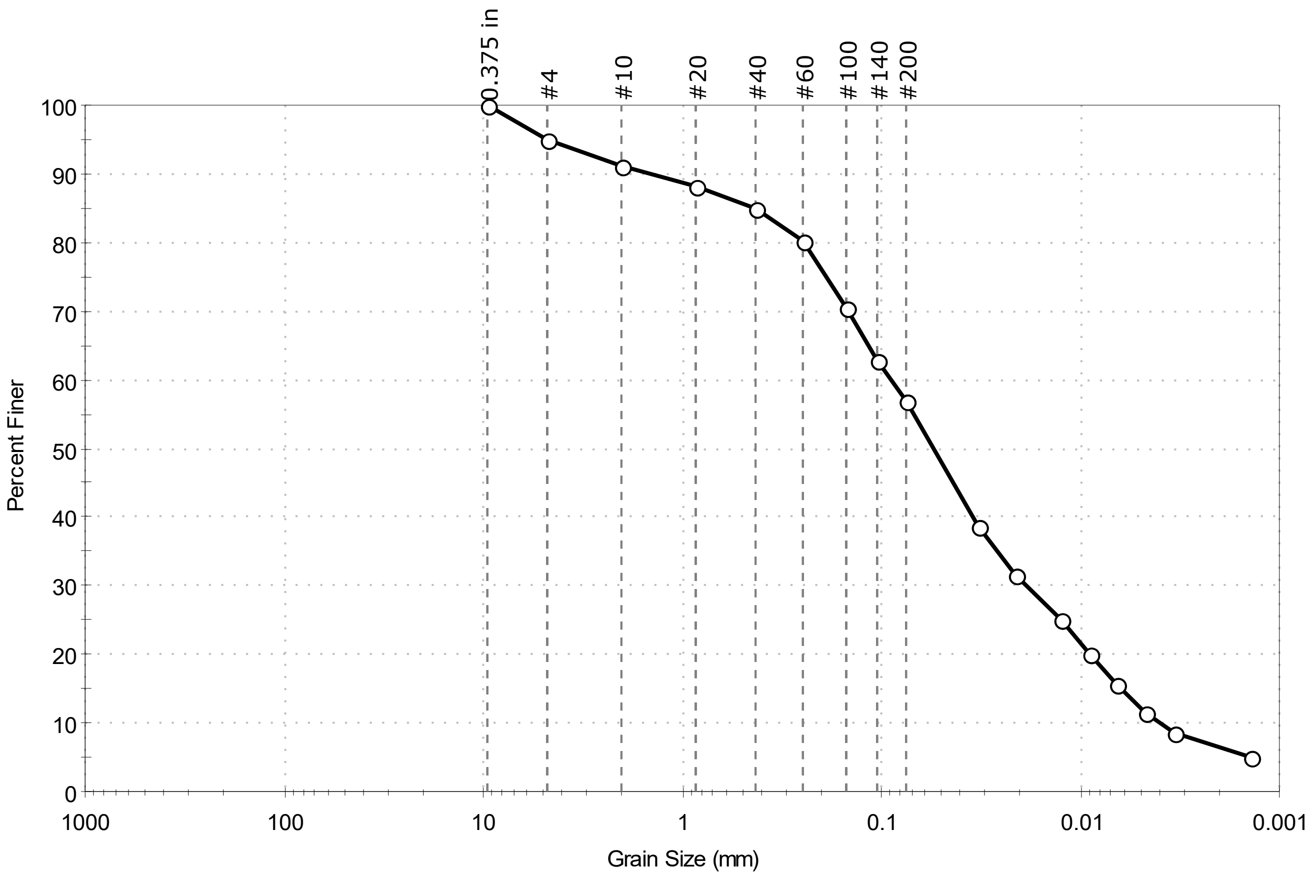
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-054	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	14-16'	Test Id:	817545		

Test Comment: ---
Visual Description: Moist, grayish brown sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	4.9	38.0	57.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	95		
#10	2.00	91		
#20	0.85	88		
#40	0.42	85		
#60	0.25	80		
#100	0.15	70		
#140	0.11	63		
#200	0.075	57		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0327	39		
---	0.0213	31		
---	0.0125	25		
---	0.0090	20		
---	0.0065	16		
---	0.0047	11		
---	0.0033	9		
---	0.0014	5		

Coefficients

D_{85} =0.4292 mm D_{30} =0.0188 mm
D_{60} =0.0892 mm D_{15} =0.0062 mm
D_{50} =0.0546 mm D_{10} =0.0039 mm
C_u =22.872 C_c =1.016

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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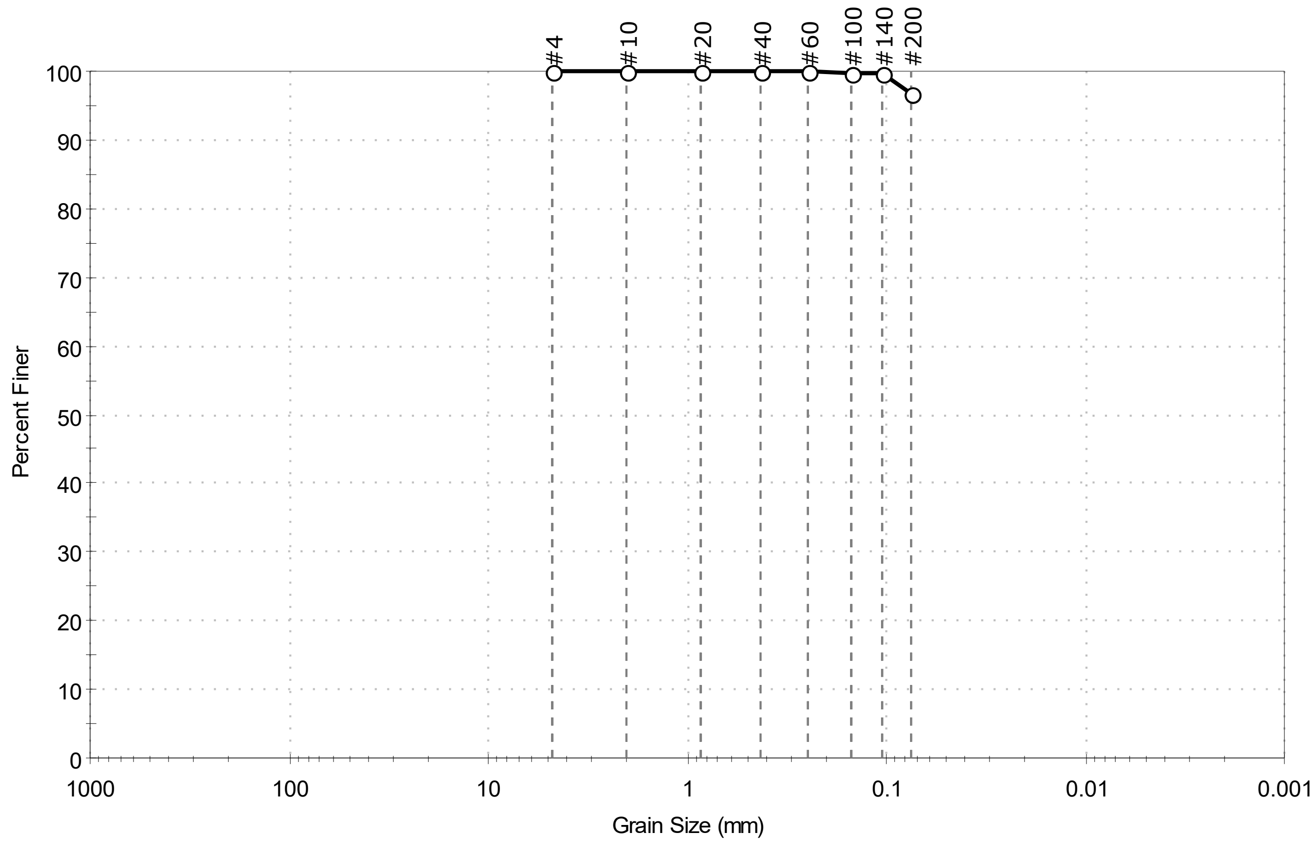
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-055	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	12-14'	Test Id:	817325		

Test Comment: ---
Visual Description: Moist, light grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.3	96.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	97		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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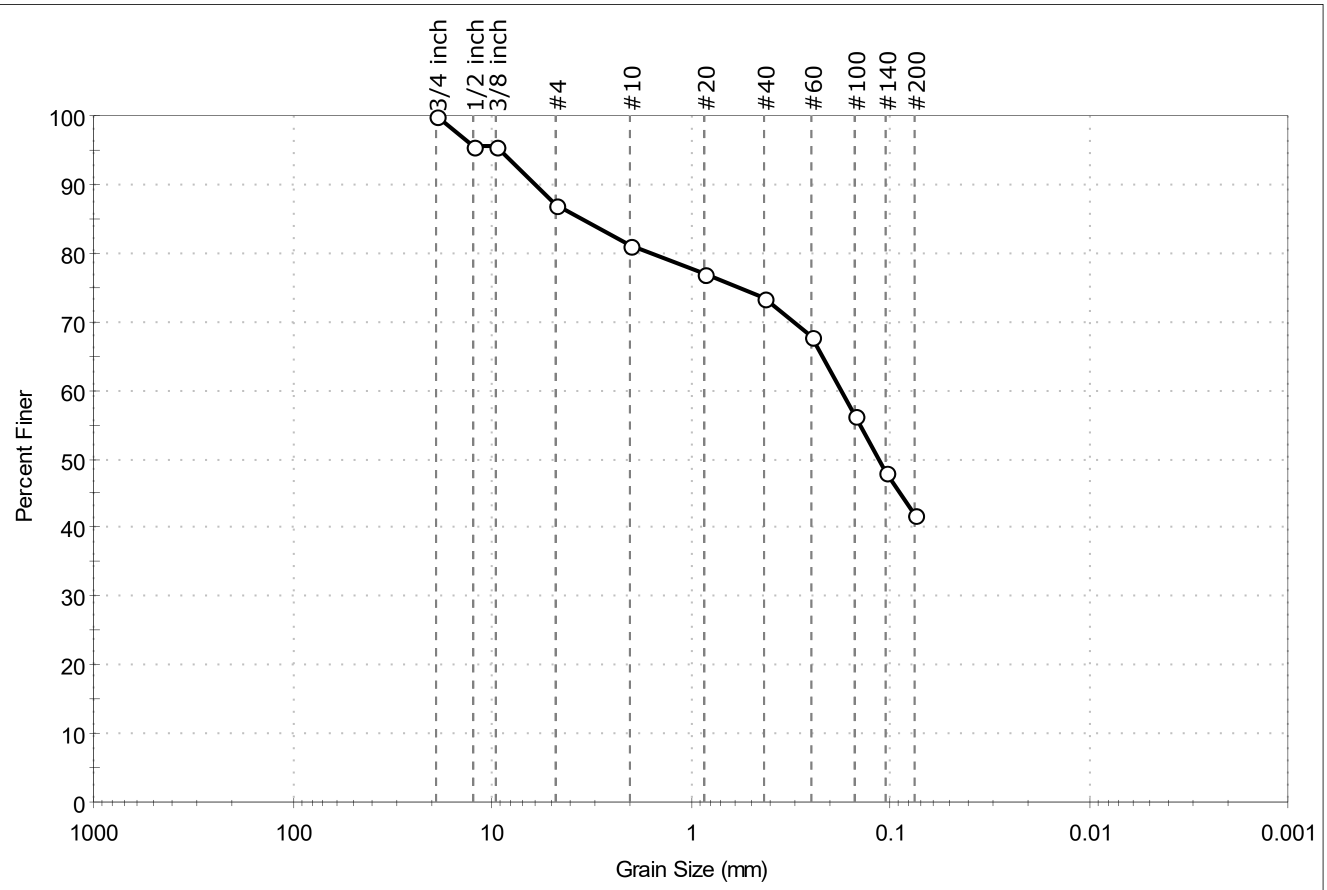
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-055	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	16-18'	Test Id:	817329		

Test Comment: ---
Visual Description: Moist, light grayish brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	12.9	45.1	42.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	95		
3/8 inch	9.50	95		
#4	4.75	87		
#10	2.00	81		
#20	0.85	77		
#40	0.42	73		
#60	0.25	68		
#100	0.15	56		
#140	0.11	48		
#200	0.075	42		

Coefficients

D_{85} =3.5138 mm
D_{30} =N/A
D_{60} =0.1769 mm
D_{15} =N/A
D_{50} =0.1155 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

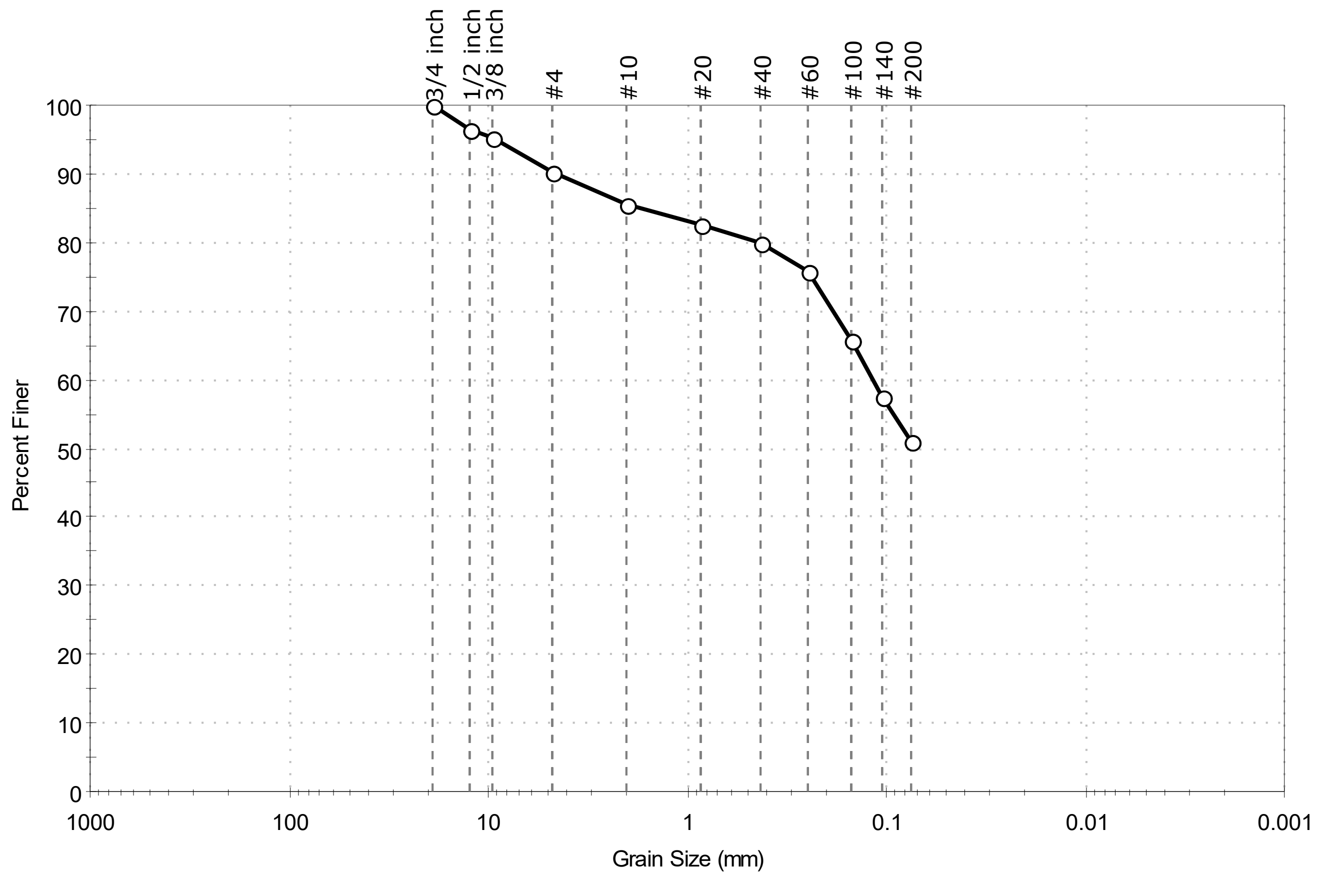
Sand/Gravel Hardness : HARD

GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-055	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	14-16'	Test Id:	817326		

Test Comment: ---
Visual Description: Moist, light grayish brown sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	9.8	39.1	51.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	97		
3/8 inch	9.50	95		
#4	4.75	90		
#10	2.00	86		
#20	0.85	83		
#40	0.42	80		
#60	0.25	76		
#100	0.15	66		
#140	0.11	58		
#200	0.075	51		

Coefficients

D_{85} =1.6892 mm
D_{30} =N/A
D_{60} =0.1172 mm
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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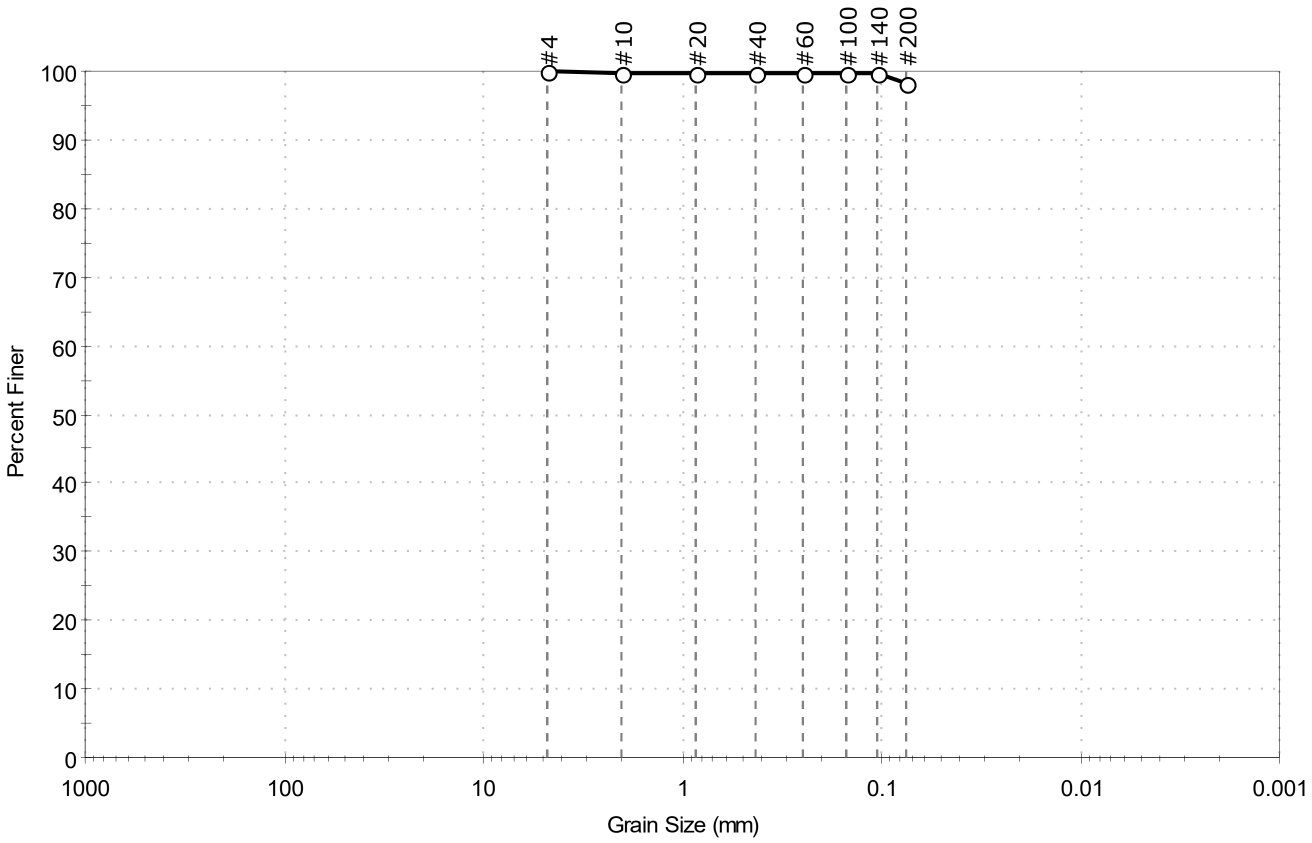
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-056	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	4-6'	Test Id:	817327		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.7	98.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	98		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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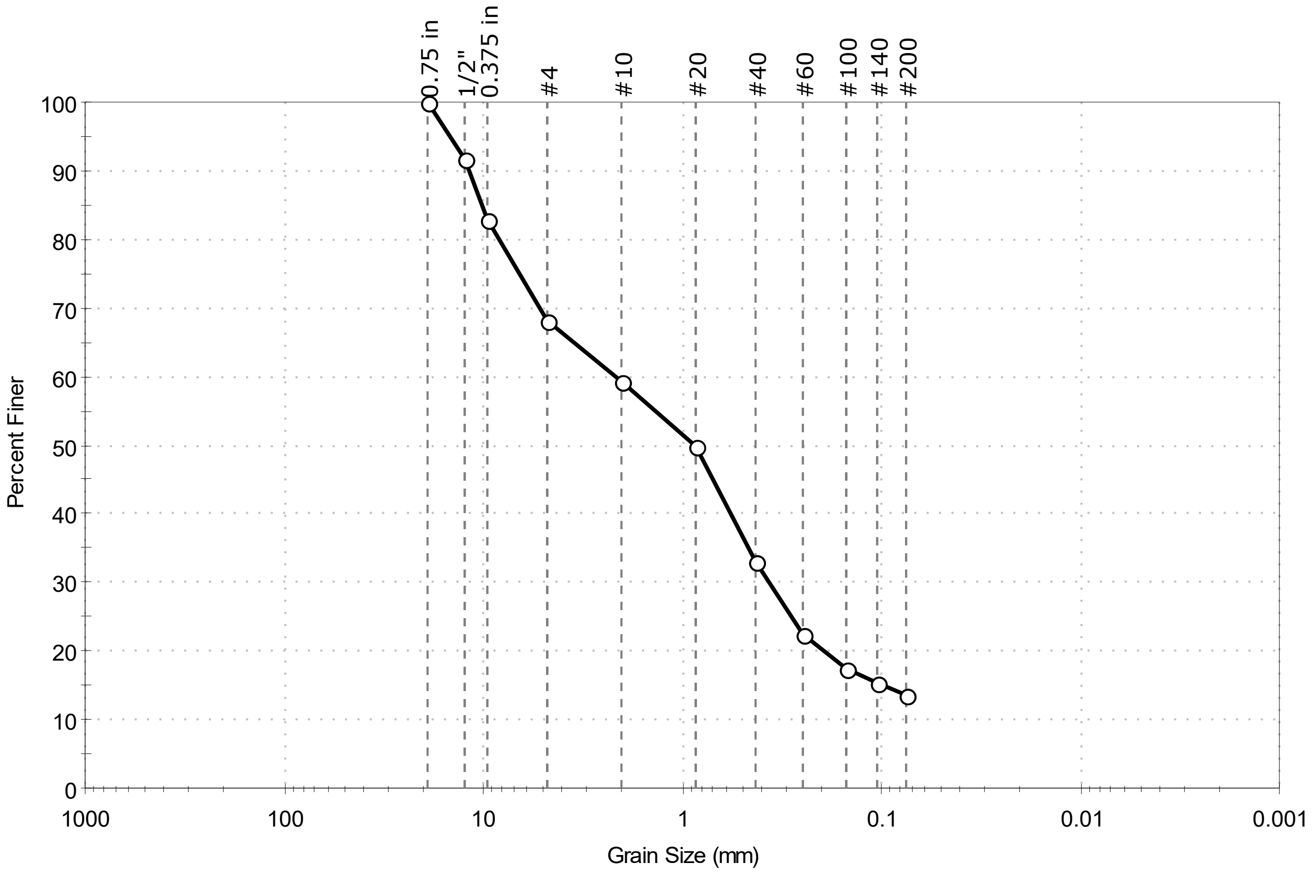
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-057	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	25-27'	Test Id:	817328		

Test Comment: ---
Visual Description: Moist, dark brownish gray silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	31.9	54.5	13.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
1/2"	12.50	92		
0.375 in	9.50	83		
#4	4.75	68		
#10	2.00	59		
#20	0.85	50		
#40	0.42	33		
#60	0.25	22		
#100	0.15	17		
#140	0.11	15		
#200	0.075	14		

Coefficients

D_{85} =10.1788 mm	D_{30} =0.3647 mm
D_{60} =2.1341 mm	D_{15} =0.0991 mm
D_{50} =0.8597 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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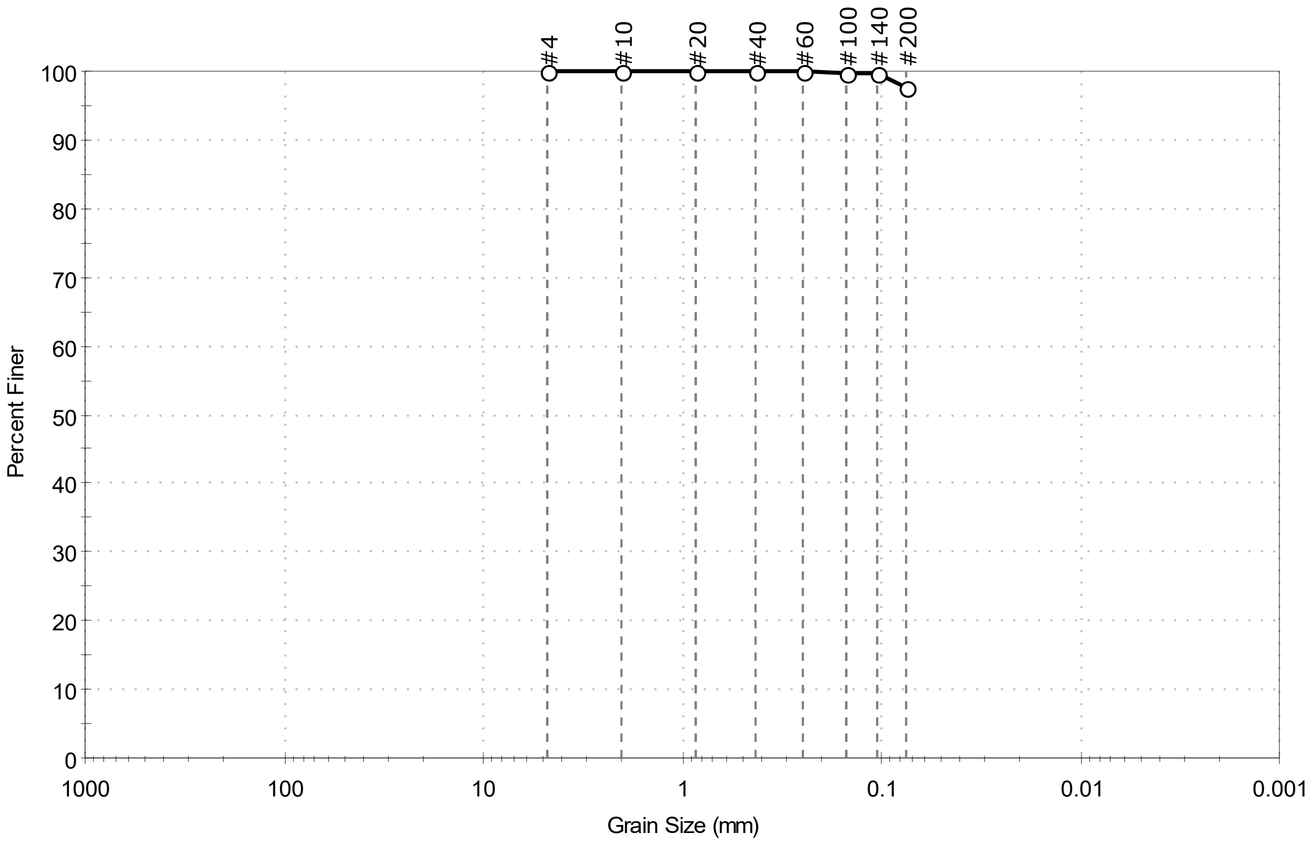
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-058	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	8-10'	Test Id:	817330		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.3	97.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	98		

Coefficients

D_{85} =N/A
D_{30} =N/A
D_{60} =N/A
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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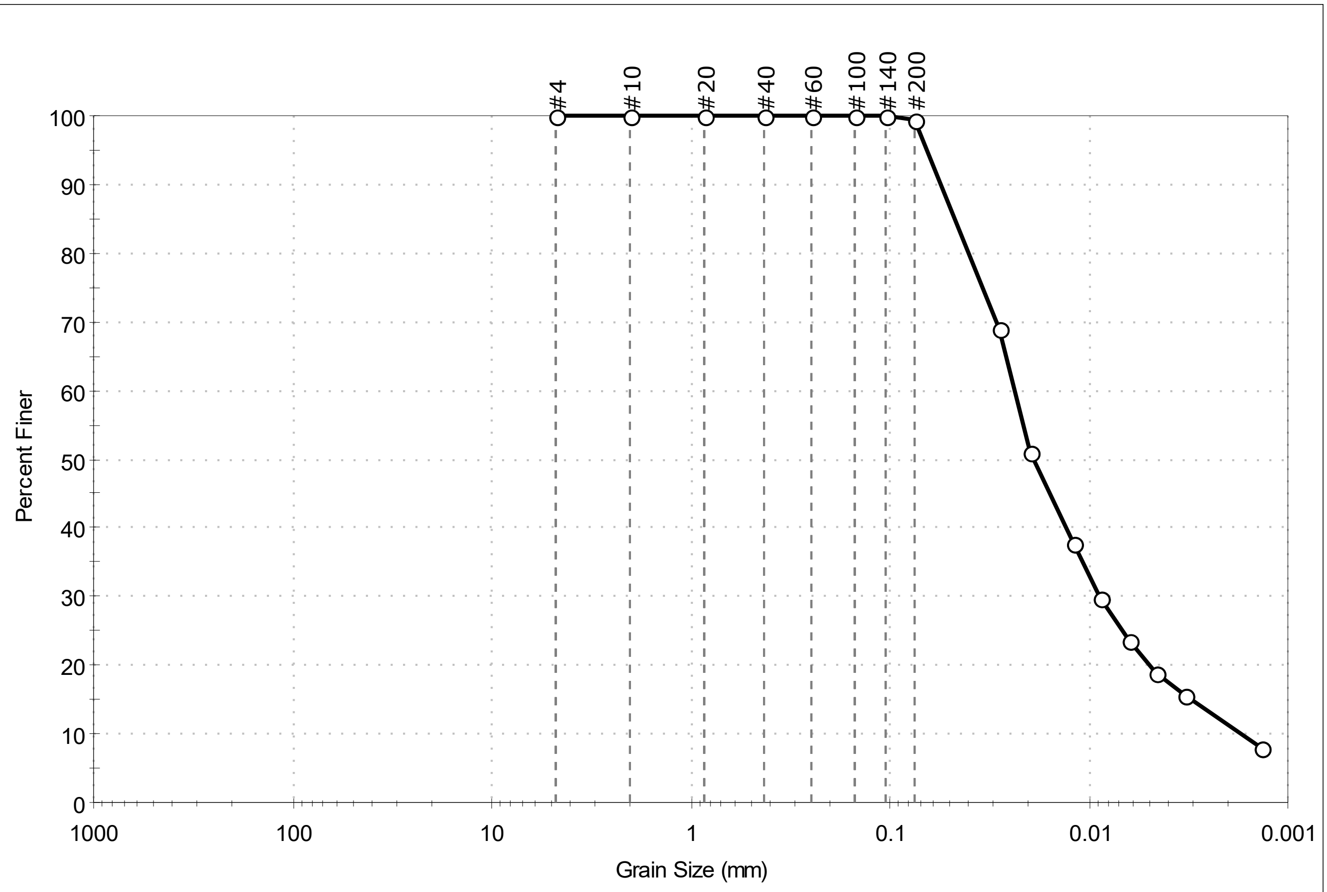
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-058	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	17-19'	Test Id:	817546		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	0.5	99.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	99		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0283	69		
---	0.0195	51		
---	0.0120	38		
---	0.0088	30		
---	0.0063	24		
---	0.0046	19		
---	0.0033	16		
---	0.0014	8		

Coefficients

D_{85} =0.0472 mm	D_{30} =0.0088 mm
D_{60} =0.0235 mm	D_{15} =0.0030 mm
D_{50} =0.0188 mm	D_{10} =0.0017 mm
C_u =13.824	C_c =1.938

Classification

ASTM Silty CLAY (CL-ML)

AASHTO Silty Soils (A-4 (5))

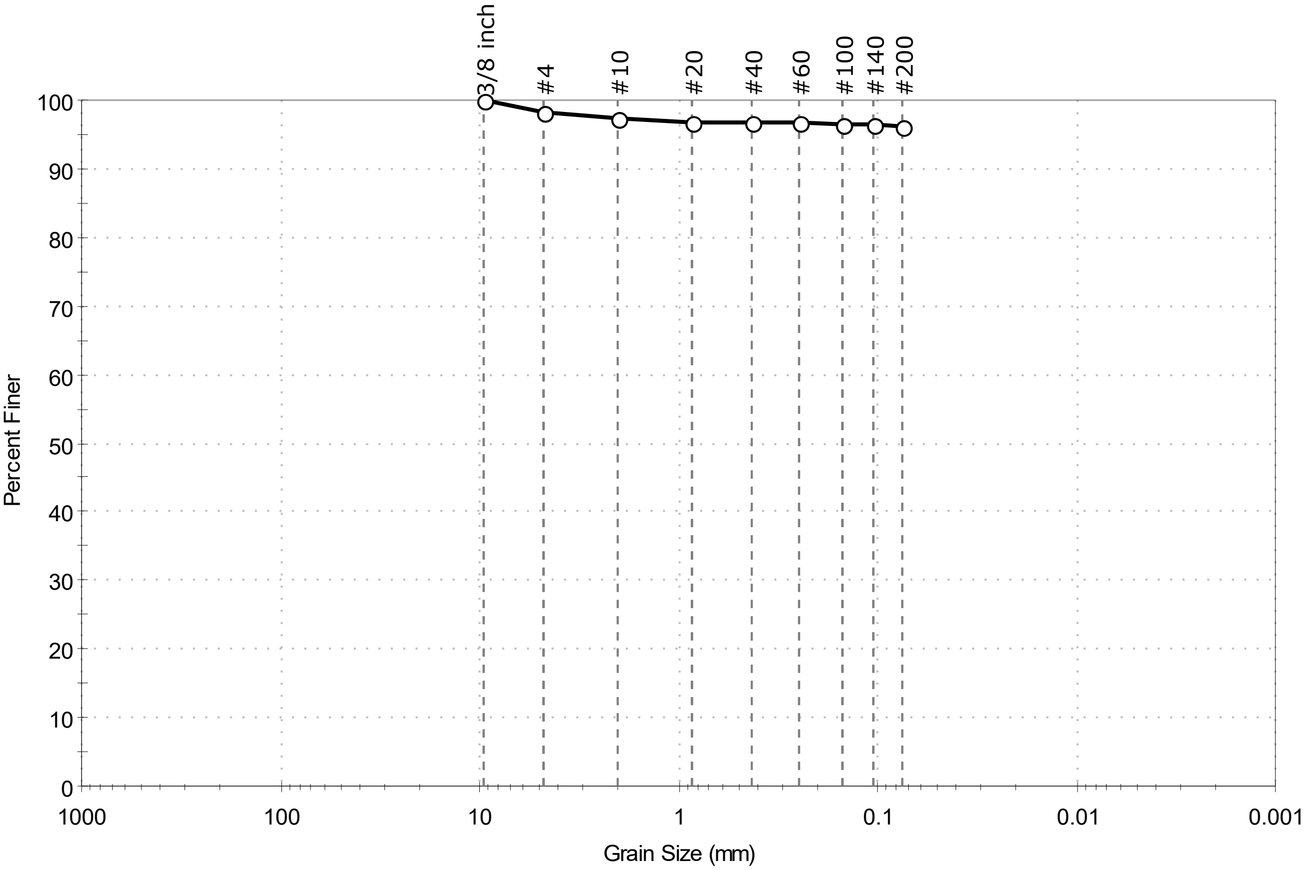
Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-059	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	4-6'	Test Id:	817331		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	1.7	2.2	96.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	98		
#10	2.00	97		
#20	0.85	97		
#40	0.42	97		
#60	0.25	97		
#100	0.15	96		
#140	0.11	96		
#200	0.075	96		

Coefficients

D_{85} =N/A
D_{30} =N/A
D_{60} =N/A
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM Silty CLAY (CL-ML)

AASHTO Silty Soils (A-4 (4))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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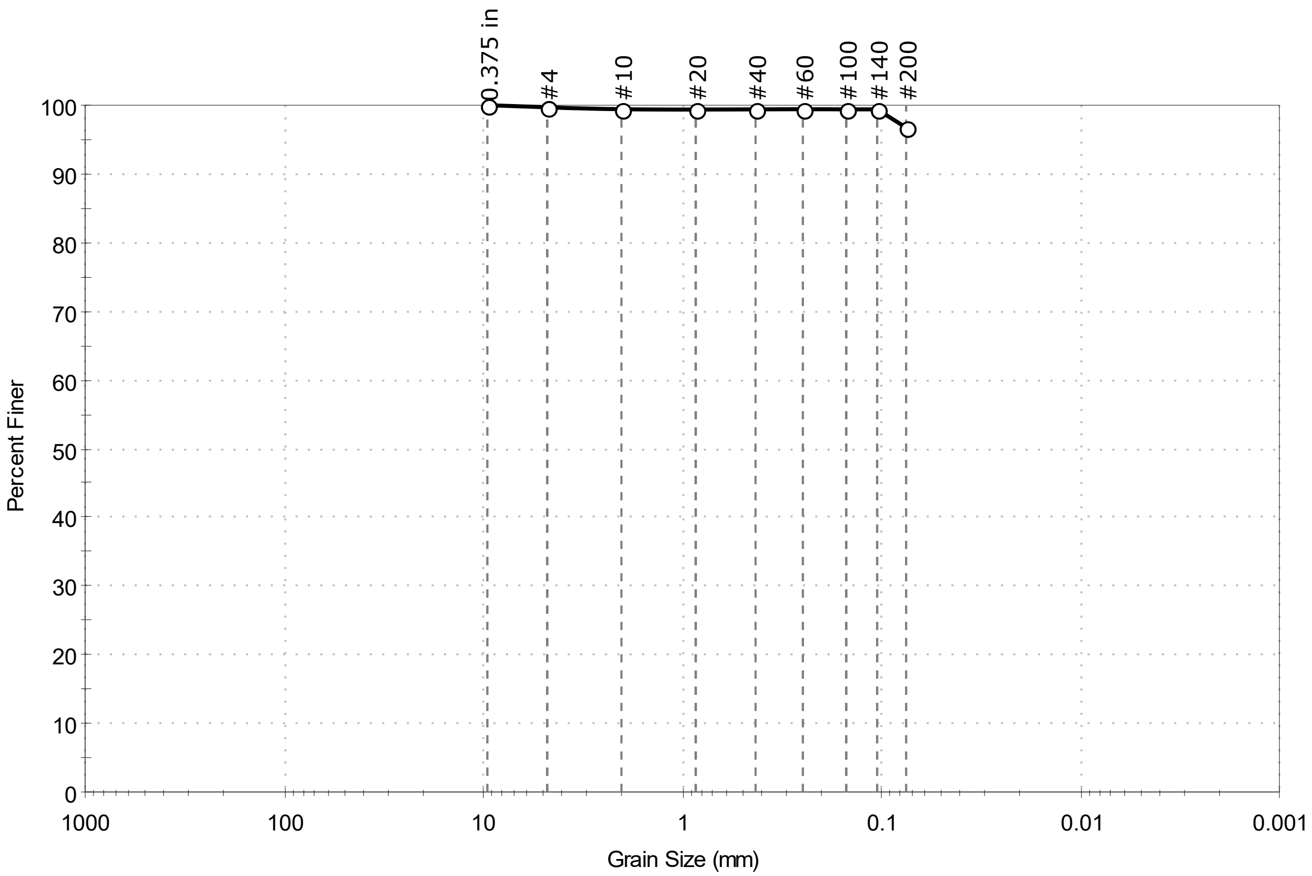
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-060	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	8-10'	Test Id:	817332		

Test Comment: ---
Visual Description: Moist, light brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	0.4	2.9	96.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	97		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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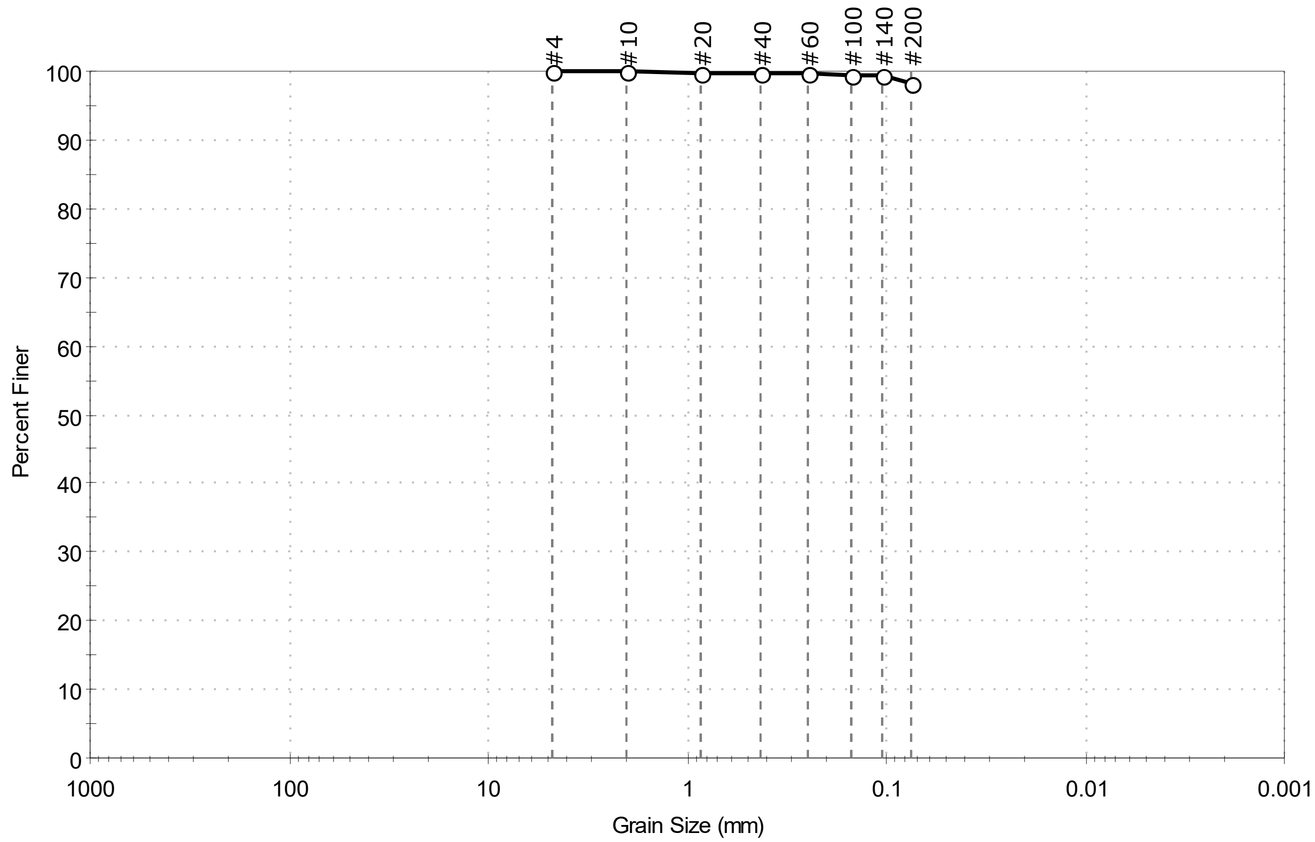
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-062	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	10-12'	Test Id:	817333		

Test Comment: ---
Visual Description: Wet, grayish brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.6	98.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	98		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Silty CLAY (CL-ML)
AASHTO	Silty Soils (A-4 (2))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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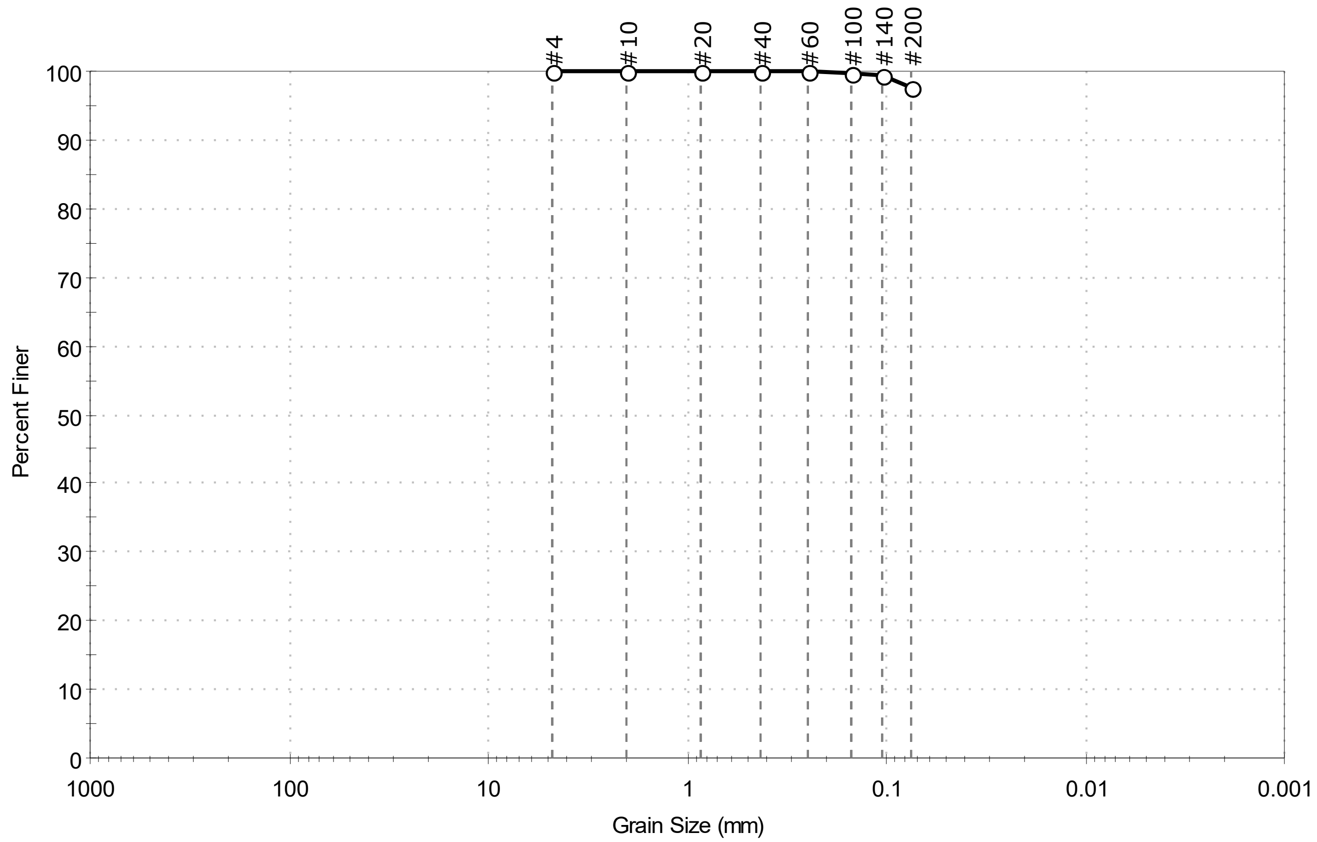
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-064	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	17-19'	Test Id:	817334		

Test Comment: ---
Visual Description: Moist, grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.5	97.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	97		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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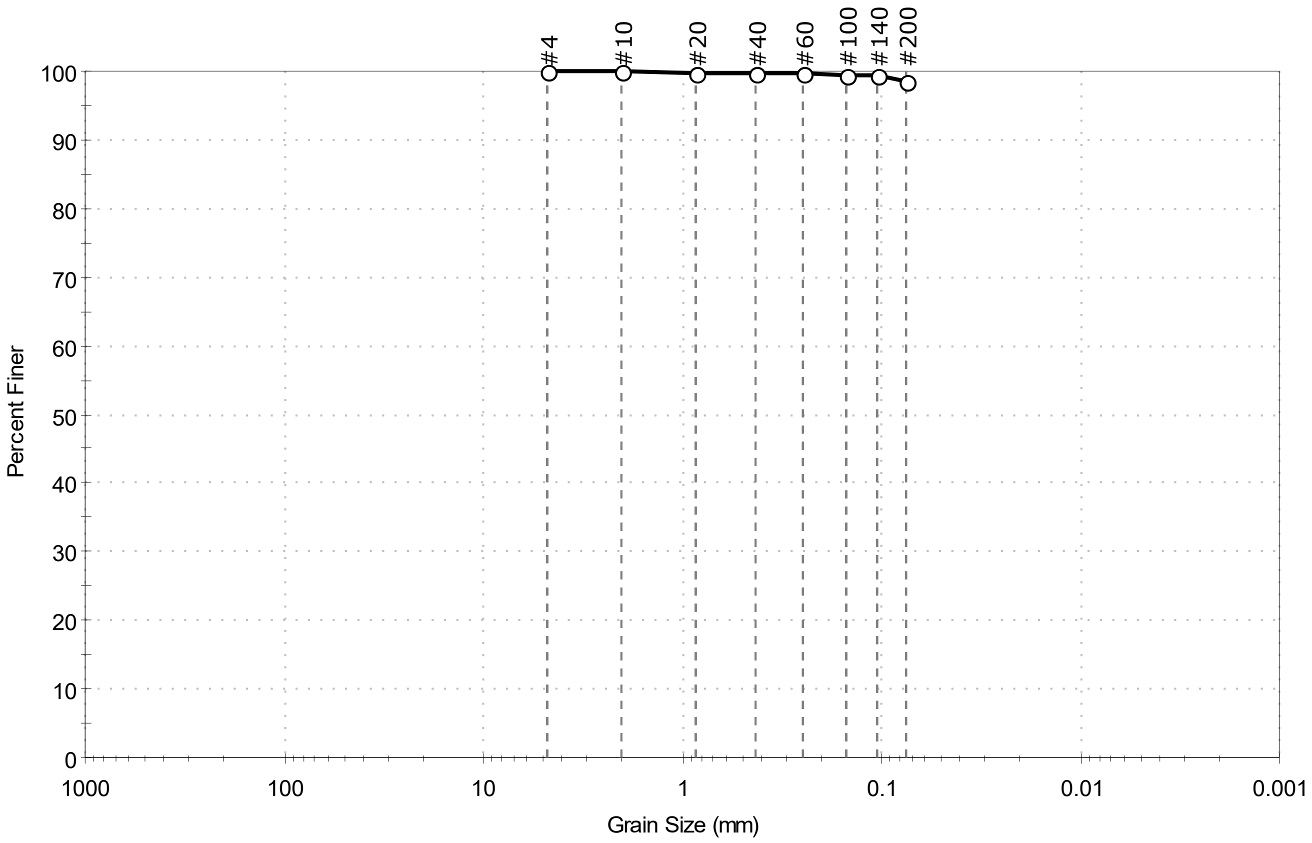
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-065	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	17-19'	Test Id:	817335		

Test Comment: ---
Visual Description: Moist, light grayish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.4	98.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	99		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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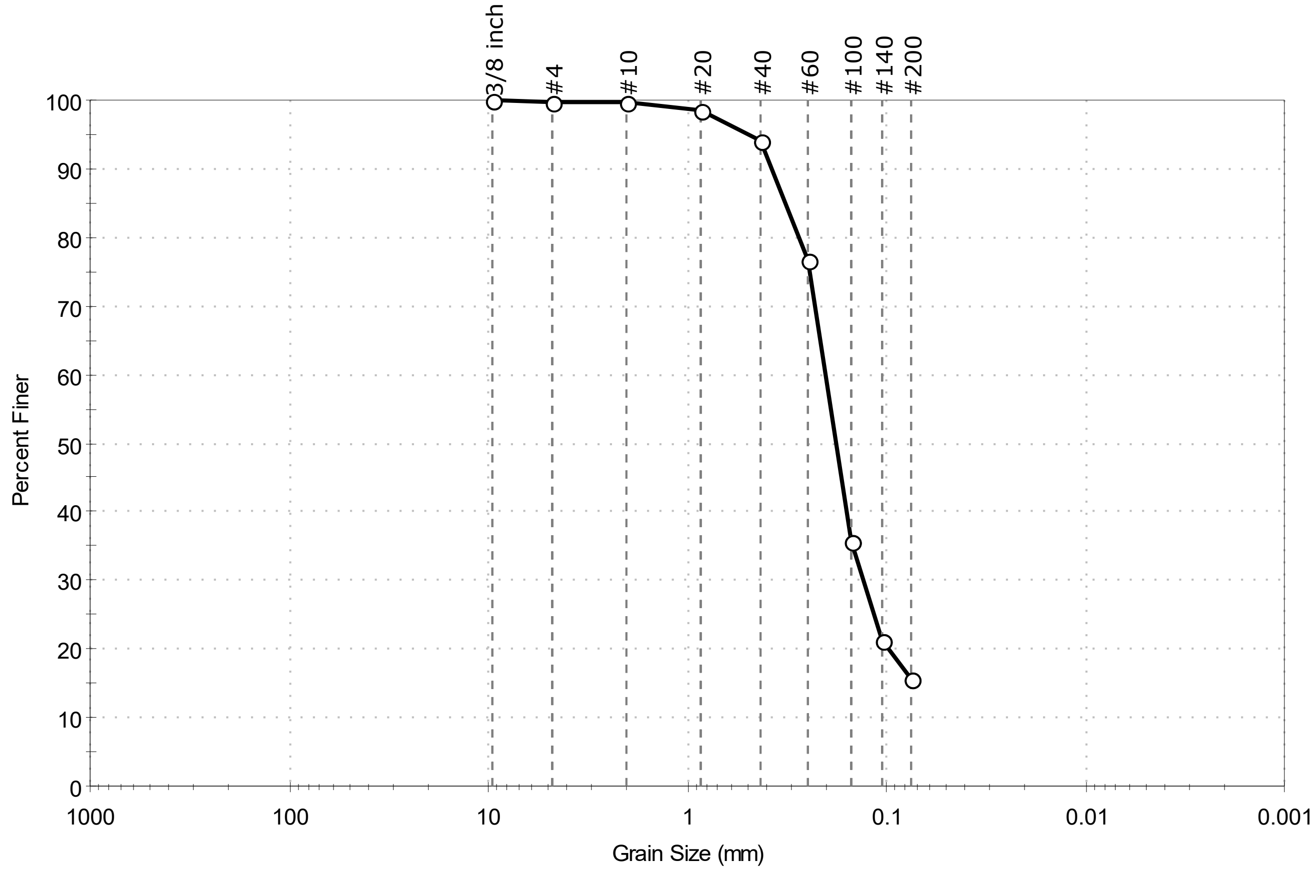
Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096
Boring ID: LB-R-070	Sample Type: Jar	Tested By:	ajl
Sample ID: ---	Test Date: 06/09/25	Checked By:	ank
Depth : 25-27'	Test Id: 817336		

Test Comment: ---
Visual Description: Moist, brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.2	84.3	15.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	94		
#60	0.25	77		
#100	0.15	36		
#140	0.11	21		
#200	0.075	16		

Coefficients

D_{85} =0.3217 mm
D_{30} =0.1307 mm
D_{60} =0.2029 mm
D_{15} =N/A
D_{50} =0.1791 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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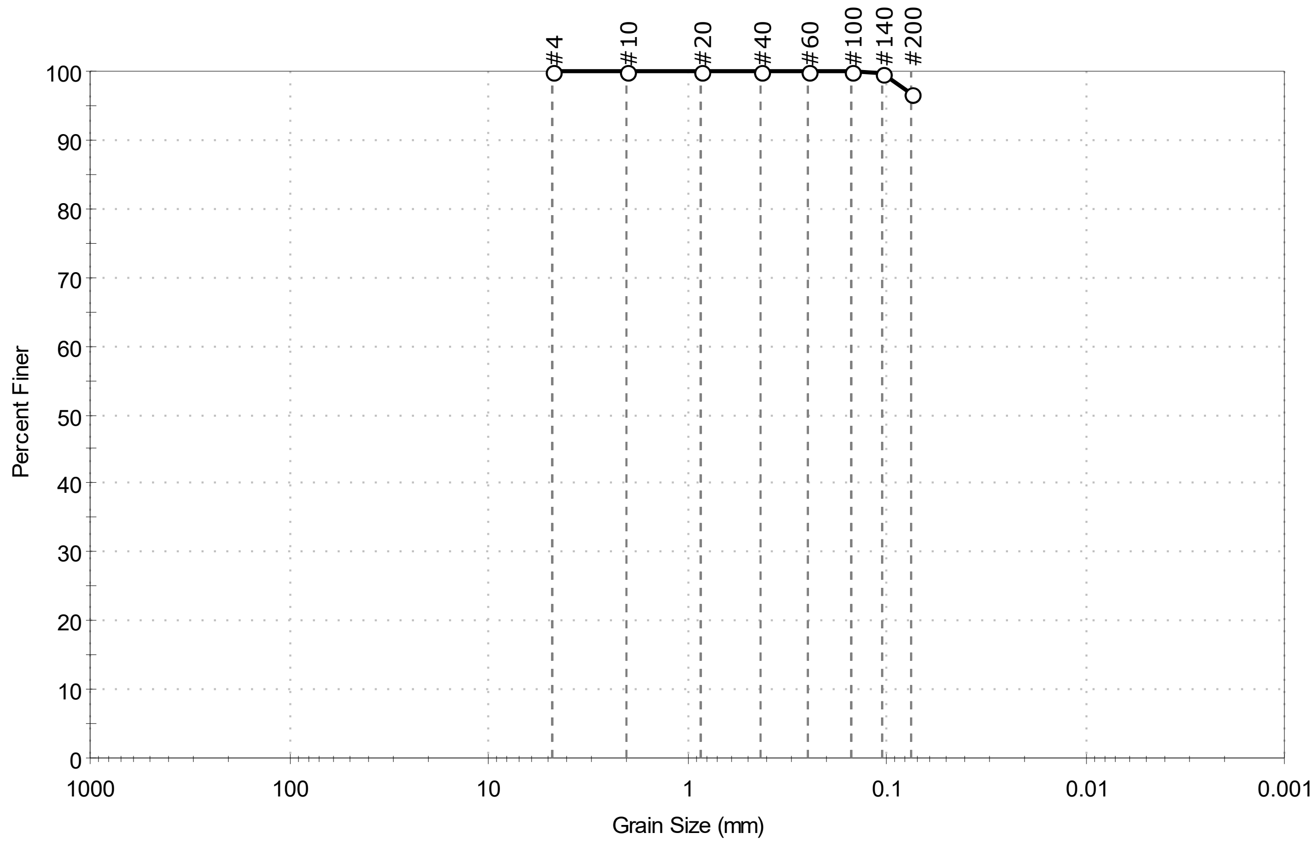
Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096

Boring ID:	LB-R-071	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	8-10'	Test Id:	817337		

Test Comment: ---
Visual Description: Moist, dark reddish gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.4	96.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	97		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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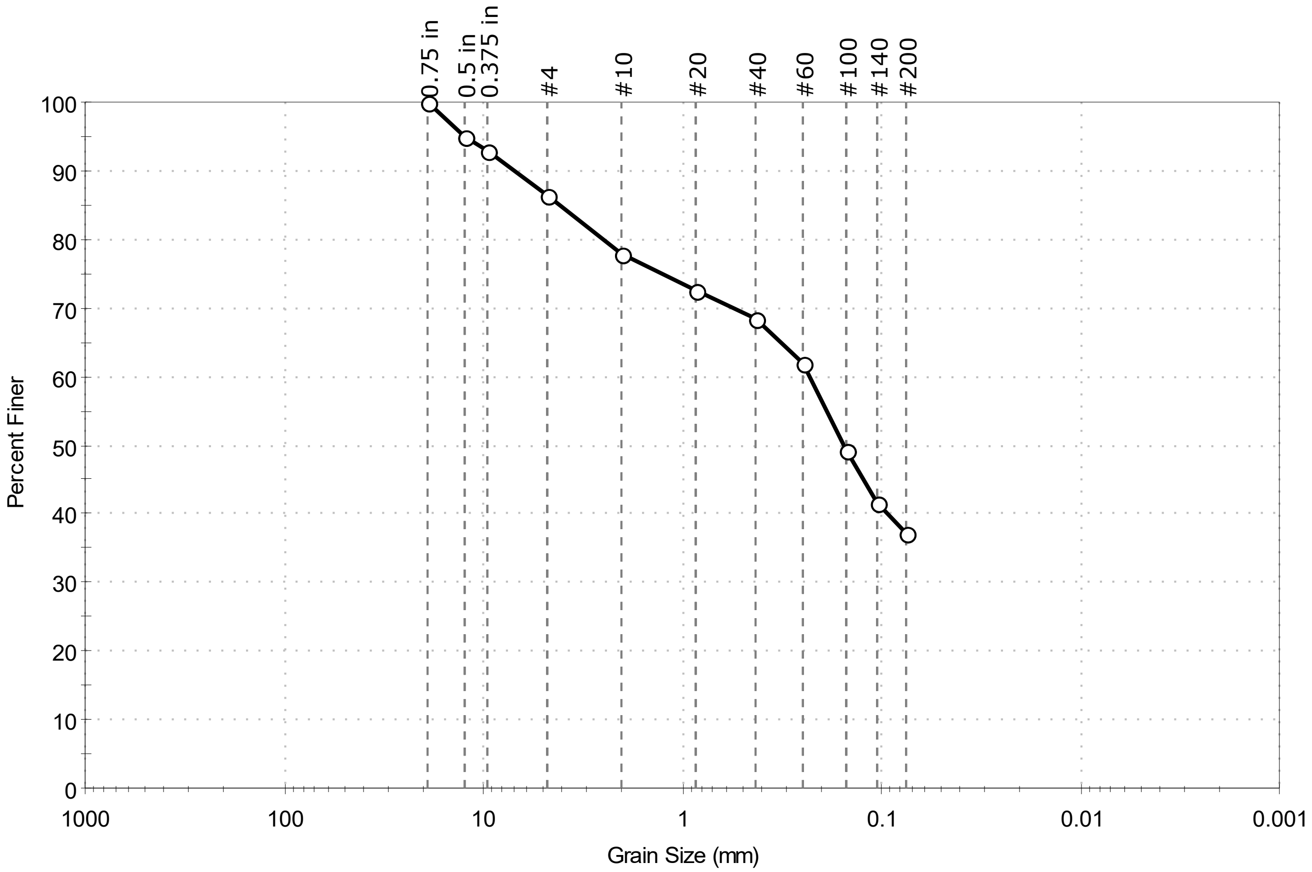
Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096

Boring ID:	LB-R-075	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	15-17'	Test Id:	817338		

Test Comment: ---
Visual Description: Moist, dark brownish gray silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	13.4	49.5	37.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	95		
0.375 in	9.50	93		
#4	4.75	87		
#10	2.00	78		
#20	0.85	73		
#40	0.42	69		
#60	0.25	62		
#100	0.15	49		
#140	0.11	42		
#200	0.075	37		

Coefficients

D_{85} =4.0644 mm	D_{30} =N/A
D_{60} =0.2315 mm	D_{15} =N/A
D_{50} =0.1550 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

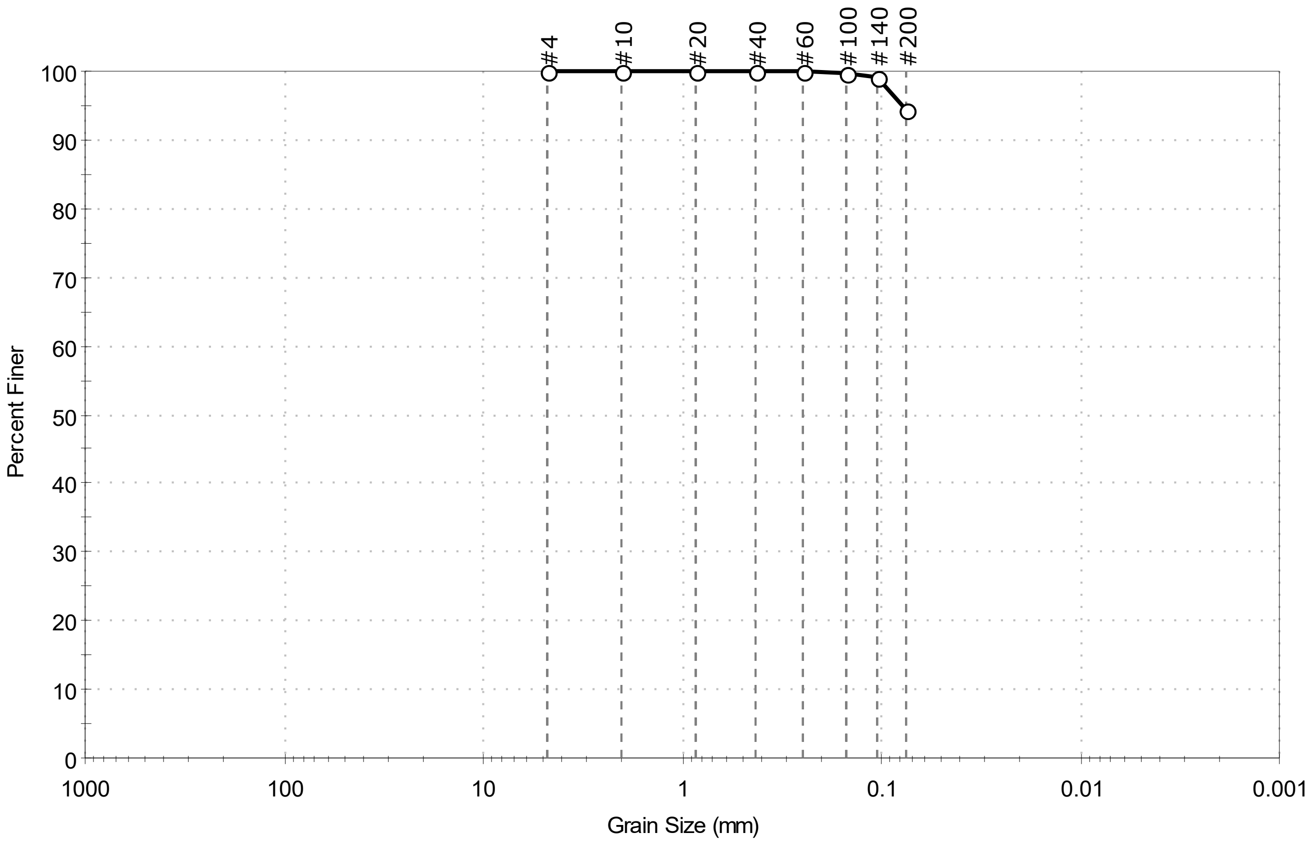
Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-076	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	6-8'	Test Id:	817339		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	5.5	94.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	94		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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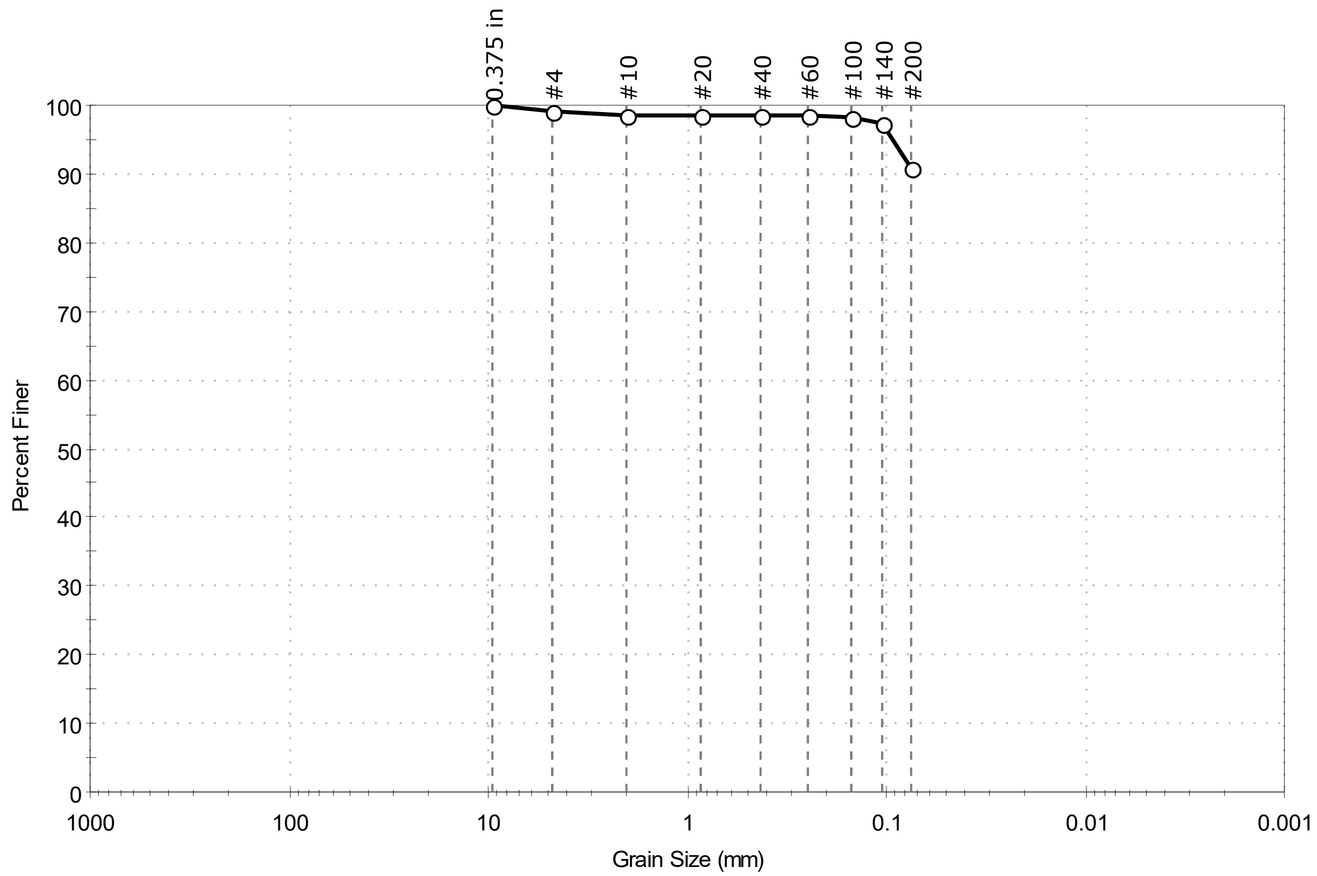
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-077	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	4-6'	Test Id:	817340		

Test Comment: ---
Visual Description: Wet, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.9	8.4	90.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	99		
#20	0.85	98		
#40	0.42	98		
#60	0.25	98		
#100	0.15	98		
#140	0.11	97		
#200	0.075	91		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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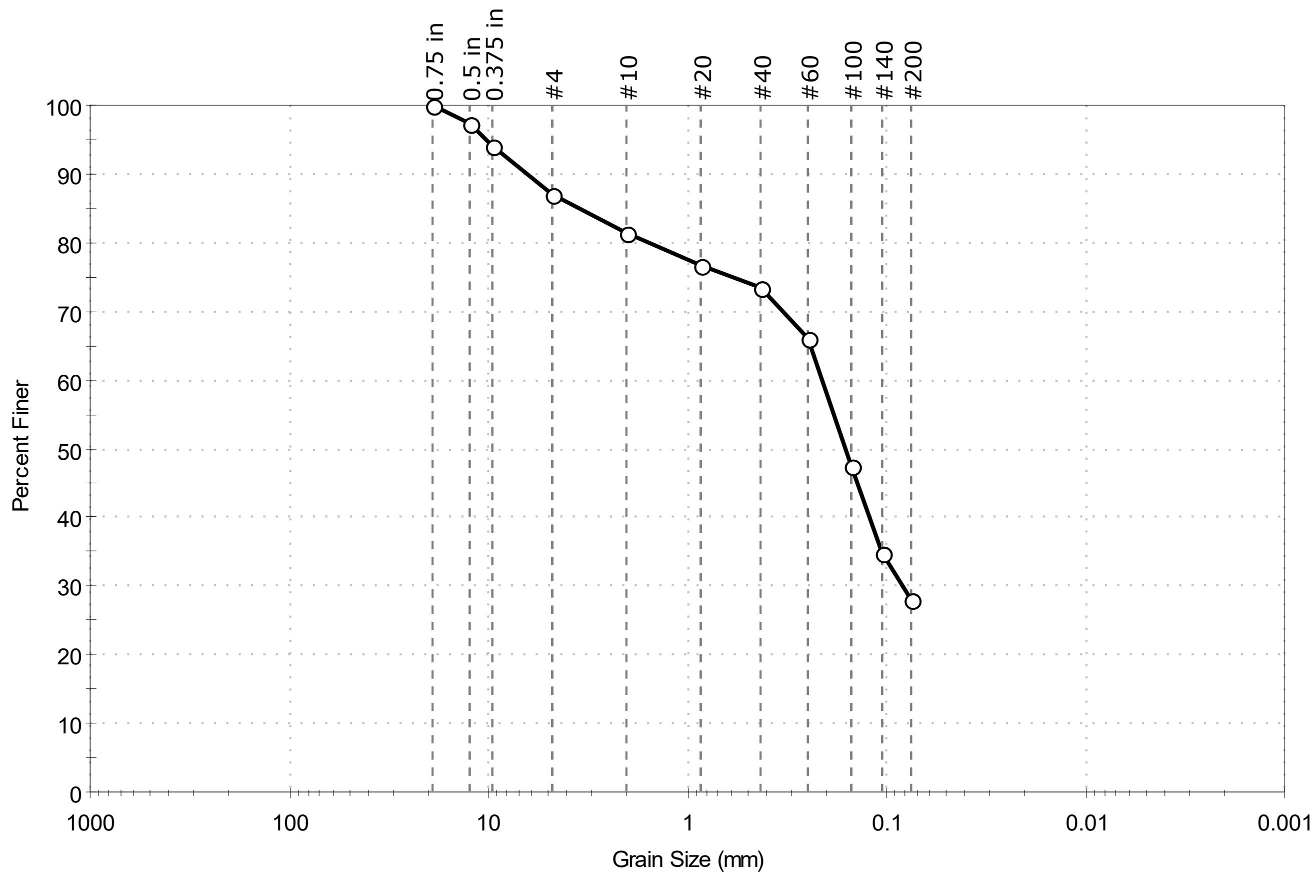
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-079	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	8-10'	Test Id:	817341		

Test Comment: ---

Visual Description: Moist, brown silty sand

Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	12.9	59.0	28.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	97		
0.375 in	9.50	94		
#4	4.75	87		
#10	2.00	81		
#20	0.85	77		
#40	0.42	73		
#60	0.25	66		
#100	0.15	47		
#140	0.11	35		
#200	0.075	28		

Coefficients

D_{85} =3.4432 mm	D_{30} =0.0826 mm
D_{60} =0.2118 mm	D_{15} =N/A
D_{50} =0.1610 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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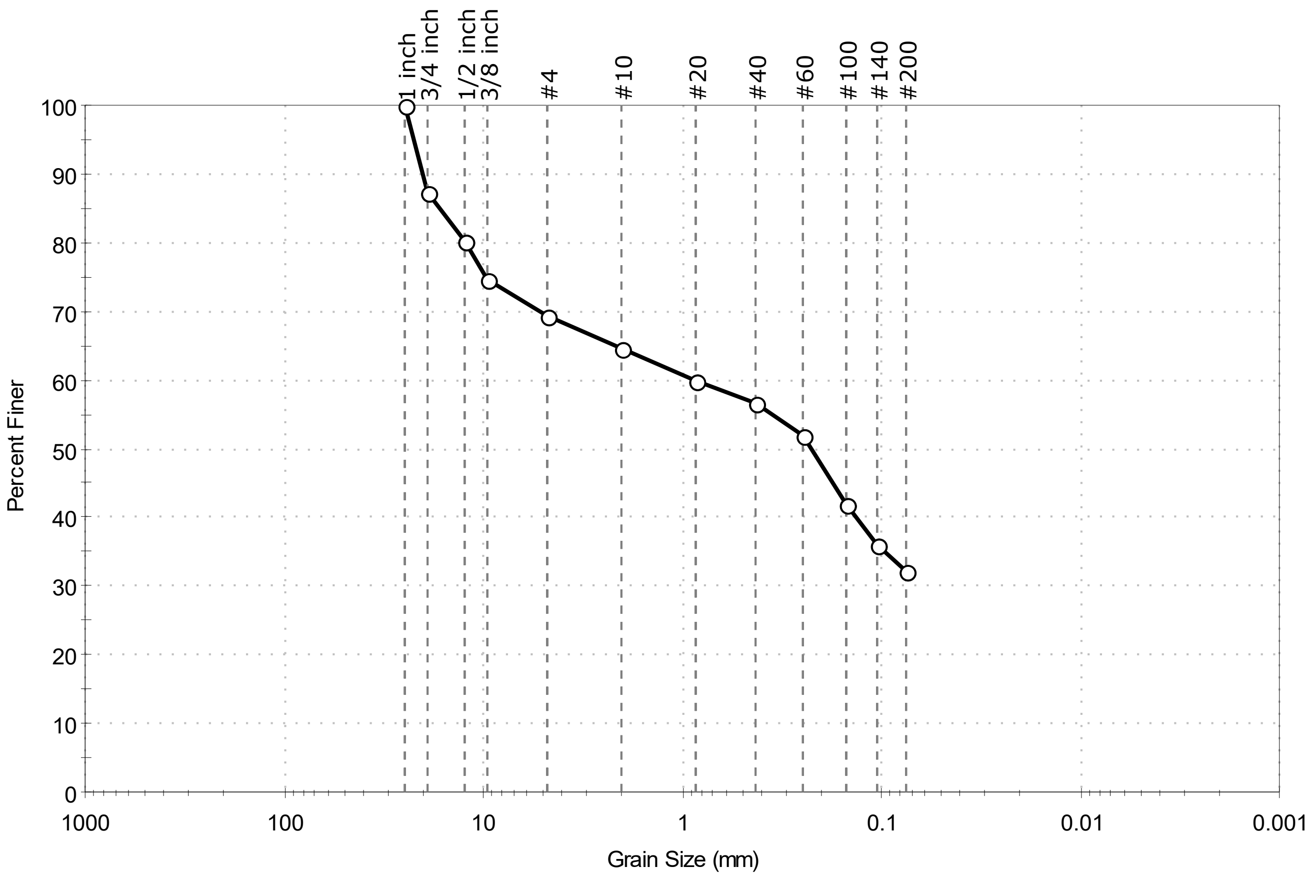
GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-082	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	25-27'	Test Id:	817342		

Test Comment: ---
Visual Description: Moist, dark gray silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	30.6	37.3	32.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 inch	25.00	100		
3/4 inch	19.00	87		
1/2 inch	12.50	80		
3/8 inch	9.50	75		
#4	4.75	69		
#10	2.00	65		
#20	0.85	60		
#40	0.42	57		
#60	0.25	52		
#100	0.15	42		
#140	0.11	36		
#200	0.075	32		

Coefficients

D_{85} =16.5991 mm	D_{30} =N/A
D_{60} =0.8627 mm	D_{15} =N/A
D_{50} =0.2255 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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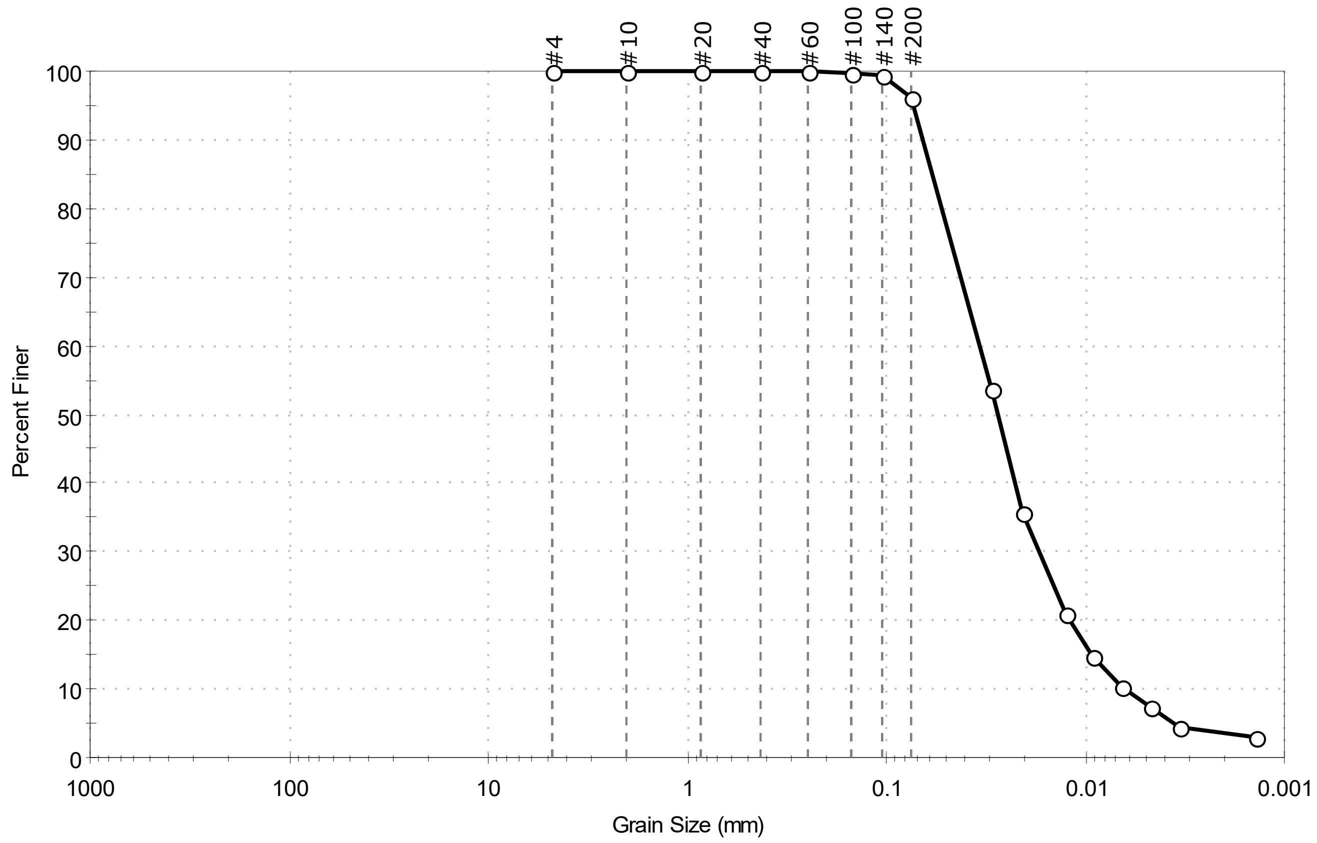
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID:	LB-R-086	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	8-10'	Test Id:	817547		

Test Comment: ---
Visual Description: Moist, gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.9	96.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	96		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0295	54		
---	0.0208	36		
---	0.0125	21		
---	0.0091	15		
---	0.0067	10		
---	0.0048	7		
---	0.0034	4		
---	0.0014	3		

Coefficients

D_{85} =0.0587 mm	D_{30} =0.0171 mm
D_{60} =0.0340 mm	D_{15} =0.0092 mm
D_{50} =0.0275 mm	D_{10} =0.0064 mm
C_u =5.312	C_c =1.344

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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GeoTesting EXPRESS
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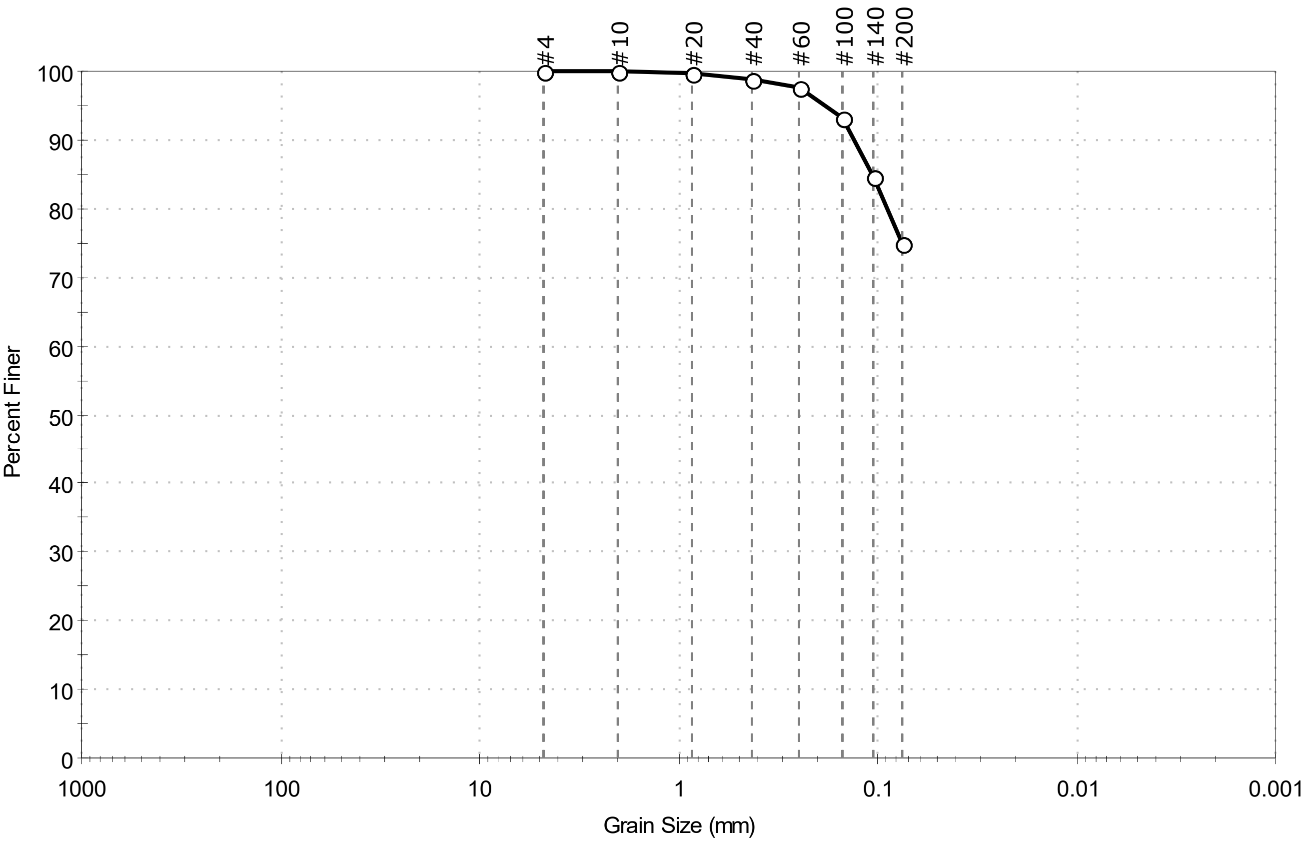
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-088	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	22-24'	Test Id:	817344		

Test Comment: ---
Visual Description: Wet, grayish brown silt with sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	25.2	74.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	99		
#60	0.25	98		
#100	0.15	93		
#140	0.11	85		
#200	0.075	75		

Coefficients

D_{85} =0.1074 mm	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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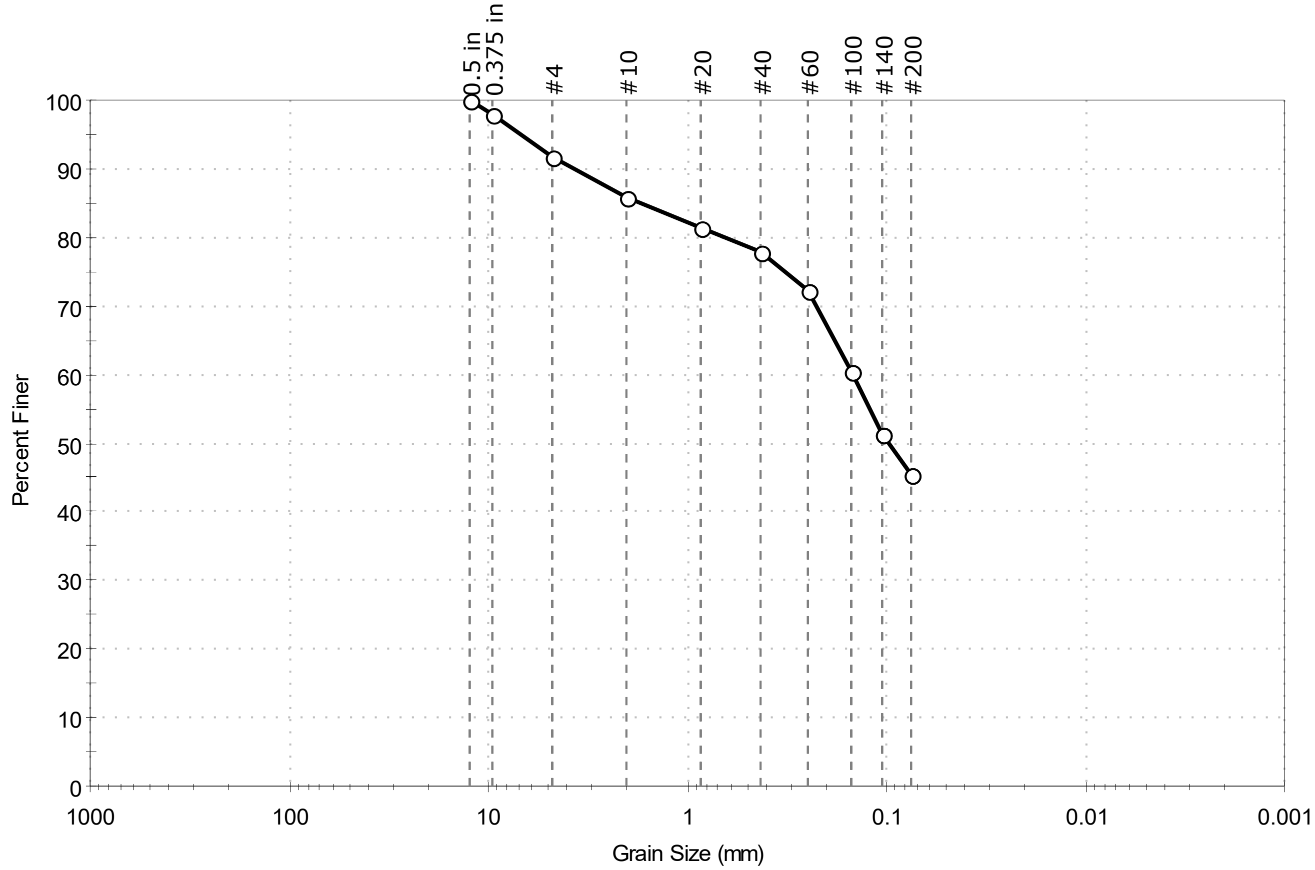
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-090	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	10-12'	Test Id:	817345		

Test Comment: ---
Visual Description: Moist, grayish brown silty, clayey sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	8.2	46.5	45.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	98		
#4	4.75	92		
#10	2.00	86		
#20	0.85	81		
#40	0.42	78		
#60	0.25	72		
#100	0.15	61		
#140	0.11	51		
#200	0.075	45		

Coefficients

D_{85} =1.6664 mm	D_{30} =N/A
D_{60} =0.1469 mm	D_{15} =N/A
D_{50} =0.0977 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM Silty, Clayey SAND (SC-SM)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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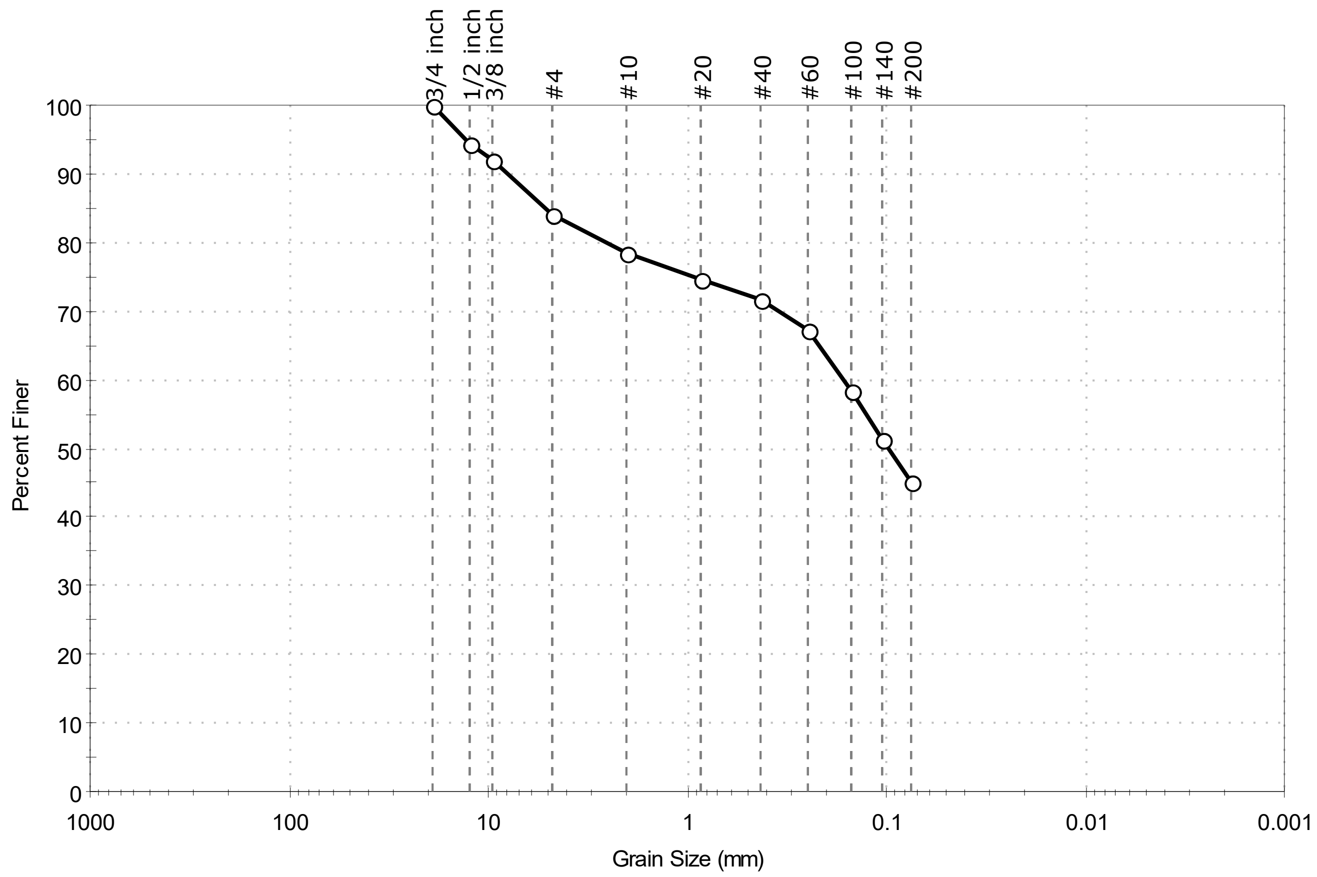
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-091	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	16-18'	Test Id:	817346		

Test Comment: ---
Visual Description: Moist, light grayish brown silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	15.8	39.0	45.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	94		
3/8 inch	9.50	92		
#4	4.75	84		
#10	2.00	78		
#20	0.85	75		
#40	0.42	72		
#60	0.25	67		
#100	0.15	59		
#140	0.11	51		
#200	0.075	45		

Coefficients

D_{85} =5.0965 mm
D_{30} =N/A
D_{60} =0.1635 mm
D_{15} =N/A
D_{50} =0.0987 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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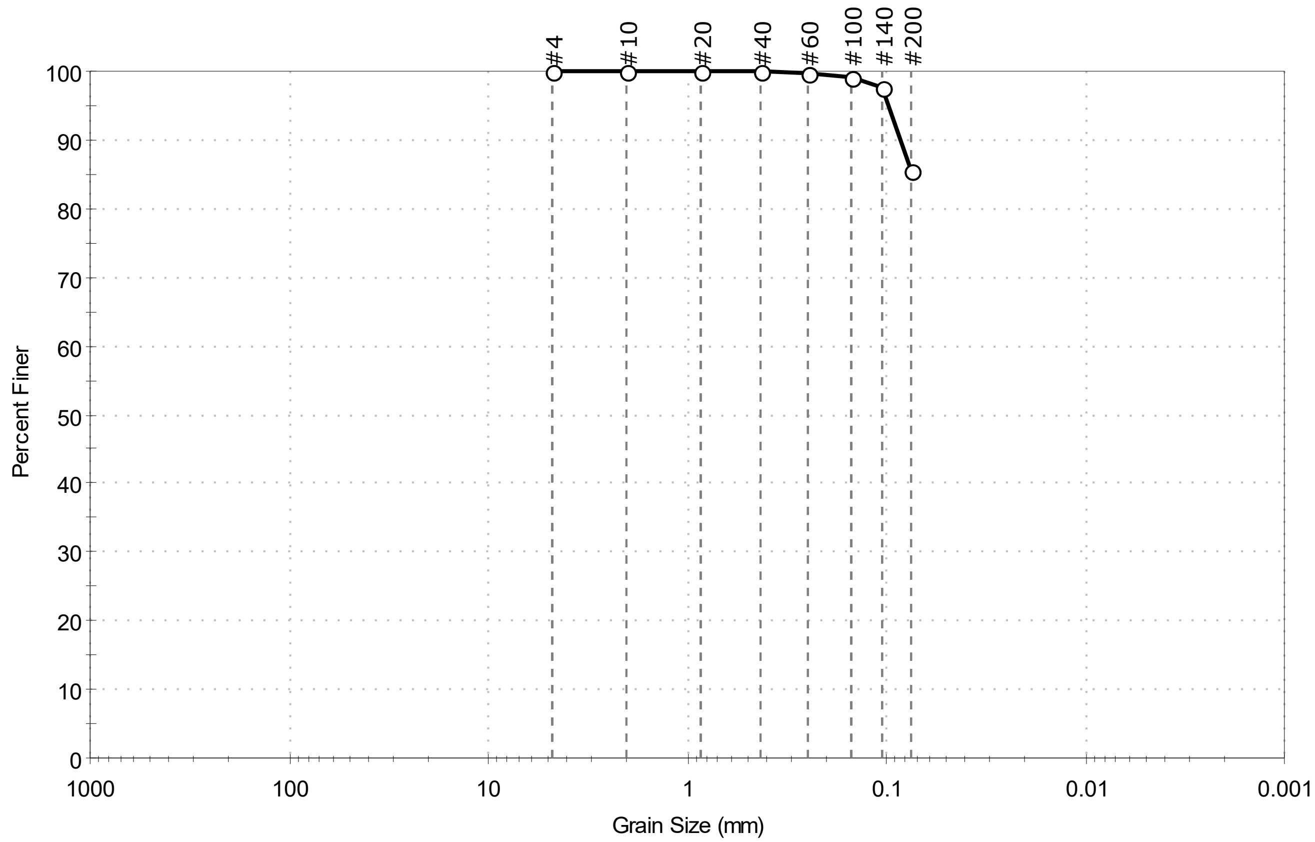
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-095	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	2-4'	Test Id:	817348		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	14.4	85.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	98		
#200	0.075	86		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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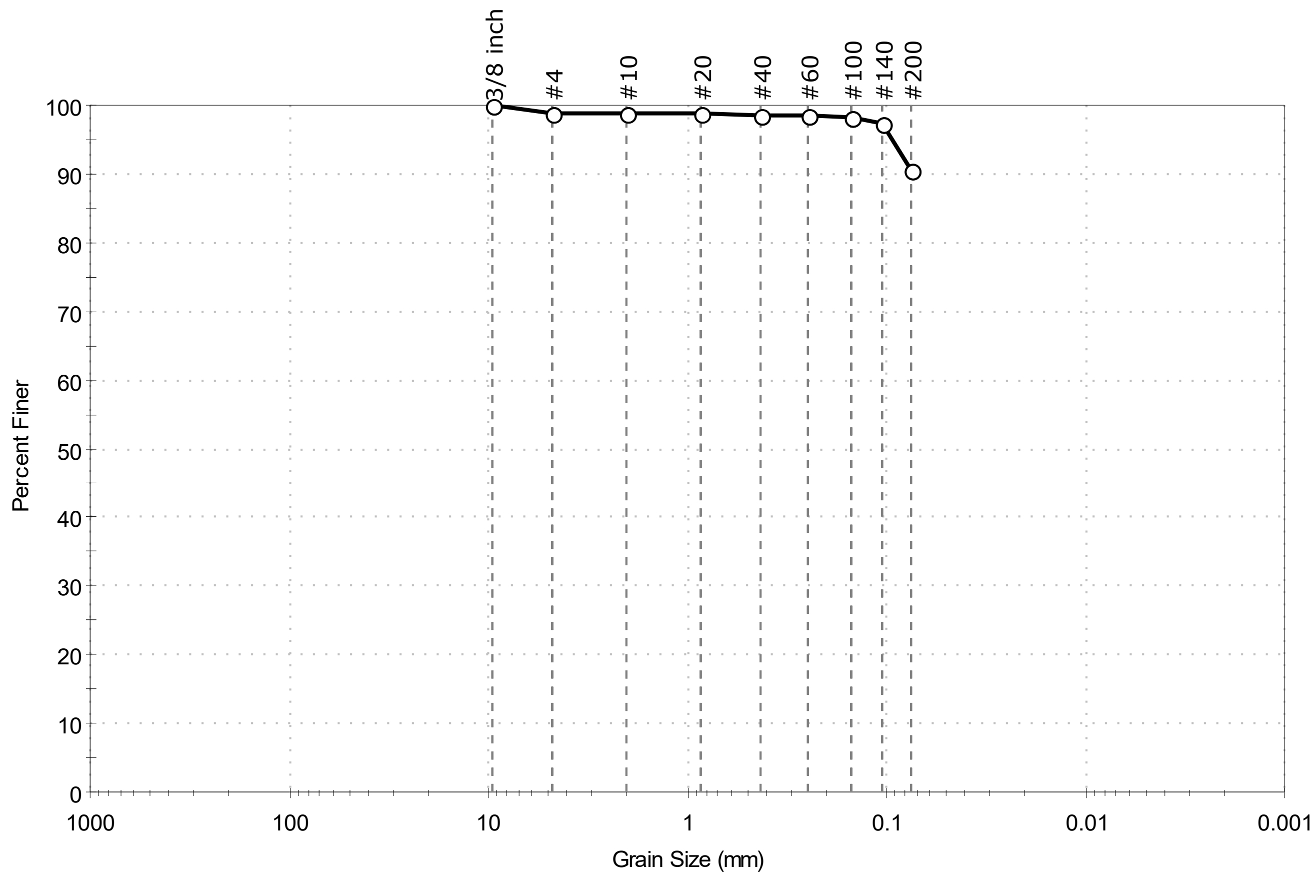
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-096
Sample ID: ---
Depth : 4-6'
Sample Type: Jar
Test Date: 06/10/25
Test Id: 817349
Tested By: ajl
Checked By: ank

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	1.2	8.4	90.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/8 inch	9.50	100		
#4	4.75	99		
#10	2.00	99		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	98		
#140	0.11	97		
#200	0.075	90		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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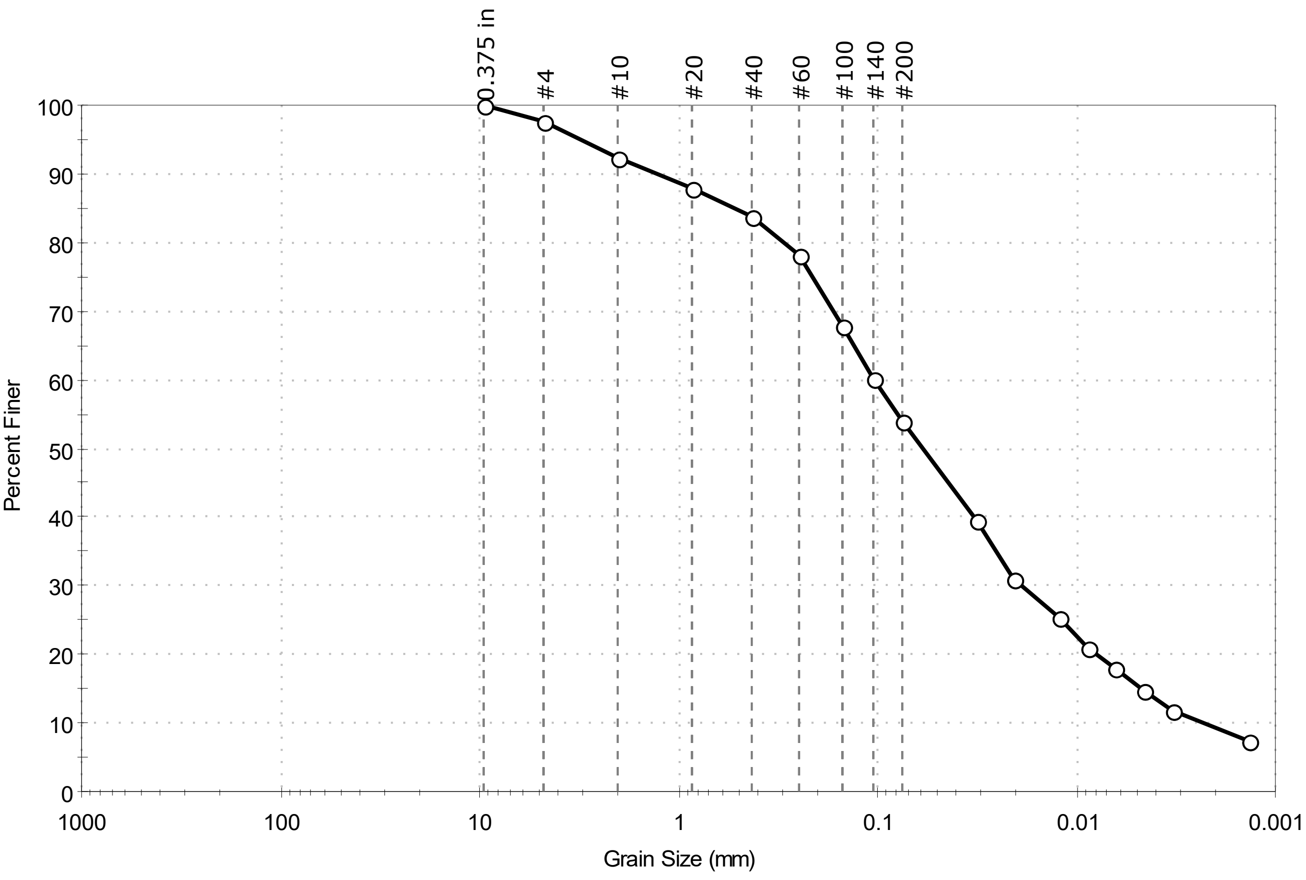
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-098	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	16-18'	Test Id:	817548		

Test Comment: ---
Visual Description: Moist, brown sandy silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	2.5	43.6	53.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	98		
#10	2.00	92		
#20	0.85	88		
#40	0.42	84		
#60	0.25	78		
#100	0.15	68		
#140	0.11	60		
#200	0.075	54		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0319	40		
---	0.0209	31		
---	0.0123	25		
---	0.0089	21		
---	0.0064	18		
---	0.0046	15		
---	0.0033	12		
---	0.0014	7		

Coefficients

D_{85} =0.5159 mm	D_{30} =0.0192 mm
D_{60} =0.1058 mm	D_{15} =0.0047 mm
D_{50} =0.0594 mm	D_{10} =0.0023 mm
C_u =46.000	C_c =1.515

Classification

ASTM	Sandy Silty CLAY (CL-ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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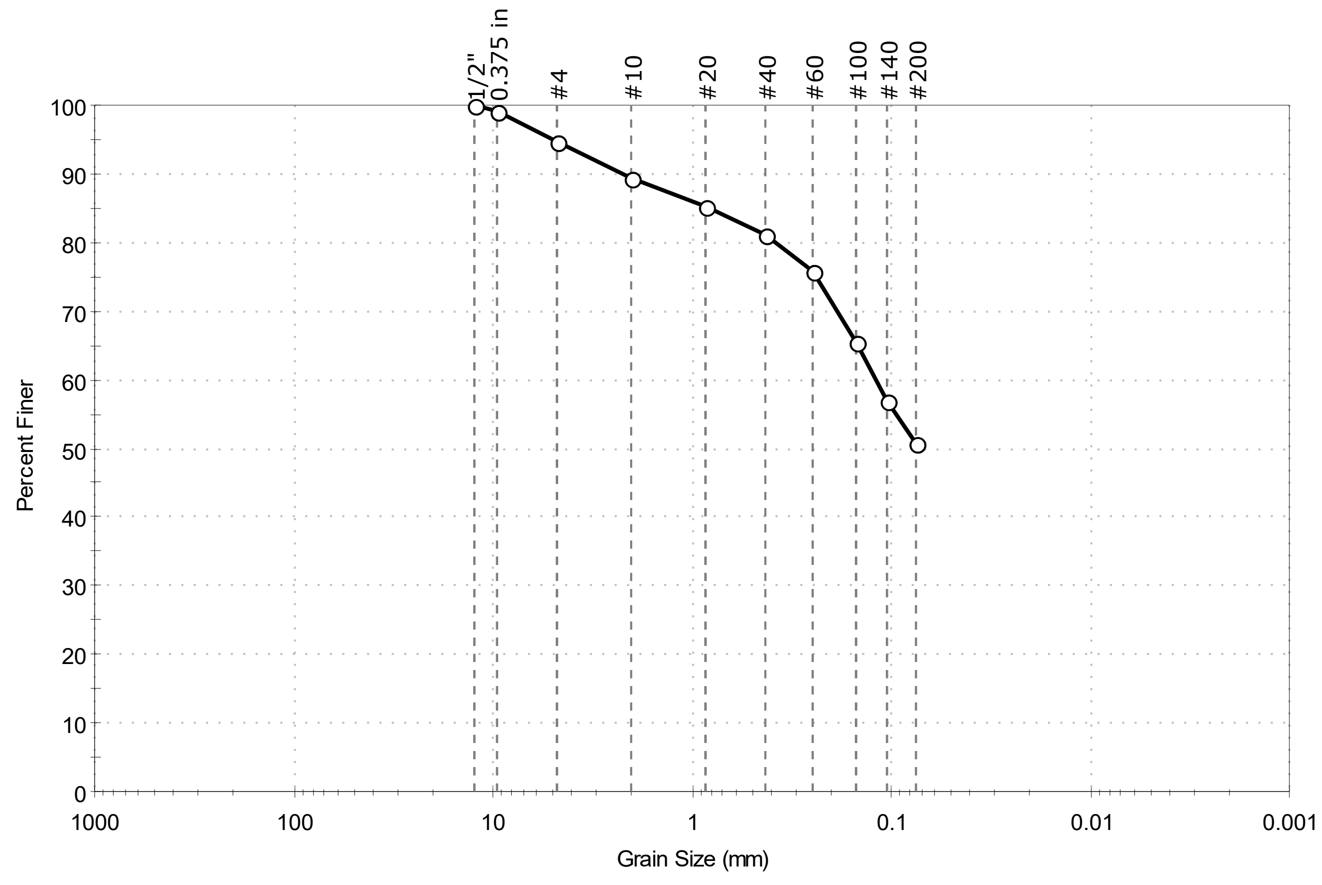
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-102	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	16-18'	Test Id:	817350		

Test Comment: ---
Visual Description: Moist, brown sandy clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	5.3	44.1	50.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2"	12.50	100		
0.375 in	9.50	99		
#4	4.75	95		
#10	2.00	89		
#20	0.85	85		
#40	0.42	81		
#60	0.25	76		
#100	0.15	66		
#140	0.11	57		
#200	0.075	51		

Coefficients

D_{85} =0.8129 mm
D_{30} =N/A
D_{60} =0.1198 mm
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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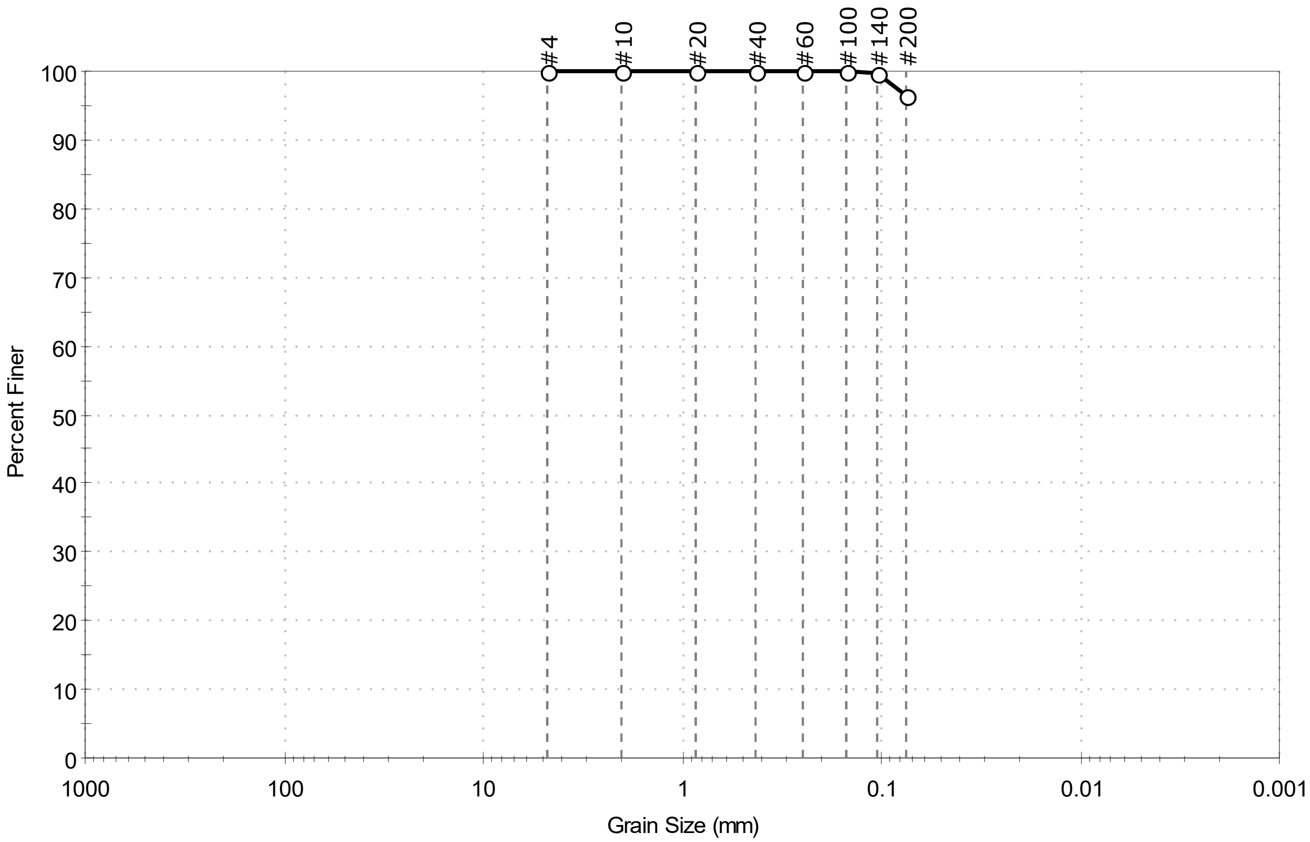
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-105	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	15-17'	Test Id:	817352		

Test Comment: ---
Visual Description: Moist, gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.4	96.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	97		

Coefficients

D_{85} =N/A
D_{30} =N/A
D_{60} =N/A
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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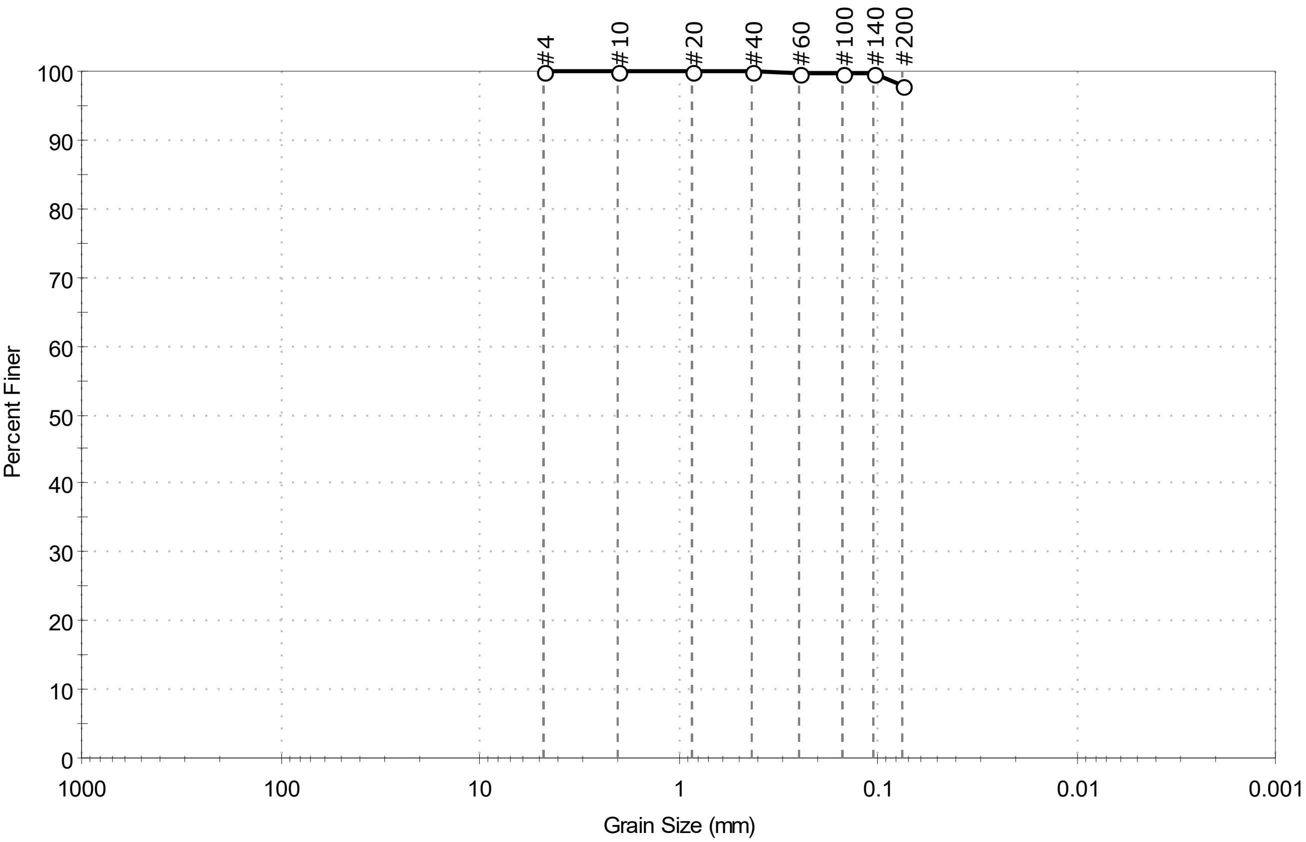
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-105	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	10-12'	Test Id:	817351		

Test Comment: ---
Visual Description: Moist, grayish brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.1	97.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	98		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Silty CLAY (CL-ML)
AASHTO	Silty Soils (A-4 (2))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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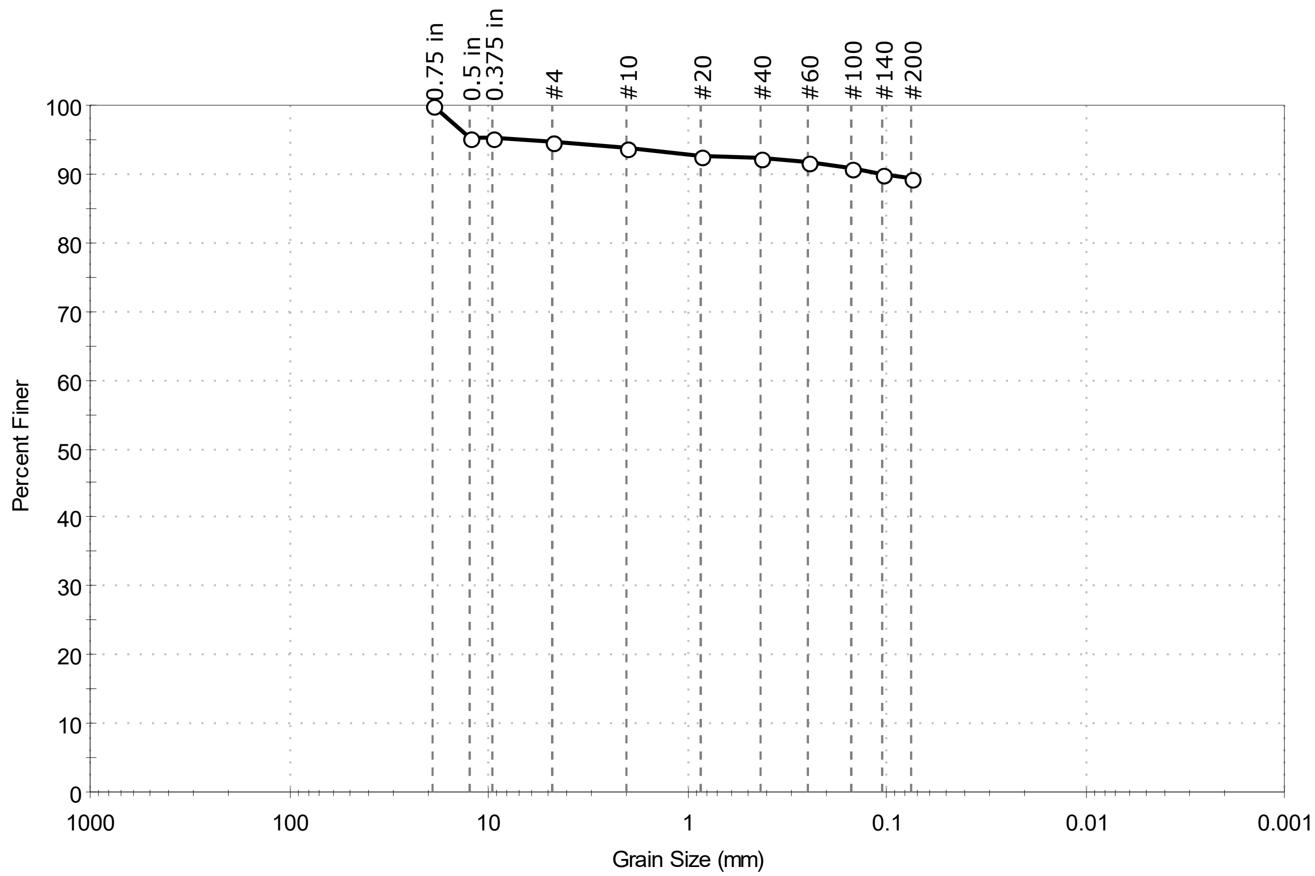
GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-106
Sample Type: Jar
Tested By: ajl
Sample ID: ---
Test Date: 06/12/25
Checked By: ank
Depth : 30-32'
Test Id: 817353

Test Comment: ---
Visual Description: Moist, dark brownish gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	5.2	5.5	89.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	95		
0.375 in	9.50	95		
#4	4.75	95		
#10	2.00	94		
#20	0.85	93		
#40	0.42	92		
#60	0.25	92		
#100	0.15	91		
#140	0.11	90		
#200	0.075	89		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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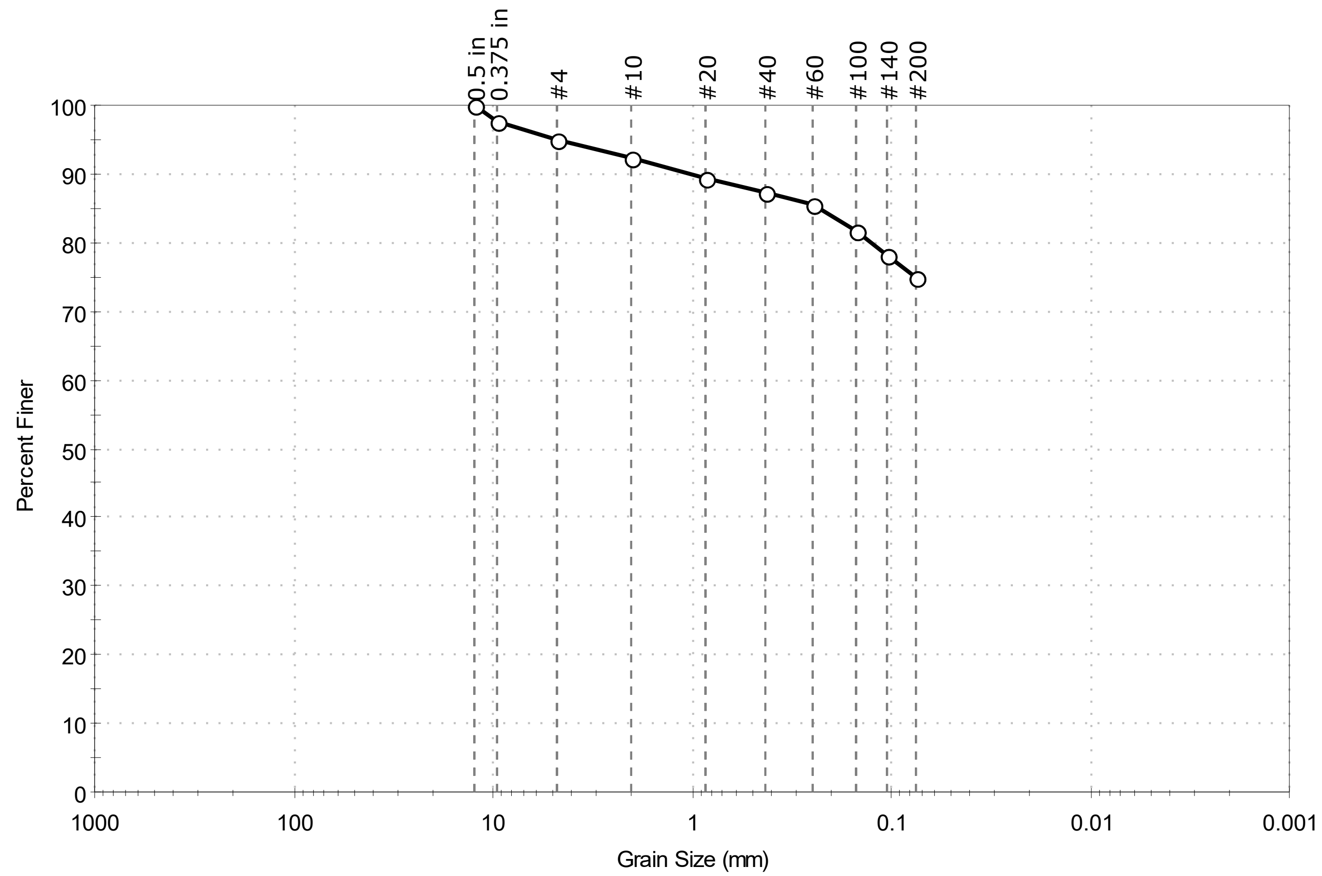
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-107	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	40-42'	Test Id:	817354		

Test Comment: ---
Visual Description: Moist, very dark gray clay with sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	4.9	20.1	75.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	98		
#4	4.75	95		
#10	2.00	92		
#20	0.85	89		
#40	0.42	87		
#60	0.25	85		
#100	0.15	82		
#140	0.11	78		
#200	0.075	75		

Coefficients

D_{85} =0.2338 mm	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM Lean CLAY with Sand (CL)

AASHTO Clayey Soils (A-6 (5))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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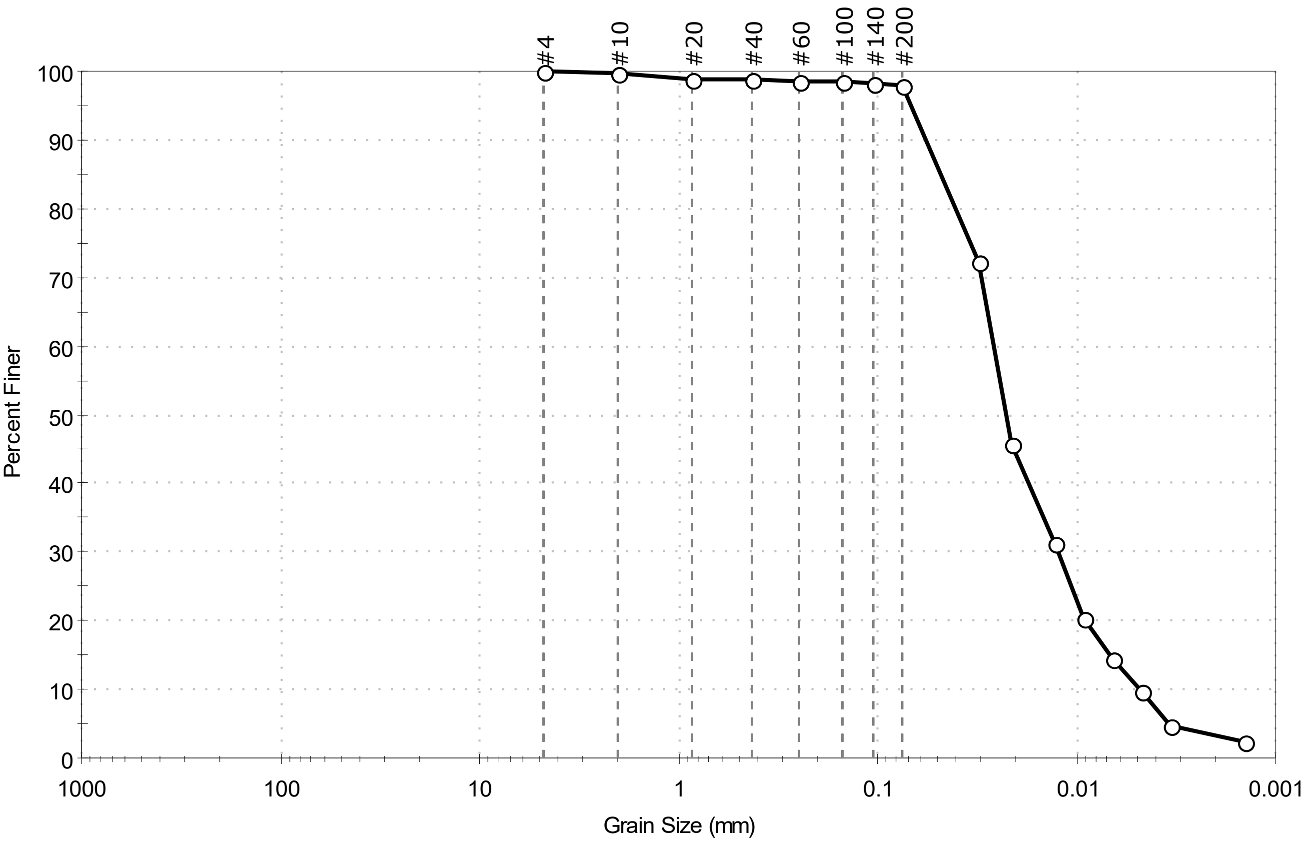
Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096
Boring ID: LB-R-108	Sample Type: Jar	Tested By:	ajl
Sample ID: ---	Test Date: 06/10/25	Checked By:	ank
Depth : 6-8'	Test Id: 817550		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.2	97.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	98		
#140	0.11	98		
#200	0.075	98		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0311	72		
---	0.0211	46		
---	0.0128	31		
---	0.0092	20		
---	0.0066	14		
---	0.0048	10		
---	0.0034	5		
---	0.0014	2		

Coefficients

D_{85} =0.0483 mm	D_{30} =0.0123 mm
D_{60} =0.0260 mm	D_{15} =0.0068 mm
D_{50} =0.0225 mm	D_{10} =0.0049 mm
C_u =5.306	C_c =1.188

Classification

ASTM Silty CLAY (CL-ML)

AASHTO Silty Soils (A-4 (5))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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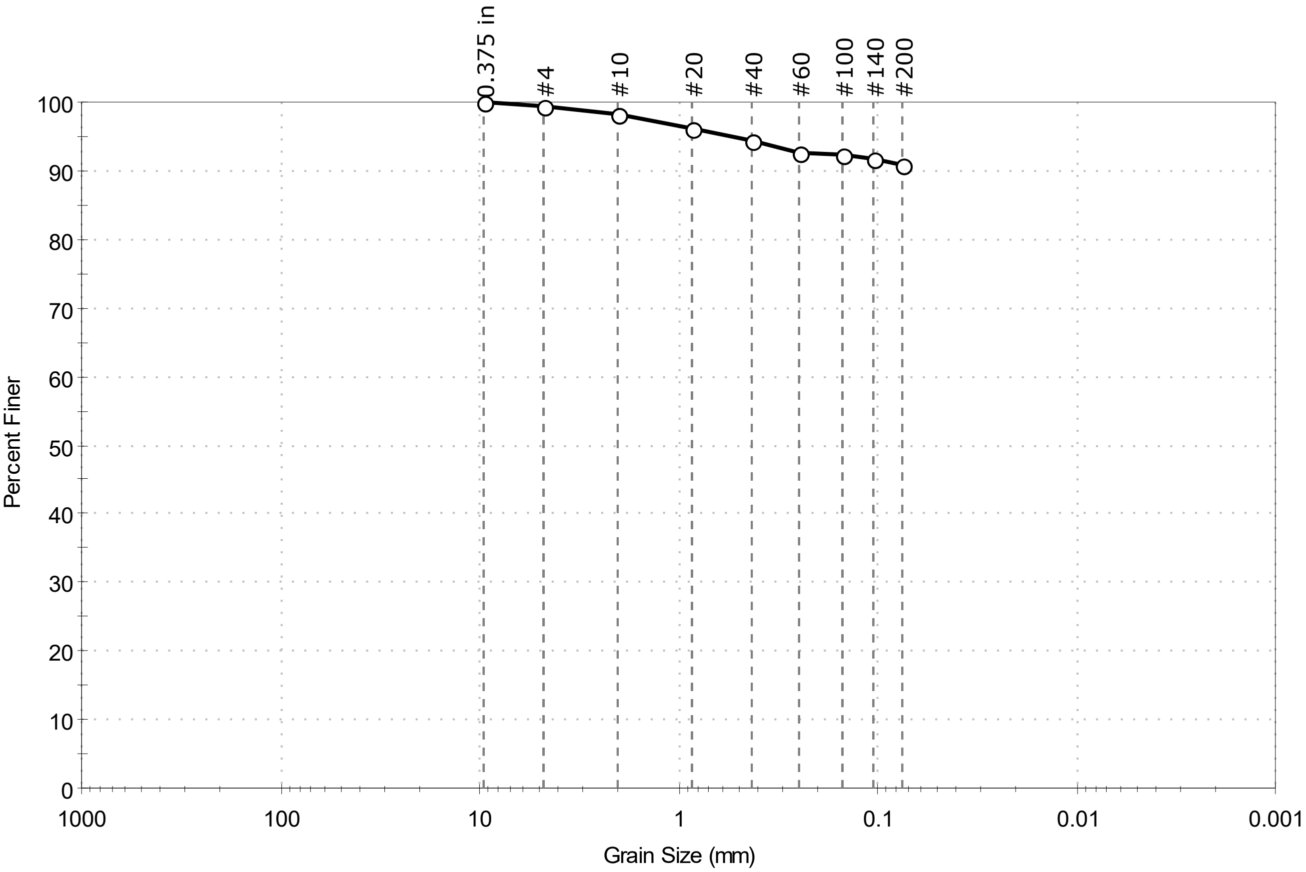
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-108	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	0-2'	Test Id:	817355		

Test Comment: ---
Visual Description: Moist, grayish brown clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.6	8.6	90.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	98		
#20	0.85	96		
#40	0.42	94		
#60	0.25	93		
#100	0.15	92		
#140	0.11	92		
#200	0.075	91		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Lean CLAY (CL)
AASHTO	Clayey Soils (A-6 (16))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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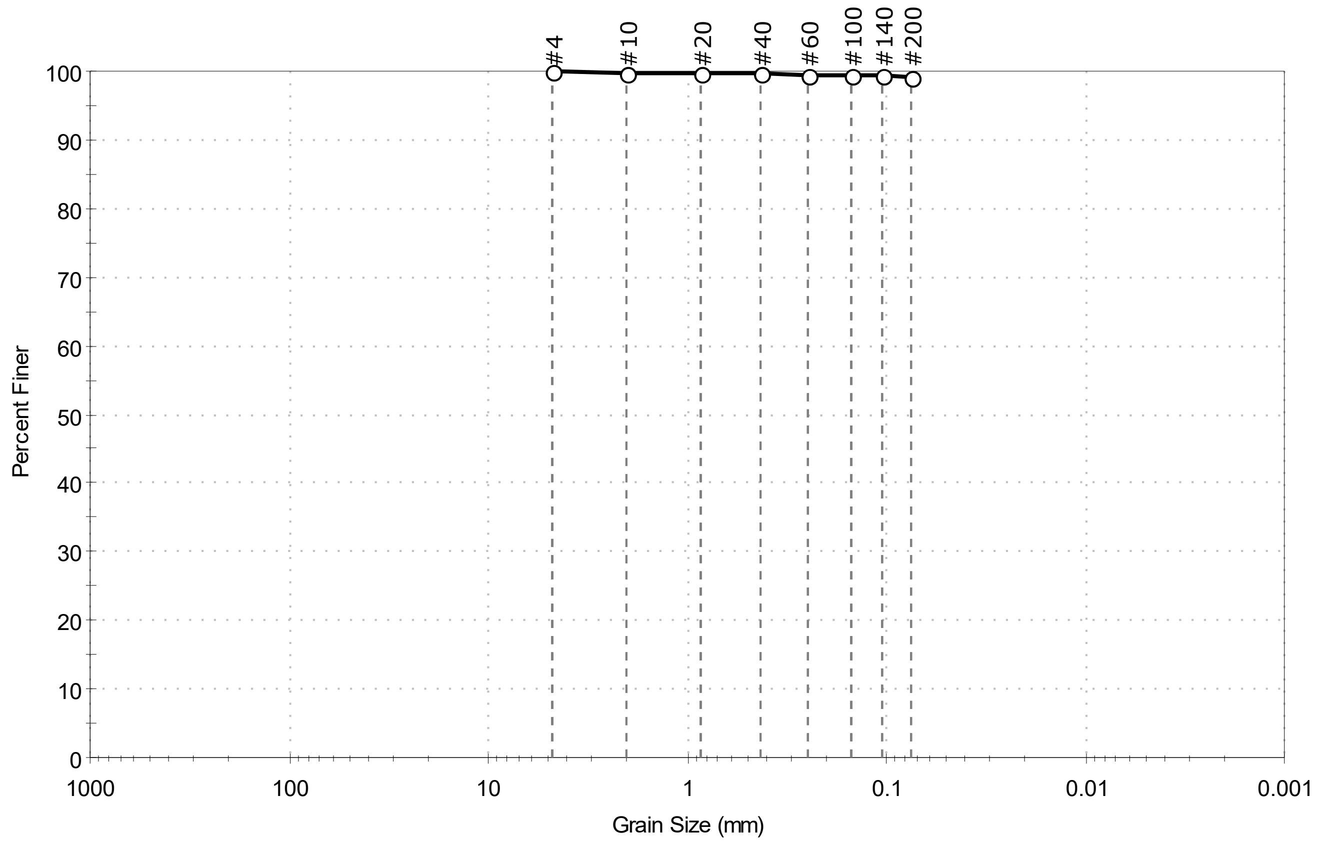
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-109	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/07/25	Checked By:	ank
Depth :	6-8'	Test Id:	817356		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	0.9	99.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	99		

Coefficients

D_{85} =N/A
D_{30} =N/A
D_{60} =N/A
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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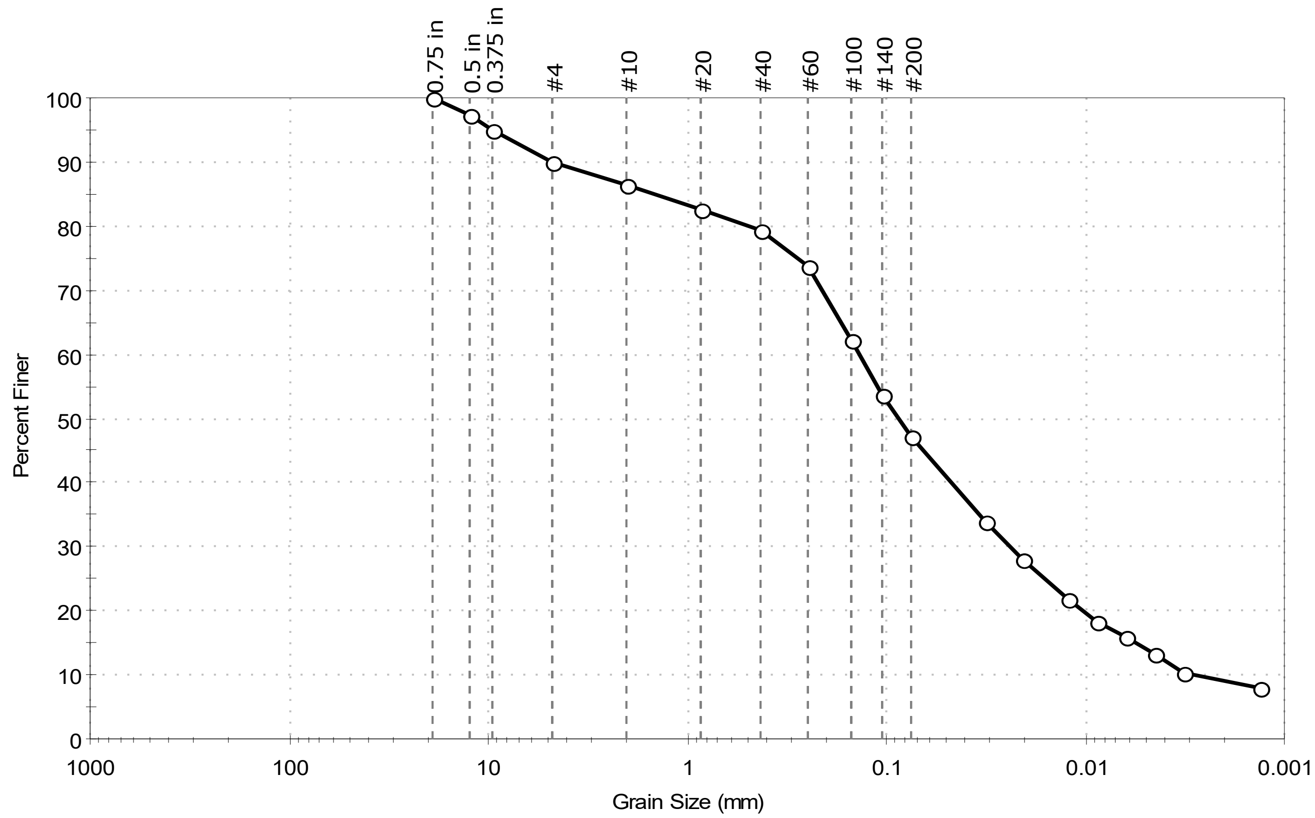
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-109	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	16-18'	Test Id:	817551		

Test Comment: ---
Visual Description: Moist, gray silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	10.0	42.8	47.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	97		
0.375 in	9.50	95		
#4	4.75	90		
#10	2.00	86		
#20	0.85	83		
#40	0.42	79		
#60	0.25	74		
#100	0.15	62		
#140	0.11	54		
#200	0.075	47		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0315	34		
---	0.0205	28		
---	0.0123	22		
---	0.0088	18		
---	0.0063	16		
---	0.0045	13		
---	0.0032	10		
---	0.0013	8		

Coefficients

D_{85} =1.4529 mm	D_{30} =0.0237 mm
D_{60} =0.1371 mm	D_{15} =0.0056 mm
D_{50} =0.0872 mm	D_{10} =0.0029 mm
C_u =47.276	C_c =1.413

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR
Sand/Gravel Hardness : HARD
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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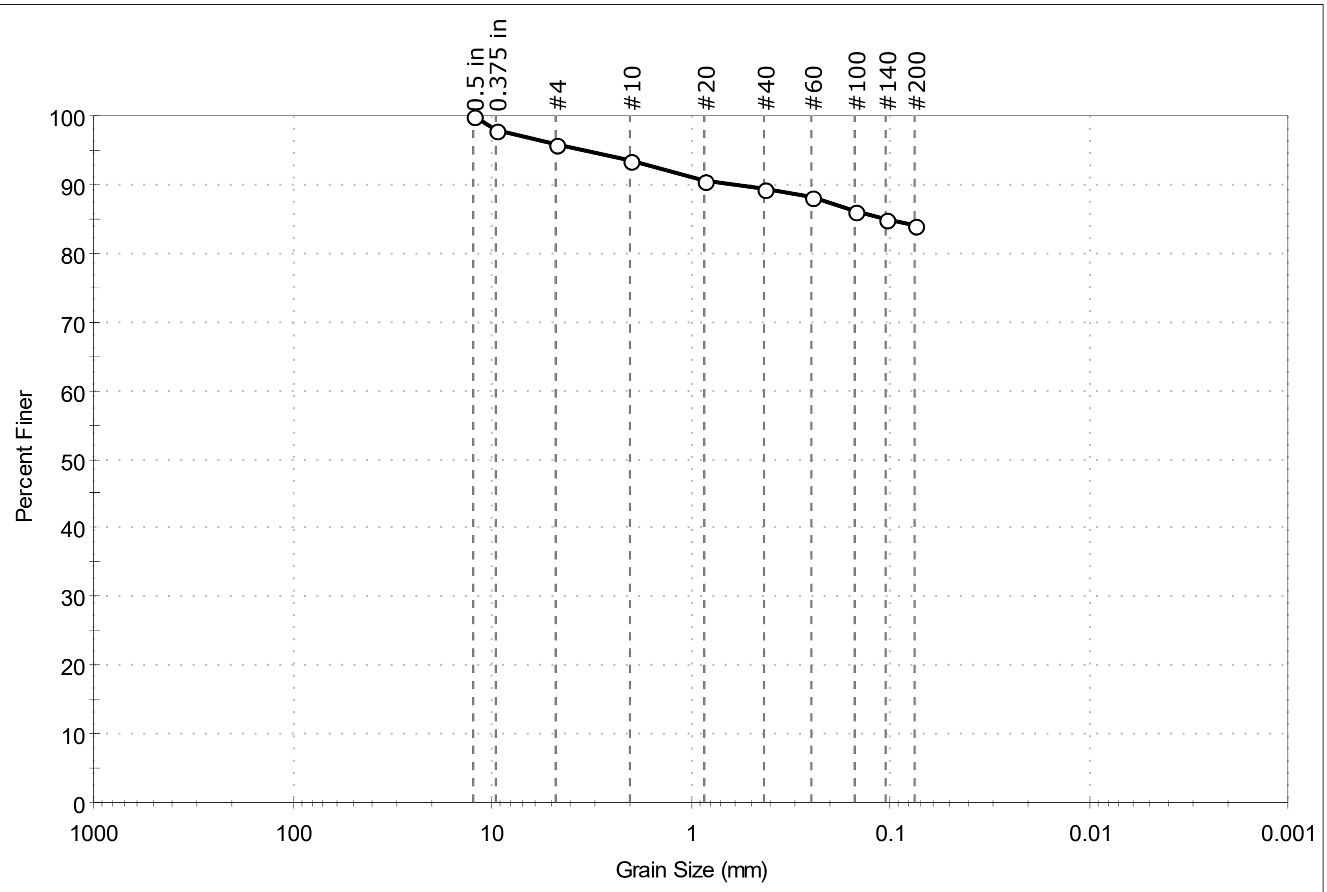
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-111	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/07/25	Checked By:	ank
Depth :	4-6'	Test Id:	817357		

Test Comment: ---
Visual Description: Moist, dark brownish gray silt with sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	4.2	11.9	83.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	98		
#4	4.75	96		
#10	2.00	93		
#20	0.85	91		
#40	0.42	89		
#60	0.25	88		
#100	0.15	86		
#140	0.11	85		
#200	0.075	84		

Coefficients

D_{85} =0.1098 mm	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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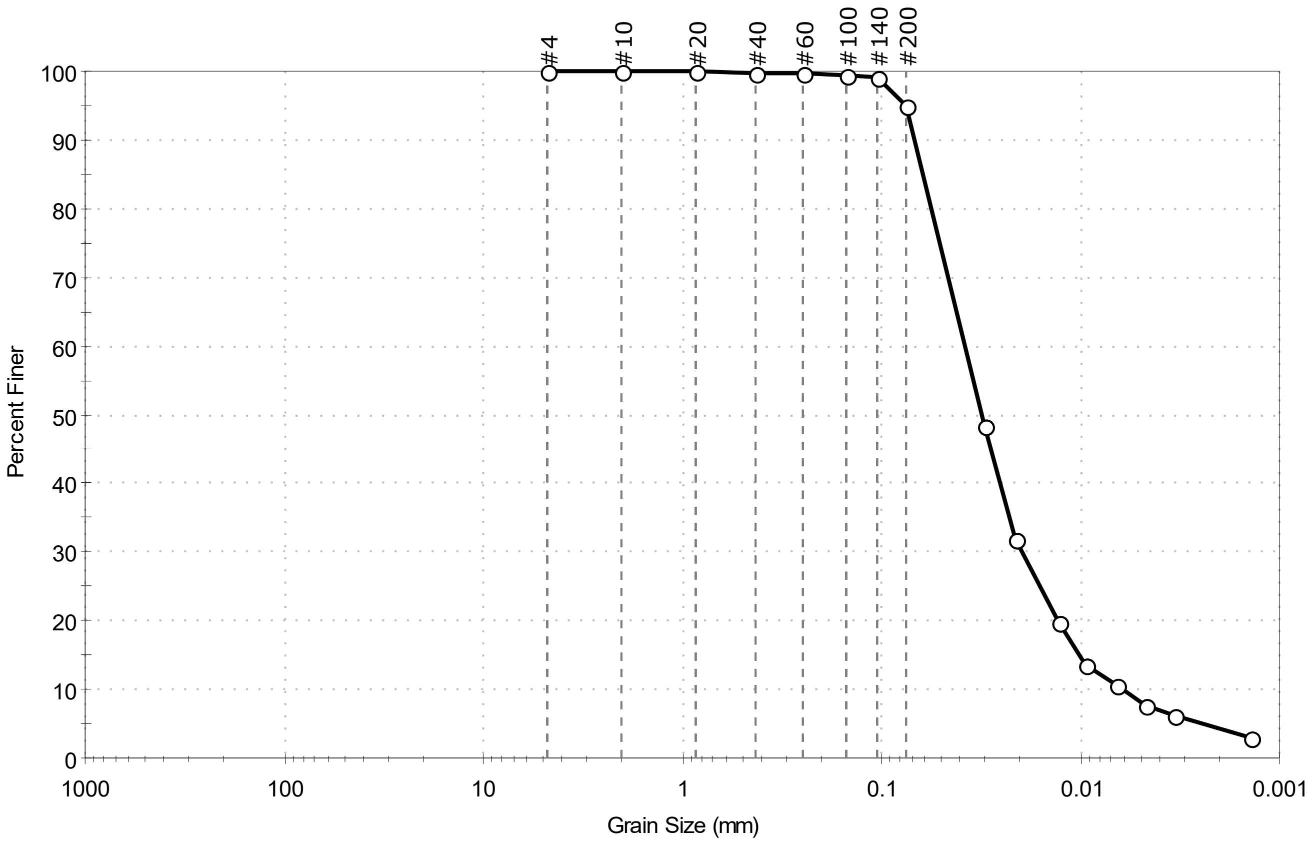
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-112	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	2-4'	Test Id:	817552		

Test Comment: ---
Visual Description: Moist, yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	4.9	95.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	95		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0300	48		
---	0.0211	32		
---	0.0128	20		
---	0.0093	14		
---	0.0066	11		
---	0.0048	8		
---	0.0034	6		
---	0.0014	3		

Coefficients

D_{85} =0.0615 mm	D_{30} =0.0197 mm
D_{60} =0.0377 mm	D_{15} =0.0100 mm
D_{50} =0.0310 mm	D_{10} =0.0062 mm
C_u =6.081	C_c =1.660

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

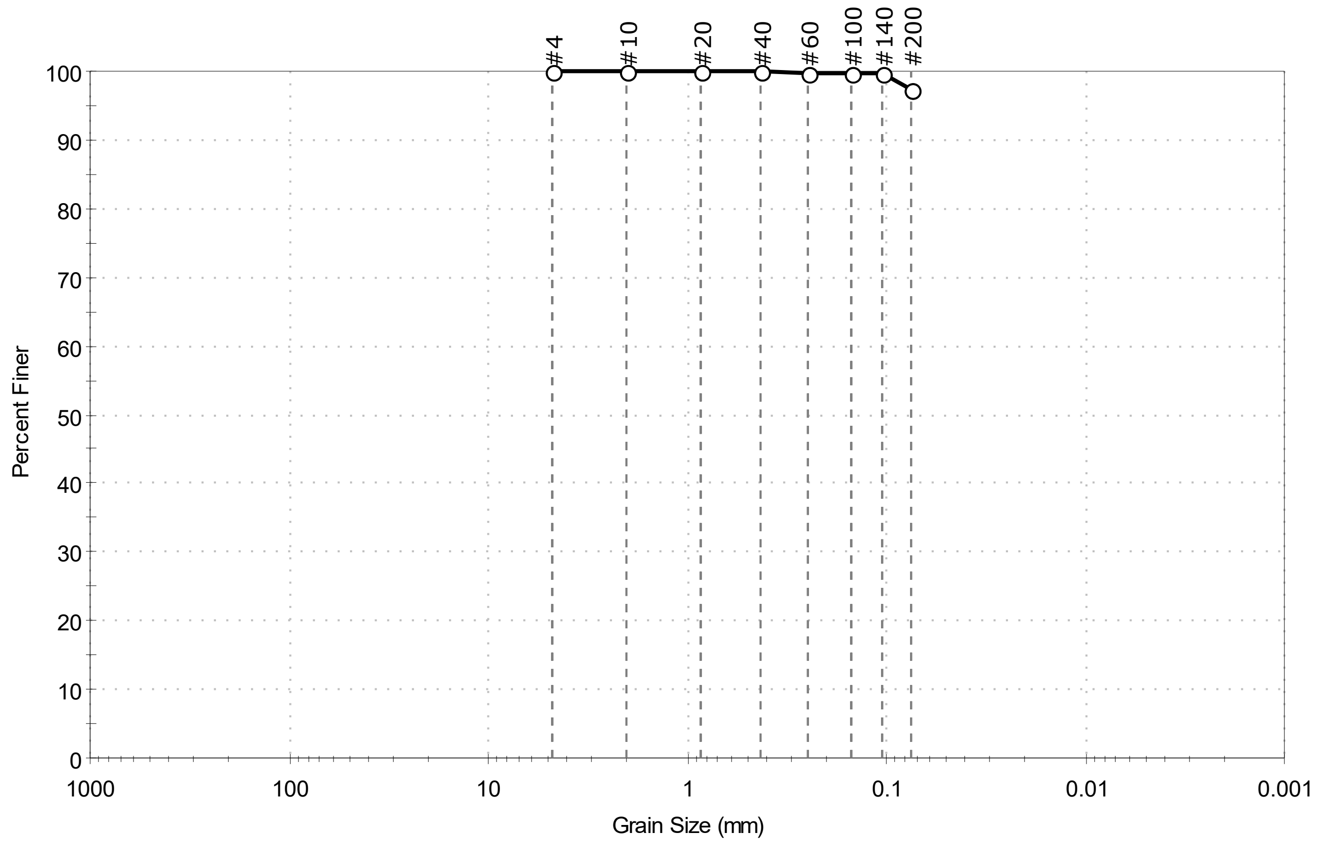
Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-113	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	2-4'	Test Id:	817359		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.6	97.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	97		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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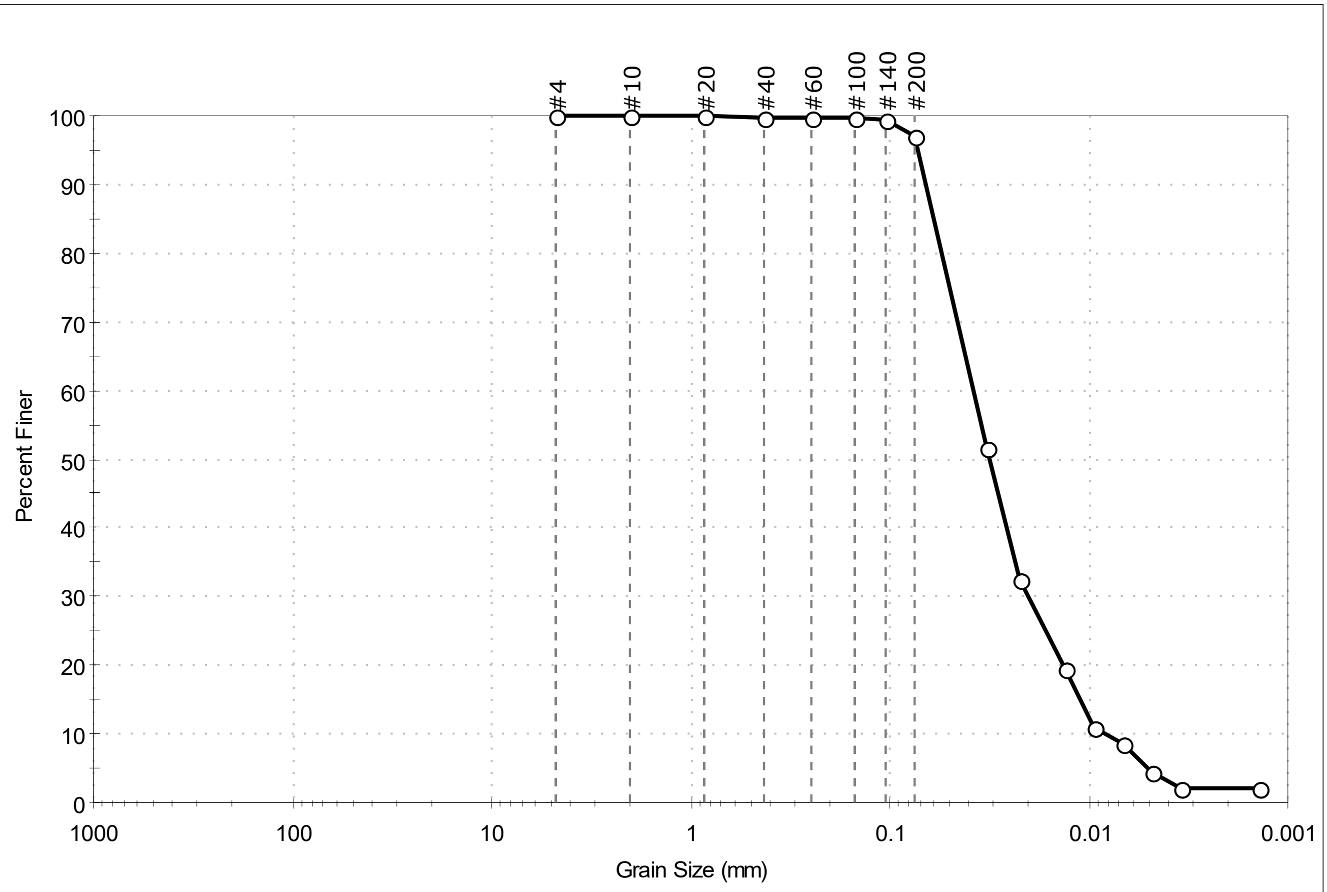
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-113	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	4-6'	Test Id:	817553		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	0.0	2.8	97.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	97		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0324	52		
---	0.0222	32		
---	0.0132	19		
---	0.0095	11		
---	0.0068	9		
---	0.0048	4		
---	0.0034	2		
---	0.0014	2		

Coefficients

D_{85} =0.0599 mm	D_{30} =0.0202 mm
D_{60} =0.0377 mm	D_{15} =0.0111 mm
D_{50} =0.0313 mm	D_{10} =0.0084 mm
C_u =4.488	C_c =1.288

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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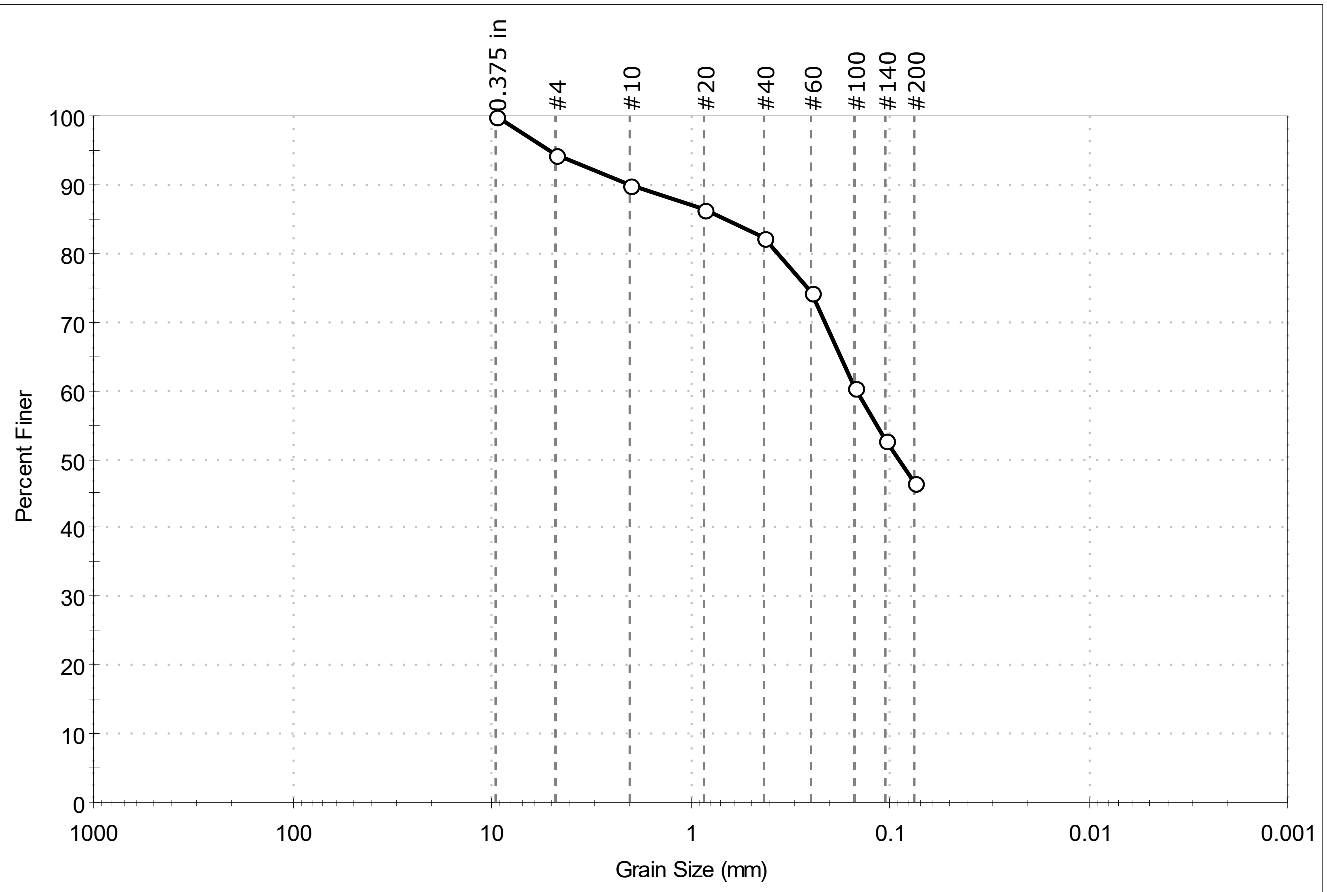
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-113	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	10-12'	Test Id:	817358		

Test Comment: ---
Visual Description: Moist, grayish brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	5.5	47.8	46.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	94		
#10	2.00	90		
#20	0.85	86		
#40	0.42	82		
#60	0.25	74		
#100	0.15	61		
#140	0.11	53		
#200	0.075	47		

Coefficients

D_{85} =0.6763 mm
D_{30} =N/A
D_{60} =0.1463 mm
D_{15} =N/A
D_{50} =0.0909 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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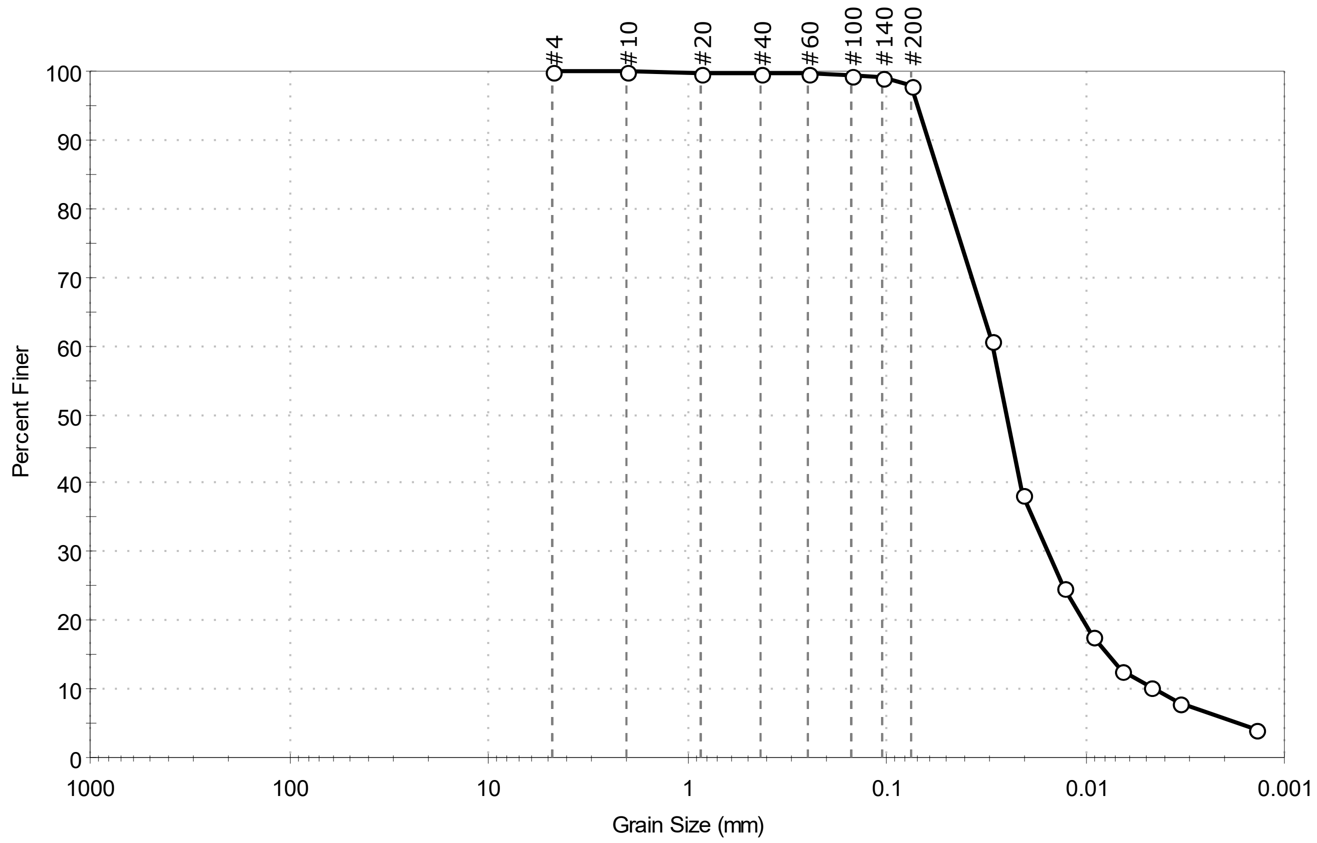
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-114	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	4-6'	Test Id:	817554		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	1.9	98.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	99		
#140	0.11	99		
#200	0.075	98		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0296	61		
---	0.0207	38		
---	0.0127	25		
---	0.0092	18		
---	0.0066	13		
---	0.0047	10		
---	0.0034	8		
---	0.0014	4		

Coefficients

D_{85} =0.0541 mm	D_{30} =0.0154 mm
D_{60} =0.0292 mm	D_{15} =0.0077 mm
D_{50} =0.0249 mm	D_{10} =0.0045 mm
C_u =6.489	C_c =1.805

Classification

ASTM	Silty CLAY (CL-ML)
AASHTO	Silty Soils (A-4 (2))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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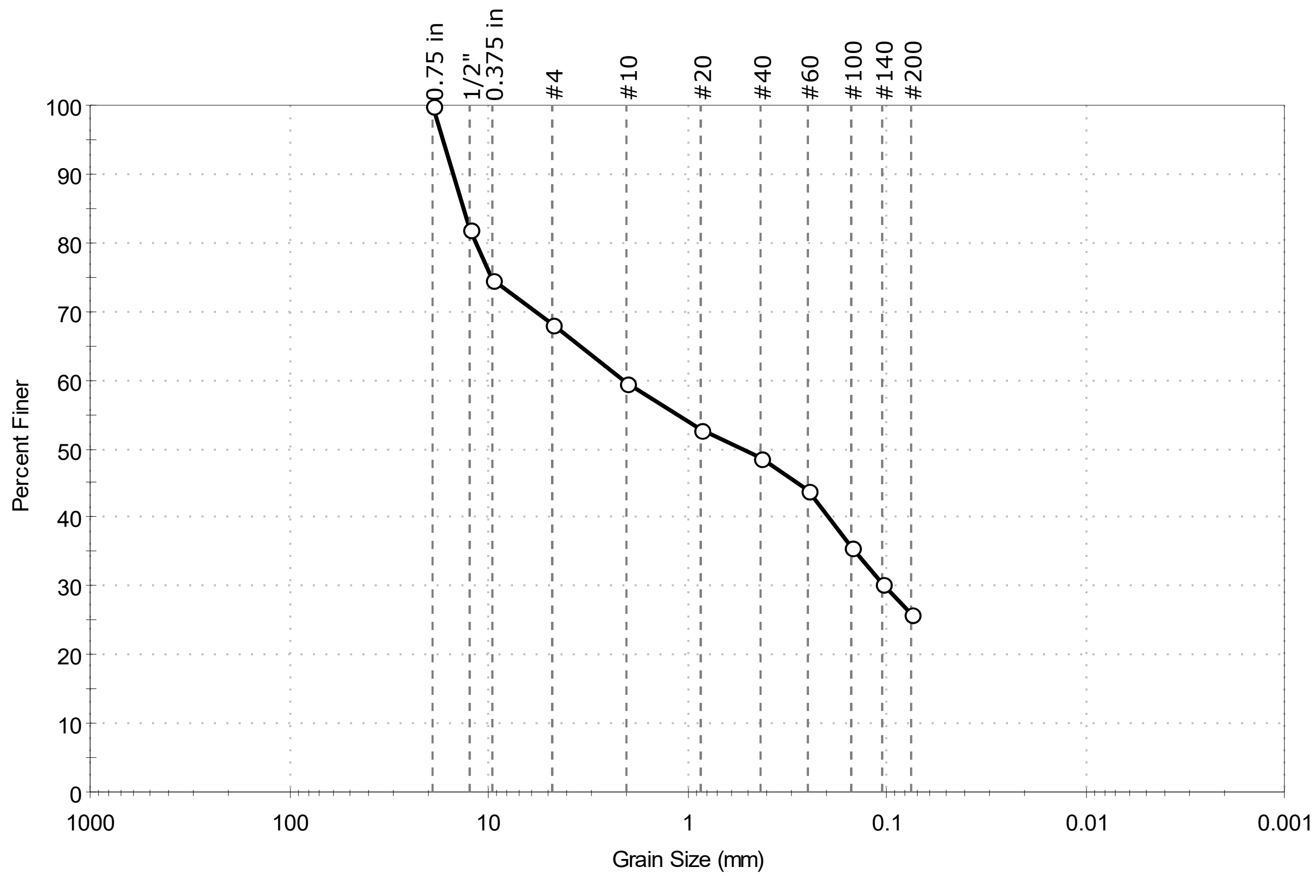
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-114
Sample Type: Jar
Tested By: ajl
Sample ID: ---
Test Date: 06/13/25
Checked By: ank
Depth : 19-21'
Test Id: 817360
Test Comment: ---
Visual Description: Moist, light grayish brown silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	31.8	42.2	26.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
1/2"	12.50	82		
0.375 in	9.50	75		
#4	4.75	68		
#10	2.00	60		
#20	0.85	53		
#40	0.42	49		
#60	0.25	44		
#100	0.15	36		
#140	0.11	30		
#200	0.075	26		

Coefficients

D_{85} =13.3709 mm
D_{30} =0.1039 mm
D_{60} =2.0709 mm
D_{15} =N/A
D_{50} =0.5278 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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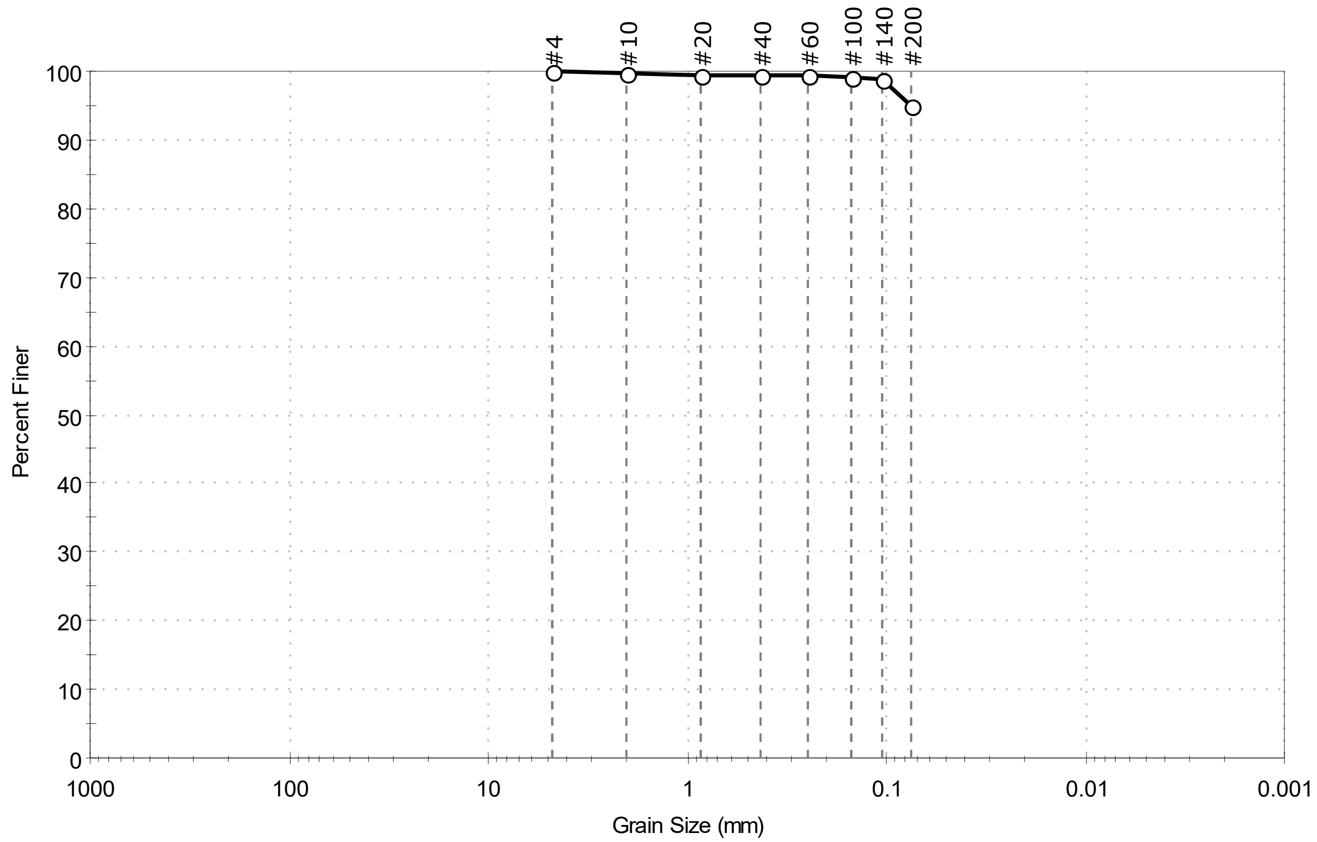
Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096

Boring ID:	LB-R-116	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	6-8'	Test Id:	817362		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	5.1	94.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	95		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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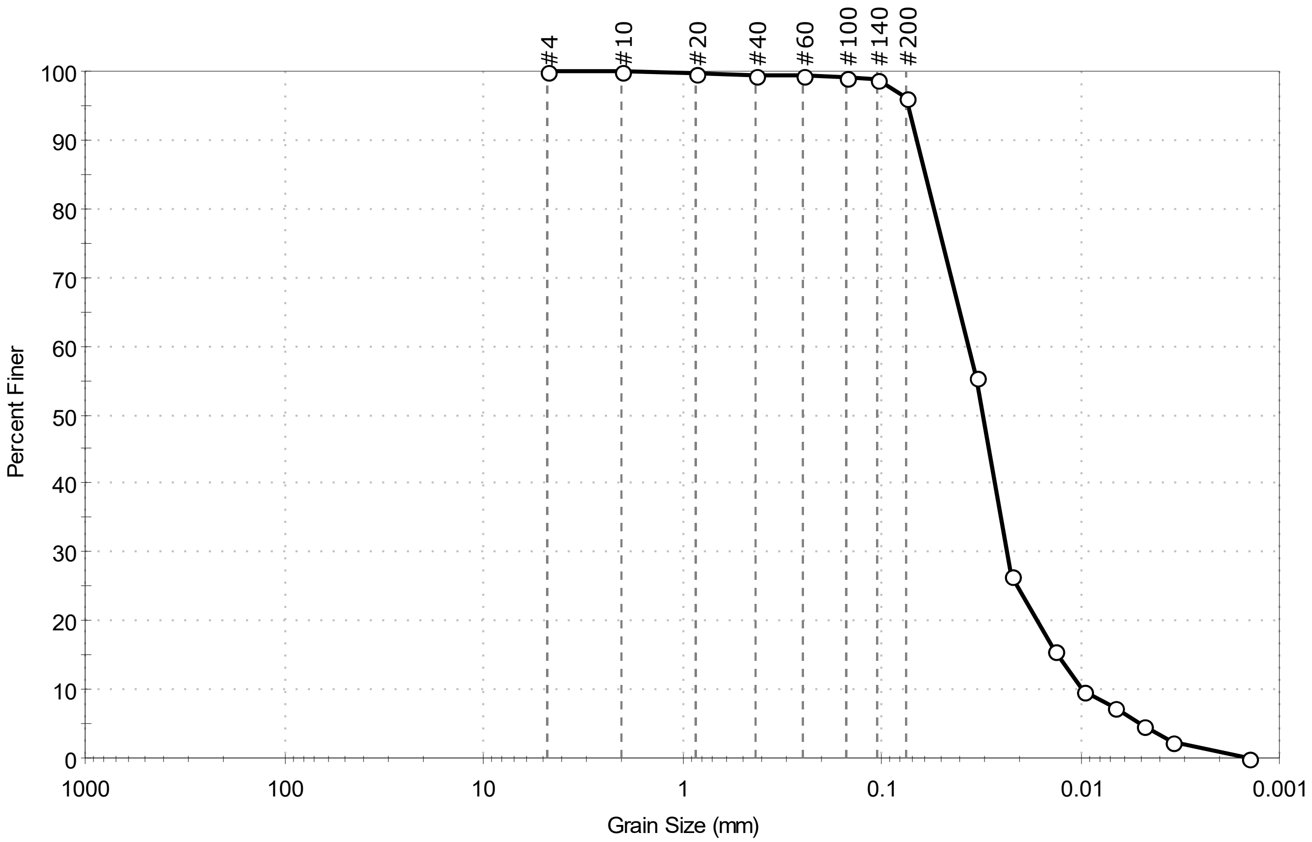
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-116	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	2-4'	Test Id:	817570		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.8	96.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	96		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0334	56		
---	0.0225	27		
---	0.0134	16		
---	0.0096	10		
---	0.0068	7		
---	0.0048	5		
---	0.0034	2		
---	0.0014	0		

Coefficients

D_{85} =0.0600 mm
D_{30} =0.0236 mm
D_{60} =0.0365 mm
D_{15} =0.0129 mm
D_{50} =0.0309 mm
D_{10} =0.0097 mm
C_u =3.763
C_c =1.573

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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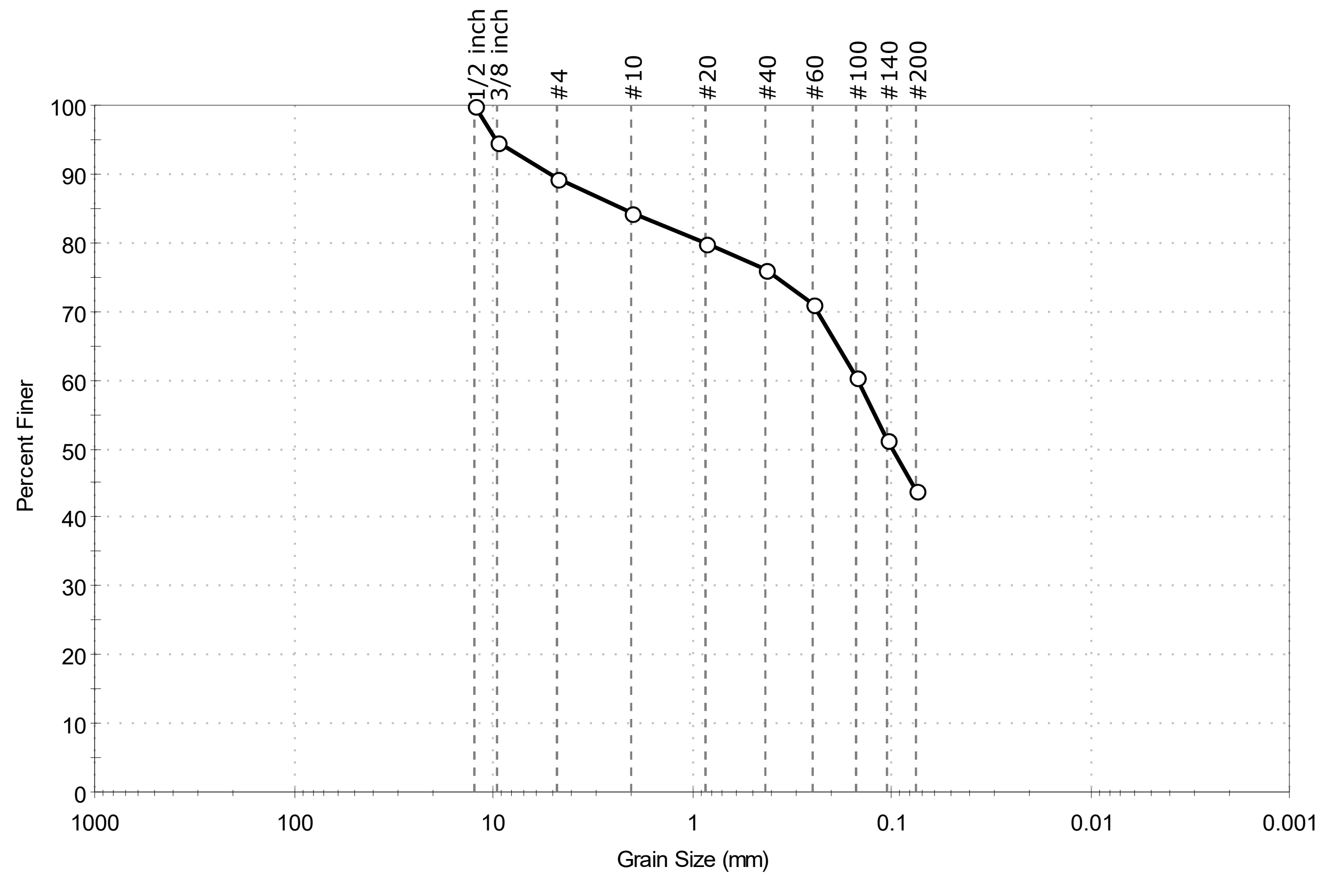
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-117	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	2-4'	Test Id:	817363		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silty sand
Sample Comment: One 2" rock removed

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	10.7	45.3	44.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2 inch	12.50	100		
3/8 inch	9.50	95		
#4	4.75	89		
#10	2.00	84		
#20	0.85	80		
#40	0.42	76		
#60	0.25	71		
#100	0.15	60		
#140	0.11	51		
#200	0.075	44		

Coefficients

D_{85} =2.2533 mm	D_{30} =N/A
D_{60} =0.1481 mm	D_{15} =N/A
D_{50} =0.0999 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

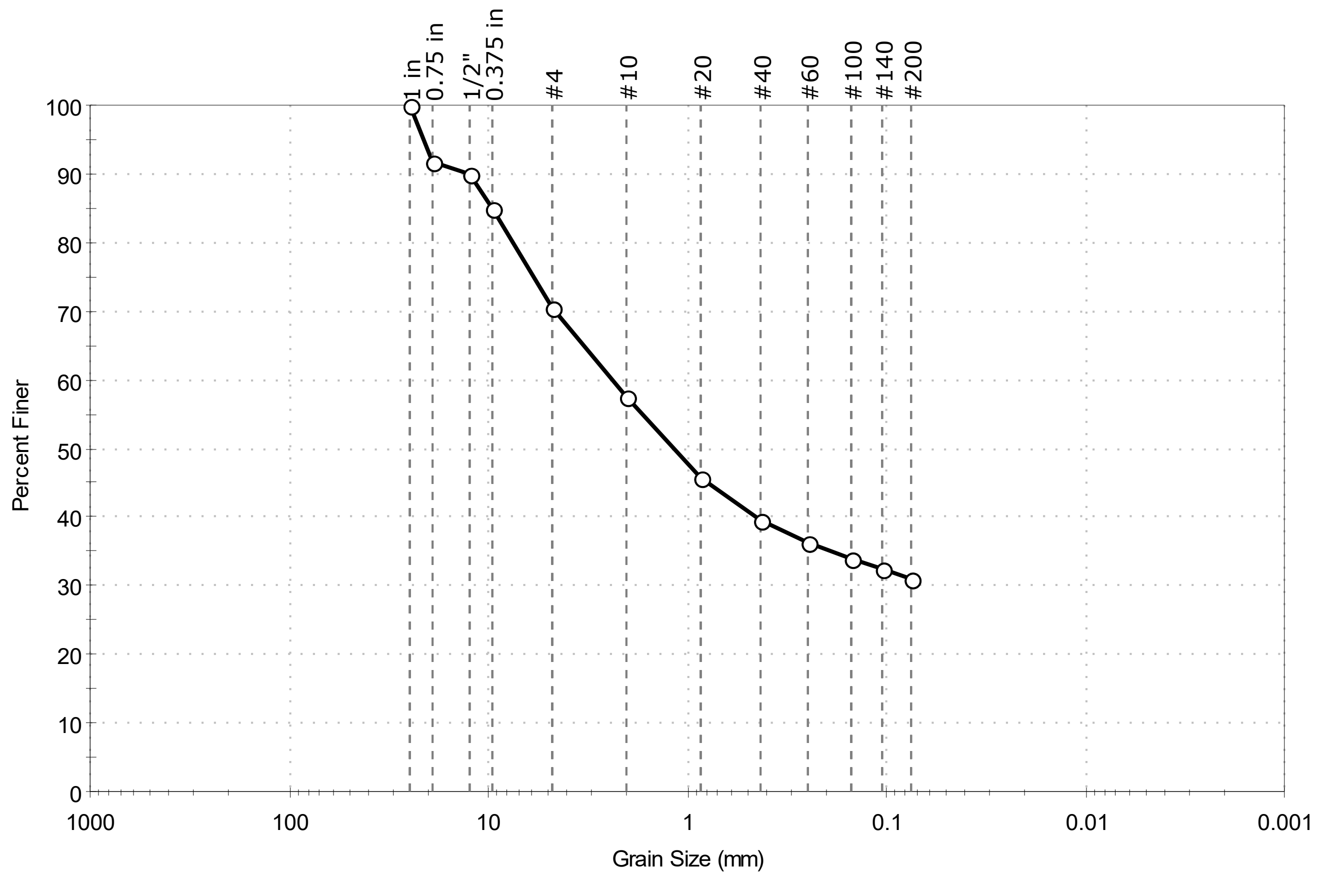
Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-118	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	24-26'	Test Id:	817364		

Test Comment: ---
Visual Description: Moist, black silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	29.3	39.7	31.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	92		
1/2"	12.50	90		
0.375 in	9.50	85		
#4	4.75	71		
#10	2.00	58		
#20	0.85	46		
#40	0.42	39		
#60	0.25	36		
#100	0.15	34		
#140	0.11	32		
#200	0.075	31		

Coefficients

D_{85} =9.5896 mm	D_{30} =N/A
D_{60} =2.3558 mm	D_{15} =N/A
D_{50} =1.1568 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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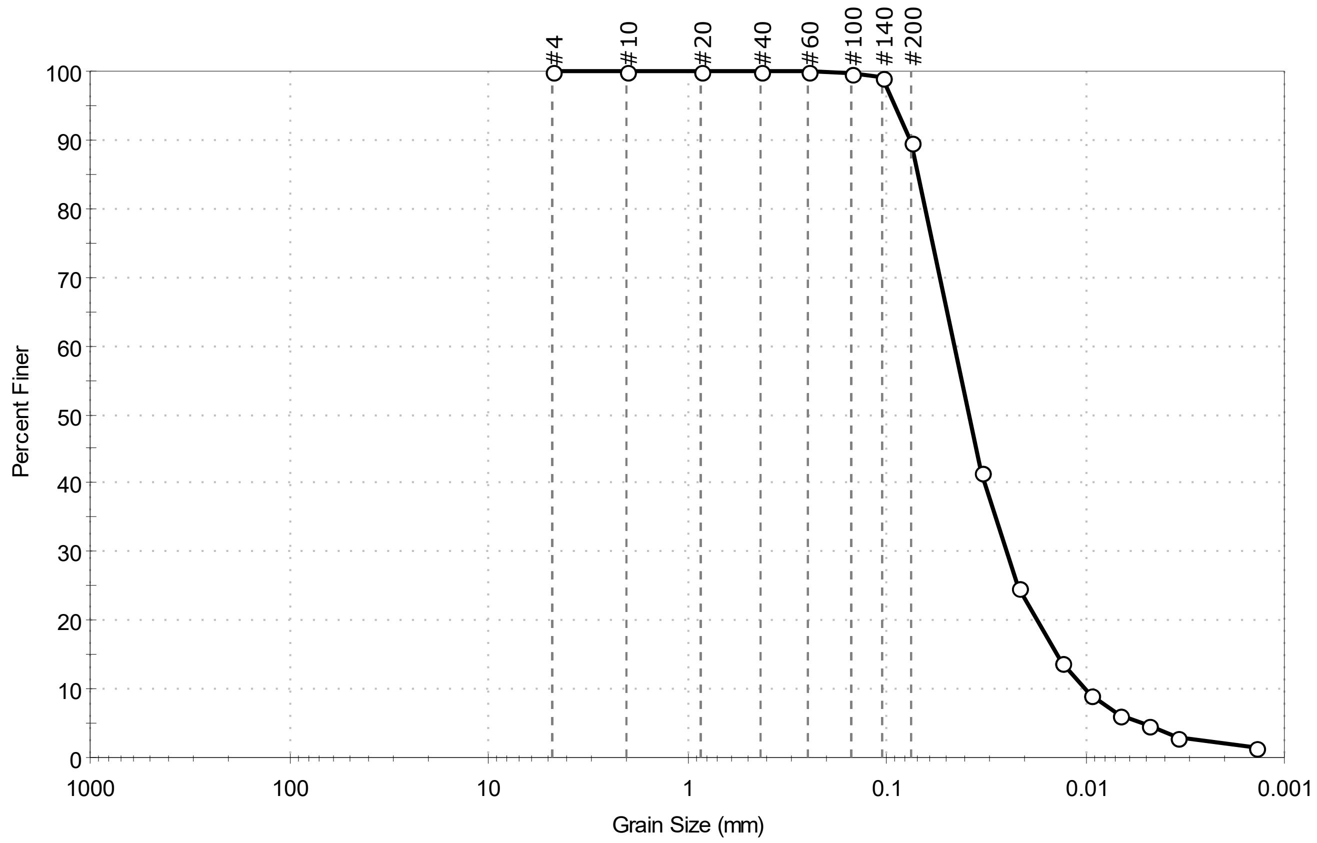
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-118
Sample ID: ---
Depth : 2-4'
Sample Type: Jar
Test Date: 06/11/25
Test Id: 817555
Tested By: ajl
Checked By: ank

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	10.3	89.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	90		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0332	42		
---	0.0219	25		
---	0.0132	14		
---	0.0095	9		
---	0.0068	6		
---	0.0048	5		
---	0.0034	3		
---	0.0014	2		

Coefficients

D_{85} =0.0692 mm
D_{30} =0.0250 mm
D_{60} =0.0453 mm
D_{15} =0.0140 mm
D_{50} =0.0383 mm
D_{10} =0.0100 mm
C_u =4.530
C_c =1.380

Classification

ASTM SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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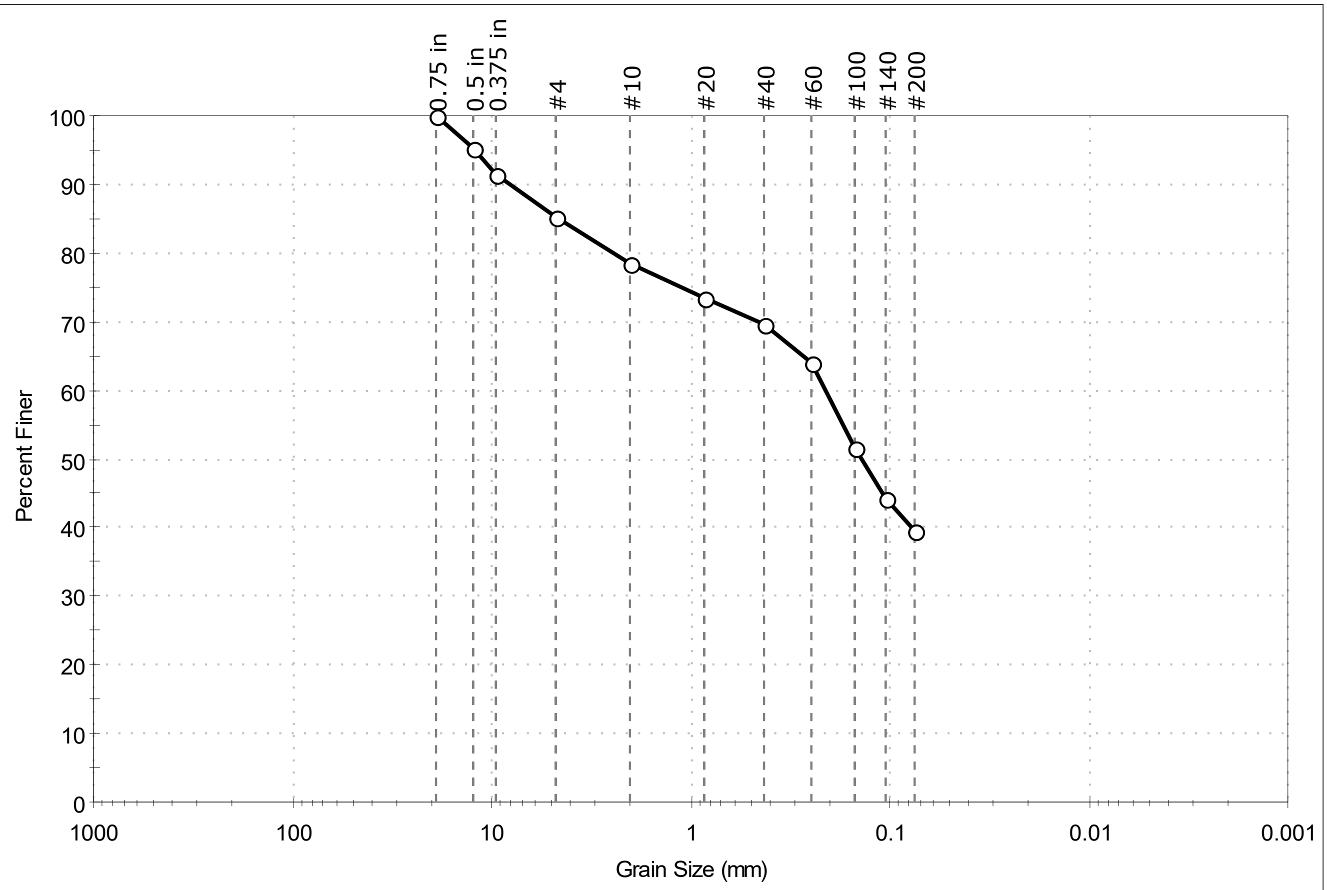
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-120	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	8-10'	Test Id:	817365		

Test Comment: ---
Visual Description: Moist, light brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	14.9	45.6	39.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	95		
0.375 in	9.50	91		
#4	4.75	85		
#10	2.00	78		
#20	0.85	73		
#40	0.42	70		
#60	0.25	64		
#100	0.15	52		
#140	0.11	44		
#200	0.075	40		

Coefficients

D_{85} =4.6597 mm	D_{30} =N/A
D_{60} =0.2110 mm	D_{15} =N/A
D_{50} =0.1385 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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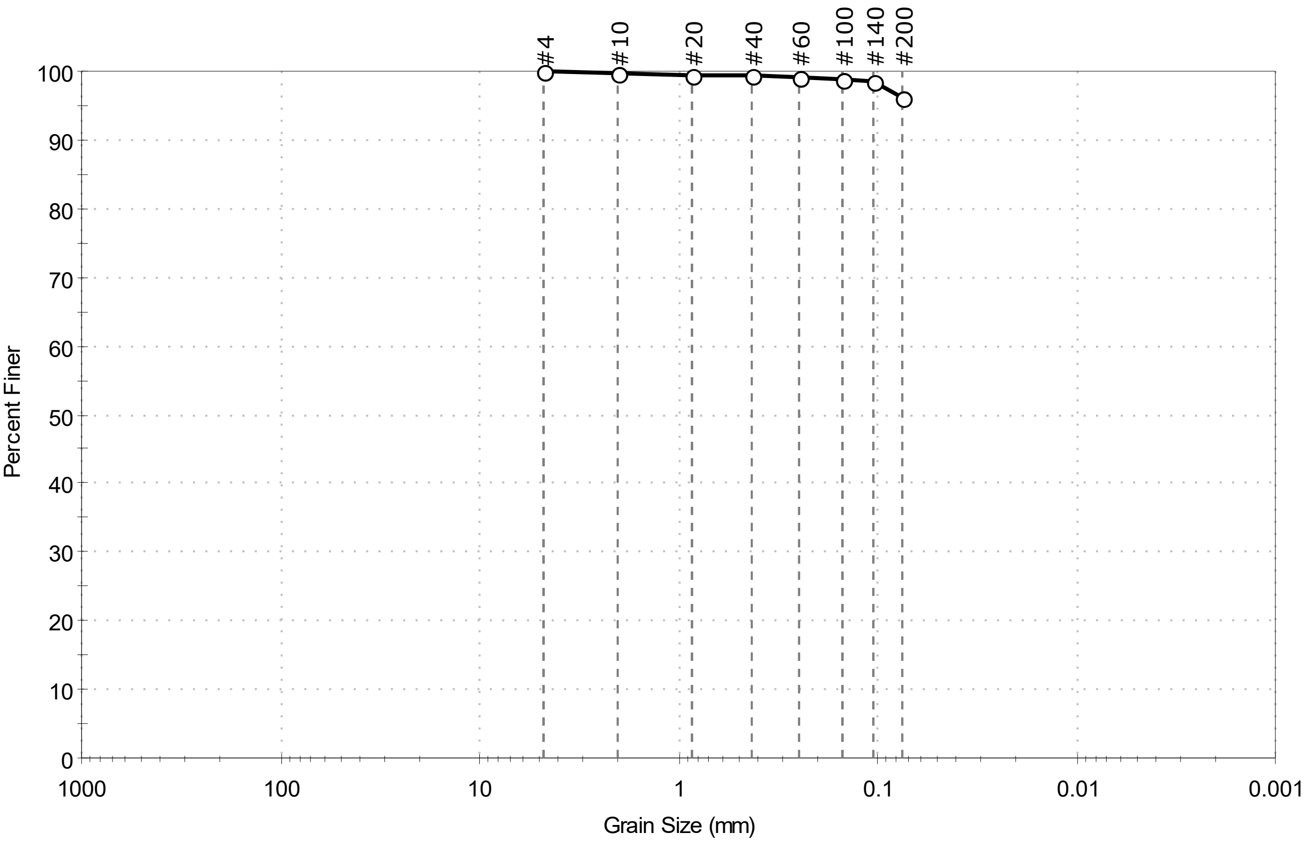
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-121	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	4-6'	Test Id:	817366		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.8	96.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	98		
#200	0.075	96		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

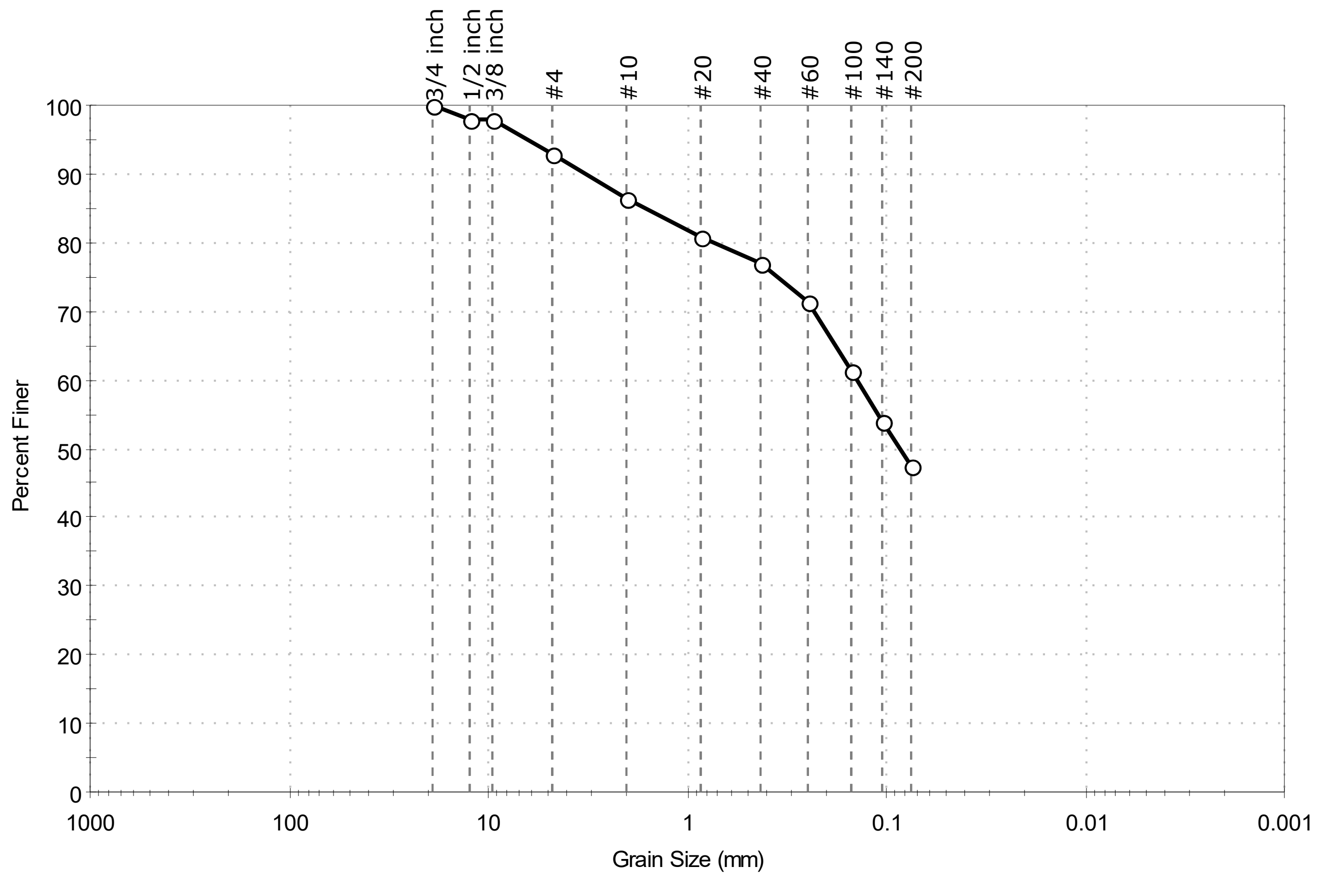
Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-122	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	6-8'	Test Id:	817368		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	7.0	45.5	47.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	98		
3/8 inch	9.50	98		
#4	4.75	93		
#10	2.00	86		
#20	0.85	81		
#40	0.42	77		
#60	0.25	71		
#100	0.15	61		
#140	0.11	54		
#200	0.075	48		

Coefficients

D_{85} =1.6205 mm	D_{30} =N/A
D_{60} =0.1400 mm	D_{15} =N/A
D_{50} =0.0857 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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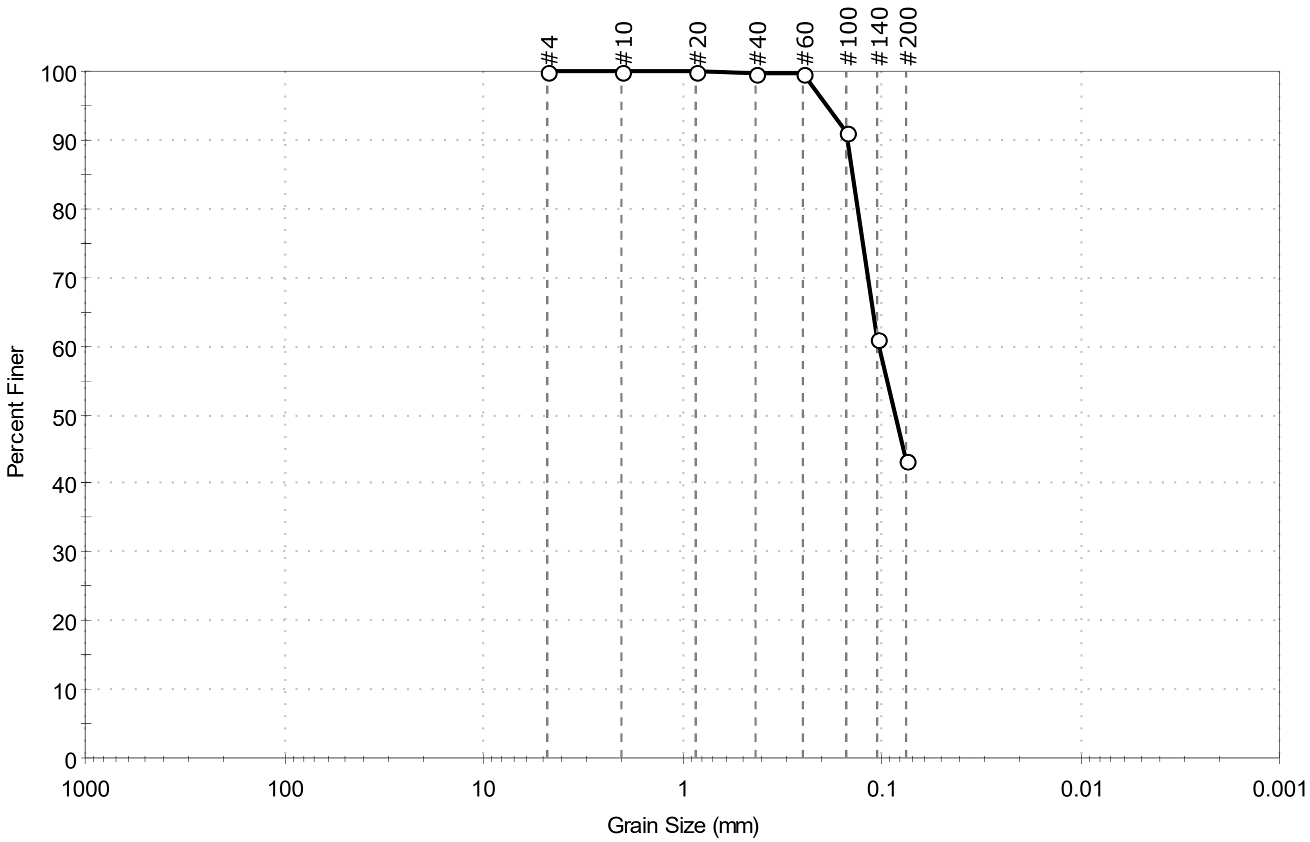
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-122	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	27-29'	Test Id:	817367		

Test Comment: ---
Visual Description: Moist, dark brownish gray silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.1	56.6	43.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	91		
#140	0.11	61		
#200	0.075	43		

Coefficients

D_{85} =0.1398 mm	D_{30} =N/A
D_{60} =0.1037 mm	D_{15} =N/A
D_{50} =0.0854 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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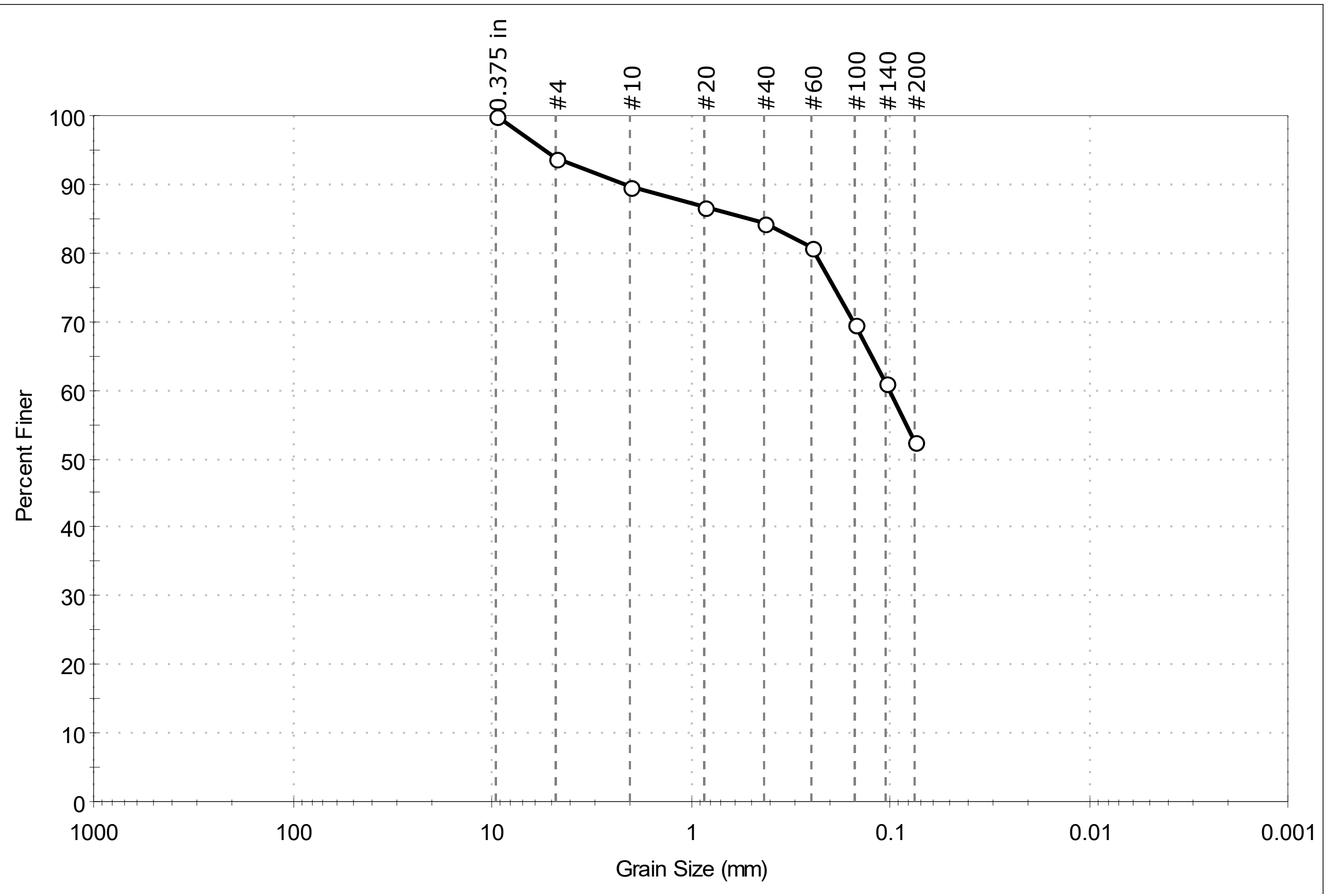
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-123	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	2-4'	Test Id:	817369		

Test Comment: ---

Visual Description: Moist, brown sandy silt

Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	6.1	41.5	52.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	94		
#10	2.00	90		
#20	0.85	87		
#40	0.42	84		
#60	0.25	81		
#100	0.15	70		
#140	0.11	61		
#200	0.075	52		

Coefficients

D_{85} =0.5149 mm	D_{30} =N/A
D_{60} =0.1017 mm	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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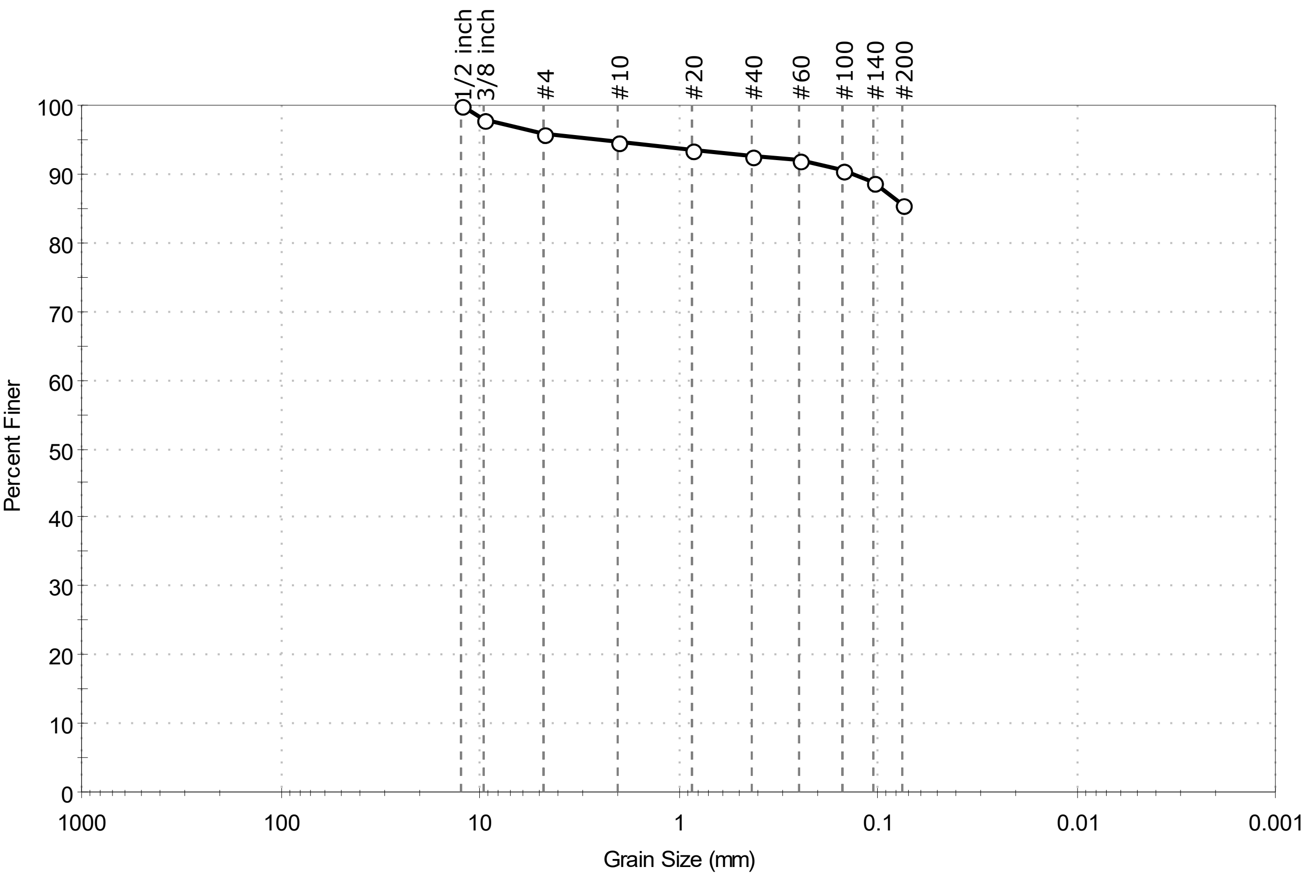
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-124	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	4-6'	Test Id:	817371		

Test Comment: ---
Visual Description: Moist, dark gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	4.1	10.4	85.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2 inch	12.50	100		
3/8 inch	9.50	98		
#4	4.75	96		
#10	2.00	95		
#20	0.85	93		
#40	0.42	93		
#60	0.25	92		
#100	0.15	91		
#140	0.11	89		
#200	0.075	86		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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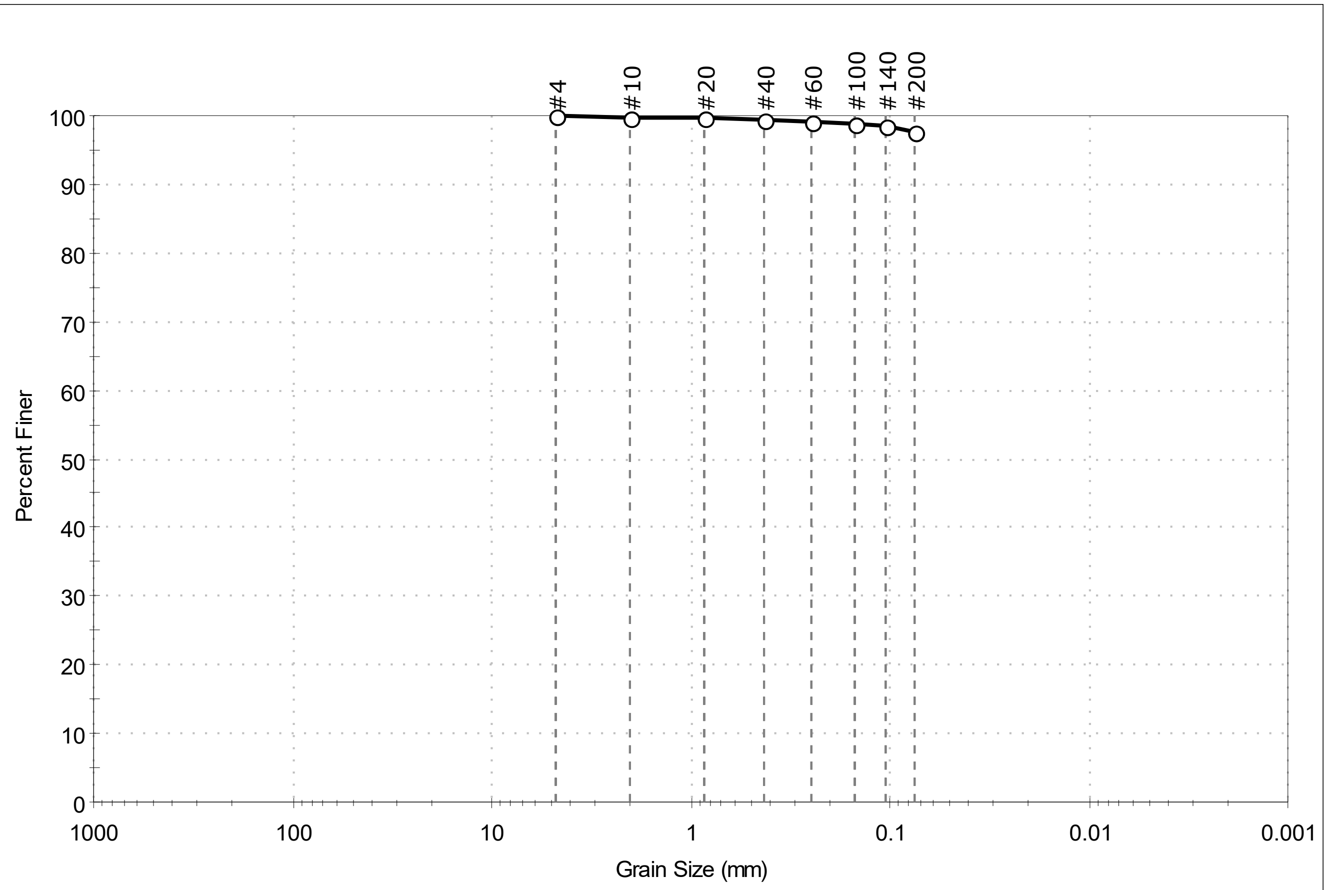
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-124	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	8-10'	Test Id:	817372		

Test Comment: ---
Visual Description: Moist, grayish brown silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.5	97.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	98		
#200	0.075	98		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Silty CLAY (CL-ML)
AASHTO	Silty Soils (A-4 (2))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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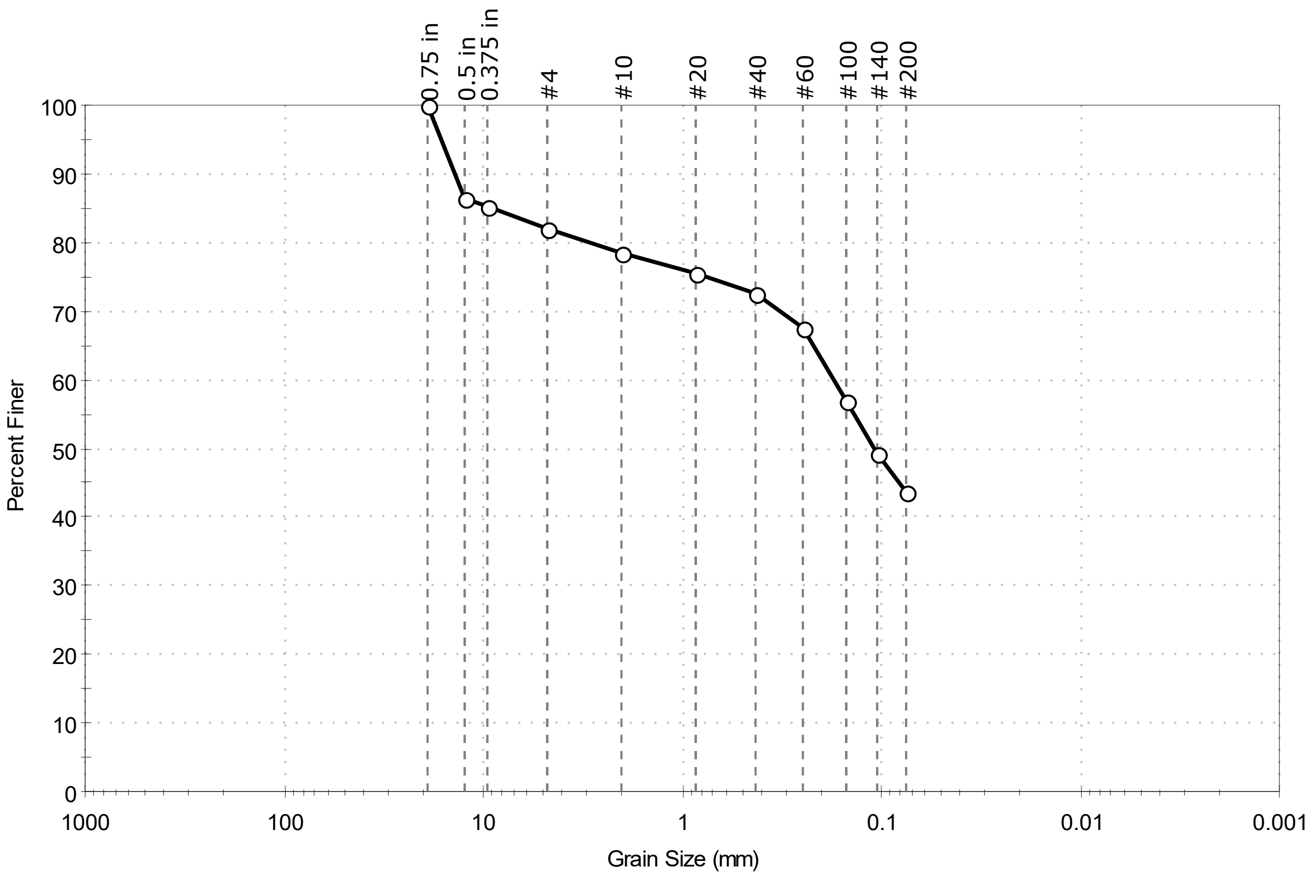
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-125	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	2-4'	Test Id:	817373		

Test Comment: ---
Visual Description: Moist, dark yellowish brown clayey sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	17.9	38.5	43.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	86		
0.375 in	9.50	85		
#4	4.75	82		
#10	2.00	79		
#20	0.85	75		
#40	0.42	73		
#60	0.25	68		
#100	0.15	57		
#140	0.11	49		
#200	0.075	44		

Coefficients

D_{85} =9.1091 mm	D_{30} =N/A
D_{60} =0.1742 mm	D_{15} =N/A
D_{50} =0.1102 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	Clayey SAND with Gravel (SC)
AASHTO	Clayey Soils (A-6 (2))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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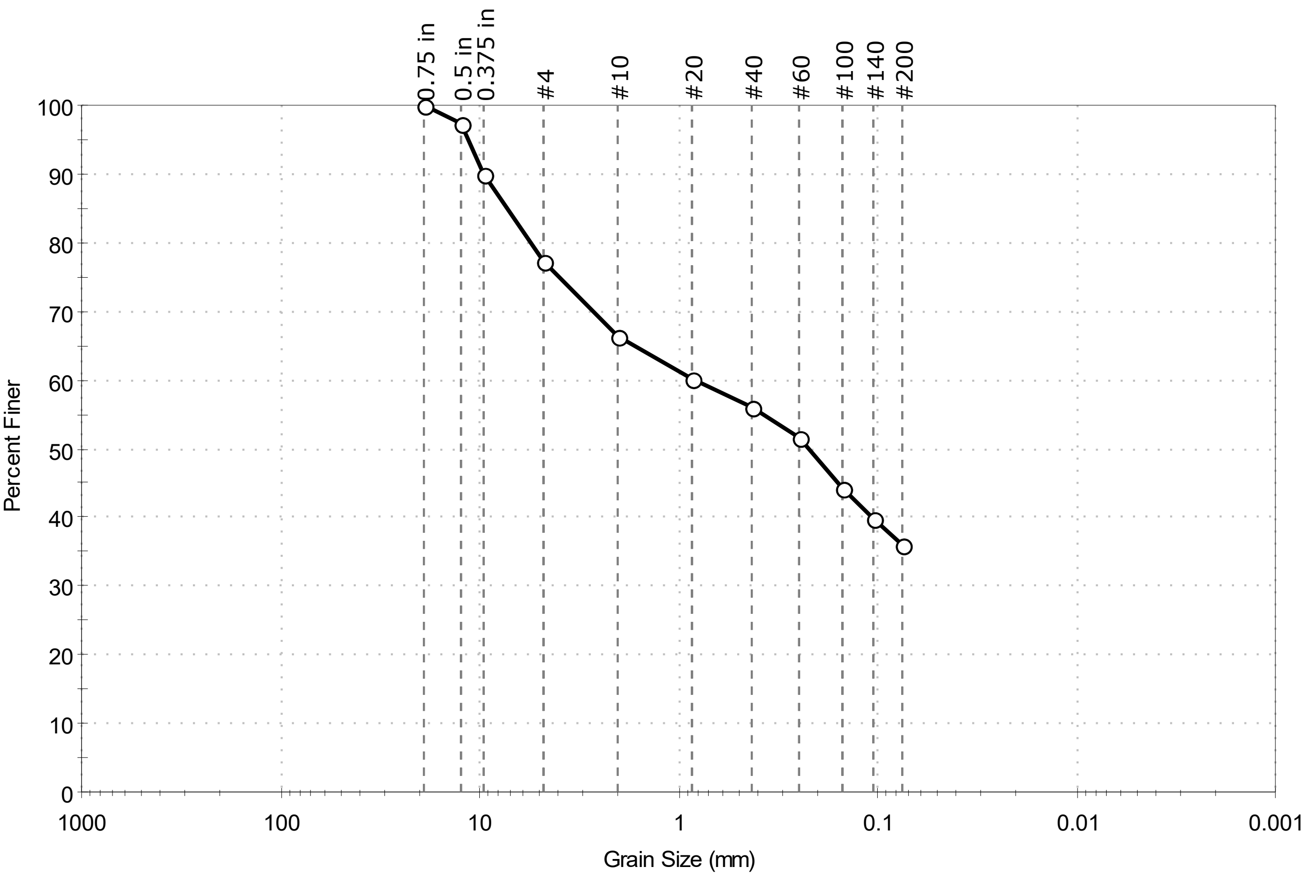
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-126	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/14/25	Checked By:	ank
Depth :	6-8'	Test Id:	817374		

Test Comment: ---
Visual Description: Moist, brown silty, clayey sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	22.6	41.3	36.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	97		
0.375 in	9.50	90		
#4	4.75	77		
#10	2.00	66		
#20	0.85	60		
#40	0.42	56		
#60	0.25	52		
#100	0.15	44		
#140	0.11	40		
#200	0.075	36		

Coefficients

D_{85} =7.2193 mm
D_{30} =N/A
D_{60} =0.8238 mm
D_{15} =N/A
D_{50} =0.2235 mm
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM Silty, Clayey SAND with Gravel (SC-SM)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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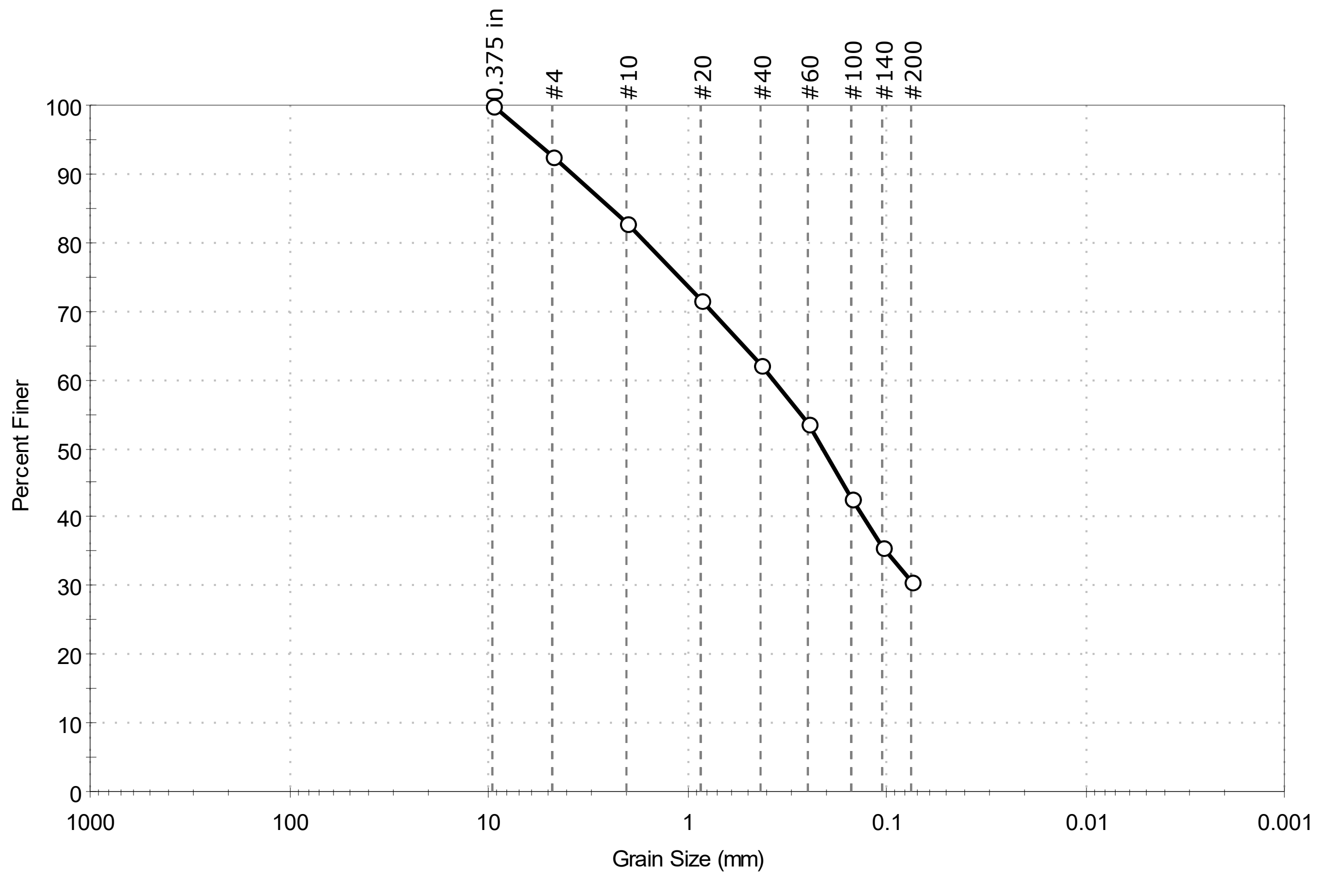
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-127	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	6-8'	Test Id:	817376		

Test Comment: ---
Visual Description: Moist, grayish brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	7.3	62.0	30.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	93		
#10	2.00	83		
#20	0.85	72		
#40	0.42	62		
#60	0.25	54		
#100	0.15	43		
#140	0.11	36		
#200	0.075	31		

Coefficients

D_{85} =2.3820 mm	D_{30} =N/A
D_{60} =0.3697 mm	D_{15} =N/A
D_{50} =0.2093 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

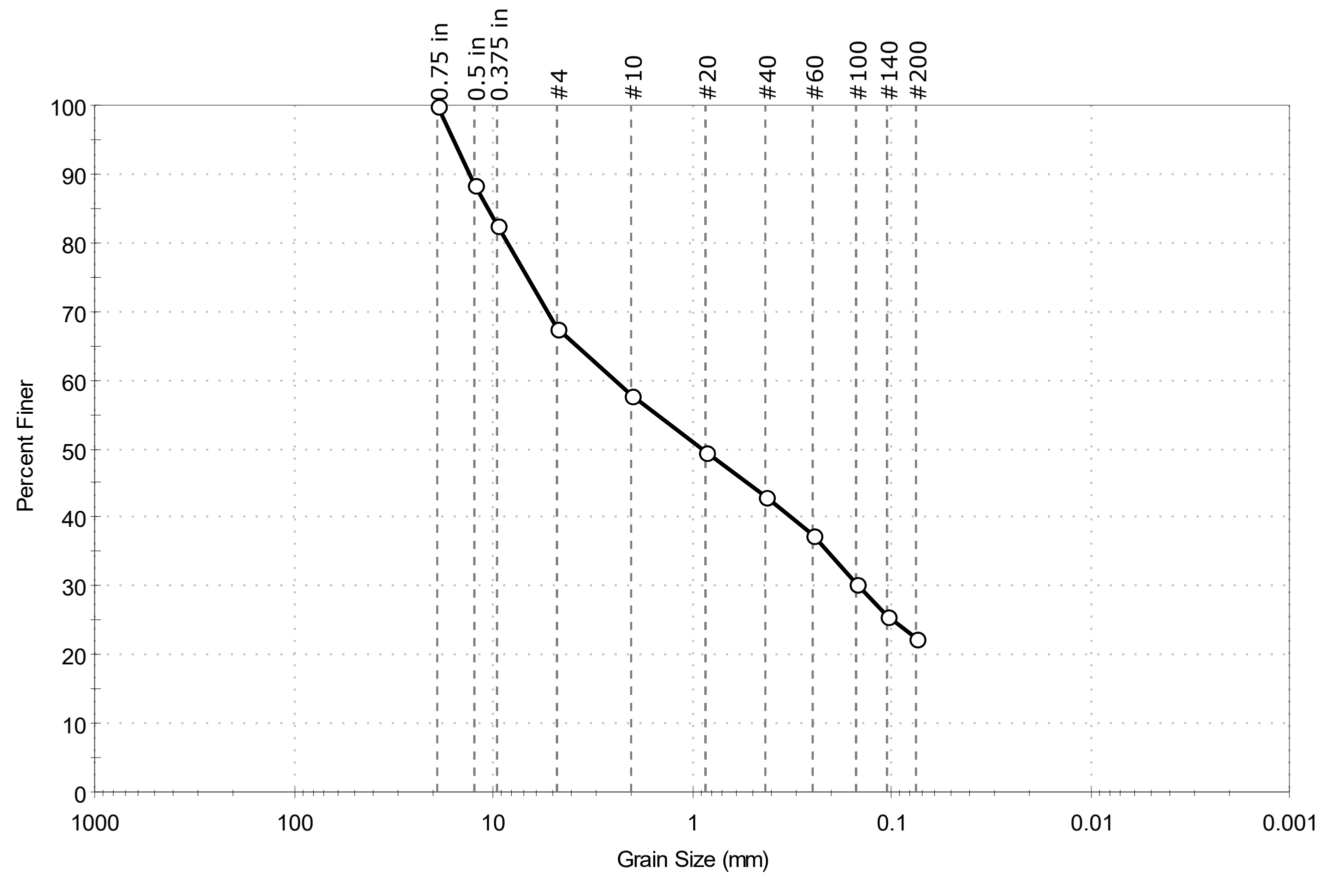
Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	Langan Engineering			
Project:	Upstate Confidential Project			
Location:	NY		Project No:	GTX-321096
Boring ID: LB-R-127		Sample Type: Jar	Tested By:	GA
Sample ID: ---		Test Date: 05/29/25	Checked By:	ank
Depth : 4-6'		Test Id: 817375		

Test Comment: ---
Visual Description: Moist, dark grayish brown silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	32.4	45.3	22.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	88		
0.375 in	9.50	83		
#4	4.75	68		
#10	2.00	58		
#20	0.85	49		
#40	0.42	43		
#60	0.25	37		
#100	0.15	30		
#140	0.11	26		
#200	0.075	22		

Coefficients

D_{85} =10.6525 mm	D_{30} =0.1447 mm
D_{60} =2.4082 mm	D_{15} =N/A
D_{50} =0.9019 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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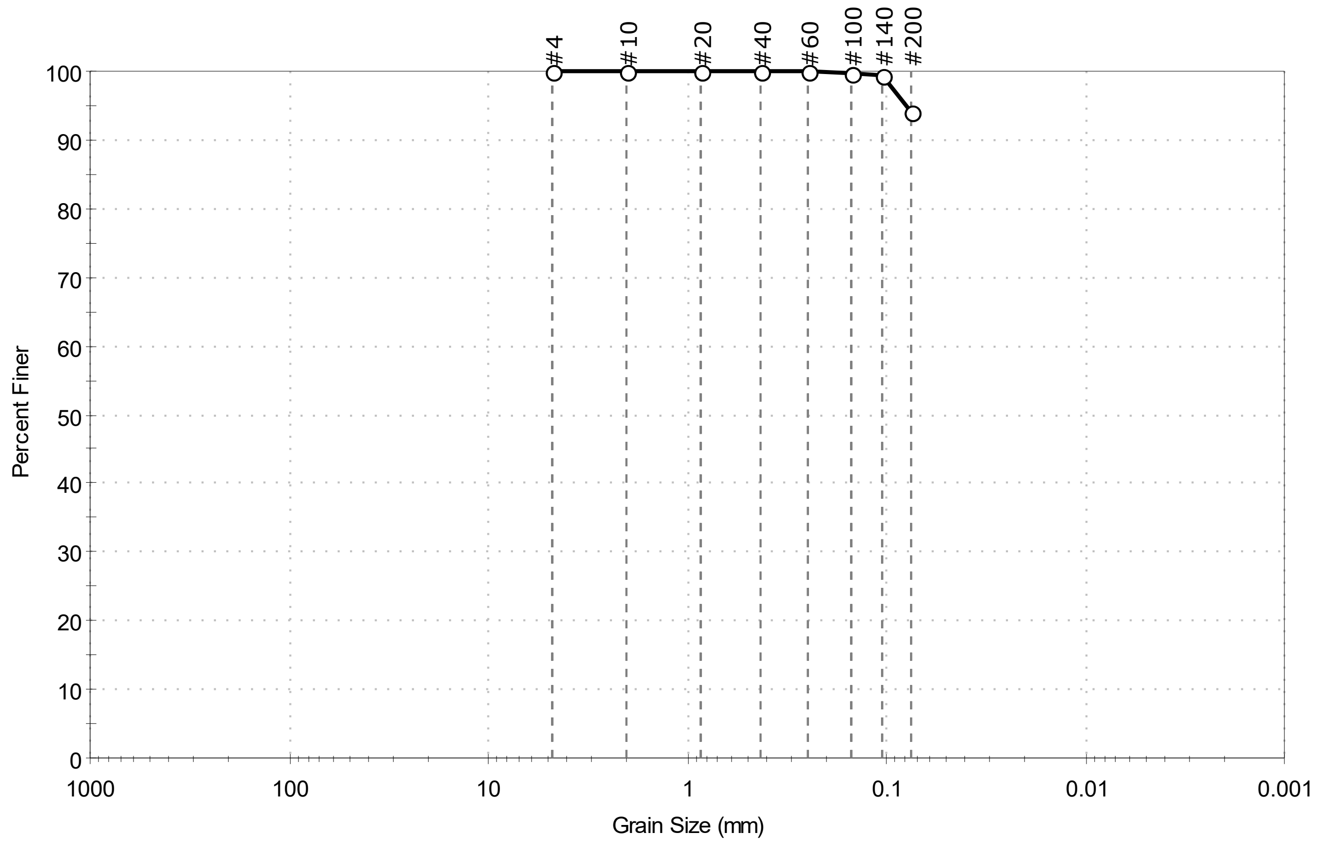
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-128
Sample Type: Jar
Tested By: ajl
Sample ID: ---
Test Date: 06/12/25
Checked By: ank
Depth : 6-8'
Test Id: 817377
Test Comment: ---
Visual Description: Moist, yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	6.0	94.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	94		

Coefficients

D_{85} =N/A
D_{30} =N/A
D_{60} =N/A
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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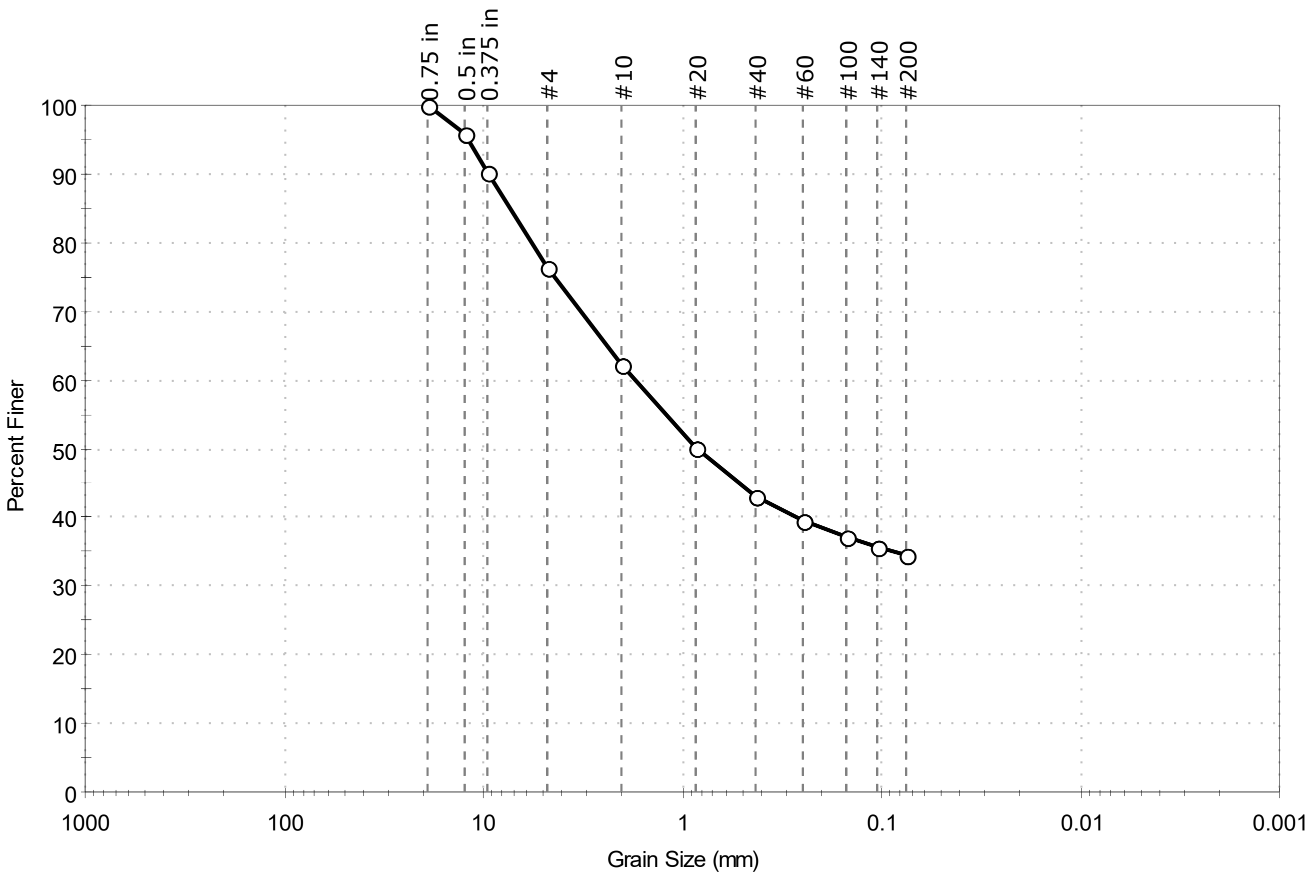
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-129	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	14-16'	Test Id:	817378		

Test Comment: ---

Visual Description: Moist, very dark gray clayey sand with gravel

Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	23.7	41.8	34.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	96		
0.375 in	9.50	90		
#4	4.75	76		
#10	2.00	62		
#20	0.85	50		
#40	0.42	43		
#60	0.25	39		
#100	0.15	37		
#140	0.11	36		
#200	0.075	35		

Coefficients

D_{85} =7.2912 mm	D_{30} =N/A

D_{60} =1.7111 mm	D_{15} =N/A

D_{50} =0.8352 mm	D_{10} =N/A

C_u =N/A	C_c =N/A

Classification

ASTM	Clayey SAND with Gravel (SC)

AASHTO	Clayey Gravel and Sand (A-2-6 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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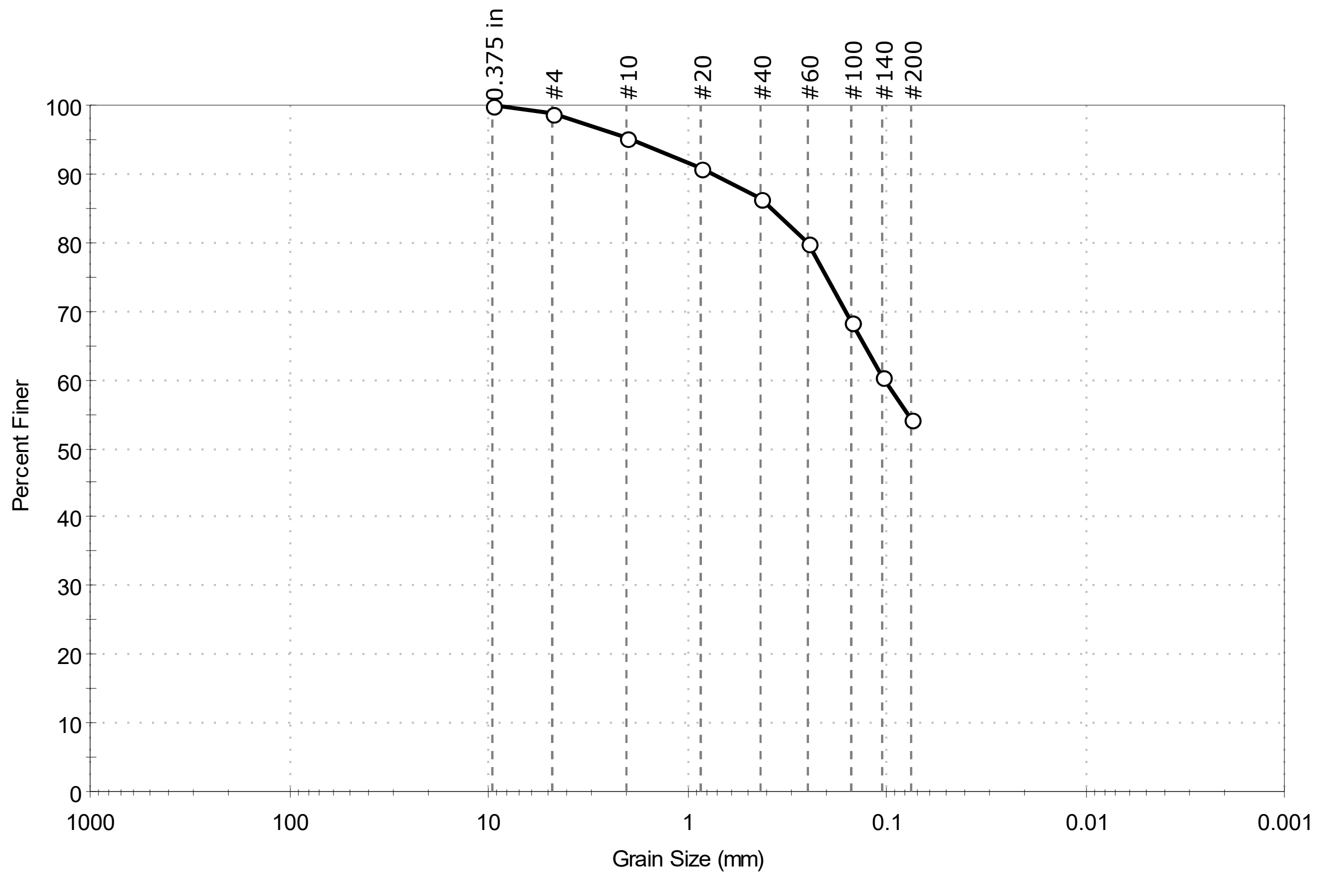
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-130	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	14-16'	Test Id:	817379		

Test Comment: ---
Visual Description: Moist, light grayish brown sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	1.2	44.5	54.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	95		
#20	0.85	91		
#40	0.42	86		
#60	0.25	80		
#100	0.15	68		
#140	0.11	60		
#200	0.075	54		

Coefficients

D_{85} =0.3786 mm	D_{30} =N/A
D_{60} =0.1031 mm	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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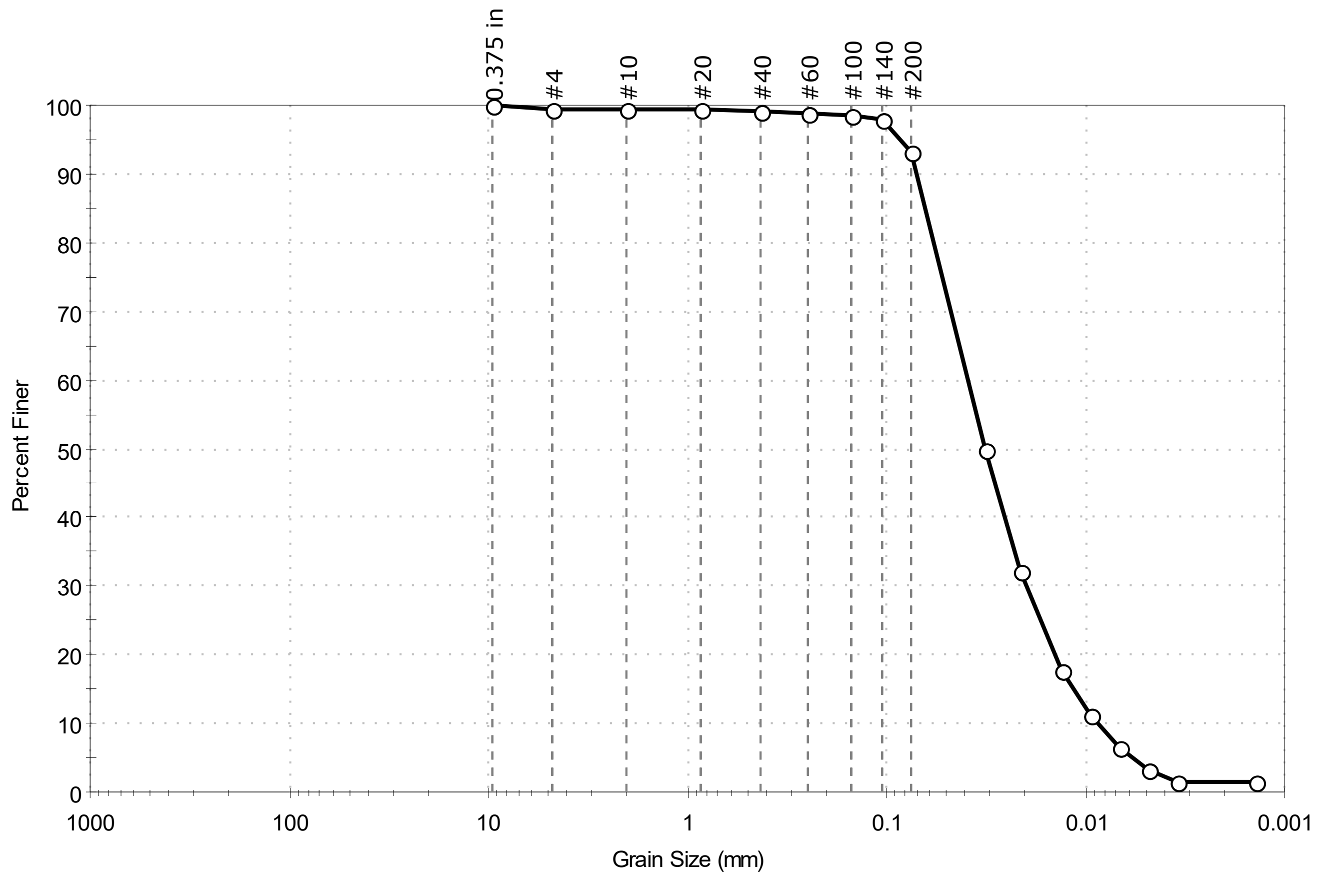
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-130
Sample Type: Jar
Tested By: ajl
Sample ID: ---
Test Date: 06/11/25
Checked By: ank
Depth : 10-12'
Test Id: 817556

Test Comment: ---
Visual Description: Moist, gray silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.6	6.3	93.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	99		
#10	2.00	99		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	98		
#140	0.11	98		
#200	0.075	93		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0322	50		
---	0.0212	32		
---	0.0131	18		
---	0.0094	11		
---	0.0068	6		
---	0.0048	3		
---	0.0034	2		
---	0.0014	2		

Coefficients

D_{85} =0.0640 mm
D_{30} =0.0197 mm
D_{60} =0.0392 mm
D_{15} =0.0114 mm
D_{50} =0.0322 mm
D_{10} =0.0087 mm
C_u =4.506
C_c =1.138

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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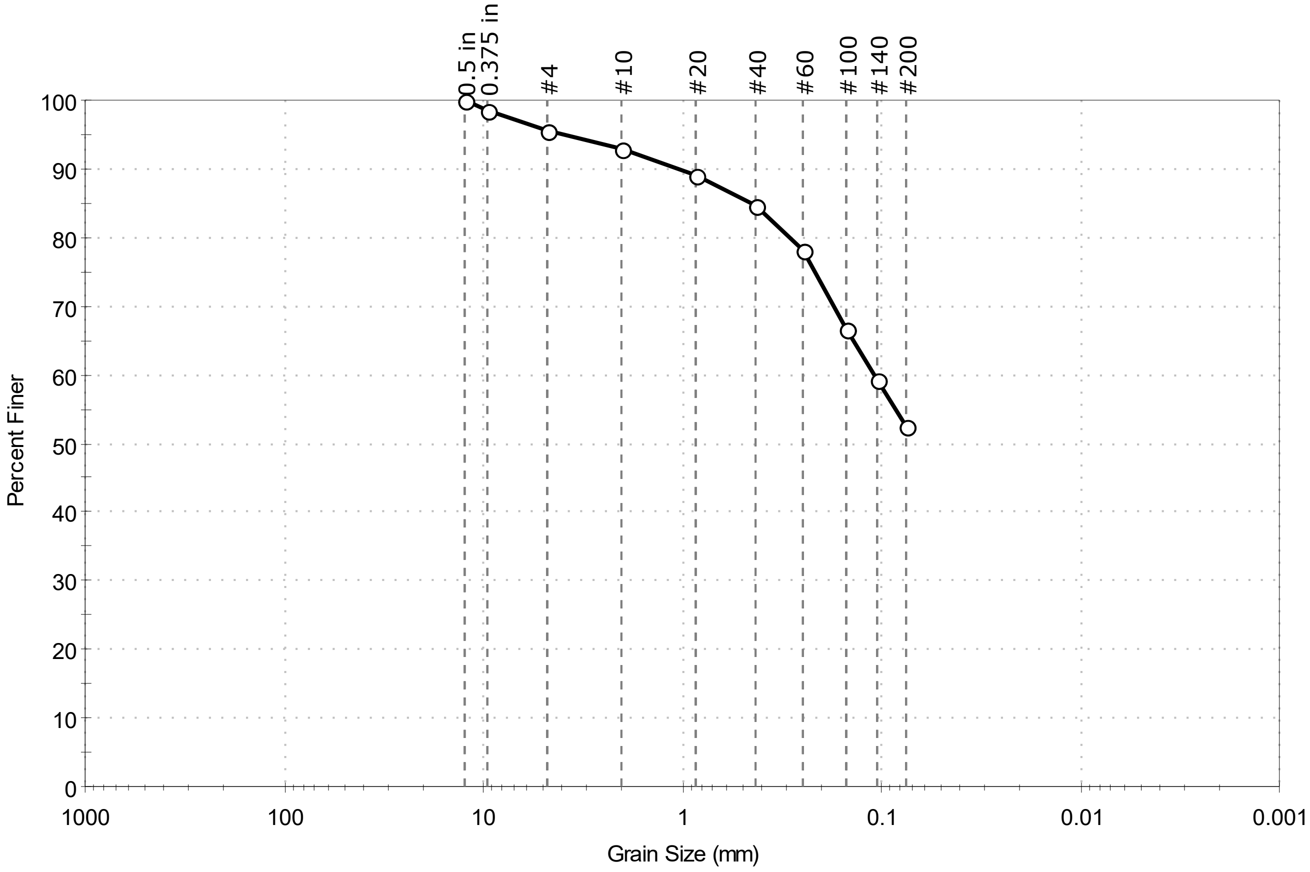
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID:	LB-R-130	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	14-16'	Test Id:	817380		

Test Comment: ---
Visual Description: Moist, dark gray sandy silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	4.5	43.0	52.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	99		
#4	4.75	96		
#10	2.00	93		
#20	0.85	89		
#40	0.42	85		
#60	0.25	78		
#100	0.15	67		
#140	0.11	59		
#200	0.075	52		

Coefficients

D_{85} =0.4443 mm	D_{30} =N/A
D_{60} =0.1092 mm	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM Sandy SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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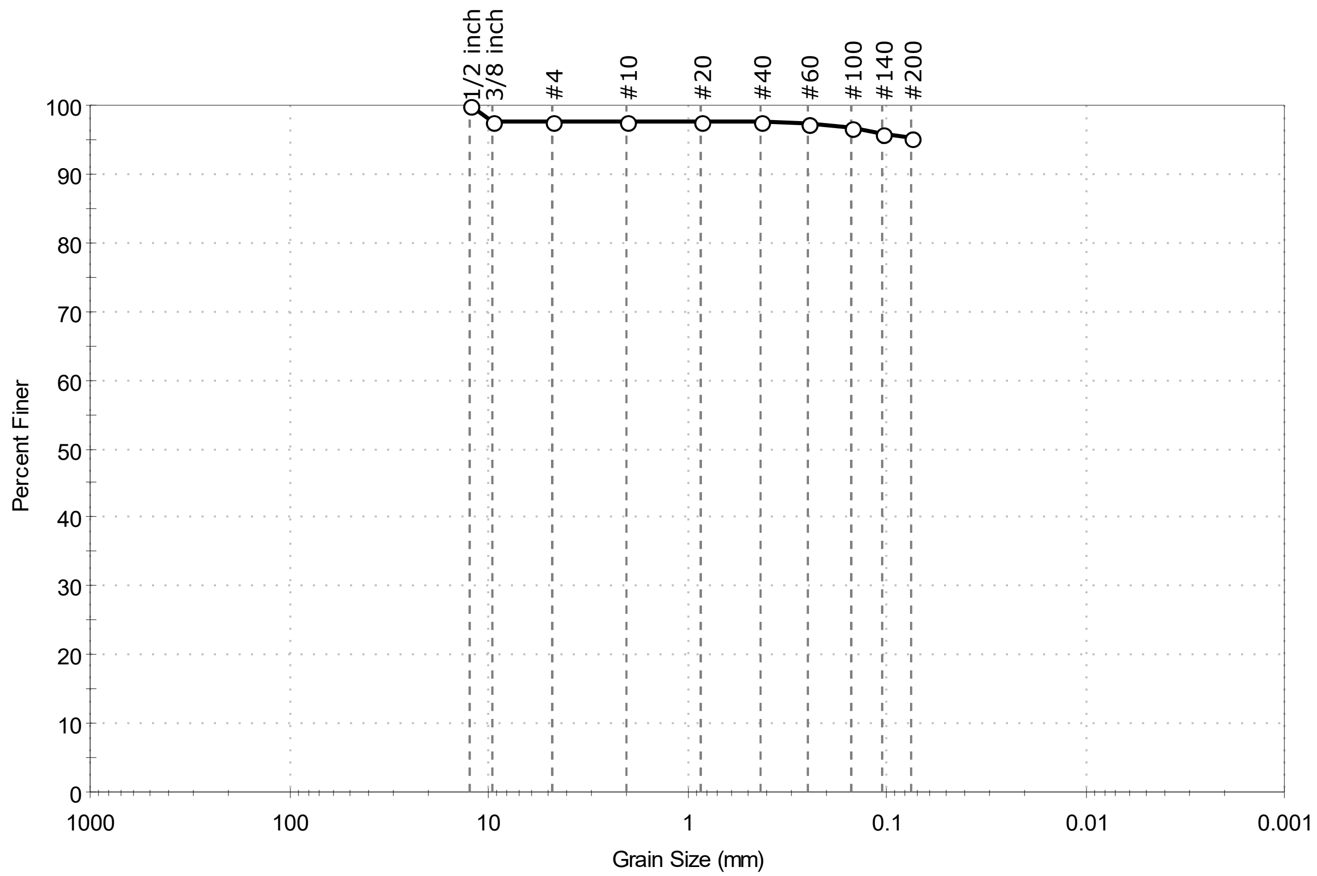
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-131	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	4-6'	Test Id:	817381		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	2.3	2.4	95.3

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2 inch	12.50	100		
3/8 inch	9.50	98		
#4	4.75	98		
#10	2.00	98		
#20	0.85	98		
#40	0.42	98		
#60	0.25	97		
#100	0.15	97		
#140	0.11	96		
#200	0.075	95		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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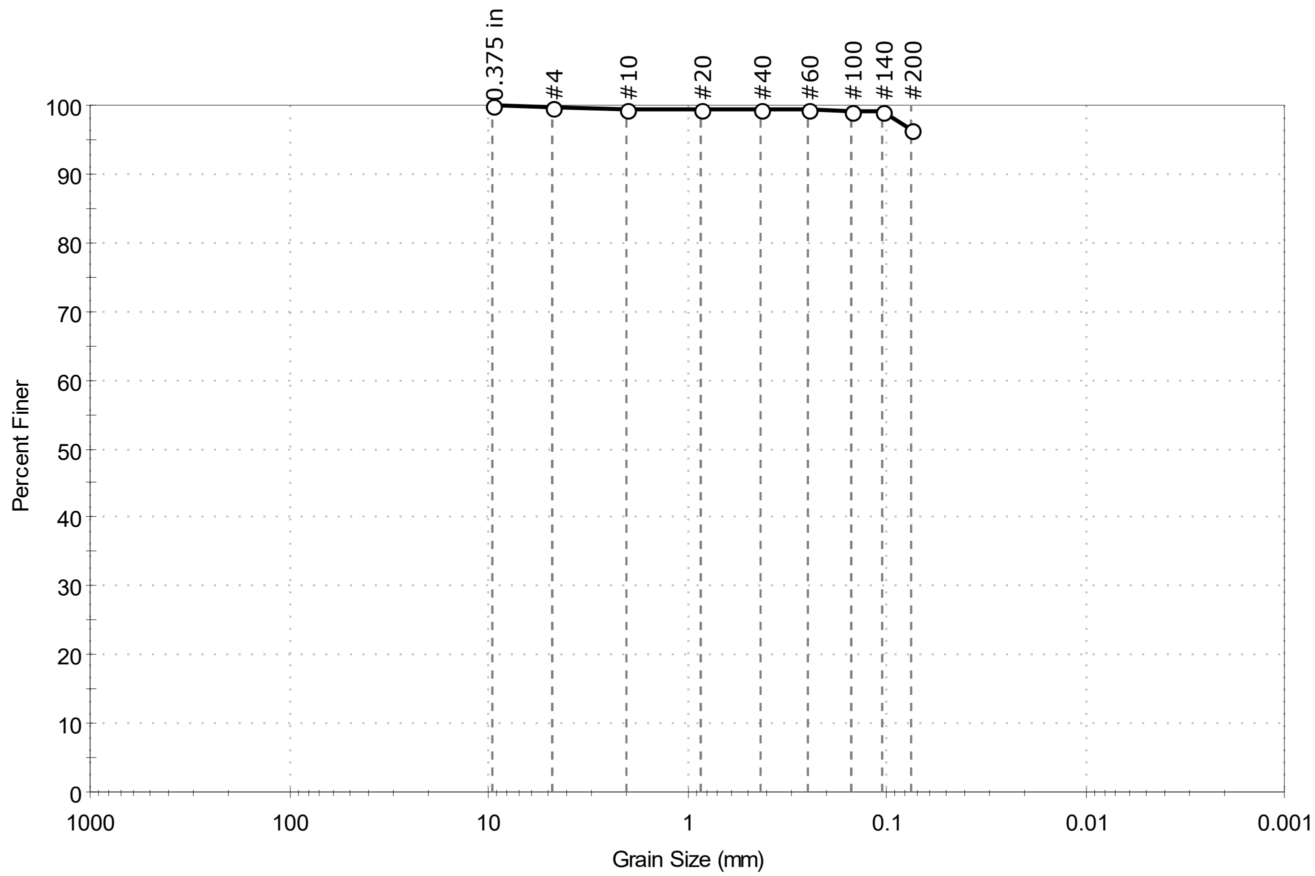
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-131	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	8-10'	Test Id:	817382		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.4	3.1	96.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	100		
#10	2.00	99		
#20	0.85	99		
#40	0.42	99		
#60	0.25	99		
#100	0.15	99		
#140	0.11	99		
#200	0.075	97		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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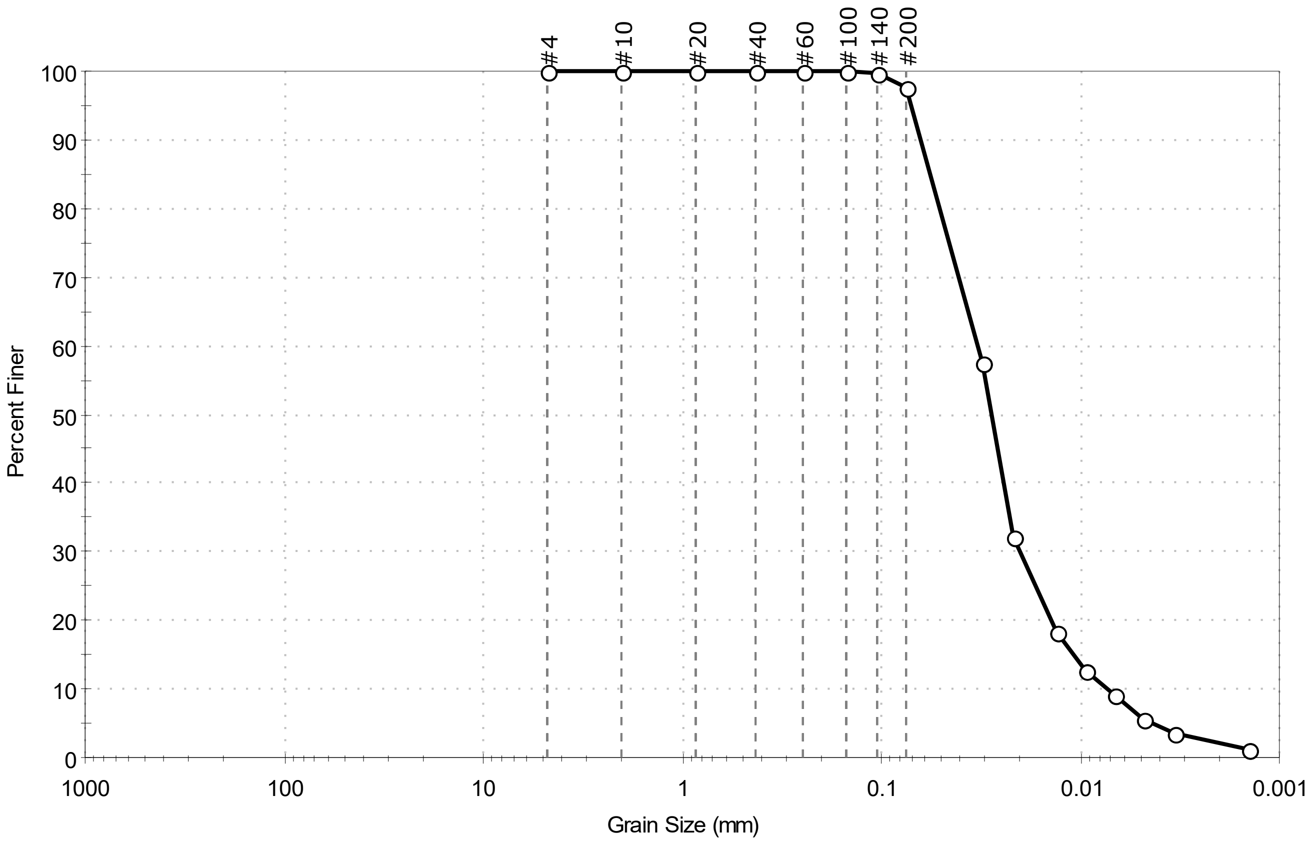
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-132	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	4-6'	Test Id:	817557		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.4	97.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	98		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0310	57		
---	0.0219	32		
---	0.0132	18		
---	0.0095	13		
---	0.0067	9		
---	0.0048	6		
---	0.0034	3		
---	0.0014	1		

Coefficients

D_{85} =0.0568 mm
D_{30} =0.0202 mm
D_{60} =0.0328 mm
D_{15} =0.0108 mm
D_{50} =0.0280 mm
D_{10} =0.0073 mm
C_u =4.493
C_c =1.704

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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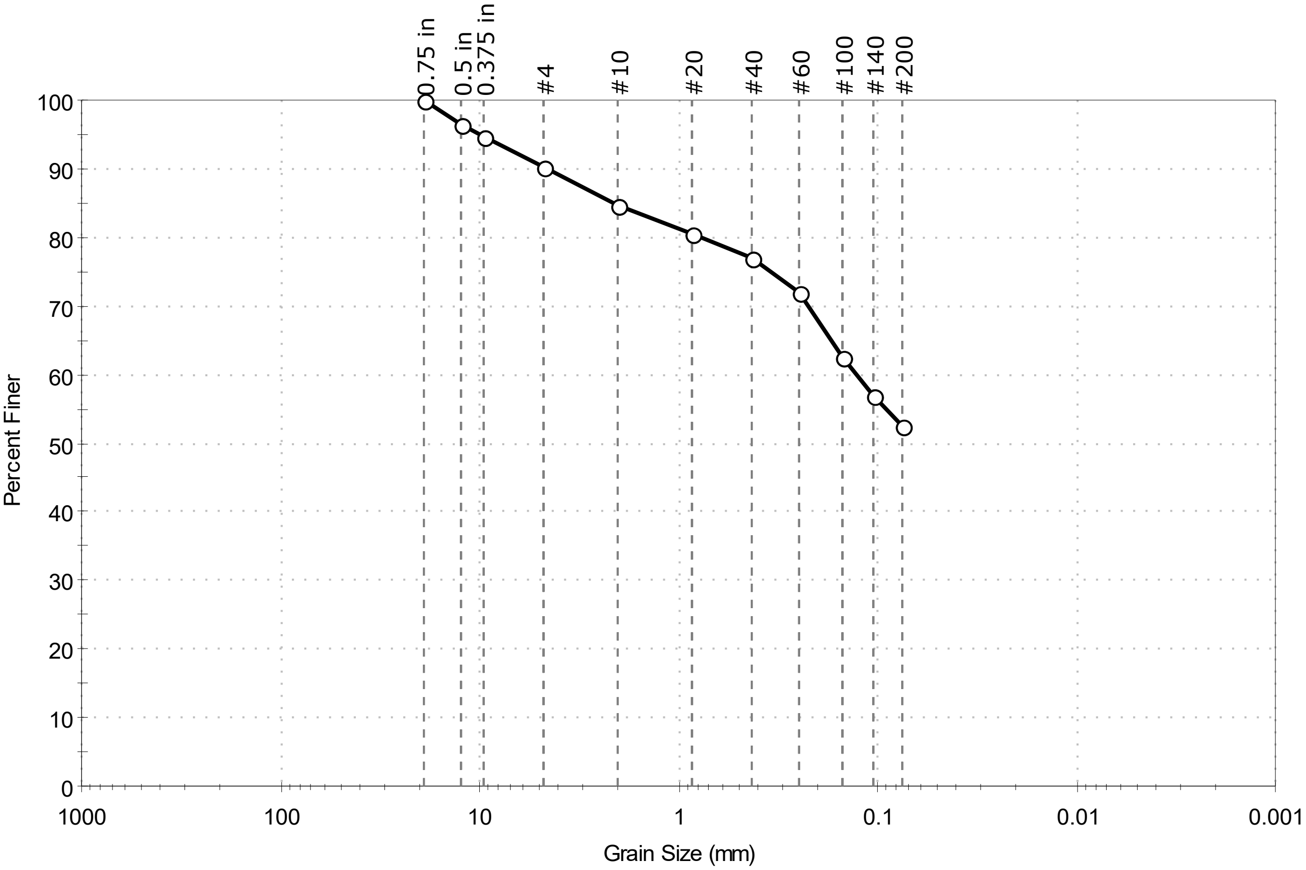
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-133	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	12-14'	Test Id:	817383		

Test Comment: ---
Visual Description: Moist, gray sandy silty clay
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	9.6	38.0	52.4

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	97		
0.375 in	9.50	95		
#4	4.75	90		
#10	2.00	85		
#20	0.85	81		
#40	0.42	77		
#60	0.25	72		
#100	0.15	63		
#140	0.11	57		
#200	0.075	52		

Coefficients

D_{85} =2.1186 mm
D_{30} =N/A
D_{60} =0.1273 mm
D_{15} =N/A
D_{50} =N/A
D_{10} =N/A
C_u =N/A
C_c =N/A

Classification

ASTM	Sandy Silty CLAY (CL-ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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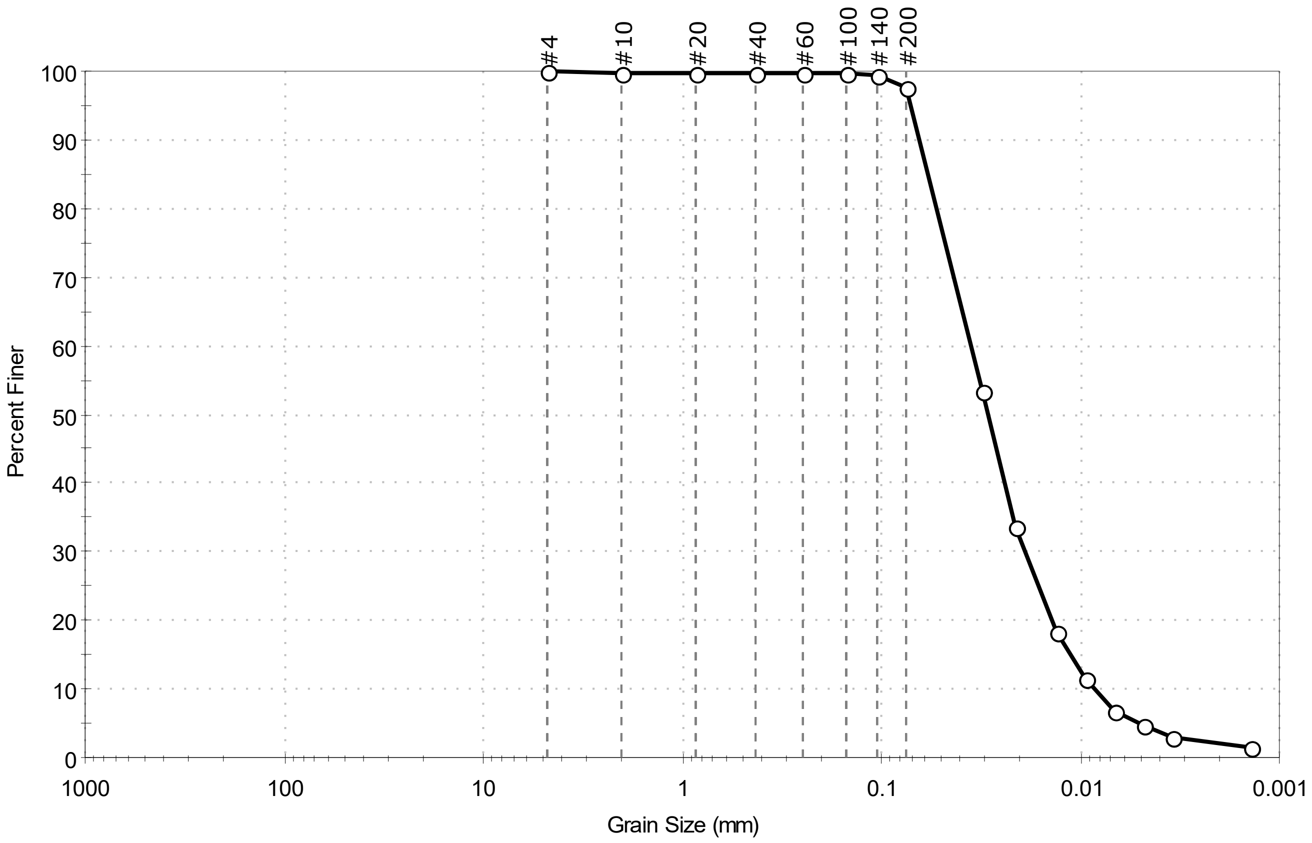
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-133
Sample Type: Jar
Tested By: ajl
Sample ID: ---
Test Date: 06/11/25
Checked By: ank
Depth : 8-10'
Test Id: 817558
Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	2.3	97.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	100		
#200	0.075	98		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0312	53		
---	0.0214	34		
---	0.0130	18		
---	0.0093	11		
---	0.0068	7		
---	0.0048	5		
---	0.0034	3		
---	0.0014	2		

Coefficients

D_{85} =0.0583 mm	D_{30} =0.0190 mm
D_{60} =0.0355 mm	D_{15} =0.0111 mm
D_{50} =0.0292 mm	D_{10} =0.0084 mm
C_u =4.226	C_c =1.211

Classification

ASTM	SILT (ML)
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Dispersion Device : Apparatus A - Mech Mixer

Dispersion Period : 1 minute

Est. Specific Gravity : 2.65

Separation of Sample: #200 Sieve

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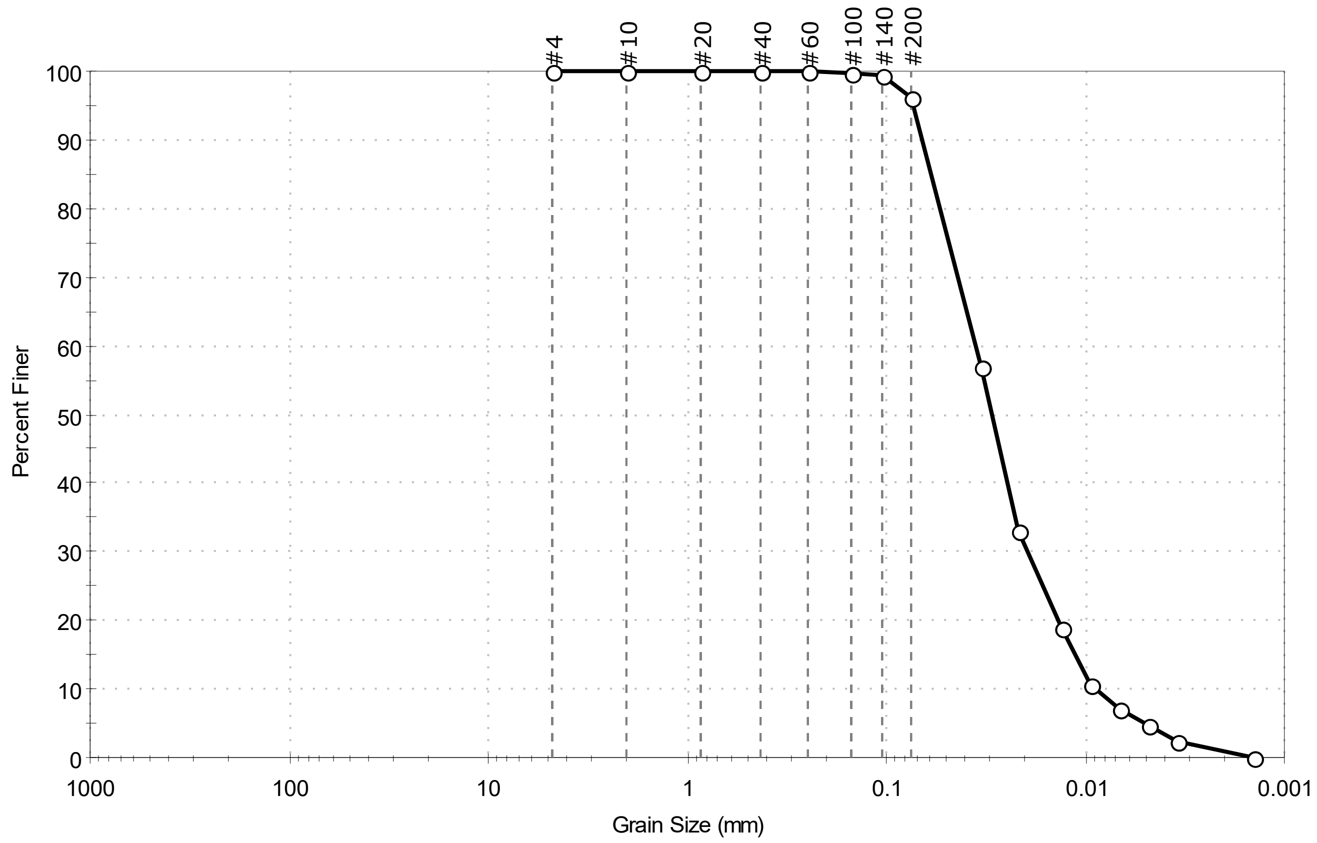
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-134	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	2-4'	Test Id:	817559		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	3.8	96.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	96		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0330	57		
---	0.0220	33		
---	0.0132	19		
---	0.0095	11		
---	0.0068	7		
---	0.0048	5		
---	0.0034	2		
---	0.0014	0		

Coefficients

D_{85} =0.0594 mm	D_{30} =0.0196 mm
D_{60} =0.0352 mm	D_{15} =0.0113 mm
D_{50} =0.0293 mm	D_{10} =0.0090 mm
C_u =3.911	C_c =1.213

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

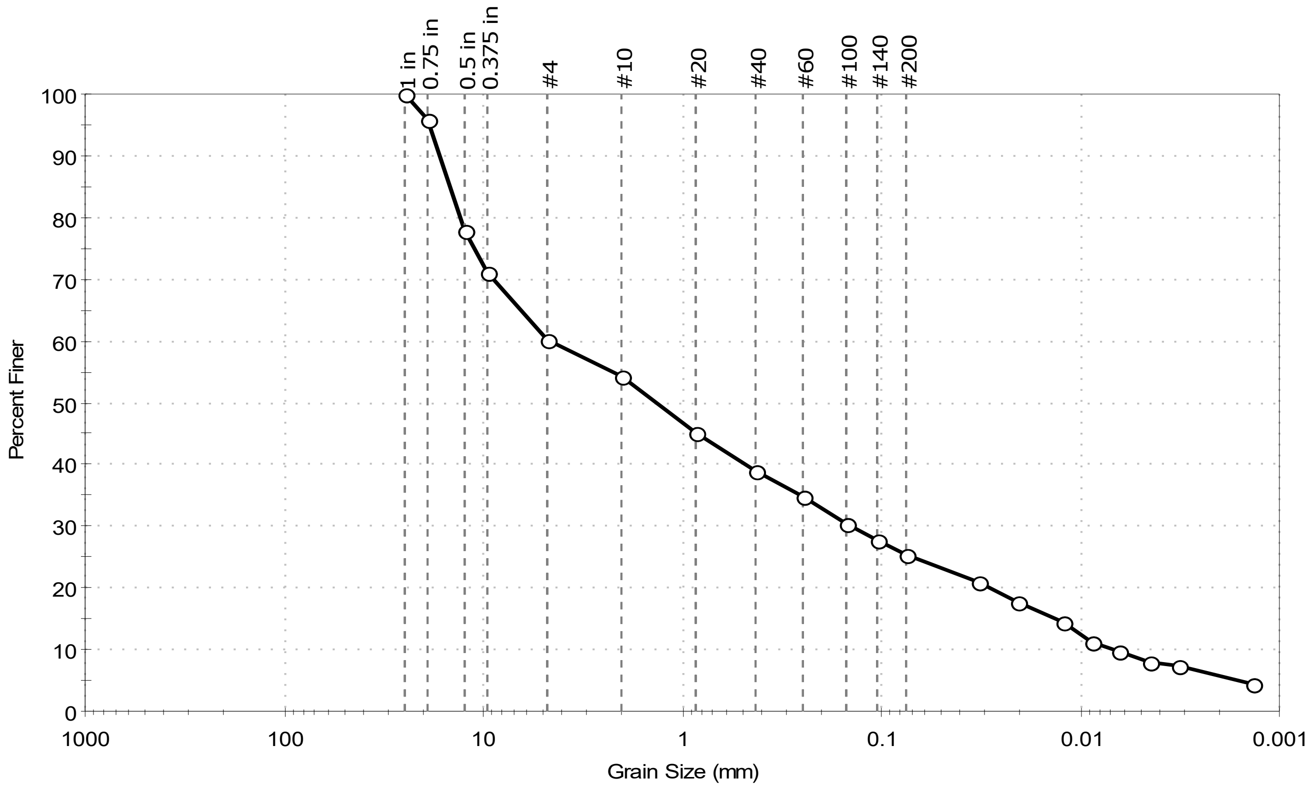
Sand/Gravel Particle Shape : ---
Sand/Gravel Hardness : ---
Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-135
Sample Type: Jar
Tested By: ajl
Sample ID: ---
Test Date: 06/14/25
Checked By: ank
Depth : 15-17'
Test Id: 817560

Test Comment: ---
Visual Description: Moist, dark gray silty gravel with sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913/D7928



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	39.8	34.7	25.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1 in	25.00	100		
0.75 in	19.00	96		
0.5 in	12.50	78		
0.375 in	9.50	71		
#4	4.75	60		
#10	2.00	54		
#20	0.85	45		
#40	0.42	39		
#60	0.25	35		
#100	0.15	30		
#140	0.11	28		
#200	0.075	25		
Hydrometer	Particle Size (mm)	Percent Finer	Spec. Percent	Complies
---	0.0327	21		
---	0.0209	18		
---	0.0123	15		
---	0.0088	11		
---	0.0064	10		
---	0.0045	8		
---	0.0032	7		
---	0.0013	4		

Coefficients

D_{85} =14.7708 mm	D_{30} =0.1421 mm
D_{60} =4.6721 mm	D_{15} =0.0133 mm
D_{50} =1.3242 mm	D_{10} =0.0068 mm
C_u =687.074	C_c =0.636

Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

Sample/Test Description

Dispersion Device : Apparatus A - Mech Mixer
Dispersion Period : 1 minute
Est. Specific Gravity : 2.65
Separation of Sample: #200 Sieve

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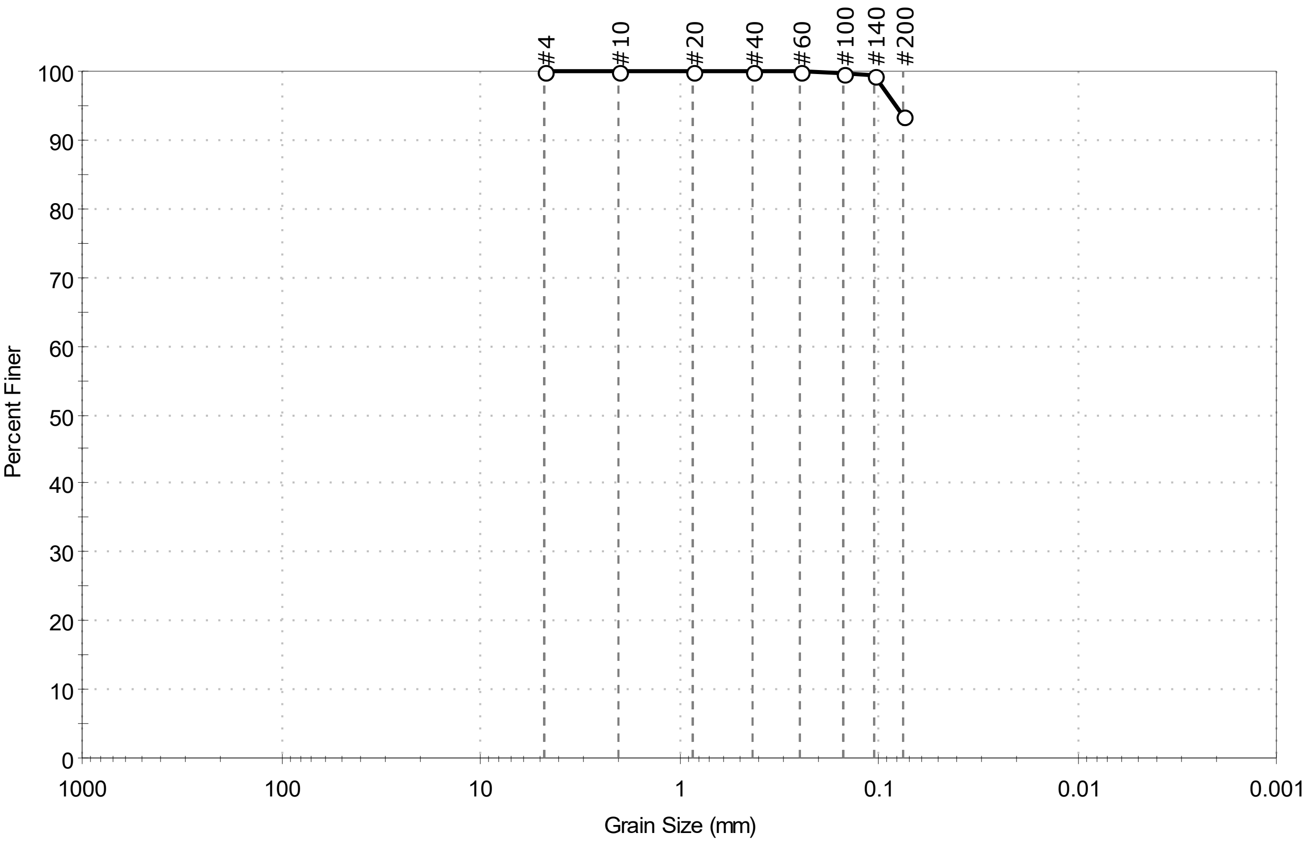
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-X-001	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	8-10'	Test Id:	817385		

Test Comment: ---

Visual Description: Moist, grayish brown silt

Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	0.0	6.4	93.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
#4	4.75	100		
#10	2.00	100		
#20	0.85	100		
#40	0.42	100		
#60	0.25	100		
#100	0.15	100		
#140	0.11	99		
#200	0.075	94		

Coefficients

D_{85} =N/A	D_{30} =N/A
D_{60} =N/A	D_{15} =N/A
D_{50} =N/A	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM SILT (ML)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

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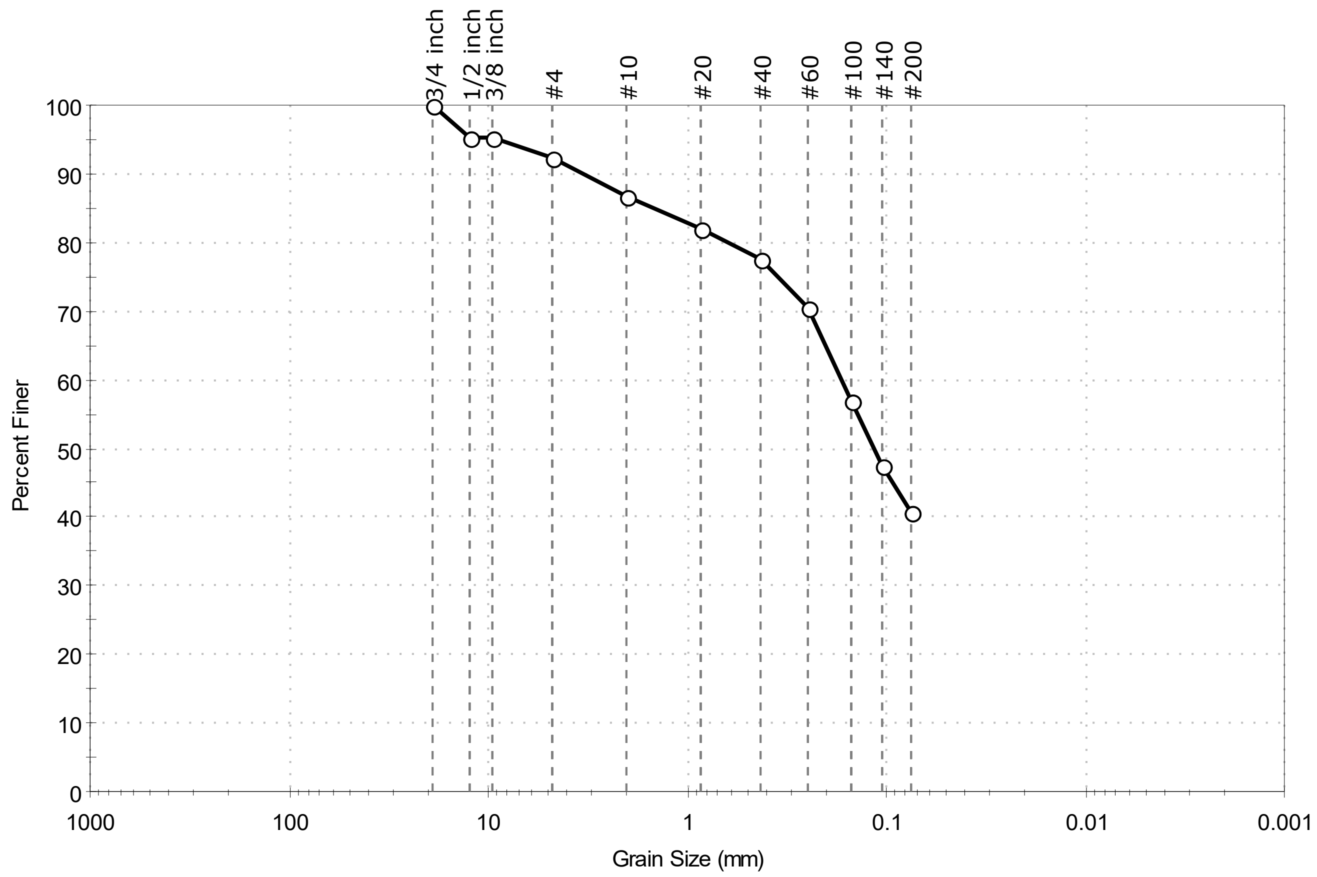
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-X-003	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	8-10'	Test Id:	817388		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silty clayey sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	7.8	51.5	40.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
3/4 inch	19.00	100		
1/2 inch	12.50	95		
3/8 inch	9.50	95		
#4	4.75	92		
#10	2.00	87		
#20	0.85	82		
#40	0.42	78		
#60	0.25	70		
#100	0.15	57		
#140	0.11	47		
#200	0.075	41		

Coefficients

D_{85} =1.4813 mm	D_{30} =N/A
D_{60} =0.1689 mm	D_{15} =N/A
D_{50} =0.1165 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM Silty, Clayey SAND (SC-SM)

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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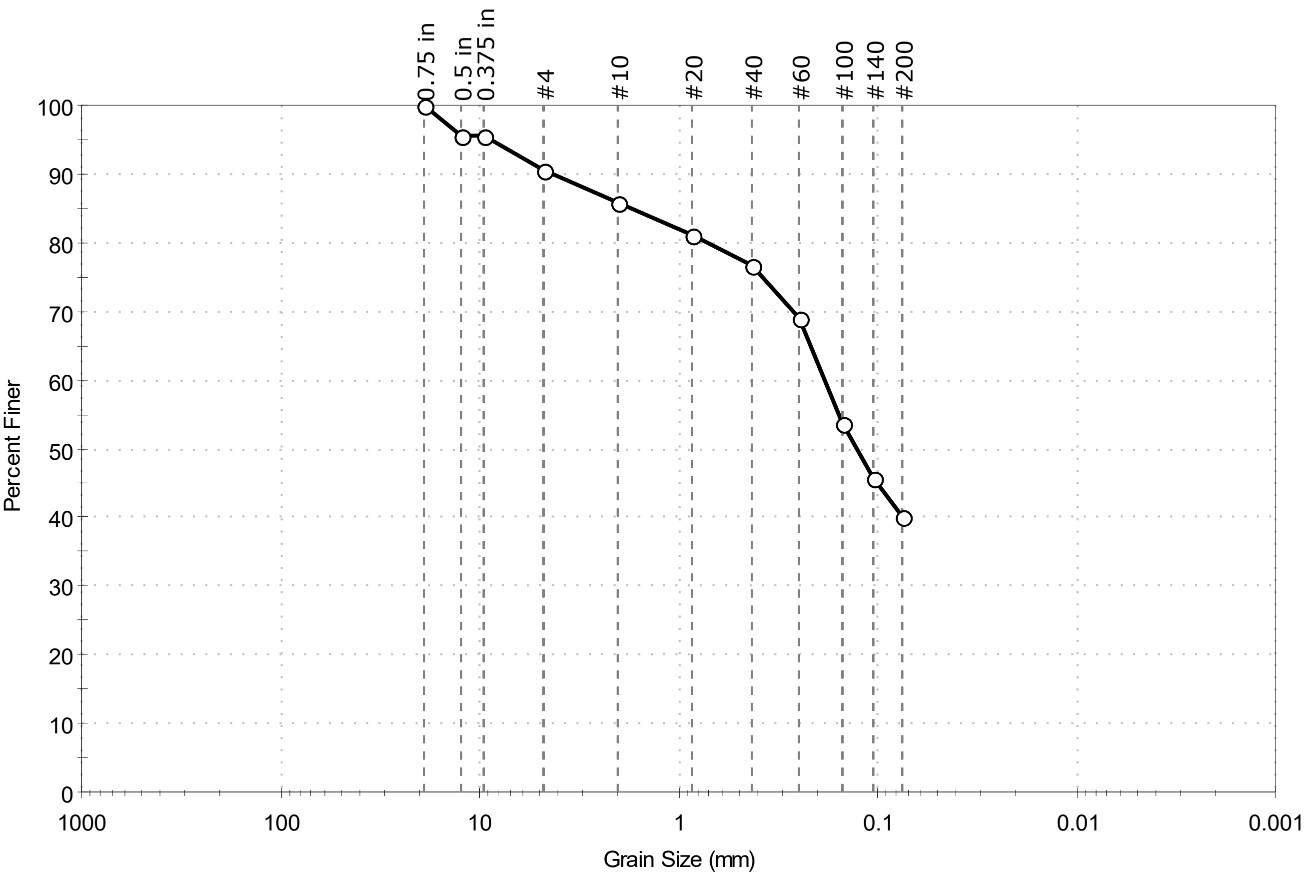
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-X-003	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/07/25	Checked By:	ank
Depth :	10-12'	Test Id:	817386		

Test Comment: ---
Visual Description: Moist, brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	9.4	50.6	40.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	96		
0.375 in	9.50	96		
#4	4.75	91		
#10	2.00	86		
#20	0.85	81		
#40	0.42	77		
#60	0.25	69		
#100	0.15	54		
#140	0.11	46		
#200	0.075	40		

Coefficients

D_{85} =1.7179 mm	D_{30} =N/A
D_{60} =0.1852 mm	D_{15} =N/A
D_{50} =0.1273 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

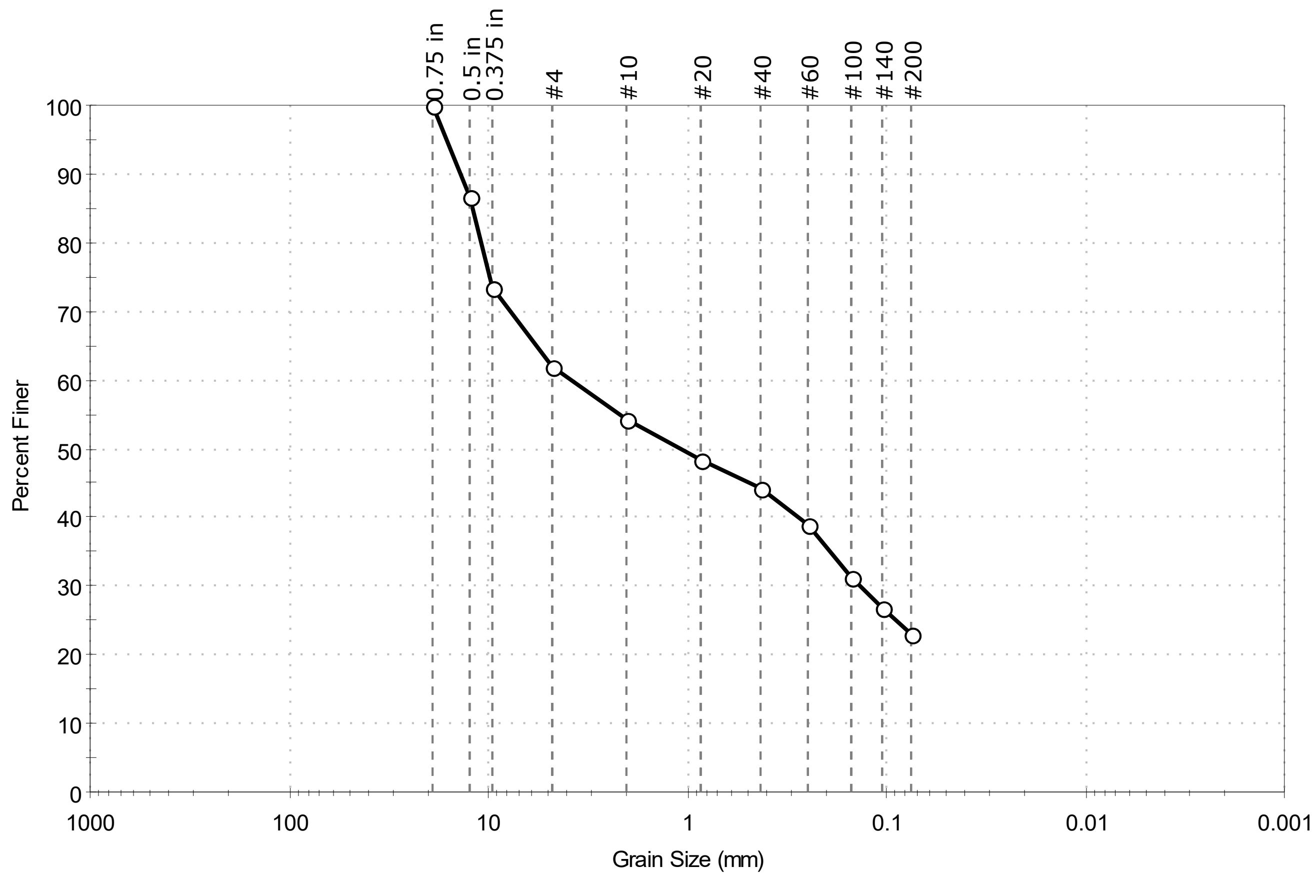
Sand/Gravel Hardness : HARD

Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096

Boring ID:	LB-X-003	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/07/25	Checked By:	ank
Depth :	14-16'	Test Id:	817387		

Test Comment: ---
Visual Description: Moist, yellowish brown silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	38.0	38.9	23.1

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.75 in	19.00	100		
0.5 in	12.50	87		
0.375 in	9.50	74		
#4	4.75	62		
#10	2.00	54		
#20	0.85	48		
#40	0.42	44		
#60	0.25	39		
#100	0.15	31		
#140	0.11	27		
#200	0.075	23		

Coefficients

D_{85} =12.0379 mm	D_{30} =0.1354 mm
D_{60} =3.7927 mm	D_{15} =N/A
D_{50} =1.0723 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM	N/A
AASHTO	Stone Fragments, Gravel and Sand (A-1-b (0))

Sample/Test Description

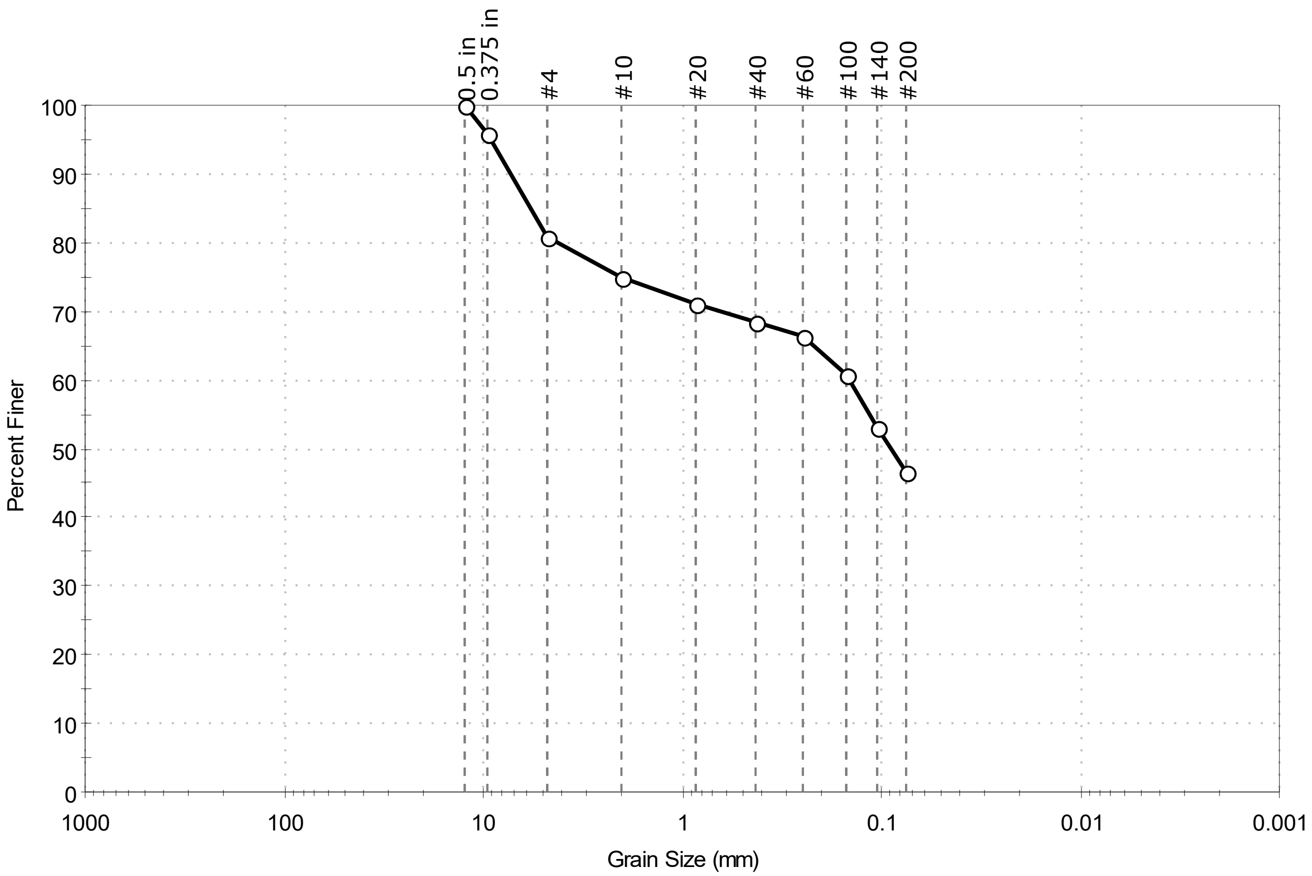
Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-X-006	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	05/29/25	Checked By:	ank
Depth :	13-15'	Test Id:	817389		

Test Comment: ---
Visual Description: Moist, dark gray silty sand with gravel
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	19.3	34.1	46.6

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	96		
#4	4.75	81		
#10	2.00	75		
#20	0.85	71		
#40	0.42	69		
#60	0.25	66		
#100	0.15	61		
#140	0.11	53		
#200	0.075	47		

Coefficients

D_{85} =5.7890 mm	D_{30} =N/A
D_{60} =0.1446 mm	D_{15} =N/A
D_{50} =0.0896 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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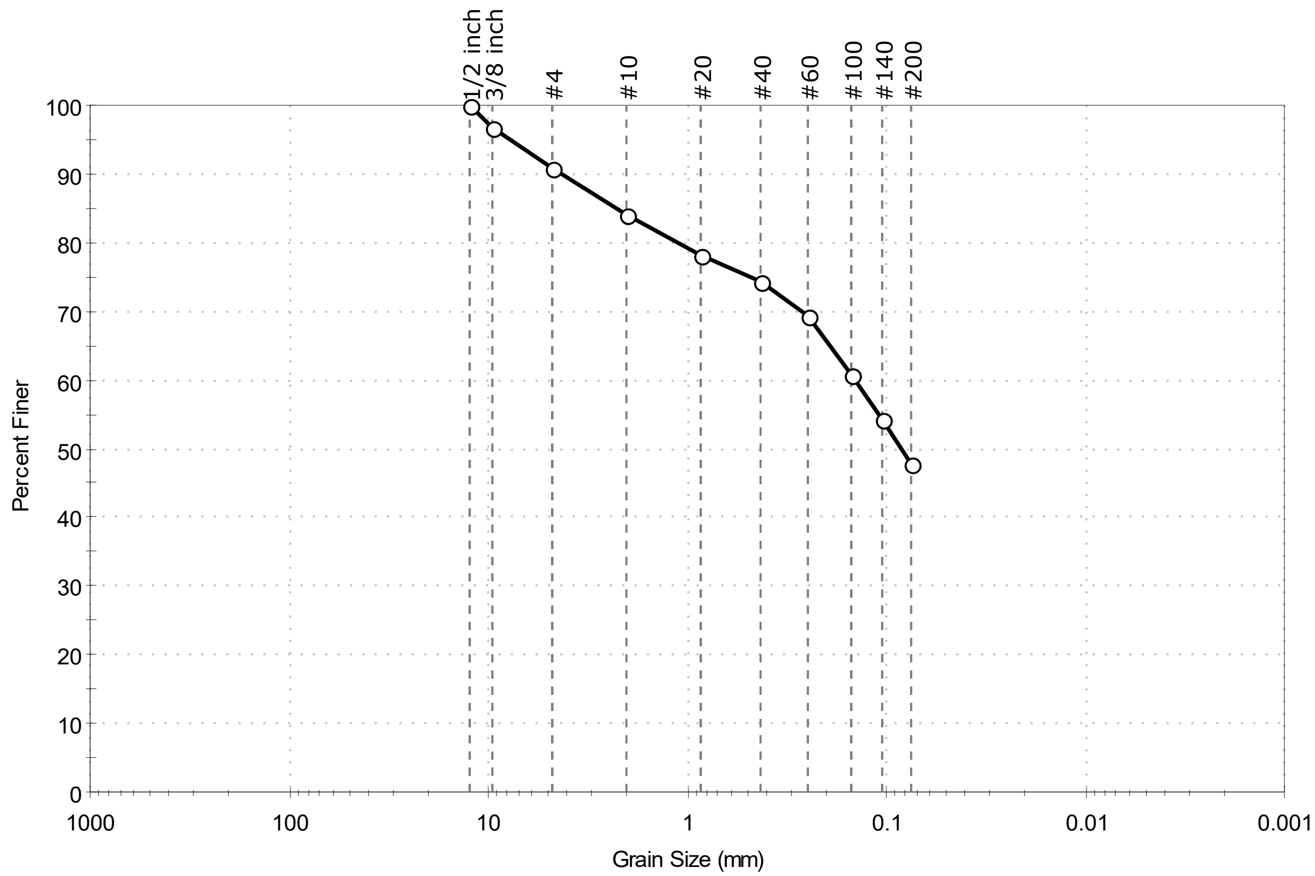
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-X-006	Sample Type:	Jar	Tested By:	ajl
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	7-9'	Test Id:	817390		

Test Comment: ---
Visual Description: Moist, dark brown silty sand
Sample Comment: ---

Particle Size Analysis - ASTM D6913



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	9.2	43.0	47.8

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
1/2 inch	12.50	100		
3/8 inch	9.50	97		
#4	4.75	91		
#10	2.00	84		
#20	0.85	78		
#40	0.42	74		
#60	0.25	69		
#100	0.15	61		
#140	0.11	54		
#200	0.075	48		

Coefficients

D_{85} =2.2397 mm	D_{30} =N/A
D_{60} =0.1445 mm	D_{15} =N/A
D_{50} =0.0845 mm	D_{10} =N/A
C_u =N/A	C_c =N/A

Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

Sample/Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

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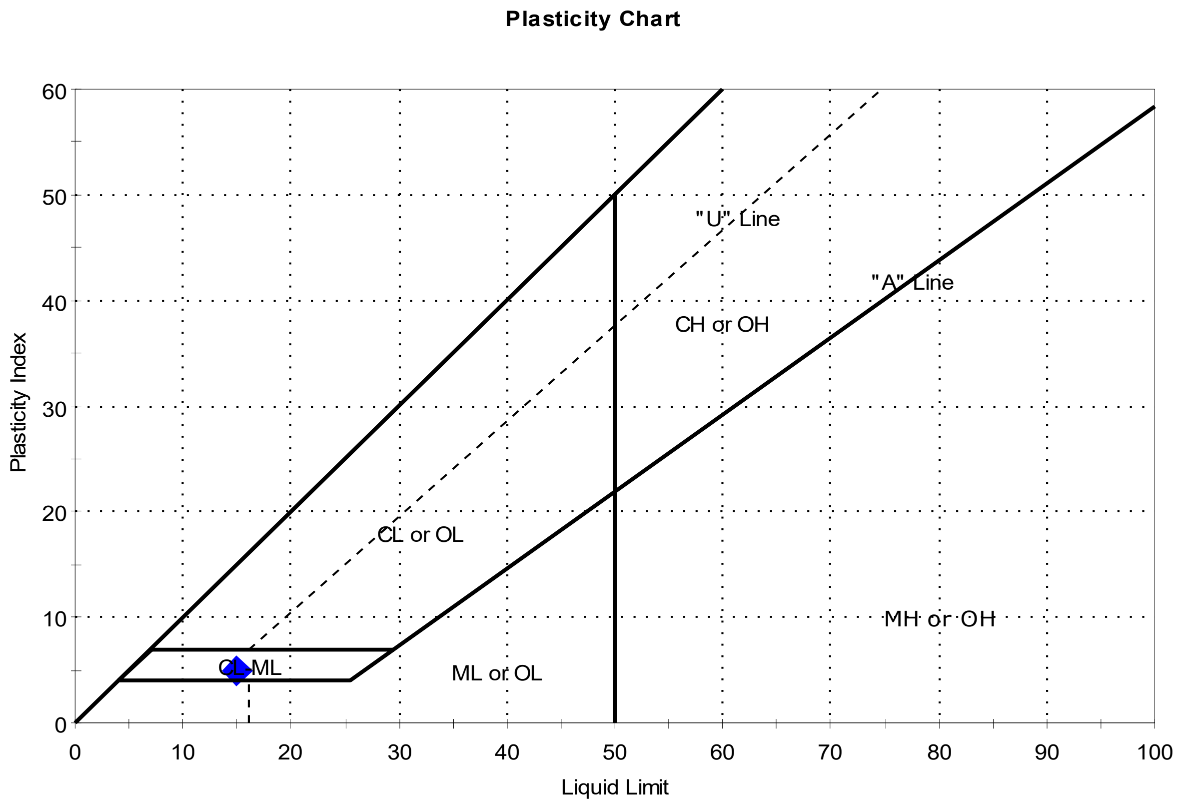
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-002
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/13/25
Checked By: ank
Depth : 14-16'
Test Id: 817215
Test Comment: ---
Visual Description: Moist, light brown silty, clayey sand
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-002	14-16'	13	15	10	5	0.5	Silty, Clayey SAND (SC-SM)

Sample Prepared using the WET method

25% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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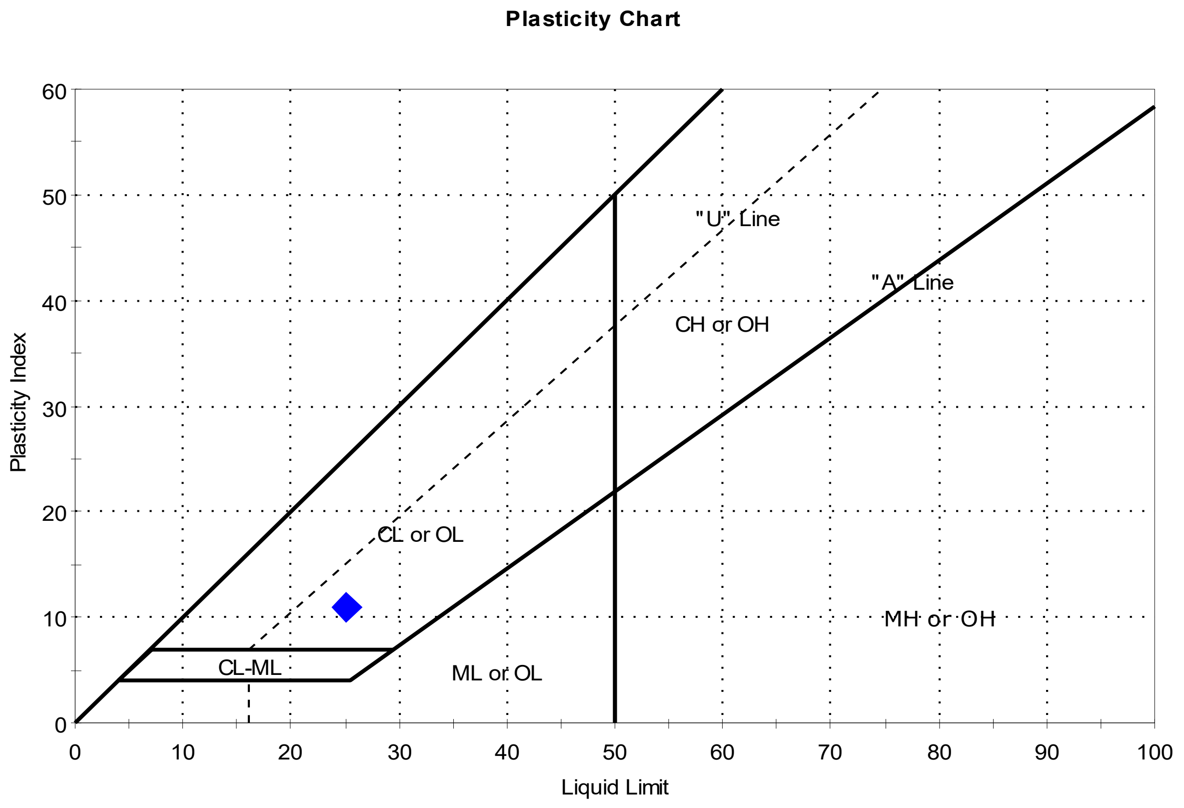
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-004	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/13/25	Checked By:	ank
Depth :	10-12'	Test Id:	816610		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-004	10-12'	26	25	14	11	1.1	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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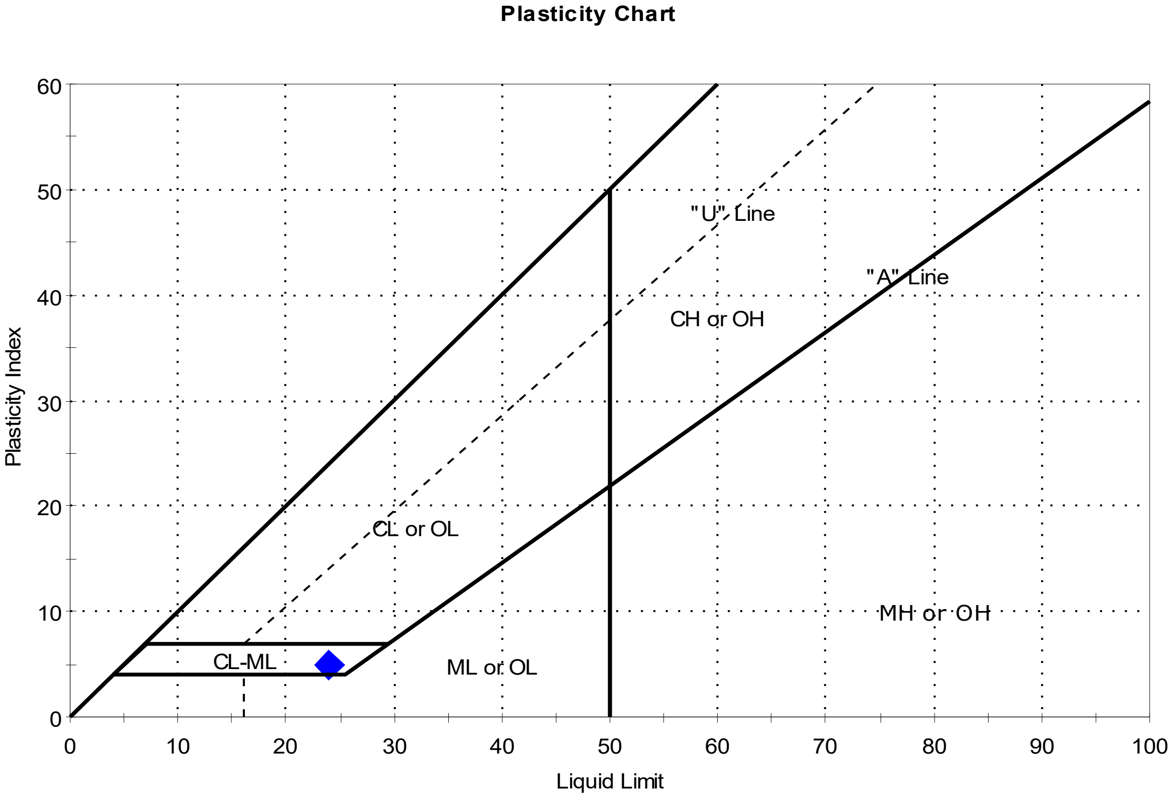
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-006	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/03/25	Checked By:	ank
Depth :	6-8'	Test Id:	816609		

Test Comment: ---
Visual Description: Wet, yellowish brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-006	6-8'	29	24	19	5	2	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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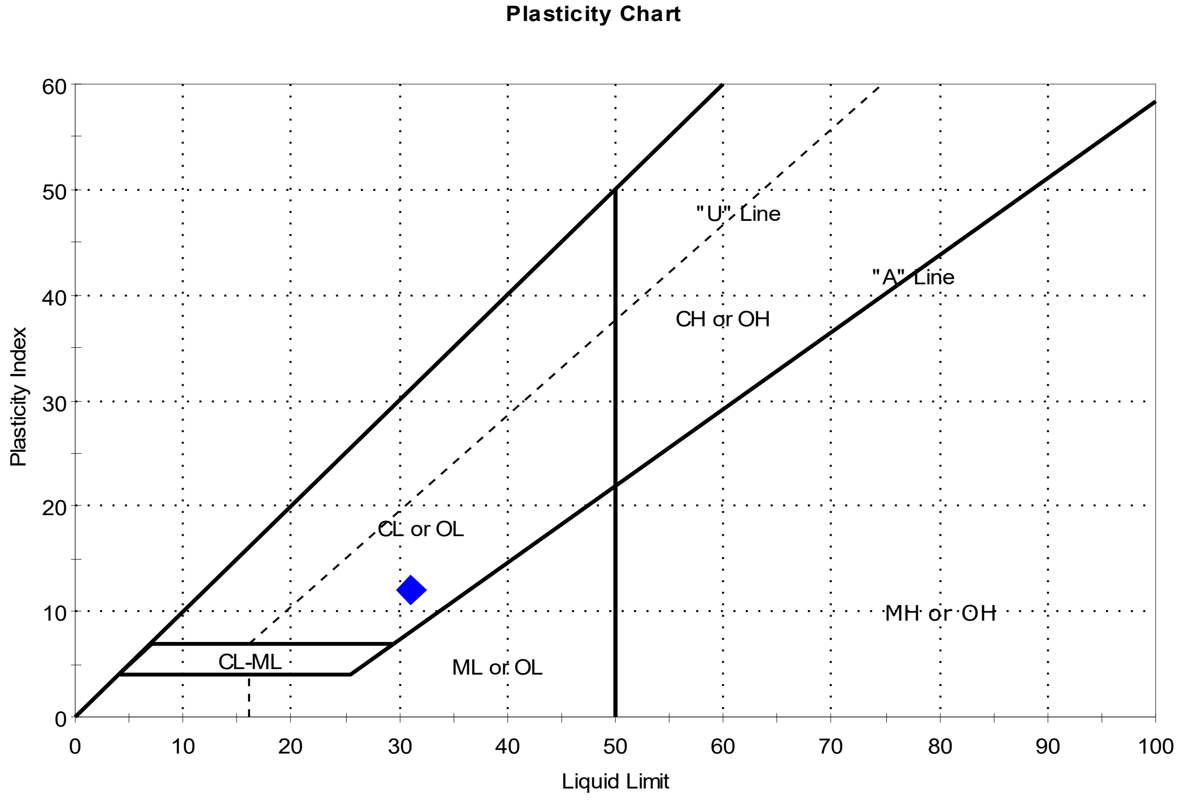
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-006	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	2-4'	Test Id:	817203		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-006	2-4'	27	31	19	12	0.6	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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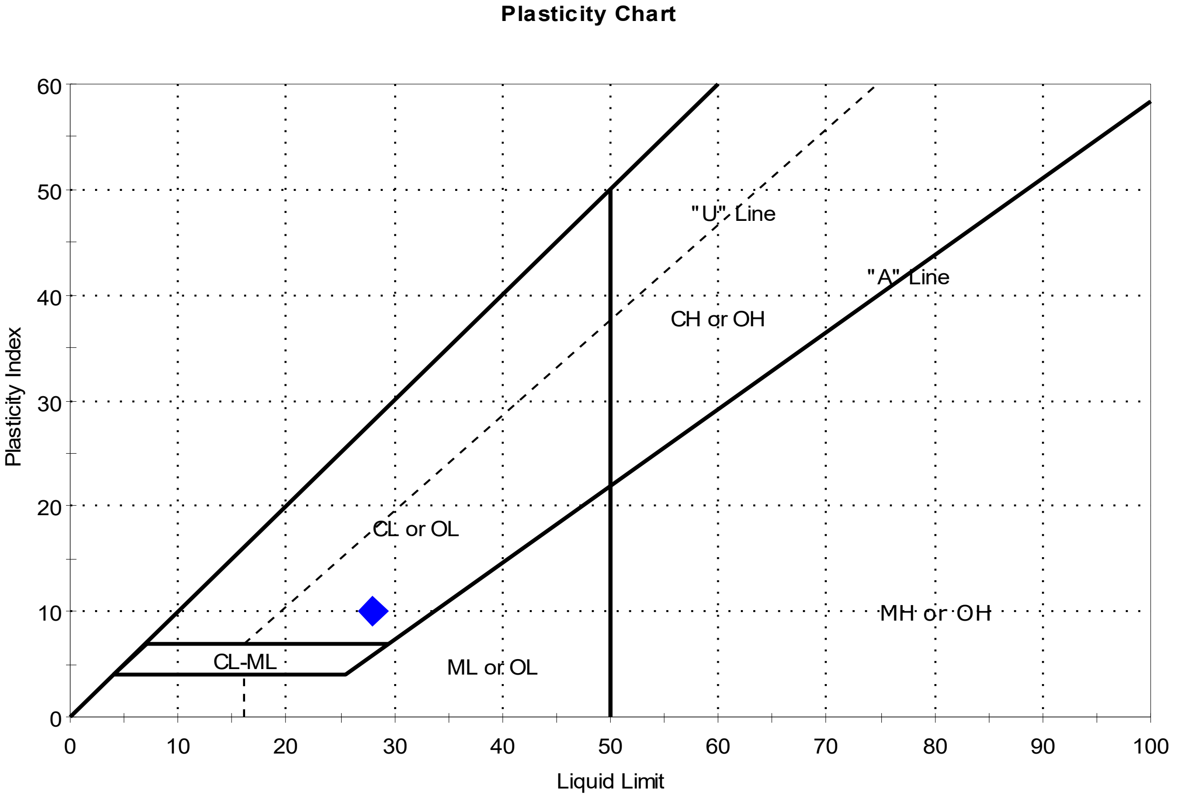
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-010	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	4-6'	Test Id:	817223		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-010	4-6'	28	28	18	10	1	Lean CLAY (CL)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-011	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/02/25	Checked By:	ank
Depth :	14-16'	Test Id:	816611		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

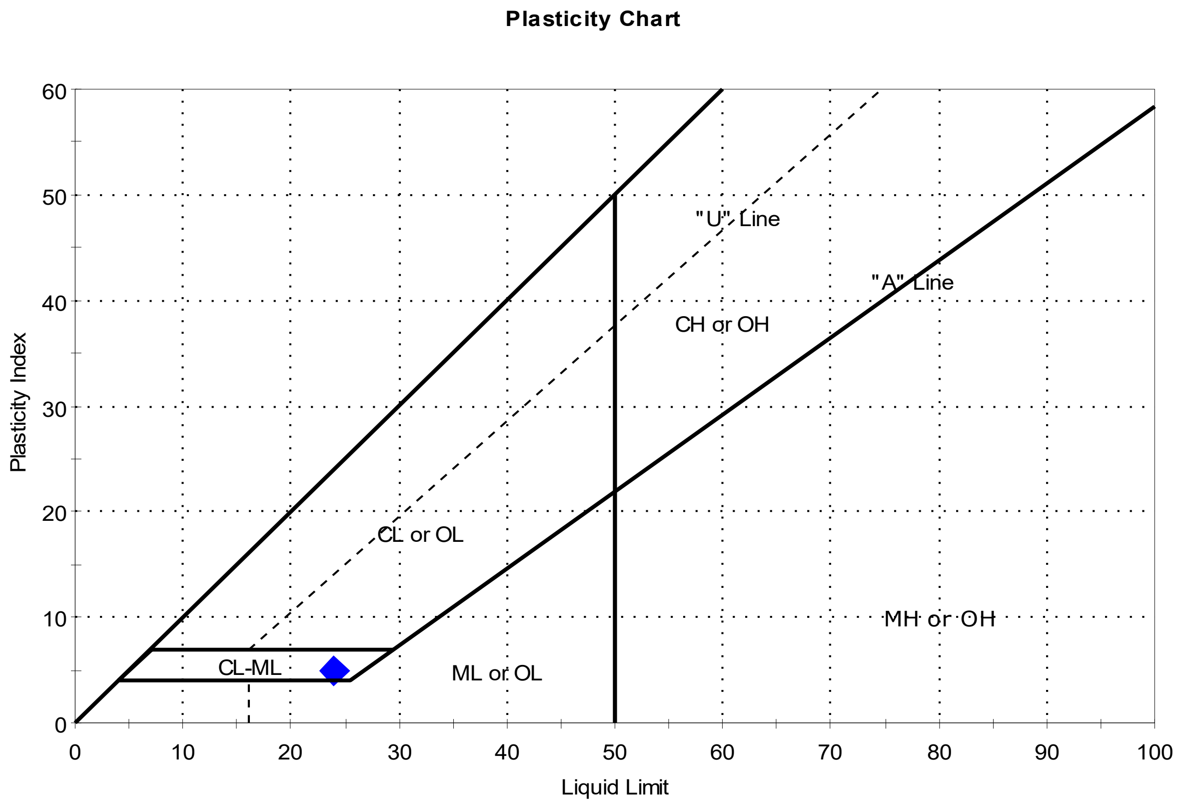
Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-011	14-16'	21	n/a	n/a	n/a	n/a	

Dry Strength: LOW
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-029	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/03/25	Checked By:	ank
Depth :	4-6'	Test Id:	816616		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-029	4-6'	23	24	19	5	0.8	

Sample Prepared using the WET method

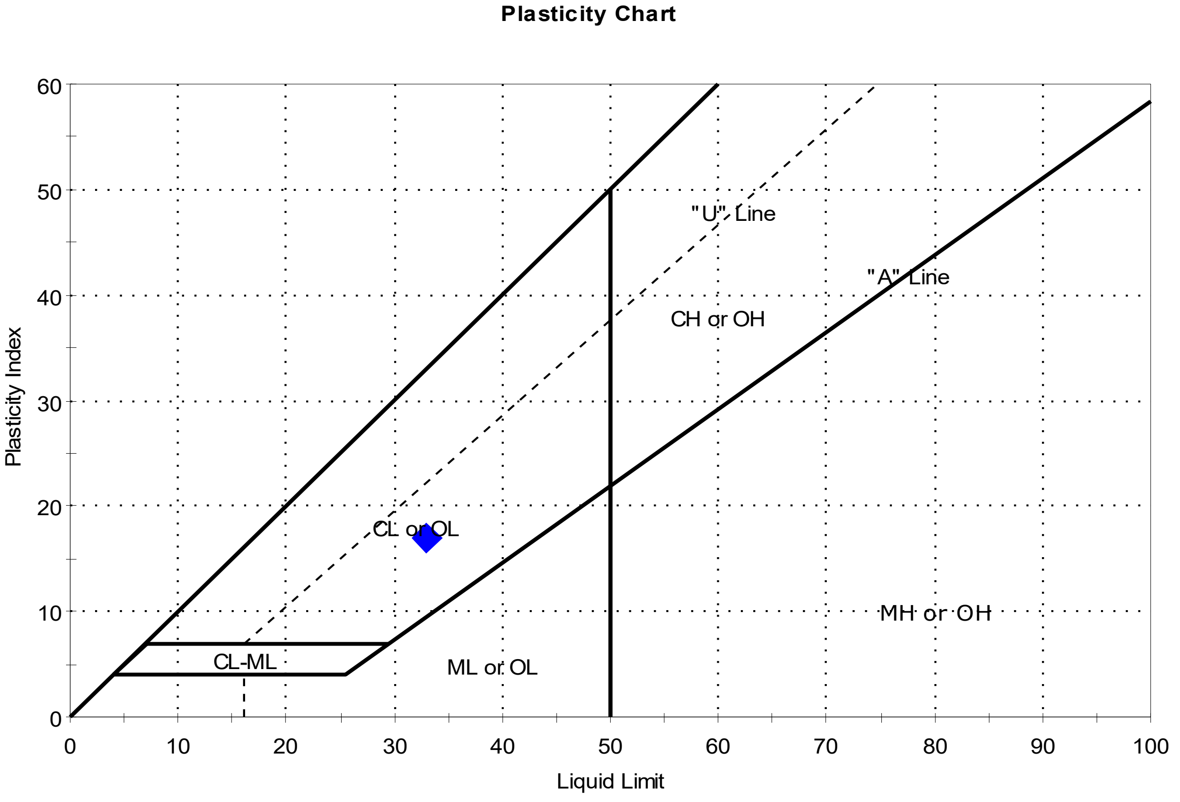
Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering		
Project:	Upstate Confidential Project		
Location:	NY	Project No:	GTX-321096

Boring ID:	LB-031	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/16/25	Checked By:	ank
Depth :	6-8'	Test Id:	817205		

Test Comment: ---
Visual Description: Moist, dark grayish brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-031	6-8'	30	33	16	17	0.8	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-032	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	05/30/25	Checked By:	ank
Depth :	16-18'	Test Id:	817206		

Test Comment: ---

Visual Description: Moist, grayish brown silt

Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-032	16-18'	22	n/a	n/a	n/a	n/a	

Dry Strength: MEDIUM

Dilatancy: RAPID

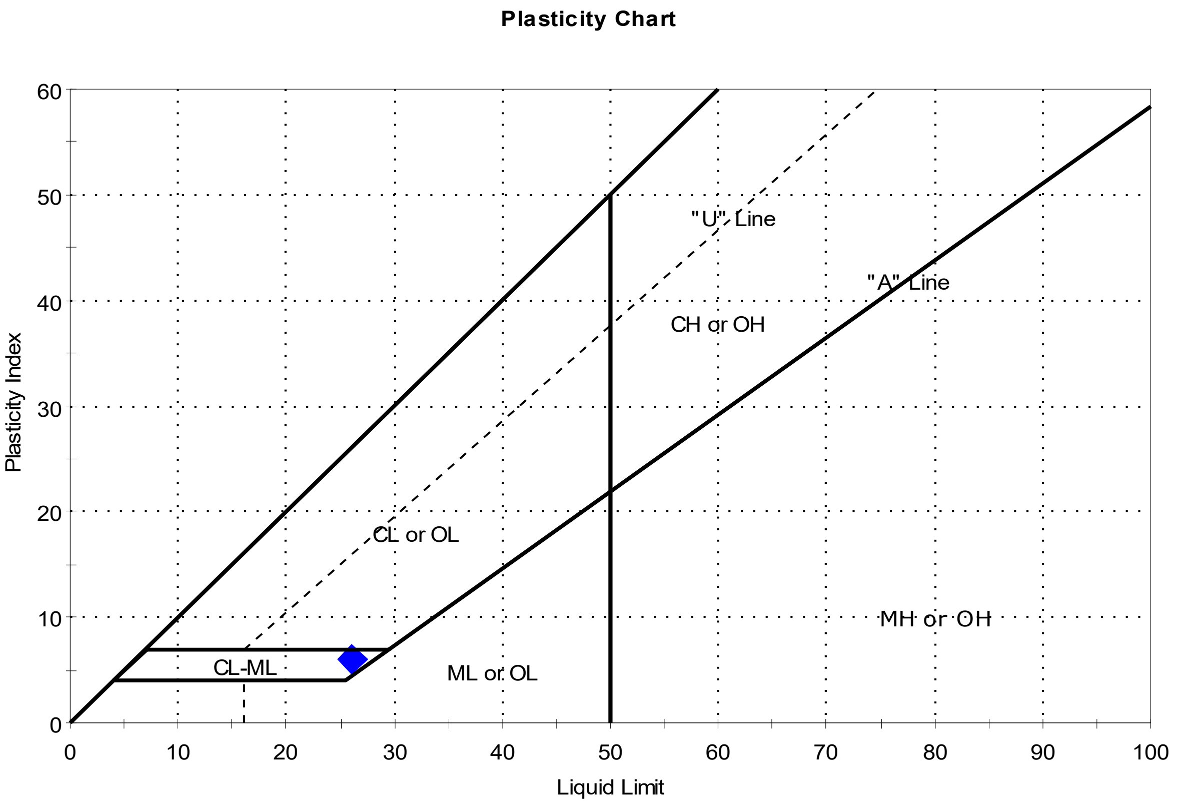
Toughness: LOW

The sample was determined to be Non-Plastic

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-037	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/12/25	Checked By:	ank
Depth :	4-6'	Test Id:	816615		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-037	4-6'	28	26	20	6	1.3	

Sample Prepared using the WET method

Dry Strength: HIGH
Dilatancy: SLOW
Toughness: LOW

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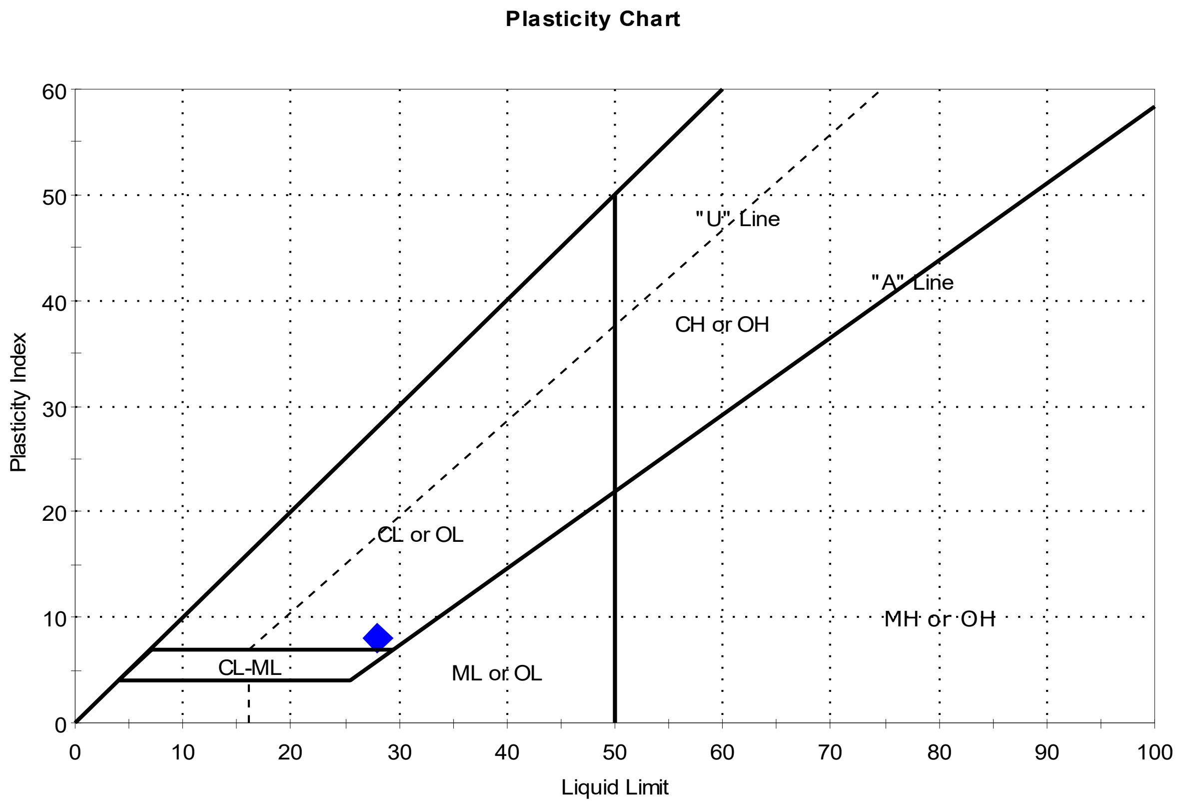
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-039	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/13/25	Checked By:	ank
Depth :	6-8'	Test Id:	816619		

Test Comment: ---
Visual Description: Moist, dark yellowish brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-039	6-8'	25	28	20	8	0.6	

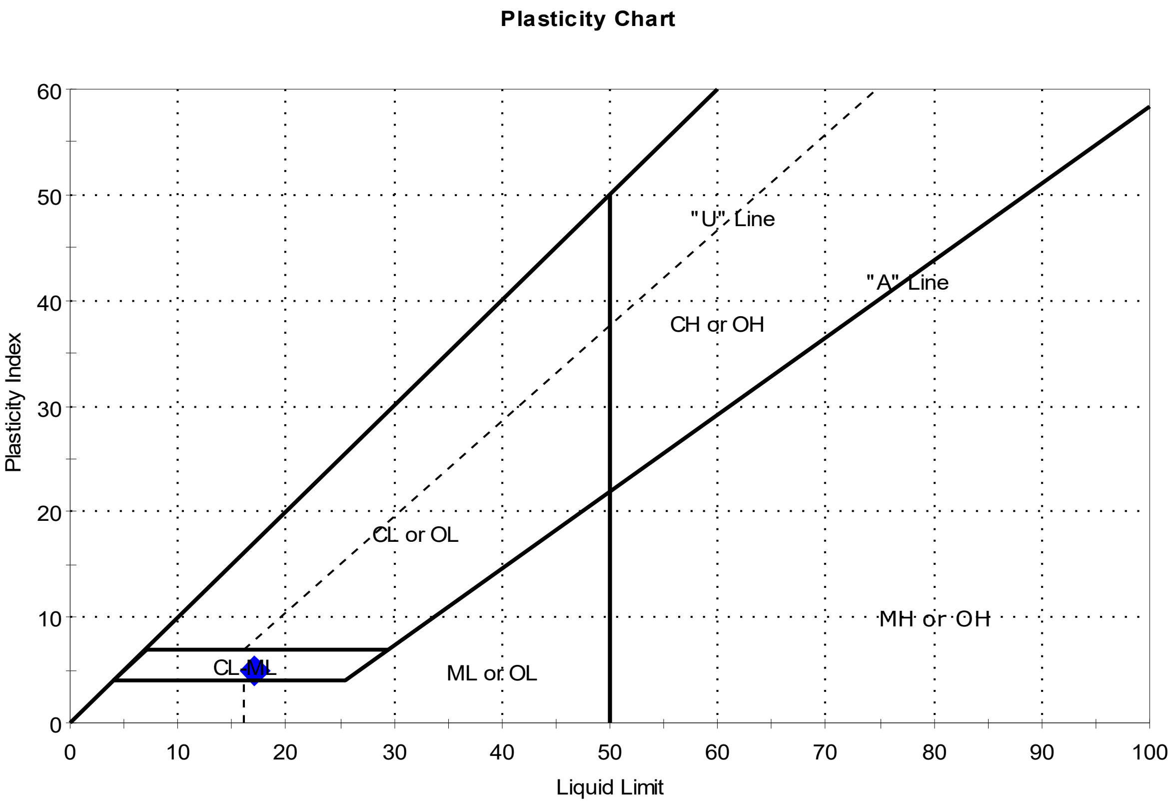
Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-049	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	16-18'	Test Id:	817207		

Test Comment: ---
Visual Description: Moist, dark reddish gray silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-049	16-18'	12	17	12	5	0.1	

Sample Prepared using the WET method

Dry Strength: HIGH
Dilatancy: SLOW
Toughness: LOW

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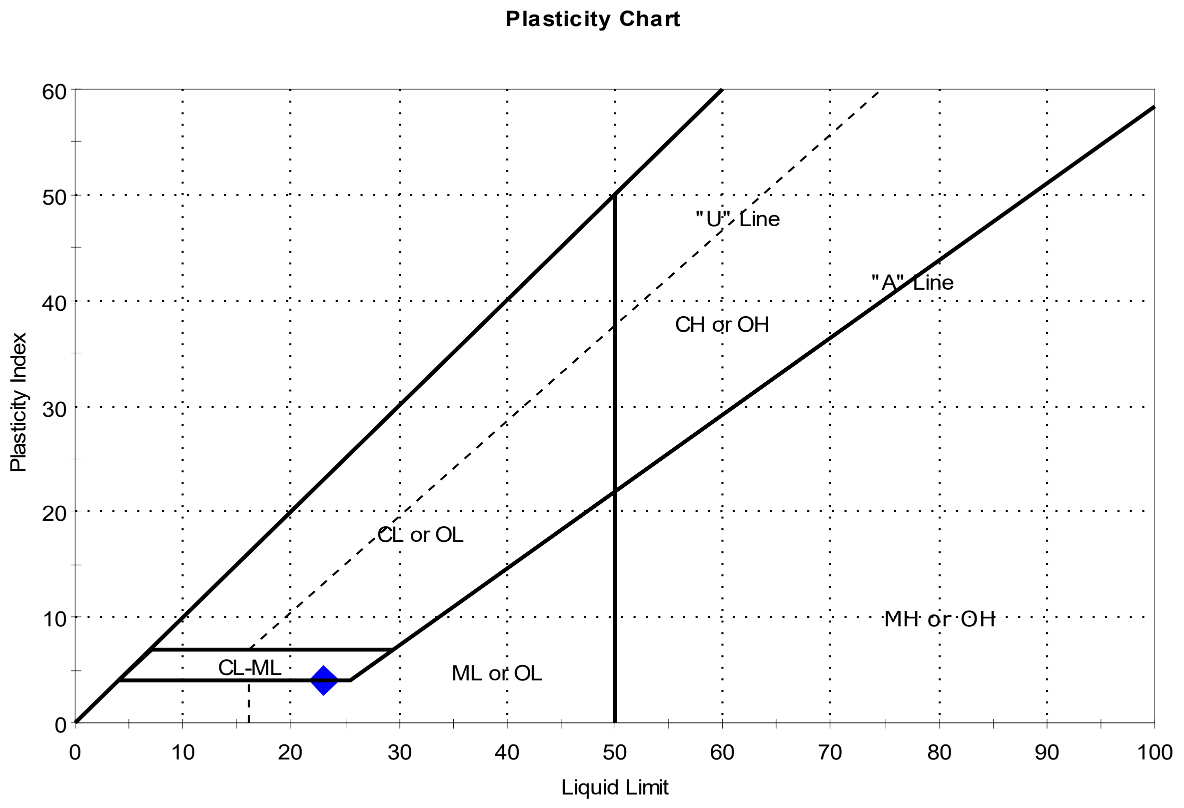
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-049	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/02/25	Checked By:	ank
Depth :	6-8'	Test Id:	817208		

Test Comment: ---
Visual Description: Moist, brownish gray silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-049	6-8'	24	23	19	4	1.1	

Sample Prepared using the WET method

Dry Strength: LOW
Dilatancy: RAPID
Toughness: LOW

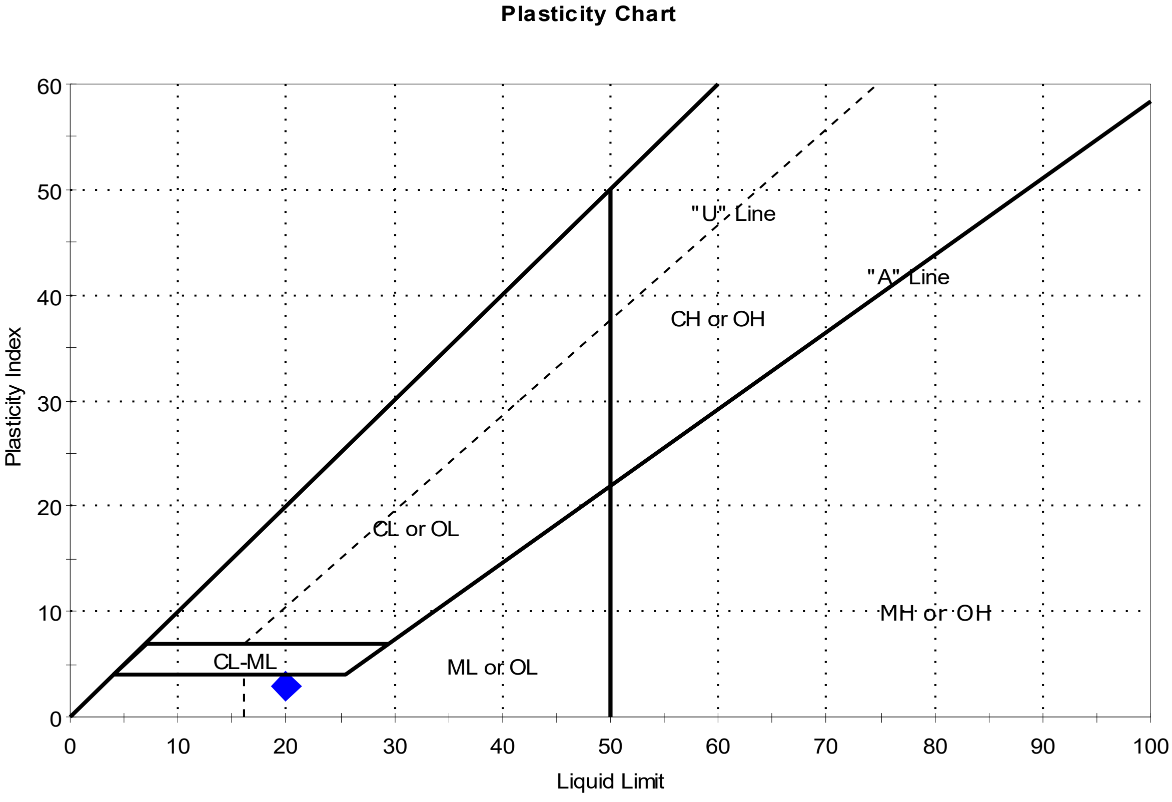
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-061	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/06/25	Checked By:	ank
Depth :	6-8'	Test Id:	817209		

Test Comment: ---

Visual Description: Moist, dark yellowish brown silt

Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-061	6-8'	20	20	17	3	1.1	SILT (ML)

Sample Prepared using the WET method

3% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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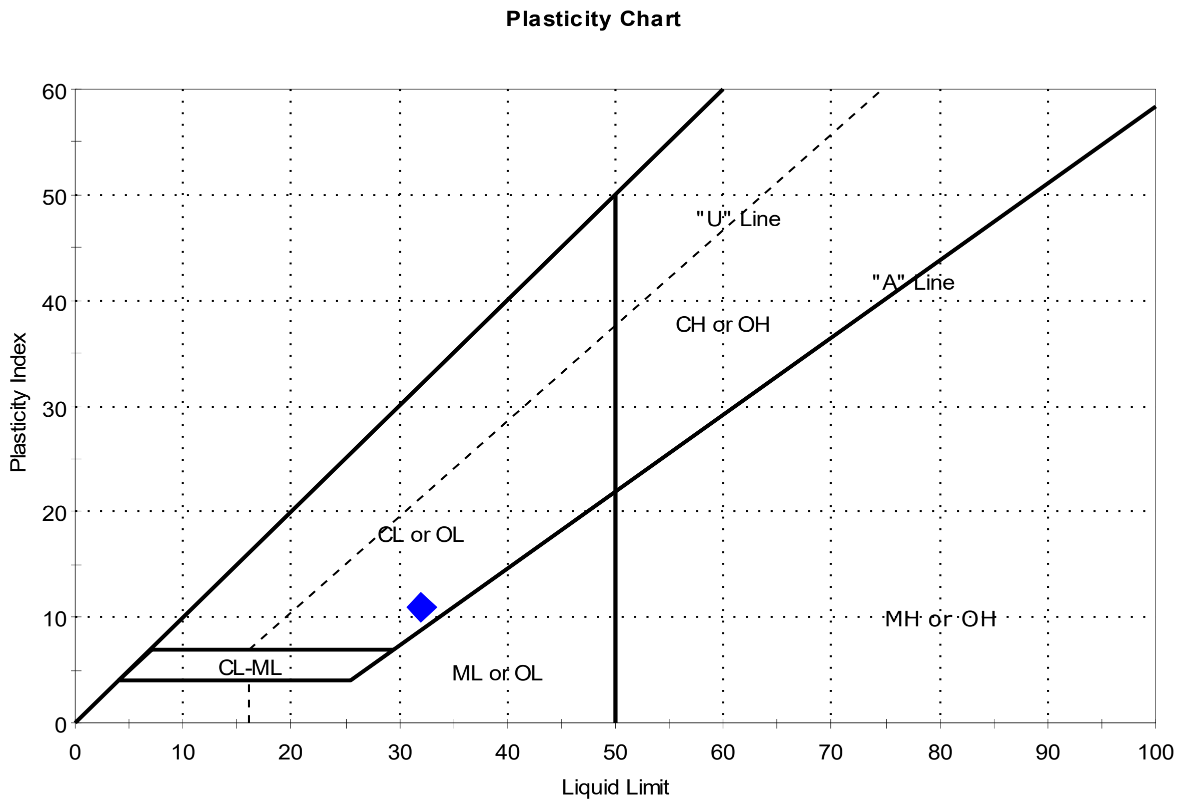
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-063
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/09/25
Checked By: ank
Depth : 2-4'
Test Id: 817246

Test Comment: ---
Visual Description: Moist, dark yellowish brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-063	2-4'	28	32	21	11	0.6	Lean CLAY (CL)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-085	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/05/25	Checked By:	ank
Depth :	10-12'	Test Id:	818749		

Test Comment: ---

Visual Description: Moist, grayish brown silt

Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-085	10-12'	19	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve

Dry Strength: NONE

Dilatancy: RAPID

Toughness: n/a

The sample was determined to be Non-Plastic

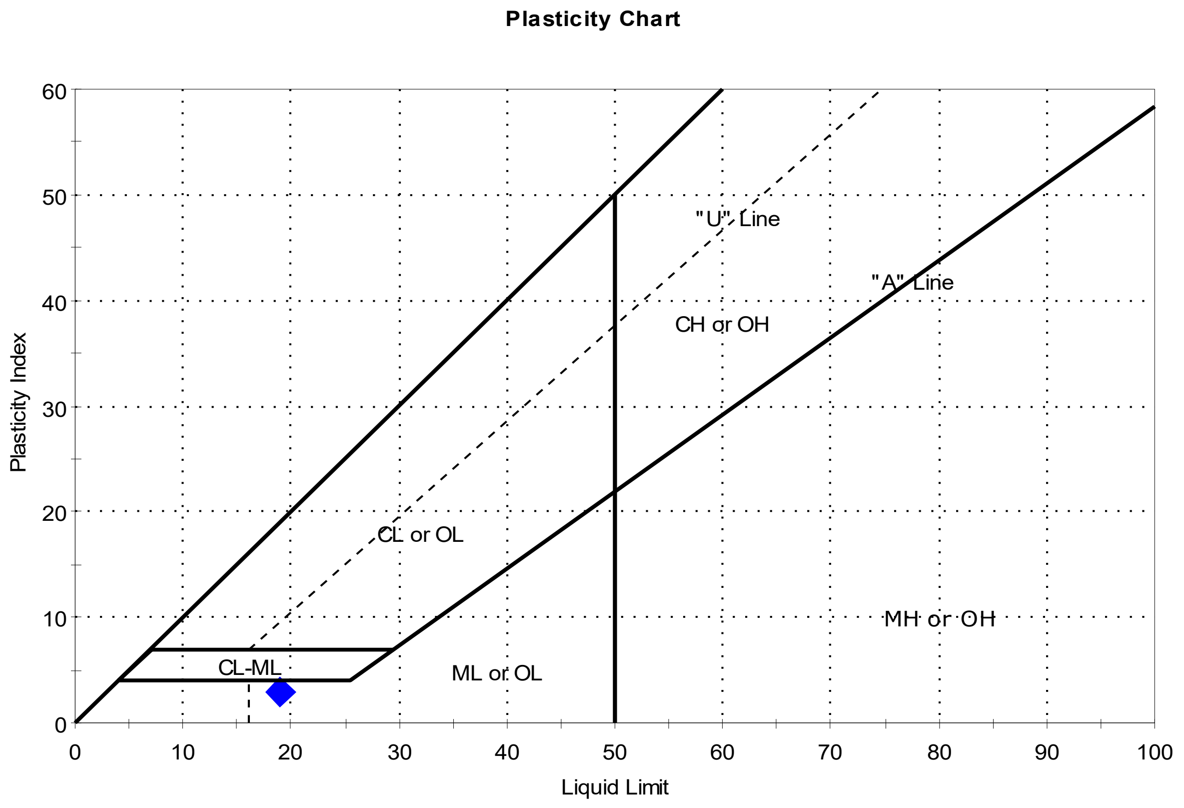
GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-087
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/02/25
Checked By: ank
Depth : 6-8'
Test Id: 817211

Test Comment: ---
Visual Description: Moist, dark yelowish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-087	6-8'	20	19	16	3	1.4	SILT (ML)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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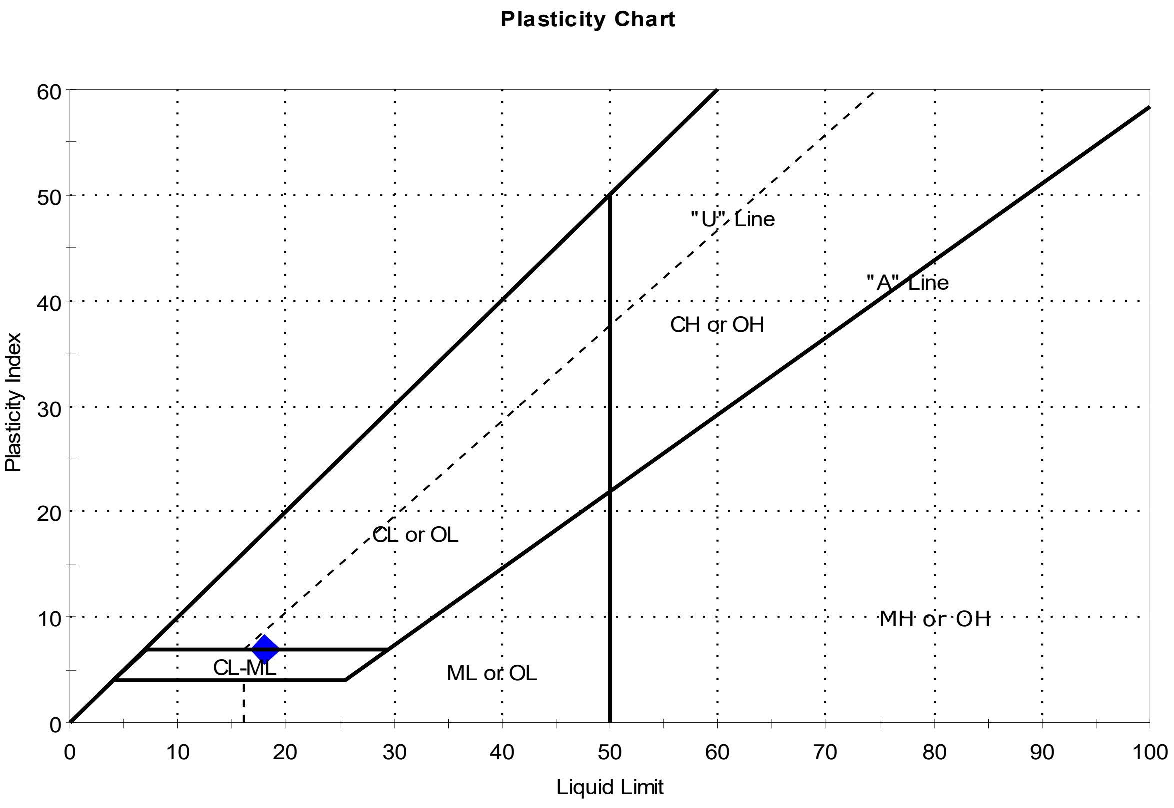
GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-089	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/09/25	Checked By:	ank
Depth :	17-19'	Test Id:	817212		

Test Comment: ---
Visual Description: Moist, grayish brown silty clay with gravel
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-089	17-19'	15	18	11	7	0.6	

Sample Prepared using the WET method

Dry Strength: HIGH
Dilatancy: SLOW
Toughness: LOW

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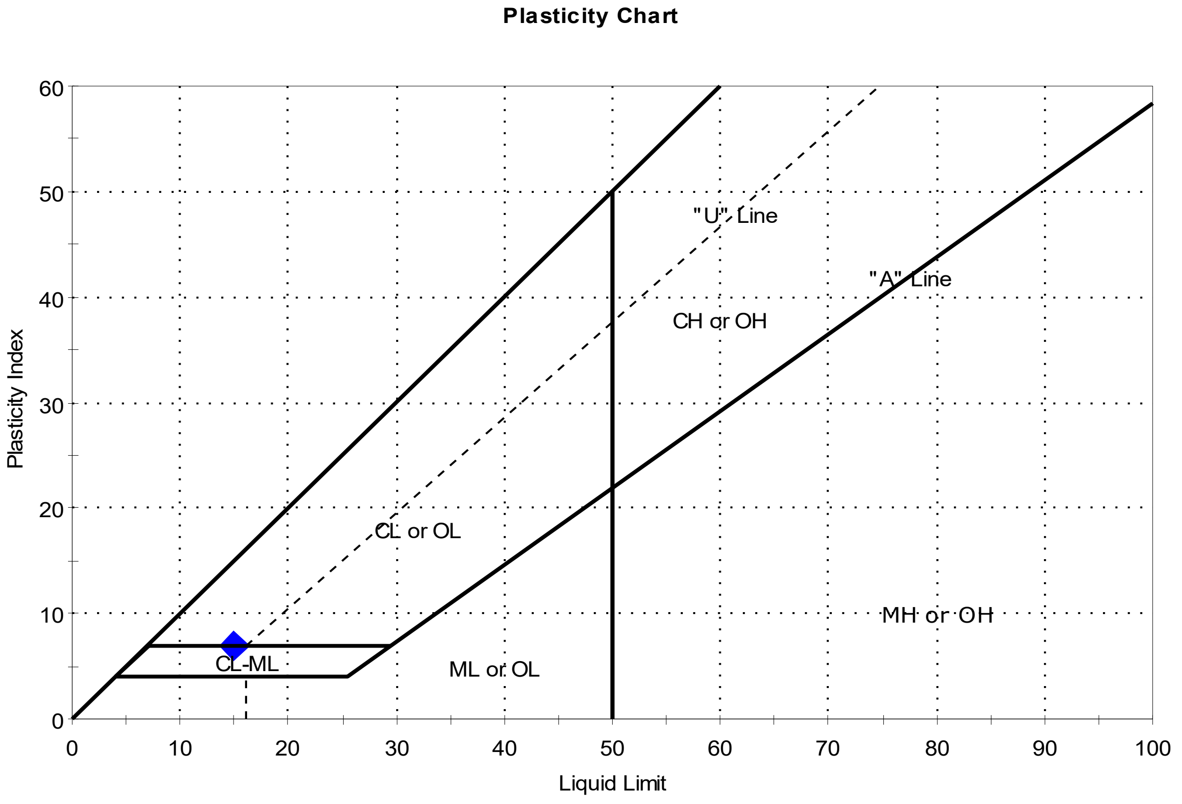
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-101	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	16-18'	Test Id:	817213		

Test Comment: ---
Visual Description: Moist, grayish brown silty, clayey sand with gravel
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-101	16-18'	11	15	8	7	0.5	Silty, Clayey SAND with Gravel (SC-SM)

Sample Prepared using the WET method

29% Retained on #40 Sieve

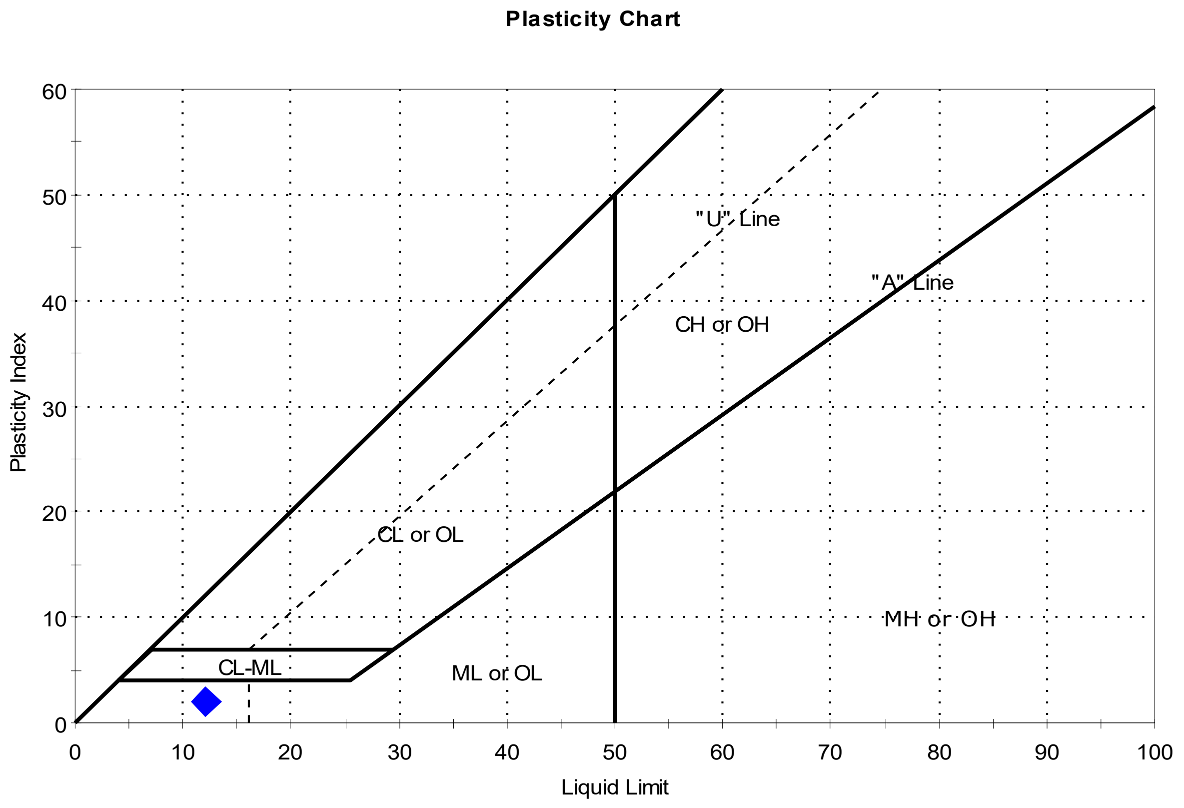
Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-101
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/11/25
Checked By: ank
Depth : 18-20'
Test Id: 817214
Test Comment: ---
Visual Description: Moist, gray silty sand
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-101	18-20'	11	12	10	2	0.5	Silty SAND (SM)

Sample Prepared using the WET method

24% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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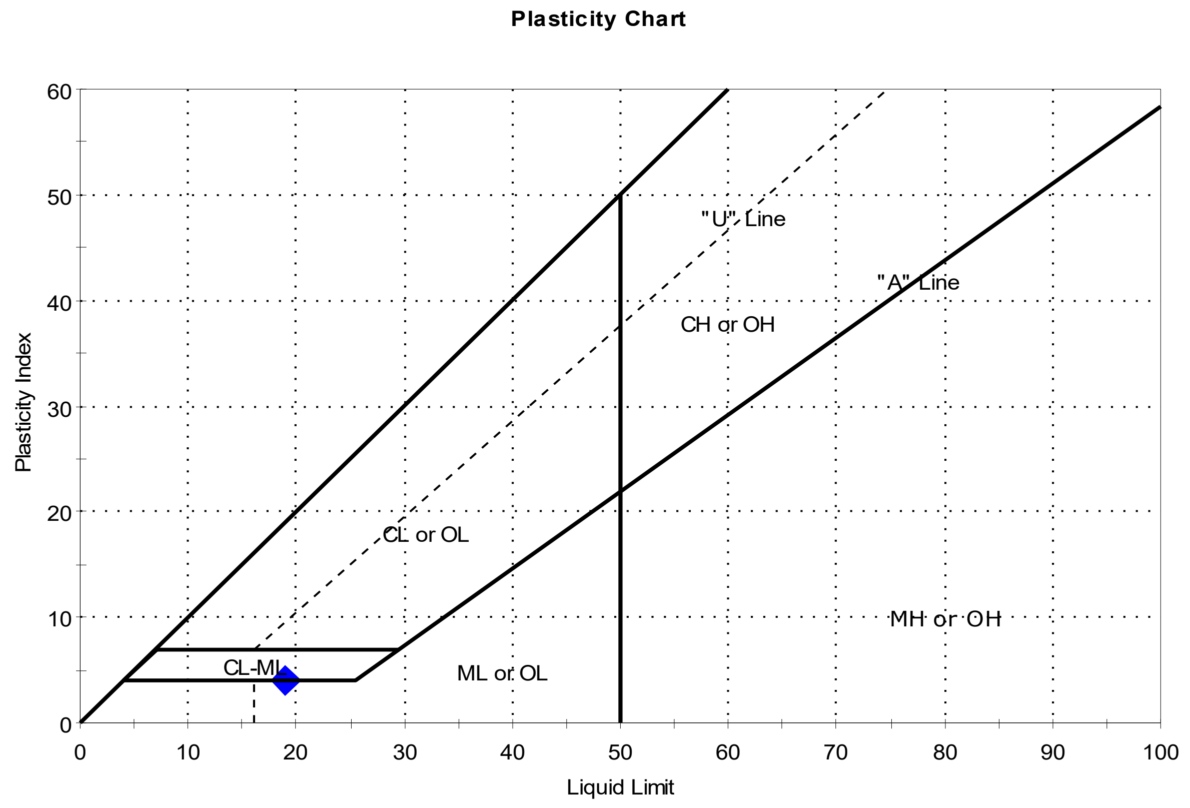
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-004	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	19-21'	Test Id:	817217		
Test Comment:	---				
Visual Description:	Wet, grayish brown silty clay				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-004	19-21'	23	19	15	4	2	Silty CLAY (CL-ML)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: MEDIUM

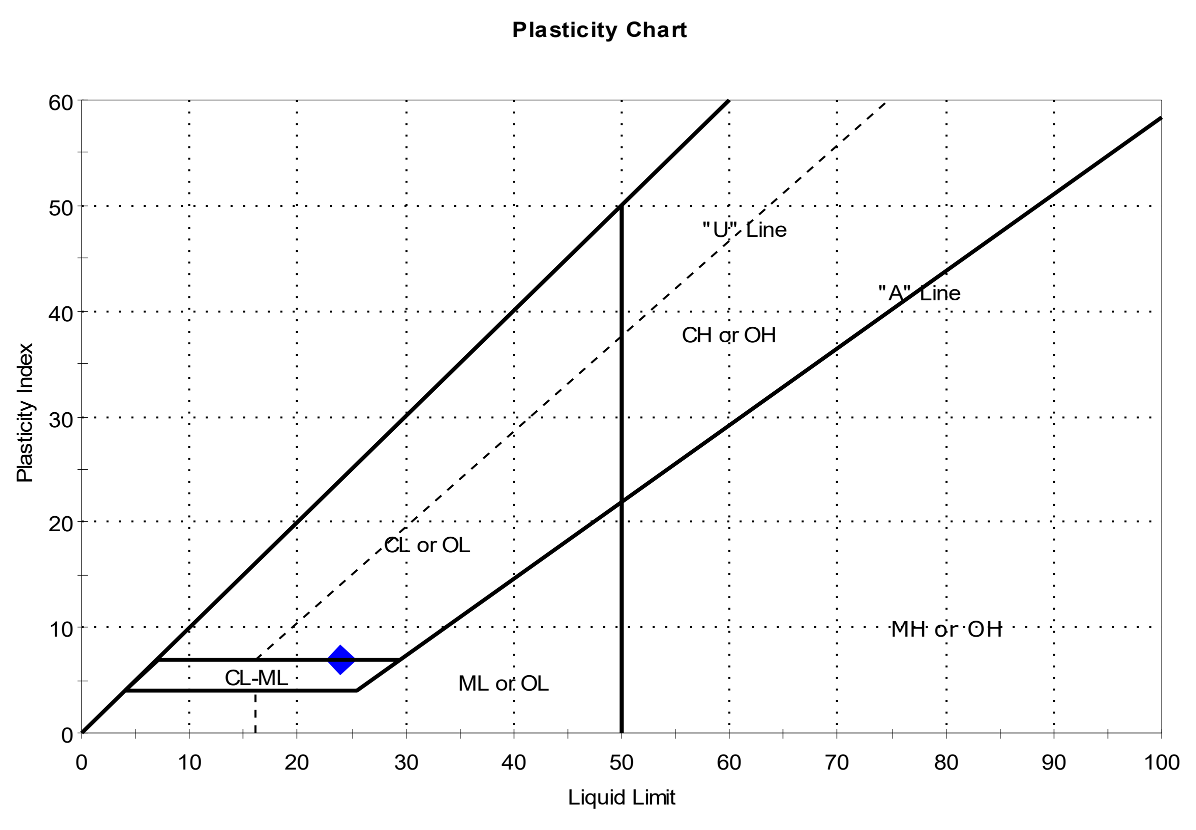
Dilatancy: SLOW

Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-005	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/03/25	Checked By:	ank
Depth :	6-8'	Test Id:	817218		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-005	6-8'	26	24	17	7	1.3	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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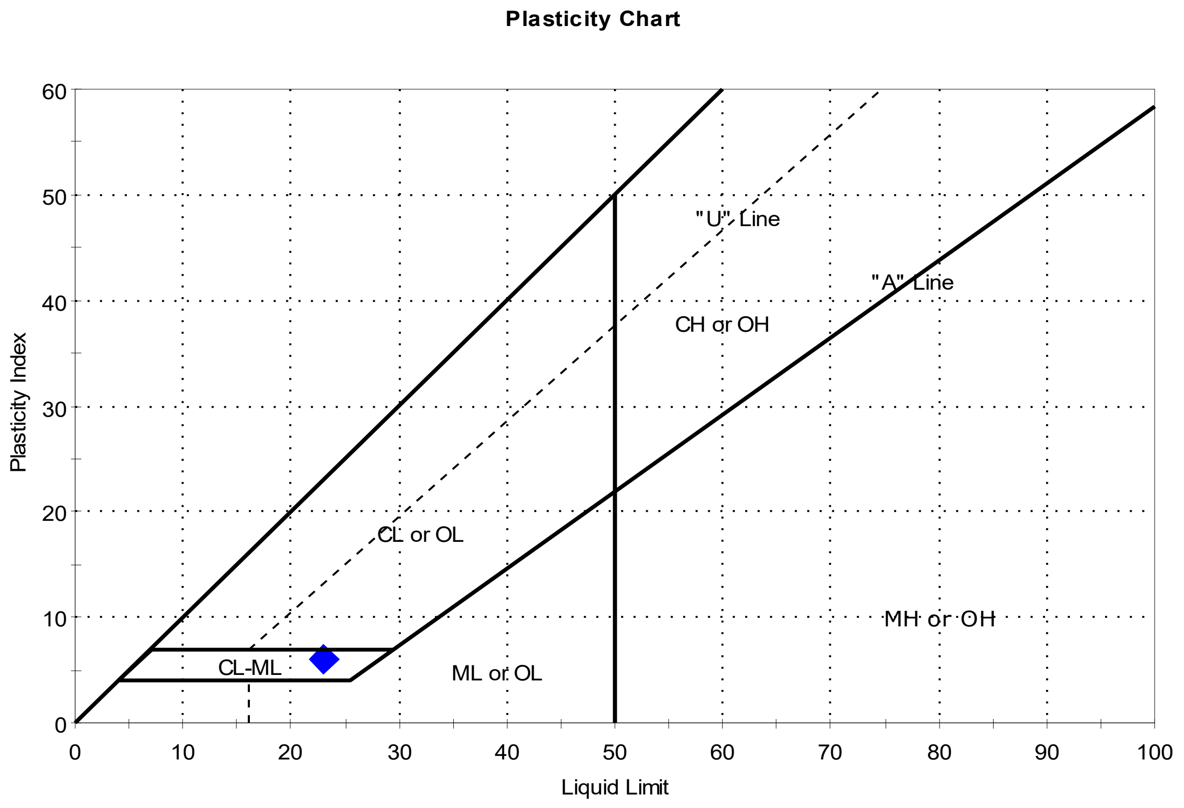
GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-005
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/04/25
Checked By: ank
Depth : 8-10'
Test Id: 817219
Test Comment: ---
Visual Description: Moist, grayish brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-005	8-10'	23	23	17	6	1	

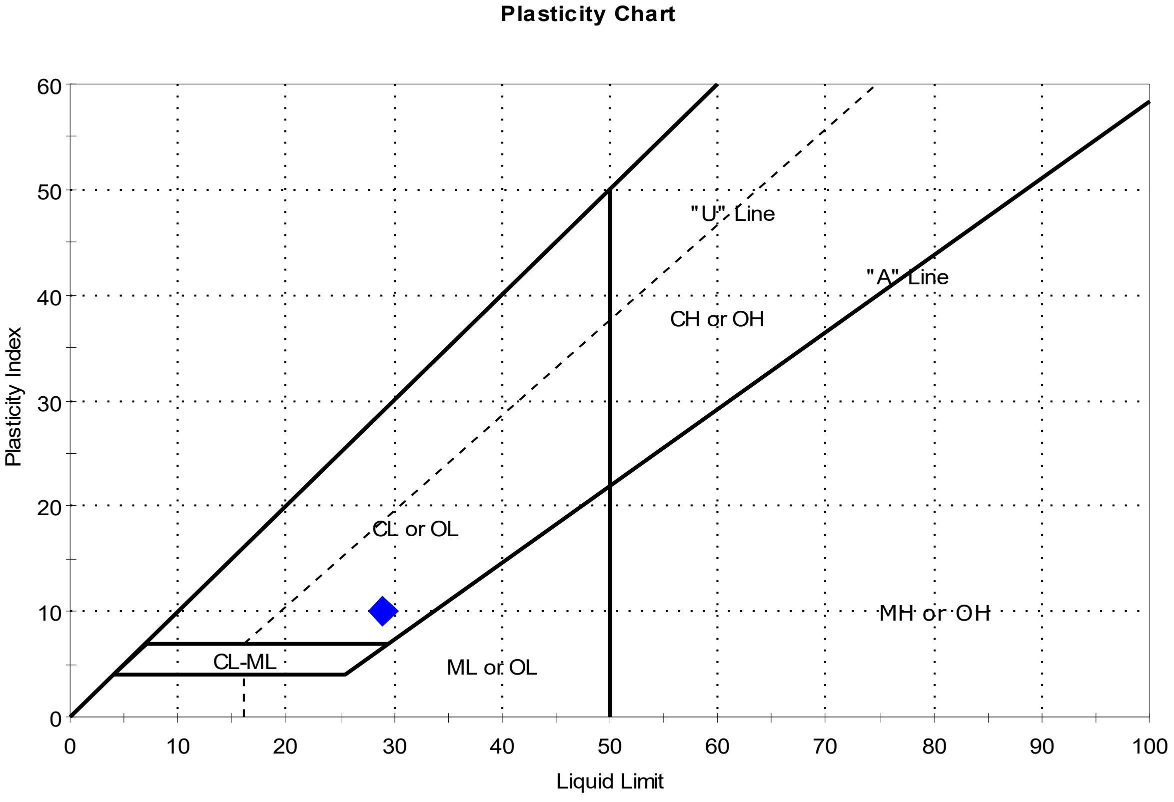
Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-005	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/13/25	Checked By:	ank
Depth :	4-6'	Test Id:	816612		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-R-005	4-6'	29	29	19	10	1	

Sample Prepared using the WET method

Dry Strength: n/a
Dilatancy: n/a
Toughness: n/a

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GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-007	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	05/30/25	Checked By:	ank
Depth :	10-12'	Test Id:	817221		

Test Comment: ---
Visual Description: Moist, gray brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-007	10-12'	21	n/a	n/a	n/a	n/a	SILT (ML)

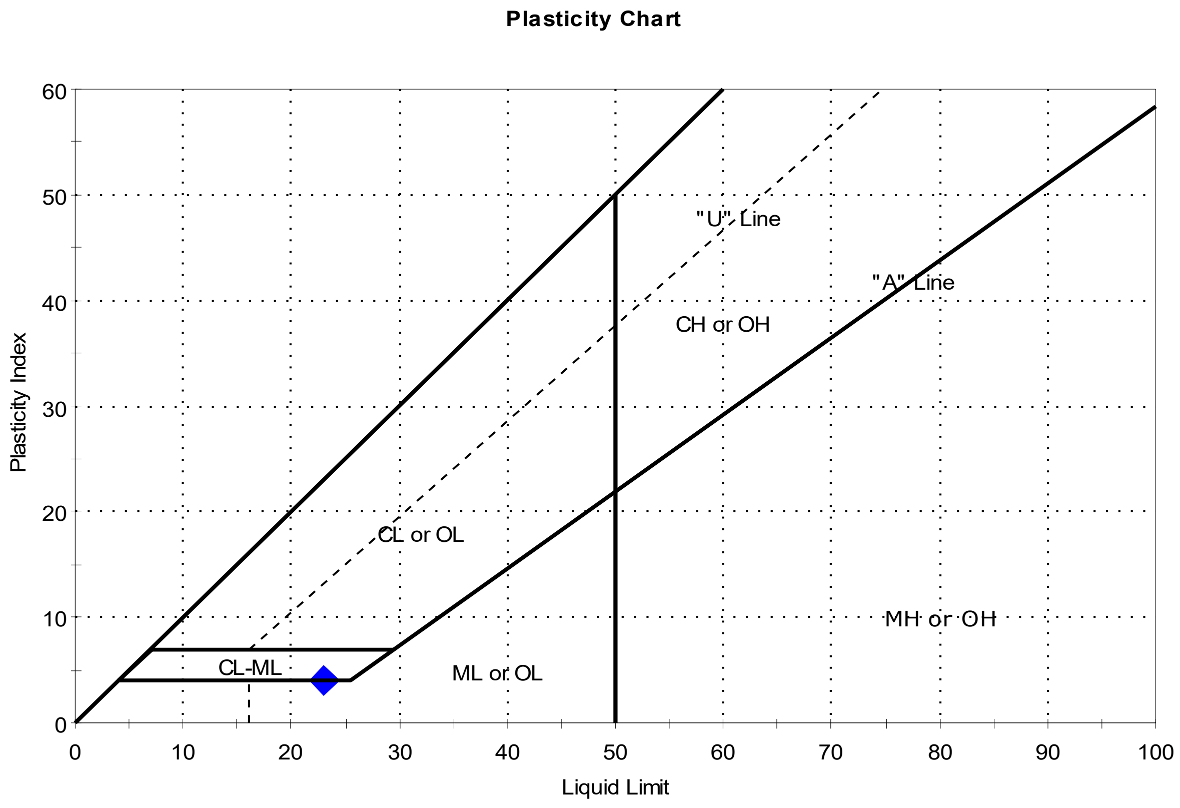
0% Retained on #40 Sieve
Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-009	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	8-10'	Test Id:	817222		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-009	8-10'	25	23	19	4	1.5	Silty CLAY (CL-ML)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: HIGH

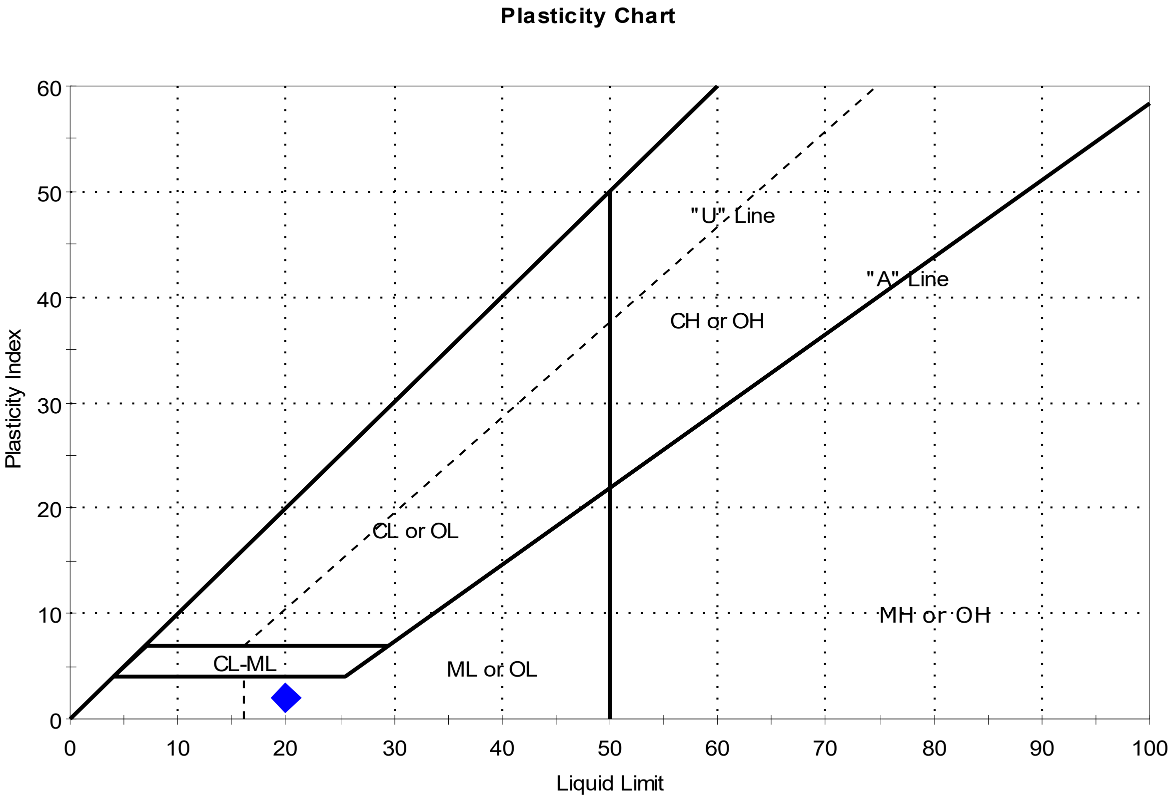
Dilatancy: SLOW

Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-012	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/04/25	Checked By:	ank
Depth :	10-12'	Test Id:	817224		

Test Comment: ---
Visual Description: Wet, grayish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-012	10-12'	23	20	18	2	2.7	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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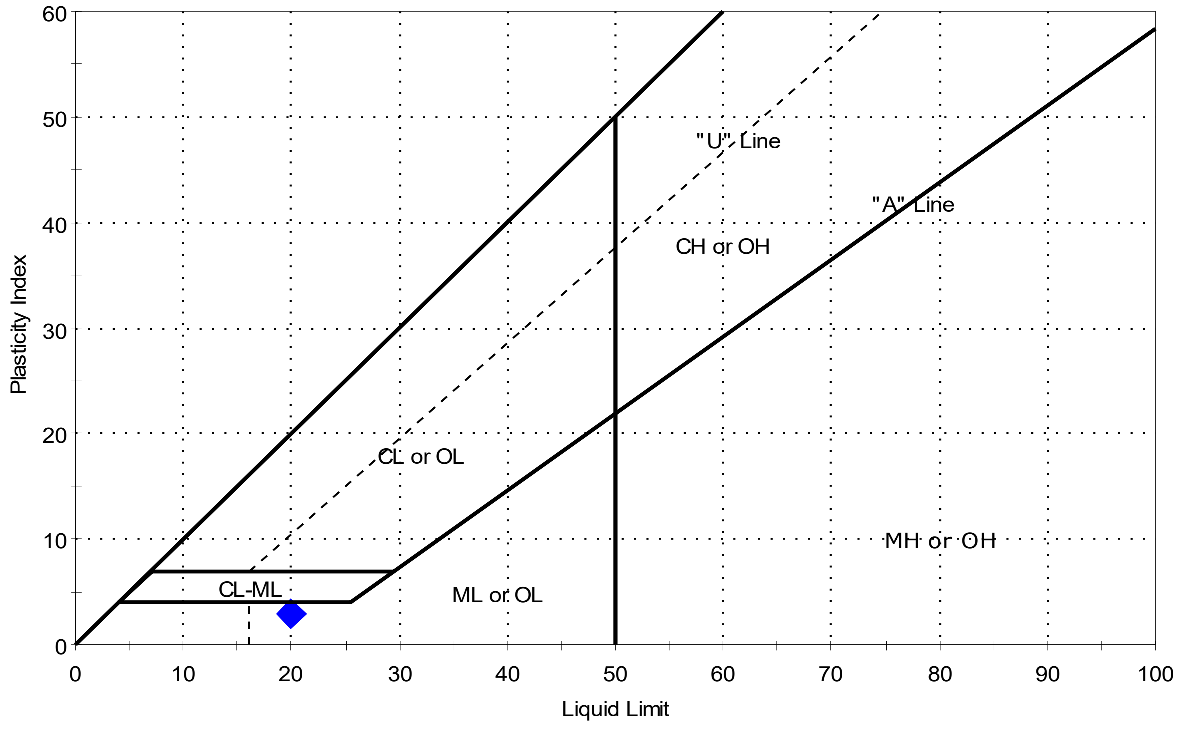
GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-014	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/16/25	Checked By:	ank
Depth :	8-10'	Test Id:	817225		

Test Comment: ---
Visual Description: Wet, dark yellowish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Plasticity Chart



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-014	8-10'	24	20	17	3	2.3	

Sample Prepared using the WET method

Dry Strength: HIGH
Dilatancy: RAPID
Toughness: LOW

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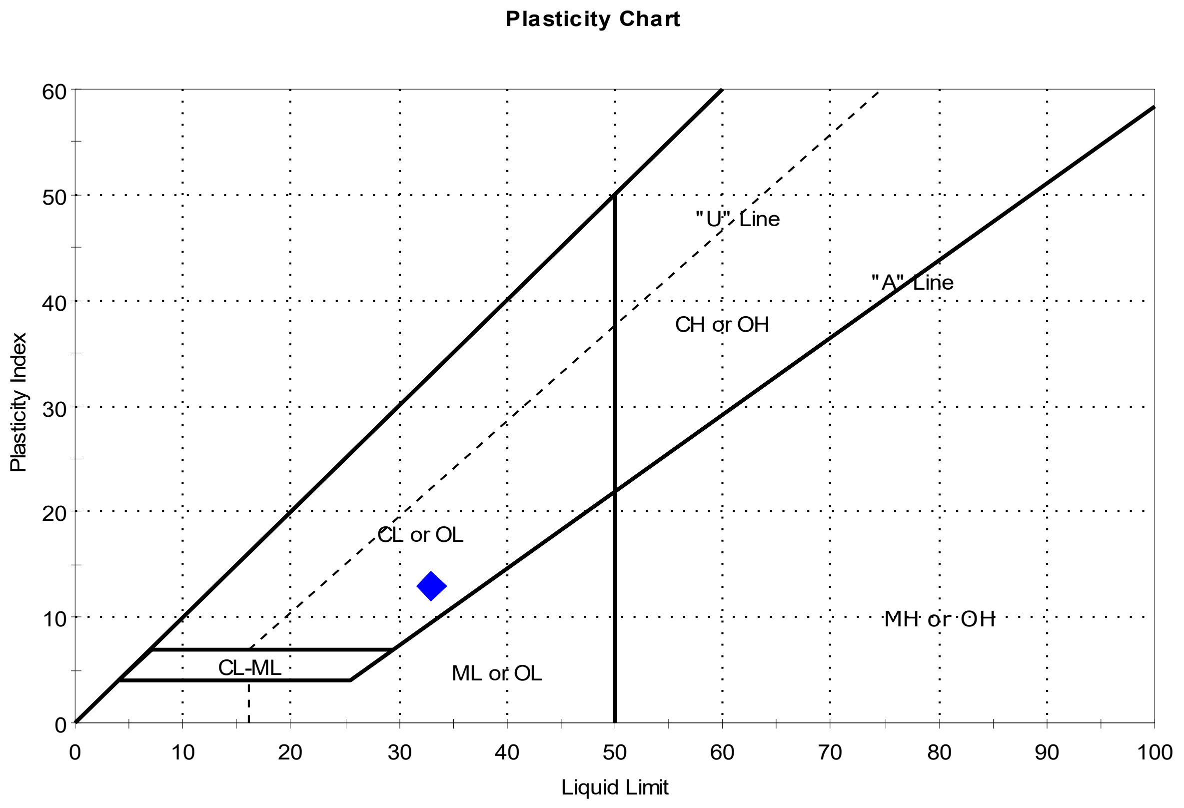
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-015	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	6-8'	Test Id:	817226		

Test Comment: ---
Visual Description: Moist, dark yellowish brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-015	6-8'	25	33	20	13	0.4	

Sample Prepared using the WET method

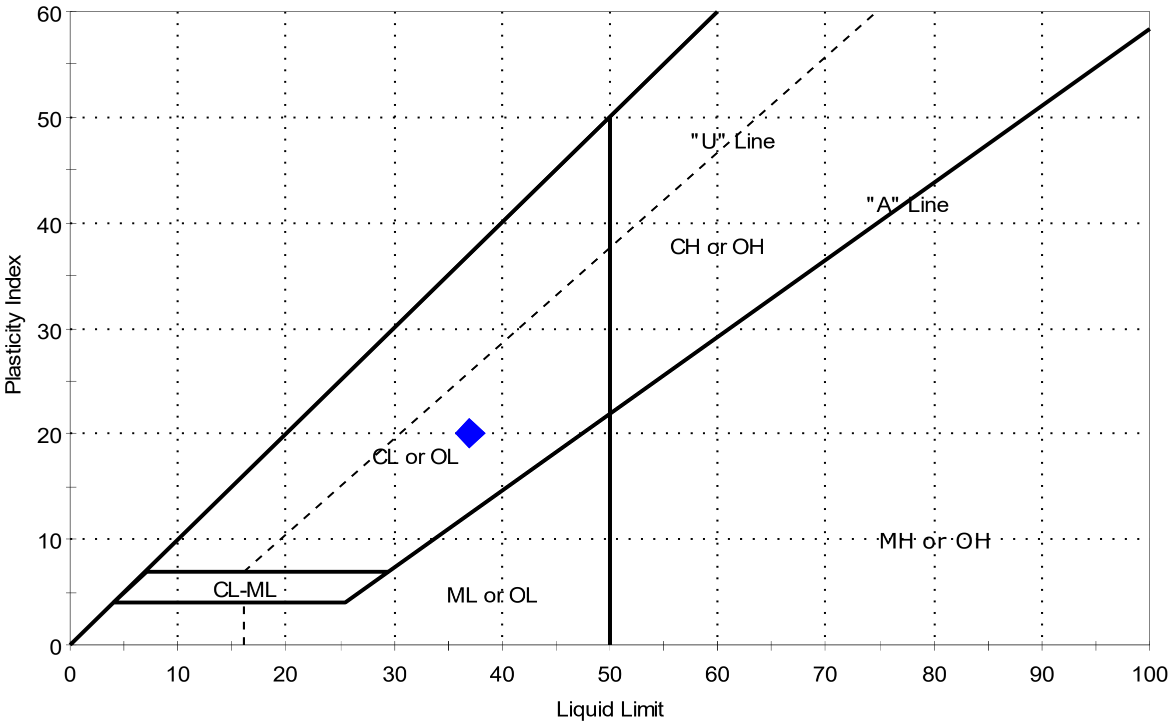
Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-016	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/16/25	Checked By:	ank
Depth :	6-8'	Test Id:	817227		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318

Plasticity Chart



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-016	6-8'	31	37	17	20	0.7	

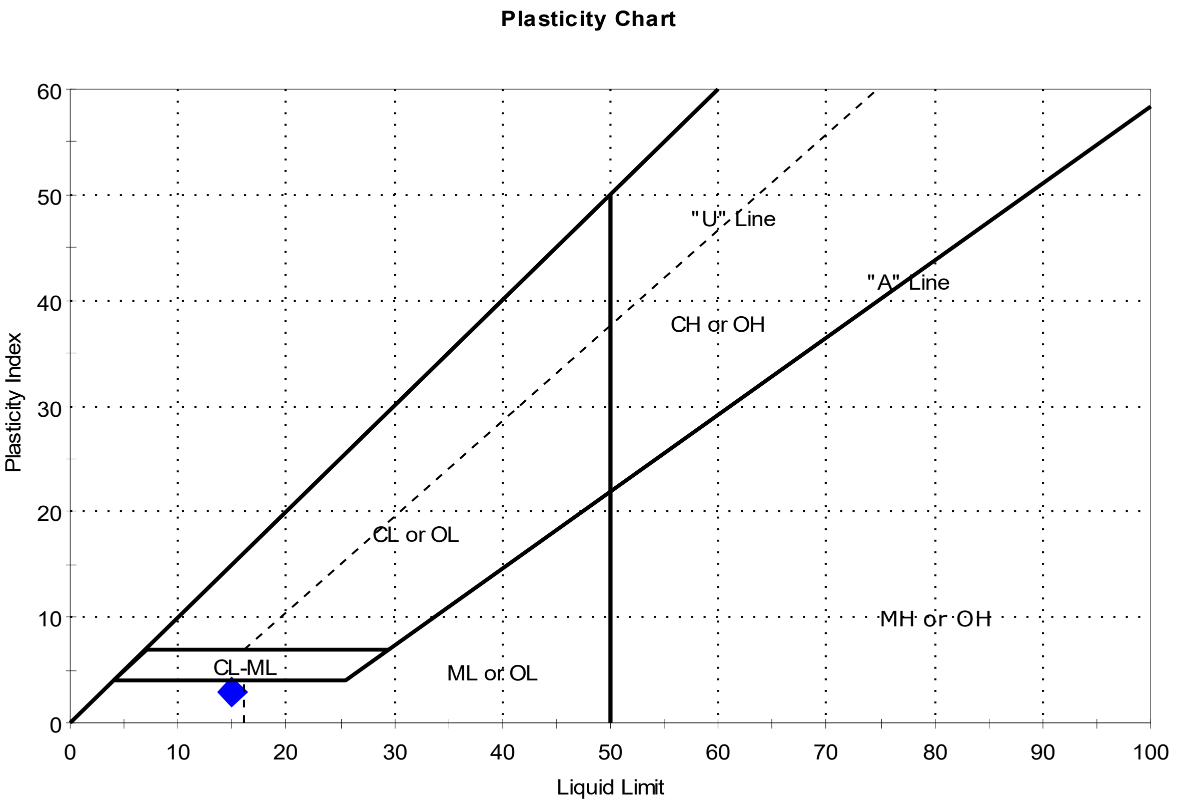
Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-018	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/16/25	Checked By:	ank
Depth :	19-21'	Test Id:	817228		

Test Comment: ---
Visual Description: Moist, grayish brown silt with sand
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-018	19-21'	17	15	12	3	1.6	SILT with Sand (ML)

Sample Prepared using the WET method

8% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-026	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/06/25	Checked By:	ank
Depth :	20-22'	Test Id:	817229		

Test Comment: ---
Visual Description: Moist, grayish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-026	20-22'	20	n/a	n/a	n/a	n/a	

Dry Strength: HIGH
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

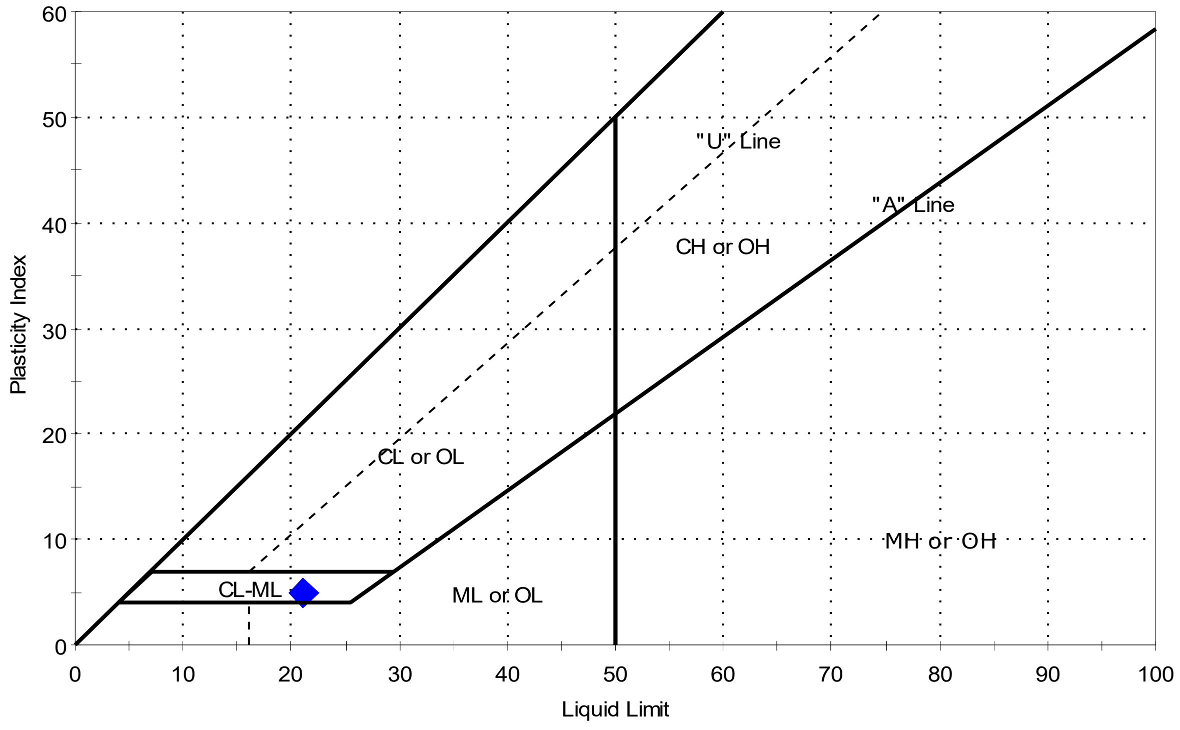
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-026
Sample ID: U-1
Depth : 8-10'
Sample Type: Tube
Test Date: 06/03/25
Test Id: 816606
Tested By: cam
Checked By: ank

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318

Plasticity Chart



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-R-026	8-10'	23	21	16	5	1.4	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-028
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/12/25
Checked By: ank
Depth : 22-24'
Test Id: 817230
Test Comment: ---
Visual Description: Moist, grayish brown silty sand
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-028	22-24'	13	13	10	3	1.1	

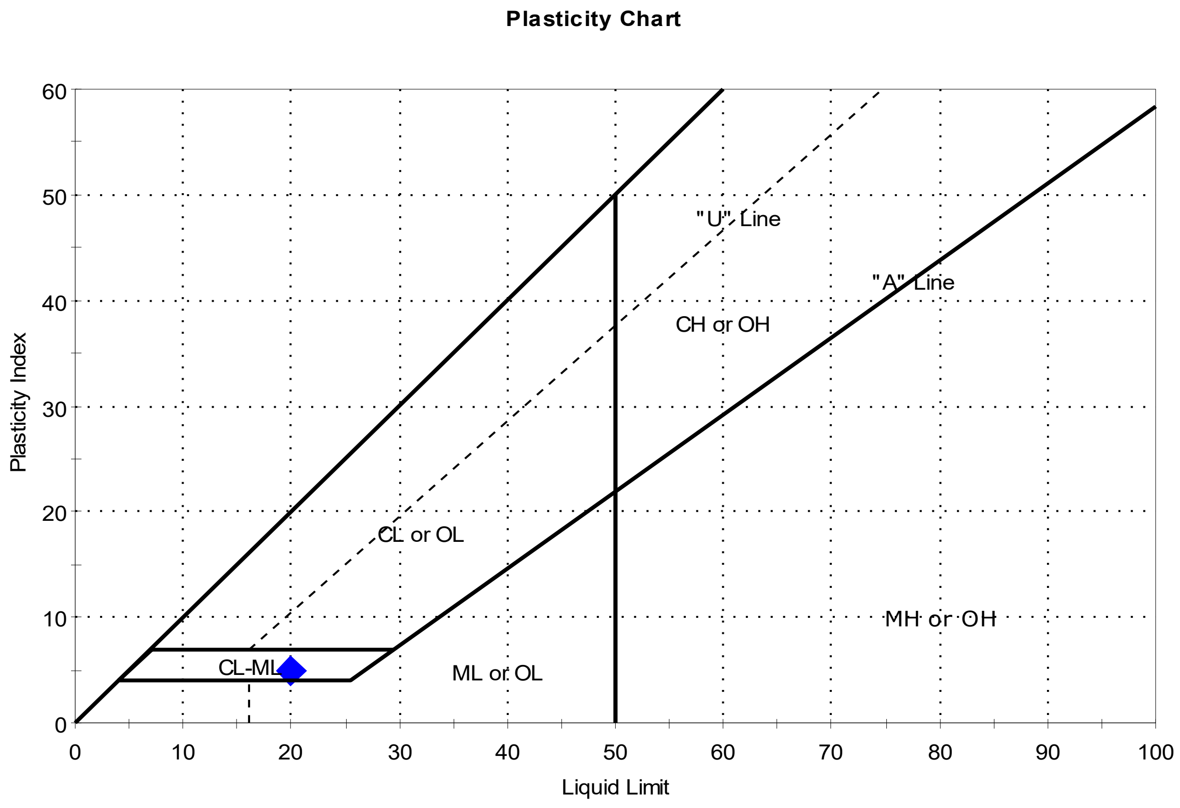
Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW
The sample was determined to be Non-Plastic

GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-030	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	18-20'	Test Id:	817231		

Test Comment: ---
Visual Description: Wet, dark grayish brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-030	18-20'	24	20	15	5	1.7	

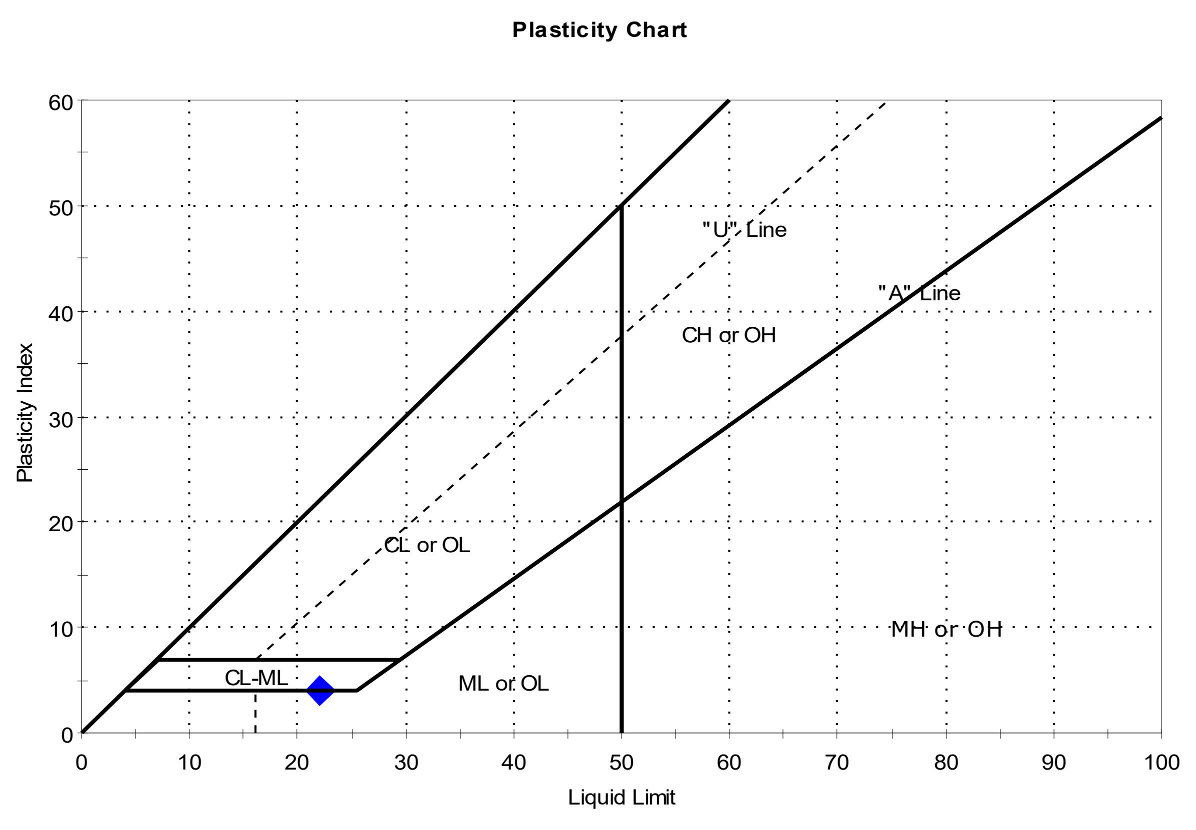
Sample Prepared using the WET method

Dry Strength: n/a
Dilatancy: n/a
Toughness: n/a

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-033	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/12/25	Checked By:	ank
Depth :	6-8'	Test Id:	816617		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-R-033	6-8'	22	22	18	4	1	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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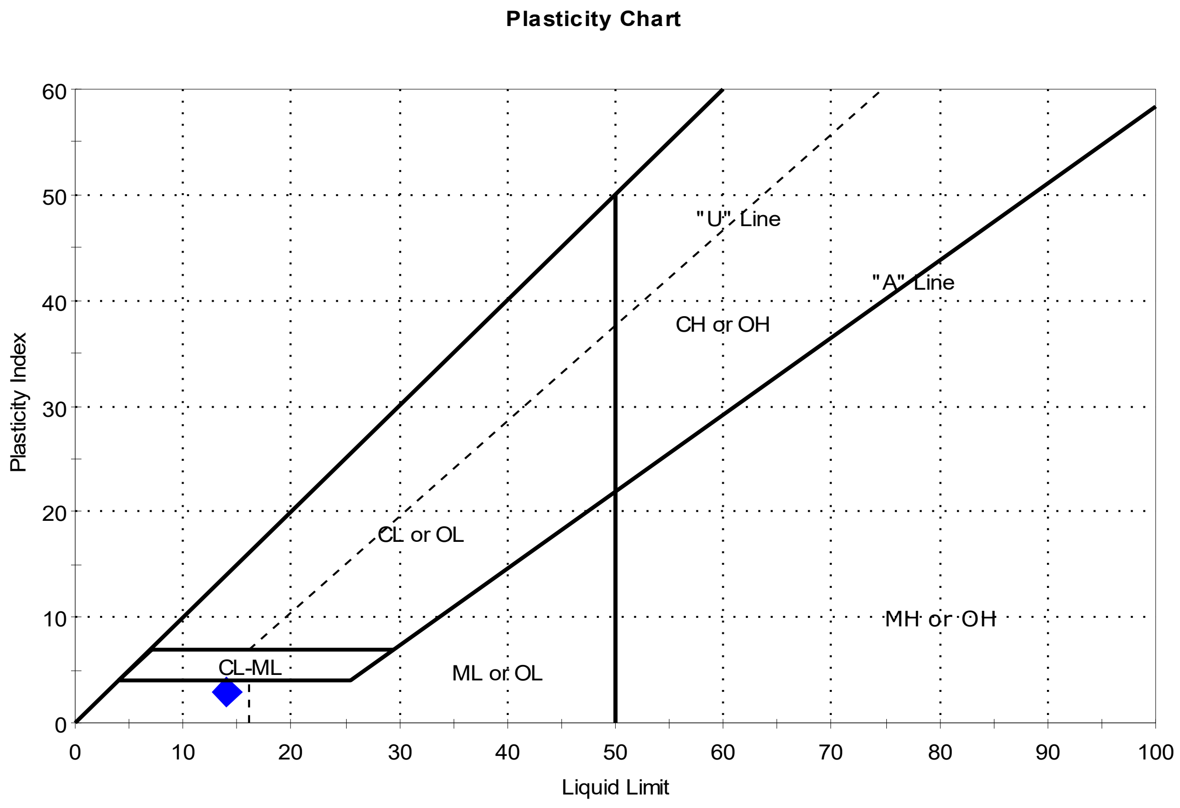
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-035
Sample ID: U-1
Depth : 10-12'
Sample Type: Tube
Test Date: 06/03/25
Test Id: 816618
Tested By: cam
Checked By: ank

Test Comment: ---
Visual Description: Moist, dark gray silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-R-035	10-12'	9	14	11	3	-0.6	

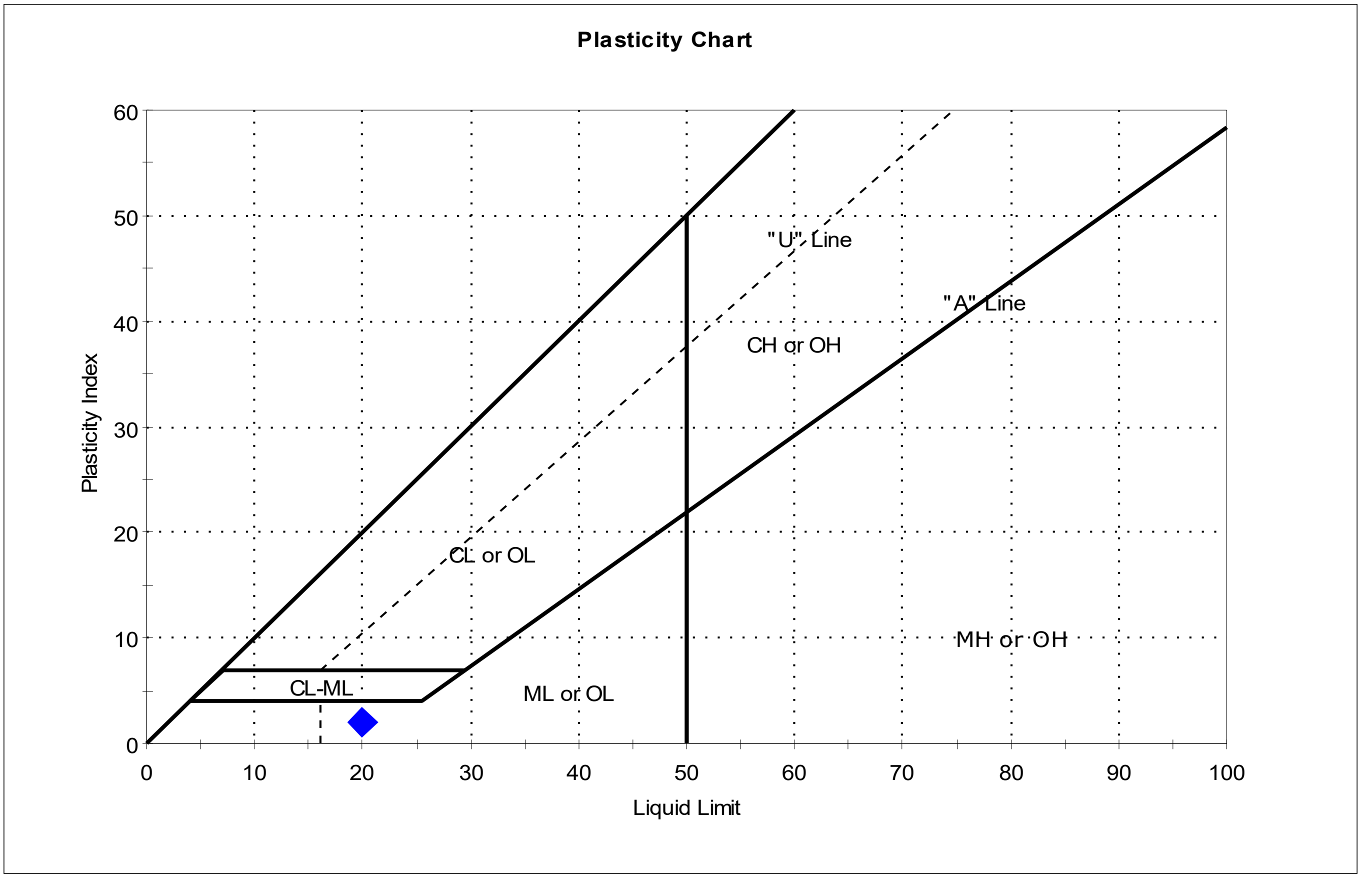
Sample Prepared using the WET method

Dry Strength: HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-042	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/04/25	Checked By:	ank
Depth :	10-12'	Test Id:	817232		

Test Comment: ---
Visual Description: Wet, grayish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-042	10-12'	24	20	18	2	2.9	SILT (ML)

Sample Prepared using the WET method
1% Retained on #40 Sieve
Dry Strength: LOW
Dilatancy: RAPID
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-042	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	6-8'	Test Id:	817233		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-042	6-8'	22	n/a	n/a	n/a	n/a	

Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-047	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	4-6'	Test Id:	817234		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-047	4-6'	25	n/a	n/a	n/a	n/a	SILT (ML)

1% Retained on #40 Sieve
Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

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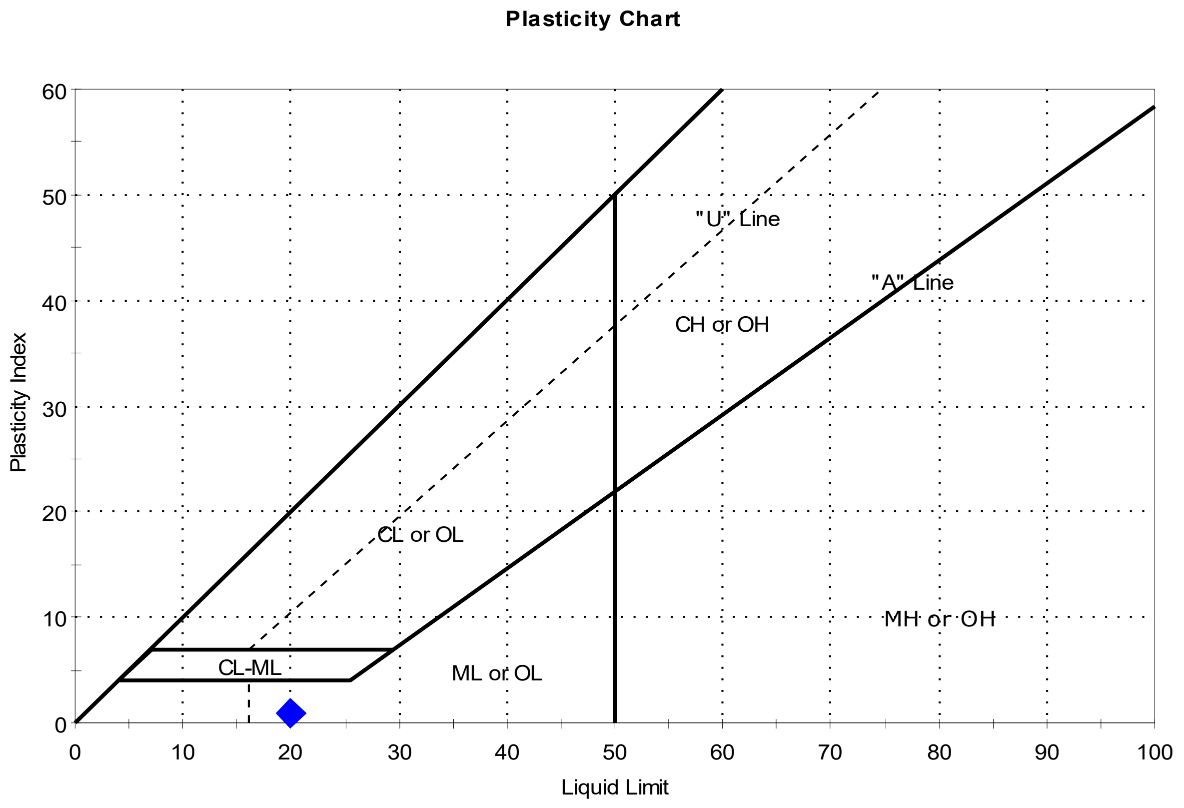
Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-047
Sample Type: Jar
Tested By: GA
Sample ID: ---
Test Date: 06/02/25
Checked By: ank
Depth : 8-10'
Test Id: 817235
Test Comment: ---
Visual Description: Wet, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-047	8-10'	36	20	19	1	16.8	SILT (ML)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: LOW

Dilatancy: RAPID

Toughness: LOW

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Client: Langan Engineering			
Project: Upstate Confidential Project			
Location: NY		Project No:	GTX-321096
Boring ID: LB-R-048	Sample Type: Jar	Tested By:	GA
Sample ID: ---	Test Date: 05/28/25	Checked By:	ank
Depth : 10-12'	Test Id: 817236		

Test Comment: ---
Visual Description: Moist, brown silty sand with gravel
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-048	10-12'	11	n/a	n/a	n/a	n/a	Silty SAND with Gravel (SM)

60% Retained on #40 Sieve

Dry Strength: NONE

Dilatancy: RAPID

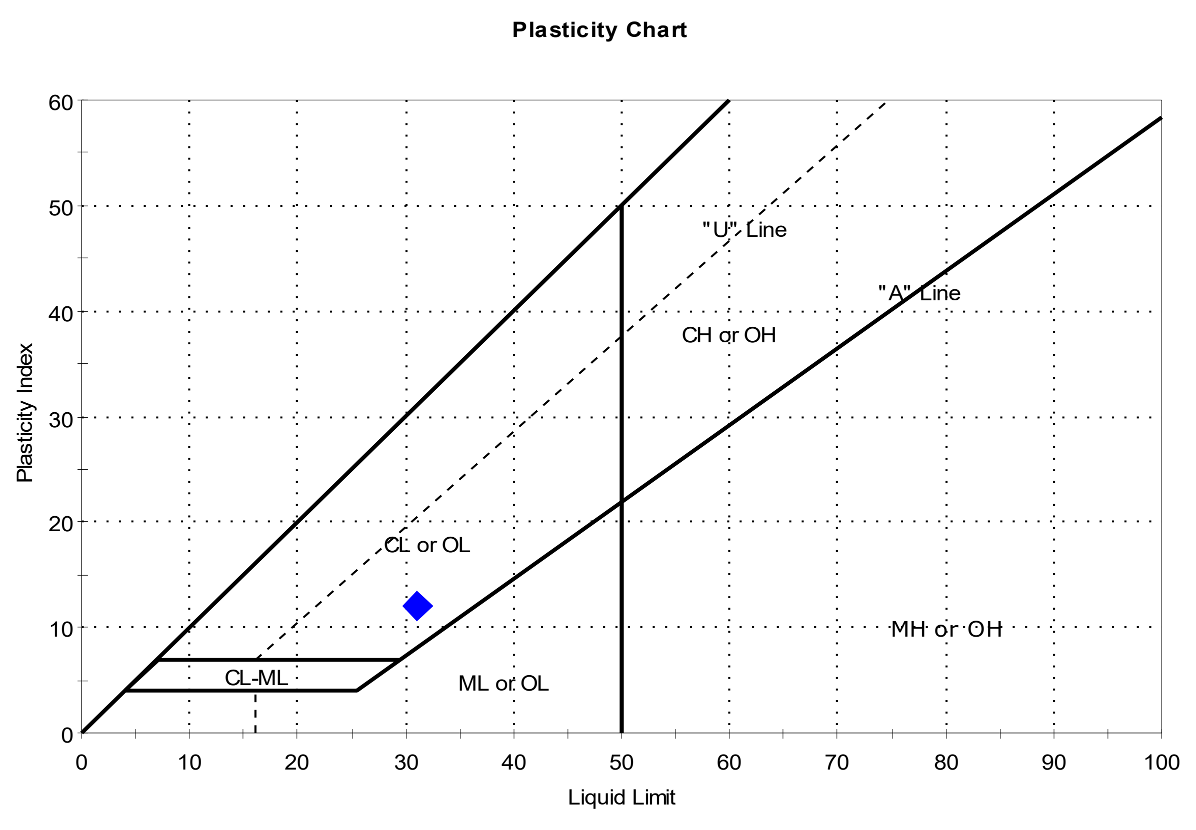
Toughness: n/a

The sample was determined to be Non-Plastic

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-050	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/03/25	Checked By:	ank
Depth :	4-6'	Test Id:	817237		

Test Comment:	---
Visual Description:	Moist, brown clay
Sample Comment:	---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-050	4-6'	28	31	19	12	0.7	Lean CLAY (CL)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: LOW

Dilatancy: RAPID

Toughness: LOW

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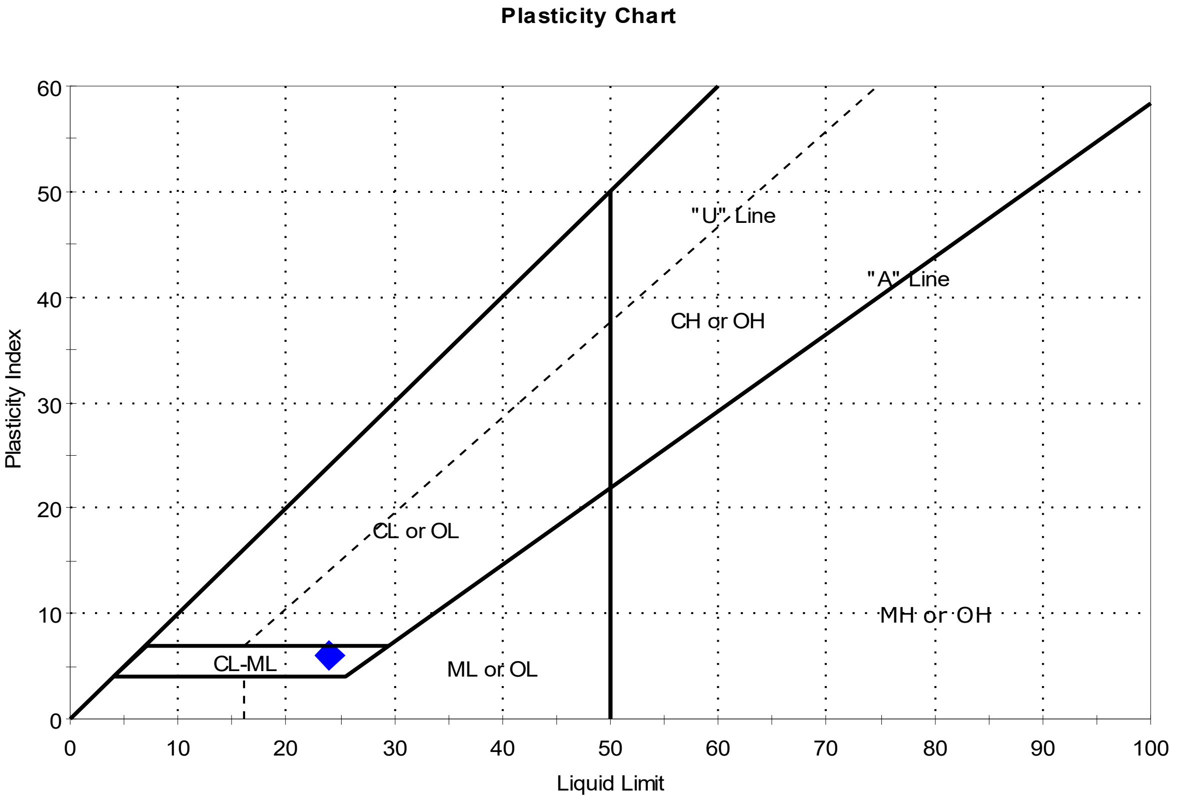
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-050	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	6-8'	Test Id:	817238		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318

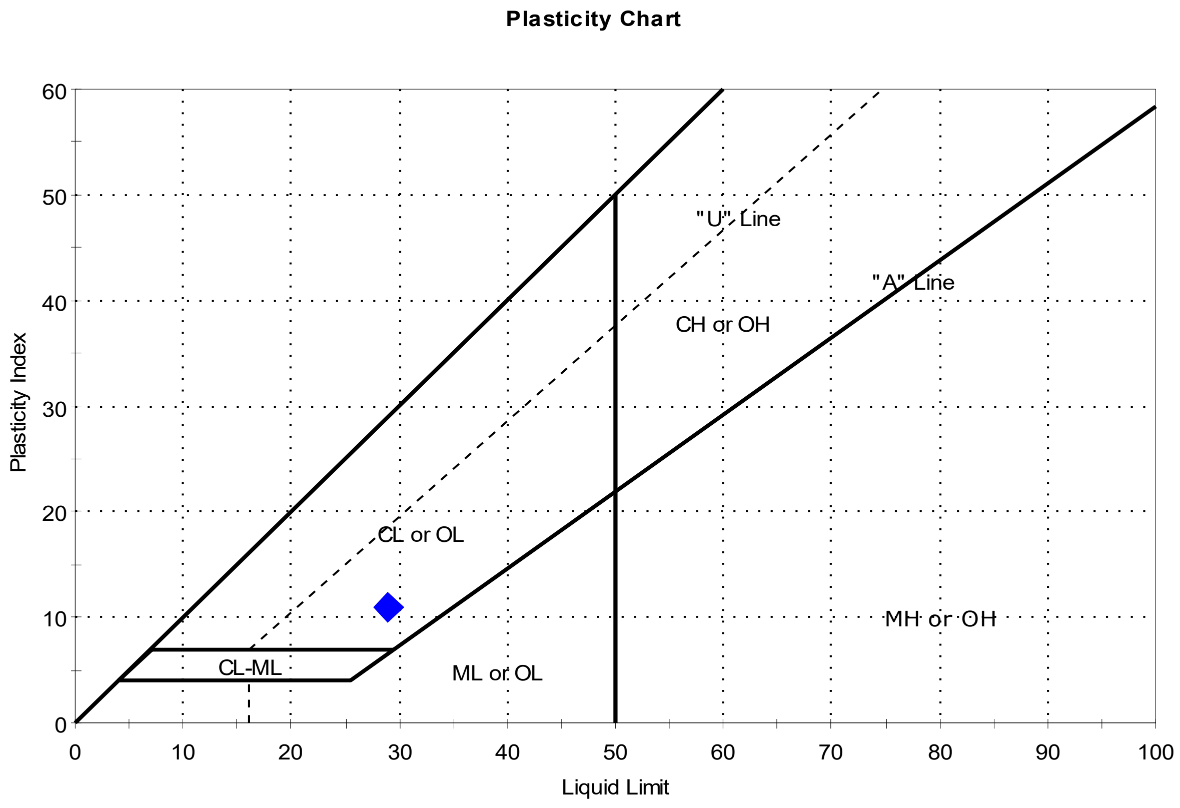


Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-050	6-8'	24	24	18	6	0.9	Silty CLAY (CL-ML)

Sample Prepared using the WET method
0% Retained on #40 Sieve
Dry Strength: HIGH
Dilatancy: SLOW
Toughness: LOW

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-051
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/05/25
Checked By: ank
Depth : 4-6'
Test Id: 817239
Test Comment: ---
Visual Description: Moist, dark yellowish brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-051	4-6'	25	29	18	11	0.6	

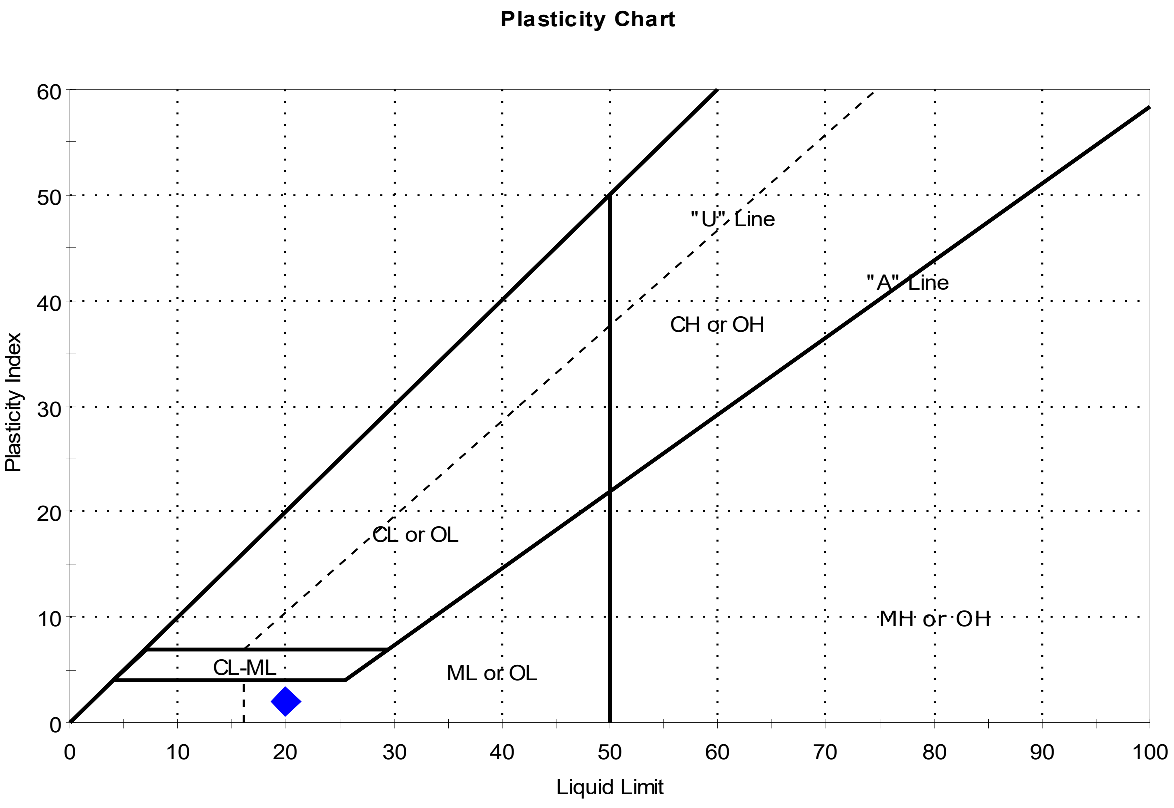
Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-051	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/13/25	Checked By:	ank
Depth :	10-12'	Test Id:	816614		

Test Comment: ---
Visual Description: Moist, yellowish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318


Plasticity Chart

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-R-051	10-12'	18	20	18	2	0.2	

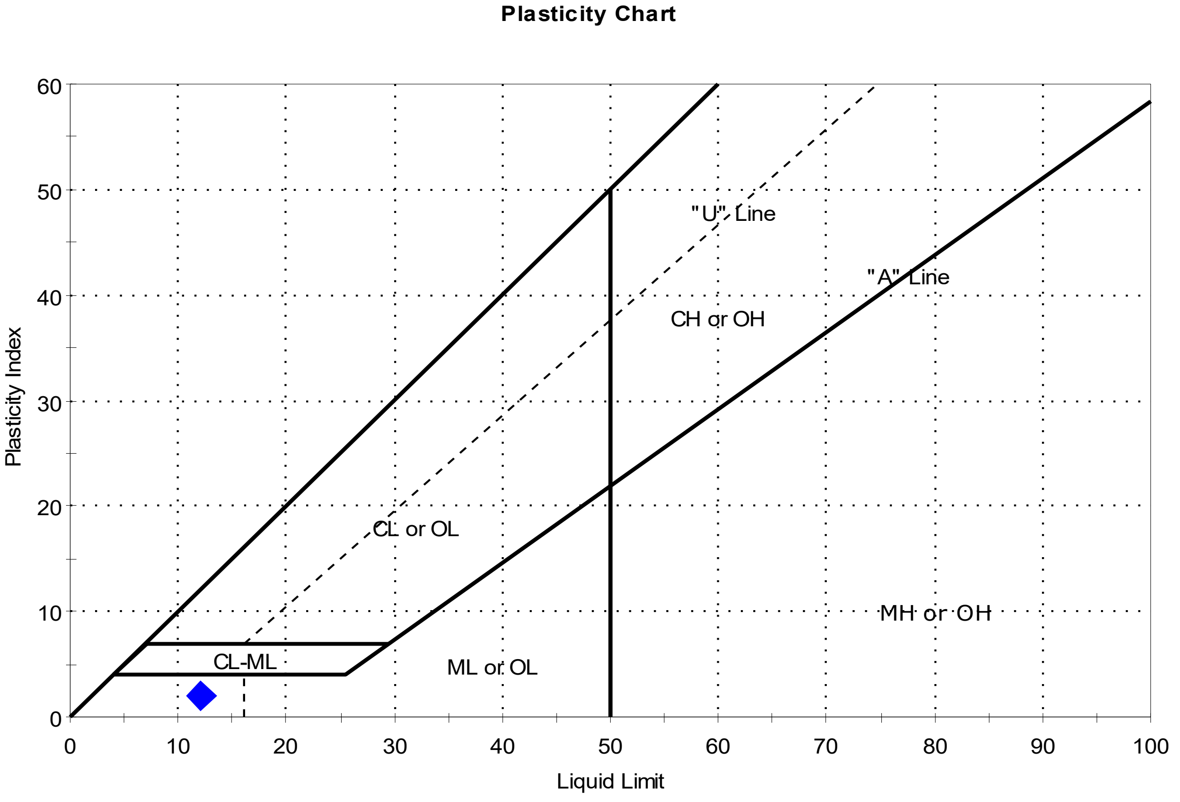
Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-052	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/03/25	Checked By:	ank
Depth :	10-12'	Test Id:	816607		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-R-052	10-12'	16	12	10	2	2.9	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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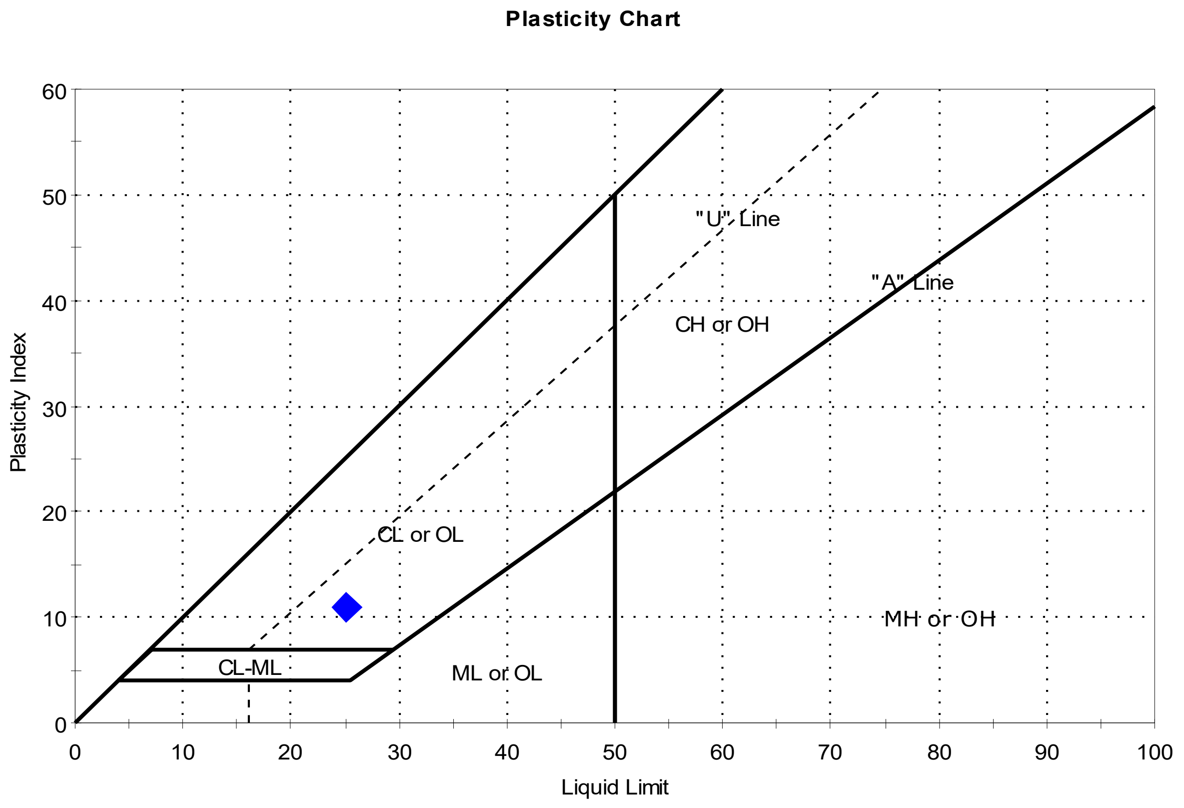
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-053	Sample Type:	Tube	Tested By:	cam
Sample ID:	U-1	Test Date:	06/13/25	Checked By:	ank
Depth :	12-14'	Test Id:	816613		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-R-053	12-14'	20	25	14	11	0.6	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-056	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	4-6'	Test Id:	817240		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

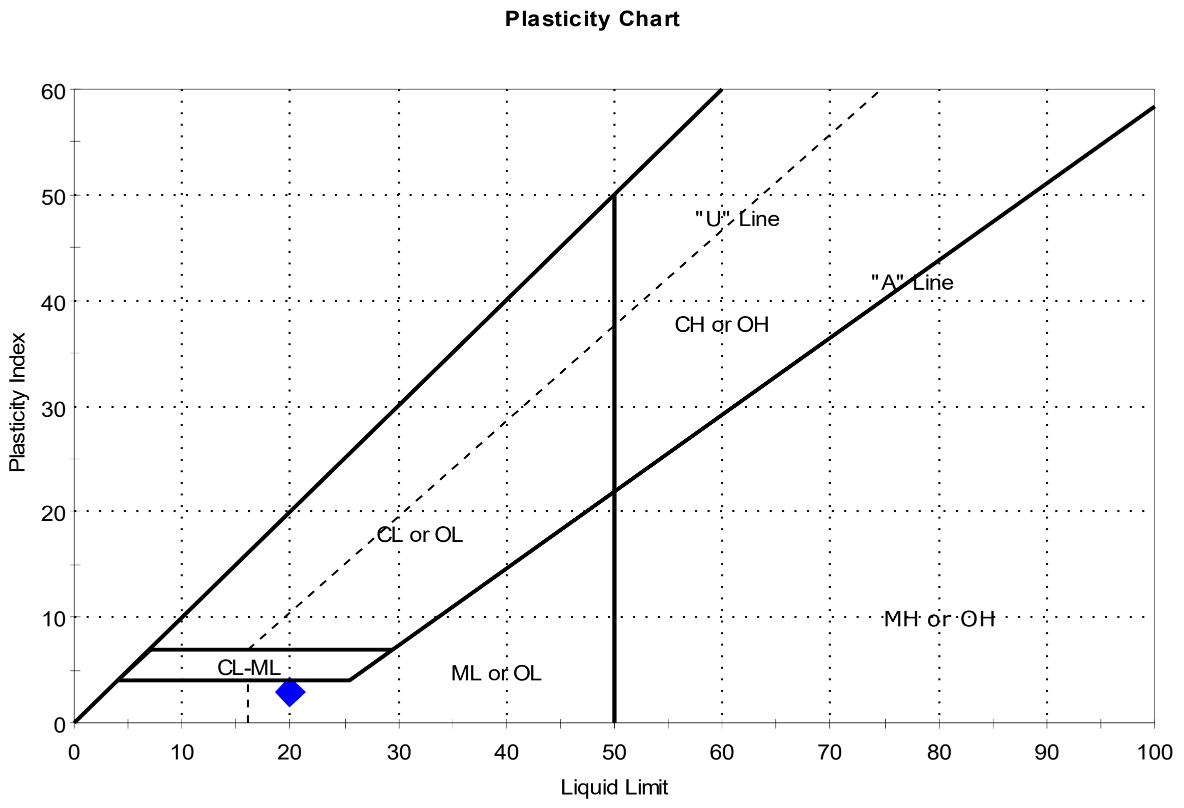
Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-056	4-6'	24	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve
Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-058	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	15-17'	Test Id:	817241		

Test Comment: ---
Visual Description: Wet, grayish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-058	15-17'	26	20	17	3	3.1	

Sample Prepared using the WET method

Dry Strength: HIGH
Dilatancy: SLOW
Toughness: LOW

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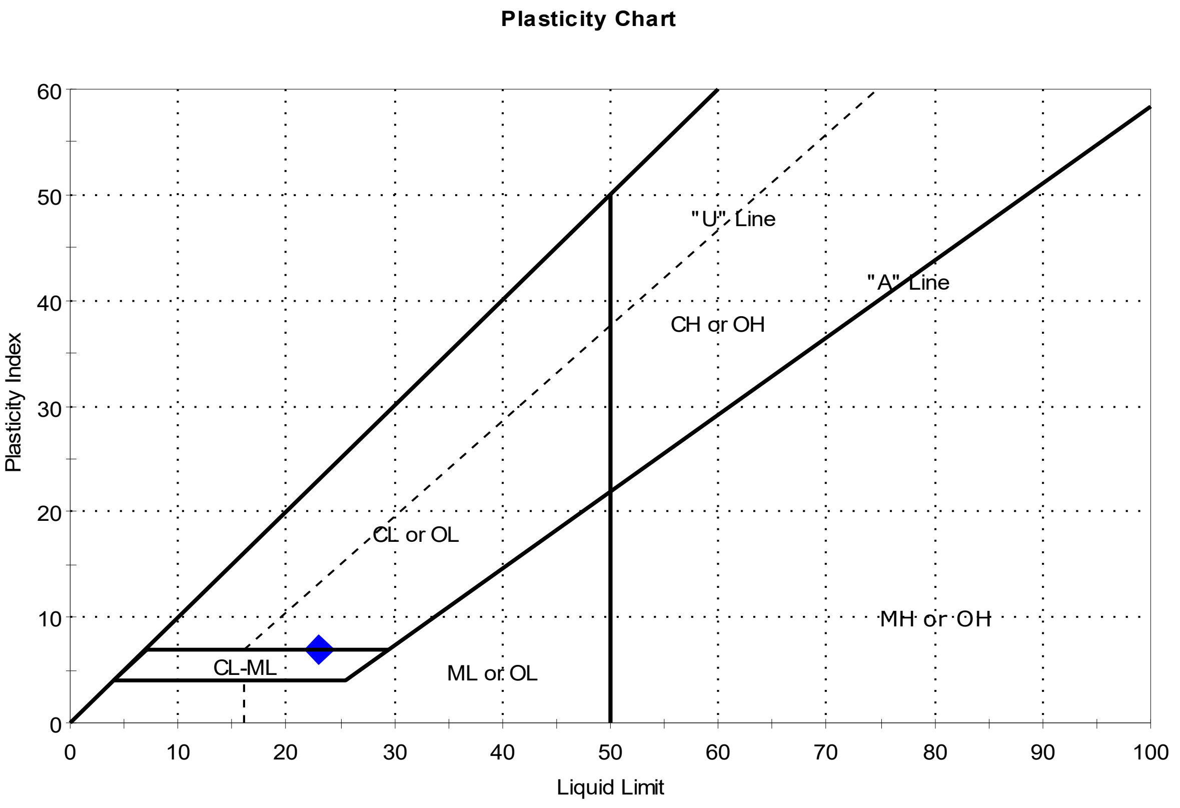
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-058	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	17-19'	Test Id:	817242		

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-058	17-19'	24	23	16	7	1.1	Silty CLAY (CL-ML)

Sample Prepared using the WET method
0% Retained on #40 Sieve
Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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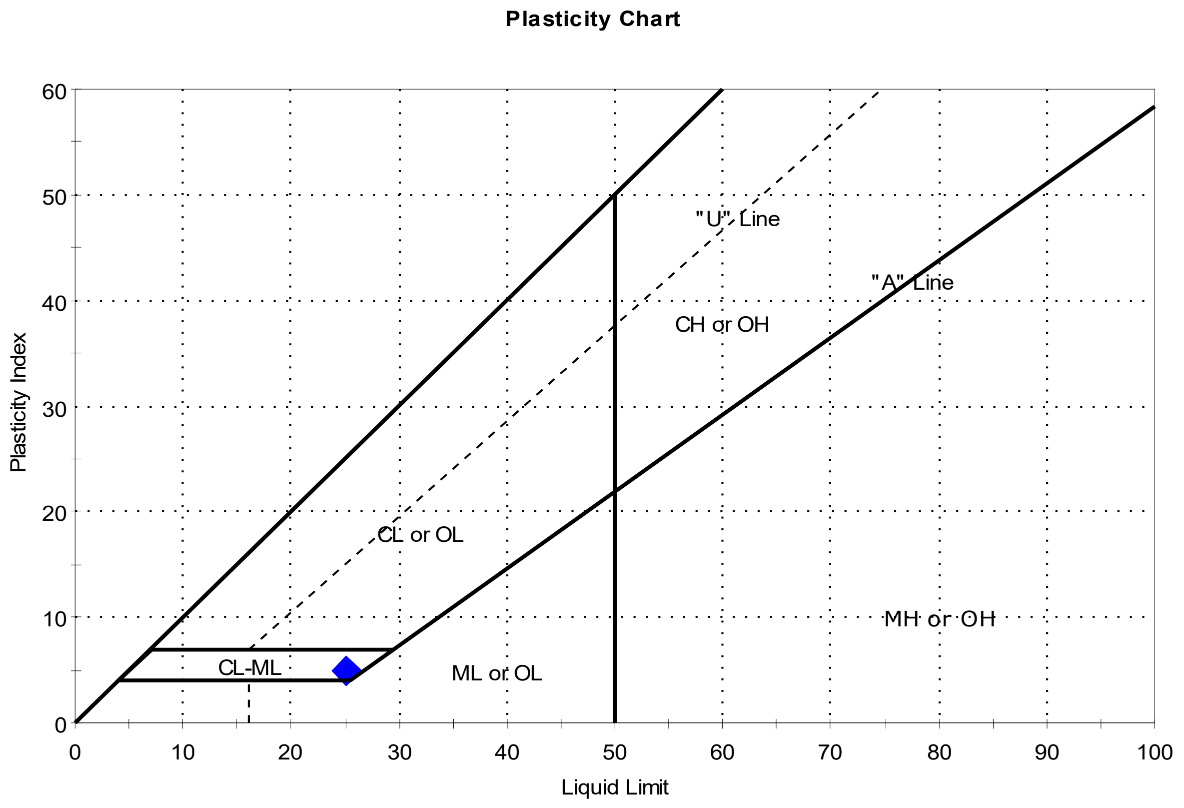
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-059	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/06/25	Checked By:	ank
Depth :	4-6'	Test Id:	817243		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-059	4-6'	25	25	20	5	0.9	Silty CLAY (CL-ML)

Sample Prepared using the WET method

3% Retained on #40 Sieve

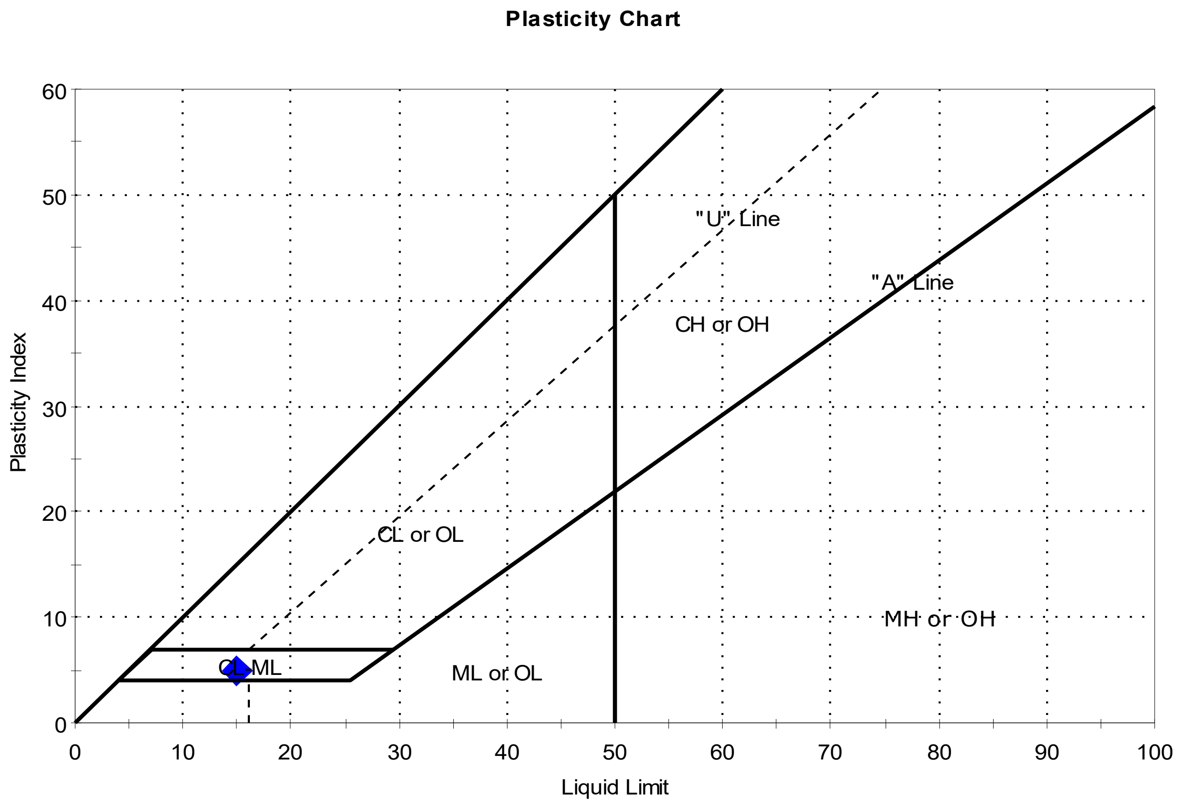
Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-060
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/09/25
Checked By: ank
Depth : 16-18'
Test Id: 817244
Test Comment: ---
Visual Description: Moist, grayish brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-060	16-18'	13	15	10	5	0.6	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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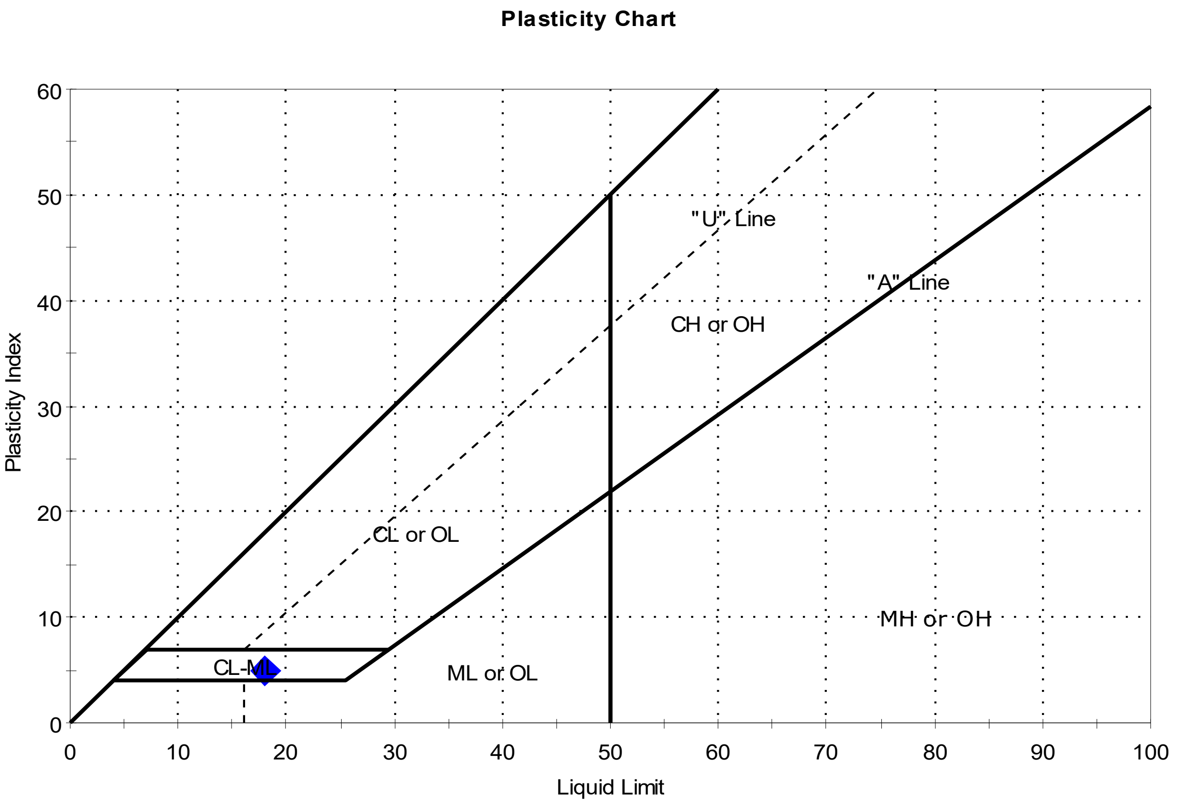
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-062	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/02/25	Checked By:	ank
Depth :	10-12'	Test Id:	817245		

Test Comment: ---
Visual Description: Wet, grayish brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-062	10-12'	23	18	13	5	2	Silty CLAY (CL-ML)

Sample Prepared using the WET method
0% Retained on #40 Sieve
Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-064
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/06/25
Checked By: ank
Depth : 17-19'
Test Id: 817247

Test Comment: ---
Visual Description: Moist, grayish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

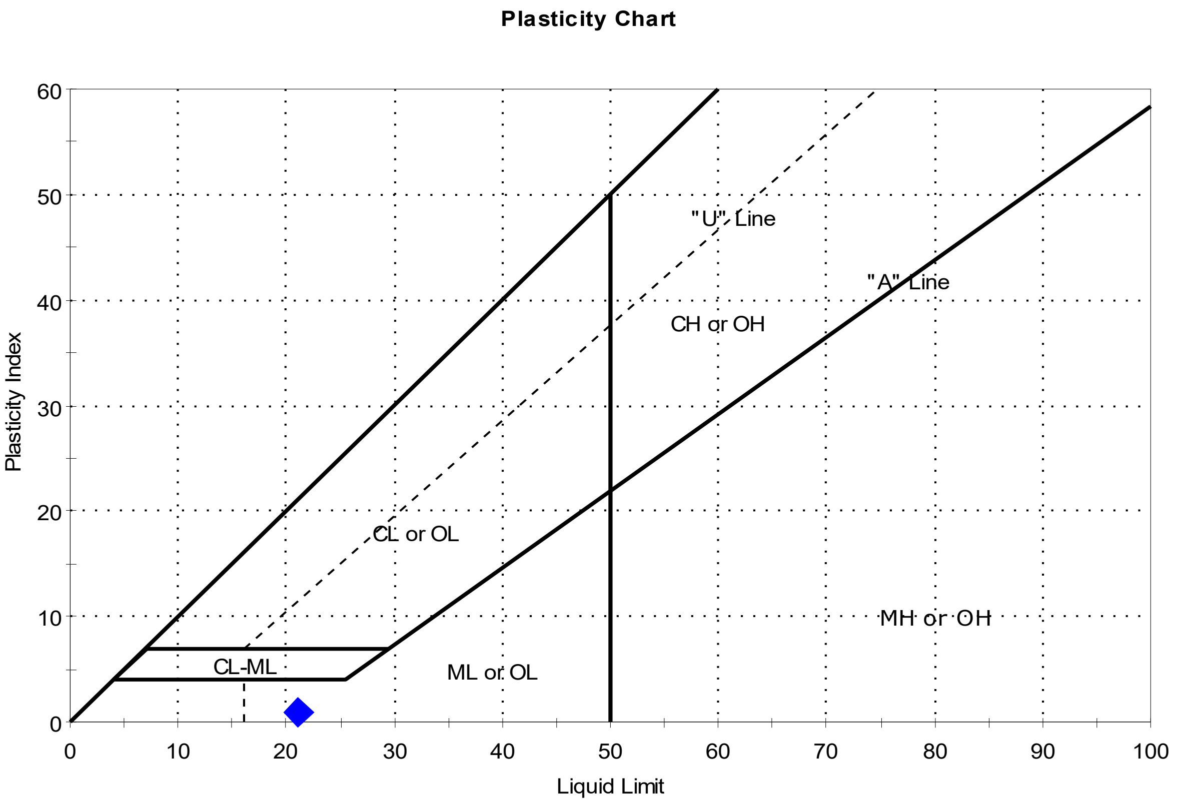
Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-064	17-19'	23	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve
Dry Strength: LOW
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-077
Sample Type: Jar
Tested By: GA
Sample ID: ---
Test Date: 06/03/25
Checked By: ank
Depth : 4-6'
Test Id: 817248
Test Comment: ---
Visual Description: Wet, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-077	4-6'	23	21	20	1	3.3	SILT (ML)

Sample Prepared using the WET method

2% Retained on #40 Sieve

Dry Strength: LOW

Dilatancy: RAPID

Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-086	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	8-10'	Test Id:	817249		

Test Comment: ---
Visual Description: Moist, gray silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-086	8-10'	19	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve
Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

GeoTesting EXPRESS
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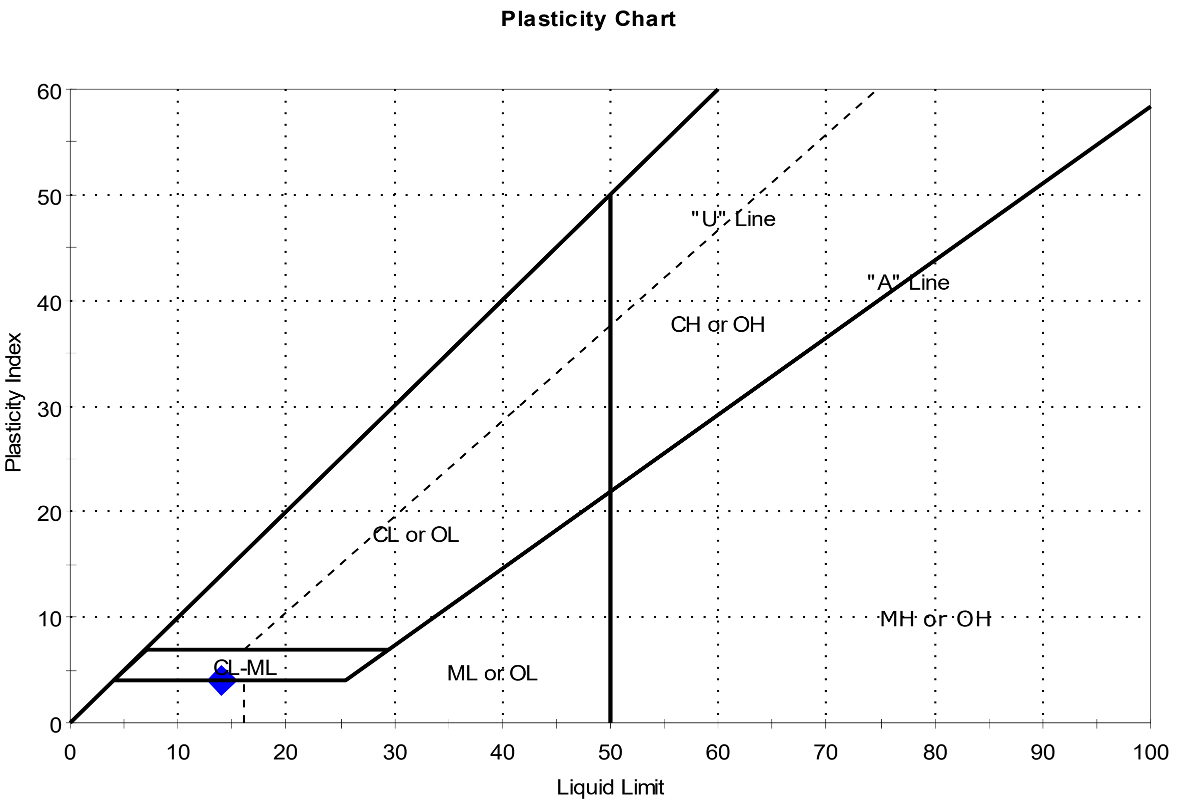
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-090	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/07/25	Checked By:	ank
Depth :	10-12'	Test Id:	817250		

Test Comment: ---
Visual Description: Moist, grayish brown silty, clayey sand
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-090	10-12'	12	14	10	4	0.6	Silty, Clayey SAND (SC-SM)

Sample Prepared using the WET method

22% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

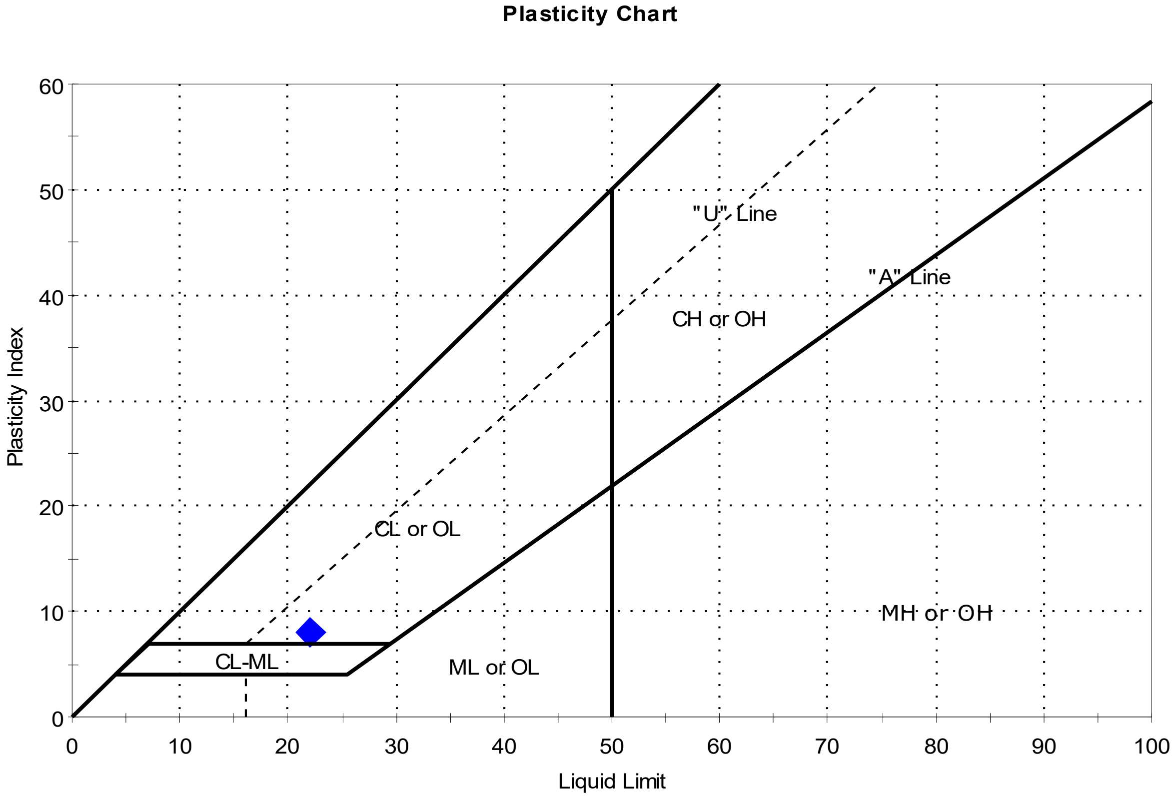
Toughness: LOW

GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-091	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	2-4'	Test Id:	817251		

Test Comment: ---
Visual Description: Moist, brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-091	2-4'	22	22	14	8	1	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-096
Sample ID: ---
Depth : 4-6'
Sample Type: Jar
Test Date: 06/10/25
Test Id: 817252
Tested By: cam
Checked By: ank

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

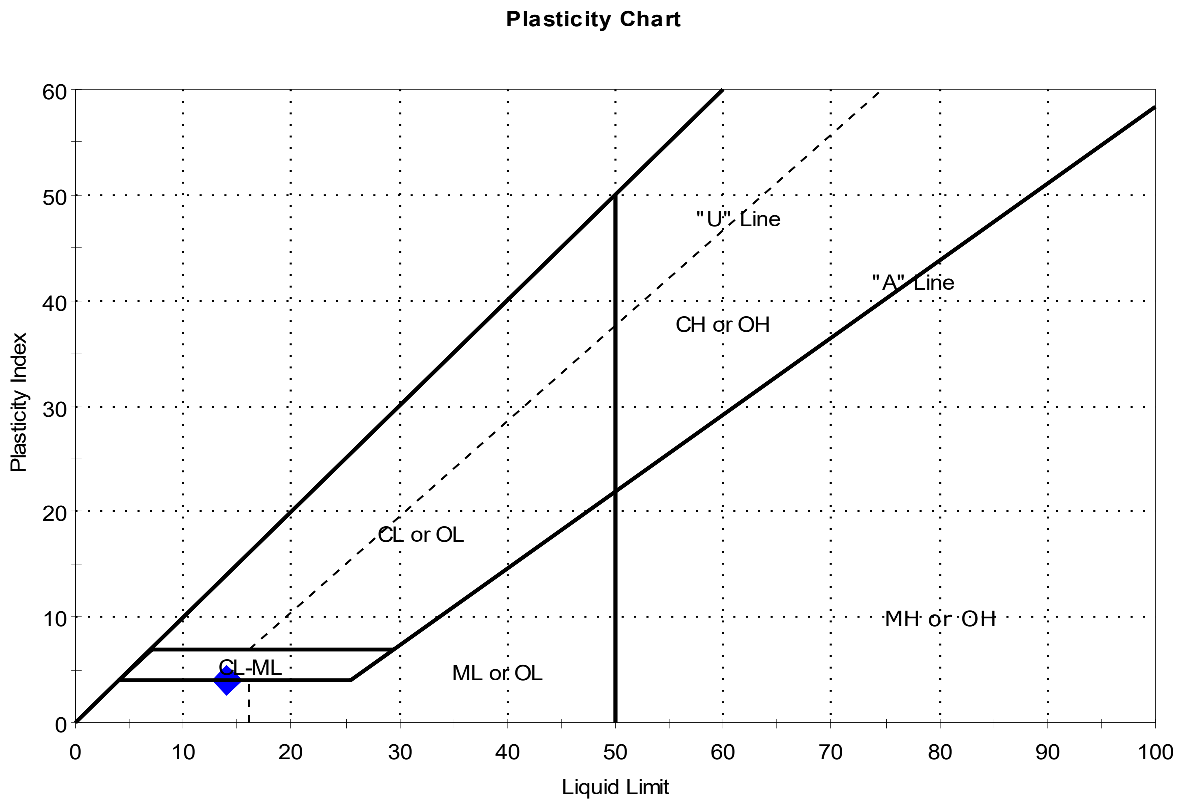
Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-096	4-6'	20	n/a	n/a	n/a	n/a	SILT (ML)

1% Retained on #40 Sieve
Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096
Boring ID: LB-R-098
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/13/25
Checked By: ank
Depth : 16-18'
Test Id: 817253
Test Comment: ---
Visual Description: Moist, brown sandy silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-098	16-18'	15	14	10	4	1.3	Sandy Silty CLAY (CL-ML)

Sample Prepared using the WET method

16% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

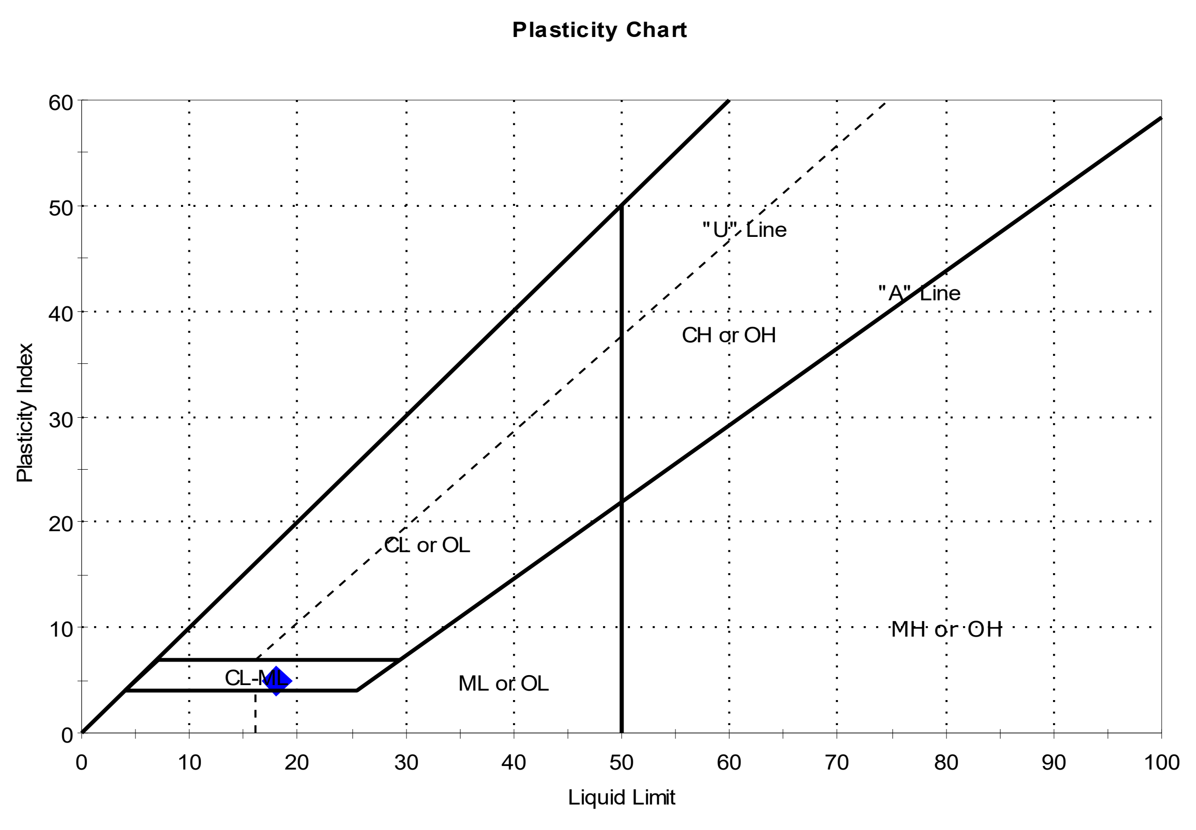
GeoTesting EXPRESS
A Sercel Business

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-105
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/02/25
Checked By: ank
Depth : 10-12'
Test Id: 817254

Test Comment: ---
Visual Description: Moist, grayish brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-105	10-12'	20	18	13	5	1.3	Silty CLAY (CL-ML)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

GeoTesting EXPRESS
A Sercel Business

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-105	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	15-17'	Test Id:	817255		

Test Comment: ---
Visual Description: Moist, gray silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

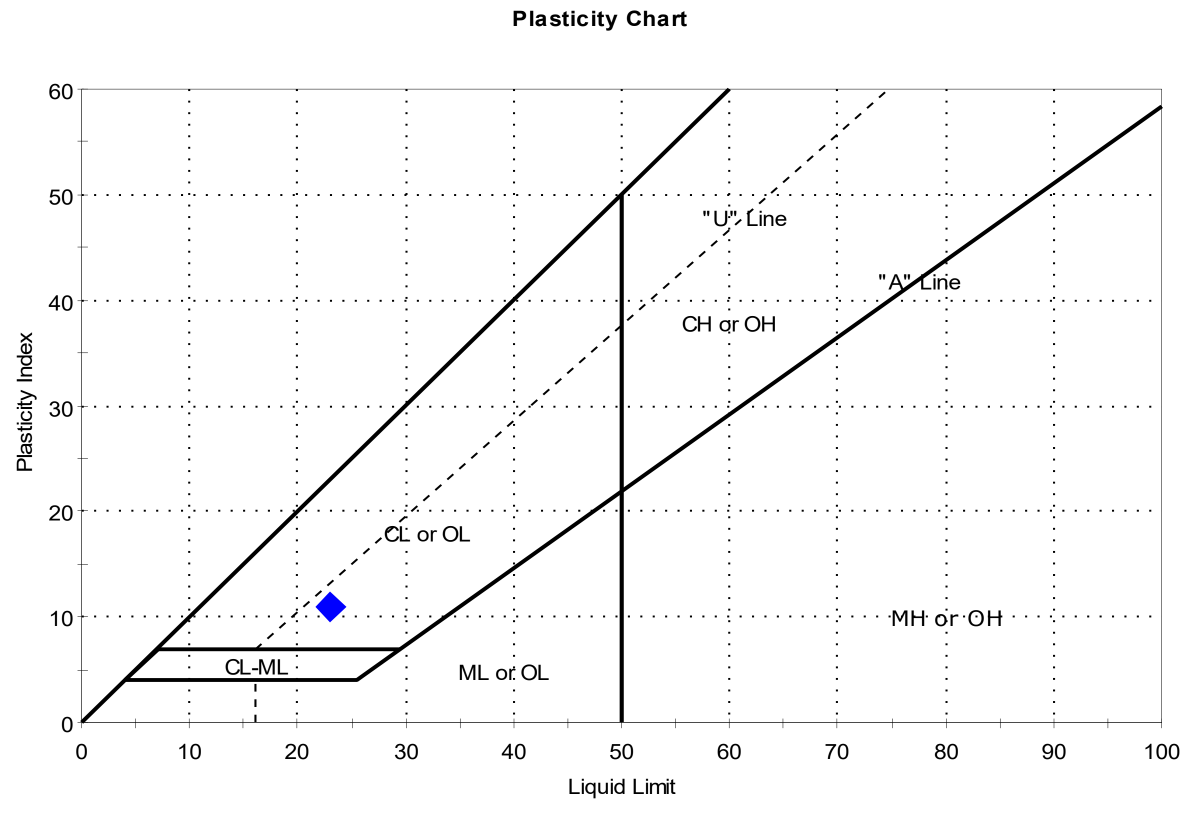
Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-105	15-17'	19	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve
Dry Strength: LOW
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-107	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/16/25	Checked By:	ank
Depth :	40-42'	Test Id:	817256		

Test Comment: ---
Visual Description: Moist, very dark gray clay with sand
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-107	40-42'	12	23	12	11	0	Lean CLAY with Sand (CL)

Sample Prepared using the WET method

13% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-108	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/05/25	Checked By:	ank
Depth :	14-16'	Test Id:	818750		

Test Comment: ---
Visual Description: Moist, gray sndy silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-108	14-16'	19	n/a	n/a	n/a	n/a	

Dry Strength: NONE
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic

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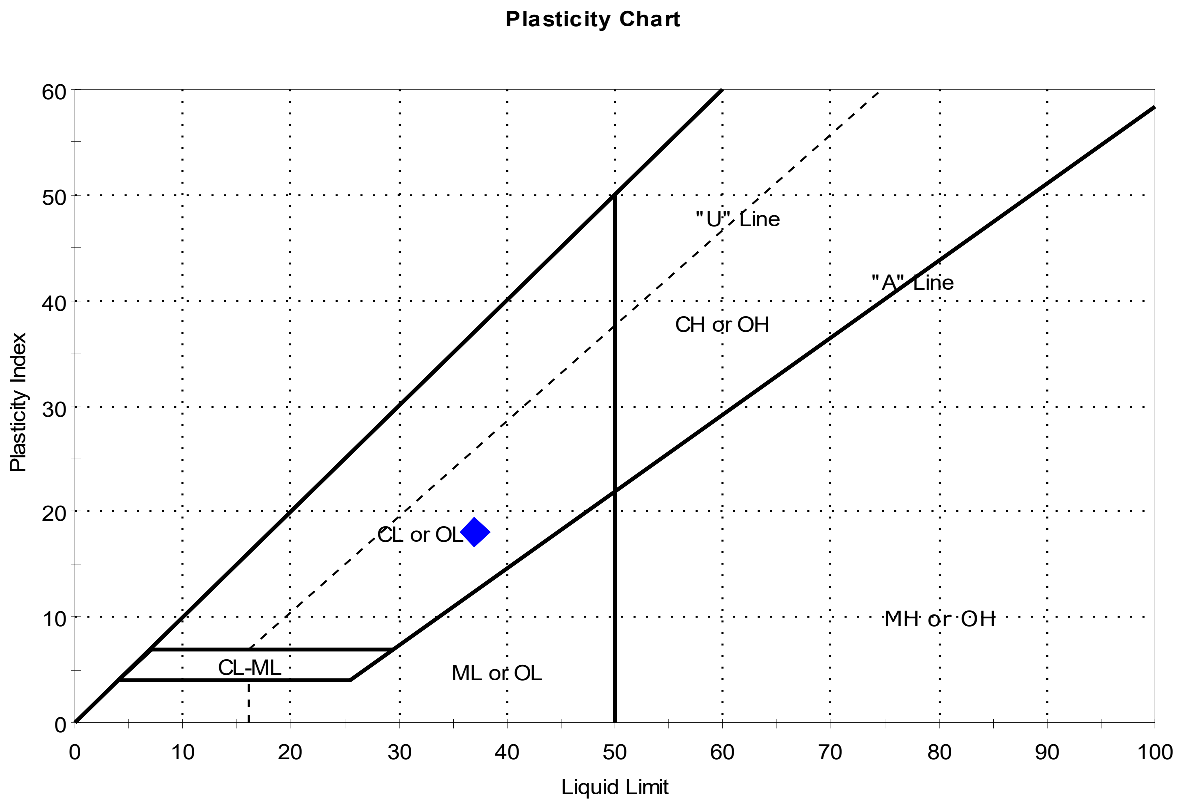
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-108	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/03/25	Checked By:	ank
Depth :	0-2'	Test Id:	817257		

Test Comment: ---
Visual Description: Moist, grayish brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-108	0-2'	24	37	19	18	0.3	Lean CLAY (CL)

Sample Prepared using the WET method

6% Retained on #40 Sieve

Dry Strength: HIGH

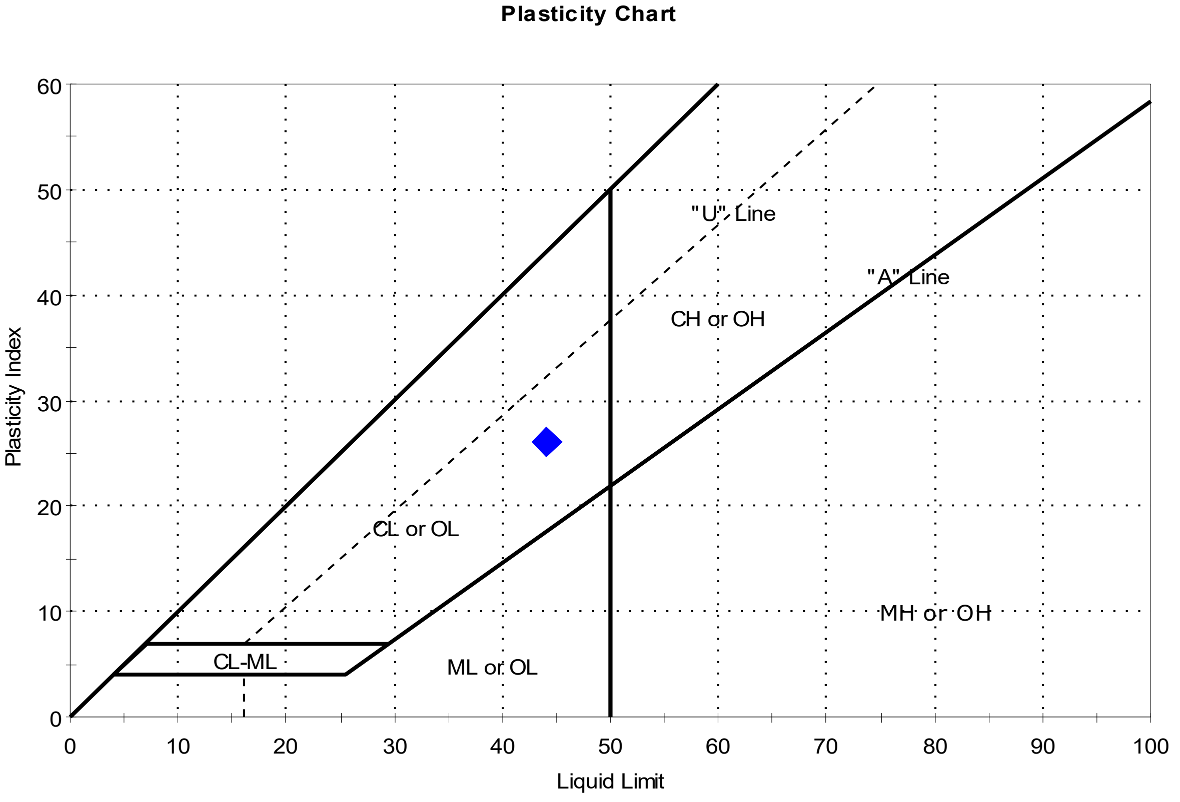
Dilatancy: SLOW

Toughness: MEDIUM

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-108	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/02/25	Checked By:	ank
Depth :	4-6'	Test Id:	817259		

Test Comment: ---
Visual Description: Moist, gray clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-108	4-6'	26	44	18	26	0.3	

Sample Prepared using the WET method

Dry Strength: HIGH
Dilatancy: SLOW
Toughness: MEDIUM

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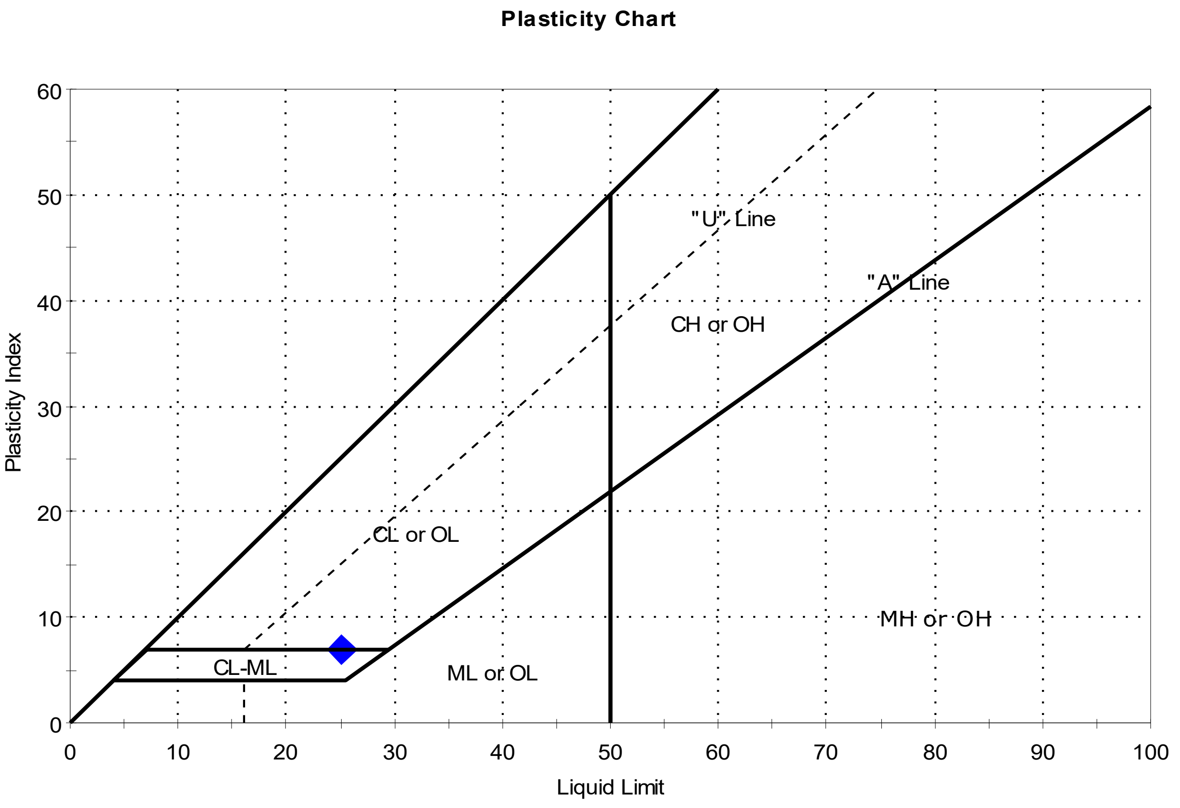
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-108	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/06/25	Checked By:	ank
Depth :	6-8'	Test Id:	817260		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



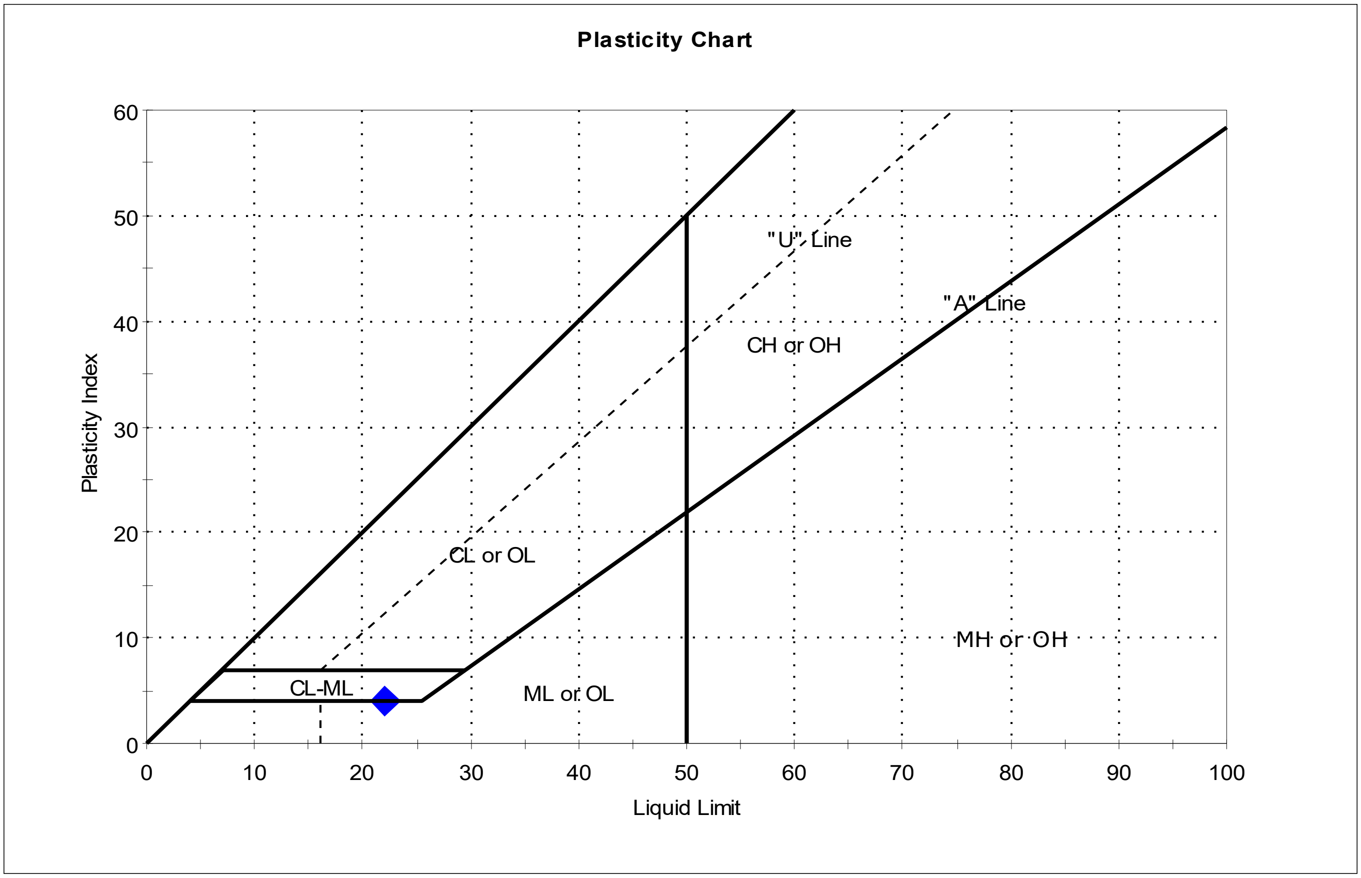
Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-108	6-8'	27	25	18	7	1.3	Silty CLAY (CL-ML)

Sample Prepared using the WET method
1% Retained on #40 Sieve
Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-111	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	2-4'	Test Id:	817261		

Test Comment: ---
Visual Description: Moist, dark grayish brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-111	2-4'	13	22	18	4	-1.3	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-113
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/06/25
Checked By: ank
Depth : 4-6'
Test Id: 817262

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-113	4-6'	21	n/a	n/a	n/a	n/a	SILT (ML)

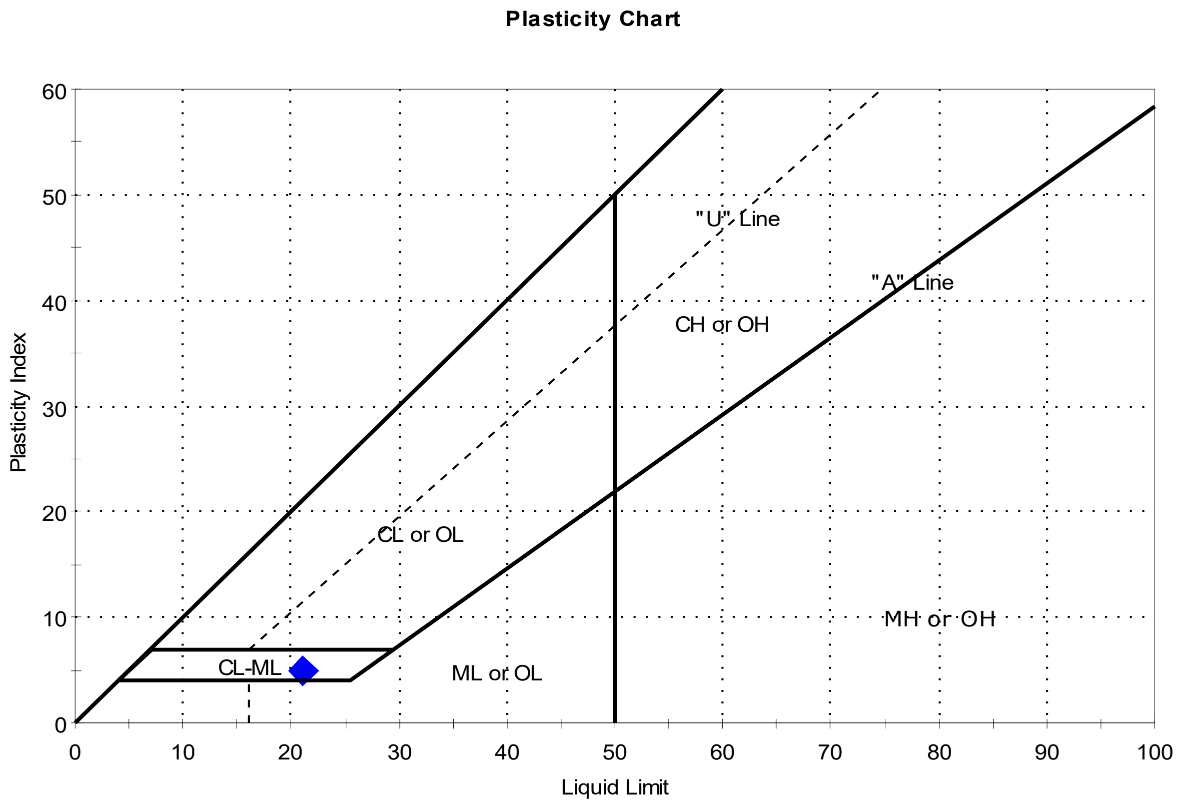
0% Retained on #40 Sieve
Dry Strength: LOW
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-114
Sample ID: ---
Depth : 4-6'
Sample Type: Jar
Test Date: 06/03/25
Test Id: 817263
Tested By: cam
Checked By: ank

Test Comment: ---
Visual Description: Moist, brown silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318


Plasticity Chart

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-114	4-6'	26	21	16	5	1.9	Silty CLAY (CL-ML)

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-114
Sample ID: U-1
Depth : 12-14'
Sample Type: Tube
Test Date: 06/10/25
Test Id: 816608
Tested By: cam
Checked By: ank

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	U-1	LB-R-114	12-14'	13	n/a	n/a	n/a	n/a	

Dry Strength: LOW
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-116	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	05/30/25	Checked By:	ank
Depth :	6-8'	Test Id:	817264		

Test Comment: ---

Visual Description: Moist, dark yellowish brown silt

Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-116	6-8'	23	n/a	n/a	n/a	n/a	SILT (ML)

1% Retained on #40 Sieve

Dry Strength: n/a

Dilatancy: n/a

Toughness: n/a

The sample was determined to be Non-Plastic

Client:	Langan Engineering			
Project:	Upstate Confidential Project			
Location:	NY		Project No:	GTX-321096
Boring ID:	LB-R-118	Sample Type: Jar	Tested By:	cam
Sample ID:	---	Test Date: 06/12/25	Checked By:	ank
Depth :	2-4'	Test Id: 817265		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-118	2-4'	22	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve
Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

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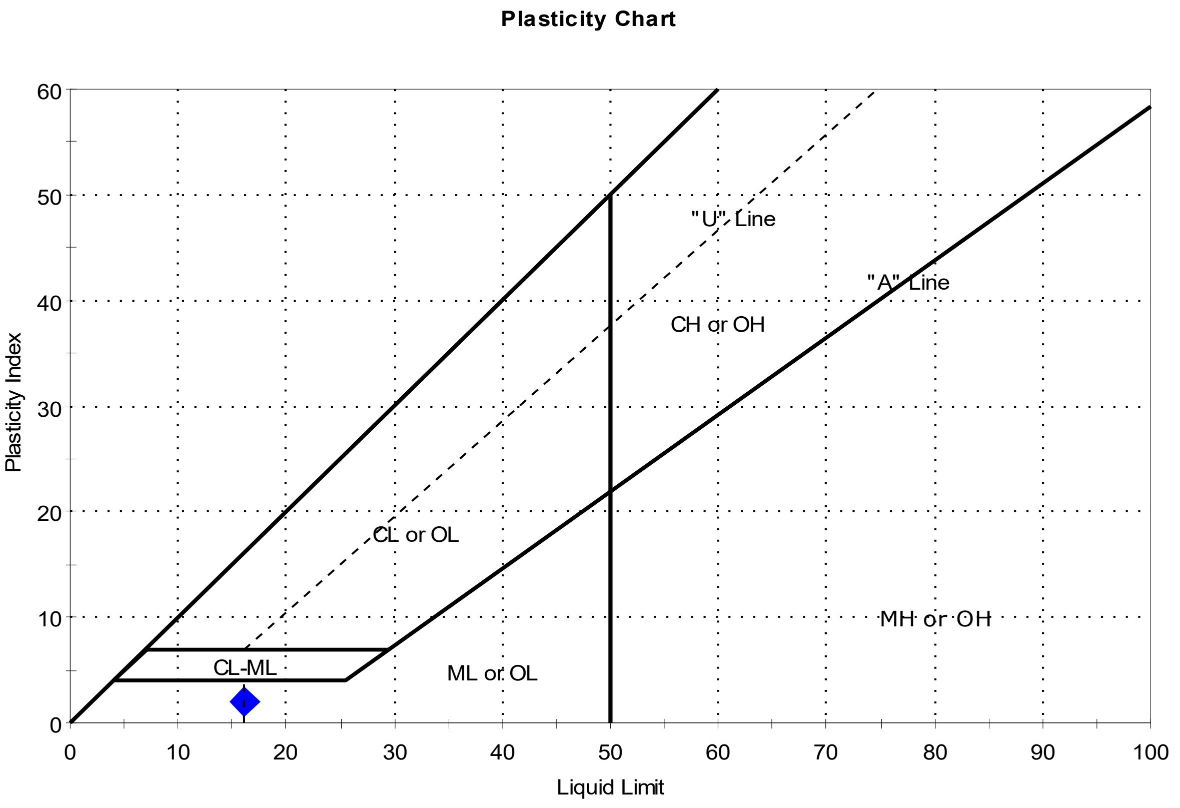
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-124	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	4-6'	Test Id:	817266		

Test Comment: ---
Visual Description: Moist, dark gray silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-124	4-6'	15	16	14	2	0.6	SILT (ML)

Sample Prepared using the WET method

7% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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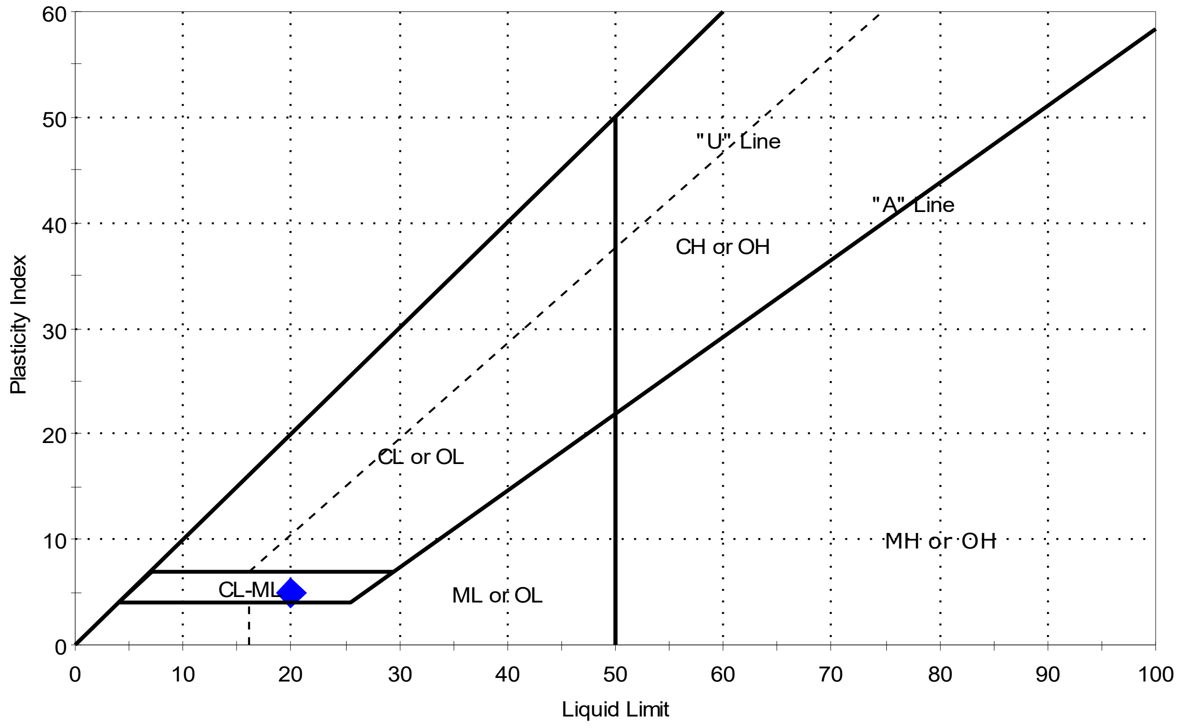
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-124	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/03/25	Checked By:	ank
Depth :	8-10'	Test Id:	817267		

Test Comment:	---
Visual Description:	Moist, grayish brown silty clay
Sample Comment:	---

Atterberg Limits - ASTM D4318

Plasticity Chart



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-124	8-10'	16	20	15	5	0.3	Silty CLAY (CL-ML)

Sample Prepared using the WET method

1% Retained on #40 Sieve

Dry Strength: HIGH

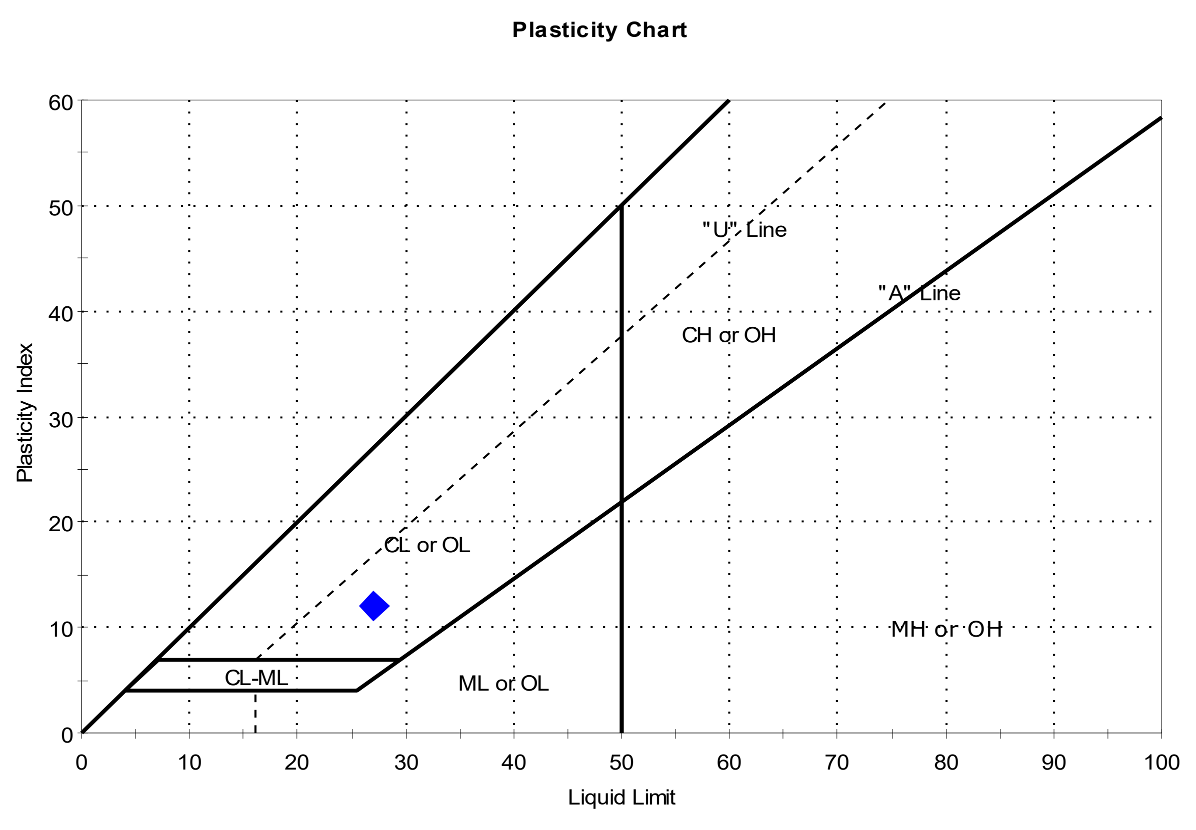
Dilatancy: SLOW

Toughness: MEDIUM

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-125	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/13/25	Checked By:	ank
Depth :	2-4'	Test Id:	817268		

Test Comment:	---
Visual Description:	Moist, dark yellowish brown clayey sand with gravel
Sample Comment:	---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-125	2-4'	15	27	15	12	0	Clayey SAND with Gravel (SC)

Sample Prepared using the WET method

27% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

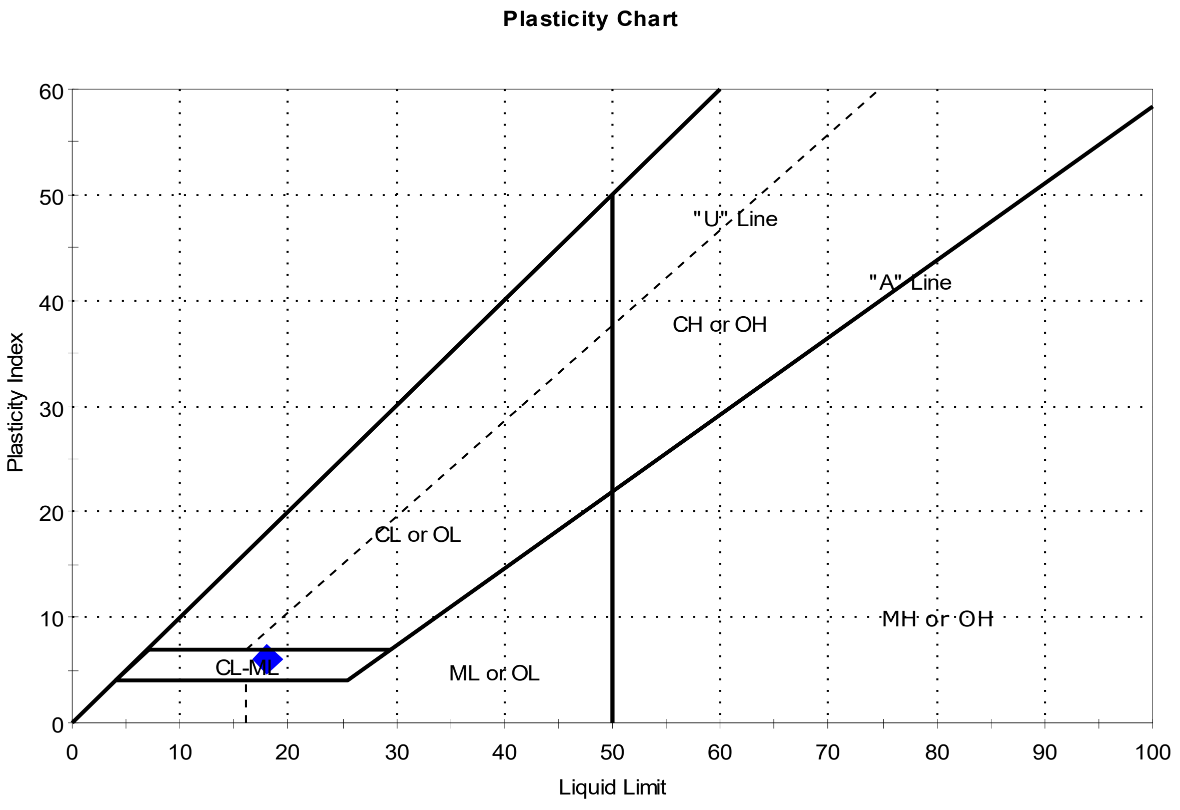
Toughness: LOW

Client: Langan Engineering
Project: Upstate Confidential Project
Location: NY
Project No: GTX-321096

Boring ID: LB-R-126
Sample Type: Jar
Tested By: cam
Sample ID: ---
Test Date: 06/17/25
Checked By: ank
Depth : 6-8'
Test Id: 817202

Test Comment: ---
Visual Description: Moist, brown silty clayey sand with gravel
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-126	6-8'	11	18	12	6	-0.2	Silty, Clayey SAND with Gravel (SC-SM)

Sample Prepared using the WET method

44% Retained on #40 Sieve

Dry Strength: HIGH

Dilatancy: SLOW

Toughness: LOW

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-128	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	6-8'	Test Id:	817269		

Test Comment: ---
Visual Description: Moist, yellowish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

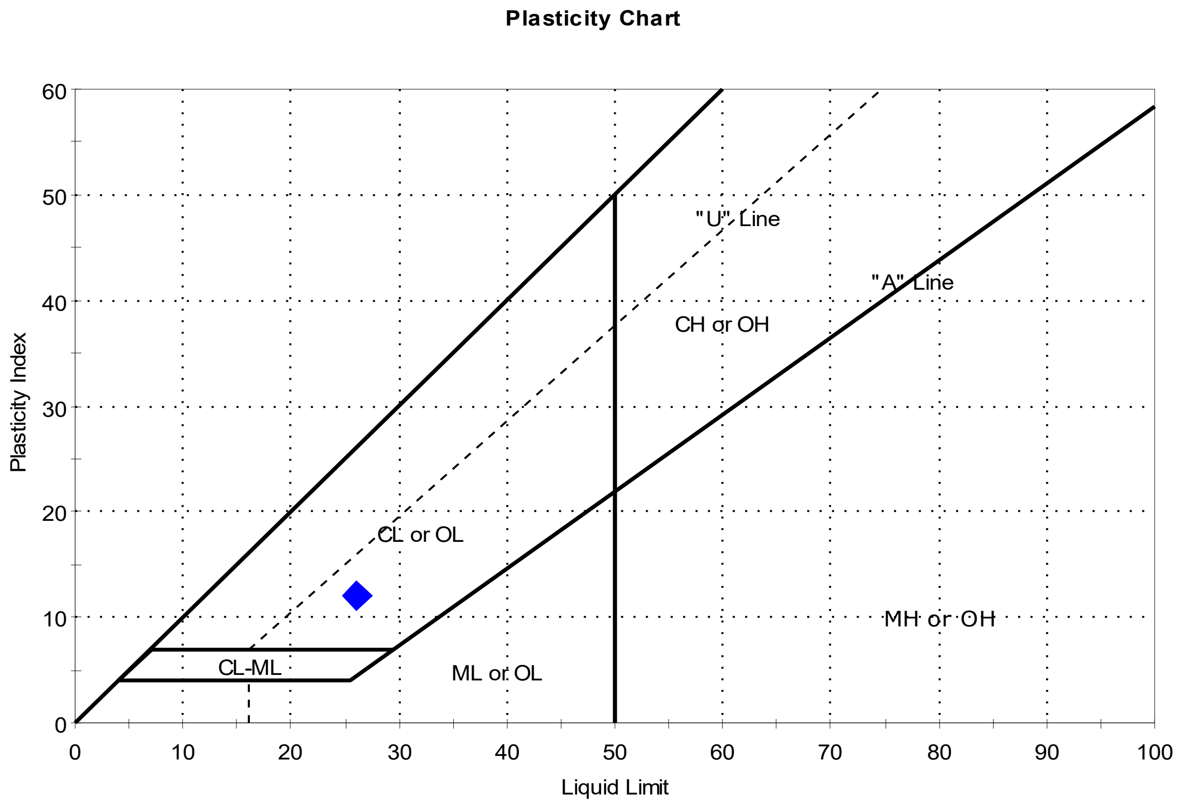
Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-128	6-8'	22	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve
Dry Strength: LOW
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-129	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/12/25	Checked By:	ank
Depth :	14-16'	Test Id:	817270		

Test Comment: ---
Visual Description: Moist, very dark gray clayey sand with gravel
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-129	14-16'	11	26	14	12	-0.3	Clayey SAND with Gravel (SC)

Sample Prepared using the WET method

57% Retained on #40 Sieve

Dry Strength: LOW

Dilatancy: SLOW

Toughness: LOW

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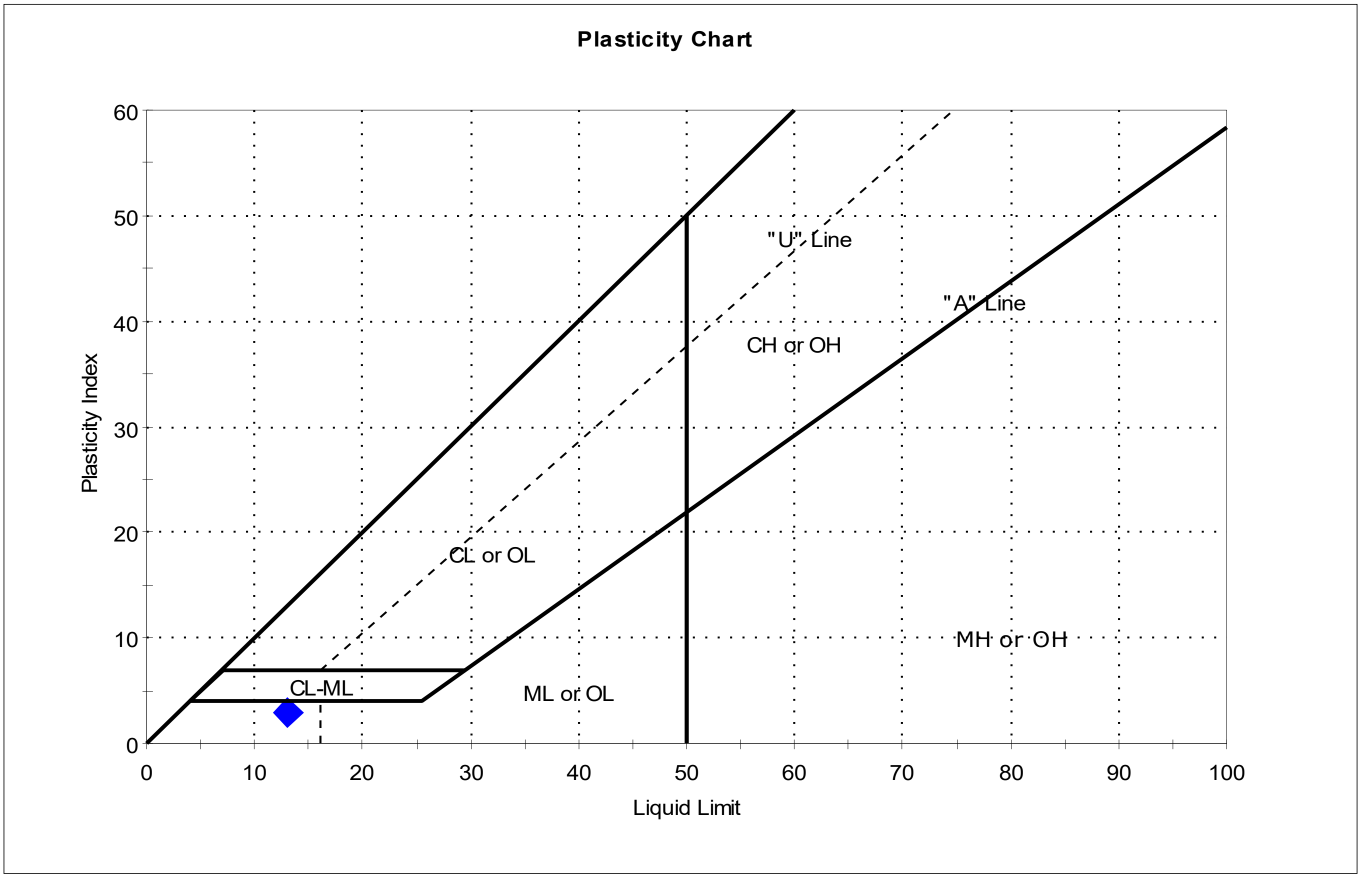
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-130	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	14-16'	Test Id:	817271		

Test Comment: ---

Visual Description: Moist, dark gray sandy silt

Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-130	14-16'	12	13	10	3	0.6	Sandy SILT (ML)

Sample Prepared using the WET method

15% Retained on #40 Sieve

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-130	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/10/25	Checked By:	ank
Depth :	6-8'	Test Id:	817272		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

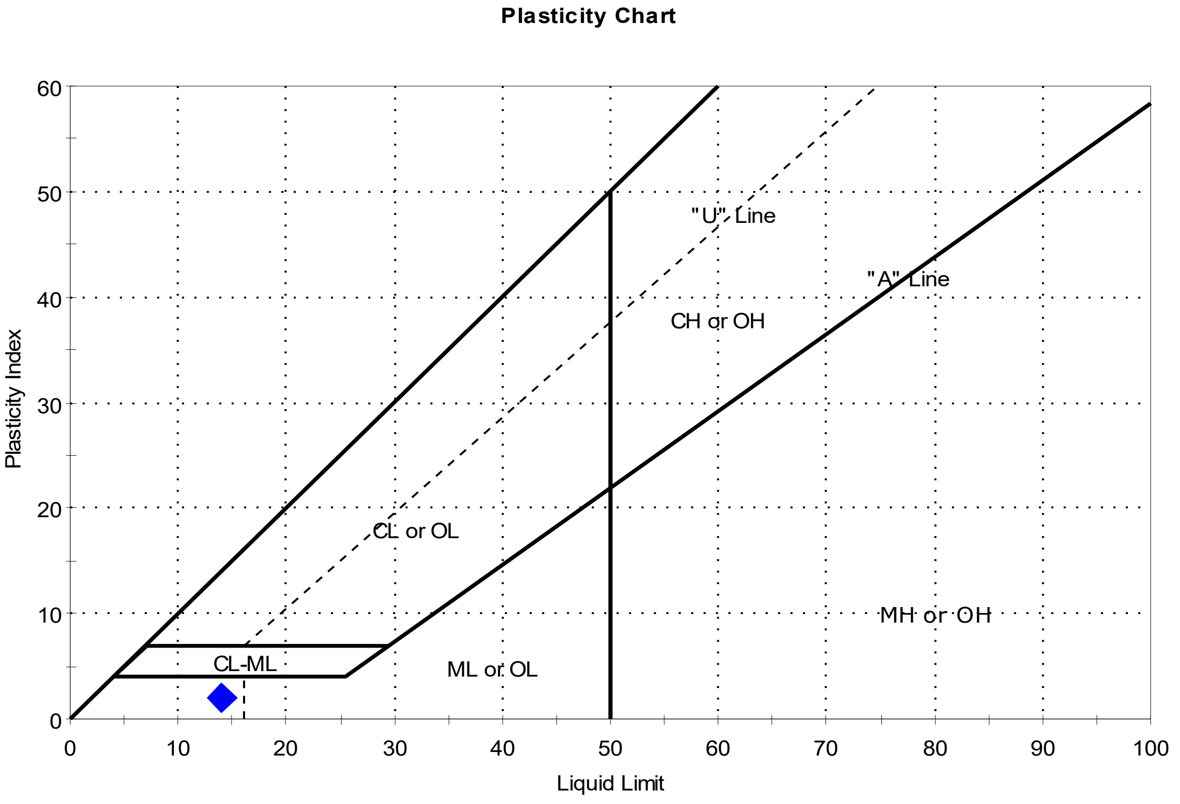
Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-130	6-8'	22	n/a	n/a	n/a	n/a	

Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-131	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/05/25	Checked By:	ank
Depth :	19-21'	Test Id:	817273		

Test Comment: ---
Visual Description: Moist, gray silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-131	19-21'	14	14	12	2	0.8	

Sample Prepared using the WET method

Dry Strength: HIGH
Dilatancy: SLOW
Toughness: MEDIUM

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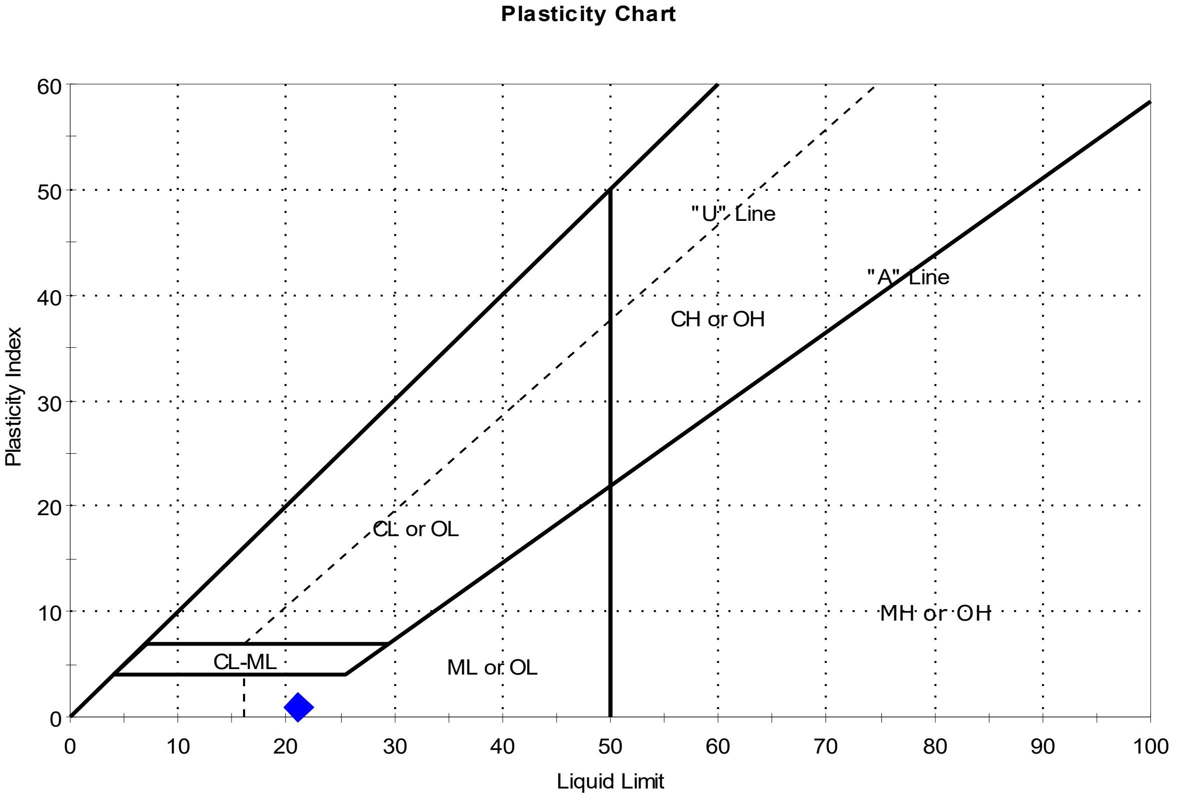
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-131	Sample Type:	Jar	Tested By:	GA
Sample ID:	---	Test Date:	06/03/25	Checked By:	ank
Depth :	8-10'	Test Id:	817274		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-131	8-10'	21	21	20	1	1.1	SILT (ML)

Sample Prepared using the WET method

1% Retained on #40 Sieve

Dry Strength: LOW

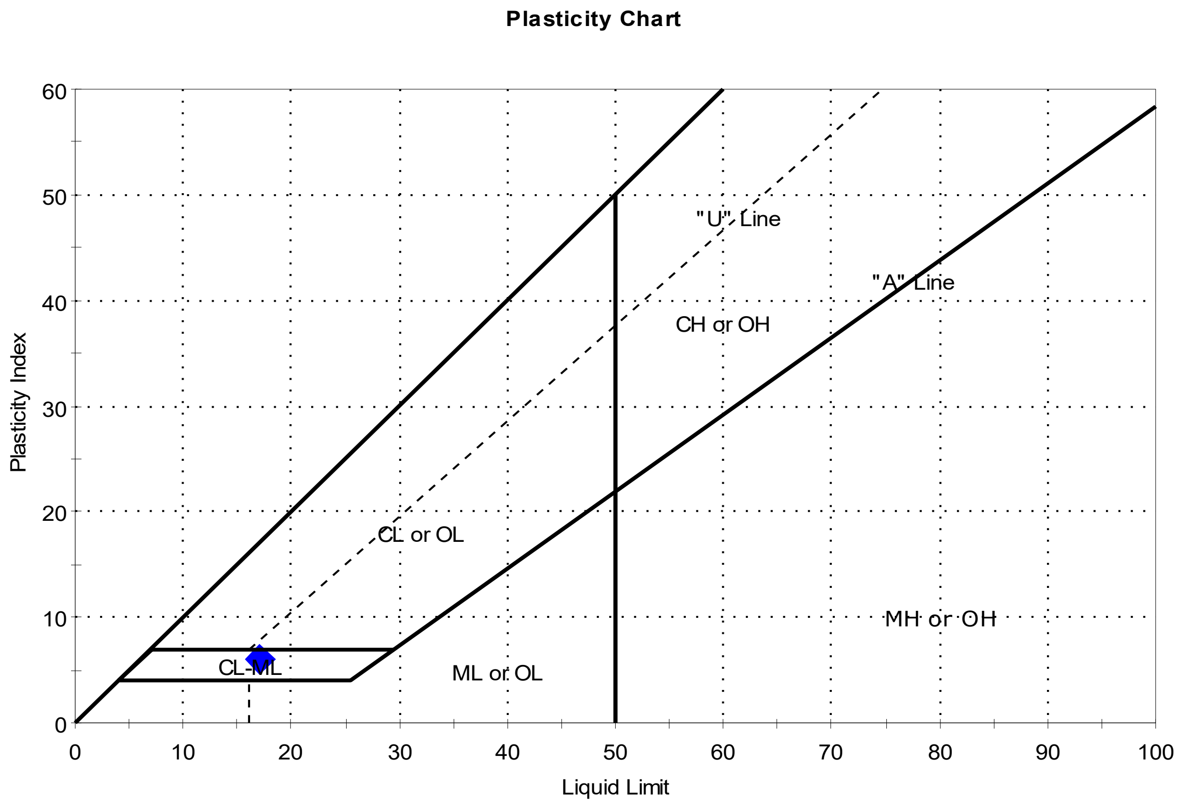
Dilatancy: RAPID

Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-133	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	12-14'	Test Id:	817275		

Test Comment: ---
Visual Description: Moist, gray sandy silty clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-133	12-14'	13	17	11	6	0.3	Sandy Silty CLAY (CL-ML)

Sample Prepared using the WET method

23% Retained on #40 Sieve

Dry Strength: MEDIUM

Dilatancy: SLOW

Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-133	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/16/25	Checked By:	ank
Depth :	8-10'	Test Id:	817276		

Test Comment: ---
Visual Description: Moist, brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-133	8-10'	22	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve
Dry Strength: MEDIUM
Dilatancy: RAPID
Toughness: LOW
The sample was determined to be Non-Plastic

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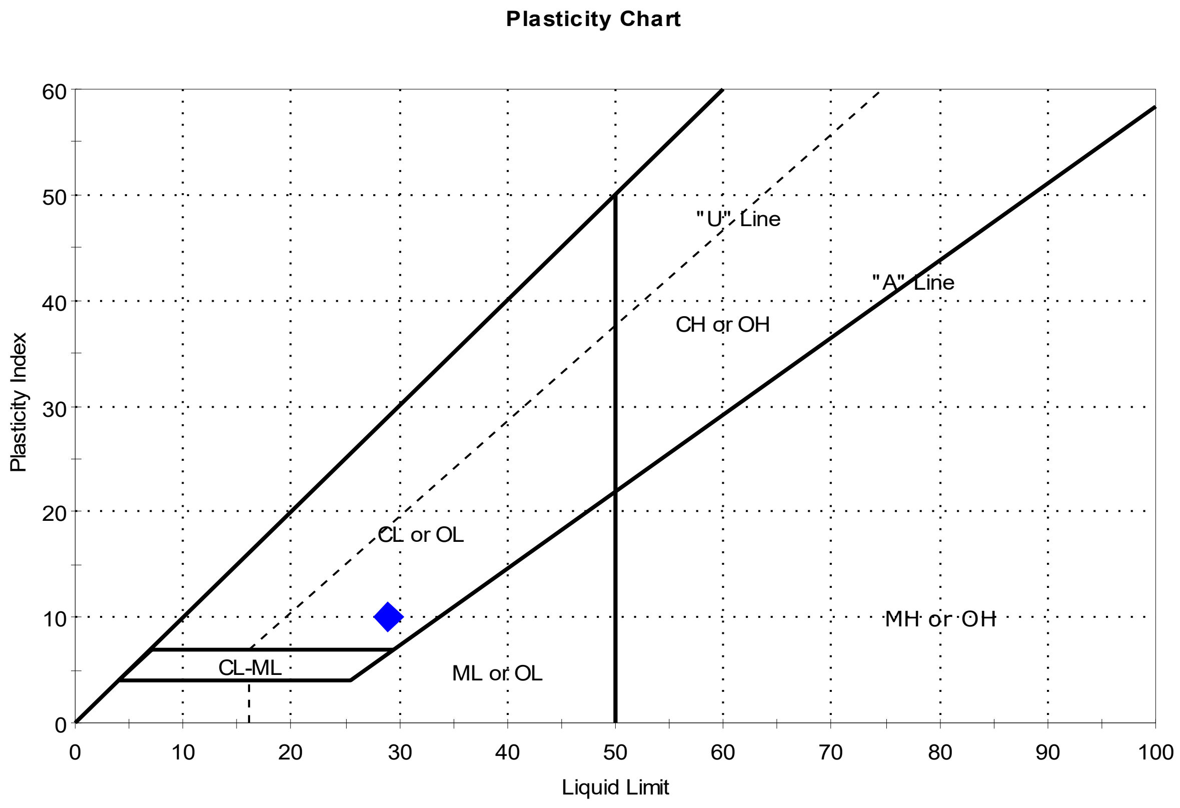
Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-R-134	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	6-8'	Test Id:	817277		

Test Comment: ---
Visual Description: Wet, dark grayish brown clay
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-R-134	6-8'	35	29	19	10	1.6	

Sample Prepared using the WET method

Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-X-001	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/06/25	Checked By:	ank
Depth :	8-10'	Test Id:	817278		

Test Comment: ---
Visual Description: Moist, grayish brown silt
Sample Comment: ---

Atterberg Limits - ASTM D4318

Sample Determined to be non-plastic

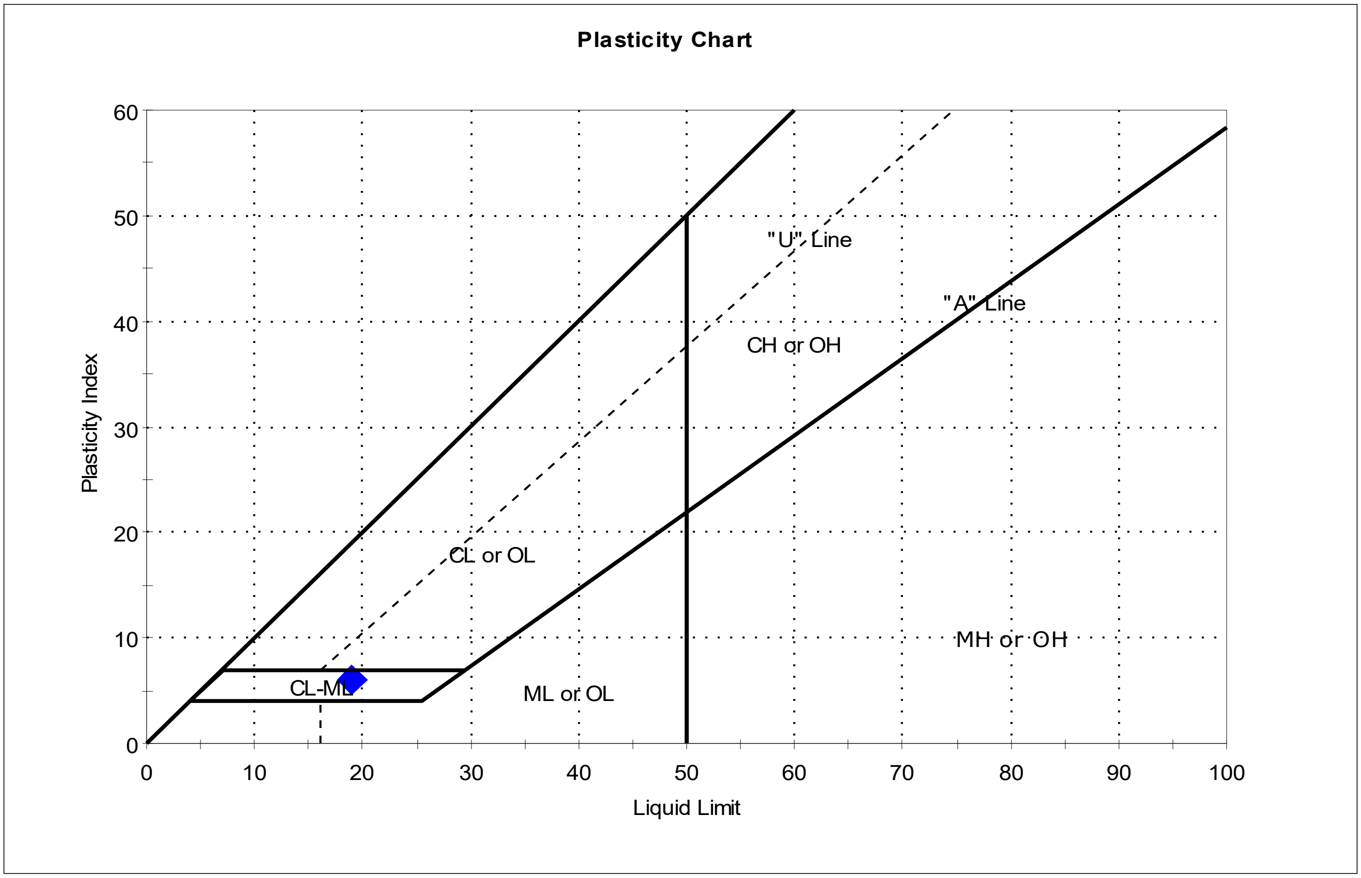
Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-X-001	8-10'	20	n/a	n/a	n/a	n/a	SILT (ML)

0% Retained on #40 Sieve
Dry Strength: LOW
Dilatancy: RAPID
Toughness: n/a
The sample was determined to be Non-Plastic

Client:	Langan Engineering				
Project:	Upstate Confidential Project				
Location:	NY			Project No:	GTX-321096
Boring ID:	LB-X-003	Sample Type:	Jar	Tested By:	cam
Sample ID:	---	Test Date:	06/11/25	Checked By:	ank
Depth :	8-10'	Test Id:	817279		

Test Comment: ---
Visual Description: Moist, dark yellowish brown silty clayey sand
Sample Comment: ---

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	---	LB-X-003	8-10'	21	19	13	6	1.4	Silty, Clayey SAND (SC-SM)

Sample Prepared using the WET method
22% Retained on #40 Sieve
Dry Strength: VERY HIGH
Dilatancy: SLOW
Toughness: LOW

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